Pantheon Report

Generated at 2018-08-10 05:09:34 (UTC).
Data path: India Ethernet (remote) → AWS India 1 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 nets.org.sg and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ 7772df3413f4b07ba0096dfdd8e9d4c6dc623e3
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7c3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1af958fa0d66d6b23c091a55fec8724981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd8f9a82c4eb24f974ab
third_party/proto-quic @ 77961f1a8273a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3dbb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562539f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2ba8f86211435ae071a32f96b7d8c504587f5d7f4
third_party/webRTC @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
test from India to AWS India 1, 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>
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<td>52.27</td>
<td>40.14</td>
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<td>PCC-Expr</td>
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<td>QUIC Cubic</td>
<td>10</td>
<td>56.22</td>
<td>41.16</td>
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<td>SCReAM</td>
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<td>TaoVA-100x</td>
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<td>57.49</td>
<td>39.91</td>
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<td>TCP Vegas</td>
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<td>60.45</td>
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<tr>
<td>Verus</td>
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<td>48.40</td>
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<td>55.84</td>
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<td>WebRTC media</td>
<td>10</td>
<td>1.62</td>
<td>0.86</td>
<td>0.45</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-08-10 01:28:29
End at: 2018-08-10 01:28:59
Local clock offset: -2.449 ms
Remote clock offset: -7.215 ms

# Below is generated by plot.py at 2018-08-10 04:47:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.08 Mbit/s
95th percentile per-packet one-way delay: 38.299 ms
Loss rate: 3.16%
-- Flow 1:
Average throughput: 56.45 Mbit/s
95th percentile per-packet one-way delay: 38.171 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 48.40 Mbit/s
95th percentile per-packet one-way delay: 38.047 ms
Loss rate: 3.68%
-- Flow 3:
Average throughput: 25.34 Mbit/s
95th percentile per-packet one-way delay: 59.880 ms
Loss rate: 3.46%
Run 2: Statistics of TCP BBR

Start at: 2018-08-10 01:48:57
End at: 2018-08-10 01:49:27
Local clock offset: -0.535 ms
Remote clock offset: -8.591 ms

# Below is generated by plot.py at 2018-08-10 04:47:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.06 Mbit/s
  95th percentile per-packet one-way delay: 42.004 ms
  Loss rate: 2.96%
-- Flow 1:
  Average throughput: 64.00 Mbit/s
  95th percentile per-packet one-way delay: 41.699 ms
  Loss rate: 3.00%
-- Flow 2:
  Average throughput: 37.05 Mbit/s
  95th percentile per-packet one-way delay: 48.656 ms
  Loss rate: 2.90%
-- Flow 3:
  Average throughput: 25.28 Mbit/s
  95th percentile per-packet one-way delay: 64.241 ms
  Loss rate: 2.85%
Run 3: Statistics of TCP BBR

Start at: 2018-08-10 02:09:06
End at: 2018-08-10 02:09:36
Local clock offset: 0.397 ms
Remote clock offset: -7.301 ms

# Below is generated by plot.py at 2018-08-10 04:47:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.78 Mbit/s
  95th percentile per-packet one-way delay: 41.622 ms
  Loss rate: 3.26%
-- Flow 1:
  Average throughput: 56.43 Mbit/s
  95th percentile per-packet one-way delay: 41.360 ms
  Loss rate: 3.35%
-- Flow 2:
  Average throughput: 36.73 Mbit/s
  95th percentile per-packet one-way delay: 43.099 ms
  Loss rate: 2.88%
-- Flow 3:
  Average throughput: 47.94 Mbit/s
  95th percentile per-packet one-way delay: 41.679 ms
  Loss rate: 3.52%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-08-10 02:29:24
End at: 2018-08-10 02:29:54
Local clock offset: 3.83 ms
Remote clock offset: -4.464 ms

# Below is generated by plot.py at 2018-08-10 04:47:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.89 Mbit/s
95th percentile per-packet one-way delay: 47.862 ms
Loss rate: 2.95%
-- Flow 1:
Average throughput: 58.19 Mbit/s
95th percentile per-packet one-way delay: 44.202 ms
Loss rate: 2.76%
-- Flow 2:
Average throughput: 41.69 Mbit/s
95th percentile per-packet one-way delay: 52.127 ms
Loss rate: 3.26%
-- Flow 3:
Average throughput: 32.99 Mbit/s
95th percentile per-packet one-way delay: 55.222 ms
Loss rate: 3.13%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-08-10 02:49:44
End at: 2018-08-10 02:50:14
Local clock offset: 2.34 ms
Remote clock offset: -2.791 ms

# Below is generated by plot.py at 2018-08-10 04:47:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.93 Mbit/s
95th percentile per-packet one-way delay: 43.060 ms
Loss rate: 3.27%
-- Flow 1:
Average throughput: 56.36 Mbit/s
95th percentile per-packet one-way delay: 42.679 ms
Loss rate: 3.13%
-- Flow 2:
Average throughput: 48.29 Mbit/s
95th percentile per-packet one-way delay: 42.986 ms
Loss rate: 3.51%
-- Flow 3:
Average throughput: 25.39 Mbit/s
95th percentile per-packet one-way delay: 64.876 ms
Loss rate: 3.25%
Run 5: Report of TCP BBR — Data Link

[Graph 1: Throughput (Mbps)]
- Flow 1 ingress (mean 58.12 Mbps)
- Flow 1 egress (mean 56.36 Mbps)
- Flow 2 ingress (mean 49.97 Mbps)
- Flow 2 egress (mean 48.29 Mbps)
- Flow 3 ingress (mean 26.16 Mbps)
- Flow 3 egress (mean 25.39 Mbps)

[Graph 2: Per-packet round-trip delay (ms)]
- Flow 1 (95th percentile 42.68 ms)
- Flow 2 (95th percentile 42.99 ms)
- Flow 3 (95th percentile 64.88 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-08-10 03:10:11
End at: 2018-08-10 03:10:41
Local clock offset: 2.028 ms
Remote clock offset: -5.996 ms

# Below is generated by plot.py at 2018-08-10 04:47:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.79 Mbit/s
  95th percentile per-packet one-way delay: 42.896 ms
  Loss rate: 3.14%
-- Flow 1:
  Average throughput: 56.25 Mbit/s
  95th percentile per-packet one-way delay: 42.663 ms
  Loss rate: 2.92%
-- Flow 2:
  Average throughput: 36.95 Mbit/s
  95th percentile per-packet one-way delay: 57.252 ms
  Loss rate: 3.38%
-- Flow 3:
  Average throughput: 48.03 Mbit/s
  95th percentile per-packet one-way delay: 42.678 ms
  Loss rate: 3.52%
Run 6: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 57.89 Mbit/s)
- Flow 1 egress (mean 56.25 Mbit/s)
- Flow 2 ingress (mean 36.18 Mbit/s)
- Flow 2 egress (mean 36.95 Mbit/s)
- Flow 3 ingress (mean 49.63 Mbit/s)
- Flow 3 egress (mean 48.03 Mbit/s)
Run 7: Statistics of TCP BBR

Start at: 2018-08-10 03:30:20
End at: 2018-08-10 03:30:50
Local clock offset: 0.745 ms
Remote clock offset: -7.301 ms

# Below is generated by plot.py at 2018-08-10 04:47:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.66 Mbit/s
95th percentile per-packet one-way delay: 41.937 ms
Loss rate: 2.65%
-- Flow 1:
Average throughput: 56.37 Mbit/s
95th percentile per-packet one-way delay: 41.962 ms
Loss rate: 2.32%
-- Flow 2:
Average throughput: 48.20 Mbit/s
95th percentile per-packet one-way delay: 41.790 ms
Loss rate: 3.04%
-- Flow 3:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 63.358 ms
Loss rate: 3.39%
Run 7: Report of TCP BBR — Data Link
Run 8: Statistics of TCP BBR

Start at: 2018-08-10 03:50:19
End at: 2018-08-10 03:50:49
Local clock offset: 0.628 ms
Remote clock offset: -39.332 ms

# Below is generated by plot.py at 2018-08-10 04:47:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.09 Mbit/s
95th percentile per-packet one-way delay: 39.314 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 58.91 Mbit/s
95th percentile per-packet one-way delay: 38.097 ms
Loss rate: 2.87%
-- Flow 2:
Average throughput: 40.89 Mbit/s
95th percentile per-packet one-way delay: 43.101 ms
Loss rate: 2.77%
-- Flow 3:
Average throughput: 33.01 Mbit/s
95th percentile per-packet one-way delay: 48.754 ms
Loss rate: 2.89%
Run 8: Report of TCP BBR — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 60.59 Mbps)
  - Flow 1 egress (mean 58.91 Mbps)
  - Flow 2 ingress (mean 41.99 Mbps)
  - Flow 2 egress (mean 40.89 Mbps)
  - Flow 3 ingress (mean 33.89 Mbps)
  - Flow 3 egress (mean 33.01 Mbps)

- **Per packet end-to-end delay (ms):**
  - Flow 1 (95th percentile 38.10 ms)
  - Flow 2 (95th percentile 43.10 ms)
  - Flow 3 (95th percentile 48.75 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-08-10 04:10:32
End at: 2018-08-10 04:11:02
Local clock offset: 0.358 ms
Remote clock offset: -87.931 ms

# Below is generated by plot.py at 2018-08-10 04:48:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.90 Mbit/s
95th percentile per-packet one-way delay: 38.281 ms
Loss rate: 2.80%
-- Flow 1:
Average throughput: 56.31 Mbit/s
95th percentile per-packet one-way delay: 37.695 ms
Loss rate: 2.47%
-- Flow 2:
Average throughput: 36.86 Mbit/s
95th percentile per-packet one-way delay: 39.055 ms
Loss rate: 3.24%
-- Flow 3:
Average throughput: 48.42 Mbit/s
95th percentile per-packet one-way delay: 38.576 ms
Loss rate: 3.24%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-08-10 04:30:48
End at: 2018-08-10 04:31:18
Local clock offset: -0.073 ms
Remote clock offset: -103.226 ms

# Below is generated by plot.py at 2018-08-10 04:48:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.08 Mbit/s
  95th percentile per-packet one-way delay: 38.176 ms
  Loss rate: 3.21%
-- Flow 1:
  Average throughput: 56.49 Mbit/s
  95th percentile per-packet one-way delay: 37.978 ms
  Loss rate: 3.17%
-- Flow 2:
  Average throughput: 36.90 Mbit/s
  95th percentile per-packet one-way delay: 44.515 ms
  Loss rate: 3.36%
-- Flow 3:
  Average throughput: 48.25 Mbit/s
  95th percentile per-packet one-way delay: 38.107 ms
  Loss rate: 3.13%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of Copa

Start at: 2018-08-10 01:20:06
End at: 2018-08-10 01:20:36
Local clock offset: 2.035 ms
Remote clock offset: -4.57 ms

# Below is generated by plot.py at 2018-08-10 04:48:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.75 Mbit/s
95th percentile per-packet one-way delay: 22.888 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 48.37 Mbit/s
95th percentile per-packet one-way delay: 22.832 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 42.82 Mbit/s
95th percentile per-packet one-way delay: 23.498 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 29.73 Mbit/s
95th percentile per-packet one-way delay: 20.762 ms
Loss rate: 0.14%
Run 1: Report of Copa — Data Link

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

Start at: 2018-08-10 01:40:28
End at: 2018-08-10 01:40:58
Local clock offset: -0.561 ms
Remote clock offset: -7.699 ms

# Below is generated by plot.py at 2018-08-10 04:48:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.31 Mbit/s
95th percentile per-packet one-way delay: 22.215 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 53.20 Mbit/s
95th percentile per-packet one-way delay: 21.141 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 36.54 Mbit/s
95th percentile per-packet one-way delay: 22.661 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 23.41 Mbit/s
95th percentile per-packet one-way delay: 26.497 ms
Loss rate: 0.47%
Run 2: Report of Copa — Data Link

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

- **Flow 1 ingress** (mean 53.18 Mbit/s)
- **Flow 1 egress** (mean 53.20 Mbit/s)
- **Flow 2 ingress** (mean 36.50 Mbit/s)
- **Flow 2 egress** (mean 36.54 Mbit/s)
- **Flow 3 ingress** (mean 23.46 Mbit/s)
- **Flow 3 egress** (mean 23.41 Mbit/s)

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

- **Flow 1** (95th percentile 21.14 ms)
- **Flow 2** (95th percentile 22.66 ms)
- **Flow 3** (95th percentile 26.50 ms)
Run 3: Statistics of Copa

Start at: 2018-08-10 02:00:51
End at: 2018-08-10 02:01:21
Local clock offset: 0.196 ms
Remote clock offset: -7.11 ms

# Below is generated by plot.py at 2018-08-10 04:48:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.83 Mbit/s
95th percentile per-packet one-way delay: 24.608 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 52.57 Mbit/s
95th percentile per-packet one-way delay: 25.374 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 37.22 Mbit/s
95th percentile per-packet one-way delay: 23.301 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 28.58 Mbit/s
95th percentile per-packet one-way delay: 25.048 ms
Loss rate: 0.47%
Run 3: Report of Copa — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 52.35 Mbps)  Flow 1 egress (mean 52.57 Mbps)
Flow 2 ingress (mean 37.22 Mbps)  Flow 2 egress (mean 37.22 Mbps)
Flow 3 ingress (mean 28.63 Mbps)  Flow 3 egress (mean 28.58 Mbps)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 25.37 ms)  Flow 2 (95th percentile 23.30 ms)  Flow 3 (95th percentile 25.05 ms)
Run 4: Statistics of Copa

Start at: 2018-08-10 02:21:00
End at: 2018-08-10 02:21:30
Local clock offset: 1.564 ms
Remote clock offset: -6.835 ms

# Below is generated by plot.py at 2018-08-10 04:48:57
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 85.44 Mbit/s
   95th percentile per-packet one-way delay: 27.114 ms
   Loss rate: 0.11%
-- Flow 1:
   Average throughput: 50.71 Mbit/s
   95th percentile per-packet one-way delay: 28.838 ms
   Loss rate: 0.10%
-- Flow 2:
   Average throughput: 39.96 Mbit/s
   95th percentile per-packet one-way delay: 24.835 ms
   Loss rate: 0.11%
-- Flow 3:
   Average throughput: 24.47 Mbit/s
   95th percentile per-packet one-way delay: 28.249 ms
   Loss rate: 0.21%
Run 4: Report of Copa — Data Link

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

- **Throughput (Mbps/s)**
  - **Flow 1 ingress** (mean 50.71 Mbps/s)
  - **Flow 1 egress** (mean 50.71 Mbps/s)
  - **Flow 2 ingress** (mean 39.94 Mbps/s)
  - **Flow 2 egress** (mean 39.96 Mbps/s)
  - **Flow 3 ingress** (mean 24.45 Mbps/s)
  - **Flow 3 egress** (mean 24.47 Mbps/s)

- **Packet Delay (ms)**
  - **Flow 1** (95th percentile 28.84 ms)
  - **Flow 2** (95th percentile 24.84 ms)
  - **Flow 3** (95th percentile 28.25 ms)
Run 5: Statistics of Copa

Start at: 2018-08-10 02:41:27
End at: 2018-08-10 02:41:57
Local clock offset: 1.099 ms
Remote clock offset: -3.991 ms

# Below is generated by plot.py at 2018-08-10 04:48:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.05 Mbit/s
95th percentile per-packet one-way delay: 25.861 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 46.21 Mbit/s
95th percentile per-packet one-way delay: 25.996 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.27 Mbit/s
95th percentile per-packet one-way delay: 26.646 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 33.22 Mbit/s
95th percentile per-packet one-way delay: 22.761 ms
Loss rate: 0.22%
Run 5: Report of Copa — Data Link

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

- **Flow 1 ingress (mean 46.19 Mbps/s)**
- **Flow 1 egress (mean 46.21 Mbps/s)**
- **Flow 2 ingress (mean 40.26 Mbps/s)**
- **Flow 2 egress (mean 40.27 Mbps/s)**
- **Flow 3 ingress (mean 33.20 Mbps/s)**
- **Flow 3 egress (mean 33.22 Mbps/s)**

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

- **Flow 1 (95th percentile 26.00 ms)**
- **Flow 2 (95th percentile 26.65 ms)**
- **Flow 3 (95th percentile 22.76 ms)**
Run 6: Statistics of Copa

Start at: 2018-08-10 03:01:47
End at: 2018-08-10 03:02:17
Local clock offset: 2.758 ms
Remote clock offset: -4.444 ms

# Below is generated by plot.py at 2018-08-10 04:48:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.67 Mbit/s
95th percentile per-packet one-way delay: 26.255 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 55.72 Mbit/s
95th percentile per-packet one-way delay: 26.093 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 25.27 Mbit/s
95th percentile per-packet one-way delay: 28.394 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 33.49 Mbit/s
95th percentile per-packet one-way delay: 24.135 ms
Loss rate: 0.42%
Run 6: Report of Copa — Data Link
Run 7: Statistics of Copa

Start at: 2018-08-10 03:21:57
End at: 2018-08-10 03:22:27
Local clock offset: 1.056 ms
Remote clock offset: -6.703 ms

# Below is generated by plot.py at 2018-08-10 04:50:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.90 Mbit/s
95th percentile per-packet one-way delay: 23.978 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 52.65 Mbit/s
95th percentile per-packet one-way delay: 24.434 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 36.55 Mbit/s
95th percentile per-packet one-way delay: 22.419 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 27.209 ms
Loss rate: 0.26%
Run 7: Report of Copa — Data Link

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 52.63 Mbit/s)
- Blue solid line: Flow 1 egress (mean 52.65 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 56.35 Mbit/s)
- Green solid line: Flow 2 egress (mean 36.55 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 29.85 Mbit/s)
- Red solid line: Flow 3 egress (mean 29.86 Mbit/s)
Run 8: Statistics of Copa

Start at: 2018-08-10 03:42:14
End at: 2018-08-10 03:42:44
Local clock offset: -0.984 ms
Remote clock offset: -6.636 ms

# Below is generated by plot.py at 2018-08-10 04:50:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.88 Mbit/s
95th percentile per-packet one-way delay: 22.309 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 49.63 Mbit/s
95th percentile per-packet one-way delay: 21.806 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.05 Mbit/s
95th percentile per-packet one-way delay: 22.685 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 22.748 ms
Loss rate: 0.24%
Run 8: Report of Copa — Data Link
Run 9: Statistics of Copa

Start at: 2018-08-10 04:02:10
End at: 2018-08-10 04:02:40
Local clock offset: 0.125 ms
Remote clock offset: -91.468 ms

# Below is generated by plot.py at 2018-08-10 04:50:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.93 Mbit/s
  95th percentile per-packet one-way delay: 23.318 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 52.85 Mbit/s
  95th percentile per-packet one-way delay: 24.561 ms
  Loss rate: 0.12%
-- Flow 2:
  Average throughput: 30.77 Mbit/s
  95th percentile per-packet one-way delay: 21.772 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 25.91 Mbit/s
  95th percentile per-packet one-way delay: 21.639 ms
  Loss rate: 0.60%
Run 9: Report of Copa — Data Link

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

- **Flow 1 Ingress** (mean 52.85 Mbps/s)
- **Flow 1 Egress** (mean 52.85 Mbps/s)
- **Flow 2 Ingress** (mean 30.75 Mbps/s)
- **Flow 2 Egress** (mean 30.77 Mbps/s)
- **Flow 3 Ingress** (mean 25.98 Mbps/s)
- **Flow 3 Egress** (mean 25.91 Mbps/s)

![Graph 2: Per-Packet End-to-End Delay (ms) over Time (s)]

- **Flow 1** (95th percentile 24.56 ms)
- **Flow 2** (95th percentile 21.77 ms)
- **Flow 3** (95th percentile 21.64 ms)
Run 10: Statistics of Copa

Start at: 2018-08-10 04:22:23
End at: 2018-08-10 04:22:53
Local clock offset: 1.955 ms
Remote clock offset: -93.626 ms

# Below is generated by plot.py at 2018-08-10 04:50:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.48 Mbit/s
  95th percentile per-packet one-way delay: 24.093 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 48.42 Mbit/s
  95th percentile per-packet one-way delay: 24.038 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 38.82 Mbit/s
  95th percentile per-packet one-way delay: 24.455 ms
  Loss rate: 0.17%
-- Flow 3:
  Average throughput: 31.51 Mbit/s
  95th percentile per-packet one-way delay: 23.545 ms
  Loss rate: 0.27%
Run 10: Report of Copa — Data Link

Graph 1: Throughput (Mbps)
- Blue dashed line: Flow 1 ingress (mean 48.40 Mbps)
- Green solid line: Flow 1 egress (mean 48.42 Mbps)
- Green dashed line: Flow 2 ingress (mean 38.83 Mbps)
- Green dotted line: Flow 2 egress (mean 38.82 Mbps)
- Red dashed line: Flow 3 ingress (mean 31.51 Mbps)
- Red solid line: Flow 3 egress (mean 31.51 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Blue line: Flow 1 (95th percentile 24.04 ms)
- Green line: Flow 2 (95th percentile 24.45 ms)
- Red line: Flow 3 (95th percentile 23.55 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-08-10 01:33:15
End at: 2018-08-10 01:33:45
Local clock offset: -5.07 ms
Remote clock offset: -6.385 ms

# Below is generated by plot.py at 2018-08-10 04:50:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.16 Mbit/s
95th percentile per-packet one-way delay: 19.091 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 55.84 Mbit/s
95th percentile per-packet one-way delay: 18.662 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 36.30 Mbit/s
95th percentile per-packet one-way delay: 19.275 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 48.64 Mbit/s
95th percentile per-packet one-way delay: 19.976 ms
Loss rate: 0.37%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-08-10 01:53:39
End at: 2018-08-10 01:54:09
Local clock offset: 1.525 ms
Remote clock offset: -7.316 ms

# Below is generated by plot.py at 2018-08-10 04:50:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.34 Mbit/s
95th percentile per-packet one-way delay: 27.397 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 63.90 Mbit/s
95th percentile per-packet one-way delay: 26.930 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 36.11 Mbit/s
95th percentile per-packet one-way delay: 27.980 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 25.31 Mbit/s
95th percentile per-packet one-way delay: 28.703 ms
Loss rate: 0.38%
Run 2: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 63.91 Mbit/s)
- Flow 1 egress (mean 63.90 Mbit/s)
- Flow 2 ingress (mean 36.11 Mbit/s)
- Flow 2 egress (mean 36.11 Mbit/s)
- Flow 3 ingress (mean 25.34 Mbit/s)
- Flow 3 egress (mean 25.31 Mbit/s)

![Graph 2: Per packet end-to-end delay vs Time](image2)

- Flow 1 (95th percentile 26.93 ms)
- Flow 2 (95th percentile 27.98 ms)
- Flow 3 (95th percentile 28.70 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-08-10 02:13:46
End at: 2018-08-10 02:14:16
Local clock offset: 1.738 ms
Remote clock offset: -7.363 ms

# Below is generated by plot.py at 2018-08-10 04:50:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 27.917 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 55.89 Mbit/s
95th percentile per-packet one-way delay: 27.893 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 48.14 Mbit/s
95th percentile per-packet one-way delay: 27.765 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 25.41 Mbit/s
95th percentile per-packet one-way delay: 29.224 ms
Loss rate: 0.38%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-08-10 02:34:06
End at: 2018-08-10 02:34:36
Local clock offset: 1.447 ms
Remote clock offset: -3.98 ms

# Below is generated by plot.py at 2018-08-10 04:50:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 27.021 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 63.95 Mbit/s
95th percentile per-packet one-way delay: 26.494 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 36.26 Mbit/s
95th percentile per-packet one-way delay: 27.480 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 24.93 Mbit/s
95th percentile per-packet one-way delay: 27.928 ms
Loss rate: 0.36%
Run 4: Report of TCP Cubic — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 63.95 Mbps)
Flow 1 egress (mean 63.95 Mbps)
Flow 2 ingress (mean 36.26 Mbps)
Flow 2 egress (mean 36.26 Mbps)
Flow 3 ingress (mean 24.94 Mbps)
Flow 3 egress (mean 24.93 Mbps)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 26.49 ms)
Flow 2 (95th percentile 27.48 ms)
Flow 3 (95th percentile 27.93 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-08-10 02:54:30
End at: 2018-08-10 02:55:00
Local clock offset: -0.029 ms
Remote clock offset: -3.128 ms

# Below is generated by plot.py at 2018-08-10 04:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.38 Mbit/s
95th percentile per-packet one-way delay: 25.772 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 58.54 Mbit/s
95th percentile per-packet one-way delay: 25.515 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.94 Mbit/s
95th percentile per-packet one-way delay: 25.953 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 26.271 ms
Loss rate: 0.31%
Run 5: Report of TCP Cubic — Data Link

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**Graph Description:**

- **Throughput (Mbps):**
  - X-axis: Time (s)
  - Y-axis: Throughput (Mbps)
  - Legends:
    - Flow 1 ingress (mean 58.53 Mbps)
    - Flow 1 egress (mean 58.54 Mbps)
    - Flow 2 ingress (mean 40.95 Mbps)
    - Flow 2 egress (mean 40.94 Mbps)
    - Flow 3 ingress (mean 31.91 Mbps)
    - Flow 3 egress (mean 31.90 Mbps)

- **Per-packet one way delay (ms):**
  - X-axis: Time (s)
  - Y-axis: Per-packet one way delay (ms)
  - Legends:
    - Flow 1 (95th percentile 25.52 ms)
    - Flow 2 (95th percentile 25.95 ms)
    - Flow 3 (95th percentile 26.27 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-08-10 03:14:48
End at: 2018-08-10 03:15:18
Local clock offset: 0.71 ms
Remote clock offset: -6.772 ms

# Below is generated by plot.py at 2018-08-10 04:51:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.61 Mbit/s
95th percentile per-packet one-way delay: 26.574 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 63.77 Mbit/s
95th percentile per-packet one-way delay: 26.074 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 37.41 Mbit/s
95th percentile per-packet one-way delay: 27.620 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 23.93 Mbit/s
95th percentile per-packet one-way delay: 27.647 ms
Loss rate: 0.32%
Run 6: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 63.77 Mbit/s)
- Flow 1 egress (mean 63.77 Mbit/s)
- Flow 2 ingress (mean 37.40 Mbit/s)
- Flow 2 egress (mean 37.41 Mbit/s)
- Flow 3 ingress (mean 23.94 Mbit/s)
- Flow 3 egress (mean 23.93 Mbit/s)

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

- Flow 1 (95th percentile 26.07 ms)
- Flow 2 (95th percentile 27.62 ms)
- Flow 3 (95th percentile 27.65 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-08-10 03:35:08
End at: 2018-08-10 03:35:38
Local clock offset: -0.057 ms
Remote clock offset: -6.812 ms

# Below is generated by plot.py at 2018-08-10 04:51:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.57 Mbit/s
95th percentile per-packet one-way delay: 25.586 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 60.95 Mbit/s
95th percentile per-packet one-way delay: 25.306 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 37.28 Mbit/s
95th percentile per-packet one-way delay: 25.941 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 32.55 Mbit/s
95th percentile per-packet one-way delay: 26.198 ms
Loss rate: 0.36%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-08-10 03:54:58
End at: 2018-08-10 03:55:28
Local clock offset: 0.673 ms
Remote clock offset: -68.69 ms

# Below is generated by plot.py at 2018-08-10 04:51:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.46 Mbit/s
  95th percentile per-packet one-way delay: 23.841 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 54.05 Mbit/s
  95th percentile per-packet one-way delay: 24.046 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 37.15 Mbit/s
  95th percentile per-packet one-way delay: 23.844 ms
  Loss rate: 0.12%
-- Flow 3:
  Average throughput: 46.23 Mbit/s
  95th percentile per-packet one-way delay: 22.906 ms
  Loss rate: 0.30%
Run 9: Statistics of TCP Cubic

Start at: 2018-08-10 04:15:12
End at: 2018-08-10 04:15:42
Local clock offset: -0.316 ms
Remote clock offset: -89.258 ms

# Below is generated by plot.py at 2018-08-10 04:51:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.35 Mbit/s
95th percentile per-packet one-way delay: 23.743 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 61.77 Mbit/s
95th percentile per-packet one-way delay: 23.408 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 37.96 Mbit/s
95th percentile per-packet one-way delay: 24.220 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 22.02 Mbit/s
95th percentile per-packet one-way delay: 24.688 ms
Loss rate: 0.40%
Run 9: Report of TCP Cubic — Data Link

![Graphs showing throughput and per-packet one-way delay over time for different flows (1 to 3).]
Run 10: Statistics of TCP Cubic

Start at: 2018-08-10 04:35:26
End at: 2018-08-10 04:35:56
Local clock offset: 1.914 ms
Remote clock offset: -109.27 ms

# Below is generated by plot.py at 2018-08-10 04:51:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.73 Mbit/s
95th percentile per-packet one-way delay: 24.607 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 64.77 Mbit/s
95th percentile per-packet one-way delay: 24.452 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 36.18 Mbit/s
95th percentile per-packet one-way delay: 24.991 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 23.68 Mbit/s
95th percentile per-packet one-way delay: 24.803 ms
Loss rate: 0.33%
Run 10: Report of TCP Cubic — Data Link

[Graph showing throughput and per-packet-one-way-delay plots for different flows]
Run 1: Statistics of FillP

Start at: 2018-08-10 01:22:39
End at: 2018-08-10 01:23:09
Local clock offset: 0.814 ms
Remote clock offset: -6.585 ms

# Below is generated by plot.py at 2018-08-10 04:52:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.89 Mbit/s
  95th percentile per-packet one-way delay: 46.863 ms
  Loss rate: 2.49%
-- Flow 1:
  Average throughput: 58.24 Mbit/s
  95th percentile per-packet one-way delay: 46.205 ms
  Loss rate: 1.70%
-- Flow 2:
  Average throughput: 39.69 Mbit/s
  95th percentile per-packet one-way delay: 47.223 ms
  Loss rate: 3.35%
-- Flow 3:
  Average throughput: 30.93 Mbit/s
  95th percentile per-packet one-way delay: 47.356 ms
  Loss rate: 4.62%
Run 1: Report of FillP — Data Link

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

- **Flow 1 ingress** (mean 59.18 Mbit/s)
- **Flow 1 egress** (mean 58.24 Mbit/s)
- **Flow 2 ingress** (mean 41.00 Mbit/s)
- **Flow 2 egress** (mean 39.69 Mbit/s)
- **Flow 3 ingress** (mean 32.34 Mbit/s)
- **Flow 3 egress** (mean 30.93 Mbit/s)

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

- **Flow 1** (95th percentile 46.20 ms)
- **Flow 2** (95th percentile 47.22 ms)
- **Flow 3** (95th percentile 47.36 ms)
Run 2: Statistics of FillP

Start at: 2018-08-10 01:43:07  
End at: 2018-08-10 01:43:37  
Local clock offset: -1.063 ms  
Remote clock offset: -7.999 ms

# Below is generated by plot.py at 2018-08-10 04:52:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 44.997 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 56.65 Mbit/s
95th percentile per-packet one-way delay: 44.246 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 39.60 Mbit/s
95th percentile per-packet one-way delay: 45.165 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 45.816 ms
Loss rate: 3.97%
Run 2: Report of FillP — Data Link

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

- Flow 1 ingress (mean 57.46 Mbit/s)
- Flow 1 egress (mean 56.65 Mbit/s)
- Flow 2 ingress (mean 40.78 Mbit/s)
- Flow 2 egress (mean 39.60 Mbit/s)
- Flow 3 ingress (mean 32.27 Mbit/s)
- Flow 3 egress (mean 31.06 Mbit/s)

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

- Flow 1 (95th percentile 44.25 ms)
- Flow 2 (95th percentile 45.16 ms)
- Flow 3 (95th percentile 45.82 ms)
Run 3: Statistics of FillP

Start at: 2018-08-10 02:03:21
End at: 2018-08-10 02:03:51
Local clock offset: 0.604 ms
Remote clock offset: -6.942 ms

# Below is generated by plot.py at 2018-08-10 04:52:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.16 Mbit/s
95th percentile per-packet one-way delay: 54.375 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 63.59 Mbit/s
95th percentile per-packet one-way delay: 37.692 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 35.81 Mbit/s
95th percentile per-packet one-way delay: 54.186 ms
Loss rate: 3.04%
-- Flow 3:
Average throughput: 23.40 Mbit/s
95th percentile per-packet one-way delay: 57.240 ms
Loss rate: 5.20%
Run 3: Report of FillP — Data Link
Run 4: Statistics of FillP

Start at: 2018-08-10 02:23:30
End at: 2018-08-10 02:24:00
Local clock offset: 1.388 ms
Remote clock offset: -6.928 ms

# Below is generated by plot.py at 2018-08-10 04:52:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.85 Mbit/s
95th percentile per-packet one-way delay: 56.204 ms
Loss rate: 2.58%
-- Flow 1:
Average throughput: 63.56 Mbit/s
95th percentile per-packet one-way delay: 39.313 ms
Loss rate: 1.51%
-- Flow 2:
Average throughput: 35.51 Mbit/s
95th percentile per-packet one-way delay: 56.773 ms
Loss rate: 4.48%
-- Flow 3:
Average throughput: 23.04 Mbit/s
95th percentile per-packet one-way delay: 58.827 ms
Loss rate: 5.32%
Run 4: Report of FillP — Data Link
Run 5: Statistics of FillP

Start at: 2018-08-10 02:43:57
End at: 2018-08-10 02:44:27
Local clock offset: 1.784 ms
Remote clock offset: -3.822 ms

# Below is generated by plot.py at 2018-08-10 04:52:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.13 Mbit/s
95th percentile per-packet one-way delay: 56.583 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 54.82 Mbit/s
95th percentile per-packet one-way delay: 55.228 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 45.93 Mbit/s
95th percentile per-packet one-way delay: 39.622 ms
Loss rate: 2.46%
-- Flow 3:
Average throughput: 23.41 Mbit/s
95th percentile per-packet one-way delay: 58.832 ms
Loss rate: 4.73%
Run 5: Report of FillP — Data Link
Run 6: Statistics of FillP

Start at: 2018-08-10 03:04:16
End at: 2018-08-10 03:04:46
Local clock offset: 1.336 ms
Remote clock offset: -5.275 ms

# Below is generated by plot.py at 2018-08-10 04:52:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.53 Mbit/s
95th percentile per-packet one-way delay: 56.104 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 55.36 Mbit/s
95th percentile per-packet one-way delay: 55.926 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 47.31 Mbit/s
95th percentile per-packet one-way delay: 38.898 ms
Loss rate: 2.68%
-- Flow 3:
Average throughput: 23.31 Mbit/s
95th percentile per-packet one-way delay: 58.444 ms
Loss rate: 5.49%
Run 6: Report of FillP — Data Link

![Graph showing throughput and delay for flows 1, 2, and 3.]

- Flow 1 ingress (mean 56.12 Mbps)
- Flow 1 egress (mean 55.36 Mbps)
- Flow 2 ingress (mean 48.52 Mbps)
- Flow 2 egress (mean 47.31 Mbps)
- Flow 3 ingress (mean 24.54 Mbps)
- Flow 3 egress (mean 23.31 Mbps)

![Graph showing per packet one way delay for flows 1, 2, and 3.]

- Flow 1 (95th percentile 55.93 ms)
- Flow 2 (95th percentile 38.90 ms)
- Flow 3 (95th percentile 58.44 ms)
Run 7: Statistics of FillP

Start at: 2018-08-10 03:24:34
End at: 2018-08-10 03:25:04
Local clock offset: 1.016 ms
Remote clock offset: -6.501 ms

# Below is generated by plot.py at 2018-08-10 04:52:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.93 Mbit/s
95th percentile per-packet one-way delay: 55.232 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 55.93 Mbit/s
95th percentile per-packet one-way delay: 54.906 ms
Loss rate: 1.66%
-- Flow 2:
Average throughput: 35.79 Mbit/s
95th percentile per-packet one-way delay: 56.198 ms
Loss rate: 3.91%
-- Flow 3:
Average throughput: 45.92 Mbit/s
95th percentile per-packet one-way delay: 39.397 ms
Loss rate: 3.29%
Run 7: Report of FillP — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 56.82 Mbit/s)
Flow 1 egress (mean 55.93 Mbit/s)
Flow 2 ingress (mean 37.19 Mbit/s)
Flow 2 egress (mean 35.79 Mbit/s)
Flow 3 ingress (mean 47.28 Mbit/s)
Flow 3 egress (mean 45.92 Mbit/s)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 54.91 ms)
Flow 2 (95th percentile 56.20 ms)
Flow 3 (95th percentile 39.40 ms)
Run 8: Statistics of FillP

Start at: 2018-08-10 03:44:38
End at: 2018-08-10 03:45:08
Local clock offset: -1.265 ms
Remote clock offset: -6.741 ms

# Below is generated by plot.py at 2018-08-10 04:52:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 45.012 ms
Loss rate: 2.65%
-- Flow 1:
Average throughput: 58.86 Mbit/s
95th percentile per-packet one-way delay: 44.085 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 39.85 Mbit/s
95th percentile per-packet one-way delay: 44.999 ms
Loss rate: 3.90%
-- Flow 3:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 45.981 ms
Loss rate: 4.24%
Run 8: Report of FillP — Data Link

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

![Graph 2: Per packet one way delay (ms) vs Time (s)]
Run 9: Statistics of FillP

Start at: 2018-08-10 04:04:41
End at: 2018-08-10 04:05:11
Local clock offset: 0.935 ms
Remote clock offset: -96.021 ms

# Below is generated by plot.py at 2018-08-10 04:53:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.04 Mbit/s
95th percentile per-packet one-way delay: 45.308 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 58.46 Mbit/s
95th percentile per-packet one-way delay: 44.099 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 39.53 Mbit/s
95th percentile per-packet one-way delay: 45.478 ms
Loss rate: 2.74%
-- Flow 3:
Average throughput: 31.04 Mbit/s
95th percentile per-packet one-way delay: 46.095 ms
Loss rate: 3.98%
Run 9: Report of FillP — Data Link
Run 10: Statistics of FillP

Start at: 2018-08-10 04:24:52
End at: 2018-08-10 04:25:22
Local clock offset: -0.323 ms
Remote clock offset: -95.649 ms

# Below is generated by plot.py at 2018-08-10 04:53:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.84 Mbit/s
95th percentile per-packet one-way delay: 49.725 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 55.92 Mbit/s
95th percentile per-packet one-way delay: 49.275 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 47.41 Mbit/s
95th percentile per-packet one-way delay: 34.199 ms
Loss rate: 2.84%
-- Flow 3:
Average throughput: 22.32 Mbit/s
95th percentile per-packet one-way delay: 53.341 ms
Loss rate: 3.47%
Run 10: Report of FillIP — Data Link

---

![Graph 1]:

**Throughput (Mbps)**

- **Flow 1** ingress (mean 56.38 Mbps)
- **Flow 1** egress (mean 55.92 Mbps)
- **Flow 2** ingress (mean 48.63 Mbps)
- **Flow 2** egress (mean 47.41 Mbps)
- **Flow 3** ingress (mean 22.98 Mbps)
- **Flow 3** egress (mean 22.32 Mbps)

![Graph 2]:

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

- **Flow 1** (95th percentile 49.27 ms)
- **Flow 2** (95th percentile 34.20 ms)
- **Flow 3** (95th percentile 53.34 ms)

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Run 1: Statistics of FillP-Sheep

Start at: 2018-08-10 01:24:55
End at: 2018-08-10 01:25:25
Local clock offset: 1.597 ms
Remote clock offset: -6.629 ms

# Below is generated by plot.py at 2018-08-10 04:53:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 40.093 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 63.82 Mbit/s
95th percentile per-packet one-way delay: 38.088 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 36.76 Mbit/s
95th percentile per-packet one-way delay: 45.309 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 24.53 Mbit/s
95th percentile per-packet one-way delay: 51.940 ms
Loss rate: 1.33%
Run 1: Report of FillP-Sheep — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 64.46 Mb/s)  Flow 1 egress (mean 63.82 Mb/s)
Flow 2 ingress (mean 37.23 Mb/s)  Flow 2 egress (mean 36.76 Mb/s)
Flow 3 ingress (mean 24.81 Mb/s)  Flow 3 egress (mean 24.53 Mb/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 38.09 ms)  Flow 2 (95th percentile 45.33 ms)  Flow 3 (95th percentile 51.94 ms)
Run 2: Statistics of FillP-Sheep

Start at: 2018-08-10 01:45:24
End at: 2018-08-10 01:45:54
Local clock offset: 0.642 ms
Remote clock offset: -7.684 ms

# Below is generated by plot.py at 2018-08-10 04:53:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.42 Mbit/s
95th percentile per-packet one-way delay: 38.945 ms
Loss rate: 0.97%

-- Flow 1:
Average throughput: 55.83 Mbit/s
95th percentile per-packet one-way delay: 38.192 ms
Loss rate: 1.02%

-- Flow 2:
Average throughput: 35.54 Mbit/s
95th percentile per-packet one-way delay: 41.474 ms
Loss rate: 1.07%

-- Flow 3:
Average throughput: 48.23 Mbit/s
95th percentile per-packet one-way delay: 36.671 ms
Loss rate: 0.68%
Run 2: Report of FillP-Sheep — Data Link

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

Start at: 2018-08-10 02:05:36
End at: 2018-08-10 02:06:06
Local clock offset: 0.07 ms
Remote clock offset: -6.011 ms

# Below is generated by plot.py at 2018-08-10 04:53:45
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 95.84 Mbit/s
 95th percentile per-packet one-way delay: 38.427 ms
 Loss rate: 1.40%
-- Flow 1:
 Average throughput: 64.07 Mbit/s
 95th percentile per-packet one-way delay: 35.922 ms
 Loss rate: 1.43%
-- Flow 2:
 Average throughput: 35.77 Mbit/s
 95th percentile per-packet one-way delay: 44.163 ms
 Loss rate: 1.33%
-- Flow 3:
 Average throughput: 24.03 Mbit/s
 95th percentile per-packet one-way delay: 48.839 ms
 Loss rate: 1.45%
Run 3: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 64.93 Mbit/s)
- Flow 1 egress (mean 64.07 Mbit/s)
- Flow 2 ingress (mean 36.19 Mbit/s)
- Flow 2 egress (mean 35.77 Mbit/s)
- Flow 3 ingress (mean 24.30 Mbit/s)
- Flow 3 egress (mean 24.03 Mbit/s)

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

- Flow 1 (95th percentile 35.92 ms)
- Flow 2 (95th percentile 44.16 ms)
- Flow 3 (95th percentile 48.84 ms)
Run 4: Statistics of FillP-Sheep

Start at: 2018-08-10 02:25:53
End at: 2018-08-10 02:26:23
Local clock offset: -0.195 ms
Remote clock offset: -5.057 ms

# Below is generated by plot.py at 2018-08-10 04:53:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.41 Mbit/s
95th percentile per-packet one-way delay: 39.379 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 56.32 Mbit/s
95th percentile per-packet one-way delay: 38.966 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 35.00 Mbit/s
95th percentile per-packet one-way delay: 43.800 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 47.80 Mbit/s
95th percentile per-packet one-way delay: 36.221 ms
Loss rate: 0.83%
Run 4: Report of FillP-Sheep — Data Link

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

[Graph 2: One-way delay vs. Time (ms)]
Run 5: Statistics of FillP-Sheep

Start at: 2018-08-10 02:46:12
End at: 2018-08-10 02:46:42
Local clock offset: 1.008 ms
Remote clock offset: -4.562 ms

# Below is generated by plot.py at 2018-08-10 04:53:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.49 Mbit/s
95th percentile per-packet one-way delay: 40.556 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 64.05 Mbit/s
95th percentile per-packet one-way delay: 39.174 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 35.13 Mbit/s
95th percentile per-packet one-way delay: 45.214 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 24.42 Mbit/s
95th percentile per-packet one-way delay: 53.797 ms
Loss rate: 0.92%
Run 5: Report of FillP-Sheep — Data Link

[Graph 1: Throughput (Mbps) vs Time (s)]
- Flow 1 ingress (mean 64.61 Mbps)
- Flow 1 egress (mean 64.05 Mbps)
- Flow 2 ingress (mean 35.56 Mbps)
- Flow 2 egress (mean 35.13 Mbps)
- Flow 3 ingress (mean 24.58 Mbps)
- Flow 3 egress (mean 24.42 Mbps)

[Graph 2: Per-packet one way delay (ms) vs Time (s)]
- Flow 1 (95th percentile 39.17 ms)
- Flow 2 (95th percentile 45.21 ms)
- Flow 3 (95th percentile 53.80 ms)
Run 6: Statistics of FillP-Sheep

Start at: 2018-08-10 03:06:37
End at: 2018-08-10 03:07:07
Local clock offset: 3.829 ms
Remote clock offset: -4.736 ms

# Below is generated by plot.py at 2018-08-10 04:53:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.09 Mbit/s
95th percentile per-packet one-way delay: 43.008 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 58.88 Mbit/s
95th percentile per-packet one-way delay: 40.323 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 40.50 Mbit/s
95th percentile per-packet one-way delay: 45.080 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 42.133 ms
Loss rate: 0.73%
Run 6: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 59.27 Mbit/s)
- Flow 1 egress (mean 58.88 Mbit/s)
- Flow 2 ingress (mean 41.06 Mbit/s)
- Flow 2 egress (mean 40.50 Mbit/s)
- Flow 3 ingress (mean 31.16 Mbit/s)
- Flow 3 egress (mean 31.03 Mbit/s)

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

- Flow 1 (95th percentile 40.32 ms)
- Flow 2 (95th percentile 45.08 ms)
- Flow 3 (95th percentile 42.13 ms)
Run 7: Statistics of FillP-Sheep

Start at: 2018-08-10 03:26:50
End at: 2018-08-10 03:27:20
Local clock offset: -1.697 ms
Remote clock offset: -7.038 ms

# Below is generated by plot.py at 2018-08-10 04:54:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.75 Mbit/s
95th percentile per-packet one-way delay: 38.676 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 57.80 Mbit/s
95th percentile per-packet one-way delay: 38.454 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 40.25 Mbit/s
95th percentile per-packet one-way delay: 38.179 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 30.69 Mbit/s
95th percentile per-packet one-way delay: 42.560 ms
Loss rate: 0.73%
Run 7: Report of FillP-Sheep — Data Link

[Graph showing network performance metrics over time with legend highlighting throughput and delay characteristics of different flows.]
Run 8: Statistics of FillP-Sheep

Start at: 2018-08-10 03:46:52
End at: 2018-08-10 03:47:22
Local clock offset: -1.37 ms
Remote clock offset: -7.321 ms

# Below is generated by plot.py at 2018-08-10 04:54:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 38.927 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 59.01 Mbit/s
95th percentile per-packet one-way delay: 36.433 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 40.48 Mbit/s
95th percentile per-packet one-way delay: 41.084 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 31.08 Mbit/s
95th percentile per-packet one-way delay: 42.386 ms
Loss rate: 0.64%
Run 8: Report of FillP-Sheep — Data Link
Run 9: Statistics of FillP-Sheep

Start at: 2018-08-10 04:06:57
End at: 2018-08-10 04:07:27
Local clock offset: 0.264 ms
Remote clock offset: -93.701 ms

# Below is generated by plot.py at 2018-08-10 04:55:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.44 Mbit/s
  95th percentile per-packet one-way delay: 41.748 ms
  Loss rate: 1.25%
-- Flow 1:
  Average throughput: 58.80 Mbit/s
  95th percentile per-packet one-way delay: 41.502 ms
  Loss rate: 1.25%
-- Flow 2:
  Average throughput: 40.48 Mbit/s
  95th percentile per-packet one-way delay: 42.361 ms
  Loss rate: 1.47%
-- Flow 3:
  Average throughput: 32.37 Mbit/s
  95th percentile per-packet one-way delay: 40.956 ms
  Loss rate: 0.68%
Run 9: Report of FillP-Sheep — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress (mean 59.50 Mbps)**
- **Flow 1 egress (mean 58.80 Mbps)**
- **Flow 2 ingress (mean 41.03 Mbps)**
- **Flow 2 egress (mean 40.48 Mbps)**
- **Flow 3 ingress (mean 32.51 Mbps)**
- **Flow 3 egress (mean 32.37 Mbps)**

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

- **Flow 1 (95th percentile 41.50 ms)**
- **Flow 2 (95th percentile 42.36 ms)**
- **Flow 3 (95th percentile 40.96 ms)**

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Run 10: Statistics of FillP-Sheep

Start at: 2018-08-10 04:27:08
End at: 2018-08-10 04:27:38
Local clock offset: 0.855 ms
Remote clock offset: -99.421 ms

# Below is generated by plot.py at 2018-08-10 04:55:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.28 Mbit/s
95th percentile per-packet one-way delay: 37.675 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 58.94 Mbit/s
95th percentile per-packet one-way delay: 36.399 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 39.755 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 31.17 Mbit/s
95th percentile per-packet one-way delay: 38.279 ms
Loss rate: 0.85%
Run 10: Report of FillIP-Sheep — Data Link

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

Start at: 2018-08-10 01:26:07
End at: 2018-08-10 01:26:37
Local clock offset: -0.4 ms
Remote clock offset: -7.399 ms

# Below is generated by plot.py at 2018-08-10 04:55:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.62 Mbit/s
95th percentile per-packet one-way delay: 25.468 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 56.63 Mbit/s
95th percentile per-packet one-way delay: 25.648 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 48.09 Mbit/s
95th percentile per-packet one-way delay: 21.846 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 24.46 Mbit/s
95th percentile per-packet one-way delay: 27.083 ms
Loss rate: 0.34%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

Start at: 2018-08-10 01:46:35
End at: 2018-08-10 01:47:05
Local clock offset: -2.62 ms
Remote clock offset: -7.778 ms

# Below is generated by plot.py at 2018-08-10 04:55:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.92 Mbit/s
95th percentile per-packet one-way delay: 21.525 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.47 Mbit/s
95th percentile per-packet one-way delay: 20.713 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.46 Mbit/s
95th percentile per-packet one-way delay: 20.267 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.13 Mbit/s
95th percentile per-packet one-way delay: 21.683 ms
Loss rate: 0.33%
Run 2: Report of Indigo — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 59.45 Mbit/s)
Flow 1 egress (mean 59.47 Mbit/s)
Flow 2 ingress (mean 40.46 Mbit/s)
Flow 2 egress (mean 40.46 Mbit/s)
Flow 3 ingress (mean 32.14 Mbit/s)
Flow 3 egress (mean 32.13 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 20.71 ms)
Flow 2 (95th percentile 20.27 ms)
Flow 3 (95th percentile 21.68 ms)
Run 3: Statistics of Indigo

Start at: 2018-08-10 02:06:46
End at: 2018-08-10 02:07:16
Local clock offset: 2.641 ms
Remote clock offset: -7.509 ms

# Below is generated by plot.py at 2018-08-10 04:55:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.77 Mbit/s
  95th percentile per-packet one-way delay: 27.994 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 64.52 Mbit/s
  95th percentile per-packet one-way delay: 25.672 ms
  Loss rate: 0.08%
-- Flow 2:
  Average throughput: 36.54 Mbit/s
  95th percentile per-packet one-way delay: 25.834 ms
  Loss rate: 0.12%
-- Flow 3:
  Average throughput: 24.24 Mbit/s
  95th percentile per-packet one-way delay: 28.236 ms
  Loss rate: 0.38%
Run 3: Report of Indigo — Data Link

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

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

Legend:
- Flow 1 ingress (mean 64.51 Mbit/s)
- Flow 1 egress (mean 64.52 Mbit/s)
- Flow 2 ingress (mean 36.54 Mbit/s)
- Flow 2 egress (mean 36.54 Mbit/s)
- Flow 3 ingress (mean 24.26 Mbit/s)
- Flow 3 egress (mean 24.24 Mbit/s)

Legend for packet loss:
- Flow 1 (95th percentile 25.67 ms)
- Flow 2 (95th percentile 25.83 ms)
- Flow 3 (95th percentile 28.24 ms)
Run 4: Statistics of Indigo

Start at: 2018-08-10 02:27:03
End at: 2018-08-10 02:27:33
Local clock offset: -1.215 ms
Remote clock offset: -5.977 ms

# Below is generated by plot.py at 2018-08-10 04:55:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 24.273 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 56.38 Mbit/s
95th percentile per-packet one-way delay: 22.137 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 48.06 Mbit/s
95th percentile per-packet one-way delay: 22.199 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 24.12 Mbit/s
95th percentile per-packet one-way delay: 26.012 ms
Loss rate: 0.39%
Run 4: Report of Indigo — Data Link
Run 5: Statistics of Indigo

Start at: 2018-08-10 02:47:23
End at: 2018-08-10 02:47:53
Local clock offset: -5.732 ms
Remote clock offset: -2.974 ms

# Below is generated by plot.py at 2018-08-10 04:55:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.95 Mbit/s
  95th percentile per-packet one-way delay: 17.814 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 58.17 Mbit/s
  95th percentile per-packet one-way delay: 17.716 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 41.04 Mbit/s
  95th percentile per-packet one-way delay: 17.522 ms
  Loss rate: 0.13%
-- Flow 3:
  Average throughput: 32.18 Mbit/s
  95th percentile per-packet one-way delay: 20.714 ms
  Loss rate: 0.39%
Run 5: Report of Indigo — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 58.16 Mbit/s)  Flow 1 egress (mean 58.17 Mbit/s)
Flow 2 ingress (mean 41.03 Mbit/s)  Flow 2 egress (mean 41.04 Mbit/s)
Flow 3 ingress (mean 32.21 Mbit/s)  Flow 3 egress (mean 32.18 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 17.72 ms)  Flow 2 (95th percentile 17.52 ms)  Flow 3 (95th percentile 20.71 ms)
Run 6: Statistics of Indigo

Start at: 2018-08-10 03:07:49
End at: 2018-08-10 03:08:19
Local clock offset: 0.661 ms
Remote clock offset: -6.475 ms

# Below is generated by plot.py at 2018-08-10 04:56:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.57 Mbit/s
95th percentile per-packet one-way delay: 24.812 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.19 Mbit/s
95th percentile per-packet one-way delay: 23.964 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.32 Mbit/s
95th percentile per-packet one-way delay: 26.014 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 32.25 Mbit/s
95th percentile per-packet one-way delay: 26.631 ms
Loss rate: 0.39%
Run 6: Report of Indigo — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 59.17 Mbit/s)
Flow 1 egress (mean 59.19 Mbit/s)
Flow 2 ingress (mean 40.31 Mbit/s)
Flow 2 egress (mean 40.32 Mbit/s)
Flow 3 ingress (mean 32.27 Mbit/s)
Flow 3 egress (mean 32.25 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 23.96 ms)
Flow 2 (95th percentile 26.01 ms)
Flow 3 (95th percentile 26.63 ms)
Run 7: Statistics of Indigo

Start at: 2018-08-10 03:28:00
End at: 2018-08-10 03:28:30
Local clock offset: 0.746 ms
Remote clock offset: -7.64 ms

# Below is generated by plot.py at 2018-08-10 04:56:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.81 Mbit/s
  95th percentile per-packet one-way delay: 25.147 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 58.29 Mbit/s
  95th percentile per-packet one-way delay: 24.548 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 40.55 Mbit/s
  95th percentile per-packet one-way delay: 26.298 ms
  Loss rate: 0.12%
-- Flow 3:
  Average throughput: 32.18 Mbit/s
  95th percentile per-packet one-way delay: 24.822 ms
  Loss rate: 0.33%
Run 7: Report of Indigo — Data Link

![Graphs showing network throughput and packet delay](image-url)
Run 8: Statistics of Indigo

Start at: 2018-08-10 03:48:01
End at: 2018-08-10 03:48:31
Local clock offset: -2.447 ms
Remote clock offset: -9.331 ms

# Below is generated by plot.py at 2018-08-10 04:56:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.36 Mbit/s
95th percentile per-packet one-way delay: 13.570 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 58.89 Mbit/s
95th percentile per-packet one-way delay: 13.519 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.53 Mbit/s
95th percentile per-packet one-way delay: 15.220 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.09 Mbit/s
95th percentile per-packet one-way delay: 11.702 ms
Loss rate: 0.32%
Run 8: Report of Indigo — Data Link
Run 9: Statistics of Indigo

Start at: 2018-08-10 04:08:09
End at: 2018-08-10 04:08:39
Local clock offset: 1.496 ms
Remote clock offset: -90.866 ms

# Below is generated by plot.py at 2018-08-10 04:56:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.38 Mbit/s
95th percentile per-packet one-way delay: 23.335 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 23.008 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 23.105 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.21 Mbit/s
95th percentile per-packet one-way delay: 23.551 ms
Loss rate: 0.32%
Run 9: Report of Indigo — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 58.91 Mbit/s)
Flow 1 egress (mean 58.92 Mbit/s)
Flow 2 ingress (mean 40.45 Mbit/s)
Flow 2 egress (mean 40.45 Mbit/s)
Flow 3 ingress (mean 32.23 Mbit/s)
Flow 3 egress (mean 32.21 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 23.01 ms)
Flow 2 (95th percentile 23.11 ms)
Flow 3 (95th percentile 23.55 ms)
Run 10: Statistics of Indigo

Start at: 2018-08-10 04:28:21
End at: 2018-08-10 04:28:51
Local clock offset: 1.736 ms
Remote clock offset: -101.235 ms

# Below is generated by plot.py at 2018-08-10 04:56:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.56 Mbit/s
95th percentile per-packet one-way delay: 23.408 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.21 Mbit/s
95th percentile per-packet one-way delay: 23.118 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.30 Mbit/s
95th percentile per-packet one-way delay: 23.138 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.21 Mbit/s
95th percentile per-packet one-way delay: 23.571 ms
Loss rate: 0.33%
Run 10: Report of Indigo — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 59.19 Mbit/s)
Flow 1 egress (mean 59.21 Mbit/s)
Flow 2 ingress (mean 40.28 Mbit/s)
Flow 2 egress (mean 40.30 Mbit/s)
Flow 3 ingress (mean 32.23 Mbit/s)
Flow 3 egress (mean 32.21 Mbit/s)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 23.12 ms)
Flow 2 (95th percentile 23.14 ms)
Flow 3 (95th percentile 23.57 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-08-10 01:34:26
End at: 2018-08-10 01:34:56
Local clock offset: -1.371 ms
Remote clock offset: -7.687 ms

# Below is generated by plot.py at 2018-08-10 04:56:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.11 Mbit/s
95th percentile per-packet one-way delay: 26.872 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 53.80 Mbit/s
95th percentile per-packet one-way delay: 26.031 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 38.25 Mbit/s
95th percentile per-packet one-way delay: 27.215 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 29.63 Mbit/s
95th percentile per-packet one-way delay: 27.328 ms
Loss rate: 0.30%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-08-10 01:54:52
End at: 2018-08-10 01:55:22
Local clock offset: 1.546 ms
Remote clock offset: -8.304 ms

# Below is generated by plot.py at 2018-08-10 04:56:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.10 Mbit/s
95th percentile per-packet one-way delay: 30.757 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 29.326 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 36.87 Mbit/s
95th percentile per-packet one-way delay: 32.483 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 20.75 Mbit/s
95th percentile per-packet one-way delay: 36.466 ms
Loss rate: 0.12%
Run 2: Report of LEDBAT — Data Link

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

Start at: 2018-08-10 02:14:55
End at: 2018-08-10 02:15:25
Local clock offset: 1.524 ms
Remote clock offset: -6.291 ms

# Below is generated by plot.py at 2018-08-10 04:57:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.22 Mbit/s
95th percentile per-packet one-way delay: 28.155 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 54.92 Mbit/s
95th percentile per-packet one-way delay: 28.516 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 45.49 Mbit/s
95th percentile per-packet one-way delay: 27.894 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 19.181 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 54.91 Mbps)
- Flow 1 egress (mean 54.92 Mbps)
- Flow 2 ingress (mean 45.51 Mbps)
- Flow 2 egress (mean 45.49 Mbps)
- Flow 3 ingress (mean 0.00 Mbps)
- Flow 3 egress (mean 0.00 Mbps)

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

- Flow 1 (95th percentile 28.52 ms)
- Flow 2 (95th percentile 27.89 ms)
- Flow 3 (95th percentile 19.18 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-08-10 02:35:22
End at: 2018-08-10 02:35:52
Local clock offset: -0.758 ms
Remote clock offset: -4.607 ms

# Below is generated by plot.py at 2018-08-10 04:57:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.73 Mbit/s
95th percentile per-packet one-way delay: 28.719 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 54.63 Mbit/s
95th percentile per-packet one-way delay: 27.453 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 33.28 Mbit/s
95th percentile per-packet one-way delay: 29.791 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 29.97 Mbit/s
95th percentile per-packet one-way delay: 30.476 ms
Loss rate: 0.35%
Run 4: Report of LEDBAT — Data Link

[Graph showing data link performance metrics over time]

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 54.63 Mbps)
Flow 1 egress (mean 54.63 Mbps)
Flow 2 ingress (mean 33.31 Mbps)
Flow 2 egress (mean 33.28 Mbps)
Flow 3 ingress (mean 29.99 Mbps)
Flow 3 egress (mean 29.97 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 27.45 ms)
Flow 2 (95th percentile 29.79 ms)
Flow 3 (95th percentile 30.48 ms)
Run 5: Statistics of LEDBAT

Start at: 2018-08-10 02:55:41
End at: 2018-08-10 02:56:11
Local clock offset: 2.253 ms
Remote clock offset: -2.09 ms

# Below is generated by plot.py at 2018-08-10 04:57:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.47 Mbit/s
95th percentile per-packet one-way delay: 30.523 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 55.03 Mbit/s
95th percentile per-packet one-way delay: 29.979 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 33.65 Mbit/s
95th percentile per-packet one-way delay: 30.006 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 30.28 Mbit/s
95th percentile per-packet one-way delay: 32.129 ms
Loss rate: 0.36%
Run 6: Statistics of LEDBAT

Start at: 2018-08-10 03:15:57
End at: 2018-08-10 03:16:27
Local clock offset: 1.619 ms
Remote clock offset: -6.517 ms

# Below is generated by plot.py at 2018-08-10 04:57:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.95 Mbit/s
  95th percentile per-packet one-way delay: 29.626 ms
  Loss rate: 0.14%
-- Flow 1:
  Average throughput: 49.61 Mbit/s
  95th percentile per-packet one-way delay: 28.609 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 40.11 Mbit/s
  95th percentile per-packet one-way delay: 30.462 ms
  Loss rate: 0.17%
-- Flow 3:
  Average throughput: 32.03 Mbit/s
  95th percentile per-packet one-way delay: 30.582 ms
  Loss rate: 0.40%
Run 7: Statistics of LEDBAT

Start at: 2018-08-10 03:36:21
End at: 2018-08-10 03:36:51
Local clock offset: -0.223 ms
Remote clock offset: -6.828 ms

# Below is generated by plot.py at 2018-08-10 04:57:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.51 Mbit/s
95th percentile per-packet one-way delay: 27.686 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 54.35 Mbit/s
95th percentile per-packet one-way delay: 26.811 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 35.92 Mbit/s
95th percentile per-packet one-way delay: 27.746 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 30.90 Mbit/s
95th percentile per-packet one-way delay: 30.080 ms
Loss rate: 0.27%
Run 7: Report of LEDBAT — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 54.35 Mbps)
  - Flow 2 ingress (mean 35.93 Mbps)
  - Flow 3 ingress (mean 30.96 Mbps)
  - Flow 1 egress (mean 54.35 Mbps)
  - Flow 2 egress (mean 35.92 Mbps)
  - Flow 3 egress (mean 30.90 Mbps)

- **Per packet one-way delay (ms):**
  - Flow 1 (95th percentile 26.81 ms)
  - Flow 2 (95th percentile 27.75 ms)
  - Flow 3 (95th percentile 30.08 ms)
Run 8: Statistics of LEDBAT

Start at: 2018-08-10 03:56:08
End at: 2018-08-10 03:56:38
Local clock offset: -1.356 ms
Remote clock offset: -72.45 ms

# Below is generated by plot.py at 2018-08-10 04:57:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.92 Mbit/s
95th percentile per-packet one-way delay: 23.363 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 52.30 Mbit/s
95th percentile per-packet one-way delay: 23.459 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 42.60 Mbit/s
95th percentile per-packet one-way delay: 21.846 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 24.86 Mbit/s
95th percentile per-packet one-way delay: 28.197 ms
Loss rate: 0.48%
Run 8: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 52.29 Mbps)
  - Flow 1 egress (mean 52.30 Mbps)
  - Flow 2 ingress (mean 42.61 Mbps)
  - Flow 2 egress (mean 42.60 Mbps)
  - Flow 3 ingress (mean 24.91 Mbps)
  - Flow 3 egress (mean 24.86 Mbps)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 23.46 ms)
  - Flow 2 (95th percentile 21.85 ms)
  - Flow 3 (95th percentile 28.20 ms)
Run 9: Statistics of LEDBAT

Start at: 2018-08-10 04:16:23
End at: 2018-08-10 04:16:53
Local clock offset: 0.556 ms
Remote clock offset: -89.827 ms

# Below is generated by plot.py at 2018-08-10 04:57:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.31 Mbit/s
95th percentile per-packet one-way delay: 27.583 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 54.68 Mbit/s
95th percentile per-packet one-way delay: 26.050 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 38.83 Mbit/s
95th percentile per-packet one-way delay: 29.051 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 23.43 Mbit/s
95th percentile per-packet one-way delay: 31.487 ms
Loss rate: 0.46%
Run 9: Report of LEDBAT — Data Link

![Graph showing throughput and packet delay over time for three different flows with specified mean values.]

- Flow 1 ingress (mean 54.68 Mbit/s)
- Flow 1 egress (mean 54.68 Mbit/s)
- Flow 2 ingress (mean 38.85 Mbit/s)
- Flow 2 egress (mean 38.83 Mbit/s)
- Flow 3 ingress (mean 23.47 Mbit/s)
- Flow 3 egress (mean 23.43 Mbit/s)

![Graph showing packet delay distribution over time for the same flows.]
Run 10: Statistics of LEDBAT

Start at: 2018-08-10 04:36:36
End at: 2018-08-10 04:37:06
Local clock offset: 2.001 ms
Remote clock offset: -111.286 ms

# Below is generated by plot.py at 2018-08-10 04:57:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.07 Mbit/s
95th percentile per-packet one-way delay: 27.618 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 53.72 Mbit/s
95th percentile per-packet one-way delay: 26.765 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 38.57 Mbit/s
95th percentile per-packet one-way delay: 28.370 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 29.16 Mbit/s
95th percentile per-packet one-way delay: 27.834 ms
Loss rate: 0.49%
Run 10: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 53.71 Mbit/s)
- Flow 1 egress (mean 53.72 Mbit/s)
- Flow 2 ingress (mean 38.57 Mbit/s)
- Flow 2 egress (mean 38.57 Mbit/s)
- Flow 3 ingress (mean 29.22 Mbit/s)
- Flow 3 egress (mean 29.16 Mbit/s)

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

- Flow 1 (95th percentile 26.77 ms)
- Flow 2 (95th percentile 28.37 ms)
- Flow 3 (95th percentile 27.83 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-08-10 01:27:21
End at: 2018-08-10 01:27:51
Local clock offset: -0.042 ms
Remote clock offset: -7.032 ms

# Below is generated by plot.py at 2018-08-10 04:57:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.43 Mbit/s
95th percentile per-packet one-way delay: 37.257 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 17.846 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.52 Mbit/s
95th percentile per-packet one-way delay: 37.401 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 39.11 Mbit/s
95th percentile per-packet one-way delay: 25.392 ms
Loss rate: 0.39%
Run 1: Report of PCC-Allegro — Data Link
Run 2: Statistics of PCC-Allegro

Start at: 2018-08-10 01:47:48
End at: 2018-08-10 01:48:18
Local clock offset: 0.599 ms
Remote clock offset: -7.684 ms

# Below is generated by plot.py at 2018-08-10 04:58:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.53 Mbit/s
  95th percentile per-packet one-way delay: 50.136 ms
  Loss rate: 4.26%
-- Flow 1:
  Average throughput: 57.85 Mbit/s
  95th percentile per-packet one-way delay: 47.554 ms
  Loss rate: 5.15%
-- Flow 2:
  Average throughput: 37.41 Mbit/s
  95th percentile per-packet one-way delay: 51.375 ms
  Loss rate: 3.26%
-- Flow 3:
  Average throughput: 29.80 Mbit/s
  95th percentile per-packet one-way delay: 52.381 ms
  Loss rate: 1.39%
Run 2: Report of PCC-Allegro — Data Link

![Graph showing network performance metrics]

Legend:
- Flow 1 ingress (mean 60.91 Mbit/s)
- Flow 1 egress (mean 57.85 Mbit/s)
- Flow 2 ingress (mean 38.59 Mbit/s)
- Flow 2 egress (mean 37.41 Mbit/s)
- Flow 3 ingress (mean 30.13 Mbit/s)
- Flow 3 egress (mean 29.80 Mbit/s)

![Graph showing packet delay]

Legend:
- Flow 1 (95th percentile 47.55 ms)
- Flow 2 (95th percentile 51.38 ms)
- Flow 3 (95th percentile 52.38 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-08-10 02:07:58
End at: 2018-08-10 02:08:28
Local clock offset: -1.171 ms
Remote clock offset: -6.776 ms

# Below is generated by plot.py at 2018-08-10 04:58:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.26 Mbit/s
95th percentile per-packet one-way delay: 47.439 ms
Loss rate: 5.76%
-- Flow 1:
Average throughput: 41.93 Mbit/s
95th percentile per-packet one-way delay: 44.170 ms
Loss rate: 8.01%
-- Flow 2:
Average throughput: 38.26 Mbit/s
95th percentile per-packet one-way delay: 48.392 ms
Loss rate: 3.42%
-- Flow 3:
Average throughput: 30.10 Mbit/s
95th percentile per-packet one-way delay: 49.023 ms
Loss rate: 1.68%
Run 3: Report of PCC-Allegro — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 45.52 Mbps)
- Flow 1 egress (mean 41.93 Mbps)
- Flow 2 ingress (mean 39.34 Mbps)
- Flow 2 egress (mean 38.26 Mbps)
- Flow 3 ingress (mean 30.32 Mbps)
- Flow 3 egress (mean 30.10 Mbps)

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

- Flow 1 (95th percentile 44.17 ms)
- Flow 2 (95th percentile 48.39 ms)
- Flow 3 (95th percentile 49.02 ms)
Run 4: Statistics of PCC-Allegro

Start at: 2018-08-10 02:28:15
End at: 2018-08-10 02:28:45
Local clock offset: 2.549 ms
Remote clock offset: -5.282 ms

# Below is generated by plot.py at 2018-08-10 04:58:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.70 Mbit/s
95th percentile per-packet one-way delay: 52.125 ms
Loss rate: 4.29%
-- Flow 1:
Average throughput: 59.00 Mbit/s
95th percentile per-packet one-way delay: 48.551 ms
Loss rate: 4.92%
-- Flow 2:
Average throughput: 34.07 Mbit/s
95th percentile per-packet one-way delay: 52.812 ms
Loss rate: 3.01%
-- Flow 3:
Average throughput: 30.51 Mbit/s
95th percentile per-packet one-way delay: 53.755 ms
Loss rate: 3.39%
Run 4: Report of PCC-Allegro — Data Link

Throughput (Mbps):

Time (s):

Flow 1 ingress (mean 61.98 Mbps) — Flow 1 egress (mean 59.00 Mbps)
Flow 2 ingress (mean 35.07 Mbps) — Flow 2 egress (mean 34.07 Mbps)
Flow 3 ingress (mean 31.48 Mbps) — Flow 3 egress (mean 30.51 Mbps)

Per packet one-way delay (ms):

Time (s):

Flow 1 (95th percentile 48.55 ms) — Flow 2 (95th percentile 52.81 ms) — Flow 3 (95th percentile 53.76 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2018-08-10 02:48:35
End at: 2018-08-10 02:49:05
Local clock offset: 1.518 ms
Remote clock offset: -2.426 ms

# Below is generated by plot.py at 2018-08-10 04:58:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.77 Mbit/s
95th percentile per-packet one-way delay: 41.954 ms
Loss rate: 2.98%
-- Flow 1:
Average throughput: 64.49 Mbit/s
95th percentile per-packet one-way delay: 39.448 ms
Loss rate: 3.49%
-- Flow 2:
Average throughput: 40.41 Mbit/s
95th percentile per-packet one-way delay: 43.065 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 20.400 ms
Loss rate: 0.27%
Run 5: Report of PCC-Allegro — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows, with specific metrics for each flow.

Per-packet one-way delay: Flow 1 (95th percentile 39.45 ms), Flow 2 (95th percentile 43.06 ms), Flow 3 (95th percentile 20.40 ms).]
Run 6: Statistics of PCC-Allegro

Start at: 2018-08-10 03:09:01
End at: 2018-08-10 03:09:31
Local clock offset: 1.016 ms
Remote clock offset: -5.004 ms

# Below is generated by plot.py at 2018-08-10 04:58:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.09 Mbit/s
  95th percentile per-packet one-way delay: 42.173 ms
  Loss rate: 4.03%
-- Flow 1:
  Average throughput: 59.26 Mbit/s
  95th percentile per-packet one-way delay: 43.133 ms
  Loss rate: 6.09%
-- Flow 2:
  Average throughput: 42.53 Mbit/s
  95th percentile per-packet one-way delay: 27.332 ms
  Loss rate: 0.17%
-- Flow 3:
  Average throughput: 16.94 Mbit/s
  95th percentile per-packet one-way delay: 21.584 ms
  Loss rate: 0.36%
Run 6: Report of PCC-Allegro — Data Link

[Graphs showing throughput and packet delay over time for different flows, with annotations for mean values of ingress and egress for each flow.]
Run 7: Statistics of PCC-Allegro

Start at: 2018-08-10 03:29:12  
End at: 2018-08-10 03:29:42  
Local clock offset: 0.977 ms  
Remote clock offset: -6.878 ms

# Below is generated by plot.py at 2018-08-10 04:58:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.73 Mbit/s  
95th percentile per-packet one-way delay: 52.899 ms  
Loss rate: 5.06%  
-- Flow 1:  
Average throughput: 55.09 Mbit/s  
95th percentile per-packet one-way delay: 48.850 ms  
Loss rate: 6.41%  
-- Flow 2:  
Average throughput: 32.29 Mbit/s  
95th percentile per-packet one-way delay: 56.322 ms  
Loss rate: 4.29%  
-- Flow 3:  
Average throughput: 40.09 Mbit/s  
95th percentile per-packet one-way delay: 29.402 ms  
Loss rate: 0.41%
Run 8: Statistics of PCC-Allegro

Start at: 2018-08-10 03:49:11
End at: 2018-08-10 03:49:41
Local clock offset: -1.242 ms
Remote clock offset: -27.407 ms

# Below is generated by plot.py at 2018-08-10 04:58:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.94 Mbit/s
  95th percentile per-packet one-way delay: 42.635 ms
  Loss rate: 1.78%
-- Flow 1:
  Average throughput: 55.32 Mbit/s
  95th percentile per-packet one-way delay: 44.215 ms
  Loss rate: 2.31%
-- Flow 2:
  Average throughput: 44.72 Mbit/s
  95th percentile per-packet one-way delay: 33.347 ms
  Loss rate: 1.07%
-- Flow 3:
  Average throughput: 17.96 Mbit/s
  95th percentile per-packet one-way delay: 19.710 ms
  Loss rate: 0.34%
Run 8: Report of PCC-Allegro — Data Link
Run 9: Statistics of PCC-Allegro

Start at: 2018-08-10 04:09:22
End at: 2018-08-10 04:09:52
Local clock offset: -1.428 ms
Remote clock offset: -89.734 ms

# Below is generated by plot.py at 2018-08-10 04:58:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.56 Mbit/s
95th percentile per-packet one-way delay: 50.866 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 71.43 Mbit/s
95th percentile per-packet one-way delay: 48.107 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 17.61 Mbit/s
95th percentile per-packet one-way delay: 18.444 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 28.65 Mbit/s
95th percentile per-packet one-way delay: 54.514 ms
Loss rate: 5.04%
Run 9: Report of PCC-Allegro — Data Link
Run 10: Statistics of PCC-Allegro

Start at: 2018-08-10 04:29:34
End at: 2018-08-10 04:30:04
Local clock offset: 0.788 ms
Remote clock offset: -101.529 ms

# Below is generated by plot.py at 2018-08-10 04:58:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.23 Mbit/s
  95th percentile per-packet one-way delay: 41.638 ms
  Loss rate: 4.24%
-- Flow 1:
  Average throughput: 58.36 Mbit/s
  95th percentile per-packet one-way delay: 42.314 ms
  Loss rate: 6.43%
-- Flow 2:
  Average throughput: 42.62 Mbit/s
  95th percentile per-packet one-way delay: 25.292 ms
  Loss rate: 0.18%
-- Flow 3:
  Average throughput: 16.86 Mbit/s
  95th percentile per-packet one-way delay: 21.135 ms
  Loss rate: 0.33%
Run 10: Report of PCC-Allegro — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 62.32 Mbps) (light blue dashed line)
  - Flow 1 egress (mean 58.36 Mbps) (light blue solid line)
  - Flow 2 ingress (mean 42.64 Mbps) (green dashed line)
  - Flow 2 egress (mean 42.62 Mbps) (green solid line)
  - Flow 3 ingress (mean 16.86 Mbps) (dark blue dashed line)
  - Flow 3 egress (mean 16.86 Mbps) (dark blue solid line)

- **Per-packet one way delay (ms):**
  - Flow 1 (95th percentile 42.31 ms) (blue dashed line)
  - Flow 2 (95th percentile 25.29 ms) (green dashed line)
  - Flow 3 (95th percentile 21.14 ms) (red dashed line)

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Run 1: Statistics of PCC-Expr

Start at: 2018-08-10 01:21:22
End at: 2018-08-10 01:21:52
Local clock offset: 1.174 ms
Remote clock offset: -6.012 ms

# Below is generated by plot.py at 2018-08-10 04:59:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.40 Mbit/s
95th percentile per-packet one-way delay: 53.622 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 54.67 Mbit/s
95th percentile per-packet one-way delay: 53.623 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 30.20 Mbit/s
95th percentile per-packet one-way delay: 54.025 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 41.48 Mbit/s
95th percentile per-packet one-way delay: 37.580 ms
Loss rate: 0.79%
Run 1: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 54.77 Mbps) vs. Flow 1 egress (mean 54.67 Mbps)
- Flow 2 ingress (mean 30.52 Mbps) vs. Flow 2 egress (mean 30.20 Mbps)
- Flow 3 ingress (mean 41.69 Mbps) vs. Flow 3 egress (mean 41.48 Mbps)
Run 2: Statistics of PCC-Expr

Start at: 2018-08-10 01:41:50
End at: 2018-08-10 01:42:20
Local clock offset: 0.758 ms
Remote clock offset: -8.22 ms

# Below is generated by plot.py at 2018-08-10 04:59:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.63 Mbit/s
95th percentile per-packet one-way delay: 49.600 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 52.68 Mbit/s
95th percentile per-packet one-way delay: 48.272 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 33.16 Mbit/s
95th percentile per-packet one-way delay: 54.989 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 36.11 Mbit/s
95th percentile per-packet one-way delay: 37.473 ms
Loss rate: 0.47%
Run 2: Report of PCC-Expr — Data Link

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

Flow 1 ingress (mean 52.87 Mbit/s)  Flow 1 egress (mean 52.68 Mbit/s)
Flow 2 ingress (mean 33.30 Mbit/s)  Flow 2 egress (mean 33.16 Mbit/s)
Flow 3 ingress (mean 46.16 Mbit/s)  Flow 3 egress (mean 36.11 Mbit/s)
Run 3: Statistics of PCC-Expr

Start at: 2018-08-10 02:02:07
End at: 2018-08-10 02:02:37
Local clock offset: -0.79 ms
Remote clock offset: -6.133 ms

# Below is generated by plot.py at 2018-08-10 04:59:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.83 Mbit/s
95th percentile per-packet one-way delay: 43.935 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 54.18 Mbit/s
95th percentile per-packet one-way delay: 43.368 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 35.95 Mbit/s
95th percentile per-packet one-way delay: 44.016 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 29.58 Mbit/s
95th percentile per-packet one-way delay: 44.217 ms
Loss rate: 0.91%
Run 3: Report of PCC-Expr — Data Link

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

- **Throughput:**
  - Flow 1 ingress (mean 54.24 Mbit/s)
  - Flow 1 egress (mean 54.18 Mbit/s)
  - Flow 2 ingress (mean 36.04 Mbit/s)
  - Flow 2 egress (mean 35.95 Mbit/s)
  - Flow 3 ingress (mean 29.74 Mbit/s)
  - Flow 3 egress (mean 29.58 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 43.37 ms)
  - Flow 2 (95th percentile 44.02 ms)
  - Flow 3 (95th percentile 44.22 ms)
Run 4: Statistics of PCC-Expr

Start at: 2018-08-10 02:22:16
End at: 2018-08-10 02:22:46
Local clock offset: 0.824 ms
Remote clock offset: -6.205 ms

# Below is generated by plot.py at 2018-08-10 05:00:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.25 Mbit/s
95th percentile per-packet one-way delay: 45.808 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 53.09 Mbit/s
95th percentile per-packet one-way delay: 43.700 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 32.81 Mbit/s
95th percentile per-packet one-way delay: 54.607 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 40.46 Mbit/s
95th percentile per-packet one-way delay: 37.347 ms
Loss rate: 0.56%
Run 4: Report of PCC-Expr — Data Link
Run 5: Statistics of PCC-Expr

Start at: 2018-08-10 02:42:41
End at: 2018-08-10 02:43:11
Local clock offset: -1.095 ms
Remote clock offset: -3.798 ms

# Below is generated by plot.py at 2018-08-10 05:00:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.78 Mbit/s
  95th percentile per-packet one-way delay: 37.153 ms
  Loss rate: 0.45%
-- Flow 1:
  Average throughput: 55.62 Mbit/s
  95th percentile per-packet one-way delay: 38.286 ms
  Loss rate: 0.50%
-- Flow 2:
  Average throughput: 36.87 Mbit/s
  95th percentile per-packet one-way delay: 37.205 ms
  Loss rate: 0.33%
-- Flow 3:
  Average throughput: 26.26 Mbit/s
  95th percentile per-packet one-way delay: 32.197 ms
  Loss rate: 0.41%
Run 5: Report of PCC-Expr — Data Link
Run 6: Statistics of PCC-Expr

Start at: 2018-08-10 03:03:01
End at: 2018-08-10 03:03:31
Local clock offset: 2.206 ms
Remote clock offset: -4.522 ms

# Below is generated by plot.py at 2018-08-10 05:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.52 Mbit/s
95th percentile per-packet one-way delay: 42.768 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 57.61 Mbit/s
95th percentile per-packet one-way delay: 38.037 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 38.15 Mbit/s
95th percentile per-packet one-way delay: 51.496 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 54.758 ms
Loss rate: 0.49%
Run 6: Report of PCC-Expr — Data Link
Run 7: Statistics of PCC-Expr

Start at: 2018-08-10 03:23:15
End at: 2018-08-10 03:23:45
Local clock offset: -1.179 ms
Remote clock offset: -6.191 ms

# Below is generated by plot.py at 2018-08-10 05:00:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.77 Mbit/s
  95th percentile per-packet one-way delay: 42.077 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 53.19 Mbit/s
  95th percentile per-packet one-way delay: 39.524 ms
  Loss rate: 0.46%
-- Flow 2:
  Average throughput: 36.91 Mbit/s
  95th percentile per-packet one-way delay: 42.679 ms
  Loss rate: 0.22%
-- Flow 3:
  Average throughput: 30.46 Mbit/s
  95th percentile per-packet one-way delay: 42.876 ms
  Loss rate: 0.57%
Run 7: Report of PCC-Expr — Data Link
Run 8: Statistics of PCC-Expr

Start at: 2018-08-10 03:43:26
End at: 2018-08-10 03:43:56
Local clock offset: -1.909 ms
Remote clock offset: -7.393 ms

# Below is generated by plot.py at 2018-08-10 05:00:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.27 Mbit/s
95th percentile per-packet one-way delay: 46.965 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 51.37 Mbit/s
95th percentile per-packet one-way delay: 35.277 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 34.05 Mbit/s
95th percentile per-packet one-way delay: 53.088 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 37.21 Mbit/s
95th percentile per-packet one-way delay: 35.253 ms
Loss rate: 1.45%
Run 8: Report of PCC-Expr — Data Link

![Throughput graph]

Throughput (Mb/s) vs Time (s)

- Flow 1 ingress (mean 51.45 Mb/s)
- Flow 1 egress (mean 51.37 Mb/s)
- Flow 2 ingress (mean 34.41 Mb/s)
- Flow 2 egress (mean 34.05 Mb/s)
- Flow 3 ingress (mean 37.63 Mb/s)
- Flow 3 egress (mean 37.21 Mb/s)

![Delay graph]

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

- Flow 1 (95th percentile 35.28 ms)
- Flow 2 (95th percentile 53.09 ms)
- Flow 3 (95th percentile 35.25 ms)
Run 9: Statistics of PCC-Expr

Start at: 2018-08-10 04:03:26
End at: 2018-08-10 04:03:56
Local clock offset: 0.236 ms
Remote clock offset: -93.556 ms

# Below is generated by plot.py at 2018-08-10 05:01:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.77 Mbit/s
95th percentile per-packet one-way delay: 39.284 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 53.88 Mbit/s
95th percentile per-packet one-way delay: 39.234 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 28.77 Mbit/s
95th percentile per-packet one-way delay: 48.996 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 38.74 Mbit/s
95th percentile per-packet one-way delay: 33.405 ms
Loss rate: 0.40%
Run 9: Report of PCC-Expr — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 53.95 Mb/s)
Flow 1 egress (mean 53.88 Mb/s)
Flow 2 ingress (mean 28.90 Mb/s)
Flow 2 egress (mean 28.77 Mb/s)
Flow 3 ingress (mean 38.78 Mb/s)
Flow 3 egress (mean 38.74 Mb/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 39.23 ms)
Flow 2 (95th percentile 49.00 ms)
Flow 3 (95th percentile 33.41 ms)
Run 10: Statistics of PCC-Expr

Start at: 2018-08-10 04:23:35
End at: 2018-08-10 04:24:05
Local clock offset: 2.132 ms
Remote clock offset: -94.774 ms

# Below is generated by plot.py at 2018-08-10 05:01:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.04 Mbit/s
95th percentile per-packet one-way delay: 44.222 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 55.43 Mbit/s
95th percentile per-packet one-way delay: 43.811 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 44.877 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 26.91 Mbit/s
95th percentile per-packet one-way delay: 27.588 ms
Loss rate: 0.23%
Run 10: Report of PCC-Expr — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 55.57 Mbit/s)
Flow 2 ingress (mean 36.14 Mbit/s)
Flow 3 ingress (mean 26.89 Mbit/s)
Flow 1 egress (mean 55.43 Mbit/s)
Flow 2 egress (mean 36.05 Mbit/s)
Flow 3 egress (mean 26.91 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 43.81 ms)
Flow 2 (95th percentile 44.88 ms)
Flow 3 (95th percentile 27.59 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-08-10 01:29:42
End at: 2018-08-10 01:30:12
Local clock offset: -1.43 ms
Remote clock offset: -7.927 ms

# Below is generated by plot.py at 2018-08-10 05:01:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.38 Mbit/s
95th percentile per-packet one-way delay: 27.393 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 61.62 Mbit/s
95th percentile per-packet one-way delay: 26.434 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 36.09 Mbit/s
95th percentile per-packet one-way delay: 28.584 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 23.53 Mbit/s
95th percentile per-packet one-way delay: 40.681 ms
Loss rate: 0.55%
Run 1: Report of QUIC Cubic — Data Link

- Flow 1 ingress (mean 61.64 Mbit/s)
- Flow 1 egress (mean 61.62 Mbit/s)
- Flow 2 ingress (mean 36.09 Mbit/s)
- Flow 2 egress (mean 36.09 Mbit/s)
- Flow 3 ingress (mean 23.60 Mbit/s)
- Flow 3 egress (mean 23.53 Mbit/s)

- Per packet round trip delay [ms]
- Flow 1 (95th percentile 26.43 ms)
- Flow 2 (95th percentile 28.58 ms)
- Flow 3 (95th percentile 40.68 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-08-10 01:50:10
End at: 2018-08-10 01:50:40
Local clock offset: 0.106 ms
Remote clock offset: -7.409 ms

# Below is generated by plot.py at 2018-08-10 05:01:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.55 Mbit/s
95th percentile per-packet one-way delay: 28.765 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 54.16 Mbit/s
95th percentile per-packet one-way delay: 29.093 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 47.55 Mbit/s
95th percentile per-packet one-way delay: 26.540 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 23.54 Mbit/s
95th percentile per-packet one-way delay: 39.559 ms
Loss rate: 0.48%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-08-10 02:10:18
End at: 2018-08-10 02:10:48
Local clock offset: 3.148 ms
Remote clock offset: -7.005 ms

# Below is generated by plot.py at 2018-08-10 05:01:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.71 Mbit/s
95th percentile per-packet one-way delay: 31.812 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 54.50 Mbit/s
95th percentile per-packet one-way delay: 31.806 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 35.91 Mbit/s
95th percentile per-packet one-way delay: 31.884 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 46.47 Mbit/s
95th percentile per-packet one-way delay: 31.902 ms
Loss rate: 0.39%
Run 3: Report of QUIC Cubic — Data Link

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

Start at: 2018-08-10 02:30:38  
End at: 2018-08-10 02:31:08  
Local clock offset: 2.905 ms  
Remote clock offset: -5.112 ms

# Below is generated by plot.py at 2018-08-10 05:01:50  
# Datalink statistics
-- Total of 3 flows: 
Average throughput: 93.68 Mbit/s  
95th percentile per-packet one-way delay: 31.950 ms  
Loss rate: 0.17%  
-- Flow 1: 
Average throughput: 57.15 Mbit/s  
95th percentile per-packet one-way delay: 31.884 ms  
Loss rate: 0.09%  
-- Flow 2: 
Average throughput: 39.54 Mbit/s  
95th percentile per-packet one-way delay: 31.445 ms  
Loss rate: 0.21%  
-- Flow 3: 
Average throughput: 31.05 Mbit/s  
95th percentile per-packet one-way delay: 53.185 ms  
Loss rate: 0.47%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-08-10 02:50:56
End at: 2018-08-10 02:51:26
Local clock offset: 1.952 ms
Remote clock offset: -3.548 ms

# Below is generated by plot.py at 2018-08-10 05:02:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.86 Mbit/s
95th percentile per-packet one-way delay: 31.354 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 56.27 Mbit/s
95th percentile per-packet one-way delay: 31.157 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.65 Mbit/s
95th percentile per-packet one-way delay: 31.621 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 52.702 ms
Loss rate: 0.51%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-08-10 03:11:23
End at: 2018-08-10 03:11:53
Local clock offset: -1.134 ms
Remote clock offset: -6.298 ms

# Below is generated by plot.py at 2018-08-10 05:02:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.23 Mbit/s
95th percentile per-packet one-way delay: 27.593 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 56.62 Mbit/s
95th percentile per-packet one-way delay: 27.572 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.63 Mbit/s
95th percentile per-packet one-way delay: 26.069 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 31.09 Mbit/s
95th percentile per-packet one-way delay: 48.866 ms
Loss rate: 0.49%
Run 6: Report of QUIC Cubic — Data Link

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

![Graph showing per-packet one-way delay (ms) over time for different flows.](image)
Run 7: Statistics of QUIC Cubic

Start at: 2018-08-10 03:31:33
End at: 2018-08-10 03:32:03
Local clock offset: -2.998 ms
Remote clock offset: -6.679 ms

# Below is generated by plot.py at 2018-08-10 05:02:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.05 Mbit/s
95th percentile per-packet one-way delay: 25.548 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 57.03 Mbit/s
95th percentile per-packet one-way delay: 24.911 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 38.87 Mbit/s
95th percentile per-packet one-way delay: 36.259 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 30.86 Mbit/s
95th percentile per-packet one-way delay: 46.534 ms
Loss rate: 0.50%
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

Start at: 2018-08-10 03:51:29
End at: 2018-08-10 03:51:59
Local clock offset: 0.245 ms
Remote clock offset: -47.066 ms

# Below is generated by plot.py at 2018-08-10 05:02:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.19 Mbit/s
95th percentile per-packet one-way delay: 21.933 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 53.98 Mbit/s
95th percentile per-packet one-way delay: 21.664 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 47.25 Mbit/s
95th percentile per-packet one-way delay: 21.987 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 23.60 Mbit/s
95th percentile per-packet one-way delay: 30.981 ms
Loss rate: 0.49%
Run 8: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 54.08 Mbit/s)
- Flow 1 egress (mean 53.98 Mbit/s)
- Flow 2 ingress (mean 47.27 Mbit/s)
- Flow 2 egress (mean 47.25 Mbit/s)
- Flow 3 ingress (mean 23.65 Mbit/s)
- Flow 3 egress (mean 23.60 Mbit/s)

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

- Flow 1 (95th percentile 21.66 ms)
- Flow 2 (95th percentile 21.99 ms)
- Flow 3 (95th percentile 30.98 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-08-10 04:11:44
End at: 2018-08-10 04:12:14
Local clock offset: 2.943 ms
Remote clock offset: -89.046 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.19 Mbit/s
  95th percentile per-packet one-way delay: 30.337 ms
  Loss rate: 0.18%
-- Flow 1:
  Average throughput: 56.55 Mbit/s
  95th percentile per-packet one-way delay: 30.309 ms
  Loss rate: 0.09%
-- Flow 2:
  Average throughput: 39.71 Mbit/s
  95th percentile per-packet one-way delay: 29.811 ms
  Loss rate: 0.24%
-- Flow 3:
  Average throughput: 31.01 Mbit/s
  95th percentile per-packet one-way delay: 51.723 ms
  Loss rate: 0.51%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-08-10 04:31:59
End at: 2018-08-10 04:32:29
Local clock offset: 2.343 ms
Remote clock offset: -105.33 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.58 Mbit/s
95th percentile per-packet one-way delay: 29.188 ms
Loss rate: 0.16%

-- Flow 1:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 29.388 ms
Loss rate: 0.09%

-- Flow 2:
Average throughput: 47.37 Mbit/s
95th percentile per-packet one-way delay: 26.956 ms
Loss rate: 0.20%

-- Flow 3:
Average throughput: 23.47 Mbit/s
95th percentile per-packet one-way delay: 41.908 ms
Loss rate: 0.52%
Run 10: Report of QUIC Cubic — Data Link

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**Throughput (Mbit/s)**

![Graph showing throughput over time with multiple flows.]

- Flow 1 ingress (mean 54.34 Mbit/s)
- Flow 1 egress (mean 54.33 Mbit/s)
- Flow 2 ingress (mean 47.40 Mbit/s)
- Flow 2 egress (mean 47.37 Mbit/s)
- Flow 3 ingress (mean 23.53 Mbit/s)
- Flow 3 egress (mean 23.47 Mbit/s)

**Per-packet one way delay (μs)**

![Graph showing per-packet delay over time with multiple flows.]

- Flow 1 (95th percentile 29.39 μs)
- Flow 2 (95th percentile 26.96 μs)
- Flow 3 (95th percentile 41.91 μs)
Run 1: Statistics of SCReAM

Start at: 2018-08-10 01:30:54
End at: 2018-08-10 01:31:24
Local clock offset: 2.116 ms
Remote clock offset: -8.062 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 19.878 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 19.874 ms
  Loss rate: 0.13%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 19.877 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 19.888 ms
  Loss rate: 0.36%
Run 1: Report of SCReAM — Data Link

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

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

- **Packet loss delay (ms):**
  - Flow 1 (95th percentile 19.87 ms)
  - Flow 2 (95th percentile 19.88 ms)
  - Flow 3 (95th percentile 19.89 ms)
Run 2: Statistics of SCReAM

Start at: 2018-08-10 01:51:21
End at: 2018-08-10 01:51:51
Local clock offset: -1.356 ms
Remote clock offset: -6.321 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 15.404 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 15.404 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 15.398 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 15.406 ms
Loss rate: 0.35%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-08-10 02:11:28
End at: 2018-08-10 02:11:58
Local clock offset: 1.395 ms
Remote clock offset: -6.855 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 18.664 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 18.652 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 18.662 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 18.675 ms
Loss rate: 0.36%
Run 3: Report of SCReAM — Data Link

![Graph of throughput vs time for different flows.](image)

![Graph of per-packet round-trip delay vs time for different flows.](image)
Run 4: Statistics of SCReAM

Start at: 2018-08-10 02:31:49
End at: 2018-08-10 02:32:19
Local clock offset: 1.926 ms
Remote clock offset: -5.074 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 19.848 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 19.796 ms
  Loss rate: 0.12%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 19.838 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 19.924 ms
  Loss rate: 0.35%
Run 5: Statistics of SCReAM

Start at: 2018-08-10 02:52:13
End at: 2018-08-10 02:52:43
Local clock offset: 0.329 ms
Remote clock offset: -2.737 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 17.707 ms
  Loss rate: 0.16%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 17.695 ms
  Loss rate: 0.13%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 17.720 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 17.708 ms
  Loss rate: 0.21%
Run 5: Report of SCReAM — Data Link
Run 6: Statistics of SCReAM

Start at: 2018-08-10 03:12:32
End at: 2018-08-10 03:13:02
Local clock offset: 0.484 ms
Remote clock offset: -6.489 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 18.051 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 18.051 ms
  Loss rate: 0.13%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 18.045 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 18.054 ms
  Loss rate: 0.35%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-08-10 03:32:50
End at: 2018-08-10 03:33:20
Local clock offset: 1.146 ms
Remote clock offset: -7.518 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 19.152 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.145 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 19.152 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.161 ms
Loss rate: 0.35%
Run 7: Report of SCReAM — Data Link

![Graph showing throughput and per-packet round-trip times for different flows over time. The graphs display the throughput (Mbps) and per-packet round-trip time (ms) for each flow over the duration of 30 seconds. The legend indicates the mean throughput for each flow.]
Run 8: Statistics of SCReAM

Start at: 2018-08-10 03:52:39
End at: 2018-08-10 03:53:09
Local clock offset: 0.919 ms
Remote clock offset: -54.8 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 14.956 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 15.110 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 14.411 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 13.486 ms
Loss rate: 0.35%
Run 8: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.21 Mbit/s)
- Flow 1 egress (mean 0.21 Mbit/s)
- Flow 2 ingress (mean 0.21 Mbit/s)
- Flow 2 egress (mean 0.21 Mbit/s)
- Flow 3 ingress (mean 0.21 Mbit/s)
- Flow 3 egress (mean 0.21 Mbit/s)

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

- Flow 1 (95th percentile 15.11 ms)
- Flow 2 (95th percentile 14.41 ms)
- Flow 3 (95th percentile 13.49 ms)
Run 9: Statistics of SCReAM

Start at: 2018-08-10 04:12:55
End at: 2018-08-10 04:13:25
Local clock offset: 2.698 ms
Remote clock offset: -88.906 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 18.781 ms
  Loss rate: 0.09%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 18.778 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 18.775 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 0.18 Mbit/s
  95th percentile per-packet one-way delay: 18.793 ms
  Loss rate: 0.19%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-08-10 04:33:09
End at: 2018-08-10 04:33:39
Local clock offset: 1.962 ms
Remote clock offset: -106.634 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 17.251 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 17.290 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 17.088 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 16.906 ms
Loss rate: 0.35%
Run 10: Report of SCReAM — Data Link

![Throughput Graph](image1)

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

Start at: 2018-08-10 01:38:03  
End at: 2018-08-10 01:38:33  
Local clock offset: -1.964 ms  
Remote clock offset: -7.484 ms

# Below is generated by plot.py at 2018-08-10 05:02:39  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 38.84 Mbit/s  
  95th percentile per-packet one-way delay: 24.262 ms  
  Loss rate: 0.15%  
-- Flow 1:  
  Average throughput: 19.91 Mbit/s  
  95th percentile per-packet one-way delay: 24.014 ms  
  Loss rate: 0.14%  
-- Flow 2:  
  Average throughput: 18.84 Mbit/s  
  95th percentile per-packet one-way delay: 24.041 ms  
  Loss rate: 0.02%  
-- Flow 3:  
  Average throughput: 19.43 Mbit/s  
  95th percentile per-packet one-way delay: 25.281 ms  
  Loss rate: 0.45%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-08-10 01:58:28
End at: 2018-08-10 01:58:58
Local clock offset: 0.888 ms
Remote clock offset: -7.43 ms

# Below is generated by plot.py at 2018-08-10 05:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.14 Mbit/s
95th percentile per-packet one-way delay: 27.838 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 18.67 Mbit/s
95th percentile per-packet one-way delay: 26.932 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 18.37 Mbit/s
95th percentile per-packet one-way delay: 27.543 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 18.96 Mbit/s
95th percentile per-packet one-way delay: 30.286 ms
Loss rate: 0.45%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-08-10 02:18:32
End at: 2018-08-10 02:19:02
Local clock offset: 0.498 ms
Remote clock offset: -6.869 ms

# Below is generated by plot.py at 2018-08-10 05:02:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.16 Mbit/s
95th percentile per-packet one-way delay: 27.117 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 19.44 Mbit/s
95th percentile per-packet one-way delay: 26.333 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 19.15 Mbit/s
95th percentile per-packet one-way delay: 27.692 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 18.60 Mbit/s
95th percentile per-packet one-way delay: 28.099 ms
Loss rate: 0.58%
Run 3: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 19.45 Mbit/s)
Flow 1 egress (mean 19.44 Mbit/s)
Flow 2 ingress (mean 19.15 Mbit/s)
Flow 2 egress (mean 19.15 Mbit/s)
Flow 3 ingress (mean 18.62 Mbit/s)
Flow 3 egress (mean 18.60 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 26.33 ms)
Flow 2 (95th percentile 27.69 ms)
Flow 3 (95th percentile 28.10 ms)
Run 4: Statistics of Sprout

Start at: 2018-08-10 02:39:01
End at: 2018-08-10 02:39:31
Local clock offset: 0.303 ms
Remote clock offset: -2.59 ms

# Below is generated by plot.py at 2018-08-10 05:02:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.62 Mbit/s
95th percentile per-packet one-way delay: 25.498 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 19.23 Mbit/s
95th percentile per-packet one-way delay: 24.697 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 18.39 Mbit/s
95th percentile per-packet one-way delay: 25.361 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 18.73 Mbit/s
95th percentile per-packet one-way delay: 28.176 ms
Loss rate: 0.45%
Run 5: Statistics of Sprout

Start at: 2018-08-10 02:59:20
End at: 2018-08-10 02:59:50
Local clock offset: 2.62 ms
Remote clock offset: -3.074 ms

# Below is generated by plot.py at 2018-08-10 05:02:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 37.80 Mbit/s
  95th percentile per-packet one-way delay: 28.530 ms
  Loss rate: 0.21%
-- Flow 1:
  Average throughput: 19.32 Mbit/s
  95th percentile per-packet one-way delay: 28.263 ms
  Loss rate: 0.16%
-- Flow 2:
  Average throughput: 18.43 Mbit/s
  95th percentile per-packet one-way delay: 28.574 ms
  Loss rate: 0.22%
-- Flow 3:
  Average throughput: 18.89 Mbit/s
  95th percentile per-packet one-way delay: 29.240 ms
  Loss rate: 0.35%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-08-10 03:19:33
End at: 2018-08-10 03:20:03
Local clock offset: -1.437 ms
Remote clock offset: -7.358 ms

# Below is generated by plot.py at 2018-08-10 05:03:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.14 Mbit/s
95th percentile per-packet one-way delay: 26.943 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 19.49 Mbit/s
95th percentile per-packet one-way delay: 26.070 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 19.02 Mbit/s
95th percentile per-packet one-way delay: 27.193 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 18.24 Mbit/s
95th percentile per-packet one-way delay: 28.755 ms
Loss rate: 0.56%
Run 6: Report of Sprout — Data Link

![Graph of Throughput over Time](image1.png)

- **Flow 1 Ingress** (mean 19.50 Mbit/s)
- **Flow 1 Egress** (mean 19.49 Mbit/s)
- **Flow 2 Ingress** (mean 19.04 Mbit/s)
- **Flow 2 Egress** (mean 19.02 Mbit/s)
- **Flow 3 Ingress** (mean 18.26 Mbit/s)
- **Flow 3 Egress** (mean 18.24 Mbit/s)

![Graph of Per-packet One-Way Delay over Time](image2.png)

- **Flow 1** (95th percentile 26.07 ms)
- **Flow 2** (95th percentile 27.19 ms)
- **Flow 3** (95th percentile 28.75 ms)
Run 7: Statistics of Sprout

Start at: 2018-08-10 03:39:54
End at: 2018-08-10 03:40:24
Local clock offset: -2.683 ms
Remote clock offset: -7.812 ms

# Below is generated by plot.py at 2018-08-10 05:03:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.83 Mbit/s
95th percentile per-packet one-way delay: 24.405 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 19.14 Mbit/s
95th percentile per-packet one-way delay: 23.972 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 18.85 Mbit/s
95th percentile per-packet one-way delay: 24.195 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 18.64 Mbit/s
95th percentile per-packet one-way delay: 26.215 ms
Loss rate: 0.49%
Run 7: Report of Sprout — Data Link

![Graph showing data link performance with throughput and latency metrics for different flows.]

- **Flow 1 Ingress**: (mean 19.15 Mbit/s)
- **Flow 1 Egress**: (mean 19.14 Mbit/s)
- **Flow 2 Ingress**: (mean 18.86 Mbit/s)
- **Flow 2 Egress**: (mean 18.85 Mbit/s)
- **Flow 3 Ingress**: (mean 18.67 Mbit/s)
- **Flow 3 Egress**: (mean 16.64 Mbit/s)

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

- **Flow 1 (95th percentile 23.97 ms)**
- **Flow 2 (95th percentile 24.20 ms)**
- **Flow 3 (95th percentile 26.21 ms)**
Run 8: Statistics of Sprout

Start at: 2018-08-10 03:59:40
End at: 2018-08-10 04:00:10
Local clock offset: -0.59 ms
Remote clock offset: -85.089 ms

# Below is generated by plot.py at 2018-08-10 05:03:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.59 Mbit/s
95th percentile per-packet one-way delay: 23.333 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 19.66 Mbit/s
95th percentile per-packet one-way delay: 23.036 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 19.30 Mbit/s
95th percentile per-packet one-way delay: 23.174 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 18.52 Mbit/s
95th percentile per-packet one-way delay: 24.898 ms
Loss rate: 0.45%
Run 8: Report of Sprout — Data Link

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

- Flow 1 Ingress (mean 19.67 Mbit/s)
- Flow 1 Egress (mean 19.66 Mbit/s)
- Flow 2 Ingress (mean 19.32 Mbit/s)
- Flow 2 Egress (mean 19.30 Mbit/s)
- Flow 3 Ingress (mean 18.55 Mbit/s)
- Flow 3 Egress (mean 18.52 Mbit/s)

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

- Flow 1 (95th percentile 23.04 ms)
- Flow 2 (95th percentile 23.17 ms)
- Flow 3 (95th percentile 24.90 ms)
Run 9: Statistics of Sprout

Start at: 2018-08-10 04:20:03
End at: 2018-08-10 04:20:33
Local clock offset: 0.463 ms
Remote clock offset: -91.697 ms

# Below is generated by plot.py at 2018-08-10 05:03:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 38.24 Mbit/s
  95th percentile per-packet one-way delay: 25.514 ms
  Loss rate: 0.20%
-- Flow 1:
  Average throughput: 19.04 Mbit/s
  95th percentile per-packet one-way delay: 24.445 ms
  Loss rate: 0.14%
-- Flow 2:
  Average throughput: 19.46 Mbit/s
  95th percentile per-packet one-way delay: 26.384 ms
  Loss rate: 0.22%
-- Flow 3:
  Average throughput: 18.99 Mbit/s
  95th percentile per-packet one-way delay: 26.333 ms
  Loss rate: 0.33%
Run 10: Statistics of Sprout

Start at: 2018-08-10 04:40:13
End at: 2018-08-10 04:40:43
Local clock offset: 1.978 ms
Remote clock offset: -108.595 ms

# Below is generated by plot.py at 2018-08-10 05:03:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.09 Mbit/s
95th percentile per-packet one-way delay: 29.115 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 19.08 Mbit/s
95th percentile per-packet one-way delay: 28.249 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 19.08 Mbit/s
95th percentile per-packet one-way delay: 29.264 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 19.18 Mbit/s
95th percentile per-packet one-way delay: 30.921 ms
Loss rate: 0.17%
Run 10: Report of Sprout — Data Link

![Graph showing throughput over time for different flows and their ingress and egress mean Mbps.

![Graph showing per-packet one-way delay over time for different flows and their 95th percentile ms.]
Run 1: Statistics of TaoVA-100x

Start at: 2018-08-10 01:39:12
End at: 2018-08-10 01:39:43
Local clock offset: -1.54 ms
Remote clock offset: -8.718 ms

# Below is generated by plot.py at 2018-08-10 05:04:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 52.088 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 62.41 Mbit/s
95th percentile per-packet one-way delay: 36.085 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 32.90 Mbit/s
95th percentile per-packet one-way delay: 53.834 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 30.54 Mbit/s
95th percentile per-packet one-way delay: 54.519 ms
Loss rate: 1.43%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2018-08-10 01:59:36
End at: 2018-08-10 02:00:06
Local clock offset: 2.656 ms
Remote clock offset: -7.451 ms

# Below is generated by plot.py at 2018-08-10 05:04:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.40 Mbit/s
  95th percentile per-packet one-way delay: 57.430 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 53.58 Mbit/s
  95th percentile per-packet one-way delay: 56.854 ms
  Loss rate: 0.20%
-- Flow 2:
  Average throughput: 46.87 Mbit/s
  95th percentile per-packet one-way delay: 40.053 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 28.99 Mbit/s
  95th percentile per-packet one-way delay: 58.573 ms
  Loss rate: 2.13%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-08-10 02:19:42
End at: 2018-08-10 02:20:12
Local clock offset: 0.308 ms
Remote clock offset: -6.437 ms

# Below is generated by plot.py at 2018-08-10 05:04:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.89 Mbit/s
95th percentile per-packet one-way delay: 54.992 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 54.23 Mbit/s
95th percentile per-packet one-way delay: 54.654 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 46.96 Mbit/s
95th percentile per-packet one-way delay: 36.991 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 22.22 Mbit/s
95th percentile per-packet one-way delay: 55.874 ms
Loss rate: 0.89%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-08-10 02:40:10
End at: 2018-08-10 02:40:40
Local clock offset: 2.88 ms
Remote clock offset: -3.272 ms

# Below is generated by plot.py at 2018-08-10 05:04:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.01 Mbit/s
95th percentile per-packet one-way delay: 48.528 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 56.58 Mbit/s
95th percentile per-packet one-way delay: 48.397 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 39.17 Mbit/s
95th percentile per-packet one-way delay: 48.611 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 31.13 Mbit/s
95th percentile per-packet one-way delay: 48.674 ms
Loss rate: 5.13%
Run 4: Report of TaoVA-100x — Data Link

![Graph of throughput over time showing various flow rates and delays.]

![Graph of per-packet one-way delay over time showing different flow rates.]

Legend:
- Flow 1 ingress (mean 56.72 Mbit/s)
- Flow 1 egress (mean 56.58 Mbit/s)
- Flow 2 ingress (mean 39.39 Mbit/s)
- Flow 2 egress (mean 39.17 Mbit/s)
- Flow 3 ingress (mean 32.70 Mbit/s)
- Flow 3 egress (mean 31.13 Mbit/s)
Run 5: Statistics of TaoVA-100x

Start at: 2018-08-10 03:00:30
End at: 2018-08-10 03:01:00
Local clock offset: 2.291 ms
Remote clock offset: -3.238 ms

# Below is generated by plot.py at 2018-08-10 05:04:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.04 Mbit/s
95th percentile per-packet one-way delay: 47.432 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 57.17 Mbit/s
95th percentile per-packet one-way delay: 47.227 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 39.49 Mbit/s
95th percentile per-packet one-way delay: 47.484 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 47.700 ms
Loss rate: 1.30%
Run 6: Statistics of TaoVA-100x

Start at: 2018-08-10 03:20:41
End at: 2018-08-10 03:21:11
Local clock offset: -0.426 ms
Remote clock offset: -6.824 ms

# Below is generated by plot.py at 2018-08-10 05:04:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.04 Mbit/s
  95th percentile per-packet one-way delay: 51.543 ms
  Loss rate: 0.21%
-- Flow 1:
  Average throughput: 64.88 Mbit/s
  95th percentile per-packet one-way delay: 37.237 ms
  Loss rate: 0.12%
-- Flow 2:
  Average throughput: 32.33 Mbit/s
  95th percentile per-packet one-way delay: 55.302 ms
  Loss rate: 0.29%
-- Flow 3:
  Average throughput: 16.97 Mbit/s
  95th percentile per-packet one-way delay: 56.192 ms
  Loss rate: 0.93%
Run 6: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 64.90 Mbit/s)
- Flow 1 egress (mean 64.88 Mbit/s)
- Flow 2 ingress (mean 32.37 Mbit/s)
- Flow 2 egress (mean 32.33 Mbit/s)
- Flow 3 ingress (mean 17.00 Mbit/s)
- Flow 3 egress (mean 16.97 Mbit/s)

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

- Flow 1 (95th percentile 37.24 ms)
- Flow 2 (95th percentile 55.30 ms)
- Flow 3 (95th percentile 56.19 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-08-10 03:41:01
End at: 2018-08-10 03:41:31
Local clock offset: 1.522 ms
Remote clock offset: -7.187 ms

# Below is generated by plot.py at 2018-08-10 05:05:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.55 Mbit/s
95th percentile per-packet one-way delay: 48.199 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 57.98 Mbit/s
95th percentile per-packet one-way delay: 47.965 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 39.02 Mbit/s
95th percentile per-packet one-way delay: 48.423 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 31.98 Mbit/s
95th percentile per-packet one-way delay: 48.047 ms
Loss rate: 2.86%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-08-10 04:00:54
End at: 2018-08-10 04:01:24
Local clock offset: 0.046 ms
Remote clock offset: -91.42 ms

# Below is generated by plot.py at 2018-08-10 05:05:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.39 Mbit/s
  95th percentile per-packet one-way delay: 46.852 ms
  Loss rate: 0.99%
-- Flow 1:
  Average throughput: 57.51 Mbit/s
  95th percentile per-packet one-way delay: 46.788 ms
  Loss rate: 0.31%
-- Flow 2:
  Average throughput: 39.69 Mbit/s
  95th percentile per-packet one-way delay: 46.775 ms
  Loss rate: 1.32%
-- Flow 3:
  Average throughput: 31.50 Mbit/s
  95th percentile per-packet one-way delay: 47.078 ms
  Loss rate: 3.78%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-08-10 04:21:10
End at: 2018-08-10 04:21:40
Local clock offset: 2.067 ms
Remote clock offset: -93.176 ms

# Below is generated by plot.py at 2018-08-10 05:06:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.65 Mbit/s
95th percentile per-packet one-way delay: 55.239 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 55.32 Mbit/s
95th percentile per-packet one-way delay: 55.127 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 46.84 Mbit/s
95th percentile per-packet one-way delay: 37.392 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 56.044 ms
Loss rate: 1.69%
Run 9: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 55.43 Mbit/s)
- Flow 1 egress (mean 55.32 Mbit/s)
- Flow 2 ingress (mean 46.89 Mbit/s)
- Flow 2 egress (mean 46.84 Mbit/s)
- Flow 3 ingress (mean 24.84 Mbit/s)
- Flow 3 egress (mean 24.50 Mbit/s)

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

- Flow 1 (95th percentile 55.13 ms)
- Flow 2 (95th percentile 37.39 ms)
- Flow 3 (95th percentile 56.04 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-08-10 04:41:27
End at: 2018-08-10 04:41:57
Local clock offset: -0.825 ms
Remote clock offset: -102.521 ms

# Below is generated by plot.py at 2018-08-10 05:06:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.62 Mbit/s
95th percentile per.packet one-way delay: 54.331 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 55.22 Mbit/s
95th percentile per.packet one-way delay: 54.113 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 35.86 Mbit/s
95th percentile per.packet one-way delay: 54.716 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 46.75 Mbit/s
95th percentile per.packet one-way delay: 36.599 ms
Loss rate: 0.48%
Run 10: Report of TaoVA-100x — Data Link

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

- **Throughput (Mb/s)**:
  - Flow 1 ingress: (mean 55.30 Mb/s)
  - Flow 1 egress: (mean 55.22 Mb/s)
  - Flow 2 ingress: (mean 36.06 Mb/s)
  - Flow 2 egress: (mean 35.86 Mb/s)
  - Flow 3 ingress: (mean 46.85 Mb/s)
  - Flow 3 egress: (mean 46.75 Mb/s)

- **Per-packet one-way delay (ms)**:
  - Flow 1 (95th percentile 54.11 ms)
  - Flow 2 (95th percentile 54.72 ms)
  - Flow 3 (95th percentile 36.60 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-08-10 01:36:52
End at: 2018-08-10 01:37:22
Local clock offset: -3.002 ms
Remote clock offset: -8.274 ms

# Below is generated by plot.py at 2018-08-10 05:06:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.60 Mbit/s
95th percentile per-packet one-way delay: 18.445 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 65.26 Mbit/s
95th percentile per-packet one-way delay: 18.732 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 28.42 Mbit/s
95th percentile per-packet one-way delay: 17.693 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 34.42 Mbit/s
95th percentile per-packet one-way delay: 18.521 ms
Loss rate: 0.29%
Run 1: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 65.24 Mbit/s)
- Flow 1 egress (mean 65.26 Mbit/s)
- Flow 2 ingress (mean 28.41 Mbit/s)
- Flow 2 egress (mean 28.42 Mbit/s)
- Flow 3 ingress (mean 34.42 Mbit/s)
- Flow 3 egress (mean 34.42 Mbit/s)

- Flow 1 (95th percentile 18.73 ms)
- Flow 2 (95th percentile 17.69 ms)
- Flow 3 (95th percentile 18.52 ms)
Run 2: Statistics of TCP Vegas

Start at: 2018-08-10 01:57:14
End at: 2018-08-10 01:57:44
Local clock offset: 0.723 ms
Remote clock offset: -7.603 ms

# Below is generated by plot.py at 2018-08-10 05:06:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.31 Mbit/s
  95th percentile per-packet one-way delay: 21.138 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 59.07 Mbit/s
  95th percentile per-packet one-way delay: 20.975 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 37.88 Mbit/s
  95th percentile per-packet one-way delay: 21.073 ms
  Loss rate: 0.12%
-- Flow 3:
  Average throughput: 33.23 Mbit/s
  95th percentile per-packet one-way delay: 21.978 ms
  Loss rate: 0.32%
Run 2: Report of TCP Vegas — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.]
Run 3: Statistics of TCP Vegas

Start at: 2018-08-10 02:17:22
End at: 2018-08-10 02:17:52
Local clock offset: 2.797 ms
Remote clock offset: -5.807 ms

# Below is generated by plot.py at 2018-08-10 05:06:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.30 Mbit/s
95th percentile per-packet one-way delay: 21.726 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 64.83 Mbit/s
95th percentile per-packet one-way delay: 21.359 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 33.61 Mbit/s
95th percentile per-packet one-way delay: 21.751 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 22.939 ms
Loss rate: 0.37%
Run 3: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 64.82 Mbit/s)
- Flow 1 egress (mean 64.83 Mbit/s)
- Flow 2 ingress (mean 33.60 Mbit/s)
- Flow 2 egress (mean 33.61 Mbit/s)
- Flow 3 ingress (mean 24.41 Mbit/s)
- Flow 3 egress (mean 24.39 Mbit/s)
Run 4: Statistics of TCP Vegas

Start at: 2018-08-10 02:37:48
End at: 2018-08-10 02:38:18
Local clock offset: 3.173 ms
Remote clock offset: -4.012 ms

# Below is generated by plot.py at 2018-08-10 05:06:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.23 Mbit/s
95th percentile per-packet one-way delay: 23.752 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 60.19 Mbit/s
95th percentile per-packet one-way delay: 24.074 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 34.33 Mbit/s
95th percentile per-packet one-way delay: 23.629 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 39.74 Mbit/s
95th percentile per-packet one-way delay: 22.807 ms
Loss rate: 0.33%
Run 4: Report of TCP Vegas — Data Link

![Graph showing throughput and per-packet one-way delay for flows 1, 2, and 3.]
Run 5: Statistics of TCP Vegas

Start at: 2018-08-10 02:58:09
End at: 2018-08-10 02:58:40
Local clock offset: 1.603 ms
Remote clock offset: -3.18 ms

# Below is generated by plot.py at 2018-08-10 05:06:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.22 Mbit/s
95th percentile per-packet one-way delay: 21.778 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.73 Mbit/s
95th percentile per-packet one-way delay: 22.514 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 37.68 Mbit/s
95th percentile per-packet one-way delay: 20.935 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 34.39 Mbit/s
95th percentile per-packet one-way delay: 21.266 ms
Loss rate: 0.30%
Run 5: Report of TCP Vegas — Data Link

![Graph 1: Throughput Over Time]

- Flow 1 ingress (mean 59.71 Mbit/s)
- Flow 1 egress (mean 59.73 Mbit/s)
- Flow 2 ingress (mean 37.67 Mbit/s)
- Flow 2 egress (mean 37.66 Mbit/s)
- Flow 3 ingress (mean 34.40 Mbit/s)
- Flow 3 egress (mean 34.39 Mbit/s)

![Graph 2: Per Packet One-Way Delay Over Time]

- Flow 1 (95th percentile 22.51 ms)
- Flow 2 (95th percentile 20.93 ms)
- Flow 3 (95th percentile 21.27 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-08-10 03:18:21
End at: 2018-08-10 03:18:51
Local clock offset: 0.102 ms
Remote clock offset: -7.196 ms

# Below is generated by plot.py at 2018-08-10 05:06:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.72 Mbit/s
95th percentile per-packet one-way delay: 21.000 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 58.21 Mbit/s
95th percentile per-packet one-way delay: 20.830 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 36.99 Mbit/s
95th percentile per-packet one-way delay: 20.791 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 35.78 Mbit/s
95th percentile per-packet one-way delay: 21.418 ms
Loss rate: 0.28%
Run 6: Report of TCP Vegas — Data Link

![Graph](image)

- Flow 1 ingress (mean 58.19 Mbit/s)
- Flow 1 egress (mean 58.21 Mbit/s)
- Flow 2 ingress (mean 36.99 Mbit/s)
- Flow 2 egress (mean 36.99 Mbit/s)
- Flow 3 ingress (mean 35.78 Mbit/s)
- Flow 3 egress (mean 35.78 Mbit/s)

![Graph](image)

- Flow 1 (95th percentile 20.83 ms)
- Flow 2 (95th percentile 20.79 ms)
- Flow 3 (95th percentile 21.42 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-08-10 03:38:44
End at: 2018-08-10 03:39:14
Local clock offset: -3.248 ms
Remote clock offset: -6.979 ms

# Below is generated by plot.py at 2018-08-10 05:07:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 17.476 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 17.547 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 48.05 Mbit/s
95th percentile per-packet one-way delay: 17.368 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 25.86 Mbit/s
95th percentile per-packet one-way delay: 17.516 ms
Loss rate: 0.30%
Run 7: Report of TCP Vegas — Data Link

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**Throughput vs Time**

- **Flow 1 ingress (mean 55.85 Mbit/s)**
- **Flow 1 egress (mean 55.88 Mbit/s)**
- **Flow 2 ingress (mean 48.05 Mbit/s)**
- **Flow 2 egress (mean 48.05 Mbit/s)**
- **Flow 3 ingress (mean 25.87 Mbit/s)**
- **Flow 3 egress (mean 25.86 Mbit/s)**

**Per packet one way delay vs Time**

- **Flow 1 (95th percentile 17.55 ms)**
- **Flow 2 (95th percentile 17.37 ms)**
- **Flow 3 (95th percentile 17.52 ms)**

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Run 8: Statistics of TCP Vegas

Start at: 2018-08-10 03:58:29
End at: 2018-08-10 03:58:59
Local clock offset: 1.793 ms
Remote clock offset: -80.984 ms

# Below is generated by plot.py at 2018-08-10 05:07:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.94 Mbit/s
95th percentile per-packet one-way delay: 19.905 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 66.20 Mbit/s
95th percentile per-packet one-way delay: 20.173 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 32.71 Mbit/s
95th percentile per-packet one-way delay: 19.618 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 24.62 Mbit/s
95th percentile per-packet one-way delay: 18.975 ms
Loss rate: 0.29%
Run 8: Report of TCP Vegas — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 66.19 Mbit/s)
- Flow 1 egress (mean 66.20 Mbit/s)
- Flow 2 ingress (mean 32.70 Mbit/s)
- Flow 2 egress (mean 32.71 Mbit/s)
- Flow 3 ingress (mean 24.62 Mbit/s)
- Flow 3 egress (mean 24.62 Mbit/s)

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

- Flow 1 (95th percentile 20.17 ms)
- Flow 2 (95th percentile 19.62 ms)
- Flow 3 (95th percentile 18.98 ms)

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Run 9: Statistics of TCP Vegas

Start at: 2018-08-10 04:18:53
End at: 2018-08-10 04:19:23
Local clock offset: 0.764 ms
Remote clock offset: -91.516 ms

# Below is generated by plot.py at 2018-08-10 05:07:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.56 Mbit/s
95th percentile per-packet one-way delay: 19.208 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 56.06 Mbit/s
95th percentile per-packet one-way delay: 19.056 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 37.96 Mbit/s
95th percentile per-packet one-way delay: 19.018 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 33.83 Mbit/s
95th percentile per-packet one-way delay: 19.745 ms
Loss rate: 0.31%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-08-10 04:38:57
End at: 2018-08-10 04:39:27
Local clock offset: 1.373 ms
Remote clock offset: -114.232 ms

# Below is generated by plot.py at 2018-08-10 05:07:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.55 Mbit/s
  95th percentile per-packet one-way delay: 22.148 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 59.11 Mbit/s
  95th percentile per-packet one-way delay: 21.757 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 37.64 Mbit/s
  95th percentile per-packet one-way delay: 21.925 ms
  Loss rate: 0.13%
-- Flow 3:
  Average throughput: 34.33 Mbit/s
  95th percentile per-packet one-way delay: 23.566 ms
  Loss rate: 0.26%
Run 10: Report of TCP Vegas — Data Link
Run 1: Statistics of Verus

Start at: 2018-08-10 01:35:38
End at: 2018-08-10 01:36:08
Local clock offset: -0.785 ms
Remote clock offset: -7.183 ms

# Below is generated by plot.py at 2018-08-10 05:07:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 83.23 Mbit/s
  95th percentile per-packet one-way delay: 41.033 ms
  Loss rate: 0.20%
-- Flow 1:
  Average throughput: 49.47 Mbit/s
  95th percentile per-packet one-way delay: 39.052 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 36.68 Mbit/s
  95th percentile per-packet one-way delay: 41.124 ms
  Loss rate: 0.32%
-- Flow 3:
  Average throughput: 28.17 Mbit/s
  95th percentile per-packet one-way delay: 48.264 ms
  Loss rate: 0.51%
Run 1: Report of Verus — Data Link

![Graph showing data link performance metrics for three flows with specific throughput and delay statistics.]
Run 2: Statistics of Verus

Start at: 2018-08-10 01:56:03
End at: 2018-08-10 01:56:33
Local clock offset: 2.386 ms
Remote clock offset: -6.898 ms

# Below is generated by plot.py at 2018-08-10 05:07:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 82.06 Mbit/s
  95th percentile per-packet one-way delay: 43.155 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 47.22 Mbit/s
  95th percentile per-packet one-way delay: 42.965 ms
  Loss rate: 0.10%
-- Flow 2:
  Average throughput: 37.31 Mbit/s
  95th percentile per-packet one-way delay: 43.953 ms
  Loss rate: 0.16%
-- Flow 3:
  Average throughput: 30.15 Mbit/s
  95th percentile per-packet one-way delay: 47.992 ms
  Loss rate: 0.50%
Run 2: Report of Verus — Data Link

[Graphs showing network performance metrics over time]
Run 3: Statistics of Verus

Start at: 2018-08-10 02:16:06
End at: 2018-08-10 02:16:36
Local clock offset: 2.425 ms
Remote clock offset: -6.253 ms

# Below is generated by plot.py at 2018-08-10 05:07:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 80.85 Mbit/s
  95th percentile per-packet one-way delay: 50.944 ms
  Loss rate: 0.31%
-- Flow 1:
  Average throughput: 44.73 Mbit/s
  95th percentile per-packet one-way delay: 52.202 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 38.71 Mbit/s
  95th percentile per-packet one-way delay: 48.362 ms
  Loss rate: 0.26%
-- Flow 3:
  Average throughput: 31.20 Mbit/s
  95th percentile per-packet one-way delay: 49.452 ms
  Loss rate: 0.66%
Run 3: Report of Verus — Data Link

![Throughput Graph](image1)

*Legend*
- Flow 1 ingress (mean 44.77 Mbit/s)
- Flow 1 egress (mean 44.73 Mbit/s)
- Flow 2 ingress (mean 38.76 Mbit/s)
- Flow 2 egress (mean 38.71 Mbit/s)
- Flow 3 ingress (mean 31.32 Mbit/s)
- Flow 3 egress (mean 31.20 Mbit/s)

![Per-packet Time Delay Graph](image2)

*Legend*
- Flow 1 (95th percentile 52.20 ms)
- Flow 2 (95th percentile 48.36 ms)
- Flow 3 (95th percentile 49.45 ms)
Run 4: Statistics of Verus

Start at: 2018-08-10 02:36:33
End at: 2018-08-10 02:37:03
Local clock offset: 1.245 ms
Remote clock offset: -3.494 ms

# Below is generated by plot.py at 2018-08-10 05:07:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.47 Mbit/s
  95th percentile per-packet one-way delay: 41.257 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 50.35 Mbit/s
  95th percentile per-packet one-way delay: 39.425 ms
  Loss rate: 0.14%
-- Flow 2:
  Average throughput: 31.44 Mbit/s
  95th percentile per-packet one-way delay: 45.418 ms
  Loss rate: 0.13%
-- Flow 3:
  Average throughput: 24.76 Mbit/s
  95th percentile per-packet one-way delay: 50.528 ms
  Loss rate: 0.23%
Run 4: Report of Verus — Data Link

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

- Flow 1 ingress (mean 50.37 Mbps)
- Flow 1 egress (mean 50.35 Mbps)
- Flow 2 ingress (mean 31.44 Mbps)
- Flow 2 egress (mean 31.44 Mbps)
- Flow 3 ingress (mean 24.76 Mbps)
- Flow 3 egress (mean 24.76 Mbps)

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

- Flow 1 (95th percentile 39.42 ms)
- Flow 2 (95th percentile 45.42 ms)
- Flow 3 (95th percentile 50.53 ms)
Run 5: Statistics of Verus

Start at: 2018-08-10 02:56:56
End at: 2018-08-10 02:57:26
Local clock offset: 2.316 ms
Remote clock offset: -2.98 ms

# Below is generated by plot.py at 2018-08-10 05:08:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.43 Mbit/s
  95th percentile per-packet one-way delay: 43.313 ms
  Loss rate: 0.23%
-- Flow 1:
  Average throughput: 46.92 Mbit/s
  95th percentile per-packet one-way delay: 43.961 ms
  Loss rate: 0.09%
-- Flow 2:
  Average throughput: 47.09 Mbit/s
  95th percentile per-packet one-way delay: 43.039 ms
  Loss rate: 0.31%
-- Flow 3:
  Average throughput: 24.58 Mbit/s
  95th percentile per-packet one-way delay: 54.709 ms
  Loss rate: 0.75%
Run 5: Report of Verus — Data Link

![Throughput Graph](image)

- **Flow 1 ingress** (mean 46.93 Mbit/s)
- **Flow 1 egress** (mean 46.92 Mbit/s)
- **Flow 2 ingress** (mean 47.17 Mbit/s)
- **Flow 2 egress** (mean 47.09 Mbit/s)
- **Flow 3 ingress** (mean 24.69 Mbit/s)
- **Flow 3 egress** (mean 24.58 Mbit/s)

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

- **Flow 1** (95th percentile 43.96 ms)
- **Flow 2** (95th percentile 43.04 ms)
- **Flow 3** (95th percentile 54.71 ms)
Run 6: Statistics of Verus

Start at: 2018-08-10 03:17:07
End at: 2018-08-10 03:17:37
Local clock offset: 0.24 ms
Remote clock offset: -6.823 ms

# Below is generated by plot.py at 2018-08-10 05:08:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.39 Mbit/s
  95th percentile per-packet one-way delay: 45.708 ms
  Loss rate: 0.22%
-- Flow 1:
  Average throughput: 52.19 Mbit/s
  95th percentile per-packet one-way delay: 41.617 ms
  Loss rate: 0.15%
-- Flow 2:
  Average throughput: 39.99 Mbit/s
  95th percentile per-packet one-way delay: 46.635 ms
  Loss rate: 0.16%
-- Flow 3:
  Average throughput: 31.86 Mbit/s
  95th percentile per-packet one-way delay: 50.995 ms
  Loss rate: 0.68%
Run 6: Report of Verus — Data Link

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

- **Flow 1 ingress (mean 52.22 Mbit/s)**
- **Flow 1 egress (mean 52.19 Mbit/s)**
- **Flow 2 ingress (mean 39.99 Mbit/s)**
- **Flow 2 egress (mean 39.99 Mbit/s)**
- **Flow 3 ingress (mean 31.99 Mbit/s)**
- **Flow 3 egress (mean 31.86 Mbit/s)**

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

- **Flow 1 (95th percentile 41.62 ms)**
- **Flow 2 (95th percentile 46.63 ms)**
- **Flow 3 (95th percentile 50.99 ms)**
Run 7: Statistics of Verus

Start at: 2018-08-10 03:37:32
End at: 2018-08-10 03:38:02
Local clock offset: -0.379 ms
Remote clock offset: -6.839 ms

# Below is generated by plot.py at 2018-08-10 05:08:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.81 Mbit/s
  95th percentile per-packet one-way delay: 40.274 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 55.09 Mbit/s
  95th percentile per-packet one-way delay: 39.696 ms
  Loss rate: 0.10%
-- Flow 2:
  Average throughput: 34.20 Mbit/s
  95th percentile per-packet one-way delay: 44.213 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 21.00 Mbit/s
  95th percentile per-packet one-way delay: 47.301 ms
  Loss rate: 0.69%
Run 7: Report of Verus — Data Link

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

- Flow 1 ingress (mean 55.09 Mbit/s)
- Flow 1 egress (mean 55.09 Mbit/s)
- Flow 2 ingress (mean 34.22 Mbit/s)
- Flow 2 egress (mean 34.20 Mbit/s)
- Flow 3 ingress (mean 21.14 Mbit/s)
- Flow 3 egress (mean 21.00 Mbit/s)
Run 8: Statistics of Verus

Start at: 2018-08-10 03:57:19
End at: 2018-08-10 03:57:49
Local clock offset: -1.59 ms
Remote clock offset: -78.526 ms

# Below is generated by plot.py at 2018-08-10 05:08:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.86 Mbit/s
95th percentile per-packet one-way delay: 37.830 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 44.89 Mbit/s
95th percentile per-packet one-way delay: 38.019 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 41.12 Mbit/s
95th percentile per-packet one-way delay: 35.916 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 23.99 Mbit/s
95th percentile per-packet one-way delay: 47.318 ms
Loss rate: 0.49%
Run 8: Report of Verus — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 44.88 Mbps)
- Flow 1 egress (mean 44.89 Mbps)
- Flow 2 ingress (mean 41.19 Mbps)
- Flow 2 egress (mean 41.12 Mbps)
- Flow 3 ingress (mean 24.04 Mbps)
- Flow 3 egress (mean 23.99 Mbps)

**Packet Delay (ms):**
- Flow 1 (95th percentile 38.02 ms)
- Flow 2 (95th percentile 35.92 ms)
- Flow 3 (95th percentile 47.32 ms)
Run 9: Statistics of Verus

Start at: 2018-08-10 04:17:38
End at: 2018-08-10 04:18:08
Local clock offset: 1.552 ms
Remote clock offset: -90.331 ms

# Below is generated by plot.py at 2018-08-10 05:08:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.56 Mbit/s
95th percentile per-packet one-way delay: 40.473 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 47.44 Mbit/s
95th percentile per-packet one-way delay: 40.415 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 38.51 Mbit/s
95th percentile per-packet one-way delay: 39.955 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 22.57 Mbit/s
95th percentile per-packet one-way delay: 49.429 ms
Loss rate: 0.29%
Run 10: Statistics of Verus

Start at: 2018-08-10 04:37:47
End at: 2018-08-10 04:38:17
Local clock offset: 3.813 ms
Remote clock offset: -112.028 ms

# Below is generated by plot.py at 2018-08-10 05:08:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.89 Mbit/s
95th percentile per-packet one-way delay: 41.159 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 45.69 Mbit/s
95th percentile per-packet one-way delay: 41.006 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 36.62 Mbit/s
95th percentile per-packet one-way delay: 45.007 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 43.71 Mbit/s
95th percentile per-packet one-way delay: 40.867 ms
Loss rate: 0.53%
Run 10: Report of Verus — Data Link

![Graph showing data throughput and packet delay over time for different flows.](image-url)
Run 1: Statistics of PCC-Vivace

Start at: 2018-08-10 01:31:59
End at: 2018-08-10 01:32:29
Local clock offset: 0.753 ms
Remote clock offset: -8.853 ms

# Below is generated by plot.py at 2018-08-10 05:08:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.63 Mbit/s
  95th percentile per-packet one-way delay: 24.037 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 59.87 Mbit/s
  95th percentile per-packet one-way delay: 23.265 ms
  Loss rate: 0.09%
-- Flow 2:
  Average throughput: 32.42 Mbit/s
  95th percentile per-packet one-way delay: 23.372 ms
  Loss rate: 0.16%
-- Flow 3:
  Average throughput: 18.78 Mbit/s
  95th percentile per-packet one-way delay: 36.319 ms
  Loss rate: 0.40%
Run 1: Report of PCC-Vivace — Data Link

![Graph showing network traffic and delay in MBps and ms over time for different flows.]

- Flow 1 ingress (mean 59.87 Mbit/s)
- Flow 1 egress (mean 59.87 Mbit/s)
- Flow 2 ingress (mean 32.42 Mbit/s)
- Flow 2 egress (mean 32.42 Mbit/s)
- Flow 3 ingress (mean 18.01 Mbit/s)
- Flow 3 egress (mean 18.78 Mbit/s)

![Second graph showing per-packet one-way delay in ms over time for different flows.]

- Flow 1 (95th percentile 23.27 ms)
- Flow 2 (95th percentile 23.37 ms)
- Flow 3 (95th percentile 36.32 ms)
Run 2: Statistics of PCC-Vivace

Start at: 2018-08-10 01:52:26
End at: 2018-08-10 01:52:56
Local clock offset: 1.411 ms
Remote clock offset: -7.937 ms

# Below is generated by plot.py at 2018-08-10 05:08:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.67 Mbit/s
95th percentile per-packet one-way delay: 33.035 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 58.72 Mbit/s
95th percentile per-packet one-way delay: 31.185 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 24.28 Mbit/s
95th percentile per-packet one-way delay: 45.502 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 20.65 Mbit/s
95th percentile per-packet one-way delay: 56.632 ms
Loss rate: 0.66%
Run 2: Report of PCC-Vivace — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 58.70 Mbps)
  - Flow 1 egress (mean 58.72 Mbps)
  - Flow 2 ingress (mean 24.30 Mbps)
  - Flow 2 egress (mean 24.28 Mbps)
  - Flow 3 ingress (mean 20.73 Mbps)
  - Flow 3 egress (mean 20.65 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 31.18 ms)
  - Flow 2 (95th percentile 45.50 ms)
  - Flow 3 (95th percentile 56.63 ms)
Run 3: Statistics of PCC-Vivace

Start at: 2018-08-10 02:12:34  
End at: 2018-08-10 02:13:04  
Local clock offset: 0.332 ms  
Remote clock offset: -6.835 ms  

# Below is generated by plot.py at 2018-08-10 05:09:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.61 Mbit/s  
95th percentile per-packet one-way delay: 41.941 ms  
Loss rate: 0.37%  
-- Flow 1:  
Average throughput: 57.43 Mbit/s  
95th percentile per-packet one-way delay: 42.459 ms  
Loss rate: 0.38%  
-- Flow 2:  
Average throughput: 33.82 Mbit/s  
95th percentile per-packet one-way delay: 24.821 ms  
Loss rate: 0.27%  
-- Flow 3:  
Average throughput: 17.03 Mbit/s  
95th percentile per-packet one-way delay: 50.890 ms  
Loss rate: 0.64%
Run 4: Statistics of PCC-Vivace

Start at: 2018-08-10 02:32:54
End at: 2018-08-10 02:33:24
Local clock offset: -0.85 ms
Remote clock offset: -4.402 ms

# Below is generated by plot.py at 2018-08-10 05:09:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.29 Mbit/s
95th percentile per-packet one-way delay: 31.983 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 52.52 Mbit/s
95th percentile per-packet one-way delay: 32.111 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 30.36 Mbit/s
95th percentile per-packet one-way delay: 38.495 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 16.95 Mbit/s
95th percentile per-packet one-way delay: 17.501 ms
Loss rate: 0.47%
Run 4: Report of PCC-Vivace — Data Link
Run 5: Statistics of PCC-Vivace

Start at: 2018-08-10 02:53:18
End at: 2018-08-10 02:53:48
Local clock offset: 2.245 ms
Remote clock offset: -2.652 ms

# Below is generated by plot.py at 2018-08-10 05:09:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 82.51 Mbit/s
  95th percentile per-packet one-way delay: 57.087 ms
  Loss rate: 2.65%
-- Flow 1:
  Average throughput: 61.64 Mbit/s
  95th percentile per-packet one-way delay: 40.836 ms
  Loss rate: 2.29%
-- Flow 2:
  Average throughput: 21.47 Mbit/s
  95th percentile per-packet one-way delay: 60.003 ms
  Loss rate: 5.17%
-- Flow 3:
  Average throughput: 20.00 Mbit/s
  95th percentile per-packet one-way delay: 24.940 ms
  Loss rate: 0.35%
Run 5: Report of PCC-Vivace — Data Link
Run 6: Statistics of PCC-Vivace

Start at: 2018-08-10 03:13:37
End at: 2018-08-10 03:14:07
Local clock offset: -0.026 ms
Remote clock offset: -5.948 ms

# Below is generated by plot.py at 2018-08-10 05:09:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.35 Mbit/s
95th percentile per-packet one-way delay: 23.640 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 58.40 Mbit/s
95th percentile per-packet one-way delay: 21.458 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 29.70 Mbit/s
95th percentile per-packet one-way delay: 36.832 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 27.95 Mbit/s
95th percentile per-packet one-way delay: 23.194 ms
Loss rate: 0.37%
Run 6: Report of PCC-Vivace — Data Link

![Graph showing data link performance with multiple flow ingress and egress metrics over time.]

- Flow 1 ingress (mean 58.38 Mbit/s)
- Flow 1 egress (mean 58.40 Mbit/s)
- Flow 2 ingress (mean 29.71 Mbit/s)
- Flow 2 egress (mean 29.70 Mbit/s)
- Flow 3 ingress (mean 27.99 Mbit/s)
- Flow 3 egress (mean 27.95 Mbit/s)

![Graph showing per-packet one-way delay with 95th percentile values.]

- Flow 1 (95th percentile 21.46 ms)
- Flow 2 (95th percentile 36.83 ms)
- Flow 3 (95th percentile 23.19 ms)
Run 7: Statistics of PCC-Vivace

Start at: 2018-08-10 03:33:55
End at: 2018-08-10 03:34:25
Local clock offset: -0.548 ms
Remote clock offset: -6.787 ms

# Below is generated by plot.py at 2018-08-10 05:09:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.68 Mbit/s
95th percentile per-packet one-way delay: 37.275 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 49.34 Mbit/s
95th percentile per-packet one-way delay: 38.081 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 23.12 Mbit/s
95th percentile per-packet one-way delay: 21.142 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 9.01 Mbit/s
95th percentile per-packet one-way delay: 17.697 ms
Loss rate: 1.09%
Run 7: Report of PCC-Vivace — Data Link

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

![Graph 2: Per packet one way delay (ms)](image2)
Run 8: Statistics of PCC-Vivace

Start at: 2018-08-10 03:53:44
End at: 2018-08-10 03:54:14
Local clock offset: 1.807 ms
Remote clock offset: -62.677 ms

# Below is generated by plot.py at 2018-08-10 05:09:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.83 Mbit/s
95th percentile per-packet one-way delay: 19.171 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.14 Mbit/s
95th percentile per-packet one-way delay: 19.524 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 28.83 Mbit/s
95th percentile per-packet one-way delay: 19.161 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 13.70 Mbit/s
95th percentile per-packet one-way delay: 16.871 ms
Loss rate: 0.43%
Run 8: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress**: mean 59.10 Mbit/s
- **Flow 1 egress**: mean 59.14 Mbit/s
- **Flow 2 ingress**: mean 28.84 Mbit/s
- **Flow 2 egress**: mean 28.83 Mbit/s
- **Flow 3 ingress**: mean 13.73 Mbit/s
- **Flow 3 egress**: mean 13.70 Mbit/s

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

- **Flow 1**: 95th percentile 19.52 ms
- **Flow 2**: 95th percentile 19.16 ms
- **Flow 3**: 95th percentile 16.87 ms
Run 9: Statistics of PCC-Vivace

Start at: 2018-08-10 04:13:59
End at: 2018-08-10 04:14:29
Local clock offset: 3.68 ms
Remote clock offset: -88.629 ms

# Below is generated by plot.py at 2018-08-10 05:09:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.04 Mbit/s
95th percentile per-packet one-way delay: 48.585 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 51.03 Mbit/s
95th percentile per-packet one-way delay: 51.270 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 40.36 Mbit/s
95th percentile per-packet one-way delay: 24.409 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 15.71 Mbit/s
95th percentile per-packet one-way delay: 31.330 ms
Loss rate: 0.38%
Run 9: Report of PCC-Vivace — Data Link

[Graph 1: Throughput over time for different flows]

[Graph 2: Per-packet one-way delay over time for different flows]

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Run 10: Statistics of PCC-Vivace

Start at: 2018-08-10 04:34:14  
End at: 2018-08-10 04:34:44  
Local clock offset: 2.314 ms  
Remote clock offset: -108.344 ms

# Below is generated by plot.py at 2018-08-10 05:09:33  
# Datalink statistics

-- Total of 3 flows:  
Average throughput: 85.46 Mbit/s  
95th percentile per-packet one-way delay: 39.717 ms  
Loss rate: 0.22%  

-- Flow 1:  
Average throughput: 50.31 Mbit/s  
95th percentile per-packet one-way delay: 39.696 ms  
Loss rate: 0.19%  

-- Flow 2:  
Average throughput: 37.39 Mbit/s  
95th percentile per-packet one-way delay: 38.211 ms  
Loss rate: 0.23%  

-- Flow 3:  
Average throughput: 31.26 Mbit/s  
95th percentile per-packet one-way delay: 44.936 ms  
Loss rate: 0.35%
Run 10: Report of PCC-Vivace — Data Link

[Graph showing throughput and packet delay trends over time for different flows with their respective mean speeds indicated.]

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Run 1: Statistics of WebRTC media

Start at: 2018-08-10 01:23:50
End at: 2018-08-10 01:24:20
Local clock offset: -1.992 ms
Remote clock offset: -6.575 ms

# Below is generated by plot.py at 2018-08-10 05:09:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 15.703 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 15.651 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 15.693 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 15.854 ms
Loss rate: 0.60%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-08-10 01:44:18
End at: 2018-08-10 01:44:48
Local clock offset: 1.367 ms
Remote clock offset: -8.662 ms

# Below is generated by plot.py at 2018-08-10 05:09:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.98 Mbit/s
  95th percentile per-packet one-way delay: 20.111 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.60 Mbit/s
  95th percentile per-packet one-way delay: 19.950 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.92 Mbit/s
  95th percentile per-packet one-way delay: 19.793 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 20.772 ms
  Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

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

Legend:
- Flow 1 ingress (mean 1.60 Mbit/s)
- Flow 1 egress (mean 1.60 Mbit/s)
- Flow 2 ingress (mean 0.91 Mbit/s)
- Flow 2 egress (mean 0.92 Mbit/s)
- Flow 3 ingress (mean 0.47 Mbit/s)
- Flow 3 egress (mean 0.47 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 19.95 ms)
- Flow 2 (95th percentile 19.79 ms)
- Flow 3 (95th percentile 20.77 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-08-10 02:04:31
End at: 2018-08-10 02:05:01
Local clock offset: -1.095 ms
Remote clock offset: -7.154 ms

# Below is generated by plot.py at 2018-08-10 05:09:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 17.116 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 17.109 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 17.132 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 17.097 ms
Loss rate: 0.01%
Run 3: Report of WebRTC media — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 4: Statistics of WebRTC media

Start at: 2018-08-10 02:24:43
End at: 2018-08-10 02:25:13
Local clock offset: 0.11 ms
Remote clock offset: -6.164 ms

# Below is generated by plot.py at 2018-08-10 05:09:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 18.582 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 18.481 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 18.616 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 18.761 ms
Loss rate: 0.01%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-08-10 02:45:07
End at: 2018-08-10 02:45:37
Local clock offset: 1.908 ms
Remote clock offset: -2.747 ms

# Below is generated by plot.py at 2018-08-10 05:09:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.08 Mbit/s
  95th percentile per-packet one-way delay: 19.394 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 1.64 Mbit/s
  95th percentile per-packet one-way delay: 19.286 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.00 Mbit/s
  95th percentile per-packet one-way delay: 19.389 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.46 Mbit/s
  95th percentile per-packet one-way delay: 19.761 ms
  Loss rate: 0.78%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-08-10 03:05:27
End at: 2018-08-10 03:05:57
Local clock offset: -0.058 ms
Remote clock offset: -5.623 ms

# Below is generated by plot.py at 2018-08-10 05:09:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.02 Mbit/s
  95th percentile per-packet one-way delay: 18.342 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 1.59 Mbit/s
  95th percentile per-packet one-way delay: 18.286 ms
  Loss rate: 0.12%
-- Flow 2:
  Average throughput: 1.00 Mbit/s
  95th percentile per-packet one-way delay: 18.399 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 18.327 ms
  Loss rate: 0.74%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-08-10 03:25:44
End at: 2018-08-10 03:26:14
Local clock offset: 0.24 ms
Remote clock offset: -6.372 ms

# Below is generated by plot.py at 2018-08-10 05:09:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 17.526 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 17.398 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 17.546 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 17.828 ms
Loss rate: 0.76%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-08-10 03:45:47
End at: 2018-08-10 03:46:17
Local clock offset: -0.363 ms
Remote clock offset: -6.989 ms

# Below is generated by plot.py at 2018-08-10 05:09:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 17.913 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 17.846 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 17.918 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 18.121 ms
Loss rate: 0.72%
Run 8: Report of WebRTC media — Data Link
Run 9: Statistics of WebRTC media

Start at: 2018-08-10 04:05:51
End at: 2018-08-10 04:06:21
Local clock offset: -1.255 ms
Remote clock offset: -94.869 ms

# Below is generated by plot.py at 2018-08-10 05:09:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 16.072 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 15.939 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 16.164 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 16.137 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 1.65 Mbit/s)**
- **Flow 1 egress (mean 1.65 Mbit/s)**
- **Flow 2 ingress (mean 1.02 Mbit/s)**
- **Flow 2 egress (mean 1.02 Mbit/s)**
- **Flow 3 ingress (mean 0.40 Mbit/s)**
- **Flow 3 egress (mean 0.40 Mbit/s)**

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

- **Flow 1 (95th percentile 15.94 ms)**
- **Flow 2 (95th percentile 16.16 ms)**
- **Flow 3 (95th percentile 16.14 ms)**
Run 10: Statistics of WebRTC media

Start at: 2018-08-10 04:26:02
End at: 2018-08-10 04:26:32
Local clock offset: 1.786 ms
Remote clock offset: -97.508 ms

# Below is generated by plot.py at 2018-08-10 05:09:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 17.505 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 17.516 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 17.779 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.264 ms
Loss rate: 0.39%
Run 10: Report of WebRTC media — Data Link