Pantheon Report

Generated at 2018-02-21 01:45:22 (UTC).
Data path: GCE Tokyo Ethernet (remote) → GCE London Ethernet (local).
Repeate 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).

Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdefae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95f4941149b5cec90f281d69ae1a5c6
third_party/genericCC @ 9249e3e3283475c4d8ccaa443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b411135ede5b540c0fd350593528e2a5f
third_party/indigo-no-calib @ 7224f2202e0a44ed8306fa0b893ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea080e6928e4c4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7c3f3f
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db267444cfc993
third_party/pcc @ 1af3958fa0d66d186b3c091a55f4c872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ec978f3ccf42
third_party/scream @ c3370f7d7b17265a9eae34e4016ad23f5965f
third_party/sourdough @ f1a1bfe74973437f61b1e3e3b267cde681
third_party/sprout @ 6f2e6e62e88d91066a9f023df375ee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutcomm.cc
third_party/verus @ d4b447ea74c6c60a261149af26295625939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e754a6f6f5c458019212041784ce3
third_party/webrtc @ a488197d041ace68a42849b2540ad834825f42
test from GCE Tokyo Ethernet to GCE London Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
</tr>
</thead>
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<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
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<tr>
<td>TCP BBR</td>
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<td>91.18</td>
<td>88.29</td>
<td>83.16</td>
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<td>TCP Cubic</td>
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<td>61.89</td>
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<td>LEDBAT</td>
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<td>49.30</td>
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<td>0.22</td>
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<td>WebRTC media</td>
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<td>2.10</td>
<td>1.31</td>
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<td>Sprout</td>
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<td>TaoVA-100x</td>
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<td>115.92</td>
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<td>Verus</td>
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<td>146.13</td>
<td>90.94</td>
<td>69.48</td>
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<td>Copa</td>
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<td>89.13</td>
<td>87.71</td>
<td>53.47</td>
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<td>797.12</td>
<td>695.75</td>
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<td>127.44</td>
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<td>Vivace-latency</td>
<td>10</td>
<td>283.70</td>
<td>193.20</td>
<td>137.10</td>
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<td>Vivace-loss</td>
<td>10</td>
<td>282.73</td>
<td>243.59</td>
<td>136.48</td>
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<tr>
<td>Vivace-LTE</td>
<td>10</td>
<td>295.77</td>
<td>208.45</td>
<td>189.72</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-02-20 17:07:41
End at: 2018-02-20 17:08:11

# Below is generated by plot.py at 2018-02-20 23:52:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 180.35 Mbit/s
  95th percentile per-packet one-way delay: 112.917 ms
  Loss rate: 1.24%
-- Flow 1:
  Average throughput: 92.83 Mbit/s
  95th percentile per-packet one-way delay: 112.881 ms
  Loss rate: 0.79%
-- Flow 2:
  Average throughput: 88.98 Mbit/s
  95th percentile per-packet one-way delay: 112.779 ms
  Loss rate: 1.22%
-- Flow 3:
  Average throughput: 87.28 Mbit/s
  95th percentile per-packet one-way delay: 113.366 ms
  Loss rate: 2.70%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-02-20 17:27:10
End at: 2018-02-20 17:27:40

# Below is generated by plot.py at 2018-02-20 23:52:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 182.41 Mbit/s
  95th percentile per-packet one-way delay: 112.201 ms
  Loss rate: 1.20%
  -- Flow 1:
    Average throughput: 95.26 Mbit/s
    95th percentile per-packet one-way delay: 112.196 ms
    Loss rate: 0.76%
  -- Flow 2:
    Average throughput: 90.27 Mbit/s
    95th percentile per-packet one-way delay: 112.197 ms
    Loss rate: 1.26%
  -- Flow 3:
    Average throughput: 83.86 Mbit/s
    95th percentile per-packet one-way delay: 112.222 ms
    Loss rate: 2.59%
Run 2: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 95.32 Mbit/s)
- Flow 1 egress (mean 95.26 Mbit/s)
- Flow 2 ingress (mean 90.57 Mbit/s)
- Flow 2 egress (mean 90.27 Mbit/s)
- Flow 3 ingress (mean 84.15 Mbit/s)
- Flow 3 egress (mean 83.86 Mbit/s)
Run 3: Statistics of TCP BBR

Start at: 2018-02-20 17:47:20
End at: 2018-02-20 17:47:50

# Below is generated by plot.py at 2018-02-20 23:52:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 167.53 Mbit/s
95th percentile per-packet one-way delay: 112.730 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 87.19 Mbit/s
95th percentile per-packet one-way delay: 112.693 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 82.36 Mbit/s
95th percentile per-packet one-way delay: 112.711 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 78.71 Mbit/s
95th percentile per-packet one-way delay: 113.021 ms
Loss rate: 0.29%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-02-20 18:07:48
End at: 2018-02-20 18:08:18

# Below is generated by plot.py at 2018-02-20 23:52:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 165.57 Mbit/s
  95th percentile per-packet one-way delay: 112.940 ms
  Loss rate: 1.03%
-- Flow 1:
  Average throughput: 84.92 Mbit/s
  95th percentile per-packet one-way delay: 112.901 ms
  Loss rate: 0.87%
-- Flow 2:
  Average throughput: 86.32 Mbit/s
  95th percentile per-packet one-way delay: 112.956 ms
  Loss rate: 1.31%
-- Flow 3:
  Average throughput: 71.83 Mbit/s
  95th percentile per-packet one-way delay: 113.130 ms
  Loss rate: 0.89%
Run 4: Report of TCP BBR — Data Link

![TCP BBR Data Link Graphs]

- Throughput in Mbit/s
- Time (s)
- Delay in ms
- Packet error rate

Legend:
- Flow 1 ingress (mean 85.02 Mbit/s)
- Flow 1 egress (mean 84.92 Mbit/s)
- Flow 2 ingress (mean 86.47 Mbit/s)
- Flow 2 egress (mean 86.32 Mbit/s)
- Flow 3 ingress (mean 72.13 Mbit/s)
- Flow 3 egress (mean 71.83 Mbit/s)
Run 5: Statistics of TCP BBR

Start at: 2018-02-20 18:27:16
End at: 2018-02-20 18:27:46

# Below is generated by plot.py at 2018-02-20 23:52:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 180.80 Mbit/s
  95th percentile per-packet one-way delay: 112.947 ms
  Loss rate: 1.22%
-- Flow 1:
  Average throughput: 94.64 Mbit/s
  95th percentile per-packet one-way delay: 112.796 ms
  Loss rate: 0.75%
-- Flow 2:
  Average throughput: 87.47 Mbit/s
  95th percentile per-packet one-way delay: 112.890 ms
  Loss rate: 1.24%
-- Flow 3:
  Average throughput: 86.14 Mbit/s
  95th percentile per-packet one-way delay: 113.536 ms
  Loss rate: 2.75%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-02-20 18:47:15
End at: 2018-02-20 18:47:45

# Below is generated by plot.py at 2018-02-20 23:52:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 178.54 Mbit/s
  95th percentile per-packet one-way delay: 113.370 ms
  Loss rate: 1.24%
-- Flow 1:
  Average throughput: 90.44 Mbit/s
  95th percentile per-packet one-way delay: 112.988 ms
  Loss rate: 0.79%
-- Flow 2:
  Average throughput: 91.33 Mbit/s
  95th percentile per-packet one-way delay: 113.228 ms
  Loss rate: 1.28%
-- Flow 3:
  Average throughput: 84.16 Mbit/s
  95th percentile per-packet one-way delay: 114.182 ms
  Loss rate: 2.58%
Run 6: Report of TCP BBR — Data Link
Run 7: Statistics of TCP BBR

Start at: 2018-02-20 19:06:59
End at: 2018-02-20 19:07:29

# Below is generated by plot.py at 2018-02-20 23:52:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 181.05 Mbit/s
95th percentile per-packet one-way delay: 112.088 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 94.10 Mbit/s
95th percentile per-packet one-way delay: 112.067 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 90.21 Mbit/s
95th percentile per-packet one-way delay: 112.072 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 83.13 Mbit/s
95th percentile per-packet one-way delay: 112.157 ms
Loss rate: 2.91%
Run 7: Report of TCP BBR — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 94.07 Mbps)
- Flow 2 ingress (mean 90.33 Mbps)
- Flow 3 ingress (mean 83.89 Mbps)
- Flow 1 egress (mean 94.10 Mbps)
- Flow 2 egress (mean 90.21 Mbps)
- Flow 3 egress (mean 83.13 Mbps)

**Packet Delay (ms):**
- Flow 1 (95th percentile 112.07 ms)
- Flow 2 (95th percentile 112.07 ms)
- Flow 3 (95th percentile 112.16 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-02-20 19:26:29
End at: 2018-02-20 19:26:59

# Below is generated by plot.py at 2018-02-20 23:52:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 180.07 Mbit/s
  95th percentile per-packet one-way delay: 112.067 ms
  Loss rate: 1.21%
-- Flow 1:
  Average throughput: 92.10 Mbit/s
  95th percentile per-packet one-way delay: 111.961 ms
  Loss rate: 0.79%
-- Flow 2:
  Average throughput: 88.94 Mbit/s
  95th percentile per-packet one-way delay: 112.023 ms
  Loss rate: 1.21%
-- Flow 3:
  Average throughput: 88.69 Mbit/s
  95th percentile per-packet one-way delay: 112.279 ms
  Loss rate: 2.52%
Run 8: Report of TCP BBR — Data Link
Run 9: Statistics of TCP BBR

Start at: 2018-02-20 19:46:22
End at: 2018-02-20 19:46:52

# Below is generated by plot.py at 2018-02-20 23:55:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 174.62 Mbit/s
  95th percentile per-packet one-way delay: 112.808 ms
  Loss rate: 1.26%
-- Flow 1:
  Average throughput: 89.36 Mbit/s
  95th percentile per-packet one-way delay: 112.770 ms
  Loss rate: 0.84%
-- Flow 2:
  Average throughput: 88.16 Mbit/s
  95th percentile per-packet one-way delay: 112.788 ms
  Loss rate: 1.24%
-- Flow 3:
  Average throughput: 82.07 Mbit/s
  95th percentile per-packet one-way delay: 112.904 ms
  Loss rate: 2.69%
Run 9: Report of TCP BBR — Data Link

![Graph of Throughput and Per-packet one-way delay](image-url)
Run 10: Statistics of TCP BBR

Start at: 2018-02-20 20:05:59
End at: 2018-02-20 20:06:29

# Below is generated by plot.py at 2018-02-20 23:55:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 177.93 Mbit/s
95th percentile per-packet one-way delay: 112.804 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 90.99 Mbit/s
95th percentile per-packet one-way delay: 112.705 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 88.85 Mbit/s
95th percentile per-packet one-way delay: 112.769 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 85.72 Mbit/s
95th percentile per-packet one-way delay: 112.987 ms
Loss rate: 2.51%
Run 10: Report of TCP BBR — Data Link

[Graphs showing throughput and packet delay over time for different flows, with details on ingress and egress mean throughputs.]
Run 1: Statistics of TCP Cubic

Start at: 2018-02-20 17:04:14
End at: 2018-02-20 17:04:44

# Below is generated by plot.py at 2018-02-20 23:55:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 120.35 Mbit/s
95th percentile per-packet one-way delay: 121.598 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 62.16 Mbit/s
95th percentile per-packet one-way delay: 121.810 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 64.09 Mbit/s
95th percentile per-packet one-way delay: 120.249 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 48.23 Mbit/s
95th percentile per-packet one-way delay: 122.590 ms
Loss rate: 2.32%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-02-20 17:23:43
End at: 2018-02-20 17:24:13

# Below is generated by plot.py at 2018-02-20 23:55:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.05 Mbit/s
95th percentile per-packet one-way delay: 120.723 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 78.25 Mbit/s
95th percentile per-packet one-way delay: 122.099 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 53.04 Mbit/s
95th percentile per-packet one-way delay: 116.134 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 112.249 ms
Loss rate: 8.09%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

Start at: 2018-02-20 17:43:27
End at: 2018-02-20 17:43:57

# Below is generated by plot.py at 2018-02-20 23:55:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.40 Mbit/s
95th percentile per-packet one-way delay: 120.720 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 42.30 Mbit/s
95th percentile per-packet one-way delay: 120.931 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 61.06 Mbit/s
95th percentile per-packet one-way delay: 120.454 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 112.951 ms
Loss rate: 8.07%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-02-20 18:04:12
End at: 2018-02-20 18:04:42

# Below is generated by plot.py at 2018-02-20 23:55:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.23 Mbit/s
95th percentile per-packet one-way delay: 119.285 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 14.78 Mbit/s
95th percentile per-packet one-way delay: 120.405 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 27.63 Mbit/s
95th percentile per-packet one-way delay: 117.134 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 37.21 Mbit/s
95th percentile per-packet one-way delay: 119.772 ms
Loss rate: 2.36%
Run 5: Statistics of TCP Cubic

Start at: 2018-02-20 18:23:45
End at: 2018-02-20 18:24:15

# Below is generated by plot.py at 2018-02-20 23:55:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 156.61 Mbit/s
  95th percentile per-packet one-way delay: 120.718 ms
  Loss rate: 1.11%
-- Flow 1:
  Average throughput: 75.54 Mbit/s
  95th percentile per-packet one-way delay: 120.606 ms
  Loss rate: 0.51%
-- Flow 2:
  Average throughput: 78.18 Mbit/s
  95th percentile per-packet one-way delay: 120.700 ms
  Loss rate: 1.02%
-- Flow 3:
  Average throughput: 89.96 Mbit/s
  95th percentile per-packet one-way delay: 121.410 ms
  Loss rate: 2.75%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-02-20 18:43:35
End at: 2018-02-20 18:44:05

# Below is generated by plot.py at 2018-02-20 23:55:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 163.26 Mbit/s
  95th percentile per-packet one-way delay: 121.904 ms
  Loss rate: 1.12%
-- Flow 1:
  Average throughput: 82.37 Mbit/s
  95th percentile per-packet one-way delay: 121.716 ms
  Loss rate: 0.65%
-- Flow 2:
  Average throughput: 99.90 Mbit/s
  95th percentile per-packet one-way delay: 122.460 ms
  Loss rate: 1.33%
-- Flow 3:
  Average throughput: 45.41 Mbit/s
  95th percentile per-packet one-way delay: 121.457 ms
  Loss rate: 2.77%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-02-20 19:03:27
End at: 2018-02-20 19:03:57

# Below is generated by plot.py at 2018-02-20 23:55:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 106.31 Mbit/s
  95th percentile per-packet one-way delay: 119.668 ms
  Loss rate: 1.39%
-- Flow 1:
  Average throughput: 50.95 Mbit/s
  95th percentile per-packet one-way delay: 121.111 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 55.55 Mbit/s
  95th percentile per-packet one-way delay: 117.274 ms
  Loss rate: 1.39%
-- Flow 3:
  Average throughput: 56.91 Mbit/s
  95th percentile per-packet one-way delay: 113.120 ms
  Loss rate: 3.02%
Run 7: Report of TCP Cubic — Data Link

![Graph of Throughput and Delay](image)

- Flow 1 ingress (mean 50.96 Mbit/s)
- Flow 2 ingress (mean 55.70 Mbit/s)
- Flow 3 ingress (mean 57.35 Mbit/s)
- Flow 1 egress (mean 50.95 Mbit/s)
- Flow 2 egress (mean 55.55 Mbit/s)
- Flow 3 egress (mean 56.91 Mbit/s)

- Flow 1 (95th percentile 121.11 ms)
- Flow 2 (95th percentile 117.27 ms)
- Flow 3 (95th percentile 113.12 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-02-20 19:23:00
End at: 2018-02-20 19:23:30

# Below is generated by plot.py at 2018-02-20 23:56:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.67 Mbit/s
95th percentile per-packet one-way delay: 114.901 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 62.74 Mbit/s
95th percentile per-packet one-way delay: 114.487 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 90.60 Mbit/s
95th percentile per-packet one-way delay: 115.173 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 51.69 Mbit/s
95th percentile per-packet one-way delay: 115.911 ms
Loss rate: 2.91%
Run 8: Report of TCP Cubic — Data Link
Run 9: Statistics of TCP Cubic

Start at: 2018-02-20 19:42:50
End at: 2018-02-20 19:43:20

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
    Average throughput: 138.51 Mbit/s
    95th percentile per-packet one-way delay: 122.926 ms
    Loss rate: 0.84%
-- Flow 1:
    Average throughput: 68.55 Mbit/s
    95th percentile per-packet one-way delay: 123.409 ms
    Loss rate: 0.62%
-- Flow 2:
    Average throughput: 77.53 Mbit/s
    95th percentile per-packet one-way delay: 122.913 ms
    Loss rate: 0.55%
-- Flow 3:
    Average throughput: 56.97 Mbit/s
    95th percentile per-packet one-way delay: 116.638 ms
    Loss rate: 2.42%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-02-20 20:02:32
End at: 2018-02-20 20:03:02

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.10 Mbit/s
95th percentile per-packet one-way delay: 122.283 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 81.24 Mbit/s
95th percentile per-packet one-way delay: 123.020 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 21.45 Mbit/s
95th percentile per-packet one-way delay: 112.899 ms
Loss rate: 5.09%
-- Flow 3:
Average throughput: 42.03 Mbit/s
95th percentile per-packet one-way delay: 115.823 ms
Loss rate: 2.81%
Run 10: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 81.19 Mbps)
  - Flow 1 egress (mean 81.24 Mbps)
  - Flow 2 ingress (mean 22.35 Mbps)
  - Flow 2 egress (mean 21.45 Mbps)
  - Flow 3 ingress (mean 42.13 Mbps)
  - Flow 3 egress (mean 42.03 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 123.02 ms)
  - Flow 2 (95th percentile 112.90 ms)
  - Flow 3 (95th percentile 115.82 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-02-20 17:13:15
End at: 2018-02-20 17:13:45

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.92 Mbit/s
95th percentile per-packet one-way delay: 113.664 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 7.12 Mbit/s
95th percentile per-packet one-way delay: 113.791 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 4.65 Mbit/s
95th percentile per-packet one-way delay: 113.545 ms
Loss rate: 2.28%
-- Flow 3:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 113.178 ms
Loss rate: 4.56%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-02-20 17:32:55
End at: 2018-02-20 17:33:25

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.92 Mbit/s
  95th percentile per-packet one-way delay: 113.025 ms
  Loss rate: 2.88%
-- Flow 1:
  Average throughput: 1.14 Mbit/s
  95th percentile per-packet one-way delay: 113.108 ms
  Loss rate: 3.38%
-- Flow 2:
  Average throughput: 4.61 Mbit/s
  95th percentile per-packet one-way delay: 112.967 ms
  Loss rate: 2.27%
-- Flow 3:
  Average throughput: 2.29 Mbit/s
  95th percentile per-packet one-way delay: 113.020 ms
  Loss rate: 4.55%
Run 2: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 1.17 Mbit/s)
- Flow 1 egress (mean 1.14 Mbit/s)
- Flow 2 ingress (mean 4.66 Mbit/s)
- Flow 2 egress (mean 4.61 Mbit/s)
- Flow 3 ingress (mean 2.34 Mbit/s)
- Flow 3 egress (mean 2.29 Mbit/s)

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

- Flow 1 (95th percentile 113.11 ms)
- Flow 2 (95th percentile 112.97 ms)
- Flow 3 (95th percentile 113.02 ms)
Run 3: Statistics of LEDBAT

Start at: 2018-02-20 17:53:03
End at: 2018-02-20 17:53:33

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 8.44 Mbit/s
  95th percentile per-packet one-way delay: 113.287 ms
  Loss rate: 1.83%
-- Flow 1:
  Average throughput: 4.63 Mbit/s
  95th percentile per-packet one-way delay: 113.346 ms
  Loss rate: 1.07%
-- Flow 2:
  Average throughput: 4.67 Mbit/s
  95th percentile per-packet one-way delay: 113.247 ms
  Loss rate: 2.28%
-- Flow 3:
  Average throughput: 2.25 Mbit/s
  95th percentile per-packet one-way delay: 113.095 ms
  Loss rate: 4.58%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-02-20 18:13:09
End at: 2018-02-20 18:13:39

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.47 Mbit/s
  95th percentile per-packet one-way delay: 112.837 ms
  Loss rate: 2.14%
-- Flow 1:
  Average throughput: 0.29 Mbit/s
  95th percentile per-packet one-way delay: 112.516 ms
  Loss rate: 0.80%
-- Flow 2:
  Average throughput: 4.67 Mbit/s
  95th percentile per-packet one-way delay: 112.860 ms
  Loss rate: 2.27%
-- Flow 3:
  Average throughput: 0.29 Mbit/s
  95th percentile per-packet one-way delay: 112.588 ms
  Loss rate: 2.01%
Run 4: Report of LEDBAT — Data Link

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

Legend:
- Blue: Flow 1 ingress (mean 0.29 Mbit/s)
- Blue: Flow 1 egress (mean 0.29 Mbit/s)
- Green: Flow 2 ingress (mean 4.75 Mbit/s)
- Green: Flow 2 egress (mean 4.67 Mbit/s)
- Red: Flow 3 ingress (mean 0.29 Mbit/s)
- Red: Flow 3 egress (mean 0.29 Mbit/s)
Run 5: Statistics of LEDBAT

Start at: 2018-02-20 18:32:55
End at: 2018-02-20 18:33:25

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.80 Mbit/s
95th percentile per.packet one-way delay: 113.503 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 7.09 Mbit/s
95th percentile per.packet one-way delay: 113.550 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per.packet one-way delay: 112.893 ms
Loss rate: 2.40%
-- Flow 3:
Average throughput: 1.47 Mbit/s
95th percentile per.packet one-way delay: 113.179 ms
Loss rate: 5.54%
Run 5: Report of LEDBAT — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 7.15 Mbps)
Flow 1 egress (mean 7.09 Mbps)
Flow 2 ingress (mean 0.37 Mbps)
Flow 2 egress (mean 0.36 Mbps)
Flow 3 ingress (mean 1.32 Mbps)
Flow 3 egress (mean 1.47 Mbps)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 113.55 ms)
Flow 2 (95th percentile 112.89 ms)
Flow 3 (95th percentile 113.18 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-02-20 18:52:49
End at: 2018-02-20 18:53:19

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.02 Mbit/s
95th percentile per-packet one-way delay: 114.060 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 5.21 Mbit/s
95th percentile per-packet one-way delay: 114.138 ms
Loss rate: 1.75%
-- Flow 2:
Average throughput: 4.65 Mbit/s
95th percentile per-packet one-way delay: 113.873 ms
Loss rate: 2.27%
-- Flow 3:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 114.255 ms
Loss rate: 4.54%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-02-20 19:12:30
End at: 2018-02-20 19:13:00

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 112.775 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 6.35 Mbit/s
95th percentile per-packet one-way delay: 112.873 ms
Loss rate: 1.58%
-- Flow 2:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 112.383 ms
Loss rate: 4.31%
-- Flow 3:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 112.449 ms
Loss rate: 5.29%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-02-20 19:31:49
End at: 2018-02-20 19:32:19

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 8.88 Mbit/s
  95th percentile per-packet one-way delay: 113.475 ms
  Loss rate: 2.03%
-- Flow 1:
  Average throughput: 5.16 Mbit/s
  95th percentile per-packet one-way delay: 113.475 ms
  Loss rate: 1.74%
-- Flow 2:
  Average throughput: 4.52 Mbit/s
  95th percentile per-packet one-way delay: 113.516 ms
  Loss rate: 1.89%
-- Flow 3:
  Average throughput: 2.30 Mbit/s
  95th percentile per-packet one-way delay: 113.145 ms
  Loss rate: 4.56%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-02-20 19:51:57
End at: 2018-02-20 19:52:27

# Below is generated by plot.py at 2018-02-20 23:57:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.85 Mbit/s
  95th percentile per-packet one-way delay: 113.552 ms
  Loss rate: 1.93%
-- Flow 1:
  Average throughput: 7.17 Mbit/s
  95th percentile per-packet one-way delay: 113.615 ms
  Loss rate: 1.50%
-- Flow 2:
  Average throughput: 4.55 Mbit/s
  95th percentile per-packet one-way delay: 113.456 ms
  Loss rate: 2.28%
-- Flow 3:
  Average throughput: 2.26 Mbit/s
  95th percentile per-packet one-way delay: 113.435 ms
  Loss rate: 4.54%
Run 9: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 7.22 Mbps)
- Flow 1 egress (mean 7.17 Mbps)
- Flow 2 ingress (mean 4.61 Mbps)
- Flow 2 egress (mean 4.55 Mbps)
- Flow 3 ingress (mean 2.32 Mbps)
- Flow 3 egress (mean 2.26 Mbps)

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

- Flow 1 (95th percentile 113.61 ms)
- Flow 2 (95th percentile 113.46 ms)
- Flow 3 (95th percentile 113.44 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-02-20 20:11:43  
End at: 2018-02-20 20:12:13

# Below is generated by plot.py at 2018-02-20 23:57:19  
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.02 Mbit/s
  95th percentile per-packet one-way delay: 112.649 ms
  Loss rate: 1.57%
-- Flow 1:
  Average throughput: 6.69 Mbit/s
  95th percentile per-packet one-way delay: 112.651 ms
  Loss rate: 1.55%
-- Flow 2:
  Average throughput: 0.31 Mbit/s
  95th percentile per-packet one-way delay: 112.225 ms
  Loss rate: 1.10%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 112.825 ms
  Loss rate: 3.32%
Run 10: Report of LEDBAT — Data Link

![Graph of Throughput vs Time with legend showing various flows and their throughputs and 95th percentile one-way delays.]

![Graph of One-Way Delay vs Time with legend showing various flows and their 95th percentile one-way delays.]

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Run 1: Statistics of PCC

Start at: 2018-02-20 17:15:28
End at: 2018-02-20 17:15:58

# Below is generated by plot.py at 2018-02-21 00:04:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.44 Mbit/s
95th percentile per-packet one-way delay: 255.986 ms
Loss rate: 3.90%
-- Flow 1:
Average throughput: 494.81 Mbit/s
95th percentile per-packet one-way delay: 255.865 ms
Loss rate: 3.92%
-- Flow 2:
Average throughput: 63.35 Mbit/s
95th percentile per-packet one-way delay: 257.181 ms
Loss rate: 3.59%
-- Flow 3:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 259.183 ms
Loss rate: 7.48%
Run 1: Report of PCC — Data Link

![Graph showing network performance metrics over time.](image-url)
Run 2: Statistics of PCC

Start at: 2018-02-20 17:35:06
End at: 2018-02-20 17:35:36

# Below is generated by plot.py at 2018-02-21 00:05:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 555.51 Mbit/s
95th percentile per-packet one-way delay: 206.928 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 507.14 Mbit/s
95th percentile per-packet one-way delay: 207.384 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 64.60 Mbit/s
95th percentile per-packet one-way delay: 204.188 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 17.31 Mbit/s
95th percentile per-packet one-way delay: 208.162 ms
Loss rate: 2.27%
Run 2: Report of PCC — Data Link

![Graph 1: Throughput (Mbps) vs Time (s)]
- Blue dashed line: Flow 1 ingress (mean 311.35 Mbps)
- Blue solid line: Flow 1 egress (mean 597.14 Mbps)
- Green dashed line: Flow 2 ingress (mean 64.62 Mbps)
- Green solid line: Flow 2 egress (mean 64.60 Mbps)
- Red dashed line: Flow 3 ingress (mean 17.32 Mbps)
- Red solid line: Flow 3 egress (mean 17.31 Mbps)

![Graph 2: Per-packet end-to-end delay (ms) vs Time (s)]
- Blue square: Flow 1 (95th percentile 207.38 ms)
- Green square: Flow 2 (95th percentile 204.19 ms)
- Red square: Flow 3 (95th percentile 208.16 ms)
Run 3: Statistics of PCC

Start at: 2018-02-20 17:55:14
End at: 2018-02-20 17:55:44

# Below is generated by plot.py at 2018-02-21 00:05:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 531.22 Mbit/s
95th percentile per-packet one-way delay: 243.245 ms
Loss rate: 4.12%
-- Flow 1:
Average throughput: 445.93 Mbit/s
95th percentile per-packet one-way delay: 243.196 ms
Loss rate: 4.06%
-- Flow 2:
Average throughput: 126.69 Mbit/s
95th percentile per-packet one-way delay: 243.361 ms
Loss rate: 4.45%
-- Flow 3:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 243.712 ms
Loss rate: 5.40%
Run 3: Report of PCC — Data Link

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

- Flow 1 Ingress (mean 461.35 Mbps/s)
- Flow 1 Egress (mean 445.93 Mbps/s)
- Flow 2 Ingress (mean 131.11 Mbps/s)
- Flow 2 Egress (mean 126.69 Mbps/s)
- Flow 3 Ingress (mean 4.40 Mbps/s)
- Flow 3 Egress (mean 4.26 Mbps/s)

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

- Flow 1 (95th percentile 243.20 ms)
- Flow 2 (95th percentile 243.36 ms)
- Flow 3 (95th percentile 243.71 ms)
Run 4: Statistics of PCC

Start at: 2018-02-20 18:15:14
End at: 2018-02-20 18:15:44

# Below is generated by plot.py at 2018-02-21 00:05:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 541.43 Mbit/s
  95th percentile per-packet one-way delay: 227.227 ms
  Loss rate: 2.42%
-- Flow 1:
  Average throughput: 482.65 Mbit/s
  95th percentile per-packet one-way delay: 227.266 ms
  Loss rate: 2.44%
-- Flow 2:
  Average throughput: 72.75 Mbit/s
  95th percentile per-packet one-way delay: 226.613 ms
  Loss rate: 1.75%
-- Flow 3:
  Average throughput: 33.17 Mbit/s
  95th percentile per-packet one-way delay: 228.608 ms
  Loss rate: 4.50%
Run 4: Report of PCC — Data Link

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

- Flow 1 Ingress (mean 491.01 Mbit/s)
- Flow 1 Egress (mean 482.65 Mbit/s)
- Flow 2 Ingress (mean 73.21 Mbit/s)
- Flow 2 Egress (mean 72.75 Mbit/s)
- Flow 3 Ingress (mean 33.86 Mbit/s)
- Flow 3 Egress (mean 33.17 Mbit/s)
Run 5: Statistics of PCC

Start at: 2018-02-20 18:35:15
End at: 2018-02-20 18:35:45

# Below is generated by plot.py at 2018-02-21 00:05:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 544.64 Mbit/s
  95th percentile per-packet one-way delay: 248.356 ms
  Loss rate: 5.12%
  -- Flow 1:
  Average throughput: 522.61 Mbit/s
  95th percentile per-packet one-way delay: 248.378 ms
  Loss rate: 5.15%
  -- Flow 2:
  Average throughput: 31.36 Mbit/s
  95th percentile per-packet one-way delay: 247.958 ms
  Loss rate: 4.21%
  -- Flow 3:
  Average throughput: 3.92 Mbit/s
  95th percentile per-packet one-way delay: 248.857 ms
  Loss rate: 7.90%
Run 6: Statistics of PCC

Start at: 2018-02-20 18:54:58
End at: 2018-02-20 18:55:28

# Below is generated by plot.py at 2018-02-21 00:05:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 544.88 Mbit/s
95th percentile per-packet one-way delay: 231.350 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 520.48 Mbit/s
95th percentile per-packet one-way delay: 231.366 ms
Loss rate: 1.67%
-- Flow 2:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 231.180 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 129.540 ms
Loss rate: 2.14%
Run 6: Report of PCC — Data Link

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

- Flow 1 Ingress (mean 525.32 Mbps/s)
- Flow 1 Egress (mean 520.48 Mbps/s)
- Flow 2 Ingress (mean 34.92 Mbps/s)
- Flow 2 Egress (mean 34.79 Mbps/s)
- Flow 3 Ingress (mean 4.32 Mbps/s)
- Flow 3 Egress (mean 4.32 Mbps/s)

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

- Flow 1 (95th percentile 231.37 ms)
- Flow 2 (95th percentile 231.18 ms)
- Flow 3 (95th percentile 129.54 ms)
Run 7: Statistics of PCC

Start at: 2018-02-20 19:14:41
End at: 2018-02-20 19:15:11

# Below is generated by plot.py at 2018-02-21 00:05:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 517.92 Mbit/s
  95th percentile per-packet one-way delay: 256.086 ms
  Loss rate: 3.75%
-- Flow 1:
  Average throughput: 505.46 Mbit/s
  95th percentile per-packet one-way delay: 256.171 ms
  Loss rate: 3.76%
-- Flow 2:
  Average throughput: 2.32 Mbit/s
  95th percentile per-packet one-way delay: 255.954 ms
  Loss rate: 3.58%
-- Flow 3:
  Average throughput: 33.93 Mbit/s
  95th percentile per-packet one-way delay: 231.283 ms
  Loss rate: 3.38%
Run 7: Report of PCC — Data Link
Run 8: Statistics of PCC

Start at: 2018-02-20 19:34:08
End at: 2018-02-20 19:34:38

# Below is generated by plot.py at 2018-02-21 00:07:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 569.77 Mbit/s
  95th percentile per-packet one-way delay: 221.676 ms
  Loss rate: 1.95%
-- Flow 1:
  Average throughput: 547.93 Mbit/s
  95th percentile per-packet one-way delay: 221.624 ms
  Loss rate: 1.94%
-- Flow 2:
  Average throughput: 17.22 Mbit/s
  95th percentile per-packet one-way delay: 221.220 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 32.33 Mbit/s
  95th percentile per-packet one-way delay: 222.591 ms
  Loss rate: 2.78%
Run 8: Report of PCC — Data Link
Run 9: Statistics of PCC

Start at: 2018-02-20 19:54:11
End at: 2018-02-20 19:54:41

# Below is generated by plot.py at 2018-02-21 00:13:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 544.28 Mbit/s
  95th percentile per-packet one-way delay: 228.251 ms
  Loss rate: 2.46%
-- Flow 1:
  Average throughput: 500.42 Mbit/s
  95th percentile per-packet one-way delay: 228.422 ms
  Loss rate: 2.49%
-- Flow 2:
  Average throughput: 64.27 Mbit/s
  95th percentile per-packet one-way delay: 227.440 ms
  Loss rate: 2.18%
-- Flow 3:
  Average throughput: 4.50 Mbit/s
  95th percentile per-packet one-way delay: 226.929 ms
  Loss rate: 2.91%
Run 10: Statistics of PCC

Start at: 2018-02-20 20:13:56
End at: 2018-02-20 20:14:26

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 559.11 Mbit/s
95th percentile per-packet one-way delay: 230.303 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 508.19 Mbit/s
95th percentile per-packet one-way delay: 230.561 ms
Loss rate: 3.06%
-- Flow 2:
Average throughput: 61.13 Mbit/s
95th percentile per-packet one-way delay: 229.029 ms
Loss rate: 2.53%
-- Flow 3:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 229.861 ms
Loss rate: 3.28%
Run 10: Report of PCC — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 520.30 Mbps)
- Flow 1 egress (mean 508.19 Mbps)
- Flow 2 ingress (mean 62.02 Mbps)
- Flow 2 egress (mean 61.13 Mbps)
- Flow 3 ingress (mean 32.79 Mbps)
- Flow 3 egress (mean 32.45 Mbps)

Graph 2: Per packet one way delay (ms)
- Flow 1 (95th percentile 230.56 ms)
- Flow 2 (95th percentile 229.03 ms)
- Flow 3 (95th percentile 229.86 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-20 17:19:53
End at: 2018-02-20 17:20:23

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 103.74 Mbit/s
  95th percentile per-packet one-way delay: 113.906 ms
  Loss rate: 1.24%
-- Flow 1:
  Average throughput: 60.82 Mbit/s
  95th percentile per-packet one-way delay: 112.342 ms
  Loss rate: 0.88%
-- Flow 2:
  Average throughput: 34.18 Mbit/s
  95th percentile per-packet one-way delay: 113.986 ms
  Loss rate: 1.83%
-- Flow 3:
  Average throughput: 62.99 Mbit/s
  95th percentile per-packet one-way delay: 112.684 ms
  Loss rate: 1.67%
Run 1: Report of QUIC Cubic — Data Link

Graph showing throughput over time with different flow rates for ingress and egress.
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-20 17:39:34
End at: 2018-02-20 17:40:04

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.71 Mbit/s
95th percentile per-packet one-way delay: 112.758 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 55.34 Mbit/s
95th percentile per-packet one-way delay: 112.398 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 51.10 Mbit/s
95th percentile per-packet one-way delay: 112.347 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 57.17 Mbit/s
95th percentile per-packet one-way delay: 114.094 ms
Loss rate: 2.60%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-20 17:59:43
End at: 2018-02-20 18:00:13

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.26 Mbit/s
95th percentile per-packet one-way delay: 112.273 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 111.466 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 50.06 Mbit/s
95th percentile per-packet one-way delay: 112.322 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 108.516 ms
Loss rate: 0.27%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-20 18:19:50
End at: 2018-02-20 18:20:20

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 112.07 Mbit/s
  95th percentile per-packet one-way delay: 112.485 ms
  Loss rate: 1.46%
-- Flow 1:
  Average throughput: 65.80 Mbit/s
  95th percentile per-packet one-way delay: 112.402 ms
  Loss rate: 0.85%
-- Flow 2:
  Average throughput: 44.36 Mbit/s
  95th percentile per-packet one-way delay: 112.466 ms
  Loss rate: 2.04%
-- Flow 3:
  Average throughput: 52.06 Mbit/s
  95th percentile per-packet one-way delay: 112.585 ms
  Loss rate: 2.81%
Run 4: Report of QUIC Cubic — Data Link

Figure 1: Throughput (Mbps) over time for different flows.

Figure 2: Per-packet one-way delay (ms) over time for different flows.
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-20 18:39:43
End at: 2018-02-20 18:40:13

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 113.39 Mbit/s
  95th percentile per-packet one-way delay: 112.662 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 57.83 Mbit/s
  95th percentile per-packet one-way delay: 112.687 ms
  Loss rate: 0.85%
-- Flow 2:
  Average throughput: 55.25 Mbit/s
  95th percentile per-packet one-way delay: 112.622 ms
  Loss rate: 1.55%
-- Flow 3:
  Average throughput: 58.75 Mbit/s
  95th percentile per-packet one-way delay: 112.419 ms
  Loss rate: 2.55%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-20 18:59:33
End at: 2018-02-20 19:00:03

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.88 Mbit/s
95th percentile per-packet one-way delay: 112.541 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 62.14 Mbit/s
95th percentile per-packet one-way delay: 112.567 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 35.51 Mbit/s
95th percentile per-packet one-way delay: 112.156 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 40.85 Mbit/s
95th percentile per-packet one-way delay: 110.176 ms
Loss rate: 4.43%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-20 19:19:05
End at: 2018-02-20 19:19:35

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 112.98 Mbit/s
  95th percentile per-packet one-way delay: 112.466 ms
  Loss rate: 1.44%
  -- Flow 1:
  Average throughput: 56.51 Mbit/s
  95th percentile per-packet one-way delay: 111.998 ms
  Loss rate: 1.00%
  -- Flow 2:
  Average throughput: 57.07 Mbit/s
  95th percentile per-packet one-way delay: 109.282 ms
  Loss rate: 1.52%
  -- Flow 3:
  Average throughput: 57.73 Mbit/s
  95th percentile per-packet one-way delay: 112.555 ms
  Loss rate: 2.60%
Run 7: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet round-trip time over time for different flows.](image-url)
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-20 19:38:40
End at: 2018-02-20 19:39:10

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.59 Mbit/s
95th percentile per-packet one-way delay: 112.395 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 61.04 Mbit/s
95th percentile per-packet one-way delay: 111.927 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 55.49 Mbit/s
95th percentile per-packet one-way delay: 110.997 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 20.86 Mbit/s
95th percentile per-packet one-way delay: 112.579 ms
Loss rate: 8.31%
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-20 19:58:40
End at: 2018-02-20 19:59:10

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 100.36 Mbit/s
  95th percentile per-packet one-way delay: 112.102 ms
  Loss rate: 1.47%
-- Flow 1:
  Average throughput: 57.12 Mbit/s
  95th percentile per-packet one-way delay: 111.958 ms
  Loss rate: 1.10%
-- Flow 2:
  Average throughput: 47.78 Mbit/s
  95th percentile per-packet one-way delay: 110.243 ms
  Loss rate: 1.85%
-- Flow 3:
  Average throughput: 35.86 Mbit/s
  95th percentile per-packet one-way delay: 112.200 ms
  Loss rate: 2.20%
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-20 20:18:32
End at: 2018-02-20 20:19:02

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 111.56 Mbit/s
  95th percentile per-packet one-way delay: 112.909 ms
  Loss rate: 1.00%
-- Flow 1:
  Average throughput: 52.73 Mbit/s
  95th percentile per-packet one-way delay: 112.245 ms
  Loss rate: 1.07%
-- Flow 2:
  Average throughput: 62.20 Mbit/s
  95th percentile per-packet one-way delay: 112.927 ms
  Loss rate: 0.14%
-- Flow 3:
  Average throughput: 52.55 Mbit/s
  95th percentile per-packet one-way delay: 112.973 ms
  Loss rate: 2.82%
Run 10: Report of QUIC Cubic — Data Link

![Graph showing throughput and round-trip time](image)

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 52.90 Mbps)
  - Flow 1 egress (mean 52.73 Mbps)
  - Flow 2 ingress (mean 61.36 Mbps)
  - Flow 2 egress (mean 62.29 Mbps)
  - Flow 3 ingress (mean 52.82 Mbps)
  - Flow 3 egress (mean 52.55 Mbps)

- **Round-trip time (ms):**
  - Flow 1 (95th percentile 112.25 ms)
  - Flow 2 (95th percentile 112.93 ms)
  - Flow 3 (95th percentile 112.97 ms)
Run 1: Statistics of SCReAM

Start at: 2018-02-20 17:12:29
End at: 2018-02-20 17:12:59

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.410 ms
  Loss rate: 1.05%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.825 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.432 ms
  Loss rate: 1.05%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.437 ms
  Loss rate: 2.25%
Run 2: Statistics of SCReAM

Start at: 2018-02-20 17:32:09
End at: 2018-02-20 17:32:39

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.430 ms
  Loss rate: 1.05%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.442 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.438 ms
  Loss rate: 1.06%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 109.564 ms
  Loss rate: 2.26%
Run 2: Report of SCReAM — Data Link

![Graphs showing network performance metrics](image_url)

- 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)

- Delay (ms): Flow 1 (95th percentile 112.44 ms), Flow 2 (95th percentile 112.44 ms), Flow 3 (95th percentile 109.56 ms)
Run 3: Statistics of SCReAM

Start at: 2018-02-20 17:52:17
End at: 2018-02-20 17:52:47

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.439 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.463 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.611 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.843 ms
Loss rate: 2.26%
Run 4: Statistics of SCReAM

Start at: 2018-02-20 18:12:23
End at: 2018-02-20 18:12:53

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 114.059 ms
  Loss rate: 0.96%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 111.508 ms
  Loss rate: 0.71%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 114.092 ms
  Loss rate: 1.05%
-- Flow 3:
  Average throughput: 0.13 Mbit/s
  95th percentile per-packet one-way delay: 112.489 ms
  Loss rate: 1.99%
Run 5: Statistics of SCReAM

Start at: 2018-02-20 18:32:09
End at: 2018-02-20 18:32:39

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.849 ms
  Loss rate: 1.05%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.870 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.692 ms
  Loss rate: 1.05%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.260 ms
  Loss rate: 2.25%
Run 5: Report of SCReAM — Data Link

![Graph depicting throughput and delay over time for different flows.](image-url)
Run 6: Statistics of SCReAM

Start at: 2018-02-20 18:52:03
End at: 2018-02-20 18:52:33

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.843 ms
  Loss rate: 1.05%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.455 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.867 ms
  Loss rate: 1.05%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.801 ms
  Loss rate: 2.26%
Run 6: Report of SCReAM — Data Link

![Graph showing throughput over time for different flows]

![Graph showing per-packet one-way delay over time for different flows]
Run 7: Statistics of SCReAM

Start at: 2018-02-20 19:11:44
End at: 2018-02-20 19:12:14

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.683 ms
  Loss rate: 1.05%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.706 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.333 ms
  Loss rate: 1.05%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.394 ms
  Loss rate: 2.26%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-02-20 19:31:04
End at: 2018-02-20 19:31:34

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.004 ms
  Loss rate: 1.05%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.021 ms
  Loss rate: 0.63%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.096 ms
  Loss rate: 1.05%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.015 ms
  Loss rate: 2.24%
Run 8: Report of SCReAM — Data Link

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

- **Throughput (Mbps)**: The graph displays the throughput in Mbps over time for three flows, each with different characteristics.
  - Flow 1 ingress (mean 0.21 Mbps)
  - Flow 1 egress (mean 0.21 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)

- **Delay (ms)**: The graph shows the delay in milliseconds for 95th percentile for the same flows.
  - Flow 1 (95th percentile 112.02 ms)
  - Flow 2 (95th percentile 111.10 ms)
  - Flow 3 (95th percentile 112.02 ms)
Run 9: Statistics of SCReAM

Start at: 2018-02-20 19:51:11
End at: 2018-02-20 19:51:41

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.539 ms
  Loss rate: 1.06%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.564 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 108.742 ms
  Loss rate: 1.06%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.237 ms
  Loss rate: 2.26%
Run 10: Statistics of SCReAM

Start at: 2018-02-20 20:10:57
End at: 2018-02-20 20:11:27

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.895 ms
  Loss rate: 1.12%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.912 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.077 ms
  Loss rate: 1.25%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 109.699 ms
  Loss rate: 2.26%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-02-20 17:10:34
End at: 2018-02-20 17:11:04

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 114.867 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 114.903 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 110.873 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 112.838 ms
Loss rate: 3.77%
Run 1: Report of WebRTC media — Data Link

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

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Run 2: Statistics of WebRTC media

Start at: 2018-02-20 17:30:04
End at: 2018-02-20 17:30:34

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 3.88 Mbit/s
  95th percentile per-packet one-way delay: 112.614 ms
  Loss rate: 1.63%
-- Flow 1:
  Average throughput: 2.11 Mbit/s
  95th percentile per-packet one-way delay: 112.508 ms
  Loss rate: 0.95%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 112.664 ms
  Loss rate: 1.88%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 112.223 ms
  Loss rate: 3.94%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-02-20 17:50:25
End at: 2018-02-20 17:50:55

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.85 Mbit/s
95th percentile per-packet one-way delay: 111.923 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 111.942 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 111.226 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 112.426 ms
Loss rate: 3.34%
Run 3: Report of WebRTC media — Data Link

![Graph of data link throughput and packet delay over time](image)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 2.09 Mbps)
  - Flow 1 egress (mean 2.09 Mbps)
  - Flow 2 ingress (mean 1.32 Mbps)
  - Flow 2 egress (mean 1.31 Mbps)
  - Flow 3 ingress (mean 0.50 Mbps)
  - Flow 3 egress (mean 0.48 Mbps)

- **Packet delivery latency (ms)**
  - Flow 1 (95th percentile 111.94 ms)
  - Flow 2 (95th percentile 111.23 ms)
  - Flow 3 (95th percentile 112.43 ms)
Run 4: Statistics of WebRTC media

Start at: 2018-02-20 18:10:41
End at: 2018-02-20 18:11:11

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.88 Mbit/s
  95th percentile per-packet one-way delay: 111.965 ms
  Loss rate: 1.55%
-- Flow 1:
  Average throughput: 2.12 Mbit/s
  95th percentile per-packet one-way delay: 109.750 ms
  Loss rate: 0.81%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 108.751 ms
  Loss rate: 1.88%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 112.641 ms
  Loss rate: 3.89%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-02-20 18:30:10
End at: 2018-02-20 18:30:40

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.82 Mbit/s
  95th percentile per-packet one-way delay: 112.743 ms
  Loss rate: 1.39%
-- Flow 1:
  Average throughput: 2.06 Mbit/s
  95th percentile per-packet one-way delay: 112.755 ms
  Loss rate: 0.75%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 112.650 ms
  Loss rate: 1.34%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 112.838 ms
  Loss rate: 4.17%
Run 5: Report of WebRTC media — Data Link

![Graph of Throughput and One-Way Delay](image)

- Flow 1 ingress (mean 2.06 Mbit/s)
- Flow 1 egress (mean 2.06 Mbit/s)
- Flow 2 ingress (mean 1.31 Mbit/s)
- Flow 2 egress (mean 1.31 Mbit/s)
- Flow 3 ingress (mean 0.50 Mbit/s)
- Flow 3 egress (mean 0.49 Mbit/s)

![Graph of One-Way Delay](image)

- Flow 1 (95th percentile 112.75 ms)
- Flow 2 (95th percentile 112.65 ms)
- Flow 3 (95th percentile 112.84 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-02-20 18:50:09
End at: 2018-02-20 18:50:39

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.83 Mbit/s
  95th percentile per-packet one-way delay: 112.795 ms
  Loss rate: 1.40%
-- Flow 1:
  Average throughput: 2.07 Mbit/s
  95th percentile per-packet one-way delay: 111.908 ms
  Loss rate: 0.78%
-- Flow 2:
  Average throughput: 1.30 Mbit/s
  95th percentile per-packet one-way delay: 112.875 ms
  Loss rate: 1.67%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 112.620 ms
  Loss rate: 3.29%
Run 6: Report of WebRTC media — Data Link

![Data Link Throughput Graph]

![Data Link One-Way Delay Graph]

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Run 7: Statistics of WebRTC media

Start at: 2018-02-20 19:09:55
End at: 2018-02-20 19:10:25

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 112.119 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 112.101 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 112.149 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 112.067 ms
Loss rate: 3.59%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-02-20 19:29:25
End at: 2018-02-20 19:29:55

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.85 Mbit/s
  95th percentile per-packet one-way delay: 112.519 ms
  Loss rate: 1.57%
-- Flow 1:
  Average throughput: 2.11 Mbit/s
  95th percentile per-packet one-way delay: 111.924 ms
  Loss rate: 0.87%
-- Flow 2:
  Average throughput: 1.30 Mbit/s
  95th percentile per-packet one-way delay: 111.009 ms
  Loss rate: 1.74%
-- Flow 3:
  Average throughput: 0.48 Mbit/s
  95th percentile per-packet one-way delay: 112.636 ms
  Loss rate: 4.18%
Run 8: Report of WebRTC media — Data Link

![Graph showing throughput over time with different flow ingress and egress rates.]

![Graph showing per-packet one-way delay over time with different flow 95th percentile delays.]

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Run 9: Statistics of WebRTC media

Start at: 2018-02-20 19:49:16
End at: 2018-02-20 19:49:46

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.88 Mbit/s
95th percentile per-packet one-way delay: 112.527 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 111.364 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 112.588 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 112.282 ms
Loss rate: 3.45%
Run 9: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.11 Mbit/s)
- Flow 1 egress (mean 2.11 Mbit/s)
- Flow 2 ingress (mean 1.33 Mbit/s)
- Flow 2 egress (mean 1.32 Mbit/s)
- Flow 3 ingress (mean 0.30 Mbit/s)
- Flow 3 egress (mean 0.48 Mbit/s)

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

- Flow 1 (95th percentile 111.36 ms)
- Flow 2 (95th percentile 112.59 ms)
- Flow 3 (95th percentile 112.28 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-02-20 20:08:56  
End at: 2018-02-20 20:09:26

# Below is generated by plot.py at 2018-02-21 00:14:20  
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.82 Mbit/s  
95th percentile per-packet one-way delay: 112.846 ms  
Loss rate: 1.47%  
-- Flow 1:
Average throughput: 2.07 Mbit/s  
95th percentile per-packet one-way delay: 112.860 ms  
Loss rate: 0.94%  
-- Flow 2:
Average throughput: 1.30 Mbit/s  
95th percentile per-packet one-way delay: 112.849 ms  
Loss rate: 1.51%  
-- Flow 3:
Average throughput: 0.49 Mbit/s  
95th percentile per-packet one-way delay: 111.484 ms  
Loss rate: 3.64%
Run 10: Report of WebRTC media — Data Link

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

Legend:
- Flow 1 ingress (mean 2.07 Mbit/s)
- Flow 1 egress (mean 2.07 Mbit/s)
- Flow 2 ingress (mean 1.31 Mbit/s)
- Flow 2 egress (mean 1.30 Mbit/s)
- Flow 3 ingress (mean 0.50 Mbit/s)
- Flow 3 egress (mean 0.49 Mbit/s)
Run 1: Statistics of Sprout

Start at: 2018-02-20 17:03:28
End at: 2018-02-20 17:03:58

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.98 Mbit/s
  95th percentile per-packet one-way delay: 113.723 ms
  Loss rate: 1.32%
-- Flow 1:
  Average throughput: 2.86 Mbit/s
  95th percentile per-packet one-way delay: 113.743 ms
  Loss rate: 1.11%
-- Flow 2:
  Average throughput: 2.42 Mbit/s
  95th percentile per-packet one-way delay: 113.731 ms
  Loss rate: 1.26%
-- Flow 3:
  Average throughput: 1.59 Mbit/s
  95th percentile per-packet one-way delay: 113.324 ms
  Loss rate: 2.64%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-02-20 17:22:56
End at: 2018-02-20 17:23:26

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.10 Mbit/s
  95th percentile per-packet one-way delay: 113.187 ms
  Loss rate: 0.96%
-- Flow 1:
  Average throughput: 2.78 Mbit/s
  95th percentile per-packet one-way delay: 113.300 ms
  Loss rate: 0.85%
-- Flow 2:
  Average throughput: 2.47 Mbit/s
  95th percentile per-packet one-way delay: 113.043 ms
  Loss rate: 0.59%
-- Flow 3:
  Average throughput: 2.11 Mbit/s
  95th percentile per-packet one-way delay: 112.884 ms
  Loss rate: 2.27%
Run 2: Report of Sprout — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 2.78 Mbps)
  - Flow 1 egress (mean 2.78 Mbps)
  - Flow 2 ingress (mean 2.46 Mbps)
  - Flow 2 egress (mean 2.47 Mbps)
  - Flow 3 ingress (mean 2.11 Mbps)
  - Flow 3 egress (mean 2.11 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 113.30 ms)
  - Flow 2 (95th percentile 113.04 ms)
  - Flow 3 (95th percentile 112.88 ms)
Run 3: Statistics of Sprout

Start at: 2018-02-20 17:42:40
End at: 2018-02-20 17:43:10

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 113.152 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 113.181 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 112.996 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 113.247 ms
Loss rate: 6.07%
Run 3: Report of Sprout — Data Link

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

Legend:
- Flow 1 ingress (mean 2.21 Mbit/s)
- Flow 1 egress (mean 2.20 Mbit/s)
- Flow 2 ingress (mean 1.70 Mbit/s)
- Flow 2 egress (mean 1.70 Mbit/s)
- Flow 3 ingress (mean 1.51 Mbit/s)
- Flow 3 egress (mean 1.45 Mbit/s)
Run 4: Statistics of Sprout

Start at: 2018-02-20 18:03:25
End at: 2018-02-20 18:03:55

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.08 Mbit/s
  95th percentile per-packet one-way delay: 113.420 ms
  Loss rate: 1.40%
-- Flow 1:
  Average throughput: 2.14 Mbit/s
  95th percentile per-packet one-way delay: 113.397 ms
  Loss rate: 1.28%
-- Flow 2:
  Average throughput: 2.37 Mbit/s
  95th percentile per-packet one-way delay: 113.474 ms
  Loss rate: 1.02%
-- Flow 3:
  Average throughput: 1.15 Mbit/s
  95th percentile per-packet one-way delay: 113.028 ms
  Loss rate: 3.56%
Run 4: Report of Sprout — Data Link

![Data Link Graph]

![Delay Graph]
Run 5: Statistics of Sprout

Start at: 2018-02-20 18:22:58
End at: 2018-02-20 18:23:28

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.16 Mbit/s
  95th percentile per-packet one-way delay: 113.243 ms
  Loss rate: 1.23%
-- Flow 1:
  Average throughput: 2.28 Mbit/s
  95th percentile per-packet one-way delay: 113.322 ms
  Loss rate: 1.32%
-- Flow 2:
  Average throughput: 1.66 Mbit/s
  95th percentile per-packet one-way delay: 113.190 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 2.42 Mbit/s
  95th percentile per-packet one-way delay: 112.939 ms
  Loss rate: 2.64%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-02-20 18:42:49
End at: 2018-02-20 18:43:19

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 113.185 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 113.182 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 113.257 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 112.992 ms
Loss rate: 3.08%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

Start at: 2018-02-20 19:02:41
End at: 2018-02-20 19:03:11

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.95 Mbit/s
  95th percentile per-packet one-way delay: 112.914 ms
  Loss rate: 1.02%
-- Flow 1:
  Average throughput: 3.34 Mbit/s
  95th percentile per-packet one-way delay: 113.015 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 1.76 Mbit/s
  95th percentile per-packet one-way delay: 112.696 ms
  Loss rate: 0.16%
-- Flow 3:
  Average throughput: 1.39 Mbit/s
  95th percentile per-packet one-way delay: 112.455 ms
  Loss rate: 3.46%
Run 7: Report of Sprout — Data Link

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

End at: 2018-02-20 19:22:43

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 112.696 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 2.83 Mbit/s
95th percentile per-packet one-way delay: 112.768 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 112.446 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 111.786 ms
Loss rate: 3.23%
Run 8: Report of Sprout — Data Link

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

Start at: 2018-02-20 19:42:03
End at: 2018-02-20 19:42:33

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.14 Mbit/s
  95th percentile per-packet one-way delay: 113.190 ms
  Loss rate: 1.75%
-- Flow 1:
  Average throughput: 2.16 Mbit/s
  95th percentile per-packet one-way delay: 113.190 ms
  Loss rate: 1.14%
-- Flow 2:
  Average throughput: 2.02 Mbit/s
  95th percentile per-packet one-way delay: 113.124 ms
  Loss rate: 1.62%
-- Flow 3:
  Average throughput: 2.00 Mbit/s
  95th percentile per-packet one-way delay: 113.328 ms
  Loss rate: 3.95%
Run 9: Report of Sprout — Data Link

![Graph showing throughput and latency over time for different flows](image)

**Throughput (Mbps):**
- Flow 1 ingress (mean 2.17 Mbps)
- Flow 1 egress (mean 2.16 Mbps)
- Flow 2 ingress (mean 2.03 Mbps)
- Flow 2 egress (mean 2.02 Mbps)
- Flow 3 ingress (mean 2.03 Mbps)
- Flow 3 egress (mean 2.00 Mbps)

**Latency (ms):**
- Flow 1 (95th percentile 113.19 ms)
- Flow 2 (95th percentile 113.12 ms)
- Flow 3 (95th percentile 113.33 ms)
Run 10: Statistics of Sprout

Start at: 2018-02-20 20:01:46
End at: 2018-02-20 20:02:16

# Below is generated by plot.py at 2018-02-21 00:14:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.56 Mbit/s
  95th percentile per-packet one-way delay: 112.824 ms
  Loss rate: 1.19%
-- Flow 1:
  Average throughput: 3.03 Mbit/s
  95th percentile per-packet one-way delay: 112.891 ms
  Loss rate: 0.53%
-- Flow 2:
  Average throughput: 1.64 Mbit/s
  95th percentile per-packet one-way delay: 112.525 ms
  Loss rate: 1.69%
-- Flow 3:
  Average throughput: 1.39 Mbit/s
  95th percentile per-packet one-way delay: 112.527 ms
  Loss rate: 4.27%
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-20 17:11:21
End at: 2018-02-20 17:11:51

# Below is generated by plot.py at 2018-02-21 00:15:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 208.16 Mbit/s
  95th percentile per-packet one-way delay: 112.971 ms
  Loss rate: 1.70%
  -- Flow 1:
  Average throughput: 14.66 Mbit/s
  95th percentile per-packet one-way delay: 112.761 ms
  Loss rate: 0.70%
  -- Flow 2:
  Average throughput: 201.98 Mbit/s
  95th percentile per-packet one-way delay: 112.928 ms
  Loss rate: 1.27%
  -- Flow 3:
  Average throughput: 182.48 Mbit/s
  95th percentile per-packet one-way delay: 113.088 ms
  Loss rate: 2.89%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-20 17:30:50
End at: 2018-02-20 17:31:20

# Below is generated by plot.py at 2018-02-21 00:19:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 316.58 Mbit/s
  95th percentile per-packet one-way delay: 112.899 ms
  Loss rate: 1.20%
-- Flow 1:
  Average throughput: 191.94 Mbit/s
  95th percentile per-packet one-way delay: 112.677 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 163.64 Mbit/s
  95th percentile per-packet one-way delay: 113.026 ms
  Loss rate: 1.80%
-- Flow 3:
  Average throughput: 49.25 Mbit/s
  95th percentile per-packet one-way delay: 118.609 ms
  Loss rate: 0.76%
Run 2: Report of TaoVA-100x — Data Link

![Graph](image1)

![Graph](image2)
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-20 17:51:12
End at: 2018-02-20 17:51:42

# Below is generated by plot.py at 2018-02-21 00:19:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.81 Mbit/s
95th percentile per-packet one-way delay: 112.562 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 15.96 Mbit/s
95th percentile per-packet one-way delay: 112.517 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 159.67 Mbit/s
95th percentile per-packet one-way delay: 112.563 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 85.77 Mbit/s
95th percentile per-packet one-way delay: 112.583 ms
Loss rate: 1.32%
Run 3: Report of TaoVA-100x — Data Link

![Graph showing network traffic and delay over time for different flows.](image-url)
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-20 18:11:28
End at: 2018-02-20 18:11:58

# Below is generated by plot.py at 2018-02-21 00:19:29
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 89.03 Mbit/s
 95th percentile per-packet one-way delay: 112.465 ms
 Loss rate: 1.92%
-- Flow 1:
 Average throughput: 15.92 Mbit/s
 95th percentile per-packet one-way delay: 112.515 ms
 Loss rate: 0.68%
-- Flow 2:
 Average throughput: 15.86 Mbit/s
 95th percentile per-packet one-way delay: 111.980 ms
 Loss rate: 1.01%
-- Flow 3:
 Average throughput: 191.58 Mbit/s
 95th percentile per-packet one-way delay: 112.408 ms
 Loss rate: 2.37%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-02-20 18:30:57
End at: 2018-02-20 18:31:27

# Below is generated by plot.py at 2018-02-21 00:19:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 251.76 Mbit/s
  95th percentile per-packet one-way delay: 112.969 ms
  Loss rate: 1.38%
-- Flow 1:
  Average throughput: 141.80 Mbit/s
  95th percentile per-packet one-way delay: 112.923 ms
  Loss rate: 1.19%
-- Flow 2:
  Average throughput: 79.10 Mbit/s
  95th percentile per-packet one-way delay: 112.849 ms
  Loss rate: 0.25%
-- Flow 3:
  Average throughput: 176.49 Mbit/s
  95th percentile per-packet one-way delay: 113.345 ms
  Loss rate: 2.84%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Start at: 2018-02-20 18:50:55
End at: 2018-02-20 18:51:25

# Below is generated by plot.py at 2018-02-21 00:19:29
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 206.38 Mbit/s
 95th percentile per-packet one-way delay: 112.552 ms
 Loss rate: 0.86%
 -- Flow 1:
 Average throughput: 15.90 Mbit/s
 95th percentile per-packet one-way delay: 112.557 ms
 Loss rate: 0.74%
 -- Flow 2:
 Average throughput: 200.24 Mbit/s
 95th percentile per-packet one-way delay: 112.541 ms
 Loss rate: 1.20%
 -- Flow 3:
 Average throughput: 177.72 Mbit/s
 95th percentile per-packet one-way delay: 112.571 ms
 Loss rate: 0.09%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-20 19:10:42
End at: 2018-02-20 19:11:12

# Below is generated by plot.py at 2018-02-21 00:19:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 152.73 Mbit/s
95th percentile per-packet one-way delay: 112.616 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 20.55 Mbit/s
95th percentile per-packet one-way delay: 112.836 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 192.66 Mbit/s
95th percentile per-packet one-way delay: 110.435 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 13.36 Mbit/s
95th percentile per-packet one-way delay: 112.137 ms
Loss rate: 2.63%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-02-20 19:30:11
End at: 2018-02-20 19:30:41

# Below is generated by plot.py at 2018-02-21 00:19:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 49.01 Mbit/s
  95th percentile per-packet one-way delay: 113.819 ms
  Loss rate: 2.19%
-- Flow 1:
  Average throughput: 32.73 Mbit/s
  95th percentile per-packet one-way delay: 113.845 ms
  Loss rate: 2.53%
-- Flow 2:
  Average throughput: 15.86 Mbit/s
  95th percentile per-packet one-way delay: 112.480 ms
  Loss rate: 1.15%
-- Flow 3:
  Average throughput: 17.67 Mbit/s
  95th percentile per-packet one-way delay: 112.489 ms
  Loss rate: 2.13%
Run 8: Report of TaoVA-100x — Data Link

[Graph of Throughput vs Time showing different flow rates and delays over time]

[Graph of Per-packet one-way delay vs Time showing flow-specific delay metrics]
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-20 19:50:02
End at: 2018-02-20 19:50:32

# Below is generated by plot.py at 2018-02-21 00:21:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 217.67 Mbit/s
  95th percentile per-packet one-way delay: 112.717 ms
  Loss rate: 0.88%
-- Flow 1:
  Average throughput: 203.56 Mbit/s
  95th percentile per-packet one-way delay: 112.731 ms
  Loss rate: 0.82%
-- Flow 2:
  Average throughput: 13.60 Mbit/s
  95th percentile per-packet one-way delay: 112.582 ms
  Loss rate: 1.17%
-- Flow 3:
  Average throughput: 15.59 Mbit/s
  95th percentile per-packet one-way delay: 112.593 ms
  Loss rate: 2.40%
Run 9: Report of TaoVA-100x — Data Link

Throughput (Mb/s)

Flow 1 ingress (mean 203.71 Mb/s)  Flow 1 egress (mean 203.56 Mb/s)
Flow 2 ingress (mean 13.60 Mb/s)  Flow 2 egress (mean 13.60 Mb/s)
Flow 3 ingress (mean 15.61 Mb/s)  Flow 3 egress (mean 15.59 Mb/s)

Packet one-way delay (ms)

Flow 1 (95th percentile 112.73 ms)  Flow 2 (95th percentile 112.58 ms)  Flow 3 (95th percentile 112.59 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-20 20:09:43
End at: 2018-02-20 20:10:13

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 263.94 Mbit/s
  95th percentile per-packet one-way delay: 113.157 ms
  Loss rate: 0.63%
-- Flow 1:
  Average throughput: 182.39 Mbit/s
  95th percentile per-packet one-way delay: 113.272 ms
  Loss rate: 0.46%
-- Flow 2:
  Average throughput: 116.59 Mbit/s
  95th percentile per-packet one-way delay: 112.614 ms
  Loss rate: 0.94%
-- Flow 3:
  Average throughput: 14.12 Mbit/s
  95th percentile per-packet one-way delay: 112.271 ms
  Loss rate: 2.45%
Run 10: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress (mean 181.84 Mbps)**
- **Flow 1 egress (mean 182.39 Mbps)**
- **Flow 2 ingress (mean 116.38 Mbps)**
- **Flow 2 egress (mean 116.59 Mbps)**
- **Flow 3 ingress (mean 14.15 Mbps)**
- **Flow 3 egress (mean 14.12 Mbps)**

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Run 1: Statistics of TCP Vegas

Start at: 2018-02-20 17:17:57
End at: 2018-02-20 17:18:27

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 91.74 Mbit/s
  95th percentile per-packet one-way delay: 115.032 ms
  Loss rate: 1.13%
-- Flow 1:
  Average throughput: 55.51 Mbit/s
  95th percentile per-packet one-way delay: 114.856 ms
  Loss rate: 0.83%
-- Flow 2:
  Average throughput: 40.35 Mbit/s
  95th percentile per-packet one-way delay: 115.764 ms
  Loss rate: 1.22%
-- Flow 3:
  Average throughput: 29.13 Mbit/s
  95th percentile per-packet one-way delay: 114.081 ms
  Loss rate: 2.61%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-02-20 17:37:35
End at: 2018-02-20 17:38:05

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.34 Mbit/s
95th percentile per-packet one-way delay: 112.773 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 30.06 Mbit/s
95th percentile per-packet one-way delay: 113.086 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 64.32 Mbit/s
95th percentile per-packet one-way delay: 112.266 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 115.543 ms
Loss rate: 2.40%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-02-20 17:57:46
End at: 2018-02-20 17:58:16

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.92 Mbit/s
95th percentile per-packet one-way delay: 120.289 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 16.47 Mbit/s
95th percentile per-packet one-way delay: 118.294 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 11.72 Mbit/s
95th percentile per-packet one-way delay: 113.757 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 89.41 Mbit/s
95th percentile per-packet one-way delay: 120.585 ms
Loss rate: 2.74%
Run 3: Report of TCP Vegas — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 16.47 Mbps)
- Flow 1 egress (mean 16.47 Mbps)
- Flow 2 ingress (mean 11.71 Mbps)
- Flow 2 egress (mean 11.72 Mbps)
- Flow 3 ingress (mean 89.86 Mbps)
- Flow 3 egress (mean 89.41 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 118.29 ms)
- Flow 2 (95th percentile 113.76 ms)
- Flow 3 (95th percentile 120.58 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-02-20 18:17:45
End at: 2018-02-20 18:18:15

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
   -- Total of 3 flows:
      Average throughput: 143.97 Mbit/s
      95th percentile per-packet one-way delay: 120.247 ms
      Loss rate: 1.23%
   -- Flow 1:
      Average throughput: 60.46 Mbit/s
      95th percentile per-packet one-way delay: 117.865 ms
      Loss rate: 0.75%
   -- Flow 2:
      Average throughput: 98.27 Mbit/s
      95th percentile per-packet one-way delay: 120.860 ms
      Loss rate: 1.24%
   -- Flow 3:
      Average throughput: 57.31 Mbit/s
      95th percentile per-packet one-way delay: 121.815 ms
      Loss rate: 2.71%
Run 4: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 60.47 Mbit/s)
- Flow 1 egress (mean 60.46 Mbit/s)
- Flow 2 ingress (mean 97.84 Mbit/s)
- Flow 2 egress (mean 98.27 Mbit/s)
- Flow 3 ingress (mean 57.57 Mbit/s)
- Flow 3 egress (mean 57.31 Mbit/s)

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

- Flow 1 (95th percentile 117.96 ms)
- Flow 2 (95th percentile 120.86 ms)
- Flow 3 (95th percentile 121.81 ms)
Run 5: Statistics of TCP Vegas

Start at: 2018-02-20 18:37:44
End at: 2018-02-20 18:38:14

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 142.92 Mbit/s
  95th percentile per-packet one-way delay: 120.215 ms
  Loss rate: 0.95%
-- Flow 1:
  Average throughput: 99.87 Mbit/s
  95th percentile per-packet one-way delay: 120.382 ms
  Loss rate: 0.81%
-- Flow 2:
  Average throughput: 64.70 Mbit/s
  95th percentile per-packet one-way delay: 120.029 ms
  Loss rate: 1.25%
-- Flow 3:
  Average throughput: 1.33 Mbit/s
  95th percentile per-packet one-way delay: 118.707 ms
  Loss rate: 4.54%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-02-20 18:57:33
End at: 2018-02-20 18:58:03

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.73 Mbit/s
95th percentile per-packet one-way delay: 117.481 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 41.96 Mbit/s
95th percentile per-packet one-way delay: 114.694 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 76.20 Mbit/s
95th percentile per-packet one-way delay: 118.918 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 28.28 Mbit/s
95th percentile per-packet one-way delay: 118.582 ms
Loss rate: 2.42%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-02-20 19:17:13
End at: 2018-02-20 19:17:43

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.30 Mbit/s
95th percentile per-packet one-way delay: 114.802 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 29.24 Mbit/s
95th percentile per-packet one-way delay: 116.737 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 69.91 Mbit/s
95th percentile per-packet one-way delay: 113.570 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 17.58 Mbit/s
95th percentile per-packet one-way delay: 113.203 ms
Loss rate: 2.41%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-02-20 19:36:43
End at: 2018-02-20 19:37:13

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.24 Mbit/s
95th percentile per-packet one-way delay: 121.246 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 66.25 Mbit/s
95th percentile per-packet one-way delay: 122.633 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 43.61 Mbit/s
95th percentile per-packet one-way delay: 116.113 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 58.64 Mbit/s
95th percentile per-packet one-way delay: 114.412 ms
Loss rate: 2.65%
Run 8: Report of TCP Vegas — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 66.06 Mbps)
  - Flow 1 egress (mean 66.25 Mbps)
  - Flow 2 ingress (mean 45.62 Mbps)
  - Flow 2 egress (mean 45.61 Mbps)
  - Flow 3 ingress (mean 58.89 Mbps)
  - Flow 3 egress (mean 58.64 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 122.63 ms)
  - Flow 2 (95th percentile 116.11 ms)
  - Flow 3 (95th percentile 114.41 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-02-20 19:56:46
End at: 2018-02-20 19:57:16

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.61 Mbit/s
  95th percentile per-packet one-way delay: 119.050 ms
  Loss rate: 1.26%
-- Flow 1:
  Average throughput: 39.09 Mbit/s
  95th percentile per-packet one-way delay: 114.295 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 54.00 Mbit/s
  95th percentile per-packet one-way delay: 122.182 ms
  Loss rate: 0.93%
-- Flow 3:
  Average throughput: 66.54 Mbit/s
  95th percentile per-packet one-way delay: 115.152 ms
  Loss rate: 2.67%
Run 9: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 39.11 Mbit/s)**
- **Flow 1 egress (mean 39.09 Mbit/s)**
- **Flow 2 ingress (mean 53.89 Mbit/s)**
- **Flow 2 egress (mean 54.00 Mbit/s)**
- **Flow 3 ingress (mean 66.82 Mbit/s)**
- **Flow 3 egress (mean 66.54 Mbit/s)**

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

- **Flow 1 (95th percentile 114.30 ms)**
- **Flow 2 (95th percentile 122.18 ms)**
- **Flow 3 (95th percentile 115.15 ms)**
Run 10: Statistics of TCP Vegas

Start at: 2018-02-20 20:16:35
End at: 2018-02-20 20:17:05

# Below is generated by plot.py at 2018-02-21 00:23:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.61 Mbit/s
  95th percentile per-packet one-way delay: 120.779 ms
  Loss rate: 0.91%
-- Flow 1:
  Average throughput: 49.07 Mbit/s
  95th percentile per-packet one-way delay: 121.684 ms
  Loss rate: 0.44%
-- Flow 2:
  Average throughput: 40.50 Mbit/s
  95th percentile per-packet one-way delay: 116.922 ms
  Loss rate: 1.23%
-- Flow 3:
  Average throughput: 26.65 Mbit/s
  95th percentile per-packet one-way delay: 114.320 ms
  Loss rate: 2.56%
Run 10: Report of TCP Vegas — Data Link

![Graph of data link throughput and packet delay over time. The graphs show the throughput in Mbit/s and the per-packet one-way delay in milliseconds for different flows. The throughput peaks and drops periodically, while the delay remains relatively constant.]
Run 1: Statistics of Verus

Start at: 2018-02-20 17:18:48
End at: 2018-02-20 17:19:18

# Below is generated by plot.py at 2018-02-21 00:23:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 239.78 Mbit/s
95th percentile per-packet one-way delay: 248.989 ms
Loss rate: 4.04%
-- Flow 1:
Average throughput: 199.23 Mbit/s
95th percentile per-packet one-way delay: 253.712 ms
Loss rate: 4.54%
-- Flow 2:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 207.771 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 22.50 Mbit/s
95th percentile per-packet one-way delay: 214.374 ms
Loss rate: 3.75%
Run 1: Report of Verus — Data Link

![Graph showing network throughput and packet delay](image-url)
Run 2: Statistics of Verus

Start at: 2018-02-20 17:38:26
End at: 2018-02-20 17:38:56

# Below is generated by plot.py at 2018-02-21 00:24:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 281.62 Mbit/s
95th percentile per-packet one-way delay: 159.017 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 181.15 Mbit/s
95th percentile per-packet one-way delay: 154.323 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 136.36 Mbit/s
95th percentile per-packet one-way delay: 154.731 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 31.49 Mbit/s
95th percentile per-packet one-way delay: 262.117 ms
Loss rate: 11.20%
Run 2: Report of Verus — Data Link

![Data Link Throughput Graph]

![Data Link Delay Graph]

Flow 1 ingress (mean 182.93 Mbit/s) — Flow 1 egress (mean 181.15 Mbit/s) — Flow 2 ingress (mean 137.03 Mbit/s) — Flow 2 egress (mean 136.56 Mbit/s) — Flow 3 ingress (mean 35.73 Mbit/s) — Flow 3 egress (mean 31.49 Mbit/s)

Flow 1 (95th percentile 154.32 ms) — Flow 2 (95th percentile 154.73 ms) — Flow 3 (95th percentile 262.12 ms)
Run 3: Statistics of Verus

Start at: 2018-02-20 17:58:37
End at: 2018-02-20 17:59:07

# Below is generated by plot.py at 2018-02-21 00:24:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 148.67 Mbit/s
  95th percentile per-packet one-way delay: 158.293 ms
  Loss rate: 1.25%
-- Flow 1:
  Average throughput: 55.98 Mbit/s
  95th percentile per-packet one-way delay: 200.874 ms
  Loss rate: 0.68%
-- Flow 2:
  Average throughput: 97.77 Mbit/s
  95th percentile per-packet one-way delay: 143.636 ms
  Loss rate: 2.17%
-- Flow 3:
  Average throughput: 86.43 Mbit/s
  95th percentile per-packet one-way delay: 142.404 ms
  Loss rate: 0.22%
Run 3: Report of Verus — Data Link

![Graphs showing throughput and per-packet one-way delay over time for flows 1, 2, and 3.](image-url)
Run 4: Statistics of Verus

Start at: 2018-02-20 18:18:41
End at: 2018-02-20 18:19:11

# Below is generated by plot.py at 2018-02-21 00:24:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 300.00 Mbit/s
  95th percentile per-packet one-way delay: 170.549 ms
  Loss rate: 0.92%
-- Flow 1:
  Average throughput: 214.34 Mbit/s
  95th percentile per-packet one-way delay: 168.419 ms
  Loss rate: 0.52%
-- Flow 2:
  Average throughput: 65.45 Mbit/s
  95th percentile per-packet one-way delay: 166.975 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 130.39 Mbit/s
  95th percentile per-packet one-way delay: 194.989 ms
  Loss rate: 3.73%
Run 4: Report of Verus — Data Link

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

- Flow 1 ingress (mean 213.81 Mbit/s)
- Flow 1 egress (mean 214.34 Mbit/s)
- Flow 2 ingress (mean 64.71 Mbit/s)
- Flow 2 egress (mean 65.45 Mbit/s)
- Flow 3 ingress (mean 133.22 Mbit/s)
- Flow 3 egress (mean 130.39 Mbit/s)

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

- Flow 1 (95th percentile 168.42 ms)
- Flow 2 (95th percentile 166.97 ms)
- Flow 3 (95th percentile 194.99 ms)
Run 5: Statistics of Verus

Start at: 2018-02-20 18:38:39
End at: 2018-02-20 18:39:09

# Below is generated by plot.py at 2018-02-21 00:24:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 215.87 Mbit/s
  95th percentile per-packet one-way delay: 159.305 ms
  Loss rate: 1.33%
-- Flow 1:
  Average throughput: 129.27 Mbit/s
  95th percentile per-packet one-way delay: 136.175 ms
  Loss rate: 0.48%
-- Flow 2:
  Average throughput: 101.32 Mbit/s
  95th percentile per-packet one-way delay: 163.906 ms
  Loss rate: 1.21%
-- Flow 3:
  Average throughput: 59.79 Mbit/s
  95th percentile per-packet one-way delay: 327.485 ms
  Loss rate: 6.98%
Run 5: Report of Verus — Data Link
Run 6: Statistics of Verus

Start at: 2018-02-20 18:58:25
End at: 2018-02-20 18:58:55

# Below is generated by plot.py at 2018-02-21 00:25:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 264.14 Mbit/s
  95th percentile per-packet one-way delay: 188.271 ms
  Loss rate: 3.97%
-- Flow 1:
  Average throughput: 179.97 Mbit/s
  95th percentile per-packet one-way delay: 153.142 ms
  Loss rate: 1.10%
-- Flow 2:
  Average throughput: 84.40 Mbit/s
  95th percentile per-packet one-way delay: 291.147 ms
  Loss rate: 6.74%
-- Flow 3:
  Average throughput: 88.63 Mbit/s
  95th percentile per-packet one-way delay: 239.664 ms
  Loss rate: 14.76%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-02-20 19:18:05
End at: 2018-02-20 19:18:35

# Below is generated by plot.py at 2018-02-21 00:25:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 166.89 Mbit/s
  95th percentile per-packet one-way delay: 265.669 ms
  Loss rate: 4.77%
 -- Flow 1:
  Average throughput: 122.21 Mbit/s
  95th percentile per-packet one-way delay: 278.138 ms
  Loss rate: 4.80%
 -- Flow 2:
  Average throughput: 55.29 Mbit/s
  95th percentile per-packet one-way delay: 167.692 ms
  Loss rate: 3.66%
 -- Flow 3:
  Average throughput: 24.83 Mbit/s
  95th percentile per-packet one-way delay: 210.745 ms
  Loss rate: 9.03%
Run 7: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 127.51 Mbit/s)
- **Flow 1 egress** (mean 122.21 Mbit/s)
- **Flow 2 ingress** (mean 56.59 Mbit/s)
- **Flow 2 egress** (mean 55.29 Mbit/s)
- **Flow 3 ingress** (mean 26.68 Mbit/s)
- **Flow 3 egress** (mean 24.83 Mbit/s)

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

- **Flow 1** (95th percentile 278.14 ms)
- **Flow 2** (95th percentile 167.69 ms)
- **Flow 3** (95th percentile 210.75 ms)
Run 8: Statistics of Verus

Start at: 2018-02-20 19:37:37
End at: 2018-02-20 19:38:07

# Below is generated by plot.py at 2018-02-21 00:25:50
# Datalink statistics
# Total of 3 flows:
Average throughput: 220.62 Mbit/s
95th percentile per-packet one-way delay: 191.966 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 149.31 Mbit/s
95th percentile per-packet one-way delay: 197.837 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 48.38 Mbit/s
95th percentile per-packet one-way delay: 163.627 ms
Loss rate: 2.59%
-- Flow 3:
Average throughput: 134.66 Mbit/s
95th percentile per-packet one-way delay: 173.402 ms
Loss rate: 1.10%
Run 8: Report of Verus — Data Link

![Throughput Graph]

- **Flow 1 ingress** (mean 149.06 Mbit/s)
- **Flow 1 egress** (mean 149.31 Mbit/s)
- **Flow 2 ingress** (mean 49.28 Mbit/s)
- **Flow 2 egress** (mean 83.38 Mbit/s)
- **Flow 3 ingress** (mean 120.28 Mbit/s)
- **Flow 3 egress** (mean 144.66 Mbit/s)

![Delay Graph]

- **Flow 1** (95th percentile 197.94 ms)
- **Flow 2** (95th percentile 163.63 ms)
- **Flow 3** (95th percentile 173.40 ms)
Run 9: Statistics of Verus

Start at: 2018-02-20 19:57:38
End at: 2018-02-20 19:58:08

# Below is generated by plot.py at 2018-02-21 00:26:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 201.46 Mbit/s
  95th percentile per-packet one-way delay: 201.356 ms
  Loss rate: 2.38%
-- Flow 1:
  Average throughput: 66.26 Mbit/s
  95th percentile per-packet one-way delay: 167.670 ms
  Loss rate: 0.21%
-- Flow 2:
  Average throughput: 173.97 Mbit/s
  95th percentile per-packet one-way delay: 188.014 ms
  Loss rate: 2.48%
-- Flow 3:
  Average throughput: 64.33 Mbit/s
  95th percentile per-packet one-way delay: 325.948 ms
  Loss rate: 8.15%
Run 9: Report of Verus — Data Link

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

Legend:
- Flow 1 ingress (mean 65.90 Mbit/s)
- Flow 1 egress (mean 66.26 Mbit/s)
- Flow 2 ingress (mean 175.29 Mbit/s)
- Flow 2 egress (mean 173.97 Mbit/s)
- Flow 3 ingress (mean 66.44 Mbit/s)
- Flow 3 egress (mean 64.33 Mbit/s)

Legend for per-packet one-way delay:
- Flow 1 (95th percentile 167.67 ms)
- Flow 2 (95th percentile 188.01 ms)
- Flow 3 (95th percentile 325.95 ms)
Run 10: Statistics of Verus

Start at: 2018-02-20 20:17:27
End at: 2018-02-20 20:17:57

# Below is generated by plot.py at 2018-02-21 00:27:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 243.71 Mbit/s
  95th percentile per-packet one-way delay: 154.136 ms
  Loss rate: 0.96%
-- Flow 1:
  Average throughput: 163.56 Mbit/s
  95th percentile per-packet one-way delay: 146.334 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 96.23 Mbit/s
  95th percentile per-packet one-way delay: 164.923 ms
  Loss rate: 1.65%
-- Flow 3:
  Average throughput: 51.78 Mbit/s
  95th percentile per-packet one-way delay: 161.122 ms
  Loss rate: 0.16%
Run 10: Report of Verus — Data Link
Run 1: Statistics of Copa

Start at: 2018-02-20 17:01:14
End at: 2018-02-20 17:01:44

# Below is generated by plot.py at 2018-02-21 00:28:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 147.93 Mbit/s
  95th percentile per-packet one-way delay: 112.946 ms
  Loss rate: 0.84%
-- Flow 1:
  Average throughput: 80.36 Mbit/s
  95th percentile per-packet one-way delay: 112.996 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 62.79 Mbit/s
  95th percentile per-packet one-way delay: 112.330 ms
  Loss rate: 0.85%
-- Flow 3:
  Average throughput: 79.80 Mbit/s
  95th percentile per-packet one-way delay: 112.366 ms
  Loss rate: 1.46%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-02-20 17:20:46
End at: 2018-02-20 17:21:16

# Below is generated by plot.py at 2018-02-21 00:28:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.25 Mbit/s
95th percentile per-packet one-way delay: 112.595 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 70.41 Mbit/s
95th percentile per-packet one-way delay: 112.604 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 67.58 Mbit/s
95th percentile per-packet one-way delay: 112.412 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 30.67 Mbit/s
95th percentile per-packet one-way delay: 112.660 ms
Loss rate: 3.46%
Run 2: Report of Copa — Data Link

![Graph of data link throughput and delay]

Throughput (Mbps):
- Flow 1 ingress (mean 70.18 Mbps)
- Flow 1 egress (mean 70.41 Mbps)
- Flow 2 ingress (mean 67.37 Mbps)
- Flow 2 egress (mean 67.58 Mbps)
- Flow 3 ingress (mean 31.03 Mbps)
- Flow 3 egress (mean 30.67 Mbps)

Delay (ms):
- Flow 1 (95th percentile 112.60 ms)
- Flow 2 (95th percentile 112.41 ms)
- Flow 3 (95th percentile 112.66 ms)
Run 3: Statistics of Copa

Start at: 2018-02-20 17:40:28
End at: 2018-02-20 17:40:58

# Below is generated by plot.py at 2018-02-21 00:28:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.26 Mbit/s
95th percentile per-packet one-way delay: 113.990 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 72.60 Mbit/s
95th percentile per-packet one-way delay: 112.355 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 63.55 Mbit/s
95th percentile per-packet one-way delay: 114.085 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 59.73 Mbit/s
95th percentile per-packet one-way delay: 112.543 ms
Loss rate: 3.15%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

Start at: 2018-02-20 18:00:38
End at: 2018-02-20 18:01:08

# Below is generated by plot.py at 2018-02-21 00:28:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 133.01 Mbit/s
  95th percentile per-packet one-way delay: 112.617 ms
  Loss rate: 0.91%
-- Flow 1:
  Average throughput: 74.69 Mbit/s
  95th percentile per-packet one-way delay: 112.607 ms
  Loss rate: 0.62%
-- Flow 2:
  Average throughput: 58.43 Mbit/s
  95th percentile per-packet one-way delay: 112.639 ms
  Loss rate: 1.63%
-- Flow 3:
  Average throughput: 60.04 Mbit/s
  95th percentile per-packet one-way delay: 112.600 ms
  Loss rate: 0.59%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-02-20 18:20:44
End at: 2018-02-20 18:21:14

# Below is generated by plot.py at 2018-02-21 00:29:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 147.40 Mbit/s
  95th percentile per-packet one-way delay: 112.665 ms
  Loss rate: 1.12%
-- Flow 1:
  Average throughput: 76.72 Mbit/s
  95th percentile per-packet one-way delay: 112.684 ms
  Loss rate: 0.47%
-- Flow 2:
  Average throughput: 79.38 Mbit/s
  95th percentile per-packet one-way delay: 112.649 ms
  Loss rate: 1.33%
-- Flow 3:
  Average throughput: 55.24 Mbit/s
  95th percentile per-packet one-way delay: 112.548 ms
  Loss rate: 3.17%
Run 5: Report of Copa — Data Link
Run 6: Statistics of Copa

Start at: 2018-02-20 18:40:37
End at: 2018-02-20 18:41:07

# Below is generated by plot.py at 2018-02-21 00:30:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.91 Mbit/s
95th percentile per-packet one-way delay: 112.630 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 62.47 Mbit/s
95th percentile per-packet one-way delay: 112.621 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 70.00 Mbit/s
95th percentile per-packet one-way delay: 112.630 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 64.40 Mbit/s
95th percentile per-packet one-way delay: 112.658 ms
Loss rate: 3.01%
Run 6: Report of Copa — Data Link

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

- Flow 1 ingress (mean 62.34 Mbit/s)
- Flow 1 egress (mean 62.47 Mbit/s)
- Flow 2 ingress (mean 69.92 Mbit/s)
- Flow 2 egress (mean 70.00 Mbit/s)
- Flow 3 ingress (mean 64.91 Mbit/s)
- Flow 3 egress (mean 64.40 Mbit/s)

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

- Flow 1 (95th percentile 112.62 ms)
- Flow 2 (95th percentile 112.63 ms)
- Flow 3 (95th percentile 112.66 ms)
Run 7: Statistics of Copa

Start at: 2018-02-20 19:00:27
End at: 2018-02-20 19:00:57

# Below is generated by plot.py at 2018-02-21 00:31:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 140.47 Mbit/s
  95th percentile per-packet one-way delay: 112.228 ms
  Loss rate: 1.10%
-- Flow 1:
  Average throughput: 82.61 Mbit/s
  95th percentile per-packet one-way delay: 112.014 ms
  Loss rate: 0.68%
-- Flow 2:
  Average throughput: 62.02 Mbit/s
  95th percentile per-packet one-way delay: 112.051 ms
  Loss rate: 1.07%
-- Flow 3:
  Average throughput: 51.29 Mbit/s
  95th percentile per-packet one-way delay: 112.355 ms
  Loss rate: 3.16%
Run 7: Report of Copa — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 8: Statistics of Copa

Start at: 2018-02-20 19:19:59
End at: 2018-02-20 19:20:29

# Below is generated by plot.py at 2018-02-21 00:31:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 142.20 Mbit/s
  95th percentile per-packet one-way delay: 112.579 ms
  Loss rate: 1.23%
-- Flow 1:
  Average throughput: 82.88 Mbit/s
  95th percentile per-packet one-way delay: 111.706 ms
  Loss rate: 0.96%
-- Flow 2:
  Average throughput: 56.36 Mbit/s
  95th percentile per-packet one-way delay: 112.660 ms
  Loss rate: 1.07%
-- Flow 3:
  Average throughput: 67.21 Mbit/s
  95th percentile per-packet one-way delay: 110.645 ms
  Loss rate: 2.50%
Run 8: Report of Copa — Data Link

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

- **Flow 1 ingress** (mean 83.06 Mbps)
- **Flow 1 egress** (mean 82.88 Mbps)
- **Flow 2 ingress** (mean 56.33 Mbps)
- **Flow 2 egress** (mean 56.36 Mbps)
- **Flow 3 ingress** (mean 67.40 Mbps)
- **Flow 3 egress** (mean 67.21 Mbps)

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

- **Flow 1** (95th percentile 111.71 ms)
- **Flow 2** (95th percentile 112.66 ms)
- **Flow 3** (95th percentile 110.64 ms)

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Run 9: Statistics of Copa

Start at: 2018-02-20 19:39:34
End at: 2018-02-20 19:40:04

# Below is generated by plot.py at 2018-02-21 00:38:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 333.84 Mbit/s
  95th percentile per-packet one-way delay: 297.085 ms
  Loss rate: 31.25%
-- Flow 1:
  Average throughput: 199.44 Mbit/s
  95th percentile per-packet one-way delay: 295.079 ms
  Loss rate: 31.80%
-- Flow 2:
  Average throughput: 289.78 Mbit/s
  95th percentile per-packet one-way delay: 298.150 ms
  Loss rate: 30.43%
-- Flow 3:
  Average throughput: 0.67 Mbit/s
  95th percentile per-packet one-way delay: 235.169 ms
  Loss rate: 15.11%
Run 9: Report of Copa — Data Link

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

- **Flow 1 ingress** (mean 290.27 Mbit/s)
- **Flow 1 egress** (mean 199.44 Mbit/s)
- **Flow 2 ingress** (mean 420.02 Mbit/s)
- **Flow 2 egress** (mean 289.78 Mbit/s)
- **Flow 3 ingress** (mean 0.77 Mbit/s)
- **Flow 3 egress** (mean 0.67 Mbit/s)

![Graph showing per-packet one-way delay over time]
Run 10: Statistics of Copa

Start at: 2018-02-20 19:59:34
End at: 2018-02-20 20:00:04

# Below is generated by plot.py at 2018-02-21 00:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 155.13 Mbit/s
95th percentile per-packet one-way delay: 112.562 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 89.16 Mbit/s
95th percentile per-packet one-way delay: 112.551 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 67.20 Mbit/s
95th percentile per-packet one-way delay: 112.594 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 65.68 Mbit/s
95th percentile per-packet one-way delay: 112.534 ms
Loss rate: 3.22%
Run 10: Report of Copa — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Packet Loss and Delay (ms)

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Run 1: Statistics of FillP

Start at: 2018-02-20 17:08:38
End at: 2018-02-20 17:09:08

# Below is generated by plot.py at 2018-02-21 00:57:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1657.34 Mbit/s
95th percentile per-packet one-way delay: 264.672 ms
Loss rate: 4.85%
-- Flow 1:
Average throughput: 852.48 Mbit/s
95th percentile per-packet one-way delay: 288.101 ms
Loss rate: 3.25%
-- Flow 2:
Average throughput: 861.36 Mbit/s
95th percentile per-packet one-way delay: 197.108 ms
Loss rate: 3.49%
-- Flow 3:
Average throughput: 716.77 Mbit/s
95th percentile per-packet one-way delay: 260.998 ms
Loss rate: 13.07%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

Start at: 2018-02-20 17:28:07
End at: 2018-02-20 17:28:37

# Below is generated by plot.py at 2018-02-21 00:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1714.82 Mbit/s
95th percentile per-packet one-way delay: 215.117 ms
Loss rate: 4.36%
-- Flow 1:
Average throughput: 912.50 Mbit/s
95th percentile per-packet one-way delay: 219.196 ms
Loss rate: 1.54%
-- Flow 2:
Average throughput: 845.71 Mbit/s
95th percentile per-packet one-way delay: 203.936 ms
Loss rate: 4.96%
-- Flow 3:
Average throughput: 740.33 Mbit/s
95th percentile per-packet one-way delay: 258.197 ms
Loss rate: 12.58%
Run 2: Report of FillP — Data Link

![Graph of throughput vs time for different flow ingress and egress rates.

- Flow 1 ingress (mean 919.86 Mbps)
- Flow 1 egress (mean 912.50 Mbps)
- Flow 2 ingress (mean 879.70 Mbps)
- Flow 2 egress (mean 845.73 Mbps)
- Flow 3 ingress (mean 827.59 Mbps)
- Flow 3 egress (mean 740.33 Mbps)]

![Graph of packet delay vs time for different flow 95th percentiles.

- Flow 1 (95th percentile 219.20 ms)
- Flow 2 (95th percentile 203.94 ms)
- Flow 3 (95th percentile 258.20 ms)
Run 3: Statistics of FillP

Start at: 2018-02-20 17:48:18
End at: 2018-02-20 17:48:48

# Below is generated by plot.py at 2018-02-21 00:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1654.33 Mbit/s
95th percentile per-packet one-way delay: 324.912 ms
Loss rate: 3.78%
-- Flow 1:
Average throughput: 851.53 Mbit/s
95th percentile per-packet one-way delay: 336.135 ms
Loss rate: 2.78%
-- Flow 2:
Average throughput: 838.99 Mbit/s
95th percentile per-packet one-way delay: 196.286 ms
Loss rate: 2.53%
-- Flow 3:
Average throughput: 756.95 Mbit/s
95th percentile per-packet one-way delay: 197.387 ms
Loss rate: 9.62%
Run 3: Report of FillP — Data Link
Run 4: Statistics of FillP

Start at: 2018-02-20 18:08:48
End at: 2018-02-20 18:09:18

# Below is generated by plot.py at 2018-02-21 00:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1162.24 Mbit/s
95th percentile per-packet one-way delay: 402.356 ms
Loss rate: 5.68%
-- Flow 1:
Average throughput: 673.22 Mbit/s
95th percentile per-packet one-way delay: 386.315 ms
Loss rate: 4.99%
-- Flow 2:
Average throughput: 523.15 Mbit/s
95th percentile per-packet one-way delay: 402.316 ms
Loss rate: 7.08%
-- Flow 3:
Average throughput: 453.75 Mbit/s
95th percentile per-packet one-way delay: 430.285 ms
Loss rate: 5.47%
Run 4: Report of FillP — Data Link

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

- Flow 1 ingress (mean 703.12 Mbps) vs Flow 1 egress (mean 673.22 Mbps)
- Flow 2 ingress (mean 553.31 Mbps) vs Flow 2 egress (mean 523.15 Mbps)
- Flow 3 ingress (mean 461.43 Mbps) vs Flow 3 egress (mean 453.75 Mbps)

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

- Flow 1 (95th percentile 386.31 ms)
- Flow 2 (95th percentile 402.32 ms)
- Flow 3 (95th percentile 430.29 ms)
Run 5: Statistics of FillP

Start at: 2018-02-20 18:28:13
End at: 2018-02-20 18:28:43

# Below is generated by plot.py at 2018-02-21 01:00:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1698.07 Mbit/s
95th percentile per-packet one-way delay: 239.905 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 876.91 Mbit/s
95th percentile per-packet one-way delay: 241.667 ms
Loss rate: 3.77%
-- Flow 2:
Average throughput: 867.21 Mbit/s
95th percentile per-packet one-way delay: 191.368 ms
Loss rate: 3.90%
-- Flow 3:
Average throughput: 754.95 Mbit/s
95th percentile per-packet one-way delay: 255.211 ms
Loss rate: 9.77%
Run 5: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 904.37 Mb/s)
- Flow 1 Egress (mean 876.91 Mb/s)
- Flow 2 Ingress (mean 892.05 Mb/s)
- Flow 2 Egress (mean 867.21 Mb/s)
- Flow 3 Ingress (mean 817.49 Mb/s)
- Flow 3 Egress (mean 754.95 Mb/s)

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

- Flow 1 (95th percentile 241.67 ms)
- Flow 2 (95th percentile 191.37 ms)
- Flow 3 (95th percentile 255.21 ms)
Run 6: Statistics of FillP

Start at: 2018-02-20 18:48:12
End at: 2018-02-20 18:48:42

# Below is generated by plot.py at 2018-02-21 01:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1686.57 Mbit/s
95th percentile per-packet one-way delay: 233.559 ms
Loss rate: 4.71%
  -- Flow 1:
Average throughput: 899.34 Mbit/s
95th percentile per-packet one-way delay: 190.408 ms
Loss rate: 3.04%
  -- Flow 2:
Average throughput: 851.24 Mbit/s
95th percentile per-packet one-way delay: 277.134 ms
Loss rate: 5.50%
  -- Flow 3:
Average throughput: 684.73 Mbit/s
95th percentile per-packet one-way delay: 357.742 ms
Loss rate: 9.08%
Run 6: Report of FillP — Data Link

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

- **Flow 1 Ingress (mean 920.52 Mbps)**
- **Flow 1 Egress (mean 899.34 Mbps)**
- **Flow 2 Ingress (mean 890.50 Mbps)**
- **Flow 2 Egress (mean 852.24 Mbps)**
- **Flow 3 Ingress (mean 735.95 Mbps)**
- **Flow 3 Egress (mean 684.73 Mbps)**

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

- **Flow 1 (95th percentile 190.41 ms)**
- **Flow 2 (95th percentile 277.13 ms)**
- **Flow 3 (95th percentile 357.74 ms)**

255
Run 7: Statistics of FillP

Start at: 2018-02-20 19:07:57
End at: 2018-02-20 19:08:27

# Below is generated by plot.py at 2018-02-21 01:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1474.93 Mbit/s
95th percentile per-packet one-way delay: 328.559 ms
Loss rate: 6.22%
-- Flow 1:
Average throughput: 778.33 Mbit/s
95th percentile per-packet one-way delay: 323.530 ms
Loss rate: 3.13%
-- Flow 2:
Average throughput: 675.40 Mbit/s
95th percentile per-packet one-way delay: 340.092 ms
Loss rate: 9.66%
-- Flow 3:
Average throughput: 765.23 Mbit/s
95th percentile per-packet one-way delay: 202.627 ms
Loss rate: 9.09%
Run 7: Report of FillP — Data Link

![Graph of throughput over time showing different flows and their ingress vs egress speeds.]

![Graph of packet end-to-end delay over time showing different flows and their 95th percentile delays.]

Legend:
- Flow 1 ingress (mean 797.47 Mbit/s)
- Flow 1 egress (mean 778.33 Mbit/s)
- Flow 2 ingress (mean 739.01 Mbit/s)
- Flow 2 egress (mean 675.40 Mbit/s)
- Flow 3 ingress (mean 822.41 Mbit/s)
- Flow 3 egress (mean 765.23 Mbit/s)

Legend for delay:
- Flow 1 (95th percentile 323.53 ms)
- Flow 2 (95th percentile 340.09 ms)
- Flow 3 (95th percentile 202.63 ms)
Run 8: Statistics of FillP

Start at: 2018-02-20 19:27:27
End at: 2018-02-20 19:27:57

# Below is generated by plot.py at 2018-02-21 01:10:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1619.25 Mbit/s
95th percentile per-packet one-way delay: 208.019 ms
Loss rate: 7.75%
-- Flow 1:
Average throughput: 876.73 Mbit/s
95th percentile per-packet one-way delay: 196.542 ms
Loss rate: 4.71%
-- Flow 2:
Average throughput: 787.82 Mbit/s
95th percentile per-packet one-way delay: 204.387 ms
Loss rate: 10.29%
-- Flow 3:
Average throughput: 674.22 Mbit/s
95th percentile per-packet one-way delay: 236.435 ms
Loss rate: 12.92%
Run 8: Report of FillP — Data Link

![Throughput Graph](image1)

- **Flow 1 Ingress** (mean 913.21 Mbit/s)
- **Flow 1 Egress** (mean 876.73 Mbit/s)
- **Flow 2 Ingress** (mean 856.28 Mbit/s)
- **Flow 2 Egress** (mean 787.82 Mbit/s)
- **Flow 3 Ingress** (mean 756.72 Mbit/s)
- **Flow 3 Egress** (mean 674.22 Mbit/s)

![Delay Graph](image2)

- **Flow 1** (95th percentile 196.54 ms)
- **Flow 2** (95th percentile 204.39 ms)
- **Flow 3** (95th percentile 236.44 ms)
Run 9: Statistics of FillP

Start at: 2018-02-20 19:47:19
End at: 2018-02-20 19:47:49

# Below is generated by plot.py at 2018-02-21 01:21:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1597.25 Mbit/s
  95th percentile per-packet one-way delay: 309.112 ms
  Loss rate: 4.14%
-- Flow 1:
  Average throughput: 838.54 Mbit/s
  95th percentile per-packet one-way delay: 307.203 ms
  Loss rate: 3.08%
-- Flow 2:
  Average throughput: 844.46 Mbit/s
  95th percentile per-packet one-way delay: 206.453 ms
  Loss rate: 3.98%
-- Flow 3:
  Average throughput: 609.82 Mbit/s
  95th percentile per-packet one-way delay: 345.985 ms
  Loss rate: 8.78%
Run 9: Report of FillP — Data Link

![Graph showing throughput and packet arrival times over time for different flows.](image-url)
Run 10: Statistics of FillP

Start at: 2018-02-20 20:06:56
End at: 2018-02-20 20:07:26

# Below is generated by plot.py at 2018-02-21 01:29:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1729.40 Mbit/s
  95th percentile per-packet one-way delay: 204.736 ms
  Loss rate: 4.86%
-- Flow 1:
  Average throughput: 888.26 Mbit/s
  95th percentile per-packet one-way delay: 193.261 ms
  Loss rate: 4.19%
-- Flow 2:
  Average throughput: 875.82 Mbit/s
  95th percentile per-packet one-way delay: 189.751 ms
  Loss rate: 4.23%
-- Flow 3:
  Average throughput: 800.71 Mbit/s
  95th percentile per-packet one-way delay: 227.358 ms
  Loss rate: 8.41%
Run 10: Report of FILLP — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 920.11 Mbps)
- Flow 1 egress (mean 888.26 Mbps)
- Flow 2 ingress (mean 904.28 Mbps)
- Flow 2 egress (mean 875.82 Mbps)
- Flow 3 ingress (mean 852.92 Mbps)
- Flow 3 egress (mean 800.71 Mbps)

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

- Flow 1 (95th percentile 193.26 ms)
- Flow 2 (95th percentile 189.75 ms)
- Flow 3 (95th percentile 227.36 ms)
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-20 17:05:07
End at: 2018-02-20 17:05:37

Below is generated by plot.py at 2018-02-21 01:29:38
Datalink statistics
-- Total of 3 flows:
  Average throughput: 293.61 Mbit/s
  95th percentile per-packet one-way delay: 113.346 ms
  Loss rate: 1.14%
-- Flow 1:
  Average throughput: 148.81 Mbit/s
  95th percentile per-packet one-way delay: 113.187 ms
  Loss rate: 0.71%
-- Flow 2:
  Average throughput: 159.05 Mbit/s
  95th percentile per-packet one-way delay: 113.469 ms
  Loss rate: 1.12%
-- Flow 3:
  Average throughput: 123.46 Mbit/s
  95th percentile per-packet one-way delay: 113.507 ms
  Loss rate: 2.80%
Run 1: Report of Indigo-1-32 — Data Link

![Graph showing throughput and packet one-way delay over time for different flows. The graphs illustrate the performance metrics for each flow including ingress and egress rates, and packet delay distributions.]
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-20 17:24:36
End at: 2018-02-20 17:25:06

# Below is generated by plot.py at 2018-02-21 01:29:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 287.51 Mbit/s
95th percentile per-packet one-way delay: 112.765 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 151.73 Mbit/s
95th percentile per-packet one-way delay: 112.561 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 144.56 Mbit/s
95th percentile per-packet one-way delay: 112.928 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 124.99 Mbit/s
95th percentile per-packet one-way delay: 113.035 ms
Loss rate: 2.74%
Run 2: Report of Indigo-1-32 — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 151.74 Mbps)
- Flow 1 egress (mean 151.73 Mbps)
- Flow 2 ingress (mean 144.55 Mbps)
- Flow 2 egress (mean 144.56 Mbps)
- Flow 3 ingress (mean 126.56 Mbps)
- Flow 3 egress (mean 124.99 Mbps)

Packet delay (ms):
- Flow 1 (95th percentile 112.56 ms)
- Flow 2 (95th percentile 112.93 ms)
- Flow 3 (95th percentile 113.03 ms)
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-20 17:44:18
End at: 2018-02-20 17:44:48

# Below is generated by plot.py at 2018-02-21 01:29:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 331.37 Mbit/s
  95th percentile per-packet one-way delay: 114.486 ms
  Loss rate: 1.04%
-- Flow 1:
  Average throughput: 180.73 Mbit/s
  95th percentile per-packet one-way delay: 113.710 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 161.97 Mbit/s
  95th percentile per-packet one-way delay: 114.642 ms
  Loss rate: 1.10%
-- Flow 3:
  Average throughput: 135.60 Mbit/s
  95th percentile per-packet one-way delay: 123.287 ms
  Loss rate: 2.51%
Run 3: Report of Indigo-1-32 — Data Link
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-20 18:05:02
End at: 2018-02-20 18:05:32

# Below is generated by plot.py at 2018-02-21 01:29:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.32 Mbit/s
95th percentile per-packet one-way delay: 113.447 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 192.79 Mbit/s
95th percentile per-packet one-way delay: 113.223 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 146.35 Mbit/s
95th percentile per-packet one-way delay: 113.506 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 126.38 Mbit/s
95th percentile per-packet one-way delay: 113.996 ms
Loss rate: 2.55%
Run 4: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 192.51 Mbit/s) and egress (mean 192.79 Mbit/s)
- Flow 2 ingress (mean 146.40 Mbit/s) and egress (mean 146.35 Mbit/s)
- Flow 3 ingress (mean 126.78 Mbit/s) and egress (mean 126.38 Mbit/s)
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-20 18:24:40
End at: 2018-02-20 18:25:10

# Below is generated by plot.py at 2018-02-21 01:29:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 324.86 Mbit/s
  95th percentile per-packet one-way delay: 113.191 ms
  Loss rate: 0.94%
-- Flow 1:
  Average throughput: 178.94 Mbit/s
  95th percentile per-packet one-way delay: 112.961 ms
  Loss rate: 0.66%
-- Flow 2:
  Average throughput: 161.43 Mbit/s
  95th percentile per-packet one-way delay: 113.448 ms
  Loss rate: 0.77%
-- Flow 3:
  Average throughput: 121.81 Mbit/s
  95th percentile per-packet one-way delay: 113.460 ms
  Loss rate: 2.68%
Run 5: Report of Indigo-1-32 — Data Link

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

Legend:
- Flow 1 ingress (mean 178.78 Mbit/s)
- Flow 1 egress (mean 178.94 Mbit/s)
- Flow 2 ingress (mean 160.82 Mbit/s)
- Flow 2 egress (mean 161.43 Mbit/s)
- Flow 3 ingress (mean 122.26 Mbit/s)
- Flow 3 egress (mean 121.81 Mbit/s)
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-20 18:44:32
End at: 2018-02-20 18:45:02

# Below is generated by plot.py at 2018-02-21 01:29:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.43 Mbit/s
95th percentile per-packet one-way delay: 120.133 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 174.87 Mbit/s
95th percentile per-packet one-way delay: 114.445 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 167.64 Mbit/s
95th percentile per-packet one-way delay: 121.231 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 139.49 Mbit/s
95th percentile per-packet one-way delay: 126.135 ms
Loss rate: 2.62%
Run 6: Report of Indigo-1-32 — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 174.69 Mbit/s)
Flow 1 egress (mean 174.87 Mbit/s)
Flow 2 ingress (mean 167.46 Mbit/s)
Flow 2 egress (mean 167.64 Mbit/s)
Flow 3 ingress (mean 139.94 Mbit/s)
Flow 3 egress (mean 139.49 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 114.44 ms)
Flow 2 (95th percentile 121.23 ms)
Flow 3 (95th percentile 126.14 ms)
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-20 19:04:20
End at: 2018-02-20 19:04:50

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 310.28 Mbit/s
  95th percentile per-packet one-way delay: 112.551 ms
  Loss rate: 1.07%
-- Flow 1:
  Average throughput: 181.08 Mbit/s
  95th percentile per-packet one-way delay: 112.335 ms
  Loss rate: 0.62%
-- Flow 2:
  Average throughput: 135.69 Mbit/s
  95th percentile per-packet one-way delay: 112.478 ms
  Loss rate: 1.18%
-- Flow 3:
  Average throughput: 122.99 Mbit/s
  95th percentile per-packet one-way delay: 113.879 ms
  Loss rate: 2.82%
Run 7: Report of Indigo-1-32 — Data Link

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**Throughput (Mbps)**

```
Flow 1 ingress (mean 180.83 Mbps)  Flow 1 egress (mean 181.08 Mbps)
Flow 2 ingress (mean 135.75 Mbps)  Flow 2 egress (mean 135.69 Mbps)
Flow 3 ingress (mean 123.57 Mbps)  Flow 3 egress (mean 122.99 Mbps)
```

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

```
Flow 1 (95th percentile 112.33 ms)  Flow 2 (95th percentile 112.48 ms)  Flow 3 (95th percentile 113.88 ms)
```
Run 8: Statistics of Indigo-1-32

Start at: 2018-02-20 19:23:55
End at: 2018-02-20 19:24:25

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 288.45 Mbit/s
95th percentile per-packet one-way delay: 111.824 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 152.08 Mbit/s
95th percentile per-packet one-way delay: 111.819 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 143.30 Mbit/s
95th percentile per-packet one-way delay: 111.908 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 130.61 Mbit/s
95th percentile per-packet one-way delay: 110.300 ms
Loss rate: 2.27%
Run 8: Report of Indigo-1-32 — Data Link

![Graph showing throughput and packet delay for Flows 1, 2, and 3.](image)

- **Flow 1 Ingress (mean 152.10 Mb/s)**
- **Flow 1 Egress (mean 152.08 Mb/s)**
- **Flow 2 Ingress (mean 142.99 Mb/s)**
- **Flow 2 Egress (mean 143.30 Mb/s)**
- **Flow 3 Ingress (mean 130.52 Mb/s)**
- **Flow 3 Egress (mean 130.61 Mb/s)**

![Graph showing packet delay for Flows 1, 2, and 3.](image)

- **Flow 1 (95th percentile 111.82 ms)**
- **Flow 2 (95th percentile 111.91 ms)**
- **Flow 3 (95th percentile 110.30 ms)**
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-20 19:43:45
End at: 2018-02-20 19:44:15

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 292.09 Mbit/s
  95th percentile per-packet one-way delay: 113.219 ms
  Loss rate: 1.16%
-- Flow 1:
  Average throughput: 150.44 Mbit/s
  95th percentile per-packet one-way delay: 113.008 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 154.69 Mbit/s
  95th percentile per-packet one-way delay: 113.387 ms
  Loss rate: 1.09%
-- Flow 3:
  Average throughput: 122.13 Mbit/s
  95th percentile per-packet one-way delay: 113.765 ms
  Loss rate: 2.79%
Run 9: Report of Indigo-1-32 — Data Link

![Graph showing throughput and per-packet one-way delay](image-url)
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-20 20:03:26
End at: 2018-02-20 20:03:56

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 286.65 Mbit/s
95th percentile per-packet one-way delay: 113.352 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 149.55 Mbit/s
95th percentile per-packet one-way delay: 113.250 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 146.17 Mbit/s
95th percentile per-packet one-way delay: 113.451 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 126.90 Mbit/s
95th percentile per-packet one-way delay: 113.390 ms
Loss rate: 2.56%
Run 10: Report of Indigo-1-32 — Data Link
Run 1: Statistics of Vivace-latency

Start at: 2018-02-20 17:16:37
End at: 2018-02-20 17:17:07

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 420.01 Mbit/s
  95th percentile per-packet one-way delay: 119.285 ms
  Loss rate: 1.18%
-- Flow 1:
  Average throughput: 318.71 Mbit/s
  95th percentile per-packet one-way delay: 125.779 ms
  Loss rate: 0.63%
-- Flow 2:
  Average throughput: 84.00 Mbit/s
  95th percentile per-packet one-way delay: 112.519 ms
  Loss rate: 2.60%
-- Flow 3:
  Average throughput: 140.94 Mbit/s
  95th percentile per-packet one-way delay: 114.804 ms
  Loss rate: 3.22%
Run 1: Report of Vivace-latency — Data Link

[Graphs showing network performance metrics over time, including throughput and packet delay, with annotations explaining flow and data rates.]
Run 2: Statistics of Vivace-latency

Start at: 2018-02-20 17:36:16
End at: 2018-02-20 17:36:46

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 414.16 Mbit/s
95th percentile per-packet one-way delay: 112.533 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 249.92 Mbit/s
95th percentile per-packet one-way delay: 112.362 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 185.53 Mbit/s
95th percentile per-packet one-way delay: 111.734 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 127.85 Mbit/s
95th percentile per-packet one-way delay: 114.547 ms
Loss rate: 3.75%
Run 2: Report of Vivace-latency — Data Link

![Graph showing throughput and latency data for different flows over time.](image-url)
Run 3: Statistics of Vivace-latency

Start at: 2018-02-20 17:56:26
End at: 2018-02-20 17:56:56

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 418.53 Mbit/s
  95th percentile per-packet one-way delay: 113.384 ms
  Loss rate: 1.08%
-- Flow 1:
  Average throughput: 256.74 Mbit/s
  95th percentile per-packet one-way delay: 113.583 ms
  Loss rate: 0.88%
-- Flow 2:
  Average throughput: 179.73 Mbit/s
  95th percentile per-packet one-way delay: 112.848 ms
  Loss rate: 0.84%
-- Flow 3:
  Average throughput: 132.27 Mbit/s
  95th percentile per-packet one-way delay: 114.344 ms
  Loss rate: 2.89%
Run 3: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 257.09 Mbit/s)
- Flow 1 egress (mean 256.74 Mbit/s)
- Flow 2 ingress (mean 179.25 Mbit/s)
- Flow 2 egress (mean 179.73 Mbit/s)
- Flow 3 ingress (mean 131.10 Mbit/s)
- Flow 3 egress (mean 132.27 Mbit/s)

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

- Flow 1 (95th percentile 113.58 ms)
- Flow 2 (95th percentile 112.85 ms)
- Flow 3 (95th percentile 114.34 ms)
Run 4: Statistics of Vivace-latency

Start at: 2018-02-20 18:16:23
End at: 2018-02-20 18:16:53

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.01 Mbit/s
95th percentile per-packet one-way delay: 113.397 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 294.78 Mbit/s
95th percentile per-packet one-way delay: 114.115 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 193.79 Mbit/s
95th percentile per-packet one-way delay: 112.013 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 138.44 Mbit/s
95th percentile per-packet one-way delay: 111.896 ms
Loss rate: 4.51%
Run 4: Report of Vivace-latency — Data Link
Run 5: Statistics of Vivace-latency

Start at: 2018-02-20 18:36:24
End at: 2018-02-20 18:36:54

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 427.10 Mbit/s
  95th percentile per-packet one-way delay: 113.158 ms
  Loss rate: 1.23%
-- Flow 1:
  Average throughput: 254.63 Mbit/s
  95th percentile per-packet one-way delay: 112.556 ms
  Loss rate: 0.69%
-- Flow 2:
  Average throughput: 192.30 Mbit/s
  95th percentile per-packet one-way delay: 112.690 ms
  Loss rate: 1.53%
-- Flow 3:
  Average throughput: 139.16 Mbit/s
  95th percentile per-packet one-way delay: 115.216 ms
  Loss rate: 3.36%
Run 5: Report of Vivace-latency — Data Link
Run 6: Statistics of Vivace-latency

Start at: 2018-02-20 18:56:08
End at: 2018-02-20 18:56:38

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.79 Mbit/s
95th percentile per-packet one-way delay: 126.825 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 280.99 Mbit/s
95th percentile per-packet one-way delay: 116.095 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 216.02 Mbit/s
95th percentile per-packet one-way delay: 120.059 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 166.25 Mbit/s
95th percentile per-packet one-way delay: 148.850 ms
Loss rate: 2.16%
Run 6: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 281.42 Mbit/s)
- Flow 1 egress (mean 280.99 Mbit/s)
- Flow 2 ingress (mean 217.66 Mbit/s)
- Flow 2 egress (mean 216.02 Mbit/s)
- Flow 3 ingress (mean 166.01 Mbit/s)
- Flow 3 egress (mean 166.25 Mbit/s)
Run 7: Statistics of Vivace-latency

Start at: 2018-02-20 19:15:50
End at: 2018-02-20 19:16:20

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 446.14 Mbit/s
95th percentile per-packet one-way delay: 112.579 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 298.75 Mbit/s
95th percentile per-packet one-way delay: 111.905 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 187.91 Mbit/s
95th percentile per-packet one-way delay: 112.706 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 71.01 Mbit/s
95th percentile per-packet one-way delay: 112.574 ms
Loss rate: 3.30%
Run 7: Report of Vivace-latency — Data Link

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

Legend:
- Flow 1 ingress (mean 299.76 Mbit/s)
- Flow 1 egress (mean 298.75 Mbit/s)
- Flow 2 ingress (mean 188.66 Mbit/s)
- Flow 2 egress (mean 187.91 Mbit/s)
- Flow 3 ingress (mean 71.74 Mbit/s)
- Flow 3 egress (mean 71.01 Mbit/s)
Run 8: Statistics of Vivace-latency

Start at: 2018-02-20 19:35:19
End at: 2018-02-20 19:35:49

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.31 Mbit/s
95th percentile per-packet one-way delay: 113.999 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 287.08 Mbit/s
95th percentile per-packet one-way delay: 115.344 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 214.95 Mbit/s
95th percentile per-packet one-way delay: 113.776 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 126.35 Mbit/s
95th percentile per-packet one-way delay: 112.259 ms
Loss rate: 3.51%
Run 8: Report of Vivace-latency — Data Link
Run 9: Statistics of Vivace-latency

End at: 2018-02-20 19:55:50

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 493.85 Mbit/s
  95th percentile per-packet one-way delay: 113.122 ms
  Loss rate: 1.40%
-- Flow 1:
  Average throughput: 305.17 Mbit/s
  95th percentile per-packet one-way delay: 113.519 ms
  Loss rate: 0.82%
-- Flow 2:
  Average throughput: 189.67 Mbit/s
  95th percentile per-packet one-way delay: 111.391 ms
  Loss rate: 1.45%
-- Flow 3:
  Average throughput: 195.09 Mbit/s
  95th percentile per-packet one-way delay: 116.534 ms
  Loss rate: 4.02%
Run 9: Report of Vivace-latency — Data Link

![Graph of throughput and latency over time for different flows.](image-url)
Run 10: Statistics of Vivace-latency

Start at: 2018-02-20 20:15:07
End at: 2018-02-20 20:15:37

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 524.01 Mbit/s
95th percentile per-packet one-way delay: 118.924 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 290.20 Mbit/s
95th percentile per-packet one-way delay: 117.264 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 288.09 Mbit/s
95th percentile per-packet one-way delay: 152.172 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 133.61 Mbit/s
95th percentile per-packet one-way delay: 115.145 ms
Loss rate: 3.27%
Run 10: Report of Vivace-latency — Data Link
Run 1: Statistics of Vivace-loss

Start at: 2018-02-20 17:14:02
End at: 2018-02-20 17:14:32

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 504.26 Mbit/s
95th percentile per-packet one-way delay: 114.895 ms
Loss rate: 1.47%

-- Flow 1:
Average throughput: 328.23 Mbit/s
95th percentile per-packet one-way delay: 117.550 ms
Loss rate: 0.90%

-- Flow 2:
Average throughput: 219.62 Mbit/s
95th percentile per-packet one-way delay: 113.602 ms
Loss rate: 2.48%

-- Flow 3:
Average throughput: 94.91 Mbit/s
95th percentile per-packet one-way delay: 113.058 ms
Loss rate: 2.65%
Run 1: Report of Vivace-loss — Data Link

![Graph showing throughput and delay over time]

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 328.76 Mbps)
  - Flow 1 egress (mean 328.23 Mbps)
  - Flow 2 ingress (mean 222.67 Mbps)
  - Flow 2 egress (mean 219.62 Mbps)
  - Flow 3 ingress (mean 95.33 Mbps)
  - Flow 3 egress (mean 94.91 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 117.55 ms)
  - Flow 2 (95th percentile 113.60 ms)
  - Flow 3 (95th percentile 113.06 ms)
Run 2: Statistics of Vivace-loss

Start at: 2018-02-20 17:33:41
End at: 2018-02-20 17:34:11

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 488.62 Mbit/s
95th percentile per-packet one-way delay: 216.607 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 307.96 Mbit/s
95th percentile per-packet one-way delay: 221.030 ms
Loss rate: 2.39%
-- Flow 2:
Average throughput: 203.05 Mbit/s
95th percentile per-packet one-way delay: 110.322 ms
Loss rate: 2.41%
-- Flow 3:
Average throughput: 142.70 Mbit/s
95th percentile per-packet one-way delay: 110.060 ms
Loss rate: 3.43%
Run 2: Report of Vivace-loss — Data Link
Run 3: Statistics of Vivace-loss

Start at: 2018-02-20 17:53:50
End at: 2018-02-20 17:54:20

# Below is generated by plot.py at 2018-02-21 01:29:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 430.29 Mbit/s
  95th percentile per-packet one-way delay: 151.334 ms
  Loss rate: 1.61%
-- Flow 1:
  Average throughput: 202.54 Mbit/s
  95th percentile per-packet one-way delay: 193.929 ms
  Loss rate: 1.67%
-- Flow 2:
  Average throughput: 294.67 Mbit/s
  95th percentile per-packet one-way delay: 115.794 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 100.81 Mbit/s
  95th percentile per-packet one-way delay: 161.640 ms
  Loss rate: 2.36%
Run 3: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 294.44 Mbit/s)
- Flow 1 egress (mean 202.54 Mbit/s)
- Flow 2 ingress (mean 295.57 Mbit/s)
- Flow 2 egress (mean 294.67 Mbit/s)
- Flow 3 ingress (mean 190.96 Mbit/s)
- Flow 3 egress (mean 100.81 Mbit/s)

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

- Flow 1 (95th percentile 193.93 ms)
- Flow 2 (95th percentile 115.79 ms)
- Flow 3 (95th percentile 161.64 ms)
Run 4: Statistics of Vivace-loss

Start at: 2018-02-20 18:13:55
End at: 2018-02-20 18:14:25

# Below is generated by plot.py at 2018-02-21 01:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 400.03 Mbit/s
95th percentile per-packet one-way delay: 113.693 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 180.29 Mbit/s
95th percentile per-packet one-way delay: 114.191 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 262.89 Mbit/s
95th percentile per-packet one-way delay: 112.991 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 140.78 Mbit/s
95th percentile per-packet one-way delay: 110.544 ms
Loss rate: 3.42%
Run 4: Report of Vivace-loss — Data Link
Run 5: Statistics of Vivace-loss

Start at: 2018-02-20 18:33:42
End at: 2018-02-20 18:34:12

# Below is generated by plot.py at 2018-02-21 01:33:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 597.83 Mbit/s
95th percentile per-packet one-way delay: 148.860 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 360.61 Mbit/s
95th percentile per-packet one-way delay: 171.659 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 291.11 Mbit/s
95th percentile per-packet one-way delay: 136.097 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 137.17 Mbit/s
95th percentile per-packet one-way delay: 115.216 ms
Loss rate: 3.46%
Run 5: Report of Vivace-loss — Data Link
Run 6: Statistics of Vivace-loss

Start at: 2018-02-20 18:53:36
End at: 2018-02-20 18:54:06

# Below is generated by plot.py at 2018-02-21 01:33:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 439.08 Mbit/s
95th percentile per-packet one-way delay: 126.429 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 280.46 Mbit/s
95th percentile per-packet one-way delay: 133.940 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 193.10 Mbit/s
95th percentile per-packet one-way delay: 113.098 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 95.03 Mbit/s
95th percentile per-packet one-way delay: 126.823 ms
Loss rate: 2.49%
Run 6: Report of Vivace-loss — Data Link

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

*Flow 1 ingress (mean 281.49 Mbit/s)*
*Flow 1 egress (mean 280.46 Mbit/s)*
*Flow 2 ingress (mean 193.01 Mbit/s)*
*Flow 2 egress (mean 193.10 Mbit/s)*
*Flow 3 ingress (mean 95.22 Mbit/s)*
*Flow 3 egress (mean 95.03 Mbit/s)*

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

*Flow 1 (95th percentile 133.94 ms)*
*Flow 2 (95th percentile 113.10 ms)*
*Flow 3 (95th percentile 126.82 ms)*

315
Run 7: Statistics of Vivace-loss

Start at: 2018-02-20 19:13:17
End at: 2018-02-20 19:13:47

# Below is generated by plot.py at 2018-02-21 01:35:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 468.18 Mbit/s
  95th percentile per-packet one-way delay: 117.070 ms
  Loss rate: 1.15%
-- Flow 1:
  Average throughput: 275.31 Mbit/s
  95th percentile per-packet one-way delay: 112.768 ms
  Loss rate: 0.34%
-- Flow 2:
  Average throughput: 182.16 Mbit/s
  95th percentile per-packet one-way delay: 155.265 ms
  Loss rate: 1.13%
-- Flow 3:
  Average throughput: 223.24 Mbit/s
  95th percentile per-packet one-way delay: 118.090 ms
  Loss rate: 4.12%
Run 7: Report of Vivace-loss — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 274.15 Mbps)
  - Flow 1 egress (mean 275.31 Mbps)
  - Flow 2 ingress (mean 182.12 Mbps)
  - Flow 2 egress (mean 182.16 Mbps)
  - Flow 3 ingress (mean 227.32 Mbps)
  - Flow 3 egress (mean 223.24 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 112.77 ms)
  - Flow 2 (95th percentile 155.26 ms)
  - Flow 3 (95th percentile 110.09 ms)
Run 8: Statistics of Vivace-loss

Start at: 2018-02-20 19:32:37
End at: 2018-02-20 19:33:07

# Below is generated by plot.py at 2018-02-21 01:37:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 561.10 Mbit/s
95th percentile per-packet one-way delay: 118.822 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 341.36 Mbit/s
95th percentile per-packet one-way delay: 117.677 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 260.57 Mbit/s
95th percentile per-packet one-way delay: 113.359 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 145.87 Mbit/s
95th percentile per-packet one-way delay: 226.283 ms
Loss rate: 3.32%
Run 8: Report of Vivace-loss — Data Link
Run 9: Statistics of Vivace-loss

Start at: 2018-02-20 19:52:45
End at: 2018-02-20 19:53:15

# Below is generated by plot.py at 2018-02-21 01:37:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 493.80 Mbit/s
  95th percentile per-packet one-way delay: 172.843 ms
  Loss rate: 1.55%
-- Flow 1:
  Average throughput: 269.51 Mbit/s
  95th percentile per-packet one-way delay: 195.541 ms
  Loss rate: 1.03%
-- Flow 2:
  Average throughput: 274.32 Mbit/s
  95th percentile per-packet one-way delay: 159.721 ms
  Loss rate: 1.84%
-- Flow 3:
  Average throughput: 131.72 Mbit/s
  95th percentile per-packet one-way delay: 111.355 ms
  Loss rate: 3.58%
Run 9: Report of Vivace-loss — Data Link
Run 10: Statistics of Vivace-loss

Start at: 2018-02-20 20:12:30
End at: 2018-02-20 20:13:00

# Below is generated by plot.py at 2018-02-21 01:37:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 498.92 Mbit/s
  95th percentile per-packet one-way delay: 135.965 ms
  Loss rate: 1.67%
-- Flow 1:
  Average throughput: 281.03 Mbit/s
  95th percentile per-packet one-way delay: 140.029 ms
  Loss rate: 1.23%
-- Flow 2:
  Average throughput: 254.42 Mbit/s
  95th percentile per-packet one-way delay: 134.549 ms
  Loss rate: 1.94%
-- Flow 3:
  Average throughput: 152.61 Mbit/s
  95th percentile per-packet one-way delay: 132.896 ms
  Loss rate: 3.18%
Run 10: Report of Vivace-loss — Data Link
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-20 17:06:17
End at: 2018-02-20 17:06:47

# Below is generated by plot.py at 2018-02-21 01:37:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 464.79 Mbit/s
  95th percentile per-packet one-way delay: 115.822 ms
  Loss rate: 1.61%
-- Flow 1:
  Average throughput: 266.84 Mbit/s
  95th percentile per-packet one-way delay: 116.752 ms
  Loss rate: 1.04%
-- Flow 2:
  Average throughput: 189.42 Mbit/s
  95th percentile per-packet one-way delay: 112.664 ms
  Loss rate: 1.35%
-- Flow 3:
  Average throughput: 225.05 Mbit/s
  95th percentile per-packet one-way delay: 113.978 ms
  Loss rate: 4.09%
Run 1: Report of Vivace-LTE — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 267.55 Mbps) — Flow 1 egress (mean 266.84 Mbps)
Flow 2 ingress (mean 189.82 Mbps) — Flow 2 egress (mean 189.42 Mbps)
Flow 3 ingress (mean 229.23 Mbps) — Flow 3 egress (mean 225.05 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 116.75 ms) — Flow 2 (95th percentile 112.66 ms) — Flow 3 (95th percentile 113.98 ms)
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-20 17:25:45
End at: 2018-02-20 17:26:15

# Below is generated by plot.py at 2018-02-21 01:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 498.62 Mbit/s
95th percentile per-packet one-way delay: 118.171 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 341.76 Mbit/s
95th percentile per-packet one-way delay: 122.324 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 174.76 Mbit/s
95th percentile per-packet one-way delay: 112.917 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 127.63 Mbit/s
95th percentile per-packet one-way delay: 110.198 ms
Loss rate: 3.81%
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-20 17:45:41
End at: 2018-02-20 17:46:11

# Below is generated by plot.py at 2018-02-21 01:42:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 509.79 Mbit/s
  95th percentile per-packet one-way delay: 116.497 ms
  Loss rate: 1.53%
-- Flow 1:
  Average throughput: 307.21 Mbit/s
  95th percentile per-packet one-way delay: 118.142 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 199.36 Mbit/s
  95th percentile per-packet one-way delay: 114.518 ms
  Loss rate: 1.57%
-- Flow 3:
  Average throughput: 217.77 Mbit/s
  95th percentile per-packet one-way delay: 131.030 ms
  Loss rate: 4.12%
Run 3: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 307.65 Mbit/s)
- Flow 1 egress (mean 307.21 Mbit/s)
- Flow 2 ingress (mean 200.25 Mbit/s)
- Flow 2 egress (mean 199.36 Mbit/s)
- Flow 3 ingress (mean 222.00 Mbit/s)
- Flow 3 egress (mean 217.77 Mbit/s)
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-20 18:06:16
End at: 2018-02-20 18:06:46

# Below is generated by plot.py at 2018-02-21 01:42:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.38 Mbit/s
95th percentile per-packet one-way delay: 116.370 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 246.11 Mbit/s
95th percentile per-packet one-way delay: 113.914 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 241.72 Mbit/s
95th percentile per-packet one-way delay: 109.639 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 220.20 Mbit/s
95th percentile per-packet one-way delay: 178.223 ms
Loss rate: 4.00%
Run 4: Report of Vivace-LTE — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 245.50 Mbps)  Flow 1 egress (mean 246.11 Mbps)
Flow 2 ingress (mean 242.65 Mbps)  Flow 2 egress (mean 241.72 Mbps)
Flow 3 ingress (mean 224.04 Mbps)  Flow 3 egress (mean 220.20 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 113.91 ms)  Flow 2 (95th percentile 109.64 ms)  Flow 3 (95th percentile 178.22 ms)
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-20 18:25:52
End at: 2018-02-20 18:26:22

# Below is generated by plot.py at 2018-02-21 01:43:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.70 Mbit/s
95th percentile per-packet one-way delay: 113.383 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 296.07 Mbit/s
95th percentile per-packet one-way delay: 114.266 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 187.84 Mbit/s
95th percentile per-packet one-way delay: 112.292 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 146.08 Mbit/s
95th percentile per-packet one-way delay: 111.073 ms
Loss rate: 3.21%
Run 5: Report of Vivace-LTE — Data Link

![Network throughput and packet delay graphs]
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-20 18:45:43
End at: 2018-02-20 18:46:13

# Below is generated by plot.py at 2018-02-21 01:45:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 580.56 Mbit/s
  95th percentile per-packet one-way delay: 150.088 ms
  Loss rate: 1.22%
-- Flow 1:
  Average throughput: 305.57 Mbit/s
  95th percentile per-packet one-way delay: 115.168 ms
  Loss rate: 0.83%
-- Flow 2:
  Average throughput: 301.69 Mbit/s
  95th percentile per-packet one-way delay: 208.056 ms
  Loss rate: 0.85%
-- Flow 3:
  Average throughput: 232.30 Mbit/s
  95th percentile per-packet one-way delay: 121.295 ms
  Loss rate: 3.68%
Run 6: Report of Vivace-LTE — Data Link
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-20 19:05:31
End at: 2018-02-20 19:06:01

# Below is generated by plot.py at 2018-02-21 01:45:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 521.18 Mbit/s
  95th percentile per-packet one-way delay: 119.347 ms
  Loss rate: 1.50%
-- Flow 1:
  Average throughput: 313.13 Mbit/s
  95th percentile per-packet one-way delay: 123.215 ms
  Loss rate: 0.84%
-- Flow 2:
  Average throughput: 207.68 Mbit/s
  95th percentile per-packet one-way delay: 118.338 ms
  Loss rate: 1.70%
-- Flow 3:
  Average throughput: 218.11 Mbit/s
  95th percentile per-packet one-way delay: 112.803 ms
  Loss rate: 3.99%
Run 7: Report of Vivace-LTE — Data Link

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

- **Flow 1** (mean 313.41 Mbps for ingress, mean 313.13 Mbps for egress)
- **Flow 2** (mean 208.83 Mbps for ingress, mean 207.68 Mbps for egress)
- **Flow 3** (mean 221.99 Mbps for ingress, mean 218.11 Mbps for egress)

![Graph of packet delay for three flows over time.]

- **Flow 1** (95th percentile 123.22 ms)
- **Flow 2** (95th percentile 118.34 ms)
- **Flow 3** (95th percentile 112.80 ms)
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-20 19:25:04
End at: 2018-02-20 19:25:34

# Below is generated by plot.py at 2018-02-21 01:45:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 461.66 Mbit/s
  95th percentile per-packet one-way delay: 120.349 ms
  Loss rate: 1.43%
-- Flow 1:
  Average throughput: 301.99 Mbit/s
  95th percentile per-packet one-way delay: 117.837 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 126.19 Mbit/s
  95th percentile per-packet one-way delay: 158.861 ms
  Loss rate: 1.58%
-- Flow 3:
  Average throughput: 235.02 Mbit/s
  95th percentile per-packet one-way delay: 117.188 ms
  Loss rate: 3.78%
Run 8: Report of Vivace-LTE — Data Link

![Graph of Throughput vs Time]

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

Flow 1 ingress (mean 302.05 Mbit/s), Flow 1 egress (mean 301.99 Mbit/s), Flow 2 ingress (mean 126.77 Mbit/s), Flow 2 egress (mean 126.19 Mbit/s), Flow 3 ingress (mean 238.69 Mbit/s), Flow 3 egress (mean 235.02 Mbit/s)
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-20 19:44:54
End at: 2018-02-20 19:45:24

# Below is generated by plot.py at 2018-02-21 01:45:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 503.60 Mbit/s
95th percentile per-packet one-way delay: 114.671 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 331.68 Mbit/s
95th percentile per-packet one-way delay: 116.710 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 194.13 Mbit/s
95th percentile per-packet one-way delay: 113.475 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 134.18 Mbit/s
95th percentile per-packet one-way delay: 113.555 ms
Loss rate: 3.37%
Run 9: Report of Vivace-LTE — Data Link
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-20 20:04:35
End at: 2018-02-20 20:05:05

# Below is generated by plot.py at 2018-02-21 01:45:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.28 Mbit/s
95th percentile per-packet one-way delay: 131.454 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 247.33 Mbit/s
95th percentile per-packet one-way delay: 172.618 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 261.67 Mbit/s
95th percentile per-packet one-way delay: 113.319 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 140.88 Mbit/s
95th percentile per-packet one-way delay: 118.679 ms
Loss rate: 3.13%
Run 10: Report of Vivace-LTE — Data Link

![Graphs showing network performance metrics over time.](Image)

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