Pantheon Report

Generated at 2018-04-19 04:36:22 (UTC).
Data path: GCE Iowa Ethernet (local) → GCE Tokyo Ethernet (remote).
Repeated the test of 16 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).

Git summary:
branch: master @ b3d6e7098641364fd3a292656a51aa81e316d0b4
third_party/calibrated_koho @ 3cb73c0d1c03222cdfae446ea37a522a53227db50
  M datagrump/sender.cc
third_party/fillp @ 11f8c46a2b1f1dc797253db7e8ca04076272b2a44
third_party/genericCC @ d223989828276fafa83a077a3e0341d0c7b89aec
third_party/indigo @ a9b2060d39e4da2e8987e893e3e2a6c7d0a9
third_party/indigo-1-layer-128-unit @ 3ae9e4e4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4fda0ecdbf90c77e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa093ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6861
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaeb4a906e66b7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861a659ba9013db26744cccf993
third_party/pcc @ 1af695e0a0d66b18b23c091a556e872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f6513e5ac680f8a92c4eb24f974ab
third_party/proto-quinic @ 77961f1a82733a6b42f1bc8143ebc978f3cf4f2
third_party/scream @ c3370f7bd17265a79aeb34e4016e23f5965885
third_party/sourdough @ 214bbfe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023d3f375e6265089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutccn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webpcc @ f271183af822ee5e5d0031620f4bebfb38a0edc5581
test from GCE Iowa 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)
<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>
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<tr>
<td>TCP BBR</td>
<td>10</td>
<td>159.57</td>
<td>153.13</td>
<td>133.68</td>
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<td>TCP Cubic</td>
<td>10</td>
<td>107.42</td>
<td>111.20</td>
<td>71.87</td>
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<td>LEDBAT</td>
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<td>22.20</td>
<td>14.75</td>
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<td>19.65</td>
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<td>47.34</td>
<td>40.33</td>
<td>40.13</td>
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<td>WebRTC media</td>
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<td>Sprout</td>
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<td>6.44</td>
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<td>129.37</td>
<td>121.30</td>
<td>75.30</td>
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<td>61.64</td>
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<td>Verus</td>
<td>10</td>
<td>158.05</td>
<td>102.88</td>
<td>89.66</td>
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<td>Copa</td>
<td>10</td>
<td>69.91</td>
<td>72.17</td>
<td>64.68</td>
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<td>622.51</td>
<td>608.93</td>
<td>506.24</td>
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<td>Indigo-1-32</td>
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<td>149.66</td>
<td>110.05</td>
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<td>PCC-Vivace</td>
<td>10</td>
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<td>219.99</td>
<td>142.59</td>
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<td>PCC-Expr</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</tbody>
</table>
Run 1: Statistics of TCP BBR


# Below is generated by plot.py at 2018-04-19 03:01:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 304.36 Mbit/s
  95th percentile per-packet one-way delay: 108.638 ms
  Loss rate: 0.09%
  -- Flow 1:
  Average throughput: 161.92 Mbit/s
  95th percentile per-packet one-way delay: 105.403 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 151.40 Mbit/s
  95th percentile per-packet one-way delay: 108.802 ms
  Loss rate: 0.13%
  -- Flow 3:
  Average throughput: 126.03 Mbit/s
  95th percentile per-packet one-way delay: 112.264 ms
  Loss rate: 0.32%
Run 1: Report of TCP BBR — Data Link

[Graph showing throughput and packet delay over time for three flows, with throughput peaks and packet delays fluctuations.]
Run 2: Statistics of TCP BBR

End at: 2018-04-18 22:45:03

# Below is generated by plot.py at 2018-04-19 03:01:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 301.08 Mbit/s
95th percentile per-packet one-way delay: 107.142 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 160.62 Mbit/s
95th percentile per-packet one-way delay: 104.456 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 145.06 Mbit/s
95th percentile per-packet one-way delay: 107.717 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 132.53 Mbit/s
95th percentile per-packet one-way delay: 111.011 ms
Loss rate: 0.50%
Run 2: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 160.89 Mbps)**
- **Flow 1 egress (mean 160.62 Mbps)**
- **Flow 2 ingress (mean 145.31 Mbps)**
- **Flow 2 egress (mean 145.06 Mbps)**
- **Flow 3 ingress (mean 133.32 Mbps)**
- **Flow 3 egress (mean 132.53 Mbps)**

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

- **Flow 1 (95th percentile 104.46 ms)**
- **Flow 2 (95th percentile 107.72 ms)**
- **Flow 3 (95th percentile 111.01 ms)**
Run 3: Statistics of TCP BBR

Start at: 2018-04-18 23:00:17
End at: 2018-04-18 23:00:47

# Below is generated by plot.py at 2018-04-19 03:01:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 301.96 Mbit/s
95th percentile per-packet one-way delay: 100.064 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 154.06 Mbit/s
95th percentile per-packet one-way delay: 97.679 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 154.32 Mbit/s
95th percentile per-packet one-way delay: 99.756 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 136.01 Mbit/s
95th percentile per-packet one-way delay: 104.128 ms
Loss rate: 0.07%
Run 3: Report of TCP BBR — Data Link

![Graph of Throughput and Delay]

- Flow 1 ingress (mean 154.22 Mbit/s)
- Flow 1 egress (mean 154.06 Mbit/s)
- Flow 2 ingress (mean 154.55 Mbit/s)
- Flow 2 egress (mean 154.32 Mbit/s)
- Flow 3 ingress (mean 136.12 Mbit/s)
- Flow 3 egress (mean 136.01 Mbit/s)

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

- Flow 1 (95th percentile 97.60 ms)
- Flow 2 (95th percentile 99.76 ms)
- Flow 3 (95th percentile 104.13 ms)
Run 4: Statistics of TCP BBR

End at: 2018-04-18 23:16:25

# Below is generated by plot.py at 2018-04-19 03:01:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 302.16 Mbit/s
  95th percentile per-packet one-way delay: 99.492 ms
  Loss rate: 0.14%
  -- Flow 1:
  Average throughput: 153.91 Mbit/s
  95th percentile per-packet one-way delay: 97.024 ms
  Loss rate: 0.08%
  -- Flow 2:
  Average throughput: 156.16 Mbit/s
  95th percentile per-packet one-way delay: 98.947 ms
  Loss rate: 0.16%
  -- Flow 3:
  Average throughput: 134.12 Mbit/s
  95th percentile per-packet one-way delay: 104.069 ms
  Loss rate: 0.26%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-04-18 23:31:30
End at: 2018-04-18 23:32:00

# Below is generated by plot.py at 2018-04-19 03:01:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 301.85 Mbit/s
  95th percentile per-packet one-way delay: 110.321 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 160.69 Mbit/s
  95th percentile per-packet one-way delay: 106.291 ms
  Loss rate: 0.10%
-- Flow 2:
  Average throughput: 147.62 Mbit/s
  95th percentile per-packet one-way delay: 111.443 ms
  Loss rate: 0.15%
-- Flow 3:
  Average throughput: 129.42 Mbit/s
  95th percentile per-packet one-way delay: 114.786 ms
  Loss rate: 0.36%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR


# Below is generated by plot.py at 2018-04-19 03:01:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 308.53 Mbit/s
  95th percentile per-packet one-way delay: 101.506 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 161.78 Mbit/s
  95th percentile per-packet one-way delay: 99.706 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 154.31 Mbit/s
  95th percentile per-packet one-way delay: 101.581 ms
  Loss rate: 0.10%
-- Flow 3:
  Average throughput: 132.61 Mbit/s
  95th percentile per-packet one-way delay: 105.380 ms
  Loss rate: 0.42%
Run 6: Report of TCP BBR — Data Link

![Graph showing network performance metrics over time]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 161.96 Mbps)
  - Flow 1 egress (mean 161.78 Mbps)
  - Flow 2 ingress (mean 154.61 Mbps)
  - Flow 2 egress (mean 154.31 Mbps)
  - Flow 3 ingress (mean 132.95 Mbps)
  - Flow 3 egress (mean 132.61 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 99.71 ms)
  - Flow 2 (95th percentile 101.58 ms)
  - Flow 3 (95th percentile 105.38 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-04-19 00:02:55
End at: 2018-04-19 00:03:25

# Below is generated by plot.py at 2018-04-19 03:01:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 305.88 Mbit/s
95th percentile per-packet one-way delay: 99.255 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 156.60 Mbit/s
95th percentile per-packet one-way delay: 95.700 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 153.31 Mbit/s
95th percentile per-packet one-way delay: 99.483 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 142.02 Mbit/s
95th percentile per-packet one-way delay: 104.589 ms
Loss rate: 0.37%
Run 7: Report of TCP BBR — Data Link

![Graph showing throughput and packet delay over time for three flows with different colors representing ingress and egress data.](image-url)
Run 8: Statistics of TCP BBR

Start at: 2018-04-19 00:18:38
End at: 2018-04-19 00:19:08

# Below is generated by plot.py at 2018-04-19 03:01:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 306.42 Mbit/s
  95th percentile per-packet one-way delay: 110.826 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 159.22 Mbit/s
  95th percentile per-packet one-way delay: 106.539 ms
  Loss rate: 0.25%
-- Flow 2:
  Average throughput: 156.64 Mbit/s
  95th percentile per-packet one-way delay: 111.312 ms
  Loss rate: 0.15%
-- Flow 3:
  Average throughput: 129.70 Mbit/s
  95th percentile per-packet one-way delay: 115.513 ms
  Loss rate: 0.72%
Run 8: Report of TCP BBR — Data Link

**Graph 1:**
- **Throughput (Mbps):**
  - Flow 1 ingress (mean 159.51 Mbps)
  - Flow 1 egress (mean 159.22 Mbps)
  - Flow 2 ingress (mean 156.89 Mbps)
  - Flow 2 egress (mean 156.64 Mbps)
  - Flow 3 ingress (mean 130.83 Mbps)
  - Flow 3 egress (mean 129.79 Mbps)

**Graph 2:**
- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 106.54 ms)
  - Flow 2 (95th percentile 111.31 ms)
  - Flow 3 (95th percentile 115.51 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-04-19 00:34:02
End at: 2018-04-19 00:34:32

# Below is generated by plot.py at 2018-04-19 03:07:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.53 Mbit/s
95th percentile per-packet one-way delay: 99.325 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 164.29 Mbit/s
95th percentile per-packet one-way delay: 97.069 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 155.00 Mbit/s
95th percentile per-packet one-way delay: 99.652 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 135.59 Mbit/s
95th percentile per-packet one-way delay: 101.854 ms
Loss rate: 0.28%
Run 9: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 164.42 Mbps)
- Flow 1 egress (mean 164.29 Mbps)
- Flow 2 ingress (mean 135.18 Mbps)
- Flow 2 egress (mean 155.00 Mbps)
- Flow 3 ingress (mean 136.00 Mbps)
- Flow 3 egress (mean 135.59 Mbps)

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

- Flow 1 (95th percentile 97.07 ms)
- Flow 2 (95th percentile 99.65 ms)
- Flow 3 (95th percentile 101.85 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-04-19 00:49:28
End at: 2018-04-19 00:49:58

# Below is generated by plot.py at 2018-04-19 03:07:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 313.42 Mbit/s
  95th percentile per-packet one-way delay: 96.528 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 162.57 Mbit/s
  95th percentile per-packet one-way delay: 94.288 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 157.43 Mbit/s
  95th percentile per-packet one-way delay: 96.477 ms
  Loss rate: 0.17%
-- Flow 3:
  Average throughput: 138.80 Mbit/s
  95th percentile per-packet one-way delay: 100.849 ms
  Loss rate: 0.38%
Run 10: Report of TCP BBR — Data Link

![Throughput and Delay Graphs](image-url)

- **Throughput** graph shows the throughput in Mbit/s for three flows (Flow 1, Flow 2, Flow 3) over time. Each flow has a peak throughput with fluctuations.
- **Delay** graph illustrates the per-packet one-way delay in ms for the same three flows. The flows exhibit different delay patterns with peaks and troughs over time.
Run 1: Statistics of TCP Cubic

Start at: 2018-04-18 22:16:00
End at: 2018-04-18 22:16:30

# Below is generated by plot.py at 2018-04-19 03:07:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 154.15 Mbit/s
  95th percentile per-packet one-way delay: 67.818 ms
  Loss rate: 0.01%
  -- Flow 1:
  Average throughput: 94.11 Mbit/s
  95th percentile per-packet one-way delay: 69.728 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 88.11 Mbit/s
  95th percentile per-packet one-way delay: 65.635 ms
  Loss rate: 0.02%
  -- Flow 3:
  Average throughput: 4.20 Mbit/s
  95th percentile per-packet one-way delay: 64.319 ms
  Loss rate: 0.12%
Run 1: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 94.11 Mbps)
- Flow 1 egress (mean 94.11 Mbps)
- Flow 2 ingress (mean 88.13 Mbps)
- Flow 2 egress (mean 88.13 Mbps)
- Flow 3 ingress (mean 4.20 Mbps)
- Flow 3 egress (mean 4.20 Mbps)

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

- Flow 1 (95th percentile 69.73 ms)
- Flow 2 (95th percentile 65.64 ms)
- Flow 3 (95th percentile 64.32 ms)
Run 2: Statistics of TCP Cubic

End at: 2018-04-18 22:31:52

# Below is generated by plot.py at 2018-04-19 03:07:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 237.17 Mbit/s
  95th percentile per-packet one-way delay: 85.837 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 89.21 Mbit/s
  95th percentile per-packet one-way delay: 81.983 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 163.27 Mbit/s
  95th percentile per-packet one-way delay: 86.940 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 118.78 Mbit/s
  95th percentile per-packet one-way delay: 86.522 ms
  Loss rate: 0.01%
Run 2: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 89.21 Mbit/s)
- Flow 1 egress (mean 89.21 Mbit/s)
- Flow 2 ingress (mean 162.95 Mbit/s)
- Flow 2 egress (mean 163.27 Mbit/s)
- Flow 3 ingress (mean 118.79 Mbit/s)
- Flow 3 egress (mean 118.79 Mbit/s)

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

- Flow 1 (95th percentile 81.98 ms)
- Flow 2 (95th percentile 86.94 ms)
- Flow 3 (95th percentile 86.52 ms)
Run 3: Statistics of TCP Cubic


# Below is generated by plot.py at 2018-04-19 03:07:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 275.69 Mbit/s
95th percentile per-packet one-way delay: 91.211 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 132.29 Mbit/s
95th percentile per-packet one-way delay: 88.461 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 154.30 Mbit/s
95th percentile per-packet one-way delay: 92.435 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 122.69 Mbit/s
95th percentile per-packet one-way delay: 93.196 ms
Loss rate: 0.17%
Run 3: Report of TCP Cubic — Data Link

[Diagram showing throughput over time for different flows with annotations for mean rates and 95th percentile delays.]
Run 4: Statistics of TCP Cubic

Start at: 2018-04-18 23:02:49
End at: 2018-04-18 23:03:19

# Below is generated by plot.py at 2018-04-19 03:07:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 206.10 Mbit/s
95th percentile per-packet one-way delay: 72.216 ms
Loss rate: 0.00%
-- Flow 1:
  Average throughput: 98.42 Mbit/s
  95th percentile per-packet one-way delay: 69.744 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 109.73 Mbit/s
  95th percentile per-packet one-way delay: 73.602 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 104.27 Mbit/s
  95th percentile per-packet one-way delay: 74.691 ms
  Loss rate: 0.01%
Run 4: Report of TCP Cubic — Data Link
Run 5: Statistics of TCP Cubic

End at: 2018-04-18 23:18:53

# Below is generated by plot.py at 2018-04-19 03:07:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 203.54 Mbit/s
  95th percentile per-packet one-way delay: 68.873 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 112.68 Mbit/s
  95th percentile per-packet one-way delay: 68.257 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 97.90 Mbit/s
  95th percentile per-packet one-way delay: 69.478 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 77.38 Mbit/s
  95th percentile per-packet one-way delay: 69.465 ms
  Loss rate: 0.00%
Run 5: 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 112.67 Mbit/s)
- Flow 1 egress (mean 112.68 Mbit/s)
- Flow 2 ingress (mean 97.69 Mbit/s)
- Flow 2 egress (mean 97.90 Mbit/s)
- Flow 3 ingress (mean 77.38 Mbit/s)
- Flow 3 egress (mean 77.38 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 68.26 ms)
- Flow 2 (95th percentile 69.48 ms)
- Flow 3 (95th percentile 69.47 ms)

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Run 6: Statistics of TCP Cubic

Start at: 2018-04-18 23:34:07
End at: 2018-04-18 23:34:37

# Below is generated by plot.py at 2018-04-19 03:07:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 217.15 Mbit/s
95th percentile per-packet one-way delay: 71.871 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 101.97 Mbit/s
95th percentile per-packet one-way delay: 71.483 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 125.71 Mbit/s
95th percentile per-packet one-way delay: 72.871 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 68.881 ms
Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 101.97 Mbps)
Flow 1 egress (mean 101.97 Mbps)
Flow 2 ingress (mean 125.70 Mbps)
Flow 2 egress (mean 125.71 Mbps)
Flow 3 ingress (mean 95.06 Mbps)
Flow 3 egress (mean 95.07 Mbps)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 71.48 ms)
Flow 2 (95th percentile 72.87 ms)
Flow 3 (95th percentile 68.88 ms)
Run 7: Statistics of TCP Cubic

End at: 2018-04-18 23:50:11

# Below is generated by plot.py at 2018-04-19 03:08:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 190.95 Mbit/s
  95th percentile per-packet one-way delay: 67.074 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 96.42 Mbit/s
  95th percentile per-packet one-way delay: 66.792 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 93.51 Mbit/s
  95th percentile per-packet one-way delay: 66.897 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 97.11 Mbit/s
  95th percentile per-packet one-way delay: 67.588 ms
  Loss rate: 0.00%
Run 7: Report of TCP Cubic — Data Link

![Graph of TCP Cubic Data Link](image)

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Run 8: Statistics of TCP Cubic

Start at: 2018-04-19 00:05:24
End at: 2018-04-19 00:05:54

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 276.17 Mbit/s
95th percentile per-packet one-way delay: 75.685 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 161.92 Mbit/s
95th percentile per-packet one-way delay: 75.404 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 125.85 Mbit/s
95th percentile per-packet one-way delay: 76.186 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 91.80 Mbit/s
95th percentile per-packet one-way delay: 75.183 ms
Loss rate: 0.05%
Run 8: Report of TCP Cubic — Data Link

![Graph of Throughput and Delay](image)

**Throughput (Mbps)**
- **Flow 1 Ingress** (mean 161.04 Mbps)
- **Flow 1 Egress** (mean 161.92 Mbps)
- **Flow 2 Ingress** (mean 125.87 Mbps)
- **Flow 2 Egress** (mean 125.85 Mbps)
- **Flow 3 Ingress** (mean 91.96 Mbps)
- **Flow 3 Egress** (mean 91.80 Mbps)

**Delay (ms)**
- Flow 1 (95th percentile 75.40 ms)
- Flow 2 (95th percentile 76.19 ms)
- Flow 3 (95th percentile 75.18 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-04-19 00:21:06
End at: 2018-04-19 00:21:36

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.38 Mbit/s
95th percentile per-packet one-way delay: 65.650 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 98.45 Mbit/s
95th percentile per-packet one-way delay: 66.217 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 42.84 Mbit/s
95th percentile per-packet one-way delay: 64.384 ms
Loss rate: 0.01%

-- Flow 3:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 64.498 ms
Loss rate: 0.11%
Run 9: Report of TCP Cubic — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 98.44 Mbps)
- Blue solid line: Flow 1 egress (mean 98.45 Mbps)
- Green dashed line: Flow 2 ingress (mean 42.84 Mbps)
- Green solid line: Flow 2 egress (mean 42.84 Mbps)
- Red dashed line: Flow 3 ingress (mean 4.27 Mbps)
- Red solid line: Flow 3 egress (mean 4.27 Mbps)

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

- Blue dots: Flow 1 (95th percentile 66.22 ms)
- Green dots: Flow 2 (95th percentile 64.38 ms)
- Red dots: Flow 3 (95th percentile 64.50 ms)

Time (s)
Run 10: Statistics of TCP Cubic

Start at: 2018-04-19 00:36:29
End at: 2018-04-19 00:36:59

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 163.56 Mbit/s
  95th percentile per-packet one-way delay: 71.078 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 88.78 Mbit/s
  95th percentile per-packet one-way delay: 72.631 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 110.74 Mbit/s
  95th percentile per-packet one-way delay: 66.203 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 3.17 Mbit/s
  95th percentile per-packet one-way delay: 62.868 ms
  Loss rate: 0.42%
Run 10: Report of TCP Cubic — Data Link

![Data Link Throughput and Delay Graphs]

- Flow 1 ingress (mean 88.78 Mbit/s)
- Flow 1 egress (mean 88.78 Mbit/s)
- Flow 2 ingress (mean 110.73 Mbit/s)
- Flow 2 egress (mean 110.74 Mbit/s)
- Flow 3 ingress (mean 3.18 Mbit/s)
- Flow 3 egress (mean 3.17 Mbit/s)

![Data Link Delay Graphs]
Run 1: Statistics of LEDBAT

Start at: 2018-04-18 22:26:06
End at: 2018-04-18 22:26:36

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.95 Mbit/s
95th percentile per-packet one-way delay: 65.415 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 21.89 Mbit/s
95th percentile per-packet one-way delay: 65.325 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.43 Mbit/s
95th percentile per-packet one-way delay: 65.543 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 65.953 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

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**Throughput (Mbps)**

- Flow 1 ingress (mean 21.90 Mbps/s)
- Flow 1 egress (mean 21.89 Mbps/s)
- Flow 2 ingress (mean 14.43 Mbps/s)
- Flow 2 egress (mean 14.43 Mbps/s)
- Flow 3 ingress (mean 7.42 Mbps/s)
- Flow 3 egress (mean 7.42 Mbps/s)

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

- Flow 1 (95th percentile 65.33 ms)
- Flow 2 (95th percentile 65.34 ms)
- Flow 3 (95th percentile 65.95 ms)
Run 2: Statistics of LEDBAT


# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.99 Mbit/s
95th percentile per-packet one-way delay: 64.798 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 21.85 Mbit/s
95th percentile per-packet one-way delay: 64.915 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.65 Mbit/s
95th percentile per-packet one-way delay: 64.498 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 7.35 Mbit/s
95th percentile per-packet one-way delay: 64.950 ms
Loss rate: 0.00%
Run 3: Statistics of LEDBAT

End at: 2018-04-18 22:58:02

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.78 Mbit/s
95th percentile per-packet one-way delay: 64.629 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 21.96 Mbit/s
95th percentile per-packet one-way delay: 64.725 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.17 Mbit/s
95th percentile per-packet one-way delay: 64.452 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 64.235 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

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

- **Flow 1 ingress (mean 21.96 Mbit/s)**
- **Flow 1 egress (mean 21.96 Mbit/s)**
- **Flow 2 ingress (mean 14.17 Mbit/s)**
- **Flow 2 egress (mean 14.17 Mbit/s)**
- **Flow 3 ingress (mean 7.42 Mbit/s)**
- **Flow 3 egress (mean 7.42 Mbit/s)**

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

- **Flow 1 (95th percentile 64.72 ms)**
- **Flow 2 (95th percentile 64.45 ms)**
- **Flow 3 (95th percentile 64.23 ms)**
Run 4: Statistics of LEDBAT

End at: 2018-04-18 23:13:40

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.15 Mbit/s
95th percentile per-packet one-way delay: 64.830 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 21.94 Mbit/s
95th percentile per-packet one-way delay: 64.802 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.88 Mbit/s
95th percentile per-packet one-way delay: 64.850 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 65.058 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

![Graph showing network performance metrics over time.](image-url)
Run 5: Statistics of LEDBAT


# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.72 Mbit/s
95th percentile per-packet one-way delay: 64.250 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 22.35 Mbit/s
95th percentile per-packet one-way delay: 64.287 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.83 Mbit/s
95th percentile per-packet one-way delay: 64.130 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 64.194 ms
Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

End at: 2018-04-18 23:44:53

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 34.35 Mbit/s
  95th percentile per-packet one-way delay: 65.144 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 21.86 Mbit/s
  95th percentile per-packet one-way delay: 65.333 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 15.19 Mbit/s
  95th percentile per-packet one-way delay: 64.854 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 7.30 Mbit/s
  95th percentile per-packet one-way delay: 65.293 ms
  Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 21.87 Mbps/s)
- Flow 1 egress (mean 21.86 Mbps/s)
- Flow 2 ingress (mean 15.19 Mbps/s)
- Flow 2 egress (mean 15.19 Mbps/s)
- Flow 3 ingress (mean 7.30 Mbps/s)
- Flow 3 egress (mean 7.30 Mbps/s)

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

- Flow 1 (95th percentile 65.33 ms)
- Flow 2 (95th percentile 64.85 ms)
- Flow 3 (95th percentile 65.29 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-04-19 00:00:08
End at: 2018-04-19 00:00:38

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 34.59 Mbit/s
  95th percentile per-packet one-way delay: 65.052 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 22.24 Mbit/s
  95th percentile per-packet one-way delay: 65.162 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 14.95 Mbit/s
  95th percentile per-packet one-way delay: 64.807 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 7.26 Mbit/s
  95th percentile per-packet one-way delay: 64.928 ms
  Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link

![Graph of Throughput vs Time](image1)

- Blue dashed line: Flow 1 ingress (mean 22.25 Mbit/s)
- Blue solid line: Flow 1 egress (mean 22.24 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 14.95 Mbit/s)
- Green solid line: Flow 2 egress (mean 14.95 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 7.26 Mbit/s)
- Red solid line: Flow 3 egress (mean 7.26 Mbit/s)

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

- Black circle: Flow 1 (95th percentile 65.16 ms)
- Green circle: Flow 2 (95th percentile 64.81 ms)
- Red circle: Flow 3 (95th percentile 64.93 ms)
Run 8: Statistics of LEDBAT

Start at: 2018-04-19 00:15:51
End at: 2018-04-19 00:16:21

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 34.66 Mbit/s
  95th percentile per-packet one-way delay: 64.700 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 22.53 Mbit/s
  95th percentile per-packet one-way delay: 64.795 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 14.57 Mbit/s
  95th percentile per-packet one-way delay: 64.505 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 7.51 Mbit/s
  95th percentile per-packet one-way delay: 62.778 ms
  Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-04-19 00:31:18
End at: 2018-04-19 00:31:48

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.21 Mbit/s
95th percentile per-packet one-way delay: 63.676 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 22.65 Mbit/s
95th percentile per-packet one-way delay: 63.750 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.42 Mbit/s
95th percentile per-packet one-way delay: 63.606 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.09 Mbit/s
95th percentile per-packet one-way delay: 63.040 ms
Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-04-19 00:46:42
End at: 2018-04-19 00:47:12

# Below is generated by plot.py at 2018-04-19 03:10:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 34.67 Mbit/s
  95th percentile per-packet one-way delay: 64.830 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 22.69 Mbit/s
  95th percentile per-packet one-way delay: 64.897 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 14.42 Mbit/s
  95th percentile per-packet one-way delay: 64.610 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 7.18 Mbit/s
  95th percentile per-packet one-way delay: 65.129 ms
  Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC-Allegro


# Below is generated by plot.py at 2018-04-19 03:14:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 355.36 Mbit/s
95th percentile per-packet one-way delay: 170.535 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 329.22 Mbit/s
95th percentile per-packet one-way delay: 170.381 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 30.97 Mbit/s
95th percentile per-packet one-way delay: 169.028 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 174.390 ms
Loss rate: 0.93%
Run 1: Report of PCC-Allegro — Data Link
Run 2: Statistics of PCC-Allegro

Start at: 2018-04-18 22:34:00
End at: 2018-04-18 22:34:30

# Below is generated by plot.py at 2018-04-19 03:15:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 359.43 Mbit/s
  95th percentile per-packet one-way delay: 132.971 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 354.85 Mbit/s
  95th percentile per-packet one-way delay: 133.233 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 4.72 Mbit/s
  95th percentile per-packet one-way delay: 128.554 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 4.39 Mbit/s
  95th percentile per-packet one-way delay: 82.599 ms
  Loss rate: 0.06%
Run 2: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 354.85 Mbit/s)
- Flow 1 egress (mean 354.85 Mbit/s)
- Flow 2 ingress (mean 4.72 Mbit/s)
- Flow 2 egress (mean 4.72 Mbit/s)
- Flow 3 ingress (mean 4.39 Mbit/s)
- Flow 3 egress (mean 4.39 Mbit/s)

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

- Flow 1 (95th percentile 133.23 ms)
- Flow 2 (95th percentile 128.55 ms)
- Flow 3 (95th percentile 82.60 ms)
Run 3: Statistics of PCC-Allegro


# Below is generated by plot.py at 2018-04-19 03:15:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 367.75 Mbit/s
  95th percentile per-packet one-way delay: 91.709 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 350.80 Mbit/s
  95th percentile per-packet one-way delay: 91.738 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 17.39 Mbit/s
  95th percentile per-packet one-way delay: 90.786 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 16.36 Mbit/s
  95th percentile per-packet one-way delay: 91.996 ms
  Loss rate: 0.00%
Run 3: Report of PCC-Allegro — Data Link
Run 4: Statistics of PCC-Allegro

Start at: 2018-04-18 23:05:26
End at: 2018-04-18 23:05:56

# Below is generated by plot.py at 2018-04-19 03:16:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 396.26 Mbit/s
  95th percentile per-packet one-way delay: 232.776 ms
  Loss rate: 3.69%
-- Flow 1:
  Average throughput: 394.14 Mbit/s
  95th percentile per-packet one-way delay: 232.795 ms
  Loss rate: 3.68%
-- Flow 2:
  Average throughput: 2.15 Mbit/s
  95th percentile per-packet one-way delay: 231.056 ms
  Loss rate: 5.86%
-- Flow 3:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 232.093 ms
  Loss rate: 7.26%
Run 4: Report of PCC-Allegro — Data Link
Run 5: Statistics of PCC-Allegro


# Below is generated by plot.py at 2018-04-19 03:16:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 379.60 Mbit/s
  95th percentile per-packet one-way delay: 139.018 ms
  Loss rate: 0.08%
-- Flow 1:
  Average throughput: 335.05 Mbit/s
  95th percentile per-packet one-way delay: 138.910 ms
  Loss rate: 0.09%
-- Flow 2:
  Average throughput: 62.90 Mbit/s
  95th percentile per-packet one-way delay: 139.453 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 8.36 Mbit/s
  95th percentile per-packet one-way delay: 139.855 ms
  Loss rate: 0.03%
Run 5: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 6: Statistics of PCC-Allegro

Start at: 2018-04-18 23:36:44
End at: 2018-04-18 23:37:14

# Below is generated by plot.py at 2018-04-19 03:16:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 371.74 Mbit/s
95th percentile per-packet one-way delay: 215.894 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 364.96 Mbit/s
95th percentile per-packet one-way delay: 216.721 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 169.962 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 16.12 Mbit/s
95th percentile per-packet one-way delay: 78.699 ms
Loss rate: 0.04%
Run 6: Report of PCC-Allegro — Data Link

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Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 365.65 Mbps)  
Flow 1 egress (mean 364.96 Mbps)  
Flow 2 ingress (mean 2.22 Mbps)  
Flow 2 egress (mean 2.22 Mbps)  
Flow 3 ingress (mean 16.13 Mbps)  
Flow 3 egress (mean 16.12 Mbps)

---

One-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 216.72 ms)  
Flow 2 (95th percentile 169.96 ms)  
Flow 3 (95th percentile 78.70 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-04-18 23:52:17
End at: 2018-04-18 23:52:47

# Below is generated by plot.py at 2018-04-19 03:16:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 374.40 Mbit/s
  95th percentile per-packet one-way delay: 207.212 ms
  Loss rate: 0.52%
-- Flow 1:
  Average throughput: 315.33 Mbit/s
  95th percentile per-packet one-way delay: 206.694 ms
  Loss rate: 0.42%
-- Flow 2:
  Average throughput: 33.71 Mbit/s
  95th percentile per-packet one-way delay: 207.295 ms
  Loss rate: 0.33%
-- Flow 3:
  Average throughput: 111.25 Mbit/s
  95th percentile per-packet one-way delay: 209.223 ms
  Loss rate: 1.46%
Run 7: Report of PCC-Allegro — Data Link

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

- **Flow 1 Ingress (mean 316.67 Mbit/s)**
- **Flow 1 Egress (mean 315.33 Mbit/s)**
- **Flow 2 Ingress (mean 33.62 Mbit/s)**
- **Flow 2 Egress (mean 33.71 Mbit/s)**
- **Flow 3 Ingress (mean 112.89 Mbit/s)**
- **Flow 3 Egress (mean 111.25 Mbit/s)**

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

- **Flow 1 (95th percentile 206.69 ms)**
- **Flow 2 (95th percentile 207.29 ms)**
- **Flow 3 (95th percentile 209.22 ms)**
Run 8: Statistics of PCC-Allegro

Start at: 2018-04-19 00:08:04
End at: 2018-04-19 00:08:34

# Below is generated by plot.py at 2018-04-19 03:18:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 367.51 Mbit/s
  95th percentile per-packet one-way delay: 214.080 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 354.05 Mbit/s
  95th percentile per-packet one-way delay: 213.793 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 4.24 Mbit/s
  95th percentile per-packet one-way delay: 214.086 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 32.32 Mbit/s
  95th percentile per-packet one-way delay: 218.093 ms
  Loss rate: 0.22%
Run 8: Report of PCC-Allegro — Data Link
Run 9: Statistics of PCC-Allegro

Start at: 2018-04-19 00:23:38
End at: 2018-04-19 00:24:08

# Below is generated by plot.py at 2018-04-19 03:22:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 391.81 Mbit/s
95th percentile per-packet one-way delay: 215.033 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 368.06 Mbit/s
95th percentile per-packet one-way delay: 214.984 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 33.75 Mbit/s
95th percentile per-packet one-way delay: 215.738 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 210.829 ms
Loss rate: 0.51%
Run 10: Statistics of PCC-Allegro

Start at: 2018-04-19 00:39:04
End at: 2018-04-19 00:39:34

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 381.32 Mbit/s
  95th percentile per-packet one-way delay: 191.227 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 367.59 Mbit/s
  95th percentile per-packet one-way delay: 190.890 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 4.42 Mbit/s
  95th percentile per-packet one-way delay: 191.601 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 32.89 Mbit/s
  95th percentile per-packet one-way delay: 195.938 ms
  Loss rate: 0.11%
Run 10: Report of PCC-Allegro — 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 1: Statistics of QUIC Cubic


# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.51 Mbit/s
  95th percentile per-packet one-way delay: 63.760 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 63.474 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 65.462 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 16.91 Mbit/s
  95th percentile per-packet one-way delay: 63.760 ms
  Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic


# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 102.77 Mbit/s
95th percentile per-packet one-way delay: 63.680 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 54.30 Mbit/s
95th percentile per-packet one-way delay: 63.579 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 47.47 Mbit/s
95th percentile per-packet one-way delay: 63.726 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 52.10 Mbit/s
95th percentile per-packet one-way delay: 63.702 ms
Loss rate: 0.01%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

End at: 2018-04-18 22:57:16

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.36 Mbit/s
95th percentile per-packet one-way delay: 63.702 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.58 Mbit/s
95th percentile per-packet one-way delay: 63.672 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.52 Mbit/s
95th percentile per-packet one-way delay: 63.689 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 64.09 Mbit/s
95th percentile per-packet one-way delay: 63.741 ms
Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link

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

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![Graph 2: Packet Round-trip Delay Over Time](image2)

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Run 4: Statistics of QUIC Cubic

Start at: 2018-04-18 23:12:24
End at: 2018-04-18 23:12:54

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.27 Mbit/s
95th percentile per-packet one-way delay: 63.624 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 57.51 Mbit/s
95th percentile per-packet one-way delay: 63.578 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 61.68 Mbit/s
95th percentile per-packet one-way delay: 63.648 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.25 Mbit/s
95th percentile per-packet one-way delay: 63.661 ms
Loss rate: 0.03%
Run 4: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 57.51 Mbit/s)
- Flow 1 egress (mean 57.51 Mbit/s)
- Flow 2 ingress (mean 61.68 Mbit/s)
- Flow 2 egress (mean 61.68 Mbit/s)
- Flow 3 ingress (mean 27.27 Mbit/s)
- Flow 3 egress (mean 27.25 Mbit/s)

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

- Flow 1 (95th percentile 63.58 ms)
- Flow 2 (95th percentile 63.65 ms)
- Flow 3 (95th percentile 63.66 ms)
Run 5: Statistics of QUIC Cubic


# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.42 Mbit/s
  95th percentile per-packet one-way delay: 63.362 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 56.20 Mbit/s
  95th percentile per-packet one-way delay: 63.390 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 36.20 Mbit/s
  95th percentile per-packet one-way delay: 61.877 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 25.22 Mbit/s
  95th percentile per-packet one-way delay: 61.871 ms
  Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link

![Graphs showing throughput and packet one-way delay over time for different flows with their respective mean values.]

- Flow 1 ingress (mean 56.20 Mbit/s)
- Flow 1 egress (mean 56.20 Mbit/s)
- Flow 2 ingress (mean 36.20 Mbit/s)
- Flow 2 egress (mean 36.20 Mbit/s)
- Flow 3 ingress (mean 25.21 Mbit/s)
- Flow 3 egress (mean 25.22 Mbit/s)
Run 6: Statistics of QUIC Cubic

End at: 2018-04-18 23:44:07

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.16 Mbit/s
  95th percentile per-packet one-way delay: 63.708 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 46.73 Mbit/s
  95th percentile per-packet one-way delay: 63.660 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 47.87 Mbit/s
  95th percentile per-packet one-way delay: 63.540 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 45.13 Mbit/s
  95th percentile per-packet one-way delay: 63.826 ms
  Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

End at: 2018-04-18 23:59:52

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.02 Mbit/s
  95th percentile per-packet one-way delay: 63.846 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 52.82 Mbit/s
  95th percentile per-packet one-way delay: 63.858 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 57.43 Mbit/s
  95th percentile per-packet one-way delay: 63.811 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 19.07 Mbit/s
  95th percentile per-packet one-way delay: 63.913 ms
  Loss rate: 0.00%
Run 7: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 52.82 Mbit/s)
- Flow 1 egress (mean 52.82 Mbit/s)
- Flow 2 ingress (mean 57.29 Mbit/s)
- Flow 2 egress (mean 57.43 Mbit/s)
- Flow 3 ingress (mean 19.07 Mbit/s)
- Flow 3 egress (mean 19.07 Mbit/s)

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

- Flow 1 (95th percentile 63.86 ms)
- Flow 2 (95th percentile 63.81 ms)
- Flow 3 (95th percentile 63.91 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-19 00:15:05
End at: 2018-04-19 00:15:35

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 100.50 Mbit/s
  95th percentile per-packet one-way delay: 63.712 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 60.29 Mbit/s
  95th percentile per-packet one-way delay: 63.638 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 33.36 Mbit/s
  95th percentile per-packet one-way delay: 63.676 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 55.51 Mbit/s
  95th percentile per-packet one-way delay: 63.796 ms
  Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link

Time (s)

Throughput (Mbps)

Flow 1 ingress (mean 60.29 Mbit/s) — Flow 1 egress (mean 60.29 Mbit/s)
Flow 2 ingress (mean 33.36 Mbit/s) — Flow 2 egress (mean 33.36 Mbit/s)
Flow 3 ingress (mean 55.50 Mbit/s) — Flow 3 egress (mean 55.51 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 63.64 ms) — Flow 2 (95th percentile 63.68 ms) — Flow 3 (95th percentile 63.80 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-04-19 00:30:32
End at: 2018-04-19 00:31:02

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.04 Mbit/s
  95th percentile per-packet one-way delay: 63.677 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 44.44 Mbit/s
  95th percentile per-packet one-way delay: 63.725 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 35.17 Mbit/s
  95th percentile per-packet one-way delay: 61.912 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 62.35 Mbit/s
  95th percentile per-packet one-way delay: 63.490 ms
  Loss rate: 0.00%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-19 00:45:55
End at: 2018-04-19 00:46:25

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 100.29 Mbit/s
  95th percentile per-packet one-way delay: 63.574 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 60.47 Mbit/s
  95th percentile per-packet one-way delay: 63.496 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 43.50 Mbit/s
  95th percentile per-packet one-way delay: 61.670 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 33.69 Mbit/s
  95th percentile per-packet one-way delay: 63.747 ms
  Loss rate: 0.00%
Run 10: Report of QUIC Cubic — Data Link

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Run 1: Statistics of SCReAM


# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 63.768 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.655 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.812 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.575 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

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

![Graph 2: One-packet-conveyed delay (ms)](image2)

Legend:
- 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)

Legend:
- Flow 1 (95th percentile 63.66 ms)
- Flow 2 (95th percentile 63.81 ms)
- Flow 3 (95th percentile 63.58 ms)
Run 2: Statistics of SCReAM

End at: 2018-04-18 22:37:02

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 63.761 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.752 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.486 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.813 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

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

![Graph 2: Packet Core vs Time](image2)
Run 3: Statistics of SCReAM

End at: 2018-04-18 22:52:52

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 63.774 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 61.935 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.843 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.705 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows in Run 3.]

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 61.94 ms)
Flow 2 (95th percentile 63.84 ms)
Flow 3 (95th percentile 61.70 ms)
Run 4: Statistics of SCReAM

Start at: 2018-04-18 23:07:58
End at: 2018-04-18 23:08:28

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 63.673 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.701 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.654 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.656 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

[Graph showing throughput and packet size distribution over time]
Run 5: Statistics of SCReAM

End at: 2018-04-18 23:24:02

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 63.555 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.534 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.509 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.646 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

[Graph showing throughput and packet round-trip time over time for different data flows.]

Flow 1 (95th percentile 63.53 ms)  Flow 2 (95th percentile 63.51 ms)  Flow 3 (95th percentile 63.65 ms)
Run 6: Statistics of SCReAM

End at: 2018-04-18 23:39:45

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 63.804 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.780 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.774 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.862 ms
Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

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

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

![Graph 2: Per-packet time vs Time (ms)]

- Flow 1 (95th percentile 63.78 ms)
- Flow 2 (95th percentile 63.37 ms)
- Flow 3 (95th percentile 63.86 ms)
Run 7: Statistics of SCReAM

Start at: 2018-04-18 23:54:50

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 63.899 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.930 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.696 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.633 ms
  Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-04-19 00:10:35
End at: 2018-04-19 00:11:05

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 63.763 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.766 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.772 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 62.131 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

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

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

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

- Flow 1 (95th percentile 63.77 ms)
- Flow 2 (95th percentile 63.77 ms)
- Flow 3 (95th percentile 62.13 ms)
Run 9: Statistics of SCReAM

Start at: 2018-04-19 00:26:10
End at: 2018-04-19 00:26:40

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 63.885 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.919 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.757 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.651 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-04-19 00:41:36
End at: 2018-04-19 00:42:06

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 63.651 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.701 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 61.788 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.544 ms
  Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

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

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

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

- Flow 1 (95th percentile 63.70 ms)
- Flow 2 (95th percentile 61.79 ms)
- Flow 3 (95th percentile 63.54 ms)
Run 1: Statistics of WebRTC media

End at: 2018-04-18 22:17:19

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 63.976 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 63.996 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 63.801 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 64.109 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media


# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 64.184 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 63.949 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 64.608 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 64.047 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.06 Mbit/s)
Flow 1 egress (mean 0.06 Mbit/s)
Flow 2 ingress (mean 0.06 Mbit/s)
Flow 2 egress (mean 0.06 Mbit/s)
Flow 3 ingress (mean 0.05 Mbit/s)
Flow 3 egress (mean 0.05 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 63.95 ms)  Flow 2 (95th percentile 64.61 ms)  Flow 3 (95th percentile 64.05 ms)
Run 3: Statistics of WebRTC media


# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.18 Mbit/s
  95th percentile per-packet one-way delay: 64.009 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.07 Mbit/s
  95th percentile per-packet one-way delay: 64.010 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.07 Mbit/s
  95th percentile per-packet one-way delay: 63.994 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 64.069 ms
  Loss rate: 0.00%
Run 4: Statistics of WebRTC media

Start at: 2018-04-18 23:03:42
End at: 2018-04-18 23:04:12

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 63.944 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 64.058 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 63.778 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 63.882 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 0.06 Mbit/s)
- Flow 1 egress (mean 0.06 Mbit/s)
- Flow 2 ingress (mean 0.06 Mbit/s)
- Flow 2 egress (mean 0.06 Mbit/s)
- Flow 3 ingress (mean 0.05 Mbit/s)
- Flow 3 egress (mean 0.05 Mbit/s)

![Graph showing packet loss](image)

- Flow 1 (95th percentile 64.06 ms)
- Flow 2 (95th percentile 63.78 ms)
- Flow 3 (95th percentile 63.88 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-04-18 23:19:16  
End at: 2018-04-18 23:19:46

# Below is generated by plot.py at 2018-04-19 03:22:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 63.708 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.06 Mbit/s  
95th percentile per-packet one-way delay: 63.750 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.06 Mbit/s  
95th percentile per-packet one-way delay: 63.596 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 63.666 ms  
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

[Graphs showing throughput and packet delay over time for different flows, illustrating data link performance metrics.]
Run 6: Statistics of WebRTC media

Start at: 2018-04-18 23:35:00
End at: 2018-04-18 23:35:30

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 63.700 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 63.712 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 63.696 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 63.698 ms
  Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-04-18 23:50:33
End at: 2018-04-18 23:51:03

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 63.850 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 63.924 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 63.725 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.842 ms
Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-04-19 00:06:21
End at: 2018-04-19 00:06:51

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 64.911 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 70.433 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 63.936 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 64.009 ms
  Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

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

- **Flow 1 ingress (mean 0.06 Mbit/s)**
- **Flow 1 egress (mean 0.06 Mbit/s)**
- **Flow 2 ingress (mean 0.06 Mbit/s)**
- **Flow 2 egress (mean 0.06 Mbit/s)**
- **Flow 3 ingress (mean 0.05 Mbit/s)**
- **Flow 3 egress (mean 0.05 Mbit/s)**

- **Flow 1 (95th percentile 70.43 ms)**
- **Flow 2 (95th percentile 63.94 ms)**
- **Flow 3 (95th percentile 64.01 ms)**
Run 9: Statistics of WebRTC media

Start at: 2018-04-19 00:21:54
End at: 2018-04-19 00:22:25

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 63.969 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 63.846 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 64.369 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 62.716 ms
  Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 0.06 Mbps)
  - Flow 1 egress (mean 0.06 Mbps)
  - Flow 2 ingress (mean 0.06 Mbps)
  - Flow 2 egress (mean 0.06 Mbps)
  - Flow 3 ingress (mean 0.05 Mbps)
  - Flow 3 egress (mean 0.05 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 63.85 ms)
  - Flow 2 (95th percentile 64.37 ms)
  - Flow 3 (95th percentile 62.72 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-04-19 00:37:20
End at: 2018-04-19 00:37:50

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 63.896 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 62.001 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 64.047 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 63.785 ms
  Loss rate: 0.00%
Run 1: Statistics of Sprout

End at: 2018-04-18 22:19:52

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 12.75 Mbit/s
  95th percentile per-packet one-way delay: 64.622 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.62 Mbit/s
  95th percentile per-packet one-way delay: 64.687 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 6.33 Mbit/s
  95th percentile per-packet one-way delay: 64.573 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 5.83 Mbit/s
  95th percentile per-packet one-way delay: 64.476 ms
  Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

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

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

- Flow 1 ingress (mean 6.62 Mbit/s)
- Flow 1 egress (mean 6.62 Mbit/s)
- Flow 2 ingress (mean 6.32 Mbit/s)
- Flow 2 egress (mean 6.33 Mbit/s)
- Flow 3 ingress (mean 5.83 Mbit/s)
- Flow 3 egress (mean 5.83 Mbit/s)

Flow 1 (95th percentile 64.69 ms)
Flow 2 (95th percentile 64.57 ms)
Flow 3 (95th percentile 64.48 ms)
Run 2: Statistics of Sprout

End at: 2018-04-18 22:35:25

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 12.87 Mbit/s
  95th percentile per-packet one-way delay: 64.889 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.54 Mbit/s
  95th percentile per-packet one-way delay: 64.828 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 6.37 Mbit/s
  95th percentile per-packet one-way delay: 64.989 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 6.37 Mbit/s
  95th percentile per-packet one-way delay: 64.825 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

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

Legend:
- Flow 1 ingress (mean 6.54 Mbit/s)
- Flow 1 egress (mean 6.54 Mbit/s)
- Flow 2 ingress (mean 6.37 Mbit/s)
- Flow 2 egress (mean 6.37 Mbit/s)
- Flow 3 ingress (mean 6.37 Mbit/s)
- Flow 3 egress (mean 6.37 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 64.03 ms)
- Flow 2 (95th percentile 64.99 ms)
- Flow 3 (95th percentile 64.83 ms)
Run 3: Statistics of Sprout

Start at: 2018-04-18 22:50:45  
End at: 2018-04-18 22:51:15

# Below is generated by plot.py at 2018-04-19 03:22:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.93 Mbit/s  
95th percentile per-packet one-way delay: 64.778 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 6.54 Mbit/s  
95th percentile per-packet one-way delay: 64.643 ms  
Loss rate: 0.21%  
-- Flow 2:  
Average throughput: 6.41 Mbit/s  
95th percentile per-packet one-way delay: 64.903 ms  
Loss rate: 0.07%  
-- Flow 3:  
Average throughput: 6.42 Mbit/s  
95th percentile per-packet one-way delay: 64.995 ms  
Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

![Graph showing data from Run 3]

The graphs illustrate the throughput and per-packet one-way delay for different flows over time. The data shows fluctuations in throughput and delay, indicating variability in network performance.

Legend for Graphs:
- Flow 1 ingress (mean 6.54 Mbit/s)
- Flow 1 egress (mean 6.54 Mbit/s)
- Flow 2 ingress (mean 6.42 Mbit/s)
- Flow 2 egress (mean 6.41 Mbit/s)
- Flow 3 ingress (mean 6.42 Mbit/s)
- Flow 3 egress (mean 6.42 Mbit/s)

Legend for Delay:
- Flow 1 (95th percentile 64.64 ms)
- Flow 2 (95th percentile 64.90 ms)
- Flow 3 (95th percentile 65.00 ms)
Run 4: Statistics of Sprout

Start at: 2018-04-18 23:06:22
End at: 2018-04-18 23:06:52

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.99 Mbit/s
95th percentile per-packet one-way delay: 64.705 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 64.729 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 64.623 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 64.717 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

![Diagram](image-url)

**Throughput (Mbit/s)**

- Flow 1 ingress (mean 6.63 Mbit/s)
- Flow 1 egress (mean 6.63 Mbit/s)
- Flow 2 ingress (mean 6.50 Mbit/s)
- Flow 2 egress (mean 6.50 Mbit/s)
- Flow 3 ingress (mean 6.18 Mbit/s)
- Flow 3 egress (mean 6.18 Mbit/s)

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

- Flow 1 (95th percentile 64.73 ms)
- Flow 2 (95th percentile 64.62 ms)
- Flow 3 (95th percentile 64.72 ms)
Run 5: Statistics of Sprout


# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.84 Mbit/s
95th percentile per-packet one-way delay: 63.922 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.57 Mbit/s
95th percentile per-packet one-way delay: 64.193 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 63.514 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 62.714 ms
Loss rate: 0.00%
Run 6: Statistics of Sprout

End at: 2018-04-18 23:38:09

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 12.97 Mbit/s
  95th percentile per-packet one-way delay: 64.637 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.55 Mbit/s
  95th percentile per-packet one-way delay: 64.736 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 6.53 Mbit/s
  95th percentile per-packet one-way delay: 64.540 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 6.34 Mbit/s
  95th percentile per-packet one-way delay: 64.379 ms
  Loss rate: 0.00%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

End at: 2018-04-18 23:53:43

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 12.90 Mbit/s
  95th percentile per-packet one-way delay: 64.736 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.60 Mbit/s
  95th percentile per-packet one-way delay: 64.737 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 6.36 Mbit/s
  95th percentile per-packet one-way delay: 64.677 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 6.32 Mbit/s
  95th percentile per-packet one-way delay: 64.804 ms
  Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

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

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

Start at: 2018-04-19 00:08:59
End at: 2018-04-19 00:09:29

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.81 Mbit/s
95th percentile per-packet one-way delay: 64.781 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.49 Mbit/s
95th percentile per-packet one-way delay: 64.799 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 64.713 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.29 Mbit/s
95th percentile per-packet one-way delay: 64.847 ms
Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

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

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

Legend:
- Flow 1 ingress (mean 6.49 Mbit/s)
- Flow 1 egress (mean 6.49 Mbit/s)
- Flow 2 ingress (mean 6.40 Mbit/s)
- Flow 2 egress (mean 6.40 Mbit/s)
- Flow 3 ingress (mean 6.29 Mbit/s)
- Flow 3 egress (mean 6.29 Mbit/s)

Legend for Packet Delay:
- Flow 1 (95th percentile 64.80 ms)
- Flow 2 (95th percentile 64.71 ms)
- Flow 3 (95th percentile 64.85 ms)
Run 9: Statistics of Sprout

Start at: 2018-04-19 00:24:34
End at: 2018-04-19 00:25:04

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 12.92 Mbit/s
  95th percentile per-packet one-way delay: 64.425 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.55 Mbit/s
  95th percentile per-packet one-way delay: 64.221 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 6.59 Mbit/s
  95th percentile per-packet one-way delay: 64.367 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 6.04 Mbit/s
  95th percentile per-packet one-way delay: 64.907 ms
  Loss rate: 0.00%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-04-19 00:39:59
End at: 2018-04-19 00:40:29

# Below is generated by plot.py at 2018-04-19 03:22:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 12.94 Mbit/s
  95th percentile per-packet one-way delay: 63.437 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.66 Mbit/s
  95th percentile per-packet one-way delay: 63.482 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 6.52 Mbit/s
  95th percentile per-packet one-way delay: 63.380 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 5.94 Mbit/s
  95th percentile per-packet one-way delay: 63.550 ms
  Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

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

- **Flow 1 ingress (mean 6.66 Mbit/s)**
- **Flow 1 egress (mean 6.66 Mbit/s)**
- **Flow 2 ingress (mean 6.52 Mbit/s)**
- **Flow 2 egress (mean 6.52 Mbit/s)**
- **Flow 3 ingress (mean 5.93 Mbit/s)**
- **Flow 3 egress (mean 5.94 Mbit/s)**

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

- **Flow 1 (95th percentile 63.48 ms)**
- **Flow 2 (95th percentile 63.38 ms)**
- **Flow 3 (95th percentile 63.55 ms)**
Run 1: Statistics of TaoVA-100x

End at: 2018-04-18 22:24:52

# Below is generated by plot.py at 2018-04-19 03:28:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 238.80 Mbit/s
95th percentile per-packet one-way delay: 71.573 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 108.52 Mbit/s
95th percentile per-packet one-way delay: 64.268 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 142.43 Mbit/s
95th percentile per-packet one-way delay: 76.497 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 110.12 Mbit/s
95th percentile per-packet one-way delay: 77.585 ms
Loss rate: 0.01%
Run 2: Statistics of TaoVA-100x

End at: 2018-04-18 22:40:24

# Below is generated by plot.py at 2018-04-19 03:28:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 230.44 Mbit/s
  95th percentile per-packet one-way delay: 67.532 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 134.66 Mbit/s
  95th percentile per-packet one-way delay: 68.433 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 109.29 Mbit/s
  95th percentile per-packet one-way delay: 65.922 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 78.48 Mbit/s
  95th percentile per-packet one-way delay: 69.489 ms
  Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link

Graph 1: Throughput over Time

- Flow 1 ingress (mean 134.70 Mbit/s)
- Flow 1 egress (mean 134.66 Mbit/s)
- Flow 2 ingress (mean 109.29 Mbit/s)
- Flow 2 egress (mean 109.29 Mbit/s)
- Flow 3 ingress (mean 78.52 Mbit/s)
- Flow 3 egress (mean 78.48 Mbit/s)

Graph 2: Per-packet one-way delay over Time

- Flow 1 (95th percentile 68.43 ms)
- Flow 2 (95th percentile 65.92 ms)
- Flow 3 (95th percentile 69.49 ms)
Run 3: Statistics of TaoVA-100x

End at: 2018-04-18 22:56:15

# Below is generated by plot.py at 2018-04-19 03:28:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 218.04 Mbit/s
95th percentile per-packet one-way delay: 70.802 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 142.73 Mbit/s
95th percentile per-packet one-way delay: 71.503 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 73.94 Mbit/s
95th percentile per-packet one-way delay: 68.483 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 79.02 Mbit/s
95th percentile per-packet one-way delay: 73.621 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-04-18 23:11:21
End at: 2018-04-18 23:11:51

# Below is generated by plot.py at 2018-04-19 03:28:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 220.62 Mbit/s
95th percentile per-packet one-way delay: 67.906 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 110.63 Mbit/s
95th percentile per-packet one-way delay: 66.308 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 174.05 Mbit/s
95th percentile per-packet one-way delay: 68.905 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.52 Mbit/s
95th percentile per-packet one-way delay: 71.932 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x


# Below is generated by plot.py at 2018-04-19 03:28:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 220.94 Mbit/s
  95th percentile per-packet one-way delay: 70.607 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 109.62 Mbit/s
  95th percentile per-packet one-way delay: 64.022 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 149.06 Mbit/s
  95th percentile per-packet one-way delay: 73.911 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 36.83 Mbit/s
  95th percentile per-packet one-way delay: 69.085 ms
  Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link

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**Throughput (Mbps)**

- Flow 1 ingress (mean 109.45 Mbps)
- Flow 1 egress (mean 109.62 Mbps)
- Flow 2 ingress (mean 149.06 Mbps)
- Flow 2 egress (mean 149.06 Mbps)
- Flow 3 ingress (mean 36.83 Mbps)
- Flow 3 egress (mean 36.83 Mbps)

---

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

- Flow 1 (95th percentile 64.02 ms)
- Flow 2 (95th percentile 73.91 ms)
- Flow 3 (95th percentile 69.08 ms)
Run 6: Statistics of TaoVA-100x

End at: 2018-04-18 23:43:06

# Below is generated by plot.py at 2018-04-19 03:28:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 204.23 Mbit/s
  95th percentile per-packet one-way delay: 64.376 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 140.17 Mbit/s
  95th percentile per-packet one-way delay: 64.581 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 89.63 Mbit/s
  95th percentile per-packet one-way delay: 63.837 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 13.23 Mbit/s
  95th percentile per-packet one-way delay: 64.357 ms
  Loss rate: 0.00%
Run 6: Report of TaoVA-100x — Data Link

![Graph 1: Throughput vs Time]

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

Flow 1 ingress (mean 140.17 Mbit/s)  
Flow 1 egress (mean 140.17 Mbit/s)  
Flow 2 ingress (mean 89.63 Mbit/s)  
Flow 2 egress (mean 89.63 Mbit/s)  
Flow 3 ingress (mean 13.23 Mbit/s)  
Flow 3 egress (mean 13.23 Mbit/s)
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-18 23:58:16
End at: 2018-04-18 23:58:46

# Below is generated by plot.py at 2018-04-19 03:32:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 249.51 Mbit/s
  95th percentile per-packet one-way delay: 69.827 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 136.18 Mbit/s
  95th percentile per-packet one-way delay: 69.948 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 121.93 Mbit/s
  95th percentile per-packet one-way delay: 68.559 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 96.96 Mbit/s
  95th percentile per-packet one-way delay: 74.571 ms
  Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 136.23 Mbps)
- Flow 1 egress (mean 136.18 Mbps)
- Flow 2 ingress (mean 121.98 Mbps)
- Flow 2 egress (mean 121.93 Mbps)
- Flow 3 ingress (mean 97.01 Mbps)
- Flow 3 egress (mean 96.96 Mbps)

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

- Flow 1 (95th percentile: 69.95 ms)
- Flow 2 (95th percentile: 68.56 ms)
- Flow 3 (95th percentile: 74.57 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-04-19 00:14:00
End at: 2018-04-19 00:14:30

# Below is generated by plot.py at 2018-04-19 03:32:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 247.13 Mbit/s
  95th percentile per-packet one-way delay: 67.452 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 126.62 Mbit/s
  95th percentile per-packet one-way delay: 66.816 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 136.61 Mbit/s
  95th percentile per-packet one-way delay: 70.332 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 89.20 Mbit/s
  95th percentile per-packet one-way delay: 64.996 ms
  Loss rate: 0.03%
Run 8: Report of TaoVA-100x — Data Link

![Graph showing network performance metrics over time]

- **Flow 1 Ingress (mean 126.63 Mbit/s)**
- **Flow 1 Egress (mean 126.62 Mbit/s)**
- **Flow 2 Ingress (mean 136.64 Mbit/s)**
- **Flow 2 Egress (mean 136.61 Mbit/s)**
- **Flow 3 Ingress (mean 89.23 Mbit/s)**
- **Flow 3 Egress (mean 89.20 Mbit/s)**

![Graph showing packet delay over time]

- **Flow 1 (95th percentile 66.82 ms)**
- **Flow 2 (95th percentile 70.33 ms)**
- **Flow 3 (95th percentile 65.00 ms)**
Run 9: Statistics of TaoVA-100x

Start at: 2018-04-19 00:29:28
End at: 2018-04-19 00:29:58

# Below is generated by plot.py at 2018-04-19 03:36:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 241.47 Mbit/s
  95th percentile per-packet one-way delay: 67.557 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 139.29 Mbit/s
  95th percentile per-packet one-way delay: 66.753 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 109.24 Mbit/s
  95th percentile per-packet one-way delay: 68.339 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 138.60 Mbit/s
  95th percentile per-packet one-way delay: 68.456 ms
  Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link

![Graph showing the throughput and per-packet one-way delay over time.](image-url)
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-19 00:44:52
End at: 2018-04-19 00:45:22

# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 239.57 Mbit/s
  95th percentile per-packet one-way delay: 68.545 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 145.28 Mbit/s
  95th percentile per-packet one-way delay: 69.468 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 106.83 Mbit/s
  95th percentile per-packet one-way delay: 65.827 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 69.99 Mbit/s
  95th percentile per-packet one-way delay: 69.667 ms
  Loss rate: 0.00%
Run 1: Statistics of TCP Vegas


# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 207.02 Mbit/s
  95th percentile per-packet one-way delay: 73.893 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 105.39 Mbit/s
  95th percentile per-packet one-way delay: 73.773 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 68.80 Mbit/s
  95th percentile per-packet one-way delay: 73.963 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 168.65 Mbit/s
  95th percentile per-packet one-way delay: 74.047 ms
  Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link

![Throughput Graph]

![Delay Graph]
Run 2: Statistics of TCP Vegas

End at: 2018-04-18 22:38:56

# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 125.35 Mbit/s
  95th percentile per-packet one-way delay: 72.682 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 17.71 Mbit/s
  95th percentile per-packet one-way delay: 69.032 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 77.53 Mbit/s
  95th percentile per-packet one-way delay: 70.193 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 169.23 Mbit/s
  95th percentile per-packet one-way delay: 73.922 ms
  Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 17.72 Mbit/s)
- Flow 1 egress (mean 17.71 Mbit/s)
- Flow 2 ingress (mean 77.54 Mbit/s)
- Flow 2 egress (mean 77.53 Mbit/s)
- Flow 3 ingress (mean 169.34 Mbit/s)
- Flow 3 egress (mean 169.23 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 69.03 ms)
- Flow 2 (95th percentile 70.19 ms)
- Flow 3 (95th percentile 73.92 ms)
Run 3: Statistics of TCP Vegas

End at: 2018-04-18 22:54:49

# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 80.92 Mbit/s
  95th percentile per-packet one-way delay: 65.598 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 28.05 Mbit/s
  95th percentile per-packet one-way delay: 64.671 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 77.58 Mbit/s
  95th percentile per-packet one-way delay: 66.199 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 3.95 Mbit/s
  95th percentile per-packet one-way delay: 63.999 ms
  Loss rate: 0.15%
Run 3: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 28.05 Mbit/s)
- Flow 1 egress (mean 28.05 Mbit/s)
- Flow 2 ingress (mean 77.58 Mbit/s)
- Flow 2 egress (mean 77.58 Mbit/s)
- Flow 3 ingress (mean 3.96 Mbit/s)
- Flow 3 egress (mean 3.95 Mbit/s)

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

- Flow 1 (95th percentile 64.67 ms)
- Flow 2 (95th percentile 66.20 ms)
- Flow 3 (95th percentile 64.00 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-04-18 23:09:51
End at: 2018-04-18 23:10:21

# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 172.09 Mbit/s
95th percentile per-packet one-way delay: 70.647 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 110.42 Mbit/s
95th percentile per-packet one-way delay: 69.785 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 37.30 Mbit/s
95th percentile per-packet one-way delay: 71.440 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 111.32 Mbit/s
95th percentile per-packet one-way delay: 71.261 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 110.43 Mbit/s)
- Flow 1 egress (mean 110.42 Mbit/s)
- Flow 2 ingress (mean 37.31 Mbit/s)
- Flow 2 egress (mean 37.30 Mbit/s)
- Flow 3 ingress (mean 111.32 Mbit/s)
- Flow 3 egress (mean 111.32 Mbit/s)

Per-packet one-way delay (ms):
- Flow 1 (95th percentile 69.78 ms)
- Flow 2 (95th percentile 71.44 ms)
- Flow 3 (95th percentile 71.26 ms)
Run 5: Statistics of TCP Vegas


# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 183.75 Mbit/s
95th percentile per-packet one-way delay: 75.295 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.46 Mbit/s
95th percentile per-packet one-way delay: 75.261 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 110.29 Mbit/s
95th percentile per-packet one-way delay: 75.978 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.78 Mbit/s
95th percentile per-packet one-way delay: 69.037 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-04-18 23:41:07
End at: 2018-04-18 23:41:37

# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.83 Mbit/s
95th percentile per-packet one-way delay: 74.280 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 113.20 Mbit/s
95th percentile per-packet one-way delay: 74.685 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 64.566 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 35.46 Mbit/s
95th percentile per-packet one-way delay: 64.714 ms
Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

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

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 113.21 Mb/s)  Flow 1 egress (mean 113.20 Mb/s)
Flow 2 ingress (mean 7.42 Mb/s)  Flow 2 egress (mean 7.42 Mb/s)
Flow 3 ingress (mean 354.47 Mb/s)  Flow 3 egress (mean 35.46 Mb/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 74.69 ms)  Flow 2 (95th percentile 64.57 ms)  Flow 3 (95th percentile 64.71 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-04-18 23:56:44
End at: 2018-04-18 23:57:14

# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 199.22 Mbit/s
95th percentile per-packet one-way delay: 73.232 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 119.34 Mbit/s
95th percentile per-packet one-way delay: 71.166 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.93 Mbit/s
95th percentile per-packet one-way delay: 74.686 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 86.64 Mbit/s
95th percentile per-packet one-way delay: 73.306 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Per-packet one way delay (ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-04-19 00:12:28
End at: 2018-04-19 00:12:58

# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 188.28 Mbit/s
  95th percentile per-packet one-way delay: 71.639 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 97.00 Mbit/s
  95th percentile per-packet one-way delay: 69.133 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 135.25 Mbit/s
  95th percentile per-packet one-way delay: 72.408 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 3.88 Mbit/s
  95th percentile per-packet one-way delay: 65.133 ms
  Loss rate: 0.22%
Run 8: Report of TCP Vegas — Data Link
Run 9: Statistics of TCP Vegas

Start at: 2018-04-19 00:28:00
End at: 2018-04-19 00:28:30

# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 120.69 Mbit/s
95th percentile per-packet one-way delay: 71.333 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.45 Mbit/s
95th percentile per-packet one-way delay: 72.344 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 64.779 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 106.54 Mbit/s
95th percentile per-packet one-way delay: 65.723 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress** (mean 80.45 Mbits/s)
- **Flow 1 egress** (mean 80.45 Mbits/s)
- **Flow 2 ingress** (mean 7.58 Mbits/s)
- **Flow 2 egress** (mean 7.58 Mbits/s)
- **Flow 3 ingress** (mean 196.02 Mbits/s)
- **Flow 3 egress** (mean 196.54 Mbits/s)

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

- **Flow 1** (95th percentile 72.34 ms)
- **Flow 2** (95th percentile 64.78 ms)
- **Flow 3** (95th percentile 65.72 ms)
Run 10: Statistics of TCP Vegas

Start at: 2018-04-19 00:43:23
End at: 2018-04-19 00:43:53

# Below is generated by plot.py at 2018-04-19 03:36:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.21 Mbit/s
95th percentile per-packet one-way delay: 71.015 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 67.48 Mbit/s
95th percentile per-packet one-way delay: 66.962 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.75 Mbit/s
95th percentile per-packet one-way delay: 70.330 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 171.69 Mbit/s
95th percentile per-packet one-way delay: 72.668 ms
Loss rate: 0.05%
Run 10: Report of TCP Vegas — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 67.47 Mbps)
- Flow 1 egress (mean 67.48 Mbps)
- Flow 2 ingress (mean 17.75 Mbps)
- Flow 2 egress (mean 17.75 Mbps)
- Flow 3 ingress (mean 171.75 Mbps)
- Flow 3 egress (mean 171.69 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 66.96 ms)
- Flow 2 (95th percentile 70.33 ms)
- Flow 3 (95th percentile 72.67 ms)
Run 1: Statistics of Verus

Start at: 2018-04-18 22:26:49

# Below is generated by plot.py at 2018-04-19 03:38:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 254.04 Mbit/s
95th percentile per-packet one-way delay: 202.659 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 182.79 Mbit/s
95th percentile per-packet one-way delay: 207.560 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 69.62 Mbit/s
95th percentile per-packet one-way delay: 189.287 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 76.88 Mbit/s
95th percentile per-packet one-way delay: 201.050 ms
Loss rate: 0.75%
Run 1: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 183.12 Mbit/s)
- **Flow 1 egress** (mean 182.79 Mbit/s)
- **Flow 2 ingress** (mean 69.67 Mbit/s)
- **Flow 2 egress** (mean 69.62 Mbit/s)
- **Flow 3 ingress** (mean 76.59 Mbit/s)
- **Flow 3 egress** (mean 76.89 Mbit/s)

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

- **Flow 1** (95th percentile 207.56 ms)
- **Flow 2** (95th percentile 189.29 ms)
- **Flow 3** (95th percentile 201.05 ms)
Run 2: Statistics of Verus


# Below is generated by plot.py at 2018-04-19 03:38:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 291.45 Mbit/s
95th percentile per-packet one-way delay: 188.867 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 171.07 Mbit/s
95th percentile per-packet one-way delay: 212.979 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 125.60 Mbit/s
95th percentile per-packet one-way delay: 180.034 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 112.47 Mbit/s
95th percentile per-packet one-way delay: 181.148 ms
Loss rate: 1.61%
Run 2: Report of Verus — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 173.57 Mbit/s)
- Flow 2 ingress (mean 126.81 Mbit/s)
- Flow 3 ingress (mean 114.20 Mbit/s)
- Flow 1 egress (mean 171.07 Mbit/s)
- Flow 2 egress (mean 125.66 Mbit/s)
- Flow 3 egress (mean 112.47 Mbit/s)

![Delay Graph]

- Flow 1 (95th percentile 212.98 ms)
- Flow 2 (95th percentile 180.03 ms)
- Flow 3 (95th percentile 181.15 ms)
Run 3: Statistics of Verus

End at: 2018-04-18 22:58:45

# Below is generated by plot.py at 2018-04-19 03:39:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 240.66 Mbit/s
  95th percentile per-packet one-way delay: 196.554 ms
  Loss rate: 0.76%
-- Flow 1:
  Average throughput: 108.94 Mbit/s
  95th percentile per-packet one-way delay: 162.748 ms
  Loss rate: 0.73%
-- Flow 2:
  Average throughput: 142.70 Mbit/s
  95th percentile per-packet one-way delay: 173.683 ms
  Loss rate: 0.30%
-- Flow 3:
  Average throughput: 113.66 Mbit/s
  95th percentile per-packet one-way delay: 247.800 ms
  Loss rate: 1.97%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

End at: 2018-04-18 23:14:24

# Below is generated by plot.py at 2018-04-19 03:39:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 243.78 Mbit/s
  95th percentile per-packet one-way delay: 143.008 ms
  Loss rate: 0.85%
-- Flow 1:
  Average throughput: 129.44 Mbit/s
  95th percentile per-packet one-way delay: 131.253 ms
  Loss rate: 1.03%
-- Flow 2:
  Average throughput: 131.27 Mbit/s
  95th percentile per-packet one-way delay: 181.704 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 82.75 Mbit/s
  95th percentile per-packet one-way delay: 133.497 ms
  Loss rate: 2.63%
Run 4: Report of Verus — Data Link

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

- Flow 1 ingress (mean 130.78 Mbit/s)
- Flow 1 egress (mean 129.44 Mbit/s)
- Flow 2 ingress (mean 131.96 Mbit/s)
- Flow 2 egress (mean 131.77 Mbit/s)
- Flow 3 ingress (mean 84.94 Mbit/s)
- Flow 3 egress (mean 82.75 Mbit/s)

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

- Flow 1 (95th percentile 131.25 ms)
- Flow 2 (95th percentile 181.70 ms)
- Flow 3 (95th percentile 133.50 ms)
Run 5: Statistics of Verus

End at: 2018-04-18 23:29:57

# Below is generated by plot.py at 2018-04-19 03:40:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 268.54 Mbit/s
  95th percentile per-packet one-way delay: 207.413 ms
  Loss rate: 0.94%
-- Flow 1:
  Average throughput: 166.27 Mbit/s
  95th percentile per-packet one-way delay: 214.887 ms
  Loss rate: 1.33%
-- Flow 2:
  Average throughput: 102.06 Mbit/s
  95th percentile per-packet one-way delay: 134.930 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 105.17 Mbit/s
  95th percentile per-packet one-way delay: 262.798 ms
  Loss rate: 0.70%
Run 5: Report of Verus — Data Link

![Graph showing network throughput and packet delay over time.](image-url)
Run 6: Statistics of Verus

Start at: 2018-04-18 23:45:07
End at: 2018-04-18 23:45:37

# Below is generated by plot.py at 2018-04-19 03:41:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 268.52 Mbit/s
95th percentile per-packet one-way delay: 184.409 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 159.27 Mbit/s
95th percentile per-packet one-way delay: 169.760 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 106.97 Mbit/s
95th percentile per-packet one-way delay: 198.703 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 119.31 Mbit/s
95th percentile per-packet one-way delay: 188.125 ms
Loss rate: 0.05%
Run 6: Report of Verus — Data Link

![Graphs showing network throughput and packet delay times for different flows.](image)
Run 7: Statistics of Verus

Start at: 2018-04-19 00:00:52
End at: 2018-04-19 00:01:22

# Below is generated by plot.py at 2018-04-19 03:41:13
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 251.73 Mbit/s
  95th percentile per-packet one-way delay: 167.032 ms
  Loss rate: 0.19%
-- Flow 1:
 Average throughput: 160.49 Mbit/s
  95th percentile per-packet one-way delay: 167.498 ms
  Loss rate: 0.17%
-- Flow 2:
 Average throughput: 108.32 Mbit/s
  95th percentile per-packet one-way delay: 163.881 ms
  Loss rate: 0.00%
-- Flow 3:
 Average throughput: 66.76 Mbit/s
  95th percentile per-packet one-way delay: 188.229 ms
  Loss rate: 1.01%
Run 7: Report of Verus — Data Link

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

Start at: 2018-04-19 00:16:35
End at: 2018-04-19 00:17:05

# Below is generated by plot.py at 2018-04-19 03:41:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 257.36 Mbit/s
95th percentile per-packet one-way delay: 339.652 ms
Loss rate: 4.13%
-- Flow 1:
Average throughput: 144.77 Mbit/s
95th percentile per-packet one-way delay: 228.636 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 123.31 Mbit/s
95th percentile per-packet one-way delay: 352.960 ms
Loss rate: 9.27%
-- Flow 3:
Average throughput: 95.25 Mbit/s
95th percentile per-packet one-way delay: 191.505 ms
Loss rate: 1.52%
Run 8: Report of Verus — Data Link

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

- **Throughput**: Flow 1 ingress (mean 147.19 Mbit/s), Flow 1 egress (mean 144.77 Mbit/s), Flow 2 ingress (mean 136.15 Mbit/s), Flow 2 egress (mean 123.31 Mbit/s), Flow 3 ingress (mean 95.28 Mbit/s), Flow 3 egress (mean 95.25 Mbit/s).

- **Delay**: Flow 1 (95th percentile 228.64 ms), Flow 2 (95th percentile 352.96 ms), Flow 3 (95th percentile 191.50 ms).

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Run 9: Statistics of Verus

Start at: 2018-04-19 00:32:02
End at: 2018-04-19 00:32:32

# Below is generated by plot.py at 2018-04-19 03:42:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 235.87 Mbit/s
95th percentile per-packet one-way delay: 203.834 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 160.44 Mbit/s
95th percentile per-packet one-way delay: 184.796 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 70.82 Mbit/s
95th percentile per-packet one-way delay: 141.866 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 89.77 Mbit/s
95th percentile per-packet one-way delay: 384.317 ms
Loss rate: 1.92%
Run 9: Report of Verus — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 10: Statistics of Verus

Start at: 2018-04-19 00:47:25
End at: 2018-04-19 00:47:55

# Below is generated by plot.py at 2018-04-19 03:43:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 239.69 Mbit/s
95th percentile per-packet one-way delay: 265.148 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 197.02 Mbit/s
95th percentile per-packet one-way delay: 276.002 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 48.14 Mbit/s
95th percentile per-packet one-way delay: 195.671 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 193.050 ms
Loss rate: 0.04%
Run 10: Report of Verus — Data Link
Run 1: Statistics of Copa

End at: 2018-04-18 22:20:34

# Below is generated by plot.py at 2018-04-19 03:43:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.61 Mbit/s
95th percentile per-packet one-way delay: 63.742 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 45.98 Mbit/s
95th percentile per-packet one-way delay: 63.736 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 83.62 Mbit/s
95th percentile per-packet one-way delay: 63.774 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 86.50 Mbit/s
95th percentile per-packet one-way delay: 63.589 ms
Loss rate: 0.02%
Run 1: Report of Copa — Data Link

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

- Flow 1 ingress (mean 45.99 Mb/s)
- Flow 1 egress (mean 45.98 Mb/s)
- Flow 2 ingress (mean 83.64 Mb/s)
- Flow 2 egress (mean 83.62 Mb/s)
- Flow 3 ingress (mean 86.52 Mb/s)
- Flow 3 egress (mean 86.50 Mb/s)
Run 2: Statistics of Copa

Start at: 2018-04-18 22:35:36
End at: 2018-04-18 22:36:06

# Below is generated by plot.py at 2018-04-19 03:45:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 151.68 Mbit/s
95th percentile per-packet one-way delay: 63.751 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 77.10 Mbit/s
95th percentile per-packet one-way delay: 63.783 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.81 Mbit/s
95th percentile per-packet one-way delay: 63.649 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 70.64 Mbit/s
95th percentile per-packet one-way delay: 63.650 ms
Loss rate: 0.02%
Run 2: Report of Copa — Data Link
Run 3: Statistics of Copa

End at: 2018-04-18 22:51:56

# Below is generated by plot.py at 2018-04-19 03:46:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 145.78 Mbit/s
  95th percentile per-packet one-way delay: 63.655 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 73.69 Mbit/s
  95th percentile per-packet one-way delay: 63.621 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 81.12 Mbit/s
  95th percentile per-packet one-way delay: 63.677 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 54.58 Mbit/s
  95th percentile per-packet one-way delay: 63.674 ms
  Loss rate: 0.01%
Run 3: Report of Copa — Data Link

![Graph showing data link throughput and packet one-way delay over time.](image-url)
Run 4: Statistics of Copa

Start at: 2018-04-18 23:07:03
End at: 2018-04-18 23:07:33

# Below is generated by plot.py at 2018-04-19 03:46:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 141.36 Mbit/s
  95th percentile per-packet one-way delay: 63.640 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 77.99 Mbit/s
  95th percentile per-packet one-way delay: 63.634 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 59.42 Mbit/s
  95th percentile per-packet one-way delay: 63.647 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 71.69 Mbit/s
  95th percentile per-packet one-way delay: 63.649 ms
  Loss rate: 0.01%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

End at: 2018-04-18 23:23:06

# Below is generated by plot.py at 2018-04-19 03:46:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.83 Mbit/s
95th percentile per-packet one-way delay: 63.656 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.13 Mbit/s
95th percentile per-packet one-way delay: 63.649 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 73.29 Mbit/s
95th percentile per-packet one-way delay: 63.641 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 56.88 Mbit/s
95th percentile per-packet one-way delay: 63.698 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link
Run 6: Statistics of Copa

End at: 2018-04-18 23:38:50

# Below is generated by plot.py at 2018-04-19 03:46:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.38 Mbit/s
95th percentile per-packet one-way delay: 63.601 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.43 Mbit/s
95th percentile per-packet one-way delay: 63.651 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 73.63 Mbit/s
95th percentile per-packet one-way delay: 63.475 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.02 Mbit/s
95th percentile per-packet one-way delay: 62.024 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link
Run 7: Statistics of Copa

End at: 2018-04-18 23:54:25

# Below is generated by plot.py at 2018-04-19 03:48:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.54 Mbit/s
95th percentile per-packet one-way delay: 63.743 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.61 Mbit/s
95th percentile per-packet one-way delay: 63.639 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.91 Mbit/s
95th percentile per-packet one-way delay: 63.810 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 62.47 Mbit/s
95th percentile per-packet one-way delay: 63.699 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-04-19 00:09:41
End at: 2018-04-19 00:10:11

# Below is generated by plot.py at 2018-04-19 03:48:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.03 Mbit/s
95th percentile per-packet one-way delay: 63.806 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.18 Mbit/s
95th percentile per-packet one-way delay: 63.825 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.85 Mbit/s
95th percentile per-packet one-way delay: 63.800 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.41 Mbit/s
95th percentile per-packet one-way delay: 63.676 ms
Loss rate: 0.01%
Run 8: Report of Copa — Data Link

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

- Flow 1 ingress (mean 70.18 Mbps)
- Flow 1 egress (mean 70.18 Mbps)
- Flow 2 ingress (mean 63.86 Mbps)
- Flow 2 egress (mean 63.85 Mbps)
- Flow 3 ingress (mean 73.41 Mbps)
- Flow 3 egress (mean 73.41 Mbps)

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

- Flow 1 (95th percentile 63.83 ms)
- Flow 2 (95th percentile 63.80 ms)
- Flow 3 (95th percentile 63.68 ms)
Run 9: Statistics of Copa

Start at: 2018-04-19 00:25:15
End at: 2018-04-19 00:25:45

# Below is generated by plot.py at 2018-04-19 03:48:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 131.06 Mbit/s
  95th percentile per-packet one-way delay: 63.794 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 59.99 Mbit/s
  95th percentile per-packet one-way delay: 63.832 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 72.51 Mbit/s
  95th percentile per-packet one-way delay: 63.717 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 68.77 Mbit/s
  95th percentile per-packet one-way delay: 63.749 ms
  Loss rate: 0.00%
Run 9: Report of Copa — Data Link

[Graph showing throughput and packet delay over time for different flows. The graphs depict multiple lines representing different flows, each with a different mean throughput and packet delay.]
Run 10: Statistics of Copa

Start at: 2018-04-19 00:40:41
End at: 2018-04-19 00:41:11

# Below is generated by plot.py at 2018-04-19 03:50:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 145.12 Mbit/s
  95th percentile per-packet one-way delay: 63.735 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 82.95 Mbit/s
  95th percentile per-packet one-way delay: 63.665 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 66.55 Mbit/s
  95th percentile per-packet one-way delay: 63.768 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 53.87 Mbit/s
  95th percentile per-packet one-way delay: 63.914 ms
  Loss rate: 0.00%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

End at: 2018-04-18 22:30:20

# Below is generated by plot.py at 2018-04-19 04:11:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1213.67 Mbit/s
  95th percentile per-packet one-way delay: 301.428 ms
  Loss rate: 6.11%
-- Flow 1:
  Average throughput: 629.34 Mbit/s
  95th percentile per-packet one-way delay: 292.860 ms
  Loss rate: 2.88%
-- Flow 2:
  Average throughput: 650.74 Mbit/s
  95th percentile per-packet one-way delay: 315.382 ms
  Loss rate: 7.87%
-- Flow 3:
  Average throughput: 450.33 Mbit/s
  95th percentile per-packet one-way delay: 221.006 ms
  Loss rate: 13.42%
Run 1: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 647.96 Mbit/s)
- Flow 1 Egress (mean 629.54 Mbit/s)
- Flow 2 Ingress (mean 706.33 Mbit/s)
- Flow 2 Egress (mean 650.74 Mbit/s)
- Flow 3 Ingress (mean 520.02 Mbit/s)
- Flow 3 Egress (mean 450.33 Mbit/s)

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

- Flow 1 (95th percentile 292.96 ms)
- Flow 2 (95th percentile 315.38 ms)
- Flow 3 (95th percentile 221.01 ms)
Run 2: Statistics of FillP

Start at: 2018-04-18 22:45:32
End at: 2018-04-18 22:46:02

# Below is generated by plot.py at 2018-04-19 04:11:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1241.05 Mbit/s
  95th percentile per-packet one-way delay: 240.752 ms
  Loss rate: 7.31%
-- Flow 1:
  Average throughput: 661.33 Mbit/s
  95th percentile per-packet one-way delay: 283.742 ms
  Loss rate: 7.16%
-- Flow 2:
  Average throughput: 598.51 Mbit/s
  95th percentile per-packet one-way delay: 199.846 ms
  Loss rate: 7.25%
-- Flow 3:
  Average throughput: 552.46 Mbit/s
  95th percentile per-packet one-way delay: 202.585 ms
  Loss rate: 7.96%
Run 2: Report of FillP — Data Link

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

Start at: 2018-04-18 23:01:18
End at: 2018-04-18 23:01:48

# Below is generated by plot.py at 2018-04-19 04:11:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1165.21 Mbit/s
95th percentile per-packet one-way delay: 289.524 ms
Loss rate: 3.58%
-- Flow 1:
Average throughput: 658.97 Mbit/s
95th percentile per-packet one-way delay: 256.494 ms
Loss rate: 3.48%
-- Flow 2:
Average throughput: 637.35 Mbit/s
95th percentile per-packet one-way delay: 313.966 ms
Loss rate: 3.28%
-- Flow 3:
Average throughput: 248.30 Mbit/s
95th percentile per-packet one-way delay: 199.600 ms
Loss rate: 5.85%
Run 3: Report of FillP — Data Link

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

- Flow 1 ingress (mean 682.77 Mbit/s)
- Flow 1 egress (mean 658.97 Mbit/s)
- Flow 2 ingress (mean 659.00 Mbit/s)
- Flow 2 egress (mean 637.35 Mbit/s)
- Flow 3 ingress (mean 263.75 Mbit/s)
- Flow 3 egress (mean 248.30 Mbit/s)

![Graph 2: Per-packet time vs Time](image2)

- Flow 1 (95th percentile 256.49 ms)
- Flow 2 (95th percentile 313.97 ms)
- Flow 3 (95th percentile 199.60 ms)
Run 4: Statistics of FillP

Start at: 2018-04-18 23:16:54
End at: 2018-04-18 23:17:24

# Below is generated by plot.py at 2018-04-19 04:11:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1175.60 Mbit/s
95th percentile per-packet one-way delay: 254.535 ms
Loss rate: 3.79%
-- Flow 1:
Average throughput: 575.85 Mbit/s
95th percentile per-packet one-way delay: 272.825 ms
Loss rate: 4.53%
-- Flow 2:
Average throughput: 624.81 Mbit/s
95th percentile per-packet one-way delay: 230.738 ms
Loss rate: 2.18%
-- Flow 3:
Average throughput: 557.05 Mbit/s
95th percentile per-packet one-way delay: 196.803 ms
Loss rate: 4.98%
Run 4: Report of FillP — Data Link

[Graph showing throughput over time for different flows with annotations for mean ingress and egress rates.]

[Graph showing per-packet one-way delay over time for different flows with annotations for 95th percentile delay.]
Run 5: Statistics of FillP

End at: 2018-04-18 23:32:59

# Below is generated by plot.py at 2018-04-19 04:13:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1235.01 Mbit/s
95th percentile per-packet one-way delay: 191.718 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 658.15 Mbit/s
95th percentile per-packet one-way delay: 184.171 ms
Loss rate: 2.63%
-- Flow 2:
Average throughput: 572.16 Mbit/s
95th percentile per-packet one-way delay: 209.083 ms
Loss rate: 6.28%
-- Flow 3:
Average throughput: 592.04 Mbit/s
95th percentile per-packet one-way delay: 173.858 ms
Loss rate: 3.15%
Run 5: Report of FillP — Data Link

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

- Flow 1 (ingress mean 675.95 Mbit/s) vs Flow 1 (egress mean 658.35 Mbit/s)
- Flow 2 (ingress mean 610.59 Mbit/s) vs Flow 2 (egress mean 572.16 Mbit/s)
- Flow 3 (ingress mean 611.31 Mbit/s) vs Flow 3 (egress mean 592.04 Mbit/s)

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

- Flow 1 (95th percentile 184.17 ms)
- Flow 2 (95th percentile 209.08 ms)
- Flow 3 (95th percentile 173.86 ms)
Run 6: Statistics of FillP


# Below is generated by plot.py at 2018-04-19 04:14:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1227.57 Mbit/s
  95th percentile per-packet one-way delay: 263.022 ms
  Loss rate: 7.81%
-- Flow 1:
  Average throughput: 676.37 Mbit/s
  95th percentile per-packet one-way delay: 274.180 ms
  Loss rate: 6.82%
-- Flow 2:
  Average throughput: 565.66 Mbit/s
  95th percentile per-packet one-way delay: 239.728 ms
  Loss rate: 8.14%
-- Flow 3:
  Average throughput: 526.49 Mbit/s
  95th percentile per-packet one-way delay: 268.067 ms
  Loss rate: 10.75%
Run 6: Report of FillP — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 725.95 Mbps) — Flow 1 egress (mean 676.37 Mbps)
Flow 2 ingress (mean 615.81 Mbps) — Flow 2 egress (mean 565.66 Mbps)
Flow 3 ingress (mean 589.91 Mbps) — Flow 3 egress (mean 526.49 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 274.18 ms) — Flow 2 (95th percentile 239.73 ms) — Flow 3 (95th percentile 268.07 ms)
Run 7: Statistics of FillP

Start at: 2018-04-19 00:03:53
End at: 2018-04-19 00:04:23

# Below is generated by plot.py at 2018-04-19 04:14:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1212.20 Mbit/s
95th percentile per-packet one-way delay: 208.635 ms
Loss rate: 6.97%
-- Flow 1:
Average throughput: 642.82 Mbit/s
95th percentile per-packet one-way delay: 188.880 ms
Loss rate: 4.18%
-- Flow 2:
Average throughput: 586.00 Mbit/s
95th percentile per-packet one-way delay: 225.008 ms
Loss rate: 10.77%
-- Flow 3:
Average throughput: 543.54 Mbit/s
95th percentile per-packet one-way delay: 244.884 ms
Loss rate: 8.04%
Run 7: Report of FillP — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows with various metrics and percentiles indicated]
Run 8: Statistics of FillP

Start at: 2018-04-19 00:19:36
End at: 2018-04-19 00:20:06

# Below is generated by plot.py at 2018-04-19 04:14:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1152.05 Mbit/s
  95th percentile per-packet one-way delay: 279.715 ms
  Loss rate: 7.12%
-- Flow 1:
  Average throughput: 547.81 Mbit/s
  95th percentile per-packet one-way delay: 302.635 ms
  Loss rate: 9.19%
-- Flow 2:
  Average throughput: 658.97 Mbit/s
  95th percentile per-packet one-way delay: 160.931 ms
  Loss rate: 1.19%
-- Flow 3:
  Average throughput: 501.27 Mbit/s
  95th percentile per-packet one-way delay: 221.643 ms
  Loss rate: 14.28%
Run 8: Report of FillP — Data Link

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

Throughput (Mbps):
- Flow 1 Ingress (mean 605.25 Mbps)
- Flow 1 Egress (mean 547.81 Mbps)
- Flow 2 Ingress (mean 666.87 Mbps)
- Flow 2 Egress (mean 658.93 Mbps)
- Flow 3 Ingress (mean 584.72 Mbps)
- Flow 3 Egress (mean 501.27 Mbps)

Delay (ms):
- Flow 1 (95th percentile 302.63 ms)
- Flow 2 (95th percentile 160.93 ms)
- Flow 3 (95th percentile 221.64 ms)
Run 9: Statistics of FillP

Start at: 2018-04-19 00:35:01
End at: 2018-04-19 00:35:31

# Below is generated by plot.py at 2018-04-19 04:34:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1147.85 Mbit/s
95th percentile per-packet one-way delay: 265.870 ms
Loss rate: 3.52%
-- Flow 1:
Average throughput: 539.91 Mbit/s
95th percentile per-packet one-way delay: 294.817 ms
Loss rate: 4.12%
-- Flow 2:
Average throughput: 637.49 Mbit/s
95th percentile per-packet one-way delay: 214.305 ms
Loss rate: 3.04%
-- Flow 3:
Average throughput: 558.32 Mbit/s
95th percentile per-packet one-way delay: 182.170 ms
Loss rate: 2.85%
Run 9: Report of FillP — Data Link

![Throughput vs Time Graph]

![Packet Delay vs Time Graph]

*Flow 1 Ingress (mean 563.09 Mbit/s)*
*Flow 1 Egress (mean 559.91 Mbit/s)*
*Flow 2 Ingress (mean 657.47 Mbit/s)*
*Flow 2 Egress (mean 637.49 Mbit/s)*
*Flow 3 Ingress (mean 574.70 Mbit/s)*
*Flow 3 Egress (mean 558.32 Mbit/s)*

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Run 10: Statistics of FillP

Start at: 2018-04-19 00:50:27
End at: 2018-04-19 00:50:57

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1182.47 Mbit/s
  95th percentile per-packet one-way delay: 225.889 ms
  Loss rate: 4.44%
-- Flow 1:
  Average throughput: 634.56 Mbit/s
  95th percentile per-packet one-way delay: 235.977 ms
  Loss rate: 4.65%
-- Flow 2:
  Average throughput: 557.57 Mbit/s
  95th percentile per-packet one-way delay: 196.848 ms
  Loss rate: 2.39%
-- Flow 3:
  Average throughput: 532.61 Mbit/s
  95th percentile per-packet one-way delay: 228.203 ms
  Loss rate: 7.80%
Run 10: Report of FillP — Data Link
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-18 22:17:29
End at: 2018-04-18 22:17:59

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.87 Mbit/s
95th percentile per-packet one-way delay: 87.468 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 113.88 Mbit/s
95th percentile per-packet one-way delay: 86.846 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 158.32 Mbit/s
95th percentile per-packet one-way delay: 87.079 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 80.31 Mbit/s
95th percentile per-packet one-way delay: 90.583 ms
Loss rate: 0.04%
Run 1: Report of Indigo-1-32 — Data Link

**Throughput Graph**

- **Flow 1 ingress** (mean 113.92 Mbit/s)
- **Flow 1 egress** (mean 113.88 Mbit/s)
- **Flow 2 ingress** (mean 158.39 Mbit/s)
- **Flow 2 egress** (mean 158.32 Mbit/s)
- **Flow 3 ingress** (mean 80.35 Mbit/s)
- **Flow 3 egress** (mean 80.31 Mbit/s)

**Per-packet one-way delay Graph**

- **Flow 1** (95th percentile 86.85 ms)
- **Flow 2** (95th percentile 87.08 ms)
- **Flow 3** (95th percentile 90.58 ms)
Run 2: Statistics of Indigo-1-32


# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 316.86 Mbit/s
  95th percentile per-packet one-way delay: 93.697 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 178.87 Mbit/s
  95th percentile per-packet one-way delay: 88.571 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 154.01 Mbit/s
  95th percentile per-packet one-way delay: 94.504 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 110.81 Mbit/s
  95th percentile per-packet one-way delay: 97.860 ms
  Loss rate: 0.02%
Run 2: Report of Indigo-1-32 — Data Link

![Graph showing network data analysis results for Run 2.](image-url)
Run 3: Statistics of Indigo-1-32


# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 303.48 Mbit/s
  95th percentile per-packet one-way delay: 79.463 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 170.19 Mbit/s
  95th percentile per-packet one-way delay: 77.402 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 149.39 Mbit/s
  95th percentile per-packet one-way delay: 79.487 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 107.77 Mbit/s
  95th percentile per-packet one-way delay: 81.719 ms
  Loss rate: 0.01%
Run 3: Report of Indigo-1-32 — Data Link

![Graph]

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 170.20 Mbit/s)
Flow 1 egress (mean 170.19 Mbit/s)
Flow 2 ingress (mean 149.41 Mbit/s)
Flow 2 egress (mean 149.39 Mbit/s)
Flow 3 ingress (mean 107.75 Mbit/s)
Flow 3 egress (mean 107.77 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 77.40 ms)
Flow 2 (95th percentile 79.49 ms)
Flow 3 (95th percentile 81.72 ms)

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Run 4: Statistics of Indigo-1-32

Start at: 2018-04-18 23:04:23
End at: 2018-04-18 23:04:53

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 297.67 Mbit/s
  95th percentile per-packet one-way delay: 85.460 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 165.36 Mbit/s
  95th percentile per-packet one-way delay: 81.121 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 149.53 Mbit/s
  95th percentile per-packet one-way delay: 86.731 ms
  Loss rate: 0.13%
-- Flow 3:
  Average throughput: 103.56 Mbit/s
  95th percentile per-packet one-way delay: 94.439 ms
  Loss rate: 0.16%
Run 4: Report of Indigo-1-32 — Data Link
Run 5: Statistics of Indigo-1-32

Start at: 2018-04-18 23:19:56
End at: 2018-04-18 23:20:26

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 309.41 Mbit/s
  95th percentile per-packet one-way delay: 81.819 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 179.48 Mbit/s
  95th percentile per-packet one-way delay: 78.282 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 145.41 Mbit/s
  95th percentile per-packet one-way delay: 82.848 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 104.14 Mbit/s
  95th percentile per-packet one-way delay: 86.829 ms
  Loss rate: 0.00%
Run 5: Report of Indigo-1-32 — Data Link
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-18 23:35:41
End at: 2018-04-18 23:36:11

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 302.47 Mbit/s
  95th percentile per-packet one-way delay: 85.838 ms
  Loss rate: 0.09%
-- Flow 1:
  Average throughput: 161.68 Mbit/s
  95th percentile per-packet one-way delay: 81.901 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 147.86 Mbit/s
  95th percentile per-packet one-way delay: 85.397 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 134.03 Mbit/s
  95th percentile per-packet one-way delay: 92.624 ms
  Loss rate: 0.17%
Run 6: Report of Indigo-1-32 — Data Link
Run 7: Statistics of Indigo-1-32

End at: 2018-04-18 23:51:44

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 306.82 Mbit/s
95th percentile per-packet one-way delay: 104.257 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 165.70 Mbit/s
95th percentile per-packet one-way delay: 98.065 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 150.65 Mbit/s
95th percentile per-packet one-way delay: 105.718 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 127.66 Mbit/s
95th percentile per-packet one-way delay: 113.127 ms
Loss rate: 0.05%
Run 7: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 165.74 Mbit/s)
- Flow 1 egress (mean 165.70 Mbit/s)
- Flow 2 ingress (mean 150.71 Mbit/s)
- Flow 2 egress (mean 150.65 Mbit/s)
- Flow 3 ingress (mean 127.79 Mbit/s)
- Flow 3 egress (mean 127.66 Mbit/s)
Run 8: Statistics of Indigo-1-32

Start at: 2018-04-19 00:07:02
End at: 2018-04-19 00:07:32

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
   -- Total of 3 flows:
      Average throughput: 295.87 Mbit/s
      95th percentile per-packet one-way delay: 89.078 ms
      Loss rate: 0.05%
   -- Flow 1:
      Average throughput: 162.61 Mbit/s
      95th percentile per-packet one-way delay: 86.511 ms
      Loss rate: 0.03%
   -- Flow 2:
      Average throughput: 138.66 Mbit/s
      95th percentile per-packet one-way delay: 88.934 ms
      Loss rate: 0.07%
   -- Flow 3:
      Average throughput: 128.83 Mbit/s
      95th percentile per-packet one-way delay: 92.736 ms
      Loss rate: 0.08%
Run 8: Report of Indigo-1-32 — Data Link

![Graph showing Throughput and Per-packet end-to-end delay over time for flows 1, 2, and 3.]
Run 9: Statistics of Indigo-1-32

Start at: 2018-04-19 00:22:35
End at: 2018-04-19 00:23:05

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 308.72 Mbit/s
95th percentile per-packet one-way delay: 84.736 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 183.05 Mbit/s
95th percentile per-packet one-way delay: 80.563 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 153.99 Mbit/s
95th percentile per-packet one-way delay: 85.143 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 73.43 Mbit/s
95th percentile per-packet one-way delay: 96.260 ms
Loss rate: 0.09%
Run 10: Statistics of Indigo-1-32

Start at: 2018-04-19 00:38:00
End at: 2018-04-19 00:38:30

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 318.64 Mbit/s
  95th percentile per-packet one-way delay: 86.100 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 178.05 Mbit/s
  95th percentile per-packet one-way delay: 82.197 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 148.78 Mbit/s
  95th percentile per-packet one-way delay: 86.946 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 129.99 Mbit/s
  95th percentile per-packet one-way delay: 90.784 ms
  Loss rate: 0.02%
Run 10: Report of Indigo-1-32 — Data Link

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

- **Flow 1** (mean 178.06 Mbps)
- **Flow 2** (mean 148.79 Mbps)
- **Flow 3** (mean 130.81 Mbps)

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

- **Flow 1** (95th percentile 82.20 ms)
- **Flow 2** (95th percentile 86.95 ms)
- **Flow 3** (95th percentile 90.78 ms)
Run 1: Statistics of PCC-Vivace


# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 398.22 Mbit/s
  95th percentile per-packet one-way delay: 88.605 ms
  Loss rate: 1.58%
-- Flow 1:
  Average throughput: 209.19 Mbit/s
  95th percentile per-packet one-way delay: 213.219 ms
  Loss rate: 2.90%
-- Flow 2:
  Average throughput: 203.06 Mbit/s
  95th percentile per-packet one-way delay: 65.664 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 162.56 Mbit/s
  95th percentile per-packet one-way delay: 100.449 ms
  Loss rate: 0.04%
Run 1: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 215.43 Mbit/s)
- Flow 1 egress (mean 209.19 Mbit/s)
- Flow 2 ingress (mean 203.18 Mbit/s)
- Flow 2 egress (mean 203.06 Mbit/s)
- Flow 3 ingress (mean 162.57 Mbit/s)
- Flow 3 egress (mean 162.56 Mbit/s)
Run 2: Statistics of PCC-Vivace


# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 430.70 Mbit/s
  95th percentile per-packet one-way delay: 65.215 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 243.64 Mbit/s
  95th percentile per-packet one-way delay: 65.462 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 268.01 Mbit/s
  95th percentile per-packet one-way delay: 64.737 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 27.14 Mbit/s
  95th percentile per-packet one-way delay: 64.076 ms
  Loss rate: 0.00%
Run 2: Report of PCC-Vivace — Data Link

![Graph showing data link performance](image)

- Throughput in Mbit/s
- Time in seconds
- Graphs for different flows with specified means and percentiles

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Run 3: Statistics of PCC-Vivace

Start at: 2018-04-18 22:53:03

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 469.81 Mbit/s
  95th percentile per-packet one-way delay: 142.043 ms
  Loss rate: 0.22%
-- Flow 1:
  Average throughput: 271.46 Mbit/s
  95th percentile per-packet one-way delay: 164.021 ms
  Loss rate: 0.36%
-- Flow 2:
  Average throughput: 216.40 Mbit/s
  95th percentile per-packet one-way delay: 70.514 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 165.96 Mbit/s
  95th percentile per-packet one-way delay: 66.202 ms
  Loss rate: 0.05%
Run 3: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 272.46 Mbit/s)
- Flow 2 ingress (mean 216.39 Mbit/s)
- Flow 3 ingress (mean 166.15 Mbit/s)
- Flow 1 egress (mean 271.46 Mbit/s)
- Flow 2 egress (mean 216.40 Mbit/s)
- Flow 3 egress (mean 165.96 Mbit/s)

- Flow 1 (95th percentile 164.02 ms)
- Flow 2 (95th percentile 70.51 ms)
- Flow 3 (95th percentile 66.20 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2018-04-18 23:08:38
End at: 2018-04-18 23:09:08

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 432.47 Mbit/s
95th percentile per-packet one-way delay: 96.281 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 238.01 Mbit/s
95th percentile per-packet one-way delay: 81.687 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 214.70 Mbit/s
95th percentile per-packet one-way delay: 90.718 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 157.48 Mbit/s
95th percentile per-packet one-way delay: 165.276 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 238.01 Mbit/s)  
Flow 1 egress (mean 238.01 Mbit/s)  
Flow 2 ingress (mean 214.71 Mbit/s)  
Flow 2 egress (mean 214.70 Mbit/s)  
Flow 3 ingress (mean 157.47 Mbit/s)  
Flow 3 egress (mean 157.48 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 81.69 ms)  
Flow 2 (95th percentile 90.72 ms)  
Flow 3 (95th percentile 165.28 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2018-04-18 23:24:12
End at: 2018-04-18 23:24:42

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.71 Mbit/s
95th percentile per-packet one-way delay: 128.615 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 206.61 Mbit/s
95th percentile per-packet one-way delay: 64.791 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 201.47 Mbit/s
95th percentile per-packet one-way delay: 150.221 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 173.50 Mbit/s
95th percentile per-packet one-way delay: 134.091 ms
Loss rate: 0.00%
Run 5: Report of PCC-Vivace — Data Link

![Throughput graph](image)

![Delay graph](image)

Flow 1 ingress (mean 206.60 Mbit/s)  
Flow 1 egress (mean 206.61 Mbit/s)  
Flow 2 ingress (mean 201.47 Mbit/s)  
Flow 2 egress (mean 201.47 Mbit/s)  
Flow 3 ingress (mean 173.48 Mbit/s)  
Flow 3 egress (mean 173.59 Mbit/s)  

Flow 1 (95th percentile 64.79 ms)  
Flow 2 (95th percentile 150.22 ms)  
Flow 3 (95th percentile 134.09 ms)
Run 6: Statistics of PCC-Vivace

End at: 2018-04-18 23:40:26

# Below is generated by plot.py at 2018-04-19 04:34:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 407.98 Mbit/s
95th percentile per-packet one-way delay: 83.732 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 199.83 Mbit/s
95th percentile per-packet one-way delay: 108.651 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 239.83 Mbit/s
95th percentile per-packet one-way delay: 82.733 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 148.21 Mbit/s
95th percentile per-packet one-way delay: 68.600 ms
Loss rate: 0.00%
Run 6: Report of PCC-Vivace — Data Link
Run 7: Statistics of PCC-Vivace

End at: 2018-04-18 23:56:01

# Below is generated by plot.py at 2018-04-19 04:35:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 426.81 Mbit/s
95th percentile per-packet one-way delay: 76.094 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 223.23 Mbit/s
95th percentile per-packet one-way delay: 74.812 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 214.52 Mbit/s
95th percentile per-packet one-way delay: 106.893 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 185.52 Mbit/s
95th percentile per-packet one-way delay: 84.880 ms
Loss rate: 0.06%
Run 7: Report of PCC-Vivace — Data Link
Run 8: Statistics of PCC-Vivace

Start at: 2018-04-19 00:11:16
End at: 2018-04-19 00:11:46

# Below is generated by plot.py at 2018-04-19 04:35:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 416.21 Mbit/s
  95th percentile per-packet one-way delay: 67.273 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 223.51 Mbit/s
  95th percentile per-packet one-way delay: 66.352 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 212.78 Mbit/s
  95th percentile per-packet one-way delay: 67.358 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 155.69 Mbit/s
  95th percentile per-packet one-way delay: 103.040 ms
  Loss rate: 0.00%
Run 8: Report of PCC-Vivace — Data Link
Run 9: Statistics of PCC-Vivace

Start at: 2018-04-19 00:26:51
End at: 2018-04-19 00:27:21

# Below is generated by plot.py at 2018-04-19 04:36:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 378.20 Mbit/s
95th percentile per-packet one-way delay: 87.038 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 167.67 Mbit/s
95th percentile per-packet one-way delay: 64.799 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 237.21 Mbit/s
95th percentile per-packet one-way delay: 92.650 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 160.65 Mbit/s
95th percentile per-packet one-way delay: 176.098 ms
Loss rate: 0.11%
Run 9: Report of PCC-Vivace — Data Link
Run 10: Statistics of PCC-Vivace

Start at: 2018-04-19 00:42:17
End at: 2018-04-19 00:42:47

# Below is generated by plot.py at 2018-04-19 04:36:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 338.02 Mbit/s
  95th percentile per-packet one-way delay: 76.042 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 181.08 Mbit/s
  95th percentile per-packet one-way delay: 66.546 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 191.88 Mbit/s
  95th percentile per-packet one-way delay: 113.667 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 89.23 Mbit/s
  95th percentile per-packet one-way delay: 62.507 ms
  Loss rate: 0.00%
Run 10: Report of PCC-Vivace — Data Link
Run 1: Statistics of PCC-Expr

Run 1: Report of PCC-Expr — Data Link

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Run 2: Statistics of PCC-Expr

Run 2: Report of PCC-Expr — Data Link

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Run 3: Statistics of PCC-Expr

Run 3: Report of PCC-Expr — Data Link

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Run 4: Statistics of PCC-Expr

Start at: 2018-04-18 23:10:41
End at: 2018-04-18 23:11:11
Run 4: Report of PCC-Expr — Data Link

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Run 5: Statistics of PCC-Expr

Start at: 2018-04-18 23:26:15
End at: 2018-04-18 23:26:45
Run 5: Report of PCC-Expr — Data Link

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Run 6: Statistics of PCC-Expr

Run 6: Report of PCC-Expr — Data Link

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Figure is missing
Run 7: Statistics of PCC-Expr

End at: 2018-04-18 23:58:06
Run 7: Report of PCC-Expr — Data Link

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Run 8: Statistics of PCC-Expr

Start at: 2018-04-19 00:13:19
End at: 2018-04-19 00:13:49
Run 8: Report of PCC-Expr — Data Link

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Run 9: Statistics of PCC-Expr

Start at: 2018-04-19 00:28:47
End at: 2018-04-19 00:29:18
Run 9: Report of PCC-Expr — Data Link

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Figure is missing
Run 10: Statistics of PCC-Expr

Start at: 2018-04-19 00:44:12
End at: 2018-04-19 00:44:42
Run 10: Report of PCC-Expr — Data Link

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