Pantheon Report

Generated at 2019-03-28 02:38:24 (UTC).
Data path: GCE Iowa on ens4 (remote) → GCE London 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 @ 7a686f7c26ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d661459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e5694aa89e93b032143cedbdf5e562f4
third_party/indigo @ 2601c9249e9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6b7cf3cf
third_party/muses @ 5e72111ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f587927af942717625ee3a354cc2e802bd
third_party/pcc @ 1af9c958f0a66d19623c091a55fcec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8ac08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3c6f42
third_party/scream-reproduce @ f09918d1421aa3131bf11ff1964974e1da3b3b2
M src/ScreeClient
M src/ScreeServer
third_party/sprout @ 366e355c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea746c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
test from GCE Iowa to GCE London, 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>
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<tbody>
<tr>
<td></td>
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<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
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<tr>
<td>TCP BBR</td>
<td>5</td>
<td>440.40</td>
<td>434.37</td>
<td>391.29</td>
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<tr>
<td>Copa</td>
<td>5</td>
<td>260.21</td>
<td>247.57</td>
<td>212.94</td>
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<td>342.15</td>
<td>264.87</td>
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<td>495.22</td>
<td>331.06</td>
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<td>WebRTC media</td>
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Run 1: Statistics of TCP BBR

Start at: 2019-03-27 20:49:17
End at: 2019-03-27 20:49:47
Local clock offset: -0.136 ms
Remote clock offset: -0.249 ms

# Below is generated by plot.py at 2019-03-28 00:13:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 875.49 Mbit/s
95th percentile per-packet one-way delay: 150.838 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 456.64 Mbit/s
95th percentile per-packet one-way delay: 152.405 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 428.91 Mbit/s
95th percentile per-packet one-way delay: 155.897 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 404.62 Mbit/s
95th percentile per-packet one-way delay: 131.508 ms
Loss rate: 1.49%
Run 1: Report of TCP BBR — Data Link

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

- **Throughput** (Mbps): The graphs show the throughput for different flows over time. The y-axis represents the throughput in Mbps, and the x-axis represents time in seconds. The throughput varies with time, indicating fluctuations in network performance.

- **Per-packet one-way delay**: The second graph shows the per-packet one-way delay for the same flows. The y-axis represents the delay in milliseconds, and the x-axis represents time in seconds. The delay fluctuates significantly throughout the observed period, indicating varying network conditions.

Legend:
- Flow 1 ingress (mean 459.01 Mbps)
- Flow 1 egress (mean 456.64 Mbps)
- Flow 2 ingress (mean 428.62 Mbps)
- Flow 2 egress (mean 428.91 Mbps)
- Flow 3 ingress (mean 406.80 Mbps)
- Flow 3 egress (mean 404.62 Mbps)

Legend for delay:
- Flow 1 (95th percentile 152.41 ms)
- Flow 2 (95th percentile 155.90 ms)
- Flow 3 (95th percentile 131.51 ms)
Run 2: Statistics of TCP BBR

End at: 2019-03-27 21:25:14
Local clock offset: -0.178 ms
Remote clock offset: -0.29 ms

# Below is generated by plot.py at 2019-03-28 00:13:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 855.88 Mbit/s
  95th percentile per-packet one-way delay: 154.404 ms
  Loss rate: 1.22%
-- Flow 1:
  Average throughput: 429.35 Mbit/s
  95th percentile per-packet one-way delay: 155.080 ms
  Loss rate: 0.81%
-- Flow 2:
  Average throughput: 460.46 Mbit/s
  95th percentile per-packet one-way delay: 164.688 ms
  Loss rate: 1.34%
-- Flow 3:
  Average throughput: 364.35 Mbit/s
  95th percentile per-packet one-way delay: 124.477 ms
  Loss rate: 2.37%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2019-03-27 22:00:22
End at: 2019-03-27 22:00:52
Local clock offset: -0.05 ms
Remote clock offset: -0.362 ms

# Below is generated by plot.py at 2019-03-28 00:13:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 894.72 Mbit/s
95th percentile per-packet one-way delay: 160.165 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 438.74 Mbit/s
95th percentile per-packet one-way delay: 136.776 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 463.55 Mbit/s
95th percentile per-packet one-way delay: 172.551 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 447.17 Mbit/s
95th percentile per-packet one-way delay: 152.504 ms
Loss rate: 1.32%
Run 3: Report of TCP BBR — Data Link

[Graph showing data]
Run 4: Statistics of TCP BBR

Start at: 2019-03-27 22:35:56
End at: 2019-03-27 22:36:26
Local clock offset: -0.098 ms
Remote clock offset: -0.395 ms

# Below is generated by plot.py at 2019-03-28 00:13:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 832.88 Mbit/s
95th percentile per-packet one-way delay: 167.367 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 426.23 Mbit/s
95th percentile per-packet one-way delay: 144.878 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 416.40 Mbit/s
95th percentile per-packet one-way delay: 178.636 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 392.84 Mbit/s
95th percentile per-packet one-way delay: 168.391 ms
Loss rate: 0.95%
Run 4: Report of TCP BBR — Data Link

![Throughput Graph]

- **Flow 1 ingress** (mean 430.58 Mbit/s)
- **Flow 1 egress** (mean 426.23 Mbit/s)
- **Flow 2 ingress** (mean 421.00 Mbit/s)
- **Flow 2 egress** (mean 416.40 Mbit/s)
- **Flow 3 ingress** (mean 392.81 Mbit/s)
- **Flow 3 egress** (mean 392.64 Mbit/s)

![Delay Graph]

- **Flow 1** (95th percentile 144.88 ms)
- **Flow 2** (95th percentile 178.64 ms)
- **Flow 3** (95th percentile 160.39 ms)
Run 5: Statistics of TCP BBR

Start at: 2019-03-27 23:12:09
End at: 2019-03-27 23:12:39
Local clock offset: -0.107 ms
Remote clock offset: -0.447 ms

# Below is generated by plot.py at 2019-03-28 00:13:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 833.64 Mbit/s
  95th percentile per-packet one-way delay: 179.010 ms
  Loss rate: 1.10%
-- Flow 1:
  Average throughput: 451.06 Mbit/s
  95th percentile per-packet one-way delay: 176.868 ms
  Loss rate: 0.49%
-- Flow 2:
  Average throughput: 402.54 Mbit/s
  95th percentile per-packet one-way delay: 195.821 ms
  Loss rate: 1.63%
-- Flow 3:
  Average throughput: 347.47 Mbit/s
  95th percentile per-packet one-way delay: 154.807 ms
  Loss rate: 2.20%
Run 5: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 451.83 Mbit/s)
- Flow 1 egress (mean 451.06 Mbit/s)
- Flow 2 ingress (mean 407.25 Mbit/s)
- Flow 2 egress (mean 402.54 Mbit/s)
- Flow 3 ingress (mean 351.86 Mbit/s)
- Flow 3 egress (mean 347.47 Mbit/s)

Legend for per-packet one-way delay:
- Flow 1 (95th percentile 176.87 ms)
- Flow 2 (95th percentile 195.82 ms)
- Flow 3 (95th percentile 154.81 ms)
Run 1: Statistics of Copa

End at: 2019-03-27 20:42:50
Local clock offset: -0.059 ms
Remote clock offset: -0.222 ms

# Below is generated by plot.py at 2019-03-28 00:13:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.16 Mbit/s
95th percentile per-packet one-way delay: 56.816 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 222.50 Mbit/s
95th percentile per-packet one-way delay: 54.124 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 250.01 Mbit/s
95th percentile per-packet one-way delay: 62.000 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 186.02 Mbit/s
95th percentile per-packet one-way delay: 53.661 ms
Loss rate: 1.27%
Run 1: Report of Copa — Data Link

![Graph showing throughput and delay over time]

- Flow 1 ingress (mean 222.16 Mbit/s)
- Flow 1 egress (mean 222.50 Mbit/s)
- Flow 2 ingress (mean 250.18 Mbit/s)
- Flow 2 egress (mean 250.01 Mbit/s)
- Flow 3 ingress (mean 186.64 Mbit/s)
- Flow 3 egress (mean 186.02 Mbit/s)

- Flow 1 (95th percentile 54.12 ms)
- Flow 2 (95th percentile 62.00 ms)
- Flow 3 (95th percentile 53.66 ms)
Run 2: Statistics of Copa

Start at: 2019-03-27 21:17:43
End at: 2019-03-27 21:18:13
Local clock offset: -0.141 ms
Remote clock offset: -0.292 ms

# Below is generated by plot.py at 2019-03-28 00:14:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 510.61 Mbit/s
  95th percentile per-packet one-way delay: 61.591 ms
  Loss rate: 0.43%
-- Flow 1:
  Average throughput: 257.69 Mbit/s
  95th percentile per-packet one-way delay: 62.443 ms
  Loss rate: 0.20%
-- Flow 2:
  Average throughput: 265.40 Mbit/s
  95th percentile per-packet one-way delay: 61.710 ms
  Loss rate: 0.46%
-- Flow 3:
  Average throughput: 231.50 Mbit/s
  95th percentile per-packet one-way delay: 56.925 ms
  Loss rate: 1.16%
Run 2: Report of Copa — Data Link
Run 3: Statistics of Copa

End at: 2019-03-27 21:53:50
Local clock offset: -0.066 ms
Remote clock offset: -0.349 ms

# Below is generated by plot.py at 2019-03-28 00:14:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.46 Mbit/s
95th percentile per-packet one-way delay: 59.942 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 259.54 Mbit/s
95th percentile per-packet one-way delay: 59.010 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 210.61 Mbit/s
95th percentile per-packet one-way delay: 59.647 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 253.87 Mbit/s
95th percentile per-packet one-way delay: 61.614 ms
Loss rate: 1.06%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

End at: 2019-03-27 22:29:08
Local clock offset: -0.049 ms
Remote clock offset: -0.386 ms

# Below is generated by plot.py at 2019-03-28 00:31:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 532.08 Mbit/s
95th percentile per-packet one-way delay: 63.455 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 290.98 Mbit/s
95th percentile per-packet one-way delay: 62.074 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 249.79 Mbit/s
95th percentile per-packet one-way delay: 64.500 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 227.37 Mbit/s
95th percentile per-packet one-way delay: 67.598 ms
Loss rate: 1.03%
Run 4: Report of Copa — Data Link

![Graph showing network performance metrics with legends for different flows and their ingress and egress throughput.](attachment:image.jpg)
Run 5: Statistics of Copa

Start at: 2019-03-27 23:04:57
End at: 2019-03-27 23:05:27
Local clock offset: -0.118 ms
Remote clock offset: -0.458 ms

# Below is generated by plot.py at 2019-03-28 00:31:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 499.40 Mbit/s
95th percentile per-packet one-way delay: 60.437 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 270.35 Mbit/s
95th percentile per-packet one-way delay: 59.086 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 262.03 Mbit/s
95th percentile per-packet one-way delay: 60.281 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 165.96 Mbit/s
95th percentile per-packet one-way delay: 73.761 ms
Loss rate: 0.95%
Run 5: Report of Copa — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 270.36 Mbps)
- Flow 1 egress (mean 270.35 Mbps)
- Flow 2 ingress (mean 262.18 Mbps)
- Flow 2 egress (mean 262.03 Mbps)
- Flow 3 ingress (mean 165.97 Mbps)
- Flow 3 egress (mean 165.96 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 59.09 ms)
- Flow 2 (95th percentile 60.28 ms)
- Flow 3 (95th percentile 73.76 ms)
Run 1: Statistics of TCP Cubic

Start at: 2019-03-27 20:53:06
End at: 2019-03-27 20:53:36
Local clock offset: -0.127 ms
Remote clock offset: -0.245 ms

# Below is generated by plot.py at 2019-03-28 00:31:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 814.47 Mbit/s
95th percentile per-packet one-way delay: 88.675 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 421.29 Mbit/s
95th percentile per-packet one-way delay: 101.757 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 394.10 Mbit/s
95th percentile per-packet one-way delay: 62.961 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 396.64 Mbit/s
95th percentile per-packet one-way delay: 59.178 ms
Loss rate: 0.89%
Run 1: Report of TCP Cubic — Data Link

Throughput (Mbps) vs. Time (s)

- Flow 1 ingress (mean 421.32 Mbps)
- Flow 1 egress (mean 421.29 Mbps)
- Flow 2 ingress (mean 395.73 Mbps)
- Flow 2 egress (mean 394.10 Mbps)
- Flow 3 ingress (mean 396.39 Mbps)
- Flow 3 egress (mean 396.64 Mbps)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 101.76 ms)
- Flow 2 (95th percentile 62.96 ms)
- Flow 3 (95th percentile 59.18 ms)
Run 2: Statistics of TCP Cubic

Local clock offset: -0.183 ms
Remote clock offset: -0.281 ms

# Below is generated by plot.py at 2019-03-28 00:31:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 864.12 Mbit/s
  95th percentile per-packet one-way delay: 87.209 ms
  Loss rate: 0.51%
-- Flow 1:
  Average throughput: 453.64 Mbit/s
  95th percentile per-packet one-way delay: 96.861 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 435.24 Mbit/s
  95th percentile per-packet one-way delay: 86.856 ms
  Loss rate: 0.52%
-- Flow 3:
  Average throughput: 365.98 Mbit/s
  95th percentile per-packet one-way delay: 54.593 ms
  Loss rate: 1.10%
Run 2: Report of TCP Cubic — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flow rates and egress rates, with legend indicating specific flow rates and their mean throughput (e.g., Flow 1 ingress mean 453.81 Mbit/s).]
Run 3: Statistics of TCP Cubic

Start at: 2019-03-27 22:04:10
End at: 2019-03-27 22:04:40
Local clock offset: -0.035 ms
Remote clock offset: -0.354 ms

# Below is generated by plot.py at 2019-03-28 00:31:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 854.15 Mbit/s
95th percentile per-packet one-way delay: 67.587 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 458.86 Mbit/s
95th percentile per-packet one-way delay: 65.741 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 397.19 Mbit/s
95th percentile per-packet one-way delay: 67.315 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 397.00 Mbit/s
95th percentile per-packet one-way delay: 87.974 ms
Loss rate: 1.23%
Run 3: Report of TCP Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 459.10 Mbit/s)
- Flow 1 egress (mean 458.86 Mbit/s)
- Flow 2 ingress (mean 396.95 Mbit/s)
- Flow 2 egress (mean 397.19 Mbit/s)
- Flow 3 ingress (mean 398.14 Mbit/s)
- Flow 3 egress (mean 397.00 Mbit/s)
Run 4: Statistics of TCP Cubic

End at: 2019-03-27 22:40:08
Local clock offset: -0.06 ms
Remote clock offset: -0.463 ms

# Below is generated by plot.py at 2019-03-28 00:31:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 691.71 Mbit/s
  95th percentile per-packet one-way delay: 79.556 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 368.82 Mbit/s
  95th percentile per-packet one-way delay: 79.707 ms
  Loss rate: 0.24%
-- Flow 2:
  Average throughput: 334.56 Mbit/s
  95th percentile per-packet one-way delay: 54.726 ms
  Loss rate: 0.49%
-- Flow 3:
  Average throughput: 303.91 Mbit/s
  95th percentile per-packet one-way delay: 90.795 ms
  Loss rate: 0.74%
Run 4: Report of TCP Cubic — Data Link
Run 5: Statistics of TCP Cubic

End at: 2019-03-27 23:16:23
Local clock offset: -0.116 ms
Remote clock offset: -0.464 ms

# Below is generated by plot.py at 2019-03-28 00:31:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 814.75 Mbit/s
  95th percentile per-packet one-way delay: 62.281 ms
  Loss rate: 0.45%
-- Flow 1:
  Average throughput: 421.50 Mbit/s
  95th percentile per-packet one-way delay: 54.261 ms
  Loss rate: 0.32%
-- Flow 2:
  Average throughput: 406.07 Mbit/s
  95th percentile per-packet one-way delay: 65.555 ms
  Loss rate: 0.35%
-- Flow 3:
  Average throughput: 373.18 Mbit/s
  95th percentile per-packet one-way delay: 86.096 ms
  Loss rate: 1.11%
Run 5: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 421.50 Mbit/s)**
- **Flow 1 egress (mean 421.50 Mbit/s)**
- **Flow 2 ingress (mean 405.62 Mbit/s)**
- **Flow 2 egress (mean 406.07 Mbit/s)**
- **Flow 3 ingress (mean 373.81 Mbit/s)**
- **Flow 3 egress (mean 373.18 Mbit/s)**

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

- **Flow 1 (95th percentile 54.26 ms)**
- **Flow 2 (95th percentile 65.56 ms)**
- **Flow 3 (95th percentile 86.10 ms)**
Run 1: Statistics of FillP

Start at: 2019-03-27 20:59:48
End at: 2019-03-27 21:00:18
Local clock offset: -0.132 ms
Remote clock offset: -0.233 ms

# Below is generated by plot.py at 2019-03-28 00:31:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 680.75 Mbit/s
95th percentile per-packet one-way delay: 75.805 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 386.21 Mbit/s
95th percentile per-packet one-way delay: 82.933 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 313.42 Mbit/s
95th percentile per-packet one-way delay: 53.168 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 262.05 Mbit/s
95th percentile per-packet one-way delay: 49.483 ms
Loss rate: 1.17%
Run 1: Report of FillP — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 386.10 Mbps)
- Flow 1 egress (mean 386.21 Mbps)
- Flow 2 ingress (mean 313.43 Mbps)
- Flow 2 egress (mean 313.42 Mbps)
- Flow 3 ingress (mean 262.28 Mbps)
- Flow 3 egress (mean 262.05 Mbps)

Packet delay (ms):

- Flow 1 (95th percentile 82.93 ms)
- Flow 2 (95th percentile 53.17 ms)
- Flow 3 (95th percentile 49.48 ms)
Run 2: Statistics of FillP

Start at: 2019-03-27 21:35:14
End at: 2019-03-27 21:35:44
Local clock offset: -0.182 ms
Remote clock offset: -0.317 ms

# Below is generated by plot.py at 2019-03-28 00:45:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 836.97 Mbit/s
95th percentile per-packet one-way delay: 64.671 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 535.88 Mbit/s
95th percentile per-packet one-way delay: 69.274 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 331.47 Mbit/s
95th percentile per-packet one-way delay: 53.287 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 246.03 Mbit/s
95th percentile per-packet one-way delay: 50.285 ms
Loss rate: 0.80%
Run 2: Report of FillP — Data Link

Throughput (Mbps)

Flow 1 ingress (mean 534.99 Mbps)  Flow 1 egress (mean 535.88 Mbps)
Flow 2 ingress (mean 333.09 Mbps)  Flow 2 egress (mean 332.47 Mbps)
Flow 3 ingress (mean 245.02 Mbps)  Flow 3 egress (mean 246.03 Mbps)

Per-packet one way delay (ms)

Flow 1 (95th percentile 69.27 ms)  Flow 2 (95th percentile 53.29 ms)  Flow 3 (95th percentile 50.28 ms)
Run 3: Statistics of FillP

End at: 2019-03-27 22:11:17
Local clock offset: -0.032 ms
Remote clock offset: -0.378 ms

# Below is generated by plot.py at 2019-03-28 00:49:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 907.65 Mbit/s
95th percentile per-packet one-way delay: 58.235 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 569.42 Mbit/s
95th percentile per-packet one-way delay: 68.221 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 363.34 Mbit/s
95th percentile per-packet one-way delay: 53.587 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 293.46 Mbit/s
95th percentile per-packet one-way delay: 49.813 ms
Loss rate: 1.16%
Run 3: Report of FillP — Data Link

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

Flow 1 Ingress (mean 588.93 Mbps) | Flow 1 Egress (mean 569.42 Mbps)
Flow 2 Ingress (mean 363.31 Mbps) | Flow 2 Egress (mean 363.34 Mbps)
Flow 3 Ingress (mean 293.67 Mbps) | Flow 3 Egress (mean 293.46 Mbps)

Flow 1 (95th percentile 68.22 ms) | Flow 2 (95th percentile 53.59 ms) | Flow 3 (95th percentile 49.81 ms)
Run 4: Statistics of FillP

End at: 2019-03-27 22:47:03
Local clock offset: -0.139 ms
Remote clock offset: -0.437 ms

# Below is generated by plot.py at 2019-03-28 00:49:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 864.35 Mbit/s
95th percentile per-packet one-way delay: 71.320 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 548.55 Mbit/s
95th percentile per-packet one-way delay: 75.757 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 343.54 Mbit/s
95th percentile per-packet one-way delay: 52.206 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 266.42 Mbit/s
95th percentile per-packet one-way delay: 51.462 ms
Loss rate: 1.00%
Run 4: Report of FillP — Data Link

[Graph showing throughput and delay over time]

Throughput (Mbps):
- Flow 1 ingress (mean 547.54 Mbps)
- Flow 1 egress (mean 548.55 Mbps)
- Flow 2 ingress (mean 342.96 Mbps)
- Flow 2 egress (mean 343.54 Mbps)
- Flow 3 ingress (mean 266.91 Mbps)
- Flow 3 egress (mean 266.42 Mbps)

Delay (ms):
- Flow 1 (95th percentile 75.76 ms)
- Flow 2 (95th percentile 52.21 ms)
- Flow 3 (95th percentile 51.46 ms)
Run 5: Statistics of FillP

Local clock offset: -0.101 ms
Remote clock offset: -0.462 ms

# Below is generated by plot.py at 2019-03-28 00:49:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 894.06 Mbit/s
  95th percentile per-packet one-way delay: 68.270 ms
  Loss rate: 0.32%
-- Flow 1:
  Average throughput: 571.20 Mbit/s
  95th percentile per-packet one-way delay: 77.027 ms
  Loss rate: 0.16%
-- Flow 2:
  Average throughput: 358.96 Mbit/s
  95th percentile per-packet one-way delay: 47.938 ms
  Loss rate: 0.43%
-- Flow 3:
  Average throughput: 256.40 Mbit/s
  95th percentile per-packet one-way delay: 50.042 ms
  Loss rate: 1.05%
Run 5: Report of FillP — Data Link

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

Start at: 2019-03-27 20:51:21
End at: 2019-03-27 20:51:51
Local clock offset: -0.091 ms
Remote clock offset: -0.225 ms

# Below is generated by plot.py at 2019-03-28 00:49:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 775.00 Mbit/s
95th percentile per-packet one-way delay: 78.571 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 488.27 Mbit/s
95th percentile per-packet one-way delay: 87.748 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 319.11 Mbit/s
95th percentile per-packet one-way delay: 51.849 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 227.30 Mbit/s
95th percentile per-packet one-way delay: 51.121 ms
Loss rate: 1.28%
Run 1: Report of FillP-Sheep — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 499.05 Mbps)
  - Flow 1 egress (mean 488.77 Mbps)
  - Flow 2 ingress (mean 318.69 Mbps)
  - Flow 2 egress (mean 319.11 Mbps)
  - Flow 3 ingress (mean 227.73 Mbps)
  - Flow 3 egress (mean 227.30 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 87.75 ms)
  - Flow 2 (95th percentile 51.85 ms)
  - Flow 3 (95th percentile 51.12 ms)
Run 2: Statistics of FillP-Sheep

Start at: 2019-03-27 21:26:43
Local clock offset: -0.167 ms
Remote clock offset: -0.311 ms

# Below is generated by plot.py at 2019-03-28 00:49:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 836.56 Mbit/s
95th percentile per-packet one-way delay: 62.179 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 525.61 Mbit/s
95th percentile per-packet one-way delay: 68.580 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 350.25 Mbit/s
95th percentile per-packet one-way delay: 53.016 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 237.38 Mbit/s
95th percentile per-packet one-way delay: 50.364 ms
Loss rate: 1.12%
Run 2: Report of FillP-Sheep — Data Link

The diagram shows the throughput (Mbps) over time for different flows, with lines indicating ingress and egress data rates. The graphs illustrate the performance and variability of data transmission over time, highlighting the efficiency and reliability of the system.

The lower graph depicts the per-packet one-way delay (ms) for each flow, emphasizing the latency aspects of the data transmission process.

Key metrics include:
- **Flow 1**: Ingress (mean 524.96 Mbps), Egress (mean 525.61 Mbps)
- **Flow 2**: Ingress (mean 350.49 Mbps), Egress (mean 350.25 Mbps)
- **Flow 3**: Ingress (mean 237.46 Mbps), Egress (mean 237.38 Mbps)

These metrics provide insights into the operational efficiency and responsiveness of the network during the test run.
Run 3: Statistics of FillP-Sheep

Start at: 2019-03-27 22:02:24
End at: 2019-03-27 22:02:54
Local clock offset: -0.043 ms
Remote clock offset: -0.382 ms

# Below is generated by plot.py at 2019-03-28 00:49:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 811.55 Mbit/s
  95th percentile per-packet one-way delay: 62.727 ms
  Loss rate: 0.34%
-- Flow 1:
  Average throughput: 501.76 Mbit/s
  95th percentile per-packet one-way delay: 68.792 ms
  Loss rate: 0.19%
-- Flow 2:
  Average throughput: 331.83 Mbit/s
  95th percentile per-packet one-way delay: 52.990 ms
  Loss rate: 0.49%
-- Flow 3:
  Average throughput: 271.00 Mbit/s
  95th percentile per-packet one-way delay: 52.788 ms
  Loss rate: 0.78%
Run 3: Report of FillP-Sheep — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 500.94 Mbps)
- Flow 1 egress (mean 501.76 Mbps)
- Flow 2 ingress (mean 332.07 Mbps)
- Flow 2 egress (mean 333.83 Mbps)
- Flow 3 ingress (mean 270.46 Mbps)
- Flow 3 egress (mean 271.00 Mbps)

Per-packet one-way delay (ms):

- Flow 1 (95th percentile 68.79 ms)
- Flow 2 (95th percentile 52.99 ms)
- Flow 3 (95th percentile 52.79 ms)
Run 4: Statistics of FillP-Sheep

End at: 2019-03-27 22:38:26
Local clock offset: -0.109 ms
Remote clock offset: -0.42 ms

# Below is generated by plot.py at 2019-03-28 00:49:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 737.12 Mbit/s
95th percentile per-packet one-way delay: 62.330 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 454.60 Mbit/s
95th percentile per-packet one-way delay: 70.687 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 307.45 Mbit/s
95th percentile per-packet one-way delay: 52.406 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 238.47 Mbit/s
95th percentile per-packet one-way delay: 50.571 ms
Loss rate: 1.00%
Run 4: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 454.19 Mbit/s)
- Flow 1 egress (mean 454.60 Mbit/s)
- Flow 2 ingress (mean 307.30 Mbit/s)
- Flow 2 egress (mean 307.45 Mbit/s)
- Flow 3 ingress (mean 236.44 Mbit/s)
- Flow 3 egress (mean 236.47 Mbit/s)

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

- Flow 1 (95th percentile 70.69 ms)
- Flow 2 (95th percentile 52.41 ms)
- Flow 3 (95th percentile 56.57 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2019-03-27 23:14:08
End at: 2019-03-27 23:14:38
Local clock offset: -0.098 ms
Remote clock offset: -0.476 ms

# Below is generated by plot.py at 2019-03-28 01:06:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 819.40 Mbit/s
95th percentile per-packet one-way delay: 52.505 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 505.88 Mbit/s
95th percentile per-packet one-way delay: 52.269 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 346.67 Mbit/s
95th percentile per-packet one-way delay: 52.755 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 252.82 Mbit/s
95th percentile per-packet one-way delay: 52.507 ms
Loss rate: 1.27%
Run 5: Report of FillP-Sheep — Data Link
Run 1: Statistics of Indigo

Start at: 2019-03-27 21:06:10
End at: 2019-03-27 21:06:40
Local clock offset: -0.144 ms
Remote clock offset: -0.251 ms

# Below is generated by plot.py at 2019-03-28 01:06:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 398.76 Mbit/s
95th percentile per-packet one-way delay: 52.003 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 213.29 Mbit/s
95th percentile per-packet one-way delay: 50.917 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 185.94 Mbit/s
95th percentile per-packet one-way delay: 53.349 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 175.40 Mbit/s
95th percentile per-packet one-way delay: 52.708 ms
Loss rate: 1.11%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

Start at: 2019-03-27 21:41:42
End at: 2019-03-27 21:42:12
Local clock offset: -0.11 ms
Remote clock offset: -0.307 ms

# Below is generated by plot.py at 2019-03-28 01:06:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 388.45 Mbit/s
  95th percentile per-packet one-way delay: 50.586 ms
  Loss rate: 0.51%
-- Flow 1:
  Average throughput: 203.40 Mbit/s
  95th percentile per-packet one-way delay: 50.169 ms
  Loss rate: 0.31%
-- Flow 2:
  Average throughput: 194.51 Mbit/s
  95th percentile per-packet one-way delay: 51.130 ms
  Loss rate: 0.53%
-- Flow 3:
  Average throughput: 174.88 Mbit/s
  95th percentile per-packet one-way delay: 50.338 ms
  Loss rate: 1.19%
Run 2: Report of Indigo — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 203.38 Mbps)
Flow 1 egress (mean 203.40 Mbps)
Flow 2 ingress (mean 194.59 Mbps)
Flow 2 egress (mean 194.51 Mbps)
Flow 3 ingress (mean 175.23 Mbps)
Flow 3 egress (mean 174.88 Mbps)

Packet per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 50.17 ms)
Flow 2 (95th percentile 51.33 ms)
Flow 3 (95th percentile 50.34 ms)
Run 3: Statistics of Indigo

Start at: 2019-03-27 22:17:18
End at: 2019-03-27 22:17:48
Local clock offset: -0.066 ms
Remote clock offset: -0.334 ms

# Below is generated by plot.py at 2019-03-28 01:06:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 399.05 Mbit/s
95th percentile per-packet one-way delay: 51.862 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 209.11 Mbit/s
95th percentile per-packet one-way delay: 51.599 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 200.92 Mbit/s
95th percentile per-packet one-way delay: 53.139 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 174.88 Mbit/s
95th percentile per-packet one-way delay: 48.973 ms
Loss rate: 1.15%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Local clock offset: -0.115 ms
Remote clock offset: -0.441 ms

# Below is generated by plot.py at 2019-03-28 01:06:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 398.28 Mbit/s
95th percentile per-packet one-way delay: 50.624 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 212.49 Mbit/s
95th percentile per-packet one-way delay: 50.958 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 195.90 Mbit/s
95th percentile per-packet one-way delay: 50.251 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 176.82 Mbit/s
95th percentile per-packet one-way delay: 50.469 ms
Loss rate: 1.16%
Run 5: Statistics of Indigo

Start at: 2019-03-27 23:29:15
End at: 2019-03-27 23:29:45
Local clock offset: -0.151 ms
Remote clock offset: -0.502 ms

# Below is generated by plot.py at 2019-03-28 01:06:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 394.26 Mbit/s
95th percentile per-packet one-way delay: 50.187 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 209.94 Mbit/s
95th percentile per-packet one-way delay: 50.700 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 193.40 Mbit/s
95th percentile per-packet one-way delay: 49.533 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 172.87 Mbit/s
95th percentile per-packet one-way delay: 49.974 ms
Loss rate: 1.08%
Run 5: Report of Indigo — Data Link
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-03-27 21:04:23
End at: 2019-03-27 21:04:53
Local clock offset: -0.136 ms
Remote clock offset: -0.263 ms

# Below is generated by plot.py at 2019-03-28 01:06:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 764.79 Mbit/s
95th percentile per-packet one-way delay: 56.719 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 445.36 Mbit/s
95th percentile per-packet one-way delay: 57.638 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 388.54 Mbit/s
95th percentile per-packet one-way delay: 55.567 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 258.51 Mbit/s
95th percentile per-packet one-way delay: 49.770 ms
Loss rate: 2.02%
Run 1: Report of Indigo-MusesC3 — Data Link

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

- Flow 1 ingress (mean 444.90 Mbit/s)
- Flow 1 egress (mean 445.36 Mbit/s)
- Flow 2 ingress (mean 388.21 Mbit/s)
- Flow 2 egress (mean 388.54 Mbit/s)
- Flow 3 ingress (mean 260.58 Mbit/s)
- Flow 3 egress (mean 258.51 Mbit/s)
Run 2: Statistics of Indigo-MusesC3

End at: 2019-03-27 21:40:22
Local clock offset: ~0.19 ms
Remote clock offset: ~0.295 ms

# Below is generated by plot.py at 2019-03-28 01:06:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 741.99 Mbit/s
95th percentile per-packet one-way delay: 58.098 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 427.19 Mbit/s
95th percentile per-packet one-way delay: 60.670 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 377.30 Mbit/s
95th percentile per-packet one-way delay: 57.216 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 264.70 Mbit/s
95th percentile per-packet one-way delay: 52.614 ms
Loss rate: 1.40%
Run 2: Report of Indigo-MusesC3 — Data Link

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

- Flow 1 ingress (mean 426.80 Mbit/s), egress (mean 427.19 Mbit/s)
- Flow 2 ingress (mean 377.10 Mbit/s), egress (mean 377.30 Mbit/s)
- Flow 3 ingress (mean 265.22 Mbit/s), egress (mean 264.70 Mbit/s)

- Flow 1 (95th percentile 60.67 ms), Flow 2 (95th percentile 57.22 ms), Flow 3 (95th percentile 52.61 ms)
Run 3: Statistics of Indigo-MusesC3

End at: 2019-03-27 22:15:59
Local clock offset: -0.052 ms
Remote clock offset: -0.34 ms

# Below is generated by plot.py at 2019-03-28 01:16:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 762.80 Mbit/s
  95th percentile per-packet one-way delay: 63.038 ms
  Loss rate: 0.42%
-- Flow 1:
  Average throughput: 444.61 Mbit/s
  95th percentile per-packet one-way delay: 66.645 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 379.05 Mbit/s
  95th percentile per-packet one-way delay: 60.361 ms
  Loss rate: 0.33%
-- Flow 3:
  Average throughput: 276.28 Mbit/s
  95th percentile per-packet one-way delay: 53.328 ms
  Loss rate: 1.82%
Run 3: Report of Indigo-MusesC3 — Data Link

![Graph showing throughput and per-packet delay over time for Run 3 with various flow characteristics and performance metrics.](image-url)
Run 4: Statistics of Indigo-MusesC3

Local clock offset: -0.102 ms
Remote clock offset: -0.426 ms

# Below is generated by plot.py at 2019-03-28 01:17:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 763.49 Mbit/s
95th percentile per-packet one-way delay: 55.553 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 437.72 Mbit/s
95th percentile per-packet one-way delay: 55.982 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 379.08 Mbit/s
95th percentile per-packet one-way delay: 56.583 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 292.64 Mbit/s
95th percentile per-packet one-way delay: 51.380 ms
Loss rate: 1.46%
Run 4: Report of Indigo-MusesC3 — Data Link
Run 5: Statistics of Indigo-MusesC3

End at: 2019-03-27 23:27:57
Local clock offset: -0.106 ms
Remote clock offset: -0.472 ms

# Below is generated by plot.py at 2019-03-28 01:17:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 725.81 Mbit/s
95th percentile per-packet one-way delay: 52.996 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 424.54 Mbit/s
95th percentile per-packet one-way delay: 52.860 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 366.95 Mbit/s
95th percentile per-packet one-way delay: 54.731 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 246.66 Mbit/s
95th percentile per-packet one-way delay: 49.188 ms
Loss rate: 1.76%
Run 5: Report of Indigo-MusesC3 — Data Link

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

- **Flow 1 ingress (mean 424.05 Mbit/s)**
- **Flow 1 egress (mean 424.54 Mbit/s)**
- **Flow 2 ingress (mean 366.73 Mbit/s)**
- **Flow 2 egress (mean 366.95 Mbit/s)**
- **Flow 3 ingress (mean 247.84 Mbit/s)**
- **Flow 3 egress (mean 246.66 Mbit/s)**
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-03-27 21:09:44  
End at: 2019-03-27 21:10:14  
Local clock offset: -0.143 ms  
Remote clock offset: -0.292 ms  

# Below is generated by plot.py at 2019-03-28 01:20:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 839.28 Mbit/s  
95th percentile per-packet one-way delay: 84.842 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 479.38 Mbit/s  
95th percentile per-packet one-way delay: 93.223 ms  
Loss rate: 0.17%  
-- Flow 2:  
Average throughput: 437.34 Mbit/s  
95th percentile per-packet one-way delay: 64.727 ms  
Loss rate: 0.18%  
-- Flow 3:  
Average throughput: 284.94 Mbit/s  
95th percentile per-packet one-way delay: 53.427 ms  
Loss rate: 1.74%
Run 1: Report of Indigo-MusesC5 — Data Link

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

- Flow 1 ingress (mean 478.62 Mbps)
- Flow 1 egress (mean 479.38 Mbps)
- Flow 2 ingress (mean 435.61 Mbps)
- Flow 2 egress (mean 437.34 Mbps)
- Flow 3 ingress (mean 296.48 Mbps)
- Flow 3 egress (mean 284.94 Mbps)

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

- Flow 1 (95th percentile 93.22 ms)
- Flow 2 (95th percentile 64.73 ms)
- Flow 3 (95th percentile 53.43 ms)
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-03-27 21:45:20
End at: 2019-03-27 21:45:50
Local clock offset: -0.105 ms
Remote clock offset: -0.318 ms

# Below is generated by plot.py at 2019-03-28 01:20:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 775.01 Mbit/s
95th percentile per-packet one-way delay: 62.197 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 491.74 Mbit/s
95th percentile per-packet one-way delay: 63.309 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 404.66 Mbit/s
95th percentile per-packet one-way delay: 57.050 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 94.02 Mbit/s
95th percentile per-packet one-way delay: 47.757 ms
Loss rate: 1.34%
Run 2: Report of Indigo-MusesC5 — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 491.57 Mb/s)
Flow 1 egress (mean 491.74 Mb/s)
Flow 2 ingress (mean 403.22 Mb/s)
Flow 2 egress (mean 404.66 Mb/s)
Flow 3 ingress (mean 94.15 Mb/s)
Flow 3 egress (mean 94.02 Mb/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 63.31 ms)
Flow 2 (95th percentile 57.05 ms)
Flow 3 (95th percentile 47.76 ms)
Run 3: Statistics of Indigo-MusesC5

Local clock offset: -0.069 ms
Remote clock offset: -0.405 ms

# Below is generated by plot.py at 2019-03-28 01:20:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 821.77 Mbit/s
95th percentile per-packet one-way delay: 68.654 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 478.92 Mbit/s
95th percentile per-packet one-way delay: 68.656 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 422.70 Mbit/s
95th percentile per-packet one-way delay: 68.227 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 264.82 Mbit/s
95th percentile per-packet one-way delay: 69.251 ms
Loss rate: 1.15%
Run 3: Report of Indigo-MusesC5 — Data Link
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-03-27 22:57:03
End at: 2019-03-27 22:57:33
Local clock offset: -0.097 ms
Remote clock offset: -0.45 ms

# Below is generated by plot.py at 2019-03-28 01:20:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 836.27 Mbit/s
95th percentile per-packet one-way delay: 71.708 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 483.97 Mbit/s
95th percentile per-packet one-way delay: 66.877 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 413.28 Mbit/s
95th percentile per-packet one-way delay: 80.592 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 313.18 Mbit/s
95th percentile per-packet one-way delay: 59.295 ms
Loss rate: 1.00%
Run 4: Report of Indigo-MusesC5 — Data Link
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-03-27 23:32:54
End at: 2019-03-27 23:33:24
Local clock offset: -0.163 ms
Remote clock offset: -0.489 ms

# Below is generated by plot.py at 2019-03-28 01:22:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 806.39 Mbit/s
95th percentile per-packet one-way delay: 72.512 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 498.85 Mbit/s
95th percentile per-packet one-way delay: 67.634 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 353.14 Mbit/s
95th percentile per-packet one-way delay: 81.229 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 305.40 Mbit/s
95th percentile per-packet one-way delay: 53.397 ms
Loss rate: 1.48%
Run 5: Report of Indigo-MusesC5 — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 498.76 Mbps)
  - Flow 1 egress (mean 498.85 Mbps)
  - Flow 2 ingress (mean 352.84 Mbps)
  - Flow 2 egress (mean 353.14 Mbps)
  - Flow 3 ingress (mean 305.42 Mbps)
  - Flow 3 egress (mean 305.40 Mbps)

- **Packet delay (ms):**
  - Flow 1 (95th percentile: 67.63 ms)
  - Flow 2 (95th percentile: 81.23 ms)
  - Flow 3 (95th percentile: 53.40 ms)
Run 1: Statistics of Indigo-MusesD

Start at: 2019-03-27 21:01:27
End at: 2019-03-27 21:01:57
Local clock offset: -0.125 ms
Remote clock offset: -0.249 ms

# Below is generated by plot.py at 2019-03-28 01:30:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 694.49 Mbit/s
95th percentile per-packet one-way delay: 62.611 ms
Loss rate: 0.35%

-- Flow 1:
Average throughput: 430.88 Mbit/s
95th percentile per-packet one-way delay: 61.896 ms
Loss rate: 0.22%

-- Flow 2:
Average throughput: 277.01 Mbit/s
95th percentile per-packet one-way delay: 71.554 ms
Loss rate: 0.13%

-- Flow 3:
Average throughput: 319.53 Mbit/s
95th percentile per-packet one-way delay: 55.525 ms
Loss rate: 1.42%
Run 1: Report of Indigo-MusesD — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 2: Statistics of Indigo-MusesD

Start at: 2019-03-27 21:37:01
End at: 2019-03-27 21:37:31
Local clock offset: -0.197 ms
Remote clock offset: -0.284 ms

# Below is generated by plot.py at 2019-03-28 01:30:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.57 Mbit/s
95th percentile per-packet one-way delay: 52.595 ms
Loss rate: 0.50%

-- Flow 1:
Average throughput: 410.91 Mbit/s
95th percentile per-packet one-way delay: 53.539 ms
Loss rate: 0.28%

-- Flow 2:
Average throughput: 126.68 Mbit/s
95th percentile per-packet one-way delay: 46.842 ms
Loss rate: 0.42%

-- Flow 3:
Average throughput: 267.05 Mbit/s
95th percentile per-packet one-way delay: 51.109 ms
Loss rate: 1.79%
Run 2: Report of Indigo-MusesD — Data Link
Run 3: Statistics of Indigo-MusesD

Start at: 2019-03-27 22:12:35
End at: 2019-03-27 22:13:05
Local clock offset: -0.029 ms
Remote clock offset: -0.372 ms

# Below is generated by plot.py at 2019-03-28 01:30:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 648.33 Mbit/s
95th percentile per-packet one-way delay: 54.547 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 393.53 Mbit/s
95th percentile per-packet one-way delay: 58.517 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 284.47 Mbit/s
95th percentile per-packet one-way delay: 48.828 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 270.29 Mbit/s
95th percentile per-packet one-way delay: 51.079 ms
Loss rate: 1.76%
Run 3: Report of Indigo-MusesD — Data Link

Graph 1: Throughput (Mbps)
- Dashed blue line: Flow 1 ingress (mean 393.31 Mbps)
- Dotted blue line: Flow 1 egress (mean 393.53 Mbps)
- Dashed green line: Flow 2 ingress (mean 283.35 Mbps)
- Dotted green line: Flow 2 egress (mean 284.47 Mbps)
- Dashed purple line: Flow 3 ingress (mean 271.68 Mbps)
- Dotted purple line: Flow 3 egress (mean 270.29 Mbps)

Graph 2: Per packet one way delay (ms)
- Blue line: Flow 1 (95th percentile 58.52 ms)
- Green line: Flow 2 (95th percentile 48.83 ms)
- Red line: Flow 3 (95th percentile 51.08 ms)
Run 4: Statistics of Indigo-MusesD

Local clock offset: -0.108 ms
Remote clock offset: -0.432 ms

# Below is generated by plot.py at 2019-03-28 01:32:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 724.20 Mbit/s
  95th percentile per-packet one-way delay: 66.801 ms
  Loss rate: 0.43%
-- Flow 1:
  Average throughput: 410.30 Mbit/s
  95th percentile per-packet one-way delay: 71.022 ms
  Loss rate: 0.17%
-- Flow 2:
  Average throughput: 365.69 Mbit/s
  95th percentile per-packet one-way delay: 61.476 ms
  Loss rate: 0.49%
-- Flow 3:
  Average throughput: 274.16 Mbit/s
  95th percentile per-packet one-way delay: 50.192 ms
  Loss rate: 1.62%
Run 4: Report of Indigo-MusesD — Data Link

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

- Flow 1 ingress (mean 409.62 Mbit/s) vs Flow 1 egress (mean 410.30 Mbit/s)
- Flow 2 ingress (mean 365.60 Mbit/s) vs Flow 2 egress (mean 365.69 Mbit/s)
- Flow 3 ingress (mean 274.40 Mbit/s) vs Flow 3 egress (mean 274.16 Mbit/s)

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

- Flow 1 (95th percentile 71.02 ms) vs Flow 2 (95th percentile 61.48 ms) vs Flow 3 (95th percentile 50.19 ms)
Run 5: Statistics of Indigo-MusesD

End at: 2019-03-27 23:25:03
Local clock offset: -0.107 ms
Remote clock offset: -0.431 ms

# Below is generated by plot.py at 2019-03-28 01:32:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 650.33 Mbit/s
95th percentile per-packet one-way delay: 66.357 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 408.72 Mbit/s
95th percentile per-packet one-way delay: 81.240 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 259.49 Mbit/s
95th percentile per-packet one-way delay: 64.264 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 288.55 Mbit/s
95th percentile per-packet one-way delay: 49.963 ms
Loss rate: 1.55%
Run 5: Report of Indigo-MusesD — Data Link

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

![Graph 2: Per-packet round trip delay](image2)
Run 1: Statistics of Indigo-MusesT

Start at: 2019-03-27 20:45:32
End at: 2019-03-27 20:46:02
Local clock offset: -0.138 ms
Remote clock offset: -0.239 ms

# Below is generated by plot.py at 2019-03-28 01:36:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 855.85 Mbit/s
95th percentile per-packet one-way delay: 87.743 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 496.92 Mbit/s
95th percentile per-packet one-way delay: 93.589 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 432.98 Mbit/s
95th percentile per-packet one-way delay: 74.707 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 288.74 Mbit/s
95th percentile per-packet one-way delay: 52.781 ms
Loss rate: 1.36%
Run 1: Report of Indigo-MusesT — Data Link

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

<table>
<thead>
<tr>
<th>Flow 1 ingress (mean 496.57 Mbit/s)</th>
<th>Flow 1 egress (mean 496.92 Mbit/s)</th>
<th>Flow 2 ingress (mean 432.19 Mbit/s)</th>
<th>Flow 2 egress (mean 432.98 Mbit/s)</th>
<th>Flow 3 ingress (mean 289.24 Mbit/s)</th>
<th>Flow 3 egress (mean 288.74 Mbit/s)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Flow 1 (95th percentile 93.59 ms)</th>
<th>Flow 2 (95th percentile 74.71 ms)</th>
<th>Flow 3 (95th percentile 52.78 ms)</th>
</tr>
</thead>
</table>
Run 2: Statistics of Indigo-MusesT

Start at: 2019-03-27 21:21:00
End at: 2019-03-27 21:21:30
Local clock offset: -0.194 ms
Remote clock offset: -0.215 ms

# Below is generated by plot.py at 2019-03-28 01:36:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 777.33 Mbit/s
  95th percentile per-packet one-way delay: 89.205 ms
  Loss rate: 0.44%
-- Flow 1:
  Average throughput: 481.56 Mbit/s
  95th percentile per-packet one-way delay: 93.635 ms
  Loss rate: 0.30%
-- Flow 2:
  Average throughput: 414.24 Mbit/s
  95th percentile per-packet one-way delay: 73.229 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 104.96 Mbit/s
  95th percentile per-packet one-way delay: 47.978 ms
  Loss rate: 1.32%
Run 2: Report of Indigo-MusesT — Data Link

![Graphs showing throughput and packet size distribution over time for three flows (1, 2, and 3).]

- **Flow 1**: Ingress (mean 481.36 Mbit/s), Egress (mean 481.56 Mbit/s)
- **Flow 2**: Ingress (mean 414.59 Mbit/s), Egress (mean 414.24 Mbit/s)
- **Flow 3**: Ingress (mean 105.16 Mbit/s), Egress (mean 104.96 Mbit/s)

![Graphs showing packet size distribution over time for three flows (1, 2, and 3).]

- **Flow 1**: 95th percentile 93.64 ms
- **Flow 2**: 95th percentile 73.23 ms
- **Flow 3**: 95th percentile 47.98 ms
Run 3: Statistics of Indigo-MusesT

Start at: 2019-03-27 21:56:35
End at: 2019-03-27 21:57:05
Local clock offset: -0.047 ms
Remote clock offset: -0.331 ms

# Below is generated by plot.py at 2019-03-28 01:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 813.44 Mbit/s
95th percentile per-packet one-way delay: 73.443 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 490.00 Mbit/s
95th percentile per-packet one-way delay: 78.946 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 394.21 Mbit/s
95th percentile per-packet one-way delay: 65.939 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 260.71 Mbit/s
95th percentile per-packet one-way delay: 53.062 ms
Loss rate: 1.51%
Run 3: Report of Indigo-MusesT — Data Link

![Graph of network performance metrics](image)

Legend:
- Flow 1 ingress (mean 489.79 Mbit/s)
- Flow 1 egress (mean 490.00 Mbit/s)
- Flow 2 ingress (mean 393.50 Mbit/s)
- Flow 2 egress (mean 394.21 Mbit/s)
- Flow 3 ingress (mean 261.33 Mbit/s)
- Flow 3 egress (mean 260.71 Mbit/s)

![Graph of packet delay metrics](image)

Legend:
- Flow 1 (95th percentile 78.95 ms)
- Flow 2 (95th percentile 65.94 ms)
- Flow 3 (95th percentile 53.06 ms)
Run 4: Statistics of Indigo-MusesT

Start at: 2019-03-27 22:32:08
End at: 2019-03-27 22:32:38
Local clock offset: ~0.09 ms
Remote clock offset: ~0.415 ms

# Below is generated by plot.py at 2019-03-28 01:43:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 775.11 Mbit/s
  95th percentile per-packet one-way delay: 74.463 ms
  Loss rate: 0.44%
-- Flow 1:
  Average throughput: 481.72 Mbit/s
  95th percentile per-packet one-way delay: 74.246 ms
  Loss rate: 0.32%
-- Flow 2:
  Average throughput: 411.98 Mbit/s
  95th percentile per-packet one-way delay: 86.860 ms
  Loss rate: 0.54%
-- Flow 3:
  Average throughput: 106.04 Mbit/s
  95th percentile per-packet one-way delay: 48.165 ms
  Loss rate: 1.36%
Run 4: Report of Indigo-MusesT — Data Link

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

- Flow 1 ingress (mean 481.69 Mbit/s)
- Flow 1 egress (mean 481.72 Mbit/s)
- Flow 2 ingress (mean 412.02 Mbit/s)
- Flow 2 egress (mean 411.98 Mbit/s)
- Flow 3 ingress (mean 106.19 Mbit/s)
- Flow 3 egress (mean 106.04 Mbit/s)
Run 5: Statistics of Indigo-MusesT

Start at: 2019-03-27 23:08:25
End at: 2019-03-27 23:08:55
Local clock offset: -0.086 ms
Remote clock offset: -0.464 ms

# Below is generated by plot.py at 2019-03-28 01:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 729.15 Mbit/s
95th percentile per-packet one-way delay: 68.849 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 447.53 Mbit/s
95th percentile per-packet one-way delay: 72.632 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 397.72 Mbit/s
95th percentile per-packet one-way delay: 65.230 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 98.27 Mbit/s
95th percentile per-packet one-way delay: 48.640 ms
Loss rate: 1.51%
Run 5: Report of Indigo-MusesT — Data Link

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

Legend:
- Flow 1 ingress (mean 447.37 Mbit/s)
- Flow 1 egress (mean 447.53 Mbit/s)
- Flow 2 ingress (mean 398.17 Mbit/s)
- Flow 2 egress (mean 397.72 Mbit/s)
- Flow 3 ingress (mean 98.54 Mbit/s)
- Flow 3 egress (mean 98.27 Mbit/s)
Run 1: Statistics of LEDBAT

Start at: 2019-03-27 21:14:42
End at: 2019-03-27 21:15:12
Local clock offset: -0.173 ms
Remote clock offset: -0.276 ms

# Below is generated by plot.py at 2019-03-28 01:43:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 63.35 Mbit/s
  95th percentile per-packet one-way delay: 48.650 ms
  Loss rate: 0.82%
-- Flow 1:
  Average throughput: 40.85 Mbit/s
  95th percentile per-packet one-way delay: 48.588 ms
  Loss rate: 0.63%
-- Flow 2:
  Average throughput: 27.25 Mbit/s
  95th percentile per-packet one-way delay: 48.846 ms
  Loss rate: 0.96%
-- Flow 3:
  Average throughput: 13.56 Mbit/s
  95th percentile per-packet one-way delay: 48.497 ms
  Loss rate: 1.92%
Run 1: Report of LEDBAT — Data Link

![Graph showing throughput over time for different flows with their respective ingress and egress rates.](image)

![Graph showing per-packet one-way delay with 95th percentile values for different flows.](image)
Run 2: Statistics of LEDBAT

Start at: 2019-03-27 21:50:21
End at: 2019-03-27 21:50:51
Local clock offset: -0.062 ms
Remote clock offset: -0.389 ms

# Below is generated by plot.py at 2019-03-28 01:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.70 Mbit/s
95th percentile per-packet one-way delay: 48.689 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 40.98 Mbit/s
95th percentile per-packet one-way delay: 48.871 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 27.46 Mbit/s
95th percentile per-packet one-way delay: 48.385 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.55 Mbit/s
95th percentile per-packet one-way delay: 48.415 ms
Loss rate: 1.93%
Run 2: Report of LEDBAT — Data Link

![Graph 1: Throughput vs Time](chart1)

- **Flow 1 ingress (mean 41.11 Mbit/s)**
- **Flow 1 egress (mean 40.98 Mbit/s)**
- **Flow 2 ingress (mean 27.39 Mbit/s)**
- **Flow 2 egress (mean 27.46 Mbit/s)**
- **Flow 3 ingress (mean 13.68 Mbit/s)**
- **Flow 3 egress (mean 13.55 Mbit/s)**

![Graph 2: Per-packet one-way delay](chart2)

- **Flow 1 (95th percentile 48.87 ms)**
- **Flow 2 (95th percentile 48.38 ms)**
- **Flow 3 (95th percentile 48.41 ms)**
Run 3: Statistics of LEDBAT

End at: 2019-03-27 22:26:14
Local clock offset: -0.066 ms
Remote clock offset: -0.388 ms

# Below is generated by plot.py at 2019-03-28 01:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.71 Mbit/s
95th percentile per-packet one-way delay: 48.368 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 41.99 Mbit/s
95th percentile per-packet one-way delay: 47.941 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 27.47 Mbit/s
95th percentile per-packet one-way delay: 48.658 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.57 Mbit/s
95th percentile per-packet one-way delay: 48.133 ms
Loss rate: 1.92%
Run 3: Report of LEDBAT — Data Link

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

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

Legend:
- Flow 1 ingress (mean 42.12 Mbit/s)
- Flow 1 egress (mean 41.99 Mbit/s)
- Flow 2 ingress (mean 27.61 Mbit/s)
- Flow 2 egress (mean 27.47 Mbit/s)
- Flow 3 ingress (mean 13.70 Mbit/s)
- Flow 3 egress (mean 13.57 Mbit/s)
Run 4: Statistics of LEDBAT

Start at: 2019-03-27 23:02:03
End at: 2019-03-27 23:02:33
Local clock offset: -0.089 ms
Remote clock offset: -0.476 ms

# Below is generated by plot.py at 2019-03-28 01:43:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 60.17 Mbit/s
  95th percentile per-packet one-way delay: 48.287 ms
  Loss rate: 0.44%
-- Flow 1:
  Average throughput: 37.46 Mbit/s
  95th percentile per-packet one-way delay: 47.978 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 27.25 Mbit/s
  95th percentile per-packet one-way delay: 48.531 ms
  Loss rate: 0.96%
-- Flow 3:
  Average throughput: 14.07 Mbit/s
  95th percentile per-packet one-way delay: 47.469 ms
  Loss rate: 1.89%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2019-03-27 23:37:54
End at: 2019-03-27 23:38:24
Local clock offset: 0.217 ms
Remote clock offset: -0.475 ms

# Below is generated by plot.py at 2019-03-28 01:43:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 64.40 Mbit/s
  95th percentile per-packet one-way delay: 48.832 ms
  Loss rate: 0.81%
-- Flow 1:
  Average throughput: 41.65 Mbit/s
  95th percentile per-packet one-way delay: 48.985 ms
  Loss rate: 0.63%
-- Flow 2:
  Average throughput: 27.43 Mbit/s
  95th percentile per-packet one-way delay: 48.643 ms
  Loss rate: 0.95%
-- Flow 3:
  Average throughput: 13.79 Mbit/s
  95th percentile per-packet one-way delay: 48.466 ms
  Loss rate: 1.91%
Run 5: Report of LEDBAT — Data Link

![Graph 1](image1.png)

- Flow 1 ingress (mean 41.78 Mbit/s)
- Flow 1 egress (mean 41.65 Mbit/s)
- Flow 2 ingress (mean 27.36 Mbit/s)
- Flow 2 egress (mean 27.43 Mbit/s)
- Flow 3 ingress (mean 13.92 Mbit/s)
- Flow 3 egress (mean 13.79 Mbit/s)

![Graph 2](image2.png)

- Flow 1 (95th percentile 48.96 ms)
- Flow 2 (95th percentile 48.64 ms)
- Flow 3 (95th percentile 48.47 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2019-03-27 20:57:53  
End at: 2019-03-27 20:58:23  
Local clock offset: -0.118 ms  
Remote clock offset: -0.235 ms  

# Below is generated by plot.py at 2019-03-28 01:59:24  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 627.70 Mbit/s  
  95th percentile per-packet one-way delay: 207.283 ms  
  Loss rate: 5.55%  
-- Flow 1:  
  Average throughput: 320.64 Mbit/s  
  95th percentile per-packet one-way delay: 209.175 ms  
  Loss rate: 8.30%  
-- Flow 2:  
  Average throughput: 339.89 Mbit/s  
  95th percentile per-packet one-way delay: 207.726 ms  
  Loss rate: 2.99%  
-- Flow 3:  
  Average throughput: 249.35 Mbit/s  
  95th percentile per-packet one-way delay: 96.543 ms  
  Loss rate: 1.10%
Run 1: Report of PCC-Allegro — Data Link

![Graph of Throughput and Delay](image)

**Throughput (Mbps):**
- Flow 1 ingress (mean 348.54 Mbps)
- Flow 1 egress (mean 320.64 Mbps)
- Flow 2 ingress (mean 348.71 Mbps)
- Flow 2 egress (mean 339.89 Mbps)
- Flow 3 ingress (mean 249.63 Mbps)
- Flow 3 egress (mean 249.35 Mbps)

**Delay (ms):**
- Flow 1 (95th percentile 209.18 ms)
- Flow 2 (95th percentile 207.73 ms)
- Flow 3 (95th percentile 96.54 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2019-03-27 21:33:18
End at: 2019-03-27 21:33:48
Local clock offset: -0.193 ms
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2019-03-28 02:00:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 664.84 Mbit/s
95th percentile per-packet one-way delay: 176.364 ms
Loss rate: 3.54%
-- Flow 1:
Average throughput: 347.50 Mbit/s
95th percentile per-packet one-way delay: 172.201 ms
Loss rate: 4.46%
-- Flow 2:
Average throughput: 353.30 Mbit/s
95th percentile per-packet one-way delay: 188.818 ms
Loss rate: 2.98%
-- Flow 3:
Average throughput: 252.81 Mbit/s
95th percentile per-packet one-way delay: 90.115 ms
Loss rate: 1.13%
Run 2: Report of PCC-Allegro — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 362.56 Mbit/s)
- Blue solid line: Flow 1 egress (mean 347.50 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 362.40 Mbit/s)
- Green solid line: Flow 2 egress (mean 353.30 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 253.21 Mbit/s)
- Red solid line: Flow 3 egress (mean 252.81 Mbit/s)

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

- Blue dots: Flow 1 (95th percentile 172.20 ms)
- Green dots: Flow 2 (95th percentile 188.82 ms)
- Red dots: Flow 3 (95th percentile 90.11 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2019-03-27 22:08:57
End at: 2019-03-27 22:09:27
Local clock offset: -0.018 ms
Remote clock offset: -0.395 ms

# Below is generated by plot.py at 2019-03-28 02:00:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 579.25 Mbit/s
95th percentile per-packet one-way delay: 95.956 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 303.16 Mbit/s
95th percentile per-packet one-way delay: 87.359 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 298.16 Mbit/s
95th percentile per-packet one-way delay: 96.510 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 239.49 Mbit/s
95th percentile per-packet one-way delay: 129.348 ms
Loss rate: 1.03%
Run 3: Report of PCC-Allegro — Data Link
Run 4: Statistics of PCC-Allegro

Start at: 2019-03-27 22:44:30
End at: 2019-03-27 22:45:00
Local clock offset: -0.096 ms
Remote clock offset: -0.408 ms

# Below is generated by plot.py at 2019-03-28 02:04:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 710.67 Mbit/s
95th percentile per-packet one-way delay: 185.305 ms
Loss rate: 4.90%
-- Flow 1:
Average throughput: 417.59 Mbit/s
95th percentile per-packet one-way delay: 176.499 ms
Loss rate: 6.86%
-- Flow 2:
Average throughput: 316.76 Mbit/s
95th percentile per-packet one-way delay: 201.410 ms
Loss rate: 2.12%
-- Flow 3:
Average throughput: 253.47 Mbit/s
95th percentile per-packet one-way delay: 174.235 ms
Loss rate: 1.62%
Run 4: Report of PCC-Allegro — Data Link
Run 5: Statistics of PCC-Allegro

Start at: 2019-03-27 23:20:44
Local clock offset: -0.129 ms
Remote clock offset: -0.464 ms

# Below is generated by plot.py at 2019-03-28 02:05:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 708.64 Mbit/s
95th percentile per-packet one-way delay: 186.453 ms
Loss rate: 5.77%
-- Flow 1:
Average throughput: 360.86 Mbit/s
95th percentile per-packet one-way delay: 108.632 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 391.05 Mbit/s
95th percentile per-packet one-way delay: 209.904 ms
Loss rate: 13.42%
-- Flow 3:
Average throughput: 270.03 Mbit/s
95th percentile per-packet one-way delay: 126.885 ms
Loss rate: 2.12%
Run 5: Report of PCC-Allegro — Data Link

**Throughput vs Time (Mb/s)**
- Flow 1 ingress (mean 360.07 Mb/s)
- Flow 1 egress (mean 360.86 Mb/s)
- Flow 2 ingress (mean 449.51 Mb/s)
- Flow 2 egress (mean 391.05 Mb/s)
- Flow 3 ingress (mean 273.19 Mb/s)
- Flow 3 egress (mean 270.03 Mb/s)

**Per-packet one-way delay (ms)**
- Flow 1 (95th percentile 108.63 ms)
- Flow 2 (95th percentile 209.90 ms)
- Flow 3 (95th percentile 126.89 ms)
Run 1: Statistics of PCC-Expr

End at: 2019-03-27 21:12:05
Local clock offset: -0.147 ms
Remote clock offset: -0.251 ms

# Below is generated by plot.py at 2019-03-28 02:05:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.60 Mbit/s
95th percentile per-packet one-way delay: 148.754 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 256.02 Mbit/s
95th percentile per-packet one-way delay: 178.865 ms
Loss rate: 2.85%
-- Flow 2:
Average throughput: 216.78 Mbit/s
95th percentile per-packet one-way delay: 143.652 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 203.42 Mbit/s
95th percentile per-packet one-way delay: 87.727 ms
Loss rate: 1.51%
Run 1: Report of PCC-Expr — Data Link

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Run 1: Report of PCC-Expr — Data Link

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[Graphs showing throughput and round-trip time for different flows during a 30-second interval.]

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Run 2: Statistics of PCC-Expr

Start at: 2019-03-27 21:47:10
End at: 2019-03-27 21:47:40
Local clock offset: -0.076 ms
Remote clock offset: -0.289 ms

# Below is generated by plot.py at 2019-03-28 02:05:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 432.04 Mbit/s
95th percentile per-packet one-way delay: 156.823 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 222.55 Mbit/s
95th percentile per-packet one-way delay: 161.515 ms
Loss rate: 2.43%
-- Flow 2:
Average throughput: 218.84 Mbit/s
95th percentile per-packet one-way delay: 59.985 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 195.92 Mbit/s
95th percentile per-packet one-way delay: 196.296 ms
Loss rate: 6.53%
Run 2: Report of PCC-Expr — Data Link

![Graph showing throughput and per-packet end-to-end delay over time for different flows with mean values provided.]
Run 3: Statistics of PCC-Expr

End at: 2019-03-27 22:23:08
Local clock offset: +0.08 ms
Remote clock offset: -0.402 ms

# Below is generated by plot.py at 2019-03-28 02:05:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 425.81 Mbit/s
  95th percentile per-packet one-way delay: 150.125 ms
  Loss rate: 0.62%
-- Flow 1:
  Average throughput: 254.85 Mbit/s
  95th percentile per-packet one-way delay: 162.605 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 232.02 Mbit/s
  95th percentile per-packet one-way delay: 59.667 ms
  Loss rate: 0.55%
-- Flow 3:
  Average throughput: 51.43 Mbit/s
  95th percentile per-packet one-way delay: 47.820 ms
  Loss rate: 0.96%
Run 3: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 235.72 Mbit/s)
- Flow 1 egress (mean 254.85 Mbit/s)
- Flow 2 ingress (mean 232.18 Mbit/s)
- Flow 2 egress (mean 232.02 Mbit/s)
- Flow 3 ingress (mean 51.42 Mbit/s)
- Flow 3 egress (mean 51.43 Mbit/s)

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

- Flow 1 (95th percentile 162.60 ms)
- Flow 2 (95th percentile 59.67 ms)
- Flow 3 (95th percentile 47.82 ms)
Run 4: Statistics of PCC-Expr

Local clock offset: -0.494 ms
Remote clock offset: -0.458 ms

# Below is generated by plot.py at 2019-03-28 02:12:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 445.23 Mbit/s
95th percentile per-packet one-way delay: 168.232 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 217.98 Mbit/s
95th percentile per-packet one-way delay: 65.020 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 248.86 Mbit/s
95th percentile per-packet one-way delay: 177.317 ms
Loss rate: 3.93%
-- Flow 3:
Average throughput: 189.15 Mbit/s
95th percentile per-packet one-way delay: 61.773 ms
Loss rate: 1.15%
Run 4: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 217.87 Mbit/s)
- Flow 1 egress (mean 217.98 Mbit/s)
- Flow 2 ingress (mean 257.80 Mbit/s)
- Flow 2 egress (mean 248.86 Mbit/s)
- Flow 3 ingress (mean 189.51 Mbit/s)
- Flow 3 egress (mean 189.15 Mbit/s)

![Graph showing 95th percentile delay for different flows.]

- Flow 1 (95th percentile 65.02 ms)
- Flow 2 (95th percentile 177.32 ms)
- Flow 3 (95th percentile 61.77 ms)
Run 5: Statistics of PCC-Expr

Start at: 2019-03-27 23:34:45
End at: 2019-03-27 23:35:15
Local clock offset: -0.18 ms
Remote clock offset: -0.505 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 460.54 Mbit/s
95th percentile per-packet one-way delay: 95.819 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 243.20 Mbit/s
95th percentile per-packet one-way delay: 83.890 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 243.26 Mbit/s
95th percentile per-packet one-way delay: 103.686 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 171.07 Mbit/s
95th percentile per-packet one-way delay: 94.155 ms
Loss rate: 1.06%
Run 5: Report of PCC-Expr — Data Link

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

**Throughput (Mbps)**
- **Flow 1 ingress** (mean 243.31 Mbps)
- **Flow 1 egress** (mean 243.20 Mbps)
- **Flow 2 ingress** (mean 243.47 Mbps)
- **Flow 2 egress** (mean 243.26 Mbps)
- **Flow 3 ingress** (mean 171.23 Mbps)
- **Flow 3 egress** (mean 171.07 Mbps)

**Per-packet one-way delay (ms)**
- **Flow 1** (95th percentile 83.89 ms)
- **Flow 2** (95th percentile 103.69 ms)
- **Flow 3** (95th percentile 94.16 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2019-03-27 20:44:14
End at: 2019-03-27 20:44:44
Local clock offset: -0.107 ms
Remote clock offset: -0.276 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.07 Mbit/s
95th percentile per-packet one-way delay: 47.333 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 54.61 Mbit/s
95th percentile per-packet one-way delay: 47.233 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 67.73 Mbit/s
95th percentile per-packet one-way delay: 47.355 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 57.38 Mbit/s
95th percentile per-packet one-way delay: 47.353 ms
Loss rate: 1.14%
Run 1: Report of QUIC Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 54.65 Mbps)
  - Flow 1 egress (mean 54.61 Mbps)
  - Flow 2 ingress (mean 67.74 Mbps)
  - Flow 2 egress (mean 67.73 Mbps)
  - Flow 3 ingress (mean 57.50 Mbps)
  - Flow 3 egress (mean 57.38 Mbps)

- **Packet Loss (ms):**
  - Flow 1 (95th percentile 47.23 ms)
  - Flow 2 (95th percentile 47.35 ms)
  - Flow 3 (95th percentile 47.35 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2019-03-27 21:19:42
End at: 2019-03-27 21:20:12
Local clock offset: -0.18 ms
Remote clock offset: -0.28 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 102.34 Mbit/s
95th percentile per-packet one-way delay: 47.379 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 55.36 Mbit/s
95th percentile per-packet one-way delay: 47.396 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 62.55 Mbit/s
95th percentile per-packet one-way delay: 47.340 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 16.84 Mbit/s
95th percentile per-packet one-way delay: 46.578 ms
Loss rate: 0.54%
Run 2: Report of QUIC Cubic — Data Link

![Graph showing throughput over time for different flows with annotations for mean egress and ingress speeds.]
Run 3: Statistics of QUIC Cubic

Local clock offset: -0.033 ms
Remote clock offset: -0.347 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.75 Mbit/s
95th percentile per-packet one-way delay: 47.349 ms
Loss rate: 0.71%

-- Flow 1:
Average throughput: 52.50 Mbit/s
95th percentile per-packet one-way delay: 47.355 ms
Loss rate: 0.47%

-- Flow 2:
Average throughput: 44.51 Mbit/s
95th percentile per-packet one-way delay: 47.367 ms
Loss rate: 0.78%

-- Flow 3:
Average throughput: 53.97 Mbit/s
95th percentile per-packet one-way delay: 46.555 ms
Loss rate: 1.31%
Run 3: Report of QUIC Cubic — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 52.38 Mbps)
- Flow 1 egress (mean 52.50 Mbps)
- Flow 2 ingress (mean 44.65 Mbps)
- Flow 2 egress (mean 44.51 Mbps)
- Flow 3 ingress (mean 54.16 Mbps)
- Flow 3 egress (mean 53.97 Mbps)

**Packet Round-Trip Delay (ms):**
- Flow 1 (95th percentile 47.35 ms)
- Flow 2 (95th percentile 47.37 ms)
- Flow 3 (95th percentile 46.55 ms)
Run 4: Statistics of QUIC Cubic

Start at: 2019-03-27 22:30:49
End at: 2019-03-27 22:31:19
Local clock offset: -0.089 ms
Remote clock offset: -0.412 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.31 Mbit/s
95th percentile per-packet one-way delay: 47.380 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 75.37 Mbit/s
95th percentile per-packet one-way delay: 47.389 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 60.12 Mbit/s
95th percentile per-packet one-way delay: 47.358 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 18.16 Mbit/s
95th percentile per-packet one-way delay: 47.357 ms
Loss rate: 3.94%
Run 4: Report of QUIC Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 75.34 Mbit/s)
- Flow 1 egress (mean 75.37 Mbit/s)
- Flow 2 ingress (mean 60.10 Mbit/s)
- Flow 2 egress (mean 60.12 Mbit/s)
- Flow 3 ingress (mean 18.70 Mbit/s)
- Flow 3 egress (mean 18.16 Mbit/s)
Run 5: Statistics of QUIC Cubic

Start at: 2019-03-27 23:07:06
End at: 2019-03-27 23:07:36
Local clock offset: -0.085 ms
Remote clock offset: -0.462 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 117.25 Mbit/s
  95th percentile per-packet one-way delay: 47.366 ms
  Loss rate: 0.44%
-- Flow 1:
  Average throughput: 68.57 Mbit/s
  95th percentile per-packet one-way delay: 47.357 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 63.13 Mbit/s
  95th percentile per-packet one-way delay: 47.369 ms
  Loss rate: 0.54%
-- Flow 3:
  Average throughput: 18.87 Mbit/s
  95th percentile per-packet one-way delay: 47.424 ms
  Loss rate: 0.68%
Run 5: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2019-03-27 21:03:12
End at: 2019-03-27 21:03:42
Local clock offset: -0.086 ms
Remote clock offset: -0.281 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.569 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.554 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.587 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.540 ms
Loss rate: 1.09%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2019-03-27 21:38:40
End at: 2019-03-27 21:39:10
Local clock offset: -0.189 ms
Remote clock offset: -0.33 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.350 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.684 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.621 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.413 ms
Loss rate: 1.09%
Run 2: Report of SCReAM — Data Link

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**Graph 1: 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)**

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

- **Flow 1 (95th percentile 46.68 ms)**
- **Flow 2 (95th percentile 46.62 ms)**
- **Flow 3 (95th percentile 47.41 ms)**
Run 3: Statistics of SCReAM

Start at: 2019-03-27 22:14:18
Local clock offset: -0.063 ms
Remote clock offset: -0.388 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 47.561 ms
  Loss rate: 0.51%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 46.789 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 47.605 ms
  Loss rate: 0.61%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 47.610 ms
  Loss rate: 1.09%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

End at: 2019-03-27 22:50:41
Local clock offset: 0.264 ms
Remote clock offset: -0.418 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.889 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.901 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.811 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.895 ms
Loss rate: 1.09%
Run 4: Report of SCReAM — Data Link

![Graph of Throughput vs Time](image1)
![Graph of Per-packet one way delay vs Time](image2)
Run 5: Statistics of SCReAM

Start at: 2019-03-27 23:26:16
End at: 2019-03-27 23:26:46
Local clock offset: -0.146 ms
Remote clock offset: -0.486 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.620 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.646 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.694 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.628 ms
Loss rate: 1.09%
Run 5: Report of SCReAM — Data Link

- Throughput (Mbps/s)
- Time (s)

- 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 loss rate (ms)
- Time (s)

- Flow 1 (95th percentile 47.65 ms)
- Flow 2 (95th percentile 46.69 ms)
- Flow 3 (95th percentile 47.63 ms)
Run 1: Statistics of Sprout

Local clock offset: -0.156 ms
Remote clock offset: -0.277 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.84 Mbit/s
95th percentile per-packet one-way delay: 47.938 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 47.938 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 48.024 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 47.829 ms
Loss rate: 1.09%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2019-03-27 21:49:08
End at: 2019-03-27 21:49:38
Local clock offset: -0.071 ms
Remote clock offset: -0.321 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.95 Mbit/s
95th percentile per-packet one-way delay: 47.884 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 47.886 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 47.872 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 47.909 ms
Loss rate: 0.40%
Run 2: Report of Sprout — Data Link

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

- **Throughput (Mbps/s):**
  - Flow 1 ingress (mean 9.56 Mbps/s)
  - Flow 1 egress (mean 9.55 Mbps/s)
  - Flow 2 ingress (mean 9.53 Mbps/s)
  - Flow 2 egress (mean 9.53 Mbps/s)
  - Flow 3 ingress (mean 9.29 Mbps/s)
  - Flow 3 egress (mean 9.35 Mbps/s)

- **Per packet one-way delay (ms):**
  - Flow 1 (95th percentile 47.89 ms)
  - Flow 2 (95th percentile 47.87 ms)
  - Flow 3 (95th percentile 47.91 ms)
Run 3: Statistics of Sprout

End at: 2019-03-27 22:25:01
Local clock offset: -0.109 ms
Remote clock offset: -0.368 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.60 Mbit/s
95th percentile per-packet one-way delay: 47.861 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 9.46 Mbit/s
95th percentile per-packet one-way delay: 47.219 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 9.30 Mbit/s
95th percentile per-packet one-way delay: 47.958 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 9.08 Mbit/s
95th percentile per-packet one-way delay: 47.900 ms
Loss rate: 1.12%
Run 3: Report of Sprout — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 9.46 Mbps)
  - Flow 1 egress (mean 9.46 Mbps)
  - Flow 2 ingress (mean 9.31 Mbps)
  - Flow 2 egress (mean 9.30 Mbps)
  - Flow 3 ingress (mean 9.06 Mbps)
  - Flow 3 egress (mean 9.08 Mbps)

- **Packet One-Way Delay (ms):**
  - Flow 1 (95th percentile 47.22 ms)
  - Flow 2 (95th percentile 47.96 ms)
  - Flow 3 (95th percentile 47.90 ms)
Run 4: Statistics of Sprout

Start at: 2019-03-27 23:00:50
End at: 2019-03-27 23:01:20
Local clock offset: -0.102 ms
Remote clock offset: -0.422 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.57 Mbit/s
95th percentile per-packet one-way delay: 47.946 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 9.45 Mbit/s
95th percentile per-packet one-way delay: 48.009 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 9.30 Mbit/s
95th percentile per-packet one-way delay: 47.822 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 9.03 Mbit/s
95th percentile per-packet one-way delay: 47.883 ms
Loss rate: 1.27%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

Start at: 2019-03-27 23:36:41
End at: 2019-03-27 23:37:11
Local clock offset: -0.163 ms
Remote clock offset: -0.493 ms

# Below is generated by plot.py at 2019-03-28 02:13:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.84 Mbit/s
95th percentile per-packet one-way delay: 48.043 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 9.66 Mbit/s
95th percentile per-packet one-way delay: 48.142 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 9.49 Mbit/s
95th percentile per-packet one-way delay: 47.887 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 8.82 Mbit/s
95th percentile per-packet one-way delay: 48.065 ms
Loss rate: 0.51%
Run 5: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

End at: 2019-03-27 20:47:53
Local clock offset: -0.081 ms
Remote clock offset: -0.244 ms

# Below is generated by plot.py at 2019-03-28 02:20:39
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 452.77 Mbit/s
   95th percentile per-packet one-way delay: 55.609 ms
   Loss rate: 0.44%
-- Flow 1:
   Average throughput: 238.56 Mbit/s
   95th percentile per-packet one-way delay: 48.006 ms
   Loss rate: 0.31%
-- Flow 2:
   Average throughput: 224.81 Mbit/s
   95th percentile per-packet one-way delay: 56.982 ms
   Loss rate: 0.41%
-- Flow 3:
   Average throughput: 196.08 Mbit/s
   95th percentile per-packet one-way delay: 65.631 ms
   Loss rate: 1.02%
Run 1: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 238.54 Mbit/s)  
Flow 1 egress (mean 238.56 Mbit/s)

Flow 2 ingress (mean 224.64 Mbit/s)  
Flow 2 egress (mean 224.81 Mbit/s)

Flow 3 ingress (mean 196.18 Mbit/s)  
Flow 3 egress (mean 196.08 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 48.01 ms)  
Flow 2 (95th percentile 56.98 ms)  
Flow 3 (95th percentile 65.63 ms)
Run 2: Statistics of TaoVA-100x

Local clock offset: -0.184 ms
Remote clock offset: -0.33 ms

# Below is generated by plot.py at 2019-03-28 02:22:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 481.86 Mbit/s
  95th percentile per-packet one-way delay: 51.765 ms
  Loss rate: 0.54%
-- Flow 1:
  Average throughput: 238.05 Mbit/s
  95th percentile per-packet one-way delay: 52.342 ms
  Loss rate: 0.42%
-- Flow 2:
  Average throughput: 246.99 Mbit/s
  95th percentile per-packet one-way delay: 50.770 ms
  Loss rate: 0.47%
-- Flow 3:
  Average throughput: 240.94 Mbit/s
  95th percentile per-packet one-way delay: 52.038 ms
  Loss rate: 1.02%
Run 3: Statistics of TaoVA-100x

Start at: 2019-03-27 21:58:25
End at: 2019-03-27 21:58:55
Local clock offset: -0.034 ms
Remote clock offset: -0.367 ms

# Below is generated by plot.py at 2019-03-28 02:22:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 473.84 Mbit/s
95th percentile per-packet one-way delay: 51.292 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 239.68 Mbit/s
95th percentile per-packet one-way delay: 49.441 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 233.19 Mbit/s
95th percentile per-packet one-way delay: 53.558 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 239.43 Mbit/s
95th percentile per-packet one-way delay: 50.572 ms
Loss rate: 1.00%
Run 3: Report of TaoVA-100x — Data Link

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

Legend:
- Flow 1 ingress (mean 239.77 Mbit/s)
- Flow 1 egress (mean 239.68 Mbit/s)
- Flow 2 ingress (mean 233.33 Mbit/s)
- Flow 2 egress (mean 233.19 Mbit/s)
- Flow 3 ingress (mean 239.54 Mbit/s)
- Flow 3 egress (mean 239.43 Mbit/s)
Run 4: Statistics of TaoVA-100x

End at: 2019-03-27 22:34:27
Local clock offset: -0.088 ms
Remote clock offset: -0.396 ms

# Below is generated by plot.py at 2019-03-28 02:22:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 486.35 Mbit/s
  95th percentile per-packet one-way delay: 49.483 ms
  Loss rate: 0.49%
-- Flow 1:
  Average throughput: 243.76 Mbit/s
  95th percentile per-packet one-way delay: 49.913 ms
  Loss rate: 0.31%
-- Flow 2:
  Average throughput: 245.52 Mbit/s
  95th percentile per-packet one-way delay: 49.005 ms
  Loss rate: 0.51%
-- Flow 3:
  Average throughput: 240.28 Mbit/s
  95th percentile per-packet one-way delay: 49.222 ms
  Loss rate: 0.97%
Run 4: Report of TaoVA-100x — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 243.74 Mbps)
- Flow 1 egress (mean 243.76 Mbps)
- Flow 2 ingress (mean 245.59 Mbps)
- Flow 2 egress (mean 245.52 Mbps)
- Flow 3 ingress (mean 240.31 Mbps)
- Flow 3 egress (mean 240.28 Mbps)

**Per-packet one way delay (ms):**
- Flow 1 (95th percentile 49.91 ms)
- Flow 2 (95th percentile 49.01 ms)
- Flow 3 (95th percentile 49.22 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2019-03-27 23:10:11
End at: 2019-03-27 23:10:42
Local clock offset: 0.286 ms
Remote clock offset: -0.483 ms

# Below is generated by plot.py at 2019-03-28 02:22:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 486.94 Mbit/s
  95th percentile per-packet one-way delay: 49.153 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 250.04 Mbit/s
  95th percentile per-packet one-way delay: 48.769 ms
  Loss rate: 0.29%
-- Flow 2:
  Average throughput: 238.06 Mbit/s
  95th percentile per-packet one-way delay: 49.665 ms
  Loss rate: 0.33%
-- Flow 3:
  Average throughput: 238.16 Mbit/s
  95th percentile per-packet one-way delay: 49.589 ms
  Loss rate: 0.79%
Run 5: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 249.96 Mbit/s)
- Flow 1 egress (mean 250.04 Mbit/s)
- Flow 2 ingress (mean 237.72 Mbit/s)
- Flow 2 egress (mean 238.06 Mbit/s)
- Flow 3 ingress (mean 237.78 Mbit/s)
- Flow 3 egress (mean 238.16 Mbit/s)
Run 1: Statistics of TCP Vegas

Start at: 2019-03-27 20:55:00
End at: 2019-03-27 20:55:30
Local clock offset: -0.107 ms
Remote clock offset: -0.245 ms

# Below is generated by plot.py at 2019-03-28 02:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 583.81 Mbit/s
95th percentile per-packet one-way delay: 67.434 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 281.33 Mbit/s
95th percentile per-packet one-way delay: 46.900 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 312.04 Mbit/s
95th percentile per-packet one-way delay: 101.996 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 287.42 Mbit/s
95th percentile per-packet one-way delay: 48.532 ms
Loss rate: 0.98%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2019-03-27 21:30:25
End at: 2019-03-27 21:30:55
Local clock offset: -0.203 ms
Remote clock offset: -0.306 ms

# Below is generated by plot.py at 2019-03-28 02:25:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 581.64 Mbit/s
  95th percentile per-packet one-way delay: 51.566 ms
  Loss rate: 0.46%
-- Flow 1:
  Average throughput: 299.12 Mbit/s
  95th percentile per-packet one-way delay: 56.033 ms
  Loss rate: 0.28%
-- Flow 2:
  Average throughput: 284.18 Mbit/s
  95th percentile per-packet one-way delay: 47.761 ms
  Loss rate: 0.47%
-- Flow 3:
  Average throughput: 283.55 Mbit/s
  95th percentile per-packet one-way delay: 48.308 ms
  Loss rate: 1.03%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2019-03-27 22:06:04
End at: 2019-03-27 22:06:34
Local clock offset: -0.032 ms
Remote clock offset: -0.383 ms

# Below is generated by plot.py at 2019-03-28 02:26:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 595.55 Mbit/s
95th percentile per-packet one-way delay: 75.629 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 285.56 Mbit/s
95th percentile per-packet one-way delay: 47.199 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 284.26 Mbit/s
95th percentile per-packet one-way delay: 48.074 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 366.19 Mbit/s
95th percentile per-packet one-way delay: 79.022 ms
Loss rate: 0.79%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2019-03-27 22:41:30
End at: 2019-03-27 22:42:01
Local clock offset: -0.1 ms
Remote clock offset: -0.413 ms

# Below is generated by plot.py at 2019-03-28 02:28:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 573.86 Mbit/s
  95th percentile per-packet one-way delay: 53.887 ms
  Loss rate: 0.47%
-- Flow 1:
  Average throughput: 287.40 Mbit/s
  95th percentile per-packet one-way delay: 49.157 ms
  Loss rate: 0.30%
-- Flow 2:
  Average throughput: 283.56 Mbit/s
  95th percentile per-packet one-way delay: 47.773 ms
  Loss rate: 0.47%
-- Flow 3:
  Average throughput: 296.23 Mbit/s
  95th percentile per-packet one-way delay: 141.627 ms
  Loss rate: 1.00%
Run 4: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 287.34 Mbit/s)
- Flow 1 egress (mean 287.40 Mbit/s)
- Flow 2 ingress (mean 283.56 Mbit/s)
- Flow 2 egress (mean 283.56 Mbit/s)
- Flow 3 ingress (mean 296.36 Mbit/s)
- Flow 3 egress (mean 296.23 Mbit/s)

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

- Flow 1 (95th percentile 49.16 ms)
- Flow 2 (95th percentile 47.77 ms)
- Flow 3 (95th percentile 141.63 ms)
Run 5: Statistics of TCP Vegas

Start at: 2019-03-27 23:17:46
End at: 2019-03-27 23:18:16
Local clock offset: -0.098 ms
Remote clock offset: -0.444 ms

# Below is generated by plot.py at 2019-03-28 02:34:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 693.69 Mbit/s
95th percentile per-packet one-way delay: 51.269 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 405.83 Mbit/s
95th percentile per-packet one-way delay: 51.605 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 290.13 Mbit/s
95th percentile per-packet one-way delay: 51.126 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 287.82 Mbit/s
95th percentile per-packet one-way delay: 48.436 ms
Loss rate: 1.03%
Run 5: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 405.30 Mbit/s)
- Flow 1 egress (mean 405.83 Mbit/s)
- Flow 2 ingress (mean 289.50 Mbit/s)
- Flow 2 egress (mean 290.13 Mbit/s)
- Flow 3 ingress (mean 288.10 Mbit/s)
- Flow 3 egress (mean 287.82 Mbit/s)

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Run 1: Statistics of Verus

Start at: 2019-03-27 20:40:47
End at: 2019-03-27 20:41:17
Local clock offset: -0.079 ms
Remote clock offset: -0.18 ms

# Below is generated by plot.py at 2019-03-28 02:34:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 231.82 Mbit/s
  95th percentile per-packet one-way delay: 135.746 ms
  Loss rate: 1.12%
-- Flow 1:
  Average throughput: 124.42 Mbit/s
  95th percentile per-packet one-way delay: 91.270 ms
  Loss rate: 0.34%
-- Flow 2:
  Average throughput: 123.65 Mbit/s
  95th percentile per-packet one-way delay: 212.072 ms
  Loss rate: 2.09%
-- Flow 3:
  Average throughput: 76.41 Mbit/s
  95th percentile per-packet one-way delay: 72.180 ms
  Loss rate: 1.73%
Run 1: Report of Verus — Data Link

```
<table>
<thead>
<tr>
<th>Flow 1 ingress (mean 124.45 Mbit/s)</th>
<th>Flow 1 egress (mean 124.42 Mbit/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow 2 ingress (mean 125.66 Mbit/s)</td>
<td>Flow 2 egress (mean 123.05 Mbit/s)</td>
</tr>
<tr>
<td>Flow 3 ingress (mean 77.04 Mbit/s)</td>
<td>Flow 3 egress (mean 76.41 Mbit/s)</td>
</tr>
</tbody>
</table>
```

```
Flow 1 (95th percentile 91.27 ms)  Flow 2 (95th percentile 212.07 ms)  Flow 3 (95th percentile 72.18 ms)
```

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Run 2: Statistics of Verus

Start at: 2019-03-27 21:16:00
End at: 2019-03-27 21:16:30
Local clock offset: 0.223 ms
Remote clock offset: -0.276 ms

# Below is generated by plot.py at 2019-03-28 02:35:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.16 Mbit/s
95th percentile per-packet one-way delay: 215.700 ms
Loss rate: 3.38%
-- Flow 1:
Average throughput: 201.94 Mbit/s
95th percentile per-packet one-way delay: 219.946 ms
Loss rate: 4.36%
-- Flow 2:
Average throughput: 169.96 Mbit/s
95th percentile per-packet one-way delay: 188.978 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 46.42 Mbit/s
95th percentile per-packet one-way delay: 52.257 ms
Loss rate: 1.38%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

End at: 2019-03-27 21:52:09  
Local clock offset: -0.054 ms  
Remote clock offset: -0.357 ms

# Below is generated by plot.py at 2019-03-28 02:35:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 278.77 Mbit/s  
95th percentile per-packet one-way delay: 219.206 ms  
Loss rate: 3.11%
-- Flow 1:
Average throughput: 136.82 Mbit/s  
95th percentile per-packet one-way delay: 95.208 ms  
Loss rate: 0.37%
-- Flow 2:
Average throughput: 165.42 Mbit/s  
95th percentile per-packet one-way delay: 331.767 ms  
Loss rate: 6.81%
-- Flow 3:
Average throughput: 97.47 Mbit/s  
95th percentile per-packet one-way delay: 138.308 ms  
Loss rate: 1.24%
Run 3: Report of Verus — Data Link

[Graph showing throughput and packet delay over time]
Run 4: Statistics of Verus

Start at: 2019-03-27 22:27:02
Local clock offset: -0.067 ms
Remote clock offset: -0.405 ms

# Below is generated by plot.py at 2019-03-28 02:35:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 247.68 Mbit/s
95th percentile per-packet one-way delay: 95.131 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 134.73 Mbit/s
95th percentile per-packet one-way delay: 77.646 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 134.38 Mbit/s
95th percentile per-packet one-way delay: 125.514 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 71.75 Mbit/s
95th percentile per-packet one-way delay: 53.475 ms
Loss rate: 0.44%
Run 4: Report of Verus — Data Link

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

Legend:
- Flow 1 ingress (mean 134.34 Mbit/s)
- Flow 1 egress (mean 134.73 Mbit/s)
- Flow 2 ingress (mean 134.62 Mbit/s)
- Flow 2 egress (mean 134.58 Mbit/s)
- Flow 3 ingress (mean 71.35 Mbit/s)
- Flow 3 egress (mean 71.75 Mbit/s)
Run 5: Statistics of Verus

Start at: 2019-03-27 23:03:21
End at: 2019-03-27 23:03:51
Local clock offset: -0.094 ms
Remote clock offset: -0.446 ms

# Below is generated by plot.py at 2019-03-28 02:35:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 250.42 Mbit/s
95th percentile per-packet one-way delay: 154.670 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 169.02 Mbit/s
95th percentile per-packet one-way delay: 163.501 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 92.76 Mbit/s
95th percentile per-packet one-way delay: 85.710 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 61.62 Mbit/s
95th percentile per-packet one-way delay: 52.680 ms
Loss rate: 1.00%
Run 1: Statistics of PCC-Vivace

Start at: 2019-03-27 21:07:58
End at: 2019-03-27 21:08:28
Local clock offset: -0.139 ms
Remote clock offset: -0.272 ms

# Below is generated by plot.py at 2019-03-28 02:36:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 503.31 Mbit/s
  95th percentile per-packet one-way delay: 51.491 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 282.11 Mbit/s
  95th percentile per-packet one-way delay: 53.634 ms
  Loss rate: 0.15%
-- Flow 2:
  Average throughput: 246.58 Mbit/s
  95th percentile per-packet one-way delay: 48.992 ms
  Loss rate: 0.56%
-- Flow 3:
  Average throughput: 175.39 Mbit/s
  95th percentile per-packet one-way delay: 49.518 ms
  Loss rate: 1.14%
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 281.65 Mbit/s) vs. Flow 1 egress (mean 282.11 Mbit/s)
- Flow 2 ingress (mean 246.78 Mbit/s) vs. Flow 2 egress (mean 246.58 Mbit/s)
- Flow 3 ingress (mean 175.70 Mbit/s) vs. Flow 3 egress (mean 175.39 Mbit/s)

- Flow 1 (95th percentile 53.63 ms) vs. Flow 2 (95th percentile 48.99 ms) vs. Flow 3 (95th percentile 49.52 ms)
Run 2: Statistics of PCC-Vivace

End at: 2019-03-27 21:44:03
Local clock offset: -0.121 ms
Remote clock offset: -0.297 ms

# Below is generated by plot.py at 2019-03-28 02:37:23
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 487.26 Mbit/s
95th percentile per-packet one-way delay: 88.580 ms
Loss rate: 0.39%
-- Flow 1:
 Average throughput: 275.10 Mbit/s
95th percentile per-packet one-way delay: 71.654 ms
Loss rate: 0.28%
-- Flow 2:
 Average throughput: 229.51 Mbit/s
95th percentile per-packet one-way delay: 192.197 ms
Loss rate: 0.48%
-- Flow 3:
 Average throughput: 182.50 Mbit/s
95th percentile per-packet one-way delay: 59.834 ms
Loss rate: 0.70%
Run 2: Report of PCC-Vivace — Data Link
Run 3: Statistics of PCC-Vivace

Start at: 2019-03-27 22:19:08
End at: 2019-03-27 22:19:38
Local clock offset: -0.046 ms
Remote clock offset: -0.377 ms

# Below is generated by plot.py at 2019-03-28 02:37:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 324.96 Mbit/s
95th percentile per-packet one-way delay: 56.178 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 125.60 Mbit/s
95th percentile per-packet one-way delay: 48.882 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 225.03 Mbit/s
95th percentile per-packet one-way delay: 69.125 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 152.27 Mbit/s
95th percentile per-packet one-way delay: 70.953 ms
Loss rate: 1.07%
Run 3: Report of PCC-Vivace — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 126.04 Mbps)
- Flow 1 egress (mean 125.60 Mbps)
- Flow 2 ingress (mean 224.55 Mbps)
- Flow 2 egress (mean 225.03 Mbps)
- Flow 3 ingress (mean 152.45 Mbps)
- Flow 3 egress (mean 152.27 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 48.88 ms)
- Flow 2 (95th percentile 69.12 ms)
- Flow 3 (95th percentile 70.95 ms)
Run 4: Statistics of PCC-Vivace

Local clock offset: -0.076 ms
Remote clock offset: -0.461 ms

# Below is generated by plot.py at 2019-03-28 02:38:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 505.33 Mbit/s
95th percentile per-packet one-way delay: 65.775 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 334.46 Mbit/s
95th percentile per-packet one-way delay: 75.740 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 174.04 Mbit/s
95th percentile per-packet one-way delay: 50.112 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 168.79 Mbit/s
95th percentile per-packet one-way delay: 49.125 ms
Loss rate: 1.57%
Run 4: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 334.58 Mbit/s)
- Flow 1 egress (mean 334.46 Mbit/s)
- Flow 2 ingress (mean 174.55 Mbit/s)
- Flow 2 egress (mean 174.04 Mbit/s)
- Flow 3 ingress (mean 169.87 Mbit/s)
- Flow 3 egress (mean 168.79 Mbit/s)
Run 5: Statistics of PCC-Vivace

Start at: 2019-03-27 23:31:09
Local clock offset: -0.143 ms
Remote clock offset: -0.47 ms

# Below is generated by plot.py at 2019-03-28 02:38:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 452.62 Mbit/s
95th percentile per-packet one-way delay: 53.911 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 224.55 Mbit/s
95th percentile per-packet one-way delay: 49.051 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 223.42 Mbit/s
95th percentile per-packet one-way delay: 49.487 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 243.52 Mbit/s
95th percentile per-packet one-way delay: 165.756 ms
Loss rate: 1.36%
Run 5: Report of PCC-Vivace — Data Link

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

Legend:
- Flow 1 ingress (mean 224.74 Mbit/s)
- Flow 1 egress (mean 224.55 Mbit/s)
- Flow 2 ingress (mean 223.75 Mbit/s)
- Flow 2 egress (mean 223.42 Mbit/s)
- Flow 3 ingress (mean 244.52 Mbit/s)
- Flow 3 egress (mean 243.52 Mbit/s)

Legend for per-packet one-way delay:
- Flow 1 (95th percentile 49.05 ms)
- Flow 2 (95th percentile 49.49 ms)
- Flow 3 (95th percentile 165.76 ms)
Run 1: Statistics of WebRTC media

Start at: 2019-03-27 20:56:41
End at: 2019-03-27 20:57:11
Local clock offset: -0.129 ms
Remote clock offset: -0.226 ms

# Below is generated by plot.py at 2019-03-28 02:38:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.341 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 46.622 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.396 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.322 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2019-03-27 21:32:07
End at: 2019-03-27 21:32:37
Local clock offset: -0.199 ms
Remote clock offset: -0.284 ms

# Below is generated by plot.py at 2019-03-28 02:38:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.533 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.512 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.625 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.465 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

![Graph of WebRTC media throughput and packet delay](image-url)
Run 3: Statistics of WebRTC media

Start at: 2019-03-27 22:07:46
End at: 2019-03-27 22:08:16
Local clock offset: -0.012 ms
Remote clock offset: -0.36 ms

# Below is generated by plot.py at 2019-03-28 02:38:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.579 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.611 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.545 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.455 ms
Loss rate: 0.05%
Run 3: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 0.05 Mbit/s)
- Flow 1 egress (mean 0.05 Mbit/s)
- Flow 2 ingress (mean 0.05 Mbit/s)
- Flow 2 egress (mean 0.05 Mbit/s)
- Flow 3 ingress (mean 0.04 Mbit/s)
- Flow 3 egress (mean 0.05 Mbit/s)
Run 4: Statistics of WebRTC media

End at: 2019-03-27 22:43:49
Local clock offset: -0.118 ms
Remote clock offset: -0.41 ms

# Below is generated by plot.py at 2019-03-28 02:38:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.475 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.353 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.528 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.546 ms
Loss rate: 0.05%
Run 4: Report of WebRTC media — Data Link

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

End at: 2019-03-27 23:20:03
Local clock offset: -0.157 ms
Remote clock offset: -0.476 ms

# Below is generated by plot.py at 2019-03-28 02:38:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.502 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.477 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.523 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.473 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

- Throughput (Mbps):
  - Flow 1 ingress (mean 0.05 Mbps)
  - Flow 1 egress (mean 0.05 Mbps)
  - Flow 2 ingress (mean 0.05 Mbps)
  - Flow 2 egress (mean 0.05 Mbps)
  - Flow 3 ingress (mean 0.05 Mbps)
  - Flow 3 egress (mean 0.05 Mbps)

- Per packet one-way delay (ms):
  - Flow 1 (95th percentile 47.48 ms)
  - Flow 2 (95th percentile 47.52 ms)
  - Flow 3 (95th percentile 47.47 ms)