Pantheon Report

Generated at 2019-10-03 16:47:16 (UTC).
Data path: Mexico on em1 (remote) → AWS California 2 on ens5 (local).
Repeated the test of 24 congestion control schemes 5 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
NTP offsets were measured against time.stanford.edu and have been applied to correct the timestamps in logs.

System info:
Linux 4.15.0-1050-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.wmem_default = 16777216
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ de42328552b3776a75a932a94dfafdd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecedbf90cc077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746f46ca4966
third_party/muses_dtree @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
third_party/pantheon-tunnel @ f866df58d27af942717625ee3a354cc2e802bd
third_party/pcc @ 1af9c958fa0d66d18b623c901a55f8e87249981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8ad08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cf4f2
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3dbd2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
test from Mexico to AWS California 2, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
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<td>41.22</td>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2019-10-03 11:26:41
End at: 2019-10-03 11:27:11
Local clock offset: 0.39 ms
Remote clock offset: 7.293 ms

# Below is generated by plot.py at 2019-10-03 16:32:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.37 Mbit/s
95th percentile per-packet one-way delay: 178.621 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 58.52 Mbit/s
95th percentile per-packet one-way delay: 220.428 ms
Loss rate: 2.73%
-- Flow 2:
Average throughput: 39.53 Mbit/s
95th percentile per-packet one-way delay: 140.409 ms
Loss rate: 2.93%
-- Flow 3:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 254.961 ms
Loss rate: 2.77%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2019-10-03 12:17:51
End at: 2019-10-03 12:18:21
Local clock offset: 0.26 ms
Remote clock offset: 7.859 ms

# Below is generated by plot.py at 2019-10-03 16:32:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.07 Mbit/s
95th percentile per-packet one-way delay: 231.090 ms
Loss rate: 3.02%
-- Flow 1:
Average throughput: 56.01 Mbit/s
95th percentile per-packet one-way delay: 221.447 ms
Loss rate: 2.85%
-- Flow 2:
Average throughput: 47.92 Mbit/s
95th percentile per-packet one-way delay: 352.614 ms
Loss rate: 2.95%
-- Flow 3:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 324.606 ms
Loss rate: 4.45%
Run 2: Report of TCP BBR — Data Link

![Throughput Graph](image1)

![Round-trip Delay Graph](image2)

- Flow 1 ingress (mean 57.53 Mbit/s)
- Flow 1 egress (mean 56.01 Mbit/s)
- Flow 2 ingress (mean 49.21 Mbit/s)
- Flow 2 egress (mean 47.92 Mbit/s)
- Flow 3 ingress (mean 25.63 Mbit/s)
- Flow 3 egress (mean 24.67 Mbit/s)

- Flow 1 (95th percentile 221.45 ms)
- Flow 2 (95th percentile 352.61 ms)
- Flow 3 (95th percentile 324.61 ms)
Run 3: Statistics of TCP BBR

Start at: 2019-10-03 13:16:46
End at: 2019-10-03 13:17:16
Local clock offset: 0.09 ms
Remote clock offset: 7.465 ms

# Below is generated by plot.py at 2019-10-03 16:32:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.56 Mbit/s
  95th percentile per.packet one-way delay: 225.618 ms
  Loss rate: 3.25%
-- Flow 1:
  Average throughput: 55.82 Mbit/s
  95th percentile per.packet one-way delay: 215.668 ms
  Loss rate: 3.13%
-- Flow 2:
  Average throughput: 36.25 Mbit/s
  95th percentile per.packet one-way delay: 292.600 ms
  Loss rate: 3.35%
-- Flow 3:
  Average throughput: 47.16 Mbit/s
  95th percentile per.packet one-way delay: 181.892 ms
  Loss rate: 3.48%
Run 3: Report of TCP BBR — Data Link

**Throughput (Mbps)**

- Flow 1 ingress (mean 57.50 Mbps)
- Flow 1 egress (mean 55.82 Mbps)
- Flow 2 ingress (mean 37.38 Mbps)
- Flow 2 egress (mean 36.25 Mbps)
- Flow 3 ingress (mean 46.54 Mbps)
- Flow 3 egress (mean 47.16 Mbps)

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

- Flow 1 (95th percentile 215.67 ms)
- Flow 2 (95th percentile 292.60 ms)
- Flow 3 (95th percentile 181.89 ms)
Run 4: Statistics of TCP BBR

Start at: 2019-10-03 14:32:18
End at: 2019-10-03 14:32:48
Local clock offset: 0.005 ms
Remote clock offset: 7.565 ms

# Below is generated by plot.py at 2019-10-03 16:32:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.60 Mbit/s
95th percentile per-packet one-way delay: 250.272 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 55.49 Mbit/s
95th percentile per-packet one-way delay: 168.052 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 36.21 Mbit/s
95th percentile per-packet one-way delay: 337.458 ms
Loss rate: 4.31%
-- Flow 3:
Average throughput: 48.33 Mbit/s
95th percentile per-packet one-way delay: 354.820 ms
Loss rate: 3.53%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

End at: 2019-10-03 15:55:58
Local clock offset: -0.113 ms
Remote clock offset: 6.776 ms

# Below is generated by plot.py at 2019-10-03 16:32:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.43 Mbit/s
95th percentile per-packet one-way delay: 224.077 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 58.21 Mbit/s
95th percentile per-packet one-way delay: 187.149 ms
Loss rate: 2.34%
-- Flow 2:
Average throughput: 39.97 Mbit/s
95th percentile per-packet one-way delay: 354.093 ms
Loss rate: 3.88%
-- Flow 3:
Average throughput: 32.04 Mbit/s
95th percentile per-packet one-way delay: 255.254 ms
Loss rate: 3.72%
Run 5: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 59.48 Mbit/s)
- Flow 1 egress (mean 58.21 Mbit/s)
- Flow 2 ingress (mean 41.45 Mbit/s)
- Flow 2 egress (mean 39.97 Mbit/s)
- Flow 3 ingress (mean 33.06 Mbit/s)
- Flow 3 egress (mean 32.04 Mbit/s)
Run 1: Statistics of Copa

Start at: 2019-10-03 11:47:40
End at: 2019-10-03 11:48:10
Local clock offset: 0.349 ms
Remote clock offset: 8.045 ms

# Below is generated by plot.py at 2019-10-03 16:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.83 Mbit/s
95th percentile per-packet one-way delay: 66.724 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 47.12 Mbit/s
95th percentile per-packet one-way delay: 102.995 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 41.84 Mbit/s
95th percentile per-packet one-way delay: 46.582 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 29.75 Mbit/s
95th percentile per-packet one-way delay: 37.594 ms
Loss rate: 0.53%
Run 1: Report of Copa — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 47.11 Mbit/s)
Flow 1 egress (mean 47.12 Mbit/s)
Flow 2 ingress (mean 41.80 Mbit/s)
Flow 2 egress (mean 41.84 Mbit/s)
Flow 3 ingress (mean 29.72 Mbit/s)
Flow 3 egress (mean 29.75 Mbit/s)

Per packet one way delay (ms)

Delay (ms)

Flow 1 (95th percentile 103.00 ms)
Flow 2 (95th percentile 46.58 ms)
Flow 3 (95th percentile 37.59 ms)
Run 2: Statistics of Copa

Start at: 2019-10-03 12:41:40
End at: 2019-10-03 12:42:10
Local clock offset: 0.243 ms
Remote clock offset: 7.659 ms

# Below is generated by plot.py at 2019-10-03 16:33:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.54 Mbit/s
  95th percentile per-packet one-way delay: 64.467 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 52.35 Mbit/s
  95th percentile per-packet one-way delay: 98.073 ms
  Loss rate: 0.20%
-- Flow 2:
  Average throughput: 33.69 Mbit/s
  95th percentile per-packet one-way delay: 42.210 ms
  Loss rate: 0.10%
-- Flow 3:
  Average throughput: 38.54 Mbit/s
  95th percentile per-packet one-way delay: 38.994 ms
  Loss rate: 0.82%
Run 2: Report of Copa — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet end-to-end delay (ms)]
Run 3: Statistics of Copa

Start at: 2019-10-03 13:47:17
End at: 2019-10-03 13:47:47
Local clock offset: -0.096 ms
Remote clock offset: 7.558 ms

# Below is generated by plot.py at 2019-10-03 16:33:06
# Datalink statistics
-- Total of 3 flows:
95th percentile per-packet one-way delay: 75.672 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 89.983 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 58.82 Mbit/s
95th percentile per-packet one-way delay: 53.160 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 39.64 Mbit/s
95th percentile per-packet one-way delay: 51.493 ms
Loss rate: 0.82%
Run 3: Report of Copa — Data Link

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

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

Start at: 2019-10-03 15:11:03
End at: 2019-10-03 15:11:33
Local clock offset: -0.013 ms
Remote clock offset: 7.374 ms

# Below is generated by plot.py at 2019-10-03 16:34:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.96 Mbit/s
95th percentile per-packet one-way delay: 50.441 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 53.47 Mbit/s
95th percentile per-packet one-way delay: 44.907 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 32.32 Mbit/s
95th percentile per-packet one-way delay: 43.542 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 107.182 ms
Loss rate: 0.83%
Run 5: Statistics of Copa

Start at: 2019-10-03 16:24:01
End at: 2019-10-03 16:24:31
Local clock offset: 0.056 ms
Remote clock offset: 6.56 ms

# Below is generated by plot.py at 2019-10-03 16:34:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.03 Mbit/s
95th percentile per-packet one-way delay: 44.159 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 49.20 Mbit/s
95th percentile per-packet one-way delay: 44.671 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 32.76 Mbit/s
95th percentile per-packet one-way delay: 44.969 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 30.26 Mbit/s
95th percentile per-packet one-way delay: 39.805 ms
Loss rate: 0.64%
Run 1: Statistics of TCP Cubic

Start at: 2019-10-03 11:15:38
End at: 2019-10-03 11:16:08
Local clock offset: 0.377 ms
Remote clock offset: 6.927 ms

# Below is generated by plot.py at 2019-10-03 16:34:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.11 Mbit/s
95th percentile per-packet one-way delay: 49.267 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 45.67 Mbit/s
95th percentile per-packet one-way delay: 49.462 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 32.95 Mbit/s
95th percentile per-packet one-way delay: 47.590 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 46.87 Mbit/s
95th percentile per-packet one-way delay: 52.458 ms
Loss rate: 0.78%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2019-10-03 12:06:20
End at: 2019-10-03 12:06:50
Local clock offset: 0.306 ms
Remote clock offset: 7.797 ms

# Below is generated by plot.py at 2019-10-03 16:34:02
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 85.10 Mbit/s
   95th percentile per-packet one-way delay: 43.180 ms
   Loss rate: 0.27%
-- Flow 1:
   Average throughput: 48.35 Mbit/s
   95th percentile per-packet one-way delay: 44.200 ms
   Loss rate: 0.15%
-- Flow 2:
   Average throughput: 37.52 Mbit/s
   95th percentile per-packet one-way delay: 41.731 ms
   Loss rate: 0.32%
-- Flow 3:
   Average throughput: 35.57 Mbit/s
   95th percentile per-packet one-way delay: 42.373 ms
   Loss rate: 0.63%
Run 3: Statistics of TCP Cubic

Start at: 2019-10-03 13:04:06
End at: 2019-10-03 13:04:36
Local clock offset: 0.149 ms
Remote clock offset: 7.511 ms

# Below is generated by plot.py at 2019-10-03 16:34:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.70 Mbit/s
95th percentile per-packet one-way delay: 40.534 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 58.14 Mbit/s
95th percentile per-packet one-way delay: 40.114 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 30.76 Mbit/s
95th percentile per-packet one-way delay: 38.555 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 33.54 Mbit/s
95th percentile per-packet one-way delay: 42.793 ms
Loss rate: 0.75%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2019-10-03 14:16:58
End at: 2019-10-03 14:17:28
Local clock offset: 0.067 ms
Remote clock offset: 7.456 ms

# Below is generated by plot.py at 2019-10-03 16:34:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.15 Mbit/s
95th percentile per-packet one-way delay: 46.828 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 47.69 Mbit/s
95th percentile per-packet one-way delay: 47.929 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 37.15 Mbit/s
95th percentile per-packet one-way delay: 45.837 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 35.44 Mbit/s
95th percentile per-packet one-way delay: 46.765 ms
Loss rate: 0.66%
Run 4: Report of TCP Cubic — Data Link

![Graph showing network performance metrics for TCP Cubic traffic over time.](image)

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 47.67 Mbps)
  - Flow 1 egress (mean 47.69 Mbps)
  - Flow 2 ingress (mean 37.15 Mbps)
  - Flow 2 egress (mean 37.15 Mbps)
  - Flow 3 ingress (mean 35.45 Mbps)
  - Flow 3 egress (mean 35.44 Mbps)

- **Per-packet round-trip delay (ms):**
  - Flow 1 (95th percentile 47.93 ms)
  - Flow 2 (95th percentile 45.84 ms)
  - Flow 3 (95th percentile 46.77 ms)
Run 5: Statistics of TCP Cubic

Start at: 2019-10-03 15:46:26
End at: 2019-10-03 15:46:56
Local clock offset: -0.067 ms
Remote clock offset: 7.016 ms

# Below is generated by plot.py at 2019-10-03 16:34:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.39 Mbit/s
95th percentile per-packet one-way delay: 100.485 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 106.182 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 11.18 Mbit/s
95th percentile per-packet one-way delay: 110.811 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 12.97 Mbit/s
95th percentile per-packet one-way delay: 82.052 ms
Loss rate: 0.63%
Run 5: Report of TCP Cubic — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 8.70 Mbps)  Flow 1 egress (mean 8.67 Mbps)
Flow 2 ingress (mean 11.22 Mbps)  Flow 2 egress (mean 11.18 Mbps)
Flow 3 ingress (mean 12.97 Mbps)  Flow 3 egress (mean 12.97 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 106.18 ms)  Flow 2 (95th percentile 110.81 ms)  Flow 3 (95th percentile 82.05 ms)
Run 1: Statistics of FillP

Start at: 2019-10-03 11:03:10
End at: 2019-10-03 11:03:40
Local clock offset: 0.444 ms
Remote clock offset: 6.899 ms

# Below is generated by plot.py at 2019-10-03 16:34:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.85 Mbit/s
95th percentile per-packet one-way delay: 113.254 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 61.87 Mbit/s
95th percentile per-packet one-way delay: 76.280 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 37.57 Mbit/s
95th percentile per-packet one-way delay: 121.575 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 24.13 Mbit/s
95th percentile per-packet one-way delay: 141.450 ms
Loss rate: 3.08%
Run 1: Report of FillP — Data Link

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

- Flow 1 ingress (mean 61.93 Mbps)
- Flow 1 egress (mean 61.87 Mbps)
- Flow 2 ingress (mean 38.12 Mbps)
- Flow 2 egress (mean 37.57 Mbps)
- Flow 3 ingress (mean 24.74 Mbps)
- Flow 3 egress (mean 24.13 Mbps)

[Graph 2: Per-packet round-trip delay (ms) vs Time (s)]

- Flow 1 (95th percentile 76.28 ms)
- Flow 2 (95th percentile 121.58 ms)
- Flow 3 (95th percentile 141.45 ms)
Run 2: Statistics of FillP

Start at: 2019-10-03 11:53:54
End at: 2019-10-03 11:54:24
Local clock offset: 0.374 ms
Remote clock offset: 7.947 ms

# Below is generated by plot.py at 2019-10-03 16:34:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.33 Mbit/s
95th percentile per-packet one-way delay: 110.539 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 63.19 Mbit/s
95th percentile per-packet one-way delay: 84.418 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 36.41 Mbit/s
95th percentile per-packet one-way delay: 124.911 ms
Loss rate: 2.39%
-- Flow 3:
Average throughput: 23.88 Mbit/s
95th percentile per-packet one-way delay: 126.332 ms
Loss rate: 3.02%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

Start at: 2019-10-03 12:50:21
End at: 2019-10-03 12:50:51
Local clock offset: 0.202 ms
Remote clock offset: 7.529 ms

# Below is generated by plot.py at 2019-10-03 16:34:34
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 95.18 Mbit/s
 95th percentile per-packet one-way delay: 114.530 ms
 Loss rate: 2.16%
-- Flow 1:
 Average throughput: 55.18 Mbit/s
 95th percentile per-packet one-way delay: 109.928 ms
 Loss rate: 0.65%
-- Flow 2:
 Average throughput: 38.02 Mbit/s
 95th percentile per-packet one-way delay: 125.052 ms
 Loss rate: 5.96%
-- Flow 3:
 Average throughput: 44.26 Mbit/s
 95th percentile per-packet one-way delay: 81.080 ms
 Loss rate: 0.91%
Run 3: Report of FillP — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 55.44 Mbit/s)  Flow 1 egress (mean 55.18 Mbit/s)
Flow 2 ingress (mean 40.31 Mbit/s)  Flow 2 egress (mean 38.02 Mbit/s)
Flow 3 ingress (mean 44.45 Mbit/s)  Flow 3 egress (mean 44.26 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 109.93 ms)  Flow 2 (95th percentile 125.05 ms)  Flow 3 (95th percentile 81.08 ms)
Run 4: Statistics of FillP

Start at: 2019-10-03 13:57:24
End at: 2019-10-03 13:57:54
Local clock offset: -0.076 ms
Remote clock offset: 7.491 ms

# Below is generated by plot.py at 2019-10-03 16:34:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.36 Mbit/s
95th percentile per-packet one-way delay: 118.956 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 55.80 Mbit/s
95th percentile per-packet one-way delay: 119.684 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 36.22 Mbit/s
95th percentile per-packet one-way delay: 123.032 ms
Loss rate: 2.18%
-- Flow 3:
Average throughput: 46.71 Mbit/s
95th percentile per-packet one-way delay: 107.650 ms
Loss rate: 2.46%
Run 4: Report of FillP — Data Link

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

- **Throughput (Mbps)**:
  - Flow 1 ingress (mean 56.10 Mbps)
  - Flow 1 egress (mean 55.80 Mbps)
  - Flow 2 ingress (mean 36.95 Mbps)
  - Flow 2 egress (mean 36.22 Mbps)
  - Flow 3 ingress (mean 47.58 Mbps)
  - Flow 3 egress (mean 46.71 Mbps)

- **Packet Delay (ms)**:
  - Flow 1 (95th percentile 119.68 ms)
  - Flow 2 (95th percentile 123.03 ms)
  - Flow 3 (95th percentile 107.65 ms)
Run 5: Statistics of FillP

Start at: 2019-10-03 15:21:56
End at: 2019-10-03 15:22:26
Local clock offset: -0.041 ms
Remote clock offset: 7.246 ms

# Below is generated by plot.py at 2019-10-03 16:34:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.61 Mbit/s
  95th percentile per-packet one-way delay: 109.298 ms
  Loss rate: 1.26%
-- Flow 1:
  Average throughput: 58.64 Mbit/s
  95th percentile per-packet one-way delay: 108.984 ms
  Loss rate: 0.84%
-- Flow 2:
  Average throughput: 39.94 Mbit/s
  95th percentile per-packet one-way delay: 113.798 ms
  Loss rate: 1.37%
-- Flow 3:
  Average throughput: 31.38 Mbit/s
  95th percentile per-packet one-way delay: 105.726 ms
  Loss rate: 3.29%
Run 5: Report of FillP — Data Link

![Data Link Throughput](chart1.png)

- Flow 1 ingress (mean 59.04 Mbit/s)
- Flow 1 egress (mean 58.64 Mbit/s)
- Flow 2 ingress (mean 40.37 Mbit/s)
- Flow 2 egress (mean 39.94 Mbit/s)
- Flow 3 ingress (mean 32.25 Mbit/s)
- Flow 3 egress (mean 31.38 Mbit/s)

![Data Link Latency](chart2.png)

- Flow 1 (95th percentile 108.90 ms)
- Flow 2 (95th percentile 113.80 ms)
- Flow 3 (95th percentile 105.73 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2019-10-03 11:50:23
End at: 2019-10-03 11:50:53
Local clock offset: 0.339 ms
Remote clock offset: 8.063 ms

# Below is generated by plot.py at 2019-10-03 16:34:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.67 Mbit/s
  95th percentile per-packet one-way delay: 105.345 ms
  Loss rate: 0.43%
-- Flow 1:
  Average throughput: 57.72 Mbit/s
  95th percentile per-packet one-way delay: 113.361 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 39.99 Mbit/s
  95th percentile per-packet one-way delay: 90.777 ms
  Loss rate: 0.59%
-- Flow 3:
  Average throughput: 31.24 Mbit/s
  95th percentile per-packet one-way delay: 123.242 ms
  Loss rate: 1.00%
Run 1: Report of FillP-Sheep — Data Link
Run 2: Statistics of FillP-Sheep

Start at: 2019-10-03 12:45:50
End at: 2019-10-03 12:46:20
Local clock offset: 0.261 ms
Remote clock offset: 7.531 ms

# Below is generated by plot.py at 2019-10-03 16:35:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 101.993 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 58.12 Mbit/s
95th percentile per-packet one-way delay: 103.370 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 39.95 Mbit/s
95th percentile per-packet one-way delay: 102.750 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 29.41 Mbit/s
95th percentile per-packet one-way delay: 79.124 ms
Loss rate: 0.78%
Run 2: Report of FillP-Sheep — Data Link

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

- **Flow 1** (ingress: mean 58.19 Mbit/s, egress: mean 58.12 Mbit/s)
- **Flow 2** (ingress: mean 40.04 Mbit/s, egress: mean 39.95 Mbit/s)
- **Flow 3** (ingress: mean 29.51 Mbit/s, egress: mean 29.41 Mbit/s)

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

- **Flow 1** (95th percentile: 103.37 ms)
- **Flow 2** (95th percentile: 102.75 ms)
- **Flow 3** (95th percentile: 79.12 ms)
Run 3: Statistics of FillP-Sheep

Start at: 2019-10-03 13:51:16
End at: 2019-10-03 13:51:46
Local clock offset: -0.073 ms
Remote clock offset: 7.409 ms

# Below is generated by plot.py at 2019-10-03 16:35:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.31 Mbit/s
95th percentile per-packet one-way delay: 111.825 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 61.55 Mbit/s
95th percentile per-packet one-way delay: 86.531 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 36.66 Mbit/s
95th percentile per-packet one-way delay: 126.595 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 25.35 Mbit/s
95th percentile per-packet one-way delay: 149.245 ms
Loss rate: 1.39%
Run 3: Report of FillP-Sheep — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 61.58 Mbps)
  - Flow 1 egress (mean 61.55 Mbps)
  - Flow 2 ingress (mean 36.83 Mbps)
  - Flow 2 egress (mean 36.66 Mbps)
  - Flow 3 ingress (mean 25.55 Mbps)
  - Flow 3 egress (mean 25.35 Mbps)

- **Round-trip time (ms):**
  - Flow 1 (95th percentile 86.53 ms)
  - Flow 2 (95th percentile 126.59 ms)
  - Flow 3 (95th percentile 149.25 ms)
Run 4: Statistics of FillP-Sheep

Start at: 2019-10-03 15:16:13
End at: 2019-10-03 15:16:43
Local clock offset: -0.035 ms
Remote clock offset: 7.119 ms

# Below is generated by plot.py at 2019-10-03 16:35:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 104.222 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 55.02 Mbit/s
95th percentile per-packet one-way delay: 101.529 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 46.75 Mbit/s
95th percentile per-packet one-way delay: 75.073 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 25.35 Mbit/s
95th percentile per-packet one-way delay: 381.420 ms
Loss rate: 2.50%
Run 4: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 55.06 Mbps)
- Flow 1 egress (mean 55.02 Mbps)
- Flow 2 ingress (mean 46.86 Mbps)
- Flow 2 egress (mean 46.75 Mbps)
- Flow 3 ingress (mean 25.83 Mbps)
- Flow 3 egress (mean 25.35 Mbps)

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

- Flow 1 (95th percentile 101.53 ms)
- Flow 2 (95th percentile 75.07 ms)
- Flow 3 (95th percentile 381.42 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2019-10-03 16:27:11
End at: 2019-10-03 16:27:41
Local clock offset: 0.123 ms
Remote clock offset: 6.522 ms

# Below is generated by plot.py at 2019-10-03 16:35:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.96 Mbit/s
95th percentile per-packet one-way delay: 109.110 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 56.15 Mbit/s
95th percentile per-packet one-way delay: 123.625 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 45.52 Mbit/s
95th percentile per-packet one-way delay: 63.849 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 25.72 Mbit/s
95th percentile per-packet one-way delay: 138.428 ms
Loss rate: 1.74%
Run 5: Report of FillP-Sheep — Data Link

---

**Graph 1:**
- X-axis: Time (s)
- Y-axis: Throughput (Mbit/s)
- Legend:
  - Flow 1 ingress (mean 56.2 Mbit/s)
  - Flow 1 egress (mean 56.15 Mbit/s)
  - Flow 2 ingress (mean 45.57 Mbit/s)
  - Flow 2 egress (mean 45.52 Mbit/s)
  - Flow 3 ingress (mean 26.00 Mbit/s)
  - Flow 3 egress (mean 25.72 Mbit/s)

**Graph 2:**
- X-axis: Time (s)
- Y-axis: Per-packet one-way delay (ms)
- Legend:
  - Flow 1 (95th percentile 123.62 ms)
  - Flow 2 (95th percentile 63.85 ms)
  - Flow 3 (95th percentile 138.43 ms)
Run 1: Statistics of Indigo

Start at: 2019-10-03 11:44:23
End at: 2019-10-03 11:44:53
Local clock offset: 0.356 ms
Remote clock offset: 7.841 ms

# Below is generated by plot.py at 2019-10-03 16:35:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.64 Mbit/s
  95th percentile per-packet one-way delay: 42.858 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 59.11 Mbit/s
  95th percentile per-packet one-way delay: 43.438 ms
  Loss rate: 0.22%
-- Flow 2:
  Average throughput: 39.72 Mbit/s
  95th percentile per-packet one-way delay: 42.756 ms
  Loss rate: 0.34%
-- Flow 3:
  Average throughput: 31.19 Mbit/s
  95th percentile per-packet one-way delay: 39.080 ms
  Loss rate: 0.70%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

Start at: 2019-10-03 12:37:53
End at: 2019-10-03 12:38:23
Local clock offset: 0.219 ms
Remote clock offset: 7.715 ms

# Below is generated by plot.py at 2019-10-03 16:35:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.38 Mbit/s
  95th percentile per-packet one-way delay: 42.970 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 59.48 Mbit/s
  95th percentile per-packet one-way delay: 43.668 ms
  Loss rate: 0.18%
-- Flow 2:
  Average throughput: 39.76 Mbit/s
  95th percentile per-packet one-way delay: 42.883 ms
  Loss rate: 0.30%
-- Flow 3:
  Average throughput: 29.06 Mbit/s
  95th percentile per-packet one-way delay: 40.189 ms
  Loss rate: 0.74%
Run 2: Report of Indigo — Data Link

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

Legend:
- Flow 1 ingress (mean 59.47 Mbit/s)
- Flow 1 egress (mean 59.48 Mbit/s)
- Flow 2 ingress (mean 39.76 Mbit/s)
- Flow 2 egress (mean 39.76 Mbit/s)
- Flow 3 ingress (mean 29.09 Mbit/s)
- Flow 3 egress (mean 29.06 Mbit/s)
Run 3: Statistics of Indigo

Start at: 2019-10-03 13:41:44
End at: 2019-10-03 13:42:14
Local clock offset: -0.093 ms
Remote clock offset: 7.592 ms

# Below is generated by plot.py at 2019-10-03 16:35:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.63 Mbit/s
95th percentile per-packet one-way delay: 42.809 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 63.96 Mbit/s
95th percentile per-packet one-way delay: 41.205 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 36.80 Mbit/s
95th percentile per-packet one-way delay: 45.095 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 19.11 Mbit/s
95th percentile per-packet one-way delay: 41.795 ms
Loss rate: 0.70%
Run 3: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 63.94 Mbit/s)
- Flow 1 egress (mean 63.96 Mbit/s)
- Flow 2 ingress (mean 36.77 Mbit/s)
- Flow 2 egress (mean 36.80 Mbit/s)
- Flow 3 ingress (mean 19.11 Mbit/s)
- Flow 3 egress (mean 19.11 Mbit/s)
Run 4: Statistics of Indigo

Start at: 2019-10-03 15:04:01
End at: 2019-10-03 15:04:31
Local clock offset: 0.013 ms
Remote clock offset: 7.297 ms

# Below is generated by plot.py at 2019-10-03 16:35:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 43.955 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 56.09 Mbit/s
95th percentile per-packet one-way delay: 46.663 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 45.02 Mbit/s
95th percentile per-packet one-way delay: 38.745 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 23.71 Mbit/s
95th percentile per-packet one-way delay: 46.584 ms
Loss rate: 0.70%
Run 4: Report of Indigo — Data Link

![Graphs showing data link performance metrics.](image-url)
Run 5: Statistics of Indigo

Start at: 2019-10-03 16:18:59
End at: 2019-10-03 16:19:29
Local clock offset: 0.006 ms
Remote clock offset: 6.616 ms

# Below is generated by plot.py at 2019-10-03 16:36:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.74 Mbit/s
  95th percentile per-packet one-way delay: 43.207 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 63.22 Mbit/s
  95th percentile per-packet one-way delay: 41.305 ms
  Loss rate: 0.18%
-- Flow 2:
  Average throughput: 35.94 Mbit/s
  95th percentile per-packet one-way delay: 49.063 ms
  Loss rate: 0.30%
-- Flow 3:
  Average throughput: 23.44 Mbit/s
  95th percentile per-packet one-way delay: 44.049 ms
  Loss rate: 0.75%
Run 5: Report of Indigo — Data Link

![Graph 1: Throughput vs Time]

- Flow 1 ingress (mean 63.20 Mbit/s)
- Flow 1 egress (mean 63.22 Mbit/s)
- Flow 2 ingress (mean 35.93 Mbit/s)
- Flow 2 egress (mean 35.94 Mbit/s)
- Flow 3 ingress (mean 23.46 Mbit/s)
- Flow 3 egress (mean 23.44 Mbit/s)

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

- Flow 1 (95th percentile 41.30 ms)
- Flow 2 (95th percentile 49.06 ms)
- Flow 3 (95th percentile 44.05 ms)
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-10-03 11:29:16
End at: 2019-10-03 11:29:46
Local clock offset: 0.377 ms
Remote clock offset: 7.546 ms

# Below is generated by plot.py at 2019-10-03 16:36:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.26 Mbit/s
  95th percentile per-packet one-way delay: 58.584 ms
  Loss rate: 0.34%
-- Flow 1:
  Average throughput: 58.12 Mbit/s
  95th percentile per-packet one-way delay: 63.131 ms
  Loss rate: 0.21%
-- Flow 2:
  Average throughput: 48.45 Mbit/s
  95th percentile per-packet one-way delay: 54.218 ms
  Loss rate: 0.46%
-- Flow 3:
  Average throughput: 23.81 Mbit/s
  95th percentile per-packet one-way delay: 45.418 ms
  Loss rate: 0.96%
Run 1: Report of Indigo-MusesC3 — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 58.11 Mbps)
  - Flow 1 egress (mean 58.12 Mbps)
  - Flow 2 ingress (mean 48.50 Mbps)
  - Flow 2 egress (mean 48.45 Mbps)
  - Flow 3 ingress (mean 23.84 Mbps)
  - Flow 3 egress (mean 23.81 Mbps)

- **Per-packet round-trip delay (ms):**
  - Flow 1 (95th percentile 63.13 ms)
  - Flow 2 (95th percentile 54.22 ms)
  - Flow 3 (95th percentile 45.42 ms)
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-10-03 12:21:02
End at: 2019-10-03 12:21:32
Local clock offset: 0.264 ms
Remote clock offset: 7.935 ms

# Below is generated by plot.py at 2019-10-03 16:36:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.08 Mbit/s
  95th percentile per-packet one-way delay: 56.439 ms
  Loss rate: 0.31%
-- Flow 1:
  Average throughput: 59.21 Mbit/s
  95th percentile per-packet one-way delay: 55.407 ms
  Loss rate: 0.18%
-- Flow 2:
  Average throughput: 38.21 Mbit/s
  95th percentile per-packet one-way delay: 61.874 ms
  Loss rate: 0.38%
-- Flow 3:
  Average throughput: 42.68 Mbit/s
  95th percentile per-packet one-way delay: 37.716 ms
  Loss rate: 0.82%
Run 2: Report of Indigo-MusesC3 — Data Link
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-10-03 13:19:51
End at: 2019-10-03 13:20:21
Local clock offset: 0.063 ms
Remote clock offset: 7.678 ms

# Below is generated by plot.py at 2019-10-03 16:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.20 Mbit/s
95th percentile per-packet one-way delay: 63.183 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 58.45 Mbit/s
95th percentile per-packet one-way delay: 62.166 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 37.53 Mbit/s
95th percentile per-packet one-way delay: 66.751 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 46.89 Mbit/s
95th percentile per-packet one-way delay: 57.104 ms
Loss rate: 1.00%
Run 3: Report of Indigo-MusesC3 — Data Link
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-10-03 14:35:58
End at: 2019-10-03 14:36:28
Local clock offset: 0.037 ms
Remote clock offset: 7.558 ms

# Below is generated by plot.py at 2019-10-03 16:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 57.176 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 58.54 Mbit/s
95th percentile per-packet one-way delay: 58.827 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 47.55 Mbit/s
95th percentile per-packet one-way delay: 49.534 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 22.88 Mbit/s
95th percentile per-packet one-way delay: 61.864 ms
Loss rate: 1.20%
Run 4: Report of Indigo-MusesC3 — Data Link
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-10-03 15:59:01
End at: 2019-10-03 15:59:31
Local clock offset: -0.039 ms
Remote clock offset: 6.7 ms

# Below is generated by plot.py at 2019-10-03 16:36:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.27 Mbit/s
95th percentile per-packet one-way delay: 55.339 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 60.72 Mbit/s
95th percentile per-packet one-way delay: 51.941 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 40.84 Mbit/s
95th percentile per-packet one-way delay: 51.474 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 31.66 Mbit/s
95th percentile per-packet one-way delay: 133.929 ms
Loss rate: 1.08%
Run 5: Report of Indigo-MusesC3 — Data Link

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

- Flow 1 ingress (mean 60.70 Mbit/s)
- Flow 1 egress (mean 60.72 Mbit/s)
- Flow 2 ingress (mean 41.64 Mbit/s)
- Flow 2 egress (mean 40.84 Mbit/s)
- Flow 3 ingress (mean 31.76 Mbit/s)
- Flow 3 egress (mean 31.66 Mbit/s)

![Graph showing packet one-way delay]

- Flow 1 (95th percentile 51.94 ms)
- Flow 2 (95th percentile 51.47 ms)
- Flow 3 (95th percentile 133.93 ms)
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-10-03 11:31:46
End at: 2019-10-03 11:32:16
Local clock offset: 0.354 ms
Remote clock offset: 7.751 ms

# Below is generated by plot.py at 2019-10-03 16:36:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.22 Mbit/s
  95th percentile per-packet one-way delay: 103.633 ms
  Loss rate: 2.53%
-- Flow 1:
  Average throughput: 59.72 Mbit/s
  95th percentile per-packet one-way delay: 104.165 ms
  Loss rate: 1.56%
-- Flow 2:
  Average throughput: 40.60 Mbit/s
  95th percentile per-packet one-way delay: 99.602 ms
  Loss rate: 3.52%
-- Flow 3:
  Average throughput: 31.81 Mbit/s
  95th percentile per-packet one-way delay: 106.128 ms
  Loss rate: 5.82%
Run 1: Report of Indigo-MusesC5 — Data Link
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-10-03 12:23:38
End at: 2019-10-03 12:24:08
Local clock offset: 0.28 ms
Remote clock offset: 8.021 ms

# Below is generated by plot.py at 2019-10-03 16:37:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.48 Mbit/s
95th percentile per-packet one-way delay: 117.359 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 61.01 Mbit/s
95th percentile per-packet one-way delay: 82.477 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 39.67 Mbit/s
95th percentile per-packet one-way delay: 135.189 ms
Loss rate: 4.11%
-- Flow 3:
Average throughput: 30.03 Mbit/s
95th percentile per-packet one-way delay: 147.020 ms
Loss rate: 5.58%
Run 2: Report of Indigo-MusesC5 — Data Link

![Graph showing throughput and per-packet one-way delay over time for three flows: Flow 1, Flow 2, and Flow 3. The graphs display the mean throughput and egress data for each flow.](image)
Run 3: Statistics of Indigo-MusesC5

End at: 2019-10-03 13:23:03  
Local clock offset: 0.068 ms  
Remote clock offset: 7.676 ms

# Below is generated by plot.py at 2019-10-03 16:37:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.61 Mbit/s  
95th percentile per-packet one-way delay: 146.088 ms  
Loss rate: 2.54%  
-- Flow 1:  
Average throughput: 56.38 Mbit/s  
95th percentile per-packet one-way delay: 151.735 ms  
Loss rate: 2.01%  
-- Flow 2:  
Average throughput: 48.57 Mbit/s  
95th percentile per-packet one-way delay: 82.390 ms  
Loss rate: 1.94%  
-- Flow 3:  
Average throughput: 26.29 Mbit/s  
95th percentile per-packet one-way delay: 151.620 ms  
Loss rate: 8.35%
Run 3: Report of Indigo-MusesC5 — Data Link
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-10-03 14:39:33
End at: 2019-10-03 14:40:03
Local clock offset: 0.026 ms
Remote clock offset: 7.789 ms

# Below is generated by plot.py at 2019-10-03 16:37:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.76 Mbit/s
95th percentile per-packet one-way delay: 110.430 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 58.24 Mbit/s
95th percentile per-packet one-way delay: 112.253 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 40.27 Mbit/s
95th percentile per-packet one-way delay: 107.896 ms
Loss rate: 2.78%
-- Flow 3:
Average throughput: 35.71 Mbit/s
95th percentile per-packet one-way delay: 111.078 ms
Loss rate: 5.60%
Run 4: Report of Indigo-MusesC5 — Data Link
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-10-03 16:01:22
End at: 2019-10-03 16:01:52
Local clock offset: 0.008 ms
Remote clock offset: 6.617 ms

# Below is generated by plot.py at 2019-10-03 16:37:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.12 Mbit/s
95th percentile per-packet one-way delay: 118.039 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 58.41 Mbit/s
95th percentile per-packet one-way delay: 113.138 ms
Loss rate: 1.76%
-- Flow 2:
Average throughput: 36.25 Mbit/s
95th percentile per-packet one-way delay: 138.555 ms
Loss rate: 4.10%
-- Flow 3:
Average throughput: 45.41 Mbit/s
95th percentile per-packet one-way delay: 88.656 ms
Loss rate: 4.18%
Run 5: Report of Indigo-MusesC5 — Data Link

Throughput (Mbit/s)

Time (s)

0 5 10 15 20 25 30

0 20 40 60 80 100

Flow 1 ingress (mean 59.33 Mbit/s)  Flow 1 egress (mean 58.41 Mbit/s)
Flow 2 ingress (mean 37.66 Mbit/s)  Flow 2 egress (mean 36.25 Mbit/s)
Flow 3 ingress (mean 47.03 Mbit/s)  Flow 3 egress (mean 45.41 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

0 5 10 15 20 25

0 50 100 150 200 250 300

• Flow 1 (95th percentile 113.14 ms)  • Flow 2 (95th percentile 138.56 ms)  • Flow 3 (95th percentile 88.66 ms)
Run 1: Statistics of Indigo-MusesD

Start at: 2019-10-03 11:24:35
End at: 2019-10-03 11:25:05
Local clock offset: 0.407 ms
Remote clock offset: 7.292 ms

# Below is generated by plot.py at 2019-10-03 16:38:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.01 Mbit/s
95th percentile per-packet one-way delay: 148.985 ms
Loss rate: 7.82%
-- Flow 1:
Average throughput: 60.56 Mbit/s
95th percentile per-packet one-way delay: 148.251 ms
Loss rate: 5.76%
-- Flow 2:
Average throughput: 40.88 Mbit/s
95th percentile per-packet one-way delay: 151.099 ms
Loss rate: 11.98%
-- Flow 3:
Average throughput: 30.99 Mbit/s
95th percentile per-packet one-way delay: 133.315 ms
Loss rate: 8.54%
Run 1: Report of Indigo-MusesD — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 64.12 Mbit/s)  Flow 1 egress (mean 60.56 Mbit/s)
Flow 2 ingress (mean 46.29 Mbit/s)  Flow 2 egress (mean 40.88 Mbit/s)
Flow 3 ingress (mean 33.63 Mbit/s)  Flow 3 egress (mean 30.99 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 148.25 ms)  Flow 2 (95th percentile 151.10 ms)  Flow 3 (95th percentile 133.31 ms)
Run 2: Statistics of Indigo-MusesD

Start at: 2019-10-03 12:15:42
End at: 2019-10-03 12:16:12
Local clock offset: 0.297 ms
Remote clock offset: 7.769 ms

# Below is generated by plot.py at 2019-10-03 16:38:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.13 Mbit/s
  95th percentile per-packet one-way delay: 142.330 ms
  Loss rate: 7.11%
-- Flow 1:
  Average throughput: 58.85 Mbit/s
  95th percentile per-packet one-way delay: 143.847 ms
  Loss rate: 5.72%
-- Flow 2:
  Average throughput: 47.78 Mbit/s
  95th percentile per-packet one-way delay: 140.330 ms
  Loss rate: 10.60%
-- Flow 3:
  Average throughput: 22.40 Mbit/s
  95th percentile per-packet one-way delay: 81.452 ms
  Loss rate: 2.02%
Run 2: Report of Indigo-MusesD — Data Link
Run 3: Statistics of Indigo-MusesD

End at: 2019-10-03 13:14:02
Local clock offset: 0.121 ms
Remote clock offset: 7.454 ms

# Below is generated by plot.py at 2019-10-03 16:38:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.90 Mbit/s
95th percentile per-packet one-way delay: 141.240 ms
Loss rate: 5.75%
-- Flow 1:
Average throughput: 61.25 Mbit/s
95th percentile per-packet one-way delay: 143.449 ms
Loss rate: 5.50%
-- Flow 2:
Average throughput: 40.23 Mbit/s
95th percentile per-packet one-way delay: 127.369 ms
Loss rate: 7.74%
-- Flow 3:
Average throughput: 29.59 Mbit/s
95th percentile per-packet one-way delay: 58.190 ms
Loss rate: 1.17%
Run 3: Report of Indigo-MusesD — Data Link

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

- Flow 1 ingress (mean 64.68 Mbps)
- Flow 1 egress (mean 61.25 Mbps)
- Flow 2 ingress (mean 43.46 Mbps)
- Flow 2 egress (mean 40.23 Mbps)
- Flow 3 ingress (mean 29.71 Mbps)
- Flow 3 egress (mean 29.59 Mbps)

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

- Flow 1 (95th percentile 143.45 ms)
- Flow 2 (95th percentile 127.37 ms)
- Flow 3 (95th percentile 58.19 ms)
Run 4: Statistics of Indigo-MusesD

Start at: 2019-10-03 14:29:36
End at: 2019-10-03 14:30:06
Local clock offset: 0.013 ms
Remote clock offset: 7.68 ms

# Below is generated by plot.py at 2019-10-03 16:38:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.65 Mbit/s
95th percentile per-packet one-way delay: 142.445 ms
Loss rate: 3.67%
-- Flow 1:
Average throughput: 64.14 Mbit/s
95th percentile per-packet one-way delay: 144.755 ms
Loss rate: 5.19%
-- Flow 2:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 41.961 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 36.87 Mbit/s
95th percentile per-packet one-way delay: 43.637 ms
Loss rate: 1.03%
Run 4: Report of Indigo-MusesD — Data Link

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**Throughput (Mbit/s)**

- **Flow 1 ingress (mean 67.50 Mbit/s)**
- **Flow 2 ingress (mean 32.35 Mbit/s)**
- **Flow 3 ingress (mean 36.97 Mbit/s)**
- **Flow 1 egress (mean 64.14 Mbit/s)**
- **Flow 2 egress (mean 32.43 Mbit/s)**
- **Flow 3 egress (mean 36.87 Mbit/s)**

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**Per-packet end-to-end delay (ms)**

- **Flow 1 (95th percentile 144.75 ms)**
- **Flow 2 (95th percentile 41.96 ms)**
- **Flow 3 (95th percentile 43.64 ms)**
Run 5: Statistics of Indigo-MusesD

Start at: 2019-10-03 15:52:34
End at: 2019-10-03 15:53:04
Local clock offset: -0.109 ms
Remote clock offset: 6.994 ms

# Below is generated by plot.py at 2019-10-03 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.55 Mbit/s
95th percentile per-packet one-way delay: 147.641 ms
Loss rate: 8.05%
-- Flow 1:
Average throughput: 58.25 Mbit/s
95th percentile per-packet one-way delay: 147.902 ms
Loss rate: 6.32%
-- Flow 2:
Average throughput: 47.64 Mbit/s
95th percentile per-packet one-way delay: 148.860 ms
Loss rate: 11.30%
-- Flow 3:
Average throughput: 22.51 Mbit/s
95th percentile per-packet one-way delay: 72.159 ms
Loss rate: 7.28%
Run 5: Report of Indigo-MusesD — Data Link
Run 1: Statistics of Indigo-MusesT

Start at: 2019-10-03 11:22:27
End at: 2019-10-03 11:22:57
Local clock offset: 0.416 ms
Remote clock offset: 7.266 ms

# Below is generated by plot.py at 2019-10-03 16:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.42 Mbit/s
95th percentile per-packet one-way delay: 143.293 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 58.89 Mbit/s
95th percentile per-packet one-way delay: 110.216 ms
Loss rate: 2.43%
-- Flow 2:
Average throughput: 37.10 Mbit/s
95th percentile per-packet one-way delay: 243.299 ms
Loss rate: 3.14%
-- Flow 3:
Average throughput: 46.78 Mbit/s
95th percentile per-packet one-way delay: 85.395 ms
Loss rate: 4.66%
Run 1: Report of Indigo-MusesT — Data Link

![Throughput and Packet Delay Graphs]

Throughput (Mbps)

- Flow 1 ingress (mean 60.32 Mbps)
- Flow 1 egress (mean 58.89 Mbps)
- Flow 2 ingress (mean 38.19 Mbps)
- Flow 2 egress (mean 37.10 Mbps)
- Flow 3 ingress (mean 48.70 Mbps)
- Flow 3 egress (mean 46.78 Mbps)

Packet delay (ms)

- Flow 1 (95th percentile 110.22 ms)
- Flow 2 (95th percentile 243.30 ms)
- Flow 3 (95th percentile 85.39 ms)
Run 2: Statistics of Indigo-MusesT

End at: 2019-10-03 12:13:53
Local clock offset: 0.299 ms
Remote clock offset: 7.766 ms

# Below is generated by plot.py at 2019-10-03 16:38:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.35 Mbit/s
95th percentile per-packet one-way delay: 164.289 ms
Loss rate: 3.18%
-- Flow 1:
Average throughput: 60.85 Mbit/s
95th percentile per-packet one-way delay: 116.442 ms
Loss rate: 1.88%
-- Flow 2:
Average throughput: 41.12 Mbit/s
95th percentile per-packet one-way delay: 225.687 ms
Loss rate: 4.50%
-- Flow 3:
Average throughput: 31.07 Mbit/s
95th percentile per-packet one-way delay: 104.947 ms
Loss rate: 7.65%
Run 2: Report of Indigo-MusesT — Data Link

Throughput (Mb/s)

Flow 1 ingress (mean 61.85 Mb/s)  Flow 2 ingress (mean 60.85 Mb/s)
Flow 1 egress (mean 42.93 Mb/s)  Flow 2 egress (mean 41.12 Mb/s)
Flow 3 ingress (mean 33.38 Mb/s)  Flow 3 egress (mean 31.07 Mb/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 116.44 ms)  Flow 2 (95th percentile 225.69 ms)  Flow 3 (95th percentile 104.95 ms)
Run 3: Statistics of Indigo-MusesT

Start at: 2019-10-03 13:11:05
End at: 2019-10-03 13:11:35
Local clock offset: 0.117 ms
Remote clock offset: 7.392 ms

# Below is generated by plot.py at 2019-10-03 16:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.33 Mbit/s
95th percentile per-packet one-way delay: 163.046 ms
Loss rate: 2.64%
-- Flow 1:
Average throughput: 58.15 Mbit/s
95th percentile per-packet one-way delay: 121.141 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 48.01 Mbit/s
95th percentile per-packet one-way delay: 103.705 ms
Loss rate: 2.49%
-- Flow 3:
Average throughput: 23.07 Mbit/s
95th percentile per-packet one-way delay: 326.963 ms
Loss rate: 7.66%
Run 3: Report of Indigo-MusesT — Data Link

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

Legend:
- Flow 1 ingress (mean 59.28 Mbit/s)
- Flow 1 egress (mean 58.15 Mbit/s)
- Flow 2 ingress (mean 49.66 Mbit/s)
- Flow 2 egress (mean 48.01 Mbit/s)
- Flow 3 ingress (mean 24.81 Mbit/s)
- Flow 3 egress (mean 23.07 Mbit/s)

Legend for packet delay:
- Flow 1 (95th percentile 121.14 ms)
- Flow 2 (95th percentile 103.70 ms)
- Flow 3 (95th percentile 326.96 ms)
Run 4: Statistics of Indigo-MusesT

Start at: 2019-10-03 14:26:23
End at: 2019-10-03 14:26:53
Local clock offset: 0.073 ms
Remote clock offset: 7.605 ms

# Below is generated by plot.py at 2019-10-03 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.44 Mbit/s
95th percentile per-packet one-way delay: 101.025 ms
Loss rate: 2.72%
-- Flow 1:
Average throughput: 65.70 Mbit/s
95th percentile per-packet one-way delay: 83.408 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 36.96 Mbit/s
95th percentile per-packet one-way delay: 155.646 ms
Loss rate: 6.63%
-- Flow 3:
Average throughput: 23.44 Mbit/s
95th percentile per-packet one-way delay: 283.720 ms
Loss rate: 6.03%
Run 4: Report of Indigo-MusesT — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 66.12 Mbps)
- Flow 1 egress (mean 65.70 Mbps)
- Flow 2 ingress (mean 39.52 Mbps)
- Flow 2 egress (mean 36.96 Mbps)
- Flow 3 ingress (mean 24.75 Mbps)
- Flow 3 egress (mean 23.44 Mbps)

Graph 2: One-Way Delay (ms)
- Flow 1 (95th percentile 83.41 ms)
- Flow 2 (95th percentile 155.65 ms)
- Flow 3 (95th percentile 283.72 ms)
Run 5: Statistics of Indigo-MusesT

Start at: 2019-10-03 15:50:39
End at: 2019-10-03 15:51:09
Local clock offset: -0.095 ms
Remote clock offset: 7.052 ms

# Below is generated by plot.py at 2019-10-03 16:39:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.53 Mbit/s
  95th percentile per-packet one-way delay: 150.211 ms
  Loss rate: 3.28%
-- Flow 1:
  Average throughput: 57.83 Mbit/s
  95th percentile per-packet one-way delay: 104.187 ms
  Loss rate: 2.49%
-- Flow 2:
  Average throughput: 47.50 Mbit/s
  95th percentile per-packet one-way delay: 86.098 ms
  Loss rate: 3.53%
-- Flow 3:
  Average throughput: 23.96 Mbit/s
  95th percentile per-packet one-way delay: 269.848 ms
  Loss rate: 8.65%
Run 5: Report of Indigo-MusesT — Data Link
Run 1: Statistics of LEDBAT

Start at: 2019-10-03 11:42:19
End at: 2019-10-03 11:42:49
Local clock offset: 0.365 ms
Remote clock offset: 7.793 ms

# Below is generated by plot.py at 2019-10-03 16:39:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 67.31 Mbit/s
  95th percentile per-packet one-way delay: 40.200 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 39.39 Mbit/s
  95th percentile per-packet one-way delay: 41.268 ms
  Loss rate: 0.13%
-- Flow 2:
  Average throughput: 31.26 Mbit/s
  95th percentile per-packet one-way delay: 39.262 ms
  Loss rate: 0.37%
-- Flow 3:
  Average throughput: 21.53 Mbit/s
  95th percentile per-packet one-way delay: 37.360 ms
  Loss rate: 1.06%
Run 1: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 39.35 Mbps)
- Flow 1 egress (mean 39.39 Mbps)
- Flow 2 ingress (mean 31.27 Mbps)
- Flow 2 egress (mean 31.26 Mbps)
- Flow 3 ingress (mean 21.62 Mbps)
- Flow 3 egress (mean 21.53 Mbps)

![Graph 2: Per packet round trip delay (ms) vs Time (s)]

- Flow 1 (95th percentile 41.27 ms)
- Flow 2 (95th percentile 39.26 ms)
- Flow 3 (95th percentile 37.36 ms)
Run 2: Statistics of LEDBAT

Start at: 2019-10-03 12:35:52
End at: 2019-10-03 12:36:22
Local clock offset: 0.261 ms
Remote clock offset: 7.741 ms

# Below is generated by plot.py at 2019-10-03 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.03 Mbit/s
95th percentile per-packet one-way delay: 38.940 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 38.96 Mbit/s
95th percentile per-packet one-way delay: 38.485 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 40.888 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 27.29 Mbit/s
95th percentile per-packet one-way delay: 35.730 ms
Loss rate: 1.31%
Run 2: Report of LEDBAT — Data Link

![Graphs showing throughput and per-packet round-trip delay over time for different flows.]
Run 3: Statistics of LEDBAT

Start at: 2019-10-03 13:38:44
End at: 2019-10-03 13:39:14
Local clock offset: -0.076 ms
Remote clock offset: 7.659 ms

# Below is generated by plot.py at 2019-10-03 16:39:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 66.86 Mbit/s
  95th percentile per-packet one-way delay: 39.601 ms
  Loss rate: 0.34%
-- Flow 1:
  Average throughput: 40.13 Mbit/s
  95th percentile per-packet one-way delay: 39.303 ms
  Loss rate: 0.24%
-- Flow 2:
  Average throughput: 30.86 Mbit/s
  95th percentile per-packet one-way delay: 40.196 ms
  Loss rate: 0.37%
-- Flow 3:
  Average throughput: 18.69 Mbit/s
  95th percentile per-packet one-way delay: 39.758 ms
  Loss rate: 0.86%
Run 3: Report of LEDBAT — Data Link

[Graphs showing throughput and packet delay over time for different flows, with annotations for each flow's throughput and delay characteristics.]
Run 4: Statistics of LEDBAT

Start at: 2019-10-03 15:00:05
End at: 2019-10-03 15:00:35
Local clock offset: 0.011 ms
Remote clock offset: 7.492 ms

# Below is generated by plot.py at 2019-10-03 16:39:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 67.25 Mbit/s
  95th percentile per-packet one-way delay: 41.096 ms
  Loss rate: 0.31%
-- Flow 1:
  Average throughput: 38.46 Mbit/s
  95th percentile per-packet one-way delay: 40.332 ms
  Loss rate: 0.14%
-- Flow 2:
  Average throughput: 30.13 Mbit/s
  95th percentile per-packet one-way delay: 43.615 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 26.45 Mbit/s
  95th percentile per-packet one-way delay: 39.240 ms
  Loss rate: 1.33%
Run 4: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 38.44 Mb/s)
- Flow 1 egress (mean 38.46 Mb/s)
- Flow 2 ingress (mean 30.08 Mb/s)
- Flow 2 egress (mean 30.13 Mb/s)
- Flow 3 ingress (mean 26.64 Mb/s)
- Flow 3 egress (mean 26.45 Mb/s)

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

- Flow 1 (95th percentile 40.33 ms)
- Flow 2 (95th percentile 43.62 ms)
- Flow 3 (95th percentile 39.24 ms)

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Run 5: Statistics of LEDBAT

Start at: 2019-10-03 16:15:42
End at: 2019-10-03 16:16:12
Local clock offset: -0.002 ms
Remote clock offset: 6.771 ms

# Below is generated by plot.py at 2019-10-03 16:39:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.21 Mbit/s
95th percentile per-packet one-way delay: 40.896 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 39.63 Mbit/s
95th percentile per-packet one-way delay: 42.038 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 30.76 Mbit/s
95th percentile per-packet one-way delay: 39.851 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 21.47 Mbit/s
95th percentile per-packet one-way delay: 39.377 ms
Loss rate: 1.03%
Run 5: Report of LEDBAT — Data Link

![Graph showing network data analysis]

- **Throughput (Mbps)**
- **Time (s)**
- **Flow 1 Ingress (mean 39.60 Mbps/s)**
- **Flow 1 Egress (mean 39.63 Mbps/s)**
- **Flow 2 Ingress (mean 30.76 Mbps/s)**
- **Flow 2 Egress (mean 30.76 Mbps/s)**
- **Flow 3 Ingress (mean 21.55 Mbps/s)**
- **Flow 3 Egress (mean 21.47 Mbps/s)**

![Graph showing network data analysis]

- **Per-packet end-to-end delay (ms)**
- **Time (s)**
- **Flow 1 (95th percentile 42.04 ms)**
- **Flow 2 (95th percentile 39.85 ms)**
- **Flow 3 (95th percentile 39.38 ms)**
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 11:09:10
End at: 2019-10-03 11:09:40
Local clock offset: 0.413 ms
Remote clock offset: 6.98 ms

# Below is generated by plot.py at 2019-10-03 16:40:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.12 Mbit/s
  95th percentile per-packet one-way delay: 45.238 ms
  Loss rate: 0.25%
-- Flow 1:
  Average throughput: 55.54 Mbit/s
  95th percentile per-packet one-way delay: 43.137 ms
  Loss rate: 0.12%
-- Flow 2:
  Average throughput: 40.47 Mbit/s
  95th percentile per-packet one-way delay: 46.528 ms
  Loss rate: 0.31%
-- Flow 3:
  Average throughput: 33.36 Mbit/s
  95th percentile per-packet one-way delay: 53.618 ms
  Loss rate: 0.77%
Run 1: Report of Muses DecisionTree — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 55.48 Mbps)
  - Flow 1 egress (mean 55.54 Mbps)
  - Flow 2 ingress (mean 40.47 Mbps)
  - Flow 2 egress (mean 40.47 Mbps)
  - Flow 3 ingress (mean 33.39 Mbps)
  - Flow 3 egress (mean 33.36 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 43.14 ms)
  - Flow 2 (95th percentile 46.53 ms)
  - Flow 3 (95th percentile 53.62 ms)
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 11:59:31
End at: 2019-10-03 12:00:01
Local clock offset: 0.337 ms
Remote clock offset: 7.797 ms

# Below is generated by plot.py at 2019-10-03 16:40:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.62 Mbit/s
95th percentile per-packet one-way delay: 45.751 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 52.07 Mbit/s
95th percentile per-packet one-way delay: 44.545 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 47.09 Mbit/s
95th percentile per-packet one-way delay: 44.771 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 31.80 Mbit/s
95th percentile per-packet one-way delay: 51.701 ms
Loss rate: 0.80%
Run 2: Report of Muses
DecisionTree — Data Link
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 12:57:00
End at: 2019-10-03 12:57:30
Local clock offset: 0.19 ms
Remote clock offset: 7.321 ms

# Below is generated by plot.py at 2019-10-03 16:40:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.29 Mbit/s
95th percentile per-packet one-way delay: 44.547 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 52.42 Mbit/s
95th percentile per-packet one-way delay: 44.130 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 47.49 Mbit/s
95th percentile per-packet one-way delay: 43.721 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 26.87 Mbit/s
95th percentile per-packet one-way delay: 50.922 ms
Loss rate: 0.57%
Run 3: Report of Muses_DecisionTree — Data Link

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

Flow 1 ingress (mean 52.35 Mbps)  Flow 1 egress (mean 52.42 Mbps)
Flow 2 ingress (mean 47.52 Mbps)  Flow 2 egress (mean 47.49 Mbps)
Flow 3 ingress (mean 26.85 Mbps)  Flow 3 egress (mean 26.87 Mbps)

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

Flow 1 (95th percentile 44.13 ms)  Flow 2 (95th percentile 43.72 ms)  Flow 3 (95th percentile 50.92 ms)
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 14:07:28
End at: 2019-10-03 14:07:58
Local clock offset: 0.049 ms
Remote clock offset: 7.447 ms

# Below is generated by plot.py at 2019-10-03 16:40:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.16 Mbit/s
95th percentile per-packet one-way delay: 45.059 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 53.75 Mbit/s
95th percentile per-packet one-way delay: 44.072 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 39.19 Mbit/s
95th percentile per-packet one-way delay: 44.867 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 31.96 Mbit/s
95th percentile per-packet one-way delay: 51.757 ms
Loss rate: 0.82%
Run 4: Report of MusesDecisionTree — Data Link

![Diagram 1: Throughput (Mbps)]

![Diagram 2: Per-packet one-way delay (ms)]
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 15:36:15
End at: 2019-10-03 15:36:45
Local clock offset: -0.084 ms
Remote clock offset: 7.24 ms

# Below is generated by plot.py at 2019-10-03 16:40:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.47 Mbit/s
95th percentile per-packet one-way delay: 43.415 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 54.96 Mbit/s
95th percentile per-packet one-way delay: 41.580 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 44.10 Mbit/s
95th percentile per-packet one-way delay: 43.888 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 25.50 Mbit/s
95th percentile per-packet one-way delay: 59.310 ms
Loss rate: 1.01%
Run 5: Report of Muses_DecisionTree — Data Link
Run 1: Statistics of Muses\_DecisionTreeHO

Start at: 2019-10-03 11:36:08
End at: 2019-10-03 11:36:38
Local clock offset: 0.352 ms
Remote clock offset: 7.82 ms

# Below is generated by plot.py at 2019-10-03 16:40:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.11 Mbit/s
95th percentile per-packet one-way delay: 155.098 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 49.23 Mbit/s
95th percentile per-packet one-way delay: 161.490 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 33.29 Mbit/s
95th percentile per-packet one-way delay: 146.520 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 27.53 Mbit/s
95th percentile per-packet one-way delay: 115.850 ms
Loss rate: 0.26%
Run 1: Report of Muses\_DecisionTreeH0 — Data Link

![Graph of throughput over time](image1)

- **Flow 1 ingress** (mean 49.11 Mbit/s)
- **Flow 1 egress** (mean 49.23 Mbit/s)
- **Flow 2 ingress** (mean 33.30 Mbit/s)
- **Flow 2 egress** (mean 33.29 Mbit/s)
- **Flow 3 ingress** (mean 27.43 Mbit/s)
- **Flow 3 egress** (mean 27.53 Mbit/s)

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

- **Flow 1** (95th percentile 161.49 ms)
- **Flow 2** (95th percentile 146.52 ms)
- **Flow 3** (95th percentile 115.85 ms)
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-03 12:28:25
End at: 2019-10-03 12:28:55
Local clock offset: 0.237 ms
Remote clock offset: 7.96 ms

# Below is generated by plot.py at 2019-10-03 16:40:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.26 Mbit/s
  95th percentile per-packet one-way delay: 166.727 ms
  Loss rate: 0.64%
-- Flow 1:
  Average throughput: 51.04 Mbit/s
  95th percentile per-packet one-way delay: 181.396 ms
  Loss rate: 0.63%
-- Flow 2:
  Average throughput: 32.93 Mbit/s
  95th percentile per-packet one-way delay: 156.306 ms
  Loss rate: 0.65%
-- Flow 3:
  Average throughput: 25.98 Mbit/s
  95th percentile per-packet one-way delay: 149.711 ms
  Loss rate: 0.72%
Run 2: Report of Muses_DecisionTreeH0 — Data Link

![Graph 1: Throughput (Mbps)]

Time (s)

Throughput (Mbps)

- Flow 1 ingress (mean 51.25 Mbit/s)
- Flow 1 egress (mean 51.04 Mbit/s)
- Flow 2 ingress (mean 33.07 Mbit/s)
- Flow 2 egress (mean 32.93 Mbit/s)
- Flow 3 ingress (mean 26.00 Mbit/s)
- Flow 3 egress (mean 25.98 Mbit/s)

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

Time (s)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 181.40 ms)
- Flow 2 (95th percentile 156.31 ms)
- Flow 3 (95th percentile 149.71 ms)
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-03 13:29:52
End at: 2019-10-03 13:30:22
Local clock offset: -0.007 ms
Remote clock offset: 7.867 ms

# Below is generated by plot.py at 2019-10-03 16:40:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.23 Mbit/s
  95th percentile per-packet one-way delay: 186.335 ms
  Loss rate: 0.39%
-- Flow 1:
  Average throughput: 48.86 Mbit/s
  95th percentile per-packet one-way delay: 189.344 ms
  Loss rate: 0.12%
-- Flow 2:
  Average throughput: 31.85 Mbit/s
  95th percentile per-packet one-way delay: 194.621 ms
  Loss rate: 0.21%
-- Flow 3:
  Average throughput: 25.73 Mbit/s
  95th percentile per-packet one-way delay: 125.000 ms
  Loss rate: 2.45%
Run 3: Report of Muses_DecisionTreeH0 — Data Link

[Diagram showing throughput over time with different flow rates and packet delay]
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-03 14:47:12
End at: 2019-10-03 14:47:42
Local clock offset: -0.016 ms
Remote clock offset: 7.636 ms

# Below is generated by plot.py at 2019-10-03 16:40:56
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 78.73 Mbit/s
   95th percentile per-packet one-way delay: 156.990 ms
   Loss rate: 0.50%
   -- Flow 1:
   Average throughput: 46.70 Mbit/s
   95th percentile per-packet one-way delay: 175.782 ms
   Loss rate: 0.49%
   -- Flow 2:
   Average throughput: 30.05 Mbit/s
   95th percentile per-packet one-way delay: 151.414 ms
   Loss rate: 0.39%
   -- Flow 3:
   Average throughput: 37.48 Mbit/s
   95th percentile per-packet one-way delay: 92.032 ms
   Loss rate: 0.69%
Run 4: Report of Muses_DecisionTreeH0 — Data Link

Throughput (Mbps)

Time (s)

0 5 10 15 20 25 30

Flow 1 ingress (mean 46.89 Mbit/s) — Flow 1 egress (mean 46.70 Mbit/s)
Flow 2 ingress (mean 30.07 Mbit/s) — Flow 2 egress (mean 30.05 Mbit/s)
Flow 3 ingress (mean 37.44 Mbit/s) — Flow 3 egress (mean 37.48 Mbit/s)

Round-trip time (ms)

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 175.78 ms) — Flow 2 (95th percentile 151.41 ms) — Flow 3 (95th percentile 92.03 ms)
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-03 16:06:50
End at: 2019-10-03 16:07:20
Local clock offset: 0.023 ms
Remote clock offset: 6.622 ms

# Below is generated by plot.py at 2019-10-03 16:40:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.03 Mbit/s
  95th percentile per-packet one-way delay: 143.213 ms
  Loss rate: 0.20%
-- Flow 1:
  Average throughput: 50.48 Mbit/s
  95th percentile per-packet one-way delay: 144.460 ms
  Loss rate: 0.19%
-- Flow 2:
  Average throughput: 32.77 Mbit/s
  95th percentile per-packet one-way delay: 148.234 ms
  Loss rate: 0.16%
-- Flow 3:
  Average throughput: 27.27 Mbit/s
  95th percentile per-packet one-way delay: 100.592 ms
  Loss rate: 0.33%
Run 5: Report of Muses_DecisionTreeH0 — Data Link

![Graph 1: Throughput vs Time]

- **Flow 1 ingress (mean 50.69 Mbit/s)**
- **Flow 1 egress (mean 50.48 Mbit/s)**
- **Flow 2 ingress (mean 32.67 Mbit/s)**
- **Flow 2 egress (mean 32.77 Mbit/s)**
- **Flow 3 ingress (mean 27.18 Mbit/s)**
- **Flow 3 egress (mean 27.27 Mbit/s)**

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

- **Flow 1 (95th percentile 144.46 ms)**
- **Flow 2 (95th percentile 148.23 ms)**
- **Flow 3 (95th percentile 100.59 ms)**
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-03 11:37:57  
End at: 2019-10-03 11:38:27  
Local clock offset: 0.349 ms  
Remote clock offset: 7.734 ms

# Below is generated by plot.py at 2019-10-03 16:41:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.74 Mbit/s
  95th percentile per-packet one-way delay: 43.625 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 57.20 Mbit/s
  95th percentile per-packet one-way delay: 42.048 ms
  Loss rate: 0.17%
-- Flow 2:
  Average throughput: 39.87 Mbit/s
  95th percentile per-packet one-way delay: 45.222 ms
  Loss rate: 0.34%
-- Flow 3:
  Average throughput: 31.55 Mbit/s
  95th percentile per-packet one-way delay: 53.093 ms
  Loss rate: 0.76%
Run 1: Report of Muses_DecisionTreeR0 — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2.png)
Run 2: Statistics of Muses\_DecisionTreeRO

Start at: 2019-10-03 12:31:13
End at: 2019-10-03 12:31:43
Local clock offset: 0.232 ms
Remote clock offset: 7.799 ms

# Below is generated by plot.py at 2019-10-03 16:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.63 Mbit/s
95th percentile per-packet one-way delay: 44.556 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 54.72 Mbit/s
95th percentile per-packet one-way delay: 44.425 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 47.14 Mbit/s
95th percentile per-packet one-way delay: 43.928 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 23.93 Mbit/s
95th percentile per-packet one-way delay: 48.415 ms
Loss rate: 0.85%
Run 2: Report of Muses

Decision Tree R0 — Data Link

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**Throughput (Mbit/s)**

- **Flow 1 ingress** (mean 54.66 Mbit/s)
- **Flow 1 egress** (mean 54.72 Mbit/s)
- **Flow 2 ingress** (mean 47.16 Mbit/s)
- **Flow 2 egress** (mean 47.14 Mbit/s)
- **Flow 3 ingress** (mean 23.97 Mbit/s)
- **Flow 3 egress** (mean 23.93 Mbit/s)

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

- **Flow 1** (95th percentile 44.42 ms)
- **Flow 2** (95th percentile 43.93 ms)
- **Flow 3** (95th percentile 48.41 ms)
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-03 13:32:24
End at: 2019-10-03 13:32:54
Local clock offset: -0.02 ms
Remote clock offset: 7.492 ms

# Below is generated by plot.py at 2019-10-03 16:41:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.23 Mbit/s
  95th percentile per-packet one-way delay: 47.926 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 54.95 Mbit/s
  95th percentile per-packet one-way delay: 43.499 ms
  Loss rate: 0.12%
-- Flow 2:
  Average throughput: 39.88 Mbit/s
  95th percentile per-packet one-way delay: 68.699 ms
  Loss rate: 0.35%
-- Flow 3:
  Average throughput: 33.49 Mbit/s
  95th percentile per-packet one-way delay: 56.048 ms
  Loss rate: 0.95%
Run 3: Report of Muses_DecisionTreeR0 — Data Link
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-03 14:49:44
End at: 2019-10-03 14:50:14
Local clock offset: \(-0.013\) ms
Remote clock offset: 7.62 ms

# Below is generated by plot.py at 2019-10-03 16:41:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.70 Mbit/s
95th percentile per-packet one-way delay: 46.648 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 57.51 Mbit/s
95th percentile per-packet one-way delay: 44.109 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 33.74 Mbit/s
95th percentile per-packet one-way delay: 52.239 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 27.44 Mbit/s
95th percentile per-packet one-way delay: 54.234 ms
Loss rate: 0.57%
Run 4: Report of Muses_DecisionTreeR0 — Data Link
Run 5: Statistics of Muses\_DecisionTreeRO

Start at: 2019-10-03 16:08:53  
End at: 2019-10-03 16:09:23  
Local clock offset: 0.0 ms  
Remote clock offset: 6.581 ms

# Below is generated by plot.py at 2019-10-03 16:41:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.55 Mbit/s  
95th percentile per-packet one-way delay: 43.410 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 54.98 Mbit/s  
95th percentile per-packet one-way delay: 41.853 ms  
Loss rate: 0.14%  
-- Flow 2:  
Average throughput: 34.98 Mbit/s  
95th percentile per-packet one-way delay: 43.020 ms  
Loss rate: 0.24%  
-- Flow 3:  
Average throughput: 47.71 Mbit/s  
95th percentile per-packet one-way delay: 46.666 ms  
Loss rate: 0.63%
Run 5: Report of Muses_DecimalTreeR0 — Data Link
Run 1: Statistics of PCC-Allegro

Start at: 2019-10-03 11:13:57
End at: 2019-10-03 11:14:27
Local clock offset: 0.369 ms
Remote clock offset: 6.735 ms

# Below is generated by plot.py at 2019-10-03 16:41:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.53 Mbit/s
  95th percentile per-packet one-way delay: 2138.355 ms
  Loss rate: 11.77%
-- Flow 1:
  Average throughput: 54.81 Mbit/s
  95th percentile per-packet one-way delay: 2159.659 ms
  Loss rate: 11.08%
-- Flow 2:
  Average throughput: 35.60 Mbit/s
  95th percentile per-packet one-way delay: 2084.087 ms
  Loss rate: 14.27%
-- Flow 3:
  Average throughput: 30.64 Mbit/s
  95th percentile per-packet one-way delay: 859.733 ms
  Loss rate: 9.34%
Run 1: Report of PCC-Allegro — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 61.53 Mbps)  Flow 1 egress (mean 54.81 Mbps)
Flow 2 ingress (mean 39.76 Mbps)  Flow 2 egress (mean 35.60 Mbps)
Flow 3 ingress (mean 33.58 Mbps)  Flow 3 egress (mean 30.64 Mbps)

Per-packet one-way delay (ms)

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 2159.66 ms)  Flow 2 (95th percentile 2084.09 ms)  Flow 3 (95th percentile 859.73 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2019-10-03 12:04:06
End at: 2019-10-03 12:04:36
Local clock offset: 0.333 ms
Remote clock offset: 7.854 ms

# Below is generated by plot.py at 2019-10-03 16:41:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.30 Mbit/s
95th percentile per-packet one-way delay: 2154.566 ms
Loss rate: 11.97%
-- Flow 1:
Average throughput: 53.34 Mbit/s
95th percentile per-packet one-way delay: 2166.519 ms
Loss rate: 11.22%
-- Flow 2:
Average throughput: 35.93 Mbit/s
95th percentile per-packet one-way delay: 2146.785 ms
Loss rate: 14.04%
-- Flow 3:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 999.212 ms
Loss rate: 10.90%
Run 2: Report of PCC-Allegro — Data Link

![Graph showing network performance metrics for different flows.]

- **Throughput**:
  - Flow 1 ingress (mean 59.96 Mbit/s)
  - Flow 1 egress (mean 53.34 Mbit/s)
  - Flow 2 ingress (mean 41.67 Mbit/s)
  - Flow 2 egress (mean 35.93 Mbit/s)
  - Flow 3 ingress (mean 34.24 Mbit/s)
  - Flow 3 egress (mean 30.70 Mbit/s)

- **Packet Delays**:
  - Flow 1 (95th percentile 2166.52 ms)
  - Flow 2 (95th percentile 2146.78 ms)
  - Flow 3 (95th percentile 999.21 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2019-10-03 13:01:36  
End at: 2019-10-03 13:02:06  
Local clock offset: 0.159 ms  
Remote clock offset: 7.352 ms

# Below is generated by plot.py at 2019-10-03 16:42:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.13 Mbit/s  
95th percentile per-packet one-way delay: 1740.096 ms  
Loss rate: 8.05%  
-- Flow 1:  
Average throughput: 61.45 Mbit/s  
95th percentile per-packet one-way delay: 1887.918 ms  
Loss rate: 9.97%  
-- Flow 2:  
Average throughput: 37.51 Mbit/s  
95th percentile per-packet one-way delay: 445.192 ms  
Loss rate: 4.55%  
-- Flow 3:  
Average throughput: 17.50 Mbit/s  
95th percentile per-packet one-way delay: 42.780 ms  
Loss rate: 1.19%
Run 4: Statistics of PCC-Allegro

Start at: 2019-10-03 14:13:16
End at: 2019-10-03 14:13:46
Local clock offset: 0.032 ms
Remote clock offset: 7.466 ms

# Below is generated by plot.py at 2019-10-03 16:42:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.54 Mbit/s
95th percentile per-packet one-way delay: 2036.576 ms
Loss rate: 7.24%
-- Flow 1:
Average throughput: 56.04 Mbit/s
95th percentile per-packet one-way delay: 2127.097 ms
Loss rate: 10.87%
-- Flow 2:
Average throughput: 42.60 Mbit/s
95th percentile per-packet one-way delay: 40.975 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 15.70 Mbit/s
95th percentile per-packet one-way delay: 104.804 ms
Loss rate: 0.78%
Run 4: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 62.75 Mb/s)
- Flow 1 egress (mean 56.04 Mb/s)
- Flow 2 ingress (mean 42.63 Mb/s)
- Flow 2 egress (mean 42.60 Mb/s)
- Flow 3 ingress (mean 15.72 Mb/s)
- Flow 3 egress (mean 15.70 Mb/s)

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

- Flow 1 (95th percentile 2127.10 ms)
- Flow 2 (95th percentile 40.98 ms)
- Flow 3 (95th percentile 104.80 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2019-10-03 15:44:18
End at: 2019-10-03 15:44:48
Local clock offset: -0.074 ms
Remote clock offset: 7.066 ms

# Below is generated by plot.py at 2019-10-03 16:42:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.50 Mbit/s
95th percentile per-packet one-way delay: 1475.862 ms
Loss rate: 20.37%
-- Flow 1:
Average throughput: 55.36 Mbit/s
95th percentile per-packet one-way delay: 1778.516 ms
Loss rate: 24.94%
-- Flow 2:
Average throughput: 32.54 Mbit/s
95th percentile per-packet one-way delay: 1456.849 ms
Loss rate: 16.81%
-- Flow 3:
Average throughput: 38.12 Mbit/s
95th percentile per-packet one-way delay: 142.236 ms
Loss rate: 1.09%
Run 5: Report of PCC-Allegro — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 1: Statistics of PCC-Expr

Start at: 2019-10-03 11:06:19
End at: 2019-10-03 11:06:49
Local clock offset: 0.402 ms
Remote clock offset: 6.858 ms

# Below is generated by plot.py at 2019-10-03 16:43:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.87 Mbit/s
95th percentile per-packet one-way delay: 852.285 ms
Loss rate: 50.51%
-- Flow 1:
Average throughput: 54.37 Mbit/s
95th percentile per-packet one-way delay: 536.344 ms
Loss rate: 57.18%
-- Flow 2:
Average throughput: 39.39 Mbit/s
95th percentile per-packet one-way delay: 891.385 ms
Loss rate: 40.49%
-- Flow 3:
Average throughput: 28.37 Mbit/s
95th percentile per-packet one-way delay: 585.988 ms
Loss rate: 12.50%
Run 1: Report of PCC-Expr — Data Link

[Graph showing throughput and delay over time for different flows]
Run 2: Statistics of PCC-Expr

Start at: 2019-10-03 11:56:49
End at: 2019-10-03 11:57:19
Local clock offset: 0.349 ms
Remote clock offset: 7.899 ms

# Below is generated by plot.py at 2019-10-03 16:43:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.61 Mbit/s
  95th percentile per-packet one-way delay: 1652.540 ms
  Loss rate: 13.24%
-- Flow 1:
  Average throughput: 55.00 Mbit/s
  95th percentile per-packet one-way delay: 1657.440 ms
  Loss rate: 9.25%
-- Flow 2:
  Average throughput: 32.39 Mbit/s
  95th percentile per-packet one-way delay: 1302.448 ms
  Loss rate: 25.52%
-- Flow 3:
  Average throughput: 27.67 Mbit/s
  95th percentile per-packet one-way delay: 65.588 ms
  Loss rate: 0.91%
Run 2: Report of PCC-Expr — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 60.47 Mbps)
- Flow 1 egress (mean 55.00 Mbps)
- Flow 2 ingress (mean 45.35 Mbps)
- Flow 2 egress (mean 32.39 Mbps)
- Flow 3 ingress (mean 27.74 Mbps)
- Flow 3 egress (mean 27.67 Mbps)

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

- Flow 1 (95th percentile 1657.44 ms)
- Flow 2 (95th percentile 1302.45 ms)
- Flow 3 (95th percentile 65.59 ms)
Run 3: Statistics of PCC-Expr

Start at: 2019-10-03 12:53:50
End at: 2019-10-03 12:54:20
Local clock offset: 0.215 ms
Remote clock offset: 7.49 ms

# Below is generated by plot.py at 2019-10-03 16:44:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.96 Mbit/s
  95th percentile per-packet one-way delay: 1024.063 ms
  Loss rate: 41.04%
-- Flow 1:
  Average throughput: 59.76 Mbit/s
  95th percentile per-packet one-way delay: 557.554 ms
  Loss rate: 49.33%
-- Flow 2:
  Average throughput: 38.25 Mbit/s
  95th percentile per-packet one-way delay: 1092.907 ms
  Loss rate: 14.17%
-- Flow 3:
  Average throughput: 23.64 Mbit/s
  95th percentile per-packet one-way delay: 894.252 ms
  Loss rate: 23.06%
Run 3: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 117.69 Mbit/s)
- Flow 1 egress (mean 59.76 Mbit/s)
- Flow 2 ingress (mean 44.42 Mbit/s)
- Flow 2 egress (mean 38.25 Mbit/s)
- Flow 3 ingress (mean 39.52 Mbit/s)
- Flow 3 egress (mean 23.64 Mbit/s)

![Graph 2: RTT vs Time](Image)

- Flow 1 (95th percentile 557.55 ms)
- Flow 2 (95th percentile 1092.91 ms)
- Flow 3 (95th percentile 894.25 ms)
Run 4: Statistics of PCC-Expr

Start at: 2019-10-03 14:02:27
End at: 2019-10-03 14:02:57
Local clock offset: -0.019 ms
Remote clock offset: 7.429 ms

# Below is generated by plot.py at 2019-10-03 16:44:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.60 Mbit/s
  95th percentile per-packet one-way delay: 1442.271 ms
  Loss rate: 40.73%
-- Flow 1:
  Average throughput: 60.04 Mbit/s
  95th percentile per-packet one-way delay: 579.070 ms
  Loss rate: 48.45%
-- Flow 2:
  Average throughput: 28.99 Mbit/s
  95th percentile per-packet one-way delay: 1509.193 ms
  Loss rate: 18.41%
-- Flow 3:
  Average throughput: 28.28 Mbit/s
  95th percentile per-packet one-way delay: 73.375 ms
  Loss rate: 1.19%
Run 4: Report of PCC-Expr — Data Link
Run 5: Statistics of PCC-Expr

Start at: 2019-10-03 15:28:09
End at: 2019-10-03 15:28:39
Local clock offset: -0.043 ms
Remote clock offset: 7.312 ms

# Below is generated by plot.py at 2019-10-03 16:44:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.79 Mbit/s
95th percentile per-packet one-way delay: 591.465 ms
Loss rate: 43.88%
-- Flow 1:
Average throughput: 49.57 Mbit/s
95th percentile per-packet one-way delay: 603.594 ms
Loss rate: 51.30%
-- Flow 2:
Average throughput: 36.01 Mbit/s
95th percentile per-packet one-way delay: 557.986 ms
Loss rate: 39.08%
-- Flow 3:
Average throughput: 43.45 Mbit/s
95th percentile per-packet one-way delay: 218.460 ms
Loss rate: 6.98%
Run 5: Report of PCC-Expr — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 101.57 Mbps)
- Flow 1 egress (mean 49.57 Mbps)
- Flow 2 ingress (mean 58.91 Mbps)
- Flow 2 egress (mean 36.01 Mbps)
- Flow 3 ingress (mean 46.41 Mbps)
- Flow 3 egress (mean 43.45 Mbps)

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

- Flow 1 (95th percentile 603.59 ms)
- Flow 2 (95th percentile 537.99 ms)
- Flow 3 (95th percentile 218.46 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2019-10-03 11:01:17
End at: 2019-10-03 11:01:47
Local clock offset: 0.477 ms
Remote clock offset: 6.958 ms

# Below is generated by plot.py at 2019-10-03 16:44:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.83 Mbit/s
95th percentile per-packet one-way delay: 111.193 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 39.18 Mbit/s
95th percentile per-packet one-way delay: 99.001 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 42.30 Mbit/s
95th percentile per-packet one-way delay: 113.413 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 22.89 Mbit/s
95th percentile per-packet one-way delay: 161.233 ms
Loss rate: 1.08%
Run 1: Report of QUIC Cubic — Data Link

![Throughput Graph](image1)

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

Start at: 2019-10-03 11:52:06
End at: 2019-10-03 11:52:36
Local clock offset: 0.343 ms
Remote clock offset: 8.053 ms

# Below is generated by plot.py at 2019-10-03 16:44:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 77.90 Mbit/s
  95th percentile per-packet one-way delay: 99.179 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 41.52 Mbit/s
  95th percentile per-packet one-way delay: 98.376 ms
  Loss rate: 0.20%
-- Flow 2:
  Average throughput: 43.08 Mbit/s
  95th percentile per-packet one-way delay: 90.465 ms
  Loss rate: 0.47%
-- Flow 3:
  Average throughput: 23.48 Mbit/s
  95th percentile per-packet one-way delay: 163.098 ms
  Loss rate: 1.02%
Run 2: Report of QUIC Cubic — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 41.52 Mbps)
- Flow 1 egress (mean 41.52 Mbps)
- Flow 2 ingress (mean 43.15 Mbps)
- Flow 2 egress (mean 43.08 Mbps)
- Flow 3 ingress (mean 23.57 Mbps)
- Flow 3 egress (mean 23.48 Mbps)

Per-packet one way delay (ms):

- Flow 1 (95th percentile 98.38 ms)
- Flow 2 (95th percentile 90.47 ms)
- Flow 3 (95th percentile 163.10 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2019-10-03 12:48:00
End at: 2019-10-03 12:48:30
Local clock offset: 0.207 ms
Remote clock offset: 7.501 ms

# Below is generated by plot.py at 2019-10-03 16:44:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 76.40 Mbit/s
  95th percentile per-packet one-way delay: 105.506 ms
  Loss rate: 0.35%
-- Flow 1:
  Average throughput: 41.96 Mbit/s
  95th percentile per-packet one-way delay: 96.037 ms
  Loss rate: 0.18%
-- Flow 2:
  Average throughput: 32.96 Mbit/s
  95th percentile per-packet one-way delay: 103.093 ms
  Loss rate: 0.33%
-- Flow 3:
  Average throughput: 38.09 Mbit/s
  95th percentile per-packet one-way delay: 157.789 ms
  Loss rate: 0.96%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2019-10-03 13:54:24
End at: 2019-10-03 13:54:54
Local clock offset: -0.113 ms
Remote clock offset: 7.566 ms

# Below is generated by plot.py at 2019-10-03 16:44:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.47 Mbit/s
95th percentile per-packet one-way delay: 100.862 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 47.96 Mbit/s
95th percentile per-packet one-way delay: 80.145 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 31.18 Mbit/s
95th percentile per-packet one-way delay: 128.142 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 23.62 Mbit/s
95th percentile per-packet one-way delay: 152.484 ms
Loss rate: 1.02%
Run 5: Statistics of QUIC Cubic

Start at: 2019-10-03 15:18:45
End at: 2019-10-03 15:19:15
Local clock offset: -0.044 ms
Remote clock offset: 7.183 ms

# Below is generated by plot.py at 2019-10-03 16:44:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.80 Mbit/s
95th percentile per-packet one-way delay: 70.791 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 49.99 Mbit/s
95th percentile per-packet one-way delay: 53.132 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 42.22 Mbit/s
95th percentile per-packet one-way delay: 111.950 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 23.56 Mbit/s
95th percentile per-packet one-way delay: 146.986 ms
Loss rate: 0.98%
Run 5: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 49.96 Mbit/s)
- Flow 1 egress (mean 49.99 Mbit/s)
- Flow 2 ingress (mean 42.27 Mbit/s)
- Flow 2 egress (mean 42.22 Mbit/s)
- Flow 3 ingress (mean 23.64 Mbit/s)
- Flow 3 egress (mean 23.56 Mbit/s)

- Flow 1 (95th percentile 53.13 ms)
- Flow 2 (95th percentile 111.95 ms)
- Flow 3 (95th percentile 146.99 ms)
Run 1: Statistics of SCReAM

Start at: 2019-10-03 11:46:31
End at: 2019-10-03 11:47:01
Local clock offset: 0.357 ms
Remote clock offset: 8.006 ms

# Below is generated by plot.py at 2019-10-03 16:44:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 30.681 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.753 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.602 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.623 ms
Loss rate: 0.71%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2019-10-03 12:40:29
End at: 2019-10-03 12:40:59
Local clock offset: 0.253 ms
Remote clock offset: 7.601 ms

# Below is generated by plot.py at 2019-10-03 16:44:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 30.679 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 30.554 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 30.999 ms
  Loss rate: 0.40%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 30.926 ms
  Loss rate: 0.71%
Run 2: Report of SCReAM — Data Link

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Run 3: Statistics of SCReAM

Start at: 2019-10-03 13:46:06
End at: 2019-10-03 13:46:36
Local clock offset: -0.09 ms
Remote clock offset: 7.633 ms

# Below is generated by plot.py at 2019-10-03 16:44:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 31.939 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.778 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 32.019 ms
  Loss rate: 0.40%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 32.165 ms
  Loss rate: 0.71%
Run 4: Statistics of SCReAM

Start at: 2019-10-03 15:09:51
End at: 2019-10-03 15:10:21
Local clock offset: -0.018 ms
Remote clock offset: 7.285 ms

# Below is generated by plot.py at 2019-10-03 16:44:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 32.156 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 32.757 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.407 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.266 ms
Loss rate: 0.71%
Run 4: Report of SCReAM — Data Link

[Graph showing throughput and packet loss over time for different flows]
Run 5: Statistics of SCReAM

Start at: 2019-10-03 16:22:51
End at: 2019-10-03 16:23:21
Local clock offset: 0.045 ms
Remote clock offset: 6.666 ms

# Below is generated by plot.py at 2019-10-03 16:44:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 31.221 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.360 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.181 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.869 ms
Loss rate: 0.71%
Run 5: Report of SCReAM — Data Link

![Graph showing throughput and per-packet one-way delay](image-url)
Run 1: Statistics of Sprout

Start at: 2019-10-03 11:04:59
End at: 2019-10-03 11:05:29
Local clock offset: 0.401 ms
Remote clock offset: 6.879 ms

# Below is generated by plot.py at 2019-10-03 16:44:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.77 Mbit/s
95th percentile per-packet one-way delay: 38.748 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 12.03 Mbit/s
95th percentile per-packet one-way delay: 38.391 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 11.96 Mbit/s
95th percentile per-packet one-way delay: 39.021 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 11.52 Mbit/s
95th percentile per-packet one-way delay: 39.049 ms
Loss rate: 0.29%
Run 2: Statistics of Sprout

Start at: 2019-10-03 11:55:34
End at: 2019-10-03 11:56:04
Local clock offset: 0.334 ms
Remote clock offset: 7.95 ms

# Below is generated by plot.py at 2019-10-03 16:44:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.69 Mbit/s
95th percentile per-packet one-way delay: 39.066 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 39.228 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 12.02 Mbit/s
95th percentile per-packet one-way delay: 38.300 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 11.48 Mbit/s
95th percentile per-packet one-way delay: 39.896 ms
Loss rate: 0.84%
Run 2: Report of Sprout — Data Link

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

**Throughput (Mbps)**
- Flow 1 ingress (mean 11.93 Mbps)
- Flow 1 egress (mean 11.92 Mbps)
- Flow 2 ingress (mean 12.00 Mbps)
- Flow 2 egress (mean 12.02 Mbps)
- Flow 3 ingress (mean 11.50 Mbps)
- Flow 3 egress (mean 11.48 Mbps)

**Per-packet round-trip delay (ms)**
- Flow 1 (95th percentile 39.23 ms)
- Flow 2 (95th percentile 38.30 ms)
- Flow 3 (95th percentile 39.90 ms)
Run 3: Statistics of Sprout

Start at: 2019-10-03 12:52:25
End at: 2019-10-03 12:52:55
Local clock offset: 0.203 ms
Remote clock offset: 7.474 ms

# Below is generated by plot.py at 2019-10-03 16:44:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.72 Mbit/s
95th percentile per-packet one-way delay: 39.631 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 11.97 Mbit/s
95th percentile per-packet one-way delay: 38.949 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 11.89 Mbit/s
95th percentile per-packet one-way delay: 40.433 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 11.70 Mbit/s
95th percentile per-packet one-way delay: 39.545 ms
Loss rate: 0.84%
Run 3: Report of Sprout — Data Link

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

- **Flow 1** (ingress: mean 11.97 Mbit/s, egress: mean 11.97 Mbit/s)
- **Flow 2** (ingress: mean 11.89 Mbit/s, egress: mean 11.89 Mbit/s)
- **Flow 3** (ingress: mean 11.71 Mbit/s, egress: mean 11.70 Mbit/s)

Packet delay (ms): Flow 1 (95th percentile: 38.95 ms), Flow 2 (95th percentile: 40.43 ms), Flow 3 (95th percentile: 39.55 ms)
Run 4: Statistics of Sprout

Start at: 2019-10-03 14:00:52
End at: 2019-10-03 14:01:22
Local clock offset: -0.035 ms
Remote clock offset: 7.429 ms

# Below is generated by plot.py at 2019-10-03 16:44:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.59 Mbit/s
95th percentile per-packet one-way delay: 38.866 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 11.96 Mbit/s
95th percentile per-packet one-way delay: 38.613 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 38.444 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 40.693 ms
Loss rate: 0.78%
Run 4: Report of Sprout — Data Link

![Graph 1: Throughput vs Time]

- Flow 1 ingress (mean 11.96 Mbit/s)
- Flow 1 egress (mean 11.96 Mbit/s)
- Flow 2 ingress (mean 11.78 Mbit/s)
- Flow 2 egress (mean 11.78 Mbit/s)
- Flow 3 ingress (mean 11.60 Mbit/s)
- Flow 3 egress (mean 11.57 Mbit/s)

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

- Flow 1 (95th percentile 38.61 ms)
- Flow 2 (95th percentile 38.44 ms)
- Flow 3 (95th percentile 40.69 ms)
Run 5: Statistics of Sprout

Start at: 2019-10-03 15:26:09
End at: 2019-10-03 15:26:39
Local clock offset: -0.064 ms
Remote clock offset: 7.361 ms

# Below is generated by plot.py at 2019-10-03 16:44:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 23.61 Mbit/s
  95th percentile per-packet one-way delay: 40.129 ms
  Loss rate: 0.37%
-- Flow 1:
  Average throughput: 11.88 Mbit/s
  95th percentile per-packet one-way delay: 40.585 ms
  Loss rate: 0.28%
-- Flow 2:
  Average throughput: 11.88 Mbit/s
  95th percentile per-packet one-way delay: 39.846 ms
  Loss rate: 0.42%
-- Flow 3:
  Average throughput: 11.73 Mbit/s
  95th percentile per-packet one-way delay: 39.412 ms
  Loss rate: 0.58%
Run 5: Report of Sprout — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 11.88 Mbps)
  - Flow 1 egress (mean 11.88 Mbps)
  - Flow 2 ingress (mean 11.89 Mbps)
  - Flow 2 egress (mean 11.88 Mbps)
  - Flow 3 ingress (mean 11.75 Mbps)
  - Flow 3 egress (mean 11.73 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 40.59 ms)
  - Flow 2 (95th percentile 39.85 ms)
  - Flow 3 (95th percentile 39.41 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2019-10-03 11:19:35
End at: 2019-10-03 11:20:05
Local clock offset: 0.413 ms
Remote clock offset: 7.011 ms

# Below is generated by plot.py at 2019-10-03 16:45:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.71 Mbit/s
  95th percentile per-packet one-way delay: 96.522 ms
  Loss rate: 0.25%
-- Flow 1:
  Average throughput: 48.74 Mbit/s
  95th percentile per-packet one-way delay: 93.296 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 26.09 Mbit/s
  95th percentile per-packet one-way delay: 121.773 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 85.21 Mbit/s
  95th percentile per-packet one-way delay: 42.037 ms
  Loss rate: 0.61%
Run 1: Report of TaoVA-100x — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 2: Statistics of TaoVA-100x

Start at: 2019-10-03 12:09:52
End at: 2019-10-03 12:10:22
Local clock offset: 0.263 ms
Remote clock offset: 7.876 ms

# Below is generated by plot.py at 2019-10-03 16:45:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.32 Mbit/s
95th percentile per-packet one-way delay: 98.731 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 48.10 Mbit/s
95th percentile per-packet one-way delay: 95.316 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 26.23 Mbit/s
95th percentile per-packet one-way delay: 123.626 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 81.58 Mbit/s
95th percentile per-packet one-way delay: 43.395 ms
Loss rate: 0.63%
Run 2: Report of TaoVA-100x — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 48.13 Mbps)
  - Flow 1 egress (mean 48.10 Mbps)
  - Flow 2 ingress (mean 26.27 Mbps)
  - Flow 2 egress (mean 26.23 Mbps)
  - Flow 3 ingress (mean 81.57 Mbps)
  - Flow 3 egress (mean 81.58 Mbps)

- **Per-packet round-trip delay (ms):**
  - Flow 1 (95th percentile 95.32 ms)
  - Flow 2 (95th percentile 123.63 ms)
  - Flow 3 (95th percentile 43.40 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2019-10-03 13:08:04
End at: 2019-10-03 13:08:34
Local clock offset: 0.116 ms
Remote clock offset: 7.704 ms

# Below is generated by plot.py at 2019-10-03 16:46:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.42 Mbit/s
95th percentile per-packet one-way delay: 95.042 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 47.66 Mbit/s
95th percentile per-packet one-way delay: 88.675 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 26.06 Mbit/s
95th percentile per-packet one-way delay: 124.269 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 83.03 Mbit/s
95th percentile per-packet one-way delay: 45.642 ms
Loss rate: 0.74%
Run 3: Report of TaoVA-100x — Data Link

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

**Legend for Graph 1:**
- Blue dashed line: Flow 1 ingress (mean 47.66 Mbit/s)
- Blue solid line: Flow 1 egress (mean 47.66 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 26.09 Mbit/s)
- Green solid line: Flow 2 egress (mean 26.06 Mbit/s)
- Pink dashed line: Flow 3 ingress (mean 83.10 Mbit/s)
- Pink solid line: Flow 3 egress (mean 83.03 Mbit/s)

![Graph 2: Per-packet round-trip delay over Time](image)

**Legend for Graph 2:**
- Blue line: Flow 1 (95th percentile 88.67 ms)
- Blue line: Flow 2 (95th percentile 124.27 ms)
- Blue line: Flow 3 (95th percentile 45.64 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2019-10-03 14:20:48
End at: 2019-10-03 14:21:18
Local clock offset: 0.059 ms
Remote clock offset: 7.604 ms

# Below is generated by plot.py at 2019-10-03 16:46:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 91.07 Mbit/s
  95th percentile per-packet one-way delay: 101.162 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 47.13 Mbit/s
  95th percentile per-packet one-way delay: 93.140 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 42.95 Mbit/s
  95th percentile per-packet one-way delay: 99.778 ms
  Loss rate: 0.10%
-- Flow 3:
  Average throughput: 50.98 Mbit/s
  95th percentile per-packet one-way delay: 161.551 ms
  Loss rate: 1.31%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2019-10-03 15:49:01
End at: 2019-10-03 15:49:31
Local clock offset: -0.105 ms
Remote clock offset: 7.058 ms

# Below is generated by plot.py at 2019-10-03 16:46:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 27.35 Mbit/s
  95th percentile per-packet one-way delay: 41.552 ms
  Loss rate: 0.60%
-- Flow 1:
  Average throughput: 14.27 Mbit/s
  95th percentile per-packet one-way delay: 41.612 ms
  Loss rate: 0.46%
-- Flow 2:
  Average throughput: 10.46 Mbit/s
  95th percentile per-packet one-way delay: 41.292 ms
  Loss rate: 0.63%
-- Flow 3:
  Average throughput: 22.17 Mbit/s
  95th percentile per-packet one-way delay: 41.636 ms
  Loss rate: 0.87%
Run 5: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2019-10-03 11:34:14
End at: 2019-10-03 11:34:44
Local clock offset: 0.353 ms
Remote clock offset: 7.719 ms

# Below is generated by plot.py at 2019-10-03 16:46:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.13 Mbit/s
95th percentile per-packet one-way delay: 39.907 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 37.62 Mbit/s
95th percentile per-packet one-way delay: 49.560 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 36.98 Mbit/s
95th percentile per-packet one-way delay: 35.781 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 32.87 Mbit/s
95th percentile per-packet one-way delay: 44.696 ms
Loss rate: 0.68%
Run 1: Report of TCP Vegas — Data Link

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Throughput (Mbps):

- Flow 1 ingress (mean 37.62 Mbps)
- Flow 1 egress (mean 37.62 Mbps)
- Flow 2 ingress (mean 36.98 Mbps)
- Flow 2 egress (mean 36.98 Mbps)
- Flow 3 ingress (mean 32.88 Mbps)
- Flow 3 egress (mean 32.87 Mbps)

Delay (ms):

- Flow 1 (95th percentile 49.56 ms)
- Flow 2 (95th percentile 35.78 ms)
- Flow 3 (95th percentile 44.70 ms)

---

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Run 2: Statistics of TCP Vegas

Start at: 2019-10-03 12:26:27
End at: 2019-10-03 12:26:57
Local clock offset: 0.266 ms
Remote clock offset: 8.026 ms

# Below is generated by plot.py at 2019-10-03 16:46:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.45 Mbit/s
95th percentile per-packet one-way delay: 37.225 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 48.82 Mbit/s
95th percentile per-packet one-way delay: 38.745 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 30.73 Mbit/s
95th percentile per-packet one-way delay: 35.714 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 21.65 Mbit/s
95th percentile per-packet one-way delay: 35.274 ms
Loss rate: 0.78%
Run 2: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 48.82 Mbit/s)
- Flow 1 egress (mean 48.82 Mbit/s)
- Flow 2 ingress (mean 30.75 Mbit/s)
- Flow 2 egress (mean 30.73 Mbit/s)
- Flow 3 ingress (mean 21.68 Mbit/s)
- Flow 3 egress (mean 21.65 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 38.74 ms)
- Flow 2 (95th percentile 35.71 ms)
- Flow 3 (95th percentile 35.27 ms)
Run 3: Statistics of TCP Vegas

Start at: 2019-10-03 13:25:41
End at: 2019-10-03 13:26:11
Local clock offset: 0.026 ms
Remote clock offset: 7.571 ms

# Below is generated by plot.py at 2019-10-03 16:46:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.11 Mbit/s
95th percentile per-packet one-way delay: 36.837 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 57.09 Mbit/s
95th percentile per-packet one-way delay: 37.286 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 29.41 Mbit/s
95th percentile per-packet one-way delay: 35.428 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 22.50 Mbit/s
95th percentile per-packet one-way delay: 35.864 ms
Loss rate: 0.80%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2019-10-03 14:43:55
End at: 2019-10-03 14:44:25
Local clock offset: 0.007 ms
Remote clock offset: 7.744 ms

# Below is generated by plot.py at 2019-10-03 16:46:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.90 Mbit/s
95th percentile per-packet one-way delay: 42.916 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 39.39 Mbit/s
95th percentile per-packet one-way delay: 48.308 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 44.56 Mbit/s
95th percentile per-packet one-way delay: 39.628 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 32.81 Mbit/s
95th percentile per-packet one-way delay: 47.268 ms
Loss rate: 0.69%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2019-10-03 16:04:11
End at: 2019-10-03 16:04:41
Local clock offset: -0.019 ms
Remote clock offset: 6.635 ms

# Below is generated by plot.py at 2019-10-03 16:46:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.05 Mbit/s
95th percentile per-packet one-way delay: 40.560 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 46.062 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 31.83 Mbit/s
95th percentile per-packet one-way delay: 35.445 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 38.81 Mbit/s
95th percentile per-packet one-way delay: 39.714 ms
Loss rate: 0.66%
Run 5: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 39.98 Mbit/s) and egress (mean 40.00 Mbit/s)
- Flow 2 ingress (mean 31.83 Mbit/s) and egress (mean 31.83 Mbit/s)
- Flow 3 ingress (mean 38.81 Mbit/s) and egress (mean 38.81 Mbit/s)

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

- Flow 1 (95th percentile 46.06 ms)
- Flow 2 (95th percentile 35.45 ms)
- Flow 3 (95th percentile 39.71 ms)
Run 1: Statistics of Verus

Start at: 2019-10-03 11:40:12
End at: 2019-10-03 11:40:42
Local clock offset: 0.346 ms
Remote clock offset: 7.723 ms

# Below is generated by plot.py at 2019-10-03 16:46:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.44 Mbit/s
95th percentile per-packet one-way delay: 124.656 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 58.61 Mbit/s
95th percentile per-packet one-way delay: 117.615 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 34.40 Mbit/s
95th percentile per-packet one-way delay: 141.018 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 24.01 Mbit/s
95th percentile per-packet one-way delay: 210.003 ms
Loss rate: 1.07%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Start at: 2019-10-03 12:33:35
End at: 2019-10-03 12:34:05
Local clock offset: 0.265 ms
Remote clock offset: 7.698 ms

# Below is generated by plot.py at 2019-10-03 16:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.00 Mbit/s
95th percentile per-packet one-way delay: 141.426 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 53.43 Mbit/s
95th percentile per-packet one-way delay: 146.782 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 38.54 Mbit/s
95th percentile per-packet one-way delay: 96.772 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 30.22 Mbit/s
95th percentile per-packet one-way delay: 189.274 ms
Loss rate: 1.23%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2019-10-03 13:35:56
End at: 2019-10-03 13:36:26
Local clock offset: ~0.05 ms
Remote clock offset: 7.709 ms

# Below is generated by plot.py at 2019-10-03 16:46:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.71 Mbit/s
  95th percentile per-packet one-way delay: 256.909 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 52.30 Mbit/s
  95th percentile per-packet one-way delay: 133.263 ms
  Loss rate: 0.21%
-- Flow 2:
  Average throughput: 44.20 Mbit/s
  95th percentile per-packet one-way delay: 82.735 ms
  Loss rate: 0.64%
-- Flow 3:
  Average throughput: 24.23 Mbit/s
  95th percentile per-packet one-way delay: 1945.053 ms
  Loss rate: 2.73%
Run 3: Report of Verus — Data Link

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

- Flow 1 ingress (mean 52.43 Mbit/s)
- Flow 1 egress (mean 52.30 Mbit/s)
- Flow 2 ingress (mean 44.35 Mbit/s)
- Flow 2 egress (mean 44.20 Mbit/s)
- Flow 3 ingress (mean 24.76 Mbit/s)
- Flow 3 egress (mean 24.23 Mbit/s)

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

- Flow 1 (95th percentile 133.26 ms)
- Flow 2 (95th percentile 82.73 ms)
- Flow 3 (95th percentile 1945.05 ms)
Run 4: Statistics of Verus

Start at: 2019-10-03 14:53:47
End at: 2019-10-03 14:54:17
Local clock offset: -0.016 ms
Remote clock offset: 7.508 ms

# Below is generated by plot.py at 2019-10-03 16:46:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.58 Mbit/s
95th percentile per-packet one-way delay: 136.601 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 50.66 Mbit/s
95th percentile per-packet one-way delay: 148.112 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 44.33 Mbit/s
95th percentile per-packet one-way delay: 85.657 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 22.47 Mbit/s
95th percentile per-packet one-way delay: 221.662 ms
Loss rate: 1.35%
Run 4: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 5: Statistics of Verus

Start at: 2019-10-03 16:11:38
End at: 2019-10-03 16:12:08
Local clock offset: 0.023 ms
Remote clock offset: 6.52 ms

# Below is generated by plot.py at 2019-10-03 16:46:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.29 Mbit/s
  95th percentile per-packet one-way delay: 164.949 ms
  Loss rate: 0.52%
-- Flow 1:
  Average throughput: 51.92 Mbit/s
  95th percentile per-packet one-way delay: 162.997 ms
  Loss rate: 0.31%
-- Flow 2:
  Average throughput: 43.15 Mbit/s
  95th percentile per-packet one-way delay: 165.201 ms
  Loss rate: 0.69%
-- Flow 3:
  Average throughput: 23.17 Mbit/s
  95th percentile per-packet one-way delay: 175.879 ms
  Loss rate: 1.23%
Run 5: Report of Verus — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 52.00 Mbps)  Flow 1 egress (mean 51.92 Mbps)
Flow 2 ingress (mean 43.34 Mbps)  Flow 2 egress (mean 43.15 Mbps)
Flow 3 ingress (mean 23.35 Mbps)  Flow 3 egress (mean 23.17 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 163.00 ms)  Flow 2 (95th percentile 165.20 ms)  Flow 3 (95th percentile 175.88 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2019-10-03 11:11:29
End at: 2019-10-03 11:11:59
Local clock offset: 0.415 ms
Remote clock offset: 6.82 ms

# Below is generated by plot.py at 2019-10-03 16:47:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.10 Mbit/s
  95th percentile per-packet one-way delay: 1517.780 ms
  Loss rate: 2.84%
  -- Flow 1:
  Average throughput: 57.81 Mbit/s
  95th percentile per-packet one-way delay: 1521.837 ms
  Loss rate: 3.53%
  -- Flow 2:
  Average throughput: 32.09 Mbit/s
  95th percentile per-packet one-way delay: 324.017 ms
  Loss rate: 1.44%
  -- Flow 3:
  Average throughput: 24.21 Mbit/s
  95th percentile per-packet one-way delay: 62.461 ms
  Loss rate: 1.43%
Run 1: Report of PCC-Vivace — Data Link

**Graph 1:**
- **Throughput:** The graph shows the throughput (Mbps) over time for different flows.
- **Legend:**
  - Flow 1 ingress (mean 59.80 Mbps)
  - Flow 1 egress (mean 57.81 Mbps)
  - Flow 2 ingress (mean 32.45 Mbps)
  - Flow 2 egress (mean 32.09 Mbps)
  - Flow 3 ingress (mean 24.40 Mbps)
  - Flow 3 egress (mean 24.21 Mbps)

**Graph 2:**
- **Packet delay (ms):** The graph shows the packet delay (ms) over time for different flows.
- **Legend:**
  - Flow 1 (95th percentile 1521.84 ms)
  - Flow 2 (95th percentile 324.02 ms)
  - Flow 3 (95th percentile 62.46 ms)
Run 2: Statistics of PCC-Vivace

Start at: 2019-10-03 12:01:37
End at: 2019-10-03 12:02:07
Local clock offset: 0.316 ms
Remote clock offset: 7.791 ms

# Below is generated by plot.py at 2019-10-03 16:47:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.07 Mbit/s
  95th percentile per-packet one-way delay: 1734.146 ms
  Loss rate: 4.04%
-- Flow 1:
  Average throughput: 51.20 Mbit/s
  95th percentile per-packet one-way delay: 1926.633 ms
  Loss rate: 6.17%
-- Flow 2:
  Average throughput: 40.91 Mbit/s
  95th percentile per-packet one-way delay: 55.871 ms
  Loss rate: 0.39%
-- Flow 3:
  Average throughput: 17.26 Mbit/s
  95th percentile per-packet one-way delay: 43.868 ms
  Loss rate: 1.20%
Run 2: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 54.45 Mbit/s)  
Flow 1 egress (mean 51.20 Mbit/s)  
Flow 2 ingress (mean 40.84 Mbit/s)  
Flow 2 egress (mean 40.91 Mbit/s)  
Flow 3 ingress (mean 17.36 Mbit/s)  
Flow 3 egress (mean 17.26 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 1926.63 ms)  
Flow 2 (95th percentile 55.87 ms)  
Flow 3 (95th percentile 42.87 ms)
Run 3: Statistics of PCC-Vivace

Start at: 2019-10-03 12:59:26
End at: 2019-10-03 12:59:56
Local clock offset: 0.173 ms
Remote clock offset: 7.36 ms

# Below is generated by plot.py at 2019-10-03 16:47:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.52 Mbit/s
  95th percentile per-packet one-way delay: 1550.107 ms
  Loss rate: 5.88%
-- Flow 1:
  Average throughput: 55.48 Mbit/s
  95th percentile per-packet one-way delay: 1563.094 ms
  Loss rate: 8.48%
-- Flow 2:
  Average throughput: 38.61 Mbit/s
  95th percentile per-packet one-way delay: 61.990 ms
  Loss rate: 0.27%
-- Flow 3:
  Average throughput: 10.20 Mbit/s
  95th percentile per-packet one-way delay: 36.926 ms
  Loss rate: 1.95%
Run 3: Report of PCC-Vivace — Data Link

![Data Link Diagram]

- **Flow 1 ing (mean 60.50 Mbit/s)**
- **Flow 1 egress (mean 55.48 Mbit/s)**
- **Flow 2 ing (mean 38.60 Mbit/s)**
- **Flow 2 egress (mean 38.61 Mbit/s)**
- **Flow 3 ing (mean 10.33 Mbit/s)**
- **Flow 3 egress (mean 10.20 Mbit/s)**

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

- **Flow 1 (95th percentile 1563.09 ms)**
- **Flow 2 (95th percentile 61.99 ms)**
- **Flow 3 (95th percentile 36.93 ms)**
Run 4: Statistics of PCC-Vivace

Start at: 2019-10-03 14:09:56
End at: 2019-10-03 14:10:26
Local clock offset: 0.02 ms
Remote clock offset: 7.425 ms

# Below is generated by plot.py at 2019-10-03 16:47:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.01 Mbit/s
95th percentile per-packet one-way delay: 418.269 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 48.07 Mbit/s
95th percentile per-packet one-way delay: 393.629 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 32.59 Mbit/s
95th percentile per-packet one-way delay: 450.597 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 28.21 Mbit/s
95th percentile per-packet one-way delay: 76.622 ms
Loss rate: 1.53%
Run 4: Report of PCC-Vivace — Data Link
Run 5: Statistics of PCC-Vivace

Start at: 2019-10-03 15:40:41
End at: 2019-10-03 15:41:11
Local clock offset: -0.075 ms
Remote clock offset: 7.131 ms

# Below is generated by plot.py at 2019-10-03 16:47:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.30 Mbit/s
95th percentile per-packet one-way delay: 734.636 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 57.00 Mbit/s
95th percentile per-packet one-way delay: 814.262 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 24.65 Mbit/s
95th percentile per-packet one-way delay: 44.892 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 27.08 Mbit/s
95th percentile per-packet one-way delay: 92.039 ms
Loss rate: 0.80%
Run 5: Report of PCC-Vivace — Data Link

![Graph of Throughput and Packet Delay]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 57.57 Mbps)
  - Flow 1 egress (mean 57.00 Mbps)
  - Flow 2 ingress (mean 24.66 Mbps)
  - Flow 2 egress (mean 24.65 Mbps)
  - Flow 3 ingress (mean 27.12 Mbps)
  - Flow 3 egress (mean 27.08 Mbps)

- **Packet One-Way Delay (ms):**
  - Flow 1 (95th percentile 814.26 ms)
  - Flow 2 (95th percentile 44.89 ms)
  - Flow 3 (95th percentile 92.04 ms)
Run 1: Statistics of WebRTC media

Start at: 2019-10-03 11:18:19
End at: 2019-10-03 11:18:49
Local clock offset: 0.383 ms
Remote clock offset: 6.909 ms

# Below is generated by plot.py at 2019-10-03 16:47:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 31.616 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 31.324 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 32.271 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 31.820 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 1.73 Mbps)
  - Flow 1 egress (mean 1.73 Mbps)
  - Flow 2 ingress (mean 0.96 Mbps)
  - Flow 2 egress (mean 0.96 Mbps)
  - Flow 3 ingress (mean 0.42 Mbps)
  - Flow 3 egress (mean 0.42 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 31.3 ms)
  - Flow 2 (95th percentile 32.27 ms)
  - Flow 3 (95th percentile 31.82 ms)
Run 2: Statistics of WebRTC media

Start at: 2019-10-03 12:08:38
End at: 2019-10-03 12:09:08
Local clock offset: 0.268 ms
Remote clock offset: 7.867 ms

# Below is generated by plot.py at 2019-10-03 16:47:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.22 Mbit/s
  95th percentile per-packet one-way delay: 31.313 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 1.78 Mbit/s
  95th percentile per-packet one-way delay: 31.117 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 1.02 Mbit/s
  95th percentile per-packet one-way delay: 31.816 ms
  Loss rate: 0.34%
-- Flow 3:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 31.363 ms
  Loss rate: 0.81%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2019-10-03 13:06:52
End at: 2019-10-03 13:07:22
Local clock offset: 0.153 ms
Remote clock offset: 7.515 ms

# Below is generated by plot.py at 2019-10-03 16:47:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.19 Mbit/s
  95th percentile per-packet one-way delay: 31.728 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 1.85 Mbit/s
  95th percentile per-packet one-way delay: 31.919 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 1.02 Mbit/s
  95th percentile per-packet one-way delay: 31.526 ms
  Loss rate: 0.36%
-- Flow 3:
  Average throughput: 0.33 Mbit/s
  95th percentile per-packet one-way delay: 31.311 ms
  Loss rate: 0.96%
Run 3: Report of WebRTC media — Data Link

![Graph showing throughput in Mbps over time for different flows.

The graph illustrates the throughput in Mbps for different flows over a period of time, with distinct lines for each flow indicating ingress and egress throughput.

The x-axis represents time in seconds, ranging from 0 to 30. The y-axis represents throughput in Mbps, ranging from 0 to 3.5.

Legend:
- Flow 1 ingress (mean 1.85 Mbps)
- Flow 1 egress (mean 1.85 Mbps)
- Flow 2 ingress (mean 1.02 Mbps)
- Flow 2 egress (mean 1.02 Mbps)
- Flow 3 ingress (mean 0.33 Mbps)
- Flow 3 egress (mean 0.33 Mbps)

For the second graph:

![Graph showing per-packet end-to-end delay.

The graph illustrates the per-packet end-to-end delay for different flows over a period of time, with distinct lines for each flow.

The x-axis represents time in seconds, ranging from 0 to 30. The y-axis represents delay in ms, ranging from 30 to 47.5.

Legend:
- Flow 1 (95th percentile 31.92 ms)
- Flow 2 (95th percentile 31.53 ms)
- Flow 3 (95th percentile 31.31 ms)
Run 4: Statistics of WebRTC media

Start at: 2019-10-03 14:19:34
End at: 2019-10-03 14:20:04
Local clock offset: 0.088 ms
Remote clock offset: 7.517 ms

# Below is generated by plot.py at 2019-10-03 16:47:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.18 Mbit/s
95th percentile per-packet one-way delay: 31.918 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 31.985 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 31.587 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 32.180 ms
Loss rate: 0.82%
Run 4: Report of WebRTC media — Data Link

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

The graphs illustrate the throughput (in Mbps) and round-trip delay (in ms) for different flows over time. The throughput values are as follows:

- **Flow 1** (mean 1.75 Mbps, ingress) and (mean 1.76 Mbps, egress)
- **Flow 2** (mean 1.00 Mbps, ingress) and (mean 1.00 Mbps, egress)
- **Flow 3** (mean 0.44 Mbps, ingress) and (mean 0.43 Mbps, egress)

The round-trip delay values are:

- **Flow 1** (95th percentile 31.98 ms)
- **Flow 2** (95th percentile 31.59 ms)
- **Flow 3** (95th percentile 32.18 ms)
Run 5: Statistics of WebRTC media

Start at: 2019-10-03 15:47:50
End at: 2019-10-03 15:48:20
Local clock offset: -0.099 ms
Remote clock offset: 7.137 ms

# Below is generated by plot.py at 2019-10-03 16:47:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.78 Mbit/s
95th percentile per-packet one-way delay: 31.139 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 31.160 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 31.026 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 31.296 ms
Loss rate: 0.35%
Run 5: Report of WebRTC media — Data Link