Pantheon Report

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

Git summary:
branch: master @ b3d6e7098641364fd3a292656a51aa81e316d0b4
third_party/calibrated_koho @ 3cb73c0d1c03222cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ 11f8c46a2bf1dc797253db7e8ca04076272ba44
third_party/genericCC @ d223989828276fa83a807da6e0341dc0c7b89aec
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4e4230db7f484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc0e0ecdbf900c77e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f7541135ed5b540c09d505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho.cc @ f0f2e69330ae82e8a08e6928eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eeab4a906ce67bc7cfc3f
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db2674cfcff93
third_party/pcc @ 1afc958fa0d66d18b623c091a55f8c872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8ac08fba92c0e24f974ab
third_party/protocol-qtic @ 77961f1a821733a86b42f1bc8143ec978f3ccff42
third_party/scream @ c3707f0d7bd17265a79ae9b34e016ad23f5965885
third_party/sourdough @ f1a14bfffe479837437f61beaeed30b267cde81
third_party/sprout @ 6f2e3e6e088d91066a9f023df375ee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4ba47ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 7a4ba531e75b4af66f5c54580192129041784ce3
third_party/webrtc @ f271183af822ee5d0031620f4bebf38aedc5581
test from GCE Sydney Ethernet to GCE London Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
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<tr>
<td>TCP BBR</td>
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<td>75.14</td>
<td>72.57</td>
<td>66.81</td>
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<td>64.34</td>
<td>60.07</td>
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<td>53.26</td>
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<td>143.44</td>
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<td>44.87</td>
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<td>Verus</td>
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<td>128.16</td>
<td>98.48</td>
<td>44.51</td>
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<td>Copa</td>
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<td>75.80</td>
<td>67.88</td>
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<td>FillP</td>
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<td>627.31</td>
<td>564.03</td>
<td>541.11</td>
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<td>PCC-Vivace</td>
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<td>253.68</td>
<td>172.31</td>
<td>112.72</td>
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<td>PCC-Expr</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</table>
Run 1: Statistics of TCP BBR

End at: 2018-04-18 22:47:46

# Below is generated by plot.py at 2018-04-19 03:15:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.43 Mbit/s
95th percentile per-packet one-way delay: 136.157 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.69 Mbit/s
95th percentile per-packet one-way delay: 136.194 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.58 Mbit/s
95th percentile per-packet one-way delay: 136.138 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.58 Mbit/s
95th percentile per-packet one-way delay: 135.974 ms
Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 2: Statistics of TCP BBR

Start at: 2018-04-18 23:05:40
End at: 2018-04-18 23:06:10

# Below is generated by plot.py at 2018-04-19 03:15:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 144.81 Mbit/s
  95th percentile per-packet one-way delay: 135.982 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 75.01 Mbit/s
  95th percentile per-packet one-way delay: 135.971 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 72.72 Mbit/s
  95th percentile per-packet one-way delay: 135.990 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 64.66 Mbit/s
  95th percentile per-packet one-way delay: 136.003 ms
  Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link

**Throughput (Mbps):**
- Flow 1 ingress (mean 75.00 Mbps)
- Flow 1 egress (mean 75.01 Mbps)
- Flow 2 ingress (mean 72.72 Mbps)
- Flow 2 egress (mean 72.72 Mbps)
- Flow 3 ingress (mean 64.66 Mbps)
- Flow 3 egress (mean 64.66 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 135.97 ms)
- Flow 2 (95th percentile 135.99 ms)
- Flow 3 (95th percentile 136.00 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-04-18 23:24:01
End at: 2018-04-18 23:24:31

# Below is generated by plot.py at 2018-04-19 03:15:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 145.84 Mbit/s
95th percentile per-packet one-way delay: 136.088 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.65 Mbit/s
95th percentile per-packet one-way delay: 136.067 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 73.20 Mbit/s
95th percentile per-packet one-way delay: 136.113 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.67 Mbit/s
95th percentile per-packet one-way delay: 136.087 ms
Loss rate: 0.00%
Run 3: Report of TCP BBR — Data Link

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

- Flow 1: Ingress (mean 75.65 Mbit/s), Egress (mean 75.65 Mbit/s)
- Flow 2: Ingress (mean 73.19 Mbit/s), Egress (mean 73.20 Mbit/s)
- Flow 3: Ingress (mean 64.68 Mbit/s), Egress (mean 64.67 Mbit/s)

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

- Flow 1 (95th percentile 136.07 ms)
- Flow 2 (95th percentile 136.11 ms)
- Flow 3 (95th percentile 136.09 ms)
Run 4: Statistics of TCP BBR


# Below is generated by plot.py at 2018-04-19 03:15:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.99 Mbit/s
95th percentile per-packet one-way delay: 136.203 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 79.28 Mbit/s
95th percentile per-packet one-way delay: 136.231 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 73.13 Mbit/s
95th percentile per-packet one-way delay: 136.137 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.83 Mbit/s
95th percentile per-packet one-way delay: 136.219 ms
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link

![chart of throughput with time (s) on x-axis and throughput (Mbps) on y-axis, showing multiple flows and their ingress and egress throughput]

![chart of per-packet one-way delay with time (s) on x-axis and delay (ms) on y-axis, showing multiple flows and their 95th percentile delay]

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Run 5: Statistics of TCP BBR

Start at: 2018-04-19 00:00:49
End at: 2018-04-19 00:01:19

# Below is generated by plot.py at 2018-04-19 03:15:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 143.70 Mbit/s
  95th percentile per-packet one-way delay: 136.151 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 73.71 Mbit/s
  95th percentile per-packet one-way delay: 136.103 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 72.26 Mbit/s
  95th percentile per-packet one-way delay: 136.141 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 65.97 Mbit/s
  95th percentile per-packet one-way delay: 136.267 ms
  Loss rate: 0.03%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

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

# Below is generated by plot.py at 2018-04-19 03:15:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 144.97 Mbit/s
  95th percentile per-packet one-way delay: 136.776 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 72.57 Mbit/s
  95th percentile per-packet one-way delay: 136.613 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 76.90 Mbit/s
  95th percentile per-packet one-way delay: 136.877 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 64.44 Mbit/s
  95th percentile per-packet one-way delay: 138.097 ms
  Loss rate: 0.00%
Run 7: Statistics of TCP BBR

Start at: 2018-04-19 00:37:13
End at: 2018-04-19 00:37:43

# Below is generated by plot.py at 2018-04-19 03:15:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 144.94 Mbit/s
  95th percentile per-packet one-way delay: 136.379 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 74.35 Mbit/s
  95th percentile per-packet one-way delay: 136.415 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 71.28 Mbit/s
  95th percentile per-packet one-way delay: 136.261 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 70.14 Mbit/s
  95th percentile per-packet one-way delay: 135.726 ms
  Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 74.34 Mbit/s)
- Flow 2 ingress (mean 71.18 Mbit/s)
- Flow 3 ingress (mean 70.14 Mbit/s)
- Flow 1 egress (mean 74.35 Mbit/s)
- Flow 2 egress (mean 71.28 Mbit/s)
- Flow 3 egress (mean 70.14 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 136.41 ms)
- Flow 2 (95th percentile 136.26 ms)
- Flow 3 (95th percentile 135.73 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-04-19 00:55:33
End at: 2018-04-19 00:56:03

# Below is generated by plot.py at 2018-04-19 03:15:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 144.49 Mbit/s
  95th percentile per-packet one-way delay: 135.726 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 75.24 Mbit/s
  95th percentile per-packet one-way delay: 135.751 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 70.33 Mbit/s
  95th percentile per-packet one-way delay: 135.667 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 69.94 Mbit/s
  95th percentile per-packet one-way delay: 135.759 ms
  Loss rate: 0.00%
Run 8: Report of TCP BBR — Data Link

![Graph 1: Throughput vs Time]

- Flow 1 ingress (mean 75.24 Mbit/s)
- Flow 1 egress (mean 75.24 Mbit/s)
- Flow 2 ingress (mean 70.32 Mbit/s)
- Flow 2 egress (mean 70.33 Mbit/s)
- Flow 3 ingress (mean 69.93 Mbit/s)
- Flow 3 egress (mean 69.94 Mbit/s)

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

- Flow 1 (95th percentile 135.75 ms)
- Flow 2 (95th percentile 135.67 ms)
- Flow 3 (95th percentile 135.76 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-04-19 01:13:49
End at: 2018-04-19 01:14:19

# Below is generated by plot.py at 2018-04-19 03:17:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.55 Mbit/s
95th percentile per-packet one-way delay: 136.607 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.64 Mbit/s
95th percentile per-packet one-way delay: 136.519 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.40 Mbit/s
95th percentile per-packet one-way delay: 136.569 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.70 Mbit/s
95th percentile per-packet one-way delay: 136.748 ms
Loss rate: 0.00%
Run 9: Report of TCP BBR — Data Link

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Run 10: Statistics of TCP BBR

Start at: 2018-04-19 01:31:12
End at: 2018-04-19 01:31:42

# Below is generated by plot.py at 2018-04-19 03:17:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.96 Mbit/s
95th percentile per-packet one-way delay: 136.581 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.24 Mbit/s
95th percentile per-packet one-way delay: 136.627 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.91 Mbit/s
95th percentile per-packet one-way delay: 136.499 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.15 Mbit/s
95th percentile per-packet one-way delay: 135.675 ms
Loss rate: 0.00%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of TCP Cubic

End at: 2018-04-18 22:40:08

# Below is generated by plot.py at 2018-04-19 03:17:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 108.08 Mbit/s
95th percentile per-packet one-way delay: 141.201 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 58.55 Mbit/s
95th percentile per-packet one-way delay: 140.937 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.62 Mbit/s
95th percentile per-packet one-way delay: 139.705 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 47.80 Mbit/s
95th percentile per-packet one-way delay: 142.866 ms
Loss rate: 0.01%
Run 1: Report of TCP Cubic — Data Link

![Graph of Throughput vs Time](image1)

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

- Flow 1 ingress (mean 58.55 Mbit/s)
- Flow 1 egress (mean 58.55 Mbit/s)
- Flow 2 ingress (mean 50.66 Mbit/s)
- Flow 2 egress (mean 50.62 Mbit/s)
- Flow 3 ingress (mean 47.80 Mbit/s)
- Flow 3 egress (mean 47.80 Mbit/s)
Run 2: Statistics of TCP Cubic

Start at: 2018-04-18 22:57:54

# Below is generated by plot.py at 2018-04-19 03:17:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 137.54 Mbit/s
  95th percentile per-packet one-way delay: 143.703 ms
  Loss rate: 0.05%
  -- Flow 1:
    Average throughput: 60.09 Mbit/s
    95th percentile per-packet one-way delay: 142.235 ms
    Loss rate: 0.02%
  -- Flow 2:
    Average throughput: 81.38 Mbit/s
    95th percentile per-packet one-way delay: 143.960 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 70.33 Mbit/s
    95th percentile per-packet one-way delay: 148.297 ms
    Loss rate: 0.27%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

End at: 2018-04-18 23:16:50

# Below is generated by plot.py at 2018-04-19 03:17:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 116.08 Mbit/s
95th percentile per-packet one-way delay: 140.589 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.91 Mbit/s
95th percentile per-packet one-way delay: 140.335 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.63 Mbit/s
95th percentile per-packet one-way delay: 139.819 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.56 Mbit/s
95th percentile per-packet one-way delay: 141.814 ms
Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-04-18 23:34:46
End at: 2018-04-18 23:35:16

# Below is generated by plot.py at 2018-04-19 03:17:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 112.80 Mbit/s
  95th percentile per-packet one-way delay: 144.500 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 56.41 Mbit/s
  95th percentile per-packet one-way delay: 142.191 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 49.09 Mbit/s
  95th percentile per-packet one-way delay: 146.411 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 71.57 Mbit/s
  95th percentile per-packet one-way delay: 146.227 ms
  Loss rate: 0.62%
Run 4: Report of TCP Cubic — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 56.42 Mbit/s)
Flow 1 egress (mean 56.41 Mbit/s)
Flow 2 ingress (mean 49.10 Mbit/s)
Flow 2 egress (mean 49.09 Mbit/s)
Flow 3 ingress (mean 72.04 Mbit/s)
Flow 3 egress (mean 71.57 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 142.19 ms)
Flow 2 (95th percentile 146.41 ms)
Flow 3 (95th percentile 146.23 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-04-18 23:53:08
End at: 2018-04-18 23:53:38

# Below is generated by plot.py at 2018-04-19 03:17:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.16 Mbit/s
95th percentile per-packet one-way delay: 143.413 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 60.18 Mbit/s
95th percentile per-packet one-way delay: 143.362 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.02 Mbit/s
95th percentile per-packet one-way delay: 142.393 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.35 Mbit/s
95th percentile per-packet one-way delay: 146.838 ms
Loss rate: 0.92%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-04-19 00:11:19
End at: 2018-04-19 00:11:49

# Below is generated by plot.py at 2018-04-19 03:17:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 135.00 Mbit/s
95th percentile per-packet one-way delay: 149.339 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.10 Mbit/s
95th percentile per-packet one-way delay: 147.851 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 75.66 Mbit/s
95th percentile per-packet one-way delay: 151.869 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 143.117 ms
Loss rate: 0.47%
Run 6: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 84.12 Mbps)
  - Flow 1 egress (mean 84.10 Mbps)
  - Flow 2 ingress (mean 75.67 Mbps)
  - Flow 2 egress (mean 75.66 Mbps)
  - Flow 3 ingress (mean 1.53 Mbps)
  - Flow 3 egress (mean 1.52 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 147.85 ms)
  - Flow 2 (95th percentile 151.87 ms)
  - Flow 3 (95th percentile 143.12 ms)
Run 7: Statistics of TCP Cubic

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

# Below is generated by plot.py at 2018-04-19 03:18:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.82 Mbit/s
95th percentile per-packet one-way delay: 144.851 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 53.99 Mbit/s
95th percentile per-packet one-way delay: 143.227 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 80.74 Mbit/s
95th percentile per-packet one-way delay: 145.982 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 141.890 ms
Loss rate: 1.35%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-04-19 00:47:49
End at: 2018-04-19 00:48:19

# Below is generated by plot.py at 2018-04-19 03:18:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 117.97 Mbit/s
95th percentile per-packet one-way delay: 142.336 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 59.48 Mbit/s
95th percentile per-packet one-way delay: 139.865 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 51.30 Mbit/s
95th percentile per-packet one-way delay: 142.217 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 73.39 Mbit/s
95th percentile per-packet one-way delay: 146.024 ms
Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress** (mean 59.49 Mbps)
- **Flow 1 egress** (mean 59.48 Mbps)
- **Flow 2 ingress** (mean 51.33 Mbps)
- **Flow 2 egress** (mean 51.30 Mbps)
- **Flow 3 ingress** (mean 73.43 Mbps)
- **Flow 3 egress** (mean 73.39 Mbps)

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

- **Flow 1** (95th percentile 139.87 ms)
- **Flow 2** (95th percentile 142.22 ms)
- **Flow 3** (95th percentile 146.02 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-04-19 01:06:07
End at: 2018-04-19 01:06:37

# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 142.16 Mbit/s
  95th percentile per-packet one-way delay: 148.167 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 83.37 Mbit/s
  95th percentile per-packet one-way delay: 147.930 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 67.81 Mbit/s
  95th percentile per-packet one-way delay: 148.488 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 41.81 Mbit/s
  95th percentile per-packet one-way delay: 148.863 ms
  Loss rate: 0.02%
Run 10: Statistics of TCP Cubic

Start at: 2018-04-19 01:23:30
End at: 2018-04-19 01:24:00

# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 105.87 Mbit/s
  95th percentile per-packet one-way delay: 141.272 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 64.28 Mbit/s
  95th percentile per-packet one-way delay: 138.533 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 41.49 Mbit/s
  95th percentile per-packet one-way delay: 142.655 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 42.36 Mbit/s
  95th percentile per-packet one-way delay: 149.078 ms
  Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link
Run 1: Statistics of LEDBAT


# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.95 Mbit/s
  95th percentile per-packet one-way delay: 136.809 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.91 Mbit/s
  95th percentile per-packet one-way delay: 136.741 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.89 Mbit/s
  95th percentile per-packet one-way delay: 136.957 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.34 Mbit/s
  95th percentile per-packet one-way delay: 136.013 ms
  Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-04-18 23:04:50
End at: 2018-04-18 23:05:20

# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.39 Mbit/s
  95th percentile per-packet one-way delay: 136.442 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.35 Mbit/s
  95th percentile per-packet one-way delay: 136.468 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.44 Mbit/s
  95th percentile per-packet one-way delay: 136.219 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.23 Mbit/s
  95th percentile per-packet one-way delay: 136.358 ms
  Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 3.35 Mbit/s)
- Flow 1 egress (mean 3.35 Mbit/s)
- Flow 2 ingress (mean 1.44 Mbit/s)
- Flow 2 egress (mean 1.44 Mbit/s)
- Flow 3 ingress (mean 0.23 Mbit/s)
- Flow 3 egress (mean 0.23 Mbit/s)

![Delay Graph]

- Flow 1 (95th percentile 136.47 ms)
- Flow 2 (95th percentile 136.22 ms)
- Flow 3 (95th percentile 136.36 ms)
Run 3: Statistics of LEDBAT


# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.09 Mbit/s
  95th percentile per-packet one-way delay: 136.426 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.44 Mbit/s
  95th percentile per-packet one-way delay: 136.444 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.23 Mbit/s
  95th percentile per-packet one-way delay: 136.367 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.57 Mbit/s
  95th percentile per-packet one-way delay: 136.480 ms
  Loss rate: 0.00%
Run 4: Statistics of LEDBAT

End at: 2018-04-18 23:42:09

# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.42 Mbit/s
  95th percentile per-packet one-way delay: 137.610 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.81 Mbit/s
  95th percentile per-packet one-way delay: 137.615 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.20 Mbit/s
  95th percentile per-packet one-way delay: 137.712 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.56 Mbit/s
  95th percentile per-packet one-way delay: 137.302 ms
  Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

![Graph showing throughput and delay over time for different flows.]
Run 5: Statistics of LEDBAT

End at: 2018-04-19 00:00:29

# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.56 Mbit/s
  95th percentile per-packet one-way delay: 137.184 ms
  Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 4.86 Mbit/s
    95th percentile per-packet one-way delay: 137.185 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 0.29 Mbit/s
    95th percentile per-packet one-way delay: 136.644 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 1.56 Mbit/s
    95th percentile per-packet one-way delay: 137.477 ms
    Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Start at: 2018-04-19 00:18:10
End at: 2018-04-19 00:18:40

# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.44 Mbit/s
95th percentile per-packet one-way delay: 137.213 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 137.279 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 3.18 Mbit/s
95th percentile per-packet one-way delay: 137.032 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 137.136 ms
Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link

![Graphs showing throughput and round-trip time over time for different traffic flows.]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 4.84 Mbps)
  - Flow 1 egress (mean 4.84 Mbps)
  - Flow 2 ingress (mean 3.18 Mbps)
  - Flow 2 egress (mean 3.18 Mbps)
  - Flow 3 ingress (mean 1.37 Mbps)
  - Flow 3 egress (mean 1.37 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 137.28 ms)
  - Flow 2 (95th percentile 137.03 ms)
  - Flow 3 (95th percentile 137.14 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-04-19 00:36:23
End at: 2018-04-19 00:36:53

# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.93 Mbit/s
  95th percentile per-packet one-way delay: 137.279 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.88 Mbit/s
  95th percentile per-packet one-way delay: 137.305 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.31 Mbit/s
  95th percentile per-packet one-way delay: 137.154 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.56 Mbit/s
  95th percentile per-packet one-way delay: 137.236 ms
  Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**:
  - Flow 1 ingress (mean 4.88 Mbit/s)
  - Flow 1 egress (mean 4.88 Mbit/s)
  - Flow 2 ingress (mean 2.31 Mbit/s)
  - Flow 2 egress (mean 2.31 Mbit/s)
  - Flow 3 ingress (mean 1.56 Mbit/s)
  - Flow 3 egress (mean 1.56 Mbit/s)

- **Delay (ms)**:
  - Flow 1 (95th percentile 137.31 ms)
  - Flow 2 (95th percentile 137.15 ms)
  - Flow 3 (95th percentile 137.24 ms)
Run 8: Statistics of LEDBAT

Start at: 2018-04-19 00:54:44
End at: 2018-04-19 00:55:14

# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.60 Mbit/s
  95th percentile per-packet one-way delay: 137.102 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.06 Mbit/s
  95th percentile per-packet one-way delay: 136.961 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.23 Mbit/s
  95th percentile per-packet one-way delay: 137.233 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.19 Mbit/s
  95th percentile per-packet one-way delay: 136.629 ms
  Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 9: Statistics of LEDBAT

Start at: 2018-04-19 01:12:59
End at: 2018-04-19 01:13:29

# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.99 Mbit/s
  95th percentile per-packet one-way delay: 136.926 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.90 Mbit/s
  95th percentile per-packet one-way delay: 136.994 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.99 Mbit/s
  95th percentile per-packet one-way delay: 136.740 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.30 Mbit/s
  95th percentile per-packet one-way delay: 136.706 ms
  Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link

Throughput vs Time

Flow 1 ingress (mean 4.90 Mbit/s)  Flow 1 egress (mean 4.90 Mbit/s)
Flow 2 ingress (mean 2.99 Mbit/s)  Flow 2 egress (mean 2.99 Mbit/s)
Flow 3 ingress (mean 0.30 Mbit/s)  Flow 3 egress (mean 0.30 Mbit/s)

Packet loss vs Time

Flow 1 (95th percentile 136.99 ms)  Flow 2 (95th percentile 136.74 ms)  Flow 3 (95th percentile 136.71 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-04-19 01:30:22
End at: 2018-04-19 01:30:52

# Below is generated by plot.py at 2018-04-19 03:19:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.23 Mbit/s
95th percentile per-packet one-way delay: 136.913 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 136.942 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.23 Mbit/s
95th percentile per-packet one-way delay: 136.819 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 136.739 ms
Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link

![Graph showing throughput and per-packet round-trip delay over time.](image-url)
Run 1: Statistics of PCC-Allegro


# Below is generated by plot.py at 2018-04-19 03:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 554.13 Mbit/s
95th percentile per-packet one-way delay: 279.149 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 430.94 Mbit/s
95th percentile per-packet one-way delay: 288.891 ms
Loss rate: 2.43%
-- Flow 2:
Average throughput: 125.73 Mbit/s
95th percentile per-packet one-way delay: 252.629 ms
Loss rate: 2.66%
-- Flow 3:
Average throughput: 119.78 Mbit/s
95th percentile per-packet one-way delay: 265.474 ms
Loss rate: 3.84%
Run 1: Report of PCC-Allegro — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 441.68 Mbit/s)  Flow 1 egress (mean 430.94 Mbit/s)
Flow 2 ingress (mean 129.17 Mbit/s)  Flow 2 egress (mean 125.73 Mbit/s)
Flow 3 ingress (mean 124.56 Mbit/s)  Flow 3 egress (mean 119.78 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 288.89 ms)  Flow 2 (95th percentile 252.63 ms)  Flow 3 (95th percentile 265.47 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-04-18 22:56:40
End at: 2018-04-18 22:57:10

# Below is generated by plot.py at 2018-04-19 03:27:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 561.80 Mbit/s
95th percentile per-packet one-way delay: 266.655 ms
Loss rate: 3.33%
-- Flow 1:
Average throughput: 474.41 Mbit/s
95th percentile per-packet one-way delay: 268.706 ms
Loss rate: 3.32%
-- Flow 2:
Average throughput: 129.41 Mbit/s
95th percentile per-packet one-way delay: 261.266 ms
Loss rate: 3.31%
-- Flow 3:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 268.009 ms
Loss rate: 6.86%
Run 2: Report of PCC-Allegro — Data Link

![Graph 1](image1.png)

- Flow 1 Ingress (mean 490.72 Mbit/s)
- Flow 1 Egress (mean 474.41 Mbit/s)
- Flow 2 Ingress (mean 133.85 Mbit/s)
- Flow 2 Egress (mean 129.43 Mbit/s)
- Flow 3 Ingress (mean 4.59 Mbit/s)
- Flow 3 Egress (mean 4.27 Mbit/s)

![Graph 2](image2.png)

- Flow 1 (95th percentile 268.71 ms)
- Flow 2 (95th percentile 261.27 ms)
- Flow 3 (95th percentile 260.01 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-04-18 23:15:05
End at: 2018-04-18 23:15:35

# Below is generated by plot.py at 2018-04-19 03:27:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 584.31 Mbit/s
95th percentile per-packet one-way delay: 247.702 ms
Loss rate: 5.01%
-- Flow 1:
Average throughput: 427.01 Mbit/s
95th percentile per-packet one-way delay: 248.539 ms
Loss rate: 4.91%
-- Flow 2:
Average throughput: 235.40 Mbit/s
95th percentile per-packet one-way delay: 246.568 ms
Loss rate: 5.30%
-- Flow 3:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 247.230 ms
Loss rate: 4.64%
Run 3: Report of PCC-Allegro — Data Link

![Graph of throughput and packet delay over time for different flows.](image1)

![Graph of packet delay and throughput over time for different flows.](image2)
Run 4: Statistics of PCC-Allegro

End at: 2018-04-18 23:34:01

# Below is generated by plot.py at 2018-04-19 03:27:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 584.90 Mbit/s
95th percentile per-packet one-way delay: 291.574 ms
Loss rate: 5.33%
-- Flow 1:
Average throughput: 482.52 Mbit/s
95th percentile per-packet one-way delay: 297.964 ms
Loss rate: 5.59%
-- Flow 2:
Average throughput: 124.12 Mbit/s
95th percentile per-packet one-way delay: 244.948 ms
Loss rate: 3.44%
-- Flow 3:
Average throughput: 60.31 Mbit/s
95th percentile per-packet one-way delay: 249.230 ms
Loss rate: 6.74%
Run 4: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mbps/s) over time.

Graph 2: Packet delay (ms) over time.

Legend:
- Flow 1 Ingress (mean 511.09 Mbps/s)
- Flow 1 Egress (mean 482.52 Mbps/s)
- Flow 2 Ingress (mean 128.55 Mbps/s)
- Flow 2 Egress (mean 124.12 Mbps/s)
- Flow 3 Ingress (mean 64.60 Mbps/s)
- Flow 3 Egress (mean 60.31 Mbps/s)
Run 5: Statistics of PCC-Allegro


# Below is generated by plot.py at 2018-04-19 03:28:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 568.32 Mbit/s
95th percentile per-packet one-way delay: 278.636 ms
Loss rate: 2.51%
-- Flow 1:
Average throughput: 454.92 Mbit/s
95th percentile per-packet one-way delay: 283.943 ms
Loss rate: 2.61%
-- Flow 2:
Average throughput: 140.07 Mbit/s
95th percentile per-packet one-way delay: 244.331 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 61.94 Mbit/s
95th percentile per-packet one-way delay: 246.457 ms
Loss rate: 3.22%
Run 5: Report of PCC-Allegro — Data Link

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

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

Start at: 2018-04-19 00:10:04
End at: 2018-04-19 00:10:34

# Below is generated by plot.py at 2018-04-19 03:28:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 573.46 Mbit/s
95th percentile per-packet one-way delay: 268.588 ms
Loss rate: 2.40%
-- Flow 1:
Average throughput: 467.81 Mbit/s
95th percentile per-packet one-way delay: 274.701 ms
Loss rate: 2.73%
-- Flow 2:
Average throughput: 127.10 Mbit/s
95th percentile per-packet one-way delay: 235.960 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 64.39 Mbit/s
95th percentile per-packet one-way delay: 236.112 ms
Loss rate: 0.50%
Run 6: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 480.92 Mbit/s)
- Flow 1 egress (mean 467.81 Mbit/s)
- Flow 2 ingress (mean 128.42 Mbit/s)
- Flow 2 egress (mean 127.10 Mbit/s)
- Flow 3 ingress (mean 64.72 Mbit/s)
- Flow 3 egress (mean 64.39 Mbit/s)
Run 7: Statistics of PCC-Allegro

Start at: 2018-04-19 00:28:15
End at: 2018-04-19 00:28:45

# Below is generated by plot.py at 2018-04-19 03:28:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 571.56 Mbit/s
  95th percentile per-packet one-way delay: 275.893 ms
  Loss rate: 2.93%
-- Flow 1:
  Average throughput: 523.81 Mbit/s
  95th percentile per-packet one-way delay: 280.934 ms
  Loss rate: 3.15%
-- Flow 2:
  Average throughput: 67.69 Mbit/s
  95th percentile per-packet one-way delay: 233.230 ms
  Loss rate: 0.45%
-- Flow 3:
  Average throughput: 8.58 Mbit/s
  95th percentile per-packet one-way delay: 179.808 ms
  Loss rate: 0.00%
Run 7: Report of PCC-Allegro — Data Link
Run 8: Statistics of PCC-Allegro

Start at: 2018-04-19 00:46:38
End at: 2018-04-19 00:47:08

# Below is generated by plot.py at 2018-04-19 03:28:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 458.50 Mbit/s
95th percentile per-packet one-way delay: 272.884 ms
Loss rate: 3.08%
-- Flow 1:
Average throughput: 297.28 Mbit/s
95th percentile per-packet one-way delay: 272.952 ms
Loss rate: 2.77%
-- Flow 2:
Average throughput: 238.47 Mbit/s
95th percentile per-packet one-way delay: 272.784 ms
Loss rate: 3.65%
-- Flow 3:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 273.401 ms
Loss rate: 3.48%
Run 8: Report of PCC-Allegro — Data Link
Run 9: Statistics of PCC-Allegro

Start at: 2018-04-19 01:04:52
End at: 2018-04-19 01:05:22

# Below is generated by plot.py at 2018-04-19 03:36:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 582.91 Mbit/s
95th percentile per-packet one-way delay: 314.241 ms
Loss rate: 5.67%
-- Flow 1:
Average throughput: 487.24 Mbit/s
95th percentile per-packet one-way delay: 319.113 ms
Loss rate: 5.84%
-- Flow 2:
Average throughput: 114.23 Mbit/s
95th percentile per-packet one-way delay: 244.090 ms
Loss rate: 4.56%
-- Flow 3:
Average throughput: 60.15 Mbit/s
95th percentile per-packet one-way delay: 244.022 ms
Loss rate: 5.84%
Run 9: Report of PCC-Allegro — Data Link

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

- **Throughput** (Mbps):
  - Flow 1 ingress (mean 517.44 Mbps)
  - Flow 1 egress (mean 487.24 Mbps)
  - Flow 2 ingress (mean 119.68 Mbps)
  - Flow 2 egress (mean 114.23 Mbps)
  - Flow 3 ingress (mean 63.91 Mbps)
  - Flow 3 egress (mean 60.15 Mbps)

- **Per-packet one-way delay (ms)**:
  - Flow 1 (95th percentile 319.11 ms)
  - Flow 2 (95th percentile 244.09 ms)
  - Flow 3 (95th percentile 244.02 ms)
Run 10: Statistics of PCC-Allegro

End at: 2018-04-19 01:22:43

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 570.33 Mbit/s
95th percentile per-packet one-way delay: 274.991 ms
Loss rate: 11.71%
-- Flow 1:
Average throughput: 365.04 Mbit/s
95th percentile per-packet one-way delay: 286.409 ms
Loss rate: 9.91%
-- Flow 2:
Average throughput: 217.31 Mbit/s
95th percentile per-packet one-way delay: 263.028 ms
Loss rate: 12.79%
-- Flow 3:
Average throughput: 184.71 Mbit/s
95th percentile per-packet one-way delay: 270.460 ms
Loss rate: 19.03%
Run 1: Statistics of QUIC Cubic

End at: 2018-04-18 22:54:21

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.65 Mbit/s
95th percentile per-packet one-way delay: 135.743 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 136.056 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.89 Mbit/s
95th percentile per-packet one-way delay: 135.761 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.43 Mbit/s
95th percentile per-packet one-way delay: 135.569 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link

![Graph showing network performance metrics](image)

- **Flow 1 Ingress** (mean 0.04 Mbit/s)
- **Flow 1 Egress** (mean 0.04 Mbit/s)
- **Flow 2 Ingress** (mean 61.89 Mbit/s)
- **Flow 2 Egress** (mean 61.89 Mbit/s)
- **Flow 3 Ingress** (mean 64.43 Mbit/s)
- **Flow 3 Egress** (mean 64.43 Mbit/s)

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

- **Flow 1** (95th percentile 136.06 ms)
- **Flow 2** (95th percentile 135.76 ms)
- **Flow 3** (95th percentile 135.57 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-18 23:12:16
End at: 2018-04-18 23:12:46

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 105.72 Mbit/s
  95th percentile per-packet one-way delay: 136.347 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 58.58 Mbit/s
  95th percentile per-packet one-way delay: 136.282 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 53.57 Mbit/s
  95th percentile per-packet one-way delay: 136.393 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 36.32 Mbit/s
  95th percentile per-packet one-way delay: 135.874 ms
  Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link

**Graph 1:**
- X-axis: Time (s)
- Y-axis: Throughput (Mbit/s)

Legend:
- Blue dashed line: Flow 1 ingress (mean 58.58 Mbit/s)
- Blue solid line: Flow 1 egress (mean 58.58 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 53.56 Mbit/s)
- Green solid line: Flow 2 egress (mean 53.57 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 36.32 Mbit/s)
- Red solid line: Flow 3 egress (mean 36.32 Mbit/s)

**Graph 2:**
- X-axis: Time (s)
- Y-axis: Per-packet round-trip delay (ms)

Legend:
- Blue markers: Flow 1 (95th percentile 136.28 ms)
- Green markers: Flow 2 (95th percentile 136.39 ms)
- Red markers: Flow 3 (95th percentile 135.87 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-04-18 23:30:42
End at: 2018-04-18 23:31:12

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.41 Mbit/s
  95th percentile per-packet one-way delay: 136.294 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 53.42 Mbit/s
  95th percentile per-packet one-way delay: 136.271 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 44.05 Mbit/s
  95th percentile per-packet one-way delay: 136.323 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 30.69 Mbit/s
  95th percentile per-packet one-way delay: 135.860 ms
  Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-04-18 23:49:03

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 106.04 Mbit/s
  95th percentile per-packet one-way delay: 136.316 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 60.77 Mbit/s
  95th percentile per-packet one-way delay: 136.319 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 52.49 Mbit/s
  95th percentile per-packet one-way delay: 134.995 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 32.89 Mbit/s
  95th percentile per-packet one-way delay: 136.400 ms
  Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-04-19 00:07:14
End at: 2018-04-19 00:07:44

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.48 Mbit/s
95th percentile per-packet one-way delay: 136.729 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.81 Mbit/s
95th percentile per-packet one-way delay: 134.621 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.78 Mbit/s
95th percentile per-packet one-way delay: 136.766 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.37 Mbit/s
95th percentile per-packet one-way delay: 135.844 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress** (mean 24.81 Mbit/s)
- **Flow 1 egress** (mean 24.81 Mbit/s)
- **Flow 2 ingress** (mean 50.78 Mbit/s)
- **Flow 2 egress** (mean 50.78 Mbit/s)
- **Flow 3 ingress** (mean 34.37 Mbit/s)
- **Flow 3 egress** (mean 34.37 Mbit/s)
Run 6: Statistics of QUIC Cubic

Start at: 2018-04-19 00:25:24
End at: 2018-04-19 00:25:54

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.81 Mbit/s
  95th percentile per-packet one-way delay: 136.205 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 54.69 Mbit/s
  95th percentile per-packet one-way delay: 135.769 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 51.08 Mbit/s
  95th percentile per-packet one-way delay: 135.895 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 19.85 Mbit/s
  95th percentile per-packet one-way delay: 136.492 ms
  Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 54.69 Mbps)
  - Flow 1 egress (mean 54.69 Mbps)
  - Flow 2 ingress (mean 51.08 Mbps)
  - Flow 2 egress (mean 51.08 Mbps)
  - Flow 3 ingress (mean 19.85 Mbps)
  - Flow 3 egress (mean 19.85 Mbps)

- **Round trip delay (ms):**
  - Flow 1 (95th percentile 135.77 ms)
  - Flow 2 (95th percentile 135.90 ms)
  - Flow 3 (95th percentile 136.49 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-19 00:43:47
End at: 2018-04-19 00:44:17

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 105.36 Mbit/s
  95th percentile per-packet one-way delay: 136.450 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 59.21 Mbit/s
  95th percentile per-packet one-way delay: 136.445 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 53.18 Mbit/s
  95th percentile per-packet one-way delay: 136.467 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 34.26 Mbit/s
  95th percentile per-packet one-way delay: 135.795 ms
  Loss rate: 0.00%
Run 7: Report of QUIC Cubic — Data Link

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

Legend for Graph:
- Blue dashed line: Flow 1 ingress (mean 59.21 Mbit/s)
- Blue solid line: Flow 1 egress (mean 59.21 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 53.18 Mbit/s)
- Green solid line: Flow 2 egress (mean 53.18 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 34.26 Mbit/s)
- Red solid line: Flow 3 egress (mean 34.26 Mbit/s)

Legend for Second Graph:
- Blue dots: Flow 1 (95th percentile 136.44 ms)
- Green dots: Flow 2 (95th percentile 136.47 ms)
- Red dots: Flow 3 (95th percentile 135.79 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-19 01:02:01
End at: 2018-04-19 01:02:31

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 109.39 Mbit/s
  95th percentile per-packet one-way delay: 135.830 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 58.19 Mbit/s
  95th percentile per-packet one-way delay: 135.806 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 51.70 Mbit/s
  95th percentile per-packet one-way delay: 135.863 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 52.65 Mbit/s
  95th percentile per-packet one-way delay: 134.952 ms
  Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 58.19 Mbit/s)
- Flow 1 egress (mean 58.19 Mbit/s)
- Flow 2 ingress (mean 51.71 Mbit/s)
- Flow 2 egress (mean 51.70 Mbit/s)
- Flow 3 ingress (mean 52.65 Mbit/s)
- Flow 3 egress (mean 52.65 Mbit/s)
Run 9: Statistics of QUIC Cubic

Start at: 2018-04-19 01:19:24
End at: 2018-04-19 01:19:54

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.00 Mbit/s
95th percentile per-packet one-way delay: 136.428 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.71 Mbit/s
95th percentile per-packet one-way delay: 136.466 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 52.81 Mbit/s
95th percentile per-packet one-way delay: 135.881 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 54.07 Mbit/s
95th percentile per-packet one-way delay: 135.456 ms
Loss rate: 0.00%
Run 9: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 42.71 Mbit/s)
- Flow 1 egress (mean 42.71 Mbit/s)
- Flow 2 ingress (mean 52.81 Mbit/s)
- Flow 2 egress (mean 52.81 Mbit/s)
- Flow 3 ingress (mean 54.06 Mbit/s)
- Flow 3 egress (mean 54.07 Mbit/s)

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

- Flow 1 (95th percentile 136.47 ms)
- Flow 2 (95th percentile 135.88 ms)
- Flow 3 (95th percentile 135.46 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-19 01:37:37
End at: 2018-04-19 01:38:07

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.93 Mbit/s
95th percentile per-packet one-way delay: 136.487 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.72 Mbit/s
95th percentile per-packet one-way delay: 135.482 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.01 Mbit/s
95th percentile per-packet one-way delay: 136.398 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.63 Mbit/s
95th percentile per-packet one-way delay: 136.657 ms
Loss rate: 0.00%
Run 10: Report of QUIC Cubic — Data Link

![Graph of throughput over time for different flows]

- **Flow 1 ingress (mean 49.72 Mbit/s)**
- **Flow 1 egress (mean 49.72 Mbit/s)**
- **Flow 2 ingress (mean 61.01 Mbit/s)**
- **Flow 2 egress (mean 61.01 Mbit/s)**
- **Flow 3 ingress (mean 34.63 Mbit/s)**
- **Flow 3 egress (mean 34.63 Mbit/s)**

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

- **Flow 1 (95th percentile 135.48 ms)**
- **Flow 2 (95th percentile 136.40 ms)**
- **Flow 3 (95th percentile 136.66 ms)**
Run 1: Statistics of SCReAM

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

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 135.987 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.987 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.997 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.895 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-04-18 23:03:14
End at: 2018-04-18 23:03:44

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.563 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.964 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.857 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.626 ms
  Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image2)
Run 3: Statistics of SCReAM

Start at: 2018-04-18 23:21:34

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.478 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.063 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.508 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.984 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

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

![Graph 2: Perceived One-Way Delay vs Time](image2)
Run 4: Statistics of SCReAM

Start at: 2018-04-18 23:40:02
End at: 2018-04-18 23:40:32

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.615 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.636 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.582 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 134.901 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

End at: 2018-04-18 23:58:52

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.728 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.758 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.589 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.067 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

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

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

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

- Flow 1 (95th percentile 136.76 ms)
- Flow 2 (95th percentile 136.59 ms)
- Flow 3 (95th percentile 136.07 ms)
Run 6: Statistics of SCReAM

Start at: 2018-04-19 00:16:33
End at: 2018-04-19 00:17:03

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.524 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.464 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.526 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.600 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

Throughput (Mbit/s)

Time (s)

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)

Packet delivery delay (ms)

Time (s)

Flow 1 (95th percentile 136.46 ms)  Flow 2 (95th percentile 136.53 ms)  Flow 3 (95th percentile 136.60 ms)
Run 7: Statistics of SCReAM

Start at: 2018-04-19 00:34:46
End at: 2018-04-19 00:35:16

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.539 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.555 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.424 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.517 ms
  Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-04-19 00:53:07
End at: 2018-04-19 00:53:37

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.642 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.646 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.154 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.664 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link
Run 9: Statistics of SCReAM

Start at: 2018-04-19 01:11:22
End at: 2018-04-19 01:11:52

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.504 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.624 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.541 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.968 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-04-19 01:28:45
End at: 2018-04-19 01:29:15

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.611 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.634 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.045 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.598 ms
Loss rate: 0.00%
Run 1: Statistics of WebRTC media

Start at: 2018-04-18 22:45:37

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.610 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.476 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.640 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.124 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-04-18 23:04:02
End at: 2018-04-18 23:04:32

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.645 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 136.033 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 136.677 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 136.374 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

[Graph displaying throughput and packet delay over time for different flows, with legend showing mean bandwidths for ingress and egress traffic.]
Run 3: Statistics of WebRTC media


# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.597 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.138 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.612 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 151.245 ms
  Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

![Graph showing throughput and per-packet round-trip time for Data Link Run 3]
Run 4: Statistics of WebRTC media

Start at: 2018-04-18 23:40:50
End at: 2018-04-18 23:41:20

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 136.720 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.621 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.723 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.881 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-04-18 23:59:10
End at: 2018-04-18 23:59:40

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.628 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.851 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.582 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.565 ms
  Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-04-19 00:17:22
End at: 2018-04-19 00:17:52

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.718 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.718 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.652 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.776 ms
  Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image1)

![Graph showing throughput and per-packet one-way delay over time for different flows.](image2)
Run 7: Statistics of WebRTC media

Start at: 2018-04-19 00:35:35
End at: 2018-04-19 00:36:05

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.442 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.420 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.497 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 135.933 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-04-19 00:53:55
End at: 2018-04-19 00:54:25

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.153 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.219 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.067 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.063 ms
  Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

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

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

- Flow 1 ingress (mean 0.06 Mbit/s)
- Flow 1 egress (mean 0.06 Mbit/s)
- Flow 2 ingress (mean 0.06 Mbit/s)
- Flow 2 egress (mean 0.06 Mbit/s)
- Flow 3 ingress (mean 0.05 Mbit/s)
- Flow 3 egress (mean 0.05 Mbit/s)
Run 9: Statistics of WebRTC media

Start at: 2018-04-19 01:12:11
End at: 2018-04-19 01:12:41

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.571 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.589 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.498 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.603 ms
  Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-04-19 01:29:34
End at: 2018-04-19 01:30:04

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.680 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.673 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.655 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.718 ms
  Loss rate: 0.04%
Run 10: Report of WebRTC media — Data Link
Run 1: Statistics of Sprout


# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.78 Mbit/s
  95th percentile per-packet one-way delay: 136.382 ms
  Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 0.35 Mbit/s
    95th percentile per-packet one-way delay: 136.038 ms
    Loss rate: 0.00%
    -- Flow 2:
      Average throughput: 0.41 Mbit/s
      95th percentile per-packet one-way delay: 136.426 ms
      Loss rate: 0.00%
      -- Flow 3:
        Average throughput: 0.50 Mbit/s
        95th percentile per-packet one-way delay: 136.163 ms
        Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 0.35 Mbit/s)
- Flow 1 egress (mean 0.35 Mbit/s)
- Flow 2 ingress (mean 0.41 Mbit/s)
- Flow 2 egress (mean 0.41 Mbit/s)
- Flow 3 ingress (mean 0.50 Mbit/s)
- Flow 3 egress (mean 0.50 Mbit/s)

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

- Flow 1 (95th percentile 136.04 ms)
- Flow 2 (95th percentile 136.43 ms)
- Flow 3 (95th percentile 136.16 ms)
Run 2: Statistics of Sprout

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

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.79 Mbit/s
  95th percentile per-packet one-way delay: 136.064 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 136.066 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.34 Mbit/s
  95th percentile per-packet one-way delay: 136.051 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 136.101 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

Throughput at Mb/s

Flow 1 ingress (mean 0.40 Mb/s)
Flow 1 egress (mean 0.40 Mb/s)
Flow 2 ingress (mean 0.34 Mb/s)
Flow 2 egress (mean 0.34 Mb/s)
Flow 3 ingress (mean 0.47 Mb/s)
Flow 3 egress (mean 0.47 Mb/s)

End-to-end one-way delay (ms)

Flow 1 (95th percentile 136.07 ms)
Flow 2 (95th percentile 136.05 ms)
Flow 3 (95th percentile 136.10 ms)
Run 3: Statistics of Sprout

End at: 2018-04-18 23:19:09

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.82 Mbit/s
  95th percentile per-packet one-way delay: 136.490 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.531 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.35 Mbit/s
  95th percentile per-packet one-way delay: 136.345 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.213 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2018-04-18 23:37:08
End at: 2018-04-18 23:37:38

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 136.169 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 136.071 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 136.213 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 136.116 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.42 Mbit/s)
Flow 1 egress (mean 0.42 Mbit/s)
Flow 2 ingress (mean 0.47 Mbit/s)
Flow 2 egress (mean 0.47 Mbit/s)
Flow 3 ingress (mean 0.63 Mbit/s)
Flow 3 egress (mean 0.63 Mbit/s)

Latency (ms)

Time (s)

Flow 1 (95th percentile 136.07 ms)
Flow 2 (95th percentile 136.21 ms)
Flow 3 (95th percentile 136.12 ms)
Run 5: Statistics of Sprout

End at: 2018-04-18 23:55:54

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.84 Mbit/s
  95th percentile per-packet one-way delay: 136.679 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.35 Mbit/s
  95th percentile per-packet one-way delay: 136.577 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.51 Mbit/s
  95th percentile per-packet one-way delay: 136.493 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.46 Mbit/s
  95th percentile per-packet one-way delay: 136.775 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

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

- *Flow 1 ingress* (mean 0.35 Mbps)
- *Flow 2 ingress* (mean 0.51 Mbps)
- *Flow 3 ingress* (mean 0.46 Mbps)
- *Flow 1 egress* (mean 0.35 Mbps)
- *Flow 2 egress* (mean 0.51 Mbps)
- *Flow 3 egress* (mean 0.46 Mbps)

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

- *Flow 1* (95th percentile 136.58 ms)
- *Flow 2* (95th percentile 136.49 ms)
- *Flow 3* (95th percentile 136.78 ms)
Run 6: Statistics of Sprout

Start at: 2018-04-19 00:13:39
End at: 2018-04-19 00:14:09

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.84 Mbit/s
  95th percentile per-packet one-way delay: 136.717 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 136.719 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.756 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 136.609 ms
  Loss rate: 0.00%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

Start at: 2018-04-19 00:31:48
End at: 2018-04-19 00:32:18

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 136.589 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 136.604 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 136.007 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 136.611 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.39 Mbit/s)
Flow 1 egress (mean 0.39 Mbit/s)
Flow 2 ingress (mean 0.42 Mbit/s)
Flow 2 egress (mean 0.42 Mbit/s)
Flow 3 ingress (mean 0.48 Mbit/s)
Flow 3 egress (mean 0.48 Mbit/s)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.60 ms)
Flow 2 (95th percentile 136.01 ms)
Flow 3 (95th percentile 136.01 ms)
Run 8: Statistics of Sprout

Start at: 2018-04-19 00:50:10
End at: 2018-04-19 00:50:40

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 136.202 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 136.243 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 136.069 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 136.058 ms
Loss rate: 0.00%
Run 9: Statistics of Sprout

Start at: 2018-04-19 01:08:26
End at: 2018-04-19 01:08:56

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.88 Mbit/s
  95th percentile per-packet one-way delay: 136.098 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 136.145 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 136.059 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.58 Mbit/s
  95th percentile per-packet one-way delay: 135.844 ms
  Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

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

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

- Flow 1 ingress (mean 0.38 Mbit/s)
- Flow 1 egress (mean 0.38 Mbit/s)
- Flow 2 ingress (mean 0.47 Mbit/s)
- Flow 2 egress (mean 0.47 Mbit/s)
- Flow 3 ingress (mean 0.58 Mbit/s)
- Flow 3 egress (mean 0.58 Mbit/s)

![Graph showing 95th percentile one-way delay for different flows.]

One-way delay (ms) vs. Time (s)

- Flow 1 (95th percentile 136.15 ms)
- Flow 2 (95th percentile 136.06 ms)
- Flow 3 (95th percentile 135.84 ms)
Run 10: Statistics of Sprout

Start at: 2018-04-19 01:25:52
End at: 2018-04-19 01:26:22

# Below is generated by plot.py at 2018-04-19 03:36:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.90 Mbit/s
  95th percentile per-packet one-way delay: 136.600 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.627 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.50 Mbit/s
  95th percentile per-packet one-way delay: 136.572 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 136.586 ms
  Loss rate: 0.00%
Run 10: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x


# Below is generated by plot.py at 2018-04-19 03:40:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 316.76 Mbit/s
  95th percentile per-packet one-way delay: 148.069 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 176.09 Mbit/s
  95th percentile per-packet one-way delay: 149.107 ms
  Loss rate: 0.12%
-- Flow 2:
  Average throughput: 143.27 Mbit/s
  95th percentile per-packet one-way delay: 138.548 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 135.27 Mbit/s
  95th percentile per-packet one-way delay: 154.213 ms
  Loss rate: 0.22%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-18 23:07:46
End at: 2018-04-18 23:08:16

# Below is generated by plot.py at 2018-04-19 03:41:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 340.09 Mbit/s
  95th percentile per-packet one-way delay: 154.847 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 171.91 Mbit/s
  95th percentile per-packet one-way delay: 155.199 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 187.88 Mbit/s
  95th percentile per-packet one-way delay: 144.672 ms
  Loss rate: 0.13%
-- Flow 3:
  Average throughput: 130.48 Mbit/s
  95th percentile per-packet one-way delay: 170.782 ms
  Loss rate: 0.01%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-04-18 23:26:02
End at: 2018-04-18 23:26:32

# Below is generated by plot.py at 2018-04-19 03:41:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 333.56 Mbit/s
95th percentile per-packet one-way delay: 142.638 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 188.75 Mbit/s
95th percentile per-packet one-way delay: 139.245 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 159.08 Mbit/s
95th percentile per-packet one-way delay: 146.187 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 117.07 Mbit/s
95th percentile per-packet one-way delay: 152.382 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-04-18 23:44:38
End at: 2018-04-18 23:45:08

# Below is generated by plot.py at 2018-04-19 03:41:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 308.88 Mbit/s
95th percentile per-packet one-way delay: 146.140 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 159.26 Mbit/s
95th percentile per-packet one-way delay: 143.383 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 139.66 Mbit/s
95th percentile per-packet one-way delay: 152.979 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 172.58 Mbit/s
95th percentile per-packet one-way delay: 140.764 ms
Loss rate: 0.01%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-04-19 00:02:49
End at: 2018-04-19 00:03:19

# Below is generated by plot.py at 2018-04-19 03:41:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.26 Mbit/s
95th percentile per-packet one-way delay: 151.523 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 171.59 Mbit/s
95th percentile per-packet one-way delay: 142.928 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 159.90 Mbit/s
95th percentile per-packet one-way delay: 161.470 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 115.10 Mbit/s
95th percentile per-packet one-way delay: 149.258 ms
Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link

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Throughput (Mbit/s)

- Flow 1 ingress (mean 171.59 Mbit/s)
- Flow 1 egress (mean 171.59 Mbit/s)
- Flow 2 ingress (mean 159.89 Mbit/s)
- Flow 2 egress (mean 159.90 Mbit/s)
- Flow 3 ingress (mean 115.09 Mbit/s)
- Flow 3 egress (mean 115.10 Mbit/s)

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Per packet one way delay (ms)

- Flow 1 (95th percentile 142.93 ms)
- Flow 2 (95th percentile 161.47 ms)
- Flow 3 (95th percentile 149.26 ms)

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Run 6: Statistics of TaoVA-100x

Start at: 2018-04-19 00:21:01
End at: 2018-04-19 00:21:31

# Below is generated by plot.py at 2018-04-19 03:41:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 291.51 Mbit/s
95th percentile per-packet one-way delay: 157.514 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 160.45 Mbit/s
95th percentile per-packet one-way delay: 147.253 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 130.48 Mbit/s
95th percentile per-packet one-way delay: 167.523 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 133.48 Mbit/s
95th percentile per-packet one-way delay: 170.306 ms
Loss rate: 0.00%
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-19 00:39:28
End at: 2018-04-19 00:39:58

# Below is generated by plot.py at 2018-04-19 03:46:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 263.10 Mbit/s
  95th percentile per-packet one-way delay: 141.689 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 135.06 Mbit/s
  95th percentile per-packet one-way delay: 148.618 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 186.10 Mbit/s
  95th percentile per-packet one-way delay: 138.481 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 12.82 Mbit/s
  95th percentile per-packet one-way delay: 135.459 ms
  Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-04-19 00:57:33
End at: 2018-04-19 00:58:03

# Below is generated by plot.py at 2018-04-19 03:48:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 316.10 Mbit/s
  95th percentile per-packet one-way delay: 146.489 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 165.11 Mbit/s
  95th percentile per-packet one-way delay: 142.882 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 153.89 Mbit/s
  95th percentile per-packet one-way delay: 153.045 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 146.00 Mbit/s
  95th percentile per-packet one-way delay: 142.326 ms
  Loss rate: 0.01%
Run 8: Report of TaoVA-100x — Data Link

![Graph showing throughput and delay over time]
Run 9: Statistics of TaoVA-100x

Start at: 2018-04-19 01:15:55
End at: 2018-04-19 01:16:25

# Below is generated by plot.py at 2018-04-19 03:48:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.12 Mbit/s
95th percentile per-packet one-way delay: 136.949 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 200.09 Mbit/s
95th percentile per-packet one-way delay: 136.981 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 136.344 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.75 Mbit/s
95th percentile per-packet one-way delay: 136.248 ms
Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-19 01:33:12
End at: 2018-04-19 01:33:42

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 334.50 Mbit/s
  95th percentile per-packet one-way delay: 145.525 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 180.23 Mbit/s
  95th percentile per-packet one-way delay: 146.329 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 160.96 Mbit/s
  95th percentile per-packet one-way delay: 138.637 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 142.00 Mbit/s
  95th percentile per-packet one-way delay: 163.096 ms
  Loss rate: 0.01%
Run 10: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 180.19 Mbps)
- Flow 1 egress (mean 180.23 Mbps)
- Flow 2 ingress (mean 160.95 Mbps)
- Flow 2 egress (mean 160.96 Mbps)
- Flow 3 ingress (mean 142.01 Mbps)
- Flow 3 egress (mean 142.00 Mbps)

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

- Flow 1 (95th percentile 146.33 ms)
- Flow 2 (95th percentile 138.64 ms)
- Flow 3 (95th percentile 163.10 ms)
Run 1: Statistics of TCP Vegas

End at: 2018-04-18 22:44:26

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 49.44 Mbit/s
  95th percentile per-packet one-way delay: 138.754 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 25.35 Mbit/s
  95th percentile per-packet one-way delay: 137.656 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 25.84 Mbit/s
  95th percentile per-packet one-way delay: 139.400 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 20.73 Mbit/s
  95th percentile per-packet one-way delay: 143.315 ms
  Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link

![Data Link Performance Chart]

![Packet-Send-One-Way-Delay (ms)]
Run 2: Statistics of TCP Vegas

Start at: 2018-04-18 23:02:17
End at: 2018-04-18 23:02:47

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.01 Mbit/s
95th percentile per-packet one-way delay: 145.143 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 82.60 Mbit/s
95th percentile per-packet one-way delay: 145.662 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 45.90 Mbit/s
95th percentile per-packet one-way delay: 143.342 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 23.68 Mbit/s
95th percentile per-packet one-way delay: 146.194 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

End at: 2018-04-18 23:21:09

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.99 Mbit/s
95th percentile per-packet one-way delay: 142.727 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.67 Mbit/s
95th percentile per-packet one-way delay: 140.919 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 80.01 Mbit/s
95th percentile per-packet one-way delay: 143.201 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.43 Mbit/s
95th percentile per-packet one-way delay: 143.451 ms
Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link

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

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

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Run 4: Statistics of TCP Vegas


# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.87 Mbit/s
95th percentile per-packet one-way delay: 138.644 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.32 Mbit/s
95th percentile per-packet one-way delay: 138.790 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.27 Mbit/s
95th percentile per-packet one-way delay: 137.729 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.36 Mbit/s
95th percentile per-packet one-way delay: 143.124 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 27.32 Mbps)
- Flow 1 egress (mean 27.32 Mbps)
- Flow 2 ingress (mean 31.27 Mbps)
- Flow 2 egress (mean 31.27 Mbps)
- Flow 3 ingress (mean 20.36 Mbps)
- Flow 3 egress (mean 20.36 Mbps)

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

- Flow 1 (95th percentile 138.79 ms)
- Flow 2 (95th percentile 137.73 ms)
- Flow 3 (95th percentile 143.12 ms)
Run 5: Statistics of TCP Vegas

End at: 2018-04-18 23:57:54

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.68 Mbit/s
95th percentile per-packet one-way delay: 147.975 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.77 Mbit/s
95th percentile per-packet one-way delay: 148.504 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.89 Mbit/s
95th percentile per-packet one-way delay: 145.584 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.48 Mbit/s
95th percentile per-packet one-way delay: 146.187 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 83.19 Mbit/s)
- Flow 1 egress (mean 83.77 Mbit/s)
- Flow 2 ingress (mean 47.89 Mbit/s)
- Flow 2 egress (mean 47.89 Mbit/s)
- Flow 3 ingress (mean 27.48 Mbit/s)
- Flow 3 egress (mean 27.48 Mbit/s)

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

- Flow 1 (95th percentile 148.50 ms)
- Flow 2 (95th percentile 145.58 ms)
- Flow 3 (95th percentile 146.19 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-04-19 00:15:40
End at: 2018-04-19 00:16:10

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 63.31 Mbit/s
  95th percentile per-packet one-way delay: 147.696 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 26.88 Mbit/s
  95th percentile per-packet one-way delay: 140.059 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 20.80 Mbit/s
  95th percentile per-packet one-way delay: 144.341 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 69.53 Mbit/s
  95th percentile per-packet one-way delay: 149.527 ms
  Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-04-19 00:33:49
End at: 2018-04-19 00:34:19

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 124.88 Mbit/s
  95th percentile per-packet one-way delay: 145.074 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 81.77 Mbit/s
  95th percentile per-packet one-way delay: 145.809 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 51.53 Mbit/s
  95th percentile per-packet one-way delay: 142.684 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 26.66 Mbit/s
  95th percentile per-packet one-way delay: 142.430 ms
  Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-04-19 00:52:10
End at: 2018-04-19 00:52:40

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.23 Mbit/s
95th percentile per-packet one-way delay: 145.925 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.87 Mbit/s
95th percentile per-packet one-way delay: 146.036 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.48 Mbit/s
95th percentile per-packet one-way delay: 139.954 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.34 Mbit/s
95th percentile per-packet one-way delay: 146.699 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 80.89 Mbps)**
- **Flow 1 egress (mean 80.87 Mbps)**
- **Flow 2 ingress (mean 25.47 Mbps)**
- **Flow 2 egress (mean 25.46 Mbps)**
- **Flow 3 ingress (mean 71.36 Mbps)**
- **Flow 3 egress (mean 71.34 Mbps)**

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

- **Flow 1 (95th percentile 146.04 ms)**
- **Flow 2 (95th percentile 139.95 ms)**
- **Flow 3 (95th percentile 146.70 ms)**
Run 9: Statistics of TCP Vegas

Start at: 2018-04-19 01:10:27
End at: 2018-04-19 01:10:57

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.63 Mbit/s
95th percentile per-packet one-way delay: 149.417 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 39.62 Mbit/s
95th percentile per-packet one-way delay: 145.048 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 79.77 Mbit/s
95th percentile per-packet one-way delay: 148.122 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.60 Mbit/s
95th percentile per-packet one-way delay: 155.582 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 39.71 Mbps)
- Flow 1 egress (mean 39.62 Mbps)
- Flow 2 ingress (mean 79.79 Mbps)
- Flow 2 egress (mean 79.77 Mbps)
- Flow 3 ingress (mean 70.66 Mbps)
- Flow 3 egress (mean 70.60 Mbps)

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

- Flow 1 (95th percentile 145.05 ms)
- Flow 2 (95th percentile 148.12 ms)
- Flow 3 (95th percentile 155.58 ms)
Run 10: Statistics of TCP Vegas

Start at: 2018-04-19 01:27:53
End at: 2018-04-19 01:28:23

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 58.45 Mbit/s
  95th percentile per-packet one-way delay: 140.141 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 23.32 Mbit/s
  95th percentile per-packet one-way delay: 139.050 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 40.26 Mbit/s
  95th percentile per-packet one-way delay: 139.618 ms
  Loss rate: 0.11%
-- Flow 3:
  Average throughput: 25.07 Mbit/s
  95th percentile per-packet one-way delay: 142.586 ms
  Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flow types and directions, with legends indicating the mean throughput values.]
Run 1: Statistics of Verus

End at: 2018-04-18 22:48:45

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.43 Mbit/s
95th percentile per-packet one-way delay: 315.195 ms
Loss rate: 4.15%
-- Flow 1:
Average throughput: 137.38 Mbit/s
95th percentile per-packet one-way delay: 224.588 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 188.32 Mbit/s
95th percentile per-packet one-way delay: 342.916 ms
Loss rate: 8.14%
-- Flow 3:
Average throughput: 76.78 Mbit/s
95th percentile per-packet one-way delay: 236.947 ms
Loss rate: 2.18%
Run 2: Statistics of Verus

Start at: 2018-04-18 23:06:38
End at: 2018-04-18 23:07:08

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 234.12 Mbit/s
  95th percentile per-packet one-way delay: 197.200 ms
  Loss rate: 0.20%
-- Flow 1:
  Average throughput: 165.19 Mbit/s
  95th percentile per-packet one-way delay: 212.216 ms
  Loss rate: 0.28%
-- Flow 2:
  Average throughput: 76.87 Mbit/s
  95th percentile per-packet one-way delay: 170.336 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 55.37 Mbit/s
  95th percentile per-packet one-way delay: 168.470 ms
  Loss rate: 0.00%
Run 2: Report of Verus — Data Link

![Graph showing network throughput and packet delay over time for flows 1, 2, and 3.]
Run 3: Statistics of Verus


# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 170.67 Mbit/s
  95th percentile per-packet one-way delay: 176.062 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 116.05 Mbit/s
  95th percentile per-packet one-way delay: 186.274 ms
  Loss rate: 0.25%
-- Flow 2:
  Average throughput: 65.47 Mbit/s
  95th percentile per-packet one-way delay: 162.141 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 36.21 Mbit/s
  95th percentile per-packet one-way delay: 192.883 ms
  Loss rate: 0.00%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus


# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.52 Mbit/s
95th percentile per-packet one-way delay: 234.744 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 169.46 Mbit/s
95th percentile per-packet one-way delay: 247.149 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 108.85 Mbit/s
95th percentile per-packet one-way delay: 217.910 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.64 Mbit/s
95th percentile per-packet one-way delay: 205.852 ms
Loss rate: 0.00%
Run 4: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 172.26 Mbps)
- Flow 1 egress (mean 169.46 Mbps)
- Flow 2 ingress (mean 109.09 Mbps)
- Flow 2 egress (mean 108.65 Mbps)
- Flow 3 ingress (mean 31.64 Mbps)
- Flow 3 egress (mean 31.64 Mbps)

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

- Flow 1 (95th percentile 247.15 ms)
- Flow 2 (95th percentile 217.91 ms)
- Flow 3 (95th percentile 205.85 ms)
Run 5: Statistics of Verus

Start at: 2018-04-19 00:01:47
End at: 2018-04-19 00:02:17

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 135.22 Mbit/s
95th percentile per-packet one-way delay: 150.689 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.89 Mbit/s
95th percentile per-packet one-way delay: 152.562 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.21 Mbit/s
95th percentile per-packet one-way delay: 147.774 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.44 Mbit/s
95th percentile per-packet one-way delay: 143.548 ms
Loss rate: 0.00%
Run 5: Report of Verus — Data Link

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

- Flow 1 ingress (mean 97.00 Mbit/s)
- Flow 1 egress (mean 97.89 Mbit/s)
- Flow 2 ingress (mean 39.21 Mbit/s)
- Flow 2 egress (mean 39.21 Mbit/s)
- Flow 3 ingress (mean 36.44 Mbit/s)
- Flow 3 egress (mean 36.44 Mbit/s)

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

- Flow 1 (95th percentile 152.56 ms)
- Flow 2 (95th percentile 147.77 ms)
- Flow 3 (95th percentile 143.55 ms)
Run 6: Statistics of Verus

Start at: 2018-04-19 00:19:59
End at: 2018-04-19 00:20:29

# Below is generated by plot.py at 2018-04-19 03:51:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 148.84 Mbit/s
  95th percentile per-packet one-way delay: 395.073 ms
  Loss rate: 14.59%
-- Flow 1:
  Average throughput: 114.46 Mbit/s
  95th percentile per-packet one-way delay: 401.925 ms
  Loss rate: 18.16%
-- Flow 2:
  Average throughput: 37.38 Mbit/s
  95th percentile per-packet one-way delay: 159.165 ms
  Loss rate: 0.25%
-- Flow 3:
  Average throughput: 35.96 Mbit/s
  95th percentile per-packet one-way delay: 145.278 ms
  Loss rate: 0.61%
Run 6: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 139.85 Mbit/s)
- **Flow 1 egress** (mean 114.46 Mbit/s)
- **Flow 2 ingress** (mean 37.47 Mbit/s)
- **Flow 2 egress** (mean 37.38 Mbit/s)
- **Flow 3 ingress** (mean 32.18 Mbit/s)
- **Flow 3 egress** (mean 35.96 Mbit/s)

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

- **Flow 1** (95th percentile 401.93 ms)
- **Flow 2** (95th percentile 159.16 ms)
- **Flow 3** (95th percentile 145.28 ms)
Run 7: Statistics of Verus

Start at: 2018-04-19 00:38:11
End at: 2018-04-19 00:38:41

# Below is generated by plot.py at 2018-04-19 03:53:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 318.51 Mbit/s
95th percentile per-packet one-way delay: 237.420 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 197.48 Mbit/s
95th percentile per-packet one-way delay: 230.845 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 140.18 Mbit/s
95th percentile per-packet one-way delay: 268.511 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 88.16 Mbit/s
95th percentile per-packet one-way delay: 251.686 ms
Loss rate: 0.22%
Run 7: Report of Verus — Data Link

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

Start at: 2018-04-19 00:56:31
End at: 2018-04-19 00:57:01

# Below is generated by plot.py at 2018-04-19 03:53:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 153.60 Mbit/s
  95th percentile per-packet one-way delay: 201.070 ms
  Loss rate: 1.94%
-- Flow 1:
  Average throughput: 82.45 Mbit/s
  95th percentile per-packet one-way delay: 222.358 ms
  Loss rate: 2.92%
-- Flow 2:
  Average throughput: 98.91 Mbit/s
  95th percentile per-packet one-way delay: 193.617 ms
  Loss rate: 0.50%
-- Flow 3:
  Average throughput: 17.46 Mbit/s
  95th percentile per-packet one-way delay: 182.753 ms
  Loss rate: 3.94%
Run 8: Report of Verus — Data Link

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

- Flow 1 ingress (mean 84.93 Mbps)
- Flow 1 egress (mean 82.45 Mbps)
- Flow 2 ingress (mean 99.40 Mbps)
- Flow 2 egress (mean 98.91 Mbps)
- Flow 3 ingress (mean 18.17 Mbps)
- Flow 3 egress (mean 17.46 Mbps)

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

- Flow 1 (95th percentile 222.36 ms)
- Flow 2 (95th percentile 193.62 ms)
- Flow 3 (95th percentile 182.75 ms)

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Run 9: Statistics of Verus

Start at: 2018-04-19 01:14:47
End at: 2018-04-19 01:15:17

# Below is generated by plot.py at 2018-04-19 03:53:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 224.00 Mbit/s
  95th percentile per-packet one-way delay: 247.509 ms
  Loss rate: 1.86%
-- Flow 1:
  Average throughput: 153.38 Mbit/s
  95th percentile per-packet one-way delay: 227.163 ms
  Loss rate: 0.12%
-- Flow 2:
  Average throughput: 89.66 Mbit/s
  95th percentile per-packet one-way delay: 244.261 ms
  Loss rate: 1.49%
-- Flow 3:
  Average throughput: 35.54 Mbit/s
  95th percentile per-packet one-way delay: 403.700 ms
  Loss rate: 21.46%
Run 9: Report of Verus — Data Link

![Graph showing throughput and packet delay over time for different flows.](image)
Run 10: Statistics of Verus

Start at: 2018-04-19 01:32:10
End at: 2018-04-19 01:32:40

# Below is generated by plot.py at 2018-04-19 03:53:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.86 Mbit/s
95th percentile per-packet one-way delay: 241.764 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 47.89 Mbit/s
95th percentile per-packet one-way delay: 172.383 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 139.98 Mbit/s
95th percentile per-packet one-way delay: 254.192 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.56 Mbit/s
95th percentile per-packet one-way delay: 189.997 ms
Loss rate: 0.00%
Run 10: Report of Verus — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 47.00 Mbps)  
Flow 2 ingress (mean 139.99 Mbps)  
Flow 3 ingress (mean 31.61 Mbps)

Flow 1 egress (mean 47.89 Mbps)  
Flow 2 egress (mean 139.98 Mbps)  
Flow 3 egress (mean 31.56 Mbps)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 172.38 ms)  
Flow 2 (95th percentile 254.19 ms)  
Flow 3 (95th percentile 190.00 ms)
Run 1: Statistics of Copa


# Below is generated by plot.py at 2018-04-19 03:54:20
# Datalink statistics
  -- Total of 3 flows:
  Average throughput: 148.22 Mbit/s
  95th percentile per-packet one-way delay: 135.788 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 82.09 Mbit/s
  95th percentile per-packet one-way delay: 135.790 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 67.28 Mbit/s
  95th percentile per-packet one-way delay: 135.803 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 64.31 Mbit/s
  95th percentile per-packet one-way delay: 135.410 ms
  Loss rate: 0.00%
Run 1: Report of Copa — Data Link

![Data Link Throughput Graph](chart1.png)

![Data Link Delay Graph](chart2.png)
Run 2: Statistics of Copa


# Below is generated by plot.py at 2018-04-19 03:54:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 131.64 Mbit/s
95th percentile per-packet one-way delay: 136.382 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.04 Mbit/s
95th percentile per-packet one-way delay: 136.247 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.44 Mbit/s
95th percentile per-packet one-way delay: 136.492 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.41 Mbit/s
95th percentile per-packet one-way delay: 136.198 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Per-packet one-way delay (ms)
Run 3: Statistics of Copa

End at: 2018-04-18 23:32:07

# Below is generated by plot.py at 2018-04-19 03:54:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.69 Mbit/s
95th percentile per-packet one-way delay: 136.502 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.66 Mbit/s
95th percentile per-packet one-way delay: 135.868 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 65.21 Mbit/s
95th percentile per-packet one-way delay: 136.630 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.69 Mbit/s
95th percentile per-packet one-way delay: 136.430 ms
Loss rate: 0.00%
Run 4: Statistics of Copa

End at: 2018-04-18 23:50:29

# Below is generated by plot.py at 2018-04-19 03:55:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 136.09 Mbit/s
  95th percentile per-packet one-way delay: 136.561 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 67.83 Mbit/s
  95th percentile per-packet one-way delay: 136.325 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 61.93 Mbit/s
  95th percentile per-packet one-way delay: 136.661 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 81.43 Mbit/s
  95th percentile per-packet one-way delay: 136.313 ms
  Loss rate: 0.00%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

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

# Below is generated by plot.py at 2018-04-19 03:56:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 152.22 Mbit/s
95th percentile per-packet one-way delay: 136.307 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 79.55 Mbit/s
95th percentile per-packet one-way delay: 136.290 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.17 Mbit/s
95th percentile per-packet one-way delay: 136.312 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 66.15 Mbit/s
95th percentile per-packet one-way delay: 136.336 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link

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

Flow 1 ingress (mean 79.55 Mbit/s)  
Flow 1 egress (mean 79.55 Mbit/s)  
Flow 2 ingress (mean 76.16 Mbit/s)  
Flow 2 egress (mean 76.17 Mbit/s)  
Flow 3 ingress (mean 66.14 Mbit/s)  
Flow 3 egress (mean 66.15 Mbit/s)
Run 6: Statistics of Copa

Start at: 2018-04-19 00:26:19
End at: 2018-04-19 00:26:49

# Below is generated by plot.py at 2018-04-19 03:56:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.46 Mbit/s
95th percentile per-packet one-way delay: 136.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.14 Mbit/s
95th percentile per-packet one-way delay: 136.721 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 80.66 Mbit/s
95th percentile per-packet one-way delay: 136.411 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 74.18 Mbit/s
95th percentile per-packet one-way delay: 136.388 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress (mean 71.14 Mbps)**
- **Flow 1 egress (mean 71.14 Mbps)**
- **Flow 2 ingress (mean 80.67 Mbps)**
- **Flow 2 egress (mean 80.66 Mbps)**
- **Flow 3 ingress (mean 74.18 Mbps)**
- **Flow 3 egress (mean 74.18 Mbps)**

---

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

- **Flow 1 (95th percentile 136.72 ms)**
- **Flow 2 (95th percentile 136.41 ms)**
- **Flow 3 (95th percentile 136.39 ms)**
Run 7: Statistics of Copa

Start at: 2018-04-19 00:44:43
End at: 2018-04-19 00:45:13

# Below is generated by plot.py at 2018-04-19 03:57:09
# Datalink statistics

-- Total of 3 flows:
Average throughput: 142.69 Mbit/s
95th percentile per-packet one-way delay: 136.315 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 79.64 Mbit/s
95th percentile per-packet one-way delay: 136.306 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 63.59 Mbit/s
95th percentile per-packet one-way delay: 136.347 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 62.38 Mbit/s
95th percentile per-packet one-way delay: 135.422 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-04-19 01:02:57
End at: 2018-04-19 01:03:27

# Below is generated by plot.py at 2018-04-19 03:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 135.78 Mbit/s
95th percentile per-packet one-way delay: 136.339 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 74.73 Mbit/s
95th percentile per-packet one-way delay: 135.782 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.81 Mbit/s
95th percentile per-packet one-way delay: 136.400 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 54.00 Mbit/s
95th percentile per-packet one-way delay: 136.265 ms
Loss rate: 0.04%
Run 8: Report of Copa — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)
Run 9: Statistics of Copa

Start at: 2018-04-19 01:20:19
End at: 2018-04-19 01:20:49

# Below is generated by plot.py at 2018-04-19 03:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.30 Mbit/s
95th percentile per-packet one-way delay: 136.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.37 Mbit/s
95th percentile per-packet one-way delay: 136.424 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.26 Mbit/s
95th percentile per-packet one-way delay: 136.496 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.65 Mbit/s
95th percentile per-packet one-way delay: 136.546 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link

![Graph showing network throughput and delay for different flows over time.](chart.png)
Run 10: Statistics of Copa

Start at: 2018-04-19 01:38:33
End at: 2018-04-19 01:39:03

# Below is generated by plot.py at 2018-04-19 03:58:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.89 Mbit/s
95th percentile per-packet one-way delay: 136.434 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.99 Mbit/s
95th percentile per-packet one-way delay: 136.377 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 74.47 Mbit/s
95th percentile per-packet one-way delay: 135.631 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.26 Mbit/s
95th percentile per-packet one-way delay: 136.530 ms
Loss rate: 0.01%
Run 10: Report of Copa — Data Link

[Graph showing throughput and per-packet end-to-end delay over time for different flows.]
Run 1: Statistics of FillP


# Below is generated by plot.py at 2018-04-19 04:17:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1286.74 Mbit/s
  95th percentile per-packet one-way delay: 240.320 ms
  Loss rate: 7.36%
-- Flow 1:
  Average throughput: 695.94 Mbit/s
  95th percentile per-packet one-way delay: 225.571 ms
  Loss rate: 5.19%
-- Flow 2:
  Average throughput: 620.99 Mbit/s
  95th percentile per-packet one-way delay: 249.252 ms
  Loss rate: 10.21%
-- Flow 3:
  Average throughput: 536.19 Mbit/s
  95th percentile per-packet one-way delay: 275.948 ms
  Loss rate: 8.82%
Run 1: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 Ingress (mean 734.34 Mbps)
- Flow 1 Egress (mean 695.94 Mbps)
- Flow 2 Ingress (mean 693.57 Mbps)
- Flow 2 Egress (mean 620.99 Mbps)
- Flow 3 Ingress (mean 588.00 Mbps)
- Flow 3 Egress (mean 536.19 Mbps)

![Graph 2: Packet Delay (ms)]

- Flow 1 (95th percentile 225.57 ms)
- Flow 2 (95th percentile 249.25 ms)
- Flow 3 (95th percentile 275.95 ms)
Run 2: Statistics of FillP

Start at: 2018-04-18 23:10:27
End at: 2018-04-18 23:10:57

# Below is generated by plot.py at 2018-04-19 04:17:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1250.60 Mbit/s
95th percentile per-packet one-way delay: 354.779 ms
Loss rate: 6.55%
-- Flow 1:
Average throughput: 679.87 Mbit/s
95th percentile per-packet one-way delay: 351.900 ms
Loss rate: 5.92%
-- Flow 2:
Average throughput: 587.92 Mbit/s
95th percentile per-packet one-way delay: 365.575 ms
Loss rate: 8.40%
-- Flow 3:
Average throughput: 541.65 Mbit/s
95th percentile per-packet one-way delay: 230.846 ms
Loss rate: 4.74%
Run 2: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 722.69 Mbps) vs. Egress (mean 679.87 Mbps)
- Flow 2 Ingress (mean 641.79 Mbps) vs. Egress (mean 587.92 Mbps)
- Flow 3 Ingress (mean 568.58 Mbps) vs. Egress (mean 541.65 Mbps)

![Graph 2: Per-packet one-way delay (ms) over time for different flows.]

- Flow 1 (95th percentile 351.90 ms)
- Flow 2 (95th percentile 365.57 ms)
- Flow 3 (95th percentile 230.85 ms)
Run 3: Statistics of FillP

Start at: 2018-04-18 23:28:54
End at: 2018-04-18 23:29:24

# Below is generated by plot.py at 2018-04-19 04:20:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1318.87 Mbit/s
  95th percentile per-packet one-way delay: 237.018 ms
  Loss rate: 7.63%
-- Flow 1:
  Average throughput: 714.98 Mbit/s
  95th percentile per-packet one-way delay: 221.128 ms
  Loss rate: 5.72%
-- Flow 2:
  Average throughput: 651.21 Mbit/s
  95th percentile per-packet one-way delay: 243.005 ms
  Loss rate: 8.92%
-- Flow 3:
  Average throughput: 515.36 Mbit/s
  95th percentile per-packet one-way delay: 243.926 ms
  Loss rate: 11.92%
Run 3: Report of FillP — Data Link

- Flow 1 Ingress (mean 758.35 Mbit/s)
- Flow 1 Egress (mean 714.96 Mbit/s)
- Flow 2 Ingress (mean 714.96 Mbit/s)
- Flow 2 Egress (mean 652.23 Mbit/s)
- Flow 3 Ingress (mean 585.03 Mbit/s)
- Flow 3 Egress (mean 515.36 Mbit/s)

- Flow 1 (95th percentile 221.13 ms)
- Flow 2 (95th percentile 243.00 ms)
- Flow 3 (95th percentile 243.93 ms)
Run 4: Statistics of FillP

Start at: 2018-04-18 23:47:16
End at: 2018-04-18 23:47:46

# Below is generated by plot.py at 2018-04-19 04:20:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1201.22 Mbit/s
  95th percentile per-packet one-way delay: 372.413 ms
  Loss rate: 10.24%
-- Flow 1:
  Average throughput: 616.86 Mbit/s
  95th percentile per-packet one-way delay: 384.400 ms
  Loss rate: 11.15%
-- Flow 2:
  Average throughput: 592.29 Mbit/s
  95th percentile per-packet one-way delay: 372.113 ms
  Loss rate: 10.54%
-- Flow 3:
  Average throughput: 573.99 Mbit/s
  95th percentile per-packet one-way delay: 220.364 ms
  Loss rate: 6.50%
Run 4: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 694.51 Mbps)
- Flow 1 Egress (mean 616.86 Mbps)
- Flow 2 Ingress (mean 662.06 Mbps)
- Flow 2 Egress (mean 592.29 Mbps)
- Flow 3 Ingress (mean 614.12 Mbps)
- Flow 3 Egress (mean 573.99 Mbps)

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

- Flow 1 (95th percentile 384.40 ms)
- Flow 2 (95th percentile 372.11 ms)
- Flow 3 (95th percentile 220.36 ms)
Run 5: Statistics of FillP

Start at: 2018-04-19 00:05:27
End at: 2018-04-19 00:05:58

# Below is generated by plot.py at 2018-04-19 04:20:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1294.57 Mbit/s
95th percentile per-packet one-way delay: 238.054 ms
Loss rate: 8.62%
-- Flow 1:
Average throughput: 722.06 Mbit/s
95th percentile per-packet one-way delay: 228.915 ms
Loss rate: 7.06%
-- Flow 2:
Average throughput: 607.10 Mbit/s
95th percentile per-packet one-way delay: 241.321 ms
Loss rate: 10.77%
-- Flow 3:
Average throughput: 509.51 Mbit/s
95th percentile per-packet one-way delay: 288.715 ms
Loss rate: 9.89%
Run 5: Report of FillP — Data Link

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

- **Flow 1 Ingress (mean 776.87 Mbps)**
- **Flow 1 Egress (mean 722.06 Mbps)**
- **Flow 2 Ingress (mean 680.41 Mbps)**
- **Flow 2 Egress (mean 607.10 Mbps)**
- **Flow 3 Ingress (mean 563.73 Mbps)**
- **Flow 3 Egress (mean 509.51 Mbps)**

![Graph 2: Delay vs. Time (ms)]

- **Flow 1 (95th percentile: 228.91 ms)**
- **Flow 2 (95th percentile: 241.32 ms)**
- **Flow 3 (95th percentile: 288.71 ms)**

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Run 6: Statistics of FillP

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

# Below is generated by plot.py at 2018-04-19 04:21:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1291.49 Mbit/s
  95th percentile per-packet one-way delay: 233.890 ms
  Loss rate: 8.33%
-- Flow 1:
  Average throughput: 688.87 Mbit/s
  95th percentile per-packet one-way delay: 235.444 ms
  Loss rate: 7.78%
-- Flow 2:
  Average throughput: 642.13 Mbit/s
  95th percentile per-packet one-way delay: 229.883 ms
  Loss rate: 8.54%
-- Flow 3:
  Average throughput: 529.16 Mbit/s
  95th percentile per-packet one-way delay: 237.735 ms
  Loss rate: 9.95%
Run 6: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 747.01 Mbps)
- Flow 1 Egress (mean 688.87 Mbps)
- Flow 2 Ingress (mean 702.10 Mbps)
- Flow 2 Egress (mean 642.13 Mbps)
- Flow 3 Ingress (mean 587.71 Mbps)
- Flow 3 Egress (mean 529.16 Mbps)

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

- Flow 1 (95th percentile 235.44 ms)
- Flow 2 (95th percentile 229.88 ms)
- Flow 3 (95th percentile 237.74 ms)
Run 7: Statistics of FillP

Start at: 2018-04-19 00:42:01
End at: 2018-04-19 00:42:31

# Below is generated by plot.py at 2018-04-19 04:21:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1291.91 Mbit/s
95th percentile per-packet one-way delay: 237.115 ms
Loss rate: 7.65%
-- Flow 1:
Average throughput: 708.14 Mbit/s
95th percentile per-packet one-way delay: 233.990 ms
Loss rate: 7.59%
-- Flow 2:
Average throughput: 611.52 Mbit/s
95th percentile per-packet one-way delay: 239.901 ms
Loss rate: 8.40%
-- Flow 3:
Average throughput: 536.39 Mbit/s
95th percentile per-packet one-way delay: 248.426 ms
Loss rate: 6.10%
Run 7: Report of FillP — Data Link
Run 8: Statistics of FillP

Start at: 2018-04-19 01:00:12
End at: 2018-04-19 01:00:42

# Below is generated by plot.py at 2018-04-19 04:21:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1262.28 Mbit/s
  95th percentile per-packet one-way delay: 347.625 ms
  Loss rate: 6.25%
-- Flow 1:
  Average throughput: 689.35 Mbit/s
  95th percentile per-packet one-way delay: 336.758 ms
  Loss rate: 5.08%
-- Flow 2:
  Average throughput: 597.44 Mbit/s
  95th percentile per-packet one-way delay: 359.783 ms
  Loss rate: 8.32%
-- Flow 3:
  Average throughput: 529.36 Mbit/s
  95th percentile per-packet one-way delay: 233.200 ms
  Loss rate: 5.98%
Run 8: Report of FillP — Data Link

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

Start at: 2018-04-19 01:18:20
End at: 2018-04-19 01:18:50

# Below is generated by plot.py at 2018-04-19 04:24:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 336.14 Mbit/s
  95th percentile per-packet one-way delay: 270.556 ms
  Loss rate: 5.68%
-- Flow 1:
  Average throughput: 70.42 Mbit/s
  95th percentile per-packet one-way delay: 335.034 ms
  Loss rate: 8.07%
-- Flow 2:
  Average throughput: 107.87 Mbit/s
  95th percentile per-packet one-way delay: 333.665 ms
  Loss rate: 8.62%
-- Flow 3:
  Average throughput: 588.03 Mbit/s
  95th percentile per-packet one-way delay: 210.619 ms
  Loss rate: 3.64%
Run 9: Report of FillP — Data Link

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

- **Flow 1 Ingress (mean 76.61 Mbps)**
- **Flow 1 Egress (mean 70.42 Mbps)**
- **Flow 2 Ingress (mean 118.05 Mbps)**
- **Flow 2 Egress (mean 107.87 Mbps)**
- **Flow 3 Ingress (mean 610.26 Mbps)**
- **Flow 3 Egress (mean 588.03 Mbps)**

![Graph of Per-packet end-to-end delay (ms) over Time (s)]

- **Flow 1 (95th percentile 335.03 ms)**
- **Flow 2 (95th percentile 333.67 ms)**
- **Flow 3 (95th percentile 210.62 ms)**
Run 10: Statistics of FillP

Start at: 2018-04-19 01:35:52
End at: 2018-04-19 01:36:22

# Below is generated by plot.py at 2018-04-19 04:39:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1283.36 Mbit/s
  95th percentile per-packet one-way delay: 241.539 ms
  Loss rate: 7.44%
-- Flow 1:
  Average throughput: 686.57 Mbit/s
  95th percentile per-packet one-way delay: 243.532 ms
  Loss rate: 6.50%
-- Flow 2:
  Average throughput: 621.80 Mbit/s
  95th percentile per-packet one-way delay: 238.719 ms
  Loss rate: 9.32%
-- Flow 3:
  Average throughput: 551.43 Mbit/s
  95th percentile per-packet one-way delay: 243.958 ms
  Loss rate: 6.58%
Run 10: Report of FillP — Data Link

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

![Graph 2: Packet Delay vs Time](image2)
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-18 22:50:51
End at: 2018-04-18 22:51:21

# Below is generated by plot.py at 2018-04-19 04:39:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.98 Mbit/s
95th percentile per-packet one-way delay: 137.751 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 169.75 Mbit/s
95th percentile per-packet one-way delay: 136.965 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 158.22 Mbit/s
95th percentile per-packet one-way delay: 140.949 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 133.37 Mbit/s
95th percentile per-packet one-way delay: 142.593 ms
Loss rate: 0.00%
Run 1: Report of Indigo-1-32 — Data Link

![Graph 1](image1)

- Flow 1 ingress (mean 169.74 Mbit/s)
- Flow 1 egress (mean 169.75 Mbit/s)
- Flow 2 ingress (mean 158.22 Mbit/s)
- Flow 2 egress (mean 158.22 Mbit/s)
- Flow 3 ingress (mean 133.37 Mbit/s)
- Flow 3 egress (mean 133.37 Mbit/s)

![Graph 2](image2)

- Flow 1 (95th percentile 136.97 ms)
- Flow 2 (95th percentile 140.95 ms)
- Flow 3 (95th percentile 142.59 ms)

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Run 2: Statistics of Indigo-1-32

End at: 2018-04-18 23:09:43

# Below is generated by plot.py at 2018-04-19 04:39:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.04 Mbit/s
95th percentile per-packet one-way delay: 137.296 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 168.09 Mbit/s
95th percentile per-packet one-way delay: 136.501 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 159.26 Mbit/s
95th percentile per-packet one-way delay: 137.173 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 134.17 Mbit/s
95th percentile per-packet one-way delay: 149.753 ms
Loss rate: 0.00%
Run 2: Report of Indigo-1-32 — Data Link

[Graph showing throughput over time with data points for different flows and their ingress and egress mean values.]

[Graph showing per-packet one-way delay over time with data points for different flows and their 95th percentile values.]
Run 3: Statistics of Indigo-1-32


# Below is generated by plot.py at 2018-04-19 04:39:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 321.33 Mbit/s
  95th percentile per-packet one-way delay: 137.298 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 171.51 Mbit/s
  95th percentile per-packet one-way delay: 136.904 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 162.04 Mbit/s
  95th percentile per-packet one-way delay: 137.223 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 133.92 Mbit/s
  95th percentile per-packet one-way delay: 142.187 ms
  Loss rate: 0.00%
Run 3: Report of Indigo-1-32 — Data Link
Run 4: Statistics of Indigo-1-32

Start at: 2018-04-18 23:46:02

# Below is generated by plot.py at 2018-04-19 04:39:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 317.02 Mbit/s
95th percentile per-packet one-way delay: 137.630 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 167.11 Mbit/s
95th percentile per-packet one-way delay: 137.250 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 164.68 Mbit/s
95th percentile per-packet one-way delay: 138.078 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 130.20 Mbit/s
95th percentile per-packet one-way delay: 138.306 ms
Loss rate: 0.00%
Run 4: Report of Indigo-1-32 — Data Link

![Graph 1: Throughput (Mbps)]

*Legend for Graph 1:*
- Dashed blue line: Flow 1 ingress (mean 167.11 Mbps)
- Blue line: Flow 1 egress (mean 167.11 Mbps)
- Dashed green line: Flow 2 ingress (mean 165.17 Mbps)
- Green line: Flow 2 egress (mean 164.68 Mbps)
- Dashed red line: Flow 3 ingress (mean 130.19 Mbps)
- Red line: Flow 3 egress (mean 130.20 Mbps)

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

*Legend for Graph 2:*
- Blue dots: Flow 1 (95th percentile 137.25 ms)
- Green dots: Flow 2 (95th percentile 138.08 ms)
- Red dots: Flow 3 (95th percentile 138.31 ms)
Run 5: Statistics of Indigo-1-32

Start at: 2018-04-19 00:04:13
End at: 2018-04-19 00:04:43

# Below is generated by plot.py at 2018-04-19 04:39:30
# Datalink statistics
  -- Total of 3 flows:
    Average throughput: 316.21 Mbit/s
    95th percentile per-packet one-way delay: 137.723 ms
    Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 167.30 Mbit/s
    95th percentile per-packet one-way delay: 137.076 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 158.24 Mbit/s
    95th percentile per-packet one-way delay: 138.679 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 138.97 Mbit/s
    95th percentile per-packet one-way delay: 138.373 ms
    Loss rate: 0.00%
Run 5: Report of Indigo-1-32 — Data Link

![Graph showing throughput and delay over time](image-url)
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-19 00:22:23
End at: 2018-04-19 00:22:53

# Below is generated by plot.py at 2018-04-19 04:39:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 318.98 Mbit/s
  95th percentile per-packet one-way delay: 138.100 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 169.31 Mbit/s
  95th percentile per-packet one-way delay: 137.434 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 162.22 Mbit/s
  95th percentile per-packet one-way delay: 138.561 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 133.77 Mbit/s
  95th percentile per-packet one-way delay: 142.188 ms
  Loss rate: 0.01%
Run 6: Report of Indigo-1-32 — Data Link

[Graph 1: Throughput vs Time for different flows]

[Graph 2: Per-packet end-to-end delay vs Time for different flows]

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Run 7: Statistics of Indigo-1-32

Start at: 2018-04-19 00:40:46
End at: 2018-04-19 00:41:16

# Below is generated by plot.py at 2018-04-19 04:39:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 310.87 Mbit/s
  95th percentile per-packet one-way delay: 137.168 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 164.15 Mbit/s
  95th percentile per-packet one-way delay: 136.853 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 158.84 Mbit/s
  95th percentile per-packet one-way delay: 137.789 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 131.90 Mbit/s
  95th percentile per-packet one-way delay: 137.306 ms
  Loss rate: 0.00%
Run 7: Report of Indigo-1-32 — Data Link
Run 8: Statistics of Indigo-1-32

Start at: 2018-04-19 00:58:57
End at: 2018-04-19 00:59:27

# Below is generated by plot.py at 2018-04-19 04:39:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 319.23 Mbit/s
  95th percentile per-packet one-way delay: 137.439 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 169.70 Mbit/s
  95th percentile per-packet one-way delay: 136.674 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 163.48 Mbit/s
  95th percentile per-packet one-way delay: 138.513 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 129.75 Mbit/s
  95th percentile per-packet one-way delay: 138.072 ms
  Loss rate: 0.00%
Run 8: Report of Indigo-1-32 — Data Link

![Graph showing data link performance metrics over time]

- **Throughput (Mbps)**: Flow 1 ingress (mean 169.70 Mbps) vs. Flow 1 egress (mean 169.70 Mbps)
- **Per-packet one-way delay (ms)**: Flow 1 (95th percentile 136.67 ms), Flow 2 (95th percentile 138.51 ms), Flow 3 (95th percentile 138.07 ms)
Run 9: Statistics of Indigo-1-32

Start at: 2018-04-19 01:17:07
End at: 2018-04-19 01:17:37

# Below is generated by plot.py at 2018-04-19 04:39:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.30 Mbit/s
95th percentile per-packet one-way delay: 138.143 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 133.14 Mbit/s
95th percentile per-packet one-way delay: 137.654 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 163.70 Mbit/s
95th percentile per-packet one-way delay: 138.530 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 139.00 Mbit/s
95th percentile per-packet one-way delay: 139.894 ms
Loss rate: 0.00%
Run 9: Report of Indigo-1-32 — Data Link

![Graph showing network performance metrics](image-url)
Run 10: Statistics of Indigo-1-32

Start at: 2018-04-19 01:34:38
End at: 2018-04-19 01:35:08

# Below is generated by plot.py at 2018-04-19 04:39:31
# Datalink statistics
# Total of 3 flows:
Average throughput: 314.25 Mbit/s
95th percentile per-packet one-way delay: 137.988 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 166.73 Mbit/s
95th percentile per-packet one-way delay: 137.202 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 155.26 Mbit/s
95th percentile per-packet one-way delay: 138.486 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 141.50 Mbit/s
95th percentile per-packet one-way delay: 142.878 ms
Loss rate: 0.00%
Run 10: Report of Indigo-1-32 — Data Link

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

- **Flow 1 ingress (mean 166.72 Mbit/s)**
- **Flow 1 egress (mean 166.73 Mbit/s)**
- **Flow 2 ingress (mean 155.09 Mbit/s)**
- **Flow 2 egress (mean 155.26 Mbit/s)**
- **Flow 3 ingress (mean 141.49 Mbit/s)**
- **Flow 3 egress (mean 141.50 Mbit/s)**

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Run 1: Statistics of PCC-Vivace

Start at: 2018-04-18 22:40:34
End at: 2018-04-18 22:41:04

# Below is generated by plot.py at 2018-04-19 04:39:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 393.51 Mbit/s
95th percentile per-packet one-way delay: 140.271 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.67 Mbit/s
95th percentile per-packet one-way delay: 148.085 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 178.65 Mbit/s
95th percentile per-packet one-way delay: 136.832 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 117.79 Mbit/s
95th percentile per-packet one-way delay: 139.245 ms
Loss rate: 0.00%
Run 1: Report of PCC-Vivace — Data Link

![Graph showing network performance metrics over time.]

- **Flow 1 ingress (mean 235.67 Mbit/s)**
- **Flow 1 egress (mean 235.67 Mbit/s)**
- **Flow 2 ingress (mean 178.64 Mbit/s)**
- **Flow 2 egress (mean 178.65 Mbit/s)**
- **Flow 3 ingress (mean 117.79 Mbit/s)**
- **Flow 3 egress (mean 117.79 Mbit/s)**

![Graph showing packet delay over time.]

- **Flow 1 (95th percentile 148.09 ms)**
- **Flow 2 (95th percentile 136.83 ms)**
- **Flow 3 (95th percentile 139.25 ms)**
Run 2: Statistics of PCC-Vivace

Start at: 2018-04-18 22:58:52

# Below is generated by plot.py at 2018-04-19 04:39:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 425.85 Mbit/s
95th percentile per-packet one-way delay: 137.509 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 264.16 Mbit/s
95th percentile per-packet one-way delay: 137.232 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 181.89 Mbit/s
95th percentile per-packet one-way delay: 137.097 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 123.96 Mbit/s
95th percentile per-packet one-way delay: 145.112 ms
Loss rate: 0.00%
Run 2: Report of PCC-Vivace — Data Link

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

![Graph 2: One-Way Delay vs Time](image2)
Run 3: Statistics of PCC-Vivace

Start at: 2018-04-18 23:17:16
End at: 2018-04-18 23:17:46

# Below is generated by plot.py at 2018-04-19 04:39:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 392.90 Mbit/s
95th percentile per-packet one-way delay: 141.651 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 238.79 Mbit/s
95th percentile per-packet one-way delay: 143.567 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 177.79 Mbit/s
95th percentile per-packet one-way delay: 137.125 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 109.23 Mbit/s
95th percentile per-packet one-way delay: 152.737 ms
Loss rate: 0.00%
Run 3: Report of PCC-Vivace — Data Link

- Throughput (Mbps)
- Time (s)
- Flow 1 ingress (mean 238.82 Mbps)
- Flow 1 egress (mean 238.79 Mbps)
- Flow 2 ingress (mean 177.79 Mbps)
- Flow 2 egress (mean 177.79 Mbps)
- Flow 3 ingress (mean 109.25 Mbps)
- Flow 3 egress (mean 109.23 Mbps)

- Pre-packet error delay (ms)
- Time (s)
- Flow 1 (95th percentile 143.57 ms)
- Flow 2 (95th percentile 137.12 ms)
- Flow 3 (95th percentile 152.74 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2018-04-18 23:35:42
End at: 2018-04-18 23:36:12

# Below is generated by plot.py at 2018-04-19 04:39:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 436.46 Mbit/s
95th percentile per-packet one-way delay: 139.274 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 279.87 Mbit/s
95th percentile per-packet one-way delay: 139.791 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 180.80 Mbit/s
95th percentile per-packet one-way delay: 137.507 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 110.63 Mbit/s
95th percentile per-packet one-way delay: 145.582 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 279.88 Mbit/s)
- Flow 1 egress (mean 279.87 Mbit/s)
- Flow 2 ingress (mean 180.79 Mbit/s)
- Flow 2 egress (mean 180.80 Mbit/s)
- Flow 3 ingress (mean 110.63 Mbit/s)
- Flow 3 egress (mean 110.63 Mbit/s)

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

- Flow 1 (95th percentile 139.79 ms)
- Flow 2 (95th percentile 137.51 ms)
- Flow 3 (95th percentile 145.58 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2018-04-18 23:54:04
End at: 2018-04-18 23:54:34

# Below is generated by plot.py at 2018-04-19 04:39:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 345.09 Mbit/s
  95th percentile per-packet one-way delay: 156.670 ms
  Loss rate: 1.57%
-- Flow 1:
  Average throughput: 233.93 Mbit/s
  95th percentile per-packet one-way delay: 145.418 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 109.95 Mbit/s
  95th percentile per-packet one-way delay: 342.610 ms
  Loss rate: 6.93%
-- Flow 3:
  Average throughput: 115.79 Mbit/s
  95th percentile per-packet one-way delay: 137.999 ms
  Loss rate: 0.00%
Run 5: Report of PCC-Vivace — Data Link

Graph 1: Throughput (Mbps) vs. Time (s)
- Flow 1 ingress (mean 233.99 Mbps)
- Flow 1 egress (mean 233.03 Mbps)
- Flow 2 ingress (mean 118.15 Mbps)
- Flow 2 egress (mean 109.95 Mbps)
- Flow 3 ingress (mean 115.78 Mbps)
- Flow 3 egress (mean 115.79 Mbps)

Graph 2: Per-packet one-way delay (ms) vs. Time (s)
- Flow 1 (95th percentile 145.42 ms)
- Flow 2 (95th percentile 342.61 ms)
- Flow 3 (95th percentile 138.00 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-04-19 00:12:16
End at: 2018-04-19 00:12:46

# Below is generated by plot.py at 2018-04-19 04:39:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 394.90 Mbit/s
95th percentile per-packet one-way delay: 145.823 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 239.02 Mbit/s
95th percentile per-packet one-way delay: 149.396 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 175.07 Mbit/s
95th percentile per-packet one-way delay: 137.617 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 119.98 Mbit/s
95th percentile per-packet one-way delay: 137.692 ms
Loss rate: 0.01%
Run 6: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress (mean 239.01 Mbit/s)**
- **Flow 1 egress (mean 239.02 Mbit/s)**
- **Flow 2 ingress (mean 175.07 Mbit/s)**
- **Flow 2 egress (mean 175.07 Mbit/s)**
- **Flow 3 ingress (mean 119.99 Mbit/s)**
- **Flow 3 egress (mean 119.98 Mbit/s)**

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

- **Flow 1 (95th percentile 149.40 ms)**
- **Flow 2 (95th percentile 137.62 ms)**
- **Flow 3 (95th percentile 137.69 ms)**
Run 7: Statistics of PCC-Vivace

Start at: 2018-04-19 00:30:24  
End at: 2018-04-19 00:30:54  

# Below is generated by plot.py at 2018-04-19 04:39:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 410.85 Mbit/s  
95th percentile per-packet one-way delay: 145.153 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 263.57 Mbit/s  
95th percentile per-packet one-way delay: 150.685 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 160.85 Mbit/s  
95th percentile per-packet one-way delay: 143.456 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 122.88 Mbit/s  
95th percentile per-packet one-way delay: 138.533 ms  
Loss rate: 0.00%
Run 7: Report of PCC-Vivace — Data Link
Run 8: Statistics of PCC-Vivace

Start at: 2018-04-19 00:48:45
End at: 2018-04-19 00:49:15

# Below is generated by plot.py at 2018-04-19 04:39:31
# Datalink statistics
  -- Total of 3 flows:
  Average throughput: 424.45 Mbit/s
  95th percentile per-packet one-way delay: 218.433 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 283.94 Mbit/s
  95th percentile per-packet one-way delay: 244.846 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 178.82 Mbit/s
  95th percentile per-packet one-way delay: 138.596 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 65.62 Mbit/s
  95th percentile per-packet one-way delay: 135.229 ms
  Loss rate: 0.00%
Run 8: Report of PCC-Vivace — Data Link

![Graph representing network throughput and delay](image)

- Flow 1 ingress (mean 283.94 Mbit/s)
- Flow 1 egress (mean 283.94 Mbit/s)
- Flow 2 ingress (mean 178.83 Mbit/s)
- Flow 2 egress (mean 178.82 Mbit/s)
- Flow 3 ingress (mean 65.61 Mbit/s)
- Flow 3 egress (mean 65.62 Mbit/s)

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

- Flow 1 (95th percentile 244.85 ms)
- Flow 2 (95th percentile 138.60 ms)
- Flow 3 (95th percentile 135.23 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-04-19 01:07:05
End at: 2018-04-19 01:07:35

# Below is generated by plot.py at 2018-04-19 04:39:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 375.55 Mbit/s
95th percentile per-packet one-way delay: 140.399 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 210.71 Mbit/s
95th percentile per-packet one-way delay: 137.618 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 189.91 Mbit/s
95th percentile per-packet one-way delay: 151.994 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 117.29 Mbit/s
95th percentile per-packet one-way delay: 172.273 ms
Loss rate: 0.00%
Run 9: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress** (mean 210.70 Mbit/s)
- **Flow 1 egress** (mean 210.71 Mbit/s)
- **Flow 2 ingress** (mean 189.91 Mbit/s)
- **Flow 2 egress** (mean 189.91 Mbit/s)
- **Flow 3 ingress** (mean 117.29 Mbit/s)
- **Flow 3 egress** (mean 117.29 Mbit/s)

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

- **Flow 1 (95th percentile 137.62 ms)**
- **Flow 2 (95th percentile 151.99 ms)**
- **Flow 3 (95th percentile 172.27 ms)**

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Run 10: Statistics of PCC-Vivace

Start at: 2018-04-19 01:24:25
End at: 2018-04-19 01:24:55

# Below is generated by plot.py at 2018-04-19 04:39:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 453.74 Mbit/s
95th percentile per-packet one-way delay: 148.492 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 287.11 Mbit/s
95th percentile per-packet one-way delay: 155.837 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 189.34 Mbit/s
95th percentile per-packet one-way delay: 136.701 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 124.00 Mbit/s
95th percentile per-packet one-way delay: 146.515 ms
Loss rate: 0.04%
Run 10: Report of PCC-Vivace — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 287.11 Mbps)
- Flow 1 egress (mean 287.11 Mbps)
- Flow 2 ingress (mean 189.33 Mbps)
- Flow 2 egress (mean 189.34 Mbps)
- Flow 3 ingress (mean 124.06 Mbps)
- Flow 3 egress (mean 124.00 Mbps)

Graph 2: Per-packet one way delay (ms)
- Flow 1 (95th percentile 155.04 ms)
- Flow 2 (95th percentile 136.70 ms)
- Flow 3 (95th percentile 146.51 ms)
Run 1: Statistics of PCC-Expr

End at: 2018-04-18 22:38:06
Run 1: Report of PCC-Expr — Data Link

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Run 2: Statistics of PCC-Expr

Run 2: Report of PCC-Expr — Data Link

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Run 3: Statistics of PCC-Expr

Start at: 2018-04-18 23:14:17
End at: 2018-04-18 23:14:47
Run 3: Report of PCC-Expr — Data Link

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Run 4: Statistics of PCC-Expr

Start at: 2018-04-18 23:32:43
Run 4: Report of PCC-Expr — Data Link

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Run 5: Statistics of PCC-Expr

Start at: 2018-04-18 23:51:05
End at: 2018-04-18 23:51:35
Run 5: Report of PCC-Expr — Data Link

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Run 6: Statistics of PCC-Expr

Start at: 2018-04-19 00:09:16
End at: 2018-04-19 00:09:46
Run 6: Report of PCC-Expr — Data Link

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Run 7: Statistics of PCC-Expr

Start at: 2018-04-19 00:27:26
End at: 2018-04-19 00:27:56
Run 7: Report of PCC-Expr — Data Link

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Run 8: Statistics of PCC-Expr

Start at: 2018-04-19 00:45:50
End at: 2018-04-19 00:46:20
Run 8: Report of PCC-Expr — Data Link

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Run 9: Statistics of PCC-Expr

Start at: 2018-04-19 01:04:03
End at: 2018-04-19 01:04:33
Run 9: Report of PCC-Expr — Data Link

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Run 10: Statistics of PCC-Expr

Start at: 2018-04-19 01:21:25
End at: 2018-04-19 01:21:55
Run 10: Report of PCC-Expr — Data Link

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