Pantheon Report

Generated at 2019-04-25 00:46:42 (UTC).
Data path: GCE Tokyo on ens4 (remote) → GCE Sydney on ens4 (local).
Repeated the test of 21 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 4.15.0-1028-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 @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fd45e12e923f9
third_party/genericCC @ d015f8e6d94aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0edfbf90c077e64d
third_party/libutp @ b346b9424e2826f2b179eaab4a906ce6bb7cf3c
third_party/muses @ 6e721187ad823da20955373730c746486ca4966
third_party/pantheon-tunnel @ f8f66d3f58d27af942717625ee3a35cc2e802bd
third_party/pcc @ 1af9c958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f55f613e8ac08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8343ea58703f2f42
third_party/scream-reproduce @ f69918d1421aa3131bf1ff1964974e1da3dbb2
  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 @ d4b447ea74c6c60a261149af2629562539f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
test from GCE Tokyo to GCE Sydney, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<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>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
</tr>
<tr>
<td>TCP BBR</td>
<td>5</td>
<td>484.22</td>
<td>446.43</td>
<td>427.42</td>
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<td>Copa</td>
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<td>285.12</td>
<td>274.58</td>
<td>253.07</td>
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<td>TCP Cubic</td>
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<td>341.11</td>
<td>263.86</td>
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<td>211.13</td>
<td>136.86</td>
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<td>WebRTC media</td>
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<td>0.05</td>
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Run 1: Statistics of TCP BBR

End at: 2019-04-24 19:26:05
Local clock offset: 0.162 ms
Remote clock offset: -0.252 ms

# Below is generated by plot.py at 2019-04-24 22:33:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 932.09 Mbit/s
95th percentile per-packet one-way delay: 170.740 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 491.71 Mbit/s
95th percentile per-packet one-way delay: 153.992 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 451.28 Mbit/s
95th percentile per-packet one-way delay: 194.049 ms
Loss rate: 1.98%
-- Flow 3:
Average throughput: 426.02 Mbit/s
95th percentile per-packet one-way delay: 190.466 ms
Loss rate: 3.21%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2019-04-24 20:01:36
End at: 2019-04-24 20:02:06
Local clock offset: -0.494 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2019-04-24 22:33:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 941.44 Mbit/s
95th percentile per-packet one-way delay: 177.725 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 506.18 Mbit/s
95th percentile per-packet one-way delay: 176.785 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 443.66 Mbit/s
95th percentile per-packet one-way delay: 160.308 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 425.48 Mbit/s
95th percentile per-packet one-way delay: 201.785 ms
Loss rate: 2.03%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2019-04-24 20:37:34
End at: 2019-04-24 20:38:04
Local clock offset: -0.296 ms
Remote clock offset: 0.049 ms

# Below is generated by plot.py at 2019-04-24 22:33:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 917.41 Mbit/s
95th percentile per-packet one-way delay: 194.347 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 466.42 Mbit/s
95th percentile per-packet one-way delay: 161.382 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 459.72 Mbit/s
95th percentile per-packet one-way delay: 232.249 ms
Loss rate: 3.61%
-- Flow 3:
Average throughput: 440.66 Mbit/s
95th percentile per-packet one-way delay: 132.795 ms
Loss rate: 2.54%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2019-04-24 21:14:02
Local clock offset: -0.52 ms
Remote clock offset: -0.194 ms

# Below is generated by plot.py at 2019-04-24 22:33:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 924.37 Mbit/s
95th percentile per-packet one-way delay: 183.677 ms
Loss rate: 1.98%
-- Flow 1:
Average throughput: 471.04 Mbit/s
95th percentile per-packet one-way delay: 181.731 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 463.83 Mbit/s
95th percentile per-packet one-way delay: 189.837 ms
Loss rate: 2.13%
-- Flow 3:
Average throughput: 439.25 Mbit/s
95th percentile per-packet one-way delay: 191.917 ms
Loss rate: 3.32%
Run 4: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 476.13 Mbps)
- Flow 1 egress (mean 471.04 Mbps)
- Flow 2 ingress (mean 471.17 Mbps)
- Flow 2 egress (mean 463.83 Mbps)
- Flow 3 ingress (mean 449.09 Mbps)
- Flow 3 egress (mean 439.25 Mbps)

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

- Flow 1 (95th percentile 181.73 ms)
- Flow 2 (95th percentile 189.84 ms)
- Flow 3 (95th percentile 191.92 ms)
Run 5: Statistics of TCP BBR

End at: 2019-04-24 21:51:01
Local clock offset: -0.599 ms
Remote clock offset: -0.117 ms

# Below is generated by plot.py at 2019-04-24 22:33:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 894.44 Mbit/s
  95th percentile per-packet one-way delay: 195.760 ms
  Loss rate: 1.87%
-- Flow 1:
  Average throughput: 485.73 Mbit/s
  95th percentile per-packet one-way delay: 164.726 ms
  Loss rate: 0.88%
-- Flow 2:
  Average throughput: 413.64 Mbit/s
  95th percentile per-packet one-way delay: 204.034 ms
  Loss rate: 2.09%
-- Flow 3:
  Average throughput: 405.68 Mbit/s
  95th percentile per-packet one-way delay: 220.019 ms
  Loss rate: 4.90%
Run 5: Report of TCP BBR — Data Link

Throughput (Mbps)

- Flow 1 ingress (mean 488.17 Mbps)
- Flow 1 egress (mean 485.73 Mbps)
- Flow 2 ingress (mean 419.94 Mbps)
- Flow 2 egress (mean 413.64 Mbps)
- Flow 3 ingress (mean 421.87 Mbps)
- Flow 3 egress (mean 405.68 Mbps)

Packet one-way delay (ms)

- Flow 1 (95th percentile 164.73 ms)
- Flow 2 (95th percentile 204.03 ms)
- Flow 3 (95th percentile 220.02 ms)
Run 1: Statistics of Copa

End at: 2019-04-24 19:30:08
Local clock offset: -0.454 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2019-04-24 22:36:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 573.30 Mbit/s
95th percentile per-packet one-way delay: 77.575 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 278.62 Mbit/s
95th percentile per-packet one-way delay: 70.675 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 315.79 Mbit/s
95th percentile per-packet one-way delay: 81.433 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 257.22 Mbit/s
95th percentile per-packet one-way delay: 74.140 ms
Loss rate: 1.33%
Run 1: Report of Copa — Data Link

![Graph of throughput and packet delay over time for different flows.]
Run 2: Statistics of Copa

Start at: 2019-04-24 20:05:38
End at: 2019-04-24 20:06:09
Local clock offset: -0.256 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2019-04-24 22:36:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 529.32 Mbit/s
95th percentile per-packet one-way delay: 82.926 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 269.34 Mbit/s
95th percentile per-packet one-way delay: 80.747 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 282.26 Mbit/s
95th percentile per-packet one-way delay: 87.076 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 219.32 Mbit/s
95th percentile per-packet one-way delay: 85.930 ms
Loss rate: 1.19%
Run 2: Report of Copa — Data Link

[Graphs showing throughput and packet delay over time for different flows.]
Run 3: Statistics of Copa

Local clock offset: -0.298 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2019-04-24 22:36:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 565.02 Mbit/s
  95th percentile per-packet one-way delay: 76.842 ms
  Loss rate: 0.59%
-- Flow 1:
  Average throughput: 282.57 Mbit/s
  95th percentile per-packet one-way delay: 82.560 ms
  Loss rate: 0.39%
-- Flow 2:
  Average throughput: 286.73 Mbit/s
  95th percentile per-packet one-way delay: 69.307 ms
  Loss rate: 0.55%
-- Flow 3:
  Average throughput: 278.51 Mbit/s
  95th percentile per-packet one-way delay: 69.752 ms
  Loss rate: 1.26%
Run 3: Report of Copa — Data Link

![Graph showing network performance metrics over time.]
Run 4: Statistics of Copa

Local clock offset: -0.114 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2019-04-24 22:51:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 564.95 Mbit/s
95th percentile per-packet one-way delay: 72.663 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 301.68 Mbit/s
95th percentile per-packet one-way delay: 71.437 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 267.42 Mbit/s
95th percentile per-packet one-way delay: 80.611 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 259.27 Mbit/s
95th percentile per-packet one-way delay: 71.659 ms
Loss rate: 1.34%
Run 4: Report of Copa — Data Link

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

Legend:
- Flow 1 ingress (mean 301.62 Mbit/s)
- Flow 1 egress (mean 301.68 Mbit/s)
- Flow 2 ingress (mean 267.54 Mbit/s)
- Flow 2 egress (mean 267.42 Mbit/s)
- Flow 3 ingress (mean 259.77 Mbit/s)
- Flow 3 egress (mean 259.27 Mbit/s)

Note: The graphs depict the performance metrics for three different flows over time, highlighting the throughput and per-packet delay.
Run 5: Statistics of Copa

Start at: 2019-04-24 21:54:40
Local clock offset: -0.65 ms
Remote clock offset: -0.227 ms

# Below is generated by plot.py at 2019-04-24 22:51:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 522.88 Mbit/s
95th percentile per-packet one-way delay: 84.384 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 293.40 Mbit/s
95th percentile per-packet one-way delay: 79.282 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 220.68 Mbit/s
95th percentile per-packet one-way delay: 97.137 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 251.01 Mbit/s
95th percentile per-packet one-way delay: 85.322 ms
Loss rate: 1.02%
Run 5: Report of Copa — Data Link
Run 1: Statistics of TCP Cubic

Local clock offset: 0.208 ms
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2019-04-24 22:51:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 842.52 Mbit/s
95th percentile per-packet one-way delay: 95.088 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 405.75 Mbit/s
95th percentile per-packet one-way delay: 64.931 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 463.76 Mbit/s
95th percentile per-packet one-way delay: 101.271 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 390.23 Mbit/s
95th percentile per-packet one-way delay: 86.128 ms
Loss rate: 1.31%
Run 1: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress** (mean 405.79 Mbps)
- **Flow 1 egress** (mean 405.75 Mbps)
- **Flow 2 ingress** (mean 464.17 Mbps)
- **Flow 2 egress** (mean 463.76 Mbps)
- **Flow 3 ingress** (mean 390.74 Mbps)
- **Flow 3 egress** (mean 390.23 Mbps)

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

- **Flow 1** (95th percentile 64.93 ms)
- **Flow 2** (95th percentile 101.27 ms)
- **Flow 3** (95th percentile 86.13 ms)
Run 2: Statistics of TCP Cubic

Start at: 2019-04-24 20:03:42
End at: 2019-04-24 20:04:12
Local clock offset: -0.057 ms
Remote clock offset: -0.722 ms

# Below is generated by plot.py at 2019-04-24 22:51:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 853.61 Mbit/s
95th percentile per-packet one-way delay: 81.034 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 407.89 Mbit/s
95th percentile per-packet one-way delay: 65.819 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 467.33 Mbit/s
95th percentile per-packet one-way delay: 84.447 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 410.26 Mbit/s
95th percentile per-packet one-way delay: 84.514 ms
Loss rate: 1.52%
Run 2: Report of TCP Cubic — Data Link

![TCP Cubic Throughput]

![TCP Cubic Latency]

- Flow 1 ingress (mean 408.01 Mbit/s)
- Flow 1 egress (mean 407.89 Mbit/s)
- Flow 2 ingress (mean 467.28 Mbit/s)
- Flow 2 egress (mean 467.33 Mbit/s)
- Flow 3 ingress (mean 411.68 Mbit/s)
- Flow 3 egress (mean 410.26 Mbit/s)

- Flow 1 (95th percentile 65.82 ms)
- Flow 2 (95th percentile 84.45 ms)
- Flow 3 (95th percentile 84.51 ms)
Run 3: Statistics of TCP Cubic

Local clock offset: -0.528 ms
Remote clock offset: -0.261 ms

# Below is generated by plot.py at 2019-04-24 22:51:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 903.01 Mbit/s
  95th percentile per-packet one-way delay: 88.210 ms
  Loss rate: 0.61%
-- Flow 1:
  Average throughput: 476.47 Mbit/s
  95th percentile per-packet one-way delay: 72.186 ms
  Loss rate: 0.32%
-- Flow 2:
  Average throughput: 450.89 Mbit/s
  95th percentile per-packet one-way delay: 102.507 ms
  Loss rate: 0.72%
-- Flow 3:
  Average throughput: 384.49 Mbit/s
  95th percentile per-packet one-way delay: 78.041 ms
  Loss rate: 1.43%
Run 3: Report of TCP Cubic — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 476.18 Mbit/s) — Flow 1 egress (mean 476.47 Mbit/s)
Flow 2 ingress (mean 451.56 Mbit/s) — Flow 2 egress (mean 450.89 Mbit/s)
Flow 3 ingress (mean 385.56 Mbit/s) — Flow 3 egress (mean 384.49 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 72.19 ms) — Flow 2 (95th percentile 102.51 ms) — Flow 3 (95th percentile 78.04 ms)
Run 4: Statistics of TCP Cubic

End at: 2019-04-24 21:16:42
Local clock offset: -0.365 ms
Remote clock offset: 0.623 ms

# Below is generated by plot.py at 2019-04-24 22:51:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 978.08 Mbit/s
  95th percentile per-packet one-way delay: 97.773 ms
  Loss rate: 0.62%
-- Flow 1:
  Average throughput: 500.61 Mbit/s
  95th percentile per-packet one-way delay: 95.696 ms
  Loss rate: 0.41%
-- Flow 2:
  Average throughput: 500.31 Mbit/s
  95th percentile per-packet one-way delay: 95.758 ms
  Loss rate: 0.49%
-- Flow 3:
  Average throughput: 439.07 Mbit/s
  95th percentile per-packet one-way delay: 108.285 ms
  Loss rate: 1.59%
Run 4: Report of TCP Cubic — Data Link
Run 5: Statistics of TCP Cubic

Local clock offset: -0.164 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2019-04-24 22:52:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 959.66 Mbit/s
95th percentile per-packet one-way delay: 134.564 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 494.78 Mbit/s
95th percentile per-packet one-way delay: 93.568 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 483.46 Mbit/s
95th percentile per-packet one-way delay: 168.792 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 434.79 Mbit/s
95th percentile per-packet one-way delay: 113.824 ms
Loss rate: 1.58%
Run 5: Report of TCP Cubic — Data Link
Run 1: Statistics of FillP

Start at: 2019-04-24 19:01:02
End at: 2019-04-24 19:01:32
Local clock offset: -0.091 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2019-04-24 22:54:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 853.58 Mbit/s
95th percentile per-packet one-way delay: 86.709 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 542.60 Mbit/s
95th percentile per-packet one-way delay: 91.656 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 333.80 Mbit/s
95th percentile per-packet one-way delay: 60.735 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 272.03 Mbit/s
95th percentile per-packet one-way delay: 65.474 ms
Loss rate: 1.52%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

Local clock offset: -0.58 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-04-24 23:05:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 847.64 Mbit/s
95th percentile per-packet one-way delay: 113.130 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 532.08 Mbit/s
95th percentile per-packet one-way delay: 118.958 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 342.71 Mbit/s
95th percentile per-packet one-way delay: 63.949 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 268.27 Mbit/s
95th percentile per-packet one-way delay: 60.455 ms
Loss rate: 1.08%
Run 2: Report of FillP — Data Link

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

Throughput (Mbit/s)

Time (s)

Flow 1 Ingress (mean 537.55 Mbit/s)  Flow 2 Ingress (mean 342.53 Mbit/s)  Flow 3 Ingress (mean 267.64 Mbit/s)

Flow 1 Egress (mean 532.08 Mbit/s)  Flow 2 Egress (mean 342.71 Mbit/s)  Flow 3 Egress (mean 268.27 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 118.96 ms)  Flow 2 (95th percentile 63.95 ms)  Flow 3 (95th percentile 60.45 ms)
Run 3: Statistics of FillP

Start at: 2019-04-24 20:12:59
Local clock offset: 0.137 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2019-04-24 23:06:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 838.64 Mbit/s
  95th percentile per-packet one-way delay: 102.242 ms
  Loss rate: 0.62%
-- Flow 1:
  Average throughput: 524.14 Mbit/s
  95th percentile per-packet one-way delay: 105.684 ms
  Loss rate: 0.57%
-- Flow 2:
  Average throughput: 351.74 Mbit/s
  95th percentile per-packet one-way delay: 61.811 ms
  Loss rate: 0.56%
-- Flow 3:
  Average throughput: 246.61 Mbit/s
  95th percentile per-packet one-way delay: 59.982 ms
  Loss rate: 1.13%
Run 3: Report of FillP — Data Link
Run 4: Statistics of FillP

Local clock offset: -0.331 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2019-04-24 23:06:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 768.55 Mbit/s
95th percentile per-packet one-way delay: 101.309 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 454.96 Mbit/s
95th percentile per-packet one-way delay: 110.542 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 343.95 Mbit/s
95th percentile per-packet one-way delay: 60.353 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 258.91 Mbit/s
95th percentile per-packet one-way delay: 61.858 ms
Loss rate: 1.23%
Run 4: Report of FillP — Data Link
Run 5: Statistics of FillP

End at: 2019-04-24 21:26:05
Local clock offset: -0.366 ms
Remote clock offset: 0.277 ms

# Below is generated by plot.py at 2019-04-24 23:08:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 875.35 Mbit/s
95th percentile per-packet one-way delay: 84.432 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 564.10 Mbit/s
95th percentile per-packet one-way delay: 95.742 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 333.36 Mbit/s
95th percentile per-packet one-way delay: 61.131 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 273.49 Mbit/s
95th percentile per-packet one-way delay: 63.105 ms
Loss rate: 0.92%
Run 5: Report of FillP — Data Link

![Graph showing throughput and per-packet one-way delay over time for Flow 1, Flow 2, and Flow 3.]
Run 1: Statistics of FillP-Sheep

Local clock offset: 0.219 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2019-04-24 23:08:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 794.63 Mbit/s
95th percentile per-packet one-way delay: 94.278 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 504.10 Mbit/s
95th percentile per-packet one-way delay: 102.654 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 311.18 Mbit/s
95th percentile per-packet one-way delay: 61.649 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 255.32 Mbit/s
95th percentile per-packet one-way delay: 61.075 ms
Loss rate: 1.30%
Run 1: Report of FillP-Sheep — Data Link
Run 2: Statistics of FillP-Sheep

Start at: 2019-04-24 19:52:00
End at: 2019-04-24 19:52:30
Local clock offset: -0.018 ms
Remote clock offset: -0.179 ms

# Below is generated by plot.py at 2019-04-24 23:08:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 820.54 Mbit/s
95th percentile per-packet one-way delay: 103.176 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 526.67 Mbit/s
95th percentile per-packet one-way delay: 112.410 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 318.29 Mbit/s
95th percentile per-packet one-way delay: 66.132 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 251.24 Mbit/s
95th percentile per-packet one-way delay: 69.891 ms
Loss rate: 1.40%
Run 2: Report of FillP-Sheep — Data Link

![Graph showing throughput and packet delay over time]

- Flow 1 ingress (mean 526.72 Mbps)
- Flow 1 egress (mean 526.67 Mbps)
- Flow 2 ingress (mean 318.33 Mbps)
- Flow 2 egress (mean 318.29 Mbps)
- Flow 3 ingress (mean 251.88 Mbps)
- Flow 3 egress (mean 251.24 Mbps)

![Graph showing packet delay over time]

- Flow 1 (95th percentile 112.41 ms)
- Flow 2 (95th percentile 66.13 ms)
- Flow 3 (95th percentile 69.89 ms)
Run 3: Statistics of FillP-Sheep

Local clock offset: -0.3 ms
Remote clock offset: 1.353 ms

# Below is generated by plot.py at 2019-04-24 23:10:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 844.84 Mbit/s
95th percentile per-packet one-way delay: 85.944 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 546.70 Mbit/s
95th percentile per-packet one-way delay: 95.259 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 332.14 Mbit/s
95th percentile per-packet one-way delay: 60.279 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 235.86 Mbit/s
95th percentile per-packet one-way delay: 58.894 ms
Loss rate: 1.44%
Run 3: Report of FillP-Sheep — Data Link

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

- Flow 1 Ingress (mean 547.36 Mbps/s)
- Flow 1 Egress (mean 546.70 Mbps/s)
- Flow 2 Ingress (mean 332.06 Mbps/s)
- Flow 2 Egress (mean 332.14 Mbps/s)
- Flow 3 Ingress (mean 236.60 Mbps/s)
- Flow 3 Egress (mean 235.88 Mbps/s)

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

- Flow 1 (95th percentile 95.26 ms)
- Flow 2 (95th percentile 60.28 ms)
- Flow 3 (95th percentile 58.89 ms)
Run 4: Statistics of FillP-Sheep

End at: 2019-04-24 21:04:43
Local clock offset: -0.161 ms
Remote clock offset: -0.268 ms

# Below is generated by plot.py at 2019-04-24 23:13:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 872.84 Mbit/s
  95th percentile per-packet one-way delay: 86.679 ms
  Loss rate: 0.42%
-- Flow 1:
  Average throughput: 565.42 Mbit/s
  95th percentile per-packet one-way delay: 95.696 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 343.24 Mbit/s
  95th percentile per-packet one-way delay: 62.767 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 241.93 Mbit/s
  95th percentile per-packet one-way delay: 64.495 ms
  Loss rate: 1.20%
Run 4: Report of FillP-Sheep — Data Link

![Graphs showing throughput and packet delay](image_url)
Run 5: Statistics of FillP-Sheep

Start at: 2019-04-24 21:40:45
Local clock offset: -0.017 ms
Remote clock offset: -0.27 ms

# Below is generated by plot.py at 2019-04-24 23:16:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 514.27 Mbit/s
95th percentile per-packet one-way delay: 63.889 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 209.08 Mbit/s
95th percentile per-packet one-way delay: 71.731 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 342.85 Mbit/s
95th percentile per-packet one-way delay: 61.793 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 235.70 Mbit/s
95th percentile per-packet one-way delay: 59.517 ms
Loss rate: 1.13%
Run 1: Statistics of Indigo

End at: 2019-04-24 18:59:42
Local clock offset: -0.079 ms
Remote clock offset: -0.245 ms

# Below is generated by plot.py at 2019-04-24 23:18:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 402.73 Mbit/s
  95th percentile per-packet one-way delay: 62.675 ms
  Loss rate: 0.61%
-- Flow 1:
  Average throughput: 217.59 Mbit/s
  95th percentile per-packet one-way delay: 63.291 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 193.63 Mbit/s
  95th percentile per-packet one-way delay: 60.529 ms
  Loss rate: 0.65%
-- Flow 3:
  Average throughput: 160.92 Mbit/s
  95th percentile per-packet one-way delay: 59.501 ms
  Loss rate: 1.43%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

End at: 2019-04-24 19:35:37
Local clock offset: -0.139 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2019-04-24 23:20:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 402.70 Mbit/s
95th percentile per-packet one-way delay: 62.927 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 216.03 Mbit/s
95th percentile per-packet one-way delay: 64.032 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 201.88 Mbit/s
95th percentile per-packet one-way delay: 59.586 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 162.53 Mbit/s
95th percentile per-packet one-way delay: 59.865 ms
Loss rate: 1.30%
Run 2: Report of Indigo — Data Link
Run 3: Statistics of Indigo

Start at: 2019-04-24 20:11:06
End at: 2019-04-24 20:11:36
Local clock offset: -0.688 ms
Remote clock offset: -0.171 ms

# Below is generated by plot.py at 2019-04-24 23:21:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.65 Mbit/s
95th percentile per-packet one-way delay: 60.378 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 210.37 Mbit/s
95th percentile per-packet one-way delay: 60.794 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 195.36 Mbit/s
95th percentile per-packet one-way delay: 60.122 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 193.12 Mbit/s
95th percentile per-packet one-way delay: 59.251 ms
Loss rate: 1.28%
Run 3: Report of Indigo — Data Link

[Graphs showing throughput and packet error rates over time for different flows]
Run 4: Statistics of Indigo

Local clock offset: -0.337 ms
Remote clock offset: 0.051 ms

# Below is generated by plot.py at 2019-04-24 23:21:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 381.04 Mbit/s
  95th percentile per-packet one-way delay: 62.947 ms
  Loss rate: 0.59%
-- Flow 1:
  Average throughput: 210.28 Mbit/s
  95th percentile per-packet one-way delay: 63.087 ms
  Loss rate: 0.40%
-- Flow 2:
  Average throughput: 177.22 Mbit/s
  95th percentile per-packet one-way delay: 63.448 ms
  Loss rate: 0.65%
-- Flow 3:
  Average throughput: 164.31 Mbit/s
  95th percentile per-packet one-way delay: 59.282 ms
  Loss rate: 1.24%
Run 4: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 210.29 Mbps)
- Flow 1 egress (mean 210.28 Mbps)
- Flow 2 ingress (mean 177.32 Mbps)
- Flow 2 egress (mean 177.22 Mbps)
- Flow 3 ingress (mean 164.44 Mbps)
- Flow 3 egress (mean 164.31 Mbps)

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

- Flow 1 (95th percentile 63.09 ms)
- Flow 2 (95th percentile 63.45 ms)
- Flow 3 (95th percentile 59.28 ms)
Run 5: Statistics of Indigo

Local clock offset: -0.228 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2019-04-24 23:21:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.81 Mbit/s
95th percentile per-packet one-way delay: 62.793 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 209.28 Mbit/s
95th percentile per-packet one-way delay: 62.261 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 182.99 Mbit/s
95th percentile per-packet one-way delay: 62.693 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 169.55 Mbit/s
95th percentile per-packet one-way delay: 63.764 ms
Loss rate: 1.41%
Run 5: Report of Indigo — Data Link
Run 1: Statistics of Indigo-MusesC3

End at: 2019-04-24 19:11:44
Local clock offset: -0.012 ms
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2019-04-24 23:23:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 739.75 Mbit/s
95th percentile per-packet one-way delay: 67.669 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 434.82 Mbit/s
95th percentile per-packet one-way delay: 69.194 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 358.69 Mbit/s
95th percentile per-packet one-way delay: 62.592 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 276.33 Mbit/s
95th percentile per-packet one-way delay: 66.627 ms
Loss rate: 2.19%
Run 1: Report of Indigo-MusesC3 — Data Link
Run 2: Statistics of Indigo-MusesC3

Local clock offset: -0.675 ms
Remote clock offset: -0.754 ms

# Below is generated by plot.py at 2019-04-24 23:26:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 730.82 Mbit/s
  95th percentile per-packet one-way delay: 61.870 ms
  Loss rate: 0.54%
-- Flow 1:
  Average throughput: 421.68 Mbit/s
  95th percentile per-packet one-way delay: 62.911 ms
  Loss rate: 0.28%
-- Flow 2:
  Average throughput: 361.39 Mbit/s
  95th percentile per-packet one-way delay: 60.342 ms
  Loss rate: 0.51%
-- Flow 3:
  Average throughput: 279.53 Mbit/s
  95th percentile per-packet one-way delay: 59.973 ms
  Loss rate: 2.06%
Run 2: Report of Indigo-MusesC3 — Data Link

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

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

Flow 1 ingress (mean 421.17 Mbps)
Flow 1 egress (mean 421.68 Mbps)
Flow 2 ingress (mean 360.91 Mbps)
Flow 2 egress (mean 361.39 Mbps)
Flow 3 ingress (mean 281.24 Mbps)
Flow 3 egress (mean 279.53 Mbps)
Run 3: Statistics of Indigo-MusesC3

Local clock offset: -0.697 ms
Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2019-04-24 23:29:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 731.93 Mbit/s
95th percentile per-packet one-way delay: 76.032 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 420.87 Mbit/s
95th percentile per-packet one-way delay: 84.053 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 383.28 Mbit/s
95th percentile per-packet one-way delay: 65.107 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 232.66 Mbit/s
95th percentile per-packet one-way delay: 62.931 ms
Loss rate: 1.93%
Run 3: Report of Indigo-MusesC3 — Data Link

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

- Flow 1 ingress (mean 420.31 Mbit/s)
- Flow 1 egress (mean 420.87 Mbit/s)
- Flow 2 ingress (mean 383.37 Mbit/s)
- Flow 2 egress (mean 383.28 Mbit/s)
- Flow 3 ingress (mean 233.71 Mbit/s)
- Flow 3 egress (mean 232.66 Mbit/s)
Run 4: Statistics of Indigo-MusesC3

End at: 2019-04-24 20:59:52
Local clock offset: -0.767 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2019-04-24 23:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 713.67 Mbit/s
95th percentile per-packet one-way delay: 66.712 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 435.09 Mbit/s
95th percentile per-packet one-way delay: 66.247 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 345.28 Mbit/s
95th percentile per-packet one-way delay: 68.854 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 210.61 Mbit/s
95th percentile per-packet one-way delay: 65.572 ms
Loss rate: 2.51%
Run 4: Report of Indigo-MusesC3 — Data Link

[Graph showing throughput and latency over time for different flows]
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-04-24 21:35:50
Local clock offset: -0.563 ms
Remote clock offset: -0.18 ms

# Below is generated by plot.py at 2019-04-24 23:31:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 682.40 Mbit/s
95th percentile per-packet one-way delay: 63.600 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 398.57 Mbit/s
95th percentile per-packet one-way delay: 61.546 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 329.12 Mbit/s
95th percentile per-packet one-way delay: 66.425 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 266.18 Mbit/s
95th percentile per-packet one-way delay: 61.097 ms
Loss rate: 2.00%
Run 5: Report of Indigo-MusesC3 — Data Link

![Graph of Throughput and Delay](image-url)
Run 1: Statistics of Indigo-MusesC5

Local clock offset: -0.201 ms
Remote clock offset: -0.327 ms

# Below is generated by plot.py at 2019-04-24 23:34:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 736.22 Mbit/s
95th percentile per-packet one-way delay: 106.850 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 455.47 Mbit/s
95th percentile per-packet one-way delay: 110.374 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 395.28 Mbit/s
95th percentile per-packet one-way delay: 78.179 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 95.34 Mbit/s
95th percentile per-packet one-way delay: 58.181 ms
Loss rate: 1.75%
Run 1: Report of Indigo-MusesC5 — Data Link
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-04-24 19:58:00
End at: 2019-04-24 19:58:30
Local clock offset: -0.005 ms
Remote clock offset: -0.737 ms

# Below is generated by plot.py at 2019-04-24 23:34:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 751.51 Mbit/s
95th percentile per-packet one-way delay: 88.600 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 472.81 Mbit/s
95th percentile per-packet one-way delay: 90.621 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 391.84 Mbit/s
95th percentile per-packet one-way delay: 88.060 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 98.32 Mbit/s
95th percentile per-packet one-way delay: 59.580 ms
Loss rate: 1.76%
Run 2: Report of Indigo-MusesC5 — Data Link

Throughput (Mbps)

0 5 10 15 20 25
0 100 200 300 400 500 600 700

Flow 1 ingress (mean 471.38 Mbps)
Flow 1 egress (mean 472.81 Mbps)
Flow 2 ingress (mean 392.07 Mbps)
Flow 2 egress (mean 391.84 Mbps)
Flow 3 ingress (mean 98.61 Mbps)
Flow 3 egress (mean 98.32 Mbps)

Per packet one way delay (ms)

0 5 10 15 20 25
0 60 120 180

Flow 1 (95th percentile 90.62 ms)
Flow 2 (95th percentile 88.06 ms)
Flow 3 (95th percentile 59.58 ms)
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-04-24 20:34:04
End at: 2019-04-24 20:34:34
Local clock offset: -0.111 ms
Remote clock offset: -0.491 ms

# Below is generated by plot.py at 2019-04-24 23:34:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 754.81 Mbit/s
  95th percentile per-packet one-way delay: 85.403 ms
  Loss rate: 0.52%
-- Flow 1:
  Average throughput: 482.93 Mbit/s
  95th percentile per-packet one-way delay: 89.449 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 382.44 Mbit/s
  95th percentile per-packet one-way delay: 73.383 ms
  Loss rate: 0.69%
-- Flow 3:
  Average throughput: 98.47 Mbit/s
  95th percentile per-packet one-way delay: 61.615 ms
  Loss rate: 2.00%
Run 3: Report of Indigo-MusesC5 — Data Link

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

- Flow 1 ingress (mean 482.64 Mbit/s) — Flow 1 egress (mean 482.93 Mbit/s)
- Flow 2 ingress (mean 382.88 Mbit/s) — Flow 2 egress (mean 382.44 Mbit/s)
- Flow 3 ingress (mean 98.85 Mbit/s) — Flow 3 egress (mean 98.47 Mbit/s)
Run 4: Statistics of Indigo-MusesC5

End at: 2019-04-24 21:10:50
Local clock offset: -0.759 ms
Remote clock offset: -0.124 ms

# Below is generated by plot.py at 2019-04-24 23:37:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 787.84 Mbit/s
95th percentile per-packet one-way delay: 93.794 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 502.48 Mbit/s
95th percentile per-packet one-way delay: 84.631 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 397.47 Mbit/s
95th percentile per-packet one-way delay: 115.631 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 102.56 Mbit/s
95th percentile per-packet one-way delay: 60.321 ms
Loss rate: 1.71%
Run 4: Report of Indigo-MusesC5 — Data Link

![Graph showing data link performance over time]

- Flow 1 ingress (mean 502.17 Mbit/s)
- Flow 1 egress (mean 502.48 Mbit/s)
- Flow 2 ingress (mean 397.80 Mbit/s)
- Flow 2 egress (mean 397.47 Mbit/s)
- Flow 3 ingress (mean 102.73 Mbit/s)
- Flow 3 egress (mean 102.56 Mbit/s)

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

- Flow 1 (95th percentile 84.63 ms)
- Flow 2 (95th percentile 115.63 ms)
- Flow 3 (95th percentile 60.32 ms)
Run 5: Statistics of Indigo-MusesC5

Local clock offset: -0.044 ms
Remote clock offset: -0.901 ms

# Below is generated by plot.py at 2019-04-24 23:40:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 804.75 Mbit/s
95th percentile per-packet one-way delay: 93.352 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 504.37 Mbit/s
95th percentile per-packet one-way delay: 92.259 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 421.58 Mbit/s
95th percentile per-packet one-way delay: 99.630 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 104.04 Mbit/s
95th percentile per-packet one-way delay: 58.946 ms
Loss rate: 1.66%
Run 5: Report of Indigo-MusesC5 — Data Link
Run 1: Statistics of Indigo-MusesD

Local clock offset: -0.178 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2019-04-24 23:41:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 706.42 Mbit/s
95th percentile per-packet one-way delay: 65.102 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 412.69 Mbit/s
95th percentile per-packet one-way delay: 67.190 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 348.69 Mbit/s
95th percentile per-packet one-way delay: 64.041 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 263.37 Mbit/s
95th percentile per-packet one-way delay: 59.927 ms
Loss rate: 1.65%
Run 1: Report of Indigo-MusesD — Data Link

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

Legend:
- Flow 1 ingress (mean 412.33 Mbit/s)
- Flow 1 egress (mean 412.69 Mbit/s)
- Flow 2 ingress (mean 347.04 Mbit/s)
- Flow 2 egress (mean 348.69 Mbit/s)
- Flow 3 ingress (mean 262.84 Mbit/s)
- Flow 3 egress (mean 263.37 Mbit/s)
Run 2: Statistics of Indigo-MusesD

Start at: 2019-04-24 20:07:41
End at: 2019-04-24 20:08:11
Local clock offset: -0.452 ms
Remote clock offset: -0.28 ms

# Below is generated by plot.py at 2019-04-24 23:42:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 645.04 Mbit/s
95th percentile per-packet one-way delay: 64.078 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 347.36 Mbit/s
95th percentile per-packet one-way delay: 64.478 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 362.41 Mbit/s
95th percentile per-packet one-way delay: 63.373 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 239.76 Mbit/s
95th percentile per-packet one-way delay: 60.446 ms
Loss rate: 1.85%
Run 2: Report of Indigo-MusesD — Data Link

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

- Flow 1 ingress (mean 347.39 Mbps)
- Flow 1 egress (mean 347.36 Mbps)
- Flow 2 ingress (mean 362.23 Mbps)
- Flow 2 egress (mean 362.41 Mbps)
- Flow 3 ingress (mean 240.71 Mbps)
- Flow 3 egress (mean 239.76 Mbps)

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

- Flow 1 (95th percentile 64.48 ms)
- Flow 2 (95th percentile 63.37 ms)
- Flow 3 (95th percentile 60.45 ms)
Run 3: Statistics of Indigo-MusesD

End at: 2019-04-24 20:44:20
Local clock offset: 0.063 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2019-04-24 23:43:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 678.29 Mbit/s
95th percentile per-packet one-way delay: 65.005 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 415.55 Mbit/s
95th percentile per-packet one-way delay: 66.371 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 305.79 Mbit/s
95th percentile per-packet one-way delay: 61.006 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 256.71 Mbit/s
95th percentile per-packet one-way delay: 66.440 ms
Loss rate: 2.29%
Run 3: Report of Indigo-MusesD — Data Link

![Graphs showing throughput and per-packet round-trip time over time for different flows.]
Run 4: Statistics of Indigo-MusesD

End at: 2019-04-24 21:20:50
Local clock offset: -0.362 ms
Remote clock offset: -0.164 ms

# Below is generated by plot.py at 2019-04-24 23:46:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 692.59 Mbit/s
95th percentile per-packet one-way delay: 66.991 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 395.53 Mbit/s
95th percentile per-packet one-way delay: 70.297 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 350.67 Mbit/s
95th percentile per-packet one-way delay: 65.435 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 273.44 Mbit/s
95th percentile per-packet one-way delay: 61.906 ms
Loss rate: 1.95%
Run 4: Report of Indigo-MusesD — Data Link

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

- **Flow 1**
  - Ingress: Mean 395.15 Mbit/s
  - Egress: Mean 395.53 Mbit/s

- **Flow 2**
  - Ingress: Mean 350.68 Mbit/s
  - Egress: Mean 350.67 Mbit/s

- **Flow 3**
  - Ingress: Mean 274.60 Mbit/s
  - Egress: Mean 273.44 Mbit/s

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Run 5: Statistics of Indigo-MusesD

Local clock offset: -0.64 ms
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2019-04-24 23:46:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 704.70 Mbit/s
95th percentile per-packet one-way delay: 70.067 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 411.65 Mbit/s
95th percentile per-packet one-way delay: 69.019 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 335.04 Mbit/s
95th percentile per-packet one-way delay: 75.692 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 286.25 Mbit/s
95th percentile per-packet one-way delay: 60.043 ms
Loss rate: 1.70%
Run 5: Report of Indigo-MusesD — Data Link
Run 1: Statistics of Indigo-MusesT

Start at: 2019-04-24 19:13:02
Local clock offset: 0.053 ms
Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2019-04-24 23:48:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 823.08 Mbit/s
95th percentile per-packet one-way delay: 95.132 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 485.62 Mbit/s
95th percentile per-packet one-way delay: 106.190 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 405.23 Mbit/s
95th percentile per-packet one-way delay: 64.676 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 288.16 Mbit/s
95th percentile per-packet one-way delay: 61.981 ms
Loss rate: 2.06%
Run 1: Report of Indigo-MusesT — Data Link

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

- **Throughput (Mb/s):**
  - Flow 1 ingress (mean 485.37 Mb/s)
  - Flow 1 egress (mean 485.62 Mb/s)
  - Flow 2 ingress (mean 404.71 Mb/s)
  - Flow 2 egress (mean 405.23 Mb/s)
  - Flow 3 ingress (mean 289.95 Mb/s)
  - Flow 3 egress (mean 288.16 Mb/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 106.19 ms)
  - Flow 2 (95th percentile 64.68 ms)
  - Flow 3 (95th percentile 61.98 ms)
Run 2: Statistics of Indigo-MusesT

Local clock offset: -0.194 ms
Remote clock offset: -0.294 ms

# Below is generated by plot.py at 2019-04-24 23:51:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 784.97 Mbit/s
95th percentile per-packet one-way delay: 98.639 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 463.26 Mbit/s
95th percentile per-packet one-way delay: 107.066 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 386.30 Mbit/s
95th percentile per-packet one-way delay: 66.543 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 288.02 Mbit/s
95th percentile per-packet one-way delay: 62.900 ms
Loss rate: 2.38%
Run 2: Report of Indigo-MusesT — Data Link

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

- Flow 1 ingress (mean 462.94 Mbit/s)
- Flow 1 egress (mean 463.26 Mbit/s)
- Flow 2 ingress (mean 385.64 Mbit/s)
- Flow 2 egress (mean 386.35 Mbit/s)
- Flow 3 ingress (mean 290.57 Mbit/s)
- Flow 3 egress (mean 288.02 Mbit/s)

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

- Flow 1 (95th percentile 107.07 ms)
- Flow 2 (95th percentile 66.54 ms)
- Flow 3 (95th percentile 62.90 ms)
Run 3: Statistics of Indigo-MusesT

Start at: 2019-04-24 20:24:54
Local clock offset: -0.219 ms
Remote clock offset: -0.168 ms

# Below is generated by plot.py at 2019-04-24 23:54:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 802.89 Mbit/s
  95th percentile per-packet one-way delay: 85.503 ms
  Loss rate: 0.48%
-- Flow 1:
  Average throughput: 481.20 Mbit/s
  95th percentile per-packet one-way delay: 93.651 ms
  Loss rate: 0.28%
-- Flow 2:
  Average throughput: 388.92 Mbit/s
  95th percentile per-packet one-way delay: 61.860 ms
  Loss rate: 0.46%
-- Flow 3:
  Average throughput: 266.35 Mbit/s
  95th percentile per-packet one-way delay: 59.386 ms
  Loss rate: 1.89%
Run 4: Statistics of Indigo-MusesT

Start at: 2019-04-24 21:01:08
End at: 2019-04-24 21:01:38
Local clock offset: -0.207 ms
Remote clock offset: -0.251 ms

# Below is generated by plot.py at 2019-04-24 23:55:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 804.26 Mbit/s
95th percentile per-packet one-way delay: 81.944 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 481.58 Mbit/s
95th percentile per-packet one-way delay: 79.706 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 388.27 Mbit/s
95th percentile per-packet one-way delay: 85.437 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 280.86 Mbit/s
95th percentile per-packet one-way delay: 61.208 ms
Loss rate: 1.84%
Run 4: Report of Indigo-MusesT — Data Link

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

Legend:
- Flow 1 ingress (mean 480.86 Mbit/s)
- Flow 1 egress (mean 481.58 Mbit/s)
- Flow 2 ingress (mean 388.20 Mbit/s)
- Flow 2 egress (mean 388.27 Mbit/s)
- Flow 3 ingress (mean 381.89 Mbit/s)
- Flow 3 egress (mean 380.86 Mbit/s)

Legend for delay:
- Flow 1 (95th percentile 79.71 ms)
- Flow 2 (95th percentile 85.44 ms)
- Flow 3 (95th percentile 61.21 ms)
Run 5: Statistics of Indigo-MusesT

End at: 2019-04-24 21:38:06
Local clock offset: -0.42 ms
Remote clock offset: -0.252 ms

# Below is generated by plot.py at 2019-04-24 23:56:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 823.28 Mbit/s
  95th percentile per-packet one-way delay: 83.727 ms
  Loss rate: 0.47%
-- Flow 1:
  Average throughput: 487.85 Mbit/s
  95th percentile per-packet one-way delay: 86.883 ms
  Loss rate: 0.27%
-- Flow 2:
  Average throughput: 404.98 Mbit/s
  95th percentile per-packet one-way delay: 71.457 ms
  Loss rate: 0.36%
-- Flow 3:
  Average throughput: 273.66 Mbit/s
  95th percentile per-packet one-way delay: 65.815 ms
  Loss rate: 2.18%
Run 5: Report of Indigo-MusesT — Data Link

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

- **Flow 1**:
  - Ingress: Mean 487.22 Mb/s
  - Egress: Mean 487.85 Mb/s

- **Flow 2**:
  - Ingress: Mean 433.92 Mb/s
  - Egress: Mean 404.98 Mb/s

- **Flow 3**:
  - Ingress: Mean 275.51 Mb/s
  - Egress: Mean 273.66 Mb/s
Run 1: Statistics of LEDBAT

Start at: 2019-04-24 19:08:01
End at: 2019-04-24 19:08:31
Local clock offset: -0.145 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2019-04-24 23:56:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.10 Mbit/s
95th percentile per-packet one-way delay: 60.748 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 26.51 Mbit/s
95th percentile per-packet one-way delay: 58.494 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 17.75 Mbit/s
95th percentile per-packet one-way delay: 61.188 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 8.78 Mbit/s
95th percentile per-packet one-way delay: 57.709 ms
Loss rate: 2.38%
Run 1: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 26.62 Mbit/s)
- Flow 1 egress (mean 26.51 Mbit/s)
- Flow 2 ingress (mean 17.86 Mbit/s)
- Flow 2 egress (mean 17.75 Mbit/s)
- Flow 3 ingress (mean 8.89 Mbit/s)
- Flow 3 egress (mean 8.76 Mbit/s)

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

- Flow 1 (95th percentile 58.49 ms)
- Flow 2 (95th percentile 61.19 ms)
- Flow 3 (95th percentile 57.71 ms)
Run 2: Statistics of LEDBAT

End at: 2019-04-24 19:44:25
Local clock offset: ~0.248 ms
Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2019-04-24 23:56:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.72 Mbit/s
95th percentile per-packet one-way delay: 60.956 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 27.99 Mbit/s
95th percentile per-packet one-way delay: 58.207 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 17.67 Mbit/s
95th percentile per-packet one-way delay: 61.953 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 9.28 Mbit/s
95th percentile per-packet one-way delay: 57.405 ms
Loss rate: 2.33%
Run 2: Report of LEDBAT — Data Link

![Diagram showing throughput and packet delay over time]
Run 3: Statistics of LEDBAT

Local clock offset: 0.139 ms
Remote clock offset: -0.299 ms

# Below is generated by plot.py at 2019-04-24 23:56:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.83 Mbit/s
95th percentile per-packet one-way delay: 61.238 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 26.58 Mbit/s
95th percentile per-packet one-way delay: 59.013 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 18.60 Mbit/s
95th percentile per-packet one-way delay: 58.659 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 8.77 Mbit/s
95th percentile per-packet one-way delay: 61.984 ms
Loss rate: 2.39%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2019-04-24 20:56:10
End at: 2019-04-24 20:56:40
Local clock offset: -0.088 ms
Remote clock offset: -0.394 ms

# Below is generated by plot.py at 2019-04-24 23:56:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.83 Mbit/s
95th percentile per-packet one-way delay: 61.632 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 25.35 Mbit/s
95th percentile per-packet one-way delay: 61.856 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 17.70 Mbit/s
95th percentile per-packet one-way delay: 58.539 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 8.34 Mbit/s
95th percentile per-packet one-way delay: 61.472 ms
Loss rate: 2.45%
Run 4: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 25.42 Mbit/s)
- Flow 1 egress (mean 25.35 Mbit/s)
- Flow 2 ingress (mean 17.81 Mbit/s)
- Flow 2 egress (mean 17.70 Mbit/s)
- Flow 3 ingress (mean 8.44 Mbit/s)
- Flow 3 egress (mean 8.34 Mbit/s)

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

- Flow 1 (95th percentile 61.86 ms)
- Flow 2 (95th percentile 58.54 ms)
- Flow 3 (95th percentile 61.47 ms)
Run 5: Statistics of LEDBAT

End at: 2019-04-24 21:33:06
Local clock offset: -0.339 ms
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2019-04-24 23:56:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 42.16 Mbit/s
  95th percentile per-packet one-way delay: 60.489 ms
  Loss rate: 1.00%
-- Flow 1:
  Average throughput: 26.73 Mbit/s
  95th percentile per-packet one-way delay: 58.031 ms
  Loss rate: 0.78%
-- Flow 2:
  Average throughput: 18.95 Mbit/s
  95th percentile per-packet one-way delay: 57.788 ms
  Loss rate: 1.15%
-- Flow 3:
  Average throughput: 8.78 Mbit/s
  95th percentile per-packet one-way delay: 60.902 ms
  Loss rate: 2.39%
Run 5: Report of LEDBAT — Data Link

Throughput (Mbit/s) vs Time (s)

- Flow 1 ingress (mean 26.84 Mbit/s)
- Flow 1 egress (mean 26.73 Mbit/s)
- Flow 2 ingress (mean 19.06 Mbit/s)
- Flow 2 egress (mean 18.95 Mbit/s)
- Flow 3 ingress (mean 8.89 Mbit/s)
- Flow 3 egress (mean 8.76 Mbit/s)

Per packet round trip delay (ms)

- Flow 1 (95th percentile 58.03 ms)
- Flow 2 (95th percentile 57.79 ms)
- Flow 3 (95th percentile 60.90 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2019-04-24 19:06:01
End at: 2019-04-24 19:06:32
Local clock offset: -0.395 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2019-04-25 00:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 701.55 Mbit/s
95th percentile per-packet one-way delay: 185.861 ms
Loss rate: 4.40%
-- Flow 1:
Average throughput: 433.52 Mbit/s
95th percentile per-packet one-way delay: 191.167 ms
Loss rate: 5.97%
-- Flow 2:
Average throughput: 282.71 Mbit/s
95th percentile per-packet one-way delay: 71.305 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 246.39 Mbit/s
95th percentile per-packet one-way delay: 182.652 ms
Loss rate: 3.24%
Run 1: Report of PCC-Allegro — Data Link
Run 2: Statistics of PCC-Allegro

Local clock offset: -0.049 ms
Remote clock offset: -0.213 ms

# Below is generated by plot.py at 2019-04-25 00:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 598.12 Mbit/s
  95th percentile per-packet one-way delay: 239.749 ms
  Loss rate: 9.08%
-- Flow 1:
  Average throughput: 322.01 Mbit/s
  95th percentile per-packet one-way delay: 230.820 ms
  Loss rate: 5.31%
-- Flow 2:
  Average throughput: 350.14 Mbit/s
  95th percentile per-packet one-way delay: 299.561 ms
  Loss rate: 15.04%
-- Flow 3:
  Average throughput: 135.32 Mbit/s
  95th percentile per-packet one-way delay: 135.550 ms
  Loss rate: 1.33%
Run 2: Report of PCC-Allegro — Data Link

[Graph showing throughput and per-packet delay over time for Flow 1, Flow 2, and Flow 3, with mean values provided for each flow's ingress and egress.]
Run 3: Statistics of PCC-Allegro

Local clock offset: -0.664 ms
Remote clock offset: -0.529 ms

# Below is generated by plot.py at 2019-04-25 00:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 624.82 Mbit/s
  95th percentile per-packet one-way delay: 203.841 ms
  Loss rate: 6.62%
-- Flow 1:
  Average throughput: 394.19 Mbit/s
  95th percentile per-packet one-way delay: 206.304 ms
  Loss rate: 9.32%
-- Flow 2:
  Average throughput: 230.26 Mbit/s
  95th percentile per-packet one-way delay: 61.406 ms
  Loss rate: 0.89%
-- Flow 3:
  Average throughput: 238.36 Mbit/s
  95th percentile per-packet one-way delay: 210.400 ms
  Loss rate: 2.96%
Run 3: Report of PCC-Allegro — Data Link
Run 4: Statistics of PCC-Allegro

Start at: 2019-04-24 20:54:08
End at: 2019-04-24 20:54:38
Local clock offset: -0.314 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2019-04-25 00:14:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 716.46 Mbit/s
95th percentile per-packet one-way delay: 191.818 ms
Loss rate: 5.68%
-- Flow 1:
Average throughput: 433.57 Mbit/s
95th percentile per-packet one-way delay: 195.595 ms
Loss rate: 8.14%
-- Flow 2:
Average throughput: 285.41 Mbit/s
95th percentile per-packet one-way delay: 171.327 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 286.61 Mbit/s
95th percentile per-packet one-way delay: 100.457 ms
Loss rate: 1.54%
Run 4: Report of PCC-Allegro — Data Link
Run 5: Statistics of PCC-Allegro

Start at: 2019-04-24 21:30:37
Local clock offset: -0.161 ms
Remote clock offset: -0.24 ms

# Below is generated by plot.py at 2019-04-25 00:15:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 661.14 Mbit/s
95th percentile per-packet one-way delay: 283.249 ms
Loss rate: 9.39%
-- Flow 1:
Average throughput: 368.13 Mbit/s
95th percentile per-packet one-way delay: 288.665 ms
Loss rate: 9.90%
-- Flow 2:
Average throughput: 332.03 Mbit/s
95th percentile per-packet one-way delay: 264.488 ms
Loss rate: 9.84%
-- Flow 3:
Average throughput: 222.75 Mbit/s
95th percentile per-packet one-way delay: 323.493 ms
Loss rate: 5.25%
Run 5: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 1: Statistics of PCC-Expr

Start at: 2019-04-24 19:04:09
End at: 2019-04-24 19:04:39
Local clock offset: 0.284 ms
Remote clock offset: -0.152 ms

# Below is generated by plot.py at 2019-04-25 00:15:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 443.83 Mbit/s
95th percentile per-packet one-way delay: 161.708 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 261.00 Mbit/s
95th percentile per-packet one-way delay: 143.246 ms
Loss rate: 2.06%
-- Flow 2:
Average throughput: 225.16 Mbit/s
95th percentile per-packet one-way delay: 185.326 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 102.25 Mbit/s
95th percentile per-packet one-way delay: 61.559 ms
Loss rate: 1.65%
Run 1: Report of PCC-Expr — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 265.46 Mbit/s) — Flow 1 egress (mean 261.00 Mbit/s)
Flow 2 ingress (mean 227.38 Mbit/s) — Flow 2 egress (mean 225.16 Mbit/s)
Flow 3 ingress (mean 102.73 Mbit/s) — Flow 3 egress (mean 102.25 Mbit/s)

Round-trip time (ms)

Time (s)

Flow 1 (95th percentile 143.25 ms) — Flow 2 (95th percentile 185.33 ms) — Flow 3 (95th percentile 61.56 ms)
Run 2: Statistics of PCC-Expr

End at: 2019-04-24 19:40:34
Local clock offset: -0.251 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2019-04-25 00:15:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.90 Mbit/s
95th percentile per-packet one-way delay: 132.686 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 301.27 Mbit/s
95th percentile per-packet one-way delay: 143.752 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 234.10 Mbit/s
95th percentile per-packet one-way delay: 75.886 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 83.01 Mbit/s
95th percentile per-packet one-way delay: 69.909 ms
Loss rate: 5.90%
Run 2: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress** (mean 304.55 Mbps)
- **Flow 1 egress** (mean 301.27 Mbps)
- **Flow 2 ingress** (mean 234.18 Mbps)
- **Flow 2 egress** (mean 234.10 Mbps)
- **Flow 3 ingress** (mean 87.18 Mbps)
- **Flow 3 egress** (mean 83.00 Mbps)

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

- **Flow 1** (95th percentile 143.75 ms)
- **Flow 2** (95th percentile 75.89 ms)
- **Flow 3** (95th percentile 69.91 ms)
Run 3: Statistics of PCC-Expr

Start at: 2019-04-24 20:16:05
End at: 2019-04-24 20:16:35
Local clock offset: -0.452 ms
Remote clock offset: 0.51 ms

# Below is generated by plot.py at 2019-04-25 00:15:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 425.07 Mbit/s
95th percentile per-packet one-way delay: 116.735 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 225.64 Mbit/s
95th percentile per-packet one-way delay: 159.530 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 209.98 Mbit/s
95th percentile per-packet one-way delay: 74.233 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 183.82 Mbit/s
95th percentile per-packet one-way delay: 69.505 ms
Loss rate: 1.32%
Run 4: Statistics of PCC-Expr

Start at: 2019-04-24 20:52:10
End at: 2019-04-24 20:52:40
Local clock offset: -0.406 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 492.71 Mbit/s
  95th percentile per-packet one-way delay: 147.293 ms
  Loss rate: 0.97%
-- Flow 1:
  Average throughput: 252.30 Mbit/s
  95th percentile per-packet one-way delay: 77.718 ms
  Loss rate: 0.53%
-- Flow 2:
  Average throughput: 274.50 Mbit/s
  95th percentile per-packet one-way delay: 160.018 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 177.84 Mbit/s
  95th percentile per-packet one-way delay: 98.523 ms
  Loss rate: 1.39%
Run 4: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 252.65 Mbit/s)
- Flow 1 egress (mean 252.30 Mbit/s)
- Flow 2 ingress (mean 276.81 Mbit/s)
- Flow 2 egress (mean 274.59 Mbit/s)
- Flow 3 ingress (mean 178.26 Mbit/s)
- Flow 3 egress (mean 177.64 Mbit/s)
Run 5: Statistics of PCC-Expr

Local clock offset: -0.329 ms
Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 454.30 Mbit/s
95th percentile per-packet one-way delay: 75.278 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 244.51 Mbit/s
95th percentile per-packet one-way delay: 77.010 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 231.12 Mbit/s
95th percentile per-packet one-way delay: 71.895 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 172.35 Mbit/s
95th percentile per-packet one-way delay: 117.998 ms
Loss rate: 1.58%
Run 5: Report of PCC-Expr — Data Link
Run 1: Statistics of QUIC Cubic

Start at: 2019-04-24 19:02:49
End at: 2019-04-24 19:03:19
Local clock offset: 0.0 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 119.90 Mbit/s
95th percentile per-packet one-way delay: 57.106 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 61.64 Mbit/s
95th percentile per-packet one-way delay: 57.089 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 52.51 Mbit/s
95th percentile per-packet one-way delay: 56.980 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 63.59 Mbit/s
95th percentile per-packet one-way delay: 57.187 ms
Loss rate: 0.13%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2019-04-24 19:38:45
Local clock offset: −0.619 ms
Remote clock offset: −0.291 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.92 Mbit/s
95th percentile per-packet one-way delay: 56.843 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 61.35 Mbit/s
95th percentile per-packet one-way delay: 56.869 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 49.95 Mbit/s
95th percentile per-packet one-way delay: 56.729 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 62.12 Mbit/s
95th percentile per-packet one-way delay: 56.590 ms
Loss rate: 0.55%
Run 2: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress (mean 61.15 Mbit/s)**
- **Flow 1 egress (mean 61.35 Mbit/s)**
- **Flow 2 ingress (mean 59.19 Mbit/s)**
- **Flow 2 egress (mean 49.95 Mbit/s)**
- **Flow 3 ingress (mean 61.76 Mbit/s)**
- **Flow 3 egress (mean 62.12 Mbit/s)**

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

- **Flow 1 (95th percentile 56.87 ms)**
- **Flow 2 (95th percentile 56.73 ms)**
- **Flow 3 (95th percentile 56.59 ms)**
Run 3: Statistics of QUIC Cubic

Start at: 2019-04-24 20:14:46
End at: 2019-04-24 20:15:16
Local clock offset: -0.294 ms
Remote clock offset: 0.674 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.51 Mbit/s
95th percentile per-packet one-way delay: 59.604 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 63.49 Mbit/s
95th percentile per-packet one-way delay: 59.596 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 38.34 Mbit/s
95th percentile per-packet one-way delay: 56.378 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 56.62 Mbit/s
95th percentile per-packet one-way delay: 59.669 ms
Loss rate: 1.57%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2019-04-24 20:50:52
End at: 2019-04-24 20:51:22
Local clock offset: -0.333 ms
Remote clock offset: -0.217 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 100.84 Mbit/s
  95th percentile per-packet one-way delay: 60.414 ms
  Loss rate: 0.73%
-- Flow 1:
  Average throughput: 63.14 Mbit/s
  95th percentile per-packet one-way delay: 60.438 ms
  Loss rate: 0.68%
-- Flow 2:
  Average throughput: 45.07 Mbit/s
  95th percentile per-packet one-way delay: 57.137 ms
  Loss rate: 0.91%
-- Flow 3:
  Average throughput: 18.87 Mbit/s
  95th percentile per-packet one-way delay: 56.904 ms
  Loss rate: 0.39%
Run 4: Report of QUIC Cubic — Data Link

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

Flow 1: Ingress (mean 63.31 Mbit/s), Egress (mean 63.14 Mbit/s)
Flow 2: Ingress (mean 45.21 Mbit/s), Egress (mean 45.07 Mbit/s)
Flow 3: Ingress (mean 18.73 Mbit/s), Egress (mean 18.87 Mbit/s)
Run 5: Statistics of QUIC Cubic

Local clock offset: -0.388 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.29 Mbit/s
  95th percentile per-packet one-way delay: 60.220 ms
  Loss rate: 1.03%
-- Flow 1:
  Average throughput: 63.45 Mbit/s
  95th percentile per-packet one-way delay: 57.129 ms
  Loss rate: 0.58%
-- Flow 2:
  Average throughput: 34.96 Mbit/s
  95th percentile per-packet one-way delay: 57.005 ms
  Loss rate: 1.17%
-- Flow 3:
  Average throughput: 20.19 Mbit/s
  95th percentile per-packet one-way delay: 60.333 ms
  Loss rate: 4.75%
Run 5: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Local clock offset: -0.257 ms
Remote clock offset: 0.055 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 60.371 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.328 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.848 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.438 ms
Loss rate: 1.08%
Run 1: Report of SCReAM — Data Link

![Graph 1: Throughput (Mbps)]

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

End at: 2019-04-24 19:57:18
Local clock offset: -0.478 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 60.150 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 56.953 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 60.195 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 56.747 ms
  Loss rate: 1.09%
Run 2: Report of SCReAM — Data Link

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

Local clock offset: -0.071 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 60.721 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.725 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.737 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.339 ms
Loss rate: 1.08%
Run 4: Statistics of SCReAM

Start at: 2019-04-24 21:09:08
Local clock offset: -0.357 ms
Remote clock offset: -0.265 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 60.632 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.406 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.674 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.542 ms
Loss rate: 1.09%
Run 4: Report of SCReAM — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 0.22 Mbps)
  - Flow 1 egress (mean 0.22 Mbps)
  - Flow 2 ingress (mean 0.22 Mbps)
  - Flow 2 egress (mean 0.22 Mbps)
  - Flow 3 ingress (mean 0.22 Mbps)
  - Flow 3 egress (mean 0.22 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 57.41 ms)
  - Flow 2 (95th percentile 60.67 ms)
  - Flow 3 (95th percentile 60.54 ms)
Run 5: Statistics of SCReAM

End at: 2019-04-24 21:46:01
Local clock offset: -0.824 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 60.018 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.154 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.044 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.782 ms
Loss rate: 1.09%
Run 5: Report of SCReAM — Data Link
Run 1: Statistics of Sprout

Start at: 2019-04-24 19:14:54
Local clock offset: -0.567 ms
Remote clock offset: -0.149 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 14.43 Mbit/s
  95th percentile per-packet one-way delay: 60.395 ms
  Loss rate: 0.69%
-- Flow 1:
  Average throughput: 7.09 Mbit/s
  95th percentile per-packet one-way delay: 57.196 ms
  Loss rate: 0.47%
-- Flow 2:
  Average throughput: 7.80 Mbit/s
  95th percentile per-packet one-way delay: 57.030 ms
  Loss rate: 0.63%
-- Flow 3:
  Average throughput: 6.65 Mbit/s
  95th percentile per-packet one-way delay: 60.802 ms
  Loss rate: 1.51%
Run 1: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 7.09 Mbit/s)
- Flow 2 ingress (mean 7.81 Mbit/s)
- Flow 3 ingress (mean 6.69 Mbit/s)
- Flow 1 egress (mean 7.09 Mbit/s)
- Flow 2 egress (mean 7.80 Mbit/s)
- Flow 3 egress (mean 6.65 Mbit/s)

![Graph 2: Per-packet round-trip delay vs. Time](image2)

- Flow 1 (95th percentile 57.20 ms)
- Flow 2 (95th percentile 57.03 ms)
- Flow 3 (95th percentile 60.80 ms)
Run 2: Statistics of Sprout

Local clock offset: -0.176 ms
Remote clock offset: -0.761 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.99 Mbit/s
95th percentile per-packet one-way delay: 58.361 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 58.398 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 7.67 Mbit/s
95th percentile per-packet one-way delay: 58.289 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 58.355 ms
Loss rate: 1.50%
Run 2: Report of Sprout — Data Link

![Graphs showing throughput and packet delay for different flows.](image)
Run 3: Statistics of Sprout

Start at: 2019-04-24 20:26:46
Local clock offset: -0.345 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.28 Mbit/s
95th percentile per-packet one-way delay: 60.607 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 6.64 Mbit/s
95th percentile per-packet one-way delay: 60.510 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 6.67 Mbit/s
95th percentile per-packet one-way delay: 60.543 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 6.78 Mbit/s
95th percentile per-packet one-way delay: 60.793 ms
Loss rate: 1.40%
Run 3: Report of Sprout — Data Link

![Throughput Graph]

![Packet Delay Graph]

Legend:
- Blue dashed line: Flow 1 ingress (mean 6.64 Mbps)
- Blue solid line: Flow 1 egress (mean 6.64 Mbps)
- Green dashed line: Flow 2 ingress (mean 6.67 Mbps)
- Green solid line: Flow 2 egress (mean 6.67 Mbps)
- Red dashed line: Flow 3 ingress (mean 6.78 Mbps)
- Red solid line: Flow 3 egress (mean 6.78 Mbps)
Run 4: Statistics of Sprout

Start at: 2019-04-24 21:03:00
End at: 2019-04-24 21:03:30
Local clock offset: -0.36 ms
Remote clock offset: -0.266 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.45 Mbit/s
95th percentile per-packet one-way delay: 57.595 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 7.89 Mbit/s
95th percentile per-packet one-way delay: 57.526 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 7.72 Mbit/s
95th percentile per-packet one-way delay: 57.639 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 7.46 Mbit/s
95th percentile per-packet one-way delay: 57.648 ms
Loss rate: 0.42%
Run 4: Report of Sprout — Data Link

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

Flow 1 ingress (mean 7.89 Mbit/s)  Flow 1 egress (mean 7.89 Mbit/s)
Flow 2 ingress (mean 7.71 Mbit/s)  Flow 2 egress (mean 7.72 Mbit/s)
Flow 3 ingress (mean 7.43 Mbit/s)  Flow 3 egress (mean 7.46 Mbit/s)
Run 5: Statistics of Sprout

End at: 2019-04-24 21:40:01
Local clock offset: -0.401 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2019-04-25 00:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.70 Mbit/s
95th percentile per-packet one-way delay: 60.902 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 57.303 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 6.94 Mbit/s
95th percentile per-packet one-way delay: 61.128 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 57.290 ms
Loss rate: 1.58%
Run 5: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

End at: 2019-04-24 19:09:47
Local clock offset: -0.159 ms
Remote clock offset: 0.042 ms

# Below is generated by plot.py at 2019-04-25 00:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.86 Mbit/s
95th percentile per-packet one-way delay: 61.378 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 237.86 Mbit/s
95th percentile per-packet one-way delay: 60.758 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 225.88 Mbit/s
95th percentile per-packet one-way delay: 62.965 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 242.38 Mbit/s
95th percentile per-packet one-way delay: 59.441 ms
Loss rate: 1.20%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2019-04-24 19:45:11
End at: 2019-04-24 19:45:41
Local clock offset: -0.278 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2019-04-25 00:30:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 472.12 Mbit/s
95th percentile per-packet one-way delay: 58.515 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 239.05 Mbit/s
95th percentile per-packet one-way delay: 59.033 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 238.87 Mbit/s
95th percentile per-packet one-way delay: 58.118 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 225.42 Mbit/s
95th percentile per-packet one-way delay: 57.702 ms
Loss rate: 1.26%
Run 2: Report of TaoVA-100x — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 239.08 Mbps)**
- **Flow 1 egress (mean 239.05 Mbps)**
- **Flow 2 ingress (mean 238.86 Mbps)**
- **Flow 2 egress (mean 238.87 Mbps)**
- **Flow 3 ingress (mean 225.66 Mbps)**
- **Flow 3 egress (mean 225.42 Mbps)**

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

- **Flow 1 (95th percentile 59.03 ms)**
- **Flow 2 (95th percentile 58.12 ms)**
- **Flow 3 (95th percentile 57.70 ms)**
Run 3: Statistics of TaoVA-100x

End at: 2019-04-24 20:21:40
Local clock offset: -0.271 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2019-04-25 00:30:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 462.99 Mbit/s
95th percentile per-packet one-way delay: 62.530 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 237.72 Mbit/s
95th percentile per-packet one-way delay: 57.602 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 227.90 Mbit/s
95th percentile per-packet one-way delay: 61.579 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 223.93 Mbit/s
95th percentile per-packet one-way delay: 66.659 ms
Loss rate: 1.39%
Run 3: Report of TaoVA-100x — Data Link

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

- **Throughput:**
  - Flow 1 ingress (mean 237.79 Mbit/s)
  - Flow 1 egress (mean 237.72 Mbit/s)
  - Flow 2 ingress (mean 228.05 Mbit/s)
  - Flow 2 egress (mean 227.90 Mbit/s)
  - Flow 3 ingress (mean 224.40 Mbit/s)
  - Flow 3 egress (mean 223.93 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 57.60 ms)
  - Flow 2 (95th percentile 61.58 ms)
  - Flow 3 (95th percentile 66.66 ms)
Run 4: Statistics of TaoVA-100x

End at: 2019-04-24 20:57:56
Local clock offset: -0.357 ms
Remote clock offset: -0.961 ms

# Below is generated by plot.py at 2019-04-25 00:30:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 458.21 Mbit/s
95th percentile per-packet one-way delay: 61.587 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 238.35 Mbit/s
95th percentile per-packet one-way delay: 61.466 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 233.47 Mbit/s
95th percentile per-packet one-way delay: 58.950 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 195.87 Mbit/s
95th percentile per-packet one-way delay: 62.968 ms
Loss rate: 1.47%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

End at: 2019-04-24 21:34:22
Local clock offset: -0.797 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2019-04-25 00:30:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 474.95 Mbit/s
  95th percentile per-packet one-way delay: 60.265 ms
  Loss rate: 0.61%
-- Flow 1:
  Average throughput: 240.42 Mbit/s
  95th percentile per-packet one-way delay: 60.396 ms
  Loss rate: 0.42%
-- Flow 2:
  Average throughput: 239.38 Mbit/s
  95th percentile per-packet one-way delay: 56.995 ms
  Loss rate: 0.58%
-- Flow 3:
  Average throughput: 229.00 Mbit/s
  95th percentile per-packet one-way delay: 61.826 ms
  Loss rate: 1.28%
Run 5: Report of TaoVA-100x — Data Link

Throughput (Mb/s) vs Time (s)

Flow 1 ingress (mean 240.48 Mb/s)
Flow 1 egress (mean 240.42 Mb/s)
Flow 2 ingress (mean 239.40 Mb/s)
Flow 2 egress (mean 239.38 Mb/s)
Flow 3 ingress (mean 229.22 Mb/s)
Flow 3 egress (mean 229.00 Mb/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 60.40 ms)
Flow 2 (95th percentile 56.99 ms)
Flow 3 (95th percentile 61.83 ms)
Run 1: Statistics of TCP Vegas

Start at: 2019-04-24 19:17:52
Local clock offset: -0.274 ms
Remote clock offset: 0.047 ms

# Below is generated by plot.py at 2019-04-25 00:30:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 676.26 Mbit/s
95th percentile per-packet one-way delay: 92.206 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 240.38 Mbit/s
95th percentile per-packet one-way delay: 60.403 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 460.93 Mbit/s
95th percentile per-packet one-way delay: 78.253 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 392.26 Mbit/s
95th percentile per-packet one-way delay: 130.679 ms
Loss rate: 1.48%
Run 1: Report of TCP Vegas — Data Link

![Throughput Graph]

![Per-packet round-trip delay Graph]

Flow 1 ingress (mean 240.44 Mbit/s)  Flow 1 egress (mean 240.38 Mbit/s)
Flow 2 ingress (mean 461.23 Mbit/s)  Flow 2 egress (mean 460.93 Mbit/s)
Flow 3 ingress (mean 393.51 Mbit/s)  Flow 3 egress (mean 392.26 Mbit/s)
Run 2: Statistics of TCP Vegas

End at: 2019-04-24 19:54:17
Local clock offset: 0.156 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2019-04-25 00:38:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 722.43 Mbit/s
95th percentile per-packet one-way delay: 73.052 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 442.70 Mbit/s
95th percentile per-packet one-way delay: 71.807 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 255.06 Mbit/s
95th percentile per-packet one-way delay: 73.182 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 334.13 Mbit/s
95th percentile per-packet one-way delay: 76.158 ms
Loss rate: 0.84%
Run 2: Report of TCP Vegas — Data Link

![Data Link Throughput Graph](image1)

![Data Link Delay Graph](image2)

Flow 1 ingress (mean 441.90 Mbit/s)  
Flow 1 egress (mean 442.70 Mbit/s)  
Flow 2 ingress (mean 254.38 Mbit/s)  
Flow 2 egress (mean 255.06 Mbit/s)  
Flow 3 ingress (mean 332.98 Mbit/s)  
Flow 3 egress (mean 334.13 Mbit/s)

Flow 1 (95th percentile 71.81 ms)  
Flow 2 (95th percentile 73.18 ms)  
Flow 3 (95th percentile 76.16 ms)
Run 3: Statistics of TCP Vegas

End at: 2019-04-24 20:30:17
Local clock offset: -0.268 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2019-04-25 00:40:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 794.05 Mbit/s
95th percentile per-packet one-way delay: 67.846 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 475.53 Mbit/s
95th percentile per-packet one-way delay: 68.186 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 302.21 Mbit/s
95th percentile per-packet one-way delay: 65.457 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 356.24 Mbit/s
95th percentile per-packet one-way delay: 69.984 ms
Loss rate: 1.26%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2019-04-24 21:06:02
End at: 2019-04-24 21:06:32
Local clock offset: -0.749 ms
Remote clock offset: -0.122 ms

# Below is generated by plot.py at 2019-04-25 00:41:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 801.17 Mbit/s
95th percentile per-packet one-way delay: 68.917 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 387.68 Mbit/s
95th percentile per-packet one-way delay: 60.031 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 407.75 Mbit/s
95th percentile per-packet one-way delay: 70.586 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 431.80 Mbit/s
95th percentile per-packet one-way delay: 73.421 ms
Loss rate: 1.34%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Local clock offset: -0.779 ms
Remote clock offset: -0.178 ms

# Below is generated by plot.py at 2019-04-25 00:44:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 815.52 Mbit/s
95th percentile per-packet one-way delay: 69.828 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 369.48 Mbit/s
95th percentile per-packet one-way delay: 77.810 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 463.68 Mbit/s
95th percentile per-packet one-way delay: 62.393 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 417.72 Mbit/s
95th percentile per-packet one-way delay: 61.208 ms
Loss rate: 1.31%
Run 5: Report of TCP Vegas — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 369.45 Mbps)
- Flow 1 egress (mean 369.48 Mbps)
- Flow 2 ingress (mean 463.83 Mbps)
- Flow 2 egress (mean 463.68 Mbps)
- Flow 3 ingress (mean 416.39 Mbps)
- Flow 3 egress (mean 417.72 Mbps)

Per-packet one-way delay (ms):
- Flow 1 (95th percentile 77.81 ms)
- Flow 2 (95th percentile 62.39 ms)
- Flow 3 (95th percentile 61.21 ms)
Run 1: Statistics of Verus

End at: 2019-04-24 19:34:01
Local clock offset: -0.588 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2019-04-25 00:44:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.50 Mbit/s
95th percentile per-packet one-way delay: 118.113 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 134.52 Mbit/s
95th percentile per-packet one-way delay: 116.288 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 141.33 Mbit/s
95th percentile per-packet one-way delay: 122.284 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 48.36 Mbit/s
95th percentile per-packet one-way delay: 60.557 ms
Loss rate: 0.07%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

End at: 2019-04-24 20:09:58  
Local clock offset: -0.429 ms  
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2019-04-25 00:44:31  
# Datalink statistics
-- Total of 3 flows:  
Average throughput: 246.16 Mbit/s  
95th percentile per-packet one-way delay: 201.871 ms  
Loss rate: 1.53%  
-- Flow 1:  
Average throughput: 115.77 Mbit/s  
95th percentile per-packet one-way delay: 149.915 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 113.58 Mbit/s  
95th percentile per-packet one-way delay: 98.182 ms  
Loss rate: 1.50%  
-- Flow 3:  
Average throughput: 168.27 Mbit/s  
95th percentile per-packet one-way delay: 225.249 ms  
Loss rate: 4.62%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2019-04-24 20:45:38
End at: 2019-04-24 20:46:08
Local clock offset: 0.105 ms
Remote clock offset: -0.239 ms

# Below is generated by plot.py at 2019-04-25 00:44:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 261.50 Mbit/s
95th percentile per-packet one-way delay: 179.585 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 173.45 Mbit/s
95th percentile per-packet one-way delay: 191.525 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 96.40 Mbit/s
95th percentile per-packet one-way delay: 94.194 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.51 Mbit/s
95th percentile per-packet one-way delay: 64.738 ms
Loss rate: 0.91%
Run 3: Report of Verus — Data Link

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

- **Flow 1** (ingress 175.57 Mbit/s, egress 173.45 Mbit/s)
- **Flow 2** (ingress 95.83 Mbit/s, egress 96.40 Mbit/s)
- **Flow 3** (ingress 73.34 Mbit/s, egress 73.51 Mbit/s)

![Graph showing packet delay over time.]

- **Flow 1** (95th percentile 191.53 ms)
- **Flow 2** (95th percentile 94.19 ms)
- **Flow 3** (95th percentile 64.74 ms)
Run 4: Statistics of Verus

Local clock offset: -0.398 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2019-04-25 00:44:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 267.05 Mbit/s
95th percentile per-packet one-way delay: 120.486 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 149.67 Mbit/s
95th percentile per-packet one-way delay: 121.732 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.34 Mbit/s
95th percentile per-packet one-way delay: 123.310 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 71.87 Mbit/s
95th percentile per-packet one-way delay: 84.641 ms
Loss rate: 0.49%
Run 4: Report of Verus — Data Link

![Graph](image)

**Throughput (Mb/s)**

- **Flow 1 ingress (mean 149.67 Mb/s)**
- **Flow 1 egress (mean 149.67 Mb/s)**
- **Flow 2 ingress (mean 141.15 Mb/s)**
- **Flow 2 egress (mean 141.34 Mb/s)**
- **Flow 3 ingress (mean 72.24 Mb/s)**
- **Flow 3 egress (mean 71.87 Mb/s)**

![Graph](image)

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

- **Flow 1 (95th percentile 121.73 ms)**
- **Flow 2 (95th percentile 123.31 ms)**
- **Flow 3 (95th percentile 84.64 ms)**

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Run 5: Statistics of Verus

Local clock offset: -0.715 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2019-04-25 00:45:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 212.94 Mbit/s
  95th percentile per-packet one-way delay: 139.480 ms
  Loss rate: 0.59%
-- Flow 1:
  Average throughput: 121.39 Mbit/s
  95th percentile per-packet one-way delay: 161.136 ms
  Loss rate: 0.28%
-- Flow 2:
  Average throughput: 102.23 Mbit/s
  95th percentile per-packet one-way delay: 82.824 ms
  Loss rate: 1.31%
-- Flow 3:
  Average throughput: 72.23 Mbit/s
  95th percentile per-packet one-way delay: 112.872 ms
  Loss rate: 0.07%
Run 5: Report of Verus — Data Link

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

- Flow 1 ingress (mean 122.05 Mbit/s)
- Flow 1 egress (mean 121.39 Mbit/s)
- Flow 2 ingress (mean 103.01 Mbit/s)
- Flow 2 egress (mean 102.23 Mbit/s)
- Flow 3 ingress (mean 71.39 Mbit/s)
- Flow 3 egress (mean 72.23 Mbit/s)

[Graph showing packet delivery delay over time for different flows]

- Flow 1 (95th percentile 161.14 ms)
- Flow 2 (95th percentile 82.82 ms)
- Flow 3 (95th percentile 112.87 ms)
Run 1: Statistics of PCC-Vivace

Local clock offset: -0.025 ms
Remote clock offset: 0.04 ms

# Below is generated by plot.py at 2019-04-25 00:45:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 464.59 Mbit/s
  95th percentile per-packet one-way delay: 62.748 ms
  Loss rate: 0.56%
-- Flow 1:
  Average throughput: 294.64 Mbit/s
  95th percentile per-packet one-way delay: 59.872 ms
  Loss rate: 0.40%
-- Flow 2:
  Average throughput: 232.79 Mbit/s
  95th percentile per-packet one-way delay: 67.715 ms
  Loss rate: 0.74%
-- Flow 3:
  Average throughput: 47.08 Mbit/s
  95th percentile per-packet one-way delay: 57.129 ms
  Loss rate: 1.58%
Run 1: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 294.69 Mbit/s)
- Flow 1 egress (mean 294.64 Mbit/s)
- Flow 2 ingress (mean 233.11 Mbit/s)
- Flow 2 egress (mean 232.79 Mbit/s)
- Flow 3 ingress (mean 47.28 Mbit/s)
- Flow 3 egress (mean 47.08 Mbit/s)
Run 2: Statistics of PCC-Vivace

End at: 2019-04-24 20:00:19
Local clock offset: -0.08 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2019-04-25 00:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 504.92 Mbit/s
95th percentile per-packet one-way delay: 69.287 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 325.98 Mbit/s
95th percentile per-packet one-way delay: 71.429 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 184.67 Mbit/s
95th percentile per-packet one-way delay: 62.294 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 172.10 Mbit/s
95th percentile per-packet one-way delay: 72.119 ms
Loss rate: 2.16%
Run 2: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 325.50 Mb/s) vs Flow 1 egress (mean 325.98 Mb/s)
- Flow 2 ingress (mean 185.11 Mb/s) vs Flow 2 egress (mean 184.67 Mb/s)
- Flow 3 ingress (mean 173.77 Mb/s) vs Flow 3 egress (mean 172.10 Mb/s)
Run 3: Statistics of PCC-Vivace

Start at: 2019-04-24 20:35:53
End at: 2019-04-24 20:36:23
Local clock offset: -0.532 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2019-04-25 00:46:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 403.74 Mbit/s
  95th percentile per-packet one-way delay: 58.009 ms
  Loss rate: 0.70%
-- Flow 1:
  Average throughput: 223.52 Mbit/s
  95th percentile per-packet one-way delay: 57.705 ms
  Loss rate: 0.70%
-- Flow 2:
  Average throughput: 199.70 Mbit/s
  95th percentile per-packet one-way delay: 58.187 ms
  Loss rate: 0.48%
-- Flow 3:
  Average throughput: 146.04 Mbit/s
  95th percentile per-packet one-way delay: 60.811 ms
  Loss rate: 1.28%
Run 3: Report of PCC-Vivace — Data Link

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

Flow 1 ingress (mean 224.20 Mbit/s) - Flow 1 egress (mean 223.52 Mbit/s)
Flow 2 ingress (mean 199.51 Mbit/s) - Flow 2 egress (mean 199.70 Mbit/s)
Flow 3 ingress (mean 146.32 Mbit/s) - Flow 3 egress (mean 146.04 Mbit/s)

Flow 1 (95th percentile 57.70 ms) - Flow 2 (95th percentile 58.19 ms) - Flow 3 (95th percentile 60.81 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2019-04-24 21:12:10
End at: 2019-04-24 21:12:40
Local clock offset: -0.503 ms
Remote clock offset: -0.321 ms

# Below is generated by plot.py at 2019-04-25 00:46:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.25 Mbit/s
95th percentile per-packet one-way delay: 65.552 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 276.90 Mbit/s
95th percentile per-packet one-way delay: 68.985 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 214.72 Mbit/s
95th percentile per-packet one-way delay: 58.108 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 143.00 Mbit/s
95th percentile per-packet one-way delay: 58.061 ms
Loss rate: 1.51%
Run 4: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress (mean 276.62 Mbps)**
- **Flow 1 egress (mean 276.90 Mbps)**
- **Flow 2 ingress (mean 215.25 Mbps)**
- **Flow 2 egress (mean 214.72 Mbps)**
- **Flow 3 ingress (mean 143.40 Mbps)**
- **Flow 3 egress (mean 143.00 Mbps)**

![Graph 2: Per-packet size avg delay (ms)](image2)

- **Flow 1 (95th percentile 68.98 ms)**
- **Flow 2 (95th percentile 58.11 ms)**
- **Flow 3 (95th percentile 58.06 ms)**
Run 5: Statistics of PCC-Vivace

Local clock offset: -0.417 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2019-04-25 00:46:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 514.06 Mbit/s
95th percentile per-packet one-way delay: 67.175 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 307.92 Mbit/s
95th percentile per-packet one-way delay: 69.959 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 223.78 Mbit/s
95th percentile per-packet one-way delay: 66.023 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 176.09 Mbit/s
95th percentile per-packet one-way delay: 63.189 ms
Loss rate: 2.06%
Run 5: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress (mean 308.16 Mbit/s)**
- **Flow 1 egress (mean 307.92 Mbit/s)**
- **Flow 2 ingress (mean 224.16 Mbit/s)**
- **Flow 2 egress (mean 223.78 Mbit/s)**
- **Flow 3 ingress (mean 177.65 Mbit/s)**
- **Flow 3 egress (mean 176.09 Mbit/s)**

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

- **Flow 1 (95th percentile 69.96 ms)**
- **Flow 2 (95th percentile 66.02 ms)**
- **Flow 3 (95th percentile 63.19 ms)**

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Run 1: Statistics of WebRTC media

End at: 2019-04-24 19:20:09
Local clock offset: -0.567 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-04-25 00:46:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.052 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 60.064 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.064 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 56.772 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

End at: 2019-04-24 19:56:07
Local clock offset: -0.276 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2019-04-25 00:46:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.290 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.090 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.365 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.173 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

End at: 2019-04-24 20:32:11
Local clock offset: -0.228 ms
Remote clock offset: -0.285 ms

# Below is generated by plot.py at 2019-04-25 00:46:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.513 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.450 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.426 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.558 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

End at: 2019-04-24 21:08:26
Local clock offset: -0.344 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2019-04-25 00:46:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.501 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.402 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.573 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.185 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

![Graph showing throughput and per-packet round-trip time over time for various flows. The first graph displays throughput in Mbps over time, with separate lines for different flows. The second graph shows per-packet round-trip time in ms over time, also with lines for different flows.](image-url)
Run 5: Statistics of WebRTC media

End at: 2019-04-24 21:44:49
Local clock offset: -0.684 ms
Remote clock offset: -0.138 ms

# Below is generated by plot.py at 2019-04-25 00:46:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 57.324 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.366 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.227 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.117 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link