Pantheon Report

Generated at 2018-02-05 01:09:06 (UTC).
Data path: AWS Brazil 1 Ethernet (local) → Brazil Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).
NTP offsets were measured against gps.ntp.br and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ 70217998b3c9a7166a95460a70c0854d1326e100
third_party/calibrated_koho @ 3cb73c0d1c0322cd6ae446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ fb9c9ab842e5614ad52911a76fb9bd1c1b0dcda8e
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0a9b
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce0b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4a9d58d38dc4dfe0e0ceb6f90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a77f5b41135ed5b540c0fd35059395282a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303ae8e82ea808e6928eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659b9013db26744ccfc9f93
third_party/pcc @ 1afc9558fa0d66d1b8623091a55f8c872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/protobuf-quin @ 77961f1a82733a86b42f1bc8143ebc978f3c5f42
third_party/scream @ c3370fd7bd17265a9b5b4a00d0b5963885
third_party/sourdough @ f1a14bffe749737437f61b1aeeeb30b267d8e681
third_party/sprout @ 6f2e6e6e88d916669f023d3f750e2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c458019212041784ce3
third_party/webrtc @ a4881977dd041ace68a42849b2540ad834825f42
test from AWS Brazil 1 Ethernet to Brazil Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
</tr>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>59.93</td>
<td>33.26</td>
<td>41.22</td>
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<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>60.57</td>
<td>36.29</td>
<td>27.45</td>
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<td>LEDBAT</td>
<td>10</td>
<td>64.44</td>
<td>36.94</td>
<td>23.49</td>
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<td>PCC</td>
<td>10</td>
<td>42.54</td>
<td>42.00</td>
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<td>QUIC Cubic</td>
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<td>43.58</td>
<td>39.55</td>
<td>30.33</td>
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<td>0.21</td>
<td>0.19</td>
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<td>WebRTC media</td>
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<td>Sprout</td>
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<td>TaoVA-100x</td>
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<td>45.04</td>
<td>39.70</td>
<td>30.22</td>
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<td>TCP Vegas</td>
<td>10</td>
<td>44.94</td>
<td>34.46</td>
<td>32.60</td>
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<td>Verus</td>
<td>10</td>
<td>43.55</td>
<td>34.96</td>
<td>29.61</td>
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<tr>
<td>Copa</td>
<td>10</td>
<td>28.17</td>
<td>34.01</td>
<td>18.94</td>
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<td>FillP</td>
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<td>53.84</td>
<td>38.26</td>
<td>38.55</td>
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<td>Indigo-1-32</td>
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<td>50.62</td>
<td>41.90</td>
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<tr>
<td>Vivace-latency</td>
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<td>28.05</td>
<td>30.51</td>
<td>19.57</td>
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<td>Vivace-loss</td>
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<td>55.86</td>
<td>38.69</td>
<td>18.61</td>
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<tr>
<td>Vivace-LTE</td>
<td>10</td>
<td>61.55</td>
<td>27.78</td>
<td>28.02</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-02-04 21:06:57
End at: 2018-02-04 21:07:27
Local clock offset: 0.078 ms
Remote clock offset: 2.243 ms

# Below is generated by plot.py at 2018-02-05 00:43:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 26.616 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 65.90 Mbit/s
95th percentile per-packet one-way delay: 26.187 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 31.97 Mbit/s
95th percentile per-packet one-way delay: 26.592 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 30.85 Mbit/s
95th percentile per-packet one-way delay: 31.880 ms
Loss rate: 0.46%
Run 1: Report of TCP BBR — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flow ingress and egress rates.]

- Flow 1 ingress (mean 65.97 Mbit/s)
- Flow 1 egress (mean 65.90 Mbit/s)
- Flow 2 ingress (mean 32.01 Mbit/s)
- Flow 2 egress (mean 31.97 Mbit/s)
- Flow 3 ingress (mean 31.04 Mbit/s)
- Flow 3 egress (mean 30.85 Mbit/s)

- Flow 1 (95th percentile 26.19 ms)
- Flow 2 (95th percentile 26.59 ms)
- Flow 3 (95th percentile 31.88 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-02-04 21:27:34
End at: 2018-02-04 21:28:04
Local clock offset: 0.053 ms
Remote clock offset: 2.106 ms

# Below is generated by plot.py at 2018-02-05 00:43:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 16.856 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.76 Mbit/s
95th percentile per-packet one-way delay: 16.817 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.75 Mbit/s
95th percentile per-packet one-way delay: 16.146 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.71 Mbit/s
95th percentile per-packet one-way delay: 18.669 ms
Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2018-02-04 21:48:02
End at: 2018-02-04 21:48:32
Local clock offset: 0.001 ms
Remote clock offset: 2.061 ms

# Below is generated by plot.py at 2018-02-05 00:43:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.46 Mbit/s
  95th percentile per-packet one-way delay: 28.286 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 67.80 Mbit/s
  95th percentile per-packet one-way delay: 27.878 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 31.65 Mbit/s
  95th percentile per-packet one-way delay: 27.241 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 25.70 Mbit/s
  95th percentile per-packet one-way delay: 32.327 ms
  Loss rate: 0.53%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-02-04 22:08:25
End at: 2018-02-04 22:08:55
Local clock offset: 0.048 ms
Remote clock offset: 3.117 ms

# Below is generated by plot.py at 2018-02-05 00:43:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.91 Mbit/s
95th percentile per-packet one-way delay: 52.102 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 54.64 Mbit/s
95th percentile per-packet one-way delay: 25.791 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 21.59 Mbit/s
95th percentile per-packet one-way delay: 21.167 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 75.17 Mbit/s
95th percentile per-packet one-way delay: 60.020 ms
Loss rate: 1.37%
Run 4: Report of TCP BBR — Data Link

![Graph showing throughput and packet loss over time for different flows.](image-url)
Run 5: Statistics of TCP BBR

End at: 2018-02-04 22:29:28
Local clock offset: 0.032 ms
Remote clock offset: 3.212 ms

# Below is generated by plot.py at 2018-02-05 00:43:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.72 Mbit/s
95th percentile per-packet one-way delay: 59.768 ms
Loss rate: 5.99%
-- Flow 1:
Average throughput: 49.42 Mbit/s
95th percentile per-packet one-way delay: 62.649 ms
Loss rate: 10.35%
-- Flow 2:
Average throughput: 44.55 Mbit/s
95th percentile per-packet one-way delay: 20.537 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 34.90 Mbit/s
95th percentile per-packet one-way delay: 26.508 ms
Loss rate: 0.30%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-02-04 22:49:38
End at: 2018-02-04 22:50:08
Local clock offset: -0.006 ms
Remote clock offset: 2.847 ms

# Below is generated by plot.py at 2018-02-05 00:43:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 33.477 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 35.732 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 21.98 Mbit/s
95th percentile per-packet one-way delay: 28.965 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 74.64 Mbit/s
95th percentile per-packet one-way delay: 31.004 ms
Loss rate: 0.25%
Run 6: Report of TCP BBR — Data Link

![Graph showing throughput and packet one-way delay over time for different flows. The graphs display the throughput in Mbps and per packet one-way delay in milliseconds.]

Legend:
- Flow 1 ingress (mean 57.11 Mbps) - Flow 1 egress (mean 56.99 Mbps)
- Flow 2 ingress (mean 22.07 Mbps) - Flow 2 egress (mean 21.95 Mbps)
- Flow 3 ingress (mean 74.96 Mbps) - Flow 3 egress (mean 74.64 Mbps)

Flow 1 (95th percentile 35.73 ms) - Flow 2 (95th percentile 28.96 ms) - Flow 3 (95th percentile 31.00 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-02-04 23:10:10
End at: 2018-02-04 23:10:40
Local clock offset: -0.067 ms
Remote clock offset: 2.676 ms

# Below is generated by plot.py at 2018-02-05 00:43:20
# Datalink statistics
   -- Total of 3 flows:
      Average throughput: 95.68 Mbit/s
      95th percentile per-packet one-way delay: 64.042 ms
      Loss rate: 1.50%
   -- Flow 1:
      Average throughput: 71.94 Mbit/s
      95th percentile per-packet one-way delay: 64.736 ms
      Loss rate: 1.53%
   -- Flow 2:
      Average throughput: 31.91 Mbit/s
      95th percentile per-packet one-way delay: 52.520 ms
      Loss rate: 1.22%
   -- Flow 3:
      Average throughput: 7.42 Mbit/s
      95th percentile per-packet one-way delay: 33.542 ms
      Loss rate: 3.14%
Run 7: Report of TCP BBR — Data Link
Run 8: Statistics of TCP BBR

Start at: 2018-02-04 23:30:51
End at: 2018-02-04 23:31:21
Local clock offset: -0.016 ms
Remote clock offset: 2.645 ms

# Below is generated by plot.py at 2018-02-05 00:43:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.43 Mbit/s
95th percentile per-packet one-way delay: 61.891 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 53.88 Mbit/s
95th percentile per-packet one-way delay: 50.388 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 45.23 Mbit/s
95th percentile per-packet one-way delay: 62.980 ms
Loss rate: 2.42%
-- Flow 3:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 67.202 ms
Loss rate: 3.54%
Run 8: Report of TCP BBR — Data Link

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

- **Flow 1** (ingress mean 54.35 Mbit/s, egress mean 53.88 Mbit/s)
- **Flow 2** (ingress mean 46.36 Mbit/s, egress mean 45.23 Mbit/s)
- **Flow 3** (ingress mean 35.78 Mbit/s, egress mean 34.61 Mbit/s)

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

- **Flow 1** (95th percentile 50.39 ms)
- **Flow 2** (95th percentile 62.98 ms)
- **Flow 3** (95th percentile 67.20 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-02-04 23:51:39
End at: 2018-02-04 23:52:09
Local clock offset: -0.03 ms
Remote clock offset: -2.775 ms

# Below is generated by plot.py at 2018-02-05 00:44:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 59.565 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 50.35 Mbit/s
95th percentile per-packet one-way delay: 46.690 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 48.20 Mbit/s
95th percentile per-packet one-way delay: 60.586 ms
Loss rate: 2.29%
-- Flow 3:
Average throughput: 40.05 Mbit/s
95th percentile per-packet one-way delay: 63.062 ms
Loss rate: 4.11%
Run 9: Report of TCP BBR — Data Link

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

- **Throughput (Mbps)**
  - Y-axis: Throughput in Mbps, ranging from 0 to 100.
  - X-axis: Time in seconds, ranging from 0 to 30.
  - Legend:
    - Flow 1 ingress (mean 51.12 Mbps)
    - Flow 1 egress (mean 50.35 Mbps)
    - Flow 2 ingress (mean 49.38 Mbps)
    - Flow 2 egress (mean 48.20 Mbps)
    - Flow 3 ingress (mean 41.78 Mbps)
    - Flow 3 egress (mean 40.05 Mbps)

- **Per-packet one-way delay (ms)**
  - Y-axis: One-way delay in ms, ranging from 0 to 70.
  - X-axis: Time in seconds, ranging from 0 to 30.
  - Legend:
    - Flow 1 (95th percentile 46.69 ms)
    - Flow 2 (95th percentile 60.59 ms)
    - Flow 3 (95th percentile 63.06 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-02-05 00:12:29
End at: 2018-02-05 00:12:59
Local clock offset: -0.009 ms
Remote clock offset: -18.48 ms

# Below is generated by plot.py at 2018-02-05 00:44:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.30 Mbit/s
95th percentile per-packet one-way delay: 32.455 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 60.65 Mbit/s
95th percentile per-packet one-way delay: -7.743 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 18.73 Mbit/s
95th percentile per-packet one-way delay: 0.006 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 73.12 Mbit/s
95th percentile per-packet one-way delay: 35.887 ms
Loss rate: 0.53%
Run 10: Report of TCP BBR — Data Link

![Graph showing throughput and packet delay](image-url)
Run 1: Statistics of TCP Cubic

Start at: 2018-02-04 20:50:58
End at: 2018-02-04 20:51:28
Local clock offset: 0.045 ms
Remote clock offset: 2.374 ms

# Below is generated by plot.py at 2018-02-05 00:44:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.29 Mbit/s
95th percentile per-packet one-way delay: 32.510 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 73.446 ms
Loss rate: 8.60%
-- Flow 2:
Average throughput: 84.16 Mbit/s
95th percentile per-packet one-way delay: 32.426 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 25.69 Mbit/s
95th percentile per-packet one-way delay: 32.673 ms
Loss rate: 0.14%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-02-04 21:11:33
End at: 2018-02-04 21:12:03
Local clock offset: 0.06 ms
Remote clock offset: 2.216 ms

# Below is generated by plot.py at 2018-02-05 00:44:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 32.751 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 65.24 Mbit/s
95th percentile per-packet one-way delay: 32.707 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 34.86 Mbit/s
95th percentile per-packet one-way delay: 32.919 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 27.14 Mbit/s
95th percentile per-packet one-way delay: 32.919 ms
Loss rate: 0.15%
Run 2: Report of TCP Cubic — Data Link

![Graphs showing throughput and per-packet one-way delay over time for flows 1 to 3.]

- Flow 1 ingress (mean 65.32 Mbit/s)
- Flow 1 egress (mean 65.24 Mbit/s)
- Flow 2 ingress (mean 34.90 Mbit/s)
- Flow 2 egress (mean 34.86 Mbit/s)
- Flow 3 ingress (mean 27.20 Mbit/s)
- Flow 3 egress (mean 27.14 Mbit/s)
Run 3: Statistics of TCP Cubic

Start at: 2018-02-04 21:32:05
End at: 2018-02-04 21:32:35
Local clock offset: -0.015 ms
Remote clock offset: 2.14 ms

# Below is generated by plot.py at 2018-02-05 00:44:41
# Datalink statistics

-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 32.658 ms
Loss rate: 0.06%

-- Flow 1:
Average throughput: 87.57 Mbit/s
95th percentile per-packet one-way delay: 32.629 ms
Loss rate: 0.02%

-- Flow 2:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 73.911 ms
Loss rate: 10.05%

-- Flow 3:
Average throughput: 28.89 Mbit/s
95th percentile per-packet one-way delay: 32.507 ms
Loss rate: 0.07%
Run 3: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 87.66 Mbit/s) — Flow 1 egress (mean 87.57 Mbit/s)
- Flow 2 ingress (mean 0.49 Mbit/s) — Flow 2 egress (mean 0.44 Mbit/s)
- Flow 3 ingress (mean 26.92 Mbit/s) — Flow 3 egress (mean 28.89 Mbit/s)

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

- Flow 1 (95th percentile 32.63 ms)
- Flow 2 (95th percentile 73.91 ms)
- Flow 3 (95th percentile 32.51 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-02-04 21:52:33
End at: 2018-02-04 21:53:03
Local clock offset: -0.041 ms
Remote clock offset: 2.285 ms

# Below is generated by plot.py at 2018-02-05 00:44:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.45 Mbit/s
  95th percentile per-packet one-way delay: 32.882 ms
  Loss rate: 0.06%
-- Flow 1:
  Average throughput: 63.85 Mbit/s
  95th percentile per-packet one-way delay: 32.552 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 37.26 Mbit/s
  95th percentile per-packet one-way delay: 33.711 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 26.59 Mbit/s
  95th percentile per-packet one-way delay: 32.719 ms
  Loss rate: 0.17%
Run 4: Report of TCP Cubic — Data Link
Run 5: Statistics of TCP Cubic

Start at: 2018-02-04 22:12:57
Local clock offset: -0.029 ms
Remote clock offset: 3.141 ms

# Below is generated by plot.py at 2018-02-05 00:44:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 32.733 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 66.79 Mbit/s
95th percentile per-packet one-way delay: 32.692 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 29.70 Mbit/s
95th percentile per-packet one-way delay: 32.760 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 32.87 Mbit/s
95th percentile per-packet one-way delay: 32.884 ms
Loss rate: 0.07%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-02-04 22:33:31  
End at: 2018-02-04 22:34:01  
Local clock offset: 0.028 ms  
Remote clock offset: 3.175 ms

# Below is generated by plot.py at 2018-02-05 00:44:45  
# Datalink statistics

-- Total of 3 flows:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 57.398 ms
Loss rate: 0.06%

-- Flow 1:
Average throughput: 77.08 Mbit/s
95th percentile per-packet one-way delay: 35.182 ms
Loss rate: 0.03%

-- Flow 2:
Average throughput: 13.70 Mbit/s
95th percentile per-packet one-way delay: 68.159 ms
Loss rate: 0.28%

-- Flow 3:
Average throughput: 33.92 Mbit/s
95th percentile per-packet one-way delay: 32.174 ms
Loss rate: 0.08%
Run 6: Report of TCP Cubic — Data Link

![Graph 1](image1.png)

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

Start at: 2018-02-04 22:54:07
End at: 2018-02-04 22:54:37
Local clock offset: -0.008 ms
Remote clock offset: 1.562 ms

# Below is generated by plot.py at 2018-02-05 00:45:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 41.419 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 69.73 Mbit/s
95th percentile per-packet one-way delay: 31.416 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 28.34 Mbit/s
95th percentile per-packet one-way delay: 47.412 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 26.79 Mbit/s
95th percentile per-packet one-way delay: 30.947 ms
Loss rate: 0.06%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-02-04 23:14:41
End at: 2018-02-04 23:15:11
Local clock offset: -0.088 ms
Remote clock offset: 2.622 ms

# Below is generated by plot.py at 2018-02-05 00:46:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.39 Mbit/s
  95th percentile per-packet one-way delay: 52.004 ms
  Loss rate: 0.08%
-- Flow 1:
  Average throughput: 59.81 Mbit/s
  95th percentile per-packet one-way delay: 53.944 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 37.88 Mbit/s
  95th percentile per-packet one-way delay: 40.524 ms
  Loss rate: 0.13%
-- Flow 3:
  Average throughput: 37.24 Mbit/s
  95th percentile per-packet one-way delay: 32.304 ms
  Loss rate: 0.08%
Run 8: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 59.90 Mbit/s)
- Flow 1 egress (mean 59.81 Mbit/s)
- Flow 2 ingress (mean 37.93 Mbit/s)
- Flow 2 egress (mean 37.88 Mbit/s)
- Flow 3 ingress (mean 37.30 Mbit/s)
- Flow 3 egress (mean 37.24 Mbit/s)

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

- Flow 1 (95th percentile 53.94 ms)
- Flow 2 (95th percentile 40.52 ms)
- Flow 3 (95th percentile 32.30 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-02-04 23:35:25
End at: 2018-02-04 23:35:55
Local clock offset: -0.004 ms
Remote clock offset: -5.599 ms

# Below is generated by plot.py at 2018-02-05 00:46:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 29.421 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 65.16 Mbit/s
95th percentile per-packet one-way delay: 24.061 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 31.47 Mbit/s
95th percentile per-packet one-way delay: 35.161 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 34.33 Mbit/s
95th percentile per-packet one-way delay: 24.218 ms
Loss rate: 0.15%
Run 9: Report of TCP Cubic — Data Link

![Graph 1](image1.png)

Throughput (Mbit/s)

![Graph 2](image2.png)

Per packet one way delay (ms)

Legend:
- Flow 1 ingress (mean 65.24 Mbit/s)
- Flow 1 egress (mean 65.16 Mbit/s)
- Flow 2 ingress (mean 31.47 Mbit/s)
- Flow 2 egress (mean 31.47 Mbit/s)
- Flow 3 ingress (mean 34.39 Mbit/s)
- Flow 3 egress (mean 34.33 Mbit/s)
Run 10: Statistics of TCP Cubic

Start at: 2018-02-04 23:56:15
End at: 2018-02-04 23:56:45
Local clock offset: -0.015 ms
Remote clock offset: -5.869 ms

# Below is generated by plot.py at 2018-02-05 00:46:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.58 Mbit/s
95th percentile per-packet one-way delay: 45.142 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 49.83 Mbit/s
95th percentile per-packet one-way delay: 45.173 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 65.12 Mbit/s
95th percentile per-packet one-way delay: 43.726 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 62.195 ms
Loss rate: 8.39%
Run 10: Report of TCP Cubic — Data Link

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

- **Flow 1**: Ingress (mean 49.87 Mbit/s), Egress (mean 49.83 Mbit/s)
- **Flow 2**: Ingress (mean 65.25 Mbit/s), Egress (mean 65.12 Mbit/s)
- **Flow 3**: Ingress (mean 1.17 Mbit/s), Egress (mean 1.07 Mbit/s)

![Graph showing packet delay distribution for different flows.](image)

- **Flow 1**: 95th percentile 45.17 ms
- **Flow 2**: 95th percentile 43.73 ms
- **Flow 3**: 95th percentile 62.20 ms
Run 1: Statistics of LEDBAT

Start at: 2018-02-04 20:48:44
End at: 2018-02-04 20:49:14
Local clock offset: 0.078 ms
Remote clock offset: 2.367 ms

# Below is generated by plot.py at 2018-02-05 00:46:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.15 Mbit/s
95th percentile per-packet one-way delay: 32.223 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 62.50 Mbit/s
95th percentile per-packet one-way delay: 32.180 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 36.61 Mbit/s
95th percentile per-packet one-way delay: 32.397 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 31.08 Mbit/s
95th percentile per-packet one-way delay: 32.420 ms
Loss rate: 0.06%
Run 1: Report of LEDBAT — Data Link

![Graph](image)

- **Flow 1 ingress** (mean 62.58 Mbit/s)
- **Flow 1 egress** (mean 62.50 Mbit/s)
- **Flow 2 ingress** (mean 36.64 Mbit/s)
- **Flow 2 egress** (mean 36.61 Mbit/s)
- **Flow 3 ingress** (mean 31.14 Mbit/s)
- **Flow 3 egress** (mean 31.08 Mbit/s)

![Graph](image)

- **Flow 1 (95th percentile 32.18 ms)**
- **Flow 2 (95th percentile 32.40 ms)**
- **Flow 3 (95th percentile 32.42 ms)**

45
Run 2: Statistics of LEDBAT

Start at: 2018-02-04 21:09:19
End at: 2018-02-04 21:09:49
Local clock offset: -0.003 ms
Remote clock offset: -18.377 ms

# Below is generated by plot.py at 2018-02-05 00:46:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.16 Mbit/s
  95th percentile per-packet one-way delay: 13.661 ms
  Loss rate: 0.06%
-- Flow 1:
  Average throughput: 62.92 Mbit/s
  95th percentile per-packet one-way delay: 11.637 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 42.94 Mbit/s
  95th percentile per-packet one-way delay: 11.906 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 17.14 Mbit/s
  95th percentile per-packet one-way delay: 33.822 ms
  Loss rate: 0.42%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-02-04 21:29:51
End at: 2018-02-04 21:30:21
Local clock offset: 0.07 ms
Remote clock offset: 2.113 ms

# Below is generated by plot.py at 2018-02-05 00:46:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.58 Mbit/s
95th percentile per-packet one-way delay: 35.355 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 57.85 Mbit/s
95th percentile per-packet one-way delay: 36.377 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 41.99 Mbit/s
95th percentile per-packet one-way delay: 32.372 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 32.54 Mbit/s
95th percentile per-packet one-way delay: 32.628 ms
Loss rate: 0.08%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-02-04 21:50:19
End at: 2018-02-04 21:50:49
Local clock offset: -0.039 ms
Remote clock offset: 2.16 ms

# Below is generated by plot.py at 2018-02-05 00:46:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.19 Mbit/s
  95th percentile per-packet one-way delay: 32.494 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 61.74 Mbit/s
  95th percentile per-packet one-way delay: 32.245 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 40.96 Mbit/s
  95th percentile per-packet one-way delay: 32.420 ms
  Loss rate: 0.06%
-- Flow 3:
  Average throughput: 24.81 Mbit/s
  95th percentile per-packet one-way delay: 37.925 ms
  Loss rate: 0.16%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-02-04 22:10:43
End at: 2018-02-04 22:11:13
Local clock offset: -0.033 ms
Remote clock offset: 3.066 ms

# Below is generated by plot.py at 2018-02-05 00:46:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.08 Mbit/s
95th percentile per-packet one-way delay: 40.940 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 76.30 Mbit/s
95th percentile per-packet one-way delay: 31.990 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 31.07 Mbit/s
95th percentile per-packet one-way delay: 46.430 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 72.559 ms
Loss rate: 12.95%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Start at: 2018-02-04 22:31:16
End at: 2018-02-04 22:31:46
Local clock offset: 0.033 ms
Remote clock offset: 3.239 ms

# Below is generated by plot.py at 2018-02-05 00:47:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 32.461 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 62.79 Mbit/s
95th percentile per-packet one-way delay: 32.175 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 42.25 Mbit/s
95th percentile per-packet one-way delay: 32.338 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 19.01 Mbit/s
95th percentile per-packet one-way delay: 42.651 ms
Loss rate: 0.11%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-02-04 22:51:53
End at: 2018-02-04 22:52:23
Local clock offset: -0.006 ms
Remote clock offset: 2.884 ms

# Below is generated by plot.py at 2018-02-05 00:47:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 39.710 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 57.53 Mbit/s
95th percentile per-packet one-way delay: 38.671 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 48.88 Mbit/s
95th percentile per-packet one-way delay: 32.161 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 17.40 Mbit/s
95th percentile per-packet one-way delay: 50.170 ms
Loss rate: 0.12%
Run 7: Report of LEDBAT — Data Link

![Graph of throughput and per-packet round-trip delay]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 57.59 Mbps)
  - Flow 1 egress (mean 57.53 Mbps)
  - Flow 2 ingress (mean 48.93 Mbps)
  - Flow 2 egress (mean 48.88 Mbps)
  - Flow 3 ingress (mean 17.41 Mbps)
  - Flow 3 egress (mean 17.40 Mbps)

- **Per-packet round-trip delay (ms):**
  - Flow 1 (95th percentile 38.67 ms)
  - Flow 2 (95th percentile 32.16 ms)
  - Flow 3 (95th percentile 50.17 ms)
Run 8: Statistics of LEDBAT

Start at: 2018-02-04 23:12:26
End at: 2018-02-04 23:12:56
Local clock offset: 0.012 ms
Remote clock offset: -2.486 ms

# Below is generated by plot.py at 2018-02-05 00:47:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.69 Mbit/s
95th percentile per-packet one-way delay: 37.282 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 50.85 Mbit/s
95th percentile per-packet one-way delay: 38.295 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 55.96 Mbit/s
95th percentile per-packet one-way delay: 27.303 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 22.78 Mbit/s
95th percentile per-packet one-way delay: 39.510 ms
Loss rate: 0.07%
Run 8: Report of LEDBAT — Data Link

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**Throughput (Mbps)**

<table>
<thead>
<tr>
<th>Flow 1 ingress (mean 50.90 Mbps)</th>
<th>Flow 1 egress (mean 50.85 Mbps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow 2 ingress (mean 56.65 Mbps)</td>
<td>Flow 2 egress (mean 55.96 Mbps)</td>
</tr>
<tr>
<td>Flow 3 ingress (mean 22.77 Mbps)</td>
<td>Flow 3 egress (mean 22.78 Mbps)</td>
</tr>
</tbody>
</table>

**Packet Loss (ms)**

| Flow 1 (95th percentile 38.30 ms) | Flow 2 (95th percentile 27.30 ms) | Flow 3 (95th percentile 39.51 ms) |

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59
Run 9: Statistics of LEDBAT

Start at: 2018-02-04 23:33:09
End at: 2018-02-04 23:33:39
Local clock offset: -0.073 ms
Remote clock offset: -9.039 ms

# Below is generated by plot.py at 2018-02-05 00:47:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.06 Mbit/s
95th percentile per-packet one-way delay: 28.554 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 71.31 Mbit/s
95th percentile per-packet one-way delay: 20.513 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 28.31 Mbit/s
95th percentile per-packet one-way delay: 31.303 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 20.96 Mbit/s
95th percentile per-packet one-way delay: 37.775 ms
Loss rate: 0.10%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-02-04 23:53:59
End at: 2018-02-04 23:54:29
Local clock offset: -0.012 ms
Remote clock offset: 2.736 ms

# Below is generated by plot.py at 2018-02-05 00:47:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.04 Mbit/s
95th percentile per-packet one-way delay: 32.220 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 80.60 Mbit/s
95th percentile per-packet one-way delay: 32.200 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 73.613 ms
Loss rate: 10.40%
-- Flow 3:
Average throughput: 48.78 Mbit/s
95th percentile per-packet one-way delay: 32.228 ms
Loss rate: 0.03%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC

Start at: 2018-02-04 20:53:11
End at: 2018-02-04 20:53:41
Local clock offset: 0.033 ms
Remote clock offset: 2.36 ms

# Below is generated by plot.py at 2018-02-05 00:47:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.14 Mbit/s
  95th percentile per-packet one-way delay: 32.726 ms
  Loss rate: 0.16%
-- Flow 1:
  Average throughput: 69.38 Mbit/s
  95th percentile per-packet one-way delay: 19.482 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 24.41 Mbit/s
  95th percentile per-packet one-way delay: 33.219 ms
  Loss rate: 0.32%
-- Flow 3:
  Average throughput: 7.65 Mbit/s
  95th percentile per-packet one-way delay: 33.312 ms
  Loss rate: 0.73%
Run 1: Report of PCC — Data Link

![Graph 1: Throughput vs. Time](image1)
- **Legend:**
  - Flow 1 ingress (mean 69.46 Mbit/s)
  - Flow 1 egress (mean 69.38 Mbit/s)
  - Flow 2 ingress (mean 24.49 Mbit/s)
  - Flow 2 egress (mean 24.41 Mbit/s)
  - Flow 3 ingress (mean 7.70 Mbit/s)
  - Flow 3 egress (mean 7.65 Mbit/s)

![Graph 2: Per-packet average delay vs. Time](image2)
- **Legend:**
  - Flow 1 (95th percentile 19.48 ms)
  - Flow 2 (95th percentile 33.22 ms)
  - Flow 3 (95th percentile 33.31 ms)
Run 2: Statistics of PCC

End at: 2018-02-04 21:14:17
Local clock offset: 0.064 ms
Remote clock offset: 2.199 ms

# Below is generated by plot.py at 2018-02-05 00:47:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.88 Mbit/s
95th percentile per-packet one-way delay: 8.657 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.38 Mbit/s
95th percentile per-packet one-way delay: 4.730 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.53 Mbit/s
95th percentile per-packet one-way delay: 15.049 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 6.584 ms
Loss rate: 0.00%
Run 2: Report of PCC — Data Link

![Graph of data link throughput and delay for different flows over time.](image-url)
Run 3: Statistics of PCC

Start at: 2018-02-04 21:34:20
End at: 2018-02-04 21:34:50
Local clock offset: -0.016 ms
Remote clock offset: 2.073 ms

# Below is generated by plot.py at 2018-02-05 00:48:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.83 Mbit/s
95th percentile per-packet one-way delay: 6.316 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 36.06 Mbit/s
95th percentile per-packet one-way delay: 5.381 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.90 Mbit/s
95th percentile per-packet one-way delay: 5.070 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 46.628 ms
Loss rate: 6.55%
Run 3: Report of PCC — Data Link

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

- Flow 1 ingress (mean 35.06 Mbit/s)
- Flow 1 egress (mean 36.06 Mbit/s)
- Flow 2 ingress (mean 51.90 Mbit/s)
- Flow 2 egress (mean 51.90 Mbit/s)
- Flow 3 ingress (mean 4.12 Mbit/s)
- Flow 3 egress (mean 4.07 Mbit/s)

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

- Flow 1 (95th percentile 5.38 ms)
- Flow 2 (95th percentile 5.07 ms)
- Flow 3 (95th percentile 46.63 ms)
Run 4: Statistics of PCC

Start at: 2018-02-04 21:54:48
End at: 2018-02-04 21:55:18
Local clock offset: 0.032 ms
Remote clock offset: 1.785 ms

# Below is generated by plot.py at 2018-02-05 00:48:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.52 Mbit/s
95th percentile per-packet one-way delay: 15.641 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 25.65 Mbit/s
95th percentile per-packet one-way delay: 13.443 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.05 Mbit/s
95th percentile per-packet one-way delay: 14.685 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 55.424 ms
Loss rate: 9.89%
Run 5: Statistics of PCC

Start at: 2018-02-04 22:15:11
End at: 2018-02-04 22:15:41
Local clock offset: -0.044 ms
Remote clock offset: 3.141 ms

# Below is generated by plot.py at 2018-02-05 00:48:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.24 Mbit/s
95th percentile per-packet one-way delay: 43.935 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 3.93 Mbit/s
95th percentile per-packet one-way delay: 48.152 ms
Loss rate: 9.27%
-- Flow 2:
Average throughput: 73.39 Mbit/s
95th percentile per-packet one-way delay: 8.656 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.60 Mbit/s
95th percentile per-packet one-way delay: 16.257 ms
Loss rate: 0.00%
Run 5: Report of PCC — Data Link

![Graph of throughput over time with details on flow ingress and egress speeds](image1)

![Graph of packet delay over time with details on flow 95th percentile delay](image2)
Run 6: Statistics of PCC

Start at: 2018-02-04 22:35:46
End at: 2018-02-04 22:36:16
Local clock offset: -0.019 ms
Remote clock offset: 3.066 ms

# Below is generated by plot.py at 2018-02-05 00:48:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 61.42 Mbit/s
  95th percentile per-packet one-way delay: 47.035 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 9.14 Mbit/s
  95th percentile per-packet one-way delay: 42.208 ms
  Loss rate: 0.22%
-- Flow 2:
  Average throughput: 73.97 Mbit/s
  95th percentile per-packet one-way delay: 46.117 ms
  Loss rate: 0.28%
-- Flow 3:
  Average throughput: 9.36 Mbit/s
  95th percentile per-packet one-way delay: 58.863 ms
  Loss rate: 0.49%
Run 6: Report of PCC — Data Link
Run 7: Statistics of PCC

Start at: 2018-02-04 22:56:21
End at: 2018-02-04 22:56:51
Local clock offset: -0.086 ms
Remote clock offset: -4.309 ms

# Below is generated by plot.py at 2018-02-05 00:48:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.37 Mbit/s
95th percentile per-packet one-way delay: 25.887 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 66.25 Mbit/s
95th percentile per-packet one-way delay: 24.273 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 16.63 Mbit/s
95th percentile per-packet one-way delay: 26.092 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 18.37 Mbit/s
95th percentile per-packet one-way delay: 26.203 ms
Loss rate: 0.29%
Run 7: Report of PCC — Data Link
Run 8: Statistics of PCC

Start at: 2018-02-04 23:16:58
End at: 2018-02-04 23:17:28
Local clock offset: 0.03 ms
Remote clock offset: -0.747 ms

# Below is generated by plot.py at 2018-02-05 00:48:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.49 Mbit/s
95th percentile per-packet one-way delay: 16.848 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 80.42 Mbit/s
95th percentile per-packet one-way delay: 15.983 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 9.883 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 49.657 ms
Loss rate: 11.60%
Run 8: Report of PCC — Data Link
Run 9: Statistics of PCC

Start at: 2018-02-04 23:37:41
End at: 2018-02-04 23:38:11
Local clock offset: -0.044 ms
Remote clock offset: -3.402 ms

# Below is generated by plot.py at 2018-02-05 00:48:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.88 Mbit/s
  95th percentile per-packet one-way delay: 46.779 ms
  Loss rate: 0.44%
-- Flow 1:
  Average throughput: 48.17 Mbit/s
  95th percentile per-packet one-way delay: 27.159 ms
  Loss rate: 0.32%
-- Flow 2:
  Average throughput: 36.39 Mbit/s
  95th percentile per-packet one-way delay: 52.641 ms
  Loss rate: 0.57%
-- Flow 3:
  Average throughput: 7.80 Mbit/s
  95th percentile per-packet one-way delay: 27.270 ms
  Loss rate: 1.50%
Run 9: Report of PCC — Data Link

![Throughput and Delay Graphs](image)

**Throughput Graph**
- Flow 1 ingress (mean 48.32 Mbit/s)
- Flow 1 egress (mean 48.17 Mbit/s)
- Flow 2 ingress (mean 36.39 Mbit/s)
- Flow 2 egress (mean 36.39 Mbit/s)
- Flow 3 ingress (mean 7.91 Mbit/s)
- Flow 3 egress (mean 7.80 Mbit/s)

**Delay Graph**
- Flow 1 (95th percentile 27.16 ms)
- Flow 2 (95th percentile 52.64 ms)
- Flow 3 (95th percentile 27.27 ms)
Run 10: Statistics of PCC

Start at: 2018-02-04 23:58:33
End at: 2018-02-04 23:59:03
Local clock offset: -0.018 ms
Remote clock offset: -9.413 ms

# Below is generated by plot.py at 2018-02-05 00:48:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.32 Mbit/s
95th percentile per-packet one-way delay: 21.985 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 15.00 Mbit/s
95th percentile per-packet one-way delay: 39.509 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 62.39 Mbit/s
95th percentile per-packet one-way delay: 21.353 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 14.71 Mbit/s
95th percentile per-packet one-way delay: 32.782 ms
Loss rate: 2.07%
Run 10: Report of PCC — Data Link
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-04 21:02:19
End at: 2018-02-04 21:02:49
Local clock offset: 0.04 ms
Remote clock offset: 2.268 ms

# Below is generated by plot.py at 2018-02-05 00:49:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.59 Mbit/s
95th percentile per-packet one-way delay: 32.218 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 68.311 ms
Loss rate: 7.05%
-- Flow 2:
Average throughput: 62.89 Mbit/s
95th percentile per-packet one-way delay: 30.270 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 41.74 Mbit/s
95th percentile per-packet one-way delay: 31.279 ms
Loss rate: 0.25%
Run 1: Report of QUIC Cubic — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 2.19 Mbps)
  - Flow 1 egress (mean 2.04 Mbps)
  - Flow 2 ingress (mean 63.07 Mbps)
  - Flow 2 egress (mean 62.89 Mbps)
  - Flow 3 ingress (mean 41.96 Mbps)
  - Flow 3 egress (mean 41.74 Mbps)

- **Packet Delay (ms)**
  - Flow 1 (95th percentile 68.31 ms)
  - Flow 2 (95th percentile 30.27 ms)
  - Flow 3 (95th percentile 31.28 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-04 21:22:56
End at: 2018-02-04 21:23:26
Local clock offset: 0.005 ms
Remote clock offset: 2.17 ms

# Below is generated by plot.py at 2018-02-05 00:49:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.06 Mbit/s
95th percentile per-packet one-way delay: 31.662 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 61.77 Mbit/s
95th percentile per-packet one-way delay: 31.264 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 43.26 Mbit/s
95th percentile per-packet one-way delay: 32.659 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 71.305 ms
Loss rate: 5.95%
Run 2: Report of QUIC Cubic — Data Link

[Graphs showing throughput and per-packet round-trip delay over time for different flows.]
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-04 21:43:23
End at: 2018-02-04 21:43:53
Local clock offset: 0.055 ms
Remote clock offset: 2.064 ms

# Below is generated by plot.py at 2018-02-05 00:50:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.92 Mbit/s
95th percentile per-packet one-way delay: 33.056 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.23 Mbit/s
95th percentile per-packet one-way delay: 31.040 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 36.15 Mbit/s
95th percentile per-packet one-way delay: 34.357 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 26.67 Mbit/s
95th percentile per-packet one-way delay: 39.014 ms
Loss rate: 0.22%
Run 3: Report of QUIC Cubic — Data Link

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

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

Start at: 2018-02-04 22:03:47
End at: 2018-02-04 22:04:17
Local clock offset: 0.043 ms
Remote clock offset: 2.833 ms

# Below is generated by plot.py at 2018-02-05 00:50:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.37 Mbit/s
95th percentile per-packet one-way delay: 52.819 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 64.67 Mbit/s
95th percentile per-packet one-way delay: 53.204 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 68.179 ms
Loss rate: 10.20%
-- Flow 3:
Average throughput: 47.76 Mbit/s
95th percentile per-packet one-way delay: 30.773 ms
Loss rate: 0.12%
Run 4: Report of QUIC Cubic — Data Link

---

### Throughput (Mbps)

- **Flow 1 ingress** (mean 64.80 Mbps)
- **Flow 1 egress** (mean 64.67 Mbps)
- **Flow 2 ingress** (mean 1.74 Mbps)
- **Flow 2 egress** (mean 1.57 Mbps)
- **Flow 3 ingress** (mean 47.89 Mbps)
- **Flow 3 egress** (mean 47.76 Mbps)

---

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

- **Flow 1** (95th percentile 53.20 ms)
- **Flow 2** (95th percentile 68.18 ms)
- **Flow 3** (95th percentile 30.77 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-04 22:24:19
End at: 2018-02-04 22:24:49
Local clock offset: 0.007 ms
Remote clock offset: 3.136 ms

# Below is generated by plot.py at 2018-02-05 00:50:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.97 Mbit/s
95th percentile per-packet one-way delay: 33.623 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 70.836 ms
Loss rate: 9.13%
-- Flow 2:
Average throughput: 67.40 Mbit/s
95th percentile per-packet one-way delay: 32.282 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 34.40 Mbit/s
95th percentile per-packet one-way delay: 31.295 ms
Loss rate: 0.28%
Run 5: Report of QUIC Cubic — Data Link

---

**Throughput (Mbps)**

- Flow 1 ingress (mean 1.91 Mbit/s)
- Flow 1 egress (mean 1.73 Mbit/s)
- Flow 2 ingress (mean 67.36 Mbit/s)
- Flow 2 egress (mean 67.40 Mbit/s)
- Flow 3 ingress (mean 34.59 Mbit/s)
- Flow 3 egress (mean 34.40 Mbit/s)

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

- Flow 1 (95th percentile 70.84 ms)
- Flow 2 (95th percentile 32.28 ms)
- Flow 3 (95th percentile 31.30 ms)
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-04 22:44:56  
End at: 2018-02-04 22:45:26  
Local clock offset: -0.08 ms  
Remote clock offset: -17.849 ms  

# Below is generated by plot.py at 2018-02-05 00:50:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.07 Mbit/s  
95th percentile per-packet one-way delay: 37.397 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 66.76 Mbit/s  
95th percentile per-packet one-way delay: 10.247 ms  
Loss rate: 0.10%  
-- Flow 2:  
Average throughput: 21.06 Mbit/s  
95th percentile per-packet one-way delay: 44.274 ms  
Loss rate: 0.47%  
-- Flow 3:  
Average throughput: 31.71 Mbit/s  
95th percentile per-packet one-way delay: 10.742 ms  
Loss rate: 0.22%
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-04 23:05:30
End at: 2018-02-04 23:06:00
Local clock offset: -0.014 ms
Remote clock offset: -0.161 ms

# Below is generated by plot.py at 2018-02-05 00:50:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.03 Mbit/s
95th percentile per-packet one-way delay: 30.313 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 57.18 Mbit/s
95th percentile per-packet one-way delay: 28.479 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 41.24 Mbit/s
95th percentile per-packet one-way delay: 28.529 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 22.85 Mbit/s
95th percentile per-packet one-way delay: 39.444 ms
Loss rate: 0.24%
Run 7: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 57.29 Mbps)
- Flow 1 egress (mean 57.18 Mbps)
- Flow 2 ingress (mean 41.37 Mbps)
- Flow 2 egress (mean 41.24 Mbps)
- Flow 3 ingress (mean 22.88 Mbps)
- Flow 3 egress (mean 22.65 Mbps)

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

- Flow 1 (95th percentile 28.40 ms)
- Flow 2 (95th percentile 28.53 ms)
- Flow 3 (95th percentile 39.44 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-04 23:26:07
End at: 2018-02-04 23:26:37
Local clock offset: -0.016 ms
Remote clock offset: -9.156 ms

# Below is generated by plot.py at 2018-02-05 00:50:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 19.832 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 58.008 ms
Loss rate: 7.99%
-- Flow 2:
Average throughput: 64.46 Mbit/s
95th percentile per-packet one-way delay: 19.072 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 41.73 Mbit/s
95th percentile per-packet one-way delay: 19.497 ms
Loss rate: 0.28%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

End at: 2018-02-04 23:47:25
Local clock offset: 0.014 ms
Remote clock offset: -9.93 ms

# Below is generated by plot.py at 2018-02-05 00:50:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.16 Mbit/s
95th percentile per-packet one-way delay: 22.625 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 55.99 Mbit/s
95th percentile per-packet one-way delay: 20.384 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 35.22 Mbit/s
95th percentile per-packet one-way delay: 25.528 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 30.14 Mbit/s
95th percentile per-packet one-way delay: 18.876 ms
Loss rate: 0.27%
Run 9: Report of QUIC Cubic — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 55.11 Mbps)
- Flow 2 ingress (mean 35.35 Mbps)
- Flow 3 ingress (mean 30.23 Mbps)
- Flow 1 egress (mean 55.99 Mbps)
- Flow 2 egress (mean 35.22 Mbps)
- Flow 3 egress (mean 30.14 Mbps)

**Packet Loss (ms)**

- Flow 1 (95th percentile 20.38 ms)
- Flow 2 (95th percentile 25.53 ms)
- Flow 3 (95th percentile 18.88 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-05 00:07:45
End at: 2018-02-05 00:08:15
Local clock offset: -0.036 ms
Remote clock offset: -2.207 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.27 Mbit/s
  95th percentile per-packet one-way delay: 52.874 ms
  Loss rate: 0.16%
-- Flow 1:
  Average throughput: 64.52 Mbit/s
  95th percentile per-packet one-way delay: 44.972 ms
  Loss rate: 0.10%
-- Flow 2:
  Average throughput: 22.28 Mbit/s
  95th percentile per-packet one-way delay: 59.748 ms
  Loss rate: 0.33%
-- Flow 3:
  Average throughput: 24.49 Mbit/s
  95th percentile per-packet one-way delay: 43.761 ms
  Loss rate: 0.29%
Run 10: Report of QUIC Cubic — Data Link

![Graph of Throughput vs Time for different flows]

![Graph of Per-packet one-way delay vs Time for different flows]
Run 1: Statistics of SCReAM

Start at: 2018-02-04 20:55:27
End at: 2018-02-04 20:55:57
Local clock offset: 0.065 ms
Remote clock offset: 2.354 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 4.225 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 5.398 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.406 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.404 ms
Loss rate: 0.00%
Run 2: Statistics of SCReAM

Start at: 2018-02-04 21:16:04
End at: 2018-02-04 21:16:34
Local clock offset: 0.055 ms
Remote clock offset: 2.203 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.463 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.451 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.450 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.525 ms
Loss rate: 0.00%
Run 3: Statistics of SCReAM

Start at: 2018-02-04 21:36:36
End at: 2018-02-04 21:37:06
Local clock offset: -0.04 ms
Remote clock offset: -17.869 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: -15.643 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -17.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -14.117 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -17.413 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

![Graph of Throughput and Delay](image)

**Throughput (Mbps)**

**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 Delay (ms)**

**Time (s)**

- **Flow 1 (95th percentile -17.45 ms)**
- **Flow 2 (95th percentile -14.12 ms)**
- **Flow 3 (95th percentile -17.41 ms)**
Run 4: Statistics of SCReAM

Start at: 2018-02-04 21:57:03
End at: 2018-02-04 21:57:33
Local clock offset: 0.009 ms
Remote clock offset: 2.524 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 10.784 ms
  Loss rate: 0.06%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.409 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 12.330 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 5.034 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

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

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

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Run 5: Statistics of SCReAM

Start at: 2018-02-04 22:17:27
End at: 2018-02-04 22:17:57
Local clock offset: 0.022 ms
Remote clock offset: -8.706 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.20 Mbit/s
  95th percentile per-packet one-way delay: 32.230 ms
  Loss rate: 6.74%
-- Flow 1:
  Average throughput: 0.08 Mbit/s
  95th percentile per-packet one-way delay: 32.312 ms
  Loss rate: 10.78%
-- Flow 2:
  Average throughput: 0.08 Mbit/s
  95th percentile per-packet one-way delay: 30.930 ms
  Loss rate: 9.31%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: -8.649 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 0.08 Mbps)
  - Flow 1 egress (mean 0.08 Mbps)
  - Flow 2 ingress (mean 0.09 Mbps)
  - Flow 2 egress (mean 0.08 Mbps)
  - Flow 3 ingress (mean 0.22 Mbps)
  - Flow 3 egress (mean 0.22 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 32.31 ms)
  - Flow 2 (95th percentile 30.93 ms)
  - Flow 3 (95th percentile -8.65 ms)
Run 6: Statistics of SCReAM

Start at: 2018-02-04 22:38:03
End at: 2018-02-04 22:38:33
Local clock offset: 0.011 ms
Remote clock offset: 0.668 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.34 Mbit/s
  95th percentile per-packet one-way delay: 41.687 ms
  Loss rate: 1.89%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 0.049 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.07 Mbit/s
  95th percentile per-packet one-way delay: 41.863 ms
  Loss rate: 11.79%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 0.096 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

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

![Diagram 2: Per-packet one-way delay vs. Time](image2)
Run 7: Statistics of SCReAM

Start at: 2018-02-04 22:58:38
End at: 2018-02-04 22:59:08
Local clock offset: -0.003 ms
Remote clock offset: -2.645 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 5.776 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 7.559 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: -1.539 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: -1.064 ms
  Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

[Graph 1: Throughput vs Time]

[Graph 2: Per-packet one-way delay vs Time]

Flow 1 ingress (mean 0.22 Mbit/s)
Flow 1 egress (mean 0.22 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s)
Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s)
Flow 3 egress (mean 0.22 Mbit/s)
Run 8: Statistics of SCReAM

Start at: 2018-02-04 23:19:16
End at: 2018-02-04 23:19:46
Local clock offset: -0.023 ms
Remote clock offset: -12.438 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 14.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.961 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 18.305 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -12.019 ms
Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

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

[Legend: Flow 1 ingress (mean 0.22 Mbit/s), Flow 1 egress (mean 0.22 Mbit/s), Flow 2 ingress (mean 0.21 Mbit/s), Flow 2 egress (mean 0.21 Mbit/s), Flow 3 ingress (mean 0.22 Mbit/s), Flow 3 egress (mean 0.22 Mbit/s).]
Run 9: Statistics of SCReAM

Start at: 2018-02-04 23:40:00
End at: 2018-02-04 23:40:30
Local clock offset: -0.073 ms
Remote clock offset: 2.621 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 44.061 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 21.735 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 37.965 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 44.266 ms
Loss rate: 14.58%
Run 9: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.22 Mbit/s) vs. Flow 1 egress (mean 0.22 Mbit/s)
- Flow 2 ingress (mean 0.22 Mbit/s) vs. Flow 2 egress (mean 0.22 Mbit/s)
- Flow 3 ingress (mean 0.10 Mbit/s) vs. Flow 3 egress (mean 0.08 Mbit/s)

- Flow 1 (95th percentile 21.73 ms) vs. Flow 2 (95th percentile 37.97 ms) vs. Flow 3 (95th percentile 44.27 ms)
Run 10: Statistics of SCReAM

Start at: 2018-02-05 00:00:51
End at: 2018-02-05 00:01:21
Local clock offset: -0.002 ms
Remote clock offset: -4.295 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 31.280 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.602 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -0.357 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 35.458 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

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

- **Throughput**
  - Flow 1 ingress (mean 0.22 Mbit/s)
  - Flow 1 egress (mean 0.22 Mbit/s)
  - Flow 2 ingress (mean 0.22 Mbit/s)
  - Flow 2 egress (mean 0.22 Mbit/s)
  - Flow 3 ingress (mean 0.22 Mbit/s)
  - Flow 3 egress (mean 0.22 Mbit/s)

- **Packet delay**
  - Flow 1 (95th percentile 0.60 ms)
  - Flow 2 (95th percentile -0.36 ms)
  - Flow 3 (95th percentile 35.46 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-02-04 20:49:54
End at: 2018-02-04 20:50:24
Local clock offset: 0.047 ms
Remote clock offset: 2.354 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.40 Mbit/s
95th percentile per-packet one-way delay: 5.957 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 5.672 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 5.760 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 7.501 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

![WebRTC media throughput graph](image)

![WebRTC media delay graph](image)

- Flow 1 (95th percentile 5.67 ms)
- Flow 2 (95th percentile 5.76 ms)
- Flow 3 (95th percentile 7.50 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-02-04 21:10:29
End at: 2018-02-04 21:10:59
Local clock offset: 0.059 ms
Remote clock offset: 2.203 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.42 Mbit/s
  95th percentile per-packet one-way delay: 6.538 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.36 Mbit/s
  95th percentile per-packet one-way delay: 5.718 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.50 Mbit/s
  95th percentile per-packet one-way delay: 6.451 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.56 Mbit/s
  95th percentile per-packet one-way delay: 9.160 ms
  Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

![Graph showing WebRTC media data](image)

- **Throughput (Mbps)**
  - Time (s)
  - Flow 1 ingress (mean 2.36 Mbps)
  - Flow 1 egress (mean 2.36 Mbps)
  - Flow 2 ingress (mean 1.50 Mbps)
  - Flow 2 egress (mean 1.50 Mbps)
  - Flow 3 ingress (mean 0.56 Mbps)
  - Flow 3 egress (mean 0.56 Mbps)

- **Per-packet one-way delay (ms)**
  - Time (s)
  - Symbols indicate:
    - Flow 1 (95th percentile 5.72 ms)
    - Flow 2 (95th percentile 6.45 ms)
    - Flow 3 (95th percentile 9.16 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-02-04 21:31:00
End at: 2018-02-04 21:31:30
Local clock offset: -0.02 ms
Remote clock offset: -18.105 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.40 Mbit/s
  95th percentile per-packet one-way delay: -13.789 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.37 Mbit/s
  95th percentile per-packet one-way delay: -14.958 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 1.50 Mbit/s
  95th percentile per-packet one-way delay: -13.724 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.54 Mbit/s
  95th percentile per-packet one-way delay: -11.723 ms
  Loss rate: 0.00%
Run 4: Statistics of WebRTC media

Start at: 2018-02-04 21:51:29
End at: 2018-02-04 21:51:59
Local clock offset: 0.018 ms
Remote clock offset: 2.157 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 31.772 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 6.115 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 6.106 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 37.232 ms
Loss rate: 0.21%
Run 4: Report of WebRTC media — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.36 Mbps)
Flow 1 egress (mean 2.36 Mbps)
Flow 2 ingress (mean 1.48 Mbps)
Flow 2 egress (mean 1.48 Mbps)
Flow 3 ingress (mean 0.55 Mbps)
Flow 3 egress (mean 0.55 Mbps)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 6.12 ms)
Flow 2 (95th percentile 6.11 ms)
Flow 3 (95th percentile 37.23 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-02-04 22:11:52
End at: 2018-02-04 22:12:22
Local clock offset: 0.043 ms
Remote clock offset: -2.181 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 7.559 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: -0.018 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 10.985 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 6.015 ms
Loss rate: 0.43%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-02-04 22:32:26
End at: 2018-02-04 22:32:56
Local clock offset: -0.0 ms
Remote clock offset: 3.15 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 16.933 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 5.536 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 5.828 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 23.502 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

Throughput (Mbit/s) vs Time (s)

Flow 1 ingress (mean 2.36 Mbit/s)  
Flow 1 egress (mean 2.36 Mbit/s)  
Flow 2 ingress (mean 1.50 Mbit/s)  
Flow 2 egress (mean 1.50 Mbit/s)  
Flow 3 ingress (mean 0.57 Mbit/s)  
Flow 3 egress (mean 0.57 Mbit/s)

Packet delivery ratio vs Time (s)

Flow 1 (95th percentile 5.54 ms)  
Flow 2 (95th percentile 5.83 ms)  
Flow 3 (95th percentile 23.50 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-02-04 22:53:03
End at: 2018-02-04 22:53:33
Local clock offset: -0.026 ms
Remote clock offset: 2.874 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.40 Mbit/s
95th percentile per-packet one-way delay: 16.347 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 18.309 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 6.006 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 9.286 ms
Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

![Throughput Graph](image)

- Flow 1 ingress (mean 2.36 Mbit/s)
- Flow 1 egress (mean 2.36 Mbit/s)
- Flow 2 ingress (mean 1.47 Mbit/s)
- Flow 2 egress (mean 1.47 Mbit/s)
- Flow 3 ingress (mean 0.58 Mbit/s)
- Flow 3 egress (mean 0.58 Mbit/s)

![Delay Graph](image)

- Flow 1 (95th percentile 18.31 ms)
- Flow 2 (95th percentile 6.01 ms)
- Flow 3 (95th percentile 9.29 ms)
Run 8: Statistics of WebRTC media

End at: 2018-02-04 23:14:06
Local clock offset: 0.005 ms
Remote clock offset: 2.655 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.35 Mbit/s
95th percentile per-packet one-way delay: 37.003 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 5.667 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 6.042 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 43.241 ms
Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link
Run 9: Statistics of WebRTC media

Start at: 2018-02-04 23:34:20
End at: 2018-02-04 23:34:50
Local clock offset: -0.0 ms
Remote clock offset: 2.649 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 41.269 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 38.984 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 42.629 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 7.200 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

![Graph of throughput and packet delay](image-url)
Run 10: Statistics of WebRTC media

Start at: 2018-02-04 23:55:10
End at: 2018-02-04 23:55:40
Local clock offset: -0.016 ms
Remote clock offset: -18.081 ms

# Below is generated by plot.py at 2018-02-05 00:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.33 Mbit/s
95th percentile per-packet one-way delay: 10.635 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 12.251 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: -4.637 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: -13.180 ms
Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link
Run 1: Statistics of Sprout

Start at: 2018-02-04 20:52:05
End at: 2018-02-04 20:52:35
Local clock offset: -0.017 ms
Remote clock offset: 2.27 ms

# Below is generated by plot.py at 2018-02-05 00:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.66 Mbit/s
95th percentile per-packet one-way delay: 46.531 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 16.99 Mbit/s
95th percentile per-packet one-way delay: 53.430 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 44.65 Mbit/s
95th percentile per-packet one-way delay: 17.792 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.08 Mbit/s
95th percentile per-packet one-way delay: 19.959 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 17.01 Mbit/s)
Flow 1 egress (mean 16.99 Mbit/s)
Flow 2 ingress (mean 44.67 Mbit/s)
Flow 2 egress (mean 44.65 Mbit/s)
Flow 3 ingress (mean 39.12 Mbit/s)
Flow 3 egress (mean 39.08 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 53.43 ms)
Flow 2 (95th percentile 17.79 ms)
Flow 3 (95th percentile 19.96 ms)
Run 2: Statistics of Sprout

Start at: 2018-02-04 21:12:42
End at: 2018-02-04 21:13:12
Local clock offset: 0.066 ms
Remote clock offset: 2.223 ms

# Below is generated by plot.py at 2018-02-05 00:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.19 Mbit/s
95th percentile per-packet one-way delay: 51.178 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 13.83 Mbit/s
95th percentile per-packet one-way delay: 58.251 ms
Loss rate: 7.73%
-- Flow 2:
Average throughput: 46.00 Mbit/s
95th percentile per-packet one-way delay: 17.354 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.41 Mbit/s
95th percentile per-packet one-way delay: 21.765 ms
Loss rate: 0.07%
Run 2: Report of Sprout — Data Link

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

Start at: 2018-02-04 21:33:13
End at: 2018-02-04 21:33:43
Local clock offset: 0.031 ms
Remote clock offset: 2.171 ms

# Below is generated by plot.py at 2018-02-05 00:51:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.97 Mbit/s
  95th percentile per-packet one-way delay: 22.417 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 38.48 Mbit/s
  95th percentile per-packet one-way delay: 21.715 ms
  Loss rate: 0.00%
    -- Flow 2:
    Average throughput: 38.70 Mbit/s
    95th percentile per-packet one-way delay: 22.920 ms
    Loss rate: 0.00%
    -- Flow 3:
    Average throughput: 32.55 Mbit/s
    95th percentile per-packet one-way delay: 23.590 ms
    Loss rate: 0.00%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2018-02-04 21:53:42
End at: 2018-02-04 21:54:12
Local clock offset: 0.02 ms
Remote clock offset: 2.334 ms

# Below is generated by plot.py at 2018-02-05 00:51:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.49 Mbit/s
95th percentile per-packet one-way delay: 22.424 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.66 Mbit/s
95th percentile per-packet one-way delay: 20.709 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.36 Mbit/s
95th percentile per-packet one-way delay: 24.052 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.20 Mbit/s
95th percentile per-packet one-way delay: 22.942 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

![Graph showing throughput over time for different flows with their respective mean speeds and 95th percentile delays.]

Flow 1 ingress (mean 41.68 Mbit/s)  
Flow 1 egress (mean 41.66 Mbit/s)  
Flow 2 ingress (mean 36.41 Mbit/s)  
Flow 2 egress (mean 36.36 Mbit/s)  
Flow 3 ingress (mean 32.23 Mbit/s)  
Flow 3 egress (mean 32.20 Mbit/s)  

Flow 1 (95th percentile 20.71 ms)  
Flow 2 (95th percentile 24.05 ms)  
Flow 3 (95th percentile 22.94 ms)
Run 5: Statistics of Sprout

Start at: 2018-02-04 22:14:05
End at: 2018-02-04 22:14:35
Local clock offset: -0.039 ms
Remote clock offset: 3.151 ms

# Below is generated by plot.py at 2018-02-05 00:51:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.37 Mbit/s
95th percentile per-packet one-way delay: 22.742 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 39.44 Mbit/s
95th percentile per-packet one-way delay: 22.884 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.93 Mbit/s
95th percentile per-packet one-way delay: 21.795 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.40 Mbit/s
95th percentile per-packet one-way delay: 23.826 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 39.47 Mbit/s)
- Flow 1 egress (mean 39.44 Mbit/s)
- Flow 2 ingress (mean 39.97 Mbit/s)
- Flow 2 egress (mean 39.93 Mbit/s)
- Flow 3 ingress (mean 31.44 Mbit/s)
- Flow 3 egress (mean 31.40 Mbit/s)

![Packet Delay Graph]

- Flow 1 (95th percentile 22.88 ms)
- Flow 2 (95th percentile 21.80 ms)
- Flow 3 (95th percentile 23.83 ms)
Run 6: Statistics of Sprout

Start at: 2018-02-04 22:34:40
End at: 2018-02-04 22:35:10
Local clock offset: -0.018 ms
Remote clock offset: -17.51 ms

# Below is generated by plot.py at 2018-02-05 00:51:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.78 Mbit/s
95th percentile per-packet one-way delay: 23.676 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 48.67 Mbit/s
95th percentile per-packet one-way delay: -7.193 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 1.304 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 13.47 Mbit/s
95th percentile per-packet one-way delay: 36.479 ms
Loss rate: 8.40%
Run 6: Report of Sprout — Data Link

![Graph showing throughput and packet delay over time]
Run 7: Statistics of Sprout

End at: 2018-02-04 22:55:46
Local clock offset: 0.008 ms
Remote clock offset: 2.772 ms

# Below is generated by plot.py at 2018-02-05 00:51:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.46 Mbit/s
95th percentile per-packet one-way delay: 47.429 ms
Loss rate: 3.02%
-- Flow 1:
Average throughput: 25.33 Mbit/s
95th percentile per-packet one-way delay: 34.600 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.30 Mbit/s
95th percentile per-packet one-way delay: 49.385 ms
Loss rate: 7.98%
-- Flow 3:
Average throughput: 14.05 Mbit/s
95th percentile per-packet one-way delay: 50.397 ms
Loss rate: 8.02%
Run 7: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

- Blue: Flow 1 ingress (mean 25.34 Mbps)
- Green: Flow 2 ingress (mean 15.51 Mbps)
- Pink: Flow 3 ingress (mean 15.22 Mbps)
- Dash blue: Flow 1 egress (mean 25.33 Mbps)
- Dash green: Flow 2 egress (mean 14.30 Mbps)
- Dash pink: Flow 3 egress (mean 14.05 Mbps)

Per Packet One Way Delay (ms)

Time (s)

- Blue: Flow 1 (95th percentile 34.60 ms)
- Green: Flow 2 (95th percentile 49.38 ms)
- Pink: Flow 3 (95th percentile 50.40 ms)
Run 8: Statistics of Sprout

Start at: 2018-02-04 23:15:51
End at: 2018-02-04 23:16:21
Local clock offset: 0.006 ms
Remote clock offset: 2.633 ms

# Below is generated by plot.py at 2018-02-05 00:51:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.97 Mbit/s
95th percentile per-packet one-way delay: 51.686 ms
Loss rate: 5.14%
-- Flow 1:
Average throughput: 14.22 Mbit/s
95th percentile per-packet one-way delay: 52.466 ms
Loss rate: 8.36%
-- Flow 2:
Average throughput: 14.10 Mbit/s
95th percentile per-packet one-way delay: 53.025 ms
Loss rate: 8.51%
-- Flow 3:
Average throughput: 49.52 Mbit/s
95th percentile per-packet one-way delay: 12.722 ms
Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

![Graph of Throughput](image1)

![Graph of Per-packet one-way delay](image2)
Run 9: Statistics of Sprout

Start at: 2018-02-04 23:36:35
End at: 2018-02-04 23:37:05
Local clock offset: -0.057 ms
Remote clock offset: 1.363 ms

# Below is generated by plot.py at 2018-02-05 00:52:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.74 Mbit/s
95th percentile per-packet one-way delay: 41.348 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 35.06 Mbit/s
95th percentile per-packet one-way delay: 20.983 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.33 Mbit/s
95th percentile per-packet one-way delay: 48.178 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 46.92 Mbit/s
95th percentile per-packet one-way delay: 14.259 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-02-04 23:57:25
End at: 2018-02-04 23:57:55
Local clock offset: -0.024 ms
Remote clock offset: -10.3 ms

# Below is generated by plot.py at 2018-02-05 00:52:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.12 Mbit/s
95th percentile per-packet one-way delay: 31.026 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 18.80 Mbit/s
95th percentile per-packet one-way delay: 35.082 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 45.12 Mbit/s
95th percentile per-packet one-way delay: 4.674 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.16 Mbit/s
95th percentile per-packet one-way delay: 7.229 ms
Loss rate: 0.01%
Run 10: Report of Sprout — Data Link

![Graph of throughput and packet delay](image)
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-04 21:04:35
End at: 2018-02-04 21:05:05
Local clock offset: 0.026 ms
Remote clock offset: 2.261 ms

# Below is generated by plot.py at 2018-02-05 00:53:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.16 Mbit/s
95th percentile per-packet one-way delay: 11.353 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 47.05 Mbit/s
95th percentile per-packet one-way delay: 10.422 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 46.09 Mbit/s
95th percentile per-packet one-way delay: 11.730 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 46.42 Mbit/s
95th percentile per-packet one-way delay: 11.970 ms
Loss rate: 0.04%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

End at: 2018-02-04 21:25:43
Local clock offset: 0.061 ms
Remote clock offset: 2.1 ms

# Below is generated by plot.py at 2018-02-05 00:53:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.27 Mbit/s
95th percentile per-packet one-way delay: 12.449 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 30.57 Mbit/s
95th percentile per-packet one-way delay: 14.284 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 57.58 Mbit/s
95th percentile per-packet one-way delay: 7.021 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 10.07 Mbit/s
95th percentile per-packet one-way delay: 12.723 ms
Loss rate: 0.38%
Run 2: Report of TaoVA-100x — Data Link

[Graph showing throughput and packet delay]

- **Flow 1 ingress** (mean 30.58 Mbit/s)
- **Flow 1 egress** (mean 30.57 Mbit/s)
- **Flow 2 ingress** (mean 57.60 Mbit/s)
- **Flow 2 egress** (mean 57.58 Mbit/s)
- **Flow 3 ingress** (mean 10.11 Mbit/s)
- **Flow 3 egress** (mean 10.07 Mbit/s)
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-04 21:45:39
End at: 2018-02-04 21:46:09
Local clock offset: -0.034 ms
Remote clock offset: 2.065 ms

# Below is generated by plot.py at 2018-02-05 00:54:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.15 Mbit/s
95th percentile per-packet one-way delay: 11.283 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 60.44 Mbit/s
95th percentile per-packet one-way delay: 10.782 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.79 Mbit/s
95th percentile per-packet one-way delay: 11.753 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 46.83 Mbit/s
95th percentile per-packet one-way delay: 11.913 ms
Loss rate: 0.03%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-04 22:06:03
End at: 2018-02-04 22:06:33
Local clock offset: 0.043 ms
Remote clock offset: 2.974 ms

# Below is generated by plot.py at 2018-02-05 00:54:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 72.29 Mbit/s
  95th percentile per-packet one-way delay: 21.698 ms
  Loss rate: 0.24%
-- Flow 1:
  Average throughput: 29.03 Mbit/s
  95th percentile per-packet one-way delay: 22.910 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 42.08 Mbit/s
  95th percentile per-packet one-way delay: 21.138 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 45.90 Mbit/s
  95th percentile per-packet one-way delay: 17.105 ms
  Loss rate: 0.33%
Run 5: Statistics of TaoVA-100x

Start at: 2018-02-04 22:26:35
End at: 2018-02-04 22:27:05
Local clock offset: -0.007 ms
Remote clock offset: -0.892 ms

# Below is generated by plot.py at 2018-02-05 00:54:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.83 Mbit/s
95th percentile per-packet one-way delay: 36.480 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 46.35 Mbit/s
95th percentile per-packet one-way delay: 37.756 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 41.90 Mbit/s
95th percentile per-packet one-way delay: 25.244 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 25.640 ms
Loss rate: 0.86%
Run 5: Report of TaoVA-100x — Data Link

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

Flow 1 ingress (mean 46.37 Mbit/s)
Flow 1 egress (mean 46.35 Mbit/s)
Flow 2 ingress (mean 41.91 Mbit/s)
Flow 2 egress (mean 41.90 Mbit/s)
Flow 3 ingress (mean 4.75 Mbit/s)
Flow 3 egress (mean 4.72 Mbit/s)

Flow 1 (95th percentile 37.76 ms)
Flow 2 (95th percentile 25.24 ms)
Flow 3 (95th percentile 25.64 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-02-04 22:47:15
End at: 2018-02-04 22:47:45
Local clock offset: -0.007 ms
Remote clock offset: 0.371 ms

# Below is generated by plot.py at 2018-02-05 00:54:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.87 Mbit/s
95th percentile per-packet one-way delay: 8.862 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 58.88 Mbit/s
95th percentile per-packet one-way delay: 7.225 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.40 Mbit/s
95th percentile per-packet one-way delay: 8.419 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 61.534 ms
Loss rate: 8.30%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-04 23:07:47
End at: 2018-02-04 23:08:17
Local clock offset: -0.086 ms
Remote clock offset: 2.574 ms

# Below is generated by plot.py at 2018-02-05 00:54:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.27 Mbit/s
  95th percentile per-packet one-way delay: 15.654 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 48.95 Mbit/s
  95th percentile per-packet one-way delay: 6.519 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 40.06 Mbit/s
  95th percentile per-packet one-way delay: 19.419 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 44.17 Mbit/s
  95th percentile per-packet one-way delay: 11.752 ms
  Loss rate: 0.04%
Run 7: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 48.96 Mbit/s)
- Flow 1 egress (mean 48.95 Mbit/s)
- Flow 2 ingress (mean 40.07 Mbit/s)
- Flow 2 egress (mean 40.06 Mbit/s)
- Flow 3 ingress (mean 44.18 Mbit/s)
- Flow 3 egress (mean 44.17 Mbit/s)
Run 8: Statistics of TaoVA-100x

Start at: 2018-02-04 23:28:26  
End at: 2018-02-04 23:28:56  
Local clock offset: -0.076 ms  
Remote clock offset: -17.697 ms

# Below is generated by plot.py at 2018-02-05 00:54:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.10 Mbit/s
95th percentile per-packet one-way delay: 29.333 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 60.90 Mbit/s
95th percentile per-packet one-way delay: -9.106 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 26.65 Mbit/s
95th percentile per-packet one-way delay: 37.502 ms
Loss rate: 8.09%
-- Flow 3:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 9.273 ms
Loss rate: 0.29%
Run 8: Report of TaoVA-100x — Data Link

![Throughput Graph]

- **Flow 1 ingress** (mean 60.93 Mbit/s)
- **Flow 1 egress** (mean 60.90 Mbit/s)
- **Flow 2 ingress** (mean 28.97 Mbit/s)
- **Flow 2 egress** (mean 26.65 Mbit/s)
- **Flow 3 ingress** (mean 40.86 Mbit/s)
- **Flow 3 egress** (mean 40.69 Mbit/s)

![Per-packet RTT Graph]

- **Flow 1** (95th percentile: 9.11 ms)
- **Flow 2** (95th percentile: 37.50 ms)
- **Flow 3** (95th percentile: 9.27 ms)
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-04 23:49:15
End at: 2018-02-04 23:49:45
Local clock offset: -0.098 ms
Remote clock offset: -11.54 ms

# Below is generated by plot.py at 2018-02-05 00:55:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.73 Mbit/s
95th percentile per-packet one-way delay: 9.230 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 40.32 Mbit/s
95th percentile per-packet one-way delay: 10.812 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 29.32 Mbit/s
95th percentile per-packet one-way delay: -6.830 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 44.92 Mbit/s
95th percentile per-packet one-way delay: -4.200 ms
Loss rate: 0.13%
Run 9: Report of TaoVA-100x — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-05 00:10:06
End at: 2018-02-05 00:10:36
Local clock offset: -0.008 ms
Remote clock offset: 1.357 ms

# Below is generated by plot.py at 2018-02-05 00:55:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.27 Mbit/s
95th percentile per-packet one-way delay: 35.122 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 27.93 Mbit/s
95th percentile per-packet one-way delay: 36.877 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 41.09 Mbit/s
95th percentile per-packet one-way delay: 28.519 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 12.06 Mbit/s
95th percentile per-packet one-way delay: 14.464 ms
Loss rate: 0.35%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-02-04 20:58:51
End at: 2018-02-04 20:59:21
Local clock offset: -0.024 ms
Remote clock offset: 2.273 ms

# Below is generated by plot.py at 2018-02-05 00:55:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.61 Mbit/s
95th percentile per-packet one-way delay: 5.520 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.06 Mbit/s
95th percentile per-packet one-way delay: 7.635 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.32 Mbit/s
95th percentile per-packet one-way delay: 4.204 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.21 Mbit/s
95th percentile per-packet one-way delay: 5.224 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-02-04 21:19:28
End at: 2018-02-04 21:19:58
Local clock offset: 0.084 ms
Remote clock offset: 2.194 ms

# Below is generated by plot.py at 2018-02-05 00:55:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 5.423 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.52 Mbit/s
95th percentile per-packet one-way delay: 6.692 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.86 Mbit/s
95th percentile per-packet one-way delay: 4.005 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.21 Mbit/s
95th percentile per-packet one-way delay: 7.764 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-02-04 21:39:58
End at: 2018-02-04 21:40:28
Local clock offset: 0.034 ms
Remote clock offset: 2.099 ms

# Below is generated by plot.py at 2018-02-05 00:55:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 68.67 Mbit/s
  95th percentile per-packet one-way delay: 12.739 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 36.08 Mbit/s
  95th percentile per-packet one-way delay: 8.660 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 35.99 Mbit/s
  95th percentile per-packet one-way delay: 6.368 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 25.99 Mbit/s
  95th percentile per-packet one-way delay: 18.229 ms
  Loss rate: 0.01%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-02-04 22:00:25
End at: 2018-02-04 22:00:55
Local clock offset: -0.03 ms
Remote clock offset: 2.646 ms

# Below is generated by plot.py at 2018-02-05 00:55:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.51 Mbit/s
95th percentile per-packet one-way delay: 6.407 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.74 Mbit/s
95th percentile per-packet one-way delay: 8.910 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.33 Mbit/s
95th percentile per-packet one-way delay: 6.005 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.92 Mbit/s
95th percentile per-packet one-way delay: 4.244 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-02-04 22:20:51
End at: 2018-02-04 22:21:21
Local clock offset: -0.036 ms
Remote clock offset: 3.227 ms

# Below is generated by plot.py at 2018-02-05 00:55:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 75.17 Mbit/s
  95th percentile per-packet one-way delay: 12.307 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 27.95 Mbit/s
  95th percentile per-packet one-way delay: 8.769 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 65.75 Mbit/s
  95th percentile per-packet one-way delay: 4.100 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 10.28 Mbit/s
  95th percentile per-packet one-way delay: 25.343 ms
  Loss rate: 0.05%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-02-04 22:41:28
End at: 2018-02-04 22:41:58
Local clock offset: 0.005 ms
Remote clock offset: -17.511 ms

# Below is generated by plot.py at 2018-02-05 00:56:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.42 Mbit/s
95th percentile per-packet one-way delay: -13.784 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.28 Mbit/s
95th percentile per-packet one-way delay: -16.503 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.51 Mbit/s
95th percentile per-packet one-way delay: -11.857 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.70 Mbit/s
95th percentile per-packet one-way delay: -12.080 ms
Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

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

- Flow 1 (ingress 66.28 Mbit/s, egress 66.28 Mbit/s)
- Flow 2 (ingress 19.51 Mbit/s, egress 19.51 Mbit/s)
- Flow 3 (ingress 51.89 Mbit/s, egress 51.70 Mbit/s)

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

- Flow 1 (95th percentile -16.50 ms)
- Flow 2 (95th percentile -11.86 ms)
- Flow 3 (95th percentile -12.08 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-02-04 23:02:03
End at: 2018-02-04 23:02:33
Local clock offset: -0.002 ms
Remote clock offset: 2.74 ms

# Below is generated by plot.py at 2018-02-05 00:56:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.44 Mbit/s
95th percentile per-packet one-way delay: 13.900 ms
Loss rate: 0.15%

-- Flow 1:
Average throughput: 24.24 Mbit/s
95th percentile per-packet one-way delay: 13.043 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 44.723 ms
Loss rate: 7.28%

-- Flow 3:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 11.938 ms
Loss rate: 0.01%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

End at: 2018-02-04 23:23:09
Local clock offset: 0.002 ms
Remote clock offset: 2.634 ms

# Below is generated by plot.py at 2018-02-05 00:56:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.54 Mbit/s
95th percentile per-packet one-way delay: 17.127 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.66 Mbit/s
95th percentile per-packet one-way delay: 4.051 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.35 Mbit/s
95th percentile per-packet one-way delay: 27.139 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.10 Mbit/s
95th percentile per-packet one-way delay: 16.107 ms
Loss rate: 0.01%
Run 8: Report of TCP Vegas — Data Link
Run 9: Statistics of TCP Vegas

Start at: 2018-02-04 23:43:27
End at: 2018-02-04 23:43:57
Local clock offset: -0.08 ms
Remote clock offset: 2.697 ms

# Below is generated by plot.py at 2018-02-05 00:56:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.58 Mbit/s
95th percentile per-packet one-way delay: 30.979 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 38.35 Mbit/s
95th percentile per-packet one-way delay: 32.451 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 29.227 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.62 Mbit/s
95th percentile per-packet one-way delay: 10.772 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows]
Run 10: Statistics of TCP Vegas

Start at: 2018-02-05 00:04:19
End at: 2018-02-05 00:04:49
Local clock offset: -0.035 ms
Remote clock offset: -6.84 ms

# Below is generated by plot.py at 2018-02-05 00:56:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.78 Mbit/s
  95th percentile per-packet one-way delay: 28.132 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 13.52 Mbit/s
  95th percentile per-packet one-way delay: 31.773 ms
  Loss rate: 0.37%
-- Flow 2:
  Average throughput: 86.43 Mbit/s
  95th percentile per-packet one-way delay: -4.975 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 11.04 Mbit/s
  95th percentile per-packet one-way delay: 21.562 ms
  Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link
Run 1: Statistics of Verus

Start at: 2018-02-04 21:03:26
End at: 2018-02-04 21:03:56
Local clock offset: 0.044 ms
Remote clock offset: 2.232 ms

# Below is generated by plot.py at 2018-02-05 00:56:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 77.69 Mbit/s
  95th percentile per-packet one-way delay: 44.752 ms
  Loss rate: 15.24%
-- Flow 1:
  Average throughput: 43.66 Mbit/s
  95th percentile per-packet one-way delay: 32.170 ms
  Loss rate: 9.47%
-- Flow 2:
  Average throughput: 30.62 Mbit/s
  95th percentile per-packet one-way delay: 32.835 ms
  Loss rate: 23.72%
-- Flow 3:
  Average throughput: 41.33 Mbit/s
  95th percentile per-packet one-way delay: 55.806 ms
  Loss rate: 18.34%
Run 1: Report of Verus — Data Link

![Graph showing network performance metrics over time]

- Flow 1 ingress (mean 48.26 Mbit/s)
- Flow 1 egress (mean 43.66 Mbit/s)
- Flow 2 ingress (mean 40.19 Mbit/s)
- Flow 2 egress (mean 30.62 Mbit/s)
- Flow 3 ingress (mean 50.54 Mbit/s)
- Flow 3 egress (mean 41.33 Mbit/s)

![Graph showing packet delay over time]

- Flow 1 (95th percentile 32.17 ms)
- Flow 2 (95th percentile 32.84 ms)
- Flow 3 (95th percentile 55.81 ms)
Run 2: Statistics of Verus

Start at: 2018-02-04 21:24:04
End at: 2018-02-04 21:24:34
Local clock offset: 0.042 ms
Remote clock offset: -17.699 ms

# Below is generated by plot.py at 2018-02-05 00:56:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.51 Mbit/s
95th percentile per-packet one-way delay: 51.203 ms
Loss rate: 41.38%
-- Flow 1:
Average throughput: 46.07 Mbit/s
95th percentile per-packet one-way delay: 15.214 ms
Loss rate: 46.40%
-- Flow 2:
Average throughput: 31.33 Mbit/s
95th percentile per-packet one-way delay: 52.996 ms
Loss rate: 33.30%
-- Flow 3:
Average throughput: 23.85 Mbit/s
95th percentile per-packet one-way delay: 12.937 ms
Loss rate: 24.29%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2018-02-04 21:44:31
End at: 2018-02-04 21:45:01
Local clock offset: -0.048 ms
Remote clock offset: 2.008 ms

# Below is generated by plot.py at 2018-02-05 00:56:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 72.14 Mbit/s
  95th percentile per-packet one-way delay: 32.696 ms
  Loss rate: 9.15%
-- Flow 1:
  Average throughput: 45.27 Mbit/s
  95th percentile per-packet one-way delay: 31.172 ms
  Loss rate: 6.33%
-- Flow 2:
  Average throughput: 29.01 Mbit/s
  95th percentile per-packet one-way delay: 32.892 ms
  Loss rate: 12.14%
-- Flow 3:
  Average throughput: 22.88 Mbit/s
  95th percentile per-packet one-way delay: 32.891 ms
  Loss rate: 16.87%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

Start at: 2018-02-04 22:04:55
End at: 2018-02-04 22:05:25
Local clock offset: 0.015 ms
Remote clock offset: 2.93 ms

# Below is generated by plot.py at 2018-02-05 00:56:52
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 68.48 Mbit/s
   95th percentile per-packet one-way delay: 72.568 ms
   Loss rate: 27.73%
-- Flow 1:
   Average throughput: 40.53 Mbit/s
   95th percentile per-packet one-way delay: 73.626 ms
   Loss rate: 23.37%
-- Flow 2:
   Average throughput: 33.35 Mbit/s
   95th percentile per-packet one-way delay: 35.401 ms
   Loss rate: 24.65%
-- Flow 3:
   Average throughput: 23.49 Mbit/s
   95th percentile per-packet one-way delay: 40.175 ms
   Loss rate: 48.36%
Run 4: Report of Verus — Data Link

![Throughput vs Time Graph]

- **Flow 1 ingress (mean 50.36 Mbit/s)**
- **Flow 1 egress (mean 40.53 Mbit/s)**
- **Flow 2 ingress (mean 44.32 Mbit/s)**
- **Flow 2 egress (mean 33.35 Mbit/s)**
- **Flow 3 ingress (mean 45.43 Mbit/s)**
- **Flow 3 egress (mean 23.49 Mbit/s)**

![Per-packet one way delay vs Time Graph]

- **Flow 1 (95th percentile 73.63 ms)**
- **Flow 2 (95th percentile 35.40 ms)**
- **Flow 3 (95th percentile 40.17 ms)**

211
Run 5: Statistics of Verus

Start at: 2018-02-04 22:25:26
End at: 2018-02-04 22:25:56
Local clock offset: 0.008 ms
Remote clock offset: 3.238 ms

# Below is generated by plot.py at 2018-02-05 00:57:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.11 Mbit/s
  95th percentile per-packet one-way delay: 31.097 ms
  Loss rate: 5.55%
-- Flow 1:
  Average throughput: 47.73 Mbit/s
  95th percentile per-packet one-way delay: 28.780 ms
  Loss rate: 3.94%
-- Flow 2:
  Average throughput: 32.36 Mbit/s
  95th percentile per-packet one-way delay: 32.143 ms
  Loss rate: 6.03%
-- Flow 3:
  Average throughput: 26.72 Mbit/s
  95th percentile per-packet one-way delay: 32.072 ms
  Loss rate: 12.40%
Run 5: Report of Verus — Data Link

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

- Flow 1 ingress (mean 49.70 Mbit/s)
- Flow 1 egress (mean 47.73 Mbit/s)
- Flow 2 ingress (mean 34.44 Mbit/s)
- Flow 2 egress (mean 32.36 Mbit/s)
- Flow 3 ingress (mean 30.51 Mbit/s)
- Flow 3 egress (mean 26.72 Mbit/s)
Run 6: Statistics of Verus

Start at: 2018-02-04 22:46:05
End at: 2018-02-04 22:46:35
Local clock offset: -0.003 ms
Remote clock offset: 2.837 ms

# Below is generated by plot.py at 2018-02-05 00:57:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.72 Mbit/s
  95th percentile per-packet one-way delay: 32.935 ms
  Loss rate: 24.70%
-- Flow 1:
  Average throughput: 46.59 Mbit/s
  95th percentile per-packet one-way delay: 32.016 ms
  Loss rate: 13.67%
-- Flow 2:
  Average throughput: 34.00 Mbit/s
  95th percentile per-packet one-way delay: 32.784 ms
  Loss rate: 28.30%
-- Flow 3:
  Average throughput: 32.27 Mbit/s
  95th percentile per-packet one-way delay: 39.872 ms
  Loss rate: 48.12%
Run 6: Report of Verus — Data Link

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

- **Flow 1**
  - Ingress: Mean 53.97 Mbit/s
  - Egress: Mean 46.59 Mbit/s
- **Flow 2**
  - Ingress: Mean 47.50 Mbit/s
  - Egress: Mean 34.00 Mbit/s
- **Flow 3**
  - Ingress: Mean 62.20 Mbit/s
  - Egress: Mean 32.27 Mbit/s

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

- **Flow 1** (95th percentile 32.02 ms)
- **Flow 2** (95th percentile 32.78 ms)
- **Flow 3** (95th percentile 39.87 ms)
Run 7: Statistics of Verus

Start at: 2018-02-04 23:06:38
End at: 2018-02-04 23:07:08
Local clock offset: -0.034 ms
Remote clock offset: 2.661 ms

# Below is generated by plot.py at 2018-02-05 00:57:36
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 81.01 Mbit/s
   95th percentile per-packet one-way delay: 43.082 ms
   Loss rate: 24.19%
-- Flow 1:
   Average throughput: 43.53 Mbit/s
   95th percentile per-packet one-way delay: 32.844 ms
   Loss rate: 15.51%
-- Flow 2:
   Average throughput: 39.97 Mbit/s
   95th percentile per-packet one-way delay: 44.516 ms
   Loss rate: 33.29%
-- Flow 3:
   Average throughput: 33.15 Mbit/s
   95th percentile per-packet one-way delay: 52.874 ms
   Loss rate: 29.65%
Run 7: Report of Verus — Data Link

![Throughput and Per-packet one-way delay graphs]

Legend:
- Flow 1 ingress (mean 51.57 Mbit/s)
- Flow 1 egress (mean 43.53 Mbit/s)
- Flow 2 ingress (mean 60.01 Mbit/s)
- Flow 2 egress (mean 39.97 Mbit/s)
- Flow 3 ingress (mean 47.26 Mbit/s)
- Flow 3 egress (mean 33.15 Mbit/s)

Flow 1 (95th percentile 32.84 ms)
Flow 2 (95th percentile 44.52 ms)
Flow 3 (95th percentile 52.87 ms)
Run 8: Statistics of Verus

Start at: 2018-02-04 23:27:15
End at: 2018-02-04 23:27:45
Local clock offset: 0.006 ms
Remote clock offset: -17.679 ms

# Below is generated by plot.py at 2018-02-05 00:57:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.31 Mbit/s
95th percentile per-packet one-way delay: 45.217 ms
Loss rate: 31.39%
-- Flow 1:
Average throughput: 43.62 Mbit/s
95th percentile per-packet one-way delay: 12.617 ms
Loss rate: 14.87%
-- Flow 2:
Average throughput: 44.13 Mbit/s
95th percentile per-packet one-way delay: 48.080 ms
Loss rate: 33.26%
-- Flow 3:
Average throughput: 25.35 Mbit/s
95th percentile per-packet one-way delay: 14.034 ms
Loss rate: 64.12%
Run 8: Report of Verus — Data Link

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

- **Flow 1** ingress (mean 51.29 Mbit/s)
- **Flow 1** egress (mean 43.62 Mbit/s)
- **Flow 2** ingress (mean 66.12 Mbit/s)
- **Flow 2** egress (mean 64.13 Mbit/s)
- **Flow 3** ingress (mean 70.74 Mbit/s)
- **Flow 3** egress (mean 25.35 Mbit/s)
Run 9: Statistics of Verus

Start at: 2018-02-04 23:48:05
End at: 2018-02-04 23:48:35
Local clock offset: -0.011 ms
Remote clock offset: 2.688 ms

# Below is generated by plot.py at 2018-02-05 00:57:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.94 Mbit/s
95th percentile per-packet one-way delay: 32.855 ms
Loss rate: 23.57%
-- Flow 1:
Average throughput: 44.02 Mbit/s
95th percentile per-packet one-way delay: 32.352 ms
Loss rate: 18.26%
-- Flow 2:
Average throughput: 35.75 Mbit/s
95th percentile per-packet one-way delay: 32.892 ms
Loss rate: 26.45%
-- Flow 3:
Average throughput: 27.78 Mbit/s
95th percentile per-packet one-way delay: 33.214 ms
Loss rate: 36.88%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-02-05 00:08:55
End at: 2018-02-05 00:09:25
Local clock offset: -0.002 ms
Remote clock offset: 2.29 ms

# Below is generated by plot.py at 2018-02-05 00:58:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.05 Mbit/s
95th percentile per-packet one-way delay: 72.738 ms
Loss rate: 51.36%
-- Flow 1:
Average throughput: 34.51 Mbit/s
95th percentile per-packet one-way delay: 73.871 ms
Loss rate: 33.75%
-- Flow 2:
Average throughput: 39.07 Mbit/s
95th percentile per-packet one-way delay: 68.037 ms
Loss rate: 64.07%
-- Flow 3:
Average throughput: 39.29 Mbit/s
95th percentile per-packet one-way delay: 67.807 ms
Loss rate: 51.33%
Run 10: Report of Verus — Data Link
Run 1: Statistics of Copa

Start at: 2018-02-04 21:01:08
End at: 2018-02-04 21:01:38
Local clock offset: -0.022 ms
Remote clock offset: 2.297 ms

# Below is generated by plot.py at 2018-02-05 00:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.22 Mbit/s
95th percentile per-packet one-way delay: 3.072 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.09 Mbit/s
95th percentile per-packet one-way delay: 2.966 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.96 Mbit/s
95th percentile per-packet one-way delay: 3.081 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.69 Mbit/s
95th percentile per-packet one-way delay: 3.208 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link

![Graph of throughput and packet delay over time for different flows.](image)
Run 2: Statistics of Copa

Start at: 2018-02-04 21:21:45
End at: 2018-02-04 21:22:15
Local clock offset: 0.077 ms
Remote clock offset: 2.175 ms

# Below is generated by plot.py at 2018-02-05 00:59:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.56 Mbit/s
  95th percentile per-packet one-way delay: 3.092 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 34.11 Mbit/s
  95th percentile per-packet one-way delay: 3.221 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 43.48 Mbit/s
  95th percentile per-packet one-way delay: 2.946 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 34.63 Mbit/s
  95th percentile per-packet one-way delay: 3.088 ms
  Loss rate: 0.00%
Run 2: Report of Copa — Data Link

![Graph 1](chart1.png)

- Flow 1 ingress (mean 34.11 Mbit/s)
- Flow 1 egress (mean 34.11 Mbit/s)
- Flow 2 ingress (mean 43.48 Mbit/s)
- Flow 2 egress (mean 43.48 Mbit/s)
- Flow 3 ingress (mean 34.63 Mbit/s)
- Flow 3 egress (mean 34.63 Mbit/s)

![Graph 2](chart2.png)

- Flow 1 (95th percentile 3.22 ms)
- Flow 2 (95th percentile 2.95 ms)
- Flow 3 (95th percentile 3.09 ms)
Run 3: Statistics of Copa

Start at: 2018-02-04 21:42:15
End at: 2018-02-04 21:42:45
Local clock offset: 0.033 ms
Remote clock offset: 2.081 ms

# Below is generated by plot.py at 2018-02-05 00:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.09 Mbit/s
95th percentile per-packet one-way delay: 9.247 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 37.918 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 56.84 Mbit/s
95th percentile per-packet one-way delay: 2.683 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.26 Mbit/s
95th percentile per-packet one-way delay: 7.072 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link

![Graph showing throughput and packet delay](image-url)
Run 4: Statistics of Copa

Start at: 2018-02-04 22:02:43
End at: 2018-02-04 22:03:13
Local clock offset: 0.041 ms
Remote clock offset: 2.736 ms

# Below is generated by plot.py at 2018-02-05 00:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.11 Mbit/s  
95th percentile per-packet one-way delay: 21.027 ms  
Loss rate: 0.04%

-- Flow 1:
Average throughput: 2.48 Mbit/s  
95th percentile per-packet one-way delay: 21.002 ms  
Loss rate: 0.02%

-- Flow 2:
Average throughput: 2.73 Mbit/s  
95th percentile per-packet one-way delay: 21.195 ms  
Loss rate: 0.05%

-- Flow 3:
Average throughput: 5.48 Mbit/s  
95th percentile per-packet one-way delay: 20.903 ms  
Loss rate: 0.05%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-02-04 22:23:09  
End at: 2018-02-04 22:23:39  
Local clock offset: 0.035 ms  
Remote clock offset: 3.209 ms  

# Below is generated by plot.py at 2018-02-05 00:59:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 70.45 Mbit/s  
95th percentile per-packet one-way delay: 3.323 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 54.32 Mbit/s  
95th percentile per-packet one-way delay: 2.675 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 13.29 Mbit/s  
95th percentile per-packet one-way delay: 7.488 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 21.97 Mbit/s  
95th percentile per-packet one-way delay: 4.238 ms  
Loss rate: 0.01%
Run 5: Report of Copa — Data Link

**Graph 1:**
- **Y-axis:** Throughput (Mbps)
- **X-axis:** Time (s)
- Lines represent:
  - Flow 1 Ingress (mean 54.32 Mbps)
  - Flow 1 Egress (mean 54.32 Mbps)
  - Flow 2 Ingress (mean 13.29 Mbps)
  - Flow 2 Egress (mean 13.29 Mbps)
  - Flow 3 Ingress (mean 21.90 Mbps)
  - Flow 3 Egress (mean 21.97 Mbps)

**Graph 2:**
- **Y-axis:** Per-packet one-way delay (ms)
- **X-axis:** Time (s)
- Symbols represent:
  - Flow 1 (95th percentile 2.67 ms)
  - Flow 2 (95th percentile 7.49 ms)
  - Flow 3 (95th percentile 4.24 ms)
Run 6: Statistics of Copa

Start at: 2018-02-04 22:43:46
End at: 2018-02-04 22:44:16
Local clock offset: 0.016 ms
Remote clock offset: -16.96 ms

# Below is generated by plot.py at 2018-02-05 00:59:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 70.54 Mbit/s
  95th percentile per-packet one-way delay: -16.810 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 41.49 Mbit/s
  95th percentile per-packet one-way delay: -17.001 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 41.68 Mbit/s
  95th percentile per-packet one-way delay: -16.981 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 3.94 Mbit/s
  95th percentile per-packet one-way delay: -1.041 ms
  Loss rate: 0.03%
Run 6: Report of Copa — Data Link

[Graphs showing network throughput and packet delay over time for different flows.]
Run 7: Statistics of Copa

Start at: 2018-02-04 23:04:19
End at: 2018-02-04 23:04:49
Local clock offset: 0.019 ms
Remote clock offset: 2.724 ms

# Below is generated by plot.py at 2018-02-05 00:59:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 77.53 Mbit/s
  95th percentile per-packet one-way delay: 3.036 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 44.53 Mbit/s
  95th percentile per-packet one-way delay: 2.916 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 44.85 Mbit/s
  95th percentile per-packet one-way delay: 2.875 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 9.47 Mbit/s
  95th percentile per-packet one-way delay: 8.230 ms
  Loss rate: 0.00%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-02-04 23:24:57
End at: 2018-02-04 23:25:27
Local clock offset: 0.016 ms
Remote clock offset: -0.234 ms

# Below is generated by plot.py at 2018-02-05 00:59:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.14 Mbit/s
95th percentile per-packet one-way delay: 0.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 26.85 Mbit/s
95th percentile per-packet one-way delay: 1.024 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.23 Mbit/s
95th percentile per-packet one-way delay: 0.103 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.62 Mbit/s
95th percentile per-packet one-way delay: 0.665 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link

![Graph of Throughput Over Time](image1)

![Graph of Per-Packet Flow Delay](image2)

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239
Run 9: Statistics of Copa

Start at: 2018-02-04 23:45:46
End at: 2018-02-04 23:46:16
Local clock offset: ~0.027 ms
Remote clock offset: 2.35 ms

# Below is generated by plot.py at 2018-02-05 00:59:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.77 Mbit/s
95th percentile per-packet one-way delay: 18.238 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 38.930 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 53.58 Mbit/s
95th percentile per-packet one-way delay: 2.454 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.91 Mbit/s
95th percentile per-packet one-way delay: 14.136 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa

Start at: 2018-02-05 00:06:37
End at: 2018-02-05 00:07:07
Local clock offset: -0.015 ms
Remote clock offset: -7.96 ms

# Below is generated by plot.py at 2018-02-05 00:59:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.62 Mbit/s
95th percentile per-packet one-way delay: -2.834 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 24.54 Mbit/s
95th percentile per-packet one-way delay: -6.045 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 29.194 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: -6.619 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link

![Graph of throughput vs time showing fluctuations for different flows.]

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

- Flow 1 ingress (mean 24.54 Mbit/s)
- Flow 1 egress (mean 24.54 Mbit/s)
- Flow 2 ingress (mean 2.46 Mbit/s)
- Flow 2 egress (mean 2.46 Mbit/s)
- Flow 3 ingress (mean 31.42 Mbit/s)
- Flow 3 egress (mean 31.42 Mbit/s)

- Flow 1 (95th percentile 6.04 ms)
- Flow 2 (95th percentile 29.19 ms)
- Flow 3 (95th percentile 6.62 ms)
Run 1: Statistics of FillP

Start at: 2018-02-04 21:05:46
End at: 2018-02-04 21:06:16
Local clock offset: 0.06 ms
Remote clock offset: 2.23 ms

# Below is generated by plot.py at 2018-02-05 01:01:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.44 Mbit/s
95th percentile per-packet one-way delay: 30.777 ms
Loss rate: 15.01%
-- Flow 1:
Average throughput: 54.01 Mbit/s
95th percentile per-packet one-way delay: 30.594 ms
Loss rate: 10.78%
-- Flow 2:
Average throughput: 39.07 Mbit/s
95th percentile per-packet one-way delay: 30.652 ms
Loss rate: 16.91%
-- Flow 3:
Average throughput: 37.35 Mbit/s
95th percentile per-packet one-way delay: 35.052 ms
Loss rate: 26.63%
Run 1: Report of FillP — Data Link

![Run 1: Report of FillP — Data Link](image_url)
Run 2: Statistics of FillP

Start at: 2018-02-04 21:26:23
End at: 2018-02-04 21:26:53
Local clock offset: -0.028 ms
Remote clock offset: 2.103 ms

# Below is generated by plot.py at 2018-02-05 01:01:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.38 Mbit/s
95th percentile per-packet one-way delay: 70.598 ms
Loss rate: 17.29%
-- Flow 1:
Average throughput: 58.76 Mbit/s
95th percentile per-packet one-way delay: 30.858 ms
Loss rate: 10.64%
-- Flow 2:
Average throughput: 31.50 Mbit/s
95th percentile per-packet one-way delay: 70.998 ms
Loss rate: 26.23%
-- Flow 3:
Average throughput: 38.23 Mbit/s
95th percentile per-packet one-way delay: 31.571 ms
Loss rate: 27.75%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

Start at: 2018-02-04 21:46:51
End at: 2018-02-04 21:47:21
Local clock offset: 0.04 ms
Remote clock offset: 2.044 ms

# Below is generated by plot.py at 2018-02-05 01:01:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.47 Mbit/s
  95th percentile per-packet one-way delay: 33.694 ms
  Loss rate: 16.36%
-- Flow 1:
  Average throughput: 53.10 Mbit/s
  95th percentile per-packet one-way delay: 33.634 ms
  Loss rate: 11.25%
-- Flow 2:
  Average throughput: 38.88 Mbit/s
  95th percentile per-packet one-way delay: 34.481 ms
  Loss rate: 20.28%
-- Flow 3:
  Average throughput: 40.71 Mbit/s
  95th percentile per-packet one-way delay: 31.954 ms
  Loss rate: 26.12%
Run 3: Report of FillP — Data Link

![Graph of Throughput vs Time](image)

![Graph of Per-packet One-Way Delay vs Time](image)

- Flow 1 ingress (mean 59.89 Mbit/s)
- Flow 1 egress (mean 53.10 Mbit/s)
- Flow 2 ingress (mean 48.84 Mbit/s)
- Flow 2 egress (mean 38.85 Mbit/s)
- Flow 3 ingress (mean 55.69 Mbit/s)
- Flow 3 egress (mean 40.71 Mbit/s)

- Flow 1 (95th percentile 33.63 ms)
- Flow 2 (95th percentile 34.48 ms)
- Flow 3 (95th percentile 31.95 ms)
Run 4: Statistics of FillP

Start at: 2018-02-04 22:07:13
End at: 2018-02-04 22:07:43
Local clock offset: -0.023 ms
Remote clock offset: 2.985 ms

# Below is generated by plot.py at 2018-02-05 01:02:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.41 Mbit/s
  95th percentile per-packet one-way delay: 59.180 ms
  Loss rate: 15.64%
-- Flow 1:
  Average throughput: 54.13 Mbit/s
  95th percentile per-packet one-way delay: 30.644 ms
  Loss rate: 9.79%
-- Flow 2:
  Average throughput: 38.28 Mbit/s
  95th percentile per-packet one-way delay: 54.247 ms
  Loss rate: 21.57%
-- Flow 3:
  Average throughput: 38.75 Mbit/s
  95th percentile per-packet one-way delay: 64.881 ms
  Loss rate: 24.88%
Run 4: Report of FillP — Data Link

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

- **Throughput:**
  - Flow 1 ingress (mean 60.06 Mbit/s)
  - Flow 1 egress (mean 54.13 Mbit/s)
  - Flow 2 ingress (mean 48.89 Mbit/s)
  - Flow 2 egress (mean 38.28 Mbit/s)
  - Flow 3 ingress (mean 51.49 Mbit/s)
  - Flow 3 egress (mean 38.75 Mbit/s)

- **Packet Delay:**
  - Flow 1 (95th percentile 30.64 ms)
  - Flow 2 (95th percentile 54.25 ms)
  - Flow 3 (95th percentile 64.88 ms)
Run 5: Statistics of FillP

Start at: 2018-02-04 22:27:46
End at: 2018-02-04 22:28:16
Local clock offset: 0.027 ms
Remote clock offset: 0.424 ms

# Below is generated by plot.py at 2018-02-05 01:02:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.97 Mbit/s
95th percentile per-packet one-way delay: 68.533 ms
Loss rate: 18.60%
-- Flow 1:
Average throughput: 41.21 Mbit/s
95th percentile per-packet one-way delay: 68.852 ms
Loss rate: 18.36%
-- Flow 2:
Average throughput: 49.82 Mbit/s
95th percentile per-packet one-way delay: 48.335 ms
Loss rate: 16.90%
-- Flow 3:
Average throughput: 43.91 Mbit/s
95th percentile per-packet one-way delay: 27.912 ms
Loss rate: 22.87%
Run 5: Report of FillP — Data Link

[Graph 1: Throughput vs. Time] - The graph shows the throughput over time for different flows. Each line represents a flow's throughput ( ingress and egress) and is labeled with its mean throughput rate.

[Graph 2: Per-packet one-way delay vs. Time] - This graph displays the per-packet one-way delay over time for various flows, with each line indicating the 95th percentile delay for each flow.

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253
Run 6: Statistics of FillP

End at: 2018-02-04 22:48:57
Local clock offset: -0.059 ms
Remote clock offset: 2.963 ms

# Below is generated by plot.py at 2018-02-05 01:02:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.38 Mbit/s
95th percentile per-packet one-way delay: 35.522 ms
Loss rate: 15.83%
-- Flow 1:
Average throughput: 54.56 Mbit/s
95th percentile per-packet one-way delay: 37.170 ms
Loss rate: 11.09%
-- Flow 2:
Average throughput: 39.58 Mbit/s
95th percentile per-packet one-way delay: 30.868 ms
Loss rate: 17.62%
-- Flow 3:
Average throughput: 34.59 Mbit/s
95th percentile per-packet one-way delay: 31.008 ms
Loss rate: 30.06%
Run 6: Report of FillP — Data Link

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**Graph 1:**
- **x-axis:** Time (s)
- **y-axis:** Throughput (Mbit/s)
- **Legend:**
  - Flow 1 ingress (mean 61.40 Mbit/s)
  - Flow 1 egress (mean 54.56 Mbit/s)
  - Flow 2 ingress (mean 48.10 Mbit/s)
  - Flow 2 egress (mean 39.55 Mbit/s)
  - Flow 3 ingress (mean 49.47 Mbit/s)
  - Flow 3 egress (mean 34.59 Mbit/s)

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**Graph 2:**
- **x-axis:** Time (s)
- **y-axis:** Per packet one way delay (ms)
- **Legend:**
  - Flow 1 (95th percentile 37.17 ms)
  - Flow 2 (95th percentile 30.87 ms)
  - Flow 3 (95th percentile 31.01 ms)
Run 7: Statistics of FillP

Start at: 2018-02-04 23:08:59
End at: 2018-02-04 23:09:29
Local clock offset: 0.007 ms
Remote clock offset: 2.69 ms

# Below is generated by plot.py at 2018-02-05 01:02:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.41 Mbit/s
95th percentile per-packet one-way delay: 60.066 ms
Loss rate: 15.75%
-- Flow 1:
Average throughput: 53.49 Mbit/s
95th percentile per-packet one-way delay: 30.668 ms
Loss rate: 10.22%
-- Flow 2:
Average throughput: 39.37 Mbit/s
95th percentile per-packet one-way delay: 64.403 ms
Loss rate: 19.22%
-- Flow 3:
Average throughput: 38.48 Mbit/s
95th percentile per-packet one-way delay: 36.407 ms
Loss rate: 28.03%
Run 7: Report of FillP — Data Link

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

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

Start at: 2018-02-04 23:29:39
End at: 2018-02-04 23:30:09
Local clock offset: -0.003 ms
Remote clock offset: 2.633 ms

# Below is generated by plot.py at 2018-02-05 01:02:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.31 Mbit/s
95th percentile per-packet one-way delay: 58.461 ms
Loss rate: 16.39%
-- Flow 1:
Average throughput: 54.46 Mbit/s
95th percentile per-packet one-way delay: 60.380 ms
Loss rate: 12.16%
-- Flow 2:
Average throughput: 41.09 Mbit/s
95th percentile per-packet one-way delay: 33.289 ms
Loss rate: 20.57%
-- Flow 3:
Average throughput: 31.69 Mbit/s
95th percentile per-packet one-way delay: 50.016 ms
Loss rate: 24.84%
Run 8: Report of FillP — Data Link

![Graphs showing throughput and per-packet one-way delay for different flows over time.](image-url)
Run 9: Statistics of FillP

Start at: 2018-02-04 23:50:26
End at: 2018-02-04 23:50:56
Local clock offset: -0.017 ms
Remote clock offset: -4.943 ms

# Below is generated by plot.py at 2018-02-05 01:04:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.48 Mbit/s
95th percentile per-packet one-way delay: 37.650 ms
Loss rate: 16.94%
-- Flow 1:
Average throughput: 54.20 Mbit/s
95th percentile per-packet one-way delay: 41.220 ms
Loss rate: 12.12%
-- Flow 2:
Average throughput: 37.13 Mbit/s
95th percentile per-packet one-way delay: 23.147 ms
Loss rate: 20.48%
-- Flow 3:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 25.095 ms
Loss rate: 27.05%
Run 9: Report of FillP — Data Link

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

Legend:
- Flow 1 ingress (mean 61.72 Mbit/s)
- Flow 1 egress (mean 54.20 Mbit/s)
- Flow 2 ingress (mean 46.76 Mbit/s)
- Flow 2 egress (mean 37.13 Mbit/s)
- Flow 3 ingress (mean 56.08 Mbit/s)
- Flow 3 egress (mean 40.87 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 41.22 ms)
- Flow 2 (95th percentile 23.15 ms)
- Flow 3 (95th percentile 25.09 ms)
Run 10: Statistics of FillP

Start at: 2018-02-05 00:11:16
End at: 2018-02-05 00:11:47
Local clock offset: -0.022 ms
Remote clock offset: 2.182 ms

# Below is generated by plot.py at 2018-02-05 01:04:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.29 Mbit/s
  95th percentile per-packet one-way delay: 70.754 ms
  Loss rate: 14.47%
-- Flow 1:
  Average throughput: 60.43 Mbit/s
  95th percentile per-packet one-way delay: 32.027 ms
  Loss rate: 9.40%
-- Flow 2:
  Average throughput: 27.83 Mbit/s
  95th percentile per-packet one-way delay: 71.184 ms
  Loss rate: 24.59%
-- Flow 3:
  Average throughput: 40.89 Mbit/s
  95th percentile per-packet one-way delay: 53.446 ms
  Loss rate: 19.90%
Run 10: Report of FillP — Data Link

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

- Flow 1 ingress (mean 66.75 Mbps)
- Flow 1 egress (mean 60.43 Mbps)
- Flow 2 ingress (mean 36.61 Mbps)
- Flow 2 egress (mean 27.83 Mbps)
- Flow 3 ingress (mean 50.96 Mbps)
- Flow 3 egress (mean 40.89 Mbps)

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

- Flow 1 (95th percentile 32.03 ms)
- Flow 2 (95th percentile 71.18 ms)
- Flow 3 (95th percentile 53.45 ms)
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-04 20:59:59
End at: 2018-02-04 21:00:29
Local clock offset: 0.039 ms
Remote clock offset: 2.311 ms

# Below is generated by plot.py at 2018-02-05 01:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.30 Mbit/s
95th percentile per-packet one-way delay: 52.342 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 46.86 Mbit/s
95th percentile per-packet one-way delay: 10.974 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.11 Mbit/s
95th percentile per-packet one-way delay: 11.697 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.15 Mbit/s
95th percentile per-packet one-way delay: 54.260 ms
Loss rate: 8.74%
Run 1: Report of Indigo-1-32 — Data Link
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-04 21:20:36
End at: 2018-02-04 21:21:06
Local clock offset: -0.016 ms
Remote clock offset: 2.188 ms

# Below is generated by plot.py at 2018-02-05 01:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.59 Mbit/s
95th percentile per-packet one-way delay: 48.178 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 51.07 Mbit/s
95th percentile per-packet one-way delay: 10.127 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.94 Mbit/s
95th percentile per-packet one-way delay: 11.160 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 54.89 Mbit/s
95th percentile per-packet one-way delay: 51.452 ms
Loss rate: 9.33%
Run 2: Report of Indigo-1-32 — Data Link
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-04 21:41:05
End at: 2018-02-04 21:41:35
Local clock offset: 0.033 ms
Remote clock offset: 2.096 ms

# Below is generated by plot.py at 2018-02-05 01:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 13.519 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.95 Mbit/s
95th percentile per-packet one-way delay: 11.177 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.10 Mbit/s
95th percentile per-packet one-way delay: 13.626 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.19 Mbit/s
95th percentile per-packet one-way delay: 13.668 ms
Loss rate: 0.00%
Run 3: Report of Indigo-1-32 — Data Link
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-04 22:01:34
End at: 2018-02-04 22:02:04
Local clock offset: 0.044 ms
Remote clock offset: -17.563 ms

# Below is generated by plot.py at 2018-02-05 01:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.32 Mbit/s
95th percentile per-packet one-way delay: 29.113 ms
Loss rate: 3.95%
-- Flow 1:
Average throughput: 24.33 Mbit/s
95th percentile per-packet one-way delay: -6.918 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 67.76 Mbit/s
95th percentile per-packet one-way delay: 30.520 ms
Loss rate: 7.22%
-- Flow 3:
Average throughput: 49.45 Mbit/s
95th percentile per-packet one-way delay: 0.031 ms
Loss rate: 0.13%
Run 4: Report of Indigo-1-32 — Data Link

Throughput (Mbit/s)

Time (s)

Per packet one way delay (ms)

Flow 1 ingress (mean 24.33 Mbit/s)
Flow 1 egress (mean 24.33 Mbit/s)
Flow 2 ingress (mean 72.48 Mbit/s)
Flow 2 egress (mean 67.76 Mbit/s)
Flow 3 ingress (mean 49.46 Mbit/s)
Flow 3 egress (mean 49.43 Mbit/s)

Flow 1 (95th percentile 6.92 ms)
Flow 2 (95th percentile 30.52 ms)
Flow 3 (95th percentile 0.03 ms)
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-04 22:22:00
End at: 2018-02-04 22:22:30
Local clock offset: -0.005 ms
Remote clock offset: 3.13 ms

# Below is generated by plot.py at 2018-02-05 01:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.75 Mbit/s
95th percentile per-packet one-way delay: 48.644 ms
Loss rate: 7.13%
-- Flow 1:
Average throughput: 61.83 Mbit/s
95th percentile per-packet one-way delay: 49.296 ms
Loss rate: 9.83%
-- Flow 2:
Average throughput: 12.02 Mbit/s
95th percentile per-packet one-way delay: 13.423 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 55.01 Mbit/s
95th percentile per-packet one-way delay: 12.551 ms
Loss rate: 0.00%
Run 5: Report of Indigo-1-32 — Data Link
Run 6: Statistics of Indigo-1-32

End at: 2018-02-04 22:43:07
Local clock offset: -0.004 ms
Remote clock offset: 2.974 ms

# Below is generated by plot.py at 2018-02-05 01:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.36 Mbit/s
95th percentile per-packet one-way delay: 20.809 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 30.92 Mbit/s
95th percentile per-packet one-way delay: 24.104 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 66.80 Mbit/s
95th percentile per-packet one-way delay: 9.016 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.11 Mbit/s
95th percentile per-packet one-way delay: 14.292 ms
Loss rate: 0.04%
Run 6: Report of Indigo-1-32 — Data Link

![Graph of throughput vs time](image1)

![Graph of packet one-way delay vs time](image2)
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-04 23:03:09
End at: 2018-02-04 23:03:39
Local clock offset: -0.076 ms
Remote clock offset: 2.742 ms

# Below is generated by plot.py at 2018-02-05 01:04:44
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 97.39 Mbit/s
 95th percentile per-packet one-way delay: 21.975 ms
 Loss rate: 0.00%
-- Flow 1:
 Average throughput: 37.73 Mbit/s
 95th percentile per-packet one-way delay: 12.354 ms
 Loss rate: 0.00%
-- Flow 2:
 Average throughput: 80.57 Mbit/s
 95th percentile per-packet one-way delay: 23.199 ms
 Loss rate: 0.00%
-- Flow 3:
 Average throughput: 19.62 Mbit/s
 95th percentile per-packet one-way delay: 16.251 ms
 Loss rate: 0.00%
Run 7: Report of Indigo-1-32 — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 37.74 Mbps) | Flow 1 egress (mean 37.73 Mbps)
Flow 2 ingress (mean 80.55 Mbps) | Flow 2 egress (mean 80.57 Mbps)
Flow 3 ingress (mean 19.62 Mbps) | Flow 3 egress (mean 19.62 Mbps)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 12.35 ms) | Flow 2 (95th percentile 23.20 ms) | Flow 3 (95th percentile 16.25 ms)
Run 8: Statistics of Indigo-1-32

End at: 2018-02-04 23:24:18
Local clock offset: -0.003 ms
Remote clock offset: 2.626 ms

# Below is generated by plot.py at 2018-02-05 01:04:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.70 Mbit/s
  95th percentile per-packet one-way delay: 48.387 ms
  Loss rate: 3.79%
-- Flow 1:
  Average throughput: 34.32 Mbit/s
  95th percentile per-packet one-way delay: 12.845 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 57.76 Mbit/s
  95th percentile per-packet one-way delay: 49.517 ms
  Loss rate: 8.37%
-- Flow 3:
  Average throughput: 49.60 Mbit/s
  95th percentile per-packet one-way delay: 10.148 ms
  Loss rate: 0.00%
Run 8: Report of Indigo-1-32 — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows.]
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-04 23:44:36
End at: 2018-02-04 23:45:06
Local clock offset: -0.091 ms
Remote clock offset: -7.949 ms

# Below is generated by plot.py at 2018-02-05 01:04:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.21 Mbit/s
  95th percentile per-packet one-way delay: 34.855 ms
  Loss rate: 7.57%
-- Flow 1:
  Average throughput: 68.84 Mbit/s
  95th percentile per-packet one-way delay: 34.981 ms
  Loss rate: 8.52%
-- Flow 2:
  Average throughput: 9.26 Mbit/s
  95th percentile per-packet one-way delay: 12.132 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 9.94 Mbit/s
  95th percentile per-packet one-way delay: 29.266 ms
  Loss rate: 0.00%
Run 9: Report of Indigo-1-32 — Data Link

Graph showing throughput and round-trip time for different flows over time.
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-05 00:05:28
End at: 2018-02-05 00:05:58
Local clock offset: -0.05 ms
Remote clock offset: 2.336 ms

# Below is generated by plot.py at 2018-02-05 01:04:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.42 Mbit/s
95th percentile per-packet one-way delay: 48.082 ms
Loss rate: 6.74%
-- Flow 1:
Average throughput: 7.99 Mbit/s
95th percentile per-packet one-way delay: 42.453 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 76.91 Mbit/s
95th percentile per-packet one-way delay: 50.092 ms
Loss rate: 8.70%
-- Flow 3:
Average throughput: 26.01 Mbit/s
95th percentile per-packet one-way delay: 42.324 ms
Loss rate: 0.09%
Run 1: Statistics of Vivace-latency

Start at: 2018-02-04 20:47:36
End at: 2018-02-04 20:48:06
Local clock offset: 0.082 ms
Remote clock offset: 2.366 ms

# Below is generated by plot.py at 2018-02-05 01:04:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.02 Mbit/s
95th percentile per-packet one-way delay: 12.268 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 22.16 Mbit/s
95th percentile per-packet one-way delay: 18.610 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.92 Mbit/s
95th percentile per-packet one-way delay: 3.392 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.29 Mbit/s
95th percentile per-packet one-way delay: 4.325 ms
Loss rate: 0.00%
Run 2: Statistics of Vivace-latency

Start at: 2018-02-04 21:08:05
End at: 2018-02-04 21:08:35
Local clock offset: 0.077 ms
Remote clock offset: 2.226 ms

# Below is generated by plot.py at 2018-02-05 01:05:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.93 Mbit/s
  95th percentile per-packet one-way delay: 4.163 ms
  Loss rate: 0.06%
-- Flow 1:
  Average throughput: 43.17 Mbit/s
  95th percentile per-packet one-way delay: 3.610 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 46.45 Mbit/s
  95th percentile per-packet one-way delay: 4.412 ms
  Loss rate: 0.08%
-- Flow 3:
  Average throughput: 17.75 Mbit/s
  95th percentile per-packet one-way delay: 10.478 ms
  Loss rate: 0.12%
Run 2: Report of Vivace-latency — Data Link

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

Start at: 2018-02-04 21:28:43
End at: 2018-02-04 21:29:13
Local clock offset: -0.019 ms
Remote clock offset: -18.471 ms

# Below is generated by plot.py at 2018-02-05 01:05:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.12 Mbit/s
95th percentile per-packet one-way delay: -11.765 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.15 Mbit/s
95th percentile per-packet one-way delay: -11.394 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 29.04 Mbit/s
95th percentile per-packet one-way delay: -11.816 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: -13.154 ms
Loss rate: 0.00%
Run 3: Report of Vivace-latency — Data Link

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

- **Flow 1 ingress** (mean 28.16 Mbit/s)
- **Flow 1 egress** (mean 28.15 Mbit/s)
- **Flow 2 ingress** (mean 29.05 Mbit/s)
- **Flow 2 egress** (mean 29.04 Mbit/s)
- **Flow 3 ingress** (mean 32.37 Mbit/s)
- **Flow 3 egress** (mean 32.36 Mbit/s)
Run 4: Statistics of Vivace-latency

Start at: 2018-02-04 21:49:10
End at: 2018-02-04 21:49:40
Local clock offset: 0.019 ms
Remote clock offset: 2.097 ms

# Below is generated by plot.py at 2018-02-05 01:05:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.55 Mbit/s
95th percentile per-packet one-way delay: 6.553 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.81 Mbit/s
95th percentile per-packet one-way delay: 5.537 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.95 Mbit/s
95th percentile per-packet one-way delay: 4.525 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 18.74 Mbit/s
95th percentile per-packet one-way delay: 9.994 ms
Loss rate: 0.00%
Run 4: Report of Vivace-latency — Data Link

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

**Throughput (Mbps)**
- Flow 1 ingress (mean 47.81 Mbps)
- Flow 2 ingress (mean 33.95 Mbps)
- Flow 3 ingress (mean 18.74 Mbps)
- Flow 1 egress (mean 47.81 Mbps)
- Flow 2 egress (mean 33.95 Mbps)
- Flow 3 egress (mean 18.74 Mbps)

**Per-packet one-way delay (ms)**
- Flow 1 (95th percentile 5.54 ms)
- Flow 2 (95th percentile 4.53 ms)
- Flow 3 (95th percentile 9.99 ms)
Run 5: Statistics of Vivace-latency

Start at: 2018-02-04 22:09:33
End at: 2018-02-04 22:10:03
Local clock offset: 0.059 ms
Remote clock offset: 3.089 ms

# Below is generated by plot.py at 2018-02-05 01:05:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.56 Mbit/s
95th percentile per-packet one-way delay: 11.780 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 18.16 Mbit/s
95th percentile per-packet one-way delay: 14.283 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.05 Mbit/s
95th percentile per-packet one-way delay: 3.266 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.68 Mbit/s
95th percentile per-packet one-way delay: 3.100 ms
Loss rate: 0.00%
Run 6: Statistics of Vivace-latency

Start at: 2018-02-04 22:30:07
End at: 2018-02-04 22:30:37
Local clock offset: -0.001 ms
Remote clock offset: -16.791 ms

# Below is generated by plot.py at 2018-02-05 01:05:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.75 Mbit/s
95th percentile per-packet one-way delay: -13.134 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.98 Mbit/s
95th percentile per-packet one-way delay: -11.614 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.69 Mbit/s
95th percentile per-packet one-way delay: -14.612 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.49 Mbit/s
95th percentile per-packet one-way delay: -13.730 ms
Loss rate: 0.00%
Run 7: Statistics of Vivace-latency

Start at: 2018-02-04 22:50:46
End at: 2018-02-04 22:51:16
Local clock offset: 0.008 ms
Remote clock offset: 1.82 ms

# Below is generated by plot.py at 2018-02-05 01:05:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.54 Mbit/s
95th percentile per-packet one-way delay: 42.843 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 28.80 Mbit/s
95th percentile per-packet one-way delay: 38.137 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 7.56 Mbit/s
95th percentile per-packet one-way delay: 49.974 ms
Loss rate: 7.96%
-- Flow 3:
Average throughput: 8.22 Mbit/s
95th percentile per-packet one-way delay: 16.391 ms
Loss rate: 0.10%
Run 7: Report of Vivace-latency — Data Link

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

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

Start at: 2018-02-04 23:11:20
End at: 2018-02-04 23:11:50
Local clock offset: 0.023 ms
Remote clock offset: 2.583 ms

# Below is generated by plot.py at 2018-02-05 01:05:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.48 Mbit/s
95th percentile per-packet one-way delay: 32.955 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 8.61 Mbit/s
95th percentile per-packet one-way delay: 34.746 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 12.204 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 15.67 Mbit/s
95th percentile per-packet one-way delay: 27.038 ms
Loss rate: 0.13%
Run 8: Report of Vivace-latency — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 8.62 Mbps)
- Flow 1 egress (mean 8.61 Mbps)
- Flow 2 ingress (mean 8.59 Mbps)
- Flow 2 egress (mean 8.58 Mbps)
- Flow 3 ingress (mean 15.67 Mbps)
- Flow 3 egress (mean 15.67 Mbps)

Latency (ms):
- Flow 1 (95th percentile 34.75 ms)
- Flow 2 (95th percentile 12.20 ms)
- Flow 3 (95th percentile 27.04 ms)
Run 9: Statistics of Vivace-latency

Start at: 2018-02-04 23:32:00
End at: 2018-02-04 23:32:30
Local clock offset: 0.009 ms
Remote clock offset: -11.58 ms

# Below is generated by plot.py at 2018-02-05 01:05:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.86 Mbit/s
95th percentile per-packet one-way delay: 17.773 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 8.38 Mbit/s
95th percentile per-packet one-way delay: 22.863 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 55.52 Mbit/s
95th percentile per-packet one-way delay: -11.247 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.77 Mbit/s
95th percentile per-packet one-way delay: -4.326 ms
Loss rate: 0.00%
Run 9: Report of Vivace-latency — Data Link

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

![Graph 2: Per-packet one-way delay (ms) over Time (s)]
Run 10: Statistics of Vivace-latency

Start at: 2018-02-04 23:52:49
End at: 2018-02-04 23:53:19
Local clock offset: -0.011 ms
Remote clock offset: -7.94 ms

# Below is generated by plot.py at 2018-02-05 01:06:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.98 Mbit/s
95th percentile per-packet one-way delay: -4.800 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.29 Mbit/s
95th percentile per-packet one-way delay: -5.804 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.37 Mbit/s
95th percentile per-packet one-way delay: -5.605 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 17.899 ms
Loss rate: 0.00%
Run 10: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 41.29 Mbit/s)
- Flow 1 egress (mean 41.29 Mbit/s)
- Flow 2 ingress (mean 50.37 Mbit/s)
- Flow 2 egress (mean 50.37 Mbit/s)
- Flow 3 ingress (mean 3.73 Mbit/s)
- Flow 3 egress (mean 3.73 Mbit/s)

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

- Flow 1 (95th percentile ~5.80 ms)
- Flow 2 (95th percentile ~5.61 ms)
- Flow 3 (95th percentile ~17.90 ms)
Run 1: Statistics of Vivace-loss

Start at: 2018-02-04 20:57:41
End at: 2018-02-04 20:58:11
Local clock offset: -0.014 ms
Remote clock offset: 2.322 ms

# Below is generated by plot.py at 2018-02-05 01:06:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.66 Mbit/s
95th percentile per-packet one-way delay: 33.056 ms
Loss rate: 3.35%
-- Flow 1:
Average throughput: 68.90 Mbit/s
95th percentile per-packet one-way delay: 32.593 ms
Loss rate: 3.94%
-- Flow 2:
Average throughput: 29.56 Mbit/s
95th percentile per-packet one-way delay: 32.123 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 18.71 Mbit/s
95th percentile per-packet one-way delay: 36.544 ms
Loss rate: 1.71%
Run 1: Report of Vivace-loss — Data Link
Run 2: Statistics of Vivace-loss

Start at: 2018-02-04 21:18:18
End at: 2018-02-04 21:18:48
Local clock offset: 0.071 ms
Remote clock offset: 2.179 ms

# Below is generated by plot.py at 2018-02-05 01:06:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.03 Mbit/s
  95th percentile per-packet one-way delay: 34.394 ms
  Loss rate: 2.86%
-- Flow 1:
  Average throughput: 70.99 Mbit/s
  95th percentile per-packet one-way delay: 32.777 ms
  Loss rate: 3.18%
-- Flow 2:
  Average throughput: 28.27 Mbit/s
  95th percentile per-packet one-way delay: 37.806 ms
  Loss rate: 1.90%
-- Flow 3:
  Average throughput: 15.89 Mbit/s
  95th percentile per-packet one-way delay: 34.835 ms
  Loss rate: 1.90%
Run 2: Report of Vivace-loss — Data Link

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

Legend:
- Flow 1 ingress (mean 73.39 Mbit/s)
- Flow 1 egress (mean 70.99 Mbit/s)
- Flow 2 ingress (mean 28.85 Mbit/s)
- Flow 2 egress (mean 28.27 Mbit/s)
- Flow 3 ingress (mean 16.20 Mbit/s)
- Flow 3 egress (mean 15.89 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 32.78 ms)
- Flow 2 (95th percentile 37.81 ms)
- Flow 3 (95th percentile 34.84 ms)
Run 3: Statistics of Vivace-loss

Start at: 2018-02-04 21:38:48
End at: 2018-02-04 21:39:18
Local clock offset: -0.042 ms
Remote clock offset: -7.873 ms

# Below is generated by plot.py at 2018-02-05 01:06:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.73 Mbit/s
  95th percentile per-packet one-way delay: 22.206 ms
  Loss rate: 3.11%
-- Flow 1:
  Average throughput: 70.06 Mbit/s
  95th percentile per-packet one-way delay: 22.210 ms
  Loss rate: 3.61%
-- Flow 2:
  Average throughput: 27.42 Mbit/s
  95th percentile per-packet one-way delay: 22.198 ms
  Loss rate: 1.60%
-- Flow 3:
  Average throughput: 19.60 Mbit/s
  95th percentile per-packet one-way delay: 22.169 ms
  Loss rate: 1.93%
Run 3: Report of Vivace-loss — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 72.74 Mbit/s)  
Flow 1 egress (mean 70.06 Mbit/s)  
Flow 2 ingress (mean 27.86 Mbit/s)  
Flow 2 egress (mean 27.42 Mbit/s)  
Flow 3 ingress (mean 19.99 Mbit/s)  
Flow 3 egress (mean 19.60 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (99th percentile 22.21 ms)  
Flow 2 (95th percentile 22.20 ms)  
Flow 3 (99th percentile 22.17 ms)
Run 4: Statistics of Vivace-loss

Start at: 2018-02-04 21:59:17
End at: 2018-02-04 21:59:47
Local clock offset: -0.021 ms
Remote clock offset: 2.63 ms

# Below is generated by plot.py at 2018-02-05 01:06:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 62.71 Mbit/s
  95th percentile per-packet one-way delay: 32.254 ms
  Loss rate: 4.80%
-- Flow 1:
  Average throughput: 1.26 Mbit/s
  95th percentile per-packet one-way delay: 73.657 ms
  Loss rate: 15.93%
-- Flow 2:
  Average throughput: 83.10 Mbit/s
  95th percentile per-packet one-way delay: 32.148 ms
  Loss rate: 4.74%
-- Flow 3:
  Average throughput: 18.55 Mbit/s
  95th percentile per-packet one-way delay: 35.902 ms
  Loss rate: 2.77%
Run 4: Report of Vivace-loss — Data Link
Run 5: Statistics of Vivace-loss

Start at: 2018-02-04 22:19:41
End at: 2018-02-04 22:20:11
Local clock offset: 0.019 ms
Remote clock offset: -17.056 ms

# Below is generated by plot.py at 2018-02-05 01:07:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.02 Mbit/s
95th percentile per-packet one-way delay: 13.212 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 69.38 Mbit/s
95th percentile per-packet one-way delay: 11.887 ms
Loss rate: 2.42%
-- Flow 2:
Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 16.490 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 19.20 Mbit/s
95th percentile per-packet one-way delay: 11.870 ms
Loss rate: 2.36%
Run 5: Report of Vivace-loss — Data Link
Run 6: Statistics of Vivace-loss

Start at: 2018-02-04 22:40:18
End at: 2018-02-04 22:40:48
Local clock offset: 0.01 ms
Remote clock offset: 2.807 ms

# Below is generated by plot.py at 2018-02-05 01:07:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.33 Mbit/s
95th percentile per-packet one-way delay: 65.062 ms
Loss rate: 3.59%
-- Flow 1:
Average throughput: 64.22 Mbit/s
95th percentile per-packet one-way delay: 65.982 ms
Loss rate: 3.84%
-- Flow 2:
Average throughput: 36.62 Mbit/s
95th percentile per-packet one-way delay: 31.842 ms
Loss rate: 3.26%
-- Flow 3:
Average throughput: 17.41 Mbit/s
95th percentile per-packet one-way delay: 31.855 ms
Loss rate: 2.06%
Run 6: Report of Vivace-loss — Data Link
Run 7: Statistics of Vivace-loss

Start at: 2018-02-04 23:00:52
End at: 2018-02-04 23:01:23
Local clock offset: -0.023 ms
Remote clock offset: -17.929 ms

# Below is generated by plot.py at 2018-02-05 01:07:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.02 Mbit/s
95th percentile per-packet one-way delay: 12.839 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 70.17 Mbit/s
95th percentile per-packet one-way delay: 13.368 ms
Loss rate: 2.82%
-- Flow 2:
Average throughput: 30.07 Mbit/s
95th percentile per-packet one-way delay: 11.493 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 14.84 Mbit/s
95th percentile per-packet one-way delay: 11.459 ms
Loss rate: 2.12%
Run 7: Report of Vivace-loss — Data Link
Run 8: Statistics of Vivace-loss

End at: 2018-02-04 23:22:01
Local clock offset: -0.001 ms
Remote clock offset: 2.629 ms

# Below is generated by plot.py at 2018-02-05 01:07:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 61.70 Mbit/s
  95th percentile per-packet one-way delay: 58.124 ms
  Loss rate: 6.00%
-- Flow 1:
  Average throughput: 1.20 Mbit/s
  95th percentile per-packet one-way delay: 73.675 ms
  Loss rate: 17.15%
-- Flow 2:
  Average throughput: 75.94 Mbit/s
  95th percentile per-packet one-way delay: 58.112 ms
  Loss rate: 5.61%
-- Flow 3:
  Average throughput: 30.09 Mbit/s
  95th percentile per-packet one-way delay: 47.768 ms
  Loss rate: 6.41%
Run 9: Statistics of Vivace-loss

Start at: 2018-02-04 23:42:16
End at: 2018-02-04 23:42:46
Local clock offset: -0.088 ms
Remote clock offset: 2.655 ms

# Below is generated by plot.py at 2018-02-05 01:08:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.58 Mbit/s
  95th percentile per-packet one-way delay: 35.648 ms
  Loss rate: 6.21%
-- Flow 1:
  Average throughput: 77.17 Mbit/s
  95th percentile per-packet one-way delay: 36.015 ms
  Loss rate: 6.95%
-- Flow 2:
  Average throughput: 15.99 Mbit/s
  95th percentile per-packet one-way delay: 34.531 ms
  Loss rate: 3.13%
-- Flow 3:
  Average throughput: 20.58 Mbit/s
  95th percentile per-packet one-way delay: 32.359 ms
  Loss rate: 2.23%
Run 9: Report of Vivace-loss — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet round-trip delay (ms)]
Run 10: Statistics of Vivace-loss

Start at: 2018-02-05 00:03:07
End at: 2018-02-05 00:03:37
Local clock offset: -0.01 ms
Remote clock offset: 2.425 ms

# Below is generated by plot.py at 2018-02-05 01:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.43 Mbit/s
95th percentile per-packet one-way delay: 70.184 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 65.22 Mbit/s
95th percentile per-packet one-way delay: 70.795 ms
Loss rate: 2.38%
-- Flow 2:
Average throughput: 30.86 Mbit/s
95th percentile per-packet one-way delay: 35.384 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 11.19 Mbit/s
95th percentile per-packet one-way delay: 57.220 ms
Loss rate: 3.14%
Run 10: Report of Vivace-loss — Data Link
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-04 20:56:31
End at: 2018-02-04 20:57:01
Local clock offset: 0.004 ms
Remote clock offset: 2.28 ms

# Below is generated by plot.py at 2018-02-05 01:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.99 Mbit/s
95th percentile per-packet one-way delay: 32.087 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 61.75 Mbit/s
95th percentile per-packet one-way delay: 31.955 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 38.22 Mbit/s
95th percentile per-packet one-way delay: 33.453 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 20.66 Mbit/s
95th percentile per-packet one-way delay: 32.014 ms
Loss rate: 1.24%
Run 1: Report of Vivace-LTE — Data Link

![Graph showing throughput and packet round-trip time for different flows.](image-url)
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-04 21:17:08
End at: 2018-02-04 21:17:38
Local clock offset: -0.021 ms
Remote clock offset: 2.114 ms

# Below is generated by plot.py at 2018-02-05 01:08:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.12 Mbit/s
  95th percentile per-packet one-way delay: 31.956 ms
  Loss rate: 0.49%
-- Flow 1:
  Average throughput: 79.54 Mbit/s
  95th percentile per-packet one-way delay: 31.317 ms
  Loss rate: 0.25%
-- Flow 2:
  Average throughput: 3.23 Mbit/s
  95th percentile per-packet one-way delay: 71.543 ms
  Loss rate: 7.66%
-- Flow 3:
  Average throughput: 34.69 Mbit/s
  95th percentile per-packet one-way delay: 31.894 ms
  Loss rate: 0.69%
Run 2: Report of Vivace-LTE — Data Link
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-04 21:37:41
End at: 2018-02-04 21:38:11
Local clock offset: 0.054 ms
Remote clock offset: -6.361 ms

# Below is generated by plot.py at 2018-02-05 01:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.38 Mbit/s
95th percentile per-packet one-way delay: 23.929 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 63.833 ms
Loss rate: 9.49%
-- Flow 2:
Average throughput: 70.11 Mbit/s
95th percentile per-packet one-way delay: 23.428 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 38.47 Mbit/s
95th percentile per-packet one-way delay: 23.436 ms
Loss rate: 0.36%
Run 3: Report of Vivace-LTE — Data Link

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

![Graph 2: Packet Delay (ms)](image2)

- Flow 1 Ingress (mean 2.18 Mbps)
- Flow 1 Egress (mean 1.97 Mbps)
- Flow 2 Ingress (mean 70.34 Mbps)
- Flow 2 Egress (mean 70.11 Mbps)
- Flow 3 Ingress (mean 38.70 Mbps)
- Flow 3 Egress (mean 36.47 Mbps)
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-04 21:58:07
End at: 2018-02-04 21:58:37
Local clock offset: 0.012 ms
Remote clock offset: 2.574 ms

# Below is generated by plot.py at 2018-02-05 01:08:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.30 Mbit/s
95th percentile per-packet one-way delay: 31.969 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 60.11 Mbit/s
95th percentile per-packet one-way delay: 32.045 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 38.31 Mbit/s
95th percentile per-packet one-way delay: 31.906 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 23.33 Mbit/s
95th percentile per-packet one-way delay: 31.954 ms
Loss rate: 0.92%
Run 4: Report of Vivace-LTE — Data Link
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-04 22:18:31
End at: 2018-02-04 22:19:01
Local clock offset: 0.017 ms
Remote clock offset: 2.465 ms

# Below is generated by plot.py at 2018-02-05 01:08:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.90 Mbit/s
95th percentile per-packet one-way delay: 31.555 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 78.03 Mbit/s
95th percentile per-packet one-way delay: 31.279 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 70.614 ms
Loss rate: 8.02%
-- Flow 3:
Average throughput: 37.77 Mbit/s
95th percentile per-packet one-way delay: 31.221 ms
Loss rate: 0.89%
Run 5: Report of Vivace-LTE — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 78.30 Mbit/s)
- Flow 1 egress (mean 78.03 Mbit/s)
- Flow 2 ingress (mean 2.35 Mbit/s)
- Flow 2 egress (mean 2.16 Mbit/s)
- Flow 3 ingress (mean 38.13 Mbit/s)
- Flow 3 egress (mean 37.77 Mbit/s)

![Latency Graph]

- Flow 1 (95th percentile 31.28 ms)
- Flow 2 (95th percentile 70.61 ms)
- Flow 3 (95th percentile 31.22 ms)
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-04 22:39:07
End at: 2018-02-04 22:39:37
Local clock offset: -0.057 ms
Remote clock offset: -7.702 ms

# Below is generated by plot.py at 2018-02-05 01:08:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 21.292 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 60.76 Mbit/s
95th percentile per-packet one-way delay: 21.208 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 40.90 Mbit/s
95th percentile per-packet one-way delay: 21.468 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 15.86 Mbit/s
95th percentile per-packet one-way delay: 21.314 ms
Loss rate: 0.90%
Run 6: Report of Vivace-LTE — Data Link

The diagrams show the throughput and per-packet one-way delay over time for different flows. The throughput graphs display the data transfer rates for each flow, with peaks indicating times of high activity. The per-packet delay graphs illustrate the delay experienced by packets, with spikes indicating delays at certain times.

Legend:
- Flow 1 ingress (mean 61.03 Mbit/s)
- Flow 1 egress (mean 60.76 Mbit/s)
- Flow 2 ingress (mean 41.16 Mbit/s)
- Flow 2 egress (mean 40.90 Mbit/s)
- Flow 3 ingress (mean 16.05 Mbit/s)
- Flow 3 egress (mean 15.86 Mbit/s)
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-04 22:59:43
End at: 2018-02-04 23:00:13
Local clock offset: -0.041 ms
Remote clock offset: 2.778 ms

# Below is generated by plot.py at 2018-02-05 01:09:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.78 Mbit/s
95th percentile per-packet one-way delay: 38.542 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 58.23 Mbit/s
95th percentile per-packet one-way delay: 39.572 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 37.81 Mbit/s
95th percentile per-packet one-way delay: 32.086 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 22.36 Mbit/s
95th percentile per-packet one-way delay: 39.854 ms
Loss rate: 2.69%
Run 7: Report of Vivace-LTE — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 59.02 Mbps)
- Flow 1 egress (mean 58.23 Mbps)
- Flow 2 ingress (mean 38.42 Mbps)
- Flow 2 egress (mean 37.81 Mbps)
- Flow 3 ingress (mean 23.04 Mbps)
- Flow 3 egress (mean 22.36 Mbps)

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

- Flow 1 (95th percentile 39.57 ms)
- Flow 2 (95th percentile 32.09 ms)
- Flow 3 (95th percentile 39.85 ms)
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-04 23:20:20
End at: 2018-02-04 23:20:51
Local clock offset: -0.017 ms
Remote clock offset: 2.634 ms

# Below is generated by plot.py at 2018-02-05 01:09:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.33 Mbit/s
  95th percentile per-packet one-way delay: 31.922 ms
  Loss rate: 0.22%
-- Flow 1:
  Average throughput: 62.18 Mbit/s
  95th percentile per-packet one-way delay: 31.946 ms
  Loss rate: 0.18%
-- Flow 2:
  Average throughput: 38.23 Mbit/s
  95th percentile per-packet one-way delay: 31.847 ms
  Loss rate: 0.24%
-- Flow 3:
  Average throughput: 17.34 Mbit/s
  95th percentile per-packet one-way delay: 32.144 ms
  Loss rate: 0.58%
Run 8: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 62.35 Mbps)
- Flow 1 egress (mean 62.18 Mbps)
- Flow 2 ingress (mean 38.38 Mbps)
- Flow 2 egress (mean 38.23 Mbps)
- Flow 3 ingress (mean 17.45 Mbps)
- Flow 3 egress (mean 17.34 Mbps)

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

- Flow 1 (95th percentile 31.95 ms)
- Flow 2 (95th percentile 31.85 ms)
- Flow 3 (95th percentile 32.14 ms)
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-04 23:41:05
End at: 2018-02-04 23:41:35
Local clock offset: -0.031 ms
Remote clock offset: -17.402 ms

# Below is generated by plot.py at 2018-02-05 01:09:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.99 Mbit/s
95th percentile per-packet one-way delay: 23.455 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 76.71 Mbit/s
95th percentile per-packet one-way delay: 21.736 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 52.091 ms
Loss rate: 8.73%
-- Flow 3:
Average throughput: 34.91 Mbit/s
95th percentile per-packet one-way delay: 11.816 ms
Loss rate: 0.45%
Run 9: Report of Vivace-LTE — Data Link
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-05 00:01:56
End at: 2018-02-05 00:02:26
Local clock offset: -0.027 ms
Remote clock offset: 2.472 ms

# Below is generated by plot.py at 2018-02-05 01:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.67 Mbit/s
95th percentile per-packet one-way delay: 33.277 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 76.20 Mbit/s
95th percentile per-packet one-way delay: 27.255 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 6.14 Mbit/s
95th percentile per-packet one-way delay: 69.603 ms
Loss rate: 8.65%
-- Flow 3:
Average throughput: 34.80 Mbit/s
95th percentile per-packet one-way delay: 32.057 ms
Loss rate: 0.24%
Run 10: Report of Vivace-LTE — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 76.31 Mbps) — Flow 1 egress (mean 76.20 Mbps)
Flow 2 ingress (mean 6.72 Mbps) — Flow 2 egress (mean 6.14 Mbps)
Flow 3 ingress (mean 34.90 Mbps) — Flow 3 egress (mean 34.80 Mbps)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 27.25 ms) — Flow 2 (95th percentile 69.60 ms) — Flow 3 (95th percentile 32.06 ms)