Pantheon Report

Generated at 2018-04-25 00:12:35 (UTC).
Data path: AWS Brazil 1 Ethernet (local) → Brazil Ethernet (remote).
Repeated the test of 16 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 gps.ntp.br and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ 114e807ac1bad7b85168cebf8a969063ee6c12c
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 11f846a24bf1dc797253db7e8a04076272b2a44
third_party/genericCC @ d223989828276fa83a807da6e0341dc0c7b89aec
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f266d
third_party/indigo-1-layer-32-unit @ 2601c92e4a9d58d38dc4df0ece0c6bf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ 0f2fe693303aee82e8a08e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db2674ccfcf993
third_party/pcc @ 1af9c958fa0d66d18b623c091a55f6c872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f56313ee8adc08f9b24e2f974ab
third_party/proto-quic @ 77961f1a8273a86b242f1bc8143ebc978f3cfff42
third_party/scream @ c3370fd7bd71765a79aebe34e016ad23f5965885
third_party/sourdough @ fa1a4bffe749737437f61b1eaebe30b267cda681
third_party/sprout @ 6f2efe6e088d91066a9f023df375ee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
test from AWS Brazil 1 Ethernet to Brazil 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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<td></td>
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<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
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<td>34.28</td>
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</tbody>
</table>
Run 1: Statistics of TCP BBR

End at: 2018-04-24 20:20:50
Local clock offset: -4.236 ms
Remote clock offset: -7.607 ms

# Below is generated by plot.py at 2018-04-24 23:48:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 11.861 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.77 Mbit/s
95th percentile per-packet one-way delay: 11.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.20 Mbit/s
95th percentile per-packet one-way delay: 12.142 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.50 Mbit/s
95th percentile per-packet one-way delay: 12.957 ms
Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

End at: 2018-04-24 20:40:03
Local clock offset: -4.946 ms
Remote clock offset: -8.046 ms

# Below is generated by plot.py at 2018-04-24 23:48:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.50 Mbit/s
  95th percentile per-packet one-way delay: 13.065 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 62.88 Mbit/s
  95th percentile per-packet one-way delay: 12.725 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 45.84 Mbit/s
  95th percentile per-packet one-way delay: 13.747 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 12.32 Mbit/s
  95th percentile per-packet one-way delay: 13.156 ms
  Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 62.90 Mbit/s)
- Flow 1 egress (mean 62.88 Mbit/s)
- Flow 2 ingress (mean 45.66 Mbit/s)
- Flow 2 egress (mean 45.84 Mbit/s)
- Flow 3 ingress (mean 12.32 Mbit/s)
- Flow 3 egress (mean 12.32 Mbit/s)
Run 3: Statistics of TCP BBR

Start at: 2018-04-24 20:58:45
End at: 2018-04-24 20:59:15
Local clock offset: -4.273 ms
Remote clock offset: -6.931 ms

# Below is generated by plot.py at 2018-04-24 23:48:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 21.765 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.25 Mbit/s
95th percentile per-packet one-way delay: 21.585 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.15 Mbit/s
95th percentile per-packet one-way delay: 21.167 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.48 Mbit/s
95th percentile per-packet one-way delay: 27.512 ms
Loss rate: 0.01%
Run 3: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 75.31 Mbit/s)
- Flow 1 egress (mean 75.25 Mbit/s)
- Flow 2 ingress (mean 25.18 Mbit/s)
- Flow 2 egress (mean 25.15 Mbit/s)
- Flow 3 ingress (mean 16.51 Mbit/s)
- Flow 3 egress (mean 16.48 Mbit/s)
Run 4: Statistics of TCP BBR

End at: 2018-04-24 21:18:27
Local clock offset: -5.606 ms
Remote clock offset: -5.104 ms

# Below is generated by plot.py at 2018-04-24 23:48:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.50 Mbit/s
95th percentile per-packet one-way delay: 15.603 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.28 Mbit/s
95th percentile per-packet one-way delay: 15.678 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.36 Mbit/s
95th percentile per-packet one-way delay: 14.782 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 16.153 ms
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Local clock offset: -4.834 ms
Remote clock offset: -4.766 ms

# Below is generated by plot.py at 2018-04-24 23:48:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 25.378 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 74.61 Mbit/s
95th percentile per-packet one-way delay: 25.252 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 26.26 Mbit/s
95th percentile per-packet one-way delay: 25.325 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 16.19 Mbit/s
95th percentile per-packet one-way delay: 27.502 ms
Loss rate: 0.04%
Run 5: Report of TCP BBR — Data Link

![Graph showing throughput and per-packet one-way delay over time for three flows.](image-url)
Run 6: Statistics of TCP BBR

Local clock offset: -5.926 ms
Remote clock offset: -4.48 ms

# Below is generated by plot.py at 2018-04-24 23:48:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 13.129 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.61 Mbit/s
95th percentile per-packet one-way delay: 12.603 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.60 Mbit/s
95th percentile per-packet one-way delay: 13.801 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.18 Mbit/s
95th percentile per-packet one-way delay: 13.117 ms
Loss rate: 0.00%
Run 6: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 61.62 Mbps)**
- **Flow 1 egress (mean 61.61 Mbps)**
- **Flow 2 ingress (mean 46.61 Mbps)**
- **Flow 2 egress (mean 46.60 Mbps)**
- **Flow 3 ingress (mean 14.18 Mbps)**
- **Flow 3 egress (mean 14.18 Mbps)**

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

- **Flow 1 (95th percentile 12.60 ms)**
- **Flow 2 (95th percentile 13.80 ms)**
- **Flow 3 (95th percentile 13.12 ms)**
Run 7: Statistics of TCP BBR

Local clock offset: -6.059 ms
Remote clock offset: -4.138 ms

# Below is generated by plot.py at 2018-04-24 23:48:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 21.392 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.35 Mbit/s
95th percentile per-packet one-way delay: 21.390 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.71 Mbit/s
95th percentile per-packet one-way delay: 20.159 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.00 Mbit/s
95th percentile per-packet one-way delay: 25.712 ms
Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 80.40 Mbps)
- Blue solid line: Flow 1 egress (mean 80.35 Mbps)
- Green dashed line: Flow 2 ingress (mean 17.72 Mbps)
- Green solid line: Flow 2 egress (mean 17.71 Mbps)
- Red dashed line: Flow 3 ingress (mean 16.02 Mbps)
- Red solid line: Flow 3 egress (mean 16.00 Mbps)

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

- Blue line: Flow 1 (95th percentile 21.39 ms)
- Red line: Flow 2 (95th percentile 20.16 ms)
- Green line: Flow 3 (95th percentile 25.71 ms)
Run 8: Statistics of TCP BBR

End at: 2018-04-24 22:35:11
Local clock offset: -5.381 ms
Remote clock offset: -3.741 ms

# Below is generated by plot.py at 2018-04-24 23:48:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.46 Mbit/s
  95th percentile per-packet one-way delay: 19.342 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 55.79 Mbit/s
  95th percentile per-packet one-way delay: 19.053 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 41.69 Mbit/s
  95th percentile per-packet one-way delay: 19.612 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 41.79 Mbit/s
  95th percentile per-packet one-way delay: 19.543 ms
  Loss rate: 0.00%
Run 8: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 55.83 Mbps)
- Flow 1 egress (mean 55.79 Mbps)
- Flow 2 ingress (mean 41.72 Mbps)
- Flow 2 egress (mean 41.69 Mbps)
- Flow 3 ingress (mean 41.85 Mbps)
- Flow 3 egress (mean 41.79 Mbps)

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

- Flow 1 (95th percentile 19.05 ms)
- Flow 2 (95th percentile 19.61 ms)
- Flow 3 (95th percentile 19.54 ms)
Run 9: Statistics of TCP BBR

Local clock offset: -5.768 ms
Remote clock offset: -6.155 ms

# Below is generated by plot.py at 2018-04-24 23:50:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.42 Mbit/s
95th percentile per-packet one-way delay: 22.453 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.84 Mbit/s
95th percentile per-packet one-way delay: 21.478 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.76 Mbit/s
95th percentile per-packet one-way delay: 23.071 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.32 Mbit/s
95th percentile per-packet one-way delay: 25.729 ms
Loss rate: 0.01%
Run 9: Report of TCP BBR — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 65.89 Mbps)
- Flow 1 egress (mean 65.84 Mbps)
- Flow 2 ingress (mean 35.80 Mbps)
- Flow 2 egress (mean 35.76 Mbps)
- Flow 3 ingress (mean 23.36 Mbps)
- Flow 3 egress (mean 23.32 Mbps)

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

- Flow 1 (95th percentile 21.48 ms)
- Flow 2 (95th percentile 23.07 ms)
- Flow 3 (95th percentile 25.73 ms)
Run 10: Statistics of TCP BBR

Local clock offset: -4.779 ms
Remote clock offset: -6.734 ms

# Below is generated by plot.py at 2018-04-24 23:50:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 20.655 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.97 Mbit/s
95th percentile per-packet one-way delay: 19.370 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 21.267 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 21.83 Mbit/s
95th percentile per-packet one-way delay: 28.064 ms
Loss rate: 0.03%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of TCP Cubic

End at: 2018-04-24 20:24:14
Local clock offset: -4.259 ms
Remote clock offset: -7.695 ms

# Below is generated by plot.py at 2018-04-24 23:50:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.28 Mbit/s
95th percentile per-packet one-way delay: 31.482 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 65.26 Mbit/s
95th percentile per-packet one-way delay: 31.656 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 33.69 Mbit/s
95th percentile per-packet one-way delay: 30.408 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 28.95 Mbit/s
95th percentile per-packet one-way delay: 31.893 ms
Loss rate: 0.06%
Run 1: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 65.34 Mbit/s)
- Flow 1 egress (mean 65.26 Mbit/s)
- Flow 2 ingress (mean 33.71 Mbit/s)
- Flow 2 egress (mean 33.69 Mbit/s)
- Flow 3 ingress (mean 28.97 Mbit/s)
- Flow 3 egress (mean 28.95 Mbit/s)

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

- Flow 1 (95th percentile 31.66 ms)
- Flow 2 (95th percentile 30.41 ms)
- Flow 3 (95th percentile 31.89 ms)
Run 2: Statistics of TCP Cubic

Local clock offset: -5.706 ms
Remote clock offset: -8.115 ms

# Below is generated by plot.py at 2018-04-24 23:50:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 32.766 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 62.37 Mbit/s
95th percentile per-packet one-way delay: 32.726 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 33.87 Mbit/s
95th percentile per-packet one-way delay: 33.237 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 37.83 Mbit/s
95th percentile per-packet one-way delay: 31.743 ms
Loss rate: 0.03%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

Start at: 2018-04-24 21:02:10
End at: 2018-04-24 21:02:40
Local clock offset: -5.037 ms
Remote clock offset: -6.305 ms

# Below is generated by plot.py at 2018-04-24 23:50:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.51 Mbit/s
95th percentile per-packet one-way delay: 31.383 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 68.26 Mbit/s
95th percentile per-packet one-way delay: 30.909 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 26.65 Mbit/s
95th percentile per-packet one-way delay: 32.414 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 34.76 Mbit/s
95th percentile per-packet one-way delay: 31.109 ms
Loss rate: 0.15%
Run 3: Report of TCP Cubic — Data Link

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

Throughput (Mbps) vs. Time (s)

- **Flow 1 ingress** (mean 68.34 Mbps)
- **Flow 1 egress** (mean 68.26 Mbps)
- **Flow 2 ingress** (mean 26.67 Mbps)
- **Flow 2 egress** (mean 26.65 Mbps)
- **Flow 3 ingress** (mean 34.82 Mbps)
- **Flow 3 egress** (mean 34.76 Mbps)

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

- **Flow 1** (95th percentile 30.91 ms)
- **Flow 2** (95th percentile 32.41 ms)
- **Flow 3** (95th percentile 31.11 ms)
Run 4: Statistics of TCP Cubic

Local clock offset: -4.087 ms
Remote clock offset: -5.029 ms

# Below is generated by plot.py at 2018-04-24 23:50:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 31.409 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 66.85 Mbit/s
95th percentile per-packet one-way delay: 31.630 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 30.82 Mbit/s
95th percentile per-packet one-way delay: 30.389 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 30.49 Mbit/s
95th percentile per-packet one-way delay: 30.378 ms
Loss rate: 0.18%
Run 4: Report of TCP Cubic — Data Link

![Graph 1](#)

![Graph 2](#)
Run 5: Statistics of TCP Cubic

End at: 2018-04-24 21:41:03
Local clock offset: -5.658 ms
Remote clock offset: -4.77 ms

# Below is generated by plot.py at 2018-04-24 23:50:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.71 Mbit/s
95th percentile per-packet one-way delay: 31.837 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 9.82 Mbit/s
95th percentile per-packet one-way delay: 31.399 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 79.77 Mbit/s
95th percentile per-packet one-way delay: 31.375 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 29.37 Mbit/s
95th percentile per-packet one-way delay: 33.072 ms
Loss rate: 0.06%
Run 6: Statistics of TCP Cubic

End at: 2018-04-24 22:00:12
Local clock offset: -5.171 ms
Remote clock offset: -4.425 ms

# Below is generated by plot.py at 2018-04-24 23:50:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.37 Mbit/s
  95th percentile per-packet one-way delay: 30.916 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 82.09 Mbit/s
  95th percentile per-packet one-way delay: 30.894 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 3.04 Mbit/s
  95th percentile per-packet one-way delay: 32.127 ms
  Loss rate: 1.94%
-- Flow 3:
  Average throughput: 39.92 Mbit/s
  95th percentile per-packet one-way delay: 31.129 ms
  Loss rate: 0.05%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Local clock offset: -5.243 ms
Remote clock offset: -4.076 ms

# Below is generated by plot.py at 2018-04-24 23:51:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 32.371 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 63.05 Mbit/s
95th percentile per-packet one-way delay: 32.411 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 36.39 Mbit/s
95th percentile per-packet one-way delay: 30.925 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 30.66 Mbit/s
95th percentile per-packet one-way delay: 32.624 ms
Loss rate: 0.11%
Run 7: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 63.13 Mbps)
  - Flow 1 egress (mean 63.05 Mbps)
  - Flow 2 ingress (mean 36.41 Mbps)
  - Flow 2 egress (mean 36.39 Mbps)
  - Flow 3 ingress (mean 30.69 Mbps)
  - Flow 3 egress (mean 30.66 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 32.41 ms)
  - Flow 2 (95th percentile 30.93 ms)
  - Flow 3 (95th percentile 32.62 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-04-24 22:38:05
Local clock offset: -5.379 ms
Remote clock offset: -4.458 ms

# Below is generated by plot.py at 2018-04-24 23:51:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 32.815 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 59.46 Mbit/s
95th percentile per-packet one-way delay: 32.559 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 42.31 Mbit/s
95th percentile per-packet one-way delay: 32.858 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 29.57 Mbit/s
95th percentile per-packet one-way delay: 33.095 ms
Loss rate: 0.03%
Run 8: Report of TCP Cubic — Data Link

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

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

- Flow 1 ingress (mean 59.53 Mbit/s)
- Flow 1 egress (mean 59.46 Mbit/s)
- Flow 2 ingress (mean 42.35 Mbit/s)
- Flow 2 egress (mean 42.31 Mbit/s)
- Flow 3 ingress (mean 29.58 Mbit/s)
- Flow 3 egress (mean 29.57 Mbit/s)

- Flow 1 (95th percentile 32.56 ms)
- Flow 2 (95th percentile 32.86 ms)
- Flow 3 (95th percentile 33.09 ms)
Run 9: Statistics of TCP Cubic

Local clock offset: -4.207 ms
Remote clock offset: -6.322 ms

# Below is generated by plot.py at 2018-04-24 23:51:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 72.31 Mbit/s
  95th percentile per-packet one-way delay: 31.523 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 9.49 Mbit/s
  95th percentile per-packet one-way delay: 30.239 ms
  Loss rate: 1.88%
-- Flow 2:
  Average throughput: 75.81 Mbit/s
  95th percentile per-packet one-way delay: 31.732 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 37.12 Mbit/s
  95th percentile per-packet one-way delay: 30.241 ms
  Loss rate: 0.09%
Run 9: Report of TCP Cubic — Data Link

![Graph showing throughput and per-packet one-way delay](image-url)
Run 10: Statistics of TCP Cubic

Local clock offset: -4.807 ms
Remote clock offset: -6.668 ms

# Below is generated by plot.py at 2018-04-24 23:51:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.51 Mbit/s
95th percentile per-packet one-way delay: 31.471 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 63.48 Mbit/s
95th percentile per-packet one-way delay: 31.149 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 33.84 Mbit/s
95th percentile per-packet one-way delay: 31.216 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 34.72 Mbit/s
95th percentile per-packet one-way delay: 32.709 ms
Loss rate: 0.07%
Run 10: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 63.55 Mbps)
- Flow 1 egress (mean 63.48 Mbps)
- Flow 2 ingress (mean 33.86 Mbps)
- Flow 2 egress (mean 33.84 Mbps)
- Flow 3 ingress (mean 34.75 Mbps)
- Flow 3 egress (mean 34.72 Mbps)

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

- Flow 1 (95th percentile 31.15 ms)
- Flow 2 (95th percentile 31.22 ms)
- Flow 3 (95th percentile 32.71 ms)
Run 1: Statistics of LEDBAT

End at: 2018-04-24 20:23:05
Local clock offset: -5.067 ms
Remote clock offset: -7.661 ms

# Below is generated by plot.py at 2018-04-24 23:51:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.19 Mbit/s
95th percentile per-packet one-way delay: 31.514 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 57.36 Mbit/s
95th percentile per-packet one-way delay: 30.732 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 42.81 Mbit/s
95th percentile per-packet one-way delay: 32.211 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 34.20 Mbit/s
95th percentile per-packet one-way delay: 32.217 ms
Loss rate: 0.06%
Run 1: Report of LEDBAT — Data Link

---

### Graph 1: Throughput (Mbps)

- **Flow 1 ingress (mean 57.44 Mbps)**
- **Flow 1 egress (mean 57.36 Mbps)**
- **Flow 2 ingress (mean 42.82 Mbps)**
- **Flow 2 egress (mean 42.81 Mbps)**
- **Flow 3 ingress (mean 34.24 Mbps)**
- **Flow 3 egress (mean 34.20 Mbps)**

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

- **Flow 1 (95th percentile 30.73 ms)**
- **Flow 2 (95th percentile 32.21 ms)**
- **Flow 3 (95th percentile 32.22 ms)**

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Run 2: Statistics of LEDBAT

Local clock offset: -4.918 ms
Remote clock offset: -8.088 ms

# Below is generated by plot.py at 2018-04-24 23:51:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.32 Mbit/s
95th percentile per-packet one-way delay: 31.812 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 58.98 Mbit/s
95th percentile per-packet one-way delay: 32.145 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 30.672 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 29.98 Mbit/s
95th percentile per-packet one-way delay: 30.866 ms
Loss rate: 0.12%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-04-24 21:01:00
End at: 2018-04-24 21:01:30
Local clock offset: -4.273 ms
Remote clock offset: -6.49 ms

# Below is generated by plot.py at 2018-04-24 23:51:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.29 Mbit/s
95th percentile per-packet one-way delay: 31.341 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 62.44 Mbit/s
95th percentile per-packet one-way delay: 31.350 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 44.22 Mbit/s
95th percentile per-packet one-way delay: 31.369 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 16.36 Mbit/s
95th percentile per-packet one-way delay: 30.068 ms
Loss rate: 0.53%
Run 3: Report of LEDBAT — Data Link

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

- **Flow 1 ingress (mean 62.52 Mbps)**
- **Flow 1 egress (mean 62.44 Mbps)**
- **Flow 2 ingress (mean 44.26 Mbps)**
- **Flow 2 egress (mean 44.22 Mbps)**
- **Flow 3 ingress (mean 16.45 Mbps)**
- **Flow 3 egress (mean 16.36 Mbps)**

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

- **Flow 1 (95th percentile 31.35 ms)**
- **Flow 2 (95th percentile 31.37 ms)**
- **Flow 3 (95th percentile 30.07 ms)**
Run 4: Statistics of LEDBAT

End at: 2018-04-24 21:20:42
Local clock offset: -4.796 ms
Remote clock offset: -5.01 ms

# Below is generated by plot.py at 2018-04-24 23:51:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.38 Mbit/s
  95th percentile per-packet one-way delay: 31.339 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 61.37 Mbit/s
  95th percentile per-packet one-way delay: 30.636 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 38.02 Mbit/s
  95th percentile per-packet one-way delay: 32.103 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 32.37 Mbit/s
  95th percentile per-packet one-way delay: 32.113 ms
  Loss rate: 0.05%
Run 4: Report of LEDBAT — Data Link

![Graph showing throughput over time for different flows](image1.png)

![Graph showing per-packet round-trip time for different flows](image2.png)
Run 5: Statistics of LEDBAT

Local clock offset: -4.868 ms
Remote clock offset: -4.795 ms

# Below is generated by plot.py at 2018-04-24 23:52:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.40 Mbit/s
95th percentile per-packet one-way delay: 30.810 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 62.09 Mbit/s
95th percentile per-packet one-way delay: 30.776 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.26 Mbit/s
95th percentile per-packet one-way delay: 30.831 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 33.21 Mbit/s
95th percentile per-packet one-way delay: 30.853 ms
Loss rate: 0.09%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

End at: 2018-04-24 21:59:02
Local clock offset: -5.988 ms
Remote clock offset: -4.441 ms

# Below is generated by plot.py at 2018-04-24 23:52:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.17 Mbit/s
95th percentile per-packet one-way delay: 32.921 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 60.94 Mbit/s
95th percentile per-packet one-way delay: 32.932 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.57 Mbit/s
95th percentile per-packet one-way delay: 32.957 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 27.84 Mbit/s
95th percentile per-packet one-way delay: 31.661 ms
Loss rate: 0.20%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Local clock offset: -4.509 ms
Remote clock offset: -4.086 ms

# Below is generated by plot.py at 2018-04-24 23:53:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 30.121 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 63.08 Mbit/s
95th percentile per-packet one-way delay: 30.085 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 35.50 Mbit/s
95th percentile per-packet one-way delay: 30.142 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 32.15 Mbit/s
95th percentile per-packet one-way delay: 30.145 ms
Loss rate: 0.12%
Run 7: Report of LEDBAT — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows]
Run 8: Statistics of LEDBAT

Start at: 2018-04-24 22:36:56
Local clock offset: -4.559 ms
Remote clock offset: -4.169 ms

# Below is generated by plot.py at 2018-04-24 23:53:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 30.950 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 57.46 Mbit/s
95th percentile per-packet one-way delay: 30.027 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 41.57 Mbit/s
95th percentile per-packet one-way delay: 31.488 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 36.89 Mbit/s
95th percentile per-packet one-way delay: 31.532 ms
Loss rate: 0.07%
Run 8: Report of LEDBAT — Data Link

![Graph of throughput and packet loss](image-url)
Run 9: Statistics of LEDBAT

Local clock offset: -5.043 ms
Remote clock offset: -6.267 ms

# Below is generated by plot.py at 2018-04-24 23:53:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.30 Mbit/s
95th percentile per-packet one-way delay: 32.270 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 63.26 Mbit/s
95th percentile per-packet one-way delay: 32.295 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.27 Mbit/s
95th percentile per-packet one-way delay: 32.280 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 23.80 Mbit/s
95th percentile per-packet one-way delay: 31.021 ms
Loss rate: 0.26%
Run 9: Report of LEDBAT — Data Link

[Graph showing throughput and per-packet end-to-end delay over time for three different flows, each with different ingress and egress rates and delays.]

- Flow 1 ingress (mean 63.34 Mbit/s)
- Flow 1 egress (mean 63.26 Mbit/s)
- Flow 2 ingress (mean 39.31 Mbit/s)
- Flow 2 egress (mean 39.27 Mbit/s)
- Flow 3 ingress (mean 23.88 Mbit/s)
- Flow 3 egress (mean 23.80 Mbit/s)
Run 10: Statistics of LEDBAT

End at: 2018-04-24 23:15:49
Local clock offset: -4.811 ms
Remote clock offset: -6.674 ms

# Below is generated by plot.py at 2018-04-24 23:53:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.32 Mbit/s
  95th percentile per-packet one-way delay: 32.172 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 62.19 Mbit/s
  95th percentile per-packet one-way delay: 32.189 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 37.64 Mbit/s
  95th percentile per-packet one-way delay: 32.259 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 30.48 Mbit/s
  95th percentile per-packet one-way delay: 30.841 ms
  Loss rate: 0.10%
Run 10: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 62.25 Mbps)
- Flow 1 egress (mean 62.19 Mbps)
- Flow 2 ingress (mean 37.66 Mbps)
- Flow 2 egress (mean 37.64 Mbps)
- Flow 3 ingress (mean 30.51 Mbps)
- Flow 3 egress (mean 30.48 Mbps)

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

- Flow 1 (95th percentile 32.19 ms)
- Flow 2 (95th percentile 32.26 ms)
- Flow 3 (95th percentile 30.84 ms)
Run 1: Statistics of PCC-Allegro

Local clock offset: -4.24 ms
Remote clock offset: -7.699 ms

# Below is generated by plot.py at 2018-04-24 23:53:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.57 Mbit/s
95th percentile per-packet one-way delay: 12.436 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 37.21 Mbit/s
95th percentile per-packet one-way delay: 10.328 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.17 Mbit/s
95th percentile per-packet one-way delay: 13.833 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 16.817 ms
Loss rate: 0.00%
Run 1: Report of PCC-Allegro — Data Link

![Throughput Graph](image1)

![Per Packet One-Way Delay Graph](image2)

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Run 2: Statistics of PCC-Allegro

End at: 2018-04-24 20:41:11
Local clock offset: -5.733 ms
Remote clock offset: -8.073 ms

# Below is generated by plot.py at 2018-04-24 23:53:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.64 Mbit/s
95th percentile per-packet one-way delay: 13.114 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.10 Mbit/s
95th percentile per-packet one-way delay: 9.766 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.41 Mbit/s
95th percentile per-packet one-way delay: 16.220 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.13 Mbit/s
95th percentile per-packet one-way delay: 13.740 ms
Loss rate: 0.00%
Run 2: Report of PCC-Allegro — Data Link

![Graph showing data link throughput and delay](image)

- Flow 1 ingress (mean 55.10 Mbit/s)
- Flow 1 egress (mean 55.10 Mbit/s)
- Flow 2 ingress (mean 32.41 Mbit/s)
- Flow 2 egress (mean 32.41 Mbit/s)
- Flow 3 ingress (mean 12.13 Mbit/s)
- Flow 3 egress (mean 12.13 Mbit/s)
Run 3: Statistics of PCC-Allegro

End at: 2018-04-24 21:00:23
Local clock offset: -5.105 ms
Remote clock offset: -6.69 ms

# Below is generated by plot.py at 2018-04-24 23:53:52
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 80.23 Mbit/s
 95th percentile per-packet one-way delay: 22.495 ms
 Loss rate: 0.00%
-- Flow 1:
 Average throughput: 58.23 Mbit/s
 95th percentile per-packet one-way delay: 19.529 ms
 Loss rate: 0.00%
-- Flow 2:
 Average throughput: 28.94 Mbit/s
 95th percentile per-packet one-way delay: 26.256 ms
 Loss rate: 0.00%
-- Flow 3:
 Average throughput: 8.39 Mbit/s
 95th percentile per-packet one-way delay: 23.095 ms
 Loss rate: 0.00%
Run 3: Report of PCC-Allegro — Data Link

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

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Flow 1 ing (mean 58.25 Mbit/s)
Flow 1 egress (mean 58.23 Mbit/s)
Flow 2 ing (mean 26.94 Mbit/s)
Flow 2 egress (mean 26.94 Mbit/s)
Flow 3 ing (mean 8.39 Mbit/s)
Flow 3 egress (mean 8.39 Mbit/s)

Flow 1 (95th percentile 19.53 ms)
Flow 2 (95th percentile 26.26 ms)
Flow 3 (95th percentile 23.09 ms)
Run 4: Statistics of PCC-Allegro

Start at: 2018-04-24 21:19:05
Local clock offset: -4.859 ms
Remote clock offset: -5.105 ms

# Below is generated by plot.py at 2018-04-24 23:54:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.24 Mbit/s
95th percentile per-packet one-way delay: 23.778 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 59.31 Mbit/s
95th percentile per-packet one-way delay: 17.276 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 21.55 Mbit/s
95th percentile per-packet one-way delay: 29.437 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 23.08 Mbit/s
95th percentile per-packet one-way delay: 30.856 ms
Loss rate: 0.01%
Run 4: Report of PCC-Allegro — Data Link
Run 5: Statistics of PCC-Allegro

Local clock offset: -5.635 ms
Remote clock offset: -4.75 ms

# Below is generated by plot.py at 2018-04-24 23:54:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.86 Mbit/s
95th percentile per-packet one-way delay: 24.480 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 43.35 Mbit/s
95th percentile per-packet one-way delay: 23.864 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 41.39 Mbit/s
95th percentile per-packet one-way delay: 25.909 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 6.01 Mbit/s
95th percentile per-packet one-way delay: 17.370 ms
Loss rate: 0.73%
Run 5: Report of PCC-Allegro — Data Link

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**Throughput**

- **Flow 1 ingress (mean 43.43 Mbit/s)**
- **Flow 1 egress (mean 43.35 Mbit/s)**
- **Flow 2 ingress (mean 41.49 Mbit/s)**
- **Flow 2 egress (mean 41.39 Mbit/s)**
- **Flow 3 ingress (mean 6.05 Mbit/s)**
- **Flow 3 egress (mean 6.01 Mbit/s)**

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

- **Flow 1 (95th percentile 23.86 ms)**
- **Flow 2 (95th percentile 25.91 ms)**
- **Flow 3 (95th percentile 17.37 ms)**

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Run 6: Statistics of PCC-Allegro

End at: 2018-04-24 21:57:56
Local clock offset: -5.954 ms
Remote clock offset: -4.514 ms

# Below is generated by plot.py at 2018-04-24 23:54:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 75.76 Mbit/s
  95th percentile per-packet one-way delay: 32.455 ms
  Loss rate: 0.95%
-- Flow 1:
  Average throughput: 48.26 Mbit/s
  95th percentile per-packet one-way delay: 33.635 ms
  Loss rate: 0.68%
-- Flow 2:
  Average throughput: 31.10 Mbit/s
  95th percentile per-packet one-way delay: 32.348 ms
  Loss rate: 1.12%
-- Flow 3:
  Average throughput: 20.68 Mbit/s
  95th percentile per-packet one-way delay: 33.915 ms
  Loss rate: 2.26%
Run 6: Report of PCC-Allegro — Data Link

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

- **Throughput**
  - Flow 1 ingress (mean 48.60 Mbit/s)
  - Flow 1 egress (mean 48.26 Mbit/s)
  - Flow 2 ingress (mean 31.45 Mbit/s)
  - Flow 2 egress (mean 31.10 Mbit/s)
  - Flow 3 ingress (mean 21.12 Mbit/s)
  - Flow 3 egress (mean 20.68 Mbit/s)

- **Packet One-Way Delay**
  - Flow 1 (95th percentile 33.63 ms)
  - Flow 2 (95th percentile 32.35 ms)
  - Flow 3 (95th percentile 33.91 ms)
Run 7: Statistics of PCC-Allegro

End at: 2018-04-24 22:17:07
Local clock offset: -5.281 ms
Remote clock offset: -4.096 ms

# Below is generated by plot.py at 2018-04-24 23:54:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.88 Mbit/s
95th percentile per-packet one-way delay: 32.980 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 57.05 Mbit/s
95th percentile per-packet one-way delay: 31.671 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 33.25 Mbit/s
95th percentile per-packet one-way delay: 33.277 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 5.28 Mbit/s
95th percentile per-packet one-way delay: 33.118 ms
Loss rate: 1.11%
Run 7: Report of PCC-Allegro — Data Link

![Graph of data link throughput and per-packet one-way delay over time.](image-url)
Run 8: Statistics of PCC-Allegro

Start at: 2018-04-24 22:35:49
End at: 2018-04-24 22:36:19
Local clock offset: -5.312 ms
Remote clock offset: -3.811 ms

# Below is generated by plot.py at 2018-04-24 23:54:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.20 Mbit/s
95th percentile per-packet one-way delay: 2.941 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.14 Mbit/s
95th percentile per-packet one-way delay: 2.945 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 3.060 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 1.736 ms
Loss rate: 0.00%
Run 8: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 77.16 Mbit/s)
- Flow 1 egress (mean 77.14 Mbit/s)
- Flow 2 ingress (mean 6.45 Mbit/s)
- Flow 2 egress (mean 6.45 Mbit/s)
- Flow 3 ingress (mean 5.37 Mbit/s)
- Flow 3 egress (mean 5.37 Mbit/s)

[Graph showing packet interarrival time with 95th percentile values for each flow.]
Run 9: Statistics of PCC-Allegro

Local clock offset: -4.984 ms
Remote clock offset: -6.234 ms

# Below is generated by plot.py at 2018-04-24 23:54:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.06 Mbit/s
95th percentile per-packet one-way delay: 10.049 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 52.13 Mbit/s
95th percentile per-packet one-way delay: 7.614 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 38.67 Mbit/s
95th percentile per-packet one-way delay: 11.932 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 13.844 ms
Loss rate: 0.00%
Run 9: Report of PCC-Allegro — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 53.15 Mbit/s)
Flow 2 ingress (mean 38.68 Mbit/s)
Flow 3 ingress (mean 3.71 Mbit/s)
Flow 1 egress (mean 52.13 Mbit/s)
Flow 2 egress (mean 36.67 Mbit/s)
Flow 3 egress (mean 3.71 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 7.61 ms)
Flow 2 (95th percentile 11.93 ms)
Flow 3 (95th percentile 13.84 ms)
Run 10: Statistics of PCC-Allegro

End at: 2018-04-24 23:14:42
Local clock offset: -4.802 ms
Remote clock offset: -6.624 ms

# Below is generated by plot.py at 2018-04-24 23:54:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.82 Mbit/s
95th percentile per-packet one-way delay: 8.724 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.27 Mbit/s
95th percentile per-packet one-way delay: 3.523 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.00 Mbit/s
95th percentile per-packet one-way delay: 9.847 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.06 Mbit/s
95th percentile per-packet one-way delay: 13.065 ms
Loss rate: 0.00%
Run 10: Report of PCC-Allegro — Data Link

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

**Throughput (Mbps)**
- Flow 1 ingress (mean 43.27 Mbps)
- Flow 1 egress (mean 43.27 Mbps)
- Flow 2 ingress (mean 39.00 Mbps)
- Flow 2 egress (mean 39.00 Mbps)
- Flow 3 ingress (mean 17.06 Mbps)
- Flow 3 egress (mean 17.06 Mbps)

**Per-packet one-way delay (ms)**
- Flow 1 (95th percentile 3.52 ms)
- Flow 2 (95th percentile 9.85 ms)
- Flow 3 (95th percentile 13.06 ms)
Run 1: Statistics of QUIC Cubic

End at: 2018-04-24 20:16:23
Local clock offset: -4.938 ms
Remote clock offset: -7.5 ms

# Below is generated by plot.py at 2018-04-24 23:55:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.22 Mbit/s
  95th percentile per-packet one-way delay: 30.863 ms
  Loss rate: 0.16%
-- Flow 1:
  Average throughput: 57.11 Mbit/s
  95th percentile per-packet one-way delay: 29.620 ms
  Loss rate: 0.13%
-- Flow 2:
  Average throughput: 36.78 Mbit/s
  95th percentile per-packet one-way delay: 31.382 ms
  Loss rate: 0.21%
-- Flow 3:
  Average throughput: 26.64 Mbit/s
  95th percentile per-packet one-way delay: 29.939 ms
  Loss rate: 0.24%
Run 1: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet delay over time for three flows.](image-url)
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-24 20:35:05
End at: 2018-04-24 20:35:35
Local clock offset: -4.226 ms
Remote clock offset: -7.954 ms

# Below is generated by plot.py at 2018-04-24 23:55:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.80 Mbit/s
95th percentile per-packet one-way delay: 30.590 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 56.04 Mbit/s
95th percentile per-packet one-way delay: 30.502 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 37.96 Mbit/s
95th percentile per-packet one-way delay: 30.656 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 29.37 Mbit/s
95th percentile per-packet one-way delay: 30.643 ms
Loss rate: 0.21%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-04-24 20:54:18
End at: 2018-04-24 20:54:48
Local clock offset: -5.815 ms
Remote clock offset: -7.981 ms

# Below is generated by plot.py at 2018-04-24 23:55:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.65 Mbit/s
95th percentile per-packet one-way delay: 30.702 ms
Loss rate: 0.42%

-- Flow 1:
Average throughput: 69.01 Mbit/s
95th percentile per-packet one-way delay: 29.597 ms
Loss rate: 0.21%

-- Flow 2:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 30.937 ms
Loss rate: 1.99%

-- Flow 3:
Average throughput: 39.49 Mbit/s
95th percentile per-packet one-way delay: 31.945 ms
Loss rate: 0.43%
Run 3: Report of QUIC Cubic — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image2)
Run 4: Statistics of QUIC Cubic

End at: 2018-04-24 21:14:00
Local clock offset: -4.928 ms
Remote clock offset: -5.321 ms

# Below is generated by plot.py at 2018-04-24 23:55:42
# Datalink statistics

-- Total of 3 flows:
Average throughput: 92.29 Mbit/s
95th percentile per-packet one-way delay: 30.886 ms
Loss rate: 0.21%

-- Flow 1:
Average throughput: 57.48 Mbit/s
95th percentile per-packet one-way delay: 29.763 ms
Loss rate: 0.18%

-- Flow 2:
Average throughput: 38.90 Mbit/s
95th percentile per-packet one-way delay: 31.310 ms
Loss rate: 0.28%

-- Flow 3:
Average throughput: 27.62 Mbit/s
95th percentile per-packet one-way delay: 29.881 ms
Loss rate: 0.22%
Run 4: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 57.64 Mbps)
- Flow 1 egress (mean 57.48 Mbps)
- Flow 2 ingress (mean 39.09 Mbps)
- Flow 2 egress (mean 38.90 Mbps)
- Flow 3 ingress (mean 27.69 Mbps)
- Flow 3 egress (mean 27.62 Mbps)

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

- Flow 1 (95th percentile 29.76 ms)
- Flow 2 (95th percentile 31.31 ms)
- Flow 3 (95th percentile 29.88 ms)

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Run 5: Statistics of QUIC Cubic

End at: 2018-04-24 21:33:12
Local clock offset: -5.658 ms
Remote clock offset: -4.806 ms

# Below is generated by plot.py at 2018-04-24 23:55:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.59 Mbit/s
  95th percentile per-packet one-way delay: 31.718 ms
  Loss rate: 0.20%
-- Flow 1:
  Average throughput: 55.14 Mbit/s
  95th percentile per-packet one-way delay: 31.935 ms
  Loss rate: 0.18%
-- Flow 2:
  Average throughput: 38.70 Mbit/s
  95th percentile per-packet one-way delay: 30.667 ms
  Loss rate: 0.27%
-- Flow 3:
  Average throughput: 30.02 Mbit/s
  95th percentile per-packet one-way delay: 30.789 ms
  Loss rate: 0.14%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Local clock offset: -4.377 ms
Remote clock offset: -4.559 ms

# Below is generated by plot.py at 2018-04-24 23:56:02
# Datalink statistics
  -- Total of 3 flows:
    95th percentile per-packet one-way delay: 30.522 ms
    Loss rate: 0.20%
  -- Flow 1:
    Average throughput: 58.09 Mbit/s
    95th percentile per-packet one-way delay: 30.515 ms
    Loss rate: 0.13%
  -- Flow 2:
    Average throughput: 33.21 Mbit/s
    95th percentile per-packet one-way delay: 30.597 ms
    Loss rate: 0.29%
  -- Flow 3:
    Average throughput: 30.50 Mbit/s
    95th percentile per-packet one-way delay: 29.120 ms
    Loss rate: 0.41%
Run 6: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 58.22 Mbit/s)
- Flow 1 egress (mean 58.09 Mbit/s)
- Flow 2 ingress (mean 33.35 Mbit/s)
- Flow 2 egress (mean 33.21 Mbit/s)
- Flow 3 ingress (mean 30.62 Mbit/s)
- Flow 3 egress (mean 30.50 Mbit/s)

![Graph of Per-packet round trip delay in ms over Time (s)]

- Flow 1 (95th percentile 30.52 ms)
- Flow 2 (95th percentile 30.60 ms)
- Flow 3 (95th percentile 29.12 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-24 22:11:02
Local clock offset: -5.28 ms
Remote clock offset: -4.221 ms

# Below is generated by plot.py at 2018-04-24 23:56:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.45 Mbit/s
95th percentile per-packet one-way delay: 31.103 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 58.42 Mbit/s
95th percentile per-packet one-way delay: 31.153 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 34.55 Mbit/s
95th percentile per-packet one-way delay: 29.844 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 30.98 Mbit/s
95th percentile per-packet one-way delay: 31.297 ms
Loss rate: 0.21%
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

End at: 2018-04-24 22:30:43  
Local clock offset: -4.531 ms  
Remote clock offset: -3.813 ms

# Below is generated by plot.py at 2018-04-24 23:56:06
# Datalink statistics

-- Total of 3 flows:  
Average throughput: 92.44 Mbit/s  
95th percentile per-packet one-way delay: 29.123 ms  
Loss rate: 0.13%  

-- Flow 1:  
Average throughput: 58.38 Mbit/s  
95th percentile per-packet one-way delay: 29.084 ms  
Loss rate: 0.10%  

-- Flow 2:  
Average throughput: 35.58 Mbit/s  
95th percentile per-packet one-way delay: 29.146 ms  
Loss rate: 0.20%  

-- Flow 3:  
Average throughput: 32.05 Mbit/s  
95th percentile per-packet one-way delay: 29.204 ms  
Loss rate: 0.14%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Local clock offset: -5.255 ms
Remote clock offset: -5.895 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.36 Mbit/s
95th percentile per-packet one-way delay: 31.441 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 59.87 Mbit/s
95th percentile per-packet one-way delay: 31.413 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 34.54 Mbit/s
95th percentile per-packet one-way delay: 31.518 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 29.35 Mbit/s
95th percentile per-packet one-way delay: 30.121 ms
Loss rate: 0.22%
Run 9: Report of QUIC Cubic — Data Link

![Graphs showing throughput and per-packet round-trip delay](image_url)

- **Throughput (MBit/s)**
  - Flow 1 ingress (mean 60.00 MBit/s)
  - Flow 1 egress (mean 59.87 MBit/s)
  - Flow 2 ingress (mean 34.68 MBit/s)
  - Flow 2 egress (mean 34.54 MBit/s)
  - Flow 3 ingress (mean 29.40 MBit/s)
  - Flow 3 egress (mean 29.35 MBit/s)

- **Per-packet round-trip delay (ms)**
  - Flow 1 (95th percentile 31.41 ms)
  - Flow 2 (95th percentile 31.52 ms)
  - Flow 3 (95th percentile 30.12 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-24 23:08:37
End at: 2018-04-24 23:09:07
Local clock offset: -4.812 ms
Remote clock offset: -6.701 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.68 Mbit/s
  95th percentile per-packet one-way delay: 30.775 ms
  Loss rate: 0.20%
-- Flow 1:
  Average throughput: 54.12 Mbit/s
  95th percentile per-packet one-way delay: 29.614 ms
  Loss rate: 0.18%
-- Flow 2:
  Average throughput: 39.50 Mbit/s
  95th percentile per-packet one-way delay: 31.314 ms
  Loss rate: 0.24%
-- Flow 3:
  Average throughput: 28.52 Mbit/s
  95th percentile per-packet one-way delay: 29.794 ms
  Loss rate: 0.20%
Run 10: Report of QUIC Cubic — Data Link

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

![Graph 2: Per-packet round-trip delay vs Time](image2)
Run 1: Statistics of SCReAM

Start at: 2018-04-24 20:19:16
End at: 2018-04-24 20:19:46
Local clock offset: -5.051 ms
Remote clock offset: -7.584 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.406 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.902 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.903 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.423 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

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

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

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Run 2: Statistics of SCReAM

Start at: 2018-04-24 20:38:29
End at: 2018-04-24 20:38:59
Local clock offset: -5.029 ms
Remote clock offset: -8.032 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 2.430 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.435 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 0.984 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 0.994 ms
  Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

End at: 2018-04-24 20:58:11
Local clock offset: -4.984 ms
Remote clock offset: -7.108 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 2.231 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.242 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.206 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.201 ms
  Loss rate: 0.00%
Run 4: Statistics of SCReAM

Local clock offset: -5.665 ms
Remote clock offset: -5.222 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 3.064 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.565 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.586 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.093 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

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

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

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 1.56 ms)
  - Flow 2 (95th percentile 1.59 ms)
  - Flow 3 (95th percentile 3.09 ms)
Run 5: Statistics of SCReAM

Start at: 2018-04-24 21:36:05
End at: 2018-04-24 21:36:35
Local clock offset: -4.838 ms
Remote clock offset: -4.776 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.353 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.355 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.835 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 6: Statistics of SCReAM

Local clock offset: -5.899 ms
Remote clock offset: -4.504 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 3.063 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.066 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.060 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 1.560 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

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

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

- Per-packet one-way delay (ms):
  - Flow 1 (95th percentile 3.07 ms)
  - Flow 2 (95th percentile 3.06 ms)
  - Flow 3 (95th percentile 1.56 ms)
Run 7: Statistics of SCReAM

Local clock offset: -5.265 ms
Remote clock offset: -4.167 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.309 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.306 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.317 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.874 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

![Throughput Graph]

![Latency Graph]
Run 8: Statistics of SCReAM

End at: 2018-04-24 22:34:07
Local clock offset: -6.032 ms
Remote clock offset: -3.769 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 3.081 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.076 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.077 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.093 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

![Graph of Throughput (Mbps) over time for different flows and directions.]

![Graph of Per-packet one-way delay (ms) over time for different flows.]

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

Flow 1 (95th percentile 3.08 ms) • Flow 2 (95th percentile 3.08 ms) • Flow 3 (95th percentile 3.09 ms)
Run 9: Statistics of SCReAM

Local clock offset: -5.881 ms
Remote clock offset: -6.168 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.700 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.642 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.712 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.718 ms
Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-04-24 23:12:00
End at: 2018-04-24 23:12:30
Local clock offset: -4.068 ms
Remote clock offset: -6.702 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 1.584 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 1.587 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 1.581 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 1.589 ms
  Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

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**Figure 1:** Throughput (Mbps) over time for different flows.

**Figure 2:** Per-packet one-way delay (ms) over time for different flows.

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Run 1: Statistics of WebRTC media

End at: 2018-04-24 20:26:29
Local clock offset: -5.104 ms
Remote clock offset: -7.75 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 4.741 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 4.595 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 4.625 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 5.072 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 0.11 Mbit/s)
- Flow 1 egress (mean 0.11 Mbit/s)
- Flow 2 ingress (mean 0.11 Mbit/s)
- Flow 2 egress (mean 0.11 Mbit/s)
- Flow 3 ingress (mean 0.10 Mbit/s)
- Flow 3 egress (mean 0.10 Mbit/s)

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

- Flow 1 (95th percentile 4.59 ms)
- Flow 2 (95th percentile 4.62 ms)
- Flow 3 (95th percentile 5.07 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-04-24 20:45:11
End at: 2018-04-24 20:45:41
Local clock offset: -5.747 ms
Remote clock offset: -8.139 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 5.398 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 5.385 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 5.142 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 5.700 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

Graph 1: Throughput (Mbps) over time
- Flow 1 ingress (mean 0.11 Mbps)
- Flow 1 egress (mean 0.11 Mbps)
- Flow 2 ingress (mean 0.11 Mbps)
- Flow 2 egress (mean 0.11 Mbps)
- Flow 3 ingress (mean 0.10 Mbps)
- Flow 3 egress (mean 0.10 Mbps)

Graph 2: Per-packet one-way delay (ms) over time
- Flow 1 (95th percentile 5.38 ms)
- Flow 2 (95th percentile 5.14 ms)
- Flow 3 (95th percentile 5.70 ms)
Run 3: Statistics of WebRTC media

End at: 2018-04-24 21:04:54
Local clock offset: -5.016 ms
Remote clock offset: -6.094 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 3.901 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 4.872 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 1.483 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.133 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

End at: 2018-04-24 21:24:06
Local clock offset: -5.552 ms
Remote clock offset: -4.931 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 4.255 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 3.968 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 5.253 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 3.640 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Local clock offset: -4.238 ms
Remote clock offset: -4.715 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.903 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 3.648 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.12 Mbit/s
  95th percentile per-packet one-way delay: 2.713 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 2.704 ms
  Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 0.06 Mbps)
- Flow 1 egress (mean 0.06 Mbps)
- Flow 2 ingress (mean 0.12 Mbps)
- Flow 2 egress (mean 0.12 Mbps)
- Flow 3 ingress (mean 0.05 Mbps)
- Flow 3 egress (mean 0.05 Mbps)

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

- Flow 1 (95th percentile 3.65 ms)
- Flow 2 (95th percentile 2.71 ms)
- Flow 3 (95th percentile 2.70 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-04-24 22:01:56
End at: 2018-04-24 22:02:26
Local clock offset: -5.22 ms
Remote clock offset: -4.445 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 3.925 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 4.443 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.693 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.635 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 0.11 Mbit/s)
- Flow 1 egress (mean 0.11 Mbit/s)
- Flow 2 ingress (mean 0.05 Mbit/s)
- Flow 2 egress (mean 0.05 Mbit/s)
- Flow 3 ingress (mean 0.05 Mbit/s)
- Flow 3 egress (mean 0.05 Mbit/s)
Run 7: Statistics of WebRTC media

Local clock offset: -5.346 ms
Remote clock offset: -4.075 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 4.498 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.11 Mbit/s
  95th percentile per-packet one-way delay: 4.765 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 4.498 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 3.103 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

![Graph of data link throughput](image)

![Graph of data link per-packet one-way delay](image)
Run 8: Statistics of WebRTC media

End at: 2018-04-24 22:40:50
Local clock offset: -5.387 ms
Remote clock offset: -4.932 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 3.911 ms
  Loss rate: 0.79%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 3.752 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 3.282 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.10 Mbit/s
  95th percentile per-packet one-way delay: 4.128 ms
  Loss rate: 1.61%
Run 8: Report of WebRTC media — Data Link

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

End at: 2018-04-24 23:00:00
Local clock offset: -4.914 ms
Remote clock offset: -6.482 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 3.623 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 4.183 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 3.425 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 3.474 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Local clock offset: -4.795 ms
Remote clock offset: -6.719 ms

# Below is generated by plot.py at 2018-04-24 23:57:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 3.491 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 4.165 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 3.211 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 3.445 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

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

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

- Flow 1 (95th percentile 4.17 ms)
- Flow 2 (95th percentile 3.21 ms)
- Flow 3 (95th percentile 3.44 ms)
Run 1: Statistics of Sprout

Start at: 2018-04-24 20:24:52
Local clock offset: -5.041 ms
Remote clock offset: -7.739 ms

# Below is generated by plot.py at 2018-04-24 23:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.34 Mbit/s
95th percentile per-packet one-way delay: 23.471 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.16 Mbit/s
95th percentile per-packet one-way delay: 22.159 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.47 Mbit/s
95th percentile per-packet one-way delay: 21.503 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 26.974 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-04-24 20:44:05
End at: 2018-04-24 20:44:35
Local clock offset: -5.674 ms
Remote clock offset: -8.212 ms

# Below is generated by plot.py at 2018-04-24 23:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.67 Mbit/s
95th percentile per-packet one-way delay: 24.196 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.67 Mbit/s
95th percentile per-packet one-way delay: 20.797 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.19 Mbit/s
95th percentile per-packet one-way delay: 25.232 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.10 Mbit/s
95th percentile per-packet one-way delay: 26.040 ms
Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

![Graph showing data link performance](image)

- Flow 1 ingress (mean 44.70 Mbit/s)
- Flow 1 egress (mean 44.67 Mbit/s)
- Flow 2 ingress (mean 39.21 Mbit/s)
- Flow 2 egress (mean 39.19 Mbit/s)
- Flow 3 ingress (mean 30.16 Mbit/s)
- Flow 3 egress (mean 30.10 Mbit/s)

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

- Flow 1 (95th percentile 20.80 ms)
- Flow 2 (95th percentile 25.23 ms)
- Flow 3 (95th percentile 26.04 ms)
Run 3: Statistics of Sprout

Start at: 2018-04-24 21:03:18
End at: 2018-04-24 21:03:48
Local clock offset: -5.831 ms
Remote clock offset: -6.128 ms

# Below is generated by plot.py at 2018-04-24 23:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.23 Mbit/s
95th percentile per-packet one-way delay: 24.318 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 43.94 Mbit/s
95th percentile per-packet one-way delay: 21.990 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 37.33 Mbit/s
95th percentile per-packet one-way delay: 23.732 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 28.66 Mbit/s
95th percentile per-packet one-way delay: 27.627 ms
Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 43.97 Mbps)
- Flow 1 egress (mean 43.94 Mbps)
- Flow 2 ingress (mean 37.36 Mbps)
- Flow 2 egress (mean 37.33 Mbps)
- Flow 3 ingress (mean 28.70 Mbps)
- Flow 3 egress (mean 28.66 Mbps)

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

- Flow 1 (95th percentile 21.99 ms)
- Flow 2 (95th percentile 23.73 ms)
- Flow 3 (95th percentile 27.63 ms)
Run 4: Statistics of Sprout

End at: 2018-04-24 21:23:00
Local clock offset: ~4.834 ms
Remote clock offset: ~4.914 ms

# Below is generated by plot.py at 2018-04-24 23:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.91 Mbit/s
95th percentile per-packet one-way delay: 23.421 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.35 Mbit/s
95th percentile per-packet one-way delay: 21.882 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.13 Mbit/s
95th percentile per-packet one-way delay: 23.120 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.93 Mbit/s
95th percentile per-packet one-way delay: 26.292 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

![Graph of data link throughput and per-packet end-to-end delay over time for three flows, showing their respective ingress and egress rates and percentiles.](chart.png)
Run 5: Statistics of Sprout

Start at: 2018-04-24 21:41:40
Local clock offset: -4.978 ms
Remote clock offset: -4.705 ms

# Below is generated by plot.py at 2018-04-24 23:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.43 Mbit/s
95th percentile per-packet one-way delay: 23.145 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 43.73 Mbit/s
95th percentile per-packet one-way delay: 20.593 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.76 Mbit/s
95th percentile per-packet one-way delay: 22.904 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 26.367 ms
Loss rate: 1.80%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-04-24 22:00:50
End at: 2018-04-24 22:01:20
Local clock offset: -5.218 ms
Remote clock offset: -4.396 ms

# Below is generated by plot.py at 2018-04-24 23:57:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.34 Mbit/s
  95th percentile per-packet one-way delay: 23.293 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 41.88 Mbit/s
  95th percentile per-packet one-way delay: 21.943 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 38.82 Mbit/s
  95th percentile per-packet one-way delay: 23.395 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 32.21 Mbit/s
  95th percentile per-packet one-way delay: 25.353 ms
  Loss rate: 0.00%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

Start at: 2018-04-24 22:20:02
Local clock offset: -5.348 ms
Remote clock offset: -4.045 ms

# Below is generated by plot.py at 2018-04-24 23:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.33 Mbit/s
95th percentile per-packet one-way delay: 22.166 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 43.24 Mbit/s
95th percentile per-packet one-way delay: 20.206 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.24 Mbit/s
95th percentile per-packet one-way delay: 22.053 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 27.23 Mbit/s
95th percentile per-packet one-way delay: 25.475 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

![Throughput Graph]

![Per-packet round-trip delay Graph]
Run 8: Statistics of Sprout

Local clock offset: -6.113 ms
Remote clock offset: -4.617 ms

# Below is generated by plot.py at 2018-04-24 23:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.10 Mbit/s
95th percentile per-packet one-way delay: 24.434 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 43.68 Mbit/s
95th percentile per-packet one-way delay: 21.542 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.03 Mbit/s
95th percentile per-packet one-way delay: 24.578 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 29.66 Mbit/s
95th percentile per-packet one-way delay: 27.621 ms
Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

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

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

Flow 1 ingress (mean 43.71 Mbps)  
Flow 2 ingress (mean 37.07 Mbps)  
Flow 3 ingress (mean 29.70 Mbps)  
Flow 1 egress (mean 43.68 Mbps)  
Flow 2 egress (mean 37.03 Mbps)  
Flow 3 egress (mean 29.66 Mbps)  

Flow 1 (95th percentile 21.54 ms)  
Flow 2 (95th percentile 24.38 ms)  
Flow 3 (95th percentile 27.62 ms)
Run 9: Statistics of Sprout

End at: 2018-04-24 22:58:54
Local clock offset: -5.002 ms
Remote clock offset: -6.358 ms

# Below is generated by plot.py at 2018-04-24 23:58:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.96 Mbit/s
95th percentile per-packet one-way delay: 23.516 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.60 Mbit/s
95th percentile per-packet one-way delay: 21.479 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.70 Mbit/s
95th percentile per-packet one-way delay: 23.700 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.01 Mbit/s
95th percentile per-packet one-way delay: 26.629 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 42.63 Mbit/s)
- Flow 1 egress (mean 42.60 Mbit/s)
- Flow 2 ingress (mean 38.75 Mbit/s)
- Flow 2 egress (mean 38.70 Mbit/s)
- Flow 3 ingress (mean 29.05 Mbit/s)
- Flow 3 egress (mean 29.01 Mbit/s)

- Flow 1 (95th percentile 21.48 ms)
- Flow 2 (95th percentile 23.70 ms)
- Flow 3 (95th percentile 26.63 ms)
Run 10: Statistics of Sprout

End at: 2018-04-24 23:18:07
Local clock offset: -4.746 ms
Remote clock offset: -6.665 ms

# Below is generated by plot.py at 2018-04-24 23:58:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.82 Mbit/s
95th percentile per-packet one-way delay: 23.499 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.65 Mbit/s
95th percentile per-packet one-way delay: 23.756 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.23 Mbit/s
95th percentile per-packet one-way delay: 22.321 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.55 Mbit/s
95th percentile per-packet one-way delay: 24.551 ms
Loss rate: 0.00%
Run 1: Statistics of TaoVA-100x

Start at: 2018-04-24 20:11:18
End at: 2018-04-24 20:11:48
Local clock offset: -4.97 ms
Remote clock offset: -7.382 ms

# Below is generated by plot.py at 2018-04-24 23:59:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.93 Mbit/s
95th percentile per-packet one-way delay: 6.365 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 49.51 Mbit/s
95th percentile per-packet one-way delay: 6.907 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 27.66 Mbit/s
95th percentile per-packet one-way delay: 5.893 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 60.23 Mbit/s
95th percentile per-packet one-way delay: 2.501 ms
Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

Throughput (Mbps) vs. Time (s)

- Flow 1 ingress (mean 49.53 Mbps)
- Flow 1 egress (mean 49.51 Mbps)
- Flow 2 ingress (mean 27.67 Mbps)
- Flow 2 egress (mean 27.66 Mbps)
- Flow 3 ingress (mean 60.23 Mbps)
- Flow 3 egress (mean 60.23 Mbps)

Packet error rate vs. Time (s)

- Flow 1 (95th percentile 6.91 ms)
- Flow 2 (95th percentile 5.89 ms)
- Flow 3 (95th percentile 2.50 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-24 20:30:30
End at: 2018-04-24 20:31:00
Local clock offset: -5.039 ms
Remote clock offset: -7.848 ms

# Below is generated by plot.py at 2018-04-24 23:59:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.23 Mbit/s
  95th percentile per-packet one-way delay: 7.047 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 49.87 Mbit/s
  95th percentile per-packet one-way delay: 7.417 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 43.09 Mbit/s
  95th percentile per-packet one-way delay: 6.738 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 41.18 Mbit/s
  95th percentile per-packet one-way delay: 1.374 ms
  Loss rate: 0.28%
Run 2: Report of TaoVA-100x — Data Link

![Graphs showing network performance metrics over time.]
Run 3: Statistics of TaoVA-100x

End at: 2018-04-24 20:50:13
Local clock offset: -5.029 ms
Remote clock offset: -8.25 ms

# Below is generated by plot.py at 2018-04-24 23:59:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.18 Mbit/s
95th percentile per-packet one-way delay: 9.385 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 47.28 Mbit/s
95th percentile per-packet one-way delay: 9.263 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 44.17 Mbit/s
95th percentile per-packet one-way delay: 10.025 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.69 Mbit/s
95th percentile per-packet one-way delay: 7.328 ms
Loss rate: 0.08%
Run 3: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 47.30 Mbit/s)
- Flow 1 egress (mean 47.28 Mbit/s)
- Flow 2 ingress (mean 44.17 Mbit/s)
- Flow 2 egress (mean 44.17 Mbit/s)
- Flow 3 ingress (mean 49.73 Mbit/s)
- Flow 3 egress (mean 49.69 Mbit/s)

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

- Flow 1 (95th percentile 9.26 ms)
- Flow 2 (95th percentile 10.03 ms)
- Flow 3 (95th percentile 7.33 ms)
Run 4: Statistics of TaoVA-100x

End at: 2018-04-24 21:09:25
Local clock offset: -4.893 ms
Remote clock offset: -5.687 ms

# Below is generated by plot.py at 2018-04-24 23:59:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.16 Mbit/s
  95th percentile per-packet one-way delay: 9.225 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 47.40 Mbit/s
  95th percentile per-packet one-way delay: 9.054 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 47.87 Mbit/s
  95th percentile per-packet one-way delay: 9.778 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 41.90 Mbit/s
  95th percentile per-packet one-way delay: 5.057 ms
  Loss rate: 0.02%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Local clock offset: ~4.912 ms  
Remote clock offset: ~4.848 ms

# Below is generated by plot.py at 2018-04-25 00:00:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.26 Mbit/s  
95th percentile per-packet one-way delay: 2.845 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 54.42 Mbit/s  
95th percentile per-packet one-way delay: 2.593 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 30.09 Mbit/s  
95th percentile per-packet one-way delay: 3.324 ms  
Loss rate: 0.05%  
-- Flow 3:  
Average throughput: 41.57 Mbit/s  
95th percentile per-packet one-way delay: 1.270 ms  
Loss rate: 0.06%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Local clock offset: -5.06 ms
Remote clock offset: -4.635 ms

# Below is generated by plot.py at 2018-04-25 00:00:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 60.45 Mbit/s
  95th percentile per-packet one-way delay: 2.834 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 8.05 Mbit/s
  95th percentile per-packet one-way delay: 2.033 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 54.01 Mbit/s
  95th percentile per-packet one-way delay: 2.651 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 49.45 Mbit/s
  95th percentile per-packet one-way delay: 3.140 ms
  Loss rate: 0.00%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

End at: 2018-04-24 22:06:57
Local clock offset: -4.511 ms
Remote clock offset: -4.3 ms

# Below is generated by plot.py at 2018-04-25 00:00:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 8.664 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 66.46 Mbit/s
95th percentile per-packet one-way delay: 7.622 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.22 Mbit/s
95th percentile per-packet one-way delay: 9.631 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 5.35 Mbit/s
95th percentile per-packet one-way delay: 19.106 ms
Loss rate: 0.57%
Run 7: Report of TaoVA-100x — Data Link

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

- Blue: Flow 1 ingress (mean 66.47 Mbps/s)
- Blue: Flow 1 egress (mean 66.46 Mbps/s)
- Green: Flow 2 ingress (mean 28.25 Mbps/s)
- Green: Flow 2 egress (mean 26.22 Mbps/s)
- Red: Flow 3 ingress (mean 5.38 Mbps/s)
- Red: Flow 3 egress (mean 5.35 Mbps/s)

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

- Blue: Flow 1 (95th percentile 7.62 ms)
- Green: Flow 2 (95th percentile 9.63 ms)
- Red: Flow 3 (95th percentile 19.11 ms)
Run 8: Statistics of TaoVA-100x

End at: 2018-04-24 22:26:09
Local clock offset: -5.287 ms
Remote clock offset: -3.928 ms

# Below is generated by plot.py at 2018-04-25 00:00:48
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 87.59 Mbit/s
   95th percentile per-packet one-way delay: 4.006 ms
   Loss rate: 0.05%
-- Flow 1:
   Average throughput: 47.15 Mbit/s
   95th percentile per-packet one-way delay: 4.455 ms
   Loss rate: 0.08%
-- Flow 2:
   Average throughput: 30.53 Mbit/s
   95th percentile per-packet one-way delay: 3.532 ms
   Loss rate: 0.04%
-- Flow 3:
   Average throughput: 60.60 Mbit/s
   95th percentile per-packet one-way delay: 2.624 ms
   Loss rate: 0.00%
Run 8: Report of TaoVA-100x — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 47.19 Mbps)
- Flow 1 egress (mean 47.15 Mbps)
- Flow 2 ingress (mean 30.54 Mbps)
- Flow 2 egress (mean 30.53 Mbps)
- Flow 3 ingress (mean 60.60 Mbps)
- Flow 3 egress (mean 60.60 Mbps)

Graph 2: Packet round-trip delay (ms)
- Flow 1 (95th percentile 4.46 ms)
- Flow 2 (95th percentile 3.53 ms)
- Flow 3 (95th percentile 2.62 ms)
Run 9: Statistics of TaoVA-100x

End at: 2018-04-24 22:45:20
Local clock offset: -5.327 ms
Remote clock offset: -5.451 ms

# Below is generated by plot.py at 2018-04-25 00:02:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.11 Mbit/s
95th percentile per-packet one-way delay: 3.022 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 57.04 Mbit/s
95th percentile per-packet one-way delay: 2.707 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.75 Mbit/s
95th percentile per-packet one-way delay: 3.300 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 9.199 ms
Loss rate: 0.55%
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-24 23:04:01
End at: 2018-04-24 23:04:31
Local clock offset: -4.94 ms
Remote clock offset: -6.628 ms

# Below is generated by plot.py at 2018-04-25 00:02:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.68 Mbit/s
95th percentile per-packet one-way delay: 4.774 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 48.73 Mbit/s
95th percentile per-packet one-way delay: 3.012 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 51.83 Mbit/s
95th percentile per-packet one-way delay: 5.278 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 10.42 Mbit/s
95th percentile per-packet one-way delay: 11.929 ms
Loss rate: 0.44%
Run 10: Report of TaoVA-100x — Data Link

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**Throughput (Mbps/s)**

- **Flow 1 ingress (mean 48.74 Mbps/s)**
- **Flow 1 egress (mean 48.73 Mbps/s)**
- **Flow 2 ingress (mean 52.79 Mbps/s)**
- **Flow 2 egress (mean 51.83 Mbps/s)**
- **Flow 3 ingress (mean 10.47 Mbps/s)**
- **Flow 3 egress (mean 10.42 Mbps/s)**

**Packet round-trip delay (ms)**

- **Flow 1 (95th percentile 3.01 ms)**
- **Flow 2 (95th percentile 5.28 ms)**
- **Flow 3 (95th percentile 11.93 ms)**
Run 1: Statistics of TCP Vegas

Start at: 2018-04-24 20:14:45
End at: 2018-04-24 20:15:15
Local clock offset: -4.203 ms
Remote clock offset: -7.472 ms

# Below is generated by plot.py at 2018-04-25 00:02:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.42 Mbit/s
95th percentile per-packet one-way delay: 3.886 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.47 Mbit/s
95th percentile per-packet one-way delay: 3.683 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 3.948 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 67.79 Mbit/s
95th percentile per-packet one-way delay: 3.715 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link

![Graph showing network throughput and packet delay over time]

- **Throughput (Mbps)** vs. **Time (s)**
- **Flow 1 ingress (mean 48.48 Mbps)**
- **Flow 1 egress (mean 48.47 Mbps)**
- **Flow 2 ingress (mean 39.71 Mbps)**
- **Flow 2 egress (mean 39.71 Mbps)**
- **Flow 3 ingress (mean 67.80 Mbps)**
- **Flow 3 egress (mean 67.79 Mbps)**

- **Per packet one way delay (ms)** vs. **Time (s)**
- **Flow 1 (95th percentile 3.68 ms)**
- **Flow 2 (95th percentile 3.95 ms)**
- **Flow 3 (95th percentile 3.71 ms)**
Run 2: Statistics of TCP Vegas

End at: 2018-04-24 20:34:27
Local clock offset: -4.949 ms
Remote clock offset: -7.989 ms

# Below is generated by plot.py at 2018-04-25 00:02:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.62 Mbit/s
95th percentile per-packet one-way delay: 2.109 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.83 Mbit/s
95th percentile per-packet one-way delay: 1.926 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.29 Mbit/s
95th percentile per-packet one-way delay: 2.122 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.05 Mbit/s
95th percentile per-packet one-way delay: 2.141 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-04-24 20:53:10
End at: 2018-04-24 20:53:40
Local clock offset: -5.04 ms
Remote clock offset: -8.31 ms

# Below is generated by plot.py at 2018-04-25 00:02:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.78 Mbit/s
  95th percentile per-packet one-way delay: 3.552 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 50.82 Mbit/s
  95th percentile per-packet one-way delay: 2.050 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 44.85 Mbit/s
  95th percentile per-packet one-way delay: 2.140 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 48.48 Mbit/s
  95th percentile per-packet one-way delay: 4.014 ms
  Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

End at: 2018-04-24 21:12:52
Local clock offset: -4.879 ms
Remote clock offset: -5.371 ms

# Below is generated by plot.py at 2018-04-25 00:02:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 4.238 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.36 Mbit/s
95th percentile per-packet one-way delay: 4.466 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.27 Mbit/s
95th percentile per-packet one-way delay: 4.248 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.00 Mbit/s
95th percentile per-packet one-way delay: 3.446 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

![Graph of throughput vs time with multiple flows]

![Graph of per-packet one-way delay vs time with multiple flows]

- Flow 1 (95th percentile 4.47 ms)
- Flow 2 (95th percentile 4.25 ms)
- Flow 3 (95th percentile 3.45 ms)
Run 5: Statistics of TCP Vegas

Local clock offset: -4.072 ms
Remote clock offset: -4.802 ms

# Below is generated by plot.py at 2018-04-25 00:02:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.17 Mbit/s
95th percentile per-packet one-way delay: 1.349 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.27 Mbit/s
95th percentile per-packet one-way delay: 1.217 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.82 Mbit/s
95th percentile per-packet one-way delay: 1.420 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.35 Mbit/s
95th percentile per-packet one-way delay: 1.442 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

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

Flow 1 (mean 55.27 Mbit/s)
Flow 2 (mean 38.82 Mbit/s)
Flow 3 (mean 45.35 Mbit/s)
Run 6: Statistics of TCP Vegas

End at: 2018-04-24 21:51:12
Local clock offset: -4.363 ms
Remote clock offset: -4.639 ms

# Below is generated by plot.py at 2018-04-25 00:02:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.83 Mbit/s
95th percentile per-packet one-way delay: 2.641 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.65 Mbit/s
95th percentile per-packet one-way delay: 1.371 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.46 Mbit/s
95th percentile per-packet one-way delay: 1.634 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.85 Mbit/s
95th percentile per-packet one-way delay: 3.147 ms
Loss rate: 0.01%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-04-24 22:09:54
Local clock offset: -6.058 ms
Remote clock offset: -4.307 ms

# Below is generated by plot.py at 2018-04-25 00:02:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.63 Mbit/s
95th percentile per-packet one-way delay: 4.944 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.60 Mbit/s
95th percentile per-packet one-way delay: 2.931 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.98 Mbit/s
95th percentile per-packet one-way delay: 4.699 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.45 Mbit/s
95th percentile per-packet one-way delay: 5.654 ms
Loss rate: 0.01%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-04-24 22:29:05
Local clock offset: -4.536 ms
Remote clock offset: -3.847 ms

# Below is generated by plot.py at 2018-04-25 00:02:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.55 Mbit/s
95th percentile per-packet one-way delay: 1.435 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.23 Mbit/s
95th percentile per-packet one-way delay: 1.247 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.14 Mbit/s
95th percentile per-packet one-way delay: 1.431 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.95 Mbit/s
95th percentile per-packet one-way delay: 1.668 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

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

Throughput (Mbps) vs Time (s):
- Flow 1 ingress (mean 52.23 Mbps)
- Flow 1 egress (mean 52.23 Mbps)
- Flow 2 ingress (mean 45.15 Mbps)
- Flow 2 egress (mean 45.14 Mbps)
- Flow 3 ingress (mean 42.95 Mbps)
- Flow 3 egress (mean 42.95 Mbps)

Per-packet one-way delay (ms) vs Time (s):
- Flow 1 95th percentile 1.25 ms
- Flow 2 95th percentile 1.43 ms
- Flow 3 95th percentile 1.67 ms]
Run 9: Statistics of TCP Vegas

Local clock offset: -4.46 ms
Remote clock offset: -5.805 ms

# Below is generated by plot.py at 2018-04-25 00:03:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.72 Mbit/s
  95th percentile per-packet one-way delay: 3.100 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 62.76 Mbit/s
  95th percentile per-packet one-way delay: 3.065 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 28.45 Mbit/s
  95th percentile per-packet one-way delay: 1.807 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 45.22 Mbit/s
  95th percentile per-packet one-way delay: 3.292 ms
  Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 62.76 Mbit/s)
- Flow 1 egress (mean 62.76 Mbit/s)
- Flow 2 ingress (mean 28.45 Mbit/s)
- Flow 2 egress (mean 28.45 Mbit/s)
- Flow 3 ingress (mean 45.23 Mbit/s)
- Flow 3 egress (mean 45.22 Mbit/s)

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

- Flow 1 (95th percentile 3.06 ms)
- Flow 2 (95th percentile 1.81 ms)
- Flow 3 (95th percentile 3.29 ms)
Run 10: Statistics of TCP Vegas

End at: 2018-04-24 23:07:59
Local clock offset: -5.65 ms
Remote clock offset: -6.634 ms

# Below is generated by plot.py at 2018-04-25 00:03:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.87 Mbit/s
  95th percentile per-packet one-way delay: 4.769 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 48.20 Mbit/s
  95th percentile per-packet one-way delay: 3.316 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 54.30 Mbit/s
  95th percentile per-packet one-way delay: 5.022 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 37.67 Mbit/s
  95th percentile per-packet one-way delay: 3.360 ms
  Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

![Throughput Graph](image)

Throughput (Mbps)

Time (s)

Flow labels:
- Flow 1 ingress (mean 48.20 Mbps)
- Flow 1 egress (mean 48.20 Mbps)
- Flow 2 ingress (mean 54.30 Mbps)
- Flow 2 egress (mean 54.30 Mbps)
- Flow 3 ingress (mean 37.66 Mbps)
- Flow 3 egress (mean 37.67 Mbps)

![Delay Graph](image)

Per-packet one-way delay (ms)

Time (s)

Flow labels:
- Flow 1 (95th percentile 3.32 ms)
- Flow 2 (95th percentile 5.02 ms)
- Flow 3 (95th percentile 3.36 ms)
Run 1: Statistics of Verus

End at: 2018-04-24 20:14:08
Local clock offset: -4.972 ms
Remote clock offset: -7.431 ms

# Below is generated by plot.py at 2018-04-25 00:03:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 57.21 Mbit/s
  95th percentile per-packet one-way delay: 31.248 ms
  Loss rate: 6.32%
-- Flow 1:
  Average throughput: 30.95 Mbit/s
  95th percentile per-packet one-way delay: 29.989 ms
  Loss rate: 3.98%
-- Flow 2:
  Average throughput: 28.85 Mbit/s
  95th percentile per-packet one-way delay: 31.654 ms
  Loss rate: 5.88%
-- Flow 3:
  Average throughput: 21.30 Mbit/s
  95th percentile per-packet one-way delay: 31.416 ms
  Loss rate: 16.31%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Start at: 2018-04-24 20:32:50
End at: 2018-04-24 20:33:20
Local clock offset: -5.081 ms
Remote clock offset: -7.903 ms

# Below is generated by plot.py at 2018-04-25 00:03:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.43 Mbit/s
95th percentile per-packet one-way delay: 31.740 ms
Loss rate: 7.68%
-- Flow 1:
Average throughput: 31.15 Mbit/s
95th percentile per-packet one-way delay: 26.179 ms
Loss rate: 4.69%
-- Flow 2:
Average throughput: 22.23 Mbit/s
95th percentile per-packet one-way delay: 32.738 ms
Loss rate: 10.46%
-- Flow 3:
Average throughput: 28.64 Mbit/s
95th percentile per-packet one-way delay: 32.922 ms
Loss rate: 12.43%
Run 2: Report of Verus — Data Link

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

- Flow 1 ingress (mean 32.69 Mbit/s)
- Flow 1 egress (mean 31.15 Mbit/s)
- Flow 2 ingress (mean 26.83 Mbit/s)
- Flow 2 egress (mean 22.23 Mbit/s)
- Flow 3 ingress (mean 32.72 Mbit/s)
- Flow 3 egress (mean 28.64 Mbit/s)
Run 3: Statistics of Verus

Start at: 2018-04-24 20:52:03
End at: 2018-04-24 20:52:33
Local clock offset: ~4.22 ms
Remote clock offset: ~8.344 ms

# Below is generated by plot.py at 2018-04-25 00:03:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.57 Mbit/s
95th percentile per-packet one-way delay: 30.649 ms
Loss rate: 7.94%
-- Flow 1:
Average throughput: 28.48 Mbit/s
95th percentile per-packet one-way delay: 29.682 ms
Loss rate: 5.16%
-- Flow 2:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 32.064 ms
Loss rate: 9.39%
-- Flow 3:
Average throughput: 22.61 Mbit/s
95th percentile per-packet one-way delay: 30.584 ms
Loss rate: 14.62%
Run 4: Statistics of Verus

End at: 2018-04-24 21:11:45
Local clock offset: -4.132 ms
Remote clock offset: -5.451 ms

# Below is generated by plot.py at 2018-04-25 00:03:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.42 Mbit/s
95th percentile per-packet one-way delay: 30.285 ms
Loss rate: 8.34%
-- Flow 1:
Average throughput: 30.47 Mbit/s
95th percentile per-packet one-way delay: 28.667 ms
Loss rate: 8.17%
-- Flow 2:
Average throughput: 24.16 Mbit/s
95th percentile per-packet one-way delay: 31.073 ms
Loss rate: 7.71%
-- Flow 3:
Average throughput: 21.08 Mbit/s
95th percentile per-packet one-way delay: 30.563 ms
Loss rate: 10.48%
Run 4: Report of Verus — Data Link

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

- **Flow 1 ingress (mean 33.19 Mbit/s)**
- **Flow 1 egress (mean 30.47 Mbit/s)**
- **Flow 2 ingress (mean 26.22 Mbit/s)**
- **Flow 2 egress (mean 24.16 Mbit/s)**
- **Flow 3 ingress (mean 23.55 Mbit/s)**
- **Flow 3 egress (mean 21.08 Mbit/s)**

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

- **Flow 1 (95th percentile 28.67 ms)**
- **Flow 2 (95th percentile 31.07 ms)**
- **Flow 3 (95th percentile 30.56 ms)**
Run 5: Statistics of Verus

Start at: 2018-04-24 21:30:26
End at: 2018-04-24 21:30:56
Local clock offset: -4.806 ms
Remote clock offset: -4.792 ms

# Below is generated by plot.py at 2018-04-25 00:03:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 58.10 Mbit/s
  95th percentile per-packet one-way delay: 26.282 ms
  Loss rate: 4.53%
-- Flow 1:
  Average throughput: 34.18 Mbit/s
  95th percentile per-packet one-way delay: 19.919 ms
  Loss rate: 2.82%
-- Flow 2:
  Average throughput: 17.71 Mbit/s
  95th percentile per-packet one-way delay: 31.285 ms
  Loss rate: 7.83%
-- Flow 3:
  Average throughput: 36.56 Mbit/s
  95th percentile per-packet one-way delay: 31.805 ms
  Loss rate: 5.93%
Run 5: Report of Verus — Data Link
Run 6: Statistics of Verus

End at: 2018-04-24 21:50:05
Local clock offset: -5.119 ms
Remote clock offset: -4.596 ms

# Below is generated by plot.py at 2018-04-25 00:03:51
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 62.36 Mbit/s
 95th percentile per-packet one-way delay: 31.305 ms
 Loss rate: 6.88%
-- Flow 1:
 Average throughput: 34.06 Mbit/s
 95th percentile per-packet one-way delay: 28.549 ms
 Loss rate: 4.30%
-- Flow 2:
 Average throughput: 31.84 Mbit/s
 95th percentile per-packet one-way delay: 32.786 ms
 Loss rate: 9.09%
-- Flow 3:
 Average throughput: 21.41 Mbit/s
 95th percentile per-packet one-way delay: 31.309 ms
 Loss rate: 11.88%
Run 6: Report of Verus — Data Link

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

Legend: Flow 1 ingress (mean 35.59 Mbps)  
Flow 2 ingress (mean 35.03 Mbps)  
Flow 3 ingress (mean 24.31 Mbps)  
Flow 1 egress (mean 34.06 Mbps)  
Flow 2 egress (mean 31.84 Mbps)  
Flow 3 egress (mean 21.41 Mbps)

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

Legend: Flow 1 (95th percentile 28.55 ms)  
Flow 2 (95th percentile 32.79 ms)  
Flow 3 (95th percentile 31.31 ms)
Run 7: Statistics of Verus

End at: 2018-04-24 22:09:17
Local clock offset: -5.266 ms
Remote clock offset: -4.265 ms

# Below is generated by plot.py at 2018-04-25 00:03:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.25 Mbit/s
95th percentile per-packet one-way delay: 30.438 ms
Loss rate: 6.90%
-- Flow 1:
Average throughput: 29.21 Mbit/s
95th percentile per-packet one-way delay: 26.019 ms
Loss rate: 4.31%
-- Flow 2:
Average throughput: 21.93 Mbit/s
95th percentile per-packet one-way delay: 29.996 ms
Loss rate: 7.19%
-- Flow 3:
Average throughput: 22.76 Mbit/s
95th percentile per-packet one-way delay: 32.829 ms
Loss rate: 15.38%
Run 7: Report of Verus — Data Link
Run 8: Statistics of Verus

Local clock offset: -4.526 ms
Remote clock offset: -3.938 ms

# Below is generated by plot.py at 2018-04-25 00:04:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.84 Mbit/s
95th percentile per-packet one-way delay: 25.836 ms
Loss rate: 4.28%
-- Flow 1:
Average throughput: 34.29 Mbit/s
95th percentile per-packet one-way delay: 20.182 ms
Loss rate: 2.47%
-- Flow 2:
Average throughput: 27.57 Mbit/s
95th percentile per-packet one-way delay: 27.300 ms
Loss rate: 5.37%
-- Flow 3:
Average throughput: 18.72 Mbit/s
95th percentile per-packet one-way delay: 30.533 ms
Loss rate: 10.40%
Run 8: Report of Verus — Data Link
Run 9: Statistics of Verus

End at: 2018-04-24 22:47:40
Local clock offset: -5.248 ms
Remote clock offset: -5.718 ms

# Below is generated by plot.py at 2018-04-25 00:04:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.95 Mbit/s
95th percentile per-packet one-way delay: 23.146 ms
Loss rate: 4.17%
-- Flow 1:
Average throughput: 37.51 Mbit/s
95th percentile per-packet one-way delay: 15.826 ms
Loss rate: 2.90%
-- Flow 2:
Average throughput: 28.95 Mbit/s
95th percentile per-packet one-way delay: 27.294 ms
Loss rate: 4.28%
-- Flow 3:
Average throughput: 27.70 Mbit/s
95th percentile per-packet one-way delay: 31.217 ms
Loss rate: 8.81%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-04-24 23:06:21
End at: 2018-04-24 23:06:51
Local clock offset: -5.593 ms
Remote clock offset: -6.621 ms

# Below is generated by plot.py at 2018-04-25 00:04:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.95 Mbit/s
95th percentile per-packet one-way delay: 29.065 ms
Loss rate: 4.28%
-- Flow 1:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 26.805 ms
Loss rate: 2.50%
-- Flow 2:
Average throughput: 29.01 Mbit/s
95th percentile per-packet one-way delay: 28.424 ms
Loss rate: 5.24%
-- Flow 3:
Average throughput: 11.98 Mbit/s
95th percentile per-packet one-way delay: 32.167 ms
Loss rate: 15.47%
Run 1: Statistics of Copa

Start at: 2018-04-24 20:17:01
End at: 2018-04-24 20:17:31
Local clock offset: -5.049 ms
Remote clock offset: -7.53 ms

# Below is generated by plot.py at 2018-04-25 00:05:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.77 Mbit/s
95th percentile per-packet one-way delay: 28.683 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.68 Mbit/s
95th percentile per-packet one-way delay: 29.099 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.11 Mbit/s
95th percentile per-packet one-way delay: 28.763 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 39.32 Mbit/s
95th percentile per-packet one-way delay: 17.506 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link

[Graph showing throughput and per-packet one-way delay, with legends for Flow 1 ingoing and egressing, Flow 2 ingoing and egressing, and Flow 3 ingoing and egressing, along with their respective mean speeds.]

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Run 2: Statistics of Copa

Start at: 2018-04-24 20:36:14
End at: 2018-04-24 20:36:44
Local clock offset: -4.207 ms
Remote clock offset: -8.051 ms

# Below is generated by plot.py at 2018-04-25 00:06:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.82 Mbit/s
95th percentile per-packet one-way delay: 20.981 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.87 Mbit/s
95th percentile per-packet one-way delay: 5.721 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.50 Mbit/s
95th percentile per-packet one-way delay: 21.925 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 28.065 ms
Loss rate: 0.02%
Run 2: Report of Copa — Data Link

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

- Flow 1 ingress (mean 57.87 Mbit/s)
- Flow 1 egress (mean 57.87 Mbit/s)
- Flow 2 ingress (mean 41.52 Mbit/s)
- Flow 2 egress (mean 41.50 Mbit/s)
- Flow 3 ingress (mean 19.06 Mbit/s)
- Flow 3 egress (mean 19.07 Mbit/s)

![Graph 2: Percentile over time](image2)

- Flow 1 (95th percentile 5.72 ms)
- Flow 2 (95th percentile 21.93 ms)
- Flow 3 (95th percentile 28.07 ms)
Run 3: Statistics of Copa

Local clock offset: -4.249 ms
Remote clock offset: -7.72 ms

# Below is generated by plot.py at 2018-04-25 00:06:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.57 Mbit/s
95th percentile per-packet one-way delay: 25.689 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.62 Mbit/s
95th percentile per-packet one-way delay: 18.477 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 22.335 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.36 Mbit/s
95th percentile per-packet one-way delay: 28.287 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

End at: 2018-04-24 21:15:08
Local clock offset: -4.83 ms
Remote clock offset: -5.307 ms

# Below is generated by plot.py at 2018-04-25 00:06:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.70 Mbit/s
95th percentile per-packet one-way delay: 26.690 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.43 Mbit/s
95th percentile per-packet one-way delay: 24.724 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.31 Mbit/s
95th percentile per-packet one-way delay: 27.258 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.44 Mbit/s
95th percentile per-packet one-way delay: 28.539 ms
Loss rate: 0.01%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

End at: 2018-04-24 21:34:20
Local clock offset: -4.076 ms
Remote clock offset: -4.806 ms

# Below is generated by plot.py at 2018-04-25 00:06:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.47 Mbit/s
95th percentile per-packet one-way delay: 27.844 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 63.59 Mbit/s
95th percentile per-packet one-way delay: 27.712 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 40.15 Mbit/s
95th percentile per-packet one-way delay: 27.834 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 9.45 Mbit/s
95th percentile per-packet one-way delay: 29.637 ms
Loss rate: 0.19%
Run 5: Report of Copa — Data Link

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

- Flow 1 ingress (mean 63.66 Mbit/s)
- Flow 1 egress (mean 63.59 Mbit/s)
- Flow 2 ingress (mean 40.20 Mbit/s)
- Flow 2 egress (mean 40.15 Mbit/s)
- Flow 3 ingress (mean 9.46 Mbit/s)
- Flow 3 egress (mean 9.45 Mbit/s)
Run 6: Statistics of Copa

Local clock offset: -4.392 ms
Remote clock offset: -4.522 ms

# Below is generated by plot.py at 2018-04-25 00:06:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.44 Mbit/s
95th percentile per-packet one-way delay: 28.177 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.65 Mbit/s
95th percentile per-packet one-way delay: 18.182 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 56.49 Mbit/s
95th percentile per-packet one-way delay: 29.266 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.56 Mbit/s
95th percentile per-packet one-way delay: 28.512 ms
Loss rate: 0.02%
Run 6: Report of Copa — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 7: Statistics of Copa

Start at: 2018-04-24 22:12:10
End at: 2018-04-24 22:12:40
Local clock offset: -6.103 ms
Remote clock offset: -4.267 ms

# Below is generated by plot.py at 2018-04-25 00:06:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.81 Mbit/s
95th percentile per-packet one-way delay: 29.937 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 47.82 Mbit/s
95th percentile per-packet one-way delay: 29.401 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.88 Mbit/s
95th percentile per-packet one-way delay: 29.953 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.50 Mbit/s
95th percentile per-packet one-way delay: 31.233 ms
Loss rate: 0.03%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Local clock offset: -5.291 ms
Remote clock offset: -3.805 ms

# Below is generated by plot.py at 2018-04-25 00:06:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.39 Mbit/s
95th percentile per-packet one-way delay: 29.096 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.68 Mbit/s
95th percentile per-packet one-way delay: 28.509 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.37 Mbit/s
95th percentile per-packet one-way delay: 30.283 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.76 Mbit/s
95th percentile per-packet one-way delay: 5.811 ms
Loss rate: 0.00%
Run 9: Statistics of Copa

Start at: 2018-04-24 22:50:34
Local clock offset: -5.098 ms
Remote clock offset: -5.937 ms

# Below is generated by plot.py at 2018-04-25 00:08:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.12 Mbit/s
95th percentile per-packet one-way delay: 27.091 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.95 Mbit/s
95th percentile per-packet one-way delay: 22.851 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 28.113 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.71 Mbit/s
95th percentile per-packet one-way delay: 29.416 ms
Loss rate: 0.02%
Run 9: Report of Copa — Data Link

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

- **Throughput Graph**:
  - Flow 1 ingress (mean 56.95 Mbit/s)
  - Flow 1 egress (mean 56.95 Mbit/s)
  - Flow 2 ingress (mean 40.00 Mbit/s)
  - Flow 2 egress (mean 40.00 Mbit/s)
  - Flow 3 ingress (mean 25.71 Mbit/s)
  - Flow 3 egress (mean 25.71 Mbit/s)

- **Packet Delay Graph**:
  - Flow 1 (95th percentile 22.85 ms)
  - Flow 2 (95th percentile 28.11 ms)
  - Flow 3 (95th percentile 29.42 ms)
Run 10: Statistics of Copa

Start at: 2018-04-24 23:09:45
End at: 2018-04-24 23:10:15
Local clock offset: -4.903 ms
Remote clock offset: -6.723 ms

# Below is generated by plot.py at 2018-04-25 00:08:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 28.658 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.23 Mbit/s
95th percentile per-packet one-way delay: 28.177 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 12.56 Mbit/s
95th percentile per-packet one-way delay: 28.979 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 35.25 Mbit/s
95th percentile per-packet one-way delay: 30.376 ms
Loss rate: 0.01%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

End at: 2018-04-24 20:28:42
Local clock offset: -5.139 ms
Remote clock offset: -7.864 ms

# Below is generated by plot.py at 2018-04-25 00:08:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.19 Mbit/s
95th percentile per-packet one-way delay: 30.955 ms
Loss rate: 14.99%
-- Flow 1:
Average throughput: 60.36 Mbit/s
95th percentile per-packet one-way delay: 30.903 ms
Loss rate: 9.85%
-- Flow 2:
Average throughput: 28.72 Mbit/s
95th percentile per-packet one-way delay: 31.015 ms
Loss rate: 25.88%
-- Flow 3:
Average throughput: 44.37 Mbit/s
95th percentile per-packet one-way delay: 30.983 ms
Loss rate: 18.47%
Run 1: Report of FillP — Data Link

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

- Flow 1 ingress (mean 67.03 Mbit/s)
- Flow 1 egress (mean 60.36 Mbit/s)
- Flow 2 ingress (mean 38.80 Mbit/s)
- Flow 2 egress (mean 28.72 Mbit/s)
- Flow 3 ingress (mean 54.43 Mbit/s)
- Flow 3 egress (mean 44.37 Mbit/s)

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

- Flow 1 (95th percentile 30.90 ms)
- Flow 2 (95th percentile 31.02 ms)
- Flow 3 (95th percentile 30.98 ms)
Run 2: Statistics of FillP

Local clock offset: -4.948 ms
Remote clock offset: -8.292 ms

# Below is generated by plot.py at 2018-04-25 00:08:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.41 Mbit/s
95th percentile per-packet one-way delay: 30.645 ms
Loss rate: 15.89%
-- Flow 1:
Average throughput: 58.78 Mbit/s
95th percentile per-packet one-way delay: 29.346 ms
Loss rate: 11.55%
-- Flow 2:
Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 29.488 ms
Loss rate: 24.09%
-- Flow 3:
Average throughput: 44.08 Mbit/s
95th percentile per-packet one-way delay: 30.947 ms
Loss rate: 19.29%
Run 2: Report of FillP — Data Link

![Graphs showing throughput and delay for different flows](image-url)
Run 3: Statistics of FillP

Start at: 2018-04-24 21:06:37
End at: 2018-04-24 21:07:07
Local clock offset: -4.946 ms
Remote clock offset: -5.802 ms

# Below is generated by plot.py at 2018-04-25 00:08:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.50 Mbit/s
  95th percentile per-packet one-way delay: 30.684 ms
  Loss rate: 13.90%
-- Flow 1:
  Average throughput: 55.76 Mbit/s
  95th percentile per-packet one-way delay: 29.379 ms
  Loss rate: 10.06%
-- Flow 2:
  Average throughput: 39.23 Mbit/s
  95th percentile per-packet one-way delay: 29.502 ms
  Loss rate: 17.09%
-- Flow 3:
  Average throughput: 38.08 Mbit/s
  95th percentile per-packet one-way delay: 30.975 ms
  Loss rate: 22.35%
Run 3: Report of FillP — Data Link
Run 4: Statistics of FillIP

End at: 2018-04-24 21:26:19
Local clock offset: -4.078 ms
Remote clock offset: -4.797 ms

# Below is generated by plot.py at 2018-04-25 00:08:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 30.228 ms
Loss rate: 14.43%
-- Flow 1:
Average throughput: 58.22 Mbit/s
95th percentile per-packet one-way delay: 30.190 ms
Loss rate: 10.82%
-- Flow 2:
Average throughput: 37.12 Mbit/s
95th percentile per-packet one-way delay: 30.255 ms
Loss rate: 18.71%
-- Flow 3:
Average throughput: 34.65 Mbit/s
95th percentile per-packet one-way delay: 30.263 ms
Loss rate: 21.64%
Run 4: Report of FillP — Data Link

The graphs show the throughput (Mbps) and per-packet one-way delay (ms) over time for different flows.

Throughput (Mbps):
- Flow 1 ingress (mean 65.35 Mbps)
- Flow 1 egress (mean 58.22 Mbps)
- Flow 2 ingress (mean 45.73 Mbps)
- Flow 2 egress (mean 37.12 Mbps)
- Flow 3 ingress (mean 44.21 Mbps)
- Flow 3 egress (mean 34.65 Mbps)

Per-packet one-way delay (ms):
- Flow 1 (95th percentile 30.19 ms)
- Flow 2 (95th percentile 30.25 ms)
- Flow 3 (95th percentile 30.26 ms)
Run 5: Statistics of FillP

Start at: 2018-04-24 21:45:00
End at: 2018-04-24 21:45:30
Local clock offset: -5.095 ms
Remote clock offset: -4.678 ms

# Below is generated by plot.py at 2018-04-25 00:08:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.77 Mbit/s
95th percentile per-packet one-way delay: 30.854 ms
Loss rate: 14.59%
-- Flow 1:
Average throughput: 49.19 Mbit/s
95th percentile per-packet one-way delay: 30.958 ms
Loss rate: 12.51%
-- Flow 2:
Average throughput: 28.51 Mbit/s
95th percentile per-packet one-way delay: 29.567 ms
Loss rate: 26.47%
-- Flow 3:
Average throughput: 68.35 Mbit/s
95th percentile per-packet one-way delay: 29.284 ms
Loss rate: 6.75%
Run 5: Report of FillP — Data Link
Run 6: Statistics of FillP

Start at: 2018-04-24 22:04:09
End at: 2018-04-24 22:04:40
Local clock offset: -6.07 ms
Remote clock offset: -4.341 ms

# Below is generated by plot.py at 2018-04-25 00:08:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.40 Mbit/s
95th percentile per-packet one-way delay: 31.682 ms
Loss rate: 15.41%
-- Flow 1:
Average throughput: 57.82 Mbit/s
95th percentile per-packet one-way delay: 31.757 ms
Loss rate: 10.79%
-- Flow 2:
Average throughput: 37.27 Mbit/s
95th percentile per-packet one-way delay: 30.373 ms
Loss rate: 19.99%
-- Flow 3:
Average throughput: 35.49 Mbit/s
95th percentile per-packet one-way delay: 30.387 ms
Loss rate: 25.43%
Run 6: Report of FillP — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 64.87 Mb/s)  Flow 1 egress (mean 57.82 Mb/s)
Flow 2 ingress (mean 46.65 Mb/s)  Flow 2 egress (mean 37.27 Mb/s)
Flow 3 ingress (mean 47.82 Mb/s)  Flow 3 egress (mean 35.49 Mb/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 31.76 ms)  Flow 2 (95th percentile 30.37 ms)  Flow 3 (95th percentile 30.39 ms)
Run 7: Statistics of FillP

Local clock offset: -5.256 ms
Remote clock offset: -3.966 ms

# Below is generated by plot.py at 2018-04-25 00:09:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.37 Mbit/s
95th percentile per-packet one-way delay: 30.756 ms
Loss rate: 14.04%
-- Flow 1:
Average throughput: 60.33 Mbit/s
95th percentile per-packet one-way delay: 29.448 ms
Loss rate: 10.24%
-- Flow 2:
Average throughput: 27.84 Mbit/s
95th percentile per-packet one-way delay: 30.985 ms
Loss rate: 20.93%
-- Flow 3:
Average throughput: 46.80 Mbit/s
95th percentile per-packet one-way delay: 29.511 ms
Loss rate: 18.95%
Run 7: Report of FillP — Data Link

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

- Flow 1 ingress (mean 67.26 Mbit/s)
- Flow 1 egress (mean 60.33 Mbit/s)
- Flow 2 ingress (mean 35.26 Mbit/s)
- Flow 2 egress (mean 27.84 Mbit/s)
- Flow 3 ingress (mean 57.76 Mbit/s)
- Flow 3 egress (mean 46.80 Mbit/s)
Run 8: Statistics of FillP

End at: 2018-04-24 22:43:03
Local clock offset: -5.309 ms
Remote clock offset: -5.144 ms

# Below is generated by plot.py at 2018-04-25 00:09:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.04 Mbit/s
95th percentile per-packet one-way delay: 30.978 ms
Loss rate: 15.51%
-- Flow 1:
Average throughput: 49.95 Mbit/s
95th percentile per-packet one-way delay: 31.045 ms
Loss rate: 13.77%
-- Flow 2:
Average throughput: 27.60 Mbit/s
95th percentile per-packet one-way delay: 29.624 ms
Loss rate: 27.36%
-- Flow 3:
Average throughput: 62.73 Mbit/s
95th percentile per-packet one-way delay: 30.884 ms
Loss rate: 6.51%
Run 8: Report of FillP — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 57.93 Mbps)
  - Flow 1 egress (mean 49.95 Mbps)
  - Flow 2 ingress (mean 37.99 Mbps)
  - Flow 2 egress (mean 27.60 Mbps)
  - Flow 3 ingress (mean 66.91 Mbps)
  - Flow 3 egress (mean 62.73 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 31.05 ms)
  - Flow 2 (95th percentile 29.62 ms)
  - Flow 3 (95th percentile 30.88 ms)
Run 9: Statistics of FillP

Start at: 2018-04-24 23:01:44
End at: 2018-04-24 23:02:14
Local clock offset: -4.872 ms
Remote clock offset: -6.487 ms

# Below is generated by plot.py at 2018-04-25 00:09:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.34 Mbit/s
95th percentile per-packet one-way delay: 30.985 ms
Loss rate: 14.55%
-- Flow 1:
Average throughput: 61.74 Mbit/s
95th percentile per-packet one-way delay: 30.946 ms
Loss rate: 10.65%
-- Flow 2:
Average throughput: 26.53 Mbit/s
95th percentile per-packet one-way delay: 31.020 ms
Loss rate: 22.69%
-- Flow 3:
Average throughput: 45.09 Mbit/s
95th percentile per-packet one-way delay: 31.019 ms
Loss rate: 19.08%
Run 9: Report of FillP — Data Link

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

- Flow 1 ingress (mean 69.10 Mbps)
- Flow 1 egress (mean 61.74 Mbps)
- Flow 2 ingress (mean 34.33 Mbps)
- Flow 2 egress (mean 26.53 Mbps)
- Flow 3 ingress (mean 55.62 Mbps)
- Flow 3 egress (mean 45.09 Mbps)

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

- Flow 1 (95th percentile 30.95 ms)
- Flow 2 (95th percentile 31.02 ms)
- Flow 3 (95th percentile 31.02 ms)
Run 10: Statistics of FillP

Local clock offset: -4.77 ms
Remote clock offset: -6.685 ms

# Below is generated by plot.py at 2018-04-25 00:09:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.39 Mbit/s
  95th percentile per-packet one-way delay: 30.646 ms
  Loss rate: 13.56%
-- Flow 1:
  Average throughput: 59.87 Mbit/s
  95th percentile per-packet one-way delay: 29.459 ms
  Loss rate: 9.46%
-- Flow 2:
  Average throughput: 28.98 Mbit/s
  95th percentile per-packet one-way delay: 29.481 ms
  Loss rate: 21.90%
-- Flow 3:
  Average throughput: 46.01 Mbit/s
  95th percentile per-packet one-way delay: 30.968 ms
  Loss rate: 17.12%
Run 10: Report of FillIP — Data Link

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**Throughput (Mbps)**

- Flow 1 ingress (mean 66.18 Mbps)
- Flow 1 egress (mean 59.87 Mbps)
- Flow 2 ingress (mean 37.15 Mbps)
- Flow 2 egress (mean 28.96 Mbps)
- Flow 3 ingress (mean 55.48 Mbps)
- Flow 3 egress (mean 46.01 Mbps)

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

- Flow 1 (95th percentile 29.46 ms)
- Flow 2 (95th percentile 29.48 ms)
- Flow 3 (95th percentile 30.97 ms)
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-24 20:27:03
Local clock offset: -4.297 ms
Remote clock offset: -7.783 ms

# Below is generated by plot.py at 2018-04-25 00:09:49
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 97.27 Mbit/s
   95th percentile per-packet one-way delay: 13.557 ms
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 44.67 Mbit/s
   95th percentile per-packet one-way delay: 12.484 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 48.59 Mbit/s
   95th percentile per-packet one-way delay: 13.546 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 62.74 Mbit/s
   95th percentile per-packet one-way delay: 14.361 ms
   Loss rate: 0.00%
Run 1: Report of Indigo-1-32 — Data Link

[Graph showing throughput and packet delay distributions over time for different flows.]
Run 2: Statistics of Indigo-1-32

End at: 2018-04-24 20:46:45
Local clock offset: -5.79 ms
Remote clock offset: -8.194 ms

# Below is generated by plot.py at 2018-04-25 00:09:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 10.958 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.28 Mbit/s
95th percentile per-packet one-way delay: 11.679 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.82 Mbit/s
95th percentile per-packet one-way delay: 10.918 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 90.71 Mbit/s
95th percentile per-packet one-way delay: 10.445 ms
Loss rate: 0.00%
Run 2: Report of Indigo-1-32 — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 46.29 Mbit/s)
Flow 1 egress (mean 46.28 Mbit/s)
Flow 2 ingress (mean 32.83 Mbit/s)
Flow 2 egress (mean 32.82 Mbit/s)
Flow 3 ingress (mean 90.74 Mbit/s)
Flow 3 egress (mean 90.71 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 11.68 ms)
Flow 2 (95th percentile 10.92 ms)
Flow 3 (95th percentile 10.45 ms)
Run 3: Statistics of Indigo-1-32

End at: 2018-04-24 21:05:58
Local clock offset: -5.0 ms
Remote clock offset: -6.0 ms

# Below is generated by plot.py at 2018-04-25 00:09:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 12.778 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 47.31 Mbit/s
95th percentile per-packet one-way delay: 10.055 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.36 Mbit/s
95th percentile per-packet one-way delay: 12.778 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 67.94 Mbit/s
95th percentile per-packet one-way delay: 12.982 ms
Loss rate: 0.00%
Run 3: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 47.33 Mbps)
- Flow 1 egress (mean 47.31 Mbps)
- Flow 2 ingress (mean 43.19 Mbps)
- Flow 2 egress (mean 42.36 Mbps)
- Flow 3 ingress (mean 61.97 Mbps)
- Flow 3 egress (mean 67.94 Mbps)

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

- Flow 1 (95th percentile 10.05 ms)
- Flow 2 (95th percentile 12.78 ms)
- Flow 3 (95th percentile 12.38 ms)
Run 4: Statistics of Indigo-1-32

End at: 2018-04-24 21:25:10
Local clock offset: -4.784 ms
Remote clock offset: -4.847 ms

# Below is generated by plot.py at 2018-04-25 00:10:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 12.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.27 Mbit/s
95th percentile per-packet one-way delay: 11.492 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 12.500 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 67.31 Mbit/s
95th percentile per-packet one-way delay: 13.196 ms
Loss rate: 0.00%
Run 4: Report of Indigo-1-32 — Data Link
Run 5: Statistics of Indigo-1-32

Local clock offset: -5.011 ms
Remote clock offset: -4.689 ms

# Below is generated by plot.py at 2018-04-25 00:11:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 12.672 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.90 Mbit/s
95th percentile per-packet one-way delay: 12.324 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.46 Mbit/s
95th percentile per-packet one-way delay: 12.791 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.31 Mbit/s
95th percentile per-packet one-way delay: 12.021 ms
Loss rate: 0.00%
Run 5: Report of Indigo-1-32 — Data Link
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-24 22:03:00
End at: 2018-04-24 22:03:30
Local clock offset: -4.477 ms
Remote clock offset: -4.358 ms

# Below is generated by plot.py at 2018-04-25 00:11:00
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 97.34 Mbit/s
   95th percentile per-packet one-way delay: 11.993 ms
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 47.04 Mbit/s
   95th percentile per-packet one-way delay: 9.564 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 46.95 Mbit/s
   95th percentile per-packet one-way delay: 12.074 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 59.22 Mbit/s
   95th percentile per-packet one-way delay: 10.894 ms
   Loss rate: 0.00%
Run 6: Report of Indigo-1-32 — Data Link
Run 7: Statistics of Indigo-1-32

Local clock offset: -4.536 ms
Remote clock offset: -3.996 ms

# Below is generated by plot.py at 2018-04-25 00:11:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 12.143 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.14 Mbit/s
95th percentile per-packet one-way delay: 9.459 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.86 Mbit/s
95th percentile per-packet one-way delay: 12.137 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 67.39 Mbit/s
95th percentile per-packet one-way delay: 12.295 ms
Loss rate: 0.00%
Run 7: Report of Indigo-1-32 — Data Link

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

![Graph 2: Per-packet one-way delay (ms)]
Run 8: Statistics of Indigo-1-32

Local clock offset: -4.559 ms
Remote clock offset: -5.042 ms

# Below is generated by plot.py at 2018-04-25 00:11:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 12.332 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.08 Mbit/s
95th percentile per-packet one-way delay: 9.552 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.53 Mbit/s
95th percentile per-packet one-way delay: 12.355 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 60.32 Mbit/s
95th percentile per-packet one-way delay: 12.483 ms
Loss rate: 0.00%
Run 8: Report of Indigo-1-32 — Data Link

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

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

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Run 9: Statistics of Indigo-1-32

Start at: 2018-04-24 23:00:34
End at: 2018-04-24 23:01:04
Local clock offset: -4.899 ms
Remote clock offset: -6.462 ms

# Below is generated by plot.py at 2018-04-25 00:11:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 13.021 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 47.32 Mbit/s
95th percentile per-packet one-way delay: 10.775 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.73 Mbit/s
95th percentile per-packet one-way delay: 12.982 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 69.16 Mbit/s
95th percentile per-packet one-way delay: 13.154 ms
Loss rate: 0.00%
Run 9: Report of Indigo-1-32 — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 47.33 Mbit/s)
Flow 1 egress (mean 47.32 Mbit/s)
Flow 2 ingress (mean 42.58 Mbit/s)
Flow 2 egress (mean 41.73 Mbit/s)
Flow 3 ingress (mean 69.23 Mbit/s)
Flow 3 egress (mean 69.16 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 10.78 ms)
Flow 2 (95th percentile 12.98 ms)
Flow 3 (95th percentile 13.15 ms)
Run 10: Statistics of Indigo-1-32

End at: 2018-04-24 23:20:17
Local clock offset: -5.555 ms
Remote clock offset: -6.666 ms

# Below is generated by plot.py at 2018-04-25 00:11:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 12.571 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.10 Mbit/s
95th percentile per-packet one-way delay: 11.608 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.74 Mbit/s
95th percentile per-packet one-way delay: 12.541 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 66.27 Mbit/s
95th percentile per-packet one-way delay: 12.604 ms
Loss rate: 0.00%
Run 10: Report of Indigo-1-32 — Data Link

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

- **Flow 1** (ingress mean 43.11 Mbit/s, egress mean 43.10 Mbit/s)
- **Flow 2** (ingress mean 49.76 Mbit/s, egress mean 49.74 Mbit/s)
- **Flow 3** (ingress mean 66.30 Mbit/s, egress mean 66.27 Mbit/s)
Run 1: Statistics of PCC-Vivace

Start at: 2018-04-24 20:12:29
End at: 2018-04-24 20:12:59
Local clock offset: -4.214 ms
Remote clock offset: -7.406 ms

# Below is generated by plot.py at 2018-04-25 00:11:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.47 Mbit/s
  95th percentile per-packet one-way delay: 2.313 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 51.91 Mbit/s
  95th percentile per-packet one-way delay: 2.163 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 32.12 Mbit/s
  95th percentile per-packet one-way delay: 2.784 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.90 Mbit/s
  95th percentile per-packet one-way delay: 1.817 ms
  Loss rate: 0.00%
Run 2: Statistics of PCC-Vivace

End at: 2018-04-24 20:32:11
Local clock offset: -4.991 ms
Remote clock offset: -7.934 ms

# Below is generated by plot.py at 2018-04-25 00:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.37 Mbit/s
95th percentile per-packet one-way delay: 3.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.10 Mbit/s
95th percentile per-packet one-way delay: 3.098 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.01 Mbit/s
95th percentile per-packet one-way delay: 3.778 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.25 Mbit/s
95th percentile per-packet one-way delay: 12.123 ms
Loss rate: 0.00%
Run 2: Report of PCC-Vivace — Data Link
Run 3: Statistics of PCC-Vivace

Start at: 2018-04-24 20:50:54
End at: 2018-04-24 20:51:24
Local clock offset: -4.942 ms
Remote clock offset: -8.289 ms

# Below is generated by plot.py at 2018-04-25 00:12:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.08 Mbit/s
95th percentile per-packet one-way delay: 2.752 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.86 Mbit/s
95th percentile per-packet one-way delay: 2.960 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.13 Mbit/s
95th percentile per-packet one-way delay: 2.132 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.84 Mbit/s
95th percentile per-packet one-way delay: 1.699 ms
Loss rate: 0.00%
Run 3: Report of PCC-Vivace — Data Link

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**Graph 1:**
- **Throughput (Mbps/s):**
  - Flow 1 ingress (mean 49.86 Mbps/s)
  - Flow 1 egress (mean 49.86 Mbps/s)
  - Flow 2 ingress (mean 33.14 Mbps/s)
  - Flow 2 egress (mean 33.13 Mbps/s)
  - Flow 3 ingress (mean 24.84 Mbps/s)
  - Flow 3 egress (mean 24.84 Mbps/s)

**Graph 2:**
- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 2.96 ms)
  - Flow 2 (95th percentile 2.13 ms)
  - Flow 3 (95th percentile 1.70 ms)

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Run 4: Statistics of PCC-Vivace

Start at: 2018-04-24 21:10:07
End at: 2018-04-24 21:10:37
Local clock offset: -5.677 ms
Remote clock offset: -5.529 ms

# Below is generated by plot.py at 2018-04-25 00:12:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.25 Mbit/s
95th percentile per-packet one-way delay: 3.695 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.30 Mbit/s
95th percentile per-packet one-way delay: 2.228 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.94 Mbit/s
95th percentile per-packet one-way delay: 4.396 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.51 Mbit/s
95th percentile per-packet one-way delay: 3.724 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link

Graph showing throughput (Mbps) over time for different flows.

Graph showing end-to-end latency (ms) over time for different flows.
Run 5: Statistics of PCC-Vivace

Local clock offset: -4.069 ms
Remote clock offset: -4.779 ms

# Below is generated by plot.py at 2018-04-25 00:12:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 70.40 Mbit/s
  95th percentile per-packet one-way delay: 2.201 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 38.91 Mbit/s
  95th percentile per-packet one-way delay: 1.189 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 31.26 Mbit/s
  95th percentile per-packet one-way delay: 2.326 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 32.48 Mbit/s
  95th percentile per-packet one-way delay: 3.121 ms
  Loss rate: 0.00%
Run 5: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 38.91 Mbps/s)
- Flow 1 egress (mean 38.91 Mbps/s)
- Flow 2 ingress (mean 31.26 Mbps/s)
- Flow 2 egress (mean 31.26 Mbps/s)
- Flow 3 ingress (mean 32.48 Mbps/s)
- Flow 3 egress (mean 32.48 Mbps/s)

Graph 2: Packet delay (ms) vs Time (s)

- Flow 1 (95th percentile 1.19 ms)
- Flow 2 (95th percentile 2.33 ms)
- Flow 3 (95th percentile 3.12 ms)
Run 6: Statistics of PCC-Vivace

Local clock offset: -5.827 ms
Remote clock offset: -4.683 ms

# Below is generated by plot.py at 2018-04-25 00:12:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.45 Mbit/s
95th percentile per-packet one-way delay: 3.892 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 55.15 Mbit/s
95th percentile per-packet one-way delay: 3.764 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.78 Mbit/s
95th percentile per-packet one-way delay: 3.260 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 21.74 Mbit/s
95th percentile per-packet one-way delay: 7.540 ms
Loss rate: 1.86%
Run 6: Report of PCC-Vivace — Data Link
Run 7: Statistics of PCC-Vivace

End at: 2018-04-24 22:08:08
Local clock offset: -4.509 ms
Remote clock offset: -4.279 ms

# Below is generated by plot.py at 2018-04-25 00:12:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.40 Mbit/s
95th percentile per-packet one-way delay: 2.540 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.03 Mbit/s
95th percentile per-packet one-way delay: 2.567 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.66 Mbit/s
95th percentile per-packet one-way delay: 2.565 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.25 Mbit/s
95th percentile per-packet one-way delay: 2.219 ms
Loss rate: 0.00%
Run 7: Report of PCC-Vivace — Data Link
Run 8: Statistics of PCC-Vivace

Local clock offset: -6.068 ms
Remote clock offset: -3.965 ms

# Below is generated by plot.py at 2018-04-25 00:12:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 68.12 Mbit/s
  95th percentile per-packet one-way delay: 3.383 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 36.54 Mbit/s
  95th percentile per-packet one-way delay: 2.427 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 33.16 Mbit/s
  95th percentile per-packet one-way delay: 2.862 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 28.89 Mbit/s
  95th percentile per-packet one-way delay: 5.940 ms
  Loss rate: 0.00%
Run 8: Report of PCC-Vivace — Data Link

![Graph](image)

- Flow 1 ingress (mean 35.54 Mbit/s)
- Flow 1 egress (mean 36.54 Mbit/s)
- Flow 2 ingress (mean 33.16 Mbit/s)
- Flow 2 egress (mean 33.16 Mbit/s)
- Flow 3 ingress (mean 28.88 Mbit/s)
- Flow 3 egress (mean 20.69 Mbit/s)

![Graph](image)

- Flow 1 (95th percentile 2.43 ms)
- Flow 2 (95th percentile 2.86 ms)
- Flow 3 (95th percentile 5.94 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-04-24 22:46:02
Local clock offset: -5.326 ms
Remote clock offset: -5.616 ms

# Below is generated by plot.py at 2018-04-25 00:12:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 68.25 Mbit/s
  95th percentile per-packet one-way delay: 2.662 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 37.80 Mbit/s
  95th percentile per-packet one-way delay: 2.605 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 31.56 Mbit/s
  95th percentile per-packet one-way delay: 2.467 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 28.72 Mbit/s
  95th percentile per-packet one-way delay: 3.088 ms
  Loss rate: 0.00%
Run 9: Report of PCC-Vivace — Data Link

![Graph of Throughput vs. Time](image1)

- Flow 1 ingress (mean 37.80 Mbit/s)
- Flow 1 egress (mean 37.80 Mbit/s)
- Flow 2 ingress (mean 31.56 Mbit/s)
- Flow 2 egress (mean 31.56 Mbit/s)
- Flow 3 ingress (mean 28.71 Mbit/s)
- Flow 3 egress (mean 28.72 Mbit/s)

![Graph of Packet Delay vs. Time](image2)

- Flow 1 (95th percentile 2.60 ms)
- Flow 2 (95th percentile 2.47 ms)
- Flow 3 (95th percentile 3.09 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-04-24 23:05:12
End at: 2018-04-24 23:05:42
Local clock offset: -4.919 ms
Remote clock offset: -6.603 ms

# Below is generated by plot.py at 2018-04-25 00:12:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.79 Mbit/s
95th percentile per-packet one-way delay: 3.181 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 51.55 Mbit/s
95th percentile per-packet one-way delay: 2.915 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.63 Mbit/s
95th percentile per-packet one-way delay: 3.485 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 18.89 Mbit/s
95th percentile per-packet one-way delay: 4.094 ms
Loss rate: 1.77%
Run 10: Report of PCC-Vivace — Data Link

![Graph 1: Throughput vs Time]

- Flow 1 ingress (mean 51.55 Mbit/s)
- Flow 1 egress (mean 51.55 Mbit/s)
- Flow 2 ingress (mean 37.63 Mbit/s)
- Flow 2 egress (mean 37.63 Mbit/s)
- Flow 3 ingress (mean 19.24 Mbit/s)
- Flow 3 egress (mean 10.09 Mbit/s)

![Graph 2: Packet Delay vs Time]

- Flow 1 (95th percentile 2.92 ms)
- Flow 2 (95th percentile 3.48 ms)
- Flow 3 (95th percentile 4.09 ms)

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Run 1: Statistics of PCC-Expr

End at: 2018-04-24 20:18:43
Local clock offset: -5.828 ms
Remote clock offset: -7.574 ms
Run 1: Report of PCC-Expr — Data Link

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Figure is missing
Run 2: Statistics of PCC-Expr

Local clock offset: -5.776 ms
Remote clock offset: -7.997 ms
Run 2: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of PCC-Expr

Start at: 2018-04-24 20:56:37
End at: 2018-04-24 20:57:07
Local clock offset: -5.085 ms
Remote clock offset: -7.378 ms
Run 3: Report of PCC-Expr — Data Link

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Run 4: Statistics of PCC-Expr

End at: 2018-04-24 21:16:19
Local clock offset: -4.83 ms
Remote clock offset: -5.274 ms
Run 4: Report of PCC-Expr — Data Link

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Run 5: Statistics of PCC-Expr

Start at: 2018-04-24 21:35:01
End at: 2018-04-24 21:35:31
Local clock offset: -5.562 ms
Remote clock offset: -4.851 ms
Run 5: Report of PCC-Expr — Data Link

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Figure is missing
Run 6: Statistics of PCC-Expr

Start at: 2018-04-24 21:54:10
End at: 2018-04-24 21:54:40
Local clock offset: -4.402 ms
Remote clock offset: -4.582 ms
Run 6: Report of PCC-Expr — Data Link

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Run 7: Statistics of PCC-Expr

Local clock offset: -5.359 ms
Remote clock offset: -4.166 ms
Run 7: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 8: Statistics of PCC-Expr

End at: 2018-04-24 22:33:03
Local clock offset: -5.259 ms
Remote clock offset: -3.787 ms
Run 8: Report of PCC-Expr — Data Link

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Run 9: Statistics of PCC-Expr

Start at: 2018-04-24 22:51:45
Local clock offset: -5.86 ms
Remote clock offset: -6.03 ms
Run 9: Report of PCC-Expr — Data Link

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Run 10: Statistics of PCC-Expr

Start at: 2018-04-24 23:10:56
End at: 2018-04-24 23:11:26
Local clock offset: -4.9 ms
Remote clock offset: -6.708 ms
Run 10: Report of PCC-Expr — Data Link

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