Pantheon Report

Generated at 2019-07-12 20:12:25 (UTC).
Data path: GCE London 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 4.15.0-1034-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ 2076e1149a241f3edb4365d686df32342bf9561f
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fc45e12e923f9
third_party/genericCC @ d0153f8e694aa9e93b032143cedbfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0edc6bf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823ada2095537730c746486ca4966
third_party/muses_dtrees @ 8bb93f3fbb107204a92d8b72499f0c55e15f00
third_party/pantheon-tunnel @ f8666df58d27af9d42717625ee3a354cc2e802bd
third_party/pcc @ 1af9c958fa0d66d18b623c091a55f8c8724981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1882733a86b42f1b8143e8c978f3c7f42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3dbb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace  @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc  @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
test from GCE London to GCE Sydney, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
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<td></td>
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<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
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Run 1: Statistics of TCP BBR

Start at: 2019-07-12 14:28:46
End at: 2019-07-12 14:29:16
Local clock offset: 0.1 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2019-07-12 18:00:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 695.70 Mbit/s
  95th percentile per-packet one-way delay: 269.231 ms
  Loss rate: 3.12%
-- Flow 1:
  Average throughput: 377.15 Mbit/s
  95th percentile per-packet one-way delay: 268.952 ms
  Loss rate: 2.32%
-- Flow 2:
  Average throughput: 353.94 Mbit/s
  95th percentile per-packet one-way delay: 273.753 ms
  Loss rate: 3.75%
-- Flow 3:
  Average throughput: 256.88 Mbit/s
  95th percentile per-packet one-way delay: 174.240 ms
  Loss rate: 4.85%
Run 1: Report of TCP BBR — Data Link

![Throughput Graph]

![Delay Graph]
Run 2: Statistics of TCP BBR

Start at: 2019-07-12 15:12:02
End at: 2019-07-12 15:12:32
Local clock offset: -0.097 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2019-07-12 18:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 627.42 Mbit/s
95th percentile per-packet one-way delay: 252.318 ms
Loss rate: 4.20%
-- Flow 1:
Average throughput: 330.10 Mbit/s
95th percentile per-packet one-way delay: 254.315 ms
Loss rate: 3.07%
-- Flow 2:
Average throughput: 340.69 Mbit/s
95th percentile per-packet one-way delay: 262.203 ms
Loss rate: 4.37%
-- Flow 3:
Average throughput: 218.81 Mbit/s
95th percentile per-packet one-way delay: 139.816 ms
Loss rate: 8.59%
Run 2: Report of TCP BBR — Data Link

![Graph of Throughput vs Time and Per Packet Delay vs Time](image)

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Flow 1 ingress (mean 335.41 Mbit/s)  Flow 1 egress (mean 330.10 Mbit/s)
Flow 2 ingress (mean 348.20 Mbit/s)  Flow 2 egress (mean 340.69 Mbit/s)
Flow 3 ingress (mean 226.63 Mbit/s)  Flow 3 egress (mean 218.81 Mbit/s)
Run 3: Statistics of TCP BBR

Start at: 2019-07-12 15:55:26
End at: 2019-07-12 15:55:56
Local clock offset: -0.442 ms
Remote clock offset: -0.171 ms

# Below is generated by plot.py at 2019-07-12 18:00:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 733.23 Mbit/s
95th percentile per-packet one-way delay: 233.076 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 405.80 Mbit/s
95th percentile per-packet one-way delay: 231.040 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 344.99 Mbit/s
95th percentile per-packet one-way delay: 240.561 ms
Loss rate: 2.67%
-- Flow 3:
Average throughput: 302.12 Mbit/s
95th percentile per-packet one-way delay: 216.416 ms
Loss rate: 3.72%
Run 3: Report of TCP BBR — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 407.14 Mbps)
  - Flow 1 egress (mean 405.80 Mbps)
  - Flow 2 ingress (mean 349.72 Mbps)
  - Flow 2 egress (mean 344.99 Mbps)
  - Flow 3 ingress (mean 305.40 Mbps)
  - Flow 3 egress (mean 302.12 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 231.04 ms)
  - Flow 2 (95th percentile 240.56 ms)
  - Flow 3 (95th percentile 216.42 ms)
Run 4: Statistics of TCP BBR

Start at: 2019-07-12 16:39:09
End at: 2019-07-12 16:39:39
Local clock offset: 0.379 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2019-07-12 18:00:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 714.50 Mbit/s
95th percentile per-packet one-way delay: 260.211 ms
Loss rate: 3.37%
-- Flow 1:
Average throughput: 384.10 Mbit/s
95th percentile per-packet one-way delay: 256.344 ms
Loss rate: 2.84%
-- Flow 2:
Average throughput: 388.05 Mbit/s
95th percentile per-packet one-way delay: 268.609 ms
Loss rate: 3.27%
-- Flow 3:
Average throughput: 224.11 Mbit/s
95th percentile per-packet one-way delay: 166.408 ms
Loss rate: 6.38%
Run 4: Report of TCP BBR — Data Link

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

- **Flow 1 Ingress (mean 391.80 Mb/s)**
- **Flow 1 Egress (mean 384.10 Mb/s)**
- **Flow 2 Ingress (mean 395.84 Mb/s)**
- **Flow 2 Egress (mean 388.05 Mb/s)**
- **Flow 3 Ingress (mean 232.99 Mb/s)**
- **Flow 3 Egress (mean 224.11 Mb/s)**

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

- **Flow 1 (95th percentile 256.34 ms)**
- **Flow 2 (95th percentile 268.61 ms)**
- **Flow 3 (95th percentile 166.41 ms)**
Run 5: Statistics of TCP BBR

End at: 2019-07-12 17:22:58
Local clock offset: -0.282 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2019-07-12 18:00:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 654.17 Mbit/s
95th percentile per-packet one-way delay: 263.125 ms
Loss rate: 4.15%
-- Flow 1:
Average throughput: 371.07 Mbit/s
95th percentile per-packet one-way delay: 154.402 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 318.67 Mbit/s
95th percentile per-packet one-way delay: 299.685 ms
Loss rate: 7.31%
-- Flow 3:
Average throughput: 219.96 Mbit/s
95th percentile per-packet one-way delay: 235.858 ms
Loss rate: 6.19%
Run 5: Report of TCP BBR — Data Link

Throughput (Mbps) vs. Time (s)

- Flow 1 ingress (mean 374.62 Mbps)
- Flow 1 egress (mean 371.07 Mbps)
- Flow 2 ingress (mean 339.32 Mbps)
- Flow 2 egress (mean 318.67 Mbps)
- Flow 3 ingress (mean 226.23 Mbps)
- Flow 3 egress (mean 219.96 Mbps)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 154.40 ms)
- Flow 2 (95th percentile 299.69 ms)
- Flow 3 (95th percentile 235.86 ms)
Run 1: Statistics of Copa

Start at: 2019-07-12 13:58:16
End at: 2019-07-12 13:58:46
Local clock offset: -0.054 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2019-07-12 18:03:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 458.87 Mbit/s
95th percentile per-packet one-way delay: 260.178 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 263.57 Mbit/s
95th percentile per-packet one-way delay: 201.992 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 217.72 Mbit/s
95th percentile per-packet one-way delay: 284.656 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 156.08 Mbit/s
95th percentile per-packet one-way delay: 310.564 ms
Loss rate: 2.67%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2019-07-12 14:41:46
End at: 2019-07-12 14:42:16
Local clock offset: -0.075 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2019-07-12 18:03:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 451.67 Mbit/s
  95th percentile per-packet one-way delay: 202.858 ms
  Loss rate: 1.23%
-- Flow 1:
  Average throughput: 254.05 Mbit/s
  95th percentile per-packet one-way delay: 195.982 ms
  Loss rate: 0.82%
-- Flow 2:
  Average throughput: 220.25 Mbit/s
  95th percentile per-packet one-way delay: 193.505 ms
  Loss rate: 1.24%
-- Flow 3:
  Average throughput: 158.10 Mbit/s
  95th percentile per-packet one-way delay: 225.500 ms
  Loss rate: 3.22%
Run 2: Report of Copa — Data Link
Run 3: Statistics of Copa

Start at: 2019-07-12 15:24:37
End at: 2019-07-12 15:25:07
Local clock offset: -0.164 ms
Remote clock offset: -0.148 ms

# Below is generated by plot.py at 2019-07-12 18:04:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 478.46 Mbit/s
  95th percentile per-packet one-way delay: 182.506 ms
  Loss rate: 1.24%
-- Flow 1:
  Average throughput: 272.62 Mbit/s
  95th percentile per-packet one-way delay: 168.787 ms
  Loss rate: 0.61%
-- Flow 2:
  Average throughput: 227.21 Mbit/s
  95th percentile per-packet one-way delay: 222.413 ms
  Loss rate: 1.49%
-- Flow 3:
  Average throughput: 169.25 Mbit/s
  95th percentile per-packet one-way delay: 169.236 ms
  Loss rate: 3.60%
Run 4: Statistics of Copa

Start at: 2019-07-12 16:07:59
End at: 2019-07-12 16:08:29
Local clock offset: -0.083 ms
Remote clock offset: -0.211 ms

# Below is generated by plot.py at 2019-07-12 18:16:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.60 Mbit/s
95th percentile per-packet one-way delay: 182.623 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 257.92 Mbit/s
95th percentile per-packet one-way delay: 198.745 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 249.69 Mbit/s
95th percentile per-packet one-way delay: 160.522 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 135.05 Mbit/s
95th percentile per-packet one-way delay: 141.592 ms
Loss rate: 2.65%
Run 5: Statistics of Copa

Start at: 2019-07-12 16:52:03
End at: 2019-07-12 16:52:34
Local clock offset: -0.059 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2019-07-12 18:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 503.60 Mbit/s
95th percentile per-packet one-way delay: 176.689 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 285.97 Mbit/s
95th percentile per-packet one-way delay: 193.928 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 242.67 Mbit/s
95th percentile per-packet one-way delay: 154.997 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 173.78 Mbit/s
95th percentile per-packet one-way delay: 174.968 ms
Loss rate: 3.65%
Run 5: Report of Copa — Data Link

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

- **Flow 1 ingress (mean 286.34 Mbit/s)**
- **Flow 1 egress (mean 285.97 Mbit/s)**
- **Flow 2 ingress (mean 243.31 Mbit/s)**
- **Flow 2 egress (mean 242.67 Mbit/s)**
- **Flow 3 ingress (mean 175.54 Mbit/s)**
- **Flow 3 egress (mean 173.78 Mbit/s)**
Run 1: Statistics of TCP Cubic

Start at: 2019-07-12 14:14:09
End at: 2019-07-12 14:14:39
Local clock offset: -0.084 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2019-07-12 18:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 691.86 Mbit/s
95th percentile per-packet one-way delay: 180.636 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 371.37 Mbit/s
95th percentile per-packet one-way delay: 178.846 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 358.16 Mbit/s
95th percentile per-packet one-way delay: 189.252 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 254.39 Mbit/s
95th percentile per-packet one-way delay: 154.518 ms
Loss rate: 5.41%
Run 1: Report of TCP Cubic — Data Link

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**Throughput (Mb/s)**

- **Flow 1 ingress** (mean 371.79 Mb/s)
- **Flow 1 egress** (mean 371.37 Mb/s)
- **Flow 2 ingress** (mean 359.76 Mb/s)
- **Flow 2 egress** (mean 358.16 Mb/s)
- **Flow 3 ingress** (mean 261.77 Mb/s)
- **Flow 3 egress** (mean 254.39 Mb/s)

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

- **Flow 1** (95th percentile 178.85 ms)
- **Flow 2** (95th percentile 189.25 ms)
- **Flow 3** (95th percentile 154.52 ms)
Run 2: Statistics of TCP Cubic

Start at: 2019-07-12 14:57:18
End at: 2019-07-12 14:57:48
Local clock offset: -0.062 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2019-07-12 18:17:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 678.86 Mbit/s
  95th percentile per-packet one-way delay: 173.540 ms
  Loss rate: 1.49%
-- Flow 1:
  Average throughput: 366.58 Mbit/s
  95th percentile per-packet one-way delay: 161.419 ms
  Loss rate: 0.76%
-- Flow 2:
  Average throughput: 325.63 Mbit/s
  95th percentile per-packet one-way delay: 167.761 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 295.98 Mbit/s
  95th percentile per-packet one-way delay: 234.927 ms
  Loss rate: 4.30%
Run 2: Report of TCP Cubic — Data Link

![Graph of throughput and round-trip time over time for different flows and data link speeds.]

- Flow 1 ingress (mean 366.11 Mbit/s)
- Flow 1 egress (mean 366.58 Mbit/s)
- Flow 2 ingress (mean 325.92 Mbit/s)
- Flow 2 egress (mean 325.63 Mbit/s)
- Flow 3 ingress (mean 301.03 Mbit/s)
- Flow 3 egress (mean 295.98 Mbit/s)
Run 3: Statistics of TCP Cubic

Start at: 2019-07-12 15:40:42
End at: 2019-07-12 15:41:12
Local clock offset: -0.537 ms
Remote clock offset: -0.17 ms

# Below is generated by plot.py at 2019-07-12 18:17:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 662.67 Mbit/s
95th percentile per-packet one-way delay: 164.585 ms
Loss rate: 1.98%
-- Flow 1:
Average throughput: 329.59 Mbit/s
95th percentile per-packet one-way delay: 138.504 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 357.58 Mbit/s
95th percentile per-packet one-way delay: 155.072 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 293.84 Mbit/s
95th percentile per-packet one-way delay: 205.221 ms
Loss rate: 5.20%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2019-07-12 16:24:00
End at: 2019-07-12 16:24:30
Local clock offset: 0.196 ms
Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2019-07-12 18:17:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 699.46 Mbit/s
95th percentile per-packet one-way delay: 215.916 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 397.60 Mbit/s
95th percentile per-packet one-way delay: 194.684 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 342.21 Mbit/s
95th percentile per-packet one-way delay: 241.490 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 229.73 Mbit/s
95th percentile per-packet one-way delay: 137.353 ms
Loss rate: 5.23%
Run 4: Report of TCP Cubic — Data Link

![Graph showing network performance metrics for TCP Cubic]

- Throughput (Mbps)
- Time (s)
- Delay (ms)

Legend:
- Blue dashed line: Flow 1 ingress (mean 398.14 Mbps)
- Blue solid line: Flow 1 egress (mean 397.60 Mbps)
- Green dashed line: Flow 2 ingress (mean 342.68 Mbps)
- Green solid line: Flow 2 egress (mean 342.21 Mbps)
- Red dashed line: Flow 3 ingress (mean 235.97 Mbps)
- Red solid line: Flow 3 egress (mean 229.73 Mbps)
Run 5: Statistics of TCP Cubic

Start at: 2019-07-12 17:07:40
End at: 2019-07-12 17:08:10
Local clock offset: 0.061 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2019-07-12 18:17:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 676.27 Mbit/s
95th percentile per-packet one-way delay: 203.876 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 337.29 Mbit/s
95th percentile per-packet one-way delay: 194.178 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 387.95 Mbit/s
95th percentile per-packet one-way delay: 185.847 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 250.44 Mbit/s
95th percentile per-packet one-way delay: 269.184 ms
Loss rate: 4.86%
Run 5: Report of TCP Cubic — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 1: Statistics of FillP

Start at: 2019-07-12 14:23:53
End at: 2019-07-12 14:24:23
Local clock offset: -0.412 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2019-07-12 18:17:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 462.49 Mbit/s
95th percentile per-packet one-way delay: 191.860 ms
Loss rate: 2.86%
-- Flow 1:
Average throughput: 176.69 Mbit/s
95th percentile per-packet one-way delay: 208.229 ms
Loss rate: 4.75%
-- Flow 2:
Average throughput: 323.47 Mbit/s
95th percentile per-packet one-way delay: 137.010 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 222.71 Mbit/s
95th percentile per-packet one-way delay: 133.930 ms
Loss rate: 3.07%
Run 1: Report of FillP — Data Link

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

- Flow 1 ingress (mean 183.06 Mbps)
- Flow 1 egress (mean 176.69 Mbps)
- Flow 2 ingress (mean 322.77 Mbps)
- Flow 2 egress (mean 323.47 Mbps)
- Flow 3 ingress (mean 223.07 Mbps)
- Flow 3 egress (mean 222.71 Mbps)

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

- Flow 1 (95th percentile 208.23 ms)
- Flow 2 (95th percentile 137.01 ms)
- Flow 3 (95th percentile 133.93 ms)
Run 2: Statistics of FillP

Start at: 2019-07-12 15:07:07
End at: 2019-07-12 15:07:37
Local clock offset: -0.087 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2019-07-12 18:22:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 421.71 Mbit/s
95th percentile per-packet one-way delay: 137.429 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 133.51 Mbit/s
95th percentile per-packet one-way delay: 139.145 ms
Loss rate: 2.00%
-- Flow 2:
Average throughput: 332.07 Mbit/s
95th percentile per-packet one-way delay: 137.529 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 213.61 Mbit/s
95th percentile per-packet one-way delay: 135.571 ms
Loss rate: 3.09%
Run 2: Report of FillP — Data Link

![Graph 1: Time vs. Throughput (Mbps)]
- Flow 1 Ingress (mean 134.96 Mbps)
- Flow 1 Egress (mean 133.51 Mbps)
- Flow 2 Ingress (mean 332.44 Mbps)
- Flow 2 Egress (mean 332.07 Mbps)
- Flow 3 Ingress (mean 214.75 Mbps)
- Flow 3 Egress (mean 213.61 Mbps)

![Graph 2: Time vs. Packet Delay (ms)]
- Flow 1 (95th percentile 139.15 ms)
- Flow 2 (95th percentile 137.53 ms)
- Flow 3 (95th percentile 135.57 ms)
Run 3: Statistics of FillP

Start at: 2019-07-12 15:50:33
End at: 2019-07-12 15:51:03
Local clock offset: 0.039 ms
Remote clock offset: -0.169 ms

# Below is generated by plot.py at 2019-07-12 18:23:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 455.85 Mbit/s
95th percentile per-packet one-way delay: 167.692 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 142.98 Mbit/s
95th percentile per-packet one-way delay: 195.585 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 352.22 Mbit/s
95th percentile per-packet one-way delay: 139.278 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 246.93 Mbit/s
95th percentile per-packet one-way delay: 137.278 ms
Loss rate: 3.55%
Run 3: Report of FillP — Data Link

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

- Flow 1 ingress (mean 142.27 Mbit/s)
- Flow 1 egress (mean 142.96 Mbit/s)
- Flow 2 ingress (mean 352.81 Mbit/s)
- Flow 2 egress (mean 352.22 Mbit/s)
- Flow 3 ingress (mean 248.73 Mbit/s)
- Flow 3 egress (mean 246.93 Mbit/s)
Run 4: Statistics of FillP

Start at: 2019-07-12 16:33:52
End at: 2019-07-12 16:34:22
Local clock offset: 0.385 ms
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2019-07-12 18:31:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 741.37 Mbit/s
95th percentile per-packet one-way delay: 188.172 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 461.58 Mbit/s
95th percentile per-packet one-way delay: 197.343 ms
Loss rate: 2.21%
-- Flow 2:
Average throughput: 312.25 Mbit/s
95th percentile per-packet one-way delay: 135.874 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 223.81 Mbit/s
95th percentile per-packet one-way delay: 140.115 ms
Loss rate: 3.06%
Run 4: Report of FillP — Data Link

![Graph 1](image1.png)  
Throughput (Mbit/s) vs Time (s)
Flow 1 Ingress (mean 467.85 Mbit/s)  
Flow 1 Egress (mean 461.58 Mbit/s)  
Flow 2 Ingress (mean 312.70 Mbit/s)  
Flow 2 Egress (mean 312.25 Mbit/s)  
Flow 3 Ingress (mean 224.63 Mbit/s)  
Flow 3 Egress (mean 223.81 Mbit/s)

![Graph 2](image2.png)  
Packet one-way delay (ms) vs Time (s)
Flow 1 (95th percentile 197.34 ms)  
Flow 2 (95th percentile 135.87 ms)  
Flow 3 (95th percentile 140.12 ms)
Run 5: Statistics of FillP

Start at: 2019-07-12 17:17:31
End at: 2019-07-12 17:18:01
Local clock offset: -0.281 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2019-07-12 18:31:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 471.15 Mbit/s
95th percentile per-packet one-way delay: 143.679 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 190.15 Mbit/s
95th percentile per-packet one-way delay: 146.429 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 310.40 Mbit/s
95th percentile per-packet one-way delay: 134.778 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 234.16 Mbit/s
95th percentile per-packet one-way delay: 138.459 ms
Loss rate: 3.08%
Run 5: Report of FillP — Data Link

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

Legend:
- Flow 1 ingress (mean 188.63 Mb/s)
- Flow 1 egress (mean 190.15 Mb/s)
- Flow 2 ingress (mean 309.99 Mb/s)
- Flow 2 egress (mean 310.40 Mb/s)
- Flow 3 ingress (mean 235.09 Mb/s)
- Flow 3 egress (mean 234.16 Mb/s)

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

Legend:
- Flow 1 (95th percentile 146.43 ms)
- Flow 2 (95th percentile 134.78 ms)
- Flow 3 (95th percentile 138.46 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2019-07-12 14:10:26
End at: 2019-07-12 14:10:56
Local clock offset: 0.12 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2019-07-12 18:32:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 730.80 Mbit/s
  95th percentile per-packet one-way delay: 168.837 ms
  Loss rate: 1.25%
-- Flow 1:
  Average throughput: 442.28 Mbit/s
  95th percentile per-packet one-way delay: 174.624 ms
  Loss rate: 0.85%
-- Flow 2:
  Average throughput: 327.65 Mbit/s
  95th percentile per-packet one-way delay: 140.378 ms
  Loss rate: 1.30%
-- Flow 3:
  Average throughput: 220.81 Mbit/s
  95th percentile per-packet one-way delay: 140.115 ms
  Loss rate: 3.45%
Run 1: Report of FillP-Sheep — Data Link

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

- **Flow 1 Ingress (mean 441.83 Mbit/s)**
- **Flow 1 Egress (mean 442.28 Mbit/s)**
- **Flow 2 Ingress (mean 327.39 Mbit/s)**
- **Flow 2 Egress (mean 327.65 Mbit/s)**
- **Flow 3 Ingress (mean 222.96 Mbit/s)**
- **Flow 3 Egress (mean 220.81 Mbit/s)**
Run 2: Statistics of FillP-Sheep

Start at: 2019-07-12 14:53:53
End at: 2019-07-12 14:54:23
Local clock offset: -0.101 ms
Remote clock offset: 0.335 ms

# Below is generated by plot.py at 2019-07-12 18:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.89 Mbit/s
95th percentile per-packet one-way delay: 133.399 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 43.65 Mbit/s
95th percentile per-packet one-way delay: 139.382 ms
Loss rate: 2.66%
-- Flow 2:
Average throughput: 274.61 Mbit/s
95th percentile per-packet one-way delay: 132.901 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 216.21 Mbit/s
95th percentile per-packet one-way delay: 132.327 ms
Loss rate: 2.88%
Run 2: Report of FillP-Sheep — Data Link
Run 3: Statistics of FillP-Sheep

Start at: 2019-07-12 15:36:55
End at: 2019-07-12 15:37:25
Local clock offset: 0.076 ms
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2019-07-12 18:32:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 690.74 Mbit/s
  95th percentile per-packet one-way delay: 154.811 ms
  Loss rate: 1.14%
-- Flow 1:
  Average throughput: 425.02 Mbit/s
  95th percentile per-packet one-way delay: 170.162 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 297.22 Mbit/s
  95th percentile per-packet one-way delay: 135.398 ms
  Loss rate: 1.14%
-- Flow 3:
  Average throughput: 210.77 Mbit/s
  95th percentile per-packet one-way delay: 134.448 ms
  Loss rate: 3.43%
Run 3: Report of FillP-Sheep — Data Link
Run 4: Statistics of FillP-Sheep

Start at: 2019-07-12 16:20:19
End at: 2019-07-12 16:20:49
Local clock offset: 0.375 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2019-07-12 18:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 476.10 Mbit/s
95th percentile per-packet one-way delay: 159.925 ms
Loss rate: 3.17%
-- Flow 1:
Average throughput: 198.47 Mbit/s
95th percentile per-packet one-way delay: 173.220 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 323.91 Mbit/s
95th percentile per-packet one-way delay: 138.811 ms
Loss rate: 3.56%
-- Flow 3:
Average throughput: 209.26 Mbit/s
95th percentile per-packet one-way delay: 135.896 ms
Loss rate: 9.16%
Run 4: Report of FillP-Sheep — Data Link
Run 5: Statistics of FillP-Sheep

Start at: 2019-07-12 17:04:20
End at: 2019-07-12 17:04:50
Local clock offset: -0.278 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2019-07-12 18:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.75 Mbit/s
95th percentile per-packet one-way delay: 138.938 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 86.95 Mbit/s
95th percentile per-packet one-way delay: 146.271 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 306.45 Mbit/s
95th percentile per-packet one-way delay: 136.719 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 227.08 Mbit/s
95th percentile per-packet one-way delay: 136.490 ms
Loss rate: 3.58%
Run 5: Report of FillP-Sheep — Data Link

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

Throughput (Mbps/s) vs. Time (s)

- **Flow 1 Ingress** (mean 86.32 Mbps/s)
- **Flow 1 Egress** (mean 86.95 Mbps/s)
- **Flow 2 Ingress** (mean 306.43 Mbps/s)
- **Flow 2 Egress** (mean 306.45 Mbps/s)
- **Flow 3 Ingress** (mean 229.33 Mbps/s)
- **Flow 3 Egress** (mean 227.08 Mbps/s)

RTT (ms) vs. Time (s)

- **Flow 1 (95th percentile 146.27 ms)**
- **Flow 2 (95th percentile 136.72 ms)**
- **Flow 3 (95th percentile 136.49 ms)**
Run 1: Statistics of Indigo

Start at: 2019-07-12 14:16:11
End at: 2019-07-12 14:16:41
Local clock offset: -0.266 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2019-07-12 18:33:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 302.46 Mbit/s
  95th percentile per-packet one-way delay: 136.091 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 151.86 Mbit/s
  95th percentile per-packet one-way delay: 135.336 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 167.05 Mbit/s
  95th percentile per-packet one-way delay: 136.919 ms
  Loss rate: 1.28%
-- Flow 3:
  Average throughput: 112.07 Mbit/s
  95th percentile per-packet one-way delay: 137.378 ms
  Loss rate: 3.43%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

Start at: 2019-07-12 14:59:20
End at: 2019-07-12 14:59:50
Local clock offset: 0.286 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2019-07-12 18:35:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 307.21 Mbit/s
95th percentile per-packet one-way delay: 136.908 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 168.82 Mbit/s
95th percentile per-packet one-way delay: 136.383 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 154.80 Mbit/s
95th percentile per-packet one-way delay: 139.446 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 112.31 Mbit/s
95th percentile per-packet one-way delay: 135.698 ms
Loss rate: 3.44%
Run 2: Report of Indigo — Data Link

![Graph 1](Image 1)

![Graph 2](Image 2)
Run 3: Statistics of Indigo

Start at: 2019-07-12 15:42:42
End at: 2019-07-12 15:43:13
Local clock offset: -0.361 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2019-07-12 18:37:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 303.38 Mbit/s
95th percentile per-packet one-way delay: 135.219 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 170.01 Mbit/s
95th percentile per-packet one-way delay: 135.700 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 128.53 Mbit/s
95th percentile per-packet one-way delay: 135.184 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 150.48 Mbit/s
95th percentile per-packet one-way delay: 133.631 ms
Loss rate: 3.13%
Run 3: Report of Indigo — Data Link

![Throughput Graph]

![Per-packet Delay Graph]
Run 4: Statistics of Indigo

Start at: 2019-07-12 16:26:03
End at: 2019-07-12 16:26:33
Local clock offset: -0.227 ms
Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2019-07-12 18:40:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 339.39 Mbit/s
  95th percentile per-packet one-way delay: 137.247 ms
  Loss rate: 1.39%
-- Flow 1:
  Average throughput: 173.40 Mbit/s
  95th percentile per-packet one-way delay: 135.592 ms
  Loss rate: 0.86%
-- Flow 2:
  Average throughput: 173.63 Mbit/s
  95th percentile per-packet one-way delay: 137.280 ms
  Loss rate: 1.27%
-- Flow 3:
  Average throughput: 149.87 Mbit/s
  95th percentile per-packet one-way delay: 142.190 ms
  Loss rate: 3.49%
Run 4: Report of Indigo — Data Link

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

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

Legend:
- Flow 1 Ingress (mean 173.30 Mbps)
- Flow 1 Egress (mean 173.40 Mbps)
- Flow 2 Ingress (mean 173.52 Mbps)
- Flow 2 Egress (mean 173.63 Mbps)
- Flow 3 Ingress (mean 151.04 Mbps)
- Flow 3 Egress (mean 149.87 Mbps)

Legend:
- Flow 1 (95th percentile 135.59 ms)
- Flow 2 (95th percentile 137.28 ms)
- Flow 3 (95th percentile 142.19 ms)
Run 5: Statistics of Indigo

Start at: 2019-07-12 17:09:42
End at: 2019-07-12 17:10:12
Local clock offset: ~0.22 ms
Remote clock offset: ~0.079 ms

# Below is generated by plot.py at 2019-07-12 18:41:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 292.86 Mbit/s
95th percentile per-packet one-way delay: 137.598 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 159.85 Mbit/s
95th percentile per-packet one-way delay: 136.525 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 125.06 Mbit/s
95th percentile per-packet one-way delay: 138.650 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 158.91 Mbit/s
95th percentile per-packet one-way delay: 141.070 ms
Loss rate: 3.27%
Run 5: Report of Indigo — Data Link
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-07-12 14:19:55
End at: 2019-07-12 14:20:25
Local clock offset: 0.117 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2019-07-12 18:43:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 678.73 Mbit/s
95th percentile per-packet one-way delay: 178.123 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 411.59 Mbit/s
95th percentile per-packet one-way delay: 197.760 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 334.29 Mbit/s
95th percentile per-packet one-way delay: 145.137 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 228.61 Mbit/s
95th percentile per-packet one-way delay: 137.332 ms
Loss rate: 6.16%
Run 1: Report of Indigo-MusesC3 — Data Link

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

- Flow 1 ingress (mean 410.99 Mbit/s)
- Flow 1 egress (mean 411.59 Mbit/s)
- Flow 2 ingress (mean 333.29 Mbit/s)
- Flow 2 egress (mean 334.89 Mbit/s)
- Flow 3 ingress (mean 233.96 Mbit/s)
- Flow 3 egress (mean 228.61 Mbit/s)

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

- Flow 1 (95th percentile 197.76 ms)
- Flow 2 (95th percentile 145.14 ms)
- Flow 3 (95th percentile 137.33 ms)
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-07-12 15:03:03
End at: 2019-07-12 15:03:33
Local clock offset: -0.522 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2019-07-12 18:44:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 655.00 Mbit/s
95th percentile per-packet one-way delay: 161.238 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 394.37 Mbit/s
95th percentile per-packet one-way delay: 171.736 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 324.85 Mbit/s
95th percentile per-packet one-way delay: 139.057 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 224.17 Mbit/s
95th percentile per-packet one-way delay: 136.598 ms
Loss rate: 4.79%
Run 2: Report of Indigo-MusesC3 — Data Link
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-07-12 15:46:28
End at: 2019-07-12 15:46:58
Local clock offset: -0.09 ms
Remote clock offset: -0.156 ms

# Below is generated by plot.py at 2019-07-12 18:45:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 687.69 Mbit/s
95th percentile per-packet one-way delay: 181.036 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 409.77 Mbit/s
95th percentile per-packet one-way delay: 211.390 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 347.42 Mbit/s
95th percentile per-packet one-way delay: 166.650 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 233.19 Mbit/s
95th percentile per-packet one-way delay: 136.113 ms
Loss rate: 5.45%
Run 3: Report of Indigo-MusesC3 — Data Link

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

**Throughput (Mbit/s)**
- **Flow 1 ingress** (mean 410.13 Mbit/s)
- **Flow 1 egress** (mean 409.77 Mbit/s)
- **Flow 2 ingress** (mean 347.01 Mbit/s)
- **Flow 2 egress** (mean 347.42 Mbit/s)
- **Flow 3 ingress** (mean 237.37 Mbit/s)
- **Flow 3 egress** (mean 233.39 Mbit/s)

**Per-packet one-way delay (ms)**
- **Flow 1** (95th percentile 211.39 ms)
- **Flow 2** (95th percentile 166.65 ms)
- **Flow 3** (95th percentile 136.11 ms)
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-07-12 16:29:53
End at: 2019-07-12 16:30:23
Local clock offset: -0.039 ms
Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2019-07-12 18:46:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 702.27 Mbit/s
95th percentile per-packet one-way delay: 199.145 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 422.29 Mbit/s
95th percentile per-packet one-way delay: 220.208 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 354.00 Mbit/s
95th percentile per-packet one-way delay: 145.977 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 221.89 Mbit/s
95th percentile per-packet one-way delay: 140.517 ms
Loss rate: 4.53%
Run 4: Report of Indigo-MusesC3 — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows.
throughput_graph_labels=
- Flow 1 ingress (mean 421.85 Mbit/s)
- Flow 1 egress (mean 422.29 Mbit/s)
- Flow 2 ingress (mean 353.00 Mbit/s)
- Flow 2 egress (mean 354.00 Mbit/s)
- Flow 3 ingress (mean 223.69 Mbit/s)
- Flow 3 egress (mean 221.89 Mbit/s)

per_packet_delay_graph_labels=
- Flow 1 (95th percentile 220.21 ms)
- Flow 2 (95th percentile 145.98 ms)
- Flow 3 (95th percentile 140.52 ms)
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-07-12 17:13:26
End at: 2019-07-12 17:13:56
Local clock offset: 0.015 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2019-07-12 18:48:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 696.53 Mbit/s
  95th percentile per-packet one-way delay: 169.844 ms
  Loss rate: 1.03%
-- Flow 1:
  Average throughput: 413.51 Mbit/s
  95th percentile per-packet one-way delay: 169.293 ms
  Loss rate: 0.66%
-- Flow 2:
  Average throughput: 346.80 Mbit/s
  95th percentile per-packet one-way delay: 179.124 ms
  Loss rate: 0.75%
-- Flow 3:
  Average throughput: 242.62 Mbit/s
  95th percentile per-packet one-way delay: 136.302 ms
  Loss rate: 4.31%
Run 5: Report of Indigo-MusesC3 — Data Link
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-07-12 14:18:03
End at: 2019-07-12 14:18:33
Local clock offset: -0.489 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2019-07-12 18:48:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 558.19 Mbit/s
95th percentile per-packet one-way delay: 210.840 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 325.24 Mbit/s
95th percentile per-packet one-way delay: 222.715 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 333.70 Mbit/s
95th percentile per-packet one-way delay: 149.056 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 83.28 Mbit/s
95th percentile per-packet one-way delay: 133.040 ms
Loss rate: 5.10%
Run 1: Report of Indigo-MusesC5 — Data Link
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-07-12 15:01:15
End at: 2019-07-12 15:01:45
Local clock offset: -0.107 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2019-07-12 18:49:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 499.13 Mbit/s
95th percentile per-packet one-way delay: 165.370 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 307.75 Mbit/s
95th percentile per-packet one-way delay: 174.280 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 268.20 Mbit/s
95th percentile per-packet one-way delay: 144.903 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 88.34 Mbit/s
95th percentile per-packet one-way delay: 133.201 ms
Loss rate: 4.72%
Run 2: Report of Indigo-MusesC5 — Data Link
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-07-12 15:44:37
End at: 2019-07-12 15:45:07
Local clock offset: 0.325 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2019-07-12 18:51:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 541.92 Mbit/s
  95th percentile per-packet one-way delay: 151.470 ms
  Loss rate: 1.31%
-- Flow 1:
  Average throughput: 318.25 Mbit/s
  95th percentile per-packet one-way delay: 153.518 ms
  Loss rate: 0.62%
-- Flow 2:
  Average throughput: 319.57 Mbit/s
  95th percentile per-packet one-way delay: 145.523 ms
  Loss rate: 1.91%
-- Flow 3:
  Average throughput: 83.96 Mbit/s
  95th percentile per-packet one-way delay: 134.457 ms
  Loss rate: 5.62%
Run 3: Report of Indigo-MusesC5 — Data Link

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

- Flow 1 ingress (mean 317.21 Mbit/s)
- Flow 1 egress (mean 318.25 Mbit/s)
- Flow 2 ingress (mean 320.46 Mbit/s)
- Flow 2 egress (mean 319.57 Mbit/s)
- Flow 3 ingress (mean 85.73 Mbit/s)
- Flow 3 egress (mean 83.96 Mbit/s)

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

- Flow 1 (95th percentile 153.52 ms)
- Flow 2 (95th percentile 145.52 ms)
- Flow 3 (95th percentile 134.46 ms)
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-07-12 16:28:00
End at: 2019-07-12 16:28:30
Local clock offset: 0.341 ms
Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2019-07-12 18:54:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 564.78 Mbit/s
95th percentile per-packet one-way delay: 213.598 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 316.36 Mbit/s
95th percentile per-packet one-way delay: 224.070 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 300.80 Mbit/s
95th percentile per-packet one-way delay: 154.530 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 225.67 Mbit/s
95th percentile per-packet one-way delay: 138.333 ms
Loss rate: 6.50%
Run 4: Report of Indigo-MusesC5 — Data Link
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-07-12 17:11:36
End at: 2019-07-12 17:12:06
Local clock offset: 0.44 ms
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2019-07-12 18:54:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 525.23 Mbit/s
95th percentile per-packet one-way delay: 222.033 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 305.56 Mbit/s
95th percentile per-packet one-way delay: 217.593 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 310.15 Mbit/s
95th percentile per-packet one-way delay: 231.562 ms
Loss rate: 2.25%
-- Flow 3:
Average throughput: 90.43 Mbit/s
95th percentile per-packet one-way delay: 134.286 ms
Loss rate: 5.45%
Run 5: Report of Indigo-MusesC5 — Data Link

![Graphs showing throughput and packet error delay](image-url)
Run 1: Statistics of Indigo-MusesD

Start at: 2019-07-12 14:08:33
End at: 2019-07-12 14:09:03
Local clock offset: -0.32 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2019-07-12 18:56:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 598.68 Mbit/s
  95th percentile per-packet one-way delay: 195.415 ms
  Loss rate: 1.27%
-- Flow 1:
  Average throughput: 396.28 Mbit/s
  95th percentile per-packet one-way delay: 209.512 ms
  Loss rate: 0.85%
-- Flow 2:
  Average throughput: 286.23 Mbit/s
  95th percentile per-packet one-way delay: 136.715 ms
  Loss rate: 1.77%
-- Flow 3:
  Average throughput: 78.83 Mbit/s
  95th percentile per-packet one-way delay: 133.606 ms
  Loss rate: 4.97%
Run 1: Report of Indigo-MusesD — Data Link

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

Throughput (Mb/s)

Time (s)

Packet per-packet one-way delay (ms)

Flow 1 ingress (mean 395.88 Mb/s)  Flow 1 egress (mean 396.28 Mb/s)
Flow 2 ingress (mean 287.11 Mb/s)  Flow 2 egress (mean 286.23 Mb/s)
Flow 3 ingress (mean 79.79 Mb/s)  Flow 3 egress (mean 78.83 Mb/s)
Run 2: Statistics of Indigo-MusesD

Start at: 2019-07-12 14:52:02
End at: 2019-07-12 14:52:32
Local clock offset: -0.061 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2019-07-12 18:57:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 554.02 Mbit/s
95th percentile per-packet one-way delay: 144.788 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 349.91 Mbit/s
95th percentile per-packet one-way delay: 147.456 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 288.84 Mbit/s
95th percentile per-packet one-way delay: 143.332 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 82.58 Mbit/s
95th percentile per-packet one-way delay: 133.607 ms
Loss rate: 5.48%
Run 2: Report of Indigo-MusesD — Data Link
Run 3: Statistics of Indigo-MusesD

Start at: 2019-07-12 15:35:03
End at: 2019-07-12 15:35:33
Local clock offset: 0.224 ms
Remote clock offset: -0.123 ms

# Below is generated by plot.py at 2019-07-12 18:58:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 566.29 Mbit/s
95th percentile per-packet one-way delay: 155.113 ms
Loss rate: 1.60%

-- Flow 1:
Average throughput: 366.25 Mbit/s
95th percentile per-packet one-way delay: 173.969 ms
Loss rate: 1.31%

-- Flow 2:
Average throughput: 288.39 Mbit/s
95th percentile per-packet one-way delay: 143.549 ms
Loss rate: 1.75%

-- Flow 3:
Average throughput: 69.22 Mbit/s
95th percentile per-packet one-way delay: 133.750 ms
Loss rate: 5.90%
Run 3: Report of Indigo-MusesD — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 367.61 Mbps)
  - Flow 1 egress (mean 366.25 Mbps)
  - Flow 2 ingress (mean 289.28 Mbps)
  - Flow 2 egress (mean 288.39 Mbps)
  - Flow 3 ingress (mean 70.79 Mbps)
  - Flow 3 egress (mean 69.22 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 173.97 ms)
  - Flow 2 (95th percentile 143.55 ms)
  - Flow 3 (95th percentile 133.75 ms)
Run 4: Statistics of Indigo-MusesD

Start at: 2019-07-12 16:18:26
End at: 2019-07-12 16:18:56
Local clock offset: 0.16 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2019-07-12 18:59:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 570.79 Mbit/s
95th percentile per-packet one-way delay: 158.794 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 376.21 Mbit/s
95th percentile per-packet one-way delay: 161.069 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 273.80 Mbit/s
95th percentile per-packet one-way delay: 155.145 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 85.21 Mbit/s
95th percentile per-packet one-way delay: 134.784 ms
Loss rate: 5.12%
Run 5: Statistics of Indigo-MusesD

Start at: 2019-07-12 17:02:26
End at: 2019-07-12 17:02:56
Local clock offset: -0.453 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2019-07-12 19:01:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 597.71 Mbit/s
95th percentile per-packet one-way delay: 141.435 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 379.15 Mbit/s
95th percentile per-packet one-way delay: 140.430 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 312.26 Mbit/s
95th percentile per-packet one-way delay: 144.805 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 77.45 Mbit/s
95th percentile per-packet one-way delay: 132.873 ms
Loss rate: 5.06%
Run 5: Report of Indigo-MusesD — Data Link

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

- Flow 1 ingress (mean 379.78 Mbit/s)
- Flow 1 egress (mean 379.13 Mbit/s)
- Flow 2 ingress (mean 312.41 Mbit/s)
- Flow 2 egress (mean 312.26 Mbit/s)
- Flow 3 ingress (mean 78.67 Mbit/s)
- Flow 3 egress (mean 77.45 Mbit/s)

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

- Flow 1 (95th percentile 140.43 ms)
- Flow 2 (95th percentile 144.81 ms)
- Flow 3 (95th percentile 132.87 ms)

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Run 1: Statistics of Indigo-MusesT

Start at: 2019-07-12 14:01:44
End at: 2019-07-12 14:02:14
Local clock offset: 0.145 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2019-07-12 19:05:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 740.58 Mbit/s
  95th percentile per-packet one-way delay: 216.441 ms
  Loss rate: 1.80%
-- Flow 1:
  Average throughput: 461.46 Mbit/s
  95th percentile per-packet one-way delay: 225.008 ms
  Loss rate: 1.23%
-- Flow 2:
  Average throughput: 368.45 Mbit/s
  95th percentile per-packet one-way delay: 148.817 ms
  Loss rate: 2.11%
-- Flow 3:
  Average throughput: 198.02 Mbit/s
  95th percentile per-packet one-way delay: 140.119 ms
  Loss rate: 5.77%
Run 1: Report of Indigo-MusesT — Data Link

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

- Flow 1 ingress (mean 462.73 Mbit/s)
- Flow 1 egress (mean 461.46 Mbit/s)
- Flow 2 ingress (mean 370.76 Mbit/s)
- Flow 2 egress (mean 368.45 Mbit/s)
- Flow 3 ingress (mean 201.84 Mbit/s)
- Flow 3 egress (mean 196.02 Mbit/s)
Run 2: Statistics of Indigo-MusesT

Start at: 2019-07-12 14:45:13
End at: 2019-07-12 14:45:43
Local clock offset: -0.083 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2019-07-12 19:05:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 650.78 Mbit/s
95th percentile per-packet one-way delay: 190.792 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 419.94 Mbit/s
95th percentile per-packet one-way delay: 196.115 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 331.05 Mbit/s
95th percentile per-packet one-way delay: 155.459 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 84.38 Mbit/s
95th percentile per-packet one-way delay: 133.571 ms
Loss rate: 5.28%
Run 2: Report of Indigo-MusesT — Data Link
Run 3: Statistics of Indigo-MusesT

Start at: 2019-07-12 15:28:09
End at: 2019-07-12 15:28:39
Local clock offset: -0.438 ms
Remote clock offset: -0.142 ms

# Below is generated by plot.py at 2019-07-12 19:07:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 718.51 Mbit/s
  95th percentile per-packet one-way delay: 199.145 ms
  Loss rate: 0.95%
-- Flow 1:
  Average throughput: 459.01 Mbit/s
  95th percentile per-packet one-way delay: 207.824 ms
  Loss rate: 0.60%
-- Flow 2:
  Average throughput: 375.79 Mbit/s
  95th percentile per-packet one-way delay: 163.632 ms
  Loss rate: 1.20%
-- Flow 3:
  Average throughput: 89.37 Mbit/s
  95th percentile per-packet one-way delay: 133.100 ms
  Loss rate: 5.15%
Run 3: Report of Indigo-MusesT — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 457.40 Mbit/s)
Flow 1 egress (mean 459.01 Mbit/s)
Flow 2 ingress (mean 374.65 Mbit/s)
Flow 2 egress (mean 375.79 Mbit/s)
Flow 3 ingress (mean 90.83 Mbit/s)
Flow 3 egress (mean 89.37 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 207.82 ms)
Flow 2 (95th percentile 163.63 ms)
Flow 3 (95th percentile 133.10 ms)
Run 4: Statistics of Indigo-MusesT

Start at: 2019-07-12 16:11:29
End at: 2019-07-12 16:11:59
Local clock offset: -0.306 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2019-07-12 19:09:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 732.45 Mbit/s
  95th percentile per-packet one-way delay: 203.458 ms
  Loss rate: 1.30%
-- Flow 1:
  Average throughput: 463.69 Mbit/s
  95th percentile per-packet one-way delay: 212.780 ms
  Loss rate: 0.96%
-- Flow 2:
  Average throughput: 384.74 Mbit/s
  95th percentile per-packet one-way delay: 141.971 ms
  Loss rate: 1.59%
-- Flow 3:
  Average throughput: 89.03 Mbit/s
  95th percentile per-packet one-way delay: 133.500 ms
  Loss rate: 4.96%
Run 4: Report of Indigo-MusesT — Data Link
Run 5: Statistics of Indigo-MusesT

Start at: 2019-07-12 16:55:36
End at: 2019-07-12 16:56:07
Local clock offset: 0.398 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2019-07-12 19:10:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 720.93 Mbit/s
95th percentile per-packet one-way delay: 210.959 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 463.77 Mbit/s
95th percentile per-packet one-way delay: 218.573 ms
Loss rate: 1.41%
-- Flow 2:
Average throughput: 367.76 Mbit/s
95th percentile per-packet one-way delay: 167.039 ms
Loss rate: 2.12%
-- Flow 3:
Average throughput: 91.14 Mbit/s
95th percentile per-packet one-way delay: 133.913 ms
Loss rate: 4.89%
Run 5: Report of Indigo-MusesT — Data Link

![Graph 1: Throughput vs Time]

- Flow 1 ingress (mean 466.39 Mbit/s)
- Flow 1 egress (mean 463.77 Mbit/s)
- Flow 2 ingress (mean 370.29 Mbit/s)
- Flow 2 egress (mean 367.76 Mbit/s)
- Flow 3 ingress (mean 92.32 Mbit/s)
- Flow 3 egress (mean 91.14 Mbit/s)

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

- Flow 1 95th percentile 218.57 ms
- Flow 2 95th percentile 167.04 ms
- Flow 3 95th percentile 133.91 ms
Run 1: Statistics of LEDBAT

Start at: 2019-07-12 14:32:49
End at: 2019-07-12 14:33:19
Local clock offset: 0.196 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2019-07-12 19:10:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.99 Mbit/s
95th percentile per-packet one-way delay: 134.400 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 5.23 Mbit/s
95th percentile per-packet one-way delay: 134.581 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 3.41 Mbit/s
95th percentile per-packet one-way delay: 133.894 ms
Loss rate: 2.71%
-- Flow 3:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 134.123 ms
Loss rate: 5.48%
Run 1: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 5.27 Mbit/s)
- Flow 1 egress (mean 5.23 Mbit/s)
- Flow 2 ingress (mean 3.46 Mbit/s)
- Flow 2 egress (mean 3.41 Mbit/s)
- Flow 3 ingress (mean 1.66 Mbit/s)
- Flow 3 egress (mean 1.62 Mbit/s)
Run 2: Statistics of LEDBAT

Start at: 2019-07-12 15:16:00
End at: 2019-07-12 15:16:30
Local clock offset: -0.006 ms
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2019-07-12 19:10:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.08 Mbit/s
95th percentile per-packet one-way delay: 133.383 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 133.489 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 3.49 Mbit/s
95th percentile per-packet one-way delay: 133.039 ms
Loss rate: 2.66%
-- Flow 3:
Average throughput: 1.67 Mbit/s
95th percentile per-packet one-way delay: 133.134 ms
Loss rate: 5.40%
Run 3: Statistics of LEDBAT

Start at: 2019-07-12 15:59:33
End at: 2019-07-12 16:00:03
Local clock offset: -0.084 ms
Remote clock offset: -0.145 ms

# Below is generated by plot.py at 2019-07-12 19:10:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 133.523 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.26 Mbit/s
95th percentile per-packet one-way delay: 133.259 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 133.173 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 136.356 ms
Loss rate: 5.37%
Run 3: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 5.31 Mbit/s)
- Flow 1 egress (mean 5.26 Mbit/s)
- Flow 2 ingress (mean 3.46 Mbit/s)
- Flow 2 egress (mean 3.43 Mbit/s)
- Flow 3 ingress (mean 1.70 Mbit/s)
- Flow 3 egress (mean 1.65 Mbit/s)

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

- Flow 1 (95th percentile 133.26 ms)
- Flow 2 (95th percentile 133.17 ms)
- Flow 3 (95th percentile 136.36 ms)
Run 4: Statistics of LEDBAT

Start at: 2019-07-12 16:43:18
End at: 2019-07-12 16:43:48
Local clock offset: -0.026 ms
Remote clock offset: 0.065 ms

# Below is generated by plot.py at 2019-07-12 19:10:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 8.08 Mbit/s
  95th percentile per-packet one-way delay: 134.013 ms
  Loss rate: 2.29%
-- Flow 1:
  Average throughput: 5.23 Mbit/s
  95th percentile per-packet one-way delay: 134.113 ms
  Loss rate: 1.78%
-- Flow 2:
  Average throughput: 3.49 Mbit/s
  95th percentile per-packet one-way delay: 133.055 ms
  Loss rate: 2.66%
-- Flow 3:
  Average throughput: 1.66 Mbit/s
  95th percentile per-packet one-way delay: 133.855 ms
  Loss rate: 5.42%
Run 4: Report of LEDBAT — Data Link

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

- **Throughput (Mb/s):**
  - Flow 1 ingress (mean 5.28 Mb/s)
  - Flow 1 egress (mean 5.23 Mb/s)
  - Flow 2 ingress (mean 3.34 Mb/s)
  - Flow 2 egress (mean 3.49 Mb/s)
  - Flow 3 ingress (mean 1.71 Mb/s)
  - Flow 3 egress (mean 1.66 Mb/s)

- **One-way delay (ms):**
  - Flow 1 (95th percentile 134.11 ms)
  - Flow 2 (95th percentile 133.06 ms)
  - Flow 3 (95th percentile 133.85 ms)
Run 5: Statistics of LEDBAT

Start at: 2019-07-12 17:26:31
End at: 2019-07-12 17:27:01
Local clock offset: -0.52 ms
Remote clock offset: 0.04 ms

# Below is generated by plot.py at 2019-07-12 19:10:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.05 Mbit/s
95th percentile per-packet one-way delay: 133.278 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 133.386 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 133.129 ms
Loss rate: 2.67%
-- Flow 3:
Average throughput: 1.67 Mbit/s
95th percentile per-packet one-way delay: 133.079 ms
Loss rate: 5.41%
Run 5: Report of LEDBAT — Data Link
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 13:56:20
End at: 2019-07-12 13:56:50
Local clock offset: 0.204 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2019-07-12 19:11:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 611.72 Mbit/s
95th percentile per-packet one-way delay: 154.260 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 366.19 Mbit/s
95th percentile per-packet one-way delay: 160.691 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 299.80 Mbit/s
95th percentile per-packet one-way delay: 134.047 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 159.69 Mbit/s
95th percentile per-packet one-way delay: 135.171 ms
Loss rate: 5.12%
Run 1: Report of MusesDecisionTree — Data Link
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 14:39:49
End at: 2019-07-12 14:40:19
Local clock offset: -0.052 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2019-07-12 19:11:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 619.41 Mbit/s
  95th percentile per-packet one-way delay: 144.258 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 372.02 Mbit/s
  95th percentile per-packet one-way delay: 147.607 ms
  Loss rate: 0.78%
-- Flow 2:
  Average throughput: 279.40 Mbit/s
  95th percentile per-packet one-way delay: 135.329 ms
  Loss rate: 1.32%
-- Flow 3:
  Average throughput: 205.73 Mbit/s
  95th percentile per-packet one-way delay: 141.090 ms
  Loss rate: 4.80%
Run 2: Report of Muses: DecisionTree — Data Link

![Graph 1: Throughput (Mbps)]

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

Flow 1 ingress (mean 371.60 Mbps)  Flow 1 egress (mean 372.02 Mbps)
Flow 2 ingress (mean 279.26 Mbps)  Flow 2 egress (mean 279.40 Mbps)
Flow 3 ingress (mean 209.99 Mbps)  Flow 3 egress (mean 205.73 Mbps)

Flow 1 (95th percentile 147.61 ms)  Flow 2 (95th percentile 135.33 ms)  Flow 3 (95th percentile 141.09 ms)
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 15:22:40
End at: 2019-07-12 15:23:10
Local clock offset: 0.323 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2019-07-12 19:13:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 629.35 Mbit/s
95th percentile per-packet one-way delay: 153.050 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 376.29 Mbit/s
95th percentile per-packet one-way delay: 157.805 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 301.74 Mbit/s
95th percentile per-packet one-way delay: 145.377 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 177.20 Mbit/s
95th percentile per-packet one-way delay: 149.608 ms
Loss rate: 4.57%
Run 3: Report of Muses_DecisionTree — Data Link

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

- **Flow 1 ingress (mean 375.03 Mbit/s)**
- **Flow 1 egress (mean 376.29 Mbit/s)**
- **Flow 2 ingress (mean 302.33 Mbit/s)**
- **Flow 2 egress (mean 301.74 Mbit/s)**
- **Flow 3 ingress (mean 180.31 Mbit/s)**
- **Flow 3 egress (mean 177.20 Mbit/s)**

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

- **Flow 1 (95th percentile 157.91 ms)**
- **Flow 2 (95th percentile 145.38 ms)**
- **Flow 3 (95th percentile 149.61 ms)**

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Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 16:06:02
End at: 2019-07-12 16:06:32
Local clock offset: -0.109 ms
Remote clock offset: -0.166 ms

# Below is generated by plot.py at 2019-07-12 19:17:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 621.81 Mbit/s
95th percentile per-packet one-way delay: 167.065 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 370.33 Mbit/s
95th percentile per-packet one-way delay: 171.165 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 306.28 Mbit/s
95th percentile per-packet one-way delay: 169.074 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 160.12 Mbit/s
95th percentile per-packet one-way delay: 134.078 ms
Loss rate: 4.83%
Run 4: Report of Muses_DecisionTree — Data Link
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 16:50:08
End at: 2019-07-12 16:50:38
Local clock offset: -0.388 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2019-07-12 19:17:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 596.94 Mbit/s
95th percentile per-packet one-way delay: 159.702 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 358.72 Mbit/s
95th percentile per-packet one-way delay: 163.991 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 278.40 Mbit/s
95th percentile per-packet one-way delay: 155.710 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 176.06 Mbit/s
95th percentile per-packet one-way delay: 136.234 ms
Loss rate: 4.83%
Run 5: Report of Muses_DecisionTree — Data Link
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 14:30:53
End at: 2019-07-12 14:31:23
Local clock offset: -0.065 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2019-07-12 19:19:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 616.77 Mbit/s
95th percentile per-packet one-way delay: 194.311 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 351.08 Mbit/s
95th percentile per-packet one-way delay: 202.700 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 325.08 Mbit/s
95th percentile per-packet one-way delay: 178.826 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 169.79 Mbit/s
95th percentile per-packet one-way delay: 149.925 ms
Loss rate: 4.94%
Run 1: Report of Muses_DecisionTreeH0 — Data Link

![Graph showing throughput and per-packet delay over time for three flows with different ingress and egress rates and delays.]

- Flow 1 ingress (mean 350.44 Mbit/s)
- Flow 1 egress (mean 351.08 Mbit/s)
- Flow 2 ingress (mean 326.22 Mbit/s)
- Flow 2 egress (mean 325.08 Mbit/s)
- Flow 3 ingress (mean 173.54 Mbit/s)
- Flow 3 egress (mean 169.79 Mbit/s)
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 15:14:04
End at: 2019-07-12 15:14:34
Local clock offset: -0.091 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2019-07-12 19:21:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 596.31 Mbit/s
  95th percentile per-packet one-way delay: 170.301 ms
  Loss rate: 1.71%
-- Flow 1:
  Average throughput: 364.68 Mbit/s
  95th percentile per-packet one-way delay: 187.498 ms
  Loss rate: 1.72%
-- Flow 2:
  Average throughput: 341.76 Mbit/s
  95th percentile per-packet one-way delay: 139.168 ms
  Loss rate: 1.51%
-- Flow 3:
  Average throughput: 23.42 Mbit/s
  95th percentile per-packet one-way delay: 132.033 ms
  Loss rate: 7.11%
Run 2: Report of Muses Decision Tree H0 — Data Link

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

- Flow 1 ingress (mean 367.69 Mbit/s)
- Flow 1 egress (mean 364.68 Mbit/s)
- Flow 2 ingress (mean 342.27 Mbit/s)
- Flow 2 egress (mean 341.76 Mbit/s)
- Flow 3 ingress (mean 24.50 Mbit/s)
- Flow 3 egress (mean 23.42 Mbit/s)

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

- Flow 1 (95th percentile 187.50 ms)
- Flow 2 (95th percentile 139.17 ms)
- Flow 3 (95th percentile 132.03 ms)
Run 3: Statistics of Muses\_DecisionTreeHO

Start at: 2019-07-12 15:57:36
End at: 2019-07-12 15:58:06
Local clock offset: 0.049 ms
Remote clock offset: -0.172 ms

# Below is generated by plot.py at 2019-07-12 19:22:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 629.51 Mbit/s
95th percentile per-packet one-way delay: 186.821 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 389.11 Mbit/s
95th percentile per-packet one-way delay: 183.745 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 293.10 Mbit/s
95th percentile per-packet one-way delay: 196.010 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 152.15 Mbit/s
95th percentile per-packet one-way delay: 183.601 ms
Loss rate: 5.74%
Run 3: Report of Muses

DecisionTreeH0 — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 387.86 Mbps)
- Flow 1 egress (mean 389.11 Mbps)
- Flow 2 ingress (mean 293.56 Mbps)
- Flow 2 egress (mean 293.10 Mbps)
- Flow 3 ingress (mean 156.96 Mbps)
- Flow 3 egress (mean 152.15 Mbps)

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

- Flow 1 (95th percentile 183.75 ms)
- Flow 2 (95th percentile 196.01 ms)
- Flow 3 (95th percentile 181.60 ms)
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 16:41:17
End at: 2019-07-12 16:41:47
Local clock offset: -0.23 ms
Remote clock offset: 0.0 ms

# Below is generated by plot.py at 2019-07-12 19:24:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 667.35 Mbit/s
95th percentile per-packet one-way delay: 183.968 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 400.19 Mbit/s
95th percentile per-packet one-way delay: 187.485 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 334.34 Mbit/s
95th percentile per-packet one-way delay: 163.261 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 153.31 Mbit/s
95th percentile per-packet one-way delay: 198.817 ms
Loss rate: 8.53%
Run 4: Report of Muses_DecisionTreeH0 — Data Link
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 17:24:32  
End at: 2019-07-12 17:25:02  
Local clock offset: 0.382 ms  
Remote clock offset: 0.017 ms  

# Below is generated by plot.py at 2019-07-12 19:24:32  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 658.80 Mbit/s  
  95th percentile per-packet one-way delay: 176.590 ms  
  Loss rate: 0.93%  
-- Flow 1:  
  Average throughput: 410.44 Mbit/s  
  95th percentile per-packet one-way delay: 181.555 ms  
  Loss rate: 0.59%  
-- Flow 2:  
  Average throughput: 294.14 Mbit/s  
  95th percentile per-packet one-way delay: 142.609 ms  
  Loss rate: 0.41%  
-- Flow 3:  
  Average throughput: 178.87 Mbit/s  
  95th percentile per-packet one-way delay: 183.922 ms  
  Loss rate: 5.03%
Run 5: Report of Muses_DecisionTreeH0 — Data Link
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 14:36:10
End at: 2019-07-12 14:36:40
Local clock offset: 0.326 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2019-07-12 19:25:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 605.04 Mbit/s
  95th percentile per-packet one-way delay: 161.420 ms
  Loss rate: 1.79%
-- Flow 1:
  Average throughput: 365.34 Mbit/s
  95th percentile per-packet one-way delay: 174.586 ms
  Loss rate: 1.48%
-- Flow 2:
  Average throughput: 282.37 Mbit/s
  95th percentile per-packet one-way delay: 138.825 ms
  Loss rate: 1.61%
-- Flow 3:
  Average throughput: 170.69 Mbit/s
  95th percentile per-packet one-way delay: 135.718 ms
  Loss rate: 4.44%
Run 1: Report of Muses_DecisionTreeR0 — Data Link

[Graphs showing throughput and per-packet latency]
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 15:19:02
End at: 2019-07-12 15:19:32
Local clock offset: -0.002 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2019-07-12 19:27:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 509.12 Mbit/s
  95th percentile per-packet one-way delay: 153.114 ms
  Loss rate: 1.88%
-- Flow 1:
  Average throughput: 269.41 Mbit/s
  95th percentile per-packet one-way delay: 189.941 ms
  Loss rate: 1.69%
-- Flow 2:
  Average throughput: 297.50 Mbit/s
  95th percentile per-packet one-way delay: 137.909 ms
  Loss rate: 1.55%
-- Flow 3:
  Average throughput: 141.83 Mbit/s
  95th percentile per-packet one-way delay: 171.254 ms
  Loss rate: 4.44%
Run 2: Report of Muses_DecisionTreeR0 — Data Link

![Graphs showing network throughput and packet delay for different flows.]
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 16:02:35
End at: 2019-07-12 16:03:05
Local clock offset: -0.506 ms
Remote clock offset: -0.537 ms

# Below is generated by plot.py at 2019-07-12 19:29:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 611.57 Mbit/s
  95th percentile per-packet one-way delay: 156.767 ms
  Loss rate: 1.50%
-- Flow 1:
  Average throughput: 381.60 Mbit/s
  95th percentile per-packet one-way delay: 164.715 ms
  Loss rate: 1.04%
-- Flow 2:
  Average throughput: 264.81 Mbit/s
  95th percentile per-packet one-way delay: 135.474 ms
  Loss rate: 1.55%
-- Flow 3:
  Average throughput: 177.07 Mbit/s
  95th percentile per-packet one-way delay: 136.680 ms
  Loss rate: 4.34%
Run 3: Report of Muses_DecimalTreeR0 — Data Link

[Graph showing throughput and delay over time for different flows with specified mean bandwidth and 95th percentile delay.]

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Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 16:46:27
End at: 2019-07-12 16:46:57
Local clock offset: 0.229 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2019-07-12 19:31:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 624.21 Mbit/s
95th percentile per-packet one-way delay: 165.726 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 369.68 Mbit/s
95th percentile per-packet one-way delay: 153.262 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 307.74 Mbit/s
95th percentile per-packet one-way delay: 161.767 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 167.46 Mbit/s
95th percentile per-packet one-way delay: 201.866 ms
Loss rate: 4.82%
Run 4: Report of Muses_DecisionTreeR0 — Data Link

![Graph showing network performance metrics for flows 1, 2, and 3 across different time periods.](image)

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 369.03 Mbps)
  - Flow 1 egress (mean 369.68 Mbps)
  - Flow 2 ingress (mean 397.99 Mbps)
  - Flow 2 egress (mean 397.76 Mbps)
  - Flow 3 ingress (mean 170.98 Mbps)
  - Flow 3 egress (mean 167.46 Mbps)

- **Per-packet round trip time (ms):**
  - Flow 1 (95th percentile 153.26 ms)
  - Flow 2 (95th percentile 161.77 ms)
  - Flow 3 (95th percentile 201.87 ms)
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 17:29:49
End at: 2019-07-12 17:30:19
Local clock offset: -0.478 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2019-07-12 19:32:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 589.31 Mbit/s
95th percentile per-packet one-way delay: 153.744 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 345.44 Mbit/s
95th percentile per-packet one-way delay: 157.880 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 279.71 Mbit/s
95th percentile per-packet one-way delay: 148.984 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 193.82 Mbit/s
95th percentile per-packet one-way delay: 148.633 ms
Loss rate: 4.05%
Run 5: Report of Muses_DecisionTreeR0 — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 345.87 Mbit/s)
Flow 1 egress (mean 345.44 Mbit/s)
Flow 2 ingress (mean 279.62 Mbit/s)
Flow 2 egress (mean 279.71 Mbit/s)
Flow 3 ingress (mean 196.29 Mbit/s)
Flow 3 egress (mean 193.62 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 157.98 ms)
Flow 2 (95th percentile 148.98 ms)
Flow 3 (95th percentile 148.63 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2019-07-12 14:05:04
End at: 2019-07-12 14:05:34
Local clock offset: -0.046 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2019-07-12 19:42:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 546.71 Mbit/s
  95th percentile per-packet one-way delay: 257.619 ms
  Loss rate: 2.63%
-- Flow 1:
  Average throughput: 294.30 Mbit/s
  95th percentile per-packet one-way delay: 276.870 ms
  Loss rate: 2.61%
-- Flow 2:
  Average throughput: 270.87 Mbit/s
  95th percentile per-packet one-way delay: 165.800 ms
  Loss rate: 1.97%
-- Flow 3:
  Average throughput: 226.11 Mbit/s
  95th percentile per-packet one-way delay: 260.977 ms
  Loss rate: 4.26%
Run 1: Report of PCC-Allegro — Data Link

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

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

Start at: 2019-07-12 14:48:28
End at: 2019-07-12 14:48:58
Local clock offset: 0.175 ms
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2019-07-12 19:46:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 606.84 Mbit/s
95th percentile per-packet one-way delay: 267.980 ms
Loss rate: 4.51%
-- Flow 1:
Average throughput: 343.37 Mbit/s
95th percentile per-packet one-way delay: 277.844 ms
Loss rate: 5.48%
-- Flow 2:
Average throughput: 289.06 Mbit/s
95th percentile per-packet one-way delay: 228.305 ms
Loss rate: 3.21%
-- Flow 3:
Average throughput: 223.79 Mbit/s
95th percentile per-packet one-way delay: 188.661 ms
Loss rate: 3.23%
Run 2: Report of PCC-Allegro — Data Link

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

Flow 1 ingress (mean 360.04 Mbit/s) — Flow 1 egress (mean 343.37 Mbit/s)
Flow 2 ingress (mean 294.66 Mbit/s) — Flow 2 egress (mean 289.06 Mbit/s)
Flow 3 ingress (mean 224.98 Mbit/s) — Flow 3 egress (mean 223.79 Mbit/s)

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

Flow 1 (95th percentile 277.84 ms) — Flow 2 (95th percentile 228.31 ms) — Flow 3 (95th percentile 188.66 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2019-07-12 15:31:29
End at: 2019-07-12 15:31:59
Local clock offset: ~0.519 ms
Remote clock offset: ~0.12 ms

# Below is generated by plot.py at 2019-07-12 19:46:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 596.75 Mbit/s
95th percentile per-packet one-way delay: 266.388 ms
Loss rate: 6.48%
-- Flow 1:
Average throughput: 358.59 Mbit/s
95th percentile per-packet one-way delay: 268.167 ms
Loss rate: 8.33%
-- Flow 2:
Average throughput: 248.30 Mbit/s
95th percentile per-packet one-way delay: 187.130 ms
Loss rate: 3.51%
-- Flow 3:
Average throughput: 228.96 Mbit/s
95th percentile per-packet one-way delay: 174.644 ms
Loss rate: 3.64%
Run 4: Statistics of PCC-Allegro

Start at: 2019-07-12 16:14:49
End at: 2019-07-12 16:15:19
Local clock offset: -0.104 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2019-07-12 19:48:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 614.27 Mbit/s
95th percentile per-packet one-way delay: 282.275 ms
Loss rate: 7.85%
-- Flow 1:
Average throughput: 364.12 Mbit/s
95th percentile per-packet one-way delay: 287.143 ms
Loss rate: 10.19%
-- Flow 2:
Average throughput: 270.81 Mbit/s
95th percentile per-packet one-way delay: 229.913 ms
Loss rate: 3.46%
-- Flow 3:
Average throughput: 219.35 Mbit/s
95th percentile per-packet one-way delay: 282.454 ms
Loss rate: 6.08%
Run 4: Report of PCC-Allegro — Data Link

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

**Graph 1:**
- **Flow 1 ingress (mean 401.86 Mbit/s)**
- **Flow 1 egress (mean 364.12 Mbit/s)**
- **Flow 2 ingress (mean 276.76 Mbit/s)**
- **Flow 2 egress (mean 270.81 Mbit/s)**
- **Flow 3 ingress (mean 227.22 Mbit/s)**
- **Flow 3 egress (mean 219.35 Mbit/s)**

**Graph 2:**
- **Flow 1 (95th percentile 287.14 ms)**
- **Flow 2 (95th percentile 229.91 ms)**
- **Flow 3 (95th percentile 282.45 ms)**

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Run 5: Statistics of PCC-Allegro

Start at: 2019-07-12 16:58:56
End at: 2019-07-12 16:59:26
Local clock offset: -0.245 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2019-07-12 19:48:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 553.12 Mbit/s
95th percentile per-packet one-way delay: 249.917 ms
Loss rate: 2.71%
-- Flow 1:
Average throughput: 297.44 Mbit/s
95th percentile per-packet one-way delay: 250.499 ms
Loss rate: 2.03%
-- Flow 2:
Average throughput: 276.81 Mbit/s
95th percentile per-packet one-way delay: 252.239 ms
Loss rate: 3.39%
-- Flow 3:
Average throughput: 224.16 Mbit/s
95th percentile per-packet one-way delay: 244.356 ms
Loss rate: 3.74%
Run 5: Report of PCC-Allegro — Data Link
Run 1: Statistics of PCC-Expr

Start at: 2019-07-12 14:21:53
End at: 2019-07-12 14:22:23
Local clock offset: -0.297 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2019-07-12 19:48:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 366.32 Mbit/s
95th percentile per-packet one-way delay: 154.014 ms
Loss rate: 2.06%
-- Flow 1:
Average throughput: 197.23 Mbit/s
95th percentile per-packet one-way delay: 138.640 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 183.57 Mbit/s
95th percentile per-packet one-way delay: 190.026 ms
Loss rate: 2.80%
-- Flow 3:
Average throughput: 147.10 Mbit/s
95th percentile per-packet one-way delay: 155.188 ms
Loss rate: 3.77%
Run 1: Report of PCC-Expr — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 197.80 Mbps)
- **Flow 1 egress** (mean 197.23 Mbps)
- **Flow 2 ingress** (mean 196.34 Mbps)
- **Flow 2 egress** (mean 183.57 Mbps)
- **Flow 3 ingress** (mean 148.75 Mbps)
- **Flow 3 egress** (mean 147.10 Mbps)

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

- **Flow 1** (95th percentile 138.64 ms)
- **Flow 2** (95th percentile 190.03 ms)
- **Flow 3** (95th percentile 155.19 ms)

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Run 2: Statistics of PCC-Expr

Start at: 2019-07-12 15:05:02
End at: 2019-07-12 15:05:32
Local clock offset: -0.288 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2019-07-12 19:48:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 416.78 Mbit/s
  95th percentile per-packet one-way delay: 215.840 ms
  Loss rate: 1.74%
-- Flow 1:
  Average throughput: 250.18 Mbit/s
  95th percentile per-packet one-way delay: 221.601 ms
  Loss rate: 1.13%
-- Flow 2:
  Average throughput: 182.85 Mbit/s
  95th percentile per-packet one-way delay: 137.136 ms
  Loss rate: 1.64%
-- Flow 3:
  Average throughput: 140.76 Mbit/s
  95th percentile per-packet one-way delay: 260.206 ms
  Loss rate: 5.24%
Run 2: Report of PCC-Expr — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 3: Statistics of PCC-Expr

Start at: 2019-07-12 15:48:26
End at: 2019-07-12 15:48:56
Local clock offset: -0.129 ms
Remote clock offset: 0.225 ms

# Below is generated by plot.py at 2019-07-12 19:48:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 430.59 Mbit/s
95th percentile per-packet one-way delay: 192.028 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 267.24 Mbit/s
95th percentile per-packet one-way delay: 202.703 ms
Loss rate: 2.16%
-- Flow 2:
Average throughput: 178.31 Mbit/s
95th percentile per-packet one-way delay: 143.534 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 139.94 Mbit/s
95th percentile per-packet one-way delay: 135.122 ms
Loss rate: 3.73%
Run 3: Report of PCC-Expr — Data Link

![Graph showing throughput over time for different flows with various mean rates and 95th percentile delays.](image)

Flow 1 ingress (mean 270.71 Mbit/s)
Flow 1 egress (mean 267.24 Mbit/s)
Flow 2 ingress (mean 179.05 Mbit/s)
Flow 2 egress (mean 178.31 Mbit/s)
Flow 3 ingress (mean 141.44 Mbit/s)
Flow 3 egress (mean 139.04 Mbit/s)

Flow 1 (95th percentile 202.70 ms)
Flow 2 (95th percentile 143.53 ms)
Flow 3 (95th percentile 135.12 ms)
Run 4: Statistics of PCC-Expr

Start at: 2019-07-12 16:31:53
End at: 2019-07-12 16:32:23
Local clock offset: -0.449 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2019-07-12 19:55:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 358.87 Mbit/s
95th percentile per-packet one-way delay: 151.433 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 216.18 Mbit/s
95th percentile per-packet one-way delay: 140.163 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 176.60 Mbit/s
95th percentile per-packet one-way delay: 197.656 ms
Loss rate: 2.30%
-- Flow 3:
Average throughput: 79.55 Mbit/s
95th percentile per-packet one-way delay: 133.647 ms
Loss rate: 3.40%
Run 4: Report of PCC-Expr — Data Link
Run 5: Statistics of PCC-Expr

Start at: 2019-07-12 17:15:25
End at: 2019-07-12 17:15:55
Local clock offset: 0.019 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 424.78 Mbit/s
95th percentile per-packet one-way delay: 222.922 ms
Loss rate: 3.02%
-- Flow 1:
Average throughput: 258.47 Mbit/s
95th percentile per-packet one-way delay: 229.603 ms
Loss rate: 3.43%
-- Flow 2:
Average throughput: 180.78 Mbit/s
95th percentile per-packet one-way delay: 160.738 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 144.11 Mbit/s
95th percentile per-packet one-way delay: 168.947 ms
Loss rate: 3.55%
Run 5: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 265.26 Mbit/s)
- Flow 1 egress (mean 258.47 Mbit/s)
- Flow 2 ingress (mean 181.81 Mbit/s)
- Flow 2 egress (mean 180.78 Mbit/s)
- Flow 3 ingress (mean 145.39 Mbit/s)
- Flow 3 egress (mean 144.11 Mbit/s)

- Flow 1 (95th percentile 229.60 ms)
- Flow 2 (95th percentile 160.74 ms)
- Flow 3 (95th percentile 160.95 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2019-07-12 14:07:07
End at: 2019-07-12 14:07:37
Local clock offset: -0.073 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.62 Mbit/s
  95th percentile per-packet one-way delay: 133.126 ms
  Loss rate: 1.95%
-- Flow 1:
  Average throughput: 46.24 Mbit/s
  95th percentile per-packet one-way delay: 133.162 ms
  Loss rate: 1.93%
-- Flow 2:
  Average throughput: 45.57 Mbit/s
  95th percentile per-packet one-way delay: 132.333 ms
  Loss rate: 2.67%
-- Flow 3:
  Average throughput: 34.08 Mbit/s
  95th percentile per-packet one-way delay: 132.863 ms
  Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 45.71 Mbps)
- Flow 1 egress (mean 46.24 Mbps)
- Flow 2 ingress (mean 46.19 Mbps)
- Flow 2 egress (mean 45.57 Mbps)
- Flow 3 ingress (mean 33.26 Mbps)
- Flow 3 egress (mean 34.08 Mbps)

**Packet One-Way Delay (ms)**

- Flow 1 (95th percentile 133.16 ms)
- Flow 2 (95th percentile 132.33 ms)
- Flow 3 (95th percentile 132.86 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2019-07-12 14:50:36
End at: 2019-07-12 14:51:06
Local clock offset: 0.32 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.87 Mbit/s
95th percentile per-packet one-way delay: 133.447 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 58.47 Mbit/s
95th percentile per-packet one-way delay: 133.465 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 44.82 Mbit/s
95th percentile per-packet one-way delay: 132.784 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 54.51 Mbit/s
95th percentile per-packet one-way delay: 133.322 ms
Loss rate: 3.85%
Run 3: Statistics of QUIC Cubic

Start at: 2019-07-12 15:33:37
End at: 2019-07-12 15:34:07
Local clock offset: 0.122 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 108.54 Mbit/s
95th percentile per-packet one-way delay: 133.244 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 50.50 Mbit/s
95th percentile per-packet one-way delay: 133.284 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 60.69 Mbit/s
95th percentile per-packet one-way delay: 132.284 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 55.28 Mbit/s
95th percentile per-packet one-way delay: 133.175 ms
Loss rate: 4.40%
Run 3: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 4: Statistics of QUIC Cubic

Start at: 2019-07-12 16:17:01
End at: 2019-07-12 16:17:31
Local clock offset: 0.103 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.59 Mbit/s
  95th percentile per-packet one-way delay: 133.159 ms
  Loss rate: 2.20%
-- Flow 1:
  Average throughput: 46.17 Mbit/s
  95th percentile per-packet one-way delay: 133.172 ms
  Loss rate: 1.49%
-- Flow 2:
  Average throughput: 43.62 Mbit/s
  95th percentile per-packet one-way delay: 133.145 ms
  Loss rate: 2.23%
-- Flow 3:
  Average throughput: 53.49 Mbit/s
  95th percentile per-packet one-way delay: 132.968 ms
  Loss rate: 3.88%
Run 4: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 46.43 Mbps/s)
- Flow 1 egress (mean 46.17 Mbps/s)
- Flow 2 ingress (mean 44.02 Mbps/s)
- Flow 2 egress (mean 43.62 Mbps/s)
- Flow 3 ingress (mean 54.15 Mbps/s)
- Flow 3 egress (mean 53.49 Mbps/s)

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

- Flow 1 (95th percentile 133.17 ms)
- Flow 2 (95th percentile 133.15 ms)
- Flow 3 (95th percentile 132.97 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2019-07-12 17:01:00
End at: 2019-07-12 17:01:30
Local clock offset: -0.255 ms
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 107.85 Mbit/s
  95th percentile per-packet one-way delay: 132.690 ms
  Loss rate: 0.75%
-- Flow 1:
  Average throughput: 61.59 Mbit/s
  95th percentile per-packet one-way delay: 132.659 ms
  Loss rate: 1.14%
-- Flow 2:
  Average throughput: 61.01 Mbit/s
  95th percentile per-packet one-way delay: 132.722 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 19.37 Mbit/s
  95th percentile per-packet one-way delay: 132.201 ms
  Loss rate: 1.68%
Run 5: Report of QUIC Cubic — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 61.75 Mbps)
- Flow 1 egress (mean 61.59 Mbps)
- Flow 2 ingress (mean 61.01 Mbps)
- Flow 2 egress (mean 61.01 Mbps)
- Flow 3 ingress (mean 19.17 Mbps)
- Flow 3 egress (mean 19.37 Mbps)

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

- Flow 1 (95th percentile 132.66 ms)
- Flow 2 (95th percentile 132.72 ms)
- Flow 3 (95th percentile 132.20 ms)
Run 1: Statistics of SCReAM

Start at: 2019-07-12 14:00:26
End at: 2019-07-12 14:00:56
Local clock offset: 0.142 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 133.187 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 132.746 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.214 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 132.737 ms
Loss rate: 2.45%
Run 1: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.14 Mbps)
Flow 1 egress (mean 0.14 Mbps)
Flow 2 ingress (mean 0.15 Mbps)
Flow 2 egress (mean 0.15 Mbps)
Flow 3 ingress (mean 0.16 Mbps)
Flow 3 egress (mean 0.16 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 132.75 ms)
Flow 2 (95th percentile 133.21 ms)
Flow 3 (95th percentile 132.74 ms)
Run 2: Statistics of SCReAM

Start at: 2019-07-12 14:43:55
End at: 2019-07-12 14:44:25
Local clock offset: -0.497 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 132.830 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.171 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.858 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 132.605 ms
Loss rate: 2.44%
Run 2: Report of SCReAM — Data Link

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

- **Flow 1**: Ingress (mean 0.15 Mbps), Egress (mean 0.15 Mbps)
- **Flow 2**: Ingress (mean 0.15 Mbps), Egress (mean 0.15 Mbps)
- **Flow 3**: Ingress (mean 0.16 Mbps), Egress (mean 0.16 Mbps)
Run 3: Statistics of SCReAM

Start at: 2019-07-12 15:26:51
End at: 2019-07-12 15:27:21
Local clock offset: 0.309 ms
Remote clock offset: -0.129 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.32 Mbit/s
  95th percentile per-packet one-way delay: 133.475 ms
  Loss rate: 1.34%
-- Flow 1:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 133.478 ms
  Loss rate: 0.88%
-- Flow 2:
  Average throughput: 0.19 Mbit/s
  95th percentile per-packet one-way delay: 133.278 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 133.507 ms
  Loss rate: 2.44%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2019-07-12 16:10:11
End at: 2019-07-12 16:10:41
Local clock offset: -0.111 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.30 Mbit/s
  95th percentile per-packet one-way delay: 133.072 ms
  Loss rate: 1.32%
-- Flow 1:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 132.559 ms
  Loss rate: 0.88%
-- Flow 2:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 133.070 ms
  Loss rate: 1.39%
-- Flow 3:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 133.145 ms
  Loss rate: 2.44%
Run 5: Statistics of SCReAM

Start at: 2019-07-12 16:54:18
End at: 2019-07-12 16:54:48
Local clock offset: -0.012 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 133.072 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.896 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.102 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 132.897 ms
Loss rate: 2.44%
Run 5: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.15 Mbps) — Flow 1 egress (mean 0.15 Mbps)
Flow 2 ingress (mean 0.15 Mbps) — Flow 2 egress (mean 0.15 Mbps)
Flow 3 ingress (mean 0.16 Mbps) — Flow 3 egress (mean 0.16 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 132.90 ms) — Flow 2 (95th percentile 133.10 ms) — Flow 3 (95th percentile 132.90 ms)
Run 1: Statistics of Sprout

Start at: 2019-07-12 14:03:45
End at: 2019-07-12 14:04:15
Local clock offset: ~0.032 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 133.155 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 133.150 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 132.639 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 133.250 ms
Loss rate: 3.20%
Run 1: Report of Sprout — Data Link

![Graph showing network performance metrics]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 0.62 Mbit/s)
  - Flow 1 egress (mean 0.62 Mbit/s)
  - Flow 2 ingress (mean 0.37 Mbit/s)
  - Flow 2 egress (mean 0.58 Mbit/s)
  - Flow 3 ingress (mean 0.65 Mbit/s)
  - Flow 3 egress (mean 0.64 Mbit/s)

- **Per-packet connection delay (ms):**
  - Flow 1 (95th percentile 133.15 ms)
  - Flow 2 (95th percentile 132.84 ms)
  - Flow 3 (95th percentile 133.25 ms)

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Run 2: Statistics of Sprout

Start at: 2019-07-12 14:47:09
End at: 2019-07-12 14:47:39
Local clock offset: -0.082 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 133.195 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 133.128 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 133.230 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 132.685 ms
Loss rate: 3.66%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2019-07-12 15:30:10
End at: 2019-07-12 15:30:40
Local clock offset: -0.27 ms
Remote clock offset: -0.166 ms

# Below is generated by plot.py at 2019-07-12 19:57:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 133.053 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 132.851 ms
Loss rate: 2.05%
-- Flow 2:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 132.936 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 133.127 ms
Loss rate: 3.23%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2019-07-12 16:13:30
End at: 2019-07-12 16:14:00
Local clock offset: 0.099 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-07-12 19:57:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1.22 Mbit/s
  95th percentile per-packet one-way delay: 133.543 ms
  Loss rate: 1.55%
-- Flow 1:
  Average throughput: 0.58 Mbit/s
  95th percentile per-packet one-way delay: 133.610 ms
  Loss rate: 1.10%
-- Flow 2:
  Average throughput: 0.64 Mbit/s
  95th percentile per-packet one-way delay: 132.860 ms
  Loss rate: 1.49%
-- Flow 3:
  Average throughput: 0.68 Mbit/s
  95th percentile per-packet one-way delay: 133.308 ms
  Loss rate: 2.85%
Run 4: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.58 Mbit/s)
Flow 1 egress (mean 0.58 Mbit/s)
Flow 2 ingress (mean 0.64 Mbit/s)
Flow 2 egress (mean 0.64 Mbit/s)
Flow 3 ingress (mean 0.68 Mbit/s)
Flow 3 egress (mean 0.68 Mbit/s)

One-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 133.61 ms)
Flow 2 (95th percentile 132.86 ms)
Flow 3 (95th percentile 133.31 ms)
Run 5: Statistics of Sprout

Start at: 2019-07-12 16:57:37
End at: 2019-07-12 16:58:07
Local clock offset: 0.032 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2019-07-12 19:57:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 133.395 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 133.190 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 133.441 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 133.156 ms
Loss rate: 3.04%
Run 5: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

Start at: 2019-07-12 14:34:09
End at: 2019-07-12 14:34:39
Local clock offset: 0.383 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2019-07-12 20:01:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 365.82 Mbit/s
95th percentile per-packet one-way delay: 140.165 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 184.28 Mbit/s
95th percentile per-packet one-way delay: 138.313 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 186.91 Mbit/s
95th percentile per-packet one-way delay: 142.415 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 176.63 Mbit/s
95th percentile per-packet one-way delay: 136.218 ms
Loss rate: 1.81%
Run 1: Report of TaoVA-100x — Data Link

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

Throughput (Mbps):

- Flow 1 ingress (mean 184.44 Mbps)
- Flow 1 egress (mean 184.28 Mbps)
- Flow 2 ingress (mean 187.14 Mbps)
- Flow 2 egress (mean 186.91 Mbps)
- Flow 3 ingress (mean 175.06 Mbps)
- Flow 3 egress (mean 176.63 Mbps)

Packet Delay (ms):

- Flow 1 (95th percentile 138.31 ms)
- Flow 2 (95th percentile 142.41 ms)
- Flow 3 (95th percentile 136.22 ms)

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Run 2: Statistics of TaoVA-100x

Start at: 2019-07-12 15:17:20
End at: 2019-07-12 15:17:50
Local clock offset: 0.198 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2019-07-12 20:01:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 192.33 Mbit/s
95th percentile per-packet one-way delay: 135.660 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 133.094 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 189.62 Mbit/s
95th percentile per-packet one-way delay: 134.686 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 164.89 Mbit/s
95th percentile per-packet one-way delay: 136.995 ms
Loss rate: 1.91%
Run 2: Report of TaoVA-100x — Data Link

![Throughput Graph]

![Delay Graph]

Flow 1 ingress (mean 13.09 Mbit/s)  Flow 1 egress (mean 13.09 Mbit/s)
Flow 2 ingress (mean 196.29 Mbit/s)  Flow 2 egress (mean 189.62 Mbit/s)
Flow 3 ingress (mean 163.13 Mbit/s)  Flow 3 egress (mean 164.89 Mbit/s)

Flow 1 (95th percentile 133.09 ms)  Flow 2 (95th percentile 134.69 ms)  Flow 3 (95th percentile 137.00 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2019-07-12 16:00:53
End at: 2019-07-12 16:01:23
Local clock offset: -0.114 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2019-07-12 20:01:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 196.00 Mbit/s
  95th percentile per-packet one-way delay: 136.822 ms
  Loss rate: 1.33%
-- Flow 1:
  Average throughput: 13.09 Mbit/s
  95th percentile per-packet one-way delay: 132.780 ms
  Loss rate: 0.91%
-- Flow 2:
  Average throughput: 187.11 Mbit/s
  95th percentile per-packet one-way delay: 135.490 ms
  Loss rate: 0.88%
-- Flow 3:
  Average throughput: 180.63 Mbit/s
  95th percentile per-packet one-way delay: 141.658 ms
  Loss rate: 2.37%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2019-07-12 16:44:38
End at: 2019-07-12 16:45:08
Local clock offset: -0.246 ms
Remote clock offset: 0.079 ms

# Below is generated by plot.py at 2019-07-12 20:01:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 254.64 Mbit/s
95th percentile per-packet one-way delay: 134.456 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 200.17 Mbit/s
95th percentile per-packet one-way delay: 134.166 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 12.95 Mbit/s
95th percentile per-packet one-way delay: 132.774 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 140.65 Mbit/s
95th percentile per-packet one-way delay: 138.197 ms
Loss rate: 4.33%
Run 4: Report of TaoVA-100x — Data Link

![Graph showing throughput and packet delay over time]

Throughput (Mbps)

Time (s)

- Flow 1 ingress (mean 200.30 Mbps)
- Flow 1 egress (mean 200.17 Mbps)
- Flow 2 ingress (mean 12.95 Mbps)
- Flow 2 egress (mean 12.95 Mbps)
- Flow 3 ingress (mean 143.10 Mbps)
- Flow 3 egress (mean 140.65 Mbps)

Packet one-way delay (ms)

Time (s)

- Flow 1 (95th percentile 134.17 ms)
- Flow 2 (95th percentile 132.77 ms)
- Flow 3 (95th percentile 138.20 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2019-07-12 17:27:51
End at: 2019-07-12 17:28:21
Local clock offset: 0.374 ms
Remote clock offset: 0.047 ms

# Below is generated by plot.py at 2019-07-12 20:01:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 334.76 Mbit/s
  95th percentile per-packet one-way delay: 137.451 ms
  Loss rate: 1.54%
-- Flow 1:
  Average throughput: 186.16 Mbit/s
  95th percentile per-packet one-way delay: 135.308 ms
  Loss rate: 1.06%
-- Flow 2:
  Average throughput: 143.75 Mbit/s
  95th percentile per-packet one-way delay: 138.406 ms
  Loss rate: 1.34%
-- Flow 3:
  Average throughput: 163.16 Mbit/s
  95th percentile per-packet one-way delay: 139.058 ms
  Loss rate: 3.53%
Run 1: Statistics of TCP Vegas

Start at: 2019-07-12 14:25:37
End at: 2019-07-12 14:26:07
Local clock offset: 0.209 ms
Remote clock offset: -0.096 ms

# Below is generated by plot_py at 2019-07-12 20:01:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 440.94 Mbit/s
  95th percentile per-packet one-way delay: 142.730 ms
  Loss rate: 1.15%
-- Flow 1:
  Average throughput: 253.60 Mbit/s
  95th percentile per-packet one-way delay: 144.900 ms
  Loss rate: 0.43%
-- Flow 2:
  Average throughput: 184.52 Mbit/s
  95th percentile per-packet one-way delay: 138.572 ms
  Loss rate: 1.33%
-- Flow 3:
  Average throughput: 199.03 Mbit/s
  95th percentile per-packet one-way delay: 135.372 ms
  Loss rate: 3.54%
Run 1: Report of TCP Vegas — Data Link

Throughput (Mb/s) vs Time (s)

- Blue dotted line: Flow 1 Ingress (mean 252.44 Mb/s)
- Blue solid line: Flow 1 Egress (mean 253.60 Mb/s)
- Green dotted line: Flow 2 Ingress (mean 184.51 Mb/s)
- Green solid line: Flow 2 Egress (mean 184.52 Mb/s)
- Red dotted line: Flow 3 Ingress (mean 290.86 Mb/s)
- Red solid line: Flow 3 Egress (mean 199.03 Mb/s)

Delay (ms) vs Time (s)

- Blue dots: Flow 1 (95th percentile 144.90 ms)
- Green dots: Flow 2 (95th percentile 138.57 ms)
- Red dots: Flow 3 (95th percentile 135.37 ms)
Run 2: Statistics of TCP Vegas

Start at: 2019-07-12 15:08:50
End at: 2019-07-12 15:09:20
Local clock offset: -0.081 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2019-07-12 20:06:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 564.99 Mbit/s
95th percentile per-packet one-way delay: 138.445 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 288.71 Mbit/s
95th percentile per-packet one-way delay: 141.111 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 294.16 Mbit/s
95th percentile per-packet one-way delay: 135.066 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 248.97 Mbit/s
95th percentile per-packet one-way delay: 136.669 ms
Loss rate: 3.73%
Run 2: Report of TCP Vegas — Data Link

![Graph showing throughput and packet delay over time for three flows with different ingress and egress rates.]

Legend:
- Flow 1 ingress (mean 289.01 Mbit/s) - Flow 1 egress (mean 288.71 Mbit/s)
- Flow 2 ingress (mean 294.51 Mbit/s) - Flow 2 egress (mean 294.16 Mbit/s)
- Flow 3 ingress (mean 253.71 Mbit/s) - Flow 3 egress (mean 248.97 Mbit/s)

Packet delay (ms):
- Flow 1 (95th percentile 141.11 ms)
- Flow 2 (95th percentile 135.07 ms)
- Flow 3 (95th percentile 136.67 ms)
Run 3: Statistics of TCP Vegas

Start at: 2019-07-12 15:52:17
End at: 2019-07-12 15:52:47
Local clock offset: 0.068 ms
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2019-07-12 20:06:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 488.05 Mbit/s
95th percentile per-packet one-way delay: 159.108 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 185.87 Mbit/s
95th percentile per-packet one-way delay: 148.113 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 352.46 Mbit/s
95th percentile per-packet one-way delay: 161.219 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 209.84 Mbit/s
95th percentile per-packet one-way delay: 168.299 ms
Loss rate: 5.94%
Run 3: Report of TCP Vegas — Data Link

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

- **Flow 1** (ingress mean 185.76 Mbps, egress mean 185.87 Mbps)
- **Flow 2** (ingress mean 350.85 Mbps, egress mean 352.46 Mbps)
- **Flow 3** (ingress mean 217.14 Mbps, egress mean 209.64 Mbps)

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

- **Flow 1** (95th percentile 148.11 ms)
- **Flow 2** (95th percentile 161.22 ms)
- **Flow 3** (95th percentile 168.30 ms)
Run 4: Statistics of TCP Vegas

Start at: 2019-07-12 16:35:49
End at: 2019-07-12 16:36:19
Local clock offset: -0.074 ms
Remote clock offset: 0.036 ms

# Below is generated by plot.py at 2019-07-12 20:08:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 665.43 Mbit/s
95th percentile per-packet one-way delay: 153.040 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 400.53 Mbit/s
95th percentile per-packet one-way delay: 155.526 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 302.23 Mbit/s
95th percentile per-packet one-way delay: 141.362 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 197.41 Mbit/s
95th percentile per-packet one-way delay: 149.230 ms
Loss rate: 3.30%
Run 4: Report of TCP Vegas — Data Link

![Graph 1: Throughput vs. Time]

- Blue dashed line: Flow 1 ingress (mean 399.13 Mbit/s)
- Blue solid line: Flow 1 egress (mean 400.53 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 302.98 Mbit/s)
- Green solid line: Flow 2 egress (mean 302.23 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 196.69 Mbit/s)
- Red solid line: Flow 3 egress (mean 197.41 Mbit/s)

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

- Blue dots: Flow 1 (95th percentile 155.53 ms)
- Green dots: Flow 2 (95th percentile 141.36 ms)
- Red dots: Flow 3 (95th percentile 149.23 ms)
Run 5: Statistics of TCP Vegas

Start at: 2019-07-12 17:19:17
End at: 2019-07-12 17:19:47
Local clock offset: -0.005 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2019-07-12 20:08:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 539.63 Mbit/s
  95th percentile per-packet one-way delay: 136.502 ms
  Loss rate: 1.62%
-- Flow 1:
  Average throughput: 268.74 Mbit/s
  95th percentile per-packet one-way delay: 136.954 ms
  Loss rate: 0.94%
-- Flow 2:
  Average throughput: 301.71 Mbit/s
  95th percentile per-packet one-way delay: 135.919 ms
  Loss rate: 1.55%
-- Flow 3:
  Average throughput: 217.01 Mbit/s
  95th percentile per-packet one-way delay: 138.108 ms
  Loss rate: 4.29%
Run 5: Report of TCP Vegas — Data Link

![Graph showing throughput and packet delay over time for different flows with specified mean throughputs and 95th percentile delays.]
Run 1: Statistics of Verus

Start at: 2019-07-12 13:54:42
Local clock offset: 0.218 ms
Remote clock offset: 0.055 ms

# Below is generated by plot.py at 2019-07-12 20:08:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.23 Mbit/s
95th percentile per-packet one-way delay: 294.319 ms
Loss rate: 3.06%
-- Flow 1:
Average throughput: 80.44 Mbit/s
95th percentile per-packet one-way delay: 304.942 ms
Loss rate: 2.29%
-- Flow 2:
Average throughput: 74.33 Mbit/s
95th percentile per-packet one-way delay: 221.229 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 45.73 Mbit/s
95th percentile per-packet one-way delay: 160.229 ms
Loss rate: 13.08%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Start at: 2019-07-12 14:38:06
End at: 2019-07-12 14:38:36
Local clock offset: -0.124 ms
Remote clock offset: -0.395 ms

# Below is generated by plot.py at 2019-07-12 20:08:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 192.59 Mbit/s
  95th percentile per-packet one-way delay: 306.537 ms
  Loss rate: 7.05%
-- Flow 1:
  Average throughput: 135.17 Mbit/s
  95th percentile per-packet one-way delay: 321.021 ms
  Loss rate: 7.49%
-- Flow 2:
  Average throughput: 69.71 Mbit/s
  95th percentile per-packet one-way delay: 272.541 ms
  Loss rate: 7.21%
-- Flow 3:
  Average throughput: 38.44 Mbit/s
  95th percentile per-packet one-way delay: 150.487 ms
  Loss rate: 1.43%
Run 2: Report of Verus — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows (Flow 1, Flow 2, and Flow 3), with mean values and 95th percentile delays provided.]
Run 3: Statistics of Verus

Start at: 2019-07-12 15:20:53
End at: 2019-07-12 15:21:23
Local clock offset: -0.103 ms
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2019-07-12 20:09:49
# Datalink statistics
  -- Total of 3 flows:
    Average throughput: 216.46 Mbit/s
    95th percentile per-packet one-way delay: 299.911 ms
    Loss rate: 6.77%
  -- Flow 1:
    Average throughput: 154.86 Mbit/s
    95th percentile per-packet one-way delay: 306.319 ms
    Loss rate: 8.86%
  -- Flow 2:
    Average throughput: 76.83 Mbit/s
    95th percentile per-packet one-way delay: 195.357 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 35.42 Mbit/s
    95th percentile per-packet one-way delay: 135.761 ms
    Loss rate: 5.36%
Run 3: Report of Verus — Data Link

![Graph of Throughput and Packet Delay](image)

Legend:
- **Blue dashed line** (Flow 1 ingress: mean 169.26 Mbit/s)
- **Blue solid line** (Flow 1 egress: mean 134.86 Mbit/s)
- **Green dashed line** (Flow 2 ingress: mean 75.29 Mbit/s)
- **Green solid line** (Flow 2 egress: mean 76.83 Mbit/s)
- **Red dashed line** (Flow 3 ingress: mean 36.92 Mbit/s)
- **Red solid line** (Flow 3 egress: mean 35.42 Mbit/s)

![Graph of Packet Delay](image)

Legend:
- **Blue circles** (Flow 1: 95th percentile 306.32 ms)
- **Green circles** (Flow 2: 95th percentile 195.36 ms)
- **Red circles** (Flow 3: 95th percentile 135.76 ms)
Run 4: Statistics of Verus

Start at: 2019-07-12 16:04:31
End at: 2019-07-12 16:05:01
Local clock offset: -0.102 ms
Remote clock offset: -0.198 ms

# Below is generated by plot.py at 2019-07-12 20:09:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.93 Mbit/s
  95th percentile per-packet one-way delay: 168.122 ms
  Loss rate: 3.73%
-- Flow 1:
  Average throughput: 49.77 Mbit/s
  95th percentile per-packet one-way delay: 227.352 ms
  Loss rate: 6.55%
-- Flow 2:
  Average throughput: 48.33 Mbit/s
  95th percentile per-packet one-way delay: 139.966 ms
  Loss rate: 0.12%
-- Flow 3:
  Average throughput: 29.48 Mbit/s
  95th percentile per-packet one-way delay: 146.148 ms
  Loss rate: 0.19%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2019-07-12 16:48:25
End at: 2019-07-12 16:48:55
Local clock offset: -0.413 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2019-07-12 20:10:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 196.69 Mbit/s
95th percentile per-packet one-way delay: 305.846 ms
Loss rate: 3.91%
-- Flow 1:
Average throughput: 136.61 Mbit/s
95th percentile per-packet one-way delay: 218.019 ms
Loss rate: 2.28%
-- Flow 2:
Average throughput: 73.32 Mbit/s
95th percentile per-packet one-way delay: 352.665 ms
Loss rate: 8.74%
-- Flow 3:
Average throughput: 37.39 Mbit/s
95th percentile per-packet one-way delay: 173.187 ms
Loss rate: 1.92%
Run 5: Report of Verus — Data Link

Throughput (Mbit/s)

Flow 1 ingress (mean 138.54 Mbit/s)  Flow 1 egress (mean 136.61 Mbit/s)
Flow 2 ingress (mean 78.25 Mbit/s)  Flow 2 egress (mean 73.32 Mbit/s)
Flow 3 ingress (mean 37.10 Mbit/s)  Flow 3 egress (mean 37.30 Mbit/s)

Packet one-way delay (ms)

Flow 1 (95th percentile 218.02 ms)  Flow 2 (95th percentile 352.67 ms)  Flow 3 (95th percentile 173.19 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2019-07-12 14:12:22  
End at: 2019-07-12 14:12:52  
Local clock offset: 0.095 ms  
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2019-07-12 20:10:58  
# Datalink statistics
-- Total of 3 flows:  
Average throughput: 317.72 Mbit/s  
95th percentile per-packet one-way delay: 174.410 ms  
Loss rate: 2.32%  
-- Flow 1:  
Average throughput: 127.86 Mbit/s  
95th percentile per-packet one-way delay: 133.661 ms  
Loss rate: 1.98%  
-- Flow 2:  
Average throughput: 240.37 Mbit/s  
95th percentile per-packet one-way delay: 208.971 ms  
Loss rate: 2.07%  
-- Flow 3:  
Average throughput: 108.87 Mbit/s  
95th percentile per-packet one-way delay: 164.042 ms  
Loss rate: 4.59%
Run 1: Report of PCC-Vivace — Data Link

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

Start at: 2019-07-12 14:55:29
End at: 2019-07-12 14:55:59
Local clock offset: -0.528 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2019-07-12 20:11:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 359.26 Mbit/s
  95th percentile per-packet one-way delay: 136.300 ms
  Loss rate: 1.87%
-- Flow 1:
  Average throughput: 212.65 Mbit/s
  95th percentile per-packet one-way delay: 135.861 ms
  Loss rate: 1.31%
-- Flow 2:
  Average throughput: 161.85 Mbit/s
  95th percentile per-packet one-way delay: 134.287 ms
  Loss rate: 1.74%
-- Flow 3:
  Average throughput: 121.96 Mbit/s
  95th percentile per-packet one-way delay: 140.693 ms
  Loss rate: 5.08%
Run 2: Report of PCC-Vivace — Data Link
Run 3: Statistics of PCC-Vivace

Start at: 2019-07-12 15:38:48
End at: 2019-07-12 15:39:18
Local clock offset: 0.074 ms
Remote clock offset: -0.16 ms

# Below is generated by plot.py at 2019-07-12 20:12:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 415.89 Mbit/s
95th percentile per-packet one-way delay: 303.530 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 257.51 Mbit/s
95th percentile per-packet one-way delay: 207.377 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 182.03 Mbit/s
95th percentile per-packet one-way delay: 306.677 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 116.74 Mbit/s
95th percentile per-packet one-way delay: 384.618 ms
Loss rate: 4.87%
Run 3: Report of PCC-Vivace — Data Link
Run 4: Statistics of PCC-Vivace

Start at: 2019-07-12 16:22:04
End at: 2019-07-12 16:22:34
Local clock offset: -0.451 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2019-07-12 20:12:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 446.03 Mbit/s
  95th percentile per-packet one-way delay: 139.889 ms
  Loss rate: 1.76%
-- Flow 1:
  Average throughput: 290.27 Mbit/s
  95th percentile per-packet one-way delay: 142.764 ms
  Loss rate: 1.14%
-- Flow 2:
  Average throughput: 176.73 Mbit/s
  95th percentile per-packet one-way delay: 135.201 ms
  Loss rate: 2.47%
-- Flow 3:
  Average throughput: 119.65 Mbit/s
  95th percentile per-packet one-way delay: 137.892 ms
  Loss rate: 4.15%
Run 4: Report of PCC-Vivace — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 291.01 Mb/s)  
Flow 1 egress (mean 290.27 Mb/s)  
Flow 2 ingress (mean 178.78 Mb/s)  
Flow 2 egress (mean 176.73 Mb/s)  
Flow 3 ingress (mean 121.46 Mb/s)  
Flow 3 egress (mean 119.65 Mb/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 142.76 ms)  
Flow 2 (95th percentile 135.20 ms)  
Flow 3 (95th percentile 137.89 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2019-07-12 17:05:58
End at: 2019-07-12 17:06:28
Local clock offset: -0.412 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2019-07-12 20:12:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 260.07 Mbit/s
  95th percentile per-packet one-way delay: 133.901 ms
  Loss rate: 2.15%
-- Flow 1:
  Average throughput: 188.45 Mbit/s
  95th percentile per-packet one-way delay: 133.664 ms
  Loss rate: 1.26%
-- Flow 2:
  Average throughput: 52.80 Mbit/s
  95th percentile per-packet one-way delay: 132.790 ms
  Loss rate: 3.93%
-- Flow 3:
  Average throughput: 113.08 Mbit/s
  95th percentile per-packet one-way delay: 136.741 ms
  Loss rate: 4.90%
Run 5: Report of PCC-Vivace — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Per-packet one-way delay (ms)
Run 1: Statistics of WebRTC media

Start at: 2019-07-12 14:27:28
End at: 2019-07-12 14:27:58
Local clock offset: -0.052 ms
Remote clock offset: 0.372 ms

# Below is generated by plot.py at 2019-07-12 20:12:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 132.620 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 132.654 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.638 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 131.750 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

![Throughput (Mbps) Chart]

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

Flow 1 ingress (mean 0.06 Mbit/s), Flow 1 egress (mean 0.06 Mbit/s), Flow 2 ingress (mean 0.05 Mbit/s), Flow 2 egress (mean 0.05 Mbit/s), Flow 3 ingress (mean 0.05 Mbit/s), Flow 3 egress (mean 0.05 Mbit/s)
Run 2: Statistics of WebRTC media

Start at: 2019-07-12 15:10:44
End at: 2019-07-12 15:11:14
Local clock offset: 0.181 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2019-07-12 20:12:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.328 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.365 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.871 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.306 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2019-07-12 15:54:08
End at: 2019-07-12 15:54:38
Local clock offset: -0.094 ms
Remote clock offset: -0.214 ms

# Below is generated by plot.py at 2019-07-12 20:12:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.13 Mbit/s
  95th percentile per-packet one-way delay: 133.258 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 133.242 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 133.183 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 133.283 ms
  Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2019-07-12 16:37:51
End at: 2019-07-12 16:38:21
Local clock offset: 0.363 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2019-07-12 20:12:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.13 Mbit/s
  95th percentile per-packet one-way delay: 133.696 ms
  Loss rate: 0.00%

-- Flow 1:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 133.501 ms
  Loss rate: 0.00%

-- Flow 2:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 133.749 ms
  Loss rate: 0.00%

-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 133.616 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

![Graph of Throughput vs Time](image)

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

![Graph of Latency vs Time](image)

- **Flow 1** (95th percentile 133.50 ms)
- **Flow 2** (95th percentile 133.75 ms)
- **Flow 3** (95th percentile 133.62 ms)
Run 5: Statistics of WebRTC media

Start at: 2019-07-12 17:21:10
End at: 2019-07-12 17:21:40
Local clock offset: 0.001 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2019-07-12 20:12:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.100 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.000 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.024 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.125 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link