Pantheon Report

Generated at 2018-03-14 07:03:21 (UTC).
Data path: GCE London Ethernet (local) → GCE Tokyo Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).

Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagram/sender.cc
third_party/fillp @ 828bbf95fd4941149b5ce90f281d69ae1a5c6
third_party/genericCC @ 9249ee3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b20060d39e4da2e8987e893e3e6a26c7d0ab9
  third_party/indigo-1-layer-128-unit @ 3ae9e4e4230db748501f82ce8b37765f2f66d
  third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe09ecdfb90c077e64d
  third_party/indigo-1-layer-32-unit-no-cali @ 1f3af7f541135ed5b540c0fd350593528e2a5f
  third_party/indigo-no-calib @ 7224f22f02b8a047d30307b983ad84360c53d89
third_party/koho.cc @ f0f2e693303ae82e8e6928eac4f1083a681
  M datagram/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6b7cf33c
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db2674ccfcff93
third_party/pcc @ 1afcf958fa0d66d18e623c091a55f6ec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
third_party/proto-quic @ 77961f1a8273386b42f1bc8143ebc978f3c4f42
third_party/scream @ c3370fd7bd17265a79abe34e016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61ebeeb302b267e4d781
third_party/sprout @ 6f2fe6e6088d91066a9f203df3750ee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutcomm.cc
third_party/verus @ d4b447ea74c6c60a261149af262956259f9a494
  M src/verus.hpp
third_party/vivace @ 7a4ba531e75b4a6f665f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad34825f42
test from GCE London Ethernet to GCE Tokyo Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<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>
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<td>flow 2</td>
<td>flow 3</td>
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<td>96.33</td>
<td>94.65</td>
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<td>71.10</td>
<td>50.69</td>
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<td>Vivace-LTE</td>
<td>10</td>
<td>307.10</td>
<td>216.71</td>
<td>142.42</td>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2018-03-13 23:54:07
End at: 2018-03-13 23:54:37

# Below is generated by plot.py at 2018-03-14 05:08:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 187.28 Mbit/s
  95th percentile per-packet one-way delay: 114.470 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 92.70 Mbit/s
  95th percentile per-packet one-way delay: 111.868 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 97.49 Mbit/s
  95th percentile per-packet one-way delay: 115.558 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 89.84 Mbit/s
  95th percentile per-packet one-way delay: 116.475 ms
  Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-03-14 00:13:39  
End at: 2018-03-14 00:14:09

# Below is generated by plot.py at 2018-03-14 05:08:16  
# Datalink statistics
-- Total of 3 flows:  
Average throughput: 189.06 Mbit/s  
95th percentile per-packet one-way delay: 112.045 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 98.47 Mbit/s  
95th percentile per-packet one-way delay: 111.247 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 92.63 Mbit/s  
95th percentile per-packet one-way delay: 111.501 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 88.97 Mbit/s  
95th percentile per-packet one-way delay: 114.540 ms  
Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link

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

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

Legend:
- Flow 1 ingress (mean 98.47 Mbit/s)
- Flow 1 egress (mean 98.47 Mbit/s)
- Flow 2 ingress (mean 92.62 Mbit/s)
- Flow 2 egress (mean 92.63 Mbit/s)
- Flow 3 ingress (mean 98.94 Mbit/s)
- Flow 3 egress (mean 98.97 Mbit/s)

Legend:
- Flow 1 (95th percentile 111.25 ms)
- Flow 2 (95th percentile 111.50 ms)
- Flow 3 (95th percentile 114.54 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-03-14 00:32:59  
End at: 2018-03-14 00:33:29

# Below is generated by plot.py at 2018-03-14 05:08:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 186.69 Mbit/s
95th percentile per-packet one-way delay: 113.002 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 94.02 Mbit/s
95th percentile per-packet one-way delay: 112.668 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 95.25 Mbit/s
95th percentile per-packet one-way delay: 114.399 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 88.38 Mbit/s
95th percentile per-packet one-way delay: 113.320 ms
Loss rate: 0.00%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-03-14 00:52:34
End at: 2018-03-14 00:53:04

# Below is generated by plot.py at 2018-03-14 05:08:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 195.48 Mbit/s
95th percentile per-packet one-way delay: 111.762 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 102.17 Mbit/s
95th percentile per-packet one-way delay: 111.817 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 97.98 Mbit/s
95th percentile per-packet one-way delay: 111.251 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.73 Mbit/s
95th percentile per-packet one-way delay: 110.924 ms
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link

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

[Graph: Per-packet one-way delay (ms) vs. Time (s)]
Run 5: Statistics of TCP BBR

Start at: 2018-03-14 01:11:48
End at: 2018-03-14 01:12:18

# Below is generated by plot.py at 2018-03-14 05:08:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 187.02 Mbit/s
  95th percentile per-packet one-way delay: 112.023 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 97.10 Mbit/s
  95th percentile per-packet one-way delay: 112.033 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 90.53 Mbit/s
  95th percentile per-packet one-way delay: 111.986 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 89.49 Mbit/s
  95th percentile per-packet one-way delay: 112.051 ms
  Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link

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

- **Throughput**
  - Flow 1 ingress (mean 97.10 Mbit/s)
  - Flow 1 egress (mean 97.10 Mbit/s)
  - Flow 2 ingress (mean 90.53 Mbit/s)
  - Flow 2 egress (mean 90.53 Mbit/s)
  - Flow 3 ingress (mean 89.49 Mbit/s)
  - Flow 3 egress (mean 89.49 Mbit/s)

- **Packet Delivery Delay**
  - Flow 1 (95th percentile 112.03 ms)
  - Flow 2 (95th percentile 111.99 ms)
  - Flow 3 (95th percentile 112.05 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-03-14 01:31:16
End at: 2018-03-14 01:31:46

# Below is generated by plot.py at 2018-03-14 05:08:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 189.17 Mbit/s
  95th percentile per-packet one-way delay: 113.010 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 98.34 Mbit/s
  95th percentile per-packet one-way delay: 113.034 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 96.49 Mbit/s
  95th percentile per-packet one-way delay: 112.940 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 80.78 Mbit/s
  95th percentile per-packet one-way delay: 113.162 ms
  Loss rate: 0.00%
Run 6: Report of TCP BBR — Data Link

![Graphs showing throughput and packet delay over time for different flows.]
Run 7: Statistics of TCP BBR

Start at: 2018-03-14 01:51:17
End at: 2018-03-14 01:51:47

# Below is generated by plot.py at 2018-03-14 05:08:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 185.84 Mbit/s  
  95th percentile per-packet one-way delay: 112.833 ms  
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 94.35 Mbit/s  
  95th percentile per-packet one-way delay: 112.667 ms  
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 93.02 Mbit/s  
  95th percentile per-packet one-way delay: 113.015 ms  
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 89.53 Mbit/s  
  95th percentile per-packet one-way delay: 113.222 ms  
  Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

![Graph showing throughput and per-packet one-way delay over time for flows 1, 2, and 3.]
Run 8: Statistics of TCP BBR

Start at: 2018-03-14 02:10:51
End at: 2018-03-14 02:11:21

# Below is generated by plot.py at 2018-03-14 05:08:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.46 Mbit/s
95th percentile per-packet one-way delay: 112.626 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 112.332 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 94.66 Mbit/s
95th percentile per-packet one-way delay: 112.586 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.29 Mbit/s
95th percentile per-packet one-way delay: 114.201 ms
Loss rate: 0.00%
Run 8: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 94.81 Mbit/s)
- Flow 1 egress (mean 94.81 Mbit/s)
- Flow 2 ingress (mean 94.66 Mbit/s)
- Flow 2 egress (mean 94.66 Mbit/s)
- Flow 3 ingress (mean 89.31 Mbit/s)
- Flow 3 egress (mean 89.29 Mbit/s)
Run 9: Statistics of TCP BBR

Start at: 2018-03-14 02:30:14
End at: 2018-03-14 02:30:44

# Below is generated by plot.py at 2018-03-14 05:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 186.70 Mbit/s
  95th percentile per-packet one-way delay: 110.280 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 95.51 Mbit/s
  95th percentile per-packet one-way delay: 110.133 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 92.40 Mbit/s
  95th percentile per-packet one-way delay: 110.208 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 90.02 Mbit/s
  95th percentile per-packet one-way delay: 110.885 ms
  Loss rate: 0.00%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-03-14 02:49:15
End at: 2018-03-14 02:49:45

# Below is generated by plot.py at 2018-03-14 05:11:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 188.42 Mbit/s
95th percentile per-packet one-way delay: 112.802 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.87 Mbit/s
95th percentile per-packet one-way delay: 112.704 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 96.05 Mbit/s
95th percentile per-packet one-way delay: 113.941 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 86.44 Mbit/s
95th percentile per-packet one-way delay: 112.528 ms
Loss rate: 0.00%
Run 10: Report of TCP BBR — Data Link

![Graph of Throughput and Per-packet one-way delay over time for different flows.](image_url)
Run 1: Statistics of TCP Cubic


# Below is generated by plot.py at 2018-03-14 05:11:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 157.66 Mbit/s
  95th percentile per-packet one-way delay: 124.204 ms
  Loss rate: 0.08%
-- Flow 1:
  Average throughput: 61.43 Mbit/s
  95th percentile per-packet one-way delay: 123.050 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 99.70 Mbit/s
  95th percentile per-packet one-way delay: 125.081 ms
  Loss rate: 0.08%
-- Flow 3:
  Average throughput: 90.75 Mbit/s
  95th percentile per-packet one-way delay: 124.648 ms
  Loss rate: 0.25%
Run 1: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 61.43 Mbit/s)
- Flow 1 egress (mean 61.43 Mbit/s)
- Flow 2 ingress (mean 99.78 Mbit/s)
- Flow 2 egress (mean 99.70 Mbit/s)
- Flow 3 ingress (mean 90.98 Mbit/s)
- Flow 3 egress (mean 90.75 Mbit/s)

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

- Flow 1 (95th percentile 123.05 ms)
- Flow 2 (95th percentile 125.08 ms)
- Flow 3 (95th percentile 124.65 ms)
Run 2: Statistics of TCP Cubic

Start at: 2018-03-14 00:07:10
End at: 2018-03-14 00:07:40

# Below is generated by plot.py at 2018-03-14 05:11:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 139.45 Mbit/s
  95th percentile per-packet one-way delay: 120.917 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 103.75 Mbit/s
  95th percentile per-packet one-way delay: 121.360 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 21.74 Mbit/s
  95th percentile per-packet one-way delay: 116.602 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 64.97 Mbit/s
  95th percentile per-packet one-way delay: 117.029 ms
  Loss rate: 0.00%
Run 2: Report of TCP Cubic — Data Link

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

**Throughput (Mbps)**
- Flow 1 ingress (mean 103.81 Mbps)
- Flow 1 egress (mean 103.75 Mbps)
- Flow 2 ingress (mean 21.73 Mbps)
- Flow 2 egress (mean 21.74 Mbps)
- Flow 3 ingress (mean 64.96 Mbps)
- Flow 3 egress (mean 64.97 Mbps)

**Packet delay (ms)**
- Flow 1 (95th percentile 121.36 ms)
- Flow 2 (95th percentile 116.60 ms)
- Flow 3 (95th percentile 117.03 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-03-14 00:26:25
End at: 2018-03-14 00:26:55

# Below is generated by plot.py at 2018-03-14 05:11:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 168.48 Mbit/s
95th percentile per-packet one-way delay: 119.883 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 78.85 Mbit/s
95th percentile per-packet one-way delay: 120.200 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 88.74 Mbit/s
95th percentile per-packet one-way delay: 114.782 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 92.56 Mbit/s
95th percentile per-packet one-way delay: 121.539 ms
Loss rate: 0.33%
Run 3: Report of TCP Cubic — Data Link

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

![Graph 2: Packet Delay vs. Time](image2)
Run 4: Statistics of TCP Cubic

Start at: 2018-03-14 00:46:21
End at: 2018-03-14 00:46:51

# Below is generated by plot.py at 2018-03-14 05:11:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 126.27 Mbit/s
  95th percentile per-packet one-way delay: 121.646 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 86.90 Mbit/s
  95th percentile per-packet one-way delay: 121.914 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 23.15 Mbit/s
  95th percentile per-packet one-way delay: 112.449 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 72.61 Mbit/s
  95th percentile per-packet one-way delay: 121.296 ms
  Loss rate: 0.00%
Run 5: Statistics of TCP Cubic

Start at: 2018-03-14 01:05:16
End at: 2018-03-14 01:05:46

# Below is generated by plot.py at 2018-03-14 05:11:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 184.52 Mbit/s
95th percentile per-packet one-way delay: 124.305 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 102.48 Mbit/s
95th percentile per-packet one-way delay: 124.983 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.47 Mbit/s
95th percentile per-packet one-way delay: 122.822 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 47.70 Mbit/s
95th percentile per-packet one-way delay: 126.003 ms
Loss rate: 0.00%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-03-14 01:24:50
End at: 2018-03-14 01:25:20

# Below is generated by plot.py at 2018-03-14 05:11:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 184.46 Mbit/s
95th percentile per-packet one-way delay: 122.519 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 99.91 Mbit/s
95th percentile per-packet one-way delay: 122.114 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.46 Mbit/s
95th percentile per-packet one-way delay: 122.594 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 58.50 Mbit/s
95th percentile per-packet one-way delay: 126.606 ms
Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-03-14 01:44:40
End at: 2018-03-14 01:45:10

# Below is generated by plot.py at 2018-03-14 05:13:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 167.73 Mbit/s
95th percentile per-packet one-way delay: 121.357 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.23 Mbit/s
95th percentile per-packet one-way delay: 121.819 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 97.69 Mbit/s
95th percentile per-packet one-way delay: 120.042 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 113.285 ms
Loss rate: 0.90%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-03-14 02:04:15
End at: 2018-03-14 02:04:45

# Below is generated by plot.py at 2018-03-14 05:13:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.90 Mbit/s
95th percentile per-packet one-way delay: 121.909 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 101.87 Mbit/s
95th percentile per-packet one-way delay: 122.040 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 25.68 Mbit/s
95th percentile per-packet one-way delay: 120.387 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 75.29 Mbit/s
95th percentile per-packet one-way delay: 121.725 ms
Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link

![Graph showing TCP Cubic data link performance with throughput and per-packet one-way delay metrics.]

- Throughput (Mbps):
  - Flow 1 ingress (mean 101.99 Mbps)
  - Flow 1 egress (mean 101.87 Mbps)
  - Flow 2 ingress (mean 25.09 Mbps)
  - Flow 2 egress (mean 25.68 Mbps)
  - Flow 3 ingress (mean 75.33 Mbps)
  - Flow 3 egress (mean 75.29 Mbps)

- Per-packet one-way delay (ms):
  - Flow 1 (95th percentile 122.04 ms)
  - Flow 2 (95th percentile 120.39 ms)
  - Flow 3 (95th percentile 121.72 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-03-14 02:23:45
End at: 2018-03-14 02:24:15

# Below is generated by plot.py at 2018-03-14 05:13:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 135.66 Mbit/s
95th percentile per-packet one-way delay: 121.687 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.57 Mbit/s
95th percentile per-packet one-way delay: 120.069 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.34 Mbit/s
95th percentile per-packet one-way delay: 122.504 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 113.951 ms
Loss rate: 0.92%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-03-14 02:42:49
End at: 2018-03-14 02:43:19

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 139.72 Mbit/s
  95th percentile per-packet one-way delay: 124.073 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 102.98 Mbit/s
  95th percentile per-packet one-way delay: 123.419 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 55.04 Mbit/s
  95th percentile per-packet one-way delay: 128.920 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.93 Mbit/s
  95th percentile per-packet one-way delay: 122.065 ms
  Loss rate: 0.37%
Run 10: Report of TCP Cubic — Data Link

---

[Graph showing network throughput and per-packet one-way delay over time with legend specifying mean values for each flow.]
Run 1: Statistics of LEDBAT

Start at: 2018-03-13 23:53:19
End at: 2018-03-13 23:53:49

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.88 Mbit/s
95th percentile per-packet one-way delay: 112.501 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 112.515 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.35 Mbit/s
95th percentile per-packet one-way delay: 112.517 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 112.135 ms
Loss rate: 0.00%
Run 2: Statistics of LEDBAT

Start at: 2018-03-14 00:12:52
End at: 2018-03-14 00:13:22

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 9.83 Mbit/s
  95th percentile per-packet one-way delay: 111.199 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.06 Mbit/s
  95th percentile per-packet one-way delay: 111.249 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.63 Mbit/s
  95th percentile per-packet one-way delay: 111.380 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.16 Mbit/s
  95th percentile per-packet one-way delay: 110.870 ms
  Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-03-14 00:32:12
End at: 2018-03-14 00:32:42

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.87 Mbit/s
  95th percentile per-packet one-way delay: 113.166 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.98 Mbit/s
  95th percentile per-packet one-way delay: 113.053 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.82 Mbit/s
  95th percentile per-packet one-way delay: 113.225 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.16 Mbit/s
  95th percentile per-packet one-way delay: 113.490 ms
  Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-03-14 00:51:46
End at: 2018-03-14 00:52:16

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.68 Mbit/s
95th percentile per-packet one-way delay: 113.005 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.14 Mbit/s
95th percentile per-packet one-way delay: 113.186 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.61 Mbit/s
95th percentile per-packet one-way delay: 112.922 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 112.190 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-03-14 01:11:00
End at: 2018-03-14 01:11:30

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.80 Mbit/s
  95th percentile per-packet one-way delay: 112.536 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.97 Mbit/s
  95th percentile per-packet one-way delay: 112.587 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.63 Mbit/s
  95th percentile per-packet one-way delay: 112.463 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 112.307 ms
  Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 6.97 Mbps)
Flow 1 egress (mean 6.97 Mbps)
Flow 2 ingress (mean 4.63 Mbps)
Flow 2 egress (mean 4.63 Mbps)
Flow 3 ingress (mean 2.34 Mbps)
Flow 3 egress (mean 2.34 Mbps)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 112.59 ms)
Flow 2 (95th percentile 112.46 ms)
Flow 3 (95th percentile 112.31 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-03-14 01:30:29
End at: 2018-03-14 01:30:59

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.40 Mbit/s
95th percentile per-packet one-way delay: 112.795 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.56 Mbit/s
95th percentile per-packet one-way delay: 112.822 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.68 Mbit/s
95th percentile per-packet one-way delay: 112.771 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 112.687 ms
Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)
Run 7: Statistics of LEDBAT

Start at: 2018-03-14 01:50:29
End at: 2018-03-14 01:50:59

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 9.82 Mbit/s
  95th percentile per-packet one-way delay: 112.403 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 5.92 Mbit/s
  95th percentile per-packet one-way delay: 112.468 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.84 Mbit/s
  95th percentile per-packet one-way delay: 112.235 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.16 Mbit/s
  95th percentile per-packet one-way delay: 110.547 ms
  Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-03-14 02:10:04
End at: 2018-03-14 02:10:34

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.77 Mbit/s
  95th percentile per-packet one-way delay: 113.633 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.97 Mbit/s
  95th percentile per-packet one-way delay: 113.678 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.66 Mbit/s
  95th percentile per-packet one-way delay: 113.503 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.18 Mbit/s
  95th percentile per-packet one-way delay: 113.312 ms
  Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

[Graphs showing throughput and packet delay over time for different flows, with annotations on mean rates and percentiles.]
Run 9: Statistics of LEDBAT

Start at: 2018-03-14 02:29:26
End at: 2018-03-14 02:29:56

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.91 Mbit/s
  95th percentile per-packet one-way delay: 113.456 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.09 Mbit/s
  95th percentile per-packet one-way delay: 113.629 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.70 Mbit/s
  95th percentile per-packet one-way delay: 113.236 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.24 Mbit/s
  95th percentile per-packet one-way delay: 113.102 ms
  Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link

![Graph 1: Throughput (Mbps) vs Time (s) for different flows.

- Flow 1 ingress (mean 7.09 Mbps)
- Flow 1 egress (mean 7.09 Mbps)
- Flow 2 ingress (mean 4.71 Mbps)
- Flow 2 egress (mean 4.70 Mbps)
- Flow 3 ingress (mean 2.24 Mbps)
- Flow 3 egress (mean 2.24 Mbps)

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

- Flow 1 (95th percentile 113.63 ms)
- Flow 2 (95th percentile 113.24 ms)
- Flow 3 (95th percentile 113.10 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-03-14 02:48:27
End at: 2018-03-14 02:48:57

# Below is generated by plot.py at 2018-03-14 05:13:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.84 Mbit/s
95th percentile per-packet one-way delay: 111.182 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.09 Mbit/s
95th percentile per-packet one-way delay: 111.215 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 111.077 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 110.939 ms
Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC

Start at: 2018-03-13 23:56:15
End at: 2018-03-13 23:56:45

# Below is generated by plot.py at 2018-03-14 05:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.37 Mbit/s
95th percentile per-packet one-way delay: 236.115 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 462.24 Mbit/s
95th percentile per-packet one-way delay: 261.096 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 123.77 Mbit/s
95th percentile per-packet one-way delay: 222.962 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 62.95 Mbit/s
95th percentile per-packet one-way delay: 222.641 ms
Loss rate: 0.51%
Run 1: Report of PCC — Data Link

Throughput (Mbps)

Time (s)

Flow 1 Ingress (mean 473.39 Mbps) — Flow 1 Egress (mean 173.77 Mbps)
Flow 2 Ingress (mean 125.51 Mbps) — Flow 2 Egress (mean 122.95 Mbps)
Flow 3 Ingress (mean 36.29 Mbps) — Flow 3 Egress (mean 62.95 Mbps)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 261.10 ms) — Flow 2 (95th percentile 222.96 ms) — Flow 3 (95th percentile 212.64 ms)
Run 2: Statistics of PCC

Start at: 2018-03-14 00:15:49
End at: 2018-03-14 00:16:19

# Below is generated by plot.py at 2018-03-14 05:21:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 554.18 Mbit/s
  95th percentile per-packet one-way delay: 305.910 ms
  Loss rate: 4.42%
-- Flow 1:
  Average throughput: 489.67 Mbit/s
  95th percentile per-packet one-way delay: 316.681 ms
  Loss rate: 4.76%
-- Flow 2:
  Average throughput: 65.97 Mbit/s
  95th percentile per-packet one-way delay: 224.243 ms
  Loss rate: 1.33%
-- Flow 3:
  Average throughput: 62.74 Mbit/s
  95th percentile per-packet one-way delay: 225.865 ms
  Loss rate: 2.73%
Run 2: Report of PCC — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 514.11 Mbit/s)
- Flow 1 egress (mean 489.67 Mbit/s)
- Flow 2 ingress (mean 66.55 Mbit/s)
- Flow 2 egress (mean 65.97 Mbit/s)
- Flow 3 ingress (mean 64.49 Mbit/s)
- Flow 3 egress (mean 62.74 Mbit/s)

![Delay Graph]

- Flow 1 (95th percentile 316.68 ms)
- Flow 2 (95th percentile 224.24 ms)
- Flow 3 (95th percentile 225.87 ms)
Run 3: Statistics of PCC

Start at: 2018-03-14 00:35:08
End at: 2018-03-14 00:35:38

# Below is generated by plot.py at 2018-03-14 05:21:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 551.03 Mbit/s
  95th percentile per-packet one-way delay: 238.860 ms
  Loss rate: 2.32%
-- Flow 1:
  Average throughput: 507.86 Mbit/s
  95th percentile per-packet one-way delay: 240.065 ms
  Loss rate: 2.44%
-- Flow 2:
  Average throughput: 63.79 Mbit/s
  95th percentile per-packet one-way delay: 230.537 ms
  Loss rate: 0.85%
-- Flow 3:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: 229.202 ms
  Loss rate: 1.13%
Run 3: Report of PCC — Data Link
Run 4: Statistics of PCC

Start at: 2018-03-14 00:54:43
End at: 2018-03-14 00:55:13

# Below is generated by plot.py at 2018-03-14 05:21:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 505.35 Mbit/s
95th percentile per-packet one-way delay: 276.914 ms
Loss rate: 5.80%
-- Flow 1:
Average throughput: 432.02 Mbit/s
95th percentile per-packet one-way delay: 278.699 ms
Loss rate: 5.97%
-- Flow 2:
Average throughput: 109.33 Mbit/s
95th percentile per-packet one-way delay: 265.629 ms
Loss rate: 4.78%
-- Flow 3:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 267.860 ms
Loss rate: 8.30%
Run 4: Report of PCC — Data Link
Run 5: Statistics of PCC

Start at: 2018-03-14 01:13:57
End at: 2018-03-14 01:14:27

# Below is generated by plot.py at 2018-03-14 05:22:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 564.78 Mbit/s
  95th percentile per-packet one-way delay: 239.199 ms
  Loss rate: 3.02%
-- Flow 1:
  Average throughput: 475.63 Mbit/s
  95th percentile per-packet one-way delay: 242.161 ms
  Loss rate: 3.15%
-- Flow 2:
  Average throughput: 125.54 Mbit/s
  95th percentile per-packet one-way delay: 222.288 ms
  Loss rate: 2.48%
-- Flow 3:
  Average throughput: 17.35 Mbit/s
  95th percentile per-packet one-way delay: 179.525 ms
  Loss rate: 0.05%
Run 5: Report of PCC — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 Ingress (mean 491.09 Mb/s)  
Flow 1 Egress (mean 475.63 Mb/s)  
Flow 2 Ingress (mean 128.74 Mb/s)  
Flow 2 Egress (mean 125.54 Mb/s)  
Flow 3 Ingress (mean 17.36 Mb/s)  
Flow 3 Egress (mean 17.35 Mb/s)

Ping packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 242.16 ms)  
Flow 2 (95th percentile 222.29 ms)  
Flow 3 (95th percentile 179.53 ms)
Run 6: Statistics of PCC

Start at: 2018-03-14 01:33:27
End at: 2018-03-14 01:33:57

# Below is generated by plot.py at 2018-03-14 05:22:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 554.11 Mbit/s
  95th percentile per-packet one-way delay: 238.437 ms
  Loss rate: 3.12%
-- Flow 1:
  Average throughput: 463.43 Mbit/s
  95th percentile per-packet one-way delay: 242.009 ms
  Loss rate: 3.47%
-- Flow 2:
  Average throughput: 134.31 Mbit/s
  95th percentile per-packet one-way delay: 219.277 ms
  Loss rate: 1.33%
-- Flow 3:
  Average throughput: 4.32 Mbit/s
  95th percentile per-packet one-way delay: 176.010 ms
  Loss rate: 0.39%
Run 6: Report of PCC — Data Link
Run 7: Statistics of PCC

Start at: 2018-03-14 01:53:26
End at: 2018-03-14 01:53:56

# Below is generated by plot.py at 2018-03-14 05:22:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 523.40 Mbit/s
  95th percentile per-packet one-way delay: 252.646 ms
  Loss rate: 3.00%
-- Flow 1:
  Average throughput: 480.74 Mbit/s
  95th percentile per-packet one-way delay: 253.520 ms
  Loss rate: 3.16%
-- Flow 2:
  Average throughput: 4.27 Mbit/s
  95th percentile per-packet one-way delay: 224.999 ms
  Loss rate: 0.56%
-- Flow 3:
  Average throughput: 120.78 Mbit/s
  95th percentile per-packet one-way delay: 219.841 ms
  Loss rate: 1.30%
Run 7: Report of PCC — Data Link

**Graph 1:**
- **Throughput (Mbps):**
  - Flow 1 Ingress (mean 496.41 Mbps)
  - Flow 1 Egress (mean 480.76 Mbps)
  - Flow 2 Ingress (mean 4.30 Mbps)
  - Flow 2 Egress (mean 4.27 Mbps)
  - Flow 3 Ingress (mean 122.36 Mbps)
  - Flow 3 Egress (mean 120.78 Mbps)

**Graph 2:**
- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 253.52 ms)
  - Flow 2 (95th percentile 225.00 ms)
  - Flow 3 (95th percentile 219.84 ms)
Run 8: Statistics of PCC

Start at: 2018-03-14 02:13:01
End at: 2018-03-14 02:13:31

# Below is generated by plot.py at 2018-03-14 05:23:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 538.28 Mbit/s
  95th percentile per-packet one-way delay: 289.120 ms
  Loss rate: 4.66%
-- Flow 1:
  Average throughput: 453.58 Mbit/s
  95th percentile per-packet one-way delay: 308.716 ms
  Loss rate: 5.26%
-- Flow 2:
  Average throughput: 125.32 Mbit/s
  95th percentile per-packet one-way delay: 226.316 ms
  Loss rate: 1.31%
-- Flow 3:
  Average throughput: 4.32 Mbit/s
  95th percentile per-packet one-way delay: 160.979 ms
  Loss rate: 0.03%
Run 8: Report of PCC — Data Link

![Graph showing network performance metrics over time]

**Throughput (Mbps)**

- Flow 1 Ingress (mean 478.80 Mbps)
- Flow 1 Egress (mean 453.58 Mbps)
- Flow 2 Ingress (mean 126.96 Mbps)
- Flow 2 Egress (mean 125.32 Mbps)
- Flow 3 Ingress (mean 4.32 Mbps)
- Flow 3 Egress (mean 4.32 Mbps)

**Packet one-way delay (ms)**

- Flow 1 (95th percentile 308.72 ms)
- Flow 2 (95th percentile 226.32 ms)
- Flow 3 (95th percentile 160.99 ms)
Run 9: Statistics of PCC

Start at: 2018-03-14 02:32:23
End at: 2018-03-14 02:32:53

# Below is generated by plot.py at 2018-03-14 05:31:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 539.37 Mbit/s
95th percentile per-packet one-way delay: 281.732 ms
Loss rate: 3.48%
-- Flow 1:
Average throughput: 491.07 Mbit/s
95th percentile per-packet one-way delay: 285.340 ms
Loss rate: 3.65%
-- Flow 2:
Average throughput: 64.82 Mbit/s
95th percentile per-packet one-way delay: 223.688 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 16.00 Mbit/s
95th percentile per-packet one-way delay: 221.203 ms
Loss rate: 2.07%
Run 9: Report of PCC — Data Link

![Graph 1: Throughput (Mbps)]

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

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Run 10: Statistics of PCC

Start at: 2018-03-14 02:51:26
End at: 2018-03-14 02:51:56

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 532.04 Mbit/s
  95th percentile per-packet one-way delay: 257.248 ms
  Loss rate: 4.64%
-- Flow 1:
  Average throughput: 418.57 Mbit/s
  95th percentile per-packet one-way delay: 253.444 ms
  Loss rate: 4.37%
-- Flow 2:
  Average throughput: 62.40 Mbit/s
  95th percentile per-packet one-way delay: 237.849 ms
  Loss rate: 2.26%
-- Flow 3:
  Average throughput: 218.95 Mbit/s
  95th percentile per-packet one-way delay: 260.097 ms
  Loss rate: 7.43%
Run 10: Report of PCC — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 437.72 Mbps)
- Flow 1 egress (mean 418.57 Mbps)
- Flow 2 ingress (mean 63.64 Mbps)
- Flow 2 egress (mean 62.40 Mbps)
- Flow 3 ingress (mean 236.53 Mbps)
- Flow 3 egress (mean 218.93 Mbps)

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

- Flow 1 (95th percentile 253.44 ms)
- Flow 2 (95th percentile 237.85 ms)
- Flow 3 (95th percentile 260.10 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-13 23:50:02
End at: 2018-03-13 23:50:32

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 36.98 Mbit/s
  95th percentile per-packet one-way delay: 112.394 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 112.906 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 39.20 Mbit/s
  95th percentile per-packet one-way delay: 112.415 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 34.21 Mbit/s
  95th percentile per-packet one-way delay: 110.784 ms
  Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-14 00:09:34
End at: 2018-03-14 00:10:04

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.97 Mbit/s
95th percentile per-packet one-way delay: 112.800 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.16 Mbit/s
95th percentile per-packet one-way delay: 112.841 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.67 Mbit/s
95th percentile per-packet one-way delay: 112.264 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 22.25 Mbit/s
95th percentile per-packet one-way delay: 112.326 ms
Loss rate: 0.01%
Run 2: Report of QUIC Cubic — Data Link

![Graph 1: Throughput (Mbps) vs Time (s)]
- Flow 1 ingress (mean 48.16 Mbps)
- Flow 1 egress (mean 48.16 Mbps)
- Flow 2 ingress (mean 41.68 Mbps)
- Flow 2 egress (mean 41.67 Mbps)
- Flow 3 ingress (mean 22.25 Mbps)
- Flow 3 egress (mean 22.25 Mbps)

![Graph 2: Per-packet one-way latency (ms) vs Time (s)]
- Flow 1 (95th percentile 112.84 ms)
- Flow 2 (95th percentile 112.26 ms)
- Flow 3 (95th percentile 112.33 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-03-14 00:28:48
End at: 2018-03-14 00:29:18

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 82.35 Mbit/s
  95th percentile per-packet one-way delay: 112.626 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 48.56 Mbit/s
  95th percentile per-packet one-way delay: 112.292 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 38.01 Mbit/s
  95th percentile per-packet one-way delay: 112.728 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 26.66 Mbit/s
  95th percentile per-packet one-way delay: 112.277 ms
  Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link

[Graphs showing throughput and packet one-way delay over time for flows 1, 2, and 3.]

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Run 4: Statistics of QUIC Cubic

Start at: 2018-03-14 00:48:42
End at: 2018-03-14 00:49:12

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.27 Mbit/s
  95th percentile per-packet one-way delay: 111.554 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 52.59 Mbit/s
  95th percentile per-packet one-way delay: 111.501 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 43.17 Mbit/s
  95th percentile per-packet one-way delay: 110.611 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 28.05 Mbit/s
  95th percentile per-packet one-way delay: 112.333 ms
  Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link

[Graph of throughput vs. time showing four flows with different colors and line styles, each flow labeled with its ingress and egress mean bitrate.]

[Graph of per-packet one-way delay vs. time showing 95th percentile values for each flow, labeled accordingly.]
Run 5: Statistics of QUIC Cubic

Start at: 2018-03-14 01:07:33
End at: 2018-03-14 01:08:03

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.60 Mbit/s
95th percentile per-packet one-way delay: 114.601 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.37 Mbit/s
95th percentile per-packet one-way delay: 114.657 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.37 Mbit/s
95th percentile per-packet one-way delay: 112.322 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.07 Mbit/s
95th percentile per-packet one-way delay: 110.987 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-03-14 01:27:13
End at: 2018-03-14 01:27:43

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.66 Mbit/s
  95th percentile per-packet one-way delay: 112.607 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 52.00 Mbit/s
  95th percentile per-packet one-way delay: 112.635 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 37.03 Mbit/s
  95th percentile per-packet one-way delay: 109.757 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 31.30 Mbit/s
  95th percentile per-packet one-way delay: 109.970 ms
  Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-03-14 01:47:04
End at: 2018-03-14 01:47:34

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.03 Mbit/s
  95th percentile per-packet one-way delay: 110.736 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 51.33 Mbit/s
  95th percentile per-packet one-way delay: 110.409 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 38.67 Mbit/s
  95th percentile per-packet one-way delay: 111.538 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 31.19 Mbit/s
  95th percentile per-packet one-way delay: 110.518 ms
  Loss rate: 0.00%
Run 7: Report of QUIC Cubic — Data Link

[Graphs showing data over time with labels for different flows and their mean rates.]

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Run 8: Statistics of QUIC Cubic

Start at: 2018-03-14 02:06:36
End at: 2018-03-14 02:07:06

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 87.32 Mbit/s
   95th percentile per-packet one-way delay: 112.555 ms
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 48.04 Mbit/s
   95th percentile per-packet one-way delay: 111.430 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 41.38 Mbit/s
   95th percentile per-packet one-way delay: 112.644 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 36.66 Mbit/s
   95th percentile per-packet one-way delay: 110.912 ms
   Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link

![Graph showing data link performance metrics for QUIC Cubic with multiple flows.](image)

- **Throughput**: The plots illustrate the throughput over time for different flows, indicating variability and fluctuations in data transfer rates.
- **Packet Round-trip Delay**: The lower graph shows the packet round-trip delay over time, highlighting the interarrival time and transmission delay across different flows.

Legend:
- Blue dashed line: Flow 1 ingress (mean 48.04 Mbit/s)
- Blue solid line: Flow 1 egress (mean 48.04 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 41.38 Mbit/s)
- Green solid line: Flow 2 egress (mean 41.38 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 36.66 Mbit/s)
- Red solid line: Flow 3 egress (mean 36.66 Mbit/s)

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Run 9: Statistics of QUIC Cubic

Start at: 2018-03-14 02:26:01
End at: 2018-03-14 02:26:31

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.07 Mbit/s
  95th percentile per-packet one-way delay: 112.806 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 54.10 Mbit/s
  95th percentile per-packet one-way delay: 112.843 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 49.61 Mbit/s
  95th percentile per-packet one-way delay: 110.789 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 31.28 Mbit/s
  95th percentile per-packet one-way delay: 111.553 ms
  Loss rate: 0.00\%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-14 02:45:12
End at: 2018-03-14 02:45:42

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 83.18 Mbit/s
  95th percentile per-packet one-way delay: 112.401 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 48.43 Mbit/s
  95th percentile per-packet one-way delay: 112.405 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 39.38 Mbit/s
  95th percentile per-packet one-way delay: 112.407 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 26.83 Mbit/s
  95th percentile per-packet one-way delay: 112.326 ms
  Loss rate: 0.03%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-03-13 23:38:57
End at: 2018-03-13 23:39:27

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.817 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.842 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.804 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.424 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

---

*Throughput (Mbit/s)*

Time (s) 0 5 10 15 20 25 30

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)

---

*Perceived round-trip delay (ms)*

Time (s) 0 5 10 15 20 25 30

Flow 1 (95th percentile 112.84 ms)
Flow 2 (95th percentile 110.80 ms)
Flow 3 (95th percentile 112.42 ms)
Run 2: Statistics of SCReAM

End at: 2018-03-13 23:58:43

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 113.008 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 113.034 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.130 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.848 ms
  Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

![Graph of Throughput over Time for Different Flows]

![Graph of Per-packet one-way delay for Different Flows]

Flow 1 ingress (mean 0.21 Mbit/s)  Flow 1 egress (mean 0.21 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s)  Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s)  Flow 3 egress (mean 0.22 Mbit/s)
Run 3: Statistics of SCReAM

Start at: 2018-03-14 00:17:46
End at: 2018-03-14 00:18:16

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.633 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.837 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.661 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.132 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

![Throughput Graph](image)

![Delay Graph](image)
Run 4: Statistics of SCReAM

Start at: 2018-03-14 00:37:05
End at: 2018-03-14 00:37:35

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 113.741 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 113.767 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.12 Mbit/s
  95th percentile per-packet one-way delay: 112.588 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.855 ms
  Loss rate: 0.00%
Run 5: Statistics of SCReAM

Start at: 2018-03-14 00:56:39
End at: 2018-03-14 00:57:09

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.524 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.055 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.601 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.601 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

![Graph of Throughput and Delay](image)

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

Start at: 2018-03-14 01:15:54
End at: 2018-03-14 01:16:24

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.990 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.959 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.012 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.031 ms
Loss rate: 0.00%
Run 7: Statistics of SCReAM

Start at: 2018-03-14 01:35:23
End at: 2018-03-14 01:35:53

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.31 Mbit/s
  95th percentile per-packet one-way delay: 114.463 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.10 Mbit/s
  95th percentile per-packet one-way delay: 112.924 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 114.523 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.821 ms
  Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.10 Mbps)
Flow 1 egress (mean 0.10 Mbps)
Flow 2 ingress (mean 0.21 Mbps)
Flow 2 egress (mean 0.21 Mbps)
Flow 3 ingress (mean 0.22 Mbps)
Flow 3 egress (mean 0.22 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 112.92 ms)
Flow 2 (95th percentile 114.52 ms)
Flow 3 (95th percentile 111.82 ms)
Run 8: Statistics of SCReAM

Start at: 2018-03-14 01:55:22
End at: 2018-03-14 01:55:52

Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 114.757 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 114.777 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.471 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.687 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one way delay (ms)]
Run 9: Statistics of SCReAM

Start at: 2018-03-14 02:14:58
End at: 2018-03-14 02:15:28

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.722 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.862 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.759 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.410 ms
Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.22 Mbit/s)
- Flow 1 egress (mean 0.22 Mbit/s)
- Flow 2 ingress (mean 0.21 Mbit/s)
- Flow 2 egress (mean 0.21 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s)
- Flow 3 egress (mean 0.22 Mbit/s)
Run 10: Statistics of SCReAM

Start at: 2018-03-14 02:34:19
End at: 2018-03-14 02:34:49

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.841 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.866 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.610 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.424 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.21 Mbps)
- Flow 1 egress (mean 0.21 Mbps)
- Flow 2 ingress (mean 0.22 Mbps)
- Flow 2 egress (mean 0.22 Mbps)
- Flow 3 ingress (mean 0.22 Mbps)
- Flow 3 egress (mean 0.22 Mbps)

[Graph 2: Time vs. Perceived End-to-End Delay (ms)]

- Flow 1 (95th percentile 112.87 ms)
- Flow 2 (95th percentile 111.81 ms)
- Flow 3 (95th percentile 112.42 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-03-13 23:45:08
End at: 2018-03-13 23:45:38

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 111.173 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 111.082 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 110.948 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 112.675 ms
Loss rate: 0.07%
Run 1: Report of WebRTC media — Data Link

![Graph showing throughput and packet round-trip delay over time]

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 2.09 Mbps)
  - Flow 1 egress (mean 2.09 Mbps)
  - Flow 2 ingress (mean 1.29 Mbps)
  - Flow 2 egress (mean 1.29 Mbps)
  - Flow 3 ingress (mean 0.45 Mbps)
  - Flow 3 egress (mean 0.45 Mbps)

- **Per-packet round-trip delay (ms)**
  - Flow 1 (95th percentile 111.08 ms)
  - Flow 2 (95th percentile 110.95 ms)
  - Flow 3 (95th percentile 112.67 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-03-14 00:04:33
End at: 2018-03-14 00:05:03

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.88 Mbit/s
95th percentile per-packet one-way delay: 112.711 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 112.732 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 112.460 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 112.504 ms
Loss rate: 0.06%
Run 2: Report of WebRTC media — Data Link

![Data Link Throughput Graph]

![Data Link Latency Graph]
Run 3: Statistics of WebRTC media

Start at: 2018-03-14 00:23:52
End at: 2018-03-14 00:24:22

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.83 Mbit/s
  95th percentile per-packet one-way delay: 112.587 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 112.626 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 110.897 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 110.639 ms
  Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.08 Mbit/s)
- Flow 1 egress (mean 2.08 Mbit/s)
- Flow 2 ingress (mean 1.31 Mbit/s)
- Flow 2 egress (mean 1.31 Mbit/s)
- Flow 3 ingress (mean 0.47 Mbit/s)
- Flow 3 egress (mean 0.47 Mbit/s)
Run 4: Statistics of WebRTC media

Start at: 2018-03-14 00:43:48
End at: 2018-03-14 00:44:18

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.81 Mbit/s
  95th percentile per-packet one-way delay: 112.675 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 110.674 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 1.29 Mbit/s
  95th percentile per-packet one-way delay: 112.658 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 112.774 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-03-14 01:02:43
End at: 2018-03-14 01:03:13

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.81 Mbit/s
  95th percentile per-packet one-way delay: 114.825 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.07 Mbit/s
  95th percentile per-packet one-way delay: 113.876 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.29 Mbit/s
  95th percentile per-packet one-way delay: 111.879 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 114.947 ms
  Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

Throughput (Mbit/s)

![Throughput Graph]

Delay (ms)

![Delay Graph]
Run 6: Statistics of WebRTC media

Start at: 2018-03-14 01:22:14
End at: 2018-03-14 01:22:44

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 3.80 Mbit/s
   95th percentile per-packet one-way delay: 113.047 ms
   Loss rate: 0.01%
-- Flow 1:
   Average throughput: 2.09 Mbit/s
   95th percentile per-packet one-way delay: 113.070 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 1.26 Mbit/s
   95th percentile per-packet one-way delay: 112.922 ms
   Loss rate: 0.02%
-- Flow 3:
   Average throughput: 0.48 Mbit/s
   95th percentile per-packet one-way delay: 111.582 ms
   Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

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

Flow 1 ingress (mean 2.09 Mbit/s)  —  Flow 1 egress (mean 2.09 Mbit/s)
Flow 2 ingress (mean 1.26 Mbit/s)  —  Flow 2 egress (mean 1.26 Mbit/s)
Flow 3 ingress (mean 0.48 Mbit/s)  —  Flow 3 egress (mean 0.48 Mbit/s)
Run 7: Statistics of WebRTC media

Start at: 2018-03-14 01:42:04
End at: 2018-03-14 01:42:34

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.82 Mbit/s
  95th percentile per-packet one-way delay: 112.478 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 112.502 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.30 Mbit/s
  95th percentile per-packet one-way delay: 111.732 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 112.459 ms
  Loss rate: 0.06%
Run 7: Report of WebRTC media — Data Link

![Graph showing throughput over time for different flows]

- **Flow 1** ingress (mean 2.08 Mbit/s)
- **Flow 1** egress (mean 2.08 Mbit/s)
- **Flow 2** ingress (mean 1.30 Mbit/s)
- **Flow 2** egress (mean 1.30 Mbit/s)
- **Flow 3** ingress (mean 0.47 Mbit/s)
- **Flow 3** egress (mean 0.47 Mbit/s)

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

- **Flow 1** (95th percentile 112.50 ms)
- **Flow 2** (95th percentile 111.73 ms)
- **Flow 3** (95th percentile 112.46 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-03-14 02:01:38
End at: 2018-03-14 02:02:08

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 114.493 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 114.525 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 110.555 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 110.622 ms
Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.08 Mbit/s)
- Flow 1 egress (mean 2.08 Mbit/s)
- Flow 2 ingress (mean 1.28 Mbit/s)
- Flow 2 egress (mean 1.29 Mbit/s)
- Flow 3 ingress (mean 0.48 Mbit/s)
- Flow 3 egress (mean 0.48 Mbit/s)

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

- Flow 1 (95th percentile 114.53 ms)
- Flow 2 (95th percentile 110.56 ms)
- Flow 3 (95th percentile 110.62 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-03-14 02:21:11
End at: 2018-03-14 02:21:41

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.84 Mbit/s
  95th percentile per-packet one-way delay: 112.313 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 111.067 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.30 Mbit/s
  95th percentile per-packet one-way delay: 111.713 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.48 Mbit/s
  95th percentile per-packet one-way delay: 112.403 ms
  Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-03-14 02:40:19
End at: 2018-03-14 02:40:49

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 112.565 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 112.530 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 112.598 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 112.533 ms
Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link
Run 1: Statistics of Sprout

Start at: 2018-03-13 23:57:25
End at: 2018-03-13 23:57:55

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.61 Mbit/s
  95th percentile per-packet one-way delay: 112.757 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.29 Mbit/s
  95th percentile per-packet one-way delay: 112.843 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.81 Mbit/s
  95th percentile per-packet one-way delay: 112.635 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.38 Mbit/s
  95th percentile per-packet one-way delay: 112.587 ms
  Loss rate: 0.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-03-14 00:16:59
End at: 2018-03-14 00:17:29

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.03 Mbit/s
  95th percentile per-packet one-way delay: 111.123 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.35 Mbit/s
  95th percentile per-packet one-way delay: 111.119 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.06 Mbit/s
  95th percentile per-packet one-way delay: 111.055 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.94 Mbit/s
  95th percentile per-packet one-way delay: 112.848 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-03-14 00:36:17
End at: 2018-03-14 00:36:47

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.05 Mbit/s
  95th percentile per-packet one-way delay: 113.482 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.15 Mbit/s
  95th percentile per-packet one-way delay: 113.403 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.06 Mbit/s
  95th percentile per-packet one-way delay: 113.649 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.63 Mbit/s
  95th percentile per-packet one-way delay: 113.037 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

The first graph shows the throughput in Mbps over time for different flows:
- Flow 1 ingress (mean 3.15 Mbps)
- Flow 1 egress (mean 3.15 Mbps)
- Flow 2 ingress (mean 2.06 Mbps)
- Flow 2 egress (mean 2.06 Mbps)
- Flow 3 ingress (mean 1.63 Mbps)
- Flow 3 egress (mean 1.63 Mbps)

The second graph illustrates the per-packet one-way delay (ms) over time for the same flows:
- Flow 1 (95th percentile 113.40 ms)
- Flow 2 (95th percentile 113.65 ms)
- Flow 3 (95th percentile 113.04 ms)
Run 4: Statistics of Sprout

Start at: 2018-03-14 00:55:51
End at: 2018-03-14 00:56:21

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 113.245 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.82 Mbit/s
95th percentile per-packet one-way delay: 113.353 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 113.049 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 113.180 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

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

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Run 5: Statistics of Sprout

Start at: 2018-03-14 01:15:07
End at: 2018-03-14 01:15:37

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.97 Mbit/s
  95th percentile per-packet one-way delay: 111.886 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.33 Mbit/s
  95th percentile per-packet one-way delay: 111.771 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.84 Mbit/s
  95th percentile per-packet one-way delay: 111.856 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.28 Mbit/s
  95th percentile per-packet one-way delay: 112.349 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

[Graph showing throughput over time for different flows]

[Graph showing per-packet round-trip delay for different flows]
Run 6: Statistics of Sprout

Start at: 2018-03-14 01:34:36
End at: 2018-03-14 01:35:06

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 112.833 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 112.989 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.74 Mbit/s
95th percentile per-packet one-way delay: 112.756 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 112.424 ms
Loss rate: 0.00%
Run 6: Report of Sprout — Data Link

- Throughput (Mbps)
  - Flow 1 ingress (mean 2.58 Mbps)
  - Flow 1 egress (mean 2.58 Mbps)
  - Flow 2 ingress (mean 2.74 Mbps)
  - Flow 2 egress (mean 2.74 Mbps)
  - Flow 3 ingress (mean 2.56 Mbps)
  - Flow 3 egress (mean 2.56 Mbps)

- Packet one-way delay (ms)
  - Flow 1 (95th percentile 112.99 ms)
  - Flow 2 (95th percentile 112.76 ms)
  - Flow 3 (95th percentile 112.42 ms)
Run 7: Statistics of Sprout

Start at: 2018-03-14 01:54:34
End at: 2018-03-14 01:55:04

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.17 Mbit/s
  95th percentile per-packet one-way delay: 112.734 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.83 Mbit/s
  95th percentile per-packet one-way delay: 112.826 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.79 Mbit/s
  95th percentile per-packet one-way delay: 112.690 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.47 Mbit/s
  95th percentile per-packet one-way delay: 112.346 ms
  Loss rate: 0.00%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-03-14 02:14:10
End at: 2018-03-14 02:14:40

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.35 Mbit/s
  95th percentile per-packet one-way delay: 113.158 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.22 Mbit/s
  95th percentile per-packet one-way delay: 112.855 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.42 Mbit/s
  95th percentile per-packet one-way delay: 113.312 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.60 Mbit/s
  95th percentile per-packet one-way delay: 113.000 ms
  Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

[Graph showing throughput and packet delay over time for different flows.]
Run 9: Statistics of Sprout

Start at: 2018-03-14 02:33:32
End at: 2018-03-14 02:34:02

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.48 Mbit/s
  95th percentile per-packet one-way delay: 113.362 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.16 Mbit/s
  95th percentile per-packet one-way delay: 113.309 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.92 Mbit/s
  95th percentile per-packet one-way delay: 113.338 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.15 Mbit/s
  95th percentile per-packet one-way delay: 114.298 ms
  Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 3.16 Mbps)
- Flow 1 egress (mean 3.16 Mbps)
- Flow 2 ingress (mean 2.92 Mbps)
- Flow 2 egress (mean 2.92 Mbps)
- Flow 3 ingress (mean 1.15 Mbps)
- Flow 3 egress (mean 1.15 Mbps)

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

- Flow 1 (95th percentile 113.31 ms)
- Flow 2 (95th percentile 113.34 ms)
- Flow 3 (95th percentile 114.30 ms)
Run 10: Statistics of Sprout

Start at: 2018-03-14 02:52:34
End at: 2018-03-14 02:53:04

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.67 Mbit/s
  95th percentile per-packet one-way delay: 113.258 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.57 Mbit/s
  95th percentile per-packet one-way delay: 113.173 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: 113.378 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.64 Mbit/s
  95th percentile per-packet one-way delay: 112.564 ms
  Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

---

![Graph 1: Throughput (Mbit/s)](chart1)

- **Flow 1 ingress (mean 2.57 Mbit/s)**
- **Flow 1 egress (mean 2.57 Mbit/s)**
- **Flow 2 ingress (mean 2.35 Mbit/s)**
- **Flow 2 egress (mean 2.35 Mbit/s)**
- **Flow 3 ingress (mean 1.64 Mbit/s)**
- **Flow 3 egress (mean 1.64 Mbit/s)**

---

![Graph 2: Percentile one-way delay (ms)](chart2)

- **Flow 1 (95th percentile 113.17 ms)**
- **Flow 2 (95th percentile 113.38 ms)**
- **Flow 3 (95th percentile 112.56 ms)**

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Run 1: Statistics of TaoVA-100x

End at: 2018-03-13 23:40:13

# Below is generated by plot.py at 2018-03-14 05:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.34 Mbit/s
  95th percentile per-packet one-way delay: 112.726 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 63.82 Mbit/s
  95th percentile per-packet one-way delay: 112.456 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 27.66 Mbit/s
  95th percentile per-packet one-way delay: 112.807 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 15.40 Mbit/s
  95th percentile per-packet one-way delay: 111.645 ms
  Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

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

![Graph 2: Per-packet one-way delay vs. Time](image2)
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-13 23:58:59  
End at: 2018-03-13 23:59:29

# Below is generated by plot.py at 2018-03-14 05:33:50  
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 246.78 Mbit/s  
  95th percentile per-packet one-way delay: 112.560 ms  
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 187.68 Mbit/s  
  95th percentile per-packet one-way delay: 112.346 ms  
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 13.96 Mbit/s  
  95th percentile per-packet one-way delay: 113.078 ms  
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 150.19 Mbit/s  
  95th percentile per-packet one-way delay: 112.617 ms  
  Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-14 00:18:32
End at: 2018-03-14 00:19:02

# Below is generated by plot.py at 2018-03-14 05:33:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 98.23 Mbit/s
  95th percentile per-packet one-way delay: 112.851 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 83.32 Mbit/s
  95th percentile per-packet one-way delay: 112.611 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 15.96 Mbit/s
  95th percentile per-packet one-way delay: 113.295 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 12.95 Mbit/s
  95th percentile per-packet one-way delay: 112.865 ms
  Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

[Graphs showing throughput and packet delivery time over time for different flows.]
Run 4: Statistics of TaoVA-100x

Start at: 2018-03-14 00:37:51
End at: 2018-03-14 00:38:21

# Below is generated by plot.py at 2018-03-14 05:34:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 269.32 Mbit/s
  95th percentile per-packet one-way delay: 113.261 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 205.62 Mbit/s
  95th percentile per-packet one-way delay: 113.527 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 72.04 Mbit/s
  95th percentile per-packet one-way delay: 112.547 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 47.55 Mbit/s
  95th percentile per-packet one-way delay: 112.688 ms
  Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress** (mean 205.62 Mbit/s)
- **Flow 1 egress** (mean 205.62 Mbit/s)
- **Flow 2 ingress** (mean 72.04 Mbit/s)
- **Flow 2 egress** (mean 72.04 Mbit/s)
- **Flow 3 ingress** (mean 47.53 Mbit/s)
- **Flow 3 egress** (mean 47.55 Mbit/s)

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

- **Flow 1 (95th percentile 113.53 ms)**
- **Flow 2 (95th percentile 112.55 ms)**
- **Flow 3 (95th percentile 112.69 ms)**
Run 5: Statistics of TaoVA-100x

Start at: 2018-03-14 00:57:25
End at: 2018-03-14 00:57:55

# Below is generated by plot.py at 2018-03-14 05:34:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 23.61 Mbit/s
  95th percentile per-packet one-way delay: 113.486 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 9.56 Mbit/s
  95th percentile per-packet one-way delay: 112.370 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 13.38 Mbit/s
  95th percentile per-packet one-way delay: 112.269 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 15.50 Mbit/s
  95th percentile per-packet one-way delay: 113.611 ms
  Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link

![Graph showing throughput over time for different flows. There are three graphs: one for throughput in Mbps, one for packet delivery delay in ms, and one for packet loss. Each graph has multiple lines representing different flows with different mean throughputs.]

<table>
<thead>
<tr>
<th>Flow 1 ingress (mean 9.36 Mbps/s)</th>
<th>Flow 1 egress (mean 9.36 Mbps/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow 2 ingress (mean 13.38 Mbps/s)</td>
<td>Flow 2 egress (mean 13.38 Mbps/s)</td>
</tr>
<tr>
<td>Flow 3 ingress (mean 15.50 Mbps/s)</td>
<td>Flow 3 egress (mean 15.50 Mbps/s)</td>
</tr>
</tbody>
</table>

![Graph showing packet delivery delay in ms over time for different flows. Each line represents a different flow with a different 95th percentile delay.]

| Flow 1 (95th percentile 112.37 ms) | Flow 2 (95th percentile 112.27 ms) | Flow 3 (95th percentile 113.61 ms) |
Run 6: Statistics of TaoVA-100x

Start at: 2018-03-14 01:16:40
End at: 2018-03-14 01:17:10

# Below is generated by plot.py at 2018-03-14 05:34:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.12 Mbit/s
95th percentile per-packet one-way delay: 111.623 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.24 Mbit/s
95th percentile per-packet one-way delay: 111.596 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 16.13 Mbit/s
95th percentile per-packet one-way delay: 111.634 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.51 Mbit/s
95th percentile per-packet one-way delay: 111.648 ms
Loss rate: 0.00%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-14 01:36:09
End at: 2018-03-14 01:36:39

# Below is generated by plot.py at 2018-03-14 05:34:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 238.91 Mbit/s
95th percentile per-packet one-way delay: 114.125 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.32 Mbit/s
95th percentile per-packet one-way delay: 113.702 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 163.64 Mbit/s
95th percentile per-packet one-way delay: 117.681 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 164.92 Mbit/s
95th percentile per-packet one-way delay: 111.876 ms
Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-03-14 01:56:08
End at: 2018-03-14 01:56:38

# Below is generated by plot.py at 2018-03-14 05:35:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 257.96 Mbit/s
95th percentile per-packet one-way delay: 121.062 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 196.28 Mbit/s
95th percentile per-packet one-way delay: 121.429 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.99 Mbit/s
95th percentile per-packet one-way delay: 112.287 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 155.47 Mbit/s
95th percentile per-packet one-way delay: 120.413 ms
Loss rate: 0.00%
Run 8: Report of TaoVA-100x — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-14 02:15:44
End at: 2018-03-14 02:16:14

# Below is generated by plot.py at 2018-03-14 05:35:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 119.79 Mbit/s
  95th percentile per-packet one-way delay: 112.671 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 10.74 Mbit/s
  95th percentile per-packet one-way delay: 112.565 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 117.27 Mbit/s
  95th percentile per-packet one-way delay: 112.566 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 93.97 Mbit/s
  95th percentile per-packet one-way delay: 113.091 ms
  Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link

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

Throughput (Mbps)

<table>
<thead>
<tr>
<th>Flow 1 ingress (mean 10.74 Mbps/s)</th>
<th>Flow 1 egress (mean 10.74 Mbps/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow 2 ingress (mean 117.27 Mbps/s)</td>
<td>Flow 2 egress (mean 117.27 Mbps/s)</td>
</tr>
<tr>
<td>Flow 3 ingress (mean 93.97 Mbps/s)</td>
<td>Flow 3 egress (mean 93.97 Mbps/s)</td>
</tr>
</tbody>
</table>

Packet delay (ms)

| Flow 1 (95th percentile 112.56 ms) | Flow 2 (95th percentile 112.57 ms) | Flow 3 (95th percentile 113.09 ms) |

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Run 10: Statistics of TaoVA-100x

Start at: 2018-03-14 02:35:05
End at: 2018-03-14 02:35:35

# Below is generated by plot.py at 2018-03-14 05:35:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.11 Mbit/s
  95th percentile per-packet one-way delay: 112.208 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 16.04 Mbit/s
  95th percentile per-packet one-way delay: 112.205 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 13.50 Mbit/s
  95th percentile per-packet one-way delay: 112.207 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 160.15 Mbit/s
  95th percentile per-packet one-way delay: 112.209 ms
  Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-03-13 23:44:16
End at: 2018-03-13 23:44:46

# Below is generated by plot.py at 2018-03-14 05:35:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 100.81 Mbit/s
  95th percentile per-packet one-way delay: 122.912 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 29.32 Mbit/s
  95th percentile per-packet one-way delay: 123.072 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 98.27 Mbit/s
  95th percentile per-packet one-way delay: 122.645 ms
  Loss rate: 0.15%
-- Flow 3:
  Average throughput: 18.34 Mbit/s
  95th percentile per-packet one-way delay: 124.725 ms
  Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-03-14 00:03:40
End at: 2018-03-14 00:04:10

# Below is generated by plot.py at 2018-03-14 05:35:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 116.61 Mbit/s
  95th percentile per-packet one-way delay: 117.014 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 66.19 Mbit/s
  95th percentile per-packet one-way delay: 111.466 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 29.96 Mbit/s
  95th percentile per-packet one-way delay: 116.257 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 92.01 Mbit/s
  95th percentile per-packet one-way delay: 121.152 ms
  Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows.]
Run 3: Statistics of TCP Vegas

Start at: 2018-03-14 00:22:55
End at: 2018-03-14 00:23:25

# Below is generated by plot.py at 2018-03-14 05:35:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 169.05 Mbit/s
  95th percentile per-packet one-way delay: 118.360 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 103.29 Mbit/s
  95th percentile per-packet one-way delay: 118.978 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 69.29 Mbit/s
  95th percentile per-packet one-way delay: 112.552 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 59.71 Mbit/s
  95th percentile per-packet one-way delay: 112.278 ms
  Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 103.31 Mbit/s)
- Flow 1 egress (mean 103.29 Mbit/s)
- Flow 2 ingress (mean 69.28 Mbit/s)
- Flow 2 egress (mean 69.29 Mbit/s)
- Flow 3 ingress (mean 59.70 Mbit/s)
- Flow 3 egress (mean 59.71 Mbit/s)

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

- Flow 1 (95th percentile 118.98 ms)
- Flow 2 (95th percentile 112.55 ms)
- Flow 3 (95th percentile 112.28 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-03-14 00:42:54
End at: 2018-03-14 00:43:24

# Below is generated by plot.py at 2018-03-14 05:35:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 118.90 Mbit/s
  95th percentile per-packet one-way delay: 122.893 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 100.92 Mbit/s
  95th percentile per-packet one-way delay: 122.686 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.55 Mbit/s
  95th percentile per-packet one-way delay: 120.951 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 50.06 Mbit/s
  95th percentile per-packet one-way delay: 126.170 ms
  Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

**Throughput (Mbit/s)**

- **Flow 1 ingress (mean 101.00 Mbit/s)**
- **Flow 1 egress (mean 100.92 Mbit/s)**
- **Flow 2 ingress (mean 2.55 Mbit/s)**
- **Flow 2 egress (mean 2.55 Mbit/s)**
- **Flow 3 ingress (mean 50.06 Mbit/s)**
- **Flow 3 egress (mean 50.06 Mbit/s)**

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

- **Flow 1 (95th percentile 122.69 ms)**
- **Flow 2 (95th percentile 120.95 ms)**
- **Flow 3 (95th percentile 126.17 ms)**
Run 5: Statistics of TCP Vegas

Start at: 2018-03-14 01:01:47
End at: 2018-03-14 01:02:17

# Below is generated by plot.py at 2018-03-14 05:36:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 150.74 Mbit/s
  95th percentile per-packet one-way delay: 121.556 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 102.36 Mbit/s
  95th percentile per-packet one-way delay: 121.810 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 55.35 Mbit/s
  95th percentile per-packet one-way delay: 121.343 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 35.08 Mbit/s
  95th percentile per-packet one-way delay: 114.903 ms
  Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-03-14 01:21:14
End at: 2018-03-14 01:21:44

# Below is generated by plot.py at 2018-03-14 05:36:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 179.96 Mbit/s
  95th percentile per-packet one-way delay: 122.643 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 93.78 Mbit/s
  95th percentile per-packet one-way delay: 122.818 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 98.76 Mbit/s
  95th percentile per-packet one-way delay: 122.565 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 62.52 Mbit/s
  95th percentile per-packet one-way delay: 122.193 ms
  Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

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

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 93.79 Mbps)
- Blue solid line: Flow 1 egress (mean 93.78 Mbps)
- Green dashed line: Flow 2 ingress (mean 98.78 Mbps)
- Green solid line: Flow 2 egress (mean 98.76 Mbps)
- Red dashed line: Flow 3 ingress (mean 62.51 Mbps)
- Red solid line: Flow 3 egress (mean 62.52 Mbps)

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Run 7: Statistics of TCP Vegas

Start at: 2018-03-14 01:41:12
End at: 2018-03-14 01:41:42

# Below is generated by plot.py at 2018-03-14 05:36:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.22 Mbit/s
  95th percentile per-packet one-way delay: 120.464 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 42.88 Mbit/s
  95th percentile per-packet one-way delay: 114.951 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 22.09 Mbit/s
  95th percentile per-packet one-way delay: 117.503 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 90.76 Mbit/s
  95th percentile per-packet one-way delay: 124.607 ms
  Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 42.88 Mb/s)
Flow 1 egress (mean 42.88 Mb/s)
Flow 2 ingress (mean 22.09 Mb/s)
Flow 2 egress (mean 22.09 Mb/s)
Flow 3 ingress (mean 90.80 Mb/s)
Flow 3 egress (mean 90.76 Mb/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 114.95 ms)
Flow 2 (95th percentile 117.50 ms)
Flow 3 (95th percentile 124.61 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-03-14 02:00:48
End at: 2018-03-14 02:01:18

# Below is generated by plot.py at 2018-03-14 05:36:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 58.12 Mbit/s
  95th percentile per-packet one-way delay: 117.939 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 32.94 Mbit/s
  95th percentile per-packet one-way delay: 118.846 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 28.67 Mbit/s
  95th percentile per-packet one-way delay: 118.686 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 18.40 Mbit/s
  95th percentile per-packet one-way delay: 114.081 ms
  Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

![Graph showing throughput and per-packet one-way delay over time]
Run 9: Statistics of TCP Vegas

Start at: 2018-03-14 02:20:19
End at: 2018-03-14 02:20:49

# Below is generated by plot.py at 2018-03-14 05:36:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.38 Mbit/s
95th percentile per-packet one-way delay: 114.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.19 Mbit/s
95th percentile per-packet one-way delay: 114.305 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.33 Mbit/s
95th percentile per-packet one-way delay: 114.160 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.45 Mbit/s
95th percentile per-packet one-way delay: 114.898 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-03-14 02:39:30
End at: 2018-03-14 02:40:00

# Below is generated by plot.py at 2018-03-14 05:36:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 62.46 Mbit/s
  95th percentile per-packet one-way delay: 122.572 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 22.80 Mbit/s
  95th percentile per-packet one-way delay: 117.998 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 37.19 Mbit/s
  95th percentile per-packet one-way delay: 121.912 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 45.06 Mbit/s
  95th percentile per-packet one-way delay: 125.706 ms
  Loss rate: 0.00%
Run 1: Statistics of Verus

Start at: 2018-03-13 23:50:51
End at: 2018-03-13 23:51:21

# Below is generated by plot.py at 2018-03-14 05:37:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 158.06 Mbit/s
95th percentile per-packet one-way delay: 170.875 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.49 Mbit/s
95th percentile per-packet one-way delay: 196.278 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 101.52 Mbit/s
95th percentile per-packet one-way delay: 144.429 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 55.09 Mbit/s
95th percentile per-packet one-way delay: 131.027 ms
Loss rate: 0.00%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Start at: 2018-03-14 00:10:25
End at: 2018-03-14 00:10:55

# Below is generated by plot.py at 2018-03-14 05:40:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 269.26 Mbit/s
95th percentile per-packet one-way delay: 234.180 ms
Loss rate: 2.45%
-- Flow 1:
Average throughput: 182.02 Mbit/s
95th percentile per-packet one-way delay: 223.061 ms
Loss rate: 1.51%
-- Flow 2:
Average throughput: 87.42 Mbit/s
95th percentile per-packet one-way delay: 356.067 ms
Loss rate: 5.29%
-- Flow 3:
Average throughput: 90.60 Mbit/s
95th percentile per-packet one-way delay: 229.628 ms
Loss rate: 2.42%
Run 3: Statistics of Verus

Start at: 2018-03-14 00:29:39
End at: 2018-03-14 00:30:09

# Below is generated by plot.py at 2018-03-14 05:40:41
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 282.05 Mbit/s
   95th percentile per-packet one-way delay: 330.798 ms
   Loss rate: 5.33%
   -- Flow 1:
   Average throughput: 149.72 Mbit/s
   95th percentile per-packet one-way delay: 210.608 ms
   Loss rate: 1.40%
   -- Flow 2:
   Average throughput: 190.08 Mbit/s
   95th percentile per-packet one-way delay: 361.144 ms
   Loss rate: 9.66%
   -- Flow 3:
   Average throughput: 19.34 Mbit/s
   95th percentile per-packet one-way delay: 209.031 ms
   Loss rate: 4.29%
Run 3: Report of Verus — Data Link

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

- Flow 1 ingress (mean 151.85 Mbit/s) vs Flow 1 egress (mean 149.72 Mbit/s)
- Flow 2 ingress (mean 210.61 Mbit/s) vs Flow 2 egress (mean 190.08 Mbit/s)
- Flow 3 ingress (mean 20.20 Mbit/s) vs Flow 3 egress (mean 19.34 Mbit/s)
Run 4: Statistics of Verus

Start at: 2018-03-14 00:49:34
End at: 2018-03-14 00:50:04

# Below is generated by plot.py at 2018-03-14 05:40:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 164.82 Mbit/s
95th percentile per-packet one-way delay: 185.920 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 82.38 Mbit/s
95th percentile per-packet one-way delay: 236.281 ms
Loss rate: 3.33%
-- Flow 2:
Average throughput: 73.01 Mbit/s
95th percentile per-packet one-way delay: 150.011 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 104.40 Mbit/s
95th percentile per-packet one-way delay: 193.545 ms
Loss rate: 0.00%
Run 4: Report of Verus — Data Link

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

Start at: 2018-03-14 01:08:25
End at: 2018-03-14 01:08:55

# Below is generated by plot.py at 2018-03-14 05:40:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 250.99 Mbit/s
95th percentile per-packet one-way delay: 220.226 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 116.09 Mbit/s
95th percentile per-packet one-way delay: 246.345 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 150.96 Mbit/s
95th percentile per-packet one-way delay: 225.472 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 109.68 Mbit/s
95th percentile per-packet one-way delay: 167.724 ms
Loss rate: 0.00%
Run 5: Report of Verus — Data Link

![Throughput Graph](attachment:image1.png)

- **Flow 1 ingress (mean 117.31 Mbit/s)**
- **Flow 1 egress (mean 116.09 Mbit/s)**
- **Flow 2 ingress (mean 156.97 Mbit/s)**
- **Flow 2 egress (mean 150.96 Mbit/s)**
- **Flow 3 ingress (mean 199.87 Mbit/s)**
- **Flow 3 egress (mean 109.68 Mbit/s)**

![Delay Graph](attachment:image2.png)

- **Flow 1 (95th percentile 246.34 ms)**
- **Flow 2 (95th percentile 225.47 ms)**
- **Flow 3 (95th percentile 167.72 ms)**

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Run 6: Statistics of Verus

Start at: 2018-03-14 01:28:05
End at: 2018-03-14 01:28:35

# Below is generated by plot.py at 2018-03-14 05:40:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 266.33 Mbit/s
95th percentile per-packet one-way delay: 195.366 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 176.13 Mbit/s
95th percentile per-packet one-way delay: 216.708 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 98.96 Mbit/s
95th percentile per-packet one-way delay: 163.233 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 76.85 Mbit/s
95th percentile per-packet one-way delay: 156.899 ms
Loss rate: 0.00%
Run 6: Report of Verus — Data Link

![Graphs showing data link performance metrics over time. The graphs depict throughput and per-packet error rates with various flow labels and their respective mean and 95th percentile values.]
Run 7: Statistics of Verus

Start at: 2018-03-14 01:47:56
End at: 2018-03-14 01:48:26

# Below is generated by plot.py at 2018-03-14 05:41:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 306.89 Mbit/s
  95th percentile per-packet one-way delay: 235.833 ms
  Loss rate: 0.65%
-- Flow 1:
  Average throughput: 181.91 Mbit/s
  95th percentile per-packet one-way delay: 196.874 ms
  Loss rate: 0.34%
-- Flow 2:
  Average throughput: 173.16 Mbit/s
  95th percentile per-packet one-way delay: 259.855 ms
  Loss rate: 1.16%
-- Flow 3:
  Average throughput: 37.98 Mbit/s
  95th percentile per-packet one-way delay: 172.777 ms
  Loss rate: 0.55%
Run 7: Report of Verus — Data Link

![Graph 1: Throughput vs Time](image1)
- Flow 1 ingress (mean 183.09 Mbit/s)
- Flow 1 egress (mean 181.91 Mbit/s)
- Flow 2 ingress (mean 175.78 Mbit/s)
- Flow 2 egress (mean 173.16 Mbit/s)
- Flow 3 ingress (mean 34.01 Mbit/s)
- Flow 3 egress (mean 37.98 Mbit/s)

![Graph 2: Per-packet one-way delay vs Time](image2)
- Flow 1 (95th percentile 196.87 ms)
- Flow 2 (95th percentile 259.86 ms)
- Flow 3 (95th percentile 172.78 ms)
Run 8: Statistics of Verus

Start at: 2018-03-14 02:07:28
End at: 2018-03-14 02:07:58

# Below is generated by plot.py at 2018-03-14 05:41:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 208.92 Mbit/s
  95th percentile per-packet one-way delay: 170.765 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 128.82 Mbit/s
  95th percentile per-packet one-way delay: 170.760 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 72.39 Mbit/s
  95th percentile per-packet one-way delay: 154.375 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 100.35 Mbit/s
  95th percentile per-packet one-way delay: 238.108 ms
  Loss rate: 0.00%
Run 9: Statistics of Verus

Start at: 2018-03-14 02:26:53
End at: 2018-03-14 02:27:23

# Below is generated by plot.py at 2018-03-14 05:41:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 221.81 Mbit/s
  95th percentile per-packet one-way delay: 270.410 ms
  Loss rate: 2.82%
  -- Flow 1:
  Average throughput: 161.79 Mbit/s
  95th percentile per-packet one-way delay: 276.716 ms
  Loss rate: 3.54%
  -- Flow 2:
  Average throughput: 60.76 Mbit/s
  95th percentile per-packet one-way delay: 229.363 ms
  Loss rate: 0.90%
  -- Flow 3:
  Average throughput: 61.03 Mbit/s
  95th percentile per-packet one-way delay: 210.508 ms
  Loss rate: 0.72%
Run 9: Report of Verus — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 167.73 Mbps)
  - Flow 1 egress (mean 161.79 Mbps)
  - Flow 2 ingress (mean 61.34 Mbps)
  - Flow 2 egress (mean 60.76 Mbps)
  - Flow 3 ingress (mean 61.49 Mbps)
  - Flow 3 egress (mean 61.03 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 276.72 ms)
  - Flow 2 (95th percentile 229.36 ms)
  - Flow 3 (95th percentile 210.51 ms)
Run 10: Statistics of Verus

Start at: 2018-03-14 02:46:03
End at: 2018-03-14 02:46:33

# Below is generated by plot.py at 2018-03-14 05:44:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 302.26 Mbit/s
95th percentile per-packet one-way delay: 201.389 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 246.20 Mbit/s
95th percentile per-packet one-way delay: 187.041 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 64.08 Mbit/s
95th percentile per-packet one-way delay: 298.009 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 46.57 Mbit/s
95th percentile per-packet one-way delay: 211.205 ms
Loss rate: 0.00%
Run 10: Report of Verus — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows with specified mean speeds in Mbit/s.]

Legend:
- Flow 1 ingress (mean 247.34 Mbit/s)
- Flow 1 egress (mean 246.26 Mbit/s)
- Flow 2 ingress (mean 65.28 Mbit/s)
- Flow 2 egress (mean 64.08 Mbit/s)
- Flow 3 ingress (mean 46.55 Mbit/s)
- Flow 3 egress (mean 46.57 Mbit/s)
Run 1: Statistics of Copa

Start at: 2018-03-13 23:43:15
End at: 2018-03-13 23:43:45

# Below is generated by plot.py at 2018-03-14 05:44:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 133.06 Mbit/s
95th percentile per-packet one-way delay: 112.604 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.69 Mbit/s
95th percentile per-packet one-way delay: 112.688 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.50 Mbit/s
95th percentile per-packet one-way delay: 112.573 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 58.64 Mbit/s
95th percentile per-packet one-way delay: 111.426 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link

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Throughput (Mbps):

Flow 1 ingress (mean 62.69 Mbps)  
Flow 1 egress (mean 62.69 Mbps)  
Flow 2 ingress (mean 76.51 Mbps)  
Flow 2 egress (mean 76.50 Mbps)  
Flow 3 ingress (mean 58.64 Mbps)  
Flow 3 egress (mean 58.64 Mbps)

---

Per-packet one-way delay (ms):

Flow 1 (95th percentile 112.69 ms)  
Flow 2 (95th percentile 112.57 ms)  
Flow 3 (95th percentile 111.43 ms)
Run 2: Statistics of Copa

Start at: 2018-03-14 00:02:38
End at: 2018-03-14 00:03:08

# Below is generated by plot.py at 2018-03-14 05:44:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 131.90 Mbit/s
  95th percentile per-packet one-way delay: 112.683 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 61.57 Mbit/s
  95th percentile per-packet one-way delay: 112.808 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 72.20 Mbit/s
  95th percentile per-packet one-way delay: 110.560 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 67.11 Mbit/s
  95th percentile per-packet one-way delay: 112.428 ms
  Loss rate: 0.00%
Run 2: Report of Copa — Data Link

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

Start at: 2018-03-14 00:21:54
End at: 2018-03-14 00:22:24

# Below is generated by plot.py at 2018-03-14 05:44:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 134.59 Mbit/s
  95th percentile per-packet one-way delay: 112.679 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 67.31 Mbit/s
  95th percentile per-packet one-way delay: 112.599 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 65.41 Mbit/s
  95th percentile per-packet one-way delay: 112.796 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 71.62 Mbit/s
  95th percentile per-packet one-way delay: 110.755 ms
  Loss rate: 0.00%
Run 3: Report of Copa — Data Link

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

![Graph 2: Packet Error vs Time](image2)
Run 4: Statistics of Copa

Start at: 2018-03-14 00:41:37
End at: 2018-03-14 00:42:07

# Below is generated by plot.py at 2018-03-14 05:53:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 361.77 Mbit/s
  95th percentile per-packet one-way delay: 303.438 ms
  Loss rate: 35.28%
-- Flow 1:
  Average throughput: 358.65 Mbit/s
  95th percentile per-packet one-way delay: 303.578 ms
  Loss rate: 35.48%
-- Flow 2:
  Average throughput: 3.68 Mbit/s
  95th percentile per-packet one-way delay: 222.923 ms
  Loss rate: 1.35%
-- Flow 3:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 221.957 ms
  Loss rate: 1.31%
Run 4: Report of Copa — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows with various mean and 95th percentile values]
Run 5: Statistics of Copa

Start at: 2018-03-14 01:00:46
End at: 2018-03-14 01:01:16

# Below is generated by plot.py at 2018-03-14 05:53:12
# Datalink statistics
# Total of 3 flows:
Average throughput: 132.72 Mbit/s
95th percentile per-packet one-way delay: 111.708 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.94 Mbit/s
95th percentile per-packet one-way delay: 111.698 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.15 Mbit/s
95th percentile per-packet one-way delay: 111.748 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 79.78 Mbit/s
95th percentile per-packet one-way delay: 111.636 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link
Run 6: Statistics of Copa

Start at: 2018-03-14 01:20:05
End at: 2018-03-14 01:20:35

# Below is generated by plot.py at 2018-03-14 05:53:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 151.70 Mbit/s
95th percentile per-packet one-way delay: 111.712 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.28 Mbit/s
95th percentile per-packet one-way delay: 112.123 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 75.92 Mbit/s
95th percentile per-packet one-way delay: 111.668 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.86 Mbit/s
95th percentile per-packet one-way delay: 111.679 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link
Run 7: Statistics of Copa

Start at: 2018-03-14 01:39:48
End at: 2018-03-14 01:40:18

# Below is generated by plot.py at 2018-03-14 05:55:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 416.37 Mbit/s
95th percentile per-packet one-way delay: 234.829 ms
Loss rate: 26.70%
-- Flow 1:
Average throughput: 350.34 Mbit/s
95th percentile per-packet one-way delay: 230.923 ms
Loss rate: 28.96%
-- Flow 2:
Average throughput: 82.39 Mbit/s
95th percentile per-packet one-way delay: 242.796 ms
Loss rate: 12.49%
-- Flow 3:
Average throughput: 33.94 Mbit/s
95th percentile per-packet one-way delay: 224.893 ms
Loss rate: 8.30%
Run 7: Report of Copa — Data Link

![Graph showing throughput and per-packet one-way delay over time for flows 1, 2, and 3.]

- **Flow 1**:
  - Ingress: Mean 493.20 Mbit/s
  - Egress: Mean 350.34 Mbit/s
- **Flow 2**:
  - Ingress: Mean 94.16 Mbit/s
  - Egress: Mean 82.39 Mbit/s
- **Flow 3**:
  - Ingress: Mean 37.02 Mbit/s
  - Egress: Mean 33.94 Mbit/s
Run 8: Statistics of Copa

Start at: 2018-03-14 01:59:47
End at: 2018-03-14 02:00:17

# Below is generated by plot.py at 2018-03-14 05:55:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.78 Mbit/s
95th percentile per-packet one-way delay: 112.743 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.95 Mbit/s
95th percentile per-packet one-way delay: 112.599 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.34 Mbit/s
95th percentile per-packet one-way delay: 112.943 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.30 Mbit/s
95th percentile per-packet one-way delay: 112.405 ms
Loss rate: 0.00%
Run 9: Statistics of Copa

Start at: 2018-03-14 02:19:20
End at: 2018-03-14 02:19:50

# Below is generated by plot.py at 2018-03-14 05:55:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 113.03 Mbit/s
95th percentile per-packet one-way delay: 113.111 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.41 Mbit/s
95th percentile per-packet one-way delay: 112.189 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.70 Mbit/s
95th percentile per-packet one-way delay: 112.873 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.81 Mbit/s
95th percentile per-packet one-way delay: 113.599 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link

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

**Legend:**
- **Blue** dashed line: Flow 1 ingress (mean 77.41 Mbit/s)
- **Blue** solid line: Flow 1 egress (mean 77.41 Mbit/s)
- **Green** dashed line: Flow 2 ingress (mean 35.70 Mbit/s)
- **Green** solid line: Flow 2 egress (mean 35.70 Mbit/s)
- **Red** dashed line: Flow 3 ingress (mean 35.82 Mbit/s)
- **Red** solid line: Flow 3 egress (mean 35.81 Mbit/s)

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

**Legend:**
- **Blue** solid line: Flow 1 (95th percentile 112.19 ms)
- **Green** solid line: Flow 2 (95th percentile 112.87 ms)
- **Red** solid line: Flow 3 (95th percentile 113.60 ms)
Run 10: Statistics of Copa

Start at: 2018-03-14 02:38:31
End at: 2018-03-14 02:39:01

# Below is generated by plot.py at 2018-03-14 05:55:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.25 Mbit/s
95th percentile per-packet one-way delay: 112.748 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.46 Mbit/s
95th percentile per-packet one-way delay: 112.339 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.17 Mbit/s
95th percentile per-packet one-way delay: 112.366 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.46 Mbit/s
95th percentile per-packet one-way delay: 112.858 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

Start at: 2018-03-13 23:45:55
End at: 2018-03-13 23:46:25

# Below is generated by plot.py at 2018-03-14 06:08:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1273.30 Mbit/s
95th percentile per-packet one-way delay: 349.833 ms
Loss rate: 10.78%
-- Flow 1:
Average throughput: 641.29 Mbit/s
95th percentile per-packet one-way delay: 363.439 ms
Loss rate: 11.74%
-- Flow 2:
Average throughput: 654.25 Mbit/s
95th percentile per-packet one-way delay: 336.708 ms
Loss rate: 6.24%
-- Flow 3:
Average throughput: 594.52 Mbit/s
95th percentile per-packet one-way delay: 277.695 ms
Loss rate: 16.73%
Run 1: Report of FillP — Data Link

![Graph showing network performance metrics over time]

- **Througput (Mbps)**
  - Flow 1 Ingress (mean 726.55 Mbps)
  - Flow 1 Egress (mean 641.29 Mbps)
  - Flow 2 Ingress (mean 697.77 Mbps)
  - Flow 2 Egress (mean 654.25 Mbps)
  - Flow 3 Ingress (mean 713.80 Mbps)
  - Flow 3 Egress (mean 594.52 Mbps)

![Graph showing packet delay over time]

- **Per packet one way delay (ms)**
  - Flow 1 (95th percentile 363.44 ms)
  - Flow 2 (95th percentile 336.71 ms)
  - Flow 3 (95th percentile 277.69 ms)
Run 2: Statistics of FillP

Start at: 2018-03-14 00:05:19
End at: 2018-03-14 00:05:49

# Below is generated by plot.py at 2018-03-14 06:12:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1512.15 Mbit/s
95th percentile per-packet one-way delay: 222.565 ms
Loss rate: 8.81%
-- Flow 1:
Average throughput: 768.64 Mbit/s
95th percentile per-packet one-way delay: 220.986 ms
Loss rate: 8.82%
-- Flow 2:
Average throughput: 820.04 Mbit/s
95th percentile per-packet one-way delay: 188.234 ms
Loss rate: 5.72%
-- Flow 3:
Average throughput: 596.51 Mbit/s
95th percentile per-packet one-way delay: 240.402 ms
Loss rate: 16.35%
Run 2: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 843.08 Mbps)
- Flow 1 Egress (mean 768.64 Mbps)
- Flow 2 Ingress (mean 859.84 Mbps)
- Flow 2 Egress (mean 820.04 Mbps)
- Flow 3 Ingress (mean 713.27 Mbps)
- Flow 3 Egress (mean 596.51 Mbps)

![Graph 2: Percent packets on any delay (ms)](image)

- Flow 1 (95th percentile 220.99 ms)
- Flow 2 (95th percentile 188.23 ms)
- Flow 3 (95th percentile 240.40 ms)
Run 3: Statistics of FillP

Start at: 2018-03-14 00:24:38
End at: 2018-03-14 00:25:08

# Below is generated by plot.py at 2018-03-14 06:12:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1378.73 Mbit/s
95th percentile per-packet one-way delay: 232.113 ms
Loss rate: 11.59%
-- Flow 1:
Average throughput: 709.10 Mbit/s
95th percentile per-packet one-way delay: 226.382 ms
Loss rate: 11.38%
-- Flow 2:
Average throughput: 685.22 Mbit/s
95th percentile per-packet one-way delay: 207.451 ms
Loss rate: 10.97%
-- Flow 3:
Average throughput: 645.63 Mbit/s
95th percentile per-packet one-way delay: 322.813 ms
Loss rate: 13.53%
Run 3: Report of FillP — Data Link
Run 4: Statistics of FillP

Start at: 2018-03-14 00:44:35
End at: 2018-03-14 00:45:05

# Below is generated by plot.py at 2018-03-14 06:12:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1371.13 Mbit/s
95th percentile per-packet one-way delay: 329.180 ms
Loss rate: 9.97%
-- Flow 1:
Average throughput: 765.30 Mbit/s
95th percentile per-packet one-way delay: 213.162 ms
Loss rate: 7.69%
-- Flow 2:
Average throughput: 655.23 Mbit/s
95th percentile per-packet one-way delay: 330.377 ms
Loss rate: 10.24%
-- Flow 3:
Average throughput: 513.65 Mbit/s
95th percentile per-packet one-way delay: 381.217 ms
Loss rate: 18.42%
Run 4: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 829.10 Mbit/s)
- Flow 1 Egress (mean 765.30 Mbit/s)
- Flow 2 Ingress (mean 730.09 Mbit/s)
- Flow 2 Egress (mean 655.23 Mbit/s)
- Flow 3 Ingress (mean 629.48 Mbit/s)
- Flow 3 Egress (mean 513.65 Mbit/s)

- Flow 1 (95th percentile 213.16 ms)
- Flow 2 (95th percentile 330.38 ms)
- Flow 3 (95th percentile 381.22 ms)
Run 5: Statistics of FillP

Start at: 2018-03-14 01:03:29
End at: 2018-03-14 01:03:59

# Below is generated by plot.py at 2018-03-14 06:12:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1312.88 Mbit/s
95th percentile per-packet one-way delay: 347.099 ms
Loss rate: 9.56%
-- Flow 1:
Average throughput: 706.95 Mbit/s
95th percentile per-packet one-way delay: 339.183 ms
Loss rate: 7.51%
-- Flow 2:
Average throughput: 600.82 Mbit/s
95th percentile per-packet one-way delay: 376.138 ms
Loss rate: 10.73%
-- Flow 3:
Average throughput: 622.59 Mbit/s
95th percentile per-packet one-way delay: 240.249 ms
Loss rate: 13.89%
Run 5: Report of FillP — Data Link

![Graphs showing network performance metrics over time, including throughput and packet delay.](image-url)
Run 6: Statistics of FillP

Start at: 2018-03-14 01:23:01
End at: 2018-03-14 01:23:31

# Below is generated by plot.py at 2018-03-14 06:15:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1399.14 Mbit/s
  95th percentile per-packet one-way delay: 248.200 ms
  Loss rate: 10.89%
-- Flow 1:
  Average throughput: 700.99 Mbit/s
  95th percentile per-packet one-way delay: 269.596 ms
  Loss rate: 11.30%
-- Flow 2:
  Average throughput: 703.09 Mbit/s
  95th percentile per-packet one-way delay: 216.164 ms
  Loss rate: 10.57%
-- Flow 3:
  Average throughput: 696.09 Mbit/s
  95th percentile per-packet one-way delay: 224.685 ms
  Loss rate: 10.28%
Run 6: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 790.26 Mbit/s)
- Flow 1 Egress (mean 700.99 Mbit/s)
- Flow 2 Ingress (mean 786.12 Mbit/s)
- Flow 2 Egress (mean 703.09 Mbit/s)
- Flow 3 Ingress (mean 775.85 Mbit/s)
- Flow 3 Egress (mean 696.09 Mbit/s)

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

- Flow 1 (95th percentile 269.60 ms)
- Flow 2 (95th percentile 216.16 ms)
- Flow 3 (95th percentile 224.69 ms)
Run 7: Statistics of FillP

Start at: 2018-03-14 01:42:51
End at: 2018-03-14 01:43:21

# Below is generated by plot.py at 2018-03-14 06:23:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1494.38 Mbit/s
  95th percentile per-packet one-way delay: 215.117 ms
  Loss rate: 8.32%
-- Flow 1:
  Average throughput: 773.38 Mbit/s
  95th percentile per-packet one-way delay: 212.052 ms
  Loss rate: 8.29%
-- Flow 2:
  Average throughput: 752.65 Mbit/s
  95th percentile per-packet one-way delay: 213.937 ms
  Loss rate: 7.30%
-- Flow 3:
  Average throughput: 665.40 Mbit/s
  95th percentile per-packet one-way delay: 217.482 ms
  Loss rate: 10.64%
Run 7: Report of FillP — Data Link

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

- Flow 1 ingress (mean 843.30 Mb/s) and Flow 1 egress (mean 773.38 Mb/s)
- Flow 2 ingress (mean 811.89 Mb/s) and Flow 2 egress (mean 752.65 Mb/s)
- Flow 3 ingress (mean 744.51 Mb/s) and Flow 3 egress (mean 665.40 Mb/s)

![Graph showing per-packet end-to-end delay over time with different flow delays.]

- Flow 1 (95th percentile 212.05 ms)
- Flow 2 (95th percentile 213.94 ms)
- Flow 3 (95th percentile 217.48 ms)
Run 8: Statistics of FillP

Start at: 2018-03-14 02:02:24
End at: 2018-03-14 02:02:54

# Below is generated by plot.py at 2018-03-14 06:26:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1501.66 Mbit/s
95th percentile per-packet one-way delay: 218.169 ms
Loss rate: 8.28%
-- Flow 1:
Average throughput: 833.29 Mbit/s
95th percentile per-packet one-way delay: 198.506 ms
Loss rate: 4.68%
-- Flow 2:
Average throughput: 690.78 Mbit/s
95th percentile per-packet one-way delay: 227.802 ms
Loss rate: 12.06%
-- Flow 3:
Average throughput: 630.85 Mbit/s
95th percentile per-packet one-way delay: 222.483 ms
Loss rate: 13.16%
Run 8: Report of FillP — Data Link
Run 9: Statistics of FillP

Start at: 2018-03-14 02:21:58
End at: 2018-03-14 02:22:28

# Below is generated by plot.py at 2018-03-14 06:37:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1374.20 Mbit/s
  95th percentile per-packet one-way delay: 333.248 ms
  Loss rate: 11.45%
-- Flow 1:
  Average throughput: 758.46 Mbit/s
  95th percentile per-packet one-way delay: 305.946 ms
  Loss rate: 8.03%
-- Flow 2:
  Average throughput: 668.20 Mbit/s
  95th percentile per-packet one-way delay: 248.097 ms
  Loss rate: 13.79%
-- Flow 3:
  Average throughput: 517.34 Mbit/s
  95th percentile per-packet one-way delay: 400.739 ms
  Loss rate: 19.12%
Run 9: Report of FillP — Data Link

Throughput (Mbps):

- Flow 1 Ingress (mean 824.71 Mbps)
- Flow 1 Egress (mean 758.48 Mbps)
- Flow 2 Ingress (mean 775.05 Mbps)
- Flow 2 Egress (mean 668.20 Mbps)
- Flow 3 Ingress (mean 639.65 Mbps)
- Flow 3 Egress (mean 517.34 Mbps)

Delay (ms):

- Flow 1 (95th percentile 305.95 ms)
- Flow 2 (95th percentile 248.10 ms)
- Flow 3 (95th percentile 400.74 ms)
Run 10: Statistics of FillP

Start at: 2018-03-14 02:41:06
End at: 2018-03-14 02:41:36

# Below is generated by plot.py at 2018-03-14 06:39:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1306.11 Mbit/s
95th percentile per-packet one-way delay: 252.728 ms
Loss rate: 12.52%
-- Flow 1:
Average throughput: 695.03 Mbit/s
95th percentile per-packet one-way delay: 240.785 ms
Loss rate: 11.45%
-- Flow 2:
Average throughput: 648.88 Mbit/s
95th percentile per-packet one-way delay: 282.073 ms
Loss rate: 12.53%
-- Flow 3:
Average throughput: 540.92 Mbit/s
95th percentile per-packet one-way delay: 250.577 ms
Loss rate: 16.38%
Run 10: Report of FillIP — Data Link
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-13 23:40:38
End at: 2018-03-13 23:41:08

# Below is generated by plot.py at 2018-03-14 06:39:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 301.74 Mbit/s
95th percentile per-packet one-way delay: 112.885 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 152.67 Mbit/s
95th percentile per-packet one-way delay: 112.433 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 160.72 Mbit/s
95th percentile per-packet one-way delay: 113.151 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.48 Mbit/s
95th percentile per-packet one-way delay: 113.499 ms
Loss rate: 0.00%
Run 1: Report of Indigo-1-32 — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 152.67 Mbps)
Flow 1 egress (mean 152.67 Mbps)
Flow 2 ingress (mean 160.71 Mbps)
Flow 2 egress (mean 160.72 Mbps)
Flow 3 ingress (mean 132.47 Mbps)
Flow 3 egress (mean 132.48 Mbps)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 112.43 ms)
Flow 2 (95th percentile 113.15 ms)
Flow 3 (95th percentile 113.50 ms)
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-14 00:00:10
End at: 2018-03-14 00:00:40

# Below is generated by plot.py at 2018-03-14 06:39:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 290.04 Mbit/s
  95th percentile per-packet one-way delay: 114.376 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 148.46 Mbit/s
  95th percentile per-packet one-way delay: 113.822 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 149.54 Mbit/s
  95th percentile per-packet one-way delay: 116.151 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 132.30 Mbit/s
  95th percentile per-packet one-way delay: 113.599 ms
  Loss rate: 0.00%
Run 2: Report of Indigo-1-32 — Data Link

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**Throughput (Mbps):**

- Flow 1 ingress (mean 148.46 Mbps)
- Flow 1 egress (mean 148.46 Mbps)
- Flow 2 ingress (mean 149.54 Mbps)
- Flow 2 egress (mean 149.54 Mbps)
- Flow 3 ingress (mean 132.29 Mbps)
- Flow 3 egress (mean 132.29 Mbps)

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

- Flow 1 (95th percentile 113.82 ms)
- Flow 2 (95th percentile 116.15 ms)
- Flow 3 (95th percentile 113.60 ms)
Run 3: Statistics of Indigo-1-32

Start at: 2018-03-14 00:19:29
End at: 2018-03-14 00:19:59

# Below is generated by plot.py at 2018-03-14 06:39:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 304.94 Mbit/s
95th percentile per-packet one-way delay: 113.965 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 160.91 Mbit/s
95th percentile per-packet one-way delay: 113.316 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 153.86 Mbit/s
95th percentile per-packet one-way delay: 114.217 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 131.38 Mbit/s
95th percentile per-packet one-way delay: 114.682 ms
Loss rate: 0.00%
Run 3: Report of Indigo-1-32 — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image2)
Run 4: Statistics of Indigo-1-32

Start at: 2018-03-14 00:39:04
End at: 2018-03-14 00:39:34

# Below is generated by plot.py at 2018-03-14 06:39:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 375.60 Mbit/s
  95th percentile per-packet one-way delay: 116.027 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 202.12 Mbit/s
  95th percentile per-packet one-way delay: 115.765 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 198.51 Mbit/s
  95th percentile per-packet one-way delay: 118.372 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 131.92 Mbit/s
  95th percentile per-packet one-way delay: 114.285 ms
  Loss rate: 0.00%
Run 4: Report of Indigo-1-32 — Data Link
Run 5: Statistics of Indigo-1-32

Start at: 2018-03-14 00:58:13
End at: 2018-03-14 00:58:43

# Below is generated by plot.py at 2018-03-14 06:39:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 303.77 Mbit/s
95th percentile per-packet one-way delay: 114.820 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 152.46 Mbit/s
95th percentile per-packet one-way delay: 114.202 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.10 Mbit/s
95th percentile per-packet one-way delay: 115.284 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 181.28 Mbit/s
95th percentile per-packet one-way delay: 118.289 ms
Loss rate: 0.00%
Run 5: Report of Indigo-1-32 — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet end-to-end delay (ms)]
Run 6: Statistics of Indigo-1-32

Start at: 2018-03-14 01:17:30
End at: 2018-03-14 01:18:00

# Below is generated by plot.py at 2018-03-14 06:39:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 304.35 Mbit/s
95th percentile per-packet one-way delay: 113.451 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 168.43 Mbit/s
95th percentile per-packet one-way delay: 113.069 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.01 Mbit/s
95th percentile per-packet one-way delay: 113.686 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 134.40 Mbit/s
95th percentile per-packet one-way delay: 113.900 ms
Loss rate: 0.00%
Run 6: Report of Indigo-1-32 — Data Link
Run 7: Statistics of Indigo-1-32

Start at: 2018-03-14 01:37:21
End at: 2018-03-14 01:37:51

# Below is generated by plot.py at 2018-03-14 06:39:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 287.75 Mbit/s
  95th percentile per-packet one-way delay: 114.868 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 146.93 Mbit/s
  95th percentile per-packet one-way delay: 114.763 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 149.81 Mbit/s
  95th percentile per-packet one-way delay: 114.495 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 130.84 Mbit/s
  95th percentile per-packet one-way delay: 115.626 ms
  Loss rate: 0.00%
Run 7: Report of Indigo-1-32 — Data Link
Run 8: Statistics of Indigo-1-32

Start at: 2018-03-14 01:57:21
End at: 2018-03-14 01:57:51

# Below is generated by plot.py at 2018-03-14 06:39:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 286.42 Mbit/s
  95th percentile per-packet one-way delay: 113.868 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 152.20 Mbit/s
  95th percentile per-packet one-way delay: 113.425 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 138.65 Mbit/s
  95th percentile per-packet one-way delay: 113.905 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 133.03 Mbit/s
  95th percentile per-packet one-way delay: 115.664 ms
  Loss rate: 0.00%
Run 8: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 152.21 Mbps)
- Flow 1 egress (mean 152.20 Mbps)
- Flow 2 ingress (mean 138.65 Mbps)
- Flow 2 egress (mean 138.65 Mbps)
- Flow 3 ingress (mean 133.03 Mbps)
- Flow 3 egress (mean 133.03 Mbps)

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

- Flow 1 (95th percentile 113.42 ms)
- Flow 2 (95th percentile 113.91 ms)
- Flow 3 (95th percentile 115.66 ms)
Run 9: Statistics of Indigo-1-32

Start at: 2018-03-14 02:16:43
End at: 2018-03-14 02:17:13

# Below is generated by plot.py at 2018-03-14 06:39:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 323.23 Mbit/s
  95th percentile per-packet one-way delay: 118.576 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 146.31 Mbit/s
  95th percentile per-packet one-way delay: 116.844 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 204.28 Mbit/s
  95th percentile per-packet one-way delay: 118.723 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 130.52 Mbit/s
  95th percentile per-packet one-way delay: 121.271 ms
  Loss rate: 0.00%
Run 9: Report of Indigo-1-32 — Data Link

---

**Throughput (Mbit/s)**

- **Flow 1 ingress (mean 146.32 Mbit/s)**
- **Flow 1 egress (mean 146.31 Mbit/s)**
- **Flow 2 ingress (mean 204.30 Mbit/s)**
- **Flow 2 egress (mean 204.28 Mbit/s)**
- **Flow 3 ingress (mean 130.55 Mbit/s)**
- **Flow 3 egress (mean 130.52 Mbit/s)**

---

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

- **Flow 1 (95th percentile 116.84 ms)**
- **Flow 2 (95th percentile 118.72 ms)**
- **Flow 3 (95th percentile 121.27 ms)**

---

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Run 10: Statistics of Indigo-1-32

Start at: 2018-03-14 02:35:59
End at: 2018-03-14 02:36:29

# Below is generated by plot.py at 2018-03-14 06:39:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 340.90 Mbit/s
95th percentile per-packet one-way delay: 113.044 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 161.51 Mbit/s
95th percentile per-packet one-way delay: 112.278 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 206.26 Mbit/s
95th percentile per-packet one-way delay: 115.156 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 134.07 Mbit/s
95th percentile per-packet one-way delay: 112.310 ms
Loss rate: 0.00%
Run 10: Report of Indigo-1-32 — Data Link

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

<table>
<thead>
<tr>
<th>Flow 1 ingress (mean 161.50 Mbit/s)</th>
<th>Flow 1 egress (mean 161.51 Mbit/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow 2 ingress (mean 206.25 Mbit/s)</td>
<td>Flow 2 egress (mean 206.26 Mbit/s)</td>
</tr>
<tr>
<td>Flow 3 ingress (mean 134.07 Mbit/s)</td>
<td>Flow 3 egress (mean 134.07 Mbit/s)</td>
</tr>
</tbody>
</table>

| Flow 1 (95th percentile 112.28 ms) | Flow 2 (95th percentile 115.16 ms) | Flow 3 (95th percentile 112.31 ms) |

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Run 1: Statistics of Vivace-latency

End at: 2018-03-13 23:42:18

# Below is generated by plot.py at 2018-03-14 06:39:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 510.40 Mbit/s
  95th percentile per-packet one-way delay: 128.561 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 289.61 Mbit/s
  95th percentile per-packet one-way delay: 127.883 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 262.12 Mbit/s
  95th percentile per-packet one-way delay: 124.994 ms
  Loss rate: 0.06%
-- Flow 3:
  Average throughput: 141.38 Mbit/s
  95th percentile per-packet one-way delay: 148.173 ms
  Loss rate: 0.24%
Run 1: Report of Vivace-latency — Data Link

---

**Throughput (Mbit/s)**

- **Flow 1 ingress** (mean 289.61 Mbit/s)
- **Flow 1 egress** (mean 289.61 Mbit/s)
- **Flow 2 ingress** (mean 262.27 Mbit/s)
- **Flow 2 egress** (mean 262.12 Mbit/s)
- **Flow 3 ingress** (mean 141.69 Mbit/s)
- **Flow 3 egress** (mean 141.38 Mbit/s)

---

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

- **Flow 1 (95th percentile 127.98 ms)**
- **Flow 2 (95th percentile 124.99 ms)**
- **Flow 3 (95th percentile 148.17 ms)**
Run 2: Statistics of Vivace-latency

Start at: 2018-03-14 00:01:19
End at: 2018-03-14 00:01:49

# Below is generated by plot.py at 2018-03-14 06:39:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 414.32 Mbit/s
95th percentile per-packet one-way delay: 192.727 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 245.73 Mbit/s
95th percentile per-packet one-way delay: 208.690 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 188.29 Mbit/s
95th percentile per-packet one-way delay: 115.241 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.06 Mbit/s
95th percentile per-packet one-way delay: 151.356 ms
Loss rate: 0.00%
Run 2: Report of Vivace-latency — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 247.33 Mbps)  
Flow 1 egress (mean 245.73 Mbps)  
Flow 2 ingress (mean 188.27 Mbps)  
Flow 2 egress (mean 188.29 Mbps)  
Flow 3 ingress (mean 132.69 Mbps)  
Flow 3 egress (mean 132.06 Mbps)

One packet per second delay (ms)

Time (s)

Flow 1 (95th percentile 208.69 ms)  
Flow 2 (95th percentile 115.24 ms)  
Flow 3 (95th percentile 151.36 ms)
Run 3: Statistics of Vivace-latency

Start at: 2018-03-14 00:20:38
End at: 2018-03-14 00:21:08

# Below is generated by plot.py at 2018-03-14 06:39:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 356.47 Mbit/s
95th percentile per-packet one-way delay: 193.407 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 181.15 Mbit/s
95th percentile per-packet one-way delay: 188.778 ms
Loss rate: 2.48%
-- Flow 2:
Average throughput: 198.10 Mbit/s
95th percentile per-packet one-way delay: 218.202 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 132.91 Mbit/s
95th percentile per-packet one-way delay: 157.547 ms
Loss rate: 0.02%
Run 3: Report of Vivace-latency — Data Link

![Throughput and Packet Delay Graphs]

The graphs above illustrate the throughput and packet delay for different flows under varying conditions. The throughput measurements are indicated by the lines on the left graph, with blue and red lines representing ingress and egress respectively, and specific mean values provided for each flow. The right graph shows packet delay with similar color coding for flows.
Run 4: Statistics of Vivace-lateny

Start at: 2018-03-14 00:40:20
End at: 2018-03-14 00:40:50

# Below is generated by plot.py at 2018-03-14 06:39:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.34 Mbit/s
95th percentile per-packet one-way delay: 114.844 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 221.93 Mbit/s
95th percentile per-packet one-way delay: 115.299 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 178.85 Mbit/s
95th percentile per-packet one-way delay: 111.327 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.28 Mbit/s
95th percentile per-packet one-way delay: 131.394 ms
Loss rate: 0.00%
Run 4: Report of Vivace-latency — Data Link

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

Legend:
- Flow 1 ingress (mean 221.95 Mbit/s)
- Flow 1 egress (mean 221.93 Mbit/s)
- Flow 2 ingress (mean 178.85 Mbit/s)
- Flow 2 egress (mean 178.85 Mbit/s)
- Flow 3 ingress (mean 132.27 Mbit/s)
- Flow 3 egress (mean 132.28 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 115.30 ms)
- Flow 2 (95th percentile 111.33 ms)
- Flow 3 (95th percentile 131.39 ms)
Run 5: Statistics of Vivace-latency

Start at: 2018-03-14 00:59:23
End at: 2018-03-14 00:59:53

# Below is generated by plot.py at 2018-03-14 06:39:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 461.65 Mbit/s
95th percentile per-packet one-way delay: 282.159 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 228.16 Mbit/s
95th percentile per-packet one-way delay: 113.875 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 285.25 Mbit/s
95th percentile per-packet one-way delay: 296.521 ms
Loss rate: 2.22%
-- Flow 3:
Average throughput: 133.45 Mbit/s
95th percentile per-packet one-way delay: 177.784 ms
Loss rate: 0.00%
Run 5: Report of Vivace-latency — Data Link
Run 6: Statistics of Vivace-latency

Start at: 2018-03-14 01:18:40
End at: 2018-03-14 01:19:10

# Below is generated by plot.py at 2018-03-14 06:39:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 476.33 Mbit/s
  95th percentile per-packet one-way delay: 264.742 ms
  Loss rate: 0.39%
-- Flow 1:
  Average throughput: 285.83 Mbit/s
  95th percentile per-packet one-way delay: 246.102 ms
  Loss rate: 0.53%
-- Flow 2:
  Average throughput: 224.09 Mbit/s
  95th percentile per-packet one-way delay: 271.279 ms
  Loss rate: 0.22%
-- Flow 3:
  Average throughput: 126.60 Mbit/s
  95th percentile per-packet one-way delay: 119.168 ms
  Loss rate: 0.00%
Run 6: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 287.35 Mb/s) vs. Flow 1 egress (mean 285.83 Mb/s)
- Flow 2 ingress (mean 224.58 Mb/s) vs. Flow 2 egress (mean 224.09 Mb/s)
- Flow 3 ingress (mean 126.60 Mb/s) vs. Flow 3 egress (mean 126.60 Mb/s)
Run 7: Statistics of Vivace-latency

Start at: 2018-03-14 01:38:30
End at: 2018-03-14 01:39:00

# Below is generated by plot.py at 2018-03-14 06:39:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.12 Mbit/s
95th percentile per-packet one-way delay: 122.003 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.95 Mbit/s
95th percentile per-packet one-way delay: 121.164 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 196.15 Mbit/s
95th percentile per-packet one-way delay: 114.526 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 136.21 Mbit/s
95th percentile per-packet one-way delay: 223.761 ms
Loss rate: 0.00%
Run 7: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 225.94 Mbit/s)
- Flow 1 egress (mean 225.95 Mbit/s)
- Flow 2 ingress (mean 196.16 Mbit/s)
- Flow 2 egress (mean 196.15 Mbit/s)
- Flow 3 ingress (mean 136.21 Mbit/s)
- Flow 3 egress (mean 136.21 Mbit/s)
Run 8: Statistics of Vivace-latency

Start at: 2018-03-14 01:58:30
End at: 2018-03-14 01:59:00

# Below is generated by plot.py at 2018-03-14 06:41:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 383.24 Mbit/s
95th percentile per-packet one-way delay: 182.844 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 233.32 Mbit/s
95th percentile per-packet one-way delay: 153.297 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 116.17 Mbit/s
95th percentile per-packet one-way delay: 113.091 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 221.03 Mbit/s
95th percentile per-packet one-way delay: 222.702 ms
Loss rate: 0.00%
Run 8: Report of Vivace-latency — Data Link
Run 9: Statistics of Vivace-latency

Start at: 2018-03-14 02:17:54
End at: 2018-03-14 02:18:24

# Below is generated by plot.py at 2018-03-14 06:43:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 489.94 Mbit/s
  95th percentile per-packet one-way delay: 194.606 ms
  Loss rate: 0.71%
-- Flow 1:
  Average throughput: 297.84 Mbit/s
  95th percentile per-packet one-way delay: 173.427 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 188.54 Mbit/s
  95th percentile per-packet one-way delay: 251.707 ms
  Loss rate: 2.55%
-- Flow 3:
  Average throughput: 203.07 Mbit/s
  95th percentile per-packet one-way delay: 222.141 ms
  Loss rate: 0.35%
Run 9: Report of Vivace-latency — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 297.85 Mbps)
- Flow 1 egress (mean 297.84 Mbps)
- Flow 2 ingress (mean 193.46 Mbps)
- Flow 2 egress (mean 188.56 Mbps)
- Flow 3 ingress (mean 203.88 Mbps)
- Flow 3 egress (mean 203.07 Mbps)

Packet delay (μs):
- Flow 1 (95th percentile 173.43 μs)
- Flow 2 (95th percentile 251.71 μs)
- Flow 3 (95th percentile 222.14 μs)
Run 10: Statistics of Vivace-latency

Start at: 2018-03-14 02:37:11
End at: 2018-03-14 02:37:41

# Below is generated by plot.py at 2018-03-14 06:43:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 412.16 Mbit/s
  95th percentile per-packet one-way delay: 168.976 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 236.92 Mbit/s
  95th percentile per-packet one-way delay: 159.227 ms
  Loss rate: 0.50%
-- Flow 2:
  Average throughput: 196.33 Mbit/s
  95th percentile per-packet one-way delay: 166.448 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 136.00 Mbit/s
  95th percentile per-packet one-way delay: 198.869 ms
  Loss rate: 0.02%
Run 10: Report of Vivace-latency — Data Link

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

Legend:
- Flow 1 ingress (mean 237.99 Mbit/s)
- Flow 1 egress (mean 236.92 Mbit/s)
- Flow 2 ingress (mean 196.34 Mbit/s)
- Flow 2 egress (mean 196.33 Mbit/s)
- Flow 3 ingress (mean 136.01 Mbit/s)
- Flow 3 egress (mean 136.00 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 159.23 ms)
- Flow 2 (95th percentile 166.45 ms)
- Flow 3 (95th percentile 198.87 ms)
Run 1: Statistics of Vivace-loss

Start at: 2018-03-13 23:51:50
End at: 2018-03-13 23:52:20

# Below is generated by plot.py at 2018-03-14 06:48:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 553.34 Mbit/s
95th percentile per-packet one-way delay: 301.006 ms
Loss rate: 4.07%
-- Flow 1:
Average throughput: 308.21 Mbit/s
95th percentile per-packet one-way delay: 294.579 ms
Loss rate: 2.18%
-- Flow 2:
Average throughput: 295.88 Mbit/s
95th percentile per-packet one-way delay: 317.681 ms
Loss rate: 4.77%
-- Flow 3:
Average throughput: 146.38 Mbit/s
95th percentile per-packet one-way delay: 292.831 ms
Loss rate: 12.28%
Run 1: Report of Vivace-loss — Data Link

![Graph of data link throughput and per-packet one-way delay for flow 1, 2, and 3.]

- Flow 1 ingress (mean 315.04 Mbit/s)
- Flow 1 egress (mean 308.21 Mbit/s)
- Flow 2 ingress (mean 310.68 Mbit/s)
- Flow 2 egress (mean 295.88 Mbit/s)
- Flow 3 ingress (mean 166.82 Mbit/s)
- Flow 3 egress (mean 146.38 Mbit/s)

![Graph of per-packet one-way delay for flow 1, 2, and 3.]

- Flow 1 (95th percentile 294.58 ms)
- Flow 2 (95th percentile 317.68 ms)
- Flow 3 (95th percentile 292.83 ms)
Run 2: Statistics of Vivace-loss

Start at: 2018-03-14 00:11:32
End at: 2018-03-14 00:12:02

# Below is generated by plot.py at 2018-03-14 06:48:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 426.63 Mbit/s
  95th percentile per-packet one-way delay: 277.491 ms
  Loss rate: 1.91%
-- Flow 1:
  Average throughput: 182.09 Mbit/s
  95th percentile per-packet one-way delay: 296.499 ms
  Loss rate: 3.74%
-- Flow 2:
  Average throughput: 292.32 Mbit/s
  95th percentile per-packet one-way delay: 222.873 ms
  Loss rate: 0.64%
-- Flow 3:
  Average throughput: 153.13 Mbit/s
  95th percentile per-packet one-way delay: 176.352 ms
  Loss rate: 0.01%
Run 2: Report of Vivace-loss — Data Link
Run 3: Statistics of Vivace-loss

Start at: 2018-03-14 00:30:47
End at: 2018-03-14 00:31:17

# Below is generated by plot.py at 2018-03-14 06:48:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.52 Mbit/s
95th percentile per-packet one-way delay: 226.124 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 307.71 Mbit/s
95th percentile per-packet one-way delay: 233.589 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 195.92 Mbit/s
95th percentile per-packet one-way delay: 146.767 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 138.80 Mbit/s
95th percentile per-packet one-way delay: 276.468 ms
Loss rate: 1.52%
Run 3: Report of Vivace-loss — Data Link

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

- **Flow 1 ingress (mean 310.00 Mbit/s)**
- **Flow 1 egress (mean 307.71 Mbit/s)**
- **Flow 2 ingress (mean 195.91 Mbit/s)**
- **Flow 2 egress (mean 195.92 Mbit/s)**
- **Flow 3 ingress (mean 140.92 Mbit/s)**
- **Flow 3 egress (mean 138.80 Mbit/s)**
Run 4: Statistics of Vivace-loss

Start at: 2018-03-14 00:50:33
End at: 2018-03-14 00:51:03

# Below is generated by plot.py at 2018-03-14 06:48:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 322.94 Mbit/s
  95th percentile per-packet one-way delay: 292.746 ms
  Loss rate: 5.07%
-- Flow 1:
  Average throughput: 196.38 Mbit/s
  95th percentile per-packet one-way delay: 297.531 ms
  Loss rate: 7.48%
-- Flow 2:
  Average throughput: 119.24 Mbit/s
  95th percentile per-packet one-way delay: 112.452 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 143.76 Mbit/s
  95th percentile per-packet one-way delay: 285.197 ms
  Loss rate: 2.80%
Run 4: Report of Vivace-loss — Data Link

![Graph of Throughput](image1)

![Graph of Per-packet one-way delay](image2)
Run 5: Statistics of Vivace-loss

Start at: 2018-03-14 01:09:32
End at: 2018-03-14 01:10:02

# Below is generated by plot.py at 2018-03-14 06:49:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 523.13 Mbit/s
  95th percentile per-packet one-way delay: 303.218 ms
  Loss rate: 2.57%
-- Flow 1:
  Average throughput: 345.38 Mbit/s
  95th percentile per-packet one-way delay: 295.808 ms
  Loss rate: 1.65%
-- Flow 2:
  Average throughput: 219.84 Mbit/s
  95th percentile per-packet one-way delay: 306.451 ms
  Loss rate: 5.20%
-- Flow 3:
  Average throughput: 96.10 Mbit/s
  95th percentile per-packet one-way delay: 153.727 ms
  Loss rate: 0.00%
Run 5: Report of Vivace-loss — Data Link

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

- **Flow 1 ingress**: mean 351.18 Mbit/s
- **Flow 1 egress**: mean 345.38 Mbit/s
- **Flow 2 ingress**: mean 231.90 Mbit/s
- **Flow 2 egress**: mean 219.84 Mbit/s
- **Flow 3 ingress**: mean 96.10 Mbit/s
- **Flow 3 egress**: mean 96.10 Mbit/s

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

- **Flow 1 (95th percentile)**: 295.81 ms
- **Flow 2 (95th percentile)**: 306.45 ms
- **Flow 3 (95th percentile)**: 153.73 ms
Run 6: Statistics of Vivace-loss

Start at: 2018-03-14 01:29:11
End at: 2018-03-14 01:29:41

# Below is generated by plot.py at 2018-03-14 06:49:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 383.97 Mbit/s
  95th percentile per-packet one-way delay: 318.735 ms
  Loss rate: 6.98%
-- Flow 1:
  Average throughput: 169.85 Mbit/s
  95th percentile per-packet one-way delay: 286.796 ms
  Loss rate: 8.29%
-- Flow 2:
  Average throughput: 229.62 Mbit/s
  95th percentile per-packet one-way delay: 323.295 ms
  Loss rate: 3.23%
-- Flow 3:
  Average throughput: 186.73 Mbit/s
  95th percentile per-packet one-way delay: 330.765 ms
  Loss rate: 11.95%
Run 6: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 185.20 Mbit/s)
- Flow 1 egress (mean 169.85 Mbit/s)
- Flow 2 ingress (mean 237.28 Mbit/s)
- Flow 2 egress (mean 229.62 Mbit/s)
- Flow 3 ingress (mean 211.92 Mbit/s)
- Flow 3 egress (mean 186.73 Mbit/s)

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

- Flow 1 (95th percentile 286.80 ms)
- Flow 2 (95th percentile 323.30 ms)
- Flow 3 (95th percentile 330.76 ms)
Run 7: Statistics of Vivace-loss

Start at: 2018-03-14 01:49:07
End at: 2018-03-14 01:49:37

# Below is generated by plot.py at 2018-03-14 06:51:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 445.41 Mbit/s
95th percentile per-packet one-way delay: 249.908 ms
Loss rate: 1.62%

-- Flow 1:
Average throughput: 283.99 Mbit/s
95th percentile per-packet one-way delay: 256.621 ms
Loss rate: 0.56%

-- Flow 2:
Average throughput: 201.43 Mbit/s
95th percentile per-packet one-way delay: 195.972 ms
Loss rate: 1.08%

-- Flow 3:
Average throughput: 83.78 Mbit/s
95th percentile per-packet one-way delay: 320.637 ms
Loss rate: 13.43%
Run 7: Report of Vivace-loss — Data Link
Run 8: Statistics of Vivace-loss

Start at: 2018-03-14 02:08:32
End at: 2018-03-14 02:09:02

# Below is generated by plot.py at 2018-03-14 06:54:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 582.41 Mbit/s
95th percentile per-packet one-way delay: 303.141 ms
Loss rate: 2.48%
-- Flow 1:
Average throughput: 323.33 Mbit/s
95th percentile per-packet one-way delay: 277.527 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 284.73 Mbit/s
95th percentile per-packet one-way delay: 308.457 ms
Loss rate: 3.54%
-- Flow 3:
Average throughput: 212.07 Mbit/s
95th percentile per-packet one-way delay: 261.109 ms
Loss rate: 1.76%
Run 8: Report of Vivace-loss — Data Link

---

**Throughput vs. Time**

Flow 1 ingress (mean 329.98 Mbit/s)  
Flow 1 egress (mean 323.33 Mbit/s)  
Flow 2 ingress (mean 295.20 Mbit/s)  
Flow 2 egress (mean 284.73 Mbit/s)  
Flow 3 ingress (mean 215.96 Mbit/s)  
Flow 3 egress (mean 212.07 Mbit/s)

---

**Per-packet one-way delay vs. Time**

Flow 1 (95th percentile 277.53 ms)  
Flow 2 (95th percentile 308.46 ms)  
Flow 3 (95th percentile 261.11 ms)
Run 9: Statistics of Vivace-loss

Start at: 2018-03-14 02:27:57
End at: 2018-03-14 02:28:27

# Below is generated by plot.py at 2018-03-14 06:56:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 545.66 Mbit/s
  95th percentile per-packet one-way delay: 305.081 ms
  Loss rate: 1.97%
-- Flow 1:
  Average throughput: 331.10 Mbit/s
  95th percentile per-packet one-way delay: 248.750 ms
  Loss rate: 0.99%
-- Flow 2:
  Average throughput: 247.13 Mbit/s
  95th percentile per-packet one-way delay: 313.936 ms
  Loss rate: 3.45%
-- Flow 3:
  Average throughput: 153.07 Mbit/s
  95th percentile per-packet one-way delay: 304.941 ms
  Loss rate: 3.38%
Run 9: Report of Vivace-loss — Data Link

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

Start at: 2018-03-14 02:47:12
End at: 2018-03-14 02:47:42

# Below is generated by plot.py at 2018-03-14 06:56:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 352.65 Mbit/s
95th percentile per-packet one-way delay: 161.011 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 152.44 Mbit/s
95th percentile per-packet one-way delay: 242.764 ms
Loss rate: 3.55%
-- Flow 2:
Average throughput: 221.24 Mbit/s
95th percentile per-packet one-way delay: 130.698 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 161.57 Mbit/s
95th percentile per-packet one-way delay: 157.879 ms
Loss rate: 0.00%
Run 10: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 158.05 Mbit/s)
- Flow 1 egress (mean 152.44 Mbit/s)
- Flow 2 ingress (mean 221.36 Mbit/s)
- Flow 2 egress (mean 221.24 Mbit/s)
- Flow 3 ingress (mean 161.56 Mbit/s)
- Flow 3 egress (mean 161.57 Mbit/s)
Run 1: Statistics of Vivace-LTE

End at: 2018-03-13 23:49:07

# Below is generated by plot.py at 2018-03-14 06:57:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 490.11 Mbit/s
  95th percentile per-packet one-way delay: 148.872 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 323.13 Mbit/s
  95th percentile per-packet one-way delay: 151.256 ms
  Loss rate: 0.08%
-- Flow 2:
  Average throughput: 186.62 Mbit/s
  95th percentile per-packet one-way delay: 114.243 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 130.74 Mbit/s
  95th percentile per-packet one-way delay: 168.672 ms
  Loss rate: 0.00%
Run 1: Report of Vivace-LTE — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 323.41 Mbps)  Flow 1 egress (mean 323.33 Mbps)
Flow 2 ingress (mean 186.58 Mbps)  Flow 2 egress (mean 186.62 Mbps)
Flow 3 ingress (mean 130.76 Mbps)  Flow 3 egress (mean 130.74 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 151.26 ms)  Flow 2 (95th percentile 114.24 ms)  Flow 3 (95th percentile 168.67 ms)
Run 2: Statistics of Vivace-LTE

Start at: 2018-03-14 00:08:04
End at: 2018-03-14 00:08:34

# Below is generated by plot.py at 2018-03-14 06:58:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 532.77 Mbit/s
  95th percentile per-packet one-way delay: 297.381 ms
  Loss rate: 1.67%
-- Flow 1:
  Average throughput: 292.60 Mbit/s
  95th percentile per-packet one-way delay: 313.091 ms
  Loss rate: 2.83%
-- Flow 2:
  Average throughput: 295.10 Mbit/s
  95th percentile per-packet one-way delay: 229.906 ms
  Loss rate: 0.25%
-- Flow 3:
  Average throughput: 134.42 Mbit/s
  95th percentile per-packet one-way delay: 127.684 ms
  Loss rate: 0.02%
Run 2: Report of Vivace-LTE — Data Link

![Graph showing throughput and delay over time for different flows.]
Run 3: Statistics of Vivace-LTE

Start at: 2018-03-14 00:27:21
End at: 2018-03-14 00:27:51

# Below is generated by plot.py at 2018-03-14 06:58:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 512.83 Mbit/s
95th percentile per-packet one-way delay: 280.697 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 304.03 Mbit/s
95th percentile per-packet one-way delay: 307.326 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 202.27 Mbit/s
95th percentile per-packet one-way delay: 252.480 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 226.58 Mbit/s
95th percentile per-packet one-way delay: 255.900 ms
Loss rate: 2.41%
Run 3: Report of Vivace-LTE — Data Link
Run 4: Statistics of Vivace-LTE

Start at: 2018-03-14 00:47:15
End at: 2018-03-14 00:47:45

# Below is generated by plot.py at 2018-03-14 07:00:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 530.10 Mbit/s
  95th percentile per-packet one-way delay: 302.584 ms
  Loss rate: 2.40%
-- Flow 1:
  Average throughput: 316.28 Mbit/s
  95th percentile per-packet one-way delay: 262.578 ms
  Loss rate: 0.24%
-- Flow 2:
  Average throughput: 259.90 Mbit/s
  95th percentile per-packet one-way delay: 310.301 ms
  Loss rate: 6.65%
-- Flow 3:
  Average throughput: 126.09 Mbit/s
  95th percentile per-packet one-way delay: 145.649 ms
  Loss rate: 0.00%
Run 4: Report of Vivace-LTE — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 5: Statistics of Vivace-LTE

Start at: 2018-03-14 01:06:13
End at: 2018-03-14 01:06:43

# Below is generated by plot.py at 2018-03-14 07:00:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 420.87 Mbit/s
95th percentile per-packet one-way delay: 277.716 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 246.97 Mbit/s
95th percentile per-packet one-way delay: 288.700 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 188.06 Mbit/s
95th percentile per-packet one-way delay: 114.563 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 148.63 Mbit/s
95th percentile per-packet one-way delay: 277.682 ms
Loss rate: 1.43%
Run 5: Report of Vivace-LTE — Data Link

![Graph showing throughput and per-packet one way delay](image1)

- Flow 1 ingress (mean 249.15 Mbit/s)
- Flow 1 egress (mean 246.97 Mbit/s)
- Flow 2 ingress (mean 188.03 Mbit/s)
- Flow 2 egress (mean 188.06 Mbit/s)
- Flow 3 ingress (mean 150.78 Mbit/s)
- Flow 3 egress (mean 148.63 Mbit/s)
Run 6: Statistics of Vivace-LTE

Start at: 2018-03-14 01:25:48
End at: 2018-03-14 01:26:18

# Below is generated by plot.py at 2018-03-14 07:01:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 497.25 Mbit/s
95th percentile per-packet one-way delay: 135.052 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 317.75 Mbit/s
95th percentile per-packet one-way delay: 134.317 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 204.12 Mbit/s
95th percentile per-packet one-way delay: 116.998 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 133.50 Mbit/s
95th percentile per-packet one-way delay: 208.506 ms
Loss rate: 0.00%
Run 6: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 317.75 Mbps)
- Flow 2 ingress (mean 204.15 Mbps)
- Flow 3 ingress (mean 133.51 Mbps)
- Flow 1 egress (mean 317.75 Mbps)
- Flow 2 egress (mean 204.12 Mbps)
- Flow 3 egress (mean 133.50 Mbps)

![Graph of Per-Packet One-way Delay (ms) vs Time (s)]

- Flow 1 (95th percentile 134.32 ms)
- Flow 2 (95th percentile 117.00 ms)
- Flow 3 (95th percentile 208.51 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-03-14 01:45:37
End at: 2018-03-14 01:46:07

# Below is generated by plot.py at 2018-03-14 07:02:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 528.02 Mbit/s
  95th percentile per-packet one-way delay: 294.395 ms
  Loss rate: 0.64%
-- Flow 1:
  Average throughput: 308.35 Mbit/s
  95th percentile per-packet one-way delay: 298.848 ms
  Loss rate: 0.56%
-- Flow 2:
  Average throughput: 265.02 Mbit/s
  95th percentile per-packet one-way delay: 244.673 ms
  Loss rate: 0.94%
-- Flow 3:
  Average throughput: 132.40 Mbit/s
  95th percentile per-packet one-way delay: 136.179 ms
  Loss rate: 0.00%
Run 7: Report of Vivace-LTE — Data Link

![Graph showing throughput and per-packet one-way delay](image-url)
Run 8: Statistics of Vivace-LTE

Start at: 2018-03-14 02:05:10
End at: 2018-03-14 02:05:40

# Below is generated by plot.py at 2018-03-14 07:02:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 496.38 Mbit/s
  95th percentile per-packet one-way delay: 232.259 ms
  Loss rate: 0.68%
  -- Flow 1:
  Average throughput: 318.98 Mbit/s
  95th percentile per-packet one-way delay: 246.395 ms
  Loss rate: 1.05%
  -- Flow 2:
  Average throughput: 204.82 Mbit/s
  95th percentile per-packet one-way delay: 122.857 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 125.61 Mbit/s
  95th percentile per-packet one-way delay: 135.102 ms
  Loss rate: 0.00%
Run 8: Report of Vivace-LTE — Data Link

![Data Link Throughput Graph](image1)

- **Throughput Graph**: Shows the throughput in Mbps over time for different flows.
  - Flow 1 Ingress (mean 322.32 Mbps)
  - Flow 1 Egress (mean 318.98 Mbps)
  - Flow 2 Ingress (mean 294.81 Mbps)
  - Flow 2 Egress (mean 264.82 Mbps)
  - Flow 3 Ingress (mean 125.60 Mbps)
  - Flow 3 Egress (mean 125.61 Mbps)

![Data Link Delay Graph](image2)

- **Delay Graph**: Shows the per-packet delay in ms over time for different flows.
  - Flow 1 95th percentile 246.40 ms
  - Flow 2 95th percentile 122.86 ms
  - Flow 3 95th percentile 135.10 ms
Run 9: Statistics of Vivace-LTE

Start at: 2018-03-14 02:24:40
End at: 2018-03-14 02:25:10

# Below is generated by plot.py at 2018-03-14 07:03:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 441.51 Mbit/s
95th percentile per-packet one-way delay: 272.284 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 320.17 Mbit/s
95th percentile per-packet one-way delay: 288.324 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 115.24 Mbit/s
95th percentile per-packet one-way delay: 113.098 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 135.97 Mbit/s
95th percentile per-packet one-way delay: 155.611 ms
Loss rate: 0.00%
Run 9: Report of Vivace-LTE — Data Link
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-14 02:43:44
End at: 2018-03-14 02:44:14

# Below is generated by plot.py at 2018-03-14 07:03:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 529.09 Mbit/s
  95th percentile per-packet one-way delay: 209.736 ms
  Loss rate: 0.52%
-- Flow 1:
  Average throughput: 322.70 Mbit/s
  95th percentile per-packet one-way delay: 239.397 ms
  Loss rate: 0.83%
-- Flow 2:
  Average throughput: 245.94 Mbit/s
  95th percentile per-packet one-way delay: 162.633 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 130.30 Mbit/s
  95th percentile per-packet one-way delay: 169.463 ms
  Loss rate: 0.00%
Run 10: Report of Vivace-LTE — Data Link

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

Flow 1 ingress (mean 325.37 Mbit/s)  Flow 1 egress (mean 322.70 Mbit/s)
Flow 2 ingress (mean 246.05 Mbit/s)  Flow 2 egress (mean 245.94 Mbit/s)
Flow 3 ingress (mean 130.29 Mbit/s)  Flow 3 egress (mean 130.30 Mbit/s)

Packet delay for each flow.