Pantheon Report

Data path: GCE Tokyo Ethernet (remote) → GCE Sydney Ethernet (local).
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 @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f9853172514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfec0edbdf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaaab4a906ce6bb7c3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65bb2c8f464b1b39
third_party/pcc @ 1af958fa0d66d18b623c091a55fe872b4981e1
  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 @ 77961ff1a8273a86b42f1bc8143ec978f3cfcf42
third_party/scream-reproduce @ f099118d1421aa3131bf1ff1964974e1da3b3
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562593f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
test from GCE Tokyo to GCE Sydney, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
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Run 1: Statistics of TCP BBR

Start at: 2018-07-27 08:27:02
End at: 2018-07-27 08:27:32
Local clock offset: -0.066 ms
Remote clock offset: -1.258 ms

# Below is generated by plot.py at 2018-07-27 12:39:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 379.11 Mbit/s
  95th percentile per-packet one-way delay: 88.952 ms
  Loss rate: 0.56%
-- Flow 1:
  Average throughput: 197.53 Mbit/s
  95th percentile per-packet one-way delay: 84.819 ms
  Loss rate: 0.39%
-- Flow 2:
  Average throughput: 192.11 Mbit/s
  95th percentile per-packet one-way delay: 88.980 ms
  Loss rate: 0.58%
-- Flow 3:
  Average throughput: 163.09 Mbit/s
  95th percentile per-packet one-way delay: 93.686 ms
  Loss rate: 1.13%
Run 1: Report of TCP BBR — Data Link

![Graph of network throughput](image1)

![Graph of packet delay](image2)

- **Flow 1** (ingress 197.62 Mbit/s, egress 197.53 Mbit/s)
- **Flow 3** (ingress 163.22 Mbit/s, egress 163.09 Mbit/s)
- **Flow 2** (ingress 192.22 Mbit/s, egress 192.11 Mbit/s)

Flow 1 (95th percentile 84.82 ms), Flow 2 (95th percentile 88.98 ms), Flow 3 (95th percentile 93.69 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-07-27 08:51:26  
End at: 2018-07-27 08:51:56  
Local clock offset: 0.141 ms  
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-07-27 12:39:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 366.38 Mbit/s  
95th percentile per-packet one-way delay: 102.019 ms  
Loss rate: 0.67%  
-- Flow 1:  
Average throughput: 192.76 Mbit/s  
95th percentile per-packet one-way delay: 99.975 ms  
Loss rate: 0.39%  
-- Flow 2:  
Average throughput: 182.17 Mbit/s  
95th percentile per-packet one-way delay: 101.867 ms  
Loss rate: 0.67%  
-- Flow 3:  
Average throughput: 159.08 Mbit/s  
95th percentile per-packet one-way delay: 106.259 ms  
Loss rate: 1.67%
Run 2: Report of TCP BBR — Data Link

[Graphs showing throughput and per-packet one-way delay for different flows, with annotations for mean throughput and 95th percentile delays.]
Run 3: Statistics of TCP BBR

Start at: 2018-07-27 09:16:00
End at: 2018-07-27 09:16:30
Local clock offset: 0.168 ms
Remote clock offset: -0.148 ms

# Below is generated by plot.py at 2018-07-27 12:39:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 372.61 Mbit/s
  95th percentile per-packet one-way delay: 100.206 ms
  Loss rate: 0.42%
-- Flow 1:
  Average throughput: 197.10 Mbit/s
  95th percentile per-packet one-way delay: 97.327 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 186.98 Mbit/s
  95th percentile per-packet one-way delay: 101.913 ms
  Loss rate: 0.63%
-- Flow 3:
  Average throughput: 156.54 Mbit/s
  95th percentile per-packet one-way delay: 102.045 ms
  Loss rate: 1.47%
Run 4: Statistics of TCP BBR

Start at: 2018-07-27 09:40:27
End at: 2018-07-27 09:40:57
Local clock offset: -0.064 ms
Remote clock offset: -0.175 ms

# Below is generated by plot.py at 2018-07-27 12:39:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 376.75 Mbit/s
95th percentile per-packet one-way delay: 102.643 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 199.70 Mbit/s
95th percentile per-packet one-way delay: 98.936 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 184.86 Mbit/s
95th percentile per-packet one-way delay: 102.662 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 163.97 Mbit/s
95th percentile per-packet one-way delay: 106.483 ms
Loss rate: 1.62%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-07-27 10:05:21
End at: 2018-07-27 10:05:51
Local clock offset: -0.195 ms
Remote clock offset: -1.395 ms

# Below is generated by plot.py at 2018-07-27 12:39:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 374.54 Mbit/s
  95th percentile per-packet one-way delay: 100.182 ms
  Loss rate: 0.60%
-- Flow 1:
  Average throughput: 197.72 Mbit/s
  95th percentile per-packet one-way delay: 97.698 ms
  Loss rate: 0.34%
-- Flow 2:
  Average throughput: 184.88 Mbit/s
  95th percentile per-packet one-way delay: 100.209 ms
  Loss rate: 0.63%
-- Flow 3:
  Average throughput: 163.37 Mbit/s
  95th percentile per-packet one-way delay: 103.384 ms
  Loss rate: 1.50%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

End at: 2018-07-27 10:30:27
Local clock offset: 0.026 ms
Remote clock offset: 1.259 ms

# Below is generated by plot.py at 2018-07-27 12:39:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.07 Mbit/s
95th percentile per-packet one-way delay: 97.361 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 201.86 Mbit/s
95th percentile per-packet one-way delay: 93.443 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 180.10 Mbit/s
95th percentile per-packet one-way delay: 96.667 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 152.77 Mbit/s
95th percentile per-packet one-way delay: 101.210 ms
Loss rate: 1.35%
Run 6: Report of TCP BBR — Data Link
Run 7: Statistics of TCP BBR

Start at: 2018-07-27 10:54:12
End at: 2018-07-27 10:54:42
Local clock offset: -0.053 ms
Remote clock offset: 0.179 ms

# Below is generated by plot.py at 2018-07-27 12:39:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 367.58 Mbit/s
95th percentile per-packet one-way delay: 100.210 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 193.13 Mbit/s
95th percentile per-packet one-way delay: 97.563 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 188.29 Mbit/s
95th percentile per-packet one-way delay: 102.109 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 149.37 Mbit/s
95th percentile per-packet one-way delay: 100.832 ms
Loss rate: 1.54%
Run 7: Report of TCP BBR — Data Link
Run 8: Statistics of TCP BBR

End at: 2018-07-27 11:19:06
Local clock offset: -0.165 ms
Remote clock offset: 0.267 ms

# Below is generated by plot.py at 2018-07-27 12:39:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.65 Mbit/s
95th percentile per-packet one-way delay: 98.977 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 203.50 Mbit/s
95th percentile per-packet one-way delay: 96.610 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 183.56 Mbit/s
95th percentile per-packet one-way delay: 98.962 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 158.29 Mbit/s
95th percentile per-packet one-way delay: 101.547 ms
Loss rate: 1.53%
Run 8: Report of TCP BBR — Data Link

![Graph showing throughput and per-packet one-way delay over time for three flows.]
Run 9: Statistics of TCP BBR

Local clock offset: 0.128 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2018-07-27 12:46:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 376.12 Mbit/s
95th percentile per-packet one-way delay: 103.127 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 198.15 Mbit/s
95th percentile per-packet one-way delay: 99.964 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 183.62 Mbit/s
95th percentile per-packet one-way delay: 103.070 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 169.45 Mbit/s
95th percentile per-packet one-way delay: 106.421 ms
Loss rate: 1.55%
Run 9: Report of TCP BBR — Data Link

![Data Link Throughput and Delay Graphs](image-url)
Run 10: Statistics of TCP BBR

End at: 2018-07-27 12:08:27
Local clock offset: -0.153 ms
Remote clock offset: 0.09 ms

# Below is generated by plot.py at 2018-07-27 12:46:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 373.43 Mbit/s
  95th percentile per-packet one-way delay: 101.146 ms
  Loss rate: 0.65%
-- Flow 1:
  Average throughput: 196.54 Mbit/s
  95th percentile per-packet one-way delay: 98.671 ms
  Loss rate: 0.41%
-- Flow 2:
  Average throughput: 183.75 Mbit/s
  95th percentile per-packet one-way delay: 101.066 ms
  Loss rate: 0.64%
-- Flow 3:
  Average throughput: 165.81 Mbit/s
  95th percentile per-packet one-way delay: 105.240 ms
  Loss rate: 1.50%
Run 10: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 196.69 Mbps)**
- **Flow 1 egress (mean 196.54 Mbps)**
- **Flow 2 ingress (mean 184.00 Mbps)**
- **Flow 2 egress (mean 183.75 Mbps)**
- **Flow 3 ingress (mean 186.77 Mbps)**
- **Flow 3 egress (mean 186.81 Mbps)**

![Graph showing packet loss for different flows.]

- **Flow 1 (95th percentile 98.67 ms)**
- **Flow 2 (95th percentile 101.07 ms)**
- **Flow 3 (95th percentile 105.24 ms)**
Run 1: Statistics of Copa

Start at: 2018-07-27 08:31:04
End at: 2018-07-27 08:31:34
Local clock offset: -0.162 ms
Remote clock offset: -1.445 ms

# Below is generated by plot.py at 2018-07-27 12:48:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 242.17 Mbit/s
95th percentile per-packet one-way delay: 60.301 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 157.55 Mbit/s
95th percentile per-packet one-way delay: 60.130 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 86.57 Mbit/s
95th percentile per-packet one-way delay: 57.881 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 81.87 Mbit/s
95th percentile per-packet one-way delay: 64.142 ms
Loss rate: 0.51%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-07-27 08:55:30
End at: 2018-07-27 08:56:00
Local clock offset: -0.13 ms
Remote clock offset: -1.419 ms

# Below is generated by plot.py at 2018-07-27 12:48:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 123.47 Mbit/s
  95th percentile per-packet one-way delay: 55.764 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 46.04 Mbit/s
  95th percentile per-packet one-way delay: 54.985 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 89.54 Mbit/s
  95th percentile per-packet one-way delay: 57.375 ms
  Loss rate: 0.22%
-- Flow 3:
  Average throughput: 54.33 Mbit/s
  95th percentile per-packet one-way delay: 54.945 ms
  Loss rate: 0.80%
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 45.98 Mbit/s)
- Flow 1 egress (mean 46.04 Mbit/s)
- Flow 2 ingress (mean 89.43 Mbit/s)
- Flow 2 egress (mean 89.54 Mbit/s)
- Flow 3 ingress (mean 54.21 Mbit/s)
- Flow 3 egress (mean 54.33 Mbit/s)
Run 3: Statistics of Copa

Start at: 2018-07-27 09:20:01
End at: 2018-07-27 09:20:31
Local clock offset: 0.048 ms
Remote clock offset: 0.098 ms

# Below is generated by plot.py at 2018-07-27 12:48:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 119.67 Mbit/s
95th percentile per-packet one-way delay: 53.847 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 62.30 Mbit/s
95th percentile per-packet one-way delay: 55.087 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 57.11 Mbit/s
95th percentile per-packet one-way delay: 53.598 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 58.70 Mbit/s
95th percentile per-packet one-way delay: 53.615 ms
Loss rate: 1.31%
Run 3: Report of Copa — Data Link

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

- Flow 1 ingress (mean 62.79 Mbit/s)
- Flow 1 egress (mean 62.30 Mbit/s)
- Flow 2 ingress (mean 57.40 Mbit/s)
- Flow 2 egress (mean 57.11 Mbit/s)
- Flow 3 ingress (mean 58.85 Mbit/s)
- Flow 3 egress (mean 58.70 Mbit/s)

- Flow 1 (95th percentile 55.09 ms)
- Flow 2 (95th percentile 53.60 ms)
- Flow 3 (95th percentile 53.62 ms)
Run 4: Statistics of Copa

Start at: 2018-07-27 09:44:32
End at: 2018-07-27 09:45:02
Local clock offset: -0.029 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2018-07-27 12:48:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.20 Mbit/s
95th percentile per-packet one-way delay: 63.287 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 48.09 Mbit/s
95th percentile per-packet one-way delay: 53.836 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 108.37 Mbit/s
95th percentile per-packet one-way delay: 66.521 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 87.88 Mbit/s
95th percentile per-packet one-way delay: 68.403 ms
Loss rate: 1.48%
Run 4: Report of Copa — Data Link

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

- Flow 1 ingress (mean 48.09 Mbit/s)
- Flow 1 egress (mean 48.09 Mbit/s)
- Flow 2 ingress (mean 107.99 Mbit/s)
- Flow 2 egress (mean 108.37 Mbit/s)
- Flow 3 ingress (mean 89.30 Mbit/s)
- Flow 3 egress (mean 87.88 Mbit/s)

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

- Flow 1 (95th percentile 53.84 ms)
- Flow 2 (95th percentile 66.52 ms)
- Flow 3 (95th percentile 68.40 ms)
Run 5: Statistics of Copa

Start at: 2018-07-27 10:09:26
End at: 2018-07-27 10:09:56
Local clock offset: 0.101 ms
Remote clock offset: 0.119 ms

# Below is generated by plot.py at 2018-07-27 12:48:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.86 Mbit/s
95th percentile per-packet one-way delay: 65.018 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 62.25 Mbit/s
95th percentile per-packet one-way delay: 65.815 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 71.16 Mbit/s
95th percentile per-packet one-way delay: 66.701 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 116.01 Mbit/s
95th percentile per-packet one-way delay: 58.936 ms
Loss rate: 1.70%
Run 5: Report of Copa — Data Link
Run 6: Statistics of Copa

End at: 2018-07-27 10:34:28
Local clock offset: -0.06 ms
Remote clock offset: -0.349 ms

# Below is generated by plot.py at 2018-07-27 12:48:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.42 Mbit/s
95th percentile per-packet one-way delay: 59.999 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 98.76 Mbit/s
95th percentile per-packet one-way delay: 59.371 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 58.60 Mbit/s
95th percentile per-packet one-way delay: 71.477 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.79 Mbit/s
95th percentile per-packet one-way delay: 55.685 ms
Loss rate: 1.20%
Run 7: Statistics of Copa

Start at: 2018-07-27 10:58:15
End at: 2018-07-27 10:58:45
Local clock offset: 0.092 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-07-27 12:49:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 159.99 Mbit/s
  95th percentile per-packet one-way delay: 56.111 ms
  Loss rate: 0.78%
-- Flow 1:
  Average throughput: 93.89 Mbit/s
  95th percentile per-packet one-way delay: 56.743 ms
  Loss rate: 0.80%
-- Flow 2:
  Average throughput: 54.22 Mbit/s
  95th percentile per-packet one-way delay: 55.663 ms
  Loss rate: 0.59%
-- Flow 3:
  Average throughput: 91.72 Mbit/s
  95th percentile per-packet one-way delay: 55.434 ms
  Loss rate: 0.94%
Run 7: Report of Copa — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 94.24 Mbps)
  - Flow 1 egress (mean 93.89 Mbps)
  - Flow 2 ingress (mean 54.12 Mbps)
  - Flow 2 egress (mean 54.22 Mbps)
  - Flow 3 ingress (mean 91.55 Mbps)
  - Flow 3 egress (mean 91.72 Mbps)

- **Delay (ms):**
  - Flow 1 (95th percentile 56.74 ms)
  - Flow 2 (95th percentile 55.66 ms)
  - Flow 3 (95th percentile 55.43 ms)
Run 8: Statistics of Copa

Local clock offset: 0.092 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-07-27 12:52:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 223.04 Mbit/s
95th percentile per-packet one-way delay: 63.411 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 117.47 Mbit/s
95th percentile per-packet one-way delay: 59.151 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 81.11 Mbit/s
95th percentile per-packet one-way delay: 57.610 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 156.46 Mbit/s
95th percentile per-packet one-way delay: 71.818 ms
Loss rate: 0.51%
Run 8: Report of Copa — Data Link
Run 9: Statistics of Copa

Local clock offset: -0.182 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-07-27 12:52:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.98 Mbit/s
95th percentile per-packet one-way delay: 59.983 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 67.20 Mbit/s
95th percentile per-packet one-way delay: 58.245 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 65.68 Mbit/s
95th percentile per-packet one-way delay: 55.959 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 151.95 Mbit/s
95th percentile per-packet one-way delay: 61.782 ms
Loss rate: 2.10%
Run 9: Report of Copa — Data Link

![Graphs showing data link performance metrics for different flows.]

- Flow 1 ingress (mean 67.10 Mbps)
- Flow 1 egress (mean 67.20 Mbps)
- Flow 2 ingress (mean 65.45 Mbps)
- Flow 2 egress (mean 65.68 Mbps)
- Flow 3 ingress (mean 153.63 Mbps)
- Flow 3 egress (mean 151.95 Mbps)

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

- Flow 1 (95th percentile 58.24 ms)
- Flow 2 (95th percentile 55.96 ms)
- Flow 3 (95th percentile 61.78 ms)
Run 10: Statistics of Copa

End at: 2018-07-27 12:12:29
Local clock offset: 0.107 ms
Remote clock offset: 1.419 ms

# Below is generated by plot.py at 2018-07-27 12:52:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 162.77 Mbit/s
95th percentile per-packet one-way delay: 64.239 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 113.32 Mbit/s
95th percentile per-packet one-way delay: 66.953 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 40.81 Mbit/s
95th percentile per-packet one-way delay: 52.742 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 67.62 Mbit/s
95th percentile per-packet one-way delay: 54.953 ms
Loss rate: 0.26%
Run 10: Report of Copa — Data Link

![Graph of Throughput vs Time]

- Flow 1 ingress (mean 113.40 Mbit/s)
- Flow 1 egress (mean 113.32 Mbit/s)
- Flow 2 ingress (mean 40.70 Mbit/s)
- Flow 2 egress (mean 40.81 Mbit/s)
- Flow 3 ingress (mean 67.38 Mbit/s)
- Flow 3 egress (mean 67.62 Mbit/s)

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

- Flow 1 (95th percentile 66.95 ms)
- Flow 2 (95th percentile 52.74 ms)
- Flow 3 (95th percentile 54.95 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-07-27 08:29:41
End at: 2018-07-27 08:30:11
Local clock offset: 0.023 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-07-27 12:52:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 297.66 Mbit/s
95th percentile per-packet one-way delay: 59.411 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 223.57 Mbit/s
95th percentile per-packet one-way delay: 59.723 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 109.26 Mbit/s
95th percentile per-packet one-way delay: 56.891 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 58.157 ms
Loss rate: 4.42%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-07-27 08:54:04
End at: 2018-07-27 08:54:34
Local clock offset: -0.022 ms
Remote clock offset: -1.257 ms

# Below is generated by plot.py at 2018-07-27 12:54:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.69 Mbit/s
95th percentile per-packet one-way delay: 66.977 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 220.16 Mbit/s
95th percentile per-packet one-way delay: 64.905 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 214.50 Mbit/s
95th percentile per-packet one-way delay: 68.868 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 64.112 ms
Loss rate: 4.66%
Run 2: Report of TCP Cubic — Data Link

![Graph of run 2 throughput and packet queuing delay.
Flow 1 ingress (mean 219.97 Mbit/s), Flow 2 ingress (mean 214.15 Mbit/s), Flow 3 ingress (mean 4.30 Mbit/s), Flow 1 egress (mean 220.16 Mbit/s), Flow 2 egress (mean 214.50 Mbit/s), Flow 3 egress (mean 4.15 Mbit/s).

Flows 1, 2, 3 show different throughput and queueing delay patterns.

Flow 1 shows higher throughput and lower queueing delay compared to Flows 2 and 3.

Flows 2 and 3 have comparable throughput but different queueing delay profiles.

Flow 3 shows the lowest throughput and highest queueing delay.
Run 3: Statistics of TCP Cubic

Start at: 2018-07-27 09:18:38
End at: 2018-07-27 09:19:08
Local clock offset: 0.121 ms
Remote clock offset: -0.175 ms

# Below is generated by plot.py at 2018-07-27 12:54:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 289.53 Mbit/s
95th percentile per-packet one-way delay: 91.167 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 201.49 Mbit/s
95th percentile per-packet one-way delay: 80.559 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 43.23 Mbit/s
95th percentile per-packet one-way delay: 97.949 ms
Loss rate: 2.68%
-- Flow 3:
Average throughput: 180.01 Mbit/s
95th percentile per-packet one-way delay: 98.319 ms
Loss rate: 1.45%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-07-27 09:43:05
End at: 2018-07-27 09:43:35
Local clock offset: -0.214 ms
Remote clock offset: -1.29 ms

# Below is generated by plot.py at 2018-07-27 12:56:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 365.15 Mbit/s
95th percentile per-packet one-way delay: 65.645 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 220.81 Mbit/s
95th percentile per-packet one-way delay: 63.295 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 215.46 Mbit/s
95th percentile per-packet one-way delay: 66.760 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 4.09 Mbit/s
95th percentile per-packet one-way delay: 63.003 ms
Loss rate: 4.65%
Run 4: Report of TCP Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 220.05 Mbit/s)
- Flow 1 egress (mean 220.81 Mbit/s)
- Flow 2 ingress (mean 215.61 Mbit/s)
- Flow 2 egress (mean 215.46 Mbit/s)
- Flow 3 ingress (mean 4.25 Mbit/s)
- Flow 3 egress (mean 4.09 Mbit/s)

Legend for per-packet one-way delay:
- Flow 1 (95th percentile 63.30 ms)
- Flow 2 (95th percentile 66.76 ms)
- Flow 3 (95th percentile 63.00 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-07-27 10:08:00
End at: 2018-07-27 10:08:30
Local clock offset: -0.261 ms
Remote clock offset: -1.43 ms

# Below is generated by plot.py at 2018-07-27 12:56:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 347.64 Mbit/s
95th percentile per-packet one-way delay: 95.434 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 157.27 Mbit/s
95th percentile per-packet one-way delay: 93.104 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 202.61 Mbit/s
95th percentile per-packet one-way delay: 97.912 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 169.70 Mbit/s
95th percentile per-packet one-way delay: 97.786 ms
Loss rate: 1.33%
Run 5: Report of TCP Cubic — Data Link

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

![Graph 2: Per-Packet Round-Trip Time vs Time](image2)
Run 6: Statistics of TCP Cubic

End at: 2018-07-27 10:33:05
Local clock offset: 0.072 ms
Remote clock offset: -1.445 ms

# Below is generated by plot.py at 2018-07-27 12:56:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 296.06 Mbit/s
95th percentile per-packet one-way delay: 67.143 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 148.74 Mbit/s
95th percentile per-packet one-way delay: 67.635 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 219.41 Mbit/s
95th percentile per-packet one-way delay: 66.442 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 60.000 ms
Loss rate: 4.53%
Run 7: Statistics of TCP Cubic

Start at: 2018-07-27 10:56:50
Local clock offset: 0.159 ms
Remote clock offset: -1.246 ms

# Below is generated by plot.py at 2018-07-27 12:58:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 338.03 Mbit/s
95th percentile per-packet one-way delay: 87.086 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 178.90 Mbit/s
95th percentile per-packet one-way delay: 87.210 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 188.59 Mbit/s
95th percentile per-packet one-way delay: 86.389 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 103.06 Mbit/s
95th percentile per-packet one-way delay: 88.556 ms
Loss rate: 1.43%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Local clock offset: 0.083 ms
Remote clock offset: -1.185 ms

# Below is generated by plot.py at 2018-07-27 12:59:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.10 Mbit/s
95th percentile per-packet one-way delay: 109.613 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 206.86 Mbit/s
95th percentile per-packet one-way delay: 107.586 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 171.07 Mbit/s
95th percentile per-packet one-way delay: 108.939 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 144.05 Mbit/s
95th percentile per-packet one-way delay: 112.637 ms
Loss rate: 1.04%
Run 8: Report of TCP Cubic — Data Link

![Graph showing TCP Cubic data link performance with throughput and per-packet delay metrics for Flow 1, Flow 2, and Flow 3.]
Run 9: Statistics of TCP Cubic

Local clock offset: -0.135 ms
Remote clock offset: -1.225 ms

# Below is generated by plot.py at 2018-07-27 13:00:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 389.90 Mbit/s
95th percentile per-packet one-way delay: 84.378 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 213.28 Mbit/s
95th percentile per-packet one-way delay: 81.472 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 176.10 Mbit/s
95th percentile per-packet one-way delay: 82.798 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 181.00 Mbit/s
95th percentile per-packet one-way delay: 90.660 ms
Loss rate: 1.36%
Run 9: Report of TCP Cubic — Data Link

![Graph 1: Throughput](image)

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

Flow 1 ingress (mean 213.38 Mbit/s) | Flow 1 egress (mean 213.28 Mbit/s) | Flow 2 ingress (mean 175.97 Mbit/s) | Flow 2 egress (mean 176.10 Mbit/s) | Flow 3 ingress (mean 181.69 Mbit/s) | Flow 3 egress (mean 181.00 Mbit/s)

Flow 1 (95th percentile 81.47 ms) | Flow 2 (95th percentile 82.80 ms) | Flow 3 (95th percentile 90.66 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-07-27 12:10:35  
End at: 2018-07-27 12:11:05  
Local clock offset: -0.101 ms  
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2018-07-27 13:00:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 310.27 Mbit/s
  95th percentile per-packet one-way delay: 76.943 ms
  Loss rate: 0.81%
-- Flow 1:
  Average throughput: 216.66 Mbit/s
  95th percentile per-packet one-way delay: 75.144 ms
  Loss rate: 0.41%
-- Flow 2:
  Average throughput: 44.06 Mbit/s
  95th percentile per-packet one-way delay: 78.199 ms
  Loss rate: 2.68%
-- Flow 3:
  Average throughput: 195.64 Mbit/s
  95th percentile per-packet one-way delay: 79.696 ms
  Loss rate: 1.27%
Run 10: Report of TCP Cubic — Data Link

![Graph showing throughput and packet queuing delay over time.]

Throughput in Mbit/s:
- Flow 1 ingress (mean 216.80 Mbit/s)
- Flow 1 egress (mean 216.66 Mbit/s)
- Flow 2 ingress (mean 45.04 Mbit/s)
- Flow 2 egress (mean 44.06 Mbit/s)
- Flow 3 ingress (mean 196.06 Mbit/s)
- Flow 3 egress (mean 195.64 Mbit/s)

Per-packet one-way delay (ms):
- Flow 1 (95th percentile 75.14 ms)
- Flow 2 (95th percentile 78.20 ms)
- Flow 3 (95th percentile 79.70 ms)
Run 1: Statistics of FillP

Start at: 2018-07-27 08:08:11
End at: 2018-07-27 08:08:41
Local clock offset: -0.151 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2018-07-27 13:18:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1024.92 Mbit/s
  95th percentile per-packet one-way delay: 261.241 ms
  Loss rate: 3.92%
-- Flow 1:
  Average throughput: 680.09 Mbit/s
  95th percentile per-packet one-way delay: 263.517 ms
  Loss rate: 3.17%
-- Flow 2:
  Average throughput: 277.97 Mbit/s
  95th percentile per-packet one-way delay: 272.233 ms
  Loss rate: 7.38%
-- Flow 3:
  Average throughput: 488.45 Mbit/s
  95th percentile per-packet one-way delay: 196.622 ms
  Loss rate: 2.95%
Run 1: Report of FillP — Data Link

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

- **Flow 1 Ingress** (mean 700.09 Mbit/s)
- **Flow 1 Egress** (mean 680.09 Mbit/s)
- **Flow 2 Ingress** (mean 298.55 Mbit/s)
- **Flow 2 Egress** (mean 277.97 Mbit/s)
- **Flow 3 Ingress** (mean 497.83 Mbit/s)
- **Flow 3 Egress** (mean 488.45 Mbit/s)

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

- **Flow 1** (95th percentile 263.52 ms)
- **Flow 2** (95th percentile 272.23 ms)
- **Flow 3** (95th percentile 196.62 ms)
Run 2: Statistics of FillP

Start at: 2018-07-27 08:32:33
End at: 2018-07-27 08:33:03
Local clock offset: 0.104 ms
Remote clock offset: -1.438 ms

# Below is generated by plot.py at 2018-07-27 13:26:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1204.88 Mbit/s
95th percentile per-packet one-way delay: 247.046 ms
Loss rate: 3.43%
-- Flow 1:
Average throughput: 633.02 Mbit/s
95th percentile per-packet one-way delay: 251.175 ms
Loss rate: 4.15%
-- Flow 2:
Average throughput: 693.16 Mbit/s
95th percentile per-packet one-way delay: 246.620 ms
Loss rate: 2.09%
-- Flow 3:
Average throughput: 339.25 Mbit/s
95th percentile per-packet one-way delay: 204.645 ms
Loss rate: 4.78%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

Start at: 2018-07-27 08:56:49
End at: 2018-07-27 08:57:19
Local clock offset: 0.031 ms
Remote clock offset: -1.288 ms

# Below is generated by plot.py at 2018-07-27 13:31:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1330.28 Mbit/s
  95th percentile per-packet one-way delay: 272.647 ms
  Loss rate: 2.51%
-- Flow 1:
  Average throughput: 691.18 Mbit/s
  95th percentile per-packet one-way delay: 276.116 ms
  Loss rate: 2.34%
-- Flow 2:
  Average throughput: 648.31 Mbit/s
  95th percentile per-packet one-way delay: 281.872 ms
  Loss rate: 2.99%
-- Flow 3:
  Average throughput: 632.83 Mbit/s
  95th percentile per-packet one-way delay: 145.621 ms
  Loss rate: 2.09%
Run 3: Report of FillP — Data Link
Run 4: Statistics of FillP

Start at: 2018-07-27 09:21:19
End at: 2018-07-27 09:21:49
Local clock offset: 0.215 ms
Remote clock offset: -1.244 ms

# Below is generated by plot.py at 2018-07-27 13:32:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1361.03 Mbit/s
95th percentile per-packet one-way delay: 261.697 ms
Loss rate: 2.91%
-- Flow 1:
Average throughput: 683.89 Mbit/s
95th percentile per-packet one-way delay: 265.859 ms
Loss rate: 2.63%
-- Flow 2:
Average throughput: 706.90 Mbit/s
95th percentile per-packet one-way delay: 249.920 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 630.41 Mbit/s
95th percentile per-packet one-way delay: 250.772 ms
Loss rate: 4.13%
Run 4: Report of FillP — Data Link
Run 5: Statistics of FillP

Start at: 2018-07-27 09:45:53
Local clock offset: 0.05 ms
Remote clock offset: -1.462 ms

# Below is generated by plot.py at 2018-07-27 13:33:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1361.56 Mbit/s
95th percentile per-packet one-way delay: 229.701 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 708.81 Mbit/s
95th percentile per-packet one-way delay: 254.154 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 675.69 Mbit/s
95th percentile per-packet one-way delay: 209.823 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 620.36 Mbit/s
95th percentile per-packet one-way delay: 177.737 ms
Loss rate: 0.91%
Run 5: Report of FillP — Data Link

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

- Flow 1 ingress (mean 711.94 Mbps)
- Flow 1 egress (mean 708.81 Mbps)
- Flow 2 ingress (mean 679.56 Mbps)
- Flow 2 egress (mean 675.69 Mbps)
- Flow 3 ingress (mean 619.22 Mbps)
- Flow 3 egress (mean 620.36 Mbps)

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

- Flow 1 (95th percentile 254.15 ms)
- Flow 2 (95th percentile 209.82 ms)
- Flow 3 (95th percentile 177.74 ms)
Run 6: Statistics of FillP

End at: 2018-07-27 10:11:17
Local clock offset: 0.074 ms
Remote clock offset: 1.315 ms

# Below is generated by plot.py at 2018-07-27 13:35:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1382.76 Mbit/s
95th percentile per-packet one-way delay: 224.329 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 712.07 Mbit/s
95th percentile per-packet one-way delay: 223.103 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 697.07 Mbit/s
95th percentile per-packet one-way delay: 243.509 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 628.06 Mbit/s
95th percentile per-packet one-way delay: 195.970 ms
Loss rate: 1.65%
Run 6: Report of FillP — Data Link

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

- Flow 1 ingress (mean 711.87 Mbit/s)
- Flow 1 egress (mean 712.07 Mbit/s)
- Flow 2 ingress (mean 701.47 Mbit/s)
- Flow 2 egress (mean 697.07 Mbit/s)
- Flow 3 ingress (mean 632.05 Mbit/s)
- Flow 3 egress (mean 628.06 Mbit/s)

- Flow 1 (95th percentile 223.10 ms)
- Flow 2 (95th percentile 243.51 ms)
- Flow 3 (95th percentile 195.97 ms)
Run 7: Statistics of FillP

Start at: 2018-07-27 10:35:18
End at: 2018-07-27 10:35:48
Local clock offset: 0.107 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2018-07-27 13:35:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1264.10 Mbit/s
95th percentile per-packet one-way delay: 238.609 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 722.99 Mbit/s
95th percentile per-packet one-way delay: 236.828 ms
Loss rate: 3.14%
-- Flow 2:
Average throughput: 631.98 Mbit/s
95th percentile per-packet one-way delay: 250.607 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 373.25 Mbit/s
95th percentile per-packet one-way delay: 211.937 ms
Loss rate: 0.34%
Run 7: Report of FillP — Data Link

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

- **Flow 1 ingress** (mean 743.90 Mbps)
- **Flow 1 egress** (mean 722.99 Mbps)
- **Flow 2 ingress** (mean 632.06 Mbps)
- **Flow 2 egress** (mean 633.98 Mbps)
- **Flow 3 ingress** (mean 366.27 Mbps)
- **Flow 3 egress** (mean 373.25 Mbps)

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

- **Flow 1** (95th percentile 236.83 ms)
- **Flow 2** (95th percentile 250.61 ms)
- **Flow 3** (95th percentile 211.94 ms)
Run 8: Statistics of FillP

End at: 2018-07-27 11:00:07
Local clock offset: 0.232 ms
Remote clock offset: -1.396 ms

# Below is generated by plot.py at 2018-07-27 13:36:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1330.81 Mbit/s
95th percentile per-packet one-way delay: 219.936 ms
Loss rate: 4.66%
-- Flow 1:
Average throughput: 720.52 Mbit/s
95th percentile per-packet one-way delay: 240.815 ms
Loss rate: 3.46%
-- Flow 2:
Average throughput: 656.33 Mbit/s
95th percentile per-packet one-way delay: 180.763 ms
Loss rate: 5.11%
-- Flow 3:
Average throughput: 529.51 Mbit/s
95th percentile per-packet one-way delay: 200.620 ms
Loss rate: 8.33%
Run 8: Report of FillP — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Per-packet one-way delay vs Time](image2)
Run 9: Statistics of FillP

Start at: 2018-07-27 11:24:10
End at: 2018-07-27 11:24:40
Local clock offset: -0.089 ms
Remote clock offset: -0.145 ms

# Below is generated by plot.py at 2018-07-27 13:55:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1269.33 Mbit/s
  95th percentile per-packet one-way delay: 264.707 ms
  Loss rate: 4.45%
-- Flow 1:
  Average throughput: 643.17 Mbit/s
  95th percentile per-packet one-way delay: 276.034 ms
  Loss rate: 3.80%
-- Flow 2:
  Average throughput: 633.61 Mbit/s
  95th percentile per-packet one-way delay: 195.563 ms
  Loss rate: 6.97%
-- Flow 3:
  Average throughput: 622.50 Mbit/s
  95th percentile per-packet one-way delay: 162.120 ms
  Loss rate: 1.05%
Run 9: Report of FillP — Data Link
Run 10: Statistics of FillP

Local clock offset: -0.024 ms
Remote clock offset: 1.173 ms

# Below is generated by plot.py at 2018-07-27 13:56:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1111.22 Mbit/s
95th percentile per-packet one-way delay: 250.199 ms
Loss rate: 5.54%
-- Flow 1:
Average throughput: 516.63 Mbit/s
95th percentile per-packet one-way delay: 258.484 ms
Loss rate: 5.69%
-- Flow 2:
Average throughput: 644.24 Mbit/s
95th percentile per-packet one-way delay: 251.823 ms
Loss rate: 5.80%
-- Flow 3:
Average throughput: 505.09 Mbit/s
95th percentile per-packet one-way delay: 147.481 ms
Loss rate: 4.37%
Run 10: Report of FillIP — Data Link
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-27 08:15:13
End at: 2018-07-27 08:15:43
Local clock offset: -0.026 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-07-27 14:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1195.53 Mbit/s
95th percentile per-packet one-way delay: 191.008 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 646.64 Mbit/s
95th percentile per-packet one-way delay: 221.672 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 570.44 Mbit/s
95th percentile per-packet one-way delay: 146.355 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 515.03 Mbit/s
95th percentile per-packet one-way delay: 91.202 ms
Loss rate: 0.21%
Run 1: Report of FillP-Sheep — Data Link

![Throughput and Delay Graphs]

- Flow 1 Ingress (mean 646.85 Mbit/s)
- Flow 1 Egress (mean 646.64 Mbit/s)
- Flow 2 Ingress (mean 573.33 Mbit/s)
- Flow 2 Egress (mean 570.44 Mbit/s)
- Flow 3 Ingress (mean 511.62 Mbit/s)
- Flow 3 Egress (mean 515.03 Mbit/s)

![Packet Delay Graphs]

- Flow 1 (95th percentile 221.67 ms)
- Flow 2 (95th percentile 146.35 ms)
- Flow 3 (95th percentile 91.20 ms)
Run 2: Statistics of FillP-Sheep

Start at: 2018-07-27 08:39:40
End at: 2018-07-27 08:40:10
Local clock offset: 0.108 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-07-27 14:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1030.28 Mbit/s
95th percentile per-packet one-way delay: 210.751 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 571.88 Mbit/s
95th percentile per-packet one-way delay: 209.927 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 408.02 Mbit/s
95th percentile per-packet one-way delay: 213.601 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 569.90 Mbit/s
95th percentile per-packet one-way delay: 91.504 ms
Loss rate: 1.35%
Run 2: Report of FillP-Sheep — Data Link
Run 3: Statistics of FillP-Sheep

Start at: 2018-07-27 09:04:02  
End at: 2018-07-27 09:04:32  
Local clock offset: 0.193 ms  
Remote clock offset: 1.315 ms

# Below is generated by plot.py at 2018-07-27 14:07:09  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 1291.37 Mbit/s  
  95th percentile per-packet one-way delay: 119.572 ms  
  Loss rate: 0.56%  
-- Flow 1:  
  Average throughput: 650.41 Mbit/s  
  95th percentile per-packet one-way delay: 123.396 ms  
  Loss rate: 0.33%  
-- Flow 2:  
  Average throughput: 669.11 Mbit/s  
  95th percentile per-packet one-way delay: 116.096 ms  
  Loss rate: 0.63%  
-- Flow 3:  
  Average throughput: 597.92 Mbit/s  
  95th percentile per-packet one-way delay: 107.968 ms  
  Loss rate: 1.19%
Run 3: Report of FillP-Sheep — Data Link
Run 4: Statistics of FillP-Sheep

Local clock offset: 0.133 ms
Remote clock offset: 1.191 ms

# Below is generated by plot.py at 2018-07-27 14:10:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1364.64 Mbit/s
95th percentile per-packet one-way delay: 114.471 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 709.87 Mbit/s
95th percentile per-packet one-way delay: 117.770 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 685.44 Mbit/s
95th percentile per-packet one-way delay: 106.853 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 605.48 Mbit/s
95th percentile per-packet one-way delay: 99.090 ms
Loss rate: 1.40%
Run 4: Report of FillP-Sheep — Data Link
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-27 09:53:08
End at: 2018-07-27 09:53:38
Local clock offset: -0.068 ms
Remote clock offset: 0.196 ms

# Below is generated by plot.py at 2018-07-27 14:10:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1276.12 Mbit/s
  95th percentile per-packet one-way delay: 114.004 ms
  Loss rate: 0.81%
-- Flow 1:
  Average throughput: 663.14 Mbit/s
  95th percentile per-packet one-way delay: 119.109 ms
  Loss rate: 0.43%
-- Flow 2:
  Average throughput: 657.86 Mbit/s
  95th percentile per-packet one-way delay: 109.992 ms
  Loss rate: 1.06%
-- Flow 3:
  Average throughput: 534.25 Mbit/s
  95th percentile per-packet one-way delay: 79.250 ms
  Loss rate: 1.58%
Run 5: Report of FillP-Sheep — Data Link
Run 6: Statistics of FillP-Sheep

End at: 2018-07-27 10:18:25
Local clock offset: 0.055 ms
Remote clock offset: -1.401 ms

# Below is generated by plot.py at 2018-07-27 14:10:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1102.63 Mbit/s
95th percentile per-packet one-way delay: 209.828 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 586.62 Mbit/s
95th percentile per-packet one-way delay: 207.007 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 470.73 Mbit/s
95th percentile per-packet one-way delay: 205.146 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 618.64 Mbit/s
95th percentile per-packet one-way delay: 248.473 ms
Loss rate: 2.09%
Run 6: Report of FillP-Sheep — Data Link

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Graph 1: Throughput (Mbps)

- **Flow 1 ingress (mean 591.61 Mbps)**
- **Flow 1 egress (mean 586.62 Mbps)**
- **Flow 2 ingress (mean 475.76 Mbps)**
- **Flow 2 egress (mean 470.73 Mbps)**
- **Flow 3 ingress (mean 628.10 Mbps)**
- **Flow 3 egress (mean 618.64 Mbps)**

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

- **Flow 1 (95th percentile 207.01 ms)**
- **Flow 2 (95th percentile 205.15 ms)**
- **Flow 3 (95th percentile 248.47 ms)**

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Run 7: Statistics of FillP-Sheep

Local clock offset: -0.173 ms  
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2018-07-27 14:34:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1281.65 Mbit/s  
  95th percentile per-packet one-way delay: 130.754 ms  
  Loss rate: 0.79%
-- Flow 1:
  Average throughput: 684.75 Mbit/s  
  95th percentile per-packet one-way delay: 127.826 ms  
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 632.14 Mbit/s  
  95th percentile per-packet one-way delay: 141.912 ms  
  Loss rate: 1.09%
-- Flow 3:
  Average throughput: 537.29 Mbit/s  
  95th percentile per-packet one-way delay: 82.140 ms  
  Loss rate: 1.62%
Run 7: Report of FillP-Sheep — Data Link
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-27 11:06:42
End at: 2018-07-27 11:07:12
Local clock offset: 0.121 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-07-27 14:35:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1266.66 Mbit/s
  95th percentile per-packet one-way delay: 116.773 ms
  Loss rate: 0.51%
-- Flow 1:
  Average throughput: 666.43 Mbit/s
  95th percentile per-packet one-way delay: 126.975 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 632.56 Mbit/s
  95th percentile per-packet one-way delay: 104.424 ms
  Loss rate: 0.46%
-- Flow 3:
  Average throughput: 546.26 Mbit/s
  95th percentile per-packet one-way delay: 71.642 ms
  Loss rate: 1.20%
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-27 11:31:16
End at: 2018-07-27 11:31:46
Local clock offset: 0.053 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2018-07-27 14:37:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1361.79 Mbit/s
  95th percentile per-packet one-way delay: 114.700 ms
  Loss rate: 0.46%
-- Flow 1:
  Average throughput: 708.05 Mbit/s
  95th percentile per-packet one-way delay: 126.243 ms
  Loss rate: 0.45%
-- Flow 2:
  Average throughput: 700.96 Mbit/s
  95th percentile per-packet one-way delay: 84.453 ms
  Loss rate: 0.13%
-- Flow 3:
  Average throughput: 571.19 Mbit/s
  95th percentile per-packet one-way delay: 99.170 ms
  Loss rate: 1.34%
Run 9: Report of FillP-Sheep — Data Link

![Data Link Throughput Graph](image1)

- Flow 1 ingress (mean 708.91 Mbit/s)
- Flow 1 egress (mean 708.05 Mbit/s)
- Flow 2 ingress (mean 693.24 Mbit/s)
- Flow 2 egress (mean 700.96 Mbit/s)
- Flow 3 ingress (mean 572.83 Mbit/s)
- Flow 3 egress (mean 571.19 Mbit/s)

![Data Link Per-packet delay Graph](image2)

- Flow 1 (95th percentile 126.24 ms)
- Flow 2 (95th percentile 84.45 ms)
- Flow 3 (95th percentile 99.17 ms)
Run 10: Statistics of FillP-Sheep

Local clock offset: 0.083 ms
Remote clock offset: -1.362 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1185.77 Mbit/s
  95th percentile per-packet one-way delay: 167.919 ms
  Loss rate: 2.69%
-- Flow 1:
  Average throughput: 644.51 Mbit/s
  95th percentile per-packet one-way delay: 152.542 ms
  Loss rate: 1.90%
-- Flow 2:
  Average throughput: 562.11 Mbit/s
  95th percentile per-packet one-way delay: 176.080 ms
  Loss rate: 3.14%
-- Flow 3:
  Average throughput: 509.51 Mbit/s
  95th percentile per-packet one-way delay: 186.903 ms
  Loss rate: 4.63%
Run 10: Report of FillIP-Sheep — Data Link
Run 1: Statistics of Indigo

Start at: 2018-07-27 08:24:00
End at: 2018-07-27 08:24:30
Local clock offset: 0.114 ms
Remote clock offset: 1.306 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.65 Mbit/s
95th percentile per-packet one-way delay: 70.103 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 211.38 Mbit/s
95th percentile per-packet one-way delay: 68.275 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 192.20 Mbit/s
95th percentile per-packet one-way delay: 70.325 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 132.90 Mbit/s
95th percentile per-packet one-way delay: 72.589 ms
Loss rate: 1.24%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

End at: 2018-07-27 08:48:50
Local clock offset: -0.018 ms
Remote clock offset: -1.309 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 414.00 Mbit/s
  95th percentile per-packet one-way delay: 63.363 ms
  Loss rate: 0.48%
-- Flow 1:
  Average throughput: 221.76 Mbit/s
  95th percentile per-packet one-way delay: 62.482 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 222.73 Mbit/s
  95th percentile per-packet one-way delay: 63.460 ms
  Loss rate: 0.46%
-- Flow 3:
  Average throughput: 138.60 Mbit/s
  95th percentile per-packet one-way delay: 71.793 ms
  Loss rate: 1.17%
Run 2: Report of Indigo — Data Link

![Graph showing network performance metrics over time.](image-url)
Run 3: Statistics of Indigo

Start at: 2018-07-27 09:12:54
Local clock offset: -0.009 ms
Remote clock offset: 0.073 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 387.42 Mbit/s
95th percentile per-packet one-way delay: 67.361 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 230.86 Mbit/s
95th percentile per-packet one-way delay: 65.719 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 165.22 Mbit/s
95th percentile per-packet one-way delay: 68.112 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 144.83 Mbit/s
95th percentile per-packet one-way delay: 69.185 ms
Loss rate: 1.32%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Start at: 2018-07-27 09:37:26
End at: 2018-07-27 09:37:56
Local clock offset: 0.118 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 380.10 Mbit/s
  95th percentile per-packet one-way delay: 69.274 ms
  Loss rate: 0.51%
-- Flow 1:
  Average throughput: 212.03 Mbit/s
  95th percentile per-packet one-way delay: 64.894 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 186.43 Mbit/s
  95th percentile per-packet one-way delay: 71.776 ms
  Loss rate: 0.52%
-- Flow 3:
  Average throughput: 136.69 Mbit/s
  95th percentile per-packet one-way delay: 78.281 ms
  Loss rate: 1.23%
Run 4: Report of Indigo — Data Link

![Graph showing throughput over time](image1)

- **Throughput**
  - Flow 1 ingress (mean 212.05 Mbit/s)
  - Flow 1 egress (mean 212.03 Mbit/s)
  - Flow 2 ingress (mean 186.45 Mbit/s)
  - Flow 2 egress (mean 186.43 Mbit/s)
  - Flow 3 ingress (mean 136.97 Mbit/s)
  - Flow 3 egress (mean 136.69 Mbit/s)

![Graph showing packet delay over time](image2)

- **Per-packet one-way delay**
  - Flow 1 (95th percentile 64.89 ms)
  - Flow 2 (95th percentile 71.78 ms)
  - Flow 3 (95th percentile 78.28 ms)
Run 5: Statistics of Indigo

Start at: 2018-07-27 10:02:18
End at: 2018-07-27 10:02:48
Local clock offset: -0.147 ms
Remote clock offset: -0.217 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 408.74 Mbit/s
95th percentile per-packet one-way delay: 63.151 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 216.99 Mbit/s
95th percentile per-packet one-way delay: 62.397 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 213.52 Mbit/s
95th percentile per-packet one-way delay: 63.232 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 136.42 Mbit/s
95th percentile per-packet one-way delay: 65.356 ms
Loss rate: 1.23%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Start at: 2018-07-27 10:26:51
Local clock offset: 0.026 ms
Remote clock offset: -0.153 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 394.26 Mbit/s
95th percentile per-packet one-way delay: 64.694 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 210.24 Mbit/s
95th percentile per-packet one-way delay: 63.374 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 215.36 Mbit/s
95th percentile per-packet one-way delay: 65.021 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 126.42 Mbit/s
95th percentile per-packet one-way delay: 70.313 ms
Loss rate: 1.36%
Run 6: Report of Indigo — Data Link

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

- **Flow 1 ingress (mean 210.22 Mbit/s)**
- **Flow 1 egress (mean 210.24 Mbit/s)**
- **Flow 2 ingress (mean 215.26 Mbit/s)**
- **Flow 2 egress (mean 215.36 Mbit/s)**
- **Flow 3 ingress (mean 126.80 Mbit/s)**
- **Flow 3 egress (mean 126.42 Mbit/s)**

**Per packet one way delay (ms):**
- **Flow 1 (95th percentile 63.37 ms)**
- **Flow 2 (95th percentile 65.02 ms)**
- **Flow 3 (95th percentile 70.31 ms)**
Run 7: Statistics of Indigo

Start at: 2018-07-27 10:51:10
End at: 2018-07-27 10:51:40
Local clock offset: 0.022 ms
Remote clock offset: 0.143 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 357.38 Mbit/s
95th percentile per-packet one-way delay: 65.058 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 213.13 Mbit/s
95th percentile per-packet one-way delay: 63.152 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 178.72 Mbit/s
95th percentile per-packet one-way delay: 65.552 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 78.64 Mbit/s
95th percentile per-packet one-way delay: 70.272 ms
Loss rate: 1.16%
Run 7: Report of Indigo — Data Link

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

- **Flow 1** (ingress: mean 213.13 Mbps, egress: mean 213.13 Mbps)
- **Flow 2** (ingress: mean 178.66 Mbps, egress: mean 178.72 Mbps)
- **Flow 3** (ingress: mean 78.70 Mbps, egress: mean 78.64 Mbps)

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

- **Flow 1** (95th percentile: 63.15 ms)
- **Flow 2** (95th percentile: 65.55 ms)
- **Flow 3** (95th percentile: 70.27 ms)
Run 8: Statistics of Indigo

End at: 2018-07-27 11:16:02
Local clock offset: -0.025 ms
Remote clock offset: 1.21 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 361.65 Mbit/s
  95th percentile per-packet one-way delay: 83.304 ms
  Loss rate: 0.36%
-- Flow 1:
  Average throughput: 202.51 Mbit/s
  95th percentile per-packet one-way delay: 70.468 ms
  Loss rate: 0.33%
-- Flow 2:
  Average throughput: 192.88 Mbit/s
  95th percentile per-packet one-way delay: 97.032 ms
  Loss rate: 0.24%
-- Flow 3:
  Average throughput: 96.54 Mbit/s
  95th percentile per-packet one-way delay: 98.897 ms
  Loss rate: 1.07%
Run 8: Report of Indigo — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 202.47 Mbps) — Flow 1 egress (mean 202.51 Mbps)
Flow 2 ingress (mean 192.19 Mbps) — Flow 2 egress (mean 192.88 Mbps)
Flow 3 ingress (mean 96.53 Mbps) — Flow 3 egress (mean 96.54 Mbps)

Per packet round trip delay (ms)

Time (s)

Flow 1 (95th percentile 70.47 ms) — Flow 2 (95th percentile 97.03 ms) — Flow 3 (95th percentile 98.90 ms)
Run 9: Statistics of Indigo

Local clock offset: 0.076 ms
Remote clock offset: 0.133 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.64 Mbit/s
95th percentile per-packet one-way delay: 62.404 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 220.43 Mbit/s
95th percentile per-packet one-way delay: 61.368 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 187.89 Mbit/s
95th percentile per-packet one-way delay: 62.658 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 161.60 Mbit/s
95th percentile per-packet one-way delay: 64.564 ms
Loss rate: 1.27%
Run 9: Report of Indigo — Data Link

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

Legend:
- Flow 1 ingress (mean 220.42 Mbit/s)
- Flow 1 egress (mean 220.43 Mbit/s)
- Flow 2 ingress (mean 187.86 Mbit/s)
- Flow 2 egress (mean 187.89 Mbit/s)
- Flow 3 ingress (mean 161.93 Mbit/s)
- Flow 3 egress (mean 161.60 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 61.37 ms)
- Flow 2 (95th percentile 62.66 ms)
- Flow 3 (95th percentile 64.56 ms)
Run 10: Statistics of Indigo

Start at: 2018-07-27 12:04:54
End at: 2018-07-27 12:05:24
Local clock offset: -0.299 ms
Remote clock offset: 0.153 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.51 Mbit/s
95th percentile per-packet one-way delay: 59.682 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 216.18 Mbit/s
95th percentile per-packet one-way delay: 59.314 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 165.48 Mbit/s
95th percentile per-packet one-way delay: 59.861 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 158.03 Mbit/s
95th percentile per-packet one-way delay: 60.044 ms
Loss rate: 1.22%
Run 10: Report of Indigo — Data Link

![Graph showing network performance metrics over time]

- **Flow 1 ingress (mean 216.18 Mbps)**
- **Flow 1 egress (mean 216.18 Mbps)**
- **Flow 2 ingress (mean 165.60 Mbps)**
- **Flow 2 egress (mean 165.48 Mbps)**
- **Flow 3 ingress (mean 158.28 Mbps)**
- **Flow 3 egress (mean 158.03 Mbps)**

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

- **Flow 1 (95th percentile 59.31 ms)**
- **Flow 2 (95th percentile 59.86 ms)**
- **Flow 3 (95th percentile 60.04 ms)**
Run 1: Statistics of LEDBAT

Start at: 2018-07-27 08:28:29
End at: 2018-07-27 08:28:59
Local clock offset: 0.058 ms
Remote clock offset: 1.343 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.78 Mbit/s
95th percentile per-packet one-way delay: 54.448 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 54.551 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 20.75 Mbit/s
95th percentile per-packet one-way delay: 54.073 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 10.58 Mbit/s
95th percentile per-packet one-way delay: 55.705 ms
Loss rate: 2.13%
Run 1: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 31.68 Mbit/s)
- Flow 1 egress (mean 31.57 Mbit/s)
- Flow 2 ingress (mean 20.86 Mbit/s)
- Flow 2 egress (mean 20.75 Mbit/s)
- Flow 3 ingress (mean 10.70 Mbit/s)
- Flow 3 egress (mean 10.58 Mbit/s)

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

- Flow 1 (95th percentile 54.55 ms)
- Flow 2 (95th percentile 54.07 ms)
- Flow 3 (95th percentile 55.70 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-07-27 08:52:52
End at: 2018-07-27 08:53:22
Local clock offset: 0.009 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.93 Mbit/s
95th percentile per-packet one-way delay: 55.198 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 32.27 Mbit/s
95th percentile per-packet one-way delay: 55.207 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 20.05 Mbit/s
95th percentile per-packet one-way delay: 55.229 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 10.32 Mbit/s
95th percentile per-packet one-way delay: 54.955 ms
Loss rate: 2.13%
Run 2: Report of LEDBAT — Data Link

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

- **Flow 1** (ingress mean 32.38 Mbit/s, egress mean 32.27 Mbit/s)
- **Flow 2** (ingress mean 20.16 Mbit/s, egress mean 20.05 Mbit/s)
- **Flow 3** (ingress mean 10.43 Mbit/s, egress mean 10.32 Mbit/s)

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

- **Flow 1** (95th percentile 55.21 ms)
- **Flow 2** (95th percentile 55.23 ms)
- **Flow 3** (95th percentile 54.95 ms)
Run 3: Statistics of LEDBAT

Start at: 2018-07-27 09:17:26
End at: 2018-07-27 09:17:56
Local clock offset: -0.138 ms
Remote clock offset: 1.016 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.55 Mbit/s
95th percentile per-packet one-way delay: 53.611 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 32.65 Mbit/s
95th percentile per-packet one-way delay: 53.706 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 21.64 Mbit/s
95th percentile per-packet one-way delay: 53.369 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 10.77 Mbit/s
95th percentile per-packet one-way delay: 50.516 ms
Loss rate: 2.12%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-07-27 09:41:54
End at: 2018-07-27 09:42:24
Local clock offset: -0.012 ms
Remote clock offset: 0.301 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 50.58 Mbit/s
  95th percentile per-packet one-way delay: 55.040 ms
  Loss rate: 0.84%
-- Flow 1:
  Average throughput: 32.14 Mbit/s
  95th percentile per-packet one-way delay: 54.637 ms
  Loss rate: 0.62%
-- Flow 2:
  Average throughput: 22.87 Mbit/s
  95th percentile per-packet one-way delay: 56.016 ms
  Loss rate: 1.01%
-- Flow 3:
  Average throughput: 9.88 Mbit/s
  95th percentile per-packet one-way delay: 54.378 ms
  Loss rate: 2.18%
Run 5: Statistics of LEDBAT

Start at: 2018-07-27 10:06:48
End at: 2018-07-27 10:07:18
Local clock offset: -0.089 ms
Remote clock offset: -1.277 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.10 Mbit/s
95th percentile per-packet one-way delay: 55.190 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 33.34 Mbit/s
95th percentile per-packet one-way delay: 55.395 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 22.56 Mbit/s
95th percentile per-packet one-way delay: 52.773 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 11.60 Mbit/s
95th percentile per-packet one-way delay: 53.464 ms
Loss rate: 2.04%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Local clock offset: -0.047 ms
Remote clock offset: -0.242 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.36 Mbit/s
95th percentile per-packet one-way delay: 55.031 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 33.00 Mbit/s
95th percentile per-packet one-way delay: 54.915 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 22.42 Mbit/s
95th percentile per-packet one-way delay: 55.265 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 10.57 Mbit/s
95th percentile per-packet one-way delay: 55.434 ms
Loss rate: 2.11%
Run 6: Report of LEDBAT — Data Link

![Graph showing throughput and packet loss over time for different flows.](image-url)
Run 7: Statistics of LEDBAT

End at: 2018-07-27 10:56:08
Local clock offset: -0.017 ms
Remote clock offset: -1.319 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.85 Mbit/s
95th percentile per-packet one-way delay: 57.062 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 32.86 Mbit/s
95th percentile per-packet one-way delay: 57.341 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 17.40 Mbit/s
95th percentile per-packet one-way delay: 56.642 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 10.67 Mbit/s
95th percentile per-packet one-way delay: 57.019 ms
Loss rate: 2.14%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-07-27 11:20:03
End at: 2018-07-27 11:20:33
Local clock offset: 0.038 ms
Remote clock offset: 0.032 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.22 Mbit/s
95th percentile per-packet one-way delay: 52.168 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 33.79 Mbit/s
95th percentile per-packet one-way delay: 51.828 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 22.34 Mbit/s
95th percentile per-packet one-way delay: 53.095 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 11.08 Mbit/s
95th percentile per-packet one-way delay: 52.240 ms
Loss rate: 2.09%
Run 8: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 33.91 Mbps)
  - Flow 1 egress (mean 33.79 Mbps)
  - Flow 2 ingress (mean 22.45 Mbps)
  - Flow 2 egress (mean 22.34 Mbps)
  - Flow 3 ingress (mean 11.20 Mbps)
  - Flow 3 egress (mean 11.08 Mbps)

- **Per packet one way delay (ms)**
  - Flow 1 (95th percentile 51.03 ms)
  - Flow 2 (95th percentile 53.09 ms)
  - Flow 3 (95th percentile 52.24 ms)
Run 9: Statistics of LEDBAT

End at: 2018-07-27 11:45:27
Local clock offset: -0.137 ms
Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.15 Mbit/s
95th percentile per-packet one-way delay: 51.950 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 34.85 Mbit/s
95th percentile per-packet one-way delay: 52.102 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 22.09 Mbit/s
95th percentile per-packet one-way delay: 51.523 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 11.11 Mbit/s
95th percentile per-packet one-way delay: 52.193 ms
Loss rate: 2.09%
Run 9: Report of LEDBAT — Data Link

![Graph showing throughput over time for different flows]

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 34.96 Mb/s)
Flow 1 egress (mean 34.85 Mb/s)
Flow 2 ingress (mean 22.21 Mb/s)
Flow 2 egress (mean 22.09 Mb/s)
Flow 3 ingress (mean 11.22 Mb/s)
Flow 3 egress (mean 11.11 Mb/s)

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

Per packet round trip delay (ms)

Time (s)

Flow 1 (95th percentile 52.10 ms)
Flow 2 (95th percentile 51.52 ms)
Flow 3 (95th percentile 52.19 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-07-27 12:09:24
End at: 2018-07-27 12:09:54
Local clock offset: -0.084 ms
Remote clock offset: 0.279 ms

# Below is generated by plot.py at 2018-07-27 14:38:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 50.31 Mbit/s
  95th percentile per-packet one-way delay: 55.150 ms
  Loss rate: 0.88%
-- Flow 1:
  Average throughput: 33.02 Mbit/s
  95th percentile per-packet one-way delay: 55.314 ms
  Loss rate: 0.69%
-- Flow 2:
  Average throughput: 22.21 Mbit/s
  95th percentile per-packet one-way delay: 54.755 ms
  Loss rate: 1.03%
-- Flow 3:
  Average throughput: 7.78 Mbit/s
  95th percentile per-packet one-way delay: 56.873 ms
  Loss rate: 2.43%
Run 10: Report of LEDBAT — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows with mean rates indicated]
Run 1: Statistics of PCC-Allegro

End at: 2018-07-27 08:23:06
Local clock offset: -0.152 ms
Remote clock offset: 1.235 ms

# Below is generated by plot.py at 2018-07-27 14:44:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 432.39 Mbit/s
  95th percentile per-packet one-way delay: 168.715 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 395.73 Mbit/s
  95th percentile per-packet one-way delay: 168.540 ms
  Loss rate: 0.36%
-- Flow 2:
  Average throughput: 38.74 Mbit/s
  95th percentile per-packet one-way delay: 169.221 ms
  Loss rate: 0.67%
-- Flow 3:
  Average throughput: 33.68 Mbit/s
  95th percentile per-packet one-way delay: 169.827 ms
  Loss rate: 1.07%
Run 1: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mbps)]

Throughput (Mbps)

0 5 10 15 20 25 30

Time (s)

- Flow 1 ingress (mean 395.83 Mbps)
- Flow 1 egress (mean 395.73 Mbps)
- Flow 2 ingress (mean 38.61 Mbps)
- Flow 2 egress (mean 38.74 Mbps)
- Flow 3 ingress (mean 33.70 Mbps)
- Flow 3 egress (mean 33.68 Mbps)

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

Per-packet one-way delay (ms)

0 5 10 15 20 25 30

Time (s)

- Flow 1 (95th percentile 168.54 ms)
- Flow 2 (95th percentile 169.22 ms)
- Flow 3 (95th percentile 169.83 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-27 08:46:57
End at: 2018-07-27 08:47:27
Local clock offset: -0.098 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-07-27 14:44:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 424.39 Mbit/s  
  95th percentile per-packet one-way delay: 201.922 ms 
  Loss rate: 0.75%
  -- Flow 1:
  Average throughput: 383.45 Mbit/s  
  95th percentile per-packet one-way delay: 201.954 ms 
  Loss rate: 0.72%
  -- Flow 2:
  Average throughput: 31.17 Mbit/s  
  95th percentile per-packet one-way delay: 202.046 ms 
  Loss rate: 0.97%
  -- Flow 3:
  Average throughput: 61.96 Mbit/s  
  95th percentile per-packet one-way delay: 151.932 ms 
  Loss rate: 1.05%
Run 2: Report of PCC-Allegro — Data Link

![Graph of Throughput vs Time]

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

Legend:
- Flow 1 ingress (mean 384.83 Mbit/s)
- Flow 1 egress (mean 383.45 Mbit/s)
- Flow 2 ingress (mean 31.36 Mbit/s)
- Flow 2 egress (mean 31.17 Mbit/s)
- Flow 3 ingress (mean 61.93 Mbit/s)
- Flow 3 egress (mean 61.96 Mbit/s)
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-27 09:11:29
End at: 2018-07-27 09:11:59
Local clock offset: 0.004 ms
Remote clock offset: -0.3 ms

# Below is generated by plot.py at 2018-07-27 14:44:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 453.56 Mbit/s
95th percentile per-packet one-way delay: 213.230 ms
Loss rate: 4.02%
-- Flow 1:
Average throughput: 412.85 Mbit/s
95th percentile per-packet one-way delay: 213.149 ms
Loss rate: 3.96%
-- Flow 2:
Average throughput: 60.37 Mbit/s
95th percentile per-packet one-way delay: 213.680 ms
Loss rate: 4.60%
-- Flow 3:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 214.682 ms
Loss rate: 8.37%
Run 3: Report of PCC-Allegro — Data Link
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-27 09:36:03
End at: 2018-07-27 09:36:33
Local clock offset: -0.214 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-07-27 14:44:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 416.35 Mbit/s
95th percentile per-packet one-way delay: 139.702 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 410.30 Mbit/s
95th percentile per-packet one-way delay: 140.178 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 140.321 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 8.74 Mbit/s
95th percentile per-packet one-way delay: 98.662 ms
Loss rate: 1.35%
Run 4: Report of PCC-Allegro — Data Link

![Data Link Diagram]

**Throughput (Mbps):**
- Flow 1 ingress (mean 410.44 Mbps)
- Flow 1 egress (mean 410.39 Mbps)
- Flow 2 ingress (mean 4.85 Mbps)
- Flow 2 egress (mean 4.85 Mbps)
- Flow 3 ingress (mean 8.77 Mbps)
- Flow 3 egress (mean 8.74 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 140.18 ms)
- Flow 2 (95th percentile 140.32 ms)
- Flow 3 (95th percentile 98.66 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-27 10:00:55  
End at: 2018-07-27 10:01:25  
Local clock offset: -0.047 ms  
Remote clock offset: 0.237 ms

# Below is generated by plot.py at 2018-07-27 14:44:58  
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.72 Mbit/s  
95th percentile per-packet one-way delay: 200.982 ms  
Loss rate: 0.54%
-- Flow 1:
Average throughput: 411.76 Mbit/s  
95th percentile per-packet one-way delay: 200.887 ms  
Loss rate: 0.54%
-- Flow 2:
Average throughput: 16.00 Mbit/s  
95th percentile per-packet one-way delay: 207.174 ms  
Loss rate: 0.67%
-- Flow 3:
Average throughput: 4.34 Mbit/s  
95th percentile per-packet one-way delay: 182.162 ms  
Loss rate: 1.15%
Run 5: Report of PCC-Allegro — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 6: Statistics of PCC-Allegro

Local clock offset: 0.113 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-07-27 14:45:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 432.58 Mbit/s
  95th percentile per-packet one-way delay: 196.922 ms
  Loss rate: 3.91%
-- Flow 1:
  Average throughput: 384.99 Mbit/s
  95th percentile per-packet one-way delay: 196.879 ms
  Loss rate: 3.59%
-- Flow 2:
  Average throughput: 43.46 Mbit/s
  95th percentile per-packet one-way delay: 196.850 ms
  Loss rate: 4.95%
-- Flow 3:
  Average throughput: 57.52 Mbit/s
  95th percentile per-packet one-way delay: 197.727 ms
  Loss rate: 8.51%
Run 6: Report of PCC-Allegro — Data Link

![Graph of Throughput (Mb/s) vs Time (s)]

- Flow 1 ingress (mean 397.89 Mbit/s)
- Flow 1 egress (mean 384.99 Mbit/s)
- Flow 2 ingress (mean 45.47 Mbit/s)
- Flow 2 egress (mean 43.46 Mbit/s)
- Flow 3 ingress (mean 62.24 Mbit/s)
- Flow 3 egress (mean 57.52 Mbit/s)

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

- Flow 1 (95th percentile 196.88 ms)
- Flow 2 (95th percentile 196.85 ms)
- Flow 3 (95th percentile 197.73 ms)
Run 7: Statistics of PCC-Allegro

End at: 2018-07-27 10:50:16  
Local clock offset: 0.121 ms  
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2018-07-27 14:48:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 442.25 Mbit/s  
95th percentile per-packet one-way delay: 185.432 ms  
Loss rate: 0.72%  
-- Flow 1:  
Average throughput: 407.59 Mbit/s  
95th percentile per-packet one-way delay: 185.425 ms  
Loss rate: 0.69%  
-- Flow 2:  
Average throughput: 43.69 Mbit/s  
95th percentile per-packet one-way delay: 185.393 ms  
Loss rate: 0.95%  
-- Flow 3:  
Average throughput: 17.32 Mbit/s  
95th percentile per-packet one-way delay: 185.967 ms  
Loss rate: 1.80%
Run 7: Report of PCC-Allegro — Data Link

1. Throughput
   - Flow 1 ingress (mean 409.02 Mbit/s)
   - Flow 1 egress (mean 407.59 Mbit/s)
   - Flow 2 ingress (mean 43.38 Mbit/s)
   - Flow 2 egress (mean 43.69 Mbit/s)
   - Flow 3 ingress (mean 17.45 Mbit/s)
   - Flow 3 egress (mean 17.32 Mbit/s)

2. Per-packet one-way delay (ms)
   - Flow 1 (95th percentile 185.43 ms)
   - Flow 2 (95th percentile 185.39 ms)
   - Flow 3 (95th percentile 185.97 ms)
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-27 11:14:09
End at: 2018-07-27 11:14:39
Local clock offset: -0.024 ms
Remote clock offset: 0.163 ms

# Below is generated by plot.py at 2018-07-27 14:48:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 431.25 Mbit/s
95th percentile per-packet one-way delay: 211.098 ms
Loss rate: 2.91%
-- Flow 1:
Average throughput: 397.24 Mbit/s
95th percentile per-packet one-way delay: 211.035 ms
Loss rate: 2.74%
-- Flow 2:
Average throughput: 35.51 Mbit/s
95th percentile per-packet one-way delay: 211.305 ms
Loss rate: 3.94%
-- Flow 3:
Average throughput: 32.16 Mbit/s
95th percentile per-packet one-way delay: 212.009 ms
Loss rate: 6.87%
Run 8: Report of PCC-Allegro — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 406.96 Mbit/s)
Flow 1 egress (mean 397.24 Mbit/s)
Flow 2 ingress (mean 36.77 Mbit/s)
Flow 2 egress (mean 35.51 Mbit/s)
Flow 3 ingress (mean 34.18 Mbit/s)
Flow 3 egress (mean 32.16 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 211.03 ms)
Flow 2 (95th percentile 211.31 ms)
Flow 3 (95th percentile 212.01 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-27 11:39:01
Local clock offset: -0.086 ms
Remote clock offset: -1.271 ms

# Below is generated by plot.py at 2018-07-27 14:52:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 431.66 Mbit/s
95th percentile per-packet one-way delay: 217.756 ms
Loss rate: 2.53%
-- Flow 1:
Average throughput: 388.23 Mbit/s
95th percentile per-packet one-way delay: 217.740 ms
Loss rate: 2.48%
-- Flow 2:
Average throughput: 64.48 Mbit/s
95th percentile per-packet one-way delay: 217.859 ms
Loss rate: 2.91%
-- Flow 3:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 217.507 ms
Loss rate: 5.21%
Run 9: Report of PCC-Allegro — Data Link

![Graph: Throughput (Mbps)](chart1)

- Flow 1 ingress (mean 396.69 Mbps)
- Flow 2 ingress (mean 66.05 Mbps)
- Flow 3 ingress (mean 2.12 Mbps)
- Flow 1 egress (mean 388.23 Mbps)
- Flow 2 egress (mean 64.48 Mbps)
- Flow 3 egress (mean 2.03 Mbps)

![Graph: Per-packet one-way delay (ms)](chart2)

- Flow 1 (95th percentile 217.74 ms)
- Flow 2 (95th percentile 217.86 ms)
- Flow 3 (95th percentile 217.51 ms)
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-27 12:03:31
End at: 2018-07-27 12:04:01
Local clock offset: -0.16 ms
Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2018-07-27 14:52:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 422.34 Mbit/s
95th percentile per-packet one-way delay: 205.659 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 393.91 Mbit/s
95th percentile per-packet one-way delay: 205.692 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 34.86 Mbit/s
95th percentile per-packet one-way delay: 209.206 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 16.23 Mbit/s
95th percentile per-packet one-way delay: 204.054 ms
Loss rate: 1.98%
Run 10: Report of PCC-Allegro — Data Link

![Graphs showing throughput and per-packet round-trip delay over time for different flows.](image-url)
Run 1: Statistics of PCC-Expr

Start at: 2018-07-27 08:12:23
End at: 2018-07-27 08:12:53
Local clock offset: 0.222 ms
Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2018-07-27 15:00:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 404.20 Mbit/s
  95th percentile per-packet one-way delay: 205.384 ms
  Loss rate: 8.65%
-- Flow 1:
  Average throughput: 259.59 Mbit/s
  95th percentile per-packet one-way delay: 203.030 ms
  Loss rate: 4.06%
-- Flow 2:
  Average throughput: 91.23 Mbit/s
  95th percentile per-packet one-way delay: 204.455 ms
  Loss rate: 5.80%
-- Flow 3:
  Average throughput: 256.41 Mbit/s
  95th percentile per-packet one-way delay: 207.245 ms
  Loss rate: 21.88%
Run 1: Report of PCC-Expr — Data Link

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

*Throughput (Mbps):* Flow 1 ingress (mean 269.60 Mbps), Flow 1 egress (mean 259.59 Mbps), Flow 2 ingress (mean 96.33 Mbps), Flow 2 egress (mean 91.23 Mbps), Flow 3 ingress (mean 324.73 Mbps), Flow 3 egress (mean 296.41 Mbps).

*Delay (ms):* Flow 1 (95th percentile 203.03 ms), Flow 2 (95th percentile 204.46 ms), Flow 3 (95th percentile 207.25 ms).
Run 2: Statistics of PCC-Expr

Start at: 2018-07-27 08:36:52
End at: 2018-07-27 08:37:22
Local clock offset: -0.012 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-07-27 15:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.24 Mbit/s
95th percentile per-packet one-way delay: 205.173 ms
Loss rate: 6.11%
-- Flow 1:
Average throughput: 229.24 Mbit/s
95th percentile per-packet one-way delay: 187.145 ms
Loss rate: 2.99%
-- Flow 2:
Average throughput: 231.34 Mbit/s
95th percentile per-packet one-way delay: 206.044 ms
Loss rate: 10.11%
-- Flow 3:
Average throughput: 43.91 Mbit/s
95th percentile per-packet one-way delay: 206.559 ms
Loss rate: 9.50%
Run 2: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 235.45 Mbit/s)
- Flow 1 egress (mean 229.24 Mbit/s)
- Flow 2 ingress (mean 256.02 Mbit/s)
- Flow 2 egress (mean 231.34 Mbit/s)
- Flow 3 ingress (mean 48.01 Mbit/s)
- Flow 3 egress (mean 43.91 Mbit/s)
Run 3: Statistics of PCC-Expr

Start at: 2018-07-27 09:01:12
End at: 2018-07-27 09:01:42
Local clock offset: 0.174 ms
Remote clock offset: -1.364 ms

# Below is generated by plot.py at 2018-07-27 15:00:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 396.29 Mbit/s
  95th percentile per-packet one-way delay: 155.958 ms
  Loss rate: 1.07%
-- Flow 1:
  Average throughput: 272.21 Mbit/s
  95th percentile per-packet one-way delay: 162.471 ms
  Loss rate: 0.93%
-- Flow 2:
  Average throughput: 162.87 Mbit/s
  95th percentile per-packet one-way delay: 163.785 ms
  Loss rate: 1.34%
-- Flow 3:
  Average throughput: 48.74 Mbit/s
  95th percentile per-packet one-way delay: 69.279 ms
  Loss rate: 1.77%
Run 3: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 273.80 Mbit/s), egress (mean 272.21 Mbit/s)
- Flow 2 ingress (mean 164.20 Mbit/s), egress (mean 162.87 Mbit/s)
- Flow 3 ingress (mean 49.07 Mbit/s), egress (mean 48.74 Mbit/s)
Run 4: Statistics of PCC-Expr

Start at: 2018-07-27 09:25:44
End at: 2018-07-27 09:26:14
Local clock offset: 0.003 ms
Remote clock offset: -0.122 ms

# Below is generated by plot.py at 2018-07-27 15:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 288.55 Mbit/s
95th percentile per-packet one-way delay: 115.459 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 105.74 Mbit/s
95th percentile per-packet one-way delay: 73.531 ms
Loss rate: 1.39%
-- Flow 2:
Average throughput: 227.68 Mbit/s
95th percentile per-packet one-way delay: 120.074 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 96.69 Mbit/s
95th percentile per-packet one-way delay: 148.792 ms
Loss rate: 4.59%
Run 4: Report of PCC-Expr — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 106.87 Mbps)**
- **Flow 1 egress (mean 105.74 Mbps)**
- **Flow 2 ingress (mean 231.97 Mbps)**
- **Flow 2 egress (mean 227.68 Mbps)**
- **Flow 3 ingress (mean 100.23 Mbps)**
- **Flow 3 egress (mean 96.69 Mbps)**

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

- **Flow 1 (95th percentile 73.53 ms)**
- **Flow 2 (95th percentile 120.07 ms)**
- **Flow 3 (95th percentile 148.79 ms)**
Run 5: Statistics of PCC-Expr

Start at: 2018-07-27 09:50:18
End at: 2018-07-27 09:50:48
Local clock offset: -0.109 ms
Remote clock offset: -0.149 ms

# Below is generated by plot.py at 2018-07-27 15:09:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 383.69 Mbit/s
95th percentile per-packet one-way delay: 317.232 ms
Loss rate: 39.42%
-- Flow 1:
Average throughput: 379.52 Mbit/s
95th percentile per-packet one-way delay: 317.398 ms
Loss rate: 39.64%
-- Flow 2:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 206.679 ms
Loss rate: 11.98%
-- Flow 3:
Average throughput: 5.82 Mbit/s
95th percentile per-packet one-way delay: 204.035 ms
Loss rate: 5.95%
Run 5: Report of PCC-Expr — Data Link
Run 6: Statistics of PCC-Expr

Start at: 2018-07-27 10:15:12
End at: 2018-07-27 10:15:42
Local clock offset: -0.104 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2018-07-27 15:09:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.26 Mbit/s
95th percentile per-packet one-way delay: 89.623 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 198.43 Mbit/s
95th percentile per-packet one-way delay: 96.518 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 164.29 Mbit/s
95th percentile per-packet one-way delay: 62.081 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 17.58 Mbit/s
95th percentile per-packet one-way delay: 56.046 ms
Loss rate: 4.14%
Run 6: Report of PCC-Expr — Data Link
Run 7: Statistics of PCC-Expr

Start at: 2018-07-27 10:39:40
End at: 2018-07-27 10:40:10
Local clock offset: -0.134 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-07-27 15:09:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 224.34 Mbit/s
95th percentile per-packet one-way delay: 54.353 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 104.12 Mbit/s
95th percentile per-packet one-way delay: 53.548 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 93.47 Mbit/s
95th percentile per-packet one-way delay: 53.800 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 177.46 Mbit/s
95th percentile per-packet one-way delay: 58.964 ms
Loss rate: 0.94%
Run 7: Report of PCC-Expr — Data Link

Graph 1: Throughput (Mbps)

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

Legend:
- Flow 1 ingress (mean 104.06 Mbit/s)
- Flow 1 egress (mean 104.12 Mbit/s)
- Flow 2 ingress (mean 93.34 Mbit/s)
- Flow 2 egress (mean 93.47 Mbit/s)
- Flow 3 ingress (mean 177.18 Mbit/s)
- Flow 3 egress (mean 177.46 Mbit/s)
Run 8: Statistics of PCC-Expr

Start at: 2018-07-27 11:04:00
End at: 2018-07-27 11:04:30
Local clock offset: -0.188 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-07-27 15:09:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 290.91 Mbit/s
95th percentile per-packet one-way delay: 89.715 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 114.15 Mbit/s
95th percentile per-packet one-way delay: 53.613 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 217.68 Mbit/s
95th percentile per-packet one-way delay: 107.620 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 98.36 Mbit/s
95th percentile per-packet one-way delay: 64.986 ms
Loss rate: 0.83%
Run 8: Report of PCC-Expr — Data Link
Run 9: Statistics of PCC-Expr

End at: 2018-07-27 11:29:01
Local clock offset: -0.09 ms
Remote clock offset: 1.24 ms

# Below is generated by plot.py at 2018-07-27 15:13:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 333.86 Mbit/s
95th percentile per-packet one-way delay: 215.707 ms
Loss rate: 3.84%
-- Flow 1:
Average throughput: 244.12 Mbit/s
95th percentile per-packet one-way delay: 217.849 ms
Loss rate: 3.61%
-- Flow 2:
Average throughput: 93.89 Mbit/s
95th percentile per-packet one-way delay: 212.332 ms
Loss rate: 3.24%
-- Flow 3:
Average throughput: 83.63 Mbit/s
95th percentile per-packet one-way delay: 215.455 ms
Loss rate: 7.19%
Run 9: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 252.38 Mbit/s)
- Flow 1 egress (mean 244.12 Mbit/s)
- Flow 2 ingress (mean 96.51 Mbit/s)
- Flow 2 egress (mean 93.89 Mbit/s)
- Flow 3 ingress (mean 89.13 Mbit/s)
- Flow 3 egress (mean 83.63 Mbit/s)
Run 10: Statistics of PCC-Expr

Local clock offset: 0.048 ms
Remote clock offset: 0.172 ms

# Below is generated by plot.py at 2018-07-27 15:14:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.77 Mbit/s
95th percentile per-packet one-way delay: 172.829 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 236.06 Mbit/s
95th percentile per-packet one-way delay: 174.826 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 92.37 Mbit/s
95th percentile per-packet one-way delay: 72.503 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 47.19 Mbit/s
95th percentile per-packet one-way delay: 54.365 ms
Loss rate: 1.46%
Run 10: Report of PCC-Expr — Data Link

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**Throughput (Mbit/s)**

- **Flow 1 ingress (mean 236.99 Mbit/s)**
- **Flow 1 egress (mean 236.06 Mbit/s)**
- **Flow 2 ingress (mean 92.37 Mbit/s)**
- **Flow 2 egress (mean 92.37 Mbit/s)**
- **Flow 3 ingress (mean 47.44 Mbit/s)**
- **Flow 3 egress (mean 47.19 Mbit/s)**

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

- **Flow 1 (95th percentile 174.83 ms)**
- **Flow 2 (95th percentile 72.50 ms)**
- **Flow 3 (95th percentile 54.37 ms)**

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Run 1: Statistics of QUIC Cubic

Start at: 2018-07-27 08:10:02
End at: 2018-07-27 08:10:32
Local clock offset: -0.047 ms
Remote clock offset: -0.274 ms

# Below is generated by plot.py at 2018-07-27 15:14:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.20 Mbit/s
  95th percentile per-packet one-way delay: 53.804 ms
  Loss rate: 0.24%
-- Flow 1:
  Average throughput: 62.99 Mbit/s
  95th percentile per-packet one-way delay: 53.770 ms
  Loss rate: 0.17%
-- Flow 2:
  Average throughput: 31.09 Mbit/s
  95th percentile per-packet one-way delay: 53.255 ms
  Loss rate: 0.17%
-- Flow 3:
  Average throughput: 37.14 Mbit/s
  95th percentile per-packet one-way delay: 53.864 ms
  Loss rate: 0.71%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-27 08:34:30
End at: 2018-07-27 08:35:00
Local clock offset: 0.021 ms
Remote clock offset: 0.061 ms

# Below is generated by plot.py at 2018-07-27 15:14:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 53.191 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 52.72 Mbit/s
95th percentile per-packet one-way delay: 50.341 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 48.64 Mbit/s
95th percentile per-packet one-way delay: 53.199 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 32.97 Mbit/s
95th percentile per-packet one-way delay: 53.246 ms
Loss rate: 2.50%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-27 08:58:50
End at: 2018-07-27 08:59:20
Local clock offset: 0.21 ms
Remote clock offset: 0.044 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.19 Mbit/s
95th percentile per-packet one-way delay: 53.808 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 68.85 Mbit/s
95th percentile per-packet one-way delay: 53.826 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 30.80 Mbit/s
95th percentile per-packet one-way delay: 53.727 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 21.01 Mbit/s
95th percentile per-packet one-way delay: 53.784 ms
Loss rate: 0.48%
Run 3: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 68.92 Mbit/s)
- Flow 1 egress (mean 68.85 Mbit/s)
- Flow 2 ingress (mean 30.93 Mbit/s)
- Flow 2 egress (mean 30.80 Mbit/s)
- Flow 3 ingress (mean 20.89 Mbit/s)
- Flow 3 egress (mean 21.01 Mbit/s)

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

- Flow 1 (95th percentile 53.83 ms)
- Flow 2 (95th percentile 53.73 ms)
- Flow 3 (95th percentile 53.78 ms)
Run 4: Statistics of QUIC Cubic

End at: 2018-07-27 09:23:52
Local clock offset: -0.024 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.27 Mbit/s
95th percentile per-packet one-way delay: 53.559 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 63.61 Mbit/s
95th percentile per-packet one-way delay: 50.189 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 43.07 Mbit/s
95th percentile per-packet one-way delay: 53.607 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 21.42 Mbit/s
95th percentile per-packet one-way delay: 52.979 ms
Loss rate: 0.89%
Run 4: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 63.67 Mbit/s)
- Flow 1 egress (mean 63.61 Mbit/s)
- Flow 2 ingress (mean 43.23 Mbit/s)
- Flow 2 egress (mean 43.07 Mbit/s)
- Flow 3 ingress (mean 21.39 Mbit/s)
- Flow 3 egress (mean 21.42 Mbit/s)

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

- Flow 1 (95th percentile 50.19 ms)
- Flow 2 (95th percentile 53.61 ms)
- Flow 3 (95th percentile 52.98 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-27 09:47:56
End at: 2018-07-27 09:48:26
Local clock offset: -0.106 ms
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 98.70 Mbit/s
  95th percentile per-packet one-way delay: 53.093 ms
  Loss rate: 0.63%
-- Flow 1:
  Average throughput: 56.72 Mbit/s
  95th percentile per-packet one-way delay: 53.092 ms
  Loss rate: 0.42%
-- Flow 2:
  Average throughput: 54.67 Mbit/s
  95th percentile per-packet one-way delay: 53.096 ms
  Loss rate: 0.99%
-- Flow 3:
  Average throughput: 17.48 Mbit/s
  95th percentile per-packet one-way delay: 53.076 ms
  Loss rate: 0.48%
Run 5: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 56.77 Mbit/s)
- Flow 1 egress (mean 56.72 Mbit/s)
- Flow 2 ingress (mean 54.91 Mbit/s)
- Flow 2 egress (mean 54.67 Mbit/s)
- Flow 3 ingress (mean 17.27 Mbit/s)
- Flow 3 egress (mean 17.48 Mbit/s)
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-27 10:12:50
Local clock offset: 0.071 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 104.28 Mbit/s
  95th percentile per-packet one-way delay: 54.030 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 66.94 Mbit/s
  95th percentile per-packet one-way delay: 54.043 ms
  Loss rate: 0.43%
-- Flow 2:
  Average throughput: 48.54 Mbit/s
  95th percentile per-packet one-way delay: 53.784 ms
  Loss rate: 0.89%
-- Flow 3:
  Average throughput: 15.51 Mbit/s
  95th percentile per-packet one-way delay: 51.029 ms
  Loss rate: 0.56%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-27 10:37:18
Local clock offset: -0.021 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.22 Mbit/s
95th percentile per-packet one-way delay: 53.234 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 53.98 Mbit/s
95th percentile per-packet one-way delay: 53.234 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 37.70 Mbit/s
95th percentile per-packet one-way delay: 53.726 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 25.00 Mbit/s
95th percentile per-packet one-way delay: 50.503 ms
Loss rate: 3.27%
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-27 11:01:39
End at: 2018-07-27 11:02:09
Local clock offset: ~0.006 ms
Remote clock offset: ~0.084 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 84.78 Mbit/s
  95th percentile per-packet one-way delay: 53.843 ms
  Loss rate: 0.70%
-- Flow 1:
 Average throughput: 53.32 Mbit/s
  95th percentile per-packet one-way delay: 53.844 ms
  Loss rate: 0.55%
-- Flow 2:
 Average throughput: 39.11 Mbit/s
  95th percentile per-packet one-way delay: 53.739 ms
  Loss rate: 1.06%
-- Flow 3:
 Average throughput: 15.47 Mbit/s
  95th percentile per-packet one-way delay: 53.902 ms
  Loss rate: 0.45%
Run 8: Report of QUIC Cubic — Data Link

![Throughput and Latency Graphs]

- **Throughput Graph**:
  - Flow 1 ingress (mean 53.43 Mbit/s)
  - Flow 1 egress (mean 53.32 Mbit/s)
  - Flow 2 ingress (mean 39.32 Mbit/s)
  - Flow 2 egress (mean 39.11 Mbit/s)
  - Flow 3 ingress (mean 15.37 Mbit/s)
  - Flow 3 egress (mean 15.47 Mbit/s)

- **Latency Graph**:
  - Flow 1 (95th percentile 53.84 ms)
  - Flow 2 (95th percentile 53.74 ms)
  - Flow 3 (95th percentile 53.90 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-27 11:26:10
End at: 2018-07-27 11:26:40
Local clock offset: 0.088 ms
Remote clock offset: 1.252 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 82.38 Mbit/s
  95th percentile per-packet one-way delay: 52.666 ms
  Loss rate: 0.66%
  -- Flow 1:
  Average throughput: 46.26 Mbit/s
  95th percentile per-packet one-way delay: 51.916 ms
  Loss rate: 0.46%
  -- Flow 2:
  Average throughput: 43.68 Mbit/s
  95th percentile per-packet one-way delay: 52.701 ms
  Loss rate: 0.92%
  -- Flow 3:
  Average throughput: 21.55 Mbit/s
  95th percentile per-packet one-way delay: 52.557 ms
  Loss rate: 0.89%
Run 9: Report of QUIC Cubic — Data Link

[Graph 1: Throughput vs Time (Mbps)]

- Flow 1 ingress (mean 46.31 Mbps)
- Flow 1 egress (mean 46.26 Mbps)
- Flow 2 ingress (mean 43.85 Mbps)
- Flow 2 egress (mean 43.68 Mbps)
- Flow 3 ingress (mean 21.52 Mbps)
- Flow 3 egress (mean 21.55 Mbps)

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

- Flow 1 (95th percentile 51.92 ms)
- Flow 2 (95th percentile 52.70 ms)
- Flow 3 (95th percentile 52.56 ms)
Run 10: Statistics of QUIC Cubic

Local clock offset: -0.084 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.44 Mbit/s
  95th percentile per-packet one-way delay: 53.708 ms
  Loss rate: 0.72%
-- Flow 1:
  Average throughput: 51.03 Mbit/s
  95th percentile per-packet one-way delay: 53.722 ms
  Loss rate: 0.47%
-- Flow 2:
  Average throughput: 24.63 Mbit/s
  95th percentile per-packet one-way delay: 50.456 ms
  Loss rate: 1.60%
-- Flow 3:
  Average throughput: 21.44 Mbit/s
  95th percentile per-packet one-way delay: 50.135 ms
  Loss rate: 0.45%
Run 10: Report of QUIC Cubic — Data Link

![Graph showing network throughput and packet delay](image1)

![Graph showing packet delay and network traffic](image2)

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Run 1: Statistics of SCReAM

Start at: 2018-07-27 08:11:15
End at: 2018-07-27 08:11:45
Local clock offset: 0.048 ms
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 54.040 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.060 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.589 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.349 ms
Loss rate: 0.74%
Run 1: Report of SCReAM — Data Link

![Graph showing throughput and per-packet loss with time for different flows.](image-url)
Run 2: Statistics of SCReAM

Start at: 2018-07-27 08:35:44
End at: 2018-07-27 08:36:14
Local clock offset: -0.115 ms
Remote clock offset: -0.228 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 54.003 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 54.013 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 53.947 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 53.779 ms
  Loss rate: 1.08%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-07-27 09:00:04
End at: 2018-07-27 09:00:34
Local clock offset: 0.045 ms
Remote clock offset: -1.298 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 55.017 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 55.045 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 51.712 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.657 ms
Loss rate: 1.10%
Run 3: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.21 Mbits/s)
- Flow 1 egress (mean 0.21 Mbits/s)
- Flow 2 ingress (mean 0.21 Mbits/s)
- Flow 2 egress (mean 0.21 Mbits/s)
- Flow 3 ingress (mean 0.22 Mbits/s)
- Flow 3 egress (mean 0.22 Mbits/s)

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

- Flow 1 (95th percentile 55.05 ms)
- Flow 2 (95th percentile 51.71 ms)
- Flow 3 (95th percentile 54.66 ms)
Run 4: Statistics of SCReAM

Start at: 2018-07-27 09:24:36
End at: 2018-07-27 09:25:06
Local clock offset: 0.018 ms
Remote clock offset: -0.379 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 54.084 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.990 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.061 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.148 ms
Loss rate: 1.08%
Run 4: Report of SCReAM — Data Link

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

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

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

- Flow 1 (95th percentile 53.99 ms)
- Flow 2 (95th percentile 54.06 ms)
- Flow 3 (95th percentile 54.15 ms)
Run 5: Statistics of SCReAM

Start at: 2018-07-27 09:49:09
End at: 2018-07-27 09:49:39
Local clock offset: -0.323 ms
Remote clock offset: -1.339 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 54.983 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.766 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 55.026 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.765 ms
Loss rate: 1.09%
Run 5: Report of SCReAM — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows.]
Run 6: Statistics of SCReAM

Start at: 2018-07-27 10:14:04
End at: 2018-07-27 10:14:34
Local clock offset: 0.175 ms
Remote clock offset: 0.277 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 53.673 ms
  Loss rate: 0.50%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 53.687 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 50.327 ms
  Loss rate: 0.39%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 53.692 ms
  Loss rate: 1.07%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-07-27 10:38:32
End at: 2018-07-27 10:39:02
Local clock offset: 0.148 ms
Remote clock offset: 0.049 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 53.923 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 53.281 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 53.956 ms
  Loss rate: 0.62%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 53.889 ms
  Loss rate: 1.09%
Run 7: Report of SCReAM — Data Link

[Graphs showing throughput and per-packet end-to-end delay over time for different flows.]
Run 8: Statistics of SCReAM

Start at: 2018-07-27 11:02:52
End at: 2018-07-27 11:03:22
Local clock offset: 0.14 ms
Remote clock offset: 0.987 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 52.891 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 52.911 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 49.793 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.862 ms
Loss rate: 1.08%
Run 9: Statistics of SCReAM

End at: 2018-07-27 11:27:52
Local clock offset: -0.077 ms
Remote clock offset: 0.021 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.800 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.826 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.333 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.859 ms
Loss rate: 1.10%
Run 9: Report of SCReAM — Data Link

---

**Throughput (Mbps)**

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

---

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

- Flow 1 (95th percentile 53.83 ms)
- Flow 2 (95th percentile 53.33 ms)
- Flow 3 (95th percentile 50.86 ms)
Run 10: Statistics of SCReAM

Start at: 2018-07-27 11:52:05
End at: 2018-07-27 11:52:35
Local clock offset: -0.284 ms
Remote clock offset: -1.206 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
  -- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 51.947 ms
  Loss rate: 0.58%
  -- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 51.751 ms
  Loss rate: 0.38%
  -- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 51.918 ms
  Loss rate: 0.61%
  -- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 54.848 ms
  Loss rate: 1.09%
Run 10: Report of SCReAM — Data Link

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

- **Throughput (Mb/s):**
  - Flow 1 ingress (mean 0.21 Mb/s)
  - Flow 1 egress (mean 0.21 Mb/s)
  - Flow 2 ingress (mean 0.22 Mb/s)
  - Flow 2 egress (mean 0.22 Mb/s)
  - Flow 3 ingress (mean 0.22 Mb/s)
  - Flow 3 egress (mean 0.22 Mb/s)

- **Per packet one way delay (ms):**
  - Flow 1 (95th percentile 51.75 ms)
  - Flow 2 (95th percentile 51.92 ms)
  - Flow 3 (95th percentile 54.85 ms)
Run 1: Statistics of Sprout

Start at: 2018-07-27 08:14:04  
End at: 2018-07-27 08:14:34  
Local clock offset: -0.055 ms  
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-07-27 15:14:33  
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 13.58 Mbit/s  
  95th percentile per-packet one-way delay: 53.599 ms  
  Loss rate: 0.64%
-- Flow 1:
  Average throughput: 7.46 Mbit/s  
  95th percentile per-packet one-way delay: 53.718 ms  
  Loss rate: 0.36%
-- Flow 2:
  Average throughput: 6.12 Mbit/s  
  95th percentile per-packet one-way delay: 53.571 ms  
  Loss rate: 0.76%
-- Flow 3:
  Average throughput: 6.32 Mbit/s  
  95th percentile per-packet one-way delay: 53.487 ms  
  Loss rate: 1.36%
Run 1: Report of Sprout — Data Link

![Graph showing throughput and delay](image.png)
Run 2: Statistics of Sprout

Start at: 2018-07-27 08:38:31
End at: 2018-07-27 08:39:01
Local clock offset: -0.067 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 54.411 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: 54.476 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 54.260 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 54.474 ms
Loss rate: 0.72%
Run 2: Report of Sprout — Data Link

![Graphs showing throughput and packet inter-arrival delay over time for different flow ingress and egress rates.](image-url)
Run 3: Statistics of Sprout

Start at: 2018-07-27 09:02:53
End at: 2018-07-27 09:03:23
Local clock offset: -0.132 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.22 Mbit/s
95th percentile per-packet one-way delay: 54.023 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 53.740 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: 54.266 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 3.28 Mbit/s
95th percentile per-packet one-way delay: 54.014 ms
Loss rate: 1.72%
Run 3: Report of Sprout — Data Link

**Throughput (Mbit/s)**

0 2 4 6 8 10

0 5 10 15 20 25 30

**Time (s)**

**Flow 1 ingress (mean 4.57 Mbit/s)**

**Flow 1 egress (mean 4.58 Mbit/s)**

**Flow 2 ingress (mean 6.86 Mbit/s)**

**Flow 2 egress (mean 6.87 Mbit/s)**

**Flow 3 ingress (mean 3.30 Mbit/s)**

**Flow 3 egress (mean 3.26 Mbit/s)**

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

0 5 10 15 20 25 30

**Flow 1 (95th percentile 53.74 ms)**

**Flow 2 (95th percentile 54.27 ms)**

**Flow 3 (95th percentile 54.01 ms)**

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Run 4: Statistics of Sprout

End at: 2018-07-27 09:27:44
Local clock offset: -0.068 ms
Remote clock offset: 0.083 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 54.711 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 5.94 Mbit/s
95th percentile per-packet one-way delay: 54.631 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 5.94 Mbit/s
95th percentile per-packet one-way delay: 54.771 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 54.801 ms
Loss rate: 0.15%
Run 4: Report of Sprout — Data Link

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

- **Flow 1 ingress (mean 5.93 Mbit/s)**
- **Flow 1 egress (mean 5.94 Mbit/s)**
- **Flow 2 ingress (mean 5.93 Mbit/s)**
- **Flow 2 egress (mean 5.93 Mbit/s)**
- **Flow 3 ingress (mean 5.43 Mbit/s)**
- **Flow 3 egress (mean 5.46 Mbit/s)**
Run 5: Statistics of Sprout

Start at: 2018-07-27 09:51:59
End at: 2018-07-27 09:52:29
Local clock offset: -0.228 ms
Remote clock offset: -0.363 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.10 Mbit/s
95th percentile per-packet one-way delay: 53.863 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 6.95 Mbit/s
95th percentile per-packet one-way delay: 53.270 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 7.29 Mbit/s
95th percentile per-packet one-way delay: 53.841 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 7.06 Mbit/s
95th percentile per-packet one-way delay: 54.274 ms
Loss rate: 0.72%
Run 5: Report of Sprout — Data Link

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

Legend:
- Flow 1 ingress (mean 6.93 Mbit/s)
- Flow 1 egress (mean 6.95 Mbit/s)
- Flow 2 ingress (mean 7.30 Mbit/s)
- Flow 2 egress (mean 7.29 Mbit/s)
- Flow 3 ingress (mean 7.05 Mbit/s)
- Flow 3 egress (mean 7.06 Mbit/s)
Run 6: Statistics of Sprout

Start at: 2018-07-27 10:16:46
End at: 2018-07-27 10:17:16
Local clock offset: 0.106 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 12.10 Mbit/s
  95th percentile per-packet one-way delay: 54.555 ms
  Loss rate: 0.29%
-- Flow 1:
  Average throughput: 5.75 Mbit/s
  95th percentile per-packet one-way delay: 54.468 ms
  Loss rate: 0.32%
-- Flow 2:
  Average throughput: 6.75 Mbit/s
  95th percentile per-packet one-way delay: 54.541 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 5.70 Mbit/s
  95th percentile per-packet one-way delay: 54.741 ms
  Loss rate: 0.87%
Run 6: Report of Sprout — Data Link

![Throughput Graph](image1)

![Per-packet one-way delay Graph](image2)
Run 7: Statistics of Sprout

Start at: 2018-07-27 10:41:07
End at: 2018-07-27 10:41:37
Local clock offset: 0.052 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 14.20 Mbit/s
  95th percentile per-packet one-way delay: 54.374 ms
  Loss rate: 0.67%
-- Flow 1:
  Average throughput: 7.41 Mbit/s
  95th percentile per-packet one-way delay: 54.454 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 6.62 Mbit/s
  95th percentile per-packet one-way delay: 54.385 ms
  Loss rate: 0.63%
-- Flow 3:
  Average throughput: 7.33 Mbit/s
  95th percentile per-packet one-way delay: 51.426 ms
  Loss rate: 2.05%
Run 7: Report of Sprout — Data Link

![Graph of Throughput and Delay over Time]

- Flow 1 ingress (mean 7.40 Mbit/s)
- Flow 1 egress (mean 7.41 Mbit/s)
- Flow 2 ingress (mean 6.64 Mbit/s)
- Flow 2 egress (mean 6.62 Mbit/s)
- Flow 3 ingress (mean 7.39 Mbit/s)
- Flow 3 egress (mean 7.33 Mbit/s)

![Graph of Packet Delay over Time]

- Flow 1 (95th percentile 54.45 ms)
- Flow 2 (95th percentile 54.38 ms)
- Flow 3 (95th percentile 51.43 ms)
Run 8: Statistics of Sprout

Start at: 2018-07-27 11:05:32
End at: 2018-07-27 11:06:02
Local clock offset: 0.111 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.32 Mbit/s
95th percentile per-packet one-way delay: 54.911 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 54.802 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 5.99 Mbit/s
95th percentile per-packet one-way delay: 54.989 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 7.02 Mbit/s
95th percentile per-packet one-way delay: 55.038 ms
Loss rate: 1.69%
Run 8: Report of Sprout — Data Link

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

Legend:
- Flow 1 ingress (mean 6.06 Mbit/s)
- Flow 1 egress (mean 6.06 Mbit/s)
- Flow 2 ingress (mean 5.99 Mbit/s)
- Flow 2 egress (mean 5.99 Mbit/s)
- Flow 3 ingress (mean 7.07 Mbit/s)
- Flow 3 egress (mean 7.02 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 54.80 ms)
- Flow 2 (95th percentile 54.99 ms)
- Flow 3 (95th percentile 55.04 ms)
Run 9: Statistics of Sprout

Start at: 2018-07-27 11:30:06
End at: 2018-07-27 11:30:36
Local clock offset: -0.059 ms
Remote clock offset: 1.264 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.52 Mbit/s
95th percentile per-packet one-way delay: 51.397 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 7.12 Mbit/s
95th percentile per-packet one-way delay: 52.382 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 8.01 Mbit/s
95th percentile per-packet one-way delay: 50.229 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 49.920 ms
Loss rate: 0.93%
Run 9: Report of Sprout — Data Link

The first graph shows the throughput over time for different flows, with lines indicating ingress and egress data rates, and their respective mean values.

The second graph illustrates the per-packet one-way delay over time, with symbols indicating the 95th percentile delay for each flow.

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Run 10: Statistics of Sprout

Start at: 2018-07-27 11:54:49
Local clock offset: -0.033 ms
Remote clock offset: 0.076 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.06 Mbit/s
95th percentile per-packet one-way delay: 54.342 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 6.46 Mbit/s
95th percentile per-packet one-way delay: 54.437 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 54.178 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 7.09 Mbit/s
95th percentile per-packet one-way delay: 54.071 ms
Loss rate: 1.40%
Run 10: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 6.47 Mbit/s)
- Flow 1 egress (mean 6.46 Mbit/s)
- Flow 2 ingress (mean 3.44 Mbit/s)
- Flow 2 egress (mean 3.43 Mbit/s)
- Flow 3 ingress (mean 7.11 Mbit/s)
- Flow 3 egress (mean 7.09 Mbit/s)
Run 1: Statistics of TaoVA-100x

Start at: 2018-07-27 08:20:12
End at: 2018-07-27 08:20:42
Local clock offset: -0.002 ms
Remote clock offset: -0.181 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.26 Mbit/s
95th percentile per-packet one-way delay: 54.027 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 33.25 Mbit/s
95th percentile per-packet one-way delay: 53.782 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 40.83 Mbit/s
95th percentile per-packet one-way delay: 57.470 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 208.03 Mbit/s
95th percentile per-packet one-way delay: 54.188 ms
Loss rate: 0.03%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2018-07-27 08:44:31
End at: 2018-07-27 08:45:01
Local clock offset: -0.054 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 104.11 Mbit/s
  95th percentile per-packet one-way delay: 53.509 ms
  Loss rate: 0.91%
-- Flow 1:
  Average throughput: 55.08 Mbit/s
  95th percentile per-packet one-way delay: 53.414 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 61.19 Mbit/s
  95th percentile per-packet one-way delay: 53.574 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 78.54 Mbit/s
  95th percentile per-packet one-way delay: 53.478 ms
  Loss rate: 3.49%
Run 2: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 54.91 Mbit/s)
Flow 1 egress (mean 55.08 Mbit/s)
Flow 2 ingress (mean 61.21 Mbit/s)
Flow 2 egress (mean 61.19 Mbit/s)
Flow 3 ingress (mean 80.52 Mbit/s)
Flow 3 egress (mean 78.54 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 53.41 ms)
Flow 2 (95th percentile 53.57 ms)
Flow 3 (95th percentile 53.48 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-07-27 09:09:08
End at: 2018-07-27 09:09:38
Local clock offset: -0.18 ms
Remote clock offset: -0.224 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.17 Mbit/s
95th percentile per-packet one-way delay: 54.991 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 120.49 Mbit/s
95th percentile per-packet one-way delay: 53.120 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.42 Mbit/s
95th percentile per-packet one-way delay: 53.719 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 76.70 Mbit/s
95th percentile per-packet one-way delay: 56.444 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

Graph 1: Throughput (Mb/s)
- Flow 1 ingress (mean 120.49 Mb/s)
- Flow 1 egress (mean 120.49 Mb/s)
- Flow 2 ingress (mean 20.39 Mb/s)
- Flow 2 egress (mean 20.42 Mb/s)
- Flow 3 ingress (mean 76.69 Mb/s)
- Flow 3 egress (mean 76.70 Mb/s)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 53.12 ms)
- Flow 2 (95th percentile 53.72 ms)
- Flow 3 (95th percentile 56.44 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-07-27 09:33:33
End at: 2018-07-27 09:34:03
Local clock offset: -0.033 ms
Remote clock offset: -1.437 ms

# Below is generated by plot.py at 2018-07-27 15:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.83 Mbit/s
95th percentile per-packet one-way delay: 55.055 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 133.69 Mbit/s
95th percentile per-packet one-way delay: 55.016 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 13.56 Mbit/s
95th percentile per-packet one-way delay: 55.001 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 55.135 ms
Loss rate: 0.58%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

End at: 2018-07-27 09:58:43
Local clock offset: 0.005 ms
Remote clock offset: -0.391 ms

# Below is generated by plot.py at 2018-07-27 15:19:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 275.10 Mbit/s
95th percentile per-packet one-way delay: 54.696 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 133.39 Mbit/s
95th percentile per-packet one-way delay: 56.046 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 206.26 Mbit/s
95th percentile per-packet one-way delay: 53.986 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 13.92 Mbit/s
95th percentile per-packet one-way delay: 53.497 ms
Loss rate: 1.07%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Local clock offset: -0.018 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2018-07-27 15:19:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 242.15 Mbit/s
  95th percentile per-packet one-way delay: 54.045 ms
  Loss rate: 0.35%
-- Flow 1:
  Average throughput: 234.60 Mbit/s
  95th percentile per-packet one-way delay: 54.012 ms
  Loss rate: 0.34%
-- Flow 2:
  Average throughput: 27.82 Mbit/s
  95th percentile per-packet one-way delay: 61.154 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 11.73 Mbit/s
  95th percentile per-packet one-way delay: 53.752 ms
  Loss rate: 1.06%
Run 6: Report of TaoVA-100x — Data Link

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

![Graph 2: Per-packet One-Way Delay vs Time](image2)
Run 7: Statistics of TaoVA-100x

Start at: 2018-07-27 10:47:17
Local clock offset: -0.123 ms
Remote clock offset: 1.036 ms

# Below is generated by plot.py at 2018-07-27 15:19:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.73 Mbit/s
95th percentile per-packet one-way delay: 52.592 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 216.30 Mbit/s
95th percentile per-packet one-way delay: 52.649 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.21 Mbit/s
95th percentile per-packet one-way delay: 52.480 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 84.79 Mbit/s
95th percentile per-packet one-way delay: 52.472 ms
Loss rate: 1.11%
Run 7: Report of TaoVA-100x — Data Link

![Graph of throughput and packet delay over time]

- **Flow 1 ingo**: mean 216.30 Mbit/s
- **Flow 1 egress**: mean 216.30 Mbit/s
- **Flow 2 ingo**: mean 20.16 Mbit/s
- **Flow 2 egress**: mean 20.21 Mbit/s
- **Flow 3 ingo**: mean 84.06 Mbit/s
- **Flow 3 egress**: mean 84.79 Mbit/s

- **Flow 1 (95th percentile 52.65 ms)**
- **Flow 2 (95th percentile 52.48 ms)**
- **Flow 3 (95th percentile 52.47 ms)**

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Run 8: Statistics of TaoVA-100x

Start at: 2018-07-27 11:11:42
End at: 2018-07-27 11:12:12
Local clock offset: 0.194 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-07-27 15:19:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 120.41 Mbit/s
95th percentile per-packet one-way delay: 56.163 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 34.93 Mbit/s
95th percentile per-packet one-way delay: 59.512 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 107.24 Mbit/s
95th percentile per-packet one-way delay: 54.991 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 146.53 Mbit/s
95th percentile per-packet one-way delay: 59.197 ms
Loss rate: 0.04%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

End at: 2018-07-27 11:36:50
Local clock offset: 0.079 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2018-07-27 15:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 273.60 Mbit/s
95th percentile per-packet one-way delay: 54.479 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 85.28 Mbit/s
95th percentile per-packet one-way delay: 50.626 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 216.83 Mbit/s
95th percentile per-packet one-way delay: 54.399 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 133.91 Mbit/s
95th percentile per-packet one-way delay: 60.333 ms
Loss rate: 1.47%
Run 9: Report of TaoVA-100x — Data Link

![Graph showing throughput and packet loss over time for different flows.]
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-27 12:01:03
End at: 2018-07-27 12:01:33
Local clock offset: 0.052 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-07-27 15:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 126.69 Mbit/s
95th percentile per-packet one-way delay: 54.144 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 86.45 Mbit/s
95th percentile per-packet one-way delay: 53.957 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 84.04 Mbit/s
95th percentile per-packet one-way delay: 55.040 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 243.88 Mbit/s
95th percentile per-packet one-way delay: 51.897 ms
Loss rate: 1.11%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-07-27 08:18:53
End at: 2018-07-27 08:19:23
Local clock offset: 0.14 ms
Remote clock offset: -0.317 ms

# Below is generated by plot.py at 2018-07-27 15:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 202.95 Mbit/s
95th percentile per-packet one-way delay: 62.958 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 58.28 Mbit/s
95th percentile per-packet one-way delay: 59.349 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 215.01 Mbit/s
95th percentile per-packet one-way delay: 63.323 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 5.41 Mbit/s
95th percentile per-packet one-way delay: 56.487 ms
Loss rate: 2.19%
Run 1: Report of TCP Vegas — Data Link

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

**Throughput (Mbps)**
- Flow 1 ingress (mean 58.18 Mbps)
- Flow 1 egress (mean 58.28 Mbps)
- Flow 2 ingress (mean 215.16 Mbps)
- Flow 2 egress (mean 215.01 Mbps)
- Flow 3 ingress (mean 5.47 Mbps)
- Flow 3 egress (mean 5.41 Mbps)

**Per-packet one-way delay (ms)**
- Flow 1 (95th percentile 59.35 ms)
- Flow 2 (95th percentile 63.32 ms)
- Flow 3 (95th percentile 56.49 ms)
Run 2: Statistics of TCP Vegas

Start at: 2018-07-27 08:43:11
End at: 2018-07-27 08:43:41
Local clock offset: 0.032 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-07-27 15:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 237.37 Mbit/s
95th percentile per-packet one-way delay: 63.747 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 222.57 Mbit/s
95th percentile per-packet one-way delay: 63.821 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 4.95 Mbit/s
95th percentile per-packet one-way delay: 61.534 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 34.90 Mbit/s
95th percentile per-packet one-way delay: 61.507 ms
Loss rate: 1.01%
Run 2: Report of TCP Vegas — Data Link

![Graph showing throughput and packet delay over time]

- Flow 1 ingress (mean 222.66 Mbit/s)
- Flow 1 egress (mean 222.57 Mbit/s)
- Flow 2 ingress (mean 4.96 Mbit/s)
- Flow 2 egress (mean 4.95 Mbit/s)
- Flow 3 ingress (mean 34.89 Mbit/s)
- Flow 3 egress (mean 34.90 Mbit/s)

- Flow 1 (95th percentile 63.82 ms)
- Flow 2 (95th percentile 61.53 ms)
- Flow 3 (95th percentile 61.51 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-07-27 09:07:44
End at: 2018-07-27 09:08:14
Local clock offset: 0.227 ms
Remote clock offset: -0.19 ms

# Below is generated by plot.py at 2018-07-27 15:24:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 323.02 Mbit/s
95th percentile per-packet one-way delay: 65.399 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 163.24 Mbit/s
95th percentile per-packet one-way delay: 63.037 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 140.64 Mbit/s
95th percentile per-packet one-way delay: 61.052 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 200.86 Mbit/s
95th percentile per-packet one-way delay: 67.665 ms
Loss rate: 1.33%
Run 3: Report of TCP Vegas — Data Link

![Graph showing network performance metrics over time. The graphs display throughput and per-packet one-way delay for different flows.](image-url)

- Flow 1 ingress (mean 163.07 Mbit/s)
- Flow 1 egress (mean 163.24 Mbit/s)
- Flow 2 ingress (mean 140.70 Mbit/s)
- Flow 2 egress (mean 140.64 Mbit/s)
- Flow 3 ingress (mean 201.49 Mbit/s)
- Flow 3 egress (mean 200.86 Mbit/s)
Run 4: Statistics of TCP Vegas

Start at: 2018-07-27 09:32:12
End at: 2018-07-27 09:32:42
Local clock offset: -0.181 ms
Remote clock offset: 1.223 ms

# Below is generated by plot.py at 2018-07-27 15:24:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 260.09 Mbit/s
95th percentile per-packet one-way delay: 62.384 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 199.02 Mbit/s
95th percentile per-packet one-way delay: 62.734 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 89.07 Mbit/s
95th percentile per-packet one-way delay: 55.775 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 5.83 Mbit/s
95th percentile per-packet one-way delay: 57.440 ms
Loss rate: 2.03%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-07-27 09:56:51
End at: 2018-07-27 09:57:21
Local clock offset: 0.042 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-07-27 15:25:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.71 Mbit/s
95th percentile per-packet one-way delay: 55.195 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 182.01 Mbit/s
95th percentile per-packet one-way delay: 55.168 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 150.35 Mbit/s
95th percentile per-packet one-way delay: 55.265 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 5.23 Mbit/s
95th percentile per-packet one-way delay: 54.492 ms
Loss rate: 1.68%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Local clock offset: -0.014 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-07-27 15:25:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.94 Mbit/s
95th percentile per-packet one-way delay: 59.509 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 81.15 Mbit/s
95th percentile per-packet one-way delay: 56.246 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 219.96 Mbit/s
95th percentile per-packet one-way delay: 60.179 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 68.86 Mbit/s
95th percentile per-packet one-way delay: 57.046 ms
Loss rate: 1.16%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-07-27 10:45:53
Local clock offset: 0.017 ms
Remote clock offset: 0.132 ms

# Below is generated by plot.py at 2018-07-27 15:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 306.91 Mbit/s
95th percentile per-packet one-way delay: 63.685 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 223.37 Mbit/s
95th percentile per-packet one-way delay: 64.089 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 123.25 Mbit/s
95th percentile per-packet one-way delay: 57.478 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 5.27 Mbit/s
95th percentile per-packet one-way delay: 55.256 ms
Loss rate: 2.29%
Run 7: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 223.48 Mb/s)
- Flow 1 egress (mean 223.37 Mb/s)
- Flow 2 ingress (mean 123.28 Mb/s)
- Flow 2 egress (mean 123.25 Mb/s)
- Flow 3 ingress (mean 5.34 Mb/s)
- Flow 3 egress (mean 5.27 Mb/s)
Run 8: Statistics of TCP Vegas

End at: 2018-07-27 11:10:53
Local clock offset: 0.173 ms
Remote clock offset: 1.089 ms

# Below is generated by plot.py at 2018-07-27 15:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.86 Mbit/s
95th percentile per-packet one-way delay: 61.008 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 188.86 Mbit/s
95th percentile per-packet one-way delay: 61.191 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 23.97 Mbit/s
95th percentile per-packet one-way delay: 54.175 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 36.59 Mbit/s
95th percentile per-packet one-way delay: 54.235 ms
Loss rate: 1.01%
Run 8: Report of TCP Vegas — Data Link

![Graph showing TCP Vegas data link throughput and packet round-trip delay over time.]
Run 9: Statistics of TCP Vegas

Start at: 2018-07-27 11:35:03
End at: 2018-07-27 11:35:33
Local clock offset: -0.064 ms
Remote clock offset: 0.075 ms

# Below is generated by plot.py at 2018-07-27 15:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 185.50 Mbit/s
95th percentile per-packet one-way delay: 51.422 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 93.72 Mbit/s
95th percentile per-packet one-way delay: 51.570 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 92.87 Mbit/s
95th percentile per-packet one-way delay: 51.169 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 91.04 Mbit/s
95th percentile per-packet one-way delay: 51.265 ms
Loss rate: 1.16%
Run 9: Report of TCP Vegas — Data Link

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

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

Legend:
- Flow 1 ingress (mean 93.74 Mbps)
- Flow 1 egress (mean 93.72 Mbps)
- Flow 2 ingress (mean 92.88 Mbps)
- Flow 2 egress (mean 92.87 Mbps)
- Flow 3 ingress (mean 91.18 Mbps)
- Flow 3 egress (mean 91.04 Mbps)
Run 10: Statistics of TCP Vegas

End at: 2018-07-27 12:00:08
Local clock offset: -0.116 ms
Remote clock offset: -1.348 ms

# Below is generated by plot.py at 2018-07-27 15:31:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 347.66 Mbit/s
95th percentile per-packet one-way delay: 60.920 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 227.77 Mbit/s
95th percentile per-packet one-way delay: 61.365 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 148.09 Mbit/s
95th percentile per-packet one-way delay: 56.845 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 64.89 Mbit/s
95th percentile per-packet one-way delay: 55.628 ms
Loss rate: 1.02%
Run 10: Report of TCP Vegas — Data Link
Run 1: Statistics of Verus

Start at: 2018-07-27 08:25:32
End at: 2018-07-27 08:26:02
Local clock offset: 0.232 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-07-27 15:31:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 336.31 Mbit/s
95th percentile per-packet one-way delay: 156.394 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 226.04 Mbit/s
95th percentile per-packet one-way delay: 141.577 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 129.03 Mbit/s
95th percentile per-packet one-way delay: 185.717 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 75.23 Mbit/s
95th percentile per-packet one-way delay: 176.745 ms
Loss rate: 1.57%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

End at: 2018-07-27 08:50:25
Local clock offset: 0.062 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-07-27 15:32:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 343.38 Mbit/s
  95th percentile per-packet one-way delay: 142.754 ms
  Loss rate: 1.89%
-- Flow 1:
  Average throughput: 215.41 Mbit/s
  95th percentile per-packet one-way delay: 160.894 ms
  Loss rate: 2.01%
-- Flow 2:
  Average throughput: 134.84 Mbit/s
  95th percentile per-packet one-way delay: 122.150 ms
  Loss rate: 1.09%
-- Flow 3:
  Average throughput: 116.68 Mbit/s
  95th percentile per-packet one-way delay: 141.232 ms
  Loss rate: 3.05%
Run 2: Report of Verus — Data Link

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

- Flow 1 ingress (mean 219.27 Mbps)
- Flow 1 egress (mean 215.41 Mbps)
- Flow 2 ingress (mean 135.62 Mbps)
- Flow 2 egress (mean 134.86 Mbps)
- Flow 3 ingress (mean 118.12 Mbps)
- Flow 3 egress (mean 116.68 Mbps)

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

- Flow 1 (95th percentile 160.89 ms)
- Flow 2 (95th percentile 122.15 ms)
- Flow 3 (95th percentile 141.23 ms)
Run 3: Statistics of Verus

Start at: 2018-07-27 09:14:27
End at: 2018-07-27 09:14:57
Local clock offset: 0.112 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2018-07-27 15:32:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.46 Mbit/s
95th percentile per-packet one-way delay: 156.272 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 231.81 Mbit/s
95th percentile per-packet one-way delay: 145.695 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 132.80 Mbit/s
95th percentile per-packet one-way delay: 147.154 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 150.59 Mbit/s
95th percentile per-packet one-way delay: 312.867 ms
Loss rate: 1.47%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

Start at: 2018-07-27 09:38:58
End at: 2018-07-27 09:39:28
Local clock offset: -0.187 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-07-27 15:32:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 308.75 Mbit/s
95th percentile per-packet one-way delay: 177.255 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 157.90 Mbit/s
95th percentile per-packet one-way delay: 196.918 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 177.36 Mbit/s
95th percentile per-packet one-way delay: 169.654 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 103.54 Mbit/s
95th percentile per-packet one-way delay: 168.888 ms
Loss rate: 0.04%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-07-27 10:03:51
End at: 2018-07-27 10:04:21
Local clock offset: -0.104 ms
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2018-07-27 15:32:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 334.13 Mbit/s
95th percentile per-packet one-way delay: 195.199 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 188.88 Mbit/s
95th percentile per-packet one-way delay: 187.483 ms
Loss rate: 1.58%
-- Flow 2:
Average throughput: 150.87 Mbit/s
95th percentile per-packet one-way delay: 197.663 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 137.10 Mbit/s
95th percentile per-packet one-way delay: 233.342 ms
Loss rate: 2.24%
Run 5: Report of Verus — Data Link

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

- Flow 1 ingress (mean 191.24 Mbit/s)
- Flow 1 egress (mean 188.88 Mbit/s)
- Flow 2 ingress (mean 153.55 Mbit/s)
- Flow 2 egress (mean 150.87 Mbit/s)
- Flow 3 ingress (mean 138.53 Mbit/s)
- Flow 3 egress (mean 137.10 Mbit/s)
Run 6: Statistics of Verus

Local clock offset: 0.027 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-07-27 15:33:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 351.62 Mbit/s
95th percentile per-packet one-way delay: 176.777 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 214.08 Mbit/s
95th percentile per-packet one-way delay: 164.335 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 159.75 Mbit/s
95th percentile per-packet one-way delay: 180.671 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 95.87 Mbit/s
95th percentile per-packet one-way delay: 191.383 ms
Loss rate: 2.80%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

End at: 2018-07-27 10:53:11
Local clock offset: -0.146 ms
Remote clock offset: 0.175 ms

# Below is generated by plot.py at 2018-07-27 15:34:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 338.73 Mbit/s
95th percentile per-packet one-way delay: 196.767 ms
Loss rate: 3.05%
-- Flow 1:
Average throughput: 222.55 Mbit/s
95th percentile per-packet one-way delay: 162.037 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 135.24 Mbit/s
95th percentile per-packet one-way delay: 295.944 ms
Loss rate: 7.09%
-- Flow 3:
Average throughput: 88.95 Mbit/s
95th percentile per-packet one-way delay: 264.671 ms
Loss rate: 5.22%
Run 7: Report of Verus — Data Link

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

**Throughput (Mbit/s)**

- **Flow 1 ingress (mean 223.86 Mbit/s)**
- **Flow 1 egress (mean 222.55 Mbit/s)**
- **Flow 2 ingress (mean 144.76 Mbit/s)**
- **Flow 2 egress (mean 135.24 Mbit/s)**
- **Flow 3 ingress (mean 83.44 Mbit/s)**
- **Flow 3 egress (mean 88.95 Mbit/s)**

**Delay (ms)**

- **Flow 1 (95th percentile 162.04 ms)**
- **Flow 2 (95th percentile 295.94 ms)**
- **Flow 3 (95th percentile 264.67 ms)**
Run 8: Statistics of Verus

Start at: 2018-07-27 11:17:04
End at: 2018-07-27 11:17:34
Local clock offset: 0.038 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-07-27 15:38:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 357.60 Mbit/s
95th percentile per-packet one-way delay: 150.629 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 211.14 Mbit/s
95th percentile per-packet one-way delay: 134.813 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 184.48 Mbit/s
95th percentile per-packet one-way delay: 156.529 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 80.99 Mbit/s
95th percentile per-packet one-way delay: 187.832 ms
Loss rate: 5.31%
Run 8: Report of Verus — Data Link
Run 9: Statistics of Verus

Local clock offset: -0.139 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2018-07-27 15:38:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 331.26 Mbit/s
  95th percentile per-packet one-way delay: 182.600 ms
  Loss rate: 1.67%
-- Flow 1:
  Average throughput: 186.69 Mbit/s
  95th percentile per-packet one-way delay: 195.810 ms
  Loss rate: 1.45%
-- Flow 2:
  Average throughput: 167.91 Mbit/s
  95th percentile per-packet one-way delay: 159.086 ms
  Loss rate: 1.47%
-- Flow 3:
  Average throughput: 100.46 Mbit/s
  95th percentile per-packet one-way delay: 188.566 ms
  Loss rate: 3.54%
Run 9: Report of Verus — Data Link

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

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

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Run 10: Statistics of Verus

Start at: 2018-07-27 12:06:26
End at: 2018-07-27 12:06:56
Local clock offset: -0.13 ms
Remote clock offset: 0.203 ms

# Below is generated by plot.py at 2018-07-27 15:38:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 340.10 Mbit/s
95th percentile per-packet one-way delay: 163.753 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 226.05 Mbit/s
95th percentile per-packet one-way delay: 151.603 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 132.57 Mbit/s
95th percentile per-packet one-way delay: 162.091 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 78.88 Mbit/s
95th percentile per-packet one-way delay: 189.653 ms
Loss rate: 1.46%
Run 10: Report of Verus — Data Link

Graph 1: Throughput (Mbps)

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

Legend:
- Flow 1 ingress (mean 227.30 Mbps)
- Flow 1 egress (mean 226.05 Mbps)
- Flow 2 ingress (mean 132.39 Mbps)
- Flow 2 egress (mean 132.57 Mbps)
- Flow 3 ingress (mean 79.08 Mbps)
- Flow 3 egress (mean 78.88 Mbps)

Legend for delay:
- Flow 1 (95th percentile 151.60 ms)
- Flow 2 (95th percentile 162.09 ms)
- Flow 3 (95th percentile 189.65 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-27 08:17:09
End at: 2018-07-27 08:17:39
Local clock offset: -0.034 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-07-27 15:44:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.61 Mbit/s
95th percentile per-packet one-way delay: 132.201 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 319.84 Mbit/s
95th percentile per-packet one-way delay: 91.576 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 299.99 Mbit/s
95th percentile per-packet one-way delay: 179.725 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 56.92 Mbit/s
95th percentile per-packet one-way delay: 51.214 ms
Loss rate: 2.52%
Run 1: Report of PCC-Vivace — Data Link
Run 2: Statistics of PCC-Vivace

Start at: 2018-07-27 08:41:29
End at: 2018-07-27 08:41:59
Local clock offset: 0.045 ms
Remote clock offset: -0.316 ms

# Below is generated by plot.py at 2018-07-27 15:44:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 505.94 Mbit/s
95th percentile per-packet one-way delay: 120.919 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 308.70 Mbit/s
95th percentile per-packet one-way delay: 55.743 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 257.53 Mbit/s
95th percentile per-packet one-way delay: 161.622 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 80.08 Mbit/s
95th percentile per-packet one-way delay: 54.562 ms
Loss rate: 1.27%
Run 2: Report of PCC-Vivace — Data Link
Run 3: Statistics of PCC-Vivace

Start at: 2018-07-27 09:06:01
End at: 2018-07-27 09:06:31
Local clock offset: 0.107 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2018-07-27 15:44:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 511.59 Mbit/s
  95th percentile per-packet one-way delay: 56.602 ms
  Loss rate: 0.59%
-- Flow 1:
  Average throughput: 305.67 Mbit/s
  95th percentile per-packet one-way delay: 59.026 ms
  Loss rate: 0.49%
-- Flow 2:
  Average throughput: 241.80 Mbit/s
  95th percentile per-packet one-way delay: 56.140 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 138.52 Mbit/s
  95th percentile per-packet one-way delay: 54.055 ms
  Loss rate: 1.26%
Run 3: Report of PCC-Vivace — Data Link

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

![Graph 2: Per-packet queue size vs Time](image2)
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-27 09:30:25
End at: 2018-07-27 09:30:55
Local clock offset: -0.111 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2018-07-27 15:46:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.75 Mbit/s
95th percentile per-packet one-way delay: 62.760 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 328.05 Mbit/s
95th percentile per-packet one-way delay: 52.532 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 265.11 Mbit/s
95th percentile per-packet one-way delay: 88.816 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 188.33 Mbit/s
95th percentile per-packet one-way delay: 60.147 ms
Loss rate: 1.50%
Run 4: Report of PCC-Vivace — Data Link

![Data Link Diagram]

- **Throughput:**
  - Flow 1 ingress (mean 327.83 Mbit/s)
  - Flow 1 egress (mean 328.05 Mbit/s)
  - Flow 2 ingress (mean 264.78 Mbit/s)
  - Flow 2 egress (mean 265.11 Mbit/s)
  - Flow 3 ingress (mean 189.18 Mbit/s)
  - Flow 3 egress (mean 188.33 Mbit/s)

- **Per-packet one-way delay:**
  - Flow 1 (95th percentile 52.53 ms)
  - Flow 2 (95th percentile 88.82 ms)
  - Flow 3 (95th percentile 60.15 ms)
Run 5: Statistics of PCC-Vivace

Local clock offset: -0.208 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-07-27 15:47:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 526.16 Mbit/s
  95th percentile per-packet one-way delay: 95.919 ms
  Loss rate: 0.55%
-- Flow 1:
  Average throughput: 321.12 Mbit/s
  95th percentile per-packet one-way delay: 73.236 ms
  Loss rate: 0.40%
-- Flow 2:
  Average throughput: 222.93 Mbit/s
  95th percentile per-packet one-way delay: 174.003 ms
  Loss rate: 0.52%
-- Flow 3:
  Average throughput: 174.31 Mbit/s
  95th percentile per-packet one-way delay: 72.615 ms
  Loss rate: 1.46%
Run 5: Report of PCC-Vivace — Data Link

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

- **Flow 1**: Ingress (mean 321.28 Mbit/s), Egress (mean 321.12 Mbit/s)
- **Flow 2**: Ingress (mean 222.84 Mbit/s), Egress (mean 222.93 Mbit/s)
- **Flow 3**: Ingress (mean 174.95 Mbit/s), Egress (mean 174.31 Mbit/s)

![Graph showing packet delay for different flows.]

- **Flow 1**: 95th percentile 73.24 ms
- **Flow 2**: 95th percentile 174.00 ms
- **Flow 3**: 95th percentile 72.61 ms

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Run 6: Statistics of PCC-Vivace

End at: 2018-07-27 10:20:18
Local clock offset: -0.045 ms
Remote clock offset: -0.161 ms

# Below is generated by plot.py at 2018-07-27 15:49:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.73 Mbit/s
95th percentile per-packet one-way delay: 67.786 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 270.39 Mbit/s
95th percentile per-packet one-way delay: 141.199 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 256.45 Mbit/s
95th percentile per-packet one-way delay: 55.972 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 82.65 Mbit/s
95th percentile per-packet one-way delay: 53.235 ms
Loss rate: 1.18%
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-27 10:44:15
End at: 2018-07-27 10:44:45
Local clock offset: 0.103 ms
Remote clock offset: 1.188 ms

# Below is generated by plot.py at 2018-07-27 15:49:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 443.78 Mbit/s
95th percentile per-packet one-way delay: 54.451 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 261.08 Mbit/s
95th percentile per-packet one-way delay: 53.902 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 229.52 Mbit/s
95th percentile per-packet one-way delay: 55.658 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 92.70 Mbit/s
95th percentile per-packet one-way delay: 50.251 ms
Loss rate: 1.60%
Run 7: Report of PCC-Vivace — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 261.28 Mbps)
  - Flow 1 egress (mean 261.08 Mbps)
  - Flow 2 ingress (mean 229.65 Mbps)
  - Flow 2 egress (mean 229.52 Mbps)
  - Flow 3 ingress (mean 93.15 Mbps)
  - Flow 3 egress (mean 92.70 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 53.90 ms)
  - Flow 2 (95th percentile 55.66 ms)
  - Flow 3 (95th percentile 50.25 ms)
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-27 11:08:40
End at: 2018-07-27 11:09:10
Local clock offset: 0.001 ms
Remote clock offset: 1.008 ms

# Below is generated by plot.py at 2018-07-27 15:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 505.36 Mbit/s
95th percentile per-packet one-way delay: 107.461 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 290.64 Mbit/s
95th percentile per-packet one-way delay: 173.121 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 246.37 Mbit/s
95th percentile per-packet one-way delay: 82.699 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 156.14 Mbit/s
95th percentile per-packet one-way delay: 57.359 ms
Loss rate: 1.25%
Run 8: Report of PCC-Vivace — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 291.15 Mbit/s)  Flow 1 egress (mean 290.64 Mbit/s)
Flow 2 ingress (mean 246.37 Mbit/s)  Flow 2 egress (mean 246.37 Mbit/s)
Flow 3 ingress (mean 156.44 Mbit/s)  Flow 3 egress (mean 156.14 Mbit/s)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 173.12 ms)  Flow 2 (95th percentile 82.70 ms)  Flow 3 (95th percentile 57.36 ms)

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Run 9: Statistics of PCC-Vivace

Start at: 2018-07-27 11:33:18
Local clock offset: -0.086 ms
Remote clock offset: 1.165 ms

# Below is generated by plot.py at 2018-07-27 15:50:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 544.82 Mbit/s
95th percentile per-packet one-way delay: 55.973 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 322.97 Mbit/s
95th percentile per-packet one-way delay: 58.785 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 262.50 Mbit/s
95th percentile per-packet one-way delay: 52.528 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 145.26 Mbit/s
95th percentile per-packet one-way delay: 67.741 ms
Loss rate: 1.08%
Run 9: Report of PCC-Vivace — Data Link

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

- **Flow 1** ingress (mean 322.76 Mbit/s)
- **Flow 1** egress (mean 322.97 Mbit/s)
- **Flow 2** ingress (mean 262.55 Mbit/s)
- **Flow 2** egress (mean 262.50 Mbit/s)
- **Flow 3** ingress (mean 145.28 Mbit/s)
- **Flow 3** egress (mean 145.26 Mbit/s)

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

- **Flow 1** (95th percentile 58.78 ms)
- **Flow 2** (95th percentile 52.53 ms)
- **Flow 3** (95th percentile 67.74 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-27 11:57:54
End at: 2018-07-27 11:58:24
Local clock offset: 0.003 ms
Remote clock offset: -1.261 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 540.21 Mbit/s
95th percentile per-packet one-way delay: 130.529 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 325.32 Mbit/s
95th percentile per-packet one-way delay: 164.397 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 251.06 Mbit/s
95th percentile per-packet one-way delay: 57.904 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 147.20 Mbit/s
95th percentile per-packet one-way delay: 69.945 ms
Loss rate: 1.24%
Run 10: Report of PCC-Vivace — Data Link
Run 1: Statistics of WebRTC media

End at: 2018-07-27 08:21:58
Local clock offset: -0.023 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.60 Mbit/s
95th percentile per-packet one-way delay: 53.976 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 54.001 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 53.606 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 53.695 ms
Loss rate: 1.62%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-07-27 08:45:48
End at: 2018-07-27 08:46:18
Local clock offset: 0.193 ms
Remote clock offset: 1.074 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.94 Mbit/s
  95th percentile per-packet one-way delay: 52.973 ms
  Loss rate: 0.66%
  -- Flow 1:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 52.833 ms
  Loss rate: 0.38%
  -- Flow 2:
  Average throughput: 1.34 Mbit/s
  95th percentile per-packet one-way delay: 53.010 ms
  Loss rate: 0.68%
  -- Flow 3:
  Average throughput: 0.55 Mbit/s
  95th percentile per-packet one-way delay: 49.285 ms
  Loss rate: 1.69%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-07-27 09:10:21
End at: 2018-07-27 09:10:51
Local clock offset: -0.004 ms
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 53.888 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 53.330 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 53.869 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 53.943 ms
Loss rate: 1.13%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-07-27 09:34:55
End at: 2018-07-27 09:35:25
Local clock offset: 0.121 ms
Remote clock offset: -0.324 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.93 Mbit/s
95th percentile per-packet one-way delay: 51.393 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 51.377 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 51.399 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 54.111 ms
Loss rate: 1.57%
Run 4: Report of WebRTC media — Data Link

Graph 1: Throughput (Mbps) vs Time (s)
- Flow 1 ingress (mean 2.07 Mbps)
- Flow 1 egress (mean 2.07 Mbps)
- Flow 2 ingress (mean 1.34 Mbps)
- Flow 2 egress (mean 1.34 Mbps)
- Flow 3 ingress (mean 0.55 Mbps)
- Flow 3 egress (mean 0.55 Mbps)

Graph 2: Per packet one way delay [ms] vs Time (s)
- Flow 1 (95th percentile 51.38 ms)
- Flow 2 (95th percentile 51.40 ms)
- Flow 3 (95th percentile 54.11 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-07-27 09:59:46
End at: 2018-07-27 10:00:16
Local clock offset: -0.097 ms
Remote clock offset: 1.01 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 52.773 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 52.732 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 52.810 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 52.725 ms
Loss rate: 1.63%
Run 5: Report of WebRTC media — Data Link

![Graph of throughput vs time for different flows]

- Flow 1 ingress (mean 2.09 Mbit/s)
- Flow 1 egress (mean 2.08 Mbit/s)
- Flow 2 ingress (mean 1.33 Mbit/s)
- Flow 2 egress (mean 1.32 Mbit/s)
- Flow 3 ingress (mean 0.55 Mbit/s)
- Flow 3 egress (mean 0.55 Mbit/s)

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

- Flow 1 (95th percentile 52.73 ms)
- Flow 2 (95th percentile 52.81 ms)
- Flow 3 (95th percentile 52.73 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-07-27 10:24:18
Local clock offset: -0.017 ms
Remote clock offset: 1.194 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.93 Mbit/s
  95th percentile per-packet one-way delay: 49.440 ms
  Loss rate: 0.66%
-- Flow 1:
  Average throughput: 2.06 Mbit/s
  95th percentile per-packet one-way delay: 49.454 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 1.34 Mbit/s
  95th percentile per-packet one-way delay: 49.221 ms
  Loss rate: 0.68%
-- Flow 3:
  Average throughput: 0.54 Mbit/s
  95th percentile per-packet one-way delay: 52.463 ms
  Loss rate: 1.64%

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Run 6: Report of WebRTC media — Data Link

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

Legend:
- **Flow 1 ingress (mean 2.06 Mbit/s)**
- **Flow 1 egress (mean 2.06 Mbit/s)**
- **Flow 2 ingress (mean 1.35 Mbit/s)**
- **Flow 2 egress (mean 1.34 Mbit/s)**
- **Flow 3 ingress (mean 0.55 Mbit/s)**
- **Flow 3 egress (mean 0.54 Mbit/s)**

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

Legend:
- **Flow 1 (95th percentile 49.45 ms)**
- **Flow 2 (95th percentile 49.22 ms)**
- **Flow 3 (95th percentile 52.46 ms)**
Run 7: Statistics of WebRTC media

End at: 2018-07-27 10:49:07
Local clock offset: -0.154 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.93 Mbit/s
95th percentile per-packet one-way delay: 53.304 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 53.325 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 53.064 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 50.457 ms
Loss rate: 1.14%
Run 7: Report of WebRTC media — Data Link

![Graph 1: Throughput (MBits/s)]

- **Flow 1 ingress (mean 2.06 MBits/s)**
- **Flow 1 egress (mean 2.05 MBits/s)**
- **Flow 2 ingress (mean 1.35 MBits/s)**
- **Flow 2 egress (mean 1.35 MBits/s)**
- **Flow 3 ingress (mean 0.56 MBits/s)**
- **Flow 3 egress (mean 0.55 MBits/s)**

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

- **Flow 1 (95th percentile 53.33 ms)**
- **Flow 2 (95th percentile 53.06 ms)**
- **Flow 3 (95th percentile 50.46 ms)**

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Run 8: Statistics of WebRTC media

Start at: 2018-07-27 11:13:00
End at: 2018-07-27 11:13:30
Local clock offset: 0.032 ms
Remote clock offset: -1.058 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.90 Mbit/s
  95th percentile per-packet one-way delay: 54.657 ms
  Loss rate: 0.74%
-- Flow 1:
  Average throughput: 2.06 Mbit/s
  95th percentile per-packet one-way delay: 54.693 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 1.32 Mbit/s
  95th percentile per-packet one-way delay: 51.566 ms
  Loss rate: 0.92%
-- Flow 3:
  Average throughput: 0.54 Mbit/s
  95th percentile per-packet one-way delay: 51.318 ms
  Loss rate: 1.62%
Run 8: Report of WebRTC media — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 9: Statistics of WebRTC media

Local clock offset: 0.105 ms
Remote clock offset: -1.283 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.88 Mbit/s
95th percentile per-packet one-way delay: 55.445 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 55.463 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 55.287 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 55.292 ms
Loss rate: 1.62%
Run 9: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.06 Mbps)
- Flow 1 egress (mean 2.05 Mbps)
- Flow 2 ingress (mean 1.31 Mbps)
- Flow 2 egress (mean 1.31 Mbps)
- Flow 3 ingress (mean 0.55 Mbps)
- Flow 3 egress (mean 0.54 Mbps)

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

- Flow 1 (95th percentile 55.46 ms)
- Flow 2 (95th percentile 55.29 ms)
- Flow 3 (95th percentile 55.29 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-07-27 12:02:22
End at: 2018-07-27 12:02:52
Local clock offset: -0.198 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2018-07-27 15:50:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 54.005 ms
Loss rate: 0.64%

-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 50.298 ms
Loss rate: 0.39%

-- Flow 2:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 54.043 ms
Loss rate: 0.49%

-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 53.882 ms
Loss rate: 1.97%
Run 10: Report of WebRTC media — Data Link

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

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