Pantheon Report

Data path: Brazil Ethernet (remote) → AWS Brazil 1 Ethernet (local).
Repeated the test of 16 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
NTP offsets were measured against gps.ntp.br and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ 0088822873ea99180f63545a341ef069f40efe59
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5
third_party/indigo @ 2601c92e4aa9d58d38dcd4dfe0edbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f6582ce8f464b1b39
third_party/pcc @ 1afc9e958f0a0d66d18b623c091a55f6ec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8aad0f9c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ec978f3cfc42
third_party/scream-reproduce @ f099118d4211a3131bf11ff1964974e1da3bfb2
third_party/sprout @ c38869682f0c19f6ba92afcf9a596a406d48c1f
third_party/verus @ d4b447ea74c6c60a261149af262956293f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f56b7d8c504587f5d74
third_party/webrtc @ 3f0cc2a9061a41b6f9d0e4735770d143a1fa2851
test from Brazil to AWS Brazil 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>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
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<tr>
<td>TCP BBR</td>
<td>10</td>
<td>58.58</td>
<td>40.53</td>
<td>32.68</td>
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<td>Copa</td>
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<td>57.04</td>
<td>37.28</td>
<td>29.66</td>
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<td>40.40</td>
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<td>26.52</td>
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<td>PCC-Expr</td>
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<td>QUIC Cubic</td>
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<td>59.66</td>
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<td>TaoVA-100x</td>
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<td>55.29</td>
<td>34.75</td>
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<td>TCP Vegas</td>
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<td>53.21</td>
<td>45.98</td>
<td>38.42</td>
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<td>Verus</td>
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<tr>
<td>PCC-Vivace</td>
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<td>42.89</td>
<td>34.85</td>
<td>26.18</td>
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<tr>
<td>WebRTC media</td>
<td>10</td>
<td>2.37</td>
<td>1.49</td>
<td>0.64</td>
</tr>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2018-05-25 12:10:51
End at: 2018-05-25 12:11:21
Local clock offset: -5.929 ms
Remote clock offset: -6.938 ms

# Below is generated by plot.py at 2018-05-25 15:08:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.16 Mbit/s
95th percentile per-packet one-way delay: 12.657 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 57.42 Mbit/s
95th percentile per-packet one-way delay: 11.467 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 39.27 Mbit/s
95th percentile per-packet one-way delay: 20.522 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 13.251 ms
Loss rate: 0.29%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

End at: 2018-05-25 12:29:12
Local clock offset: -5.843 ms
Remote clock offset: -8.944 ms

# Below is generated by plot.py at 2018-05-25 15:08:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 11.103 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 59.23 Mbit/s
95th percentile per-packet one-way delay: 10.947 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 40.98 Mbit/s
95th percentile per-packet one-way delay: 10.798 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 32.97 Mbit/s
95th percentile per-packet one-way delay: 12.003 ms
Loss rate: 1.22%
Run 2: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 59.71 Mbit/s)
- Flow 1 egress (mean 59.23 Mbit/s)
- Flow 2 ingress (mean 41.21 Mbit/s)
- Flow 2 egress (mean 40.98 Mbit/s)
- Flow 3 ingress (mean 33.36 Mbit/s)
- Flow 3 egress (mean 32.97 Mbit/s)

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

- Flow 1 (95th percentile 10.95 ms)
- Flow 2 (95th percentile 10.80 ms)
- Flow 3 (95th percentile 12.00 ms)
Run 3: Statistics of TCP BBR

Local clock offset: -6.546 ms
Remote clock offset: -3.69 ms

# Below is generated by plot.py at 2018-05-25 15:08:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 10.285 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 59.26 Mbit/s
95th percentile per-packet one-way delay: 9.899 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 40.93 Mbit/s
95th percentile per-packet one-way delay: 10.684 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 33.00 Mbit/s
95th percentile per-packet one-way delay: 12.008 ms
Loss rate: 1.23%
Run 3: Report of TCP BBR — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 59.39 Mbps)
  - Flow 1 egress (mean 59.26 Mbps)
  - Flow 2 ingress (mean 41.13 Mbps)
  - Flow 2 egress (mean 40.93 Mbps)
  - Flow 3 ingress (mean 33.37 Mbps)
  - Flow 3 egress (mean 33.00 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 9.90 ms)
  - Flow 2 (95th percentile 10.68 ms)
  - Flow 3 (95th percentile 12.01 ms)
Run 4: Statistics of TCP BBR

Local clock offset: -5.854 ms
Remote clock offset: -3.393 ms

# Below is generated by plot.py at 2018-05-25 15:08:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.91 Mbit/s
95th percentile per-packet one-way delay: 9.865 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 58.54 Mbit/s
95th percentile per-packet one-way delay: 8.894 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 10.554 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 32.29 Mbit/s
95th percentile per-packet one-way delay: 9.071 ms
Loss rate: 0.10%
Run 5: Statistics of TCP BBR

Local clock offset: -5.785 ms
Remote clock offset: -6.94 ms

# Below is generated by plot.py at 2018-05-25 15:08:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.50 Mbit/s
  95th percentile per-packet one-way delay: 8.898 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 59.30 Mbit/s
  95th percentile per-packet one-way delay: 8.784 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 40.92 Mbit/s
  95th percentile per-packet one-way delay: 9.156 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 32.97 Mbit/s
  95th percentile per-packet one-way delay: 8.864 ms
  Loss rate: 0.09%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Local clock offset: -5.767 ms
Remote clock offset: -7.552 ms

# Below is generated by plot.py at 2018-05-25 15:08:45
# Datalink statistics
   -- Total of 3 flows:
   Average throughput: 97.49 Mbit/s
   95th percentile per-packet one-way delay: 10.912 ms
   Loss rate: 0.48%
   -- Flow 1:
   Average throughput: 59.24 Mbit/s
   95th percentile per-packet one-way delay: 11.033 ms
   Loss rate: 0.49%
   -- Flow 2:
   Average throughput: 40.98 Mbit/s
   95th percentile per-packet one-way delay: 10.666 ms
   Loss rate: 0.38%
   -- Flow 3:
   Average throughput: 32.98 Mbit/s
   95th percentile per-packet one-way delay: 10.282 ms
   Loss rate: 0.69%
Run 6: Report of TCP BBR — Data Link

![Graph 1: Throughput (Mbps)]

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

- Flow 1 ingress (mean 59.53 Mbps)  - Flow 1 egress (mean 59.24 Mbps)
- Flow 2 ingress (mean 41.13 Mbps)  - Flow 2 egress (mean 40.98 Mbps)
- Flow 3 ingress (mean 33.19 Mbps)  - Flow 3 egress (mean 32.98 Mbps)

Flow 1 (95th percentile 11.03 ms)  Flow 2 (95th percentile 10.67 ms)  Flow 3 (95th percentile 10.28 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-05-25 13:58:00
End at: 2018-05-25 13:58:30
Local clock offset: -6.529 ms
Remote clock offset: -7.341 ms

# Below is generated by plot.py at 2018-05-25 15:08:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.45 Mbit/s
  95th percentile per-packet one-way delay: 9.503 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 59.25 Mbit/s
  95th percentile per-packet one-way delay: 9.406 ms
  Loss rate: 0.16%
-- Flow 2:
  Average throughput: 40.90 Mbit/s
  95th percentile per-packet one-way delay: 9.649 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 33.03 Mbit/s
  95th percentile per-packet one-way delay: 11.988 ms
  Loss rate: 0.26%
Run 7: Report of TCP BBR — Data Link

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**Throughput (Mbps):**

- Flow 1 ingress (mean 59.34 Mbit/s)
- Flow 1 egress (mean 59.25 Mbit/s)
- Flow 2 ingress (mean 40.92 Mbit/s)
- Flow 2 egress (mean 40.90 Mbit/s)
- Flow 3 ingress (mean 33.10 Mbit/s)
- Flow 3 egress (mean 33.03 Mbit/s)

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

- Flow 1 (95th percentile: 9.41 ms)
- Flow 2 (95th percentile: 9.65 ms)
- Flow 3 (95th percentile: 11.99 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-05-25 14:15:52
End at: 2018-05-25 14:16:22
Local clock offset: -5.472 ms
Remote clock offset: -5.379 ms

# Below is generated by plot.py at 2018-05-25 15:08:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 11.283 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 57.62 Mbit/s
95th percentile per-packet one-way delay: 11.381 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 10.987 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 33.03 Mbit/s
95th percentile per-packet one-way delay: 11.669 ms
Loss rate: 0.64%
Run 9: Statistics of TCP BBR

End at: 2018-05-25 14:34:14
Local clock offset: -6.287 ms
Remote clock offset: -1.726 ms

# Below is generated by plot.py at 2018-05-25 15:09:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 10.340 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 59.24 Mbit/s
95th percentile per-packet one-way delay: 10.305 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 40.97 Mbit/s
95th percentile per-packet one-way delay: 9.832 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 32.96 Mbit/s
95th percentile per-packet one-way delay: 10.999 ms
Loss rate: 1.20%
Run 9: Report of TCP BBR — Data Link

![Graph of throughput vs time with labels for flow ingress and egress speeds]

![Graph of per-packet one-way delay vs time with labels for flow 95th percentiles]

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<table>
<thead>
<tr>
<th>Flow 1 (95th percentile 10.30 ms)</th>
<th>Flow 2 (95th percentile 9.83 ms)</th>
<th>Flow 3 (95th percentile 11.00 ms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow 1 ingress (mean 59.47 Mbit/s)</td>
<td>Flow 1 egress (mean 59.24 Mbit/s)</td>
<td>Flow 2 ingress (mean 41.23 Mbit/s)</td>
</tr>
<tr>
<td>Flow 2 ingress (mean 41.23 Mbit/s)</td>
<td>Flow 2 egress (mean 40.97 Mbit/s)</td>
<td>Flow 3 ingress (mean 33.34 Mbit/s)</td>
</tr>
<tr>
<td>Flow 3 ingress (mean 33.34 Mbit/s)</td>
<td>Flow 3 egress (mean 32.96 Mbit/s)</td>
<td></td>
</tr>
</tbody>
</table>
Run 10: Statistics of TCP BBR

End at: 2018-05-25 14:52:05
Local clock offset: -4.734 ms
Remote clock offset: -2.018 ms

# Below is generated by plot.py at 2018-05-25 15:09:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.45 Mbit/s
95th percentile per-packet one-way delay: 12.205 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 56.69 Mbit/s
95th percentile per-packet one-way delay: 9.668 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 39.40 Mbit/s
95th percentile per-packet one-way delay: 16.371 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 31.67 Mbit/s
95th percentile per-packet one-way delay: 16.105 ms
Loss rate: 0.17%
Run 10: Report of TCP BBR — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 1: Statistics of Copa

Local clock offset: -5.095 ms
Remote clock offset: -8.474 ms

# Below is generated by plot.py at 2018-05-25 15:10:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.37 Mbit/s
  95th percentile per-packet one-way delay: 15.160 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 50.91 Mbit/s
  95th percentile per-packet one-way delay: 12.929 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 42.14 Mbit/s
  95th percentile per-packet one-way delay: 15.953 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 40.37 Mbit/s
  95th percentile per-packet one-way delay: 17.981 ms
  Loss rate: 0.09%
Run 1: Report of Copa — Data Link

![Graph 1: Throughput (Mbps/s) over Time (s)]
- Flow 1 ingress (mean 50.92 Mbps/s)
- Flow 1 egress (mean 50.91 Mbps/s)
- Flow 2 ingress (mean 42.15 Mbps/s)
- Flow 2 egress (mean 42.14 Mbps/s)
- Flow 3 ingress (mean 40.37 Mbps/s)
- Flow 3 egress (mean 40.37 Mbps/s)

![Graph 2: Per-packet one-way delay (ms) over Time (s)]
- Flow 1 (95th percentile 12.93 ms)
- Flow 2 (95th percentile 15.95 ms)
- Flow 3 (95th percentile 17.98 ms)
Run 2: Statistics of Copa

Start at: 2018-05-25 12:41:03
Local clock offset: -5.028 ms
Remote clock offset: -4.416 ms

# Below is generated by plot.py at 2018-05-25 15:10:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.04 Mbit/s
95th percentile per-packet one-way delay: 16.554 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 57.52 Mbit/s
95th percentile per-packet one-way delay: 15.790 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 37.99 Mbit/s
95th percentile per-packet one-way delay: 17.002 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 30.77 Mbit/s
95th percentile per-packet one-way delay: 20.045 ms
Loss rate: 0.05%
Run 2: Report of Copa — Data Link

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

- Blue line: Flow 1 ingress (mean 57.53 Mbps/s)
- Blue line: Flow 1 egress (mean 57.52 Mbps/s)
- Green line: Flow 2 ingress (mean 38.01 Mbps/s)
- Green line: Flow 2 egress (mean 37.99 Mbps/s)
- Red line: Flow 3 ingress (mean 30.77 Mbps/s)
- Red line: Flow 3 egress (mean 30.77 Mbps/s)

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

- Blue dots: Flow 1 (95th percentile 15.79 ms)
- Green dots: Flow 2 (95th percentile 17.00 ms)
- Red dots: Flow 3 (95th percentile 20.05 ms)
Run 3: Statistics of Copa

Start at: 2018-05-25 12:58:54
Local clock offset: -6.614 ms
Remote clock offset: -2.929 ms

# Below is generated by plot.py at 2018-05-25 15:10:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.74 Mbit/s
  95th percentile per-packet one-way delay: 13.823 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 56.78 Mbit/s
  95th percentile per-packet one-way delay: 13.311 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 38.65 Mbit/s
  95th percentile per-packet one-way delay: 15.488 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 30.84 Mbit/s
  95th percentile per-packet one-way delay: 7.636 ms
  Loss rate: 0.11%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

End at: 2018-05-25 13:17:16
Local clock offset: -5.023 ms
Remote clock offset: -6.261 ms

# Below is generated by plot.py at 2018-05-25 15:10:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.40 Mbit/s
95th percentile per-packet one-way delay: 15.692 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 55.56 Mbit/s
95th percentile per-packet one-way delay: 9.993 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.74 Mbit/s
95th percentile per-packet one-way delay: 17.337 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 32.27 Mbit/s
95th percentile per-packet one-way delay: 17.317 ms
Loss rate: 0.11%
Run 4: Report of Copa — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 55.56 Mbps)
  - Flow 1 egress (mean 55.56 Mbps)
  - Flow 2 ingress (mean 40.77 Mbps)
  - Flow 2 egress (mean 40.74 Mbps)
  - Flow 3 ingress (mean 32.28 Mbps)
  - Flow 3 egress (mean 32.27 Mbps)

- **Packet loss (ms):**
  - Flow 1 (95th percentile 9.99 ms)
  - Flow 2 (95th percentile 17.34 ms)
  - Flow 3 (95th percentile 17.32 ms)
Run 5: Statistics of Copa

Local clock offset: -5.839 ms
Remote clock offset: -7.654 ms

# Below is generated by plot.py at 2018-05-25 15:10:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.19 Mbit/s
95th percentile per-packet one-way delay: 13.488 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 9.664 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.40 Mbit/s
95th percentile per-packet one-way delay: 14.989 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 7.98 Mbit/s
95th percentile per-packet one-way delay: 6.595 ms
Loss rate: 0.05%
Run 5: Report of Copa — Data Link

![Graph showing throughput and packet error rate over time for different flows.]
Run 6: Statistics of Copa

Local clock offset: -4.993 ms
Remote clock offset: -7.362 ms

# Below is generated by plot.py at 2018-05-25 15:10:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.21 Mbit/s
  95th percentile per-packet one-way delay: 19.639 ms
  Loss rate: 0.06%
-- Flow 1:
  Average throughput: 56.63 Mbit/s
  95th percentile per-packet one-way delay: 18.966 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 38.93 Mbit/s
  95th percentile per-packet one-way delay: 20.814 ms
  Loss rate: 0.06%
-- Flow 3:
  Average throughput: 32.11 Mbit/s
  95th percentile per-packet one-way delay: 18.155 ms
  Loss rate: 0.18%
Run 6: Report of Copa — Data Link

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

- Flow 1 ingress (mean 56.65 Mbit/s)
- Flow 1 egress (mean 56.63 Mbit/s)
- Flow 2 ingress (mean 38.95 Mbit/s)
- Flow 2 egress (mean 38.93 Mbit/s)
- Flow 3 ingress (mean 32.16 Mbit/s)
- Flow 3 egress (mean 32.11 Mbit/s)

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

- Flow 1 (95th percentile 18.97 ms)
- Flow 2 (95th percentile 20.81 ms)
- Flow 3 (95th percentile 18.16 ms)
Run 7: Statistics of Copa

Start at: 2018-05-25 14:10:20
End at: 2018-05-25 14:10:50
Local clock offset: -4.747 ms
Remote clock offset: -7.558 ms

# Below is generated by plot.py at 2018-05-25 15:11:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.87 Mbit/s
95th percentile per-packet one-way delay: 17.360 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 59.67 Mbit/s
95th percentile per-packet one-way delay: 18.320 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 44.62 Mbit/s
95th percentile per-packet one-way delay: 15.681 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 13.49 Mbit/s
95th percentile per-packet one-way delay: 8.889 ms
Loss rate: 0.03%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

End at: 2018-05-25 14:28:42
Local clock offset: -6.208 ms
Remote clock offset: -2.435 ms

# Below is generated by plot.py at 2018-05-25 15:11:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.58 Mbit/s
95th percentile per-packet one-way delay: 15.120 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 56.39 Mbit/s
95th percentile per-packet one-way delay: 10.266 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.40 Mbit/s
95th percentile per-packet one-way delay: 16.285 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 30.95 Mbit/s
95th percentile per-packet one-way delay: 18.617 ms
Loss rate: 0.11%
Run 8: Report of Copa — Data Link

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

- Flow 1 ingress (mean 56.39 Mbit/s)
- Flow 2 ingress (mean 40.41 Mbit/s)
- Flow 3 ingress (mean 30.96 Mbit/s)
- Flow 1 egress (mean 56.39 Mbit/s)
- Flow 2 egress (mean 40.40 Mbit/s)
- Flow 3 egress (mean 30.95 Mbit/s)

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

- Flow 1 (95th percentile 10.27 ms)
- Flow 2 (95th percentile 16.29 ms)
- Flow 3 (95th percentile 18.62 ms)
Run 9: Statistics of Copa

End at: 2018-05-25 14:46:34
Local clock offset: -5.516 ms
Remote clock offset: -0.847 ms

# Below is generated by plot.py at 2018-05-25 15:12:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.03 Mbit/s
  95th percentile per-packet one-way delay: 9.055 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 62.79 Mbit/s
  95th percentile per-packet one-way delay: 8.433 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 18.74 Mbit/s
  95th percentile per-packet one-way delay: 6.832 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 41.44 Mbit/s
  95th percentile per-packet one-way delay: 13.435 ms
  Loss rate: 0.05%
Run 9: Report of Copa — Data Link

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

- Flow 1 Ingress (mean 62.79 Mbit/s)
- Flow 1 Egress (mean 62.79 Mbit/s)
- Flow 2 Ingress (mean 18.73 Mbit/s)
- Flow 2 Egress (mean 18.74 Mbit/s)
- Flow 3 Ingress (mean 41.44 Mbit/s)
- Flow 3 Egress (mean 41.44 Mbit/s)

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

- Flow 1 (95th percentile 8.43 ms)
- Flow 2 (95th percentile 6.83 ms)
- Flow 3 (95th percentile 13.44 ms)
Run 10: Statistics of Copa

Start at: 2018-05-25 15:03:51
End at: 2018-05-25 15:04:22
Local clock offset: -6.171 ms
Remote clock offset: -2.748 ms

# Below is generated by plot.py at 2018-05-25 15:12:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.69 Mbit/s
95th percentile per-packet one-way delay: 7.014 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 54.47 Mbit/s
95th percentile per-packet one-way delay: 6.702 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 24.20 Mbit/s
95th percentile per-packet one-way delay: 5.319 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 36.40 Mbit/s
95th percentile per-packet one-way delay: 12.277 ms
Loss rate: 0.01%
Run 10: Report of Copa — Data Link

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

- Flow 1 ingress (mean 54.47 Mbit/s)
- Flow 1 egress (mean 54.47 Mbit/s)
- Flow 2 ingress (mean 24.20 Mbit/s)
- Flow 2 egress (mean 24.20 Mbit/s)
- Flow 3 ingress (mean 36.40 Mbit/s)
- Flow 3 egress (mean 36.40 Mbit/s)
Run 1: Statistics of TCP Cubic

Local clock offset: -5.877 ms
Remote clock offset: -8.437 ms

# Below is generated by plot.py at 2018-05-25 15:12:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 10.579 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 10.497 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 10.525 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.710 ms
Loss rate: 0.26%
Run 1: Report of TCP Cubic — Data Link

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

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

End at: 2018-05-25 12:40:25
Local clock offset: -5.029 ms
Remote clock offset: -4.644 ms

# Below is generated by plot.py at 2018-05-25 15:12:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 11.372 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 11.445 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 11.169 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 11.570 ms
Loss rate: 0.27%
Run 2: Report of TCP Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 59.64 Mbit/s)
- Flow 1 egress (mean 59.61 Mbit/s)
- Flow 2 ingress (mean 40.68 Mbit/s)
- Flow 2 egress (mean 40.63 Mbit/s)
- Flow 3 ingress (mean 32.56 Mbit/s)
- Flow 3 egress (mean 32.48 Mbit/s)
Run 3: Statistics of TCP Cubic

End at: 2018-05-25 12:58:17
Local clock offset: -5.055 ms
Remote clock offset: -2.908 ms

# Below is generated by plot.py at 2018-05-25 15:12:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.49 Mbit/s
  95th percentile per-packet one-way delay: 11.059 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 59.62 Mbit/s
  95th percentile per-packet one-way delay: 11.070 ms
  Loss rate: 0.08%
-- Flow 2:
  Average throughput: 40.64 Mbit/s
  95th percentile per-packet one-way delay: 11.009 ms
  Loss rate: 0.14%
-- Flow 3:
  Average throughput: 32.49 Mbit/s
  95th percentile per-packet one-way delay: 11.261 ms
  Loss rate: 0.23%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

End at: 2018-05-25 13:16:08
Local clock offset: -5.089 ms
Remote clock offset: -6.212 ms

# Below is generated by plot.py at 2018-05-25 15:12:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 11.007 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 11.094 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 10.906 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 11.196 ms
Loss rate: 0.23%
Run 5: Statistics of TCP Cubic

Local clock offset: -5.833 ms
Remote clock offset: -7.619 ms

# Below is generated by plot.py at 2018-05-25 15:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 10.550 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.60 Mbit/s
95th percentile per-packet one-way delay: 10.694 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 10.431 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.570 ms
Loss rate: 0.26%
Run 5: Report of TCP Cubic — Data Link

[Graph 1: Throughput vs Time for different flows]

[Graph 2: Per-packet one-way delay vs Time for different flows]
Run 6: Statistics of TCP Cubic

Local clock offset: -4.993 ms
Remote clock offset: -7.301 ms

# Below is generated by plot.py at 2018-05-25 15:12:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 11.123 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 10.990 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 11.284 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 11.312 ms
Loss rate: 0.24%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

End at: 2018-05-25 14:09:43
Local clock offset: -4.752 ms
Remote clock offset: -7.512 ms

# Below is generated by plot.py at 2018-05-25 15:12:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 11.382 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.58 Mbit/s
95th percentile per-packet one-way delay: 11.539 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 11.230 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 11.416 ms
Loss rate: 0.27%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-05-25 14:27:05
Local clock offset: -4.663 ms
Remote clock offset: -2.61 ms

# Below is generated by plot.py at 2018-05-25 15:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 11.217 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 11.432 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 11.083 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 11.395 ms
Loss rate: 0.22%
Run 8: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 59.66 Mbit/s)
- Flow 1 egress (mean 59.62 Mbit/s)
- Flow 2 ingress (mean 40.69 Mbit/s)
- Flow 2 egress (mean 40.64 Mbit/s)
- Flow 3 ingress (mean 32.54 Mbit/s)
- Flow 3 egress (mean 32.48 Mbit/s)
Run 9: Statistics of TCP Cubic

Start at: 2018-05-25 14:44:56
End at: 2018-05-25 14:45:26
Local clock offset: -4.685 ms
Remote clock offset: -0.653 ms

# Below is generated by plot.py at 2018-05-25 15:12:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.80 Mbit/s
95th percentile per-packet one-way delay: 11.469 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 58.10 Mbit/s
95th percentile per-packet one-way delay: 11.260 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 39.34 Mbit/s
95th percentile per-packet one-way delay: 11.744 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 11.791 ms
Loss rate: 0.25%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-05-25 15:02:44  
End at: 2018-05-25 15:03:14  
Local clock offset: -5.415 ms  
Remote clock offset: -2.73 ms

# Below is generated by plot.py at 2018-05-25 15:12:55  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 93.55 Mbit/s  
  95th percentile per-packet one-way delay: 11.009 ms  
  Loss rate: 0.12%  
-- Flow 1:  
  Average throughput: 57.30 Mbit/s  
  95th percentile per-packet one-way delay: 10.757 ms  
  Loss rate: 0.08%  
-- Flow 2:  
  Average throughput: 38.74 Mbit/s  
  95th percentile per-packet one-way delay: 12.022 ms  
  Loss rate: 0.14%  
-- Flow 3:  
  Average throughput: 31.50 Mbit/s  
  95th percentile per-packet one-way delay: 11.607 ms  
  Loss rate: 0.27%
Run 10: Report of TCP Cubic — Data Link
Run 1: Statistics of FillP

Local clock offset: -6.68 ms
Remote clock offset: -7.79 ms

# Below is generated by plot.py at 2018-05-25 15:13:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.93 Mbit/s
95th percentile per-packet one-way delay: 30.354 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 57.07 Mbit/s
95th percentile per-packet one-way delay: 29.739 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 39.04 Mbit/s
95th percentile per-packet one-way delay: 30.353 ms
Loss rate: 3.67%
-- Flow 3:
Average throughput: 29.87 Mbit/s
95th percentile per-packet one-way delay: 31.332 ms
Loss rate: 3.75%
Run 1: Report of FillP — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 57.97 Mbps)
- Flow 1 egress (mean 57.97 Mbps)
- Flow 2 ingress (mean 40.50 Mbps)
- Flow 2 egress (mean 39.04 Mbps)
- Flow 3 ingress (mean 30.97 Mbps)
- Flow 3 egress (mean 29.87 Mbps)

**Packet Delay (ms)**

- Flow 1 (95th percentile 29.74 ms)
- Flow 2 (95th percentile 30.35 ms)
- Flow 3 (95th percentile 31.33 ms)
Run 2: Statistics of FillP

Start at: 2018-05-25 12:34:18
End at: 2018-05-25 12:34:48
Local clock offset: -5.882 ms
Remote clock offset: -6.2 ms

# Below is generated by plot.py at 2018-05-25 15:13:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.11 Mbit/s
  95th percentile per-packet one-way delay: 30.857 ms
  Loss rate: 2.18%
-- Flow 1:
  Average throughput: 59.72 Mbit/s
  95th percentile per-packet one-way delay: 29.936 ms
  Loss rate: 1.34%
-- Flow 2:
  Average throughput: 38.92 Mbit/s
  95th percentile per-packet one-way delay: 30.972 ms
  Loss rate: 3.34%
-- Flow 3:
  Average throughput: 31.72 Mbit/s
  95th percentile per-packet one-way delay: 31.737 ms
  Loss rate: 3.95%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

Start at: 2018-05-25 12:52:10
End at: 2018-05-25 12:52:40
Local clock offset: -5.767 ms
Remote clock offset: -3.198 ms

# Below is generated by plot.py at 2018-05-25 15:14:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.11 Mbit/s
  95th percentile per-packet one-way delay: 30.848 ms
  Loss rate: 2.03%
-- Flow 1:
  Average throughput: 59.71 Mbit/s
  95th percentile per-packet one-way delay: 29.707 ms
  Loss rate: 1.43%
-- Flow 2:
  Average throughput: 38.84 Mbit/s
  95th percentile per-packet one-way delay: 31.013 ms
  Loss rate: 2.78%
-- Flow 3:
  Average throughput: 31.75 Mbit/s
  95th percentile per-packet one-way delay: 31.771 ms
  Loss rate: 3.55%
Run 3: Report of FillP — Data Link

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

**Throughput (Mbit/s)**

- Flow 1 ingress (mean 60.57 Mbit/s)
- Flow 1 egress (mean 59.71 Mbit/s)
- Flow 2 ingress (mean 39.85 Mbit/s)
- Flow 2 egress (mean 38.84 Mbit/s)
- Flow 3 ingress (mean 32.86 Mbit/s)
- Flow 3 egress (mean 31.75 Mbit/s)

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

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

- Flow 1 (95th percentile 29.71 ms)
- Flow 2 (95th percentile 31.01 ms)
- Flow 3 (95th percentile 31.77 ms)
Run 4: Statistics of FillP

Start at: 2018-05-25 13:10:02
Local clock offset: -5.793 ms
Remote clock offset: -5.138 ms

# Below is generated by plot.py at 2018-05-25 15:14:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.07 Mbit/s
95th percentile per-packet one-way delay: 30.626 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 59.85 Mbit/s
95th percentile per-packet one-way delay: 29.857 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 39.19 Mbit/s
95th percentile per-packet one-way delay: 30.734 ms
Loss rate: 2.85%
-- Flow 3:
Average throughput: 30.59 Mbit/s
95th percentile per-packet one-way delay: 31.554 ms
Loss rate: 3.12%
Run 4: Report of FillP — Data Link

![Chart 1: Throughput (Mbps)](chart1)

- Flow 1 ingress (mean 60.74 Mbps)
- Flow 1 egress (mean 59.85 Mbps)
- Flow 2 ingress (mean 40.30 Mbps)
- Flow 2 egress (mean 39.19 Mbps)
- Flow 3 ingress (mean 31.53 Mbps)
- Flow 3 egress (mean 30.59 Mbps)

![Chart 2: Per packet one way delay (ms)](chart2)

- Flow 1 (95th percentile 29.86 ms)
- Flow 2 (95th percentile 30.73 ms)
- Flow 3 (95th percentile 31.55 ms)
Run 5: Statistics of FillP

Local clock offset: -5.79 ms
Remote clock offset: -7.349 ms

# Below is generated by plot.py at 2018-05-25 15:14:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.13 Mbit/s
95th percentile per-packet one-way delay: 30.463 ms
Loss rate: 2.49%
-- Flow 1:
Average throughput: 59.00 Mbit/s
95th percentile per-packet one-way delay: 29.602 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 30.595 ms
Loss rate: 3.51%
-- Flow 3:
Average throughput: 31.69 Mbit/s
95th percentile per-packet one-way delay: 31.389 ms
Loss rate: 5.34%
Run 5: Report of FillP — Data Link
Run 6: Statistics of FillP

Start at: 2018-05-25 13:45:45
Local clock offset: -6.595 ms
Remote clock offset: -7.344 ms

# Below is generated by plot.py at 2018-05-25 15:14:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.09 Mbit/s
  95th percentile per-packet one-way delay: 29.845 ms
  Loss rate: 2.17%
-- Flow 1:
  Average throughput: 59.84 Mbit/s
  95th percentile per-packet one-way delay: 29.095 ms
  Loss rate: 1.43%
-- Flow 2:
  Average throughput: 39.16 Mbit/s
  95th percentile per-packet one-way delay: 29.814 ms
  Loss rate: 3.35%
-- Flow 3:
  Average throughput: 30.69 Mbit/s
  95th percentile per-packet one-way delay: 30.779 ms
  Loss rate: 3.44%
Run 6: Report of FillP — Data Link

![Graph showing network data throughput and packet delay over time.]
Run 7: Statistics of FillP

Start at: 2018-05-25 14:03:36
End at: 2018-05-25 14:04:06
Local clock offset: -5.641 ms
Remote clock offset: -7.423 ms

# Below is generated by plot.py at 2018-05-25 15:14:15
# Datalink statistics
  -- Total of 3 flows:
    Average throughput: 96.09 Mbit/s
    95th percentile per-packet one-way delay: 30.671 ms
    Loss rate: 1.98%
    -- Flow 1:
    Average throughput: 59.86 Mbit/s
    95th percentile per-packet one-way delay: 29.777 ms
    Loss rate: 1.36%
    -- Flow 2:
    Average throughput: 39.16 Mbit/s
    95th percentile per-packet one-way delay: 30.656 ms
    Loss rate: 2.89%
    -- Flow 3:
    Average throughput: 30.67 Mbit/s
    95th percentile per-packet one-way delay: 31.661 ms
    Loss rate: 3.25%
Run 7: Report of FillP — Data Link

[Graph showing throughput over time]

[Graph showing per-packet one-way delay over time]
Run 8: Statistics of FillP

Local clock offset: -5.495 ms
Remote clock offset: -3.67 ms

# Below is generated by plot.py at 2018-05-25 15:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.10 Mbit/s
95th percentile per-packet one-way delay: 30.777 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 59.16 Mbit/s
95th percentile per-packet one-way delay: 29.630 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 40.24 Mbit/s
95th percentile per-packet one-way delay: 30.937 ms
Loss rate: 3.13%
-- Flow 3:
Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 31.746 ms
Loss rate: 3.28%
Run 8: Report of FillP — Data Link
Run 9: Statistics of FillP

End at: 2018-05-25 14:39:50
Local clock offset: -5.457 ms
Remote clock offset: -1.12 ms

# Below is generated by plot.py at 2018-05-25 15:15:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.40 Mbit/s
95th percentile per-packet one-way delay: 31.003 ms
Loss rate: 2.58%
-- Flow 1:
Average throughput: 58.60 Mbit/s
95th percentile per-packet one-way delay: 29.803 ms
Loss rate: 1.76%
-- Flow 2:
Average throughput: 39.41 Mbit/s
95th percentile per-packet one-way delay: 31.283 ms
Loss rate: 3.84%
-- Flow 3:
Average throughput: 28.84 Mbit/s
95th percentile per-packet one-way delay: 42.258 ms
Loss rate: 4.04%
Run 9: Report of FillP — Data Link

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

- Flow 1 ingress (mean 59.63 Mbit/s)
- Flow 1 egress (mean 58.60 Mbit/s)
- Flow 2 ingress (mean 40.95 Mbit/s)
- Flow 2 egress (mean 39.41 Mbit/s)
- Flow 3 ingress (mean 30.02 Mbit/s)
- Flow 3 egress (mean 28.84 Mbit/s)

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

- Flow 1 (95th percentile 29.80 ms)
- Flow 2 (95th percentile 31.28 ms)
- Flow 3 (95th percentile 42.26 ms)
Run 10: Statistics of FillP

Start at: 2018-05-25 14:57:08
End at: 2018-05-25 14:57:38
Local clock offset: -5.484 ms
Remote clock offset: -2.607 ms

# Below is generated by plot.py at 2018-05-25 15:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.57 Mbit/s
95th percentile per-packet one-way delay: 31.432 ms
Loss rate: 2.46%
-- Flow 1:
Average throughput: 57.81 Mbit/s
95th percentile per-packet one-way delay: 30.595 ms
Loss rate: 1.66%
-- Flow 2:
Average throughput: 37.56 Mbit/s
95th percentile per-packet one-way delay: 31.951 ms
Loss rate: 3.68%
-- Flow 3:
Average throughput: 29.49 Mbit/s
95th percentile per-packet one-way delay: 34.746 ms
Loss rate: 4.01%
Run 10: Report of FillIP — Data Link
Run 1: Statistics of Indigo

End at: 2018-05-25 12:19:06
Local clock offset: -6.69 ms
Remote clock offset: -8.039 ms

# Below is generated by plot.py at 2018-05-25 15:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 11.033 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 59.65 Mbit/s
95th percentile per-packet one-way delay: 9.323 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.66 Mbit/s
95th percentile per-packet one-way delay: 11.344 ms
Loss rate: 2.40%
-- Flow 3:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 9.735 ms
Loss rate: 1.06%

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Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

End at: 2018-05-25 12:36:59
Local clock offset: -5.037 ms
Remote clock offset: -5.441 ms

# Below is generated by plot.py at 2018-05-25 15:15:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 12.587 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 59.69 Mbit/s
95th percentile per-packet one-way delay: 11.083 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 12.965 ms
Loss rate: 2.78%
-- Flow 3:
Average throughput: 32.44 Mbit/s
95th percentile per-packet one-way delay: 11.123 ms
Loss rate: 0.35%
Run 2: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 59.73 Mbps)
- Flow 1 egress (mean 59.69 Mbps)
- Flow 2 ingress (mean 41.79 Mbps)
- Flow 2 egress (mean 40.63 Mbps)
- Flow 3 ingress (mean 32.54 Mbps)
- Flow 3 egress (mean 32.44 Mbps)

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

- Flow 1 (95th percentile 11.08 ms)
- Flow 2 (95th percentile 12.96 ms)
- Flow 3 (95th percentile 11.12 ms)
Run 3: Statistics of Indigo

End at: 2018-05-25 12:54:51
Local clock offset: -5.767 ms
Remote clock offset: -3.129 ms

# Below is generated by plot.py at 2018-05-25 15:15:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 11.914 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 59.67 Mbit/s
95th percentile per-packet one-way delay: 10.257 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 40.67 Mbit/s
95th percentile per-packet one-way delay: 12.202 ms
Loss rate: 2.16%
-- Flow 3:
Average throughput: 32.44 Mbit/s
95th percentile per-packet one-way delay: 10.660 ms
Loss rate: 1.02%
Run 3: Report of Indigo — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 59.72 Mbps)
- Flow 1 egress (mean 59.67 Mbps)
- Flow 2 ingress (mean 41.55 Mbps)
- Flow 2 egress (mean 40.67 Mbps)
- Flow 3 ingress (mean 32.75 Mbps)
- Flow 3 egress (mean 32.44 Mbps)

**Packet Delay (ms):**
- Flow 1 (95th percentile 10.26 ms)
- Flow 2 (95th percentile 12.20 ms)
- Flow 3 (95th percentile 10.66 ms)
Run 4: Statistics of Indigo

End at: 2018-05-25 13:12:44
Local clock offset: -5.793 ms
Remote clock offset: -5.68 ms

# Below is generated by plot.py at 2018-05-25 15:15:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 10.111 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 59.66 Mbit/s
95th percentile per-packet one-way delay: 9.775 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.66 Mbit/s
95th percentile per-packet one-way delay: 10.839 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 32.47 Mbit/s
95th percentile per-packet one-way delay: 8.336 ms
Loss rate: 0.10%
Run 4: Report of Indigo — Data Link

---

Graph 1: Throughput (Mbps)

- **Flow 1 ingress** (mean 59.67 Mbps)
- **Flow 1 egress** (mean 59.66 Mbps)
- **Flow 2 ingress** (mean 40.72 Mbps)
- **Flow 2 egress** (mean 40.66 Mbps)
- **Flow 3 ingress** (mean 32.49 Mbps)
- **Flow 3 egress** (mean 32.47 Mbps)

Graph 2: Percent one-way delay (ms)

- **Flow 1** (95th percentile 9.78 ms)
- **Flow 2** (95th percentile 10.84 ms)
- **Flow 3** (95th percentile 8.34 ms)
Run 5: Statistics of Indigo

Start at: 2018-05-25 13:30:05
End at: 2018-05-25 13:30:35
Local clock offset: -5.78 ms
Remote clock offset: -7.449 ms

# Below is generated by plot.py at 2018-05-25 15:15:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 10.483 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 59.65 Mbit/s
95th percentile per-packet one-way delay: 10.142 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 10.856 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 10.556 ms
Loss rate: 1.19%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Local clock offset: -4.991 ms
Remote clock offset: -7.317 ms

# Below is generated by plot.py at 2018-05-25 15:15:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.28 Mbit/s
  95th percentile per-packet one-way delay: 12.356 ms
  Loss rate: 1.01%
-- Flow 1:
  Average throughput: 59.56 Mbit/s
  95th percentile per-packet one-way delay: 10.942 ms
  Loss rate: 0.08%
-- Flow 2:
  Average throughput: 40.68 Mbit/s
  95th percentile per-packet one-way delay: 12.794 ms
  Loss rate: 3.11%
-- Flow 3:
  Average throughput: 32.45 Mbit/s
  95th percentile per-packet one-way delay: 11.368 ms
  Loss rate: 0.77%
Run 6: Report of Indigo — Data Link
Run 7: Statistics of Indigo

Start at: 2018-05-25 14:05:47
End at: 2018-05-25 14:06:17
Local clock offset: -5.619 ms
Remote clock offset: -7.495 ms

# Below is generated by plot.py at 2018-05-25 15:16:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.35 Mbit/s
  95th percentile per-packet one-way delay: 11.420 ms
  Loss rate: 1.03%
-- Flow 1:
  Average throughput: 59.66 Mbit/s
  95th percentile per-packet one-way delay: 9.647 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 40.65 Mbit/s
  95th percentile per-packet one-way delay: 11.987 ms
  Loss rate: 3.02%
-- Flow 3:
  Average throughput: 32.44 Mbit/s
  95th percentile per-packet one-way delay: 10.521 ms
  Loss rate: 1.44%
Run 7: Report of Indigo — Data Link

- Throughput (Mbps):
  - Flow 1 ingress (mean 59.67 Mbps)
  - Flow 1 egress (mean 59.66 Mbps)
  - Flow 2 ingress (mean 41.92 Mbps)
  - Flow 2 egress (mean 40.65 Mbps)
  - Flow 3 ingress (mean 32.90 Mbps)
  - Flow 3 egress (mean 32.44 Mbps)

- Per-packet one-way delay (ms):
  - Flow 1 (95th percentile 9.65 ms)
  - Flow 2 (95th percentile 11.99 ms)
  - Flow 3 (95th percentile 10.52 ms)
Run 8: Statistics of Indigo

End at: 2018-05-25 14:24:09
Local clock offset: -4.66 ms
Remote clock offset: -3.224 ms

# Below is generated by plot.py at 2018-05-25 15:16:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 12.708 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 59.66 Mbit/s
95th percentile per-packet one-way delay: 9.597 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 12.961 ms
Loss rate: 2.08%
-- Flow 3:
Average throughput: 32.46 Mbit/s
95th percentile per-packet one-way delay: 10.800 ms
Loss rate: 0.17%
Run 8: Report of Indigo — Data Link
Run 9: Statistics of Indigo

Start at: 2018-05-25 14:41:30
End at: 2018-05-25 14:42:00
Local clock offset: -5.509 ms
Remote clock offset: -1.001 ms

# Below is generated by plot.py at 2018-05-25 15:16:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.39 Mbit/s
95th percentile per-packet one-way delay: 10.431 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 57.78 Mbit/s
95th percentile per-packet one-way delay: 8.715 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 39.39 Mbit/s
95th percentile per-packet one-way delay: 10.563 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 31.61 Mbit/s
95th percentile per-packet one-way delay: 11.627 ms
Loss rate: 0.15%
Run 9: Report of Indigo — Data Link
Run 10: Statistics of Indigo

Start at: 2018-05-25 14:59:18
End at: 2018-05-25 14:59:49
Local clock offset: -5.422 ms
Remote clock offset: -2.623 ms

# Below is generated by plot.py at 2018-05-25 15:16:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.06 Mbit/s
  95th percentile per-packet one-way delay: 9.774 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 56.55 Mbit/s
  95th percentile per-packet one-way delay: 8.667 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 39.38 Mbit/s
  95th percentile per-packet one-way delay: 9.802 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 31.32 Mbit/s
  95th percentile per-packet one-way delay: 12.670 ms
  Loss rate: 0.08%
Run 10: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 56.55 Mbit/s)
- Flow 1 egress (mean 56.55 Mbit/s)
- Flow 2 ingress (mean 39.40 Mbit/s)
- Flow 2 egress (mean 39.38 Mbit/s)
- Flow 3 ingress (mean 31.33 Mbit/s)
- Flow 3 egress (mean 31.32 Mbit/s)
Run 1: Statistics of LEDBAT

Start at: 2018-05-25 12:19:45
End at: 2018-05-25 12:20:15
Local clock offset: -5.927 ms
Remote clock offset: -8.1 ms

# Below is generated by plot.py at 2018-05-25 15:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.70 Mbit/s
95th percentile per-packet one-way delay: 14.553 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 58.87 Mbit/s
95th percentile per-packet one-way delay: 14.147 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 14.731 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 32.80 Mbit/s
95th percentile per-packet one-way delay: 14.893 ms
Loss rate: 0.38%
Run 2: Statistics of LEDBAT

End at: 2018-05-25 12:38:08
Local clock offset: -5.802 ms
Remote clock offset: -5.1 ms

# Below is generated by plot.py at 2018-05-25 15:16:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.76 Mbit/s
95th percentile per-packet one-way delay: 14.507 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 59.24 Mbit/s
95th percentile per-packet one-way delay: 14.561 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.31 Mbit/s
95th percentile per-packet one-way delay: 14.736 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 13.529 ms
Loss rate: 0.37%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

End at: 2018-05-25 12:56:00
Local clock offset: -5.763 ms
Remote clock offset: -3.081 ms

# Below is generated by plot.py at 2018-05-25 15:16:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.75 Mbit/s
  95th percentile per-packet one-way delay: 14.436 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 59.15 Mbit/s
  95th percentile per-packet one-way delay: 14.203 ms
  Loss rate: 0.13%
-- Flow 2:
  Average throughput: 40.17 Mbit/s
  95th percentile per-packet one-way delay: 14.659 ms
  Loss rate: 0.22%
-- Flow 3:
  Average throughput: 32.62 Mbit/s
  95th percentile per-packet one-way delay: 14.678 ms
  Loss rate: 0.39%
Run 3: Report of LEDBAT — Data Link

![Graph showing throughput and packet delay over time for three flows.](image-url)
Run 4: Statistics of LEDBAT

Local clock offset: -5.879 ms
Remote clock offset: -5.831 ms

# Below is generated by plot.py at 2018-05-25 15:16:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.76 Mbit/s
  95th percentile per-packet one-way delay: 14.137 ms
  Loss rate: 0.18%
-- Flow 1:
  Average throughput: 59.18 Mbit/s
  95th percentile per-packet one-way delay: 13.941 ms
  Loss rate: 0.14%
-- Flow 2:
  Average throughput: 40.16 Mbit/s
  95th percentile per-packet one-way delay: 14.417 ms
  Loss rate: 0.20%
-- Flow 3:
  Average throughput: 32.63 Mbit/s
  95th percentile per-packet one-way delay: 14.191 ms
  Loss rate: 0.36%
Run 5: Statistics of LEDBAT

Local clock offset: -5.009 ms
Remote clock offset: -7.536 ms

# Below is generated by plot.py at 2018-05-25 15:17:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.74 Mbit/s
95th percentile per-packet one-way delay: 15.079 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 59.16 Mbit/s
95th percentile per-packet one-way delay: 14.735 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.18 Mbit/s
95th percentile per-packet one-way delay: 15.281 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 32.58 Mbit/s
95th percentile per-packet one-way delay: 15.479 ms
Loss rate: 0.35%
Run 5: Report of LEDBAT — Data Link

![Graph of Throughput vs Time for different flows]

- Flow 1 ingress (mean 59.24 Mbit/s)
- Flow 1 egress (mean 59.16 Mbit/s)
- Flow 2 ingress (mean 40.26 Mbit/s)
- Flow 2 egress (mean 40.18 Mbit/s)
- Flow 3 ingress (mean 32.68 Mbit/s)
- Flow 3 egress (mean 32.58 Mbit/s)

![Graph of Per packet round trip delay vs Time for different flows]

- Flow 1 (95th percentile 14.73 ms)
- Flow 2 (95th percentile 15.28 ms)
- Flow 3 (95th percentile 15.48 ms)
Run 6: Statistics of LEDBAT

Local clock offset: -5.757 ms
Remote clock offset: -7.296 ms

# Below is generated by plot.py at 2018-05-25 15:17:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.89 Mbit/s
  95th percentile per-packet one-way delay: 14.339 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 59.07 Mbit/s
  95th percentile per-packet one-way delay: 14.046 ms
  Loss rate: 0.14%
-- Flow 2:
  Average throughput: 40.62 Mbit/s
  95th percentile per-packet one-way delay: 14.969 ms
  Loss rate: 0.24%
-- Flow 3:
  Average throughput: 32.41 Mbit/s
  95th percentile per-packet one-way delay: 14.220 ms
  Loss rate: 0.36%
Run 6: Report of LEDBAT — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows]
Run 7: Statistics of LEDBAT

Start at: 2018-05-25 14:06:55
End at: 2018-05-25 14:07:25
Local clock offset: -4.783 ms
Remote clock offset: -7.473 ms

# Below is generated by plot.py at 2018-05-25 15:17:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.58 Mbit/s
95th percentile per-packet one-way delay: 15.170 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 58.81 Mbit/s
95th percentile per-packet one-way delay: 14.687 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.68 Mbit/s
95th percentile per-packet one-way delay: 15.686 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 32.20 Mbit/s
95th percentile per-packet one-way delay: 14.215 ms
Loss rate: 0.33%
Run 7: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 58.86 Mbit/s)
- Flow 1 egress (mean 58.81 Mbit/s)
- Flow 2 ingress (mean 40.76 Mbit/s)
- Flow 2 egress (mean 40.65 Mbit/s)
- Flow 3 ingress (mean 32.30 Mbit/s)
- Flow 3 egress (mean 32.20 Mbit/s)

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

- Flow 1 (95th percentile 14.69 ms)
- Flow 2 (95th percentile 15.69 ms)
- Flow 3 (95th percentile 14.21 ms)
Run 8: Statistics of LEDBAT

End at: 2018-05-25 14:25:18
Local clock offset: -5.42 ms
Remote clock offset: -2.975 ms

# Below is generated by plot.py at 2018-05-25 15:17:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.83 Mbit/s
95th percentile per-packet one-way delay: 14.581 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 58.99 Mbit/s
95th percentile per-packet one-way delay: 14.052 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 40.76 Mbit/s
95th percentile per-packet one-way delay: 15.103 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 13.309 ms
Loss rate: 0.35%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

End at: 2018-05-25 14:43:09
Local clock offset: -5.505 ms
Remote clock offset: -0.837 ms

# Below is generated by plot.py at 2018-05-25 15:17:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.58 Mbit/s
95th percentile per-packet one-way delay: 14.234 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 57.81 Mbit/s
95th percentile per-packet one-way delay: 13.971 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 39.26 Mbit/s
95th percentile per-packet one-way delay: 14.593 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 32.01 Mbit/s
95th percentile per-packet one-way delay: 14.305 ms
Loss rate: 0.41%
Run 9: Report of LEDBAT — Data Link

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

**Throughput (Mbps)**

- **Flow 1 ingress** (mean 57.88 Mbps)
- **Flow 1 egress** (mean 57.81 Mbps)
- **Flow 2 ingress** (mean 39.36 Mbps)
- **Flow 2 egress** (mean 39.26 Mbps)
- **Flow 3 ingress** (mean 32.13 Mbps)
- **Flow 3 egress** (mean 32.01 Mbps)

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

- **Flow 1** (95th percentile 13.97 ms)
- **Flow 2** (95th percentile 14.59 ms)
- **Flow 3** (95th percentile 14.30 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-05-25 15:00:27
End at: 2018-05-25 15:00:57
Local clock offset: -5.481 ms
Remote clock offset: -2.683 ms

# Below is generated by plot.py at 2018-05-25 15:17:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.43 Mbit/s
95th percentile per-packet one-way delay: 14.572 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 57.01 Mbit/s
95th percentile per-packet one-way delay: 14.032 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 39.03 Mbit/s
95th percentile per-packet one-way delay: 15.239 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 14.836 ms
Loss rate: 0.37%
Run 10: Report of LEDBAT — Data Link

![Graph showing network performance metrics for different flows over time.](image-url)
Run 1: Statistics of PCC-Allegro

End at: 2018-05-25 12:12:29
Local clock offset: -5.863 ms
Remote clock offset: -7.078 ms

# Below is generated by plot.py at 2018-05-25 15:17:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.81 Mbit/s
95th percentile per-packet one-way delay: 32.421 ms
Loss rate: 5.68%
-- Flow 1:
Average throughput: 54.17 Mbit/s
95th percentile per-packet one-way delay: 28.688 ms
Loss rate: 6.86%
-- Flow 2:
Average throughput: 31.14 Mbit/s
95th percentile per-packet one-way delay: 33.725 ms
Loss rate: 4.67%
-- Flow 3:
Average throughput: 27.19 Mbit/s
95th percentile per-packet one-way delay: 34.154 ms
Loss rate: 0.52%
Run 1: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 58.14 Mbit/s)
- Flow 1 egress (mean 54.17 Mbit/s)
- Flow 2 ingress (mean 32.65 Mbit/s)
- Flow 2 egress (mean 31.14 Mbit/s)
- Flow 3 ingress (mean 27.31 Mbit/s)
- Flow 3 egress (mean 27.19 Mbit/s)
Run 2: Statistics of PCC-Allegro

End at: 2018-05-25 12:30:20
Local clock offset: -5.056 ms
Remote clock offset: -8.352 ms

# Below is generated by plot.py at 2018-05-25 15:17:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.88 Mbit/s
95th percentile per-packet one-way delay: 29.536 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 70.08 Mbit/s
95th percentile per-packet one-way delay: 30.030 ms
Loss rate: 2.30%
-- Flow 2:
Average throughput: 25.18 Mbit/s
95th percentile per-packet one-way delay: 27.549 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 10.272 ms
Loss rate: 0.11%
Run 2: Report of PCC-Allegro — Data Link
Run 3: Statistics of PCC-Allegro

Local clock offset: -5.781 ms
Remote clock offset: -3.496 ms

# Below is generated by plot.py at 2018-05-25 15:18:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.63 Mbit/s
95th percentile per-packet one-way delay: 27.772 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 63.93 Mbit/s
95th percentile per-packet one-way delay: 28.250 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 36.45 Mbit/s
95th percentile per-packet one-way delay: 22.406 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 19.66 Mbit/s
95th percentile per-packet one-way delay: 5.883 ms
Loss rate: 0.07%
Run 3: Report of PCC-Allegro — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 64.98 Mb/s)
Flow 1 egress (mean 63.93 Mb/s)
Flow 2 ingress (mean 36.48 Mb/s)
Flow 2 egress (mean 36.45 Mb/s)
Flow 3 ingress (mean 19.66 Mb/s)
Flow 3 egress (mean 19.66 Mb/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 28.25 ms)
Flow 2 (95th percentile 22.41 ms)
Flow 3 (95th percentile 5.88 ms)
Run 4: Statistics of PCC-Allegro

Start at: 2018-05-25 13:05:34
End at: 2018-05-25 13:06:04
Local clock offset: -5.017 ms
Remote clock offset: -3.931 ms

# Below is generated by plot.py at 2018-05-25 15:18:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.18 Mbit/s
95th percentile per-packet one-way delay: 29.976 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 68.28 Mbit/s
95th percentile per-packet one-way delay: 30.812 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 20.95 Mbit/s
95th percentile per-packet one-way delay: 11.140 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 6.845 ms
Loss rate: 0.06%
Run 5: Statistics of PCC-Allegro

Local clock offset: -5.836 ms
Remote clock offset: -7.053 ms

# Below is generated by plot.py at 2018-05-25 15:18:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.82 Mbit/s
  95th percentile per-packet one-way delay: 27.028 ms
  Loss rate: 3.74%
-- Flow 1:
  Average throughput: 63.52 Mbit/s
  95th percentile per-packet one-way delay: 27.786 ms
  Loss rate: 5.45%
-- Flow 2:
  Average throughput: 33.42 Mbit/s
  95th percentile per-packet one-way delay: 18.307 ms
  Loss rate: 0.08%
-- Flow 3:
  Average throughput: 27.61 Mbit/s
  95th percentile per-packet one-way delay: 4.634 ms
  Loss rate: 0.08%
Run 5: Report of PCC-Allegro — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 67.16 Mbit/s)  |  Flow 1 egress (mean 63.52 Mbit/s)
Flow 2 ingress (mean 33.44 Mbit/s)  |  Flow 2 egress (mean 33.42 Mbit/s)
Flow 3 ingress (mean 27.62 Mbit/s)  |  Flow 3 egress (mean 27.61 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 27.79 ms)  |  Flow 2 (95th percentile 18.31 ms)  |  Flow 3 (95th percentile 4.63 ms)
Run 6: Statistics of PCC-Allegro

Local clock offset: -4.998 ms
Remote clock offset: -7.551 ms

# Below is generated by plot.py at 2018-05-25 15:18:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.45 Mbit/s
95th percentile per-packet one-way delay: 24.308 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 79.34 Mbit/s
95th percentile per-packet one-way delay: 24.715 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 4.481 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 20.51 Mbit/s
95th percentile per-packet one-way delay: 14.206 ms
Loss rate: 0.14%
Run 6: Report of PCC-Allegro — Data Link

![Graph of Throughput Over Time for Different Flows]

Flow 1 ingress (mean 79.66 Mbit/s)  
Flow 1 egress (mean 79.34 Mbit/s)  
Flow 2 ingress (mean 8.09 Mbit/s)  
Flow 2 egress (mean 8.09 Mbit/s)  
Flow 3 ingress (mean 20.53 Mbit/s)  
Flow 3 egress (mean 20.53 Mbit/s)

![Graph of Per-packet One-Way Delay Over Time for Different Flows]

Flow 1 (95th percentile 24.71 ms)  
Flow 2 (95th percentile 4.48 ms)  
Flow 3 (95th percentile 14.21 ms)
Run 7: Statistics of PCC-Allegro

Local clock offset: -5.728 ms
Remote clock offset: -7.364 ms

# Below is generated by plot.py at 2018-05-25 15:18:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.49 Mbit/s
  95th percentile per-packet one-way delay: 13.924 ms
  Loss rate: 0.05%
  -- Flow 1:
  Average throughput: 74.23 Mbit/s
  95th percentile per-packet one-way delay: 15.064 ms
  Loss rate: 0.06%
  -- Flow 2:
  Average throughput: 20.72 Mbit/s
  95th percentile per-packet one-way delay: 4.333 ms
  Loss rate: 0.03%
  -- Flow 3:
  Average throughput: 4.55 Mbit/s
  95th percentile per-packet one-way delay: 3.530 ms
  Loss rate: 0.03%
Run 7: Report of PCC-Allegro — Data Link

![Graph showing throughput and per-fragment one-way delay over time for flows 1, 2, and 3.]

Legend:
- Blue dashed line: Flow 1 ingress (mean 74.25 Mbit/s)
- Blue solid line: Flow 1 egress (mean 74.23 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 20.72 Mbit/s)
- Green solid line: Flow 2 egress (mean 20.72 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 4.55 Mbit/s)
- Red solid line: Flow 3 egress (mean 4.55 Mbit/s)

Per-fragment one-way delay (ms):
- Flow 1 (95th percentile 15.06 ms)
- Flow 2 (95th percentile 4.33 ms)
- Flow 3 (95th percentile 3.53 ms)
Run 8: Statistics of PCC-Allegro

Start at: 2018-05-25 14:17:00
End at: 2018-05-25 14:17:30
Local clock offset: -4.706 ms
Remote clock offset: -4.908 ms

# Below is generated by plot.py at 2018-05-25 15:18:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.15 Mbit/s
95th percentile per-packet one-way delay: 9.498 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 73.44 Mbit/s
95th percentile per-packet one-way delay: 10.103 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 14.45 Mbit/s
95th percentile per-packet one-way delay: 4.514 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 9.44 Mbit/s
95th percentile per-packet one-way delay: 4.537 ms
Loss rate: 0.07%
Run 8: Report of PCC-Allegro — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image2)
Run 9: Statistics of PCC-Allegro

Start at: 2018-05-25 14:34:52
End at: 2018-05-25 14:35:22
Local clock offset: -4.701 ms
Remote clock offset: -1.656 ms

# Below is generated by plot.py at 2018-05-25 15:18:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.13 Mbit/s
  95th percentile per-packet one-way delay: 28.760 ms
  Loss rate: 1.01%
-- Flow 1:
  Average throughput: 71.52 Mbit/s
  95th percentile per-packet one-way delay: 29.655 ms
  Loss rate: 1.31%
-- Flow 2:
  Average throughput: 22.38 Mbit/s
  95th percentile per-packet one-way delay: 11.226 ms
  Loss rate: 0.06%
-- Flow 3:
  Average throughput: 23.51 Mbit/s
  95th percentile per-packet one-way delay: 7.188 ms
  Loss rate: 0.07%
Run 9: Report of PCC-Allegro — Data Link

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

Legend:
- Flow 1 ingress (mean 72.45 Mbit/s)
- Flow 1 egress (mean 71.52 Mbit/s)
- Flow 2 ingress (mean 22.39 Mbit/s)
- Flow 2 egress (mean 22.38 Mbit/s)
- Flow 3 ingress (mean 23.52 Mbit/s)
- Flow 3 egress (mean 23.51 Mbit/s)
Run 10: Statistics of PCC-Allegro

Start at: 2018-05-25 14:52:42
End at: 2018-05-25 14:53:12
Local clock offset: -5.431 ms
Remote clock offset: -2.09 ms

# Below is generated by plot.py at 2018-05-25 15:18:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.43 Mbit/s
95th percentile per-packet one-way delay: 29.336 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 15.61 Mbit/s
95th percentile per-packet one-way delay: 23.209 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 52.40 Mbit/s
95th percentile per-packet one-way delay: 30.417 ms
Loss rate: 3.00%
-- Flow 3:
Average throughput: 24.23 Mbit/s
95th percentile per-packet one-way delay: 14.937 ms
Loss rate: 0.07%
Run 10: Report of PCC-Allegro — Data Link
Run 1: Statistics of PCC-Expr

Start at: 2018-05-25 12:06:30
End at: 2018-05-25 12:07:00
Local clock offset: -5.094 ms
Remote clock offset: -6.058 ms
Run 1: Report of PCC-Expr — Data Link

Figure is missing

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Run 2: Statistics of PCC-Expr

End at: 2018-05-25 12:24:49
Local clock offset: -6.68 ms
Remote clock offset: -8.569 ms
Run 2: Report of PCC-Expr — Data Link

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Run 3: Statistics of PCC-Expr

Local clock offset: -5.858 ms
Remote clock offset: -4.194 ms
Run 3: Report of PCC-Expr — Data Link

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Run 4: Statistics of PCC-Expr

Start at: 2018-05-25 13:00:04
End at: 2018-05-25 13:00:34
Local clock offset: -5.787 ms
Remote clock offset: -2.912 ms
Run 4: Report of PCC-Expr — Data Link

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Run 5: Statistics of PCC-Expr

Local clock offset: -5.018 ms
Remote clock offset: -6.439 ms
Run 5: Report of PCC-Expr — Data Link

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Figure is missing
Run 6: Statistics of PCC-Expr

End at: 2018-05-25 13:36:17
Local clock offset: -5.021 ms
Remote clock offset: -7.794 ms
Run 6: Report of PCC-Expr — Data Link

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Run 7: Statistics of PCC-Expr

End at: 2018-05-25 13:54:09
Local clock offset: -5.819 ms
Remote clock offset: -7.299 ms
Run 7: Report of PCC-Expr — Data Link

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Run 8: Statistics of PCC-Expr

Start at: 2018-05-25 14:11:31
End at: 2018-05-25 14:12:01
Local clock offset: -5.515 ms
Remote clock offset: -7.496 ms
Run 8: Report of PCC-Expr — Data Link

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Figure is missing
Run 9: Statistics of PCC-Expr

Local clock offset: -6.257 ms
Remote clock offset: -2.281 ms
Run 9: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing
Run 10: Statistics of PCC-Expr

End at: 2018-05-25 14:47:44
Local clock offset: -6.299 ms
Remote clock offset: -1.116 ms
Run 10: Report of PCC-Expr — Data Link

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Run 1: Statistics of QUIC Cubic

Start at: 2018-05-25 12:08:37
End at: 2018-05-25 12:09:07
Local clock offset: -5.083 ms
Remote clock offset: -6.477 ms

# Below is generated by plot.py at 2018-05-25 15:19:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.42 Mbit/s
95th percentile per-packet one-way delay: 15.900 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 3.287 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 65.36 Mbit/s
95th percentile per-packet one-way delay: 15.855 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 45.12 Mbit/s
95th percentile per-packet one-way delay: 15.929 ms
Loss rate: 0.34%
Run 1: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet one-way delay over time for different flows.]
Run 2: Statistics of QUIC Cubic

End at: 2018-05-25 12:26:57
Local clock offset: -5.901 ms
Remote clock offset: -8.812 ms

# Below is generated by plot.py at 2018-05-25 15:19:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.41 Mbit/s
  95th percentile per-packet one-way delay: 13.224 ms
  Loss rate: 0.25%
-- Flow 1:
  Average throughput: 55.44 Mbit/s
  95th percentile per-packet one-way delay: 12.817 ms
  Loss rate: 0.16%
-- Flow 2:
  Average throughput: 40.10 Mbit/s
  95th percentile per-packet one-way delay: 13.330 ms
  Loss rate: 0.34%
-- Flow 3:
  Average throughput: 31.10 Mbit/s
  95th percentile per-packet one-way delay: 14.030 ms
  Loss rate: 0.45%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-05-25 12:44:21
End at: 2018-05-25 12:44:51
Local clock offset: -6.544 ms
Remote clock offset: -3.896 ms

# Below is generated by plot.py at 2018-05-25 15:19:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.19 Mbit/s
95th percentile per-packet one-way delay: 10.986 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 1.777 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.67 Mbit/s
95th percentile per-packet one-way delay: 10.456 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 47.80 Mbit/s
95th percentile per-packet one-way delay: 11.808 ms
Loss rate: 0.31%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-05-25 13:02:12
End at: 2018-05-25 13:02:42
Local clock offset: -5.783 ms
Remote clock offset: -2.846 ms

# Below is generated by plot.py at 2018-05-25 15:19:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.94 Mbit/s
  95th percentile per-packet one-way delay: 13.605 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 52.81 Mbit/s
  95th percentile per-packet one-way delay: 13.245 ms
  Loss rate: 0.18%
-- Flow 2:
  Average throughput: 40.30 Mbit/s
  95th percentile per-packet one-way delay: 13.737 ms
  Loss rate: 0.35%
-- Flow 3:
  Average throughput: 31.23 Mbit/s
  95th percentile per-packet one-way delay: 14.252 ms
  Loss rate: 0.51%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

End at: 2018-05-25 13:20:34
Local clock offset: -5.772 ms
Remote clock offset: -6.676 ms

# Below is generated by plot.py at 2018-05-25 15:19:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.21 Mbit/s
95th percentile per-packet one-way delay: 11.975 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 2.497 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.80 Mbit/s
95th percentile per-packet one-way delay: 12.111 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 47.68 Mbit/s
95th percentile per-packet one-way delay: 11.335 ms
Loss rate: 0.30%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Local clock offset: -5.004 ms
Remote clock offset: -7.722 ms

# Below is generated by plot.py at 2018-05-25 15:19:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.65 Mbit/s
95th percentile per-packet one-way delay: 13.896 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 52.59 Mbit/s
95th percentile per-packet one-way delay: 13.849 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 40.31 Mbit/s
95th percentile per-packet one-way delay: 13.758 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 14.331 ms
Loss rate: 0.49%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Local clock offset: -6.575 ms
Remote clock offset: -7.305 ms

# Below is generated by plot.py at 2018-05-25 15:19:55
# Datalink statistics
  -- Total of 3 flows:
    Average throughput: 62.51 Mbit/s
    95th percentile per-packet one-way delay: 10.923 ms
    Loss rate: 0.20%
  -- Flow 1:
    Average throughput: 1.13 Mbit/s
    95th percentile per-packet one-way delay: 1.640 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 70.33 Mbit/s
    95th percentile per-packet one-way delay: 10.951 ms
    Loss rate: 0.15%
  -- Flow 3:
    Average throughput: 47.48 Mbit/s
    95th percentile per-packet one-way delay: 10.865 ms
    Loss rate: 0.35%
Run 7: Report of QUIC Cubic — Data Link

![Graph of throughput and packet latency over time]

Throughput (Mbps) vs. Time (s)

- Flow 1 ingress (mean 1.09 Mbps)
- Flow 1 egress (mean 1.13 Mbps)
- Flow 2 ingress (mean 70.42 Mbps)
- Flow 2 egress (mean 70.33 Mbps)
- Flow 3 ingress (mean 47.63 Mbps)
- Flow 3 egress (mean 47.48 Mbps)

Packet one-way delay (ms) vs. Time (s)

- Flow 1 (95th percentile 1.64 ms)
- Flow 2 (95th percentile 10.95 ms)
- Flow 3 (95th percentile 10.87 ms)
Run 8: Statistics of QUIC Cubic

End at: 2018-05-25 14:14:08
Local clock offset: -4.719 ms
Remote clock offset: -6.304 ms

# Below is generated by plot.py at 2018-05-25 15:19:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 60.24 Mbit/s
  95th percentile per-packet one-way delay: 12.177 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 1.13 Mbit/s
  95th percentile per-packet one-way delay: 3.314 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 66.87 Mbit/s
  95th percentile per-packet one-way delay: 11.896 ms
  Loss rate: 0.13%
-- Flow 3:
  Average throughput: 47.61 Mbit/s
  95th percentile per-packet one-way delay: 12.744 ms
  Loss rate: 0.34%
Run 8: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress** (mean 1.08 Mbit/s)
- **Flow 1 egress** (mean 1.13 Mbit/s)
- **Flow 2 ingress** (mean 66.94 Mbit/s)
- **Flow 2 egress** (mean 66.87 Mbit/s)
- **Flow 3 ingress** (mean 47.76 Mbit/s)
- **Flow 3 egress** (mean 47.61 Mbit/s)

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

- **Flow 1** (95th percentile 3.31 ms)
- **Flow 2** (95th percentile 11.90 ms)
- **Flow 3** (95th percentile 12.74 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-05-25 14:31:30
End at: 2018-05-25 14:32:00
Local clock offset: -4.758 ms
Remote clock offset: -1.987 ms

# Below is generated by plot.py at 2018-05-25 15:20:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.36 Mbit/s
95th percentile per-packet one-way delay: 12.110 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 3.244 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.18 Mbit/s
95th percentile per-packet one-way delay: 12.170 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 47.38 Mbit/s
95th percentile per-packet one-way delay: 11.871 ms
Loss rate: 0.30%
Run 9: Report of QUIC Cubic — Data Link

![Diagram 1: Throughput vs Time](#)

- Flow 1 ingress (mean 1.44 Mbit/s)
- Flow 1 egress (mean 1.54 Mbit/s)
- Flow 2 ingress (mean 70.26 Mbit/s)
- Flow 2 egress (mean 70.18 Mbit/s)
- Flow 3 ingress (mean 47.51 Mbit/s)
- Flow 3 egress (mean 47.38 Mbit/s)

![Diagram 2: Per-packet one-way delay vs Time](#)

- Flow 1 (95th percentile 3.24 ms)
- Flow 2 (95th percentile 12.17 ms)
- Flow 3 (95th percentile 11.87 ms)
Run 10: Statistics of QUIC Cubic

End at: 2018-05-25 14:49:51
Local clock offset: -4.676 ms
Remote clock offset: -1.603 ms

# Below is generated by plot.py at 2018-05-25 15:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.58 Mbit/s
95th percentile per-packet one-way delay: 14.609 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 3.229 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.66 Mbit/s
95th percentile per-packet one-way delay: 14.675 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 46.03 Mbit/s
95th percentile per-packet one-way delay: 14.197 ms
Loss rate: 0.28%
Run 10: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 1.07 Mbit/s)
- Flow 1 egress (mean 1.10 Mbit/s)
- Flow 2 ingress (mean 66.74 Mbit/s)
- Flow 2 egress (mean 66.66 Mbit/s)
- Flow 3 ingress (mean 46.15 Mbit/s)
- Flow 3 egress (mean 46.03 Mbit/s)
Run 1: Statistics of SCReAM

End at: 2018-05-25 12:15:52
Local clock offset: -5.091 ms
Remote clock offset: -7.599 ms

# Below is generated by plot.py at 2018-05-25 15:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 3.110 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.113 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.085 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.118 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

Throughput (Mbps) vs Time (s)

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

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

- Flow 1 (95th percentile 3.11 ms)
- Flow 2 (95th percentile 3.08 ms)
- Flow 3 (95th percentile 3.12 ms)
Run 2: Statistics of SCReAM

End at: 2018-05-25 12:33:44
Local clock offset: -5.045 ms
Remote clock offset: -6.559 ms

# Below is generated by plot.py at 2018-05-25 15:20:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 3.327 ms
  Loss rate: 0.06%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.315 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.327 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.339 ms
  Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

![Graphs showing network performance metrics for different flows.](image-url)
Run 3: Statistics of SCReAM

Start at: 2018-05-25 12:51:06
End at: 2018-05-25 12:51:36
Local clock offset: -5.003 ms
Remote clock offset: -3.294 ms

# Below is generated by plot.py at 2018-05-25 15:20:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 3.192 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.192 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.192 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.197 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

Graph 1: Throughput (Mbit/s) vs. Time (s)
- Flow 1 ingress (mean 0.22 Mbit/s)
- Flow 1 egress (mean 0.22 Mbit/s)
- Flow 2 ingress (mean 0.22 Mbit/s)
- Flow 2 egress (mean 0.22 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s)
- Flow 3 egress (mean 0.22 Mbit/s)

Graph 2: Per-packet one-way delays (ms) vs. Time (s)
- Flow 1 (95th percentile 3.19 ms)
- Flow 2 (95th percentile 3.19 ms)
- Flow 3 (95th percentile 3.20 ms)
Run 4: Statistics of SCReAM

Local clock offset: -5.802 ms
Remote clock offset: -4.928 ms

# Below is generated by plot.py at 2018-05-25 15:20:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 2.348 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.357 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.318 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.295 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

[Graph showing data link analysis with throughput and round-trip time graphs for different flows.]

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Run 5: Statistics of SCReAM

Local clock offset: -5.78 ms
Remote clock offset: -7.22 ms

# Below is generated by plot.py at 2018-05-25 15:20:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 2.324 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.326 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.324 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.313 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link
Run 6: Statistics of SCReAM

End at: 2018-05-25 13:45:11  
Local clock offset: -6.596 ms  
Remote clock offset: -7.43 ms

# Below is generated by plot.py at 2018-05-25 15:20:16  
# Datalink statistics

-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 1.604 ms  
Loss rate: 0.06%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.607 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.598 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.606 ms  
Loss rate: 0.35%
Run 6: Report of SCReAM — Data Link

Throughput (Mbps) vs Time (s)

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

Packet delivery delay (ms) vs Time (s)

- Flow 1 (95th percentile 1.61 ms)
- Flow 2 (95th percentile 1.60 ms)
- Flow 3 (95th percentile 1.61 ms)
Run 7: Statistics of SCReAM

Start at: 2018-05-25 14:02:32
End at: 2018-05-25 14:03:02
Local clock offset: -5.602 ms
Remote clock offset: -7.469 ms

# Below is generated by plot.py at 2018-05-25 15:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.415 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.418 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.404 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.421 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

End at: 2018-05-25 14:20:54
Local clock offset: -5.455 ms
Remote clock offset: -3.989 ms

# Below is generated by plot.py at 2018-05-25 15:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.527 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.526 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.527 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.534 ms
Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one way delay (ms)]
Run 9: Statistics of SCReAM

Start at: 2018-05-25 14:38:16
End at: 2018-05-25 14:38:46
Local clock offset: -4.711 ms
Remote clock offset: -1.265 ms

# Below is generated by plot.py at 2018-05-25 15:20:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 3.182 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.180 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.184 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 3.179 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

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

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

- Flow 1 (95th percentile 3.18 ms)
- Flow 2 (95th percentile 3.18 ms)
- Flow 3 (95th percentile 3.18 ms)
Run 10: Statistics of SCReAM

Start at: 2018-05-25 14:56:04
End at: 2018-05-25 14:56:34
Local clock offset: -5.478 ms
Remote clock offset: -2.473 ms

# Below is generated by plot.py at 2018-05-25 15:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.319 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.323 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.384 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.297 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of Sprout

End at: 2018-05-25 12:10:14
Local clock offset: -5.93 ms
Remote clock offset: -6.718 ms

# Below is generated by plot.py at 2018-05-25 15:20:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.61 Mbit/s
95th percentile per-packet one-way delay: 21.951 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 35.39 Mbit/s
95th percentile per-packet one-way delay: 19.771 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 32.65 Mbit/s
95th percentile per-packet one-way delay: 22.858 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 28.83 Mbit/s
95th percentile per-packet one-way delay: 26.450 ms
Loss rate: 0.25%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Local clock offset: -5.844 ms
Remote clock offset: -8.921 ms

# Below is generated by plot.py at 2018-05-25 15:20:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.20 Mbit/s
95th percentile per-packet one-way delay: 17.839 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 36.32 Mbit/s
95th percentile per-packet one-way delay: 16.280 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.50 Mbit/s
95th percentile per-packet one-way delay: 18.429 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 30.26 Mbit/s
95th percentile per-packet one-way delay: 19.875 ms
Loss rate: 0.00%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-05-25 12:45:27
End at: 2018-05-25 12:45:57
Local clock offset: -5.782 ms
Remote clock offset: -3.742 ms

# Below is generated by plot.py at 2018-05-25 15:20:37
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 68.12 Mbit/s
 95th percentile per-packet one-way delay: 16.833 ms
 Loss rate: 0.09%
-- Flow 1:
 Average throughput: 36.14 Mbit/s
 95th percentile per-packet one-way delay: 14.811 ms
 Loss rate: 0.06%
-- Flow 2:
 Average throughput: 32.89 Mbit/s
 95th percentile per-packet one-way delay: 16.873 ms
 Loss rate: 0.06%
-- Flow 3:
 Average throughput: 30.60 Mbit/s
 95th percentile per-packet one-way delay: 19.525 ms
 Loss rate: 0.29%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2018-05-25 13:03:19
End at: 2018-05-25 13:03:49
Local clock offset: -5.783 ms
Remote clock offset: -2.805 ms

# Below is generated by plot.py at 2018-05-25 15:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.70 Mbit/s
95th percentile per-packet one-way delay: 16.653 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 36.61 Mbit/s
95th percentile per-packet one-way delay: 14.326 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.10 Mbit/s
95th percentile per-packet one-way delay: 17.030 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 29.59 Mbit/s
95th percentile per-packet one-way delay: 19.212 ms
Loss rate: 0.30%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

Local clock offset: -5.784 ms
Remote clock offset: -6.882 ms

# Below is generated by plot.py at 2018-05-25 15:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.94 Mbit/s
95th percentile per-packet one-way delay: 17.467 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 34.42 Mbit/s
95th percentile per-packet one-way delay: 15.805 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 33.20 Mbit/s
95th percentile per-packet one-way delay: 17.502 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 19.780 ms
Loss rate: 0.28%
Run 5: Report of Sprout — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 34.43 Mbps)
  - Flow 1 egress (mean 34.42 Mbps)
  - Flow 2 ingress (mean 33.22 Mbps)
  - Flow 2 egress (mean 33.20 Mbps)
  - Flow 3 ingress (mean 31.66 Mbps)
  - Flow 3 egress (mean 31.63 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 15.80 ms)
  - Flow 2 (95th percentile 17.50 ms)
  - Flow 3 (95th percentile 19.78 ms)
Run 6: Statistics of Sprout

Start at: 2018-05-25 13:39:02
Local clock offset: -5.823 ms
Remote clock offset: -7.708 ms

# Below is generated by plot.py at 2018-05-25 15:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.40 Mbit/s
95th percentile per-packet one-way delay: 16.695 ms
Loss rate: 0.06%

-- Flow 1:
Average throughput: 36.17 Mbit/s
95th percentile per-packet one-way delay: 14.732 ms
Loss rate: 0.06%

-- Flow 2:
Average throughput: 33.22 Mbit/s
95th percentile per-packet one-way delay: 17.026 ms
Loss rate: 0.02%

-- Flow 3:
Average throughput: 30.77 Mbit/s
95th percentile per-packet one-way delay: 18.980 ms
Loss rate: 0.13%
Run 6: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 35.20 Mbps)
- Flow 1 egress (mean 36.17 Mbps)
- Flow 2 ingress (mean 33.20 Mbps)
- Flow 2 egress (mean 33.22 Mbps)
- Flow 3 ingress (mean 30.82 Mbps)
- Flow 3 egress (mean 30.77 Mbps)

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

- Flow 1 (95th percentile 14.73 ms)
- Flow 2 (95th percentile 17.03 ms)
- Flow 3 (95th percentile 18.98 ms)
Run 7: Statistics of Sprout

Local clock offset: -5.722 ms
Remote clock offset: -7.382 ms

# Below is generated by plot.py at 2018-05-25 15:21:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.29 Mbit/s
95th percentile per-packet one-way delay: 16.754 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 36.37 Mbit/s
95th percentile per-packet one-way delay: 14.683 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 33.22 Mbit/s
95th percentile per-packet one-way delay: 17.074 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 29.90 Mbit/s
95th percentile per-packet one-way delay: 19.297 ms
Loss rate: 0.05%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-05-25 14:14:45
End at: 2018-05-25 14:15:15
Local clock offset: -4.716 ms
Remote clock offset: -5.788 ms

# Below is generated by plot.py at 2018-05-25 15:21:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.22 Mbit/s
95th percentile per-packet one-way delay: 17.982 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 34.86 Mbit/s
95th percentile per-packet one-way delay: 16.059 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 33.35 Mbit/s
95th percentile per-packet one-way delay: 17.848 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 30.88 Mbit/s
95th percentile per-packet one-way delay: 20.777 ms
Loss rate: 0.18%
Run 8: Report of Sprout — Data Link
Run 9: Statistics of Sprout

End at: 2018-05-25 14:33:07
Local clock offset: -5.446 ms
Remote clock offset: -1.848 ms

# Below is generated by plot.py at 2018-05-25 15:21:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 67.19 Mbit/s
  95th percentile per-packet one-way delay: 16.428 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 34.70 Mbit/s
  95th percentile per-packet one-way delay: 14.797 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 33.43 Mbit/s
  95th percentile per-packet one-way delay: 15.873 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 31.06 Mbit/s
  95th percentile per-packet one-way delay: 19.299 ms
  Loss rate: 0.28%
Run 9: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 34.72 Mbit/s)
- Flow 1 egress (mean 34.70 Mbit/s)
- Flow 2 ingress (mean 33.43 Mbit/s)
- Flow 2 egress (mean 33.43 Mbit/s)
- Flow 3 ingress (mean 31.15 Mbit/s)
- Flow 3 egress (mean 31.06 Mbit/s)

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

- Flow 1 (95th percentile 14.80 ms)
- Flow 2 (95th percentile 15.87 ms)
- Flow 3 (95th percentile 19.30 ms)
Run 10: Statistics of Sprout

End at: 2018-05-25 14:50:57
Local clock offset: -5.437 ms
Remote clock offset: -1.8 ms

# Below is generated by plot.py at 2018-05-25 15:21:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.21 Mbit/s
95th percentile per-packet one-way delay: 19.057 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 35.73 Mbit/s
95th percentile per-packet one-way delay: 17.313 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: 19.713 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 30.23 Mbit/s
95th percentile per-packet one-way delay: 21.384 ms
Loss rate: 0.17%
Run 10: Report of Sprout — Data Link

![Graph showing network performance metrics over time. The top graph illustrates throughput (Mbps) over time, with flow characteristics indicated by different lines. The bottom graph shows the distribution of per-packet one-way delay (ms), with markers for each flow's 95th percentile delay.]

- Flow 1 ingress (mean 35.72 Mbps) vs Flow 1 egress (mean 35.73 Mbps)
- Flow 2 ingress (mean 32.40 Mbps) vs Flow 2 egress (mean 32.36 Mbps)
- Flow 3 ingress (mean 30.29 Mbps) vs Flow 3 egress (mean 30.23 Mbps)

- Flow 1 (95th percentile 17.31 ms)
- Flow 2 (95th percentile 19.71 ms)
- Flow 3 (95th percentile 21.38 ms)
Run 1: Statistics of TaoVA-100x

Local clock offset: -5.154 ms
Remote clock offset: -7.44 ms

# Below is generated by plot.py at 2018-05-25 15:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.35 Mbit/s
95th percentile per-packet one-way delay: 6.626 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 53.72 Mbit/s
95th percentile per-packet one-way delay: 5.991 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.29 Mbit/s
95th percentile per-packet one-way delay: 10.706 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.47 Mbit/s
95th percentile per-packet one-way delay: 6.815 ms
Loss rate: 0.02%
Run 1: Report of TaoVA-100x — Data Link

![Graph of throughput and round-trip delay]

- **Throughput (Mbps):**
  - Blue dashed line: Flow 1 ingress (mean 53.72 Mbps)
  - Blue solid line: Flow 1 egress (mean 53.72 Mbps)
  - Green dashed line: Flow 2 ingress (mean 14.29 Mbps)
  - Green solid line: Flow 2 egress (mean 14.29 Mbps)
  - Red dashed line: Flow 3 ingress (mean 33.47 Mbps)
  - Red solid line: Flow 3 egress (mean 33.47 Mbps)

- **Round-trip delay (ms):**
  - Blue line: Flow 1 (95th percentile 5.99 ms)
  - Green line: Flow 2 (95th percentile 10.71 ms)
  - Red line: Flow 3 (95th percentile 6.82 ms)
Run 2: Statistics of TaoVA-100x

End at: 2018-05-25 12:32:34
Local clock offset: -5.825 ms
Remote clock offset: -7.151 ms

# Below is generated by plot.py at 2018-05-25 15:22:34
# Datalink statistics
-- Total of 3 flows:
95th percentile per-packet one-way delay: 31.330 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 56.26 Mbit/s
95th percentile per-packet one-way delay: 31.097 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 39.54 Mbit/s
95th percentile per-packet one-way delay: 31.382 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 31.86 Mbit/s
95th percentile per-packet one-way delay: 31.554 ms
Loss rate: 1.60%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

End at: 2018-05-25 12:50:26  
Local clock offset: -5.778 ms  
Remote clock offset: -3.459 ms  

# Below is generated by plot.py at 2018-05-25 15:22:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.82 Mbit/s  
95th percentile per-packet one-way delay: 31.243 ms  
Loss rate: 0.69%  
-- Flow 1:  
Average throughput: 56.80 Mbit/s  
95th percentile per-packet one-way delay: 31.067 ms  
Loss rate: 0.39%  
-- Flow 2:  
Average throughput: 39.69 Mbit/s  
95th percentile per-packet one-way delay: 31.278 ms  
Loss rate: 0.78%  
-- Flow 3:  
Average throughput: 31.87 Mbit/s  
95th percentile per-packet one-way delay: 31.433 ms  
Loss rate: 2.06%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

End at: 2018-05-25 13:08:18
Local clock offset: -5.783 ms
Remote clock offset: -4.605 ms

# Below is generated by plot.py at 2018-05-25 15:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.36 Mbit/s
95th percentile per-packet one-way delay: 31.021 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 56.42 Mbit/s
95th percentile per-packet one-way delay: 30.875 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 39.58 Mbit/s
95th percentile per-packet one-way delay: 31.059 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 31.84 Mbit/s
95th percentile per-packet one-way delay: 31.177 ms
Loss rate: 1.76%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

End at: 2018-05-25 13:26:09
Local clock offset: -5.782 ms
Remote clock offset: -7.252 ms

# Below is generated by plot.py at 2018-05-25 15:23:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.77 Mbit/s
  95th percentile per-packet one-way delay: 31.156 ms
  Loss rate: 0.63%
-- Flow 1:
  Average throughput: 56.72 Mbit/s
  95th percentile per-packet one-way delay: 31.010 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 39.73 Mbit/s
  95th percentile per-packet one-way delay: 31.179 ms
  Loss rate: 0.74%
-- Flow 3:
  Average throughput: 31.88 Mbit/s
  95th percentile per-packet one-way delay: 31.328 ms
  Loss rate: 1.86%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

End at: 2018-05-25 13:44:01
Local clock offset: -5.765 ms
Remote clock offset: -7.48 ms

# Below is generated by plot.py at 2018-05-25 15:23:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.17 Mbit/s
95th percentile per-packet one-way delay: 31.184 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 54.87 Mbit/s
95th percentile per-packet one-way delay: 31.031 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 40.11 Mbit/s
95th percentile per-packet one-way delay: 31.218 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 31.346 ms
Loss rate: 1.80%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

Start at: 2018-05-25 14:01:21
End at: 2018-05-25 14:01:51
Local clock offset: -5.622 ms
Remote clock offset: -7.496 ms

# Below is generated by plot.py at 2018-05-25 15:23:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.34 Mbit/s
95th percentile per-packet one-way delay: 31.200 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 53.89 Mbit/s
95th percentile per-packet one-way delay: 31.030 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 41.84 Mbit/s
95th percentile per-packet one-way delay: 31.250 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 31.374 ms
Loss rate: 1.75%
Run 7: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 54.05 Mbit/s)
- Flow 1 egress (mean 53.89 Mbit/s)
- Flow 2 ingress (mean 42.12 Mbit/s)
- Flow 2 egress (mean 41.84 Mbit/s)
- Flow 3 ingress (mean 32.35 Mbit/s)
- Flow 3 egress (mean 31.05 Mbit/s)

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

- Flow 1 (95th percentile 31.03 ms)
- Flow 2 (95th percentile 31.25 ms)
- Flow 3 (95th percentile 31.37 ms)
Run 8: Statistics of TaoVA-100x

End at: 2018-05-25 14:19:44
Local clock offset: -4.676 ms
Remote clock offset: -4.229 ms

# Below is generated by plot.py at 2018-05-25 15:23:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.86 Mbit/s
95th percentile per-packet one-way delay: 31.983 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 56.82 Mbit/s
95th percentile per-packet one-way delay: 31.829 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 39.73 Mbit/s
95th percentile per-packet one-way delay: 32.039 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 32.136 ms
Loss rate: 1.84%
Run 9: Statistics of TaoVA-100x

Start at: 2018-05-25 14:37:05
End at: 2018-05-25 14:37:35
Local clock offset: -5.459 ms
Remote clock offset: -1.363 ms

# Below is generated by plot.py at 2018-05-25 15:24:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.69 Mbit/s
95th percentile per-packet one-way delay: 31.175 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 56.59 Mbit/s
95th percentile per-packet one-way delay: 31.047 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 39.82 Mbit/s
95th percentile per-packet one-way delay: 31.180 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 31.361 ms
Loss rate: 1.64%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Local clock offset: -5.502 ms
Remote clock offset: -2.361 ms

# Below is generated by plot.py at 2018-05-25 15:24:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.14 Mbit/s
95th percentile per-packet one-way delay: 7.666 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.76 Mbit/s
95th percentile per-packet one-way delay: 7.071 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.17 Mbit/s
95th percentile per-packet one-way delay: 8.579 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 37.94 Mbit/s
95th percentile per-packet one-way delay: 7.759 ms
Loss rate: 0.01%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Local clock offset: -5.163 ms
Remote clock offset: -7.224 ms

# Below is generated by plot.py at 2018-05-25 15:24:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.63 Mbit/s
95th percentile per-packet one-way delay: 4.711 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 58.41 Mbit/s
95th percentile per-packet one-way delay: 4.475 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 34.97 Mbit/s
95th percentile per-packet one-way delay: 4.486 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 38.93 Mbit/s
95th percentile per-packet one-way delay: 5.403 ms
Loss rate: 0.06%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-05-25 12:30:56
Local clock offset: -5.83 ms
Remote clock offset: -7.678 ms

# Below is generated by plot.py at 2018-05-25 15:24:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.45 Mbit/s
  95th percentile per-packet one-way delay: 4.994 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 52.99 Mbit/s
  95th percentile per-packet one-way delay: 3.874 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 43.81 Mbit/s
  95th percentile per-packet one-way delay: 4.169 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 46.05 Mbit/s
  95th percentile per-packet one-way delay: 5.499 ms
  Loss rate: 0.07%
Run 2: Report of TCP Vegas — Data Link

![Graph](image)

- Flow 1 ingress (mean 52.99 Mbit/s)
- Flow 1 egress (mean 52.99 Mbit/s)
- Flow 2 ingress (mean 43.81 Mbit/s)
- Flow 2 egress (mean 43.81 Mbit/s)
- Flow 3 ingress (mean 46.06 Mbit/s)
- Flow 3 egress (mean 46.05 Mbit/s)

![Graph](image)

- Flow 1 (95th percentile 3.87 ms)
- Flow 2 (95th percentile 4.17 ms)
- Flow 3 (95th percentile 5.50 ms)
Run 3: Statistics of TCP Vegas

Local clock offset: -5.014 ms
Remote clock offset: -3.455 ms

# Below is generated by plot.py at 2018-05-25 15:24:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.44 Mbit/s
  95th percentile per-packet one-way delay: 5.705 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 54.54 Mbit/s
  95th percentile per-packet one-way delay: 4.694 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 47.64 Mbit/s
  95th percentile per-packet one-way delay: 5.553 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 33.67 Mbit/s
  95th percentile per-packet one-way delay: 6.130 ms
  Loss rate: 0.07%
Run 3: Report of TCP Vegas — Data Link

Graph showing throughput and delay over time for different flows.
Run 4: Statistics of TCP Vegas

End at: 2018-05-25 13:07:11
Local clock offset: -5.025 ms
Remote clock offset: -4.19 ms

# Below is generated by plot.py at 2018-05-25 15:24:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 5.331 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 56.82 Mbit/s
95th percentile per-packet one-way delay: 4.643 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 40.73 Mbit/s
95th percentile per-packet one-way delay: 5.070 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 40.51 Mbit/s
95th percentile per-packet one-way delay: 5.990 ms
Loss rate: 0.07%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

End at: 2018-05-25 13:25:02
Local clock offset: -5.017 ms
Remote clock offset: -7.059 ms

# Below is generated by plot.py at 2018-05-25 15:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.25 Mbit/s
95th percentile per-packet one-way delay: 5.232 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 51.80 Mbit/s
95th percentile per-packet one-way delay: 4.514 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.97 Mbit/s
95th percentile per-packet one-way delay: 4.800 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 42.67 Mbit/s
95th percentile per-packet one-way delay: 5.590 ms
Loss rate: 0.06%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Local clock offset: -6.546 ms
Remote clock offset: -7.482 ms

# Below is generated by plot.py at 2018-05-25 15:24:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.03 Mbit/s
95th percentile per-packet one-way delay: 4.160 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 50.47 Mbit/s
95th percentile per-packet one-way delay: 3.000 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 52.11 Mbit/s
95th percentile per-packet one-way delay: 3.622 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 35.72 Mbit/s
95th percentile per-packet one-way delay: 4.630 ms
Loss rate: 0.05%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-05-25 14:00:14
End at: 2018-05-25 14:00:44
Local clock offset: -6.434 ms
Remote clock offset: -7.402 ms

# Below is generated by plot.py at 2018-05-25 15:25:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.33 Mbit/s
  95th percentile per-packet one-way delay: 4.071 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 51.90 Mbit/s
  95th percentile per-packet one-way delay: 2.981 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 51.16 Mbit/s
  95th percentile per-packet one-way delay: 4.140 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 34.21 Mbit/s
  95th percentile per-packet one-way delay: 4.311 ms
  Loss rate: 0.05%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-05-25 14:18:06
End at: 2018-05-25 14:18:36
Local clock offset: -4.692 ms
Remote clock offset: -4.555 ms

# Below is generated by plot.py at 2018-05-25 15:25:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 6.052 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 52.47 Mbit/s
95th percentile per-packet one-way delay: 4.590 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.51 Mbit/s
95th percentile per-packet one-way delay: 6.226 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 34.02 Mbit/s
95th percentile per-packet one-way delay: 6.102 ms
Loss rate: 0.06%
Run 8: Report of TCP Vegas — Data Link

[Graphs showing throughput and delay over time for different flows with annotations for mean throughput and 95th percentile delays]

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Run 9: Statistics of TCP Vegas

Start at: 2018-05-25 14:35:58
End at: 2018-05-25 14:36:28
Local clock offset: -4.703 ms
Remote clock offset: -1.489 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.98 Mbit/s
95th percentile per-packet one-way delay: 5.446 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 51.42 Mbit/s
95th percentile per-packet one-way delay: 4.538 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 45.71 Mbit/s
95th percentile per-packet one-way delay: 4.778 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 45.50 Mbit/s
95th percentile per-packet one-way delay: 6.010 ms
Loss rate: 0.04%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

End at: 2018-05-25 14:54:18
Local clock offset: -6.253 ms
Remote clock offset: -2.244 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.95 Mbit/s
95th percentile per-packet one-way delay: 3.597 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 51.24 Mbit/s
95th percentile per-packet one-way delay: 2.985 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.23 Mbit/s
95th percentile per-packet one-way delay: 3.613 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 32.89 Mbit/s
95th percentile per-packet one-way delay: 4.501 ms
Loss rate: 0.04%
Run 10: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 51.24 Mbit/s)
- Flow 1 egress (mean 51.24 Mbit/s)
- Flow 2 ingress (mean 46.23 Mbit/s)
- Flow 2 egress (mean 46.23 Mbit/s)
- Flow 3 ingress (mean 32.89 Mbit/s)
- Flow 3 egress (mean 32.89 Mbit/s)

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

- Flow 1 (95th percentile 2.98 ms)
- Flow 2 (95th percentile 3.61 ms)
- Flow 3 (95th percentile 4.50 ms)
Run 1: Statistics of Verus

Start at: 2018-05-25 12:07:34
End at: 2018-05-25 12:08:04
Local clock offset: -5.856 ms
Remote clock offset: -6.217 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 3.317 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 3.649 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 3.220 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 3.235 ms
  Loss rate: 0.00%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Local clock offset: -5.902 ms
Remote clock offset: -8.648 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.624 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.682 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.151 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.142 ms
  Loss rate: 0.00%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Local clock offset: -5.785 ms
Remote clock offset: -4.084 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.805 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.846 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.351 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.344 ms
  Loss rate: 0.00%
Run 3: Report of Verus — Data Link

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

- Flow 1 ingress (mean 0.00 Mbit/s)
- Flow 1 egress (mean 0.00 Mbit/s)
- Flow 2 ingress (mean 0.00 Mbit/s)
- Flow 2 egress (mean 0.00 Mbit/s)
- Flow 3 ingress (mean 0.00 Mbit/s)
- Flow 3 egress (mean 0.00 Mbit/s)

- Flow 1 (95th percentile 2.85 ms)
- Flow 2 (95th percentile 2.35 ms)
- Flow 3 (95th percentile 2.34 ms)
Run 4: Statistics of Verus

Start at: 2018-05-25 13:01:08
End at: 2018-05-25 13:01:38
Local clock offset: -5.08 ms
Remote clock offset: -2.977 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.148 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.567 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.130 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.129 ms
Loss rate: 0.00%
Run 4: Report of Verus — Data Link

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

- Flow 1 ingress (mean 0.00 Mbit/s)
- Flow 1 egress (mean 0.00 Mbit/s)
- Flow 2 ingress (mean 0.00 Mbit/s)
- Flow 2 egress (mean 0.00 Mbit/s)
- Flow 3 ingress (mean 0.00 Mbit/s)
- Flow 3 egress (mean 0.00 Mbit/s)

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

- Flow 1 (95th percentile 3.57 ms)
- Flow 2 (95th percentile 3.13 ms)
- Flow 3 (95th percentile 3.13 ms)
Run 5: Statistics of Verus

Start at: 2018-05-25 13:19:00
End at: 2018-05-25 13:19:30
Local clock offset: -5.778 ms
Remote clock offset: -6.608 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.558 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.578 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.226 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.238 ms
  Loss rate: 0.00%
Run 5: Report of Verus — Data Link

![Graph depicting data link performance metrics.](image)

- **Throughput** (Mbps):
  - Flow 1 ingress (mean 0.00 Mbps)
  - Flow 1 egress (mean 0.00 Mbps)
  - Flow 2 ingress (mean 0.00 Mbps)
  - Flow 2 egress (mean 0.00 Mbps)
  - Flow 3 ingress (mean 0.00 Mbps)
  - Flow 3 egress (mean 0.00 Mbps)

- **Packet one way delay (ms):**
  - Flow 1 (95th percentile 2.58 ms)
  - Flow 2 (95th percentile 2.23 ms)
  - Flow 3 (95th percentile 2.24 ms)
Run 6: Statistics of Verus

Local clock offset: -5.003 ms
Remote clock offset: -7.9 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 3.116 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 3.115 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 3.115 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 3.117 ms
  Loss rate: 0.00%
Run 6: Report of Verus — Data Link

Graph depicting throughput over time and per packet one-way delay for different flows.
Run 7: Statistics of Verus

Local clock offset: -5.754 ms
Remote clock offset: -7.344 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.621 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.677 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.269 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.277 ms
  Loss rate: 0.00%
Run 7: Report of Verus — Data Link

![Throughput and Delay Graphs]
Run 8: Statistics of Verus

Start at: 2018-05-25 14:12:35
End at: 2018-05-25 14:13:05
Local clock offset: -5.5 ms
Remote clock offset: -6.923 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.580 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.563 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.584 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.580 ms
  Loss rate: 0.00%
Run 8: Report of Verus — Data Link
Run 9: Statistics of Verus

Start at: 2018-05-25 14:30:27
End at: 2018-05-25 14:30:57
Local clock offset: -5.525 ms
Remote clock offset: -2.168 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.577 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.669 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.272 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.270 ms
Loss rate: 0.00%
Run 9: Report of Verus — Data Link

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

- Flow 1 ingress (mean 0.00 MBps)
- Flow 1 egress (mean 0.00 MBps)
- Flow 2 ingress (mean 0.00 MBps)
- Flow 2 egress (mean 0.00 MBps)
- Flow 3 ingress (mean 0.00 MBps)
- Flow 3 egress (mean 0.00 MBps)

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

- Flow 1 (95th percentile 2.67 ms)
- Flow 2 (95th percentile 2.27 ms)
- Flow 3 (95th percentile 2.27 ms)
Run 10: Statistics of Verus

Local clock offset: -6.279 ms
Remote clock offset: -1.375 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 0.00 Mbit/s
 95th percentile per-packet one-way delay: 2.307 ms
 Loss rate: 0.00%
-- Flow 1:
 Average throughput: 0.00 Mbit/s
 95th percentile per-packet one-way delay: 2.433 ms
 Loss rate: 0.00%
-- Flow 2:
 Average throughput: 0.00 Mbit/s
 95th percentile per-packet one-way delay: 1.312 ms
 Loss rate: 0.00%
-- Flow 3:
 Average throughput: 0.00 Mbit/s
 95th percentile per-packet one-way delay: 2.326 ms
 Loss rate: 0.00%
Run 10: Report of Verus — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 0.00 Mbps)
  - Flow 1 egress (mean 0.00 Mbps)
  - Flow 2 ingress (mean 0.00 Mbps)
  - Flow 2 egress (mean 0.00 Mbps)
  - Flow 3 ingress (mean 0.00 Mbps)
  - Flow 3 egress (mean 0.00 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 2.43 ms)
  - Flow 2 (95th percentile 1.31 ms)
  - Flow 3 (95th percentile 2.33 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2018-05-25 12:20:54
Local clock offset: -5.086 ms
Remote clock offset: -8.234 ms

# Below is generated by plot.py at 2018-05-25 15:25:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.84 Mbit/s
95th percentile per-packet one-way delay: 31.277 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 27.55 Mbit/s
95th percentile per-packet one-way delay: 32.646 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 38.32 Mbit/s
95th percentile per-packet one-way delay: 12.632 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 23.67 Mbit/s
95th percentile per-packet one-way delay: 5.886 ms
Loss rate: 0.08%
Run 1: Report of PCC-Vivace — Data Link

![Graph overlay with mean throughput and packet delay]

- Flow 1 ingress (mean 27.77 Mbit/s)
- Flow 1 egress (mean 27.55 Mbit/s)
- Flow 2 ingress (mean 38.38 Mbit/s)
- Flow 2 egress (mean 38.32 Mbit/s)
- Flow 3 ingress (mean 23.68 Mbit/s)
- Flow 3 egress (mean 23.67 Mbit/s)

![Graph overlay with 95th percentile delays]

- Flow 1 (95th percentile 32.65 ms)
- Flow 2 (95th percentile 12.63 ms)
- Flow 3 (95th percentile 5.89 ms)
Run 2: Statistics of PCC-Vivace

Local clock offset: -5.869 ms
Remote clock offset: -4.801 ms

# Below is generated by plot.py at 2018-05-25 15:25:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.87 Mbit/s
95th percentile per-packet one-way delay: 21.561 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.88 Mbit/s
95th percentile per-packet one-way delay: 11.602 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 31.669 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 26.89 Mbit/s
95th percentile per-packet one-way delay: 16.153 ms
Loss rate: 0.09%
Run 2: Report of PCC-Vivace — Data Link

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

Flow 1 (mean 59.88 Mbit/s), Flow 2 (mean 27.34 Mbit/s), Flow 3 (mean 26.89 Mbit/s).

[Graph showing packet delay distribution.]

Flow 1 (95th percentile 11.60 ms), Flow 2 (95th percentile 31.67 ms), Flow 3 (95th percentile 16.15 ms).
Run 3: Statistics of PCC-Vivace

End at: 2018-05-25 12:57:09
Local clock offset: -5.766 ms
Remote clock offset: -2.956 ms

# Below is generated by plot.py at 2018-05-25 15:25:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 70.00 Mbit/s
  95th percentile per-packet one-way delay: 9.874 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 38.04 Mbit/s
  95th percentile per-packet one-way delay: 8.094 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 35.17 Mbit/s
  95th percentile per-packet one-way delay: 11.275 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 25.90 Mbit/s
  95th percentile per-packet one-way delay: 9.299 ms
  Loss rate: 0.04%
Run 3: Report of PCC-Vivace — Data Link
Run 4: Statistics of PCC-Vivace

End at: 2018-05-25 13:15:01
Local clock offset: -5.79 ms
Remote clock offset: -5.99 ms

# Below is generated by plot.py at 2018-05-25 15:25:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.72 Mbit/s
95th percentile per-packet one-way delay: 12.883 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 26.63 Mbit/s
95th percentile per-packet one-way delay: 3.982 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 37.70 Mbit/s
95th percentile per-packet one-way delay: 9.233 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 30.36 Mbit/s
95th percentile per-packet one-way delay: 26.766 ms
Loss rate: 0.24%
Run 4: Report of PCC-Vivace — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 26.62 Mbps)
- Flow 2 ingress (mean 37.71 Mbps)
- Flow 3 ingress (mean 30.37 Mbps)
- Flow 1 egress (mean 26.63 Mbps)
- Flow 2 egress (mean 37.70 Mbps)
- Flow 3 egress (mean 30.36 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 3.98 ms)
- Flow 2 (95th percentile 9.23 ms)
- Flow 3 (95th percentile 26.77 ms)
Run 5: Statistics of PCC-Vivace

Local clock offset: -5.069 ms
Remote clock offset: -7.623 ms

# Below is generated by plot.py at 2018-05-25 15:25:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 60.62 Mbit/s
  95th percentile per-packet one-way delay: 6.387 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 29.50 Mbit/s
  95th percentile per-packet one-way delay: 5.086 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 31.79 Mbit/s
  95th percentile per-packet one-way delay: 6.541 ms
  Loss rate: 0.06%
-- Flow 3:
  Average throughput: 30.21 Mbit/s
  95th percentile per-packet one-way delay: 9.874 ms
  Loss rate: 0.06%
Run 5: Report of PCC-Vivace — Data Link

![Graph 1: Throughput](image1)

- Flow 1 ingress (mean 29.50 Mbit/s)
- Flow 1 egress (mean 29.50 Mbit/s)
- Flow 2 ingress (mean 31.80 Mbit/s)
- Flow 2 egress (mean 31.79 Mbit/s)
- Flow 3 ingress (mean 30.23 Mbit/s)
- Flow 3 egress (mean 30.21 Mbit/s)

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

- Flow 1 (95th percentile 5.09 ms)
- Flow 2 (95th percentile 6.54 ms)
- Flow 3 (95th percentile 9.87 ms)
Run 6: Statistics of PCC-Vivace

Local clock offset: -6.59 ms
Remote clock offset: -7.287 ms

# Below is generated by plot.py at 2018-05-25 15:25:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 59.11 Mbit/s
  95th percentile per-packet one-way delay: 3.071 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 25.72 Mbit/s
  95th percentile per-packet one-way delay: 3.306 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 42.56 Mbit/s
  95th percentile per-packet one-way delay: 3.009 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 15.43 Mbit/s
  95th percentile per-packet one-way delay: 3.018 ms
  Loss rate: 0.08%
Run 6: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 25.74 Mbit/s)
- Flow 1 egress (mean 25.72 Mbit/s)
- Flow 2 ingress (mean 42.56 Mbit/s)
- Flow 2 egress (mean 42.56 Mbit/s)
- Flow 3 ingress (mean 15.43 Mbit/s)
- Flow 3 egress (mean 15.43 Mbit/s)
Run 7: Statistics of PCC-Vivace

Start at: 2018-05-25 14:08:04
End at: 2018-05-25 14:08:34
Local clock offset: -5.6 ms
Remote clock offset: -7.57 ms

# Below is generated by plot.py at 2018-05-25 15:26:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.06 Mbit/s
95th percentile per-packet one-way delay: 26.266 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 58.27 Mbit/s
95th percentile per-packet one-way delay: 16.908 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 29.70 Mbit/s
95th percentile per-packet one-way delay: 9.380 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 30.40 Mbit/s
95th percentile per-packet one-way delay: 32.995 ms
Loss rate: 1.96%
Run 7: Report of PCC-Vivace — Data Link

![Graph 1](image1)

- Flow 1 ingress (mean 58.29 Mbit/s)
- Flow 1 egress (mean 58.27 Mbit/s)
- Flow 2 ingress (mean 29.71 Mbit/s)
- Flow 2 egress (mean 29.70 Mbit/s)
- Flow 3 ingress (mean 30.99 Mbit/s)
- Flow 3 egress (mean 30.40 Mbit/s)

![Graph 2](image2)

- Flow 1 (95th percentile 16.91 ms)
- Flow 2 (95th percentile 9.38 ms)
- Flow 3 (95th percentile 32.99 ms)
Run 8: Statistics of PCC-Vivace

End at: 2018-05-25 14:26:26
Local clock offset: -6.253 ms
Remote clock offset: -2.784 ms

# Below is generated by plot.py at 2018-05-25 15:26:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.47 Mbit/s
95th percentile per-packet one-way delay: 29.138 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 55.37 Mbit/s
95th percentile per-packet one-way delay: 2.799 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 33.73 Mbit/s
95th percentile per-packet one-way delay: 32.081 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 29.31 Mbit/s
95th percentile per-packet one-way delay: 32.668 ms
Loss rate: 1.11%
Run 8: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 55.37 Mbit/s)
- Flow 1 egress (mean 55.37 Mbit/s)
- Flow 2 ingress (mean 33.88 Mbit/s)
- Flow 2 egress (mean 33.73 Mbit/s)
- Flow 3 ingress (mean 29.63 Mbit/s)
- Flow 3 egress (mean 29.31 Mbit/s)

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

- Flow 1 (95th percentile 2.80 ms)
- Flow 2 (95th percentile 32.08 ms)
- Flow 3 (95th percentile 32.67 ms)
Run 9: Statistics of PCC-Vivace

End at: 2018-05-25 14:44:18
Local clock offset: -5.459 ms
Remote clock offset: -0.726 ms

# Below is generated by plot.py at 2018-05-25 15:26:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.64 Mbit/s
95th percentile per-packet one-way delay: 32.925 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 54.88 Mbit/s
95th percentile per-packet one-way delay: 29.644 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 34.24 Mbit/s
95th percentile per-packet one-way delay: 22.281 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 27.22 Mbit/s
95th percentile per-packet one-way delay: 35.142 ms
Loss rate: 2.70%
Run 10: Statistics of PCC-Vivace

Start at: 2018-05-25 15:01:36
End at: 2018-05-25 15:02:06
Local clock offset: -5.416 ms
Remote clock offset: -2.753 ms

# Below is generated by plot.py at 2018-05-25 15:26:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.74 Mbit/s
95th percentile per-packet one-way delay: 28.566 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 53.03 Mbit/s
95th percentile per-packet one-way delay: 26.230 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 38.03 Mbit/s
95th percentile per-packet one-way delay: 31.026 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 22.43 Mbit/s
95th percentile per-packet one-way delay: 33.710 ms
Loss rate: 0.62%
Run 10: Report of PCC-Vivace — Data Link
Run 1: Statistics of WebRTC media

End at: 2018-05-25 12:18:03  
Local clock offset: -5.855 ms  
Remote clock offset: -7.845 ms

# Below is generated by plot.py at 2018-05-25 15:26:19  
# Datalink statistics
-- Total of 3 flows:  
  Average throughput: 4.52 Mbit/s  
  95th percentile per-packet one-way delay: 3.528 ms  
  Loss rate: 0.01%  
-- Flow 1:  
  Average throughput: 2.34 Mbit/s  
  95th percentile per-packet one-way delay: 3.408 ms  
  Loss rate: 0.00%  
-- Flow 2:  
  Average throughput: 1.53 Mbit/s  
  95th percentile per-packet one-way delay: 3.742 ms  
  Loss rate: 0.00%  
-- Flow 3:  
  Average throughput: 0.68 Mbit/s  
  95th percentile per-packet one-way delay: 3.620 ms  
  Loss rate: 0.05%
Run 1: Report of WebRTC media — Data Link

Throughput (Mbps)

0 20 40

Flow 1 ingress (mean 2.34 Mbps)  Flow 1 egress (mean 2.34 Mbps)
Flow 2 ingress (mean 1.53 Mbps)  Flow 2 egress (mean 1.53 Mbps)
Flow 3 ingress (mean 0.68 Mbps)  Flow 3 egress (mean 0.68 Mbps)

Per-packet round-trip delay (ms)

0 5

Flow 1 (95th percentile 3.41 ms)  Flow 2 (95th percentile 3.74 ms)  Flow 3 (95th percentile 3.62 ms)
Run 2: Statistics of WebRTC media

End at: 2018-05-25 12:35:55
Local clock offset: -5.041 ms
Remote clock offset: -5.793 ms

# Below is generated by plot.py at 2018-05-25 15:26:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 4.252 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 4.194 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 4.204 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 4.683 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

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**Graph 1: Throughput (Mbps)**

- **Flow 1 ing**: mean 2.38 Mbps
- **Flow 1 egress**: mean 2.38 Mbps
- **Flow 2 ing**: mean 1.49 Mbps
- **Flow 2 egress**: mean 1.49 Mbps
- **Flow 3 ing**: mean 0.66 Mbps
- **Flow 3 egress**: mean 0.66 Mbps

**Graph 2: Per Packet One-Way Delay (ms)**

- **Flow 1** (95th percentile: 4.19 ms)
- **Flow 2** (95th percentile: 4.20 ms)
- **Flow 3** (95th percentile: 4.68 ms)
Run 3: Statistics of WebRTC media

Local clock offset: -5.779 ms
Remote clock offset: -3.243 ms

# Below is generated by plot.py at 2018-05-25 15:26:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 3.487 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 3.375 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 3.574 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 3.607 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.40 Mbit/s)
- Flow 1 egress (mean 2.40 Mbit/s)
- Flow 2 ingress (mean 1.49 Mbit/s)
- Flow 2 egress (mean 1.49 Mbit/s)
- Flow 3 ingress (mean 0.69 Mbit/s)
- Flow 3 egress (mean 0.69 Mbit/s)
Run 4: Statistics of WebRTC media

End at: 2018-05-25 13:11:40
Local clock offset: -5.849 ms
Remote clock offset: -5.395 ms

# Below is generated by plot.py at 2018-05-25 15:26:19
# Datalink statistics
--- Total of 3 flows:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 3.212 ms
Loss rate: 0.00%
--- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 3.266 ms
Loss rate: 0.00%
--- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 3.102 ms
Loss rate: 0.00%
--- Flow 3:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 3.238 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.37 Mbit/s)
- Flow 1 egress (mean 2.37 Mbit/s)
- Flow 2 ingress (mean 1.51 Mbit/s)
- Flow 2 egress (mean 1.51 Mbit/s)
- Flow 3 ingress (mean 0.67 Mbit/s)
- Flow 3 egress (mean 0.67 Mbit/s)

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

- Flow 1 (95th percentile 3.27 ms)
- Flow 2 (95th percentile 3.10 ms)
- Flow 3 (95th percentile 3.24 ms)
Run 5: Statistics of WebRTC media

Local clock offset: -6.604 ms
Remote clock offset: -7.419 ms

# Below is generated by plot.py at 2018-05-25 15:26:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 2.549 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 2.408 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 2.579 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 2.843 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

![Graph showing throughput and packet one-way delay over time for different flows with specified mean bit rates.]

- Flow 1 ingress (mean 2.33 Mbit/s)
- Flow 1 egress (mean 2.33 Mbit/s)
- Flow 2 ingress (mean 1.51 Mbit/s)
- Flow 2 egress (mean 1.51 Mbit/s)
- Flow 3 ingress (mean 0.66 Mbit/s)
- Flow 3 egress (mean 0.67 Mbit/s)
Run 6: Statistics of WebRTC media

Local clock offset: -5.822 ms
Remote clock offset: -7.422 ms

# Below is generated by plot.py at 2018-05-25 15:26:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.48 Mbit/s
  95th percentile per-packet one-way delay: 3.342 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 3.453 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.46 Mbit/s
  95th percentile per-packet one-way delay: 3.072 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.68 Mbit/s
  95th percentile per-packet one-way delay: 3.475 ms
  Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 2.34 Mbit/s)
Flow 1 egress (mean 2.34 Mbit/s)
Flow 2 ingress (mean 1.46 Mbit/s)
Flow 2 egress (mean 1.46 Mbit/s)
Flow 3 ingress (mean 0.68 Mbit/s)
Flow 3 egress (mean 0.68 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 3.45 ms)
Flow 2 (95th percentile 3.07 ms)
Flow 3 (95th percentile 3.48 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-05-25 14:04:43
End at: 2018-05-25 14:05:13
Local clock offset: -5.571 ms
Remote clock offset: -7.458 ms

# Below is generated by plot.py at 2018-05-25 15:26:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 3.284 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 3.213 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 3.265 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 3.565 ms
Loss rate: 0.00%
Run 8: Statistics of WebRTC media

End at: 2018-05-25 14:23:05
Local clock offset: -5.497 ms
Remote clock offset: -3.448 ms

# Below is generated by plot.py at 2018-05-25 15:26:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 3.390 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 3.240 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 3.584 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 3.248 ms
Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.37 Mbit/s)
- Flow 1 egress (mean 2.37 Mbit/s)
- Flow 2 ingress (mean 1.46 Mbit/s)
- Flow 2 egress (mean 1.46 Mbit/s)
- Flow 3 ingress (mean 0.41 Mbit/s)
- Flow 3 egress (mean 0.41 Mbit/s)

![Graph showing packet delay](image)

- Flow 1 (95th percentile 3.24 ms)
- Flow 2 (95th percentile 3.58 ms)
- Flow 3 (95th percentile 3.25 ms)
Run 9: Statistics of WebRTC media

End at: 2018-05-25 14:40:57  
Local clock offset: -4.685 ms  
Remote clock offset: -1.045 ms

# Below is generated by plot.py at 2018-05-25 15:26:19  
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.42 Mbit/s
  95th percentile per-packet one-way delay: 4.391 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.41 Mbit/s
  95th percentile per-packet one-way delay: 4.330 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.49 Mbit/s
  95th percentile per-packet one-way delay: 4.563 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.53 Mbit/s
  95th percentile per-packet one-way delay: 4.062 ms
  Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

**Throughput (Mbps)**

- Flow 1 ingress (mean 2.41 Mbps)
- Flow 1 egress (mean 2.41 Mbps)
- Flow 2 ingress (mean 1.49 Mbps)
- Flow 2 egress (mean 1.49 Mbps)
- Flow 3 ingress (mean 0.53 Mbps)
- Flow 3 egress (mean 0.53 Mbps)

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

- Flow 1 (95th percentile 4.33 ms)
- Flow 2 (95th percentile 4.56 ms)
- Flow 3 (95th percentile 4.06 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-05-25 14:58:15
End at: 2018-05-25 14:58:45
Local clock offset: -5.423 ms
Remote clock offset: -2.607 ms

# Below is generated by plot.py at 2018-05-25 15:26:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.54 Mbit/s
  95th percentile per-packet one-way delay: 3.705 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.43 Mbit/s
  95th percentile per-packet one-way delay: 3.521 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.46 Mbit/s
  95th percentile per-packet one-way delay: 3.918 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.68 Mbit/s
  95th percentile per-packet one-way delay: 3.994 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

Throughput (Mbps) vs Time (s)

- Flow 1 ingress (mean 2.42 Mbps)
- Flow 1 egress (mean 2.43 Mbps)
- Flow 2 ingress (mean 1.46 Mbps)
- Flow 2 egress (mean 1.46 Mbps)
- Flow 3 ingress (mean 0.68 Mbps)
- Flow 3 egress (mean 0.68 Mbps)

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

- Flow 1 (95th percentile 3.52 ms)
- Flow 2 (95th percentile 3.92 ms)
- Flow 3 (95th percentile 3.99 ms)