Pantheon Report

Generated at 2019-01-04 02:45:05 (UTC).
Data path: GCE Sydney on ens4 *(local)* → GCE Tokyo on ens4 *(remote).*
Repeataed the test of 19 congestion control schemes 5 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
NTP offsets were measured against time.google.com and have been applied to correct the timestamps in logs.

System info:
Linux 4.15.0-1025-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 @ c654af0b7d59d4ef4b914cfac404e1fc2e96dc68
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e54bb72943babfcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e694aa89e93b032143cedbbf5e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90cc77e64d
third_party/libutp @ b3465b942e2826f2f179eaab4a906ce6bb7cfc3f
third_party/muses @ 65ac1b19be0fedc06349ae986009b4fa8643c40a
third_party/muses-refactored @ 318f0f0ba8f8b1da76c2bc0cda7850c33ff64fb
third_party/pantheon-tunnel @ f8663f58d27af942177625ee3a354cc2e802bd
third_party/pcc @ 1af9c958fa0d66d18b623c091a55feced72b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08f9ab24ebfa974ab
third_party/proto-quic @ 77961f1a182733a86b42f1bc8143ec978f3cfcf2
third_party/scream-reproduce @ f099f18d1421aa3131bf11ff1964974e1da3dbb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447e74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
test from GCE Sydney to GCE Tokyo, 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>494.13</td>
<td>464.74</td>
<td>439.21</td>
</tr>
<tr>
<td>Copa</td>
<td>5</td>
<td>292.30</td>
<td>276.67</td>
<td>272.38</td>
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<td>TCP Cubic</td>
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<td>527.42</td>
<td>507.17</td>
<td>462.11</td>
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<td>FillP</td>
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<td>583.82</td>
<td>379.69</td>
<td>263.55</td>
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<tr>
<td>FillP-Sheep</td>
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<td>551.38</td>
<td>326.32</td>
<td>246.65</td>
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<td>502.36</td>
<td>387.06</td>
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<td>530.15</td>
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<td>28.11</td>
<td>18.76</td>
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<td>PCC-Allegro</td>
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<td>349.79</td>
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<td>PCC-Expr</td>
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<td>49.42</td>
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<td>0.22</td>
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<td>7.77</td>
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<td>233.77</td>
<td>215.92</td>
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<td>379.45</td>
<td>421.86</td>
<td>443.63</td>
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<td>Verus</td>
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<td>172.51</td>
<td>107.51</td>
<td>102.56</td>
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<td>PCC-Vivace</td>
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<td>315.31</td>
<td>278.03</td>
<td>110.55</td>
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<td>WebRTC media</td>
<td>5</td>
<td>0.83</td>
<td>0.32</td>
<td>0.15</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2019-01-03 20:47:04
End at: 2019-01-03 20:47:34
Local clock offset: -0.565 ms
Remote clock offset: 0.07 ms

# Below is generated by plot.py at 2019-01-03 23:52:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 980.39 Mbit/s
95th percentile per-packet one-way delay: 177.825 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 515.20 Mbit/s
95th percentile per-packet one-way delay: 167.988 ms
Loss rate: 1.40%
-- Flow 2:
Average throughput: 472.27 Mbit/s
95th percentile per-packet one-way delay: 187.375 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 453.27 Mbit/s
95th percentile per-packet one-way delay: 173.233 ms
Loss rate: 0.72%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2019-01-03 21:20:31
End at: 2019-01-03 21:21:01
Local clock offset: -0.084 ms
Remote clock offset: -0.2 ms

# Below is generated by plot.py at 2019-01-03 23:52:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 967.32 Mbit/s
95th percentile per-packet one-way delay: 158.611 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 497.45 Mbit/s
95th percentile per-packet one-way delay: 153.777 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 482.92 Mbit/s
95th percentile per-packet one-way delay: 158.709 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 445.88 Mbit/s
95th percentile per-packet one-way delay: 171.175 ms
Loss rate: 0.51%
Run 3: Statistics of TCP BBR

Start at: 2019-01-03 21:54:08
End at: 2019-01-03 21:54:38
Local clock offset: -0.247 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2019-01-03 23:52:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 948.73 Mbit/s
  95th percentile per-packet one-way delay: 164.291 ms
  Loss rate: 0.50%
-- Flow 1:
  Average throughput: 489.03 Mbit/s
  95th percentile per-packet one-way delay: 172.998 ms
  Loss rate: 0.88%
-- Flow 2:
  Average throughput: 453.19 Mbit/s
  95th percentile per-packet one-way delay: 156.032 ms
  Loss rate: 0.06%
-- Flow 3:
  Average throughput: 474.86 Mbit/s
  95th percentile per-packet one-way delay: 137.372 ms
  Loss rate: 0.15%
Run 3: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 493.30 Mbps)
Flow 1 egress (mean 489.03 Mbps)
Flow 2 ingress (mean 453.48 Mbps)
Flow 2 egress (mean 453.19 Mbps)
Flow 3 ingress (mean 475.59 Mbps)
Flow 3 egress (mean 474.86 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 173.00 ms)
Flow 2 (95th percentile 156.03 ms)
Flow 3 (95th percentile 137.37 ms)
Run 4: Statistics of TCP BBR

End at: 2019-01-03 22:28:27
Local clock offset: -0.231 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2019-01-03 23:52:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 901.86 Mbit/s
95th percentile per-packet one-way delay: 164.739 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 471.47 Mbit/s
95th percentile per-packet one-way delay: 158.279 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 461.81 Mbit/s
95th percentile per-packet one-way delay: 175.724 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 370.20 Mbit/s
95th percentile per-packet one-way delay: 155.282 ms
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 474.49 Mbps)
- Flow 1 egress (mean 471.47 Mbps)
- Flow 2 ingress (mean 468.20 Mbps)
- Flow 2 egress (mean 461.81 Mbps)
- Flow 3 ingress (mean 369.90 Mbps)
- Flow 3 egress (mean 370.20 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 158.28 ms)
- Flow 2 (95th percentile 175.72 ms)
- Flow 3 (95th percentile 155.28 ms)
Run 5: Statistics of TCP BBR

Start at: 2019-01-03 23:01:43
End at: 2019-01-03 23:02:13
Local clock offset: 0.11 ms
Remote clock offset: -0.129 ms

# Below is generated by plot.py at 2019-01-03 23:52:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 949.52 Mbit/s
95th percentile per-packet one-way delay: 150.170 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 497.48 Mbit/s
95th percentile per-packet one-way delay: 90.203 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 453.50 Mbit/s
95th percentile per-packet one-way delay: 163.707 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 451.83 Mbit/s
95th percentile per-packet one-way delay: 156.423 ms
Loss rate: 3.79%
Run 5: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 497.54 Mbps)
Flow 1 egress (mean 497.48 Mbps)
Flow 2 ingress (mean 457.32 Mbps)
Flow 2 egress (mean 453.50 Mbps)
Flow 3 ingress (mean 469.64 Mbps)
Flow 3 egress (mean 451.83 Mbps)

Round-trip time (ms)

Time (s)

Flow 1 (95th percentile 90.20 ms)
Flow 2 (95th percentile 163.71 ms)
Flow 3 (95th percentile 156.42 ms)
Run 1: Statistics of Copa

Start at: 2019-01-03 20:33:36
End at: 2019-01-03 20:34:06
Local clock offset: -0.458 ms
Remote clock offset: -0.214 ms

# Below is generated by plot.py at 2019-01-03 23:54:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 581.63 Mbit/s
  95th percentile per-packet one-way delay: 93.423 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 316.23 Mbit/s
  95th percentile per-packet one-way delay: 85.962 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 266.84 Mbit/s
  95th percentile per-packet one-way delay: 81.503 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 263.88 Mbit/s
  95th percentile per-packet one-way delay: 209.471 ms
  Loss rate: 0.01%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2019-01-03 21:06:58
End at: 2019-01-03 21:07:28
Local clock offset: -0.096 ms
Remote clock offset: 0.195 ms

# Below is generated by plot.py at 2019-01-03 23:54:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.52 Mbit/s
95th percentile per-packet one-way delay: 78.186 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 244.31 Mbit/s
95th percentile per-packet one-way delay: 82.060 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 181.10 Mbit/s
95th percentile per-packet one-way delay: 71.597 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 260.56 Mbit/s
95th percentile per-packet one-way delay: 82.916 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link

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

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

[Key for Graph 1]
- Flow 1 ingress (mean 244.29 Mbit/s)
- Flow 1 egress (mean 244.31 Mbit/s)
- Flow 2 ingress (mean 181.10 Mbit/s)
- Flow 2 egress (mean 181.10 Mbit/s)
- Flow 3 ingress (mean 260.55 Mbit/s)
- Flow 3 egress (mean 260.56 Mbit/s)

[Key for Graph 2]
- Flow 1 (95th percentile 82.06 ms)
- Flow 2 (95th percentile 71.60 ms)
- Flow 3 (95th percentile 82.92 ms)
Run 3: Statistics of Copa

Start at: 2019-01-03 21:40:19
End at: 2019-01-03 21:40:49
Local clock offset: -0.279 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2019-01-03 23:54:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 590.44 Mbit/s
95th percentile per-packet one-way delay: 80.432 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 293.87 Mbit/s
95th percentile per-packet one-way delay: 80.084 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 306.25 Mbit/s
95th percentile per-packet one-way delay: 74.449 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 278.69 Mbit/s
95th percentile per-packet one-way delay: 86.192 ms
Loss rate: 0.06%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

Start at: 2019-01-03 22:14:03
End at: 2019-01-03 22:14:33
Local clock offset: -0.064 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2019-01-04 00:14:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 591.95 Mbit/s
95th percentile per-packet one-way delay: 70.331 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 285.65 Mbit/s
95th percentile per-packet one-way delay: 71.433 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 323.73 Mbit/s
95th percentile per-packet one-way delay: 70.317 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 273.12 Mbit/s
95th percentile per-packet one-way delay: 67.227 ms
Loss rate: 0.02%
Run 4: Report of Copa — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 285.69 Mbps)
  - Flow 1 egress (mean 285.65 Mbps)
  - Flow 2 ingress (mean 323.75 Mbps)
  - Flow 2 egress (mean 323.73 Mbps)
  - Flow 3 ingress (mean 273.15 Mbps)
  - Flow 3 egress (mean 273.12 Mbps)

- **Packet Loss (ms):**
  - Flow 1 (95th percentile 71.43 ms)
  - Flow 2 (95th percentile 70.32 ms)
  - Flow 3 (95th percentile 67.23 ms)
Run 5: Statistics of Copa

Start at: 2019-01-03 22:47:46
End at: 2019-01-03 22:48:16
Local clock offset: -0.156 ms
Remote clock offset: -0.244 ms

# Below is generated by plot.py at 2019-01-04 00:17:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 619.73 Mbit/s
95th percentile per-packet one-way delay: 67.987 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 321.42 Mbit/s
95th percentile per-packet one-way delay: 64.392 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 305.44 Mbit/s
95th percentile per-packet one-way delay: 72.629 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 285.63 Mbit/s
95th percentile per-packet one-way delay: 64.406 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2019-01-03 20:45:02
End at: 2019-01-03 20:45:32
Local clock offset: -0.135 ms
Remote clock offset: -0.236 ms

# Below is generated by plot.py at 2019-01-04 00:17:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 978.87 Mbit/s
95th percentile per-packet one-way delay: 95.416 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 505.10 Mbit/s
95th percentile per-packet one-way delay: 72.722 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 472.80 Mbit/s
95th percentile per-packet one-way delay: 71.823 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 475.74 Mbit/s
95th percentile per-packet one-way delay: 111.145 ms
Loss rate: 0.04%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2019-01-03 21:18:30
End at: 2019-01-03 21:19:00
Local clock offset: -0.08 ms
Remote clock offset: 0.034 ms

# Below is generated by plot.py at 2019-01-04 00:17:17
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 933.83 Mbit/s
   95th percentile per-packet one-way delay: 68.781 ms
   Loss rate: 0.02%
-- Flow 1:
   Average throughput: 439.52 Mbit/s
   95th percentile per-packet one-way delay: 62.773 ms
   Loss rate: 0.01%
-- Flow 2:
   Average throughput: 520.42 Mbit/s
   95th percentile per-packet one-way delay: 77.571 ms
   Loss rate: 0.02%
-- Flow 3:
   Average throughput: 443.79 Mbit/s
   95th percentile per-packet one-way delay: 67.806 ms
   Loss rate: 0.04%
Run 2: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 439.53 Mbit/s)
- Flow 1 egress (mean 439.52 Mbit/s)
- Flow 2 ingress (mean 520.54 Mbit/s)
- Flow 2 egress (mean 520.42 Mbit/s)
- Flow 3 ingress (mean 443.95 Mbit/s)
- Flow 3 egress (mean 443.79 Mbit/s)
Run 3: Statistics of TCP Cubic

Start at: 2019-01-03 21:52:02
End at: 2019-01-03 21:52:32
Local clock offset: 0.147 ms
Remote clock offset: 0.206 ms

# Below is generated by plot.py at 2019-01-04 00:17:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1041.87 Mbit/s
95th percentile per-packet one-way delay: 119.171 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 551.07 Mbit/s
95th percentile per-packet one-way delay: 123.532 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 527.36 Mbit/s
95th percentile per-packet one-way delay: 99.917 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 420.05 Mbit/s
95th percentile per-packet one-way delay: 113.531 ms
Loss rate: 0.02%
Run 4: Statistics of TCP Cubic

Start at: 2019-01-03 22:25:50
End at: 2019-01-03 22:26:20
Local clock offset: -0.196 ms
Remote clock offset: -0.177 ms

# Below is generated by plot.py at 2019-01-04 00:17:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1056.10 Mbit/s
95th percentile per-packet one-way delay: 113.656 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 564.83 Mbit/s
95th percentile per-packet one-way delay: 109.675 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 514.80 Mbit/s
95th percentile per-packet one-way delay: 120.117 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 446.54 Mbit/s
95th percentile per-packet one-way delay: 75.145 ms
Loss rate: 0.15%
Run 4: Report of TCP Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 565.87 Mbit/s)
- Flow 1 egress (mean 564.83 Mbit/s)
- Flow 2 ingress (mean 515.25 Mbit/s)
- Flow 2 egress (mean 514.80 Mbit/s)
- Flow 3 ingress (mean 447.08 Mbit/s)
- Flow 3 egress (mean 446.54 Mbit/s)
Run 5: Statistics of TCP Cubic

Start at: 2019-01-03 22:59:34
End at: 2019-01-03 23:00:04
Local clock offset: -0.09 ms
Remote clock offset: 0.257 ms

# Below is generated by plot.py at 2019-01-04 00:19:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1084.20 Mbit/s
95th percentile per-packet one-way delay: 117.838 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 576.59 Mbit/s
95th percentile per-packet one-way delay: 97.062 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 500.45 Mbit/s
95th percentile per-packet one-way delay: 114.771 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 524.45 Mbit/s
95th percentile per-packet one-way delay: 144.125 ms
Loss rate: 0.68%
Run 5: Report of TCP Cubic — Data Link

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**Graph 1:**
- **Flow 1 ingress (mean 576.97 Mbit/s)**
- **Flow 1 egress (mean 576.59 Mbit/s)**
- **Flow 2 ingress (mean 501.20 Mbit/s)**
- **Flow 2 egress (mean 500.45 Mbit/s)**
- **Flow 3 ingress (mean 527.52 Mbit/s)**
- **Flow 3 egress (mean 524.45 Mbit/s)**

**Graph 2:**
- **Flow 1 (95th percentile 97.06 ms)**
- **Flow 2 (95th percentile 114.77 ms)**
- **Flow 3 (95th percentile 144.12 ms)**

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Run 1: Statistics of FillP

Start at: 2019-01-03 20:56:54
End at: 2019-01-03 20:57:24
Local clock offset: -0.091 ms
Remote clock offset: -0.153 ms

# Below is generated by plot.py at 2019-01-04 00:19:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 899.28 Mbit/s
95th percentile per-packet one-way delay: 97.364 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 557.69 Mbit/s
95th percentile per-packet one-way delay: 104.318 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 395.02 Mbit/s
95th percentile per-packet one-way delay: 61.699 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 233.66 Mbit/s
95th percentile per-packet one-way delay: 61.626 ms
Loss rate: 0.00%
Run 1: Report of FillP — Data Link

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

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

Start at: 2019-01-03 21:30:12
End at: 2019-01-03 21:30:42
Local clock offset: -0.31 ms
Remote clock offset: -0.157 ms

# Below is generated by plot.py at 2019-01-04 00:38:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 913.32 Mbit/s
95th percentile per-packet one-way delay: 65.116 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 583.71 Mbit/s
95th percentile per-packet one-way delay: 68.657 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 348.74 Mbit/s
95th percentile per-packet one-way delay: 61.592 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 295.65 Mbit/s
95th percentile per-packet one-way delay: 64.238 ms
Loss rate: 0.02%
Run 2: Report of FillP — Data Link

Time (s)

Throughput (Mbit/s)

Flow 1 ingress (mean 583.71 Mbit/s)  Flow 1 egress (mean 583.71 Mbit/s)
Flow 2 ingress (mean 348.82 Mbit/s)  Flow 2 egress (mean 348.74 Mbit/s)
Flow 3 ingress (mean 295.72 Mbit/s)  Flow 3 egress (mean 295.65 Mbit/s)

Time (s)

Per-packet one way delay (ms)

Flow 1 (95th percentile 68.66 ms)  Flow 2 (95th percentile 61.59 ms)  Flow 3 (95th percentile 64.24 ms)
Run 3: Statistics of FillP

Start at: 2019-01-03 22:03:53
End at: 2019-01-03 22:04:23
Local clock offset: -0.0 ms
Remote clock offset: 0.363 ms

# Below is generated by plot.py at 2019-01-04 00:40:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 938.64 Mbit/s
95th percentile per-packet one-way delay: 78.915 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 582.68 Mbit/s
95th percentile per-packet one-way delay: 92.006 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 411.04 Mbit/s
95th percentile per-packet one-way delay: 60.607 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 249.75 Mbit/s
95th percentile per-packet one-way delay: 60.729 ms
Loss rate: 0.12%
Run 3: Report of FillP — Data Link

![Graph of Throughput](image1)

- **Flow 1 ingress (mean 583.88 Mbit/s)**
- **Flow 1 egress (mean 582.68 Mbit/s)**
- **Flow 2 ingress (mean 411.03 Mbit/s)**
- **Flow 2 egress (mean 411.04 Mbit/s)**
- **Flow 3 ingress (mean 250.09 Mbit/s)**
- **Flow 3 egress (mean 249.75 Mbit/s)**

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

- **Flow 1 (95th percentile 92.01 ms)**
- **Flow 2 (95th percentile 60.61 ms)**
- **Flow 3 (95th percentile 60.73 ms)**
Run 4: Statistics of FillP

Start at: 2019-01-03 22:37:34
End at: 2019-01-03 22:38:04
Local clock offset: -0.272 ms
Remote clock offset: -0.142 ms

# Below is generated by plot.py at 2019-01-04 00:41:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 936.38 Mbit/s
95th percentile per-packet one-way delay: 92.927 ms
Loss rate: 0.06%

-- Flow 1:
Average throughput: 583.61 Mbit/s
95th percentile per-packet one-way delay: 98.580 ms
Loss rate: 0.10%

-- Flow 2:
Average throughput: 398.31 Mbit/s
95th percentile per-packet one-way delay: 60.002 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 266.37 Mbit/s
95th percentile per-packet one-way delay: 63.124 ms
Loss rate: 0.00%
Run 4: Report of FillP — Data Link

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

- Flow 1 ingress (mean 584.29 Mbits/s)
- Flow 1 egress (mean 583.61 Mbits/s)
- Flow 2 ingress (mean 398.39 Mbits/s)
- Flow 2 egress (mean 398.33 Mbits/s)
- Flow 3 ingress (mean 266.50 Mbits/s)
- Flow 3 egress (mean 266.37 Mbits/s)

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

- Flow 1 (95th percentile 98.58 ms)
- Flow 2 (95th percentile 60.00 ms)
- Flow 3 (95th percentile 63.12 ms)
Run 5: Statistics of FillP

Start at: 2019-01-03 23:11:09
End at: 2019-01-03 23:11:39
Local clock offset: -0.098 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2019-01-04 00:42:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 930.12 Mbit/s
95th percentile per-packet one-way delay: 76.393 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 611.42 Mbit/s
95th percentile per-packet one-way delay: 80.252 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 345.35 Mbit/s
95th percentile per-packet one-way delay: 60.107 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 272.34 Mbit/s
95th percentile per-packet one-way delay: 61.958 ms
Loss rate: 0.00%
Run 5: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 609.76 Mbps)
- Flow 1 Egress (mean 611.42 Mbps)
- Flow 2 Ingress (mean 345.36 Mbps)
- Flow 2 Egress (mean 345.35 Mbps)
- Flow 3 Ingress (mean 272.34 Mbps)
- Flow 3 Egress (mean 272.34 Mbps)

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

- Flow 1 (95th percentile 60.25 ms)
- Flow 2 (95th percentile 60.11 ms)
- Flow 3 (95th percentile 61.96 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2019-01-03 20:51:04
End at: 2019-01-03 20:51:34
Local clock offset: -0.042 ms
Remote clock offset: -0.174 ms

# Below is generated by plot.py at 2019-01-04 00:42:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 862.41 Mbit/s
95th percentile per-packet one-way delay: 76.355 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 548.24 Mbit/s
95th percentile per-packet one-way delay: 78.702 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 345.62 Mbit/s
95th percentile per-packet one-way delay: 60.721 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 251.24 Mbit/s
95th percentile per-packet one-way delay: 59.925 ms
Loss rate: 0.00%
Run 1: Report of FillP-Sheep — Data Link
Run 2: Statistics of FillP-Sheep

Start at: 2019-01-03 21:24:27
End at: 2019-01-03 21:24:57
Local clock offset: -0.045 ms
Remote clock offset: 0.213 ms

# Below is generated by plot.py at 2019-01-04 00:42:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 866.68 Mbit/s
  95th percentile per-packet one-way delay: 66.243 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 563.28 Mbit/s
  95th percentile per-packet one-way delay: 79.034 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 331.75 Mbit/s
  95th percentile per-packet one-way delay: 63.070 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 249.81 Mbit/s
  95th percentile per-packet one-way delay: 61.547 ms
  Loss rate: 0.00%
Run 2: Report of FillP-Sheep — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 Ingress (mean 563.53 Mb/s)  Flow 1 Egress (mean 563.28 Mb/s)
Flow 2 Ingress (mean 333.38 Mb/s)  Flow 2 Egress (mean 333.75 Mb/s)
Flow 3 Ingress (mean 249.92 Mb/s)  Flow 3 Egress (mean 249.81 Mb/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 79.03 ms)  Flow 2 (95th percentile 63.07 ms)  Flow 1 (95th percentile 61.55 ms)
Run 3: Statistics of FillP-Sheep

Start at: 2019-01-03 21:58:00
End at: 2019-01-03 21:58:30
Local clock offset: -0.048 ms
Remote clock offset: -0.26 ms

# Below is generated by plot.py at 2019-01-04 00:43:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 835.42 Mbit/s
95th percentile per-packet one-way delay: 71.680 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 541.98 Mbit/s
95th percentile per-packet one-way delay: 73.885 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 315.29 Mbit/s
95th percentile per-packet one-way delay: 59.279 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 252.74 Mbit/s
95th percentile per-packet one-way delay: 59.143 ms
Loss rate: 0.00%
Run 3: Report of FillP-Sheep — Data Link
Run 4: Statistics of FillP-Sheep

Start at: 2019-01-03 22:31:48
End at: 2019-01-03 22:32:18
Local clock offset: 0.386 ms
Remote clock offset: -0.257 ms

# Below is generated by plot.py at 2019-01-04 00:44:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 855.62 Mbit/s
95th percentile per-packet one-way delay: 66.240 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 555.34 Mbit/s
95th percentile per-packet one-way delay: 68.195 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 333.06 Mbit/s
95th percentile per-packet one-way delay: 60.861 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 238.12 Mbit/s
95th percentile per-packet one-way delay: 58.109 ms
Loss rate: 0.00%
Run 4: Report of FillP-Sheep — Data Link
Run 5: Statistics of FillP-Sheep

Start at: 2019-01-03 23:05:38
End at: 2019-01-03 23:06:08
Local clock offset: 0.126 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2019-01-04 01:02:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 831.99 Mbit/s
  95th percentile per-packet one-way delay: 67.181 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 548.06 Mbit/s
  95th percentile per-packet one-way delay: 69.083 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 305.90 Mbit/s
  95th percentile per-packet one-way delay: 61.322 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 241.34 Mbit/s
  95th percentile per-packet one-way delay: 60.206 ms
  Loss rate: 0.01%
Run 5: Report of FillP-Sheep — Data Link

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

- **Flow 1 Ingress (mean 548.09 Mbit/s)**
- **Flow 1 Egress (mean 548.06 Mbit/s)**
- **Flow 2 Ingress (mean 305.91 Mbit/s)**
- **Flow 2 Egress (mean 305.90 Mbit/s)**
- **Flow 3 Ingress (mean 241.39 Mbit/s)**
- **Flow 3 Egress (mean 241.34 Mbit/s)**

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

- **Flow 1 (95th percentile 69.08 ms)**
- **Flow 2 (95th percentile 61.32 ms)**
- **Flow 3 (95th percentile 60.21 ms)**

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Run 1: Statistics of Indigo

Start at: 2019-01-03 20:49:13
End at: 2019-01-03 20:49:43
Local clock offset: -0.185 ms
Remote clock offset: 0.081 ms

# Below is generated by plot.py at 2019-01-04 01:02:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 408.24 Mbit/s
95th percentile per-packet one-way delay: 60.841 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 213.41 Mbit/s
95th percentile per-packet one-way delay: 58.283 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 202.70 Mbit/s
95th percentile per-packet one-way delay: 58.947 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 187.33 Mbit/s
95th percentile per-packet one-way delay: 62.436 ms
Loss rate: 0.04%
Run 1: Report of Indigo — Data Link

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

- **Flow 1 ingress (mean 213.41 Mbit/s)**
- **Flow 1 egress (mean 213.41 Mbit/s)**
- **Flow 2 ingress (mean 203.32 Mbit/s)**
- **Flow 2 egress (mean 202.70 Mbit/s)**
- **Flow 3 ingress (mean 187.37 Mbit/s)**
- **Flow 3 egress (mean 187.33 Mbit/s)**
Run 2: Statistics of Indigo

End at: 2019-01-03 21:23:06
Local clock offset: 0.127 ms
Remote clock offset: -0.275 ms

# Below is generated by plot.py at 2019-01-04 01:02:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 403.26 Mbit/s
  95th percentile per-packet one-way delay: 61.783 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 214.50 Mbit/s
  95th percentile per-packet one-way delay: 62.449 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 196.79 Mbit/s
  95th percentile per-packet one-way delay: 59.680 ms
  Loss rate: 0.27%
-- Flow 3:
  Average throughput: 180.55 Mbit/s
  95th percentile per-packet one-way delay: 58.991 ms
  Loss rate: 0.32%
Run 2: Report of Indigo — Data Link

Graph 1: Throughput (Mbps) vs. Time (s)
- Blue dashed line: Flow 1 ingress (mean 214.50 Mbps)
- Blue solid line: Flow 1 egress (mean 214.50 Mbps)
- Green dashed line: Flow 2 ingress (mean 197.49 Mbps)
- Green solid line: Flow 2 egress (mean 196.79 Mbps)
- Red dashed line: Flow 3 ingress (mean 180.67 Mbps)
- Red solid line: Flow 3 egress (mean 180.55 Mbps)

Graph 2: Per-packet one-way delay (ms) vs. Time (s)
- Blue dots: Flow 1 (95th percentile 62.45 ms)
- Green dots: Flow 2 (95th percentile 59.68 ms)
- Red dots: Flow 3 (95th percentile 58.99 ms)
Run 3: Statistics of Indigo

Start at: 2019-01-03 21:56:14
End at: 2019-01-03 21:56:44
Local clock offset: -0.144 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2019-01-04 01:02:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 362.04 Mbit/s
95th percentile per-packet one-way delay: 60.402 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.47 Mbit/s
95th percentile per-packet one-way delay: 57.816 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 170.19 Mbit/s
95th percentile per-packet one-way delay: 57.999 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 171.40 Mbit/s
95th percentile per-packet one-way delay: 61.128 ms
Loss rate: 0.02%
Run 3: Report of Indigo — Data Link

**Throughput (Mbit/s)**

- **Flow 1 ingress** (mean 193.47 Mbit/s)
- **Flow 1 egress** (mean 193.47 Mbit/s)
- **Flow 2 ingress** (mean 170.19 Mbit/s)
- **Flow 2 egress** (mean 170.19 Mbit/s)
- **Flow 3 ingress** (mean 171.40 Mbit/s)
- **Flow 3 egress** (mean 171.40 Mbit/s)

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

- **Flow 1** (95th percentile 57.82 ms)
- **Flow 2** (95th percentile 58.00 ms)
- **Flow 3** (95th percentile 61.13 ms)
Run 4: Statistics of Indigo

Start at: 2019-01-03 22:30:04
End at: 2019-01-03 22:30:34
Local clock offset: 0.116 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2019-01-04 01:02:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 332.75 Mbit/s
95th percentile per-packet one-way delay: 61.080 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 135.13 Mbit/s
95th percentile per-packet one-way delay: 57.691 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 209.72 Mbit/s
95th percentile per-packet one-way delay: 61.807 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 180.47 Mbit/s
95th percentile per-packet one-way delay: 59.132 ms
Loss rate: 0.00%
Run 4: Report of Indigo — Data Link
Run 5: Statistics of Indigo

Start at: 2019-01-03 23:03:47
End at: 2019-01-03 23:04:17
Local clock offset: -0.112 ms
Remote clock offset: -0.205 ms

# Below is generated by plot.py at 2019-01-04 01:02:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.64 Mbit/s
95th percentile per-packet one-way delay: 58.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 215.60 Mbit/s
95th percentile per-packet one-way delay: 58.365 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 193.35 Mbit/s
95th percentile per-packet one-way delay: 58.309 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 165.00 Mbit/s
95th percentile per-packet one-way delay: 58.648 ms
Loss rate: 0.00%
Run 5: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 215.60 Mbit/s)
- Flow 1 egress (mean 215.60 Mbit/s)
- Flow 2 ingress (mean 193.35 Mbit/s)
- Flow 2 egress (mean 193.35 Mbit/s)
- Flow 3 ingress (mean 165.00 Mbit/s)
- Flow 3 egress (mean 165.00 Mbit/s)
Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-03 20:35:42
End at: 2019-01-03 20:36:12
Local clock offset: -0.524 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2019-01-04 01:02:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 779.44 Mbit/s
95th percentile per-packet one-way delay: 92.159 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 380.80 Mbit/s
95th percentile per-packet one-way delay: 93.796 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 473.19 Mbit/s
95th percentile per-packet one-way delay: 94.661 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 260.88 Mbit/s
95th percentile per-packet one-way delay: 63.847 ms
Loss rate: 0.00%
Run 1: Report of Indigo-MusesD — Data Link

- Run 1: Report of Indigo-MusesD — Data Link

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**Throughput (Mb/s)**

- Flow 1 ingress (mean 380.81 Mb/s)
- Flow 1 egress (mean 380.80 Mb/s)
- Flow 2 ingress (mean 473.31 Mb/s)
- Flow 2 egress (mean 473.19 Mb/s)
- Flow 3 ingress (mean 260.88 Mb/s)
- Flow 3 egress (mean 260.88 Mb/s)

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**Per packet round trip delay (ms)**

- Flow 1 (95th percentile 93.80 ms)
- Flow 2 (95th percentile 94.66 ms)
- Flow 3 (95th percentile 63.85 ms)
Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-03 21:08:54
End at: 2019-01-03 21:09:24
Local clock offset: -0.094 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2019-01-04 01:07:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1058.70 Mbit/s
95th percentile per-packet one-way delay: 80.343 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 595.56 Mbit/s
95th percentile per-packet one-way delay: 81.655 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 502.28 Mbit/s
95th percentile per-packet one-way delay: 80.433 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 397.75 Mbit/s
95th percentile per-packet one-way delay: 67.599 ms
Loss rate: 0.00%
Run 2: Report of Indigo-MusesD — Data Link

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**Throughput (Mb/s)**

- **Flow 1 ingress** (mean 595.56 Mb/s)
- **Flow 1 egress** (mean 595.56 Mb/s)
- **Flow 2 ingress** (mean 502.28 Mb/s)
- **Flow 2 egress** (mean 502.28 Mb/s)
- **Flow 3 ingress** (mean 397.75 Mb/s)
- **Flow 3 egress** (mean 397.75 Mb/s)

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

- **Flow 1** (95th percentile 81.66 ms)
- **Flow 2** (95th percentile 80.43 ms)
- **Flow 3** (95th percentile 67.60 ms)

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Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-03 21:42:27
End at: 2019-01-03 21:42:57
Local clock offset: -0.115 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2019-01-04 01:21:05
# Datalink statistics
-- Total of 3 flows:
95th percentile per-packet one-way delay: 83.324 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 586.30 Mbit/s
95th percentile per-packet one-way delay: 87.602 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 541.46 Mbit/s
95th percentile per-packet one-way delay: 77.075 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 417.66 Mbit/s
95th percentile per-packet one-way delay: 81.240 ms
Loss rate: 0.02%
Run 3: Report of Indigo-MusesD — Data Link
Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-03 22:16:12
End at: 2019-01-03 22:16:42
Local clock offset: -0.443 ms
Remote clock offset: 0.084 ms

# Below is generated by plot.py at 2019-01-04 01:22:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1075.45 Mbit/s
  95th percentile per-packet one-way delay: 85.036 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 601.97 Mbit/s
  95th percentile per-packet one-way delay: 86.930 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 511.53 Mbit/s
  95th percentile per-packet one-way delay: 81.343 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 407.90 Mbit/s
  95th percentile per-packet one-way delay: 85.818 ms
  Loss rate: 0.18%
Run 4: Report of Indigo-MusesD — Data Link
Run 5: Statistics of Indigo-MusesD

End at: 2019-01-03 22:50:27
Local clock offset: 0.168 ms
Remote clock offset: ~0.09 ms

# Below is generated by plot.py at 2019-01-04 01:23:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1045.56 Mbit/s
95th percentile per-packet one-way delay: 87.532 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 576.95 Mbit/s
95th percentile per-packet one-way delay: 89.271 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 483.34 Mbit/s
95th percentile per-packet one-way delay: 88.980 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 451.10 Mbit/s
95th percentile per-packet one-way delay: 74.335 ms
Loss rate: 0.02%
Run 5: Report of Indigo-MusesD — Data Link
Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-03 20:52:51
End at: 2019-01-03 20:53:21
Local clock offset: -0.359 ms
Remote clock offset: -0.155 ms

# Below is generated by plot.py at 2019-01-04 01:24:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1110.39 Mbit/s
95th percentile per-packet one-way delay: 151.000 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 608.62 Mbit/s
95th percentile per-packet one-way delay: 152.506 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 517.39 Mbit/s
95th percentile per-packet one-way delay: 128.467 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 564.89 Mbit/s
95th percentile per-packet one-way delay: 170.623 ms
Loss rate: 1.08%
Run 1: Report of Indigo-MusesT — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 609.66 Mbps)
Flow 1 egress (mean 608.62 Mbps)
Flow 2 ingress (mean 517.69 Mbps)
Flow 2 egress (mean 517.39 Mbps)
Flow 3 ingress (mean 570.73 Mbps)
Flow 3 egress (mean 564.89 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 152.51 ms)
Flow 2 (95th percentile 128.47 ms)
Flow 3 (95th percentile 170.62 ms)
Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-03 21:26:15
End at: 2019-01-03 21:26:45
Local clock offset: -0.449 ms
Remote clock offset: -0.248 ms

# Below is generated by plot.py at 2019-01-04 01:25:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1086.66 Mbit/s
  95th percentile per-packet one-way delay: 146.788 ms
  Loss rate: 0.21%
-- Flow 1:
  Average throughput: 631.70 Mbit/s
  95th percentile per-packet one-way delay: 143.543 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 612.59 Mbit/s
  95th percentile per-packet one-way delay: 157.087 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 192.89 Mbit/s
  95th percentile per-packet one-way delay: 78.942 ms
  Loss rate: 0.00%
Run 2: Report of Indigo-MusesT — Data Link

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

Flow 1 ingress (mean 633.93 Mbps)  
Flow 1 egress (mean 631.70 Mbps)  
Flow 2 ingress (mean 612.65 Mbps)  
Flow 2 egress (mean 612.59 Mbps)  
Flow 3 ingress (mean 192.90 Mbps)  
Flow 3 egress (mean 192.89 Mbps)

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

Flow 1 (95th percentile 143.54 ms)  
Flow 2 (95th percentile 157.09 ms)  
Flow 3 (95th percentile 78.94 ms)

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Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-03 21:59:47
End at: 2019-01-03 22:00:17
Local clock offset: -0.056 ms
Remote clock offset: -0.306 ms

# Below is generated by plot.py at 2019-01-04 01:26:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1097.99 Mbit/s
95th percentile per-packet one-way delay: 152.324 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 637.92 Mbit/s
95th percentile per-packet one-way delay: 148.314 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 608.49 Mbit/s
95th percentile per-packet one-way delay: 158.998 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 217.97 Mbit/s
95th percentile per-packet one-way delay: 71.522 ms
Loss rate: 0.00%
Run 3: Report of Indigo-MusesT — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 639.66 Mbps)  
Flow 1 egress (mean 637.92 Mbps)

Flow 2 ingress (mean 609.05 Mbps)  
Flow 2 egress (mean 608.49 Mbps)

Flow 3 ingress (mean 217.97 Mbps)  
Flow 3 egress (mean 217.97 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 148.31 ms)  
Flow 2 (95th percentile 159.00 ms)  
Flow 3 (95th percentile 71.52 ms)
Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-03 22:33:36
End at: 2019-01-03 22:34:06
Local clock offset: 0.166 ms
Remote clock offset: -0.399 ms

# Below is generated by plot.py at 2019-01-04 01:26:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 971.57 Mbit/s
  95th percentile per-packet one-way delay: 141.888 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 688.89 Mbit/s
  95th percentile per-packet one-way delay: 144.663 ms
  Loss rate: 0.15%
-- Flow 2:
  Average throughput: 288.17 Mbit/s
  95th percentile per-packet one-way delay: 75.535 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 332.82 Mbit/s
  95th percentile per-packet one-way delay: 86.263 ms
  Loss rate: 0.00%
Run 4: Report of Indigo-MusesT — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 689.86 Mbit/s)
Flow 1 egress (mean 688.89 Mbit/s)
Flow 2 ingress (mean 288.17 Mbit/s)
Flow 2 egress (mean 288.17 Mbit/s)
Flow 3 ingress (mean 332.80 Mbit/s)
Flow 3 egress (mean 332.62 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 144.66 ms)
Flow 2 (95th percentile 75.53 ms)
Flow 3 (95th percentile 86.26 ms)
Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-03 23:07:25
End at: 2019-01-03 23:07:55
Local clock offset: 0.097 ms
Remote clock offset: 0.086 ms

# Below is generated by plot.py at 2019-01-04 01:29:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 872.28 Mbit/s
95th percentile per-packet one-way delay: 137.099 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 396.77 Mbit/s
95th percentile per-packet one-way delay: 94.637 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 624.13 Mbit/s
95th percentile per-packet one-way delay: 142.027 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 259.99 Mbit/s
95th percentile per-packet one-way delay: 77.941 ms
Loss rate: 0.00%
Run 5: Report of Indigo-MusesT — Data Link

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

- Flow 1 (95th percentile 94.64 ms)
- Flow 2 (95th percentile 142.03 ms)
- Flow 3 (95th percentile 77.94 ms)
Run 1: Statistics of LEDBAT

Start at: 2019-01-03 20:40:27
End at: 2019-01-03 20:40:57
Local clock offset: 0.113 ms
Remote clock offset: -0.259 ms

# Below is generated by plot.py at 2019-01-04 01:29:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.23 Mbit/s
95th percentile per-packet one-way delay: 57.471 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.53 Mbit/s
95th percentile per-packet one-way delay: 57.520 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.01 Mbit/s
95th percentile per-packet one-way delay: 57.427 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 57.176 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

- Flow 1 ingress (mean 28.53 Mb/s)
- Flow 1 egress (mean 28.53 Mb/s)
- Flow 2 ingress (mean 19.01 Mb/s)
- Flow 2 egress (mean 19.01 Mb/s)
- Flow 3 ingress (mean 9.39 Mb/s)
- Flow 3 egress (mean 9.39 Mb/s)
Run 2: Statistics of LEDBAT

Start at: 2019-01-03 21:13:51
End at: 2019-01-03 21:14:21
Local clock offset: -0.132 ms
Remote clock offset: -0.424 ms

# Below is generated by plot.py at 2019-01-04 01:29:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.70 Mbit/s
95th percentile per-packet one-way delay: 59.970 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.17 Mbit/s
95th percentile per-packet one-way delay: 58.278 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.96 Mbit/s
95th percentile per-packet one-way delay: 57.994 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.93 Mbit/s
95th percentile per-packet one-way delay: 60.593 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link

---

**Graph 1:**
- Throughput vs. Time (s)
- Axes:
  - Y-axis: Throughput (Mbps)
  - X-axis: Time (s)
- Legend:
  - Flow 1 ingress (mean 28.17 Mbps)
  - Flow 1 egress (mean 28.17 Mbps)
  - Flow 2 ingress (mean 18.96 Mbps)
  - Flow 2 egress (mean 18.96 Mbps)
  - Flow 3 ingress (mean 8.93 Mbps)
  - Flow 3 egress (mean 8.93 Mbps)

**Graph 2:**
- Per-packet one-way delay vs. Time (s)
- Axes:
  - Y-axis: Per-packet one-way delay (ms)
  - X-axis: Time (s)
- Legend:
  - Flow 1 (95th percentile 58.28 ms)
  - Flow 2 (95th percentile 57.99 ms)
  - Flow 3 (95th percentile 61.59 ms)
Run 3: Statistics of LEDBAT

Start at: 2019-01-03 21:47:26  
End at: 2019-01-03 21:47:56  
Local clock offset: -0.019 ms  
Remote clock offset: -0.215 ms

# Below is generated by plot.py at 2019-01-04 01:29:55  
# Datalink statistics
-- Total of 3 flows:  
Average throughput: 42.87 Mbit/s  
95th percentile per-packet one-way delay: 61.161 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 27.07 Mbit/s  
95th percentile per-packet one-way delay: 61.678 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 18.98 Mbit/s  
95th percentile per-packet one-way delay: 57.434 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 9.54 Mbit/s  
95th percentile per-packet one-way delay: 57.703 ms  
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 27.07 Mbps)
- Flow 1 egress (mean 27.07 Mbps)
- Flow 2 ingress (mean 18.98 Mbps)
- Flow 2 egress (mean 18.98 Mbps)
- Flow 3 ingress (mean 9.54 Mbps)
- Flow 3 egress (mean 9.54 Mbps)

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

- Flow 1 (95th percentile 61.68 ms)
- Flow 2 (95th percentile 57.43 ms)
- Flow 3 (95th percentile 57.70 ms)
Run 4: Statistics of LEDBAT

End at: 2019-01-03 22:21:43
Local clock offset: -0.287 ms
Remote clock offset: 0.122 ms

# Below is generated by plot.py at 2019-01-04 01:29:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.38 Mbit/s
95th percentile per-packet one-way delay: 61.503 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.41 Mbit/s
95th percentile per-packet one-way delay: 58.863 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.90 Mbit/s
95th percentile per-packet one-way delay: 61.805 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 58.203 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

[Graph showing throughput over time with legends for Flow 1 ingress, Flow 1 egress, Flow 2 ingress, Flow 2 egress, Flow 3 ingress, and Flow 3 egress]

[Another graph showing per-packet round-trip delay over time with legends for Flow 1 (95th percentile 58.86 ms), Flow 2 (95th percentile 61.88 ms), and Flow 3 (95th percentile 58.20 ms)]
Run 5: Statistics of LEDBAT

Start at: 2019-01-03 22:54:54
Local clock offset: -0.507 ms
Remote clock offset: 0.08 ms

# Below is generated by plot.py at 2019-01-04 01:29:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 44.06 Mbit/s
  95th percentile per-packet one-way delay: 59.255 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 28.37 Mbit/s
  95th percentile per-packet one-way delay: 59.274 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 18.93 Mbit/s
  95th percentile per-packet one-way delay: 59.304 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 9.37 Mbit/s
  95th percentile per-packet one-way delay: 58.274 ms
  Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link
Run 1: Statistics of PCC-Allegro

Start at: 2019-01-03 20:25:21
End at: 2019-01-03 20:25:51
Local clock offset: -0.381 ms
Remote clock offset: 0.202 ms

# Below is generated by plot.py at 2019-01-04 01:58:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 756.46 Mbit/s
95th percentile per-packet one-way delay: 179.898 ms
Loss rate: 2.65%
-- Flow 1:
Average throughput: 456.31 Mbit/s
95th percentile per-packet one-way delay: 176.908 ms
Loss rate: 3.25%
-- Flow 2:
Average throughput: 326.48 Mbit/s
95th percentile per-packet one-way delay: 207.553 ms
Loss rate: 2.35%
-- Flow 3:
Average throughput: 251.97 Mbit/s
95th percentile per-packet one-way delay: 137.765 ms
Loss rate: 0.00%
Run 1: Report of PCC-Allegro — Data Link

![Graph of Throughput and Latency](image)

**Throughput (Mbit/s)**

- Flow 1 ingress (mean 471.64 Mbit/s)
- Flow 1 egress (mean 456.31 Mbit/s)
- Flow 2 ingress (mean 334.30 Mbit/s)
- Flow 2 egress (mean 326.48 Mbit/s)
- Flow 3 ingress (mean 251.97 Mbit/s)
- Flow 3 egress (mean 251.97 Mbit/s)

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

- Flow 1 (95th percentile 176.91 ms)
- Flow 2 (95th percentile 207.55 ms)
- Flow 3 (95th percentile 137.76 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2019-01-03 20:58:43
End at: 2019-01-03 20:59:13
Local clock offset: 0.28 ms
Remote clock offset: 0.263 ms

# Below is generated by plot.py at 2019-01-04 02:00:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 782.68 Mbit/s
95th percentile per-packet one-way delay: 198.801 ms
Loss rate: 6.89%
-- Flow 1:
Average throughput: 423.37 Mbit/s
95th percentile per-packet one-way delay: 184.322 ms
Loss rate: 5.34%
-- Flow 2:
Average throughput: 414.92 Mbit/s
95th percentile per-packet one-way delay: 230.248 ms
Loss rate: 10.79%
-- Flow 3:
Average throughput: 254.59 Mbit/s
95th percentile per-packet one-way delay: 148.039 ms
Loss rate: 0.81%
Run 2: Report of PCC-Allegro — Data Link

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

Legend:
- Flow 1 ingress (mean 447.30 Mbit/s)
- Flow 1 egress (mean 423.37 Mbit/s)
- Flow 2 ingress (mean 485.04 Mbit/s)
- Flow 2 egress (mean 414.92 Mbit/s)
- Flow 3 ingress (mean 256.66 Mbit/s)
- Flow 3 egress (mean 254.59 Mbit/s)
Run 3: Statistics of PCC-Allegro

Start at: 2019-01-03 21:32:03
End at: 2019-01-03 21:32:33
Local clock offset: 0.178 ms
Remote clock offset: 0.09 ms

# Below is generated by plot.py at 2019-01-04 02:00:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 753.13 Mbit/s
95th percentile per-packet one-way delay: 173.072 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 436.89 Mbit/s
95th percentile per-packet one-way delay: 176.546 ms
Loss rate: 2.57%
-- Flow 2:
Average throughput: 333.86 Mbit/s
95th percentile per-packet one-way delay: 68.493 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 286.98 Mbit/s
95th percentile per-packet one-way delay: 69.774 ms
Loss rate: 0.03%
Run 3: Report of PCC-Allegro — Data Link
Run 4: Statistics of PCC-Allegro

Start at: 2019-01-03 22:05:45  
End at: 2019-01-03 22:06:15  
Local clock offset: -0.052 ms  
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2019-01-04 02:00:25  
# Datalink statistics
-- Total of 3 flows:  
Average throughput: 717.63 Mbit/s  
95th percentile per-packet one-way delay: 158.811 ms  
Loss rate: 0.41%  
-- Flow 1:  
Average throughput: 403.55 Mbit/s  
95th percentile per-packet one-way delay: 166.225 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 350.57 Mbit/s  
95th percentile per-packet one-way delay: 105.284 ms  
Loss rate: 0.06%  
-- Flow 3:  
Average throughput: 245.88 Mbit/s  
95th percentile per-packet one-way delay: 169.756 ms  
Loss rate: 1.71%
Run 4: Report of PCC-Allegro — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 404.90 Mbit/s)  
Flow 1 egress (mean 403.55 Mbit/s)  
Flow 2 ingress (mean 350.79 Mbit/s)  
Flow 2 egress (mean 350.57 Mbit/s)  
Flow 3 ingress (mean 250.13 Mbit/s)  
Flow 3 egress (mean 245.08 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 166.22 ms)  
Flow 2 (95th percentile 105.28 ms)  
Flow 3 (95th percentile 169.76 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2019-01-03 22:39:26
End at: 2019-01-03 22:39:56
Local clock offset: -0.265 ms
Remote clock offset: -0.189 ms

# Below is generated by plot.py at 2019-01-04 02:00:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 744.75 Mbit/s
95th percentile per-packet one-way delay: 163.496 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 438.56 Mbit/s
95th percentile per-packet one-way delay: 178.240 ms
Loss rate: 1.99%
-- Flow 2:
Average throughput: 323.14 Mbit/s
95th percentile per-packet one-way delay: 107.226 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 277.31 Mbit/s
95th percentile per-packet one-way delay: 137.003 ms
Loss rate: 1.02%
Run 5: Report of PCC-Allegro — Data Link
Run 1: Statistics of PCC-Expr

Start at: 2019-01-03 20:41:44
End at: 2019-01-03 20:42:14
Local clock offset: -0.175 ms
Remote clock offset: -0.269 ms

# Below is generated by plot.py at 2019-01-04 02:00:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 540.61 Mbit/s
  95th percentile per-packet one-way delay: 138.334 ms
  Loss rate: 0.22%
-- Flow 1:
  Average throughput: 319.37 Mbit/s
  95th percentile per-packet one-way delay: 141.657 ms
  Loss rate: 0.31%
-- Flow 2:
  Average throughput: 242.52 Mbit/s
  95th percentile per-packet one-way delay: 135.077 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 179.97 Mbit/s
  95th percentile per-packet one-way delay: 69.415 ms
  Loss rate: 0.32%
Run 1: Report of PCC-Expr — Data Link

![Graph of throughput and flow delays]

- Flow 1 ingress (mean 320.37 Mbit/s)
- Flow 1 egress (mean 319.37 Mbit/s)
- Flow 2 ingress (mean 242.52 Mbit/s)
- Flow 2 egress (mean 242.52 Mbit/s)
- Flow 3 ingress (mean 180.55 Mbit/s)
- Flow 3 egress (mean 179.97 Mbit/s)

![Graph of packet delay]

- Flow 1 (95th percentile 141.66 ms)
- Flow 2 (95th percentile 135.08 ms)
- Flow 3 (95th percentile 69.42 ms)
Run 2: Statistics of PCC-Expr

Start at: 2019-01-03 21:15:08
End at: 2019-01-03 21:15:38
Local clock offset: -0.146 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2019-01-04 02:00:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 549.56 Mbit/s
  95th percentile per-packet one-way delay: 167.835 ms
  Loss rate: 1.61%
-- Flow 1:
  Average throughput: 317.60 Mbit/s
  95th percentile per-packet one-way delay: 147.777 ms
  Loss rate: 0.57%
-- Flow 2:
  Average throughput: 249.83 Mbit/s
  95th percentile per-packet one-way delay: 183.569 ms
  Loss rate: 4.13%
-- Flow 3:
  Average throughput: 199.93 Mbit/s
  95th percentile per-packet one-way delay: 88.950 ms
  Loss rate: 0.00%
Run 2: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 319.42 Mbit/s)
- Flow 1 egress (mean 317.60 Mbit/s)
- Flow 2 ingress (mean 260.60 Mbit/s)
- Flow 2 egress (mean 249.83 Mbit/s)
- Flow 3 ingress (mean 199.92 Mbit/s)
- Flow 3 egress (mean 199.93 Mbit/s)

Per-packet one-way delay (ms) vs. Time (s)

- Flow 1 (95th percentile 147.78 ms)
- Flow 2 (95th percentile 183.57 ms)
- Flow 3 (95th percentile 88.95 ms)
Run 3: Statistics of PCC-Expr

End at: 2019-01-03 21:49:13
Local clock offset: 0.106 ms
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2019-01-04 02:00:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 538.85 Mbit/s
95th percentile per-packet one-way delay: 148.244 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 300.49 Mbit/s
95th percentile per-packet one-way delay: 123.157 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 236.07 Mbit/s
95th percentile per-packet one-way delay: 149.051 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 247.34 Mbit/s
95th percentile per-packet one-way delay: 181.339 ms
Loss rate: 2.11%
Run 4: Statistics of PCC-Expr

End at: 2019-01-03 22:23:01
Local clock offset: 0.337 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-01-04 02:11:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 540.82 Mbit/s
95th percentile per-packet one-way delay: 138.115 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 306.52 Mbit/s
95th percentile per-packet one-way delay: 146.342 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 253.83 Mbit/s
95th percentile per-packet one-way delay: 125.770 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 203.39 Mbit/s
95th percentile per-packet one-way delay: 99.721 ms
Loss rate: 0.01%
Run 4: Report of PCC-Expr — Data Link

![Graph: Throughput vs Time](image1)

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

- Flow 1 ingress (mean 308.35 Mbit/s)
- Flow 1 egress (mean 306.52 Mbit/s)
- Flow 2 ingress (mean 254.16 Mbit/s)
- Flow 2 egress (mean 253.83 Mbit/s)
- Flow 3 ingress (mean 199.37 Mbit/s)
- Flow 3 egress (mean 203.39 Mbit/s)

*Flow 1 (95th percentile 146.34 ms)
Flow 2 (95th percentile 125.77 ms)
Flow 3 (95th percentile 99.72 ms)*
Run 5: Statistics of PCC-Expr

Start at: 2019-01-03 22:56:11
End at: 2019-01-03 22:56:41
Local clock offset: 0.312 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 546.18 Mbit/s
95th percentile per-packet one-way delay: 165.587 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 250.90 Mbit/s
95th percentile per-packet one-way delay: 172.668 ms
Loss rate: 2.68%
-- Flow 2:
Average throughput: 302.50 Mbit/s
95th percentile per-packet one-way delay: 113.472 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 288.25 Mbit/s
95th percentile per-packet one-way delay: 165.870 ms
Loss rate: 1.88%
Run 1: Statistics of QUIC Cubic

Start at: 2019-01-03 20:43:46
End at: 2019-01-03 20:44:16
Local clock offset: 0.275 ms
Remote clock offset: -0.252 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 62.38 Mbit/s
  95th percentile per-packet one-way delay: 59.940 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.01 Mbit/s
  95th percentile per-packet one-way delay: 56.582 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 62.03 Mbit/s
  95th percentile per-packet one-way delay: 59.768 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 65.24 Mbit/s
  95th percentile per-packet one-way delay: 59.981 ms
  Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link

![Graph showing throughput and per-packet round-trip time over time.]

- Flow 1 ingress (mean 0.01 Mbit/s)
- Flow 1 egress (mean 0.01 Mbit/s)
- Flow 2 ingress (mean 62.02 Mbit/s)
- Flow 2 egress (mean 62.03 Mbit/s)
- Flow 3 ingress (mean 65.24 Mbit/s)
- Flow 3 egress (mean 65.24 Mbit/s)
Run 2: Statistics of QUIC Cubic

Start at: 2019-01-03 21:17:12
End at: 2019-01-03 21:17:42
Local clock offset: 0.095 ms
Remote clock offset: -0.266 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 99.70 Mbit/s
  95th percentile per-packet one-way delay: 60.194 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 55.12 Mbit/s
  95th percentile per-packet one-way delay: 56.844 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 40.67 Mbit/s
  95th percentile per-packet one-way delay: 56.813 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 53.60 Mbit/s
  95th percentile per-packet one-way delay: 60.346 ms
  Loss rate: 0.03%
Run 2: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 55.12 Mbit/s)
- Flow 1 egress (mean 55.12 Mbit/s)
- Flow 2 ingress (mean 40.67 Mbit/s)
- Flow 2 egress (mean 40.67 Mbit/s)
- Flow 3 ingress (mean 53.60 Mbit/s)
- Flow 3 egress (mean 53.60 Mbit/s)

- Flow 1 (95th percentile 56.84 ms)
- Flow 2 (95th percentile 56.81 ms)
- Flow 3 (95th percentile 60.35 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2019-01-03 21:50:45
End at: 2019-01-03 21:51:15
Local clock offset: -0.297 ms
Remote clock offset: -0.204 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 91.02 Mbit/s
  95th percentile per-packet one-way delay: 57.551 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 54.66 Mbit/s
  95th percentile per-packet one-way delay: 57.566 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 40.26 Mbit/s
  95th percentile per-packet one-way delay: 57.146 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 29.34 Mbit/s
  95th percentile per-packet one-way delay: 57.557 ms
  Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link

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

- **Throughput (Mbit/s)**: Different lines represent different flows, with each line indicating the throughput over time.
- **Per-packet one-way delay (ms)**: Similar representation with different lines indicating different flows and their per-packet delays.

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Run 4: Statistics of QUIC Cubic

Start at: 2019-01-03 22:24:33
End at: 2019-01-03 22:25:03
Local clock offset: -0.27 ms
Remote clock offset: 0.177 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.78 Mbit/s
95th percentile per-packet one-way delay: 60.909 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 47.72 Mbit/s
95th percentile per-packet one-way delay: 60.951 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 40.04 Mbit/s
95th percentile per-packet one-way delay: 57.499 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.72 Mbit/s
95th percentile per-packet one-way delay: 57.718 ms
Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2019-01-03 22:58:14
End at: 2019-01-03 22:58:44
Local clock offset: -0.252 ms
Remote clock offset: -0.333 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.64 Mbit/s
95th percentile per-packet one-way delay: 57.184 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.36 Mbit/s
95th percentile per-packet one-way delay: 57.216 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.09 Mbit/s
95th percentile per-packet one-way delay: 56.924 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.32 Mbit/s
95th percentile per-packet one-way delay: 56.797 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2019-01-03 20:39:15
End at: 2019-01-03 20:39:45
Local clock offset: 0.261 ms
Remote clock offset: -0.251 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 59.852 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 56.594 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 59.849 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 59.886 ms
  Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Per-packet core size (delay ms)

Legend:
- 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)

Flow 1 (95th percentile 56.59 ms)
Flow 2 (95th percentile 59.85 ms)
Flow 3 (95th percentile 59.89 ms)
Run 2: Statistics of SCReAM

Start at: 2019-01-03 21:12:39
End at: 2019-01-03 21:13:09
Local clock offset: 0.355 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 56.836 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.818 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.853 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.838 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

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

Start at: 2019-01-03 21:46:14
End at: 2019-01-03 21:46:44
Local clock offset: -0.429 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 57.764 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 57.446 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 57.551 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 57.814 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

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

- 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 showing packet delay over time for different flows.](image)

- Flow 1 (95th percentile 57.45 ms)
- Flow 2 (95th percentile 57.53 ms)
- Flow 3 (95th percentile 57.81 ms)
Run 4: Statistics of SCReAM

Start at: 2019-01-03 22:20:02
End at: 2019-01-03 22:20:32
Local clock offset: -0.48 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 60.961 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.059 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.753 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.013 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2019-01-03 22:53:42
End at: 2019-01-03 22:54:12
Local clock offset: -0.158 ms
Remote clock offset: -0.291 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 57.232 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.255 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.862 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.842 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

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

Legend:
- 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)
Run 1: Statistics of Sprout

Start at: 2019-01-03 20:29:12
End at: 2019-01-03 20:29:42
Local clock offset: -0.128 ms
Remote clock offset: -0.18 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 15.14 Mbit/s
  95th percentile per-packet one-way delay: 60.306 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.92 Mbit/s
  95th percentile per-packet one-way delay: 57.611 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 7.76 Mbit/s
  95th percentile per-packet one-way delay: 57.479 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 6.14 Mbit/s
  95th percentile per-packet one-way delay: 60.593 ms
  Loss rate: 0.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2019-01-03 21:02:36
End at: 2019-01-03 21:03:06
Local clock offset: 0.17 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 15.49 Mbit/s
  95th percentile per-packet one-way delay: 57.348 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.85 Mbit/s
  95th percentile per-packet one-way delay: 57.352 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 7.79 Mbit/s
  95th percentile per-packet one-way delay: 57.375 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 7.46 Mbit/s
  95th percentile per-packet one-way delay: 57.291 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

![Graph showing throughput over time for different flows]

- Flow 1 ingress (mean 7.85 Mbit/s)
- Flow 1 egress (mean 7.85 Mbit/s)
- Flow 2 ingress (mean 7.79 Mbit/s)
- Flow 2 egress (mean 7.79 Mbit/s)
- Flow 3 ingress (mean 7.46 Mbit/s)
- Flow 3 egress (mean 7.46 Mbit/s)

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

- Flow 1 (95th percentile 57.35 ms)
- Flow 2 (95th percentile 57.38 ms)
- Flow 3 (95th percentile 57.29 ms)
Run 3: Statistics of Sprout

Start at: 2019-01-03 21:35:57
End at: 2019-01-03 21:36:27
Local clock offset: −0.046 ms
Remote clock offset: 0.112 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.54 Mbit/s
95th percentile per-packet one-way delay: 57.677 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 57.557 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.75 Mbit/s
95th percentile per-packet one-way delay: 57.556 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 57.838 ms
Loss rate: 0.00%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2019-01-03 22:09:40
End at: 2019-01-03 22:10:10
Local clock offset: -0.06 ms
Remote clock offset: -0.295 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.31 Mbit/s
95th percentile per-packet one-way delay: 60.175 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.86 Mbit/s
95th percentile per-packet one-way delay: 57.381 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.74 Mbit/s
95th percentile per-packet one-way delay: 57.368 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.89 Mbit/s
95th percentile per-packet one-way delay: 60.512 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

[Graph showing throughput over time]

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

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Run 5: Statistics of Sprout

End at: 2019-01-03 22:43:52
Local clock offset: 0.056 ms
Remote clock offset: -0.255 ms

# Below is generated by plot.py at 2019-01-04 02:12:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 15.48 Mbit/s
  95th percentile per-packet one-way delay: 57.467 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.84 Mbit/s
  95th percentile per-packet one-way delay: 57.391 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 7.80 Mbit/s
  95th percentile per-packet one-way delay: 57.561 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 7.46 Mbit/s
  95th percentile per-packet one-way delay: 57.142 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

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

![Graph 2: Per-packet end-to-end delay (ms)]
Run 1: Statistics of TaoVA-100x

Start at: 2019-01-03 20:30:26
End at: 2019-01-03 20:30:56
Local clock offset: -0.548 ms
Remote clock offset: 0.084 ms

# Below is generated by plot.py at 2019-01-04 02:21:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 472.58 Mbit/s
95th percentile per-packet one-way delay: 58.767 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 243.36 Mbit/s
95th percentile per-packet one-way delay: 58.869 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 233.76 Mbit/s
95th percentile per-packet one-way delay: 58.889 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 220.26 Mbit/s
95th percentile per-packet one-way delay: 58.194 ms
Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

The graphs show the throughput and per-packet one-way delay for three flows over time.}

**Throughput (Mbps):**

- **Flow 1 ingress (mean 243.35 Mbps)**
- **Flow 1 egress (mean 243.36 Mbps)**
- **Flow 2 ingress (mean 233.76 Mbps)**
- **Flow 2 egress (mean 233.76 Mbps)**
- **Flow 3 ingress (mean 220.25 Mbps)**
- **Flow 3 egress (mean 220.26 Mbps)**

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

- **Flow 1 (95th percentile 58.87 ms)**
- **Flow 2 (95th percentile 58.89 ms)**
- **Flow 3 (95th percentile 58.19 ms)**
Run 2: Statistics of TaoVA-100x

Start at: 2019-01-03 21:03:50
End at: 2019-01-03 21:04:20
Local clock offset: 0.06 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2019-01-04 02:21:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 461.90 Mbit/s
95th percentile per-packet one-way delay: 57.355 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.98 Mbit/s
95th percentile per-packet one-way delay: 57.210 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 227.54 Mbit/s
95th percentile per-packet one-way delay: 57.258 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 223.85 Mbit/s
95th percentile per-packet one-way delay: 57.904 ms
Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 235.98 Mbit/s)
- Flow 1 egress (mean 235.98 Mbit/s)
- Flow 2 ingress (mean 227.53 Mbit/s)
- Flow 2 egress (mean 227.54 Mbit/s)
- Flow 3 ingress (mean 223.84 Mbit/s)
- Flow 3 egress (mean 223.85 Mbit/s)

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

- Flow 1 (95th percentile 57.21 ms)
- Flow 2 (95th percentile 57.26 ms)
- Flow 3 (95th percentile 57.90 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2019-01-03 21:37:10
End at: 2019-01-03 21:37:40
Local clock offset: -0.239 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2019-01-04 02:21:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.04 Mbit/s
95th percentile per-packet one-way delay: 57.819 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 237.96 Mbit/s
95th percentile per-packet one-way delay: 57.637 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 236.41 Mbit/s
95th percentile per-packet one-way delay: 57.937 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 206.62 Mbit/s
95th percentile per-packet one-way delay: 58.538 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 237.95 Mbit/s)  Flow 1 egress (mean 237.96 Mbit/s)
Flow 2 ingress (mean 236.41 Mbit/s)  Flow 2 egress (mean 236.41 Mbit/s)
Flow 3 ingress (mean 206.60 Mbit/s)  Flow 3 egress (mean 206.62 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 57.64 ms)  Flow 2 (95th percentile 57.94 ms)  Flow 3 (95th percentile 58.54 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2019-01-03 22:10:54
End at: 2019-01-03 22:11:24
Local clock offset: 0.234 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2019-01-04 02:21:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 460.58 Mbit/s
  95th percentile per-packet one-way delay: 57.360 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 233.39 Mbit/s
  95th percentile per-packet one-way delay: 57.385 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 234.54 Mbit/s
  95th percentile per-packet one-way delay: 57.167 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 213.06 Mbit/s
  95th percentile per-packet one-way delay: 57.677 ms
  Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link

![Graph 1: Throughput](image1)

- **Flow 1 ingress (mean 233.39 Mbit/s)**
- **Flow 1 egress (mean 233.39 Mbit/s)**
- **Flow 2 ingress (mean 234.54 Mbit/s)**
- **Flow 2 egress (mean 234.54 Mbit/s)**
- **Flow 3 ingress (mean 213.05 Mbit/s)**
- **Flow 3 egress (mean 213.05 Mbit/s)**

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

- **Flow 1 (95th percentile 57.38 ms)**
- **Flow 2 (95th percentile 57.17 ms)**
- **Flow 3 (95th percentile 57.68 ms)**
Run 5: Statistics of TaoVA-100x

Start at: 2019-01-03 22:44:36
End at: 2019-01-03 22:45:06
Local clock offset: -0.345 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-01-04 02:21:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 464.93 Mbit/s
  95th percentile per-packet one-way delay: 57.952 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 235.64 Mbit/s
  95th percentile per-packet one-way delay: 58.003 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 236.58 Mbit/s
  95th percentile per-packet one-way delay: 57.536 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 215.79 Mbit/s
  95th percentile per-packet one-way delay: 58.185 ms
  Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link

![Graph 1: Throughput Over Time]

- **Flow 1 ingress** (mean 235.65 Mbit/s)
- **Flow 1 egress** (mean 235.64 Mbit/s)
- **Flow 2 ingress** (mean 236.58 Mbit/s)
- **Flow 2 egress** (mean 236.58 Mbit/s)
- **Flow 3 ingress** (mean 215.79 Mbit/s)
- **Flow 3 egress** (mean 215.79 Mbit/s)

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

- Flow 1 (95th percentile 58.00 ms)
- Flow 2 (95th percentile 57.54 ms)
- Flow 3 (95th percentile 58.19 ms)
Run 1: Statistics of TCP Vegas

Start at: 2019-01-03 20:54:58
End at: 2019-01-03 20:55:28
Local clock offset: -0.122 ms
Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2019-01-04 02:21:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 820.98 Mbit/s
95th percentile per-packet one-way delay: 66.568 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 424.75 Mbit/s
95th percentile per-packet one-way delay: 63.395 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 381.39 Mbit/s
95th percentile per-packet one-way delay: 66.974 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 428.25 Mbit/s
95th percentile per-packet one-way delay: 90.605 ms
Loss rate: 0.02%
Run 1: Report of TCP Vegas — Data Link

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

- **Throughput** (Mbps):
  - Flow 1 ingress (mean 424.77 Mbps)
  - Flow 2 ingress (mean 381.42 Mbps)
  - Flow 3 ingress (mean 428.33 Mbps)
  - Flow 1 egress (mean 424.75 Mbps)
  - Flow 2 egress (mean 381.39 Mbps)
  - Flow 3 egress (mean 428.25 Mbps)

- **Per-packet round-trip delay (ms):**
  - Flow 1 (95th percentile 63.40 ms)
  - Flow 2 (95th percentile 66.97 ms)
  - Flow 3 (95th percentile 90.61 ms)
Run 2: Statistics of TCP Vegas

End at: 2019-01-03 21:28:50
Local clock offset: -0.03 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2019-01-04 02:29:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 711.03 Mbit/s
95th percentile per-packet one-way delay: 63.582 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 245.27 Mbit/s
95th percentile per-packet one-way delay: 57.456 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 472.72 Mbit/s
95th percentile per-packet one-way delay: 61.364 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 454.77 Mbit/s
95th percentile per-packet one-way delay: 70.927 ms
Loss rate: 0.03%
Run 2: Report of TCP Vegas — Data Link

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

Flow 1 ingress (mean 245.27 Mbit/s), Flow 1 egress (mean 245.27 Mbit/s), Flow 2 ingress (mean 472.72 Mbit/s), Flow 2 egress (mean 472.72 Mbit/s), Flow 3 ingress (mean 454.78 Mbit/s), Flow 3 egress (mean 454.77 Mbit/s).

Flow 1 (95th percentile 57.46 ms), Flow 2 (95th percentile 61.36 ms), Flow 3 (95th percentile 70.93 ms).
Run 3: Statistics of TCP Vegas

Start at: 2019-01-03 22:01:54
End at: 2019-01-03 22:02:24
Local clock offset: 0.182 ms
Remote clock offset: -0.365 ms

# Below is generated by plot.py at 2019-01-04 02:36:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 915.91 Mbit/s
95th percentile per-packet one-way delay: 72.800 ms
Loss rate: 0.03%

-- Flow 1:
Average throughput: 460.21 Mbit/s
95th percentile per-packet one-way delay: 61.369 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 456.92 Mbit/s
95th percentile per-packet one-way delay: 72.501 ms
Loss rate: 0.02%

-- Flow 3:
Average throughput: 455.36 Mbit/s
95th percentile per-packet one-way delay: 88.276 ms
Loss rate: 0.11%
Run 3: Report of TCP Vegas — Data Link

Throughput (Mbps) vs Time (s)

- Flow 1 ingress (mean 460.21 Mbps)
- Flow 1 egress (mean 460.21 Mbps)
- Flow 2 ingress (mean 456.95 Mbps)
- Flow 2 egress (mean 456.92 Mbps)
- Flow 3 ingress (mean 455.90 Mbps)
- Flow 3 egress (mean 455.36 Mbps)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 61.37 ms)
- Flow 2 (95th percentile 72.50 ms)
- Flow 3 (95th percentile 88.28 ms)
Run 4: Statistics of TCP Vegas

Start at: 2019-01-03 22:35:35
End at: 2019-01-03 22:36:05
Local clock offset: -0.094 ms
Remote clock offset: -0.277 ms

# Below is generated by plot.py at 2019-01-04 02:41:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 886.47 Mbit/s
95th percentile per-packet one-way delay: 66.539 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 423.29 Mbit/s
95th percentile per-packet one-way delay: 61.785 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 477.42 Mbit/s
95th percentile per-packet one-way delay: 62.134 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 437.30 Mbit/s
95th percentile per-packet one-way delay: 82.367 ms
Loss rate: 1.29%
Run 4: Report of TCP Vegas — Data Link

![Graph showing throughput and packet loss over time]

- Flow 1 ingress (mean 423.31 Mbit/s)
- Flow 1 egress (mean 423.29 Mbit/s)
- Flow 2 ingress (mean 477.45 Mbit/s)
- Flow 2 egress (mean 477.42 Mbit/s)
- Flow 3 ingress (mean 444.23 Mbit/s)
- Flow 3 egress (mean 437.30 Mbit/s)

![Graph showing packet loss over time]

- Flow 1 (95th percentile 61.78 ms)
- Flow 2 (95th percentile 62.13 ms)
- Flow 3 (95th percentile 82.37 ms)
Run 5: Statistics of TCP Vegas

Start at: 2019-01-03 23:09:20
End at: 2019-01-03 23:09:50
Local clock offset: -0.034 ms
Remote clock offset: 0.069 ms

# Below is generated by plot.py at 2019-01-04 02:41:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 704.34 Mbit/s
95th percentile per-packet one-way delay: 65.342 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 343.75 Mbit/s
95th percentile per-packet one-way delay: 64.923 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 320.83 Mbit/s
95th percentile per-packet one-way delay: 68.015 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 442.47 Mbit/s
95th percentile per-packet one-way delay: 60.665 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link
Run 1: Statistics of Verus

Start at: 2019-01-03 20:37:34
End at: 2019-01-03 20:38:04
Local clock offset: 0.222 ms
Remote clock offset: -0.169 ms

# Below is generated by plot.py at 2019-01-04 02:41:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 280.04 Mbit/s
  95th percentile per-packet one-way delay: 179.320 ms
  Loss rate: 0.29%
-- Flow 1:
  Average throughput: 189.86 Mbit/s
  95th percentile per-packet one-way delay: 189.082 ms
  Loss rate: 0.34%
-- Flow 2:
  Average throughput: 86.40 Mbit/s
  95th percentile per-packet one-way delay: 68.968 ms
  Loss rate: 0.06%
-- Flow 3:
  Average throughput: 101.47 Mbit/s
  95th percentile per-packet one-way delay: 166.398 ms
  Loss rate: 0.38%
Run 1: Report of Verus — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 190.71 Mbps)
Flow 1 egress (mean 189.86 Mbps)
Flow 2 ingress (mean 86.44 Mbps)
Flow 2 egress (mean 86.40 Mbps)
Flow 3 ingress (mean 101.86 Mbps)
Flow 3 egress (mean 101.47 Mbps)

Round-trip time (ms)

Time (s)

Flow 1 (95th percentile 189.08 ms)
Flow 2 (95th percentile 68.97 ms)
Flow 3 (95th percentile 166.40 ms)
Run 2: Statistics of Verus

Start at: 2019-01-03 21:11:00
End at: 2019-01-03 21:11:30
Local clock offset: 0.341 ms
Remote clock offset: -0.216 ms

# Below is generated by plot.py at 2019-01-04 02:41:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 254.58 Mbit/s
95th percentile per-packet one-way delay: 148.256 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 163.92 Mbit/s
95th percentile per-packet one-way delay: 152.085 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 76.20 Mbit/s
95th percentile per-packet one-way delay: 203.580 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 122.43 Mbit/s
95th percentile per-packet one-way delay: 94.131 ms
Loss rate: 0.04%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2019-01-03 21:44:35
End at: 2019-01-03 21:45:05
Local clock offset: -0.217 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2019-01-04 02:41:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 268.73 Mbit/s
95th percentile per-packet one-way delay: 186.635 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 184.57 Mbit/s
95th percentile per-packet one-way delay: 190.969 ms
Loss rate: 1.88%
-- Flow 2:
Average throughput: 85.27 Mbit/s
95th percentile per-packet one-way delay: 69.330 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.54 Mbit/s
95th percentile per-packet one-way delay: 130.107 ms
Loss rate: 0.00%
Run 3: Report of Verus — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows with annotations for mean throughput and 95th percentile delay.]
Run 4: Statistics of Verus

Start at: 2019-01-03 22:18:18
End at: 2019-01-03 22:18:48
Local clock offset: 0.22 ms
Remote clock offset: -0.233 ms

# Below is generated by plot.py at 2019-01-04 02:41:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 313.93 Mbit/s
  95th percentile per-packet one-way delay: 182.813 ms
  Loss rate: 1.07%
-- Flow 1:
  Average throughput: 192.40 Mbit/s
  95th percentile per-packet one-way delay: 192.412 ms
  Loss rate: 1.74%
-- Flow 2:
  Average throughput: 123.44 Mbit/s
  95th percentile per-packet one-way delay: 107.767 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 120.46 Mbit/s
  95th percentile per-packet one-way delay: 81.005 ms
  Loss rate: 0.00%
Run 4: Report of Verus — Data Link

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**Throughput (Mbps):**

- **Flow 1 ingress** (mean 195.79 Mbps)
- **Flow 1 egress** (mean 192.40 Mbps)
- **Flow 2 ingress** (mean 123.64 Mbps)
- **Flow 2 egress** (mean 123.44 Mbps)
- **Flow 3 ingress** (mean 120.50 Mbps)
- **Flow 3 egress** (mean 120.46 Mbps)

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

- **Flow 1 (95th percentile 192.41 ms)**
- **Flow 2 (95th percentile 107.77 ms)**
- **Flow 3 (95th percentile 81.00 ms)**

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Run 5: Statistics of Verus

Start at: 2019-01-03 22:52:01
End at: 2019-01-03 22:52:31
Local clock offset: 0.104 ms
Remote clock offset: 0.084 ms

# Below is generated by plot.py at 2019-01-04 02:41:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 269.62 Mbit/s
95th percentile per-packet one-way delay: 110.885 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 131.80 Mbit/s
95th percentile per-packet one-way delay: 100.396 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 166.25 Mbit/s
95th percentile per-packet one-way delay: 123.461 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 83.92 Mbit/s
95th percentile per-packet one-way delay: 77.503 ms
Loss rate: 0.00%
Run 5: Report of Verus — Data Link
Run 1: Statistics of PCC-Vivace

Start at: 2019-01-03 20:27:24
End at: 2019-01-03 20:27:54
Local clock offset: -0.387 ms
Remote clock offset: 0.085 ms

# Below is generated by plot.py at 2019-01-04 02:43:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 496.70 Mbit/s
95th percentile per-packet one-way delay: 60.736 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 303.81 Mbit/s
95th percentile per-packet one-way delay: 59.625 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 274.60 Mbit/s
95th percentile per-packet one-way delay: 60.841 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.64 Mbit/s
95th percentile per-packet one-way delay: 60.886 ms
Loss rate: 0.02%
Run 1: Report of PCC-Vivace — Data Link

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

Legend:
- Flow 1 ingress (mean 303.81 Mbit/s)
- Flow 1 egress (mean 303.81 Mbit/s)
- Flow 2 ingress (mean 274.60 Mbit/s)
- Flow 2 egress (mean 274.60 Mbit/s)
- Flow 3 ingress (mean 30.64 Mbit/s)
- Flow 3 egress (mean 30.64 Mbit/s)

Per-packet one-way delay in ms:
- Flow 1 (95th percentile 59.62 ms)
- Flow 2 (95th percentile 60.84 ms)
- Flow 3 (95th percentile 60.89 ms)
Run 2: Statistics of PCC-Vivace

Start at: 2019-01-03 21:00:50
End at: 2019-01-03 21:01:20
Local clock offset: 0.32 ms
Remote clock offset: -0.203 ms

# Below is generated by plot.py at 2019-01-04 02:43:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 486.19 Mbit/s
95th percentile per-packet one-way delay: 65.530 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 248.22 Mbit/s
95th percentile per-packet one-way delay: 89.091 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 329.48 Mbit/s
95th percentile per-packet one-way delay: 62.939 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.52 Mbit/s
95th percentile per-packet one-way delay: 57.022 ms
Loss rate: 0.04%
Run 2: Report of PCC-Vivace — Data Link
Run 3: Statistics of PCC-Vivace

Start at: 2019-01-03 21:34:06
End at: 2019-01-03 21:34:36
Local clock offset: 0.177 ms
Remote clock offset: -0.186 ms

# Below is generated by plot.py at 2019-01-04 02:44:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 545.36 Mbit/s
95th percentile per-packet one-way delay: 61.503 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 331.76 Mbit/s
95th percentile per-packet one-way delay: 62.366 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 246.43 Mbit/s
95th percentile per-packet one-way delay: 60.892 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 151.64 Mbit/s
95th percentile per-packet one-way delay: 67.272 ms
Loss rate: 0.00%
Run 3: Report of PCC-Vivace — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 4: Statistics of PCC-Vivace

Start at: 2019-01-03 22:07:46
End at: 2019-01-03 22:08:16
Local clock offset: -0.039 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2019-01-04 02:44:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 578.30 Mbit/s
95th percentile per-packet one-way delay: 63.182 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 348.18 Mbit/s
95th percentile per-packet one-way delay: 60.637 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 236.72 Mbit/s
95th percentile per-packet one-way delay: 62.823 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 221.11 Mbit/s
95th percentile per-packet one-way delay: 83.492 ms
Loss rate: 0.01%
Run 4: Report of PCC-Vivace — Data Link
Run 5: Statistics of PCC-Vivace

Start at: 2019-01-03 22:41:29
End at: 2019-01-03 22:41:59
Local clock offset: 0.073 ms
Remote clock offset: -0.124 ms

# Below is generated by plot.py at 2019-01-04 02:45:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 576.40 Mbit/s
95th percentile per-packet one-way delay: 60.056 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 344.58 Mbit/s
95th percentile per-packet one-way delay: 58.653 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 302.93 Mbit/s
95th percentile per-packet one-way delay: 69.050 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 91.83 Mbit/s
95th percentile per-packet one-way delay: 57.398 ms
Loss rate: 0.00%
Run 5: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 344.57 Mbps)
- Flow 1 egress (mean 344.58 Mbps)
- Flow 2 ingress (mean 302.93 Mbps)
- Flow 2 egress (mean 302.93 Mbps)
- Flow 3 ingress (mean 91.83 Mbps)
- Flow 3 egress (mean 91.83 Mbps)

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

- Flow 1 (95th percentile 58.65 ms)
- Flow 2 (95th percentile 69.05 ms)
- Flow 3 (95th percentile 57.40 ms)

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Run 1: Statistics of WebRTC media

Start at: 2019-01-03 20:32:23
End at: 2019-01-03 20:32:53
Local clock offset: 0.136 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2019-01-04 02:45:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.85 Mbit/s
  95th percentile per-packet one-way delay: 60.361 ms
  Loss rate: 0.06%
-- Flow 1:
  Average throughput: 2.04 Mbit/s
  95th percentile per-packet one-way delay: 60.390 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 1.40 Mbit/s
  95th percentile per-packet one-way delay: 60.030 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.53 Mbit/s
  95th percentile per-packet one-way delay: 56.932 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2019-01-03 21:05:46  
End at: 2019-01-03 21:06:16  
Local clock offset: 0.143 ms  
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2019-01-04 02:45:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.319 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.350 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.355 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.221 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

![Graph of throughput vs. time for different flows]

![Graph of packet round-trip delay vs. time for different flows]
Run 3: Statistics of WebRTC media

Start at: 2019-01-03 21:39:07
End at: 2019-01-03 21:39:37
Local clock offset: -0.024 ms
Remote clock offset: -0.449 ms

# Below is generated by plot.py at 2019-01-04 02:45:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 57.164 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 56.727 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.037 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.233 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

Throughput (Mbps)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 56.73 ms) — Flow 2 (95th percentile 57.04 ms) — Flow 3 (95th percentile 57.23 ms)
Run 4: Statistics of WebRTC media

Start at: 2019-01-03 22:12:51
End at: 2019-01-03 22:13:21
Local clock offset: -0.464 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2019-01-04 02:45:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.14 Mbit/s
  95th percentile per-packet one-way delay: 61.382 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 57.913 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 57.879 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 61.476 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

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

- 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 0.05 Mbit/s)
- Flow 3 egress (mean 0.05 Mbit/s)

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

- Flow 1 (95th percentile 57.91 ms)
- Flow 2 (95th percentile 57.88 ms)
- Flow 3 (95th percentile 61.48 ms)
Run 5: Statistics of WebRTC media

Start at: 2019-01-03 22:46:34
End at: 2019-01-03 22:47:04
Local clock offset: -0.274 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at 2019-01-04 02:45:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 57.589 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 57.514 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.470 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.429 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link