Pantheon Report

Generated at 2018-07-27 01:31:30 (UTC).
Data path: GCE London Ethernet (local) → GCE Iowa Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
NTP offsets were measured against time.google.com and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ 640164b5b17c7c6561fff57729b3b5935d8596ce
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436bd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdf690c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1af9c58fa0d68d623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08f92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ecb978f3c1cf42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff196497ae1da3dbb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c7f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562539f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dd4735770d143a1fa2851
test from GCE London to GCE Iowa, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
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<th>scheme</th>
<th># runs</th>
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<td>PCC-Expr</td>
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<td>183.14</td>
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<td>TCP Vegas</td>
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<td>WebRTC media</td>
<td>10</td>
<td>2.09</td>
<td>1.35</td>
<td>0.54</td>
</tr>
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</table>
Run 1: Statistics of TCP BBR

End at: 2018-07-26 18:28:58
Local clock offset: 0.275 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-07-26 22:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 419.56 Mbit/s
95th percentile per-packet one-way delay: 73.901 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 214.41 Mbit/s
95th percentile per-packet one-way delay: 72.012 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 211.75 Mbit/s
95th percentile per-packet one-way delay: 74.308 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 192.10 Mbit/s
95th percentile per-packet one-way delay: 75.869 ms
Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-07-26 18:53:29
End at: 2018-07-26 18:53:59
Local clock offset: -0.099 ms
Remote clock offset: 0.034 ms

# Below is generated by plot.py at 2018-07-26 22:54:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 413.63 Mbit/s
  95th percentile per-packet one-way delay: 74.160 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 214.04 Mbit/s
  95th percentile per-packet one-way delay: 73.032 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 199.92 Mbit/s
  95th percentile per-packet one-way delay: 74.382 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 199.47 Mbit/s
  95th percentile per-packet one-way delay: 75.505 ms
  Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link

![Graph of Throughput (Mbps)]

- Flow 1 ingress (mean 214.25 Mbps)
- Flow 1 egress (mean 214.04 Mbps)
- Flow 2 ingress (mean 200.18 Mbps)
- Flow 2 egress (mean 199.92 Mbps)
- Flow 3 ingress (mean 199.99 Mbps)
- Flow 3 egress (mean 199.47 Mbps)

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

- Flow 1 (95th percentile 73.03 ms)
- Flow 2 (95th percentile 74.38 ms)
- Flow 3 (95th percentile 75.50 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-07-26 19:18:26
End at: 2018-07-26 19:18:56
Local clock offset: -0.074 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2018-07-26 22:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 414.58 Mbit/s
95th percentile per-packet one-way delay: 73.112 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 210.80 Mbit/s
95th percentile per-packet one-way delay: 71.959 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 208.55 Mbit/s
95th percentile per-packet one-way delay: 73.512 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 194.68 Mbit/s
95th percentile per-packet one-way delay: 74.559 ms
Loss rate: 0.00%
Run 3: Report of TCP BBR — Data Link

![Graph showing throughputs and delays for different flows over time.]

Legend for Graph:
- Flow 1 ingress (mean 210.96 Mbit/s) [Line Graph]
- Flow 1 egress (mean 210.80 Mbit/s) [Line Graph]
- Flow 2 ingress (mean 208.79 Mbit/s) [Line Graph]
- Flow 2 egress (mean 208.55 Mbit/s) [Line Graph]
- Flow 3 ingress (mean 196.12 Mbit/s) [Line Graph]
- Flow 3 egress (mean 194.68 Mbit/s) [Line Graph]

Legend for Second Graph:
- Flow 1 (95th percentile 71.96 ms) [Line Graph]
- Flow 2 (95th percentile 73.51 ms) [Line Graph]
- Flow 3 (95th percentile 74.56 ms) [Line Graph]
Run 4: Statistics of TCP BBR

End at: 2018-07-26 19:44:02
Local clock offset: -0.437 ms
Remote clock offset: -0.152 ms

# Below is generated by plot.py at 2018-07-26 22:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.31 Mbit/s
95th percentile per-packet one-way delay: 76.656 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 215.04 Mbit/s
95th percentile per-packet one-way delay: 75.059 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 205.20 Mbit/s
95th percentile per-packet one-way delay: 76.732 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 196.86 Mbit/s
95th percentile per-packet one-way delay: 78.935 ms
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 215.28 Mbps)
- Flow 1 egress (mean 215.04 Mbps)
- Flow 2 ingress (mean 205.56 Mbps)
- Flow 2 egress (mean 205.20 Mbps)
- Flow 3 ingress (mean 197.55 Mbps)
- Flow 3 egress (mean 196.86 Mbps)

![Graph 2: Per-packet end-to-end delay (ms)](image2)

- Flow 1 (95th percentile 75.06 ms)
- Flow 2 (95th percentile 76.73 ms)
- Flow 3 (95th percentile 78.94 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-07-26 20:08:57  
End at: 2018-07-26 20:09:27  
Local clock offset: -0.336 ms  
Remote clock offset: -0.122 ms

# Below is generated by plot.py at 2018-07-26 22:54:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 411.77 Mbit/s  
95th percentile per-packet one-way delay: 71.659 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 214.85 Mbit/s  
95th percentile per-packet one-way delay: 70.459 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 207.06 Mbit/s  
95th percentile per-packet one-way delay: 72.031 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 177.34 Mbit/s  
95th percentile per-packet one-way delay: 73.313 ms  
Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-07-26 20:33:26
End at: 2018-07-26 20:33:56
Local clock offset: 0.358 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-07-26 22:54:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 420.21 Mbit/s
95th percentile per-packet one-way delay: 72.705 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 216.98 Mbit/s
95th percentile per-packet one-way delay: 70.908 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 208.91 Mbit/s
95th percentile per-packet one-way delay: 72.256 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 192.83 Mbit/s
95th percentile per-packet one-way delay: 75.976 ms
Loss rate: 0.00%
Run 6: Report of TCP BBR — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 217.07 Mbps)
- Flow 1 egress (mean 216.98 Mbps)
- Flow 2 ingress (mean 209.03 Mbps)
- Flow 2 egress (mean 208.91 Mbps)
- Flow 3 ingress (mean 193.10 Mbps)
- Flow 3 egress (mean 192.83 Mbps)

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

- Flow 1 (95th percentile 70.91 ms)
- Flow 2 (95th percentile 72.26 ms)
- Flow 3 (95th percentile 75.98 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-07-26 20:58:17
End at: 2018-07-26 20:58:47
Local clock offset: -0.307 ms
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2018-07-26 22:54:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 419.61 Mbit/s
  95th percentile per-packet one-way delay: 73.138 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 218.23 Mbit/s
  95th percentile per-packet one-way delay: 71.098 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 207.17 Mbit/s
  95th percentile per-packet one-way delay: 73.732 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 190.05 Mbit/s
  95th percentile per-packet one-way delay: 75.441 ms
  Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 218.36 Mbit/s)
- Flow 1 egress (mean 218.23 Mbit/s)
- Flow 2 ingress (mean 207.37 Mbit/s)
- Flow 2 egress (mean 207.17 Mbit/s)
- Flow 3 ingress (mean 190.40 Mbit/s)
- Flow 3 egress (mean 190.05 Mbit/s)

Legend for per-packet one-way delay:
- Flow 1 (95th percentile 71.10 ms)
- Flow 2 (95th percentile 73.73 ms)
- Flow 3 (95th percentile 75.44 ms)
Run 8: Statistics of TCP BBR

End at: 2018-07-26 21:23:45
Local clock offset: 0.082 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2018-07-26 22:54:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 414.30 Mbit/s
95th percentile per-packet one-way delay: 75.773 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 213.90 Mbit/s
95th percentile per-packet one-way delay: 74.308 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 203.09 Mbit/s
95th percentile per-packet one-way delay: 76.355 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 195.81 Mbit/s
95th percentile per-packet one-way delay: 77.044 ms
Loss rate: 0.00%
Run 8: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 214.04 Mbps)
- Flow 1 egress (mean 213.90 Mbps)
- Flow 2 ingress (mean 203.31 Mbps)
- Flow 2 egress (mean 203.09 Mbps)
- Flow 3 ingress (mean 196.25 Mbps)
- Flow 3 egress (mean 195.61 Mbps)

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

- Flow 1 (95th percentile 74.31 ms)
- Flow 2 (95th percentile 76.36 ms)
- Flow 3 (95th percentile 77.04 ms)
Run 9: Statistics of TCP BBR

Local clock offset: -0.43 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-07-26 23:00:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.71 Mbit/s
95th percentile per-packet one-way delay: 74.752 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 214.45 Mbit/s
95th percentile per-packet one-way delay: 73.147 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 209.13 Mbit/s
95th percentile per-packet one-way delay: 74.788 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 192.41 Mbit/s
95th percentile per-packet one-way delay: 76.594 ms
Loss rate: 0.00%
Run 9: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 214.55 Mbit/s)**
- **Flow 1 egress (mean 214.45 Mbit/s)**
- **Flow 2 ingress (mean 209.28 Mbit/s)**
- **Flow 2 egress (mean 209.13 Mbit/s)**
- **Flow 3 ingress (mean 190.68 Mbit/s)**
- **Flow 3 egress (mean 192.41 Mbit/s)**

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

- **Flow 1 (95th percentile 73.15 ms)**
- **Flow 2 (95th percentile 74.79 ms)**
- **Flow 3 (95th percentile 76.59 ms)**
Run 10: Statistics of TCP BBR

Local clock offset: 0.264 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-07-26 23:00:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 419.19 Mbit/s
95th percentile per-packet one-way delay: 69.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 214.40 Mbit/s
95th percentile per-packet one-way delay: 67.630 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 210.42 Mbit/s
95th percentile per-packet one-way delay: 69.465 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 194.08 Mbit/s
95th percentile per-packet one-way delay: 71.468 ms
Loss rate: 0.00%
Run 10: Report of TCP BBR — Data Link

![Graph showing throughput and packet delay over time for different flows. The graphs illustrate the performance of Flow 1, Flow 2, and Flow 3.]
Run 1: Statistics of Copa

Start at: 2018-07-26 18:26:58
End at: 2018-07-26 18:27:28
Local clock offset: -0.451 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-07-26 23:01:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 248.82 Mbit/s
95th percentile per-packet one-way delay: 75.883 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 162.96 Mbit/s
95th percentile per-packet one-way delay: 78.984 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 83.56 Mbit/s
95th percentile per-packet one-way delay: 63.811 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 99.76 Mbit/s
95th percentile per-packet one-way delay: 57.218 ms
Loss rate: 0.01%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-07-26 18:52:03
End at: 2018-07-26 18:52:33
Local clock offset: -0.105 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-07-26 23:01:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 215.21 Mbit/s
95th percentile per-packet one-way delay: 57.970 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 122.25 Mbit/s
95th percentile per-packet one-way delay: 56.888 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 89.23 Mbit/s
95th percentile per-packet one-way delay: 61.248 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 125.16 Mbit/s
95th percentile per-packet one-way delay: 56.155 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link

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

Legend:
- Flow 1 ingress (mean 122.33 Mbit/s)
- Flow 1 egress (mean 122.25 Mbit/s)
- Flow 2 ingress (mean 89.23 Mbit/s)
- Flow 2 egress (mean 89.23 Mbit/s)
- Flow 3 ingress (mean 125.17 Mbit/s)
- Flow 3 egress (mean 125.16 Mbit/s)
Run 3: Statistics of Copa

End at: 2018-07-26 19:17:25
Local clock offset: -0.087 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-07-26 23:02:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 264.03 Mbit/s
95th percentile per-packet one-way delay: 66.238 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 189.93 Mbit/s
95th percentile per-packet one-way delay: 68.478 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 64.11 Mbit/s
95th percentile per-packet one-way delay: 66.109 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.67 Mbit/s
95th percentile per-packet one-way delay: 56.216 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

Start at: 2018-07-26 19:41:59
End at: 2018-07-26 19:42:29
Local clock offset: -0.072 ms
Remote clock offset: -0.159 ms

# Below is generated by plot.py at 2018-07-26 23:02:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 278.79 Mbit/s
95th percentile per-packet one-way delay: 55.487 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 155.76 Mbit/s
95th percentile per-packet one-way delay: 55.286 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 112.54 Mbit/s
95th percentile per-packet one-way delay: 53.460 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 144.76 Mbit/s
95th percentile per-packet one-way delay: 57.389 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-07-26 20:07:25
End at: 2018-07-26 20:07:55
Local clock offset: 0.019 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-07-26 23:02:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 266.93 Mbit/s
  95th percentile per-packet one-way delay: 57.372 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 124.64 Mbit/s
  95th percentile per-packet one-way delay: 59.072 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 121.11 Mbit/s
  95th percentile per-packet one-way delay: 55.946 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 186.04 Mbit/s
  95th percentile per-packet one-way delay: 57.344 ms
  Loss rate: 0.00%
Run 5: Report of Copa — Data Link

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

Flow 1 ingress (mean 124.64 Mbit/s) — Flow 1 egress (mean 124.64 Mbit/s)
Flow 2 ingress (mean 121.11 Mbit/s) — Flow 2 egress (mean 121.11 Mbit/s)
Flow 3 ingress (mean 186.03 Mbit/s) — Flow 3 egress (mean 186.04 Mbit/s)

![Graph showing network throughput and per-packet one-way delay](image2.png)

Flow 1 (95th percentile 59.07 ms) — Flow 2 (95th percentile 55.95 ms) — Flow 3 (95th percentile 57.34 ms)
Run 6: Statistics of Copa

Start at: 2018-07-26 20:31:59
End at: 2018-07-26 20:32:29
Local clock offset: 0.361 ms
Remote clock offset: -0.122 ms

# Below is generated by plot.py at 2018-07-26 23:02:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 202.24 Mbit/s
95th percentile per-packet one-way delay: 54.228 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 121.24 Mbit/s
95th percentile per-packet one-way delay: 54.840 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 85.19 Mbit/s
95th percentile per-packet one-way delay: 52.189 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.15 Mbit/s
95th percentile per-packet one-way delay: 55.797 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 121.28 Mbps)
- Flow 1 egress (mean 121.24 Mbps)
- Flow 2 ingress (mean 85.19 Mbps)
- Flow 2 egress (mean 85.19 Mbps)
- Flow 3 ingress (mean 73.16 Mbps)
- Flow 3 egress (mean 73.15 Mbps)

**Packet Loss (ms):**
- Flow 1 (95th percentile 54.84 ms)
- Flow 2 (95th percentile 52.19 ms)
- Flow 3 (95th percentile 55.80 ms)

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Run 7: Statistics of Copa

Start at: 2018-07-26 20:56:50
End at: 2018-07-26 20:57:20
Local clock offset: 0.071 ms
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2018-07-26 23:07:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 227.54 Mbit/s
95th percentile per-packet one-way delay: 57.742 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 136.43 Mbit/s
95th percentile per-packet one-way delay: 53.526 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 96.71 Mbit/s
95th percentile per-packet one-way delay: 60.853 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 88.99 Mbit/s
95th percentile per-packet one-way delay: 66.200 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link

![Throughput and Delay Graphs]

- Flow 1 ingress (mean 136.43 Mbit/s)
- Flow 1 egress (mean 136.43 Mbit/s)
- Flow 2 ingress (mean 96.81 Mbit/s)
- Flow 2 egress (mean 96.71 Mbit/s)
- Flow 3 ingress (mean 88.97 Mbit/s)
- Flow 3 egress (mean 88.99 Mbit/s)

- Flow 1 (95th percentile 53.53 ms)
- Flow 2 (95th percentile 60.85 ms)
- Flow 3 (95th percentile 66.20 ms)
Run 8: Statistics of Copa

Local clock offset: 0.067 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-07-26 23:08:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.94 Mbit/s
95th percentile per-packet one-way delay: 55.349 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 127.46 Mbit/s
95th percentile per-packet one-way delay: 54.804 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 120.55 Mbit/s
95th percentile per-packet one-way delay: 54.937 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 133.09 Mbit/s
95th percentile per-packet one-way delay: 56.796 ms
Loss rate: 0.03%
Run 9: Statistics of Copa

End at: 2018-07-26 21:47:18
Local clock offset: -0.395 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-07-26 23:09:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 279.05 Mbit/s
95th percentile per-packet one-way delay: 58.211 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 155.61 Mbit/s
95th percentile per-packet one-way delay: 57.128 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 138.61 Mbit/s
95th percentile per-packet one-way delay: 61.154 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 55.549 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link

![Graph 1: Throughput vs Time](Image)
- Flow 1 ingress (mean 155.61 Mbit/s)
- Flow 1 egress (mean 155.61 Mbit/s)
- Flow 2 ingress (mean 138.60 Mbit/s)
- Flow 2 egress (mean 138.60 Mbit/s)
- Flow 3 ingress (mean 94.44 Mbit/s)
- Flow 3 egress (mean 94.45 Mbit/s)

![Graph 2: Per-packet one-way delay vs Time](Image)
- Flow 1 (95th percentile 57.13 ms)
- Flow 2 (95th percentile 61.15 ms)
- Flow 3 (95th percentile 55.55 ms)
Run 10: Statistics of Copa

Start at: 2018-07-26 22:11:34
End at: 2018-07-26 22:12:04
Local clock offset: -0.132 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2018-07-26 23:09:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 240.92 Mbit/s
95th percentile per-packet one-way delay: 58.673 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 130.78 Mbit/s
95th percentile per-packet one-way delay: 58.409 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.41 Mbit/s
95th percentile per-packet one-way delay: 59.346 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 130.27 Mbit/s
95th percentile per-packet one-way delay: 58.290 ms
Loss rate: 0.01%
Run 10: Report of Copa — Data Link

Throughput vs Time (s)

Flow 1 ingress (mean 130.79 Mbit/s)  
Flow 1 egress (mean 130.78 Mbit/s)  
Flow 2 ingress (mean 100.42 Mbit/s)  
Flow 2 egress (mean 100.41 Mbit/s)  
Flow 3 ingress (mean 130.27 Mbit/s)  
Flow 3 egress (mean 130.27 Mbit/s)

Per-packet one way delay (ms)

Flow 1 (95th percentile 58.41 ms)  
Flow 2 (95th percentile 59.35 ms)  
Flow 3 (95th percentile 58.29 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-07-26 18:29:59
End at: 2018-07-26 18:30:29
Local clock offset: 0.283 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-07-26 23:09:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 322.88 Mbit/s
  95th percentile per-packet one-way delay: 63.104 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 137.26 Mbit/s
  95th percentile per-packet one-way delay: 61.262 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 172.15 Mbit/s
  95th percentile per-packet one-way delay: 61.723 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 213.66 Mbit/s
  95th percentile per-packet one-way delay: 69.617 ms
  Loss rate: 0.01%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-07-26 18:54:58
Local clock offset: 0.323 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2018-07-26 23:09:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 310.87 Mbit/s
  95th percentile per-packet one-way delay: 57.735 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 155.06 Mbit/s
  95th percentile per-packet one-way delay: 56.107 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 231.70 Mbit/s
  95th percentile per-packet one-way delay: 58.507 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 4.73 Mbit/s
  95th percentile per-packet one-way delay: 56.082 ms
  Loss rate: 0.25%
Run 2: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 135.06 Mbit/s)**
- **Flow 1 egress (mean 135.06 Mbit/s)**
- **Flow 2 ingress (mean 231.70 Mbit/s)**
- **Flow 2 egress (mean 231.70 Mbit/s)**
- **Flow 3 ingress (mean 4.74 Mbit/s)**
- **Flow 3 egress (mean 4.73 Mbit/s)**

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

- **Flow 1 (95th percentile 56.11 ms)**
- **Flow 2 (95th percentile 58.51 ms)**
- **Flow 3 (95th percentile 56.08 ms)**
Run 3: Statistics of TCP Cubic

End at: 2018-07-26 19:20:25
Local clock offset: -0.087 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-07-26 23:09:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 289.14 Mbit/s
95th percentile per-packet one-way delay: 59.722 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 139.84 Mbit/s
95th percentile per-packet one-way delay: 57.138 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 115.59 Mbit/s
95th percentile per-packet one-way delay: 57.557 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 217.77 Mbit/s
95th percentile per-packet one-way delay: 61.810 ms
Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress** (mean 139.85 Mbit/s)
- **Flow 1 egress** (mean 139.84 Mbit/s)
- **Flow 2 ingress** (mean 115.61 Mbit/s)
- **Flow 2 egress** (mean 115.59 Mbit/s)
- **Flow 3 ingress** (mean 217.91 Mbit/s)
- **Flow 3 egress** (mean 217.77 Mbit/s)

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

- **Flow 1** (95th percentile 57.14 ms)
- **Flow 2** (95th percentile 57.56 ms)
- **Flow 3** (95th percentile 61.81 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-07-26 19:45:02
End at: 2018-07-26 19:45:32
Local clock offset: -0.059 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2018-07-26 23:09:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.79 Mbit/s
95th percentile per-packet one-way delay: 64.252 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 211.40 Mbit/s
95th percentile per-packet one-way delay: 63.278 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 223.71 Mbit/s
95th percentile per-packet one-way delay: 64.874 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 125.58 Mbit/s
95th percentile per-packet one-way delay: 65.935 ms
Loss rate: 0.00%
Run 5: Statistics of TCP Cubic

Start at: 2018-07-26 20:10:27
End at: 2018-07-26 20:10:57
Local clock offset: -0.012 ms
Remote clock offset: -0.153 ms

# Below is generated by plot.py at 2018-07-26 23:11:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 228.25 Mbit/s
95th percentile per-packet one-way delay: 58.395 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 154.90 Mbit/s
95th percentile per-packet one-way delay: 58.887 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 107.42 Mbit/s
95th percentile per-packet one-way delay: 56.032 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 5.30 Mbit/s
95th percentile per-packet one-way delay: 56.139 ms
Loss rate: 0.16%
Run 5: Report of TCP Cubic — Data Link

![Graphs showing throughput and round-trip time with legends for different flows.]

Legend:
- Flow 1 ingress (mean 135.31 Mbit/s)
- Flow 1 egress (mean 154.90 Mbit/s)
- Flow 2 ingress (mean 107.46 Mbit/s)
- Flow 2 egress (mean 107.42 Mbit/s)
- Flow 3 ingress (mean 5.31 Mbit/s)
- Flow 3 egress (mean 5.30 Mbit/s)
Run 6: Statistics of TCP Cubic

Start at: 2018-07-26 20:34:55
End at: 2018-07-26 20:35:25
Local clock offset: 0.395 ms
Remote clock offset: -0.121 ms

# Below is generated by plot.py at 2018-07-26 23:14:03
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 404.99 Mbit/s
95th percentile per-packet one-way delay: 60.818 ms
 Loss rate: 0.00%
-- Flow 1:
 Average throughput: 229.21 Mbit/s
95th percentile per-packet one-way delay: 60.832 ms
 Loss rate: 0.00%
-- Flow 2:
 Average throughput: 156.88 Mbit/s
95th percentile per-packet one-way delay: 60.165 ms
 Loss rate: 0.00%
-- Flow 3:
 Average throughput: 214.71 Mbit/s
95th percentile per-packet one-way delay: 61.431 ms
 Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-07-26 20:59:47
End at: 2018-07-26 21:00:17
Local clock offset: 0.077 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2018-07-26 23:14:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 273.35 Mbit/s
95th percentile per-packet one-way delay: 59.512 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 137.14 Mbit/s
95th percentile per-packet one-way delay: 56.417 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 201.76 Mbit/s
95th percentile per-packet one-way delay: 60.717 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.43 Mbit/s
95th percentile per-packet one-way delay: 54.673 ms
Loss rate: 0.07%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-07-26 21:24:45
End at: 2018-07-26 21:25:15
Local clock offset: 0.487 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-07-26 23:14:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 296.13 Mbit/s
  95th percentile per-packet one-way delay: 56.919 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 174.87 Mbit/s
  95th percentile per-packet one-way delay: 57.536 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 119.80 Mbit/s
  95th percentile per-packet one-way delay: 55.820 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 125.12 Mbit/s
  95th percentile per-packet one-way delay: 56.792 ms
  Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link
Run 9: Statistics of TCP Cubic

End at: 2018-07-26 21:50:20
Local clock offset: 0.313 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-07-26 23:14:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 227.60 Mbit/s
95th percentile per-packet one-way delay: 59.050 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 160.19 Mbit/s
95th percentile per-packet one-way delay: 59.355 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.35 Mbit/s
95th percentile per-packet one-way delay: 56.887 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 98.06 Mbit/s
95th percentile per-packet one-way delay: 56.964 ms
Loss rate: 0.00%
Run 9: Report of TCP Cubic — Data Link

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

- **Flow 1** (ingress mean 160.20 Mbit/s, egress mean 160.19 Mbit/s)
- **Flow 2** (ingress mean 52.36 Mbit/s, egress mean 52.35 Mbit/s)
- **Flow 3** (ingress mean 98.10 Mbit/s, egress mean 98.06 Mbit/s)

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

- **Flow 1** (95th percentile 59.35 ms)
- **Flow 2** (95th percentile 56.89 ms)
- **Flow 3** (95th percentile 56.06 ms)
Run 10: Statistics of TCP Cubic

End at: 2018-07-26 22:15:03
Local clock offset: 0.202 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-07-26 23:14:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.47 Mbit/s
95th percentile per-packet one-way delay: 62.550 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 156.75 Mbit/s
95th percentile per-packet one-way delay: 60.703 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 222.89 Mbit/s
95th percentile per-packet one-way delay: 64.852 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 121.11 Mbit/s
95th percentile per-packet one-way delay: 61.905 ms
Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 156.79 Mbps):** Blue dashed line
- **Flow 1 egress (mean 156.75 Mbps):** Blue solid line
- **Flow 2 ingress (mean 223.03 Mbps):** Green dashed line
- **Flow 2 egress (mean 222.89 Mbps):** Green solid line
- **Flow 3 ingress (mean 121.18 Mbps):** Red dashed line
- **Flow 3 egress (mean 121.11 Mbps):** Red solid line

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

- **Flow 1 (95th percentile 60.70 ms):** Blue line with dots
- **Flow 2 (95th percentile 64.85 ms):** Green line with dots
- **Flow 3 (95th percentile 61.91 ms):** Red line with dots
Run 1: Statistics of FillP

Start at: 2018-07-26 18:32:47
End at: 2018-07-26 18:33:17
Local clock offset: 0.242 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-07-26 23:35:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1258.08 Mbit/s
95th percentile per-packet one-way delay: 165.247 ms
Loss rate: 3.69%
-- Flow 1:
Average throughput: 645.08 Mbit/s
95th percentile per-packet one-way delay: 166.568 ms
Loss rate: 4.28%
-- Flow 2:
Average throughput: 625.89 Mbit/s
95th percentile per-packet one-way delay: 167.463 ms
Loss rate: 4.03%
-- Flow 3:
Average throughput: 588.12 Mbit/s
95th percentile per-packet one-way delay: 139.756 ms
Loss rate: 0.92%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

Start at: 2018-07-26 18:57:44
End at: 2018-07-26 18:58:14
Local clock offset: -0.1 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2018-07-26 23:35:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1265.92 Mbit/s
95th percentile per-packet one-way delay: 225.220 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 691.10 Mbit/s
95th percentile per-packet one-way delay: 206.395 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 660.13 Mbit/s
95th percentile per-packet one-way delay: 256.712 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 408.69 Mbit/s
95th percentile per-packet one-way delay: 250.703 ms
Loss rate: 1.89%
Run 2: Report of FillP — Data Link

[Graph showing throughput and per-packet delay over time for different flows with varying mean rates and delays.]
Run 3: Statistics of FillP

End at: 2018-07-26 19:23:17
Local clock offset: -0.084 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-07-26 23:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1340.26 Mbit/s
95th percentile per-packet one-way delay: 149.177 ms
Loss rate: 2.62%
-- Flow 1:
Average throughput: 738.02 Mbit/s
95th percentile per-packet one-way delay: 145.869 ms
Loss rate: 1.40%
-- Flow 2:
Average throughput: 665.13 Mbit/s
95th percentile per-packet one-way delay: 132.703 ms
Loss rate: 3.22%
-- Flow 3:
Average throughput: 480.58 Mbit/s
95th percentile per-packet one-way delay: 154.241 ms
Loss rate: 6.39%
Run 3: Report of FillP — Data Link

![Graph 1: Throughput vs Time]

- Flow 1 Ingress (mean 748.54 Mbit/s)
- Flow 1 Egress (mean 738.02 Mbit/s)
- Flow 2 Ingress (mean 687.31 Mbit/s)
- Flow 2 Egress (mean 665.13 Mbit/s)
- Flow 3 Ingress (mean 513.52 Mbit/s)
- Flow 3 Egress (mean 480.58 Mbit/s)

![Graph 2: Packet Delay vs Time]

- Flow 1 (95th percentile 145.97 ms)
- Flow 2 (95th percentile 132.70 ms)
- Flow 3 (95th percentile 154.24 ms)
Run 4: Statistics of FillP

Local clock offset: -0.062 ms
Remote clock offset: -0.148 ms

# Below is generated by plot.py at 2018-07-26 23:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1423.34 Mbit/s
95th percentile per-packet one-way delay: 185.020 ms
Loss rate: 3.11%
-- Flow 1:
Average throughput: 782.06 Mbit/s
95th percentile per-packet one-way delay: 188.607 ms
Loss rate: 2.98%
-- Flow 2:
Average throughput: 674.43 Mbit/s
95th percentile per-packet one-way delay: 198.623 ms
Loss rate: 3.72%
-- Flow 3:
Average throughput: 579.77 Mbit/s
95th percentile per-packet one-way delay: 137.174 ms
Loss rate: 2.18%
Run 4: Report of FillP — Data Link
Run 5: Statistics of FillP

End at: 2018-07-26 20:13:43
Local clock offset: 0.001 ms
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2018-07-26 23:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 936.73 Mbit/s
95th percentile per-packet one-way delay: 266.248 ms
Loss rate: 3.33%
-- Flow 1:
Average throughput: 587.09 Mbit/s
95th percentile per-packet one-way delay: 243.276 ms
Loss rate: 3.37%
-- Flow 2:
Average throughput: 351.51 Mbit/s
95th percentile per-packet one-way delay: 280.155 ms
Loss rate: 3.31%
-- Flow 3:
Average throughput: 352.57 Mbit/s
95th percentile per-packet one-way delay: 290.358 ms
Loss rate: 3.16%
Run 5: Report of FillP — Data Link

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

- **Flow 1 Ingress (mean 608.28 Mbit/s)**
- **Flow 1 Egress (mean 587.09 Mbit/s)**
- **Flow 2 Ingress (mean 364.02 Mbit/s)**
- **Flow 2 Egress (mean 352.51 Mbit/s)**
- **Flow 3 Ingress (mean 360.68 Mbit/s)**
- **Flow 3 Egress (mean 352.57 Mbit/s)**

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

- **Flow 1 (95th percentile 243.28 ms)**
- **Flow 2 (95th percentile 280.15 ms)**
- **Flow 3 (95th percentile 290.36 ms)**

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Run 6: Statistics of FillP

Start at: 2018-07-26 20:37:51
End at: 2018-07-26 20:38:21
Local clock offset: 0.04 ms
Remote clock offset: -0.117 ms

# Below is generated by plot.py at 2018-07-26 23:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1201.38 Mbit/s
95th percentile per-packet one-way delay: 228.130 ms
Loss rate: 4.48%
-- Flow 1:
Average throughput: 648.18 Mbit/s
95th percentile per-packet one-way delay: 140.943 ms
Loss rate: 4.70%
-- Flow 2:
Average throughput: 614.91 Mbit/s
95th percentile per-packet one-way delay: 275.922 ms
Loss rate: 5.60%
-- Flow 3:
Average throughput: 433.75 Mbit/s
95th percentile per-packet one-way delay: 255.933 ms
Loss rate: 0.05%
Run 6: Report of FillP — Data Link

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

![Graph 2: Per-packet one way delay vs Time](image2)
Run 7: Statistics of FillP

Start at: 2018-07-26 21:02:37
End at: 2018-07-26 21:03:07
Local clock offset: 0.068 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2018-07-26 23:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1185.79 Mbit/s
95th percentile per-packet one-way delay: 197.893 ms
Loss rate: 4.85%
-- Flow 1:
Average throughput: 639.22 Mbit/s
95th percentile per-packet one-way delay: 160.092 ms
Loss rate: 5.60%
-- Flow 2:
Average throughput: 604.85 Mbit/s
95th percentile per-packet one-way delay: 262.305 ms
Loss rate: 4.99%
-- Flow 3:
Average throughput: 432.89 Mbit/s
95th percentile per-packet one-way delay: 92.750 ms
Loss rate: 0.93%
Run 7: Report of FillP — Data Link
Run 8: Statistics of FillP

End at: 2018-07-26 21:28:06
Local clock offset: 0.085 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-07-26 23:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1297.65 Mbit/s
95th percentile per-packet one-way delay: 187.093 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 776.28 Mbit/s
95th percentile per-packet one-way delay: 132.171 ms
Loss rate: 2.21%
-- Flow 2:
Average throughput: 557.70 Mbit/s
95th percentile per-packet one-way delay: 224.702 ms
Loss rate: 2.99%
-- Flow 3:
Average throughput: 454.30 Mbit/s
95th percentile per-packet one-way delay: 245.704 ms
Loss rate: 0.90%
Run 8: Report of FillP — Data Link

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

Legend:
- Flow 1 ingress (mean 793.85 Mb/s)
- Flow 1 egress (mean 776.28 Mb/s)
- Flow 2 ingress (mean 574.91 Mb/s)
- Flow 2 egress (mean 557.70 Mb/s)
- Flow 3 ingress (mean 458.42 Mb/s)
- Flow 3 egress (mean 454.30 Mb/s)
Run 9: Statistics of FillP

Start at: 2018-07-26 21:52:38
End at: 2018-07-26 21:53:08
Local clock offset: 0.317 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2018-07-26 23:56:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1182.50 Mbit/s
95th percentile per-packet one-way delay: 153.137 ms
Loss rate: 5.18%
-- Flow 1:
Average throughput: 620.56 Mbit/s
95th percentile per-packet one-way delay: 148.643 ms
Loss rate: 5.49%
-- Flow 2:
Average throughput: 650.23 Mbit/s
95th percentile per-packet one-way delay: 184.143 ms
Loss rate: 5.33%
-- Flow 3:
Average throughput: 390.02 Mbit/s
95th percentile per-packet one-way delay: 150.076 ms
Loss rate: 3.20%
Run 9: Report of FillP — Data Link
Run 10: Statistics of FillP

Start at: 2018-07-26 22:17:25
End at: 2018-07-26 22:17:55
Local clock offset: -0.182 ms
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2018-07-27 00:01:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1267.55 Mbit/s
  95th percentile per-packet one-way delay: 149.092 ms
  Loss rate: 2.78%
-- Flow 1:
  Average throughput: 649.43 Mbit/s
  95th percentile per-packet one-way delay: 146.506 ms
  Loss rate: 4.00%
-- Flow 2:
  Average throughput: 644.15 Mbit/s
  95th percentile per-packet one-way delay: 219.527 ms
  Loss rate: 2.04%
-- Flow 3:
  Average throughput: 572.06 Mbit/s
  95th percentile per-packet one-way delay: 123.217 ms
  Loss rate: 0.12%
Run 10: Report of FillIP — Data Link

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

Legend:
- Flow 1 ingress (mean 676.51 Mbit/s)
- Flow 1 egress (mean 649.43 Mbit/s)
- Flow 2 ingress (mean 657.63 Mbit/s)
- Flow 2 egress (mean 644.15 Mbit/s)
- Flow 3 ingress (mean 572.87 Mbit/s)
- Flow 3 egress (mean 572.06 Mbit/s)

Legend (delay):
- Flow 1 (95th percentile 146.51 ms)
- Flow 2 (95th percentile 219.53 ms)
- Flow 3 (95th percentile 123.22 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-26 18:25:00
End at: 2018-07-26 18:25:30
Local clock offset: -0.073 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-07-27 00:01:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1245.70 Mbit/s
  95th percentile per-packet one-way delay: 109.622 ms
  Loss rate: 0.25%
-- Flow 1:
  Average throughput: 691.73 Mbit/s
  95th percentile per-packet one-way delay: 103.412 ms
  Loss rate: 0.19%
-- Flow 2:
  Average throughput: 559.38 Mbit/s
  95th percentile per-packet one-way delay: 128.879 ms
  Loss rate: 0.42%
-- Flow 3:
  Average throughput: 546.00 Mbit/s
  95th percentile per-packet one-way delay: 86.051 ms
  Loss rate: 0.10%
Run 1: Report of FillP-Sheep — Data Link

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

- Flow 1 Ingress (mean 693.01 Mbps/s)
- Flow 1 Egress (mean 691.73 Mbps/s)
- Flow 2 Ingress (mean 563.75 Mbps/s)
- Flow 2 Egress (mean 559.38 Mbps/s)
- Flow 3 Ingress (mean 546.47 Mbps/s)
- Flow 3 Egress (mean 546.00 Mbps/s)

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

- Flow 1 (95th percentile 103.41 ms)
- Flow 2 (95th percentile 128.88 ms)
- Flow 3 (95th percentile 86.05 ms)

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Run 2: Statistics of FillP-Sheep

Start at: 2018-07-26 18:50:06
End at: 2018-07-26 18:50:36
Local clock offset: -0.085 ms
Remote clock offset: 0.026 ms

# Below is generated by plot.py at 2018-07-27 00:01:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1198.19 Mbit/s
  95th percentile per-packet one-way delay: 118.419 ms
  Loss rate: 0.20%
-- Flow 1:
  Average throughput: 647.65 Mbit/s
  95th percentile per-packet one-way delay: 113.984 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 593.91 Mbit/s
  95th percentile per-packet one-way delay: 125.601 ms
  Loss rate: 0.50%
-- Flow 3:
  Average throughput: 469.37 Mbit/s
  95th percentile per-packet one-way delay: 72.695 ms
  Loss rate: 0.00%
Run 2: Report of FillP-Sheep — Data Link
Run 3: Statistics of FillP-Sheep

Start at: 2018-07-26 19:14:54
End at: 2018-07-26 19:15:24
Local clock offset: -0.078 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-07-27 00:04:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1294.90 Mbit/s
  95th percentile per-packet one-way delay: 120.424 ms
  Loss rate: 0.35%
-- Flow 1:
  Average throughput: 694.70 Mbit/s
  95th percentile per-packet one-way delay: 127.709 ms
  Loss rate: 0.49%
-- Flow 2:
  Average throughput: 670.56 Mbit/s
  95th percentile per-packet one-way delay: 107.256 ms
  Loss rate: 0.20%
-- Flow 3:
  Average throughput: 465.53 Mbit/s
  95th percentile per-packet one-way delay: 97.222 ms
  Loss rate: 0.19%
Run 3: Report of FillP-Sheep — Data Link

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

Legend:
- **Flow 1 ingress** (mean 698.16 Mbit/s)
- **Flow 1 egress** (mean 694.70 Mbit/s)
- **Flow 2 ingress** (mean 671.92 Mbit/s)
- **Flow 2 egress** (mean 670.56 Mbit/s)
- **Flow 3 ingress** (mean 446.39 Mbit/s)
- **Flow 3 egress** (mean 465.53 Mbit/s)
Run 4: Statistics of FillP-Sheep

End at: 2018-07-26 19:40:29
Local clock offset: 0.278 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-07-27 00:04:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1243.34 Mbit/s
95th percentile per-packet one-way delay: 120.514 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 639.59 Mbit/s
95th percentile per-packet one-way delay: 122.071 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 655.07 Mbit/s
95th percentile per-packet one-way delay: 116.457 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 505.24 Mbit/s
95th percentile per-packet one-way delay: 134.904 ms
Loss rate: 0.50%
Run 4: Report of FillP-Sheep — Data Link

![Graph 1: Throughput vs Time](image1)
- Flow 1 ingress (mean 642.37 Mbit/s)
- Flow 1 egress (mean 639.59 Mbit/s)
- Flow 2 ingress (mean 658.39 Mbit/s)
- Flow 2 egress (mean 655.07 Mbit/s)
- Flow 3 ingress (mean 507.87 Mbit/s)
- Flow 3 egress (mean 505.24 Mbit/s)

![Graph 2: Per-packet one-way delay vs Time](image2)
- Flow 1 (95th percentile 122.07 ms)
- Flow 2 (95th percentile 116.46 ms)
- Flow 3 (95th percentile 134.90 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-26 20:05:26
End at: 2018-07-26 20:05:56
Local clock offset: 0.019 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-07-27 00:05:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1216.31 Mbit/s
  95th percentile per-packet one-way delay: 129.684 ms
  Loss rate: 1.26%
-- Flow 1:
  Average throughput: 690.10 Mbit/s
  95th percentile per-packet one-way delay: 123.536 ms
  Loss rate: 1.19%
-- Flow 2:
  Average throughput: 546.62 Mbit/s
  95th percentile per-packet one-way delay: 138.294 ms
  Loss rate: 0.86%
-- Flow 3:
  Average throughput: 490.15 Mbit/s
  95th percentile per-packet one-way delay: 77.639 ms
  Loss rate: 2.45%
Run 5: Report of FillP-Sheep — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 698.41 Mbps)**
- **Flow 1 egress (mean 690.10 Mbps)**
- **Flow 2 ingress (mean 551.39 Mbps)**
- **Flow 2 egress (mean 544.62 Mbps)**
- **Flow 3 ingress (mean 502.34 Mbps)**
- **Flow 3 egress (mean 490.15 Mbps)**

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

- **Flow 1 (95th percentile 123.54 ms)**
- **Flow 2 (95th percentile 138.29 ms)**
- **Flow 3 (95th percentile 77.64 ms)**

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Run 6: Statistics of FillP-Sheep

Start at: 2018-07-26 20:30:07
End at: 2018-07-26 20:30:37
Local clock offset: -0.353 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-07-27 00:05:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1069.20 Mbit/s
95th percentile per-packet one-way delay: 175.459 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 581.68 Mbit/s
95th percentile per-packet one-way delay: 173.000 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 432.31 Mbit/s
95th percentile per-packet one-way delay: 214.174 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 601.37 Mbit/s
95th percentile per-packet one-way delay: 113.965 ms
Loss rate: 0.26%
Run 6: Report of FillP-Sheep — Data Link

![Graph showing network performance metrics over time for different flows.](image-url)

- **Flow 1**: Ingress (mean 587.28 Mbit/s), Egress (mean 581.68 Mbit/s)
- **Flow 2**: Ingress (mean 437.91 Mbit/s), Egress (mean 432.31 Mbit/s)
- **Flow 3**: Ingress (mean 602.85 Mbit/s), Egress (mean 602.37 Mbit/s)

![Graph showing packet delay distribution for different flows.](image-url)

- **Flow 1**: 95th percentile 173.00 ms
- **Flow 2**: 95th percentile 214.17 ms
- **Flow 3**: 95th percentile 113.97 ms
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-26 20:54:57
Local clock offset: -0.293 ms
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2018-07-27 00:21:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1101.39 Mbit/s
95th percentile per-packet one-way delay: 217.190 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 587.06 Mbit/s
95th percentile per-packet one-way delay: 212.624 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 479.05 Mbit/s
95th percentile per-packet one-way delay: 245.211 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 588.20 Mbit/s
95th percentile per-packet one-way delay: 118.334 ms
Loss rate: 0.02%
Run 7: Report of FillP-Sheep — Data Link
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-26 21:19:49
End at: 2018-07-26 21:20:19
Local clock offset: 0.499 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1184.78 Mbit/s
95th percentile per-packet one-way delay: 125.263 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 631.27 Mbit/s
95th percentile per-packet one-way delay: 123.717 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 548.90 Mbit/s
95th percentile per-packet one-way delay: 132.360 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 568.05 Mbit/s
95th percentile per-packet one-way delay: 107.538 ms
Loss rate: 0.57%
Run 8: Report of FillP-Sheep — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows.]
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-26 21:44:54
End at: 2018-07-26 21:45:24
Local clock offset: 0.341 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1144.08 Mbit/s
95th percentile per-packet one-way delay: 113.714 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 627.11 Mbit/s
95th percentile per-packet one-way delay: 111.324 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 573.25 Mbit/s
95th percentile per-packet one-way delay: 92.042 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 407.49 Mbit/s
95th percentile per-packet one-way delay: 172.892 ms
Loss rate: 0.25%
Run 9: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 628.13 Mbit/s)
- Flow 1 egress (mean 627.11 Mbit/s)
- Flow 2 ingress (mean 575.73 Mbit/s)
- Flow 2 egress (mean 573.25 Mbit/s)
- Flow 3 ingress (mean 408.39 Mbit/s)
- Flow 3 egress (mean 407.49 Mbit/s)
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-26 22:09:38
End at: 2018-07-26 22:10:08
Local clock offset: 0.235 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1128.03 Mbit/s
95th percentile per-packet one-way delay: 186.912 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 610.24 Mbit/s
95th percentile per-packet one-way delay: 187.995 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 495.69 Mbit/s
95th percentile per-packet one-way delay: 191.959 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 569.87 Mbit/s
95th percentile per-packet one-way delay: 90.758 ms
Loss rate: 0.23%
Run 10: Report of FillIP-Sheep — Data Link

Throughput (Mb/s) vs Time (s)
- Flow 1 ingress (mean 613.43 Mb/s)
- Flow 1 egress (mean 610.24 Mb/s)
- Flow 2 ingress (mean 499.95 Mb/s)
- Flow 2 egress (mean 495.69 Mb/s)
- Flow 3 ingress (mean 571.12 Mb/s)
- Flow 3 egress (mean 569.87 Mb/s)

Per-packet one-way delay (ms)
- Flow 1 (95th percentile 188.00 ms)
- Flow 2 (95th percentile 191.96 ms)
- Flow 3 (95th percentile 90.76 ms)
Run 1: Statistics of Indigo

Start at: 2018-07-26 18:19:58
End at: 2018-07-26 18:20:28
Local clock offset: -0.067 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 338.80 Mbit/s
  95th percentile per-packet one-way delay: 64.290 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 153.31 Mbit/s
  95th percentile per-packet one-way delay: 63.684 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 199.72 Mbit/s
  95th percentile per-packet one-way delay: 62.874 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 164.32 Mbit/s
  95th percentile per-packet one-way delay: 67.037 ms
  Loss rate: 0.00%
Run 2: Statistics of Indigo

Start at: 2018-07-26 18:45:07
End at: 2018-07-26 18:45:37
Local clock offset: -0.474 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.37 Mbit/s
95th percentile per-packet one-way delay: 66.771 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 198.57 Mbit/s
95th percentile per-packet one-way delay: 64.165 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 192.56 Mbit/s
95th percentile per-packet one-way delay: 66.754 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 156.13 Mbit/s
95th percentile per-packet one-way delay: 69.709 ms
Loss rate: 0.00%
Run 2: Report of Indigo — Data Link
Run 3: Statistics of Indigo

Start at: 2018-07-26 19:09:56
End at: 2018-07-26 19:10:26
Local clock offset: 0.299 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
   -- Total of 3 flows:
   Average throughput: 382.18 Mbit/s
   95th percentile per-packet one-way delay: 59.600 ms
   Loss rate: 0.00%
   -- Flow 1:
   Average throughput: 210.67 Mbit/s
   95th percentile per-packet one-way delay: 59.364 ms
   Loss rate: 0.00%
   -- Flow 2:
   Average throughput: 181.18 Mbit/s
   95th percentile per-packet one-way delay: 59.453 ms
   Loss rate: 0.00%
   -- Flow 3:
   Average throughput: 160.62 Mbit/s
   95th percentile per-packet one-way delay: 60.186 ms
   Loss rate: 0.00%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Start at: 2018-07-26 19:35:08
End at: 2018-07-26 19:35:38
Local clock offset: 0.278 ms
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 355.89 Mbit/s
95th percentile per-packet one-way delay: 53.725 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 169.48 Mbit/s
95th percentile per-packet one-way delay: 52.391 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 197.87 Mbit/s
95th percentile per-packet one-way delay: 54.770 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 169.09 Mbit/s
95th percentile per-packet one-way delay: 55.113 ms
Loss rate: 0.00%
Run 4: Report of Indigo — Data Link

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

- **Flow 1:** Ingress (mean 169.49 Mbit/s), Egress (mean 169.48 Mbit/s)
- **Flow 2:** Ingress (mean 197.87 Mbit/s), Egress (mean 197.87 Mbit/s)
- **Flow 3:** Ingress (mean 169.10 Mbit/s), Egress (mean 169.09 Mbit/s)

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

- **Flow 1:** 95th percentile 52.39 ms
- **Flow 2:** 95th percentile 54.77 ms
- **Flow 3:** 95th percentile 55.11 ms
Run 5: Statistics of Indigo

Start at: 2018-07-26 20:00:29
End at: 2018-07-26 20:00:59
Local clock offset: -0.402 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 398.73 Mbit/s
95th percentile per-packet one-way delay: 57.109 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 216.06 Mbit/s
95th percentile per-packet one-way delay: 56.834 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 195.23 Mbit/s
95th percentile per-packet one-way delay: 57.849 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 164.26 Mbit/s
95th percentile per-packet one-way delay: 56.624 ms
Loss rate: 0.00%
Run 5: Report of Indigo — Data Link

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

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

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Run 6: Statistics of Indigo

Start at: 2018-07-26 20:25:16
End at: 2018-07-26 20:25:46
Local clock offset: -0.336 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 393.71 Mbit/s
95th percentile per-packet one-way delay: 58.420 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 212.65 Mbit/s
95th percentile per-packet one-way delay: 57.146 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 189.99 Mbit/s
95th percentile per-packet one-way delay: 59.451 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 168.77 Mbit/s
95th percentile per-packet one-way delay: 59.770 ms
Loss rate: 0.02%
Run 6: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 212.66 Mbit/s)
- Flow 1 egress (mean 212.65 Mbit/s)
- Flow 2 ingress (mean 190.04 Mbit/s)
- Flow 2 egress (mean 189.99 Mbit/s)
- Flow 3 ingress (mean 168.81 Mbit/s)
- Flow 3 egress (mean 168.77 Mbit/s)
Run 7: Statistics of Indigo

Start at: 2018-07-26 20:50:10
End at: 2018-07-26 20:50:40
Local clock offset: 0.034 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 373.39 Mbit/s
95th percentile per-packet one-way delay: 56.682 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 192.72 Mbit/s
95th percentile per-packet one-way delay: 55.868 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 192.83 Mbit/s
95th percentile per-packet one-way delay: 56.713 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 161.64 Mbit/s
95th percentile per-packet one-way delay: 58.285 ms
Loss rate: 0.00%
Run 7: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 192.75 Mbit/s)
- Flow 1 egress (mean 192.72 Mbit/s)
- Flow 2 ingress (mean 192.91 Mbit/s)
- Flow 2 egress (mean 192.83 Mbit/s)
- Flow 3 ingress (mean 161.70 Mbit/s)
- Flow 3 egress (mean 161.64 Mbit/s)
Run 8: Statistics of Indigo

Start at: 2018-07-26 21:14:56
End at: 2018-07-26 21:15:26
Local clock offset: 0.074 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.97 Mbit/s
95th percentile per-packet one-way delay: 56.508 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 194.80 Mbit/s
95th percentile per-packet one-way delay: 55.462 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 193.47 Mbit/s
95th percentile per-packet one-way delay: 57.493 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 168.30 Mbit/s
95th percentile per-packet one-way delay: 57.341 ms
Loss rate: 0.00%
Run 8: Report of Indigo — Data Link
Run 9: Statistics of Indigo

Start at: 2018-07-26 21:39:54
End at: 2018-07-26 21:40:24
Local clock offset: 0.033 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 378.76 Mbit/s
95th percentile per-packet one-way delay: 55.721 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 199.84 Mbit/s
95th percentile per-packet one-way delay: 55.112 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 202.72 Mbit/s
95th percentile per-packet one-way delay: 55.918 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 136.60 Mbit/s
95th percentile per-packet one-way delay: 56.763 ms
Loss rate: 0.00%
Run 9: Report of Indigo — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 199.83 Mbps)
- Flow 1 egress (mean 199.84 Mbps)
- Flow 2 ingress (mean 202.71 Mbps)
- Flow 2 egress (mean 202.72 Mbps)
- Flow 3 ingress (mean 136.59 Mbps)
- Flow 3 egress (mean 136.60 Mbps)

**Per-packet round-trip delay (ms):**
- Flow 1 (95th percentile 55.11 ms)
- Flow 2 (95th percentile 55.92 ms)
- Flow 3 (95th percentile 56.76 ms)
Run 10: Statistics of Indigo

Start at: 2018-07-26 22:04:54
End at: 2018-07-26 22:05:24
Local clock offset: 0.296 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 385.86 Mbit/s
95th percentile per-packet one-way delay: 55.372 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 208.97 Mbit/s
95th percentile per-packet one-way delay: 54.563 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 182.64 Mbit/s
95th percentile per-packet one-way delay: 55.634 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 171.73 Mbit/s
95th percentile per-packet one-way delay: 56.270 ms
Loss rate: 0.00%
Run 1: Statistics of LEDBAT

Start at: 2018-07-26 18:36:22
End at: 2018-07-26 18:36:52
Local clock offset: -0.098 ms
Remote clock offset: 0.064 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 54.34 Mbit/s
  95th percentile per-packet one-way delay: 52.447 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 35.02 Mbit/s
  95th percentile per-packet one-way delay: 52.746 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 23.33 Mbit/s
  95th percentile per-packet one-way delay: 51.732 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 11.54 Mbit/s
  95th percentile per-packet one-way delay: 52.244 ms
  Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

[Graph 1: throughput over time for multiple flows with different ingress and egress speeds]

[Graph 2: per-packet round-trip delay over time for different flows with 95th percentile delays given]

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Run 2: Statistics of LEDBAT

Start at: 2018-07-26 19:01:21
End at: 2018-07-26 19:01:51
Local clock offset: -0.117 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.74 Mbit/s
95th percentile per-packet one-way delay: 51.047 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.45 Mbit/s
95th percentile per-packet one-way delay: 51.111 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.69 Mbit/s
95th percentile per-packet one-way delay: 50.831 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.82 Mbit/s
95th percentile per-packet one-way delay: 50.689 ms
Loss rate: 0.00%
Run 3: Statistics of LEDBAT

Start at: 2018-07-26 19:26:32
End at: 2018-07-26 19:27:02
Local clock offset: -0.099 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 54.59 Mbit/s
  95th percentile per-packet one-way delay: 50.509 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 34.60 Mbit/s
  95th percentile per-packet one-way delay: 50.641 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.62 Mbit/s
  95th percentile per-packet one-way delay: 50.221 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 11.08 Mbit/s
  95th percentile per-packet one-way delay: 50.002 ms
  Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-07-26 19:51:42
End at: 2018-07-26 19:52:12
Local clock offset: -0.089 ms
Remote clock offset: -0.2 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.72 Mbit/s
95th percentile per-packet one-way delay: 51.386 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.31 Mbit/s
95th percentile per-packet one-way delay: 51.480 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.93 Mbit/s
95th percentile per-packet one-way delay: 51.244 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.52 Mbit/s
95th percentile per-packet one-way delay: 51.266 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-07-26 20:16:38
End at: 2018-07-26 20:17:08
Local clock offset: 0.067 ms
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.12 Mbit/s
95th percentile per-packet one-way delay: 50.863 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 36.17 Mbit/s
95th percentile per-packet one-way delay: 50.952 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.21 Mbit/s
95th percentile per-packet one-way delay: 50.495 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.65 Mbit/s
95th percentile per-packet one-way delay: 50.322 ms
Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

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**Throughput (Mbps)**

- **Flow 1 Ingress (mean 36.17 Mbps)**
- **Flow 1 Egress (mean 36.17 Mbps)**
- **Flow 2 Ingress (mean 21.21 Mbps)**
- **Flow 2 Egress (mean 21.21 Mbps)**
- **Flow 3 Ingress (mean 8.65 Mbps)**
- **Flow 3 Egress (mean 8.65 Mbps)**

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

- **Flow 1 (95th percentile 50.95 ms)**
- **Flow 2 (95th percentile 50.49 ms)**
- **Flow 3 (95th percentile 50.32 ms)**
Run 6: Statistics of LEDBAT

Start at: 2018-07-26 20:41:31
End at: 2018-07-26 20:42:01
Local clock offset: -0.314 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.35 Mbit/s
95th percentile per-packet one-way delay: 52.248 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.00 Mbit/s
95th percentile per-packet one-way delay: 52.324 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.41 Mbit/s
95th percentile per-packet one-way delay: 52.120 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.52 Mbit/s
95th percentile per-packet one-way delay: 52.005 ms
Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link

![Graph showing data link performance metrics.](image)

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*Note: Detailed analysis of the graphs showing throughput and packet delay trends over time.*
Run 7: Statistics of LEDBAT

Start at: 2018-07-26 21:06:16
End at: 2018-07-26 21:06:46
Local clock offset: -0.289 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 54.25 Mbit/s
  95th percentile per-packet one-way delay: 51.126 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 35.41 Mbit/s
  95th percentile per-packet one-way delay: 51.189 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 23.63 Mbit/s
  95th percentile per-packet one-way delay: 50.975 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 9.51 Mbit/s
  95th percentile per-packet one-way delay: 50.988 ms
  Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 35.41 Mbit/s)
- Flow 1 egress (mean 35.41 Mbit/s)
- Flow 2 ingress (mean 23.63 Mbit/s)
- Flow 2 egress (mean 23.63 Mbit/s)
- Flow 3 ingress (mean 9.51 Mbit/s)
- Flow 3 egress (mean 9.51 Mbit/s)

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

- Flow 1 (95th percentile 51.19 ms)
- Flow 2 (95th percentile 50.98 ms)
- Flow 3 (95th percentile 50.99 ms)
Run 8: Statistics of LEDBAT

Start at: 2018-07-26 21:31:16
End at: 2018-07-26 21:31:46
Local clock offset: -0.268 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.61 Mbit/s
95th percentile per-packet one-way delay: 51.496 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 25.73 Mbit/s
95th percentile per-packet one-way delay: 51.656 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.59 Mbit/s
95th percentile per-packet one-way delay: 51.129 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.76 Mbit/s
95th percentile per-packet one-way delay: 50.797 ms
Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows with annotations for each flow's throughput and delay characteristics.]
Run 9: Statistics of LEDBAT

End at: 2018-07-26 21:56:43
Local clock offset: -0.055 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.74 Mbit/s
95th percentile per-packet one-way delay: 51.735 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.41 Mbit/s
95th percentile per-packet one-way delay: 51.749 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.34 Mbit/s
95th percentile per-packet one-way delay: 51.806 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 51.156 ms
Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link

![Graph showing data link throughput and latency over time](image)

Legend:
- Blue dashed line: Flow 1 ingress (mean 33.41 Mbit/s)
- Blue solid line: Flow 1 egress (mean 33.41 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 23.34 Mbit/s)
- Green solid line: Flow 2 egress (mean 23.34 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 11.51 Mbit/s)
- Red solid line: Flow 3 egress (mean 11.51 Mbit/s)

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

Legend:
- Blue filled circle: Flow 1 (95th percentile 51.75 ms)
- Green filled circle: Flow 2 (95th percentile 51.81 ms)
- Red filled circle: Flow 3 (95th percentile 51.16 ms)
Run 10: Statistics of LEDBAT

Local clock offset: 0.193 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2018-07-27 00:27:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 55.26 Mbit/s
  95th percentile per-packet one-way delay: 50.779 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 35.50 Mbit/s
  95th percentile per-packet one-way delay: 50.750 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 23.87 Mbit/s
  95th percentile per-packet one-way delay: 50.692 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 11.91 Mbit/s
  95th percentile per-packet one-way delay: 51.112 ms
  Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 35.50 Mbit/s)
- Flow 1 egress (mean 35.50 Mbit/s)
- Flow 2 ingress (mean 23.87 Mbit/s)
- Flow 2 egress (mean 23.87 Mbit/s)
- Flow 3 ingress (mean 11.92 Mbit/s)
- Flow 3 egress (mean 11.91 Mbit/s)

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

- Flow 1 (95th percentile 50.75 ms)
- Flow 2 (95th percentile 50.69 ms)
- Flow 3 (95th percentile 51.11 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-07-26 18:31:25
End at: 2018-07-26 18:31:55
Local clock offset: -0.053 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-07-27 00:29:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 395.03 Mbit/s
95th percentile per-packet one-way delay: 152.000 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 370.74 Mbit/s
95th percentile per-packet one-way delay: 154.977 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 110.765 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.45 Mbit/s
95th percentile per-packet one-way delay: 114.469 ms
Loss rate: 0.00%
Run 1: Report of PCC-Allegro — Data Link

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

Throughput (Mbps) vs. Time (s)

Flow 1 ingress (mean 371.30 Mbit/s)
Flow 1 egress (mean 370.74 Mbit/s)
Flow 2 ingress (mean 47.48 Mbit/s)
Flow 2 egress (mean 4.47 Mbit/s)
Flow 3 ingress (mean 64.67 Mbit/s)
Flow 3 egress (mean 64.45 Mbit/s)

Delay vs. Time (s)

Flow 1 (95th percentile 154.98 ms)
Flow 2 (95th percentile 110.77 ms)
Flow 3 (95th percentile 114.47 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-26 18:56:22
End at: 2018-07-26 18:56:52
Local clock offset: 0.291 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-07-27 00:29:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 364.61 Mbit/s
  95th percentile per-packet one-way delay: 174.322 ms
  Loss rate: 1.24%
-- Flow 1:
  Average throughput: 242.35 Mbit/s
  95th percentile per-packet one-way delay: 176.093 ms
  Loss rate: 1.17%
-- Flow 2:
  Average throughput: 168.89 Mbit/s
  95th percentile per-packet one-way delay: 172.669 ms
  Loss rate: 1.35%
-- Flow 3:
  Average throughput: 30.22 Mbit/s
  95th percentile per-packet one-way delay: 173.117 ms
  Loss rate: 1.94%
Run 2: Report of PCC-Allegro — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows, with annotations for mean throughput and delay at various percentiles.]
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-26 19:21:18
Local clock offset: -0.067 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-07-27 00:33:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 557.38 Mbit/s
95th percentile per-packet one-way delay: 179.335 ms
Loss rate: 3.89%
-- Flow 1:
Average throughput: 515.12 Mbit/s
95th percentile per-packet one-way delay: 180.007 ms
Loss rate: 3.86%
-- Flow 2:
Average throughput: 61.52 Mbit/s
95th percentile per-packet one-way delay: 171.209 ms
Loss rate: 3.93%
-- Flow 3:
Average throughput: 7.29 Mbit/s
95th percentile per-packet one-way delay: 171.876 ms
Loss rate: 8.62%
Run 3: Report of PCC-Allegro — Data Link
Run 4: Statistics of PCC-Allegro

End at: 2018-07-26 19:47:01
Local clock offset: -0.093 ms
Remote clock offset: -0.149 ms

# Below is generated by plot.py at 2018-07-27 00:33:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 532.18 Mbit/s
95th percentile per-packet one-way delay: 160.765 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 507.97 Mbit/s
95th percentile per-packet one-way delay: 159.202 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 4.88 Mbit/s
95th percentile per-packet one-way delay: 160.516 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 63.66 Mbit/s
95th percentile per-packet one-way delay: 167.681 ms
Loss rate: 0.18%
Run 4: Report of PCC-Allegro — Data Link
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-26 20:11:46
End at: 2018-07-26 20:12:16
Local clock offset: 0.406 ms
Remote clock offset: -0.135 ms

# Below is generated by plot.py at 2018-07-27 00:34:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 512.76 Mbit/s
95th percentile per-packet one-way delay: 188.076 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 502.58 Mbit/s
95th percentile per-packet one-way delay: 188.132 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 14.39 Mbit/s
95th percentile per-packet one-way delay: 175.160 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 193.360 ms
Loss rate: 2.56%
Run 5: Report of PCC-Allegro — Data Link
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-26 20:36:24
End at: 2018-07-26 20:36:54
Local clock offset: 0.016 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-07-27 00:35:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 531.98 Mbit/s
  95th percentile per-packet one-way delay: 175.437 ms
  Loss rate: 0.99%
-- Flow 1:
  Average throughput: 488.09 Mbit/s
  95th percentile per-packet one-way delay: 175.882 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 6.46 Mbit/s
  95th percentile per-packet one-way delay: 167.488 ms
  Loss rate: 0.50%
-- Flow 3:
  Average throughput: 120.06 Mbit/s
  95th percentile per-packet one-way delay: 168.318 ms
  Loss rate: 1.11%
Run 6: Report of PCC-Allegro — Data Link

![Throughput Graph]

![Per-packet Delay Graph]

Flow 1 ingress (mean 493.79 Mbit/s) — Flow 1 egress (mean 488.09 Mbit/s)
Flow 2 ingress (mean 6.51 Mbit/s) — Flow 2 egress (mean 6.46 Mbit/s)
Flow 3 ingress (mean 122.03 Mbit/s) — Flow 3 egress (mean 120.06 Mbit/s)

Flow 1 (95th percentile 175.88 ms) — Flow 2 (95th percentile 167.49 ms) — Flow 3 (95th percentile 168.32 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-26 21:01:10
End at: 2018-07-26 21:01:40
Local clock offset: 0.117 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2018-07-27 00:36:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 538.71 Mbit/s
95th percentile per-packet one-way delay: 173.456 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 534.32 Mbit/s
95th percentile per-packet one-way delay: 173.471 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 4.35 Mbit/s
95th percentile per-packet one-way delay: 172.649 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 4.54 Mbit/s
95th percentile per-packet one-way delay: 162.770 ms
Loss rate: 0.00%
Run 7: Report of PCC-Allegro — Data Link

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

- **Flow 1 ingress (mean 537.86 Mbps)**
- **Flow 1 egress (mean 534.32 Mbps)**
- **Flow 2 ingress (mean 4.37 Mbps)**
- **Flow 2 egress (mean 4.35 Mbps)**
- **Flow 3 ingress (mean 4.55 Mbps)**
- **Flow 3 egress (mean 4.54 Mbps)**

![Graph of Per-packet round trip delay (ms) vs Time (s)]

- **Flow 1 (95th percentile 173.47 ms)**
- **Flow 2 (95th percentile 172.65 ms)**
- **Flow 3 (95th percentile 162.77 ms)**

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Run 8: Statistics of PCC-Allegro

Start at: 2018-07-26 21:26:08
End at: 2018-07-26 21:26:38
Local clock offset: 0.468 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-07-27 00:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 560.45 Mbit/s
95th percentile per-packet one-way delay: 170.775 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 516.32 Mbit/s
95th percentile per-packet one-way delay: 171.656 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 65.43 Mbit/s
95th percentile per-packet one-way delay: 166.395 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 167.204 ms
Loss rate: 1.29%
Run 8: Report of PCC-Allegro — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 524.62 Mbit/s)  
Flow 1 egress (mean 516.32 Mbit/s)  
Flow 2 ingress (mean 65.25 Mbit/s)  
Flow 2 egress (mean 65.43 Mbit/s)  
Flow 3 ingress (mean 2.18 Mbit/s)  
Flow 3 egress (mean 2.13 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 171.66 ms)  
Flow 2 (95th percentile 166.40 ms)  
Flow 3 (95th percentile 167.20 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-26 21:51:10
End at: 2018-07-26 21:51:40
Local clock offset: -0.061 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2018-07-27 00:39:26
# Datalink statistics
-- Total of 3 flows:
95th percentile per-packet one-way delay: 181.503 ms
Loss rate: 3.10%
-- Flow 1:
Average throughput: 515.43 Mbit/s
95th percentile per-packet one-way delay: 182.245 ms
Loss rate: 2.95%
-- Flow 2:
Average throughput: 9.15 Mbit/s
95th percentile per-packet one-way delay: 167.975 ms
Loss rate: 5.56%
-- Flow 3:
Average throughput: 58.08 Mbit/s
95th percentile per-packet one-way delay: 168.055 ms
Loss rate: 6.29%
Run 9: Report of PCC-Allegro — Data Link

![Throughput and Delay Graphs]

Throughput Graph:
- Flow 1 ingress: mean 533.12 Mbit/s
- Flow 1 egress: mean 515.43 Mbit/s
- Flow 2 ingress: mean 9.71 Mbit/s
- Flow 2 egress: mean 9.15 Mbit/s
- Flow 3 ingress: mean 62.68 Mbit/s
- Flow 3 egress: mean 58.06 Mbit/s

Delay Graph:
- Flow 1 (95th percentile: 182.25 ms)
- Flow 2 (95th percentile: 167.97 ms)
- Flow 3 (95th percentile: 160.06 ms)
Run 10: Statistics of PCC-Allegro

Local clock offset: -0.529 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-07-27 00:39:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 511.49 Mbit/s
  95th percentile per-packet one-way delay: 179.290 ms
  Loss rate: 0.60%
-- Flow 1:
  Average throughput: 484.87 Mbit/s
  95th percentile per-packet one-way delay: 179.524 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 6.69 Mbit/s
  95th percentile per-packet one-way delay: 155.318 ms
  Loss rate: 0.10%
-- Flow 3:
  Average throughput: 67.34 Mbit/s
  95th percentile per-packet one-way delay: 124.341 ms
  Loss rate: 0.00%
Run 10: Report of PCC-Allegro — Data Link
Run 1: Statistics of PCC-Expr

End at: 2018-07-26 18:23:44
Local clock offset: -0.043 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-07-27 00:46:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 427.42 Mbit/s
95th percentile per-packet one-way delay: 154.761 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 261.27 Mbit/s
95th percentile per-packet one-way delay: 127.398 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 198.82 Mbit/s
95th percentile per-packet one-way delay: 254.160 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 101.71 Mbit/s
95th percentile per-packet one-way delay: 52.787 ms
Loss rate: 0.00%
Run 1: Report of PCC-Expr — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 261.53 Mbit/s)
Flow 1 egress (mean 261.27 Mbit/s)
Flow 2 ingress (mean 200.20 Mbit/s)
Flow 2 egress (mean 198.82 Mbit/s)
Flow 3 ingress (mean 101.69 Mbit/s)
Flow 3 egress (mean 101.71 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 127.40 ms)
Flow 2 (95th percentile 254.16 ms)
Flow 3 (95th percentile 52.79 ms)
Run 2: Statistics of PCC-Expr

End at: 2018-07-26 18:48:52
Local clock offset: -0.111 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-07-27 00:48:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 431.11 Mbit/s
95th percentile per-packet one-way delay: 223.190 ms
Loss rate: 9.79%
-- Flow 1:
Average throughput: 309.66 Mbit/s
95th percentile per-packet one-way delay: 253.529 ms
Loss rate: 11.50%
-- Flow 2:
Average throughput: 156.28 Mbit/s
95th percentile per-packet one-way delay: 181.579 ms
Loss rate: 4.62%
-- Flow 3:
Average throughput: 53.13 Mbit/s
95th percentile per-packet one-way delay: 178.428 ms
Loss rate: 8.12%
Run 2: Report of PCC-Expr — Data Link

![Graph showing throughput over time for different flows with various mean values for ingress and egress.]

![Graph showing per-packet one-way delay over time for different flows with various 95th percentile values.]

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Run 3: Statistics of PCC-Expr

Start at: 2018-07-26 19:13:10
End at: 2018-07-26 19:13:40
Local clock offset: -0.466 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-07-27 00:48:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 400.09 Mbit/s
  95th percentile per-packet one-way delay: 155.200 ms
  Loss rate: 0.35%
-- Flow 1:
  Average throughput: 227.90 Mbit/s
  95th percentile per-packet one-way delay: 169.587 ms
  Loss rate: 0.61%
-- Flow 2:
  Average throughput: 212.92 Mbit/s
  95th percentile per-packet one-way delay: 149.761 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 92.90 Mbit/s
  95th percentile per-packet one-way delay: 54.139 ms
  Loss rate: 0.00%
Run 4: Statistics of PCC-Expr

Start at: 2018-07-26 19:38:17
End at: 2018-07-26 19:38:47
Local clock offset: -0.065 ms
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-07-27 00:50:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 419.86 Mbit/s
  95th percentile per-packet one-way delay: 270.148 ms
  Loss rate: 3.28%
-- Flow 1:
  Average throughput: 311.58 Mbit/s
  95th percentile per-packet one-way delay: 286.030 ms
  Loss rate: 3.65%
-- Flow 2:
  Average throughput: 140.41 Mbit/s
  95th percentile per-packet one-way delay: 193.196 ms
  Loss rate: 2.09%
-- Flow 3:
  Average throughput: 45.00 Mbit/s
  95th percentile per-packet one-way delay: 191.917 ms
  Loss rate: 2.81%
Run 4: Report of PCC-Expr — Data Link

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

Flow 1 ingress (mean 324.39 Mbit/s) vs Flow 1 egress (mean 311.58 Mbit/s)
Flow 2 ingress (mean 143.77 Mbit/s) vs Flow 2 egress (mean 140.41 Mbit/s)
Flow 3 ingress (mean 46.72 Mbit/s) vs Flow 3 egress (mean 45.00 Mbit/s)
Run 5: Statistics of PCC-Expr

Start at: 2018-07-26 20:03:42
End at: 2018-07-26 20:04:12
Local clock offset: 0.337 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-07-27 00:50:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 421.29 Mbit/s
  95th percentile per-packet one-way delay: 176.455 ms
  Loss rate: 1.51%
-- Flow 1:
  Average throughput: 270.13 Mbit/s
  95th percentile per-packet one-way delay: 177.829 ms
  Loss rate: 2.19%
-- Flow 2:
  Average throughput: 213.21 Mbit/s
  95th percentile per-packet one-way delay: 128.639 ms
  Loss rate: 0.30%
-- Flow 3:
  Average throughput: 28.09 Mbit/s
  95th percentile per-packet one-way delay: 102.253 ms
  Loss rate: 0.01%
Run 5: Report of PCC-Expr — Data Link

![Throughput Graph](image1.png)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 276.53 Mbps)  Flow 1 egress (mean 270.13 Mbps)
Flow 2 ingress (mean 214.26 Mbps)  Flow 2 egress (mean 213.21 Mbps)
Flow 3 ingress (mean 28.20 Mbps)   Flow 3 egress (mean 28.09 Mbps)

![Delay Graph](image2.png)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 177.83 ms)  Flow 2 (95th percentile 128.64 ms)  Flow 3 (95th percentile 102.25 ms)
Run 6: Statistics of PCC-Expr

End at: 2018-07-26 20:28:58
Local clock offset: 0.381 ms
Remote clock offset: -0.138 ms

# Below is generated by plot.py at 2018-07-27 00:50:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 352.06 Mbit/s
95th percentile per-packet one-way delay: 55.907 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 208.91 Mbit/s
95th percentile per-packet one-way delay: 57.817 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 187.57 Mbit/s
95th percentile per-packet one-way delay: 52.418 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 56.00 Mbit/s
95th percentile per-packet one-way delay: 50.700 ms
Loss rate: 0.00%
Run 6: Report of PCC-Expr — Data Link

![Graph showing data link throughput and packet delay](image)

- **Throughput:**
  - Flow 1 ingress (mean 208.92 Mbps)
  - Flow 1 egress (mean 208.91 Mbps)
  - Flow 2 ingress (mean 187.57 Mbps)
  - Flow 2 egress (mean 187.57 Mbps)
  - Flow 3 ingress (mean 56.00 Mbps)
  - Flow 3 egress (mean 56.00 Mbps)

- **Packet Delay:**
  - Flow 1 (95th percentile 57.82 ms)
  - Flow 2 (95th percentile 52.42 ms)
  - Flow 3 (95th percentile 50.70 ms)
Run 7: Statistics of PCC-Expr

End at: 2018-07-26 20:53:53
Local clock offset: -0.291 ms
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2018-07-27 00:50:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 329.41 Mbit/s
95th percentile per-packet one-way delay: 176.393 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 180.17 Mbit/s
95th percentile per-packet one-way delay: 173.600 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 219.46 Mbit/s
95th percentile per-packet one-way delay: 177.901 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 9.85 Mbit/s
95th percentile per-packet one-way delay: 174.717 ms
Loss rate: 0.90%
Run 8: Statistics of PCC-Expr

Start at: 2018-07-26 21:18:06
End at: 2018-07-26 21:18:36
Local clock offset: 0.061 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-07-27 00:53:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 390.98 Mbit/s
95th percentile per-packet one-way delay: 170.527 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 228.32 Mbit/s
95th percentile per-packet one-way delay: 216.510 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 197.58 Mbit/s
95th percentile per-packet one-way delay: 94.481 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.86 Mbit/s
95th percentile per-packet one-way delay: 53.090 ms
Loss rate: 0.00%
Run 8: Report of PCC-Expr — Data Link

![Graph of throughput over time with annotations for different flows and their mean throughputs.]

Throughput (Mbit/s)

Time (s)

0 5 10 15 20 25 30

Flow 1 ingress (mean 230.95 Mbit/s)  Flow 1 egress (mean 228.32 Mbit/s)
Flow 2 ingress (mean 197.60 Mbit/s)  Flow 2 egress (mean 197.58 Mbit/s)
Flow 3 ingress (mean 94.94 Mbit/s)  Flow 3 egress (mean 94.86 Mbit/s)

![Graph of per-packet one-way delay over time with annotations for different flows and their 95th percentiles.]

Per-packet one-way delay (ms)

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 216.51 ms)  Flow 2 (95th percentile 94.48 ms)  Flow 3 (95th percentile 53.09 ms)
Run 9: Statistics of PCC-Expr

Start at: 2018-07-26 21:43:15
End at: 2018-07-26 21:43:45
Local clock offset: 0.01 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-07-27 00:59:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 372.23 Mbit/s
  95th percentile per-packet one-way delay: 226.230 ms
  Loss rate: 4.64%
-- Flow 1:
  Average throughput: 185.06 Mbit/s
  95th percentile per-packet one-way delay: 137.851 ms
  Loss rate: 0.28%
-- Flow 2:
  Average throughput: 260.67 Mbit/s
  95th percentile per-packet one-way delay: 245.319 ms
  Loss rate: 9.20%
-- Flow 3:
  Average throughput: 41.95 Mbit/s
  95th percentile per-packet one-way delay: 64.951 ms
  Loss rate: 0.08%
Run 9: Report of PCC-Expr — Data Link
Run 10: Statistics of PCC-Expr

Start at: 2018-07-26 22:08:05
End at: 2018-07-26 22:08:35
Local clock offset: -0.112 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-07-27 00:59:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 272.05 Mbit/s
95th percentile per-packet one-way delay: 320.895 ms
Loss rate: 24.28%
-- Flow 1:
Average throughput: 121.41 Mbit/s
95th percentile per-packet one-way delay: 178.026 ms
Loss rate: 1.75%
-- Flow 2:
Average throughput: 222.98 Mbit/s
95th percentile per-packet one-way delay: 330.266 ms
Loss rate: 36.36%
-- Flow 3:
Average throughput: 6.17 Mbit/s
95th percentile per-packet one-way delay: 185.324 ms
Loss rate: 6.91%
Run 10: Report of PCC-Expr — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 124.11 Mbps)
- Flow 1 egress (mean 121.41 Mbps)
- Flow 2 ingress (mean 352.71 Mbps)
- Flow 2 egress (mean 222.98 Mbps)
- Flow 3 ingress (mean 6.66 Mbps)
- Flow 3 egress (mean 6.17 Mbps)

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

- Flow 1 (95th percentile 178.03 ms)
- Flow 2 (95th percentile 330.27 ms)
- Flow 3 (95th percentile 185.32 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-07-26 18:40:08
End at: 2018-07-26 18:40:38
Local clock offset: -0.106 ms
Remote clock offset: 0.021 ms

# Below is generated by plot.py at 2018-07-27 00:59:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 24.74 Mbit/s
  95th percentile per-packet one-way delay: 50.797 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 50.629 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 27.67 Mbit/s
  95th percentile per-packet one-way delay: 50.809 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 19.39 Mbit/s
  95th percentile per-packet one-way delay: 50.506 ms
  Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-26 19:04:54
End at: 2018-07-26 19:05:24
Local clock offset: 0.316 ms
Remote clock offset: 0.035 ms

# Below is generated by plot.py at 2018-07-27 00:59:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.56 Mbit/s
  95th percentile per-packet one-way delay: 50.128 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 68.26 Mbit/s
  95th percentile per-packet one-way delay: 49.187 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.76 Mbit/s
  95th percentile per-packet one-way delay: 50.075 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 15.00 Mbit/s
  95th percentile per-packet one-way delay: 50.293 ms
  Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 68.26 Mbit/s)
- Flow 1 egress (mean 68.26 Mbit/s)
- Flow 2 ingress (mean 24.76 Mbit/s)
- Flow 2 egress (mean 24.76 Mbit/s)
- Flow 3 ingress (mean 15.00 Mbit/s)
- Flow 3 egress (mean 15.00 Mbit/s)

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

- Flow 1 (95th percentile 49.19 ms)
- Flow 2 (95th percentile 50.08 ms)
- Flow 3 (95th percentile 50.29 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-26 19:30:08
End at: 2018-07-26 19:30:38
Local clock offset: -0.077 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.53 Mbit/s
95th percentile per-packet one-way delay: 50.558 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.14 Mbit/s
95th percentile per-packet one-way delay: 50.401 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.98 Mbit/s
95th percentile per-packet one-way delay: 50.617 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.96 Mbit/s
95th percentile per-packet one-way delay: 50.135 ms
Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Local clock offset: -0.38 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.79 Mbit/s
95th percentile per-packet one-way delay: 51.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.94 Mbit/s
95th percentile per-packet one-way delay: 50.985 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.96 Mbit/s
95th percentile per-packet one-way delay: 51.093 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.09 Mbit/s
95th percentile per-packet one-way delay: 51.281 ms
Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-26 20:20:17
End at: 2018-07-26 20:20:47
Local clock offset: -0.003 ms
Remote clock offset: -0.148 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.54 Mbit/s
95th percentile per-packet one-way delay: 50.601 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.97 Mbit/s
95th percentile per-packet one-way delay: 50.512 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.04 Mbit/s
95th percentile per-packet one-way delay: 49.753 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.99 Mbit/s
95th percentile per-packet one-way delay: 50.789 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-26 20:45:09
End at: 2018-07-26 20:45:39
Local clock offset: 0.071 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.15 Mbit/s
95th percentile per-packet one-way delay: 50.517 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 38.21 Mbit/s
95th percentile per-packet one-way delay: 49.663 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.59 Mbit/s
95th percentile per-packet one-way delay: 50.573 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.21 Mbit/s
95th percentile per-packet one-way delay: 50.038 ms
Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 38.21 Mbit/s) and egress (mean 38.21 Mbit/s)
- Flow 2 ingress (mean 34.59 Mbit/s) and egress (mean 34.59 Mbit/s)
- Flow 3 ingress (mean 15.21 Mbit/s) and egress (mean 15.21 Mbit/s)

[Graphs showing per-packet one-way delay for 95th percentile times for different flows.]
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-26 21:09:56
End at: 2018-07-26 21:10:26
Local clock offset: 0.124 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.89 Mbit/s
95th percentile per-packet one-way delay: 50.253 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.93 Mbit/s
95th percentile per-packet one-way delay: 49.538 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.56 Mbit/s
95th percentile per-packet one-way delay: 50.350 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.30 Mbit/s
95th percentile per-packet one-way delay: 49.711 ms
Loss rate: 0.00%
Run 7: Report of QUIC Cubic — Data Link

[Graph: Throughput (Mbit/s) vs Time (s) showing different flow rates and behaviors]

[Graph: Per packet one way delay (ms) vs Time (s) showing packet delay distribution by flow]

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Run 8: Statistics of QUIC Cubic

Start at: 2018-07-26 21:34:53
End at: 2018-07-26 21:35:23
Local clock offset: 0.032 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.65 Mbit/s
  95th percentile per-packet one-way delay: 50.538 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 40.41 Mbit/s
  95th percentile per-packet one-way delay: 50.558 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 66.33 Mbit/s
  95th percentile per-packet one-way delay: 50.361 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 16.85 Mbit/s
  95th percentile per-packet one-way delay: 50.686 ms
  Loss rate: 0.01%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-26 21:59:54
End at: 2018-07-26 22:00:24
Local clock offset: -0.062 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 19.66 Mbit/s
  95th percentile per-packet one-way delay: 50.636 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 49.007 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 21.32 Mbit/s
  95th percentile per-packet one-way delay: 50.650 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 16.81 Mbit/s
  95th percentile per-packet one-way delay: 49.905 ms
  Loss rate: 0.00%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

End at: 2018-07-26 22:25:06
Local clock offset: 0.142 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 69.73 Mbit/s
  95th percentile per-packet one-way delay: 50.337 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 37.08 Mbit/s
  95th percentile per-packet one-way delay: 50.242 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 26.35 Mbit/s
  95th percentile per-packet one-way delay: 49.572 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 46.15 Mbit/s
  95th percentile per-packet one-way delay: 50.396 ms
  Loss rate: 0.00%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-07-26 18:18:50
End at: 2018-07-26 18:19:20
Local clock offset: -0.064 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 51.100 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.162 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.893 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.827 ms
Loss rate: 0.00%

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Run 1: Report of SCReAM — Data Link

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)

Per packet one way delay (ms):

- Flow 1 (95th percentile 51.16 ms)
- Flow 2 (95th percentile 49.89 ms)
- Flow 3 (95th percentile 49.83 ms)
Run 2: Statistics of SCReAM

Start at: 2018-07-26 18:43:59
End at: 2018-07-26 18:44:29
Local clock offset: -0.141 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 50.851 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 49.882 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.809 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.924 ms
  Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

Throughput (Mbit/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)

One packet round trip delay (ms)

- Flow 1 (95th percentile 49.88 ms)
- Flow 2 (95th percentile 50.81 ms)
- Flow 3 (95th percentile 50.92 ms)
Run 3: Statistics of SCReAM

Start at: 2018-07-26 19:08:48
End at: 2018-07-26 19:09:18
Local clock offset: -0.123 ms
Remote clock offset: 0.064 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 50.905 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.941 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.077 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.682 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

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

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

Start at: 2018-07-26 19:34:01
End at: 2018-07-26 19:34:31
Local clock offset: -0.108 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 50.766 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 49.988 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 49.094 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.837 ms
  Loss rate: 0.00%
Run 4: 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: Per-packet one-way delay (ms)]

- Flow 1 (95th percentile 49.99 ms)
- Flow 2 (95th percentile 49.09 ms)
- Flow 3 (95th percentile 50.84 ms)
Run 5: Statistics of SCReAM

Start at: 2018-07-26 19:59:21
End at: 2018-07-26 19:59:51
Local clock offset: -0.028 ms
Remote clock offset: -0.156 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.825 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.784 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.847 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.364 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

Diagram showing throughput (in Mbps) over time (s) for different flows. The throughput ranges from 0.20 to 0.25 Mbps, with fluctuations over time.

Diagram showing per-packet one-way delay (in ms) over time (s) for different flows. The delay ranges from 50 to 55 ms, with some spikes.
Run 6: Statistics of SCReAM

Start at: 2018-07-26 20:24:08
End at: 2018-07-26 20:24:38
Local clock offset: 0.368 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 50.377 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.370 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.239 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.422 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-07-26 20:49:02
End at: 2018-07-26 20:49:32
Local clock offset: 0.069 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.352 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.761 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.736 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.401 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

End at: 2018-07-26 21:14:18
Local clock offset: 0.072 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.726 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.749 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.477 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.243 ms
Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

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

Per-packet congestion delay (ms)

Time (s)

Flow 1 (95th percentile 50.75 ms)  Flow 2 (95th percentile 50.48 ms)  Flow 3 (95th percentile 50.24 ms)
Run 9: Statistics of SCReAM

Start at: 2018-07-26 21:38:47
End at: 2018-07-26 21:39:17
Local clock offset: 0.348 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.486 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.508 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.452 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.362 ms
Loss rate: 0.00%
Run 9: 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 50.51 ms)
  - Flow 2 (95th percentile 50.45 ms)
  - Flow 3 (95th percentile 50.36 ms)
Run 10: Statistics of SCReAM

Start at: 2018-07-26 22:03:46
End at: 2018-07-26 22:04:16
Local clock offset: -0.432 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.144 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.184 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.181 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.529 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

[Graphs showing throughput and packet loss over time for different flows.]
Run 1: Statistics of Sprout

Start at: 2018-07-26 18:17:41
End at: 2018-07-26 18:18:11
Local clock offset: -0.083 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.87 Mbit/s
95th percentile per-packet one-way delay: 50.370 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.70 Mbit/s
95th percentile per-packet one-way delay: 50.427 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.27 Mbit/s
95th percentile per-packet one-way delay: 50.333 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.97 Mbit/s
95th percentile per-packet one-way delay: 50.363 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

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

- Throughput (Mbps):
  - Flow 1 ingress (mean 6.70 Mbps)
  - Flow 2 ingress (mean 7.27 Mbps)
  - Flow 3 ingress (mean 6.97 Mbps)
  - Flow 1 egress (mean 6.70 Mbps)
  - Flow 2 egress (mean 7.27 Mbps)
  - Flow 3 egress (mean 6.97 Mbps)

- Per-packet end-to-end delay (ms):
  - Flow 1 (95th percentile 50.43 ms)
  - Flow 2 (95th percentile 50.33 ms)
  - Flow 3 (95th percentile 50.36 ms)
Run 2: Statistics of Sprout

Start at: 2018-07-26 18:42:50
End at: 2018-07-26 18:43:20
Local clock offset: -0.475 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.86 Mbit/s
95th percentile per-packet one-way delay: 51.677 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 51.629 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.73 Mbit/s
95th percentile per-packet one-way delay: 51.776 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 51.664 ms
Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 7.18 Mbit/s)
Flow 1 egress (mean 7.18 Mbit/s)
Flow 2 ingress (mean 6.73 Mbit/s)
Flow 2 egress (mean 6.73 Mbit/s)
Flow 3 ingress (mean 6.71 Mbit/s)
Flow 3 egress (mean 6.71 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 51.63 ms)
Flow 2 (95th percentile 51.78 ms)
Flow 3 (95th percentile 51.66 ms)
Run 3: Statistics of Sprout

Start at: 2018-07-26 19:07:39
End at: 2018-07-26 19:08:09
Local clock offset: -0.079 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 12.03 Mbit/s
  95th percentile per-packet one-way delay: 50.657 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 7.32 Mbit/s
  95th percentile per-packet one-way delay: 50.744 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 4.29 Mbit/s
  95th percentile per-packet one-way delay: 50.505 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 5.65 Mbit/s
  95th percentile per-packet one-way delay: 50.627 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

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

Flow 1 ingress (mean 7.32 Mbit/s) vs Flow 1 egress (mean 7.32 Mbit/s)
Flow 2 ingress (mean 4.29 Mbit/s) vs Flow 2 egress (mean 4.29 Mbit/s)
Flow 3 ingress (mean 5.65 Mbit/s) vs Flow 3 egress (mean 5.65 Mbit/s)
Run 4: Statistics of Sprout

Start at: 2018-07-26 19:32:52
End at: 2018-07-26 19:33:22
Local clock offset: 0.279 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.51 Mbit/s
95th percentile per-packet one-way delay: 50.415 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.46 Mbit/s
95th percentile per-packet one-way delay: 50.472 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.16 Mbit/s
95th percentile per-packet one-way delay: 50.269 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 50.165 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

Start at: 2018-07-26 19:58:12
End at: 2018-07-26 19:58:42
Local clock offset: -0.38 ms
Remote clock offset: -0.152 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.66 Mbit/s
95th percentile per-packet one-way delay: 51.316 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.86 Mbit/s
95th percentile per-packet one-way delay: 51.443 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.23 Mbit/s
95th percentile per-packet one-way delay: 50.833 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 5.98 Mbit/s
95th percentile per-packet one-way delay: 50.046 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

[Graph showing throughput and latency over time for different data flows]
Run 6: Statistics of Sprout

End at: 2018-07-26 20:23:29  
Local clock offset: -0.045 ms  
Remote clock offset: -0.124 ms

# Below is generated by plot.py at 2018-07-27 00:59:31  
# Datalink statistics

-- Total of 3 flows:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 51.165 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 6.57 Mbit/s
95th percentile per-packet one-way delay: 51.165 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 6.86 Mbit/s
95th percentile per-packet one-way delay: 51.161 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 6.99 Mbit/s
95th percentile per-packet one-way delay: 51.171 ms
Loss rate: 0.00%
Run 6: Report of Sprout — Data Link

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

![Graph 2: Packet Delay vs Time](image)
Run 7: Statistics of Sprout

Start at: 2018-07-26 20:47:53
End at: 2018-07-26 20:48:23
Local clock offset: -0.304 ms
Remote clock offset: -0.123 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 51.767 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.73 Mbit/s
95th percentile per-packet one-way delay: 51.752 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.84 Mbit/s
95th percentile per-packet one-way delay: 51.784 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 51.792 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 6.73 Mbit/s)
- Flow 1 egress (mean 6.73 Mbit/s)
- Flow 2 ingress (mean 6.84 Mbit/s)
- Flow 2 egress (mean 6.84 Mbit/s)
- Flow 3 ingress (mean 4.36 Mbit/s)
- Flow 3 egress (mean 4.36 Mbit/s)
Run 8: Statistics of Sprout

Start at: 2018-07-26 21:12:39
End at: 2018-07-26 21:13:09
Local clock offset: -0.283 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.94 Mbit/s
95th percentile per-packet one-way delay: 51.338 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 51.340 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.75 Mbit/s
95th percentile per-packet one-way delay: 51.335 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.92 Mbit/s
95th percentile per-packet one-way delay: 51.339 ms
Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

![Throughput Graph](image1)

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

Start at: 2018-07-26 21:37:38
End at: 2018-07-26 21:38:08
Local clock offset: 0.065 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.46 Mbit/s
95th percentile per-packet one-way delay: 51.045 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 51.020 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 51.073 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.16 Mbit/s
95th percentile per-packet one-way delay: 51.074 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

![Data Link Throughput Graph](image1)

![Data Link Delay Graph](image2)
Run 10: Statistics of Sprout

Start at: 2018-07-26 22:02:37
End at: 2018-07-26 22:03:07
Local clock offset: -0.076 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-07-27 00:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 51.163 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 51.126 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 51.184 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.10 Mbit/s
95th percentile per-packet one-way delay: 51.276 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

![Graph showing throughput and latency for different flows]

- Flow 1 ingress (mean 6.06 Mbit/s)
- Flow 1 egress (mean 6.06 Mbit/s)
- Flow 2 ingress (mean 6.74 Mbit/s)
- Flow 2 egress (mean 6.74 Mbit/s)
- Flow 3 ingress (mean 6.10 Mbit/s)
- Flow 3 egress (mean 6.10 Mbit/s)

![Graph showing packet inter-departure delay]

- Flow 1 (95th percentile 51.13 ms)
- Flow 2 (95th percentile 51.18 ms)
- Flow 3 (95th percentile 51.28 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-07-26 18:34:47
End at: 2018-07-26 18:35:17
Local clock offset: -0.462 ms
Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2018-07-27 01:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 307.19 Mbit/s
95th percentile per-packet one-way delay: 52.597 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 243.94 Mbit/s
95th percentile per-packet one-way delay: 52.196 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.35 Mbit/s
95th percentile per-packet one-way delay: 53.418 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 61.88 Mbit/s
95th percentile per-packet one-way delay: 54.124 ms
Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

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

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

Flow 1 ingress (mean 243.73 Mbit/s) — Flow 1 egress (mean 243.94 Mbit/s)
Flow 2 ingress (mean 64.35 Mbit/s) — Flow 2 egress (mean 64.35 Mbit/s)
Flow 3 ingress (mean 61.88 Mbit/s) — Flow 3 egress (mean 61.88 Mbit/s)

Flow 1 (95th percentile 52.20 ms) — Flow 2 (95th percentile 53.42 ms) — Flow 3 (95th percentile 54.12 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-07-26 18:59:46
End at: 2018-07-26 19:00:16
Local clock offset: 0.294 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-07-27 01:02:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 305.35 Mbit/s
95th percentile per-packet one-way delay: 53.045 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 156.78 Mbit/s
95th percentile per-packet one-way delay: 55.740 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 146.56 Mbit/s
95th percentile per-packet one-way delay: 51.361 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 153.23 Mbit/s
95th percentile per-packet one-way delay: 52.318 ms
Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-07-26 19:24:50
End at: 2018-07-26 19:25:20
Local clock offset: 0.292 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2018-07-27 01:04:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 374.79 Mbit/s
  95th percentile per-packet one-way delay: 53.605 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 190.29 Mbit/s
  95th percentile per-packet one-way delay: 50.768 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 204.40 Mbit/s
  95th percentile per-packet one-way delay: 59.300 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 145.54 Mbit/s
  95th percentile per-packet one-way delay: 52.283 ms
  Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

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

1. Flow 1 ingress (mean 190.28 Mbit/s)
2. Flow 1 egress (mean 190.29 Mbit/s)
3. Flow 2 ingress (mean 204.40 Mbit/s)
4. Flow 2 egress (mean 204.40 Mbit/s)
5. Flow 3 ingress (mean 145.56 Mbit/s)
6. Flow 3 egress (mean 145.54 Mbit/s)
Run 4: Statistics of TaoVA-100x

Start at: 2018-07-26 19:50:04
End at: 2018-07-26 19:50:34
Local clock offset: -0.079 ms
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2018-07-27 01:04:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 331.01 Mbit/s
95th percentile per-packet one-way delay: 57.857 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 187.93 Mbit/s
95th percentile per-packet one-way delay: 56.810 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 149.52 Mbit/s
95th percentile per-packet one-way delay: 58.861 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 130.93 Mbit/s
95th percentile per-packet one-way delay: 55.675 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-07-26 20:15:01
End at: 2018-07-26 20:15:31
Local clock offset: 0.026 ms
Remote clock offset: -0.121 ms

# Below is generated by plot.py at 2018-07-27 01:04:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 322.89 Mbit/s
95th percentile per-packet one-way delay: 54.321 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 177.92 Mbit/s
95th percentile per-packet one-way delay: 51.116 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 146.00 Mbit/s
95th percentile per-packet one-way delay: 57.815 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 143.65 Mbit/s
95th percentile per-packet one-way delay: 54.749 ms
Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link

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

![Graph 2: Packet Delay vs Time](image2)
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-26 20:39:49
End at: 2018-07-26 20:40:19
Local clock offset: 0.032 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-07-27 01:05:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 381.90 Mbit/s
95th percentile per-packet one-way delay: 54.561 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 207.90 Mbit/s
95th percentile per-packet one-way delay: 53.226 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 181.12 Mbit/s
95th percentile per-packet one-way delay: 55.348 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 160.70 Mbit/s
95th percentile per-packet one-way delay: 56.597 ms
Loss rate: 0.00%
Run 7: Statistics of TaoVA-100x

Start at: 2018-07-26 21:04:35
End at: 2018-07-26 21:05:05
Local clock offset: 0.062 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-07-27 01:09:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 368.40 Mbit/s
  95th percentile per-packet one-way delay: 58.720 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 180.58 Mbit/s
  95th percentile per-packet one-way delay: 56.835 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 218.90 Mbit/s
  95th percentile per-packet one-way delay: 59.561 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 126.85 Mbit/s
  95th percentile per-packet one-way delay: 62.339 ms
  Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link

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

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 180.58 Mbit/s)
Flow 1 egress (mean 180.58 Mbit/s)
Flow 2 ingress (mean 218.90 Mbit/s)
Flow 2 egress (mean 218.90 Mbit/s)
Flow 3 ingress (mean 126.85 Mbit/s)
Flow 3 egress (mean 126.85 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 56.84 ms)
Flow 2 (95th percentile 59.56 ms)
Flow 3 (95th percentile 62.34 ms)
Run 8: Statistics of TaoVA-100x

End at: 2018-07-26 21:30:08
Local clock offset: 0.09 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-07-27 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 325.44 Mbit/s
95th percentile per-packet one-way delay: 54.073 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 178.07 Mbit/s
95th percentile per-packet one-way delay: 56.025 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 168.14 Mbit/s
95th percentile per-packet one-way delay: 50.801 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 106.74 Mbit/s
95th percentile per-packet one-way delay: 52.050 ms
Loss rate: 0.00%
Run 8: Report of TaoVA-100x — Data Link

![Graph showing network performance metrics]

**Throughput (Mbps)**
- Blue dashed line: Flow 1 ingress (mean 178.07 Mbps)
- Blue solid line: Flow 1 egress (mean 178.07 Mbps)
- Green dashed line: Flow 2 ingress (mean 168.15 Mbps)
- Green solid line: Flow 2 egress (mean 168.14 Mbps)
- Red dashed line: Flow 3 ingress (mean 106.74 Mbps)
- Red solid line: Flow 3 egress (mean 106.74 Mbps)

**Per-packet one-way delay (ms)**
- Blue dots: Flow 1 (95th percentile 56.02 ms)
- Green dots: Flow 2 (95th percentile 70.80 ms)
- Red dots: Flow 3 (95th percentile 52.05 ms)
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-26 21:54:36
Local clock offset: -0.427 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-07-27 01:13:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 318.65 Mbit/s
95th percentile per-packet one-way delay: 57.179 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 122.31 Mbit/s
95th percentile per-packet one-way delay: 52.977 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 209.13 Mbit/s
95th percentile per-packet one-way delay: 57.722 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 171.65 Mbit/s
95th percentile per-packet one-way delay: 59.472 ms
Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link

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

Legend:
- Flow 1 ingress (mean 122.32 Mbit/s)
- Flow 1 egress (mean 122.31 Mbit/s)
- Flow 2 ingress (mean 209.12 Mbit/s)
- Flow 2 egress (mean 209.13 Mbit/s)
- Flow 3 ingress (mean 171.65 Mbit/s)
- Flow 3 egress (mean 171.65 Mbit/s)
Run 10: Statistics of TaoVA-100x

Local clock offset: -0.541 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-07-27 01:13:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 331.27 Mbit/s
  95th percentile per-packet one-way delay: 55.766 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 185.69 Mbit/s
  95th percentile per-packet one-way delay: 53.067 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 164.60 Mbit/s
  95th percentile per-packet one-way delay: 51.818 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 108.25 Mbit/s
  95th percentile per-packet one-way delay: 71.270 ms
  Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 185.68 Mbit/s)
- Flow 1 egress (mean 185.69 Mbit/s)
- Flow 2 ingress (mean 164.60 Mbit/s)
- Flow 2 egress (mean 164.60 Mbit/s)
- Flow 3 ingress (mean 108.42 Mbit/s)
- Flow 3 egress (mean 108.25 Mbit/s)

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

- Flow 1 (95th percentile 53.07 ms)
- Flow 2 (95th percentile 51.82 ms)
- Flow 3 (95th percentile 71.27 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-07-26 18:37:34
End at: 2018-07-26 18:38:04
Local clock offset: -0.121 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-07-27 01:13:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 360.04 Mbit/s
95th percentile per-packet one-way delay: 60.507 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 163.46 Mbit/s
95th percentile per-packet one-way delay: 60.724 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 185.46 Mbit/s
95th percentile per-packet one-way delay: 56.863 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 220.31 Mbit/s
95th percentile per-packet one-way delay: 62.186 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 163.48 Mbit/s)
- Flow 1 egress (mean 163.46 Mbit/s)
- Flow 2 ingress (mean 185.51 Mbit/s)
- Flow 2 egress (mean 185.46 Mbit/s)
- Flow 3 ingress (mean 220.52 Mbit/s)
- Flow 3 egress (mean 220.31 Mbit/s)
Run 2: Statistics of TCP Vegas

Start at: 2018-07-26 19:02:33
End at: 2018-07-26 19:03:03
Local clock offset: -0.087 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-07-27 01:13:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 98.53 Mbit/s
  95th percentile per-packet one-way delay: 52.747 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 62.14 Mbit/s
  95th percentile per-packet one-way delay: 53.620 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 51.57 Mbit/s
  95th percentile per-packet one-way delay: 52.083 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 6.21 Mbit/s
  95th percentile per-packet one-way delay: 51.431 ms
  Loss rate: 0.10%
Run 2: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 62.14 Mbit/s)
- Flow 1 egress (mean 62.14 Mbit/s)
- Flow 2 ingress (mean 51.57 Mbit/s)
- Flow 2 egress (mean 51.57 Mbit/s)
- Flow 3 ingress (mean 6.22 Mbit/s)
- Flow 3 egress (mean 6.21 Mbit/s)
Run 3: Statistics of TCP Vegas

End at: 2018-07-26 19:28:14
Local clock offset: -0.07 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2018-07-27 01:13:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.99 Mbit/s
95th percentile per-packet one-way delay: 51.660 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 51.680 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 55.83 Mbit/s
95th percentile per-packet one-way delay: 51.561 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.41 Mbit/s
95th percentile per-packet one-way delay: 51.895 ms
Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-07-26 19:52:54
End at: 2018-07-26 19:53:24
Local clock offset: -0.425 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-07-27 01:13:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 322.27 Mbit/s
  95th percentile per-packet one-way delay: 57.034 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 165.00 Mbit/s
  95th percentile per-packet one-way delay: 56.116 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 126.06 Mbit/s
  95th percentile per-packet one-way delay: 54.452 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 220.34 Mbit/s
  95th percentile per-packet one-way delay: 58.399 ms
  Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 165.00 Mbit/s)
- Flow 1 egress (mean 165.00 Mbit/s)
- Flow 2 ingress (mean 126.07 Mbit/s)
- Flow 2 egress (mean 126.06 Mbit/s)
- Flow 3 ingress (mean 220.51 Mbit/s)
- Flow 3 egress (mean 220.34 Mbit/s)
Run 5: Statistics of TCP Vegas

Start at: 2018-07-26 20:17:50
End at: 2018-07-26 20:18:20
Local clock offset: -0.374 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-07-27 01:13:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 204.19 Mbit/s
  95th percentile per-packet one-way delay: 51.733 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 98.70 Mbit/s
  95th percentile per-packet one-way delay: 51.569 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 85.10 Mbit/s
  95th percentile per-packet one-way delay: 51.494 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 146.85 Mbit/s
  95th percentile per-packet one-way delay: 51.994 ms
  Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-07-26 20:42:42
End at: 2018-07-26 20:43:12
Local clock offset: 0.423 ms
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-07-27 01:13:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 203.52 Mbit/s
95th percentile per-packet one-way delay: 51.845 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.50 Mbit/s
95th percentile per-packet one-way delay: 51.118 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 139.85 Mbit/s
95th percentile per-packet one-way delay: 51.912 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 180.41 Mbit/s
95th percentile per-packet one-way delay: 52.319 ms
Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-07-26 21:07:28
End at: 2018-07-26 21:07:58
Local clock offset: -0.298 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-07-27 01:13:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 225.71 Mbit/s
95th percentile per-packet one-way delay: 58.146 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 90.20 Mbit/s
95th percentile per-packet one-way delay: 53.414 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 93.45 Mbit/s
95th percentile per-packet one-way delay: 52.792 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 221.00 Mbit/s
95th percentile per-packet one-way delay: 59.197 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-07-26 21:32:27
End at: 2018-07-26 21:32:57
Local clock offset: -0.288 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-07-27 01:13:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 175.39 Mbit/s
95th percentile per-packet one-way delay: 51.510 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 91.34 Mbit/s
95th percentile per-packet one-way delay: 51.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 51.401 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.98 Mbit/s
95th percentile per-packet one-way delay: 52.777 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

![Graph 1: Throughput vs Time]

- Flow 1 ingress (mean 91.34 Mbit/s)
- Flow 1 egress (mean 91.34 Mbit/s)
- Flow 2 ingress (mean 97.45 Mbit/s)
- Flow 2 egress (mean 97.44 Mbit/s)
- Flow 3 ingress (mean 57.98 Mbit/s)
- Flow 3 egress (mean 57.98 Mbit/s)

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

- Flow 1 (95th percentile 51.47 ms)
- Flow 2 (95th percentile 51.40 ms)
- Flow 3 (95th percentile 52.78 ms)
Run 9: Statistics of TCP Vegas

End at: 2018-07-26 21:57:54
Local clock offset: -0.087 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-07-27 01:14:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 258.40 Mbit/s
95th percentile per-packet one-way delay: 51.648 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 153.18 Mbit/s
95th percentile per-packet one-way delay: 51.551 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 133.81 Mbit/s
95th percentile per-packet one-way delay: 51.857 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.53 Mbit/s
95th percentile per-packet one-way delay: 51.586 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link

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

**Throughput Graph:**
- Flow 1 ingress (mean 153.19 Mbit/s)
- Flow 1 egress (mean 153.18 Mbit/s)
- Flow 2 ingress (mean 133.80 Mbit/s)
- Flow 2 egress (mean 133.81 Mbit/s)
- Flow 3 ingress (mean 48.53 Mbit/s)
- Flow 3 egress (mean 48.53 Mbit/s)

**Latency Graph:**
- Flow 1 (95th percentile 51.55 ms)
- Flow 2 (95th percentile 51.86 ms)
- Flow 3 (95th percentile 51.59 ms)
Run 10: Statistics of TCP Vegas

End at: 2018-07-26 22:22:45
Local clock offset: -0.196 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-07-27 01:14:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 105.68 Mbit/s
  95th percentile per-packet one-way delay: 51.453 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 36.46 Mbit/s
  95th percentile per-packet one-way delay: 51.039 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 67.33 Mbit/s
  95th percentile per-packet one-way delay: 52.550 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 73.41 Mbit/s
  95th percentile per-packet one-way delay: 51.114 ms
  Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

![Graph showing throughput and per-packet round-trip delays](image-url)
Run 1: Statistics of Verus

Start at: 2018-07-26 18:41:18
End at: 2018-07-26 18:41:48
Local clock offset: -0.073 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2018-07-27 01:17:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 359.45 Mbit/s
95th percentile per-packet one-way delay: 142.483 ms
Loss rate: 1.07%

-- Flow 1:
Average throughput: 230.29 Mbit/s
95th percentile per-packet one-way delay: 122.094 ms
Loss rate: 1.02%

-- Flow 2:
Average throughput: 148.22 Mbit/s
95th percentile per-packet one-way delay: 194.567 ms
Loss rate: 0.59%

-- Flow 3:
Average throughput: 93.32 Mbit/s
95th percentile per-packet one-way delay: 138.278 ms
Loss rate: 2.93%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Start at: 2018-07-26 19:06:07
End at: 2018-07-26 19:06:37
Local clock offset: 0.289 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-07-27 01:17:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.09 Mbit/s
95th percentile per-packet one-way delay: 112.086 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 208.66 Mbit/s
95th percentile per-packet one-way delay: 109.974 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 164.64 Mbit/s
95th percentile per-packet one-way delay: 111.356 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 106.56 Mbit/s
95th percentile per-packet one-way delay: 119.652 ms
Loss rate: 0.00%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

End at: 2018-07-26 19:31:50
Local clock offset: -0.417 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2018-07-27 01:19:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 354.53 Mbit/s
95th percentile per-packet one-way delay: 118.853 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 212.20 Mbit/s
95th percentile per-packet one-way delay: 120.630 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 143.60 Mbit/s
95th percentile per-packet one-way delay: 133.658 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 144.40 Mbit/s
95th percentile per-packet one-way delay: 97.885 ms
Loss rate: 0.00%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

Start at: 2018-07-26 19:56:39
End at: 2018-07-26 19:57:09
Local clock offset: -0.033 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2018-07-27 01:19:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 373.00 Mbit/s
  95th percentile per-packet one-way delay: 133.176 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 215.90 Mbit/s
  95th percentile per-packet one-way delay: 130.195 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 168.97 Mbit/s
  95th percentile per-packet one-way delay: 128.832 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 135.97 Mbit/s
  95th percentile per-packet one-way delay: 156.071 ms
  Loss rate: 0.00%
Run 4: Report of Verus — Data Link

![Graph showing throughput and packet delay over time for different flows. The graphs display the variation of throughput and packet delays with time, indicating performance metrics for network traffic.](image)

Legend:
- **Flow 1 ingress (mean 216.01 Mbit/s)**
- **Flow 1 egress (mean 215.90 Mbit/s)**
- **Flow 2 ingress (mean 168.95 Mbit/s)**
- **Flow 2 egress (mean 168.97 Mbit/s)**
- **Flow 3 ingress (mean 136.00 Mbit/s)**
- **Flow 3 egress (mean 135.97 Mbit/s)**
Run 5: Statistics of Verus

End at: 2018-07-26 20:21:59
Local clock offset: 0.36 ms
Remote clock offset: -0.133 ms

# Below is generated by plot.py at 2018-07-27 01:19:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 326.34 Mbit/s
  95th percentile per-packet one-way delay: 176.438 ms
  Loss rate: 3.27%
-- Flow 1:
  Average throughput: 166.89 Mbit/s
  95th percentile per-packet one-way delay: 163.386 ms
  Loss rate: 2.79%
-- Flow 2:
  Average throughput: 173.92 Mbit/s
  95th percentile per-packet one-way delay: 127.584 ms
  Loss rate: 0.52%
-- Flow 3:
  Average throughput: 133.66 Mbit/s
  95th percentile per-packet one-way delay: 382.451 ms
  Loss rate: 11.43%
Run 5: Report of Verus — Data Link
Run 6: Statistics of Verus

Start at: 2018-07-26 20:46:21
End at: 2018-07-26 20:46:51
Local clock offset: -0.32 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2018-07-27 01:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 365.51 Mbit/s
95th percentile per-packet one-way delay: 115.660 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 218.94 Mbit/s
95th percentile per-packet one-way delay: 117.742 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 158.27 Mbit/s
95th percentile per-packet one-way delay: 134.885 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 142.29 Mbit/s
95th percentile per-packet one-way delay: 104.703 ms
Loss rate: 0.17%
Run 6: Report of Verus — Data Link

![Graph showing throughput vs time for different flows]

- Flow 1 ingress (mean 221.59 Mbit/s)
- Flow 1 egress (mean 218.94 Mbit/s)
- Flow 2 ingress (mean 150.64 Mbit/s)
- Flow 2 egress (mean 158.27 Mbit/s)
- Flow 3 ingress (mean 143.18 Mbit/s)
- Flow 3 egress (mean 142.29 Mbit/s)

![Graph showing delay vs time for different flows]

- Flow 1 (95th percentile 117.74 ms)
- Flow 2 (95th percentile 134.88 ms)
- Flow 3 (95th percentile 104.70 ms)
Run 7: Statistics of Verus

Start at: 2018-07-26 21:11:09
End at: 2018-07-26 21:11:39
Local clock offset: 0.055 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-07-27 01:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 320.99 Mbit/s
95th percentile per-packet one-way delay: 153.605 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 204.24 Mbit/s
95th percentile per-packet one-way delay: 157.783 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 109.84 Mbit/s
95th percentile per-packet one-way delay: 131.611 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 134.10 Mbit/s
95th percentile per-packet one-way delay: 164.807 ms
Loss rate: 0.03%
Run 7: Report of Verus — Data Link

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

- Flow 1 ingress (mean 204.71 Mbit/s)
- Flow 1 egress (mean 204.24 Mbit/s)
- Flow 2 ingress (mean 109.94 Mbit/s)
- Flow 2 egress (mean 109.84 Mbit/s)
- Flow 3 ingress (mean 134.38 Mbit/s)
- Flow 3 egress (mean 134.10 Mbit/s)
Run 8: Statistics of Verus

Start at: 2018-07-26 21:36:06
End at: 2018-07-26 21:36:36
Local clock offset: 0.037 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-07-27 01:20:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 353.05 Mbit/s
  95th percentile per-packet one-way delay: 158.272 ms
  Loss rate: 1.07%
-- Flow 1:
  Average throughput: 198.42 Mbit/s
  95th percentile per-packet one-way delay: 146.445 ms
  Loss rate: 1.39%
-- Flow 2:
  Average throughput: 175.04 Mbit/s
  95th percentile per-packet one-way delay: 167.567 ms
  Loss rate: 0.78%
-- Flow 3:
  Average throughput: 116.39 Mbit/s
  95th percentile per-packet one-way delay: 233.342 ms
  Loss rate: 0.27%
Run 8: Report of Verus — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 201.19 Mbps)
- **Flow 1 egress** (mean 198.42 Mbps)
- **Flow 2 ingress** (mean 176.43 Mbps)
- **Flow 2 egress** (mean 175.04 Mbps)
- **Flow 3 ingress** (mean 116.48 Mbps)
- **Flow 3 egress** (mean 116.39 Mbps)

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

- **Flow 1** (95th percentile 146.44 ms)
- **Flow 2** (95th percentile 167.57 ms)
- **Flow 3** (95th percentile 233.34 ms)
Run 9: Statistics of Verus

Start at: 2018-07-26 22:01:03
End at: 2018-07-26 22:01:33
Local clock offset: ~0.053 ms
Remote clock offset: 1.567 ms

# Below is generated by plot.py at 2018-07-27 01:23:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 389.81 Mbit/s
95th percentile per-packet one-way delay: 144.494 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 222.66 Mbit/s
95th percentile per-packet one-way delay: 150.514 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 178.74 Mbit/s
95th percentile per-packet one-way delay: 118.980 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 147.83 Mbit/s
95th percentile per-packet one-way delay: 134.478 ms
Loss rate: 0.00%
Run 9: Report of Verus — Data Link

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

End at: 2018-07-26 22:26:18
Local clock offset: -0.223 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-07-27 01:23:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 387.33 Mbit/s
95th percentile per-packet one-way delay: 110.900 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 218.49 Mbit/s
95th percentile per-packet one-way delay: 114.056 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 195.15 Mbit/s
95th percentile per-packet one-way delay: 108.487 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 119.40 Mbit/s
95th percentile per-packet one-way delay: 96.166 ms
Loss rate: 0.00%
Run 10: Report of Verus — Data Link
Run 1: Statistics of PCC-Vivace

End at: 2018-07-26 18:21:58
Local clock offset: -0.072 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-07-27 01:28:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 543.30 Mbit/s
95th percentile per-packet one-way delay: 94.227 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 317.38 Mbit/s
95th percentile per-packet one-way delay: 76.511 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 260.25 Mbit/s
95th percentile per-packet one-way delay: 141.317 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 158.37 Mbit/s
95th percentile per-packet one-way delay: 53.218 ms
Loss rate: 0.01%
Run 1: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 317.39 Mbps)  Flow 1 egress (mean 317.38 Mbps)
Flow 2 ingress (mean 260.27 Mbps)  Flow 2 egress (mean 260.25 Mbps)
Flow 3 ingress (mean 158.37 Mbps)  Flow 3 egress (mean 158.37 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 76.51 ms)  Flow 2 (95th percentile 141.32 ms)  Flow 3 (95th percentile 53.22 ms)
Run 2: Statistics of PCC-Vivace

Start at: 2018-07-26 18:46:39
End at: 2018-07-26 18:47:09
Local clock offset: 0.263 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2018-07-27 01:28:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 487.28 Mbit/s
95th percentile per-packet one-way delay: 80.853 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 297.76 Mbit/s
95th percentile per-packet one-way delay: 110.480 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 206.44 Mbit/s
95th percentile per-packet one-way delay: 67.250 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 158.46 Mbit/s
95th percentile per-packet one-way delay: 61.641 ms
Loss rate: 0.01%
Run 2: Report of PCC-Vivace — Data Link

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

Flow 1 ingress (mean 297.79 Mbit/s)  Flow 1 egress (mean 297.76 Mbit/s)
Flow 2 ingress (mean 296.43 Mbit/s)  Flow 2 egress (mean 296.44 Mbit/s)
Flow 3 ingress (mean 158.43 Mbit/s)  Flow 3 egress (mean 158.46 Mbit/s)

Flow 1 (95th percentile 110.48 ms)  Flow 2 (95th percentile 67.25 ms)  Flow 3 (95th percentile 61.64 ms)
Run 3: Statistics of PCC-Vivace

Start at: 2018-07-26 19:11:30
End at: 2018-07-26 19:12:00
Local clock offset: -0.096 ms
Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2018-07-27 01:28:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.19 Mbit/s
95th percentile per-packet one-way delay: 85.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 275.15 Mbit/s
95th percentile per-packet one-way delay: 108.001 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 215.47 Mbit/s
95th percentile per-packet one-way delay: 58.021 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 157.08 Mbit/s
95th percentile per-packet one-way delay: 53.512 ms
Loss rate: 0.04%
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-26 19:36:41
End at: 2018-07-26 19:37:11
Local clock offset: -0.097 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2018-07-27 01:28:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.84 Mbit/s
95th percentile per-packet one-way delay: 92.997 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 147.76 Mbit/s
95th percentile per-packet one-way delay: 51.058 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 273.51 Mbit/s
95th percentile per-packet one-way delay: 134.922 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 173.47 Mbit/s
95th percentile per-packet one-way delay: 52.543 ms
Loss rate: 0.01%
Run 4: Report of PCC-Vivace — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 147.75 Mbps)
- Flow 1 egress (mean 147.76 Mbps)
- Flow 2 ingress (mean 273.50 Mbps)
- Flow 2 egress (mean 273.51 Mbps)
- Flow 3 ingress (mean 173.46 Mbps)
- Flow 3 egress (mean 173.47 Mbps)

**Packet Loss (ms):**
- Flow 1 (95th percentile 51.06 ms)
- Flow 2 (95th percentile 134.92 ms)
- Flow 3 (95th percentile 52.54 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-26 20:02:03
End at: 2018-07-26 20:02:33
Local clock offset: -0.358 ms
Remote clock offset: -0.164 ms

# Below is generated by plot.py at 2018-07-27 01:28:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 444.36 Mbit/s
95th percentile per-packet one-way delay: 56.708 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 254.32 Mbit/s
95th percentile per-packet one-way delay: 65.547 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 238.97 Mbit/s
95th percentile per-packet one-way delay: 53.652 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.47 Mbit/s
95th percentile per-packet one-way delay: 50.871 ms
Loss rate: 0.00%
Run 5: Report of PCC-Vivace — Data Link

![Throughput Graph]

![Delay Graph]
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-26 20:26:50
End at: 2018-07-26 20:27:20
Local clock offset: 0.005 ms
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2018-07-27 01:29:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 429.48 Mbit/s
95th percentile per-packet one-way delay: 163.789 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 265.66 Mbit/s
95th percentile per-packet one-way delay: 168.658 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 203.10 Mbit/s
95th percentile per-packet one-way delay: 167.497 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 87.12 Mbit/s
95th percentile per-packet one-way delay: 51.653 ms
Loss rate: 0.00%
Run 6: Report of PCC-Vivace — Data Link

[Graph showing network throughput and delay over time for different flows with specified mean throughputs and 95th percentile delays.]
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-26 20:51:43
End at: 2018-07-26 20:52:13
Local clock offset: 0.438 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-07-27 01:30:31
# Datalink statistics

--- Total of 3 flows:
Average throughput: 455.87 Mbit/s
95th percentile per-packet one-way delay: 100.217 ms
Loss rate: 0.13%
--- Flow 1:
Average throughput: 310.31 Mbit/s
95th percentile per-packet one-way delay: 122.646 ms
Loss rate: 0.19%
--- Flow 2:
Average throughput: 204.89 Mbit/s
95th percentile per-packet one-way delay: 57.300 ms
Loss rate: 0.00%
--- Flow 3:
Average throughput: 27.30 Mbit/s
95th percentile per-packet one-way delay: 50.178 ms
Loss rate: 0.00%
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-26 21:16:29
End at: 2018-07-26 21:16:59
Local clock offset: -0.293 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-07-27 01:30:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 419.26 Mbit/s
95th percentile per-packet one-way delay: 67.830 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 238.81 Mbit/s
95th percentile per-packet one-way delay: 83.680 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 229.43 Mbit/s
95th percentile per-packet one-way delay: 53.533 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.44 Mbit/s
95th percentile per-packet one-way delay: 51.100 ms
Loss rate: 0.00%
Run 8: Report of PCC-Vivace — Data Link

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

- **Flow 1** (ingress: mean 238.80 Mbit/s, egress: mean 238.81 Mbit/s)
- **Flow 2** (ingress: mean 229.42 Mbit/s, egress: mean 229.43 Mbit/s)
- **Flow 3** (ingress: mean 84.45 Mbit/s, egress: mean 84.44 Mbit/s)
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-26 21:41:27
End at: 2018-07-26 21:41:57
Local clock offset: 0.007 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 571.34 Mbit/s
95th percentile per-packet one-way delay: 117.171 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 350.19 Mbit/s
95th percentile per-packet one-way delay: 139.162 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 309.01 Mbit/s
95th percentile per-packet one-way delay: 81.431 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.57 Mbit/s
95th percentile per-packet one-way delay: 50.957 ms
Loss rate: 0.00%
Run 9: Report of PCC-Vivace — Data Link

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

Flow 1 ingress (mean 350.62 Mbit/s)
Flow 1 egress (mean 350.19 Mbit/s)
Flow 2 ingress (mean 307.44 Mbit/s)
Flow 2 egress (mean 309.01 Mbit/s)
Flow 3 ingress (mean 50.56 Mbit/s)
Flow 3 egress (mean 50.57 Mbit/s)

Flow 1 (95th percentile 139.16 ms)
Flow 2 (95th percentile 81.43 ms)
Flow 3 (95th percentile 50.96 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-26 22:06:27
End at: 2018-07-26 22:06:57
Local clock offset: -0.085 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 426.62 Mbit/s
95th percentile per-packet one-way delay: 52.595 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 276.24 Mbit/s
95th percentile per-packet one-way delay: 54.067 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 201.35 Mbit/s
95th percentile per-packet one-way delay: 51.415 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.04 Mbit/s
95th percentile per-packet one-way delay: 49.760 ms
Loss rate: 0.00%
Run 10: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 276.24 Mbit/s)
- Flow 1 egress (mean 276.24 Mbit/s)
- Flow 2 ingress (mean 201.36 Mbit/s)
- Flow 2 egress (mean 201.35 Mbit/s)
- Flow 3 ingress (mean 50.04 Mbit/s)
- Flow 3 egress (mean 50.04 Mbit/s)
Run 1: Statistics of WebRTC media

Start at: 2018-07-26 18:39:00
End at: 2018-07-26 18:39:30
Local clock offset: 0.251 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 50.576 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 48.821 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 50.640 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 50.398 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-07-26 19:03:46
End at: 2018-07-26 19:04:16
Local clock offset: -0.476 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 51.214 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 51.247 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 51.177 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 50.432 ms
Loss rate: 0.16%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-07-26 19:29:00
End at: 2018-07-26 19:29:30
Local clock offset: 0.291 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.89 Mbit/s
  95th percentile per-packet one-way delay: 50.345 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.04 Mbit/s
  95th percentile per-packet one-way delay: 48.653 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.30 Mbit/s
  95th percentile per-packet one-way delay: 48.832 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.56 Mbit/s
  95th percentile per-packet one-way delay: 50.451 ms
  Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

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

- **Flow 1 ingress (mean 2.04 Mbit/s)**
- **Flow 1 egress (mean 2.04 Mbit/s)**
- **Flow 2 ingress (mean 1.30 Mbit/s)**
- **Flow 2 egress (mean 1.30 Mbit/s)**
- **Flow 3 ingress (mean 0.56 Mbit/s)**
- **Flow 3 egress (mean 0.56 Mbit/s)**

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

- **Flow 1 (95th percentile 48.65 ms)**
- **Flow 2 (95th percentile 48.83 ms)**
- **Flow 3 (95th percentile 50.45 ms)**
Run 4: Statistics of WebRTC media

Start at: 2018-07-26 19:54:19
End at: 2018-07-26 19:54:49
Local clock offset: -0.06 ms
Remote clock offset: -0.131 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.94 Mbit/s
  95th percentile per-packet one-way delay: 50.757 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.06 Mbit/s
  95th percentile per-packet one-way delay: 49.931 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.35 Mbit/s
  95th percentile per-packet one-way delay: 50.691 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.56 Mbit/s
  95th percentile per-packet one-way delay: 50.995 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-07-26 20:19:09
End at: 2018-07-26 20:19:39
Local clock offset: 0.373 ms
Remote clock offset: −0.127 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.95 Mbit/s
  95th percentile per-packet one-way delay: 50.533 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.07 Mbit/s
  95th percentile per-packet one-way delay: 50.189 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.34 Mbit/s
  95th percentile per-packet one-way delay: 50.577 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.56 Mbit/s
  95th percentile per-packet one-way delay: 50.362 ms
  Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

![Data Link Throughput Graph](image1)

![Data Link Latency Graph](image2)
Run 6: Statistics of WebRTC media

Start at: 2018-07-26 20:44:01
End at: 2018-07-26 20:44:31
Local clock offset: 0.069 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 50.837 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 50.859 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 50.570 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 50.635 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-07-26 21:08:48
End at: 2018-07-26 21:09:18
Local clock offset: 0.082 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.83 Mbit/s
  95th percentile per-packet one-way delay: 50.879 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.07 Mbit/s
  95th percentile per-packet one-way delay: 50.934 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.33 Mbit/s
  95th percentile per-packet one-way delay: 50.562 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 50.707 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

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

**Throughput (Mbps)**

**Time (s)**

- Flow 1 ingress (mean 2.07 Mbps)
- Flow 1 egress (mean 2.07 Mbps)
- Flow 2 ingress (mean 1.33 Mbps)
- Flow 2 egress (mean 1.33 Mbps)
- Flow 3 ingress (mean 0.44 Mbps)
- Flow 3 egress (mean 0.44 Mbps)

**Per-packet one-way delay [ms]**

**Time (s)**

- Flow 1 (95th percentile 50.93 ms)
- Flow 2 (95th percentile 50.56 ms)
- Flow 3 (95th percentile 50.71 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-07-26 21:33:45  
End at: 2018-07-26 21:34:15  
Local clock offset: 0.45 ms  
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-07-27 01:31:26  
# Datalink statistics

-- Total of 3 flows:
Average throughput: 4.04 Mbit/s  
95th percentile per-packet one-way delay: 50.381 ms  
Loss rate: 0.00%

-- Flow 1:
Average throughput: 2.16 Mbit/s  
95th percentile per-packet one-way delay: 50.395 ms  
Loss rate: 0.00%

-- Flow 2:
Average throughput: 1.35 Mbit/s  
95th percentile per-packet one-way delay: 49.368 ms  
Loss rate: 0.00%

-- Flow 3:
Average throughput: 0.55 Mbit/s  
95th percentile per-packet one-way delay: 50.414 ms  
Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link
Run 9: Statistics of WebRTC media

Start at: 2018-07-26 21:58:46
End at: 2018-07-26 21:59:16
Local clock offset: -0.405 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.08 Mbit/s
95th percentile per-packet one-way delay: 51.192 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 51.130 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 51.234 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 51.061 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Local clock offset: -0.15 ms
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2018-07-27 01:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 50.890 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 50.773 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 50.702 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 51.058 ms
Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

**Throughput (Mbps):**

- **Flow 1 ingress (mean 2.04 Mbps)**
- **Flow 1 egress (mean 2.04 Mbps)**
- **Flow 2 ingress (mean 1.31 Mbps)**
- **Flow 2 egress (mean 1.31 Mbps)**
- **Flow 3 ingress (mean 0.47 Mbps)**
- **Flow 3 egress (mean 0.47 Mbps)**

**Per packet one way delay [ms]:**

- **Flow 1 (95th percentile 50.77 ms)**
- **Flow 2 (95th percentile 50.70 ms)**
- **Flow 3 (95th percentile 51.06 ms)**

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