Pantheon Report

Generated at 2019-12-12 15:21:31 (UTC).
Data path: GCE London on ens4 (local) → GCE Iowa on ens4 (remote).
Repeated the test of 24 congestion control schemes 5 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
NTP offsets were measured against time.google.com and have been applied to correct the timestamps in logs.

System info:
Linux 5.0.0-1025-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 @ de42328552b3776a75a394dfafdd722537b0ec
third_party/fillp @ d6a1459332注册ee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e6bb722943babcd2b0902d064fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa39e93b32143cedbfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0edbf90cc7e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a606be67bc7c3f3cf
third_party/muses @ 5ce721187ad823da2095537370c746486ca4966
third_party/muses_dtrees @ 387225f775f61ddebbe92d708a8869ffbb84eb3200
third_party/pantheon-tunnel @ f86663f858d27af892717625ee3a54cc2e802bd
third_party/pcc @ 1afc95bf80d6d18b623c091a55f8ec872a4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f613e8aad08f0ab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1b8143ebc978f3ccf42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3dbb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a6d18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutb2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9d0e4735770d143a1fa2851
test from GCE London to GCE Iowa, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
</tr>
<tr>
<td>TCP BBR</td>
<td>5</td>
<td>646.08</td>
<td>578.88</td>
<td>509.49</td>
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<tr>
<td>Copa</td>
<td>5</td>
<td>277.17</td>
<td>261.99</td>
<td>244.03</td>
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<td>TCP Cubic</td>
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<td>352.67</td>
<td>323.20</td>
<td>262.83</td>
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<td>FILLP</td>
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<td>419.20</td>
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<td>FILLP-Sheep</td>
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<td>524.96</td>
<td>323.80</td>
<td>247.18</td>
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<tr>
<td>Indigo</td>
<td>5</td>
<td>204.14</td>
<td>188.60</td>
<td>131.42</td>
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<td>PCC-Expr</td>
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<td>229.73</td>
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<td>152.50</td>
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<td>PCC-Vivace</td>
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<td>149.65</td>
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<td>1.09</td>
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Run 1: Statistics of TCP BBR

Start at: 2019-12-12 09:04:14
End at: 2019-12-12 09:04:44
Local clock offset: -0.063 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2019-12-12 12:49:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1269.34 Mbit/s
95th percentile per-packet one-way delay: 165.256 ms
Loss rate: 3.66%
-- Flow 1:
Average throughput: 671.50 Mbit/s
95th percentile per-packet one-way delay: 156.809 ms
Loss rate: 3.83%
-- Flow 2:
Average throughput: 597.62 Mbit/s
95th percentile per-packet one-way delay: 172.718 ms
Loss rate: 3.41%
-- Flow 3:
Average throughput: 601.76 Mbit/s
95th percentile per-packet one-way delay: 178.191 ms
Loss rate: 3.62%
Run 1: Report of TCP BBR — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 696.25 Mbit/s) — Flow 1 egress (mean 671.50 Mbit/s)
Flow 2 ingress (mean 618.73 Mbit/s) — Flow 2 egress (mean 597.62 Mbit/s)
Flow 3 ingress (mean 624.43 Mbit/s) — Flow 3 egress (mean 603.76 Mbit/s)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 156.91 ms) — Flow 2 (95th percentile 172.72 ms) — Flow 3 (95th percentile 178.19 ms)
Run 2: Statistics of TCP BBR

Start at: 2019-12-12 09:44:40
End at: 2019-12-12 09:45:10
Local clock offset: -0.048 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-12-12 12:49:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1179.80 Mbit/s
95th percentile per-packet one-way delay: 169.898 ms
Loss rate: 2.98%
-- Flow 1:
Average throughput: 650.39 Mbit/s
95th percentile per-packet one-way delay: 151.320 ms
Loss rate: 2.30%
-- Flow 2:
Average throughput: 615.56 Mbit/s
95th percentile per-packet one-way delay: 181.434 ms
Loss rate: 4.79%
-- Flow 3:
Average throughput: 359.43 Mbit/s
95th percentile per-packet one-way delay: 183.914 ms
Loss rate: 0.27%
Run 3: Statistics of TCP BBR

Start at: 2019-12-12 10:24:57
End at: 2019-12-12 10:25:27
Local clock offset: -0.074 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2019-12-12 12:49:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1192.49 Mbit/s
95th percentile per-packet one-way delay: 160.348 ms
Loss rate: 2.95%
-- Flow 1:
Average throughput: 636.98 Mbit/s
95th percentile per-packet one-way delay: 152.166 ms
Loss rate: 3.15%
-- Flow 2:
Average throughput: 533.64 Mbit/s
95th percentile per-packet one-way delay: 166.364 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 601.42 Mbit/s
95th percentile per-packet one-way delay: 163.821 ms
Loss rate: 3.81%
Run 3: Report of TCP BBR — Data Link

![Graph of Throughput and Per-packet one-way delays for flows 1, 2, and 3 over time.](image)

Legend:
- Flow 1 ingress (mean 657.66 Mbit/s)
- Flow 1 egress (mean 636.98 Mbit/s)
- Flow 2 ingress (mean 545.16 Mbit/s)
- Flow 2 egress (mean 533.64 Mbit/s)
- Flow 3 ingress (mean 626.24 Mbit/s)
- Flow 3 egress (mean 601.42 Mbit/s)

Legend for Per-packet one-way delays:
- Flow 1 (95th percentile 152.17 ms)
- Flow 2 (95th percentile 166.36 ms)
- Flow 3 (95th percentile 163.02 ms)
Run 4: Statistics of TCP BBR

Start at: 2019-12-12 11:04:41
End at: 2019-12-12 11:05:11
Local clock offset: -0.073 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2019-12-12 12:49:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1191.22 Mbit/s
95th percentile per-packet one-way delay: 166.372 ms
Loss rate: 3.59%
-- Flow 1:
Average throughput: 637.74 Mbit/s
95th percentile per-packet one-way delay: 161.045 ms
Loss rate: 3.79%
-- Flow 2:
Average throughput: 577.64 Mbit/s
95th percentile per-packet one-way delay: 167.639 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 507.68 Mbit/s
95th percentile per-packet one-way delay: 181.226 ms
Loss rate: 4.72%
Run 4: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 662.86 Mbit/s)
- Flow 1 egress (mean 637.74 Mbit/s)
- Flow 2 ingress (mean 559.07 Mbit/s)
- Flow 2 egress (mean 577.64 Mbit/s)
- Flow 3 ingress (mean 532.88 Mbit/s)
- Flow 3 egress (mean 507.68 Mbit/s)

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

- Flow 1 (95th percentile 161.04 ms)
- Flow 2 (95th percentile 167.64 ms)
- Flow 3 (95th percentile 181.23 ms)
Run 5: Statistics of TCP BBR

Start at: 2019-12-12 11:44:42
End at: 2019-12-12 11:45:12
Local clock offset: 0.665 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2019-12-12 12:49:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1171.48 Mbit/s
95th percentile per-packet one-way delay: 167.686 ms
Loss rate: 2.61%
-- Flow 1:
Average throughput: 633.81 Mbit/s
95th percentile per-packet one-way delay: 163.893 ms
Loss rate: 3.43%
-- Flow 2:
Average throughput: 569.95 Mbit/s
95th percentile per-packet one-way delay: 167.434 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 477.18 Mbit/s
95th percentile per-packet one-way delay: 174.223 ms
Loss rate: 0.72%
Run 5: Report of TCP BBR — Data Link
Run 1: Statistics of Copa

Start at: 2019-12-12 08:47:35
End at: 2019-12-12 08:48:05
Local clock offset: -0.096 ms
Remote clock offset: 0.098 ms

# Below is generated by plot.py at 2019-12-12 12:49:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 547.59 Mbit/s
95th percentile per-packet one-way delay: 66.075 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 289.96 Mbit/s
95th percentile per-packet one-way delay: 65.731 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 266.77 Mbit/s
95th percentile per-packet one-way delay: 66.298 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 237.68 Mbit/s
95th percentile per-packet one-way delay: 66.236 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link

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

**Network Throughput**
- Flow 1 ingress (mean 290.02 Mbit/s)
- Flow 1 egress (mean 289.96 Mbit/s)
- Flow 2 ingress (mean 266.76 Mbit/s)
- Flow 2 egress (mean 266.77 Mbit/s)
- Flow 3 ingress (mean 237.87 Mbit/s)
- Flow 3 egress (mean 237.68 Mbit/s)

**Packet Delay**
- Flow 1 (95th percentile 65.73 ms)
- Flow 2 (95th percentile 66.30 ms)
- Flow 3 (95th percentile 66.24 ms)
Run 2: Statistics of Copa

Start at: 2019-12-12 09:27:42
End at: 2019-12-12 09:28:12
Local clock offset: -0.166 ms
Remote clock offset: -0.181 ms

# Below is generated by plot.py at 2019-12-12 12:49:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 543.24 Mbit/s
95th percentile per-packet one-way delay: 78.582 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 267.59 Mbit/s
95th percentile per-packet one-way delay: 83.702 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 285.22 Mbit/s
95th percentile per-packet one-way delay: 71.192 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 258.05 Mbit/s
95th percentile per-packet one-way delay: 76.515 ms
Loss rate: 0.02%
Run 2: Report of Copa — Data Link

[Graph showing throughput and latency over time for different flows]
Run 3: Statistics of Copa

Start at: 2019-12-12 10:08:10
End at: 2019-12-12 10:08:40
Local clock offset: -0.039 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2019-12-12 12:49:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 536.39 Mbit/s
95th percentile per-packet one-way delay: 71.443 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 271.28 Mbit/s
95th percentile per-packet one-way delay: 65.841 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 277.54 Mbit/s
95th percentile per-packet one-way delay: 73.674 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 241.49 Mbit/s
95th percentile per-packet one-way delay: 92.301 ms
Loss rate: 0.01%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

Start at: 2019-12-12 10:48:04
End at: 2019-12-12 10:48:34
Local clock offset: -0.046 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2019-12-12 13:01:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 508.35 Mbit/s
95th percentile per-packet one-way delay: 74.222 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 270.79 Mbit/s
95th percentile per-packet one-way delay: 72.517 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 232.07 Mbit/s
95th percentile per-packet one-way delay: 74.000 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 249.97 Mbit/s
95th percentile per-packet one-way delay: 84.680 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

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

- Flow 1 ingress (mean 270.79 Mbit/s)
- Flow 1 egress (mean 270.79 Mbit/s)
- Flow 2 ingress (mean 232.07 Mbit/s)
- Flow 2 egress (mean 232.07 Mbit/s)
- Flow 3 ingress (mean 249.97 Mbit/s)
- Flow 3 egress (mean 249.97 Mbit/s)

[Graph showing packet delay over time for different flows]

- Flow 1 (95th percentile 72.52 ms)
- Flow 2 (95th percentile 74.00 ms)
- Flow 3 (95th percentile 84.68 ms)
Run 5: Statistics of Copa

Start at: 2019-12-12 11:27:52
End at: 2019-12-12 11:28:22
Local clock offset: 0.295 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2019-12-12 13:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 528.91 Mbit/s
95th percentile per-packet one-way delay: 75.013 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 286.21 Mbit/s
95th percentile per-packet one-way delay: 69.577 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 248.36 Mbit/s
95th percentile per-packet one-way delay: 79.047 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 232.98 Mbit/s
95th percentile per-packet one-way delay: 79.209 ms
Loss rate: 0.08%
Run 5: Report of Copa — Data Link

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

- Flow 1 ingress (mean 286.45 Mbit/s)
- Flow 1 egress (mean 286.21 Mbit/s)
- Flow 2 ingress (mean 248.73 Mbit/s)
- Flow 2 egress (mean 248.36 Mbit/s)
- Flow 3 ingress (mean 233.20 Mbit/s)
- Flow 3 egress (mean 232.98 Mbit/s)
Run 1: Statistics of TCP Cubic

Start at: 2019-12-12 09:19:04
End at: 2019-12-12 09:19:34
Local clock offset: -0.089 ms
Remote clock offset: -0.148 ms

# Below is generated by plot.py at 2019-12-12 13:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 820.16 Mbit/s
95th percentile per-packet one-way delay: 110.516 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 468.77 Mbit/s
95th percentile per-packet one-way delay: 103.811 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 365.68 Mbit/s
95th percentile per-packet one-way delay: 64.676 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 324.73 Mbit/s
95th percentile per-packet one-way delay: 151.442 ms
Loss rate: 1.84%
Run 1: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 468.77 Mbit/s)
- Flow 1 egress (mean 468.77 Mbit/s)
- Flow 2 ingress (mean 365.68 Mbit/s)
- Flow 2 egress (mean 365.68 Mbit/s)
- Flow 3 ingress (mean 330.90 Mbit/s)
- Flow 3 egress (mean 324.73 Mbit/s)
Run 2: Statistics of TCP Cubic

Start at: 2019-12-12 09:59:32
End at: 2019-12-12 10:00:02
Local clock offset: -0.023 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2019-12-12 13:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 767.45 Mbit/s
95th percentile per-packet one-way delay: 128.999 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 454.74 Mbit/s
95th percentile per-packet one-way delay: 113.797 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 357.75 Mbit/s
95th percentile per-packet one-way delay: 117.500 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 224.07 Mbit/s
95th percentile per-packet one-way delay: 170.375 ms
Loss rate: 2.77%
Run 2: Report of TCP Cubic — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 455.21 Mbit/s)
Flow 1 egress (mean 454.74 Mbit/s)
Flow 2 ingress (mean 357.75 Mbit/s)
Flow 2 egress (mean 357.75 Mbit/s)
Flow 3 ingress (mean 230.46 Mbit/s)
Flow 3 egress (mean 224.07 Mbit/s)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 113.90 ms)
Flow 2 (95th percentile 117.50 ms)
Flow 3 (95th percentile 170.38 ms)
Run 3: Statistics of TCP Cubic

Start at: 2019-12-12 10:39:45
End at: 2019-12-12 10:40:15
Local clock offset: -0.069 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2019-12-12 13:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 424.10 Mbit/s
95th percentile per-packet one-way delay: 157.070 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 163.60 Mbit/s
95th percentile per-packet one-way delay: 71.863 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 149.62 Mbit/s
95th percentile per-packet one-way delay: 48.553 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 483.98 Mbit/s
95th percentile per-packet one-way delay: 161.936 ms
Loss rate: 0.91%
Run 4: Statistics of TCP Cubic

Start at: 2019-12-12 11:19:32
End at: 2019-12-12 11:20:02
Local clock offset: -0.052 ms
Remote clock offset: -0.143 ms

# Below is generated by plot.py at 2019-12-12 13:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 498.04 Mbit/s
95th percentile per-packet one-way delay: 144.315 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 219.59 Mbit/s
95th percentile per-packet one-way delay: 58.267 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 395.79 Mbit/s
95th percentile per-packet one-way delay: 151.454 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 44.73 Mbit/s
95th percentile per-packet one-way delay: 46.928 ms
Loss rate: 0.00%
Run 4: Report of TCP Cubic — Data Link

[Graph showing throughput and packet delay over time for different flows]
Run 5: Statistics of TCP Cubic

Start at: 2019-12-12 11:59:25
End at: 2019-12-12 11:59:55
Local clock offset: -0.369 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2019-12-12 13:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 766.49 Mbit/s
95th percentile per-packet one-way delay: 136.120 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 456.66 Mbit/s
95th percentile per-packet one-way delay: 131.684 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 347.15 Mbit/s
95th percentile per-packet one-way delay: 72.433 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 236.63 Mbit/s
95th percentile per-packet one-way delay: 154.913 ms
Loss rate: 2.49%
Run 5: Report of TCP Cubic — Data Link

![Graph of TCP Cubic with Data Link](image)

- **Flow 1 ingress (mean 458.48 Mbit/s)**
- **Flow 1 egress (mean 456.66 Mbit/s)**
- **Flow 2 ingress (mean 347.16 Mbit/s)**
- **Flow 2 egress (mean 347.15 Mbit/s)**
- **Flow 3 ingress (mean 242.65 Mbit/s)**
- **Flow 3 egress (mean 236.63 Mbit/s)**

![Graph of ping-pong one-way delay](image)

- **Flow 1 (95th percentile 131.68 ms)**
- **Flow 2 (95th percentile 72.43 ms)**
- **Flow 3 (95th percentile 154.91 ms)**
Run 1: Statistics of FillIP

Start at: 2019-12-12 09:17:33
End at: 2019-12-12 09:18:03
Local clock offset: -0.146 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2019-12-12 13:02:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 493.04 Mbit/s
  95th percentile per-packet one-way delay: 52.504 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 196.41 Mbit/s
  95th percentile per-packet one-way delay: 56.767 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 332.65 Mbit/s
  95th percentile per-packet one-way delay: 50.465 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 224.30 Mbit/s
  95th percentile per-packet one-way delay: 49.893 ms
  Loss rate: 0.00%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

Start at: 2019-12-12 09:57:48
End at: 2019-12-12 09:58:18
Local clock offset: -0.103 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2019-12-12 13:12:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 816.71 Mbit/s
  95th percentile per-packet one-way delay: 80.172 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 510.97 Mbit/s
  95th percentile per-packet one-way delay: 90.290 ms
  Loss rate: 0.08%
-- Flow 2:
  Average throughput: 340.26 Mbit/s
  95th percentile per-packet one-way delay: 52.603 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 241.35 Mbit/s
  95th percentile per-packet one-way delay: 51.030 ms
  Loss rate: 0.00%
Run 2: Report of FillP — Data Link

![Graph 1: Throughput vs. Time]

- Flow 1 ingress (mean 511.35 Mbit/s)
- Flow 1 egress (mean 510.97 Mbit/s)
- Flow 2 ingress (mean 340.36 Mbit/s)
- Flow 2 egress (mean 340.26 Mbit/s)
- Flow 3 ingress (mean 241.34 Mbit/s)
- Flow 3 egress (mean 241.35 Mbit/s)

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

- Flow 1 (95th percentile 90.29 ms)
- Flow 2 (95th percentile 52.60 ms)
- Flow 3 (95th percentile 51.03 ms)
Run 3: Statistics of FillP

Start at: 2019-12-12 10:38:05
End at: 2019-12-12 10:38:35
Local clock offset: -0.431 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2019-12-12 13:12:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 726.92 Mbit/s
95th percentile per-packet one-way delay: 55.114 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 390.77 Mbit/s
95th percentile per-packet one-way delay: 55.398 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 359.17 Mbit/s
95th percentile per-packet one-way delay: 55.426 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 294.40 Mbit/s
95th percentile per-packet one-way delay: 52.092 ms
Loss rate: 0.00%
Run 3: Report of FillP — Data Link

---

**Throughput (Mbps):**
- Flow 1 ingress (mean 390.84 Mbps)
- Flow 1 egress (mean 390.77 Mbps)
- Flow 2 ingress (mean 359.17 Mbps)
- Flow 2 egress (mean 359.17 Mbps)
- Flow 3 ingress (mean 294.48 Mbps)
- Flow 3 egress (mean 294.40 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 55.40 ms)
- Flow 2 (95th percentile 55.43 ms)
- Flow 3 (95th percentile 52.09 ms)
Run 4: Statistics of FillP

Start at: 2019-12-12 11:17:47
End at: 2019-12-12 11:18:17
Local clock offset: -0.095 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2019-12-12 13:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 828.05 Mbit/s
95th percentile per-packet one-way delay: 95.238 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 520.18 Mbit/s
95th percentile per-packet one-way delay: 99.780 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 337.42 Mbit/s
95th percentile per-packet one-way delay: 52.057 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 253.17 Mbit/s
95th percentile per-packet one-way delay: 51.133 ms
Loss rate: 0.00%
Run 4: Report of FillP — Data Link

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

- **Flow 1 ingress** (mean 523.22 Mbit/s)
- **Flow 1 egress** (mean 520.18 Mbit/s)
- **Flow 2 ingress** (mean 337.51 Mbit/s)
- **Flow 2 egress** (mean 337.42 Mbit/s)
- **Flow 3 ingress** (mean 253.18 Mbit/s)
- **Flow 3 egress** (mean 253.17 Mbit/s)
Run 5: Statistics of FillP

Start at: 2019-12-12 11:57:43
End at: 2019-12-12 11:58:13
Local clock offset: -0.069 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2019-12-12 13:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 772.35 Mbit/s
95th percentile per-packet one-way delay: 69.763 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 477.68 Mbit/s
95th percentile per-packet one-way delay: 76.136 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 331.72 Mbit/s
95th percentile per-packet one-way delay: 51.472 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 223.77 Mbit/s
95th percentile per-packet one-way delay: 49.090 ms
Loss rate: 0.00%
Run 5: Report of FillP — Data Link
Run 1: Statistics of FillP-Sheep

Start at: 2019-12-12 08:52:49
End at: 2019-12-12 08:53:19
Local clock offset: -0.091 ms
Remote clock offset: 0.106 ms

# Below is generated by plot.py at 2019-12-12 13:19:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 831.80 Mbit/s
95th percentile per-packet one-way delay: 62.005 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 523.51 Mbit/s
95th percentile per-packet one-way delay: 65.150 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 333.52 Mbit/s
95th percentile per-packet one-way delay: 51.320 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 259.93 Mbit/s
95th percentile per-packet one-way delay: 50.251 ms
Loss rate: 0.00%
Run 1: Report of FillP-Sheep — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows.]
Run 2: Statistics of FillP-Sheep

Start at: 2019-12-12 09:33:17
End at: 2019-12-12 09:33:47
Local clock offset: -0.128 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2019-12-12 13:19:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 825.91 Mbit/s
  95th percentile per-packet one-way delay: 67.485 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 534.98 Mbit/s
  95th percentile per-packet one-way delay: 72.014 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 321.63 Mbit/s
  95th percentile per-packet one-way delay: 50.961 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 233.93 Mbit/s
  95th percentile per-packet one-way delay: 49.039 ms
  Loss rate: 0.00%
Run 2: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 535.07 Mbps/s)
- Flow 1 egress (mean 534.96 Mbps/s)
- Flow 2 ingress (mean 321.69 Mbps/s)
- Flow 2 egress (mean 321.63 Mbps/s)
- Flow 3 ingress (mean 233.93 Mbps/s)
- Flow 3 egress (mean 233.93 Mbps/s)

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

- Flow 1 (95th percentile 72.01 ms)
- Flow 2 (95th percentile 50.96 ms)
- Flow 3 (95th percentile 49.04 ms)
Run 3: Statistics of FillP-Sheep

Start at: 2019-12-12 10:13:42
End at: 2019-12-12 10:14:12
Local clock offset: -0.064 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2019-12-12 13:19:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 800.85 Mbit/s
95th percentile per-packet one-way delay: 78.801 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 517.33 Mbit/s
95th percentile per-packet one-way delay: 86.540 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 312.95 Mbit/s
95th percentile per-packet one-way delay: 52.121 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 227.49 Mbit/s
95th percentile per-packet one-way delay: 50.648 ms
Loss rate: 0.00%
Run 3: Report of FillP-Sheep — Data Link

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

- Flow 1 Ingress (mean 517.34 Mbit/s)
- Flow 1 Egress (mean 517.33 Mbit/s)
- Flow 2 Ingress (mean 312.95 Mbit/s)
- Flow 2 Egress (mean 312.95 Mbit/s)
- Flow 3 Ingress (mean 227.54 Mbit/s)
- Flow 3 Egress (mean 227.49 Mbit/s)

![Graph 2: Per-Packet One-Way Delay vs Time](image2)

- Flow 1 (95th percentile 86.54 ms)
- Flow 2 (95th percentile 52.12 ms)
- Flow 3 (95th percentile 50.65 ms)
Run 4: Statistics of FillP-Sheep

Start at: 2019-12-12 10:53:23
End at: 2019-12-12 10:53:53
Local clock offset: -0.041 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-12-12 13:19:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 769.66 Mbit/s
95th percentile per-packet one-way delay: 72.549 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 490.75 Mbit/s
95th percentile per-packet one-way delay: 79.469 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 298.64 Mbit/s
95th percentile per-packet one-way delay: 54.397 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 243.13 Mbit/s
95th percentile per-packet one-way delay: 50.148 ms
Loss rate: 0.00%
Run 4: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 490.64 Mbit/s) vs. egress (mean 490.75 Mbit/s)
- Flow 2 ingress (mean 298.79 Mbit/s) vs. egress (mean 298.64 Mbit/s)
- Flow 3 ingress (mean 243.15 Mbit/s) vs. egress (mean 243.13 Mbit/s)

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

- Flow 1 (95th percentile 79.47 ms)
- Flow 2 (95th percentile 54.40 ms)
- Flow 3 (95th percentile 50.15 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2019-12-12 11:33:21
End at: 2019-12-12 11:33:51
Local clock offset: -0.042 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2019-12-12 13:32:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 882.37 Mbit/s
95th percentile per-packet one-way delay: 64.723 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 558.23 Mbit/s
95th percentile per-packet one-way delay: 69.707 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 352.28 Mbit/s
95th percentile per-packet one-way delay: 56.603 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 271.41 Mbit/s
95th percentile per-packet one-way delay: 52.517 ms
Loss rate: 0.05%
Run 5: Report of FillP-Sheep — Data Link

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

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![Graph 2: Per-packet one-way delay (ms)](image2)
Run 1: Statistics of Indigo

Start at: 2019-12-12 08:57:35
End at: 2019-12-12 08:58:05
Local clock offset: -0.133 ms
Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2019-12-12 13:32:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.90 Mbit/s
95th percentile per-packet one-way delay: 50.338 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.70 Mbit/s
95th percentile per-packet one-way delay: 51.138 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 181.37 Mbit/s
95th percentile per-packet one-way delay: 49.046 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 166.27 Mbit/s
95th percentile per-packet one-way delay: 48.782 ms
Loss rate: 0.00%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

Start at: 2019-12-12 09:38:01
End at: 2019-12-12 09:38:31
Local clock offset: -0.096 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2019-12-12 13:32:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 391.32 Mbit/s
  95th percentile per-packet one-way delay: 50.352 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 207.32 Mbit/s
  95th percentile per-packet one-way delay: 50.739 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 197.69 Mbit/s
  95th percentile per-packet one-way delay: 50.384 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 165.40 Mbit/s
  95th percentile per-packet one-way delay: 49.072 ms
  Loss rate: 0.00%
Run 2: Report of Indigo — Data Link

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

- **Throughput**
  - Flow 1 Ingress (mean 207.32 Mbit/s)
  - Flow 1 Egress (mean 207.32 Mbit/s)
  - Flow 2 Ingress (mean 197.69 Mbit/s)
  - Flow 2 Egress (mean 197.69 Mbit/s)
  - Flow 3 Ingress (mean 165.40 Mbit/s)
  - Flow 3 Egress (mean 165.40 Mbit/s)

- **Per-packet one-way delay**
  - Flow 1 (95th percentile 50.74 ms)
  - Flow 2 (95th percentile 50.38 ms)
  - Flow 3 (95th percentile 49.07 ms)
Run 3: Statistics of Indigo

Start at: 2019-12-12 10:18:22
End at: 2019-12-12 10:18:52
Local clock offset: -0.098 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-12-12 13:32:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 342.85 Mbit/s
95th percentile per-packet one-way delay: 49.612 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 184.40 Mbit/s
95th percentile per-packet one-way delay: 49.832 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 186.04 Mbit/s
95th percentile per-packet one-way delay: 49.574 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 108.73 Mbit/s
95th percentile per-packet one-way delay: 48.994 ms
Loss rate: 0.00%
Run 3: Report of Indigo — Data Link

Throughput (Mbps)

0  5  10  15  20  25  30
0  25  50  75  100  125  150  175  200

Flow 1 ingress (mean 184.40 Mbit/s)
Flow 2 ingress (mean 186.04 Mbit/s)
Flow 3 ingress (mean 108.73 Mbit/s)
Flow 1 egress (mean 184.40 Mbit/s)
Flow 2 egress (mean 186.04 Mbit/s)
Flow 3 egress (mean 108.73 Mbit/s)

Per-packet one-way delay (ms)

0  5  10  15  20  25  30
50  60  70  80  90  100  110

Flow 1 (95th percentile 49.83 ms)
Flow 2 (95th percentile 49.57 ms)
Flow 3 (95th percentile 48.99 ms)
Run 4: Statistics of Indigo

Start at: 2019-12-12 10:58:07
End at: 2019-12-12 10:58:37
Local clock offset: -0.035 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2019-12-12 13:32:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 352.49 Mbit/s
95th percentile per-packet one-way delay: 49.232 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 191.55 Mbit/s
95th percentile per-packet one-way delay: 50.237 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 189.13 Mbit/s
95th percentile per-packet one-way delay: 48.729 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 111.32 Mbit/s
95th percentile per-packet one-way delay: 47.415 ms
Loss rate: 0.00%
Run 4: Report of Indigo — Data Link

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

- **Flow 1** (ingress mean 191.55 Mbps, egress mean 191.55 Mbps)
- **Flow 2** (ingress mean 189.13 Mbps, egress mean 189.13 Mbps)
- **Flow 3** (ingress mean 111.32 Mbps, egress mean 111.32 Mbps)
Run 5: Statistics of Indigo

Start at: 2019-12-12 11:38:06
End at: 2019-12-12 11:38:36
Local clock offset: 0.671 ms
Remote clock offset: 0.162 ms

# Below is generated by plot.py at 2019-12-12 13:32:00
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 373.96 Mbit/s
   95th percentile per-packet one-way delay: 50.365 ms
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 214.71 Mbit/s
   95th percentile per-packet one-way delay: 51.019 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 188.78 Mbit/s
   95th percentile per-packet one-way delay: 48.589 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 105.38 Mbit/s
   95th percentile per-packet one-way delay: 51.116 ms
   Loss rate: 0.05%
Run 5: Report of Indigo — Data Link

![Throughput Graph]

![Per-packet delay Graph]
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-12-12 09:02:27
End at: 2019-12-12 09:02:57
Local clock offset: -0.101 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2019-12-12 13:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 777.83 Mbit/s
95th percentile per-packet one-way delay: 53.856 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 456.13 Mbit/s
95th percentile per-packet one-way delay: 54.494 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 386.25 Mbit/s
95th percentile per-packet one-way delay: 53.160 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 293.74 Mbit/s
95th percentile per-packet one-way delay: 50.693 ms
Loss rate: 0.00%
Run 1: Report of Indigo-MusesC3 — Data Link

![Graph showing data link throughput and packet delay over time.]
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-12-12 09:42:54
End at: 2019-12-12 09:43:24
Local clock offset: -0.079 ms
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2019-12-12 13:32:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 782.09 Mbit/s
95th percentile per-packet one-way delay: 52.531 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 471.04 Mbit/s
95th percentile per-packet one-way delay: 53.836 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 391.65 Mbit/s
95th percentile per-packet one-way delay: 50.802 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 276.42 Mbit/s
95th percentile per-packet one-way delay: 50.683 ms
Loss rate: 0.13%
Run 2: Report of Indigo-MusesC3 — Data Link
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-12-12 10:23:12
End at: 2019-12-12 10:23:42
Local clock offset: -0.116 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2019-12-12 13:38:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 734.08 Mbit/s
95th percentile per-packet one-way delay: 62.490 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 430.62 Mbit/s
95th percentile per-packet one-way delay: 61.195 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 366.71 Mbit/s
95th percentile per-packet one-way delay: 63.456 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 270.38 Mbit/s
95th percentile per-packet one-way delay: 67.845 ms
Loss rate: 0.00%
Run 3: Report of Indigo-MusesC3 — Data Link
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-12-12 11:02:56
End at: 2019-12-12 11:03:26
Local clock offset: -0.08 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2019-12-12 13:41:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 760.43 Mbit/s
95th percentile per-packet one-way delay: 71.712 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 440.16 Mbit/s
95th percentile per-packet one-way delay: 74.214 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 385.12 Mbit/s
95th percentile per-packet one-way delay: 67.539 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 282.49 Mbit/s
95th percentile per-packet one-way delay: 53.675 ms
Loss rate: 0.00%
Run 4: Report of Indigo-MusesC3 — Data Link
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-12-12 11:42:56
End at: 2019-12-12 11:43:26
Local clock offset: -0.37 ms
Remote clock offset: -0.183 ms

# Below is generated by plot.py at 2019-12-12 13:43:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 787.71 Mbit/s
95th percentile per-packet one-way delay: 67.781 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 458.13 Mbit/s
95th percentile per-packet one-way delay: 69.662 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 401.73 Mbit/s
95th percentile per-packet one-way delay: 67.679 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 277.94 Mbit/s
95th percentile per-packet one-way delay: 54.040 ms
Loss rate: 0.00%
Run 5: Report of Indigo-MusesC3 — Data Link

![Graph 1: Throughput (Mb/s)](image1)

- Flow 1 ingress (mean 458.13 Mb/s)
- Flow 1 egress (mean 458.13 Mb/s)
- Flow 2 ingress (mean 401.73 Mb/s)
- Flow 2 egress (mean 401.73 Mb/s)
- Flow 3 ingress (mean 277.95 Mb/s)
- Flow 3 egress (mean 277.04 Mb/s)

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

- Flow 1 (95th percentile 69.66 ms)
- Flow 2 (95th percentile 67.68 ms)
- Flow 3 (95th percentile 54.04 ms)
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-12-12 08:55:44
End at: 2019-12-12 08:56:14
Local clock offset: -0.139 ms
Remote clock offset: 0.051 ms

# Below is generated by plot.py at 2019-12-12 13:45:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 849.40 Mbit/s
95th percentile per-packet one-way delay: 76.611 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 512.20 Mbit/s
95th percentile per-packet one-way delay: 77.940 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 390.37 Mbit/s
95th percentile per-packet one-way delay: 82.147 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 345.06 Mbit/s
95th percentile per-packet one-way delay: 52.221 ms
Loss rate: 0.00%
Run 1: Report of Indigo-MusesC5 — Data Link
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-12-12 09:36:11
End at: 2019-12-12 09:36:41
Local clock offset: -0.097 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2019-12-12 13:46:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 870.72 Mbit/s
  95th percentile per-packet one-way delay: 69.483 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 511.46 Mbit/s
  95th percentile per-packet one-way delay: 72.659 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 413.80 Mbit/s
  95th percentile per-packet one-way delay: 59.625 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 373.04 Mbit/s
  95th percentile per-packet one-way delay: 54.078 ms
  Loss rate: 0.00%
Run 2: Report of Indigo-MusesC5 — Data Link

[Graph showing throughput over time for different flows with varying metrics such as mean and 95th percentile delays.]
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-12-12 10:16:36
End at: 2019-12-12 10:17:06
Local clock offset: -0.108 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2019-12-12 13:46:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 790.59 Mbit/s
95th percentile per-packet one-way delay: 85.105 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 503.75 Mbit/s
95th percentile per-packet one-way delay: 90.661 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 410.84 Mbit/s
95th percentile per-packet one-way delay: 67.454 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 99.95 Mbit/s
95th percentile per-packet one-way delay: 47.880 ms
Loss rate: 0.00%
Run 3: Report of Indigo-MusesC5 — Data Link

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

- Flow 1 ingress (mean 503.81 Mbit/s)
- Flow 1 egress (mean 503.75 Mbit/s)
- Flow 2 ingress (mean 410.89 Mbit/s)
- Flow 2 egress (mean 410.84 Mbit/s)
- Flow 3 ingress (mean 99.95 Mbit/s)
- Flow 3 egress (mean 99.95 Mbit/s)

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

- Flow 1 (95th percentile 90.66 ms)
- Flow 2 (95th percentile 67.45 ms)
- Flow 3 (95th percentile 47.88 ms)
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-12-12 10:56:16
End at: 2019-12-12 10:56:46
Local clock offset: 0.035 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2019-12-12 13:47:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 854.33 Mbit/s
95th percentile per-packet one-way delay: 88.208 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 491.54 Mbit/s
95th percentile per-packet one-way delay: 85.170 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 426.23 Mbit/s
95th percentile per-packet one-way delay: 102.724 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 338.36 Mbit/s
95th percentile per-packet one-way delay: 65.748 ms
Loss rate: 0.00%
Run 4: Report of Indigo-MusesC5 — Data Link
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-12-12 11:36:17
End at: 2019-12-12 11:36:47
Local clock offset: 0.674 ms
Remote clock offset: -0.153 ms

# Below is generated by plot.py at 2019-12-12 13:47:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 848.33 Mbit/s
95th percentile per-packet one-way delay: 111.612 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 497.66 Mbit/s
95th percentile per-packet one-way delay: 120.414 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 418.45 Mbit/s
95th percentile per-packet one-way delay: 69.378 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 329.38 Mbit/s
95th percentile per-packet one-way delay: 55.596 ms
Loss rate: 0.03%
Run 5: Report of Indigo-MusesC5 — Data Link

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

- Flow 1 ingress (mean 497.94 Mbit/s)
- Flow 1 egress (mean 497.66 Mbit/s)
- Flow 2 ingress (mean 418.46 Mbit/s)
- Flow 2 egress (mean 418.45 Mbit/s)
- Flow 3 ingress (mean 329.43 Mbit/s)
- Flow 3 egress (mean 329.38 Mbit/s)
Run 1: Statistics of Indigo-MusesD

Start at: 2019-12-12 08:49:35
End at: 2019-12-12 08:50:05
Local clock offset: 0.283 ms
Remote clock offset: 0.079 ms
Run 1: Report of Indigo-MusesD — Data Link

![Graph showing throughput over time for different flows]

- Flow 1 ingress (mean 102.29 Mbit/s)
- Flow 1 egress (mean 102.28 Mbit/s)
- Flow 2 ingress (mean 290.07 Mbit/s)
- Flow 2 egress (mean 290.06 Mbit/s)
- Flow 3 ingress (mean 334.29 Mbit/s)
- Flow 3 egress (mean 334.40 Mbit/s)

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

- Flow 1 (95th percentile 46.51 ms)
- Flow 2 (95th percentile 48.48 ms)
- Flow 3 (95th percentile 48.13 ms)
Run 2: Statistics of Indigo-MusesD

Start at: 2019-12-12 09:29:41
End at: 2019-12-12 09:30:11
Local clock offset: -0.124 ms
Remote clock offset: -0.183 ms

# Below is generated by plot.py at 2019-12-12 13:54:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 745.19 Mbit/s
95th percentile per-packet one-way delay: 72.068 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 438.45 Mbit/s
95th percentile per-packet one-way delay: 80.907 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 358.13 Mbit/s
95th percentile per-packet one-way delay: 50.168 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 302.41 Mbit/s
95th percentile per-packet one-way delay: 50.668 ms
Loss rate: 0.19%
Run 2: Report of Indigo-MusesD — Data Link

![Graph of Throughput vs Time for different flows]

- **Flow 1** ingress: mean 438.37 Mbit/s
- **Flow 1** egress: mean 438.45 Mbit/s
- **Flow 2** ingress: mean 358.13 Mbit/s
- **Flow 2** egress: mean 358.13 Mbit/s
- **Flow 3** ingress: mean 302.55 Mbit/s
- **Flow 3** egress: mean 302.41 Mbit/s

![Graph of Per-packet size vs Delay for different flows]

- **Flow 1** (95th percentile 80.91 ms)
- **Flow 2** (95th percentile 50.17 ms)
- **Flow 3** (95th percentile 50.67 ms)
Run 3: Statistics of Indigo-MusesD

Start at: 2019-12-12 10:10:08
End at: 2019-12-12 10:10:38
Local clock offset: -0.443 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2019-12-12 13:54:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 711.41 Mbit/s
95th percentile per-packet one-way delay: 70.350 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 401.31 Mbit/s
95th percentile per-packet one-way delay: 76.173 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 361.16 Mbit/s
95th percentile per-packet one-way delay: 58.766 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 249.28 Mbit/s
95th percentile per-packet one-way delay: 50.006 ms
Loss rate: 0.01%
Run 3: Report of Indigo-MusesD — Data Link

![Graph 1: Throughput vs Time](image1)
- Flow 1 ingress (mean 401.45 Mbit/s)
- Flow 1 egress (mean 401.31 Mbit/s)
- Flow 2 ingress (mean 361.19 Mbit/s)
- Flow 2 egress (mean 361.16 Mbit/s)
- Flow 3 ingress (mean 249.28 Mbit/s)
- Flow 3 egress (mean 249.28 Mbit/s)

![Graph 2: Per-packet round trip delay vs Time](image2)
- Flow 1 (95th percentile 76.17 ms)
- Flow 2 (95th percentile 58.77 ms)
- Flow 3 (95th percentile 50.01 ms)
Run 4: Statistics of Indigo-MusesD

Start at: 2019-12-12 10:50:00
End at: 2019-12-12 10:50:30
Local clock offset: 0.02 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2019-12-12 13:57:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 717.77 Mbit/s
95th percentile per-packet one-way delay: 71.665 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 443.49 Mbit/s
95th percentile per-packet one-way delay: 74.494 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 299.97 Mbit/s
95th percentile per-packet one-way delay: 63.630 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 316.43 Mbit/s
95th percentile per-packet one-way delay: 53.975 ms
Loss rate: 0.01%
Run 4: Report of Indigo-MusesD — Data Link
Run 5: Statistics of Indigo-MusesD

Start at: 2019-12-12 11:29:49
End at: 2019-12-12 11:30:19
Local clock offset: -0.443 ms
Remote clock offset: -0.13 ms

# Below is generated by plot.py at 2019-12-12 13:58:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 732.93 Mbit/s
  95th percentile per-packet one-way delay: 71.197 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 424.50 Mbit/s
  95th percentile per-packet one-way delay: 82.109 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 359.31 Mbit/s
  95th percentile per-packet one-way delay: 59.159 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 290.99 Mbit/s
  95th percentile per-packet one-way delay: 55.236 ms
  Loss rate: 0.00%
Run 5: Report of Indigo-MusesD — Data Link

![Graph showing throughput and per-packet delay for flows 1, 2, and 3 over time.](image-url)

- **Flow 1** (ingress mean 424.50 Mbit/s, egress mean 424.50 Mbit/s)
- **Flow 2** (ingress mean 359.33 Mbit/s, egress mean 359.31 Mbit/s)
- **Flow 3** (ingress mean 290.78 Mbit/s, egress mean 290.99 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Flow 1: 82.11 ms (95th percentile)
  - Flow 2: 59.16 ms (95th percentile)
  - Flow 3: 55.24 ms (95th percentile)
Run 1: Statistics of Indigo-MusesT

Start at: 2019-12-12 09:00:37
End at: 2019-12-12 09:01:07
Local clock offset: -0.091 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2019-12-12 14:00:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 844.62 Mbit/s
95th percentile per-packet one-way delay: 57.832 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 510.11 Mbit/s
95th percentile per-packet one-way delay: 58.872 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 408.60 Mbit/s
95th percentile per-packet one-way delay: 55.641 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 292.61 Mbit/s
95th percentile per-packet one-way delay: 53.049 ms
Loss rate: 0.00%
Run 1: Report of Indigo-MusesT — Data Link
Run 2: Statistics of Indigo-MusesT

Start at: 2019-12-12 09:41:03
End at: 2019-12-12 09:41:33
Local clock offset: -0.072 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2019-12-12 14:01:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 859.55 Mbit/s
95th percentile per-packet one-way delay: 91.220 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 511.33 Mbit/s
95th percentile per-packet one-way delay: 97.233 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 421.72 Mbit/s
95th percentile per-packet one-way delay: 62.975 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 318.52 Mbit/s
95th percentile per-packet one-way delay: 53.232 ms
Loss rate: 0.00%
Run 3: Statistics of Indigo-MusesT

Start at: 2019-12-12 10:21:22
End at: 2019-12-12 10:21:52
Local clock offset: -0.05 ms
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2019-12-12 14:02:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 865.14 Mbit/s
95th percentile per-packet one-way delay: 82.170 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 511.34 Mbit/s
95th percentile per-packet one-way delay: 88.331 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 435.35 Mbit/s
95th percentile per-packet one-way delay: 60.790 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 297.97 Mbit/s
95th percentile per-packet one-way delay: 50.746 ms
Loss rate: 0.00%
Run 3: Report of Indigo-MusesT — Data Link

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**Throughput (Mbps)**

- **Flow 1 ing Rand (mean 511.15 Mbps)**
- **Flow 1 egress (mean 511.36 Mbps)**
- **Flow 2 ing Rand (mean 435.37 Mbps)**
- **Flow 2 egress (mean 435.35 Mbps)**
- **Flow 3 ing Rand (mean 297.98 Mbps)**
- **Flow 3 egress (mean 297.97 Mbps)**

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

- **Flow 1 (95th percentile 88.33 ms)**
- **Flow 2 (95th percentile 60.79 ms)**
- **Flow 3 (95th percentile 50.75 ms)**

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Run 4: Statistics of Indigo-MusesT

Start at: 2019-12-12 11:01:07
End at: 2019-12-12 11:01:37
Local clock offset: -0.108 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2019-12-12 14:02:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 830.85 Mbit/s
95th percentile per-packet one-way delay: 92.892 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 489.62 Mbit/s
95th percentile per-packet one-way delay: 99.612 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 427.88 Mbit/s
95th percentile per-packet one-way delay: 82.741 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 274.32 Mbit/s
95th percentile per-packet one-way delay: 52.577 ms
Loss rate: 0.00%
Run 4: Report of Indigo-MusesT — Data Link
Run 5: Statistics of Indigo-MusesT

Start at: 2019-12-12 11:41:07
End at: 2019-12-12 11:41:37
Local clock offset: -0.048 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2019-12-12 14:09:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 828.66 Mbit/s
95th percentile per-packet one-way delay: 85.414 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 499.11 Mbit/s
95th percentile per-packet one-way delay: 87.447 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 397.24 Mbit/s
95th percentile per-packet one-way delay: 86.761 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 307.47 Mbit/s
95th percentile per-packet one-way delay: 52.599 ms
Loss rate: 0.00%
Run 5: Report of Indigo-MusesT — Data Link

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

- Flow 1 ingress (mean 499.11 Mbit/s)
- Flow 1 egress (mean 499.11 Mbit/s)
- Flow 2 ingress (mean 397.24 Mbit/s)
- Flow 2 egress (mean 397.24 Mbit/s)
- Flow 3 ingress (mean 307.48 Mbit/s)
- Flow 3 egress (mean 307.47 Mbit/s)
Run 1: Statistics of LEDBAT

Start at: 2019-12-12 08:59:21
End at: 2019-12-12 08:59:51
Local clock offset: -0.125 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2019-12-12 14:09:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 43.61 Mbit/s
  95th percentile per-packet one-way delay: 48.536 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 20.87 Mbit/s
  95th percentile per-packet one-way delay: 48.789 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 27.70 Mbit/s
  95th percentile per-packet one-way delay: 48.192 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 12.86 Mbit/s
  95th percentile per-packet one-way delay: 48.583 ms
  Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

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

- **Flow 1 ingress (mean 20.87 Mbit/s)**
- **Flow 1 egress (mean 20.87 Mbit/s)**
- **Flow 2 ingress (mean 27.70 Mbit/s)**
- **Flow 2 egress (mean 27.70 Mbit/s)**
- **Flow 3 ingress (mean 12.86 Mbit/s)**
- **Flow 3 egress (mean 12.86 Mbit/s)**
Run 2: Statistics of LEDBAT

Start at: 2019-12-12 09:39:47
End at: 2019-12-12 09:40:17
Local clock offset: 0.283 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2019-12-12 14:09:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.94 Mbit/s
95th percentile per-packet one-way delay: 47.898 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 25.85 Mbit/s
95th percentile per-packet one-way delay: 47.844 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.76 Mbit/s
95th percentile per-packet one-way delay: 47.996 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.96 Mbit/s
95th percentile per-packet one-way delay: 47.063 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 25.85 Mbps)
  - Flow 1 egress (mean 25.85 Mbps)
  - Flow 2 ingress (mean 27.76 Mbps)
  - Flow 2 egress (mean 27.76 Mbps)
  - Flow 3 ingress (mean 13.96 Mbps)
  - Flow 3 egress (mean 13.96 Mbps)

- **Packet Delay (ms)**
  - Flow 1 (95th percentile 47.84 ms)
  - Flow 2 (95th percentile 48.00 ms)
  - Flow 3 (95th percentile 47.06 ms)
Run 3: Statistics of LEDBAT

Start at: 2019-12-12 10:20:04
End at: 2019-12-12 10:20:34
Local clock offset: -0.053 ms
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2019-12-12 14:09:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.08 Mbit/s
95th percentile per-packet one-way delay: 49.171 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.12 Mbit/s
95th percentile per-packet one-way delay: 49.218 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.03 Mbit/s
95th percentile per-packet one-way delay: 49.175 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.02 Mbit/s
95th percentile per-packet one-way delay: 48.134 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2019-12-12 10:59:50
End at: 2019-12-12 11:00:20
Local clock offset: -0.059 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-12-12 14:09:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 62.94 Mbit/s
  95th percentile per-packet one-way delay: 49.134 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 41.42 Mbit/s
  95th percentile per-packet one-way delay: 49.356 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 25.93 Mbit/s
  95th percentile per-packet one-way delay: 48.792 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 12.85 Mbit/s
  95th percentile per-packet one-way delay: 48.871 ms
  Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 41.42 Mbps)
- Flow 1 egress (mean 41.42 Mbps)
- Flow 2 ingress (mean 25.93 Mbps)
- Flow 2 egress (mean 25.93 Mbps)
- Flow 3 ingress (mean 12.85 Mbps)
- Flow 3 egress (mean 12.85 Mbps)

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

- Flow 1 (95th percentile 49.36 ms)
- Flow 2 (95th percentile 48.79 ms)
- Flow 3 (95th percentile 48.87 ms)
Run 5: Statistics of LEDBAT

Start at: 2019-12-12 11:39:50
End at: 2019-12-12 11:40:20
Local clock offset: -0.109 ms
Remote clock offset: -0.133 ms

# Below is generated by plot.py at 2019-12-12 14:09:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.90 Mbit/s
95th percentile per-packet one-way delay: 48.720 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.09 Mbit/s
95th percentile per-packet one-way delay: 48.536 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.38 Mbit/s
95th percentile per-packet one-way delay: 48.885 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 13.92 Mbit/s
95th percentile per-packet one-way delay: 48.628 ms
Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

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

![Graph 2: Per-packet Round-trip Time](image2)

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Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-12-12 09:12:30
End at: 2019-12-12 09:13:00
Local clock offset: -0.07 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2019-12-12 14:13:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 722.90 Mbit/s
95th percentile per-packet one-way delay: 54.623 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 462.11 Mbit/s
95th percentile per-packet one-way delay: 58.273 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 290.26 Mbit/s
95th percentile per-packet one-way delay: 48.356 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 213.25 Mbit/s
95th percentile per-packet one-way delay: 49.614 ms
Loss rate: 0.00%
Run 1: Report of Muses_DecisionTree — Data Link
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-12-12 09:52:46  
End at: 2019-12-12 09:53:16  
Local clock offset: -0.045 ms  
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2019-12-12 14:13:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 639.08 Mbit/s
95th percentile per-packet one-way delay: 54.720 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 394.28 Mbit/s
95th percentile per-packet one-way delay: 60.431 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 223.29 Mbit/s
95th percentile per-packet one-way delay: 51.920 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 305.63 Mbit/s
95th percentile per-packet one-way delay: 49.490 ms
Loss rate: 0.22%
Run 2: Report of Muses_DecisionTree — Data Link

![Graph 1: Throughput (Mbps)]

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

Legend:
- Flow 1 ingress (mean 394.8 Mbps)
- Flow 1 egress (mean 394.28 Mbps)
- Flow 2 ingress (mean 223.29 Mbps)
- Flow 2 egress (mean 223.29 Mbps)
- Flow 3 ingress (mean 307.81 Mbps)
- Flow 3 egress (mean 305.63 Mbps)
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-12-12 10:33:03  
End at: 2019-12-12 10:33:33  
Local clock offset: -0.096 ms  
Remote clock offset: -0.105 ms  

# Below is generated by plot.py at 2019-12-12 14:13:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 675.79 Mbit/s  
95th percentile per-packet one-way delay: 57.464 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 349.87 Mbit/s  
95th percentile per-packet one-way delay: 55.059 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 356.89 Mbit/s  
95th percentile per-packet one-way delay: 66.411 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 283.21 Mbit/s  
95th percentile per-packet one-way delay: 56.167 ms  
Loss rate: 0.00%
Run 3: Report of Muses_DecisionTree — Data Link

![Graph showing network throughput and packet delivery time over time for different flows with specific mean values for ingress and egress.](image-url)
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-12-12 11:12:41
End at: 2019-12-12 11:13:11
Local clock offset: -0.087 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2019-12-12 14:13:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 701.49 Mbit/s
  95th percentile per-packet one-way delay: 59.122 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 424.64 Mbit/s
  95th percentile per-packet one-way delay: 63.497 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 316.23 Mbit/s
  95th percentile per-packet one-way delay: 51.818 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 218.71 Mbit/s
  95th percentile per-packet one-way delay: 49.645 ms
  Loss rate: 0.00%
Run 4: Report of Muses_DecisionTree — Data Link
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-12-12 11:52:39
End at: 2019-12-12 11:53:09
Local clock offset: -0.8 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2019-12-12 14:14:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 691.84 Mbit/s
95th percentile per-packet one-way delay: 67.667 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 392.61 Mbit/s
95th percentile per-packet one-way delay: 73.658 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 350.00 Mbit/s
95th percentile per-packet one-way delay: 58.918 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 214.88 Mbit/s
95th percentile per-packet one-way delay: 53.288 ms
Loss rate: 0.00%
Run 5: Report of Muses_DecisionTree — Data Link

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

- **Throughput**: The top graph shows the throughput of data over time for different flows. Each line represents a different flow, with varying peak and average throughput.

- **Packet Delay**: The bottom graph displays the per-packet one-way delay over time. Different colors indicate different flows, with annotations for 95th percentile delays.

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Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-12 09:07:33  
End at: 2019-12-12 09:08:03  
Local clock offset: -0.477 ms  
Remote clock offset: -0.133 ms

# Below is generated by plot.py at 2019-12-12 14:14:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 673.76 Mbit/s  
95th percentile per-packet one-way delay: 57.406 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 341.19 Mbit/s  
95th percentile per-packet one-way delay: 56.865 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 386.22 Mbit/s  
95th percentile per-packet one-way delay: 55.763 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 229.95 Mbit/s  
95th percentile per-packet one-way delay: 59.719 ms  
Loss rate: 0.00%
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-12 09:47:57  
End at: 2019-12-12 09:48:27  
Local clock offset: ~0.056 ms  
Remote clock offset: ~0.074 ms

# Below is generated by plot.py at 2019-12-12 14:14:45  
# Datalink statistics

-- Total of 3 flows:  
Average throughput: 595.59 Mbit/s  
95th percentile per-packet one-way delay: 92.788 ms  
Loss rate: 0.01%

-- Flow 1:  
Average throughput: 319.64 Mbit/s  
95th percentile per-packet one-way delay: 95.039 ms  
Loss rate: 0.02%

-- Flow 2:  
Average throughput: 308.42 Mbit/s  
95th percentile per-packet one-way delay: 90.557 ms  
Loss rate: 0.00%

-- Flow 3:  
Average throughput: 228.80 Mbit/s  
95th percentile per-packet one-way delay: 80.771 ms  
Loss rate: 0.00%
Run 2: Report of Muses_DecisionTreeH0 — Data Link

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

- Flow 1 ingress (mean 319.72 Mbit/s)
- Flow 1 egress (mean 319.64 Mbit/s)
- Flow 2 ingress (mean 308.42 Mbit/s)
- Flow 2 egress (mean 308.42 Mbit/s)
- Flow 3 ingress (mean 226.81 Mbit/s)
- Flow 3 egress (mean 226.90 Mbit/s)
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-12 10:28:14
End at: 2019-12-12 10:28:44
Local clock offset: -0.085 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2019-12-12 14:20:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 628.50 Mbit/s
95th percentile per-packet one-way delay: 101.534 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 296.02 Mbit/s
95th percentile per-packet one-way delay: 112.980 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 385.22 Mbit/s
95th percentile per-packet one-way delay: 74.112 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 242.30 Mbit/s
95th percentile per-packet one-way delay: 90.136 ms
Loss rate: 0.00%
Run 3: Report of Muses_DecisionTreeH0 — Data Link
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-12 11:07:58
End at: 2019-12-12 11:08:28
Local clock offset: -0.093 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2019-12-12 14:23:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 612.88 Mbit/s
95th percentile per-packet one-way delay: 88.339 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 309.55 Mbit/s
95th percentile per-packet one-way delay: 96.095 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 332.38 Mbit/s
95th percentile per-packet one-way delay: 76.741 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 256.65 Mbit/s
95th percentile per-packet one-way delay: 78.052 ms
Loss rate: 0.00%
Run 4: Report of Muses_DecisionTreeH0 — Data Link

![Graph](image)

- **Flow 1 ingress (mean 309.54 Mbit/s)**
- **Flow 1 egress (mean 309.55 Mbit/s)**
- **Flow 2 ingress (mean 332.54 Mbit/s)**
- **Flow 2 egress (mean 332.38 Mbit/s)**
- **Flow 3 ingress (mean 256.59 Mbit/s)**
- **Flow 3 egress (mean 256.65 Mbit/s)**

![Graph](image)

- **Flow 1 (95th percentile 96.09 ms)**
- **Flow 2 (95th percentile 78.74 ms)**
- **Flow 3 (95th percentile 78.05 ms)**

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Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-12 11:47:59
End at: 2019-12-12 11:48:29
Local clock offset: 0.664 ms
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2019-12-12 14:23:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 541.49 Mbit/s
  95th percentile per-packet one-way delay: 103.010 ms
  Loss rate: 0.23%
-- Flow 1:
  Average throughput: 281.19 Mbit/s
  95th percentile per-packet one-way delay: 113.167 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 265.08 Mbit/s
  95th percentile per-packet one-way delay: 93.337 ms
  Loss rate: 0.49%
-- Flow 3:
  Average throughput: 275.48 Mbit/s
  95th percentile per-packet one-way delay: 73.848 ms
  Loss rate: 0.12%
Run 5: Report of Muses_DecisionTreeH0 — Data Link
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-12 09:22:49
End at: 2019-12-12 09:23:19
Local clock offset: 0.282 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2019-12-12 14:25:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 703.94 Mbit/s
95th percentile per-packet one-way delay: 52.013 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 389.71 Mbit/s
95th percentile per-packet one-way delay: 51.903 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 339.69 Mbit/s
95th percentile per-packet one-way delay: 54.572 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 282.51 Mbit/s
95th percentile per-packet one-way delay: 48.162 ms
Loss rate: 0.06%
Run 1: Report of Muses_DecisionTreeR0 — Data Link

The graphs above show the throughput and per-packet one-way delay for three different flows over time. The throughput graph displays the mean throughput for each flow, while the delay graph shows the 95th percentile delay for each flow. The data indicates the performance and efficiency of the data link during the run.
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-12 10:03:11
End at: 2019-12-12 10:03:41
Local clock offset: -0.057 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2019-12-12 14:26:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 720.16 Mbit/s
95th percentile per-packet one-way delay: 59.771 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 401.40 Mbit/s
95th percentile per-packet one-way delay: 63.195 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 371.28 Mbit/s
95th percentile per-packet one-way delay: 55.511 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 235.17 Mbit/s
95th percentile per-packet one-way delay: 55.094 ms
Loss rate: 0.00%
Run 2: Report of Muses\_DecisionTreeR0 — Data Link

![Graph showing throughput and delay over time](image)

**Throughput (Mbps)**

- **Flow 1 ingress (mean 401.40 Mbps)**
- **Flow 1 egress (mean 401.40 Mbps)**
- **Flow 2 ingress (mean 371.28 Mbps)**
- **Flow 2 egress (mean 371.28 Mbps)**
- **Flow 3 ingress (mean 235.07 Mbps)**
- **Flow 3 egress (mean 235.17 Mbps)**

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

- **Flow 1 (95th percentile 63.20 ms)**
- **Flow 2 (95th percentile 55.51 ms)**
- **Flow 3 (95th percentile 55.09 ms)**
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-12 10:43:10
End at: 2019-12-12 10:43:40
Local clock offset: -0.086 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2019-12-12 14:27:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 710.78 Mbit/s
95th percentile per-packet one-way delay: 65.167 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 410.87 Mbit/s
95th percentile per-packet one-way delay: 66.398 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 321.18 Mbit/s
95th percentile per-packet one-way delay: 60.977 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 275.20 Mbit/s
95th percentile per-packet one-way delay: 63.937 ms
Loss rate: 0.01%
Run 3: Report of Muses_DecisionTreeR0 — Data Link

Throughput vs Time

- Flow 1 ingress (mean 410.87 Mbit/s)
- Flow 1 egress (mean 410.87 Mbit/s)
- Flow 2 ingress (mean 321.17 Mbit/s)
- Flow 2 egress (mean 321.18 Mbit/s)
- Flow 3 ingress (mean 275.06 Mbit/s)
- Flow 3 egress (mean 275.20 Mbit/s)

Per-packet one-way delay vs Time

- Flow 1 (95th percentile 66.40 ms)
- Flow 2 (95th percentile 60.98 ms)
- Flow 3 (95th percentile 63.94 ms)
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-12 11:22:59  
End at: 2019-12-12 11:23:29  
Local clock offset: 0.061 ms  
Remote clock offset: -0.112 ms  

# Below is generated by plot.py at 2019-12-12 14:27:10  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 685.86 Mbit/s  
  95th percentile per-packet one-way delay: 62.697 ms  
  Loss rate: 0.01%  
-- Flow 1:  
  Average throughput: 363.80 Mbit/s  
  95th percentile per-packet one-way delay: 61.412 ms  
  Loss rate: 0.00%  
-- Flow 2:  
  Average throughput: 356.45 Mbit/s  
  95th percentile per-packet one-way delay: 63.554 ms  
  Loss rate: 0.00%  
-- Flow 3:  
  Average throughput: 274.93 Mbit/s  
  95th percentile per-packet one-way delay: 65.118 ms  
  Loss rate: 0.04%
Run 4: Report of Muses_DecisionTreeR0 — Data Link
Run 5: Statistics of Muses\_DecisionTreeRO

Start at: 2019-12-12 12:03:06
End at: 2019-12-12 12:03:36
Local clock offset: -0.009 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2019-12-12 14:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 663.96 Mbit/s
95th percentile per-packet one-way delay: 69.411 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 405.58 Mbit/s
95th percentile per-packet one-way delay: 76.069 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 299.78 Mbit/s
95th percentile per-packet one-way delay: 52.373 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 191.46 Mbit/s
95th percentile per-packet one-way delay: 48.642 ms
Loss rate: 0.00%
Run 5: Report of Muses_DecisionTreeR0 — Data Link
Run 1: Statistics of PCC-Allegro

Start at: 2019-12-12 09:09:16
End at: 2019-12-12 09:09:46
Local clock offset: -0.077 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2019-12-12 14:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 793.27 Mbit/s
95th percentile per-packet one-way delay: 186.713 ms
Loss rate: 6.02%
-- Flow 1:
Average throughput: 428.46 Mbit/s
95th percentile per-packet one-way delay: 190.660 ms
Loss rate: 6.75%
-- Flow 2:
Average throughput: 420.44 Mbit/s
95th percentile per-packet one-way delay: 184.795 ms
Loss rate: 6.63%
-- Flow 3:
Average throughput: 258.81 Mbit/s
95th percentile per-packet one-way delay: 66.184 ms
Loss rate: 0.01%
Run 1: Report of PCC-Allegro — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 459.47 Mbps)  Flow 1 egress (mean 428.46 Mbps)
Flow 2 ingress (mean 450.30 Mbps)  Flow 2 egress (mean 420.44 Mbps)
Flow 3 ingress (mean 258.80 Mbps)  Flow 3 egress (mean 258.81 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 190.66 ms)  Flow 2 (95th percentile 184.79 ms)  Flow 3 (95th percentile 66.18 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2019-12-12 09:49:36
End at: 2019-12-12 09:50:06
Local clock offset: -0.073 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2019-12-12 14:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 719.94 Mbit/s
95th percentile per-packet one-way delay: 193.907 ms
Loss rate: 8.26%
-- Flow 1:
Average throughput: 396.62 Mbit/s
95th percentile per-packet one-way delay: 185.748 ms
Loss rate: 6.08%
-- Flow 2:
Average throughput: 369.37 Mbit/s
95th percentile per-packet one-way delay: 205.825 ms
Loss rate: 13.76%
-- Flow 3:
Average throughput: 238.52 Mbit/s
95th percentile per-packet one-way delay: 151.327 ms
Loss rate: 0.06%
Run 2: Report of PCC-Allegro — Data Link
Run 3: Statistics of PCC-Allegro

Start at: 2019-12-12 10:29:55
End at: 2019-12-12 10:30:25
Local clock offset: -0.031 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2019-12-12 14:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 698.97 Mbit/s
95th percentile per-packet one-way delay: 176.865 ms
Loss rate: 4.93%
-- Flow 1:
Average throughput: 418.30 Mbit/s
95th percentile per-packet one-way delay: 183.516 ms
Loss rate: 7.41%
-- Flow 2:
Average throughput: 297.25 Mbit/s
95th percentile per-packet one-way delay: 117.579 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 252.69 Mbit/s
95th percentile per-packet one-way delay: 149.134 ms
Loss rate: 0.83%
Run 3: Report of PCC-Allegro — Data Link
Run 4: Statistics of PCC-Allegro

Start at: 2019-12-12 11:09:38
End at: 2019-12-12 11:10:08
Local clock offset: -0.066 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2019-12-12 14:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 637.57 Mbit/s
95th percentile per-packet one-way delay: 142.052 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 343.83 Mbit/s
95th percentile per-packet one-way delay: 160.320 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 316.88 Mbit/s
95th percentile per-packet one-way delay: 131.616 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 252.66 Mbit/s
95th percentile per-packet one-way delay: 64.060 ms
Loss rate: 0.17%
Run 4: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 345.14 Mb/s) vs. Flow 1 egress (mean 343.83 Mb/s)
- Flow 2 ingress (mean 317.40 Mb/s) vs. Flow 2 egress (mean 316.88 Mb/s)
- Flow 3 ingress (mean 253.16 Mb/s) vs. Flow 3 egress (mean 252.66 Mb/s)

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

- Flow 1 (95th percentile 160.32 ms) vs. Flow 2 (95th percentile 131.62 ms) vs. Flow 3 (95th percentile 64.06 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2019-12-12 11:49:36
End at: 2019-12-12 11:50:06
Local clock offset: -0.029 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2019-12-12 14:49:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 652.70 Mbit/s
  95th percentile per-packet one-way delay: 156.531 ms
  Loss rate: 0.51%
-- Flow 1:
  Average throughput: 354.28 Mbit/s
  95th percentile per-packet one-way delay: 153.356 ms
  Loss rate: 0.49%
-- Flow 2:
  Average throughput: 319.50 Mbit/s
  95th percentile per-packet one-way delay: 174.123 ms
  Loss rate: 0.74%
-- Flow 3:
  Average throughput: 262.93 Mbit/s
  95th percentile per-packet one-way delay: 103.197 ms
  Loss rate: 0.00%
Run 5: Report of PCC-Allegro — Data Link

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 356.03 Mbit/s) and egress (mean 354.28 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 321.93 Mbit/s) and egress (mean 319.50 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 262.93 Mbit/s) and egress (mean 262.93 Mbit/s)

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

Legend:
- Blue line: Flow 1 (95th percentile 153.36 ms)
- Green line: Flow 2 (95th percentile 174.12 ms)
- Red line: Flow 3 (95th percentile 103.20 ms)
Run 1: Statistics of PCC-Expr

Start at: 2019-12-12 09:25:46
End at: 2019-12-12 09:26:16
Local clock offset: -0.054 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2019-12-12 14:49:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 508.25 Mbit/s
  95th percentile per-packet one-way delay: 150.088 ms
  Loss rate: 1.38%
-- Flow 1:
  Average throughput: 319.70 Mbit/s
  95th percentile per-packet one-way delay: 157.000 ms
  Loss rate: 2.17%
-- Flow 2:
  Average throughput: 234.58 Mbit/s
  95th percentile per-packet one-way delay: 73.497 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 96.95 Mbit/s
  95th percentile per-packet one-way delay: 48.777 ms
  Loss rate: 0.02%
Run 1: Report of PCC-Expr — Data Link

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

Throughput (Mbps)

Time (s)

- Flow 1 ingress (mean 326.80 Mbps)
- Flow 1 egress (mean 319.70 Mbps)
- Flow 2 ingress (mean 234.63 Mbps)
- Flow 2 egress (mean 234.58 Mbps)
- Flow 3 ingress (mean 96.98 Mbps)
- Flow 3 egress (mean 96.95 Mbps)

Per packet one-way delay (ms)

Time (s)

- Flow 1 (95th percentile 157.00 ms)
- Flow 2 (95th percentile 73.50 ms)
- Flow 3 (95th percentile 48.78 ms)
Run 2: Statistics of PCC-Expr

Start at: 2019-12-12 10:06:13
End at: 2019-12-12 10:06:43
Local clock offset: -0.038 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2019-12-12 14:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 527.39 Mbit/s
95th percentile per-packet one-way delay: 154.966 ms
Loss rate: 3.52%
-- Flow 1:
Average throughput: 303.92 Mbit/s
95th percentile per-packet one-way delay: 160.493 ms
Loss rate: 5.94%
-- Flow 2:
Average throughput: 226.71 Mbit/s
95th percentile per-packet one-way delay: 80.522 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 220.40 Mbit/s
95th percentile per-packet one-way delay: 115.272 ms
Loss rate: 0.04%
Run 2: Report of PCC-Expr — Data Link

![Throughput Graph](image1)

- **Flow 1 ingress** (mean 323.12 Mbit/s)
- **Flow 1 egress** (mean 303.92 Mbit/s)
- **Flow 2 ingress** (mean 226.70 Mbit/s)
- **Flow 2 egress** (mean 226.71 Mbit/s)
- **Flow 3 ingress** (mean 220.52 Mbit/s)
- **Flow 3 egress** (mean 220.40 Mbit/s)

![Per-packet round-trip delay Graph](image2)

- **Flow 1** (95th percentile 160.49 ms)
- **Flow 2** (95th percentile 80.52 ms)
- **Flow 3** (95th percentile 115.27 ms)
Run 3: Statistics of PCC-Expr

Start at: 2019-12-12 10:46:12
End at: 2019-12-12 10:46:42
Local clock offset: -0.057 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-12-12 14:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.50 Mbit/s
95th percentile per-packet one-way delay: 130.464 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 269.34 Mbit/s
95th percentile per-packet one-way delay: 134.278 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 234.83 Mbit/s
95th percentile per-packet one-way delay: 99.733 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 103.26 Mbit/s
95th percentile per-packet one-way delay: 52.016 ms
Loss rate: 0.00%
Run 3: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 270.01 Mbps)
- Flow 1 egress (mean 269.34 Mbps)
- Flow 2 ingress (mean 234.83 Mbps)
- Flow 2 egress (mean 234.83 Mbps)
- Flow 3 ingress (mean 103.22 Mbps)
- Flow 3 egress (mean 103.26 Mbps)

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

- Flow 1 (95th percentile 134.28 ms)
- Flow 2 (95th percentile 99.73 ms)
- Flow 3 (95th percentile 52.02 ms)
Run 4: Statistics of PCC-Expr

Start at: 2019-12-12 11:26:00
End at: 2019-12-12 11:26:30
Local clock offset: -0.49 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2019-12-12 14:56:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.96 Mbit/s
95th percentile per-packet one-way delay: 99.347 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 258.41 Mbit/s
95th percentile per-packet one-way delay: 97.685 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 206.41 Mbit/s
95th percentile per-packet one-way delay: 69.695 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 216.14 Mbit/s
95th percentile per-packet one-way delay: 141.812 ms
Loss rate: 0.11%
Run 4: Report of PCC-Expr — Data Link
Run 5: Statistics of PCC-Expr

Start at: 2019-12-12 12:06:05
End at: 2019-12-12 12:06:35
Local clock offset: 0.728 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 484.59 Mbit/s
95th percentile per-packet one-way delay: 92.244 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 286.03 Mbit/s
95th percentile per-packet one-way delay: 105.420 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 209.78 Mbit/s
95th percentile per-packet one-way delay: 66.462 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 178.20 Mbit/s
95th percentile per-packet one-way delay: 68.292 ms
Loss rate: 0.00%
Run 5: Report of PCC-Expr — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 286.39 Mbps)
- Flow 1 egress (mean 286.03 Mbps)
- Flow 2 ingress (mean 209.79 Mbps)
- Flow 2 egress (mean 209.78 Mbps)
- Flow 3 ingress (mean 178.20 Mbps)
- Flow 3 egress (mean 178.20 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 105.42 ms)
- Flow 2 (95th percentile 66.46 ms)
- Flow 3 (95th percentile 68.29 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2019-12-12 09:24:33
End at: 2019-12-12 09:25:03
Local clock offset: -0.031 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.78 Mbit/s
95th percentile per-packet one-way delay: 47.241 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 47.409 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.73 Mbit/s
95th percentile per-packet one-way delay: 47.192 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.52 Mbit/s
95th percentile per-packet one-way delay: 47.287 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2019-12-12 10:04:56
End at: 2019-12-12 10:05:26
Local clock offset: -0.058 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.92 Mbit/s
95th percentile per-packet one-way delay: 47.224 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.86 Mbit/s
95th percentile per-packet one-way delay: 47.227 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.93 Mbit/s
95th percentile per-packet one-way delay: 46.567 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.76 Mbit/s
95th percentile per-packet one-way delay: 47.261 ms
Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2019-12-12 10:44:55
End at: 2019-12-12 10:45:25
Local clock offset: -0.388 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 112.67 Mbit/s
  95th percentile per-packet one-way delay: 47.960 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 65.27 Mbit/s
  95th percentile per-packet one-way delay: 47.984 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 47.36 Mbit/s
  95th percentile per-packet one-way delay: 47.728 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 48.54 Mbit/s
  95th percentile per-packet one-way delay: 46.892 ms
  Loss rate: 0.00%
Run 4: Statistics of QUIC Cubic

Start at: 2019-12-12 11:24:43
End at: 2019-12-12 11:25:13
Local clock offset: -0.128 ms
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 108.51 Mbit/s
95th percentile per-packet one-way delay: 47.478 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.16 Mbit/s
95th percentile per-packet one-way delay: 47.458 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.59 Mbit/s
95th percentile per-packet one-way delay: 47.495 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.82 Mbit/s
95th percentile per-packet one-way delay: 47.617 ms
Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2019-12-12 12:04:49
End at: 2019-12-12 12:05:19
Local clock offset: -0.011 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.42 Mbit/s
  95th percentile per-packet one-way delay: 47.678 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 49.08 Mbit/s
  95th percentile per-packet one-way delay: 47.707 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 43.88 Mbit/s
  95th percentile per-packet one-way delay: 47.228 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.99 Mbit/s
  95th percentile per-packet one-way delay: 47.393 ms
  Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 49.08 Mbit/s)
- Flow 1 egress (mean 49.08 Mbit/s)
- Flow 2 ingress (mean 43.87 Mbit/s)
- Flow 2 egress (mean 43.85 Mbit/s)
- Flow 3 ingress (mean 24.99 Mbit/s)
- Flow 3 egress (mean 24.99 Mbit/s)

Throughput (Mbit/s)

Time (s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 47.71 ms)
Flow 2 (95th percentile 47.23 ms)
Flow 3 (95th percentile 47.39 ms)
Run 1: Statistics of SCReAM

Start at: 2019-12-12 09:11:19
End at: 2019-12-12 09:11:49
Local clock offset: -0.081 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 47.446 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 46.645 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 46.688 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 47.538 ms
  Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

[Graph showing throughput and per-packet round-trip delay over time for different flows.]
Run 2: Statistics of SCReAM

Start at: 2019-12-12 09:51:35
End at: 2019-12-12 09:52:05
Local clock offset: -0.049 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 46.672 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.610 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.888 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.570 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

Throughput (Mbps/s)

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

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

Flow 1 (95th percentile 46.61 ms)  
Flow 2 (95th percentile 46.89 ms)  
Flow 3 (95th percentile 46.57 ms)
Run 3: Statistics of SCReAM

Start at: 2019-12-12 10:31:52
End at: 2019-12-12 10:32:22
Local clock offset: -0.076 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 50.561 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.485 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.652 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.612 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.22 Mbit/s)
- Flow 1 egress (mean 0.22 Mbit/s)
- Flow 2 ingress (mean 0.22 Mbit/s)
- Flow 2 egress (mean 0.22 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s)
- Flow 3 egress (mean 0.22 Mbit/s)

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

- Flow 1 (95th percentile 47.48 ms)
- Flow 2 (95th percentile 46.65 ms)
- Flow 3 (95th percentile 50.61 ms)
Run 4: Statistics of SCReAM

Start at: 2019-12-12 11:11:30
End at: 2019-12-12 11:12:00
Local clock offset: -0.416 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.721 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.733 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.699 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.966 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

---

**Graph 1:**
- Y-axis: Throughput (Mbps)
- X-axis: Time (s)
- Lines:
  - 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:**
- Y-axis: Per packet one way delay (ms)
- X-axis: Time (s)
- Points:
  - Flow 1 (95th percentile 47.73 ms)
  - Flow 2 (95th percentile 47.70 ms)
  - Flow 3 (95th percentile 46.97 ms)
Run 5: Statistics of SCReAM

Start at: 2019-12-12 11:51:28
End at: 2019-12-12 11:51:58
Local clock offset: -0.016 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 50.582 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.418 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.614 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.554 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 1: Statistics of Sprout

Start at: 2019-12-12 09:06:20
End at: 2019-12-12 09:06:50
Local clock offset: -0.096 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.99 Mbit/s
95th percentile per-packet one-way delay: 47.962 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.59 Mbit/s
95th percentile per-packet one-way delay: 47.994 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 47.923 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 48.024 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 9.59 Mbps)
- Blue solid line: Flow 1 egress (mean 9.59 Mbps)
- Green dashed line: Flow 2 ingress (mean 9.54 Mbps)
- Green solid line: Flow 2 egress (mean 9.54 Mbps)
- Red dashed line: Flow 3 ingress (mean 9.19 Mbps)
- Red solid line: Flow 3 egress (mean 9.19 Mbps)

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

- Blue dots: Flow 1 (95th percentile 47.99 ms)
- Green dots: Flow 2 (95th percentile 47.92 ms)
- Red dots: Flow 3 (95th percentile 48.02 ms)
Run 2: Statistics of Sprout

Start at: 2019-12-12 09:46:42
End at: 2019-12-12 09:47:13
Local clock offset: -0.099 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.93 Mbit/s
95th percentile per-packet one-way delay: 47.720 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 47.807 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.59 Mbit/s
95th percentile per-packet one-way delay: 47.064 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.12 Mbit/s
95th percentile per-packet one-way delay: 47.012 ms
Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

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

- **Flow 1 ingress** (mean 9.55 Mbps)
- **Flow 1 egress** (mean 9.55 Mbps)
- **Flow 2 ingress** (mean 9.59 Mbps)
- **Flow 2 egress** (mean 9.59 Mbps)
- **Flow 3 ingress** (mean 9.12 Mbps)
- **Flow 3 egress** (mean 9.12 Mbps)

![Graph 2: Packet one way delay (ms)](image2.png)

- **Flow 1** (95th percentile 47.81 ms)
- **Flow 2** (95th percentile 47.06 ms)
- **Flow 3** (95th percentile 47.01 ms)
Run 3: Statistics of Sprout

Start at: 2019-12-12 10:27:01
End at: 2019-12-12 10:27:31
Local clock offset: -0.073 ms
Remote clock offset: -0.129 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.39 Mbit/s
95th percentile per-packet one-way delay: 47.875 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.76 Mbit/s
95th percentile per-packet one-way delay: 47.334 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 47.709 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.76 Mbit/s
95th percentile per-packet one-way delay: 48.473 ms
Loss rate: 0.00%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2019-12-12 11:06:45
End at: 2019-12-12 11:07:15
Local clock offset: -0.038 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.24 Mbit/s
95th percentile per-packet one-way delay: 50.418 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.31 Mbit/s
95th percentile per-packet one-way delay: 50.493 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 47.169 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 50.533 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

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

Legend:
- Flow 1 ingress (mean 8.31 Mbit/s)
- Flow 1 egress (mean 8.31 Mbit/s)
- Flow 2 ingress (mean 9.54 Mbit/s)
- Flow 2 egress (mean 9.54 Mbit/s)
- Flow 3 ingress (mean 7.79 Mbit/s)
- Flow 3 egress (mean 7.79 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 50.49 ms)
- Flow 2 (95th percentile 47.17 ms)
- Flow 3 (95th percentile 50.53 ms)
Run 5: Statistics of Sprout

Start at: 2019-12-12 11:46:46
End at: 2019-12-12 11:47:16
Local clock offset: -0.038 ms
Remote clock offset: -0.124 ms

# Below is generated by plot.py at 2019-12-12 14:58:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 18.58 Mbit/s
  95th percentile per-packet one-way delay: 47.815 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 9.61 Mbit/s
  95th percentile per-packet one-way delay: 47.811 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 9.48 Mbit/s
  95th percentile per-packet one-way delay: 47.839 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 8.13 Mbit/s
  95th percentile per-packet one-way delay: 47.603 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

Start at: 2019-12-12 09:20:55
End at: 2019-12-12 09:21:25
Local clock offset: 0.253 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2019-12-12 15:05:18
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 473.02 Mbit/s
   95th percentile per-packet one-way delay: 51.478 ms
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 240.56 Mbit/s
   95th percentile per-packet one-way delay: 49.720 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 240.66 Mbit/s
   95th percentile per-packet one-way delay: 51.735 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 217.52 Mbit/s
   95th percentile per-packet one-way delay: 55.180 ms
   Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

![Throughput Graph](image1)

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

- Flow 1 ingress (mean 240.56 Mbps)
- Flow 1 egress (mean 240.56 Mbps)
- Flow 2 ingress (mean 240.69 Mbps)
- Flow 2 egress (mean 240.66 Mbps)
- Flow 3 ingress (mean 217.52 Mbps)
- Flow 3 egress (mean 217.52 Mbps)
Run 2: Statistics of TaoVA-100x

Start at: 2019-12-12 10:01:20
End at: 2019-12-12 10:01:50
Local clock offset: -0.018 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2019-12-12 15:05:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 427.84 Mbit/s
95th percentile per-packet one-way delay: 53.477 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 214.84 Mbit/s
95th percentile per-packet one-way delay: 51.419 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 227.69 Mbit/s
95th percentile per-packet one-way delay: 52.258 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 183.70 Mbit/s
95th percentile per-packet one-way delay: 64.614 ms
Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress (mean 214.83 Mbps)**
- **Flow 1 egress (mean 214.84 Mbps)**
- **Flow 2 ingress (mean 227.69 Mbps)**
- **Flow 2 egress (mean 227.69 Mbps)**
- **Flow 3 ingress (mean 183.68 Mbps)**
- **Flow 3 egress (mean 183.70 Mbps)**

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

- **Flow 1 (95th percentile 51.42 ms)**
- **Flow 2 (95th percentile 52.26 ms)**
- **Flow 3 (95th percentile 64.61 ms)**
Run 3: Statistics of TaoVA-100x

Start at: 2019-12-12 10:41:17
End at: 2019-12-12 10:41:47
Local clock offset: -0.066 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2019-12-12 15:05:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 469.95 Mbit/s
95th percentile per-packet one-way delay: 53.961 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 236.21 Mbit/s
95th percentile per-packet one-way delay: 52.570 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 237.14 Mbit/s
95th percentile per-packet one-way delay: 54.406 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 228.62 Mbit/s
95th percentile per-packet one-way delay: 55.872 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

Throughput (Mbps) vs Time (s)

- Flow 1 ingress (mean 236.24 Mbps)
- Flow 1 egress (mean 236.21 Mbps)
- Flow 2 ingress (mean 237.14 Mbps)
- Flow 2 egress (mean 237.14 Mbps)
- Flow 3 ingress (mean 226.62 Mbps)
- Flow 3 egress (mean 226.62 Mbps)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 52.57 ms)
- Flow 2 (95th percentile 54.41 ms)
- Flow 3 (95th percentile 55.87 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2019-12-12 11:21:08
End at: 2019-12-12 11:21:38
Local clock offset: -0.078 ms
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2019-12-12 15:05:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 452.43 Mbit/s
95th percentile per-packet one-way delay: 54.478 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.57 Mbit/s
95th percentile per-packet one-way delay: 53.791 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 216.72 Mbit/s
95th percentile per-packet one-way delay: 56.637 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 233.79 Mbit/s
95th percentile per-packet one-way delay: 53.902 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 230.59 Mbps)
Flow 1 egress (mean 230.57 Mbps)
Flow 2 ingress (mean 216.72 Mbps)
Flow 2 egress (mean 216.72 Mbps)
Flow 3 ingress (mean 233.79 Mbps)
Flow 3 egress (mean 233.79 Mbps)

Delay (ms)

Time (s)

Flow 1 (95th percentile 53.79 ms)
Flow 2 (95th percentile 56.64 ms)
Flow 3 (95th percentile 53.90 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2019-12-12 12:01:14
End at: 2019-12-12 12:01:44
Local clock offset: 0.327 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2019-12-12 15:05:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 451.74 Mbit/s
  95th percentile per-packet one-way delay: 51.097 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 236.14 Mbit/s
  95th percentile per-packet one-way delay: 49.041 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 226.43 Mbit/s
  95th percentile per-packet one-way delay: 53.442 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 210.83 Mbit/s
  95th percentile per-packet one-way delay: 53.842 ms
  Loss rate: 0.06%
Run 5: Report of TaoVA-100x — Data Link

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

Legend:
- Flow 1 ingress (mean 236.14 Mbit/s)
- Flow 1 egress (mean 236.14 Mbit/s)
- Flow 2 ingress (mean 226.43 Mbit/s)
- Flow 2 egress (mean 226.43 Mbit/s)
- Flow 3 ingress (mean 210.95 Mbit/s)
- Flow 3 egress (mean 210.83 Mbit/s)
Run 1: Statistics of TCP Vegas

Start at: 2019-12-12 08:51:01
End at: 2019-12-12 08:51:31
Local clock offset: -0.096 ms
Remote clock offset: 0.1 ms

# Below is generated by plot.py at 2019-12-12 15:05:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 734.80 Mbit/s
95th percentile per-packet one-way delay: 67.827 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 371.43 Mbit/s
95th percentile per-packet one-way delay: 59.522 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 290.67 Mbit/s
95th percentile per-packet one-way delay: 50.881 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 509.26 Mbit/s
95th percentile per-packet one-way delay: 79.425 ms
Loss rate: 0.07%
Run 1: Report of TCP Vegas — Data Link

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

- **Throughput:**
  - Flow 1 ingress (mean 371.44 Mbit/s)
  - Flow 1 egress (mean 371.43 Mbit/s)
  - Flow 2 ingress (mean 290.67 Mbit/s)
  - Flow 2 egress (mean 290.67 Mbit/s)
  - Flow 3 ingress (mean 509.63 Mbit/s)
  - Flow 3 egress (mean 509.26 Mbit/s)

- **Packet Loss:**
  - Flow 1 (95th percentile 59.52 ms)
  - Flow 2 (95th percentile 50.88 ms)
  - Flow 3 (95th percentile 79.42 ms)
Run 2: Statistics of TCP Vegas

Start at: 2019-12-12 09:31:26
End at: 2019-12-12 09:31:56
Local clock offset: -0.114 ms
Remote clock offset: -0.138 ms

# Below is generated by plot.py at 2019-12-12 15:13:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 823.40 Mbit/s
95th percentile per-packet one-way delay: 78.048 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 499.36 Mbit/s
95th percentile per-packet one-way delay: 87.603 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 385.06 Mbit/s
95th percentile per-packet one-way delay: 53.086 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 203.39 Mbit/s
95th percentile per-packet one-way delay: 48.373 ms
Loss rate: 0.01%
Run 2: Report of TCP Vegas — Data Link

![TCP Vegas Throughput and Latency Graphs]

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Run 3: Statistics of TCP Vegas

Start at: 2019-12-12 10:11:50
End at: 2019-12-12 10:12:20
Local clock offset: -0.047 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2019-12-12 15:15:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 852.45 Mbit/s
95th percentile per-packet one-way delay: 73.206 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 487.14 Mbit/s
95th percentile per-packet one-way delay: 75.035 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 404.44 Mbit/s
95th percentile per-packet one-way delay: 56.308 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 287.19 Mbit/s
95th percentile per-packet one-way delay: 69.637 ms
Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2019-12-12 10:51:44
End at: 2019-12-12 10:52:14
Local clock offset: -0.051 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2019-12-12 15:15:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 584.47 Mbit/s
  95th percentile per-packet one-way delay: 70.644 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 150.87 Mbit/s
  95th percentile per-packet one-way delay: 51.140 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 455.32 Mbit/s
  95th percentile per-packet one-way delay: 72.477 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 393.71 Mbit/s
  95th percentile per-packet one-way delay: 62.758 ms
  Loss rate: 0.03%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2019-12-12 11:31:34
End at: 2019-12-12 11:32:04
Local clock offset: 0.701 ms
Remote clock offset: -0.142 ms

# Below is generated by plot.py at 2019-12-12 15:16:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 735.78 Mbit/s
95th percentile per-packet one-way delay: 84.047 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 458.93 Mbit/s
95th percentile per-packet one-way delay: 80.169 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 181.11 Mbit/s
95th percentile per-packet one-way delay: 47.251 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 470.25 Mbit/s
95th percentile per-packet one-way delay: 99.598 ms
Loss rate: 0.66%
Run 5: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress** (mean 459.27 Mbit/s)
- **Flow 1 egress** (mean 458.93 Mbit/s)
- **Flow 2 ingress** (mean 181.31 Mbit/s)
- **Flow 2 egress** (mean 181.11 Mbit/s)
- **Flow 3 ingress** (mean 473.43 Mbit/s)
- **Flow 3 egress** (mean 470.25 Mbit/s)

![Graph 2: Packet Delay over Time](#)

- **Flow 1** (95th percentile 80.17 ms)
- **Flow 2** (95th percentile 47.25 ms)
- **Flow 3** (95th percentile 99.60 ms)
Run 1: Statistics of Verus

Start at: 2019-12-12 09:16:02
End at: 2019-12-12 09:16:32
Local clock offset: -0.114 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2019-12-12 15:16:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 218.54 Mbit/s
  95th percentile per-packet one-way delay: 62.726 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 124.29 Mbit/s
  95th percentile per-packet one-way delay: 61.492 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 95.11 Mbit/s
  95th percentile per-packet one-way delay: 60.804 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 95.36 Mbit/s
  95th percentile per-packet one-way delay: 69.957 ms
  Loss rate: 0.00%
Run 1: Report of Verus — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 124.29 Mbit/s)
  - Flow 1 egress (mean 124.29 Mbit/s)
  - Flow 2 ingress (mean 95.11 Mbit/s)
  - Flow 2 egress (mean 95.11 Mbit/s)
  - Flow 3 ingress (mean 95.37 Mbit/s)
  - Flow 3 egress (mean 95.36 Mbit/s)

- **Per-packet one way delay (ms)**
  - Flow 1 (95th percentile 61.49 ms)
  - Flow 2 (95th percentile 60.80 ms)
  - Flow 3 (95th percentile 69.96 ms)
Run 2: Statistics of Verus

Start at: 2019-12-12 09:56:15
End at: 2019-12-12 09:56:45
Local clock offset: -0.061 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2019-12-12 15:16:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.64 Mbit/s
95th percentile per-packet one-way delay: 68.625 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 144.80 Mbit/s
95th percentile per-packet one-way delay: 69.257 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 92.43 Mbit/s
95th percentile per-packet one-way delay: 104.694 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 116.84 Mbit/s
95th percentile per-packet one-way delay: 57.079 ms
Loss rate: 0.00%
Run 2: Report of Verus — Data Link

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

Start at: 2019-12-12 10:36:27
End at: 2019-12-12 10:36:57
Local clock offset: -0.073 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2019-12-12 15:16:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 287.04 Mbit/s
  95th percentile per-packet one-way delay: 145.383 ms
  Loss rate: 0.39%
-- Flow 1:
  Average throughput: 175.49 Mbit/s
  95th percentile per-packet one-way delay: 177.588 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 121.44 Mbit/s
  95th percentile per-packet one-way delay: 83.262 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 93.59 Mbit/s
  95th percentile per-packet one-way delay: 60.381 ms
  Loss rate: 0.00%
Run 3: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 176.62 Mbps)
- Flow 1 egress (mean 175.49 Mbps)
- Flow 2 ingress (mean 121.44 Mbps)
- Flow 2 egress (mean 121.44 Mbps)
- Flow 3 ingress (mean 93.59 Mbps)
- Flow 3 egress (mean 93.59 Mbps)

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

- Flow 1 (95th percentile 177.59 ms)
- Flow 2 (95th percentile 83.26 ms)
- Flow 3 (95th percentile 60.38 ms)
Run 4: Statistics of Verus

Start at: 2019-12-12 11:16:10
End at: 2019-12-12 11:16:40
Local clock offset: -0.092 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2019-12-12 15:16:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 288.17 Mbit/s
95th percentile per-packet one-way delay: 105.885 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 176.41 Mbit/s
95th percentile per-packet one-way delay: 115.001 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 116.08 Mbit/s
95th percentile per-packet one-way delay: 76.676 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 106.70 Mbit/s
95th percentile per-packet one-way delay: 56.248 ms
Loss rate: 0.00%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2019-12-12 11:56:09
End at: 2019-12-12 11:56:39
Local clock offset: 0.747 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2019-12-12 15:19:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 254.01 Mbit/s
95th percentile per-packet one-way delay: 159.199 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 141.51 Mbit/s
95th percentile per-packet one-way delay: 158.504 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 121.16 Mbit/s
95th percentile per-packet one-way delay: 174.067 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 97.63 Mbit/s
95th percentile per-packet one-way delay: 64.103 ms
Loss rate: 0.00%
Run 5: Report of Verus — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 142.31 Mbps)
Flow 1 egress (mean 141.51 Mbps)
Flow 2 ingress (mean 121.51 Mbps)
Flow 2 egress (mean 121.16 Mbps)
Flow 3 ingress (mean 97.76 Mbps)
Flow 3 egress (mean 97.63 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 158.50 ms)
Flow 2 (95th percentile 174.07 ms)
Flow 3 (95th percentile 64.10 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2019-12-12 09:14:15
End at: 2019-12-12 09:14:45
Local clock offset: -0.085 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2019-12-12 15:20:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 534.66 Mbit/s
95th percentile per-packet one-way delay: 145.190 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 298.37 Mbit/s
95th percentile per-packet one-way delay: 67.868 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 244.48 Mbit/s
95th percentile per-packet one-way delay: 51.016 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 222.42 Mbit/s
95th percentile per-packet one-way delay: 200.406 ms
Loss rate: 0.27%
Run 1: Report of PCC-Vivace — Data Link

![Graph showing network performance metrics over time]

**Graph 1:**
- **Flow 1 ingress** (mean 298.38 Mbit/s)
- **Flow 1 egress** (mean 298.37 Mbit/s)
- **Flow 2 ingress** (mean 244.50 Mbit/s)
- **Flow 2 egress** (mean 244.48 Mbit/s)
- **Flow 3 ingress** (mean 223.02 Mbit/s)
- **Flow 3 egress** (mean 222.42 Mbit/s)

**Graph 2:**
- Flow 1 (95th percentile 67.87 ms)
- Flow 2 (95th percentile 51.02 ms)
- Flow 3 (95th percentile 200.41 ms)
Run 2: Statistics of PCC-Vivace

Start at: 2019-12-12 09:54:28
End at: 2019-12-12 09:54:58
Local clock offset: -0.006 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2019-12-12 15:21:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 529.73 Mbit/s
95th percentile per-packet one-way delay: 54.958 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 312.93 Mbit/s
95th percentile per-packet one-way delay: 57.184 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 249.83 Mbit/s
95th percentile per-packet one-way delay: 51.166 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 153.74 Mbit/s
95th percentile per-packet one-way delay: 51.329 ms
Loss rate: 0.00%
Run 2: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress (mean 312.93 Mbit/s)**
- **Flow 1 egress (mean 312.93 Mbit/s)**
- **Flow 2 ingress (mean 249.83 Mbit/s)**
- **Flow 2 egress (mean 249.83 Mbit/s)**
- **Flow 3 ingress (mean 153.74 Mbit/s)**
- **Flow 3 egress (mean 153.74 Mbit/s)**

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

- **Flow 1 (95th percentile 57.18 ms)**
- **Flow 2 (95th percentile 51.17 ms)**
- **Flow 3 (95th percentile 51.33 ms)**
Run 3: Statistics of PCC-Vivace

Start at: 2019-12-12 10:34:46
End at: 2019-12-12 10:35:16
Local clock offset: -0.089 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2019-12-12 15:21:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 451.19 Mbit/s
  95th percentile per-packet one-way delay: 55.097 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 252.34 Mbit/s
  95th percentile per-packet one-way delay: 53.874 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 257.72 Mbit/s
  95th percentile per-packet one-way delay: 58.002 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 83.25 Mbit/s
  95th percentile per-packet one-way delay: 47.016 ms
  Loss rate: 0.00%
Run 3: Report of PCC-Vivace — Data Link
Run 4: Statistics of PCC-Vivace

Start at: 2019-12-12 11:14:25
End at: 2019-12-12 11:14:56
Local clock offset: -0.432 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2019-12-12 15:21:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 496.67 Mbit/s
  95th percentile per-packet one-way delay: 145.571 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 260.62 Mbit/s
  95th percentile per-packet one-way delay: 108.637 ms
  Loss rate: 0.25%
-- Flow 2:
  Average throughput: 252.62 Mbit/s
  95th percentile per-packet one-way delay: 174.771 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 206.12 Mbit/s
  95th percentile per-packet one-way delay: 55.094 ms
  Loss rate: 0.02%
Run 4: Report of PCC-Vivace — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 261.28 Mbps)
- Flow 1 egress (mean 260.62 Mbps)
- Flow 2 ingress (mean 252.75 Mbps)
- Flow 2 egress (mean 252.62 Mbps)
- Flow 3 ingress (mean 296.10 Mbps)
- Flow 3 egress (mean 296.12 Mbps)

**Packet one-way delay (ms):**
- Flow 1 (95th percentile 108.64 ms)
- Flow 2 (95th percentile 174.77 ms)
- Flow 3 (95th percentile 55.09 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2019-12-12 11:54:24
End at: 2019-12-12 11:54:54
Local clock offset: 0.653 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2019-12-12 15:21:28
# Datalink statistics

-- Total of 3 flows:
Average throughput: 513.52 Mbit/s
95th percentile per-packet one-way delay: 54.806 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 293.28 Mbit/s
95th percentile per-packet one-way delay: 52.415 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 290.43 Mbit/s
95th percentile per-packet one-way delay: 57.226 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 82.74 Mbit/s
95th percentile per-packet one-way delay: 49.382 ms
Loss rate: 0.00%
Run 5: Report of PCC-Vivace — Data Link

[Graph showing throughput and delay with legends for Flow 1 ingress, Flow 1 egress, Flow 2 ingress, Flow 2 egress, Flow 3 ingress, and Flow 3 egress.]
Run 1: Statistics of WebRTC media

Start at: 2019-12-12 08:54:33
End at: 2019-12-12 08:55:03
Local clock offset: -0.069 ms
Remote clock offset: 0.083 ms

# Below is generated by plot.py at 2019-12-12 15:21:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.14 Mbit/s
  95th percentile per-packet one-way delay: 47.634 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 46.664 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 47.648 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.00 Mbit/s
  95th percentile per-packet one-way delay: 47.530 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

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

![Graph 2: Packet Delay vs Time](image2.png)
Run 2: Statistics of WebRTC media

Start at: 2019-12-12 09:35:00
End at: 2019-12-12 09:35:30
Local clock offset: -0.089 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2019-12-12 15:21:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 50.613 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 46.653 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 53.414 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 46.622 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

![Throughput Graph]

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

![Per-Packet One-Way Delay Graph]

- Flow 1 (95th percentile 46.65 ms)
- Flow 2 (95th percentile 53.41 ms)
- Flow 3 (95th percentile 46.62 ms)
Run 3: Statistics of WebRTC media

Start at: 2019-12-12 10:15:24
End at: 2019-12-12 10:15:54
Local clock offset: -0.04 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2019-12-12 15:21:28
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 3.87 Mbit/s
   95th percentile per-packet one-way delay: 47.703 ms
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 2.20 Mbit/s
   95th percentile per-packet one-way delay: 47.725 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 1.64 Mbit/s
   95th percentile per-packet one-way delay: 47.706 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 0.52 Mbit/s
   95th percentile per-packet one-way delay: 46.687 ms
   Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2019-12-12 10:55:04
End at: 2019-12-12 10:55:34
Local clock offset: -0.022 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2019-12-12 15:21:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 47.312 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 47.323 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 46.731 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.555 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2019-12-12 11:35:06
End at: 2019-12-12 11:35:36
Local clock offset: 0.723 ms
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2019-12-12 15:21:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 46.837 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 46.588 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 46.922 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.897 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

![Graph 1: Throughput vs. Time for different flows]

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

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

- Flow 1 (95th percentile 46.59 ms)
- Flow 2 (95th percentile 46.92 ms)
- Flow 3 (95th percentile 45.90 ms)