Pantheon Report

Data path: GCE London Ethernet (remote) → GCE Sydney Ethernet (local).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).

Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322c6fae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5ce9c90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8ca1443d28df70b76c4a2
third_party/indigo @ a9b2060d94e4da2e8987e893e3eca24e6c7cd0a9
  third_party/indigo-1-layer-128-unit @ 3ae9e4e4f230db7484501f82ce8b377695f2f66d
  third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
  third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135e6b540c0fd3505939528e2a5f
  third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303ae82e808e6928eeac4f7083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6b7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0de6d18b23c091a55f6c872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42fbfcb8143ebc978f3c4f2
third_party/scream @ c3370fd7bd17265a79aeb34e016ad23f59545885
third_party/sourdough @ f1a14bff749737437f61beaeeb36267be2d61
third_party/sprout @ 6f2e6e6e088d91066a9f023df375ee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutb2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562539f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a4881977d041ace68a42849b2540ad834825f42
test from GCE London Ethernet to GCE Sydney 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>
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<tbody>
<tr>
<td></td>
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<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
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<tr>
<td>TCP BBR</td>
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<td>72.82</td>
<td>70.96</td>
<td>63.39</td>
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<td>TCP Cubic</td>
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<td>77.23</td>
<td>68.79</td>
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<td>50.45</td>
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<td>90.32</td>
<td>55.81</td>
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<td>Copa</td>
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<td>75.49</td>
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<td>718.20</td>
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<td>271.24</td>
<td>87.56</td>
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<td>Vivace-loss</td>
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<td>259.78</td>
<td>129.61</td>
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<td>Vivace-LTE</td>
<td>10</td>
<td>336.17</td>
<td>255.93</td>
<td>127.10</td>
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Run 1: Statistics of TCP BBR

Start at: 2018-02-21 14:30:48
End at: 2018-02-21 14:31:18

# Below is generated by plot.py at 2018-02-21 21:34:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 140.52 Mbit/s
  95th percentile per-packet one-way delay: 137.445 ms
  Loss rate: 1.50%
-- Flow 1:
  Average throughput: 73.49 Mbit/s
  95th percentile per-packet one-way delay: 137.429 ms
  Loss rate: 0.96%
-- Flow 2:
  Average throughput: 70.32 Mbit/s
  95th percentile per-packet one-way delay: 137.490 ms
  Loss rate: 1.52%
-- Flow 3:
  Average throughput: 62.28 Mbit/s
  95th percentile per-packet one-way delay: 137.239 ms
  Loss rate: 3.35%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-02-21 14:51:17
End at: 2018-02-21 14:51:47

# Below is generated by plot.py at 2018-02-21 21:34:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 142.68 Mbit/s
  95th percentile per-packet one-way delay: 137.492 ms
  Loss rate: 1.55%
-- Flow 1:
  Average throughput: 73.84 Mbit/s
  95th percentile per-packet one-way delay: 137.469 ms
  Loss rate: 1.08%
-- Flow 2:
  Average throughput: 72.43 Mbit/s
  95th percentile per-packet one-way delay: 137.492 ms
  Loss rate: 1.47%
-- Flow 3:
  Average throughput: 64.02 Mbit/s
  95th percentile per-packet one-way delay: 137.569 ms
  Loss rate: 3.34%
Run 2: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 74.05 Mbit/s)
- Flow 1 egress (mean 73.84 Mbit/s)
- Flow 2 ingress (mean 72.49 Mbit/s)
- Flow 2 egress (mean 72.43 Mbit/s)
- Flow 3 ingress (mean 64.42 Mbit/s)
- Flow 3 egress (mean 64.02 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 137.47 ms)
- Flow 2 (95th percentile 137.49 ms)
- Flow 3 (95th percentile 137.57 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-02-21 15:12:11
End at: 2018-02-21 15:12:41

# Below is generated by plot.py at 2018-02-21 21:34:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.24 Mbit/s
95th percentile per-packet one-way delay: 136.115 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 72.57 Mbit/s
95th percentile per-packet one-way delay: 136.092 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 72.13 Mbit/s
95th percentile per-packet one-way delay: 136.126 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 63.89 Mbit/s
95th percentile per-packet one-way delay: 136.163 ms
Loss rate: 3.38%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-02-21 15:32:26
End at: 2018-02-21 15:32:56

# Below is generated by plot.py at 2018-02-21 21:34:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.24 Mbit/s
95th percentile per-packet one-way delay: 137.368 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 73.12 Mbit/s
95th percentile per-packet one-way delay: 137.337 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 70.08 Mbit/s
95th percentile per-packet one-way delay: 137.368 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 63.75 Mbit/s
95th percentile per-packet one-way delay: 137.442 ms
Loss rate: 3.32%
Run 4: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 73.18 Mbit/s)
- Flow 2 ingress (mean 70.16 Mbit/s)
- Flow 3 ingress (mean 64.10 Mbit/s)
- Flow 1 egress (mean 73.12 Mbit/s)
- Flow 2 egress (mean 70.08 Mbit/s)
- Flow 3 egress (mean 63.75 Mbit/s)

Legend for packet delay:
- Flow 1 (95th percentile 137.34 ms)
- Flow 2 (95th percentile 137.37 ms)
- Flow 3 (95th percentile 137.44 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-02-21 15:52:51
End at: 2018-02-21 15:53:21

# Below is generated by plot.py at 2018-02-21 21:34:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.24 Mbit/s
95th percentile per-packet one-way delay: 137.315 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 72.02 Mbit/s
95th percentile per-packet one-way delay: 137.306 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 70.16 Mbit/s
95th percentile per-packet one-way delay: 137.314 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 63.86 Mbit/s
95th percentile per-packet one-way delay: 137.345 ms
Loss rate: 3.31%
Run 5: Report of TCP BBR — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 6: Statistics of TCP BBR

Start at: 2018-02-21 16:13:03
End at: 2018-02-21 16:13:33

# Below is generated by plot.py at 2018-02-21 21:34:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 140.56 Mbit/s
  95th percentile per-packet one-way delay: 137.413 ms
  Loss rate: 1.53%
-- Flow 1:
  Average throughput: 73.34 Mbit/s
  95th percentile per-packet one-way delay: 137.395 ms
  Loss rate: 0.97%
-- Flow 2:
  Average throughput: 70.21 Mbit/s
  95th percentile per-packet one-way delay: 137.417 ms
  Loss rate: 1.56%
-- Flow 3:
  Average throughput: 63.75 Mbit/s
  95th percentile per-packet one-way delay: 137.456 ms
  Loss rate: 3.39%
Run 6: Report of TCP BBR — Data Link
Run 7: Statistics of TCP BBR

Start at: 2018-02-21 16:33:59
End at: 2018-02-21 16:34:29

# Below is generated by plot.py at 2018-02-21 21:34:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.31 Mbit/s
95th percentile per-packet one-way delay: 137.362 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 71.85 Mbit/s
95th percentile per-packet one-way delay: 137.325 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 68.94 Mbit/s
95th percentile per-packet one-way delay: 137.375 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 60.72 Mbit/s
95th percentile per-packet one-way delay: 137.426 ms
Loss rate: 3.43%
Run 7: Report of TCP BBR — Data Link
Run 8: Statistics of TCP BBR

Start at: 2018-02-21 16:54:30
End at: 2018-02-21 16:55:00

# Below is generated by plot.py at 2018-02-21 21:34:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.17 Mbit/s
95th percentile per-packet one-way delay: 137.544 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 72.21 Mbit/s
95th percentile per-packet one-way delay: 137.520 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 72.71 Mbit/s
95th percentile per-packet one-way delay: 137.554 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 64.21 Mbit/s
95th percentile per-packet one-way delay: 137.597 ms
Loss rate: 3.32%
Run 8: Report of TCP BBR — Data Link
Run 9: Statistics of TCP BBR

Start at: 2018-02-21 17:14:50
End at: 2018-02-21 17:15:20

# Below is generated by plot.py at 2018-02-21 21:36:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 140.86 Mbit/s
  95th percentile per-packet one-way delay: 137.636 ms
  Loss rate: 1.54%
-- Flow 1:
  Average throughput: 72.12 Mbit/s
  95th percentile per-packet one-way delay: 137.607 ms
  Loss rate: 1.00%
-- Flow 2:
  Average throughput: 72.43 Mbit/s
  95th percentile per-packet one-way delay: 137.639 ms
  Loss rate: 1.55%
-- Flow 3:
  Average throughput: 63.81 Mbit/s
  95th percentile per-packet one-way delay: 137.701 ms
  Loss rate: 3.34%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-02-21 17:35:14
End at: 2018-02-21 17:35:44

# Below is generated by plot.py at 2018-02-21 21:36:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.84 Mbit/s
95th percentile per-packet one-way delay: 136.726 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 73.60 Mbit/s
95th percentile per-packet one-way delay: 136.713 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 70.15 Mbit/s
95th percentile per-packet one-way delay: 136.713 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 63.64 Mbit/s
95th percentile per-packet one-way delay: 136.792 ms
Loss rate: 3.34%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2018-02-21 14:47:13
End at: 2018-02-21 14:47:43

# Below is generated by plot.py at 2018-02-21 21:36:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.74 Mbit/s
95th percentile per-packet one-way delay: 155.479 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 75.35 Mbit/s
95th percentile per-packet one-way delay: 155.191 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 79.48 Mbit/s
95th percentile per-packet one-way delay: 156.341 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 33.53 Mbit/s
95th percentile per-packet one-way delay: 152.891 ms
Loss rate: 2.48%
Run 1: Report of TCP Cubic — Data Link

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

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 75.14 Mbps) and Flow 1 egress (mean 75.35 Mbps)
- Green dotted line: Flow 2 ingress (mean 79.63 Mbps) and Flow 2 egress (mean 79.48 Mbps)
- Red dashed-dotted line: Flow 3 ingress (mean 33.44 Mbps) and Flow 3 egress (mean 33.53 Mbps)

Legend for delay:
- Blue circle: Flow 1 (95th percentile 155.19 ms)
- Green square: Flow 2 (95th percentile 156.34 ms)
- Red triangle: Flow 3 (95th percentile 152.89 ms)
Run 2: Statistics of TCP Cubic

Start at: 2018-02-21 15:08:26
End at: 2018-02-21 15:08:56

# Below is generated by plot.py at 2018-02-21 21:36:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 109.30 Mbit/s
  95th percentile per-packet one-way delay: 146.540 ms
  Loss rate: 1.51%
-- Flow 1:
  Average throughput: 60.46 Mbit/s
  95th percentile per-packet one-way delay: 145.570 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 39.81 Mbit/s
  95th percentile per-packet one-way delay: 148.278 ms
  Loss rate: 1.69%
-- Flow 3:
  Average throughput: 70.93 Mbit/s
  95th percentile per-packet one-way delay: 149.040 ms
  Loss rate: 3.56%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

Start at: 2018-02-21 15:28:55
End at: 2018-02-21 15:29:25

# Below is generated by plot.py at 2018-02-21 21:37:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.73 Mbit/s
95th percentile per-packet one-way delay: 145.399 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 81.47 Mbit/s
95th percentile per-packet one-way delay: 145.196 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 80.69 Mbit/s
95th percentile per-packet one-way delay: 145.214 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 71.69 Mbit/s
95th percentile per-packet one-way delay: 146.396 ms
Loss rate: 3.54%
Run 3: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 81.46 Mbit/s)
- Flow 1 egress (mean 81.47 Mbit/s)
- Flow 2 ingress (mean 80.81 Mbit/s)
- Flow 2 egress (mean 80.69 Mbit/s)
- Flow 3 ingress (mean 72.25 Mbit/s)
- Flow 3 egress (mean 71.69 Mbit/s)

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

- Flow 1 (95th percentile 145.20 ms)
- Flow 2 (95th percentile 145.21 ms)
- Flow 3 (95th percentile 146.40 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-02-21 15:49:21
End at: 2018-02-21 15:49:51

# Below is generated by plot.py at 2018-02-21 21:37:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 145.44 Mbit/s
95th percentile per-packet one-way delay: 150.290 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 83.08 Mbit/s
95th percentile per-packet one-way delay: 151.105 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 78.79 Mbit/s
95th percentile per-packet one-way delay: 145.911 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 32.80 Mbit/s
95th percentile per-packet one-way delay: 153.483 ms
Loss rate: 3.45%
Run 4: Report of TCP Cubic — Data Link

![Graphs showing network performance metrics over time for different flows, with throughput and per-packet one-way delay plots.](image)
Run 5: Statistics of TCP Cubic

Start at: 2018-02-21 16:09:35
End at: 2018-02-21 16:10:05

# Below is generated by plot.py at 2018-02-21 21:37:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.25 Mbit/s
95th percentile per-packet one-way delay: 145.588 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 59.11 Mbit/s
95th percentile per-packet one-way delay: 145.725 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 80.98 Mbit/s
95th percentile per-packet one-way delay: 145.495 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 142.490 ms
Loss rate: 9.75%
Run 5: Report of TCP Cubic — Data Link

Graph 1: Throughput (Mbps)

- Flow 1 ingress (mean 59.37 Mbps)
- Flow 1 egress (mean 59.11 Mbps)
- Flow 2 ingress (mean 81.11 Mbps)
- Flow 2 egress (mean 80.98 Mbps)
- Flow 3 ingress (mean 1.56 Mbps)
- Flow 3 egress (mean 1.45 Mbps)

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

- Flow 1 (95th percentile 145.72 ms)
- Flow 2 (95th percentile 145.50 ms)
- Flow 3 (95th percentile 142.49 ms)

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Run 6: Statistics of TCP Cubic

Start at: 2018-02-21 16:29:59  
End at: 2018-02-21 16:30:29

# Below is generated by plot.py at 2018-02-21 21:37:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 146.44 Mbit/s
  95th percentile per-packet one-way delay: 149.905 ms
  Loss rate: 1.42%
-- Flow 1:
  Average throughput: 83.36 Mbit/s
  95th percentile per-packet one-way delay: 150.926 ms
  Loss rate: 1.02%
-- Flow 2:
  Average throughput: 79.06 Mbit/s
  95th percentile per-packet one-way delay: 145.819 ms
  Loss rate: 1.58%
-- Flow 3:
  Average throughput: 35.18 Mbit/s
  95th percentile per-packet one-way delay: 151.385 ms
  Loss rate: 3.62%
Run 6: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 83.44 Mbit/s)
- Flow 1 egress (mean 83.36 Mbit/s)
- Flow 2 ingress (mean 79.23 Mbit/s)
- Flow 2 egress (mean 79.06 Mbit/s)
- Flow 3 ingress (mean 35.48 Mbit/s)
- Flow 3 egress (mean 35.18 Mbit/s)

- Flow 1 (95th percentile 150.93 ms)
- Flow 2 (95th percentile 145.82 ms)
- Flow 3 (95th percentile 151.38 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-02-21 16:50:45
End at: 2018-02-21 16:51:15

# Below is generated by plot.py at 2018-02-21 21:38:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.39 Mbit/s
95th percentile per-packet one-way delay: 145.049 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 83.59 Mbit/s
95th percentile per-packet one-way delay: 144.900 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 45.06 Mbit/s
95th percentile per-packet one-way delay: 145.036 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 71.93 Mbit/s
95th percentile per-packet one-way delay: 145.958 ms
Loss rate: 3.49%
Run 7: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 83.65 Mbps)
  - Flow 1 egress (mean 83.59 Mbps)
  - Flow 2 ingress (mean 45.28 Mbps)
  - Flow 2 egress (mean 45.06 Mbps)
  - Flow 3 ingress (mean 72.47 Mbps)
  - Flow 3 egress (mean 71.93 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 144.90 ms)
  - Flow 2 (95th percentile 145.04 ms)
  - Flow 3 (95th percentile 145.96 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-02-21 17:10:54
End at: 2018-02-21 17:11:24

# Below is generated by plot.py at 2018-02-21 21:38:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.50 Mbit/s
95th percentile per-packet one-way delay: 150.329 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 80.53 Mbit/s
95th percentile per-packet one-way delay: 146.827 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 42.21 Mbit/s
95th percentile per-packet one-way delay: 154.239 ms
Loss rate: 1.78%
-- Flow 3:
Average throughput: 69.89 Mbit/s
95th percentile per-packet one-way delay: 152.276 ms
Loss rate: 3.61%
Run 8: Report of TCP Cubic — Data Link

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

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

Start at: 2018-02-21 17:31:26
End at: 2018-02-21 17:31:56

# Below is generated by plot.py at 2018-02-21 21:38:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 151.74 Mbit/s
95th percentile per-packet one-way delay: 144.341 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 83.95 Mbit/s
95th percentile per-packet one-way delay: 144.275 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 81.41 Mbit/s
95th percentile per-packet one-way delay: 144.419 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 43.30 Mbit/s
95th percentile per-packet one-way delay: 144.470 ms
Loss rate: 3.92%
Run 9: Report of TCP Cubic — Data Link

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

![Graph of Per-packet one-way delay (ms) vs. Time (s)]
Run 10: Statistics of TCP Cubic

Start at: 2018-02-21 17:52:06  
End at: 2018-02-21 17:52:36

# Below is generated by plot.py at 2018-02-21 21:39:05  
# Datalink statistics

-- Total of 3 flows:
Average throughput: 157.08 Mbit/s  
95th percentile per-packet one-way delay: 144.948 ms  
Loss rate: 1.26%
-- Flow 1:
Average throughput: 81.44 Mbit/s  
95th percentile per-packet one-way delay: 144.622 ms  
Loss rate: 0.47%
-- Flow 2:
Average throughput: 80.39 Mbit/s  
95th percentile per-packet one-way delay: 145.534 ms  
Loss rate: 1.55%
-- Flow 3:
Average throughput: 69.93 Mbit/s  
95th percentile per-packet one-way delay: 144.579 ms  
Loss rate: 3.32%
Run 10: Report of TCP Cubic — Data Link
Run 1: Statistics of LEDBAT

Start at: 2018-02-21 14:29:57
End at: 2018-02-21 14:30:27

# Below is generated by plot.py at 2018-02-21 21:39:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.16 Mbit/s
95th percentile per-packet one-way delay: 138.003 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 138.018 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 138.033 ms
Loss rate: 2.81%
-- Flow 3:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 137.401 ms
Loss rate: 5.94%
Run 1: Report of LEDBAT — Data Link

![Graph showing network traffic over time for different flows.]
Run 2: Statistics of LEDBAT

Start at: 2018-02-21 14:50:26
End at: 2018-02-21 14:50:56

# Below is generated by plot.py at 2018-02-21 21:39:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.15 Mbit/s
95th percentile per-packet one-way delay: 138.158 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 138.249 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 137.976 ms
Loss rate: 2.80%
-- Flow 3:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 137.489 ms
Loss rate: 5.84%
Run 2: Report of LEDBAT — Data Link

[Graph showing network performance metrics over time with legends for different flows' ingress and egress mean throughput in Mbit/s and per-packet one-way delay in ms.]
Run 3: Statistics of LEDBAT

Start at: 2018-02-21 15:11:21
End at: 2018-02-21 15:11:51

# Below is generated by plot.py at 2018-02-21 21:39:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.36 Mbit/s
  95th percentile per-packet one-way delay: 136.901 ms
  Loss rate: 2.33%
-- Flow 1:
  Average throughput: 4.83 Mbit/s
  95th percentile per-packet one-way delay: 136.969 ms
  Loss rate: 1.82%
-- Flow 2:
  Average throughput: 3.18 Mbit/s
  95th percentile per-packet one-way delay: 136.826 ms
  Loss rate: 2.74%
-- Flow 3:
  Average throughput: 1.30 Mbit/s
  95th percentile per-packet one-way delay: 136.420 ms
  Loss rate: 6.01%
Run 3: Report of LEDBAT — Data Link

![Data Link Graph]

**Throughput (Mbps):**
- Flow 1 ingress (mean 4.86 Mbps)
- Flow 1 egress (mean 4.83 Mbps)
- Flow 2 ingress (mean 3.25 Mbps)
- Flow 2 egress (mean 3.18 Mbps)
- Flow 3 ingress (mean 1.34 Mbps)
- Flow 3 egress (mean 1.30 Mbps)

![Data Link Graph]

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 136.97 ms)
- Flow 2 (95th percentile 136.83 ms)
- Flow 3 (95th percentile 136.42 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-02-21 15:31:35
End at: 2018-02-21 15:32:05

# Below is generated by plot.py at 2018-02-21 21:39:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.20 Mbit/s
  95th percentile per.packet one-way delay: 137.839 ms
  Loss rate: 2.35%
-- Flow 1:
  Average throughput: 4.71 Mbit/s
  95th percentile per.packet one-way delay: 137.837 ms
  Loss rate: 1.84%
-- Flow 2:
  Average throughput: 3.17 Mbit/s
  95th percentile per.packet one-way delay: 137.886 ms
  Loss rate: 2.74%
-- Flow 3:
  Average throughput: 1.29 Mbit/s
  95th percentile per.packet one-way delay: 137.553 ms
  Loss rate: 5.96%
Run 4: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**
  - **Flow 1 ingress** (mean 4.76 Mbps/s)
  - **Flow 1 egress** (mean 4.71 Mbps/s)
  - **Flow 2 ingress** (mean 3.22 Mbps/s)
  - **Flow 2 egress** (mean 3.17 Mbps/s)
  - **Flow 3 ingress** (mean 1.33 Mbps/s)
  - **Flow 3 egress** (mean 1.29 Mbps/s)

- **Per-packet one-way delay (ms)**
  - **Flow 1 (95th percentile 137.84 ms)**
  - **Flow 2 (95th percentile 137.89 ms)**
  - **Flow 3 (95th percentile 137.55 ms)**
Run 5: Statistics of LEDBAT

Start at: 2018-02-21 15:52:00
End at: 2018-02-21 15:52:30

# Below is generated by plot.py at 2018-02-21 21:39:05
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 7.04 Mbit/s
   95th percentile per-packet one-way delay: 138.113 ms
   Loss rate: 2.40%
-- Flow 1:
   Average throughput: 4.60 Mbit/s
   95th percentile per-packet one-way delay: 138.196 ms
   Loss rate: 1.87%
-- Flow 2:
   Average throughput: 2.99 Mbit/s
   95th percentile per-packet one-way delay: 137.990 ms
   Loss rate: 2.82%
-- Flow 3:
   Average throughput: 1.51 Mbit/s
   95th percentile per-packet one-way delay: 137.692 ms
   Loss rate: 5.58%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Start at: 2018-02-21 16:12:13
End at: 2018-02-21 16:12:43

# Below is generated by plot.py at 2018-02-21 21:39:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.61 Mbit/s
  95th percentile per-packet one-way delay: 137.721 ms
  Loss rate: 2.21%
-- Flow 1:
  Average throughput: 4.56 Mbit/s
  95th percentile per-packet one-way delay: 137.764 ms
  Loss rate: 1.88%
-- Flow 2:
  Average throughput: 3.01 Mbit/s
  95th percentile per-packet one-way delay: 137.446 ms
  Loss rate: 2.81%
-- Flow 3:
  Average throughput: 0.28 Mbit/s
  95th percentile per-packet one-way delay: 136.505 ms
  Loss rate: 5.44%
Run 6: Report of LEDBAT — Data Link

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

Legend:
- Flow 1 ingress (mean 4.61 Mbit/s)
- Flow 1 egress (mean 4.56 Mbit/s)
- Flow 2 ingress (mean 3.05 Mbit/s)
- Flow 2 egress (mean 3.01 Mbit/s)
- Flow 3 ingress (mean 0.29 Mbit/s)
- Flow 3 egress (mean 0.28 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 137.76 ms)
- Flow 2 (95th percentile 137.45 ms)
- Flow 3 (95th percentile 136.50 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-02-21 16:33:09
End at: 2018-02-21 16:33:39

# Below is generated by plot.py at 2018-02-21 21:39:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.14 Mbit/s
95th percentile per-packet one-way delay: 137.834 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 137.879 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 137.635 ms
Loss rate: 2.91%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 137.338 ms
Loss rate: 5.57%
Run 7: Report of LEDBAT — Data Link

[Graph showing throughput and delay over time for different flows]
Run 8: Statistics of LEDBAT

Start at: 2018-02-21 16:53:40
End at: 2018-02-21 16:54:10

# Below is generated by plot.py at 2018-02-21 21:39:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.96 Mbit/s
  95th percentile per-packet one-way delay: 138.262 ms
  Loss rate: 2.39%
-- Flow 1:
  Average throughput: 4.78 Mbit/s
  95th percentile per-packet one-way delay: 138.181 ms
  Loss rate: 1.84%
-- Flow 2:
  Average throughput: 2.63 Mbit/s
  95th percentile per-packet one-way delay: 138.632 ms
  Loss rate: 3.00%
-- Flow 3:
  Average throughput: 1.41 Mbit/s
  95th percentile per-packet one-way delay: 138.820 ms
  Loss rate: 5.74%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-02-21 17:13:59
End at: 2018-02-21 17:14:29

# Below is generated by plot.py at 2018-02-21 21:39:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.23 Mbit/s
95th percentile per-packet one-way delay: 138.153 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 138.213 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 137.971 ms
Loss rate: 2.75%
-- Flow 3:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 138.139 ms
Loss rate: 5.78%
Run 9: Report of LEDBAT — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 10: Statistics of LEDBAT

Start at: 2018-02-21 17:34:24
End at: 2018-02-21 17:34:54

# Below is generated by plot.py at 2018-02-21 21:39:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.17 Mbit/s
  95th percentile per-packet one-way delay: 137.383 ms
  Loss rate: 2.36%
-- Flow 1:
  Average throughput: 4.77 Mbit/s
  95th percentile per-packet one-way delay: 137.427 ms
  Loss rate: 1.84%
-- Flow 2:
  Average throughput: 3.00 Mbit/s
  95th percentile per-packet one-way delay: 137.311 ms
  Loss rate: 2.82%
-- Flow 3:
  Average throughput: 1.36 Mbit/s
  95th percentile per-packet one-way delay: 137.061 ms
  Loss rate: 5.77%
Run 10: Report of LEDBAT — Data Link

[Graphs showing throughput and delay over time for different flows, with annotations for mean throughput and 95th percentile delay.]
Run 1: Statistics of PCC

Start at: 2018-02-21 14:45:06
End at: 2018-02-21 14:45:36

# Below is generated by plot.py at 2018-02-21 21:46:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 508.39 Mbit/s
  95th percentile per-packet one-way delay: 252.019 ms
  Loss rate: 7.59%
-- Flow 1:
  Average throughput: 287.45 Mbit/s
  95th percentile per-packet one-way delay: 252.903 ms
  Loss rate: 6.27%
-- Flow 2:
  Average throughput: 228.91 Mbit/s
  95th percentile per-packet one-way delay: 250.679 ms
  Loss rate: 8.18%
-- Flow 3:
  Average throughput: 214.48 Mbit/s
  95th percentile per-packet one-way delay: 259.604 ms
  Loss rate: 11.53%
Run 1: Report of PCC — Data Link
Run 2: Statistics of PCC

Start at: 2018-02-21 15:06:16
End at: 2018-02-21 15:06:46

# Below is generated by plot.py at 2018-02-21 21:46:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 560.82 Mbit/s
  95th percentile per-packet one-way delay: 260.285 ms
  Loss rate: 6.36%
-- Flow 1:
  Average throughput: 444.05 Mbit/s
  95th percentile per-packet one-way delay: 265.407 ms
  Loss rate: 5.98%
-- Flow 2:
  Average throughput: 122.22 Mbit/s
  95th percentile per-packet one-way delay: 248.800 ms
  Loss rate: 5.92%
-- Flow 3:
  Average throughput: 111.10 Mbit/s
  95th percentile per-packet one-way delay: 249.643 ms
  Loss rate: 11.75%
Run 2: Report of PCC — Data Link

Throughput (Mbps/s)

Time (s)

Flow 1 ingress (mean 487.96 Mbps/s)
Flow 1 egress (mean 444.05 Mbps/s)
Flow 2 ingress (mean 328.13 Mbps/s)
Flow 2 egress (mean 122.22 Mbps/s)
Flow 3 ingress (mean 122.40 Mbps/s)
Flow 3 egress (mean 111.10 Mbps/s)

Packet inter-arrival delay (ms)

Time (s)

Flow 1 (95th percentile 265.41 ms)
Flow 2 (95th percentile 240.80 ms)
Flow 3 (95th percentile 249.64 ms)
Run 3: Statistics of PCC

Start at: 2018-02-21 15:26:45
End at: 2018-02-21 15:27:15

# Below is generated by plot.py at 2018-02-21 21:47:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 576.73 Mbit/s
  95th percentile per-packet one-way delay: 291.247 ms
  Loss rate: 3.81%
-- Flow 1:
  Average throughput: 513.69 Mbit/s
  95th percentile per-packet one-way delay: 293.769 ms
  Loss rate: 3.79%
-- Flow 2:
  Average throughput: 65.57 Mbit/s
  95th percentile per-packet one-way delay: 243.802 ms
  Loss rate: 2.83%
-- Flow 3:
  Average throughput: 61.18 Mbit/s
  95th percentile per-packet one-way delay: 246.022 ms
  Loss rate: 6.22%
Run 3: Report of PCC — Data Link

![Graph 1](image1)

![Graph 2](image2)

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Run 4: Statistics of PCC

Start at: 2018-02-21 15:47:09
End at: 2018-02-21 15:47:39

# Below is generated by plot.py at 2018-02-21 21:47:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 584.21 Mbit/s
  95th percentile per-packet one-way delay: 242.482 ms
  Loss rate: 4.06%
-- Flow 1:
  Average throughput: 532.57 Mbit/s
  95th percentile per-packet one-way delay: 242.625 ms
  Loss rate: 4.17%
-- Flow 2:
  Average throughput: 62.54 Mbit/s
  95th percentile per-packet one-way delay: 241.821 ms
  Loss rate: 2.41%
-- Flow 3:
  Average throughput: 32.10 Mbit/s
  95th percentile per-packet one-way delay: 242.063 ms
  Loss rate: 4.53%
Run 4: Report of PCC — Data Link
Run 5: Statistics of PCC

Start at: 2018-02-21 16:07:26
End at: 2018-02-21 16:07:56

# Below is generated by plot.py at 2018-02-21 21:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 550.41 Mbit/s
95th percentile per-packet one-way delay: 276.733 ms
Loss rate: 4.49%
-- Flow 1:
Average throughput: 470.86 Mbit/s
95th percentile per-packet one-way delay: 283.624 ms
Loss rate: 4.24%
-- Flow 2:
Average throughput: 64.10 Mbit/s
95th percentile per-packet one-way delay: 248.192 ms
Loss rate: 3.22%
-- Flow 3:
Average throughput: 115.31 Mbit/s
95th percentile per-packet one-way delay: 250.858 ms
Loss rate: 8.79%
Run 5: Report of PCC — Data Link
Run 6: Statistics of PCC

Start at: 2018-02-21 16:27:51
End at: 2018-02-21 16:28:21

# Below is generated by plot.py at 2018-02-21 21:47:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 545.64 Mbit/s
  95th percentile per-packet one-way delay: 254.270 ms
  Loss rate: 3.47%
-- Flow 1:
  Average throughput: 483.60 Mbit/s
  95th percentile per-packet one-way delay: 253.451 ms
  Loss rate: 3.45%
-- Flow 2:
  Average throughput: 64.23 Mbit/s
  95th percentile per-packet one-way delay: 249.009 ms
  Loss rate: 2.88%
-- Flow 3:
  Average throughput: 61.03 Mbit/s
  95th percentile per-packet one-way delay: 257.073 ms
  Loss rate: 5.27%
Run 6: Report of PCC — Data Link

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

- Flow 1 Ingress (mean 496.28 Mbit/s)
- Flow 1 Egress (mean 483.60 Mbit/s)
- Flow 2 Ingress (mean 65.25 Mbit/s)
- Flow 2 Egress (mean 64.23 Mbit/s)
- Flow 3 Ingress (mean 62.70 Mbit/s)
- Flow 3 Egress (mean 61.03 Mbit/s)

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

- Flow 1 (95th percentile 253.45 ms)
- Flow 2 (95th percentile 249.01 ms)
- Flow 3 (95th percentile 257.07 ms)
Run 7: Statistics of PCC

Start at: 2018-02-21 16:48:37
End at: 2018-02-21 16:49:07

# Below is generated by plot.py at 2018-02-21 21:47:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 517.62 Mbit/s
  95th percentile per-packet one-way delay: 252.341 ms
  Loss rate: 3.84%
-- Flow 1:
  Average throughput: 455.76 Mbit/s
  95th percentile per-packet one-way delay: 254.975 ms
  Loss rate: 3.74%
-- Flow 2:
  Average throughput: 63.66 Mbit/s
  95th percentile per-packet one-way delay: 246.250 ms
  Loss rate: 3.03%
-- Flow 3:
  Average throughput: 61.01 Mbit/s
  95th percentile per-packet one-way delay: 249.779 ms
  Loss rate: 7.74%
Run 7: Report of PCC — Data Link

![Data Link Throughput Graph]

![Data Link Delay Graph]
Run 8: Statistics of PCC

Start at: 2018-02-21 17:08:49
End at: 2018-02-21 17:09:19

# Below is generated by plot.py at 2018-02-21 21:48:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 514.25 Mbit/s
  95th percentile per-packet one-way delay: 309.191 ms
  Loss rate: 4.58%
-- Flow 1:
  Average throughput: 432.71 Mbit/s
  95th percentile per-packet one-way delay: 320.201 ms
  Loss rate: 4.75%
-- Flow 2:
  Average throughput: 122.02 Mbit/s
  95th percentile per-packet one-way delay: 246.152 ms
  Loss rate: 3.63%
-- Flow 3:
  Average throughput: 2.46 Mbit/s
  95th percentile per-packet one-way delay: 244.500 ms
  Loss rate: 3.15%
Run 8: Report of PCC — Data Link

![Graph showing network performance metrics over time](image)

**Throughput (Mbps)**
- Flow 1 Ingress (mean 450.10 Mbps)
- Flow 1 Egress (mean 432.71 Mbps)
- Flow 2 Ingress (mean 124.88 Mbps)
- Flow 2 Egress (mean 122.02 Mbps)
- Flow 3 Ingress (mean 2.47 Mbps)
- Flow 3 Egress (mean 2.46 Mbps)

**Packet one-way delay (ms)**
- Flow 1 (95th percentile 320.20 ms)
- Flow 2 (95th percentile 246.15 ms)
- Flow 3 (95th percentile 244.50 ms)
Run 9: Statistics of PCC

Start at: 2018-02-21 17:29:20
End at: 2018-02-21 17:29:50

# Below is generated by plot.py at 2018-02-21 21:56:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 554.18 Mbit/s
  95th percentile per-packet one-way delay: 257.717 ms
  Loss rate: 3.73%
-- Flow 1:
  Average throughput: 469.68 Mbit/s
  95th percentile per-packet one-way delay: 263.037 ms
  Loss rate: 3.86%
-- Flow 2:
  Average throughput: 125.66 Mbit/s
  95th percentile per-packet one-way delay: 245.746 ms
  Loss rate: 2.98%
-- Flow 3:
  Average throughput: 4.35 Mbit/s
  95th percentile per-packet one-way delay: 246.011 ms
  Loss rate: 3.98%
Run 9: Report of PCC — Data Link

![Graph showing network throughput and packet error rate over time.]

Legend:
- Flow 1 ingress (mean 484.08 Mb/s) - Flow 1 egress (mean 469.68 Mb/s)
- Flow 2 ingress (mean 127.72 Mb/s) - Flow 2 egress (mean 125.66 Mb/s)
- Flow 3 ingress (mean 4.41 Mb/s) - Flow 3 egress (mean 4.35 Mb/s)

Legend for packet error rate:
- Flow 1 (95th percentile 263.04 ms)
- Flow 2 (95th percentile 245.75 ms)
- Flow 3 (95th percentile 246.01 ms)
Run 10: Statistics of PCC

Start at: 2018-02-21 17:49:56
End at: 2018-02-21 17:50:26

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 562.01 Mbit/s
  95th percentile per-packet one-way delay: 245.616 ms
  Loss rate: 2.84%
-- Flow 1:
  Average throughput: 476.44 Mbit/s
  95th percentile per-packet one-way delay: 245.667 ms
  Loss rate: 2.76%
-- Flow 2:
  Average throughput: 125.38 Mbit/s
  95th percentile per-packet one-way delay: 245.402 ms
  Loss rate: 3.28%
-- Flow 3:
  Average throughput: 8.31 Mbit/s
  95th percentile per-packet one-way delay: 245.968 ms
  Loss rate: 3.96%
Run 10: Report of PCC — Data Link

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

- Flow 1 ingress (mean 485.49 Mbps/s)
- Flow 1 egress (mean 476.48 Mbps/s)
- Flow 2 ingress (mean 127.84 Mbps/s)
- Flow 2 egress (mean 125.36 Mbps/s)
- Flow 3 ingress (mean 8.42 Mbps/s)
- Flow 3 egress (mean 8.31 Mbps/s)

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

- Flow 1 (95th percentile 245.67 ms)
- Flow 2 (95th percentile 245.40 ms)
- Flow 3 (95th percentile 245.97 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-21 14:42:13
End at: 2018-02-21 14:42:43

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 38.58 Mbit/s
   95th percentile per-packet one-way delay: 141.086 ms
   Loss rate: 1.90%
-- Flow 1:
   Average throughput: 0.04 Mbit/s
   95th percentile per-packet one-way delay: 141.486 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 39.53 Mbit/s
   95th percentile per-packet one-way delay: 136.332 ms
   Loss rate: 2.34%
-- Flow 3:
   Average throughput: 34.49 Mbit/s
   95th percentile per-packet one-way delay: 141.159 ms
   Loss rate: 0.86%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-21 15:03:21
End at: 2018-02-21 15:03:51

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.83 Mbit/s
95th percentile per-packet one-way delay: 141.006 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 61.19 Mbit/s
95th percentile per-packet one-way delay: 141.017 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 56.66 Mbit/s
95th percentile per-packet one-way delay: 141.001 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 34.43 Mbit/s
95th percentile per-packet one-way delay: 136.601 ms
Loss rate: 0.20%
Run 2: Report of QUIC Cubic — Data Link

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

Start at: 2018-02-21 15:23:47
End at: 2018-02-21 15:24:17

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 100.40 Mbit/s
  95th percentile per-packet one-way delay: 162.213 ms
  Loss rate: 1.21%
-- Flow 1:
  Average throughput: 50.23 Mbit/s
  95th percentile per-packet one-way delay: 162.257 ms
  Loss rate: 1.34%
-- Flow 2:
  Average throughput: 59.24 Mbit/s
  95th percentile per-packet one-way delay: 141.253 ms
  Loss rate: 1.38%
-- Flow 3:
  Average throughput: 34.30 Mbit/s
  95th percentile per-packet one-way delay: 135.777 ms
  Loss rate: 0.01%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-21 15:44:14
End at: 2018-02-21 15:44:44

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 105.23 Mbit/s
  95th percentile per-packet one-way delay: 136.967 ms
  Loss rate: 1.70%
-- Flow 1:
  Average throughput: 59.27 Mbit/s
  95th percentile per-packet one-way delay: 136.998 ms
  Loss rate: 1.19%
-- Flow 2:
  Average throughput: 51.95 Mbit/s
  95th percentile per-packet one-way delay: 135.383 ms
  Loss rate: 1.98%
-- Flow 3:
  Average throughput: 35.65 Mbit/s
  95th percentile per-packet one-way delay: 134.797 ms
  Loss rate: 3.43%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-21 16:04:28
End at: 2018-02-21 16:04:58

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 91.68 Mbit/s
  95th percentile per-packet one-way delay: 136.467 ms
  Loss rate: 1.44%
-- Flow 1:
  Average throughput: 52.33 Mbit/s
  95th percentile per-packet one-way delay: 134.696 ms
  Loss rate: 1.34%
-- Flow 2:
  Average throughput: 47.49 Mbit/s
  95th percentile per-packet one-way delay: 136.442 ms
  Loss rate: 1.81%
-- Flow 3:
  Average throughput: 24.57 Mbit/s
  95th percentile per-packet one-way delay: 136.659 ms
  Loss rate: 0.64%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-21 16:24:57
End at: 2018-02-21 16:25:27

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.04 Mbit/s
  95th percentile per-packet one-way delay: 137.153 ms
  Loss rate: 1.38%
-- Flow 1:
  Average throughput: 53.77 Mbit/s
  95th percentile per-packet one-way delay: 137.286 ms
  Loss rate: 1.15%
-- Flow 2:
  Average throughput: 49.75 Mbit/s
  95th percentile per-packet one-way delay: 135.996 ms
  Loss rate: 2.07%
-- Flow 3:
  Average throughput: 22.82 Mbit/s
  95th percentile per-packet one-way delay: 136.111 ms
  Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-21 16:45:41
End at: 2018-02-21 16:46:11

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 99.95 Mbit/s
  95th percentile per-packet one-way delay: 140.687 ms
  Loss rate: 1.58%
-- Flow 1:
  Average throughput: 48.21 Mbit/s
  95th percentile per-packet one-way delay: 140.731 ms
  Loss rate: 1.44%
-- Flow 2:
  Average throughput: 61.34 Mbit/s
  95th percentile per-packet one-way delay: 137.182 ms
  Loss rate: 0.47%
-- Flow 3:
  Average throughput: 34.53 Mbit/s
  95th percentile per-packet one-way delay: 136.249 ms
  Loss rate: 5.95%
Run 7: Report of QUIC Cubic — Data Link

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

**Throughput (Mbps)**
- Flow 1 ingress (mean 48.46 Mbps)
- Flow 1 egress (mean 48.21 Mbps)
- Flow 2 ingress (mean 60.79 Mbps)
- Flow 2 egress (mean 61.34 Mbps)
- Flow 3 ingress (mean 35.70 Mbps)
- Flow 3 egress (mean 34.53 Mbps)

**Packet One-Way Delay (ms)**
- Flow 1 (95th percentile 140.73 ms)
- Flow 2 (95th percentile 137.18 ms)
- Flow 3 (95th percentile 136.25 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-21 17:05:51
End at: 2018-02-21 17:06:21

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 100.02 Mbit/s
  95th percentile per-packet one-way delay: 141.119 ms
  Loss rate: 1.74%
-- Flow 1:
  Average throughput: 56.91 Mbit/s
  95th percentile per-packet one-way delay: 140.900 ms
  Loss rate: 1.04%
-- Flow 2:
  Average throughput: 46.92 Mbit/s
  95th percentile per-packet one-way delay: 137.094 ms
  Loss rate: 1.88%
-- Flow 3:
  Average throughput: 37.26 Mbit/s
  95th percentile per-packet one-way delay: 141.266 ms
  Loss rate: 4.62%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-21 17:26:24
End at: 2018-02-21 17:26:54

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.01 Mbit/s
  95th percentile per-packet one-way delay: 141.128 ms
  Loss rate: 2.10%
-- Flow 1:
  Average throughput: 50.53 Mbit/s
  95th percentile per-packet one-way delay: 141.170 ms
  Loss rate: 1.29%
-- Flow 2:
  Average throughput: 40.13 Mbit/s
  95th percentile per-packet one-way delay: 136.231 ms
  Loss rate: 2.54%
-- Flow 3:
  Average throughput: 36.85 Mbit/s
  95th percentile per-packet one-way delay: 136.562 ms
  Loss rate: 4.45%
Run 9: Report of QUIC Cubic — Data Link

![Throughput Graph]

![Delay Graph]
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-21 17:47:01
End at: 2018-02-21 17:47:31

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.90 Mbit/s
  95th percentile per-packet one-way delay: 139.383 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 51.10 Mbit/s
  95th percentile per-packet one-way delay: 136.781 ms
  Loss rate: 1.09%
-- Flow 2:
  Average throughput: 51.52 Mbit/s
  95th percentile per-packet one-way delay: 135.961 ms
  Loss rate: 2.04%
-- Flow 3:
  Average throughput: 36.10 Mbit/s
  95th percentile per-packet one-way delay: 140.959 ms
  Loss rate: 0.63%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-02-21 14:44:17
End at: 2018-02-21 14:44:48

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 141.212 ms
  Loss rate: 1.30%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.203 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.247 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.387 ms
  Loss rate: 2.63%
Run 1: Report of SCReAM — Data Link

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

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

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

- Flow 1 (95th percentile 137.20 ms)
- Flow 2 (95th percentile 141.25 ms)
- Flow 3 (95th percentile 130.39 ms)
Run 2: Statistics of SCReAM

Start at: 2018-02-21 15:05:27
End at: 2018-02-21 15:05:57

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 137.276 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.300 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.587 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.536 ms
Loss rate: 2.64%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-02-21 15:25:56
End at: 2018-02-21 15:26:26

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 141.180 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.148 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.214 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.870 ms
  Loss rate: 2.63%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2018-02-21 15:46:20
End at: 2018-02-21 15:46:50

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 141.080 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 141.098 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.794 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.176 ms
Loss rate: 2.63%
Run 4: Report of SCReAM — Data Link

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

- **Throughput (Mbps)**
  - X-axis: Time (s)
  - Y-axis: Throughput (Mbps)
  - Legend:
    - 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)**
  - X-axis: Time (s)
  - Y-axis: Per-packet one-way delay (ms)
  - Legend:
    - Flow 1 (95th percentile 141.10 ms)
    - Flow 2 (95th percentile 134.79 ms)
    - Flow 3 (95th percentile 135.18 ms)
Run 5: Statistics of SCReAM

Start at: 2018-02-21 16:06:37
End at: 2018-02-21 16:07:07

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 140.708 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 140.728 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.038 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.158 ms
  Loss rate: 2.64%
Run 6: Statistics of SCReAM

Start at: 2018-02-21 16:27:03
End at: 2018-02-21 16:27:33

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 140.621 ms
  Loss rate: 1.30%
  -- Flow 1:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 136.982 ms
    Loss rate: 0.77%
  -- Flow 2:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 136.141 ms
    Loss rate: 1.42%
  -- Flow 3:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 140.726 ms
    Loss rate: 2.65%
Run 6: Report of SCReAM — Data Link

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

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

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

Flow 1 (95th percentile 136.98 ms) vs. Flow 2 (95th percentile 136.14 ms) vs. Flow 3 (95th percentile 140.73 ms)
Run 7: Statistics of SCReAM

Start at: 2018-02-21 16:47:48
End at: 2018-02-21 16:48:19

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 140.882 ms
  Loss rate: 1.30%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 140.902 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.278 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.353 ms
  Loss rate: 2.63%
Run 7: Report of SCReAM — Data Link

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**Throughput (Mbps)**

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

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

- **Flow 1 (95th percentile 140.90 ms)**
- **Flow 2 (95th percentile 136.28 ms)**
- **Flow 3 (95th percentile 137.35 ms)**
Run 8: Statistics of SCReAM

Start at: 2018-02-21 17:08:01
End at: 2018-02-21 17:08:31

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 141.456 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.766 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.860 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.175 ms
  Loss rate: 2.63%
Run 8: Report of SCReAM — Data Link
Run 9: Statistics of SCReAM

Start at: 2018-02-21 17:28:31
End at: 2018-02-21 17:29:01

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 136.741 ms
  Loss rate: 1.28%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.756 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.331 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 136.508 ms
  Loss rate: 2.61%
Run 9: Report of SCReAM — Data Link

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

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

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Run 10: Statistics of SCReAM

Start at: 2018-02-21 17:49:08
End at: 2018-02-21 17:49:38

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 141.346 ms
  Loss rate: 1.30%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.374 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.421 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.439 ms
  Loss rate: 2.63%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-02-21 14:32:51
End at: 2018-02-21 14:33:21

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.36 Mbit/s
  95th percentile per-packet one-way delay: 141.304 ms
  Loss rate: 2.18%
-- Flow 1:
  Average throughput: 1.55 Mbit/s
  95th percentile per-packet one-way delay: 136.595 ms
  Loss rate: 1.43%
-- Flow 2:
  Average throughput: 1.36 Mbit/s
  95th percentile per-packet one-way delay: 141.421 ms
  Loss rate: 1.78%
-- Flow 3:
  Average throughput: 0.45 Mbit/s
  95th percentile per-packet one-way delay: 137.332 ms
  Loss rate: 5.76%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-02-21 14:53:36
End at: 2018-02-21 14:54:06

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.66 Mbit/s
  95th percentile per-packet one-way delay: 137.253 ms
  Loss rate: 1.76%
-- Flow 1:
  Average throughput: 2.02 Mbit/s
  95th percentile per-packet one-way delay: 137.295 ms
  Loss rate: 0.95%
-- Flow 2:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 136.610 ms
  Loss rate: 1.96%
-- Flow 3:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 137.370 ms
  Loss rate: 4.90%
Run 2: Report of WebRTC media — Data Link

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 2.01 Mbit/s)
- Flow 1 egress (mean 2.02 Mbit/s)
- Flow 2 ingress (mean 1.26 Mbit/s)
- Flow 2 egress (mean 1.25 Mbit/s)
- Flow 3 ingress (mean 0.45 Mbit/s)
- Flow 3 egress (mean 0.43 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

- Flow 1 (95th percentile 137.29 ms)
- Flow 2 (95th percentile 136.61 ms)
- Flow 3 (95th percentile 137.37 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-02-21 15:14:06
End at: 2018-02-21 15:14:36

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.67 Mbit/s
  95th percentile per-packet one-way delay: 140.682 ms
  Loss rate: 1.80%
-- Flow 1:
  Average throughput: 2.04 Mbit/s
  95th percentile per-packet one-way delay: 136.906 ms
  Loss rate: 0.96%
-- Flow 2:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 135.367 ms
  Loss rate: 1.92%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 140.823 ms
  Loss rate: 5.51%
Run 3: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.04 Mbit/s)
- Flow 1 egress (mean 2.04 Mbit/s)
- Flow 2 ingress (mean 1.27 Mbit/s)
- Flow 2 egress (mean 1.25 Mbit/s)
- Flow 3 ingress (mean 0.44 Mbit/s)
- Flow 3 egress (mean 0.42 Mbit/s)

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

- Flow 1 (95th percentile 136.91 ms)
- Flow 2 (95th percentile 135.37 ms)
- Flow 3 (95th percentile 140.82 ms)
Run 4: Statistics of WebRTC media

Start at: 2018-02-21 15:34:25
End at: 2018-02-21 15:34:55

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.68 Mbit/s
  95th percentile per-packet one-way delay: 141.059 ms
  Loss rate: 1.92%
-- Flow 1:
  Average throughput: 2.04 Mbit/s
  95th percentile per-packet one-way delay: 141.076 ms
  Loss rate: 0.94%
-- Flow 2:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 141.046 ms
  Loss rate: 2.00%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 137.146 ms
  Loss rate: 6.30%
Run 4: Report of WebRTC media — Data Link

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

Flow 1 ingress (mean 2.04 Mbit/s)  Flow 1 egress (mean 2.04 Mbit/s)
Flow 2 ingress (mean 1.27 Mbit/s)  Flow 2 egress (mean 1.25 Mbit/s)
Flow 3 ingress (mean 0.45 Mbit/s)  Flow 3 egress (mean 0.42 Mbit/s)
Run 5: Statistics of WebRTC media

Start at: 2018-02-21 15:54:53
End at: 2018-02-21 15:55:23

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 3.68 Mbit/s
   95th percentile per-packet one-way delay: 136.833 ms
   Loss rate: 1.80%
-- Flow 1:
   Average throughput: 2.04 Mbit/s
   95th percentile per-packet one-way delay: 136.839 ms
   Loss rate: 1.07%
-- Flow 2:
   Average throughput: 1.24 Mbit/s
   95th percentile per-packet one-way delay: 136.022 ms
   Loss rate: 1.96%
-- Flow 3:
   Average throughput: 0.43 Mbit/s
   95th percentile per-packet one-way delay: 137.071 ms
   Loss rate: 4.79%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-02-21 16:15:08
End at: 2018-02-21 16:15:38

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.66 Mbit/s
  95th percentile per-packet one-way delay: 137.061 ms
  Loss rate: 1.85%
-- Flow 1:
  Average throughput: 2.03 Mbit/s
  95th percentile per-packet one-way delay: 137.084 ms
  Loss rate: 1.11%
-- Flow 2:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 136.744 ms
  Loss rate: 1.67%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 137.141 ms
  Loss rate: 5.93%
Run 6: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.04 Mbit/s)
- Flow 1 egress (mean 2.03 Mbit/s)
- Flow 2 ingress (mean 1.26 Mbit/s)
- Flow 2 egress (mean 1.25 Mbit/s)
- Flow 3 ingress (mean 0.44 Mbit/s)
- Flow 3 egress (mean 0.42 Mbit/s)

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

- Flow 1 (95th percentile 137.08 ms)
- Flow 2 (95th percentile 136.74 ms)
- Flow 3 (95th percentile 137.14 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-02-21 16:35:59
End at: 2018-02-21 16:36:29

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.69 Mbit/s
  95th percentile per-packet one-way delay: 136.809 ms
  Loss rate: 1.81%
-- Flow 1:
  Average throughput: 2.04 Mbit/s
  95th percentile per-packet one-way delay: 136.818 ms
  Loss rate: 1.01%
-- Flow 2:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 135.986 ms
  Loss rate: 1.72%
-- Flow 3:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 136.785 ms
  Loss rate: 5.84%
Run 7: Report of WebRTC media — Data Link

![Graph of WebRTC media data](image1)

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

[Flow 1 ingress (mean 2.05 Mbit/s), Flow 1 egress (mean 2.04 Mbit/s), Flow 2 ingress (mean 1.26 Mbit/s), Flow 2 egress (mean 1.25 Mbit/s), Flow 3 ingress (mean 0.45 Mbit/s), Flow 3 egress (mean 0.43 Mbit/s)]

[Flow 1 (95th percentile 136.82 ms), Flow 2 (95th percentile 135.99 ms), Flow 3 (95th percentile 136.78 ms)]
Run 8: Statistics of WebRTC media

Start at: 2018-02-21 16:56:34
End at: 2018-02-21 16:57:04

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.68 Mbit/s
  95th percentile per-packet one-way delay: 141.277 ms
  Loss rate: 1.95%
-- Flow 1:
  Average throughput: 2.04 Mbit/s
  95th percentile per-packet one-way delay: 141.303 ms
  Loss rate: 1.06%
-- Flow 2:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 136.702 ms
  Loss rate: 2.09%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 137.401 ms
  Loss rate: 5.81%
Run 8: Report of WebRTC media — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.05 Mbps) — Flow 1 egress (mean 2.04 Mbps)
Flow 2 ingress (mean 1.27 Mbps) — Flow 2 egress (mean 1.25 Mbps)
Flow 3 ingress (mean 0.44 Mbps) — Flow 3 egress (mean 0.42 Mbps)

One-way delay (ms)

Time (s)

Flow 1 (95th percentile 141.30 ms) — Flow 2 (95th percentile 136.70 ms) — Flow 3 (95th percentile 137.40 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-02-21 17:16:50
End at: 2018-02-21 17:17:20

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 141.302 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 141.335 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 137.353 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 140.889 ms
Loss rate: 5.76%
Run 9: Report of WebRTC media — Data Link

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 2.03 Mbit/s)
- Flow 1 egress (mean 2.03 Mbit/s)
- Flow 2 ingress (mean 1.26 Mbit/s)
- Flow 2 egress (mean 1.25 Mbit/s)
- Flow 3 ingress (mean 0.45 Mbit/s)
- Flow 3 egress (mean 0.42 Mbit/s)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 141.34 ms)
Flow 2 (95th percentile 137.33 ms)
Flow 3 (95th percentile 140.89 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-02-21 17:37:18
End at: 2018-02-21 17:37:48

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.69 Mbit/s
  95th percentile per-packet one-way delay: 140.922 ms
  Loss rate: 1.95%
-- Flow 1:
  Average throughput: 2.04 Mbit/s
  95th percentile per-packet one-way delay: 140.953 ms
  Loss rate: 1.26%
-- Flow 2:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 136.292 ms
  Loss rate: 2.06%
-- Flow 3:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 136.066 ms
  Loss rate: 4.88%
Run 10: Report of WebRTC media — Data Link

![Graph showing throughput and delay](image)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 2.05 Mbps)
  - Flow 1 egress (mean 2.04 Mbps)
  - Flow 2 ingress (mean 1.27 Mbps)
  - Flow 2 egress (mean 1.25 Mbps)
  - Flow 3 ingress (mean 0.45 Mbps)
  - Flow 3 egress (mean 0.43 Mbps)

- **Round-trip one-way delay (ms)**
  - Flow 1 (95th percentile 140.95 ms)
  - Flow 2 (95th percentile 136.29 ms)
  - Flow 3 (95th percentile 136.07 ms)
Run 1: Statistics of Sprout

Start at: 2018-02-21 14:48:11
End at: 2018-02-21 14:48:41

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.83 Mbit/s
  95th percentile per-packet one-way delay: 141.203 ms
  Loss rate: 1.33%
-- Flow 1:
  Average throughput: 0.34 Mbit/s
  95th percentile per-packet one-way delay: 141.192 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 0.52 Mbit/s
  95th percentile per-packet one-way delay: 141.247 ms
  Loss rate: 1.79%
-- Flow 3:
  Average throughput: 0.45 Mbit/s
  95th percentile per-packet one-way delay: 141.080 ms
  Loss rate: 2.35%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-02-21 15:09:22
End at: 2018-02-21 15:09:52

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.75 Mbit/s
  95th percentile per-packet one-way delay: 137.195 ms
  Loss rate: 1.29%
-- Flow 1:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 136.110 ms
  Loss rate: 0.95%
-- Flow 2:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 137.240 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 136.458 ms
  Loss rate: 2.00%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-02-21 15:29:54
End at: 2018-02-21 15:30:24

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.70 Mbit/s
  95th percentile per-packet one-way delay: 162.370 ms
  Loss rate: 0.95%
-- Flow 1:
  Average throughput: 0.34 Mbit/s
  95th percentile per-packet one-way delay: 137.216 ms
  Loss rate: 0.81%
-- Flow 2:
  Average throughput: 0.35 Mbit/s
  95th percentile per-packet one-way delay: 137.206 ms
  Loss rate: 0.20%
-- Flow 3:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 162.507 ms
  Loss rate: 2.63%
Run 3: Report of Sprout — Data Link

![Graph of Throughput and One-Way Delay](image-url)
Run 4: Statistics of Sprout

Start at: 2018-02-21 15:50:19
End at: 2018-02-21 15:50:49

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.79 Mbit/s
  95th percentile per-packet one-way delay: 137.241 ms
  Loss rate: 1.63%
-- Flow 1:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 137.294 ms
  Loss rate: 1.32%
-- Flow 2:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 137.171 ms
  Loss rate: 1.59%
-- Flow 3:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 137.198 ms
  Loss rate: 2.63%
Run 5: Statistics of Sprout

Start at: 2018-02-21 16:10:31
End at: 2018-02-21 16:11:01

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1.26 Mbit/s
  95th percentile per-packet one-way delay: 140.598 ms
  Loss rate: 1.35%
-- Flow 1:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 137.309 ms
  Loss rate: 0.79%
-- Flow 2:
  Average throughput: 1.11 Mbit/s
  95th percentile per-packet one-way delay: 140.636 ms
  Loss rate: 1.88%
-- Flow 3:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 137.331 ms
  Loss rate: 0.10%
Run 5: Report of Sprout — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 0.39 Mbps)
- Flow 1 egress (mean 0.39 Mbps)
- Flow 2 ingress (mean 1.11 Mbps)
- Flow 2 egress (mean 1.11 Mbps)
- Flow 3 ingress (mean 0.40 Mbps)
- Flow 3 egress (mean 0.41 Mbps)

Per-packet one-way delay (ms):
- Flow 1 (95th percentile 137.31 ms)
- Flow 2 (95th percentile 140.64 ms)
- Flow 3 (95th percentile 137.33 ms)
Run 6: Statistics of Sprout

Start at: 2018-02-21 16:30:58
End at: 2018-02-21 16:31:28

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 136.808 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 136.809 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 136.793 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 136.800 ms
Loss rate: 2.55%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

Start at: 2018-02-21 16:51:43
End at: 2018-02-21 16:52:13

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.75 Mbit/s
  95th percentile per-packet one-way delay: 140.884 ms
  Loss rate: 1.44%
-- Flow 1:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 140.907 ms
  Loss rate: 1.16%
-- Flow 2:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 137.454 ms
  Loss rate: 1.21%
-- Flow 3:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 137.423 ms
  Loss rate: 2.67%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-02-21 17:11:52
End at: 2018-02-21 17:12:22

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.74 Mbit/s
  95th percentile per-packet one-way delay: 141.220 ms
  Loss rate: 1.23%
-- Flow 1:
  Average throughput: 0.36 Mbit/s
  95th percentile per-packet one-way delay: 141.248 ms
  Loss rate: 0.97%
-- Flow 2:
  Average throughput: 0.36 Mbit/s
  95th percentile per-packet one-way delay: 137.464 ms
  Loss rate: 1.30%
-- Flow 3:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 137.597 ms
  Loss rate: 1.77%
Run 8: Report of Sprout — Data Link
Run 9: Statistics of Sprout

Start at: 2018-02-21 17:32:24
End at: 2018-02-21 17:32:54

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.78 Mbit/s
  95th percentile per-packet one-way delay: 141.189 ms
  Loss rate: 1.19%
-- Flow 1:
  Average throughput: 0.36 Mbit/s
  95th percentile per-packet one-way delay: 140.925 ms
  Loss rate: 0.76%
-- Flow 2:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 141.246 ms
  Loss rate: 1.37%
-- Flow 3:
  Average throughput: 0.51 Mbit/s
  95th percentile per-packet one-way delay: 136.631 ms
  Loss rate: 1.83%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-02-21 17:53:05
End at: 2018-02-21 17:53:35

# Below is generated by plot.py at 2018-02-21 21:56:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.77 Mbit/s
  95th percentile per-packet one-way delay: 137.245 ms
  Loss rate: 1.42%
-- Flow 1:
  Average throughput: 0.34 Mbit/s
  95th percentile per-packet one-way delay: 137.269 ms
  Loss rate: 1.02%
-- Flow 2:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 136.688 ms
  Loss rate: 1.61%
-- Flow 3:
  Average throughput: 0.54 Mbit/s
  95th percentile per-packet one-way delay: 136.370 ms
  Loss rate: 1.94%
Run 10: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-21 14:49:00
End at: 2018-02-21 14:49:30

# Below is generated by plot.py at 2018-02-21 22:01:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 328.88 Mbit/s
  95th percentile per-packet one-way delay: 140.848 ms
  Loss rate: 1.39%
-- Flow 1:
  Average throughput: 184.54 Mbit/s
  95th percentile per-packet one-way delay: 141.377 ms
  Loss rate: 0.84%
-- Flow 2:
  Average throughput: 167.81 Mbit/s
  95th percentile per-packet one-way delay: 138.962 ms
  Loss rate: 1.48%
-- Flow 3:
  Average throughput: 102.23 Mbit/s
  95th percentile per-packet one-way delay: 145.518 ms
  Loss rate: 4.07%
Run 1: Report of TaoVA-100x — Data Link

![Graph of Throughput vs Time]

- **Flow 1 ingress** (mean 184.40 Mbit/s)
- **Flow 1 egress** (mean 184.54 Mbit/s)
- **Flow 2 ingress** (mean 167.79 Mbit/s)
- **Flow 2 egress** (mean 167.81 Mbit/s)
- **Flow 3 ingress** (mean 103.36 Mbit/s)
- **Flow 3 egress** (mean 102.23 Mbit/s)

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

- **Flow 1** (95th percentile 141.38 ms)
- **Flow 2** (95th percentile 138.96 ms)
- **Flow 3** (95th percentile 145.52 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-21 15:10:11
End at: 2018-02-21 15:10:41

# Below is generated by plot.py at 2018-02-21 22:01:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 178.94 Mbit/s
  95th percentile per-packet one-way delay: 137.270 ms
  Loss rate: 1.25%
-- Flow 1:
  Average throughput: 173.44 Mbit/s
  95th percentile per-packet one-way delay: 137.236 ms
  Loss rate: 1.20%
-- Flow 2:
  Average throughput: 2.16 Mbit/s
  95th percentile per-packet one-way delay: 164.164 ms
  Loss rate: 6.73%
-- Flow 3:
  Average throughput: 12.60 Mbit/s
  95th percentile per-packet one-way delay: 137.639 ms
  Loss rate: 1.12%
Run 2: Report of TaoVA-100x — Data Link

![Throughput graph](image)

![Delay graph](image)

Flow 1:
- Ingress: Mean 173.95 Mbit/s
- Egress: Mean 173.44 Mbit/s

Flow 2:
- Ingress: Mean 2.27 Mbit/s
- Egress: Mean 2.16 Mbit/s

Flow 3:
- Ingress: Mean 12.39 Mbit/s
- Egress: Mean 12.60 Mbit/s

Flow 1 (95th percentile 137.24 ms)
Flow 2 (95th percentile 164.16 ms)
Flow 3 (95th percentile 137.64 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-21 15:30:43
End at: 2018-02-21 15:31:13

# Below is generated by plot.py at 2018-02-21 22:01:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 23.73 Mbit/s
  95th percentile per-packet one-way delay: 141.078 ms
  Loss rate: 2.38%
-- Flow 1:
  Average throughput: 8.04 Mbit/s
  95th percentile per-packet one-way delay: 137.104 ms
  Loss rate: 1.54%
-- Flow 2:
  Average throughput: 15.68 Mbit/s
  95th percentile per-packet one-way delay: 141.097 ms
  Loss rate: 3.53%
-- Flow 3:
  Average throughput: 16.28 Mbit/s
  95th percentile per-packet one-way delay: 141.844 ms
  Loss rate: 1.34%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-21 15:51:08
End at: 2018-02-21 15:51:38

# Below is generated by plot.py at 2018-02-21 22:01:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.64 Mbit/s
95th percentile per-packet one-way delay: 137.042 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 13.36 Mbit/s
95th percentile per-packet one-way delay: 137.038 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 7.40 Mbit/s
95th percentile per-packet one-way delay: 137.044 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 137.058 ms
Loss rate: 2.87%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-02-21 16:11:20
End at: 2018-02-21 16:11:50

# Below is generated by plot.py at 2018-02-21 22:01:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 25.94 Mbit/s
  95th percentile per-packet one-way delay: 137.141 ms
  Loss rate: 1.42%
-- Flow 1:
  Average throughput: 13.07 Mbit/s
  95th percentile per-packet one-way delay: 137.125 ms
  Loss rate: 0.94%
-- Flow 2:
  Average throughput: 13.15 Mbit/s
  95th percentile per-packet one-way delay: 137.153 ms
  Loss rate: 1.39%
-- Flow 3:
  Average throughput: 12.78 Mbit/s
  95th percentile per-packet one-way delay: 137.153 ms
  Loss rate: 2.94%
Run 5: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Flow 1 ingress (mean 13.07 Mbit/s)  Flow 1 egress (mean 13.07 Mbit/s)
Flow 2 ingress (mean 13.16 Mbit/s)  Flow 2 egress (mean 13.15 Mbit/s)
Flow 3 ingress (mean 12.79 Mbit/s)  Flow 3 egress (mean 12.78 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 137.12 ms)  Flow 2 (95th percentile 137.15 ms)  Flow 3 (95th percentile 137.15 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-02-21 16:31:46
End at: 2018-02-21 16:32:16

# Below is generated by plot.py at 2018-02-21 22:01:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 295.77 Mbit/s
  95th percentile per-packet one-way delay: 137.327 ms
  Loss rate: 0.85%
-- Flow 1:
  Average throughput: 186.33 Mbit/s
  95th percentile per-packet one-way delay: 136.992 ms
  Loss rate: 0.48%
-- Flow 2:
  Average throughput: 159.62 Mbit/s
  95th percentile per-packet one-way delay: 138.328 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 12.76 Mbit/s
  95th percentile per-packet one-way delay: 137.100 ms
  Loss rate: 2.89%
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-21 16:52:32
End at: 2018-02-21 16:53:02

# Below is generated by plot.py at 2018-02-21 22:01:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 158.74 Mbit/s
  95th percentile per-packet one-way delay: 140.833 ms
  Loss rate: 1.63%
-- Flow 1:
  Average throughput: 13.23 Mbit/s
  95th percentile per-packet one-way delay: 137.290 ms
  Loss rate: 0.94%
-- Flow 2:
  Average throughput: 203.86 Mbit/s
  95th percentile per-packet one-way delay: 138.406 ms
  Loss rate: 1.76%
-- Flow 3:
  Average throughput: 32.02 Mbit/s
  95th percentile per-packet one-way delay: 145.055 ms
  Loss rate: 0.70%
Run 7: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress** (mean 13.23 Mbps)
- **Flow 1 egress** (mean 13.23 Mbps)
- **Flow 2 ingress** (mean 204.53 Mbps)
- **Flow 2 egress** (mean 203.86 Mbps)
- **Flow 3 ingress** (mean 31.29 Mbps)
- **Flow 3 egress** (mean 32.02 Mbps)

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

- Flow 1 (95th percentile 137.29 ms)
- Flow 2 (95th percentile 138.41 ms)
- Flow 3 (95th percentile 145.06 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-02-21 17:12:41
End at: 2018-02-21 17:13:11

# Below is generated by plot.py at 2018-02-21 22:01:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 267.65 Mbit/s
95th percentile per-packet one-way delay: 140.395 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 199.47 Mbit/s
95th percentile per-packet one-way delay: 137.466 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 63.16 Mbit/s
95th percentile per-packet one-way delay: 141.710 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 138.26 Mbit/s
95th percentile per-packet one-way delay: 136.957 ms
Loss rate: 4.43%
Run 8: Report of TaoVA-100x — Data Link

![Graph showing throughput and average one way delay for different flows.]

- Flow 1 ingress (mean 199.86 Mbit/s)
- Flow 1 egress (mean 199.47 Mbit/s)
- Flow 2 ingress (mean 63.16 Mbit/s)
- Flow 2 egress (mean 63.16 Mbit/s)
- Flow 3 ingress (mean 140.69 Mbit/s)
- Flow 3 egress (mean 138.26 Mbit/s)
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-21 17:33:13
End at: 2018-02-21 17:33:43

# Below is generated by plot.py at 2018-02-21 22:01:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 190.69 Mbit/s
  95th percentile per-packet one-way delay: 137.369 ms
  Loss rate: 1.17%
-- Flow 1:
  Average throughput: 13.11 Mbit/s
  95th percentile per-packet one-way delay: 140.838 ms
  Loss rate: 0.93%
-- Flow 2:
  Average throughput: 200.07 Mbit/s
  95th percentile per-packet one-way delay: 136.886 ms
  Loss rate: 1.59%
-- Flow 3:
  Average throughput: 170.81 Mbit/s
  95th percentile per-packet one-way delay: 138.889 ms
  Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 13.11 Mbit/s)
Flow 1 egress (mean 13.11 Mbit/s)
Flow 2 ingress (mean 200.50 Mbit/s)
Flow 2 egress (mean 200.07 Mbit/s)
Flow 3 ingress (mean 170.87 Mbit/s)
Flow 3 egress (mean 170.81 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 140.84 ms)
Flow 2 (95th percentile 136.89 ms)
Flow 3 (95th percentile 138.89 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-21 17:53:54
End at: 2018-02-21 17:54:24

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 270.05 Mbit/s
  95th percentile per-packet one-way delay: 138.525 ms
  Loss rate: 1.11%
-- Flow 1:
  Average throughput: 200.77 Mbit/s
  95th percentile per-packet one-way delay: 138.845 ms
  Loss rate: 0.88%
-- Flow 2:
  Average throughput: 13.05 Mbit/s
  95th percentile per-packet one-way delay: 136.950 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 186.31 Mbit/s
  95th percentile per-packet one-way delay: 137.474 ms
  Loss rate: 1.82%
Run 10: Report of TaoVA-100x — Data Link

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

- **Throughput (Mbps)**
- **Time (s)**
- **Flow 1 ingress (mean 200.72 Mbps)**
- **Flow 1 egress (mean 200.77 Mbps)**
- **Flow 2 ingress (mean 13.05 Mbps)**
- **Flow 2 egress (mean 13.05 Mbps)**
- **Flow 3 ingress (mean 187.09 Mbps)**
- **Flow 3 egress (mean 186.31 Mbps)**

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

- **Per-packet one-way delay (ms)**
- **Time (s)**
- **Flow 1 (95th percentile 138.84 ms)**
- **Flow 2 (95th percentile 136.95 ms)**
- **Flow 3 (95th percentile 137.47 ms)**
Run 1: Statistics of TCP Vegas

Start at: 2018-02-21 14:46:19
End at: 2018-02-21 14:46:49

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.89 Mbit/s
95th percentile per-packet one-way delay: 147.937 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 18.67 Mbit/s
95th percentile per-packet one-way delay: 147.123 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 78.67 Mbit/s
95th percentile per-packet one-way delay: 146.762 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 37.17 Mbit/s
95th percentile per-packet one-way delay: 150.799 ms
Loss rate: 3.82%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-02-21 15:07:32
End at: 2018-02-21 15:08:02

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.42 Mbit/s
  95th percentile per-packet one-way delay: 141.645 ms
  Loss rate: 1.25%
-- Flow 1:
  Average throughput: 51.34 Mbit/s
  95th percentile per-packet one-way delay: 142.096 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 64.51 Mbit/s
  95th percentile per-packet one-way delay: 140.623 ms
  Loss rate: 1.53%
-- Flow 3:
  Average throughput: 0.92 Mbit/s
  95th percentile per-packet one-way delay: 136.952 ms
  Loss rate: 5.39%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-02-21 15:28:00
End at: 2018-02-21 15:28:30

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.44 Mbit/s
95th percentile per-packet one-way delay: 144.340 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 55.56 Mbit/s
95th percentile per-packet one-way delay: 142.355 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 145.396 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 69.66 Mbit/s
95th percentile per-packet one-way delay: 144.878 ms
Loss rate: 3.35%
Run 3: Report of TCP Vegas — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 55.60 Mbps)
  - Flow 1 egress (mean 55.56 Mbps)
  - Flow 2 ingress (mean 24.78 Mbps)
  - Flow 2 egress (mean 24.74 Mbps)
  - Flow 3 ingress (mean 70.10 Mbps)
  - Flow 3 egress (mean 69.66 Mbps)

- **Packet Loss (ms):**
  - Flow 1 (95th percentile 142.35 ms)
  - Flow 2 (95th percentile 145.40 ms)
  - Flow 3 (95th percentile 144.88 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-02-21 15:48:24
End at: 2018-02-21 15:48:54

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.01 Mbit/s
95th percentile per-packet one-way delay: 144.412 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 82.81 Mbit/s
95th percentile per-packet one-way delay: 144.163 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 79.95 Mbit/s
95th percentile per-packet one-way delay: 144.819 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 14.03 Mbit/s
95th percentile per-packet one-way delay: 141.511 ms
Loss rate: 3.17%
Run 4: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 82.89 Mbit/s)
- Flow 1 egress (mean 82.81 Mbit/s)
- Flow 2 ingress (mean 80.68 Mbit/s)
- Flow 2 egress (mean 79.95 Mbit/s)
- Flow 3 ingress (mean 14.10 Mbit/s)
- Flow 3 egress (mean 14.03 Mbit/s)
Run 5: Statistics of TCP Vegas

Start at: 2018-02-21 16:08:39
End at: 2018-02-21 16:09:09

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 111.82 Mbit/s
  95th percentile per-packet one-way delay: 144.988 ms
  Loss rate: 1.83%
-- Flow 1:
  Average throughput: 36.35 Mbit/s
  95th percentile per-packet one-way delay: 144.582 ms
  Loss rate: 0.97%
-- Flow 2:
  Average throughput: 79.45 Mbit/s
  95th percentile per-packet one-way delay: 144.155 ms
  Loss rate: 1.65%
-- Flow 3:
  Average throughput: 71.69 Mbit/s
  95th percentile per-packet one-way delay: 146.726 ms
  Loss rate: 3.55%
Run 5: Report of TCP Vegas — Data Link

![Graph of throughput and delay](image)

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 36.37 Mbps)
  - Flow 1 egress (mean 36.35 Mbps)
  - Flow 2 ingress (mean 79.66 Mbps)
  - Flow 2 egress (mean 79.45 Mbps)
  - Flow 3 ingress (mean 72.27 Mbps)
  - Flow 3 egress (mean 71.69 Mbps)

- **Delay (ms):**
  - Flow 1 (95th percentile 144.58 ms)
  - Flow 2 (95th percentile 144.16 ms)
  - Flow 3 (95th percentile 146.73 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-02-21 16:29:05
End at: 2018-02-21 16:29:35

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.06 Mbit/s
  95th percentile per-packet one-way delay: 146.093 ms
  Loss rate: 1.04%
  -- Flow 1:
  Average throughput: 83.19 Mbit/s
  95th percentile per-packet one-way delay: 146.105 ms
  Loss rate: 1.00%
  -- Flow 2:
  Average throughput: 1.56 Mbit/s
  95th percentile per-packet one-way delay: 142.927 ms
  Loss rate: 3.01%
  -- Flow 3:
  Average throughput: 0.62 Mbit/s
  95th percentile per-packet one-way delay: 138.293 ms
  Loss rate: 7.83%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-02-21 16:49:50
End at: 2018-02-21 16:50:20

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 98.87 Mbit/s
  95th percentile per-packet one-way delay: 145.444 ms
  Loss rate: 1.83%
-- Flow 1:
  Average throughput: 34.71 Mbit/s
  95th percentile per-packet one-way delay: 141.265 ms
  Loss rate: 1.04%
-- Flow 2:
  Average throughput: 63.32 Mbit/s
  95th percentile per-packet one-way delay: 140.627 ms
  Loss rate: 1.56%
-- Flow 3:
  Average throughput: 69.95 Mbit/s
  95th percentile per-packet one-way delay: 147.083 ms
  Loss rate: 3.52%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-02-21 17:10:01
End at: 2018-02-21 17:10:31

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 64.36 Mbit/s
  95th percentile per-packet one-way delay: 141.998 ms
  Loss rate: 1.80%
-- Flow 1:
  Average throughput: 28.38 Mbit/s
  95th percentile per-packet one-way delay: 144.178 ms
  Loss rate: 0.96%
-- Flow 2:
  Average throughput: 26.94 Mbit/s
  95th percentile per-packet one-way delay: 140.732 ms
  Loss rate: 1.48%
-- Flow 3:
  Average throughput: 55.75 Mbit/s
  95th percentile per-packet one-way delay: 139.761 ms
  Loss rate: 3.40%
Run 8: Report of TCP Vegas — Data Link
Run 9: Statistics of TCP Vegas

Start at: 2018-02-21 17:30:33
End at: 2018-02-21 17:31:03

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 63.92 Mbit/s
  95th percentile per-packet one-way delay: 143.463 ms
  Loss rate: 1.91%
-- Flow 1:
  Average throughput: 26.12 Mbit/s
  95th percentile per-packet one-way delay: 142.567 ms
  Loss rate: 0.70%
-- Flow 2:
  Average throughput: 22.30 Mbit/s
  95th percentile per-packet one-way delay: 140.784 ms
  Loss rate: 1.50%
-- Flow 3:
  Average throughput: 71.07 Mbit/s
  95th percentile per-packet one-way delay: 144.156 ms
  Loss rate: 3.49%
Run 9: Report of TCP Vegas — Data Link

The diagrams show the throughput and per-packet one-way delay for different flows over time. The throughput plots indicate the mean data transfer rates for ingress and egress traffic, with the 95th percentile delays shown for each flow. The per-packet delay plots reflect the variability in delay across time.
Run 10: Statistics of TCP Vegas

Start at: 2018-02-21 17:51:10
End at: 2018-02-21 17:51:40

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 106.69 Mbit/s
  95th percentile per-packet one-way delay: 143.626 ms
  Loss rate: 1.09%
-- Flow 1:
  Average throughput: 67.76 Mbit/s
  95th percentile per-packet one-way delay: 143.750 ms
  Loss rate: 0.34%
-- Flow 2:
  Average throughput: 32.04 Mbit/s
  95th percentile per-packet one-way delay: 144.126 ms
  Loss rate: 1.48%
-- Flow 3:
  Average throughput: 54.62 Mbit/s
  95th percentile per-packet one-way delay: 139.984 ms
  Loss rate: 3.40%
Run 10: Report of TCP Vegas — Data Link

![Graph showing throughput and per-packet one-way delay over time for three flows.
Flow 1 ingress (mean 67.37 Mbit/s), Flow 1 egress (mean 67.76 Mbit/s),
Flow 2 ingress (mean 32.05 Mbit/s), Flow 2 egress (mean 32.04 Mbit/s),
Flow 3 ingress (mean 55.60 Mbit/s), Flow 3 egress (mean 54.62 Mbit/s).]
Run 1: Statistics of Verus

Start at: 2018-02-21 14:39:54
End at: 2018-02-21 14:40:24

# Below is generated by plot.py at 2018-02-21 22:05:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 245.04 Mbit/s
  95th percentile per-packet one-way delay: 194.286 ms
  Loss rate: 3.12%
-- Flow 1:
  Average throughput: 134.89 Mbit/s
  95th percentile per-packet one-way delay: 232.461 ms
  Loss rate: 3.62%
-- Flow 2:
  Average throughput: 153.67 Mbit/s
  95th percentile per-packet one-way delay: 186.613 ms
  Loss rate: 2.08%
-- Flow 3:
  Average throughput: 25.32 Mbit/s
  95th percentile per-packet one-way delay: 157.753 ms
  Loss rate: 7.38%
Run 1: Report of Verus — Data Link

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

- Flow 1 ingress (mean 139.36 Mbit/s)
- Flow 1 egress (mean 134.89 Mbit/s)
- Flow 2 ingress (mean 154.79 Mbit/s)
- Flow 2 egress (mean 153.67 Mbit/s)
- Flow 3 ingress (mean 26.49 Mbit/s)
- Flow 3 egress (mean 25.32 Mbit/s)
Run 2: Statistics of Verus

Start at: 2018-02-21 15:00:53
End at: 2018-02-21 15:01:23

# Below is generated by plot.py at 2018-02-21 22:06:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.39 Mbit/s
95th percentile per-packet one-way delay: 220.503 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 189.70 Mbit/s
95th percentile per-packet one-way delay: 220.222 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 150.03 Mbit/s
95th percentile per-packet one-way delay: 231.877 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 77.66 Mbit/s
95th percentile per-packet one-way delay: 206.049 ms
Loss rate: 1.83%
Run 2: Report of Verus — Data Link

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

Start at: 2018-02-21 15:21:19
End at: 2018-02-21 15:21:49

# Below is generated by plot.py at 2018-02-21 22:06:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 317.41 Mbit/s
  95th percentile per-packet one-way delay: 278.583 ms
  Loss rate: 4.80%
-- Flow 1:
  Average throughput: 207.53 Mbit/s
  95th percentile per-packet one-way delay: 258.874 ms
  Loss rate: 3.17%
-- Flow 2:
  Average throughput: 154.81 Mbit/s
  95th percentile per-packet one-way delay: 338.594 ms
  Loss rate: 8.26%
-- Flow 3:
  Average throughput: 25.91 Mbit/s
  95th percentile per-packet one-way delay: 223.195 ms
  Loss rate: 0.07%
Run 3: Report of Verus — Data Link

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

Legend:
- Flow 1 ingress (mean 211.92 Mbit/s)
- Flow 1 egress (mean 207.53 Mbit/s)
- Flow 2 ingress (mean 168.72 Mbit/s)
- Flow 2 egress (mean 154.81 Mbit/s)
- Flow 3 ingress (mean 25.03 Mbit/s)
- Flow 3 egress (mean 25.91 Mbit/s)

Legend for packet delay:
- Flow 1 (95th percentile 258.87 ms)
- Flow 2 (95th percentile 338.59 ms)
- Flow 3 (95th percentile 223.19 ms)
Run 4: Statistics of Verus

Start at: 2018-02-21 15:41:53
End at: 2018-02-21 15:42:23

# Below is generated by plot.py at 2018-02-21 22:06:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 234.31 Mbit/s
  95th percentile per-packet one-way delay: 242.221 ms
  Loss rate: 5.64%
-- Flow 1:
  Average throughput: 180.30 Mbit/s
  95th percentile per-packet one-way delay: 242.146 ms
  Loss rate: 3.85%
-- Flow 2:
  Average throughput: 52.34 Mbit/s
  95th percentile per-packet one-way delay: 162.393 ms
  Loss rate: 1.94%
-- Flow 3:
  Average throughput: 59.70 Mbit/s
  95th percentile per-packet one-way delay: 316.732 ms
  Loss rate: 23.88%
Run 4: Report of Verus — Data Link

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

Legend:
- Flow 1 ingress (mean 186.02 Mbit/s)
- Flow 1 egress (mean 180.30 Mbit/s)
- Flow 2 ingress (mean 52.66 Mbit/s)
- Flow 2 egress (mean 52.34 Mbit/s)
- Flow 3 ingress (mean 77.71 Mbit/s)
- Flow 3 egress (mean 59.70 Mbit/s)

Packet delay is measured as follows:
- Flow 1 (95th percentile 242.15 ms)
- Flow 2 (95th percentile 162.39 ms)
- Flow 3 (95th percentile 316.73 ms)
Run 5: Statistics of Verus

Start at: 2018-02-21 16:02:12
End at: 2018-02-21 16:02:42

# Below is generated by plot.py at 2018-02-21 22:06:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.82 Mbit/s
95th percentile per-packet one-way delay: 201.617 ms
Loss rate: 2.73%
-- Flow 1:
Average throughput: 146.07 Mbit/s
95th percentile per-packet one-way delay: 227.940 ms
Loss rate: 3.14%
-- Flow 2:
Average throughput: 30.51 Mbit/s
95th percentile per-packet one-way delay: 154.935 ms
Loss rate: 2.52%
-- Flow 3:
Average throughput: 68.28 Mbit/s
95th percentile per-packet one-way delay: 173.428 ms
Loss rate: 0.00%
Run 5: Report of Verus — Data Link

Throughput (Mbps)

Time (s)

0 5 10 15 20 25 30

Flow 1 ingress (mean 149.40 Mbps)
Flow 1 egress (mean 146.07 Mbps)
Flow 2 ingress (mean 30.84 Mbps)
Flow 2 egress (mean 36.51 Mbps)
Flow 3 ingress (mean 66.35 Mbps)
Flow 3 egress (mean 68.28 Mbps)

Per-packet one-way delay (ms)

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 227.94 ms)
Flow 2 (95th percentile 154.94 ms)
Flow 3 (95th percentile 173.43 ms)
Run 6: Statistics of Verus

Start at: 2018-02-21 16:22:35
End at: 2018-02-21 16:23:05

# Below is generated by plot.py at 2018-02-21 22:06:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.00 Mbit/s
95th percentile per-packet one-way delay: 362.606 ms
Loss rate: 12.06%
-- Flow 1:
Average throughput: 108.08 Mbit/s
95th percentile per-packet one-way delay: 195.592 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 144.04 Mbit/s
95th percentile per-packet one-way delay: 371.519 ms
Loss rate: 20.79%
-- Flow 3:
Average throughput: 103.97 Mbit/s
95th percentile per-packet one-way delay: 398.851 ms
Loss rate: 14.23%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-02-21 16:43:25
End at: 2018-02-21 16:43:55

# Below is generated by plot.py at 2018-02-21 22:06:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 170.01 Mbit/s
95th percentile per-packet one-way delay: 255.803 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 127.32 Mbit/s
95th percentile per-packet one-way delay: 288.620 ms
Loss rate: 3.46%
-- Flow 2:
Average throughput: 49.87 Mbit/s
95th percentile per-packet one-way delay: 166.630 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 33.85 Mbit/s
95th percentile per-packet one-way delay: 154.169 ms
Loss rate: 2.41%
Run 7: Report of Verus — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 129.97 Mbit/s)  Flow 1 egress (mean 127.32 Mbit/s)
Flow 2 ingress (mean 49.25 Mbit/s)  Flow 2 egress (mean 49.87 Mbit/s)
Flow 3 ingress (mean 33.72 Mbit/s)  Flow 3 egress (mean 33.85 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 288.62 ms)  Flow 2 (95th percentile 166.63 ms)  Flow 3 (95th percentile 154.17 ms)
Run 8: Statistics of Verus

Start at: 2018-02-21 17:03:36
End at: 2018-02-21 17:04:06

# Below is generated by plot.py at 2018-02-21 22:07:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.77 Mbit/s
95th percentile per-packet one-way delay: 255.977 ms
Loss rate: 5.57%
-- Flow 1:
Average throughput: 110.62 Mbit/s
95th percentile per-packet one-way delay: 210.544 ms
Loss rate: 2.58%
-- Flow 2:
Average throughput: 44.85 Mbit/s
95th percentile per-packet one-way delay: 155.271 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 63.61 Mbit/s
95th percentile per-packet one-way delay: 385.123 ms
Loss rate: 24.11%
Run 8: Report of Verus — Data Link
Run 9: Statistics of Verus

Start at: 2018-02-21 17:24:05
End at: 2018-02-21 17:24:35

# Below is generated by plot.py at 2018-02-21 22:08:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 209.68 Mbit/s
95th percentile per-packet one-way delay: 192.937 ms
Loss rate: 2.85%
-- Flow 1:
Average throughput: 162.82 Mbit/s
95th percentile per-packet one-way delay: 200.129 ms
Loss rate: 2.80%
-- Flow 2:
Average throughput: 54.14 Mbit/s
95th percentile per-packet one-way delay: 163.922 ms
Loss rate: 2.68%
-- Flow 3:
Average throughput: 33.75 Mbit/s
95th percentile per-packet one-way delay: 189.297 ms
Loss rate: 4.14%
Run 9: Report of Verus — Data Link

The image shows two graphs:

1. The top graph displays the throughput (Mbit/s) over time (s) for different flows. The lines represent:
   - Flow 1 ingress (mean 166.30 Mbit/s)
   - Flow 1 egress (mean 162.82 Mbit/s)
   - Flow 2 ingress (mean 54.66 Mbit/s)
   - Flow 2 egress (mean 54.14 Mbit/s)
   - Flow 3 ingress (mean 34.24 Mbit/s)
   - Flow 3 egress (mean 33.75 Mbit/s)

2. The bottom graph shows the per-packet one-way delay (ms) over time (s) for different flows. The symbols represent:
   - Flow 1 (95th percentile 200.13 ms)
   - Flow 2 (95th percentile 163.92 ms)
   - Flow 3 (95th percentile 189.30 ms)
Run 10: Statistics of Verus

Start at: 2018-02-21 17:44:40
End at: 2018-02-21 17:45:10

# Below is generated by plot.py at 2018-02-21 22:09:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 230.29 Mbit/s
  95th percentile per-packet one-way delay: 224.111 ms
  Loss rate: 2.37%
-- Flow 1:
  Average throughput: 163.47 Mbit/s
  95th percentile per-packet one-way delay: 227.398 ms
  Loss rate: 2.70%
-- Flow 2:
  Average throughput: 68.95 Mbit/s
  95th percentile per-packet one-way delay: 285.044 ms
  Loss rate: 0.16%
-- Flow 3:
  Average throughput: 66.08 Mbit/s
  95th percentile per-packet one-way delay: 194.205 ms
  Loss rate: 4.35%
Run 10: Report of Verus — Data Link

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

- **Flow 1 ingo**: mean 166.47 Mbps
- **Flow 1 egress**: mean 163.47 Mbps
- **Flow 2 ingo**: mean 68.11 Mbps
- **Flow 2 egress**: mean 68.95 Mbps
- **Flow 3 ingo**: mean 68.67 Mbps
- **Flow 3 egress**: mean 66.00 Mbps

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

- **Flow 1 (95th percentile)**: 227.40 ms
- **Flow 2 (95th percentile)**: 285.04 ms
- **Flow 3 (95th percentile)**: 194.21 ms
Run 1: Statistics of Copa

Start at: 2018-02-21 14:31:45
End at: 2018-02-21 14:32:15

# Below is generated by plot.py at 2018-02-21 22:10:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 147.42 Mbit/s
  95th percentile per-packet one-way delay: 140.958 ms
  Loss rate: 1.47%
-- Flow 1:
  Average throughput: 77.40 Mbit/s
  95th percentile per-packet one-way delay: 141.014 ms
  Loss rate: 0.71%
-- Flow 2:
  Average throughput: 76.36 Mbit/s
  95th percentile per-packet one-way delay: 137.187 ms
  Loss rate: 1.48%
-- Flow 3:
  Average throughput: 58.68 Mbit/s
  95th percentile per-packet one-way delay: 137.232 ms
  Loss rate: 4.42%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-02-21 14:52:15
End at: 2018-02-21 14:52:45

# Below is generated by plot.py at 2018-02-21 22:16:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 312.39 Mbit/s
  95th percentile per-packet one-way delay: 289.451 ms
  Loss rate: 25.75%
-- Flow 1:
  Average throughput: 186.09 Mbit/s
  95th percentile per-packet one-way delay: 306.461 ms
  Loss rate: 25.71%
-- Flow 2:
  Average throughput: 187.46 Mbit/s
  95th percentile per-packet one-way delay: 274.105 ms
  Loss rate: 26.02%
-- Flow 3:
  Average throughput: 6.26 Mbit/s
  95th percentile per-packet one-way delay: 295.552 ms
  Loss rate: 10.18%
Run 2: Report of Copa — Data Link

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 248.18 Mbps)
  - Flow 1 egress (mean 186.09 Mbps)
  - Flow 2 ingress (mean 249.94 Mbps)
  - Flow 2 egress (mean 187.46 Mbps)
  - Flow 3 ingress (mean 6.78 Mbps)
  - Flow 3 egress (mean 6.26 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 306.46 ms)
  - Flow 2 (95th percentile 274.11 ms)
  - Flow 3 (95th percentile 295.55 ms)
Run 3: Statistics of Copa

Start at: 2018-02-21 15:13:09
End at: 2018-02-21 15:13:39

# Below is generated by plot.py at 2018-02-21 22:16:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.82 Mbit/s
  95th percentile per-packet one-way delay: 162.326 ms
  Loss rate: 0.06%
-- Flow 1:
  Average throughput: 63.37 Mbit/s
  95th percentile per-packet one-way delay: 141.122 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 7.33 Mbit/s
  95th percentile per-packet one-way delay: 162.389 ms
  Loss rate: 0.63%
-- Flow 3:
  Average throughput: 39.34 Mbit/s
  95th percentile per-packet one-way delay: 162.520 ms
  Loss rate: 0.00%
Run 3: Report of Copa — Data Link

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

- Flow 1 ingress (mean 62.80 Mbit/s)
- Flow 1 egress (mean 63.37 Mbit/s)
- Flow 2 ingress (mean 7.27 Mbit/s)
- Flow 2 egress (mean 7.33 Mbit/s)
- Flow 3 ingress (mean 35.06 Mbit/s)
- Flow 3 egress (mean 39.34 Mbit/s)

![Graph showing packet delay](image)

- Flow 1 (95th percentile 141.12 ms)
- Flow 2 (95th percentile 162.39 ms)
- Flow 3 (95th percentile 162.52 ms)
Run 4: Statistics of Copa

Start at: 2018-02-21 15:33:24
End at: 2018-02-21 15:33:54

# Below is generated by plot.py at 2018-02-21 22:16:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 104.61 Mbit/s
  95th percentile per-packet one-way delay: 140.932 ms
  Loss rate: 1.69%
-- Flow 1:
  Average throughput: 38.62 Mbit/s
  95th percentile per-packet one-way delay: 141.019 ms
  Loss rate: 2.92%
-- Flow 2:
  Average throughput: 67.19 Mbit/s
  95th percentile per-packet one-way delay: 137.086 ms
  Loss rate: 1.13%
-- Flow 3:
  Average throughput: 66.00 Mbit/s
  95th percentile per-packet one-way delay: 137.115 ms
  Loss rate: 0.57%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-02-21 15:53:48
End at: 2018-02-21 15:54:18

# Below is generated by plot.py at 2018-02-21 22:16:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.22 Mbit/s
95th percentile per-packet one-way delay: 137.063 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 73.77 Mbit/s
95th percentile per-packet one-way delay: 137.054 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 66.50 Mbit/s
95th percentile per-packet one-way delay: 137.069 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 74.88 Mbit/s
95th percentile per-packet one-way delay: 137.079 ms
Loss rate: 3.51%
Run 5: Report of Copa — Data Link

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

- Flow 1 ingress (mean 73.70 Mbit/s)
- Flow 1 egress (mean 73.77 Mbit/s)
- Flow 2 ingress (mean 66.53 Mbit/s)
- Flow 2 egress (mean 66.50 Mbit/s)
- Flow 3 ingress (mean 74.47 Mbit/s)
- Flow 3 egress (mean 74.88 Mbit/s)
Run 6: Statistics of Copa

Start at: 2018-02-21 16:14:01
End at: 2018-02-21 16:14:31

# Below is generated by plot.py at 2018-02-21 22:16:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 155.13 Mbit/s
  95th percentile per-packet one-way delay: 307.843 ms
  Loss rate: 31.87%
  -- Flow 1:
  Average throughput: 198.89 Mbit/s
  95th percentile per-packet one-way delay: 309.959 ms
  Loss rate: 43.08%
  -- Flow 2:
  Average throughput: 58.06 Mbit/s
  95th percentile per-packet one-way delay: 137.131 ms
  Loss rate: 1.96%
  -- Flow 3:
  Average throughput: 71.32 Mbit/s
  95th percentile per-packet one-way delay: 137.154 ms
  Loss rate: 4.44%
Run 6: Report of Copa — Data Link

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

Start at: 2018-02-21 16:34:56
End at: 2018-02-21 16:35:26

# Below is generated by plot.py at 2018-02-21 22:16:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.10 Mbit/s
95th percentile per-packet one-way delay: 140.620 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 63.00 Mbit/s
95th percentile per-packet one-way delay: 140.661 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 62.56 Mbit/s
95th percentile per-packet one-way delay: 136.683 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 29.66 Mbit/s
95th percentile per-packet one-way delay: 137.098 ms
Loss rate: 4.10%
Run 7: Report of Copa — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 63.15 Mbps)
  - Flow 1 egress (mean 63.00 Mbps)
  - Flow 2 ingress (mean 62.60 Mbps)
  - Flow 2 egress (mean 62.56 Mbps)
  - Flow 3 ingress (mean 30.08 Mbps)
  - Flow 3 egress (mean 29.66 Mbps)

- **Round-trip delay (ms):**

  - Flow 1 (95th percentile 140.66 ms)
  - Flow 2 (95th percentile 136.68 ms)
  - Flow 3 (95th percentile 137.10 ms)
Run 8: Statistics of Copa

End at: 2018-02-21 16:55:58

# Below is generated by plot.py at 2018-02-21 22:16:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 167.67 Mbit/s
95th percentile per-packet one-way delay: 140.839 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 96.11 Mbit/s
95th percentile per-packet one-way delay: 140.865 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 75.77 Mbit/s
95th percentile per-packet one-way delay: 137.255 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 65.54 Mbit/s
95th percentile per-packet one-way delay: 136.863 ms
Loss rate: 4.30%
Run 8: Report of Copa — Data Link
Run 9: Statistics of Copa

Start at: 2018-02-21 17:15:48
End at: 2018-02-21 17:16:18

# Below is generated by plot.py at 2018-02-21 22:16:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 122.96 Mbit/s
  95th percentile per-packet one-way delay: 141.113 ms
  Loss rate: 1.95%
-- Flow 1:
  Average throughput: 59.03 Mbit/s
  95th percentile per-packet one-way delay: 141.094 ms
  Loss rate: 1.16%
-- Flow 2:
  Average throughput: 79.90 Mbit/s
  95th percentile per-packet one-way delay: 141.259 ms
  Loss rate: 1.83%
-- Flow 3:
  Average throughput: 33.72 Mbit/s
  95th percentile per-packet one-way delay: 140.460 ms
  Loss rate: 6.56%
Run 9: Report of Copa — Data Link

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

- **Flow 1 ingress**: mean 59.18 Mbps/s
- **Flow 1 egress**: mean 59.03 Mbps/s
- **Flow 2 ingress**: mean 80.28 Mbps/s
- **Flow 2 egress**: mean 79.90 Mbps/s
- **Flow 3 ingress**: mean 35.10 Mbps/s
- **Flow 3 egress**: mean 33.72 Mbps/s

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

- **Flow 1 (95th percentile) 141.09 ms**
- **Flow 2 (95th percentile) 141.26 ms**
- **Flow 3 (95th percentile) 140.46 ms**
Run 10: Statistics of Copa

Start at: 2018-02-21 17:36:12
End at: 2018-02-21 17:36:42

# Below is generated by plot.py at 2018-02-21 22:16:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 145.20 Mbit/s
95th percentile per-packet one-way delay: 141.061 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 75.32 Mbit/s
95th percentile per-packet one-way delay: 136.416 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 73.75 Mbit/s
95th percentile per-packet one-way delay: 141.146 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 64.48 Mbit/s
95th percentile per-packet one-way delay: 136.508 ms
Loss rate: 3.90%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

Start at: 2018-02-21 14:35:14
End at: 2018-02-21 14:35:44

# Below is generated by plot.py at 2018-02-21 22:37:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1502.81 Mbit/s
95th percentile per-packet one-way delay: 234.215 ms
Loss rate: 9.26%
-- Flow 1:
Average throughput: 769.90 Mbit/s
95th percentile per-packet one-way delay: 226.633 ms
Loss rate: 9.06%
-- Flow 2:
Average throughput: 758.39 Mbit/s
95th percentile per-packet one-way delay: 235.616 ms
Loss rate: 7.77%
-- Flow 3:
Average throughput: 701.68 Mbit/s
95th percentile per-packet one-way delay: 236.377 ms
Loss rate: 13.00%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

Start at: 2018-02-21 14:55:57
End at: 2018-02-21 14:56:27

# Below is generated by plot.py at 2018-02-21 22:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1466.20 Mbit/s
95th percentile per-packet one-way delay: 342.368 ms
Loss rate: 9.22%
-- Flow 1:
Average throughput: 788.44 Mbit/s
95th percentile per-packet one-way delay: 231.887 ms
Loss rate: 7.99%
-- Flow 2:
Average throughput: 706.95 Mbit/s
95th percentile per-packet one-way delay: 383.836 ms
Loss rate: 11.03%
-- Flow 3:
Average throughput: 646.85 Mbit/s
95th percentile per-packet one-way delay: 371.509 ms
Loss rate: 9.64%
Run 2: Report of FillP — Data Link

Throughput (Mbit/s)

Time (s)

0 5 10 15 20 25 30

Flow 1 Ingress (mean 849.02 Mbit/s)
Flow 1 Egress (mean 788.44 Mbit/s)
Flow 2 Ingress (mean 783.56 Mbit/s)
Flow 2 Egress (mean 706.95 Mbit/s)
Flow 3 Ingress (mean 695.52 Mbit/s)
Flow 3 Egress (mean 646.85 Mbit/s)

Packet loss rate (ppm)

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 231.89 ms)
Flow 2 (95th percentile 383.84 ms)
Flow 3 (95th percentile 371.51 ms)
Run 3: Statistics of FillP

Start at: 2018-02-21 15:16:30
End at: 2018-02-21 15:17:00

# Below is generated by plot.py at 2018-02-21 22:39:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1409.22 Mbit/s
  95th percentile per-packet one-way delay: 272.549 ms
  Loss rate: 10.46%
-- Flow 1:
  Average throughput: 738.31 Mbit/s
  95th percentile per-packet one-way delay: 274.738 ms
  Loss rate: 8.61%
-- Flow 2:
  Average throughput: 709.68 Mbit/s
  95th percentile per-packet one-way delay: 265.724 ms
  Loss rate: 10.49%
-- Flow 3:
  Average throughput: 619.04 Mbit/s
  95th percentile per-packet one-way delay: 266.109 ms
  Loss rate: 16.59%
Run 3: Report of FillP — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 799.85 Mb/s)
Flow 1 egress (mean 738.31 Mb/s)
Flow 2 ingress (mean 780.97 Mb/s)
Flow 2 egress (mean 709.68 Mb/s)
Flow 3 ingress (mean 721.34 Mb/s)
Flow 3 egress (mean 619.04 Mb/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 274.74 ms)
Flow 2 (95th percentile 265.72 ms)
Flow 3 (95th percentile 266.11 ms)
Run 4: Statistics of FillP

Start at: 2018-02-21 15:36:46
End at: 2018-02-21 15:37:16

# Below is generated by plot.py at 2018-02-21 22:41:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1493.18 Mbit/s
  95th percentile per-packet one-way delay: 251.091 ms
  Loss rate: 9.34%
-- Flow 1:
  Average throughput: 731.90 Mbit/s
  95th percentile per-packet one-way delay: 256.634 ms
  Loss rate: 10.53%
-- Flow 2:
  Average throughput: 759.91 Mbit/s
  95th percentile per-packet one-way delay: 244.773 ms
  Loss rate: 8.87%
-- Flow 3:
  Average throughput: 794.37 Mbit/s
  95th percentile per-packet one-way delay: 247.143 ms
  Loss rate: 6.76%
Run 4: Report of FillP — Data Link

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

Flow 1 ingress (mean 810.56 Mbit/s) - Flow 1 egress (mean 731.90 Mbit/s)
Flow 2 ingress (mean 822.45 Mbit/s) - Flow 2 egress (mean 759.91 Mbit/s)
Flow 3 ingress (mean 840.79 Mbit/s) - Flow 3 egress (mean 794.37 Mbit/s)

![Graph showing per-packet one-way delay for Flow 1, 2, and 3.]

Flow 1 (95th percentile 256.63 ms) - Flow 2 (95th percentile 244.77 ms) - Flow 3 (95th percentile 247.14 ms)
Run 5: Statistics of FillP

Start at: 2018-02-21 15:57:09
End at: 2018-02-21 15:57:39

# Below is generated by plot.py at 2018-02-21 22:41:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1466.06 Mbit/s
  95th percentile per-packet one-way delay: 252.028 ms
  Loss rate: 9.86%
-- Flow 1:
  Average throughput: 778.28 Mbit/s
  95th percentile per-packet one-way delay: 248.667 ms
  Loss rate: 7.73%
-- Flow 2:
  Average throughput: 739.57 Mbit/s
  95th percentile per-packet one-way delay: 245.438 ms
  Loss rate: 10.41%
-- Flow 3:
  Average throughput: 609.53 Mbit/s
  95th percentile per-packet one-way delay: 261.979 ms
  Loss rate: 16.22%
Run 5: Report of FillP — Data Link

![Graph 1: Throughput](image1)

- **Flow 1 Ingress**: mean 835.04 Mbits/s
- **Flow 1 Egress**: mean 778.28 Mbits/s
- **Flow 2 Ingress**: mean 814.24 Mbits/s
- **Flow 2 Egress**: mean 739.57 Mbits/s
- **Flow 3 Ingress**: mean 707.16 Mbits/s
- **Flow 3 Egress**: mean 609.53 Mbits/s

![Graph 2: Delay](image2)

- **Flow 1 95th percentile**: 248.67 ms
- **Flow 2 95th percentile**: 245.44 ms
- **Flow 3 95th percentile**: 261.90 ms
Run 6: Statistics of FillP

Start at: 2018-02-21 16:17:27
End at: 2018-02-21 16:17:57

# Below is generated by plot.py at 2018-02-21 22:41:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1469.23 Mbit/s
  95th percentile per-packet one-way delay: 251.220 ms
  Loss rate: 10.16%
-- Flow 1:
  Average throughput: 749.62 Mbit/s
  95th percentile per-packet one-way delay: 250.353 ms
  Loss rate: 10.22%
-- Flow 2:
  Average throughput: 752.19 Mbit/s
  95th percentile per-packet one-way delay: 241.423 ms
  Loss rate: 8.22%
-- Flow 3:
  Average throughput: 681.88 Mbit/s
  95th percentile per-packet one-way delay: 271.834 ms
  Loss rate: 14.03%
Run 6: Report of FillP — Data Link

![Graph of network performance metrics over time, showing throughput and packet oneway delay.](image)

- **Throughput (Mbps)**
  - Flow 1 Ingress (mean 826.62 Mbps)
  - Flow 1 Egress (mean 749.62 Mbps)
  - Flow 2 Ingress (mean 807.66 Mbps)
  - Flow 2 Egress (mean 752.19 Mbps)
  - Flow 3 Ingress (mean 770.06 Mbps)
  - Flow 3 Egress (mean 681.88 Mbps)

- **Packet Oneway Delay (ms)**
  - Flow 1 (95th percentile 250.35 ms)
  - Flow 2 (95th percentile 241.42 ms)
  - Flow 3 (95th percentile 271.83 ms)
Run 7: Statistics of FillP

Start at: 2018-02-21 16:38:23
End at: 2018-02-21 16:38:53

# Below is generated by plot.py at 2018-02-21 22:41:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1386.39 Mbit/s
  95th percentile per-packet one-way delay: 352.062 ms
  Loss rate: 8.59%
-- Flow 1:
  Average throughput: 719.50 Mbit/s
  95th percentile per-packet one-way delay: 347.463 ms
  Loss rate: 6.73%
-- Flow 2:
  Average throughput: 657.41 Mbit/s
  95th percentile per-packet one-way delay: 365.296 ms
  Loss rate: 9.69%
-- Flow 3:
  Average throughput: 713.22 Mbit/s
  95th percentile per-packet one-way delay: 239.760 ms
  Loss rate: 12.04%
Run 7: Report of FillP — Data Link

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

- Flow 1 ingress (mean 784.40 Mb/s)
- Flow 1 egress (mean 719.50 Mb/s)
- Flow 2 ingress (mean 717.79 Mb/s)
- Flow 2 egress (mean 657.41 Mb/s)
- Flow 3 ingress (mean 788.38 Mb/s)
- Flow 3 egress (mean 713.22 Mb/s)

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

- Flow 1 (95th percentile 347.46 ms)
- Flow 2 (95th percentile 365.30 ms)
- Flow 3 (95th percentile 239.76 ms)
Run 8: Statistics of FillP

Start at: 2018-02-21 16:58:42
End at: 2018-02-21 16:59:12

# Below is generated by plot.py at 2018-02-21 22:46:33
# Datalink statistics
# Total of 3 flows:
Average throughput: 1427.21 Mbit/s
95th percentile per-packet one-way delay: 351.249 ms
Loss rate: 9.95%
-- Flow 1:
Average throughput: 754.45 Mbit/s
95th percentile per-packet one-way delay: 243.509 ms
Loss rate: 9.62%
-- Flow 2:
Average throughput: 726.99 Mbit/s
95th percentile per-packet one-way delay: 366.939 ms
Loss rate: 8.93%
-- Flow 3:
Average throughput: 588.73 Mbit/s
95th percentile per-packet one-way delay: 384.585 ms
Loss rate: 13.66%
Run 8: Report of FillP — Data Link

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

Flow 1 Ingress (mean 826.82 Mbit/s) — Flow 1 Egress (mean 754.45 Mbit/s)
Flow 2 Ingress (mean 786.84 Mbit/s) — Flow 2 Egress (mean 726.99 Mbit/s)
Flow 3 Ingress (mean 652.19 Mbit/s) — Flow 3 Egress (mean 588.73 Mbit/s)

[Graph showing packet delay distribution for different flows]

Flow 1 (95th percentile 243.51 ms) — Flow 2 (95th percentile 366.94 ms) — Flow 3 (95th percentile 384.58 ms)
Run 9: Statistics of FillP

Start at: 2018-02-21 17:19:07
End at: 2018-02-21 17:19:37

# Below is generated by plot.py at 2018-02-21 23:05:53
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 1434.28 Mbit/s
   95th percentile per-packet one-way delay: 347.796 ms
   Loss rate: 10.34%
-- Flow 1:
   Average throughput: 823.67 Mbit/s
   95th percentile per-packet one-way delay: 233.375 ms
   Loss rate: 6.79%
-- Flow 2:
   Average throughput: 637.34 Mbit/s
   95th percentile per-packet one-way delay: 376.118 ms
   Loss rate: 14.44%
-- Flow 3:
   Average throughput: 580.12 Mbit/s
   95th percentile per-packet one-way delay: 393.023 ms
   Loss rate: 15.36%
Run 9: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 875.59 Mbps/s)
- Flow 1 Egress (mean 823.67 Mbps/s)
- Flow 2 Ingress (mean 734.72 Mbps/s)
- Flow 2 Egress (mean 637.34 Mbps/s)
- Flow 3 Ingress (mean 666.16 Mbps/s)
- Flow 3 Egress (mean 580.12 Mbps/s)

![Chart 2: Per-packet oneway delay (ms) vs Time (s)]

- Flow 1 (95th percentile 233.38 ms)
- Flow 2 (95th percentile 376.12 ms)
- Flow 3 (95th percentile 393.02 ms)
Run 10: Statistics of FillP

Start at: 2018-02-21 17:39:41
End at: 2018-02-21 17:40:11

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1518.26 Mbit/s
95th percentile per-packet one-way delay: 247.729 ms
Loss rate: 9.85%
-- Flow 1:
Average throughput: 812.04 Mbit/s
95th percentile per-packet one-way delay: 225.683 ms
Loss rate: 6.41%
-- Flow 2:
Average throughput: 733.59 Mbit/s
95th percentile per-packet one-way delay: 250.677 ms
Loss rate: 12.59%
-- Flow 3:
Average throughput: 678.87 Mbit/s
95th percentile per-packet one-way delay: 271.700 ms
Loss rate: 15.44%
Run 10: Report of FillP — Data Link
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-21 14:43:05
End at: 2018-02-21 14:43:35

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 287.76 Mbit/s
95th percentile per-packet one-way delay: 144.204 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 147.12 Mbit/s
95th percentile per-packet one-way delay: 140.833 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 160.99 Mbit/s
95th percentile per-packet one-way delay: 146.243 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 106.68 Mbit/s
95th percentile per-packet one-way delay: 147.031 ms
Loss rate: 3.79%
Run 1: Report of Indigo-1-32 — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 147.03 Mbit/s)
Flow 1 egress (mean 147.12 Mbit/s)
Flow 2 ingress (mean 160.81 Mbit/s)
Flow 2 egress (mean 160.99 Mbit/s)
Flow 3 ingress (mean 107.67 Mbit/s)
Flow 3 egress (mean 106.68 Mbit/s)

Per-packet one way delay (ms)

Flow 1 (95th percentile 140.83 ms)
Flow 2 (95th percentile 146.24 ms)
Flow 3 (95th percentile 147.03 ms)
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-21 15:04:17
End at: 2018-02-21 15:04:47

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 257.49 Mbit/s
  95th percentile per-packet one-way delay: 137.946 ms
  Loss rate: 1.54%
-- Flow 1:
  Average throughput: 134.79 Mbit/s
  95th percentile per-packet one-way delay: 137.654 ms
  Loss rate: 0.96%
-- Flow 2:
  Average throughput: 130.86 Mbit/s
  95th percentile per-packet one-way delay: 138.324 ms
  Loss rate: 1.51%
-- Flow 3:
  Average throughput: 113.12 Mbit/s
  95th percentile per-packet one-way delay: 138.123 ms
  Loss rate: 3.69%
Run 2: Report of Indigo-1-32 — Data Link
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-21 15:24:43
End at: 2018-02-21 15:25:13

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 294.43 Mbit/s
  95th percentile per-packet one-way delay: 138.287 ms
  Loss rate: 1.45%
-- Flow 1:
  Average throughput: 138.40 Mbit/s
  95th percentile per-packet one-way delay: 137.559 ms
  Loss rate: 0.95%
-- Flow 2:
  Average throughput: 162.20 Mbit/s
  95th percentile per-packet one-way delay: 138.701 ms
  Loss rate: 1.23%
-- Flow 3:
  Average throughput: 152.32 Mbit/s
  95th percentile per-packet one-way delay: 140.237 ms
  Loss rate: 3.30%
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-21 15:45:09
End at: 2018-02-21 15:45:39

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 263.52 Mbit/s
95th percentile per-packet one-way delay: 139.017 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 130.97 Mbit/s
95th percentile per-packet one-way delay: 138.539 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 126.47 Mbit/s
95th percentile per-packet one-way delay: 139.038 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 152.38 Mbit/s
95th percentile per-packet one-way delay: 139.941 ms
Loss rate: 3.34%
Run 4: Report of Indigo-1-32 — Data Link

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

Throughput (Mbps):

- Flow 1 ingress (mean 131.04 Mbps)
- Flow 1 egress (mean 130.97 Mbps)
- Flow 2 ingress (mean 126.61 Mbps)
- Flow 2 egress (mean 126.47 Mbps)
- Flow 3 ingress (mean 153.27 Mbps)
- Flow 3 egress (mean 152.38 Mbps)

Packet delay (ms):

- Flow 1 (95th percentile 138.54 ms)
- Flow 2 (95th percentile 139.04 ms)
- Flow 3 (95th percentile 139.04 ms)
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-21 16:05:23
End at: 2018-02-21 16:05:53

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 308.43 Mbit/s
  95th percentile per-packet one-way delay: 139.668 ms
  Loss rate: 1.33%
-- Flow 1:
  Average throughput: 164.95 Mbit/s
  95th percentile per-packet one-way delay: 138.945 ms
  Loss rate: 0.82%
-- Flow 2:
  Average throughput: 163.72 Mbit/s
  95th percentile per-packet one-way delay: 140.322 ms
  Loss rate: 1.31%
-- Flow 3:
  Average throughput: 110.65 Mbit/s
  95th percentile per-packet one-way delay: 140.075 ms
  Loss rate: 3.71%
Run 5: Report of Indigo-1-32 — Data Link
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-21 16:25:51
End at: 2018-02-21 16:26:21

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 266.82 Mbit/s
95th percentile per-packet one-way delay: 139.073 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 131.34 Mbit/s
95th percentile per-packet one-way delay: 138.690 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 130.18 Mbit/s
95th percentile per-packet one-way delay: 139.148 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 154.89 Mbit/s
95th percentile per-packet one-way delay: 139.853 ms
Loss rate: 3.46%
Run 6: Report of Indigo-1-32 — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-21 16:46:36
End at: 2018-02-21 16:47:06

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 268.40 Mbit/s
  95th percentile per-packet one-way delay: 173.870 ms
  Loss rate: 1.43%
-- Flow 1:
  Average throughput: 128.80 Mbit/s
  95th percentile per-packet one-way delay: 165.226 ms
  Loss rate: 0.97%
-- Flow 2:
  Average throughput: 151.83 Mbit/s
  95th percentile per-packet one-way delay: 172.745 ms
  Loss rate: 1.30%
-- Flow 3:
  Average throughput: 122.21 Mbit/s
  95th percentile per-packet one-way delay: 183.725 ms
  Loss rate: 3.25%
Run 7: Report of Indigo-1-32 — Data Link
Run 8: Statistics of Indigo-1-32

Start at: 2018-02-21 17:06:47
End at: 2018-02-21 17:07:17

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 287.82 Mbit/s
  95th percentile per-packet one-way delay: 140.708 ms
  Loss rate: 1.48%
-- Flow 1:
  Average throughput: 130.84 Mbit/s
  95th percentile per-packet one-way delay: 139.820 ms
  Loss rate: 0.97%
-- Flow 2:
  Average throughput: 165.49 Mbit/s
  95th percentile per-packet one-way delay: 141.563 ms
  Loss rate: 1.28%
-- Flow 3:
  Average throughput: 147.89 Mbit/s
  95th percentile per-packet one-way delay: 141.379 ms
  Loss rate: 3.30%
Run 8: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 130.93 Mbps)
- Flow 1 egress (mean 130.84 Mbps)
- Flow 2 ingress (mean 165.33 Mbps)
- Flow 2 egress (mean 165.49 Mbps)
- Flow 3 ingress (mean 148.66 Mbps)
- Flow 3 egress (mean 147.99 Mbps)

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

- Flow 1 (95th percentile 139.82 ms)
- Flow 2 (95th percentile 141.56 ms)
- Flow 3 (95th percentile 141.38 ms)

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Run 9: Statistics of Indigo-1-32

Start at: 2018-02-21 17:27:19
End at: 2018-02-21 17:27:49

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 278.65 Mbit/s
95th percentile per-packet one-way delay: 139.166 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 133.90 Mbit/s
95th percentile per-packet one-way delay: 138.589 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 166.02 Mbit/s
95th percentile per-packet one-way delay: 139.828 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 110.00 Mbit/s
95th percentile per-packet one-way delay: 139.547 ms
Loss rate: 3.63%
Run 9: Report of Indigo-1-32 — Data Link

---

![Graph](image)

---

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Run 10: Statistics of Indigo-1-32

Start at: 2018-02-21 17:47:57
End at: 2018-02-21 17:48:27

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 266.86 Mbit/s
  95th percentile per-packet one-way delay: 140.303 ms
  Loss rate: 1.58%
-- Flow 1:
  Average throughput: 134.34 Mbit/s
  95th percentile per-packet one-way delay: 140.205 ms
  Loss rate: 0.96%
-- Flow 2:
  Average throughput: 127.46 Mbit/s
  95th percentile per-packet one-way delay: 141.011 ms
  Loss rate: 1.52%
-- Flow 3:
  Average throughput: 150.06 Mbit/s
  95th percentile per-packet one-way delay: 139.037 ms
  Loss rate: 3.37%
Run 10: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 134.40 Mbit/s)
- Flow 1 egress (mean 134.34 Mbit/s)
- Flow 2 ingress (mean 127.65 Mbit/s)
- Flow 2 egress (mean 127.46 Mbit/s)
- Flow 3 ingress (mean 150.99 Mbit/s)
- Flow 3 egress (mean 150.06 Mbit/s)

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

- Flow 1 (95th percentile 140.21 ms)
- Flow 2 (95th percentile 141.01 ms)
- Flow 3 (95th percentile 139.04 ms)
Run 1: Statistics of Vivace-latency

Start at: 2018-02-21 14:33:40  
End at: 2018-02-21 14:34:10

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 548.63 Mbit/s
95th percentile per-packet one-way delay: 270.132 ms
Loss rate: 3.06%
-- Flow 1:
Average throughput: 315.87 Mbit/s
95th percentile per-packet one-way delay: 150.273 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 294.26 Mbit/s
95th percentile per-packet one-way delay: 303.889 ms
Loss rate: 5.47%
-- Flow 3:
Average throughput: 115.79 Mbit/s
95th percentile per-packet one-way delay: 159.037 ms
Loss rate: 4.56%
Run 2: Statistics of Vivace-latency

Start at: 2018-02-21 14:54:25
End at: 2018-02-21 14:54:55

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
# Total of 3 flows:
Average throughput: 523.80 Mbit/s
95th percentile per-packet one-way delay: 152.463 ms
Loss rate: 1.72%

-- Flow 1:
Average throughput: 328.00 Mbit/s
95th percentile per-packet one-way delay: 165.774 ms
Loss rate: 1.73%

-- Flow 2:
Average throughput: 268.05 Mbit/s
95th percentile per-packet one-way delay: 146.381 ms
Loss rate: 1.38%

-- Flow 3:
Average throughput: 57.18 Mbit/s
95th percentile per-packet one-way delay: 137.480 ms
Loss rate: 4.71%
Run 2: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 330.70 Mbit/s)
- Flow 1 egress (mean 328.00 Mbit/s)
- Flow 2 ingress (mean 268.68 Mbit/s)
- Flow 2 egress (mean 268.05 Mbit/s)
- Flow 3 ingress (mean 38.35 Mbit/s)
- Flow 3 egress (mean 57.18 Mbit/s)
Run 3: Statistics of Vivace-latency

Start at: 2018-02-21 15:14:55
End at: 2018-02-21 15:15:25

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 542.39 Mbit/s
  95th percentile per-packet one-way delay: 195.877 ms
  Loss rate: 1.55%
-- Flow 1:
  Average throughput: 323.96 Mbit/s
  95th percentile per-packet one-way delay: 251.791 ms
  Loss rate: 1.54%
-- Flow 2:
  Average throughput: 275.07 Mbit/s
  95th percentile per-packet one-way delay: 172.878 ms
  Loss rate: 0.86%
-- Flow 3:
  Average throughput: 112.82 Mbit/s
  95th percentile per-packet one-way delay: 166.735 ms
  Loss rate: 4.94%
Run 3: Report of Vivace-latency — Data Link
Run 4: Statistics of Vivace-latency

Start at: 2018-02-21 15:35:14
End at: 2018-02-21 15:35:44

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 523.26 Mbit/s
95th percentile per-packet one-way delay: 303.658 ms
Loss rate: 3.78%
-- Flow 1:
Average throughput: 310.61 Mbit/s
95th percentile per-packet one-way delay: 296.518 ms
Loss rate: 4.03%
-- Flow 2:
Average throughput: 289.26 Mbit/s
95th percentile per-packet one-way delay: 330.024 ms
Loss rate: 3.28%
-- Flow 3:
Average throughput: 65.52 Mbit/s
95th percentile per-packet one-way delay: 142.271 ms
Loss rate: 4.58%
Run 4: Report of Vivace-latency — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 320.64 Mbps)
- Flow 1 egress (mean 310.61 Mbps)
- Flow 2 ingress (mean 294.97 Mbps)
- Flow 2 egress (mean 289.26 Mbps)
- Flow 3 ingress (mean 66.72 Mbps)
- Flow 3 egress (mean 65.52 Mbps)

Ping latency (ms):
- Flow 1 (95th percentile 296.52 ms)
- Flow 2 (95th percentile 330.02 ms)
- Flow 3 (95th percentile 142.27 ms)
Run 5: Statistics of Vivace-latency

Start at: 2018-02-21 15:55:42
End at: 2018-02-21 15:56:12

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 459.57 Mbit/s
  95th percentile per-packet one-way delay: 171.142 ms
  Loss rate: 1.34%
-- Flow 1:
  Average throughput: 294.51 Mbit/s
  95th percentile per-packet one-way delay: 188.147 ms
  Loss rate: 1.21%
-- Flow 2:
  Average throughput: 229.82 Mbit/s
  95th percentile per-packet one-way delay: 163.929 ms
  Loss rate: 1.36%
-- Flow 3:
  Average throughput: 40.25 Mbit/s
  95th percentile per-packet one-way delay: 140.410 ms
  Loss rate: 3.78%
Run 5: Report of Vivace-latency — Data Link

![Graph 1: Throughput](image)

![Graph 2: Delay](image)

- **Flow 1 ingress** (mean 295.41 Mbit/s)
- **Flow 1 egress** (mean 294.51 Mbit/s)
- **Flow 2 ingress** (mean 229.81 Mbit/s)
- **Flow 2 egress** (mean 229.82 Mbit/s)
- **Flow 3 ingress** (mean 40.66 Mbit/s)
- **Flow 3 egress** (mean 40.25 Mbit/s)

- **Flow 1 (95th percentile 188.15 ms)**
- **Flow 2 (95th percentile 163.93 ms)**
- **Flow 3 (95th percentile 140.41 ms)**
Run 6: Statistics of Vivace-latency

Start at: 2018-02-21 16:15:57
End at: 2018-02-21 16:16:27

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 489.48 Mbit/s
95th percentile per-packet one-way delay: 210.947 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 303.77 Mbit/s
95th percentile per-packet one-way delay: 147.850 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 221.57 Mbit/s
95th percentile per-packet one-way delay: 252.077 ms
Loss rate: 2.29%
-- Flow 3:
Average throughput: 121.33 Mbit/s
95th percentile per-packet one-way delay: 159.190 ms
Loss rate: 4.59%
Run 6: Report of Vivace-latency — Data Link
Run 7: Statistics of Vivace-latency

Start at: 2018-02-21 16:36:48
End at: 2018-02-21 16:37:18

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 555.76 Mbit/s
  95th percentile per-packet one-way delay: 228.066 ms
  Loss rate: 1.95%
-- Flow 1:
  Average throughput: 322.54 Mbit/s
  95th percentile per-packet one-way delay: 260.533 ms
  Loss rate: 1.96%
-- Flow 2:
  Average throughput: 298.88 Mbit/s
  95th percentile per-packet one-way delay: 158.509 ms
  Loss rate: 1.54%
-- Flow 3:
  Average throughput: 110.00 Mbit/s
  95th percentile per-packet one-way delay: 169.588 ms
  Loss rate: 4.07%
Run 7: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 326.00 Mbit/s)
- Flow 1 egress (mean 322.54 Mbit/s)
- Flow 2 ingress (mean 299.39 Mbit/s)
- Flow 2 egress (mean 298.88 Mbit/s)
- Flow 3 ingress (mean 111.40 Mbit/s)
- Flow 3 egress (mean 110.00 Mbit/s)
Run 8: Statistics of Vivace-latency

Start at: 2018-02-21 16:57:24
End at: 2018-02-21 16:57:54

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 346.85 Mbit/s
  95th percentile per-packet one-way delay: 143.056 ms
  Loss rate: 1.61%
-- Flow 1:
  Average throughput: 149.47 Mbit/s
  95th percentile per-packet one-way delay: 143.871 ms
  Loss rate: 1.77%
-- Flow 2:
  Average throughput: 265.81 Mbit/s
  95th percentile per-packet one-way delay: 140.948 ms
  Loss rate: 1.15%
-- Flow 3:
  Average throughput: 66.73 Mbit/s
  95th percentile per-packet one-way delay: 137.022 ms
  Loss rate: 4.21%
Run 8: Report of Vivace-latency — Data Link

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

- Flow 1: Ingress (mean 150.77 Mbit/s) and Egress (mean 149.47 Mbit/s)
- Flow 2: Ingress (mean 265.16 Mbit/s) and Egress (mean 265.81 Mbit/s)
- Flow 3: Ingress (mean 67.72 Mbit/s) and Egress (mean 66.73 Mbit/s)

![Graph showing per-packet one-way delay histogram for different flows.](image-url)
Run 9: Statistics of Vivace-latency

Start at: 2018-02-21 17:17:39
End at: 2018-02-21 17:18:09

# Below is generated by plot.py at 2018-02-21 23:08:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.42 Mbit/s
95th percentile per-packet one-way delay: 143.994 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 259.96 Mbit/s
95th percentile per-packet one-way delay: 139.677 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 295.75 Mbit/s
95th percentile per-packet one-way delay: 155.573 ms
Loss rate: 2.34%
-- Flow 3:
Average throughput: 67.40 Mbit/s
95th percentile per-packet one-way delay: 137.673 ms
Loss rate: 4.36%
Run 9: Report of Vivace-latency — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 260.62 Mbps)
  - Flow 1 egress (mean 259.96 Mbps)
  - Flow 2 ingress (mean 298.67 Mbps)
  - Flow 2 egress (mean 295.75 Mbps)
  - Flow 3 ingress (mean 68.52 Mbps)
  - Flow 3 egress (mean 67.40 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 139.68 ms)
  - Flow 2 (95th percentile 155.57 ms)
  - Flow 3 (95th percentile 137.67 ms)
Run 10: Statistics of Vivace-latency

Start at: 2018-02-21 17:38:07
End at: 2018-02-21 17:38:37

# Below is generated by plot.py at 2018-02-21 23:08:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 532.91 Mbit/s
  95th percentile per-packet one-way delay: 147.084 ms
  Loss rate: 1.57%
-- Flow 1:
  Average throughput: 313.44 Mbit/s
  95th percentile per-packet one-way delay: 154.988 ms
  Loss rate: 1.11%
-- Flow 2:
  Average throughput: 273.96 Mbit/s
  95th percentile per-packet one-way delay: 139.440 ms
  Loss rate: 1.31%
-- Flow 3:
  Average throughput: 118.59 Mbit/s
  95th percentile per-packet one-way delay: 153.693 ms
  Loss rate: 6.31%
Run 10: Report of Vivace-latency — Data Link
Run 1: Statistics of Vivace-loss

Start at: 2018-02-21 14:37:11
End at: 2018-02-21 14:37:41

# Below is generated by plot.py at 2018-02-21 23:08:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 208.88 Mbit/s
  95th percentile per-packet one-way delay: 278.766 ms
  Loss rate: 8.03%
-- Flow 1:
  Average throughput: 104.87 Mbit/s
  95th percentile per-packet one-way delay: 275.935 ms
  Loss rate: 7.22%
-- Flow 2:
  Average throughput: 84.82 Mbit/s
  95th percentile per-packet one-way delay: 300.340 ms
  Loss rate: 12.65%
-- Flow 3:
  Average throughput: 147.97 Mbit/s
  95th percentile per-packet one-way delay: 229.593 ms
  Loss rate: 3.93%
Run 1: Report of Vivace-loss — Data Link
Run 2: Statistics of Vivace-loss

Start at: 2018-02-21 14:57:56
End at: 2018-02-21 14:58:26

# Below is generated by plot.py at 2018-02-21 23:09:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 471.80 Mbit/s
  95th percentile per-packet one-way delay: 297.284 ms
  Loss rate: 5.96%
-- Flow 1:
  Average throughput: 260.60 Mbit/s
  95th percentile per-packet one-way delay: 268.374 ms
  Loss rate: 4.18%
-- Flow 2:
  Average throughput: 265.58 Mbit/s
  95th percentile per-packet one-way delay: 302.703 ms
  Loss rate: 4.96%
-- Flow 3:
  Average throughput: 109.88 Mbit/s
  95th percentile per-packet one-way delay: 360.441 ms
  Loss rate: 20.89%
Run 2: Report of Vivace-loss — Data Link
Run 3: Statistics of Vivace-loss

Start at: 2018-02-21 15:18:24
End at: 2018-02-21 15:18:54

# Below is generated by plot.py at 2018-02-21 23:10:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 359.98 Mbit/s
  95th percentile per-packet one-way delay: 272.294 ms
  Loss rate: 7.49%
-- Flow 1:
  Average throughput: 130.67 Mbit/s
  95th percentile per-packet one-way delay: 256.374 ms
  Loss rate: 6.67%
-- Flow 2:
  Average throughput: 291.41 Mbit/s
  95th percentile per-packet one-way delay: 259.517 ms
  Loss rate: 5.96%
-- Flow 3:
  Average throughput: 113.38 Mbit/s
  95th percentile per-packet one-way delay: 350.117 ms
  Loss rate: 17.23%
Run 4: Statistics of Vivace-loss

Start at: 2018-02-21 15:38:43
End at: 2018-02-21 15:39:13

# Below is generated by plot.py at 2018-02-21 23:14:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 533.87 Mbit/s
  95th percentile per-packet one-way delay: 240.879 ms
  Loss rate: 3.75%
-- Flow 1:
  Average throughput: 351.75 Mbit/s
  95th percentile per-packet one-way delay: 252.824 ms
  Loss rate: 2.74%
-- Flow 2:
  Average throughput: 193.43 Mbit/s
  95th percentile per-packet one-way delay: 140.721 ms
  Loss rate: 2.56%
-- Flow 3:
  Average throughput: 167.10 Mbit/s
  95th percentile per-packet one-way delay: 335.031 ms
  Loss rate: 12.25%
Run 4: Report of Vivace-loss — Data Link
Run 5: Statistics of Vivace-loss

Start at: 2018-02-21 15:59:05
End at: 2018-02-21 15:59:35

# Below is generated by plot.py at 2018-02-21 23:14:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 492.46 Mbit/s
  95th percentile per-packet one-way delay: 335.280 ms
  Loss rate: 7.68%
-- Flow 1:
  Average throughput: 253.86 Mbit/s
  95th percentile per-packet one-way delay: 351.366 ms
  Loss rate: 9.92%
-- Flow 2:
  Average throughput: 281.28 Mbit/s
  95th percentile per-packet one-way delay: 327.565 ms
  Loss rate: 5.19%
-- Flow 3:
  Average throughput: 163.24 Mbit/s
  95th percentile per-packet one-way delay: 272.897 ms
  Loss rate: 5.12%
Run 5: Report of Vivace-loss — Data Link
Run 6: Statistics of Vivace-loss

Start at: 2018-02-21 16:19:23
End at: 2018-02-21 16:19:53

# Below is generated by plot.py at 2018-02-21 23:17:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 519.08 Mbit/s
95th percentile per-packet one-way delay: 284.458 ms
Loss rate: 5.47%
-- Flow 1:
Average throughput: 258.71 Mbit/s
95th percentile per-packet one-way delay: 310.456 ms
Loss rate: 6.34%
-- Flow 2:
Average throughput: 291.16 Mbit/s
95th percentile per-packet one-way delay: 271.270 ms
Loss rate: 4.27%
-- Flow 3:
Average throughput: 209.88 Mbit/s
95th percentile per-packet one-way delay: 156.791 ms
Loss rate: 5.46%
Run 6: Report of Vivace-loss — Data Link
Run 7: Statistics of Vivace-loss

Start at: 2018-02-21 16:40:19
End at: 2018-02-21 16:40:49

# Below is generated by plot.py at 2018-02-21 23:17:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 544.95 Mbit/s
95th percentile per-packet one-way delay: 303.818 ms
Loss rate: 5.07%
-- Flow 1:
Average throughput: 302.82 Mbit/s
95th percentile per-packet one-way delay: 296.546 ms
Loss rate: 4.55%
-- Flow 2:
Average throughput: 311.97 Mbit/s
95th percentile per-packet one-way delay: 314.233 ms
Loss rate: 5.47%
-- Flow 3:
Average throughput: 110.78 Mbit/s
95th percentile per-packet one-way delay: 302.191 ms
Loss rate: 7.17%
Run 7: Report of Vivace-loss — Data Link
Run 8: Statistics of Vivace-loss

Start at: 2018-02-21 17:00:38
End at: 2018-02-21 17:01:08

# Below is generated by plot.py at 2018-02-21 23:17:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 401.50 Mbit/s
  95th percentile per-packet one-way delay: 256.762 ms
  Loss rate: 6.11%
-- Flow 1:
  Average throughput: 161.60 Mbit/s
  95th percentile per-packet one-way delay: 253.101 ms
  Loss rate: 5.11%
-- Flow 2:
  Average throughput: 307.16 Mbit/s
  95th percentile per-packet one-way delay: 175.070 ms
  Loss rate: 2.69%
-- Flow 3:
  Average throughput: 113.39 Mbit/s
  95th percentile per-packet one-way delay: 375.771 ms
  Loss rate: 24.43%
Run 8: Report of Vivace-loss — Data Link
Run 9: Statistics of Vivace-loss

Start at: 2018-02-21 17:21:03
End at: 2018-02-21 17:21:33

# Below is generated by plot.py at 2018-02-21 23:17:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 443.87 Mbit/s
  95th percentile per-packet one-way delay: 274.000 ms
  Loss rate: 5.13%
  -- Flow 1:
  Average throughput: 243.94 Mbit/s
  95th percentile per-packet one-way delay: 257.667 ms
  Loss rate: 3.04%
  -- Flow 2:
  Average throughput: 261.53 Mbit/s
  95th percentile per-packet one-way delay: 281.804 ms
  Loss rate: 2.84%
  -- Flow 3:
  Average throughput: 88.34 Mbit/s
  95th percentile per-packet one-way delay: 376.435 ms
  Loss rate: 28.46%
Run 9: Report of Vivace-loss — Data Link

![Graph showing throughput and packet one-way delay over time for different flows.](image-url)
Run 10: Statistics of Vivace-loss

Start at: 2018-02-21 17:41:38
End at: 2018-02-21 17:42:08

# Below is generated by plot.py at 2018-02-21 23:18:58
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 495.73 Mbit/s
   95th percentile per-packet one-way delay: 301.530 ms
   Loss rate: 5.93%
   -- Flow 1:
   Average throughput: 267.52 Mbit/s
   95th percentile per-packet one-way delay: 283.148 ms
   Loss rate: 4.77%
   -- Flow 2:
   Average throughput: 309.49 Mbit/s
   95th percentile per-packet one-way delay: 300.278 ms
   Loss rate: 4.98%
   -- Flow 3:
   Average throughput: 72.18 Mbit/s
   95th percentile per-packet one-way delay: 373.976 ms
   Loss rate: 23.33%
Run 10: Report of Vivace-loss — Data Link
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-21 14:38:19
End at: 2018-02-21 14:38:49

# Below is generated by plot.py at 2018-02-21 23:21:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 558.61 Mbit/s
95th percentile per-packet one-way delay: 291.573 ms
Loss rate: 3.18%
-- Flow 1:
Average throughput: 295.54 Mbit/s
95th percentile per-packet one-way delay: 342.215 ms
Loss rate: 4.39%
-- Flow 2:
Average throughput: 318.00 Mbit/s
95th percentile per-packet one-way delay: 289.751 ms
Loss rate: 2.20%
-- Flow 3:
Average throughput: 162.66 Mbit/s
95th percentile per-packet one-way delay: 155.125 ms
Loss rate: 0.00%
Run 1: Report of Vivace-LTE — Data Link
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-21 14:59:25
End at: 2018-02-21 14:59:55

# Below is generated by plot.py at 2018-02-21 23:23:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 478.10 Mbit/s
  95th percentile per-packet one-way delay: 253.088 ms
  Loss rate: 2.62%
-- Flow 1:
  Average throughput: 364.71 Mbit/s
  95th percentile per-packet one-way delay: 242.294 ms
  Loss rate: 2.07%
-- Flow 2:
  Average throughput: 115.76 Mbit/s
  95th percentile per-packet one-way delay: 304.170 ms
  Loss rate: 4.07%
-- Flow 3:
  Average throughput: 113.89 Mbit/s
  95th percentile per-packet one-way delay: 161.710 ms
  Loss rate: 4.98%
Run 2: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 368.05 Mbit/s)
- Flow 1 egress (mean 364.71 Mbit/s)
- Flow 2 ingress (mean 119.01 Mbit/s)
- Flow 2 egress (mean 115.76 Mbit/s)
- Flow 3 ingress (mean 116.53 Mbit/s)
- Flow 3 egress (mean 113.89 Mbit/s)
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-21 15:19:44
End at: 2018-02-21 15:20:14

# Below is generated by plot.py at 2018-02-21 23:25:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 556.72 Mbit/s
95th percentile per-packet one-way delay: 273.802 ms
Loss rate: 2.48%
-- Flow 1:
Average throughput: 326.68 Mbit/s
95th percentile per-packet one-way delay: 261.096 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 286.04 Mbit/s
95th percentile per-packet one-way delay: 280.400 ms
Loss rate: 2.57%
-- Flow 3:
Average throughput: 126.00 Mbit/s
95th percentile per-packet one-way delay: 294.013 ms
Loss rate: 6.64%
Run 3: Report of Vivace-LTE — Data Link

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**Throughput (Mbps):**

- **Flow 1 ingress** (mean 329.95 Mbps)
- **Flow 1 egress** (mean 326.68 Mbps)
- **Flow 2 ingress** (mean 289.58 Mbps)
- **Flow 2 egress** (mean 286.06 Mbps)
- **Flow 3 ingress** (mean 131.08 Mbps)
- **Flow 3 egress** (mean 126.00 Mbps)

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**Packet One-Way Delay (ms):**

- **Flow 1** (95th percentile 261.10 ms)
- **Flow 2** (95th percentile 280.40 ms)
- **Flow 3** (95th percentile 294.01 ms)
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-21 15:40:16
End at: 2018-02-21 15:40:46

# Below is generated by plot.py at 2018-02-21 23:25:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 587.57 Mbit/s
95th percentile per-packet one-way delay: 217.567 ms
Loss rate: 2.28%
-- Flow 1:
Average throughput: 351.19 Mbit/s
95th percentile per-packet one-way delay: 205.406 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 304.56 Mbit/s
95th percentile per-packet one-way delay: 216.964 ms
Loss rate: 2.27%
-- Flow 3:
Average throughput: 107.96 Mbit/s
95th percentile per-packet one-way delay: 326.913 ms
Loss rate: 10.56%
Run 4: Report of Vivace-LTE — Data Link

![Throughput Chart](image1)

**Throughput Chart**
- Flow 1 ingress (mean 352.85 Mbit/s)
- Flow 1 egress (mean 351.19 Mbit/s)
- Flow 2 ingress (mean 307.37 Mbit/s)
- Flow 2 egress (mean 304.56 Mbit/s)
- Flow 3 ingress (mean 117.38 Mbit/s)
- Flow 3 egress (mean 107.96 Mbit/s)

![Delay Chart](image2)

**Delay Chart**
- Flow 1 (95th percentile 205.41 ms)
- Flow 2 (95th percentile 216.96 ms)
- Flow 3 (95th percentile 326.91 ms)
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-21 16:00:36
End at: 2018-02-21 16:01:06

# Below is generated by plot.py at 2018-02-21 23:26:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 564.54 Mbit/s
  95th percentile per-packet one-way delay: 308.860 ms
  Loss rate: 3.67%
-- Flow 1:
  Average throughput: 333.31 Mbit/s
  95th percentile per-packet one-way delay: 335.300 ms
  Loss rate: 4.05%
-- Flow 2:
  Average throughput: 297.69 Mbit/s
  95th percentile per-packet one-way delay: 243.310 ms
  Loss rate: 2.77%
-- Flow 3:
  Average throughput: 106.14 Mbit/s
  95th percentile per-packet one-way delay: 151.693 ms
  Loss rate: 5.12%
Run 5: Report of Vivace-LTE — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress** (mean 344.23 Mbps)
- **Flow 1 egress** (mean 333.31 Mbps)
- **Flow 2 ingress** (mean 301.97 Mbps)
- **Flow 2 egress** (mean 297.69 Mbps)
- **Flow 3 ingress** (mean 108.74 Mbps)
- **Flow 3 egress** (mean 106.14 Mbps)

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

- **Flow 1** (95th percentile 335.30 ms)
- **Flow 2** (95th percentile 243.31 ms)
- **Flow 3** (95th percentile 151.69 ms)
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-21 16:20:55
End at: 2018-02-21 16:21:25

# Below is generated by plot.py at 2018-02-21 23:27:02
# Datalink statistics

-- Total of 3 flows:
Average throughput: 620.26 Mbit/s
95th percentile per-packet one-way delay: 252.418 ms
Loss rate: 3.27%

-- Flow 1:
Average throughput: 349.84 Mbit/s
95th percentile per-packet one-way delay: 238.773 ms
Loss rate: 2.26%

-- Flow 2:
Average throughput: 314.67 Mbit/s
95th percentile per-packet one-way delay: 270.142 ms
Loss rate: 4.16%

-- Flow 3:
Average throughput: 192.73 Mbit/s
95th percentile per-packet one-way delay: 231.243 ms
Loss rate: 5.87%
Run 6: Report of Vivace-LTE — Data Link

![Graph showing throughput and per-packet delay over time for three flows.]
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-21 16:41:54
End at: 2018-02-21 16:42:24

# Below is generated by plot.py at 2018-02-21 23:27:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 501.04 Mbit/s
95th percentile per-packet one-way delay: 268.365 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 342.96 Mbit/s
95th percentile per-packet one-way delay: 282.225 ms
Loss rate: 2.56%
-- Flow 2:
Average throughput: 188.09 Mbit/s
95th percentile per-packet one-way delay: 199.144 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 104.16 Mbit/s
95th percentile per-packet one-way delay: 158.247 ms
Loss rate: 5.11%
Run 7: Report of Vivace-LTE — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 348.76 Mbps)
- Flow 1 egress (mean 342.96 Mbps)
- Flow 2 ingress (mean 187.57 Mbps)
- Flow 2 egress (mean 188.09 Mbps)
- Flow 3 ingress (mean 196.67 Mbps)
- Flow 3 egress (mean 104.16 Mbps)

Packet inter-arrival delay (ms):

- Flow 1 (95th percentile 282.23 ms)
- Flow 2 (95th percentile 199.14 ms)
- Flow 3 (95th percentile 158.25 ms)
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-21 17:02:02
End at: 2018-02-21 17:02:32

# Below is generated by plot.py at 2018-02-21 23:27:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 536.86 Mbit/s
  95th percentile per-packet one-way delay: 231.098 ms
  Loss rate: 1.88%
  -- Flow 1:
  Average throughput: 324.56 Mbit/s
  95th percentile per-packet one-way delay: 226.717 ms
  Loss rate: 1.21%
  -- Flow 2:
  Average throughput: 255.01 Mbit/s
  95th percentile per-packet one-way delay: 215.589 ms
  Loss rate: 1.16%
  -- Flow 3:
  Average throughput: 134.68 Mbit/s
  95th percentile per-packet one-way delay: 275.977 ms
  Loss rate: 8.98%
Run 8: Report of Vivace-LTE — Data Link

![Throughput Graph](image)

- Flow 1 ingress (mean 325.48 Mbit/s)
- Flow 1 egress (mean 324.56 Mbit/s)
- Flow 2 ingress (mean 254.35 Mbit/s)
- Flow 2 egress (mean 255.01 Mbit/s)
- Flow 3 ingress (mean 143.83 Mbit/s)
- Flow 3 egress (mean 134.68 Mbit/s)

![Delay Graph](image)

- Flow 1 (95th percentile 226.72 ms)
- Flow 2 (95th percentile 215.59 ms)
- Flow 3 (95th percentile 275.98 ms)
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-21 17:22:29
End at: 2018-02-21 17:22:59

# Below is generated by plot.py at 2018-02-21 23:28:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 561.54 Mbit/s
  95th percentile per-packet one-way delay: 309.223 ms
  Loss rate: 2.84%
  -- Flow 1:
    Average throughput: 330.77 Mbit/s
    95th percentile per-packet one-way delay: 239.279 ms
    Loss rate: 2.18%
  -- Flow 2:
    Average throughput: 290.42 Mbit/s
    95th percentile per-packet one-way delay: 318.903 ms
    Loss rate: 3.58%
  -- Flow 3:
    Average throughput: 119.65 Mbit/s
    95th percentile per-packet one-way delay: 244.330 ms
    Loss rate: 4.62%
Run 9: Report of Vivace-LTE — Data Link

Graph 1: Throughput (Mbps)

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

Legend:
- Flow 1 ingress (mean 335.01 Mbps)
- Flow 1 egress (mean 330.77 Mbps)
- Flow 2 ingress (mean 297.07 Mbps)
- Flow 2 egress (mean 290.42 Mbps)
- Flow 3 ingress (mean 121.97 Mbps)
- Flow 3 egress (mean 119.65 Mbps)
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-21 17:43:09
End at: 2018-02-21 17:43:39

# Below is generated by plot.py at 2018-02-21 23:28:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 500.58 Mbit/s
95th percentile per-packet one-way delay: 278.316 ms
Loss rate: 3.67%
-- Flow 1:
Average throughput: 342.17 Mbit/s
95th percentile per-packet one-way delay: 276.563 ms
Loss rate: 2.82%
-- Flow 2:
Average throughput: 189.05 Mbit/s
95th percentile per-packet one-way delay: 278.008 ms
Loss rate: 3.91%
-- Flow 3:
Average throughput: 103.10 Mbit/s
95th percentile per-packet one-way delay: 318.036 ms
Loss rate: 10.89%
Run 10: Report of Vivace-LTE — Data Link