Pantheon Report

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 @ eb420b5be9bafecc22cf68b99ff5a2000462fc59
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae44e6a37a522e53227db50
  M datagroup/sender.cc
third_party/fillp @ 1f8c46a2bf1dc797253db7e8ca04076272b2a44
third_party/genericCC @ 9249eea3238475c4d8c1a4d328df70b6ff4a42
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c9fe4a9ad583d3c4dfe0ecbdf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3af754b113ed5b540c0fd35059395282e2a5f
third_party/indigo-no-calib @ 7224f22e0e8a044e8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303a82e8e08e6928eac4f1083a6681
  M datagroup/sender.cc
third_party/libutp @ b3d465b942e2826f2b179eeab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccffc993
third_party/pcc @ 1afc958fa0d66d8b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a32733a86b42f1bc8413ebc978f3c042
third_party/scream @ c3370fd7bd17265a79ae034e4016ad23f5965885
third_party/sourdough @ f1a14bffee749737437f61b1aeab3267c68d81
third_party/sprout @ 6f2eefe6e088d91066a9f023df375ee2665089ce
  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 @ 7a4ba531e75b4a6f66f5c458019212041784ce3
third_party/webrtc @ f271183af822ee5d0031620f4be6f38aecd5581
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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<tr>
<td></td>
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<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
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<td>28.15</td>
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<td>10</td>
<td>56.27</td>
<td>34.08</td>
<td>22.12</td>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2018-04-10 21:46:22
End at: 2018-04-10 21:46:52
Local clock offset: 0.196 ms
Remote clock offset: 0.949 ms

# Below is generated by plot.py at 2018-04-11 01:56:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.29 Mbit/s
  95th percentile per-packet one-way delay: 43.856 ms
  Loss rate: 1.92%
-- Flow 1:
  Average throughput: 51.81 Mbit/s
  95th percentile per-packet one-way delay: 41.435 ms
  Loss rate: 1.36%
-- Flow 2:
  Average throughput: 44.31 Mbit/s
  95th percentile per-packet one-way delay: 45.954 ms
  Loss rate: 2.63%
-- Flow 3:
  Average throughput: 45.13 Mbit/s
  95th percentile per-packet one-way delay: 48.673 ms
  Loss rate: 2.42%
Run 1: Report of TCP BBR — Data Link

[Graph showing throughput and delay over time for different flows]
Run 2: Statistics of TCP BBR

Start at: 2018-04-10 22:08:21
End at: 2018-04-10 22:08:51
Local clock offset: 0.67 ms
Remote clock offset: -2.31 ms

# Below is generated by plot.py at 2018-04-11 01:56:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.31 Mbit/s
95th percentile per-packet one-way delay: 46.164 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 51.05 Mbit/s
95th percentile per-packet one-way delay: 43.796 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 51.06 Mbit/s
95th percentile per-packet one-way delay: 47.692 ms
Loss rate: 2.37%
-- Flow 3:
Average throughput: 33.90 Mbit/s
95th percentile per-packet one-way delay: 44.369 ms
Loss rate: 3.07%
Run 2: Report of TCP BBR — Data Link

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

Flow 1 ingress (mean 51.76 Mbit/s), Flow 1 egress (mean 51.05 Mbit/s), Flow 2 ingress (mean 52.36 Mbit/s), Flow 2 egress (mean 51.06 Mbit/s), Flow 3 ingress (mean 34.97 Mbit/s), Flow 3 egress (mean 33.90 Mbit/s)

Flow 1 (95th percentile 43.80 ms), Flow 2 (95th percentile 47.69 ms), Flow 3 (95th percentile 44.37 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-04-10 22:30:20
End at: 2018-04-10 22:30:50
Local clock offset: -0.243 ms
Remote clock offset: 5.36 ms

# Below is generated by plot.py at 2018-04-11 01:56:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.48 Mbit/s
95th percentile per-packet one-way delay: 43.689 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 56.91 Mbit/s
95th percentile per-packet one-way delay: 41.677 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 32.05 Mbit/s
95th percentile per-packet one-way delay: 44.999 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 54.82 Mbit/s
95th percentile per-packet one-way delay: 44.499 ms
Loss rate: 2.06%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-04-10 22:51:53
End at: 2018-04-10 22:52:23
Local clock offset: 0.481 ms
Remote clock offset: 0.514 ms

# Below is generated by plot.py at 2018-04-11 01:56:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.49 Mbit/s
  95th percentile per-packet one-way delay: 46.572 ms
  Loss rate: 1.24%
-- Flow 1:
  Average throughput: 49.32 Mbit/s
  95th percentile per-packet one-way delay: 43.856 ms
  Loss rate: 1.09%
-- Flow 2:
  Average throughput: 51.95 Mbit/s
  95th percentile per-packet one-way delay: 48.261 ms
  Loss rate: 1.61%
-- Flow 3:
  Average throughput: 37.80 Mbit/s
  95th percentile per-packet one-way delay: 44.247 ms
  Loss rate: 0.82%
Run 4: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 49.91 Mbps)
Flow 2 ingress (mean 52.86 Mbps)
Flow 3 ingress (mean 38.21 Mbps)
Flow 1 egress (mean 49.32 Mbps)
Flow 2 egress (mean 51.95 Mbps)
Flow 3 egress (mean 37.80 Mbps)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 43.86 ms)
Flow 2 (95th percentile 48.26 ms)
Flow 3 (95th percentile 44.25 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-04-10 23:13:02
End at: 2018-04-10 23:13:32
Local clock offset: 1.536 ms
Remote clock offset: -4.95 ms

# Below is generated by plot.py at 2018-04-11 01:56:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 44.193 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 55.75 Mbit/s
95th percentile per-packet one-way delay: 42.800 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 39.95 Mbit/s
95th percentile per-packet one-way delay: 45.011 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 41.82 Mbit/s
95th percentile per-packet one-way delay: 48.109 ms
Loss rate: 2.30%
Run 5: Report of TCP BBR — Data Link

![Data Link Throughput Graph](image1)

![Data Link Per-packet One-Way Delay Graph](image2)

- Flow 1 ingress (mean 56.47 Mbit/s)
- Flow 1 egress (mean 55.75 Mbit/s)
- Flow 2 ingress (mean 40.72 Mbit/s)
- Flow 2 egress (mean 39.95 Mbit/s)
- Flow 3 ingress (mean 42.84 Mbit/s)
- Flow 3 egress (mean 41.82 Mbit/s)
Run 6: Statistics of TCP BBR

Start at: 2018-04-10 23:34:20
End at: 2018-04-10 23:34:50
Local clock offset: -0.627 ms
Remote clock offset: -8.131 ms

# Below is generated by plot.py at 2018-04-11 01:56:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.26 Mbit/s
95th percentile per-packet one-way delay: 41.575 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 59.92 Mbit/s
95th percentile per-packet one-way delay: 40.841 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 38.16 Mbit/s
95th percentile per-packet one-way delay: 42.197 ms
Loss rate: 3.06%
-- Flow 3:
Average throughput: 32.93 Mbit/s
95th percentile per-packet one-way delay: 45.460 ms
Loss rate: 3.01%
Run 6: Report of TCP BBR — Data Link
Run 7: Statistics of TCP BBR

Local clock offset: -0.764 ms
Remote clock offset: -8.447 ms

# Below is generated by plot.py at 2018-04-11 01:56:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 38.747 ms
Loss rate: 1.33%

-- Flow 1:
Average throughput: 51.28 Mbit/s
95th percentile per-packet one-way delay: 37.687 ms
Loss rate: 0.88%

-- Flow 2:
Average throughput: 48.15 Mbit/s
95th percentile per-packet one-way delay: 39.209 ms
Loss rate: 2.06%

-- Flow 3:
Average throughput: 39.20 Mbit/s
95th percentile per-packet one-way delay: 41.217 ms
Loss rate: 1.29%
Run 7: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 51.79 Mbit/s)
- Flow 1 egress (mean 51.28 Mbit/s)
- Flow 2 ingress (mean 49.33 Mbit/s)
- Flow 2 egress (mean 48.15 Mbit/s)
- Flow 3 ingress (mean 39.73 Mbit/s)
- Flow 3 egress (mean 39.20 Mbit/s)
Run 8: Statistics of TCP BBR

Start at: 2018-04-11 00:17:09
End at: 2018-04-11 00:17:39
Local clock offset: -8.537 ms
Remote clock offset: 0.263 ms

# Below is generated by plot.py at 2018-04-11 01:56:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.34 Mbit/s
95th percentile per-packet one-way delay: 49.079 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 52.91 Mbit/s
95th percentile per-packet one-way delay: 46.750 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 45.62 Mbit/s
95th percentile per-packet one-way delay: 51.525 ms
Loss rate: 1.78%
-- Flow 3:
Average throughput: 39.28 Mbit/s
95th percentile per-packet one-way delay: 48.601 ms
Loss rate: 1.67%
Run 8: Report of TCP BBR — Data Link
Run 9: Statistics of TCP BBR

Start at: 2018-04-11 00:38:32
End at: 2018-04-11 00:39:02
Local clock offset: 1.15 ms
Remote clock offset: 2.912 ms

# Below is generated by plot.py at 2018-04-11 01:58:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.72 Mbit/s
95th percentile per-packet one-way delay: 41.291 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 60.21 Mbit/s
95th percentile per-packet one-way delay: 41.095 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 38.87 Mbit/s
95th percentile per-packet one-way delay: 41.515 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 32.01 Mbit/s
95th percentile per-packet one-way delay: 41.784 ms
Loss rate: 1.61%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-04-11 01:00:11
End at: 2018-04-11 01:00:41
Local clock offset: 1.796 ms
Remote clock offset: 3.894 ms

# Below is generated by plot.py at 2018-04-11 01:58:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.23 Mbit/s
  95th percentile per-packet one-way delay: 42.356 ms
  Loss rate: 1.87%
-- Flow 1:
  Average throughput: 58.53 Mbit/s
  95th percentile per-packet one-way delay: 41.520 ms
  Loss rate: 1.47%
-- Flow 2:
  Average throughput: 40.90 Mbit/s
  95th percentile per-packet one-way delay: 43.120 ms
  Loss rate: 2.42%
-- Flow 3:
  Average throughput: 31.58 Mbit/s
  95th percentile per-packet one-way delay: 45.136 ms
  Loss rate: 2.65%
Run 10: Report of TCP BBR — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 1: Statistics of TCP Cubic

Start at: 2018-04-10 22:00:35
End at: 2018-04-10 22:01:05
Local clock offset: 1.06 ms
Remote clock offset: -2.162 ms

# Below is generated by plot.py at 2018-04-11 01:58:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.15 Mbit/s
95th percentile per-packet one-way delay: 50.795 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 74.93 Mbit/s
95th percentile per-packet one-way delay: 50.733 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 27.84 Mbit/s
95th percentile per-packet one-way delay: 50.812 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 11.17 Mbit/s
95th percentile per-packet one-way delay: 51.743 ms
Loss rate: 0.72%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

End at: 2018-04-10 22:23:45
Local clock offset: 0.685 ms
Remote clock offset: 3.174 ms

# Below is generated by plot.py at 2018-04-11 01:58:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.15 Mbit/s
95th percentile per-packet one-way delay: 50.863 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 72.09 Mbit/s
95th percentile per-packet one-way delay: 50.674 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 27.05 Mbit/s
95th percentile per-packet one-way delay: 51.074 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 21.29 Mbit/s
95th percentile per-packet one-way delay: 51.558 ms
Loss rate: 0.51%
Run 2: Report of TCP Cubic — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 3: Statistics of TCP Cubic

Start at: 2018-04-10 22:44:50  
End at: 2018-04-10 22:45:20  
Local clock offset: 0.104 ms  
Remote clock offset: 5.133 ms  

# Below is generated by plot.py at 2018-04-11 01:58:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.50 Mbit/s  
95th percentile per-packet one-way delay: 50.392 ms  
Loss rate: 1.02%  
-- Flow 1:  
Average throughput: 71.30 Mbit/s  
95th percentile per-packet one-way delay: 50.463 ms  
Loss rate: 0.92%  
-- Flow 2:  
Average throughput: 27.21 Mbit/s  
95th percentile per-packet one-way delay: 49.752 ms  
Loss rate: 1.14%  
-- Flow 3:  
Average throughput: 21.39 Mbit/s  
95th percentile per-packet one-way delay: 50.438 ms  
Loss rate: 1.73%
Run 3: Report of TCP Cubic — Data Link

![Data Link Throughput Graph]

![Data Link Latency Graph]
Run 4: Statistics of TCP Cubic

Start at: 2018-04-10 23:06:02
End at: 2018-04-10 23:06:32
Local clock offset: 1.56 ms
Remote clock offset: -3.803 ms

# Below is generated by plot.py at 2018-04-11 01:58:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.65 Mbit/s
  95th percentile per-packet one-way delay: 51.707 ms
  Loss rate: 1.00%
-- Flow 1:
  Average throughput: 71.21 Mbit/s
  95th percentile per-packet one-way delay: 51.618 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 25.54 Mbit/s
  95th percentile per-packet one-way delay: 51.694 ms
  Loss rate: 1.27%
-- Flow 3:
  Average throughput: 25.51 Mbit/s
  95th percentile per-packet one-way delay: 52.299 ms
  Loss rate: 1.27%
Run 4: Report of TCP Cubic — Data Link

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

- **Throughput** (Mbps):
  - Flow 1 ingress (mean 71.93 Mbps)
  - Flow 1 egress (mean 71.21 Mbps)
  - Flow 2 ingress (mean 25.87 Mbps)
  - Flow 2 egress (mean 25.54 Mbps)
  - Flow 3 ingress (mean 25.83 Mbps)
  - Flow 3 egress (mean 25.51 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 51.62 ms)
  - Flow 2 (95th percentile 51.69 ms)
  - Flow 3 (95th percentile 52.30 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-04-10 23:27:15
End at: 2018-04-10 23:27:45
Local clock offset: -0.475 ms
Remote clock offset: -7.714 ms

# Below is generated by plot.py at 2018-04-11 01:58:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 50.616 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 73.46 Mbit/s
95th percentile per-packet one-way delay: 50.630 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 30.18 Mbit/s
95th percentile per-packet one-way delay: 50.428 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 10.95 Mbit/s
95th percentile per-packet one-way delay: 51.098 ms
Loss rate: 1.05%
Run 5: Report of TCP Cubic — Data Link

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

End at: 2018-04-10 23:48:58
Local clock offset: -1.24 ms
Remote clock offset: -9.617 ms

# Below is generated by plot.py at 2018-04-11 01:58:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.17 Mbit/s
95th percentile per-packet one-way delay: 50.175 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 77.56 Mbit/s
95th percentile per-packet one-way delay: 50.119 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 21.17 Mbit/s
95th percentile per-packet one-way delay: 50.325 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 16.64 Mbit/s
95th percentile per-packet one-way delay: 50.842 ms
Loss rate: 0.84%
Run 6: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 78.29 Mbit/s)
- Flow 1 egress (mean 77.56 Mbit/s)
- Flow 2 ingress (mean 21.36 Mbit/s)
- Flow 2 egress (mean 21.17 Mbit/s)
- Flow 3 ingress (mean 16.78 Mbit/s)
- Flow 3 egress (mean 16.64 Mbit/s)
Run 7: Statistics of TCP Cubic

Start at: 2018-04-11 00:09:53
End at: 2018-04-11 00:10:23
Local clock offset: -0.828 ms
Remote clock offset: 1.537 ms

# Below is generated by plot.py at 2018-04-11 01:59:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 52.092 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 74.22 Mbit/s
95th percentile per-packet one-way delay: 51.910 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 29.72 Mbit/s
95th percentile per-packet one-way delay: 52.583 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 9.59 Mbit/s
95th percentile per-packet one-way delay: 51.982 ms
Loss rate: 0.78%
Run 7: Report of TCP Cubic — Data Link

![Graph showing network performance metrics over time. The graph includes throughput and per-packet one-way delay plots for different flows. The throughput graph indicates the data transfer rates for each flow, while the per-packet delay graph shows the delay times.]
Run 8: Statistics of TCP Cubic

Start at: 2018-04-11 00:31:26
End at: 2018-04-11 00:31:56
Local clock offset: -0.008 ms
Remote clock offset: 3.888 ms

# Below is generated by plot.py at 2018-04-11 01:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.18 Mbit/s
95th percentile per-packet one-way delay: 52.211 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 69.19 Mbit/s
95th percentile per-packet one-way delay: 52.149 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 36.06 Mbit/s
95th percentile per-packet one-way delay: 52.225 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 12.12 Mbit/s
95th percentile per-packet one-way delay: 52.886 ms
Loss rate: 0.21%
Run 8: Report of TCP Cubic — Data Link
Run 9: Statistics of TCP Cubic

Start at: 2018-04-11 00:53:08
End at: 2018-04-11 00:53:38
Local clock offset: 1.986 ms
Remote clock offset: 2.96 ms

# Below is generated by plot.py at 2018-04-11 01:59:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.17 Mbit/s
  95th percentile per-packet one-way delay: 51.804 ms
  Loss rate: 0.86%
-- Flow 1:
  Average throughput: 70.23 Mbit/s
  95th percentile per-packet one-way delay: 51.866 ms
  Loss rate: 0.86%
-- Flow 2:
  Average throughput: 27.01 Mbit/s
  95th percentile per-packet one-way delay: 51.577 ms
  Loss rate: 0.88%
-- Flow 3:
  Average throughput: 27.12 Mbit/s
  95th percentile per-packet one-way delay: 51.828 ms
  Loss rate: 0.74%
Run 9: Report of TCP Cubic — Data Link

---

**Throughput (Mbit/s)**

![Throughput Graph](image1)

- Blue dashed line: Flow 1 ingress (mean 70.89 Mbit/s)
- Blue solid line: Flow 1 egress (mean 70.23 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 27.24 Mbit/s)
- Green solid line: Flow 2 egress (mean 27.01 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 27.28 Mbit/s)
- Red solid line: Flow 3 egress (mean 27.12 Mbit/s)

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

![Per-packet Delay Graph](image2)

- Blue circles: Flow 1 (95th percentile 51.87 ms)
- Green circles: Flow 2 (95th percentile 51.58 ms)
- Red circles: Flow 3 (95th percentile 51.83 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-04-11 01:14:27
End at: 2018-04-11 01:14:57
Local clock offset: 0.424 ms
Remote clock offset: 8.989 ms

# Below is generated by plot.py at 2018-04-11 01:59:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.18 Mbit/s
95th percentile per-packet one-way delay: 50.890 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 74.38 Mbit/s
95th percentile per-packet one-way delay: 50.832 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 29.74 Mbit/s
95th percentile per-packet one-way delay: 50.963 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 9.17 Mbit/s
95th percentile per-packet one-way delay: 51.514 ms
Loss rate: 1.08%
Run 10: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 75.10 Mbit/s)**
- **Flow 1 egress (mean 74.38 Mbit/s)**
- **Flow 2 ingress (mean 30.13 Mbit/s)**
- **Flow 2 egress (mean 29.74 Mbit/s)**
- **Flow 3 ingress (mean 9.26 Mbit/s)**
- **Flow 3 egress (mean 9.17 Mbit/s)**

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

- **Flow 1 (95th percentile 50.83 ms)**
- **Flow 2 (95th percentile 50.96 ms)**
- **Flow 3 (95th percentile 51.51 ms)**
Run 1: Statistics of LEDBAT

Start at: 2018-04-10 21:57:00
End at: 2018-04-10 21:57:30
Local clock offset: 0.86 ms
Remote clock offset: -2.321 ms

# Below is generated by plot.py at 2018-04-11 01:59:56
# Datalink statistics
   -- Total of 3 flows:
     Average throughput: 78.02 Mbit/s
     95th percentile per-packet one-way delay: 49.408 ms
     Loss rate: 0.65%
   -- Flow 1:
     Average throughput: 45.92 Mbit/s
     95th percentile per-packet one-way delay: 48.902 ms
     Loss rate: 0.67%
   -- Flow 2:
     Average throughput: 32.06 Mbit/s
     95th percentile per-packet one-way delay: 50.158 ms
     Loss rate: 0.75%
   -- Flow 3:
     Average throughput: 32.52 Mbit/s
     95th percentile per-packet one-way delay: 49.432 ms
     Loss rate: 0.34%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-04-10 22:19:38
End at: 2018-04-10 22:20:08
Local clock offset: 0.398 ms
Remote clock offset: 1.729 ms

# Below is generated by plot.py at 2018-04-11 01:59:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 82.41 Mbit/s
  95th percentile per-packet one-way delay: 48.888 ms
  Loss rate: 0.36%
-- Flow 1:
  Average throughput: 48.14 Mbit/s
  95th percentile per-packet one-way delay: 48.623 ms
  Loss rate: 0.28%
-- Flow 2:
  Average throughput: 36.40 Mbit/s
  95th percentile per-packet one-way delay: 48.778 ms
  Loss rate: 0.42%
-- Flow 3:
  Average throughput: 30.36 Mbit/s
  95th percentile per-packet one-way delay: 49.930 ms
  Loss rate: 0.63%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-04-10 22:41:04
End at: 2018-04-10 22:41:34
Local clock offset: -0.451 ms
Remote clock offset: 5.422 ms

# Below is generated by plot.py at 2018-04-11 01:59:56
# Datalink statistics
  -- Total of 3 flows:
  Average throughput: 81.48 Mbit/s
  95th percentile per-packet one-way delay: 49.314 ms
  Loss rate: 0.26%
  -- Flow 1:
  Average throughput: 45.37 Mbit/s
  95th percentile per-packet one-way delay: 49.283 ms
  Loss rate: 0.17%
  -- Flow 2:
  Average throughput: 38.19 Mbit/s
  95th percentile per-packet one-way delay: 49.293 ms
  Loss rate: 0.18%
  -- Flow 3:
  Average throughput: 32.37 Mbit/s
  95th percentile per-packet one-way delay: 49.742 ms
  Loss rate: 0.78%
Run 3: Report of LEDBAT — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows with their ingress and egress rates.]
Run 4: Statistics of LEDBAT

Start at: 2018-04-10 23:02:28
End at: 2018-04-10 23:02:58
Local clock offset: -2.72 ms
Remote clock offset: -10.593 ms

# Below is generated by plot.py at 2018-04-11 01:59:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 75.46 Mbit/s
  95th percentile per-packet one-way delay: 47.578 ms
  Loss rate: 0.54%
-- Flow 1:
  Average throughput: 47.06 Mbit/s
  95th percentile per-packet one-way delay: 47.013 ms
  Loss rate: 0.47%
-- Flow 2:
  Average throughput: 33.87 Mbit/s
  95th percentile per-packet one-way delay: 48.277 ms
  Loss rate: 0.45%
-- Flow 3:
  Average throughput: 17.72 Mbit/s
  95th percentile per-packet one-way delay: 47.972 ms
  Loss rate: 1.44%
Run 5: Statistics of LEDBAT

End at: 2018-04-10 23:24:09
Local clock offset: -0.219 ms
Remote clock offset: -8.044 ms

# Below is generated by plot.py at 2018-04-11 02:00:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 80.64 Mbit/s
  95th percentile per-packet one-way delay: 49.294 ms
  Loss rate: 0.50%
-- Flow 1:
  Average throughput: 49.29 Mbit/s
  95th percentile per-packet one-way delay: 49.061 ms
  Loss rate: 0.43%
-- Flow 2:
  Average throughput: 31.81 Mbit/s
  95th percentile per-packet one-way delay: 49.316 ms
  Loss rate: 0.52%
-- Flow 3:
  Average throughput: 30.74 Mbit/s
  95th percentile per-packet one-way delay: 49.973 ms
  Loss rate: 0.80%
Run 5: Report of LEDBAT — Data Link

![Graph showing data link performance over time]

Legend:
- Flow 1 ingress (mean 49.54 Mbit/s)
- Flow 1 egress (mean 49.29 Mbit/s)
- Flow 2 ingress (mean 31.95 Mbit/s)
- Flow 2 egress (mean 31.81 Mbit/s)
- Flow 3 ingress (mean 31.04 Mbit/s)
- Flow 3 egress (mean 30.74 Mbit/s)

![Graph showing packet latency over time]

Legend:
- Flow 1 (95th percentile 49.06 ms)
- Flow 2 (95th percentile 49.32 ms)
- Flow 3 (95th percentile 49.97 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-04-10 23:44:52
End at: 2018-04-10 23:45:22
Local clock offset: -0.444 ms
Remote clock offset: -9.065 ms

# Below is generated by plot.py at 2018-04-11 02:00:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 77.35 Mbit/s
  95th percentile per-packet one-way delay: 46.892 ms
  Loss rate: 0.41%
  -- Flow 1:
    Average throughput: 45.42 Mbit/s
    95th percentile per-packet one-way delay: 47.103 ms
    Loss rate: 0.34%
  -- Flow 2:
    Average throughput: 35.60 Mbit/s
    95th percentile per-packet one-way delay: 45.363 ms
    Loss rate: 0.58%
  -- Flow 3:
    Average throughput: 24.97 Mbit/s
    95th percentile per-packet one-way delay: 47.616 ms
    Loss rate: 0.27%
Run 6: Report of LEDBAT — Data Link

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

- **Flow 1 ingress (mean 45.62 Mbit/s)**
- **Flow 1 egress (mean 45.42 Mbit/s)**
- **Flow 2 ingress (mean 35.80 Mbit/s)**
- **Flow 2 egress (mean 35.60 Mbit/s)**
- **Flow 3 ingress (mean 25.08 Mbit/s)**
- **Flow 3 egress (mean 24.97 Mbit/s)**

![Graph 2: Packet One Way Delay vs Time](image2)

- **Flow 1 (95th percentile 47.10 ms)**
- **Flow 2 (95th percentile 45.36 ms)**
- **Flow 3 (95th percentile 47.62 ms)**
Run 7: Statistics of LEDBAT

Start at: 2018-04-11 00:06:12
End at: 2018-04-11 00:06:42
Local clock offset: -1.083 ms
Remote clock offset: -1.985 ms

# Below is generated by plot.py at 2018-04-11 02:01:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.88 Mbit/s
95th percentile per-packet one-way delay: 48.591 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 48.26 Mbit/s
95th percentile per-packet one-way delay: 48.325 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 32.02 Mbit/s
95th percentile per-packet one-way delay: 48.966 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 28.19 Mbit/s
95th percentile per-packet one-way delay: 48.774 ms
Loss rate: 0.75%
Run 7: Report of LEDBAT — Data Link

![Graph showing throughput and one-way delay over time for different data flows. The graphs display the performance of the network connection over time, with markers indicating the throughput and delay at various points. The legend indicates the mean throughput for each flow: Flow 1 (mean 48.52 Mbit/s), Flow 2 (mean 32.13 Mbit/s), and Flow 3 (mean 28.38 Mbit/s).]
Run 8: Statistics of LEDBAT

Start at: 2018-04-11 00:27:51
End at: 2018-04-11 00:28:21
Local clock offset: 0.418 ms
Remote clock offset: 4.462 ms

# Below is generated by plot.py at 2018-04-11 02:01:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.84 Mbit/s
95th percentile per-packet one-way delay: 49.983 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 46.92 Mbit/s
95th percentile per-packet one-way delay: 49.905 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 34.54 Mbit/s
95th percentile per-packet one-way delay: 50.150 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 17.95 Mbit/s
95th percentile per-packet one-way delay: 50.141 ms
Loss rate: 1.32%
Run 8: Report of LEDBAT — Data Link

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

- **Flow 1**: Mean 47.21 Mbit/s, Ingress 96.82 Mbit/s, Egress 46.92 Mbit/s
- **Flow 2**: Mean 34.75 Mbit/s, Ingress 34.54 Mbit/s, Egress 34.54 Mbit/s
- **Flow 3**: Mean 18.20 Mbit/s, Ingress 17.95 Mbit/s, Egress 17.95 Mbit/s

![Graph showing packet error over time for three flows.](image)

- **Flow 1**: 95th percentile 49.91 ms
- **Flow 2**: 95th percentile 50.15 ms
- **Flow 3**: 95th percentile 50.14 ms
Run 9: Statistics of LEDBAT

Start at: 2018-04-11 00:49:28  
End at: 2018-04-11 00:49:59  
Local clock offset: 1.545 ms  
Remote clock offset: 2.454 ms

# Below is generated by plot.py at 2018-04-11 02:01:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.88 Mbit/s  
95th percentile per-packet one-way delay: 49.878 ms  
Loss rate: 0.53%  
-- Flow 1:  
Average throughput: 46.98 Mbit/s  
95th percentile per-packet one-way delay: 49.800 ms  
Loss rate: 0.39%  
-- Flow 2:  
Average throughput: 33.98 Mbit/s  
95th percentile per-packet one-way delay: 50.059 ms  
Loss rate: 0.76%  
-- Flow 3:  
Average throughput: 19.00 Mbit/s  
95th percentile per-packet one-way delay: 50.298 ms  
Loss rate: 0.81%
Run 9: Report of LEDBAT — Data Link

- Throughput (Mbps)
- Time (s)

- Flow 1 ingress (mean 47.19 Mbps)
- Flow 1 egress (mean 46.98 Mbps)
- Flow 2 ingress (mean 34.22 Mbps)
- Flow 2 egress (mean 33.98 Mbps)
- Flow 3 ingress (mean 19.16 Mbps)
- Flow 3 egress (mean 19.00 Mbps)

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

- Flow 1 (95th percentile 49.80 ms)
- Flow 2 (95th percentile 50.06 ms)
- Flow 3 (95th percentile 50.30 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-04-11 01:10:53
End at: 2018-04-11 01:11:23
Local clock offset: 1.24 ms
Remote clock offset: 8.592 ms

# Below is generated by plot.py at 2018-04-11 02:01:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 76.56 Mbit/s
  95th percentile per-packet one-way delay: 49.930 ms
  Loss rate: 0.66%
-- Flow 1:
  Average throughput: 48.04 Mbit/s
  95th percentile per-packet one-way delay: 49.481 ms
  Loss rate: 0.61%
-- Flow 2:
  Average throughput: 26.47 Mbit/s
  95th percentile per-packet one-way delay: 50.692 ms
  Loss rate: 0.89%
-- Flow 3:
  Average throughput: 32.92 Mbit/s
  95th percentile per-packet one-way delay: 49.869 ms
  Loss rate: 0.46%
Run 10: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 48.36 Mbps)
- Flow 1 egress (mean 48.04 Mbps)
- Flow 2 ingress (mean 26.69 Mbps)
- Flow 2 egress (mean 26.47 Mbps)
- Flow 3 ingress (mean 33.12 Mbps)
- Flow 3 egress (mean 32.92 Mbps)

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

- Flow 1 (95th percentile 49.48 ms)
- Flow 2 (95th percentile 50.69 ms)
- Flow 3 (95th percentile 49.87 ms)
Run 1: Statistics of PCC

Start at: 2018-04-10 21:58:11
End at: 2018-04-10 21:58:41
Local clock offset: 0.734 ms
Remote clock offset: -1.845 ms

# Below is generated by plot.py at 2018-04-11 02:01:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.44 Mbit/s
  95th percentile per-packet one-way delay: 37.597 ms
  Loss rate: 1.56%
-- Flow 1:
  Average throughput: 75.40 Mbit/s
  95th percentile per-packet one-way delay: 37.067 ms
  Loss rate: 1.57%
-- Flow 2:
  Average throughput: 18.24 Mbit/s
  95th percentile per-packet one-way delay: 39.976 ms
  Loss rate: 1.71%
-- Flow 3:
  Average throughput: 8.84 Mbit/s
  95th percentile per-packet one-way delay: 34.551 ms
  Loss rate: 0.73%
Run 1: Report of PCC — Data Link
Run 2: Statistics of PCC

Start at: 2018-04-10 22:20:50
Local clock offset: 0.266 ms
Remote clock offset: 2.239 ms

# Below is generated by plot.py at 2018-04-11 02:01:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.41 Mbit/s
95th percentile per-packet one-way delay: 21.169 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 80.45 Mbit/s
95th percentile per-packet one-way delay: 21.118 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 12.98 Mbit/s
95th percentile per-packet one-way delay: 22.955 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 10.10 Mbit/s
95th percentile per-packet one-way delay: 21.213 ms
Loss rate: 0.00%
Run 2: Report of PCC — Data Link

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

- Flow 1 ingress (mean 80.84 Mbit/s)
- Flow 1 egress (mean 80.45 Mbit/s)
- Flow 2 ingress (mean 13.00 Mbit/s)
- Flow 2 egress (mean 12.98 Mbit/s)
- Flow 3 ingress (mean 10.10 Mbit/s)
- Flow 3 egress (mean 10.10 Mbit/s)
Run 3: Statistics of PCC

End at: 2018-04-10 22:42:50
Local clock offset: -0.104 ms
Remote clock offset: 5.936 ms

# Below is generated by plot.py at 2018-04-11 02:02:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.10 Mbit/s
  95th percentile per-packet one-way delay: 42.128 ms
  Loss rate: 0.74%
-- Flow 1:
  Average throughput: 75.67 Mbit/s
  95th percentile per-packet one-way delay: 41.881 ms
  Loss rate: 0.78%
-- Flow 2:
  Average throughput: 14.32 Mbit/s
  95th percentile per-packet one-way delay: 42.734 ms
  Loss rate: 0.47%
-- Flow 3:
  Average throughput: 11.84 Mbit/s
  95th percentile per-packet one-way delay: 47.186 ms
  Loss rate: 0.55%
Run 3: Report of PCC — Data Link

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

Start at: 2018-04-10 23:03:39
End at: 2018-04-10 23:04:09
Local clock offset: 1.85 ms
Remote clock offset: -4.531 ms

# Below is generated by plot.py at 2018-04-11 02:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.59 Mbit/s
95th percentile per-packet one-way delay: 43.769 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 78.07 Mbit/s
95th percentile per-packet one-way delay: 43.303 ms
Loss rate: 2.36%
-- Flow 2:
Average throughput: 8.71 Mbit/s
95th percentile per-packet one-way delay: 44.923 ms
Loss rate: 2.82%
-- Flow 3:
Average throughput: 14.37 Mbit/s
95th percentile per-packet one-way delay: 47.206 ms
Loss rate: 5.28%
Run 4: Report of PCC — Data Link

![Graph of Throughput vs. Time with legend showing different flows and their ingress and egress data rates.]

![Graph of Per-packet round trip delay vs. Time with legend showing different flows and their 95th percentile round trip delays.]

71
Run 5: Statistics of PCC

Start at: 2018-04-10 23:24:51
End at: 2018-04-10 23:25:21
Local clock offset: 0.348 ms
Remote clock offset: -6.734 ms

# Below is generated by plot.py at 2018-04-11 02:02:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.62 Mbit/s
95th percentile per-packet one-way delay: 27.077 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 85.61 Mbit/s
95th percentile per-packet one-way delay: 26.379 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 30.371 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.84 Mbit/s
95th percentile per-packet one-way delay: 38.415 ms
Loss rate: 0.00%
Run 6: Statistics of PCC

Start at: 2018-04-10 23:46:02
End at: 2018-04-10 23:46:32
Local clock offset: -0.772 ms
Remote clock offset: -9.09 ms

# Below is generated by plot.py at 2018-04-11 02:02:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.63 Mbit/s
95th percentile per-packet one-way delay: 37.800 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 78.55 Mbit/s
95th percentile per-packet one-way delay: 35.886 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 10.16 Mbit/s
95th percentile per-packet one-way delay: 40.941 ms
Loss rate: 2.10%
-- Flow 3:
Average throughput: 22.24 Mbit/s
95th percentile per-packet one-way delay: 43.624 ms
Loss rate: 3.18%
Run 6: Report of PCC — Data Link
Run 7: Statistics of PCC

Start at: 2018-04-11 00:07:24
End at: 2018-04-11 00:07:54
Local clock offset: -0.844 ms
Remote clock offset: -0.743 ms

# Below is generated by plot.py at 2018-04-11 02:02:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.61 Mbit/s
  95th percentile per-packet one-way delay: 38.620 ms
  Loss rate: 1.13%
-- Flow 1:
  Average throughput: 81.16 Mbit/s
  95th percentile per-packet one-way delay: 37.521 ms
  Loss rate: 1.02%
-- Flow 2:
  Average throughput: 5.53 Mbit/s
  95th percentile per-packet one-way delay: 40.986 ms
  Loss rate: 1.10%
-- Flow 3:
  Average throughput: 14.56 Mbit/s
  95th percentile per-packet one-way delay: 44.677 ms
  Loss rate: 2.96%
Run 7: Report of PCC — Data Link

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

Legend:
- Flow 1 ingress (mean 82.00 Mbit/s)
- Flow 1 egress (mean 81.16 Mbit/s)
- Flow 2 ingress (mean 5.59 Mbit/s)
- Flow 2 egress (mean 5.53 Mbit/s)
- Flow 3 ingress (mean 15.02 Mbit/s)
- Flow 3 egress (mean 14.56 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 37.52 ms)
- Flow 2 (95th percentile 40.99 ms)
- Flow 3 (95th percentile 44.68 ms)
Run 8: Statistics of PCC

Start at: 2018-04-11 00:29:02
End at: 2018-04-11 00:29:32
Local clock offset: -0.096 ms
Remote clock offset: 4.375 ms

# Below is generated by plot.py at 2018-04-11 02:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.29 Mbit/s
95th percentile per-packet one-way delay: 16.525 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 16.484 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 8.37 Mbit/s
95th percentile per-packet one-way delay: 16.614 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.08 Mbit/s
95th percentile per-packet one-way delay: 17.041 ms
Loss rate: 0.00%
Run 8: Report of PCC — Data Link

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

- Flow 1 ingress (mean 85.29 Mbit/s)
- Flow 1 egress (mean 85.05 Mbit/s)
- Flow 2 ingress (mean 8.37 Mbit/s)
- Flow 2 egress (mean 8.37 Mbit/s)
- Flow 3 ingress (mean 5.08 Mbit/s)
- Flow 3 egress (mean 5.08 Mbit/s)

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

- Flow 1 (95th percentile 16.48 ms)
- Flow 2 (95th percentile 16.61 ms)
- Flow 3 (95th percentile 17.04 ms)
Run 9: Statistics of PCC

Start at: 2018-04-11 00:50:39
End at: 2018-04-11 00:51:09
Local clock offset: 2.384 ms
Remote clock offset: 2.672 ms

# Below is generated by plot.py at 2018-04-11 02:02:50
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 92.70 Mbit/s
 95th percentile per-packet one-way delay: 42.724 ms
 Loss rate: 2.11%
-- Flow 1:
 Average throughput: 81.90 Mbit/s
 95th percentile per-packet one-way delay: 41.495 ms
 Loss rate: 1.91%
-- Flow 2:
 Average throughput: 8.81 Mbit/s
 95th percentile per-packet one-way delay: 45.427 ms
 Loss rate: 2.50%
-- Flow 3:
 Average throughput: 14.98 Mbit/s
 95th percentile per-packet one-way delay: 47.683 ms
 Loss rate: 4.90%
Run 9: Report of PCC — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 83.48 Mbps)
- **Flow 1 egress** (mean 81.90 Mbps)
- **Flow 2 ingress** (mean 9.04 Mbps)
- **Flow 2 egress** (mean 8.81 Mbps)
- **Flow 3 ingress** (mean 15.75 Mbps)
- **Flow 3 egress** (mean 14.98 Mbps)

---

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

- **Flow 1** (95th percentile 41.49 ms)
- **Flow 2** (95th percentile 45.43 ms)
- **Flow 3** (95th percentile 47.68 ms)
Run 10: Statistics of PCC

Start at: 2018-04-11 01:12:03
End at: 2018-04-11 01:12:33
Local clock offset: 0.547 ms
Remote clock offset: 9.22 ms

# Below is generated by plot.py at 2018-04-11 02:02:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.31 Mbit/s
  95th percentile per-packet one-way delay: 17.349 ms
  Loss rate: 0.25%
-- Flow 1:
  Average throughput: 84.02 Mbit/s
  95th percentile per-packet one-way delay: 17.021 ms
  Loss rate: 0.27%
-- Flow 2:
  Average throughput: 10.03 Mbit/s
  95th percentile per-packet one-way delay: 17.809 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 4.92 Mbit/s
  95th percentile per-packet one-way delay: 17.897 ms
  Loss rate: 0.00%
Run 10: Report of PCC — Data Link

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

![Graph 2: Per-packet one-way delay (ms) over Time (s)]
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-10 21:53:25
End at: 2018-04-10 21:53:55
Local clock offset: 1.011 ms
Remote clock offset: -1.014 ms

# Below is generated by plot.py at 2018-04-11 02:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.19 Mbit/s
95th percentile per-packet one-way delay: 49.898 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 61.26 Mbit/s
95th percentile per-packet one-way delay: 49.436 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 31.98 Mbit/s
95th percentile per-packet one-way delay: 50.457 ms
Loss rate: 2.52%
-- Flow 3:
Average throughput: 23.58 Mbit/s
95th percentile per-packet one-way delay: 50.615 ms
Loss rate: 2.76%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-10 22:16:01
End at: 2018-04-10 22:16:31
Local clock offset: 0.714 ms
Remote clock offset: 0.551 ms

# Below is generated by plot.py at 2018-04-11 02:03:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.66 Mbit/s
  95th percentile per-packet one-way delay: 49.909 ms
  Loss rate: 1.89%
-- Flow 1:
  Average throughput: 62.37 Mbit/s
  95th percentile per-packet one-way delay: 49.950 ms
  Loss rate: 1.59%
-- Flow 2:
  Average throughput: 34.16 Mbit/s
  95th percentile per-packet one-way delay: 49.746 ms
  Loss rate: 2.46%
-- Flow 3:
  Average throughput: 17.13 Mbit/s
  95th percentile per-packet one-way delay: 50.196 ms
  Loss rate: 2.89%
Run 2: Report of QUIC Cubic — Data Link

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

End at: 2018-04-10 22:37:58
Local clock offset: 0.215 ms
Remote clock offset: 5.869 ms

# Below is generated by plot.py at 2018-04-11 02:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.11 Mbit/s
95th percentile per-packet one-way delay: 49.918 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 70.30 Mbit/s
95th percentile per-packet one-way delay: 49.916 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 24.21 Mbit/s
95th percentile per-packet one-way delay: 49.898 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 20.85 Mbit/s
95th percentile per-packet one-way delay: 49.972 ms
Loss rate: 2.58%
Run 3: Report of QUIC Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 71.64 Mbit/s)
- Flow 1 egress (mean 70.30 Mbit/s)
- Flow 2 ingress (mean 24.77 Mbit/s)
- Flow 2 egress (mean 24.21 Mbit/s)
- Flow 3 ingress (mean 21.33 Mbit/s)
- Flow 3 egress (mean 20.85 Mbit/s)

Legend for per-packet one-way delay:
- Flow 1 (95th percentile 49.92 ms)
- Flow 2 (95th percentile 49.90 ms)
- Flow 3 (95th percentile 49.97 ms)
Run 4: Statistics of QUIC Cubic

Start at: 2018-04-10 22:58:54
End at: 2018-04-10 22:59:24
Local clock offset: 1.655 ms
Remote clock offset: -2.217 ms

# Below is generated by plot.py at 2018-04-11 02:04:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.64 Mbit/s
95th percentile per-packet one-way delay: 50.169 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 69.43 Mbit/s
95th percentile per-packet one-way delay: 50.289 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 28.08 Mbit/s
95th percentile per-packet one-way delay: 49.805 ms
Loss rate: 2.28%
-- Flow 3:
Average throughput: 17.06 Mbit/s
95th percentile per-packet one-way delay: 49.843 ms
Loss rate: 2.95%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-04-10 23:20:05
End at: 2018-04-10 23:20:35
Local clock offset: 0.989 ms
Remote clock offset: -6.334 ms

# Below is generated by plot.py at 2018-04-11 02:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.56 Mbit/s
95th percentile per-packet one-way delay: 50.196 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 65.80 Mbit/s
95th percentile per-packet one-way delay: 50.265 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 26.17 Mbit/s
95th percentile per-packet one-way delay: 49.674 ms
Loss rate: 2.72%
-- Flow 3:
Average throughput: 31.94 Mbit/s
95th percentile per-packet one-way delay: 50.357 ms
Loss rate: 3.81%
Run 5: Report of QUIC Cubic — Data Link

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

Start at: 2018-04-10 23:41:20
End at: 2018-04-10 23:41:50
Local clock offset: -1.21 ms
Remote clock offset: -7.689 ms

# Below is generated by plot.py at 2018-04-11 02:04:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.05 Mbit/s
95th percentile per-packet one-way delay: 50.607 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 68.06 Mbit/s
95th percentile per-packet one-way delay: 50.534 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 27.11 Mbit/s
95th percentile per-packet one-way delay: 51.022 ms
Loss rate: 2.40%
-- Flow 3:
Average throughput: 21.60 Mbit/s
95th percentile per-packet one-way delay: 50.585 ms
Loss rate: 2.71%
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-11 00:02:29
End at: 2018-04-11 00:02:59
Local clock offset: -0.86 ms
Remote clock offset: -2.578 ms

# Below is generated by plot.py at 2018-04-11 02:04:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.32 Mbit/s
95th percentile per-packet one-way delay: 50.245 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 67.24 Mbit/s
95th percentile per-packet one-way delay: 50.292 ms
Loss rate: 2.27%
-- Flow 2:
Average throughput: 30.14 Mbit/s
95th percentile per-packet one-way delay: 50.117 ms
Loss rate: 2.46%
-- Flow 3:
Average throughput: 18.71 Mbit/s
95th percentile per-packet one-way delay: 49.985 ms
Loss rate: 2.79%
Run 7: Report of QUIC Cubic — Data Link

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

- **Flow 1**: Ingress mean 68.88 Mbit/s, Egress mean 67.24 Mbit/s
- **Flow 2**: Ingress mean 30.90 Mbit/s, Egress mean 30.14 Mbit/s
- **Flow 3**: Ingress mean 19.27 Mbit/s, Egress mean 18.71 Mbit/s

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

- **Flow 1**: 95th percentile 50.29 ms
- **Flow 2**: 95th percentile 50.12 ms
- **Flow 3**: 95th percentile 49.98 ms
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-11 00:24:16
End at: 2018-04-11 00:24:46
Local clock offset: -0.339 ms
Remote clock offset: 3.493 ms

# Below is generated by plot.py at 2018-04-11 02:04:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.57 Mbit/s
95th percentile per-packet one-way delay: 49.352 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 57.50 Mbit/s
95th percentile per-packet one-way delay: 49.260 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 49.632 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 20.87 Mbit/s
95th percentile per-packet one-way delay: 48.587 ms
Loss rate: 1.67%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-04-11 00:45:49
End at: 2018-04-11 00:46:19
Local clock offset: 2.2 ms
Remote clock offset: 1.68 ms

# Below is generated by plot.py at 2018-04-11 02:05:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.97 Mbit/s
95th percentile per-packet one-way delay: 47.877 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 60.84 Mbit/s
95th percentile per-packet one-way delay: 47.715 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 32.15 Mbit/s
95th percentile per-packet one-way delay: 48.282 ms
Loss rate: 2.36%
-- Flow 3:
Average throughput: 26.91 Mbit/s
95th percentile per-packet one-way delay: 48.061 ms
Loss rate: 3.26%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-11 01:07:16
End at: 2018-04-11 01:07:46
Local clock offset: 1.905 ms
Remote clock offset: 7.293 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 93.53 Mbit/s
   95th percentile per-packet one-way delay: 49.667 ms
   Loss rate: 2.00%
   -- Flow 1:
      Average throughput: 68.06 Mbit/s
      95th percentile per-packet one-way delay: 49.677 ms
      Loss rate: 1.82%
   -- Flow 2:
      Average throughput: 27.11 Mbit/s
      95th percentile per-packet one-way delay: 49.701 ms
      Loss rate: 2.35%
   -- Flow 3:
      Average throughput: 23.04 Mbit/s
      95th percentile per-packet one-way delay: 49.369 ms
      Loss rate: 2.78%
Run 10: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 69.37 Mbit/s)
- Flow 1 egress (mean 68.06 Mbit/s)
- Flow 2 ingress (mean 27.78 Mbit/s)
- Flow 2 egress (mean 27.11 Mbit/s)
- Flow 3 ingress (mean 23.67 Mbit/s)
- Flow 3 egress (mean 23.04 Mbit/s)

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

- Flow 1 (95th percentile 49.68 ms)
- Flow 2 (95th percentile 49.70 ms)
- Flow 3 (95th percentile 49.37 ms)
Run 1: Statistics of SCReAM

Start at: 2018-04-10 22:01:45
End at: 2018-04-10 22:02:15
Local clock offset: 0.889 ms
Remote clock offset: -2.029 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 12.525 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 12.513 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 12.518 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 12.573 ms
  Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

![Graph 1: Throughput (Mbps)]

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

Start at: 2018-04-10 22:24:26
End at: 2018-04-10 22:24:56
Local clock offset: 0.677 ms
Remote clock offset: 2.925 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 12.199 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 11.698 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 11.641 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 12.266 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-04-10 22:46:02
End at: 2018-04-10 22:46:32
Local clock offset: 0.815 ms
Remote clock offset: 5.698 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 11.653 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 11.573 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 11.642 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.719 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2018-04-10 23:07:13
End at: 2018-04-10 23:07:43
Local clock offset: 0.965 ms
Remote clock offset: -5.157 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 13.256 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 12.589 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 12.659 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 13.335 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

![Graph of Throughput and Packet Delay](image-url)

Throughput (Mbps):
- Flow 1 ingress (mean 0.21 Mbps)
- Flow 1 egress (mean 0.21 Mbps)
- Flow 2 ingress (mean 0.21 Mbps)
- Flow 2 egress (mean 0.21 Mbps)
- Flow 3 ingress (mean 0.22 Mbps)
- Flow 3 egress (mean 0.22 Mbps)

Packet Delay (ms):
- Flow 1 (95th percentile 12.59 ms)
- Flow 2 (95th percentile 12.66 ms)
- Flow 3 (95th percentile 13.34 ms)
Run 5: Statistics of SCReAM

Start at: 2018-04-10 23:28:26
End at: 2018-04-10 23:28:56
Local clock offset: -0.1 ms
Remote clock offset: -6.442 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 13.754 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 13.157 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 13.103 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 13.819 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

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

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

![Graph of packet loss rate over time for different flows.]

Legend:
- Flow 1 (95th percentile 13.16 ms)
- Flow 2 (95th percentile 13.10 ms)
- Flow 3 (95th percentile 13.82 ms)

113
Run 6: Statistics of SCReAM

Start at: 2018-04-10 23:49:40
End at: 2018-04-10 23:50:10
Local clock offset: -0.722 ms
Remote clock offset: -8.49 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 12.211 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 12.148 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 12.248 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 12.149 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

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

Start at: 2018-04-11 00:11:07
End at: 2018-04-11 00:11:37
Local clock offset: -0.401 ms
Remote clock offset: 0.999 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 12.541 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 12.046 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 12.592 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.879 ms
Loss rate: 0.00%
Run 8: Statistics of SCReAM

Start at: 2018-04-11 00:32:38
End at: 2018-04-11 00:33:08
Local clock offset: 0.224 ms
Remote clock offset: 2.904 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 13.164 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 12.525 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 12.520 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 13.237 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link
Run 9: Statistics of SCReAM

Start at: 2018-04-11 00:54:20
End at: 2018-04-11 00:54:50
Local clock offset: 1.966 ms
Remote clock offset: 2.805 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 12.977 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 12.363 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 13.005 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 12.343 ms
Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

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

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 0.21 Mb/s)
Flow 1 egress (mean 0.21 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)

Delay per packet (one way delay [ms])

Time (s)

Flow 1 (95th percentile 12.36 ms)
Flow 2 (95th percentile 13.01 ms)
Flow 3 (95th percentile 12.34 ms)
Run 10: Statistics of SCReAM

Start at: 2018-04-11 01:15:37
End at: 2018-04-11 01:16:07
Local clock offset: 0.826 ms
Remote clock offset: 9.694 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 11.861 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 11.813 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 11.909 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.797 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.21 Mb/s)
- Flow 1 egress (mean 0.21 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)

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

- Flow 1 (95th percentile 11.81 ms)
- Flow 2 (95th percentile 11.91 ms)
- Flow 3 (95th percentile 11.80 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-04-10 21:47:32
End at: 2018-04-10 21:48:02
Local clock offset: 0.942 ms
Remote clock offset: -0.195 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 14.277 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 14.162 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 13.865 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 14.625 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Per-packet one-way delay [µs]
Run 2: Statistics of WebRTC media

Start at: 2018-04-10 22:09:45
End at: 2018-04-10 22:10:15
Local clock offset: 1.132 ms
Remote clock offset: -3.088 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 13.202 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 12.959 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 13.310 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 13.440 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

End at: 2018-04-10 22:32:01
Local clock offset: -0.205 ms
Remote clock offset: 5.025 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 15.264 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 14.885 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 15.649 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 15.312 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

![Graph 1: Throughput (Mb/s)](image1)

- Flow 1 ingress (mean 0.06 Mb/s)
- Flow 1 egress (mean 0.06 Mb/s)
- Flow 2 ingress (mean 0.06 Mb/s)
- Flow 2 egress (mean 0.06 Mb/s)
- Flow 3 ingress (mean 0.05 Mb/s)
- Flow 3 egress (mean 0.05 Mb/s)

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

- Flow 1 (95th percentile 14.88 ms)
- Flow 2 (95th percentile 15.65 ms)
- Flow 3 (95th percentile 15.31 ms)
Run 4: Statistics of WebRTC media

Start at: 2018-04-10 22:53:03
End at: 2018-04-10 22:53:33
Local clock offset: 0.466 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 14.541 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 14.436 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 14.249 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 14.855 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 0.06 Mbit/s)
- Flow 1 egress (mean 0.06 Mbit/s)
- Flow 2 ingress (mean 0.06 Mbit/s)
- Flow 2 egress (mean 0.06 Mbit/s)
- Flow 3 ingress (mean 0.05 Mbit/s)
- Flow 3 egress (mean 0.05 Mbit/s)

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

- Flow 1 (95th percentile 14.44 ms)
- Flow 2 (95th percentile 14.25 ms)
- Flow 3 (95th percentile 14.86 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-04-10 23:14:12
End at: 2018-04-10 23:14:42
Local clock offset: 1.175 ms
Remote clock offset: -6.363 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 14.805 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 14.673 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 14.714 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 14.969 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-04-10 23:35:30
End at: 2018-04-10 23:36:00
Local clock offset: -1.116 ms
Remote clock offset: -7.716 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 14.908 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 14.446 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 15.105 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 14.972 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-04-10 23:56:38
End at: 2018-04-10 23:57:08
Local clock offset: -0.434 ms
Remote clock offset: -6.49 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 14.293 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 13.840 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 14.472 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 14.548 ms
Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

[Graphs showing network performance metrics over time.]
Run 8: Statistics of WebRTC media

Start at: 2018-04-11 00:18:20
End at: 2018-04-11 00:18:50
Local clock offset: -1.277 ms
Remote clock offset: 2.316 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 14.482 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 14.159 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 14.312 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 14.978 ms
  Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

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

Start at: 2018-04-11 00:39:44
End at: 2018-04-11 00:40:14
Local clock offset: 1.36 ms
Remote clock offset: 2.779 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 14.598 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 14.346 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 14.246 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 15.238 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 0.06 Mbit/s)
- Flow 1 egress (mean 0.06 Mbit/s)
- Flow 2 ingress (mean 0.06 Mbit/s)
- Flow 2 egress (mean 0.06 Mbit/s)
- Flow 3 ingress (mean 0.05 Mbit/s)
- Flow 3 egress (mean 0.05 Mbit/s)

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

- Flow 1 (95th percentile 14.35 ms)
- Flow 2 (95th percentile 14.25 ms)
- Flow 3 (95th percentile 15.24 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-04-11 01:01:21
End at: 2018-04-11 01:01:51
Local clock offset: 1.503 ms
Remote clock offset: 3.392 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 14.588 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 14.355 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 14.980 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 14.506 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

[Graph showing throughput and packet round-trip delay over time for different flows, indicating network performance metrics.]

143
Run 1: Statistics of Sprout

Start at: 2018-04-10 22:02:51
End at: 2018-04-10 22:03:21
Local clock offset: 0.41 ms
Remote clock offset: -2.794 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.64 Mbit/s
95th percentile per-packet one-way delay: 22.367 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 22.460 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.48 Mbit/s
95th percentile per-packet one-way delay: 20.932 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.82 Mbit/s
95th percentile per-packet one-way delay: 23.659 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 24.51 Mbit/s)  
Flow 1 egress (mean 24.50 Mbit/s)  
Flow 2 ingress (mean 24.49 Mbit/s)  
Flow 2 egress (mean 24.48 Mbit/s)  
Flow 3 ingress (mean 23.84 Mbit/s)  
Flow 3 egress (mean 23.62 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 22.46 ms)  
Flow 2 (95th percentile 20.93 ms)  
Flow 3 (95th percentile 23.66 ms)
Run 2: Statistics of Sprout

End at: 2018-04-10 22:26:01
Local clock offset: 0.872 ms
Remote clock offset: 2.783 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.54 Mbit/s
  95th percentile per-packet one-way delay: 20.341 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.39 Mbit/s
  95th percentile per-packet one-way delay: 19.680 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.41 Mbit/s
  95th percentile per-packet one-way delay: 19.822 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 23.96 Mbit/s
  95th percentile per-packet one-way delay: 21.872 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-04-10 22:47:08
End at: 2018-04-10 22:47:38
Local clock offset: 0.943 ms
Remote clock offset: 5.098 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.71 Mbit/s
  95th percentile per-packet one-way delay: 21.659 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.42 Mbit/s
  95th percentile per-packet one-way delay: 22.200 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.45 Mbit/s
  95th percentile per-packet one-way delay: 20.520 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.27 Mbit/s
  95th percentile per-packet one-way delay: 21.840 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 24.43 Mbit/s)
- Flow 1 egress (mean 24.42 Mbit/s)
- Flow 2 ingress (mean 24.46 Mbit/s)
- Flow 2 egress (mean 24.45 Mbit/s)
- Flow 3 ingress (mean 24.27 Mbit/s)
- Flow 3 egress (mean 24.27 Mbit/s)
Run 4: Statistics of Sprout

Start at: 2018-04-10 23:08:18
End at: 2018-04-10 23:08:48
Local clock offset: 1.281 ms
Remote clock offset: -5.295 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.60 Mbit/s
  95th percentile per-packet one-way delay: 21.608 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.37 Mbit/s
  95th percentile per-packet one-way delay: 21.571 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.50 Mbit/s
  95th percentile per-packet one-way delay: 21.390 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.08 Mbit/s
  95th percentile per-packet one-way delay: 22.043 ms
  Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

![Graph showing throughput and per-packet end-to-end delay for Flows 1, 2, and 3 over time.]

- **Flow 1 ingress** (mean 24.37 Mbit/s)
- **Flow 1 egress** (mean 24.37 Mbit/s)
- **Flow 2 ingress** (mean 24.30 Mbit/s)
- **Flow 2 egress** (mean 24.50 Mbit/s)
- **Flow 3 ingress** (mean 24.07 Mbit/s)
- **Flow 3 egress** (mean 24.08 Mbit/s)

![Graph showing per-packet end-to-end delay for Flows 1, 2, and 3 over time.]

- **Flow 1** (95th percentile 21.57 ms)
- **Flow 2** (95th percentile 21.39 ms)
- **Flow 3** (95th percentile 22.04 ms)
Run 5: Statistics of Sprout

Start at: 2018-04-10 23:29:31
End at: 2018-04-10 23:30:01
Local clock offset: -0.272 ms
Remote clock offset: -7.09 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.59 Mbit/s
95th percentile per-packet one-way delay: 21.954 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 24.42 Mbit/s
95th percentile per-packet one-way delay: 20.727 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 24.32 Mbit/s
95th percentile per-packet one-way delay: 23.075 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 24.22 Mbit/s
95th percentile per-packet one-way delay: 21.280 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 24.42 Mbps)
- Flow 1 egress (mean 24.42 Mbps)
- Flow 2 ingress (mean 24.33 Mbps)
- Flow 2 egress (mean 24.32 Mbps)
- Flow 3 ingress (mean 24.23 Mbps)
- Flow 3 egress (mean 24.22 Mbps)

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

- Flow 1 (95th percentile 20.73 ms)
- Flow 2 (95th percentile 23.07 ms)
- Flow 3 (95th percentile 21.28 ms)
Run 6: Statistics of Sprout

Start at: 2018-04-10 23:50:45
End at: 2018-04-10 23:51:15
Local clock offset: -1.647 ms
Remote clock offset: -8.869 ms

# Below is generated by plot.py at 2018-04-11 02:05:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.83 Mbit/s
95th percentile per-packet one-way delay: 21.709 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.54 Mbit/s
95th percentile per-packet one-way delay: 21.472 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.45 Mbit/s
95th percentile per-packet one-way delay: 21.792 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.23 Mbit/s
95th percentile per-packet one-way delay: 22.135 ms
Loss rate: 0.00%
Run 7: Statistics of Sprout

Start at: 2018-04-11 00:12:12
End at: 2018-04-11 00:12:42
Local clock offset: -0.369 ms
Remote clock offset: 0.104 ms

# Below is generated by plot.py at 2018-04-11 02:06:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.82 Mbit/s
  95th percentile per-packet one-way delay: 20.860 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.56 Mbit/s
  95th percentile per-packet one-way delay: 19.828 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.51 Mbit/s
  95th percentile per-packet one-way delay: 21.447 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.11 Mbit/s
  95th percentile per-packet one-way delay: 21.800 ms
  Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 24.56 Mbit/s)
- Flow 1 egress (mean 24.56 Mbit/s)
- Flow 2 ingress (mean 24.31 Mbit/s)
- Flow 2 egress (mean 24.51 Mbit/s)
- Flow 3 ingress (mean 24.11 Mbit/s)
- Flow 3 egress (mean 24.11 Mbit/s)
Run 8: Statistics of Sprout

Start at: 2018-04-11 00:33:44
End at: 2018-04-11 00:34:14
Local clock offset: 1.167 ms
Remote clock offset: 2.899 ms

# Below is generated by plot.py at 2018-04-11 02:06:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.65 Mbit/s
  95th percentile per-packet one-way delay: 22.130 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 24.51 Mbit/s
  95th percentile per-packet one-way delay: 22.309 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.31 Mbit/s
  95th percentile per-packet one-way delay: 22.148 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 24.14 Mbit/s
  95th percentile per-packet one-way delay: 21.153 ms
  Loss rate: 0.00%
Run 8: Report of Sprout — Data Link
Run 9: Statistics of Sprout

Start at: 2018-04-11 00:55:25
End at: 2018-04-11 00:55:55
Local clock offset: 2.068 ms
Remote clock offset: 2.829 ms

# Below is generated by plot.py at 2018-04-11 02:06:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.89 Mbit/s
95th percentile per-packet one-way delay: 22.413 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.56 Mbit/s
95th percentile per-packet one-way delay: 21.634 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.54 Mbit/s
95th percentile per-packet one-way delay: 22.990 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.24 Mbit/s
95th percentile per-packet one-way delay: 22.735 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

![Graph 1: Throughput vs Time]

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

Legend:
- Flow 1 ingress (mean 24.56 Mbit/s)
- Flow 1 egress (mean 24.56 Mbit/s)
- Flow 2 ingress (mean 24.34 Mbit/s)
- Flow 2 egress (mean 24.54 Mbit/s)
- Flow 3 ingress (mean 24.24 Mbit/s)
- Flow 3 egress (mean 24.24 Mbit/s)

Legend:
- Flow 1 (95th percentile 21.63 ms)
- Flow 2 (95th percentile 22.99 ms)
- Flow 3 (95th percentile 22.73 ms)
Run 10: Statistics of Sprout

Start at: 2018-04-11 01:16:42
End at: 2018-04-11 01:17:12
Local clock offset: 0.676 ms
Remote clock offset: 10.209 ms

# Below is generated by plot.py at 2018-04-11 02:06:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.86 Mbit/s
  95th percentile per-packet one-way delay: 22.275 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.64 Mbit/s
  95th percentile per-packet one-way delay: 21.197 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.39 Mbit/s
  95th percentile per-packet one-way delay: 22.977 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.22 Mbit/s
  95th percentile per-packet one-way delay: 23.429 ms
  Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

![Throughput Chart]

![Delay Chart]

Legend:
- Flow 1 ingress (mean 24.65 Mbit/s)
- Flow 1 egress (mean 24.64 Mbit/s)
- Flow 2 ingress (mean 24.41 Mbit/s)
- Flow 2 egress (mean 24.39 Mbit/s)
- Flow 3 ingress (mean 24.23 Mbit/s)
- Flow 3 egress (mean 24.22 Mbit/s)

Legend for delay:
- Flow 1 (95th percentile 21.20 ms)
- Flow 2 (95th percentile 22.98 ms)
- Flow 3 (95th percentile 23.43 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-04-10 21:59:20
End at: 2018-04-10 21:59:50
Local clock offset: 0.471 ms
Remote clock offset: -2.288 ms

# Below is generated by plot.py at 2018-04-11 02:07:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.18 Mbit/s
  95th percentile per-packet one-way delay: 45.710 ms
  Loss rate: 7.28%
-- Flow 1:
  Average throughput: 56.93 Mbit/s
  95th percentile per-packet one-way delay: 43.639 ms
  Loss rate: 4.15%
-- Flow 2:
  Average throughput: 40.05 Mbit/s
  95th percentile per-packet one-way delay: 46.267 ms
  Loss rate: 8.45%
-- Flow 3:
  Average throughput: 31.85 Mbit/s
  95th percentile per-packet one-way delay: 49.182 ms
  Loss rate: 18.89%
Run 1: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 59.44 Mbit/s)
- Flow 1 egress (mean 56.93 Mbit/s)
- Flow 2 ingress (mean 43.79 Mbit/s)
- Flow 2 egress (mean 40.05 Mbit/s)
- Flow 3 ingress (mean 39.33 Mbit/s)
- Flow 3 egress (mean 31.85 Mbit/s)

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

- Flow 1 (95th percentile 43.64 ms)
- Flow 2 (95th percentile 46.27 ms)
- Flow 3 (95th percentile 49.18 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-10 22:22:00
End at: 2018-04-10 22:22:30
Local clock offset: -0.198 ms
Remote clock offset: 2.76 ms

# Below is generated by plot.py at 2018-04-11 02:08:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.34 Mbit/s
  95th percentile per-packet one-way delay: 45.597 ms
  Loss rate: 7.37%
-- Flow 1:
  Average throughput: 57.21 Mbit/s
  95th percentile per-packet one-way delay: 43.297 ms
  Loss rate: 4.18%
-- Flow 2:
  Average throughput: 39.91 Mbit/s
  95th percentile per-packet one-way delay: 46.351 ms
  Loss rate: 8.57%
-- Flow 3:
  Average throughput: 31.75 Mbit/s
  95th percentile per-packet one-way delay: 49.248 ms
  Loss rate: 19.28%
Run 2: Report of TaoVA-100x — Data Link

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

![Graph 2: Per-packet One-way Delay Over Time](image2)
Run 3: Statistics of TaoVA-100x

End at: 2018-04-10 22:44:02
Local clock offset: -0.303 ms
Remote clock offset: 5.899 ms

# Below is generated by plot.py at 2018-04-11 02:08:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.29 Mbit/s
  95th percentile per-packet one-way delay: 45.499 ms
  Loss rate: 7.26%
-- Flow 1:
  Average throughput: 57.07 Mbit/s
  95th percentile per-packet one-way delay: 43.302 ms
  Loss rate: 4.14%
-- Flow 2:
  Average throughput: 40.05 Mbit/s
  95th percentile per-packet one-way delay: 46.291 ms
  Loss rate: 8.44%
-- Flow 3:
  Average throughput: 31.77 Mbit/s
  95th percentile per-packet one-way delay: 48.735 ms
  Loss rate: 18.95%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-04-10 23:04:48
End at: 2018-04-10 23:05:18
Local clock offset: 1.297 ms
Remote clock offset: -4.458 ms

# Below is generated by plot.py at 2018-04-11 02:08:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.96 Mbit/s
95th percentile per-packet one-way delay: 43.547 ms
Loss rate: 8.56%
-- Flow 1:
Average throughput: 47.36 Mbit/s
95th percentile per-packet one-way delay: 39.398 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 45.22 Mbit/s
95th percentile per-packet one-way delay: 45.281 ms
Loss rate: 12.24%
-- Flow 3:
Average throughput: 43.69 Mbit/s
95th percentile per-packet one-way delay: 46.268 ms
Loss rate: 21.56%
Run 4: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 47.79 Mbit/s)
- Flow 1 egress (mean 47.36 Mbit/s)
- Flow 2 ingress (mean 51.34 Mbit/s)
- Flow 2 egress (mean 45.22 Mbit/s)
- Flow 3 ingress (mean 55.68 Mbit/s)
- Flow 3 egress (mean 43.69 Mbit/s)

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

- Flow 1 (95th percentile 39.40 ms)
- Flow 2 (95th percentile 45.28 ms)
- Flow 3 (95th percentile 46.27 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-04-10 23:26:00
End at: 2018-04-10 23:26:30
Local clock offset: -0.262 ms
Remote clock offset: -7.309 ms

# Below is generated by plot.py at 2018-04-11 02:08:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.32 Mbit/s
  95th percentile per-packet one-way delay: 45.938 ms
  Loss rate: 7.23%
-- Flow 1:
  Average throughput: 57.41 Mbit/s
  95th percentile per-packet one-way delay: 43.598 ms
  Loss rate: 4.10%
-- Flow 2:
  Average throughput: 39.61 Mbit/s
  95th percentile per-packet one-way delay: 47.061 ms
  Loss rate: 8.52%
-- Flow 3:
  Average throughput: 31.63 Mbit/s
  95th percentile per-packet one-way delay: 48.501 ms
  Loss rate: 18.80%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Start at: 2018-04-10 23:47:11
End at: 2018-04-10 23:47:41
Local clock offset: -1.208 ms
Remote clock offset: -8.386 ms

# Below is generated by plot.py at 2018-04-11 02:08:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.51 Mbit/s
  95th percentile per-packet one-way delay: 45.481 ms
  Loss rate: 7.31%
-- Flow 1:
  Average throughput: 57.58 Mbit/s
  95th percentile per-packet one-way delay: 42.768 ms
  Loss rate: 4.13%
-- Flow 2:
  Average throughput: 39.57 Mbit/s
  95th percentile per-packet one-way delay: 46.588 ms
  Loss rate: 8.61%
-- Flow 3:
  Average throughput: 31.83 Mbit/s
  95th percentile per-packet one-way delay: 49.430 ms
  Loss rate: 19.05%
Run 6: Report of TaoVA-100x — Data Link

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

**Throughput** (Mbps/s)
- **Flow 1 Ingress** (mean 60.11 Mbps/s)
- **Flow 1 Egress** (mean 57.58 Mbps/s)
- **Flow 2 Ingress** (mean 43.35 Mbps/s)
- **Flow 2 Egress** (mean 39.57 Mbps/s)
- **Flow 3 Ingress** (mean 39.35 Mbps/s)
- **Flow 3 Egress** (mean 31.83 Mbps/s)

**Per-packet one-way delay** (ms)
- **Flow 1** (95th percentile 42.77 ms)
- **Flow 2** (95th percentile 46.59 ms)
- **Flow 3** (95th percentile 49.43 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-11 00:08:33
End at: 2018-04-11 00:09:03
Local clock offset: -0.297 ms
Remote clock offset: -0.203 ms

# Below is generated by plot.py at 2018-04-11 02:08:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.02 Mbit/s
  95th percentile per-packet one-way delay: 43.582 ms
  Loss rate: 7.36%
-- Flow 1:
  Average throughput: 56.83 Mbit/s
  95th percentile per-packet one-way delay: 40.484 ms
  Loss rate: 4.20%
-- Flow 2:
  Average throughput: 39.94 Mbit/s
  95th percentile per-packet one-way delay: 44.468 ms
  Loss rate: 8.56%
-- Flow 3:
  Average throughput: 31.85 Mbit/s
  95th percentile per-packet one-way delay: 47.436 ms
  Loss rate: 19.04%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-04-11 00:30:11
End at: 2018-04-11 00:30:42
Local clock offset: -0.273 ms
Remote clock offset: 3.419 ms

# Below is generated by plot.py at 2018-04-11 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.52 Mbit/s
95th percentile per-packet one-way delay: 45.193 ms
Loss rate: 7.52%
-- Flow 1:
Average throughput: 57.47 Mbit/s
95th percentile per-packet one-way delay: 42.225 ms
Loss rate: 4.28%
-- Flow 2:
Average throughput: 39.79 Mbit/s
95th percentile per-packet one-way delay: 45.952 ms
Loss rate: 8.82%
-- Flow 3:
Average throughput: 31.79 Mbit/s
95th percentile per-packet one-way delay: 49.558 ms
Loss rate: 19.47%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-04-11 00:51:48
End at: 2018-04-11 00:52:18
Local clock offset: 1.487 ms
Remote clock offset: 1.468 ms

# Below is generated by plot.py at 2018-04-11 02:10:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.29 Mbit/s
  95th percentile per-packet one-way delay: 44.271 ms
  Loss rate: 7.39%
-- Flow 1:
  Average throughput: 57.15 Mbit/s
  95th percentile per-packet one-way delay: 41.381 ms
  Loss rate: 4.21%
-- Flow 2:
  Average throughput: 39.89 Mbit/s
  95th percentile per-packet one-way delay: 45.444 ms
  Loss rate: 8.64%
-- Flow 3:
  Average throughput: 31.90 Mbit/s
  95th percentile per-packet one-way delay: 47.708 ms
  Loss rate: 19.16%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-11 01:13:12
End at: 2018-04-11 01:13:42
Local clock offset: 1.101 ms
Remote clock offset: 9.165 ms

# Below is generated by plot.py at 2018-04-11 02:10:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.94 Mbit/s
  95th percentile per-packet one-way delay: 44.607 ms
  Loss rate: 7.32%
-- Flow 1:
  Average throughput: 56.85 Mbit/s
  95th percentile per-packet one-way delay: 41.820 ms
  Loss rate: 4.17%
-- Flow 2:
  Average throughput: 39.82 Mbit/s
  95th percentile per-packet one-way delay: 45.186 ms
  Loss rate: 8.52%
-- Flow 3:
  Average throughput: 31.84 Mbit/s
  95th percentile per-packet one-way delay: 48.689 ms
  Loss rate: 18.97%
Run 10: Report of TaoVA-100x — Data Link

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

- **Flow 1 ing (mean 59.38 Mbps)**
- **Flow 1 egress (mean 56.85 Mbps)**
- **Flow 2 ing (mean 43.59 Mbps)**
- **Flow 2 egress (mean 39.82 Mbps)**
- **Flow 3 ing (mean 39.30 Mbps)**
- **Flow 3 egress (mean 31.64 Mbps)**

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

- **Flow 1 (95th percentile 41.82 ms)**
- **Flow 2 (95th percentile 45.19 ms)**
- **Flow 3 (95th percentile 48.69 ms)**
Run 1: Statistics of TCP Vegas

Start at: 2018-04-10 21:49:49
End at: 2018-04-10 21:50:19
Local clock offset: 0.189 ms
Remote clock offset: -0.325 ms

# Below is generated by plot.py at 2018-04-11 02:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.07 Mbit/s
95th percentile per-packet one-way delay: 21.090 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.20 Mbit/s
95th percentile per-packet one-way delay: 22.462 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.06 Mbit/s
95th percentile per-packet one-way delay: 16.394 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.77 Mbit/s
95th percentile per-packet one-way delay: 15.560 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link

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Run 2: Statistics of TCP Vegas

Start at: 2018-04-10 22:12:18
End at: 2018-04-10 22:12:48
Local clock offset: 0.489 ms
Remote clock offset: -3.98 ms

# Below is generated by plot.py at 2018-04-11 02:10:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.11 Mbit/s
  95th percentile per-packet one-way delay: 19.337 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 56.93 Mbit/s
  95th percentile per-packet one-way delay: 20.875 ms
  Loss rate: 0.28%
-- Flow 2:
  Average throughput: 38.56 Mbit/s
  95th percentile per-packet one-way delay: 14.673 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 43.69 Mbit/s
  95th percentile per-packet one-way delay: 13.207 ms
  Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link

![Graph of TCP Vegas data link run 2](chart)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 57.09 Mbps)
  - Flow 2 ingress (mean 38.56 Mbps)
  - Flow 3 ingress (mean 43.70 Mbps)
  - Flow 1 egress (mean 56.93 Mbps)
  - Flow 2 egress (mean 38.56 Mbps)
  - Flow 3 egress (mean 43.69 Mbps)

- **Per packet one-way delay (ms)**
  - Flow 1 (95th percentile 20.88 ms)
  - Flow 2 (95th percentile 14.67 ms)
  - Flow 3 (95th percentile 13.21 ms)
Run 3: Statistics of TCP Vegas

End at: 2018-04-10 22:34:18
Local clock offset: 0.779 ms
Remote clock offset: 4.525 ms

# Below is generated by plot.py at 2018-04-11 02:10:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.15 Mbit/s
  95th percentile per-packet one-way delay: 18.501 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 55.79 Mbit/s
  95th percentile per-packet one-way delay: 19.865 ms
  Loss rate: 0.27%
-- Flow 2:
  Average throughput: 37.62 Mbit/s
  95th percentile per-packet one-way delay: 15.186 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 49.11 Mbit/s
  95th percentile per-packet one-way delay: 14.328 ms
  Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Local clock offset: 1.193 ms
Remote clock offset: -0.803 ms

# Below is generated by plot.py at 2018-04-11 02:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.38 Mbit/s
95th percentile per-packet one-way delay: 33.258 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 34.02 Mbit/s
95th percentile per-packet one-way delay: 31.126 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 57.45 Mbit/s
95th percentile per-packet one-way delay: 35.865 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.52 Mbit/s
95th percentile per-packet one-way delay: 15.395 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

Throughput (Mbps):

Time (s):

- Flow 1 ingress (mean 34.18 Mbps)
- Flow 1 egress (mean 34.02 Mbps)
- Flow 2 ingress (mean 57.46 Mbps)
- Flow 2 egress (mean 57.45 Mbps)
- Flow 3 ingress (mean 51.53 Mbps)
- Flow 3 egress (mean 51.52 Mbps)

Per packet one way delay (ms):

Time (s):

- Flow 1 (95th percentile 31.13 ms)
- Flow 2 (95th percentile 35.87 ms)
- Flow 3 (95th percentile 15.39 ms)
Run 5: Statistics of TCP Vegas

Start at: 2018-04-10 23:16:29
End at: 2018-04-10 23:16:59
Local clock offset: 1.916 ms
Remote clock offset: -6.58 ms

# Below is generated by plot.py at 2018-04-11 02:10:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.14 Mbit/s
  95th percentile per-packet one-way delay: 20.477 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 52.03 Mbit/s
  95th percentile per-packet one-way delay: 21.593 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 43.01 Mbit/s
  95th percentile per-packet one-way delay: 17.692 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 49.57 Mbit/s
  95th percentile per-packet one-way delay: 15.818 ms
  Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

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

- **Flow 1** ingress (mean 52.04 Mbit/s) and egress (mean 52.03 Mbit/s)
- **Flow 2** ingress (mean 43.01 Mbit/s) and egress (mean 43.01 Mbit/s)
- **Flow 3** ingress (mean 49.57 Mbit/s) and egress (mean 49.57 Mbit/s)

![Graph showing packet round-trip time for different flows over time.](image)

- **Flow 1** 95th percentile 21.59 ms
- **Flow 2** 95th percentile 17.69 ms
- **Flow 3** 95th percentile 15.82 ms
Run 6: Statistics of TCP Vegas

Start at: 2018-04-10 23:37:47
End at: 2018-04-10 23:38:17
Local clock offset: -0.762 ms
Remote clock offset: -7.987 ms

# Below is generated by plot.py at 2018-04-11 02:10:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.07 Mbit/s
  95th percentile per-packet one-way delay: 18.567 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 50.65 Mbit/s
  95th percentile per-packet one-way delay: 19.042 ms
  Loss rate: 0.76%
-- Flow 2:
  Average throughput: 43.72 Mbit/s
  95th percentile per-packet one-way delay: 18.043 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 52.23 Mbit/s
  95th percentile per-packet one-way delay: 16.689 ms
  Loss rate: 0.00%
Run 7: Statistics of TCP Vegas

Start at: 2018-04-10 23:58:55
End at: 2018-04-10 23:59:25
Local clock offset: -1.255 ms
Remote clock offset: -5.251 ms

# Below is generated by plot.py at 2018-04-11 02:11:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.17 Mbit/s
95th percentile per-packet one-way delay: 20.438 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 53.23 Mbit/s
95th percentile per-packet one-way delay: 22.038 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 44.42 Mbit/s
95th percentile per-packet one-way delay: 16.030 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.28 Mbit/s
95th percentile per-packet one-way delay: 15.200 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 53.38 Mbit/s)
Flow 1 egress (mean 53.23 Mbit/s)
Flow 2 ingress (mean 44.42 Mbit/s)
Flow 2 egress (mean 44.42 Mbit/s)
Flow 3 ingress (mean 43.28 Mbit/s)
Flow 3 egress (mean 43.28 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 22.04 ms)
Flow 2 (95th percentile 16.03 ms)
Flow 3 (95th percentile 15.20 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-04-11 00:20:38
End at: 2018-04-11 00:21:08
Local clock offset: -0.53 ms
Remote clock offset: 3.206 ms

# Below is generated by plot.py at 2018-04-11 02:11:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.17 Mbit/s
95th percentile per-packet one-way delay: 21.473 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.55 Mbit/s
95th percentile per-packet one-way delay: 23.407 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.50 Mbit/s
95th percentile per-packet one-way delay: 15.347 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.16 Mbit/s
95th percentile per-packet one-way delay: 15.970 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 54.55 Mbit/s)
- Flow 1 egress (mean 54.55 Mbit/s)
- Flow 2 ingress (mean 41.50 Mbit/s)
- Flow 2 egress (mean 41.50 Mbit/s)
- Flow 3 ingress (mean 45.16 Mbit/s)
- Flow 3 egress (mean 45.16 Mbit/s)

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

- Flow 1 (95th percentile 23.41 ms)
- Flow 2 (95th percentile 15.35 ms)
- Flow 3 (95th percentile 15.97 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-04-11 00:42:02
End at: 2018-04-11 00:42:32
Local clock offset: 1.395 ms
Remote clock offset: 1.905 ms

# Below is generated by plot.py at 2018-04-11 02:11:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.13 Mbit/s
  95th percentile per-packet one-way delay: 18.278 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 55.89 Mbit/s
  95th percentile per-packet one-way delay: 18.950 ms
  Loss rate: 0.69%
-- Flow 2:
  Average throughput: 39.08 Mbit/s
  95th percentile per-packet one-way delay: 16.484 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 45.88 Mbit/s
  95th percentile per-packet one-way delay: 15.480 ms
  Loss rate: 0.00%
Run 10: Statistics of TCP Vegas

Start at: 2018-04-11 01:03:39
End at: 2018-04-11 01:04:09
Local clock offset: 1.553 ms
Remote clock offset: 3.189 ms

# Below is generated by plot.py at 2018-04-11 02:11:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.19 Mbit/s
  95th percentile per-packet one-way delay: 20.767 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 52.45 Mbit/s
  95th percentile per-packet one-way delay: 23.310 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 46.08 Mbit/s
  95th percentile per-packet one-way delay: 13.941 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 42.30 Mbit/s
  95th percentile per-packet one-way delay: 13.545 ms
  Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 52.45 Mbps)
  - Flow 1 egress (mean 52.45 Mbps)
  - Flow 2 ingress (mean 46.08 Mbps)
  - Flow 2 egress (mean 46.08 Mbps)
  - Flow 3 ingress (mean 42.30 Mbps)
  - Flow 3 egress (mean 42.30 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 23.31 ms)
  - Flow 2 (95th percentile 13.94 ms)
  - Flow 3 (95th percentile 13.54 ms)
Run 1: Statistics of Verus

Start at: 2018-04-10 21:52:12
End at: 2018-04-10 21:52:42
Local clock offset: 0.989 ms
Remote clock offset: -0.801 ms

# Below is generated by plot.py at 2018-04-11 02:11:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.35 Mbit/s
95th percentile per-packet one-way delay: 48.474 ms
Loss rate: 31.66%
-- Flow 1:
Average throughput: 46.92 Mbit/s
95th percentile per-packet one-way delay: 47.126 ms
Loss rate: 19.57%
-- Flow 2:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 50.822 ms
Loss rate: 49.62%
-- Flow 3:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 48.700 ms
Loss rate: 29.05%
Run 1: Report of Verus — Data Link

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

![Graph 2: Packet Delay over Time](image2)
Run 2: Statistics of Verus

Start at: 2018-04-10 22:14:46
End at: 2018-04-10 22:15:16
Local clock offset: 0.912 ms
Remote clock offset: 0.097 ms

# Below is generated by plot.py at 2018-04-11 02:11:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.56 Mbit/s
95th percentile per-packet one-way delay: 48.465 ms
Loss rate: 45.25%
-- Flow 1:
Average throughput: 63.10 Mbit/s
95th percentile per-packet one-way delay: 48.607 ms
Loss rate: 47.88%
-- Flow 2:
Average throughput: 18.54 Mbit/s
95th percentile per-packet one-way delay: 47.804 ms
Loss rate: 29.35%
-- Flow 3:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 48.936 ms
Loss rate: 39.37%
Run 2: Report of Verus — Data Link

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

- Flow 1 ingress (mean 121.19 Mbit/s)
- Flow 1 egress (mean 63.10 Mbit/s)
- Flow 2 ingress (mean 26.25 Mbit/s)
- Flow 2 egress (mean 18.54 Mbit/s)
- Flow 3 ingress (mean 20.76 Mbit/s)
- Flow 3 egress (mean 12.55 Mbit/s)

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

- Flow 1 (95th percentile 48.61 ms)
- Flow 2 (95th percentile 47.80 ms)
- Flow 3 (95th percentile 48.94 ms)
Run 3: Statistics of Verus

Start at: 2018-04-10 22:36:14
End at: 2018-04-10 22:36:44
Local clock offset: -0.051 ms
Remote clock offset: 4.789 ms

# Below is generated by plot.py at 2018-04-11 02:12:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 68.23 Mbit/s
  95th percentile per-packet one-way delay: 51.660 ms
  Loss rate: 62.20%
-- Flow 1:
  Average throughput: 37.59 Mbit/s
  95th percentile per-packet one-way delay: 49.468 ms
  Loss rate: 38.35%
-- Flow 2:
  Average throughput: 34.96 Mbit/s
  95th percentile per-packet one-way delay: 63.921 ms
  Loss rate: 78.93%
-- Flow 3:
  Average throughput: 29.51 Mbit/s
  95th percentile per-packet one-way delay: 46.212 ms
  Loss rate: 27.24%
Run 3: Report of Verus — Data Link

![Graph showing network traffic and packet delay over time. The graph illustrates throughput and packet delay for different flows, with markers indicating 95th percentile values for each flow.]

- Flow 1 ingress (mean 60.97 Mbit/s)
- Flow 1 egress (mean 37.59 Mbit/s)
- Flow 2 ingress (mean 165.98 Mbit/s)
- Flow 2 egress (mean 34.96 Mbit/s)
- Flow 3 ingress (mean 35.22 Mbit/s)
- Flow 3 egress (mean 29.51 Mbit/s)

Flow 1 (95th percentile 49.47 ms)
Flow 2 (95th percentile 63.92 ms)
Flow 3 (95th percentile 46.21 ms)
Run 4: Statistics of Verus

Start at: 2018-04-10 22:57:43
End at: 2018-04-10 22:58:13
Local clock offset: 1.608 ms
Remote clock offset: -1.664 ms

# Below is generated by plot.py at 2018-04-11 02:12:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 73.03 Mbit/s
  95th percentile per-packet one-way delay: 49.193 ms
  Loss rate: 40.72%
-- Flow 1:
  Average throughput: 41.54 Mbit/s
  95th percentile per-packet one-way delay: 49.936 ms
  Loss rate: 49.70%
-- Flow 2:
  Average throughput: 35.72 Mbit/s
  95th percentile per-packet one-way delay: 48.224 ms
  Loss rate: 22.49%
-- Flow 3:
  Average throughput: 23.53 Mbit/s
  95th percentile per-packet one-way delay: 46.109 ms
  Loss rate: 22.45%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-04-10 23:18:53
End at: 2018-04-10 23:19:23
Local clock offset: 1.354 ms
Remote clock offset: -6.943 ms

# Below is generated by plot.py at 2018-04-11 02:12:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.71 Mbit/s
  95th percentile per-packet one-way delay: 47.968 ms
  Loss rate: 43.34%
-- Flow 1:
  Average throughput: 52.98 Mbit/s
  95th percentile per-packet one-way delay: 47.653 ms
  Loss rate: 34.45%
-- Flow 2:
  Average throughput: 20.07 Mbit/s
  95th percentile per-packet one-way delay: 47.850 ms
  Loss rate: 37.20%
-- Flow 3:
  Average throughput: 27.71 Mbit/s
  95th percentile per-packet one-way delay: 50.195 ms
  Loss rate: 71.37%
Run 5: Report of Verus — Data Link

![Graphs showing network performance metrics over time.](image-url)
Run 6: Statistics of Verus

Start at: 2018-04-10 23:40:09
End at: 2018-04-10 23:40:39
Local clock offset: -1.262 ms
Remote clock offset: -8.608 ms

# Below is generated by plot.py at 2018-04-11 02:12:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 76.94 Mbit/s
  95th percentile per-packet one-way delay: 48.770 ms
  Loss rate: 29.85%
-- Flow 1:
  Average throughput: 59.41 Mbit/s
  95th percentile per-packet one-way delay: 49.009 ms
  Loss rate: 29.03%
-- Flow 2:
  Average throughput: 24.32 Mbit/s
  95th percentile per-packet one-way delay: 48.034 ms
  Loss rate: 31.92%
-- Flow 3:
  Average throughput: 8.22 Mbit/s
  95th percentile per-packet one-way delay: 47.729 ms
  Loss rate: 34.09%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-04-11 00:01:18
End at: 2018-04-11 00:01:48
Local clock offset: -0.414 ms
Remote clock offset: -3.043 ms

# Below is generated by plot.py at 2018-04-11 02:13:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.57 Mbit/s
95th percentile per-packet one-way delay: 47.964 ms
Loss rate: 33.35%
-- Flow 1:
Average throughput: 54.53 Mbit/s
95th percentile per-packet one-way delay: 48.236 ms
Loss rate: 33.63%
-- Flow 2:
Average throughput: 28.25 Mbit/s
95th percentile per-packet one-way delay: 47.366 ms
Loss rate: 33.54%
-- Flow 3:
Average throughput: 10.29 Mbit/s
95th percentile per-packet one-way delay: 45.846 ms
Loss rate: 27.35%
Run 7: Report of Verus — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 82.19 Mbit/s)
Flow 1 egress (mean 54.53 Mbit/s)
Flow 2 ingress (mean 42.55 Mbit/s)
Flow 2 egress (mean 28.25 Mbit/s)
Flow 3 ingress (mean 14.21 Mbit/s)
Flow 3 egress (mean 10.29 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 48.24 ms)
Flow 2 (95th percentile 47.37 ms)
Flow 3 (95th percentile 45.85 ms)
Run 8: Statistics of Verus

Start at: 2018-04-11 00:23:04
End at: 2018-04-11 00:23:34
Local clock offset: -1.052 ms
Remote clock offset: 2.851 ms

# Below is generated by plot.py at 2018-04-11 02:13:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.52 Mbit/s
  95th percentile per-packet one-way delay: 47.658 ms
  Loss rate: 22.75%
-- Flow 1:
  Average throughput: 53.96 Mbit/s
  95th percentile per-packet one-way delay: 46.911 ms
  Loss rate: 18.01%
-- Flow 2:
  Average throughput: 25.14 Mbit/s
  95th percentile per-packet one-way delay: 48.973 ms
  Loss rate: 35.02%
-- Flow 3:
  Average throughput: 26.77 Mbit/s
  95th percentile per-packet one-way delay: 48.373 ms
  Loss rate: 22.40%
Run 8: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 65.81 Mbps)
- **Flow 1 egress** (mean 53.96 Mbps)
- **Flow 2 ingress** (mean 38.65 Mbps)
- **Flow 2 egress** (mean 25.14 Mbps)
- **Flow 3 ingress** (mean 34.43 Mbps)
- **Flow 3 egress** (mean 26.77 Mbps)

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

- Flow 1 (95th percentile 46.91 ms)
- Flow 2 (95th percentile 48.97 ms)
- Flow 3 (95th percentile 48.37 ms)
Run 9: Statistics of Verus

Start at: 2018-04-11 00:44:27
End at: 2018-04-11 00:44:57
Local clock offset: 2.105 ms
Remote clock offset: 3.724 ms

# Below is generated by plot.py at 2018-04-11 02:13:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.28 Mbit/s
95th percentile per-packet one-way delay: 49.884 ms
Loss rate: 40.92%
-- Flow 1:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 49.875 ms
Loss rate: 40.63%
-- Flow 2:
Average throughput: 22.28 Mbit/s
95th percentile per-packet one-way delay: 50.297 ms
Loss rate: 42.47%
-- Flow 3:
Average throughput: 6.91 Mbit/s
95th percentile per-packet one-way delay: 45.541 ms
Loss rate: 37.33%
Run 10: Statistics of Verus

Start at: 2018-04-11 01:06:03
End at: 2018-04-11 01:06:33
Local clock offset: 1.495 ms
Remote clock offset: 5.882 ms

# Below is generated by plot.py at 2018-04-11 02:13:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 83.88 Mbit/s
  95th percentile per-packet one-way delay: 47.551 ms
  Loss rate: 25.65%
-- Flow 1:
  Average throughput: 56.90 Mbit/s
  95th percentile per-packet one-way delay: 47.736 ms
  Loss rate: 27.43%
-- Flow 2:
  Average throughput: 31.52 Mbit/s
  95th percentile per-packet one-way delay: 46.872 ms
  Loss rate: 21.04%
-- Flow 3:
  Average throughput: 22.43 Mbit/s
  95th percentile per-packet one-way delay: 47.510 ms
  Loss rate: 24.31%
Run 10: Report of Verus — Data Link
Run 1: Statistics of Copa

Start at: 2018-04-10 21:54:36
End at: 2018-04-10 21:55:06
Local clock offset: 0.584 ms
Remote clock offset: -0.553 ms

# Below is generated by plot.py at 2018-04-11 02:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.78 Mbit/s
95th percentile per-packet one-way delay: 21.206 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.83 Mbit/s
95th percentile per-packet one-way delay: 20.371 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.83 Mbit/s
95th percentile per-packet one-way delay: 21.463 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.39 Mbit/s
95th percentile per-packet one-way delay: 22.566 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link

Graph 1: Throughput vs. Time

Graph 2: Packet Loss vs. Time

Legend:
- Blue line: Flow 1 ingress (mean 57.83 Mbit/s)
- Blue dotted line: Flow 1 egress (mean 57.83 Mbit/s)
- Green line: Flow 2 ingress (mean 39.83 Mbit/s)
- Green dotted line: Flow 2 egress (mean 39.83 Mbit/s)
- Red line: Flow 3 ingress (mean 28.39 Mbit/s)
- Red dotted line: Flow 3 egress (mean 28.39 Mbit/s)

Legend for Packet Loss:
- Blue line: Flow 1 (95th percentile 20.37 ms)
- Green line: Flow 2 (95th percentile 21.46 ms)
- Red line: Flow 3 (95th percentile 22.57 ms)
Run 2: Statistics of Copa

Start at: 2018-04-10 22:17:12
End at: 2018-04-10 22:17:42
Local clock offset: 0.316 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-04-11 02:14:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.13 Mbit/s
95th percentile per-packet one-way delay: 19.182 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.65 Mbit/s
95th percentile per-packet one-way delay: 18.508 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.02 Mbit/s
95th percentile per-packet one-way delay: 19.718 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.60 Mbit/s
95th percentile per-packet one-way delay: 19.716 ms
Loss rate: 0.00%
Run 3: Statistics of Copa

Start at: 2018-04-10 22:38:39
End at: 2018-04-10 22:39:09
Local clock offset: -0.215 ms
Remote clock offset: 4.597 ms

# Below is generated by plot.py at 2018-04-11 02:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.37 Mbit/s
95th percentile per-packet one-way delay: 19.193 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.99 Mbit/s
95th percentile per-packet one-way delay: 19.093 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.75 Mbit/s
95th percentile per-packet one-way delay: 18.633 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 20.018 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link

![Graph showing throughput and per-packet one-way delay over time. The graphs display multiple lines representing different flows and their ingress and egress throughout the experiment. The y-axis represents throughput in Mbps, ranging from 0 to 80 Mbps, and the x-axis represents time in seconds, ranging from 0 to 30 seconds. The per-packet one-way delay graph shows similar data with the y-axis representing delay in ms, ranging from 0 to 35 ms. The labels for each flow and its corresponding mean throughput or delay are included in the legend.]

Legend:
- Blue dashed line: Flow 1 ingress (mean 55.98 Mbps)
- Blue solid line: Flow 1 egress (mean 55.99 Mbps)
- Green dashed line: Flow 2 ingress (mean 39.75 Mbps)
- Green solid line: Flow 2 egress (mean 39.75 Mbps)
- Red dashed line: Flow 3 ingress (mean 29.87 Mbps)
- Red solid line: Flow 3 egress (mean 29.86 Mbps)
Run 4: Statistics of Copa

Start at: 2018-04-10 23:00:05
End at: 2018-04-10 23:00:35
Local clock offset: 1.236 ms
Remote clock offset: -3.174 ms

# Below is generated by plot.py at 2018-04-11 02:15:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 20.241 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.22 Mbit/s
95th percentile per-packet one-way delay: 19.804 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.53 Mbit/s
95th percentile per-packet one-way delay: 20.001 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.69 Mbit/s
95th percentile per-packet one-way delay: 21.340 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

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

- Flow 1 ingress (mean 58.24 Mbps/s)
- Flow 1 egress (mean 58.22 Mbps/s)
- Flow 2 ingress (mean 38.54 Mbps/s)
- Flow 2 egress (mean 38.53 Mbps/s)
- Flow 3 ingress (mean 29.70 Mbps/s)
- Flow 3 egress (mean 29.69 Mbps/s)

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

- Flow 1 (95th percentile 19.80 ms)
- Flow 2 (95th percentile 20.00 ms)
- Flow 3 (95th percentile 21.34 ms)
Run 5: Statistics of Copa

Start at: 2018-04-10 23:21:15
End at: 2018-04-10 23:21:45
Local clock offset: 0.814 ms
Remote clock offset: -7.071 ms

# Below is generated by plot.py at 2018-04-11 02:15:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.58 Mbit/s
  95th percentile per-packet one-way delay: 19.417 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 57.21 Mbit/s
  95th percentile per-packet one-way delay: 18.993 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 38.04 Mbit/s
  95th percentile per-packet one-way delay: 19.756 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 30.25 Mbit/s
  95th percentile per-packet one-way delay: 20.010 ms
  Loss rate: 0.00%
Run 5: Report of Copa — Data Link

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

- Flow 1 ingress (mean 57.23 Mb/s)
- Flow 1 egress (mean 57.21 Mb/s)
- Flow 2 ingress (mean 38.04 Mb/s)
- Flow 2 egress (mean 38.04 Mb/s)
- Flow 3 ingress (mean 30.26 Mb/s)
- Flow 3 egress (mean 30.25 Mb/s)

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

- Flow 1 (95th percentile 18.99 ms)
- Flow 2 (95th percentile 19.76 ms)
- Flow 3 (95th percentile 20.01 ms)
Run 6: Statistics of Copa

Start at: 2018-04-10 23:42:30
End at: 2018-04-10 23:43:00
Local clock offset: -0.937 ms
Remote clock offset: -8.498 ms

# Below is generated by plot.py at 2018-04-11 02:15:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.12 Mbit/s
95th percentile per-packet one-way delay: 20.253 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.32 Mbit/s
95th percentile per-packet one-way delay: 20.395 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.66 Mbit/s
95th percentile per-packet one-way delay: 19.916 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.28 Mbit/s
95th percentile per-packet one-way delay: 20.561 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link

### Throughput (Mbit/s)

- **Flow 1 Ingress (mean 54.32 Mbit/s)**
- **Flow 1 Egress (mean 54.32 Mbit/s)**
- **Flow 2 Ingress (mean 40.66 Mbit/s)**
- **Flow 2 Egress (mean 40.66 Mbit/s)**
- **Flow 3 Ingress (mean 29.27 Mbit/s)**
- **Flow 3 Egress (mean 29.28 Mbit/s)**

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

- **Flow 1 (95th percentile 20.39 ms)**
- **Flow 2 (95th percentile 19.92 ms)**
- **Flow 3 (95th percentile 20.56 ms)**

235
Run 7: Statistics of Copa

Start at: 2018-04-11 00:03:43
End at: 2018-04-11 00:04:13
Local clock offset: -1.253 ms
Remote clock offset: -3.062 ms

# Below is generated by plot.py at 2018-04-11 02:15:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.53 Mbit/s
95th percentile per-packet one-way delay: 18.720 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.44 Mbit/s
95th percentile per-packet one-way delay: 17.845 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.56 Mbit/s
95th percentile per-packet one-way delay: 19.337 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.41 Mbit/s
95th percentile per-packet one-way delay: 19.384 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-04-11 00:25:26
End at: 2018-04-11 00:25:56
Local clock offset: -0.389 ms
Remote clock offset: 3.016 ms

# Below is generated by plot.py at 2018-04-11 02:15:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.83 Mbit/s
  95th percentile per-packet one-way delay: 18.513 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 57.94 Mbit/s
  95th percentile per-packet one-way delay: 17.715 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 39.26 Mbit/s
  95th percentile per-packet one-way delay: 18.792 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 29.36 Mbit/s
  95th percentile per-packet one-way delay: 19.385 ms
  Loss rate: 0.00%
Run 8: Report of Copa — Data Link
Run 9: Statistics of Copa

Start at: 2018-04-11 00:47:01
End at: 2018-04-11 00:47:31
Local clock offset: 2.11 ms
Remote clock offset: 3.5 ms

# Below is generated by plot.py at 2018-04-11 02:17:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.74 Mbit/s
95th percentile per.packet one-way delay: 20.431 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.74 Mbit/s
95th percentile per.packet one-way delay: 19.924 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.48 Mbit/s
95th percentile per.packet one-way delay: 20.509 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.25 Mbit/s
95th percentile per.packet one-way delay: 21.552 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 Ingress** (mean 56.75 Mbps)
- **Flow 1 Egress** (mean 56.74 Mbps)
- **Flow 2 Ingress** (mean 39.48 Mbps)
- **Flow 2 Egress** (mean 39.48 Mbps)
- **Flow 3 Ingress** (mean 29.25 Mbps)
- **Flow 3 Egress** (mean 29.25 Mbps)

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

- **Flow 1** (95th percentile 19.92 ms)
- **Flow 2** (95th percentile 20.51 ms)
- **Flow 3** (95th percentile 21.55 ms)
Run 10: Statistics of Copa

Start at: 2018-04-11 01:08:27
End at: 2018-04-11 01:08:57
Local clock offset: 0.959 ms
Remote clock offset: 7.682 ms

# Below is generated by plot.py at 2018-04-11 02:17:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.70 Mbit/s
  95th percentile per-packet one-way delay: 20.689 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 58.01 Mbit/s
  95th percentile per-packet one-way delay: 20.409 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 38.93 Mbit/s
  95th percentile per-packet one-way delay: 20.740 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 29.39 Mbit/s
  95th percentile per-packet one-way delay: 21.358 ms
  Loss rate: 0.00%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

End at: 2018-04-10 21:56:20
Local clock offset: 0.417 ms
Remote clock offset: -0.99 ms

# Below is generated by plot.py at 2018-04-11 02:17:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.69 Mbit/s
95th percentile per-packet one-way delay: 50.207 ms
Loss rate: 19.31%
-- Flow 1:
Average throughput: 61.30 Mbit/s
95th percentile per-packet one-way delay: 49.048 ms
Loss rate: 14.11%
-- Flow 2:
Average throughput: 25.80 Mbit/s
95th percentile per-packet one-way delay: 51.470 ms
Loss rate: 29.68%
-- Flow 3:
Average throughput: 45.83 Mbit/s
95th percentile per-packet one-way delay: 51.365 ms
Loss rate: 25.11%
Run 1: Report of FillP — Data Link

![Graph showing network performance metrics over time]

Legend:
- Flow 1 ingress (mean 71.42 Mbit/s)
- Flow 1 egress (mean 61.30 Mbit/s)
- Flow 2 ingress (mean 36.73 Mbit/s)
- Flow 2 egress (mean 25.80 Mbit/s)
- Flow 3 ingress (mean 61.20 Mbit/s)
- Flow 3 egress (mean 45.83 Mbit/s)

![Graph showing packet loss over time]

Legend:
- Flow 1 (95th percentile 49.05 ms)
- Flow 2 (95th percentile 51.47 ms)
- Flow 3 (95th percentile 51.37 ms)
Run 2: Statistics of FillP

Start at: 2018-04-10 22:18:27
End at: 2018-04-10 22:18:57
Local clock offset: 0.536 ms
Remote clock offset: 0.585 ms

# Below is generated by plot.py at 2018-04-11 02:17:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.96 Mbit/s
95th percentile per-packet one-way delay: 49.143 ms
Loss rate: 16.97%
-- Flow 1:
Average throughput: 60.15 Mbit/s
95th percentile per-packet one-way delay: 47.813 ms
Loss rate: 13.52%
-- Flow 2:
Average throughput: 36.97 Mbit/s
95th percentile per-packet one-way delay: 50.514 ms
Loss rate: 22.87%
-- Flow 3:
Average throughput: 27.71 Mbit/s
95th percentile per-packet one-way delay: 49.908 ms
Loss rate: 21.38%
Run 2: Report of FillP — Data Link

[Graph 1: Throughput (Mbps) vs Time (s) for Flow 1 ingress (mean 69.65 Mbps), Flow 1 egress (mean 60.15 Mbps), Flow 2 ingress (mean 48.01 Mbps), Flow 2 egress (mean 36.97 Mbps), Flow 3 ingress (mean 35.26 Mbps), Flow 3 egress (mean 27.71 Mbps).]

[Graph 2: Per-packet one-way delay (ms) vs Time (s) for Flow 1 (95th percentile 47.81 ms), Flow 2 (95th percentile 50.51 ms), Flow 3 (95th percentile 49.91 ms).]
Run 3: Statistics of FillP

Start at: 2018-04-10 22:39:54
End at: 2018-04-10 22:40:24
Local clock offset: 0.325 ms
Remote clock offset: 5.856 ms

# Below is generated by plot.py at 2018-04-11 02:17:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.04 Mbit/s
95th percentile per-packet one-way delay: 47.733 ms
Loss rate: 14.41%
-- Flow 1:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 45.588 ms
Loss rate: 10.13%
-- Flow 2:
Average throughput: 38.68 Mbit/s
95th percentile per-packet one-way delay: 48.971 ms
Loss rate: 19.27%
-- Flow 3:
Average throughput: 28.03 Mbit/s
95th percentile per-packet one-way delay: 49.765 ms
Loss rate: 24.31%
Run 3: Report of FillP — Data Link

The graphs depict the throughput (Mbps) and per-packet round-trip delay (ms) over time for different flows.

Throughput Graph:
- Flow 1 ingress (mean 64.58 Mbps)
- Flow 1 egress (mean 58.00 Mbps)
- Flow 2 ingress (mean 47.97 Mbps)
- Flow 2 egress (mean 38.66 Mbps)
- Flow 3 ingress (mean 37.04 Mbps)
- Flow 3 egress (mean 28.03 Mbps)

Per-packet round-trip delay Graph:
- Flow 1 (95th percentile 45.59 ms)
- Flow 2 (95th percentile 48.97 ms)
- Flow 3 (95th percentile 49.77 ms)
Run 4: Statistics of FillP

Start at: 2018-04-10 23:01:19
End at: 2018-04-10 23:01:49
Local clock offset: 1.453 ms
Remote clock offset: -3.171 ms

# Below is generated by plot.py at 2018-04-11 02:17:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.08 Mbit/s
95th percentile per-packet one-way delay: 50.410 ms
Loss rate: 20.07%
-- Flow 1:
Average throughput: 48.91 Mbit/s
95th percentile per-packet one-way delay: 48.310 ms
Loss rate: 15.30%
-- Flow 2:
Average throughput: 46.71 Mbit/s
95th percentile per-packet one-way delay: 51.658 ms
Loss rate: 25.02%
-- Flow 3:
Average throughput: 42.52 Mbit/s
95th percentile per-packet one-way delay: 50.778 ms
Loss rate: 23.89%
Run 4: Report of FillP — Data Link

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

- Flow 1 ingress (mean 57.77 Mbit/s) and egress (mean 48.91 Mbit/s)
- Flow 2 ingress (mean 62.34 Mbit/s) and egress (mean 46.71 Mbit/s)
- Flow 3 ingress (mean 55.82 Mbit/s) and egress (mean 42.52 Mbit/s)

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

- Flow 1 (95th percentile 48.31 ms)
- Flow 2 (95th percentile 51.66 ms)
- Flow 3 (95th percentile 50.78 ms)
Run 5: Statistics of FillP

Start at: 2018-04-10 23:22:30
End at: 2018-04-10 23:23:00
Local clock offset: 0.64 ms
Remote clock offset: -6.834 ms

# Below is generated by plot.py at 2018-04-11 02:17:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.54 Mbit/s
95th percentile per-packet one-way delay: 48.024 ms
Loss rate: 14.14%
-- Flow 1:
Average throughput: 49.32 Mbit/s
95th percentile per-packet one-way delay: 47.544 ms
Loss rate: 12.28%
-- Flow 2:
Average throughput: 27.07 Mbit/s
95th percentile per-packet one-way delay: 50.644 ms
Loss rate: 25.12%
-- Flow 3:
Average throughput: 76.13 Mbit/s
95th percentile per-packet one-way delay: 31.827 ms
Loss rate: 8.33%
Run 5: Report of FillP — Data Link
Run 6: Statistics of FillP

Start at: 2018-04-10 23:43:43  
End at: 2018-04-10 23:44:13  
Local clock offset: -1.528 ms  
Remote clock offset: -8.649 ms  

# Below is generated by plot.py at 2018-04-11 02:17:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.75 Mbit/s  
95th percentile per-packet one-way delay: 49.821 ms  
Loss rate: 18.12%  
-- Flow 1:  
Average throughput: 57.95 Mbit/s  
95th percentile per-packet one-way delay: 48.669 ms  
Loss rate: 13.50%  
-- Flow 2:  
Average throughput: 36.63 Mbit/s  
95th percentile per-packet one-way delay: 50.759 ms  
Loss rate: 23.10%  
-- Flow 3:  
Average throughput: 34.60 Mbit/s  
95th percentile per-packet one-way delay: 50.976 ms  
Loss rate: 27.73%
Run 6: Report of FillP — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 67.00 Mbit/s)  Flow 1 egress (mean 57.95 Mbit/s)
Flow 2 ingress (mean 47.63 Mbit/s)  Flow 2 egress (mean 36.63 Mbit/s)
Flow 3 ingress (mean 47.68 Mbit/s)  Flow 3 egress (mean 34.60 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 48.67 ms)  Flow 2 (95th percentile 50.76 ms)  Flow 3 (95th percentile 50.98 ms)
Run 7: Statistics of FillP

Start at: 2018-04-11 00:05:01
End at: 2018-04-11 00:05:31
Local clock offset: -0.705 ms
Remote clock offset: -0.568 ms

# Below is generated by plot.py at 2018-04-11 02:18:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.77 Mbit/s
95th percentile per-packet one-way delay: 49.757 ms
Loss rate: 16.98%
-- Flow 1:
Average throughput: 60.56 Mbit/s
95th percentile per-packet one-way delay: 48.848 ms
Loss rate: 12.80%
-- Flow 2:
Average throughput: 26.67 Mbit/s
95th percentile per-packet one-way delay: 50.750 ms
Loss rate: 25.98%
-- Flow 3:
Average throughput: 46.69 Mbit/s
95th percentile per-packet one-way delay: 50.515 ms
Loss rate: 20.83%
Run 7: Report of FillP — Data Link
Run 8: Statistics of FillP

Start at: 2018-04-11 00:26:41
End at: 2018-04-11 00:27:11
Local clock offset: -0.832 ms
Remote clock offset: 4.287 ms

# Below is generated by plot.py at 2018-04-11 02:18:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.94 Mbit/s
  95th percentile per-packet one-way delay: 50.631 ms
  Loss rate: 18.69%
-- Flow 1:
  Average throughput: 54.32 Mbit/s
  95th percentile per-packet one-way delay: 49.142 ms
  Loss rate: 13.37%
-- Flow 2:
  Average throughput: 41.11 Mbit/s
  95th percentile per-packet one-way delay: 51.507 ms
  Loss rate: 24.02%
-- Flow 3:
  Average throughput: 36.97 Mbit/s
  95th percentile per-packet one-way delay: 51.502 ms
  Loss rate: 27.12%
Run 8: Report of FillP — Data Link

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

- **Flow 1** ingress (mean 62.78 Mbit/s) and egress (mean 54.32 Mbit/s)
- **Flow 2** ingress (mean 54.19 Mbit/s) and egress (mean 41.11 Mbit/s)
- **Flow 3** ingress (mean 50.77 Mbit/s) and egress (mean 36.97 Mbit/s)

![Graph of packet delay over time for three flows.](image)

- **Flow 1** (95th percentile 49.14 ms)
- **Flow 2** (95th percentile 51.51 ms)
- **Flow 3** (95th percentile 51.50 ms)
Run 9: Statistics of FillP

Start at: 2018-04-11 00:48:19
End at: 2018-04-11 00:48:49
Local clock offset: 1.325 ms
Remote clock offset: 2.97 ms

# Below is generated by plot.py at 2018-04-11 02:18:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.66 Mbit/s
95th percentile per-packet one-way delay: 50.114 ms
Loss rate: 16.54%
-- Flow 1:
Average throughput: 61.46 Mbit/s
95th percentile per-packet one-way delay: 48.933 ms
Loss rate: 12.83%
-- Flow 2:
Average throughput: 26.87 Mbit/s
95th percentile per-packet one-way delay: 51.141 ms
Loss rate: 25.78%
-- Flow 3:
Average throughput: 43.18 Mbit/s
95th percentile per-packet one-way delay: 51.424 ms
Loss rate: 18.73%
Run 9: Report of FillP — Data Link

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

Flow 1 ingress (mean 70.56 Mbit/s)
Flow 1 egress (mean 61.46 Mbit/s)
Flow 2 ingress (mean 36.24 Mbit/s)
Flow 2 egress (mean 26.87 Mbit/s)
Flow 3 ingress (mean 53.14 Mbit/s)
Flow 3 egress (mean 43.18 Mbit/s)

Flow 1 (95th percentile 48.93 ms)
Flow 2 (95th percentile 51.14 ms)
Flow 3 (95th percentile 51.42 ms)
Run 10: Statistics of FillP

Start at: 2018-04-11 01:09:44
End at: 2018-04-11 01:10:14
Local clock offset: 1.033 ms
Remote clock offset: 6.707 ms

# Below is generated by plot.py at 2018-04-11 02:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.91 Mbit/s
95th percentile per-packet one-way delay: 47.848 ms
Loss rate: 17.93%
-- Flow 1:
Average throughput: 51.14 Mbit/s
95th percentile per-packet one-way delay: 47.408 ms
Loss rate: 16.13%
-- Flow 2:
Average throughput: 29.17 Mbit/s
95th percentile per-packet one-way delay: 49.779 ms
Loss rate: 29.14%
-- Flow 3:
Average throughput: 58.57 Mbit/s
95th percentile per-packet one-way delay: 34.877 ms
Loss rate: 8.60%
Run 10: Report of FillP — Data Link
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-10 22:06:52
End at: 2018-04-10 22:07:22
Local clock offset: 0.198 ms
Remote clock offset: -2.927 ms

# Below is generated by plot.py at 2018-04-11 02:18:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.03 Mbit/s
  95th percentile per-packet one-way delay: 20.794 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 57.68 Mbit/s
  95th percentile per-packet one-way delay: 20.741 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 38.25 Mbit/s
  95th percentile per-packet one-way delay: 20.898 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 42.72 Mbit/s
  95th percentile per-packet one-way delay: 21.724 ms
  Loss rate: 0.00%
Run 1: Report of Indigo-1-32 — Data Link
Run 2: Statistics of Indigo-1-32

Start at: 2018-04-10 22:29:06
End at: 2018-04-10 22:29:36
Local clock offset: 0.292 ms
Remote clock offset: 5.003 ms

# Below is generated by plot.py at 2018-04-11 02:19:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.04 Mbit/s
95th percentile per-packet one-way delay: 21.295 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.04 Mbit/s
95th percentile per-packet one-way delay: 21.233 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.82 Mbit/s
95th percentile per-packet one-way delay: 21.306 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.63 Mbit/s
95th percentile per-packet one-way delay: 22.375 ms
Loss rate: 0.00%
Run 2: Report of Indigo-1-32 — Data Link

Graph 1: Throughput (Mbps) over Time (s)
- Flow 1 ingress (mean 58.06 Mbps)
- Flow 1 egress (mean 58.04 Mbps)
- Flow 2 ingress (mean 37.82 Mbps)
- Flow 2 egress (mean 37.82 Mbps)
- Flow 3 ingress (mean 42.64 Mbps)
- Flow 3 egress (mean 42.63 Mbps)

Graph 2: Per-packet one-way delay (ms) over Time (s)
- Flow 1 (95th percentile 21.23 ms)
- Flow 2 (95th percentile 21.31 ms)
- Flow 3 (95th percentile 22.38 ms)
Run 3: Statistics of Indigo-1-32

Start at: 2018-04-10 22:50:41
End at: 2018-04-10 22:51:11
Local clock offset: 1.021 ms
Remote clock offset: 2.285 ms

# Below is generated by plot.py at 2018-04-11 02:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.02 Mbit/s
  95th percentile per-packet one-way delay: 22.531 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 55.81 Mbit/s
  95th percentile per-packet one-way delay: 22.434 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 39.20 Mbit/s
  95th percentile per-packet one-way delay: 22.776 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 46.74 Mbit/s
  95th percentile per-packet one-way delay: 23.597 ms
  Loss rate: 0.00%
Run 3: Report of Indigo-1-32 — Data Link
Run 4: Statistics of Indigo-1-32

Start at: 2018-04-10 23:11:50
End at: 2018-04-10 23:12:20
Local clock offset: 1.713 ms
Remote clock offset: -6.119 ms

# Below is generated by plot.py at 2018-04-11 02:19:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.05 Mbit/s
95th percentile per-packet one-way delay: 21.253 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.57 Mbit/s
95th percentile per-packet one-way delay: 21.182 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.23 Mbit/s
95th percentile per-packet one-way delay: 21.681 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.28 Mbit/s
95th percentile per-packet one-way delay: 23.449 ms
Loss rate: 0.00%
Run 4: Report of Indigo-1-32 — Data Link

![Graph showing network performance metrics for different flows over time.]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 55.59 Mbps)
  - Flow 1 egress (mean 55.57 Mbps)
  - Flow 2 ingress (mean 39.24 Mbps)
  - Flow 2 egress (mean 39.23 Mbps)
  - Flow 3 ingress (mean 47.30 Mbps)
  - Flow 3 egress (mean 47.28 Mbps)

- **Per-packet one way delay (ms):**
  - Flow 1 (95th percentile 21.18 ms)
  - Flow 2 (95th percentile 21.68 ms)
  - Flow 3 (95th percentile 23.45 ms)
Run 5: Statistics of Indigo-1-32

Start at: 2018-04-10 23:33:07
End at: 2018-04-10 23:33:37
Local clock offset: -0.496 ms
Remote clock offset: -9.01 ms

# Below is generated by plot.py at 2018-04-11 02:20:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.05 Mbit/s
95th percentile per-packet one-way delay: 21.300 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.60 Mbit/s
95th percentile per-packet one-way delay: 20.360 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.07 Mbit/s
95th percentile per-packet one-way delay: 21.403 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.71 Mbit/s
95th percentile per-packet one-way delay: 22.839 ms
Loss rate: 0.00%
Run 5: Report of Indigo-1-32 — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 55.62 Mbps)
  - Flow 1 egress (mean 55.60 Mbps)
  - Flow 2 ingress (mean 39.09 Mbps)
  - Flow 2 egress (mean 39.07 Mbps)
  - Flow 3 ingress (mean 47.73 Mbps)
  - Flow 3 egress (mean 47.71 Mbps)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 20.36 ms)
  - Flow 2 (95th percentile 21.40 ms)
  - Flow 3 (95th percentile 22.84 ms)
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-10 23:54:17
End at: 2018-04-10 23:54:47
Local clock offset: -1.072 ms
Remote clock offset: -8.301 ms

# Below is generated by plot.py at 2018-04-11 02:20:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.12 Mbit/s
  95th percentile per-packet one-way delay: 23.026 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 53.76 Mbit/s
  95th percentile per-packet one-way delay: 22.938 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 42.75 Mbit/s
  95th percentile per-packet one-way delay: 23.054 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 46.03 Mbit/s
  95th percentile per-packet one-way delay: 25.213 ms
  Loss rate: 0.00%
Run 6: Report of Indigo-1-32 — Data Link

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

1. Throughput graphs for Flow 1 (ingress 53.77 Mbps, egress 53.76 Mbps), Flow 2 (ingress 42.77 Mbps, egress 42.75 Mbps), and Flow 3 (ingress 46.04 Mbps, egress 46.03 Mbps).
2. Per-packet one-way delay graphs for Flow 1 (95th percentile 22.94 ms), Flow 2 (95th percentile 23.05 ms), and Flow 3 (95th percentile 25.21 ms).
Run 7: Statistics of Indigo-1-32

Start at: 2018-04-11 00:15:57
End at: 2018-04-11 00:16:27
Local clock offset: -0.897 ms
Remote clock offset: 1.973 ms

# Below is generated by plot.py at 2018-04-11 02:20:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.09 Mbit/s
  95th percentile per-packet one-way delay: 20.860 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 55.24 Mbit/s
  95th percentile per-packet one-way delay: 20.792 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 43.07 Mbit/s
  95th percentile per-packet one-way delay: 21.775 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 40.60 Mbit/s
  95th percentile per-packet one-way delay: 22.043 ms
  Loss rate: 0.00%
Run 7: Report of Indigo-1-32 — Data Link
Run 8: Statistics of Indigo-1-32

Start at: 2018-04-11 00:37:20
End at: 2018-04-11 00:37:50
Local clock offset: 0.842 ms
Remote clock offset: 2.238 ms

# Below is generated by plot.py at 2018-04-11 02:20:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.09 Mbit/s
  95th percentile per-packet one-way delay: 23.415 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 53.00 Mbit/s
  95th percentile per-packet one-way delay: 23.327 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 41.58 Mbit/s
  95th percentile per-packet one-way delay: 23.451 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 50.51 Mbit/s
  95th percentile per-packet one-way delay: 25.790 ms
  Loss rate: 0.00%
Run 8: Report of Indigo-1-32 — Data Link

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**Graph 1:**

Throughput (Mbps)

- Flow 1 ingress (mean 53.02 Mbps)
- Flow 1 egress (mean 53.00 Mbps)
- Flow 2 ingress (mean 41.60 Mbps)
- Flow 2 egress (mean 41.55 Mbps)
- Flow 3 ingress (mean 50.52 Mbps)
- Flow 3 egress (mean 50.51 Mbps)

**Graph 2:**

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 23.33 ms)
- Flow 2 (95th percentile 23.45 ms)
- Flow 3 (95th percentile 25.79 ms)
Run 9: Statistics of Indigo-1-32

Start at: 2018-04-11 00:58:59
End at: 2018-04-11 00:59:29
Local clock offset: 2.092 ms
Remote clock offset: 3.047 ms

# Below is generated by plot.py at 2018-04-11 02:20:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 22.068 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.25 Mbit/s
95th percentile per-packet one-way delay: 21.971 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.28 Mbit/s
95th percentile per-packet one-way delay: 22.088 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.54 Mbit/s
95th percentile per-packet one-way delay: 23.299 ms
Loss rate: 0.00%
Run 9: Report of Indigo-1-32 — Data Link

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**Graph 1:** Throughput (Mbps)
- **Flow 1 Ingress (mean 54.27 Mbps)**
- **Flow 1 Egress (mean 54.25 Mbps)**
- **Flow 2 Ingress (mean 40.30 Mbps)**
- **Flow 2 Egress (mean 40.28 Mbps)**
- **Flow 3 Ingress (mean 49.56 Mbps)**
- **Flow 3 Egress (mean 49.54 Mbps)**

**Graph 2:** Per-packet one-way delay (ms)
- **Flow 1 (95th percentile 21.97 ms)**
- **Flow 2 (95th percentile 22.09 ms)**
- **Flow 3 (95th percentile 23.30 ms)**

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281
Run 10: Statistics of Indigo-1-32

Start at: 2018-04-11 01:20:12
End at: 2018-04-11 01:20:42
Local clock offset: 1.353 ms
Remote clock offset: 11.435 ms

# Below is generated by plot.py at 2018-04-11 02:20:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.64 Mbit/s
95th percentile per-packet one-way delay: 18.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.67 Mbit/s
95th percentile per-packet one-way delay: 17.599 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.06 Mbit/s
95th percentile per-packet one-way delay: 18.772 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.17 Mbit/s
95th percentile per-packet one-way delay: 18.881 ms
Loss rate: 0.00%
Run 1: Statistics of Vivace-latency

Start at: 2018-04-10 21:50:59
End at: 2018-04-10 21:51:29
Local clock offset: 0.409 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-04-11 02:20:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.95 Mbit/s
  95th percentile per-packet one-way delay: 20.428 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 57.36 Mbit/s
  95th percentile per-packet one-way delay: 17.906 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 33.10 Mbit/s
  95th percentile per-packet one-way delay: 22.296 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 29.06 Mbit/s
  95th percentile per-packet one-way delay: 24.175 ms
  Loss rate: 0.00%
Run 1: Report of Vivace-latency — Data Link

![Graph 1: Throughput vs Time]

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

- Flow 1 ingress (mean 57.36 Mbit/s)
- Flow 1 egress (mean 57.36 Mbit/s)
- Flow 2 ingress (mean 33.10 Mbit/s)
- Flow 2 egress (mean 33.10 Mbit/s)
- Flow 3 ingress (mean 29.06 Mbit/s)
- Flow 3 egress (mean 29.06 Mbit/s)
Run 2: Statistics of Vivace-latency

End at: 2018-04-10 22:14:03
Local clock offset: -0.033 ms
Remote clock offset: -0.664 ms

# Below is generated by plot.py at 2018-04-11 02:20:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.69 Mbit/s
  95th percentile per-packet one-way delay: 15.594 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 63.72 Mbit/s
  95th percentile per-packet one-way delay: 15.180 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 29.97 Mbit/s
  95th percentile per-packet one-way delay: 16.258 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 15.31 Mbit/s
  95th percentile per-packet one-way delay: 16.512 ms
  Loss rate: 0.00%
Run 2: Report of Vivace-latency — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)
Run 3: Statistics of Vivace-latency

Start at: 2018-04-10 22:34:59
End at: 2018-04-10 22:35:29
Local clock offset: 0.154 ms
Remote clock offset: 5.062 ms

# Below is generated by plot.py at 2018-04-11 02:21:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.56 Mbit/s
95th percentile per-packet one-way delay: 16.819 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.32 Mbit/s
95th percentile per-packet one-way delay: 16.514 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.88 Mbit/s
95th percentile per-packet one-way delay: 18.096 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.29 Mbit/s
95th percentile per-packet one-way delay: 14.989 ms
Loss rate: 0.00%
Run 3: Report of Vivace-latency — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 59.32 Mbit/s)
Flow 1 egress (mean 59.32 Mbit/s)
Flow 2 ingress (mean 36.88 Mbit/s)
Flow 2 egress (mean 36.88 Mbit/s)
Flow 3 ingress (mean 14.29 Mbit/s)
Flow 3 egress (mean 14.29 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 16.51 ms)
Flow 2 (95th percentile 18.10 ms)
Flow 3 (95th percentile 14.99 ms)
Run 4: Statistics of Vivace-latency

Start at: 2018-04-10 22:56:31
End at: 2018-04-10 22:57:01
Local clock offset: 1.335 ms
Remote clock offset: -1.52 ms

# Below is generated by plot.py at 2018-04-11 02:21:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.37 Mbit/s
95th percentile per-packet one-way delay: 15.815 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.32 Mbit/s
95th percentile per-packet one-way delay: 15.417 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.29 Mbit/s
95th percentile per-packet one-way delay: 16.767 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.03 Mbit/s
95th percentile per-packet one-way delay: 16.064 ms
Loss rate: 0.01%
Run 4: Report of Vivace-latency — Data Link

[Graphs showing throughput and packet round-trip time over time for different flows.]
Run 5: Statistics of Vivace-latency

Start at: 2018-04-10 23:17:39
End at: 2018-04-10 23:18:09
Local clock offset: 1.349 ms
Remote clock offset: -6.416 ms

# Below is generated by plot.py at 2018-04-11 02:21:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.51 Mbit/s
  95th percentile per-packet one-way delay: 17.656 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 59.81 Mbit/s
  95th percentile per-packet one-way delay: 17.203 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 32.49 Mbit/s
  95th percentile per-packet one-way delay: 17.860 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 15.50 Mbit/s
  95th percentile per-packet one-way delay: 24.202 ms
  Loss rate: 0.00%
Run 5: Report of Vivace-latency — Data Link
Run 6: Statistics of Vivace-latency

Start at: 2018-04-10 23:38:58
End at: 2018-04-10 23:39:28
Local clock offset: -1.448 ms
Remote clock offset: -7.719 ms

# Below is generated by plot.py at 2018-04-11 02:21:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.54 Mbit/s
95th percentile per-packet one-way delay: 15.675 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.93 Mbit/s
95th percentile per-packet one-way delay: 14.907 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.82 Mbit/s
95th percentile per-packet one-way delay: 16.382 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.61 Mbit/s
95th percentile per-packet one-way delay: 17.192 ms
Loss rate: 0.00%
Run 6: Report of Vivace-latency — Data Link

![Graph of throughput and packet loss delay]

- **Flow 1 Ingress** (mean 60.93 Mbit/s)
- **Flow 1 Egress** (mean 60.93 Mbit/s)
- **Flow 2 Ingress** (mean 32.82 Mbit/s)
- **Flow 2 Egress** (mean 32.82 Mbit/s)
- **Flow 3 Ingress** (mean 20.61 Mbit/s)
- **Flow 3 Egress** (mean 20.61 Mbit/s)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 14.91 ms)
- Flow 2 (95th percentile 16.38 ms)
- Flow 3 (95th percentile 17.19 ms)
Run 7: Statistics of Vivace-latency

Start at: 2018-04-11 00:00:06
End at: 2018-04-11 00:00:36
Local clock offset: -0.225 ms
Remote clock offset: -4.36 ms

# Below is generated by plot.py at 2018-04-11 02:21:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.32 Mbit/s
  95th percentile per-packet one-way delay: 17.213 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 47.00 Mbit/s
  95th percentile per-packet one-way delay: 20.833 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 30.40 Mbit/s
  95th percentile per-packet one-way delay: 16.579 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 21.67 Mbit/s
  95th percentile per-packet one-way delay: 16.736 ms
  Loss rate: 0.00%
Run 7: Report of Vivace-latency — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image)
Run 8: Statistics of Vivace-latency

Start at: 2018-04-11 00:21:48
End at: 2018-04-11 00:22:18
Local clock offset: −1.324 ms
Remote clock offset: 3.554 ms

# Below is generated by plot.py at 2018-04-11 02:21:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.95 Mbit/s
95th percentile per-packet one-way delay: 15.441 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.52 Mbit/s
95th percentile per-packet one-way delay: 14.937 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.37 Mbit/s
95th percentile per-packet one-way delay: 15.684 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.00 Mbit/s
95th percentile per-packet one-way delay: 16.947 ms
Loss rate: 0.00%
Run 8: Report of Vivace-latency — Data Link
Run 9: Statistics of Vivace-latency

Start at: 2018-04-11 00:43:14
End at: 2018-04-11 00:43:44
Local clock offset: 1.581 ms
Remote clock offset: 1.422 ms

# Below is generated by plot.py at 2018-04-11 02:22:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.92 Mbit/s
95th percentile per-packet one-way delay: 15.137 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.71 Mbit/s
95th percentile per-packet one-way delay: 14.391 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.57 Mbit/s
95th percentile per-packet one-way delay: 15.698 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 19.890 ms
Loss rate: 0.00%
Run 9: Report of Vivace-latency — Data Link

![Graph showing throughput and packet latency over time.](image-url)
Run 10: Statistics of Vivace-latency

Start at: 2018-04-11 01:04:50
End at: 2018-04-11 01:05:20
Local clock offset: 0.965 ms
Remote clock offset: 4.226 ms

# Below is generated by plot.py at 2018-04-11 02:22:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.45 Mbit/s
  95th percentile per-packet one-way delay: 15.217 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 61.59 Mbit/s
  95th percentile per-packet one-way delay: 14.694 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 33.84 Mbit/s
  95th percentile per-packet one-way delay: 15.220 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 16.29 Mbit/s
  95th percentile per-packet one-way delay: 23.132 ms
  Loss rate: 0.00%
Run 10: Report of Vivace-latency — Data Link
Run 1: Statistics of Vivace-loss

Start at: 2018-04-10 21:48:38
End at: 2018-04-10 21:49:08
Local clock offset: -6.261 ms
Remote clock offset: -2.567 ms

# Below is generated by plot.py at 2018-04-11 02:23:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.97 Mbit/s
95th percentile per-packet one-way delay: 50.788 ms
Loss rate: 13.72%
-- Flow 1:
Average throughput: 49.24 Mbit/s
95th percentile per-packet one-way delay: 50.609 ms
Loss rate: 12.32%
-- Flow 2:
Average throughput: 46.69 Mbit/s
95th percentile per-packet one-way delay: 51.157 ms
Loss rate: 15.82%
-- Flow 3:
Average throughput: 24.00 Mbit/s
95th percentile per-packet one-way delay: 50.416 ms
Loss rate: 13.91%
Run 1: Report of Vivace-loss — Data Link
Run 2: Statistics of Vivace-loss

Start at: 2018-04-10 22:10:51
End at: 2018-04-10 22:11:21
Local clock offset: 0.806 ms
Remote clock offset: -2.407 ms

# Below is generated by plot.py at 2018-04-11 02:23:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.23 Mbit/s
95th percentile per-packet one-way delay: 46.478 ms
Loss rate: 12.28%
-- Flow 1:
Average throughput: 56.89 Mbit/s
95th percentile per-packet one-way delay: 46.242 ms
Loss rate: 10.82%
-- Flow 2:
Average throughput: 33.80 Mbit/s
95th percentile per-packet one-way delay: 46.173 ms
Loss rate: 14.29%
-- Flow 3:
Average throughput: 23.88 Mbit/s
95th percentile per-packet one-way delay: 47.911 ms
Loss rate: 16.54%
Run 2: Report of Vivace-loss — Data Link

![Graph showing throughput over time for different flows and ingress/egress speeds]
Run 3: Statistics of Vivace-loss

Start at: 2018-04-10 22:32:36
End at: 2018-04-10 22:33:06
Local clock offset: 0.017 ms
Remote clock offset: 3.909 ms

# Below is generated by plot.py at 2018-04-11 02:23:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.45 Mbit/s
95th percentile per-packet one-way delay: 45.902 ms
Loss rate: 11.52%
-- Flow 1:
Average throughput: 62.58 Mbit/s
95th percentile per-packet one-way delay: 46.239 ms
Loss rate: 11.78%
-- Flow 2:
Average throughput: 22.32 Mbit/s
95th percentile per-packet one-way delay: 44.844 ms
Loss rate: 10.68%
-- Flow 3:
Average throughput: 27.42 Mbit/s
95th percentile per-packet one-way delay: 44.732 ms
Loss rate: 11.03%
Run 3: Report of Vivace-loss — Data Link
Run 4: Statistics of Vivace-loss

Start at: 2018-04-10 22:54:08
End at: 2018-04-10 22:54:38
Local clock offset: 1.532 ms
Remote clock offset: -0.751 ms

# Below is generated by plot.py at 2018-04-11 02:23:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.71 Mbit/s
  95th percentile per-packet one-way delay: 46.621 ms
  Loss rate: 14.63%
-- Flow 1:
  Average throughput: 60.28 Mbit/s
  95th percentile per-packet one-way delay: 46.632 ms
  Loss rate: 14.61%
-- Flow 2:
  Average throughput: 29.04 Mbit/s
  95th percentile per-packet one-way delay: 46.688 ms
  Loss rate: 14.18%
-- Flow 3:
  Average throughput: 21.47 Mbit/s
  95th percentile per-packet one-way delay: 46.334 ms
  Loss rate: 15.97%
Run 4: Report of Vivace-loss — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 70.63 Mbps)
- **Flow 1 egress** (mean 60.28 Mbps)
- **Flow 2 ingress** (mean 33.88 Mbps)
- **Flow 2 egress** (mean 29.04 Mbps)
- **Flow 3 ingress** (mean 25.61 Mbps)
- **Flow 3 egress** (mean 21.47 Mbps)

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

- **Flow 1** (95th percentile 46.63 ms)
- **Flow 2** (95th percentile 46.69 ms)
- **Flow 3** (95th percentile 46.33 ms)
Run 5: Statistics of Vivace-loss

Start at: 2018-04-10 23:15:18
End at: 2018-04-10 23:15:48
Local clock offset: 1.9 ms
Remote clock offset: -6.609 ms

# Below is generated by plot.py at 2018-04-11 02:23:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.97 Mbit/s
95th percentile per-packet one-way delay: 45.706 ms
Loss rate: 12.02%
-- Flow 1:
Average throughput: 56.62 Mbit/s
95th percentile per-packet one-way delay: 45.758 ms
Loss rate: 11.78%
-- Flow 2:
Average throughput: 35.39 Mbit/s
95th percentile per-packet one-way delay: 45.474 ms
Loss rate: 12.40%
-- Flow 3:
Average throughput: 20.74 Mbit/s
95th percentile per-packet one-way delay: 46.133 ms
Loss rate: 12.69%
Run 5: Report of Vivace-loss — Data Link

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

**Throughput (Mbps)**
- Flow 1 ingress (mean 64.26 Mbps)
- Flow 1 egress (mean 56.62 Mbps)
- Flow 2 ingress (mean 40.41 Mbps)
- Flow 2 egress (mean 35.39 Mbps)
- Flow 3 ingress (mean 23.80 Mbps)
- Flow 3 egress (mean 20.74 Mbps)

**Packet Delay (ms)**
- Flow 1 (95th percentile 45.76 ms)
- Flow 2 (95th percentile 45.47 ms)
- Flow 3 (95th percentile 46.13 ms)
Run 6: Statistics of Vivace-loss

Start at: 2018-04-10 23:36:35
End at: 2018-04-10 23:37:05
Local clock offset: -1.008 ms
Remote clock offset: -8.37 ms

# Below is generated by plot.py at 2018-04-11 02:23:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.99 Mbit/s
95th percentile per-packet one-way delay: 46.056 ms
Loss rate: 12.45%
-- Flow 1:
Average throughput: 59.91 Mbit/s
95th percentile per-packet one-way delay: 45.475 ms
Loss rate: 11.28%
-- Flow 2:
Average throughput: 35.60 Mbit/s
95th percentile per-packet one-way delay: 46.923 ms
Loss rate: 14.92%
-- Flow 3:
Average throughput: 7.33 Mbit/s
95th percentile per-packet one-way delay: 48.087 ms
Loss rate: 15.94%
Run 6: Report of Vivace-loss — Data Link

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

![Graph 2: Packet Delay over Time](image2)
Run 7: Statistics of Vivace-loss

Start at: 2018-04-10 23:57:44
End at: 2018-04-10 23:58:14
Local clock offset: -0.442 ms
Remote clock offset: -6.543 ms

# Below is generated by plot.py at 2018-04-11 02:23:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.49 Mbit/s
95th percentile per-packet one-way delay: 45.997 ms
Loss rate: 13.37%
-- Flow 1:
Average throughput: 63.24 Mbit/s
95th percentile per-packet one-way delay: 45.891 ms
Loss rate: 11.61%
-- Flow 2:
Average throughput: 25.05 Mbit/s
95th percentile per-packet one-way delay: 46.225 ms
Loss rate: 15.86%
-- Flow 3:
Average throughput: 23.08 Mbit/s
95th percentile per-packet one-way delay: 46.697 ms
Loss rate: 21.31%
Run 7: Report of Vivace-loss — Data Link

![Throughput vs Time Graph](image1)

- Flow 1 ingress (mean 71.54 Mbit/s)
- Flow 1 egress (mean 63.24 Mbit/s)
- Flow 2 ingress (mean 29.75 Mbit/s)
- Flow 2 egress (mean 25.05 Mbit/s)
- Flow 3 ingress (mean 29.24 Mbit/s)
- Flow 3 egress (mean 23.08 Mbit/s)

![Latency vs Time Graph](image2)

- Flow 1 (95th percentile 45.89 ms)
- Flow 2 (95th percentile 46.23 ms)
- Flow 3 (95th percentile 46.70 ms)
Run 8: Statistics of Vivace-loss

Start at: 2018-04-11 00:19:26
End at: 2018-04-11 00:19:56
Local clock offset: -0.534 ms
Remote clock offset: 2.327 ms

# Below is generated by plot.py at 2018-04-11 02:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.80 Mbit/s
95th percentile per-packet one-way delay: 45.383 ms
Loss rate: 11.73%

-- Flow 1:
Average throughput: 59.01 Mbit/s
95th percentile per-packet one-way delay: 45.551 ms
Loss rate: 11.48%

-- Flow 2:
Average throughput: 30.45 Mbit/s
95th percentile per-packet one-way delay: 44.675 ms
Loss rate: 12.03%

-- Flow 3:
Average throughput: 25.94 Mbit/s
95th percentile per-packet one-way delay: 45.475 ms
Loss rate: 12.71%
Run 8: Report of Vivace-loss — Data Link

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

- **Flow 1 ingress (mean 66.72 Mb/s)**
- **Flow 1 egress (mean 59.01 Mb/s)**
- **Flow 2 ingress (mean 34.66 Mb/s)**
- **Flow 2 egress (mean 30.45 Mb/s)**
- **Flow 3 ingress (mean 29.76 Mb/s)**
- **Flow 3 egress (mean 25.94 Mb/s)**

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

- **Flow 1 (95th percentile 45.55 ms)**
- **Flow 2 (95th percentile 44.67 ms)**
- **Flow 3 (95th percentile 45.48 ms)**
Run 9: Statistics of Vivace-loss

Start at: 2018-04-11 00:40:49
End at: 2018-04-11 00:41:19
Local clock offset: 1.433 ms
Remote clock offset: 2.689 ms

# Below is generated by plot.py at 2018-04-11 02:24:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.16 Mbit/s
95th percentile per-packet one-way delay: 47.638 ms
Loss rate: 12.08%
-- Flow 1:
Average throughput: 47.59 Mbit/s
95th percentile per-packet one-way delay: 46.813 ms
Loss rate: 11.21%
-- Flow 2:
Average throughput: 45.95 Mbit/s
95th percentile per-packet one-way delay: 48.653 ms
Loss rate: 13.23%
-- Flow 3:
Average throughput: 24.20 Mbit/s
95th percentile per-packet one-way delay: 47.102 ms
Loss rate: 12.73%
Run 10: Statistics of Vivace-loss

Start at: 2018-04-11 01:02:26
End at: 2018-04-11 01:02:56
Local clock offset: 1.281 ms
Remote clock offset: 3.415 ms

# Below is generated by plot.py at 2018-04-11 02:24:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.54 Mbit/s
  95th percentile per-packet one-way delay: 46.808 ms
  Loss rate: 12.38%
-- Flow 1:
  Average throughput: 52.83 Mbit/s
  95th percentile per-packet one-way delay: 46.376 ms
  Loss rate: 11.45%
-- Flow 2:
  Average throughput: 49.77 Mbit/s
  95th percentile per-packet one-way delay: 47.403 ms
  Loss rate: 13.74%
-- Flow 3:
  Average throughput: 5.01 Mbit/s
  95th percentile per-packet one-way delay: 45.637 ms
  Loss rate: 14.41%
Run 10: Report of Vivace-loss — Data Link
Run 1: Statistics of Vivace-LTE

Start at: 2018-04-10 22:05:26
End at: 2018-04-10 22:05:56
Local clock offset: 0.994 ms
Remote clock offset: -2.916 ms

# Below is generated by plot.py at 2018-04-11 02:24:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.70 Mbit/s
95th percentile per-packet one-way delay: 43.441 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 53.55 Mbit/s
95th percentile per-packet one-way delay: 40.063 ms
Loss rate: 1.65%
-- Flow 2:
Average throughput: 34.54 Mbit/s
95th percentile per-packet one-way delay: 45.649 ms
Loss rate: 2.24%
-- Flow 3:
Average throughput: 24.78 Mbit/s
95th percentile per-packet one-way delay: 46.008 ms
Loss rate: 2.74%
Run 1: Report of Vivace-LTE — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 54.45 Mbps)
Flow 1 egress (mean 53.55 Mbps)
Flow 2 ingress (mean 35.33 Mbps)
Flow 2 egress (mean 34.54 Mbps)
Flow 3 ingress (mean 25.47 Mbps)
Flow 3 egress (mean 24.78 Mbps)

Delay (ms)

Time (s)

Flow 1 (95th percentile 40.06 ms)
Flow 2 (95th percentile 45.65 ms)
Flow 3 (95th percentile 46.01 ms)
Run 2: Statistics of Vivace-LTE

Start at: 2018-04-10 22:27:52
End at: 2018-04-10 22:28:22
Local clock offset: -0.114 ms
Remote clock offset: 3.534 ms

# Below is generated by plot.py at 2018-04-11 02:24:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.08 Mbit/s
95th percentile per-packet one-way delay: 45.636 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 52.17 Mbit/s
95th percentile per-packet one-way delay: 43.834 ms
Loss rate: 1.66%
-- Flow 2:
Average throughput: 36.93 Mbit/s
95th percentile per-packet one-way delay: 47.822 ms
Loss rate: 2.28%
-- Flow 3:
Average throughput: 25.36 Mbit/s
95th percentile per-packet one-way delay: 47.582 ms
Loss rate: 3.44%
Run 2: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 53.05 Mbit/s)
- Flow 1 egress (mean 52.17 Mbit/s)
- Flow 2 ingress (mean 37.79 Mbit/s)
- Flow 2 egress (mean 36.93 Mbit/s)
- Flow 3 ingress (mean 26.26 Mbit/s)
- Flow 3 egress (mean 25.36 Mbit/s)
Run 3: Statistics of Vivace-LTE

End at: 2018-04-10 22:49:59
Local clock offset: 0.208 ms
Remote clock offset: 3.477 ms

# Below is generated by plot.py at 2018-04-11 02:24:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.52 Mbit/s
95th percentile per-packet one-way delay: 48.163 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 59.03 Mbit/s
95th percentile per-packet one-way delay: 47.767 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 31.29 Mbit/s
95th percentile per-packet one-way delay: 48.703 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 29.43 Mbit/s
95th percentile per-packet one-way delay: 47.793 ms
Loss rate: 3.48%
Run 3: Report of Vivace-LTE — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Per packet one way delay (ms)

Legend:
- Flow 1 ingress (mean 59.91 Mbps)  
- Flow 1 egress (mean 59.93 Mbps)  
- Flow 2 ingress (mean 31.93 Mbps)  
- Flow 2 egress (mean 31.29 Mbps)  
- Flow 3 ingress (mean 30.46 Mbps)  
- Flow 3 egress (mean 29.43 Mbps)  

Flow 1 (95th percentile 47.77 ms)  
Flow 2 (95th percentile 48.70 ms)  
Flow 3 (95th percentile 47.79 ms)
Run 4: Statistics of Vivace-LTE

Start at: 2018-04-10 23:10:38
End at: 2018-04-10 23:11:08
Local clock offset: 1.616 ms
Remote clock offset: -5.929 ms

# Below is generated by plot.py at 2018-04-11 02:24:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.50 Mbit/s
95th percentile per-packet one-way delay: 41.204 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 57.80 Mbit/s
95th percentile per-packet one-way delay: 35.370 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 30.78 Mbit/s
95th percentile per-packet one-way delay: 43.649 ms
Loss rate: 1.62%
-- Flow 3:
Average throughput: 24.99 Mbit/s
95th percentile per-packet one-way delay: 47.457 ms
Loss rate: 3.55%
Run 4: Report of Vivace-LTE — Data Link
Run 5: Statistics of Vivace-LTE

Start at: 2018-04-10 23:31:56
End at: 2018-04-10 23:32:26
Local clock offset: -0.323 ms
Remote clock offset: -8.154 ms

# Below is generated by plot.py at 2018-04-11 02:25:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.39 Mbit/s
  95th percentile per-packet one-way delay: 43.905 ms
  Loss rate: 1.58%
-- Flow 1:
  Average throughput: 56.81 Mbit/s
  95th percentile per-packet one-way delay: 42.290 ms
  Loss rate: 1.29%
-- Flow 2:
  Average throughput: 30.90 Mbit/s
  95th percentile per-packet one-way delay: 45.346 ms
  Loss rate: 1.59%
-- Flow 3:
  Average throughput: 27.40 Mbit/s
  95th percentile per-packet one-way delay: 47.478 ms
  Loss rate: 3.28%
Run 5: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 57.58 Mbit/s)
- Flow 1 egress (mean 56.81 Mbit/s)
- Flow 2 ingress (mean 31.42 Mbit/s)
- Flow 2 egress (mean 30.90 Mbit/s)
- Flow 3 ingress (mean 26.37 Mbit/s)
- Flow 3 egress (mean 27.40 Mbit/s)

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

- Flow 1 (95th percentile 42.29 ms)
- Flow 2 (95th percentile 45.35 ms)
- Flow 3 (95th percentile 47.48 ms)
Run 6: Statistics of Vivace-LTE

Start at: 2018-04-10 23:53:06
End at: 2018-04-10 23:53:36
Local clock offset: -0.96 ms
Remote clock offset: -8.779 ms

# Below is generated by plot.py at 2018-04-11 02:25:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.07 Mbit/s
95th percentile per-packet one-way delay: 44.407 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 53.37 Mbit/s
95th percentile per-packet one-way delay: 40.540 ms
Loss rate: 1.71%
-- Flow 2:
Average throughput: 38.83 Mbit/s
95th percentile per-packet one-way delay: 45.526 ms
Loss rate: 2.28%
-- Flow 3:
Average throughput: 17.84 Mbit/s
95th percentile per-packet one-way delay: 46.062 ms
Loss rate: 2.59%
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 54.34 Mbps)
  - Flow 1 egress (mean 53.37 Mbps)
  - Flow 2 ingress (mean 39.79 Mbps)
  - Flow 2 egress (mean 38.83 Mbps)
  - Flow 3 ingress (mean 18.34 Mbps)
  - Flow 3 egress (mean 17.84 Mbps)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 40.54 ms)
  - Flow 2 (95th percentile 45.53 ms)
  - Flow 3 (95th percentile 46.06 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-04-11 00:14:35
End at: 2018-04-11 00:15:05
Local clock offset: -1.184 ms
Remote clock offset: 2.634 ms

# Below is generated by plot.py at 2018-04-11 02:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.42 Mbit/s
95th percentile per-packet one-way delay: 43.340 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 57.75 Mbit/s
95th percentile per-packet one-way delay: 39.623 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 37.43 Mbit/s
95th percentile per-packet one-way delay: 46.130 ms
Loss rate: 1.97%
-- Flow 3:
Average throughput: 14.52 Mbit/s
95th percentile per-packet one-way delay: 47.515 ms
Loss rate: 3.15%
Run 7: Report of Vivace-LTE — Data Link
Run 8: Statistics of Vivace-LTE

Start at: 2018-04-11 00:36:06
End at: 2018-04-11 00:36:36
Local clock offset: 0.821 ms
Remote clock offset: 2.579 ms

# Below is generated by plot.py at 2018-04-11 02:25:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.64 Mbit/s
95th percentile per-packet one-way delay: 47.110 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 56.22 Mbit/s
95th percentile per-packet one-way delay: 46.217 ms
Loss rate: 1.73%
-- Flow 2:
Average throughput: 33.49 Mbit/s
95th percentile per-packet one-way delay: 48.252 ms
Loss rate: 2.72%
-- Flow 3:
Average throughput: 21.73 Mbit/s
95th percentile per-packet one-way delay: 48.331 ms
Loss rate: 3.38%
Run 8: Report of Vivace-LTE — Data Link
Run 9: Statistics of Vivace-LTE

Start at: 2018-04-11 00:57:46
End at: 2018-04-11 00:58:16
Local clock offset: 1.933 ms
Remote clock offset: 1.836 ms

# Below is generated by plot.py at 2018-04-11 02:25:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.22 Mbit/s
  95th percentile per-packet one-way delay: 39.608 ms
  Loss rate: 1.60%
-- Flow 1:
  Average throughput: 56.03 Mbit/s
  95th percentile per-packet one-way delay: 33.662 ms
  Loss rate: 1.25%
-- Flow 2:
  Average throughput: 37.37 Mbit/s
  95th percentile per-packet one-way delay: 43.100 ms
  Loss rate: 1.93%
-- Flow 3:
  Average throughput: 19.28 Mbit/s
  95th percentile per-packet one-way delay: 47.707 ms
  Loss rate: 3.34%
Run 9: Report of Vivace-LTE — Data Link

[Graphs showing throughput and packet delay]

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341
Run 10: Statistics of Vivace-LTE

Start at: 2018-04-11 01:19:01
End at: 2018-04-11 01:19:31
Local clock offset: 1.503 ms
Remote clock offset: 10.555 ms

# Below is generated by plot.py at 2018-04-11 02:25:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.71 Mbit/s
  95th percentile per-packet one-way delay: 42.257 ms
  Loss rate: 2.04%
-- Flow 1:
  Average throughput: 60.00 Mbit/s
  95th percentile per-packet one-way delay: 39.881 ms
  Loss rate: 1.67%
-- Flow 2:
  Average throughput: 29.29 Mbit/s
  95th percentile per-packet one-way delay: 44.742 ms
  Loss rate: 2.84%
-- Flow 3:
  Average throughput: 15.89 Mbit/s
  95th percentile per-packet one-way delay: 44.322 ms
  Loss rate: 3.37%
Run 10: Report of Vivace-LTE — Data Link

![Graph](image)

- **Throughput (Mbit/s):**
  - Flow 1 ingress (mean 61.03 Mbit/s)
  - Flow 1 egress (mean 60.00 Mbit/s)
  - Flow 2 ingress (mean 30.15 Mbit/s)
  - Flow 2 egress (mean 29.29 Mbit/s)
  - Flow 3 ingress (mean 16.43 Mbit/s)
  - Flow 3 egress (mean 15.89 Mbit/s)

![Graph](image)

- **Per packet one way delay (ms):**
  - Flow 1 (95th percentile 39.88 ms)
  - Flow 2 (95th percentile 44.74 ms)
  - Flow 3 (95th percentile 44.32 ms)