Pantheon Report

Generated at 2018-03-07 03:09:11 (UTC).
Data path: GCE London Ethernet (local) → GCE Tokyo Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).

Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5ec9f0f281d1c69ae1a5c6
third_party/genericCC @ 9249eaa3238475c4d8cca1443d28df70b6f6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca26c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4e4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d5d83dc4dfe0ecdfb90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f7561135e5b540c0f3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044ed306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303ae82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6b7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccf9f3
third_party/pcc @ 1afc956f0d6d18b23c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3ccf44
third_party/scream @ c3370fd7bd17265a79aeab34e016ad23f5965885
third_party/sourdough @ f1a14bfe749737437f61b1aaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375ee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutcomm.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562539f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c458019212041784ce3
third_party/webrtc @ a488197dd041ace68a42849b2540ad834825f42

test from GCE London Ethernet to GCE Tokyo Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

Average throughput (Mbit/s)

95th percentile one-way delay (ms)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
</tr>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>88.17</td>
<td>88.00</td>
<td>83.33</td>
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<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>77.17</td>
<td>69.72</td>
<td>58.31</td>
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<td>LEDBAT</td>
<td>10</td>
<td>5.81</td>
<td>3.66</td>
<td>2.08</td>
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<td>PCC</td>
<td>10</td>
<td>485.43</td>
<td>31.18</td>
<td>53.28</td>
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<tr>
<td>QUIC Cubic</td>
<td>10</td>
<td>52.99</td>
<td>44.82</td>
<td>26.23</td>
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<td>SCRReAM</td>
<td>10</td>
<td>0.20</td>
<td>0.21</td>
<td>0.21</td>
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<td>WebRTC media</td>
<td>10</td>
<td>2.10</td>
<td>1.31</td>
<td>0.49</td>
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<tr>
<td>Sprout</td>
<td>10</td>
<td>2.55</td>
<td>2.47</td>
<td>2.14</td>
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<td>TaoVA-100x</td>
<td>10</td>
<td>65.53</td>
<td>68.84</td>
<td>85.57</td>
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<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>50.01</td>
<td>64.56</td>
<td>63.78</td>
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<tr>
<td>Verus</td>
<td>10</td>
<td>140.70</td>
<td>79.35</td>
<td>87.14</td>
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<tr>
<td>Copa</td>
<td>10</td>
<td>74.11</td>
<td>75.42</td>
<td>84.12</td>
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<tr>
<td>FillIP</td>
<td>10</td>
<td>738.90</td>
<td>715.69</td>
<td>642.92</td>
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<td>Indigo-1-32</td>
<td>10</td>
<td>161.31</td>
<td>139.95</td>
<td>142.95</td>
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<tr>
<td>Vivace-latency</td>
<td>10</td>
<td>269.18</td>
<td>190.37</td>
<td>125.31</td>
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<td>Vivace-loss</td>
<td>10</td>
<td>238.61</td>
<td>238.56</td>
<td>119.57</td>
</tr>
<tr>
<td>Vivace-LTE</td>
<td>10</td>
<td>310.14</td>
<td>240.00</td>
<td>141.21</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-03-06 20:26:55
End at: 2018-03-06 20:27:25

# Below is generated by plot.py at 2018-03-07 01:27:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 177.56 Mbit/s
  95th percentile per-packet one-way delay: 110.876 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 88.21 Mbit/s
  95th percentile per-packet one-way delay: 110.933 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 90.86 Mbit/s
  95th percentile per-packet one-way delay: 109.009 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 87.45 Mbit/s
  95th percentile per-packet one-way delay: 109.926 ms
  Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-03-06 20:45:43
End at: 2018-03-06 20:46:13

# Below is generated by plot.py at 2018-03-07 01:27:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 184.26 Mbit/s
95th percentile per-packet one-way delay: 111.644 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.95 Mbit/s
95th percentile per-packet one-way delay: 111.631 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 91.01 Mbit/s
95th percentile per-packet one-way delay: 111.514 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 89.60 Mbit/s
95th percentile per-packet one-way delay: 111.867 ms
Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2018-03-06 21:04:57
End at: 2018-03-06 21:05:27

# Below is generated by plot.py at 2018-03-07 01:28:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 193.71 Mbit/s
95th percentile per-packet one-way delay: 110.153 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 99.16 Mbit/s
95th percentile per-packet one-way delay: 110.154 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.88 Mbit/s
95th percentile per-packet one-way delay: 110.220 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.55 Mbit/s
95th percentile per-packet one-way delay: 109.963 ms
Loss rate: 0.00%
Run 3: Report of TCP BBR — Data Link

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

- **Throughput (Mbps)**
  - **Flow 1 ingress (mean 99.16 Mbps)**
  - **Flow 1 egress (mean 99.16 Mbps)**
  - **Flow 2 ingress (mean 99.88 Mbps)**
  - **Flow 2 egress (mean 99.88 Mbps)**
  - **Flow 3 ingress (mean 94.54 Mbps)**
  - **Flow 3 egress (mean 94.55 Mbps)**

- **Per-packet one-way delay (ms)**
  - **Flow 1 (95th percentile 110.15 ms)**
  - **Flow 2 (95th percentile 110.22 ms)**
  - **Flow 3 (95th percentile 109.96 ms)**
Run 4: Statistics of TCP BBR

Start at: 2018-03-06 21:24:23
End at: 2018-03-06 21:24:53

# Below is generated by plot.py at 2018-03-07 01:28:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 186.52 Mbit/s
95th percentile per-packet one-way delay: 113.447 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.47 Mbit/s
95th percentile per-packet one-way delay: 113.522 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 92.81 Mbit/s
95th percentile per-packet one-way delay: 113.764 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 88.76 Mbit/s
95th percentile per-packet one-way delay: 112.932 ms
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-03-06 21:43:20
End at: 2018-03-06 21:43:50

# Below is generated by plot.py at 2018-03-07 01:28:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.34 Mbit/s
95th percentile per-packet one-way delay: 112.997 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.85 Mbit/s
95th percentile per-packet one-way delay: 112.821 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 94.10 Mbit/s
95th percentile per-packet one-way delay: 113.279 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 87.71 Mbit/s
95th percentile per-packet one-way delay: 113.216 ms
Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-03-06 22:02:49
End at: 2018-03-06 22:03:19

# Below is generated by plot.py at 2018-03-07 01:28:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 188.05 Mbit/s
95th percentile per-packet one-way delay: 113.071 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 96.70 Mbit/s
95th percentile per-packet one-way delay: 112.702 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 93.21 Mbit/s
95th percentile per-packet one-way delay: 113.802 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 88.54 Mbit/s
95th percentile per-packet one-way delay: 113.428 ms
Loss rate: 0.00%
Run 6: Report of TCP BBR — Data Link

[Graph showing throughput (Mbps) over time for different flows.
Below the graph, legend for colors and flow details:
- Flow 1 ingress (mean 96.70 Mbit/s)
- Flow 1 egress (mean 96.70 Mbit/s)
- Flow 2 ingress (mean 93.21 Mbit/s)
- Flow 2 egress (mean 93.21 Mbit/s)
- Flow 3 ingress (mean 80.54 Mbit/s)
- Flow 3 egress (mean 80.54 Mbit/s)

[Graph showing per-packet one-way delay (ms) over time for different flows.
Below the graph, legend for symbols and flow details:
- Flow 1 (95th percentile 112.70 ms)
- Flow 2 (95th percentile 113.80 ms)
- Flow 3 (95th percentile 113.43 ms)
Run 7: Statistics of TCP BBR

End at: 2018-03-06 22:22:44

# Below is generated by plot.py at 2018-03-07 01:28:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 188.20 Mbit/s
  95th percentile per-packet one-way delay: 112.933 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 96.71 Mbit/s
  95th percentile per-packet one-way delay: 112.971 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 93.54 Mbit/s
  95th percentile per-packet one-way delay: 112.927 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 88.79 Mbit/s
  95th percentile per-packet one-way delay: 112.051 ms
  Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link
Run 8: Statistics of TCP BBR

Start at: 2018-03-06 22:41:48
End at: 2018-03-06 22:42:18

# Below is generated by plot.py at 2018-03-07 01:28:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 184.54 Mbit/s
  95th percentile per-packet one-way delay: 113.149 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 91.76 Mbit/s
  95th percentile per-packet one-way delay: 112.597 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 95.43 Mbit/s
  95th percentile per-packet one-way delay: 113.766 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 88.71 Mbit/s
  95th percentile per-packet one-way delay: 114.011 ms
  Loss rate: 0.00%
Run 8: Report of TCP BBR — Data Link

![Graph of Throughput and Packet Delay]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 91.77 Mbps)
  - Flow 1 egress (mean 91.76 Mbps)
  - Flow 2 ingress (mean 95.44 Mbps)
  - Flow 2 egress (mean 95.43 Mbps)
  - Flow 3 ingress (mean 98.22 Mbps)
  - Flow 3 egress (mean 98.71 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 112.60 ms)
  - Flow 2 (95th percentile 113.77 ms)
  - Flow 3 (95th percentile 114.01 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-03-06 23:01:05
End at: 2018-03-06 23:01:35

# Below is generated by plot.py at 2018-03-07 01:29:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 118.61 Mbit/s
  95th percentile per-packet one-way delay: 111.787 ms
  Loss rate: 0.08%
-- Flow 1:
  Average throughput: 60.61 Mbit/s
  95th percentile per-packet one-way delay: 111.790 ms
  Loss rate: 0.08%
-- Flow 2:
  Average throughput: 60.67 Mbit/s
  95th percentile per-packet one-way delay: 111.798 ms
  Loss rate: 0.08%
-- Flow 3:
  Average throughput: 54.61 Mbit/s
  95th percentile per-packet one-way delay: 111.755 ms
  Loss rate: 0.08%
Run 9: Report of TCP BBR — Data Link

![Throughput Graph](chart1)

![Per-packet One-way Delay Graph](chart2)
Run 10: Statistics of TCP BBR

Start at: 2018-03-06 23:19:49
End at: 2018-03-06 23:20:19

# Below is generated by plot.py at 2018-03-07 01:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 133.67 Mbit/s
95th percentile per-packet one-way delay: 111.951 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 63.29 Mbit/s
95th percentile per-packet one-way delay: 111.935 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 68.49 Mbit/s
95th percentile per-packet one-way delay: 111.960 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 74.62 Mbit/s
95th percentile per-packet one-way delay: 111.969 ms
Loss rate: 0.01%
Run 10: Report of TCP BBR — Data Link

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

- **Flow 1 ingress** (mean 63.33 Mbit/s)
- **Flow 1 egress** (mean 63.29 Mbit/s)
- **Flow 2 ingress** (mean 68.52 Mbit/s)
- **Flow 2 egress** (mean 68.49 Mbit/s)
- **Flow 3 ingress** (mean 74.63 Mbit/s)
- **Flow 3 egress** (mean 74.62 Mbit/s)
Run 1: Statistics of TCP Cubic

Start at: 2018-03-06 20:16:34
End at: 2018-03-06 20:17:04

# Below is generated by plot.py at 2018-03-07 01:30:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 164.20 Mbit/s
  95th percentile per-packet one-way delay: 122.388 ms
  Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 102.96 Mbit/s
    95th percentile per-packet one-way delay: 122.556 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 46.24 Mbit/s
    95th percentile per-packet one-way delay: 123.685 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 93.07 Mbit/s
    95th percentile per-packet one-way delay: 119.791 ms
    Loss rate: 0.00%
Run 1: Report of TCP Cubic — Data Link

![Graph showing network throughput and per-packet one-way delay over time for flows 1, 2, and 3 with their respective ingress and egress throughput means.]

### Network Throughput

- **Flow 1 Ingress**: Mean 103.05 Mbit/s
- **Flow 1 Egress**: Mean 102.96 Mbit/s
- **Flow 2 Ingress**: Mean 46.24 Mbit/s
- **Flow 2 Egress**: Mean 46.24 Mbit/s
- **Flow 3 Ingress**: Mean 93.33 Mbit/s
- **Flow 3 Egress**: Mean 93.07 Mbit/s

### Per-Packet One-Way Delay

- **Flow 1 (95th Percentile)**: 122.56 ms
- **Flow 2 (95th Percentile)**: 123.69 ms
- **Flow 3 (95th Percentile)**: 119.79 ms
Run 2: Statistics of TCP Cubic

Start at: 2018-03-06 20:35:30
End at: 2018-03-06 20:36:00

# Below is generated by plot.py at 2018-03-07 01:30:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.73 Mbit/s
  95th percentile per-packet one-way delay: 122.149 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 31.28 Mbit/s
  95th percentile per-packet one-way delay: 121.365 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 21.06 Mbit/s
  95th percentile per-packet one-way delay: 121.952 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 89.90 Mbit/s
  95th percentile per-packet one-way delay: 123.376 ms
  Loss rate: 0.00%
Run 2: Report of TCP Cubic — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 31.29 Mb/s)
Flow 1 egress (mean 31.28 Mb/s)
Flow 2 ingress (mean 21.07 Mb/s)
Flow 2 egress (mean 21.06 Mb/s)
Flow 3 ingress (mean 89.96 Mb/s)
Flow 3 egress (mean 89.90 Mb/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 121.36 ms)
Flow 2 (95th percentile 121.95 ms)
Flow 3 (95th percentile 123.38 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-03-06 20:54:30
End at: 2018-03-06 20:55:00

# Below is generated by plot.py at 2018-03-07 01:30:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 171.31 Mbit/s
  95th percentile per-packet one-way delay: 122.031 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 91.02 Mbit/s
  95th percentile per-packet one-way delay: 121.252 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 99.65 Mbit/s
  95th percentile per-packet one-way delay: 122.926 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 44.28 Mbit/s
  95th percentile per-packet one-way delay: 123.467 ms
  Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-03-06 21:13:53
End at: 2018-03-06 21:14:23

# Below is generated by plot.py at 2018-03-07 01:30:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.85 Mbit/s
95th percentile per-packet one-way delay: 121.370 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 102.84 Mbit/s
95th percentile per-packet one-way delay: 121.578 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 61.40 Mbit/s
95th percentile per-packet one-way delay: 121.321 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.68 Mbit/s
95th percentile per-packet one-way delay: 118.471 ms
Loss rate: 0.00%
Run 4: Report of TCP Cubic — Data Link

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**Graph 1:**
- **Throughput (Mbps):**
- **Time (s):** 0, 5, 10, 15, 20, 25, 30
- **Legend:**
  - Flow 1 ingress (mean 102.96 Mbit/s)
  - Flow 1 egress (mean 102.84 Mbit/s)
  - Flow 2 ingress (mean 61.41 Mbit/s)
  - Flow 2 egress (mean 61.40 Mbit/s)
  - Flow 3 ingress (mean 51.69 Mbit/s)
  - Flow 3 egress (mean 51.68 Mbit/s)

**Graph 2:**
- **Per-packet one-way delay (ms):**
- **Time (s):** 0, 5, 10, 15, 20, 25, 30
- **Legend:**
  - Flow 1 (95th percentile 121.58 ms)
  - Flow 2 (95th percentile 121.32 ms)
  - Flow 3 (95th percentile 118.47 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-03-06 21:33:07
End at: 2018-03-06 21:33:37

# Below is generated by plot.py at 2018-03-07 01:30:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.14 Mbit/s
95th percentile per-packet one-way delay: 122.639 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.53 Mbit/s
95th percentile per-packet one-way delay: 122.241 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.95 Mbit/s
95th percentile per-packet one-way delay: 122.855 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.58 Mbit/s
95th percentile per-packet one-way delay: 123.211 ms
Loss rate: 0.00%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-03-06 21:52:10
End at: 2018-03-06 21:52:40

# Below is generated by plot.py at 2018-03-07 01:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 199.42 Mbit/s
95th percentile per-packet one-way delay: 122.874 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 102.71 Mbit/s
95th percentile per-packet one-way delay: 122.818 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.10 Mbit/s
95th percentile per-packet one-way delay: 123.341 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 91.89 Mbit/s
95th percentile per-packet one-way delay: 122.157 ms
Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 102.74 Mbit/s) vs Flow 1 egress (mean 102.71 Mbit/s)
- Flow 2 ingress (mean 100.19 Mbit/s) vs Flow 2 egress (mean 100.10 Mbit/s)
- Flow 3 ingress (mean 91.31 Mbit/s) vs Flow 3 egress (mean 91.89 Mbit/s)

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

- Flow 1 (95th percentile 122.82 ms) vs Flow 2 (95th percentile 123.34 ms) vs Flow 3 (95th percentile 122.16 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-03-06 22:11:55
End at: 2018-03-06 22:12:25

# Below is generated by plot.py at 2018-03-07 01:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 185.09 Mbit/s
95th percentile per-packet one-way delay: 122.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 102.09 Mbit/s
95th percentile per-packet one-way delay: 122.297 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.03 Mbit/s
95th percentile per-packet one-way delay: 122.319 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.79 Mbit/s
95th percentile per-packet one-way delay: 122.606 ms
Loss rate: 0.00%
Run 7: Report of TCP Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 102.10 Mb/s)
- Flow 1 egress (mean 102.09 Mb/s)
- Flow 2 ingress (mean 100.04 Mb/s)
- Flow 2 egress (mean 100.03 Mb/s)
- Flow 3 ingress (mean 49.79 Mb/s)
- Flow 3 egress (mean 49.79 Mb/s)
Run 8: Statistics of TCP Cubic

Start at: 2018-03-06 22:31:11
End at: 2018-03-06 22:31:41

# Below is generated by plot.py at 2018-03-07 01:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.11 Mbit/s
95th percentile per-packet one-way delay: 122.681 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.17 Mbit/s
95th percentile per-packet one-way delay: 122.676 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.19 Mbit/s
95th percentile per-packet one-way delay: 121.389 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 56.04 Mbit/s
95th percentile per-packet one-way delay: 124.247 ms
Loss rate: 0.01%
Run 8: Report of TCP Cubic — Data Link
Run 9: Statistics of TCP Cubic

Start at: 2018-03-06 22:50:46
End at: 2018-03-06 22:51:16

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.85 Mbit/s
95th percentile per-packet one-way delay: 123.926 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 65.89 Mbit/s
95th percentile per-packet one-way delay: 123.603 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.15 Mbit/s
95th percentile per-packet one-way delay: 124.446 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 54.16 Mbit/s
95th percentile per-packet one-way delay: 123.980 ms
Loss rate: 0.27%
Run 9: Report of TCP Cubic — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 65.91 Mbit/s)
Flow 1 egress (mean 85.89 Mbit/s)
Flow 2 ingress (mean 99.18 Mbit/s)
Flow 2 egress (mean 99.15 Mbit/s)
Flow 3 ingress (mean 54.33 Mbit/s)
Flow 3 egress (mean 54.16 Mbit/s)

Pre-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 123.60 ms)
Flow 2 (95th percentile 124.45 ms)
Flow 3 (95th percentile 123.98 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-03-06 23:09:48
End at: 2018-03-06 23:10:18

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 44.40 Mbit/s
  95th percentile per-packet one-way delay: 124.154 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 9.26 Mbit/s
  95th percentile per-packet one-way delay: 118.608 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 47.41 Mbit/s
  95th percentile per-packet one-way delay: 124.791 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 10.76 Mbit/s
  95th percentile per-packet one-way delay: 118.125 ms
  Loss rate: 0.10%
Run 10: Report of TCP Cubic — Data Link

![Graph of Throughput vs Time for TCP Cubic Flows](image1)

![Graph of Per-Packet One-Way Delay vs Time for TCP Cubic Flows](image2)
Run 1: Statistics of LEDBAT

Start at: 2018-03-06 20:30:53  
End at: 2018-03-06 20:31:23

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.64 Mbit/s
  95th percentile per-packet one-way delay: 112.312 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 4.16 Mbit/s
  95th percentile per-packet one-way delay: 112.413 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 2.58 Mbit/s
  95th percentile per-packet one-way delay: 112.082 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 112.039 ms
  Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

![Graph 1: Throughput over time for different flows.](chart1)

![Graph 2: Packet delay over time for different flows.](chart2)
Run 2: Statistics of LEDBAT

Start at: 2018-03-06 20:49:47
End at: 2018-03-06 20:50:17

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.55 Mbit/s
  95th percentile per-packet one-way delay: 111.829 ms
  Loss rate: 0.11%
  -- Flow 1:
  Average throughput: 2.25 Mbit/s
  95th percentile per-packet one-way delay: 111.854 ms
  Loss rate: 0.10%
  -- Flow 2:
  Average throughput: 0.29 Mbit/s
  95th percentile per-packet one-way delay: 111.223 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 0.31 Mbit/s
  95th percentile per-packet one-way delay: 111.478 ms
  Loss rate: 0.39%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-03-06 21:09:08
End at: 2018-03-06 21:09:38

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.52 Mbit/s
  95th percentile per-packet one-way delay: 113.212 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.32 Mbit/s
  95th percentile per-packet one-way delay: 113.258 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.69 Mbit/s
  95th percentile per-packet one-way delay: 113.192 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.28 Mbit/s
  95th percentile per-packet one-way delay: 112.753 ms
  Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

[First diagram: Throughput vs. Time for different flows with mean rates indicated.]

[Second diagram: Latency vs. Time for different flows, showing 95th percentile delays.]
Run 4: Statistics of LEDBAT

Start at: 2018-03-06 21:28:21
End at: 2018-03-06 21:28:51

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 10.84 Mbit/s
   95th percentile per-packet one-way delay: 113.983 ms
   Loss rate: 0.00%
   -- Flow 1:
   Average throughput: 6.97 Mbit/s
   95th percentile per-packet one-way delay: 113.841 ms
   Loss rate: 0.00%
   -- Flow 2:
   Average throughput: 4.73 Mbit/s
   95th percentile per-packet one-way delay: 114.695 ms
   Loss rate: 0.00%
   -- Flow 3:
   Average throughput: 2.34 Mbit/s
   95th percentile per-packet one-way delay: 113.262 ms
   Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 6.97 Mbps)
- Flow 1 egress (mean 6.97 Mbps)
- Flow 2 ingress (mean 4.73 Mbps)
- Flow 2 egress (mean 4.73 Mbps)
- Flow 3 ingress (mean 2.34 Mbps)
- Flow 3 egress (mean 2.34 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 113.84 ms)
- Flow 2 (95th percentile 114.69 ms)
- Flow 3 (95th percentile 113.26 ms)
Run 5: Statistics of LEDBAT

Start at: 2018-03-06 21:47:31
End at: 2018-03-06 21:48:01

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.86 Mbit/s
95th percentile per-packet one-way delay: 113.355 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.91 Mbit/s
95th percentile per-packet one-way delay: 113.404 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 113.388 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 112.541 ms
Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Start at: 2018-03-06 22:07:08
End at: 2018-03-06 22:07:38

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 11.03 Mbit/s
  95th percentile per-packet one-way delay: 113.592 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.20 Mbit/s
  95th percentile per-packet one-way delay: 113.569 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.73 Mbit/s
  95th percentile per-packet one-way delay: 113.651 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.27 Mbit/s
  95th percentile per-packet one-way delay: 113.696 ms
  Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-03-06 22:26:33
End at: 2018-03-06 22:27:03

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 9.99 Mbit/s
  95th percentile per-packet one-way delay: 113.079 ms
  Loss rate: 0.00%
  -- Flow 1:
     Average throughput: 6.05 Mbit/s
     95th percentile per-packet one-way delay: 113.066 ms
     Loss rate: 0.00%
  -- Flow 2:
     Average throughput: 4.80 Mbit/s
     95th percentile per-packet one-way delay: 113.164 ms
     Loss rate: 0.00%
  -- Flow 3:
     Average throughput: 2.35 Mbit/s
     95th percentile per-packet one-way delay: 112.486 ms
     Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link

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

Start at: 2018-03-06 22:46:02
End at: 2018-03-06 22:46:32

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 11.06 Mbit/s
  95th percentile per-packet one-way delay: 112.778 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.18 Mbit/s
  95th percentile per-packet one-way delay: 112.799 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.72 Mbit/s
  95th percentile per-packet one-way delay: 112.727 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.36 Mbit/s
  95th percentile per-packet one-way delay: 112.560 ms
  Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 7.18 Mbps)
- Flow 1 egress (mean 7.18 Mbps)
- Flow 2 ingress (mean 4.72 Mbps)
- Flow 2 egress (mean 4.72 Mbps)
- Flow 3 ingress (mean 2.36 Mbps)
- Flow 3 egress (mean 2.36 Mbps)
Run 9: Statistics of LEDBAT

Start at: 2018-03-06 23:05:01
End at: 2018-03-06 23:05:31

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.66 Mbit/s
95th percentile per-packet one-way delay: 113.180 ms
Loss rate: 0.00%
-- Flow 1:
95th percentile per-packet one-way delay: 113.295 ms
Loss rate: 0.00%
-- Flow 2:
95th percentile per-packet one-way delay: 112.936 ms
Loss rate: 0.00%
-- Flow 3:
95th percentile per-packet one-way delay: 112.625 ms
Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link

![Graph 1](./image1.png)

**Throughput (Mbps)** vs **Time (s)**

- Flow 1 ingress (mean 5.71 Mbps)
- Flow 1 egress (mean 5.71 Mbps)
- Flow 2 ingress (mean 4.80 Mbps)
- Flow 2 egress (mean 4.80 Mbps)
- Flow 3 ingress (mean 2.33 Mbps)
- Flow 3 egress (mean 2.33 Mbps)

![Graph 2](./image2.png)

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

- Flow 1 (95th percentile 113.30 ms)
- Flow 2 (95th percentile 112.94 ms)
- Flow 3 (95th percentile 112.62 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-03-06 23:24:17
End at: 2018-03-06 23:24:47

# Below is generated by plot.py at 2018-03-07 01:32:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.90 Mbit/s
  95th percentile per-packet one-way delay: 112.487 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.31 Mbit/s
  95th percentile per-packet one-way delay: 112.510 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.49 Mbit/s
  95th percentile per-packet one-way delay: 112.369 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.84 Mbit/s
  95th percentile per-packet one-way delay: 113.160 ms
  Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC

Start at: 2018-03-06 20:23:43
End at: 2018-03-06 20:24:13

# Below is generated by plot.py at 2018-03-07 01:39:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 543.07 Mbit/s
95th percentile per-packet one-way delay: 247.144 ms
Loss rate: 3.30%
-- Flow 1:
Average throughput: 522.58 Mbit/s
95th percentile per-packet one-way delay: 248.104 ms
Loss rate: 3.39%
-- Flow 2:
Average throughput: 16.79 Mbit/s
95th percentile per-packet one-way delay: 236.182 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 32.79 Mbit/s
95th percentile per-packet one-way delay: 237.850 ms
Loss rate: 1.36%
Run 1: Report of PCC — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 Ingress (mean 541.45 Mbps)
  - Flow 1 Egress (mean 522.58 Mbps)
  - Flow 2 Ingress (mean 17.07 Mbps)
  - Flow 2 Egress (mean 16.79 Mbps)
  - Flow 3 Ingress (mean 33.66 Mbps)
  - Flow 3 Egress (mean 32.79 Mbps)

- **Delay (ms):**
  - Flow 1 (95th percentile 248.10 ms)
  - Flow 2 (95th percentile 236.18 ms)
  - Flow 3 (95th percentile 237.85 ms)
Run 2: Statistics of PCC

Start at: 2018-03-06 20:42:29
End at: 2018-03-06 20:42:59

# Below is generated by plot.py at 2018-03-07 01:39:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 549.34 Mbit/s
  95th percentile per-packet one-way delay: 235.048 ms
  Loss rate: 1.96%
-- Flow 1:
  Average throughput: 545.84 Mbit/s
  95th percentile per-packet one-way delay: 235.097 ms
  Loss rate: 1.96%
-- Flow 2:
  Average throughput: 4.15 Mbit/s
  95th percentile per-packet one-way delay: 231.261 ms
  Loss rate: 1.45%
-- Flow 3:
  Average throughput: 2.23 Mbit/s
  95th percentile per-packet one-way delay: 231.363 ms
  Loss rate: 1.93%
Run 2: Report of PCC — Data Link

![Diagram 1: Throughput vs Time](chart1.png)

- **Flow 1 Ingress** (mean 556.76 Mbit/s)
- **Flow 1 Egress** (mean 545.84 Mbit/s)
- **Flow 2 Ingress** (mean 4.21 Mbit/s)
- **Flow 2 Egress** (mean 4.15 Mbit/s)
- **Flow 3 Ingress** (mean 2.28 Mbit/s)
- **Flow 3 Egress** (mean 2.23 Mbit/s)

![Diagram 2: Per-packet one-way delay vs Time](chart2.png)

- **Flow 1** (95th percentile 235.10 ms)
- **Flow 2** (95th percentile 231.26 ms)
- **Flow 3** (95th percentile 231.36 ms)
Run 3: Statistics of PCC

Start at: 2018-03-06 21:01:39
End at: 2018-03-06 21:02:09

# Below is generated by plot.py at 2018-03-07 01:39:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 517.59 Mbit/s
  95th percentile per-packet one-way delay: 236.508 ms
  Loss rate: 3.13%
-- Flow 1:
  Average throughput: 392.35 Mbit/s
  95th percentile per-packet one-way delay: 236.466 ms
  Loss rate: 3.23%
-- Flow 2:
  Average throughput: 131.76 Mbit/s
  95th percentile per-packet one-way delay: 235.652 ms
  Loss rate: 2.82%
-- Flow 3:
  Average throughput: 114.39 Mbit/s
  95th percentile per-packet one-way delay: 238.012 ms
  Loss rate: 2.81%
Run 3: Report of PCC — Data Link

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

- **Flow 1 Ingress (mean 405.45 Mb/s)**
- **Flow 1 Egress (mean 392.35 Mb/s)**
- **Flow 2 Ingress (mean 135.59 Mb/s)**
- **Flow 2 Egress (mean 133.76 Mb/s)**
- **Flow 3 Ingress (mean 117.68 Mb/s)**
- **Flow 3 Egress (mean 114.39 Mb/s)**

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

- **Flow 1 (95th percentile 236.47 ms)**
- **Flow 2 (95th percentile 235.65 ms)**
- **Flow 3 (95th percentile 238.01 ms)**
Run 4: Statistics of PCC

Start at: 2018-03-06 21:21:00
End at: 2018-03-06 21:21:30

# Below is generated by plot.py at 2018-03-07 01:39:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 507.39 Mbit/s
  95th percentile per-packet one-way delay: 243.393 ms
  Loss rate: 3.28%
-- Flow 1:
  Average throughput: 455.29 Mbit/s
  95th percentile per-packet one-way delay: 244.825 ms
  Loss rate: 3.49%
-- Flow 2:
  Average throughput: 18.20 Mbit/s
  95th percentile per-packet one-way delay: 234.746 ms
  Loss rate: 0.64%
-- Flow 3:
  Average throughput: 121.42 Mbit/s
  95th percentile per-packet one-way delay: 218.889 ms
  Loss rate: 1.52%
Run 4: Report of PCC — Data Link

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

Start at: 2018-03-06 21:40:11
End at: 2018-03-06 21:40:41

# Below is generated by plot.py at 2018-03-07 01:39:35
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 507.50 Mbit/s
 95th percentile per-packet one-way delay: 257.439 ms
 Loss rate: 3.02%
-- Flow 1:
 Average throughput: 504.01 Mbit/s
 95th percentile per-packet one-way delay: 257.454 ms
 Loss rate: 3.02%
-- Flow 2:
 Average throughput: 4.17 Mbit/s
 95th percentile per-packet one-way delay: 254.857 ms
 Loss rate: 2.52%
-- Flow 3:
 Average throughput: 2.16 Mbit/s
 95th percentile per-packet one-way delay: 290.218 ms
 Loss rate: 4.00%
Run 5: Report of PCC — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)
Run 6: Statistics of PCC

Start at: 2018-03-06 21:59:25
End at: 2018-03-06 21:59:55

# Below is generated by plot.py at 2018-03-07 01:40:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 559.23 Mbit/s
95th percentile per-packet one-way delay: 230.804 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 519.03 Mbit/s
95th percentile per-packet one-way delay: 230.876 ms
Loss rate: 2.12%
-- Flow 2:
Average throughput: 32.14 Mbit/s
95th percentile per-packet one-way delay: 230.424 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 60.49 Mbit/s
95th percentile per-packet one-way delay: 229.072 ms
Loss rate: 2.06%
Run 6: Report of PCC — Data Link

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

![Graph 2: One-way delay (ms)](image2)
Run 7: Statistics of PCC

Start at: 2018-03-06 22:19:03
End at: 2018-03-06 22:19:33

# Below is generated by plot.py at 2018-03-07 01:40:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 549.37 Mbit/s
  95th percentile per-packet one-way delay: 248.722 ms
  Loss rate: 2.56%
-- Flow 1:
  Average throughput: 496.42 Mbit/s
  95th percentile per-packet one-way delay: 249.929 ms
  Loss rate: 2.52%
-- Flow 2:
  Average throughput: 64.63 Mbit/s
  95th percentile per-packet one-way delay: 237.783 ms
  Loss rate: 2.65%
-- Flow 3:
  Average throughput: 30.40 Mbit/s
  95th percentile per-packet one-way delay: 239.449 ms
  Loss rate: 3.77%
Run 7: Report of PCC — Data Link

**Throughput (Mb/s)**

- Flow 1 Ingress (mean 511.35 Mb/s)
- Flow 2 Ingress (mean 466.51 Mb/s)
- Flow 3 Ingress (mean 31.98 Mb/s)
- Flow 1 Egress (mean 496.42 Mb/s)
- Flow 2 Egress (mean 64.63 Mb/s)
- Flow 3 Egress (mean 30.40 Mb/s)

**Packet one way delay (ms)**

- Flow 1 (95th percentile 249.93 ms)
- Flow 2 (95th percentile 237.78 ms)
- Flow 3 (95th percentile 239.45 ms)
Run 8: Statistics of PCC

Start at: 2018-03-06 22:38:28
End at: 2018-03-06 22:38:58

# Below is generated by plot.py at 2018-03-07 01:40:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 534.96 Mbit/s
  95th percentile per-packet one-way delay: 239.369 ms
  Loss rate: 2.20%
-- Flow 1:
  Average throughput: 522.94 Mbit/s
  95th percentile per-packet one-way delay: 239.542 ms
  Loss rate: 2.20%
-- Flow 2:
  Average throughput: 4.82 Mbit/s
  95th percentile per-packet one-way delay: 236.252 ms
  Loss rate: 1.56%
-- Flow 3:
  Average throughput: 31.25 Mbit/s
  95th percentile per-packet one-way delay: 237.580 ms
  Loss rate: 2.56%
Run 8: Report of PCC — Data Link

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

**Throughput (Mbps):**
- Flow 1 Ingress (mean 535.96 Mbps)
- Flow 1 Egress (mean 522.94 Mbps)
- Flow 2 Ingress (mean 4.93 Mbps)
- Flow 2 Egress (mean 4.82 Mbps)
- Flow 3 Ingress (mean 32.48 Mbps)
- Flow 3 Egress (mean 31.25 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 239.54 ms)
- Flow 2 (95th percentile 236.25 ms)
- Flow 3 (95th percentile 237.58 ms)
Run 9: Statistics of PCC

Start at: 2018-03-06 22:57:51
End at: 2018-03-06 22:58:21

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 532.16 Mbit/s
  95th percentile per-packet one-way delay: 239.108 ms
  Loss rate: 1.54%
-- Flow 1:
  Average throughput: 504.97 Mbit/s
  95th percentile per-packet one-way delay: 239.194 ms
  Loss rate: 1.56%
-- Flow 2:
  Average throughput: 32.86 Mbit/s
  95th percentile per-packet one-way delay: 238.085 ms
  Loss rate: 1.09%
-- Flow 3:
  Average throughput: 16.18 Mbit/s
  95th percentile per-packet one-way delay: 239.245 ms
  Loss rate: 1.47%
Run 9: Report of PCC — Data Link

**Graph 1:**
- Throughput (Mbps/s) vs Time (s)
- Plot lines:
  - Blue dashed: Flow 1 Ingress (mean 514.96 Mbps/s)
  - Blue solid: Flow 1 Egress (mean 504.97 Mbps/s)
  - Blue dash-dotted: Flow 2 Ingress (mean 33.30 Mbps/s)
  - Blue dotted: Flow 2 Egress (mean 32.86 Mbps/s)
  - Red dashed: Flow 3 Ingress (mean 16.62 Mbps/s)
  - Red solid: Flow 3 Egress (mean 16.18 Mbps/s)

**Graph 2:**
- Per-packet one-way delay (ms) vs Time (s)
- Plot symbols:
  - Blue circle: Flow 1 (95th percentile 239.19 ms)
  - Green square: Flow 2 (95th percentile 238.09 ms)
  - Red triangle: Flow 3 (95th percentile 239.25 ms)
Run 10: Statistics of PCC

Start at: 2018-03-06 23:16:47
End at: 2018-03-06 23:17:17

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 432.44 Mbit/s
95th percentile per-packet one-way delay: 223.442 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 390.89 Mbit/s
95th percentile per-packet one-way delay: 222.940 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 221.521 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 121.52 Mbit/s
95th percentile per-packet one-way delay: 224.669 ms
Loss rate: 1.73%
Run 10: Report of PCC — Data Link
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-06 20:19:09
End at: 2018-03-06 20:19:39

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.18 Mbit/s
95th percentile per-packet one-way delay: 112.638 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.42 Mbit/s
95th percentile per-packet one-way delay: 112.659 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.54 Mbit/s
95th percentile per-packet one-way delay: 112.376 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.72 Mbit/s
95th percentile per-packet one-way delay: 111.450 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link

![Graph](image1.png)

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

Start at: 2018-03-06 20:37:58
End at: 2018-03-06 20:38:28

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.72 Mbit/s
95th percentile per-packet one-way delay: 112.334 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.02 Mbit/s
95th percentile per-packet one-way delay: 112.137 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.42 Mbit/s
95th percentile per-packet one-way delay: 111.241 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.53 Mbit/s
95th percentile per-packet one-way delay: 112.484 ms
Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link

![Graph](image1.png)

![Graph](image2.png)
Run 3: Statistics of QUIC Cubic

Start at: 2018-03-06 20:57:04
End at: 2018-03-06 20:57:34

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.30 Mbit/s
  95th percentile per-packet one-way delay: 112.090 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 55.71 Mbit/s
  95th percentile per-packet one-way delay: 112.110 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 42.34 Mbit/s
  95th percentile per-packet one-way delay: 109.724 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 17.18 Mbit/s
  95th percentile per-packet one-way delay: 108.778 ms
  Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 55.71 Mbps)
  - Flow 1 egress (mean 55.71 Mbps)
  - Flow 2 ingress (mean 42.34 Mbps)
  - Flow 2 egress (mean 42.34 Mbps)
  - Flow 3 ingress (mean 17.18 Mbps)
  - Flow 3 egress (mean 17.18 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 112.11 ms)
  - Flow 2 (95th percentile 109.72 ms)
  - Flow 3 (95th percentile 108.78 ms)
Run 4: Statistics of QUIC Cubic

Start at: 2018-03-06 21:16:27
End at: 2018-03-06 21:16:57

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.37 Mbit/s
95th percentile per-packet one-way delay: 112.103 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 51.11 Mbit/s
95th percentile per-packet one-way delay: 112.127 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 41.98 Mbit/s
95th percentile per-packet one-way delay: 110.315 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.01 Mbit/s
95th percentile per-packet one-way delay: 112.108 ms
Loss rate: 0.04%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-03-06 21:35:40
End at: 2018-03-06 21:36:10

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.38 Mbit/s
  95th percentile per-packet one-way delay: 111.295 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 43.54 Mbit/s
  95th percentile per-packet one-way delay: 111.261 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 40.51 Mbit/s
  95th percentile per-packet one-way delay: 111.292 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 33.97 Mbit/s
  95th percentile per-packet one-way delay: 111.351 ms
  Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress** (mean 43.54 Mbit/s)
- **Flow 1 egress** (mean 43.54 Mbit/s)
- **Flow 2 ingress** (mean 40.51 Mbit/s)
- **Flow 2 egress** (mean 40.51 Mbit/s)
- **Flow 3 ingress** (mean 33.97 Mbit/s)
- **Flow 3 egress** (mean 33.97 Mbit/s)

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

- **Flow 1 (95th percentile 111.26 ms)**
- **Flow 2 (95th percentile 111.29 ms)**
- **Flow 3 (95th percentile 111.35 ms)**
Run 6: Statistics of QUIC Cubic

Start at: 2018-03-06 21:54:52
End at: 2018-03-06 21:55:22

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.87 Mbit/s
  95th percentile per-packet one-way delay: 112.241 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 49.02 Mbit/s
  95th percentile per-packet one-way delay: 112.008 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 54.55 Mbit/s
  95th percentile per-packet one-way delay: 112.297 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 36.24 Mbit/s
  95th percentile per-packet one-way delay: 110.572 ms
  Loss rate: 0.00%

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Run 6: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 49.02 Mbps)
- Flow 1 egress (mean 49.02 Mbps)
- Flow 2 ingress (mean 54.36 Mbps)
- Flow 2 egress (mean 54.55 Mbps)
- Flow 3 ingress (mean 36.25 Mbps)
- Flow 3 egress (mean 36.24 Mbps)

![Graph 2: Packet round trip delay (ms)](image2)

- Flow 1 (95th percentile 112.01 ms)
- Flow 2 (95th percentile 112.30 ms)
- Flow 3 (95th percentile 110.57 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-03-06 22:14:36
End at: 2018-03-06 22:15:06

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 91.29 Mbit/s
  95th percentile per-packet one-way delay: 112.443 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 51.57 Mbit/s
  95th percentile per-packet one-way delay: 112.465 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 48.92 Mbit/s
  95th percentile per-packet one-way delay: 111.110 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 22.74 Mbit/s
  95th percentile per-packet one-way delay: 112.413 ms
  Loss rate: 0.00%
Run 7: Report of QUIC Cubic — Data Link

![Graph showing throughput over time for different flows.](image1)

![Graph showing per-packet one-way delay over time for different flows.](image2)
Run 8: Statistics of QUIC Cubic

Start at: 2018-03-06 22:33:49
End at: 2018-03-06 22:34:19

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.64 Mbit/s
  95th percentile per-packet one-way delay: 112.463 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 57.84 Mbit/s
  95th percentile per-packet one-way delay: 112.481 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 47.22 Mbit/s
  95th percentile per-packet one-way delay: 112.372 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 20.38 Mbit/s
  95th percentile per-packet one-way delay: 111.811 ms
  Loss rate: 0.01%
Run 8: Report of QUIC Cubic — Data Link

![Throughput and Packet Delay Diagrams](image-url)
Run 9: Statistics of QUIC Cubic

Start at: 2018-03-06 22:53:18
End at: 2018-03-06 22:53:48

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.43 Mbit/s
  95th percentile per-packet one-way delay: 112.316 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 50.33 Mbit/s
  95th percentile per-packet one-way delay: 112.341 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 34.13 Mbit/s
  95th percentile per-packet one-way delay: 111.754 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 20.20 Mbit/s
  95th percentile per-packet one-way delay: 111.532 ms
  Loss rate: 0.00%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-06 23:12:12
End at: 2018-03-06 23:12:42

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.28 Mbit/s
  95th percentile per-packet one-way delay: 112.501 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 50.33 Mbit/s
  95th percentile per-packet one-way delay: 112.287 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 46.62 Mbit/s
  95th percentile per-packet one-way delay: 112.588 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 34.30 Mbit/s
  95th percentile per-packet one-way delay: 111.717 ms
  Loss rate: 0.00%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-03-06 20:24:51
End at: 2018-03-06 20:25:21

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 112.740 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.774 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 111.612 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 112.604 ms
  Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-03-06 20:43:37
End at: 2018-03-06 20:44:07

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 112.490 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 111.362 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 112.235 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.543 ms
Loss rate: 0.00%
Run 2: 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 3: Statistics of SCReAM

Start at: 2018-03-06 21:02:47
End at: 2018-03-06 21:03:17

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.090 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.667 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.193 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.121 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

![Graph showing network throughput over time for different flows (Run 3). The x-axis represents time in seconds, and the y-axis represents throughput in Mbit/s. The graph includes multiple lines, each representing a different flow (Flow 1 ingress, Flow 1 egress, Flow 2 ingress, Flow 2 egress, Flow 3 ingress, Flow 3 egress) with annotations for their respective mean throughput.]

![Graph showing network latency over time for different flows (Run 3). The x-axis represents time in seconds, and the y-axis represents one-way delay in milliseconds. The graph includes multiple lines, each representing a different flow (Flow 1, Flow 2, Flow 3) with annotations for their respective 95th percentile delay.]

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Run 4: Statistics of SCReAM

Start at: 2018-03-06 21:22:07
End at: 2018-03-06 21:22:37

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.33 Mbit/s
  95th percentile per-packet one-way delay: 112.666 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.11 Mbit/s
  95th percentile per-packet one-way delay: 112.695 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.417 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.165 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2018-03-06 21:41:18
End at: 2018-03-06 21:41:48

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.418 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.439 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.388 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.133 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

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

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

Start at: 2018-03-06 22:00:34
End at: 2018-03-06 22:01:04

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.131 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.109 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.259 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.261 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

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

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

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Run 7: Statistics of SCReAM

Start at: 2018-03-06 22:20:12
End at: 2018-03-06 22:20:42

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
    Average throughput: 0.43 Mbit/s
    95th percentile per-packet one-way delay: 112.552 ms
    Loss rate: 0.00%
-- Flow 1:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 111.396 ms
    Loss rate: 0.00%
-- Flow 2:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 112.592 ms
    Loss rate: 0.00%
-- Flow 3:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 108.904 ms
    Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

![Throughput vs Time Graph]

![Delay vs Time Graph]

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

Flow 1 (95th percentile 111.40 ms)
Flow 2 (95th percentile 112.59 ms)
Flow 3 (95th percentile 108.90 ms)
Run 8: Statistics of SCReAM

Start at: 2018-03-06 22:39:36
End at: 2018-03-06 22:40:06

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.259 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.811 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.296 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.887 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

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**Throughput (Mbps)**

- Blue dashed line: Flow 1 ingress (mean 0.22 Mbps)
- Blue solid line: Flow 1 egress (mean 0.22 Mbps)
- Red dashed line: Flow 2 ingress (mean 0.21 Mbps)
- Red solid line: Flow 2 egress (mean 0.21 Mbps)
- Green dashed line: Flow 3 ingress (mean 0.22 Mbps)
- Green solid line: Flow 3 egress (mean 0.22 Mbps)

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

- Blue: Flow 1 (95th percentile 111.91 ms)
- Green: Flow 2 (95th percentile 112.30 ms)
- Red: Flow 3 (95th percentile 110.89 ms)
Run 9: Statistics of SCReAM

Start at: 2018-03-06 22:58:59
End at: 2018-03-06 22:59:29

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 111.804 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.095 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.802 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.870 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

![Graph showing throughput and packet one-way delay over time for different flows.](image-url)
Run 10: Statistics of SCReAM

Start at: 2018-03-06 23:17:51
End at: 2018-03-06 23:18:21

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.845 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.783 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.860 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.871 ms
  Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 112.78 ms)  Flow 2 (95th percentile 112.86 ms)  Flow 3 (95th percentile 112.87 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-03-06 20:17:30
End at: 2018-03-06 20:18:00

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.89 Mbit/s
  95th percentile per-packet one-way delay: 112.503 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.11 Mbit/s
  95th percentile per-packet one-way delay: 112.522 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 112.462 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.50 Mbit/s
  95th percentile per-packet one-way delay: 112.244 ms
  Loss rate: 0.06%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-03-06 20:36:20
End at: 2018-03-06 20:36:50

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.90 Mbit/s
  95th percentile per-packet one-way delay: 110.722 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.13 Mbit/s
  95th percentile per-packet one-way delay: 110.388 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.30 Mbit/s
  95th percentile per-packet one-way delay: 110.776 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.48 Mbit/s
  95th percentile per-packet one-way delay: 111.300 ms
  Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

[Graph showing throughput and end-to-end delay over time for different flows.]
Run 3: Statistics of WebRTC media

Start at: 2018-03-06 20:55:27
End at: 2018-03-06 20:55:57

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.86 Mbit/s
  95th percentile per-packet one-way delay: 112.124 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 112.155 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.30 Mbit/s
  95th percentile per-packet one-way delay: 111.688 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 110.721 ms
  Loss rate: 0.00%
Run 4: Statistics of WebRTC media

Start at: 2018-03-06 21:14:49
End at: 2018-03-06 21:15:19

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.85 Mbit/s
  95th percentile per-packet one-way delay: 112.255 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 112.218 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 112.264 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 112.302 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

[Graph showing throughput over time for different flows]

[Graph showing packet delay over time for different flows]
Run 5: Statistics of WebRTC media

Start at: 2018-03-06 21:34:02
End at: 2018-03-06 21:34:32

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 112.193 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 112.166 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 112.217 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 112.470 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

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

![Graph showing average packet delay over time with different flow delays.]

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Run 6: Statistics of WebRTC media

Start at: 2018-03-06 21:53:08
End at: 2018-03-06 21:53:38

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.87 Mbit/s
  95th percentile per-packet one-way delay: 112.301 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.10 Mbit/s
  95th percentile per-packet one-way delay: 112.118 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 111.460 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 112.460 ms
  Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

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

Flow 1 ingress (mean 2.10 Mbit/s)  
Flow 1 egress (mean 2.10 Mbit/s)  
Flow 2 ingress (mean 1.31 Mbit/s)  
Flow 2 egress (mean 1.31 Mbit/s)  
Flow 3 ingress (mean 0.49 Mbit/s)  
Flow 3 egress (mean 0.49 Mbit/s)
Run 7: Statistics of WebRTC media

Start at: 2018-03-06 22:12:52
End at: 2018-03-06 22:13:23

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 112.255 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 112.263 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 110.882 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 112.545 ms
Loss rate: 0.06%
Run 7: Report of WebRTC media — Data Link

**Throughput (Mbps)**

- **Flow 1 ingress (mean 2.09 Mbps)**
- **Flow 1 egress (mean 2.10 Mbps)**
- **Flow 2 ingress (mean 1.32 Mbps)**
- **Flow 2 egress (mean 1.32 Mbps)**
- **Flow 3 ingress (mean 0.49 Mbps)**
- **Flow 3 egress (mean 0.49 Mbps)**

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

- **Flow 1 (95th percentile 112.26 ms)**
- **Flow 2 (95th percentile 110.88 ms)**
- **Flow 3 (95th percentile 112.55 ms)**
Run 8: Statistics of WebRTC media

Start at: 2018-03-06 22:32:05
End at: 2018-03-06 22:32:35

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.87 Mbit/s
  95th percentile per-packet one-way delay: 112.248 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.10 Mbit/s
  95th percentile per-packet one-way delay: 111.793 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.32 Mbit/s
  95th percentile per-packet one-way delay: 112.304 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 111.554 ms
  Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.10 Mbps) — Flow 1 egress (mean 2.10 Mbps)
Flow 2 ingress (mean 1.32 Mbps) — Flow 2 egress (mean 1.32 Mbps)
Flow 3 ingress (mean 0.49 Mbps) — Flow 3 egress (mean 0.49 Mbps)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 111.79 ms) — Flow 2 (95th percentile 112.30 ms) — Flow 3 (95th percentile 111.55 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-03-06 22:51:41
End at: 2018-03-06 22:52:11

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.86 Mbit/s
  95th percentile per-packet one-way delay: 112.477 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 112.513 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 111.857 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 111.547 ms
  Loss rate: 0.06%
Run 9: Report of WebRTC media — Data Link

[Graph showing throughput and delay over time for different flows with various markers and line styles indicating mean values and 95th percentiles for ingress and egress traffic.]
Run 10: Statistics of WebRTC media

Start at: 2018-03-06 23:10:37
End at: 2018-03-06 23:11:07

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.88 Mbit/s
  95th percentile per-packet one-way delay: 113.027 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.10 Mbit/s
  95th percentile per-packet one-way delay: 113.058 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.32 Mbit/s
  95th percentile per-packet one-way delay: 111.913 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 111.965 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

![Graph showing throughput over time for different flows.

Flow 1 ingress (mean 2.10 Mbit/s)
Flow 1 egress (mean 2.10 Mbit/s)
Flow 2 ingress (mean 1.32 Mbit/s)
Flow 2 egress (mean 1.32 Mbit/s)
Flow 3 ingress (mean 0.49 Mbit/s)
Flow 3 egress (mean 0.49 Mbit/s)

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

Flow 1 (95th percentile 113.06 ms)
Flow 2 (95th percentile 111.91 ms)
Flow 3 (95th percentile 111.97 ms)
Run 1: Statistics of Sprout

Start at: 2018-03-06 20:31:40
End at: 2018-03-06 20:32:10

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.25 Mbit/s
  95th percentile per-packet one-way delay: 112.342 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.72 Mbit/s
  95th percentile per-packet one-way delay: 112.233 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.59 Mbit/s
  95th percentile per-packet one-way delay: 112.419 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.44 Mbit/s
  95th percentile per-packet one-way delay: 112.464 ms
  Loss rate: 0.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-03-06 20:50:34
End at: 2018-03-06 20:51:04

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.98 Mbit/s
  95th percentile per-packet one-way delay: 112.494 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.39 Mbit/s
  95th percentile per-packet one-way delay: 112.363 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.06 Mbit/s
  95th percentile per-packet one-way delay: 112.800 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.69 Mbit/s
  95th percentile per-packet one-way delay: 112.552 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-03-06 21:09:55
End at: 2018-03-06 21:10:25

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.19 Mbit/s
  95th percentile per-packet one-way delay: 112.896 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.67 Mbit/s
  95th percentile per-packet one-way delay: 112.991 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.53 Mbit/s
  95th percentile per-packet one-way delay: 112.781 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.55 Mbit/s
  95th percentile per-packet one-way delay: 109.720 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 2.67 Mbps)
  - Flow 1 egress (mean 2.67 Mbps)
  - Flow 2 ingress (mean 2.53 Mbps)
  - Flow 2 egress (mean 2.53 Mbps)
  - Flow 3 ingress (mean 2.55 Mbps)
  - Flow 3 egress (mean 2.55 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 112.99 ms)
  - Flow 2 (95th percentile 112.78 ms)
  - Flow 3 (95th percentile 109.72 ms)
Run 4: Statistics of Sprout

Start at: 2018-03-06 21:29:08
End at: 2018-03-06 21:29:38

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.08 Mbit/s
95th percentile per-packet one-way delay: 113.210 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 113.326 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 112.656 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 111.268 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 3.01 Mbit/s)
- Flow 1 egress (mean 3.01 Mbit/s)
- Flow 2 ingress (mean 2.03 Mbit/s)
- Flow 2 egress (mean 2.03 Mbit/s)
- Flow 3 ingress (mean 2.18 Mbit/s)
- Flow 3 egress (mean 2.18 Mbit/s)
Run 5: Statistics of Sprout

Start at: 2018-03-06 21:48:18
End at: 2018-03-06 21:48:48

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.80 Mbit/s
  95th percentile per-packet one-way delay: 113.149 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.42 Mbit/s
  95th percentile per-packet one-way delay: 113.203 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.45 Mbit/s
  95th percentile per-packet one-way delay: 113.024 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.30 Mbit/s
  95th percentile per-packet one-way delay: 113.173 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.42 Mbps)  
Flow 2 ingress (mean 2.45 Mbps)  
Flow 3 ingress (mean 2.30 Mbps)  
Flow 1 egress (mean 2.42 Mbps)  
Flow 2 egress (mean 2.45 Mbps)  
Flow 3 egress (mean 2.30 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 113.20 ms)  
Flow 2 (95th percentile 113.02 ms)  
Flow 3 (95th percentile 113.17 ms)
Run 6: Statistics of Sprout

Start at: 2018-03-06 22:07:56
End at: 2018-03-06 22:08:26

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.12 Mbit/s
  95th percentile per-packet one-way delay: 113.334 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.83 Mbit/s
  95th percentile per-packet one-way delay: 113.342 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.27 Mbit/s
  95th percentile per-packet one-way delay: 113.289 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.37 Mbit/s
  95th percentile per-packet one-way delay: 113.396 ms
  Loss rate: 0.00%
Run 6: Report of Sprout — Data Link

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

- **Throughput Chart**: Shows the throughput in Mbps for each flow over time. The x-axis represents time in seconds (0 to 30), and the y-axis represents throughput in Mbps (0 to 6).
- **Delay Chart**: Displays the 95th percentile delay for each flow over time. The x-axis is time in seconds (0 to 30), and the y-axis is delay in ms (110 to 117).

Legend:
- Flow 1 ingress (mean 2.83 Mbps)
- Flow 1 egress (mean 2.83 Mbps)
- Flow 2 ingress (mean 2.27 Mbps)
- Flow 2 egress (mean 2.27 Mbps)
- Flow 3 ingress (mean 2.37 Mbps)
- Flow 3 egress (mean 2.37 Mbps)

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Run 7: Statistics of Sprout

Start at: 2018-03-06 22:27:19
End at: 2018-03-06 22:27:50

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 113.191 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 112.904 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 113.103 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 113.746 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

**Graph 1:**
Throughput (Mbps)

- **Flow 1 ingress (mean 2.28 Mbps):** Blue dashed line
- **Flow 1 egress (mean 2.28 Mbps):** Blue solid line
- **Flow 2 ingress (mean 1.91 Mbps):** Green dashed line
- **Flow 2 egress (mean 1.91 Mbps):** Green solid line
- **Flow 3 ingress (mean 1.96 Mbps):** Red dashed line
- **Flow 3 egress (mean 1.96 Mbps):** Red solid line

**Graph 2:**
Packet loss (one-way delay (ms))

- **Flow 1 (95th percentile 112.90 ms):** Blue dashed line
- **Flow 2 (95th percentile 113.10 ms):** Green dashed line
- **Flow 3 (95th percentile 113.75 ms):** Red dashed line
Run 8: Statistics of Sprout

Start at: 2018-03-06 22:46:49
End at: 2018-03-06 22:47:19

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.06 Mbit/s
  95th percentile per-packet one-way delay: 112.908 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.53 Mbit/s
  95th percentile per-packet one-way delay: 112.910 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.03 Mbit/s
  95th percentile per-packet one-way delay: 112.925 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.59 Mbit/s
  95th percentile per-packet one-way delay: 112.481 ms
  Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

![Graph of data link performance](image1)

![Graph of packet delay distribution](image2)
Run 9: Statistics of Sprout

Start at: 2018-03-06 23:05:48
End at: 2018-03-06 23:06:18

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.72 Mbit/s
  95th percentile per-packet one-way delay: 113.519 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 113.411 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.59 Mbit/s
  95th percentile per-packet one-way delay: 113.778 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.99 Mbit/s
  95th percentile per-packet one-way delay: 113.149 ms
  Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 2.34 Mbit/s)
  - Flow 1 egress (mean 2.34 Mbit/s)
  - Flow 2 ingress (mean 2.59 Mbit/s)
  - Flow 2 egress (mean 2.59 Mbit/s)
  - Flow 3 ingress (mean 1.99 Mbit/s)
  - Flow 3 egress (mean 1.99 Mbit/s)

- **Latency (ms):**
  - Flow 1 (95th percentile 113.41 ms)
  - Flow 2 (95th percentile 113.78 ms)
  - Flow 3 (95th percentile 113.15 ms)
Run 10: Statistics of Sprout

Start at: 2018-03-06 23:25:03
End at: 2018-03-06 23:25:33

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.61 Mbit/s
  95th percentile per-packet one-way delay: 112.335 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: 112.385 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.27 Mbit/s
  95th percentile per-packet one-way delay: 112.108 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.29 Mbit/s
  95th percentile per-packet one-way delay: 112.417 ms
  Loss rate: 0.00%
Run 10: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-06 20:27:52
End at: 2018-03-06 20:28:22

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 21.34 Mbit/s
  95th percentile per-packet one-way delay: 112.285 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 15.10 Mbit/s
  95th percentile per-packet one-way delay: 112.273 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 23.63 Mbit/s
  95th percentile per-packet one-way delay: 112.404 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 14.14 Mbit/s
  95th percentile per-packet one-way delay: 112.022 ms
  Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-06 20:46:40
End at: 2018-03-06 20:47:11

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 117.01 Mbit/s
  95th percentile per-packet one-way delay:  112.891 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 31.26 Mbit/s
  95th percentile per-packet one-way delay:  111.257 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 59.54 Mbit/s
  95th percentile per-packet one-way delay:  111.299 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 140.91 Mbit/s
  95th percentile per-packet one-way delay:  114.222 ms
  Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-06 21:05:54
End at: 2018-03-06 21:06:24

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 130.04 Mbit/s
  95th percentile per-packet one-way delay: 112.148 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 24.22 Mbit/s
  95th percentile per-packet one-way delay: 112.348 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 151.09 Mbit/s
  95th percentile per-packet one-way delay: 111.148 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 15.72 Mbit/s
  95th percentile per-packet one-way delay: 111.372 ms
  Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 24.22 Mbps)
  - Flow 1 egress (mean 24.22 Mbps)
  - Flow 2 ingress (mean 151.09 Mbps)
  - Flow 2 egress (mean 151.09 Mbps)
  - Flow 3 ingress (mean 15.72 Mbps)
  - Flow 3 egress (mean 15.72 Mbps)

- **Delay (ms)**
  - Flow 1 (95th percentile 112.35 ms)
  - Flow 2 (95th percentile 111.15 ms)
  - Flow 3 (95th percentile 111.37 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-03-06 21:25:20
End at: 2018-03-06 21:25:50

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 32.75 Mbit/s
  95th percentile per-packet one-way delay: 112.488 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 21.94 Mbit/s
  95th percentile per-packet one-way delay: 112.494 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 11.08 Mbit/s
  95th percentile per-packet one-way delay: 112.474 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 10.45 Mbit/s
  95th percentile per-packet one-way delay: 112.479 ms
  Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-03-06 21:44:17
End at: 2018-03-06 21:44:47

# Below is generated by plot.py at 2018-03-07 01:47:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 138.99 Mbit/s
  95th percentile per-packet one-way delay: 113.124 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 33.88 Mbit/s
  95th percentile per-packet one-way delay: 112.388 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 77.03 Mbit/s
  95th percentile per-packet one-way delay: 112.374 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 162.79 Mbit/s
  95th percentile per-packet one-way delay: 114.515 ms
  Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 33.89 Mbps)
- Flow 1 egress (mean 33.88 Mbps)
- Flow 2 ingress (mean 77.04 Mbps)
- Flow 2 egress (mean 77.03 Mbps)
- Flow 3 ingress (mean 162.77 Mbps)
- Flow 3 egress (mean 162.79 Mbps)

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

- Flow 1 (95th percentile 112.39 ms)
- Flow 2 (95th percentile 112.37 ms)
- Flow 3 (95th percentile 114.52 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-03-06 22:03:46
End at: 2018-03-06 22:04:16

# Below is generated by plot.py at 2018-03-07 01:49:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 216.12 Mbit/s
  95th percentile per-packet one-way delay: 112.522 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 79.21 Mbit/s
  95th percentile per-packet one-way delay: 112.597 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 101.05 Mbit/s
  95th percentile per-packet one-way delay: 112.405 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 210.42 Mbit/s
  95th percentile per-packet one-way delay: 112.546 ms
  Loss rate: 0.01%
Run 6: Report of TaoVA-100x — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 79.21 Mbps)
  - Flow 1 egress (mean 79.21 Mbps)
  - Flow 2 ingress (mean 101.05 Mbps)
  - Flow 2 egress (mean 101.05 Mbps)
  - Flow 3 ingress (mean 210.35 Mbps)
  - Flow 3 egress (mean 210.42 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 112.60 ms)
  - Flow 2 (95th percentile 112.41 ms)
  - Flow 3 (95th percentile 112.55 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-06 22:23:11
End at: 2018-03-06 22:23:41

# Below is generated by plot.py at 2018-03-07 01:50:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 239.75 Mbit/s
  95th percentile per-packet one-way delay: 115.646 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 148.04 Mbit/s
  95th percentile per-packet one-way delay: 114.638 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 133.72 Mbit/s
  95th percentile per-packet one-way delay: 117.413 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 10.79 Mbit/s
  95th percentile per-packet one-way delay: 113.008 ms
  Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress** (mean 148.05 Mbit/s)
- **Flow 1 egress** (mean 148.04 Mbit/s)
- **Flow 2 ingress** (mean 133.71 Mbit/s)
- **Flow 2 egress** (mean 133.72 Mbit/s)
- **Flow 3 ingress** (mean 10.79 Mbit/s)
- **Flow 3 egress** (mean 10.79 Mbit/s)

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

- **Flow 1** (95th percentile 114.64 ms)
- **Flow 2** (95th percentile 117.41 ms)
- **Flow 3** (95th percentile 113.01 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-03-06 22:42:45
End at: 2018-03-06 22:43:15

# Below is generated by plot.py at 2018-03-07 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 188.59 Mbit/s
95th percentile per-packet one-way delay: 114.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.06 Mbit/s
95th percentile per-packet one-way delay: 112.618 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 92.37 Mbit/s
95th percentile per-packet one-way delay: 114.248 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 178.80 Mbit/s
95th percentile per-packet one-way delay: 116.862 ms
Loss rate: 0.01%
Run 8: Report of TaoVA-100x — Data Link

![Graph 1: Throughput (Mbps)](image1)
- Flow 1 ingress (mean 68.07 Mbps)
- Flow 1 egress (mean 68.06 Mbps)
- Flow 2 ingress (mean 92.39 Mbps)
- Flow 2 egress (mean 92.37 Mbps)
- Flow 3 ingress (mean 178.81 Mbps)
- Flow 3 egress (mean 178.80 Mbps)

![Graph 2: Per-packet one-way delay (ms)](image2)
- Flow 1 (95th percentile 112.62 ms)
- Flow 2 (95th percentile 114.25 ms)
- Flow 3 (95th percentile 116.86 ms)
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-06 23:01:59
End at: 2018-03-06 23:02:29

# Below is generated by plot.py at 2018-03-07 01:50:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 59.57 Mbit/s
  95th percentile per-packet one-way delay: 112.380 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 16.20 Mbit/s
  95th percentile per-packet one-way delay: 112.317 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 15.98 Mbit/s
  95th percentile per-packet one-way delay: 112.495 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 98.67 Mbit/s
  95th percentile per-packet one-way delay: 111.549 ms
  Loss rate: 0.07%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-06 23:20:44
End at: 2018-03-06 23:21:14

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.92 Mbit/s
95th percentile per-packet one-way delay: 113.110 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 217.35 Mbit/s
95th percentile per-packet one-way delay: 113.183 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 22.91 Mbit/s
95th percentile per-packet one-way delay: 111.858 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 13.05 Mbit/s
95th percentile per-packet one-way delay: 111.729 ms
Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link

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

Flow 1 ingress (mean 217.40 Mbit/s), Flow 1 egress (mean 217.35 Mbit/s), Flow 2 ingress (mean 22.92 Mbit/s), Flow 2 egress (mean 22.91 Mbit/s), Flow 3 ingress (mean 13.03 Mbit/s), Flow 3 egress (mean 13.05 Mbit/s)

Flow 1 (95th percentile 113.18 ms), Flow 2 (95th percentile 111.86 ms), Flow 3 (95th percentile 111.73 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-03-06 20:18:17
End at: 2018-03-06 20:18:47

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 117.12 Mbit/s
95th percentile per-packet one-way delay: 121.700 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 21.19 Mbit/s
95th percentile per-packet one-way delay: 115.494 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 98.89 Mbit/s
95th percentile per-packet one-way delay: 122.657 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 92.27 Mbit/s
95th percentile per-packet one-way delay: 119.452 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-03-06 20:37:07
End at: 2018-03-06 20:37:37

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.24 Mbit/s
95th percentile per-packet one-way delay: 119.098 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.53 Mbit/s
95th percentile per-packet one-way delay: 115.071 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 96.98 Mbit/s
95th percentile per-packet one-way delay: 119.945 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 113.194 ms
Loss rate: 0.48%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-03-06 20:56:13
End at: 2018-03-06 20:56:43

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.94 Mbit/s
95th percentile per-packet one-way delay: 115.584 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 37.09 Mbit/s
95th percentile per-packet one-way delay: 113.072 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.41 Mbit/s
95th percentile per-packet one-way delay: 114.770 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.16 Mbit/s
95th percentile per-packet one-way delay: 121.997 ms
Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link

![Graph showing network performance metrics over time.]

- **Flow 1 Ingress**: Mean 37.08 Mbit/s
- **Flow 1 Egress**: Mean 37.09 Mbit/s
- **Flow 2 Ingress**: Mean 57.40 Mbit/s
- **Flow 2 Egress**: Mean 57.41 Mbit/s
- **Flow 3 Ingress**: Mean 59.14 Mbit/s
- **Flow 3 Egress**: Mean 59.16 Mbit/s

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

- **Flow 1 (95th percentile)**: 113.07 ms
- **Flow 2 (95th percentile)**: 114.77 ms
- **Flow 3 (95th percentile)**: 122.00 ms
Run 4: Statistics of TCP Vegas

Start at: 2018-03-06 21:15:35
End at: 2018-03-06 21:16:05

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.57 Mbit/s
  95th percentile per-packet one-way delay: 120.551 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 17.17 Mbit/s
  95th percentile per-packet one-way delay: 119.543 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 98.24 Mbit/s
  95th percentile per-packet one-way delay: 120.795 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 18.16 Mbit/s
  95th percentile per-packet one-way delay: 114.131 ms
  Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-03-06 21:34:49
End at: 2018-03-06 21:35:19

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.43 Mbit/s
  95th percentile per-packet one-way delay: 123.089 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 54.96 Mbit/s
  95th percentile per-packet one-way delay: 123.359 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.61 Mbit/s
  95th percentile per-packet one-way delay: 118.723 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 89.86 Mbit/s
  95th percentile per-packet one-way delay: 122.114 ms
  Loss rate: 0.33%
Run 5: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 54.96 Mbit/s)
- Flow 1 egress (mean 54.96 Mbit/s)
- Flow 2 ingress (mean 2.61 Mbit/s)
- Flow 2 egress (mean 2.61 Mbit/s)
- Flow 3 ingress (mean 90.16 Mbit/s)
- Flow 3 egress (mean 89.86 Mbit/s)
Run 6: Statistics of TCP Vegas

Start at: 2018-03-06 21:53:55
End at: 2018-03-06 21:54:25

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 186.39 Mbit/s
95th percentile per-packet one-way delay: 121.251 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 99.79 Mbit/s
95th percentile per-packet one-way delay: 121.614 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 85.86 Mbit/s
95th percentile per-packet one-way delay: 120.675 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 90.16 Mbit/s
95th percentile per-packet one-way delay: 119.982 ms
Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-03-06 22:13:39
End at: 2018-03-06 22:14:09

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 175.90 Mbit/s
  95th percentile per-packet one-way delay: 122.702 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 101.10 Mbit/s
  95th percentile per-packet one-way delay: 123.073 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 97.86 Mbit/s
  95th percentile per-packet one-way delay: 121.424 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 30.69 Mbit/s
  95th percentile per-packet one-way delay: 121.507 ms
  Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-03-06 22:32:52
End at: 2018-03-06 22:33:22

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 188.27 Mbit/s
95th percentile per-packet one-way delay: 123.780 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 98.03 Mbit/s
95th percentile per-packet one-way delay: 124.010 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 91.53 Mbit/s
95th percentile per-packet one-way delay: 123.290 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 90.68 Mbit/s
95th percentile per-packet one-way delay: 124.094 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

![TCP Vegas Data Link Throughput Graph](image1)

![TCP Vegas Data Link Delay Graph](image2)
Run 9: Statistics of TCP Vegas

Start at: 2018-03-06 22:52:28
End at: 2018-03-06 22:52:58

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.78 Mbit/s
95th percentile per-packet one-way delay: 127.616 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 34.32 Mbit/s
95th percentile per-packet one-way delay: 128.748 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 10.96 Mbit/s
95th percentile per-packet one-way delay: 141.447 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 76.66 Mbit/s
95th percentile per-packet one-way delay: 125.437 ms
Loss rate: 0.01%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-03-06 23:11:24
End at: 2018-03-06 23:11:54

# Below is generated by plot.py at 2018-03-07 01:53:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 41.73 Mbit/s
  95th percentile per-packet one-way delay: 124.552 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 8.96 Mbit/s
  95th percentile per-packet one-way delay: 128.085 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 5.21 Mbit/s
  95th percentile per-packet one-way delay: 117.292 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 88.90 Mbit/s
  95th percentile per-packet one-way delay: 124.532 ms
  Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link
Run 1: Statistics of Verus

Start at: 2018-03-06 20:22:38
End at: 2018-03-06 20:23:08

# Below is generated by plot.py at 2018-03-07 01:53:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.79 Mbit/s
95th percentile per-packet one-way delay: 182.876 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 162.74 Mbit/s
95th percentile per-packet one-way delay: 175.455 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 58.57 Mbit/s
95th percentile per-packet one-way delay: 286.196 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 123.62 Mbit/s
95th percentile per-packet one-way delay: 176.009 ms
Loss rate: 0.00%
Run 1: Report of Verus — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 162.97 Mbit/s)
- Flow 1 egress (mean 162.74 Mbit/s)
- Flow 2 ingress (mean 58.59 Mbit/s)
- Flow 2 egress (mean 58.57 Mbit/s)
- Flow 3 ingress (mean 123.63 Mbit/s)
- Flow 3 egress (mean 123.62 Mbit/s)

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

- Flow 1 (95th percentile 175.46 ms)
- Flow 2 (95th percentile 286.20 ms)
- Flow 3 (95th percentile 176.01 ms)
Run 2: Statistics of Verus

Start at: 2018-03-06 20:41:26
End at: 2018-03-06 20:41:56

# Below is generated by plot.py at 2018-03-07 01:53:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.66 Mbit/s
95th percentile per-packet one-way delay: 267.467 ms
Loss rate: 2.77%
-- Flow 1:
Average throughput: 124.31 Mbit/s
95th percentile per-packet one-way delay: 229.874 ms
Loss rate: 2.67%
-- Flow 2:
Average throughput: 58.84 Mbit/s
95th percentile per-packet one-way delay: 175.331 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 155.74 Mbit/s
95th percentile per-packet one-way delay: 363.114 ms
Loss rate: 4.43%
Run 2: Report of Verus — Data Link

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

- Flow 1 ingress (mean 128.15 Mbps)
- Flow 1 egress (mean 124.31 Mbps)
- Flow 2 ingress (mean 59.47 Mbps)
- Flow 2 egress (mean 58.84 Mbps)
- Flow 3 ingress (mean 163.24 Mbps)
- Flow 3 egress (mean 155.74 Mbps)

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

- Flow 1 (95th percentile 229.97 ms)
- Flow 2 (95th percentile 175.33 ms)
- Flow 3 (95th percentile 363.11 ms)
Run 3: Statistics of Verus

Start at: 2018-03-06 21:00:36
End at: 2018-03-06 21:01:06

# Below is generated by plot.py at 2018-03-07 01:53:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.32 Mbit/s
95th percentile per-packet one-way delay: 229.199 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 162.83 Mbit/s
95th percentile per-packet one-way delay: 184.901 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 68.03 Mbit/s
95th percentile per-packet one-way delay: 308.342 ms
Loss rate: 4.97%
-- Flow 3:
Average throughput: 36.90 Mbit/s
95th percentile per-packet one-way delay: 214.351 ms
Loss rate: 2.65%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

Start at: 2018-03-06 21:19:55
End at: 2018-03-06 21:20:25

# Below is generated by plot.py at 2018-03-07 01:54:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 242.99 Mbit/s
  95th percentile per-packet one-way delay: 260.593 ms
  Loss rate: 2.24%
-- Flow 1:
  Average throughput: 134.84 Mbit/s
  95th percentile per-packet one-way delay: 212.451 ms
  Loss rate: 1.77%
-- Flow 2:
  Average throughput: 73.18 Mbit/s
  95th percentile per-packet one-way delay: 146.765 ms
  Loss rate: 0.14%
-- Flow 3:
  Average throughput: 182.60 Mbit/s
  95th percentile per-packet one-way delay: 347.789 ms
  Loss rate: 4.89%
Run 4: Report of Verus — Data Link

![Graph showing data link performance](image1)

![Graph showing packet delay](image2)
Run 5: Statistics of Verus

Start at: 2018-03-06 21:39:08
End at: 2018-03-06 21:39:38

# Below is generated by plot.py at 2018-03-07 01:55:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 233.75 Mbit/s
  95th percentile per-packet one-way delay: 333.638 ms
  Loss rate: 7.71%
-- Flow 1:
  Average throughput: 185.16 Mbit/s
  95th percentile per-packet one-way delay: 326.306 ms
  Loss rate: 5.81%
-- Flow 2:
  Average throughput: 38.38 Mbit/s
  95th percentile per-packet one-way delay: 214.125 ms
  Loss rate: 1.00%
-- Flow 3:
  Average throughput: 71.96 Mbit/s
  95th percentile per-packet one-way delay: 395.777 ms
  Loss rate: 25.16%
Run 5: Report of Verus — Data Link
Run 6: Statistics of Verus

Start at: 2018-03-06 21:58:20
End at: 2018-03-06 21:58:50

# Below is generated by plot.py at 2018-03-07 01:55:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 246.94 Mbit/s
95th percentile per-packet one-way delay: 197.871 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 184.40 Mbit/s
95th percentile per-packet one-way delay: 177.389 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 62.54 Mbit/s
95th percentile per-packet one-way delay: 184.063 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 65.25 Mbit/s
95th percentile per-packet one-way delay: 357.945 ms
Loss rate: 2.08%
Run 6: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 185.01 Mbit/s)
- **Flow 1 egress** (mean 184.40 Mbit/s)
- **Flow 2 ingress** (mean 62.73 Mbit/s)
- **Flow 2 egress** (mean 62.54 Mbit/s)
- **Flow 3 ingress** (mean 66.69 Mbit/s)
- **Flow 3 egress** (mean 65.25 Mbit/s)

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

- **Flow 1** (95th percentile 177.39 ms)
- **Flow 2** (95th percentile 184.06 ms)
- **Flow 3** (95th percentile 357.94 ms)
Run 7: Statistics of Verus

Start at: 2018-03-06 22:18:06
End at: 2018-03-06 22:18:36

# Below is generated by plot.py at 2018-03-07 01:55:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.48 Mbit/s
95th percentile per-packet one-way delay: 149.572 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.64 Mbit/s
95th percentile per-packet one-way delay: 159.992 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.26 Mbit/s
95th percentile per-packet one-way delay: 138.929 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 147.646 ms
Loss rate: 0.00%
Run 7: Report of Verus — Data Link

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

- Flow 1 ingress (mean 75.64 Mbit/s)
- Flow 1 egress (mean 75.64 Mbit/s)
- Flow 2 ingress (mean 48.29 Mbit/s)
- Flow 2 egress (mean 48.26 Mbit/s)
- Flow 3 ingress (mean 95.21 Mbit/s)
- Flow 3 egress (mean 95.07 Mbit/s)

- Flow 1 (95th percentile 159.99 ms)
- Flow 2 (95th percentile 138.93 ms)
- Flow 3 (95th percentile 147.65 ms)
Run 8: Statistics of Verus

Start at: 2018-03-06 22:37:21
End at: 2018-03-06 22:37:51

# Below is generated by plot.py at 2018-03-07 01:57:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 264.53 Mbit/s
  95th percentile per-packet one-way delay: 250.838 ms
  Loss rate: 0.97%
-- Flow 1:
  Average throughput: 164.09 Mbit/s
  95th percentile per-packet one-way delay: 223.373 ms
  Loss rate: 0.41%
-- Flow 2:
  Average throughput: 136.89 Mbit/s
  95th percentile per-packet one-way delay: 305.535 ms
  Loss rate: 2.04%
-- Flow 3:
  Average throughput: 30.42 Mbit/s
  95th percentile per-packet one-way delay: 211.160 ms
  Loss rate: 0.36%
Run 8: Report of Verus — Data Link

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

Start at: 2018-03-06 22:56:51
End at: 2018-03-06 22:57:21

# Below is generated by plot.py at 2018-03-07 01:57:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 174.08 Mbit/s
  95th percentile per-packet one-way delay: 271.894 ms
  Loss rate: 3.95%
-- Flow 1:
  Average throughput: 107.82 Mbit/s
  95th percentile per-packet one-way delay: 289.275 ms
  Loss rate: 4.30%
-- Flow 2:
  Average throughput: 80.74 Mbit/s
  95th percentile per-packet one-way delay: 232.212 ms
  Loss rate: 4.14%
-- Flow 3:
  Average throughput: 40.01 Mbit/s
  95th percentile per-packet one-way delay: 136.947 ms
  Loss rate: 0.03%
Run 9: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 112.66 Mbit/s)
- **Flow 1 egress** (mean 107.82 Mbit/s)
- **Flow 2 ingress** (mean 85.25 Mbit/s)
- **Flow 2 egress** (mean 80.74 Mbit/s)
- **Flow 3 ingress** (mean 40.33 Mbit/s)
- **Flow 3 egress** (mean 40.01 Mbit/s)

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

- **Flow 1** (95th percentile: 289.27 ms)
- **Flow 2** (95th percentile: 232.21 ms)
- **Flow 3** (95th percentile: 136.95 ms)
Run 10: Statistics of Verus

Start at: 2018-03-06 23:15:41
End at: 2018-03-06 23:16:11

# Below is generated by plot.py at 2018-03-07 01:57:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 238.86 Mbit/s
  95th percentile per-packet one-way delay: 196.524 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 105.20 Mbit/s
  95th percentile per-packet one-way delay: 191.274 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 168.11 Mbit/s
  95th percentile per-packet one-way delay: 205.467 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 69.81 Mbit/s
  95th percentile per-packet one-way delay: 179.328 ms
  Loss rate: 0.03%
Run 10: Report of Verus — Data Link
Run 1: Statistics of Copa

Start at: 2018-03-06 20:29:53
End at: 2018-03-06 20:30:23

# Below is generated by plot.py at 2018-03-07 01:57:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 123.06 Mbit/s
  95th percentile per-packet one-way delay: 111.678 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 80.76 Mbit/s
  95th percentile per-packet one-way delay: 111.355 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 53.67 Mbit/s
  95th percentile per-packet one-way delay: 111.683 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 19.79 Mbit/s
  95th percentile per-packet one-way delay: 112.524 ms
  Loss rate: 0.08%
Run 1: Report of Copa — Data Link

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

- Flow 1 ingress (mean 80.76 Mbit/s)
- Flow 1 egress (mean 80.76 Mbit/s)
- Flow 2 ingress (mean 53.68 Mbit/s)
- Flow 2 egress (mean 53.67 Mbit/s)
- Flow 3 ingress (mean 19.81 Mbit/s)
- Flow 3 egress (mean 19.79 Mbit/s)
Run 2: Statistics of Copa

Start at: 2018-03-06 20:48:47
End at: 2018-03-06 20:49:17

# Below is generated by plot.py at 2018-03-07 01:58:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 121.20 Mbit/s
  95th percentile per-packet one-way delay: 111.182 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 43.67 Mbit/s
  95th percentile per-packet one-way delay: 110.894 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 79.64 Mbit/s
  95th percentile per-packet one-way delay: 111.085 ms
  Loss rate: 0.06%
-- Flow 3:
  Average throughput: 73.90 Mbit/s
  95th percentile per-packet one-way delay: 112.015 ms
  Loss rate: 0.06%
Run 2: Report of Copa — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 43.68 Mbit/s)
Flow 1 egress (mean 43.67 Mbit/s)
Flow 2 ingress (mean 79.69 Mbit/s)
Flow 2 egress (mean 79.64 Mbit/s)
Flow 3 ingress (mean 73.94 Mbit/s)
Flow 3 egress (mean 73.90 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 110.89 ms)
Flow 2 (95th percentile 111.08 ms)
Flow 3 (95th percentile 112.02 ms)
Run 3: Statistics of Copa

Start at: 2018-03-06 21:08:06
End at: 2018-03-06 21:08:36

# Below is generated by plot.py at 2018-03-07 01:58:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.59 Mbit/s
95th percentile per-packet one-way delay: 112.168 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.62 Mbit/s
95th percentile per-packet one-way delay: 112.068 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.30 Mbit/s
95th percentile per-packet one-way delay: 112.224 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 58.75 Mbit/s
95th percentile per-packet one-way delay: 112.307 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

Start at: 2018-03-06 21:27:19
End at: 2018-03-06 21:27:49

# Below is generated by plot.py at 2018-03-07 01:59:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.76 Mbit/s
95th percentile per-packet one-way delay: 112.509 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.68 Mbit/s
95th percentile per-packet one-way delay: 112.499 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.02 Mbit/s
95th percentile per-packet one-way delay: 112.507 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.72 Mbit/s
95th percentile per-packet one-way delay: 112.534 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-03-06 21:46:27
End at: 2018-03-06 21:46:57

# Below is generated by plot.py at 2018-03-07 02:00:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 157.24 Mbit/s
  95th percentile per-packet one-way delay: 112.334 ms
  Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 81.05 Mbit/s
    95th percentile per-packet one-way delay: 112.352 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 75.72 Mbit/s
    95th percentile per-packet one-way delay: 112.294 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 77.75 Mbit/s
    95th percentile per-packet one-way delay: 112.325 ms
    Loss rate: 0.00%
Run 5: Report of Copa — Data Link

![Graph showing network throughput and packet delay over time]

Legend:
- Flow 1 ingress (mean 81.05 Mbit/s)
- Flow 1 egress (mean 81.05 Mbit/s)
- Flow 2 ingress (mean 75.72 Mbit/s)
- Flow 2 egress (mean 75.72 Mbit/s)
- Flow 3 ingress (mean 77.75 Mbit/s)
- Flow 3 egress (mean 77.75 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 112.35 ms)
- Flow 2 (95th percentile 112.29 ms)
- Flow 3 (95th percentile 112.33 ms)
Run 6: Statistics of Copa

Start at: 2018-03-06 22:06:05
End at: 2018-03-06 22:06:35

# Below is generated by plot.py at 2018-03-07 02:01:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 154.37 Mbit/s
  95th percentile per-packet one-way delay: 112.292 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 74.41 Mbit/s
  95th percentile per-packet one-way delay: 112.289 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 82.51 Mbit/s
  95th percentile per-packet one-way delay: 112.304 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 75.39 Mbit/s
  95th percentile per-packet one-way delay: 112.278 ms
  Loss rate: 0.00%
Run 6: Report of Copa — Data Link

- Throughput (Mbit/s)
- Time (s)
- Flow 1 ingress (mean 74.41 Mbit/s)
- Flow 1 egress (mean 74.41 Mbit/s)
- Flow 2 ingress (mean 82.51 Mbit/s)
- Flow 2 egress (mean 82.51 Mbit/s)
- Flow 3 ingress (mean 75.39 Mbit/s)
- Flow 3 egress (mean 75.39 Mbit/s)

- Per-packet one-way delay (ms)
- Time (s)
- Flow 1 (95th percentile 112.29 ms)
- Flow 2 (95th percentile 112.30 ms)
- Flow 3 (95th percentile 112.28 ms)
Run 7: Statistics of Copa

Start at: 2018-03-06 22:25:30
End at: 2018-03-06 22:26:00

# Below is generated by plot.py at 2018-03-07 02:01:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.94 Mbit/s
95th percentile per-packet one-way delay: 112.246 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.66 Mbit/s
95th percentile per-packet one-way delay: 112.210 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 77.51 Mbit/s
95th percentile per-packet one-way delay: 112.246 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.17 Mbit/s
95th percentile per-packet one-way delay: 112.640 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-03-06 22:45:00
End at: 2018-03-06 22:45:30

# Below is generated by plot.py at 2018-03-07 02:01:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.09 Mbit/s
95th percentile per-packet one-way delay: 112.467 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.21 Mbit/s
95th percentile per-packet one-way delay: 112.401 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.36 Mbit/s
95th percentile per-packet one-way delay: 112.476 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 76.41 Mbit/s
95th percentile per-packet one-way delay: 112.552 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link

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

Start at: 2018-03-06 23:04:00
End at: 2018-03-06 23:04:30

# Below is generated by plot.py at 2018-03-07 02:01:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 133.87 Mbit/s
  95th percentile per-packet one-way delay: 112.338 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 78.66 Mbit/s
  95th percentile per-packet one-way delay: 111.760 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 43.27 Mbit/s
  95th percentile per-packet one-way delay: 112.345 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 79.58 Mbit/s
  95th percentile per-packet one-way delay: 112.411 ms
  Loss rate: 0.05%
Run 9: Report of Copa — Data Link

![Graph of network performance over time with throughput and one-way delay measurements for different flows.]

Flow 1 ingress (mean 78.70 Mbit/s) vs Flow 1 egress (mean 78.66 Mbit/s)
Flow 2 ingress (mean 43.29 Mbit/s) vs Flow 2 egress (mean 43.27 Mbit/s)
Flow 3 ingress (mean 79.62 Mbit/s) vs Flow 3 egress (mean 79.58 Mbit/s)
Run 10: Statistics of Copa

Start at: 2018-03-06 23:23:04
End at: 2018-03-06 23:23:34

# Below is generated by plot.py at 2018-03-07 02:05:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 259.92 Mbit/s
  95th percentile per-packet one-way delay: 298.181 ms
  Loss rate: 24.10%
-- Flow 1:
  Average throughput: 65.36 Mbit/s
  95th percentile per-packet one-way delay: 111.852 ms
  Loss rate: 1.22%
-- Flow 2:
  Average throughput: 154.19 Mbit/s
  95th percentile per-packet one-way delay: 293.609 ms
  Loss rate: 22.64%
-- Flow 3:
  Average throughput: 274.71 Mbit/s
  95th percentile per-packet one-way delay: 303.275 ms
  Loss rate: 35.98%
Run 10: Report of Copa — Data Link

![Graph of throughput and delay over time with annotations for different flows.]
Run 1: Statistics of FillP

Start at: 2018-03-06 20:32:26
End at: 2018-03-06 20:32:56

# Below is generated by plot.py at 2018-03-07 02:23:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1464.87 Mbit/s
95th percentile per-packet one-way delay: 235.873 ms
Loss rate: 10.06%
-- Flow 1:
Average throughput: 763.22 Mbit/s
95th percentile per-packet one-way delay: 219.246 ms
Loss rate: 10.03%
-- Flow 2:
Average throughput: 822.75 Mbit/s
95th percentile per-packet one-way delay: 207.838 ms
Loss rate: 5.51%
-- Flow 3:
Average throughput: 463.43 Mbit/s
95th percentile per-packet one-way delay: 272.086 ms
Loss rate: 23.37%
Run 1: Report of FillP — Data Link

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

- Blue dashed line: Flow 1 Ingress (mean 848.33 Mbit/s)
- Red dashed line: Flow 1 Egress (mean 763.22 Mbit/s)
- Green dotted line: Flow 2 Ingress (mean 870.63 Mbit/s)
- Blue solid line: Flow 2 Egress (mean 822.75 Mbit/s)
- Orange dotted line: Flow 3 Ingress (mean 604.73 Mbit/s)
- Red solid line: Flow 3 Egress (mean 463.43 Mbit/s)

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

- Blue dotted line: Flow 1 (95th percentile 219.25 ms)
- Green dotted line: Flow 2 (95th percentile 207.84 ms)
- Red dotted line: Flow 3 (95th percentile 272.09 ms)
Run 2: Statistics of FillP

Start at: 2018-03-06 20:51:20
End at: 2018-03-06 20:51:50

# Below is generated by plot.py at 2018-03-07 02:23:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1443.06 Mbit/s
  95th percentile per-packet one-way delay: 223.045 ms
  Loss rate: 10.70%
-- Flow 1:
  Average throughput: 754.98 Mbit/s
  95th percentile per-packet one-way delay: 224.782 ms
  Loss rate: 9.48%
-- Flow 2:
  Average throughput: 686.19 Mbit/s
  95th percentile per-packet one-way delay: 225.975 ms
  Loss rate: 12.88%
-- Flow 3:
  Average throughput: 698.80 Mbit/s
  95th percentile per-packet one-way delay: 214.281 ms
  Loss rate: 10.20%
Run 2: Report of FillP — Data Link

The graphs show the throughput and per-packet one-way delay over time for different flows. The throughput graphs display the mean values for each flow:
- Flow 1 Ingress (mean 834.06 Mbit/s)
- Flow 1 Egress (mean 754.98 Mbit/s)
- Flow 2 Ingress (mean 787.69 Mbit/s)
- Flow 2 Egress (mean 686.19 Mbit/s)
- Flow 3 Ingress (mean 778.28 Mbit/s)
- Flow 3 Egress (mean 698.80 Mbit/s)

The per-packet one-way delay graphs show the 95th percentile values for each flow:
- Flow 1 (95th percentile 224.78 ms)
- Flow 2 (95th percentile 225.97 ms)
- Flow 3 (95th percentile 214.28 ms)
Run 3: Statistics of FillP

Start at: 2018-03-06 21:10:42
End at: 2018-03-06 21:11:12

# Below is generated by plot.py at 2018-03-07 02:25:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1438.90 Mbit/s
95th percentile per-packet one-way delay: 228.434 ms
Loss rate: 10.90%
-- Flow 1:
Average throughput: 790.60 Mbit/s
95th percentile per-packet one-way delay: 200.888 ms
Loss rate: 8.15%
-- Flow 2:
Average throughput: 666.02 Mbit/s
95th percentile per-packet one-way delay: 246.082 ms
Loss rate: 13.16%
-- Flow 3:
Average throughput: 619.75 Mbit/s
95th percentile per-packet one-way delay: 280.845 ms
Loss rate: 15.90%
Run 3: Report of FillP — Data Link

**Throughput (Mbps)**

- Flow 1 ingress (mean 860.71 Mbps)
- Flow 1 egress (mean 790.60 Mbps)
- Flow 2 ingress (mean 766.87 Mbps)
- Flow 2 egress (mean 666.02 Mbps)
- Flow 3 ingress (mean 736.99 Mbps)
- Flow 3 egress (mean 619.75 Mbps)

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

- Flow 1 (95th percentile 200.89 ms)
- Flow 2 (95th percentile 246.08 ms)
- Flow 3 (95th percentile 280.85 ms)
Run 4: Statistics of FillIP

Start at: 2018-03-06 21:29:55
End at: 2018-03-06 21:30:25

# Below is generated by plot.py at 2018-03-07 02:25:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1415.65 Mbit/s
  95th percentile per-packet one-way delay: 220.047 ms
  Loss rate: 12.00%
-- Flow 1:
  Average throughput: 722.54 Mbit/s
  95th percentile per-packet one-way delay: 223.520 ms
  Loss rate: 11.32%
-- Flow 2:
  Average throughput: 731.10 Mbit/s
  95th percentile per-packet one-way delay: 218.953 ms
  Loss rate: 11.58%
-- Flow 3:
  Average throughput: 624.22 Mbit/s
  95th percentile per-packet one-way delay: 215.286 ms
  Loss rate: 15.21%
Run 4: Report of FillP — Data Link

![Graph 1](Image 1)

![Graph 2](Image 2)
Run 5: Statistics of FillP

Start at: 2018-03-06 21:49:04
End at: 2018-03-06 21:49:34

# Below is generated by plot.py at 2018-03-07 02:25:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1310.84 Mbit/s
  95th percentile per-packet one-way delay: 363.461 ms
  Loss rate: 12.40%
-- Flow 1:
  Average throughput: 676.00 Mbit/s
  95th percentile per-packet one-way delay: 361.728 ms
  Loss rate: 12.10%
-- Flow 2:
  Average throughput: 583.20 Mbit/s
  95th percentile per-packet one-way delay: 382.139 ms
  Loss rate: 16.21%
-- Flow 3:
  Average throughput: 745.91 Mbit/s
  95th percentile per-packet one-way delay: 244.376 ms
  Loss rate: 6.59%
Run 5: Report of FillP — Data Link

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

Legend:
- Flow 1 Ingress (mean 769.05 Mbit/s)
- Flow 1 Egress (mean 676.00 Mbit/s)
- Flow 2 Ingress (mean 695.86 Mbit/s)
- Flow 2 Egress (mean 583.20 Mbit/s)
- Flow 3 Ingress (mean 796.40 Mbit/s)
- Flow 3 Egress (mean 745.93 Mbit/s)

![Graph of packet delay over time for different flows.](image)

Legend:
- Flow 1 (95th percentile 361.73 ms)
- Flow 2 (95th percentile 382.14 ms)
- Flow 3 (95th percentile 244.38 ms)
Run 6: Statistics of FillP

Start at: 2018-03-06 22:08:42
End at: 2018-03-06 22:09:12

# Below is generated by plot.py at 2018-03-07 02:26:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1461.05 Mbit/s
95th percentile per-packet one-way delay: 240.605 ms
Loss rate: 10.28%
-- Flow 1:
Average throughput: 703.36 Mbit/s
95th percentile per-packet one-way delay: 261.891 ms
Loss rate: 12.45%
-- Flow 2:
Average throughput: 809.54 Mbit/s
95th percentile per-packet one-way delay: 211.155 ms
Loss rate: 5.79%
-- Flow 3:
Average throughput: 663.11 Mbit/s
95th percentile per-packet one-way delay: 301.675 ms
Loss rate: 13.53%
Run 6: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 804.05 Mbit/s)
- Flow 1 Egress (mean 703.36 Mbit/s)
- Flow 2 Ingress (mean 859.32 Mbit/s)
- Flow 2 Egress (mean 809.54 Mbit/s)
- Flow 3 Ingress (mean 766.63 Mbit/s)
- Flow 3 Egress (mean 663.11 Mbit/s)

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

- Flow 1 (95th percentile 261.89 ms)
- Flow 2 (95th percentile 211.16 ms)
- Flow 3 (95th percentile 301.68 ms)
Run 7: Statistics of FillP

Start at: 2018-03-06 22:28:06
End at: 2018-03-06 22:28:36

# Below is generated by plot.py at 2018-03-07 02:26:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1417.32 Mbit/s
  95th percentile per-packet one-way delay: 223.076 ms
  Loss rate: 11.08%
-- Flow 1:
  Average throughput: 748.26 Mbit/s
  95th percentile per-packet one-way delay: 217.443 ms
  Loss rate: 9.05%
-- Flow 2:
  Average throughput: 688.40 Mbit/s
  95th percentile per-packet one-way delay: 223.699 ms
  Loss rate: 12.81%
-- Flow 3:
  Average throughput: 638.24 Mbit/s
  95th percentile per-packet one-way delay: 231.922 ms
  Loss rate: 14.20%
Run 7: Report of FillP — Data Link

![Graph of Throughput vs Time](image1)

- **Flow 1 Ingress (mean 822.71 Mbit/s)**
- **Flow 1 Egress (mean 748.26 Mbit/s)**
- **Flow 2 Ingress (mean 789.68 Mbit/s)**
- **Flow 2 Egress (mean 688.40 Mbit/s)**
- **Flow 3 Ingress (mean 743.82 Mbit/s)**
- **Flow 3 Egress (mean 638.24 Mbit/s)**

![Graph of Delay vs Time](image2)

- **Flow 1 (95th percentile 217.44 ms)**
- **Flow 2 (95th percentile 223.70 ms)**
- **Flow 3 (95th percentile 231.92 ms)**
Run 8: Statistics of FillP

Start at: 2018-03-06 22:47:35
End at: 2018-03-06 22:48:05

# Below is generated by plot.py at 2018-03-07 02:31:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1335.45 Mbit/s
  95th percentile per-packet one-way delay: 350.198 ms
  Loss rate: 10.82%
-- Flow 1:
  Average throughput: 633.74 Mbit/s
  95th percentile per-packet one-way delay: 361.124 ms
  Loss rate: 13.85%
-- Flow 2:
  Average throughput: 726.93 Mbit/s
  95th percentile per-packet one-way delay: 326.864 ms
  Loss rate: 6.68%
-- Flow 3:
  Average throughput: 660.10 Mbit/s
  95th percentile per-packet one-way delay: 213.105 ms
  Loss rate: 10.46%
Run 8: Report of FillP — Data Link

![Graph 1: Throughput vs Time]

- Blue dashed line: Flow 1 ingress (mean 735.66 Mbps)
- Green dashed line: Flow 2 ingress (mean 778.97 Mbps)
- Red dashed line: Flow 3 ingress (mean 737.29 Mbps)
- Blue solid line: Flow 1 egress (mean 633.74 Mbps)
- Green solid line: Flow 2 egress (mean 726.93 Mbps)
- Red solid line: Flow 3 egress (mean 660.10 Mbps)

![Graph 2: Packet one-way delay vs Time]

- Blue circles: Flow 1 (95th percentile 361.12 ms)
- Green circles: Flow 2 (95th percentile 326.86 ms)
- Red circles: Flow 3 (95th percentile 213.10 ms)
Run 9: Statistics of FillP

Start at: 2018-03-06 23:06:34
End at: 2018-03-06 23:07:04

# Below is generated by plot.py at 2018-03-07 02:50:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1453.92 Mbit/s
95th percentile per-packet one-way delay: 223.164 ms
Loss rate: 12.01%
-- Flow 1:
Average throughput: 768.36 Mbit/s
95th percentile per-packet one-way delay: 218.814 ms
Loss rate: 10.02%
-- Flow 2:
Average throughput: 692.79 Mbit/s
95th percentile per-packet one-way delay: 240.381 ms
Loss rate: 14.63%
-- Flow 3:
Average throughput: 681.08 Mbit/s
95th percentile per-packet one-way delay: 215.880 ms
Loss rate: 13.09%
Run 10: Statistics of FillP

Start at: 2018-03-06 23:25:50
End at: 2018-03-06 23:26:20

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1537.23 Mbit/s
  95th percentile per-packet one-way delay: 219.402 ms
  Loss rate: 9.57%
-- Flow 1:
  Average throughput: 827.98 Mbit/s
  95th percentile per-packet one-way delay: 221.203 ms
  Loss rate: 6.97%
-- Flow 2:
  Average throughput: 750.00 Mbit/s
  95th percentile per-packet one-way delay: 225.510 ms
  Loss rate: 11.75%
-- Flow 3:
  Average throughput: 634.52 Mbit/s
  95th percentile per-packet one-way delay: 211.416 ms
  Loss rate: 13.97%
Run 10: Report of FillIP — Data Link

![Graph 1: Throughput (Mbps)]

- Blue: Flow 1 ingress (mean 890.10 Mbps)
- Dashed blue: Flow 1 egress (mean 827.98 Mbps)
- Green: Flow 2 ingress (mean 849.84 Mbps)
- Dashed green: Flow 2 egress (mean 750.00 Mbps)
- Red: Flow 3 ingress (mean 737.59 Mbps)
- Dashed red: Flow 3 egress (mean 634.32 Mbps)

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

- Blue: Flow 1 (95th percentile 221.20 ms)
- Green: Flow 2 (95th percentile 225.51 ms)
- Red: Flow 3 (95th percentile 211.42 ms)
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-06 20:28:41
End at: 2018-03-06 20:29:11

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 339.04 Mbit/s
   95th percentile per-packet one-way delay: 114.497 ms
   Loss rate: 0.03%
-- Flow 1:
   Average throughput: 208.06 Mbit/s
   95th percentile per-packet one-way delay: 113.648 ms
   Loss rate: 0.03%
-- Flow 2:
   Average throughput: 133.35 Mbit/s
   95th percentile per-packet one-way delay: 116.715 ms
   Loss rate: 0.03%
-- Flow 3:
   Average throughput: 132.71 Mbit/s
   95th percentile per-packet one-way delay: 115.117 ms
   Loss rate: 0.03%
Run 1: Report of Indigo-1-32 — Data Link

---

**Graph 1:**
- **Y-axis:** Throughput (Mbps)
- **X-axis:** Time (s)
- **Legend:**
  - *Flow 1 ingress (mean 208.09 Mbps)*
  - *Flow 1 egress (mean 208.06 Mbps)*
  - *Flow 2 ingress (mean 133.32 Mbps)*
  - *Flow 2 egress (mean 133.35 Mbps)*
  - *Flow 3 ingress (mean 132.74 Mbps)*
  - *Flow 3 egress (mean 132.71 Mbps)*

**Graph 2:**
- **Y-axis:** Per-packet one-way delay (ms)
- **X-axis:** Time (s)
- **Legend:**
  - *Flow 1 (95th percentile 113.65 ms)*
  - *Flow 2 (95th percentile 116.72 ms)*
  - *Flow 3 (95th percentile 115.12 ms)*
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-06 20:47:39
End at: 2018-03-06 20:48:09

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 286.47 Mbit/s
95th percentile per-packet one-way delay: 113.787 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 149.12 Mbit/s
95th percentile per-packet one-way delay: 113.155 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 142.45 Mbit/s
95th percentile per-packet one-way delay: 114.331 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 133.27 Mbit/s
95th percentile per-packet one-way delay: 114.082 ms
Loss rate: 0.04%
Run 2: Report of Indigo-1-32 — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 149.18 Mbit/s)  Flow 1 egress (mean 149.12 Mbit/s)
Flow 2 ingress (mean 142.49 Mbit/s)  Flow 2 egress (mean 142.45 Mbit/s)
Flow 3 ingress (mean 133.35 Mbit/s)  Flow 3 egress (mean 133.27 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 113.16 ms)  Flow 2 (95th percentile 114.33 ms)  Flow 3 (95th percentile 114.08 ms)
Run 3: Statistics of Indigo-1-32

Start at: 2018-03-06 21:06:55
End at: 2018-03-06 21:07:25

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 337.73 Mbit/s
95th percentile per-packet one-way delay: 113.390 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 200.24 Mbit/s
95th percentile per-packet one-way delay: 112.966 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.24 Mbit/s
95th percentile per-packet one-way delay: 113.965 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 136.24 Mbit/s
95th percentile per-packet one-way delay: 115.018 ms
Loss rate: 0.00%
Run 3: Report of Indigo-1-32 — Data Link

![Graph showing throughput and delay over time for Flow 1, Flow 2, and Flow 3. The graphs illustrate the throughput and delay performance of each flow, with specific mean values and percentile delays indicated.]
Run 4: Statistics of Indigo-1-32

Start at: 2018-03-06 21:26:10
End at: 2018-03-06 21:26:40

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 289.03 Mbit/s
95th percentile per-packet one-way delay: 114.677 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 153.14 Mbit/s
95th percentile per-packet one-way delay: 114.092 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 141.40 Mbit/s
95th percentile per-packet one-way delay: 114.981 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 131.38 Mbit/s
95th percentile per-packet one-way delay: 116.905 ms
Loss rate: 0.00%
Run 4: Report of Indigo-1-32 — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows.]
Run 5: Statistics of Indigo-1-32

Start at: 2018-03-06 21:45:18
End at: 2018-03-06 21:45:48

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.91 Mbit/s
95th percentile per-packet one-way delay: 113.701 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 162.16 Mbit/s
95th percentile per-packet one-way delay: 113.545 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 140.18 Mbit/s
95th percentile per-packet one-way delay: 114.213 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 136.50 Mbit/s
95th percentile per-packet one-way delay: 113.451 ms
Loss rate: 0.01%
Run 5: Report of Indigo-1-32 — Data Link

[Graph showing throughput and packet delivery delay over time for three flows with mean and 95th percentile values provided for each.]
Run 6: Statistics of Indigo-1-32

Start at: 2018-03-06 22:04:56
End at: 2018-03-06 22:05:26

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 306.98 Mbit/s
  95th percentile per-packet one-way delay: 116.522 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 152.06 Mbit/s
  95th percentile per-packet one-way delay: 116.459 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 141.41 Mbit/s
  95th percentile per-packet one-way delay: 116.557 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 190.34 Mbit/s
  95th percentile per-packet one-way delay: 116.656 ms
  Loss rate: 0.00%
Run 6: Report of Indigo-1-32 — Data Link

Throughput (Mbps)

Time (s)

0 5 10 15 20 25 30

Flow 1 ingress (mean 152.07 Mbps)
Flow 2 ingress (mean 141.42 Mbps)
Flow 3 ingress (mean 190.35 Mbps)
Flow 1 egress (mean 152.06 Mbps)
Flow 2 egress (mean 141.41 Mbps)
Flow 3 egress (mean 190.34 Mbps)

Per-packet one-way delay (ms)

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 116.46 ms)
Flow 2 (95th percentile 116.56 ms)
Flow 3 (95th percentile 116.66 ms)
Run 7: Statistics of Indigo-1-32

Start at: 2018-03-06 22:24:22
End at: 2018-03-06 22:24:52

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 277.12 Mbit/s
95th percentile per-packet one-way delay: 114.684 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 142.48 Mbit/s
95th percentile per-packet one-way delay: 113.973 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.70 Mbit/s
95th percentile per-packet one-way delay: 114.923 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 128.20 Mbit/s
95th percentile per-packet one-way delay: 116.716 ms
Loss rate: 0.00%
Run 8: Statistics of Indigo-1-32

Start at: 2018-03-06 22:43:52
End at: 2018-03-06 22:44:22

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 280.78 Mbit/s
95th percentile per-packet one-way delay: 115.338 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 145.93 Mbit/s
95th percentile per-packet one-way delay: 114.888 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 138.30 Mbit/s
95th percentile per-packet one-way delay: 115.781 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 135.12 Mbit/s
95th percentile per-packet one-way delay: 115.613 ms
Loss rate: 0.02%
Run 8: Report of Indigo-1-32 — Data Link

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

- **Flow 1 ingress (mean 145.94 Mbps)**
- **Flow 1 egress (mean 145.93 Mbps)**
- **Flow 2 ingress (mean 138.30 Mbps)**
- **Flow 2 egress (mean 138.30 Mbps)**
- **Flow 3 ingress (mean 135.14 Mbps)**
- **Flow 3 egress (mean 135.12 Mbps)**

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

- **Flow 1 (95th percentile 114.89 ms)**
- **Flow 2 (95th percentile 115.78 ms)**
- **Flow 3 (95th percentile 115.61 ms)**

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Run 9: Statistics of Indigo-1-32

Start at: 2018-03-06 23:02:51
End at: 2018-03-06 23:03:22

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 284.09 Mbit/s
  95th percentile per-packet one-way delay: 115.553 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 148.44 Mbit/s
  95th percentile per-packet one-way delay: 114.608 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 140.39 Mbit/s
  95th percentile per-packet one-way delay: 116.348 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 132.66 Mbit/s
  95th percentile per-packet one-way delay: 116.462 ms
  Loss rate: 0.00%
Run 9: Report of Indigo-1-32 — Data Link
Run 10: Statistics of Indigo-1-32

Start at: 2018-03-06 23:21:55
End at: 2018-03-06 23:22:25

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 299.18 Mbit/s
  95th percentile per-packet one-way delay: 126.663 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 151.48 Mbit/s
  95th percentile per-packet one-way delay: 115.822 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 139.10 Mbit/s
  95th percentile per-packet one-way delay: 119.984 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 173.11 Mbit/s
  95th percentile per-packet one-way delay: 167.525 ms
  Loss rate: 0.00%
Run 10: Report of Indigo-1-32 — Data Link
Run 1: Statistics of Vivace-latency

Start at: 2018-03-06 20:15:11
End at: 2018-03-06 20:15:41

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 474.00 Mbit/s
95th percentile per-packet one-way delay: 240.285 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 282.81 Mbit/s
95th percentile per-packet one-way delay: 216.899 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 190.45 Mbit/s
95th percentile per-packet one-way delay: 113.205 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 196.22 Mbit/s
95th percentile per-packet one-way delay: 292.078 ms
Loss rate: 1.49%
Run 1: Report of Vivace-latency — Data Link

![Throughput graph]

*Legend*:
- Flow 1 ingress (mean 283.19 Mbit/s)
- Flow 1 egress (mean 282.81 Mbit/s)
- Flow 2 ingress (mean 190.60 Mbit/s)
- Flow 2 egress (mean 190.45 Mbit/s)
- Flow 3 ingress (mean 199.18 Mbit/s)
- Flow 3 egress (mean 196.22 Mbit/s)

![Delay graph]

*Legend*:
- Flow 1 (95th percentile 216.90 ms)
- Flow 2 (95th percentile 113.20 ms)
- Flow 3 (95th percentile 292.08 ms)
Run 2: Statistics of Vivace-latency

Start at: 2018-03-06 20:34:15
End at: 2018-03-06 20:34:45

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 358.59 Mbit/s
  95th percentile per-packet one-way delay: 116.434 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 211.08 Mbit/s
  95th percentile per-packet one-way delay: 115.285 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 183.94 Mbit/s
  95th percentile per-packet one-way delay: 174.216 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 76.71 Mbit/s
  95th percentile per-packet one-way delay: 111.913 ms
  Loss rate: 0.00%
Run 2: Report of Vivace-latency — Data Link

![Graph of throughput over time for different flows, with labels indicating mean throughput for ingress and egress.]

![Graph of per-packet one-way delay over time for different flows, with labels indicating 95th percentile delay.]

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Run 3: Statistics of Vivace-latency

Start at: 2018-03-06 20:53:09
End at: 2018-03-06 20:53:39

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 438.29 Mbit/s
  95th percentile per-packet one-way delay: 114.150 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 285.28 Mbit/s
  95th percentile per-packet one-way delay: 119.212 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 194.20 Mbit/s
  95th percentile per-packet one-way delay: 111.224 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 72.58 Mbit/s
  95th percentile per-packet one-way delay: 112.407 ms
  Loss rate: 0.00%
Run 3: Report of Vivace-latency — Data Link
Run 4: Statistics of Vivace-latency

Start at: 2018-03-06 21:12:30
End at: 2018-03-06 21:13:00

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 461.65 Mbit/s
  95th percentile per-packet one-way delay: 141.630 ms
  Loss rate: 0.44%
-- Flow 1:
  Average throughput: 289.34 Mbit/s
  95th percentile per-packet one-way delay: 155.905 ms
  Loss rate: 0.71%
-- Flow 2:
  Average throughput: 197.23 Mbit/s
  95th percentile per-packet one-way delay: 114.256 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 125.31 Mbit/s
  95th percentile per-packet one-way delay: 156.737 ms
  Loss rate: 0.00%
Run 5: Statistics of Vivace-latency

Start at: 2018-03-06 21:31:43
End at: 2018-03-06 21:32:13

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.93 Mbit/s
95th percentile per-packet one-way delay: 146.887 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 286.45 Mbit/s
95th percentile per-packet one-way delay: 124.996 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 217.47 Mbit/s
95th percentile per-packet one-way delay: 190.337 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 142.45 Mbit/s
95th percentile per-packet one-way delay: 130.227 ms
Loss rate: 0.00%
Run 5: Report of Vivace-latency — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 286.48 Mbps)
- Flow 1 egress (mean 286.45 Mbps)
- Flow 2 ingress (mean 219.71 Mbps)
- Flow 2 egress (mean 217.47 Mbps)
- Flow 3 ingress (mean 142.41 Mbps)
- Flow 3 egress (mean 142.45 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 125.00 ms)
- Flow 2 (95th percentile 190.34 ms)
- Flow 3 (95th percentile 130.23 ms)
Run 6: Statistics of Vivace-latency

Start at: 2018-03-06 21:50:53
End at: 2018-03-06 21:51:23

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 387.90 Mbit/s
  95th percentile per-packet one-way delay: 187.116 ms
  Loss rate: 0.24%
-- Flow 1:
  Average throughput: 163.34 Mbit/s
  95th percentile per-packet one-way delay: 116.813 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 260.84 Mbit/s
  95th percentile per-packet one-way delay: 253.690 ms
  Loss rate: 0.54%
-- Flow 3:
  Average throughput: 155.39 Mbit/s
  95th percentile per-packet one-way delay: 155.117 ms
  Loss rate: 0.00%
Run 6: Report of Vivace-latency — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 163.34 Mbps)
- Flow 1 egress (mean 163.34 Mbps)
- Flow 2 ingress (mean 262.23 Mbps)
- Flow 2 egress (mean 260.84 Mbps)
- Flow 3 ingress (mean 155.37 Mbps)
- Flow 3 egress (mean 155.39 Mbps)

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

- Flow 1 (95th percentile 116.81 ms)
- Flow 2 (95th percentile 253.69 ms)
- Flow 3 (95th percentile 155.12 ms)
Run 7: Statistics of Vivace-latency

Start at: 2018-03-06 22:10:31
End at: 2018-03-06 22:11:01

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 493.58 Mbit/s
95th percentile per-packet one-way delay: 141.931 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 324.55 Mbit/s
95th percentile per-packet one-way delay: 147.666 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 187.02 Mbit/s
95th percentile per-packet one-way delay: 122.934 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 135.76 Mbit/s
95th percentile per-packet one-way delay: 155.396 ms
Loss rate: 0.06%
Run 7: Report of Vivace-latency — Data Link
Run 8: Statistics of Vivace-latency

Start at: 2018-03-06 22:29:54
End at: 2018-03-06 22:30:24

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 388.93 Mbit/s
  95th percentile per-packet one-way delay: 159.341 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 283.32 Mbit/s
  95th percentile per-packet one-way delay: 162.183 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 120.49 Mbit/s
  95th percentile per-packet one-way delay: 143.749 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 77.50 Mbit/s
  95th percentile per-packet one-way delay: 111.718 ms
  Loss rate: 0.00%
Run 8: Report of Vivace-latency — Data Link
Run 9: Statistics of Vivace-latency

Start at: 2018-03-06 22:49:26
End at: 2018-03-06 22:49:56

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 427.75 Mbit/s
  95th percentile per-packet one-way delay: 139.205 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 262.06 Mbit/s
  95th percentile per-packet one-way delay: 158.278 ms
  Loss rate: 0.62%
-- Flow 2:
  Average throughput: 184.25 Mbit/s
  95th percentile per-packet one-way delay: 115.928 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 131.44 Mbit/s
  95th percentile per-packet one-way delay: 139.663 ms
  Loss rate: 0.00%
Run 9: Report of Vivace-latency — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 263.68 Mbps)
  - Flow 1 egress (mean 262.06 Mbps)
  - Flow 2 ingress (mean 184.25 Mbps)
  - Flow 2 egress (mean 184.25 Mbps)
  - Flow 3 ingress (mean 131.41 Mbps)
  - Flow 3 egress (mean 131.44 Mbps)

- **Latency (ms):**
  - Flow 1 (95th percentile 158.28 ms)
  - Flow 2 (95th percentile 115.93 ms)
  - Flow 3 (95th percentile 139.66 ms)
Run 10: Statistics of Vivace-latency

Start at: 2018-03-06 23:08:24
End at: 2018-03-06 23:08:54

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 461.11 Mbit/s
95th percentile per-packet one-way delay: 142.148 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 303.55 Mbit/s
95th percentile per-packet one-way delay: 143.779 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 167.84 Mbit/s
95th percentile per-packet one-way delay: 114.530 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 139.70 Mbit/s
95th percentile per-packet one-way delay: 179.814 ms
Loss rate: 0.00%
Run 10: Report of Vivace-latency — Data Link

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

Flow 1 Ingress (mean 305.70 Mbit/s)  
Flow 1 Egress (mean 303.55 Mbit/s)  
Flow 2 Ingress (mean 167.84 Mbit/s)  
Flow 2 Egress (mean 167.84 Mbit/s)  
Flow 3 Ingress (mean 139.68 Mbit/s)  
Flow 3 Egress (mean 139.70 Mbit/s)  

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

Flow 1 (95th percentile 143.78 ms)  
Flow 2 (95th percentile 114.53 ms)  
Flow 3 (95th percentile 179.81 ms)
Run 1: Statistics of Vivace-loss

Start at: 2018-03-06 20:25:37
End at: 2018-03-06 20:26:07

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.24 Mbit/s
95th percentile per-packet one-way delay: 296.515 ms
Loss rate: 3.88%
-- Flow 1:
Average throughput: 195.64 Mbit/s
95th percentile per-packet one-way delay: 279.016 ms
Loss rate: 4.74%
-- Flow 2:
Average throughput: 252.97 Mbit/s
95th percentile per-packet one-way delay: 310.258 ms
Loss rate: 3.48%
-- Flow 3:
Average throughput: 101.64 Mbit/s
95th percentile per-packet one-way delay: 259.998 ms
Loss rate: 0.76%
Run 1: Report of Vivace-loss — Data Link

![Graph showing throughput and ping results for Run 1 with three flows.](image)

Flow 1 ingress (mean 205.38 Mbit/s)  Flow 1 egress (mean 195.64 Mbit/s)
Flow 2 ingress (mean 262.10 Mbit/s)  Flow 2 egress (mean 252.97 Mbit/s)
Flow 3 ingress (mean 102.42 Mbit/s)  Flow 3 egress (mean 101.64 Mbit/s)

![Graph showing per-packet one-way delay for Run 1 with three flows.](image)

Flow 1 (95th percentile 279.02 ms)  Flow 2 (95th percentile 310.26 ms)  Flow 3 (95th percentile 260.00 ms)
Run 2: Statistics of Vivace-loss

Start at: 2018-03-06 20:44:23
End at: 2018-03-06 20:44:53

# Below is generated by plot.py at 2018-03-07 02:52:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 419.40 Mbit/s
  95th percentile per-packet one-way delay: 278.417 ms
  Loss rate: 4.55%
-- Flow 1:
  Average throughput: 198.52 Mbit/s
  95th percentile per-packet one-way delay: 274.827 ms
  Loss rate: 5.37%
-- Flow 2:
  Average throughput: 281.47 Mbit/s
  95th percentile per-packet one-way delay: 285.236 ms
  Loss rate: 2.84%
-- Flow 3:
  Average throughput: 104.67 Mbit/s
  95th percentile per-packet one-way delay: 320.883 ms
  Loss rate: 8.70%
Run 2: Report of Vivace-loss — Data Link

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

Start at: 2018-03-06 21:03:33
End at: 2018-03-06 21:04:03

# Below is generated by plot.py at 2018-03-07 02:55:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 474.61 Mbit/s
  95th percentile per-packet one-way delay: 289.807 ms
  Loss rate: 2.03%
-- Flow 1:
  Average throughput: 252.59 Mbit/s
  95th percentile per-packet one-way delay: 211.465 ms
  Loss rate: 0.94%
-- Flow 2:
  Average throughput: 279.36 Mbit/s
  95th percentile per-packet one-way delay: 295.060 ms
  Loss rate: 2.95%
-- Flow 3:
  Average throughput: 110.55 Mbit/s
  95th percentile per-packet one-way delay: 299.974 ms
  Loss rate: 4.62%
Run 3: Report of Vivace-loss — Data Link
Run 4: Statistics of Vivace-loss

End at: 2018-03-06 21:23:23

# Below is generated by plot.py at 2018-03-07 02:58:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 554.66 Mbit/s
95th percentile per-packet one-way delay: 308.853 ms
Loss rate: 3.65%
-- Flow 1:
Average throughput: 321.03 Mbit/s
95th percentile per-packet one-way delay: 295.061 ms
Loss rate: 2.46%
-- Flow 2:
Average throughput: 277.04 Mbit/s
95th percentile per-packet one-way delay: 333.813 ms
Loss rate: 5.88%
-- Flow 3:
Average throughput: 150.42 Mbit/s
95th percentile per-packet one-way delay: 301.693 ms
Loss rate: 2.74%
Run 4: Report of Vivace-loss — Data Link
Run 5: Statistics of Vivace-loss

Start at: 2018-03-06 21:42:04
End at: 2018-03-06 21:42:34

# Below is generated by plot.py at 2018-03-07 02:58:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 368.64 Mbit/s
  95th percentile per-packet one-way delay: 289.393 ms
  Loss rate: 6.00%
-- Flow 1:
  Average throughput: 193.03 Mbit/s
  95th percentile per-packet one-way delay: 297.438 ms
  Loss rate: 8.19%
-- Flow 2:
  Average throughput: 206.70 Mbit/s
  95th percentile per-packet one-way delay: 134.172 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 116.08 Mbit/s
  95th percentile per-packet one-way delay: 282.011 ms
  Loss rate: 14.18%
Run 5: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 210.24 Mbit/s)
- Flow 1 egress (mean 193.03 Mbit/s)
- Flow 2 ingress (mean 206.70 Mbit/s)
- Flow 2 egress (mean 206.70 Mbit/s)
- Flow 3 ingress (mean 135.26 Mbit/s)
- Flow 3 egress (mean 116.08 Mbit/s)
Run 6: Statistics of Vivace-loss

Start at: 2018-03-06 22:01:20
End at: 2018-03-06 22:01:50

# Below is generated by plot.py at 2018-03-07 03:00:05
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 557.82 Mbit/s
   95th percentile per-packet one-way delay: 294.666 ms
   Loss rate: 3.59%
-- Flow 1:
   Average throughput: 325.93 Mbit/s
   95th percentile per-packet one-way delay: 263.016 ms
   Loss rate: 0.40%
-- Flow 2:
   Average throughput: 277.10 Mbit/s
   95th percentile per-packet one-way delay: 346.591 ms
   Loss rate: 8.57%
-- Flow 3:
   Average throughput: 144.74 Mbit/s
   95th percentile per-packet one-way delay: 277.150 ms
   Loss rate: 4.41%
Run 6: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 327.26 Mbps)
- Flow 1 egress (mean 325.93 Mbps)
- Flow 2 ingress (mean 303.09 Mbps)
- Flow 2 egress (mean 277.10 Mbps)
- Flow 3 ingress (mean 151.39 Mbps)
- Flow 3 egress (mean 144.74 Mbps)

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

- Flow 1 (95th percentile 263.02 ms)
- Flow 2 (95th percentile 346.59 ms)
- Flow 3 (95th percentile 277.15 ms)
Run 7: Statistics of Vivace-loss

Start at: 2018-03-06 22:20:58
End at: 2018-03-06 22:21:28

# Below is generated by plot.py at 2018-03-07 03:00:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 361.77 Mbit/s
95th percentile per-packet one-way delay: 268.461 ms
Loss rate: 6.55%
-- Flow 1:
Average throughput: 191.35 Mbit/s
95th percentile per-packet one-way delay: 257.713 ms
Loss rate: 6.31%
-- Flow 2:
Average throughput: 209.64 Mbit/s
95th percentile per-packet one-way delay: 246.423 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 94.37 Mbit/s
95th percentile per-packet one-way delay: 336.904 ms
Loss rate: 23.85%
Run 7: Report of Vivace-loss — Data Link
Run 8: Statistics of Vivace-loss

Start at: 2018-03-06 22:40:22
End at: 2018-03-06 22:40:52

# Below is generated by plot.py at 2018-03-07 03:00:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 510.69 Mbit/s
95th percentile per-packet one-way delay: 248.280 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 357.24 Mbit/s
95th percentile per-packet one-way delay: 232.588 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 172.53 Mbit/s
95th percentile per-packet one-way delay: 115.505 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 117.90 Mbit/s
95th percentile per-packet one-way delay: 330.574 ms
Loss rate: 12.03%
Run 8: Report of Vivace-loss — Data Link

![Graph](image1)

- Flow 1 ingress (mean 359.92 Mbit/s)
- Flow 1 egress (mean 357.24 Mbit/s)
- Flow 2 ingress (mean 172.54 Mbit/s)
- Flow 2 egress (mean 172.53 Mbit/s)
- Flow 3 ingress (mean 134.00 Mbit/s)
- Flow 3 egress (mean 117.99 Mbit/s)

![Graph](image2)

- Flow 1 (95th percentile 232.59 ms)
- Flow 2 (95th percentile 115.50 ms)
- Flow 3 (95th percentile 330.57 ms)
Run 9: Statistics of Vivace-loss

Start at: 2018-03-06 22:59:45
End at: 2018-03-06 23:00:15

# Below is generated by plot.py at 2018-03-07 03:00:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 402.53 Mbit/s
95th percentile per-packet one-way delay: 304.487 ms
Loss rate: 3.19%

-- Flow 1:
Average throughput: 147.82 Mbit/s
95th percentile per-packet one-way delay: 297.138 ms
Loss rate: 2.75%

-- Flow 2:
Average throughput: 308.39 Mbit/s
95th percentile per-packet one-way delay: 308.099 ms
Loss rate: 3.57%

-- Flow 3:
Average throughput: 150.95 Mbit/s
95th percentile per-packet one-way delay: 268.719 ms
Loss rate: 2.93%
Run 9: Report of Vivace-loss — Data Link

Graph 1: Throughput (Mbps) vs Time (s)
- Flow 1 ingress (mean 151.99 Mbps)
- Flow 1 egress (mean 147.82 Mbps)
- Flow 2 ingress (mean 319.83 Mbps)
- Flow 2 egress (mean 308.39 Mbps)
- Flow 3 ingress (mean 155.50 Mbps)
- Flow 3 egress (mean 150.95 Mbps)

Graph 2: Per-packet one-way delay (ms) vs Time (s)
- Flow 1 (95th percentile 297.14 ms)
- Flow 2 (95th percentile 308.10 ms)
- Flow 3 (95th percentile 268.72 ms)
Run 10: Statistics of Vivace-loss

Start at: 2018-03-06 23:18:37
End at: 2018-03-06 23:19:07

# Below is generated by plot.py at 2018-03-07 03:00:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 317.37 Mbit/s
  95th percentile per-packet one-way delay: 272.909 ms
  Loss rate: 4.71%
  -- Flow 1:
    Average throughput: 202.97 Mbit/s
    95th percentile per-packet one-way delay: 264.607 ms
    Loss rate: 3.71%
  -- Flow 2:
    Average throughput: 120.39 Mbit/s
    95th percentile per-packet one-way delay: 280.845 ms
    Loss rate: 4.05%
  -- Flow 3:
    Average throughput: 104.42 Mbit/s
    95th percentile per-packet one-way delay: 327.713 ms
    Loss rate: 11.58%
Run 10: Report of Vivace-loss — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 210.78 Mbps)**
- **Flow 1 egress (mean 202.97 Mbps)**
- **Flow 2 ingress (mean 125.47 Mbps)**
- **Flow 2 egress (mean 120.59 Mbps)**
- **Flow 3 ingress (mean 116.09 Mbps)**
- **Flow 3 egress (mean 104.42 Mbps)**

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

- **Flow 1 (95th percentile 264.61 μs)**
- **Flow 2 (95th percentile 280.85 μs)**
- **Flow 3 (95th percentile 327.71 μs)**
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-06 20:21:13
End at: 2018-03-06 20:21:43

# Below is generated by plot.py at 2018-03-07 03:04:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 495.96 Mbit/s
  95th percentile per-packet one-way delay: 308.834 ms
  Loss rate: 1.19%
-- Flow 1:
  Average throughput: 326.09 Mbit/s
  95th percentile per-packet one-way delay: 315.228 ms
  Loss rate: 1.81%
-- Flow 2:
  Average throughput: 188.30 Mbit/s
  95th percentile per-packet one-way delay: 115.085 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 135.68 Mbit/s
  95th percentile per-packet one-way delay: 253.913 ms
  Loss rate: 0.00%
Run 1: Report of Vivace-LTE — Data Link
Run 2: Statistics of Vivace-LTE

Start at: 2018-03-06 20:40:01
End at: 2018-03-06 20:40:31

# Below is generated by plot.py at 2018-03-07 03:04:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 491.18 Mbit/s
95th percentile per-packet one-way delay: 239.912 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 316.85 Mbit/s
95th percentile per-packet one-way delay: 223.240 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 196.20 Mbit/s
95th percentile per-packet one-way delay: 301.016 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 133.43 Mbit/s
95th percentile per-packet one-way delay: 134.738 ms
Loss rate: 0.00%
Run 2: Report of Vivace-LTE — Data Link

- Flow 1 ingress (mean 317.60 Mbit/s)
- Flow 1 egress (mean 316.85 Mbit/s)
- Flow 2 ingress (mean 199.70 Mbit/s)
- Flow 2 egress (mean 196.20 Mbit/s)
- Flow 3 ingress (mean 133.42 Mbit/s)
- Flow 3 egress (mean 133.43 Mbit/s)

- Flow 1 (95th percentile 223.24 ms)
- Flow 2 (95th percentile 301.02 ms)
- Flow 3 (95th percentile 134.74 ms)
Run 3: Statistics of Vivace-LTE

Start at: 2018-03-06 20:59:07
End at: 2018-03-06 20:59:37

# Below is generated by plot.py at 2018-03-07 03:06:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 551.53 Mbit/s
95th percentile per-packet one-way delay: 310.248 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 285.17 Mbit/s
95th percentile per-packet one-way delay: 310.684 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 284.88 Mbit/s
95th percentile per-packet one-way delay: 323.003 ms
Loss rate: 2.67%
-- Flow 3:
Average throughput: 234.01 Mbit/s
95th percentile per-packet one-way delay: 254.353 ms
Loss rate: 0.80%
Run 3: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 286.26 Mbps)
- Flow 1 egress (mean 285.17 Mbps)
- Flow 2 ingress (mean 292.70 Mbps)
- Flow 2 egress (mean 284.88 Mbps)
- Flow 3 ingress (mean 230.84 Mbps)
- Flow 3 egress (mean 234.01 Mbps)

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

- Flow 1 (95th percentile 310.68 ms)
- Flow 2 (95th percentile 323.00 ms)
- Flow 3 (95th percentile 254.35 ms)

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Run 4: Statistics of Vivace-LTE

Start at: 2018-03-06 21:18:30
End at: 2018-03-06 21:19:00

# Below is generated by plot.py at 2018-03-07 03:07:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 509.24 Mbit/s
95th percentile per-packet one-way delay: 268.464 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 324.83 Mbit/s
95th percentile per-packet one-way delay: 263.855 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 205.64 Mbit/s
95th percentile per-packet one-way delay: 265.856 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 145.08 Mbit/s
95th percentile per-packet one-way delay: 304.159 ms
Loss rate: 4.32%
Run 4: Report of Vivace-LTE — Data Link

![Graph 1: Throughput]

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 327.18 Mbps)
Flow 1 egress (mean 324.83 Mbps)
Flow 2 ingress (mean 296.95 Mbps)
Flow 2 egress (mean 295.66 Mbps)
Flow 3 ingress (mean 151.86 Mbps)
Flow 3 egress (mean 145.08 Mbps)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 263.96 ms)
Flow 2 (95th percentile 265.86 ms)
Flow 3 (95th percentile 304.16 ms)
Run 5: Statistics of Vivace-LTE

Start at: 2018-03-06 21:37:43
End at: 2018-03-06 21:38:13

# Below is generated by plot.py at 2018-03-07 03:07:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 499.67 Mbit/s
95th percentile per-packet one-way delay: 126.646 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 293.45 Mbit/s
95th percentile per-packet one-way delay: 128.470 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 243.37 Mbit/s
95th percentile per-packet one-way delay: 122.304 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 134.84 Mbit/s
95th percentile per-packet one-way delay: 149.393 ms
Loss rate: 0.00%
Run 5: Report of Vivace-LTE — Data Link

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

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Run 6: Statistics of Vivace-LTE

Start at: 2018-03-06 21:56:56
End at: 2018-03-06 21:57:26

# Below is generated by plot.py at 2018-03-07 03:07:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 491.15 Mbit/s
  95th percentile per-packet one-way delay: 217.413 ms
  Loss rate: 0.47%
-- Flow 1:
  Average throughput: 244.89 Mbit/s
  95th percentile per-packet one-way delay: 146.130 ms
  Loss rate: 0.19%
-- Flow 2:
  Average throughput: 306.59 Mbit/s
  95th percentile per-packet one-way delay: 228.164 ms
  Loss rate: 0.91%
-- Flow 3:
  Average throughput: 128.95 Mbit/s
  95th percentile per-packet one-way delay: 135.477 ms
  Loss rate: 0.00%
Run 6: Report of Vivace-LTE — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 245.36 Mbps)
  - Flow 1 egress (mean 244.89 Mbps)
  - Flow 2 ingress (mean 399.42 Mbps)
  - Flow 2 egress (mean 306.59 Mbps)
  - Flow 3 ingress (mean 126.90 Mbps)
  - Flow 3 egress (mean 128.95 Mbps)

- **Delay (ms)**
  - Flow 1 (95th percentile 146.13 ms)
  - Flow 2 (95th percentile 228.16 ms)
  - Flow 3 (95th percentile 135.48 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-03-06 22:16:39
End at: 2018-03-06 22:17:09

# Below is generated by plot.py at 2018-03-07 03:07:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 519.76 Mbit/s
95th percentile per-packet one-way delay: 259.212 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 352.02 Mbit/s
95th percentile per-packet one-way delay: 268.011 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 186.65 Mbit/s
95th percentile per-packet one-way delay: 115.202 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.68 Mbit/s
95th percentile per-packet one-way delay: 134.801 ms
Loss rate: 0.03%
Run 7: Report of Vivace-LTE — Data Link

Throughput (Mbps) vs Time (s)

- Flow 1 ingress (mean 354.30 Mbps)
- Flow 1 egress (mean 352.02 Mbps)
- Flow 2 ingress (mean 186.66 Mbps)
- Flow 2 egress (mean 186.65 Mbps)
- Flow 3 ingress (mean 132.75 Mbps)
- Flow 3 egress (mean 132.68 Mbps)

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

- Flow 1 (95th percentile 268.01 ms)
- Flow 2 (95th percentile 115.20 ms)
- Flow 3 (95th percentile 134.80 ms)
Run 8: Statistics of Vivace-LTE

Start at: 2018-03-06 22:35:52
End at: 2018-03-06 22:36:22

# Below is generated by plot.py at 2018-03-07 03:08:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 547.10 Mbit/s
95th percentile per-packet one-way delay: 261.990 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 324.95 Mbit/s
95th percentile per-packet one-way delay: 280.070 ms
Loss rate: 1.81%
-- Flow 2:
Average throughput: 290.21 Mbit/s
95th percentile per-packet one-way delay: 234.824 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 105.78 Mbit/s
95th percentile per-packet one-way delay: 320.758 ms
Loss rate: 11.78%
Run 8: Report of Vivace-LTE — Data Link
Run 9: Statistics of Vivace-LTE

Start at: 2018-03-06 22:55:21
End at: 2018-03-06 22:55:51

# Below is generated by plot.py at 2018-03-07 03:09:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 556.19 Mbit/s
95th percentile per-packet one-way delay: 306.064 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 316.81 Mbit/s
95th percentile per-packet one-way delay: 311.108 ms
Loss rate: 1.93%
-- Flow 2:
Average throughput: 296.09 Mbit/s
95th percentile per-packet one-way delay: 302.403 ms
Loss rate: 2.29%
-- Flow 3:
Average throughput: 129.53 Mbit/s
95th percentile per-packet one-way delay: 209.216 ms
Loss rate: 0.01%
Run 9: Report of Vivace-LTE — Data Link
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-06 23:14:17
End at: 2018-03-06 23:14:47

# Below is generated by plot.py at 2018-03-07 03:09:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 494.02 Mbit/s
95th percentile per-packet one-way delay: 281.965 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 316.35 Mbit/s
95th percentile per-packet one-way delay: 302.310 ms
Loss rate: 3.21%
-- Flow 2:
Average throughput: 202.09 Mbit/s
95th percentile per-packet one-way delay: 212.188 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 132.12 Mbit/s
95th percentile per-packet one-way delay: 157.149 ms
Loss rate: 0.00%
Run 10: Report of Vivace-LTE — Data Link