Pantheon Report

Generated at 2018-11-15 14:25:03 (UTC).
Data path: Stanford on en01 (remote) → AWS California 1 on ens5 (local).
Repeate the test of 18 congestion control schemes 5 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
NTP offsets were measured against time.stanford.edu and have been applied to correct the timestamps in logs.

System info:
Linux 4.15.0-1023-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ 794ca3866981572cb73700a276691acf79c60f2b
third_party/fillp @ d6da1459332fcee56f963885d7eba17e6a32d4519
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed70486b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19beb0d0c6349ae98600b4fa8643c40a
third_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd
third_party/pcc @ 1af9c958fa0d66d19b623c091a55feca872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e33f5f5613e8accd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1b8143ebc978f3c5f4
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3b8b2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a6ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562539f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace  @  2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc  @  3f0cc2a9061a41b6f9ddee4735770d143a1fa2851
test from Stanford to AWS California 1, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
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<tr>
<td>TCP BBR</td>
<td>5</td>
<td>545.95</td>
<td>405.47</td>
<td>328.45</td>
</tr>
<tr>
<td>Copa</td>
<td>5</td>
<td>283.39</td>
<td>214.63</td>
<td>123.46</td>
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<tr>
<td>TCP Cubic</td>
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<td>428.28</td>
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<td>Indigo</td>
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<td>159.09</td>
<td>145.72</td>
<td>125.98</td>
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<td>122.53</td>
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<td>Indigo-Muses</td>
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<td>42.10</td>
<td>42.64</td>
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<td>PCC-Allegro</td>
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<td>480.99</td>
<td>140.47</td>
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<td>PCC-Expr</td>
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<td>43.87</td>
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<td>67.86</td>
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<td>27.50</td>
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<td>Verus</td>
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<td>PCC-Vivace</td>
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<td>107.43</td>
<td>70.10</td>
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<td>WebRTC media</td>
<td>5</td>
<td>1.62</td>
<td>1.05</td>
<td>0.47</td>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2018-11-15 11:10:49
End at: 2018-11-15 11:11:19
Local clock offset: 4.084 ms
Remote clock offset: 3.073 ms

# Below is generated by plot.py at 2018-11-15 13:41:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 927.91 Mbit/s
95th percentile per-packet one-way delay: 6.363 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 548.53 Mbit/s
95th percentile per-packet one-way delay: 6.487 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 405.70 Mbit/s
95th percentile per-packet one-way delay: 5.958 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 328.38 Mbit/s
95th percentile per-packet one-way delay: 6.084 ms
Loss rate: 0.05%
Run 1: Report of TCP BBR — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 548.57 Mbps)
  - Flow 1 egress (mean 548.53 Mbps)
  - Flow 2 ingress (mean 405.75 Mbps)
  - Flow 2 egress (mean 405.70 Mbps)
  - Flow 3 ingress (mean 328.48 Mbps)
  - Flow 3 egress (mean 328.38 Mbps)

- **Delay (ms)**
  - Flow 1 (95th percentile 6.49 ms)
  - Flow 2 (95th percentile 5.96 ms)
  - Flow 3 (95th percentile 6.08 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-11-15 11:38:39
End at: 2018-11-15 11:39:09
Local clock offset: 4.405 ms
Remote clock offset: 1.631 ms

# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 927.54 Mbit/s
95th percentile per-packet one-way delay: 6.301 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 548.47 Mbit/s
95th percentile per-packet one-way delay: 6.417 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 405.08 Mbit/s
95th percentile per-packet one-way delay: 5.872 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 328.33 Mbit/s
95th percentile per-packet one-way delay: 5.953 ms
Loss rate: 0.06%
Run 2: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 548.49 Mbps)**
- **Flow 1 egress (mean 548.47 Mbps)**
- **Flow 2 ingress (mean 405.15 Mbps)**
- **Flow 2 egress (mean 405.08 Mbps)**
- **Flow 3 ingress (mean 326.46 Mbps)**
- **Flow 3 egress (mean 326.33 Mbps)**

![Graph: Packet Round-trip delay (ms)]

- **Flow 1 (95th percentile 6.42 ms)**
- **Flow 2 (95th percentile 5.87 ms)**
- **Flow 3 (95th percentile 5.95 ms)**
Run 3: Statistics of TCP BBR

Start at: 2018-11-15 12:06:25
End at: 2018-11-15 12:06:55
Local clock offset: 4.316 ms
Remote clock offset: -0.208 ms

# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 930.14 Mbit/s
95th percentile per-packet one-way delay: 6.536 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 551.15 Mbit/s
95th percentile per-packet one-way delay: 6.652 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 404.97 Mbit/s
95th percentile per-packet one-way delay: 5.991 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 328.83 Mbit/s
95th percentile per-packet one-way delay: 6.475 ms
Loss rate: 0.06%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-11-15 12:34:10
End at: 2018-11-15 12:34:40
Local clock offset: 3.931 ms
Remote clock offset: -0.286 ms

# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 909.96 Mbit/s
95th percentile per-packet one-way delay: 7.461 ms
Loss rate: 0.02%

-- Flow 1:
Average throughput: 530.81 Mbit/s
95th percentile per-packet one-way delay: 7.615 ms
Loss rate: 0.02%

-- Flow 2:
Average throughput: 405.57 Mbit/s
95th percentile per-packet one-way delay: 6.005 ms
Loss rate: 0.02%

-- Flow 3:
Average throughput: 328.05 Mbit/s
95th percentile per-packet one-way delay: 6.312 ms
Loss rate: 0.06%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-11-15 13:02:02
End at: 2018-11-15 13:02:32
Local clock offset: 3.814 ms
Remote clock offset: -4.154 ms

# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 930.40 Mbit/s
95th percentile per-packet one-way delay: 6.654 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 550.80 Mbit/s
95th percentile per-packet one-way delay: 6.803 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 406.02 Mbit/s
95th percentile per-packet one-way delay: 5.759 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 328.65 Mbit/s
95th percentile per-packet one-way delay: 6.007 ms
Loss rate: 0.08%
Run 5: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 550.82 Mbit/s)
- Flow 1 egress (mean 550.80 Mbit/s)
- Flow 2 ingress (mean 406.13 Mbit/s)
- Flow 2 egress (mean 406.02 Mbit/s)
- Flow 3 ingress (mean 328.82 Mbit/s)
- Flow 3 egress (mean 328.65 Mbit/s)
Run 1: Statistics of Copa

Start at: 2018-11-15 11:23:08
Local clock offset: 3.998 ms
Remote clock offset: 3.444 ms

# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.02 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 267.93 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 225.82 Mbit/s
95th percentile per-packet one-way delay: 1.060 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 137.60 Mbit/s
95th percentile per-packet one-way delay: 1.075 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-11-15 11:50:54
End at: 2018-11-15 11:51:24
Local clock offset: 4.553 ms
Remote clock offset: 0.277 ms

# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.00 Mbit/s
95th percentile per-packet one-way delay: 0.983 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 301.25 Mbit/s
95th percentile per-packet one-way delay: 0.985 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 194.87 Mbit/s
95th percentile per-packet one-way delay: 0.972 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 138.67 Mbit/s
95th percentile per-packet one-way delay: 0.984 ms
Loss rate: 0.01%
Run 3: Statistics of Copa

Start at: 2018-11-15 12:18:43
Local clock offset: 4.184 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.24 Mbit/s
95th percentile per-packet one-way delay: 0.967 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 279.82 Mbit/s
95th percentile per-packet one-way delay: 0.973 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 221.55 Mbit/s
95th percentile per-packet one-way delay: 0.941 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 129.11 Mbit/s
95th percentile per-packet one-way delay: 1.005 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link

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

- Flow 1 ingress (mean 279.83 Mbit/s)
- Flow 1 egress (mean 279.82 Mbit/s)
- Flow 2 ingress (mean 221.57 Mbit/s)
- Flow 2 egress (mean 221.55 Mbit/s)
- Flow 3 ingress (mean 129.04 Mbit/s)
- Flow 3 egress (mean 129.11 Mbit/s)
Run 4: Statistics of Copa

Start at: 2018-11-15 12:46:34
End at: 2018-11-15 12:47:04
Local clock offset: 3.747 ms
Remote clock offset: -2.122 ms

# Below is generated by plot.py at 2018-11-15 13:50:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.54 Mbit/s
95th percentile per-packet one-way delay: 0.956 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 285.44 Mbit/s
95th percentile per-packet one-way delay: 0.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 194.07 Mbit/s
95th percentile per-packet one-way delay: 0.888 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 98.94 Mbit/s
95th percentile per-packet one-way delay: 0.867 ms
Loss rate: 0.01%
Run 4: Report of Copa — Data Link

![Graph showing throughput and packet delay over time for flows 1 to 3.]

Flow 1 ingress (mean 285.40 Mbit/s) • Flow 1 egress (mean 285.44 Mbit/s)
Flow 2 ingress (mean 194.04 Mbit/s) • Flow 2 egress (mean 194.07 Mbit/s)
Flow 3 ingress (mean 98.93 Mbit/s) • Flow 3 egress (mean 98.94 Mbit/s)
Run 5: Statistics of Copa

Local clock offset: 3.958 ms
Remote clock offset: -4.837 ms

# Below is generated by plot.py at 2018-11-15 13:51:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 477.75 Mbit/s
  95th percentile per-packet one-way delay: 1.612 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 282.52 Mbit/s
  95th percentile per-packet one-way delay: 1.585 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 236.86 Mbit/s
  95th percentile per-packet one-way delay: 1.612 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 112.98 Mbit/s
  95th percentile per-packet one-way delay: 1.655 ms
  Loss rate: 0.01%
Run 1: Statistics of TCP Cubic

End at: 2018-11-15 11:28:18
Local clock offset: 4.025 ms
Remote clock offset: 3.704 ms

# Below is generated by plot.py at 2018-11-15 13:51:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 941.78 Mbit/s
95th percentile per-packet one-way delay: 7.406 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 566.94 Mbit/s
95th percentile per-packet one-way delay: 7.192 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.40 Mbit/s
95th percentile per-packet one-way delay: 7.544 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 321.50 Mbit/s
95th percentile per-packet one-way delay: 7.659 ms
Loss rate: 0.09%
Run 1: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 567.01 Mbit/s)
- Flow 1 egress (mean 566.94 Mbit/s)
- Flow 2 ingress (mean 402.50 Mbit/s)
- Flow 2 egress (mean 402.40 Mbit/s)
- Flow 3 ingress (mean 321.71 Mbit/s)
- Flow 3 egress (mean 321.50 Mbit/s)

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

- Flow 1 (95th percentile 7.19 ms)
- Flow 2 (95th percentile 7.54 ms)
- Flow 3 (95th percentile 7.66 ms)
Run 2: Statistics of TCP Cubic

End at: 2018-11-15 11:56:05
Local clock offset: 4.576 ms
Remote clock offset: 0.124 ms

# Below is generated by plot.py at 2018-11-15 13:51:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 916.59 Mbit/s
95th percentile per-packet one-way delay: 7.719 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 541.76 Mbit/s
95th percentile per-packet one-way delay: 7.829 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.23 Mbit/s
95th percentile per-packet one-way delay: 7.524 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 321.65 Mbit/s
95th percentile per-packet one-way delay: 7.756 ms
Loss rate: 0.09%
Run 2: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 541.83 Mbit/s), egress (mean 541.76 Mbit/s)
- Flow 2 ingress (mean 402.32 Mbit/s), egress (mean 402.23 Mbit/s)
- Flow 3 ingress (mean 321.86 Mbit/s), egress (mean 321.65 Mbit/s)

- Flow 1 (95th percentile 7.83 ms)
- Flow 2 (95th percentile 7.52 ms)
- Flow 3 (95th percentile 7.76 ms)
Run 3: Statistics of TCP Cubic

End at: 2018-11-15 12:23:51
Local clock offset: 4.16 ms
Remote clock offset: -0.197 ms

# Below is generated by plot.py at 2018-11-15 13:51:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 923.31 Mbit/s
  95th percentile per-packet one-way delay: 7.832 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 548.56 Mbit/s
  95th percentile per-packet one-way delay: 7.956 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 401.71 Mbit/s
  95th percentile per-packet one-way delay: 7.517 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 322.31 Mbit/s
  95th percentile per-packet one-way delay: 7.653 ms
  Loss rate: 0.09%
Run 3: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 548.63 Mbit/s)
- Flow 1 egress (mean 548.56 Mbit/s)
- Flow 2 ingress (mean 401.79 Mbit/s)
- Flow 2 egress (mean 401.71 Mbit/s)
- Flow 3 ingress (mean 322.54 Mbit/s)
- Flow 3 egress (mean 322.31 Mbit/s)
Run 4: Statistics of TCP Cubic

End at: 2018-11-15 12:51:43
Local clock offset: 3.71 ms
Remote clock offset: -2.932 ms

# Below is generated by plot.py at 2018-11-15 13:51:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 910.25 Mbit/s
95th percentile per-packet one-way delay: 7.541 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 535.32 Mbit/s
95th percentile per-packet one-way delay: 7.494 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.69 Mbit/s
95th percentile per-packet one-way delay: 7.542 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 320.84 Mbit/s
95th percentile per-packet one-way delay: 7.699 ms
Loss rate: 0.09%
Run 4: Report of TCP Cubic — Data Link

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

Start at: 2018-11-15 13:19:01
Local clock offset: 3.967 ms
Remote clock offset: -1.166 ms

# Below is generated by plot.py at 2018-11-15 13:51:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 910.14 Mbit/s
95th percentile per-packet one-way delay: 8.570 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 535.18 Mbit/s
95th percentile per-packet one-way delay: 8.943 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.54 Mbit/s
95th percentile per-packet one-way delay: 7.842 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 321.02 Mbit/s
95th percentile per-packet one-way delay: 8.128 ms
Loss rate: 0.09%
Run 5: Report of TCP Cubic — Data Link
Run 1: Statistics of FillP

Start at: 2018-11-15 11:04:28
End at: 2018-11-15 11:04:58
Local clock offset: 4.143 ms
Remote clock offset: 3.108 ms

# Below is generated by plot.py at 2018-11-15 13:52:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 829.64 Mbit/s
95th percentile per-packet one-way delay: 34.604 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 432.36 Mbit/s
95th percentile per-packet one-way delay: 21.391 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 441.11 Mbit/s
95th percentile per-packet one-way delay: 39.372 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 314.81 Mbit/s
95th percentile per-packet one-way delay: 38.379 ms
Loss rate: 0.61%
Run 1: Report of FillP — Data Link

**Graph 1:**
- Y-axis: Throughput (Mbit/s)
- X-axis: Time (s)
- Legend:
  - Flow 1 ingress (mean 432.75 Mbit/s)
  - Flow 1 egress (mean 432.36 Mbit/s)
  - Flow 2 ingress (mean 442.17 Mbit/s)
  - Flow 2 egress (mean 441.11 Mbit/s)
  - Flow 3 ingress (mean 316.61 Mbit/s)
  - Flow 3 egress (mean 314.61 Mbit/s)

**Graph 2:**
- Y-axis: Per-packet one-way delay (ms)
- X-axis: Time (s)
- Legend:
  - Flow 1 (95th percentile 21.39 ms)
  - Flow 2 (95th percentile 39.37 ms)
  - Flow 3 (95th percentile 38.38 ms)
Run 2: Statistics of FillP

Start at: 2018-11-15 11:32:17
End at: 2018-11-15 11:32:47
Local clock offset: 4.252 ms
Remote clock offset: 3.559 ms

# Below is generated by plot.py at 2018-11-15 14:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 802.43 Mbit/s
95th percentile per-packet one-way delay: 25.195 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 465.62 Mbit/s
95th percentile per-packet one-way delay: 14.552 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 450.25 Mbit/s
95th percentile per-packet one-way delay: 30.598 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 112.16 Mbit/s
95th percentile per-packet one-way delay: 13.291 ms
Loss rate: 0.00%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

Start at: 2018-11-15 12:00:03
End at: 2018-11-15 12:00:33
Local clock offset: 4.467 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 938.94 Mbit/s
95th percentile per-packet one-way delay: 36.383 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 572.54 Mbit/s
95th percentile per-packet one-way delay: 36.510 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 397.26 Mbit/s
95th percentile per-packet one-way delay: 38.260 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 308.27 Mbit/s
95th percentile per-packet one-way delay: 27.308 ms
Loss rate: 0.26%
Run 3: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 573.32 Mbit/s)
- Flow 1 Egress (mean 572.54 Mbit/s)
- Flow 2 Ingress (mean 397.97 Mbit/s)
- Flow 2 Egress (mean 397.26 Mbit/s)
- Flow 3 Ingress (mean 308.99 Mbit/s)
- Flow 3 Egress (mean 308.27 Mbit/s)

![Graph showing packet delay distribution for different flows.]

- Flow 1 (95th percentile 36.51 ms)
- Flow 2 (95th percentile 38.26 ms)
- Flow 3 (95th percentile 27.31 ms)
Run 4: Statistics of FillP

End at: 2018-11-15 12:28:21
Local clock offset: 4.127 ms
Remote clock offset: -0.264 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 831.77 Mbit/s
  95th percentile per-packet one-way delay: 35.685 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 447.20 Mbit/s
  95th percentile per-packet one-way delay: 24.333 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 422.15 Mbit/s
  95th percentile per-packet one-way delay: 38.134 ms
  Loss rate: 0.11%
-- Flow 3:
  Average throughput: 313.87 Mbit/s
  95th percentile per-packet one-way delay: 42.282 ms
  Loss rate: 0.49%
Run 4: Report of FillP — Data Link

Graph 1: Throughput (Mbps)

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

Legend:
- Flow 1 ingress (mean 447.49 Mbps)
- Flow 1 egress (mean 447.20 Mbps)
- Flow 2 ingress (mean 422.83 Mbps)
- Flow 2 egress (mean 422.15 Mbps)
- Flow 3 ingress (mean 315.29 Mbps)
- Flow 3 egress (mean 313.87 Mbps)

Flow 1 (95th percentile 24.33 ms)
Flow 2 (95th percentile 38.13 ms)
Flow 3 (95th percentile 42.28 ms)
Run 5: Statistics of FillP

End at: 2018-11-15 12:56:11
Local clock offset: 3.67 ms
Remote clock offset: -3.391 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 816.89 Mbit/s
  95th percentile per-packet one-way delay: 32.085 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 427.18 Mbit/s
  95th percentile per-packet one-way delay: 21.730 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 430.64 Mbit/s
  95th percentile per-packet one-way delay: 38.021 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 312.49 Mbit/s
  95th percentile per-packet one-way delay: 34.530 ms
  Loss rate: 0.35%
Run 5: Report of FillP — Data Link

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

- Flow 1 ingress (mean 427.35 Mbit/s) vs Flow 1 egress (mean 427.18 Mbit/s)
- Flow 2 ingress (mean 430.90 Mbit/s) vs Flow 2 egress (mean 430.66 Mbit/s)
- Flow 3 ingress (mean 313.55 Mbit/s) vs Flow 3 egress (mean 312.49 Mbit/s)

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

- Flow 1 (95th percentile 21.73 ms) vs Flow 2 (95th percentile 38.02 ms) vs Flow 3 (95th percentile 34.53 ms)
Run 1: Statistics of Indigo

Start at: 2018-11-15 11:06:10
End at: 2018-11-15 11:06:40
Local clock offset: 4.117 ms
Remote clock offset: 3.064 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 294.97 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 153.61 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 145.53 Mbit/s
95th percentile per-packet one-way delay: 1.111 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 134.43 Mbit/s
95th percentile per-packet one-way delay: 1.174 ms
Loss rate: 0.02%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

End at: 2018-11-15 11:34:27
Local clock offset: 4.3 ms
Remote clock offset: 2.926 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 294.55 Mbit/s
95th percentile per-packet one-way delay: 0.975 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 158.79 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 145.85 Mbit/s
95th percentile per-packet one-way delay: 0.889 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 118.14 Mbit/s
95th percentile per-packet one-way delay: 1.093 ms
Loss rate: 0.02%
Run 2: Report of Indigo — Data Link
Run 3: Statistics of Indigo

Start at: 2018-11-15 12:01:48
End at: 2018-11-15 12:02:18
Local clock offset: 4.409 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.59 Mbit/s
95th percentile per-packet one-way delay: 1.132 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 159.48 Mbit/s
95th percentile per-packet one-way delay: 1.109 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 144.92 Mbit/s
95th percentile per-packet one-way delay: 1.117 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 121.04 Mbit/s
95th percentile per-packet one-way delay: 1.252 ms
Loss rate: 0.01%
Run 3: Report of Indigo — Data Link

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

Flow 1 ingress (mean 159.44 Mbit/s)
Flow 1 egress (mean 159.48 Mbit/s)
Flow 2 ingress (mean 144.87 Mbit/s)
Flow 2 egress (mean 144.92 Mbit/s)
Flow 3 ingress (mean 121.04 Mbit/s)
Flow 3 egress (mean 121.04 Mbit/s)
Run 4: Statistics of Indigo

End at: 2018-11-15 12:30:03
Local clock offset: 4.063 ms
Remote clock offset: -0.272 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 302.25 Mbit/s
95th percentile per-packet one-way delay: 1.160 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 163.04 Mbit/s
95th percentile per-packet one-way delay: 1.109 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 144.56 Mbit/s
95th percentile per-packet one-way delay: 1.204 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 131.15 Mbit/s
95th percentile per-packet one-way delay: 1.230 ms
Loss rate: 0.03%
Run 4: Report of Indigo — Data Link
Run 5: Statistics of Indigo

Local clock offset: 3.686 ms
Remote clock offset: -3.612 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 299.91 Mbit/s
95th percentile per-packet one-way delay: 0.977 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 160.53 Mbit/s
95th percentile per-packet one-way delay: 0.937 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 147.75 Mbit/s
95th percentile per-packet one-way delay: 0.989 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 125.14 Mbit/s
95th percentile per-packet one-way delay: 1.079 ms
Loss rate: 0.01%
Run 5: Report of Indigo — Data Link
Run 1: Statistics of Indigo-96d2da3

Start at: 2018-11-15 11:18:42
End at: 2018-11-15 11:19:12
Local clock offset: 4.036 ms
Remote clock offset: 3.344 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 286.43 Mbit/s
95th percentile per-packet one-way delay: 1.079 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 164.59 Mbit/s
95th percentile per-packet one-way delay: 1.096 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 125.70 Mbit/s
95th percentile per-packet one-way delay: 1.049 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 115.29 Mbit/s
95th percentile per-packet one-way delay: 1.076 ms
Loss rate: 0.00%
Run 1: Report of Indigo-96d2da3 — Data Link

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

![Graph 2: Delay vs Time](image2.png)
Run 2: Statistics of Indigo-96d2da3

End at: 2018-11-15 11:46:59
Local clock offset: 4.525 ms
Remote clock offset: 0.552 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 263.30 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 132.05 Mbit/s
95th percentile per-packet one-way delay: 1.050 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 139.26 Mbit/s
95th percentile per-packet one-way delay: 1.073 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 116.28 Mbit/s
95th percentile per-packet one-way delay: 1.056 ms
Loss rate: 0.03%
Run 2: Report of Indigo-96d2da3 — Data Link
Run 3: Statistics of Indigo-96d2da3

Start at: 2018-11-15 12:14:19
End at: 2018-11-15 12:14:49
Local clock offset: 4.221 ms
Remote clock offset: -0.153 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 238.49 Mbit/s
 95th percentile per-packet one-way delay: 1.071 ms
 Loss rate: 0.00%
-- Flow 1:
 Average throughput: 133.69 Mbit/s
 95th percentile per-packet one-way delay: 1.043 ms
 Loss rate: 0.00%
-- Flow 2:
 Average throughput: 98.88 Mbit/s
 95th percentile per-packet one-way delay: 1.105 ms
 Loss rate: 0.00%
-- Flow 3:
 Average throughput: 117.63 Mbit/s
 95th percentile per-packet one-way delay: 1.107 ms
 Loss rate: 0.00%
Run 3: Report of Indigo-96d2da3 — Data Link

![Graph showing network performance metrics over time. The graphs depict throughput and per-packet one-way delay for different flows.]
Run 4: Statistics of Indigo-96d2da3

End at: 2018-11-15 12:42:34
Local clock offset: 3.801 ms
Remote clock offset: -1.087 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 373.59 Mbit/s
  95th percentile per-packet one-way delay: 1.091 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 227.77 Mbit/s
  95th percentile per-packet one-way delay: 1.108 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 161.90 Mbit/s
  95th percentile per-packet one-way delay: 1.078 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 114.87 Mbit/s
  95th percentile per-packet one-way delay: 0.975 ms
  Loss rate: 0.02%
Run 4: Report of Indigo-96d2da3 — Data Link
Run 5: Statistics of Indigo-96d2da3

Local clock offset: 3.927 ms
Remote clock offset: -4.783 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 192.26 Mbit/s
95th percentile per-packet one-way delay: 1.025 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.90 Mbit/s
95th percentile per-packet one-way delay: 0.992 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 86.90 Mbit/s
95th percentile per-packet one-way delay: 0.997 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 198.15 Mbit/s
95th percentile per-packet one-way delay: 1.087 ms
Loss rate: 0.00%
Run 5: Report of Indigo-96d2da3 — Data Link

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

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

Start at: 2018-11-15 11:07:41
End at: 2018-11-15 11:08:11
Local clock offset: 4.118 ms
Remote clock offset: 3.054 ms

# Below is generated by plot.py at 2018-11-15 14:04:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 588.04 Mbit/s
95th percentile per-packet one-way delay: 1.756 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 364.20 Mbit/s
95th percentile per-packet one-way delay: 1.689 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 249.44 Mbit/s
95th percentile per-packet one-way delay: 1.854 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 191.14 Mbit/s
95th percentile per-packet one-way delay: 1.807 ms
Loss rate: 0.03%
Run 1: Report of LEDBAT — Data Link

[Graph showing throughput and one-way delay over time for different flows with annotations on the y-axis and x-axis]

- Flow 1 ingress (mean 364.18 Mbit/s)
- Flow 1 egress (mean 364.20 Mbit/s)
- Flow 2 ingress (mean 249.43 Mbit/s)
- Flow 2 egress (mean 249.44 Mbit/s)
- Flow 3 ingress (mean 191.17 Mbit/s)
- Flow 3 egress (mean 191.14 Mbit/s)

[Graph showing per-packet one-way delay over time for different flows with annotations on the y-axis and x-axis]

- Flow 1 (95th percentile 1.69 ms)
- Flow 2 (95th percentile 1.85 ms)
- Flow 3 (95th percentile 1.01 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-11-15 11:35:29
End at: 2018-11-15 11:35:59
Local clock offset: 4.36 ms
Remote clock offset: 2.407 ms

# Below is generated by plot.py at 2018-11-15 14:06:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 600.12 Mbit/s
95th percentile per-packet one-way delay: 1.439 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 373.84 Mbit/s
95th percentile per-packet one-way delay: 1.373 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 241.78 Mbit/s
95th percentile per-packet one-way delay: 1.591 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 196.74 Mbit/s
95th percentile per-packet one-way delay: 1.351 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link

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

Start at: 2018-11-15 12:03:19
End at: 2018-11-15 12:03:49
Local clock offset: 4.37 ms
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2018-11-15 14:06:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 576.05 Mbit/s
95th percentile per-packet one-way delay: 1.642 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 348.29 Mbit/s
95th percentile per-packet one-way delay: 1.575 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 250.65 Mbit/s
95th percentile per-packet one-way delay: 1.812 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 183.14 Mbit/s
95th percentile per-packet one-way delay: 1.479 ms
Loss rate: 0.02%
Run 3: Report of LEDBAT — Data Link

[Graph 1] Throughput vs. Time
- Flow 1 ingress (mean 348.28 Mbit/s)
- Flow 1 egress (mean 348.29 Mbit/s)
- Flow 2 ingress (mean 250.74 Mbit/s)
- Flow 2 egress (mean 250.65 Mbit/s)
- Flow 3 ingress (mean 183.15 Mbit/s)
- Flow 3 egress (mean 183.14 Mbit/s)

[Graph 2] Per-packet end-to-end delay vs. Time
- Flow 1 (95th percentile 1.57 ms)
- Flow 2 (95th percentile 1.81 ms)
- Flow 3 (95th percentile 1.48 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-11-15 12:31:05
Local clock offset: 4.014 ms
Remote clock offset: -0.257 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 590.87 Mbit/s
95th percentile per-packet one-way delay: 1.776 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 352.59 Mbit/s
95th percentile per-packet one-way delay: 1.744 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 264.06 Mbit/s
95th percentile per-packet one-way delay: 1.915 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 188.06 Mbit/s
95th percentile per-packet one-way delay: 1.429 ms
Loss rate: 0.02%
Run 4: Report of LEDBAT — Data Link

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

End at: 2018-11-15 12:59:29
Local clock offset: 3.738 ms
Remote clock offset: -3.854 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 560.44 Mbit/s
95th percentile per-packet one-way delay: 1.700 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 329.69 Mbit/s
95th percentile per-packet one-way delay: 1.635 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 264.56 Mbit/s
95th percentile per-packet one-way delay: 1.906 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 164.15 Mbit/s
95th percentile per-packet one-way delay: 1.411 ms
Loss rate: 0.03%
Run 5: Report of LEDBAT — Data Link
Run 1: Statistics of Indigo-Muses

Start at: 2018-11-15 11:15:44
End at: 2018-11-15 11:16:14
Local clock offset: 4.064 ms
Remote clock offset: 3.184 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.63 Mbit/s
95th percentile per-packet one-way delay: 1.137 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 41.76 Mbit/s
95th percentile per-packet one-way delay: 1.247 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 47.38 Mbit/s
95th percentile per-packet one-way delay: 1.082 ms
Loss rate: 0.01%
Run 1: Report of Indigo-Muses — Data Link

Graph 1: Throughput vs. Time

Graph 2: Packet One-Way Delay vs. Time

Legend:
- Flow 1 ingress (mean 41.14 Mbit/s)
- Flow 1 egress (mean 41.14 Mbit/s)
- Flow 2 ingress (mean 41.77 Mbit/s)
- Flow 2 egress (mean 41.76 Mbit/s)
- Flow 3 ingress (mean 47.37 Mbit/s)
- Flow 3 egress (mean 47.38 Mbit/s)
Run 2: Statistics of Indigo-Muses

Start at: 2018-11-15 11:43:30
End at: 2018-11-15 11:44:00
Local clock offset: 4.479 ms
Remote clock offset: 0.851 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.89 Mbit/s
95th percentile per-packet one-way delay: 0.981 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 43.02 Mbit/s
95th percentile per-packet one-way delay: 0.980 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 43.49 Mbit/s
95th percentile per-packet one-way delay: 0.989 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.98 Mbit/s
95th percentile per-packet one-way delay: 0.944 ms
Loss rate: 0.01%
Run 2: Report of Indigo-Muses — Data Link

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

- Flow 1 ingress (mean 43.02 Mbit/s)
- Flow 1 egress (mean 43.02 Mbit/s)
- Flow 2 ingress (mean 43.30 Mbit/s)
- Flow 2 egress (mean 43.49 Mbit/s)
- Flow 3 ingress (mean 47.99 Mbit/s)
- Flow 3 egress (mean 47.98 Mbit/s)

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

- Flow 1 (95th percentile 0.98 ms)
- Flow 2 (95th percentile 0.99 ms)
- Flow 3 (95th percentile 0.94 ms)
Run 3: Statistics of Indigo-Muses

End at: 2018-11-15 12:11:50
Local clock offset: 4.26 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.26 Mbit/s
95th percentile per-packet one-way delay: 1.041 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 42.99 Mbit/s
95th percentile per-packet one-way delay: 1.041 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 43.77 Mbit/s
95th percentile per-packet one-way delay: 1.047 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 48.70 Mbit/s
95th percentile per-packet one-way delay: 1.023 ms
Loss rate: 0.01%
Run 3: Report of Indigo-Muses — Data Link

Throughput (Mbps) vs Time (s)

- Flow 1 ingress (mean 42.99 Mbps)
- Flow 1 egress (mean 42.99 Mbps)
- Flow 2 ingress (mean 43.76 Mbps)
- Flow 2 egress (mean 43.77 Mbps)
- Flow 3 ingress (mean 48.70 Mbps)
- Flow 3 egress (mean 48.70 Mbps)

Delay (ms) vs Time (s)

- Flow 1 (95th percentile 1.04 ms)
- Flow 2 (95th percentile 1.05 ms)
- Flow 3 (95th percentile 1.02 ms)
Run 4: Statistics of Indigo-Muses

Start at: 2018-11-15 12:39:05
Local clock offset: 3.86 ms
Remote clock offset: -0.348 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.92 Mbit/s
95th percentile per-packet one-way delay: 1.073 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 41.23 Mbit/s
95th percentile per-packet one-way delay: 1.079 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 42.02 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 47.51 Mbit/s
95th percentile per-packet one-way delay: 1.042 ms
Loss rate: 0.02%
Run 4: Report of Indigo-Muses — Data Link

![Graph showing throughput and packet delay over time](chart.png)
Run 5: Statistics of Indigo-Muses

Start at: 2018-11-15 13:06:58
Local clock offset: 3.897 ms
Remote clock offset: -4.571 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.24 Mbit/s
95th percentile per-packet one-way delay: 1.021 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 42.10 Mbit/s
95th percentile per-packet one-way delay: 1.008 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.18 Mbit/s
95th percentile per-packet one-way delay: 1.140 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 48.49 Mbit/s
95th percentile per-packet one-way delay: 0.971 ms
Loss rate: 0.02%
Run 5: Report of Indigo-Muses — Data Link
Run 1: Statistics of PCC-Allegro

Start at: 2018-11-15 11:20:11
End at: 2018-11-15 11:20:41
Local clock offset: 4.028 ms
Remote clock offset: 3.339 ms

# Below is generated by plot.py at 2018-11-15 14:11:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 644.12 Mbit/s
95th percentile per-packet one-way delay: 1.575 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 521.27 Mbit/s
95th percentile per-packet one-way delay: 1.421 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.24 Mbit/s
95th percentile per-packet one-way delay: 1.689 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 172.89 Mbit/s
95th percentile per-packet one-way delay: 2.261 ms
Loss rate: 0.02%
Run 1: Report of PCC-Allegro — Data Link
Run 2: Statistics of PCC-Allegro

Start at: 2018-11-15 11:47:56
Local clock offset: 4.529 ms
Remote clock offset: 0.507 ms

# Below is generated by plot.py at 2018-11-15 14:12:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 656.51 Mbit/s
95th percentile per-packet one-way delay: 1.429 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 559.55 Mbit/s
95th percentile per-packet one-way delay: 1.503 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 86.89 Mbit/s
95th percentile per-packet one-way delay: 1.202 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 119.37 Mbit/s
95th percentile per-packet one-way delay: 1.424 ms
Loss rate: 0.02%
Run 2: Report of PCC-Allegro — Data Link

Throughput (Mbps) vs Time (s)

- Flow 1 ingress (mean 559.52 Mbps)
- Flow 1 egress (mean 559.55 Mbps)
- Flow 2 ingress (mean 86.66 Mbps)
- Flow 2 egress (mean 86.69 Mbps)
- Flow 3 ingress (mean 119.39 Mbps)
- Flow 3 egress (mean 119.37 Mbps)

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

- Flow 1 (95th percentile 1.50 ms)
- Flow 2 (95th percentile 1.20 ms)
- Flow 3 (95th percentile 1.42 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-11-15 12:15:46
End at: 2018-11-15 12:16:16
Local clock offset: 4.226 ms
Remote clock offset: -0.17 ms

# Below is generated by plot.py at 2018-11-15 14:12:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 628.06 Mbit/s
95th percentile per-packet one-way delay: 59.772 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 462.32 Mbit/s
95th percentile per-packet one-way delay: 65.086 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 234.47 Mbit/s
95th percentile per-packet one-way delay: 1.896 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 30.49 Mbit/s
95th percentile per-packet one-way delay: 1.170 ms
Loss rate: 0.02%
Run 3: Report of PCC-Allegro — Data Link

**Throughput (Mbps)**

- **Flow 1 ingress** (mean 462.37 Mbps)
- **Flow 1 egress** (mean 462.32 Mbps)
- **Flow 2 ingress** (mean 234.45 Mbps)
- **Flow 2 egress** (mean 234.47 Mbps)
- **Flow 3 ingress** (mean 30.49 Mbps)
- **Flow 3 egress** (mean 30.49 Mbps)

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

- **Flow 1** (95th percentile 65.09 ms)
- **Flow 2** (95th percentile 1.90 ms)
- **Flow 3** (95th percentile 1.17 ms)
Run 4: Statistics of PCC-Allegro

End at: 2018-11-15 12:44:06
Local clock offset: 3.778 ms
Remote clock offset: -1.463 ms

# Below is generated by plot.py at 2018-11-15 14:12:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 663.85 Mbit/s
95th percentile per-packet one-way delay: 1.895 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 539.11 Mbit/s
95th percentile per-packet one-way delay: 2.259 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 169.55 Mbit/s
95th percentile per-packet one-way delay: 1.363 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 36.66 Mbit/s
95th percentile per-packet one-way delay: 0.989 ms
Loss rate: 0.04%
Run 4: Report of PCC-Allegro — Data Link
Run 5: Statistics of PCC-Allegro

End at: 2018-11-15 13:11:54
Local clock offset: 3.933 ms
Remote clock offset: -4.911 ms

# Below is generated by plot.py at 2018-11-15 14:12:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 445.52 Mbit/s
  95th percentile per-packet one-way delay: 1.297 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 322.71 Mbit/s
  95th percentile per-packet one-way delay: 1.226 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 112.18 Mbit/s
  95th percentile per-packet one-way delay: 1.230 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 146.77 Mbit/s
  95th percentile per-packet one-way delay: 1.652 ms
  Loss rate: 0.02%
Run 5: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 322.71 Mbit/s)
- Flow 1 egress (mean 322.71 Mbit/s)
- Flow 2 ingress (mean 112.19 Mbit/s)
- Flow 2 egress (mean 112.18 Mbit/s)
- Flow 3 ingress (mean 146.77 Mbit/s)
- Flow 3 egress (mean 146.77 Mbit/s)

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

- Flow 1 (95th percentile 1.23 ms)
- Flow 2 (95th percentile 1.23 ms)
- Flow 3 (95th percentile 1.65 ms)
Run 1: Statistics of PCC-Expr

Start at: 2018-11-15 11:12:39
End at: 2018-11-15 11:13:09
Local clock offset: 4.072 ms
Remote clock offset: 3.101 ms

# Below is generated by plot.py at 2018-11-15 14:12:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 251.34 Mbit/s
  95th percentile per-packet one-way delay: 1.137 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 204.07 Mbit/s
  95th percentile per-packet one-way delay: 1.136 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 38.95 Mbit/s
  95th percentile per-packet one-way delay: 1.092 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 64.91 Mbit/s
  95th percentile per-packet one-way delay: 1.193 ms
  Loss rate: 0.01%
Run 1: Report of PCC-Expr — Data Link

![Graph of data link throughput and delay over time]

- Flow 1 ingress (mean 204.01 Mbit/s)
- Flow 1 egress (mean 204.07 Mbit/s)
- Flow 2 ingress (mean 38.95 Mbit/s)
- Flow 2 egress (mean 38.95 Mbit/s)
- Flow 3 ingress (mean 64.91 Mbit/s)
- Flow 3 egress (mean 64.91 Mbit/s)
Run 2: Statistics of PCC-Expr

End at: 2018-11-15 11:40:58
Local clock offset: 4.44 ms
Remote clock offset: 1.259 ms

# Below is generated by plot.py at 2018-11-15 14:12:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 205.64 Mbit/s
95th percentile per-packet one-way delay: 1.025 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 156.77 Mbit/s
95th percentile per-packet one-way delay: 1.015 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.74 Mbit/s
95th percentile per-packet one-way delay: 1.084 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.71 Mbit/s
95th percentile per-packet one-way delay: 0.960 ms
Loss rate: 0.06%
Run 2: Report of PCC-Expr — Data Link

![Graph of network performance metrics]

- Flow 1 ingress (mean 156.77 Mbit/s)
- Flow 1 egress (mean 156.77 Mbit/s)
- Flow 2 ingress (mean 60.74 Mbit/s)
- Flow 2 egress (mean 60.74 Mbit/s)
- Flow 3 ingress (mean 25.71 Mbit/s)
- Flow 3 egress (mean 25.71 Mbit/s)

![Graph of packet loss and delay]

- Flow 1 (99th percentile 1.01 ms)
- Flow 2 (99th percentile 1.08 ms)
- Flow 3 (99th percentile 0.96 ms)
Run 3: Statistics of PCC-Expr

Start at: 2018-11-15 12:08:14
End at: 2018-11-15 12:08:44
Local clock offset: 4.289 ms
Remote clock offset: -0.207 ms

# Below is generated by plot.py at 2018-11-15 14:13:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 202.47 Mbit/s
95th percentile per-packet one-way delay: 1.155 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 142.04 Mbit/s
95th percentile per-packet one-way delay: 1.153 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 82.66 Mbit/s
95th percentile per-packet one-way delay: 1.168 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.59 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.19%
Run 3: Report of PCC-Expr — Data Link
Run 4: Statistics of PCC-Expr

Start at: 2018-11-15 12:35:59
End at: 2018-11-15 12:36:29
Local clock offset: 3.895 ms
Remote clock offset: -0.316 ms

# Below is generated by plot.py at 2018-11-15 14:17:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 259.69 Mbit/s
  95th percentile per-packet one-way delay: 1.072 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 254.46 Mbit/s
  95th percentile per-packet one-way delay: 1.073 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 4.88 Mbit/s
  95th percentile per-packet one-way delay: 1.040 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 6.03 Mbit/s
  95th percentile per-packet one-way delay: 1.032 ms
  Loss rate: 0.00%
Run 4: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 254.46 Mbit/s)
- Flow 1 egress (mean 254.46 Mbit/s)
- Flow 2 ingress (mean 4.88 Mbit/s)
- Flow 2 egress (mean 4.88 Mbit/s)
- Flow 3 ingress (mean 6.03 Mbit/s)
- Flow 3 egress (mean 6.03 Mbit/s)
Run 5: Statistics of PCC-Expr

Start at: 2018-11-15 13:03:52
End at: 2018-11-15 13:04:22
Local clock offset: 3.848 ms
Remote clock offset: -4.249 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 263.43 Mbit/s
  95th percentile per-packet one-way delay: 1.009 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 219.74 Mbit/s
  95th percentile per-packet one-way delay: 1.043 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 32.11 Mbit/s
  95th percentile per-packet one-way delay: 0.916 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 67.69 Mbit/s
  95th percentile per-packet one-way delay: 0.891 ms
  Loss rate: 0.04%
Run 5: Report of PCC-Expr — Data Link
Run 1: Statistics of QUIC Cubic

Start at: 2018-11-15 11:21:45
Local clock offset: 4.019 ms
Remote clock offset: 3.401 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 139.10 Mbit/s
  95th percentile per-packet one-way delay: 1.061 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 73.77 Mbit/s
  95th percentile per-packet one-way delay: 1.044 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 68.35 Mbit/s
  95th percentile per-packet one-way delay: 1.078 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 57.88 Mbit/s
  95th percentile per-packet one-way delay: 1.064 ms
  Loss rate: 0.02%
Run 1: Report of QUIC Cubic — Data Link

![Graph of Throughput and Per-packet Round-trip delay](image-url)

- Flow 1 ingress (mean 73.76 Mbit/s)
- Flow 1 egress (mean 73.77 Mbit/s)
- Flow 2 ingress (mean 68.35 Mbit/s)
- Flow 2 egress (mean 68.35 Mbit/s)
- Flow 3 ingress (mean 57.88 Mbit/s)
- Flow 3 egress (mean 57.88 Mbit/s)

![Graph of Per-packet Round-trip delay](image-url)

- Flow 1 (95th percentile 1.04 ms)
- Flow 2 (95th percentile 1.08 ms)
- Flow 3 (95th percentile 1.06 ms)
Run 2: Statistics of QUIC Cubic

End at: 2018-11-15 11:50:01
Local clock offset: 4.548 ms
Remote clock offset: 0.331 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 134.95 Mbit/s
  95th percentile per-packet one-way delay: 1.003 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 70.38 Mbit/s
  95th percentile per-packet one-way delay: 1.005 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 68.55 Mbit/s
  95th percentile per-packet one-way delay: 0.996 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 57.41 Mbit/s
  95th percentile per-packet one-way delay: 0.998 ms
  Loss rate: 0.02%
Run 2: Report of QUIC Cubic — Data Link

The first chart illustrates the throughput (Mbps) over time for three flows: Flow 1 ingress (mean 70.36 Mbps), Flow 1 egress (mean 70.38 Mbps), Flow 2 ingress (mean 68.35 Mbps), Flow 2 egress (mean 68.55 Mbps), Flow 3 ingress (mean 57.42 Mbps), and Flow 3 egress (mean 57.41 Mbps).

The second chart shows the per-packet one-way delay (ms) over time for the same flows: Flow 1 (95th percentile 1.00 ms), Flow 2 (95th percentile 1.00 ms), and Flow 3 (95th percentile 1.00 ms).
Run 3: Statistics of QUIC Cubic

Start at: 2018-11-15 12:17:19
End at: 2018-11-15 12:17:50
Local clock offset: 4.207 ms
Remote clock offset: -0.209 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
   -- Total of 3 flows:
      Average throughput: 139.67 Mbit/s
      95th percentile per-packet one-way delay: 1.059 ms
      Loss rate: 0.01%
   -- Flow 1:
      Average throughput: 77.96 Mbit/s
      95th percentile per-packet one-way delay: 1.045 ms
      Loss rate: 0.00%
   -- Flow 2:
      Average throughput: 66.18 Mbit/s
      95th percentile per-packet one-way delay: 1.062 ms
      Loss rate: 0.01%
   -- Flow 3:
      Average throughput: 55.15 Mbit/s
      95th percentile per-packet one-way delay: 1.083 ms
      Loss rate: 0.02%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-11-15 12:45:11
End at: 2018-11-15 12:45:41
Local clock offset: 3.768 ms
Remote clock offset: -1.822 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 134.60 Mbit/s
  95th percentile per-packet one-way delay: 0.888 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 70.58 Mbit/s
  95th percentile per-packet one-way delay: 0.892 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 67.92 Mbit/s
  95th percentile per-packet one-way delay: 0.882 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 56.96 Mbit/s
  95th percentile per-packet one-way delay: 0.842 ms
  Loss rate: 0.02%
Run 4: Report of QUIC Cubic — Data Link

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**throughput (Mbps)**

**Time (s)**

- Flow 1 ingress (mean 70.57 Mbps)
- Flow 1 egress (mean 70.58 Mbps)
- Flow 2 ingress (mean 67.87 Mbps)
- Flow 2 egress (mean 67.92 Mbps)
- Flow 3 ingress (mean 56.89 Mbps)
- Flow 3 egress (mean 56.96 Mbps)

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

- Flow 1 (95th percentile 0.89 ms)
- Flow 2 (95th percentile 0.88 ms)
- Flow 3 (95th percentile 0.84 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-11-15 13:12:54
Local clock offset: 3.951 ms
Remote clock offset: -5.053 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.39 Mbit/s
95th percentile per-packet one-way delay: 1.028 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 75.44 Mbit/s
95th percentile per-packet one-way delay: 1.022 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 68.29 Mbit/s
95th percentile per-packet one-way delay: 1.036 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 1.027 ms
Loss rate: 0.03%
Run 5: Report of QUIC Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 75.41 Mbit/s)
- Flow 1 egress (mean 75.44 Mbit/s)
- Flow 2 ingress (mean 68.30 Mbit/s)
- Flow 2 egress (mean 68.29 Mbit/s)
- Flow 3 ingress (mean 58.87 Mbit/s)
- Flow 3 egress (mean 58.92 Mbit/s)
Run 1: Statistics of SCReAM

Start at: 2018-11-15 11:30:58
End at: 2018-11-15 11:31:28
Local clock offset: 4.195 ms
Remote clock offset: 3.827 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 1.119 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 1.117 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 1.124 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 1.112 ms
  Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

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

![Graph of 95th Percentile Delay (ms)](image2)
Run 2: Statistics of SCReAM

Start at: 2018-11-15 11:58:45
End at: 2018-11-15 11:59:15
Local clock offset: 4.5 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.124 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.129 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.120 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.111 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-11-15 12:26:32
End at: 2018-11-15 12:27:02
Local clock offset: 4.14 ms
Remote clock offset: -0.223 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 1.131 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 1.135 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 1.127 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 1.127 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

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

Graph 2: 95th percentile one-way delay (ms)
- Flow 1 (95th percentile 1.14 ms)
- Flow 2 (95th percentile 1.13 ms)
- Flow 3 (95th percentile 1.13 ms)
Run 4: Statistics of SCReAM

End at: 2018-11-15 12:54:53
Local clock offset: 3.681 ms
Remote clock offset: -3.363 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.137 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.149 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.082 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.103 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

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

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

- **Packet delay (ms)**
  - Flow 1 (95th percentile 1.15 ms)
  - Flow 2 (95th percentile 1.08 ms)
  - Flow 3 (95th percentile 1.10 ms)
Run 5: Statistics of SCReAM

Local clock offset: 3.966 ms
Remote clock offset: 0.376 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.265 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.263 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.264 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.267 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

![Graph 1: Throughput vs Time]

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

![Graph 2: Percentile vs Time]

- Flow 1 (95th percentile 1.26 ms)
- Flow 2 (95th percentile 1.26 ms)
- Flow 3 (95th percentile 1.27 ms)
Run 1: Statistics of Sprout

Start at: 2018-11-15 11:29:37
End at: 2018-11-15 11:30:07
Local clock offset: 4.131 ms
Remote clock offset: 3.876 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.99 Mbit/s
95th percentile per-packet one-way delay: 0.928 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 50.22 Mbit/s
95th percentile per-packet one-way delay: 0.933 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 50.09 Mbit/s
95th percentile per-packet one-way delay: 0.909 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 49.87 Mbit/s
95th percentile per-packet one-way delay: 0.941 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

End at: 2018-11-15 11:57:54
Local clock offset: 4.562 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 100.03 Mbit/s
  95th percentile per-packet one-way delay: 1.069 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 50.27 Mbit/s
  95th percentile per-packet one-way delay: 1.078 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 50.17 Mbit/s
  95th percentile per-packet one-way delay: 1.058 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 49.89 Mbit/s
  95th percentile per-packet one-way delay: 1.048 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

![Graph showing throughput and packet delay over time for different flows.
]
Run 3: Statistics of Sprout

Local clock offset: 4.154 ms
Remote clock offset: -0.219 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.96 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.24 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.13 Mbit/s
95th percentile per-packet one-way delay: 1.055 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.91 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.00%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2018-11-15 12:53:02
End at: 2018-11-15 12:53:32
Local clock offset: 3.707 ms
Remote clock offset: -3.161 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.00 Mbit/s
95th percentile per-packet one-way delay: 1.006 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 1.008 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 50.16 Mbit/s
95th percentile per-packet one-way delay: 1.005 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.85 Mbit/s
95th percentile per-packet one-way delay: 0.992 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

Local clock offset: 3.974 ms
Remote clock offset: -0.381 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.97 Mbit/s
95th percentile per-packet one-way delay: 1.389 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 50.24 Mbit/s
95th percentile per-packet one-way delay: 1.379 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 50.15 Mbit/s
95th percentile per-packet one-way delay: 1.385 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.92 Mbit/s
95th percentile per-packet one-way delay: 1.417 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

The first graph shows the throughput of different flows over time, with each flow represented by a distinct line.

The second graph displays the per-packet one-way delay for the same flows, again with each flow differentiated by color.

The graphs provide insights into the performance and latency characteristics of the data link during Run 5.
Run 1: Statistics of TaoVA-100x

Start at: 2018-11-15 11:09:26
End at: 2018-11-15 11:09:56
Local clock offset: 4.094 ms
Remote clock offset: 3.079 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.98 Mbit/s
  95th percentile per-packet one-way delay: 1.010 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 17.87 Mbit/s
  95th percentile per-packet one-way delay: 1.040 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 86.09 Mbit/s
  95th percentile per-packet one-way delay: 1.001 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 11.33 Mbit/s
  95th percentile per-packet one-way delay: 1.009 ms
  Loss rate: 0.00%
Run 2: Statistics of TaoVA-100x

End at: 2018-11-15 11:37:43
Local clock offset: 4.376 ms
Remote clock offset: 1.934 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.90 Mbit/s
95th percentile per-packet one-way delay: 0.947 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 90.59 Mbit/s
95th percentile per-packet one-way delay: 0.948 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 17.27 Mbit/s
95th percentile per-packet one-way delay: 0.936 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.44 Mbit/s
95th percentile per-packet one-way delay: 0.883 ms
Loss rate: 0.01%
Run 2: Report of TaoVA-100x — Data Link

![Throughput and Delay Graphs]

- Flow 1 ingress (mean 90.59 Mbit/s)
- Flow 1 egress (mean 90.59 Mbit/s)
- Flow 2 ingress (mean 17.27 Mbit/s)
- Flow 2 egress (mean 17.27 Mbit/s)
- Flow 3 ingress (mean 11.44 Mbit/s)
- Flow 3 egress (mean 11.44 Mbit/s)

- Flow 1 (95th percentile 0.95 ms)
- Flow 2 (95th percentile 0.94 ms)
- Flow 3 (95th percentile 0.88 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-11-15 12:05:03
End at: 2018-11-15 12:05:33
Local clock offset: 4.336 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 1.072 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 10.27 Mbit/s
95th percentile per-packet one-way delay: 1.082 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.91 Mbit/s
95th percentile per-packet one-way delay: 1.096 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 85.97 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.02%
Run 3: Report of TaoVA-100x — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image)
Run 4: Statistics of TaoVA-100x

Start at: 2018-11-15 12:32:49
End at: 2018-11-15 12:33:19
Local clock offset: 3.967 ms
Remote clock offset: -0.268 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.57 Mbit/s
95th percentile per-packet one-way delay: 1.049 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 29.72 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.83 Mbit/s
95th percentile per-packet one-way delay: 1.051 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.97 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.01%
Run 4: Report of TaoVA-100x — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image2)
Run 5: Statistics of TaoVA-100x

Start at: 2018-11-15 13:00:42
End at: 2018-11-15 13:01:12
Local clock offset: 3.772 ms
Remote clock offset: -4.043 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.74 Mbit/s
95th percentile per-packet one-way delay: 1.029 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 11.38 Mbit/s
95th percentile per-packet one-way delay: 1.029 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 1.026 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 9.34 Mbit/s
95th percentile per-packet one-way delay: 1.037 ms
Loss rate: 0.01%
Run 5: Report of TaoVA-100x — Data Link

[Graphs showing throughput and packet one-way delay over time for different flows]
Run 1: Statistics of TCP Vegas

Start at: 2018-11-15 11:17:06
End at: 2018-11-15 11:17:36
Local clock offset: 4.036 ms
Remote clock offset: 3.245 ms

# Below is generated by plot.py at 2018-11-15 14:21:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 536.30 Mbit/s
95th percentile per-packet one-way delay: 1.330 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 258.59 Mbit/s
95th percentile per-packet one-way delay: 1.323 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 285.34 Mbit/s
95th percentile per-packet one-way delay: 1.454 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 263.74 Mbit/s
95th percentile per-packet one-way delay: 1.271 ms
Loss rate: 0.02%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-11-15 11:44:52
End at: 2018-11-15 11:45:22
Local clock offset: 4.499 ms
Remote clock offset: 0.733 ms

# Below is generated by plot.py at 2018-11-15 14:22:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 550.11 Mbit/s
  95th percentile per-packet one-way delay: 1.176 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 266.45 Mbit/s
  95th percentile per-packet one-way delay: 1.159 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 287.25 Mbit/s
  95th percentile per-packet one-way delay: 1.184 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 277.63 Mbit/s
  95th percentile per-packet one-way delay: 1.197 ms
  Loss rate: 0.02%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-11-15 12:12:42
Local clock offset: 4.235 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-11-15 14:22:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 559.19 Mbit/s
95th percentile per-packet one-way delay: 1.135 ms
Loss rate: 0.01%

-- Flow 1:
Average throughput: 291.50 Mbit/s
95th percentile per-packet one-way delay: 1.146 ms
Loss rate: 0.01%

-- Flow 2:
Average throughput: 277.56 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 0.01%

-- Flow 3:
Average throughput: 249.02 Mbit/s
95th percentile per-packet one-way delay: 1.152 ms
Loss rate: 0.02%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-11-15 12:40:27
End at: 2018-11-15 12:40:57
Local clock offset: 3.82 ms
Remote clock offset: -0.569 ms

# Below is generated by plot.py at 2018-11-15 14:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 570.11 Mbit/s
95th percentile per-packet one-way delay: 1.107 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 298.02 Mbit/s
95th percentile per-packet one-way delay: 1.101 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 276.72 Mbit/s
95th percentile per-packet one-way delay: 1.124 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 264.04 Mbit/s
95th percentile per-packet one-way delay: 1.092 ms
Loss rate: 0.02%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

End at: 2018-11-15 13:08:50
Local clock offset: 3.917 ms
Remote clock offset: -4.7 ms

# Below is generated by plot.py at 2018-11-15 14:23:06
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 588.27 Mbit/s
 95th percentile per-packet one-way delay: 1.331 ms
 Loss rate: 0.01%
-- Flow 1:
 Average throughput: 306.03 Mbit/s
 95th percentile per-packet one-way delay: 1.807 ms
 Loss rate: 0.00%
-- Flow 2:
 Average throughput: 295.76 Mbit/s
 95th percentile per-packet one-way delay: 1.222 ms
 Loss rate: 0.01%
-- Flow 3:
 Average throughput: 256.47 Mbit/s
 95th percentile per-packet one-way delay: 1.614 ms
 Loss rate: 0.01%
Run 5: Report of TCP Vegas — Data Link
Run 1: Statistics of Verus

End at: 2018-11-15 11:14:43
Local clock offset: 4.07 ms
Remote clock offset: 3.146 ms

# Below is generated by plot.py at 2018-11-15 14:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 279.58 Mbit/s
95th percentile per-packet one-way delay: 2.392 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 201.25 Mbit/s
95th percentile per-packet one-way delay: 2.412 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 75.73 Mbit/s
95th percentile per-packet one-way delay: 2.495 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.06 Mbit/s
95th percentile per-packet one-way delay: 1.514 ms
Loss rate: 0.00%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

End at: 2018-11-15 11:42:29
Local clock offset: 4.477 ms
Remote clock offset: 1.097 ms

# Below is generated by plot.py at 2018-11-15 14:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.99 Mbit/s
95th percentile per-packet one-way delay: 2.308 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 179.75 Mbit/s
95th percentile per-packet one-way delay: 2.454 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 110.24 Mbit/s
95th percentile per-packet one-way delay: 1.349 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.80 Mbit/s
95th percentile per-packet one-way delay: 1.251 ms
Loss rate: 0.00%
Run 2: Report of Verus — Data Link

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**Throughput (Mbps)**

- Flow 1 ingress (mean 179.79 Mbps)
- Flow 1 egress (mean 179.75 Mbps)
- Flow 2 ingress (mean 110.22 Mbps)
- Flow 2 egress (mean 110.24 Mbps)
- Flow 3 ingress (mean 65.80 Mbps)
- Flow 3 egress (mean 65.80 Mbps)

---

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

- Flow 1 (95th percentile 2.45 ms)
- Flow 2 (95th percentile 1.35 ms)
- Flow 3 (95th percentile 1.25 ms)
Run 3: Statistics of Verus

Start at: 2018-11-15 12:09:46
End at: 2018-11-15 12:10:16
Local clock offset: 4.278 ms
Remote clock offset: -0.176 ms

# Below is generated by plot.py at 2018-11-15 14:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 346.01 Mbit/s
95th percentile per-packet one-way delay: 2.434 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 171.03 Mbit/s
95th percentile per-packet one-way delay: 2.655 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 221.47 Mbit/s
95th percentile per-packet one-way delay: 1.600 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 86.10 Mbit/s
95th percentile per-packet one-way delay: 1.445 ms
Loss rate: 0.04%
Run 3: Report of Verus — Data Link

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

- Flow 1 ingress (mean 171.03 Mbit/s)
- Flow 1 egress (mean 171.03 Mbit/s)
- Flow 2 ingress (mean 221.46 Mbit/s)
- Flow 2 egress (mean 221.47 Mbit/s)
- Flow 3 ingress (mean 86.13 Mbit/s)
- Flow 3 egress (mean 86.10 Mbit/s)

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

- Flow 1 (99th percentile 2.65 ms)
- Flow 2 (99th percentile 1.60 ms)
- Flow 3 (99th percentile 1.45 ms)
Run 4: Statistics of Verus

Start at: 2018-11-15 12:37:34
End at: 2018-11-15 12:38:04
Local clock offset: 3.872 ms
Remote clock offset: -0.327 ms

# Below is generated by plot.py at 2018-11-15 14:23:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 270.62 Mbit/s
95th percentile per-packet one-way delay: 2.238 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 179.25 Mbit/s
95th percentile per-packet one-way delay: 2.371 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.11 Mbit/s
95th percentile per-packet one-way delay: 1.677 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 74.41 Mbit/s
95th percentile per-packet one-way delay: 1.356 ms
Loss rate: 0.00%
Run 5: Statistics of Verus

Start at: 2018-11-15 13:05:27
End at: 2018-11-15 13:05:57
Local clock offset: 3.86 ms
Remote clock offset: -4.389 ms

# Below is generated by plot.py at 2018-11-15 14:23:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 282.77 Mbit/s
  95th percentile per-packet one-way delay: 2.025 ms
  Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 178.68 Mbit/s
    95th percentile per-packet one-way delay: 2.237 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 118.19 Mbit/s
    95th percentile per-packet one-way delay: 1.477 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 76.44 Mbit/s
    95th percentile per-packet one-way delay: 1.184 ms
    Loss rate: 0.00%
Run 5: Report of Verus — Data Link

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

Legend:
- Flow 1 ingress (mean 178.68 Mbit/s)
- Flow 1 egress (mean 178.68 Mbit/s)
- Flow 2 ingress (mean 118.17 Mbit/s)
- Flow 2 egress (mean 118.19 Mbit/s)
- Flow 3 ingress (mean 76.44 Mbit/s)
- Flow 3 egress (mean 76.44 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 2.24 ms)
- Flow 2 (95th percentile 1.48 ms)
- Flow 3 (95th percentile 1.18 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2018-11-15 11:26:15
End at: 2018-11-15 11:26:45
Local clock offset: 3.984 ms
Remote clock offset: 3.596 ms

# Below is generated by plot.py at 2018-11-15 14:24:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 292.57 Mbit/s
  95th percentile per-packet one-way delay: 1.084 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 209.51 Mbit/s
  95th percentile per-packet one-way delay: 1.059 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 89.01 Mbit/s
  95th percentile per-packet one-way delay: 1.169 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 72.33 Mbit/s
  95th percentile per-packet one-way delay: 1.130 ms
  Loss rate: 0.01%
Run 1: Report of PCC-Vivace — Data Link

![Graph showing throughput and packet loss over time for different flows.]
Run 2: Statistics of PCC-Vivace

Start at: 2018-11-15 11:54:02
End at: 2018-11-15 11:54:32
Local clock offset: 4.569 ms
Remote clock offset: 0.111 ms

# Below is generated by plot.py at 2018-11-15 14:24:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 291.49 Mbit/s
95th percentile per-packet one-way delay: 1.048 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 197.02 Mbit/s
95th percentile per-packet one-way delay: 1.028 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 103.34 Mbit/s
95th percentile per-packet one-way delay: 1.104 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 77.94 Mbit/s
95th percentile per-packet one-way delay: 1.074 ms
Loss rate: 0.01%
Run 2: Report of PCC-Vivace — Data Link

[Graphs showing throughput and packet delay over time for different flows.]
Run 3: Statistics of PCC-Vivace

Local clock offset: 4.172 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-11-15 14:24:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 269.20 Mbit/s
95th percentile per-packet one-way delay: 1.047 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 177.06 Mbit/s
95th percentile per-packet one-way delay: 1.048 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 119.67 Mbit/s
95th percentile per-packet one-way delay: 1.045 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 38.11 Mbit/s
95th percentile per-packet one-way delay: 1.045 ms
Loss rate: 0.03%
Run 3: Report of PCC-Vivace — Data Link

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

Start at: 2018-11-15 12:49:40
End at: 2018-11-15 12:50:10
Local clock offset: 3.716 ms
Remote clock offset: -2.733 ms

# Below is generated by plot.py at 2018-11-15 14:24:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 312.73 Mbit/s
  95th percentile per-packet one-way delay: 1.043 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 212.81 Mbit/s
  95th percentile per-packet one-way delay: 1.009 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 105.66 Mbit/s
  95th percentile per-packet one-way delay: 1.068 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 89.90 Mbit/s
  95th percentile per-packet one-way delay: 1.334 ms
  Loss rate: 0.02%
Run 4: Report of PCC-Vivace — Data Link

![Graph of throughput and packet latency]

- Flow 1 ingress (mean 212.80 Mbit/s)
- Flow 1 egress (mean 212.81 Mbit/s)
- Flow 2 ingress (mean 105.67 Mbit/s)
- Flow 2 egress (mean 105.66 Mbit/s)
- Flow 3 ingress (mean 89.90 Mbit/s)
- Flow 3 egress (mean 89.90 Mbit/s)

- Flow 1 (95th percentile 1.01 ms)
- Flow 2 (95th percentile 1.07 ms)
- Flow 3 (95th percentile 1.33 ms)
Run 5: Statistics of PCC-Vivace

End at: 2018-11-15 13:17:57
Local clock offset: 3.971 ms
Remote clock offset: -2.317 ms

# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 306.72 Mbit/s
  95th percentile per-packet one-way delay: 1.501 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 203.45 Mbit/s
  95th percentile per-packet one-way delay: 1.480 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 119.48 Mbit/s
  95th percentile per-packet one-way delay: 1.502 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 72.24 Mbit/s
  95th percentile per-packet one-way delay: 1.678 ms
  Loss rate: 0.02%
Run 5: Report of PCC-Vivace — Data Link
Run 1: Statistics of WebRTC media

End at: 2018-11-15 11:25:27
Local clock offset: 3.997 ms
Remote clock offset: 3.625 ms

# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 1.030 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 1.009 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 1.041 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 1.042 ms
Loss rate: 0.00%
Run 2: Statistics of WebRTC media

Start at: 2018-11-15 11:52:43
Local clock offset: 4.564 ms
Remote clock offset: 0.246 ms

# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 0.983 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 0.984 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 0.975 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 0.998 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-11-15 12:20:31
End at: 2018-11-15 12:21:01
Local clock offset: 4.188 ms
Remote clock offset: -0.187 ms

# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.95 Mbit/s
  95th percentile per-packet one-way delay: 1.086 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.53 Mbit/s
  95th percentile per-packet one-way delay: 1.092 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.98 Mbit/s
  95th percentile per-packet one-way delay: 1.078 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 1.089 ms
  Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 1.53 Mbit/s)
- Flow 1 egress (mean 1.53 Mbit/s)
- Flow 2 ingress (mean 0.98 Mbit/s)
- Flow 2 egress (mean 0.98 Mbit/s)
- Flow 3 ingress (mean 0.47 Mbit/s)
- Flow 3 egress (mean 0.47 Mbit/s)

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

- Flow 1 (95th percentile 1.09 ms)
- Flow 2 (95th percentile 1.08 ms)
- Flow 3 (95th percentile 1.09 ms)
Run 4: Statistics of WebRTC media

Local clock offset: 3.735 ms
Remote clock offset: -2.372 ms

# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.91 Mbit/s
  95th percentile per-packet one-way delay: 0.904 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.44 Mbit/s
  95th percentile per-packet one-way delay: 0.911 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.09 Mbit/s
  95th percentile per-packet one-way delay: 0.899 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 0.888 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-11-15 13:16:08
Local clock offset: 3.933 ms
Remote clock offset: -3.226 ms

# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 1.486 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 1.462 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 1.500 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 1.517 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

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

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