Pantheon Report

Generated at 2018-02-05 00:41:24 (UTC).
Data path: Brazil Ethernet (remote) → AWS Brazil 1 Ethernet (local).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
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 @ 3cb73c0d1c0322cdfae446ea37a522e53272db50
M datagrump/sender.cc
third_party/fillp @ fb9c9ab842e5614ad52911a76fb9bd1c1b0dca86
third_party/genericCC @ 80b516c448f795f6e9675f7177b69c622ff07da8
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0a9b
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82cebb377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa968d38cd4e6f0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d6306fa0b93ad84360c53d89
third_party/koho_cc @ f0f2e693303ae82ea808e692eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3ccf
third_party/pantheon-tunnel @ fb1053193c2861d659ba9013db26744ccfc993
third_party/pcc @ 1af9958fa0d6618b623c091a55feca872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f32f42
third_party/scream @ c3370fd7bd17265b79ae3bc4e016ad23f5965885
third_party/sourdough @ f1a1b5fe749737437f61eb1ae0b3b267cdae6f1
third_party/sprout @ ef2e6e6e88d9166e9f023df375ee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197dd041ace68a42849b2540ad834825f42
test from Brazil Ethernet to AWS Brazil 1 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

Copa
FillP
Verus
Sprout
WebRTC media
SCReAM
Vivace-LTE
TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
Indigo-1-32
PCC
Vivace-latency
TCP BBR
LEDBAT
Vivace-loss
<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>63.54</td>
<td>38.50</td>
<td>24.16</td>
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<td>TCP Cubic</td>
<td>1</td>
<td>59.77</td>
<td>40.60</td>
<td>32.30</td>
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<tr>
<td>LEDBAT</td>
<td>1</td>
<td>59.43</td>
<td>41.91</td>
<td>29.61</td>
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<tr>
<td>PCC</td>
<td>10</td>
<td>74.70</td>
<td>13.93</td>
<td>12.43</td>
</tr>
<tr>
<td>QUIC Cubic</td>
<td>10</td>
<td>15.07</td>
<td>58.78</td>
<td>41.07</td>
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<tr>
<td>SCReAM</td>
<td>10</td>
<td>0.22</td>
<td>0.22</td>
<td>0.22</td>
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<tr>
<td>WebRTC media</td>
<td>10</td>
<td>2.37</td>
<td>1.47</td>
<td>0.62</td>
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<td>Sprout</td>
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<td>35.87</td>
<td>28.06</td>
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<tr>
<td>TaoVA-100x</td>
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<td>55.30</td>
<td>40.00</td>
<td>30.88</td>
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<td>TCP Vegas</td>
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<td>48.23</td>
<td>41.81</td>
<td>48.32</td>
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<tr>
<td>Verus</td>
<td>10</td>
<td>52.67</td>
<td>40.46</td>
<td>30.34</td>
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<tr>
<td>Copa</td>
<td>10</td>
<td>36.09</td>
<td>32.73</td>
<td>31.91</td>
</tr>
<tr>
<td>FillP</td>
<td>10</td>
<td>55.90</td>
<td>39.37</td>
<td>30.96</td>
</tr>
<tr>
<td>Indigo-1-32</td>
<td>10</td>
<td>48.83</td>
<td>45.57</td>
<td>54.96</td>
</tr>
<tr>
<td>Vivace-latency</td>
<td>10</td>
<td>36.58</td>
<td>32.90</td>
<td>20.57</td>
</tr>
<tr>
<td>Vivace-loss</td>
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<td>31.69</td>
<td>56.04</td>
<td>31.98</td>
</tr>
<tr>
<td>Vivace-LTE</td>
<td>10</td>
<td>59.22</td>
<td>26.64</td>
<td>30.74</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-02-04 17:41:23
End at: 2018-02-04 17:41:53
Local clock offset: 0.026 ms
Remote clock offset: -0.553 ms

# Below is generated by plot.py at 2018-02-05 00:17:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.42 Mbit/s
  95th percentile per-packet one-way delay: 27.274 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 71.08 Mbit/s
  95th percentile per-packet one-way delay: 26.978 ms
  Loss rate: 0.09%
-- Flow 2:
  Average throughput: 23.52 Mbit/s
  95th percentile per-packet one-way delay: 27.661 ms
  Loss rate: 0.13%
-- Flow 3:
  Average throughput: 32.30 Mbit/s
  95th percentile per-packet one-way delay: 30.226 ms
  Loss rate: 0.28%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-02-04 18:01:51
End at: 2018-02-04 18:02:21
Local clock offset: 0.038 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2018-02-05 00:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.40 Mbit/s
95th percentile per-packet one-way delay: 22.222 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 66.06 Mbit/s
95th percentile per-packet one-way delay: 21.854 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 33.79 Mbit/s
95th percentile per-packet one-way delay: 22.197 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 26.77 Mbit/s
95th percentile per-packet one-way delay: 24.625 ms
Loss rate: 0.22%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2018-02-04 18:22:18
End at: 2018-02-04 18:22:48
Local clock offset: 0.05 ms
Remote clock offset: 0.166 ms

# Below is generated by plot.py at 2018-02-05 00:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.87 Mbit/s
95th percentile per-packet one-way delay: 28.230 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 47.51 Mbit/s
95th percentile per-packet one-way delay: 26.403 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 60.25 Mbit/s
95th percentile per-packet one-way delay: 28.173 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 27.99 Mbit/s
95th percentile per-packet one-way delay: 31.677 ms
Loss rate: 0.17%
Run 3: Report of TCP BBR — Data Link

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

**Throughput (Mbps)**

- **Flow 1 ingress (mean 47.54 Mbps)**
- **Flow 1 egress (mean 47.51 Mbps)**
- **Flow 2 ingress (mean 60.32 Mbps)**
- **Flow 2 egress (mean 60.25 Mbps)**
- **Flow 3 ingress (mean 27.75 Mbps)**
- **Flow 3 egress (mean 27.99 Mbps)**

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

- **Flow 1 (95th percentile 26.40 ms)**
- **Flow 2 (95th percentile 28.17 ms)**
- **Flow 3 (95th percentile 31.68 ms)**
Run 4: Statistics of TCP BBR

Start at: 2018-02-04 18:42:41
End at: 2018-02-04 18:43:11
Local clock offset: 0.01 ms
Remote clock offset: 1.208 ms

# Below is generated by plot.py at 2018-02-05 00:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.13 Mbit/s
95th percentile per-packet one-way delay: 19.711 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 62.33 Mbit/s
95th percentile per-packet one-way delay: 19.464 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 44.74 Mbit/s
95th percentile per-packet one-way delay: 19.798 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 12.15 Mbit/s
95th percentile per-packet one-way delay: 23.016 ms
Loss rate: 0.11%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-02-04 19:03:04
End at: 2018-02-04 19:03:34
Local clock offset: -0.007 ms
Remote clock offset: 2.553 ms

# Below is generated by plot.py at 2018-02-05 00:17:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 16.783 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 63.34 Mbit/s
95th percentile per-packet one-way delay: 16.800 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 44.27 Mbit/s
95th percentile per-packet one-way delay: 16.449 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 13.99 Mbit/s
95th percentile per-packet one-way delay: 17.222 ms
Loss rate: 0.10%
Run 6: Statistics of TCP BBR

Start at: 2018-02-04 19:23:32
End at: 2018-02-04 19:24:02
Local clock offset: 0.021 ms
Remote clock offset: 3.166 ms

# Below is generated by plot.py at 2018-02-05 00:17:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.64 Mbit/s
95th percentile per-packet one-way delay: 36.213 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 69.08 Mbit/s
95th percentile per-packet one-way delay: 35.161 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 24.92 Mbit/s
95th percentile per-packet one-way delay: 36.856 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 33.24 Mbit/s
95th percentile per-packet one-way delay: 37.107 ms
Loss rate: 1.27%
Run 6: Report of TCP BBR — Data Link

Throughput (Mbit/s) vs Time (s)

- Flow 1 ingress (mean 69.07 Mbit/s)
- Flow 1 egress (mean 69.08 Mbit/s)
- Flow 2 ingress (mean 24.95 Mbit/s)
- Flow 2 egress (mean 24.92 Mbit/s)
- Flow 3 ingress (mean 33.29 Mbit/s)
- Flow 3 egress (mean 33.24 Mbit/s)

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

- Flow 1 (95th percentile 35.16 ms)
- Flow 2 (95th percentile 36.86 ms)
- Flow 3 (95th percentile 37.11 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-02-04 19:43:56
End at: 2018-02-04 19:44:26
Local clock offset: -0.03 ms
Remote clock offset: 2.923 ms

# Below is generated by plot.py at 2018-02-05 00:17:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.40 Mbit/s
  95th percentile per-packet one-way delay: 17.229 ms
  Loss rate: 0.06%
-- Flow 1:
  Average throughput: 67.39 Mbit/s
  95th percentile per-packet one-way delay: 17.253 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 37.22 Mbit/s
  95th percentile per-packet one-way delay: 16.903 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 15.87 Mbit/s
  95th percentile per-packet one-way delay: 20.596 ms
  Loss rate: 0.14%
Run 7: Report of TCP BBR — Data Link

Graph 1: Throughput (Mbps) over Time (s)
- Flow 1 ingress (mean 67.43 Mbps)
- Flow 1 egress (mean 67.39 Mbps)
- Flow 2 ingress (mean 37.21 Mbps)
- Flow 2 egress (mean 37.22 Mbps)
- Flow 3 ingress (mean 15.87 Mbps)
- Flow 3 egress (mean 15.87 Mbps)

Graph 2: Per-packet one-way delay (ms) over Time (s)
- Flow 1 (95th percentile 17.25 ms)
- Flow 2 (95th percentile 16.90 ms)
- Flow 3 (95th percentile 20.60 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-02-04 20:04:22
End at: 2018-02-04 20:04:52
Local clock offset: 0.019 ms
Remote clock offset: -18.183 ms

# Below is generated by plot.py at 2018-02-05 00:17:57
# Datalink statistics

-- Total of 3 flows:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 43.867 ms
Loss rate: 0.09%

-- Flow 1:
Average throughput: 62.38 Mbit/s
95th percentile per-packet one-way delay: 42.971 ms
Loss rate: 0.02%

-- Flow 2:
Average throughput: 37.42 Mbit/s
95th percentile per-packet one-way delay: 44.086 ms
Loss rate: 0.21%

-- Flow 3:
Average throughput: 30.62 Mbit/s
95th percentile per-packet one-way delay: 48.021 ms
Loss rate: 0.19%
Run 8: Report of TCP BBR — Data Link
Run 9: Statistics of TCP BBR

Start at: 2018-02-04 20:24:52
End at: 2018-02-04 20:25:22
Local clock offset: 0.056 ms
Remote clock offset: 2.364 ms

# Below is generated by plot.py at 2018-02-05 00:19:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 24.387 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 61.40 Mbit/s
95th percentile per-packet one-way delay: 23.706 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 37.50 Mbit/s
95th percentile per-packet one-way delay: 24.651 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 33.51 Mbit/s
95th percentile per-packet one-way delay: 28.242 ms
Loss rate: 0.22%
Run 9: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 61.40 Mbit/s)
- Flow 1 egress (mean 61.40 Mbit/s)
- Flow 2 ingress (mean 37.54 Mbit/s)
- Flow 2 egress (mean 37.50 Mbit/s)
- Flow 3 ingress (mean 33.54 Mbit/s)
- Flow 3 egress (mean 33.51 Mbit/s)

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

- Flow 1 (95th percentile 23.71 ms)
- Flow 2 (95th percentile 24.65 ms)
- Flow 3 (95th percentile 28.24 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-02-04 20:45:17
End at: 2018-02-04 20:45:47
Local clock offset: 0.083 ms
Remote clock offset: 2.22 ms

# Below is generated by plot.py at 2018-02-05 00:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.38 Mbit/s
  95th percentile per-packet one-way delay: 17.082 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 64.84 Mbit/s
  95th percentile per-packet one-way delay: 17.119 ms
  Loss rate: 0.13%
-- Flow 2:
  Average throughput: 41.37 Mbit/s
  95th percentile per-packet one-way delay: 16.709 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 15.15 Mbit/s
  95th percentile per-packet one-way delay: 17.676 ms
  Loss rate: 0.21%
Run 10: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 64.91 Mbps)
- Flow 1 egress (mean 64.84 Mbps)
- Flow 2 ingress (mean 41.35 Mbps)
- Flow 2 egress (mean 41.37 Mbps)
- Flow 3 ingress (mean 15.16 Mbps)
- Flow 3 egress (mean 15.15 Mbps)

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

- Flow 1 (95th percentile 17.12 ms)
- Flow 2 (95th percentile 16.71 ms)
- Flow 3 (95th percentile 17.68 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-02-04 17:39:09
End at: 2018-02-04 17:39:39
Local clock offset: 0.029 ms
Remote clock offset: -0.541 ms
Run 1: Report of TCP Cubic — Data Link

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Run 2: Statistics of TCP Cubic

Start at: 2018-02-04 17:59:38
End at: 2018-02-04 18:00:08
Local clock offset: 0.035 ms
Remote clock offset: -0.193 ms
Run 2: Report of TCP Cubic — Data Link

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Run 3: Statistics of TCP Cubic

Start at: 2018-02-04 18:20:04
End at: 2018-02-04 18:20:34
Local clock offset: 0.072 ms
Remote clock offset: 0.132 ms
Run 3: Report of TCP Cubic — Data Link

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Run 4: Statistics of TCP Cubic

Start at: 2018-02-04 18:40:27
End at: 2018-02-04 18:40:57
Local clock offset: -0.016 ms
Remote clock offset: 0.942 ms
Run 4: Report of TCP Cubic — Data Link

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Run 5: Statistics of TCP Cubic

Start at: 2018-02-04 19:00:51
End at: 2018-02-04 19:01:21
Local clock offset: 0.005 ms
Remote clock offset: 2.475 ms
Run 5: Report of TCP Cubic — Data Link

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Run 6: Statistics of TCP Cubic

Start at: 2018-02-04 19:21:18  
End at: 2018-02-04 19:21:48  
Local clock offset: 0.028 ms  
Remote clock offset: -6.69 ms
Run 6: Report of TCP Cubic — Data Link

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Run 7: Statistics of TCP Cubic

Start at: 2018-02-04 19:41:42
End at: 2018-02-04 19:42:12
Local clock offset: 0.036 ms
Remote clock offset: 2.99 ms
Run 7: Report of TCP Cubic — Data Link

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Run 8: Statistics of TCP Cubic

Start at: 2018-02-04 20:02:09
End at: 2018-02-04 20:02:39
Local clock offset: 0.03 ms
Remote clock offset: 2.516 ms
Run 8: Report of TCP Cubic — Data Link

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Run 9: Statistics of TCP Cubic

Start at: 2018-02-04 20:22:36
End at: 2018-02-04 20:23:06
Local clock offset: 0.077 ms
Remote clock offset: 2.374 ms

# Below is generated by plot.py at 2018-02-05 00:19:22
# Datalink statistics
--- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 36.288 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 59.77 Mbit/s
95th percentile per-packet one-way delay: 35.340 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 40.60 Mbit/s
95th percentile per-packet one-way delay: 36.275 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 32.30 Mbit/s
95th percentile per-packet one-way delay: 37.172 ms
Loss rate: 1.75%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-02-04 20:43:04
End at: 2018-02-04 20:43:34
Local clock offset: 0.047 ms
Remote clock offset: 2.278 ms
Run 10: Report of TCP Cubic — Data Link

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Run 1: Statistics of LEDBAT

Start at: 2018-02-04 17:32:15
End at: 2018-02-04 17:32:45
Local clock offset: -0.005 ms
Remote clock offset: -21.072 ms

# Below is generated by plot.py at 2018-02-05 00:19:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.08 Mbit/s
95th percentile per-packet one-way delay: 55.796 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 59.43 Mbit/s
95th percentile per-packet one-way delay: 54.895 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 41.91 Mbit/s
95th percentile per-packet one-way delay: 56.530 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 29.61 Mbit/s
95th percentile per-packet one-way delay: 56.354 ms
Loss rate: 0.22%
Run 1: Report of LEDBAT — Data Link

[Graph 1: Throughput vs Time]

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

Legend:
- Flow 1 ingress (mean 59.44 Mbit/s)
- Flow 1 egress (mean 59.43 Mbit/s)
- Flow 2 ingress (mean 41.98 Mbit/s)
- Flow 2 egress (mean 41.91 Mbit/s)
- Flow 3 ingress (mean 29.60 Mbit/s)
- Flow 3 egress (mean 29.61 Mbit/s)

Legend:
- Flow 1 (95th percentile 54.90 ms)
- Flow 2 (95th percentile 56.53 ms)
- Flow 3 (95th percentile 56.35 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-02-04 17:52:46
End at: 2018-02-04 17:53:16
Local clock offset: 0.021 ms
Remote clock offset: -0.238 ms
Run 2: Report of LEDBAT — Data Link

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Run 3: Statistics of LEDBAT

Start at: 2018-02-04 18:13:10
End at: 2018-02-04 18:13:40
Local clock offset: -0.033 ms
Remote clock offset: 0.033 ms
Run 3: Report of LEDBAT — Data Link

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Run 4: Statistics of LEBAT

Start at: 2018-02-04 18:33:35
End at: 2018-02-04 18:34:05
Local clock offset: 0.042 ms
Remote clock offset: 0.392 ms
Run 4: Report of LEDBAT — Data Link

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Run 5: Statistics of LEDBAT

Start at: 2018-02-04 18:54:02
End at: 2018-02-04 18:54:32
Local clock offset: 0.041 ms
Remote clock offset: 2.364 ms
Run 5: Report of LEDBAT — Data Link

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Run 6: Statistics of LEDBAT

Start at: 2018-02-04 19:14:26
End at: 2018-02-04 19:14:56
Local clock offset: 0.038 ms
Remote clock offset: 2.98 ms
Run 6: Report of LEDBAT — Data Link

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Run 7: Statistics of LEDBAT

Start at: 2018-02-04 19:34:52
End at: 2018-02-04 19:35:22
Local clock offset: 0.049 ms
Remote clock offset: -17.027 ms
Run 7: Report of LEDBAT — Data Link

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Run 8: Statistics of LEDBAT

Start at: 2018-02-04 19:55:17
End at: 2018-02-04 19:55:47
Local clock offset: -0.057 ms
Remote clock offset: 2.641 ms
Run 8: Report of LEDBAT — Data Link

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Run 9: Statistics of LEDBAT

Start at: 2018-02-04 20:15:46
End at: 2018-02-04 20:16:16
Local clock offset: 0.074 ms
Remote clock offset: 2.38 ms
Run 9: Report of LEDBAT — Data Link

Figure is missing

Figure is missing
Run 10: Statistics of LEDBAT

Start at: 2018-02-04 20:36:11
End at: 2018-02-04 20:36:41
Local clock offset: 0.013 ms
Remote clock offset: 2.404 ms
Run 10: Report of LEDBAT — Data Link

Figure is missing

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Run 1: Statistics of PCC

Start at: 2018-02-04 17:40:16
End at: 2018-02-04 17:40:46
Local clock offset: -0.066 ms
Remote clock offset: -2.78 ms

# Below is generated by plot.py at 2018-02-05 00:19:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.33 Mbit/s
  95th percentile per-packet one-way delay: 14.478 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 76.50 Mbit/s
  95th percentile per-packet one-way delay: 12.993 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 9.16 Mbit/s
  95th percentile per-packet one-way delay: 18.035 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 17.48 Mbit/s
  95th percentile per-packet one-way delay: 19.343 ms
  Loss rate: 0.14%
Run 1: Report of PCC — Data Link
Run 2: Statistics of PCC

Start at: 2018-02-04 18:00:44
End at: 2018-02-04 18:01:14
Local clock offset: 0.052 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-02-05 00:19:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.52 Mbit/s
  95th percentile per-packet one-way delay: 13.288 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 82.17 Mbit/s
  95th percentile per-packet one-way delay: 12.290 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 2.45 Mbit/s
  95th percentile per-packet one-way delay: 13.926 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 8.29 Mbit/s
  95th percentile per-packet one-way delay: 15.040 ms
  Loss rate: 0.04%
Run 2: Report of PCC — Data Link
Run 3: Statistics of PCC

Start at: 2018-02-04 18:21:10
End at: 2018-02-04 18:21:40
Local clock offset: 0.065 ms
Remote clock offset: 0.141 ms

# Below is generated by plot.py at 2018-02-05 00:19:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.65 Mbit/s
95th percentile per-packet one-way delay: 25.469 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 68.48 Mbit/s
95th percentile per-packet one-way delay: 24.111 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 31.96 Mbit/s
95th percentile per-packet one-way delay: 26.323 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 5.89 Mbit/s
95th percentile per-packet one-way delay: 26.834 ms
Loss rate: 0.31%
Run 3: Report of PCC — Data Link
Run 4: Statistics of PCC

Start at: 2018-02-04 18:41:34
End at: 2018-02-04 18:42:04
Local clock offset: 0.047 ms
Remote clock offset: 1.086 ms

# Below is generated by plot.py at 2018-02-05 00:19:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.12 Mbit/s
  95th percentile per-packet one-way delay: 10.767 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 67.29 Mbit/s
  95th percentile per-packet one-way delay: 8.951 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 26.30 Mbit/s
  95th percentile per-packet one-way delay: 16.304 ms
  Loss rate: 0.11%
-- Flow 3:
  Average throughput: 4.15 Mbit/s
  95th percentile per-packet one-way delay: 18.430 ms
  Loss rate: 0.21%
Run 4: Report of PCC — Data Link
Run 5: Statistics of PCC

Start at: 2018-02-04 19:01:58
End at: 2018-02-04 19:02:28
Local clock offset: 0.065 ms
Remote clock offset: -17.516 ms

# Below is generated by plot.py at 2018-02-05 00:20:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.90 Mbit/s
95th percentile per-packet one-way delay: 26.144 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 82.45 Mbit/s
95th percentile per-packet one-way delay: 26.104 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 26.722 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 4.67 Mbit/s
95th percentile per-packet one-way delay: 26.754 ms
Loss rate: 0.08%
Run 5: Report of PCC — Data Link

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

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

Flow 1 ingress (mean 82.45 Mbit/s), Flow 1 egress (mean 82.45 Mbit/s), Flow 2 ingress (mean 2.88 Mbit/s), Flow 2 egress (mean 2.88 Mbit/s), Flow 3 ingress (mean 4.67 Mbit/s), Flow 3 egress (mean 4.67 Mbit/s).
Run 6: Statistics of PCC

Local clock offset: -0.014 ms
Remote clock offset: 3.197 ms

# Below is generated by plot.py at 2018-02-05 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.27 Mbit/s
95th percentile per-packet one-way delay: 19.974 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 78.01 Mbit/s
95th percentile per-packet one-way delay: 19.789 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 13.34 Mbit/s
95th percentile per-packet one-way delay: 20.323 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 13.36 Mbit/s
95th percentile per-packet one-way delay: 20.432 ms
Loss rate: 0.04%
Run 6: Report of PCC — Data Link

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

- Flow 1 ingress (mean 78.01 Mbit/s)
- Flow 1 egress (mean 78.01 Mbit/s)
- Flow 2 ingress (mean 13.34 Mbit/s)
- Flow 2 egress (mean 13.34 Mbit/s)
- Flow 3 ingress (mean 13.36 Mbit/s)
- Flow 3 egress (mean 13.36 Mbit/s)
Run 7: Statistics of PCC

Start at: 2018-02-04 19:42:49
End at: 2018-02-04 19:43:19
Local clock offset: 0.041 ms
Remote clock offset: 2.948 ms

# Below is generated by plot.py at 2018-02-05 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.74 Mbit/s
95th percentile per-packet one-way delay: 21.572 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 67.36 Mbit/s
95th percentile per-packet one-way delay: 21.025 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 25.43 Mbit/s
95th percentile per-packet one-way delay: 22.003 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 16.61 Mbit/s
95th percentile per-packet one-way delay: 22.521 ms
Loss rate: 0.04%
Run 7: Report of PCC — Data Link

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

- **Throughput (Mbit/s):**
  - Flow 1 ingress (mean 67.36 Mbit/s)
  - Flow 1 egress (mean 67.36 Mbit/s)
  - Flow 2 ingress (mean 25.43 Mbit/s)
  - Flow 2 egress (mean 25.43 Mbit/s)
  - Flow 3 ingress (mean 16.61 Mbit/s)
  - Flow 3 egress (mean 16.61 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 21.02 ms)
  - Flow 2 (95th percentile 22.00 ms)
  - Flow 3 (95th percentile 22.52 ms)
Run 8: Statistics of PCC

Start at: 2018-02-04 20:03:15
End at: 2018-02-04 20:03:45
Local clock offset: 0.002 ms
Remote clock offset: 2.436 ms

# Below is generated by plot.py at 2018-02-05 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.31 Mbit/s
95th percentile per-packet one-way delay: 22.045 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 64.19 Mbit/s
95th percentile per-packet one-way delay: 20.291 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 22.574 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 35.16 Mbit/s
95th percentile per-packet one-way delay: 24.902 ms
Loss rate: 0.29%
Run 8: Report of PCC — Data Link
Run 9: Statistics of PCC

Start at: 2018-02-04 20:23:45
End at: 2018-02-04 20:24:15
Local clock offset: -0.008 ms
Remote clock offset: 2.315 ms

# Below is generated by plot.py at 2018-02-05 00:20:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.66 Mbit/s
95th percentile per-packet one-way delay: 14.205 ms
Loss rate: 0.02%

-- Flow 1:
Average throughput: 80.55 Mbit/s
95th percentile per-packet one-way delay: 13.890 ms
Loss rate: 0.02%

-- Flow 2:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 15.509 ms
Loss rate: 0.03%

-- Flow 3:
Average throughput: 3.70 Mbit/s
95th percentile per-packet one-way delay: 8.523 ms
Loss rate: 0.03%
Run 9: Report of PCC — Data Link

![Graph showing network performance metrics](image-url)
Run 10: Statistics of PCC

Start at: 2018-02-04 20:44:10
End at: 2018-02-04 20:44:40
Local clock offset: 0.072 ms
Remote clock offset: 2.391 ms

# Below is generated by plot.py at 2018-02-05 00:20:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.89 Mbit/s
95th percentile per-packet one-way delay: 17.110 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 79.98 Mbit/s
95th percentile per-packet one-way delay: 16.894 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 9.03 Mbit/s
95th percentile per-packet one-way delay: 17.387 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 14.95 Mbit/s
95th percentile per-packet one-way delay: 17.927 ms
Loss rate: 0.04%
Run 10: Report of PCC — Data Link

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

- Flow 1 ingress (mean 79.98 Mbit/s)
- Flow 1 egress (mean 79.98 Mbit/s)
- Flow 2 ingress (mean 9.04 Mbit/s)
- Flow 2 egress (mean 9.03 Mbit/s)
- Flow 3 ingress (mean 14.95 Mbit/s)
- Flow 3 egress (mean 14.95 Mbit/s)

- Flow 1 (95th percentile 16.89 ms)
- Flow 2 (95th percentile 17.39 ms)
- Flow 3 (95th percentile 17.93 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-04 17:36:54
End at: 2018-02-04 17:37:24
Local clock offset: 0.017 ms
Remote clock offset: -21.241 ms

# Below is generated by plot.py at 2018-02-05 00:20:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.87 Mbit/s
95th percentile per-packet one-way delay: 45.123 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 23.244 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.66 Mbit/s
95th percentile per-packet one-way delay: 45.100 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 45.84 Mbit/s
95th percentile per-packet one-way delay: 45.174 ms
Loss rate: 0.28%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-04 17:57:22
End at: 2018-02-04 17:57:52
Local clock offset: 0.054 ms
Remote clock offset: -20.164 ms

# Below is generated by plot.py at 2018-02-05 00:20:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 57.72 Mbit/s
  95th percentile per-packet one-way delay: 44.495 ms
  Loss rate: 0.16%
-- Flow 1:
  Average throughput: 0.98 Mbit/s
  95th percentile per-packet one-way delay: 22.599 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 63.93 Mbit/s
  95th percentile per-packet one-way delay: 44.435 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 46.12 Mbit/s
  95th percentile per-packet one-way delay: 46.064 ms
  Loss rate: 0.36%
Run 2: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 0.95 Mbit/s)
- Flow 2 ingress (mean 63.93 Mbit/s)
- Flow 3 ingress (mean 46.18 Mbit/s)
- Flow 1 egress (mean 0.98 Mbit/s)
- Flow 2 egress (mean 63.93 Mbit/s)
- Flow 3 egress (mean 46.12 Mbit/s)

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

- Flow 1 (95th percentile 22.60 ms)
- Flow 2 (95th percentile 44.44 ms)
- Flow 3 (95th percentile 46.06 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-04 18:17:46
End at: 2018-02-04 18:18:16
Local clock offset: 0.05 ms
Remote clock offset: 0.099 ms

# Below is generated by plot.py at 2018-02-05 00:21:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.14 Mbit/s
95th percentile per-packet one-way delay: 35.125 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 55.76 Mbit/s
95th percentile per-packet one-way delay: 34.195 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 39.45 Mbit/s
95th percentile per-packet one-way delay: 35.182 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 30.93 Mbit/s
95th percentile per-packet one-way delay: 35.224 ms
Loss rate: 0.39%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-04 18:38:11
End at: 2018-02-04 18:38:41
Local clock offset: 0.033 ms
Remote clock offset: 0.621 ms

# Below is generated by plot.py at 2018-02-05 00:21:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.85 Mbit/s
95th percentile per-packet one-way delay: 35.278 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 39.23 Mbit/s
95th percentile per-packet one-way delay: 34.932 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 38.66 Mbit/s
95th percentile per-packet one-way delay: 35.242 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 33.33 Mbit/s
95th percentile per-packet one-way delay: 35.421 ms
Loss rate: 0.33%
Run 4: Report of QUIC Cubic — Data Link

Two line graphs are shown. The first graph represents the throughput over time for different flows, with various lines indicating different flows and their ingress and egress data rates. The second graph represents the per-packet one-way delay over time for the same flows, with markers indicating the 95th percentile delay for each flow.
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-04 18:58:38
End at: 2018-02-04 18:59:08
Local clock offset: 0.034 ms
Remote clock offset: 2.486 ms

# Below is generated by plot.py at 2018-02-05 00:21:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.41 Mbit/s
95th percentile per-packet one-way delay: 24.444 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 2.489 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 68.02 Mbit/s
95th percentile per-packet one-way delay: 24.410 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 46.02 Mbit/s
95th percentile per-packet one-way delay: 24.503 ms
Loss rate: 0.27%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-04 19:19:02
End at: 2018-02-04 19:19:32
Local clock offset: 0.067 ms
Remote clock offset: 3.108 ms

# Below is generated by plot.py at 2018-02-05 00:21:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 61.34 Mbit/s
  95th percentile per-packet one-way delay: 24.437 ms
  Loss rate: 0.14%
  -- Flow 1:
  Average throughput: 0.97 Mbit/s
  95th percentile per-packet one-way delay: 2.566 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 70.14 Mbit/s
  95th percentile per-packet one-way delay: 24.402 ms
  Loss rate: 0.08%
  -- Flow 3:
  Average throughput: 44.62 Mbit/s
  95th percentile per-packet one-way delay: 24.486 ms
  Loss rate: 0.35%
Run 6: Report of QUIC Cubic — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 0.95 Mbps)
- Flow 1 egress (mean 0.97 Mbps)
- Flow 2 ingress (mean 70.11 Mbps)
- Flow 2 egress (mean 70.14 Mbps)
- Flow 3 ingress (mean 44.68 Mbps)
- Flow 3 egress (mean 44.62 Mbps)

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

- Flow 1 (95th percentile 2.57 ms)
- Flow 2 (95th percentile 24.40 ms)
- Flow 3 (95th percentile 24.49 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-04 19:39:29
End at: 2018-02-04 19:39:59
Local clock offset: -0.039 ms
Remote clock offset: 3.045 ms

# Below is generated by plot.py at 2018-02-05 00:21:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.86 Mbit/s
95th percentile per-packet one-way delay: 23.590 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 2.596 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 74.50 Mbit/s
95th percentile per-packet one-way delay: 23.282 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 37.58 Mbit/s
95th percentile per-packet one-way delay: 23.908 ms
Loss rate: 0.34%
Run 7: Report of QUIC Cubic — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Per-packet one-way delay vs Time](image2)
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-04 19:59:53
End at: 2018-02-04 20:00:23
Local clock offset: 0.012 ms
Remote clock offset: 2.551 ms

# Below is generated by plot.py at 2018-02-05 00:21:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.46 Mbit/s
95th percentile per-packet one-way delay: 24.371 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 2.551 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.86 Mbit/s
95th percentile per-packet one-way delay: 24.234 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 49.27 Mbit/s
95th percentile per-packet one-way delay: 24.487 ms
Loss rate: 0.26%
Run 8: Report of QUIC Cubic — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 0.13 Mbps)
- Flow 1 egress (mean 0.13 Mbps)
- Flow 2 ingress (mean 64.95 Mbps)
- Flow 2 egress (mean 64.86 Mbps)
- Flow 3 ingress (mean 49.32 Mbps)
- Flow 3 egress (mean 49.27 Mbps)

Per-packet one-way delay (ms):
- Flow 1 (95th percentile 2.55 ms)
- Flow 2 (95th percentile 24.23 ms)
- Flow 3 (95th percentile 24.49 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-04 20:20:22
End at: 2018-02-04 20:20:52
Local clock offset: 0.074 ms
Remote clock offset: 2.357 ms

# Below is generated by plot.py at 2018-02-05 00:21:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 60.97 Mbit/s
  95th percentile per-packet one-way delay: 24.435 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 2.608 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 68.85 Mbit/s
  95th percentile per-packet one-way delay: 24.406 ms
  Loss rate: 0.08%
-- Flow 3:
  Average throughput: 45.81 Mbit/s
  95th percentile per-packet one-way delay: 24.474 ms
  Loss rate: 0.24%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-04 20:40:47
End at: 2018-02-04 20:41:17
Local clock offset: 0.043 ms
Remote clock offset: 2.375 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.00 Mbit/s
95th percentile per-packet one-way delay: 35.112 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 51.38 Mbit/s
95th percentile per-packet one-way delay: 34.176 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 35.152 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 31.14 Mbit/s
95th percentile per-packet one-way delay: 35.213 ms
Loss rate: 0.35%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-02-04 17:27:49
End at: 2018-02-04 17:28:19
Local clock offset: 0.015 ms
Remote clock offset: -0.739 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.465 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.414 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.655 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.606 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

![Graph of throughput over time with three different flows]

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

![Graph of per-packet one-way delay over time]

- Flow 1 (95th percentile 2.41 ms)
- Flow 2 (95th percentile 2.65 ms)
- Flow 3 (95th percentile 2.61 ms)
Run 2: Statistics of SCReAM

Start at: 2018-02-04 17:48:20
End at: 2018-02-04 17:48:50
Local clock offset: 0.01 ms
Remote clock offset: -0.401 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 3.231 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.458 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 6.679 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.451 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-02-04 18:08:43
End at: 2018-02-04 18:09:13
Local clock offset: 0.024 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.416 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.396 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.458 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.408 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2018-02-04 18:29:12
End at: 2018-02-04 18:29:42
Local clock offset: 0.051 ms
Remote clock offset: 0.306 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.399 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.399 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.399 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.399 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2018-02-04 18:49:36
End at: 2018-02-04 18:50:06
Local clock offset: 0.046 ms
Remote clock offset: 1.877 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 2.525 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.520 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.538 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.516 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.22 Mb/s)
- Flow 1 egress (mean 0.22 Mb/s)
- Flow 2 ingress (mean 0.22 Mb/s)
- Flow 2 egress (mean 0.22 Mb/s)
- Flow 3 ingress (mean 0.22 Mb/s)
- Flow 3 egress (mean 0.22 Mb/s)
Run 6: Statistics of SCReAM

Start at: 2018-02-04 19:10:00
End at: 2018-02-04 19:10:30
Local clock offset: 0.038 ms
Remote clock offset: 2.835 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 2.381 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.384 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.379 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 2.377 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

---

Graph 1: Throughput (Mbps)

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

---

115
Run 7: Statistics of SCReAM

Start at: 2018-02-04 19:30:25
End at: 2018-02-04 19:30:55
Local clock offset: 0.059 ms
Remote clock offset: -17.286 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 23.054 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 23.051 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 23.061 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 23.056 ms
  Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-02-04 19:50:50
End at: 2018-02-04 19:51:20
Local clock offset: 0.005 ms
Remote clock offset: 2.699 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.377 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.376 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.376 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.382 ms
Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

![Graph showing throughput and latency over time for different flows.](image-url)
Run 9: Statistics of SCReAM

Start at: 2018-02-04 20:11:16
End at: 2018-02-04 20:11:46
Local clock offset: 0.031 ms
Remote clock offset: -17.539 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 22.335 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 22.334 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 22.332 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 22.340 ms
Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

![Graph of Throughput and Delay vs Time](image)

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

**Per-packet one way delay (ms)**
- Flow 1 (95th percentile 22.33 ms)
- Flow 2 (95th percentile 22.33 ms)
- Flow 3 (95th percentile 22.34 ms)
Run 10: Statistics of SCReAM

Start at: 2018-02-04 20:31:46
End at: 2018-02-04 20:32:16
Local clock offset: 0.061 ms
Remote clock offset: 2.319 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.449 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.452 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.444 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.447 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image2)
Run 1: Statistics of WebRTC media

Start at: 2018-02-04 17:30:03
End at: 2018-02-04 17:30:33
Local clock offset: 0.007 ms
Remote clock offset: -0.775 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 3.379 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 3.333 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 3.373 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 3.483 ms
Loss rate: 0.04%
Run 1: Report of WebRTC media — Data Link

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

- Throughput (Mbps)
  - Flow 1 ingress (mean 2.37 Mbps)
  - Flow 1 egress (mean 2.37 Mbps)
  - Flow 2 ingress (mean 1.48 Mbps)
  - Flow 2 egress (mean 1.48 Mbps)
  - Flow 3 ingress (mean 0.68 Mbps)
  - Flow 3 egress (mean 0.68 Mbps)

- Per-packet one-way delay (ms)
  - Flow 1 (95th percentile 3.33 ms)
  - Flow 2 (95th percentile 3.37 ms)
  - Flow 3 (95th percentile 3.48 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-02-04 17:50:34
End at: 2018-02-04 17:51:04
Local clock offset: 0.075 ms
Remote clock offset: -0.29 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.21 Mbit/s
  95th percentile per-packet one-way delay: 3.319 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 3.309 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.51 Mbit/s
  95th percentile per-packet one-way delay: 3.369 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 3.190 ms
  Loss rate: 0.16%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-02-04 18:10:57
End at: 2018-02-04 18:11:27
Local clock offset: -0.034 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 3.196 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 3.147 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 3.236 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 3.271 ms
Loss rate: 0.51%
Run 3: Report of WebRTC media — Data Link

Throughput (Mbps) vs Time (s)

- Flow 1 ingress (mean 2.41 Mbps)
- Flow 1 egress (mean 2.41 Mbps)
- Flow 2 ingress (mean 1.46 Mbps)
- Flow 2 egress (mean 1.46 Mbps)
- Flow 3 ingress (mean 0.66 Mbps)
- Flow 3 egress (mean 0.66 Mbps)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 3.15 ms)
- Flow 2 (95th percentile 3.24 ms)
- Flow 3 (95th percentile 3.27 ms)
Run 4: Statistics of WebRTC media

Start at: 2018-02-04 18:31:22
End at: 2018-02-04 18:31:52
Local clock offset: 0.047 ms
Remote clock offset: 0.313 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.43 Mbit/s
95th percentile per-packet one-way delay: 3.448 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 3.475 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 3.420 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 3.473 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-02-04 18:51:50
End at: 2018-02-04 18:52:20
Local clock offset: 0.051 ms
Remote clock offset: 2.194 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.45 Mbit/s
95th percentile per-packet one-way delay: 3.418 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 3.227 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 3.714 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 3.390 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

![Graph of WebRTC data](image)

- **Flow 1 ingress** (mean 2.41 Mbit/s)
- **Flow 1 egress** (mean 2.41 Mbit/s)
- **Flow 2 ingress** (mean 1.43 Mbit/s)
- **Flow 2 egress** (mean 1.43 Mbit/s)
- **Flow 3 ingress** (mean 0.64 Mbit/s)
- **Flow 3 egress** (mean 0.64 Mbit/s)

![Graph of packet delay](image)

- **Flow 1** (95th percentile 3.23 ms)
- **Flow 2** (95th percentile 3.71 ms)
- **Flow 3** (95th percentile 3.39 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-02-04 19:12:14
End at: 2018-02-04 19:12:44
Local clock offset: -0.033 ms
Remote clock offset: 2.815 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 3.800 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 3.300 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 3.376 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 4.999 ms
Loss rate: 0.05%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-02-04 19:32:39
End at: 2018-02-04 19:33:09
Local clock offset: 0.04 ms
Remote clock offset: 3.321 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 3.322 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 3.346 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 3.262 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 3.358 ms
Loss rate: 0.27%
Run 7: Report of WebRTC media — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 2.33 Mbps)
- Flow 1 egress (mean 2.33 Mbps)
- Flow 2 ingress (mean 1.49 Mbps)
- Flow 2 egress (mean 1.49 Mbps)
- Flow 3 ingress (mean 0.66 Mbps)
- Flow 3 egress (mean 0.66 Mbps)

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

- Flow 1 (95th percentile 3.35 ms)
- Flow 2 (95th percentile 3.26 ms)
- Flow 3 (95th percentile 3.36 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-02-04 19:53:04
End at: 2018-02-04 19:53:34
Local clock offset: -0.055 ms
Remote clock offset: 2.697 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 3.271 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 3.222 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 3.409 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 3.163 ms
Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.37 Mbit/s)
- Flow 1 egress (mean 2.37 Mbit/s)
- Flow 2 ingress (mean 1.49 Mbit/s)
- Flow 2 egress (mean 1.49 Mbit/s)
- Flow 3 ingress (mean 0.67 Mbit/s)
- Flow 3 egress (mean 0.67 Mbit/s)

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

- Flow 1 (95th percentile 3.22 ms)
- Flow 2 (95th percentile 3.41 ms)
- Flow 3 (95th percentile 3.16 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-02-04 20:13:35
End at: 2018-02-04 20:14:05
Local clock offset: 0.025 ms
Remote clock offset: 2.35 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.43 Mbit/s
95th percentile per-packet one-way delay: 3.354 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 3.277 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 3.422 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 3.527 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-02-04 20:33:59
End at: 2018-02-04 20:34:29
Local clock offset: 0.072 ms
Remote clock offset: 2.393 ms

# Below is generated by plot.py at 2018-02-05 00:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 3.422 ms
Loss rate: 0.05%
-- Flow 1:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 3.329 ms
  Loss rate: 0.10%
-- Flow 2:
  Average throughput: 1.49 Mbit/s
  95th percentile per-packet one-way delay: 3.579 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.61 Mbit/s
  95th percentile per-packet one-way delay: 3.385 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link
Run 1: Statistics of Sprout

Start at: 2018-02-04 17:25:32
End at: 2018-02-04 17:26:02
Local clock offset: 0.009 ms
Remote clock offset: -0.755 ms

# Below is generated by plot.py at 2018-02-05 00:22:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 69.56 Mbit/s
  95th percentile per-packet one-way delay: 16.885 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 46.32 Mbit/s
  95th percentile per-packet one-way delay: 15.990 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 14.45 Mbit/s
  95th percentile per-packet one-way delay: 17.876 ms
  Loss rate: 0.27%
-- Flow 3:
  Average throughput: 41.34 Mbit/s
  95th percentile per-packet one-way delay: 17.651 ms
  Loss rate: 0.25%
Run 1: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 46.34 Mbit/s)
- Flow 1 egress (mean 46.32 Mbit/s)
- Flow 2 ingress (mean 14.48 Mbit/s)
- Flow 2 egress (mean 14.45 Mbit/s)
- Flow 3 ingress (mean 41.37 Mbit/s)
- Flow 3 egress (mean 41.34 Mbit/s)

Delay (ms) vs. Time (s)

- Flow 1 (95th percentile 15.99 ms)
- Flow 2 (95th percentile 17.88 ms)
- Flow 3 (95th percentile 17.65 ms)
Run 2: Statistics of Sprout

Start at: 2018-02-04 17:46:06
End at: 2018-02-04 17:46:36
Local clock offset: 0.02 ms
Remote clock offset: -0.592 ms

# Below is generated by plot.py at 2018-02-05 00:22:59
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 56.92 Mbit/s
   95th percentile per-packet one-way delay: 17.682 ms
   Loss rate: 0.11%
-- Flow 1:
   Average throughput: 15.50 Mbit/s
   95th percentile per-packet one-way delay: 17.001 ms
   Loss rate: 0.07%
-- Flow 2:
   Average throughput: 43.68 Mbit/s
   95th percentile per-packet one-way delay: 17.502 ms
   Loss rate: 0.12%
-- Flow 3:
   Average throughput: 37.61 Mbit/s
   95th percentile per-packet one-way delay: 18.443 ms
   Loss rate: 0.16%
Run 2: Report of Sprout — Data Link

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

Graph 1: Throughput vs Time
- Flow 1 ingress (mean 15.51 Mbit/s)
- Flow 1 egress (mean 15.50 Mbit/s)
- Flow 2 ingress (mean 43.70 Mbit/s)
- Flow 2 egress (mean 43.68 Mbit/s)
- Flow 3 ingress (mean 37.61 Mbit/s)
- Flow 3 egress (mean 37.61 Mbit/s)

![Graph 2: Per Packet One Way Delay vs Time](Image)

Graph 2: Per Packet One Way Delay vs Time
- Flow 1 (95th percentile 17.00 ms)
- Flow 2 (95th percentile 17.50 ms)
- Flow 3 (95th percentile 18.44 ms)
Run 3: Statistics of Sprout

Start at: 2018-02-04 18:06:28
End at: 2018-02-04 18:06:58
Local clock offset: 0.059 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-02-05 00:23:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.82 Mbit/s
95th percentile per-packet one-way delay: 18.786 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 42.52 Mbit/s
95th percentile per-packet one-way delay: 18.039 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.46 Mbit/s
95th percentile per-packet one-way delay: 18.588 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 19.971 ms
Loss rate: 0.11%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2018-02-04 18:26:58
End at: 2018-02-04 18:27:28
Local clock offset: 0.05 ms
Remote clock offset: 0.257 ms

# Below is generated by plot.py at 2018-02-05 00:23:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.46 Mbit/s
95th percentile per-packet one-way delay: 17.946 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 44.47 Mbit/s
95th percentile per-packet one-way delay: 16.852 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.05 Mbit/s
95th percentile per-packet one-way delay: 18.401 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 13.32 Mbit/s
95th percentile per-packet one-way delay: 20.206 ms
Loss rate: 0.03%
Run 4: Report of Sprout — Data Link

---

### Chart 1

**Throughput (Mb/s)**

- **Flow 1 ingress (mean 44.48 Mb/s)**
- **Flow 1 egress (mean 44.47 Mb/s)**
- **Flow 2 ingress (mean 40.08 Mb/s)**
- **Flow 2 egress (mean 40.05 Mb/s)**
- **Flow 3 ingress (mean 13.29 Mb/s)**
- **Flow 3 egress (mean 13.32 Mb/s)**

**Time (s)**: 0 to 30

### Chart 2

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

- **Flow 1 (95th percentile 16.85 ms)**
- **Flow 2 (95th percentile 18.40 ms)**
- **Flow 3 (95th percentile 20.21 ms)**

**Time (s)**: 0 to 30
Run 5: Statistics of Sprout

Start at: 2018-02-04 18:47:20
End at: 2018-02-04 18:47:50
Local clock offset: -0.023 ms
Remote clock offset: 1.692 ms

# Below is generated by plot.py at 2018-02-05 00:23:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 75.26 Mbit/s
  95th percentile per-packet one-way delay: 18.098 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 43.72 Mbit/s
  95th percentile per-packet one-way delay: 17.856 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 40.44 Mbit/s
  95th percentile per-packet one-way delay: 18.358 ms
  Loss rate: 0.11%
-- Flow 3:
  Average throughput: 14.08 Mbit/s
  95th percentile per-packet one-way delay: 18.289 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

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

Legend:
- Flow 1 ingress (mean 43.74 Mbit/s)
- Flow 1 egress (mean 43.72 Mbit/s)
- Flow 2 ingress (mean 40.48 Mbit/s)
- Flow 2 egress (mean 40.44 Mbit/s)
- Flow 3 ingress (mean 14.07 Mbit/s)
- Flow 3 egress (mean 14.08 Mbit/s)
Run 6: Statistics of Sprout

Start at: 2018-02-04 19:07:44
End at: 2018-02-04 19:08:14
Local clock offset: 0.062 ms
Remote clock offset: 2.744 ms

# Below is generated by plot.py at 2018-02-05 00:23:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 76.94 Mbit/s
  95th percentile per-packet one-way delay: 19.261 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 41.58 Mbit/s
  95th percentile per-packet one-way delay: 18.517 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 40.51 Mbit/s
  95th percentile per-packet one-way delay: 18.736 ms
  Loss rate: 0.10%
-- Flow 3:
  Average throughput: 25.57 Mbit/s
  95th percentile per-packet one-way delay: 20.642 ms
  Loss rate: 0.20%
Run 6: Report of Sprout — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 41.60 Mbps)
- Flow 1 egress (mean 41.58 Mbps)
- Flow 2 ingress (mean 40.53 Mbps)
- Flow 2 egress (mean 40.51 Mbps)
- Flow 3 ingress (mean 25.61 Mbps)
- Flow 3 egress (mean 25.57 Mbps)

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

- Flow 1 (95th percentile 18.52 ms)
- Flow 2 (95th percentile 18.74 ms)
- Flow 3 (95th percentile 20.64 ms)
Run 7: Statistics of Sprout

Start at: 2018-02-04 19:28:11
End at: 2018-02-04 19:28:41
Local clock offset: -0.027 ms
Remote clock offset: 3.323 ms

# Below is generated by plot.py at 2018-02-05 00:23:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 69.39 Mbit/s
  95th percentile per-packet one-way delay: 17.000 ms
  Loss rate: 0.08%
-- Flow 1:
  Average throughput: 46.77 Mbit/s
  95th percentile per-packet one-way delay: 15.322 ms
  Loss rate: 0.09%
-- Flow 2:
  Average throughput: 14.29 Mbit/s
  95th percentile per-packet one-way delay: 18.575 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 39.78 Mbit/s
  95th percentile per-packet one-way delay: 17.686 ms
  Loss rate: 0.04%
Run 7: Report of Sprout — Data Link

---

**Throughput (Mbit/s)**

![Graph showing throughput](image)

Legend:
- Blue dashed line: Flow 1 ingress (mean 46.83 Mbit/s)
- Blue solid line: Flow 1 egress (mean 46.77 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 14.29 Mbit/s)
- Green solid line: Flow 2 egress (mean 14.29 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 39.82 Mbit/s)
- Red solid line: Flow 3 egress (mean 39.78 Mbit/s)

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

![Graph showing per-packet delay](image)

Legend:
- Blue dots: Flow 1 (95th percentile 15.32 ms)
- Green dots: Flow 2 (95th percentile 18.57 ms)
- Red dots: Flow 3 (95th percentile 17.69 ms)
Run 8: Statistics of Sprout

Start at: 2018-02-04 19:48:36
End at: 2018-02-04 19:49:06
Local clock offset: 0.02 ms
Remote clock offset: 2.716 ms

# Below is generated by plot.py at 2018-02-05 00:23:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.95 Mbit/s
95th percentile per-packet one-way delay: 21.926 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 41.80 Mbit/s
95th percentile per-packet one-way delay: 19.821 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.98 Mbit/s
95th percentile per-packet one-way delay: 22.824 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 23.692 ms
Loss rate: 0.32%
Run 8: Report of Sprout — Data Link
Run 9: Statistics of Sprout

Start at: 2018-02-04 20:09:01
End at: 2018-02-04 20:09:31
Local clock offset: 0.037 ms
Remote clock offset: -17.564 ms

# Below is generated by plot.py at 2018-02-05 00:23:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 80.10 Mbit/s
  95th percentile per-packet one-way delay: 36.580 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 46.89 Mbit/s
  95th percentile per-packet one-way delay: 35.708 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 43.56 Mbit/s
  95th percentile per-packet one-way delay: 36.466 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 12.86 Mbit/s
  95th percentile per-packet one-way delay: 38.727 ms
  Loss rate: 0.39%
Run 9: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 46.91 Mbit/s)
- Flow 1 egress (mean 46.89 Mbit/s)
- Flow 2 ingress (mean 43.60 Mbit/s)
- Flow 2 egress (mean 43.56 Mbit/s)
- Flow 3 ingress (mean 12.89 Mbit/s)
- Flow 3 egress (mean 12.86 Mbit/s)

Per packet one way delay (ms)

- Flow 1 (95th percentile 35.71 ms)
- Flow 2 (95th percentile 36.47 ms)
- Flow 3 (95th percentile 38.73 ms)
Run 10: Statistics of Sprout

Start at: 2018-02-04 20:29:31
End at: 2018-02-04 20:30:01
Local clock offset: 0.08 ms
Remote clock offset: 2.328 ms

# Below is generated by plot.py at 2018-02-05 00:23:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.78 Mbit/s
95th percentile per-packet one-way delay: 17.355 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 14.70 Mbit/s
95th percentile per-packet one-way delay: 17.653 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 45.25 Mbit/s
95th percentile per-packet one-way delay: 16.329 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.40 Mbit/s
95th percentile per-packet one-way delay: 18.261 ms
Loss rate: 0.14%
Run 10: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 14.70 Mbit/s)
- Flow 1 egress (mean 14.70 Mbit/s)
- Flow 2 ingress (mean 45.26 Mbit/s)
- Flow 2 egress (mean 45.25 Mbit/s)
- Flow 3 ingress (mean 39.49 Mbit/s)
- Flow 3 egress (mean 39.40 Mbit/s)
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-04 17:23:13
End at: 2018-02-04 17:23:43
Local clock offset: -0.011 ms
Remote clock offset: -0.752 ms

# Below is generated by plot.py at 2018-02-05 00:25:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.71 Mbit/s
95th percentile per-packet one-way delay: 31.115 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 55.68 Mbit/s
95th percentile per-packet one-way delay: 30.974 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 39.80 Mbit/s
95th percentile per-packet one-way delay: 31.136 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 31.175 ms
Loss rate: 0.30%
Run 1: Report of TaoVA-100x — Data Link

Graph 1: Throughput (Mbps)
- **Flow 1 Ingress** (mean 55.64 Mbps)
- **Flow 1 Egress** (mean 55.68 Mbps)
- **Flow 2 Ingress** (mean 39.80 Mbps)
- **Flow 2 Egress** (mean 39.80 Mbps)
- **Flow 3 Ingress** (mean 31.94 Mbps)
- **Flow 3 Egress** (mean 31.90 Mbps)

Graph 2: Per-packet one-way delay (ms)
- **Flow 1** (95th percentile 30.97 ms)
- **Flow 2** (95th percentile 31.14 ms)
- **Flow 3** (95th percentile 31.18 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-04 17:43:46
End at: 2018-02-04 17:44:16
Local clock offset: 0.017 ms
Remote clock offset: -0.5 ms

# Below is generated by plot.py at 2018-02-05 00:25:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.27 Mbit/s
95th percentile per-packet one-way delay: 31.204 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 56.37 Mbit/s
95th percentile per-packet one-way delay: 31.140 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 39.69 Mbit/s
95th percentile per-packet one-way delay: 31.196 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 31.76 Mbit/s
95th percentile per-packet one-way delay: 31.276 ms
Loss rate: 0.43%
Run 2: Report of TaoVA-100x — Data Link

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

![Chart 2: Per-packet one-way delay (ms)]
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-04 18:04:10
End at: 2018-02-04 18:04:40
Local clock offset: 0.045 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-02-05 00:25:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.41 Mbit/s
  95th percentile per-packet one-way delay: 31.124 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 56.46 Mbit/s
  95th percentile per-packet one-way delay: 30.257 ms
  Loss rate: 0.08%
-- Flow 2:
  Average throughput: 39.70 Mbit/s
  95th percentile per-packet one-way delay: 31.160 ms
  Loss rate: 0.12%
-- Flow 3:
  Average throughput: 31.85 Mbit/s
  95th percentile per-packet one-way delay: 31.212 ms
  Loss rate: 0.29%
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-04 18:24:36
End at: 2018-02-04 18:25:06
Local clock offset: 0.044 ms
Remote clock offset: 0.225 ms

# Below is generated by plot.py at 2018-02-05 00:25:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.01 Mbit/s
95th percentile per-packet one-way delay: 31.145 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 56.41 Mbit/s
95th percentile per-packet one-way delay: 30.997 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 39.20 Mbit/s
95th percentile per-packet one-way delay: 31.194 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 31.203 ms
Loss rate: 0.43%
Run 4: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress** (mean 56.39 Mbit/s)
- **Flow 1 egress** (mean 56.41 Mbit/s)
- **Flow 2 ingress** (mean 39.20 Mbit/s)
- **Flow 2 egress** (mean 39.20 Mbit/s)
- **Flow 3 ingress** (mean 31.92 Mbit/s)
- **Flow 3 egress** (mean 31.91 Mbit/s)

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

- **Flow 1** (95th percentile 31.00 ms)
- **Flow 2** (95th percentile 31.19 ms)
- **Flow 3** (95th percentile 31.20 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-02-04 18:44:59
End at: 2018-02-04 18:45:29
Local clock offset: -0.043 ms
Remote clock offset: 1.478 ms

# Below is generated by plot.py at 2018-02-05 00:25:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.96 Mbit/s
95th percentile per-packet one-way delay: 31.105 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 54.76 Mbit/s
95th percentile per-packet one-way delay: 31.027 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 40.03 Mbit/s
95th percentile per-packet one-way delay: 31.118 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 31.92 Mbit/s
95th percentile per-packet one-way delay: 31.163 ms
Loss rate: 0.30%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Start at: 2018-02-04 19:05:23
End at: 2018-02-04 19:05:53
Local clock offset: 0.048 ms
Remote clock offset: -17.931 ms

# Below is generated by plot.py at 2018-02-05 00:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.28 Mbit/s
95th percentile per-packet one-way delay: 51.751 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 50.39 Mbit/s
95th percentile per-packet one-way delay: 51.673 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 41.03 Mbit/s
95th percentile per-packet one-way delay: 51.761 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 31.98 Mbit/s
95th percentile per-packet one-way delay: 51.811 ms
Loss rate: 0.43%
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-04 19:25:50
End at: 2018-02-04 19:26:20
Local clock offset: -0.023 ms
Remote clock offset: 3.335 ms

# Below is generated by plot.py at 2018-02-05 00:26:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.20 Mbit/s
  95th percentile per-packet one-way delay: 30.037 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 58.13 Mbit/s
  95th percentile per-packet one-way delay: 28.703 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 42.01 Mbit/s
  95th percentile per-packet one-way delay: 30.372 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 21.52 Mbit/s
  95th percentile per-packet one-way delay: 31.009 ms
  Loss rate: 0.02%
Run 7: Report of TaoVA-100x — Data Link

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

- **Flow 1** ingress (mean 58.13 Mbit/s)
- **Flow 1** egress (mean 58.13 Mbit/s)
- **Flow 2** ingress (mean 42.02 Mbit/s)
- **Flow 2** egress (mean 42.01 Mbit/s)
- **Flow 3** ingress (mean 21.52 Mbit/s)
- **Flow 3** egress (mean 21.52 Mbit/s)

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

- **Flow 1** (95th percentile 28.70 ms)
- **Flow 2** (95th percentile 30.37 ms)
- **Flow 3** (95th percentile 31.01 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-02-04 19:46:14
End at: 2018-02-04 19:46:44
Local clock offset: 0.044 ms
Remote clock offset: 2.841 ms

# Below is generated by plot.py at 2018-02-05 00:26:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.10 Mbit/s
95th percentile per-packet one-way delay: 31.118 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 57.52 Mbit/s
95th percentile per-packet one-way delay: 30.623 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 37.53 Mbit/s
95th percentile per-packet one-way delay: 31.127 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 31.216 ms
Loss rate: 0.29%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-04 20:06:40
End at: 2018-02-04 20:07:10
Local clock offset: 0.013 ms
Remote clock offset: 2.474 ms

# Below is generated by plot.py at 2018-02-05 00:27:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.16 Mbit/s
  95th percentile per-packet one-way delay: 31.108 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 51.01 Mbit/s
  95th percentile per-packet one-way delay: 31.008 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 41.47 Mbit/s
  95th percentile per-packet one-way delay: 31.122 ms
  Loss rate: 0.11%
-- Flow 3:
  Average throughput: 31.91 Mbit/s
  95th percentile per-packet one-way delay: 31.163 ms
  Loss rate: 0.43%
Run 9: Report of TaoVA-100x — Data Link

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

Legend:
- Flow 1 ingress (mean 51.02 Mbit/s)
- Flow 1 egress (mean 51.01 Mbit/s)
- Flow 2 ingress (mean 41.47 Mbit/s)
- Flow 2 egress (mean 41.47 Mbit/s)
- Flow 3 ingress (mean 31.94 Mbit/s)
- Flow 3 egress (mean 31.91 Mbit/s)

Per-packet one-way delay (ms) range from 5 to 50.
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-04 20:27:10
End at: 2018-02-04 20:27:40
Local clock offset: -0.003 ms
Remote clock offset: 2.39 ms

# Below is generated by plot.py at 2018-02-05 00:28:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.17 Mbit/s
95th percentile per-packet one-way delay: 31.040 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 56.28 Mbit/s
95th percentile per-packet one-way delay: 30.766 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 39.58 Mbit/s
95th percentile per-packet one-way delay: 31.051 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 31.92 Mbit/s
95th percentile per-packet one-way delay: 31.119 ms
Loss rate: 0.29%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-02-04 17:31:07
End at: 2018-02-04 17:31:37
Local clock offset: 0.032 ms
Remote clock offset: -0.688 ms

# Below is generated by plot.py at 2018-02-05 00:28:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.01 Mbit/s
95th percentile per-packet one-way delay: 4.046 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 58.19 Mbit/s
95th percentile per-packet one-way delay: 5.795 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 35.27 Mbit/s
95th percentile per-packet one-way delay: 3.866 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 40.33 Mbit/s
95th percentile per-packet one-way delay: 3.926 ms
Loss rate: 0.05%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-02-04 17:51:38
End at: 2018-02-04 17:52:08
Local clock offset: 0.013 ms
Remote clock offset: -0.463 ms

# Below is generated by plot.py at 2018-02-05 00:28:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.27 Mbit/s
  95th percentile per-packet one-way delay: 11.131 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 58.85 Mbit/s
  95th percentile per-packet one-way delay: 7.112 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 32.31 Mbit/s
  95th percentile per-packet one-way delay: 12.517 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 41.98 Mbit/s
  95th percentile per-packet one-way delay: 4.123 ms
  Loss rate: 0.03%
Run 2: Report of TCP Vegas — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 58.85 Mbps)
Flow 1 egress (mean 58.85 Mbps)
Flow 2 ingress (mean 32.31 Mbps)
Flow 2 egress (mean 32.31 Mbps)
Flow 3 ingress (mean 41.95 Mbps)
Flow 3 egress (mean 41.98 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 7.11 ms)
Flow 2 (95th percentile 12.52 ms)
Flow 3 (95th percentile 4.12 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-02-04 18:12:02
End at: 2018-02-04 18:12:32
Local clock offset: -0.035 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-02-05 00:28:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 15.239 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 42.54 Mbit/s
95th percentile per-packet one-way delay: 14.230 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.45 Mbit/s
95th percentile per-packet one-way delay: 5.293 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 88.46 Mbit/s
95th percentile per-packet one-way delay: 15.425 ms
Loss rate: 0.19%
Run 3: Report of TCP Vegas — Data Link

- Flow 1 ingress (mean 42.53 Mbit/s)
- Flow 1 egress (mean 42.54 Mbit/s)
- Flow 2 ingress (mean 38.45 Mbit/s)
- Flow 2 egress (mean 38.45 Mbit/s)
- Flow 3 ingress (mean 98.57 Mbit/s)
- Flow 3 egress (mean 98.46 Mbit/s)

- Flow 1 (95th percentile 14.23 ms)
- Flow 2 (95th percentile 5.29 ms)
- Flow 3 (95th percentile 15.43 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-02-04 18:32:27
End at: 2018-02-04 18:32:57
Local clock offset: 0.067 ms
Remote clock offset: 0.367 ms

# Below is generated by plot.py at 2018-02-05 00:28:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.41 Mbit/s
  95th percentile per-packet one-way delay: 6.238 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 49.98 Mbit/s
  95th percentile per-packet one-way delay: 12.867 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 45.98 Mbit/s
  95th percentile per-packet one-way delay: 4.146 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 50.76 Mbit/s
  95th percentile per-packet one-way delay: 4.047 ms
  Loss rate: 0.05%
Run 4: Report of TCP Vegas — Data Link

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

- Throughput Graph:
  - Flow 1 ingress (mean 49.98 Mbit/s)
  - Flow 1 egress (mean 49.98 Mbit/s)
  - Flow 2 ingress (mean 45.97 Mbit/s)
  - Flow 2 egress (mean 45.97 Mbit/s)
  - Flow 3 ingress (mean 50.76 Mbit/s)
  - Flow 3 egress (mean 50.76 Mbit/s)

- Packet Loss Graph:
  - Flow 1 (95th percentile 12.87 ms)
  - Flow 2 (95th percentile 4.15 ms)
  - Flow 3 (95th percentile 4.05 ms)
Run 5: Statistics of TCP Vegas

Start at: 2018-02-04 18:52:54
End at: 2018-02-04 18:53:24
Local clock offset: 0.031 ms
Remote clock offset: 2.237 ms

# Below is generated by plot.py at 2018-02-05 00:28:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.28 Mbit/s
  95th percentile per-packet one-way delay: 13.292 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 53.19 Mbit/s
  95th percentile per-packet one-way delay: 14.344 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 42.85 Mbit/s
  95th percentile per-packet one-way delay: 4.050 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 40.96 Mbit/s
  95th percentile per-packet one-way delay: 4.006 ms
  Loss rate: 0.05%
Run 5: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 53.19 Mbps)**
- **Flow 1 egress (mean 53.19 Mbps)**
- **Flow 2 ingress (mean 42.85 Mbps)**
- **Flow 2 egress (mean 42.85 Mbps)**
- **Flow 3 ingress (mean 40.98 Mbps)**
- **Flow 3 egress (mean 40.96 Mbps)**

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

- **Flow 1 (95th percentile 14.34 ms)**
- **Flow 2 (95th percentile 4.05 ms)**
- **Flow 3 (95th percentile 4.01 ms)**
Run 6: Statistics of TCP Vegas

Start at: 2018-02-04 19:13:18
End at: 2018-02-04 19:13:48
Local clock offset: 0.061 ms
Remote clock offset: 2.91 ms

# Below is generated by plot.py at 2018-02-05 00:28:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.97 Mbit/s
95th percentile per-packet one-way delay: 8.709 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 43.95 Mbit/s
95th percentile per-packet one-way delay: 6.694 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 42.93 Mbit/s
95th percentile per-packet one-way delay: 15.558 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 43.60 Mbit/s
95th percentile per-packet one-way delay: 4.517 ms
Loss rate: 0.05%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-02-04 19:33:44
End at: 2018-02-04 19:34:14
Local clock offset: 0.064 ms
Remote clock offset: 3.224 ms

# Below is generated by plot.py at 2018-02-05 00:28:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.23 Mbit/s
95th percentile per-packet one-way delay: 4.764 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 54.22 Mbit/s
95th percentile per-packet one-way delay: 7.679 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.06 Mbit/s
95th percentile per-packet one-way delay: 4.447 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 50.29 Mbit/s
95th percentile per-packet one-way delay: 4.632 ms
Loss rate: 0.08%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-02-04 19:54:08
End at: 2018-02-04 19:54:39
Local clock offset: 0.042 ms
Remote clock offset: 2.648 ms

# Below is generated by plot.py at 2018-02-05 00:28:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.78 Mbit/s
  95th percentile per-packet one-way delay: 3.818 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 48.69 Mbit/s
  95th percentile per-packet one-way delay: 3.746 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 45.70 Mbit/s
  95th percentile per-packet one-way delay: 3.833 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 47.29 Mbit/s
  95th percentile per-packet one-way delay: 3.872 ms
  Loss rate: 0.05%
Run 8: Report of TCP Vegas — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 48.69 Mbit/s)
Flow 1 egress (mean 48.69 Mbit/s)
Flow 2 ingress (mean 45.66 Mbit/s)
Flow 2 egress (mean 45.70 Mbit/s)
Flow 3 ingress (mean 47.29 Mbit/s)
Flow 3 egress (mean 47.29 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 3.75 ms)
Flow 2 (95th percentile 3.83 ms)
Flow 3 (95th percentile 3.87 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-02-04 20:14:39
End at: 2018-02-04 20:15:09
Local clock offset: 0.043 ms
Remote clock offset: -18.104 ms

# Below is generated by plot.py at 2018-02-05 00:28:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.29 Mbit/s
95th percentile per-packet one-way delay: 24.739 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 21.25 Mbit/s
95th percentile per-packet one-way delay: 24.217 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 56.71 Mbit/s
95th percentile per-packet one-way delay: 29.223 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 52.07 Mbit/s
95th percentile per-packet one-way delay: 24.563 ms
Loss rate: 0.04%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-02-04 20:35:04
End at: 2018-02-04 20:35:34
Local clock offset: -0.029 ms
Remote clock offset: 2.359 ms

# Below is generated by plot.py at 2018-02-05 00:28:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.13 Mbit/s
95th percentile per-packet one-way delay: 4.308 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 51.48 Mbit/s
95th percentile per-packet one-way delay: 4.315 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 42.86 Mbit/s
95th percentile per-packet one-way delay: 4.342 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 27.51 Mbit/s
95th percentile per-packet one-way delay: 4.197 ms
Loss rate: 0.12%
Run 10: Report of TCP Vegas — Data Link

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

Flow 1 ingress (mean 51.48 Mbit/s) — Flow 1 egress (mean 51.48 Mbit/s)
Flow 2 ingress (mean 42.86 Mbit/s) — Flow 2 egress (mean 42.86 Mbit/s)
Flow 3 ingress (mean 27.54 Mbit/s) — Flow 3 egress (mean 27.51 Mbit/s)
Run 1: Statistics of Verus

Start at: 2018-02-04 17:33:25  
End at: 2018-02-04 17:33:55  
Local clock offset: -0.009 ms  
Remote clock offset: -1.313 ms

# Below is generated by plot.py at 2018-02-05 00:29:06  
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.95 Mbit/s  
95th percentile per-packet one-way delay: 37.073 ms  
Loss rate: 0.13%
-- Flow 1:
Average throughput: 52.96 Mbit/s  
95th percentile per-packet one-way delay: 36.193 ms  
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.84 Mbit/s  
95th percentile per-packet one-way delay: 36.479 ms  
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.73 Mbit/s  
95th percentile per-packet one-way delay: 37.336 ms  
Loss rate: 0.35%
Run 1: Report of Verus — Data Link

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**Throughput (Mbit/s)**

- **Flow 1 ingress** (mean 53.00 Mbit/s)
- **Flow 1 egress** (mean 52.96 Mbit/s)
- **Flow 2 ingress** (mean 40.85 Mbit/s)
- **Flow 2 egress** (mean 40.84 Mbit/s)
- **Flow 3 ingress** (mean 32.69 Mbit/s)
- **Flow 3 egress** (mean 32.73 Mbit/s)

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

- **Flow 1 (95th percentile 36.19 ms)**
- **Flow 2 (95th percentile 36.48 ms)**
- **Flow 3 (95th percentile 37.34 ms)**

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Run 2: Statistics of Verus

Start at: 2018-02-04 17:53:53
End at: 2018-02-04 17:54:23
Local clock offset: 0.049 ms
Remote clock offset: -0.393 ms

# Below is generated by plot.py at 2018-02-05 00:29:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.83 Mbit/s
95th percentile per-packet one-way delay: 36.568 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 59.35 Mbit/s
95th percentile per-packet one-way delay: 34.758 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.35 Mbit/s
95th percentile per-packet one-way delay: 36.766 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 32.17 Mbit/s
95th percentile per-packet one-way delay: 36.953 ms
Loss rate: 0.35%
Run 2: Report of Verus — Data Link

**Throughput (Mbit/s)**

- Flow 1 ingress (mean 59.35 Mbit/s)
- Flow 1 egress (mean 59.35 Mbit/s)
- Flow 2 ingress (mean 40.32 Mbit/s)
- Flow 2 egress (mean 40.35 Mbit/s)
- Flow 3 ingress (mean 32.20 Mbit/s)
- Flow 3 egress (mean 32.17 Mbit/s)

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

- Flow 1 (95th percentile 34.76 ms)
- Flow 2 (95th percentile 36.77 ms)
- Flow 3 (95th percentile 36.95 ms)
Run 3: Statistics of Verus

Start at: 2018-02-04 18:14:18
End at: 2018-02-04 18:14:48
Local clock offset: -0.02 ms
Remote clock offset: 0.044 ms

# Below is generated by plot.py at 2018-02-05 00:29:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.00 Mbit/s
95th percentile per-packet one-way delay: 36.424 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 53.47 Mbit/s
95th percentile per-packet one-way delay: 35.825 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 36.515 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 28.64 Mbit/s
95th percentile per-packet one-way delay: 36.591 ms
Loss rate: 0.56%
Run 3: Report of Verus — Data Link

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

- Flow 1 ingress (mean 53.47 Mbit/s)
- Flow 1 egress (mean 53.47 Mbit/s)
- Flow 2 ingress (mean 40.64 Mbit/s)
- Flow 2 egress (mean 40.64 Mbit/s)
- Flow 3 ingress (mean 28.64 Mbit/s)
- Flow 3 egress (mean 20.64 Mbit/s)
Run 4: Statistics of Verus

Start at: 2018-02-04 18:34:43
End at: 2018-02-04 18:35:13
Local clock offset: 0.056 ms
Remote clock offset: 0.407 ms

# Below is generated by plot.py at 2018-02-05 00:29:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.85 Mbit/s
95th percentile per-packet one-way delay: 36.208 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 51.02 Mbit/s
95th percentile per-packet one-way delay: 35.182 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 41.77 Mbit/s
95th percentile per-packet one-way delay: 36.144 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 30.35 Mbit/s
95th percentile per-packet one-way delay: 36.714 ms
Loss rate: 0.37%
Run 4: Report of Verus — Data Link

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

**Throughput (Mbps)**

- **Flow 1 ingress (mean 51.01 Mbps)**
- **Flow 1 egress (mean 51.02 Mbps)**
- **Flow 2 ingress (mean 41.82 Mbps)**
- **Flow 2 egress (mean 41.77 Mbps)**
- **Flow 3 ingress (mean 30.32 Mbps)**
- **Flow 3 egress (mean 30.35 Mbps)**

![Graph showing packet delay distribution.](image-url)

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

- **Flow 1 (95th percentile 35.18 ms)**
- **Flow 2 (95th percentile 36.14 ms)**
- **Flow 3 (95th percentile 36.71 ms)**

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Run 5: Statistics of Verus

Start at: 2018-02-04 18:55:10
End at: 2018-02-04 18:55:40
Local clock offset: 0.027 ms
Remote clock offset: 2.41 ms

# Below is generated by plot.py at 2018-02-05 00:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.15 Mbit/s
95th percentile per-packet one-way delay: 36.550 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 50.16 Mbit/s
95th percentile per-packet one-way delay: 35.470 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 42.78 Mbit/s
95th percentile per-packet one-way delay: 36.578 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 29.78 Mbit/s
95th percentile per-packet one-way delay: 36.685 ms
Loss rate: 0.00%
Run 6: Statistics of Verus

Start at: 2018-02-04 19:15:33
End at: 2018-02-04 19:16:03
Local clock offset: -0.021 ms
Remote clock offset: 2.922 ms

# Below is generated by plot.py at 2018-02-05 00:29:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.39 Mbit/s
95th percentile per-packet one-way delay: 36.626 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 51.33 Mbit/s
95th percentile per-packet one-way delay: 36.180 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 39.85 Mbit/s
95th percentile per-packet one-way delay: 36.637 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 31.77 Mbit/s
95th percentile per-packet one-way delay: 36.725 ms
Loss rate: 0.36%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-02-04 19:36:00
End at: 2018-02-04 19:36:30
Local clock offset: 0.063 ms
Remote clock offset: -17.514 ms

# Below is generated by plot.py at 2018-02-05 00:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.67 Mbit/s
95th percentile per-packet one-way delay: 57.092 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 53.39 Mbit/s
95th percentile per-packet one-way delay: 55.878 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 41.68 Mbit/s
95th percentile per-packet one-way delay: 57.000 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 28.77 Mbit/s
95th percentile per-packet one-way delay: 57.380 ms
Loss rate: 0.43%
Run 8: Statistics of Verus

Start at: 2018-02-04 19:56:25
End at: 2018-02-04 19:56:55
Local clock offset: 0.019 ms
Remote clock offset: 2.624 ms

# Below is generated by plot.py at 2018-02-05 00:30:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.20 Mbit/s
95th percentile per-packet one-way delay: 36.544 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 53.25 Mbit/s
95th percentile per-packet one-way delay: 34.943 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 39.80 Mbit/s
95th percentile per-packet one-way delay: 36.569 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 28.64 Mbit/s
95th percentile per-packet one-way delay: 36.670 ms
Loss rate: 0.55%
Run 9: Statistics of Verus

Start at: 2018-02-04 20:16:54
End at: 2018-02-04 20:17:24
Local clock offset: 0.063 ms
Remote clock offset: 2.36 ms

# Below is generated by plot.py at 2018-02-05 00:30:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.25 Mbit/s
95th percentile per-packet one-way delay: 36.574 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 51.93 Mbit/s
95th percentile per-packet one-way delay: 35.698 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.28 Mbit/s
95th percentile per-packet one-way delay: 36.583 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 32.58 Mbit/s
95th percentile per-packet one-way delay: 36.700 ms
Loss rate: 0.01%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-02-04 20:37:19
End at: 2018-02-04 20:37:49
Local clock offset: 0.037 ms
Remote clock offset: -12.772 ms

# Below is generated by plot.py at 2018-02-05 00:30:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.78 Mbit/s
95th percentile per-packet one-way delay: 51.708 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 49.82 Mbit/s
95th percentile per-packet one-way delay: 50.864 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 35.64 Mbit/s
95th percentile per-packet one-way delay: 51.648 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 27.93 Mbit/s
95th percentile per-packet one-way delay: 51.824 ms
Loss rate: 0.57%
Run 10: Report of Verus — Data Link
Run 1: Statistics of Copa

Start at: 2018-02-04 17:24:24
End at: 2018-02-04 17:24:54
Local clock offset: -0.005 ms
Remote clock offset: -0.797 ms

# Below is generated by plot.py at 2018-02-05 00:30:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.40 Mbit/s
95th percentile per-packet one-way delay: 2.691 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 13.94 Mbit/s
95th percentile per-packet one-way delay: 2.623 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 36.35 Mbit/s
95th percentile per-packet one-way delay: 2.662 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.03 Mbit/s
95th percentile per-packet one-way delay: 2.769 ms
Loss rate: 0.06%
Run 1: Report of Copa — Data Link

![Graph of network traffic](image1)

![Graph of packet delay](image2)
Run 2: Statistics of Copa

Start at: 2018-02-04 17:44:57
End at: 2018-02-04 17:45:27
Local clock offset: 0.04 ms
Remote clock offset: -0.402 ms

# Below is generated by plot.py at 2018-02-05 00:30:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.80 Mbit/s
95th percentile per-packet one-way delay: 2.950 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 7.29 Mbit/s
95th percentile per-packet one-way delay: 2.564 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 51.81 Mbit/s
95th percentile per-packet one-way delay: 2.796 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.24 Mbit/s
95th percentile per-packet one-way delay: 3.328 ms
Loss rate: 0.07%
Run 2: Report of Copa — Data Link

![Graph 1: Throughput vs. Time](chart1.png)
- **Flow 1 ingress (mean 7.29 Mbit/s)**
- **Flow 1 egress (mean 7.29 Mbit/s)**
- **Flow 2 ingress (mean 51.79 Mbit/s)**
- **Flow 2 egress (mean 51.81 Mbit/s)**
- **Flow 3 ingress (mean 33.25 Mbit/s)**
- **Flow 3 egress (mean 33.24 Mbit/s)**

![Graph 2: Per Packet RTT vs. Time](chart2.png)
- **Flow 1 (95th percentile 2.56 ms)**
- **Flow 2 (95th percentile 2.80 ms)**
- **Flow 3 (95th percentile 3.33 ms)**
Run 3: Statistics of Copa

Start at: 2018-02-04 18:05:21
End at: 2018-02-04 18:05:51
Local clock offset: -0.011 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-02-05 00:30:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 40.73 Mbit/s
  95th percentile per-packet one-way delay: 2.998 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 6.03 Mbit/s
  95th percentile per-packet one-way delay: 3.345 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 31.22 Mbit/s
  95th percentile per-packet one-way delay: 2.800 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 41.98 Mbit/s
  95th percentile per-packet one-way delay: 3.098 ms
  Loss rate: 0.07%
Run 3: Report of Copa — Data Link

![Graph of throughput over time](image1)

![Graph of packet one-way delay over time](image2)
Run 4: Statistics of Copa

Start at: 2018-02-04 18:25:48
End at: 2018-02-04 18:26:18
Local clock offset: 0.067 ms
Remote clock offset: -20.031 ms

# Below is generated by plot.py at 2018-02-05 00:31:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.07 Mbit/s
  95th percentile per-packet one-way delay: 22.982 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 57.41 Mbit/s
  95th percentile per-packet one-way delay: 22.864 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 11.13 Mbit/s
  95th percentile per-packet one-way delay: 23.024 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 27.94 Mbit/s
  95th percentile per-packet one-way delay: 23.413 ms
  Loss rate: 0.07%
Run 4: Report of Copa — Data Link

[Graph showing network performance metrics such as throughput and delay over time for different data flows.]

[Legend for data flow characteristics is provided.]
Run 5: Statistics of Copa

Start at: 2018-02-04 18:46:10
End at: 2018-02-04 18:46:40
Local clock offset: 0.043 ms
Remote clock offset: 1.583 ms

# Below is generated by plot.py at 2018-02-05 00:31:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.17 Mbit/s
95th percentile per-packet one-way delay: 2.681 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 57.77 Mbit/s
95th percentile per-packet one-way delay: 2.621 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 11.68 Mbit/s
95th percentile per-packet one-way delay: 2.667 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 29.07 Mbit/s
95th percentile per-packet one-way delay: 2.967 ms
Loss rate: 0.06%
Run 5: Report of Copa — Data Link

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

- **Flow 1 ingress** (mean 57.77 Mbit/s)
- **Flow 1 egress** (mean 57.77 Mbit/s)
- **Flow 2 ingress** (mean 11.68 Mbit/s)
- **Flow 2 egress** (mean 11.68 Mbit/s)
- **Flow 3 ingress** (mean 29.07 Mbit/s)
- **Flow 3 egress** (mean 29.07 Mbit/s)

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

- **Flow 1** (95th percentile 2.62 ms)
- **Flow 2** (95th percentile 2.67 ms)
- **Flow 3** (95th percentile 2.97 ms)
Run 6: Statistics of Copa

Start at: 2018-02-04 19:06:34
End at: 2018-02-04 19:07:04
Local clock offset: 0.069 ms
Remote clock offset: 2.714 ms

# Below is generated by plot.py at 2018-02-05 00:32:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.99 Mbit/s
95th percentile per-packet one-way delay: 2.992 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 43.73 Mbit/s
95th percentile per-packet one-way delay: 2.820 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 35.26 Mbit/s
95th percentile per-packet one-way delay: 3.057 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 32.61 Mbit/s
95th percentile per-packet one-way delay: 3.305 ms
Loss rate: 0.06%
Run 6: Report of Copa — Data Link

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

Start at: 2018-02-04 19:27:01
End at: 2018-02-04 19:27:31
Local clock offset: 0.04 ms
Remote clock offset: 3.35 ms

# Below is generated by plot.py at 2018-02-05 00:32:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.00 Mbit/s
95th percentile per-packet one-way delay: 2.999 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 33.84 Mbit/s
95th percentile per-packet one-way delay: 2.838 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 41.19 Mbit/s
95th percentile per-packet one-way delay: 3.009 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 35.41 Mbit/s
95th percentile per-packet one-way delay: 3.228 ms
Loss rate: 0.05%
Run 7: Report of Copa — Data Link

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

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 33.84 Mbit/s)
Flow 1 egress (mean 33.84 Mbit/s)
Flow 2 ingress (mean 41.19 Mbit/s)
Flow 2 egress (mean 41.19 Mbit/s)
Flow 3 ingress (mean 35.42 Mbit/s)
Flow 3 egress (mean 35.41 Mbit/s)

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

Per-packet round-trip delay (ms)

Time (s)

Flow 1 (95th percentile 2.84 ms)
Flow 2 (95th percentile 3.01 ms)
Flow 3 (95th percentile 3.23 ms)
Run 8: Statistics of Copa

Start at: 2018-02-04 19:47:26
End at: 2018-02-04 19:47:56
Local clock offset: 0.045 ms
Remote clock offset: 2.769 ms

# Below is generated by plot.py at 2018-02-05 00:32:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.80 Mbit/s
95th percentile per-packet one-way delay: 3.061 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 50.92 Mbit/s
95th percentile per-packet one-way delay: 2.894 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 36.12 Mbit/s
95th percentile per-packet one-way delay: 3.122 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 29.76 Mbit/s
95th percentile per-packet one-way delay: 3.346 ms
Loss rate: 0.06%
Run 8: Report of Copa — Data Link
Run 9: Statistics of Copa

Start at: 2018-02-04 20:07:51
End at: 2018-02-04 20:08:21
Local clock offset: 0.035 ms
Remote clock offset: 2.461 ms

# Below is generated by plot.py at 2018-02-05 00:32:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.76 Mbit/s
95th percentile per-packet one-way delay: 2.654 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 44.50 Mbit/s
95th percentile per-packet one-way delay: 2.602 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 40.07 Mbit/s
95th percentile per-packet one-way delay: 2.733 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 13.79 Mbit/s
95th percentile per-packet one-way delay: 2.972 ms
Loss rate: 0.05%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa

Start at: 2018-02-04 20:28:21
End at: 2018-02-04 20:28:51
Local clock offset: 0.042 ms
Remote clock offset: 2.327 ms

# Below is generated by plot.py at 2018-02-05 00:32:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.83 Mbit/s
95th percentile per-packet one-way delay: 3.083 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 45.51 Mbit/s
95th percentile per-packet one-way delay: 2.880 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 3.211 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 29.30 Mbit/s
95th percentile per-packet one-way delay: 3.424 ms
Loss rate: 0.05%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

Start at: 2018-02-04 17:34:34
End at: 2018-02-04 17:35:04
Local clock offset: 0.018 ms
Remote clock offset: -0.81 ms

# Below is generated by plot.py at 2018-02-05 00:33:23
# Datalink statistics
-- Total of 3 flows:
    Average throughput: 92.35 Mbit/s
    95th percentile per-packet one-way delay: 25.251 ms
    Loss rate: 1.73%
-- Flow 1:
    Average throughput: 55.90 Mbit/s
    95th percentile per-packet one-way delay: 24.262 ms
    Loss rate: 0.13%
-- Flow 2:
    Average throughput: 39.51 Mbit/s
    95th percentile per-packet one-way delay: 25.582 ms
    Loss rate: 2.95%
-- Flow 3:
    Average throughput: 30.76 Mbit/s
    95th percentile per-packet one-way delay: 26.086 ms
    Loss rate: 6.92%
Run 1: Report of FillP — Data Link

![Graph 1: Throughput vs. Time]

- Flow 1 ingress (mean 55.90 Mbit/s)
- Flow 1 egress (mean 55.90 Mbit/s)
- Flow 2 ingress (mean 39.69 Mbit/s)
- Flow 2 egress (mean 39.51 Mbit/s)
- Flow 3 ingress (mean 31.36 Mbit/s)
- Flow 3 egress (mean 30.76 Mbit/s)

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

- Flow 1 (95th percentile 24.26 ms)
- Flow 2 (95th percentile 25.38 ms)
- Flow 3 (95th percentile 26.09 ms)
Run 2: Statistics of FillP

Start at: 2018-02-04 17:55:03
End at: 2018-02-04 17:55:33
Local clock offset: 0.042 ms
Remote clock offset: -0.24 ms

# Below is generated by plot.py at 2018-02-05 00:34:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.33 Mbit/s
  95th percentile per-packet one-way delay: 24.929 ms
  Loss rate: 1.59%
-- Flow 1:
  Average throughput: 56.10 Mbit/s
  95th percentile per-packet one-way delay: 24.017 ms
  Loss rate: 0.10%
-- Flow 2:
  Average throughput: 39.07 Mbit/s
  95th percentile per-packet one-way delay: 25.183 ms
  Loss rate: 2.61%
-- Flow 3:
  Average throughput: 31.02 Mbit/s
  95th percentile per-packet one-way delay: 25.874 ms
  Loss rate: 6.67%
Run 2: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 56.09 Mbit/s)
- Flow 1 Egress (mean 56.10 Mbit/s)
- Flow 2 Ingress (mean 39.20 Mbit/s)
- Flow 2 Egress (mean 39.07 Mbit/s)
- Flow 3 Ingress (mean 31.60 Mbit/s)
- Flow 3 Egress (mean 31.02 Mbit/s)

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

- Flow 1 95th percentile 24.02 ms
- Flow 2 95th percentile 25.18 ms
- Flow 3 95th percentile 25.87 ms

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Run 3: Statistics of FillP

Start at: 2018-02-04 18:15:27
End at: 2018-02-04 18:15:57
Local clock offset: 0.03 ms
Remote clock offset: 0.059 ms

# Below is generated by plot.py at 2018-02-05 00:34:21
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 92.32 Mbit/s
95th percentile per-packet one-way delay: 24.930 ms
 Loss rate: 0.78%
-- Flow 1:
 Average throughput: 56.11 Mbit/s
95th percentile per-packet one-way delay: 24.083 ms
 Loss rate: 0.13%
-- Flow 2:
 Average throughput: 38.73 Mbit/s
95th percentile per-packet one-way delay: 25.186 ms
 Loss rate: 1.04%
-- Flow 3:
 Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 25.824 ms
 Loss rate: 3.55%
Run 3: Report of FillP — Data Link

[Graph showing throughput and packet error rate over time for different flows.]
Run 4: Statistics of FillP

Start at: 2018-02-04 18:35:52
End at: 2018-02-04 18:36:22
Local clock offset: 0.028 ms
Remote clock offset: 0.108 ms

# Below is generated by plot.py at 2018-02-05 00:34:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.31 Mbit/s
  95th percentile per-packet one-way delay: 25.309 ms
  Loss rate: 1.18%
-- Flow 1:
  Average throughput: 55.73 Mbit/s
  95th percentile per-packet one-way delay: 24.497 ms
  Loss rate: 0.14%
-- Flow 2:
  Average throughput: 40.10 Mbit/s
  95th percentile per-packet one-way delay: 25.444 ms
  Loss rate: 2.00%
-- Flow 3:
  Average throughput: 30.06 Mbit/s
  95th percentile per-packet one-way delay: 26.232 ms
  Loss rate: 4.62%
Run 4: Report of FillP — Data Link
Run 5: Statistics of FillP

Start at: 2018-02-04 18:56:19
End at: 2018-02-04 18:56:49
Local clock offset: 0.039 ms
Remote clock offset: -18.083 ms

# Below is generated by plot.py at 2018-02-05 00:35:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.35 Mbit/s
95th percentile per-packet one-way delay: 45.566 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 55.79 Mbit/s
95th percentile per-packet one-way delay: 44.662 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 39.66 Mbit/s
95th percentile per-packet one-way delay: 45.822 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 30.83 Mbit/s
95th percentile per-packet one-way delay: 46.436 ms
Loss rate: 2.50%
Run 5: Report of FillP — Data Link

Graph showing throughput and packet latency over time for different flows.
Run 6: Statistics of FillP

Start at: 2018-02-04 19:16:43
End at: 2018-02-04 19:17:13
Local clock offset: -0.011 ms
Remote clock offset: 3.012 ms

# Below is generated by plot.py at 2018-02-05 00:35:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.32 Mbit/s
95th percentile per-packet one-way delay: 24.971 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 55.99 Mbit/s
95th percentile per-packet one-way delay: 24.058 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 39.37 Mbit/s
95th percentile per-packet one-way delay: 25.134 ms
Loss rate: 2.22%
-- Flow 3:
Average throughput: 30.69 Mbit/s
95th percentile per-packet one-way delay: 25.902 ms
Loss rate: 5.47%
Run 6: Report of FillP — Data Link

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

**Legend:**
- Flow 1 ingress (mean 55.99 Mbit/s)
- Flow 1 egress (mean 55.99 Mbit/s)
- Flow 2 ingress (mean 39.49 Mbit/s)
- Flow 2 egress (mean 39.37 Mbit/s)
- Flow 3 ingress (mean 31.16 Mbit/s)
- Flow 3 egress (mean 30.69 Mbit/s)

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![Graph 2: Round Trip Time vs Time](image2)

**Legend:**
- Flow 1 (95th percentile 24.06 ms)
- Flow 2 (95th percentile 25.13 ms)
- Flow 3 (95th percentile 25.90 ms)

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Run 7: Statistics of FillP

Start at: 2018-02-04 19:37:09
End at: 2018-02-04 19:37:39
Local clock offset: 0.047 ms
Remote clock offset: 3.153 ms

# Below is generated by plot.py at 2018-02-05 00:35:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.28 Mbit/s
95th percentile per-packet one-way delay: 24.974 ms
Loss rate: 3.57%
-- Flow 1:
Average throughput: 55.59 Mbit/s
95th percentile per-packet one-way delay: 24.194 ms
Loss rate: 3.13%
-- Flow 2:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 25.140 ms
Loss rate: 5.54%
-- Flow 3:
Average throughput: 31.43 Mbit/s
95th percentile per-packet one-way delay: 25.877 ms
Loss rate: 0.74%
Run 7: Report of FillP — Data Link

[Graph 1: Throughout (Mbps) vs. Time (s)]

- Flow 1 ingress (mean 55.45 Mbps)
- Flow 1 egress (mean 55.59 Mbps)
- Flow 2 ingress (mean 39.69 Mbps)
- Flow 2 egress (mean 39.51 Mbps)
- Flow 3 ingress (mean 31.47 Mbps)
- Flow 3 egress (mean 31.43 Mbps)

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

- Flow 1 (95th percentile 24.19 ms)
- Flow 2 (95th percentile 25.14 ms)
- Flow 3 (95th percentile 25.88 ms)
Run 8: Statistics of FillP

Start at: 2018-02-04 19:57:34
End at: 2018-02-04 19:58:04
Local clock offset: 0.026 ms
Remote clock offset: 2.51 ms

# Below is generated by plot.py at 2018-02-05 00:35:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.32 Mbit/s
95th percentile per-packet one-way delay: 25.011 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 55.91 Mbit/s
95th percentile per-packet one-way delay: 24.133 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.21 Mbit/s
95th percentile per-packet one-way delay: 25.211 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 31.23 Mbit/s
95th percentile per-packet one-way delay: 25.920 ms
Loss rate: 5.35%
Run 8: Report of FillP — Data Link

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

- Blue: Flow 1 ingress (mean 55.92 Mbit/s)
- Purple: Flow 1 egress (mean 55.91 Mbit/s)
- Green: Flow 2 ingress (mean 39.28 Mbit/s)
- Pink: Flow 2 egress (mean 39.21 Mbit/s)
- Black: Flow 3 ingress (mean 31.75 Mbit/s)
- Red: Flow 3 egress (mean 31.23 Mbit/s)

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

- Blue: Flow 1 (95th percentile 24.13 ms)
- Green: Flow 2 (95th percentile 25.21 ms)
- Red: Flow 3 (95th percentile 25.92 ms)
Run 9: Statistics of FillP

Start at: 2018-02-04 20:18:03
End at: 2018-02-04 20:18:33
Local clock offset: 0.066 ms
Remote clock offset: 2.316 ms

# Below is generated by plot.py at 2018-02-05 00:36:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.28 Mbit/s
95th percentile per-packet one-way delay: 24.889 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 55.59 Mbit/s
95th percentile per-packet one-way delay: 24.011 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 39.75 Mbit/s
95th percentile per-packet one-way delay: 25.058 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 25.886 ms
Loss rate: 5.04%
Run 9: Report of FillP — Data Link

![Graph of Throughput vs Time]

![Graph of Packet Drop Rate vs Time]

Legend:
- Flow 1 ingress (mean 55.60 Mbit/s)
- Flow 1 egress (mean 55.59 Mbit/s)
- Flow 2 ingress (mean 39.86 Mbit/s)
- Flow 2 egress (mean 39.75 Mbit/s)
- Flow 3 ingress (mean 31.40 Mbit/s)
- Flow 3 egress (mean 31.02 Mbit/s)

Legend for Packet Drop Rate:
- Flow 1 (95th percentile 24.01 ms)
- Flow 2 (95th percentile 25.06 ms)
- Flow 3 (95th percentile 25.89 ms)
Run 10: Statistics of FillP

Start at: 2018-02-04 20:38:28
End at: 2018-02-04 20:38:58
Local clock offset: 0.036 ms
Remote clock offset: 2.4 ms

# Below is generated by plot.py at 2018-02-05 00:37:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.29 Mbit/s
95th percentile per-packet one-way delay: 24.943 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 56.24 Mbit/s
95th percentile per-packet one-way delay: 24.028 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 38.82 Mbit/s
95th percentile per-packet one-way delay: 25.099 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 30.96 Mbit/s
95th percentile per-packet one-way delay: 25.863 ms
Loss rate: 0.55%
Run 10: Report of FillP — Data Link

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

- **Flow 1 Ingress** (mean 56.24 Mbit/s)
- **Flow 1 Egress** (mean 56.24 Mbit/s)
- **Flow 2 Ingress** (mean 38.73 Mbit/s)
- **Flow 2 Egress** (mean 38.82 Mbit/s)
- **Flow 3 Ingress** (mean 30.97 Mbit/s)
- **Flow 3 Egress** (mean 30.96 Mbit/s)

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

- **Flow 1 (95th percentile 24.03 ms)**
- **Flow 2 (95th percentile 25.10 ms)**
- **Flow 3 (95th percentile 25.86 ms)**
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-04 17:35:44
End at: 2018-02-04 17:36:14
Local clock offset: 0.043 ms
Remote clock offset: -0.701 ms

# Below is generated by plot.py at 2018-02-05 00:37:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.31 Mbit/s
  95th percentile per-packet one-way delay: 10.320 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 45.86 Mbit/s
  95th percentile per-packet one-way delay: 9.921 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 54.23 Mbit/s
  95th percentile per-packet one-way delay: 10.602 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 47.21 Mbit/s
  95th percentile per-packet one-way delay: 11.034 ms
  Loss rate: 0.13%
Run 1: Report of Indigo-1-32 — Data Link

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### Throughput Graph

- **Flow 1 ingress (mean 45.85 Mbit/s)**
- **Flow 1 egress (mean 45.86 Mbit/s)**
- **Flow 2 ingress (mean 54.24 Mbit/s)**
- **Flow 2 egress (mean 54.23 Mbit/s)**
- **Flow 3 ingress (mean 47.26 Mbit/s)**
- **Flow 3 egress (mean 47.21 Mbit/s)**

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### Per-packet one way delay Graph

- **Flow 1 (95th percentile 9.92 ms)**
- **Flow 2 (95th percentile 10.60 ms)**
- **Flow 3 (95th percentile 11.03 ms)**

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Run 2: Statistics of Indigo-1-32

Start at: 2018-02-04 17:56:13
End at: 2018-02-04 17:56:43
Local clock offset: 0.039 ms
Remote clock offset: -0.181 ms

# Below is generated by plot.py at 2018-02-05 00:37:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 11.987 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 46.77 Mbit/s
95th percentile per-packet one-way delay: 10.527 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.10 Mbit/s
95th percentile per-packet one-way delay: 12.013 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 61.05 Mbit/s
95th percentile per-packet one-way delay: 12.735 ms
Loss rate: 0.15%
Run 2: Report of Indigo-1-32 — Data Link

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

![Graph 2: Per-packet one-way delay (ms) over Time (s)]
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-04 18:16:37
End at: 2018-02-04 18:17:07
Local clock offset: -0.01 ms
Remote clock offset: -5.435 ms

# Below is generated by plot.py at 2018-02-05 00:37:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.32 Mbit/s
  95th percentile per-packet one-way delay: 16.733 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 46.63 Mbit/s
  95th percentile per-packet one-way delay: 15.329 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 47.58 Mbit/s
  95th percentile per-packet one-way delay: 16.765 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 58.32 Mbit/s
  95th percentile per-packet one-way delay: 17.254 ms
  Loss rate: 0.12%
Run 3: Report of Indigo-1-32 — Data Link

---

Graph 1: Throughput (Mbps) vs Time (s)
- Flow 1 ingress (mean 46.62 Mbps)
- Flow 1 egress (mean 46.63 Mbps)
- Flow 2 ingress (mean 47.59 Mbps)
- Flow 2 egress (mean 47.58 Mbps)
- Flow 3 ingress (mean 58.32 Mbps)
- Flow 3 egress (mean 58.32 Mbps)

Graph 2: Per-packet one-way delay (ms) vs Time (s)
- Flow 1 (95th percentile 15.33 ms)
- Flow 2 (95th percentile 16.77 ms)
- Flow 3 (95th percentile 17.25 ms)
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-04 18:37:02
End at: 2018-02-04 18:37:32
Local clock offset: 0.052 ms
Remote clock offset: -19.981 ms

# Below is generated by plot.py at 2018-02-05 00:37:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.32 Mbit/s
95th percentile per-packet one-way delay: 31.744 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 46.87 Mbit/s
95th percentile per-packet one-way delay: 30.488 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 53.45 Mbit/s
95th percentile per-packet one-way delay: 31.820 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 45.78 Mbit/s
95th percentile per-packet one-way delay: 31.905 ms
Loss rate: 0.13%
Run 4: Report of Indigo-1-32 — Data Link

![Throughput (Mbps)](image1)

- Flow 1 ingress (mean 46.91 Mbps)
- Flow 1 egress (mean 46.87 Mbps)
- Flow 2 ingress (mean 53.47 Mbps)
- Flow 2 egress (mean 53.45 Mbps)
- Flow 3 ingress (mean 45.79 Mbps)
- Flow 3 egress (mean 45.78 Mbps)

![Packet ping round trip delay (ms)](image2)

- Flow 1 (95th percentile 30.49 ms)
- Flow 2 (95th percentile 31.82 ms)
- Flow 3 (95th percentile 31.91 ms)
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-04 18:57:29
End at: 2018-02-04 18:57:59
Local clock offset: 0.057 ms
Remote clock offset: -17.839 ms

# Below is generated by plot.py at 2018-02-05 00:37:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.70 Mbit/s
95th percentile per-packet one-way delay: 30.859 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 46.26 Mbit/s
95th percentile per-packet one-way delay: 30.174 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.58 Mbit/s
95th percentile per-packet one-way delay: 30.674 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 53.54 Mbit/s
95th percentile per-packet one-way delay: 32.180 ms
Loss rate: 0.12%
Run 5: Report of Indigo-1-32 — Data Link
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-04 19:17:52
End at: 2018-02-04 19:18:22
Local clock offset: -0.031 ms
Remote clock offset: 3.061 ms

# Below is generated by plot.py at 2018-02-05 00:37:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.83 Mbit/s
95th percentile per-packet one-way delay: 8.868 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 51.49 Mbit/s
95th percentile per-packet one-way delay: 8.578 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.90 Mbit/s
95th percentile per-packet one-way delay: 9.054 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 41.40 Mbit/s
95th percentile per-packet one-way delay: 13.611 ms
Loss rate: 0.07%
Run 6: Report of Indigo-1-32 — Data Link

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

Throughput Graph:
- Blue line: Flow 1 ingress (mean 51.49 Mbit/s)
- Light blue line: Flow 1 egress (mean 51.49 Mbit/s)
- Green line: Flow 2 ingress (mean 47.91 Mbit/s)
- Green line: Flow 2 egress (mean 47.90 Mbit/s)
- Purple line: Flow 3 ingress (mean 41.40 Mbit/s)
- Gray line: Flow 3 egress (mean 41.40 Mbit/s)

Packet Delay Graph:
- Blue square: Flow 1 (95th percentile 8.58 ms)
- Orange square: Flow 2 (95th percentile 9.05 ms)
- Red square: Flow 3 (95th percentile 13.61 ms)
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-04 19:38:19
End at: 2018-02-04 19:38:49
Local clock offset: 0.033 ms
Remote clock offset: 3.116 ms

# Below is generated by plot.py at 2018-02-05 00:37:21
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 97.37 Mbit/s
   95th percentile per-packet one-way delay: 11.396 ms
   Loss rate: 0.04%
-- Flow 1:
   Average throughput: 46.79 Mbit/s
   95th percentile per-packet one-way delay: 10.235 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 38.47 Mbit/s
   95th percentile per-packet one-way delay: 11.363 ms
   Loss rate: 0.03%
-- Flow 3:
   Average throughput: 76.72 Mbit/s
   95th percentile per-packet one-way delay: 12.193 ms
   Loss rate: 0.14%
Run 7: Report of Indigo-1-32 — Data Link

![Graph](image1)

**Throughput (Mbit/s)**

- Flow 1 ingress (mean 46.81 Mbit/s)
- Flow 1 egress (mean 46.79 Mbit/s)
- Flow 2 ingress (mean 38.47 Mbit/s)
- Flow 2 egress (mean 38.47 Mbit/s)
- Flow 3 ingress (mean 76.74 Mbit/s)
- Flow 3 egress (mean 76.72 Mbit/s)

![Graph](image2)

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

- Flow 1 (95th percentile 10.23 ms)
- Flow 2 (95th percentile 11.36 ms)
- Flow 3 (95th percentile 12.19 ms)
Run 8: Statistics of Indigo-1-32

Start at: 2018-02-04 19:58:43
End at: 2018-02-04 19:59:13
Local clock offset: -0.049 ms
Remote clock offset: 2.569 ms

# Below is generated by plot.py at 2018-02-05 00:37:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.03 Mbit/s
95th percentile per-packet one-way delay: 9.595 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 50.38 Mbit/s
95th percentile per-packet one-way delay: 8.908 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.34 Mbit/s
95th percentile per-packet one-way delay: 9.615 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 52.44 Mbit/s
95th percentile per-packet one-way delay: 9.755 ms
Loss rate: 0.11%
Run 8: Report of Indigo-1-32 — Data Link

- Flow 1 ingress (mean 50.37 Mbit/s)
- Flow 1 egress (mean 50.38 Mbit/s)
- Flow 2 ingress (mean 44.35 Mbit/s)
- Flow 2 egress (mean 44.34 Mbit/s)
- Flow 3 ingress (mean 52.48 Mbit/s)
- Flow 3 egress (mean 52.44 Mbit/s)

- Flow 1 (95th percentile 8.91 ms)
- Flow 2 (95th percentile 9.62 ms)
- Flow 3 (95th percentile 9.76 ms)
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-04 20:19:13
End at: 2018-02-04 20:19:43
Local clock offset: 0.055 ms
Remote clock offset: 2.374 ms

# Below is generated by plot.py at 2018-02-05 00:37:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.22 Mbit/s
95th percentile per-packet one-way delay: 11.160 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 58.95 Mbit/s
95th percentile per-packet one-way delay: 10.551 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 28.84 Mbit/s
95th percentile per-packet one-way delay: 10.720 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 55.17 Mbit/s
95th percentile per-packet one-way delay: 12.175 ms
Loss rate: 0.12%
Run 9: Report of Indigo-1-32 — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Per-packet one way delay (ms)
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-04 20:39:37
End at: 2018-02-04 20:40:07
Local clock offset: -0.017 ms
Remote clock offset: -17.719 ms

# Below is generated by plot.py at 2018-02-05 00:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 30.187 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 48.29 Mbit/s
95th percentile per-packet one-way delay: 29.685 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.24 Mbit/s
95th percentile per-packet one-way delay: 30.557 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 57.95 Mbit/s
95th percentile per-packet one-way delay: 31.084 ms
Loss rate: 0.12%
Run 10: Report of Indigo-1-32 — Data Link
Run 1: Statistics of Vivace-latency

Start at: 2018-02-04 17:38:00
End at: 2018-02-04 17:38:30
Local clock offset: 0.043 ms
Remote clock offset: -0.568 ms

# Below is generated by plot.py at 2018-02-05 00:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.30 Mbit/s
95th percentile per-packet one-way delay: 7.957 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 42.79 Mbit/s
95th percentile per-packet one-way delay: 8.156 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 7.272 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 19.20 Mbit/s
95th percentile per-packet one-way delay: 14.556 ms
Loss rate: 0.08%
Run 1: Report of Vivace-latency — Data Link
Run 2: Statistics of Vivace-latency

Start at: 2018-02-04 17:58:29
End at: 2018-02-04 17:58:59
Local clock offset: -0.03 ms
Remote clock offset: -0.155 ms

# Below is generated by plot.py at 2018-02-05 00:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.53 Mbit/s
95th percentile per-packet one-way delay: 7.056 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 48.73 Mbit/s
95th percentile per-packet one-way delay: 4.922 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.13 Mbit/s
95th percentile per-packet one-way delay: 6.695 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 17.51 Mbit/s
95th percentile per-packet one-way delay: 23.345 ms
Loss rate: 0.54%
Run 2: Report of Vivace-latency — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows, with annotations for mean throughput values.]
Run 3: Statistics of Vivace-latency

Start at: 2018-02-04 18:18:54
End at: 2018-02-04 18:19:24
Local clock offset: 0.007 ms
Remote clock offset: 0.12 ms

# Below is generated by plot.py at 2018-02-05 00:38:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.12 Mbit/s
95th percentile per-packet one-way delay: 17.668 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 49.97 Mbit/s
95th percentile per-packet one-way delay: 16.519 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 31.56 Mbit/s
95th percentile per-packet one-way delay: 17.995 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: 20.544 ms
Loss rate: 0.04%
Run 3: Report of Vivace-latency — Data Link
Run 4: Statistics of Vivace-latency

Start at: 2018-02-04 18:39:19
End at: 2018-02-04 18:39:49
Local clock offset: 0.034 ms
Remote clock offset: 0.806 ms

# Below is generated by plot.py at 2018-02-05 00:38:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 76.90 Mbit/s
  95th percentile per-packet one-way delay: 17.007 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 52.56 Mbit/s
  95th percentile per-packet one-way delay: 17.121 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 32.13 Mbit/s
  95th percentile per-packet one-way delay: 16.756 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 9.05 Mbit/s
  95th percentile per-packet one-way delay: 10.584 ms
  Loss rate: 0.10%
Run 4: Report of Vivace-latency — Data Link

![Graph showing throughput and latency over time for different flows]
Run 5: Statistics of Vivace-latency

Start at: 2018-02-04 18:59:45
End at: 2018-02-04 19:00:15
Local clock offset: -0.023 ms
Remote clock offset: 2.511 ms

# Below is generated by plot.py at 2018-02-05 00:38:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.39 Mbit/s
95th percentile per-packet one-way delay: 5.568 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 7.47 Mbit/s
95th percentile per-packet one-way delay: 2.653 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 2.607 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.70 Mbit/s
95th percentile per-packet one-way delay: 8.103 ms
Loss rate: 0.06%
Run 5: Report of Vivace-latency — Data Link
Run 6: Statistics of Vivace-latency

Start at: 2018-02-04 19:20:09
End at: 2018-02-04 19:20:39
Local clock offset: 0.064 ms
Remote clock offset: 3.121 ms

# Below is generated by plot.py at 2018-02-05 00:38:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 73.83 Mbit/s
  95th percentile per-packet one-way delay: 19.716 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 44.83 Mbit/s
  95th percentile per-packet one-way delay: 13.534 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 33.53 Mbit/s
  95th percentile per-packet one-way delay: 21.219 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 20.44 Mbit/s
  95th percentile per-packet one-way delay: 21.053 ms
  Loss rate: 0.08%
Run 6: Report of Vivace-latency — Data Link

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

Start at: 2018-02-04 19:40:36
End at: 2018-02-04 19:41:06
Local clock offset: 0.052 ms
Remote clock offset: 3.038 ms

# Below is generated by plot.py at 2018-02-05 00:38:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 39.91 Mbit/s
  95th percentile per-packet one-way delay: 5.404 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 2.30 Mbit/s
  95th percentile per-packet one-way delay: 4.365 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 47.17 Mbit/s
  95th percentile per-packet one-way delay: 5.767 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 19.06 Mbit/s
  95th percentile per-packet one-way delay: 3.730 ms
  Loss rate: 0.07%
Run 7: Report of Vivace-latency — Data Link

![Graph of Throughput vs Time for various flows]

- Blue: Flow 1 ingress (mean 2.30 Mbit/s)
- Blue: Flow 1 egress (mean 2.30 Mbit/s)
- Green: Flow 2 ingress (mean 47.17 Mbit/s)
- Green: Flow 2 egress (mean 47.17 Mbit/s)
- Red: Flow 3 ingress (mean 19.05 Mbit/s)
- Red: Flow 3 egress (mean 19.06 Mbit/s)

![Graph of Per-packet One-way Delay vs Time for various flows]

- Flow 1 (95th percentile 4.37 ms)
- Flow 2 (95th percentile 5.77 ms)
- Flow 3 (95th percentile 3.73 ms)
Run 8: Statistics of Vivace-latency

Start at: 2018-02-04 20:01:00
End at: 2018-02-04 20:01:30
Local clock offset: -0.058 ms
Remote clock offset: 2.551 ms

# Below is generated by plot.py at 2018-02-05 00:39:06
# Datalink statistics
- Total of 3 flows:
  Average throughput: 80.26 Mbit/s
  95th percentile per-packet one-way delay: 8.531 ms
  Loss rate: 0.01%
- Flow 1:
  Average throughput: 60.98 Mbit/s
  95th percentile per-packet one-way delay: 5.587 ms
  Loss rate: 0.00%
- Flow 2:
  Average throughput: 21.39 Mbit/s
  95th percentile per-packet one-way delay: 19.798 ms
  Loss rate: 0.03%
- Flow 3:
  Average throughput: 15.38 Mbit/s
  95th percentile per-packet one-way delay: 5.648 ms
  Loss rate: 0.11%
Run 8: Report of Vivace-latency — Data Link

![Graph of throughput and per-packet end-to-end delay over time](image)

Throughput (Mbps)

Time (s)

---

Flow 1 Ingress (mean 60.95 Mbps)
Flow 1 Egress (mean 60.98 Mbps)
Flow 2 Ingress (mean 21.39 Mbps)
Flow 2 Egress (mean 21.39 Mbps)
Flow 3 Ingress (mean 15.39 Mbps)
Flow 3 Egress (mean 15.38 Mbps)

Per-packet end-to-end delay (ms)

Time (s)

---

Flow 1 (95th percentile 5.59 ms)
Flow 2 (95th percentile 19.80 ms)
Flow 3 (95th percentile 5.65 ms)
Run 9: Statistics of Vivace-latency

Start at: 2018-02-04 20:21:29
End at: 2018-02-04 20:21:59
Local clock offset: 0.062 ms
Remote clock offset: 2.304 ms

# Below is generated by plot.py at 2018-02-05 00:39:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.04 Mbit/s
  95th percentile per-packet one-way delay: 16.959 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 3.71 Mbit/s
  95th percentile per-packet one-way delay: 16.437 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 54.76 Mbit/s
  95th percentile per-packet one-way delay: 16.980 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 24.07 Mbit/s
  95th percentile per-packet one-way delay: 17.118 ms
  Loss rate: 0.05%
Run 9: Report of Vivace-latency — Data Link
Run 10: Statistics of Vivace-latency

Start at: 2018-02-04 20:41:55
End at: 2018-02-04 20:42:25
Local clock offset: 0.037 ms
Remote clock offset: 2.377 ms

# Below is generated by plot.py at 2018-02-05 00:39:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.86 Mbit/s
95th percentile per-packet one-way delay: 5.413 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 52.48 Mbit/s
95th percentile per-packet one-way delay: 5.144 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 40.05 Mbit/s
95th percentile per-packet one-way delay: 5.671 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 10.164 ms
Loss rate: 0.00%
Run 10: Report of Vivace-latency — Data Link
Run 1: Statistics of Vivace-loss

Start at: 2018-02-04 17:26:38
End at: 2018-02-04 17:27:08
Local clock offset: -0.092 ms
Remote clock offset: -0.755 ms

# Below is generated by plot.py at 2018-02-05 00:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.01 Mbit/s
95th percentile per-packet one-way delay: 35.380 ms
Loss rate: 2.88%
-- Flow 1:
Average throughput: 58.86 Mbit/s
95th percentile per-packet one-way delay: 34.874 ms
Loss rate: 1.93%
-- Flow 2:
Average throughput: 39.86 Mbit/s
95th percentile per-packet one-way delay: 35.433 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 29.55 Mbit/s
95th percentile per-packet one-way delay: 35.517 ms
Loss rate: 14.02%
Run 1: Report of Vivace-loss — Data Link
Run 2: Statistics of Vivace-loss

Start at: 2018-02-04 17:47:12
End at: 2018-02-04 17:47:42
Local clock offset: -0.055 ms
Remote clock offset: -0.351 ms
Run 2: Report of Vivace-loss — Data Link

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Run 3: Statistics of Vivace-loss

Start at: 2018-02-04 18:07:35
End at: 2018-02-04 18:08:05
Local clock offset: -0.037 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2018-02-05 00:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.89 Mbit/s
95th percentile per-packet one-way delay: 24.987 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 24.782 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 70.21 Mbit/s
95th percentile per-packet one-way delay: 24.904 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 43.85 Mbit/s
95th percentile per-packet one-way delay: 25.090 ms
Loss rate: 0.32%
Run 3: Report of Vivace-loss — Data Link
Run 4: Statistics of Vivace-loss

Start at: 2018-02-04 18:28:04
End at: 2018-02-04 18:28:34
Local clock offset: -0.039 ms
Remote clock offset: 0.283 ms
Run 4: Report of Vivace-loss — Data Link

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Run 5: Statistics of Vivace-loss

Start at: 2018-02-04 18:48:27
End at: 2018-02-04 18:48:57
Local clock offset: 0.056 ms
Remote clock offset: 1.829 ms

# Below is generated by plot.py at 2018-02-05 00:39:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.90 Mbit/s
  95th percentile per-packet one-way delay: 25.337 ms
  Loss rate: 0.09%
-- Flow 1:
  Average throughput: 63.22 Mbit/s
  95th percentile per-packet one-way delay: 25.207 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 46.85 Mbit/s
  95th percentile per-packet one-way delay: 25.495 ms
  Loss rate: 0.12%
-- Flow 3:
  Average throughput: 2.16 Mbit/s
  95th percentile per-packet one-way delay: 25.640 ms
  Loss rate: 0.28%
Run 5: Report of Vivace-loss — Data Link
Run 6: Statistics of Vivace-loss

Start at: 2018-02-04 19:08:50
End at: 2018-02-04 19:09:20
Local clock offset: -0.044 ms
Remote clock offset: 2.784 ms

# Below is generated by plot.py at 2018-02-05 00:39:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.98 Mbit/s
95th percentile per-packet one-way delay: 35.375 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 35.210 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 39.75 Mbit/s
95th percentile per-packet one-way delay: 35.420 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 29.44 Mbit/s
95th percentile per-packet one-way delay: 35.536 ms
Loss rate: 0.37%
Run 6: Report of Vivace-loss — Data Link

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

- **Flow 1 ingress** (mean 58.90 Mbit/s)
- **Flow 1 egress** (mean 58.92 Mbit/s)
- **Flow 2 ingress** (mean 39.74 Mbit/s)
- **Flow 2 egress** (mean 39.75 Mbit/s)
- **Flow 3 ingress** (mean 29.53 Mbit/s)
- **Flow 3 egress** (mean 29.44 Mbit/s)

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

- **Flow 1 (95th percentile 35.21 ms)**
- **Flow 2 (95th percentile 35.42 ms)**
- **Flow 3 (95th percentile 35.54 ms)**

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Run 7: Statistics of Vivace-loss

Start at: 2018-02-04 19:29:17
End at: 2018-02-04 19:29:47
Local clock offset: 0.065 ms
Remote clock offset: 3.325 ms
Run 7: Report of Vivace-loss — Data Link

Figure is missing

Figure is missing
Run 8: Statistics of Vivace-loss

Start at: 2018-02-04 19:49:43
End at: 2018-02-04 19:50:13
Local clock offset: -0.056 ms
Remote clock offset: 2.78 ms
Run 8: Report of Vivace-loss — Data Link

Figure is missing

Figure is missing
Run 9: Statistics of Vivace-loss

Start at: 2018-02-04 20:10:08
End at: 2018-02-04 20:10:38
Local clock offset: 0.025 ms
Remote clock offset: 2.404 ms

# Below is generated by plot.py at 2018-02-05 00:39:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.75 Mbit/s
95th percentile per-packet one-way delay: 25.212 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 24.949 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 70.64 Mbit/s
95th percentile per-packet one-way delay: 25.111 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 42.87 Mbit/s
95th percentile per-packet one-way delay: 25.363 ms
Loss rate: 0.37%
Run 9: Report of Vivace-loss — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 10: Statistics of Vivace-loss

Start at: 2018-02-04 20:30:37
End at: 2018-02-04 20:31:07
Local clock offset: 0.061 ms
Remote clock offset: 2.379 ms

# Below is generated by plot.py at 2018-02-05 00:39:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 63.93 Mbit/s
  95th percentile per-packet one-way delay: 25.244 ms
  Loss rate: 1.05%
-- Flow 1:
  Average throughput: 3.69 Mbit/s
  95th percentile per-packet one-way delay: 24.998 ms
  Loss rate: 0.59%
-- Flow 2:
  Average throughput: 68.94 Mbit/s
  95th percentile per-packet one-way delay: 25.186 ms
  Loss rate: 0.24%
-- Flow 3:
  Average throughput: 43.99 Mbit/s
  95th percentile per-packet one-way delay: 25.346 ms
  Loss rate: 3.65%
Run 10: Report of Vivace-loss — Data Link
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-04 17:28:53
End at: 2018-02-04 17:29:23
Local clock offset: -0.045 ms
Remote clock offset: -0.739 ms

# Below is generated by plot.py at 2018-02-05 00:40:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.87 Mbit/s
95th percentile per-packet one-way delay: 15.263 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 84.33 Mbit/s
95th percentile per-packet one-way delay: 15.149 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 15.448 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 16.151 ms
Loss rate: 0.02%
Run 1: Report of Vivace-LTE — Data Link
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-04 17:49:24
End at: 2018-02-04 17:49:54
Local clock offset: 0.024 ms
Remote clock offset: -20.847 ms

# Below is generated by plot.py at 2018-02-05 00:40:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.73 Mbit/s
95th percentile per-packet one-way delay: 53.118 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 59.70 Mbit/s
95th percentile per-packet one-way delay: 52.083 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 36.31 Mbit/s
95th percentile per-packet one-way delay: 53.367 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 30.17 Mbit/s
95th percentile per-packet one-way delay: 54.686 ms
Loss rate: 0.16%
Run 2: Report of Vivace-LTE — Data Link
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-04 18:09:47
End at: 2018-02-04 18:10:17
Local clock offset: 0.041 ms
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2018-02-05 00:40:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.68 Mbit/s
95th percentile per-packet one-way delay: 34.089 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.83 Mbit/s
95th percentile per-packet one-way delay: 32.684 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 34.517 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 30.12 Mbit/s
95th percentile per-packet one-way delay: 34.884 ms
Loss rate: 0.36%
Run 3: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 59.86 Mbit/s)
- Flow 1 egress (mean 59.83 Mbit/s)
- Flow 2 ingress (mean 36.06 Mbit/s)
- Flow 2 egress (mean 36.05 Mbit/s)
- Flow 3 ingress (mean 30.13 Mbit/s)
- Flow 3 egress (mean 30.12 Mbit/s)
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-04 18:30:16
End at: 2018-02-04 18:30:46
Local clock offset: 0.07 ms
Remote clock offset: 0.33 ms

# Below is generated by plot.py at 2018-02-05 00:40:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.88 Mbit/s
95th percentile per-packet one-way delay: 11.093 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 5.70 Mbit/s
95th percentile per-packet one-way delay: 6.171 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 7.904 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 76.02 Mbit/s
95th percentile per-packet one-way delay: 11.671 ms
Loss rate: 0.06%
Run 4: Report of Vivace-LTE — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 5.70 Mbps)
- Flow 1 egress (mean 5.70 Mbps)
- Flow 2 ingress (mean 4.76 Mbps)
- Flow 2 egress (mean 4.76 Mbps)
- Flow 3 ingress (mean 75.97 Mbps)
- Flow 3 egress (mean 76.02 Mbps)

Packet delay (ms):
- Flow 1 (95th percentile 6.17 ms)
- Flow 2 (95th percentile 7.90 ms)
- Flow 3 (95th percentile 11.67 ms)
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-04 18:50:40  
End at: 2018-02-04 18:51:10  
Local clock offset: 0.056 ms  
Remote clock offset: 2.08 ms

# Below is generated by plot.py at 2018-02-05 00:41:12  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 93.56 Mbit/s  
  95th percentile per-packet one-way delay: 31.629 ms  
  Loss rate: 0.12%  
-- Flow 1:  
  Average throughput: 61.25 Mbit/s  
  95th percentile per-packet one-way delay: 30.237 ms  
  Loss rate: 0.07%  
-- Flow 2:  
  Average throughput: 36.90 Mbit/s  
  95th percentile per-packet one-way delay: 31.932 ms  
  Loss rate: 0.17%  
-- Flow 3:  
  Average throughput: 23.67 Mbit/s  
  95th percentile per-packet one-way delay: 32.916 ms  
  Loss rate: 0.41%
Run 5: Report of Vivace-LTE — Data Link
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-04 19:11:04
End at: 2018-02-04 19:11:34
Local clock offset: 0.003 ms
Remote clock offset: 2.849 ms

# Below is generated by plot.py at 2018-02-05 00:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.62 Mbit/s
95th percentile per-packet one-way delay: 31.740 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 61.53 Mbit/s
95th percentile per-packet one-way delay: 30.524 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 34.78 Mbit/s
95th percentile per-packet one-way delay: 32.131 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 27.31 Mbit/s
95th percentile per-packet one-way delay: 32.711 ms
Loss rate: 0.45%
Run 6: Report of Vivace-LTE — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 61.54 Mbps)
  - Flow 2 ingress (mean 34.81 Mbps)
  - Flow 3 ingress (mean 27.42 Mbps)
  - Flow 1 egress (mean 61.53 Mbps)
  - Flow 2 egress (mean 34.78 Mbps)
  - Flow 3 egress (mean 27.31 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 30.52 ms)
  - Flow 2 (95th percentile 32.13 ms)
  - Flow 3 (95th percentile 32.71 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-04 19:31:29
End at: 2018-02-04 19:31:59
Local clock offset: -0.027 ms
Remote clock offset: 3.304 ms

# Below is generated by plot.py at 2018-02-05 00:41:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.57 Mbit/s
95th percentile per-packet one-way delay: 34.026 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 60.01 Mbit/s
95th percentile per-packet one-way delay: 32.615 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 36.26 Mbit/s
95th percentile per-packet one-way delay: 34.459 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 28.77 Mbit/s
95th percentile per-packet one-way delay: 34.786 ms
Loss rate: 0.38%
Run 7: Report of Vivace-LTE — Data Link

![Throughput Graph](image1)

![Packet Delay Graph](image2)

Flow 1 ingress (mean 60.04 Mbit/s)  Flow 1 egress (mean 60.01 Mbit/s)
Flow 2 ingress (mean 36.28 Mbit/s)  Flow 2 egress (mean 36.26 Mbit/s)
Flow 3 ingress (mean 28.80 Mbit/s)  Flow 3 egress (mean 28.77 Mbit/s)
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-04 19:51:54
End at: 2018-02-04 19:52:24
Local clock offset: 0.029 ms
Remote clock offset: 2.655 ms

# Below is generated by plot.py at 2018-02-05 00:41:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.85 Mbit/s
95th percentile per-packet one-way delay: 33.817 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 60.48 Mbit/s
95th percentile per-packet one-way delay: 31.020 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 38.71 Mbit/s
95th percentile per-packet one-way delay: 34.068 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 23.24 Mbit/s
95th percentile per-packet one-way delay: 34.765 ms
Loss rate: 0.47%
Run 8: Report of Vivace-LTE — Data Link

![Graph of throughput and packet delay over time]

Legend:
- Flow 1 ingress (mean 60.51 Mbit/s)
- Flow 1 egress (mean 60.48 Mbit/s)
- Flow 2 ingress (mean 38.72 Mbit/s)
- Flow 2 egress (mean 38.71 Mbit/s)
- Flow 3 ingress (mean 23.32 Mbit/s)
- Flow 3 egress (mean 23.24 Mbit/s)
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-04 20:12:25  
End at: 2018-02-04 20:12:55  
Local clock offset: -0.049 ms  
Remote clock offset: -17.799 ms

# Below is generated by plot.py at 2018-02-05 00:41:19
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 92.38 Mbit/s
   95th percentile per-packet one-way delay: 41.395 ms
   Loss rate: 0.08%
-- Flow 1:
   Average throughput: 79.45 Mbit/s
   95th percentile per-packet one-way delay: 40.120 ms
   Loss rate: 0.04%
-- Flow 2:
   Average throughput: 2.08 Mbit/s
   95th percentile per-packet one-way delay: 41.314 ms
   Loss rate: 0.09%
-- Flow 3:
   Average throughput: 35.10 Mbit/s
   95th percentile per-packet one-way delay: 44.673 ms
   Loss rate: 0.39%
Run 9: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 79.47 Mbit/s)
- Flow 1 egress (mean 79.45 Mbit/s)
- Flow 2 ingress (mean 2.08 Mbit/s)
- Flow 2 egress (mean 2.08 Mbit/s)
- Flow 3 ingress (mean 35.21 Mbit/s)
- Flow 3 egress (mean 35.10 Mbit/s)
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-04 20:32:50
End at: 2018-02-04 20:33:20
Local clock offset: -0.034 ms
Remote clock offset: 2.337 ms

# Below is generated by plot.py at 2018-02-05 00:41:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.14 Mbit/s
95th percentile per-packet one-way delay: 33.286 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.91 Mbit/s
95th percentile per-packet one-way delay: 31.822 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 36.49 Mbit/s
95th percentile per-packet one-way delay: 33.941 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 27.33 Mbit/s
95th percentile per-packet one-way delay: 35.365 ms
Loss rate: 0.39%
Run 10: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 59.94 Mbit/s)
- Flow 1 egress (mean 59.91 Mbit/s)
- Flow 2 ingress (mean 36.53 Mbit/s)
- Flow 2 egress (mean 36.49 Mbit/s)
- Flow 3 ingress (mean 27.44 Mbit/s)
- Flow 3 egress (mean 27.33 Mbit/s)

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

- Flow 1 (95th percentile 31.82 ms)
- Flow 2 (95th percentile 33.94 ms)
- Flow 3 (95th percentile 35.37 ms)