Pantheon Report

Generated at 2018-08-10 05:42:33 (UTC).
Data path: Mexico Ethernet (remote) → AWS California 2 Ethernet (local).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
NTP offsets were measured against time.stanford.edu and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ 7772df3413f4b07ba0096dfdd8e9d4c6dca623e3
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0edbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f6b82cbe8f464b1b39
third_party/pcc @ 1afcb958fa0d66d18b623c091a55f6ec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08f92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cfe4f2
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3db2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c9a60a2e611b49af2629562c93f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf8b8211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dd4735770d143a1fa2851
test from Mexico to AWS California 2, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
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<td>TCP BBR</td>
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<td>flow 3: 35.04</td>
<td>flow 3: 0.61</td>
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</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-08-10 01:29:53
End at: 2018-08-10 01:30:23
Local clock offset: -0.021 ms
Remote clock offset: -1.08 ms

# Below is generated by plot.py at 2018-08-10 05:20:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.54 Mbit/s
  95th percentile per-packet one-way delay: 67.898 ms
  Loss rate: 2.31%
-- Flow 1:
  Average throughput: 57.15 Mbit/s
  95th percentile per-packet one-way delay: 58.272 ms
  Loss rate: 1.93%
-- Flow 2:
  Average throughput: 40.10 Mbit/s
  95th percentile per-packet one-way delay: 68.448 ms
  Loss rate: 2.62%
-- Flow 3:
  Average throughput: 32.34 Mbit/s
  95th percentile per-packet one-way delay: 68.775 ms
  Loss rate: 3.50%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-08-10 01:53:24
End at: 2018-08-10 01:53:54
Local clock offset: -0.166 ms
Remote clock offset: -1.23 ms

# Below is generated by plot.py at 2018-08-10 05:20:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.54 Mbit/s
95th percentile per-packet one-way delay: 67.259 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 57.57 Mbit/s
95th percentile per-packet one-way delay: 63.264 ms
Loss rate: 1.97%
-- Flow 2:
Average throughput: 39.72 Mbit/s
95th percentile per-packet one-way delay: 67.247 ms
Loss rate: 2.94%
-- Flow 3:
Average throughput: 31.83 Mbit/s
95th percentile per-packet one-way delay: 68.768 ms
Loss rate: 3.02%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2018-08-10 02:16:17
End at: 2018-08-10 02:16:47
Local clock offset: -0.326 ms
Remote clock offset: -2.702 ms

# Below is generated by plot.py at 2018-08-10 05:20:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.47 Mbit/s
95th percentile per-packet one-way delay: 67.440 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 59.810 ms
Loss rate: 1.81%
-- Flow 2:
Average throughput: 39.83 Mbit/s
95th percentile per-packet one-way delay: 66.217 ms
Loss rate: 2.93%
-- Flow 3:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 68.902 ms
Loss rate: 2.50%
Run 3: Report of TCP BBR — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 4: Statistics of TCP BBR

Start at: 2018-08-10 02:39:19
End at: 2018-08-10 02:39:49
Local clock offset: -0.18 ms
Remote clock offset: -2.656 ms

# Below is generated by plot.py at 2018-08-10 05:20:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.08 Mbit/s
  95th percentile per-packet one-way delay: 63.228 ms
  Loss rate: 2.47%
-- Flow 1:
  Average throughput: 55.03 Mbit/s
  95th percentile per-packet one-way delay: 66.349 ms
  Loss rate: 2.08%
-- Flow 2:
  Average throughput: 36.72 Mbit/s
  95th percentile per-packet one-way delay: 77.193 ms
  Loss rate: 2.83%
-- Flow 3:
  Average throughput: 47.19 Mbit/s
  95th percentile per-packet one-way delay: 57.753 ms
  Loss rate: 3.28%
Run 4: Report of TCP BBR — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 56.07 Mbps)
  - Flow 1 egress (mean 55.93 Mbps)
  - Flow 2 ingress (mean 37.66 Mbps)
  - Flow 2 egress (mean 36.72 Mbps)
  - Flow 3 ingress (mean 46.47 Mbps)
  - Flow 3 egress (mean 47.19 Mbps)

- **Packet one-way delay (ms)**
  - Flow 1 (95th percentile 66.35 ms)
  - Flow 2 (95th percentile 77.19 ms)
  - Flow 3 (95th percentile 57.75 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-08-10 03:02:18
End at: 2018-08-10 03:02:48
Local clock offset: -0.311 ms
Remote clock offset: -0.939 ms

# Below is generated by plot.py at 2018-08-10 05:20:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 66.357 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 57.64 Mbit/s
95th percentile per-packet one-way delay: 56.767 ms
Loss rate: 2.12%
-- Flow 2:
Average throughput: 39.57 Mbit/s
95th percentile per-packet one-way delay: 66.042 ms
Loss rate: 3.02%
-- Flow 3:
Average throughput: 31.64 Mbit/s
95th percentile per-packet one-way delay: 68.809 ms
Loss rate: 2.55%
Run 5: Report of TCP BBR — Data Link

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

Flow 1 (95th percentile 56.77 ms)  Flow 2 (95th percentile 66.04 ms)  Flow 3 (95th percentile 68.81 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-08-10 03:25:32  
End at: 2018-08-10 03:26:02  
Local clock offset: -0.334 ms  
Remote clock offset: -0.545 ms  

# Below is generated by plot.py at 2018-08-10 05:20:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.30 Mbit/s  
95th percentile per-packet one-way delay: 67.565 ms  
Loss rate: 2.41%  
-- Flow 1:  
Average throughput: 57.34 Mbit/s  
95th percentile per-packet one-way delay: 67.484 ms  
Loss rate: 1.91%  
-- Flow 2:  
Average throughput: 39.66 Mbit/s  
95th percentile per-packet one-way delay: 67.527 ms  
Loss rate: 3.56%  
-- Flow 3:  
Average throughput: 31.92 Mbit/s  
95th percentile per-packet one-way delay: 68.882 ms  
Loss rate: 2.15%
Run 6: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 58.30 Mbit/s)
- Flow 1 egress (mean 57.34 Mbit/s)
- Flow 2 ingress (mean 40.99 Mbit/s)
- Flow 2 egress (mean 39.66 Mbit/s)
- Flow 3 ingress (mean 32.40 Mbit/s)
- Flow 3 egress (mean 31.92 Mbit/s)

- Flow 1 (95th percentile 67.48 ms)
- Flow 2 (95th percentile 67.53 ms)
- Flow 3 (95th percentile 68.88 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-08-10 03:49:09
End at: 2018-08-10 03:49:39
Local clock offset: -0.306 ms
Remote clock offset: -1.213 ms

# Below is generated by plot.py at 2018-08-10 05:20:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.14 Mbit/s
95th percentile per-packet one-way delay: 75.701 ms
Loss rate: 2.58%
-- Flow 1:
Average throughput: 54.50 Mbit/s
95th percentile per-packet one-way delay: 75.442 ms
Loss rate: 2.03%
-- Flow 2:
Average throughput: 36.17 Mbit/s
95th percentile per-packet one-way delay: 77.629 ms
Loss rate: 3.12%
-- Flow 3:
Average throughput: 47.07 Mbit/s
95th percentile per-packet one-way delay: 57.392 ms
Loss rate: 3.63%
Run 7: Report of TCP BBR — Data Link

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**Throughput (Mbps):**

- **Flow 1 ingress** (mean 55.51 Mbps)
- **Flow 1 egress** (mean 54.50 Mbps)
- **Flow 2 ingress** (mean 37.21 Mbps)
- **Flow 2 egress** (mean 36.17 Mbps)
- **Flow 3 ingress** (mean 48.52 Mbps)
- **Flow 3 egress** (mean 47.07 Mbps)

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

- **Flow 1** (95th percentile 75.44 ms)
- **Flow 2** (95th percentile 77.63 ms)
- **Flow 3** (95th percentile 57.39 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-08-10 04:12:29
End at: 2018-08-10 04:12:59
Local clock offset: -0.185 ms
Remote clock offset: -1.198 ms

# Below is generated by plot.py at 2018-08-10 05:20:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.38 Mbit/s
95th percentile per-packet one-way delay: 67.275 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 57.57 Mbit/s
95th percentile per-packet one-way delay: 66.583 ms
Loss rate: 1.96%
-- Flow 2:
Average throughput: 39.37 Mbit/s
95th percentile per-packet one-way delay: 66.510 ms
Loss rate: 2.87%
-- Flow 3:
Average throughput: 32.05 Mbit/s
95th percentile per-packet one-way delay: 68.915 ms
Loss rate: 3.04%
Run 8: Report of TCP BBR — Data Link
Run 9: Statistics of TCP BBR

Start at: 2018-08-10 04:35:51
End at: 2018-08-10 04:36:21
Local clock offset: -0.197 ms
Remote clock offset: -1.762 ms

# Below is generated by plot.py at 2018-08-10 05:21:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.36 Mbit/s
95th percentile per-packet one-way delay: 67.230 ms
Loss rate: 2.51%
-- Flow 1:
Average throughput: 57.07 Mbit/s
95th percentile per-packet one-way delay: 58.236 ms
Loss rate: 1.73%
-- Flow 2:
Average throughput: 40.02 Mbit/s
95th percentile per-packet one-way delay: 66.518 ms
Loss rate: 3.71%
-- Flow 3:
Average throughput: 32.17 Mbit/s
95th percentile per-packet one-way delay: 68.873 ms
Loss rate: 3.61%
Run 9: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 57.05 Mbit/s)
- Flow 1 egress (mean 57.07 Mbit/s)
- Flow 2 ingress (mean 41.42 Mbit/s)
- Flow 2 egress (mean 40.02 Mbit/s)
- Flow 3 ingress (mean 33.16 Mbit/s)
- Flow 3 egress (mean 32.17 Mbit/s)
Run 10: Statistics of TCP BBR

Start at: 2018-08-10 04:59:04
End at: 2018-08-10 04:59:34
Local clock offset: -0.296 ms
Remote clock offset: -1.694 ms

# Below is generated by plot.py at 2018-08-10 05:21:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.39 Mbit/s
  95th percentile per-packet one-way delay: 65.582 ms
  Loss rate: 2.52%
-- Flow 1:
  Average throughput: 55.14 Mbit/s
  95th percentile per-packet one-way delay: 57.586 ms
  Loss rate: 1.77%
-- Flow 2:
  Average throughput: 37.07 Mbit/s
  95th percentile per-packet one-way delay: 76.702 ms
  Loss rate: 3.49%
-- Flow 3:
  Average throughput: 47.07 Mbit/s
  95th percentile per-packet one-way delay: 57.847 ms
  Loss rate: 3.57%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of Copa

Start at: 2018-08-10 01:33:57
End at: 2018-08-10 01:34:27
Local clock offset: 0.057 ms
Remote clock offset: -1.29 ms

# Below is generated by plot.py at 2018-08-10 05:22:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.94 Mbit/s
95th percentile per-packet one-way delay: 44.195 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 58.12 Mbit/s
95th percentile per-packet one-way delay: 44.262 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 27.59 Mbit/s
95th percentile per-packet one-way delay: 41.435 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 40.68 Mbit/s
95th percentile per-packet one-way delay: 42.870 ms
Loss rate: 0.79%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-08-10 01:57:23
End at: 2018-08-10 01:57:53
Local clock offset: -0.237 ms
Remote clock offset: -1.811 ms

# Below is generated by plot.py at 2018-08-10 05:22:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.92 Mbit/s
95th percentile per-packet one-way delay: 44.223 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 58.25 Mbit/s
95th percentile per-packet one-way delay: 44.225 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 33.10 Mbit/s
95th percentile per-packet one-way delay: 46.601 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 23.08 Mbit/s
95th percentile per-packet one-way delay: 38.714 ms
Loss rate: 0.60%
Run 2: Report of Copa — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 58.21 Mbit/s)
Flow 1 egress (mean 58.25 Mbit/s)
Flow 2 ingress (mean 33.09 Mbit/s)
Flow 2 egress (mean 33.10 Mbit/s)
Flow 3 ingress (mean 23.07 Mbit/s)
Flow 3 egress (mean 23.08 Mbit/s)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 44.23 ms)
Flow 2 (95th percentile 46.60 ms)
Flow 3 (95th percentile 38.71 ms)
Run 3: Statistics of Copa

Start at: 2018-08-10 02:20:16
End at: 2018-08-10 02:20:46
Local clock offset: -0.346 ms
Remote clock offset: -3.088 ms

# Below is generated by plot.py at 2018-08-10 05:22:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.43 Mbit/s
95th percentile per-packet one-way delay: 48.108 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 48.88 Mbit/s
95th percentile per-packet one-way delay: 45.914 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 31.11 Mbit/s
95th percentile per-packet one-way delay: 50.635 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 41.74 Mbit/s
95th percentile per-packet one-way delay: 49.066 ms
Loss rate: 0.68%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

Start at: 2018-08-10 02:43:20
End at: 2018-08-10 02:43:50
Local clock offset: -0.262 ms
Remote clock offset: -2.391 ms

# Below is generated by plot.py at 2018-08-10 05:22:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.97 Mbit/s
95th percentile per-packet one-way delay: 43.829 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 51.32 Mbit/s
95th percentile per-packet one-way delay: 43.927 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 47.68 Mbit/s
95th percentile per-packet one-way delay: 40.959 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 23.83 Mbit/s
95th percentile per-packet one-way delay: 41.978 ms
Loss rate: 0.69%
Run 4: Report of Copa — Data Link

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

- Flow 1 ingress (mean 51.29 Mbit/s)
- Flow 1 egress (mean 51.32 Mbit/s)
- Flow 2 ingress (mean 47.68 Mbit/s)
- Flow 2 egress (mean 47.68 Mbit/s)
- Flow 3 ingress (mean 23.84 Mbit/s)
- Flow 3 egress (mean 23.83 Mbit/s)

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

- Flow 1 (95th percentile 43.93 ms)
- Flow 2 (95th percentile 40.96 ms)
- Flow 3 (95th percentile 41.98 ms)
Run 5: Statistics of Copa

Start at: 2018-08-10 03:06:17
End at: 2018-08-10 03:06:47
Local clock offset: -0.232 ms
Remote clock offset: -1.081 ms

# Below is generated by plot.py at 2018-08-10 05:22:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.49 Mbit/s
95th percentile per-packet one-way delay: 44.322 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 52.35 Mbit/s
95th percentile per-packet one-way delay: 44.337 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 29.69 Mbit/s
95th percentile per-packet one-way delay: 48.030 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 37.37 Mbit/s
95th percentile per-packet one-way delay: 35.628 ms
Loss rate: 0.64%
Run 5: Report of Copa — Data Link
Run 6: Statistics of Copa

Start at: 2018-08-10 03:29:39
End at: 2018-08-10 03:30:09
Local clock offset: -0.352 ms
Remote clock offset: -0.346 ms

# Below is generated by plot.py at 2018-08-10 05:22:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.31 Mbit/s
  95th percentile per-packet one-way delay: 46.338 ms
  Loss rate: 0.18%
-- Flow 1:
  Average throughput: 50.91 Mbit/s
  95th percentile per-packet one-way delay: 44.183 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 43.74 Mbit/s
  95th percentile per-packet one-way delay: 51.445 ms
  Loss rate: 0.31%
-- Flow 3:
  Average throughput: 24.99 Mbit/s
  95th percentile per-packet one-way delay: 49.144 ms
  Loss rate: 0.35%
Run 7: Statistics of Copa

Start at: 2018-08-10 03:53:11
End at: 2018-08-10 03:53:41
Local clock offset: -0.253 ms
Remote clock offset: -1.191 ms

# Below is generated by plot.py at 2018-08-10 05:23:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.26 Mbit/s
  95th percentile per-packet one-way delay: 47.442 ms
  Loss rate: 0.29%
-- Flow 1:
  Average throughput: 54.61 Mbit/s
  95th percentile per-packet one-way delay: 44.535 ms
  Loss rate: 0.15%
-- Flow 2:
  Average throughput: 31.90 Mbit/s
  95th percentile per-packet one-way delay: 46.751 ms
  Loss rate: 0.49%
-- Flow 3:
  Average throughput: 25.39 Mbit/s
  95th percentile per-packet one-way delay: 59.895 ms
  Loss rate: 0.65%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-08-10 04:16:33
End at: 2018-08-10 04:17:03
Local clock offset: -0.19 ms
Remote clock offset: -1.445 ms

# Below is generated by plot.py at 2018-08-10 05:23:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.62 Mbit/s
95th percentile per-packet one-way delay: 48.562 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 46.05 Mbit/s
95th percentile per-packet one-way delay: 46.725 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 38.42 Mbit/s
95th percentile per-packet one-way delay: 47.841 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 30.18 Mbit/s
95th percentile per-packet one-way delay: 55.747 ms
Loss rate: 0.79%
Run 8: Report of Copa — Data Link

![Graph of Throughput and Packet Delay]

Throughput (Mbps): Flow 1 ingress (mean 46.02 Mbps), Flow 1 egress (mean 46.05 Mbps), Flow 2 ingress (mean 38.41 Mbps), Flow 2 egress (mean 38.42 Mbps), Flow 3 ingress (mean 30.22 Mbps), Flow 3 egress (mean 30.18 Mbps)

Packet Delay (ms): Flow 1 (95th percentile 46.73 ms), Flow 2 (95th percentile 47.84 ms), Flow 3 (95th percentile 55.75 ms)
Run 9: Statistics of Copa

Start at: 2018-08-10 04:39:55
End at: 2018-08-10 04:40:25
Local clock offset: -0.219 ms
Remote clock offset: -1.742 ms

# Below is generated by plot.py at 2018-08-10 05:24:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.38 Mbit/s
95th percentile per-packet one-way delay: 44.133 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 61.76 Mbit/s
95th percentile per-packet one-way delay: 44.217 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 27.20 Mbit/s
95th percentile per-packet one-way delay: 37.218 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 25.71 Mbit/s
95th percentile per-packet one-way delay: 35.469 ms
Loss rate: 0.71%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa

Start at: 2018-08-10 05:03:14
End at: 2018-08-10 05:03:44
Local clock offset: -0.291 ms
Remote clock offset: -1.488 ms

# Below is generated by plot.py at 2018-08-10 05:24:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.90 Mbit/s
95th percentile per-packet one-way delay: 44.963 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 52.50 Mbit/s
95th percentile per-packet one-way delay: 44.430 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 34.71 Mbit/s
95th percentile per-packet one-way delay: 46.669 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 31.12 Mbit/s
95th percentile per-packet one-way delay: 44.236 ms
Loss rate: 0.66%
Run 10: Report of Copa — Data Link

---

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

- **Flow 1 ingress (mean 52.47 Mbps)**
- **Flow 1 egress (mean 52.50 Mbps)**
- **Flow 2 ingress (mean 34.72 Mbps)**
- **Flow 2 egress (mean 34.71 Mbps)**
- **Flow 3 ingress (mean 31.12 Mbps)**
- **Flow 3 egress (mean 31.12 Mbps)**

---

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

- **Flow 1 (95th percentile 44.43 ms)**
- **Flow 2 (95th percentile 46.67 ms)**
- **Flow 3 (95th percentile 44.24 ms)**

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Run 1: Statistics of TCP Cubic

Start at: 2018-08-10 01:35:24
End at: 2018-08-10 01:35:54
Local clock offset: 0.054 ms
Remote clock offset: -1.096 ms

# Below is generated by plot.py at 2018-08-10 05:24:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.07 Mbit/s
95th percentile per-packet one-way delay: 41.262 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 49.10 Mbit/s
95th percentile per-packet one-way delay: 41.259 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 37.62 Mbit/s
95th percentile per-packet one-way delay: 41.088 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 29.97 Mbit/s
95th percentile per-packet one-way delay: 42.529 ms
Loss rate: 0.89%
Run 1: Report of TCP Cubic — Data Link

![Graph: Throughput (Mbps)]

- Flow 1 ingress (mean 49.06 Mbps)
- Flow 2 ingress (mean 37.62 Mbps)
- Flow 3 ingress (mean 30.04 Mbps)
- Flow 1 egress (mean 49.10 Mbps)
- Flow 2 egress (mean 37.62 Mbps)
- Flow 3 egress (mean 29.97 Mbps)

![Graph: Per-packet round-trip delay (ms)]

- Flow 1 (95th percentile 41.26 ms)
- Flow 2 (95th percentile 41.09 ms)
- Flow 3 (95th percentile 42.53 ms)
Run 2: Statistics of TCP Cubic

Start at: 2018-08-10 01:58:47
End at: 2018-08-10 01:59:17
Local clock offset: -0.331 ms
Remote clock offset: -1.764 ms

# Below is generated by plot.py at 2018-08-10 05:24:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.08 Mbit/s
  95th percentile per-packet one-way delay: 41.174 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 46.79 Mbit/s
  95th percentile per-packet one-way delay: 40.433 ms
  Loss rate: 0.12%
-- Flow 2:
  Average throughput: 37.76 Mbit/s
  95th percentile per-packet one-way delay: 41.847 ms
  Loss rate: 0.27%
-- Flow 3:
  Average throughput: 36.67 Mbit/s
  95th percentile per-packet one-way delay: 37.589 ms
  Loss rate: 0.80%
Run 2: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 46.75 Mbit/s)
- Flow 1 egress (mean 46.79 Mbit/s)
- Flow 2 ingress (mean 37.74 Mbit/s)
- Flow 2 egress (mean 37.76 Mbit/s)
- Flow 3 ingress (mean 36.72 Mbit/s)
- Flow 3 egress (mean 36.67 Mbit/s)

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

- Flow 1 (95th percentile 40.43 ms)
- Flow 2 (95th percentile 41.85 ms)
- Flow 3 (95th percentile 37.59 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-08-10 02:21:40
End at: 2018-08-10 02:22:10
Local clock offset: -0.249 ms
Remote clock offset: -2.974 ms

# Below is generated by plot.py at 2018-08-10 05:24:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.27 Mbit/s
  95th percentile per-packet one-way delay: 41.738 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 49.37 Mbit/s
  95th percentile per-packet one-way delay: 41.431 ms
  Loss rate: 0.15%
-- Flow 2:
  Average throughput: 37.61 Mbit/s
  95th percentile per-packet one-way delay: 42.137 ms
  Loss rate: 0.32%
-- Flow 3:
  Average throughput: 29.79 Mbit/s
  95th percentile per-packet one-way delay: 42.540 ms
  Loss rate: 0.74%
Run 3: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 49.34 Mbps/s)
- Flow 1 egress (mean 49.37 Mbps/s)
- Flow 2 ingress (mean 37.60 Mbps/s)
- Flow 2 egress (mean 37.61 Mbps/s)
- Flow 3 ingress (mean 29.82 Mbps/s)
- Flow 3 egress (mean 29.79 Mbps/s)

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

- Flow 1 (95th percentile 41.43 ms)
- Flow 2 (95th percentile 42.14 ms)
- Flow 3 (95th percentile 42.54 ms)

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Run 4: Statistics of TCP Cubic

Start at: 2018-08-10 02:44:45
End at: 2018-08-10 02:45:15
Local clock offset: -0.163 ms
Remote clock offset: -2.35 ms

# Below is generated by plot.py at 2018-08-10 05:24:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.73 Mbit/s
95th percentile per-packet one-way delay: 41.838 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 56.06 Mbit/s
95th percentile per-packet one-way delay: 41.507 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 41.28 Mbit/s
95th percentile per-packet one-way delay: 41.700 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 24.76 Mbit/s
95th percentile per-packet one-way delay: 47.218 ms
Loss rate: 0.69%
Run 4: Report of TCP Cubic — Data Link

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

- **Throughput** (Mbps):
  - Flow 1 ingress (mean 56.01 Mbps)
  - Flow 1 egress (mean 56.66 Mbps)
  - Flow 2 ingress (mean 41.31 Mbps)
  - Flow 2 egress (mean 41.28 Mbps)
  - Flow 3 ingress (mean 24.77 Mbps)
  - Flow 3 egress (mean 24.76 Mbps)

- **Packet round-trip delay (ms):**
  - Flow 1 (95th percentile 41.51 ms)
  - Flow 2 (95th percentile 41.70 ms)
  - Flow 3 (95th percentile 47.22 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-08-10 03:07:51
End at: 2018-08-10 03:08:21
Local clock offset: -0.31 ms
Remote clock offset: -1.087 ms

# Below is generated by plot.py at 2018-08-10 05:24:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.50 Mbit/s
95th percentile per-packet one-way delay: 41.974 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 46.79 Mbit/s
95th percentile per-packet one-way delay: 41.118 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 47.74 Mbit/s
95th percentile per-packet one-way delay: 42.240 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 23.97 Mbit/s
95th percentile per-packet one-way delay: 42.092 ms
Loss rate: 0.80%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-08-10 03:31:03
End at: 2018-08-10 03:31:33
Local clock offset: -0.364 ms
Remote clock offset: -0.241 ms

# Below is generated by plot.py at 2018-08-10 05:24:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.25 Mbit/s
95th percentile per-packet one-way delay: 41.353 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 49.16 Mbit/s
95th percentile per-packet one-way delay: 41.260 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 37.99 Mbit/s
95th percentile per-packet one-way delay: 41.303 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 29.67 Mbit/s
95th percentile per-packet one-way delay: 42.603 ms
Loss rate: 0.69%
Run 6: Report of TCP Cubic — Data Link

![Graph of Throughout (Mbps)](image1)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 49.13 Mbps)
  - Flow 1 egress (mean 49.16 Mbps)
  - Flow 2 ingress (mean 37.99 Mbps)
  - Flow 2 egress (mean 37.99 Mbps)
  - Flow 3 ingress (mean 29.68 Mbps)
  - Flow 3 egress (mean 29.67 Mbps)

![Graph of Per packet mean delay (ms)](image2)

- **Per packet mean delay (ms)**
  - Flow 1 (95th percentile 41.26 ms)
  - Flow 2 (95th percentile 41.30 ms)
  - Flow 3 (95th percentile 42.60 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-08-10 03:54:39
End at: 2018-08-10 03:55:09
Local clock offset: -0.326 ms
Remote clock offset: -1.135 ms

# Below is generated by plot.py at 2018-08-10 05:24:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.87 Mbit/s
95th percentile per-packet one-way delay: 41.750 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 59.03 Mbit/s
95th percentile per-packet one-way delay: 41.240 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 29.62 Mbit/s
95th percentile per-packet one-way delay: 41.727 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 24.58 Mbit/s
95th percentile per-packet one-way delay: 45.228 ms
Loss rate: 0.76%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-08-10 04:18:00
End at: 2018-08-10 04:18:30
Local clock offset: -0.271 ms
Remote clock offset: -1.588 ms

# Below is generated by plot.py at 2018-08-10 05:24:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.02 Mbit/s
95th percentile per-packet one-way delay: 41.381 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 46.93 Mbit/s
95th percentile per-packet one-way delay: 39.702 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 37.67 Mbit/s
95th percentile per-packet one-way delay: 42.288 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 36.35 Mbit/s
95th percentile per-packet one-way delay: 37.752 ms
Loss rate: 0.79%
Run 8: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 46.90 Mbps)
- Flow 1 egress (mean 46.93 Mbps)
- Flow 2 ingress (mean 37.65 Mbps)
- Flow 2 egress (mean 37.67 Mbps)
- Flow 3 ingress (mean 36.40 Mbps)
- Flow 3 egress (mean 36.35 Mbps)

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

- Flow 1 (95th percentile 39.70 ms)
- Flow 2 (95th percentile 42.29 ms)
- Flow 3 (95th percentile 37.75 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-08-10 04:41:20
End at: 2018-08-10 04:41:50
Local clock offset: -0.21 ms
Remote clock offset: -1.924 ms

# Below is generated by plot.py at 2018-08-10 05:24:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.13 Mbit/s
95th percentile per-packet one-way delay: 41.523 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 49.07 Mbit/s
95th percentile per-packet one-way delay: 41.549 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 37.89 Mbit/s
95th percentile per-packet one-way delay: 41.396 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 29.75 Mbit/s
95th percentile per-packet one-way delay: 42.521 ms
Loss rate: 0.86%
Run 9: Report of TCP Cubic — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 49.04 Mbps)
- Flow 2 ingress (mean 37.89 Mbps)
- Flow 3 ingress (mean 29.81 Mbps)
- Flow 1 egress (mean 49.07 Mbps)
- Flow 2 egress (mean 37.89 Mbps)
- Flow 3 egress (mean 29.75 Mbps)

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

- Flow 1 (95th percentile 41.55 ms)
- Flow 2 (95th percentile 41.40 ms)
- Flow 3 (95th percentile 42.52 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-08-10 05:04:44
End at: 2018-08-10 05:05:14
Local clock offset: -0.289 ms
Remote clock offset: -1.604 ms

# Below is generated by plot.py at 2018-08-10 05:24:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.00 Mbit/s
  95th percentile per-packet one-way delay: 41.933 ms
  Loss rate: 0.23%
-- Flow 1:
  Average throughput: 48.83 Mbit/s
  95th percentile per-packet one-way delay: 40.963 ms
  Loss rate: 0.16%
-- Flow 2:
  Average throughput: 39.73 Mbit/s
  95th percentile per-packet one-way delay: 42.663 ms
  Loss rate: 0.23%
-- Flow 3:
  Average throughput: 29.41 Mbit/s
  95th percentile per-packet one-way delay: 42.114 ms
  Loss rate: 0.61%
Run 10: Report of TCP Cubic — Data Link

---

**Throughput (Mbps)**

- Flow 1 ingress (mean 48.80 Mbps)
- Flow 1 egress (mean 48.83 Mbps)
- Flow 2 ingress (mean 39.70 Mbps)
- Flow 2 egress (mean 39.73 Mbps)
- Flow 3 ingress (mean 29.40 Mbps)
- Flow 3 egress (mean 29.41 Mbps)

---

**Per packet round trip delay (ms)**

- Flow 1 (95th percentile 40.96 ms)
- Flow 2 (95th percentile 42.66 ms)
- Flow 3 (95th percentile 42.11 ms)
Run 1: Statistics of FillP

Start at: 2018-08-10 01:20:18
End at: 2018-08-10 01:20:48
Local clock offset: 0.166 ms
Remote clock offset: -1.105 ms

# Below is generated by plot.py at 2018-08-10 05:25:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 62.811 ms
Loss rate: 2.45%
-- Flow 1:
Average throughput: 59.92 Mbit/s
95th percentile per-packet one-way delay: 61.952 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 38.35 Mbit/s
95th percentile per-packet one-way delay: 62.915 ms
Loss rate: 3.75%
-- Flow 3:
Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 63.687 ms
Loss rate: 3.80%
Run 1: Report of FillP — Data Link

---

**Throughput (Mbps):**

- Flow 1 ingress (mean 60.77 Mbps)
- Flow 1 egress (mean 59.92 Mbps)
- Flow 2 ingress (mean 39.69 Mbps)
- Flow 2 egress (mean 38.35 Mbps)
- Flow 3 ingress (mean 32.25 Mbps)
- Flow 3 egress (mean 31.22 Mbps)

---

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

- Flow 1 (95th percentile 61.95 ms)
- Flow 2 (95th percentile 62.91 ms)
- Flow 3 (95th percentile 61.69 ms)
Run 2: Statistics of FillP

Start at: 2018-08-10 01:43:35
End at: 2018-08-10 01:44:05
Local clock offset: 0.079 ms
Remote clock offset: -1.141 ms

# Below is generated by plot.py at 2018-08-10 05:26:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 62.657 ms
Loss rate: 2.43%
-- Flow 1:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 61.647 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 39.85 Mbit/s
95th percentile per-packet one-way delay: 62.535 ms
Loss rate: 3.91%
-- Flow 3:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 63.843 ms
Loss rate: 3.76%
Run 2: Report of FillP — Data Link

Throughput (Mbit/s) vs. Time (s)

- Flow 1 ingress (mean 59.69 Mbit/s)
- Flow 1 egress (mean 58.92 Mbit/s)
- Flow 2 ingress (mean 41.31 Mbit/s)
- Flow 2 egress (mean 39.85 Mbit/s)
- Flow 3 ingress (mean 32.27 Mbit/s)
- Flow 3 egress (mean 31.30 Mbit/s)

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

- Flow 1 (95th percentile 61.65 ms)
- Flow 2 (95th percentile 62.53 ms)
- Flow 3 (95th percentile 63.84 ms)
Run 3: Statistics of FillP

Start at: 2018-08-10 02:06:52
End at: 2018-08-10 02:07:22
Local clock offset: -0.386 ms
Remote clock offset: -2.203 ms

# Below is generated by plot.py at 2018-08-10 05:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 70.613 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 56.40 Mbit/s
95th percentile per-packet one-way delay: 70.323 ms
Loss rate: 1.62%
-- Flow 2:
Average throughput: 47.43 Mbit/s
95th percentile per-packet one-way delay: 53.829 ms
Loss rate: 2.94%
-- Flow 3:
Average throughput: 23.56 Mbit/s
95th percentile per-packet one-way delay: 72.908 ms
Loss rate: 5.45%

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Run 3: Report of FillP — Data Link
Run 4: Statistics of FillP

Start at: 2018-08-10 02:29:52
End at: 2018-08-10 02:30:22
Local clock offset: -0.293 ms
Remote clock offset: -3.146 ms

# Below is generated by plot.py at 2018-08-10 05:26:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.67 Mbit/s
  95th percentile per-packet one-way delay: 62.636 ms
  Loss rate: 2.45%
-- Flow 1:
  Average throughput: 58.77 Mbit/s
  95th percentile per-packet one-way delay: 61.421 ms
  Loss rate: 1.78%
-- Flow 2:
  Average throughput: 39.93 Mbit/s
  95th percentile per-packet one-way delay: 62.789 ms
  Loss rate: 3.44%
-- Flow 3:
  Average throughput: 31.33 Mbit/s
  95th percentile per-packet one-way delay: 63.635 ms
  Loss rate: 3.64%
Run 4: Report of FillP — Data Link

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

Legend:
- Flow 1 ingress (mean 59.70 Mbit/s)
- Flow 1 egress (mean 58.77 Mbit/s)
- Flow 2 ingress (mean 41.20 Mbit/s)
- Flow 2 egress (mean 39.93 Mbit/s)
- Flow 3 ingress (mean 32.32 Mbit/s)
- Flow 3 egress (mean 31.33 Mbit/s)
Run 5: Statistics of FillP

Start at: 2018-08-10 02:52:53
End at: 2018-08-10 02:53:23
Local clock offset: -0.307 ms
Remote clock offset: -1.891 ms

# Below is generated by plot.py at 2018-08-10 05:26:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 70.388 ms
Loss rate: 2.85%
-- Flow 1:
Average throughput: 56.26 Mbit/s
95th percentile per-packet one-way delay: 69.638 ms
Loss rate: 1.94%
-- Flow 2:
Average throughput: 47.50 Mbit/s
95th percentile per-packet one-way delay: 54.062 ms
Loss rate: 3.35%
-- Flow 3:
Average throughput: 23.82 Mbit/s
95th percentile per-packet one-way delay: 72.526 ms
Loss rate: 7.09%
Run 5: Report of FillP — Data Link

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

- **Flow 1** ingress (mean 57.23 Mbit/s), egress (mean 56.26 Mbit/s)
- **Flow 2** ingress (mean 48.99 Mbit/s), egress (mean 47.50 Mbit/s)
- **Flow 3** ingress (mean 25.44 Mbit/s), egress (mean 23.82 Mbit/s)

**Per-packet one-way delay (ms):**
- Flow 1: 95th percentile 69.64 ms
- Flow 2: 95th percentile 54.06 ms
- Flow 3: 95th percentile 72.53 ms
Run 6: Statistics of FillP

Start at: 2018-08-10 03:15:58
End at: 2018-08-10 03:16:28
Local clock offset: -0.331 ms
Remote clock offset: -0.99 ms

# Below is generated by plot.py at 2018-08-10 05:26:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 62.987 ms
Loss rate: 2.28%

-- Flow 1:
Average throughput: 58.84 Mbit/s
95th percentile per-packet one-way delay: 61.921 ms
Loss rate: 1.39%

-- Flow 2:
Average throughput: 39.91 Mbit/s
95th percentile per-packet one-way delay: 63.149 ms
Loss rate: 3.62%

-- Flow 3:
Average throughput: 31.26 Mbit/s
95th percentile per-packet one-way delay: 63.875 ms
Loss rate: 3.81%
Run 6: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 59.51 Mbit/s)**
- **Flow 1 egress (mean 58.84 Mbit/s)**
- **Flow 2 ingress (mean 41.25 Mbit/s)**
- **Flow 2 egress (mean 39.91 Mbit/s)**
- **Flow 3 ingress (mean 32.29 Mbit/s)**
- **Flow 3 egress (mean 31.26 Mbit/s)**

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

- **Flow 1 (95th percentile 61.92 ms)**
- **Flow 2 (95th percentile 63.15 ms)**
- **Flow 3 (95th percentile 63.88 ms)**
Run 7: Statistics of FillP

Start at: 2018-08-10 03:39:21
End at: 2018-08-10 03:39:51
Local clock offset: -0.408 ms
Remote clock offset: -0.786 ms

# Below is generated by plot.py at 2018-08-10 05:26:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.72 Mbit/s
  95th percentile per-packet one-way delay: 70.409 ms
  Loss rate: 2.61%
-- Flow 1:
  Average throughput: 56.38 Mbit/s
  95th percentile per-packet one-way delay: 70.264 ms
  Loss rate: 1.83%
-- Flow 2:
  Average throughput: 36.01 Mbit/s
  95th percentile per-packet one-way delay: 71.202 ms
  Loss rate: 3.79%
-- Flow 3:
  Average throughput: 46.69 Mbit/s
  95th percentile per-packet one-way delay: 54.029 ms
  Loss rate: 3.60%
Run 7: Report of FillP — Data Link

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

- **Throughput (Mb/s)**:
  - Flow 1 ingress (mean 57.31 Mb/s)
  - Flow 1 egress (mean 56.38 Mb/s)
  - Flow 2 ingress (mean 37.30 Mb/s)
  - Flow 2 egress (mean 36.01 Mb/s)
  - Flow 3 ingress (mean 46.07 Mb/s)
  - Flow 3 egress (mean 46.69 Mb/s)

- **Per packet one way delay (ms)**:
  - Flow 1 (95th percentile 70.26 ms)
  - Flow 2 (95th percentile 71.20 ms)
  - Flow 3 (95th percentile 54.03 ms)
Run 8: Statistics of FillP

Start at: 2018-08-10 04:02:56
End at: 2018-08-10 04:03:26
Local clock offset: -0.202 ms
Remote clock offset: -1.247 ms

# Below is generated by plot.py at 2018-08-10 05:26:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.74 Mbit/s
95th percentile per-packet one-way delay: 70.557 ms
Loss rate: 2.61%
-- Flow 1:
Average throughput: 64.05 Mbit/s
95th percentile per-packet one-way delay: 53.935 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 36.00 Mbit/s
95th percentile per-packet one-way delay: 71.334 ms
Loss rate: 3.92%
-- Flow 3:
Average throughput: 23.42 Mbit/s
95th percentile per-packet one-way delay: 73.083 ms
Loss rate: 5.58%
Run 8: Report of FillP — Data Link

- Throughput (Mb/s)
- Time (s)
- Flow 1 ingress (mean 65.03 Mbit/s) - Flow 1 egress (mean 64.05 Mbit/s)
- Flow 2 ingress (mean 37.35 Mbit/s) - Flow 2 egress (mean 36.00 Mbit/s)
- Flow 3 ingress (mean 24.81 Mbit/s) - Flow 3 egress (mean 23.42 Mbit/s)

- Per packet one way delay (ms)
- Time (s)
- Flow 1 (95th percentile 53.94 ms) - Flow 2 (95th percentile 71.33 ms) - Flow 3 (95th percentile 73.08 ms)
Run 9: Statistics of FillP

Start at: 2018-08-10 04:26:12
End at: 2018-08-10 04:26:42
Local clock offset: -0.183 ms
Remote clock offset: -1.789 ms

# Below is generated by plot.py at 2018-08-10 05:27:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 62.646 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 58.86 Mbit/s
95th percentile per-packet one-way delay: 61.610 ms
Loss rate: 1.72%
-- Flow 2:
Average throughput: 39.85 Mbit/s
95th percentile per-packet one-way delay: 62.904 ms
Loss rate: 3.35%
-- Flow 3:
Average throughput: 31.36 Mbit/s
95th percentile per-packet one-way delay: 63.499 ms
Loss rate: 4.67%
Run 9: Report of FillP — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 59.75 Mbps)
  - Flow 1 egress (mean 58.86 Mbps)
  - Flow 2 ingress (mean 41.11 Mbps)
  - Flow 2 egress (mean 39.85 Mbps)
  - Flow 3 ingress (mean 32.70 Mbps)
  - Flow 3 egress (mean 31.36 Mbps)

- **Per packet one-way delay (ms):**
  - Flow 1 (95th percentile 61.61 ms)
  - Flow 2 (95th percentile 62.90 ms)
  - Flow 3 (95th percentile 63.50 ms)
Run 10: Statistics of FillP

Start at: 2018-08-10 04:49:34
End at: 2018-08-10 04:50:04
Local clock offset: -0.256 ms
Remote clock offset: -1.661 ms

# Below is generated by plot.py at 2018-08-10 05:27:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.76 Mbit/s
  95th percentile per-packet one-way delay: 62.700 ms
  Loss rate: 2.43%
-- Flow 1:
  Average throughput: 58.90 Mbit/s
  95th percentile per-packet one-way delay: 61.645 ms
  Loss rate: 1.61%
-- Flow 2:
  Average throughput: 39.81 Mbit/s
  95th percentile per-packet one-way delay: 62.618 ms
  Loss rate: 3.56%
-- Flow 3:
  Average throughput: 31.46 Mbit/s
  95th percentile per-packet one-way delay: 63.811 ms
  Loss rate: 4.13%
Run 10: Report of FillIP — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 59.73 Mbps)
Flow 1 egress (mean 58.90 Mbps)
Flow 2 ingress (mean 41.16 Mbps)
Flow 2 egress (mean 39.81 Mbps)
Flow 3 ingress (mean 32.63 Mbps)
Flow 3 egress (mean 31.46 Mbps)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 61.65 ms)
Flow 2 (95th percentile 62.62 ms)
Flow 3 (95th percentile 63.81 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2018-08-10 01:23:03
End at: 2018-08-10 01:23:33
Local clock offset: 0.101 ms
Remote clock offset: -1.061 ms

# Below is generated by plot.py at 2018-08-10 05:27:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 54.211 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 56.21 Mbit/s
95th percentile per-packet one-way delay: 55.838 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 47.41 Mbit/s
95th percentile per-packet one-way delay: 52.538 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 24.26 Mbit/s
95th percentile per-packet one-way delay: 69.029 ms
Loss rate: 1.01%
Run 1: Report of FillP-Sheep — Data Link

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**Graph 1:**
- **Throughput (Mbps):**
- **Time (s):**
- **Legend:**
  - Flow 1 ingress (mean 56.64 Mbps)
  - Flow 1 egress (mean 56.21 Mbps)
  - Flow 2 ingress (mean 47.59 Mbps)
  - Flow 2 egress (mean 47.41 Mbps)
  - Flow 3 ingress (mean 24.34 Mbps)
  - Flow 3 egress (mean 24.26 Mbps)

**Graph 2:**
- **Per-packet one way delay (ms):**
- **Time (s):**
- **Legend:**
  - Flow 1 (95th percentile 55.84 ms)
  - Flow 2 (95th percentile 52.54 ms)
  - Flow 3 (95th percentile 69.03 ms)
Run 2: Statistics of FillP-Sheep

Start at: 2018-08-10 01:46:37
End at: 2018-08-10 01:47:07
Local clock offset: 0.037 ms
Remote clock offset: -1.397 ms

# Below is generated by plot.py at 2018-08-10 05:27:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.77 Mbit/s
  95th percentile per-packet one-way delay: 54.831 ms
  Loss rate: 0.74%
-- Flow 1:
  Average throughput: 56.34 Mbit/s
  95th percentile per-packet one-way delay: 56.905 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 47.27 Mbit/s
  95th percentile per-packet one-way delay: 52.572 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 24.25 Mbit/s
  95th percentile per-packet one-way delay: 67.575 ms
  Loss rate: 1.07%
Run 2: Report of FillP-Sheep — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 56.67 Mbit/s)  
Flow 1 egress (mean 56.34 Mbit/s)  
Flow 2 ingress (mean 47.41 Mbit/s)  
Flow 2 egress (mean 47.27 Mbit/s)  
Flow 3 ingress (mean 24.35 Mbit/s)  
Flow 3 egress (mean 24.25 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 56.91 ms)  
Flow 2 (95th percentile 52.57 ms)  
Flow 3 (95th percentile 67.58 ms)
Run 3: Statistics of FillP-Sheep

Start at: 2018-08-10 02:09:36
End at: 2018-08-10 02:10:06
Local clock offset: -0.324 ms
Remote clock offset: -2.469 ms

# Below is generated by plot.py at 2018-08-10 05:27:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.72 Mbit/s
  95th percentile per-packet one-way delay: 56.225 ms
  Loss rate: 0.93%
-- Flow 1:
  Average throughput: 58.73 Mbit/s
  95th percentile per-packet one-way delay: 55.078 ms
  Loss rate: 0.85%
-- Flow 2:
  Average throughput: 39.91 Mbit/s
  95th percentile per-packet one-way delay: 57.687 ms
  Loss rate: 1.13%
-- Flow 3:
  Average throughput: 31.64 Mbit/s
  95th percentile per-packet one-way delay: 58.534 ms
  Loss rate: 0.89%
Run 3: Report of FillP-Sheep — Data Link

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

Legend:
- Flow 1 ingress (mean 59.10 Mbit/s)
- Flow 1 egress (mean 58.73 Mbit/s)
- Flow 2 ingress (mean 40.24 Mbit/s)
- Flow 2 egress (mean 39.91 Mbit/s)
- Flow 3 ingress (mean 31.71 Mbit/s)
- Flow 3 egress (mean 31.64 Mbit/s)

Legend for per-packet one-way delay:
- Flow 1 (95th percentile 55.08 ms)
- Flow 2 (95th percentile 57.69 ms)
- Flow 3 (95th percentile 58.53 ms)
Run 4: Statistics of FillP-Sheep

Start at: 2018-08-10 02:32:36
End at: 2018-08-10 02:33:06
Local clock offset: -0.203 ms
Remote clock offset: -2.978 ms

# Below is generated by plot.py at 2018-08-10 05:27:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 55.602 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 58.70 Mbit/s
95th percentile per-packet one-way delay: 54.823 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 39.92 Mbit/s
95th percentile per-packet one-way delay: 56.845 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 31.74 Mbit/s
95th percentile per-packet one-way delay: 58.503 ms
Loss rate: 0.87%
Run 4: Report of FillP-Sheep — Data Link

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

![Graph 2: Per packet one way delay (ms)](image2)
Run 5: Statistics of FillP-Sheep

Start at: 2018-08-10 02:55:37
End at: 2018-08-10 02:56:07
Local clock offset: -0.201 ms
Remote clock offset: -1.449 ms

# Below is generated by plot.py at 2018-08-10 05:27:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.59 Mbit/s
95th percentile per-packet one-way delay: 55.185 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 58.69 Mbit/s
95th percentile per-packet one-way delay: 54.739 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 39.74 Mbit/s
95th percentile per-packet one-way delay: 56.222 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 31.78 Mbit/s
95th percentile per-packet one-way delay: 59.088 ms
Loss rate: 0.92%
Run 5: Report of FillP-Sheep — Data Link
Run 6: Statistics of FillP-Sheep

Start at: 2018-08-10 03:18:45
End at: 2018-08-10 03:19:15
Local clock offset: -0.278 ms
Remote clock offset: -0.859 ms

# Below is generated by plot.py at 2018-08-10 05:27:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 55.347 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 56.11 Mbit/s
95th percentile per-packet one-way delay: 55.393 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 36.38 Mbit/s
95th percentile per-packet one-way delay: 57.585 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 46.97 Mbit/s
95th percentile per-packet one-way delay: 49.795 ms
Loss rate: 0.90%
Run 6: Report of FillP-Sheep — Data Link
Run 7: Statistics of FillP-Sheep

Start at: 2018-08-10 03:42:16
End at: 2018-08-10 03:42:46
Local clock offset: -0.412 ms
Remote clock offset: -0.921 ms

# Below is generated by plot.py at 2018-08-10 05:28:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.84 Mbit/s
  95th percentile per-packet one-way delay: 56.723 ms
  Loss rate: 0.90%
-- Flow 1:
  Average throughput: 56.09 Mbit/s
  95th percentile per-packet one-way delay: 57.693 ms
  Loss rate: 0.85%
-- Flow 2:
  Average throughput: 36.39 Mbit/s
  95th percentile per-packet one-way delay: 59.056 ms
  Loss rate: 0.99%
-- Flow 3:
  Average throughput: 47.13 Mbit/s
  95th percentile per-packet one-way delay: 52.632 ms
  Loss rate: 0.96%
Run 7: Report of FillP-Sheep — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 56.45 Mbit/s)
Flow 1 egress (mean 56.09 Mbit/s)
Flow 2 ingress (mean 36.63 Mbit/s)
Flow 2 egress (mean 36.39 Mbit/s)
Flow 3 ingress (mean 47.27 Mbit/s)
Flow 3 egress (mean 47.13 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 57.69 ms)
Flow 2 (95th percentile 59.06 ms)
Flow 3 (95th percentile 52.63 ms)
Run 8: Statistics of FillP-Sheep

Start at: 2018-08-10 04:05:41
End at: 2018-08-10 04:06:11
Local clock offset: -0.178 ms
Remote clock offset: -1.195 ms

# Below is generated by plot.py at 2018-08-10 05:28:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.71 Mbit/s
  95th percentile per-packet one-way delay: 54.402 ms
  Loss rate: 0.79%
-- Flow 1:
  Average throughput: 56.26 Mbit/s
  95th percentile per-packet one-way delay: 55.419 ms
  Loss rate: 0.82%
-- Flow 2:
  Average throughput: 47.41 Mbit/s
  95th percentile per-packet one-way delay: 52.720 ms
  Loss rate: 0.67%
-- Flow 3:
  Average throughput: 24.04 Mbit/s
  95th percentile per-packet one-way delay: 69.841 ms
  Loss rate: 0.98%
Run 8: Report of FillP-Sheep — Data Link

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

Flow 1 ingress (mean 56.61 Mbps)  Flow 1 egress (mean 56.26 Mbps)
Flow 2 ingress (mean 47.58 Mbps)  Flow 2 egress (mean 47.41 Mbps)
Flow 3 ingress (mean 24.13 Mbps)  Flow 3 egress (mean 24.04 Mbps)

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

Flow 1 (95th percentile 55.42 ms)  Flow 2 (95th percentile 52.72 ms)  Flow 3 (95th percentile 69.84 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-08-10 04:29:02
End at: 2018-08-10 04:29:32
Local clock offset: -0.2 ms
Remote clock offset: -1.863 ms

# Below is generated by plot.py at 2018-08-10 05:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 56.233 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 58.65 Mbit/s
95th percentile per-packet one-way delay: 55.669 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 39.82 Mbit/s
95th percentile per-packet one-way delay: 57.430 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 31.92 Mbit/s
95th percentile per-packet one-way delay: 58.855 ms
Loss rate: 0.84%
Run 9: Report of FillP-Sheep — Data Link
Run 10: Statistics of FillP-Sheep

Start at: 2018-08-10 04:52:19
End at: 2018-08-10 04:52:49
Local clock offset: -0.267 ms
Remote clock offset: -1.684 ms

# Below is generated by plot.py at 2018-08-10 05:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 53.841 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 56.25 Mbit/s
95th percentile per-packet one-way delay: 54.380 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 47.21 Mbit/s
95th percentile per-packet one-way delay: 52.781 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 24.31 Mbit/s
95th percentile per-packet one-way delay: 68.183 ms
Loss rate: 0.98%
Run 10: Report of FillP-Sheep — Data Link

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![Graph showing throughput and per-packet end-to-end delay](image-url)

- **Flow 1 ingress (mean 56.55 Mbit/s)**
- **Flow 1 egress (mean 56.25 Mbit/s)**
- **Flow 2 ingress (mean 47.39 Mbit/s)**
- **Flow 2 egress (mean 47.21 Mbit/s)**
- **Flow 3 ingress (mean 24.40 Mbit/s)**
- **Flow 3 egress (mean 24.31 Mbit/s)**

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Run 1: Statistics of Indigo

Start at: 2018-08-10 01:25:49
End at: 2018-08-10 01:26:19
Local clock offset: 0.018 ms
Remote clock offset: -1.255 ms

# Below is generated by plot.py at 2018-08-10 05:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.02 Mbit/s
95th percentile per-packet one-way delay: 44.403 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 56.48 Mbit/s
95th percentile per-packet one-way delay: 46.925 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 47.60 Mbit/s
95th percentile per-packet one-way delay: 40.434 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 24.16 Mbit/s
95th percentile per-packet one-way delay: 43.769 ms
Loss rate: 0.72%
Run 1: Report of Indigo — Data Link

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

- **Flow 1** (ingress mean 56.51 Mbit/s, egress mean 56.48 Mbit/s)
- **Flow 2** (ingress mean 47.60 Mbit/s, egress mean 47.60 Mbit/s)
- **Flow 3** (ingress mean 24.37 Mbit/s, egress mean 24.16 Mbit/s)

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

- **Flow 1** (95th percentile 46.92 ms)
- **Flow 2** (95th percentile 40.43 ms)
- **Flow 3** (95th percentile 43.77 ms)
Run 2: Statistics of Indigo

Start at: 2018-08-10 01:49:24
End at: 2018-08-10 01:49:54
Local clock offset: -0.168 ms
Remote clock offset: -1.415 ms

# Below is generated by plot.py at 2018-08-10 05:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.13 Mbit/s
95th percentile per-packet one-way delay: 46.400 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 59.10 Mbit/s
95th percentile per-packet one-way delay: 47.877 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 40.16 Mbit/s
95th percentile per-packet one-way delay: 45.182 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 41.885 ms
Loss rate: 0.71%
Run 2: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 59.10 Mbit/s)
- Flow 1 egress (mean 59.10 Mbit/s)
- Flow 2 ingress (mean 40.17 Mbit/s)
- Flow 2 egress (mean 40.16 Mbit/s)
- Flow 3 ingress (mean 31.58 Mbit/s)
- Flow 3 egress (mean 31.57 Mbit/s)

![Graph of packet loss](image)

- Flow 1 (95th percentile 47.88 ms)
- Flow 2 (95th percentile 45.18 ms)
- Flow 3 (95th percentile 41.88 ms)
Run 3: Statistics of Indigo

Start at: 2018-08-10 02:12:18
End at: 2018-08-10 02:12:48
Local clock offset: -0.338 ms
Remote clock offset: -2.489 ms

# Below is generated by plot.py at 2018-08-10 05:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.91 Mbit/s
95th percentile per-packet one-way delay: 46.334 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 58.93 Mbit/s
95th percentile per-packet one-way delay: 46.209 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 40.04 Mbit/s
95th percentile per-packet one-way delay: 46.086 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 31.69 Mbit/s
95th percentile per-packet one-way delay: 54.914 ms
Loss rate: 0.86%
Run 3: Report of Indigo — Data Link

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

Start at: 2018-08-10 02:35:18
End at: 2018-08-10 02:35:48
Local clock offset: -0.188 ms
Remote clock offset: -2.88 ms

# Below is generated by plot.py at 2018-08-10 05:29:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.08 Mbit/s
95th percentile per-packet one-way delay: 46.868 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 56.63 Mbit/s
95th percentile per-packet one-way delay: 49.341 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 36.21 Mbit/s
95th percentile per-packet one-way delay: 47.651 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 46.91 Mbit/s
95th percentile per-packet one-way delay: 42.776 ms
Loss rate: 0.75%
Run 5: Statistics of Indigo

Start at: 2018-08-10 02:58:19
End at: 2018-08-10 02:58:49
Local clock offset: -0.232 ms
Remote clock offset: -1.439 ms

# Below is generated by plot.py at 2018-08-10 05:29:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.12 Mbit/s
  95th percentile per-packet one-way delay: 45.727 ms
  Loss rate: 0.31%
-- Flow 1:
  Average throughput: 64.37 Mbit/s
  95th percentile per-packet one-way delay: 43.024 ms
  Loss rate: 0.22%
-- Flow 2:
  Average throughput: 36.30 Mbit/s
  95th percentile per-packet one-way delay: 50.035 ms
  Loss rate: 0.42%
-- Flow 3:
  Average throughput: 23.33 Mbit/s
  95th percentile per-packet one-way delay: 42.938 ms
  Loss rate: 0.75%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Start at: 2018-08-10 03:21:29
End at: 2018-08-10 03:21:59
Local clock offset: ~0.379 ms
Remote clock offset: ~0.741 ms

# Below is generated by plot.py at 2018-08-10 05:29:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.16 Mbit/s
95th percentile per-packet one-way delay: 45.529 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 64.44 Mbit/s
95th percentile per-packet one-way delay: 42.892 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 36.04 Mbit/s
95th percentile per-packet one-way delay: 48.214 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 23.78 Mbit/s
95th percentile per-packet one-way delay: 44.985 ms
Loss rate: 0.76%
Run 6: Report of Indigo — Data Link

![Graphs showing throughput and packet delay over time for different flows, with annotations for each flow's ingress and egress rates.]

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Run 7: Statistics of Indigo

Start at: 2018-08-10 03:45:04
End at: 2018-08-10 03:45:34
Local clock offset: -0.426 ms
Remote clock offset: -1.101 ms

# Below is generated by plot.py at 2018-08-10 05:29:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.82 Mbit/s
  95th percentile per-packet one-way delay: 45.149 ms
  Loss rate: 0.29%
-- Flow 1:
  Average throughput: 56.25 Mbit/s
  95th percentile per-packet one-way delay: 48.703 ms
  Loss rate: 0.20%
-- Flow 2:
  Average throughput: 47.89 Mbit/s
  95th percentile per-packet one-way delay: 42.788 ms
  Loss rate: 0.35%
-- Flow 3:
  Average throughput: 23.71 Mbit/s
  95th percentile per-packet one-way delay: 43.188 ms
  Loss rate: 0.75%
Run 7: Report of Indigo — Data Link
Run 8: Statistics of Indigo

Start at: 2018-08-10 04:08:26
End at: 2018-08-10 04:08:56
Local clock offset: -0.169 ms
Remote clock offset: -0.952 ms

# Below is generated by plot.py at 2018-08-10 05:29:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.09 Mbit/s
  95th percentile per-packet one-way delay: 46.420 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 59.06 Mbit/s
  95th percentile per-packet one-way delay: 47.901 ms
  Loss rate: 0.22%
-- Flow 2:
  Average throughput: 40.14 Mbit/s
  95th percentile per-packet one-way delay: 44.697 ms
  Loss rate: 0.31%
-- Flow 3:
  Average throughput: 31.69 Mbit/s
  95th percentile per-packet one-way delay: 42.574 ms
  Loss rate: 0.74%
Run 8: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 59.06 Mbit/s)
- Flow 1 egress (mean 59.06 Mbit/s)
- Flow 2 ingress (mean 40.13 Mbit/s)
- Flow 2 egress (mean 40.14 Mbit/s)
- Flow 3 ingress (mean 31.71 Mbit/s)
- Flow 3 egress (mean 31.69 Mbit/s)

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

- Flow 1 (95th percentile 47.90 ms)
- Flow 2 (95th percentile 44.70 ms)
- Flow 3 (95th percentile 42.57 ms)
Run 9: Statistics of Indigo

Start at: 2018-08-10 04:31:47
End at: 2018-08-10 04:32:17
Local clock offset: -0.208 ms
Remote clock offset: -1.829 ms

# Below is generated by plot.py at 2018-08-10 05:29:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 42.796 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 56.44 Mbit/s
95th percentile per-packet one-way delay: 45.271 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 47.87 Mbit/s
95th percentile per-packet one-way delay: 42.588 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 23.92 Mbit/s
95th percentile per-packet one-way delay: 42.841 ms
Loss rate: 0.75%
Run 9: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 56.42 Mbit/s)
- Flow 1 egress (mean 56.44 Mbit/s)
- Flow 2 ingress (mean 47.88 Mbit/s)
- Flow 2 egress (mean 47.87 Mbit/s)
- Flow 3 ingress (mean 23.94 Mbit/s)
- Flow 3 egress (mean 23.92 Mbit/s)

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

- Flow 1 (95th percentile 45.27 ms)
- Flow 2 (95th percentile 42.59 ms)
- Flow 3 (95th percentile 42.84 ms)
Run 10: Statistics of Indigo

Start at: 2018-08-10 04:55:03
End at: 2018-08-10 04:55:33
Local clock offset: -0.26 ms
Remote clock offset: -1.63 ms

# Below is generated by plot.py at 2018-08-10 05:30:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.14 Mbit/s
  95th percentile per-packet one-way delay: 47.085 ms
  Loss rate: 0.35%
-- Flow 1:
  Average throughput: 59.11 Mbit/s
  95th percentile per-packet one-way delay: 47.860 ms
  Loss rate: 0.25%
-- Flow 2:
  Average throughput: 40.22 Mbit/s
  95th percentile per-packet one-way delay: 47.658 ms
  Loss rate: 0.44%
-- Flow 3:
  Average throughput: 31.52 Mbit/s
  95th percentile per-packet one-way delay: 40.923 ms
  Loss rate: 0.71%
Run 10: Report of Indigo — Data Link
Run 1: Statistics of LEDBAT

Start at: 2018-08-10 01:40:55
End at: 2018-08-10 01:41:25
Local clock offset: 0.064 ms
Remote clock offset: -1.297 ms

# Below is generated by plot.py at 2018-08-10 05:30:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.13 Mbit/s
95th percentile per-packet one-way delay: 42.413 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 41.75 Mbit/s
95th percentile per-packet one-way delay: 41.112 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 43.797 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 17.44 Mbit/s
95th percentile per-packet one-way delay: 45.510 ms
Loss rate: 1.30%
Run 2: Statistics of LEDBAT

Start at: 2018-08-10 02:04:11
End at: 2018-08-10 02:04:41
Local clock offset: -0.274 ms
Remote clock offset: -2.091 ms

# Below is generated by plot.py at 2018-08-10 05:30:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 68.23 Mbit/s
  95th percentile per-packet one-way delay: 42.264 ms
  Loss rate: 0.31%
-- Flow 1:
  Average throughput: 39.07 Mbit/s
  95th percentile per-packet one-way delay: 41.674 ms
  Loss rate: 0.14%
-- Flow 2:
  Average throughput: 30.53 Mbit/s
  95th percentile per-packet one-way delay: 45.086 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 26.82 Mbit/s
  95th percentile per-packet one-way delay: 39.960 ms
  Loss rate: 1.33%
Run 2: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 39.04 Mbit/s)
- Flow 1 egress (mean 39.07 Mbit/s)
- Flow 2 ingress (mean 30.48 Mbit/s)
- Flow 2 egress (mean 30.53 Mbit/s)
- Flow 3 ingress (mean 27.00 Mbit/s)
- Flow 3 egress (mean 26.62 Mbit/s)
Run 3: Statistics of LEDBAT

Start at: 2018-08-10 02:27:10
End at: 2018-08-10 02:27:40
Local clock offset: -0.226 ms
Remote clock offset: -3.292 ms

# Below is generated by plot.py at 2018-08-10 05:30:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.41 Mbit/s
95th percentile per-packet one-way delay: 42.057 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 39.15 Mbit/s
95th percentile per-packet one-way delay: 43.534 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 34.55 Mbit/s
95th percentile per-packet one-way delay: 40.479 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 15.96 Mbit/s
95th percentile per-packet one-way delay: 42.493 ms
Loss rate: 0.78%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-08-10 02:50:11
End at: 2018-08-10 02:50:41
Local clock offset: -0.187 ms
Remote clock offset: -1.909 ms

# Below is generated by plot.py at 2018-08-10 05:30:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.68 Mbit/s
95th percentile per-packet one-way delay: 42.300 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 40.03 Mbit/s
95th percentile per-packet one-way delay: 42.482 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: 42.081 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 21.28 Mbit/s
95th percentile per-packet one-way delay: 41.277 ms
Loss rate: 1.05%
Run 4: Report of LEDBAT — Data Link

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

- Flow 1 Ingress (mean 39.99 Mbit/s)
- Flow 1 Egress (mean 40.03 Mbit/s)
- Flow 2 Ingress (mean 20.95 Mbit/s)
- Flow 2 Egress (mean 30.94 Mbit/s)
- Flow 3 Ingress (mean 21.37 Mbit/s)
- Flow 3 Egress (mean 21.28 Mbit/s)

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

- Flow 1 (95th percentile 42.48 ms)
- Flow 2 (95th percentile 42.08 ms)
- Flow 3 (95th percentile 41.28 ms)
Run 5: Statistics of LEDBAT

Start at: 2018-08-10 03:13:17
End at: 2018-08-10 03:13:47
Local clock offset: -0.221 ms
Remote clock offset: -1.218 ms

# Below is generated by plot.py at 2018-08-10 05:30:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.24 Mbit/s
95th percentile per-packet one-way delay: 41.767 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 39.13 Mbit/s
95th percentile per-packet one-way delay: 41.650 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 30.39 Mbit/s
95th percentile per-packet one-way delay: 43.753 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 26.86 Mbit/s
95th percentile per-packet one-way delay: 39.001 ms
Loss rate: 1.33%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Start at: 2018-08-10 03:36:35
End at: 2018-08-10 03:37:05
Local clock offset: -0.483 ms
Remote clock offset: -0.345 ms

# Below is generated by plot.py at 2018-08-10 05:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.91 Mbit/s
95th percentile per-packet one-way delay: 41.898 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 42.39 Mbit/s
95th percentile per-packet one-way delay: 41.759 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 29.54 Mbit/s
95th percentile per-packet one-way delay: 42.466 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 17.67 Mbit/s
95th percentile per-packet one-way delay: 42.159 ms
Loss rate: 0.97%
Run 6: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 42.38 Mbit/s)
- Flow 1 egress (mean 42.39 Mbit/s)
- Flow 2 ingress (mean 29.56 Mbit/s)
- Flow 2 egress (mean 29.54 Mbit/s)
- Flow 3 ingress (mean 17.73 Mbit/s)
- Flow 3 egress (mean 17.67 Mbit/s)
Run 7: Statistics of LEDBAT

Start at: 2018-08-10 04:00:13
End at: 2018-08-10 04:00:43
Local clock offset: -0.267 ms
Remote clock offset: -1.099 ms

# Below is generated by plot.py at 2018-08-10 05:30:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.48 Mbit/s
95th percentile per-packet one-way delay: 42.298 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 39.77 Mbit/s
95th percentile per-packet one-way delay: 42.577 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 31.04 Mbit/s
95th percentile per-packet one-way delay: 42.394 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 21.30 Mbit/s
95th percentile per-packet one-way delay: 41.063 ms
Loss rate: 1.05%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-08-10 04:23:30
End at: 2018-08-10 04:24:00
Local clock offset: -0.195 ms
Remote clock offset: -1.74 ms

# Below is generated by plot.py at 2018-08-10 05:30:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.36 Mbit/s
95th percentile per-packet one-way delay: 41.839 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 41.58 Mbit/s
95th percentile per-packet one-way delay: 41.616 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 26.29 Mbit/s
95th percentile per-packet one-way delay: 42.066 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 22.02 Mbit/s
95th percentile per-packet one-way delay: 42.085 ms
Loss rate: 0.99%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-08-10 04:46:53
End at: 2018-08-10 04:47:23
Local clock offset: -0.234 ms
Remote clock offset: -1.666 ms

# Below is generated by plot.py at 2018-08-10 05:30:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 67.34 Mbit/s
  95th percentile per-packet one-way delay: 41.472 ms
  Loss rate: 0.33%
  -- Flow 1:
    Average throughput: 39.24 Mbit/s
    95th percentile per-packet one-way delay: 42.138 ms
    Loss rate: 0.16%
  -- Flow 2:
    Average throughput: 32.14 Mbit/s
    95th percentile per-packet one-way delay: 40.890 ms
    Loss rate: 0.37%
  -- Flow 3:
    Average throughput: 20.28 Mbit/s
    95th percentile per-packet one-way delay: 40.916 ms
    Loss rate: 1.18%
Run 9: Report of LEDBAT — Data Link

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

- **Throughput:**
  - Flow 1 ingress (mean 39.22 Mbit/s)
  - Flow 2 ingress (mean 32.15 Mbit/s)
  - Flow 3 ingress (mean 20.39 Mbit/s)
  - Flow 1 egress (mean 39.24 Mbit/s)
  - Flow 2 egress (mean 32.14 Mbit/s)
  - Flow 3 egress (mean 20.28 Mbit/s)

- **End-to-End Delay:**
  - Flow 1 (95th percentile 42.14 ms)
  - Flow 2 (95th percentile 40.89 ms)
  - Flow 3 (95th percentile 40.92 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-08-10 05:10:57
End at: 2018-08-10 05:11:27
Local clock offset: -0.299 ms
Remote clock offset: -0.422 ms

# Below is generated by plot.py at 2018-08-10 05:30:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.08 Mbit/s
95th percentile per-packet one-way delay: 41.155 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 40.079 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.75 Mbit/s
95th percentile per-packet one-way delay: 41.175 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 9.92 Mbit/s
95th percentile per-packet one-way delay: 40.981 ms
Loss rate: 2.19%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC-Allegro

Start at: 2018-08-10 01:42:16
End at: 2018-08-10 01:42:46
Local clock offset: 0.075 ms
Remote clock offset: -1.087 ms

# Below is generated by plot.py at 2018-08-10 05:31:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.18 Mbit/s
  95th percentile per-packet one-way delay: 63.944 ms
  Loss rate: 2.12%
-- Flow 1:
  Average throughput: 61.63 Mbit/s
  95th percentile per-packet one-way delay: 54.173 ms
  Loss rate: 0.76%
-- Flow 2:
  Average throughput: 37.49 Mbit/s
  95th percentile per-packet one-way delay: 65.619 ms
  Loss rate: 5.60%
-- Flow 3:
  Average throughput: 17.16 Mbit/s
  95th percentile per-packet one-way delay: 74.101 ms
  Loss rate: 0.87%
Run 1: Report of PCC-Allegro — Data Link

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

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

Start at: 2018-08-10 02:05:32
End at: 2018-08-10 02:06:02
Local clock offset: -0.383 ms
Remote clock offset: -2.156 ms

# Below is generated by plot.py at 2018-08-10 05:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.22 Mbit/s
95th percentile per-packet one-way delay: 65.566 ms
Loss rate: 4.94%
-- Flow 1:
Average throughput: 57.91 Mbit/s
95th percentile per-packet one-way delay: 61.912 ms
Loss rate: 5.72%
-- Flow 2:
Average throughput: 36.73 Mbit/s
95th percentile per-packet one-way delay: 66.479 ms
Loss rate: 4.03%
-- Flow 3:
Average throughput: 30.07 Mbit/s
95th percentile per-packet one-way delay: 67.465 ms
Loss rate: 2.50%
Run 2: Report of PCC-Allegro — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 61.27 Mbit/s)
Flow 1 egress (mean 57.91 Mbit/s)
Flow 2 ingress (mean 38.13 Mbit/s)
Flow 2 egress (mean 36.73 Mbit/s)
Flow 3 ingress (mean 30.64 Mbit/s)
Flow 3 egress (mean 30.07 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 61.91 ms)
Flow 2 (95th percentile 66.48 ms)
Flow 3 (95th percentile 67.47 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-08-10 02:28:31
End at: 2018-08-10 02:29:01
Local clock offset: -0.211 ms
Remote clock offset: -3.25 ms

# Below is generated by plot.py at 2018-08-10 05:31:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.19 Mbit/s
95th percentile per-packet one-way delay: 65.818 ms
Loss rate: 5.14%
-- Flow 1:
Average throughput: 57.24 Mbit/s
95th percentile per-packet one-way delay: 61.720 ms
Loss rate: 6.37%
-- Flow 2:
Average throughput: 37.66 Mbit/s
95th percentile per-packet one-way delay: 67.006 ms
Loss rate: 3.28%
-- Flow 3:
Average throughput: 30.21 Mbit/s
95th percentile per-packet one-way delay: 67.462 ms
Loss rate: 2.45%
Run 3: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 60.99 Mbit/s) and egress (mean 57.24 Mbit/s)
- Flow 2 ingress (mean 38.80 Mbit/s) and egress (mean 37.66 Mbit/s)
- Flow 3 ingress (mean 30.77 Mbit/s) and egress (mean 30.22 Mbit/s)

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

- Flow 1 (95th percentile 61.72 ms)
- Flow 2 (95th percentile 67.01 ms)
- Flow 3 (95th percentile 67.46 ms)
Run 4: Statistics of PCC-Allegro

Start at: 2018-08-10 02:51:32
End at: 2018-08-10 02:52:03
Local clock offset: -0.279 ms
Remote clock offset: -1.82 ms

# Below is generated by plot.py at 2018-08-10 05:31:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 91.96 Mbit/s
  95th percentile per-packet one-way delay: 65.998 ms
  Loss rate: 3.23%
-- Flow 1:
  Average throughput: 57.32 Mbit/s
  95th percentile per-packet one-way delay: 65.175 ms
  Loss rate: 2.63%
-- Flow 2:
  Average throughput: 37.26 Mbit/s
  95th percentile per-packet one-way delay: 66.291 ms
  Loss rate: 4.84%
-- Flow 3:
  Average throughput: 30.06 Mbit/s
  95th percentile per-packet one-way delay: 67.046 ms
  Loss rate: 2.57%
Run 4: Report of PCC-Allegro — Data Link

![Data Link Diagram]

**Throughput (Mbit/s)**
- Flow 1 ingress (mean 58.73 Mbit/s)
- Flow 1 egress (mean 57.32 Mbit/s)
- Flow 2 ingress (mean 39.01 Mbit/s)
- Flow 2 egress (mean 37.26 Mbit/s)
- Flow 3 ingress (mean 30.65 Mbit/s)
- Flow 3 egress (mean 30.06 Mbit/s)

**Per packet one way delay (ms)**
- Flow 1 (95th percentile 65.17 ms)
- Flow 2 (95th percentile 66.29 ms)
- Flow 3 (95th percentile 67.05 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2018-08-10 03:14:38
End at: 2018-08-10 03:15:08
Local clock offset: -0.212 ms
Remote clock offset: -0.942 ms

# Below is generated by plot.py at 2018-08-10 05:31:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.18 Mbit/s
  95th percentile per-packet one-way delay: 65.473 ms
  Loss rate: 5.14%
-- Flow 1:
  Average throughput: 57.60 Mbit/s
  95th percentile per-packet one-way delay: 61.572 ms
  Loss rate: 6.28%
-- Flow 2:
  Average throughput: 36.99 Mbit/s
  95th percentile per-packet one-way delay: 66.510 ms
  Loss rate: 3.45%
-- Flow 3:
  Average throughput: 30.44 Mbit/s
  95th percentile per-packet one-way delay: 67.217 ms
  Loss rate: 2.47%
Run 5: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 6: Statistics of PCC-Allegro

Start at: 2018-08-10 03:37:59
End at: 2018-08-10 03:38:29
Local clock offset: -0.378 ms
Remote clock offset: -0.58 ms

# Below is generated by plot.py at 2018-08-10 05:31:57
# Datalink statistics
-- Total of 3 flows:
    Average throughput: 91.98 Mbit/s
    95th percentile per-packet one-way delay: 68.470 ms
    Loss rate: 2.50%
-- Flow 1:
    Average throughput: 55.91 Mbit/s
    95th percentile per-packet one-way delay: 70.157 ms
    Loss rate: 3.75%
-- Flow 2:
    Average throughput: 43.87 Mbit/s
    95th percentile per-packet one-way delay: 41.360 ms
    Loss rate: 0.37%
-- Flow 3:
    Average throughput: 21.07 Mbit/s
    95th percentile per-packet one-way delay: 74.614 ms
    Loss rate: 0.99%
Run 6: Report of PCC-Allegro — Data Link
Run 7: Statistics of PCC-Allegro

Start at: 2018-08-10 04:01:35
End at: 2018-08-10 04:02:05
Local clock offset: -0.197 ms
Remote clock offset: -1.269 ms

# Below is generated by plot.py at 2018-08-10 05:31:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.19 Mbit/s
  95th percentile per-packet one-way delay: 69.776 ms
  Loss rate: 5.14%
-- Flow 1:
  Average throughput: 55.80 Mbit/s
  95th percentile per-packet one-way delay: 65.044 ms
  Loss rate: 6.52%
-- Flow 2:
  Average throughput: 34.63 Mbit/s
  95th percentile per-packet one-way delay: 73.598 ms
  Loss rate: 4.15%
-- Flow 3:
  Average throughput: 40.73 Mbit/s
  95th percentile per-packet one-way delay: 54.115 ms
  Loss rate: 0.81%
Run 7: Report of PCC-Allegro — Data Link
Run 8: Statistics of PCC-Allegro

Start at: 2018-08-10 04:24:51
End at: 2018-08-10 04:25:21
Local clock offset: -0.212 ms
Remote clock offset: -1.752 ms

# Below is generated by plot.py at 2018-08-10 05:32:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.65 Mbit/s
  95th percentile per-packet one-way delay: 64.208 ms
  Loss rate: 2.48%
-- Flow 1:
  Average throughput: 58.05 Mbit/s
  95th percentile per-packet one-way delay: 63.791 ms
  Loss rate: 2.36%
-- Flow 2:
  Average throughput: 39.42 Mbit/s
  95th percentile per-packet one-way delay: 64.974 ms
  Loss rate: 3.25%
-- Flow 3:
  Average throughput: 25.61 Mbit/s
  95th percentile per-packet one-way delay: 49.632 ms
  Loss rate: 0.91%
Run 8: Report of PCC-Allegro — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 59.30 Mbps)
- Flow 1 egress (mean 58.05 Mbps)
- Flow 2 ingress (mean 40.59 Mbps)
- Flow 2 egress (mean 39.42 Mbps)
- Flow 3 ingress (mean 25.69 Mbps)
- Flow 3 egress (mean 25.61 Mbps)

Graph 2: Per-packet one way delay (ms)
- Flow 1 (95th percentile 63.79 ms)
- Flow 2 (95th percentile 64.97 ms)
- Flow 3 (95th percentile 49.63 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-08-10 04:48:14
End at: 2018-08-10 04:48:44
Local clock offset: -0.228 ms
Remote clock offset: -1.681 ms

# Below is generated by plot.py at 2018-08-10 05:32:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.30 Mbit/s
  95th percentile per-packet one-way delay: 66.064 ms
  Loss rate: 3.26%
-- Flow 1:
  Average throughput: 57.29 Mbit/s
  95th percentile per-packet one-way delay: 65.272 ms
  Loss rate: 2.66%
-- Flow 2:
  Average throughput: 37.80 Mbit/s
  95th percentile per-packet one-way delay: 66.072 ms
  Loss rate: 4.89%
-- Flow 3:
  Average throughput: 30.09 Mbit/s
  95th percentile per-packet one-way delay: 67.450 ms
  Loss rate: 2.52%
Run 9: Report of PCC-Allegro — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 58.71 Mbps)  Flow 1 egress (mean 57.29 Mbps)
Flow 2 ingress (mean 39.61 Mbps)  Flow 2 egress (mean 37.80 Mbps)
Flow 3 ingress (mean 30.66 Mbps)  Flow 3 egress (mean 30.09 Mbps)

Per packet one way delay (ms)

Time (s)

- Flow 1 (95th percentile 65.27 ms)
- Flow 2 (95th percentile 66.07 ms)
- Flow 3 (95th percentile 67.45 ms)
Run 10: Statistics of PCC-Allegro

Start at: 2018-08-10 05:15:28
End at: 2018-08-10 05:15:58
Local clock offset: -0.396 ms
Remote clock offset: -0.294 ms

# Below is generated by plot.py at 2018-08-10 05:32:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 39.830 ms
Loss rate: 2.68%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 39.834 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 39.748 ms
Loss rate: 6.05%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 39.720 ms
Loss rate: 0.00%
Run 1: Statistics of PCC-Expr

Start at: 2018-08-10 01:36:47
End at: 2018-08-10 01:37:17
Local clock offset: 0.059 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-08-10 05:33:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.57 Mbit/s
95th percentile per-packet one-way delay: 69.463 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 55.12 Mbit/s
95th percentile per-packet one-way delay: 68.617 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 40.83 Mbit/s
95th percentile per-packet one-way delay: 52.500 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 25.28 Mbit/s
95th percentile per-packet one-way delay: 70.379 ms
Loss rate: 1.55%
Run 1: Report of PCC-Expr — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 55.41 Mbps)
  - Flow 1 egress (mean 55.12 Mbps)
  - Flow 2 ingress (mean 41.60 Mbps)
  - Flow 2 egress (mean 40.83 Mbps)
  - Flow 3 ingress (mean 25.51 Mbps)
  - Flow 3 egress (mean 25.26 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 68.62 ms)
  - Flow 2 (95th percentile 52.50 ms)
  - Flow 3 (95th percentile 70.38 ms)
Run 2: Statistics of PCC-Expr

Start at: 2018-08-10 02:00:07
End at: 2018-08-10 02:00:37
Local clock offset: -0.361 ms
Remote clock offset: -1.823 ms

# Below is generated by plot.py at 2018-08-10 05:33:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.00 Mbit/s
  95th percentile per-packet one-way delay: 70.846 ms
  Loss rate: 0.81%
-- Flow 1:
  Average throughput: 53.40 Mbit/s
  95th percentile per-packet one-way delay: 70.713 ms
  Loss rate: 0.81%
-- Flow 2:
  Average throughput: 43.67 Mbit/s
  95th percentile per-packet one-way delay: 53.222 ms
  Loss rate: 0.52%
-- Flow 3:
  Average throughput: 23.04 Mbit/s
  95th percentile per-packet one-way delay: 71.544 ms
  Loss rate: 1.96%
Run 2: Report of PCC-Expr — Data Link

![Graph of throughput and packet delay over time for different flows. The graphs show the throughput (in Mbit/s) and packet delay (in ms) for three flows, labeled as Flow 1, Flow 2, and Flow 3. The throughput graphs indicate varying levels of data flow, with peaks and troughs, while the packet delay graphs show the distribution of packet delays with 95th percentiles indicated.]
Run 3: Statistics of PCC-Expr

Start at: 2018-08-10 02:23:01
End at: 2018-08-10 02:23:31
Local clock offset: -0.236 ms
Remote clock offset: -3.249 ms

# Below is generated by plot.py at 2018-08-10 05:33:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.27 Mbit/s
95th percentile per-packet one-way delay: 61.920 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 54.25 Mbit/s
95th percentile per-packet one-way delay: 60.996 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 61.922 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 27.77 Mbit/s
95th percentile per-packet one-way delay: 62.730 ms
Loss rate: 0.82%
Run 3: Report of PCC-Expr — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 54.32 Mbps)
  - Flow 1 egress (mean 54.25 Mbps)
  - Flow 2 ingress (mean 40.77 Mbps)
  - Flow 2 egress (mean 40.45 Mbps)
  - Flow 3 ingress (mean 27.81 Mbps)
  - Flow 3 egress (mean 27.77 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 61.00 ms)
  - Flow 2 (95th percentile 61.92 ms)
  - Flow 3 (95th percentile 62.73 ms)
Run 4: Statistics of PCC-Expr

Start at: 2018-08-10 02:46:06
End at: 2018-08-10 02:46:36
Local clock offset: -0.17 ms
Remote clock offset: -2.248 ms

# Below is generated by plot.py at 2018-08-10 05:33:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.70 Mbit/s
95th percentile per-packet one-way delay: 70.050 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 53.87 Mbit/s
95th percentile per-packet one-way delay: 69.731 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 33.86 Mbit/s
95th percentile per-packet one-way delay: 70.773 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 43.62 Mbit/s
95th percentile per-packet one-way delay: 53.621 ms
Loss rate: 1.00%
Run 4: Report of PCC-Expr — Data Link

[Graph showing throughput and packet delay over time for different flows with annotations for mean values]

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Run 5: Statistics of PCC-Expr

Start at: 2018-08-10 03:09:12
End at: 2018-08-10 03:09:42
Local clock offset: -0.316 ms
Remote clock offset: -1.175 ms

# Below is generated by plot.py at 2018-08-10 05:33:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.36 Mbit/s
  95th percentile per-packet one-way delay: 62.094 ms
  Loss rate: 0.64%
-- Flow 1:
  Average throughput: 53.48 Mbit/s
  95th percentile per-packet one-way delay: 60.729 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 40.24 Mbit/s
  95th percentile per-packet one-way delay: 62.051 ms
  Loss rate: 1.16%
-- Flow 3:
  Average throughput: 27.77 Mbit/s
  95th percentile per-packet one-way delay: 62.587 ms
  Loss rate: 0.77%
Run 5: Report of PCC-Expr — Data Link

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

- **Throughput (Mbit/s):**
  - Flow 1 ingress (mean 53.56 Mbit/s)
  - Flow 1 egress (mean 53.48 Mbit/s)
  - Flow 2 ingress (mean 40.57 Mbit/s)
  - Flow 2 egress (mean 40.24 Mbit/s)
  - Flow 3 ingress (mean 27.81 Mbit/s)
  - Flow 3 egress (mean 27.77 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 60.73 ms)
  - Flow 2 (95th percentile 62.05 ms)
  - Flow 3 (95th percentile 62.59 ms)
Run 6: Statistics of PCC-Expr

Start at: 2018-08-10 03:32:23
End at: 2018-08-10 03:32:53
Local clock offset: -0.359 ms
Remote clock offset: -0.358 ms

# Below is generated by plot.py at 2018-08-10 05:33:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.15 Mbit/s
95th percentile per-packet one-way delay: 70.641 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 59.53 Mbit/s
95th percentile per-packet one-way delay: 53.059 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 33.48 Mbit/s
95th percentile per-packet one-way delay: 71.258 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 25.49 Mbit/s
95th percentile per-packet one-way delay: 71.954 ms
Loss rate: 1.34%
Run 6: Report of PCC-Expr — Data Link
Run 7: Statistics of PCC-Expr

Start at: 2018-08-10 03:56:02
End at: 2018-08-10 03:56:32
Local clock offset: -0.3 ms
Remote clock offset: -1.171 ms

# Below is generated by plot.py at 2018-08-10 05:34:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.64 Mbit/s
95th percentile per-packet one-way delay: 62.044 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 58.10 Mbit/s
95th percentile per-packet one-way delay: 60.778 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 35.44 Mbit/s
95th percentile per-packet one-way delay: 62.488 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 30.36 Mbit/s
95th percentile per-packet one-way delay: 62.554 ms
Loss rate: 1.68%
Run 7: Report of PCC-Expr — Data Link
Run 8: Statistics of PCC-Expr

Start at: 2018-08-10 04:19:22
End at: 2018-08-10 04:19:52
Local clock offset: -0.186 ms
Remote clock offset: -1.621 ms

# Below is generated by plot.py at 2018-08-10 05:34:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.15 Mbit/s
95th percentile per-packet one-way delay: 70.120 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 52.52 Mbit/s
95th percentile per-packet one-way delay: 70.354 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 33.77 Mbit/s
95th percentile per-packet one-way delay: 70.363 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 46.15 Mbit/s
95th percentile per-packet one-way delay: 53.237 ms
Loss rate: 1.32%
Run 8: Report of PCC-Expr — Data Link

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

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

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Run 9: Statistics of PCC-Expr

Start at: 2018-08-10 04:42:40
End at: 2018-08-10 04:43:10
Local clock offset: -0.222 ms
Remote clock offset: -1.731 ms

# Below is generated by plot.py at 2018-08-10 05:35:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.03 Mbit/s
  95th percentile per-packet one-way delay: 60.235 ms
  Loss rate: 0.54%
-- Flow 1:
  Average throughput: 54.16 Mbit/s
  95th percentile per-packet one-way delay: 53.126 ms
  Loss rate: 0.31%
-- Flow 2:
  Average throughput: 39.49 Mbit/s
  95th percentile per-packet one-way delay: 55.729 ms
  Loss rate: 0.56%
-- Flow 3:
  Average throughput: 29.23 Mbit/s
  95th percentile per-packet one-way delay: 62.099 ms
  Loss rate: 1.71%
Run 9: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 54.22 Mbit/s)
- Flow 1 egress (mean 54.16 Mbit/s)
- Flow 2 ingress (mean 39.58 Mbit/s)
- Flow 2 egress (mean 39.49 Mbit/s)
- Flow 3 ingress (mean 29.54 Mbit/s)
- Flow 3 egress (mean 29.23 Mbit/s)

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

- Flow 1 (95th percentile 53.13 ms)
- Flow 2 (95th percentile 55.73 ms)
- Flow 3 (95th percentile 62.10 ms)
Run 10: Statistics of PCC-Expr

Start at: 2018-08-10 05:06:06
End at: 2018-08-10 05:06:36
Local clock offset: -0.296 ms
Remote clock offset: -1.519 ms

# Below is generated by plot.py at 2018-08-10 05:35:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.74 Mbit/s
95th percentile per-packet one-way delay: 70.686 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 52.66 Mbit/s
95th percentile per-packet one-way delay: 69.735 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 43.74 Mbit/s
95th percentile per-packet one-way delay: 53.368 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 24.32 Mbit/s
95th percentile per-packet one-way delay: 71.660 ms
Loss rate: 1.45%
Run 10: Report of PCC-Expr — Data Link

The graphs above show the throughput and per-packet one-way delay for three different flows over time. The throughput graphs depict the mean throughput in Mbps for each flow, while the per-packet one-way delay graphs illustrate the 95th percentile delay in ms for each flow.

- **Throughput Graphs:**
  - Flow 1 (ingress): 52.81 Mbps
  - Flow 1 (egress): 52.66 Mbps
  - Flow 2 (ingress): 43.93 Mbps
  - Flow 2 (egress): 43.74 Mbps
  - Flow 3 (ingress): 24.47 Mbps
  - Flow 3 (egress): 24.32 Mbps

- **Per-Packet One-Way Delay Graphs:**
  - Flow 1: 69.73 ms
  - Flow 2: 53.37 ms
  - Flow 3: 71.66 ms
Run 1: Statistics of QUIC Cubic

Start at: 2018-08-10 01:32:34
End at: 2018-08-10 01:33:04
Local clock offset: -0.018 ms
Remote clock offset: -1.07 ms

# Below is generated by plot.py at 2018-08-10 05:35:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.87 Mbit/s
  95th percentile per-packet one-way delay: 51.445 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 52.34 Mbit/s
  95th percentile per-packet one-way delay: 45.426 ms
  Loss rate: 0.17%
-- Flow 2:
  Average throughput: 35.28 Mbit/s
  95th percentile per-packet one-way delay: 55.428 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 30.61 Mbit/s
  95th percentile per-packet one-way delay: 63.285 ms
  Loss rate: 0.91%
Run 1: Report of QUIC Cubic — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows with their respective means and percentiles.]
Run 2: Statistics of QUIC Cubic

Start at: 2018-08-10 01:56:03
End at: 2018-08-10 01:56:33
Local clock offset: -0.308 ms
Remote clock offset: -1.478 ms

# Below is generated by plot.py at 2018-08-10 05:35:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.88 Mbit/s
95th percentile per-packet one-way delay: 55.440 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 38.85 Mbit/s
95th percentile per-packet one-way delay: 46.349 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 44.29 Mbit/s
95th percentile per-packet one-way delay: 55.461 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 23.55 Mbit/s
95th percentile per-packet one-way delay: 74.495 ms
Loss rate: 1.00%
Run 2: Report of QUIC Cubic — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 38.70 Mbit/s)  Flow 1 egress (mean 38.85 Mbit/s)
Flow 2 ingress (mean 44.34 Mbit/s)  Flow 2 egress (mean 44.29 Mbit/s)
Flow 3 ingress (mean 23.63 Mbit/s)  Flow 3 egress (mean 23.55 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 46.35 ms)  Flow 2 (95th percentile 55.46 ms)  Flow 3 (95th percentile 74.50 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-08-10 02:18:56
End at: 2018-08-10 02:19:26
Local clock offset: -0.277 ms
Remote clock offset: -2.805 ms

# Below is generated by plot.py at 2018-08-10 05:35:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 77.10 Mbit/s
  95th percentile per-packet one-way delay: 55.612 ms
  Loss rate: 0.39%
-- Flow 1:
  Average throughput: 47.85 Mbit/s
  95th percentile per-packet one-way delay: 45.319 ms
  Loss rate: 0.27%
-- Flow 2:
  Average throughput: 32.28 Mbit/s
  95th percentile per-packet one-way delay: 56.012 ms
  Loss rate: 0.43%
-- Flow 3:
  Average throughput: 23.70 Mbit/s
  95th percentile per-packet one-way delay: 73.557 ms
  Loss rate: 0.99%
Run 3: Report of QUIC Cubic — Data Link

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**Throughput (Mbps)**

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

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

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

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Run 4: Statistics of QUIC Cubic

Start at: 2018-08-10 02:41:59
End at: 2018-08-10 02:42:29
Local clock offset: -0.153 ms
Remote clock offset: -2.453 ms

# Below is generated by plot.py at 2018-08-10 05:35:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.73 Mbit/s
95th percentile per-packet one-way delay: 54.499 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 38.67 Mbit/s
95th percentile per-packet one-way delay: 45.634 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 44.05 Mbit/s
95th percentile per-packet one-way delay: 52.019 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 23.63 Mbit/s
95th percentile per-packet one-way delay: 74.797 ms
Loss rate: 1.01%
Run 4: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 38.68 Mbit/s)
- Flow 1 egress (mean 38.67 Mbit/s)
- Flow 2 ingress (mean 44.07 Mbit/s)
- Flow 2 egress (mean 44.05 Mbit/s)
- Flow 3 ingress (mean 23.72 Mbit/s)
- Flow 3 egress (mean 23.63 Mbit/s)

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

- Flow 1 (95th percentile 45.63 ms)
- Flow 2 (95th percentile 52.02 ms)
- Flow 3 (95th percentile 74.80 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-08-10 03:04:57
End at: 2018-08-10 03:05:27
Local clock offset: -0.24 ms
Remote clock offset: -1.034 ms

# Below is generated by plot.py at 2018-08-10 05:35:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.95 Mbit/s
  95th percentile per-packet one-way delay: 54.492 ms
  Loss rate: 0.41%
  -- Flow 1:
  Average throughput: 45.90 Mbit/s
  95th percentile per-packet one-way delay: 45.418 ms
  Loss rate: 0.34%
  -- Flow 2:
  Average throughput: 32.27 Mbit/s
  95th percentile per-packet one-way delay: 56.095 ms
  Loss rate: 0.33%
  -- Flow 3:
  Average throughput: 23.09 Mbit/s
  95th percentile per-packet one-way delay: 76.602 ms
  Loss rate: 1.11%
Run 5: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 45.96 Mbit/s)
- Flow 1 egress (mean 45.90 Mbit/s)
- Flow 2 ingress (mean 32.27 Mbit/s)
- Flow 2 egress (mean 32.27 Mbit/s)
- Flow 3 ingress (mean 23.20 Mbit/s)
- Flow 3 egress (mean 23.09 Mbit/s)

![Graph showing packet delay per flow over time.]

- Flow 1 (95th percentile 45.42 ms)
- Flow 2 (95th percentile 56.09 ms)
- Flow 3 (95th percentile 76.60 ms)
Run 6: Statistics of QUIC Cubic

Start at: 2018-08-10 03:28:18
End at: 2018-08-10 03:28:48
Local clock offset: -0.457 ms
Remote clock offset: -0.563 ms

# Below is generated by plot.py at 2018-08-10 05:35:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 76.42 Mbit/s
  95th percentile per-packet one-way delay: 55.644 ms
  Loss rate: 0.36%
-- Flow 1:
  Average throughput: 40.21 Mbit/s
  95th percentile per-packet one-way delay: 46.530 ms
  Loss rate: 0.18%
-- Flow 2:
  Average throughput: 43.12 Mbit/s
  95th percentile per-packet one-way delay: 55.754 ms
  Loss rate: 0.43%
-- Flow 3:
  Average throughput: 23.01 Mbit/s
  95th percentile per-packet one-way delay: 77.346 ms
  Loss rate: 1.11%
Run 6: Report of QUIC Cubic — Data Link

![Graph of throughput and packet delay over time for different flows with specified mean rates and 95th percentile delays.](image-url)
Run 7: Statistics of QUIC Cubic

Start at: 2018-08-10 03:51:50
End at: 2018-08-10 03:52:20
Local clock offset: -0.297 ms
Remote clock offset: -1.327 ms

# Below is generated by plot.py at 2018-08-10 05:35:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.09 Mbit/s
95th percentile per-packet one-way delay: 55.021 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 47.32 Mbit/s
95th percentile per-packet one-way delay: 45.622 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 31.55 Mbit/s
95th percentile per-packet one-way delay: 56.253 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 23.68 Mbit/s
95th percentile per-packet one-way delay: 75.107 ms
Loss rate: 1.18%
Run 7: Report of QUIC Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 47.35 Mbit/s)
- Flow 1 egress (mean 47.32 Mbit/s)
- Flow 2 ingress (mean 31.57 Mbit/s)
- Flow 2 egress (mean 31.55 Mbit/s)
- Flow 3 ingress (mean 23.81 Mbit/s)
- Flow 3 egress (mean 23.66 Mbit/s)

Legend for per-packet one-way delay:
- Flow 1 (95th percentile 45.62 ms)
- Flow 2 (95th percentile 56.25 ms)
- Flow 3 (95th percentile 75.11 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-08-10 04:15:10
End at: 2018-08-10 04:15:40
Local clock offset: -0.267 ms
Remote clock offset: -1.541 ms

# Below is generated by plot.py at 2018-08-10 05:36:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.75 Mbit/s
95th percentile per-packet one-way delay: 55.829 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 50.16 Mbit/s
95th percentile per-packet one-way delay: 45.411 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 32.46 Mbit/s
95th percentile per-packet one-way delay: 55.976 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 39.50 Mbit/s
95th percentile per-packet one-way delay: 56.328 ms
Loss rate: 0.99%
Run 8: Report of QUIC Cubic — Data Link

![Graph of Throughput](image1)

![Graph of Per-packet One Way Delay](image2)
Run 9: Statistics of QUIC Cubic

Start at: 2018-08-10 04:38:33
End at: 2018-08-10 04:39:03
Local clock offset: -0.225 ms
Remote clock offset: -1.725 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.90 Mbit/s
  95th percentile per-packet one-way delay: 53.467 ms
  Loss rate: 0.42%
-- Flow 1:
  Average throughput: 58.58 Mbit/s
  95th percentile per-packet one-way delay: 45.308 ms
  Loss rate: 0.22%
-- Flow 2:
  Average throughput: 29.59 Mbit/s
  95th percentile per-packet one-way delay: 56.110 ms
  Loss rate: 0.63%
-- Flow 3:
  Average throughput: 23.28 Mbit/s
  95th percentile per-packet one-way delay: 75.361 ms
  Loss rate: 1.46%
Run 9: Report of QUIC Cubic — Data Link

[Graph of throughput and packet delay over time for flows 1, 2, and 3, showing mean throughput and 95th percentile delay for each flow.]

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Run 10: Statistics of QUIC Cubic

Start at: 2018-08-10 05:01:51
End at: 2018-08-10 05:02:21
Local clock offset: -0.297 ms
Remote clock offset: -1.43 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 76.26 Mbit/s
  95th percentile per-packet one-way delay: 54.710 ms
  Loss rate: 0.42%
-- Flow 1:
  Average throughput: 39.86 Mbit/s
  95th percentile per-packet one-way delay: 45.630 ms
  Loss rate: 0.19%
-- Flow 2:
  Average throughput: 43.32 Mbit/s
  95th percentile per-packet one-way delay: 55.467 ms
  Loss rate: 0.43%
-- Flow 3:
  Average throughput: 23.16 Mbit/s
  95th percentile per-packet one-way delay: 75.135 ms
  Loss rate: 1.59%
Run 10: Report of QUIC Cubic — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 39.85 Mbit/s)
- Flow 2 ingress (mean 43.36 Mbit/s)
- Flow 3 ingress (mean 23.39 Mbit/s)
- Flow 1 egress (mean 39.86 Mbit/s)
- Flow 2 egress (mean 43.32 Mbit/s)
- Flow 3 egress (mean 23.16 Mbit/s)

![Delay Graph]

- Flow 1 (95th percentile 45.63 ms)
- Flow 2 (95th percentile 55.47 ms)
- Flow 3 (95th percentile 75.14 ms)
Run 1: Statistics of SCReAM

Start at: 2018-08-10 01:31:18
End at: 2018-08-10 01:31:48
Local clock offset: -0.007 ms
Remote clock offset: -1.253 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 34.072 ms
  Loss rate: 0.31%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 34.075 ms
  Loss rate: 0.13%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 34.027 ms
  Loss rate: 0.40%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 34.084 ms
  Loss rate: 0.71%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-08-10 01:54:46
End at: 2018-08-10 01:55:16
Local clock offset: -0.281 ms
Remote clock offset: -1.315 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 33.844 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.840 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.848 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.843 ms
Loss rate: 0.71%
Run 2: Report of SCReAM — Data Link

Throughput (Mbps):

Time (s):

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

Per-packet round-trip delay (ms):

Time (s):

Flow 1 (95th percentile 33.84 ms)  
Flow 2 (95th percentile 33.85 ms)  
Flow 3 (95th percentile 33.84 ms)
Run 3: Statistics of SCReAM

Start at: 2018-08-10 02:17:39
End at: 2018-08-10 02:18:09
Local clock offset: -0.379 ms
Remote clock offset: -2.902 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 34.035 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.031 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.043 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.978 ms
Loss rate: 0.71%
Run 3: Report of SCReAM — Data Link

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

![Graph 2: Per-packet round-trip delay vs Time](image2)
Run 4: Statistics of SCReAM

Start at: 2018-08-10 02:40:42
End at: 2018-08-10 02:41:12
Local clock offset: -0.163 ms
Remote clock offset: -2.513 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 34.056 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.036 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.046 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 34.078 ms
Loss rate: 0.71%
Run 4: Report of SCReAM — Data Link

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

- **Throughput (Mbps)**
  - 0.25
  - 0.20
  - 0.15
  - 0.10
  - 0.05
  - 0.00
  - Time (s)
  - 0
  - 5
  - 10
  - 15
  - 20
  - 25
  - 30

- **Per-packet one-way delay (ms)**
  - 34.25
  - 34.20
  - 34.15
  - 34.10
  - 34.05
  - 34.00
  - 33.95
  - 33.90
  - 33.85
  - Time (s)
  - 0
  - 5
  - 10
  - 15
  - 20
  - 25
  - 30

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

- Flow 1 (95th percentile 34.04 ms)
- Flow 2 (95th percentile 34.05 ms)
- Flow 3 (95th percentile 34.08 ms)
Run 5: Statistics of SCReAM

Start at: 2018-08-10 03:03:40
End at: 2018-08-10 03:04:10
Local clock offset: -0.232 ms
Remote clock offset: -0.991 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 33.938 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 33.934 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 33.946 ms
  Loss rate: 0.40%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 33.933 ms
  Loss rate: 0.71%
Run 5: Report of SCReAM — Data Link

![Graph of Throughput (Mbps)](image1)

![Graph of Per-packet one-way delay (ms)](image2)
Run 6: Statistics of SCReAM

Start at: 2018-08-10 03:27:01
End at: 2018-08-10 03:27:31
Local clock offset: -0.357 ms
Remote clock offset: -0.426 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 34.036 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.041 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.971 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 34.019 ms
Loss rate: 0.35%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-08-10 03:50:33
End at: 2018-08-10 03:51:03
Local clock offset: -0.297 ms
Remote clock offset: -1.361 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 34.206 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 34.118 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 34.219 ms
  Loss rate: 0.40%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 34.134 ms
  Loss rate: 0.71%
Run 7: Report of SCReAM — Data Link

![Graph of throughput and round-trip time over time for different flows, showing variations and performance metrics.]
Run 8: Statistics of SCReAM

Start at: 2018-08-10 04:13:53
End at: 2018-08-10 04:14:23
Local clock offset: -0.276 ms
Remote clock offset: -1.314 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 33.922 ms
  Loss rate: 0.31%

-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 33.862 ms
  Loss rate: 0.13%

-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 33.872 ms
  Loss rate: 0.40%

-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 33.947 ms
  Loss rate: 0.71%
Run 9: Statistics of SCReAM

Start at: 2018-08-10 04:37:17
End at: 2018-08-10 04:37:47
Local clock offset: -0.219 ms
Remote clock offset: -1.713 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 33.975 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.944 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.948 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.995 ms
Loss rate: 0.71%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-08-10 05:00:34
End at: 2018-08-10 05:01:04
Local clock offset: -0.372 ms
Remote clock offset: -1.659 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 34.151 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 34.148 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 34.070 ms
  Loss rate: 0.40%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 34.163 ms
  Loss rate: 0.71%
Run 10: Report of SCReAM — Data Link

![Graph showing throughput and latency over time for different flows.](image-url)
Run 1: Statistics of Sprout

Start at: 2018-08-10 01:38:14
End at: 2018-08-10 01:38:44
Local clock offset: -0.024 ms
Remote clock offset: -1.115 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 20.80 Mbit/s
  95th percentile per-packet one-way delay: 41.250 ms
  Loss rate: 0.47%
-- Flow 1:
  Average throughput: 10.48 Mbit/s
  95th percentile per-packet one-way delay: 41.141 ms
  Loss rate: 0.40%
-- Flow 2:
  Average throughput: 10.51 Mbit/s
  95th percentile per-packet one-way delay: 41.588 ms
  Loss rate: 0.44%
-- Flow 3:
  Average throughput: 10.17 Mbit/s
  95th percentile per-packet one-way delay: 40.955 ms
  Loss rate: 0.76%
Run 1: Report of Sprout — Data Link

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**Graph 1:**
Throughput (Mbps)

**Graph 2:**
Per-packet end-to-end delay (ms)

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Run 2: Statistics of Sprout

Start at: 2018-08-10 02:01:31
End at: 2018-08-10 02:02:01
Local clock offset: -0.358 ms
Remote clock offset: -2.118 ms

# Below is generated by plot.py at 2018-08-10 05:36:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 21.05 Mbit/s
  95th percentile per-packet one-way delay: 41.406 ms
  Loss rate: 0.43%
-- Flow 1:
  Average throughput: 10.65 Mbit/s
  95th percentile per-packet one-way delay: 41.372 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 10.60 Mbit/s
  95th percentile per-packet one-way delay: 41.437 ms
  Loss rate: 0.46%
-- Flow 3:
  Average throughput: 10.17 Mbit/s
  95th percentile per-packet one-way delay: 41.477 ms
  Loss rate: 1.02%
Run 2: Report of Sprout — Data Link

![Graph 1: Throughput (Mbps)]

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

Flow 1 ingress (mean 10.66 Mbps)  
Flow 1 egress (mean 10.65 Mbps)  
Flow 2 ingress (mean 10.62 Mbps)  
Flow 2 egress (mean 10.60 Mbps)  
Flow 3 ingress (mean 10.30 Mbps)  
Flow 3 egress (mean 10.17 Mbps)  

Flow 1 (95th percentile 41.37 ms)  
Flow 2 (95th percentile 41.44 ms)  
Flow 3 (95th percentile 41.48 ms)
Run 3: Statistics of Sprout

Start at: 2018-08-10 02:24:28
End at: 2018-08-10 02:24:58
Local clock offset: -0.232 ms
Remote clock offset: -3.107 ms

# Below is generated by plot.py at 2018-08-10 05:36:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 20.83 Mbit/s
  95th percentile per-packet one-way delay: 41.258 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 10.47 Mbit/s
  95th percentile per-packet one-way delay: 40.803 ms
  Loss rate: 0.29%
-- Flow 2:
  Average throughput: 10.52 Mbit/s
  95th percentile per-packet one-way delay: 41.029 ms
  Loss rate: 0.38%
-- Flow 3:
  Average throughput: 10.21 Mbit/s
  95th percentile per-packet one-way delay: 43.007 ms
  Loss rate: 0.79%
Run 3: Report of Sprout — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 10.49 Mbps)
- Flow 1 egress (mean 10.47 Mbps)
- Flow 2 ingress (mean 10.52 Mbps)
- Flow 2 egress (mean 10.52 Mbps)
- Flow 3 ingress (mean 10.22 Mbps)
- Flow 3 egress (mean 10.21 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 40.80 ms)
- Flow 2 (95th percentile 41.03 ms)
- Flow 3 (95th percentile 43.01 ms)
Run 4: Statistics of Sprout

Start at: 2018-08-10 02:47:30
End at: 2018-08-10 02:48:01
Local clock offset: -0.272 ms
Remote clock offset: -2.265 ms

# Below is generated by plot.py at 2018-08-10 05:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.16 Mbit/s
95th percentile per-packet one-way delay: 41.154 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 10.72 Mbit/s
95th percentile per-packet one-way delay: 40.986 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 10.62 Mbit/s
95th percentile per-packet one-way delay: 41.186 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 10.28 Mbit/s
95th percentile per-packet one-way delay: 41.679 ms
Loss rate: 0.85%
Run 4: Report of Sprout — Data Link

---

**Throughput (Mb/s)**

*Flow 1 ingress (mean 10.73 Mb/s)*
*Flow 1 egress (mean 10.72 Mb/s)*
*Flow 2 ingress (mean 10.62 Mb/s)*
*Flow 2 egress (mean 10.62 Mb/s)*
*Flow 3 ingress (mean 10.29 Mb/s)*
*Flow 3 egress (mean 10.28 Mb/s)*

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

*Flow 1 (95th percentile 40.39 ms)*
*Flow 2 (95th percentile 41.19 ms)*
*Flow 3 (95th percentile 41.68 ms)*
Run 5: Statistics of Sprout

Start at: 2018-08-10 03:10:36
End at: 2018-08-10 03:11:06
Local clock offset: -0.22 ms
Remote clock offset: -1.089 ms

# Below is generated by plot.py at 2018-08-10 05:36:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 20.89 Mbit/s
  95th percentile per-packet one-way delay: 41.232 ms
  Loss rate: 0.31%
-- Flow 1:
  Average throughput: 10.60 Mbit/s
  95th percentile per-packet one-way delay: 40.977 ms
  Loss rate: 0.25%
-- Flow 2:
  Average throughput: 10.51 Mbit/s
  95th percentile per-packet one-way delay: 41.329 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 10.06 Mbit/s
  95th percentile per-packet one-way delay: 42.321 ms
  Loss rate: 0.92%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-08-10 03:33:51
End at: 2018-08-10 03:34:21
Local clock offset: -0.447 ms
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2018-08-10 05:36:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.87 Mbit/s
95th percentile per-packet one-way delay: 41.174 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 10.58 Mbit/s
95th percentile per-packet one-way delay: 40.937 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 10.43 Mbit/s
95th percentile per-packet one-way delay: 41.029 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 10.25 Mbit/s
95th percentile per-packet one-way delay: 42.550 ms
Loss rate: 0.96%
Run 7: Statistics of Sprout

Start at: 2018-08-10 03:57:28
End at: 2018-08-10 03:57:58
Local clock offset: -0.212 ms
Remote clock offset: -1.128 ms

# Below is generated by plot.py at 2018-08-10 05:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.10 Mbit/s
95th percentile per-packet one-way delay: 41.525 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 10.62 Mbit/s
95th percentile per-packet one-way delay: 41.195 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 10.65 Mbit/s
95th percentile per-packet one-way delay: 41.742 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 10.36 Mbit/s
95th percentile per-packet one-way delay: 42.363 ms
Loss rate: 0.90%
Run 7: Report of Sprout — Data Link

![Graph showing network throughput over time for different flows.]
Run 8: Statistics of Sprout

Start at: 2018-08-10 04:20:48
End at: 2018-08-10 04:21:18
Local clock offset: -0.199 ms
Remote clock offset: -1.688 ms

# Below is generated by plot.py at 2018-08-10 05:36:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.90 Mbit/s
95th percentile per-packet one-way delay: 41.236 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 10.49 Mbit/s
95th percentile per-packet one-way delay: 41.001 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 10.57 Mbit/s
95th percentile per-packet one-way delay: 41.261 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 10.31 Mbit/s
95th percentile per-packet one-way delay: 41.958 ms
Loss rate: 0.98%
Run 8: Report of Sprout — Data Link

Graph 1: Throughput (Mbps)

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

Legend:
- Flow 1 ingress (mean 10.48 Mbps)
- Flow 1 egress (mean 10.49 Mbps)
- Flow 2 ingress (mean 10.56 Mbps)
- Flow 2 egress (mean 10.57 Mbps)
- Flow 3 ingress (mean 10.34 Mbps)
- Flow 3 egress (mean 10.31 Mbps)
Run 9: Statistics of Sprout

Start at: 2018-08-10 04:44:09
End at: 2018-08-10 04:44:39
Local clock offset: -0.226 ms
Remote clock offset: -1.711 ms

# Below is generated by plot.py at 2018-08-10 05:36:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.20 Mbit/s
95th percentile per-packet one-way delay: 42.005 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 10.82 Mbit/s
95th percentile per-packet one-way delay: 41.761 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 10.54 Mbit/s
95th percentile per-packet one-way delay: 42.164 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 10.28 Mbit/s
95th percentile per-packet one-way delay: 42.689 ms
Loss rate: 0.15%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-08-10 05:07:50
End at: 2018-08-10 05:08:20
Local clock offset: -0.3 ms
Remote clock offset: -0.277 ms

# Below is generated by plot.py at 2018-08-10 05:36:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 40.081 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 40.022 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 39.990 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 40.196 ms
Loss rate: 0.59%
Run 10: Report of Sprout — Data Link

[Graphs showing throughput and packet delay over time for different flows, with annotations for each flow's mean throughput and 95th percentile delay.]
Run 1: Statistics of TaoVA-100x

Start at: 2018-08-10 01:21:38
End at: 2018-08-10 01:22:08
Local clock offset: 0.139 ms
Remote clock offset: -0.995 ms

# Below is generated by plot.py at 2018-08-10 05:37:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.95 Mbit/s
95th percentile per-packet one-way delay: 62.759 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 62.628 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 39.47 Mbit/s
95th percentile per-packet one-way delay: 62.736 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 31.43 Mbit/s
95th percentile per-packet one-way delay: 62.978 ms
Loss rate: 2.52%
Run 1: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 50.47 Mbit/s)
- Flow 1 egress (mean 50.28 Mbit/s)
- Flow 2 ingress (mean 39.77 Mbit/s)
- Flow 2 egress (mean 39.47 Mbit/s)
- Flow 3 ingress (mean 31.90 Mbit/s)
- Flow 3 egress (mean 31.43 Mbit/s)
Run 2: Statistics of TaoVA-100x

Start at: 2018-08-10 01:45:05
End at: 2018-08-10 01:45:35
Local clock offset: -0.02 ms
Remote clock offset: -0.182 ms

# Below is generated by plot.py at 2018-08-10 05:37:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.44 Mbit/s
95th percentile per-packet one-way delay: 70.226 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 47.29 Mbit/s
95th percentile per-packet one-way delay: 70.029 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 35.71 Mbit/s
95th percentile per-packet one-way delay: 70.686 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 46.36 Mbit/s
95th percentile per-packet one-way delay: 52.825 ms
Loss rate: 1.19%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-08-10 02:08:12
End at: 2018-08-10 02:08:42
Local clock offset: -0.315 ms
Remote clock offset: -2.269 ms

# Below is generated by plot.py at 2018-08-10 05:37:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.52 Mbit/s
95th percentile per-packet one-way delay: 62.562 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 49.71 Mbit/s
95th percentile per-packet one-way delay: 62.474 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 39.76 Mbit/s
95th percentile per-packet one-way delay: 62.657 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 31.24 Mbit/s
95th percentile per-packet one-way delay: 62.574 ms
Loss rate: 5.28%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-08-10 02:31:12
End at: 2018-08-10 02:31:42
Local clock offset: -0.208 ms
Remote clock offset: -3.052 ms

# Below is generated by plot.py at 2018-08-10 05:37:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.49 Mbit/s
95th percentile per-packet one-way delay: 62.738 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 49.52 Mbit/s
95th percentile per-packet one-way delay: 62.723 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 39.67 Mbit/s
95th percentile per-packet one-way delay: 62.623 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 62.864 ms
Loss rate: 1.56%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-08-10 02:54:13
End at: 2018-08-10 02:54:43
Local clock offset: -0.238 ms
Remote clock offset: -1.531 ms

# Below is generated by plot.py at 2018-08-10 05:38:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.18 Mbit/s
95th percentile per-packet one-way delay: 71.455 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 47.06 Mbit/s
95th percentile per-packet one-way delay: 71.391 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 35.74 Mbit/s
95th percentile per-packet one-way delay: 71.747 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 46.29 Mbit/s
95th percentile per-packet one-way delay: 53.833 ms
Loss rate: 1.05%
Run 5: Report of TaoVA-100x — Data Link

[Graph showing throughput over time for different flows with mean throughput values indicated]

[Graph showing per-packet one-way delay over time for different flows with 95th percentile values indicated]
Run 6: Statistics of TaoVA-100x

Start at: 2018-08-10 03:17:19
End at: 2018-08-10 03:17:49
Local clock offset: -0.259 ms
Remote clock offset: -0.889 ms

# Below is generated by plot.py at 2018-08-10 05:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.17 Mbit/s
95th percentile per-packet one-way delay: 71.370 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 48.03 Mbit/s
95th percentile per-packet one-way delay: 71.361 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 35.73 Mbit/s
95th percentile per-packet one-way delay: 71.633 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 46.37 Mbit/s
95th percentile per-packet one-way delay: 53.830 ms
Loss rate: 1.08%
Run 6: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 48.19 Mbit/s)
- Flow 1 egress (mean 48.03 Mbit/s)
- Flow 2 ingress (mean 36.01 Mbit/s)
- Flow 2 egress (mean 35.73 Mbit/s)
- Flow 3 ingress (mean 46.52 Mbit/s)
- Flow 3 egress (mean 46.37 Mbit/s)

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

- Flow 1 (95th percentile 71.36 ms)
- Flow 2 (95th percentile 71.63 ms)
- Flow 3 (95th percentile 53.83 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-08-10 03:40:47
End at: 2018-08-10 03:41:17
Local clock offset: -0.398 ms
Remote clock offset: -0.824 ms

# Below is generated by plot.py at 2018-08-10 05:38:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.53 Mbit/s
  95th percentile per-packet one-way delay: 71.544 ms
  Loss rate: 0.73%
-- Flow 1:
  Average throughput: 54.81 Mbit/s
  95th percentile per-packet one-way delay: 53.558 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 35.68 Mbit/s
  95th percentile per-packet one-way delay: 71.779 ms
  Loss rate: 1.02%
-- Flow 3:
  Average throughput: 24.03 Mbit/s
  95th percentile per-packet one-way delay: 72.255 ms
  Loss rate: 2.31%

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Run 7: Report of TaoVA-100x — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress** (mean 54.90 Mbps)
- **Flow 1 egress** (mean 54.81 Mbps)
- **Flow 2 ingress** (mean 35.93 Mbps)
- **Flow 2 egress** (mean 35.68 Mbps)
- **Flow 3 ingress** (mean 24.43 Mbps)
- **Flow 3 egress** (mean 24.03 Mbps)

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

- **Flow 1** (95th percentile 53.56 ms)
- **Flow 2** (95th percentile 71.78 ms)
- **Flow 3** (95th percentile 72.25 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-08-10 04:04:17
End at: 2018-08-10 04:04:47
Local clock offset: -0.198 ms
Remote clock offset: -1.228 ms

# Below is generated by plot.py at 2018-08-10 05:38:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.42 Mbit/s
  95th percentile per-packet one-way delay: 71.754 ms
  Loss rate: 0.75%
-- Flow 1:
  Average throughput: 54.56 Mbit/s
  95th percentile per-packet one-way delay: 53.875 ms
  Loss rate: 0.40%
-- Flow 2:
  Average throughput: 35.93 Mbit/s
  95th percentile per-packet one-way delay: 72.073 ms
  Loss rate: 0.97%
-- Flow 3:
  Average throughput: 23.99 Mbit/s
  95th percentile per-packet one-way delay: 72.355 ms
  Loss rate: 2.43%
Run 8: Report of TaoVA-100x — Data Link

![Throughput Graph](image1)

- **Flow 1 ingress** (mean 54.66 Mbit/s)
- **Flow 1 egress** (mean 54.56 Mbit/s)
- **Flow 2 ingress** (mean 36.13 Mbit/s)
- **Flow 2 egress** (mean 35.93 Mbit/s)
- **Flow 3 ingress** (mean 24.39 Mbit/s)
- **Flow 3 egress** (mean 23.99 Mbit/s)

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

- **Flow 1** (95th percentile 53.88 ms)
- **Flow 2** (95th percentile 72.07 ms)
- **Flow 3** (95th percentile 72.36 ms)

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Run 9: Statistics of TaoVA-100x

Start at: 2018-08-10 04:27:35
End at: 2018-08-10 04:28:05
Local clock offset: -0.19 ms
Remote clock offset: -1.806 ms

# Below is generated by plot.py at 2018-08-10 05:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.46 Mbit/s
95th percentile per-packet one-way delay: 71.461 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 47.28 Mbit/s
95th percentile per-packet one-way delay: 71.473 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 46.94 Mbit/s
95th percentile per-packet one-way delay: 53.749 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 23.94 Mbit/s
95th percentile per-packet one-way delay: 72.012 ms
Loss rate: 2.98%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-08-10 04:50:55
End at: 2018-08-10 04:51:25
Local clock offset: -0.246 ms
Remote clock offset: -1.606 ms

# Below is generated by plot.py at 2018-08-10 05:39:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.34 Mbit/s
95th percentile per-packet one-way delay: 62.639 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 49.60 Mbit/s
95th percentile per-packet one-way delay: 62.408 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 39.57 Mbit/s
95th percentile per-packet one-way delay: 62.577 ms
Loss rate: 2.40%
-- Flow 3:
Average throughput: 31.41 Mbit/s
95th percentile per-packet one-way delay: 62.963 ms
Loss rate: 5.51%
Run 10: Report of TaoVA-100x — Data Link

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

*Flow 1 ingress (mean 50.12 Mbps/s)*
*Flow 1 egress (mean 49.60 Mbps/s)*
*Flow 2 ingress (mean 40.38 Mbps/s)*
*Flow 2 egress (mean 39.57 Mbps/s)*
*Flow 3 ingress (mean 32.98 Mbps/s)*
*Flow 3 egress (mean 31.41 Mbps/s)*

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

*Flow 1 (95th percentile 62.41 ms)*
*Flow 2 (95th percentile 62.58 ms)*
*Flow 3 (95th percentile 62.96 ms)*

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Run 1: Statistics of TCP Vegas

Start at: 2018-08-10 01:27:14
End at: 2018-08-10 01:27:44
Local clock offset: 0.093 ms
Remote clock offset: -1.09 ms

# Below is generated by plot.py at 2018-08-10 05:39:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.59 Mbit/s
95th percentile per-packet one-way delay: 39.432 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 41.28 Mbit/s
95th percentile per-packet one-way delay: 43.923 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 30.57 Mbit/s
95th percentile per-packet one-way delay: 38.438 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 37.503 ms
Loss rate: 0.64%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-08-10 01:50:47
End at: 2018-08-10 01:51:17
Local clock offset: -0.2 ms
Remote clock offset: -1.243 ms

# Below is generated by plot.py at 2018-08-10 05:39:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.83 Mbit/s
95th percentile per-packet one-way delay: 37.917 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 51.10 Mbit/s
95th percentile per-packet one-way delay: 44.665 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 46.29 Mbit/s
95th percentile per-packet one-way delay: 36.989 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 20.91 Mbit/s
95th percentile per-packet one-way delay: 36.759 ms
Loss rate: 0.77%
Run 2: Report of TCP Vegas — Data Link

Throughput (Mbit/s)

Time (s)

0  5  10  15  20  25  30

Flow 1 ingress (mean 51.05 Mbit/s)
Flow 1 egress (mean 51.10 Mbit/s)
Flow 2 ingress (mean 46.31 Mbit/s)
Flow 2 egress (mean 46.29 Mbit/s)
Flow 3 ingress (mean 20.93 Mbit/s)
Flow 3 egress (mean 20.91 Mbit/s)

Per packet one way delay (ms)

Time (s)

0  5  10  15  20  25  30

Flow 1 (95th percentile 44.66 ms)
Flow 2 (95th percentile 36.99 ms)
Flow 3 (95th percentile 36.76 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-08-10 02:13:41
End at: 2018-08-10 02:14:11
Local clock offset: -0.416 ms
Remote clock offset: -2.591 ms

# Below is generated by plot.py at 2018-08-10 05:39:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.36 Mbit/s
95th percentile per-packet one-way delay: 37.555 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 41.01 Mbit/s
95th percentile per-packet one-way delay: 42.614 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 44.45 Mbit/s
95th percentile per-packet one-way delay: 36.999 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 29.49 Mbit/s
95th percentile per-packet one-way delay: 36.953 ms
Loss rate: 0.99%
Run 3: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 40.97 Mbit/s)
- Flow 1 egress (mean 41.01 Mbit/s)
- Flow 2 ingress (mean 44.46 Mbit/s)
- Flow 2 egress (mean 44.45 Mbit/s)
- Flow 3 ingress (mean 29.59 Mbit/s)
- Flow 3 egress (mean 29.49 Mbit/s)
Run 4: Statistics of TCP Vegas

Start at: 2018-08-10 02:36:41
End at: 2018-08-10 02:37:11
Local clock offset: -0.179 ms
Remote clock offset: -2.784 ms

# Below is generated by plot.py at 2018-08-10 05:39:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.44 Mbit/s
95th percentile per-packet one-way delay: 39.949 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 42.48 Mbit/s
95th percentile per-packet one-way delay: 40.676 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 32.11 Mbit/s
95th percentile per-packet one-way delay: 37.562 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 38.06 Mbit/s
95th percentile per-packet one-way delay: 37.330 ms
Loss rate: 0.76%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-08-10 02:59:41
End at: 2018-08-10 03:00:11
Local clock offset: -0.233 ms
Remote clock offset: -1.367 ms

# Below is generated by plot.py at 2018-08-10 05:39:51
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 80.14 Mbit/s
   95th percentile per-packet one-way delay: 37.952 ms
   Loss rate: 0.28%
-- Flow 1:
   Average throughput: 49.86 Mbit/s
   95th percentile per-packet one-way delay: 39.854 ms
   Loss rate: 0.13%
-- Flow 2:
   Average throughput: 34.21 Mbit/s
   95th percentile per-packet one-way delay: 37.039 ms
   Loss rate: 0.43%
-- Flow 3:
   Average throughput: 22.67 Mbit/s
   95th percentile per-packet one-way delay: 39.519 ms
   Loss rate: 0.80%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-08-10 03:22:54
End at: 2018-08-10 03:23:24
Local clock offset: -0.328 ms
Remote clock offset: -0.657 ms

# Below is generated by plot.py at 2018-08-10 05:39:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.67 Mbit/s
95th percentile per-packet one-way delay: 38.230 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 51.74 Mbit/s
95th percentile per-packet one-way delay: 39.181 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 33.13 Mbit/s
95th percentile per-packet one-way delay: 36.359 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 32.90 Mbit/s
95th percentile per-packet one-way delay: 46.076 ms
Loss rate: 0.71%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-08-10 03:46:30
End at: 2018-08-10 03:47:00
Local clock offset: -0.486 ms
Remote clock offset: -1.168 ms

# Below is generated by plot.py at 2018-08-10 05:39:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.09 Mbit/s
95th percentile per-packet one-way delay: 36.707 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 48.33 Mbit/s
95th percentile per-packet one-way delay: 36.692 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 30.11 Mbit/s
95th percentile per-packet one-way delay: 36.704 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 38.43 Mbit/s
95th percentile per-packet one-way delay: 36.899 ms
Loss rate: 0.76%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-08-10 04:09:50
End at: 2018-08-10 04:10:20
Local clock offset: -0.168 ms
Remote clock offset: -1.085 ms

# Below is generated by plot.py at 2018-08-10 05:39:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.32 Mbit/s
95th percentile per-packet one-way delay: 36.373 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 50.60 Mbit/s
95th percentile per-packet one-way delay: 39.379 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 28.11 Mbit/s
95th percentile per-packet one-way delay: 35.491 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 36.26 Mbit/s
95th percentile per-packet one-way delay: 36.125 ms
Loss rate: 0.75%
Run 9: Statistics of TCP Vegas

Start at: 2018-08-10 04:33:11
End at: 2018-08-10 04:33:41
Local clock offset: -0.198 ms
Remote clock offset: -1.997 ms

# Below is generated by plot.py at 2018-08-10 05:39:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.83 Mbit/s
  95th percentile per-packet one-way delay: 37.076 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 46.62 Mbit/s
  95th percentile per-packet one-way delay: 39.906 ms
  Loss rate: 0.10%
-- Flow 2:
  Average throughput: 42.61 Mbit/s
  95th percentile per-packet one-way delay: 36.169 ms
  Loss rate: 0.38%
-- Flow 3:
  Average throughput: 29.78 Mbit/s
  95th percentile per-packet one-way delay: 37.103 ms
  Loss rate: 0.68%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-08-10 04:56:25
End at: 2018-08-10 04:56:55
Local clock offset: -0.27 ms
Remote clock offset: -1.594 ms

# Below is generated by plot.py at 2018-08-10 05:40:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.88 Mbit/s
  95th percentile per-packet one-way delay: 37.128 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 46.83 Mbit/s
  95th percentile per-packet one-way delay: 40.724 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 42.53 Mbit/s
  95th percentile per-packet one-way delay: 36.014 ms
  Loss rate: 0.37%
-- Flow 3:
  Average throughput: 29.48 Mbit/s
  95th percentile per-packet one-way delay: 37.894 ms
  Loss rate: 0.67%
Run 10: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 46.77 Mbit/s)
- Flow 1 egress (mean 46.83 Mbit/s)
- Flow 2 ingress (mean 42.56 Mbit/s)
- Flow 2 egress (mean 42.53 Mbit/s)
- Flow 3 ingress (mean 29.48 Mbit/s)
- Flow 3 egress (mean 29.48 Mbit/s)
Run 1: Statistics of Verus

Start at: 2018-08-10 01:24:24
End at: 2018-08-10 01:24:54
Local clock offset: 0.121 ms
Remote clock offset: -1.097 ms

# Below is generated by plot.py at 2018-08-10 05:40:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.79 Mbit/s
95th percentile per-packet one-way delay: 68.485 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 52.74 Mbit/s
95th percentile per-packet one-way delay: 68.034 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 39.07 Mbit/s
95th percentile per-packet one-way delay: 68.472 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 30.84 Mbit/s
95th percentile per-packet one-way delay: 68.837 ms
Loss rate: 1.24%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Start at: 2018-08-10 01:48:00
End at: 2018-08-10 01:48:30
Local clock offset: -0.027 ms
Remote clock offset: -1.217 ms

# Below is generated by plot.py at 2018-08-10 05:40:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.92 Mbit/s
95th percentile per-packet one-way delay: 68.598 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 53.63 Mbit/s
95th percentile per-packet one-way delay: 67.671 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 38.89 Mbit/s
95th percentile per-packet one-way delay: 68.770 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 31.48 Mbit/s
95th percentile per-packet one-way delay: 68.932 ms
Loss rate: 1.66%
Run 2: Report of Verus — Data Link

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

- Flow 1 ingress (mean 53.71 Mbit/s)
- Flow 1 egress (mean 53.63 Mbit/s)
- Flow 2 ingress (mean 38.99 Mbit/s)
- Flow 2 egress (mean 38.89 Mbit/s)
- Flow 3 ingress (mean 31.75 Mbit/s)
- Flow 3 egress (mean 31.48 Mbit/s)

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

- Flow 1 (95th percentile 67.67 ms)
- Flow 2 (95th percentile 68.77 ms)
- Flow 3 (95th percentile 68.93 ms)
Run 3: Statistics of Verus

Start at: 2018-08-10 02:10:56
End at: 2018-08-10 02:11:26
Local clock offset: -0.313 ms
Remote clock offset: -2.452 ms

# Below is generated by plot.py at 2018-08-10 05:40:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.15 Mbit/s
95th percentile per-packet one-way delay: 68.510 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 52.97 Mbit/s
95th percentile per-packet one-way delay: 66.563 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 39.01 Mbit/s
95th percentile per-packet one-way delay: 68.638 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 30.95 Mbit/s
95th percentile per-packet one-way delay: 68.682 ms
Loss rate: 0.96%
Run 3: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 53.04 Mbps)
- Flow 1 egress (mean 52.97 Mbps)
- Flow 2 ingress (mean 39.63 Mbps)
- Flow 2 egress (mean 39.01 Mbps)
- Flow 3 ingress (mean 31.04 Mbps)
- Flow 3 egress (mean 30.95 Mbps)

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

- Flow 1 (95th percentile 66.56 ms)
- Flow 2 (95th percentile 68.64 ms)
- Flow 3 (95th percentile 68.68 ms)
Run 4: Statistics of Verus

Start at: 2018-08-10 02:33:56
End at: 2018-08-10 02:34:26
Local clock offset: -0.197 ms
Remote clock offset: -2.942 ms

# Below is generated by plot.py at 2018-08-10 05:40:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.56 Mbit/s
  95th percentile per-packet one-way delay: 72.851 ms
  Loss rate: 0.55%
-- Flow 1:
  Average throughput: 51.47 Mbit/s
  95th percentile per-packet one-way delay: 74.533 ms
  Loss rate: 0.36%
-- Flow 2:
  Average throughput: 43.81 Mbit/s
  95th percentile per-packet one-way delay: 57.498 ms
  Loss rate: 0.73%
-- Flow 3:
  Average throughput: 24.06 Mbit/s
  95th percentile per-packet one-way delay: 79.473 ms
  Loss rate: 1.08%
Run 4: Report of Verus — Data Link

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

- **Throughput:**
  - Flow 1 ingress (mean 51.54 Mbit/s)
  - Flow 1 egress (mean 51.47 Mbit/s)
  - Flow 2 ingress (mean 44.00 Mbit/s)
  - Flow 2 egress (mean 43.81 Mbit/s)
  - Flow 3 ingress (mean 24.16 Mbit/s)
  - Flow 3 egress (mean 24.06 Mbit/s)

- **Packet Delay:**
  - Flow 1 (95th percentile 74.53 ms)
  - Flow 2 (95th percentile 57.50 ms)
  - Flow 3 (95th percentile 79.47 ms)
Run 5: Statistics of Verus

Start at: 2018-08-10 02:56:57
End at: 2018-08-10 02:57:27
Local clock offset: -0.22 ms
Remote clock offset: -1.361 ms

# Below is generated by plot.py at 2018-08-10 05:40:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.05 Mbit/s
95th percentile per-packet one-way delay: 68.323 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 53.00 Mbit/s
95th percentile per-packet one-way delay: 66.709 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 38.71 Mbit/s
95th percentile per-packet one-way delay: 68.377 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 31.17 Mbit/s
95th percentile per-packet one-way delay: 68.781 ms
Loss rate: 1.23%
Run 5: Report of Verus — Data Link

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

Start at: 2018-08-10 03:20:06
End at: 2018-08-10 03:20:36
Local clock offset: -0.289 ms
Remote clock offset: -0.805 ms

# Below is generated by plot.py at 2018-08-10 05:40:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.65 Mbit/s
  95th percentile per-packet one-way delay: 68.605 ms
  Loss rate: 0.59%
  -- Flow 1:
    Average throughput: 53.20 Mbit/s
    95th percentile per-packet one-way delay: 68.358 ms
    Loss rate: 0.39%
  -- Flow 2:
    Average throughput: 37.91 Mbit/s
    95th percentile per-packet one-way delay: 68.814 ms
    Loss rate: 0.64%
  -- Flow 3:
    Average throughput: 30.93 Mbit/s
    95th percentile per-packet one-way delay: 68.603 ms
    Loss rate: 1.48%
Run 6: Report of Verus — Data Link

![Throughput Graph]

![Ping Graph]

- Flow 1 ingress (mean 53.29 Mbit/s)
- Flow 1 egress (mean 53.20 Mbit/s)
- Flow 2 ingress (mean 37.99 Mbit/s)
- Flow 2 egress (mean 37.91 Mbit/s)
- Flow 3 ingress (mean 31.19 Mbit/s)
- Flow 3 egress (mean 30.93 Mbit/s)

- Flow 1 (95th percentile 68.36 ms)
- Flow 2 (95th percentile 68.81 ms)
- Flow 3 (95th percentile 68.60 ms)
Run 7: Statistics of Verus

Start at: 2018-08-10 03:43:39
End at: 2018-08-10 03:44:09
Local clock offset: -0.506 ms
Remote clock offset: -1.005 ms

# Below is generated by plot.py at 2018-08-10 05:41:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.16 Mbit/s
95th percentile per-packet one-way delay: 70.841 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 51.39 Mbit/s
95th percentile per-packet one-way delay: 68.154 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 33.82 Mbit/s
95th percentile per-packet one-way delay: 78.843 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 46.23 Mbit/s
95th percentile per-packet one-way delay: 57.264 ms
Loss rate: 1.13%
Run 7: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

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

Start at: 2018-08-10 04:07:03
End at: 2018-08-10 04:07:33
Local clock offset: -0.182 ms
Remote clock offset: -1.17 ms

# Below is generated by plot.py at 2018-08-10 05:41:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.91 Mbit/s
95th percentile per-packet one-way delay: 65.400 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 59.06 Mbit/s
95th percentile per-packet one-way delay: 57.613 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 34.92 Mbit/s
95th percentile per-packet one-way delay: 77.372 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 23.06 Mbit/s
95th percentile per-packet one-way delay: 79.367 ms
Loss rate: 1.37%
Run 8: Report of Verus — Data Link

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

- Flow 1 ingress (mean 59.16 Mb/s)
- Flow 1 egress (mean 59.06 Mb/s)
- Flow 2 ingress (mean 34.97 Mb/s)
- Flow 2 egress (mean 34.92 Mb/s)
- Flow 3 ingress (mean 23.22 Mb/s)
- Flow 3 egress (mean 23.06 Mb/s)

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

- Flow 1 (95th percentile 57.61 ms)
- Flow 2 (95th percentile 77.37 ms)
- Flow 3 (95th percentile 79.37 ms)
Run 9: Statistics of Verus

Start at: 2018-08-10 04:30:23
End at: 2018-08-10 04:30:53
Local clock offset: -0.313 ms
Remote clock offset: -2.016 ms

# Below is generated by plot.py at 2018-08-10 05:41:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.19 Mbit/s
  95th percentile per-packet one-way delay: 68.068 ms
  Loss rate: 0.49%
-- Flow 1:
  Average throughput: 58.76 Mbit/s
  95th percentile per-packet one-way delay: 57.371 ms
  Loss rate: 0.33%
-- Flow 2:
  Average throughput: 34.56 Mbit/s
  95th percentile per-packet one-way delay: 78.867 ms
  Loss rate: 0.60%
-- Flow 3:
  Average throughput: 22.75 Mbit/s
  95th percentile per-packet one-way delay: 77.923 ms
  Loss rate: 1.35%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-08-10 04:53:40
End at: 2018-08-10 04:54:10
Local clock offset: -0.254 ms
Remote clock offset: -1.64 ms

# Below is generated by plot.py at 2018-08-10 05:41:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.80 Mbit/s
95th percentile per-packet one-way delay: 72.087 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 50.84 Mbit/s
95th percentile per-packet one-way delay: 72.826 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 47.10 Mbit/s
95th percentile per-packet one-way delay: 57.488 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 23.00 Mbit/s
95th percentile per-packet one-way delay: 79.639 ms
Loss rate: 1.43%
Run 10: Report of Verus — Data Link

![Graph showing network performance metrics for three flows over time. The top graph displays throughput (Mbit/s) over time, with lines for each flow's ingress and egress rates. The bottom graph shows per-packet-one-way-delay (ms) with markers for 95th percentile delays for each flow.](image-url)
Run 1: Statistics of PCC-Vivace

Start at: 2018-08-10 01:39:33
End at: 2018-08-10 01:40:03
Local clock offset: -0.046 ms
Remote clock offset: -1.096 ms

# Below is generated by plot.py at 2018-08-10 05:41:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.53 Mbit/s
95th percentile per-packet one-way delay: 60.129 ms
Loss rate: 4.05%
-- Flow 1:
Average throughput: 56.81 Mbit/s
95th percentile per-packet one-way delay: 59.764 ms
Loss rate: 5.82%
-- Flow 2:
Average throughput: 34.41 Mbit/s
95th percentile per-packet one-way delay: 64.141 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 26.93 Mbit/s
95th percentile per-packet one-way delay: 66.483 ms
Loss rate: 1.08%
Run 1: Report of PCC-Vivace — Data Link
Run 2: Statistics of PCC-Vivace

Start at: 2018-08-10 02:02:49
End at: 2018-08-10 02:03:19
Local clock offset: -0.284 ms
Remote clock offset: -1.99 ms

# Below is generated by plot.py at 2018-08-10 05:41:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.29 Mbit/s
95th percentile per-packet one-way delay: 60.061 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 52.66 Mbit/s
95th percentile per-packet one-way delay: 56.174 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 36.86 Mbit/s
95th percentile per-packet one-way delay: 63.889 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 27.73 Mbit/s
95th percentile per-packet one-way delay: 67.470 ms
Loss rate: 0.91%
Run 2: Report of PCC-Vivace — Data Link

![Graph of data link performance](image)

### Throughput
- **Flow 1 ingress (mean 52.76 Mbps)**
- **Flow 1 egress (mean 52.66 Mbps)**
- **Flow 2 ingress (mean 37.11 Mbps)**
- **Flow 2 egress (mean 36.86 Mbps)**
- **Flow 3 ingress (mean 27.80 Mbps)**
- **Flow 3 egress (mean 27.73 Mbps)**

### Per-packet one way delay
- **Flow 1 (95th percentile 56.17 ms)**
- **Flow 2 (95th percentile 63.89 ms)**
- **Flow 3 (95th percentile 67.47 ms)**
Run 3: Statistics of PCC-Vivace

Start at: 2018-08-10 02:25:47
End at: 2018-08-10 02:26:17
Local clock offset: -0.317 ms
Remote clock offset: -3.392 ms

# Below is generated by plot.py at 2018-08-10 05:42:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.52 Mbit/s
  95th percentile per-packet one-way delay: 69.677 ms
  Loss rate: 1.59%
-- Flow 1:
  Average throughput: 54.28 Mbit/s
  95th percentile per-packet one-way delay: 68.667 ms
  Loss rate: 2.01%
-- Flow 2:
  Average throughput: 32.25 Mbit/s
  95th percentile per-packet one-way delay: 73.568 ms
  Loss rate: 0.84%
-- Flow 3:
  Average throughput: 35.85 Mbit/s
  95th percentile per-packet one-way delay: 56.268 ms
  Loss rate: 0.96%
Run 3: Report of PCC-Vivace — Data Link

![Graph of Throughput and Delay](image)

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Run 4: Statistics of PCC-Vivace

Start at: 2018-08-10 02:48:49
End at: 2018-08-10 02:49:19
Local clock offset: ~0.283 ms
Remote clock offset: ~2.028 ms

# Below is generated by plot.py at 2018-08-10 05:42:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.94 Mbit/s
  95th percentile per-packet one-way delay: 65.211 ms
  Loss rate: 0.86%
-- Flow 1:
  Average throughput: 53.00 Mbit/s
  95th percentile per-packet one-way delay: 64.801 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 40.49 Mbit/s
  95th percentile per-packet one-way delay: 56.229 ms
  Loss rate: 0.50%
-- Flow 3:
  Average throughput: 21.35 Mbit/s
  95th percentile per-packet one-way delay: 76.238 ms
  Loss rate: 1.93%
Run 4: Report of PCC-Vivace — Data Link
Run 5: Statistics of PCC-Vivace

Start at: 2018-08-10 03:11:54
End at: 2018-08-10 03:12:24
Local clock offset: -0.227 ms
Remote clock offset: -1.052 ms

# Below is generated by plot.py at 2018-08-10 05:42:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.87 Mbit/s
  95th percentile per-packet one-way delay: 69.152 ms
  Loss rate: 0.62%
-- Flow 1:
  Average throughput: 61.22 Mbit/s
  95th percentile per-packet one-way delay: 57.101 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 19.55 Mbit/s
  95th percentile per-packet one-way delay: 77.508 ms
  Loss rate: 2.02%
-- Flow 3:
  Average throughput: 35.45 Mbit/s
  95th percentile per-packet one-way delay: 56.328 ms
  Loss rate: 1.06%
Run 5: Report of PCC-Vivace — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 61.23 Mbps)
  - Flow 2 ingress (mean 19.88 Mbps)
  - Flow 3 ingress (mean 35.60 Mbps)
  - Flow 1 egress (mean 61.22 Mbps)
  - Flow 2 egress (mean 19.55 Mbps)
  - Flow 3 egress (mean 35.45 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 57.10 ms)
  - Flow 2 (95th percentile 77.51 ms)
  - Flow 3 (95th percentile 56.33 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-08-10 03:35:10
End at: 2018-08-10 03:35:40
Local clock offset: -0.374 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-08-10 05:42:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.88 Mbit/s
  95th percentile per-packet one-way delay: 67.456 ms
  Loss rate: 1.21%
-- Flow 1:
  Average throughput: 51.05 Mbit/s
  95th percentile per-packet one-way delay: 70.192 ms
  Loss rate: 1.63%
-- Flow 2:
  Average throughput: 40.84 Mbit/s
  95th percentile per-packet one-way delay: 56.537 ms
  Loss rate: 0.50%
-- Flow 3:
  Average throughput: 20.30 Mbit/s
  95th percentile per-packet one-way delay: 41.190 ms
  Loss rate: 0.90%
Run 6: Report of PCC-Vivace — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 51.79 Mbps)
- Flow 1 egress (mean 51.05 Mbps)
- Flow 2 ingress (mean 40.91 Mbps)
- Flow 2 egress (mean 40.84 Mbps)
- Flow 3 ingress (mean 20.35 Mbps)
- Flow 3 egress (mean 20.30 Mbps)

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

- Flow 1 (95th percentile 70.19 ms)
- Flow 2 (95th percentile 56.54 ms)
- Flow 3 (95th percentile 41.19 ms)
Run 7: Statistics of PCC-Vivace

Start at: 2018-08-10 03:58:47
End at: 2018-08-10 03:59:17
Local clock offset: -0.294 ms
Remote clock offset: -1.15 ms

# Below is generated by plot.py at 2018-08-10 05:42:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.72 Mbit/s
95th percentile per-packet one-way delay: 73.920 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 57.50 Mbit/s
95th percentile per-packet one-way delay: 49.613 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 33.16 Mbit/s
95th percentile per-packet one-way delay: 74.647 ms
Loss rate: 3.83%
-- Flow 3:
Average throughput: 21.86 Mbit/s
95th percentile per-packet one-way delay: 76.643 ms
Loss rate: 4.56%
Run 7: Report of PCC-Vivace — Data Link

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

![Graph 2: Per packet one way delay (ms) vs Time (s)]
Run 8: Statistics of PCC-Vivace

Start at: 2018-08-10 04:22:07
End at: 2018-08-10 04:22:37
Local clock offset: -0.171 ms
Remote clock offset: -1.704 ms

# Below is generated by plot.py at 2018-08-10 05:42:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.50 Mbit/s
95th percentile per-packet one-way delay: 63.802 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 55.03 Mbit/s
95th percentile per-packet one-way delay: 56.331 ms
Loss rate: 2.34%
-- Flow 2:
Average throughput: 35.11 Mbit/s
95th percentile per-packet one-way delay: 64.112 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 27.81 Mbit/s
95th percentile per-packet one-way delay: 67.016 ms
Loss rate: 1.89%
Run 8: Report of PCC-Vivace — Data Link

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

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

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Run 9: Statistics of PCC-Vivace

Start at: 2018-08-10 04:45:29
End at: 2018-08-10 04:45:59
Local clock offset: -0.218 ms
Remote clock offset: -1.883 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.50 Mbit/s
95th percentile per-packet one-way delay: 70.853 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 51.92 Mbit/s
95th percentile per-packet one-way delay: 71.233 ms
Loss rate: 2.16%
-- Flow 2:
Average throughput: 40.90 Mbit/s
95th percentile per-packet one-way delay: 56.195 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 22.48 Mbit/s
95th percentile per-packet one-way delay: 74.881 ms
Loss rate: 1.55%
Run 9: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 52.94 Mbit/s)
- Flow 1 egress (mean 51.92 Mbit/s)
- Flow 2 ingress (mean 40.95 Mbit/s)
- Flow 2 egress (mean 40.90 Mbit/s)
- Flow 3 ingress (mean 22.68 Mbit/s)
- Flow 3 egress (mean 22.48 Mbit/s)

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

- Flow 1 (95th percentile 71.23 ms)
- Flow 2 (95th percentile 56.20 ms)
- Flow 3 (95th percentile 74.88 ms)

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Run 10: Statistics of PCC-Vivace

Start at: 2018-08-10 05:09:21
End at: 2018-08-10 05:09:51
Local clock offset: -0.397 ms
Remote clock offset: -0.475 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 40.065 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 39.840 ms
Loss rate: 2.67%
-- Flow 2:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 40.065 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 39.866 ms
Loss rate: 0.00%
Run 10: Report of PCC-Vivace — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-08-10 01:28:36
End at: 2018-08-10 01:29:06
Local clock offset: -0.025 ms
Remote clock offset: -1.076 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.37 Mbit/s
  95th percentile per-packet one-way delay: 34.623 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 1.84 Mbit/s
  95th percentile per-packet one-way delay: 34.581 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 1.08 Mbit/s
  95th percentile per-packet one-way delay: 34.613 ms
  Loss rate: 0.32%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 34.811 ms
  Loss rate: 0.75%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-08-10 01:52:08
End at: 2018-08-10 01:52:38
Local clock offset: -0.231 ms
Remote clock offset: -1.403 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.37 Mbit/s
  95th percentile per-packet one-way delay: 34.954 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 1.86 Mbit/s
  95th percentile per-packet one-way delay: 34.833 ms
  Loss rate: 0.22%
-- Flow 2:
  Average throughput: 1.06 Mbit/s
  95th percentile per-packet one-way delay: 34.959 ms
  Loss rate: 0.08%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 35.311 ms
  Loss rate: 0.19%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-08-10 02:15:01
End at: 2018-08-10 02:15:31
Local clock offset: -0.323 ms
Remote clock offset: -2.623 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.40 Mbit/s
95th percentile per-packet one-way delay: 34.739 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 34.581 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 34.744 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 35.022 ms
Loss rate: 0.76%
Run 3: Report of WebRTC media — Data Link

The graphs depict the throughput and packet one-way delay over time for different flows. The throughput is measured in Mbps, and the packet delay is measured in ms.

Throughput Graph:
- Flow 1 ingress (mean 1.86 Mbit/s)
- Flow 1 egress (mean 1.86 Mbit/s)
- Flow 2 ingress (mean 1.09 Mbit/s)
- Flow 2 egress (mean 1.09 Mbit/s)
- Flow 3 ingress (mean 0.46 Mbit/s)
- Flow 3 egress (mean 0.46 Mbit/s)

Packet Delay Graph:
- Flow 1 (95th percentile 34.58 ms)
- Flow 2 (95th percentile 34.74 ms)
- Flow 3 (95th percentile 35.02 ms)
Run 4: Statistics of WebRTC media

Start at: 2018-08-10 02:38:02
End at: 2018-08-10 02:38:32
Local clock offset: -0.283 ms
Remote clock offset: -2.748 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.29 Mbit/s
  95th percentile per-packet one-way delay: 34.701 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 1.84 Mbit/s
  95th percentile per-packet one-way delay: 34.665 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 1.04 Mbit/s
  95th percentile per-packet one-way delay: 34.647 ms
  Loss rate: 0.34%
-- Flow 3:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 34.953 ms
  Loss rate: 0.80%
Run 4: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 1.83 Mbit/s)
- Flow 1 egress (mean 1.84 Mbit/s)
- Flow 2 ingress (mean 1.04 Mbit/s)
- Flow 2 egress (mean 1.04 Mbit/s)
- Flow 3 ingress (mean 0.43 Mbit/s)
- Flow 3 egress (mean 0.43 Mbit/s)

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

- Flow 1 (95th percentile 34.66 ms)
- Flow 2 (95th percentile 34.65 ms)
- Flow 3 (95th percentile 34.95 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-08-10 03:01:01
End at: 2018-08-10 03:01:31
Local clock offset: -0.308 ms
Remote clock offset: -1.047 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.36 Mbit/s
  95th percentile per-packet one-way delay: 34.644 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 1.83 Mbit/s
  95th percentile per-packet one-way delay: 34.523 ms
  Loss rate: 0.10%
-- Flow 2:
  Average throughput: 1.07 Mbit/s
  95th percentile per-packet one-way delay: 34.767 ms
  Loss rate: 0.43%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 34.720 ms
  Loss rate: 0.74%
Run 5: Report of WebRTC media — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 1.83 Mbps)
  - Flow 1 egress (mean 1.83 Mbps)
  - Flow 2 ingress (mean 1.08 Mbps)
  - Flow 2 egress (mean 1.07 Mbps)
  - Flow 3 ingress (mean 0.40 Mbps)
  - Flow 3 egress (mean 0.47 Mbps)

- **Delay (ms):**
  - Flow 1 (95th percentile 34.52 ms)
  - Flow 2 (95th percentile 34.77 ms)
  - Flow 3 (95th percentile 34.72 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-08-10 03:24:16
End at: 2018-08-10 03:24:46
Local clock offset: -0.423 ms
Remote clock offset: -0.783 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.29 Mbit/s
  95th percentile per-packet one-way delay: 34.894 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 1.81 Mbit/s
  95th percentile per-packet one-way delay: 34.821 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 1.03 Mbit/s
  95th percentile per-packet one-way delay: 34.868 ms
  Loss rate: 0.33%
-- Flow 3:
  Average throughput: 0.46 Mbit/s
  95th percentile per-packet one-way delay: 35.345 ms
  Loss rate: 0.77%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-08-10 03:47:52
End at: 2018-08-10 03:48:22
Local clock offset: -0.361 ms
Remote clock offset: -1.206 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 34.810 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 34.694 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 34.722 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 35.478 ms
Loss rate: 0.75%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-08-10 04:11:12
End at: 2018-08-10 04:11:42
Local clock offset: -0.163 ms
Remote clock offset: -1.041 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 34.709 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 34.577 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 34.704 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 34.972 ms
Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 1.82 Mbps)
- Flow 1 egress (mean 1.83 Mbps)
- Flow 2 ingress (mean 1.07 Mbps)
- Flow 2 egress (mean 1.06 Mbps)
- Flow 3 ingress (mean 0.47 Mbps)
- Flow 3 egress (mean 0.47 Mbps)

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

- Flow 1 (95th percentile 34.58 ms)
- Flow 2 (93rd percentile 34.70 ms)
- Flow 3 (95th percentile 34.97 ms)

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Run 9: Statistics of WebRTC media

Start at: 2018-08-10 04:34:35
End at: 2018-08-10 04:35:05
Local clock offset: -0.305 ms
Remote clock offset: -1.799 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.37 Mbit/s
  95th percentile per-packet one-way delay: 34.654 ms
  Loss rate: 0.22%
-- Flow 1:
  Average throughput: 1.84 Mbit/s
  95th percentile per-packet one-way delay: 34.601 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 1.09 Mbit/s
  95th percentile per-packet one-way delay: 34.677 ms
  Loss rate: 0.32%
-- Flow 3:
  Average throughput: 0.46 Mbit/s
  95th percentile per-packet one-way delay: 34.788 ms
  Loss rate: 0.45%
Run 9: Report of WebRTC media — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 1.84 Mbit/s)
- Flow 1 egress (mean 1.84 Mbit/s)
- Flow 2 ingress (mean 1.09 Mbit/s)
- Flow 2 egress (mean 1.09 Mbit/s)
- Flow 3 ingress (mean 0.46 Mbit/s)
- Flow 3 egress (mean 0.46 Mbit/s)

**Delay (ms):**
- Flow 1 (95th percentile 34.60 ms)
- Flow 2 (95th percentile 34.68 ms)
- Flow 3 (95th percentile 34.79 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-08-10 04:57:46
End at: 2018-08-10 04:58:16
Local clock offset: -0.27 ms
Remote clock offset: -1.745 ms

# Below is generated by plot.py at 2018-08-10 05:42:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 34.942 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 34.934 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 34.953 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 35.032 ms
Loss rate: 0.94%
Run 10: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 1.83 Mbit/s)
- Flow 2 ingress (mean 1.10 Mbit/s)
- Flow 3 ingress (mean 0.34 Mbit/s)
- Flow 1 egress (mean 1.85 Mbit/s)
- Flow 2 egress (mean 1.09 Mbit/s)
- Flow 3 egress (mean 0.33 Mbit/s)

![Graph 2: Packet delay over time](image2.png)

- Flow 1 (95th percentile 34.93 ms)
- Flow 2 (95th percentile 34.95 ms)
- Flow 3 (95th percentile 35.03 ms)