Pantheon Report

Generated at 2018-04-18 10:09:56 (UTC).
Data path: GCE Iowa Ethernet (local) → GCE Sydney 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).

Git summary:
branch: master @ b3d6e7098641364fd3a292656a51aa81e316d0b4
third_party/calibrated_koho @ 3cb73c0d1c03222cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 11f8c46a2bf1dc797253db7e8ca04076272b2a44
third_party/genericCC @ d223989828276fa83807da6e0341dc0c7b89aec
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4e4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4df9e0cec6bf90c77e64adf
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2af5
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303ae82ea088e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccf993
third_party/pcc @ 1afc958fa0d66d18b26c091a55f68c72b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd0f8ab92c4eb2f4974ab
third_party/proto-quic @ 7796f1fa82733a86b42f1bc8143ebc978f3cf42
third_party/scream @ c3707f0d7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e6088d91066a9f023df375e3ec2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af26295629369f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ f271183af822ee5e0031620f4bebf38aedc5581
test from GCE Iowa Ethernet to GCE Sydney Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s) flow 1</th>
<th>mean avg tput (Mbit/s) flow 2</th>
<th>mean avg tput (Mbit/s) flow 3</th>
<th>mean 95th-%ile delay (ms) flow 1</th>
<th>mean 95th-%ile delay (ms) flow 2</th>
<th>mean 95th-%ile delay (ms) flow 3</th>
<th>mean loss rate (%) flow 1</th>
<th>mean loss rate (%) flow 2</th>
<th>mean loss rate (%) flow 3</th>
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Run 1: Statistics of TCP BBR

Start at: 2018-04-18 04:21:40
End at: 2018-04-18 04:22:10

# Below is generated by plot.py at 2018-04-18 08:49:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.90 Mbit/s
95th percentile per-packet one-way delay: 92.872 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 124.55 Mbit/s
95th percentile per-packet one-way delay: 91.487 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 119.75 Mbit/s
95th percentile per-packet one-way delay: 93.233 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 113.16 Mbit/s
95th percentile per-packet one-way delay: 96.259 ms
Loss rate: 0.01%
Run 1: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 124.55 Mbit/s)
- Flow 1 egress (mean 124.55 Mbit/s)
- Flow 2 ingress (mean 119.76 Mbit/s)
- Flow 2 egress (mean 119.75 Mbit/s)
- Flow 3 ingress (mean 113.16 Mbit/s)
- Flow 3 egress (mean 113.16 Mbit/s)
Run 2: Statistics of TCP BBR

Start at: 2018-04-18 04:38:07
End at: 2018-04-18 04:38:37

# Below is generated by plot.py at 2018-04-18 08:49:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 237.69 Mbit/s
95th percentile per-packet one-way delay: 92.794 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 122.66 Mbit/s
95th percentile per-packet one-way delay: 91.232 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 117.85 Mbit/s
95th percentile per-packet one-way delay: 92.595 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 110.24 Mbit/s
95th percentile per-packet one-way delay: 96.640 ms
Loss rate: 0.03%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2018-04-18 04:54:35
End at: 2018-04-18 04:55:05

# Below is generated by plot.py at 2018-04-18 08:49:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 240.63 Mbit/s
95th percentile per-packet one-way delay: 96.795 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 123.89 Mbit/s
95th percentile per-packet one-way delay: 94.329 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 118.79 Mbit/s
95th percentile per-packet one-way delay: 97.329 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 113.48 Mbit/s
95th percentile per-packet one-way delay: 99.460 ms
Loss rate: 0.03%
Run 3: Report of TCP BBR — Data Link

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

Throughput Graph:
- Flow 1 ingress (mean 123.90 Mb/s)
- Flow 1 egress (mean 123.89 Mb/s)
- Flow 2 ingress (mean 118.81 Mb/s)
- Flow 2 egress (mean 118.79 Mb/s)
- Flow 3 ingress (mean 113.52 Mb/s)
- Flow 3 egress (mean 113.48 Mb/s)

Delay Graph:
- Flow 1 (95th percentile 94.33 ms)
- Flow 2 (95th percentile 97.33 ms)
- Flow 3 (95th percentile 99.46 ms)
Run 4: Statistics of TCP BBR

Start at: 2018-04-18 05:10:41
End at: 2018-04-18 05:11:11

# Below is generated by plot.py at 2018-04-18 08:49:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 240.53 Mbit/s
  95th percentile per-packet one-way delay: 102.541 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 122.23 Mbit/s
  95th percentile per-packet one-way delay: 100.943 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 119.35 Mbit/s
  95th percentile per-packet one-way delay: 102.155 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 117.60 Mbit/s
  95th percentile per-packet one-way delay: 104.837 ms
  Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 122.26 Mbps)
  - Flow 1 egress (mean 122.23 Mbps)
  - Flow 2 ingress (mean 119.34 Mbps)
  - Flow 2 egress (mean 119.35 Mbps)
  - Flow 3 ingress (mean 117.72 Mbps)
  - Flow 3 egress (mean 117.69 Mbps)

- **Delay per packet one-way (ms):**
  - Flow 1 (95th percentile 100.94 ms)
  - Flow 2 (95th percentile 102.16 ms)
  - Flow 3 (95th percentile 104.84 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-04-18 05:27:09
End at: 2018-04-18 05:27:39

# Below is generated by plot.py at 2018-04-18 08:49:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 240.03 Mbit/s
  95th percentile per-packet one-way delay: 102.217 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 123.91 Mbit/s
  95th percentile per-packet one-way delay: 100.062 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 116.65 Mbit/s
  95th percentile per-packet one-way delay: 101.571 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 116.09 Mbit/s
  95th percentile per-packet one-way delay: 106.482 ms
  Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 123.94 Mbit/s)
- Flow 1 egress (mean 123.91 Mbit/s)
- Flow 2 ingress (mean 116.71 Mbit/s)
- Flow 2 egress (mean 116.05 Mbit/s)
- Flow 3 ingress (mean 116.04 Mbit/s)
- Flow 3 egress (mean 116.09 Mbit/s)
Run 6: Statistics of TCP BBR

Start at: 2018-04-18 05:43:35
End at: 2018-04-18 05:44:05

# Below is generated by plot.py at 2018-04-18 08:49:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 237.75 Mbit/s
95th percentile per-packet one-way delay: 99.509 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 119.99 Mbit/s
95th percentile per-packet one-way delay: 97.204 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 121.47 Mbit/s
95th percentile per-packet one-way delay: 99.888 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 111.18 Mbit/s
95th percentile per-packet one-way delay: 102.615 ms
Loss rate: 0.08%
Run 6: Report of TCP BBR — Data Link

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

**Throughput (Mbit/s):**
- Flow 1 ingress (mean 120.02 Mbit/s)
- Flow 1 egress (mean 119.99 Mbit/s)
- Flow 2 ingress (mean 121.51 Mbit/s)
- Flow 2 egress (mean 121.47 Mbit/s)
- Flow 3 ingress (mean 111.27 Mbit/s)
- Flow 3 egress (mean 111.18 Mbit/s)

**Per-packet one way delay (ms):**
- Flow 1 (95th percentile 97.20 ms)
- Flow 2 (95th percentile 99.89 ms)
- Flow 3 (95th percentile 102.61 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-04-18 05:59:56
End at: 2018-04-18 06:00:26

# Below is generated by plot.py at 2018-04-18 08:49:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 241.44 Mbit/s
  95th percentile per-packet one-way delay: 98.847 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 122.99 Mbit/s
  95th percentile per-packet one-way delay: 97.410 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 120.65 Mbit/s
  95th percentile per-packet one-way delay: 98.395 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 115.29 Mbit/s
  95th percentile per-packet one-way delay: 101.615 ms
  Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link
Run 8: Statistics of TCP BBR

Start at: 2018-04-18 06:16:07
End at: 2018-04-18 06:16:37

# Below is generated by plot.py at 2018-04-18 08:49:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 239.90 Mbit/s
  95th percentile per-packet one-way delay: 95.489 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 124.47 Mbit/s
  95th percentile per-packet one-way delay: 94.505 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 117.26 Mbit/s
  95th percentile per-packet one-way delay: 95.355 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 112.51 Mbit/s
  95th percentile per-packet one-way delay: 98.468 ms
  Loss rate: 0.24%
Run 8: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 124.56 Mbit/s)
- Flow 1 egress (mean 124.47 Mbit/s)
- Flow 2 ingress (mean 117.26 Mbit/s)
- Flow 2 egress (mean 117.26 Mbit/s)
- Flow 3 ingress (mean 112.78 Mbit/s)
- Flow 3 egress (mean 112.51 Mbit/s)
Run 9: Statistics of TCP BBR

Start at: 2018-04-18 06:32:25
End at: 2018-04-18 06:32:55

# Below is generated by plot.py at 2018-04-18 08:53:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 239.50 Mbit/s
  95th percentile per-packet one-way delay: 99.546 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 122.98 Mbit/s
  95th percentile per-packet one-way delay: 96.891 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 118.41 Mbit/s
  95th percentile per-packet one-way delay: 100.780 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 113.78 Mbit/s
  95th percentile per-packet one-way delay: 102.548 ms
  Loss rate: 0.06%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-04-18 06:48:44
End at: 2018-04-18 06:49:14

# Below is generated by plot.py at 2018-04-18 08:53:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 240.07 Mbit/s
95th percentile per-packet one-way delay: 97.000 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 123.26 Mbit/s
95th percentile per-packet one-way delay: 94.022 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 118.62 Mbit/s
95th percentile per-packet one-way delay: 97.271 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 113.97 Mbit/s
95th percentile per-packet one-way delay: 100.770 ms
Loss rate: 0.01%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2018-04-18 04:14:23
End at: 2018-04-18 04:14:53

# Below is generated by plot.py at 2018-04-18 08:53:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 150.66 Mbit/s
  95th percentile per-packet one-way delay: 89.829 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 86.84 Mbit/s
  95th percentile per-packet one-way delay: 88.955 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 62.57 Mbit/s
  95th percentile per-packet one-way delay: 92.922 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 66.92 Mbit/s
  95th percentile per-packet one-way delay: 89.696 ms
  Loss rate: 0.00%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-04-18 04:30:46
End at: 2018-04-18 04:31:16

# Below is generated by plot.py at 2018-04-18 08:53:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 168.80 Mbit/s
95th percentile per-packet one-way delay: 98.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 91.38 Mbit/s
95th percentile per-packet one-way delay: 98.027 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 81.24 Mbit/s
95th percentile per-packet one-way delay: 97.557 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.88 Mbit/s
95th percentile per-packet one-way delay: 103.282 ms
Loss rate: 0.00%
Run 2: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 91.38 Mbps)
  - Flow 1 egress (mean 91.38 Mbps)
  - Flow 2 ingress (mean 81.24 Mbps)
  - Flow 2 egress (mean 81.24 Mbps)
  - Flow 3 ingress (mean 70.87 Mbps)
  - Flow 3 egress (mean 70.88 Mbps)

- **Per-packet end-to-end delay (ms):**
  - Flow 1 (95th percentile 98.03 ms)
  - Flow 2 (95th percentile 97.56 ms)
  - Flow 3 (95th percentile 103.28 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-04-18 04:47:14
End at: 2018-04-18 04:47:44

# Below is generated by plot.py at 2018-04-18 08:53:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 190.33 Mbit/s
  95th percentile per-packet one-way delay: 97.346 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 84.42 Mbit/s
  95th percentile per-packet one-way delay: 96.167 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 129.45 Mbit/s
  95th percentile per-packet one-way delay: 97.652 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 59.77 Mbit/s
  95th percentile per-packet one-way delay: 98.192 ms
  Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link

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

Start at: 2018-04-18 05:03:26
End at: 2018-04-18 05:03:56

# Below is generated by plot.py at 2018-04-18 08:53:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 183.91 Mbit/s
95th percentile per-packet one-way delay: 96.364 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 102.75 Mbit/s
95th percentile per-packet one-way delay: 95.810 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 120.69 Mbit/s
95th percentile per-packet one-way delay: 97.076 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 94.311 ms
Loss rate: 0.30%
Run 4: Report of TCP Cubic — Data Link

[Graphs showing throughput and per-packet one-way delay for different flows.]
Run 5: Statistics of TCP Cubic

Start at: 2018-04-18 05:19:50
End at: 2018-04-18 05:20:20

# Below is generated by plot.py at 2018-04-18 08:53:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 188.12 Mbit/s
  95th percentile per-packet one-way delay: 100.574 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 87.73 Mbit/s
  95th percentile per-packet one-way delay: 98.164 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 92.09 Mbit/s
  95th percentile per-packet one-way delay: 100.504 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 119.32 Mbit/s
  95th percentile per-packet one-way delay: 102.879 ms
  Loss rate: 0.00%
Run 5: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 87.75 Mbit/s)
- Flow 1 egress (mean 87.73 Mbit/s)
- Flow 2 ingress (mean 92.10 Mbit/s)
- Flow 2 egress (mean 92.09 Mbit/s)
- Flow 3 ingress (mean 119.41 Mbit/s)
- Flow 3 egress (mean 119.32 Mbit/s)

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

- Flow 1 (95th percentile 98.16 ms)
- Flow 2 (95th percentile 100.50 ms)
- Flow 3 (95th percentile 102.88 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-04-18 05:36:11
End at: 2018-04-18 05:36:41

# Below is generated by plot.py at 2018-04-18 08:53:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 250.51 Mbit/s
95th percentile per-packet one-way delay: 101.251 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 126.07 Mbit/s
95th percentile per-packet one-way delay: 99.047 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 128.03 Mbit/s
95th percentile per-packet one-way delay: 102.356 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 119.08 Mbit/s
95th percentile per-packet one-way delay: 102.573 ms
Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-04-18 05:52:38
End at: 2018-04-18 05:53:08

# Below is generated by plot.py at 2018-04-18 08:54:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 180.26 Mbit/s
  95th percentile per-packet one-way delay: 97.553 ms
  Loss rate: 0.01%
  -- Flow 1:
  Average throughput: 74.97 Mbit/s
  95th percentile per-packet one-way delay: 96.881 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 98.07 Mbit/s
  95th percentile per-packet one-way delay: 97.371 ms
  Loss rate: 0.02%
  -- Flow 3:
  Average throughput: 120.71 Mbit/s
  95th percentile per-packet one-way delay: 99.428 ms
  Loss rate: 0.00%
Run 7: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 74.97 Mbps)
  - Flow 1 egress (mean 74.97 Mbps)
  - Flow 2 ingress (mean 98.09 Mbps)
  - Flow 2 egress (mean 98.07 Mbps)
  - Flow 3 ingress (mean 120.77 Mbps)
  - Flow 3 egress (mean 120.71 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 96.88 ms)
  - Flow 2 (95th percentile 97.37 ms)
  - Flow 3 (95th percentile 99.43 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-04-18 06:08:49
End at: 2018-04-18 06:09:19

# Below is generated by plot.py at 2018-04-18 08:54:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 156.89 Mbit/s
95th percentile per-packet one-way delay: 94.201 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.46 Mbit/s
95th percentile per-packet one-way delay: 92.873 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.77 Mbit/s
95th percentile per-packet one-way delay: 94.429 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.37 Mbit/s
95th percentile per-packet one-way delay: 94.932 ms
Loss rate: 0.00%
Run 9: Statistics of TCP Cubic

Start at: 2018-04-18 06:25:06
End at: 2018-04-18 06:25:36

# Below is generated by plot.py at 2018-04-18 08:55:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 164.49 Mbit/s
  95th percentile per-packet one-way delay: 97.836 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 108.34 Mbit/s
  95th percentile per-packet one-way delay: 98.831 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 83.32 Mbit/s
  95th percentile per-packet one-way delay: 95.944 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 2.28 Mbit/s
  95th percentile per-packet one-way delay: 87.274 ms
  Loss rate: 0.48%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-04-18 06:41:23
End at: 2018-04-18 06:41:53

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 191.07 Mbit/s
  95th percentile per-packet one-way delay: 97.353 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 94.01 Mbit/s
  95th percentile per-packet one-way delay: 96.004 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 85.83 Mbit/s
  95th percentile per-packet one-way delay: 97.223 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 120.54 Mbit/s
  95th percentile per-packet one-way delay: 100.151 ms
  Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link

![Throughput Graph](chart1)

- Flow 1 ingress (mean 93.98 Mbit/s)
- Flow 1 egress (mean 94.01 Mbit/s)
- Flow 2 ingress (mean 85.87 Mbit/s)
- Flow 2 egress (mean 85.83 Mbit/s)
- Flow 3 ingress (mean 120.29 Mbit/s)
- Flow 3 egress (mean 120.54 Mbit/s)

![Per-packet one-way delay Graph](chart2)

- Flow 1 (95th percentile 96.00 ms)
- Flow 2 (95th percentile 97.22 ms)
- Flow 3 (95th percentile 100.15 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-04-18 04:16:14
End at: 2018-04-18 04:16:44

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.58 Mbit/s
95th percentile per-packet one-way delay: 87.899 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.99 Mbit/s
95th percentile per-packet one-way delay: 88.040 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.00 Mbit/s
95th percentile per-packet one-way delay: 87.770 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 87.291 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

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

Legend:
- Flow 1 ingress (mean 11.99 Mbit/s)
- Flow 1 egress (mean 11.99 Mbit/s)
- Flow 2 ingress (mean 8.00 Mbit/s)
- Flow 2 egress (mean 8.00 Mbit/s)
- Flow 3 ingress (mean 3.94 Mbit/s)
- Flow 3 egress (mean 3.94 Mbit/s)

Throughput (Mbit/s) vs. Time (s):
- Y-axis: Throughput (Mbit/s) ranging from 0 to 25
- X-axis: Time (s) ranging from 0 to 30

Packet round trip delay (ms) vs. Time (s):
- Y-axis: Packet round trip delay (ms) ranging from 86 to 94
- X-axis: Time (s) ranging from 0 to 30

Legend for packet round trip delay:
- Flow 1 (95th percentile 88.04 ms)
- Flow 2 (95th percentile 87.77 ms)
- Flow 3 (95th percentile 87.29 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-04-18 04:32:38
End at: 2018-04-18 04:33:08

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.86 Mbit/s
95th percentile per-packet one-way delay: 87.174 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 87.240 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 87.090 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.96 Mbit/s
95th percentile per-packet one-way delay: 86.851 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 8.96 Mbps) vs. Flow 1 egress (mean 8.96 Mbps)
- Flow 2 ingress (mean 6.96 Mbps) vs. Flow 2 egress (mean 6.96 Mbps)
- Flow 3 ingress (mean 3.96 Mbps) vs. Flow 3 egress (mean 3.96 Mbps)

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

- Flow 1 (95th percentile 87.24 ms)
- Flow 2 (95th percentile 87.09 ms)
- Flow 3 (95th percentile 86.85 ms)
Run 3: Statistics of LEDBAT

Start at: 2018-04-18 04:49:07
End at: 2018-04-18 04:49:37

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 17.30 Mbit/s
  95th percentile per-packet one-way delay: 87.809 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 10.67 Mbit/s
  95th percentile per-packet one-way delay: 87.709 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 8.05 Mbit/s
  95th percentile per-packet one-way delay: 87.887 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 3.93 Mbit/s
  95th percentile per-packet one-way delay: 88.104 ms
  Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-04-18 05:05:18
End at: 2018-04-18 05:05:48

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.53 Mbit/s
95th percentile per-packet one-way delay: 87.289 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 87.361 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.03 Mbit/s
95th percentile per-packet one-way delay: 87.280 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.93 Mbit/s
95th percentile per-packet one-way delay: 87.159 ms
Loss rate: 0.00%
Run 5: Statistics of LEDBAT

Start at: 2018-04-18 05:21:45
End at: 2018-04-18 05:22:15

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 16.48 Mbit/s
  95th percentile per-packet one-way delay: 87.585 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 12.00 Mbit/s
  95th percentile per-packet one-way delay: 87.671 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.85 Mbit/s
  95th percentile per-packet one-way delay: 87.515 ms
  Loss rate: 0.15%
-- Flow 3:
  Average throughput: 3.94 Mbit/s
  95th percentile per-packet one-way delay: 87.146 ms
  Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

The graphs show the throughput and per-packet one-way delay for three different flows over time. The throughput graph displays the following:

- Flow 1 ingress (mean 12.00 Mbit/s)
- Flow 1 egress (mean 12.00 Mbit/s)
- Flow 2 ingress (mean 4.85 Mbit/s)
- Flow 2 egress (mean 4.85 Mbit/s)
- Flow 3 ingress (mean 3.94 Mbit/s)
- Flow 3 egress (mean 3.94 Mbit/s)

The per-packet one-way delay graph displays the following:

- Flow 1 (95th percentile 87.67 ms)
- Flow 2 (95th percentile 87.52 ms)
- Flow 3 (95th percentile 87.15 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-04-18 05:38:08
End at: 2018-04-18 05:38:38

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 18.49 Mbit/s
  95th percentile per-packet one-way delay: 87.572 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 12.01 Mbit/s
  95th percentile per-packet one-way delay: 87.662 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 7.89 Mbit/s
  95th percentile per-packet one-way delay: 87.476 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 3.92 Mbit/s
  95th percentile per-packet one-way delay: 87.168 ms
  Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-04-18 05:54:31
End at: 2018-04-18 05:55:01

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.56 Mbit/s
95th percentile per-packet one-way delay: 87.544 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.01 Mbit/s
95th percentile per-packet one-way delay: 87.601 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 87.479 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 87.301 ms
Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-04-18 06:10:42
End at: 2018-04-18 06:11:12

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.53 Mbit/s
95th percentile per-packet one-way delay: 87.596 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 12.04 Mbit/s
95th percentile per-packet one-way delay: 87.641 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.86 Mbit/s
95th percentile per-packet one-way delay: 87.520 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 3.93 Mbit/s
95th percentile per-packet one-way delay: 87.215 ms
Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

![Graph 1: Throughput (Mbps)]

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

Legend:
- **Flow 1** (ingress: mean 12.04 Mbps, egress: mean 12.04 Mbps)
- **Flow 2** (ingress: mean 7.88 Mbps, egress: mean 7.86 Mbps)
- **Flow 3** (ingress: mean 3.93 Mbps, egress: mean 3.93 Mbps)
Run 9: Statistics of LEDBAT

Start at: 2018-04-18 06:26:58
End at: 2018-04-18 06:27:28

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.65 Mbit/s
95th percentile per-packet one-way delay: 88.049 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.04 Mbit/s
95th percentile per-packet one-way delay: 88.135 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.04 Mbit/s
95th percentile per-packet one-way delay: 87.891 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 87.517 ms
Loss rate: 0.00%
Run 10: Statistics of LEDBAT

Start at: 2018-04-18 06:43:16
End at: 2018-04-18 06:43:46

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 18.60 Mbit/s
  95th percentile per-packet one-way delay: 87.882 ms
  Loss rate: 0.01%
  -- Flow 1:
  Average throughput: 12.00 Mbit/s
  95th percentile per-packet one-way delay: 88.044 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 8.02 Mbit/s
  95th percentile per-packet one-way delay: 87.654 ms
  Loss rate: 0.03%
  -- Flow 3:
  Average throughput: 3.92 Mbit/s
  95th percentile per-packet one-way delay: 87.252 ms
  Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link

Graph 1: Throughput over Time

Graph 2: Per-packet round-trip delay over Time

Legend:
- Flow 1 ingress (mean 12.00 Mbit/s)
- Flow 2 ingress (mean 8.02 Mbit/s)
- Flow 3 ingress (mean 3.92 Mbit/s)
- Flow 1 egress (mean 12.00 Mbit/s)
- Flow 2 egress (mean 8.02 Mbit/s)
- Flow 3 egress (mean 3.92 Mbit/s)

Legend:
- Flow 1 (95th percentile 88.04 ms)
- Flow 2 (95th percentile 87.65 ms)
- Flow 3 (95th percentile 87.25 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-04-18 04:15:16
End at: 2018-04-18 04:15:46

# Below is generated by plot.py at 2018-04-18 09:00:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 383.65 Mbit/s
  95th percentile per-packet one-way delay: 217.532 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 328.97 Mbit/s
  95th percentile per-packet one-way delay: 217.602 ms
  Loss rate: 0.19%
-- Flow 2:
  Average throughput: 65.67 Mbit/s
  95th percentile per-packet one-way delay: 217.863 ms
  Loss rate: 0.08%
-- Flow 3:
  Average throughput: 33.26 Mbit/s
  95th percentile per-packet one-way delay: 186.261 ms
  Loss rate: 0.16%
Run 1: Report of PCC-Allegro — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 329.58 Mbps)
  - Flow 1 egress (mean 328.97 Mbps)
  - Flow 2 ingress (mean 65.74 Mbps)
  - Flow 2 egress (mean 65.67 Mbps)
  - Flow 3 ingress (mean 33.31 Mbps)
  - Flow 3 egress (mean 33.26 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 217.60 ms)
  - Flow 2 (95th percentile 217.86 ms)
  - Flow 3 (95th percentile 186.26 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-04-18 04:31:39
End at: 2018-04-18 04:32:09

# Below is generated by plot.py at 2018-04-18 09:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 385.31 Mbit/s
95th percentile per-packet one-way delay: 238.589 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 373.24 Mbit/s
95th percentile per-packet one-way delay: 238.565 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 17.16 Mbit/s
95th percentile per-packet one-way delay: 239.218 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 241.220 ms
Loss rate: 2.23%
Run 2: Report of PCC-Allegro — Data Link

![Throughput Chart](chart1.png)

- Flow 1 ingress (mean 377.54 Mbit/s)
- Flow 1 egress (mean 373.24 Mbit/s)
- Flow 2 ingress (mean 17.40 Mbit/s)
- Flow 2 egress (mean 17.16 Mbit/s)
- Flow 3 ingress (mean 2.19 Mbit/s)
- Flow 3 egress (mean 2.14 Mbit/s)

![Delay Chart](chart2.png)

- Flow 1 (95th percentile 238.56 ms)
- Flow 2 (95th percentile 239.22 ms)
- Flow 3 (95th percentile 241.22 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-04-18 04:48:10
End at: 2018-04-18 04:48:40

# Below is generated by plot.py at 2018-04-18 09:00:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 352.02 Mbit/s
  95th percentile per-packet one-way delay: 179.325 ms
  Loss rate: 0.32%
  -- Flow 1:
  Average throughput: 330.14 Mbit/s
  95th percentile per-packet one-way delay: 179.343 ms
  Loss rate: 0.33%
  -- Flow 2:
  Average throughput: 30.84 Mbit/s
  95th percentile per-packet one-way delay: 179.256 ms
  Loss rate: 0.07%
  -- Flow 3:
  Average throughput: 4.25 Mbit/s
  95th percentile per-packet one-way delay: 120.567 ms
  Loss rate: 0.14%
Run 3: Report of PCC-Allegro — Data Link

![Graph showing throughput and per-packet one-way delay over time. The graph indicates peak throughput at around 331.24 Mbit/s for Flow 1 ingress and 330.14 Mbit/s for Flow 1 egress, with similar values for Flow 2 and Flow 3. The per-packet one-way delay shows a peak at around 179.34 ms for Flow 1, 179.26 ms for Flow 2, and 120.57 ms for Flow 3.]
Run 4: Statistics of PCC-Allegro

Start at: 2018-04-18 05:04:20
End at: 2018-04-18 05:04:50

# Below is generated by plot.py at 2018-04-18 09:00:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 364.10 Mbit/s
  95th percentile per-packet one-way delay: 123.176 ms
  Loss rate: 0.24%
-- Flow 1:
  Average throughput: 341.96 Mbit/s
  95th percentile per-packet one-way delay: 123.012 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 17.26 Mbit/s
  95th percentile per-packet one-way delay: 116.387 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 32.55 Mbit/s
  95th percentile per-packet one-way delay: 134.615 ms
  Loss rate: 0.03%
Run 4: Report of PCC-Allegro — Data Link

Throughput vs Time (s)

- Flow 1 ingress (mean 342.84 Mbit/s)
- Flow 1 egress (mean 341.96 Mbit/s)
- Flow 2 ingress (mean 17.24 Mbit/s)
- Flow 2 egress (mean 17.26 Mbit/s)
- Flow 3 ingress (mean 32.56 Mbit/s)
- Flow 3 egress (mean 32.55 Mbit/s)

Packet Delay vs Time (s)

- Flow 1 (95th percentile 123.01 ms)
- Flow 2 (95th percentile 116.39 ms)
- Flow 3 (95th percentile 114.62 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2018-04-18 05:20:45
End at: 2018-04-18 05:21:15

# Below is generated by plot.py at 2018-04-18 09:01:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 404.65 Mbit/s
95th percentile per-packet one-way delay: 233.601 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 382.67 Mbit/s
95th percentile per-packet one-way delay: 233.578 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 31.95 Mbit/s
95th percentile per-packet one-way delay: 233.845 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 234.949 ms
Loss rate: 3.50%
Run 5: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 387.22 Mbps)
- Flow 1 egress (mean 382.67 Mbps)
- Flow 2 ingress (mean 32.39 Mbps)
- Flow 2 egress (mean 31.95 Mbps)
- Flow 3 ingress (mean 2.34 Mbps)
- Flow 3 egress (mean 2.25 Mbps)

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

- Flow 1 (95th percentile 233.58 ms)
- Flow 2 (95th percentile 233.84 ms)
- Flow 3 (95th percentile 234.95 ms)
Run 6: Statistics of PCC-Allegro

Start at: 2018-04-18 05:37:10
End at: 2018-04-18 05:37:40

# Below is generated by plot.py at 2018-04-18 09:01:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 368.89 Mbit/s
  95th percentile per-packet one-way delay: 231.755 ms
  Loss rate: 0.23%
-- Flow 1:
  Average throughput: 346.93 Mbit/s
  95th percentile per-packet one-way delay: 231.235 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 17.39 Mbit/s
  95th percentile per-packet one-way delay: 233.699 ms
  Loss rate: 0.12%
-- Flow 3:
  Average throughput: 31.65 Mbit/s
  95th percentile per-packet one-way delay: 240.118 ms
  Loss rate: 0.19%
Run 6: Report of PCC-Allegro — Data Link
Run 7: Statistics of PCC-Allegro

Start at: 2018-04-18 05:53:33
End at: 2018-04-18 05:54:03

# Below is generated by plot.py at 2018-04-18 09:01:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 357.15 Mbit/s
95th percentile per-packet one-way delay: 232.975 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 294.94 Mbit/s
95th percentile per-packet one-way delay: 232.514 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 63.38 Mbit/s
95th percentile per-packet one-way delay: 233.276 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 61.01 Mbit/s
95th percentile per-packet one-way delay: 234.980 ms
Loss rate: 0.65%
Run 7: Report of PCC-Allegro — Data Link
Run 8: Statistics of PCC-Allegro

Start at: 2018-04-18 06:09:42
End at: 2018-04-18 06:10:12

# Below is generated by plot.py at 2018-04-18 09:03:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 414.55 Mbit/s
95th percentile per-packet one-way delay: 231.401 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 411.23 Mbit/s
95th percentile per-packet one-way delay: 231.406 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 230.960 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 231.272 ms
Loss rate: 2.13%
Run 8: Report of PCC-Allegro — Data Link

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

Legend:
- Flow 1 ingress (mean 416.23 Mbit/s)
- Flow 1 egress (mean 411.23 Mbit/s)
- Flow 2 ingress (mean 3.99 Mbit/s)
- Flow 2 egress (mean 3.94 Mbit/s)
- Flow 3 ingress (mean 2.17 Mbit/s)
- Flow 3 egress (mean 2.13 Mbit/s)
Run 9: Statistics of PCC-Allegro

Start at: 2018-04-18 06:25:59
End at: 2018-04-18 06:26:29

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 374.72 Mbit/s
   95th percentile per-packet one-way delay: 225.688 ms
   Loss rate: 0.25%
-- Flow 1:
   Average throughput: 352.57 Mbit/s
   95th percentile per-packet one-way delay: 225.458 ms
   Loss rate: 0.25%
-- Flow 2:
   Average throughput: 17.48 Mbit/s
   95th percentile per-packet one-way delay: 226.445 ms
   Loss rate: 0.13%
-- Flow 3:
   Average throughput: 32.03 Mbit/s
   95th percentile per-packet one-way delay: 229.228 ms
   Loss rate: 0.32%
Run 9: Report of PCC-Allegro — Data Link

![Graph 1](image1.png)

- **Flow 1 ingress (mean 353.47 Mbit/s)**
- **Flow 1 egress (mean 352.57 Mbit/s)**
- **Flow 2 ingress (mean 17.50 Mbit/s)**
- **Flow 2 egress (mean 17.48 Mbit/s)**
- **Flow 3 ingress (mean 32.14 Mbit/s)**
- **Flow 3 egress (mean 32.03 Mbit/s)**

![Graph 2](image2.png)

- **Flow 1 (95th percentile 225.46 ms)**
- **Flow 2 (95th percentile 226.44 ms)**
- **Flow 3 (95th percentile 229.23 ms)**

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Run 10: Statistics of PCC-Allegro

Start at: 2018-04-18 06:42:19
End at: 2018-04-18 06:42:49

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 362.40 Mbit/s
  95th percentile per-packet one-way delay: 193.052 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 358.70 Mbit/s
  95th percentile per-packet one-way delay: 193.020 ms
  Loss rate: 0.30%
-- Flow 2:
  Average throughput: 4.41 Mbit/s
  95th percentile per-packet one-way delay: 189.111 ms
  Loss rate: 0.18%
-- Flow 3:
  Average throughput: 2.33 Mbit/s
  95th percentile per-packet one-way delay: 222.822 ms
  Loss rate: 0.31%
Run 10: Report of PCC-Allegro — Data Link

![Graph showing throughput and packet delay over time]

Throughput (Mbit/s) vs Time (s)

- Flow 1 ingress (mean 359.77 Mbit/s)
- Flow 1 egress (mean 358.70 Mbit/s)
- Flow 2 ingress (mean 4.42 Mbit/s)
- Flow 2 egress (mean 4.41 Mbit/s)
- Flow 3 ingress (mean 2.34 Mbit/s)
- Flow 3 egress (mean 2.33 Mbit/s)

Packet delay (ms) vs Time (s)

- Flow 1 (95th percentile 193.02 ms)
- Flow 2 (95th percentile 189.11 ms)
- Flow 3 (95th percentile 222.02 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-18 04:16:59
End at: 2018-04-18 04:17:29

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.27 Mbit/s
95th percentile per-packet one-way delay: 86.466 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.70 Mbit/s
95th percentile per-packet one-way delay: 86.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.95 Mbit/s
95th percentile per-packet one-way delay: 86.501 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.05 Mbit/s
95th percentile per-packet one-way delay: 86.204 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link

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

Start at: 2018-04-18 04:33:22  
End at: 2018-04-18 04:33:52

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.92 Mbit/s
  95th percentile per-packet one-way delay: 86.528 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 46.66 Mbit/s
  95th percentile per-packet one-way delay: 86.551 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 54.62 Mbit/s
  95th percentile per-packet one-way delay: 86.206 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 40.07 Mbit/s
  95th percentile per-packet one-way delay: 86.558 ms
  Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 3: Statistics of QUIC Cubic

Start at: 2018-04-18 04:49:52
End at: 2018-04-18 04:50:22

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.57 Mbit/s
  95th percentile per-packet one-way delay: 86.334 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 46.37 Mbit/s
  95th percentile per-packet one-way delay: 86.099 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 61.42 Mbit/s
  95th percentile per-packet one-way delay: 85.971 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 23.01 Mbit/s
  95th percentile per-packet one-way delay: 86.438 ms
  Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link

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

Start at: 2018-04-18 05:06:02
End at: 2018-04-18 05:06:32

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.84 Mbit/s
  95th percentile per-packet one-way delay: 86.392 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 58.40 Mbit/s
  95th percentile per-packet one-way delay: 86.163 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 41.93 Mbit/s
  95th percentile per-packet one-way delay: 86.453 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 14.26 Mbit/s
  95th percentile per-packet one-way delay: 86.068 ms
  Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-04-18 05:22:29
End at: 2018-04-18 05:22:59

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.17 Mbit/s
95th percentile per-packet one-way delay: 86.534 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.95 Mbit/s
95th percentile per-packet one-way delay: 86.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.79 Mbit/s
95th percentile per-packet one-way delay: 86.567 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.04 Mbit/s
95th percentile per-packet one-way delay: 86.587 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-04-18 05:38:53
End at: 2018-04-18 05:39:23

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.89 Mbit/s
  95th percentile per-packet one-way delay: 86.493 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 44.39 Mbit/s
  95th percentile per-packet one-way delay: 86.111 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 51.06 Mbit/s
  95th percentile per-packet one-way delay: 86.651 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 51.19 Mbit/s
  95th percentile per-packet one-way delay: 86.458 ms
  Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-18 05:55:16
End at: 2018-04-18 05:55:46

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.89 Mbit/s
  95th percentile per-packet one-way delay: 86.397 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 50.96 Mbit/s
  95th percentile per-packet one-way delay: 86.091 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 50.31 Mbit/s
  95th percentile per-packet one-way delay: 86.434 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 14.27 Mbit/s
  95th percentile per-packet one-way delay: 86.543 ms
  Loss rate: 0.00%
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-18 06:11:27
End at: 2018-04-18 06:11:57

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.13 Mbit/s
95th percentile per-packet one-way delay: 86.561 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.31 Mbit/s
95th percentile per-packet one-way delay: 86.225 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.68 Mbit/s
95th percentile per-packet one-way delay: 86.569 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.98 Mbit/s
95th percentile per-packet one-way delay: 86.637 ms
Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link

![Graph showing network data](chart1.png)

![Graph showing packet delay](chart2.png)
Run 9: Statistics of QUIC Cubic

Start at: 2018-04-18 06:27:43
End at: 2018-04-18 06:28:13

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 108.29 Mbit/s
95th percentile per-packet one-way delay: 86.573 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.53 Mbit/s
95th percentile per-packet one-way delay: 86.269 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.21 Mbit/s
95th percentile per-packet one-way delay: 86.628 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.68 Mbit/s
95th percentile per-packet one-way delay: 86.386 ms
Loss rate: 0.00%
Run 9: Report of QUIC Cubic — Data Link

![Graph 1: Throughput vs Time for different flows]

- Flow 1 ingress (mean 62.52 Mbit/s)
- Flow 1 egress (mean 62.53 Mbit/s)
- Flow 2 ingress (mean 45.21 Mbit/s)
- Flow 2 egress (mean 45.21 Mbit/s)
- Flow 3 ingress (mean 48.68 Mbit/s)
- Flow 3 egress (mean 48.68 Mbit/s)

![Graph 2: Packet One-Way Delay vs Time for different flows]

- Flow 1 (95th percentile 86.27 ms)
- Flow 2 (95th percentile 86.63 ms)
- Flow 3 (95th percentile 86.39 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-18 06:44:01
End at: 2018-04-18 06:44:31

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 102.04 Mbit/s
95th percentile per-packet one-way delay: 86.466 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.30 Mbit/s
95th percentile per-packet one-way delay: 86.494 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.89 Mbit/s
95th percentile per-packet one-way delay: 86.062 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 86.064 ms
Loss rate: 0.00%
Run 10: Report of QUIC Cubic — Data Link

![Graph showing throughput and per-packet-size vs. delay over time for different flows.](image-url)
Run 1: Statistics of SCReAM

Start at: 2018-04-18 04:09:53
End at: 2018-04-18 04:10:23

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 86.651 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.419 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.362 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.696 ms
  Loss rate: 0.00%
Run 2: Statistics of SCReAM

Start at: 2018-04-18 04:25:44
End at: 2018-04-18 04:26:14

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 86.697 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.709 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.635 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.406 ms
  Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-04-18 04:42:16
End at: 2018-04-18 04:42:46

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 86.563 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.188 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.591 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.500 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

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

Legend:
- Flow 1 Ingress (mean 0.22 Mbit/s)
- Flow 1 Egress (mean 0.22 Mbit/s)
- Flow 2 Ingress (mean 0.22 Mbit/s)
- Flow 2 Egress (mean 0.22 Mbit/s)
- Flow 3 Ingress (mean 0.22 Mbit/s)
- Flow 3 Egress (mean 0.22 Mbit/s)
Run 4: Statistics of SCReAM

Start at: 2018-04-18 04:58:39
End at: 2018-04-18 04:59:09

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 86.640 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.291 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.675 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.640 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2018-04-18 05:14:48
End at: 2018-04-18 05:15:18

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.613 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.612 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.593 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.649 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

![Graph of Throughput](image1)

![Graph of Packet Delay](image2)
Run 6: Statistics of SCReAM

Start at: 2018-04-18 05:31:16
End at: 2018-04-18 05:31:46

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 86.587 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.112 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.627 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.295 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

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

Start at: 2018-04-18 05:47:38
End at: 2018-04-18 05:48:08

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.178 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.197 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.168 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.151 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-04-18 06:03:52
End at: 2018-04-18 06:04:22

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 86.591 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.163 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.628 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.591 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link
Run 9: Statistics of SCReAM

Start at: 2018-04-18 06:20:14
End at: 2018-04-18 06:20:44

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 86.646 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.210 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.176 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.703 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

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Data Link Throughput:

- **Flow 1 Ingress (mean 0.22 Mbit/s)**
- **Flow 1 Egress (mean 0.22 Mbit/s)**
- **Flow 2 Ingress (mean 0.22 Mbit/s)**
- **Flow 2 Egress (mean 0.22 Mbit/s)**
- **Flow 3 Ingress (mean 0.22 Mbit/s)**
- **Flow 3 Egress (mean 0.22 Mbit/s)**

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Data Link Per-packet One Way Delay:

- **Flow 1 (95th percentile 86.21 ms)**
- **Flow 2 (95th percentile 86.18 ms)**
- **Flow 3 (95th percentile 86.70 ms)**

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Run 10: Statistics of SCReAM

Start at: 2018-04-18 06:36:33
End at: 2018-04-18 06:37:03

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 86.742 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.542 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.732 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 88.990 ms
  Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-04-18 04:13:40
End at: 2018-04-18 04:14:10

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 86.931 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 87.014 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.708 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 86.782 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 0.06 Mbps)
  - Flow 1 egress (mean 0.06 Mbps)
  - Flow 2 ingress (mean 0.06 Mbps)
  - Flow 2 egress (mean 0.06 Mbps)
  - Flow 3 ingress (mean 0.05 Mbps)
  - Flow 3 egress (mean 0.05 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 87.01 ms)
  - Flow 2 (95th percentile 86.71 ms)
  - Flow 3 (95th percentile 86.78 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-04-18 04:30:03
End at: 2018-04-18 04:30:33

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 87.051 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 87.066 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 87.099 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 86.606 ms
  Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

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

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

- **Delay (ms):**
  - Flow 1: 95th percentile 87.07 ms
  - Flow 2: 95th percentile 87.10 ms
  - Flow 3: 95th percentile 86.61 ms
Run 3: Statistics of WebRTC media

Start at: 2018-04-18 04:46:32
End at: 2018-04-18 04:47:02

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 86.667 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.732 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.450 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 86.681 ms
  Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-04-18 05:02:43
End at: 2018-04-18 05:03:13

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 86.701 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.07 Mbit/s
  95th percentile per-packet one-way delay: 86.669 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.781 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 86.641 ms
  Loss rate: 0.00%
Run 5: Statistics of WebRTC media

Start at: 2018-04-18 05:19:07
End at: 2018-04-18 05:19:37

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 86.608 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.468 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.584 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 86.665 ms
  Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

[Graph showing throughput and packet delay over time]
Run 6: Statistics of WebRTC media

Start at: 2018-04-18 05:35:28
End at: 2018-04-18 05:35:58

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 86.743 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.853 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.680 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 86.745 ms
  Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

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

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

- **Packet one-way delay (ms)**
  - Flow 1 (95th percentile 86.85 ms)
  - Flow 2 (95th percentile 86.68 ms)
  - Flow 3 (95th percentile 86.75 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-04-18 05:51:56
End at: 2018-04-18 05:52:26

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 86.872 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.698 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.913 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 86.881 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 0.06 Mbit/s)
- Flow 1 egress (mean 0.06 Mbit/s)
- Flow 2 ingress (mean 0.06 Mbit/s)
- Flow 2 egress (mean 0.06 Mbit/s)
- Flow 3 ingress (mean 0.05 Mbit/s)
- Flow 3 egress (mean 0.05 Mbit/s)
Run 8: Statistics of WebRTC media

Start at: 2018-04-18 06:08:06
End at: 2018-04-18 06:08:36

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 86.945 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.945 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.914 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 87.006 ms
  Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

[Graph showing throughput and delay over time]

Throughput (Mb/s)

0 5 10 15 20 25 30

Time (s)

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

Delay (ms)

0 5 10 15 20 25 30

Time (s)

Flow 1 (95th percentile 86.94 ms) — Flow 2 (95th percentile 86.91 ms) — Flow 3 (95th percentile 87.01 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-04-18 06:24:23
End at: 2018-04-18 06:24:53

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 87.351 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 87.001 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 87.370 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 87.463 ms
  Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-04-18 06:40:41
End at: 2018-04-18 06:41:11

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 86.974 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 87.101 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 86.913 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 86.927 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link
Run 1: Statistics of Sprout

End at: 2018-04-18 04:23:08

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.99 Mbit/s
  95th percentile per-packet one-way delay: 87.244 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.38 Mbit/s
  95th percentile per-packet one-way delay: 87.298 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.04 Mbit/s
  95th percentile per-packet one-way delay: 87.206 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.80 Mbit/s
  95th percentile per-packet one-way delay: 87.160 ms
  Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

![Graph of Throughput and Per-Packet End-to-End Delay]

- Flow 1 ingress (mean 4.38 Mbit/s)
- Flow 1 egress (mean 4.38 Mbit/s)
- Flow 2 ingress (mean 4.04 Mbit/s)
- Flow 2 egress (mean 4.04 Mbit/s)
- Flow 3 ingress (mean 2.80 Mbit/s)
- Flow 3 egress (mean 2.80 Mbit/s)

![Graph of Throughput and Per-Packet End-to-End Delay]

- Flow 1 (95th percentile 87.30 ms)
- Flow 2 (95th percentile 87.21 ms)
- Flow 3 (95th percentile 87.16 ms)
Run 2: Statistics of Sprout

Start at: 2018-04-18 04:39:04
End at: 2018-04-18 04:39:34

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.17 Mbit/s
  95th percentile per-packet one-way delay: 87.505 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.95 Mbit/s
  95th percentile per-packet one-way delay: 87.464 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.03 Mbit/s
  95th percentile per-packet one-way delay: 87.595 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.62 Mbit/s
  95th percentile per-packet one-way delay: 87.117 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

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

- **Flow 1 ingress (mean 3.95 Mbit/s)**
- **Flow 1 egress (mean 3.95 Mbit/s)**
- **Flow 2 ingress (mean 4.03 Mbit/s)**
- **Flow 2 egress (mean 4.03 Mbit/s)**
- **Flow 3 ingress (mean 1.62 Mbit/s)**
- **Flow 3 egress (mean 1.62 Mbit/s)**

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

- **Flow 1 (95th percentile 87.46 ms)**
- **Flow 2 (95th percentile 87.59 ms)**
- **Flow 3 (95th percentile 87.12 ms)**
Run 3: Statistics of Sprout

End at: 2018-04-18 04:56:03

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.87 Mbit/s
  95th percentile per-packet one-way delay: 87.106 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.04 Mbit/s
  95th percentile per-packet one-way delay: 87.165 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.26 Mbit/s
  95th percentile per-packet one-way delay: 87.102 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 3.01 Mbit/s
  95th percentile per-packet one-way delay: 86.842 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 4.04 Mbit/s)
- Flow 1 egress (mean 4.04 Mbit/s)
- Flow 2 ingress (mean 4.26 Mbit/s)
- Flow 2 egress (mean 4.26 Mbit/s)
- Flow 3 ingress (mean 3.01 Mbit/s)
- Flow 3 egress (mean 3.01 Mbit/s)

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

- Flow 1 (95th percentile 87.17 ms)
- Flow 2 (95th percentile 87.10 ms)
- Flow 3 (95th percentile 86.84 ms)

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Run 4: Statistics of Sprout

Start at: 2018-04-18 05:11:38
End at: 2018-04-18 05:12:08

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 7.85 Mbit/s
   95th percentile per-packet one-way delay: 87.343 ms
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 4.45 Mbit/s
   95th percentile per-packet one-way delay: 87.424 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 4.24 Mbit/s
   95th percentile per-packet one-way delay: 87.266 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 1.79 Mbit/s
   95th percentile per-packet one-way delay: 87.060 ms
   Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 4.45 Mbit/s)
- Flow 1 egress (mean 4.45 Mbit/s)
- Flow 2 ingress (mean 4.24 Mbit/s)
- Flow 2 egress (mean 4.24 Mbit/s)
- Flow 3 ingress (mean 1.79 Mbit/s)
- Flow 3 egress (mean 1.79 Mbit/s)

**Packet Latency (ms):**
- Flow 1 (95th percentile 87.42 ms)
- Flow 2 (95th percentile 87.27 ms)
- Flow 3 (95th percentile 87.06 ms)
Run 5: Statistics of Sprout

Start at: 2018-04-18 05:28:07
End at: 2018-04-18 05:28:37

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 87.716 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 87.549 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 87.768 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 88.445 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

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

Start at: 2018-04-18 05:44:32
End at: 2018-04-18 05:45:02

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 87.549 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 87.565 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.09 Mbit/s
95th percentile per-packet one-way delay: 87.604 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 87.362 ms
Loss rate: 0.00%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

Start at: 2018-04-18 06:00:54
End at: 2018-04-18 06:01:24

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.43 Mbit/s
  95th percentile per-packet one-way delay: 87.454 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.53 Mbit/s
  95th percentile per-packet one-way delay: 87.346 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.08 Mbit/s
  95th percentile per-packet one-way delay: 87.541 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 3.61 Mbit/s
  95th percentile per-packet one-way delay: 87.498 ms
  Loss rate: 0.00%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-04-18 06:17:04
End at: 2018-04-18 06:17:34

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.18 Mbit/s
95th percentile per-packet one-way delay: 87.535 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 87.452 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.29 Mbit/s
95th percentile per-packet one-way delay: 87.576 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.44 Mbit/s
95th percentile per-packet one-way delay: 87.701 ms
Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

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

- **Throughput** (Mbps):[Graph showing throughput over time with different colored lines for each flow.]

- **Packet End-to-End Delay**: [Graph showing packet delay over time with different colored lines for each flow.]

- Legend:
  - Flow 1 ingress (mean 4.20 Mbit/s)
  - Flow 1 egress (mean 4.20 Mbit/s)
  - Flow 2 ingress (mean 4.29 Mbit/s)
  - Flow 2 egress (mean 4.29 Mbit/s)
  - Flow 3 ingress (mean 3.44 Mbit/s)
  - Flow 3 egress (mean 3.44 Mbit/s)
Run 9: Statistics of Sprout

Start at: 2018-04-18 06:33:23
End at: 2018-04-18 06:33:53

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.75 Mbit/s
  95th percentile per-packet one-way delay: 87.723 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.83 Mbit/s
  95th percentile per-packet one-way delay: 87.628 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.06 Mbit/s
  95th percentile per-packet one-way delay: 87.873 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 3.71 Mbit/s
  95th percentile per-packet one-way delay: 87.727 ms
  Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 3.83 Mbit/s)
- Flow 1 egress (mean 3.83 Mbit/s)
- Flow 2 ingress (mean 4.06 Mbit/s)
- Flow 2 egress (mean 4.06 Mbit/s)
- Flow 3 ingress (mean 3.71 Mbit/s)
- Flow 3 egress (mean 3.71 Mbit/s)

![Graph 2: Per-packet round-trip delay vs Time](image2)

- Flow 1 (95th percentile 87.63 ms)
- Flow 2 (95th percentile 87.87 ms)
- Flow 3 (95th percentile 87.73 ms)
Run 10: Statistics of Sprout

Start at: 2018-04-18 06:49:43
End at: 2018-04-18 06:50:13

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.89 Mbit/s
  95th percentile per-packet one-way delay: 87.412 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.98 Mbit/s
  95th percentile per-packet one-way delay: 87.422 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.24 Mbit/s
  95th percentile per-packet one-way delay: 87.408 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 3.33 Mbit/s
  95th percentile per-packet one-way delay: 87.390 ms
  Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 3.98 Mbit/s)
- Flow 1 egress (mean 3.98 Mbit/s)
- Flow 2 ingress (mean 4.24 Mbit/s)
- Flow 2 egress (mean 4.24 Mbit/s)
- Flow 3 ingress (mean 3.32 Mbit/s)
- Flow 3 egress (mean 3.33 Mbit/s)
Run 1: Statistics of TaoVA-100x

Start at: 2018-04-18 04:12:35
End at: 2018-04-18 04:13:05

# Below is generated by plot.py at 2018-04-18 09:11:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 224.19 Mbit/s
  95th percentile per-packet one-way delay: 91.658 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 137.58 Mbit/s
  95th percentile per-packet one-way delay: 89.313 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 112.19 Mbit/s
  95th percentile per-packet one-way delay: 93.983 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 37.50 Mbit/s
  95th percentile per-packet one-way delay: 99.988 ms
  Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

![Graph showing throughput and per-packet one way delay over time for different flows, with mean rates indicated.]
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-18 04:28:56
End at: 2018-04-18 04:29:26

# Below is generated by plot.py at 2018-04-18 09:11:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 240.36 Mbit/s
  95th percentile per-packet one-way delay: 88.870 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 154.51 Mbit/s
  95th percentile per-packet one-way delay: 87.682 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 87.79 Mbit/s
  95th percentile per-packet one-way delay: 92.276 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 82.71 Mbit/s
  95th percentile per-packet one-way delay: 90.660 ms
  Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link

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

Flow 1 ingress (mean 154.52 Mbit/s)  
Flow 1 egress (mean 154.51 Mbit/s)  
Flow 2 ingress (mean 87.79 Mbit/s)  
Flow 2 egress (mean 87.79 Mbit/s)  
Flow 3 ingress (mean 82.71 Mbit/s)  
Flow 3 egress (mean 82.71 Mbit/s)

Flow 1 (95th percentile 87.68 ms)  
Flow 2 (95th percentile 92.28 ms)  
Flow 3 (95th percentile 90.66 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-04-18 04:45:23
End at: 2018-04-18 04:45:53

# Below is generated by plot.py at 2018-04-18 09:12:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 253.74 Mbit/s
  95th percentile per-packet one-way delay: 89.815 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 161.83 Mbit/s
  95th percentile per-packet one-way delay: 88.397 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 66.57 Mbit/s
  95th percentile per-packet one-way delay: 93.684 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 143.55 Mbit/s
  95th percentile per-packet one-way delay: 89.800 ms
  Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-04-18 05:01:35
End at: 2018-04-18 05:02:05

# Below is generated by plot.py at 2018-04-18 09:13:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 255.15 Mbit/s
95th percentile per-packet one-way delay: 91.393 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 170.89 Mbit/s
95th percentile per-packet one-way delay: 91.272 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 117.91 Mbit/s
95th percentile per-packet one-way delay: 90.776 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.52 Mbit/s
95th percentile per-packet one-way delay: 99.015 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-04-18 05:17:59
End at: 2018-04-18 05:18:29

# Below is generated by plot.py at 2018-04-18 09:13:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 262.40 Mbit/s
95th percentile per-packet one-way delay: 89.535 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 167.79 Mbit/s
95th percentile per-packet one-way delay: 88.553 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.38 Mbit/s
95th percentile per-packet one-way delay: 90.259 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.34 Mbit/s
95th percentile per-packet one-way delay: 92.176 ms
Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress** (mean 167.79 Mbit/s)
- **Flow 1 egress** (mean 167.79 Mbit/s)
- **Flow 2 ingress** (mean 76.40 Mbit/s)
- **Flow 2 egress** (mean 76.35 Mbit/s)
- **Flow 3 ingress** (mean 132.33 Mbit/s)
- **Flow 3 egress** (mean 132.34 Mbit/s)

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

- **Flow 1** (95th percentile 88.55 ms)
- **Flow 2** (95th percentile 90.26 ms)
- **Flow 3** (95th percentile 92.18 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-04-18 05:34:26
End at: 2018-04-18 05:34:56

# Below is generated by plot.py at 2018-04-18 09:13:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 197.19 Mbit/s
95th percentile per-packet one-way delay: 88.023 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 104.89 Mbit/s
95th percentile per-packet one-way delay: 87.735 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.85 Mbit/s
95th percentile per-packet one-way delay: 92.241 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 197.72 Mbit/s
95th percentile per-packet one-way delay: 87.409 ms
Loss rate: 0.00%
Run 6: Report of TaoVA-100x — Data Link

![Graph showing network performance metrics over time]

Legend:
- Flow 1 ingress (mean 104.89 Mbit/s)
- Flow 1 egress (mean 104.89 Mbit/s)
- Flow 2 ingress (mean 40.85 Mbit/s)
- Flow 2 egress (mean 40.85 Mbit/s)
- Flow 3 ingress (mean 197.72 Mbit/s)
- Flow 3 egress (mean 197.72 Mbit/s)

Per packet one way delay (ms)

- Flow 1 (95th percentile 87.73 ms)
- Flow 2 (95th percentile 92.24 ms)
- Flow 3 (95th percentile 87.41 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-18 05:50:48
End at: 2018-04-18 05:51:18

# Below is generated by plot.py at 2018-04-18 09:14:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 248.41 Mbit/s
  95th percentile per-packet one-way delay: 92.165 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 174.53 Mbit/s
  95th percentile per-packet one-way delay: 90.596 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 93.36 Mbit/s
  95th percentile per-packet one-way delay: 95.997 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 41.92 Mbit/s
  95th percentile per-packet one-way delay: 98.385 ms
  Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link

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

- **Throughput Graph:**
  - Flow 1 ingress (mean 174.75 Mbit/s)
  - Flow 1 egress (mean 174.53 Mbit/s)
  - Flow 2 ingress (mean 93.51 Mbit/s)
  - Flow 2 egress (mean 93.36 Mbit/s)
  - Flow 3 ingress (mean 42.09 Mbit/s)
  - Flow 3 egress (mean 41.92 Mbit/s)

- **Packet Loss Delay Graph:**
  - Flow 1 (95th percentile 90.60 ms)
  - Flow 2 (95th percentile 96.00 ms)
  - Flow 3 (95th percentile 98.39 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-04-18 06:06:59
End at: 2018-04-18 06:07:29

# Below is generated by plot.py at 2018-04-18 09:14:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 235.22 Mbit/s
95th percentile per-packet one-way delay: 91.118 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 142.74 Mbit/s
95th percentile per-packet one-way delay: 89.865 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 109.90 Mbit/s
95th percentile per-packet one-way delay: 92.036 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 101.86 Mbit/s
95th percentile per-packet one-way delay: 94.499 ms
Loss rate: 0.00%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-04-18 06:23:14
End at: 2018-04-18 06:23:44

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 257.72 Mbit/s
  95th percentile per-packet one-way delay: 90.449 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 156.37 Mbit/s
  95th percentile per-packet one-way delay: 89.863 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 115.52 Mbit/s
  95th percentile per-packet one-way delay: 91.298 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 73.73 Mbit/s
  95th percentile per-packet one-way delay: 91.751 ms
  Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-18 06:39:32
End at: 2018-04-18 06:40:02

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 253.43 Mbit/s
  95th percentile per-packet one-way delay: 90.927 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 137.57 Mbit/s
  95th percentile per-packet one-way delay: 91.031 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 128.78 Mbit/s
  95th percentile per-packet one-way delay: 90.038 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 99.43 Mbit/s
  95th percentile per-packet one-way delay: 93.208 ms
  Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress (mean 137.57 Mbps)**
- **Flow 1 egress (mean 137.57 Mbps)**
- **Flow 2 ingress (mean 128.78 Mbps)**
- **Flow 2 egress (mean 128.78 Mbps)**
- **Flow 3 ingress (mean 99.54 Mbps)**
- **Flow 3 egress (mean 99.43 Mbps)**

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

- **Flow 1 (95th percentile 91.03 ms)**
- **Flow 2 (95th percentile 90.04 ms)**
- **Flow 3 (95th percentile 93.21 ms)**

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Run 1: Statistics of TCP Vegas

Start at: 2018-04-18 04:11:45
End at: 2018-04-18 04:12:15

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 102.51 Mbit/s
95th percentile per-packet one-way delay: 95.881 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 38.25 Mbit/s
95th percentile per-packet one-way delay: 93.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 95.45 Mbit/s
95th percentile per-packet one-way delay: 96.672 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 90.926 ms
Loss rate: 0.05%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-04-18 04:28:07
End at: 2018-04-18 04:28:37

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.39 Mbit/s
95th percentile per-packet one-way delay: 94.634 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.99 Mbit/s
95th percentile per-packet one-way delay: 92.239 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.96 Mbit/s
95th percentile per-packet one-way delay: 92.852 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 62.86 Mbit/s
95th percentile per-packet one-way delay: 96.342 ms
Loss rate: 0.00%
Run 3: Statistics of TCP Vegas

Start at: 2018-04-18 04:44:34
End at: 2018-04-18 04:45:04

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.29 Mbit/s
95th percentile per-packet one-way delay: 96.046 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.86 Mbit/s
95th percentile per-packet one-way delay: 96.054 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.16 Mbit/s
95th percentile per-packet one-way delay: 94.487 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 112.85 Mbit/s
95th percentile per-packet one-way delay: 96.536 ms
Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link

![Graph showing throughput and packet loss over time for different flows with mean values and 95th percentile delays.]
Run 4: Statistics of TCP Vegas

Start at: 2018-04-18 05:00:45
End at: 2018-04-18 05:01:15

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 120.42 Mbit/s
95th percentile per-packet one-way delay: 95.217 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 92.971 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.51 Mbit/s
95th percentile per-packet one-way delay: 93.841 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 120.94 Mbit/s
95th percentile per-packet one-way delay: 97.182 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 38.91 Mbps)
- Flow 2 ingress (mean 62.51 Mbps)
- Flow 3 ingress (mean 120.99 Mbps)
- Flow 1 egress (mean 38.91 Mbps)
- Flow 2 egress (mean 62.51 Mbps)
- Flow 3 egress (mean 120.04 Mbps)

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

- Flow 1 (95th percentile 92.97 ms)
- Flow 2 (95th percentile 93.84 ms)
- Flow 3 (95th percentile 97.18 ms)
Run 5: Statistics of TCP Vegas

Start at: 2018-04-18 05:17:08
End at: 2018-04-18 05:17:38

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 117.87 Mbit/s
  95th percentile per-packet one-way delay: 96.410 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 68.09 Mbit/s
  95th percentile per-packet one-way delay: 94.966 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 23.52 Mbit/s
  95th percentile per-packet one-way delay: 96.682 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 103.08 Mbit/s
  95th percentile per-packet one-way delay: 97.812 ms
  Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-04-18 05:33:36
End at: 2018-04-18 05:34:06

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 120.76 Mbit/s
  95th percentile per-packet one-way delay: 96.816 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 39.47 Mbit/s
  95th percentile per-packet one-way delay: 95.643 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 69.47 Mbit/s
  95th percentile per-packet one-way delay: 96.552 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 105.97 Mbit/s
  95th percentile per-packet one-way delay: 97.227 ms
  Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-04-18 05:49:59
End at: 2018-04-18 05:50:29

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 102.79 Mbit/s
  95th percentile per-packet one-way delay: 95.755 ms
  Loss rate: 0.09%
-- Flow 1:
  Average throughput: 41.22 Mbit/s
  95th percentile per-packet one-way delay: 92.203 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 41.45 Mbit/s
  95th percentile per-packet one-way delay: 94.330 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 102.16 Mbit/s
  95th percentile per-packet one-way delay: 98.235 ms
  Loss rate: 0.22%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-04-18 06:06:03
End at: 2018-04-18 06:06:33

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 225.21 Mbit/s
95th percentile per-packet one-way delay: 101.362 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 131.12 Mbit/s
95th percentile per-packet one-way delay: 102.032 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 83.26 Mbit/s
95th percentile per-packet one-way delay: 100.838 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 117.12 Mbit/s
95th percentile per-packet one-way delay: 99.967 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 131.19 Mbps)
Flow 1 egress (mean 131.12 Mbps)
Flow 2 ingress (mean 83.29 Mbps)
Flow 2 egress (mean 83.26 Mbps)
Flow 3 ingress (mean 117.23 Mbps)
Flow 3 egress (mean 117.12 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 102.03 ms)
Flow 2 (95th percentile 100.84 ms)
Flow 3 (95th percentile 99.97 ms)

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Run 9: Statistics of TCP Vegas


# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 102.51 Mbit/s
95th percentile per-packet one-way delay: 89.613 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.98 Mbit/s
95th percentile per-packet one-way delay: 89.363 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.09 Mbit/s
95th percentile per-packet one-way delay: 89.771 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.87 Mbit/s
95th percentile per-packet one-way delay: 90.183 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: One-packet round trip delay (ms)]
Run 10: Statistics of TCP Vegas

Start at: 2018-04-18 06:38:42
End at: 2018-04-18 06:39:12

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 121.30 Mbit/s
  95th percentile per-packet one-way delay: 94.317 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 68.21 Mbit/s
  95th percentile per-packet one-way delay: 95.173 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 47.39 Mbit/s
  95th percentile per-packet one-way delay: 90.258 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 64.99 Mbit/s
  95th percentile per-packet one-way delay: 90.929 ms
  Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 68.21 Mbit/s)
- Flow 2 ingress (mean 47.37 Mbit/s)
- Flow 3 ingress (mean 64.99 Mbit/s)
- Flow 1 egress (mean 68.21 Mbit/s)
- Flow 2 egress (mean 47.39 Mbit/s)
- Flow 3 egress (mean 64.99 Mbit/s)

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

- Flow 1 (95th percentile 95.17 ms)
- Flow 2 (95th percentile 90.26 ms)
- Flow 3 (95th percentile 90.93 ms)
Run 1: Statistics of Verus

Start at: 2018-04-18 04:20:36
End at: 2018-04-18 04:21:06

# Below is generated by plot.py at 2018-04-18 09:20:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 268.26 Mbit/s
95th percentile per-packet one-way delay: 202.152 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 196.00 Mbit/s
95th percentile per-packet one-way delay: 207.406 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 86.72 Mbit/s
95th percentile per-packet one-way delay: 191.391 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 45.99 Mbit/s
95th percentile per-packet one-way delay: 175.894 ms
Loss rate: 0.00%
Run 1: Report of Verus — Data Link

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

Start at: 2018-04-18 04:37:03
End at: 2018-04-18 04:37:33

# Below is generated by plot.py at 2018-04-18 09:21:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 274.34 Mbit/s
  95th percentile per-packet one-way delay: 196.833 ms
  Loss rate: 0.90%
-- Flow 1:
  Average throughput: 222.39 Mbit/s
  95th percentile per-packet one-way delay: 188.245 ms
  Loss rate: 0.42%
-- Flow 2:
  Average throughput: 50.49 Mbit/s
  95th percentile per-packet one-way delay: 199.237 ms
  Loss rate: 0.29%
-- Flow 3:
  Average throughput: 57.12 Mbit/s
  95th percentile per-packet one-way delay: 271.781 ms
  Loss rate: 7.26%
Run 2: Report of Verus — Data Link

![Graph of Throughput (Mbps) over time](image)

Legend:
- Flow 1 ingress (mean 223.39 Mbps)
- Flow 1 egress (mean 222.39 Mbps)
- Flow 2 ingress (mean 50.09 Mbps)
- Flow 2 egress (mean 50.49 Mbps)
- Flow 3 ingress (mean 61.38 Mbps)
- Flow 3 egress (mean 57.12 Mbps)

![Graph of Per-packet one-way delay (ms) over time](image)

Legend:
- Flow 1 (95th percentile 188.25 ms)
- Flow 2 (95th percentile 199.24 ms)
- Flow 3 (95th percentile 271.78 ms)
Run 3: Statistics of Verus

Start at: 2018-04-18 04:53:34
End at: 2018-04-18 04:54:04

# Below is generated by plot.py at 2018-04-18 09:21:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 237.38 Mbit/s
95th percentile per-packet one-way delay: 222.707 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 179.44 Mbit/s
95th percentile per-packet one-way delay: 236.469 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 64.93 Mbit/s
95th percentile per-packet one-way delay: 206.538 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 46.19 Mbit/s
95th percentile per-packet one-way delay: 197.153 ms
Loss rate: 0.50%
Run 3: Report of Verus — Data Link

![Graph 1: Throughput vs. Time]

- Flow 1 ingress (mean 180.86 Mbit/s)
- Flow 1 egress (mean 179.44 Mbit/s)
- Flow 2 ingress (mean 66.26 Mbit/s)
- Flow 2 egress (mean 64.93 Mbit/s)
- Flow 3 ingress (mean 47.17 Mbit/s)
- Flow 3 egress (mean 46.19 Mbit/s)

![Graph 2: Delay vs. Time]

- Flow 1 (95th percentile 236.47 ms)
- Flow 2 (95th percentile 206.54 ms)
- Flow 3 (95th percentile 197.15 ms)
Run 4: Statistics of Verus

Start at: 2018-04-18 05:09:38
End at: 2018-04-18 05:10:08

# Below is generated by plot.py at 2018-04-18 09:21:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 247.10 Mbit/s
  95th percentile per-packet one-way delay: 201.752 ms
  Loss rate: 0.37%
-- Flow 1:
  Average throughput: 113.15 Mbit/s
  95th percentile per-packet one-way delay: 194.402 ms
  Loss rate: 0.36%
-- Flow 2:
  Average throughput: 155.82 Mbit/s
  95th percentile per-packet one-way delay: 210.115 ms
  Loss rate: 0.14%
-- Flow 3:
  Average throughput: 94.87 Mbit/s
  95th percentile per-packet one-way delay: 204.916 ms
  Loss rate: 1.12%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-04-18 05:26:08
End at: 2018-04-18 05:26:38

# Below is generated by plot.py at 2018-04-18 09:21:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 215.66 Mbit/s
  95th percentile per-packet one-way delay: 220.412 ms
  Loss rate: 1.00%
-- Flow 1:
  Average throughput: 130.89 Mbit/s
  95th percentile per-packet one-way delay: 214.917 ms
  Loss rate: 0.69%
-- Flow 2:
  Average throughput: 104.46 Mbit/s
  95th percentile per-packet one-way delay: 265.831 ms
  Loss rate: 1.49%
-- Flow 3:
  Average throughput: 50.21 Mbit/s
  95th percentile per-packet one-way delay: 195.494 ms
  Loss rate: 1.33%
Run 5: Report of Verus — Data Link

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

Start at: 2018-04-18 05:42:34
End at: 2018-04-18 05:43:04

# Below is generated by plot.py at 2018-04-18 09:23:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 240.51 Mbit/s
95th percentile per-packet one-way delay: 322.166 ms
Loss rate: 4.71%
-- Flow 1:
Average throughput: 208.89 Mbit/s
95th percentile per-packet one-way delay: 327.165 ms
Loss rate: 5.19%
-- Flow 2:
Average throughput: 24.93 Mbit/s
95th percentile per-packet one-way delay: 239.701 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 51.79 Mbit/s
95th percentile per-packet one-way delay: 208.087 ms
Loss rate: 0.65%
Run 6: Report of Verus — Data Link

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

- **Flow 1 ingo**: mean 220.38 Mbit/s
- **Flow 1 egress**: mean 208.89 Mbit/s
- **Flow 2 ingo**: mean 25.39 Mbit/s
- **Flow 2 egress**: mean 24.93 Mbit/s
- **Flow 3 ingo**: mean 52.21 Mbit/s
- **Flow 3 egress**: mean 51.79 Mbit/s

![Graph showing network latency over time](image)

- **Flow 1 (95th percentile)**: 327.17 ms
- **Flow 2 (95th percentile)**: 239.70 ms
- **Flow 3 (95th percentile)**: 208.09 ms
Run 7: Statistics of Verus

Start at: 2018-04-18 05:58:54
End at: 2018-04-18 05:59:24

# Below is generated by plot.py at 2018-04-18 09:24:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 245.15 Mbit/s
  95th percentile per-packet one-way delay: 205.880 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 167.67 Mbit/s
  95th percentile per-packet one-way delay: 221.586 ms
  Loss rate: 1.49%
-- Flow 2:
  Average throughput: 88.72 Mbit/s
  95th percentile per-packet one-way delay: 181.730 ms
  Loss rate: 1.28%
-- Flow 3:
  Average throughput: 57.39 Mbit/s
  95th percentile per-packet one-way delay: 194.041 ms
  Loss rate: 0.38%
Run 7: Report of Verus — Data Link
Run 8: Statistics of Verus

Start at: 2018-04-18 06:15:04
End at: 2018-04-18 06:15:34

# Below is generated by plot.py at 2018-04-18 09:24:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 264.21 Mbit/s
95th percentile per-packet one-way delay: 252.141 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 197.41 Mbit/s
95th percentile per-packet one-way delay: 198.929 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 90.02 Mbit/s
95th percentile per-packet one-way delay: 329.269 ms
Loss rate: 3.62%
-- Flow 3:
Average throughput: 22.50 Mbit/s
95th percentile per-packet one-way delay: 238.130 ms
Loss rate: 6.15%
Run 8: Report of Verus — Data Link

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

- Flow 1 ingress (mean 199.23 Mbit/s)
- Flow 1 egress (mean 197.41 Mbit/s)
- Flow 2 ingress (mean 94.09 Mbit/s)
- Flow 2 egress (mean 90.02 Mbit/s)
- Flow 3 ingress (mean 23.52 Mbit/s)
- Flow 3 egress (mean 22.50 Mbit/s)

- Flow 1 (95th percentile 198.93 ms)
- Flow 2 (95th percentile 329.27 ms)
- Flow 3 (95th percentile 238.13 ms)
Run 9: Statistics of Verus

Start at: 2018-04-18 06:31:23  
End at: 2018-04-18 06:31:53

# Below is generated by plot.py at 2018-04-18 09:25:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 261.71 Mbit/s
95th percentile per-packet one-way delay: 202.407 ms  
Loss rate: 0.25%
-- Flow 1:
Average throughput: 210.04 Mbit/s
95th percentile per-packet one-way delay: 208.929 ms  
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.71 Mbit/s
95th percentile per-packet one-way delay: 164.503 ms  
Loss rate: 1.96%
-- Flow 3:
Average throughput: 61.14 Mbit/s
95th percentile per-packet one-way delay: 152.494 ms  
Loss rate: 0.00%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-04-18 06:47:41
End at: 2018-04-18 06:48:11

# Below is generated by plot.py at 2018-04-18 09:25:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 250.91 Mbit/s
95th percentile per-packet one-way delay: 248.711 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 174.23 Mbit/s
95th percentile per-packet one-way delay: 270.095 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 101.09 Mbit/s
95th percentile per-packet one-way delay: 208.142 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 29.89 Mbit/s
95th percentile per-packet one-way delay: 205.913 ms
Loss rate: 1.58%
Run 10: Report of Verus — Data Link

![Graph of Throughput and Delay](image)

- Flow 1 ingress (mean 176.04 Mbit/s)
- Flow 1 egress (mean 174.23 Mbit/s)
- Flow 2 ingress (mean 101.73 Mbit/s)
- Flow 2 egress (mean 101.09 Mbit/s)
- Flow 3 ingress (mean 30.30 Mbit/s)
- Flow 3 egress (mean 29.89 Mbit/s)

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

- Flow 1 (95th percentile 270.10 ms)
- Flow 2 (95th percentile 208.14 ms)
- Flow 3 (95th percentile 205.91 ms)
Run 1: Statistics of Copa

Start at: 2018-04-18 04:18:55
End at: 2018-04-18 04:19:25

# Below is generated by plot.py at 2018-04-18 09:25:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.14 Mbit/s
95th percentile per-packet one-way delay: 86.250 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 82.91 Mbit/s
95th percentile per-packet one-way delay: 86.221 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 55.99 Mbit/s
95th percentile per-packet one-way delay: 86.376 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 81.24 Mbit/s
95th percentile per-packet one-way delay: 86.244 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-04-18 04:35:20
End at: 2018-04-18 04:35:50

# Below is generated by plot.py at 2018-04-18 09:26:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 155.46 Mbit/s
  95th percentile per-packet one-way delay: 86.625 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 88.19 Mbit/s
  95th percentile per-packet one-way delay: 86.677 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 69.87 Mbit/s
  95th percentile per-packet one-way delay: 86.265 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 62.52 Mbit/s
  95th percentile per-packet one-way delay: 86.506 ms
  Loss rate: 0.00%
Run 2: Report of Copa — Data Link

Throughput (Mbit/s)

- Flow 1 ingress (mean 88.19 Mbit/s)
- Flow 1 egress (mean 88.19 Mbit/s)
- Flow 2 ingress (mean 69.87 Mbit/s)
- Flow 2 egress (mean 69.87 Mbit/s)
- Flow 3 ingress (mean 62.53 Mbit/s)
- Flow 3 egress (mean 62.52 Mbit/s)

Round-trip time (ms)

- Flow 1 (95th percentile 86.68 ms)
- Flow 2 (95th percentile 86.27 ms)
- Flow 3 (95th percentile 86.51 ms)
Run 3: Statistics of Copa

Start at: 2018-04-18 04:51:50
End at: 2018-04-18 04:52:20

# Below is generated by plot.py at 2018-04-18 09:26:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 161.98 Mbit/s
95th percentile per-packet one-way delay: 86.507 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 82.85 Mbit/s
95th percentile per-packet one-way delay: 86.472 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 84.09 Mbit/s
95th percentile per-packet one-way delay: 86.507 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.68 Mbit/s
95th percentile per-packet one-way delay: 86.579 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 82.85 Mbps)  
Flow 1 egress (mean 82.85 Mbps)  
Flow 2 ingress (mean 84.68 Mbps)  
Flow 2 egress (mean 84.09 Mbps)  
Flow 3 ingress (mean 69.68 Mbps)  
Flow 3 egress (mean 69.68 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 86.47 ms)  
Flow 2 (95th percentile 86.51 ms)  
Flow 3 (95th percentile 86.58 ms)
Run 4: Statistics of Copa

Start at: 2018-04-18 05:07:59
End at: 2018-04-18 05:08:29

# Below is generated by plot.py at 2018-04-18 09:27:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 125.14 Mbit/s
  95th percentile per-packet one-way delay: 87.073 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 71.75 Mbit/s
  95th percentile per-packet one-way delay: 86.664 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 43.27 Mbit/s
  95th percentile per-packet one-way delay: 89.131 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 74.28 Mbit/s
  95th percentile per-packet one-way delay: 86.797 ms
  Loss rate: 0.00%
Run 4: Report of Copa — Data Link

![Graph showing network throughput and packet delay](image-url)
Run 5: Statistics of Copa

Start at: 2018-04-18 05:24:26
End at: 2018-04-18 05:24:56

# Below is generated by plot.py at 2018-04-18 09:29:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 152.77 Mbit/s
  95th percentile per-packet one-way delay: 86.611 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 79.41 Mbit/s
  95th percentile per-packet one-way delay: 86.521 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 69.94 Mbit/s
  95th percentile per-packet one-way delay: 86.708 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 81.00 Mbit/s
  95th percentile per-packet one-way delay: 86.306 ms
  Loss rate: 0.00%
Run 5: Report of Copa — Data Link

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**Upper Graph:**
- **Throughput (Mbps):**
  - Blue dashed line: Flow 1 ingress (mean 79.41 Mbps)
  - Blue solid line: Flow 1 egress (mean 79.41 Mbps)
  - Green dashed line: Flow 2 ingress (mean 69.83 Mbps)
  - Green solid line: Flow 2 egress (mean 69.94 Mbps)
  - Red dashed line: Flow 3 ingress (mean 81.00 Mbps)
  - Red solid line: Flow 3 egress (mean 81.00 Mbps)

**Lower Graph:**
- **Per-packet one-way latency (ms):**
  - Blue markers: Flow 1 (95th percentile 86.52 ms)
  - Green markers: Flow 2 (95th percentile 86.71 ms)
  - Red markers: Flow 3 (95th percentile 86.31 ms)
Run 6: Statistics of Copa

Start at: 2018-04-18 05:40:49
End at: 2018-04-18 05:41:19

# Below is generated by plot.py at 2018-04-18 09:30:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 173.47 Mbit/s
95th percentile per-packet one-way delay: 86.558 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 85.49 Mbit/s
95th percentile per-packet one-way delay: 86.552 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 83.54 Mbit/s
95th percentile per-packet one-way delay: 86.576 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 86.546 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 85.49 Mbps)
  - Flow 1 egress (mean 85.49 Mbps)
  - Flow 2 ingress (mean 83.54 Mbps)
  - Flow 2 egress (mean 83.54 Mbps)
  - Flow 3 ingress (mean 97.44 Mbps)
  - Flow 3 egress (mean 97.44 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 86.55 ms)
  - Flow 2 (95th percentile 86.58 ms)
  - Flow 3 (95th percentile 86.55 ms)
Run 7: Statistics of Copa

Start at: 2018-04-18 05:57:11
End at: 2018-04-18 05:57:41

# Below is generated by plot.py at 2018-04-18 09:30:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 162.15 Mbit/s
  95th percentile per-packet one-way delay: 86.542 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 84.28 Mbit/s
  95th percentile per-packet one-way delay: 86.496 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 71.09 Mbit/s
  95th percentile per-packet one-way delay: 86.617 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 92.03 Mbit/s
  95th percentile per-packet one-way delay: 86.526 ms
  Loss rate: 0.00%
Run 7: Report of Copa — Data Link

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

- **Flow 1 ingress** (mean 84.28 Mbps)
- **Flow 1 egress** (mean 84.28 Mbps)
- **Flow 2 ingress** (mean 71.09 Mbps)
- **Flow 2 egress** (mean 71.09 Mbps)
- **Flow 3 ingress** (mean 92.03 Mbps)
- **Flow 3 egress** (mean 92.03 Mbps)

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

- **Flow 1** (95th percentile 86.50 ms)
- **Flow 2** (95th percentile 86.62 ms)
- **Flow 3** (95th percentile 86.53 ms)
Run 8: Statistics of Copa

End at: 2018-04-18 06:13:53

# Below is generated by plot.py at 2018-04-18 09:30:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 131.32 Mbit/s
95th percentile per-packet one-way delay: 86.825 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.49 Mbit/s
95th percentile per-packet one-way delay: 86.775 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.32 Mbit/s
95th percentile per-packet one-way delay: 86.906 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.36 Mbit/s
95th percentile per-packet one-way delay: 86.755 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link
Run 9: Statistics of Copa

Start at: 2018-04-18 06:29:40
End at: 2018-04-18 06:30:10

# Below is generated by plot.py at 2018-04-18 09:30:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.98 Mbit/s
95th percentile per-packet one-way delay: 86.785 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.47 Mbit/s
95th percentile per-packet one-way delay: 86.824 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.51 Mbit/s
95th percentile per-packet one-way delay: 86.749 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 75.14 Mbit/s
95th percentile per-packet one-way delay: 86.739 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link

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

![Graph 2: Per-packet round-trip delay vs Time](image)
Run 10: Statistics of Copa

Start at: 2018-04-18 06:45:58
End at: 2018-04-18 06:46:28

# Below is generated by plot.py at 2018-04-18 09:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 162.75 Mbit/s
95th percentile per-packet one-way delay: 86.643 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 89.06 Mbit/s
95th percentile per-packet one-way delay: 86.598 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.04 Mbit/s
95th percentile per-packet one-way delay: 86.618 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.56 Mbit/s
95th percentile per-packet one-way delay: 86.747 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link

[Graph showing throughput (Mbps) over time for different flows]

[Graph showing per-packet one-way delay (ms) over time for different flows]
Run 1: Statistics of FillP

Start at: 2018-04-18 04:10:37
End at: 2018-04-18 04:11:07

# Below is generated by plot.py at 2018-04-18 09:36:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 570.18 Mbit/s
95th percentile per-packet one-way delay: 328.077 ms
Loss rate: 5.89%
-- Flow 1:
Average throughput: 63.96 Mbit/s
95th percentile per-packet one-way delay: 334.886 ms
Loss rate: 4.00%
-- Flow 2:
Average throughput: 440.94 Mbit/s
95th percentile per-packet one-way delay: 331.776 ms
Loss rate: 6.79%
-- Flow 3:
Average throughput: 640.34 Mbit/s
95th percentile per-packet one-way delay: 322.425 ms
Loss rate: 5.19%
Run 1: Report of FillP — Data Link

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

![Chart 2: Packet one-way delay (ms) vs Time (s)]
Run 2: Statistics of FillP

Start at: 2018-04-18 04:26:27
End at: 2018-04-18 04:26:57

# Below is generated by plot.py at 2018-04-18 09:50:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1306.42 Mbit/s
  95th percentile per-packet one-way delay: 308.767 ms
  Loss rate: 5.58%
-- Flow 1:
  Average throughput: 696.86 Mbit/s
  95th percentile per-packet one-way delay: 245.816 ms
  Loss rate: 4.59%
-- Flow 2:
  Average throughput: 635.33 Mbit/s
  95th percentile per-packet one-way delay: 344.838 ms
  Loss rate: 6.79%
-- Flow 3:
  Average throughput: 564.53 Mbit/s
  95th percentile per-packet one-way delay: 280.282 ms
  Loss rate: 6.45%
Run 2: Report of FillP — Data Link

![Graph showing throughput over time for different flows]

![Graph showing per packet delay over time for different flows]
Run 3: Statistics of FillP

End at: 2018-04-18 04:43:29

# Below is generated by plot.py at 2018-04-18 09:50:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1211.71 Mbit/s
95th percentile per-packet one-way delay: 299.492 ms
Loss rate: 5.53%
-- Flow 1:
Average throughput: 587.39 Mbit/s
95th percentile per-packet one-way delay: 280.468 ms
Loss rate: 5.47%
-- Flow 2:
Average throughput: 637.24 Mbit/s
95th percentile per-packet one-way delay: 308.735 ms
Loss rate: 4.72%
-- Flow 3:
Average throughput: 608.15 Mbit/s
95th percentile per-packet one-way delay: 288.305 ms
Loss rate: 7.36%
Run 3: Report of FillP — Data Link

![Graph 1: Throughput](image1)
- Blue line: Flow 1 ingress (mean 620.15 Mbit/s)
- Green line: Flow 2 ingress (mean 650.96 Mbit/s)
- Red line: Flow 3 ingress (mean 650.84 Mbit/s)
- Blue dotted line: Flow 1 egress (mean 587.39 Mbit/s)
- Green dotted line: Flow 2 egress (mean 637.24 Mbit/s)
- Red dotted line: Flow 3 egress (mean 608.15 Mbit/s)

![Graph 2: Per-packet delay](image2)
- Blue line: Flow 1 (95th percentile 280.47 ms)
- Green line: Flow 2 (95th percentile 308.74 ms)
- Red line: Flow 3 (95th percentile 280.31 ms)
Run 4: Statistics of FillP

Start at: 2018-04-18 04:59:22
End at: 2018-04-18 04:59:52

# Below is generated by plot.py at 2018-04-18 09:50:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 917.64 Mbit/s
  95th percentile per-packet one-way delay: 314.701 ms
  Loss rate: 5.28%
-- Flow 1:
  Average throughput: 252.18 Mbit/s
  95th percentile per-packet one-way delay: 355.698 ms
  Loss rate: 9.10%
-- Flow 2:
  Average throughput: 707.61 Mbit/s
  95th percentile per-packet one-way delay: 220.718 ms
  Loss rate: 2.88%
-- Flow 3:
  Average throughput: 587.83 Mbit/s
  95th percentile per-packet one-way delay: 230.648 ms
  Loss rate: 5.78%
Run 4: Report of FillP — Data Link
Run 5: Statistics of FillP

Start at: 2018-04-18 05:15:31
End at: 2018-04-18 05:16:01

# Below is generated by plot.py at 2018-04-18 09:53:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1313.14 Mbit/s
95th percentile per-packet one-way delay: 314.544 ms
Loss rate: 5.80%
-- Flow 1:
Average throughput: 731.50 Mbit/s
95th percentile per-packet one-way delay: 283.099 ms
Loss rate: 3.66%
-- Flow 2:
Average throughput: 593.54 Mbit/s
95th percentile per-packet one-way delay: 354.972 ms
Loss rate: 7.48%
-- Flow 3:
Average throughput: 564.26 Mbit/s
95th percentile per-packet one-way delay: 224.121 ms
Loss rate: 10.16%
Run 5: Report of FillP — Data Link

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

Throughput (Mbps)

Time (s)

Packet delay (ms)

Time (s)
Run 6: Statistics of FillP

Start at: 2018-04-18 05:32:00
End at: 2018-04-18 05:32:30

# Below is generated by plot.py at 2018-04-18 09:53:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1273.48 Mbit/s
  95th percentile per-packet one-way delay: 304.594 ms
  Loss rate: 6.54%
-- Flow 1:
  Average throughput: 657.05 Mbit/s
  95th percentile per-packet one-way delay: 288.837 ms
  Loss rate: 5.73%
-- Flow 2:
  Average throughput: 662.87 Mbit/s
  95th percentile per-packet one-way delay: 324.383 ms
  Loss rate: 6.03%
-- Flow 3:
  Average throughput: 529.99 Mbit/s
  95th percentile per-packet one-way delay: 259.801 ms
  Loss rate: 10.61%
Run 6: Report of FillP — Data Link
Run 7: Statistics of FillP

Start at: 2018-04-18 05:48:21
End at: 2018-04-18 05:48:51

# Below is generated by plot.py at 2018-04-18 09:54:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1306.14 Mbit/s
95th percentile per-packet one-way delay: 314.023 ms
Loss rate: 8.16%
-- Flow 1:
Average throughput: 695.56 Mbit/s
95th percentile per-packet one-way delay: 314.446 ms
Loss rate: 8.55%
-- Flow 2:
Average throughput: 642.46 Mbit/s
95th percentile per-packet one-way delay: 316.409 ms
Loss rate: 6.72%
-- Flow 3:
Average throughput: 552.94 Mbit/s
95th percentile per-packet one-way delay: 297.406 ms
Loss rate: 9.98%
Run 7: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 Ingress (mean 760.96 Mbps)
- Flow 1 Egress (mean 695.56 Mbps)
- Flow 2 Ingress (mean 688.74 Mbps)
- Flow 2 Egress (mean 642.46 Mbps)
- Flow 3 Ingress (mean 614.96 Mbps)
- Flow 3 Egress (mean 552.94 Mbps)

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

- Flow 1 (95th percentile 314.45 ms)
- Flow 2 (95th percentile 316.41 ms)
- Flow 3 (95th percentile 297.41 ms)
Run 8: Statistics of FillP

Start at: 2018-04-18 06:04:35
End at: 2018-04-18 06:05:06

# Below is generated by plot.py at 2018-04-18 09:54:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1041.97 Mbit/s
  95th percentile per-packet one-way delay: 280.212 ms
  Loss rate: 4.55%
-- Flow 1:
  Average throughput: 389.13 Mbit/s
  95th percentile per-packet one-way delay: 286.378 ms
  Loss rate: 3.17%
-- Flow 2:
  Average throughput: 646.61 Mbit/s
  95th percentile per-packet one-way delay: 246.938 ms
  Loss rate: 5.97%
-- Flow 3:
  Average throughput: 673.67 Mbit/s
  95th percentile per-packet one-way delay: 296.835 ms
  Loss rate: 4.14%
Run 8: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 401.96 Mbit/s)
- Flow 1 Egress (mean 389.13 Mbit/s)
- Flow 2 Ingress (mean 687.64 Mbit/s)
- Flow 2 Egress (mean 646.63 Mbit/s)
- Flow 3 Ingress (mean 702.71 Mbit/s)
- Flow 3 Egress (mean 673.67 Mbit/s)

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

- Flow 1 (95th percentile 286.38 ms)
- Flow 2 (95th percentile 246.94 ms)
- Flow 3 (95th percentile 296.83 ms)
Run 9: Statistics of FillP

Start at: 2018-04-18 06:20:57
End at: 2018-04-18 06:21:27

# Below is generated by plot.py at 2018-04-18 09:58:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1093.27 Mbit/s
95th percentile per-packet one-way delay: 288.009 ms
Loss rate: 3.71%
-- Flow 1:
Average throughput: 433.23 Mbit/s
95th percentile per-packet one-way delay: 303.219 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 664.87 Mbit/s
95th percentile per-packet one-way delay: 230.299 ms
Loss rate: 4.36%
-- Flow 3:
Average throughput: 657.68 Mbit/s
95th percentile per-packet one-way delay: 311.779 ms
Loss rate: 5.45%
Run 9: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 444.55 Mbps)
- Flow 1 Egress (mean 433.23 Mbps)
- Flow 2 Ingress (mean 695.22 Mbps)
- Flow 2 Egress (mean 664.87 Mbps)
- Flow 3 Ingress (mean 695.59 Mbps)
- Flow 3 Egress (mean 657.68 Mbps)

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

- Flow 1 (95th percentile 303.22 ms)
- Flow 2 (95th percentile 230.30 ms)
- Flow 3 (95th percentile 311.78 ms)

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Run 10: Statistics of FillP

Start at: 2018-04-18 06:37:16
End at: 2018-04-18 06:37:46

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 949.56 Mbit/s
  95th percentile per-packet one-way delay: 318.227 ms
  Loss rate: 6.01%
-- Flow 1:
  Average throughput: 292.21 Mbit/s
  95th percentile per-packet one-way delay: 345.950 ms
  Loss rate: 4.81%
-- Flow 2:
  Average throughput: 672.48 Mbit/s
  95th percentile per-packet one-way delay: 249.371 ms
  Loss rate: 7.14%
-- Flow 3:
  Average throughput: 633.74 Mbit/s
  95th percentile per-packet one-way delay: 256.495 ms
  Loss rate: 5.20%
Run 10: Report of FillIP — Data Link

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

- Flow 1 Ingress (mean 306.99 Mbps) vs. Flow 1 Egress (mean 292.21 Mbps)
- Flow 2 Ingress (mean 734.17 Mbps) vs. Flow 2 Egress (mean 672.48 Mbps)
- Flow 3 Ingress (mean 668.56 Mbps) vs. Flow 3 Egress (mean 633.74 Mbps)

![Graphs showing end-to-end delay over time for different flows.]

- Flow 1 (95th percentile 345.95 ms) vs. Flow 2 (95th percentile 249.37 ms) vs. Flow 3 (95th percentile 256.50 ms)
Run 1: Statistics of Indigo-1-32

End at: 2018-04-18 04:23:52

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 292.92 Mbit/s
  95th percentile per-packet one-way delay: 102.146 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 155.27 Mbit/s
  95th percentile per-packet one-way delay: 98.160 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 145.21 Mbit/s
  95th percentile per-packet one-way delay: 102.347 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 127.79 Mbit/s
  95th percentile per-packet one-way delay: 110.046 ms
  Loss rate: 0.04%
Run 1: Report of Indigo-1-32 — Data Link

---

**Throughput (Mbit/s)**

- Flow 1 ingress (mean 155.30 Mbit/s)
- Flow 1 egress (mean 155.27 Mbit/s)
- Flow 2 ingress (mean 145.25 Mbit/s)
- Flow 2 egress (mean 145.21 Mbit/s)
- Flow 3 ingress (mean 127.86 Mbit/s)
- Flow 3 egress (mean 127.79 Mbit/s)

---

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

- Flow 1 (95th percentile 98.16 ms)
- Flow 2 (95th percentile 102.35 ms)
- Flow 3 (95th percentile 110.05 ms)

---

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Run 2: Statistics of Indigo-1-32

Start at: 2018-04-18 04:39:48
End at: 2018-04-18 04:40:18

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 309.98 Mbit/s
95th percentile per-packet one-way delay: 112.453 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 170.55 Mbit/s
95th percentile per-packet one-way delay: 108.669 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 150.66 Mbit/s
95th percentile per-packet one-way delay: 113.041 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 123.69 Mbit/s
95th percentile per-packet one-way delay: 117.331 ms
Loss rate: 0.23%
Run 2: Report of Indigo-1-32 — Data Link

![Graph 1](image1.png)

**Throughput (Mbps)**

- **Flow 1 Ingress** (mean 170.66 Mbps)
- **Flow 1 Egress** (mean 170.55 Mbps)
- **Flow 2 Ingress** (mean 150.74 Mbps)
- **Flow 2 Egress** (mean 150.66 Mbps)
- **Flow 3 Ingress** (mean 124.03 Mbps)
- **Flow 3 Egress** (mean 123.69 Mbps)

![Graph 2](image2.png)

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

- **Flow 1** (95th percentile 108.67 ms)
- **Flow 2** (95th percentile 113.04 ms)
- **Flow 3** (95th percentile 117.33 ms)
Run 3: Statistics of Indigo-1-32

Start at: 2018-04-18 04:56:17
End at: 2018-04-18 04:56:47

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 294.63 Mbit/s
  95th percentile per-packet one-way delay: 103.616 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 157.16 Mbit/s
  95th percentile per-packet one-way delay: 99.005 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 145.02 Mbit/s
  95th percentile per-packet one-way delay: 103.589 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 130.75 Mbit/s
  95th percentile per-packet one-way delay: 106.983 ms
  Loss rate: 0.05%
Run 3: Report of Indigo-1-32 — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 157.17 Mbps)**
- **Flow 1 egress (mean 157.16 Mbps)**
- **Flow 2 ingress (mean 145.05 Mbps)**
- **Flow 2 egress (mean 145.02 Mbps)**
- **Flow 3 ingress (mean 130.83 Mbps)**
- **Flow 3 egress (mean 130.75 Mbps)**

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

- **Flow 1 (95th percentile 99.00 ms)**
- **Flow 2 (95th percentile 103.59 ms)**
- **Flow 3 (95th percentile 106.90 ms)**

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Run 4: Statistics of Indigo-1-32

Start at: 2018-04-18 05:12:22
End at: 2018-04-18 05:12:52

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.67 Mbit/s
95th percentile per-packet one-way delay: 116.256 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 172.52 Mbit/s
95th percentile per-packet one-way delay: 112.848 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 153.10 Mbit/s
95th percentile per-packet one-way delay: 116.440 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 120.57 Mbit/s
95th percentile per-packet one-way delay: 119.858 ms
Loss rate: 0.29%
Run 4: Report of Indigo-1-32 — Data Link
Run 5: Statistics of Indigo-1-32

Start at: 2018-04-18 05:28:51
End at: 2018-04-18 05:29:21

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.41 Mbit/s
95th percentile per-packet one-way delay: 114.848 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 167.82 Mbit/s
95th percentile per-packet one-way delay: 111.496 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 141.06 Mbit/s
95th percentile per-packet one-way delay: 115.374 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 105.68 Mbit/s
95th percentile per-packet one-way delay: 120.175 ms
Loss rate: 0.20%
Run 5: Report of Indigo-1-32 — Data Link

![Graph showing network performance metrics]

- Flow 1 ingress (mean 167.91 Mbit/s)
- Flow 1 egress (mean 167.82 Mbit/s)
- Flow 2 ingress (mean 141.22 Mbit/s)
- Flow 2 egress (mean 141.06 Mbit/s)
- Flow 3 ingress (mean 105.86 Mbit/s)
- Flow 3 egress (mean 105.68 Mbit/s)

![Graph showing network delay]

- Flow 1 (95th percentile 111.50 ms)
- Flow 2 (95th percentile 115.37 ms)
- Flow 3 (95th percentile 120.17 ms)
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-18 05:45:16
End at: 2018-04-18 05:45:46

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 298.56 Mbit/s
  95th percentile per-packet one-way delay: 125.507 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 164.19 Mbit/s
  95th percentile per-packet one-way delay: 122.307 ms
  Loss rate: 0.08%
-- Flow 2:
  Average throughput: 146.26 Mbit/s
  95th percentile per-packet one-way delay: 125.750 ms
  Loss rate: 0.11%
-- Flow 3:
  Average throughput: 116.82 Mbit/s
  95th percentile per-packet one-way delay: 129.261 ms
  Loss rate: 0.20%
Run 6: Report of Indigo-1-32 — Data Link
Run 7: Statistics of Indigo-1-32

Start at: 2018-04-18 06:01:38
End at: 2018-04-18 06:02:08

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.63 Mbit/s
95th percentile per-packet one-way delay: 112.036 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 132.00 Mbit/s
95th percentile per-packet one-way delay: 108.339 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 153.12 Mbit/s
95th percentile per-packet one-way delay: 111.624 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 129.30 Mbit/s
95th percentile per-packet one-way delay: 120.246 ms
Loss rate: 0.01%
Run 7: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 132.01 Mbps)  
- Flow 1 egress (mean 132.00 Mbps)  
- Flow 2 ingress (mean 153.12 Mbps)  
- Flow 2 egress (mean 153.12 Mbps)  
- Flow 3 ingress (mean 129.27 Mbps)  
- Flow 3 egress (mean 129.30 Mbps)

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

- Flow 1 (95th percentile 108.34 ms)  
- Flow 2 (95th percentile 111.62 ms)  
- Flow 3 (95th percentile 120.25 ms)

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Run 8: Statistics of Indigo-1-32

Start at: 2018-04-18 06:17:48
End at: 2018-04-18 06:18:18

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 311.43 Mbit/s
  95th percentile per-packet one-way delay: 123.646 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 169.89 Mbit/s
  95th percentile per-packet one-way delay: 115.921 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 149.84 Mbit/s
  95th percentile per-packet one-way delay: 124.174 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 132.51 Mbit/s
  95th percentile per-packet one-way delay: 127.267 ms
  Loss rate: 0.19%
Run 8: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 169.95 Mbit/s)
- Flow 1 egress (mean 169.89 Mbit/s)
- Flow 2 ingress (mean 149.92 Mbit/s)
- Flow 2 egress (mean 149.84 Mbit/s)
- Flow 3 ingress (mean 132.80 Mbit/s)
- Flow 3 egress (mean 132.51 Mbit/s)
Run 9: Statistics of Indigo-1-32

Start at: 2018-04-18 06:34:07
End at: 2018-04-18 06:34:37

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 306.32 Mbit/s
  95th percentile per-packet one-way delay: 122.008 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 167.95 Mbit/s
  95th percentile per-packet one-way delay: 111.045 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 151.29 Mbit/s
  95th percentile per-packet one-way delay: 122.414 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 118.83 Mbit/s
  95th percentile per-packet one-way delay: 129.167 ms
  Loss rate: 0.07%
Run 9: Report of Indigo-1-32 — Data Link
Run 10: Statistics of Indigo-1-32

Start at: 2018-04-18 06:50:27
End at: 2018-04-18 06:50:57

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 286.88 Mbit/s
95th percentile per-packet one-way delay: 120.338 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 150.13 Mbit/s
95th percentile per-packet one-way delay: 114.984 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 143.32 Mbit/s
95th percentile per-packet one-way delay: 120.485 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 129.52 Mbit/s
95th percentile per-packet one-way delay: 125.903 ms
Loss rate: 0.14%
Run 10: Report of Indigo-1-32 — Data Link
Run 1: Statistics of PCC-Vivace

Start at: 2018-04-18 04:08:36  
End at: 2018-04-18 04:09:06  

# Below is generated by plot.py at 2018-04-18 10:06:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 427.89 Mbit/s  
95th percentile per-packet one-way delay: 96.021 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 246.35 Mbit/s  
95th percentile per-packet one-way delay: 99.241 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 204.42 Mbit/s  
95th percentile per-packet one-way delay: 88.829 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 137.66 Mbit/s  
95th percentile per-packet one-way delay: 124.702 ms  
Loss rate: 0.00%
Run 1: Report of PCC-Vivace — Data Link
Run 2: Statistics of PCC-Vivace

Start at: 2018-04-18 04:24:28
End at: 2018-04-18 04:24:58

# Below is generated by plot.py at 2018-04-18 10:06:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 380.06 Mbit/s
95th percentile per-packet one-way delay: 87.490 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.13 Mbit/s
95th percentile per-packet one-way delay: 87.099 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 194.24 Mbit/s
95th percentile per-packet one-way delay: 88.268 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.89 Mbit/s
95th percentile per-packet one-way delay: 87.785 ms
Loss rate: 0.00%
Run 2: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 223.14 Mbps)  Flow 1 egress (mean 223.13 Mbps)
Flow 2 ingress (mean 194.24 Mbps)  Flow 2 egress (mean 194.24 Mbps)
Flow 3 ingress (mean 84.89 Mbps)  Flow 3 egress (mean 84.89 Mbps)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 87.10 ms)  Flow 2 (95th percentile 88.27 ms)  Flow 3 (95th percentile 87.78 ms)
Run 3: Statistics of PCC-Vivace

Start at: 2018-04-18 04:40:58
End at: 2018-04-18 04:41:28

# Below is generated by plot.py at 2018-04-18 10:07:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 429.37 Mbit/s
  95th percentile per-packet one-way delay: 88.941 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 251.18 Mbit/s
  95th percentile per-packet one-way delay: 89.233 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 188.13 Mbit/s
  95th percentile per-packet one-way delay: 87.369 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 161.91 Mbit/s
  95th percentile per-packet one-way delay: 92.605 ms
  Loss rate: 0.00%
Run 3: Report of PCC-Vivace — Data Link

![Graph showing throughput and packet loss over time]

- **Throughput (Mbps):**
  - Blue: Flow 1 ingress (mean 251.19 Mbps)
  - Blue: Flow 1 egress (mean 251.18 Mbps)
  - Green: Flow 2 ingress (mean 188.13 Mbps)
  - Green: Flow 2 egress (mean 188.13 Mbps)
  - Red: Flow 3 ingress (mean 161.90 Mbps)
  - Red: Flow 3 egress (mean 161.91 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 89.23 ms)
  - Flow 2 (95th percentile 87.37 ms)
  - Flow 3 (95th percentile 92.61 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2018-04-18 04:57:27
End at: 2018-04-18 04:57:57

# Below is generated by plot.py at 2018-04-18 10:07:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 365.17 Mbit/s
95th percentile per-packet one-way delay: 88.117 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 184.97 Mbit/s
95th percentile per-packet one-way delay: 87.587 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 193.23 Mbit/s
95th percentile per-packet one-way delay: 88.588 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 157.29 Mbit/s
95th percentile per-packet one-way delay: 116.834 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link
Run 5: Statistics of PCC-Vivace

Start at: 2018-04-18 05:13:30
End at: 2018-04-18 05:14:00

# Below is generated by plot.py at 2018-04-18 10:08:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 442.58 Mbit/s
95th percentile per-packet one-way delay: 91.041 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.84 Mbit/s
95th percentile per-packet one-way delay: 90.471 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 242.18 Mbit/s
95th percentile per-packet one-way delay: 102.568 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 163.18 Mbit/s
95th percentile per-packet one-way delay: 88.951 ms
Loss rate: 0.00%
Run 5: Report of PCC-Vivace — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 227.84 Mbps)
- Flow 1 egress (mean 227.84 Mbps)
- Flow 2 ingress (mean 242.18 Mbps)
- Flow 2 egress (mean 242.18 Mbps)
- Flow 3 ingress (mean 163.19 Mbps)
- Flow 3 egress (mean 163.18 Mbps)

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

- Flow 1 (95th percentile 90.47 ms)
- Flow 2 (95th percentile 102.57 ms)
- Flow 3 (95th percentile 88.95 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-04-18 05:29:59
End at: 2018-04-18 05:30:29

# Below is generated by plot.py at 2018-04-18 10:08:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 429.94 Mbit/s
95th percentile per-packet one-way delay: 107.571 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 245.55 Mbit/s
95th percentile per-packet one-way delay: 154.077 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 204.18 Mbit/s
95th percentile per-packet one-way delay: 88.199 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 148.09 Mbit/s
95th percentile per-packet one-way delay: 99.604 ms
Loss rate: 0.04%
Run 6: Report of PCC-Vivace — Data Link

![Throughput Graph](image1)

**Throughput (Mb/s)**

*Legend:*
- Flow 1 ingress (mean 245.64 Mb/s)
- Flow 1 egress (mean 245.55 Mb/s)
- Flow 2 ingress (mean 204.21 Mb/s)
- Flow 2 egress (mean 204.18 Mb/s)
- Flow 3 ingress (mean 148.13 Mb/s)
- Flow 3 egress (mean 148.09 Mb/s)

![Delay Graph](image2)

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

*Legend:*
- Flow 1 (95th percentile 154.08 ms)
- Flow 2 (95th percentile 88.20 ms)
- Flow 3 (95th percentile 99.60 ms)
Run 7: Statistics of PCC-Vivace

Start at: 2018-04-18 05:46:25
End at: 2018-04-18 05:46:55

# Below is generated by plot.py at 2018-04-18 10:09:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 367.88 Mbit/s
  95th percentile per-packet one-way delay: 87.122 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 224.66 Mbit/s
  95th percentile per-packet one-way delay: 86.991 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 193.65 Mbit/s
  95th percentile per-packet one-way delay: 87.514 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 44.97 Mbit/s
  95th percentile per-packet one-way delay: 86.368 ms
  Loss rate: 0.00%
Run 7: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 224.66 Mbit/s)
- Flow 1 egress (mean 224.66 Mbit/s)
- Flow 2 ingress (mean 193.38 Mbit/s)
- Flow 2 egress (mean 193.65 Mbit/s)
- Flow 3 ingress (mean 44.98 Mbit/s)
- Flow 3 egress (mean 44.97 Mbit/s)
Run 8: Statistics of PCC-Vivace

Start at: 2018-04-18 06:02:44
End at: 2018-04-18 06:03:14

# Below is generated by plot.py at 2018-04-18 10:09:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 299.54 Mbit/s
  95th percentile per-packet one-way delay: 86.998 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 169.03 Mbit/s
  95th percentile per-packet one-way delay: 86.474 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 187.43 Mbit/s
  95th percentile per-packet one-way delay: 87.417 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 18.53 Mbit/s
  95th percentile per-packet one-way delay: 87.294 ms
  Loss rate: 0.00%
Run 8: Report of PCC-Vivace — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 169.04 Mbps)
- Flow 1 egress (mean 169.03 Mbps)
- Flow 2 ingress (mean 187.43 Mbps)
- Flow 2 egress (mean 187.43 Mbps)
- Flow 3 ingress (mean 18.53 Mbps)
- Flow 3 egress (mean 18.53 Mbps)

Graph 2: Per-packet one way delay (ms)
- Flow 1 (95th percentile 86.47 ms)
- Flow 2 (95th percentile 87.42 ms)
- Flow 3 (95th percentile 87.29 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-04-18 06:18:55
End at: 2018-04-18 06:19:25

# Below is generated by plot.py at 2018-04-18 10:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 448.52 Mbit/s
  95th percentile per-packet one-way delay: 89.251 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 298.06 Mbit/s
  95th percentile per-packet one-way delay: 88.149 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 212.35 Mbit/s
  95th percentile per-packet one-way delay: 117.211 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 28.25 Mbit/s
  95th percentile per-packet one-way delay: 86.994 ms
  Loss rate: 0.00%
Run 9: Report of PCC-Vivace — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 298.06 Mbps)
- Flow 1 egress (mean 298.06 Mbps)
- Flow 2 ingress (mean 212.35 Mbps)
- Flow 2 egress (mean 212.35 Mbps)
- Flow 3 ingress (mean 28.25 Mbps)
- Flow 3 egress (mean 28.25 Mbps)

Per-packet one way delay (ms):

- Flow 1 (95th percentile 88.15 ms)
- Flow 2 (95th percentile 117.21 ms)
- Flow 3 (95th percentile 86.99 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-04-18 06:35:14
End at: 2018-04-18 06:35:44

# Below is generated by plot.py at 2018-04-18 10:09:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 470.68 Mbit/s
  95th percentile per-packet one-way delay: 88.084 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 284.80 Mbit/s
  95th percentile per-packet one-way delay: 88.316 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 208.96 Mbit/s
  95th percentile per-packet one-way delay: 86.994 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 143.32 Mbit/s
  95th percentile per-packet one-way delay: 104.658 ms
  Loss rate: 0.00%
Run 10: Report of PCC-Vivace — Data Link

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

Legend:
- Flow 1 ingress (mean 284.80 Mbit/s)
- Flow 1 egress (mean 284.80 Mbit/s)
- Flow 2 ingress (mean 208.96 Mbit/s)
- Flow 2 egress (mean 208.96 Mbit/s)
- Flow 3 ingress (mean 143.31 Mbit/s)
- Flow 3 egress (mean 143.32 Mbit/s)
Run 1: Statistics of PCC-Expr

Start at: 2018-04-18 04:19:53
End at: 2018-04-18 04:20:23
Run 1: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 2: Statistics of PCC-Expr

Start at: 2018-04-18 04:36:20
End at: 2018-04-18 04:36:50
Run 2: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

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Run 3: Statistics of PCC-Expr

Start at: 2018-04-18 04:52:51
End at: 2018-04-18 04:53:21
Run 3: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 4: Statistics of PCC-Expr

Start at: 2018-04-18 05:08:56
End at: 2018-04-18 05:09:26
Run 4: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 5: Statistics of PCC-Expr

Start at: 2018-04-18 05:25:26
End at: 2018-04-18 05:25:56
Run 5: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 6: Statistics of PCC-Expr

Start at: 2018-04-18 05:41:51
End at: 2018-04-18 05:42:21
Run 6: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 7: Statistics of PCC-Expr

Start at: 2018-04-18 05:58:11
End at: 2018-04-18 05:58:41
Run 7: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 8: Statistics of PCC-Expr

Start at: 2018-04-18 06:14:21
End at: 2018-04-18 06:14:51
Run 8: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 9: Statistics of PCC-Expr

Start at: 2018-04-18 06:30:40
End at: 2018-04-18 06:31:10
Run 9: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 10: Statistics of PCC-Expr

Start at: 2018-04-18 06:46:59
End at: 2018-04-18 06:47:29
Run 10: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing