Pantheon Report

Generated at 2018-02-20 18:04:59 (UTC).
Data path: AWS India 1 Ethernet (local) → India Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).
NTP offsets were measured against nets.org.sg and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdefae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cc90f281d1c69ae1a5c6
third_party/genericCC @ 9249eeaa3238475c4d8c4ca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0a9b
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230bd7484501f82ce0b377695f266d
third_party/indigo-1-layer-32-unit @ 2601c92e4a9d50d38d4d3f00e0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f7541135ed5b540c0d3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303ae82ea808e6928ea4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b17eaab4a406ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba163db26744ccfcff93
third_party/pcc @ 1afc9958fa0d66d18b623c091a55facs872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.c
  M sender/src/buffer.h
  M sender/src/core.c
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3c4ff2
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a4bffe749737437f61b1aeab30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df3753ee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webRTC @ a488197dd041ace68a42849b2540ad834825f42
test from AWS India 1 Ethernet to India 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>
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<td>56.11</td>
<td>40.63</td>
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<td>32.75</td>
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<td>38.82</td>
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<td>43.02</td>
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<td>21.67</td>
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<td>Vivace-loss</td>
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<td>Vivace-LTE</td>
<td>10</td>
<td>58.60</td>
<td>30.69</td>
<td>23.50</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-02-20 13:33:49
End at: 2018-02-20 13:34:19
Local clock offset: 0.058 ms
Remote clock offset: -19.49 ms

# Below is generated by plot.py at 2018-02-20 17:36:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.65 Mbit/s
95th percentile per-packet one-way delay: 20.598 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 56.98 Mbit/s
95th percentile per-packet one-way delay: 19.300 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 41.54 Mbit/s
95th percentile per-packet one-way delay: 23.601 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 36.13 Mbit/s
95th percentile per-packet one-way delay: 21.478 ms
Loss rate: 1.36%
Run 1: Report of TCP BBR — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 57.61 Mbit/s)
Flow 1 egress (mean 56.98 Mbit/s)
Flow 2 ingress (mean 42.18 Mbit/s)
Flow 2 egress (mean 41.54 Mbit/s)
Flow 3 ingress (mean 36.63 Mbit/s)
Flow 3 egress (mean 36.13 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 19.30 ms)
Flow 2 (95th percentile 23.60 ms)
Flow 3 (95th percentile 21.48 ms)
Run 2: Statistics of TCP BBR

End at: 2018-02-20 13:56:11
Local clock offset: -1.409 ms
Remote clock offset: -20.474 ms

# Below is generated by plot.py at 2018-02-20 17:36:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.66 Mbit/s
95th percentile per-packet one-way delay: 18.594 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 55.91 Mbit/s
95th percentile per-packet one-way delay: 17.780 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 43.82 Mbit/s
95th percentile per-packet one-way delay: 19.894 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 34.86 Mbit/s
95th percentile per-packet one-way delay: 19.721 ms
Loss rate: 1.50%
Run 2: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 56.47 Mbit/s)
- Flow 1 egress (mean 55.91 Mbit/s)
- Flow 2 ingress (mean 44.58 Mbit/s)
- Flow 2 egress (mean 43.82 Mbit/s)
- Flow 3 ingress (mean 35.39 Mbit/s)
- Flow 3 egress (mean 34.86 Mbit/s)
Run 3: Statistics of TCP BBR

Start at: 2018-02-20 14:17:28  
End at: 2018-02-20 14:17:58  
Local clock offset: -3.173 ms  
Remote clock offset: -17.851 ms

# Below is generated by plot.py at 2018-02-20 17:36:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.83 Mbit/s  
95th percentile per-packet one-way delay: 24.094 ms  
Loss rate: 1.36%  
-- Flow 1:  
Average throughput: 52.04 Mbit/s  
95th percentile per-packet one-way delay: 22.214 ms  
Loss rate: 1.04%  
-- Flow 2:  
Average throughput: 47.81 Mbit/s  
95th percentile per-packet one-way delay: 26.680 ms  
Loss rate: 1.90%  
-- Flow 3:  
Average throughput: 39.05 Mbit/s  
95th percentile per-packet one-way delay: 22.632 ms  
Loss rate: 1.31%
Run 3: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 52.63 Mbit/s)
- Flow 1 egress (mean 52.04 Mbit/s)
- Flow 2 ingress (mean 48.78 Mbit/s)
- Flow 2 egress (mean 47.81 Mbit/s)
- Flow 3 ingress (mean 39.57 Mbit/s)
- Flow 3 egress (mean 39.05 Mbit/s)
Run 4: Statistics of TCP BBR

Start at: 2018-02-20 14:39:33
End at: 2018-02-20 14:40:03
Local clock offset: -1.55 ms
Remote clock offset: -18.442 ms

# Below is generated by plot.py at 2018-02-20 17:36:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.60 Mbit/s
  95th percentile per-packet one-way delay: 22.757 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 52.93 Mbit/s
  95th percentile per-packet one-way delay: 21.597 ms
  Loss rate: 1.13%
-- Flow 2:
  Average throughput: 48.52 Mbit/s
  95th percentile per-packet one-way delay: 23.623 ms
  Loss rate: 1.68%
-- Flow 3:
  Average throughput: 34.21 Mbit/s
  95th percentile per-packet one-way delay: 24.108 ms
  Loss rate: 1.54%
Run 4: Report of TCP BBR — Data Link

![Graph showing throughput (Mbps) vs. Time (s) for three flows with different ingress and egress rates.](image1)

![Graph showing per packet one-way delay (ms) vs. Time (s) for three flows with different 95th percentile delays.](image2)
Run 5: Statistics of TCP BBR

Start at: 2018-02-20 15:01:17
End at: 2018-02-20 15:01:47
Local clock offset: -0.925 ms
Remote clock offset: -12.338 ms

# Below is generated by plot.py at 2018-02-20 17:36:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.89 Mbit/s
95th percentile per-packet one-way delay: 22.405 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 59.92 Mbit/s
95th percentile per-packet one-way delay: 22.058 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 28.36 Mbit/s
95th percentile per-packet one-way delay: 23.127 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 54.38 Mbit/s
95th percentile per-packet one-way delay: 22.605 ms
Loss rate: 2.81%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-02-20 15:23:00
End at: 2018-02-20 15:23:30
Local clock offset: 1.235 ms
Remote clock offset: -12.052 ms

# Below is generated by plot.py at 2018-02-20 17:36:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.52 Mbit/s
95th percentile per-packet one-way delay: 21.817 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 54.51 Mbit/s
95th percentile per-packet one-way delay: 19.873 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 45.21 Mbit/s
95th percentile per-packet one-way delay: 24.464 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 35.89 Mbit/s
95th percentile per-packet one-way delay: 19.144 ms
Loss rate: 1.41%
Run 6: Report of TCP BBR — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 55.09 Mb/s)
Flow 1 egress (mean 54.51 Mb/s)
Flow 2 ingress (mean 45.97 Mb/s)
Flow 2 egress (mean 45.21 Mb/s)
Flow 3 ingress (mean 36.41 Mb/s)
Flow 3 egress (mean 35.89 Mb/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 19.67 ms)
Flow 2 (95th percentile 24.46 ms)
Flow 3 (95th percentile 19.14 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-02-20 15:44:56
End at: 2018-02-20 15:45:26
Local clock offset: -0.629 ms
Remote clock offset: -8.057 ms

# Below is generated by plot.py at 2018-02-20 17:36:44
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 96.56 Mbit/s
   95th percentile per-packet one-way delay: 20.835 ms
   Loss rate: 1.48%
-- Flow 1:
   Average throughput: 55.83 Mbit/s
   95th percentile per-packet one-way delay: 19.673 ms
   Loss rate: 1.08%
-- Flow 2:
   Average throughput: 43.14 Mbit/s
   95th percentile per-packet one-way delay: 22.201 ms
   Loss rate: 1.80%
-- Flow 3:
   Average throughput: 36.27 Mbit/s
   95th percentile per-packet one-way delay: 22.345 ms
   Loss rate: 2.51%
Run 7: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 56.48 Mbit/s)
- Flow 1 egress (mean 55.83 Mbit/s)
- Flow 2 ingress (mean 43.97 Mbit/s)
- Flow 2 egress (mean 43.14 Mbit/s)
- Flow 3 ingress (mean 37.26 Mbit/s)
- Flow 3 egress (mean 36.27 Mbit/s)

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

- Flow 1 (95th percentile 19.67 ms)
- Flow 2 (95th percentile 22.20 ms)
- Flow 3 (95th percentile 22.34 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-02-20 16:06:44
End at: 2018-02-20 16:07:14
Local clock offset: -0.791 ms
Remote clock offset: -20.643 ms

# Below is generated by plot.py at 2018-02-20 17:36:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.30 Mbit/s
  95th percentile per-packet one-way delay: 17.921 ms
  Loss rate: 1.48%
-- Flow 1:
  Average throughput: 54.08 Mbit/s
  95th percentile per-packet one-way delay: 16.388 ms
  Loss rate: 1.20%
-- Flow 2:
  Average throughput: 38.31 Mbit/s
  95th percentile per-packet one-way delay: 17.735 ms
  Loss rate: 1.77%
-- Flow 3:
  Average throughput: 50.33 Mbit/s
  95th percentile per-packet one-way delay: 22.883 ms
  Loss rate: 1.92%
Run 8: Report of TCP BBR — Data Link

![Graph showing throughput and packet loss over time for different flows.](image-url)
Run 9: Statistics of TCP BBR

Start at: 2018-02-20 16:28:56
End at: 2018-02-20 16:29:26
Local clock offset: -4.35 ms
Remote clock offset: -24.474 ms

# Below is generated by plot.py at 2018-02-20 17:38:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.73 Mbit/s
  95th percentile per-packet one-way delay: 20.976 ms
  Loss rate: 1.10%
-- Flow 1:
  Average throughput: 62.77 Mbit/s
  95th percentile per-packet one-way delay: 19.615 ms
  Loss rate: 0.87%
-- Flow 2:
  Average throughput: 27.88 Mbit/s
  95th percentile per-packet one-way delay: 20.871 ms
  Loss rate: 1.05%
-- Flow 3:
  Average throughput: 46.28 Mbit/s
  95th percentile per-packet one-way delay: 24.468 ms
  Loss rate: 2.11%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-02-20 16:50:58
End at: 2018-02-20 16:51:28
Local clock offset: -1.412 ms
Remote clock offset: -27.452 ms

# Below is generated by plot.py at 2018-02-20 17:38:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.74 Mbit/s
  95th percentile per-packet one-way delay: 22.000 ms
  Loss rate: 1.22%
-- Flow 1:
  Average throughput: 56.15 Mbit/s
  95th percentile per-packet one-way delay: 21.090 ms
  Loss rate: 0.84%
-- Flow 2:
  Average throughput: 41.71 Mbit/s
  95th percentile per-packet one-way delay: 23.985 ms
  Loss rate: 1.93%
-- Flow 3:
  Average throughput: 38.56 Mbit/s
  95th percentile per-packet one-way delay: 21.998 ms
  Loss rate: 1.35%
Run 10: Report of TCP BBR — Data Link

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

![Graph 2: Per-packet one way delay (ms) vs. Time (s) for different flows with annotated 95th percentile delays.]

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Run 1: Statistics of TCP Cubic

Start at: 2018-02-20 13:37:37
End at: 2018-02-20 13:38:07
Local clock offset: -5.295 ms
Remote clock offset: -17.4 ms

# Below is generated by plot.py at 2018-02-20 17:38:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.19 Mbit/s
  95th percentile per-packet one-way delay: 40.357 ms
  Loss rate: 0.97%
-- Flow 1:
  Average throughput: 65.60 Mbit/s
  95th percentile per-packet one-way delay: 40.285 ms
  Loss rate: 1.04%
-- Flow 2:
  Average throughput: 36.96 Mbit/s
  95th percentile per-packet one-way delay: 40.492 ms
  Loss rate: 0.76%
-- Flow 3:
  Average throughput: 21.10 Mbit/s
  95th percentile per-packet one-way delay: 40.581 ms
  Loss rate: 1.00%
Run 1: Report of TCP Cubic — Data Link

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

Flow 1 ingress (mean 66.37 Mbit/s)  Flow 1 egress (mean 65.60 Mbit/s)
Flow 2 ingress (mean 37.25 Mbit/s)  Flow 2 egress (mean 36.96 Mbit/s)
Flow 3 ingress (mean 21.32 Mbit/s)  Flow 3 egress (mean 21.10 Mbit/s)

Flow 1 (95th percentile 40.28 ms)  Flow 2 (95th percentile 40.49 ms)  Flow 3 (95th percentile 40.58 ms)
Run 2: Statistics of TCP Cubic

Start at: 2018-02-20 13:59:18
End at: 2018-02-20 13:59:48
Local clock offset: -0.239 ms
Remote clock offset: -17.841 ms

# Below is generated by plot.py at 2018-02-20 17:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.17 Mbit/s
95th percentile per-packet one-way delay: 30.771 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 70.94 Mbit/s
95th percentile per-packet one-way delay: 30.720 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 26.90 Mbit/s
95th percentile per-packet one-way delay: 30.812 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 25.16 Mbit/s
95th percentile per-packet one-way delay: 30.990 ms
Loss rate: 0.97%
Run 2: Report of TCP Cubic — Data Link

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**Throughput (Mbps)**

Time (s)

- Flow 1 ingress (mean 71.46 Mbps)
- Flow 1 egress (mean 70.94 Mbps)
- Flow 2 ingress (mean 27.18 Mbps)
- Flow 2 egress (mean 26.90 Mbps)
- Flow 3 ingress (mean 25.42 Mbps)
- Flow 3 egress (mean 25.16 Mbps)

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

Time (s)

- Flow 1 (95th percentile 30.72 ms)
- Flow 2 (95th percentile 30.81 ms)
- Flow 3 (95th percentile 30.99 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-02-20 14:21:07
End at: 2018-02-20 14:21:37
Local clock offset: -1.848 ms
Remote clock offset: -20.07 ms

# Below is generated by plot.py at 2018-02-20 17:38:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.18 Mbit/s
95th percentile per-packet one-way delay: 29.425 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 69.14 Mbit/s
95th percentile per-packet one-way delay: 29.227 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 29.570 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 21.91 Mbit/s
95th percentile per-packet one-way delay: 30.117 ms
Loss rate: 1.29%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-02-20 14:43:12
End at: 2018-02-20 14:43:42
Local clock offset: -0.51 ms
Remote clock offset: -18.679 ms

# Below is generated by plot.py at 2018-02-20 17:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.21 Mbit/s
95th percentile per-packet one-way delay: 33.195 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 68.58 Mbit/s
95th percentile per-packet one-way delay: 33.221 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 35.66 Mbit/s
95th percentile per-packet one-way delay: 32.998 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 14.84 Mbit/s
95th percentile per-packet one-way delay: 33.468 ms
Loss rate: 0.25%
Run 4: Report of TCP Cubic — Data Link

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

**Throughput (Mbit/s)**
- **Flow 1 ingress** (mean 69.12 Mbit/s)
- **Flow 1 egress** (mean 68.58 Mbit/s)
- **Flow 2 ingress** (mean 35.90 Mbit/s)
- **Flow 2 egress** (mean 35.66 Mbit/s)
- **Flow 3 ingress** (mean 14.88 Mbit/s)
- **Flow 3 egress** (mean 14.84 Mbit/s)

**Per-packet one-way delay (ms)**
- **Flow 1 (99th percentile 33.22 ms)**
- **Flow 2 (95th percentile 33.00 ms)**
- **Flow 3 (95th percentile 33.47 ms)**
Run 5: Statistics of TCP Cubic

Start at: 2018-02-20 15:04:55
End at: 2018-02-20 15:05:25
Local clock offset: -0.296 ms
Remote clock offset: -13.405 ms

# Below is generated by plot.py at 2018-02-20 17:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.20 Mbit/s
95th percentile per-packet one-way delay: 31.772 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 65.57 Mbit/s
95th percentile per-packet one-way delay: 31.844 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 39.87 Mbit/s
95th percentile per-packet one-way delay: 31.658 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 15.40 Mbit/s
95th percentile per-packet one-way delay: 32.128 ms
Loss rate: 1.44%
Run 5: Report of TCP Cubic — Data Link

![Throughput plots](image1)

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

Legend:
- Flow 1 ingress (mean 66.23 Mbit/s)
- Flow 1 egress (mean 65.57 Mbit/s)
- Flow 2 ingress (mean 40.15 Mbit/s)
- Flow 2 egress (mean 39.87 Mbit/s)
- Flow 3 ingress (mean 15.63 Mbit/s)
- Flow 3 egress (mean 15.40 Mbit/s)
Run 6: Statistics of TCP Cubic

Start at: 2018-02-20 15:26:37
End at: 2018-02-20 15:27:07
Local clock offset: 0.4 ms
Remote clock offset: -10.36 ms

# Below is generated by plot.py at 2018-02-20 17:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.20 Mbit/s
95th percentile per-packet one-way delay: 32.233 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 66.59 Mbit/s
95th percentile per-packet one-way delay: 31.856 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 28.28 Mbit/s
95th percentile per-packet one-way delay: 32.657 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 35.68 Mbit/s
95th percentile per-packet one-way delay: 32.659 ms
Loss rate: 0.68%
Run 6: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 67.28 Mbit/s)**
- **Flow 1 egress (mean 66.59 Mbit/s)**
- **Flow 2 ingress (mean 28.54 Mbit/s)**
- **Flow 2 egress (mean 28.28 Mbit/s)**
- **Flow 3 ingress (mean 35.97 Mbit/s)**
- **Flow 3 egress (mean 35.68 Mbit/s)**
Run 7: Statistics of TCP Cubic

Start at: 2018-02-20 15:48:31
End at: 2018-02-20 15:49:01
Local clock offset: -0.168 ms
Remote clock offset: -6.337 ms

# Below is generated by plot.py at 2018-02-20 17:39:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.88 Mbit/s
95th percentile per-packet one-way delay: 33.278 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 69.24 Mbit/s
95th percentile per-packet one-way delay: 33.111 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 31.76 Mbit/s
95th percentile per-packet one-way delay: 33.511 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 19.70 Mbit/s
95th percentile per-packet one-way delay: 33.501 ms
Loss rate: 0.87%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-02-20 16:10:25
End at: 2018-02-20 16:10:55
Local clock offset: -1.025 ms
Remote clock offset: -21.14 ms

# Below is generated by plot.py at 2018-02-20 17:39:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.19 Mbit/s
95th percentile per-packet one-way delay: 29.168 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 68.09 Mbit/s
95th percentile per-packet one-way delay: 28.750 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 32.67 Mbit/s
95th percentile per-packet one-way delay: 29.573 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 22.22 Mbit/s
95th percentile per-packet one-way delay: 29.806 ms
Loss rate: 0.78%
Run 9: Statistics of TCP Cubic

Start at: 2018-02-20 16:32:39
End at: 2018-02-20 16:33:09
Local clock offset: -2.229 ms
Remote clock offset: -24.424 ms

# Below is generated by plot.py at 2018-02-20 17:39:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.18 Mbit/s
  95th percentile per-packet one-way delay: 30.773 ms
  Loss rate: 0.75%
-- Flow 1:
  Average throughput: 70.54 Mbit/s
  95th percentile per-packet one-way delay: 30.750 ms
  Loss rate: 0.80%
-- Flow 2:
  Average throughput: 27.42 Mbit/s
  95th percentile per-packet one-way delay: 30.811 ms
  Loss rate: 0.71%
-- Flow 3:
  Average throughput: 25.32 Mbit/s
  95th percentile per-packet one-way delay: 30.878 ms
  Loss rate: 0.46%
Run 9: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 71.20 Mbit/s)
- Flow 1 egress (mean 70.54 Mbit/s)
- Flow 2 ingress (mean 27.62 Mbit/s)
- Flow 2 egress (mean 27.42 Mbit/s)
- Flow 3 ingress (mean 25.48 Mbit/s)
- Flow 3 egress (mean 25.32 Mbit/s)
Run 10: Statistics of TCP Cubic

Start at: 2018-02-20 16:54:35
End at: 2018-02-20 16:55:05
Local clock offset: 0.502 ms
Remote clock offset: -27.703 ms

# Below is generated by plot.py at 2018-02-20 17:39:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.20 Mbit/s
95th percentile per-packet one-way delay: 33.415 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 65.82 Mbit/s
95th percentile per-packet one-way delay: 33.325 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 36.74 Mbit/s
95th percentile per-packet one-way delay: 33.576 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 20.98 Mbit/s
95th percentile per-packet one-way delay: 33.747 ms
Loss rate: 0.96%
Run 10: Report of TCP Cubic — Data Link
Run 1: Statistics of LEDBAT

Start at: 2018-02-20 13:26:29
End at: 2018-02-20 13:26:59
Local clock offset: 0.331 ms
Remote clock offset: -20.337 ms

# Below is generated by plot.py at 2018-02-20 17:39:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.67 Mbit/s
95th percentile per-packet one-way delay: 28.957 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 46.61 Mbit/s
95th percentile per-packet one-way delay: 28.545 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 40.42 Mbit/s
95th percentile per-packet one-way delay: 29.183 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 25.26 Mbit/s
95th percentile per-packet one-way delay: 29.544 ms
Loss rate: 0.92%
Run 1: Report of LEDBAT — Data Link

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

Legend:
- Flow 1 ingress (mean 46.88 Mbit/s)
- Flow 1 egress (mean 46.61 Mbit/s)
- Flow 2 ingress (mean 40.58 Mbit/s)
- Flow 2 egress (mean 40.42 Mbit/s)
- Flow 3 ingress (mean 25.45 Mbit/s)
- Flow 3 egress (mean 25.26 Mbit/s)
Run 2: Statistics of LEDBAT

Start at: 2018-02-20 13:48:34
End at: 2018-02-20 13:49:04
Local clock offset: 2.647 ms
Remote clock offset: -17.252 ms

# Below is generated by plot.py at 2018-02-20 17:39:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 80.64 Mbit/s
  95th percentile per-packet one-way delay: 29.986 ms
  Loss rate: 0.51%
-- Flow 1:
  Average throughput: 52.96 Mbit/s
  95th percentile per-packet one-way delay: 29.235 ms
  Loss rate: 0.19%
-- Flow 2:
  Average throughput: 32.04 Mbit/s
  95th percentile per-packet one-way delay: 30.618 ms
  Loss rate: 1.05%
-- Flow 3:
  Average throughput: 19.15 Mbit/s
  95th percentile per-packet one-way delay: 30.644 ms
  Loss rate: 1.30%
Run 2: Report of LEDBAT — Data Link

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

Graph 2: Per-packet one-way delay (ms) vs Time (s)
Run 3: Statistics of LEDBAT

Start at: 2018-02-20 14:10:15
End at: 2018-02-20 14:10:45
Local clock offset: -4.918 ms
Remote clock offset: -20.244 ms

# Below is generated by plot.py at 2018-02-20 17:39:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.49 Mbit/s
95th percentile per-packet one-way delay: 30.491 ms
Loss rate: 0.54%

-- Flow 1:
Average throughput: 48.01 Mbit/s
95th percentile per-packet one-way delay: 30.258 ms
Loss rate: 0.50%

-- Flow 2:
Average throughput: 38.15 Mbit/s
95th percentile per-packet one-way delay: 30.729 ms
Loss rate: 0.53%

-- Flow 3:
Average throughput: 24.57 Mbit/s
95th percentile per-packet one-way delay: 30.758 ms
Loss rate: 0.80%
Run 3: Report of LEDBAT — Data Link

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

**Throughput** (Mbps)

- Flow 1 ingress (mean 48.26 Mbps)
- Flow 1 egress (mean 48.01 Mbps)
- Flow 2 ingress (mean 38.29 Mbps)
- Flow 2 egress (mean 38.15 Mbps)
- Flow 3 ingress (mean 24.73 Mbps)
- Flow 3 egress (mean 24.57 Mbps)

**Packet Loss**

- Flow 1 (99th percentile 30.26 ms)
- Flow 2 (99th percentile 30.73 ms)
- Flow 3 (99th percentile 30.76 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-02-20 14:32:12
End at: 2018-02-20 14:32:42
Local clock offset: -2.558 ms
Remote clock offset: -18.887 ms

# Below is generated by plot.py at 2018-02-20 17:39:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.70 Mbit/s
95th percentile per-packet one-way delay: 33.214 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 48.83 Mbit/s
95th percentile per-packet one-way delay: 32.959 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 29.29 Mbit/s
95th percentile per-packet one-way delay: 33.689 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 19.33 Mbit/s
95th percentile per-packet one-way delay: 33.554 ms
Loss rate: 0.94%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-02-20 14:54:04
End at: 2018-02-20 14:54:34
Local clock offset: 0.022 ms
Remote clock offset: -15.767 ms

# Below is generated by plot.py at 2018-02-20 17:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.56 Mbit/s
95th percentile per-packet one-way delay: 31.343 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 53.09 Mbit/s
95th percentile per-packet one-way delay: 31.148 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 31.481 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 31.764 ms
Loss rate: 0.37%
Run 5: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 53.39 Mbit/s)
- Flow 1 egress (mean 53.09 Mbit/s)
- Flow 2 ingress (mean 30.07 Mbit/s)
- Flow 2 egress (mean 29.86 Mbit/s)
- Flow 3 ingress (mean 32.34 Mbit/s)
- Flow 3 egress (mean 32.19 Mbit/s)

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

- Flow 1 (95th percentile 31.15 ms)
- Flow 2 (95th percentile 31.48 ms)
- Flow 3 (95th percentile 31.76 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-02-20 15:15:47
End at: 2018-02-20 15:16:17
Local clock offset: -0.826 ms
Remote clock offset: -10.496 ms

# Below is generated by plot.py at 2018-02-20 17:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.93 Mbit/s
95th percentile per-packet one-way delay: 32.189 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 46.75 Mbit/s
95th percentile per-packet one-way delay: 31.697 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 32.98 Mbit/s
95th percentile per-packet one-way delay: 33.367 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 33.99 Mbit/s
95th percentile per-packet one-way delay: 32.748 ms
Loss rate: 0.67%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-02-20 15:37:41
End at: 2018-02-20 15:38:11
Local clock offset: 2.068 ms
Remote clock offset: -8.111 ms

# Below is generated by plot.py at 2018-02-20 17:40:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.63 Mbit/s
95th percentile per-packet one-way delay: 28.614 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 53.10 Mbit/s
95th percentile per-packet one-way delay: 28.665 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 49.11 Mbit/s
95th percentile per-packet one-way delay: 28.381 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 14.97 Mbit/s
95th percentile per-packet one-way delay: 28.856 ms
Loss rate: 0.56%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-02-20 15:59:22
End at: 2018-02-20 15:59:52
Local clock offset: -1.658 ms
Remote clock offset: -11.691 ms

# Below is generated by plot.py at 2018-02-20 17:40:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.56 Mbit/s
95th percentile per-packet one-way delay: 33.354 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 51.16 Mbit/s
95th percentile per-packet one-way delay: 33.018 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 38.19 Mbit/s
95th percentile per-packet one-way delay: 33.625 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 15.14 Mbit/s
95th percentile per-packet one-way delay: 34.216 ms
Loss rate: 2.02%
Run 8: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 51.51 Mbit/s)
- Flow 1 egress (mean 51.16 Mbit/s)
- Flow 2 ingress (mean 38.29 Mbit/s)
- Flow 2 egress (mean 38.19 Mbit/s)
- Flow 3 ingress (mean 15.43 Mbit/s)
- Flow 3 egress (mean 15.14 Mbit/s)
Run 9: Statistics of LEDBAT

Start at: 2018-02-20 16:21:43
End at: 2018-02-20 16:22:13
Local clock offset: -3.42 ms
Remote clock offset: -22.656 ms

# Below is generated by plot.py at 2018-02-20 17:40:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.26 Mbit/s
95th percentile per-packet one-way delay: 30.268 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 50.62 Mbit/s
95th percentile per-packet one-way delay: 29.934 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 48.84 Mbit/s
95th percentile per-packet one-way delay: 30.710 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 15.53 Mbit/s
95th percentile per-packet one-way delay: 31.693 ms
Loss rate: 1.14%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-02-20 16:43:43  
End at: 2018-02-20 16:44:13  
Local clock offset: -3.167 ms  
Remote clock offset: -26.586 ms

# Below is generated by plot.py at 2018-02-20 17:40:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.06 Mbit/s
95th percentile per-packet one-way delay: 33.165 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 49.65 Mbit/s
95th percentile per-packet one-way delay: 32.901 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 38.71 Mbit/s
95th percentile per-packet one-way delay: 33.414 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 23.27 Mbit/s
95th percentile per-packet one-way delay: 33.480 ms
Loss rate: 0.76%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC

Start at: 2018-02-20 13:41:17
End at: 2018-02-20 13:41:47
Local clock offset: 2.128 ms
Remote clock offset: -18.519 ms

# Below is generated by plot.py at 2018-02-20 17:41:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.80 Mbit/s
  95th percentile per-packet one-way delay: 24.439 ms
  Loss rate: 1.66%
-- Flow 1:
  Average throughput: 81.29 Mbit/s
  95th percentile per-packet one-way delay: 22.516 ms
  Loss rate: 1.46%
-- Flow 2:
  Average throughput: 6.04 Mbit/s
  95th percentile per-packet one-way delay: 27.459 ms
  Loss rate: 1.94%
-- Flow 3:
  Average throughput: 16.66 Mbit/s
  95th percentile per-packet one-way delay: 30.814 ms
  Loss rate: 4.26%
Run 1: Report of PCC — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows, with labels for mean data rates.]
Run 2: Statistics of PCC

Start at: 2018-02-20 14:02:50
End at: 2018-02-20 14:03:20
Local clock offset: -2.61 ms
Remote clock offset: -18.579 ms

# Below is generated by plot.py at 2018-02-20 17:41:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.28 Mbit/s
95th percentile per-packet one-way delay: -0.478 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 82.72 Mbit/s
95th percentile per-packet one-way delay: -0.646 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 1.901 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 9.69 Mbit/s
95th percentile per-packet one-way delay: 8.657 ms
Loss rate: 0.35%
Run 2: Report of PCC — Data Link
Run 3: Statistics of PCC

Start at: 2018-02-20 14:24:41
End at: 2018-02-20 14:25:11
Local clock offset: 0.343 ms
Remote clock offset: -18.954 ms

# Below is generated by plot.py at 2018-02-20 17:42:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 91.56 Mbit/s
  95th percentile per-packet one-way delay: 17.515 ms
  Loss rate: 0.96%
-- Flow 1:
  Average throughput: 83.86 Mbit/s
  95th percentile per-packet one-way delay: 16.454 ms
  Loss rate: 0.93%
-- Flow 2:
  Average throughput: 6.41 Mbit/s
  95th percentile per-packet one-way delay: 19.994 ms
  Loss rate: 1.12%
-- Flow 3:
  Average throughput: 10.44 Mbit/s
  95th percentile per-packet one-way delay: 23.687 ms
  Loss rate: 1.54%
Run 3: Report of PCC — Data Link
Run 4: Statistics of PCC

Start at: 2018-02-20 14:46:44
End at: 2018-02-20 14:47:14
Local clock offset: 2.704 ms
Remote clock offset: -18.267 ms

# Below is generated by plot.py at 2018-02-20 17:42:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.75 Mbit/s
95th percentile per-packet one-way delay: 23.646 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 77.56 Mbit/s
95th percentile per-packet one-way delay: 22.461 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 14.09 Mbit/s
95th percentile per-packet one-way delay: 26.454 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 17.64 Mbit/s
95th percentile per-packet one-way delay: 28.224 ms
Loss rate: 2.32%
Run 4: Report of PCC — Data Link
Run 5: Statistics of PCC

Start at: 2018-02-20 15:08:25
End at: 2018-02-20 15:08:55
Local clock offset: 2.524 ms
Remote clock offset: -11.571 ms

# Below is generated by plot.py at 2018-02-20 17:42:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.51 Mbit/s
95th percentile per-packet one-way delay: 18.463 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 69.91 Mbit/s
95th percentile per-packet one-way delay: 19.106 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 23.76 Mbit/s
95th percentile per-packet one-way delay: 18.146 ms
Loss rate: 1.62%
-- Flow 3:
Average throughput: 5.49 Mbit/s
95th percentile per-packet one-way delay: -4.679 ms
Loss rate: 0.00%
Run 5: Report of PCC — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 71.27 Mbps)
- Flow 1 egress (mean 69.91 Mbps)
- Flow 2 ingress (mean 24.15 Mbps)
- Flow 2 egress (mean 23.76 Mbps)
- Flow 3 ingress (mean 5.49 Mbps)
- Flow 3 egress (mean 5.49 Mbps)

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

- Flow 1 (95th percentile 19.11 ms)
- Flow 2 (95th percentile 18.15 ms)
- Flow 3 (95th percentile -4.68 ms)
Run 6: Statistics of PCC

Start at: 2018-02-20 15:30:07
End at: 2018-02-20 15:30:37
Local clock offset: -0.653 ms
Remote clock offset: -9.71 ms

# Below is generated by plot.py at 2018-02-20 17:42:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.58 Mbit/s
95th percentile per-packet one-way delay: 22.492 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 78.14 Mbit/s
95th percentile per-packet one-way delay: 21.077 ms
Loss rate: 1.72%
-- Flow 2:
Average throughput: 11.30 Mbit/s
95th percentile per-packet one-way delay: 25.482 ms
Loss rate: 2.09%
-- Flow 3:
Average throughput: 18.04 Mbit/s
95th percentile per-packet one-way delay: 27.164 ms
Loss rate: 3.83%
Run 6: Report of PCC — Data Link

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

- Flow 1 ingress (mean 79.51 Mbit/s)
- Flow 1 egress (mean 78.14 Mbit/s)
- Flow 2 ingress (mean 11.55 Mbit/s)
- Flow 2 egress (mean 11.30 Mbit/s)
- Flow 3 ingress (mean 18.77 Mbit/s)
- Flow 3 egress (mean 18.04 Mbit/s)

![Graph showing packet delay for different flows.]

- Flow 1 (95th percentile 21.08 ms)
- Flow 2 (95th percentile 25.48 ms)
- Flow 3 (95th percentile 27.16 ms)
Run 7: Statistics of PCC

Start at: 2018-02-20 15:52:07
End at: 2018-02-20 15:52:37
Local clock offset: -0.192 ms
Remote clock offset: -8.125 ms

# Below is generated by plot.py at 2018-02-20 17:42:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.86 Mbit/s
95th percentile per-packet one-way delay: 22.576 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 76.65 Mbit/s
95th percentile per-packet one-way delay: 22.629 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 15.47 Mbit/s
95th percentile per-packet one-way delay: 25.019 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 8.91 Mbit/s
95th percentile per-packet one-way delay: 13.006 ms
Loss rate: 0.00%
Run 7: Report of PCC — Data Link

![Graph of data link throughput over time with labels for different flows and their respective mean throughputs.](image)

![Graph of per-packet end-to-end delay over time with labels for different flows and their respective 95th percentiles.](image)
Run 8: Statistics of PCC

Start at: 2018-02-20 16:14:00
End at: 2018-02-20 16:14:30
Local clock offset: -2.077 ms
Remote clock offset: -22.002 ms

# Below is generated by plot.py at 2018-02-20 17:42:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.42 Mbit/s
95th percentile per-packet one-way delay: 18.374 ms
Loss rate: 27.46%
-- Flow 1:
Average throughput: 75.79 Mbit/s
95th percentile per-packet one-way delay: 16.736 ms
Loss rate: 8.39%
-- Flow 2:
Average throughput: 3.63 Mbit/s
95th percentile per-packet one-way delay: 20.334 ms
Loss rate: 91.01%
-- Flow 3:
Average throughput: 15.84 Mbit/s
95th percentile per-packet one-way delay: 23.971 ms
Loss rate: 4.30%
Run 8: Report of PCC — Data Link

![Throughput Graph](image)

- **Flow 1 ingress** (mean 92.79 Mbit/s)
- **Flow 1 egress** (mean 75.79 Mbit/s)
- **Flow 2 ingress** (mean 40.35 Mbit/s)
- **Flow 2 egress** (mean 3.63 Mbit/s)
- **Flow 3 ingress** (mean 16.57 Mbit/s)
- **Flow 3 egress** (mean 15.84 Mbit/s)

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

- **Flow 1** (95th percentile 16.74 ms)
- **Flow 2** (95th percentile 20.33 ms)
- **Flow 3** (95th percentile 23.97 ms)
Run 9: Statistics of PCC

Start at: 2018-02-20 16:36:14  
End at: 2018-02-20 16:36:44  
Local clock offset: -3.617 ms  
Remote clock offset: -26.401 ms

# Below is generated by plot.py at 2018-02-20 17:42:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.15 Mbit/s
95th percentile per-packet one-way delay: 21.233 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 69.70 Mbit/s
95th percentile per-packet one-way delay: 21.539 ms
Loss rate: 1.92%
-- Flow 2:
Average throughput: 24.42 Mbit/s
95th percentile per-packet one-way delay: 21.552 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 9.73 Mbit/s
95th percentile per-packet one-way delay: 0.804 ms
Loss rate: 0.34%
Run 9: Report of PCC — Data Link
Run 10: Statistics of PCC

Start at: 2018-02-20 16:58:06
End at: 2018-02-20 16:58:36
Local clock offset: -0.647 ms
Remote clock offset: -27.795 ms

# Below is generated by plot.py at 2018-02-20 17:42:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.50 Mbit/s
95th percentile per-packet one-way delay: 20.281 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 62.51 Mbit/s
95th percentile per-packet one-way delay: 15.679 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 24.63 Mbit/s
95th percentile per-packet one-way delay: 24.072 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 13.99 Mbit/s
95th percentile per-packet one-way delay: 31.125 ms
Loss rate: 3.00%
Run 10: Report of PCC — Data Link

[Graph showing throughput over time for different flows]

[Graph showing per-packet one-way delay over time for different flows]
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-20 13:30:14
End at: 2018-02-20 13:30:44
Local clock offset: -0.885 ms
Remote clock offset: -18.408 ms

# Below is generated by plot.py at 2018-02-20 17:43:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.63 Mbit/s
95th percentile per-packet one-way delay: 32.295 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 69.12 Mbit/s
95th percentile per-packet one-way delay: 32.278 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 27.75 Mbit/s
95th percentile per-packet one-way delay: 32.397 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 18.72 Mbit/s
95th percentile per-packet one-way delay: 32.210 ms
Loss rate: 2.18%
Run 1: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 70.41 Mbps)
- Flow 1 egress (mean 69.12 Mbps)
- Flow 2 ingress (mean 28.33 Mbps)
- Flow 2 egress (mean 27.75 Mbps)
- Flow 3 ingress (mean 19.16 Mbps)
- Flow 3 egress (mean 18.72 Mbps)

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

- Flow 1 (95th percentile 32.28 ms)
- Flow 2 (95th percentile 32.40 ms)
- Flow 3 (95th percentile 32.21 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-20 13:52:11
End at: 2018-02-20 13:52:41
Local clock offset: 1.46 ms
Remote clock offset: -18.474 ms

# Below is generated by plot.py at 2018-02-20 17:43:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.37 Mbit/s
  95th percentile per-packet one-way delay: 27.719 ms
  Loss rate: 1.42%
-- Flow 1:
  Average throughput: 69.60 Mbit/s
  95th percentile per-packet one-way delay: 27.459 ms
  Loss rate: 1.15%
-- Flow 2:
  Average throughput: 28.02 Mbit/s
  95th percentile per-packet one-way delay: 28.237 ms
  Loss rate: 2.07%
-- Flow 3:
  Average throughput: 18.84 Mbit/s
  95th percentile per-packet one-way delay: 28.028 ms
  Loss rate: 2.46%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-20 14:13:55
End at: 2018-02-20 14:14:25
Local clock offset: -3.505 ms
Remote clock offset: -17.342 ms

# Below is generated by plot.py at 2018-02-20 17:43:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.07 Mbit/s
  95th percentile per-packet one-way delay: 31.582 ms
  Loss rate: 1.80%
-- Flow 1:
  Average throughput: 61.29 Mbit/s
  95th percentile per-packet one-way delay: 31.407 ms
  Loss rate: 1.48%
-- Flow 2:
  Average throughput: 33.91 Mbit/s
  95th percentile per-packet one-way delay: 31.861 ms
  Loss rate: 2.45%
-- Flow 3:
  Average throughput: 19.07 Mbit/s
  95th percentile per-packet one-way delay: 31.859 ms
  Loss rate: 2.63%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-20 14:36:00
End at: 2018-02-20 14:36:30
Local clock offset: -1.848 ms
Remote clock offset: -19.911 ms

# Below is generated by plot.py at 2018-02-20 17:43:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.62 Mbit/s
95th percentile per-packet one-way delay: 31.682 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 66.50 Mbit/s
95th percentile per-packet one-way delay: 31.668 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 31.721 ms
Loss rate: 2.42%
-- Flow 3:
Average throughput: 33.32 Mbit/s
95th percentile per-packet one-way delay: 31.708 ms
Loss rate: 3.28%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-20 14:57:45
End at: 2018-02-20 14:58:15
Local clock offset: 2.203 ms
Remote clock offset: -13.16 ms

# Below is generated by plot.py at 2018-02-20 17:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.76 Mbit/s
95th percentile per-packet one-way delay: 29.952 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 69.02 Mbit/s
95th percentile per-packet one-way delay: 29.690 ms
Loss rate: 1.40%
-- Flow 2:
Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 30.410 ms
Loss rate: 2.40%
-- Flow 3:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 30.378 ms
Loss rate: 3.11%
Run 5: Report of QUIC Cubic — Data Link

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

Flow 1 ingress (mean 70.08 Mbit/s)
Flow 1 egress (mean 69.02 Mbit/s)
Flow 2 ingress (mean 30.12 Mbit/s)
Flow 2 egress (mean 29.36 Mbit/s)
Flow 3 ingress (mean 19.70 Mbit/s)
Flow 3 egress (mean 19.07 Mbit/s)

Flow 1 (95th percentile 29.69 ms)
Flow 2 (95th percentile 30.41 ms)
Flow 3 (95th percentile 30.38 ms)
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-20 15:19:30
End at: 2018-02-20 15:20:00
Local clock offset: 1.359 ms
Remote clock offset: -10.407 ms

# Below is generated by plot.py at 2018-02-20 17:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.43 Mbit/s
95th percentile per-packet one-way delay: 29.733 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 53.49 Mbit/s
95th percentile per-packet one-way delay: 29.402 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 41.73 Mbit/s
95th percentile per-packet one-way delay: 30.014 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 19.04 Mbit/s
95th percentile per-packet one-way delay: 29.957 ms
Loss rate: 2.28%
Run 6: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 54.17 Mbit/s)
- Flow 2 ingress (mean 42.68 Mbit/s)
- Flow 3 ingress (mean 19.48 Mbit/s)
- Flow 1 egress (mean 53.49 Mbit/s)
- Flow 2 egress (mean 41.73 Mbit/s)
- Flow 3 egress (mean 19.04 Mbit/s)

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

- Flow 1 (95th percentile 29.40 ms)
- Flow 2 (95th percentile 30.01 ms)
- Flow 3 (95th percentile 29.96 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-20 15:41:28
End at: 2018-02-20 15:41:58
Local clock offset: 1.701 ms
Remote clock offset: -7.845 ms

# Below is generated by plot.py at 2018-02-20 17:44:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.68 Mbit/s
  95th percentile per-packet one-way delay: 28.913 ms
  Loss rate: 1.71%
-- Flow 1:
  Average throughput: 60.70 Mbit/s
  95th percentile per-packet one-way delay: 28.752 ms
  Loss rate: 1.44%
-- Flow 2:
  Average throughput: 32.62 Mbit/s
  95th percentile per-packet one-way delay: 29.092 ms
  Loss rate: 2.19%
-- Flow 3:
  Average throughput: 25.44 Mbit/s
  95th percentile per-packet one-way delay: 29.153 ms
  Loss rate: 2.40%
Run 7: Report of QUIC Cubic — Data Link

**Diagram 1:**
- **Throughput (Mbps):**
  - **Flow 1 ingress** (mean 61.67 Mbps)
  - **Flow 1 egress** (mean 60.70 Mbps)
  - **Flow 2 ingress** (mean 33.41 Mbps)
  - **Flow 2 egress** (mean 32.62 Mbps)
  - **Flow 3 ingress** (mean 26.09 Mbps)
  - **Flow 3 egress** (mean 25.44 Mbps)

**Diagram 2:**
- **Per-packet one-way delay (ms):**
  - **Flow 1** (95th percentile 28.75 ms)
  - **Flow 2** (95th percentile 29.09 ms)
  - **Flow 3** (95th percentile 29.15 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-20 16:03:09
End at: 2018-02-20 16:03:39
Local clock offset: -1.426 ms
Remote clock offset: -15.325 ms

# Below is generated by plot.py at 2018-02-20 17:44:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.00 Mbit/s
  95th percentile per-packet one-way delay: 32.240 ms
  Loss rate: 1.62%
-- Flow 1:
  Average throughput: 68.54 Mbit/s
  95th percentile per-packet one-way delay: 32.103 ms
  Loss rate: 1.36%
-- Flow 2:
  Average throughput: 29.19 Mbit/s
  95th percentile per-packet one-way delay: 32.419 ms
  Loss rate: 2.21%
-- Flow 3:
  Average throughput: 18.66 Mbit/s
  95th percentile per-packet one-way delay: 32.484 ms
  Loss rate: 2.71%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-20 16:25:26
End at: 2018-02-20 16:25:56
Local clock offset: -4.467 ms
Remote clock offset: -24.026 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.32 Mbit/s
95th percentile per-packet one-way delay: 30.425 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 68.81 Mbit/s
95th percentile per-packet one-way delay: 30.130 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 31.07 Mbit/s
95th percentile per-packet one-way delay: 30.943 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 14.91 Mbit/s
95th percentile per-packet one-way delay: 31.226 ms
Loss rate: 2.62%
Run 9: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 69.70 Mbit/s)
- Flow 1 egress (mean 68.81 Mbit/s)
- Flow 2 ingress (mean 31.70 Mbit/s)
- Flow 2 egress (mean 31.07 Mbit/s)
- Flow 3 ingress (mean 15.31 Mbit/s)
- Flow 3 egress (mean 14.91 Mbit/s)

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

- Flow 1 (95th percentile 30.13 ms)
- Flow 2 (95th percentile 30.94 ms)
- Flow 3 (95th percentile 31.23 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-20 16:47:29
End at: 2018-02-20 16:47:59
Local clock offset: 0.852 ms
Remote clock offset: -29.104 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.00 Mbit/s
95th percentile per-packet one-way delay: 27.584 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 62.19 Mbit/s
95th percentile per-packet one-way delay: 27.407 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 32.44 Mbit/s
95th percentile per-packet one-way delay: 27.813 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 19.17 Mbit/s
95th percentile per-packet one-way delay: 27.836 ms
Loss rate: 2.36%
Run 10: Report of QUIC Cubic — Data Link

![Graph of Throughput vs Time]

- Flow 1 ingress (mean 63.07 Mbit/s)
- Flow 1 egress (mean 62.19 Mbit/s)
- Flow 2 ingress (mean 33.16 Mbit/s)
- Flow 2 egress (mean 32.44 Mbit/s)
- Flow 3 ingress (mean 19.64 Mbit/s)
- Flow 3 egress (mean 19.17 Mbit/s)

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

- Flow 1 (95th percentile 27.41 ms)
- Flow 2 (95th percentile 27.81 ms)
- Flow 3 (95th percentile 27.84 ms)
Run 1: Statistics of SCReAM

Start at: 2018-02-20 13:31:29
End at: 2018-02-20 13:31:59
Local clock offset: -0.28 ms
Remote clock offset: -20.145 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: -7.024 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: -6.781 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: -7.153 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -6.993 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

![Graph showing throughput over time for different flows and their ingress and egress rates.]

![Graph showing per-packet one-way delay over time for different flows and their 95th percentile delay values.]

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Run 2: Statistics of SCReAM

Start at: 2018-02-20 13:53:23
End at: 2018-02-20 13:53:53
Local clock offset: -2.749 ms
Remote clock offset: -20.514 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: -7.000 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -6.995 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -6.990 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -7.050 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

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

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

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

- Flow 1 (95th percentile: 7.00 ms)
- Flow 2 (95th percentile: 6.99 ms)
- Flow 3 (95th percentile: 7.05 ms)
Run 3: Statistics of SCReAM

Start at: 2018-02-20 14:15:09
End at: 2018-02-20 14:15:39
Local clock offset: -3.597 ms
Remote clock offset: -18.529 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: -6.548 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -6.554 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -6.510 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -6.583 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2018-02-20 14:37:13
End at: 2018-02-20 14:37:43
Local clock offset: 1.691 ms
Remote clock offset: -17.692 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: -6.715 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -6.733 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: -6.715 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -6.683 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

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

Legend:
- Flow 1 ingress (mean 0.22 Mb/s)
- Flow 1 egress (mean 0.22 Mb/s)
- Flow 2 ingress (mean 0.21 Mb/s)
- Flow 2 egress (mean 0.21 Mb/s)
- Flow 3 ingress (mean 0.22 Mb/s)
- Flow 3 egress (mean 0.22 Mb/s)
Run 5: Statistics of SCReAM

Start at: 2018-02-20 14:58:58
End at: 2018-02-20 14:59:28
Local clock offset: -0.365 ms
Remote clock offset: -14.133 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: -5.503 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: -5.484 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -5.566 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -5.479 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link
Run 6: Statistics of SCReAM

Start at: 2018-02-20 15:20:42
End at: 2018-02-20 15:21:13
Local clock offset: 2.88 ms
Remote clock offset: -9.928 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: -7.918 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -7.864 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: -7.999 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -7.962 ms
Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

![Graph of Throughput and Per-packet one-way delay vs Time](image)

**Throughput (Mbps)**
- Blue dashed line: Flow 1 ingress (mean 0.22 Mbps)
- Blue solid line: Flow 1 egress (mean 0.22 Mbps)
- Red dashed line: Flow 2 ingress (mean 0.21 Mbps)
- Red solid line: Flow 2 egress (mean 0.21 Mbps)
- Green dashed line: Flow 3 ingress (mean 0.22 Mbps)
- Green solid line: Flow 3 egress (mean 0.22 Mbps)

**Per-packet one-way delay (ms)**
- Blue dotted line: Flow 1 (95th percentile -7.06 ms)
- Red dotted line: Flow 2 (95th percentile -8.00 ms)
- Black dotted line: Flow 3 (95th percentile -7.96 ms)
Run 7: Statistics of SCReAM

Start at: 2018-02-20 15:42:40
End at: 2018-02-20 15:43:10
Local clock offset: -0.842 ms
Remote clock offset: -6.651 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: -4.489 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: -4.515 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: -4.452 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: -4.491 ms
  Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

![Graph showing throughput and latency 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 0.21 Mbit/s)
- Flow 2 egress (mean 0.21 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s)
- Flow 3 egress (mean 0.22 Mbit/s)
Run 8: Statistics of SCReAM

Start at: 2018-02-20 16:04:25
End at: 2018-02-20 16:04:55
Local clock offset: 1.498 ms
Remote clock offset: -15.819 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: -7.858 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: -7.879 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: -7.829 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: -7.864 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

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

Graph 2: Per-packet size (ms) vs. Time (s)

Legend:
- Flow 1 ingress (mean 0.22 Mb/s)
- Flow 1 egress (mean 0.22 Mb/s)
- Flow 2 ingress (mean 0.21 Mb/s)
- Flow 2 egress (mean 0.21 Mb/s)
- Flow 3 ingress (mean 0.22 Mb/s)
- Flow 3 egress (mean 0.22 Mb/s)

Legend:
- Flow 1 (95th percentile: 7.88 ms)
- Flow 2 (95th percentile: 7.83 ms)
- Flow 3 (95th percentile: 7.86 ms)
Run 9: Statistics of SCReAM

Start at: 2018-02-20 16:26:40
End at: 2018-02-20 16:27:10
Local clock offset: -2.85 ms
Remote clock offset: -25.111 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: -8.597 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -8.630 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -8.554 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -8.580 ms
Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-02-20 16:48:41
End at: 2018-02-20 16:49:11
Local clock offset: -1.418 ms
Remote clock offset: -29.879 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: -7.420 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -7.482 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: -7.441 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -7.320 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-02-20 13:38:55
End at: 2018-02-20 13:39:25
Local clock offset: 2.134 ms
Remote clock offset: -17.472 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: -3.456 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: -3.540 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: -3.473 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: -3.266 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

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

- **Flow 1**
  - Ingress: Mean 2.34 Mbit/s
  - Egress: Mean 2.34 Mbit/s

- **Flow 2**
  - Ingress: Mean 1.51 Mbit/s
  - Egress: Mean 1.51 Mbit/s

- **Flow 3**
  - Ingress: Mean 0.63 Mbit/s
  - Egress: Mean 0.63 Mbit/s

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

- **Flow 1** (95th percentile: 3.54 ms)
- **Flow 2** (95th percentile: 3.47 ms)
- **Flow 3** (95th percentile: 3.27 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-02-20 14:00:30
End at: 2018-02-20 14:01:00
Local clock offset: -3.63 ms
Remote clock offset: -17.995 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: -3.196 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: -3.648 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: -2.864 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: -2.471 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

Graph 1: Throughput (Mbit/s) over Time (s)
- Flow 1 ingress (mean 2.35 Mbit/s)
- Flow 1 egress (mean 2.35 Mbit/s)
- Flow 2 ingress (mean 1.51 Mbit/s)
- Flow 2 egress (mean 1.51 Mbit/s)
- Flow 3 ingress (mean 0.64 Mbit/s)
- Flow 3 egress (mean 0.64 Mbit/s)

Graph 2: Per-packet round trip delay (ms) over Time (s)
- Flow 1 (95th percentile 3.65 ms)
- Flow 2 (95th percentile 2.86 ms)
- Flow 3 (95th percentile 2.47 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-02-20 14:22:20  
End at: 2018-02-20 14:22:50  
Local clock offset: -2.59 ms  
Remote clock offset: -18.081 ms

# Below is generated by plot.py at 2018-02-20 17:45:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 4.49 Mbit/s  
95th percentile per-packet one-way delay:  -3.255 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 2.35 Mbit/s  
95th percentile per-packet one-way delay:  -3.706 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.50 Mbit/s  
95th percentile per-packet one-way delay:  -3.273 ms  
Loss rate: 0.09%  
-- Flow 3:  
Average throughput: 0.64 Mbit/s  
95th percentile per-packet one-way delay:  -2.509 ms  
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

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

![Graph 2: Per packet end-to-end delay (ms)]
Run 4: Statistics of WebRTC media

Start at: 2018-02-20 14:44:25
End at: 2018-02-20 14:44:55
Local clock offset: 0.965 ms
Remote clock offset: -17.777 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: -3.445 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: -3.356 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: -3.686 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: -3.363 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-02-20 15:06:07  
End at: 2018-02-20 15:06:37  
Local clock offset: 0.246 ms  
Remote clock offset: -12.274 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.50 Mbit/s  
  95th percentile per-packet one-way delay: -3.132 ms  
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.35 Mbit/s  
  95th percentile per-packet one-way delay: -3.333 ms  
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.52 Mbit/s  
  95th percentile per-packet one-way delay: -2.736 ms  
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 0.64 Mbit/s  
  95th percentile per-packet one-way delay: -3.078 ms  
  Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-02-20 15:27:49
End at: 2018-02-20 15:28:19
Local clock offset: -0.731 ms
Remote clock offset: -8.219 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: -1.236 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: -1.667 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: -0.932 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 0.014 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-02-20 15:49:47
End at: 2018-02-20 15:50:17
Local clock offset: 0.34 ms
Remote clock offset: -6.6 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: -3.934 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: -3.643 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: -4.651 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: -3.832 ms
Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.34 Mbit/s)
- Flow 1 egress (mean 2.34 Mbit/s)
- Flow 2 ingress (mean 1.51 Mbit/s)
- Flow 2 egress (mean 1.51 Mbit/s)
- Flow 3 ingress (mean 0.64 Mbit/s)
- Flow 3 egress (mean 0.64 Mbit/s)
Run 8: Statistics of WebRTC media

Start at: 2018-02-20 16:11:40
End at: 2018-02-20 16:12:10
Local clock offset: -0.704 ms
Remote clock offset: -19.988 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.39 Mbit/s
95th percentile per-packet one-way delay: -5.391 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: -5.688 ms
Loss rate: 2.20%
-- Flow 2:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: -5.266 ms
Loss rate: 3.24%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: -4.995 ms
Loss rate: 0.14%
Run 8: Report of WebRTC media — Data Link
Run 9: Statistics of WebRTC media

Start at: 2018-02-20 16:33:54
End at: 2018-02-20 16:34:24
Local clock offset: -4.235 ms
Remote clock offset: -25.603 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.48 Mbit/s
  95th percentile per-packet one-way delay: -4.365 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: -4.931 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.50 Mbit/s
  95th percentile per-packet one-way delay: -5.286 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.65 Mbit/s
  95th percentile per-packet one-way delay: -2.269 ms
  Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

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

Flow 1 ingress (mean 2.35 Mbit/s)  Flow 1 egress (mean 2.35 Mbit/s)
Flow 2 ingress (mean 1.50 Mbit/s)  Flow 2 egress (mean 1.50 Mbit/s)
Flow 3 ingress (mean 0.65 Mbit/s)  Flow 3 egress (mean 0.65 Mbit/s)

[Graph showing packet delay over time for different flows]

Flow 1 (95th percentile -4.93 ms)  Flow 2 (95th percentile -5.29 ms)  Flow 3 (95th percentile -2.27 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-02-20 16:55:47
End at: 2018-02-20 16:56:17
Local clock offset: 0.621 ms
Remote clock offset: -29.384 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.49 Mbit/s
  95th percentile per-packet one-way delay: -4.933 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: -5.203 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.51 Mbit/s
  95th percentile per-packet one-way delay: -4.813 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.65 Mbit/s
  95th percentile per-packet one-way delay: -4.831 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 1: Statistics of Sprout

Start at: 2018-02-20 13:25:20
End at: 2018-02-20 13:25:50
Local clock offset: -0.988 ms
Remote clock offset: -19.254 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.95 Mbit/s
95th percentile per-packet one-way delay: 0.991 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.31 Mbit/s
95th percentile per-packet one-way delay: 0.609 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.79 Mbit/s
95th percentile per-packet one-way delay: 1.196 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.66 Mbit/s
95th percentile per-packet one-way delay: 1.716 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

The graphs show throughput and per-packet one-way delay over time for different flows. The throughput graphs display the rate at which data is transmitted, while the per-packet delay graphs illustrate the latency for each packet.

Throughput (Mbps/s):
- **Flow 1 Ingress** (mean 24.31 Mbps/s)
- **Flow 1 Egress** (mean 24.31 Mbps/s)
- **Flow 2 Ingress** (mean 23.79 Mbps/s)
- **Flow 2 Egress** (mean 23.79 Mbps/s)
- **Flow 3 Ingress** (mean 23.70 Mbps/s)
- **Flow 3 Egress** (mean 23.66 Mbps/s)

Per-packet one-way delay (ms):
- **Flow 1** (95th percentile 0.61 ms)
- **Flow 2** (95th percentile 1.20 ms)
- **Flow 3** (95th percentile 1.72 ms)
Run 2: Statistics of Sprout

Start at: 2018-02-20 13:47:26
End at: 2018-02-20 13:47:56
Local clock offset: 0.461 ms
Remote clock offset: -19.471 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.00 Mbit/s
95th percentile per-packet one-way delay: 2.033 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 2.113 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.62 Mbit/s
95th percentile per-packet one-way delay: 2.192 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.06 Mbit/s
95th percentile per-packet one-way delay: 1.155 ms
Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

![Graph showing data link performance with throughput and per-packet one-way delays over time.]

Legend:
- Flow 1 ingress (mean 24.69 Mbit/s)
- Flow 1 egress (mean 24.68 Mbit/s)
- Flow 2 ingress (mean 24.81 Mbit/s)
- Flow 2 egress (mean 24.62 Mbit/s)
- Flow 3 ingress (mean 24.07 Mbit/s)
- Flow 3 egress (mean 24.06 Mbit/s)
Run 3: Statistics of Sprout

Start at: 2018-02-20 14:09:08
End at: 2018-02-20 14:09:38
Local clock offset: -1.567 ms
Remote clock offset: -20.426 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.93 Mbit/s
  95th percentile per-packet one-way delay: -0.732 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.68 Mbit/s
  95th percentile per-packet one-way delay: -1.551 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.40 Mbit/s
  95th percentile per-packet one-way delay: 0.803 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.31 Mbit/s
  95th percentile per-packet one-way delay: -1.251 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

![Graph of Throughout vs Time](image1)

![Graph of Per-packet one-way delay vs Time](image2)
Run 4: Statistics of Sprout

Start at: 2018-02-20 14:30:59
End at: 2018-02-20 14:31:29
Local clock offset: -1.616 ms
Remote clock offset: -18.377 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.72 Mbit/s
95th percentile per-packet one-way delay: 5.944 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 5.041 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.16 Mbit/s
95th percentile per-packet one-way delay: 6.459 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.18 Mbit/s
95th percentile per-packet one-way delay: 6.848 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

Start at: 2018-02-20 14:52:56  
End at: 2018-02-20 14:53:26  
Local clock offset: 0.146 ms  
Remote clock offset: -17.143 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 48.76 Mbit/s  
  95th percentile per-packet one-way delay: 2.460 ms  
  Loss rate: 0.00%  
-- Flow 1:  
  Average throughput: 24.55 Mbit/s  
  95th percentile per-packet one-way delay: 1.814 ms  
  Loss rate: 0.00%  
-- Flow 2:  
  Average throughput: 24.44 Mbit/s  
  95th percentile per-packet one-way delay: 2.557 ms  
  Loss rate: 0.00%  
-- Flow 3:  
  Average throughput: 24.13 Mbit/s  
  95th percentile per-packet one-way delay: 4.506 ms  
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

Graph 1: Throughput (Mbps)

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

Legend:
- Blue: Flow 1 ingress (mean 24.55 Mbps)
- Blue: Flow 1 egress (mean 24.44 Mbps)
- Green: Flow 2 ingress (mean 24.45 Mbps)
- Green: Flow 2 egress (mean 24.55 Mbps)
- Red: Flow 3 ingress (mean 24.11 Mbps)
- Red: Flow 3 egress (mean 24.13 Mbps)
Run 6: Statistics of Sprout

Start at: 2018-02-20 15:14:40
End at: 2018-02-20 15:15:10
Local clock offset: 1.605 ms
Remote clock offset: -10.954 ms

# Below is generated by plot.py at 2018-02-20 17:45:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.94 Mbit/s
95th percentile per-packet one-way delay: 2.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 2.694 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.37 Mbit/s
95th percentile per-packet one-way delay: 3.289 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.42 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.00%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

Start at: 2018-02-20 15:36:33
End at: 2018-02-20 15:37:03
Local clock offset: -1.355 ms
Remote clock offset: -7.722 ms

# Below is generated by plot.py at 2018-02-20 17:45:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.87 Mbit/s
95th percentile per-packet one-way delay: 6.769 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.57 Mbit/s
95th percentile per-packet one-way delay: 7.338 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 5.452 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.46 Mbit/s
95th percentile per-packet one-way delay: 6.352 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

![Graph 1: Throughout vs Time (Mbit/s)]

- **Flow 1 Ingress (mean 24.58 Mbit/s)**
- **Flow 1 Egress (mean 24.57 Mbit/s)**
- **Flow 2 Ingress (mean 24.41 Mbit/s)**
- **Flow 2 Egress (mean 24.40 Mbit/s)**
- **Flow 3 Ingress (mean 24.46 Mbit/s)**
- **Flow 3 Egress (mean 24.46 Mbit/s)**

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

- **Flow 1 (95th percentile 7.34 ms)**
- **Flow 2 (95th percentile 5.45 ms)**
- **Flow 3 (95th percentile 6.35 ms)**
Run 8: Statistics of Sprout

Start at: 2018-02-20 15:58:15
End at: 2018-02-20 15:58:45
Local clock offset: 2.175 ms
Remote clock offset: -11.953 ms

# Below is generated by plot.py at 2018-02-20 17:45:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.85 Mbit/s
95th percentile per-packet one-way delay: 1.349 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.48 Mbit/s
95th percentile per-packet one-way delay: 2.249 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.59 Mbit/s
95th percentile per-packet one-way delay: -0.746 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.22 Mbit/s
95th percentile per-packet one-way delay: 1.130 ms
Loss rate: 0.00%
Run 9: Statistics of Sprout

Start at: 2018-02-20 16:20:34
End at: 2018-02-20 16:21:04
Local clock offset: -2.297 ms
Remote clock offset: -21.986 ms

# Below is generated by plot.py at 2018-02-20 17:45:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 49.00 Mbit/s
  95th percentile per-packet one-way delay: 3.440 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.62 Mbit/s
  95th percentile per-packet one-way delay: 4.041 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.52 Mbit/s
  95th percentile per-packet one-way delay: 2.792 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.43 Mbit/s
  95th percentile per-packet one-way delay: 2.420 ms
  Loss rate: 0.00%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-02-20 16:42:33
End at: 2018-02-20 16:43:03
Local clock offset: -1.429 ms
Remote clock offset: -27.294 ms

# Below is generated by plot.py at 2018-02-20 17:45:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.91 Mbit/s
95th percentile per-packet one-way delay: 2.278 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.66 Mbit/s
95th percentile per-packet one-way delay: 2.028 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 3.038 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.08 Mbit/s
95th percentile per-packet one-way delay: 1.369 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-20 13:44:57
End at: 2018-02-20 13:45:27
Local clock offset: 0.854 ms
Remote clock offset: -18.386 ms

# Below is generated by plot.py at 2018-02-20 17:47:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.15 Mbit/s
  95th percentile per-packet one-way delay: 27.671 ms
  Loss rate: 7.54%
-- Flow 1:
  Average throughput: 57.14 Mbit/s
  95th percentile per-packet one-way delay: 23.459 ms
  Loss rate: 4.28%
-- Flow 2:
  Average throughput: 39.78 Mbit/s
  95th percentile per-packet one-way delay: 28.612 ms
  Loss rate: 8.82%
-- Flow 3:
  Average throughput: 31.70 Mbit/s
  95th percentile per-packet one-way delay: 31.360 ms
  Loss rate: 19.55%
Run 1: Report of TaoVA-100x — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-20 14:06:34  
End at: 2018-02-20 14:07:04  
Local clock offset: -4.552 ms  
Remote clock offset: -17.894 ms

# Below is generated by plot.py at 2018-02-20 17:47:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.80 Mbit/s  
95th percentile per-packet one-way delay: 18.399 ms  
Loss rate: 0.16%
-- Flow 1:
Average throughput: 61.02 Mbit/s  
95th percentile per-packet one-way delay: 17.124 ms  
Loss rate: 0.10%
-- Flow 2:
Average throughput: 26.34 Mbit/s  
95th percentile per-packet one-way delay: 19.940 ms  
Loss rate: 0.35%
-- Flow 3:
Average throughput: 45.90 Mbit/s  
95th percentile per-packet one-way delay: 19.270 ms  
Loss rate: 0.20%
Run 2: Report of TaoVA-100x — Data Link

Throughput (Mbps/s)

Time (s)

Flow 1 ingress (mean 61.09 Mbps/s)
Flow 1 egress (mean 61.02 Mbps/s)
Flow 2 ingress (mean 26.43 Mbps/s)
Flow 2 egress (mean 26.34 Mbps/s)
Flow 3 ingress (mean 45.96 Mbps/s)
Flow 3 egress (mean 45.90 Mbps/s)

Delay per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 17.12 ms)
Flow 2 (95th percentile 19.94 ms)
Flow 3 (95th percentile 19.27 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-20 14:28:25
End at: 2018-02-20 14:28:55
Local clock offset: -1.959 ms
Remote clock offset: -19.395 ms

# Below is generated by plot.py at 2018-02-20 17:47:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.53 Mbit/s
  95th percentile per-packet one-way delay: 17.694 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 60.98 Mbit/s
  95th percentile per-packet one-way delay: 16.434 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 26.22 Mbit/s
  95th percentile per-packet one-way delay: 19.120 ms
  Loss rate: 0.24%
-- Flow 3:
  Average throughput: 45.53 Mbit/s
  95th percentile per-packet one-way delay: 18.545 ms
  Loss rate: 0.17%
Run 3: Report of TaoVA-100x — Data Link

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

- **Flow 1 Ingress** (mean 61.02 Mbit/s)
- **Flow 1 Egress** (mean 60.98 Mbit/s)
- **Flow 2 Ingress** (mean 26.29 Mbit/s)
- **Flow 2 Egress** (mean 26.22 Mbit/s)
- **Flow 3 Ingress** (mean 45.58 Mbit/s)
- **Flow 3 Egress** (mean 45.53 Mbit/s)
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-20 14:50:24
End at: 2018-02-20 14:50:54
Local clock offset: 2.461 ms
Remote clock offset: -17.615 ms

# Below is generated by plot.py at 2018-02-20 17:47:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.94 Mbit/s
95th percentile per-packet one-way delay: 23.508 ms
Loss rate: 7.45%
-- Flow 1:
Average throughput: 57.01 Mbit/s
95th percentile per-packet one-way delay: 19.576 ms
Loss rate: 4.24%
-- Flow 2:
Average throughput: 39.56 Mbit/s
95th percentile per-packet one-way delay: 24.384 ms
Loss rate: 8.74%
-- Flow 3:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 27.294 ms
Loss rate: 19.23%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-02-20 15:12:09
End at: 2018-02-20 15:12:39
Local clock offset: 2.121 ms
Remote clock offset: -14.033 ms

# Below is generated by plot.py at 2018-02-20 17:48:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.06 Mbit/s
95th percentile per-packet one-way delay: 21.798 ms
Loss rate: 7.54%
-- Flow 1:
Average throughput: 57.08 Mbit/s
95th percentile per-packet one-way delay: 17.811 ms
Loss rate: 4.30%
-- Flow 2:
Average throughput: 39.70 Mbit/s
95th percentile per-packet one-way delay: 22.688 ms
Loss rate: 8.85%
-- Flow 3:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 25.724 ms
Loss rate: 19.45%
Run 5: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 59.65 Mbit/s)
Flow 1 egress (mean 57.08 Mbit/s)
Flow 2 ingress (mean 43.16 Mbit/s)
Flow 2 egress (mean 39.70 Mbit/s)
Flow 3 ingress (mean 39.43 Mbit/s)
Flow 3 egress (mean 31.75 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 17.81 ms)
Flow 2 (95th percentile 22.69 ms)
Flow 3 (95th percentile 25.72 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-02-20 15:33:52
End at: 2018-02-20 15:34:22
Local clock offset: -0.737 ms
Remote clock offset: -9.284 ms

# Below is generated by plot.py at 2018-02-20 17:48:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.02 Mbit/s
95th percentile per-packet one-way delay: 17.743 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 48.40 Mbit/s
95th percentile per-packet one-way delay: 15.369 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 45.91 Mbit/s
95th percentile per-packet one-way delay: 18.826 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 45.27 Mbit/s
95th percentile per-packet one-way delay: 18.419 ms
Loss rate: 0.19%
Run 6: Report of TaoVA-100x — Data Link

![Throughput Graph]

Flow 1 ingress (mean 48.48 Mbit/s)
Flow 1 egress (mean 48.40 Mbit/s)
Flow 2 ingress (mean 46.02 Mbit/s)
Flow 2 egress (mean 45.91 Mbit/s)
Flow 3 ingress (mean 45.45 Mbit/s)
Flow 3 egress (mean 45.27 Mbit/s)

![Packet Delay Graph]

Flow 1 (95th percentile 15.37 ms)
Flow 2 (95th percentile 18.83 ms)
Flow 3 (95th percentile 18.42 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-20 15:55:47
End at: 2018-02-20 15:56:17
Local clock offset: 0.143 ms
Remote clock offset: -7.729 ms

# Below is generated by plot.py at 2018-02-20 17:48:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.07 Mbit/s
95th percentile per-packet one-way delay: 25.812 ms
Loss rate: 7.42%
-- Flow 1:
Average throughput: 57.08 Mbit/s
95th percentile per-packet one-way delay: 21.496 ms
Loss rate: 4.21%
-- Flow 2:
Average throughput: 39.70 Mbit/s
95th percentile per-packet one-way delay: 26.701 ms
Loss rate: 8.68%
-- Flow 3:
Average throughput: 31.81 Mbit/s
95th percentile per-packet one-way delay: 29.629 ms
Loss rate: 19.24%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-02-20 16:17:51
End at: 2018-02-20 16:18:21
Local clock offset: -4.696 ms
Remote clock offset: -24.437 ms

# Below is generated by plot.py at 2018-02-20 17:48:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.29 Mbit/s
95th percentile per-packet one-way delay: 17.190 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 61.59 Mbit/s
95th percentile per-packet one-way delay: 15.759 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 26.59 Mbit/s
95th percentile per-packet one-way delay: 19.105 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 45.17 Mbit/s
95th percentile per-packet one-way delay: 17.717 ms
Loss rate: 0.28%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-20 16:39:58
End at: 2018-02-20 16:40:28
Local clock offset: -3.373 ms
Remote clock offset: -26.641 ms

# Below is generated by plot.py at 2018-02-20 17:50:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.31 Mbit/s
  95th percentile per-packet one-way delay: 26.229 ms
  Loss rate: 7.40%
-- Flow 1:
  Average throughput: 57.29 Mbit/s
  95th percentile per-packet one-way delay: 22.373 ms
  Loss rate: 4.19%
-- Flow 2:
  Average throughput: 39.73 Mbit/s
  95th percentile per-packet one-way delay: 27.081 ms
  Loss rate: 8.64%
-- Flow 3:
  Average throughput: 31.78 Mbit/s
  95th percentile per-packet one-way delay: 30.046 ms
  Loss rate: 19.33%
Run 9: Report of TaoVA-100x — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 59.85 Mbps)
  - Flow 1 egress (mean 57.29 Mbps)
  - Flow 2 ingress (mean 43.33 Mbps)
  - Flow 2 egress (mean 39.73 Mbps)
  - Flow 3 ingress (mean 39.48 Mbps)
  - Flow 3 egress (mean 31.78 Mbps)

- **Per packet one-way delay (ms):**
  - Flow 1 (95th percentile 22.37 ms)
  - Flow 2 (95th percentile 27.08 ms)
  - Flow 3 (95th percentile 30.05 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-20 17:01:48
End at: 2018-02-20 17:02:18
Local clock offset: -0.73 ms
Remote clock offset: -30.257 ms

# Below is generated by plot.py at 2018-02-20 17:50:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.92 Mbit/s
95th percentile per-packet one-way delay: 18.765 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 48.11 Mbit/s
95th percentile per-packet one-way delay: 16.781 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 46.19 Mbit/s
95th percentile per-packet one-way delay: 20.031 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 45.41 Mbit/s
95th percentile per-packet one-way delay: 19.064 ms
Loss rate: 0.26%
Run 10: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 48.16 Mbit/s)
- Flow 1 egress (mean 48.11 Mbit/s)
- Flow 2 ingress (mean 46.29 Mbit/s)
- Flow 2 egress (mean 46.19 Mbit/s)
- Flow 3 ingress (mean 45.52 Mbit/s)
- Flow 3 egress (mean 45.41 Mbit/s)
Run 1: Statistics of TCP Vegas

Start at: 2018-02-20 13:32:35  
End at: 2018-02-20 13:33:05  
Local clock offset: -0.584 ms  
Remote clock offset: -18.668 ms  

# Below is generated by plot.py at 2018-02-20 17:50:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.13 Mbit/s  
95th percentile per-packet one-way delay: 3.653 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 59.42 Mbit/s  
95th percentile per-packet one-way delay: 5.445 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 38.87 Mbit/s  
95th percentile per-packet one-way delay: -2.416 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 32.65 Mbit/s  
95th percentile per-packet one-way delay: -2.072 ms  
Loss rate: 0.04%
Run 1: Report of TCP Vegas — Data Link

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

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 59.42 Mbit/s)
Flow 1 egress (mean 59.42 Mbit/s)
Flow 2 ingress (mean 38.87 Mbit/s)
Flow 2 egress (mean 38.87 Mbit/s)
Flow 3 ingress (mean 32.66 Mbit/s)
Flow 3 egress (mean 32.65 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 5.45 ms)
Flow 2 (95th percentile -2.42 ms)
Flow 3 (95th percentile -2.07 ms)
Run 2: Statistics of TCP Vegas

Start at: 2018-02-20 13:54:28
End at: 2018-02-20 13:54:58
Local clock offset: -2.654 ms
Remote clock offset: -18.696 ms

# Below is generated by plot.py at 2018-02-20 17:50:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.53 Mbit/s
95th percentile per-packet one-way delay: 3.109 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 52.51 Mbit/s
95th percentile per-packet one-way delay: 5.507 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 44.27 Mbit/s
95th percentile per-packet one-way delay: -3.167 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.80 Mbit/s
95th percentile per-packet one-way delay: -3.383 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-02-20 14:16:15  
End at: 2018-02-20 14:16:45  
Local clock offset: -2.098 ms  
Remote clock offset: -18.713 ms

# Below is generated by plot.py at 2018-02-20 17:50:18  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 97.11 Mbit/s  
  95th percentile per-packet one-way delay: 2.667 ms  
  Loss rate: 0.00%  
-- Flow 1:  
  Average throughput: 51.52 Mbit/s  
  95th percentile per-packet one-way delay: 5.169 ms  
  Loss rate: 0.00%  
-- Flow 2:  
  Average throughput: 46.48 Mbit/s  
  95th percentile per-packet one-way delay: -3.953 ms  
  Loss rate: 0.00%  
-- Flow 3:  
  Average throughput: 44.12 Mbit/s  
  95th percentile per-packet one-way delay: -5.229 ms  
  Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-02-20 14:38:19
End at: 2018-02-20 14:38:49
Local clock offset: -0.87 ms
Remote clock offset: -18.71 ms

# Below is generated by plot.py at 2018-02-20 17:50:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.84 Mbit/s
95th percentile per-packet one-way delay: -1.709 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.13 Mbit/s
95th percentile per-packet one-way delay: -1.654 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.89 Mbit/s
95th percentile per-packet one-way delay: -0.854 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.69 Mbit/s
95th percentile per-packet one-way delay: -2.540 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-02-20 15:00:04
End at: 2018-02-20 15:00:34
Local clock offset: 0.698 ms
Remote clock offset: -13.359 ms

# Below is generated by plot.py at 2018-02-20 17:50:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.18 Mbit/s
95th percentile per-packet one-way delay: 3.563 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.85 Mbit/s
95th percentile per-packet one-way delay: 5.660 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.88 Mbit/s
95th percentile per-packet one-way delay: -2.431 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.49 Mbit/s
95th percentile per-packet one-way delay: -3.813 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-02-20 15:21:48
End at: 2018-02-20 15:22:18
Local clock offset: -0.221 ms
Remote clock offset: -9.239 ms

# Below is generated by plot.py at 2018-02-20 17:50:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.05 Mbit/s
95th percentile per-packet one-way delay: 5.122 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 7.391 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.56 Mbit/s
95th percentile per-packet one-way delay: 0.115 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.58 Mbit/s
95th percentile per-packet one-way delay: -1.437 ms
Loss rate: 0.01%
Run 6: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 50.26 Mbit/s)
- Flow 1 egress (mean 50.26 Mbit/s)
- Flow 2 ingress (mean 43.56 Mbit/s)
- Flow 2 egress (mean 43.56 Mbit/s)
- Flow 3 ingress (mean 53.58 Mbit/s)
- Flow 3 egress (mean 53.58 Mbit/s)
Run 7: Statistics of TCP Vegas

Start at: 2018-02-20 15:43:45
End at: 2018-02-20 15:44:15
Local clock offset: 1.152 ms
Remote clock offset: -8.515 ms

# Below is generated by plot.py at 2018-02-20 17:50:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.15 Mbit/s
95th percentile per-packet one-way delay: 1.818 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 56.18 Mbit/s
95th percentile per-packet one-way delay: 3.962 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 38.67 Mbit/s
95th percentile per-packet one-way delay: -4.542 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.88 Mbit/s
95th percentile per-packet one-way delay: -5.810 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

![Graph of TCP Vegas data link performance showing throughput and per-packet one-way delay over time.]

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Run 8: Statistics of TCP Vegas

Start at: 2018-02-20 16:05:31
End at: 2018-02-20 16:06:01
Local clock offset: -6.954 ms
Remote clock offset: -21.179 ms

# Below is generated by plot.py at 2018-02-20 17:50:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.94 Mbit/s
95th percentile per-packet one-way delay: 4.686 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 59.43 Mbit/s
95th percentile per-packet one-way delay: 6.482 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 34.80 Mbit/s
95th percentile per-packet one-way delay: -1.665 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.20 Mbit/s
95th percentile per-packet one-way delay: -1.534 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 59.60 Mbit/s)
- Flow 1 egress (mean 59.43 Mbit/s)
- Flow 2 ingress (mean 34.80 Mbit/s)
- Flow 2 egress (mean 34.80 Mbit/s)
- Flow 3 ingress (mean 43.20 Mbit/s)
- Flow 3 egress (mean 43.20 Mbit/s)
Run 9: Statistics of TCP Vegas

Start at: 2018-02-20 16:27:45
End at: 2018-02-20 16:28:15
Local clock offset: -4.309 ms
Remote clock offset: -23.771 ms

# Below is generated by plot.py at 2018-02-20 17:51:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.09 Mbit/s
95th percentile per-packet one-way delay: 1.040 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 56.94 Mbit/s
95th percentile per-packet one-way delay: 1.843 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 41.17 Mbit/s
95th percentile per-packet one-way delay: -1.838 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.39 Mbit/s
95th percentile per-packet one-way delay: -3.322 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link

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

- **Throughput (Mbit/s):**
  - Blue line: Flow 1 ingress (mean 57.34 Mbit/s) and Flow 1 egress (mean 56.94 Mbit/s)
  - Green line: Flow 2 ingress (mean 41.18 Mbit/s) and Flow 2 egress (mean 41.17 Mbit/s)
  - Red line: Flow 3 ingress (mean 38.40 Mbit/s) and Flow 3 egress (mean 38.39 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Blue line: Flow 1 (95th percentile 1.84 ms)
  - Green line: Flow 2 (95th percentile -1.84 ms)
  - Red line: Flow 3 (95th percentile -3.32 ms)
Run 10: Statistics of TCP Vegas

Start at: 2018-02-20 16:49:46
End at: 2018-02-20 16:50:16
Local clock offset: -1.567 ms
Remote clock offset: -28.425 ms

# Below is generated by plot.py at 2018-02-20 17:51:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.95 Mbit/s
95th percentile per-packet one-way delay: 4.160 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.36 Mbit/s
95th percentile per-packet one-way delay: 6.015 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.35 Mbit/s
95th percentile per-packet one-way delay: -2.660 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.32 Mbit/s
95th percentile per-packet one-way delay: -3.100 ms
Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link
Run 1: Statistics of Verus

Start at: 2018-02-20 13:40:03
End at: 2018-02-20 13:40:33
Local clock offset: 0.054 ms
Remote clock offset: -17.811 ms

# Below is generated by plot.py at 2018-02-20 17:51:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.46 Mbit/s
95th percentile per-packet one-way delay: 32.033 ms
Loss rate: 33.74%
-- Flow 1:
Average throughput: 54.53 Mbit/s
95th percentile per-packet one-way delay: 30.659 ms
Loss rate: 24.95%
-- Flow 2:
Average throughput: 28.55 Mbit/s
95th percentile per-packet one-way delay: 34.046 ms
Loss rate: 48.30%
-- Flow 3:
Average throughput: 30.08 Mbit/s
95th percentile per-packet one-way delay: 32.335 ms
Loss rate: 40.02%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Start at: 2018-02-20 14:01:35
End at: 2018-02-20 14:02:05
Local clock offset: -2.829 ms
Remote clock offset: -19.242 ms

# Below is generated by plot.py at 2018-02-20 17:51:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.86 Mbit/s
95th percentile per-packet one-way delay: 28.321 ms
Loss rate: 25.05%
-- Flow 1:
Average throughput: 63.65 Mbit/s
95th percentile per-packet one-way delay: 27.376 ms
Loss rate: 21.30%
-- Flow 2:
Average throughput: 29.10 Mbit/s
95th percentile per-packet one-way delay: 29.354 ms
Loss rate: 28.98%
-- Flow 3:
Average throughput: 18.24 Mbit/s
95th percentile per-packet one-way delay: 31.377 ms
Loss rate: 43.43%
Run 2: Report of Verus — Data Link

![Graphs showing throughput and packet delivery time for different flows.]
Run 3: Statistics of Verus

Start at: 2018-02-20 14:23:27
End at: 2018-02-20 14:23:57
Local clock offset: -0.678 ms
Remote clock offset: -19.897 ms

# Below is generated by plot.py at 2018-02-20 17:51:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.83 Mbit/s
  95th percentile per-packet one-way delay: 26.448 ms
  Loss rate: 23.20%
-- Flow 1:
  Average throughput: 58.59 Mbit/s
  95th percentile per-packet one-way delay: 25.989 ms
  Loss rate: 21.05%
-- Flow 2:
  Average throughput: 33.75 Mbit/s
  95th percentile per-packet one-way delay: 27.594 ms
  Loss rate: 28.74%
-- Flow 3:
  Average throughput: 12.90 Mbit/s
  95th percentile per-packet one-way delay: 25.167 ms
  Loss rate: 20.33%
Run 3: Report of Verus — Data Link

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

- **Flow 1 ingress (mean 74.27 Mbit/s)**
- **Flow 1 egress (mean 58.59 Mbit/s)**
- **Flow 2 ingress (mean 47.34 Mbit/s)**
- **Flow 2 egress (mean 33.75 Mbit/s)**
- **Flow 3 ingress (mean 14.60 Mbit/s)**
- **Flow 3 egress (mean 12.90 Mbit/s)**

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

- **Flow 1 (95th percentile 25.99 ms)**
- **Flow 2 (95th percentile 27.59 ms)**
- **Flow 3 (95th percentile 25.17 ms)**

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Run 4: Statistics of Verus

Start at: 2018-02-20 14:45:31
End at: 2018-02-20 14:46:01
Local clock offset: 2.506 ms
Remote clock offset: -18.619 ms

# Below is generated by plot.py at 2018-02-20 17:51:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.27 Mbit/s
95th percentile per-packet one-way delay: 27.488 ms
Loss rate: 25.18%
-- Flow 1:
Average throughput: 49.81 Mbit/s
95th percentile per-packet one-way delay: 26.881 ms
Loss rate: 18.05%
-- Flow 2:
Average throughput: 39.00 Mbit/s
95th percentile per-packet one-way delay: 27.469 ms
Loss rate: 30.41%
-- Flow 3:
Average throughput: 23.66 Mbit/s
95th percentile per-packet one-way delay: 29.998 ms
Loss rate: 43.94%
Run 4: Report of Verus — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.]
Run 5: Statistics of Verus

Start at: 2018-02-20 15:07:13
End at: 2018-02-20 15:07:43
Local clock offset: -1.116 ms
Remote clock offset: -11.904 ms

# Below is generated by plot.py at 2018-02-20 17:52:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.93 Mbit/s
95th percentile per-packet one-way delay: 32.280 ms
Loss rate: 30.06%
-- Flow 1:
Average throughput: 51.62 Mbit/s
95th percentile per-packet one-way delay: 32.331 ms
Loss rate: 30.87%
-- Flow 2:
Average throughput: 23.30 Mbit/s
95th percentile per-packet one-way delay: 32.268 ms
Loss rate: 27.74%
-- Flow 3:
Average throughput: 30.60 Mbit/s
95th percentile per-packet one-way delay: 31.935 ms
Loss rate: 29.27%
Run 5: Report of Verus — Data Link

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

- Flow 1 ingress (mean 74.68 Mbit/s)
- Flow 1 egress (mean 51.62 Mbit/s)
- Flow 2 ingress (mean 32.25 Mbit/s)
- Flow 2 egress (mean 23.30 Mbit/s)
- Flow 3 ingress (mean 38.55 Mbit/s)
- Flow 3 egress (mean 30.60 Mbit/s)

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

- Flow 1 (95th percentile 32.33 ms)
- Flow 2 (95th percentile 32.27 ms)
- Flow 3 (95th percentile 31.93 ms)
Run 6: Statistics of Verus

Start at: 2018-02-20 15:28:54  
End at: 2018-02-20 15:29:24  
Local clock offset: -0.285 ms  
Remote clock offset: -9.178 ms

# Below is generated by plot.py at 2018-02-20 17:52:11  
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.99 Mbit/s  
  95th percentile per-packet one-way delay: 31.140 ms  
  Loss rate: 22.96%  
-- Flow 1:
  Average throughput: 52.07 Mbit/s  
  95th percentile per-packet one-way delay: 30.729 ms  
  Loss rate: 22.57%  
-- Flow 2:
  Average throughput: 28.12 Mbit/s  
  95th percentile per-packet one-way delay: 31.841 ms  
  Loss rate: 26.57%  
-- Flow 3:
  Average throughput: 33.94 Mbit/s  
  95th percentile per-packet one-way delay: 31.407 ms  
  Loss rate: 18.14%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-02-20 15:50:53
End at: 2018-02-20 15:51:23
Local clock offset: 0.582 ms
Remote clock offset: -6.493 ms

# Below is generated by plot.py at 2018-02-20 17:52:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.82 Mbit/s
  95th percentile per-packet one-way delay: 28.872 ms
  Loss rate: 26.67%
-- Flow 1:
  Average throughput: 57.18 Mbit/s
  95th percentile per-packet one-way delay: 29.167 ms
  Loss rate: 27.28%
-- Flow 2:
  Average throughput: 32.01 Mbit/s
  95th percentile per-packet one-way delay: 28.312 ms
  Loss rate: 23.21%
-- Flow 3:
  Average throughput: 15.35 Mbit/s
  95th percentile per-packet one-way delay: 26.538 ms
  Loss rate: 32.98%
Run 7: Report of Verus — Data Link

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

- Flow 1 ingress (mean 78.73 Mbps)
- Flow 2 ingress (mean 41.68 Mbps)
- Flow 3 ingress (mean 20.55 Mbps)
- Flow 1 egress (mean 57.18 Mbps)
- Flow 2 egress (mean 32.01 Mbps)
- Flow 3 egress (mean 15.35 Mbps)

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

- Flow 1 (95th percentile 29.17 ms)
- Flow 2 (95th percentile 28.31 ms)
- Flow 3 (95th percentile 26.54 ms)
Run 8: Statistics of Verus

Start at: 2018-02-20 16:12:45
End at: 2018-02-20 16:13:15
Local clock offset: -3.991 ms
Remote clock offset: -21.961 ms

# Below is generated by plot.py at 2018-02-20 17:52:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.11 Mbit/s
95th percentile per-packet one-way delay: 31.888 ms
Loss rate: 38.36%
-- Flow 1:
Average throughput: 41.99 Mbit/s
95th percentile per-packet one-way delay: 37.461 ms
Loss rate: 44.63%
-- Flow 2:
Average throughput: 38.52 Mbit/s
95th percentile per-packet one-way delay: 28.232 ms
Loss rate: 25.86%
-- Flow 3:
Average throughput: 20.87 Mbit/s
95th percentile per-packet one-way delay: 28.800 ms
Loss rate: 33.94%
Run 8: Report of Verus — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 75.97 Mbit/s)  Flow 1 egress (mean 41.99 Mbit/s)
Flow 2 ingress (mean 51.84 Mbit/s)  Flow 2 egress (mean 38.52 Mbit/s)
Flow 3 ingress (mean 31.60 Mbit/s)  Flow 3 egress (mean 20.87 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 37.46 ms)  Flow 2 (95th percentile 28.23 ms)  Flow 3 (95th percentile 28.80 ms)
Run 9: Statistics of Verus

Start at: 2018-02-20 16:35:01
End at: 2018-02-20 16:35:31
Local clock offset: -3.853 ms
Remote clock offset: -24.821 ms

# Below is generated by plot.py at 2018-02-20 17:52:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.84 Mbit/s
95th percentile per-packet one-way delay: 28.725 ms
Loss rate: 29.47%
-- Flow 1:
Average throughput: 47.91 Mbit/s
95th percentile per-packet one-way delay: 27.474 ms
Loss rate: 18.65%
-- Flow 2:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 30.904 ms
Loss rate: 47.44%
-- Flow 3:
Average throughput: 27.80 Mbit/s
95th percentile per-packet one-way delay: 28.993 ms
Loss rate: 23.53%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-02-20 16:56:53
End at: 2018-02-20 16:57:23
Local clock offset: 2.767 ms
Remote clock offset: -29.134 ms

# Below is generated by plot.py at 2018-02-20 17:52:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 80.56 Mbit/s
  95th percentile per-packet one-way delay: 27.326 ms
  Loss rate: 28.03%
-- Flow 1:
  Average throughput: 60.06 Mbit/s
  95th percentile per-packet one-way delay: 27.312 ms
  Loss rate: 26.80%
-- Flow 2:
  Average throughput: 23.77 Mbit/s
  95th percentile per-packet one-way delay: 27.759 ms
  Loss rate: 31.80%
-- Flow 3:
  Average throughput: 15.86 Mbit/s
  95th percentile per-packet one-way delay: 25.485 ms
  Loss rate: 30.08%
Run 10: Report of Verus — Data Link

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

- Flow 1 ingress (mean 82.07 Mbit/s)
- Flow 1 egress (mean 60.06 Mbit/s)
- Flow 2 ingress (mean 34.84 Mbit/s)
- Flow 2 egress (mean 23.77 Mbit/s)
- Flow 3 ingress (mean 20.37 Mbit/s)
- Flow 3 egress (mean 15.86 Mbit/s)
Run 1: Statistics of Copa

Start at: 2018-02-20 13:43:40
End at: 2018-02-20 13:44:10
Local clock offset: 0.925 ms
Remote clock offset: -17.863 ms

# Below is generated by plot.py at 2018-02-20 17:54:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.07 Mbit/s
  95th percentile per-packet one-way delay: 2.640 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 54.93 Mbit/s
  95th percentile per-packet one-way delay: 1.941 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 42.55 Mbit/s
  95th percentile per-packet one-way delay: 3.040 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 29.55 Mbit/s
  95th percentile per-packet one-way delay: 3.581 ms
  Loss rate: 0.00%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-02-20 14:05:16
End at: 2018-02-20 14:05:46
Local clock offset: -4.405 ms
Remote clock offset: -18.357 ms

# Below is generated by plot.py at 2018-02-20 17:54:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.05 Mbit/s
95th percentile per-packet one-way delay: 1.529 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.59 Mbit/s
95th percentile per-packet one-way delay: 1.035 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.20 Mbit/s
95th percentile per-packet one-way delay: 1.809 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.18 Mbit/s
95th percentile per-packet one-way delay: 2.281 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link
Run 3: Statistics of Copa

Start at: 2018-02-20 14:27:04
End at: 2018-02-20 14:27:34
Local clock offset: 0.566 ms
Remote clock offset: -18.559 ms

# Below is generated by plot.py at 2018-02-20 17:54:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.52 Mbit/s
95th percentile per-packet one-way delay: -0.606 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.55 Mbit/s
95th percentile per-packet one-way delay: -1.052 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.81 Mbit/s
95th percentile per-packet one-way delay: -0.060 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.49 Mbit/s
95th percentile per-packet one-way delay: -0.131 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 60.57 Mbps)
- Flow 1 egress (mean 60.55 Mbps)
- Flow 2 ingress (mean 34.83 Mbps)
- Flow 2 egress (mean 34.81 Mbps)
- Flow 3 ingress (mean 29.51 Mbps)
- Flow 3 egress (mean 29.49 Mbps)

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

- Flow 1 (95th percentile -1.05 ms)
- Flow 2 (95th percentile -0.06 ms)
- Flow 3 (95th percentile -0.13 ms)
Run 4: Statistics of Copa

Start at: 2018-02-20 14:49:08
End at: 2018-02-20 14:49:38
Local clock offset: 2.558 ms
Remote clock offset: -17.154 ms

# Below is generated by plot.py at 2018-02-20 17:54:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.23 Mbit/s
95th percentile per-packet one-way delay: -0.712 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.08 Mbit/s
95th percentile per-packet one-way delay: -1.428 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: -0.427 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.86 Mbit/s
95th percentile per-packet one-way delay: 0.061 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 57.08 Mbps/s)
Flow 1 egress (mean 57.08 Mbps/s)
Flow 2 ingress (mean 38.91 Mbps/s)
Flow 2 egress (mean 38.91 Mbps/s)
Flow 3 ingress (mean 30.87 Mbps/s)
Flow 3 egress (mean 30.66 Mbps/s)

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

Time (s)

Flow 1 (95th percentile -1.43 ms)
Flow 2 (95th percentile -0.43 ms)
Flow 3 (95th percentile 0.06 ms)
Run 5: Statistics of Copa

Start at: 2018-02-20 15:10:51
End at: 2018-02-20 15:11:21
Local clock offset: -0.808 ms
Remote clock offset: -12.392 ms

# Below is generated by plot.py at 2018-02-20 17:55:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.18 Mbit/s
95th percentile per-packet one-way delay: 1.233 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.32 Mbit/s
95th percentile per-packet one-way delay: 0.784 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.81 Mbit/s
95th percentile per-packet one-way delay: 1.304 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.18 Mbit/s
95th percentile per-packet one-way delay: 2.086 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link

[Graph showing throughput over time for different flows]

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

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Run 6: Statistics of Copa

Start at: 2018-02-20 15:32:33
End at: 2018-02-20 15:33:03
Local clock offset: -0.591 ms
Remote clock offset: -8.102 ms

# Below is generated by plot.py at 2018-02-20 17:55:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.62 Mbit/s
95th percentile per-packet one-way delay: 2.284 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.98 Mbit/s
95th percentile per-packet one-way delay: 1.844 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.68 Mbit/s
95th percentile per-packet one-way delay: 2.519 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.77 Mbit/s
95th percentile per-packet one-way delay: 2.972 ms
Loss rate: 0.00%
Run 7: Statistics of Copa

Start at: 2018-02-20 15:54:32
End at: 2018-02-20 15:55:02
Local clock offset: -1.44 ms
Remote clock offset: -5.269 ms

# Below is generated by plot.py at 2018-02-20 17:55:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.64 Mbit/s
95th percentile per-packet one-way delay: 2.765 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.13 Mbit/s
95th percentile per-packet one-way delay: 2.141 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.09 Mbit/s
95th percentile per-packet one-way delay: 3.007 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.57 Mbit/s
95th percentile per-packet one-way delay: 3.811 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link

![Graph 1: Throughout vs Time (Mbit/s)]

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

Flow 1 ingress (mean 57.14 Mbit/s)
Flow 1 egress (mean 57.13 Mbit/s)
Flow 2 ingress (mean 38.09 Mbit/s)
Flow 2 egress (mean 38.09 Mbit/s)
Flow 3 ingress (mean 30.57 Mbit/s)
Flow 3 egress (mean 30.57 Mbit/s)

Flow 1 (95th percentile 2.14 ms)
Flow 2 (95th percentile 3.01 ms)
Flow 3 (95th percentile 3.81 ms)
Run 8: Statistics of Copa

Start at: 2018-02-20 16:16:29
End at: 2018-02-20 16:16:59
Local clock offset: -2.136 ms
Remote clock offset: -23.435 ms

# Below is generated by plot.py at 2018-02-20 17:55:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.94 Mbit/s
95th percentile per-packet one-way delay: -2.261 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: -3.056 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.16 Mbit/s
95th percentile per-packet one-way delay: -2.111 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.06 Mbit/s
95th percentile per-packet one-way delay: -1.204 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link

Throughput [Mbit/s]

Time (s)

Flow 1 ingress (mean 55.88 Mbit/s)
Flow 1 egress (mean 55.88 Mbit/s)
Flow 2 ingress (mean 39.16 Mbit/s)
Flow 2 egress (mean 39.16 Mbit/s)
Flow 3 ingress (mean 30.05 Mbit/s)
Flow 3 egress (mean 30.06 Mbit/s)

Per-packet end-to-end delay [ms]

Time (s)

Flow 1 (95th percentile -3.06 ms)
Flow 2 (95th percentile -2.11 ms)
Flow 3 (95th percentile -1.20 ms)
Run 9: Statistics of Copa

Start at: 2018-02-20 16:38:40
End at: 2018-02-20 16:39:10
Local clock offset: -3.582 ms
Remote clock offset: -26.014 ms

# Below is generated by plot.py at 2018-02-20 17:56:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.12 Mbit/s
95th percentile per-packet one-way delay: 0.648 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.79 Mbit/s
95th percentile per-packet one-way delay: -0.204 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.22 Mbit/s
95th percentile per-packet one-way delay: 0.917 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.81 Mbit/s
95th percentile per-packet one-way delay: 1.697 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link

![Graph of Throughput and Per-packet one-way delay over time for different flows (Flow 1, Flow 2, Flow 3) with their respective mean rates (56.80 Mbps, 40.22 Mbps, 28.81 Mbps) and 95th percentile one-way delay (0.20 ms, 0.92 ms, 1.70 ms).]
Run 10: Statistics of Copa

Start at: 2018-02-20 17:00:30
End at: 2018-02-20 17:01:00
Local clock offset: -0.613 ms
Remote clock offset: -28.006 ms

# Below is generated by plot.py at 2018-02-20 17:56:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.92 Mbit/s
95th percentile per-packet one-way delay: 3.570 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.77 Mbit/s
95th percentile per-packet one-way delay: 2.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 3.690 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.23 Mbit/s
95th percentile per-packet one-way delay: 4.442 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link

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

- **Flow 1 ingress (mean 57.77 Mbit/s)**
- **Flow 1 egress (mean 57.77 Mbit/s)**
- **Flow 2 ingress (mean 38.71 Mbit/s)**
- **Flow 2 egress (mean 38.72 Mbit/s)**
- **Flow 3 ingress (mean 20.22 Mbit/s)**
- **Flow 3 egress (mean 20.23 Mbit/s)**

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

- **Flow 1 (95th percentile 2.98 ms)**
- **Flow 2 (95th percentile 3.69 ms)**
- **Flow 3 (95th percentile 4.44 ms)**
Run 1: Statistics of FillP

Start at: 2018-02-20 13:35:02
End at: 2018-02-20 13:35:32
Local clock offset: -0.601 ms
Remote clock offset: -18.887 ms

# Below is generated by plot.py at 2018-02-20 17:56:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.75 Mbit/s
95th percentile per-packet one-way delay: 33.704 ms
Loss rate: 28.31%
-- Flow 1:
Average throughput: 57.82 Mbit/s
95th percentile per-packet one-way delay: 33.361 ms
Loss rate: 25.16%
-- Flow 2:
Average throughput: 33.14 Mbit/s
95th percentile per-packet one-way delay: 34.219 ms
Loss rate: 31.84%
-- Flow 3:
Average throughput: 51.86 Mbit/s
95th percentile per-packet one-way delay: 34.141 ms
Loss rate: 33.42%
Run 1: Report of FillP — Data Link

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

- Flow 1 ingress (mean 77.33 Mbit/s)
- Flow 1 egress (mean 57.82 Mbit/s)
- Flow 2 ingress (mean 48.63 Mbit/s)
- Flow 2 egress (mean 33.14 Mbit/s)
- Flow 3 ingress (mean 76.57 Mbit/s)
- Flow 3 egress (mean 51.86 Mbit/s)

![Graph showing packet delay for different flows.]

- Flow 1 (95th percentile 33.36 ms)
- Flow 2 (95th percentile 34.22 ms)
- Flow 3 (95th percentile 34.14 ms)
Run 2: Statistics of FillP

Start at: 2018-02-20 13:56:55
End at: 2018-02-20 13:57:25
Local clock offset: 0.238 ms
Remote clock offset: -20.758 ms

# Below is generated by plot.py at 2018-02-20 17:56:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.80 Mbit/s
95th percentile per-packet one-way delay: 27.774 ms
Loss rate: 29.33%
-- Flow 1:
Average throughput: 52.00 Mbit/s
95th percentile per-packet one-way delay: 27.557 ms
Loss rate: 26.27%
-- Flow 2:
Average throughput: 38.09 Mbit/s
95th percentile per-packet one-way delay: 27.655 ms
Loss rate: 31.15%
-- Flow 3:
Average throughput: 59.69 Mbit/s
95th percentile per-packet one-way delay: 28.530 ms
Loss rate: 34.36%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

Start at: 2018-02-20 14:18:40
End at: 2018-02-20 14:19:10
Local clock offset: -5.123 ms
Remote clock offset: -18.901 ms

# Below is generated by plot.py at 2018-02-20 17:56:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.74 Mbit/s
  95th percentile per-packet one-way delay: 33.731 ms
  Loss rate: 29.21%
-- Flow 1:
  Average throughput: 43.15 Mbit/s
  95th percentile per-packet one-way delay: 33.638 ms
  Loss rate: 27.41%
-- Flow 2:
  Average throughput: 48.70 Mbit/s
  95th percentile per-packet one-way delay: 33.544 ms
  Loss rate: 29.17%
-- Flow 3:
  Average throughput: 64.93 Mbit/s
  95th percentile per-packet one-way delay: 34.227 ms
  Loss rate: 32.64%
Run 3: Report of FillP — Data Link

Throughput (Mbit/s) vs Time (s)

- Flow 1 ingress (mean 59.47 Mbit/s)
- Flow 1 egress (mean 43.15 Mbit/s)
- Flow 2 ingress (mean 68.17 Mbit/s)
- Flow 2 egress (mean 48.70 Mbit/s)
- Flow 3 ingress (mean 96.11 Mbit/s)
- Flow 3 egress (mean 64.93 Mbit/s)

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

- Flow 1 (95th percentile 33.64 ms)
- Flow 2 (95th percentile 33.54 ms)
- Flow 3 (95th percentile 34.23 ms)
Run 4: Statistics of FillP

Start at: 2018-02-20 14:40:46
End at: 2018-02-20 14:41:16
Local clock offset: 2.308 ms
Remote clock offset: -19.404 ms

# Below is generated by plot.py at 2018-02-20 17:57:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.78 Mbit/s
95th percentile per-packet one-way delay: 29.984 ms
Loss rate: 27.40%
-- Flow 1:
Average throughput: 48.38 Mbit/s
95th percentile per-packet one-way delay: 29.802 ms
Loss rate: 23.55%
-- Flow 2:
Average throughput: 47.48 Mbit/s
95th percentile per-packet one-way delay: 29.951 ms
Loss rate: 28.64%
-- Flow 3:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 30.677 ms
Loss rate: 34.73%
Run 4: Report of FillP — Data Link

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

- **Flow 1 ingress (mean 63.39 Mbit/s)**
- **Flow 1 egress (mean 48.38 Mbit/s)**
- **Flow 2 ingress (mean 66.59 Mbit/s)**
- **Flow 2 egress (mean 47.48 Mbit/s)**
- **Flow 3 ingress (mean 77.83 Mbit/s)**
- **Flow 3 egress (mean 50.63 Mbit/s)**
Run 5: Statistics of FillP

Start at: 2018-02-20 15:02:29
End at: 2018-02-20 15:02:59
Local clock offset: 3.223 ms
Remote clock offset: -12.704 ms

# Below is generated by plot.py at 2018-02-20 17:57:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.74 Mbit/s
95th percentile per-packet one-way delay: 30.426 ms
Loss rate: 30.09%
-- Flow 1:
Average throughput: 50.77 Mbit/s
95th percentile per-packet one-way delay: 30.216 ms
Loss rate: 27.55%
-- Flow 2:
Average throughput: 42.03 Mbit/s
95th percentile per-packet one-way delay: 30.520 ms
Loss rate: 30.39%
-- Flow 3:
Average throughput: 54.37 Mbit/s
95th percentile per-packet one-way delay: 30.931 ms
Loss rate: 36.02%
Run 5: Report of FillP — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 70.12 Mbps)
  - Flow 1 egress (mean 50.77 Mbps)
  - Flow 2 ingress (mean 60.41 Mbps)
  - Flow 2 egress (mean 42.03 Mbps)
  - Flow 3 ingress (mean 84.90 Mbps)
  - Flow 3 egress (mean 54.37 Mbps)

- **Packet Loss (ms):**
  - Flow 1 (95th percentile 30.22 ms)
  - Flow 2 (95th percentile 30.52 ms)
  - Flow 3 (95th percentile 30.93 ms)
Run 6: Statistics of FillP

Start at: 2018-02-20 15:24:12
End at: 2018-02-20 15:24:42
Local clock offset: 0.991 ms
Remote clock offset: -9.759 ms

# Below is generated by plot.py at 2018-02-20 17:57:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.78 Mbit/s
  95th percentile per-packet one-way delay: 32.557 ms
  Loss rate: 29.64%
-- Flow 1:
  Average throughput: 54.56 Mbit/s
  95th percentile per-packet one-way delay: 32.461 ms
  Loss rate: 27.44%
-- Flow 2:
  Average throughput: 39.98 Mbit/s
  95th percentile per-packet one-way delay: 32.532 ms
  Loss rate: 30.70%
-- Flow 3:
  Average throughput: 47.10 Mbit/s
  95th percentile per-packet one-way delay: 32.933 ms
  Loss rate: 34.82%
Run 6: Report of FillP — Data Link

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

- Flow 1 ingress (mean 75.27 Mbps)
- Flow 1 egress (mean 54.56 Mbps)
- Flow 2 ingress (mean 57.71 Mbps)
- Flow 2 egress (mean 39.95 Mbps)
- Flow 3 ingress (mean 72.43 Mbps)
- Flow 3 egress (mean 47.10 Mbps)

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

- Flow 1 (95th percentile 32.46 ms)
- Flow 2 (95th percentile 32.53 ms)
- Flow 3 (95th percentile 32.93 ms)
Run 7: Statistics of FillP

Start at: 2018-02-20 15:46:07
End at: 2018-02-20 15:46:37
Local clock offset: 2.527 ms
Remote clock offset: -7.636 ms

# Below is generated by plot.py at 2018-02-20 17:58:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.71 Mbit/s
95th percentile per-packet one-way delay: 29.620 ms
Loss rate: 28.89%
-- Flow 1:
Average throughput: 61.55 Mbit/s
95th percentile per-packet one-way delay: 29.452 ms
Loss rate: 26.10%
-- Flow 2:
Average throughput: 32.74 Mbit/s
95th percentile per-packet one-way delay: 29.806 ms
Loss rate: 31.17%
-- Flow 3:
Average throughput: 41.16 Mbit/s
95th percentile per-packet one-way delay: 30.140 ms
Loss rate: 36.48%
Run 7: Report of FillP — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 83.31 Mbps)
  - Flow 1 egress (mean 61.55 Mbps)
  - Flow 2 ingress (mean 47.51 Mbps)
  - Flow 2 egress (mean 32.74 Mbps)
  - Flow 3 ingress (mean 63.80 Mbps)
  - Flow 3 egress (mean 41.16 Mbps)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 29.45 ms)
  - Flow 2 (95th percentile 29.81 ms)
  - Flow 3 (95th percentile 30.14 ms)
Run 8: Statistics of FillP

Start at: 2018-02-20 16:07:57
End at: 2018-02-20 16:08:27
Local clock offset: 0.176 ms
Remote clock offset: -16.909 ms

# Below is generated by plot.py at 2018-02-20 17:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.98 Mbit/s
95th percentile per-packet one-way delay: 32.211 ms
Loss rate: 30.79%
-- Flow 1:
Average throughput: 46.12 Mbit/s
95th percentile per-packet one-way delay: 31.936 ms
Loss rate: 29.46%
-- Flow 2:
Average throughput: 53.80 Mbit/s
95th percentile per-packet one-way delay: 32.281 ms
Loss rate: 29.59%
-- Flow 3:
Average throughput: 36.51 Mbit/s
95th percentile per-packet one-way delay: 33.064 ms
Loss rate: 38.32%
Run 8: Report of FillP — Data Link

![Graphs showing network performance metrics](image-url)

- Flow 1 ingress (mean 65.38 Mbit/s)
- Flow 1 egress (mean 46.12 Mbit/s)
- Flow 2 ingress (mean 76.37 Mbit/s)
- Flow 2 egress (mean 53.80 Mbit/s)
- Flow 3 ingress (mean 59.07 Mbit/s)
- Flow 3 egress (mean 36.51 Mbit/s)

- Flow 1 (95th percentile 31.94 ms)
- Flow 2 (95th percentile 32.28 ms)
- Flow 3 (95th percentile 33.06 ms)
Run 9: Statistics of FillP

Start at: 2018-02-20 16:30:09
End at: 2018-02-20 16:30:39
Local clock offset: -4.676 ms
Remote clock offset: -24.65 ms

# Below is generated by plot.py at 2018-02-20 17:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.79 Mbit/s
95th percentile per-packet one-way delay: 32.799 ms
Loss rate: 27.94%
-- Flow 1:
Average throughput: 44.70 Mbit/s
95th percentile per-packet one-way delay: 32.810 ms
Loss rate: 26.59%
-- Flow 2:
Average throughput: 48.14 Mbit/s
95th percentile per-packet one-way delay: 32.641 ms
Loss rate: 27.56%
-- Flow 3:
Average throughput: 60.64 Mbit/s
95th percentile per-packet one-way delay: 33.032 ms
Loss rate: 31.33%
Run 9: Report of FillP — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 60.93 Mbps)
  - Flow 1 egress (mean 44.70 Mbps)
  - Flow 2 ingress (mean 66.45 Mbps)
  - Flow 2 egress (mean 48.14 Mbps)
  - Flow 3 ingress (mean 98.20 Mbps)
  - Flow 3 egress (mean 60.64 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 32.81 ms)
  - Flow 2 (95th percentile 32.64 ms)
  - Flow 3 (95th percentile 33.03 ms)
Run 10: Statistics of FillP

Start at: 2018-02-20 16:52:10
End at: 2018-02-20 16:52:40
Local clock offset: -1.458 ms
Remote clock offset: -27.814 ms

# Below is generated by plot.py at 2018-02-20 17:58:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.74 Mbit/s
95th percentile per-packet one-way delay: 34.272 ms
Loss rate: 27.71%
-- Flow 1:
Average throughput: 47.20 Mbit/s
95th percentile per-packet one-way delay: 34.028 ms
Loss rate: 24.82%
-- Flow 2:
Average throughput: 46.05 Mbit/s
95th percentile per-packet one-way delay: 34.311 ms
Loss rate: 28.68%
-- Flow 3:
Average throughput: 56.90 Mbit/s
95th percentile per-packet one-way delay: 34.865 ms
Loss rate: 32.71%
Run 10: Report of FillIP — Data Link

![Data Link Throughput Graph]

![Data Link Delay Graph]

- Flow 1 ingress (mean 62.85 Mbit/s)
- Flow 1 egress (mean 47.20 Mbit/s)
- Flow 2 ingress (mean 64.65 Mbit/s)
- Flow 2 egress (mean 46.05 Mbit/s)
- Flow 3 ingress (mean 84.78 Mbit/s)
- Flow 3 egress (mean 56.90 Mbit/s)

![Packet Delay](image)
Run 1: Statistics of Indigo-1-32

End at: 2018-02-20 13:46:43
Local clock offset: 1.142 ms
Remote clock offset: -19.235 ms

# Below is generated by plot.py at 2018-02-20 17:58:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.11 Mbit/s
95th percentile per-packet one-way delay: 3.046 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.41 Mbit/s
95th percentile per-packet one-way delay: 2.934 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.99 Mbit/s
95th percentile per-packet one-way delay: 3.061 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.32 Mbit/s
95th percentile per-packet one-way delay: 4.648 ms
Loss rate: 0.00%
Run 1: Report of Indigo-1-32 — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 53.42 Mbit/s) — Flow 1 egress (mean 53.41 Mbit/s)
Flow 2 ingress (mean 44.01 Mbit/s) — Flow 2 egress (mean 43.99 Mbit/s)
Flow 3 ingress (mean 44.33 Mbit/s) — Flow 3 egress (mean 44.32 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 2.93 ms) — Flow 2 (95th percentile 3.06 ms) — Flow 3 (95th percentile 4.65 ms)
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-20 14:07:53
End at: 2018-02-20 14:08:23
Local clock offset: -4.044 ms
Remote clock offset: -18.15 ms

# Below is generated by plot.py at 2018-02-20 17:58:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 4.010 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.42 Mbit/s
95th percentile per-packet one-way delay: 3.832 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.66 Mbit/s
95th percentile per-packet one-way delay: 4.856 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.38 Mbit/s
95th percentile per-packet one-way delay: 6.070 ms
Loss rate: 0.00%
Run 2: Report of Indigo-1-32 — Data Link

![Data Link Diagram]

- **Throughput (Mbit/s)**
  - **Flow 1 ingress (mean 55.40 Mbit/s)**
  - **Flow 1 egress (mean 55.42 Mbit/s)**
  - **Flow 2 ingress (mean 37.68 Mbit/s)**
  - **Flow 2 egress (mean 37.66 Mbit/s)**
  - **Flow 3 ingress (mean 51.40 Mbit/s)**
  - **Flow 3 egress (mean 51.38 Mbit/s)**

- **Per-packet one-way delay (ms)**
  - **Flow 1 (95th percentile 3.83 ms)**
  - **Flow 2 (95th percentile 4.86 ms)**
  - **Flow 3 (95th percentile 6.07 ms)**
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-20 14:29:43
End at: 2018-02-20 14:30:13
Local clock offset: -2.21 ms
Remote clock offset: -17.486 ms

# Below is generated by plot.py at 2018-02-20 17:58:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 5.913 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.82 Mbit/s
95th percentile per-packet one-way delay: 5.819 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.75 Mbit/s
95th percentile per-packet one-way delay: 5.942 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.80 Mbit/s
95th percentile per-packet one-way delay: 8.052 ms
Loss rate: 0.00%
Run 3: Report of Indigo-1-32 — Data Link
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-20 14:51:40
End at: 2018-02-20 14:52:10
Local clock offset: -3.048 ms
Remote clock offset: -18.775 ms

# Below is generated by plot.py at 2018-02-20 17:58:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 4.734 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.41 Mbit/s
95th percentile per-packet one-way delay: 3.852 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 5.002 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.93 Mbit/s
95th percentile per-packet one-way delay: 5.755 ms
Loss rate: 0.00%
Run 4: Report of Indigo-1-32 — Data Link
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-20 15:13:26
End at: 2018-02-20 15:13:56
Local clock offset: -0.496 ms
Remote clock offset: -10.704 ms

# Below is generated by plot.py at 2018-02-20 17:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.14 Mbit/s
95th percentile per-packet one-way delay: 4.897 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.79 Mbit/s
95th percentile per-packet one-way delay: 4.811 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 4.926 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.30 Mbit/s
95th percentile per-packet one-way delay: 6.549 ms
Loss rate: 0.00%
Run 5: Report of Indigo-1-32 — Data Link

[Graph showing throughput and packet delay over time for different flows]
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-20 15:35:14
End at: 2018-02-20 15:35:44
Local clock offset: 1.169 ms
Remote clock offset: -8.351 ms

# Below is generated by plot.py at 2018-02-20 17:59:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.13 Mbit/s
95th percentile per-packet one-way delay: 1.391 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.83 Mbit/s
95th percentile per-packet one-way delay: 1.143 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.04 Mbit/s
95th percentile per-packet one-way delay: 2.202 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.25 Mbit/s
95th percentile per-packet one-way delay: 3.581 ms
Loss rate: 0.00%
Run 6: Report of Indigo-1-32 — Data Link

Graph 1: Throughput vs. Time

Graph 2: Per-packet one-way delay vs. Time
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-20 15:57:03
End at: 2018-02-20 15:57:33
Local clock offset: 0.78 ms
Remote clock offset: -11.548 ms

# Below is generated by plot.py at 2018-02-20 17:59:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.03 Mbit/s
  95th percentile per-packet one-way delay: 0.434 ms
  Loss rate: 0.22%
-- Flow 1:
  Average throughput: 48.88 Mbit/s
  95th percentile per-packet one-way delay: 0.330 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 36.60 Mbit/s
  95th percentile per-packet one-way delay: 0.447 ms
  Loss rate: 0.12%
-- Flow 3:
  Average throughput: 42.44 Mbit/s
  95th percentile per-packet one-way delay: 3.749 ms
  Loss rate: 0.38%
Run 7: Report of Indigo-1-32 — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 49.00 Mbps)
Flow 1 egress (mean 48.88 Mbps)
Flow 2 ingress (mean 36.65 Mbps)
Flow 2 egress (mean 36.60 Mbps)
Flow 3 ingress (mean 42.60 Mbps)
Flow 3 egress (mean 42.44 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 0.33 ms)
Flow 2 (95th percentile 0.45 ms)
Flow 3 (95th percentile 3.75 ms)
Run 8: Statistics of Indigo-1-32

Start at: 2018-02-20 16:19:15
End at: 2018-02-20 16:19:45
Local clock offset: -4.893 ms
Remote clock offset: -22.139 ms

# Below is generated by plot.py at 2018-02-20 17:59:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 4.959 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.40 Mbit/s
95th percentile per-packet one-way delay: 4.835 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.57 Mbit/s
95th percentile per-packet one-way delay: 5.826 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.38 Mbit/s
95th percentile per-packet one-way delay: 7.122 ms
Loss rate: 0.00%
Run 8: Report of Indigo-1-32 — Data Link

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

- **Throughput (Mbps)**
  - **Flow 1 ingress** (mean 55.42 Mbps)
  - **Flow 1 egress** (mean 55.40 Mbps)
  - **Flow 2 ingress** (mean 37.58 Mbps)
  - **Flow 2 egress** (mean 37.57 Mbps)
  - **Flow 3 ingress** (mean 51.40 Mbps)
  - **Flow 3 egress** (mean 51.39 Mbps)

- **Per-packet one-way delay (ms)**
  - **Flow 1** (95th percentile 4.83 ms)
  - **Flow 2** (95th percentile 3.83 ms)
  - **Flow 3** (95th percentile 7.12 ms)
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-20 16:41:18
End at: 2018-02-20 16:41:48
Local clock offset: -3.386 ms
Remote clock offset: -24.624 ms

# Below is generated by plot.py at 2018-02-20 17:59:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.33 Mbit/s
95th percentile per-packet one-way delay: 4.981 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 55.58 Mbit/s
95th percentile per-packet one-way delay: 4.901 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 35.65 Mbit/s
95th percentile per-packet one-way delay: 5.038 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 43.11 Mbit/s
95th percentile per-packet one-way delay: 5.147 ms
Loss rate: 0.00%
Run 9: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 55.64 Mbit/s)
- Flow 1 egress (mean 55.58 Mbit/s)
- Flow 2 ingress (mean 35.73 Mbit/s)
- Flow 2 egress (mean 35.65 Mbit/s)
- Flow 3 ingress (mean 43.13 Mbit/s)
- Flow 3 egress (mean 43.11 Mbit/s)

![Graph showing packet delay over time for different data flows.]
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-20 17:03:05
End at: 2018-02-20 17:03:35
Local clock offset: 2.201 ms
Remote clock offset: -28.981 ms

# Below is generated by plot.py at 2018-02-20 18:00:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.13 Mbit/s
  95th percentile per-packet one-way delay: 2.768 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 55.60 Mbit/s
  95th percentile per-packet one-way delay: 2.623 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 37.71 Mbit/s
  95th percentile per-packet one-way delay: 2.789 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 50.44 Mbit/s
  95th percentile per-packet one-way delay: 5.240 ms
  Loss rate: 0.00%
Run 10: Report of Indigo-1-32 — Data Link

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

- **Flow 1** (ingress mean 55.62 Mbit/s, egress mean 55.60 Mbit/s)
- **Flow 2** (ingress mean 37.72 Mbit/s, egress mean 37.71 Mbit/s)
- **Flow 3** (ingress mean 50.47 Mbit/s, egress mean 50.44 Mbit/s)

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

- **Flow 1** (95th percentile 2.62 ms)
- **Flow 2** (95th percentile 2.79 ms)
- **Flow 3** (95th percentile 5.24 ms)
Run 1: Statistics of Vivace-latency

Start at: 2018-02-20 13:36:15
End at: 2018-02-20 13:36:45
Local clock offset: -0.526 ms
Remote clock offset: -18.5 ms

# Below is generated by plot.py at 2018-02-20 18:00:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.26 Mbit/s
95th percentile per-packet one-way delay: -1.464 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.62 Mbit/s
95th percentile per-packet one-way delay: -2.835 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.77 Mbit/s
95th percentile per-packet one-way delay: 1.633 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.74 Mbit/s
95th percentile per-packet one-way delay: 2.432 ms
Loss rate: 0.00%
Run 1: Report of Vivace-latency — Data Link
Run 2: Statistics of Vivace-latency

Start at: 2018-02-20 13:58:05
End at: 2018-02-20 13:58:35
Local clock offset: 0.117 ms
Remote clock offset: -17.713 ms

# Below is generated by plot.py at 2018-02-20 18:00:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.27 Mbit/s
  95th percentile per-packet one-way delay: -6.297 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 61.97 Mbit/s
  95th percentile per-packet one-way delay: -6.505 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 30.23 Mbit/s
  95th percentile per-packet one-way delay: -6.234 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 21.88 Mbit/s
  95th percentile per-packet one-way delay: -5.517 ms
  Loss rate: 0.00%
Run 2: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 61.97 Mbps/s)
- Flow 1 egress (mean 61.97 Mbps/s)
- Flow 2 ingress (mean 30.24 Mbps/s)
- Flow 2 egress (mean 30.23 Mbps/s)
- Flow 3 ingress (mean 21.88 Mbps/s)
- Flow 3 egress (mean 21.88 Mbps/s)

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

- Flow 1 (95th percentile -6.50 ms)
- Flow 2 (95th percentile -6.23 ms)
- Flow 3 (95th percentile -5.52 ms)
Run 3: Statistics of Vivace-latency

Start at: 2018-02-20 14:19:52
End at: 2018-02-20 14:20:22
Local clock offset: -3.057 ms
Remote clock offset: -20.084 ms

# Below is generated by plot.py at 2018-02-20 18:01:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.60 Mbit/s
95th percentile per-packet one-way delay: -3.529 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.78 Mbit/s
95th percentile per-packet one-way delay: -4.162 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.88 Mbit/s
95th percentile per-packet one-way delay: -2.802 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.16 Mbit/s
95th percentile per-packet one-way delay: -2.749 ms
Loss rate: 0.00%
Run 3: Report of Vivace-latency — Data Link

![Graph 1: Throughput](image1)

- Flow 1 ingress (mean 57.79 Mbit/s)
- Flow 1 egress (mean 57.78 Mbit/s)
- Flow 2 ingress (mean 31.91 Mbit/s)
- Flow 2 egress (mean 31.88 Mbit/s)
- Flow 3 ingress (mean 29.17 Mbit/s)
- Flow 3 egress (mean 29.16 Mbit/s)

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

- Flow 1 (95th percentile -4.16 ms)
- Flow 2 (95th percentile -2.80 ms)
- Flow 3 (95th percentile -2.75 ms)
Run 4: Statistics of Vivace-latency

Start at: 2018-02-20 14:41:59  
End at: 2018-02-20 14:42:29  
Local clock offset: 0.627 ms  
Remote clock offset: -20.336 ms

# Below is generated by plot.py at 2018-02-20 18:01:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.43 Mbit/s  
95th percentile per-packet one-way delay: -5.782 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 62.81 Mbit/s  
95th percentile per-packet one-way delay: -6.095 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 23.93 Mbit/s  
95th percentile per-packet one-way delay: -5.288 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 23.37 Mbit/s  
95th percentile per-packet one-way delay: -0.975 ms  
Loss rate: 0.00%
Run 4: Report of Vivace-latency — Data Link
Run 5: Statistics of Vivace-latency

Start at: 2018-02-20 15:03:40
End at: 2018-02-20 15:04:10
Local clock offset: -0.539 ms
Remote clock offset: -12.524 ms

# Below is generated by plot.py at 2018-02-20 18:01:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.33 Mbit/s
95th percentile per-packet one-way delay: -1.829 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.03 Mbit/s
95th percentile per-packet one-way delay: -3.135 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.88 Mbit/s
95th percentile per-packet one-way delay: -0.662 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.48 Mbit/s
95th percentile per-packet one-way delay: 2.880 ms
Loss rate: 0.00%
Run 5: Report of Vivace-latency — Data Link
Run 6: Statistics of Vivace-latency

Start at: 2018-02-20 15:25:23
End at: 2018-02-20 15:25:53
Local clock offset: 3.176 ms
Remote clock offset: -9.21 ms

# Below is generated by plot.py at 2018-02-20 18:01:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.31 Mbit/s
  95th percentile per-packet one-way delay: -6.111 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 60.75 Mbit/s
  95th percentile per-packet one-way delay: -6.485 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 33.61 Mbit/s
  95th percentile per-packet one-way delay: -6.128 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 18.83 Mbit/s
  95th percentile per-packet one-way delay: 1.412 ms
  Loss rate: 0.00%
Run 6: Report of Vivace-latency — Data Link

Graph 1: Throughput (Mbit/s) over Time (s)

Graph 2: Per-packet one-way delay (ms) over Time (s)
Run 7: Statistics of Vivace-latency

Start at: 2018-02-20 15:47:18
End at: 2018-02-20 15:47:48
Local clock offset: -1.691 ms
Remote clock offset: -7.066 ms

# Below is generated by plot.py at 2018-02-20 18:01:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.96 Mbit/s
  95th percentile per-packet one-way delay: -2.929 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 59.79 Mbit/s
  95th percentile per-packet one-way delay: -2.935 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 33.16 Mbit/s
  95th percentile per-packet one-way delay: -2.786 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 21.60 Mbit/s
  95th percentile per-packet one-way delay: -3.143 ms
  Loss rate: 0.00%
Run 7: Report of Vivace-latency — Data Link

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

- **Throughput** (Mbps):
  - Flow 1 ingress (mean 59.79 Mbps)
  - Flow 1 egress (mean 59.79 Mbps)
  - Flow 2 ingress (mean 33.16 Mbps)
  - Flow 2 egress (mean 33.16 Mbps)
  - Flow 3 ingress (mean 21.62 Mbps)
  - Flow 3 egress (mean 21.60 Mbps)

- **Per-packet one way delay (ms)**:
  - Flow 1 (95th percentile: -2.94 ms)
  - Flow 2 (95th percentile: -2.79 ms)
  - Flow 3 (95th percentile: -3.14 ms)
Run 8: Statistics of Vivace-latency

Start at: 2018-02-20 16:09:10
End at: 2018-02-20 16:09:40
Local clock offset: -1.117 ms
Remote clock offset: -18.324 ms

# Below is generated by plot.py at 2018-02-20 18:01:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.13 Mbit/s
95th percentile per-packet one-way delay: -1.488 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.11 Mbit/s
95th percentile per-packet one-way delay: -2.502 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.35 Mbit/s
95th percentile per-packet one-way delay: -0.693 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.79 Mbit/s
95th percentile per-packet one-way delay: 1.376 ms
Loss rate: 0.00%
Run 8: Report of Vivace-latency — Data Link

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

| Flow 1 ingress (mean 58.11 Mbit/s) | Flow 1 egress (mean 58.11 Mbit/s) |
| Flow 2 ingress (mean 33.35 Mbit/s) | Flow 2 egress (mean 33.35 Mbit/s) |
| Flow 3 ingress (mean 20.79 Mbit/s) | Flow 3 egress (mean 20.79 Mbit/s) |

| Flow 1 (95th percentile -2.50 ms) | Flow 2 (95th percentile -0.69 ms) | Flow 3 (95th percentile 1.38 ms) |

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Run 9: Statistics of Vivace-latency

Start at: 2018-02-20 16:31:22
End at: 2018-02-20 16:31:52
Local clock offset: -3.444 ms
Remote clock offset: -24.584 ms

# Below is generated by plot.py at 2018-02-20 18:01:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.01 Mbit/s
  95th percentile per-packet one-way delay: -2.139 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 57.18 Mbit/s
  95th percentile per-packet one-way delay: -3.527 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 36.72 Mbit/s
  95th percentile per-packet one-way delay: -1.536 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 19.46 Mbit/s
  95th percentile per-packet one-way delay: 0.891 ms
  Loss rate: 0.00%
Run 9: Report of Vivace-latency — Data Link

![Data Link Graph]

**Throughput (Mbps)**

- **Flow 1 Ingress** (mean 57.18 Mbps) in blue
- **Flow 1 Egress** (mean 57.18 Mbps) in blue
- **Flow 2 Ingress** (mean 36.72 Mbps) in green
- **Flow 2 Egress** (mean 36.72 Mbps) in green
- **Flow 3 Ingress** (mean 19.45 Mbps) in red
- **Flow 3 Egress** (mean 19.46 Mbps) in red

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

- **Flow 1 (95th percentile -3.53 ms)**: blue
- **Flow 2 (95th percentile -1.54 ms)**: green
- **Flow 3 (95th percentile 0.89 ms)**: red
Run 10: Statistics of Vivace-latency

Start at: 2018-02-20 16:53:22
End at: 2018-02-20 16:53:52
Local clock offset: -0.666 ms
Remote clock offset: -27.588 ms

# Below is generated by plot.py at 2018-02-20 18:01:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.60 Mbit/s
95th percentile per-packet one-way delay: -2.239 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.67 Mbit/s
95th percentile per-packet one-way delay: -2.104 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: -2.563 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.38 Mbit/s
95th percentile per-packet one-way delay: -3.103 ms
Loss rate: 0.01%
Run 10: Report of Vivace-latency — Data Link

![Throughput Graph](image)

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

- Flow 1 ingress (mean 55.67 Mbit/s)
- Flow 1 egress (mean 55.67 Mbit/s)
- Flow 2 ingress (mean 30.94 Mbit/s)
- Flow 2 egress (mean 30.94 Mbit/s)
- Flow 3 ingress (mean 22.39 Mbit/s)
- Flow 3 egress (mean 22.38 Mbit/s)
Run 1: Statistics of Vivace-loss

Start at: 2018-02-20 13:28:59
End at: 2018-02-20 13:29:29
Local clock offset: -1.429 ms
Remote clock offset: -19.181 ms

# Below is generated by plot.py at 2018-02-20 18:02:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.70 Mbit/s
  95th percentile per-packet one-way delay: 29.525 ms
  Loss rate: 15.59%
-- Flow 1:
  Average throughput: 63.62 Mbit/s
  95th percentile per-packet one-way delay: 29.487 ms
  Loss rate: 15.52%
-- Flow 2:
  Average throughput: 21.49 Mbit/s
  95th percentile per-packet one-way delay: 28.771 ms
  Loss rate: 16.34%
-- Flow 3:
  Average throughput: 26.73 Mbit/s
  95th percentile per-packet one-way delay: 30.315 ms
  Loss rate: 14.82%
Run 1: Report of Vivace-loss — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 75.33 Mbit/s)  Flow 1 egress (mean 63.62 Mbit/s)
Flow 2 ingress (mean 25.69 Mbit/s)  Flow 2 egress (mean 21.49 Mbit/s)
Flow 3 ingress (mean 31.37 Mbit/s)  Flow 3 egress (mean 26.73 Mbit/s)

Per-packet egress delay (ms)

Time (s)

Flow 1 (95th percentile 29.49 ms)  Flow 2 (95th percentile 28.77 ms)  Flow 3 (95th percentile 30.32 ms)
Run 2: Statistics of Vivace-loss

Start at: 2018-02-20 13:50:58
End at: 2018-02-20 13:51:28
Local clock offset: 1.144 ms
Remote clock offset: -18.333 ms

# Below is generated by plot.py at 2018-02-20 18:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.78 Mbit/s
95th percentile per-packet one-way delay: 26.590 ms
Loss rate: 15.90%
-- Flow 1:
Average throughput: 48.03 Mbit/s
95th percentile per-packet one-way delay: 25.379 ms
Loss rate: 11.86%
-- Flow 2:
Average throughput: 59.01 Mbit/s
95th percentile per-packet one-way delay: 27.430 ms
Loss rate: 20.37%
-- Flow 3:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 26.265 ms
Loss rate: 16.54%
Run 2: Report of Vivace-loss — Data Link
Run 3: Statistics of Vivace-loss

Start at: 2018-02-20 14:12:41
End at: 2018-02-20 14:13:11
Local clock offset: -5.238 ms
Remote clock offset: -17.576 ms

# Below is generated by plot.py at 2018-02-20 18:02:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.74 Mbit/s
95th percentile per-packet one-way delay: 28.029 ms
Loss rate: 10.68%
-- Flow 1:
Average throughput: 52.24 Mbit/s
95th percentile per-packet one-way delay: 28.182 ms
Loss rate: 9.98%
-- Flow 2:
Average throughput: 40.59 Mbit/s
95th percentile per-packet one-way delay: 27.948 ms
Loss rate: 11.60%
-- Flow 3:
Average throughput: 25.85 Mbit/s
95th percentile per-packet one-way delay: 27.353 ms
Loss rate: 11.93%
Run 3: Report of Vivace-loss — Data Link

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[Graph showing data for different flows over time, with legends indicating mean bandwidths]

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Run 4: Statistics of Vivace-loss

Start at: 2018-02-20 14:34:45
End at: 2018-02-20 14:35:15
Local clock offset: -1.303 ms
Remote clock offset: -18.849 ms

# Below is generated by plot.py at 2018-02-20 18:02:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.09 Mbit/s
  95th percentile per-packet one-way delay: 28.732 ms
  Loss rate: 12.27%
-- Flow 1:
  Average throughput: 53.52 Mbit/s
  95th percentile per-packet one-way delay: 28.212 ms
  Loss rate: 11.33%
-- Flow 2:
  Average throughput: 42.16 Mbit/s
  95th percentile per-packet one-way delay: 28.870 ms
  Loss rate: 13.38%
-- Flow 3:
  Average throughput: 20.40 Mbit/s
  95th percentile per-packet one-way delay: 29.537 ms
  Loss rate: 15.03%
Run 4: Report of Vivace-loss — Data Link
Run 5: Statistics of Vivace-loss

Start at: 2018-02-20 14:56:32
End at: 2018-02-20 14:57:02
Local clock offset: 2.662 ms
Remote clock offset: -15.663 ms

# Below is generated by plot.py at 2018-02-20 18:02:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.38 Mbit/s
95th percentile per-packet one-way delay: 25.027 ms
Loss rate: 12.40%
-- Flow 1:
Average throughput: 51.19 Mbit/s
95th percentile per-packet one-way delay: 25.222 ms
Loss rate: 11.23%
-- Flow 2:
Average throughput: 39.64 Mbit/s
95th percentile per-packet one-way delay: 25.146 ms
Loss rate: 13.93%
-- Flow 3:
Average throughput: 33.09 Mbit/s
95th percentile per-packet one-way delay: 23.122 ms
Loss rate: 14.08%
Run 5: Report of Vivace-loss — Data Link

![Network Performance Chart]

![Packet Delay Chart]

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Run 6: Statistics of Vivace-loss

Start at: 2018-02-20 15:18:14
End at: 2018-02-20 15:18:44
Local clock offset: 0.74 ms
Remote clock offset: -11.502 ms

# Below is generated by plot.py at 2018-02-20 18:02:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.91 Mbit/s
  95th percentile per-packet one-way delay: 28.311 ms
  Loss rate: 13.96%
-- Flow 1:
  Average throughput: 56.87 Mbit/s
  95th percentile per-packet one-way delay: 27.510 ms
  Loss rate: 12.51%
-- Flow 2:
  Average throughput: 32.47 Mbit/s
  95th percentile per-packet one-way delay: 27.853 ms
  Loss rate: 18.74%
-- Flow 3:
  Average throughput: 28.73 Mbit/s
  95th percentile per-packet one-way delay: 29.858 ms
  Loss rate: 10.87%
Run 6: Report of Vivace-loss — Data Link

![Chart 1: Throughout (Mbps) over Time (s)]

- Flow 1 ingress (mean 65.00 Mbps)
- Flow 1 egress (mean 56.87 Mbps)
- Flow 2 ingress (mean 39.97 Mbps)
- Flow 2 egress (mean 32.47 Mbps)
- Flow 3 ingress (mean 32.21 Mbps)
- Flow 3 egress (mean 28.73 Mbps)

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

- Flow 1 (95th percentile 27.51 ms)
- Flow 2 (95th percentile 27.85 ms)
- Flow 3 (95th percentile 29.86 ms)
Run 7: Statistics of Vivace-loss

Start at: 2018-02-20 15:40:11
End at: 2018-02-20 15:40:41
Local clock offset: -0.828 ms
Remote clock offset: -7.942 ms

# Below is generated by plot.py at 2018-02-20 18:03:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.60 Mbit/s
95th percentile per-packet one-way delay: 29.733 ms
Loss rate: 19.84%
-- Flow 1:
Average throughput: 64.47 Mbit/s
95th percentile per-packet one-way delay: 29.803 ms
Loss rate: 21.62%
-- Flow 2:
Average throughput: 22.48 Mbit/s
95th percentile per-packet one-way delay: 29.195 ms
Loss rate: 12.85%
-- Flow 3:
Average throughput: 30.96 Mbit/s
95th percentile per-packet one-way delay: 29.972 ms
Loss rate: 17.71%
Run 7: Report of Vivace-loss — Data Link

![Throughput Graph](#)

- Flow 1 ingress (mean 82.29 Mbit/s)
- Flow 1 egress (mean 64.47 Mbit/s)
- Flow 2 ingress (mean 25.80 Mbit/s)
- Flow 2 egress (mean 22.48 Mbit/s)
- Flow 3 ingress (mean 37.57 Mbit/s)
- Flow 3 egress (mean 30.96 Mbit/s)

![Delay Graph](#)

- Flow 1 (95th percentile 29.80 ms)
- Flow 2 (95th percentile 29.20 ms)
- Flow 3 (95th percentile 29.97 ms)

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Run 8: Statistics of Vivace-loss

Start at: 2018-02-20 16:01:54
End at: 2018-02-20 16:02:24
Local clock offset: -0.494 ms
Remote clock offset: -16.417 ms

# Below is generated by plot.py at 2018-02-20 18:03:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.49 Mbit/s
  95th percentile per-packet one-way delay: 25.809 ms
  Loss rate: 11.30%
-- Flow 1:
  Average throughput: 44.35 Mbit/s
  95th percentile per-packet one-way delay: 25.834 ms
  Loss rate: 10.03%
-- Flow 2:
  Average throughput: 47.87 Mbit/s
  95th percentile per-packet one-way delay: 25.839 ms
  Loss rate: 12.37%
-- Flow 3:
  Average throughput: 31.30 Mbit/s
  95th percentile per-packet one-way delay: 25.454 ms
  Loss rate: 13.25%
Run 8: Report of Vivace-loss — Data Link
Run 9: Statistics of Vivace-loss

Start at: 2018-02-20 16:24:14
End at: 2018-02-20 16:24:44
Local clock offset: -4.231 ms
Remote clock offset: -25.462 ms

# Below is generated by plot.py at 2018-02-20 18:03:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.12 Mbit/s
  95th percentile per-packet one-way delay: 25.934 ms
  Loss rate: 13.57%
-- Flow 1:
  Average throughput: 54.87 Mbit/s
  95th percentile per-packet one-way delay: 25.733 ms
  Loss rate: 12.90%
-- Flow 2:
  Average throughput: 38.85 Mbit/s
  95th percentile per-packet one-way delay: 26.296 ms
  Loss rate: 14.81%
-- Flow 3:
  Average throughput: 22.45 Mbit/s
  95th percentile per-packet one-way delay: 25.329 ms
  Loss rate: 14.09%
Run 9: Report of Vivace-loss — Data Link
Run 10: Statistics of Vivace-loss

Start at: 2018-02-20 16:46:14
End at: 2018-02-20 16:46:44
Local clock offset: 1.428 ms
Remote clock offset: -29.007 ms

# Below is generated by plot.py at 2018-02-20 18:04:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.31 Mbit/s
95th percentile per-packet one-way delay: 24.900 ms
Loss rate: 15.24%
-- Flow 1:
Average throughput: 66.92 Mbit/s
95th percentile per-packet one-way delay: 24.949 ms
Loss rate: 15.04%
-- Flow 2:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 24.677 ms
Loss rate: 15.83%
-- Flow 3:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 25.387 ms
Loss rate: 14.59%
Run 10: Report of Vivace-loss — Data Link

![Graph of throughput and packet loss](image)

- **Flow 1 ingress**: mean 78.84 Mbit/s
- **Flow 1 egress**: mean 66.92 Mbit/s
- **Flow 2 ingress**: mean 41.60 Mbit/s
- **Flow 2 egress**: mean 34.95 Mbit/s
- **Flow 3 ingress**: mean 1.75 Mbit/s
- **Flow 3 egress**: mean 1.49 Mbit/s

- **Flow 1 (95th percentile)**: 24.95 ms
- **Flow 2 (95th percentile)**: 24.68 ms
- **Flow 3 (95th percentile)**: 25.39 ms
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-20 13:42:27
End at: 2018-02-20 13:42:57
Local clock offset: 2.615 ms
Remote clock offset: -17.1 ms

# Below is generated by plot.py at 2018-02-20 18:04:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.13 Mbit/s
95th percentile per-packet one-way delay: 27.404 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 58.08 Mbit/s
95th percentile per-packet one-way delay: 25.438 ms
Loss rate: 1.58%
-- Flow 2:
Average throughput: 32.26 Mbit/s
95th percentile per-packet one-way delay: 28.960 ms
Loss rate: 2.50%
-- Flow 3:
Average throughput: 23.12 Mbit/s
95th percentile per-packet one-way delay: 29.132 ms
Loss rate: 3.76%
Run 1: Report of Vivace-LTE — Data Link
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-20 14:04:02
End at: 2018-02-20 14:04:32
Local clock offset: -3.616 ms
Remote clock offset: -18.21 ms

# Below is generated by plot.py at 2018-02-20 18:04:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.59 Mbit/s
95th percentile per-packet one-way delay: 21.977 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 57.80 Mbit/s
95th percentile per-packet one-way delay: 17.484 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 32.10 Mbit/s
95th percentile per-packet one-way delay: 24.664 ms
Loss rate: 2.10%
-- Flow 3:
Average throughput: 22.61 Mbit/s
95th percentile per-packet one-way delay: 28.877 ms
Loss rate: 3.24%
Run 2: Report of Vivace-LTE — Data Link

- Flow 1 ingress (mean 58.65 Mbit/s)
- Flow 1 egress (mean 57.80 Mbit/s)
- Flow 2 ingress (mean 32.81 Mbit/s)
- Flow 2 egress (mean 32.10 Mbit/s)
- Flow 3 ingress (mean 23.37 Mbit/s)
- Flow 3 egress (mean 22.61 Mbit/s)

- Flow 1 (95th percentile 17.48 ms)
- Flow 2 (95th percentile 24.66 ms)
- Flow 3 (95th percentile 28.88 ms)
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-20 14:25:50
End at: 2018-02-20 14:26:20
Local clock offset: -3.245 ms
Remote clock offset: -19.125 ms

# Below is generated by plot.py at 2018-02-20 18:04:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.07 Mbit/s
95th percentile per-packet one-way delay: 29.729 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 56.05 Mbit/s
95th percentile per-packet one-way delay: 28.645 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: 30.991 ms
Loss rate: 2.68%
-- Flow 3:
Average throughput: 25.80 Mbit/s
95th percentile per-packet one-way delay: 30.854 ms
Loss rate: 2.68%
Run 3: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 57.09 Mbit/s)
- Flow 1 egress (mean 56.05 Mbit/s)
- Flow 2 ingress (mean 33.28 Mbit/s)
- Flow 2 egress (mean 32.36 Mbit/s)
- Flow 3 ingress (mean 26.51 Mbit/s)
- Flow 3 egress (mean 25.80 Mbit/s)

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

- Flow 1 (95th percentile 28.64 ms)
- Flow 2 (95th percentile 30.99 ms)
- Flow 3 (95th percentile 30.85 ms)
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-20 14:47:55
End at: 2018-02-20 14:48:25
Local clock offset: 0.917 ms
Remote clock offset: 18.705 ms

# Below is generated by plot.py at 2018-02-20 18:04:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.94 Mbit/s
  95th percentile per-packet one-way delay: 24.779 ms
  Loss rate: 1.53%
  -- Flow 1:
  Average throughput: 60.66 Mbit/s
  95th percentile per-packet one-way delay: 23.008 ms
  Loss rate: 1.15%
  -- Flow 2:
  Average throughput: 24.88 Mbit/s
  95th percentile per-packet one-way delay: 27.095 ms
  Loss rate: 2.18%
  -- Flow 3:
  Average throughput: 26.58 Mbit/s
  95th percentile per-packet one-way delay: 27.631 ms
  Loss rate: 2.90%
Run 4: Report of Vivace-LTE — Data Link
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-20 15:09:35
End at: 2018-02-20 15:10:05
Local clock offset: -1.169 ms
Remote clock offset: -12.608 ms

# Below is generated by plot.py at 2018-02-20 18:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.99 Mbit/s
95th percentile per-packet one-way delay: 26.077 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 53.29 Mbit/s
95th percentile per-packet one-way delay: 22.665 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 40.84 Mbit/s
95th percentile per-packet one-way delay: 27.786 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 19.89 Mbit/s
95th percentile per-packet one-way delay: 28.973 ms
Loss rate: 2.94%
Run 5: Report of Vivace-LTE — Data Link

![Throughput Graph]

![Delay Graph]

Flow 1 ingress (mean 54.12 Mbit/s)  
Flow 1 egress (mean 53.29 Mbit/s)  
Flow 2 ingress (mean 41.73 Mbit/s)  
Flow 2 egress (mean 40.84 Mbit/s)  
Flow 3 ingress (mean 20.47 Mbit/s)  
Flow 3 egress (mean 19.89 Mbit/s)

Flow 1 (95th percentile 22.66 ms)  
Flow 2 (95th percentile 27.79 ms)  
Flow 3 (95th percentile 28.97 ms)
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-20 15:31:18
End at: 2018-02-20 15:31:48
Local clock offset: -0.344 ms
Remote clock offset: -8.521 ms

# Below is generated by plot.py at 2018-02-20 18:04:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.11 Mbit/s
95th percentile per-packet one-way delay: 23.018 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 18.910 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 32.79 Mbit/s
95th percentile per-packet one-way delay: 26.987 ms
Loss rate: 2.48%
-- Flow 3:
Average throughput: 25.28 Mbit/s
95th percentile per-packet one-way delay: 28.330 ms
Loss rate: 3.57%
Run 6: Report of Vivace-LTE — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 57.84 Mbps)
  - Flow 2 ingress (mean 33.65 Mbps)
  - Flow 3 ingress (mean 26.24 Mbps)
  - Flow 1 egress (mean 56.96 Mbps)
  - Flow 2 egress (mean 32.79 Mbps)
  - Flow 3 egress (mean 25.28 Mbps)

- **Packet delay (ms):**
  - Flow 1 (99th percentile 18.91 ms)
  - Flow 2 (95th percentile 26.99 ms)
  - Flow 3 (95th percentile 28.33 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-20 15:53:17
End at: 2018-02-20 15:53:47
Local clock offset: 0.506 ms
Remote clock offset: -7.445 ms

# Below is generated by plot.py at 2018-02-20 18:04:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.32 Mbit/s
95th percentile per-packet one-way delay: 25.490 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 59.56 Mbit/s
95th percentile per-packet one-way delay: 24.788 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 25.84 Mbit/s
95th percentile per-packet one-way delay: 27.427 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 23.14 Mbit/s
95th percentile per-packet one-way delay: 27.231 ms
Loss rate: 3.84%
Run 7: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 60.45 Mbit/s)
- Flow 1 egress (mean 59.56 Mbit/s)
- Flow 2 ingress (mean 26.38 Mbit/s)
- Flow 2 egress (mean 25.84 Mbit/s)
- Flow 3 ingress (mean 24.00 Mbit/s)
- Flow 3 egress (mean 23.14 Mbit/s)
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-20 16:15:11
End at: 2018-02-20 16:15:41
Local clock offset: -4.867 ms
Remote clock offset: -23.643 ms

# Below is generated by plot.py at 2018-02-20 18:04:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.42 Mbit/s
95th percentile per-packet one-way delay: 26.511 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 59.57 Mbit/s
95th percentile per-packet one-way delay: 23.897 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 30.35 Mbit/s
95th percentile per-packet one-way delay: 27.898 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 23.22 Mbit/s
95th percentile per-packet one-way delay: 30.197 ms
Loss rate: 2.20%
Run 8: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 60.44 Mbit/s)
- Flow 1 egress (mean 59.57 Mbit/s)
- Flow 2 ingress (mean 31.01 Mbit/s)
- Flow 2 egress (mean 30.35 Mbit/s)
- Flow 3 ingress (mean 23.78 Mbit/s)
- Flow 3 egress (mean 23.22 Mbit/s)
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-20 16:37:25
End at: 2018-02-20 16:37:55
Local clock offset: -3.212 ms
Remote clock offset: -26.26 ms

# Below is generated by plot.py at 2018-02-20 18:04:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.85 Mbit/s
95th percentile per-packet one-way delay: 25.452 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 65.83 Mbit/s
95th percentile per-packet one-way delay: 24.285 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 24.73 Mbit/s
95th percentile per-packet one-way delay: 26.667 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 16.88 Mbit/s
95th percentile per-packet one-way delay: 27.392 ms
Loss rate: 3.49%
Run 9: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 66.79 Mbit/s)
- Flow 1 egress (mean 65.83 Mbit/s)
- Flow 2 ingress (mean 25.24 Mbit/s)
- Flow 2 egress (mean 24.73 Mbit/s)
- Flow 3 ingress (mean 17.53 Mbit/s)
- Flow 3 egress (mean 16.88 Mbit/s)

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

- Flow 1 (95th percentile 24.29 ms)
- Flow 2 (95th percentile 26.67 ms)
- Flow 3 (95th percentile 27.39 ms)
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-20 16:59:16
End at: 2018-02-20 16:59:46
Local clock offset: 0.587 ms
Remote clock offset: -28.73 ms

# Below is generated by plot.py at 2018-02-20 18:04:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.98 Mbit/s
95th percentile per-packet one-way delay: 22.126 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 58.18 Mbit/s
95th percentile per-packet one-way delay: 15.498 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 30.75 Mbit/s
95th percentile per-packet one-way delay: 24.130 ms
Loss rate: 1.91%
-- Flow 3:
Average throughput: 28.44 Mbit/s
95th percentile per-packet one-way delay: 28.823 ms
Loss rate: 3.20%
Run 10: Report of Vivace-LTE — Data Link

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