Pantheon Report

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

Git summary:
branch: master @ b3d6e7098641364fd3a292656a51aa81e316d0b4
third_party/calibrated_koho @ 3cb73c0d1c0322cddf4e46ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ 11f8c46a2bf1d7c797253db7e8ca04076272b2aa4
third_party/genericCC @ d223989828276fa83a077da6e0341dc0c7b89aec
third_party/indigo @ a9b2060d39e4da2e8987e3ca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4e4230db7484501f82ce8b377695f266d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d5d38d4c4dfe0ecdbf900c7e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983a84360c53d89
third_party/koho_cc @ 0f0f2e693303ae82ea088e6928ece4f1f0384681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b17aaeb4a4906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfc993
third_party/pcc @ 1af9588a0d66d18623c091a55f8c872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e68ac0d8f2eb42e24f974ab
third_party/proto-quin @ 77961f1a82733a86b42f1bc8143ec978f3cf3f42
third_party/scream @ c3370fd7bd17265a7f9ab34e4016ad23f5965885
third_party/sourdough @ f1a14b9e749737437f611eaaeb30b267cde681
third_party/sprout @ 6f2efe6e6088d91066a9f023df375eee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ f271183af822ee5d0031620f4bebf38aedd5581
test from GCE London Ethernet to GCE Tokyo Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

![Graph showing 95th percentile one-way delay (ms) vs. Average throughput (Mbit/s)](image)

- Copa
- FillP
- Verus
- Sprout
- WebRTC media
- PCC-Vivace
- SCReAM
- TCP Vegas
- TCP Cubic
- TaoVA-100x
- QUIC Cubic
- Indigo-1-32
- PCC-Allegro
- TCP BBR
- LEDBAT
<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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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
</tr>
<tr>
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<td>10</td>
<td>95.67</td>
<td>93.25</td>
<td>87.94</td>
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<td>TCP Cubic</td>
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<td>73.59</td>
<td>53.18</td>
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<td>163.54</td>
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<td>41.36</td>
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<td>0.21</td>
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<td>WebRTC media</td>
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<td>85.59</td>
<td>80.50</td>
<td>79.79</td>
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<td>46.41</td>
<td>40.70</td>
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<td>Copa</td>
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<td>60.68</td>
<td>68.67</td>
<td>66.95</td>
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<td>620.12</td>
<td>567.15</td>
<td>454.32</td>
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<td>Indigo-1-32</td>
<td>10</td>
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<td>166.88</td>
<td>141.08</td>
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<td>PCC-Vivace</td>
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<td>228.64</td>
<td>179.45</td>
<td>123.76</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

Start at: 2018-04-18 04:19:41
End at: 2018-04-18 04:20:11

# Below is generated by plot.py at 2018-04-18 08:50:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 182.95 Mbit/s
95th percentile per-packet one-way delay: 112.495 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 112.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 90.11 Mbit/s
95th percentile per-packet one-way delay: 112.476 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 84.57 Mbit/s
95th percentile per-packet one-way delay: 112.568 ms
Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-04-18 04:36:56
End at: 2018-04-18 04:37:26

# Below is generated by plot.py at 2018-04-18 08:50:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 190.18 Mbit/s
95th percentile per-packet one-way delay: 113.495 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.04 Mbit/s
95th percentile per-packet one-way delay: 111.485 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 98.80 Mbit/s
95th percentile per-packet one-way delay: 113.588 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 88.73 Mbit/s
95th percentile per-packet one-way delay: 115.972 ms
Loss rate: 0.04%
Run 2: Report of TCP BBR — Data Link

![Graph of Throughput and Packet One-Way Delay]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 95.04 Mbps)
  - Flow 1 egress (mean 95.04 Mbps)
  - Flow 2 ingress (mean 98.81 Mbps)
  - Flow 2 egress (mean 98.80 Mbps)
  - Flow 3 ingress (mean 98.75 Mbps)
  - Flow 3 egress (mean 98.73 Mbps)

- **Packet One-Way Delay (ms):**
  - Flow 1 (95th percentile 111.48 ms)
  - Flow 2 (95th percentile 113.59 ms)
  - Flow 3 (95th percentile 115.97 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-04-18 04:54:13
End at: 2018-04-18 04:54:43

# Below is generated by plot.py at 2018-04-18 08:50:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 184.91 Mbit/s
  95th percentile per-packet one-way delay: 111.356 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 94.07 Mbit/s
  95th percentile per-packet one-way delay: 111.245 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 91.87 Mbit/s
  95th percentile per-packet one-way delay: 111.270 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 89.66 Mbit/s
  95th percentile per-packet one-way delay: 111.635 ms
  Loss rate: 0.00%
Run 3: Report of TCP BBR — Data Link

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

![Graph 2: Per-packet one-way delay (ms) vs Time (s)]
Run 4: Statistics of TCP BBR

Start at: 2018-04-18 05:11:27
End at: 2018-04-18 05:11:57

# Below is generated by plot.py at 2018-04-18 08:50:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 186.20 Mbit/s
  95th percentile per-packet one-way delay: 111.368 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 94.99 Mbit/s
  95th percentile per-packet one-way delay: 111.307 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 92.69 Mbit/s
  95th percentile per-packet one-way delay: 111.289 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 88.97 Mbit/s
  95th percentile per-packet one-way delay: 111.763 ms
  Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-04-18 05:29:02
End at: 2018-04-18 05:29:32

# Below is generated by plot.py at 2018-04-18 08:50:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 186.78 Mbit/s
  95th percentile per-packet one-way delay: 112.609 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 98.55 Mbit/s
  95th percentile per-packet one-way delay: 112.814 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 89.55 Mbit/s
  95th percentile per-packet one-way delay: 111.283 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 86.11 Mbit/s
  95th percentile per-packet one-way delay: 112.581 ms
  Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-04-18 05:46:24
End at: 2018-04-18 05:46:54

# Below is generated by plot.py at 2018-04-18 08:50:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 186.24 Mbit/s
95th percentile per-packet one-way delay: 112.049 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 94.59 Mbit/s
95th percentile per-packet one-way delay: 111.463 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 93.24 Mbit/s
95th percentile per-packet one-way delay: 112.898 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 89.46 Mbit/s
95th percentile per-packet one-way delay: 112.488 ms
Loss rate: 0.04%
Run 6: Report of TCP BBR — Data Link
Run 7: Statistics of TCP BBR

Start at: 2018-04-18 06:03:39
End at: 2018-04-18 06:04:09

# Below is generated by plot.py at 2018-04-18 08:50:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.25 Mbit/s
95th percentile per-packet one-way delay: 111.373 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.01 Mbit/s
95th percentile per-packet one-way delay: 111.346 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 91.42 Mbit/s
95th percentile per-packet one-way delay: 111.326 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 88.80 Mbit/s
95th percentile per-packet one-way delay: 111.493 ms
Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

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

Start at: 2018-04-18 06:20:56
End at: 2018-04-18 06:21:26

# Below is generated by plot.py at 2018-04-18 08:50:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 186.55 Mbit/s
  95th percentile per-packet one-way delay: 111.148 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 95.16 Mbit/s
  95th percentile per-packet one-way delay: 111.071 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 95.28 Mbit/s
  95th percentile per-packet one-way delay: 111.403 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 84.35 Mbit/s
  95th percentile per-packet one-way delay: 111.012 ms
  Loss rate: 0.02%
Run 8: Report of TCP BBR — Data Link

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**Throughput (Mbps)**

- Flow 1 ingress (mean 95.16 Mbps)
- Flow 1 egress (mean 95.16 Mbps)
- Flow 2 ingress (mean 95.27 Mbps)
- Flow 2 egress (mean 95.28 Mbps)
- Flow 3 ingress (mean 94.36 Mbps)
- Flow 3 egress (mean 94.35 Mbps)

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

- Flow 1 (95th percentile 111.07 ms)
- Flow 2 (95th percentile 111.40 ms)
- Flow 3 (95th percentile 111.01 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-04-18 06:38:06
End at: 2018-04-18 06:38:36

# Below is generated by plot.py at 2018-04-18 08:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 191.73 Mbit/s
95th percentile per-packet one-way delay: 112.936 ms
Loss rate: 0.00%
  -- Flow 1:
Average throughput: 97.54 Mbit/s
95th percentile per-packet one-way delay: 112.490 ms
Loss rate: 0.00%
  -- Flow 2:
Average throughput: 97.15 Mbit/s
95th percentile per-packet one-way delay: 112.915 ms
Loss rate: 0.00%
  -- Flow 3:
Average throughput: 89.60 Mbit/s
95th percentile per-packet one-way delay: 114.532 ms
Loss rate: 0.00%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-04-18 06:55:04
End at: 2018-04-18 06:55:34

# Below is generated by plot.py at 2018-04-18 08:53:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 185.66 Mbit/s
  95th percentile per-packet one-way delay: 111.304 ms
  Loss rate: 0.01%
  -- Flow 1:
  Average throughput: 94.64 Mbit/s
  95th percentile per-packet one-way delay: 111.330 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 92.39 Mbit/s
  95th percentile per-packet one-way delay: 111.234 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 89.16 Mbit/s
  95th percentile per-packet one-way delay: 111.268 ms
  Loss rate: 0.02%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2018-04-18 04:15:39
End at: 2018-04-18 04:16:09

# Below is generated by plot.py at 2018-04-18 08:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.02 Mbit/s
95th percentile per-packet one-way delay: 119.628 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.98 Mbit/s
95th percentile per-packet one-way delay: 116.378 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.20 Mbit/s
95th percentile per-packet one-way delay: 117.865 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 91.56 Mbit/s
95th percentile per-packet one-way delay: 122.425 ms
Loss rate: 0.00%
Run 1: Report of TCP Cubic — Data Link

![Graph of Throughput](image)

![Graph of Per-packet one-way delay](image)
Run 2: Statistics of TCP Cubic

Start at: 2018-04-18 04:32:54
End at: 2018-04-18 04:33:24

# Below is generated by plot.py at 2018-04-18 08:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.99 Mbit/s
95th percentile per-packet one-way delay: 114.740 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.51 Mbit/s
95th percentile per-packet one-way delay: 114.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.00 Mbit/s
95th percentile per-packet one-way delay: 114.969 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.08 Mbit/s
95th percentile per-packet one-way delay: 116.061 ms
Loss rate: 0.00%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

Start at: 2018-04-18 04:50:07
End at: 2018-04-18 04:50:37

# Below is generated by plot.py at 2018-04-18 08:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.59 Mbit/s
95th percentile per-packet one-way delay: 115.396 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 82.10 Mbit/s
95th percentile per-packet one-way delay: 116.815 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.54 Mbit/s
95th percentile per-packet one-way delay: 113.005 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 111.881 ms
Loss rate: 0.30%
Run 3: Report of TCP Cubic — Data Link

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

![Graph 2: Per-Packet One-Way Delay](image2)
Run 4: Statistics of TCP Cubic

Start at: 2018-04-18 05:07:29
End at: 2018-04-18 05:07:59

# Below is generated by plot.py at 2018-04-18 08:53:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.91 Mbit/s
  95th percentile per-packet one-way delay: 114.133 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 66.63 Mbit/s
  95th percentile per-packet one-way delay: 114.418 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 22.15 Mbit/s
  95th percentile per-packet one-way delay: 113.633 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 1.85 Mbit/s
  95th percentile per-packet one-way delay: 111.940 ms
  Loss rate: 0.46%
Run 4: Report of TCP Cubic — Data Link

![Graph showing throughput over time]

- Flow 1 ingress (mean 66.63 Mbit/s)
- Flow 1 egress (mean 66.63 Mbit/s)
- Flow 2 ingress (mean 22.17 Mbit/s)
- Flow 2 egress (mean 22.15 Mbit/s)
- Flow 3 ingress (mean 1.86 Mbit/s)
- Flow 3 egress (mean 1.85 Mbit/s)

![Graph showing packet delay over time]

- Flow 1 (95th percentile 114.42 ms)
- Flow 2 (95th percentile 113.63 ms)
- Flow 3 (95th percentile 111.94 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-04-18 05:24:57
End at: 2018-04-18 05:25:27

# Below is generated by plot.py at 2018-04-18 08:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 133.07 Mbit/s
95th percentile per-packet one-way delay: 116.834 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.80 Mbit/s
95th percentile per-packet one-way delay: 117.524 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 67.52 Mbit/s
95th percentile per-packet one-way delay: 116.626 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.38 Mbit/s
95th percentile per-packet one-way delay: 115.756 ms
Loss rate: 0.00%
Run 5: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 70.79 Mbit/s)
- Flow 1 egress (mean 70.80 Mbit/s)
- Flow 2 ingress (mean 67.52 Mbit/s)
- Flow 2 egress (mean 67.52 Mbit/s)
- Flow 3 ingress (mean 52.35 Mbit/s)
- Flow 3 egress (mean 52.36 Mbit/s)

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

- Flow 1 (95th percentile 117.52 ms)
- Flow 2 (95th percentile 116.63 ms)
- Flow 3 (95th percentile 115.76 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-04-18 05:42:23
End at: 2018-04-18 05:42:53

# Below is generated by plot.py at 2018-04-18 08:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.02 Mbit/s
95th percentile per-packet one-way delay: 117.529 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 71.30 Mbit/s
95th percentile per-packet one-way delay: 118.931 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.84 Mbit/s
95th percentile per-packet one-way delay: 113.090 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 51.98 Mbit/s
95th percentile per-packet one-way delay: 115.252 ms
Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link

![Graph showing throughput and packet delay over time for different flows. The graphs display the throughput and packet delay for three flows over a 30-second interval. The throughput graph shows three lines representing different flow ingress and egress rates, while the packet delay graph shows the 95th percentile delay for each flow.]
Run 7: Statistics of TCP Cubic

Start at: 2018-04-18 05:59:36
End at: 2018-04-18 06:00:06

# Below is generated by plot.py at 2018-04-18 08:54:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 169.15 Mbit/s
  95th percentile per-packet one-way delay: 122.245 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 90.28 Mbit/s
  95th percentile per-packet one-way delay: 122.858 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 72.60 Mbit/s
  95th percentile per-packet one-way delay: 122.069 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 92.42 Mbit/s
  95th percentile per-packet one-way delay: 120.244 ms
  Loss rate: 0.17%
Run 7: Report of TCP Cubic — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 90.28 Mbit/s)
Flow 1 egress (mean 90.28 Mbit/s)
Flow 2 ingress (mean 72.61 Mbit/s)
Flow 2 egress (mean 72.60 Mbit/s)
Flow 3 ingress (mean 92.61 Mbit/s)
Flow 3 egress (mean 92.42 Mbit/s)

End-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 122.96 ms)
Flow 2 (95th percentile 122.07 ms)
Flow 3 (95th percentile 120.24 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-04-18 06:16:56
End at: 2018-04-18 06:17:26

# Below is generated by plot.py at 2018-04-18 08:54:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.67 Mbit/s
95th percentile per-packet one-way delay: 119.355 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.82 Mbit/s
95th percentile per-packet one-way delay: 117.482 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.14 Mbit/s
95th percentile per-packet one-way delay: 117.019 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.99 Mbit/s
95th percentile per-packet one-way delay: 121.687 ms
Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 66.82 Mbps)
  - Flow 1 egress (mean 66.82 Mbps)
  - Flow 2 ingress (mean 51.13 Mbps)
  - Flow 2 egress (mean 51.14 Mbps)
  - Flow 3 ingress (mean 90.01 Mbps)
  - Flow 3 egress (mean 89.99 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 117.48 ms)
  - Flow 2 (95th percentile 117.02 ms)
  - Flow 3 (95th percentile 121.69 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-04-18 06:34:12
End at: 2018-04-18 06:34:42

# Below is generated by plot.py at 2018-04-18 08:54:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 128.20 Mbit/s
  95th percentile per-packet one-way delay: 119.702 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 76.88 Mbit/s
  95th percentile per-packet one-way delay: 120.194 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 47.83 Mbit/s
  95th percentile per-packet one-way delay: 115.402 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 59.13 Mbit/s
  95th percentile per-packet one-way delay: 115.632 ms
  Loss rate: 0.06%
Run 9: Report of TCP Cubic — Data Link

![Graph 1: Throughput (Mbps)](image1)
- Flow 1 ingress (mean 76.87 Mbit/s)
- Flow 1 egress (mean 76.88 Mbit/s)
- Flow 2 ingress (mean 47.83 Mbit/s)
- Flow 2 egress (mean 47.83 Mbit/s)
- Flow 3 ingress (mean 59.13 Mbit/s)
- Flow 3 egress (mean 59.13 Mbit/s)

![Graph 2: Per-packet one-way delay (ms)](image2)
- Flow 1 (95th percentile 120.19 ms)
- Flow 2 (95th percentile 115.40 ms)
- Flow 3 (95th percentile 115.63 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-04-18 06:51:10
End at: 2018-04-18 06:51:40

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 147.87 Mbit/s
  95th percentile per-packet one-way delay: 118.355 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 72.56 Mbit/s
  95th percentile per-packet one-way delay: 114.708 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 67.95 Mbit/s
  95th percentile per-packet one-way delay: 115.793 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 91.54 Mbit/s
  95th percentile per-packet one-way delay: 121.527 ms
  Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link

![Graph of throughput and packet delay](image)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 72.56 Mbps)
  - Flow 1 egress (mean 72.56 Mbps)
  - Flow 2 ingress (mean 67.95 Mbps)
  - Flow 2 egress (mean 67.95 Mbps)
  - Flow 3 ingress (mean 91.60 Mbps)
  - Flow 3 egress (mean 91.54 Mbps)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 114.71 ms)
  - Flow 2 (95th percentile 115.79 ms)
  - Flow 3 (95th percentile 121.53 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-04-18 04:24:14
End at: 2018-04-18 04:24:44

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
 -- Total of 3 flows:
  Average throughput: 11.11 Mbit/s
  95th percentile per-packet one-way delay: 112.746 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 7.17 Mbit/s
  95th percentile per-packet one-way delay: 112.837 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 4.91 Mbit/s
  95th percentile per-packet one-way delay: 112.022 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 2.12 Mbit/s
  95th percentile per-packet one-way delay: 111.645 ms
  Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-04-18 04:41:34
End at: 2018-04-18 04:42:04

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.85 Mbit/s
  95th percentile per-packet one-way delay: 111.693 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.22 Mbit/s
  95th percentile per-packet one-way delay: 111.741 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.33 Mbit/s
  95th percentile per-packet one-way delay: 111.504 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 111.530 ms
  Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-04-18 04:58:50
End at: 2018-04-18 04:59:20

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 8.34 Mbit/s
  95th percentile per-packet one-way delay: 112.051 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.71 Mbit/s
  95th percentile per-packet one-way delay: 112.097 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.35 Mbit/s
  95th percentile per-packet one-way delay: 112.047 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.31 Mbit/s
  95th percentile per-packet one-way delay: 111.774 ms
  Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

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

![Graph 2: End-to-End Delay vs Time](image2)
Run 4: Statistics of LEDBAT

Start at: 2018-04-18 05:16:10
End at: 2018-04-18 05:16:40

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.70 Mbit/s
95th percentile per-packet one-way delay: 111.984 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 112.102 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.51 Mbit/s
95th percentile per-packet one-way delay: 111.774 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 111.850 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-04-18 05:33:40
End at: 2018-04-18 05:34:10

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 11.01 Mbit/s
  95th percentile per-packet one-way delay: 113.952 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.12 Mbit/s
  95th percentile per-packet one-way delay: 114.100 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.72 Mbit/s
  95th percentile per-packet one-way delay: 113.669 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.33 Mbit/s
  95th percentile per-packet one-way delay: 113.363 ms
  Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

Graph 1: Throughput vs Time

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

Legend:
- Flow 1 ingress (mean 7.12 Mbit/s)
- Flow 1 egress (mean 7.12 Mbit/s)
- Flow 2 ingress (mean 4.72 Mbit/s)
- Flow 2 egress (mean 4.72 Mbit/s)
- Flow 3 ingress (mean 2.33 Mbit/s)
- Flow 3 egress (mean 2.33 Mbit/s)
Run 6: Statistics of LEDBAT

Start at: 2018-04-18 05:51:00
End at: 2018-04-18 05:51:30

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 11.28 Mbit/s
  95th percentile per-packet one-way delay: 111.835 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.30 Mbit/s
  95th percentile per-packet one-way delay: 111.923 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.83 Mbit/s
  95th percentile per-packet one-way delay: 111.665 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: 111.246 ms
  Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-04-18 06:08:15
End at: 2018-04-18 06:08:45

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.85 Mbit/s
95th percentile per-packet one-way delay: 112.295 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 112.355 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.61 Mbit/s
95th percentile per-packet one-way delay: 112.318 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 111.825 ms
Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link

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

Start at: 2018-04-18 06:25:36
End at: 2018-04-18 06:26:06

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.38 Mbit/s
95th percentile per-packet one-way delay: 113.673 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 113.751 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.05 Mbit/s
95th percentile per-packet one-way delay: 113.220 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 113.262 ms
Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 6.59 Mbps)  —  Flow 1 egress (mean 6.59 Mbps)
Flow 2 ingress (mean 3.05 Mbps)  —  Flow 2 egress (mean 3.05 Mbps)
Flow 3 ingress (mean 2.35 Mbps)  —  Flow 3 egress (mean 2.35 Mbps)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 113.75 ms)  —  Flow 2 (95th percentile 113.22 ms)  —  Flow 3 (95th percentile 113.26 ms)
Run 9: Statistics of LEDBAT

Start at: 2018-04-18 06:42:40
End at: 2018-04-18 06:43:10

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 11.07 Mbit/s
  95th percentile per-packet one-way delay: 113.639 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.17 Mbit/s
  95th percentile per-packet one-way delay: 113.628 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.74 Mbit/s
  95th percentile per-packet one-way delay: 113.752 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.27 Mbit/s
  95th percentile per-packet one-way delay: 113.146 ms
  Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-04-18 06:59:42
End at: 2018-04-18 07:00:12

# Below is generated by plot.py at 2018-04-18 08:55:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.73 Mbit/s
  95th percentile per-packet one-way delay: 112.454 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.27 Mbit/s
  95th percentile per-packet one-way delay: 112.736 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.59 Mbit/s
  95th percentile per-packet one-way delay: 112.196 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 111.732 ms
  Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**: The graphs display the throughput for different flows over time. Each flow has a line indicating its ingress and egress throughput, with annotations showing mean speeds.
- **Packet Delay (ms)**: The second graph shows the packet delay for each flow over time, with markers indicating 95th percentile delays.

---

**Legend:**
- Flow 1 ingress (mean 7.27 Mbps)
- Flow 1 egress (mean 7.27 Mbps)
- Flow 2 ingress (mean 4.59 Mbps)
- Flow 2 egress (mean 4.59 Mbps)
- Flow 3 ingress (mean 1.31 Mbps)
- Flow 3 egress (mean 1.31 Mbps)

**Packet Delay:**
- Flow 1 (95th percentile 112.74 ms)
- Flow 2 (95th percentile 112.20 ms)
- Flow 3 (95th percentile 111.73 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-04-18 04:14:30
End at: 2018-04-18 04:15:00

# Below is generated by plot.py at 2018-04-18 09:03:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 510.80 Mbit/s
95th percentile per-packet one-way delay: 283.396 ms
Loss rate: 5.75%
-- Flow 1:
Average throughput: 382.36 Mbit/s
95th percentile per-packet one-way delay: 300.272 ms
Loss rate: 7.20%
-- Flow 2:
Average throughput: 131.11 Mbit/s
95th percentile per-packet one-way delay: 195.686 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 125.03 Mbit/s
95th percentile per-packet one-way delay: 211.070 ms
Loss rate: 2.13%
Run 1: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 112.41 Mb/it/s)
- Flow 1 egress (mean 382.96 Mb/it/s)
- Flow 2 ingress (mean 132.16 Mb/it/s)
- Flow 2 egress (mean 132.12 Mb/it/s)
- Flow 3 ingress (mean 128.11 Mb/it/s)
- Flow 3 egress (mean 125.03 Mb/it/s)

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

- Flow 1 (95th percentile 300.27 ms)
- Flow 2 (95th percentile 195.69 ms)
- Flow 3 (95th percentile 211.07 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-04-18 04:31:42
End at: 2018-04-18 04:32:12

# Below is generated by plot.py at 2018-04-18 09:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 573.87 Mbit/s
95th percentile per-packet one-way delay: 269.915 ms
Loss rate: 2.95%
-- Flow 1:
Average throughput: 491.05 Mbit/s
95th percentile per-packet one-way delay: 272.330 ms
Loss rate: 3.07%
-- Flow 2:
Average throughput: 124.21 Mbit/s
95th percentile per-packet one-way delay: 229.927 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 230.784 ms
Loss rate: 3.03%
Run 2: Report of PCC-Allegro — Data Link

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

Legend:
- Flow 1 Ingress (mean 507.14 Mbit/s)
- Flow 1 Egress (mean 491.05 Mbit/s)
- Flow 2 Ingress (mean 127.71 Mbit/s)
- Flow 2 Egress (mean 124.21 Mbit/s)
- Flow 3 Ingress (mean 4.40 Mbit/s)
- Flow 3 Egress (mean 4.21 Mbit/s)
Run 3: Statistics of PCC-Allegro

Start at: 2018-04-18 04:49:00
End at: 2018-04-18 04:49:30

# Below is generated by plot.py at 2018-04-18 09:04:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 479.61 Mbit/s
  95th percentile per-packet one-way delay: 210.840 ms
  Loss rate: 1.17%
-- Flow 1:
  Average throughput: 311.87 Mbit/s
  95th percentile per-packet one-way delay: 210.536 ms
  Loss rate: 1.03%
-- Flow 2:
  Average throughput: 249.86 Mbit/s
  95th percentile per-packet one-way delay: 212.518 ms
  Loss rate: 1.44%
-- Flow 3:
  Average throughput: 4.42 Mbit/s
  95th percentile per-packet one-way delay: 202.923 ms
  Loss rate: 0.00%
Run 3: Report of PCC-Allegro — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.]
Run 4: Statistics of PCC-Allegro

Start at: 2018-04-18 05:06:18
End at: 2018-04-18 05:06:48

# Below is generated by plot.py at 2018-04-18 09:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.93 Mbit/s
95th percentile per-packet one-way delay: 229.684 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 456.62 Mbit/s
95th percentile per-packet one-way delay: 230.005 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 120.22 Mbit/s
95th percentile per-packet one-way delay: 228.469 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 226.838 ms
Loss rate: 0.53%
Run 4: Report of PCC-Allegro — Data Link

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

- **Flow 1**: Ingress (mean 463.56 Mbit/s), Egress (mean 456.62 Mbit/s)
- **Flow 2**: Ingress (mean 122.49 Mbit/s), Egress (mean 120.22 Mbit/s)
- **Flow 3**: Ingress (mean 4.63 Mbit/s), Egress (mean 4.63 Mbit/s)

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

- **Flow 1**: (95th percentile 230.00 ms)
- **Flow 2**: (95th percentile 228.47 ms)
- **Flow 3**: (95th percentile 226.84 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2018-04-18 05:23:46
End at: 2018-04-18 05:24:16

# Below is generated by plot.py at 2018-04-18 09:04:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 565.39 Mbit/s
  95th percentile per-packet one-way delay: 225.795 ms
  Loss rate: 1.38%
-- Flow 1:
  Average throughput: 481.34 Mbit/s
  95th percentile per-packet one-way delay: 226.758 ms
  Loss rate: 1.50%
-- Flow 2:
  Average throughput: 124.42 Mbit/s
  95th percentile per-packet one-way delay: 204.284 ms
  Loss rate: 0.72%
-- Flow 3:
  Average throughput: 4.52 Mbit/s
  95th percentile per-packet one-way delay: 191.297 ms
  Loss rate: 0.00%
Run 5: Report of PCC-Allegro — Data Link

![Graph showing throughputs and delays for different flows over time.](image-url)
Run 6: Statistics of PCC-Allegro

Start at: 2018-04-18 05:41:14
End at: 2018-04-18 05:41:44

# Below is generated by plot.py at 2018-04-18 09:04:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 485.33 Mbit/s
95th percentile per-packet one-way delay: 239.882 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 284.97 Mbit/s
95th percentile per-packet one-way delay: 254.183 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 270.92 Mbit/s
95th percentile per-packet one-way delay: 217.374 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 61.22 Mbit/s
95th percentile per-packet one-way delay: 217.748 ms
Loss rate: 1.50%
Run 6: Report of PCC-Allegro — Data Link

![Graph of network performance](image)

Legend:
- Flow 1 ingress (mean 288.35 Mbit/s)
- Flow 1 egress (mean 284.97 Mbit/s)
- Flow 2 ingress (mean 276.74 Mbit/s)
- Flow 2 egress (mean 270.92 Mbit/s)
- Flow 3 ingress (mean 62.72 Mbit/s)
- Flow 3 egress (mean 61.22 Mbit/s)

![Graph of packet delay](image)

Legend:
- Flow 1 (95th percentile 254.18 ms)
- Flow 2 (95th percentile 217.37 ms)
- Flow 3 (95th percentile 217.75 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-04-18 05:58:26
End at: 2018-04-18 05:58:56

# Below is generated by plot.py at 2018-04-18 09:04:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 525.16 Mbit/s
  95th percentile per-packet one-way delay: 338.742 ms
  Loss rate: 8.15%
-- Flow 1:
  Average throughput: 428.80 Mbit/s
  95th percentile per-packet one-way delay: 345.846 ms
  Loss rate: 9.68%
-- Flow 2:
  Average throughput: 128.89 Mbit/s
  95th percentile per-packet one-way delay: 219.137 ms
  Loss rate: 0.75%
-- Flow 3:
  Average throughput: 32.70 Mbit/s
  95th percentile per-packet one-way delay: 191.616 ms
  Loss rate: 0.01%
Run 7: Report of PCC-Allegro — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 474.81 Mbps)
- Flow 1 egress (mean 428.80 Mbps)
- Flow 2 ingress (mean 129.89 Mbps)
- Flow 2 egress (mean 128.89 Mbps)
- Flow 3 ingress (mean 32.72 Mbps)
- Flow 3 egress (mean 32.70 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 345.85 ms)
- Flow 2 (95th percentile 219.14 ms)
- Flow 3 (95th percentile 191.62 ms)
Run 8: Statistics of PCC-Allegro

Start at: 2018-04-18 06:15:45
End at: 2018-04-18 06:16:15

# Below is generated by plot.py at 2018-04-18 09:05:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 546.29 Mbit/s
95th percentile per-packet one-way delay: 267.268 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 386.33 Mbit/s
95th percentile per-packet one-way delay: 286.419 ms
Loss rate: 3.29%
-- Flow 2:
Average throughput: 233.89 Mbit/s
95th percentile per-packet one-way delay: 227.919 ms
Loss rate: 1.78%
-- Flow 3:
Average throughput: 16.11 Mbit/s
95th percentile per-packet one-way delay: 228.035 ms
Loss rate: 0.66%
Run 8: Report of PCC-Allegro — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 399.81 Mbit/s)
- Flow 2 ingress (mean 239.45 Mbit/s)
- Flow 3 ingress (mean 16.39 Mbit/s)
- Flow 1 egress (mean 386.33 Mbit/s)
- Flow 2 egress (mean 233.89 Mbit/s)
- Flow 3 egress (mean 16.11 Mbit/s)

![Per-packet one-way delay Graph]

- Flow 1 (95th percentile 286.42 ms)
- Flow 2 (95th percentile 227.92 ms)
- Flow 3 (95th percentile 228.03 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-04-18 06:33:01
End at: 2018-04-18 06:33:32

# Below is generated by plot.py at 2018-04-18 09:13:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 548.05 Mbit/s
95th percentile per-packet one-way delay: 257.193 ms
Loss rate: 2.75%
-- Flow 1:
Average throughput: 467.20 Mbit/s
95th percentile per-packet one-way delay: 260.237 ms
Loss rate: 2.98%
-- Flow 2:
Average throughput: 119.41 Mbit/s
95th percentile per-packet one-way delay: 229.046 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 230.311 ms
Loss rate: 1.76%
Run 9: Report of PCC-Allegro — Data Link

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

- Flow 1 Ingress (mean 481.56 Mbit/s)
- Flow 1 Egress (mean 467.29 Mbit/s)
- Flow 2 Ingress (mean 121.07 Mbit/s)
- Flow 2 Egress (mean 119.43 Mbit/s)
- Flow 3 Ingress (mean 4.52 Mbit/s)
- Flow 3 Egress (mean 4.44 Mbit/s)

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

- Flow 1 (95th percentile 260.24 ms)
- Flow 2 (95th percentile 229.05 ms)
- Flow 3 (95th percentile 230.31 ms)
Run 10: Statistics of PCC-Allegro

Start at: 2018-04-18 06:50:00
End at: 2018-04-18 06:50:30

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 539.27 Mbit/s
  95th percentile per-packet one-way delay: 250.219 ms
  Loss rate: 4.45%
-- Flow 1:
  Average throughput: 445.72 Mbit/s
  95th percentile per-packet one-way delay: 266.338 ms
  Loss rate: 5.17%
-- Flow 2:
  Average throughput: 132.45 Mbit/s
  95th percentile per-packet one-way delay: 222.154 ms
  Loss rate: 0.92%
-- Flow 3:
  Average throughput: 16.85 Mbit/s
  95th percentile per-packet one-way delay: 161.241 ms
  Loss rate: 0.01%
Run 10: Report of PCC-Allegro — Data Link

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

![Graph 2: End-to-End Delay vs. Time](image2)
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-18 04:25:48
End at: 2018-04-18 04:26:18

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 40.04 Mbit/s
  95th percentile per-packet one-way delay: 112.407 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.03 Mbit/s
  95th percentile per-packet one-way delay: 110.615 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 43.35 Mbit/s
  95th percentile per-packet one-way delay: 112.426 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 35.01 Mbit/s
  95th percentile per-packet one-way delay: 110.507 ms
  Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link

[Graph showing throughput and packet one-way delay over time for different flows.]
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-18 04:43:07
End at: 2018-04-18 04:43:37

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 76.85 Mbit/s
  95th percentile per-packet one-way delay: 112.315 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 46.80 Mbit/s
  95th percentile per-packet one-way delay: 111.626 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 32.06 Mbit/s
  95th percentile per-packet one-way delay: 110.660 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 27.26 Mbit/s
  95th percentile per-packet one-way delay: 112.456 ms
  Loss rate: 0.01%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-04-18 05:00:23
End at: 2018-04-18 05:00:53

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 82.49 Mbit/s
  95th percentile per-packet one-way delay: 112.325 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 47.91 Mbit/s
  95th percentile per-packet one-way delay: 111.223 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 42.66 Mbit/s
  95th percentile per-packet one-way delay: 111.053 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 19.57 Mbit/s
  95th percentile per-packet one-way delay: 112.485 ms
  Loss rate: 0.02%
Run 3: Report of QUIC Cubic — Data Link

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

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

Legend:
- Flow 1 ingress (mean 47.91 Mbit/s)
- Flow 2 ingress (mean 42.66 Mbit/s)
- Flow 3 ingress (mean 19.57 Mbit/s)
- Flow 1 egress (mean 47.91 Mbit/s)
- Flow 2 egress (mean 42.66 Mbit/s)
- Flow 3 egress (mean 19.57 Mbit/s)
Run 4: Statistics of QUIC Cubic

Start at: 2018-04-18 05:17:43
End at: 2018-04-18 05:18:13

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.53 Mbit/s
  95th percentile per-packet one-way delay: 112.825 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 40.49 Mbit/s
  95th percentile per-packet one-way delay: 112.841 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 40.98 Mbit/s
  95th percentile per-packet one-way delay: 112.821 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 33.77 Mbit/s
  95th percentile per-packet one-way delay: 111.697 ms
  Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link

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![Graph 1](image1)

![Graph 2](image2)
Run 5: Statistics of QUIC Cubic

Start at: 2018-04-18 05:35:13
End at: 2018-04-18 05:35:43

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.70 Mbit/s
  95th percentile per-packet one-way delay: 111.691 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 44.62 Mbit/s
  95th percentile per-packet one-way delay: 111.721 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 34.76 Mbit/s
  95th percentile per-packet one-way delay: 110.870 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 34.27 Mbit/s
  95th percentile per-packet one-way delay: 111.000 ms
  Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-04-18 05:52:33
End at: 2018-04-18 05:53:03

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.07 Mbit/s
95th percentile per-packet one-way delay: 112.961 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.22 Mbit/s
95th percentile per-packet one-way delay: 112.421 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.59 Mbit/s
95th percentile per-packet one-way delay: 109.006 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.39 Mbit/s
95th percentile per-packet one-way delay: 113.153 ms
Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-18 06:09:48
End at: 2018-04-18 06:10:18

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.04 Mbit/s
  95th percentile per-packet one-way delay: 114.453 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 40.53 Mbit/s
  95th percentile per-packet one-way delay: 114.493 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 45.25 Mbit/s
  95th percentile per-packet one-way delay: 112.404 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 60.38 Mbit/s
  95th percentile per-packet one-way delay: 111.944 ms
  Loss rate: 0.00%
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-18 06:27:09
End at: 2018-04-18 06:27:39

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.97 Mbit/s
  95th percentile per-packet one-way delay: 112.842 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 49.59 Mbit/s
  95th percentile per-packet one-way delay: 112.415 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 40.65 Mbit/s
  95th percentile per-packet one-way delay: 112.894 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 17.31 Mbit/s
  95th percentile per-packet one-way delay: 112.809 ms
  Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-04-18 06:44:13
End at: 2018-04-18 06:44:43

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.05 Mbit/s
  95th percentile per-packet one-way delay: 113.821 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 49.64 Mbit/s
  95th percentile per-packet one-way delay: 113.726 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 50.92 Mbit/s
  95th percentile per-packet one-way delay: 111.016 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 32.97 Mbit/s
  95th percentile per-packet one-way delay: 113.925 ms
  Loss rate: 0.02%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-18 07:01:16
End at: 2018-04-18 07:01:46

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.88 Mbit/s
  95th percentile per-packet one-way delay: 112.475 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 41.44 Mbit/s
  95th percentile per-packet one-way delay: 112.501 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 55.34 Mbit/s
  95th percentile per-packet one-way delay: 112.317 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.09 Mbit/s
  95th percentile per-packet one-way delay: 112.501 ms
  Loss rate: 0.01%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-04-18 04:25:02
End at: 2018-04-18 04:25:32

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.582 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.601 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.529 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.566 ms
  Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

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**Graph 1:**
- Throughput (Mbps) over time (s)
- Legend:
  - Flow 1 ingress (mean 0.21 Mbps)
  - Flow 1 egress (mean 0.21 Mbps)
  - Flow 2 ingress (mean 0.22 Mbps)
  - Flow 2 egress (mean 0.22 Mbps)
  - Flow 3 ingress (mean 0.22 Mbps)
  - Flow 3 egress (mean 0.22 Mbps)

**Graph 2:**
- Per-packet one-way delay (ms) over time (s)
- Legend:
  - Flow 1 (95th percentile 112.60 ms)
  - Flow 2 (95th percentile 112.53 ms)
  - Flow 3 (95th percentile 112.57 ms)
Run 2: Statistics of SCReAM

Start at: 2018-04-18 04:42:21
End at: 2018-04-18 04:42:51

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.544 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.540 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.925 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.589 ms
  Loss rate: 0.00%
Run 2: 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)

Per packet one-way delay (ms)

Time (s)

- Flow 1 (95th percentile 112.54 ms)
- Flow 2 (95th percentile 110.92 ms)
- Flow 3 (95th percentile 112.59 ms)
Run 3: Statistics of SCReAM

Start at: 2018-04-18 04:59:37
End at: 2018-04-18 05:00:07

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.710 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.730 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 111.958 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.851 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

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

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

Per-packet one-way delay (ms):
- Flow 1 (95th percentile 112.73 ms)
- Flow 2 (95th percentile 111.96 ms)
- Flow 3 (95th percentile 111.85 ms)
Run 4: Statistics of SCReAM

Start at: 2018-04-18 05:16:57
End at: 2018-04-18 05:17:27

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.959 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.988 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.023 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.160 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2018-04-18 05:34:27
End at: 2018-04-18 05:34:57

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.931 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.709 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.967 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.637 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

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

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

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

- Flow 1 (95th percentile 112.71 ms)
- Flow 2 (95th percentile 112.97 ms)
- Flow 3 (95th percentile 112.64 ms)
Run 6: Statistics of SCReAM

Start at: 2018-04-18 05:51:47
End at: 2018-04-18 05:52:17

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 111.157 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.990 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.196 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 109.231 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

![Graph showing data link throughput and per-packet one-way delay](image-url)
Run 7: Statistics of SCReAM

Start at: 2018-04-18 06:09:02
End at: 2018-04-18 06:09:32

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.967 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.998 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.010 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.956 ms
  Loss rate: 0.00%
Run 8: Statistics of SCReAM

Start at: 2018-04-18 06:26:23
End at: 2018-04-18 06:26:53

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.33 Mbit/s
  95th percentile per-packet one-way delay: 112.918 ms
  Loss rate: 0.00%
  -- Flow 1:
      Average throughput: 0.11 Mbit/s
      95th percentile per-packet one-way delay: 112.948 ms
      Loss rate: 0.00%
  -- Flow 2:
      Average throughput: 0.22 Mbit/s
      95th percentile per-packet one-way delay: 112.647 ms
      Loss rate: 0.00%
  -- Flow 3:
      Average throughput: 0.22 Mbit/s
      95th percentile per-packet one-way delay: 111.058 ms
      Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link
Run 9: Statistics of SCReAM

Start at: 2018-04-18 06:43:27
End at: 2018-04-18 06:43:57

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.346 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.722 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.379 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.880 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-04-18 07:00:30
End at: 2018-04-18 07:01:00

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.983 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 113.001 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.008 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 109.179 ms
  Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of WebRTC media

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

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 112.363 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 112.488 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 112.321 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 110.738 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

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

Throughput (Mbps) vs Time (s)

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

Packet one-way delay (ms) vs Time (s)

- Flow 1 (95th percentile 112.49 ms)
- Flow 2 (95th percentile 112.32 ms)
- Flow 3 (95th percentile 110.74 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-04-18 04:30:56
End at: 2018-04-18 04:31:26

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 112.574 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 110.985 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 111.028 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 112.726 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

End at: 2018-04-18 04:48:44

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 112.986 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 112.922 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 111.905 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 113.036 ms
  Loss rate: 0.04%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-04-18 05:05:32
End at: 2018-04-18 05:06:02

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 113.754 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 112.580 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 113.793 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 113.021 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-04-18 05:23:00
End at: 2018-04-18 05:23:30

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 112.980 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 113.162 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 112.132 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 111.853 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

![Graphs showing WebRTC media data link performance]
Run 6: Statistics of WebRTC media

Start at: 2018-04-18 05:40:28
End at: 2018-04-18 05:40:58

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 112.684 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 111.061 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 112.723 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 111.296 ms
  Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-04-18 05:57:40
End at: 2018-04-18 05:58:10

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 112.939 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 111.843 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 112.979 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 111.459 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

![Graph showing throughput and one-way delay for different flows.]

- 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)

Throughput (Mbit/s)

Time (s)

Per-packet one-way delay (ms)

Time (s)
Run 8: Statistics of WebRTC media

Start at: 2018-04-18 06:14:59
End at: 2018-04-18 06:15:29

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 112.959 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 113.116 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 112.873 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 112.051 ms
  Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link
Run 9: Statistics of WebRTC media

Start at: 2018-04-18 06:32:16
End at: 2018-04-18 06:32:46

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 114.915 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 114.955 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 111.223 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 112.673 ms
  Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-04-18 06:49:14
End at: 2018-04-18 06:49:44

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 113.034 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 112.475 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 113.069 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 113.017 ms
Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

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

Legend: 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 1: Statistics of Sprout

Start at: 2018-04-18 04:17:40
End at: 2018-04-18 04:18:10

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.00 Mbit/s
95th percentile per-packet one-way delay: 111.155 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 111.291 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 110.947 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.60 Mbit/s
95th percentile per-packet one-way delay: 110.477 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

![Graph showing network performance metrics over time. The graphs display data link throughput and per-packet one-way delay for different flows.](image-url)
Run 2: Statistics of Sprout

Start at: 2018-04-18 04:34:58
End at: 2018-04-18 04:35:28

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 5.46 Mbit/s
   95th percentile per-packet one-way delay: 111.575 ms
   Loss rate: 0.00%
   -- Flow 1:
      Average throughput: 3.05 Mbit/s
      95th percentile per-packet one-way delay: 111.698 ms
      Loss rate: 0.00%
   -- Flow 2:
      Average throughput: 2.75 Mbit/s
      95th percentile per-packet one-way delay: 111.385 ms
      Loss rate: 0.00%
   -- Flow 3:
      Average throughput: 1.79 Mbit/s
      95th percentile per-packet one-way delay: 111.526 ms
      Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

![Throughput and Delay Graphs]

- Flow 1 ingress (mean 3.05 Mbit/s)
- Flow 1 egress (mean 3.05 Mbit/s)
- Flow 2 ingress (mean 2.75 Mbit/s)
- Flow 2 egress (mean 2.75 Mbit/s)
- Flow 3 ingress (mean 1.79 Mbit/s)
- Flow 3 egress (mean 1.79 Mbit/s)

![Delay Graphs]
Run 3: Statistics of Sprout

Start at: 2018-04-18 04:52:13
End at: 2018-04-18 04:52:43

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.32 Mbit/s
  95th percentile per-packet one-way delay: 111.988 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.00 Mbit/s
  95th percentile per-packet one-way delay: 112.806 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.92 Mbit/s
  95th percentile per-packet one-way delay: 111.715 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.17 Mbit/s
  95th percentile per-packet one-way delay: 111.347 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2018-04-18 05:09:25
End at: 2018-04-18 05:09:55

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.20 Mbit/s
  95th percentile per-packet one-way delay: 113.211 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.97 Mbit/s
  95th percentile per-packet one-way delay: 113.293 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.19 Mbit/s
  95th percentile per-packet one-way delay: 113.229 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: 112.674 ms
  Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 2.97 Mbit/s)
- Flow 1 egress (mean 2.97 Mbit/s)
- Flow 2 ingress (mean 2.19 Mbit/s)
- Flow 2 egress (mean 2.19 Mbit/s)
- Flow 3 ingress (mean 2.35 Mbit/s)
- Flow 3 egress (mean 2.35 Mbit/s)

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

- Flow 1 (95th percentile 113.29 ms)
- Flow 2 (95th percentile 113.23 ms)
- Flow 3 (95th percentile 112.67 ms)
Run 5: Statistics of Sprout

Start at: 2018-04-18 05:27:03
End at: 2018-04-18 05:27:33

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.59 Mbit/s
  95th percentile per-packet one-way delay: 113.291 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.94 Mbit/s
  95th percentile per-packet one-way delay: 113.483 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.65 Mbit/s
  95th percentile per-packet one-way delay: 112.884 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.70 Mbit/s
  95th percentile per-packet one-way delay: 112.906 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-04-18 05:44:26
End at: 2018-04-18 05:44:56

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 111.720 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 112.029 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 111.531 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 111.176 ms
Loss rate: 0.00%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

Start at: 2018-04-18 06:01:40
End at: 2018-04-18 06:02:10

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.59 Mbit/s
  95th percentile per-packet one-way delay: 112.198 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.04 Mbit/s
  95th percentile per-packet one-way delay: 112.152 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.64 Mbit/s
  95th percentile per-packet one-way delay: 112.722 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.42 Mbit/s
  95th percentile per-packet one-way delay: 112.017 ms
  Loss rate: 0.00%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-04-18 06:18:56
End at: 2018-04-18 06:19:26

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.45 Mbit/s
  95th percentile per-packet one-way delay: 111.870 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.93 Mbit/s
  95th percentile per-packet one-way delay: 111.649 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.91 Mbit/s
  95th percentile per-packet one-way delay: 112.291 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.80 Mbit/s
  95th percentile per-packet one-way delay: 112.474 ms
  Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

![Graph of throughput and round-trip time for different flows over time.](image)

- **Throughput (Mbps)**: The x-axis represents time (s) ranging from 0 to 30, and the y-axis represents throughput in Mbps, ranging from 0 to 6.
- **Round-trip time (ms)**: The y-axis represents round-trip time in ms, ranging from 111.0 to 113.0.

Legend:
- Flow 1 ingress (mean 2.93 Mbps)
- Flow 1 egress (mean 2.93 Mbps)
- Flow 2 ingress (mean 2.91 Mbps)
- Flow 2 egress (mean 2.91 Mbps)
- Flow 3 ingress (mean 1.80 Mbps)
- Flow 3 egress (mean 1.80 Mbps)

![Flow 1 round-trip time graph](image)

Legend:
- Flow 1 (95th percentile 111.65 ms)
- Flow 2 (95th percentile 112.29 ms)
- Flow 3 (95th percentile 112.47 ms)
Run 9: Statistics of Sprout

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

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.18 Mbit/s
  95th percentile per-packet one-way delay: 112.074 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.89 Mbit/s
  95th percentile per-packet one-way delay: 112.644 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.40 Mbit/s
  95th percentile per-packet one-way delay: 111.810 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 111.493 ms
  Loss rate: 0.00%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-04-18 06:53:05
End at: 2018-04-18 06:53:35

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.15 Mbit/s
95th percentile per-packet one-way delay: 112.362 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 3.00 Mbit/s
95th percentile per-packet one-way delay: 112.357 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 112.272 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 112.366 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

[Graph showing throughput and delay for different flows over time]
Run 1: Statistics of TaoVA-100x

End at: 2018-04-18 04:28:01

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 172.77 Mbit/s
  95th percentile per-packet one-way delay: 114.937 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 156.95 Mbit/s
  95th percentile per-packet one-way delay: 115.115 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 15.94 Mbit/s
  95th percentile per-packet one-way delay: 112.524 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 15.79 Mbit/s
  95th percentile per-packet one-way delay: 110.529 ms
  Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 156.04 Mbit/s)
Flow 1 egress (mean 156.95 Mbit/s)
Flow 2 ingress (mean 15.94 Mbit/s)
Flow 2 egress (mean 15.94 Mbit/s)
Flow 3 ingress (mean 15.79 Mbit/s)
Flow 3 egress (mean 15.79 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 115.11 ms)
Flow 2 (95th percentile 112.52 ms)
Flow 3 (95th percentile 110.53 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-18 04:44:52
End at: 2018-04-18 04:45:22

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 153.47 Mbit/s
  95th percentile per-packet one-way delay: 111.762 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 18.26 Mbit/s
  95th percentile per-packet one-way delay: 111.330 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 195.23 Mbit/s
  95th percentile per-packet one-way delay: 111.826 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 15.83 Mbit/s
  95th percentile per-packet one-way delay: 111.221 ms
  Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 18.26 Mbps)
- Flow 1 egress (mean 18.26 Mbps)
- Flow 2 ingress (mean 195.23 Mbps)
- Flow 2 egress (mean 195.23 Mbps)
- Flow 3 ingress (mean 15.83 Mbps)
- Flow 3 egress (mean 15.83 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 111.33 ms)
- Flow 2 (95th percentile 111.83 ms)
- Flow 3 (95th percentile 111.22 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-04-18 05:02:05
End at: 2018-04-18 05:02:35

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 165.00 Mbit/s
  95th percentile per-packet one-way delay: 112.664 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 114.92 Mbit/s
  95th percentile per-packet one-way delay: 112.568 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 23.42 Mbit/s
  95th percentile per-packet one-way delay: 112.955 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 104.86 Mbit/s
  95th percentile per-packet one-way delay: 111.995 ms
  Loss rate: 0.00%
Run 4: Statistics of TaoVA-100x

Start at: 2018-04-18 05:19:30
End at: 2018-04-18 05:20:01

# Below is generated by plot.py at 2018-04-18 09:13:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 174.66 Mbit/s
95th percentile per-packet one-way delay: 118.707 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 110.933 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 149.20 Mbit/s
95th percentile per-packet one-way delay: 125.305 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 201.41 Mbit/s
95th percentile per-packet one-way delay: 112.469 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 8.75 Mbit/s)
- Flow 2 ingress (mean 149.20 Mbit/s)
- Flow 3 ingress (mean 201.43 Mbit/s)
- Flow 1 egress (mean 8.75 Mbit/s)
- Flow 2 egress (mean 149.20 Mbit/s)
- Flow 3 egress (mean 201.41 Mbit/s)

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

- Flow 1 (95th percentile 110.93 ms)
- Flow 2 (95th percentile 125.31 ms)
- Flow 3 (95th percentile 112.47 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-04-18 05:36:55
End at: 2018-04-18 05:37:25

# Below is generated by plot.py at 2018-04-18 09:16:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 246.21 Mbit/s
95th percentile per-packet one-way delay: 121.599 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 145.50 Mbit/s
95th percentile per-packet one-way delay: 116.994 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 106.04 Mbit/s
95th percentile per-packet one-way delay: 121.564 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 111.85 Mbit/s
95th percentile per-packet one-way delay: 135.668 ms
Loss rate: 0.05%
Run 5: Report of TaoVA-100x — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 145.50 Mbps)
  - Flow 1 egress (mean 145.50 Mbps)
  - Flow 2 ingress (mean 106.06 Mbps)
  - Flow 2 egress (mean 106.06 Mbps)
  - Flow 3 ingress (mean 111.91 Mbps)
  - Flow 3 egress (mean 111.95 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 116.99 ms)
  - Flow 2 (95th percentile 121.56 ms)
  - Flow 3 (95th percentile 135.67 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-04-18 05:54:13
End at: 2018-04-18 05:54:43

# Below is generated by plot.py at 2018-04-18 09:16:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 183.34 Mbit/s
  95th percentile per-packet one-way delay: 113.918 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 34.35 Mbit/s
  95th percentile per-packet one-way delay: 112.777 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 179.81 Mbit/s
  95th percentile per-packet one-way delay: 112.198 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 90.23 Mbit/s
  95th percentile per-packet one-way delay: 123.143 ms
  Loss rate: 0.02%
Run 6: Report of TaoVA-100x — Data Link

[Graph showing data link performance over time with throughput and delay metrics for different flows.]
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-18 06:11:30
End at: 2018-04-18 06:12:00

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 201.73 Mbit/s
  95th percentile per-packet one-way delay: 113.454 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 143.75 Mbit/s
  95th percentile per-packet one-way delay: 113.951 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 41.80 Mbit/s
  95th percentile per-packet one-way delay: 112.763 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 91.22 Mbit/s
  95th percentile per-packet one-way delay: 113.200 ms
  Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-04-18 06:28:51
End at: 2018-04-18 06:29:21

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.22 Mbit/s
95th percentile per-packet one-way delay: 113.569 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 89.75 Mbit/s
95th percentile per-packet one-way delay: 112.733 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 11.27 Mbit/s
95th percentile per-packet one-way delay: 112.777 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.73 Mbit/s
95th percentile per-packet one-way delay: 115.855 ms
Loss rate: 0.02%
Run 8: Report of TaoVA-100x — Data Link

![Graph of throughput over time with lines for different flows and their ingress and egress speeds.]

![Graph of per-packet one-way delay over time with lines for different flows and their 95th percentile delays.]
Run 9: Statistics of TaoVA-100x

Start at: 2018-04-18 06:45:57
End at: 2018-04-18 06:46:27

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
   -- Total of 3 flows:
   Average throughput: 33.27 Mbit/s
   95th percentile per-packet one-way delay: 112.217 ms
   Loss rate: 0.00%
   -- Flow 1:
   Average throughput: 16.68 Mbit/s
   95th percentile per-packet one-way delay: 112.138 ms
   Loss rate: 0.00%
   -- Flow 2:
   Average throughput: 16.04 Mbit/s
   95th percentile per-packet one-way delay: 111.588 ms
   Loss rate: 0.00%
   -- Flow 3:
   Average throughput: 18.18 Mbit/s
   95th percentile per-packet one-way delay: 112.319 ms
   Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link

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

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Run 10: Statistics of TaoVA-100x

Start at: 2018-04-18 07:03:01
End at: 2018-04-18 07:03:31

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 176.32 Mbit/s
95th percentile per-packet one-way delay: 113.954 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 126.99 Mbit/s
95th percentile per-packet one-way delay: 114.944 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.24 Mbit/s
95th percentile per-packet one-way delay: 112.945 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.81 Mbit/s
95th percentile per-packet one-way delay: 111.570 ms
Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-04-18 04:26:37
End at: 2018-04-18 04:27:07

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 131.15 Mbit/s
  95th percentile per-packet one-way delay: 122.639 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 48.32 Mbit/s
  95th percentile per-packet one-way delay: 117.308 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 99.52 Mbit/s
  95th percentile per-packet one-way delay: 124.665 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 50.79 Mbit/s
  95th percentile per-packet one-way delay: 117.075 ms
  Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 48.32 Mbit/s)
- Flow 1 egress (mean 48.32 Mbit/s)
- Flow 2 ingress (mean 99.16 Mbit/s)
- Flow 2 egress (mean 99.52 Mbit/s)
- Flow 3 ingress (mean 50.80 Mbit/s)
- Flow 3 egress (mean 50.79 Mbit/s)
Run 2: Statistics of TCP Vegas

Start at: 2018-04-18 04:43:58
End at: 2018-04-18 04:44:28

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 117.17 Mbit/s
95th percentile per-packet one-way delay: 119.279 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 38.93 Mbit/s
95th percentile per-packet one-way delay: 113.132 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.21 Mbit/s
95th percentile per-packet one-way delay: 119.912 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 36.81 Mbit/s
95th percentile per-packet one-way delay: 114.853 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 38.93 Mbit/s)
- Flow 2 ingress (mean 99.28 Mbit/s)
- Flow 3 ingress (mean 36.82 Mbit/s)
- Flow 1 egress (mean 38.93 Mbit/s)
- Flow 2 egress (mean 99.21 Mbit/s)
- Flow 3 egress (mean 36.81 Mbit/s)

![Graph 2: Per-Packet One-Way Delay Over Time](image2)

- Flow 1 (95th percentile 113.13 ms)
- Flow 2 (95th percentile 119.91 ms)
- Flow 3 (95th percentile 114.85 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-04-18 05:01:15
End at: 2018-04-18 05:01:45

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 51.67 Mbit/s
  95th percentile per-packet one-way delay: 112.568 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 38.92 Mbit/s
  95th percentile per-packet one-way delay: 112.661 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.55 Mbit/s
  95th percentile per-packet one-way delay: 111.477 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 33.44 Mbit/s
  95th percentile per-packet one-way delay: 112.393 ms
  Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-04-18 05:18:35
End at: 2018-04-18 05:19:05

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 132.09 Mbit/s
95th percentile per-packet one-way delay: 114.703 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.86 Mbit/s
95th percentile per-packet one-way delay: 114.399 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 68.45 Mbit/s
95th percentile per-packet one-way delay: 114.743 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.32 Mbit/s
95th percentile per-packet one-way delay: 115.636 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-04-18 05:36:05
End at: 2018-04-18 05:36:35

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.65 Mbit/s
95th percentile per-packet one-way delay: 112.700 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.23 Mbit/s
95th percentile per-packet one-way delay: 112.689 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.23 Mbit/s
95th percentile per-packet one-way delay: 114.126 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.28 Mbit/s
95th percentile per-packet one-way delay: 111.692 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

The graphs illustrate the throughput and packet delay of three flows over time. The throughput graph shows the data rate in Mbps for each flow, while the packet delay graph shows the delay in milliseconds. The graphs highlight the stability and performance characteristics of the flows under test.
Run 6: Statistics of TCP Vegas

Start at: 2018-04-18 05:53:24
End at: 2018-04-18 05:53:54

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.28 Mbit/s
95th percentile per-packet one-way delay: 116.125 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 33.00 Mbit/s
95th percentile per-packet one-way delay: 115.334 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 111.444 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 32.79 Mbit/s
95th percentile per-packet one-way delay: 117.792 ms
Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

![Graph of Throughput (Mbps)](image1)

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

Flow 1 ingress (mean 33.00 Mbps)  
Flow 1 egress (mean 33.00 Mbps)  
Flow 2 ingress (mean 2.19 Mbps)  
Flow 2 egress (mean 2.19 Mbps)  
Flow 3 ingress (mean 32.77 Mbps)  
Flow 3 egress (mean 32.79 Mbps)  

Flow 1 (95th percentile 115.33 ms)  
Flow 2 (95th percentile 111.44 ms)  
Flow 3 (95th percentile 117.79 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-04-18 06:10:40
End at: 2018-04-18 06:11:10

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 71.08 Mbit/s
  95th percentile per-packet one-way delay: 117.238 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 32.10 Mbit/s
  95th percentile per-packet one-way delay: 114.159 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 31.98 Mbit/s
  95th percentile per-packet one-way delay: 117.570 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 53.57 Mbit/s
  95th percentile per-packet one-way delay: 120.445 ms
  Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

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

Start at: 2018-04-18 06:28:01
End at: 2018-04-18 06:28:31

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 62.74 Mbit/s
  95th percentile per-packet one-way delay: 114.535 ms
  Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 36.82 Mbit/s
    95th percentile per-packet one-way delay: 114.744 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 38.29 Mbit/s
    95th percentile per-packet one-way delay: 113.911 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 1.35 Mbit/s
    95th percentile per-packet one-way delay: 111.021 ms
    Loss rate: 0.45%
Run 8: Report of TCP Vegas — Data Link
Run 9: Statistics of TCP Vegas

Start at: 2018-04-18 06:45:06
End at: 2018-04-18 06:45:36

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.39 Mbit/s
95th percentile per-packet one-way delay: 118.151 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.86 Mbit/s
95th percentile per-packet one-way delay: 118.706 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 113.908 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.66 Mbit/s
95th percentile per-packet one-way delay: 115.192 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link

![Graph 1](Image 1)

![Graph 2](Image 2)
Run 10: Statistics of TCP Vegas

Start at: 2018-04-18 07:02:08
End at: 2018-04-18 07:02:38

# Below is generated by plot.py at 2018-04-18 09:19:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 104.11 Mbit/s
  95th percentile per-packet one-way delay: 118.022 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 72.04 Mbit/s
  95th percentile per-packet one-way delay: 112.765 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.43 Mbit/s
  95th percentile per-packet one-way delay: 111.627 ms
  Loss rate: 0.20%
-- Flow 3:
  Average throughput: 91.91 Mbit/s
  95th percentile per-packet one-way delay: 120.857 ms
  Loss rate: 0.00%
Run 1: Statistics of Verus

Start at: 2018-04-18 04:16:33
End at: 2018-04-18 04:17:03

# Below is generated by plot.py at 2018-04-18 09:21:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.57 Mbit/s
95th percentile per-packet one-way delay: 269.300 ms
Loss rate: 4.41%
-- Flow 1:
Average throughput: 180.91 Mbit/s
95th percentile per-packet one-way delay: 246.387 ms
Loss rate: 3.75%
-- Flow 2:
Average throughput: 79.90 Mbit/s
95th percentile per-packet one-way delay: 153.636 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 66.85 Mbit/s
95th percentile per-packet one-way delay: 367.320 ms
Loss rate: 17.06%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Start at: 2018-04-18 04:33:49
End at: 2018-04-18 04:34:19

# Below is generated by plot.py at 2018-04-18 09:22:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 282.77 Mbit/s
  95th percentile per-packet one-way delay: 320.286 ms
  Loss rate: 9.88%
  -- Flow 1:
  Average throughput: 202.60 Mbit/s
  95th percentile per-packet one-way delay: 327.657 ms
  Loss rate: 12.67%
  -- Flow 2:
  Average throughput: 63.94 Mbit/s
  95th percentile per-packet one-way delay: 196.774 ms
  Loss rate: 0.49%
  -- Flow 3:
  Average throughput: 117.45 Mbit/s
  95th percentile per-packet one-way delay: 320.841 ms
  Loss rate: 3.55%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2018-04-18 04:51:02
End at: 2018-04-18 04:51:32

# Below is generated by plot.py at 2018-04-18 09:23:00
# Datalink statistics
# Total of 3 flows:
Average throughput: 292.51 Mbit/s
95th percentile per-packet one-way delay: 330.033 ms
Loss rate: 5.79%
-- Flow 1:
Average throughput: 191.36 Mbit/s
95th percentile per-packet one-way delay: 325.945 ms
Loss rate: 5.98%
-- Flow 2:
Average throughput: 144.55 Mbit/s
95th percentile per-packet one-way delay: 338.011 ms
Loss rate: 5.71%
-- Flow 3:
Average throughput: 17.86 Mbit/s
95th percentile per-packet one-way delay: 190.303 ms
Loss rate: 0.02%
Run 3: Report of Verus — Data Link

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**Throughput (Mbit/s)**

- **Flow 1 ingress** (mean 204.10 Mbit/s)
- **Flow 1 egress** (mean 191.36 Mbit/s)
- **Flow 2 ingress** (mean 153.78 Mbit/s)
- **Flow 2 egress** (mean 144.55 Mbit/s)
- **Flow 3 ingress** (mean 16.13 Mbit/s)
- **Flow 3 egress** (mean 17.86 Mbit/s)

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

- **Flow 1** (95th percentile 325.94 ms)
- **Flow 2** (95th percentile 338.01 ms)
- **Flow 3** (95th percentile 190.30 ms)
Run 4: Statistics of Verus

Start at: 2018-04-18 05:08:21
End at: 2018-04-18 05:08:51

# Below is generated by plot.py at 2018-04-18 09:23:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.73 Mbit/s
95th percentile per-packet one-way delay: 207.074 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.63 Mbit/s
95th percentile per-packet one-way delay: 176.664 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 146.76 Mbit/s
95th percentile per-packet one-way delay: 197.362 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 149.55 Mbit/s
95th percentile per-packet one-way delay: 230.249 ms
Loss rate: 0.00%
Run 4: Report of Verus — Data Link

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

- **Throughput Graph**
  - Flow 1 ingress (mean 67.63 Mbit/s)
  - Flow 1 egress (mean 67.63 Mbit/s)
  - Flow 2 ingress (mean 146.77 Mbit/s)
  - Flow 2 egress (mean 146.76 Mbit/s)
  - Flow 3 ingress (mean 149.71 Mbit/s)
  - Flow 3 egress (mean 149.55 Mbit/s)

- **Packet Delay Graph**
  - Flow 1 (95th percentile 176.66 ms)
  - Flow 2 (95th percentile 197.36 ms)
  - Flow 3 (95th percentile 230.25 ms)
Run 5: Statistics of Verus

Start at: 2018-04-18 05:25:53
End at: 2018-04-18 05:26:23

# Below is generated by plot.py at 2018-04-18 09:23:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 280.32 Mbit/s
95th percentile per-packet one-way delay: 215.561 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 177.15 Mbit/s
95th percentile per-packet one-way delay: 195.228 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 140.04 Mbit/s
95th percentile per-packet one-way delay: 252.096 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.60 Mbit/s
95th percentile per-packet one-way delay: 194.716 ms
Loss rate: 0.00%
Run 5: Report of Verus — Data Link

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

Legend:
- Flow 1 ingress (mean 177.67 Mbit/s)
- Flow 1 egress (mean 177.15 Mbit/s)
- Flow 2 ingress (mean 140.68 Mbit/s)
- Flow 2 egress (mean 140.06 Mbit/s)
- Flow 3 ingress (mean 35.54 Mbit/s)
- Flow 3 egress (mean 39.60 Mbit/s)

Legend for per-packet one-way delay:
- Flow 1 (95th percentile 195.23 ms)
- Flow 2 (95th percentile 252.10 ms)
- Flow 3 (95th percentile 194.72 ms)
Run 6: Statistics of Verus

Start at: 2018-04-18 05:43:16
End at: 2018-04-18 05:43:46

# Below is generated by plot.py at 2018-04-18 09:23:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 273.78 Mbit/s
95th percentile per-packet one-way delay: 225.920 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 149.68 Mbit/s
95th percentile per-packet one-way delay: 241.195 ms
Loss rate: 2.40%
-- Flow 2:
Average throughput: 148.78 Mbit/s
95th percentile per-packet one-way delay: 179.873 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 79.18 Mbit/s
95th percentile per-packet one-way delay: 153.707 ms
Loss rate: 0.00%
Run 6: Report of Verus — Data Link

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 153.36 Mbps)
  - Flow 1 egress (mean 149.68 Mbps)
  - Flow 2 ingress (mean 148.79 Mbps)
  - Flow 2 egress (mean 148.78 Mbps)
  - Flow 3 ingress (mean 79.17 Mbps)
  - Flow 3 egress (mean 79.18 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 241.19 ms)
  - Flow 2 (95th percentile 179.87 ms)
  - Flow 3 (95th percentile 153.71 ms)
Run 7: Statistics of Verus

Start at: 2018-04-18 06:00:33
End at: 2018-04-18 06:01:03

# Below is generated by plot.py at 2018-04-18 09:23:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.86 Mbit/s
95th percentile per-packet one-way delay: 245.731 ms
Loss rate: 2.09%
-- Flow 1:
Average throughput: 117.05 Mbit/s
95th percentile per-packet one-way delay: 172.481 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 162.75 Mbit/s
95th percentile per-packet one-way delay: 278.586 ms
Loss rate: 4.03%
-- Flow 3:
Average throughput: 64.06 Mbit/s
95th percentile per-packet one-way delay: 288.627 ms
Loss rate: 1.66%
Run 7: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 117.43 Mbps)
- **Flow 1 egress** (mean 117.05 Mbps)
- **Flow 2 ingress** (mean 169.61 Mbps)
- **Flow 2 egress** (mean 162.75 Mbps)
- **Flow 3 ingress** (mean 65.15 Mbps)
- **Flow 3 egress** (mean 64.06 Mbps)

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

- **Flow 1** (95th percentile 172.48 ms)
- **Flow 2** (95th percentile 278.59 ms)
- **Flow 3** (95th percentile 280.63 ms)
Run 8: Statistics of Verus

Start at: 2018-04-18 06:17:50
End at: 2018-04-18 06:18:20

# Below is generated by plot.py at 2018-04-18 09:23:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 234.13 Mbit/s
95th percentile per-packet one-way delay: 188.447 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 117.38 Mbit/s
95th percentile per-packet one-way delay: 172.702 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 146.53 Mbit/s
95th percentile per-packet one-way delay: 204.223 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 61.67 Mbit/s
95th percentile per-packet one-way delay: 155.113 ms
Loss rate: 0.00%
Run 8: Report of Verus — Data Link

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

Flow 1 ingress (mean 117.38 Mbit/s) to Flow 1 egress (mean 117.38 Mbit/s)
Flow 2 ingress (mean 146.73 Mbit/s) to Flow 2 egress (mean 146.53 Mbit/s)
Flow 3 ingress (mean 61.65 Mbit/s) to Flow 3 egress (mean 61.67 Mbit/s)

Flow 1 (95th percentile 172.70 ms) to Flow 2 (95th percentile 204.22 ms) to Flow 3 (95th percentile 155.11 ms)
Run 9: Statistics of Verus

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

# Below is generated by plot.py at 2018-04-18 09:24:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 151.07 Mbit/s
  95th percentile per-packet one-way delay: 200.233 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 83.74 Mbit/s
  95th percentile per-packet one-way delay: 192.369 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 84.99 Mbit/s
  95th percentile per-packet one-way delay: 208.967 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 40.10 Mbit/s
  95th percentile per-packet one-way delay: 242.252 ms
  Loss rate: 0.00%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-04-18 06:52:06
End at: 2018-04-18 06:52:36

# Below is generated by plot.py at 2018-04-18 09:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 145.87 Mbit/s
95th percentile per-packet one-way delay: 329.669 ms
Loss rate: 6.77%
-- Flow 1:
Average throughput: 85.76 Mbit/s
95th percentile per-packet one-way delay: 345.633 ms
Loss rate: 10.70%
-- Flow 2:
Average throughput: 68.34 Mbit/s
95th percentile per-packet one-way delay: 264.170 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 45.87 Mbit/s
95th percentile per-packet one-way delay: 173.063 ms
Loss rate: 0.63%
Run 10: Report of Verus — Data Link

Graph 1: Throughput (Mbit/s) over time (s)
- Flow 1 ingress (mean 96.68 Mbit/s)
- Flow 1 egress (mean 85.76 Mbit/s)
- Flow 2 ingress (mean 68.73 Mbit/s)
- Flow 2 egress (mean 68.34 Mbit/s)
- Flow 3 ingress (mean 46.23 Mbit/s)
- Flow 3 egress (mean 45.87 Mbit/s)

Graph 2: Per-packet one-way delay (ms) over time (s)
- Flow 1 (95th percentile 345.63 ms)
- Flow 2 (95th percentile 264.17 ms)
- Flow 3 (95th percentile 173.06 ms)
Run 1: Statistics of Copa

Start at: 2018-04-18 04:12:44
End at: 2018-04-18 04:13:14

# Below is generated by plot.py at 2018-04-18 09:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.98 Mbit/s
95th percentile per-packet one-way delay: 112.185 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.32 Mbit/s
95th percentile per-packet one-way delay: 112.167 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.09 Mbit/s
95th percentile per-packet one-way delay: 112.187 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 74.33 Mbit/s
95th percentile per-packet one-way delay: 112.211 ms
Loss rate: 0.01%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-04-18 04:29:55
End at: 2018-04-18 04:30:25

# Below is generated by plot.py at 2018-04-18 09:27:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 133.25 Mbit/s
95th percentile per-packet one-way delay: 112.319 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.64 Mbit/s
95th percentile per-packet one-way delay: 110.768 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.58 Mbit/s
95th percentile per-packet one-way delay: 112.435 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 79.33 Mbit/s
95th percentile per-packet one-way delay: 110.937 ms
Loss rate: 0.01%
Run 2: Report of Copa — Data Link
Run 3: Statistics of Copa

Start at: 2018-04-18 04:47:14
End at: 2018-04-18 04:47:44

# Below is generated by plot.py at 2018-04-18 09:27:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 109.04 Mbit/s
  95th percentile per-packet one-way delay: 111.534 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 38.46 Mbit/s
  95th percentile per-packet one-way delay: 111.188 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 69.63 Mbit/s
  95th percentile per-packet one-way delay: 111.230 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 73.11 Mbit/s
  95th percentile per-packet one-way delay: 111.616 ms
  Loss rate: 0.00%
Run 3: Report of Copa — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 38.46 Mbit/s)
Flow 1 egress (mean 38.46 Mbit/s)
Flow 2 ingress (mean 69.63 Mbit/s)
Flow 2 egress (mean 69.63 Mbit/s)
Flow 3 ingress (mean 73.11 Mbit/s)
Flow 3 egress (mean 73.11 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 111.19 ms)
Flow 2 (95th percentile 111.23 ms)
Flow 3 (95th percentile 111.62 ms)
Run 4: Statistics of Copa

Start at: 2018-04-18 05:04:30
End at: 2018-04-18 05:05:00

# Below is generated by plot.py at 2018-04-18 09:27:59
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 126.88 Mbit/s  
   95th percentile per-packet one-way delay: 111.657 ms  
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 55.09 Mbit/s  
   95th percentile per-packet one-way delay: 111.719 ms  
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 71.44 Mbit/s  
   95th percentile per-packet one-way delay: 111.128 ms  
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 73.25 Mbit/s  
   95th percentile per-packet one-way delay: 110.992 ms  
   Loss rate: 0.00%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-04-18 05:21:57
End at: 2018-04-18 05:22:27

# Below is generated by plot.py at 2018-04-18 09:28:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.86 Mbit/s
95th percentile per-packet one-way delay: 112.824 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 69.87 Mbit/s
95th percentile per-packet one-way delay: 112.814 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 68.48 Mbit/s
95th percentile per-packet one-way delay: 112.824 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 58.71 Mbit/s
95th percentile per-packet one-way delay: 112.860 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link
Run 6: Statistics of Copa

Start at: 2018-04-18 05:39:27
End at: 2018-04-18 05:39:57

# Below is generated by plot.py at 2018-04-18 09:28:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 122.89 Mbit/s
  95th percentile per-packet one-way delay: 112.452 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 57.21 Mbit/s
  95th percentile per-packet one-way delay: 112.598 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 72.45 Mbit/s
  95th percentile per-packet one-way delay: 110.941 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 52.68 Mbit/s
  95th percentile per-packet one-way delay: 112.551 ms
  Loss rate: 0.02%
Run 6: Report of Copa — Data Link
Run 7: Statistics of Copa

Start at: 2018-04-18 05:56:39
End at: 2018-04-18 05:57:09

# Below is generated by plot.py at 2018-04-18 09:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 131.13 Mbit/s
95th percentile per-packet one-way delay: 112.683 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.59 Mbit/s
95th percentile per-packet one-way delay: 111.663 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.34 Mbit/s
95th percentile per-packet one-way delay: 111.143 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 58.44 Mbit/s
95th percentile per-packet one-way delay: 112.858 ms
Loss rate: 0.01%
Run 7: Report of Copa — Data Link

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

Start at: 2018-04-18 06:13:57
End at: 2018-04-18 06:14:27

# Below is generated by plot.py at 2018-04-18 09:28:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 129.02 Mbit/s
  95th percentile per-packet one-way delay: 112.422 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 64.25 Mbit/s
  95th percentile per-packet one-way delay: 112.455 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 76.40 Mbit/s
  95th percentile per-packet one-way delay: 112.416 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 41.91 Mbit/s
  95th percentile per-packet one-way delay: 111.152 ms
  Loss rate: 0.01%
Run 9: Statistics of Copa

Start at: 2018-04-18 06:31:14
End at: 2018-04-18 06:31:44

# Below is generated by plot.py at 2018-04-18 09:30:47
# Datalink statistics
# Total of 3 flows:
Average throughput: 124.82 Mbit/s
95th percentile per-packet one-way delay: 112.709 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 112.693 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.08 Mbit/s
95th percentile per-packet one-way delay: 112.694 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 85.92 Mbit/s
95th percentile per-packet one-way delay: 112.739 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa

Start at: 2018-04-18 06:48:11
End at: 2018-04-18 06:48:41

# Below is generated by plot.py at 2018-04-18 09:31:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.89 Mbit/s
95th percentile per-packet one-way delay: 113.689 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.05 Mbit/s
95th percentile per-packet one-way delay: 113.769 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.16 Mbit/s
95th percentile per-packet one-way delay: 110.918 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.83 Mbit/s
95th percentile per-packet one-way delay: 112.897 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

End at: 2018-04-18 04:23:08

# Below is generated by plot.py at 2018-04-18 09:49:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1138.29 Mbit/s
95th percentile per-packet one-way delay: 250.452 ms
Loss rate: 10.11%
-- Flow 1:
Average throughput: 626.66 Mbit/s
95th percentile per-packet one-way delay: 246.587 ms
Loss rate: 10.01%
-- Flow 2:
Average throughput: 540.86 Mbit/s
95th percentile per-packet one-way delay: 252.421 ms
Loss rate: 8.70%
-- Flow 3:
Average throughput: 464.22 Mbit/s
95th percentile per-packet one-way delay: 251.681 ms
Loss rate: 13.59%
Run 1: Report of FillP — Data Link

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

**Throughput (Mbps)**
- Flow 1 ingress (mean 696.38 Mbps)
- Flow 1 egress (mean 626.66 Mbps)
- Flow 2 ingress (mean 592.40 Mbps)
- Flow 2 egress (mean 540.86 Mbps)
- Flow 3 ingress (mean 537.45 Mbps)
- Flow 3 egress (mean 464.22 Mbps)

**Per-packet one-way delay (ms)**
- Flow 1 (95th percentile 246.59 ms)
- Flow 2 (95th percentile 252.42 ms)
- Flow 3 (95th percentile 251.60 ms)
Run 2: Statistics of FillIP

Start at: 2018-04-18 04:39:56
End at: 2018-04-18 04:40:26

# Below is generated by plot.py at 2018-04-18 09:49:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1152.16 Mbit/s
95th percentile per-packet one-way delay: 239.729 ms
Loss rate: 8.71%
-- Flow 1:
Average throughput: 600.94 Mbit/s
95th percentile per-packet one-way delay: 246.264 ms
Loss rate: 9.42%
-- Flow 2:
Average throughput: 587.88 Mbit/s
95th percentile per-packet one-way delay: 226.123 ms
Loss rate: 7.56%
-- Flow 3:
Average throughput: 485.02 Mbit/s
95th percentile per-packet one-way delay: 228.192 ms
Loss rate: 8.75%
Run 2: Report of FillP — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 663.46 Mbps)
  - Flow 1 egress (mean 600.94 Mbps)
  - Flow 2 ingress (mean 635.91 Mbps)
  - Flow 2 egress (mean 587.88 Mbps)
  - Flow 3 ingress (mean 531.42 Mbps)
  - Flow 3 egress (mean 485.02 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 246.26 ms)
  - Flow 2 (95th percentile 226.12 ms)
  - Flow 3 (95th percentile 228.19 ms)
Run 3: Statistics of FillP

Start at: 2018-04-18 04:57:11
End at: 2018-04-18 04:57:41

# Below is generated by plot.py at 2018-04-18 09:50:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1166.19 Mbit/s
95th percentile per-packet one-way delay: 241.329 ms
Loss rate: 7.73%
-- Flow 1:
Average throughput: 619.51 Mbit/s
95th percentile per-packet one-way delay: 243.409 ms
Loss rate: 6.80%
-- Flow 2:
Average throughput: 551.91 Mbit/s
95th percentile per-packet one-way delay: 245.659 ms
Loss rate: 10.43%
-- Flow 3:
Average throughput: 541.95 Mbit/s
95th percentile per-packet one-way delay: 219.354 ms
Loss rate: 5.13%
Run 3: Report of FillP — Data Link

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

- Flow 1 ingress (mean 664.69 Mbps)
- Flow 1 egress (mean 619.51 Mbps)
- Flow 2 ingress (mean 616.13 Mbps)
- Flow 2 egress (mean 551.91 Mbps)
- Flow 3 ingress (mean 571.26 Mbps)
- Flow 3 egress (mean 541.95 Mbps)

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

- Flow 1 (95th percentile 243.41 ms)
- Flow 2 (95th percentile 245.66 ms)
- Flow 3 (95th percentile 219.35 ms)
Run 4: Statistics of FillP

Start at: 2018-04-18 05:14:29
End at: 2018-04-18 05:14:59

# Below is generated by plot.py at 2018-04-18 09:50:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1155.64 Mbit/s
95th percentile per-packet one-way delay: 229.073 ms
Loss rate: 7.42%
-- Flow 1:
Average throughput: 608.73 Mbit/s
95th percentile per-packet one-way delay: 218.969 ms
Loss rate: 6.41%
-- Flow 2:
Average throughput: 558.90 Mbit/s
95th percentile per-packet one-way delay: 237.915 ms
Loss rate: 7.66%
-- Flow 3:
Average throughput: 529.70 Mbit/s
95th percentile per-packet one-way delay: 222.678 ms
Loss rate: 10.27%
Run 4: Report of FillP — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 650.46 Mb/s) — Flow 1 egress (mean 608.73 Mb/s)
Flow 2 ingress (mean 605.28 Mb/s) — Flow 2 egress (mean 558.90 Mb/s)
Flow 3 ingress (mean 590.34 Mb/s) — Flow 3 egress (mean 529.70 Mb/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 218.97 ms) — Flow 2 (95th percentile 237.91 ms) — Flow 3 (95th percentile 222.68 ms)
Run 5: Statistics of FillP

Start at: 2018-04-18 05:32:02
End at: 2018-04-18 05:32:32

# Below is generated by plot.py at 2018-04-18 09:50:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1147.03 Mbit/s
95th percentile per-packet one-way delay: 232.237 ms
Loss rate: 7.46%

-- Flow 1:
Average throughput: 618.59 Mbit/s
95th percentile per-packet one-way delay: 226.641 ms
Loss rate: 7.13%

-- Flow 2:
Average throughput: 560.70 Mbit/s
95th percentile per-packet one-way delay: 233.024 ms
Loss rate: 5.67%

-- Flow 3:
Average throughput: 471.46 Mbit/s
95th percentile per-packet one-way delay: 247.072 ms
Loss rate: 12.68%
Run 5: Report of FillP — Data Link

![Graph 1: Throughput vs. Time]
- Flow 1 Ingress (mean 666.16 Mbps)
- Flow 1 Egress (mean 618.59 Mbps)
- Flow 2 Ingress (mean 594.39 Mbps)
- Flow 2 Egress (mean 560.70 Mbps)
- Flow 3 Ingress (mean 540.09 Mbps)
- Flow 3 Egress (mean 471.46 Mbps)

![Graph 2: Round-trip delay vs. Time]
- Flow 1 (95th percentile 226.64 ms)
- Flow 2 (95th percentile 233.02 ms)
- Flow 3 (95th percentile 247.07 ms)
Run 6: Statistics of FillP

Start at: 2018-04-18 05:49:22
End at: 2018-04-18 05:49:52

# Below is generated by plot.py at 2018-04-18 09:50:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1144.46 Mbit/s
95th percentile per-packet one-way delay: 238.580 ms
Loss rate: 8.22%
-- Flow 1:
Average throughput: 630.81 Mbit/s
95th percentile per-packet one-way delay: 223.682 ms
Loss rate: 7.40%
-- Flow 2:
Average throughput: 573.47 Mbit/s
95th percentile per-packet one-way delay: 240.119 ms
Loss rate: 8.64%
-- Flow 3:
Average throughput: 400.50 Mbit/s
95th percentile per-packet one-way delay: 262.335 ms
Loss rate: 10.86%
Run 6: Report of FillP — Data Link

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

- **Graph 1:**
  - Y-axis: Throughput (Mbps)
  - X-axis: Time (s)
  - Legend:
    - Blue dashed line: Flow 1 ingress (mean 681.19 Mbps)
    - Blue solid line: Flow 1 egress (mean 630.81 Mbps)
    - Green dashed line: Flow 2 ingress (mean 627.58 Mbps)
    - Green solid line: Flow 2 egress (mean 573.47 Mbps)
    - Red dashed line: Flow 3 ingress (mean 449.28 Mbps)
    - Red solid line: Flow 3 egress (mean 400.50 Mbps)

- **Graph 2:**
  - Y-axis: Per-packet end-to-end delay (ms)
  - X-axis: Time (s)
  - Legend:
    - Blue square: Flow 1 (95th percentile 223.68 ms)
    - Green square: Flow 2 (95th percentile 240.12 ms)
    - Red square: Flow 3 (95th percentile 262.33 ms)
Run 7: Statistics of FillP

Start at: 2018-04-18 06:06:37
End at: 2018-04-18 06:07:07

# Below is generated by plot.py at 2018-04-18 09:52:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1148.97 Mbit/s
  95th percentile per-packet one-way delay: 230.354 ms
  Loss rate: 7.15%
-- Flow 1:
  Average throughput: 629.12 Mbit/s
  95th percentile per-packet one-way delay: 213.079 ms
  Loss rate: 5.89%
-- Flow 2:
  Average throughput: 575.08 Mbit/s
  95th percentile per-packet one-way delay: 228.080 ms
  Loss rate: 5.88%
-- Flow 3:
  Average throughput: 415.42 Mbit/s
  95th percentile per-packet one-way delay: 292.665 ms
  Loss rate: 15.49%
Run 7: Report of FillP — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 8: Statistics of FillP

Start at: 2018-04-18 06:23:56
End at: 2018-04-18 06:24:26

# Below is generated by plot.py at 2018-04-18 09:54:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1165.61 Mbit/s
95th percentile per-packet one-way delay: 223.781 ms
Loss rate: 8.28%
-- Flow 1:
Average throughput: 626.57 Mbit/s
95th percentile per-packet one-way delay: 214.625 ms
Loss rate: 6.29%
-- Flow 2:
Average throughput: 601.41 Mbit/s
95th percentile per-packet one-way delay: 216.798 ms
Loss rate: 7.62%
-- Flow 3:
Average throughput: 420.71 Mbit/s
95th percentile per-packet one-way delay: 262.368 ms
Loss rate: 17.81%
Run 8: Report of FillP — Data Link
Run 9: Statistics of FillP

Start at: 2018-04-18 06:41:03
End at: 2018-04-18 06:41:33

# Below is generated by plot.py at 2018-04-18 10:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1095.05 Mbit/s
95th percentile per-packet one-way delay: 339.580 ms
Loss rate: 7.65%
-- Flow 1:
Average throughput: 602.62 Mbit/s
95th percentile per-packet one-way delay: 332.843 ms
Loss rate: 6.26%
-- Flow 2:
Average throughput: 539.73 Mbit/s
95th percentile per-packet one-way delay: 360.310 ms
Loss rate: 6.83%
-- Flow 3:
Average throughput: 405.56 Mbit/s
95th percentile per-packet one-way delay: 255.547 ms
Loss rate: 15.27%
Run 9: Report of FillP — Data Link

Throughput (Mbps/t)

Time (s)

Flow 1 Ingress (mean 642.77 Mbps/t)  Flow 1 Egress (mean 602.62 Mbps/t)
Flow 2 Ingress (mean 579.09 Mbps/t)  Flow 2 Egress (mean 539.73 Mbps/t)
Flow 3 Ingress (mean 478.23 Mbps/t)  Flow 3 Egress (mean 405.56 Mbps/t)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 332.94 ms)  Flow 2 (95th percentile 360.31 ms)  Flow 3 (95th percentile 255.55 ms)
Run 10: Statistics of FillP

Start at: 2018-04-18 06:58:05
End at: 2018-04-18 06:58:35

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1159.86 Mbit/s
95th percentile per-packet one-way delay: 238.360 ms
Loss rate: 8.87%
-- Flow 1:
Average throughput: 637.67 Mbit/s
95th percentile per-packet one-way delay: 215.268 ms
Loss rate: 6.05%
-- Flow 2:
Average throughput: 581.57 Mbit/s
95th percentile per-packet one-way delay: 246.511 ms
Loss rate: 9.99%
-- Flow 3:
Average throughput: 408.69 Mbit/s
95th percentile per-packet one-way delay: 278.269 ms
Loss rate: 17.59%
Run 10: Report of FillIP — Data Link

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

Legend:
- Flow 1 Ingress (mean 678.78 Mbit/s)
- Flow 1 Egress (mean 637.67 Mbit/s)
- Flow 2 Ingress (mean 646.25 Mbit/s)
- Flow 2 Egress (mean 583.57 Mbit/s)
- Flow 3 Ingress (mean 496.11 Mbit/s)
- Flow 3 Egress (mean 408.69 Mbit/s)
Run 1: Statistics of Indigo-1-32

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

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 351.43 Mbit/s
95th percentile per-packet one-way delay: 115.451 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 191.80 Mbit/s
95th percentile per-packet one-way delay: 114.530 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 185.79 Mbit/s
95th percentile per-packet one-way delay: 117.219 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 114.30 Mbit/s
95th percentile per-packet one-way delay: 116.651 ms
Loss rate: 0.00%
Run 1: Report of Indigo-1-32 — Data Link

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

- **Flow 1 ingress** (mean 191.82 Mbit/s)
- **Flow 1 egress** (mean 191.80 Mbit/s)
- **Flow 2 ingress** (mean 185.80 Mbit/s)
- **Flow 2 egress** (mean 185.79 Mbit/s)
- **Flow 3 ingress** (mean 114.33 Mbit/s)
- **Flow 3 egress** (mean 114.30 Mbit/s)
Run 2: Statistics of Indigo-1-32

Start at: 2018-04-18 04:35:44
End at: 2018-04-18 04:36:14

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 307.99 Mbit/s
95th percentile per-packet one-way delay: 114.946 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 159.25 Mbit/s
95th percentile per-packet one-way delay: 114.477 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 142.26 Mbit/s
95th percentile per-packet one-way delay: 114.465 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 169.32 Mbit/s
95th percentile per-packet one-way delay: 120.258 ms
Loss rate: 0.00%
Run 2: Report of Indigo-1-32 — Data Link
Run 3: Statistics of Indigo-1-32

Start at: 2018-04-18 04:52:59
End at: 2018-04-18 04:53:29

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 338.84 Mbit/s
95th percentile per-packet one-way delay: 115.882 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 201.94 Mbit/s
95th percentile per-packet one-way delay: 117.224 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 145.29 Mbit/s
95th percentile per-packet one-way delay: 115.631 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 126.80 Mbit/s
95th percentile per-packet one-way delay: 113.873 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 05:10:12
End at: 2018-04-18 05:10:42

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 343.45 Mbit/s
  95th percentile per-packet one-way delay: 122.294 ms
  Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 184.05 Mbit/s
    95th percentile per-packet one-way delay: 115.639 ms
    Loss rate: 0.01%
  -- Flow 2:
    Average throughput: 171.36 Mbit/s
    95th percentile per-packet one-way delay: 123.960 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 143.61 Mbit/s
    95th percentile per-packet one-way delay: 140.984 ms
    Loss rate: 0.01%
Run 4: Report of Indigo-1-32 — Data Link
Run 5: Statistics of Indigo-1-32

Start at: 2018-04-18 05:27:50
End at: 2018-04-18 05:28:20

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.64 Mbit/s
95th percentile per-packet one-way delay: 115.790 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 149.38 Mbit/s
95th percentile per-packet one-way delay: 114.246 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 179.61 Mbit/s
95th percentile per-packet one-way delay: 117.967 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 144.12 Mbit/s
95th percentile per-packet one-way delay: 116.940 ms
Loss rate: 0.01%
Run 5: Report of Indigo-1-32 — Data Link

```
0 5 10 15 20 25 30
0 50 100 150 200
Throughput (Mbit/s)

0 5 10 15 20 25 30
110 120 130 140 150
Per-packet one-way delay (ms)
```

---

Flow 1 ingress (mean 149.38 Mbit/s)
Flow 1 egress (mean 149.38 Mbit/s)
Flow 2 ingress (mean 179.64 Mbit/s)
Flow 2 egress (mean 179.61 Mbit/s)
Flow 3 ingress (mean 144.10 Mbit/s)
Flow 3 egress (mean 144.12 Mbit/s)
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-18 05:45:12
End at: 2018-04-18 05:45:42

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 280.14 Mbit/s
95th percentile per-packet one-way delay: 112.155 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 145.44 Mbit/s
95th percentile per-packet one-way delay: 112.025 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.22 Mbit/s
95th percentile per-packet one-way delay: 112.983 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 128.37 Mbit/s
95th percentile per-packet one-way delay: 111.300 ms
Loss rate: 0.01%
Run 6: Report of Indigo-1-32 — Data Link

[Graph of network throughput over time for different flows with markers for 95th percentile delays]
Run 7: Statistics of Indigo-1-32

Start at: 2018-04-18 06:02:26
End at: 2018-04-18 06:02:56

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 315.43 Mbit/s
95th percentile per-packet one-way delay: 114.337 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 149.41 Mbit/s
95th percentile per-packet one-way delay: 112.639 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 190.92 Mbit/s
95th percentile per-packet one-way delay: 115.550 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 123.78 Mbit/s
95th percentile per-packet one-way delay: 117.546 ms
Loss rate: 0.00%
Run 7: Report of Indigo-1-32 — Data Link

![Graph showing throughput and packet delay over time](image-url)
Run 8: Statistics of Indigo-1-32

Start at: 2018-04-18 06:19:43
End at: 2018-04-18 06:20:13

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 335.24 Mbit/s
  95th percentile per-packet one-way delay: 115.427 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 183.21 Mbit/s
  95th percentile per-packet one-way delay: 115.103 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 148.15 Mbit/s
  95th percentile per-packet one-way delay: 115.197 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 168.26 Mbit/s
  95th percentile per-packet one-way delay: 118.699 ms
  Loss rate: 0.00%
Run 8: Report of Indigo-1-32 — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 183.20 Mbps)
Flow 1 egress (mean 183.21 Mbps)
Flow 2 ingress (mean 148.15 Mbps)
Flow 2 egress (mean 148.15 Mbps)
Flow 3 ingress (mean 168.23 Mbps)
Flow 3 egress (mean 168.26 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 115.10 ms)
Flow 2 (95th percentile 115.20 ms)
Flow 3 (95th percentile 118.70 ms)
Run 9: Statistics of Indigo-1-32

Start at: 2018-04-18 06:36:52
End at: 2018-04-18 06:37:22

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 347.53 Mbit/s
  95th percentile per-packet one-way delay: 120.381 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 182.92 Mbit/s
  95th percentile per-packet one-way delay: 116.314 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 172.16 Mbit/s
  95th percentile per-packet one-way delay: 129.827 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 160.30 Mbit/s
  95th percentile per-packet one-way delay: 118.472 ms
  Loss rate: 0.00%
Run 9: Report of Indigo-1-32 — Data Link

![Throughput Graph](Image)

![Delay Graph](Image)

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Run 10: Statistics of Indigo-1-32

Start at: 2018-04-18 06:53:52
End at: 2018-04-18 06:54:22

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 320.06 Mbit/s
  95th percentile per-packet one-way delay: 115.229 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 150.45 Mbit/s
  95th percentile per-packet one-way delay: 112.696 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 192.05 Mbit/s
  95th percentile per-packet one-way delay: 119.235 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 131.93 Mbit/s
  95th percentile per-packet one-way delay: 118.912 ms
  Loss rate: 0.00%
Run 10: Report of Indigo-1-32 — Data Link

Throughput (Mbps)

Time (s)

0 5 10 15 20 25 30

Flow 1 ingress (mean 150.47 Mbps)  Flow 1 egress (mean 150.45 Mbps)
Flow 2 ingress (mean 192.04 Mbps)  Flow 2 egress (mean 192.05 Mbps)
Flow 3 ingress (mean 131.95 Mbps)  Flow 3 egress (mean 131.93 Mbps)

Percent one-way delay (ms)

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 112.70 ms)  Flow 2 (95th percentile 119.23 ms)  Flow 3 (95th percentile 118.91 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2018-04-18 04:11:25
End at: 2018-04-18 04:11:55

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 406.41 Mbit/s
  95th percentile per-packet one-way delay: 128.153 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 235.07 Mbit/s
  95th percentile per-packet one-way delay: 119.496 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 190.15 Mbit/s
  95th percentile per-packet one-way delay: 132.897 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 136.73 Mbit/s
  95th percentile per-packet one-way delay: 177.980 ms
  Loss rate: 0.00%
Run 1: Report of PCC-Vivace — Data Link

![Throughput Graph](image1)

- **Flow 1 Ingress (mean 235.07 Mbit/s)**
- **Flow 1 Egress (mean 235.07 Mbit/s)**
- **Flow 2 Ingress (mean 190.19 Mbit/s)**
- **Flow 2 Egress (mean 190.15 Mbit/s)**
- **Flow 3 Ingress (mean 136.74 Mbit/s)**
- **Flow 3 Egress (mean 136.73 Mbit/s)**

![Delay Graph](image2)

- **Flow 1 (95th percentile 119.50 ms)**
- **Flow 2 (95th percentile 132.90 ms)**
- **Flow 3 (95th percentile 177.90 ms)**

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Run 2: Statistics of PCC-Vivace

Start at: 2018-04-18 04:28:36
End at: 2018-04-18 04:29:06

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.40 Mbit/s
95th percentile per-packet one-way delay: 125.473 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 227.49 Mbit/s
95th percentile per-packet one-way delay: 121.674 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 174.75 Mbit/s
95th percentile per-packet one-way delay: 117.657 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 130.09 Mbit/s
95th percentile per-packet one-way delay: 199.795 ms
Loss rate: 0.00%
Run 3: Statistics of PCC-Vivace

Start at: 2018-04-18 04:45:56
End at: 2018-04-18 04:46:26

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 365.85 Mbit/s
95th percentile per-packet one-way delay: 117.016 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 214.31 Mbit/s
95th percentile per-packet one-way delay: 120.066 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 190.91 Mbit/s
95th percentile per-packet one-way delay: 113.593 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 74.72 Mbit/s
95th percentile per-packet one-way delay: 110.391 ms
Loss rate: 0.00%
Run 3: Report of PCC-Vivece — Data Link

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

- Flow 1 ingress (mean 214.32 Mbit/s)
- Flow 2 ingress (mean 190.91 Mbit/s)
- Flow 3 ingress (mean 74.71 Mbit/s)
- Flow 1 egress (mean 214.31 Mbit/s)
- Flow 2 egress (mean 190.91 Mbit/s)
- Flow 3 egress (mean 74.72 Mbit/s)
Run 4: Statistics of PCC-Vivace

Start at: 2018-04-18 05:03:10
End at: 2018-04-18 05:03:40

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 393.44 Mbit/s
  95th percentile per-packet one-way delay: 123.272 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 236.41 Mbit/s
  95th percentile per-packet one-way delay: 132.067 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 168.44 Mbit/s
  95th percentile per-packet one-way delay: 113.646 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 137.06 Mbit/s
  95th percentile per-packet one-way delay: 137.256 ms
  Loss rate: 0.01%
Run 4: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 236.41 Mbit/s)
- Flow 1 egress (mean 236.41 Mbit/s)
- Flow 2 ingress (mean 168.63 Mbit/s)
- Flow 2 egress (mean 168.44 Mbit/s)
- Flow 3 ingress (mean 137.09 Mbit/s)
- Flow 3 egress (mean 137.06 Mbit/s)
Run 5: Statistics of PCC-Vivace

Start at: 2018-04-18 05:20:37
End at: 2018-04-18 05:21:07

# Below is generated by plot.py at 2018-04-18 10:12:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 375.67 Mbit/s
  95th percentile per-packet one-way delay: 118.348 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 217.44 Mbit/s
  95th percentile per-packet one-way delay: 117.991 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 168.86 Mbit/s
  95th percentile per-packet one-way delay: 115.532 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 139.90 Mbit/s
  95th percentile per-packet one-way delay: 232.706 ms
  Loss rate: 0.00%
Run 5: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress (mean 217.46 Mbps)**
- **Flow 1 egress (mean 217.44 Mbps)**
- **Flow 2 ingress (mean 168.88 Mbps)**
- **Flow 2 egress (mean 168.86 Mbps)**
- **Flow 3 ingress (mean 139.89 Mbps)**
- **Flow 3 egress (mean 139.90 Mbps)**

![Graph 2: Per-packet round-trip delay (ms)]

- **Flow 1 (95th percentile 117.99 ms)**
- **Flow 2 (95th percentile 115.53 ms)**
- **Flow 3 (95th percentile 232.71 ms)**
Run 6: Statistics of PCC-Vivace

Start at: 2018-04-18 05:38:09  
End at: 2018-04-18 05:38:39  

# Below is generated by plot.py at 2018-04-18 10:12:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 361.13 Mbit/s  
95th percentile per-packet one-way delay: 145.682 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 205.05 Mbit/s  
95th percentile per-packet one-way delay: 136.574 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 174.40 Mbit/s  
95th percentile per-packet one-way delay: 141.237 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 122.15 Mbit/s  
95th percentile per-packet one-way delay: 147.810 ms  
Loss rate: 0.00%
Run 6: Report of PCC-Vivace — Data Link
Run 7: Statistics of PCC-Vivace

Start at: 2018-04-18 05:55:21  
End at: 2018-04-18 05:55:51  

# Below is generated by plot.py at 2018-04-18 10:12:34  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 372.85 Mbit/s  
  95th percentile per-packet one-way delay: 117.265 ms  
  Loss rate: 0.00%  
-- Flow 1:  
  Average throughput: 218.08 Mbit/s  
  95th percentile per-packet one-way delay: 117.400 ms  
  Loss rate: 0.00%  
-- Flow 2:  
  Average throughput: 194.94 Mbit/s  
  95th percentile per-packet one-way delay: 118.345 ms  
  Loss rate: 0.01%  
-- Flow 3:  
  Average throughput: 76.80 Mbit/s  
  95th percentile per-packet one-way delay: 113.958 ms  
  Loss rate: 0.03%
Run 7: Report of PCC-Vivace — Data Link

![Graphs showing throughput and per-packet one-way delay for Flow 1, Flow 2, and Flow 3.]
Run 8: Statistics of PCC-Vivace

Start at: 2018-04-18 06:12:39
End at: 2018-04-18 06:13:09

# Below is generated by plot.py at 2018-04-18 10:12:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.94 Mbit/s
95th percentile per-packet one-way delay: 139.585 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 226.27 Mbit/s
95th percentile per-packet one-way delay: 146.804 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 173.90 Mbit/s
95th percentile per-packet one-way delay: 116.407 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 137.02 Mbit/s
95th percentile per-packet one-way delay: 171.399 ms
Loss rate: 0.02%
Run 8: Report of PCC-Vivace — Data Link
Run 9: Statistics of PCC-Vivace

Start at: 2018-04-18 06:29:54
End at: 2018-04-18 06:30:24

# Below is generated by plot.py at 2018-04-18 10:13:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 406.50 Mbit/s
  95th percentile per-packet one-way delay: 305.404 ms
  Loss rate: 1.24%
-- Flow 1:
  Average throughput: 243.87 Mbit/s
  95th percentile per-packet one-way delay: 312.130 ms
  Loss rate: 2.04%
-- Flow 2:
  Average throughput: 176.52 Mbit/s
  95th percentile per-packet one-way delay: 120.727 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 138.17 Mbit/s
  95th percentile per-packet one-way delay: 256.923 ms
  Loss rate: 0.01%
Run 9: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 248.96 Mbps)
- Flow 1 egress (mean 248.87 Mbps)
- Flow 2 ingress (mean 176.51 Mbps)
- Flow 2 egress (mean 176.52 Mbps)
- Flow 3 ingress (mean 138.18 Mbps)
- Flow 3 egress (mean 138.17 Mbps)

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

- Flow 1 (95th percentile 312.13 ms)
- Flow 2 (95th percentile 120.73 ms)
- Flow 3 (95th percentile 256.92 ms)
Run 10: Statistics of PCC-Vivace

End at: 2018-04-18 06:47:18

# Below is generated by plot.py at 2018-04-18 10:13:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 430.77 Mbit/s
  95th percentile per-packet one-way delay: 285.570 ms
  Loss rate: 0.55%
-- Flow 1:
  Average throughput: 262.41 Mbit/s
  95th percentile per-packet one-way delay: 333.756 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 181.63 Mbit/s
  95th percentile per-packet one-way delay: 114.668 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 144.96 Mbit/s
  95th percentile per-packet one-way delay: 188.528 ms
  Loss rate: 0.00%
Run 10: Report of PCC-Vivace — Data Link
Run 1: Statistics of PCC-Expr

Start at: 2018-04-18 04:21:52
Run 1: Report of PCC-Expr — Data Link

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Run 2: Statistics of PCC-Expr

Start at: 2018-04-18 04:39:10
End at: 2018-04-18 04:39:40
Run 2: Report of PCC-Expr — Data Link

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Run 3: Statistics of PCC-Expr

Start at: 2018-04-18 04:56:26
End at: 2018-04-18 04:56:56
Run 3: Report of PCC-Expr — Data Link

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Run 4: Statistics of PCC-Expr

Start at: 2018-04-18 05:13:43
End at: 2018-04-18 05:14:13
Run 4: Report of PCC-Expr — Data Link

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Run 5: Statistics of PCC-Expr

Start at: 2018-04-18 05:31:16
End at: 2018-04-18 05:31:46
Run 5: Report of PCC-Expr — Data Link

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Run 6: Statistics of PCC-Expr

Start at: 2018-04-18 05:48:37
End at: 2018-04-18 05:49:07
Run 6: Report of PCC-Expr — Data Link

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Run 7: Statistics of PCC-Expr

Start at: 2018-04-18 06:05:51
End at: 2018-04-18 06:06:21
Run 7: Report of PCC-Expr — Data Link

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Run 8: Statistics of PCC-Expr

Start at: 2018-04-18 06:23:11
End at: 2018-04-18 06:23:41
Run 8: Report of PCC-Expr — Data Link

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Run 9: Statistics of PCC-Expr

Start at: 2018-04-18 06:40:17
End at: 2018-04-18 06:40:47
Run 9: Report of PCC-Expr — Data Link

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Run 10: Statistics of PCC-Expr

Start at: 2018-04-18 06:57:19
End at: 2018-04-18 06:57:49
Run 10: Report of PCC-Expr — Data Link

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Figure is missing