Pantheon Report

Generated at 2019-10-04 05:41:06 (UTC).
Data path: GCE Tokyo on ens4 (remote) → GCE Sydney on ens4 (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.google.com and have been applied to correct the timestamps in logs.

System info:
Linux 4.15.0-1044-gcp
net.core.default_qdisc = fq
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net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
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net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ de42328552b3776a75a932a94dfafed722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7e5ba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbde58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4defe0eddf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6b7d3f3f
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 387225f7b5f61ddbe92708a8869ffbb9e3b300
third_party/pantheon-tunnel @ f866df58d27af9d42717625ee3a354cc2e802bd
third_party/pcc @ 1af995e0a06d7b23c091a55f0872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08f9e24eb24f974ab
third_party/proto-quic @ 77961f1a8273a86b42f1b8143eb978f3cffe2
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3dbb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366a35c6178b01e31d4a46ad18c74f9415f919a26
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 GCE Tokyo to GCE Sydney, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
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<tr>
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<th>mean avg tput (Mbit/s)</th>
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<th>mean 95th-%ile delay (ms)</th>
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Run 1: Statistics of TCP BBR

Start at: 2019-10-03 22:42:42
End at: 2019-10-03 22:43:12
Local clock offset: -0.08 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2019-10-04 02:36:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 816.58 Mbit/s
  95th percentile per-packet one-way delay: 239.617 ms
  Loss rate: 3.04%
-- Flow 1:
  Average throughput: 425.99 Mbit/s
  95th percentile per-packet one-way delay: 244.004 ms
  Loss rate: 3.48%
-- Flow 2:
  Average throughput: 411.67 Mbit/s
  95th percentile per-packet one-way delay: 236.095 ms
  Loss rate: 2.62%
-- Flow 3:
  Average throughput: 354.63 Mbit/s
  95th percentile per-packet one-way delay: 231.313 ms
  Loss rate: 2.38%
Run 1: Report of TCP BBR — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 439.63 Mbps)
- Flow 1 egress (mean 425.99 Mbps)
- Flow 2 ingress (mean 420.36 Mbps)
- Flow 2 egress (mean 411.67 Mbps)
- Flow 3 ingress (mean 358.97 Mbps)
- Flow 3 egress (mean 354.63 Mbps)

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

- Flow 1 (95th percentile 244.00 ms)
- Flow 2 (95th percentile 236.09 ms)
- Flow 3 (95th percentile 231.31 ms)
Run 2: Statistics of TCP BBR

End at: 2019-10-03 23:22:57
Local clock offset: -0.254 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2019-10-04 02:36:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 797.60 Mbit/s
  95th percentile per-packet one-way delay: 222.008 ms
  Loss rate: 3.11%
-- Flow 1:
  Average throughput: 430.45 Mbit/s
  95th percentile per-packet one-way delay: 219.725 ms
  Loss rate: 3.49%
-- Flow 2:
  Average throughput: 382.74 Mbit/s
  95th percentile per-packet one-way delay: 230.024 ms
  Loss rate: 2.92%
-- Flow 3:
  Average throughput: 341.71 Mbit/s
  95th percentile per-packet one-way delay: 155.102 ms
  Loss rate: 2.07%
Run 2: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 444.32 Mbit/s)**
- **Flow 1 egress (mean 430.45 Mbit/s)**
- **Flow 2 ingress (mean 391.98 Mbit/s)**
- **Flow 2 egress (mean 382.74 Mbit/s)**
- **Flow 3 ingress (mean 344.87 Mbit/s)**
- **Flow 3 egress (mean 341.71 Mbit/s)**

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

- **Flow 1 (95th percentile 219.72 ms)**
- **Flow 2 (95th percentile 230.02 ms)**
- **Flow 3 (95th percentile 155.10 ms)**
Run 3: Statistics of TCP BBR

Start at: 2019-10-04 00:02:50
End at: 2019-10-04 00:03:20
Local clock offset: 0.353 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2019-10-04 02:36:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 806.93 Mbit/s
95th percentile per-packet one-way delay: 230.616 ms
Loss rate: 2.49%
-- Flow 1:
Average throughput: 413.29 Mbit/s
95th percentile per-packet one-way delay: 241.208 ms
Loss rate: 2.51%
-- Flow 2:
Average throughput: 421.56 Mbit/s
95th percentile per-packet one-way delay: 200.637 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 342.68 Mbit/s
95th percentile per-packet one-way delay: 234.405 ms
Loss rate: 3.10%
Run 3: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 422.27 Mbit/s)
- Flow 1 egress (mean 413.29 Mbit/s)
- Flow 2 ingress (mean 428.58 Mbit/s)
- Flow 2 egress (mean 421.56 Mbit/s)
- Flow 3 ingress (mean 349.55 Mbit/s)
- Flow 3 egress (mean 342.68 Mbit/s)
Run 4: Statistics of TCP BBR

Start at: 2019-10-04 00:43:07
End at: 2019-10-04 00:43:38
Local clock offset: -0.005 ms
Remote clock offset: -0.695 ms

# Below is generated by plot.py at 2019-10-04 02:36:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 798.08 Mbit/s
  95th percentile per-packet one-way delay: 221.529 ms
  Loss rate: 2.14%
-- Flow 1:
  Average throughput: 430.34 Mbit/s
  95th percentile per-packet one-way delay: 222.339 ms
  Loss rate: 1.92%
-- Flow 2:
  Average throughput: 379.93 Mbit/s
  95th percentile per-packet one-way delay: 222.352 ms
  Loss rate: 2.08%
-- Flow 3:
  Average throughput: 348.54 Mbit/s
  95th percentile per-packet one-way delay: 212.300 ms
  Loss rate: 3.09%
Run 4: Report of TCP BBR — Data Link

![Graphs showing network throughput and per-packet one-way delay over time for different data flows.](image-url)
Run 5: Statistics of TCP BBR

Start at: 2019-10-04 01:23:37
End at: 2019-10-04 01:24:07
Local clock offset: -0.563 ms
Remote clock offset: 0.027 ms

# Below is generated by plot.py at 2019-10-04 02:36:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 857.52 Mbit/s
95th percentile per-packet one-way delay: 215.195 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 455.02 Mbit/s
95th percentile per-packet one-way delay: 202.575 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 439.17 Mbit/s
95th percentile per-packet one-way delay: 213.607 ms
Loss rate: 2.17%
-- Flow 3:
Average throughput: 334.63 Mbit/s
95th percentile per-packet one-way delay: 255.301 ms
Loss rate: 5.05%
Run 5: Report of TCP BBR — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 458.56 Mbps)
  - Flow 1 egress (mean 455.02 Mbps)
  - Flow 2 ingress (mean 446.33 Mbps)
  - Flow 2 egress (mean 439.17 Mbps)
  - Flow 3 ingress (mean 348.35 Mbps)
  - Flow 3 egress (mean 334.63 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 202.57 ms)
  - Flow 2 (95th percentile 213.61 ms)
  - Flow 3 (95th percentile 255.30 ms)
Run 1: Statistics of Copa

End at: 2019-10-03 23:00:25
Local clock offset: 0.148 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2019-10-04 02:36:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 419.67 Mbit/s
  95th percentile per-packet one-way delay: 108.900 ms
  Loss rate: 0.72%
-- Flow 1:
  Average throughput: 198.16 Mbit/s
  95th percentile per-packet one-way delay: 93.266 ms
  Loss rate: 0.50%
-- Flow 2:
  Average throughput: 227.58 Mbit/s
  95th percentile per-packet one-way delay: 116.962 ms
  Loss rate: 0.66%
-- Flow 3:
  Average throughput: 213.06 Mbit/s
  95th percentile per-packet one-way delay: 122.916 ms
  Loss rate: 1.47%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2019-10-03 23:40:03
End at: 2019-10-03 23:40:33
Local clock offset: 0.112 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2019-10-04 02:36:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.10 Mbit/s
95th percentile per-packet one-way delay: 89.447 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 220.01 Mbit/s
95th percentile per-packet one-way delay: 92.632 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 201.29 Mbit/s
95th percentile per-packet one-way delay: 82.941 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 195.08 Mbit/s
95th percentile per-packet one-way delay: 88.116 ms
Loss rate: 1.35%
Run 3: Statistics of Copa

Start at: 2019-10-04 00:20:19
End at: 2019-10-04 00:20:49
Local clock offset: -0.048 ms
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2019-10-04 02:36:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 430.81 Mbit/s
95th percentile per-packet one-way delay: 93.450 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 221.62 Mbit/s
95th percentile per-packet one-way delay: 86.157 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 221.19 Mbit/s
95th percentile per-packet one-way delay: 86.061 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 188.94 Mbit/s
95th percentile per-packet one-way delay: 119.407 ms
Loss rate: 1.40%
Run 3: Report of Copa — Data Link

![Graph of network performance metrics over time, showing throughput and per-packet one-way delay.]

Legend:
- Flow 1 ingress (mean 221.78 Mbit/s)
- Flow 1 egress (mean 221.62 Mbit/s)
- Flow 2 ingress (mean 221.23 Mbit/s)
- Flow 2 egress (mean 221.19 Mbit/s)
- Flow 3 ingress (mean 199.40 Mbit/s)
- Flow 3 egress (mean 188.94 Mbit/s)
Run 4: Statistics of Copa

Start at: 2019-10-04 01:00:51
End at: 2019-10-04 01:01:21
Local clock offset: -0.162 ms
Remote clock offset: 0.212 ms

# Below is generated by plot.py at 2019-10-04 02:50:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 376.93 Mbit/s
  95th percentile per-packet one-way delay: 99.558 ms
  Loss rate: 0.50%
-- Flow 1:
  Average throughput: 214.26 Mbit/s
  95th percentile per-packet one-way delay: 83.044 ms
  Loss rate: 0.32%
-- Flow 2:
  Average throughput: 170.02 Mbit/s
  95th percentile per-packet one-way delay: 127.117 ms
  Loss rate: 0.29%
-- Flow 3:
  Average throughput: 150.70 Mbit/s
  95th percentile per-packet one-way delay: 96.375 ms
  Loss rate: 1.75%
Run 4: Report of Copa — Data Link

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

Flow 1 ingress (mean 214.13 Mbit/s)  
Flow 1 egress (mean 214.26 Mbit/s)  
Flow 2 ingress (mean 169.55 Mbit/s)  
Flow 2 egress (mean 170.02 Mbit/s)  
Flow 3 ingress (mean 151.65 Mbit/s)  
Flow 3 egress (mean 150.70 Mbit/s)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 83.04 ms)
- Flow 2 (95th percentile 127.12 ms)
- Flow 3 (95th percentile 96.38 ms)
Run 5: Statistics of Copa

Start at: 2019-10-04 01:41:17
End at: 2019-10-04 01:41:47
Local clock offset: -0.142 ms
Remote clock offset: 0.23 ms

# Below is generated by plot.py at 2019-10-04 02:53:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 422.64 Mbit/s
95th percentile per-packet one-way delay: 88.958 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 218.72 Mbit/s
95th percentile per-packet one-way delay: 90.770 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 208.34 Mbit/s
95th percentile per-packet one-way delay: 91.651 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 198.38 Mbit/s
95th percentile per-packet one-way delay: 71.601 ms
Loss rate: 1.30%
Run 5: Report of Copa — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2019-10-03 23:17:28
End at: 2019-10-03 23:17:58
Local clock offset: -0.489 ms
Remote clock offset: 0.081 ms

# Below is generated by plot.py at 2019-10-04 02:54:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 830.50 Mbit/s
95th percentile per-packet one-way delay: 179.920 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 462.12 Mbit/s
95th percentile per-packet one-way delay: 159.440 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 387.39 Mbit/s
95th percentile per-packet one-way delay: 205.938 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 335.81 Mbit/s
95th percentile per-packet one-way delay: 206.027 ms
Loss rate: 2.28%
Run 1: Report of TCP Cubic — Data Link

![Graph of Throughput and Per-packet one-way delay over time for flows 1 to 3.](image-url)
Run 2: Statistics of TCP Cubic

Start at: 2019-10-03 23:57:38
End at: 2019-10-03 23:58:08
Local clock offset: -0.067 ms
Remote clock offset: -0.826 ms

# Below is generated by plot.py at 2019-10-04 02:55:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 864.05 Mbit/s
95th percentile per-packet one-way delay: 188.316 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 466.25 Mbit/s
95th percentile per-packet one-way delay: 156.217 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 421.24 Mbit/s
95th percentile per-packet one-way delay: 200.506 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 357.10 Mbit/s
95th percentile per-packet one-way delay: 197.549 ms
Loss rate: 2.83%
Run 2: Report of TCP Cubic — Data Link

![Graph showing throughput and packet delay over time for different flows](image)
Run 3: Statistics of TCP Cubic

Start at: 2019-10-04 00:38:00
End at: 2019-10-04 00:38:30
Local clock offset: -0.05 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2019-10-04 02:55:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 763.20 Mbit/s
95th percentile per-packet one-way delay: 187.110 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 394.62 Mbit/s
95th percentile per-packet one-way delay: 199.865 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 384.84 Mbit/s
95th percentile per-packet one-way delay: 131.867 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 341.91 Mbit/s
95th percentile per-packet one-way delay: 136.441 ms
Loss rate: 2.08%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2019-10-04 01:18:27
End at: 2019-10-04 01:18:57
Local clock offset: -0.076 ms
Remote clock offset: -0.612 ms

# Below is generated by plot.py at 2019-10-04 02:55:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 849.36 Mbit/s
  95th percentile per-packet one-way delay: 197.246 ms
  Loss rate: 1.09%
-- Flow 1:
  Average throughput: 476.89 Mbit/s
  95th percentile per-packet one-way delay: 152.049 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 405.07 Mbit/s
  95th percentile per-packet one-way delay: 193.605 ms
  Loss rate: 1.13%
-- Flow 3:
  Average throughput: 312.76 Mbit/s
  95th percentile per-packet one-way delay: 232.910 ms
  Loss rate: 3.00%
Run 4: Report of TCP Cubic — Data Link

![Graphs showing throughput and latency for different flows over time.](image-url)
Run 5: Statistics of TCP Cubic

Start at: 2019-10-04 01:58:51
End at: 2019-10-04 01:59:21
Local clock offset: 0.247 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2019-10-04 02:56:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 858.96 Mbit/s
95th percentile per-packet one-way delay: 193.717 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 464.43 Mbit/s
95th percentile per-packet one-way delay: 166.925 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 422.21 Mbit/s
95th percentile per-packet one-way delay: 199.476 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 345.17 Mbit/s
95th percentile per-packet one-way delay: 221.061 ms
Loss rate: 3.33%
Run 5: Report of TCP Cubic — Data Link
Run 1: Statistics of FillP

Start at: 2019-10-03 23:05:27
End at: 2019-10-03 23:05:57
Local clock offset: -0.008 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2019-10-04 02:59:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 857.66 Mbit/s
95th percentile per-packet one-way delay: 109.665 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 541.97 Mbit/s
95th percentile per-packet one-way delay: 119.497 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 351.58 Mbit/s
95th percentile per-packet one-way delay: 67.010 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 250.38 Mbit/s
95th percentile per-packet one-way delay: 61.031 ms
Loss rate: 1.38%
Run 1: Report of FillP — Data Link

Throughput (Mbit/s)

Time(s)

Flow 1 Ingress (mean 546.95 Mbit/s) — Flow 1 Egress (mean 541.97 Mbit/s)
Flow 2 Ingress (mean 353.15 Mbit/s) — Flow 2 Egress (mean 353.58 Mbit/s)
Flow 3 Ingress (mean 250.49 Mbit/s) — Flow 3 Egress (mean 250.38 Mbit/s)

Delay (ms)

Time(s)

Flow 1 (95th percentile 119.50 ms) — Flow 2 (95th percentile 67.01 ms) — Flow 3 (95th percentile 61.03 ms)
Run 2: Statistics of FillP

Start at: 2019-10-03 23:45:35
End at: 2019-10-03 23:46:05
Local clock offset: -0.054 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2019-10-04 03:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 865.24 Mbit/s
95th percentile per-packet one-way delay: 112.460 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 507.68 Mbit/s
95th percentile per-packet one-way delay: 121.479 ms
Loss rate: 2.45%
-- Flow 2:
Average throughput: 404.39 Mbit/s
95th percentile per-packet one-way delay: 78.441 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 271.69 Mbit/s
95th percentile per-packet one-way delay: 62.270 ms
Loss rate: 1.43%
Run 2: Report of FillP — Data Link

![Graph of throughput over time for different flows.](image1)

![Graph of per-packet one-way delay over time for different flows.](image2)

- Flow 1 ingress (mean 518.67 Mbit/s)
- Flow 1 egress (mean 507.68 Mbit/s)
- Flow 2 ingress (mean 403.68 Mbit/s)
- Flow 2 egress (mean 404.39 Mbit/s)
- Flow 3 ingress (mean 272.49 Mbit/s)
- Flow 3 egress (mean 271.69 Mbit/s)

- Flow 1 (95th percentile 121.48 ms)
- Flow 2 (95th percentile 78.44 ms)
- Flow 3 (95th percentile 62.27 ms)
Run 3: Statistics of FillP

Start at: 2019-10-04 00:25:52
End at: 2019-10-04 00:26:22
Local clock offset: -0.381 ms
Remote clock offset: -0.124 ms

# Below is generated by plot.py at 2019-10-04 03:18:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 925.00 Mbit/s
  95th percentile per-packet one-way delay: 111.541 ms
  Loss rate: 0.96%
-- Flow 1:
  Average throughput: 578.24 Mbit/s
  95th percentile per-packet one-way delay: 117.273 ms
  Loss rate: 1.12%
-- Flow 2:
  Average throughput: 388.74 Mbit/s
  95th percentile per-packet one-way delay: 66.964 ms
  Loss rate: 0.42%
-- Flow 3:
  Average throughput: 270.80 Mbit/s
  95th percentile per-packet one-way delay: 62.231 ms
  Loss rate: 1.44%
Run 3: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 582.28 Mbps)
- Flow 1 egress (mean 578.24 Mbps)
- Flow 2 ingress (mean 388.39 Mbps)
- Flow 2 egress (mean 388.74 Mbps)
- Flow 3 ingress (mean 271.78 Mbps)
- Flow 3 egress (mean 270.80 Mbps)

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

- Flow 1 (95th percentile 117.27 ms)
- Flow 2 (95th percentile 66.96 ms)
- Flow 3 (95th percentile 62.23 ms)
Run 4: Statistics of FillP

Start at: 2019-10-04 01:06:19
End at: 2019-10-04 01:06:49
Local clock offset: 0.259 ms
Remote clock offset: -0.205 ms

# Below is generated by plot.py at 2019-10-04 03:18:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 862.32 Mbit/s
95th percentile per-packet one-way delay: 127.647 ms
Loss rate: 2.65%
-- Flow 1:
Average throughput: 521.31 Mbit/s
95th percentile per-packet one-way delay: 131.602 ms
Loss rate: 3.93%
-- Flow 2:
Average throughput: 369.74 Mbit/s
95th percentile per-packet one-way delay: 67.927 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 290.50 Mbit/s
95th percentile per-packet one-way delay: 71.072 ms
Loss rate: 1.13%
Run 4: Report of FillP — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 540.59 Mbps)  
Flow 1 egress (mean 521.31 Mbps)

Flow 2 ingress (mean 369.45 Mbps)  
Flow 2 egress (mean 369.74 Mbps)

Flow 3 ingress (mean 289.88 Mbps)  
Flow 3 egress (mean 290.50 Mbps)

---

![Graph 2: Packet Delay vs. Time (ms)]

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 131.60 ms)  
Flow 2 (95th percentile 67.93 ms)  
Flow 3 (95th percentile 71.07 ms)
Run 5: Statistics of FillP

Start at: 2019-10-04 01:46:49
End at: 2019-10-04 01:47:19
Local clock offset: -0.027 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2019-10-04 03:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 874.92 Mbit/s
95th percentile per-packet one-way delay: 120.659 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 530.34 Mbit/s
95th percentile per-packet one-way delay: 124.182 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 394.45 Mbit/s
95th percentile per-packet one-way delay: 68.208 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 252.26 Mbit/s
95th percentile per-packet one-way delay: 65.681 ms
Loss rate: 1.63%
Run 5: Report of FillP — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 535.60 Mbps)
  - Flow 1 egress (mean 530.34 Mbps)
  - Flow 2 ingress (mean 394.58 Mbps)
  - Flow 2 egress (mean 394.45 Mbps)
  - Flow 3 ingress (mean 253.74 Mbps)
  - Flow 3 egress (mean 252.26 Mbps)

- **Delay (ms):**
  - Flow 1 (95th percentile 124.18 ms)
  - Flow 2 (95th percentile 68.21 ms)
  - Flow 3 (95th percentile 65.68 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2019-10-03 23:12:43
Local clock offset: -0.064 ms
Remote clock offset: -0.187 ms

# Below is generated by plot.py at 2019-10-04 03:18:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 769.12 Mbit/s
  95th percentile per-packet one-way delay: 76.053 ms
  Loss rate: 0.37%
-- Flow 1:
  Average throughput: 480.71 Mbit/s
  95th percentile per-packet one-way delay: 80.245 ms
  Loss rate: 0.18%
-- Flow 2:
  Average throughput: 313.48 Mbit/s
  95th percentile per-packet one-way delay: 62.724 ms
  Loss rate: 0.43%
-- Flow 3:
  Average throughput: 243.34 Mbit/s
  95th percentile per-packet one-way delay: 63.966 ms
  Loss rate: 1.37%
Run 1: Report of FillP-Sheep — Data Link

[Graph showing throughput over time for different flows]
Run 2: Statistics of FillP-Sheep

Start at: 2019-10-03 23:52:54
End at: 2019-10-03 23:53:24
Local clock offset: -0.439 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2019-10-04 03:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 760.23 Mbit/s
95th percentile per-packet one-way delay: 71.429 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 477.97 Mbit/s
95th percentile per-packet one-way delay: 78.015 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 304.83 Mbit/s
95th percentile per-packet one-way delay: 66.504 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 244.24 Mbit/s
95th percentile per-packet one-way delay: 62.249 ms
Loss rate: 1.24%
Run 2: Report of FillP-Sheep — Data Link
Run 3: Statistics of FillP-Sheep

Start at: 2019-10-04 00:33:13
End at: 2019-10-04 00:33:43
Local clock offset: -0.202 ms
Remote clock offset: 0.282 ms

# Below is generated by plot.py at 2019-10-04 03:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 791.87 Mbit/s
95th percentile per-packet one-way delay: 97.667 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 502.25 Mbit/s
95th percentile per-packet one-way delay: 103.502 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 315.16 Mbit/s
95th percentile per-packet one-way delay: 60.694 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 244.94 Mbit/s
95th percentile per-packet one-way delay: 69.099 ms
Loss rate: 1.59%
Run 3: Report of FillP-Sheep — Data Link

![Graph 1: Throughput over Time]

- Flow 1 ingress (mean 501.90 Mbit/s)
- Flow 1 egress (mean 502.25 Mbit/s)
- Flow 2 ingress (mean 315.14 Mbit/s)
- Flow 2 egress (mean 315.16 Mbit/s)
- Flow 3 ingress (mean 245.55 Mbit/s)
- Flow 3 egress (mean 244.94 Mbit/s)

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

- Flow 1 (95th percentile 103.50 ms)
- Flow 2 (95th percentile 60.69 ms)
- Flow 3 (95th percentile 69.10 ms)
Run 4: Statistics of FillP-Sheep

Start at: 2019-10-04 01:13:40
End at: 2019-10-04 01:14:10
Local clock offset: 0.065 ms
Remote clock offset: -0.243 ms

# Below is generated by plot.py at 2019-10-04 03:21:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 784.88 Mbit/s
95th percentile per-packet one-way delay: 82.203 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 514.01 Mbit/s
95th percentile per-packet one-way delay: 88.455 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 293.74 Mbit/s
95th percentile per-packet one-way delay: 67.533 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 231.26 Mbit/s
95th percentile per-packet one-way delay: 66.466 ms
Loss rate: 1.83%
Run 4: Report of FillP-Sheep — Data Link
Run 5: Statistics of FillP-Sheep

Start at: 2019-10-04 01:54:07
End at: 2019-10-04 01:54:37
Local clock offset: -0.595 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2019-10-04 03:34:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 706.93 Mbit/s
95th percentile per-packet one-way delay: 100.299 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 488.61 Mbit/s
95th percentile per-packet one-way delay: 111.401 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 315.19 Mbit/s
95th percentile per-packet one-way delay: 65.426 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 27.68 Mbit/s
95th percentile per-packet one-way delay: 57.208 ms
Loss rate: 2.96%
Run 1: Statistics of Indigo

Start at: 2019-10-03 22:56:31
End at: 2019-10-03 22:57:01
Local clock offset: -0.449 ms
Remote clock offset: -0.57 ms

# Below is generated by plot.py at 2019-10-04 03:34:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.08 Mbit/s
95th percentile per-packet one-way delay: 69.645 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 215.35 Mbit/s
95th percentile per-packet one-way delay: 72.188 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 174.67 Mbit/s
95th percentile per-packet one-way delay: 67.170 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 151.57 Mbit/s
95th percentile per-packet one-way delay: 61.246 ms
Loss rate: 1.38%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

Start at: 2019-10-03 23:36:41
End at: 2019-10-03 23:37:11
Local clock offset: -0.274 ms
Remote clock offset: -0.143 ms

# Below is generated by plot.py at 2019-10-04 03:34:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 338.70 Mbit/s
95th percentile per-packet one-way delay: 70.606 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 220.52 Mbit/s
95th percentile per-packet one-way delay: 76.454 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 105.67 Mbit/s
95th percentile per-packet one-way delay: 61.313 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 150.26 Mbit/s
95th percentile per-packet one-way delay: 65.920 ms
Loss rate: 1.44%
Run 2: Report of Indigo — Data Link

Graphs showing throughput and per-packet one way delay over time for different flows.
Run 3: Statistics of Indigo

Start at: 2019-10-04 00:16:56
End at: 2019-10-04 00:17:26
Local clock offset: -0.022 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2019-10-04 03:34:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 367.03 Mbit/s
95th percentile per-packet one-way delay: 72.152 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 185.83 Mbit/s
95th percentile per-packet one-way delay: 76.014 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 202.50 Mbit/s
95th percentile per-packet one-way delay: 72.106 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 146.30 Mbit/s
95th percentile per-packet one-way delay: 65.784 ms
Loss rate: 1.41%
Run 3: Report of Indigo — Data Link

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

**Throughput (Mb/s):**
- Flow 1 ingress (mean 185.92 Mb/s)
- Flow 1 egress (mean 185.83 Mb/s)
- Flow 2 ingress (mean 202.41 Mb/s)
- Flow 2 egress (mean 202.50 Mb/s)
- Flow 3 ingress (mean 146.58 Mb/s)
- Flow 3 egress (mean 146.30 Mb/s)

**Packet Loss (PPS):**
- Flow 1 (95th percentile 76.01 ms)
- Flow 2 (95th percentile 72.11 ms)
- Flow 3 (95th percentile 65.78 ms)
Run 4: Statistics of Indigo

Start at: 2019-10-04 00:57:19
End at: 2019-10-04 00:57:49
Local clock offset: -0.057 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2019-10-04 03:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 388.34 Mbit/s
95th percentile per-packet one-way delay: 73.955 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 214.99 Mbit/s
95th percentile per-packet one-way delay: 77.608 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 188.32 Mbit/s
95th percentile per-packet one-way delay: 69.839 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 151.85 Mbit/s
95th percentile per-packet one-way delay: 69.433 ms
Loss rate: 1.49%
Run 4: Report of Indigo — Data Link

- Figure 1: Throughput (Mbps)
- Figure 2: Per-packet one-way delay (ms)

Legend:
- Flow 1 ingress (mean 214.97 Mbps)
- Flow 1 egress (mean 214.99 Mbps)
- Flow 2 ingress (mean 188.41 Mbps)
- Flow 2 egress (mean 188.32 Mbps)
- Flow 3 ingress (mean 152.32 Mbps)
- Flow 3 egress (mean 151.85 Mbps)

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Run 5: Statistics of Indigo

Start at: 2019-10-04 01:37:50
End at: 2019-10-04 01:38:20
Local clock offset: -0.293 ms
Remote clock offset: -0.171 ms

# Below is generated by plot.py at 2019-10-04 03:35:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 381.27 Mbit/s
  95th percentile per-packet one-way delay: 73.972 ms
  Loss rate: 0.61%
-- Flow 1:
  Average throughput: 210.68 Mbit/s
  95th percentile per-packet one-way delay: 76.266 ms
  Loss rate: 0.42%
-- Flow 2:
  Average throughput: 185.41 Mbit/s
  95th percentile per-packet one-way delay: 70.947 ms
  Loss rate: 0.62%
-- Flow 3:
  Average throughput: 150.07 Mbit/s
  95th percentile per-packet one-way delay: 65.816 ms
  Loss rate: 1.45%
Run 5: Report of Indigo — Data Link

[Graph showing throughput and packet delay]
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-10-03 23:15:40
End at: 2019-10-03 23:16:10
Local clock offset: -0.083 ms
Remote clock offset: 0.133 ms

# Below is generated by plot.py at 2019-10-04 03:35:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 737.40 Mbit/s
95th percentile per-packet one-way delay: 96.724 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 447.17 Mbit/s
95th percentile per-packet one-way delay: 88.475 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 355.49 Mbit/s
95th percentile per-packet one-way delay: 110.396 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 268.23 Mbit/s
95th percentile per-packet one-way delay: 80.010 ms
Loss rate: 2.46%
Run 1: Report of Indigo-MusesC3 — Data Link
Run 2: Statistics of Indigo-MusesC3

End at: 2019-10-03 23:56:20
Local clock offset: -0.302 ms
Remote clock offset: -0.347 ms

# Below is generated by plot.py at 2019-10-04 03:37:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 749.98 Mbit/s
95th percentile per-packet one-way delay: 91.606 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 433.65 Mbit/s
95th percentile per-packet one-way delay: 91.987 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 376.61 Mbit/s
95th percentile per-packet one-way delay: 94.674 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 304.44 Mbit/s
95th percentile per-packet one-way delay: 65.025 ms
Loss rate: 2.12%
Run 2: Report of Indigo-MusesC3 — Data Link
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-10-04 00:36:11
End at: 2019-10-04 00:36:41
Local clock offset: 0.276 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2019-10-04 03:48:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 746.51 Mbit/s
95th percentile per-packet one-way delay: 94.319 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 436.02 Mbit/s
95th percentile per-packet one-way delay: 104.104 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 386.65 Mbit/s
95th percentile per-packet one-way delay: 80.967 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 268.35 Mbit/s
95th percentile per-packet one-way delay: 84.062 ms
Loss rate: 2.53%
Run 3: Report of Indigo-MusesC3 — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 435.10 Mbps)  Flow 1 egress (mean 436.02 Mbps)
Flow 2 ingress (mean 385.77 Mbps)  Flow 2 egress (mean 386.05 Mbps)
Flow 3 ingress (mean 270.90 Mbps)  Flow 3 egress (mean 268.35 Mbps)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 104.10 ms)  Flow 2 (95th percentile 80.97 ms)  Flow 3 (95th percentile 84.06 ms)
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-10-04 01:16:37
End at: 2019-10-04 01:17:07
Local clock offset: 0.097 ms
Remote clock offset: 0.104 ms

# Below is generated by plot.py at 2019-10-04 03:50:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 751.75 Mbit/s
95th percentile per-packet one-way delay: 93.197 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 432.78 Mbit/s
95th percentile per-packet one-way delay: 93.790 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 375.74 Mbit/s
95th percentile per-packet one-way delay: 97.371 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 317.74 Mbit/s
95th percentile per-packet one-way delay: 72.528 ms
Loss rate: 1.63%
Run 4: Report of Indigo-MusesC3 — Data Link

![Data Link Graph](image1)

![Data Link Graph](image2)
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-10-04 01:57:01
End at: 2019-10-04 01:57:31
Local clock offset: -0.38 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2019-10-04 03:50:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 763.91 Mbit/s
  95th percentile per-packet one-way delay: 96.252 ms
  Loss rate: 0.51%
-- Flow 1:
  Average throughput: 437.10 Mbit/s
  95th percentile per-packet one-way delay: 92.567 ms
  Loss rate: 0.22%
-- Flow 2:
  Average throughput: 386.23 Mbit/s
  95th percentile per-packet one-way delay: 103.996 ms
  Loss rate: 0.62%
-- Flow 3:
  Average throughput: 312.43 Mbit/s
  95th percentile per-packet one-way delay: 72.151 ms
  Loss rate: 1.74%
Run 5: Report of Indigo-MusesC3 — Data Link
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-10-03 22:54:42
End at: 2019-10-03 22:55:12
Local clock offset: -0.05 ms
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2019-10-04 03:52:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 793.26 Mbit/s
95th percentile per-packet one-way delay: 155.472 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 460.28 Mbit/s
95th percentile per-packet one-way delay: 121.490 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 385.83 Mbit/s
95th percentile per-packet one-way delay: 155.025 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 345.80 Mbit/s
95th percentile per-packet one-way delay: 190.994 ms
Loss rate: 2.77%
Run 1: Report of Indigo-MusesC5 — Data Link

![Graph 1: Throughput over time for different flows]

- Flow 1 ingress (mean 459.82 Mbit/s)
- Flow 1 egress (mean 460.28 Mbit/s)
- Flow 2 ingress (mean 386.53 Mbit/s)
- Flow 2 egress (mean 385.83 Mbit/s)
- Flow 3 ingress (mean 349.88 Mbit/s)
- Flow 3 egress (mean 345.09 Mbit/s)

![Graph 2: Packet delay over time for different flows]

- Flow 1 (95th percentile 121.49 ms)
- Flow 2 (95th percentile 155.03 ms)
- Flow 3 (95th percentile 190.99 ms)
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-10-03 23:34:49
End at: 2019-10-03 23:35:19
Local clock offset: 0.251 ms
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2019-10-04 03:53:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 833.71 Mbit/s
95th percentile per-packet one-way delay: 185.762 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 505.44 Mbit/s
95th percentile per-packet one-way delay: 166.246 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 428.12 Mbit/s
95th percentile per-packet one-way delay: 199.160 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 228.69 Mbit/s
95th percentile per-packet one-way delay: 99.296 ms
Loss rate: 1.75%
Run 2: Report of Indigo-MusesC5 — Data Link
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-10-04 00:15:06
End at: 2019-10-04 00:15:36
Local clock offset: -0.261 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2019-10-04 03:53:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 785.64 Mbit/s
95th percentile per-packet one-way delay: 167.996 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 475.16 Mbit/s
95th percentile per-packet one-way delay: 180.151 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 381.19 Mbit/s
95th percentile per-packet one-way delay: 116.536 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 272.89 Mbit/s
95th percentile per-packet one-way delay: 87.635 ms
Loss rate: 2.57%
Run 3: Report of Indigo-MusesC5 — Data Link

![Graph showing data link performance](image)

- **Flow 1 Ingress (mean 476.53 Mbit/s)**
- **Flow 1 Egress (mean 475.16 Mbit/s)**
- **Flow 2 Ingress (mean 380.95 Mbit/s)**
- **Flow 2 Egress (mean 381.19 Mbit/s)**
- **Flow 3 Ingress (mean 275.62 Mbit/s)**
- **Flow 3 Egress (mean 272.89 Mbit/s)**

![Graph showing round-trip delay](image)

- **Flow 1 (95th percentile 180.15 ms)**
- **Flow 2 (95th percentile 116.54 ms)**
- **Flow 3 (95th percentile 87.64 ms)**
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-10-04 00:55:28
End at: 2019-10-04 00:55:58
Local clock offset: -0.051 ms
Remote clock offset: -0.149 ms

# Below is generated by plot.py at 2019-10-04 03:53:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 787.27 Mbit/s
95th percentile per-packet one-way delay: 187.788 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 455.95 Mbit/s
95th percentile per-packet one-way delay: 195.538 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 408.49 Mbit/s
95th percentile per-packet one-way delay: 160.322 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 277.06 Mbit/s
95th percentile per-packet one-way delay: 92.994 ms
Loss rate: 2.16%
Run 4: Report of Indigo-MusesC5 — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress (mean 460.47 Mbps)**
- **Flow 1 egress (mean 455.95 Mbps)**
- **Flow 2 ingress (mean 408.00 Mbps)**
- **Flow 2 egress (mean 408.49 Mbps)**
- **Flow 3 ingress (mean 278.76 Mbps)**
- **Flow 3 egress (mean 277.06 Mbps)**

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

- **Flow 1 (95th percentile 195.54 ms)**
- **Flow 2 (95th percentile 165.32 ms)**
- **Flow 3 (95th percentile 92.99 ms)**
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-10-04 01:36:02
End at: 2019-10-04 01:36:32
Local clock offset: -0.545 ms
Remote clock offset: 0.042 ms

# Below is generated by plot.py at 2019-10-04 03:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 717.44 Mbit/s
95th percentile per-packet one-way delay: 200.330 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 452.46 Mbit/s
95th percentile per-packet one-way delay: 204.680 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 372.27 Mbit/s
95th percentile per-packet one-way delay: 143.462 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 106.14 Mbit/s
95th percentile per-packet one-way delay: 57.653 ms
Loss rate: 1.96%
Run 5: Report of Indigo-MusesC5 — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 456.79 Mbps)
- Flow 1 egress (mean 452.46 Mbps)
- Flow 2 ingress (mean 372.67 Mbps)
- Flow 2 egress (mean 372.27 Mbps)
- Flow 3 ingress (mean 106.55 Mbps)
- Flow 3 egress (mean 106.14 Mbps)

Round-trip time (ms):

- Flow 1 (95th percentile 204.68 ms)
- Flow 2 (95th percentile 143.46 ms)
- Flow 3 (95th percentile 57.65 ms)
Run 1: Statistics of Indigo-MusesD

Start at: 2019-10-03 23:03:38
End at: 2019-10-03 23:04:08
Local clock offset: -0.026 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2019-10-04 04:05:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 758.26 Mbit/s
95th percentile per-packet one-way delay: 89.735 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 440.85 Mbit/s
95th percentile per-packet one-way delay: 91.361 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 395.73 Mbit/s
95th percentile per-packet one-way delay: 81.547 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 254.44 Mbit/s
95th percentile per-packet one-way delay: 95.205 ms
Loss rate: 2.10%
Run 1: Report of Indigo-MusesD — Data Link
Run 2: Statistics of Indigo-MusesD

Start at: 2019-10-03 23:43:48  
End at: 2019-10-03 23:44:18  
Local clock offset: -0.082 ms  
Remote clock offset: 0.028 ms  

# Below is generated by plot.py at 2019-10-04 04:06:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 719.41 Mbit/s  
95th percentile per-packet one-way delay: 106.448 ms  
Loss rate: 0.54%  
-- Flow 1:  
Average throughput: 418.10 Mbit/s  
95th percentile per-packet one-way delay: 106.040 ms  
Loss rate: 0.33%  
-- Flow 2:  
Average throughput: 372.61 Mbit/s  
95th percentile per-packet one-way delay: 116.041 ms  
Loss rate: 0.55%  
-- Flow 3:  
Average throughput: 256.88 Mbit/s  
95th percentile per-packet one-way delay: 73.586 ms  
Loss rate: 1.82%
Run 3: Statistics of Indigo-MusesD

Start at: 2019-10-04 00:24:07
End at: 2019-10-04 00:24:37
Local clock offset: 0.015 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-10-04 04:06:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 653.23 Mbit/s
  95th percentile per-packet one-way delay: 103.426 ms
  Loss rate: 0.34%
-- Flow 1:
  Average throughput: 389.04 Mbit/s
  95th percentile per-packet one-way delay: 97.845 ms
  Loss rate: 0.25%
-- Flow 2:
  Average throughput: 325.66 Mbit/s
  95th percentile per-packet one-way delay: 114.363 ms
  Loss rate: 0.38%
-- Flow 3:
  Average throughput: 216.90 Mbit/s
  95th percentile per-packet one-way delay: 149.994 ms
  Loss rate: 0.83%
Run 3: Report of Indigo-MusesD — Data Link
Run 4: Statistics of Indigo-MusesD

Start at: 2019-10-04 01:04:31
End at: 2019-10-04 01:05:01
Local clock offset: -0.482 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2019-10-04 04:09:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 744.25 Mbit/s
95th percentile per-packet one-way delay: 107.169 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 430.33 Mbit/s
95th percentile per-packet one-way delay: 107.907 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 387.48 Mbit/s
95th percentile per-packet one-way delay: 110.072 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 270.71 Mbit/s
95th percentile per-packet one-way delay: 73.581 ms
Loss rate: 2.22%
Run 4: Report of Indigo-MusesD — Data Link

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

- Flow 1 ingress (mean 429.97 Mbit/s)
- Flow 1 egress (mean 430.33 Mbit/s)
- Flow 2 ingress (mean 387.14 Mbit/s)
- Flow 2 egress (mean 387.48 Mbit/s)
- Flow 3 ingress (mean 272.27 Mbit/s)
- Flow 3 egress (mean 270.71 Mbit/s)

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

- Flow 1 (95th percentile 107.91 ms)
- Flow 2 (95th percentile 110.07 ms)
- Flow 3 (95th percentile 73.58 ms)
Run 5: Statistics of Indigo-MusesD

Start at: 2019-10-04 01:45:02
End at: 2019-10-04 01:45:32
Local clock offset: -0.491 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2019-10-04 04:09:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 720.20 Mbit/s
95th percentile per-packet one-way delay: 109.649 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 422.47 Mbit/s
95th percentile per-packet one-way delay: 113.418 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 357.23 Mbit/s
95th percentile per-packet one-way delay: 102.391 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 275.17 Mbit/s
95th percentile per-packet one-way delay: 67.024 ms
Loss rate: 2.23%
Run 5: Report of Indigo-MusesD — Data Link

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

**Throughput Graph:**
- Blue dashed line: Flow 1 ingress (mean 422.10 Mbit/s)
- Blue solid line: Flow 1 egress (mean 422.47 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 356.76 Mbit/s)
- Green solid line: Flow 2 egress (mean 357.23 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 276.94 Mbit/s)
- Red solid line: Flow 3 egress (mean 275.17 Mbit/s)

**One-Way Delay Graph:**
- Blue dashed line: Flow 1 (95th percentile 113.42 ms)
- Blue solid line: Flow 2 (95th percentile 102.39 ms)
- Red solid line: Flow 3 (95th percentile 67.02 ms)
Run 1: Statistics of Indigo-MusesT

Start at: 2019-10-03 22:47:56
End at: 2019-10-03 22:48:26
Local clock offset: -0.266 ms
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2019-10-04 04:11:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 808.88 Mbit/s
  95th percentile per-packet one-way delay: 121.586 ms
  Loss rate: 0.60%
-- Flow 1:
  Average throughput: 449.43 Mbit/s
  95th percentile per-packet one-way delay: 132.719 ms
  Loss rate: 0.27%
-- Flow 2:
  Average throughput: 447.70 Mbit/s
  95th percentile per-packet one-way delay: 95.015 ms
  Loss rate: 0.59%
-- Flow 3:
  Average throughput: 297.23 Mbit/s
  95th percentile per-packet one-way delay: 79.574 ms
  Loss rate: 2.46%
Run 1: Report of Indigo-MusesT — Data Link
Run 2: Statistics of Indigo-MusesT

Start at: 2019-10-03 23:28:06
End at: 2019-10-03 23:28:36
Local clock offset: -0.06 ms
Remote clock offset: 0.471 ms

# Below is generated by plot.py at 2019-10-04 04:12:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 804.93 Mbit/s
95th percentile per-packet one-way delay: 136.698 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 478.29 Mbit/s
95th percentile per-packet one-way delay: 142.111 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 401.92 Mbit/s
95th percentile per-packet one-way delay: 109.760 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 283.44 Mbit/s
95th percentile per-packet one-way delay: 87.979 ms
Loss rate: 1.84%
Run 2: Report of Indigo-MusesT — Data Link
Run 3: Statistics of Indigo-MusesT

Start at: 2019-10-04 00:08:26
End at: 2019-10-04 00:08:56
Local clock offset: -0.219 ms
Remote clock offset: -0.202 ms

# Below is generated by plot.py at 2019-10-04 04:12:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 765.42 Mbit/s
95th percentile per-packet one-way delay: 131.702 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 458.05 Mbit/s
95th percentile per-packet one-way delay: 134.071 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 391.92 Mbit/s
95th percentile per-packet one-way delay: 117.573 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 233.65 Mbit/s
95th percentile per-packet one-way delay: 127.691 ms
Loss rate: 1.54%
Run 3: Report of Indigo-MusesT — Data Link

![Graph showing throughput and delay over time for flows 1, 2, and 3.]

- **Throughput Graph**
  - Flow 1 ingress (mean 457.50 Mbit/s)
  - Flow 1 egress (mean 458.05 Mbit/s)
  - Flow 2 ingress (mean 390.65 Mbit/s)
  - Flow 2 egress (mean 391.92 Mbit/s)
  - Flow 3 ingress (mean 233.46 Mbit/s)
  - Flow 3 egress (mean 233.65 Mbit/s)

- **Delay Graph**
  - Flow 1 (95th percentile 134.07 ms)
  - Flow 2 (95th percentile 117.57 ms)
  - Flow 3 (95th percentile 127.69 ms)
Run 4: Statistics of Indigo-MusesT

Start at: 2019-10-04 00:48:47
End at: 2019-10-04 00:49:17
Local clock offset: 0.374 ms
Remote clock offset: -0.797 ms

# Below is generated by plot.py at 2019-10-04 04:23:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 782.98 Mbit/s
95th percentile per-packet one-way delay: 112.176 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 469.10 Mbit/s
95th percentile per-packet one-way delay: 110.919 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 394.44 Mbit/s
95th percentile per-packet one-way delay: 113.913 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 254.93 Mbit/s
95th percentile per-packet one-way delay: 116.587 ms
Loss rate: 3.23%
Run 4: Report of Indigo-MusesT — Data Link

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

![Graph 2: Per-Packet One-Way Delay](image2)
Run 5: Statistics of Indigo-MusesT

Start at: 2019-10-04 01:29:22
End at: 2019-10-04 01:29:52
Local clock offset: -0.317 ms
Remote clock offset: 0.026 ms

# Below is generated by plot.py at 2019-10-04 04:23:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 765.43 Mbit/s
95th percentile per-packet one-way delay: 108.706 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 436.45 Mbit/s
95th percentile per-packet one-way delay: 106.455 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 397.35 Mbit/s
95th percentile per-packet one-way delay: 127.916 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 291.05 Mbit/s
95th percentile per-packet one-way delay: 87.977 ms
Loss rate: 2.14%
Run 5: Report of Indigo-MusesT — Data Link

![Graph 1: Throughput over time for different flows]

![Graph 2: Per-packet one-way delay over time for different flows]

Legend:
- Flow 1 ingress (mean 436.53 Mbit/s)
- Flow 1 egress (mean 436.45 Mbit/s)
- Flow 2 ingress (mean 396.98 Mbit/s)
- Flow 2 egress (mean 397.35 Mbit/s)
- Flow 3 ingress (mean 292.81 Mbit/s)
- Flow 3 egress (mean 291.05 Mbit/s)
Run 1: Statistics of LEDBAT

Start at: 2019-10-03 23:09:01
End at: 2019-10-03 23:09:31
Local clock offset: -0.256 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2019-10-04 04:23:32
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 43.56 Mbit/s
 95th percentile per-packet one-way delay: 58.921 ms
 Loss rate: 0.98%
-- Flow 1:
 Average throughput: 28.17 Mbit/s
 95th percentile per-packet one-way delay: 59.329 ms
 Loss rate: 0.76%
-- Flow 2:
 Average throughput: 18.82 Mbit/s
 95th percentile per-packet one-way delay: 58.349 ms
 Loss rate: 1.15%
-- Flow 3:
 Average throughput: 8.81 Mbit/s
 95th percentile per-packet one-way delay: 57.723 ms
 Loss rate: 2.38%
Run 1: Report of LEDBAT — Data Link

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

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

Start at: 2019-10-03 23:49:11
End at: 2019-10-03 23:49:41
Local clock offset: 0.143 ms
Remote clock offset: -0.153 ms

# Below is generated by plot.py at 2019-10-04 04:23:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.93 Mbit/s
95th percentile per-packet one-way delay: 59.027 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 28.35 Mbit/s
95th percentile per-packet one-way delay: 59.012 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 18.90 Mbit/s
95th percentile per-packet one-way delay: 58.867 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 9.23 Mbit/s
95th percentile per-packet one-way delay: 59.193 ms
Loss rate: 2.33%
Run 2: Report of LEDBAT — Data Link

![Throughput Graph]

![Per packet one way delay Graph]
Run 3: Statistics of LEDBAT

Start at: 2019-10-04 00:29:30
End at: 2019-10-04 00:30:00
Local clock offset: -0.067 ms
Remote clock offset: -0.169 ms

# Below is generated by plot.py at 2019-10-04 04:23:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 42.81 Mbit/s
  95th percentile per-packet one-way delay: 61.441 ms
  Loss rate: 0.98%
-- Flow 1:
  Average throughput: 28.23 Mbit/s
  95th percentile per-packet one-way delay: 59.379 ms
  Loss rate: 0.76%
-- Flow 2:
  Average throughput: 17.87 Mbit/s
  95th percentile per-packet one-way delay: 62.419 ms
  Loss rate: 1.18%
-- Flow 3:
  Average throughput: 8.27 Mbit/s
  95th percentile per-packet one-way delay: 61.429 ms
  Loss rate: 2.46%
Run 3: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 28.34 Mbps)
  - Flow 1 egress (mean 28.23 Mbps)
  - Flow 2 ingress (mean 17.98 Mbps)
  - Flow 2 egress (mean 17.87 Mbps)
  - Flow 3 ingress (mean 8.37 Mbps)
  - Flow 3 egress (mean 8.27 Mbps)

- **Round-trip time (ms)**
  - Flow 1 (95th percentile 59.38 ms)
  - Flow 2 (95th percentile 62.42 ms)
  - Flow 3 (95th percentile 61.43 ms)
Run 4: Statistics of LEDBAT

Start at: 2019-10-04 01:09:57
End at: 2019-10-04 01:10:27
Local clock offset: ~0.194 ms
Remote clock offset: 0.101 ms

# Below is generated by plot.py at 2019-10-04 04:23:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 41.73 Mbit/s
  95th percentile per-packet one-way delay: 62.239 ms
  Loss rate: 1.01%
-- Flow 1:
  Average throughput: 26.83 Mbit/s
  95th percentile per-packet one-way delay: 62.746 ms
  Loss rate: 0.78%
-- Flow 2:
  Average throughput: 17.91 Mbit/s
  95th percentile per-packet one-way delay: 61.658 ms
  Loss rate: 1.18%
-- Flow 3:
  Average throughput: 9.17 Mbit/s
  95th percentile per-packet one-way delay: 57.447 ms
  Loss rate: 2.34%
Run 4: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 26.94 Mbit/s)
- Flow 1 egress (mean 26.83 Mbit/s)
- Flow 2 ingress (mean 18.01 Mbit/s)
- Flow 2 egress (mean 17.91 Mbit/s)
- Flow 3 ingress (mean 9.28 Mbit/s)
- Flow 3 egress (mean 9.17 Mbit/s)

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

- Flow 1 (95th percentile 62.75 ms)
- Flow 2 (95th percentile 61.66 ms)
- Flow 3 (95th percentile 57.45 ms)
Run 5: Statistics of LEDBAT

Start at: 2019-10-04 01:50:24
End at: 2019-10-04 01:50:54
Local clock offset: -0.214 ms
Remote clock offset: -0.243 ms

# Below is generated by plot.py at 2019-10-04 04:23:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.51 Mbit/s
95th percentile per-packet one-way delay: 59.146 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 28.10 Mbit/s
95th percentile per-packet one-way delay: 59.569 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 18.68 Mbit/s
95th percentile per-packet one-way delay: 58.525 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 9.32 Mbit/s
95th percentile per-packet one-way delay: 58.241 ms
Loss rate: 2.31%
Run 5: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**: Blue dashed line for Flow 1 ingress (mean 28.21 Mbps/s), blue solid line for Flow 1 egress (mean 28.10 Mbps/s), green dashed line for Flow 2 ingress (mean 18.79 Mbps/s), green solid line for Flow 2 egress (mean 18.68 Mbps/s), red dashed line for Flow 3 ingress (mean 9.43 Mbps/s), red solid line for Flow 3 egress (mean 9.32 Mbps/s).

- **Per packet one way delay (ms)**: Blue line for Flow 1 (95th percentile 59.57 ms), green line for Flow 2 (95th percentile 58.52 ms), red line for Flow 3 (95th percentile 58.24 ms).

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Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 22:52:56
End at: 2019-10-03 22:53:26
Local clock offset: -0.419 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-10-04 04:26:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 652.51 Mbit/s
95th percentile per-packet one-way delay: 85.788 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 399.22 Mbit/s
95th percentile per-packet one-way delay: 96.281 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 287.27 Mbit/s
95th percentile per-packet one-way delay: 83.414 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 202.51 Mbit/s
95th percentile per-packet one-way delay: 65.472 ms
Loss rate: 1.78%
Run 1: Report of Muses

**DecisionTree — Data Link**

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**Graph 1:**

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 398.86 Mbit/s)
  - Flow 1 egress (mean 399.22 Mbit/s)
  - Flow 2 ingress (mean 286.76 Mbit/s)
  - Flow 2 egress (mean 287.27 Mbit/s)
  - Flow 3 ingress (mean 203.65 Mbit/s)
  - Flow 3 egress (mean 202.51 Mbit/s)

---

**Graph 2:**

- **Per-packet end-to-end delay (ms):**
  - Flow 1 (95th percentile 96.28 ms)
  - Flow 2 (95th percentile 83.41 ms)
  - Flow 3 (95th percentile 65.47 ms)
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 23:33:03
End at: 2019-10-03 23:33:33
Local clock offset: -0.439 ms
Remote clock offset: -0.201 ms

# Below is generated by plot.py at 2019-10-04 04:26:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 650.26 Mbit/s
95th percentile per-packet one-way delay: 80.995 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 354.98 Mbit/s
95th percentile per-packet one-way delay: 90.056 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 313.29 Mbit/s
95th percentile per-packet one-way delay: 72.108 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 278.05 Mbit/s
95th percentile per-packet one-way delay: 68.286 ms
Loss rate: 1.56%
Run 2: Report of Muses_DecisionTree — Data Link

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

- Flow 1 ingress (mean 354.25 Mbit/s)
- Flow 1 egress (mean 354.98 Mbit/s)
- Flow 2 ingress (mean 313.52 Mbit/s)
- Flow 2 egress (mean 313.29 Mbit/s)
- Flow 3 ingress (mean 279.00 Mbit/s)
- Flow 3 egress (mean 278.05 Mbit/s)
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-10-04 00:13:21
End at: 2019-10-04 00:13:51
Local clock offset: -0.186 ms
Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2019-10-04 04:26:44
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 641.55 Mbit/s
   95th percentile per-packet one-way delay: 82.711 ms
   Loss rate: 0.53%
-- Flow 1:
   Average throughput: 377.04 Mbit/s
   95th percentile per-packet one-way delay: 84.754 ms
   Loss rate: 0.42%
-- Flow 2:
   Average throughput: 319.55 Mbit/s
   95th percentile per-packet one-way delay: 77.978 ms
   Loss rate: 0.54%
-- Flow 3:
   Average throughput: 171.04 Mbit/s
   95th percentile per-packet one-way delay: 64.233 ms
   Loss rate: 1.29%
Run 3: Report of Muses

*Decision Tree — Data Link*
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-10-04 00:53:42
End at: 2019-10-04 00:54:12
Local clock offset: -0.031 ms
Remote clock offset: -0.145 ms

# Below is generated by plot.py at 2019-10-04 04:26:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 655.15 Mbit/s
95th percentile per-packet one-way delay: 83.621 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 395.46 Mbit/s
95th percentile per-packet one-way delay: 86.338 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 284.82 Mbit/s
95th percentile per-packet one-way delay: 70.294 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 228.59 Mbit/s
95th percentile per-packet one-way delay: 70.618 ms
Loss rate: 1.42%
Run 4: Report of Muses_DecimalTree — Data Link

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

- **Flow 1 ingress (mean 395.19 Mbit/s)**
- **Flow 1 egress (mean 395.46 Mbit/s)**
- **Flow 2 ingress (mean 284.67 Mbit/s)**
- **Flow 2 egress (mean 284.82 Mbit/s)**
- **Flow 3 ingress (mean 226.97 Mbit/s)**
- **Flow 3 egress (mean 226.59 Mbit/s)**

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

- **Flow 1 (95th percentile 86.34 ms)**
- **Flow 2 (95th percentile 70.29 ms)**
- **Flow 3 (95th percentile 70.62 ms)**
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-10-04 01:34:15
End at: 2019-10-04 01:34:45
Local clock offset: 0.123 ms
Remote clock offset: -0.749 ms

# Below is generated by plot.py at 2019-10-04 04:27:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 677.17 Mbit/s
95th percentile per-packet one-way delay: 84.561 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 394.20 Mbit/s
95th percentile per-packet one-way delay: 84.958 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 304.73 Mbit/s
95th percentile per-packet one-way delay: 82.498 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 256.00 Mbit/s
95th percentile per-packet one-way delay: 89.985 ms
Loss rate: 1.69%
Run 5: Report of Muses_DecisionTree — Data Link

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

![Graph 2: Per-packet one-way delay (ms)]
Run 1: Statistics of Muses\_DecisionTreeHO

Start at: 2019-10-03 22:58:19
End at: 2019-10-03 22:58:49
Local clock offset: -0.029 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2019-10-04 04:27:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 456.97 Mbit/s
  95th percentile per-packet one-way delay: 163.183 ms
  Loss rate: 2.07%
-- Flow 1:
  Average throughput: 252.16 Mbit/s
  95th percentile per-packet one-way delay: 162.975 ms
  Loss rate: 3.08%
-- Flow 2:
  Average throughput: 221.28 Mbit/s
  95th percentile per-packet one-way delay: 173.008 ms
  Loss rate: 0.69%
-- Flow 3:
  Average throughput: 187.06 Mbit/s
  95th percentile per-packet one-way delay: 134.130 ms
  Loss rate: 1.08%
Run 1: Report of Muses_DecisionTreeH0 — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 258.85 Mbps)  Flow 1 egress (mean 252.16 Mbps)
Flow 2 ingress (mean 223.94 Mbps)  Flow 2 egress (mean 221.28 Mbps)
Flow 3 ingress (mean 186.82 Mbps)  Flow 3 egress (mean 187.06 Mbps)

Packet error delay (ms)

Time (s)

Flow 1 (95th percentile 162.97 ms)  Flow 2 (95th percentile 173.01 ms)  Flow 3 (95th percentile 134.13 ms)
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-03 23:38:26
End at: 2019-10-03 23:38:56
Local clock offset: -0.503 ms
Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2019-10-04 04:33:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 460.19 Mbit/s
95th percentile per-packet one-way delay: 158.555 ms
Loss rate: 2.90%
-- Flow 1:
Average throughput: 228.87 Mbit/s
95th percentile per-packet one-way delay: 164.610 ms
Loss rate: 4.23%
-- Flow 2:
Average throughput: 244.47 Mbit/s
95th percentile per-packet one-way delay: 142.117 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 217.70 Mbit/s
95th percentile per-packet one-way delay: 137.019 ms
Loss rate: 2.39%
Run 2: Report of Muses_DecisionTreeH0 — Data Link
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-04 00:18:44
End at: 2019-10-04 00:19:14
Local clock offset: 0.251 ms
Remote clock offset: 0.608 ms

# Below is generated by plot.py at 2019-10-04 04:33:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 427.86 Mbit/s
  95th percentile per-packet one-way delay: 175.870 ms
  Loss rate: 2.85%
-- Flow 1:
  Average throughput: 223.84 Mbit/s
  95th percentile per-packet one-way delay: 176.576 ms
  Loss rate: 3.51%
-- Flow 2:
  Average throughput: 202.10 Mbit/s
  95th percentile per-packet one-way delay: 180.038 ms
  Loss rate: 1.04%
-- Flow 3:
  Average throughput: 225.16 Mbit/s
  95th percentile per-packet one-way delay: 137.316 ms
  Loss rate: 4.10%
Run 3: Report of Muses_DecisionTreeH0 — Data Link

![Graph showing network performance metrics over time]

**Throughput (Mbps):**
- Flow 1 ingress (mean 230.65 Mbps)
- Flow 1 egress (mean 223.84 Mbps)
- Flow 2 ingress (mean 202.98 Mbps)
- Flow 2 egress (mean 202.10 Mbps)
- Flow 3 ingress (mean 232.45 Mbps)
- Flow 3 egress (mean 225.16 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 176.58 ms)
- Flow 2 (95th percentile 180.04 ms)
- Flow 3 (95th percentile 137.32 ms)
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-04 00:59:09
End at: 2019-10-04 00:59:39
Local clock offset: -0.057 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2019-10-04 04:35:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 566.00 Mbit/s
95th percentile per-packet one-way delay: 142.157 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 292.72 Mbit/s
95th percentile per-packet one-way delay: 152.854 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 300.61 Mbit/s
95th percentile per-packet one-way delay: 124.713 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 238.36 Mbit/s
95th percentile per-packet one-way delay: 131.509 ms
Loss rate: 3.46%
Run 4: Report of Muses_DecisionTreeH0 — Data Link

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

- **Throughput (Mbps)**: The graph on the left shows the throughput over time for different flows. The x-axis represents time (s), and the y-axis represents throughput in Mbps. The legend indicates the mean throughput for each flow:
  - Flow 1 ingress (mean 292.51 Mbps)
  - Flow 1 egress (mean 292.72 Mbps)
  - Flow 2 ingress (mean 298.68 Mbps)
  - Flow 2 egress (mean 300.61 Mbps)
  - Flow 3 ingress (mean 244.64 Mbps)
  - Flow 3 egress (mean 238.36 Mbps)

- **Delay (ms)**: The graph on the right shows the per-packet one-way delay for different flows. The x-axis represents time (s), and the y-axis represents delay in ms. The legend indicates the 95th percentile delay for each flow:
  - Flow 1 (95th percentile 152.95 ms)
  - Flow 2 (95th percentile 124.71 ms)
  - Flow 3 (95th percentile 131.51 ms)
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-04 01:39:40
End at: 2019-10-04 01:40:10
Local clock offset: 0.121 ms
Remote clock offset: 0.086 ms

# Below is generated by plot.py at 2019-10-04 04:37:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 479.64 Mbit/s
95th percentile per-packet one-way delay: 154.928 ms
Loss rate: 2.53%
-- Flow 1:
Average throughput: 255.06 Mbit/s
95th percentile per-packet one-way delay: 164.889 ms
Loss rate: 3.92%
-- Flow 2:
Average throughput: 244.26 Mbit/s
95th percentile per-packet one-way delay: 150.764 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 199.97 Mbit/s
95th percentile per-packet one-way delay: 135.683 ms
Loss rate: 0.02%
Run 5: Report of Muses_DecisionTreeH0 — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.]
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-03 23:07:15
End at: 2019-10-03 23:07:45
Local clock offset: -0.256 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2019-10-04 04:41:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 661.96 Mbit/s
  95th percentile per-packet one-way delay: 81.394 ms
  Loss rate: 0.47%
-- Flow 1:
  Average throughput: 380.92 Mbit/s
  95th percentile per-packet one-way delay: 80.027 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 317.88 Mbit/s
  95th percentile per-packet one-way delay: 73.914 ms
  Loss rate: 0.58%
-- Flow 3:
  Average throughput: 222.75 Mbit/s
  95th percentile per-packet one-way delay: 169.414 ms
  Loss rate: 1.40%
Run 1: Report of Muses_DecisionTreeR0 — Data Link
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-03 23:47:25
End at: 2019-10-03 23:47:55
Local clock offset: -0.286 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2019-10-04 04:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 661.80 Mbit/s
95th percentile per-packet one-way delay: 80.700 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 367.41 Mbit/s
95th percentile per-packet one-way delay: 86.964 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 331.18 Mbit/s
95th percentile per-packet one-way delay: 68.319 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 240.59 Mbit/s
95th percentile per-packet one-way delay: 95.451 ms
Loss rate: 1.16%
Run 2: Report of Muses_DecisionTreeR0 — Data Link
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-04 00:27:43
End at: 2019-10-04 00:28:13
Local clock offset: -0.069 ms
Remote clock offset: -0.802 ms

# Below is generated by plot.py at 2019-10-04 04:42:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 678.24 Mbit/s
95th percentile per-packet one-way delay: 87.000 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 379.21 Mbit/s
95th percentile per-packet one-way delay: 85.849 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 328.75 Mbit/s
95th percentile per-packet one-way delay: 84.652 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 259.40 Mbit/s
95th percentile per-packet one-way delay: 125.711 ms
Loss rate: 1.94%
Run 3: Report of Muses DecisionTreeR0 — Data Link

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

- Flow 1 ingress (mean 378.30 Mbit/s)
- Flow 1 egress (mean 379.21 Mbit/s)
- Flow 2 ingress (mean 328.90 Mbit/s)
- Flow 2 egress (mean 328.75 Mbit/s)
- Flow 3 ingress (mean 261.18 Mbit/s)
- Flow 3 egress (mean 259.40 Mbit/s)
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-04 01:08:09
End at: 2019-10-04 01:08:39
Local clock offset: -0.033 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2019-10-04 04:43:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 687.62 Mbit/s
95th percentile per-packet one-way delay: 86.992 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 416.99 Mbit/s
95th percentile per-packet one-way delay: 89.174 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 285.15 Mbit/s
95th percentile per-packet one-way delay: 69.345 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 261.85 Mbit/s
95th percentile per-packet one-way delay: 111.399 ms
Loss rate: 1.86%
Run 4: Report of Muses_DecisionTreeR0 — Data Link
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-04 01:48:39
End at: 2019-10-04 01:49:09
Local clock offset: 0.211 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2019-10-04 04:47:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 632.94 Mbit/s
95th percentile per-packet one-way delay: 82.919 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 353.77 Mbit/s
95th percentile per-packet one-way delay: 85.370 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 302.63 Mbit/s
95th percentile per-packet one-way delay: 77.768 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 250.74 Mbit/s
95th percentile per-packet one-way delay: 89.167 ms
Loss rate: 1.75%
Run 5: Report of Muses

DecisionTreeR0 — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 352.08 Mbps)
- Flow 1 egress (mean 353.77 Mbps)
- Flow 2 ingress (mean 302.43 Mbps)
- Flow 2 egress (mean 302.63 Mbps)
- Flow 3 ingress (mean 251.96 Mbps)
- Flow 3 egress (mean 250.74 Mbps)

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

- Flow 1 (95th percentile 85.37 ms)
- Flow 2 (95th percentile 77.77 ms)
- Flow 3 (95th percentile 89.17 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2019-10-03 22:51:04
End at: 2019-10-03 22:51:34
Local clock offset: -0.018 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2019-10-04 04:59:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 585.32 Mbit/s
95th percentile per-packet one-way delay: 209.129 ms
Loss rate: 2.77%
-- Flow 1:
Average throughput: 323.35 Mbit/s
95th percentile per-packet one-way delay: 223.961 ms
Loss rate: 3.98%
-- Flow 2:
Average throughput: 276.24 Mbit/s
95th percentile per-packet one-way delay: 164.155 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 240.84 Mbit/s
95th percentile per-packet one-way delay: 154.969 ms
Loss rate: 1.88%
Run 1: Report of PCC-Allegro — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 335.46 Mbit/s)
- Flow 1 egress (mean 323.35 Mbit/s)
- Flow 2 ingress (mean 277.26 Mbit/s)
- Flow 2 egress (mean 276.24 Mbit/s)
- Flow 3 ingress (mean 242.54 Mbit/s)
- Flow 3 egress (mean 240.64 Mbit/s)

![Packet Delay Graph](image2)

- Flow 1 (95th percentile 223.96 ms)
- Flow 2 (95th percentile 164.16 ms)
- Flow 3 (95th percentile 154.97 ms)
Run 2: Statistics of PCC-Allegro

End at: 2019-10-03 23:31:43
Local clock offset: 0.058 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2019-10-04 05:01:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 557.35 Mbit/s
95th percentile per-packet one-way delay: 98.762 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 299.10 Mbit/s
95th percentile per-packet one-way delay: 98.499 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 273.04 Mbit/s
95th percentile per-packet one-way delay: 84.748 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 235.74 Mbit/s
95th percentile per-packet one-way delay: 207.593 ms
Loss rate: 6.54%
Run 2: Report of PCC-Allegro — Data Link

Throughput: (Mbps)

Flow 1 ingress (mean 300.30 Mbit/s)  
Flow 1 egress (mean 299.10 Mbit/s)  
Flow 2 ingress (mean 276.03 Mbit/s)  
Flow 2 egress (mean 273.04 Mbit/s)  
Flow 3 ingress (mean 249.29 Mbit/s)  
Flow 3 egress (mean 235.74 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 98.50 ms)  
Flow 2 (95th percentile 84.75 ms)  
Flow 3 (95th percentile 207.59 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2019-10-04 00:11:32
End at: 2019-10-04 00:12:02
Local clock offset: -0.031 ms
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2019-10-04 05:01:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 539.62 Mbit/s
95th percentile per-packet one-way delay: 198.701 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 281.46 Mbit/s
95th percentile per-packet one-way delay: 206.560 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 270.22 Mbit/s
95th percentile per-packet one-way delay: 74.949 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 241.90 Mbit/s
95th percentile per-packet one-way delay: 184.823 ms
Loss rate: 4.91%
Run 3: Report of PCC-Allegro — Data Link
Run 4: Statistics of PCC-Allegro

Start at: 2019-10-04 00:51:54
End at: 2019-10-04 00:52:24
Local clock offset: -0.228 ms
Remote clock offset: 0.096 ms

# Below is generated by plot.py at 2019-10-04 05:05:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 527.82 Mbit/s
95th percentile per-packet one-way delay: 151.274 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 285.13 Mbit/s
95th percentile per-packet one-way delay: 165.112 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 249.64 Mbit/s
95th percentile per-packet one-way delay: 96.419 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 235.61 Mbit/s
95th percentile per-packet one-way delay: 181.551 ms
Loss rate: 4.38%
Run 4: Report of PCC-Allegro — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 288.11 Mbps)
  - Flow 1 egress (mean 285.13 Mbps)
  - Flow 2 ingress (mean 251.40 Mbps)
  - Flow 2 egress (mean 249.64 Mbps)
  - Flow 3 ingress (mean 243.43 Mbps)
  - Flow 3 egress (mean 235.61 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 165.11 ms)
  - Flow 2 (95th percentile 96.42 ms)
  - Flow 3 (95th percentile 181.55 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2019-10-04 01:32:28  
End at: 2019-10-04 01:32:58  
Local clock offset: -0.534 ms  
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2019-10-04 05:05:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 509.22 Mbit/s  
95th percentile per-packet one-way delay: 138.024 ms  
Loss rate: 0.97%  
-- Flow 1:  
Average throughput: 280.81 Mbit/s  
95th percentile per-packet one-way delay: 89.918 ms  
Loss rate: 0.62%  
-- Flow 2:  
Average throughput: 269.33 Mbit/s  
95th percentile per-packet one-way delay: 156.967 ms  
Loss rate: 0.81%  
-- Flow 3:  
Average throughput: 152.07 Mbit/s  
95th percentile per-packet one-way delay: 199.850 ms  
Loss rate: 3.38%
Run 5: Report of PCC-Allegro — Data Link

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

Legend:
- Flow 1 ingress (mean 281.48 Mbit/s)
- Flow 1 egress (mean 280.81 Mbit/s)
- Flow 2 ingress (mean 269.93 Mbit/s)
- Flow 2 egress (mean 269.33 Mbit/s)
- Flow 3 ingress (mean 155.56 Mbit/s)
- Flow 3 egress (mean 152.07 Mbit/s)

![Graph of per-packet one-way delay over time]

Legend:
- Flow 1 (95th percentile 89.92 ms)
- Flow 2 (95th percentile 156.97 ms)
- Flow 3 (95th percentile 199.85 ms)
Run 1: Statistics of PCC-Expr

Start at: 2019-10-03 22:44:41
End at: 2019-10-03 22:45:11
Local clock offset: -0.082 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2019-10-04 05:05:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 414.83 Mbit/s
  95th percentile per-packet one-way delay: 188.599 ms
  Loss rate: 3.05%
-- Flow 1:
  Average throughput: 233.46 Mbit/s
  95th percentile per-packet one-way delay: 195.803 ms
  Loss rate: 4.43%
-- Flow 2:
  Average throughput: 188.85 Mbit/s
  95th percentile per-packet one-way delay: 101.919 ms
  Loss rate: 0.58%
-- Flow 3:
  Average throughput: 171.22 Mbit/s
  95th percentile per-packet one-way delay: 137.534 ms
  Loss rate: 2.63%
Run 1: Report of PCC-Expr — Data Link
Run 2: Statistics of PCC-Expr

Start at: 2019-10-03 23:24:26
End at: 2019-10-03 23:24:56
Local clock offset: -0.258 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2019-10-04 05:05:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 399.03 Mbit/s
95th percentile per-packet one-way delay: 180.285 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 200.38 Mbit/s
95th percentile per-packet one-way delay: 171.682 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 212.13 Mbit/s
95th percentile per-packet one-way delay: 199.428 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 176.50 Mbit/s
95th percentile per-packet one-way delay: 128.799 ms
Loss rate: 2.28%
Run 2: Report of PCC-Expr — Data Link

[Graph showing throughput and packet delay over time for different flows]
Run 3: Statistics of PCC-Expr

Start at: 2019-10-04 00:04:48
End at: 2019-10-04 00:05:18
Local clock offset: ~0.088 ms
Remote clock offset: 0.124 ms

# Below is generated by plot.py at 2019-10-04 05:05:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 357.79 Mbit/s
  95th percentile per-packet one-way delay: 144.102 ms
  Loss rate: 1.59%
-- Flow 1:
  Average throughput: 184.42 Mbit/s
  95th percentile per-packet one-way delay: 238.209 ms
  Loss rate: 1.80%
-- Flow 2:
  Average throughput: 177.03 Mbit/s
  95th percentile per-packet one-way delay: 66.254 ms
  Loss rate: 0.79%
-- Flow 3:
  Average throughput: 171.03 Mbit/s
  95th percentile per-packet one-way delay: 162.923 ms
  Loss rate: 2.56%
Run 3: Report of PCC-Expr — Data Link
Run 4: Statistics of PCC-Expr

Start at: 2019-10-04 00:45:05
End at: 2019-10-04 00:45:35
Local clock offset: 0.124 ms
Remote clock offset: -0.244 ms

# Below is generated by plot.py at 2019-10-04 05:14:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 378.06 Mbit/s
95th percentile per-packet one-way delay: 191.806 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 207.09 Mbit/s
95th percentile per-packet one-way delay: 203.998 ms
Loss rate: 2.07%
-- Flow 2:
Average throughput: 204.44 Mbit/s
95th percentile per-packet one-way delay: 88.258 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 107.94 Mbit/s
95th percentile per-packet one-way delay: 63.976 ms
Loss rate: 1.72%
Run 4: Report of PCC-Expr — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows: Flow 1 ingress (mean 210.59 Mbit/s), Flow 1 egress (mean 207.09 Mbit/s), Flow 2 ingress (mean 205.25 Mbit/s), Flow 2 egress (mean 204.44 Mbit/s), Flow 3 ingress (mean 108.48 Mbit/s), Flow 3 egress (mean 107.04 Mbit/s).]
Run 5: Statistics of PCC-Expr

Start at: 2019-10-04 01:25:36
End at: 2019-10-04 01:26:06
Local clock offset: -0.161 ms
Remote clock offset: 0.611 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 431.64 Mbit/s
95th percentile per-packet one-way delay: 199.213 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 225.75 Mbit/s
95th percentile per-packet one-way delay: 101.707 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 224.44 Mbit/s
95th percentile per-packet one-way delay: 211.146 ms
Loss rate: 3.34%
-- Flow 3:
Average throughput: 173.45 Mbit/s
95th percentile per-packet one-way delay: 165.411 ms
Loss rate: 2.56%
Run 5: Report of PCC-Expr — Data Link
Run 1: Statistics of QUIC Cubic

Start at: 2019-10-03 22:49:47
End at: 2019-10-03 22:50:17
Local clock offset: -0.193 ms
Remote clock offset: -0.541 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.12 Mbit/s
95th percentile per-packet one-way delay: 60.552 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 52.83 Mbit/s
95th percentile per-packet one-way delay: 57.486 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 34.73 Mbit/s
95th percentile per-packet one-way delay: 57.278 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 21.02 Mbit/s
95th percentile per-packet one-way delay: 60.644 ms
Loss rate: 0.55%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2019-10-03 23:29:56
End at: 2019-10-03 23:30:26
Local clock offset: -0.071 ms
Remote clock offset: -0.155 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.43 Mbit/s
95th percentile per-packet one-way delay: 60.328 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 44.88 Mbit/s
95th percentile per-packet one-way delay: 57.335 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 39.88 Mbit/s
95th percentile per-packet one-way delay: 60.374 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 15.55 Mbit/s
95th percentile per-packet one-way delay: 57.076 ms
Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 44.93 Mbit/s)
- Flow 1 egress (mean 44.88 Mbit/s)
- Flow 2 ingress (mean 40.16 Mbit/s)
- Flow 2 egress (mean 39.88 Mbit/s)
- Flow 3 ingress (mean 15.30 Mbit/s)
- Flow 3 egress (mean 15.55 Mbit/s)

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

- Flow 1 (95th percentile 57.34 ms)
- Flow 2 (95th percentile 60.37 ms)
- Flow 3 (95th percentile 57.08 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2019-10-04 00:10:16
End at: 2019-10-04 00:10:46
Local clock offset: -0.014 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.60 Mbit/s
95th percentile per-packet one-way delay: 57.146 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 37.39 Mbit/s
95th percentile per-packet one-way delay: 56.860 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 29.72 Mbit/s
95th percentile per-packet one-way delay: 57.180 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 16.56 Mbit/s
95th percentile per-packet one-way delay: 57.061 ms
Loss rate: 0.40%
Run 3: Report of QUIC Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 37.43 Mb/s)
- Flow 1 egress (mean 37.39 Mb/s)
- Flow 2 ingress (mean 29.99 Mb/s)
- Flow 2 egress (mean 29.72 Mb/s)
- Flow 3 ingress (mean 16.44 Mb/s)
- Flow 3 egress (mean 16.56 Mb/s)

Throughput in Mb/s and per-packet one-way delay in ms vary significantly across flows and time.
Run 4: Statistics of QUIC Cubic

Start at: 2019-10-04 00:50:37
End at: 2019-10-04 00:51:07
Local clock offset: 0.018 ms
Remote clock offset: 0.584 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.11 Mbit/s
95th percentile per-packet one-way delay: 59.535 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 40.31 Mbit/s
95th percentile per-packet one-way delay: 59.575 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 43.64 Mbit/s
95th percentile per-packet one-way delay: 56.229 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 20.72 Mbit/s
95th percentile per-packet one-way delay: 56.817 ms
Loss rate: 0.48%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2019-10-04 01:31:12
End at: 2019-10-04 01:31:42
Local clock offset: 0.307 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.87 Mbit/s
95th percentile per-packet one-way delay: 60.667 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 53.38 Mbit/s
95th percentile per-packet one-way delay: 57.375 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 17.66 Mbit/s
95th percentile per-packet one-way delay: 60.794 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 20.64 Mbit/s
95th percentile per-packet one-way delay: 57.467 ms
Loss rate: 0.49%
Run 5: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2019-10-03 23:14:27
End at: 2019-10-03 23:14:57
Local clock offset: -0.483 ms
Remote clock offset: 0.535 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 59.571 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.587 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.216 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 55.811 ms
Loss rate: 1.09%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2019-10-03 23:54:38
End at: 2019-10-03 23:55:08
Local clock offset: -0.021 ms
Remote clock offset: -0.157 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 60.278 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 57.380 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 57.292 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 60.319 ms
  Loss rate: 1.08%
Run 2: Report of SCReAM — Data Link

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

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

- **Packet Transmission Delay (ms)**
  - Flow 1 (95th percentile 57.38 ms)
  - Flow 2 (95th percentile 57.29 ms)
  - Flow 3 (95th percentile 60.32 ms)
Run 3: Statistics of SCReAM

Start at: 2019-10-04 00:34:59
End at: 2019-10-04 00:35:29
Local clock offset: -0.192 ms
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 56.811 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 56.816 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 56.778 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 56.829 ms
  Loss rate: 1.09%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2019-10-04 01:15:25
End at: 2019-10-04 01:15:55
Local clock offset: -0.109 ms
Remote clock offset: 0.037 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 60.417 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 60.430 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 57.395 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 60.062 ms
  Loss rate: 1.08%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2019-10-04 01:55:49
End at: 2019-10-04 01:56:19
Local clock offset: 0.215 ms
Remote clock offset: 0.269 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 60.265 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 56.932 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 60.287 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 57.094 ms
  Loss rate: 1.09%
Run 5: Report of SCReAM — Data Link

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

Throughput (Mbps)

Time (s)

0.00 0.05 0.10 0.15 0.20 0.25

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

Packet loss (delay, ms)

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 56.93 ms)  Flow 2 (95th percentile 60.29 ms)  Flow 3 (95th percentile 57.09 ms)
Run 1: Statistics of Sprout

Start at: 2019-10-03 23:10:17
End at: 2019-10-03 23:10:47
Local clock offset: 0.152 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 14.64 Mbit/s
  95th percentile per-packet one-way delay: 60.951 ms
  Loss rate: 0.74%
-- Flow 1:
  Average throughput: 7.71 Mbit/s
  95th percentile per-packet one-way delay: 58.158 ms
  Loss rate: 0.51%
-- Flow 2:
  Average throughput: 7.14 Mbit/s
  95th percentile per-packet one-way delay: 58.023 ms
  Loss rate: 0.71%
-- Flow 3:
  Average throughput: 6.71 Mbit/s
  95th percentile per-packet one-way delay: 61.782 ms
  Loss rate: 1.60%
Run 1: Report of Sprout — Data Link

---

**Graph 1: Throughput**

- **Flow 1 ingress (mean 7.73 Mbit/s)**
- **Flow 1 egress (mean 7.71 Mbit/s)**
- **Flow 2 ingress (mean 7.14 Mbit/s)**
- **Flow 2 egress (mean 7.14 Mbit/s)**
- **Flow 3 ingress (mean 6.73 Mbit/s)**
- **Flow 3 egress (mean 6.71 Mbit/s)**

**Graph 2: Per-packet one-way delay**

- **Flow 1 (95th percentile 58.16 ms)**
- **Flow 2 (95th percentile 58.02 ms)**
- **Flow 3 (95th percentile 61.78 ms)**

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Run 2: Statistics of Sprout

Start at: 2019-10-03 23:50:28
End at: 2019-10-03 23:50:58
Local clock offset: -0.399 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.31 Mbit/s
95th percentile per-packet one-way delay: 57.643 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 7.78 Mbit/s
95th percentile per-packet one-way delay: 57.775 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 7.63 Mbit/s
95th percentile per-packet one-way delay: 57.423 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 57.156 ms
Loss rate: 1.36%
Run 2: Report of Sprout — Data Link

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

- **Flow 1 ingress** (mean 7.78 Mbit/s)
- **Flow 1 egress** (mean 7.78 Mbit/s)
- **Flow 2 ingress** (mean 7.66 Mbit/s)
- **Flow 2 egress** (mean 7.63 Mbit/s)
- **Flow 3 ingress** (mean 7.53 Mbit/s)
- **Flow 3 egress** (mean 7.52 Mbit/s)

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

- **Flow 1 (95th percentile 57.77 ms)**
- **Flow 2 (95th percentile 57.42 ms)**
- **Flow 3 (95th percentile 57.16 ms)**

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Run 3: Statistics of Sprout

Start at: 2019-10-04 00:30:47
End at: 2019-10-04 00:31:17
Local clock offset: -0.007 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 14.72 Mbit/s
  95th percentile per-packet one-way delay: 60.904 ms
  Loss rate: 0.57%
-- Flow 1:
  Average throughput: 7.81 Mbit/s
  95th percentile per-packet one-way delay: 57.508 ms
  Loss rate: 0.42%
-- Flow 2:
  Average throughput: 7.00 Mbit/s
  95th percentile per-packet one-way delay: 61.205 ms
  Loss rate: 0.54%
-- Flow 3:
  Average throughput: 6.93 Mbit/s
  95th percentile per-packet one-way delay: 61.119 ms
  Loss rate: 1.18%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2019-10-04 01:11:14
End at: 2019-10-04 01:11:44
Local clock offset: -0.11 ms
Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 14.68 Mbit/s
  95th percentile per-packet one-way delay: 60.702 ms
  Loss rate: 0.39%
-- Flow 1:
  Average throughput: 7.91 Mbit/s
  95th percentile per-packet one-way delay: 57.920 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 7.04 Mbit/s
  95th percentile per-packet one-way delay: 60.751 ms
  Loss rate: 0.47%
-- Flow 3:
  Average throughput: 6.42 Mbit/s
  95th percentile per-packet one-way delay: 61.038 ms
  Loss rate: 1.50%
Run 4: Report of Sprout — Data Link

![Graph of Throughput vs Time](image1)

- Flow 1 ingress (mean 7.89 Mbit/s)
- Flow 1 egress (mean 7.91 Mbit/s)
- Flow 2 ingress (mean 7.03 Mbit/s)
- Flow 2 egress (mean 7.04 Mbit/s)
- Flow 3 ingress (mean 6.44 Mbit/s)
- Flow 3 egress (mean 6.42 Mbit/s)

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

- Flow 1 (95th percentile 57.92 ms)
- Flow 2 (95th percentile 60.75 ms)
- Flow 3 (95th percentile 61.04 ms)
Run 5: Statistics of Sprout

Start at: 2019-10-04 01:51:41
End at: 2019-10-04 01:52:11
Local clock offset: -0.405 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2019-10-04 05:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.69 Mbit/s
95th percentile per-packet one-way delay: 60.415 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 60.575 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 7.46 Mbit/s
95th percentile per-packet one-way delay: 57.568 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 7.43 Mbit/s
95th percentile per-packet one-way delay: 57.625 ms
Loss rate: 1.58%
Run 5: Report of Sprout — Data Link

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

![Graph 2: Per-Packet One-Way Delay](image2)
Run 1: Statistics of TaoVA-100x

Start at: 2019-10-03 23:01:48
End at: 2019-10-03 23:02:18
Local clock offset: -0.034 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2019-10-04 05:21:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 394.73 Mbit/s
95th percentile per-packet one-way delay: 76.062 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 215.66 Mbit/s
95th percentile per-packet one-way delay: 74.195 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 175.35 Mbit/s
95th percentile per-packet one-way delay: 81.045 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 189.43 Mbit/s
95th percentile per-packet one-way delay: 71.645 ms
Loss rate: 1.31%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2019-10-03 23:41:55
End at: 2019-10-03 23:42:25
Local clock offset: 0.289 ms
Remote clock offset: -0.588 ms

# Below is generated by plot.py at 2019-10-04 05:23:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 430.09 Mbit/s
  95th percentile per-packet one-way delay: 71.504 ms
  Loss rate: 0.50%
-- Flow 1:
  Average throughput: 227.65 Mbit/s
  95th percentile per-packet one-way delay: 67.001 ms
  Loss rate: 0.34%
-- Flow 2:
  Average throughput: 206.25 Mbit/s
  95th percentile per-packet one-way delay: 71.688 ms
  Loss rate: 0.64%
-- Flow 3:
  Average throughput: 198.11 Mbit/s
  95th percentile per-packet one-way delay: 78.542 ms
  Loss rate: 0.76%
Run 2: Report of TaoVA-100x — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)

Flow 1 ingress (mean 227.56 Mbit/s)  
Flow 1 egress (mean 227.65 Mbit/s)  
Flow 2 ingress (mean 206.38 Mbit/s)  
Flow 2 egress (mean 206.25 Mbit/s)  
Flow 3 ingress (mean 197.24 Mbit/s)  
Flow 3 egress (mean 198.11 Mbit/s)  

Flow 1 (95th percentile 67.00 ms)  
Flow 2 (95th percentile 71.69 ms)  
Flow 3 (95th percentile 78.54 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2019-10-04 00:22:14
End at: 2019-10-04 00:22:44
Local clock offset: 0.297 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2019-10-04 05:23:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 424.45 Mbit/s
  95th percentile per-packet one-way delay: 72.527 ms
  Loss rate: 0.66%
-- Flow 1:
  Average throughput: 226.04 Mbit/s
  95th percentile per-packet one-way delay: 68.511 ms
  Loss rate: 0.41%
-- Flow 2:
  Average throughput: 212.78 Mbit/s
  95th percentile per-packet one-way delay: 74.784 ms
  Loss rate: 0.69%
-- Flow 3:
  Average throughput: 173.29 Mbit/s
  95th percentile per-packet one-way delay: 76.743 ms
  Loss rate: 1.59%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2019-10-04 01:02:39
End at: 2019-10-04 01:03:09
Local clock offset: 0.175 ms
Remote clock offset: -0.373 ms

# Below is generated by plot.py at 2019-10-04 05:23:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.59 Mbit/s
95th percentile per-packet one-way delay: 74.505 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 216.97 Mbit/s
95th percentile per-packet one-way delay: 69.685 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 196.62 Mbit/s
95th percentile per-packet one-way delay: 76.015 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 163.75 Mbit/s
95th percentile per-packet one-way delay: 83.486 ms
Loss rate: 1.35%
Run 4: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress (mean 216.96 Mbit/s)**
- **Flow 1 egress (mean 216.97 Mbit/s)**
- **Flow 2 ingress (mean 196.91 Mbit/s)**
- **Flow 2 egress (mean 196.62 Mbit/s)**
- **Flow 3 ingress (mean 164.07 Mbit/s)**
- **Flow 3 egress (mean 163.75 Mbit/s)**

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

- **Flow 1 (95th percentile 69.69 ms)**
- **Flow 2 (95th percentile 76.02 ms)**
- **Flow 3 (95th percentile 83.49 ms)**
Run 5: Statistics of TaoVA-100x

Start at: 2019-10-04 01:43:10
End at: 2019-10-04 01:43:41
Local clock offset: -0.561 ms
Remote clock offset: -0.723 ms

# Below is generated by plot.py at 2019-10-04 05:23:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 411.26 Mbit/s
  95th percentile per-packet one-way delay: 71.404 ms
  Loss rate: 0.61%
-- Flow 1:
  Average throughput: 217.69 Mbit/s
  95th percentile per-packet one-way delay: 69.712 ms
  Loss rate: 0.36%
-- Flow 2:
  Average throughput: 208.77 Mbit/s
  95th percentile per-packet one-way delay: 72.308 ms
  Loss rate: 0.66%
-- Flow 3:
  Average throughput: 166.30 Mbit/s
  95th percentile per-packet one-way delay: 77.276 ms
  Loss rate: 1.45%
Run 5: Report of TaoVA-100x — Data Link

![Throughput Graph]

- **Flow 1 ingress (mean 217.64 Mb/s)**
- **Flow 1 egress (mean 217.69 Mb/s)**
- **Flow 2 ingress (mean 208.92 Mb/s)**
- **Flow 2 egress (mean 208.77 Mb/s)**
- **Flow 3 ingress (mean 166.80 Mb/s)**
- **Flow 3 egress (mean 166.30 Mb/s)**

![Latency Graph]

- **Flow 1 (95th percentile 69.71 ms)**
- **Flow 2 (95th percentile 72.31 ms)**
- **Flow 3 (95th percentile 77.28 ms)**
Run 1: Statistics of TCP Vegas

Start at: 2019-10-03 22:46:32
End at: 2019-10-03 22:47:02
Local clock offset: -0.262 ms
Remote clock offset: -0.831 ms

# Below is generated by plot.py at 2019-10-04 05:23:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 208.75 Mbit/s
95th percentile per-packet one-way delay: 97.012 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 32.72 Mbit/s
95th percentile per-packet one-way delay: 61.095 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 54.68 Mbit/s
95th percentile per-packet one-way delay: 73.873 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 423.55 Mbit/s
95th percentile per-packet one-way delay: 119.944 ms
Loss rate: 1.35%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2019-10-03 23:26:15
End at: 2019-10-03 23:26:45
Local clock offset: -0.257 ms
Remote clock offset: -0.315 ms

# Below is generated by plot.py at 2019-10-04 05:27:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 743.86 Mbit/s
95th percentile per-packet one-way delay: 109.058 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 417.80 Mbit/s
95th percentile per-packet one-way delay: 106.835 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 295.43 Mbit/s
95th percentile per-packet one-way delay: 98.936 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 392.74 Mbit/s
95th percentile per-packet one-way delay: 161.159 ms
Loss rate: 1.55%
Run 2: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 418.10 Mbit/s)**
- **Flow 1 egress (mean 417.80 Mbit/s)**
- **Flow 2 ingress (mean 295.12 Mbit/s)**
- **Flow 2 egress (mean 295.43 Mbit/s)**
- **Flow 3 ingress (mean 394.24 Mbit/s)**
- **Flow 3 egress (mean 392.74 Mbit/s)**

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

- **Flow 1 (95th percentile 106.83 ms)**
- **Flow 2 (95th percentile 98.94 ms)**
- **Flow 3 (95th percentile 161.16 ms)**
Run 3: Statistics of TCP Vegas

Start at: 2019-10-04 00:06:34
End at: 2019-10-04 00:07:04
Local clock offset: -0.031 ms
Remote clock offset: -0.219 ms

# Below is generated by plot.py at 2019-10-04 05:33:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 763.49 Mbit/s
95th percentile per-packet one-way delay: 128.776 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 392.43 Mbit/s
95th percentile per-packet one-way delay: 118.361 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 389.47 Mbit/s
95th percentile per-packet one-way delay: 132.772 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 339.94 Mbit/s
95th percentile per-packet one-way delay: 126.487 ms
Loss rate: 1.69%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2019-10-04 00:46:53
End at: 2019-10-04 00:47:23
Local clock offset: -0.433 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2019-10-04 05:38:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 810.11 Mbit/s
95th percentile per-packet one-way delay: 115.894 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 399.10 Mbit/s
95th percentile per-packet one-way delay: 113.624 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 455.45 Mbit/s
95th percentile per-packet one-way delay: 110.345 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 327.86 Mbit/s
95th percentile per-packet one-way delay: 129.002 ms
Loss rate: 1.49%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2019-10-04 01:27:28
End at: 2019-10-04 01:27:58
Local clock offset: -0.069 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2019-10-04 05:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 793.20 Mbit/s
95th percentile per-packet one-way delay: 121.718 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 403.14 Mbit/s
95th percentile per-packet one-way delay: 142.431 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 416.19 Mbit/s
95th percentile per-packet one-way delay: 118.011 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 343.30 Mbit/s
95th percentile per-packet one-way delay: 113.879 ms
Loss rate: 1.61%
Run 5: Report of TCP Vegas — Data Link

---

**Throughput (Mbps)**

- Flow 1 ingress (mean 403.07 Mbps)
- Flow 1 egress (mean 403.14 Mbps)
- Flow 2 ingress (mean 416.62 Mbps)
- Flow 2 egress (mean 416.19 Mbps)
- Flow 3 ingress (mean 344.80 Mbps)
- Flow 3 egress (mean 343.30 Mbps)

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

- Flow 1 (95th percentile 142.43 ms)
- Flow 2 (95th percentile 118.01 ms)
- Flow 3 (95th percentile 113.88 ms)
Run 1: Statistics of Verus

Start at: 2019-10-03 22:41:04
End at: 2019-10-03 22:41:34
Local clock offset: -0.06 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2019-10-04 05:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 292.64 Mbit/s
95th percentile per-packet one-way delay: 159.917 ms
Loss rate: 2.47%
-- Flow 1:
Average throughput: 173.26 Mbit/s
95th percentile per-packet one-way delay: 159.386 ms
Loss rate: 2.12%
-- Flow 2:
Average throughput: 135.90 Mbit/s
95th percentile per-packet one-way delay: 242.693 ms
Loss rate: 3.44%
-- Flow 3:
Average throughput: 88.23 Mbit/s
95th percentile per-packet one-way delay: 94.421 ms
Loss rate: 1.55%
Run 1: Report of Verus — Data Link

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

Throughput (Mbit/s)

- Flow 1 ingress (mean 176.33 Mbit/s)
- Flow 1 egress (mean 173.26 Mbit/s)
- Flow 2 ingress (mean 139.81 Mbit/s)
- Flow 2 egress (mean 135.90 Mbit/s)
- Flow 3 ingress (mean 88.77 Mbit/s)
- Flow 3 egress (mean 88.23 Mbit/s)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 159.39 ms)
- Flow 2 (95th percentile 242.69 ms)
- Flow 3 (95th percentile 94.42 ms)
Run 2: Statistics of Verus

Start at: 2019-10-03 23:21:05
End at: 2019-10-03 23:21:35
Local clock offset: -0.307 ms
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2019-10-04 05:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.14 Mbit/s
95th percentile per-packet one-way delay: 103.042 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 38.18 Mbit/s
95th percentile per-packet one-way delay: 89.186 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 51.13 Mbit/s
95th percentile per-packet one-way delay: 77.307 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 77.68 Mbit/s
95th percentile per-packet one-way delay: 130.257 ms
Loss rate: 0.00%
Run 2: Report of Verus — Data Link

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

- **Flow 1 inge**: (mean 38.47 Mbit/s)
- **Flow 1 egress**: (mean 38.18 Mbit/s)
- **Flow 2 inge**: (mean 48.57 Mbit/s)
- **Flow 2 egress**: (mean 51.13 Mbit/s)
- **Flow 3 inge**: (mean 71.69 Mbit/s)
- **Flow 3 egress**: (mean 77.66 Mbit/s)
Run 3: Statistics of Verus

Start at: 2019-10-04 00:01:19
End at: 2019-10-04 00:01:49
Local clock offset: -0.429 ms
Remote clock offset: -0.187 ms

# Below is generated by plot.py at 2019-10-04 05:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 199.92 Mbit/s
95th percentile per-packet one-way delay: 106.612 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 129.627 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 92.62 Mbit/s
95th percentile per-packet one-way delay: 79.199 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 131.57 Mbit/s
95th percentile per-packet one-way delay: 113.114 ms
Loss rate: 2.61%
Run 3: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress** (mean 96.47 Mbps)
- **Flow 1 egress** (mean 96.37 Mbps)
- **Flow 2 ingress** (mean 92.11 Mbps)
- **Flow 2 egress** (mean 92.62 Mbps)
- **Flow 3 ingress** (mean 131.85 Mbps)
- **Flow 3 egress** (mean 131.57 Mbps)

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

- **Flow 1** (95th percentile 129.63 ms)
- **Flow 2** (95th percentile 79.20 ms)
- **Flow 3** (95th percentile 113.11 ms)
Run 4: Statistics of Verus

Start at: 2019-10-04 00:41:34
End at: 2019-10-04 00:42:04
Local clock offset: 0.025 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2019-10-04 05:39:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 245.21 Mbit/s
  95th percentile per-packet one-way delay: 128.673 ms
  Loss rate: 0.35%
-- Flow 1:
  Average throughput: 166.06 Mbit/s
  95th percentile per-packet one-way delay: 137.133 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 82.52 Mbit/s
  95th percentile per-packet one-way delay: 85.833 ms
  Loss rate: 1.40%
-- Flow 3:
  Average throughput: 75.12 Mbit/s
  95th percentile per-packet one-way delay: 92.515 ms
  Loss rate: 0.00%
Run 4: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]
- Flow 1 ingress (mean 165.41 Mbit/s)
- Flow 1 egress (mean 166.06 Mbit/s)
- Flow 2 ingress (mean 83.22 Mbit/s)
- Flow 2 egress (mean 82.52 Mbit/s)
- Flow 3 ingress (mean 75.12 Mbit/s)
- Flow 3 egress (mean 75.12 Mbit/s)

![Graph 2: Per-packet size vs delay (ms)]
- Flow 1 (95th percentile 137.13 ms)
- Flow 2 (95th percentile 85.83 ms)
- Flow 3 (95th percentile 92.52 ms)
Run 5: Statistics of Verus

Start at: 2019-10-04 01:22:08
End at: 2019-10-04 01:22:38
Local clock offset: -0.14 ms
Remote clock offset: 0.069 ms

# Below is generated by plot.py at 2019-10-04 05:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 170.36 Mbit/s
95th percentile per-packet one-way delay: 175.146 ms
Loss rate: 2.76%
-- Flow 1:
Average throughput: 126.06 Mbit/s
95th percentile per-packet one-way delay: 181.818 ms
Loss rate: 3.69%
-- Flow 2:
Average throughput: 32.87 Mbit/s
95th percentile per-packet one-way delay: 99.929 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.97 Mbit/s
95th percentile per-packet one-way delay: 91.375 ms
Loss rate: 0.00%
Run 5: Report of Verus — Data Link

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

- **Flow 1** (ingress mean 130.15 Mbit/s, egress mean 126.06 Mbit/s)
- **Flow 2** (ingress mean 32.87 Mbit/s, egress mean 32.87 Mbit/s)
- **Flow 3** (ingress mean 69.97 Mbit/s, egress mean 69.97 Mbit/s)

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

- Flow 1 (95th percentile 181.82 ms)
- Flow 2 (95th percentile 99.93 ms)
- Flow 3 (95th percentile 91.38 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2019-10-03 22:39:21
End at: 2019-10-03 22:39:51
Local clock offset: -0.081 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2019-10-04 05:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 424.30 Mbit/s
95th percentile per-packet one-way delay: 77.346 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 262.13 Mbit/s
95th percentile per-packet one-way delay: 90.802 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 221.42 Mbit/s
95th percentile per-packet one-way delay: 63.859 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 46.56 Mbit/s
95th percentile per-packet one-way delay: 61.082 ms
Loss rate: 1.87%
Run 1: Report of PCC-Vivace — Data Link
Run 2: Statistics of PCC-Vivace

Start at: 2019-10-03 23:19:23
End at: 2019-10-03 23:19:53
Local clock offset: -0.474 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2019-10-04 05:40:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 426.88 Mbit/s
95th percentile per-packet one-way delay: 84.002 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 213.26 Mbit/s
95th percentile per-packet one-way delay: 60.774 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 241.84 Mbit/s
95th percentile per-packet one-way delay: 108.289 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 162.18 Mbit/s
95th percentile per-packet one-way delay: 96.457 ms
Loss rate: 1.80%
Run 2: Report of PCC-Vivace — Data Link

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

Start at: 2019-10-03 23:59:36  
End at: 2019-10-04 00:00:06  
Local clock offset: -0.432 ms  
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-10-04 05:40:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 437.56 Mbit/s  
95th percentile per-packet one-way delay: 74.550 ms  
Loss rate: 0.64%
-- Flow 1:
Average throughput: 239.73 Mbit/s  
95th percentile per-packet one-way delay: 82.200 ms  
Loss rate: 0.34%
-- Flow 2:
Average throughput: 221.34 Mbit/s  
95th percentile per-packet one-way delay: 70.140 ms  
Loss rate: 0.74%
-- Flow 3:
Average throughput: 155.76 Mbit/s  
95th percentile per-packet one-way delay: 68.698 ms  
Loss rate: 1.73%
Run 3: Report of PCC-Vivace — Data Link

---

**Graph 1:**
- Title: Throughput vs Time
- X-axis: Time (s)
- Y-axis: Throughput (Mbps)
- Legend:
  - Flow 1 ingress (mean 239.62 Mbps)
  - Flow 1 egress (mean 239.73 Mbps)
  - Flow 2 ingress (mean 221.64 Mbps)
  - Flow 2 egress (mean 221.34 Mbps)
  - Flow 3 ingress (mean 156.61 Mbps)
  - Flow 3 egress (mean 155.76 Mbps)

**Graph 2:**
- Title: Per-packet one-way delay vs Time
- X-axis: Time (s)
- Y-axis: Per-packet one-way delay (ms)
- Legend:
  - Flow 1 (95th percentile 82.20 ms)
  - Flow 2 (95th percentile 70.14 ms)
  - Flow 3 (95th percentile 68.70 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2019-10-04 00:39:53
End at: 2019-10-04 00:40:23
Local clock offset: -0.193 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2019-10-04 05:40:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 389.77 Mbit/s
95th percentile per-packet one-way delay: 67.673 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 231.21 Mbit/s
95th percentile per-packet one-way delay: 78.145 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 209.18 Mbit/s
95th percentile per-packet one-way delay: 60.552 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 60.37 Mbit/s
95th percentile per-packet one-way delay: 61.005 ms
Loss rate: 2.91%
Run 4: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 231.15 Mbps)
Flow 1 egress (mean 231.21 Mbps)
Flow 2 ingress (mean 209.00 Mbps)
Flow 2 egress (mean 209.18 Mbps)
Flow 3 ingress (mean 61.43 Mbps)
Flow 3 egress (mean 60.37 Mbps)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 78.14 ms)
Flow 2 (95th percentile 60.55 ms)
Flow 3 (95th percentile 61.01 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2019-10-04 01:20:24
End at: 2019-10-04 01:20:54
Local clock offset: -0.163 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-10-04 05:41:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 439.92 Mbit/s
95th percentile per-packet one-way delay: 118.873 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 249.46 Mbit/s
95th percentile per-packet one-way delay: 125.699 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 206.87 Mbit/s
95th percentile per-packet one-way delay: 112.330 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 162.24 Mbit/s
95th percentile per-packet one-way delay: 80.276 ms
Loss rate: 1.41%
Run 5: Report of PCC-Vivace — Data Link

![Graph showing data link throughput and delay metrics for different flows.]

- Flow 1 ingress (mean 249.26 Mbit/s)
- Flow 1 egress (mean 249.46 Mbit/s)
- Flow 2 ingress (mean 207.19 Mbit/s)
- Flow 2 egress (mean 206.87 Mbit/s)
- Flow 3 ingress (mean 162.64 Mbit/s)
- Flow 3 egress (mean 162.24 Mbit/s)

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

- Flow 1 (95th percentile 125.70 ms)
- Flow 2 (95th percentile 112.33 ms)
- Flow 3 (95th percentile 80.28 ms)
Run 1: Statistics of WebRTC media

Start at: 2019-10-03 23:11:31
End at: 2019-10-03 23:12:01
Local clock offset: -0.313 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2019-10-04 05:41:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 56.772 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.10 Mbit/s
  95th percentile per-packet one-way delay: 56.793 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 56.731 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 56.695 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

![Graph of WebRTC media data]
Run 2: Statistics of WebRTC media

Start at: 2019-10-03 23:51:42
End at: 2019-10-03 23:52:12
Local clock offset: -0.181 ms
Remote clock offset: -0.208 ms

# Below is generated by plot.py at 2019-10-04 05:41:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 60.353 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 57.164 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 60.365 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 60.382 ms
  Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 0.05 Mbit/s)
- Flow 1 egress (mean 0.05 Mbit/s)
- Flow 2 ingress (mean 0.04 Mbit/s)
- Flow 2 egress (mean 0.06 Mbit/s)
- Flow 3 ingress (mean 0.06 Mbit/s)
- Flow 3 egress (mean 0.06 Mbit/s)

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

- Flow 1 (95th percentile 57.16 ms)
- Flow 2 (95th percentile 60.37 ms)
- Flow 3 (95th percentile 60.38 ms)
Run 3: Statistics of WebRTC media

Start at: 2019-10-04 00:32:01
End at: 2019-10-04 00:32:31
Local clock offset: -0.093 ms
Remote clock offset: 0.332 ms

# Below is generated by plot.py at 2019-10-04 05:41:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 60.029 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 60.073 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 59.780 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 56.876 ms
  Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

[Graph showing throughput and packet delay over time for different flows with annotations for mean values and 95th percentile delay.]
Run 4: Statistics of WebRTC media

Start at: 2019-10-04 01:12:28
End at: 2019-10-04 01:12:58
Local clock offset: 0.144 ms
Remote clock offset: -0.176 ms

# Below is generated by plot.py at 2019-10-04 05:41:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 60.665 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 57.857 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.08 Mbit/s
  95th percentile per-packet one-way delay: 57.350 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 60.728 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2019-10-04 01:52:55
End at: 2019-10-04 01:53:25
Local clock offset: 0.008 ms
Remote clock offset: -0.133 ms

# Below is generated by plot.py at 2019-10-04 05:41:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 60.730 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.787 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 57.474 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 60.563 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

![Graph of WebRTC data link performance](image-url)