Pantheon Report

Generated at 2018-07-05 12:15:22 (UTC).
Data path: GCE London Ethernet (remote) → GCE Sydney Ethernet (local).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
NTP offsets were measured against time.google.com and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ 9250dbec7fb57193cddf1ba8c440b4e16ab30f0
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 37162fe9af85249aeccac061c93e75640ef710b5
third_party/genericCC @ d0153f8e594aa89e93b032143cedbfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0edcbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7c3f3c
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d6d616b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M reader/src/buffer.h
  M reader/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a8273a86b42f1bc8143ebc978f3cffe2
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3dbb2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74ff9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562593f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webRTC @ 3f0cc2a9061a41b6f9d4e735770d143a1fa2851
test from GCE London to GCE Sydney, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
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<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
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<th>mean loss rate (%)</th>
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<td>530.16</td>
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<td>Indigo</td>
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<td>LEBAT</td>
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<td>PCC-Allegro</td>
<td>10</td>
<td>451.98</td>
<td>31.90</td>
<td>19.82</td>
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<tr>
<td>PCC-Expr</td>
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<td>202.64</td>
<td>164.01</td>
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<tr>
<td>QUIC Cubic</td>
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<td>50.05</td>
<td>43.84</td>
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<td>Sprout</td>
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<td>0.16</td>
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<td>TaoVA-100x</td>
<td>10</td>
<td>140.75</td>
<td>113.23</td>
<td>63.20</td>
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<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>72.14</td>
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<tr>
<td>Verus</td>
<td>10</td>
<td>115.38</td>
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<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>263.21</td>
<td>188.87</td>
<td>123.36</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.80</td>
<td>1.10</td>
<td>0.36</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-07-05 05:15:45
End at: 2018-07-05 05:16:15
Local clock offset: -0.05 ms
Remote clock offset: 0.358 ms

# Below is generated by plot.py at 2018-07-05 09:51:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.43 Mbit/s
95th percentile per-packet one-way delay: 136.285 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 73.55 Mbit/s
95th percentile per-packet one-way delay: 136.227 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 74.27 Mbit/s
95th percentile per-packet one-way delay: 136.346 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 63.75 Mbit/s
95th percentile per-packet one-way delay: 136.256 ms
Loss rate: 3.33%
Run 1: Report of TCP BBR — Data Link

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

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

Start at: 2018-07-05 05:42:46
End at: 2018-07-05 05:43:16
Local clock offset: -0.017 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-07-05 09:51:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.99 Mbit/s
95th percentile per-packet one-way delay: 136.423 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 73.59 Mbit/s
95th percentile per-packet one-way delay: 136.323 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 72.43 Mbit/s
95th percentile per-packet one-way delay: 136.348 ms
Loss rate: 1.62%
-- Flow 3:
Average throughput: 69.37 Mbit/s
95th percentile per-packet one-way delay: 136.773 ms
Loss rate: 3.54%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2018-07-05 06:10:02
End at: 2018-07-05 06:10:32
Local clock offset: 0.143 ms
Remote clock offset: 0.345 ms

# Below is generated by plot.py at 2018-07-05 09:52:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.79 Mbit/s
95th percentile per-packet one-way delay: 137.021 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 80.34 Mbit/s
95th percentile per-packet one-way delay: 136.808 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 70.39 Mbit/s
95th percentile per-packet one-way delay: 136.500 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 64.02 Mbit/s
95th percentile per-packet one-way delay: 139.923 ms
Loss rate: 3.29%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-07-05 06:37:10
End at: 2018-07-05 06:37:40
Local clock offset: -0.301 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2018-07-05 09:52:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.82 Mbit/s
95th percentile per-packet one-way delay: 136.313 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 71.92 Mbit/s
95th percentile per-packet one-way delay: 136.295 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 72.05 Mbit/s
95th percentile per-packet one-way delay: 136.322 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 64.85 Mbit/s
95th percentile per-packet one-way delay: 136.351 ms
Loss rate: 3.48%
Run 4: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 71.98 Mbps)
Flow 1 egress (mean 71.92 Mbps)
Flow 2 ingress (mean 72.13 Mbps)
Flow 2 egress (mean 72.05 Mbps)
Flow 3 ingress (mean 65.49 Mbps)
Flow 3 egress (mean 64.85 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.29 ms)
Flow 2 (95th percentile 136.32 ms)
Flow 3 (95th percentile 136.35 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-07-05 07:04:17
End at: 2018-07-05 07:04:47
Local clock offset: 0.034 ms
Remote clock offset: 0.3 ms

# Below is generated by plot.py at 2018-07-05 09:52:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.49 Mbit/s
95th percentile per-packet one-way delay: 137.477 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 73.43 Mbit/s
95th percentile per-packet one-way delay: 136.359 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 78.76 Mbit/s
95th percentile per-packet one-way delay: 138.217 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 64.05 Mbit/s
95th percentile per-packet one-way delay: 141.698 ms
Loss rate: 3.29%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-07-05 07:31:13
End at: 2018-07-05 07:31:43
Local clock offset: -0.106 ms
Remote clock offset: -0.463 ms

# Below is generated by plot.py at 2018-07-05 09:52:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 143.79 Mbit/s
  95th percentile per-packet one-way delay: 137.209 ms
  Loss rate: 1.55%
-- Flow 1:
  Average throughput: 72.28 Mbit/s
  95th percentile per-packet one-way delay: 136.733 ms
  Loss rate: 1.11%
-- Flow 2:
  Average throughput: 74.07 Mbit/s
  95th percentile per-packet one-way delay: 136.869 ms
  Loss rate: 1.25%
-- Flow 3:
  Average throughput: 69.15 Mbit/s
  95th percentile per-packet one-way delay: 138.710 ms
  Loss rate: 3.54%
Run 6: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 72.36 Mbps)  Flow 1 egress (mean 72.28 Mbps)
Flow 2 ingress (mean 74.09 Mbps)  Flow 2 egress (mean 74.07 Mbps)
Flow 3 ingress (mean 69.69 Mbps)  Flow 3 egress (mean 69.13 Mbps)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 136.73 ms)  Flow 2 (95th percentile 136.87 ms)  Flow 3 (95th percentile 138.71 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-07-05 07:58:11
End at: 2018-07-05 07:58:41
Local clock offset: -0.08 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2018-07-05 09:52:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.34 Mbit/s
95th percentile per-packet one-way delay: 136.906 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 73.86 Mbit/s
95th percentile per-packet one-way delay: 136.372 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 77.34 Mbit/s
95th percentile per-packet one-way delay: 137.138 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 65.09 Mbit/s
95th percentile per-packet one-way delay: 138.462 ms
Loss rate: 3.33%
Run 7: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 73.91 Mbps)  Flow 1 egress (mean 73.86 Mbps)
Flow 2 ingress (mean 77.55 Mbps)  Flow 2 egress (mean 77.34 Mbps)
Flow 3 ingress (mean 65.67 Mbps)  Flow 3 egress (mean 65.09 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.37 ms)  Flow 2 (95th percentile 137.14 ms)  Flow 3 (95th percentile 138.46 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-07-05 08:25:09
End at: 2018-07-05 08:25:39
Local clock offset: -0.181 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-07-05 09:52:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.46 Mbit/s
95th percentile per-packet one-way delay: 136.168 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 72.05 Mbit/s
95th percentile per-packet one-way delay: 136.149 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 72.55 Mbit/s
95th percentile per-packet one-way delay: 136.180 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 65.32 Mbit/s
95th percentile per-packet one-way delay: 136.205 ms
Loss rate: 3.31%
Run 8: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 72.11 Mbps)
Flow 1 egress (mean 72.05 Mbps)
Flow 2 ingress (mean 72.63 Mbps)
Flow 2 egress (mean 72.55 Mbps)
Flow 3 ingress (mean 65.71 Mbps)
Flow 3 egress (mean 65.32 Mbps)

Packet error rate (ms)

Time (s)

Flow 1 (95th percentile 136.15 ms)
Flow 2 (95th percentile 136.18 ms)
Flow 3 (95th percentile 136.21 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-07-05 08:51:59
End at: 2018-07-05 08:52:29
Local clock offset: -0.028 ms
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2018-07-05 09:53:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 141.36 Mbit/s
  95th percentile per-packet one-way delay: 136.362 ms
  Loss rate: 1.58%
-- Flow 1:
  Average throughput: 72.39 Mbit/s
  95th percentile per-packet one-way delay: 136.241 ms
  Loss rate: 0.99%
-- Flow 2:
  Average throughput: 70.15 Mbit/s
  95th percentile per-packet one-way delay: 136.305 ms
  Loss rate: 1.52%
-- Flow 3:
  Average throughput: 69.37 Mbit/s
  95th percentile per-packet one-way delay: 136.598 ms
  Loss rate: 3.54%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-07-05 09:19:10
End at: 2018-07-05 09:19:40
Local clock offset: 0.097 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-07-05 09:53:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 142.06 Mbit/s
  95th percentile per-packet one-way delay: 136.338 ms
  Loss rate: 1.57%
-- Flow 1:
  Average throughput: 74.27 Mbit/s
  95th percentile per-packet one-way delay: 136.318 ms
  Loss rate: 1.05%
-- Flow 2:
  Average throughput: 70.22 Mbit/s
  95th percentile per-packet one-way delay: 136.341 ms
  Loss rate: 1.61%
-- Flow 3:
  Average throughput: 65.12 Mbit/s
  95th percentile per-packet one-way delay: 136.386 ms
  Loss rate: 3.29%
Run 1: Statistics of Copa

Start at: 2018-07-05 05:21:01
End at: 2018-07-05 05:21:31
Local clock offset: -0.049 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2018-07-05 10:00:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 277.44 Mbit/s
95th percentile per-packet one-way delay: 188.230 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 136.65 Mbit/s
95th percentile per-packet one-way delay: 165.375 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 208.03 Mbit/s
95th percentile per-packet one-way delay: 204.295 ms
Loss rate: 2.25%
-- Flow 3:
Average throughput: 8.87 Mbit/s
95th percentile per-packet one-way delay: 143.146 ms
Loss rate: 3.89%
Run 1: Report of Copa — Data Link

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

Start at: 2018-07-05 05:48:07
End at: 2018-07-05 05:48:37
Local clock offset: -0.112 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-07-05 10:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 194.34 Mbit/s
95th percentile per-packet one-way delay: 151.675 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 110.73 Mbit/s
95th percentile per-packet one-way delay: 149.369 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 78.02 Mbit/s
95th percentile per-packet one-way delay: 145.127 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 97.75 Mbit/s
95th percentile per-packet one-way delay: 164.549 ms
Loss rate: 3.54%
Run 2: Report of Copa — Data Link
Run 3: Statistics of Copa

Start at: 2018-07-05 06:15:20
End at: 2018-07-05 06:15:50
Local clock offset: 0.054 ms
Remote clock offset: 0.357 ms

# Below is generated by plot.py at 2018-07-05 10:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 207.85 Mbit/s
95th percentile per-packet one-way delay: 161.912 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 115.67 Mbit/s
95th percentile per-packet one-way delay: 166.232 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 83.20 Mbit/s
95th percentile per-packet one-way delay: 158.877 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 113.50 Mbit/s
95th percentile per-packet one-way delay: 154.359 ms
Loss rate: 3.80%
Run 3: Report of Copa — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 114.77 Mbps)
  - Flow 1 egress (mean 115.67 Mbps)
  - Flow 2 ingress (mean 83.01 Mbps)
  - Flow 2 egress (mean 83.20 Mbps)
  - Flow 3 ingress (mean 114.76 Mbps)
  - Flow 3 egress (mean 113.59 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 166.23 ms)
  - Flow 2 (95th percentile 158.88 ms)
  - Flow 3 (95th percentile 154.36 ms)
Run 4: Statistics of Copa

Start at: 2018-07-05 06:42:32
End at: 2018-07-05 06:43:02
Local clock offset: -0.13 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-05 10:00:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 245.24 Mbit/s
  95th percentile per-packet one-way delay: 176.160 ms
  Loss rate: 1.38%
-- Flow 1:
  Average throughput: 174.91 Mbit/s
  95th percentile per-packet one-way delay: 179.820 ms
  Loss rate: 1.15%
-- Flow 2:
  Average throughput: 74.38 Mbit/s
  95th percentile per-packet one-way delay: 177.447 ms
  Loss rate: 1.37%
-- Flow 3:
  Average throughput: 64.79 Mbit/s
  95th percentile per-packet one-way delay: 144.849 ms
  Loss rate: 3.27%
Run 4: Report of Copa — Data Link

![Graph showing throughput and packet error rate over time for different flows.](image-url)

Legend:
- Flow 1 Ingress (mean 175.33 Mbit/s)
- Flow 1 Egress (mean 174.91 Mbit/s)
- Flow 2 Ingress (mean 74.37 Mbit/s)
- Flow 2 Egress (mean 74.35 Mbit/s)
- Flow 3 Ingress (mean 65.14 Mbit/s)
- Flow 3 Egress (mean 64.79 Mbit/s)
Run 5: Statistics of Copa

Start at: 2018-07-05 07:09:35
End at: 2018-07-05 07:10:05
Local clock offset: 0.125 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2018-07-05 10:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 221.67 Mbit/s
95th percentile per-packet one-way delay: 163.066 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 132.24 Mbit/s
95th percentile per-packet one-way delay: 164.670 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 88.53 Mbit/s
95th percentile per-packet one-way delay: 148.723 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 102.77 Mbit/s
95th percentile per-packet one-way delay: 169.484 ms
Loss rate: 2.37%
Run 5: Report of Copa — Data Link

![Graph showing network performance metrics over time. The graphs depict throughput and per-packet one-way delay for different flows.](image-url)
Run 6: Statistics of Copa

Start at: 2018-07-05 07:36:35
End at: 2018-07-05 07:37:05
Local clock offset: -0.172 ms
Remote clock offset: -0.492 ms

# Below is generated by plot.py at 2018-07-05 10:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 189.57 Mbit/s
95th percentile per-packet one-way delay: 158.053 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 94.71 Mbit/s
95th percentile per-packet one-way delay: 163.531 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 101.76 Mbit/s
95th percentile per-packet one-way delay: 153.844 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 83.84 Mbit/s
95th percentile per-packet one-way delay: 147.909 ms
Loss rate: 4.07%
Run 6: Report of Copa — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 95.01 Mbps)
- Flow 1 egress (mean 94.71 Mbps)
- Flow 2 ingress (mean 101.83 Mbps)
- Flow 2 egress (mean 101.76 Mbps)
- Flow 3 ingress (mean 85.02 Mbps)
- Flow 3 egress (mean 83.84 Mbps)

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

- Flow 1 (95th percentile 163.53 ms)
- Flow 2 (95th percentile 153.84 ms)
- Flow 3 (95th percentile 147.91 ms)
Run 7: Statistics of Copa

Start at: 2018-07-05 08:03:35
End at: 2018-07-05 08:04:05
Local clock offset: -0.102 ms
Remote clock offset: -0.468 ms

# Below is generated by plot.py at 2018-07-05 10:00:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 188.00 Mbit/s
  95th percentile per-packet one-way delay: 167.178 ms
  Loss rate: 0.86%
-- Flow 1:
  Average throughput: 108.81 Mbit/s
  95th percentile per-packet one-way delay: 166.265 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 87.29 Mbit/s
  95th percentile per-packet one-way delay: 169.767 ms
  Loss rate: 2.75%
-- Flow 3:
  Average throughput: 73.98 Mbit/s
  95th percentile per-packet one-way delay: 165.261 ms
  Loss rate: 0.00%
Run 7: Report of Copa — Data Link

![Graph showing throughput and per-packet one way delay over time for different flows with specified means for ingress and egress]

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 108.94 Mbit/s)
Flow 1 egress (mean 108.81 Mbit/s)
Flow 2 ingress (mean 88.32 Mbit/s)
Flow 2 egress (mean 87.29 Mbit/s)
Flow 3 ingress (mean 74.64 Mbit/s)
Flow 3 egress (mean 73.90 Mbit/s)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 166.26 ms)
Flow 2 (95th percentile 169.77 ms)
Flow 3 (95th percentile 165.26 ms)
Run 8: Statistics of Copa

Start at: 2018-07-05 08:30:31
End at: 2018-07-05 08:31:01
Local clock offset: 0.036 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-07-05 10:01:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 217.99 Mbit/s
95th percentile per-packet one-way delay: 168.002 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 90.21 Mbit/s
95th percentile per-packet one-way delay: 164.229 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.11 Mbit/s
95th percentile per-packet one-way delay: 169.324 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 189.94 Mbit/s
95th percentile per-packet one-way delay: 170.497 ms
Loss rate: 3.77%
Run 8: Report of Copa — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 90.34 Mbps)
Flow 1 egress (mean 90.21 Mbps)
Flow 2 ingress (mean 100.20 Mbps)
Flow 2 egress (mean 100.11 Mbps)
Flow 3 ingress (mean 191.98 Mbps)
Flow 3 egress (mean 189.04 Mbps)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 164.23 ms)
Flow 2 (95th percentile 169.32 ms)
Flow 3 (95th percentile 170.50 ms)
Run 9: Statistics of Copa

Start at: 2018-07-05 08:57:16
End at: 2018-07-05 08:57:46
Local clock offset: -0.009 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 250.00 Mbit/s
95th percentile per-packet one-way delay: 165.635 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 161.51 Mbit/s
95th percentile per-packet one-way delay: 170.068 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 91.80 Mbit/s
95th percentile per-packet one-way delay: 142.526 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 84.78 Mbit/s
95th percentile per-packet one-way delay: 140.791 ms
Loss rate: 5.49%
Run 9: Report of Copa — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 10: Statistics of Copa

Start at: 2018-07-05 09:24:29
End at: 2018-07-05 09:24:59
Local clock offset: 0.237 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 184.43 Mbit/s
95th percentile per-packet one-way delay: 153.863 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 82.05 Mbit/s
95th percentile per-packet one-way delay: 154.541 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 112.53 Mbit/s
95th percentile per-packet one-way delay: 153.181 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 85.50 Mbit/s
95th percentile per-packet one-way delay: 153.938 ms
Loss rate: 2.04%
Run 10: Report of Copa — Data Link

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

Legend:
- Flow 1 ingress (mean 81.84 Mbit/s)
- Flow 1 egress (mean 82.05 Mbit/s)
- Flow 2 ingress (mean 112.16 Mbit/s)
- Flow 2 egress (mean 112.53 Mbit/s)
- Flow 3 ingress (mean 84.90 Mbit/s)
- Flow 3 egress (mean 85.50 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 154.54 ms)
- Flow 2 (95th percentile 153.18 ms)
- Flow 3 (95th percentile 153.94 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-07-05 05:04:37
End at: 2018-07-05 05:05:07
Local clock offset: -0.153 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.31 Mbit/s
95th percentile per-packet one-way delay: 147.783 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 84.14 Mbit/s
95th percentile per-packet one-way delay: 146.279 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 80.46 Mbit/s
95th percentile per-packet one-way delay: 147.311 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 70.96 Mbit/s
95th percentile per-packet one-way delay: 151.135 ms
Loss rate: 3.28%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-07-05 05:31:54
End at: 2018-07-05 05:32:24
Local clock offset: -0.298 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.25 Mbit/s
95th percentile per-packet one-way delay: 148.888 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 84.00 Mbit/s
95th percentile per-packet one-way delay: 148.165 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 81.01 Mbit/s
95th percentile per-packet one-way delay: 149.618 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 71.77 Mbit/s
95th percentile per-packet one-way delay: 149.246 ms
Loss rate: 3.55%
Run 2: Report of TCP Cubic — Data Link

![Throughput and Delay Graphs]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 84.08 Mbps)
  - Flow 2 ingress (mean 81.16 Mbps)
  - Flow 3 ingress (mean 72.35 Mbps)
  - Flow 1 egress (mean 84.00 Mbps)
  - Flow 2 egress (mean 81.01 Mbps)
  - Flow 3 egress (mean 71.77 Mbps)

- **Delay (ms):**
  - Flow 1 (95th percentile 148.16 ms)
  - Flow 2 (95th percentile 149.62 ms)
  - Flow 3 (95th percentile 149.25 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-07-05 05:59:11
End at: 2018-07-05 05:59:41
Local clock offset: 0.063 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 132.03 Mbit/s
95th percentile per-packet one-way delay: 146.014 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 84.57 Mbit/s
95th percentile per-packet one-way delay: 145.860 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 35.83 Mbit/s
95th percentile per-packet one-way delay: 144.169 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 73.44 Mbit/s
95th percentile per-packet one-way delay: 147.437 ms
Loss rate: 3.37%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-07-05 06:26:16
End at: 2018-07-05 06:26:46
Local clock offset: -0.166 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.42 Mbit/s
95th percentile per-packet one-way delay: 146.642 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 83.69 Mbit/s
95th percentile per-packet one-way delay: 146.638 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 51.02 Mbit/s
95th percentile per-packet one-way delay: 145.125 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 70.73 Mbit/s
95th percentile per-packet one-way delay: 148.816 ms
Loss rate: 3.74%
Run 4: Report of TCP Cubic — Data Link

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

![Graph 2: Per-packet one-way delay (ms) vs. Time (s)]
Run 5: Statistics of TCP Cubic

Start at: 2018-07-05 06:53:27
End at: 2018-07-05 06:53:57
Local clock offset: -0.25 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 106.66 Mbit/s
  95th percentile per-packet one-way delay: 146.804 ms
  Loss rate: 1.56%
-- Flow 1:
  Average throughput: 53.01 Mbit/s
  95th percentile per-packet one-way delay: 145.438 ms
  Loss rate: 1.49%
-- Flow 2:
  Average throughput: 80.83 Mbit/s
  95th percentile per-packet one-way delay: 148.310 ms
  Loss rate: 1.54%
-- Flow 3:
  Average throughput: 1.44 Mbit/s
  95th percentile per-packet one-way delay: 142.607 ms
  Loss rate: 10.72%
Run 5: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 53.33 Mbit/s)
- Flow 2 ingress (mean 80.98 Mbit/s)
- Flow 3 ingress (mean 1.57 Mbit/s)
- Flow 1 egress (mean 53.91 Mbit/s)
- Flow 2 egress (mean 80.83 Mbit/s)
- Flow 3 egress (mean 1.44 Mbit/s)
Run 6: Statistics of TCP Cubic

Start at: 2018-07-05 07:20:23
End at: 2018-07-05 07:20:53
Local clock offset: 0.094 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.03 Mbit/s
95th percentile per-packet one-way delay: 147.225 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 83.96 Mbit/s
95th percentile per-packet one-way delay: 146.493 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 43.93 Mbit/s
95th percentile per-packet one-way delay: 147.199 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 70.60 Mbit/s
95th percentile per-packet one-way delay: 149.238 ms
Loss rate: 3.32%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-07-05 07:47:20
End at: 2018-07-05 07:47:50
Local clock offset: -0.14 ms
Remote clock offset: -0.157 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.17 Mbit/s
95th percentile per-packet one-way delay: 150.767 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 83.63 Mbit/s
95th percentile per-packet one-way delay: 150.375 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 80.30 Mbit/s
95th percentile per-packet one-way delay: 151.665 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 142.639 ms
Loss rate: 10.70%
Run 7: Report of TCP Cubic — Data Link

[Graph showing throughput and per-packet one-way delay over time for flows 1, 2, and 3]
Run 8: Statistics of TCP Cubic

Start at: 2018-07-05 08:14:24
End at: 2018-07-05 08:14:54
Local clock offset: -0.201 ms
Remote clock offset: -0.468 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.62 Mbit/s
95th percentile per-packet one-way delay: 148.102 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 66.18 Mbit/s
95th percentile per-packet one-way delay: 146.296 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 80.40 Mbit/s
95th percentile per-packet one-way delay: 147.663 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 71.58 Mbit/s
95th percentile per-packet one-way delay: 154.138 ms
Loss rate: 3.61%
Run 8: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 66.39 Mbps)**
- **Flow 1 egress (mean 66.18 Mbps)**
- **Flow 2 ingress (mean 80.56 Mbps)**
- **Flow 2 egress (mean 80.40 Mbps)**
- **Flow 3 ingress (mean 72.23 Mbps)**
- **Flow 3 egress (mean 71.58 Mbps)**

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

- **Flow 1 (95th percentile 146.30 ms)**
- **Flow 2 (95th percentile 147.66 ms)**
- **Flow 3 (95th percentile 154.14 ms)**
Run 9: Statistics of TCP Cubic

Start at: 2018-07-05 08:41:24
End at: 2018-07-05 08:41:54
Local clock offset: -0.033 ms
Remote clock offset: 0.309 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 101.03 Mbit/s
  95th percentile per-packet one-way delay: 145.961 ms
  Loss rate: 1.98%
-- Flow 1:
  Average throughput: 53.09 Mbit/s
  95th percentile per-packet one-way delay: 146.549 ms
  Loss rate: 1.48%
-- Flow 2:
  Average throughput: 38.03 Mbit/s
  95th percentile per-packet one-way delay: 143.844 ms
  Loss rate: 1.59%
-- Flow 3:
  Average throughput: 71.81 Mbit/s
  95th percentile per-packet one-way delay: 146.803 ms
  Loss rate: 3.54%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-07-05 09:08:22
End at: 2018-07-05 09:08:52
Local clock offset: 0.034 ms
Remote clock offset: -0.131 ms

# Below is generated by plot.py at 2018-07-05 10:06:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 148.30 Mbit/s
  95th percentile per-packet one-way delay: 147.430 ms
  Loss rate: 1.34%
-- Flow 1:
  Average throughput: 84.29 Mbit/s
  95th percentile per-packet one-way delay: 147.790 ms
  Loss rate: 0.99%
-- Flow 2:
  Average throughput: 81.08 Mbit/s
  95th percentile per-packet one-way delay: 146.979 ms
  Loss rate: 1.54%
-- Flow 3:
  Average throughput: 32.67 Mbit/s
  95th percentile per-packet one-way delay: 147.178 ms
  Loss rate: 3.05%
Run 10: Report of TCP Cubic — Data Link

![Graph of Throughput and Per-packet one-way delay for different flows over time.]
Run 1: Statistics of FillP

Start at: 2018-07-05 05:18:46
End at: 2018-07-05 05:19:16
Local clock offset: -0.157 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-07-05 10:28:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1131.80 Mbit/s
  95th percentile per-packet one-way delay: 264.102 ms
  Loss rate: 8.04%
-- Flow 1:
  Average throughput: 605.25 Mbit/s
  95th percentile per-packet one-way delay: 275.610 ms
  Loss rate: 7.59%
-- Flow 2:
  Average throughput: 529.84 Mbit/s
  95th percentile per-packet one-way delay: 268.150 ms
  Loss rate: 10.48%
-- Flow 3:
  Average throughput: 540.30 Mbit/s
  95th percentile per-packet one-way delay: 228.077 ms
  Loss rate: 4.43%
Run 1: Report of FillP — Data Link

![Data Link Graph]

![End-to-End Delay Graph]
Run 2: Statistics of FillP

Start at: 2018-07-05 05:45:47
End at: 2018-07-05 05:46:18
Local clock offset: -0.295 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-07-05 10:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1221.50 Mbit/s
95th percentile per-packet one-way delay: 234.534 ms
Loss rate: 5.97%
-- Flow 1:
Average throughput: 642.49 Mbit/s
95th percentile per-packet one-way delay: 232.791 ms
Loss rate: 6.00%
-- Flow 2:
Average throughput: 614.72 Mbit/s
95th percentile per-packet one-way delay: 245.216 ms
Loss rate: 6.40%
-- Flow 3:
Average throughput: 526.82 Mbit/s
95th percentile per-packet one-way delay: 224.898 ms
Loss rate: 4.81%
Run 2: Report of FillP — Data Link

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

Start at: 2018-07-05 06:13:05
End at: 2018-07-05 06:13:35
Local clock offset: -0.032 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-07-05 10:31:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1145.68 Mbit/s
  95th percentile per-packet one-way delay: 321.560 ms
  Loss rate: 5.24%
-- Flow 1:
  Average throughput: 624.79 Mbit/s
  95th percentile per-packet one-way delay: 333.961 ms
  Loss rate: 3.25%
-- Flow 2:
  Average throughput: 584.49 Mbit/s
  95th percentile per-packet one-way delay: 302.074 ms
  Loss rate: 5.51%
-- Flow 3:
  Average throughput: 414.02 Mbit/s
  95th percentile per-packet one-way delay: 267.908 ms
  Loss rate: 12.81%
Run 3: Report of FillP — Data Link
Run 4: Statistics of FillP

Start at: 2018-07-05 06:40:11
End at: 2018-07-05 06:40:41
Local clock offset: -0.006 ms
Remote clock offset: 0.286 ms

# Below is generated by plot.py at 2018-07-05 10:33:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1287.60 Mbit/s
  95th percentile per-packet one-way delay: 320.485 ms
  Loss rate: 4.71%
-- Flow 1:
  Average throughput: 733.48 Mbit/s
  95th percentile per-packet one-way delay: 326.560 ms
  Loss rate: 3.16%
-- Flow 2:
  Average throughput: 602.13 Mbit/s
  95th percentile per-packet one-way delay: 328.580 ms
  Loss rate: 6.19%
-- Flow 3:
  Average throughput: 476.38 Mbit/s
  95th percentile per-packet one-way delay: 239.564 ms
  Loss rate: 7.98%
Run 4: Report of FillP — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 750.50 Mbps)
  - Flow 1 egress (mean 733.48 Mbps)
  - Flow 2 ingress (mean 633.03 Mbps)
  - Flow 2 egress (mean 602.13 Mbps)
  - Flow 3 ingress (mean 503.46 Mbps)
  - Flow 3 egress (mean 476.38 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 326.56 ms)
  - Flow 2 (95th percentile 328.58 ms)
  - Flow 3 (95th percentile 239.56 ms)
Run 5: Statistics of FillP

Start at: 2018-07-05 07:07:19
End at: 2018-07-05 07:07:49
Local clock offset: -0.272 ms
Remote clock offset: 0.242 ms

# Below is generated by plot.py at 2018-07-05 10:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1174.87 Mbit/s
95th percentile per-packet one-way delay: 240.240 ms
Loss rate: 5.95%
-- Flow 1:
Average throughput: 646.49 Mbit/s
95th percentile per-packet one-way delay: 236.237 ms
Loss rate: 5.35%
-- Flow 2:
Average throughput: 590.69 Mbit/s
95th percentile per-packet one-way delay: 290.044 ms
Loss rate: 4.69%
-- Flow 3:
Average throughput: 419.98 Mbit/s
95th percentile per-packet one-way delay: 238.743 ms
Loss rate: 11.95%
Run 5: Report of FillP — Data Link

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

- **Throughput:**
  - Flow 1 Ingress (mean 676.79 Mbit/s)
  - Flow 1 Egress (mean 646.49 Mbit/s)
  - Flow 2 Ingress (mean 611.27 Mbit/s)
  - Flow 2 Egress (mean 590.69 Mbit/s)
  - Flow 3 Ingress (mean 463.94 Mbit/s)
  - Flow 3 Egress (mean 419.98 Mbit/s)

- **Per-packet one-way delay:**
  - Flow 1 (95th percentile 236.24 ms)
  - Flow 2 (95th percentile 290.04 ms)
  - Flow 3 (95th percentile 218.74 ms)
Run 6: Statistics of FillP

Start at: 2018-07-05 07:34:15
End at: 2018-07-05 07:34:45
Local clock offset: 0.021 ms
Remote clock offset: 0.262 ms

# Below is generated by plot.py at 2018-07-05 10:33:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1261.89 Mbit/s
95th percentile per-packet one-way delay: 287.136 ms
Loss rate: 3.64%
-- Flow 1:
Average throughput: 693.20 Mbit/s
95th percentile per-packet one-way delay: 296.838 ms
Loss rate: 2.76%
-- Flow 2:
Average throughput: 602.11 Mbit/s
95th percentile per-packet one-way delay: 276.307 ms
Loss rate: 4.06%
-- Flow 3:
Average throughput: 522.59 Mbit/s
95th percentile per-packet one-way delay: 215.012 ms
Loss rate: 6.14%
Run 6: Report of FillP — Data Link

![Throughput Graph]

- Flow 1 Ingress (mean 706.45 Mbit/s)
- Flow 2 Ingress (mean 619.02 Mbit/s)
- Flow 3 Ingress (mean 541.36 Mbit/s)
- Flow 1 Egress (mean 693.20 Mbit/s)
- Flow 2 Egress (mean 602.11 Mbit/s)
- Flow 3 Egress (mean 522.59 Mbit/s)

![Packet Delay Graph]

- Flow 1 (95th percentile 296.04 ms)
- Flow 2 (95th percentile 276.31 ms)
- Flow 3 (95th percentile 215.01 ms)
Run 7: Statistics of FillP

Start at: 2018-07-05 08:01:14
End at: 2018-07-05 08:01:44
Local clock offset: -0.237 ms
Remote clock offset: -0.463 ms

# Below is generated by plot.py at 2018-07-05 10:33:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1204.74 Mbit/s
95th percentile per-packet one-way delay: 262.071 ms
Loss rate: 7.39%
-- Flow 1:
Average throughput: 629.01 Mbit/s
95th percentile per-packet one-way delay: 250.737 ms
Loss rate: 7.82%
-- Flow 2:
Average throughput: 600.09 Mbit/s
95th percentile per-packet one-way delay: 304.775 ms
Loss rate: 6.59%
-- Flow 3:
Average throughput: 547.75 Mbit/s
95th percentile per-packet one-way delay: 226.995 ms
Loss rate: 7.66%
Run 7: Report of FillP — Data Link

![Graph of Throughput vs Time for different flows]

Throughput (Mbps/s) vs Time (s)

- Flow 1 Ingress (mean 676.18 Mbps/s)
- Flow 1 Egress (mean 629.01 Mbps/s)
- Flow 2 Ingress (mean 633.67 Mbps/s)
- Flow 2 Egress (mean 600.09 Mbps/s)
- Flow 3 Ingress (mean 577.02 Mbps/s)
- Flow 3 Egress (mean 547.75 Mbps/s)

![Graph of Per-packet one-way delay vs Time for different flows]

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

- Flow 1 (95th percentile 250.74 ms)
- Flow 2 (95th percentile 304.77 ms)
- Flow 3 (95th percentile 227.00 ms)
Run 8: Statistics of FillP

Start at: 2018-07-05 08:28:11
End at: 2018-07-05 08:28:41
Local clock offset: -0.13 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-07-05 10:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1275.26 Mbit/s
95th percentile per-packet one-way delay: 252.994 ms
Loss rate: 5.18%
-- Flow 1:
Average throughput: 672.13 Mbit/s
95th percentile per-packet one-way delay: 245.018 ms
Loss rate: 4.65%
-- Flow 2:
Average throughput: 675.41 Mbit/s
95th percentile per-packet one-way delay: 297.060 ms
Loss rate: 4.76%
-- Flow 3:
Average throughput: 478.19 Mbit/s
95th percentile per-packet one-way delay: 224.778 ms
Loss rate: 8.51%
Run 8: Report of FillP — Data Link

**Throughput (Mbps)**

- Flow 1 ingress (mean 696.45 Mbps)
- Flow 1 egress (mean 672.13 Mbps)
- Flow 2 ingress (mean 699.43 Mbps)
- Flow 2 egress (mean 675.43 Mbps)
- Flow 3 ingress (mean 508.25 Mbps)
- Flow 3 egress (mean 478.19 Mbps)

**Packet delay (ms)**

- Flow 1 (95th percentile 245.02 ms)
- Flow 2 (95th percentile 297.06 ms)
- Flow 3 (95th percentile 224.78 ms)
Run 9: Statistics of FillP

Start at: 2018-07-05 08:55:01
End at: 2018-07-05 08:55:31
Local clock offset: -0.046 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-07-05 10:55:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1148.62 Mbit/s
95th percentile per-packet one-way delay: 244.156 ms
Loss rate: 8.74%
-- Flow 1:
Average throughput: 597.99 Mbit/s
95th percentile per-packet one-way delay: 242.926 ms
Loss rate: 9.14%
-- Flow 2:
Average throughput: 604.51 Mbit/s
95th percentile per-packet one-way delay: 233.383 ms
Loss rate: 7.56%
-- Flow 3:
Average throughput: 461.70 Mbit/s
95th percentile per-packet one-way delay: 260.892 ms
Loss rate: 10.24%
Run 9: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 652.05 Mbps)
- Flow 1 Egress (mean 597.99 Mbps)
- Flow 2 Ingress (mean 644.95 Mbps)
- Flow 2 Egress (mean 604.51 Mbps)
- Flow 3 Ingress (mean 500.69 Mbps)
- Flow 3 Egress (mean 461.70 Mbps)

![Graph showing network latency for different flows.]

- Flow 1 (95th percentile 242.93 ms)
- Flow 2 (95th percentile 233.38 ms)
- Flow 3 (95th percentile 260.89 ms)
Run 10: Statistics of FillP

Start at: 2018-07-05 09:22:10
End at: 2018-07-05 09:22:40
Local clock offset: -0.033 ms
Remote clock offset: -0.428 ms

# Below is generated by plot.py at 2018-07-05 10:59:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1247.18 Mbit/s
95th percentile per-packet one-way delay: 311.334 ms
Loss rate: 7.09%
-- Flow 1:
Average throughput: 683.29 Mbit/s
95th percentile per-packet one-way delay: 339.458 ms
Loss rate: 5.16%
-- Flow 2:
Average throughput: 632.79 Mbit/s
95th percentile per-packet one-way delay: 230.045 ms
Loss rate: 8.42%
-- Flow 3:
Average throughput: 445.13 Mbit/s
95th percentile per-packet one-way delay: 264.700 ms
Loss rate: 11.91%
Run 10: Report of FillIP — Data Link

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

- Flow 1 Ingress (mean 713.89 Mbit/s)
- Flow 1 Egress (mean 683.29 Mbit/s)
- Flow 2 Ingress (mean 681.52 Mbit/s)
- Flow 2 Egress (mean 632.79 Mbit/s)
- Flow 3 Ingress (mean 491.36 Mbit/s)
- Flow 3 Egress (mean 445.13 Mbit/s)

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

- Flow 1 (95th percentile 339.46 ms)
- Flow 2 (95th percentile 230.04 ms)
- Flow 3 (95th percentile 264.70 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-05 05:22:47
End at: 2018-07-05 05:23:17
Local clock offset: -0.05 ms
Remote clock offset: -0.41 ms

# Below is generated by plot.py at 2018-07-05 10:59:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1057.32 Mbit/s
  95th percentile per-packet one-way delay: 267.658 ms
  Loss rate: 6.90%
-- Flow 1:
  Average throughput: 565.89 Mbit/s
  95th percentile per-packet one-way delay: 249.759 ms
  Loss rate: 8.25%
-- Flow 2:
  Average throughput: 511.94 Mbit/s
  95th percentile per-packet one-way delay: 339.134 ms
  Loss rate: 6.21%
-- Flow 3:
  Average throughput: 468.96 Mbit/s
  95th percentile per-packet one-way delay: 159.714 ms
  Loss rate: 3.21%
Run 1: Report of FillP-Sheep — Data Link

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

- **Throughput (Mbit/s):**
  - Flow 1 Ingress (mean 611.96 Mbit/s)
  - Flow 1 Egress (mean 565.89 Mbit/s)
  - Flow 2 Ingress (mean 538.14 Mbit/s)
  - Flow 2 Egress (mean 511.94 Mbit/s)
  - Flow 3 Ingress (mean 471.24 Mbit/s)
  - Flow 3 Egress (mean 468.96 Mbit/s)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 249.76 ms)
  - Flow 2 (95th percentile 339.13 ms)
  - Flow 3 (95th percentile 159.71 ms)
Run 2: Statistics of FillP-Sheep

Start at: 2018-07-05 05:49:44
End at: 2018-07-05 05:50:14
Local clock offset: -0.088 ms
Remote clock offset: 0.317 ms

# Below is generated by plot.py at 2018-07-05 10:59:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1166.50 Mbit/s
  95th percentile per-packet one-way delay: 327.916 ms
  Loss rate: 7.67%
-- Flow 1:
  Average throughput: 659.11 Mbit/s
  95th percentile per-packet one-way delay: 338.511 ms
  Loss rate: 7.39%
-- Flow 2:
  Average throughput: 541.42 Mbit/s
  95th percentile per-packet one-way delay: 295.864 ms
  Loss rate: 9.38%
-- Flow 3:
  Average throughput: 457.92 Mbit/s
  95th percentile per-packet one-way delay: 217.699 ms
  Loss rate: 4.64%
Run 2: Report of FillP-Sheep — Data Link

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

Start at: 2018-07-05 06:16:58
End at: 2018-07-05 06:17:28
Local clock offset: -0.104 ms
Remote clock offset: -0.393 ms

# Below is generated by plot.py at 2018-07-05 10:59:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1145.68 Mbit/s
95th percentile per-packet one-way delay: 306.037 ms
Loss rate: 6.01%
-- Flow 1:
Average throughput: 641.62 Mbit/s
95th percentile per-packet one-way delay: 315.266 ms
Loss rate: 4.06%
-- Flow 2:
Average throughput: 562.70 Mbit/s
95th percentile per-packet one-way delay: 273.360 ms
Loss rate: 9.19%
-- Flow 3:
Average throughput: 405.07 Mbit/s
95th percentile per-packet one-way delay: 306.870 ms
Loss rate: 5.97%
Run 3: Report of FillP-Sheep — Data Link

![Throughput Graph](image)

![Packet Delay Graph](image)

Flow 1 Ingress (mean 662.70 Mbit/s) • Flow 1 Egress (mean 641.62 Mbit/s)
Flow 2 Ingress (mean 411.12 Mbit/s) • Flow 2 Egress (mean 562.70 Mbit/s)
Flow 3 Ingress (mean 417.91 Mbit/s) • Flow 3 Egress (mean 405.07 Mbit/s)
Run 4: Statistics of FillP-Sheep

Start at: 2018-07-05 06:44:14
End at: 2018-07-05 06:44:44
Local clock offset: -0.004 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2018-07-05 10:59:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1108.76 Mbit/s
95th percentile per-packet one-way delay: 313.795 ms
Loss rate: 7.04%
-- Flow 1:
Average throughput: 606.06 Mbit/s
95th percentile per-packet one-way delay: 337.822 ms
Loss rate: 7.95%
-- Flow 2:
Average throughput: 539.28 Mbit/s
95th percentile per-packet one-way delay: 246.070 ms
Loss rate: 6.61%
-- Flow 3:
Average throughput: 447.26 Mbit/s
95th percentile per-packet one-way delay: 156.384 ms
Loss rate: 4.17%
Run 4: Report of FillP-Sheep — Data Link

![Throughput Graph](chart1)

- **Flow 1 Ingress**: Mean 652.36 MB/s
- **Flow 1 Egress**: Mean 606.06 MB/s
- **Flow 2 Ingress**: Mean 569.59 MB/s
- **Flow 2 Egress**: Mean 539.28 MB/s
- **Flow 3 Ingress**: Mean 453.84 MB/s
- **Flow 3 Egress**: Mean 447.78 MB/s

![Round-Trip Time Graph](chart2)

- **Flow 1 95th Percentile**: 337.82 ms
- **Flow 2 95th Percentile**: 246.07 ms
- **Flow 3 95th Percentile**: 156.38 ms
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-05 07:11:15
End at: 2018-07-05 07:11:45
Local clock offset: -0.08 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2018-07-05 10:59:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 877.13 Mbit/s
95th percentile per-packet one-way delay: 323.203 ms
Loss rate: 8.07%
-- Flow 1:
Average throughput: 311.30 Mbit/s
95th percentile per-packet one-way delay: 343.633 ms
Loss rate: 8.73%
-- Flow 2:
Average throughput: 604.46 Mbit/s
95th percentile per-packet one-way delay: 269.591 ms
Loss rate: 9.18%
-- Flow 3:
Average throughput: 508.58 Mbit/s
95th percentile per-packet one-way delay: 214.432 ms
Loss rate: 3.94%
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-05 07:38:12
End at: 2018-07-05 07:38:42
Local clock offset: -0.068 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2018-07-05 11:01:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1091.77 Mbit/s
95th percentile per-packet one-way delay: 226.979 ms
Loss rate: 7.31%
-- Flow 1:
Average throughput: 592.20 Mbit/s
95th percentile per-packet one-way delay: 225.561 ms
Loss rate: 7.49%
-- Flow 2:
Average throughput: 536.62 Mbit/s
95th percentile per-packet one-way delay: 226.687 ms
Loss rate: 6.76%
-- Flow 3:
Average throughput: 443.78 Mbit/s
95th percentile per-packet one-way delay: 230.764 ms
Loss rate: 7.90%
Run 6: Report of FillP-Sheep — Data Link
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-05 08:05:12
End at: 2018-07-05 08:05:42
Local clock offset: -0.154 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-07-05 11:19:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1089.93 Mbit/s
95th percentile per-packet one-way delay: 231.084 ms
Loss rate: 8.53%
-- Flow 1:
Average throughput: 585.05 Mbit/s
95th percentile per-packet one-way delay: 233.409 ms
Loss rate: 9.35%
-- Flow 2:
Average throughput: 528.15 Mbit/s
95th percentile per-packet one-way delay: 227.540 ms
Loss rate: 7.02%
-- Flow 3:
Average throughput: 477.13 Mbit/s
95th percentile per-packet one-way delay: 227.988 ms
Loss rate: 8.78%
Run 7: Report of FillP-Sheep — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-05 08:32:10
End at: 2018-07-05 08:32:40
Local clock offset: -0.078 ms
Remote clock offset: 0.294 ms

# Below is generated by plot.py at 2018-07-05 11:20:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1050.61 Mbit/s
95th percentile per-packet one-way delay: 287.172 ms
Loss rate: 13.01%
-- Flow 1:
Average throughput: 580.88 Mbit/s
95th percentile per-packet one-way delay: 277.483 ms
Loss rate: 11.03%
-- Flow 2:
Average throughput: 472.84 Mbit/s
95th percentile per-packet one-way delay: 319.372 ms
Loss rate: 17.65%
-- Flow 3:
Average throughput: 479.82 Mbit/s
95th percentile per-packet one-way delay: 227.180 ms
Loss rate: 10.30%
Run 8: Report of FillP-Sheep — Data Link

Throughput (Mbps/s)

Time (s)

Flow 1 ingress (mean 646.99 Mbps/s) — Flow 1 egress (mean 580.88 Mbps/s)
Flow 2 ingress (mean 566.37 Mbps/s) — Flow 2 egress (mean 472.84 Mbps/s)
Flow 3 ingress (mean 520.28 Mbps/s) — Flow 3 egress (mean 479.82 Mbps/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 277.48 ms) — Flow 2 (95th percentile 319.37 ms) — Flow 3 (95th percentile 227.18 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-05 08:59:01
End at: 2018-07-05 08:59:31
Local clock offset: -0.135 ms
Remote clock offset: -0.468 ms

# Below is generated by plot.py at 2018-07-05 11:22:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1126.54 Mbit/s
  95th percentile per-packet one-way delay: 336.084 ms
  Loss rate: 8.05%
-- Flow 1:
  Average throughput: 601.88 Mbit/s
  95th percentile per-packet one-way delay: 348.202 ms
  Loss rate: 8.78%
-- Flow 2:
  Average throughput: 572.66 Mbit/s
  95th percentile per-packet one-way delay: 226.563 ms
  Loss rate: 7.38%
-- Flow 3:
  Average throughput: 447.81 Mbit/s
  95th percentile per-packet one-way delay: 248.901 ms
  Loss rate: 6.77%
Run 9: Report of FillP-Sheep — Data Link

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

- Flow 1 Ingress (mean 653.80 Mb/s) vs Flow 1 Egress (mean 601.88 Mb/s)
- Flow 2 Ingress (mean 609.77 Mb/s) vs Flow 2 Egress (mean 572.66 Mb/s)
- Flow 3 Ingress (mean 467.36 Mb/s) vs Flow 3 Egress (mean 447.83 Mb/s)
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-05 09:26:05
End at: 2018-07-05 09:26:35
Local clock offset: -0.038 ms
Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1084.63 Mbit/s
95th percentile per-packet one-way delay: 261.240 ms
Loss rate: 10.72%
-- Flow 1:
Average throughput: 643.01 Mbit/s
95th percentile per-packet one-way delay: 249.835 ms
Loss rate: 8.34%
-- Flow 2:
Average throughput: 431.55 Mbit/s
95th percentile per-packet one-way delay: 265.274 ms
Loss rate: 15.81%
-- Flow 3:
Average throughput: 478.09 Mbit/s
95th percentile per-packet one-way delay: 265.659 ms
Loss rate: 10.38%
Run 10: Report of FillIP-Sheep — Data Link
Run 1: Statistics of Indigo

Start at: 2018-07-05 05:07:19
End at: 2018-07-05 05:07:49
Local clock offset: 0.072 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 325.09 Mbit/s
95th percentile per-packet one-way delay: 153.702 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 171.28 Mbit/s
95th percentile per-packet one-way delay: 146.020 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 155.07 Mbit/s
95th percentile per-packet one-way delay: 161.464 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 146.79 Mbit/s
95th percentile per-packet one-way delay: 162.882 ms
Loss rate: 3.51%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

Start at: 2018-07-05 05:34:35
End at: 2018-07-05 05:35:05
Local clock offset: -0.051 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 282.13 Mbit/s
  95th percentile per-packet one-way delay: 141.691 ms
  Loss rate: 1.50%
-- Flow 1:
  Average throughput: 132.52 Mbit/s
  95th percentile per-packet one-way delay: 141.392 ms
  Loss rate: 0.99%
-- Flow 2:
  Average throughput: 173.83 Mbit/s
  95th percentile per-packet one-way delay: 141.932 ms
  Loss rate: 1.49%
-- Flow 3:
  Average throughput: 109.86 Mbit/s
  95th percentile per-packet one-way delay: 141.918 ms
  Loss rate: 3.43%
Run 2: Report of Indigo — Data Link

![Graph showing throughput over time for different flows.](image1)

![Graph showing per-packet one-way delay over time.](image2)
Run 3: Statistics of Indigo

Start at: 2018-07-05 06:01:50
End at: 2018-07-05 06:02:20
Local clock offset: 0.06 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
--- Total of 3 flows:
Average throughput: 252.00 Mbit/s
95th percentile per-packet one-way delay: 138.882 ms
Loss rate: 1.55%
--- Flow 1:
Average throughput: 132.80 Mbit/s
95th percentile per-packet one-way delay: 138.120 ms
Loss rate: 0.98%
--- Flow 2:
Average throughput: 127.28 Mbit/s
95th percentile per-packet one-way delay: 138.774 ms
Loss rate: 1.53%
--- Flow 3:
Average throughput: 109.47 Mbit/s
95th percentile per-packet one-way delay: 140.956 ms
Loss rate: 3.68%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Start at: 2018-07-05 06:28:57
End at: 2018-07-05 06:29:27
Local clock offset: -0.16 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 281.91 Mbit/s
  95th percentile per-packet one-way delay: 141.138 ms
  Loss rate: 1.51%
-- Flow 1:
  Average throughput: 132.74 Mbit/s
  95th percentile per-packet one-way delay: 140.446 ms
  Loss rate: 0.99%
-- Flow 2:
  Average throughput: 171.51 Mbit/s
  95th percentile per-packet one-way delay: 142.542 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 111.13 Mbit/s
  95th percentile per-packet one-way delay: 140.957 ms
  Loss rate: 3.64%
Run 4: Report of Indigo — Data Link

![Throughput Graph]

![Delay Graph]
Run 5: Statistics of Indigo

Start at: 2018-07-05 06:56:05
End at: 2018-07-05 06:56:35
Local clock offset: -0.276 ms
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.54 Mbit/s
95th percentile per-packet one-way delay: 139.154 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 132.56 Mbit/s
95th percentile per-packet one-way delay: 138.867 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 127.00 Mbit/s
95th percentile per-packet one-way delay: 138.674 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 110.46 Mbit/s
95th percentile per-packet one-way delay: 140.521 ms
Loss rate: 3.66%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Start at: 2018-07-05 07:23:03
End at: 2018-07-05 07:23:33
Local clock offset: 0.181 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
 -- Total of 3 flows:
 Average throughput: 253.07 Mbit/s
 95th percentile per-packet one-way delay: 143.520 ms
 Loss rate: 1.55%
 -- Flow 1:
 Average throughput: 134.60 Mbit/s
 95th percentile per-packet one-way delay: 142.644 ms
 Loss rate: 0.98%
 -- Flow 2:
 Average throughput: 124.57 Mbit/s
 95th percentile per-packet one-way delay: 144.849 ms
 Loss rate: 1.53%
 -- Flow 3:
 Average throughput: 108.96 Mbit/s
 95th percentile per-packet one-way delay: 142.262 ms
 Loss rate: 3.71%
Run 6: Report of Indigo — Data Link
Run 7: Statistics of Indigo

Start at: 2018-07-05 07:50:00
End at: 2018-07-05 07:50:30
Local clock offset: 0.051 ms
Remote clock offset: -0.135 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 252.40 Mbit/s
  95th percentile per-packet one-way delay: 140.744 ms
  Loss rate: 1.56%
-- Flow 1:
  Average throughput: 132.82 Mbit/s
  95th percentile per-packet one-way delay: 140.323 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 127.41 Mbit/s
  95th percentile per-packet one-way delay: 139.591 ms
  Loss rate: 1.56%
-- Flow 3:
  Average throughput: 111.01 Mbit/s
  95th percentile per-packet one-way delay: 143.738 ms
  Loss rate: 3.69%
Run 7: Report of Indigo — Data Link

![Graph showing network performance metrics for different flows over time.](image1.png)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 132.01 Mbps)
  - Flow 1 egress (mean 132.82 Mbps)
  - Flow 2 ingress (mean 127.64 Mbps)
  - Flow 2 egress (mean 127.01 Mbps)
  - Flow 3 ingress (mean 112.05 Mbps)
  - Flow 3 egress (mean 111.01 Mbps)

![Graph showing per-packet one-way delay.](image2.png)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 140.32 ms)
  - Flow 2 (95th percentile 139.59 ms)
  - Flow 3 (95th percentile 143.74 ms)
Run 8: Statistics of Indigo

Start at: 2018-07-05 08:17:04
End at: 2018-07-05 08:17:34
Local clock offset: 0.062 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.19 Mbit/s
95th percentile per-packet one-way delay: 142.552 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 132.77 Mbit/s
95th percentile per-packet one-way delay: 141.801 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 127.24 Mbit/s
95th percentile per-packet one-way delay: 144.094 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 110.42 Mbit/s
95th percentile per-packet one-way delay: 142.404 ms
Loss rate: 3.63%
Run 8: Report of Indigo — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 9: Statistics of Indigo

Start at: 2018-07-05 08:44:02
End at: 2018-07-05 08:44:32
Local clock offset: 0.214 ms
Remote clock offset: -0.489 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.74 Mbit/s
95th percentile per-packet one-way delay: 144.724 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 132.87 Mbit/s
95th percentile per-packet one-way delay: 141.233 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 125.96 Mbit/s
95th percentile per-packet one-way delay: 143.880 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 110.98 Mbit/s
95th percentile per-packet one-way delay: 162.233 ms
Loss rate: 3.68%
Run 9: Report of Indigo — Data Link
Run 10: Statistics of Indigo

Start at: 2018-07-05 09:11:03
End at: 2018-07-05 09:11:33
Local clock offset: 0.055 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 266.66 Mbit/s
95th percentile per-packet one-way delay: 140.717 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 133.40 Mbit/s
95th percentile per-packet one-way delay: 139.549 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 126.85 Mbit/s
95th percentile per-packet one-way delay: 141.191 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 154.29 Mbit/s
95th percentile per-packet one-way delay: 142.924 ms
Loss rate: 3.52%
Run 10: Report of Indigo — Data Link

![Graph showing throughput and per-packet one-way delay over time for flows 1 to 3.]

- Flow 1 ingress (mean 133.48 Mbit/s) and egress (mean 133.40 Mbit/s)
- Flow 2 ingress (mean 127.06 Mbit/s) and egress (mean 126.85 Mbit/s)
- Flow 3 ingress (mean 155.45 Mbit/s) and egress (mean 154.29 Mbit/s)
Run 1: Statistics of LEDBAT

Start at: 2018-07-05 05:09:00  
End at: 2018-07-05 05:09:30  
Local clock offset: 0.049 ms  
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2018-07-05 11:24:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 7.42 Mbit/s  
95th percentile per-packet one-way delay: 137.301 ms  
Loss rate: 2.33%  
-- Flow 1:  
Average throughput: 4.85 Mbit/s  
95th percentile per-packet one-way delay: 137.306 ms  
Loss rate: 1.82%  
-- Flow 2:  
Average throughput: 3.15 Mbit/s  
95th percentile per-packet one-way delay: 137.213 ms  
Loss rate: 2.76%  
-- Flow 3:  
Average throughput: 1.51 Mbit/s  
95th percentile per-packet one-way delay: 137.525 ms  
Loss rate: 5.51%
Run 1: Report of LEDBAT — Data Link

![Graph showing throughput and end-to-end delay over time for Flow 1, Flow 2, and Flow 3.]
Run 2: Statistics of LEDBAT

Start at: 2018-07-05 05:36:15
End at: 2018-07-05 05:36:45
Local clock offset: -0.075 ms
Remote clock offset: -0.448 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.35 Mbit/s
95th percentile per-packet one-way delay: 138.036 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 138.055 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 3.17 Mbit/s
95th percentile per-packet one-way delay: 138.040 ms
Loss rate: 2.74%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 137.458 ms
Loss rate: 5.58%
Run 2: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 4.84 Mbit/s)
- Flow 1 egress (mean 4.79 Mbit/s)
- Flow 2 ingress (mean 3.21 Mbit/s)
- Flow 2 egress (mean 3.17 Mbit/s)
- Flow 3 ingress (mean 1.56 Mbit/s)
- Flow 3 egress (mean 1.32 Mbit/s)

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

- Flow 1 (95th percentile 138.06 ms)
- Flow 2 (95th percentile 138.04 ms)
- Flow 3 (95th percentile 137.48 ms)
Run 3: Statistics of LEDBAT

Start at: 2018-07-05 06:03:27
End at: 2018-07-05 06:03:57
Local clock offset: -0.099 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.53 Mbit/s
95th percentile per-packet one-way delay: 136.832 ms
Loss rate: 3.06%
-- Flow 1:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 136.895 ms
Loss rate: 2.51%
-- Flow 2:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 136.740 ms
Loss rate: 3.11%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 136.522 ms
Loss rate: 5.57%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-07-05 06:30:36
End at: 2018-07-05 06:31:06
Local clock offset: -0.052 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 137.585 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 137.612 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 137.669 ms
Loss rate: 2.87%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 137.223 ms
Loss rate: 5.56%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-07-05 06:57:41
End at: 2018-07-05 06:58:11
Local clock offset: -0.173 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.21 Mbit/s
  95th percentile per-packet one-way delay: 137.374 ms
  Loss rate: 2.37%
-- Flow 1:
  Average throughput: 4.77 Mbit/s
  95th percentile per-packet one-way delay: 137.400 ms
  Loss rate: 1.84%
-- Flow 2:
  Average throughput: 2.97 Mbit/s
  95th percentile per-packet one-way delay: 137.402 ms
  Loss rate: 2.83%
-- Flow 3:
  Average throughput: 1.52 Mbit/s
  95th percentile per-packet one-way delay: 136.945 ms
  Loss rate: 5.56%
Run 5: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 4.82 Mbps/s)
- Flow 1 egress (mean 4.77 Mbps/s)
- Flow 2 ingress (mean 3.02 Mbps/s)
- Flow 2 egress (mean 2.97 Mbps/s)
- Flow 3 ingress (mean 1.36 Mbps/s)
- Flow 3 egress (mean 1.32 Mbps/s)

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

- Flow 1 (95th percentile 137.40 ms)
- Flow 2 (95th percentile 137.40 ms)
- Flow 3 (95th percentile 136.94 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-07-05 07:24:41
End at: 2018-07-05 07:25:11
Local clock offset: -0.265 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.59 Mbit/s
  95th percentile per-packet one-way delay: 137.097 ms
  Loss rate: 2.40%
-- Flow 1:
  Average throughput: 3.41 Mbit/s
  95th percentile per-packet one-way delay: 137.100 ms
  Loss rate: 2.15%
-- Flow 2:
  Average throughput: 3.17 Mbit/s
  95th percentile per-packet one-way delay: 137.098 ms
  Loss rate: 2.74%
-- Flow 3:
  Average throughput: 0.23 Mbit/s
  95th percentile per-packet one-way delay: 136.172 ms
  Loss rate: 4.06%
Run 7: Statistics of LEDBAT

Start at: 2018-07-05 07:51:38
End at: 2018-07-05 07:52:08
Local clock offset: -0.305 ms
Remote clock offset: -0.129 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.40 Mbit/s
  95th percentile per-packet one-way delay: 137.348 ms
  Loss rate: 2.17%
-- Flow 1:
  Average throughput: 4.78 Mbit/s
  95th percentile per-packet one-way delay: 137.411 ms
  Loss rate: 1.84%
-- Flow 2:
  Average throughput: 0.25 Mbit/s
  95th percentile per-packet one-way delay: 136.435 ms
  Loss rate: 1.41%
-- Flow 3:
  Average throughput: 1.52 Mbit/s
  95th percentile per-packet one-way delay: 136.637 ms
  Loss rate: 5.57%
Run 7: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 4.83 Mbit/s)
- Flow 1 egress (mean 4.78 Mbit/s)
- Flow 2 ingress (mean 0.25 Mbit/s)
- Flow 2 egress (mean 0.25 Mbit/s)
- Flow 3 ingress (mean 1.36 Mbit/s)
- Flow 3 egress (mean 1.32 Mbit/s)
Run 8: Statistics of LEDBAT

Start at: 2018-07-05 08:18:41
End at: 2018-07-05 08:19:11
Local clock offset: -0.114 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.39 Mbit/s
  95th percentile per-packet one-way delay: 137.348 ms
  Loss rate: 2.34%
-- Flow 1:
  Average throughput: 4.80 Mbit/s
  95th percentile per-packet one-way delay: 137.337 ms
  Loss rate: 1.83%
-- Flow 2:
  Average throughput: 3.18 Mbit/s
  95th percentile per-packet one-way delay: 137.488 ms
  Loss rate: 2.74%
-- Flow 3:
  Average throughput: 1.52 Mbit/s
  95th percentile per-packet one-way delay: 136.840 ms
  Loss rate: 5.51%
Run 8: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 4.85 Mbit/s)
- Flow 1 egress (mean 4.80 Mbit/s)
- Flow 2 ingress (mean 3.22 Mbit/s)
- Flow 2 egress (mean 3.18 Mbit/s)
- Flow 3 ingress (mean 1.57 Mbit/s)
- Flow 3 egress (mean 1.32 Mbit/s)

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

- Flow 1 (95th percentile 137.34 ms)
- Flow 2 (95th percentile 137.49 ms)
- Flow 3 (95th percentile 136.84 ms)
Run 9: Statistics of LEDBAT

Start at: 2018-07-05 08:45:38
End at: 2018-07-05 08:46:08
Local clock offset: -0.255 ms
Remote clock offset: -0.458 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.40 Mbit/s
95th percentile per-packet one-way delay: 137.597 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 137.868 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 3.18 Mbit/s
95th percentile per-packet one-way delay: 137.184 ms
Loss rate: 2.74%
-- Flow 3:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 136.930 ms
Loss rate: 5.56%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-07-05 09:12:40
End at: 2018-07-05 09:13:10
Local clock offset: 0.159 ms
Remote clock offset: 0.283 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 6.18 Mbit/s
 95th percentile per-packet one-way delay: 136.841 ms
 Loss rate: 2.33%
-- Flow 1:
 Average throughput: 4.72 Mbit/s
 95th percentile per-packet one-way delay: 136.885 ms
 Loss rate: 1.84%
-- Flow 2:
 Average throughput: 2.04 Mbit/s
 95th percentile per-packet one-way delay: 136.647 ms
 Loss rate: 3.37%
-- Flow 3:
 Average throughput: 0.41 Mbit/s
 95th percentile per-packet one-way delay: 136.497 ms
 Loss rate: 8.23%
Run 10: Report of LEDBAT — Data Link

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

- **Throughput:**
  - Flow 1 ingress: mean 4.77 Mbit/s
  - Flow 1 egress: mean 4.72 Mbit/s
  - Flow 2 ingress: mean 2.06 Mbit/s
  - Flow 2 egress: mean 2.04 Mbit/s
  - Flow 3 ingress: mean 0.43 Mbit/s
  - Flow 3 egress: mean 0.41 Mbit/s

- **Round-trip time:**
  - Flow 1 (95th percentile: 136.88 ms)
  - Flow 2 (95th percentile: 136.65 ms)
  - Flow 3 (95th percentile: 136.50 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-07-05 05:17:09
End at: 2018-07-05 05:17:39
Local clock offset: 0.149 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 478.41 Mbit/s
95th percentile per-packet one-way delay: 269.019 ms
Loss rate: 3.85%
-- Flow 1:
Average throughput: 435.90 Mbit/s
95th percentile per-packet one-way delay: 269.793 ms
Loss rate: 3.84%
-- Flow 2:
Average throughput: 62.04 Mbit/s
95th percentile per-packet one-way delay: 266.950 ms
Loss rate: 4.00%
-- Flow 3:
Average throughput: 4.59 Mbit/s
95th percentile per-packet one-way delay: 207.870 ms
Loss rate: 2.76%
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-05 05:44:10
End at: 2018-07-05 05:44:40
Local clock offset: -0.077 ms
Remote clock offset: -0.428 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 479.11 Mbit/s
  95th percentile per-packet one-way delay: 268.490 ms
  Loss rate: 2.75%
-- Flow 1:
  Average throughput: 446.00 Mbit/s
  95th percentile per-packet one-way delay: 268.806 ms
  Loss rate: 2.78%
-- Flow 2:
  Average throughput: 33.84 Mbit/s
  95th percentile per-packet one-way delay: 267.612 ms
  Loss rate: 1.94%
-- Flow 3:
  Average throughput: 33.17 Mbit/s
  95th percentile per-packet one-way delay: 219.772 ms
  Loss rate: 3.05%
Run 2: Report of PCC-Allegro — Data Link
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-05 06:11:27
End at: 2018-07-05 06:11:57
Local clock offset: -0.155 ms
Remote clock offset: -0.34 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 494.36 Mbit/s
95th percentile per-packet one-way delay: 270.100 ms
Loss rate: 5.11%
-- Flow 1:
Average throughput: 451.81 Mbit/s
95th percentile per-packet one-way delay: 270.159 ms
Loss rate: 5.08%
-- Flow 2:
Average throughput: 63.06 Mbit/s
95th percentile per-packet one-way delay: 269.659 ms
Loss rate: 5.39%
-- Flow 3:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 262.905 ms
Loss rate: 7.54%
Run 3: Report of PCC-Allegro — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 471.65 Mb/s).
- Blue solid line: Flow 1 egress (mean 451.81 Mb/s).
- Green dashed line: Flow 2 ingress (mean 65.74 Mb/s).
- Green solid line: Flow 2 egress (mean 63.06 Mb/s).
- Red dashed line: Flow 3 ingress (mean 2.71 Mb/s).
- Red solid line: Flow 3 egress (mean 2.58 Mb/s).]
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-05 06:38:34
End at: 2018-07-05 06:39:04
Local clock offset: -0.103 ms
Remote clock offset: -0.482 ms

# Below is generated by plot.py at 2018-07-05 11:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 491.78 Mbit/s
95th percentile per-packet one-way delay: 275.945 ms
Loss rate: 3.32%
-- Flow 1:
Average throughput: 467.38 Mbit/s
95th percentile per-packet one-way delay: 276.023 ms
Loss rate: 3.34%
-- Flow 2:
Average throughput: 32.70 Mbit/s
95th percentile per-packet one-way delay: 274.705 ms
Loss rate: 2.91%
-- Flow 3:
Average throughput: 8.89 Mbit/s
95th percentile per-packet one-way delay: 261.839 ms
Loss rate: 3.35%
Run 4: Report of PCC-Allegro — Data Link
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-05 07:05:41
End at: 2018-07-05 07:06:11
Local clock offset: -0.093 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-07-05 11:28:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 472.09 Mbit/s
  95th percentile per-packet one-way delay: 277.069 ms
  Loss rate: 3.72%
-- Flow 1:
  Average throughput: 464.01 Mbit/s
  95th percentile per-packet one-way delay: 277.145 ms
  Loss rate: 3.70%
-- Flow 2:
  Average throughput: 4.43 Mbit/s
  95th percentile per-packet one-way delay: 273.115 ms
  Loss rate: 3.38%
-- Flow 3:
  Average throughput: 16.12 Mbit/s
  95th percentile per-packet one-way delay: 274.085 ms
  Loss rate: 6.02%
Run 5: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Packet Delay (ms)]

Legend:
- Blue dashed line: Flow 1 Ingress (mean 477.43 Mbps)
- Red dashed line: Flow 1 Egress (mean 454.01 Mbps)
- Blue dotted line: Flow 2 Ingress (mean 4.52 Mbps)
- Red dotted line: Flow 2 Egress (mean 4.43 Mbps)
- Green line: Flow 3 Ingress (mean 16.49 Mbps)
- Green dotted line: Flow 3 Egress (mean 16.12 Mbps)
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-05 07:32:38
End at: 2018-07-05 07:33:08
Local clock offset: -0.03 ms
Remote clock offset: -0.458 ms

# Below is generated by plot.py at 2018-07-05 11:28:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 477.29 Mbit/s
  95th percentile per-packet one-way delay: 293.580 ms
  Loss rate: 5.15%
-- Flow 1:
  Average throughput: 455.12 Mbit/s
  95th percentile per-packet one-way delay: 294.576 ms
  Loss rate: 5.17%
-- Flow 2:
  Average throughput: 31.52 Mbit/s
  95th percentile per-packet one-way delay: 278.384 ms
  Loss rate: 4.45%
-- Flow 3:
  Average throughput: 4.22 Mbit/s
  95th percentile per-packet one-way delay: 279.788 ms
  Loss rate: 8.60%
Run 6: Report of PCC-Allegro — Data Link

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

- **Flow 1 Ingress** (mean 475.54 Mbps)
- **Flow 1 Egress** (mean 455.12 Mbps)
- **Flow 2 Ingress** (mean 32.53 Mbps)
- **Flow 2 Egress** (mean 31.52 Mbps)
- **Flow 3 Ingress** (mean 4.49 Mbps)
- **Flow 3 Egress** (mean 4.22 Mbps)

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

- **Flow 1** (95th percentile 294.58 ms)
- **Flow 2** (95th percentile 278.38 ms)
- **Flow 3** (95th percentile 279.79 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-05 07:59:36
End at: 2018-07-05 08:00:06
Local clock offset: -0.256 ms
Remote clock offset: -0.122 ms

# Below is generated by plot.py at 2018-07-05 11:29:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 482.15 Mbit/s
  95th percentile per-packet one-way delay: 265.023 ms
  Loss rate: 2.90%
-- Flow 1:
  Average throughput: 433.11 Mbit/s
  95th percentile per-packet one-way delay: 265.070 ms
  Loss rate: 2.87%
-- Flow 2:
  Average throughput: 65.87 Mbit/s
  95th percentile per-packet one-way delay: 264.827 ms
  Loss rate: 3.21%
-- Flow 3:
  Average throughput: 16.95 Mbit/s
  95th percentile per-packet one-way delay: 220.334 ms
  Loss rate: 2.79%
Run 7: Report of PCC-Allegro — Data Link
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-05 08:26:34
End at: 2018-07-05 08:27:04
Local clock offset: -0.299 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-07-05 11:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 472.36 Mbit/s
95th percentile per-packet one-way delay: 273.643 ms
Loss rate: 4.47%
-- Flow 1:
Average throughput: 451.20 Mbit/s
95th percentile per-packet one-way delay: 274.074 ms
Loss rate: 4.44%
-- Flow 2:
Average throughput: 16.55 Mbit/s
95th percentile per-packet one-way delay: 270.969 ms
Loss rate: 3.58%
-- Flow 3:
Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 271.676 ms
Loss rate: 6.89%
Run 8: Report of PCC-Allegro — Data Link

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

- Flow 1 Ingress (mean 487.85 Mbit/s)
- Flow 1 Egress (mean 451.20 Mbit/s)
- Flow 2 Ingress (mean 16.93 Mbit/s)
- Flow 2 Egress (mean 16.55 Mbit/s)
- Flow 3 Ingress (mean 32.98 Mbit/s)
- Flow 3 Egress (mean 31.59 Mbit/s)

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

- Flow 1 (95th percentile 274.07 ms)
- Flow 2 (95th percentile 270.97 ms)
- Flow 3 (95th percentile 271.68 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-05 08:53:24
End at: 2018-07-05 08:53:54
Local clock offset: 0.026 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-07-05 11:31:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 479.45 Mbit/s
  95th percentile per-packet one-way delay: 276.585 ms
  Loss rate: 2.86%
-- Flow 1:
  Average throughput: 456.02 Mbit/s
  95th percentile per-packet one-way delay: 276.912 ms
  Loss rate: 2.80%
-- Flow 2:
  Average throughput: 4.52 Mbit/s
  95th percentile per-packet one-way delay: 262.205 ms
  Loss rate: 1.76%
-- Flow 3:
  Average throughput: 63.25 Mbit/s
  95th percentile per-packet one-way delay: 263.356 ms
  Loss rate: 4.37%
Run 9: Report of PCC-Allegro — Data Link

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

- Flow 1 Ingress (mean 484.88 Mbit/s)
- Flow 1 Egress (mean 456.02 Mbit/s)
- Flow 2 Ingress (mean 4.54 Mbit/s)
- Flow 2 Egress (mean 4.52 Mbit/s)
- Flow 3 Ingress (mean 64.30 Mbit/s)
- Flow 3 Egress (mean 63.25 Mbit/s)
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-05 09:20:34
End at: 2018-07-05 09:21:04
Local clock offset: 0.262 ms
Remote clock offset: -0.402 ms

# Below is generated by plot.py at 2018-07-05 11:31:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.67 Mbit/s
95th percentile per-packet one-way delay: 243.321 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 459.29 Mbit/s
95th percentile per-packet one-way delay: 243.740 ms
Loss rate: 2.84%
-- Flow 2:
Average throughput: 4.43 Mbit/s
95th percentile per-packet one-way delay: 235.015 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 16.87 Mbit/s
95th percentile per-packet one-way delay: 207.219 ms
Loss rate: 3.39%
Run 10: Report of PCC-Allegro — Data Link
Run 1: Statistics of PCC-Expr

Start at: 2018-07-05 05:13:49
End at: 2018-07-05 05:14:19
Local clock offset: ~0.088 ms
Remote clock offset: ~0.021 ms

# Below is generated by plot.py at 2018-07-05 11:36:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 387.41 Mbit/s
95th percentile per-packet one-way delay: 249.533 ms
Loss rate: 3.56%
-- Flow 1:
Average throughput: 247.38 Mbit/s
95th percentile per-packet one-way delay: 252.575 ms
Loss rate: 4.36%
-- Flow 2:
Average throughput: 171.31 Mbit/s
95th percentile per-packet one-way delay: 222.804 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 82.30 Mbit/s
95th percentile per-packet one-way delay: 245.614 ms
Loss rate: 3.45%
Run 1: Report of PCC-Expr — Data Link
Run 2: Statistics of PCC-Expr

Start at: 2018-07-05 05:40:52  
End at: 2018-07-05 05:41:22  
Local clock offset: -0.072 ms  
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-07-05 11:36:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 342.70 Mbit/s
95th percentile per-packet one-way delay: 197.617 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 208.50 Mbit/s
95th percentile per-packet one-way delay: 222.810 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 180.80 Mbit/s
95th percentile per-packet one-way delay: 171.221 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 44.81 Mbit/s
95th percentile per-packet one-way delay: 139.179 ms
Loss rate: 3.27%
Run 2: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress** (mean 208.93 Mbit/s), **Flow 1 egress** (mean 208.50 Mbit/s)
- **Flow 2 ingress** (mean 181.29 Mbit/s), **Flow 2 egress** (mean 180.80 Mbit/s)
- **Flow 3 ingress** (mean 45.05 Mbit/s), **Flow 3 egress** (mean 44.81 Mbit/s)

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

- **Flow 1** (95th percentile 222.81 ms), **Flow 2** (95th percentile 171.22 ms), **Flow 3** (95th percentile 139.18 ms)
Run 3: Statistics of PCC-Expr

Start at: 2018-07-05 06:08:13
End at: 2018-07-05 06:08:43
Local clock offset: 0.04 ms
Remote clock offset: 0.366 ms

# Below is generated by plot.py at 2018-07-05 11:39:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.58 Mbit/s
95th percentile per-packet one-way delay: 144.037 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 185.90 Mbit/s
95th percentile per-packet one-way delay: 156.376 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 169.86 Mbit/s
95th percentile per-packet one-way delay: 141.518 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 44.72 Mbit/s
95th percentile per-packet one-way delay: 136.721 ms
Loss rate: 3.27%
Run 3: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 188.65 Mbit/s)
- Flow 1 egress (mean 185.90 Mbit/s)
- Flow 2 ingress (mean 170.16 Mbit/s)
- Flow 2 egress (mean 169.86 Mbit/s)
- Flow 3 ingress (mean 44.98 Mbit/s)
- Flow 3 egress (mean 44.72 Mbit/s)

![Graph 2: Packet Delay vs Time for different flows]

- Flow 1 (95th percentile 156.38 ms)
- Flow 2 (95th percentile 141.52 ms)
- Flow 3 (95th percentile 136.72 ms)
Run 4: Statistics of PCC-Expr

Start at: 2018-07-05 06:35:21
End at: 2018-07-05 06:35:51
Local clock offset: -0.044 ms
Remote clock offset: 0.282 ms

# Below is generated by plot.py at 2018-07-05 11:39:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 309.37 Mbit/s
95th percentile per-packet one-way delay: 238.853 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 183.06 Mbit/s
95th percentile per-packet one-way delay: 240.252 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 169.45 Mbit/s
95th percentile per-packet one-way delay: 237.269 ms
Loss rate: 3.04%
-- Flow 3:
Average throughput: 43.73 Mbit/s
95th percentile per-packet one-way delay: 237.130 ms
Loss rate: 4.26%
Run 4: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 184.71 Mbit/s)
- Flow 1 egress (mean 183.06 Mbit/s)
- Flow 2 ingress (mean 172.35 Mbit/s)
- Flow 2 egress (mean 169.45 Mbit/s)
- Flow 3 ingress (mean 44.41 Mbit/s)
- Flow 3 egress (mean 43.73 Mbit/s)

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

- Flow 1 (95th percentile 240.25 ms)
- Flow 2 (95th percentile 237.27 ms)
- Flow 3 (95th percentile 237.13 ms)
Run 5: Statistics of PCC-Expr

Start at: 2018-07-05 07:02:21
End at: 2018-07-05 07:02:51
Local clock offset: -0.121 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2018-07-05 11:42:15
# Datalink statistics
  -- Total of 3 flows:
  Average throughput: 350.74 Mbit/s
  95th percentile per-packet one-way delay: 324.378 ms
  Loss rate: 7.61%
  -- Flow 1:
  Average throughput: 277.42 Mbit/s
  95th percentile per-packet one-way delay: 328.849 ms
  Loss rate: 9.04%
  -- Flow 2:
  Average throughput: 89.61 Mbit/s
  95th percentile per-packet one-way delay: 137.479 ms
  Loss rate: 1.47%
  -- Flow 3:
  Average throughput: 43.19 Mbit/s
  95th percentile per-packet one-way delay: 136.742 ms
  Loss rate: 3.10%
Run 5: Report of PCC-Expr — Data Link

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

Legend:
- Flow 1 ingress (mean 302.21 Mbit/s)
- Flow 1 egress (mean 277.42 Mbit/s)
- Flow 2 ingress (mean 89.70 Mbit/s)
- Flow 2 egress (mean 89.61 Mbit/s)
- Flow 3 ingress (mean 43.34 Mbit/s)
- Flow 3 egress (mean 43.19 Mbit/s)
Run 6: Statistics of PCC-Expr

Start at: 2018-07-05 07:29:22
End at: 2018-07-05 07:29:52
Local clock offset: -0.17 ms
Remote clock offset: 0.218 ms

# Below is generated by plot.py at 2018-07-05 11:42:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 319.30 Mbit/s
  95th percentile per-packet one-way delay: 174.831 ms
  Loss rate: 1.30%
-- Flow 1:
  Average throughput: 179.30 Mbit/s
  95th percentile per-packet one-way delay: 180.102 ms
  Loss rate: 0.94%
-- Flow 2:
  Average throughput: 170.85 Mbit/s
  95th percentile per-packet one-way delay: 165.184 ms
  Loss rate: 1.40%
-- Flow 3:
  Average throughput: 83.00 Mbit/s
  95th percentile per-packet one-way delay: 193.308 ms
  Loss rate: 3.26%
Run 6: Report of PCC-Expr — Data Link

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

Flow 1 ingress (mean 179.35 Mbit/s)
Flow 1 egress (mean 179.30 Mbit/s)
Flow 2 ingress (mean 170.91 Mbit/s)
Flow 2 egress (mean 170.85 Mbit/s)
Flow 3 ingress (mean 83.42 Mbit/s)
Flow 3 egress (mean 83.00 Mbit/s)

Flow 1 (95th percentile 180.10 ms)
Flow 2 (95th percentile 165.18 ms)
Flow 3 (95th percentile 193.31 ms)
Run 7: Statistics of PCC-Expr

Start at: 2018-07-05 07:56:20
End at: 2018-07-05 07:56:50
Local clock offset: 0.027 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-07-05 11:42:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 315.68 Mbit/s
95th percentile per-packet one-way delay: 149.370 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 183.45 Mbit/s
95th percentile per-packet one-way delay: 157.972 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 177.81 Mbit/s
95th percentile per-packet one-way delay: 151.619 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 44.72 Mbit/s
95th percentile per-packet one-way delay: 136.618 ms
Loss rate: 3.27%
Run 7: Report of PCC-Expr — Data Link

![Graph showing Throughput and Delay over time for different flows.]

- **Throughput Graph**
  - Flow 1 ingress (mean 183.73 Mbit/s)
  - Flow 1 egress (mean 183.45 Mbit/s)
  - Flow 2 ingress (mean 178.33 Mbit/s)
  - Flow 2 egress (mean 177.81 Mbit/s)
  - Flow 3 ingress (mean 44.05 Mbit/s)
  - Flow 3 egress (mean 44.72 Mbit/s)

- **Delay Graph**
  - Flow 1 (95th percentile 157.97 ms)
  - Flow 2 (95th percentile 151.62 ms)
  - Flow 3 (95th percentile 136.62 ms)
Run 8: Statistics of PCC-Expr

Start at: 2018-07-05 08:23:18
End at: 2018-07-05 08:23:48
Local clock offset: -0.052 ms
Remote clock offset: -0.411 ms

# Below is generated by plot.py at 2018-07-05 11:44:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 336.68 Mbit/s
  95th percentile per-packet one-way delay: 277.308 ms
  Loss rate: 4.35%
-- Flow 1:
  Average throughput: 198.19 Mbit/s
  95th percentile per-packet one-way delay: 272.453 ms
  Loss rate: 3.21%
-- Flow 2:
  Average throughput: 171.11 Mbit/s
  95th percentile per-packet one-way delay: 276.389 ms
  Loss rate: 4.75%
-- Flow 3:
  Average throughput: 77.86 Mbit/s
  95th percentile per-packet one-way delay: 284.538 ms
  Loss rate: 10.97%
Run 8: Report of PCC-Expr — Data Link
Run 9: Statistics of PCC-Expr

Start at: 2018-07-05 08:50:08
End at: 2018-07-05 08:50:38
Local clock offset: -0.025 ms
Remote clock offset: -0.449 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 326.59 Mbit/s
95th percentile per-packet one-way delay: 154.798 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 185.29 Mbit/s
95th percentile per-packet one-way delay: 156.991 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 172.86 Mbit/s
95th percentile per-packet one-way delay: 146.692 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 83.05 Mbit/s
95th percentile per-packet one-way delay: 171.119 ms
Loss rate: 3.23%
Run 9: Report of PCC-Expr — Data Link
Run 10: Statistics of PCC-Expr

Start at: 2018-07-05 09:17:20
End at: 2018-07-05 09:17:50
Local clock offset: 0.091 ms
Remote clock offset: 0.309 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 302.30 Mbit/s
95th percentile per-packet one-way delay: 182.921 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 177.87 Mbit/s
95th percentile per-packet one-way delay: 162.558 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 166.41 Mbit/s
95th percentile per-packet one-way delay: 242.505 ms
Loss rate: 2.53%
-- Flow 3:
Average throughput: 44.07 Mbit/s
95th percentile per-packet one-way delay: 162.687 ms
Loss rate: 3.08%
Run 10: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress (mean 178.60 Mbit/s)**
- **Flow 1 egress (mean 177.87 Mbit/s)**
- **Flow 2 ingress (mean 168.40 Mbit/s)**
- **Flow 2 egress (mean 166.41 Mbit/s)**
- **Flow 3 ingress (mean 44.21 Mbit/s)**
- **Flow 3 egress (mean 44.07 Mbit/s)**
Run 1: Statistics of QUIC Cubic

Start at: 2018-07-05 05:26:15
End at: 2018-07-05 05:26:45
Local clock offset: -0.227 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.93 Mbit/s
95th percentile per-packet one-way delay: 136.346 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 48.15 Mbit/s
95th percentile per-packet one-way delay: 136.377 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 57.89 Mbit/s
95th percentile per-packet one-way delay: 135.642 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 34.14 Mbit/s
95th percentile per-packet one-way delay: 136.067 ms
Loss rate: 0.21%
Run 1: Report of QUIC Cubic — Data Link

![Graph showing network performance metrics over time](image-url)

- **Flow 1 ingress** (mean 48.32 Mbit/s)
- **Flow 1 egress** (mean 48.15 Mbit/s)
- **Flow 2 ingress** (mean 58.09 Mbit/s)
- **Flow 2 egress** (mean 57.89 Mbit/s)
- **Flow 3 ingress** (mean 33.46 Mbit/s)
- **Flow 3 egress** (mean 34.14 Mbit/s)

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

- **Flow 1** (95th percentile 136.38 ms)
- **Flow 2** (95th percentile 135.64 ms)
- **Flow 3** (95th percentile 136.07 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-05 05:53:18
End at: 2018-07-05 05:53:48
Local clock offset: -0.08 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.53 Mbit/s
  95th percentile per-packet one-way delay: 136.289 ms
  Loss rate: 1.52%
-- Flow 1:
  Average throughput: 45.18 Mbit/s
  95th percentile per-packet one-way delay: 136.313 ms
  Loss rate: 1.27%
-- Flow 2:
  Average throughput: 45.34 Mbit/s
  95th percentile per-packet one-way delay: 135.985 ms
  Loss rate: 2.20%
-- Flow 3:
  Average throughput: 34.83 Mbit/s
  95th percentile per-packet one-way delay: 136.036 ms
  Loss rate: 0.71%
Run 2: Report of QUIC Cubic — Data Link

![Graph 1: Throughput (Mbps)](chart1.png)

- Flow 1 ingress (mean 45.34 Mbit/s)
- Flow 1 egress (mean 45.18 Mbit/s)
- Flow 2 ingress (mean 45.72 Mbit/s)
- Flow 2 egress (mean 45.34 Mbit/s)
- Flow 3 ingress (mean 34.12 Mbit/s)
- Flow 3 egress (mean 34.63 Mbit/s)

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

- Flow 1 (95th percentile 136.31 ms)
- Flow 2 (95th percentile 135.99 ms)
- Flow 3 (95th percentile 136.04 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-05 06:20:29
End at: 2018-07-05 06:20:59
Local clock offset: -0.203 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.12 Mbit/s
  95th percentile per-packet one-way delay: 135.890 ms
  Loss rate: 1.38%
-- Flow 1:
  Average throughput: 58.56 Mbit/s
  95th percentile per-packet one-way delay: 135.894 ms
  Loss rate: 1.06%
-- Flow 2:
  Average throughput: 45.73 Mbit/s
  95th percentile per-packet one-way delay: 135.867 ms
  Loss rate: 1.88%
-- Flow 3:
  Average throughput: 3.92 Mbit/s
  95th percentile per-packet one-way delay: 135.962 ms
  Loss rate: 3.92%
Run 3: Report of QUIC Cubic — Data Link

![Graph showing throughput over time for different flows.

- **Flow 1 Ingress** (mean 58.65 Mbit/s)
- **Flow 1 Egress** (mean 58.56 Mbit/s)
- **Flow 2 Ingress** (mean 45.97 Mbit/s)
- **Flow 2 Egress** (mean 45.73 Mbit/s)
- **Flow 3 Ingress** (mean 3.97 Mbit/s)
- **Flow 3 Egress** (mean 3.92 Mbit/s)

![Graph showing round-trip packet delay over time for different flows.

- **Flow 1 95th percentile 135.89 ms**
- **Flow 2 95th percentile 135.87 ms**
- **Flow 3 95th percentile 135.96 ms**]
Run 4: Statistics of QUIC Cubic

Start at: 2018-07-05 06:47:44
End at: 2018-07-05 06:48:14
Local clock offset: -0.061 ms
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.66 Mbit/s
95th percentile per-packet one-way delay: 136.365 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 49.48 Mbit/s
95th percentile per-packet one-way delay: 136.312 ms
Loss rate: 1.29%
-- Flow 2:
Average throughput: 45.19 Mbit/s
95th percentile per-packet one-way delay: 136.290 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 25.41 Mbit/s
95th percentile per-packet one-way delay: 136.500 ms
Loss rate: 0.35%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-05 07:14:32
End at: 2018-07-05 07:15:02
Local clock offset: -0.086 ms
Remote clock offset: -0.481 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.10 Mbit/s
95th percentile per-packet one-way delay: 136.611 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 60.79 Mbit/s
95th percentile per-packet one-way delay: 136.258 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 36.94 Mbit/s
95th percentile per-packet one-way delay: 136.551 ms
Loss rate: 2.59%
-- Flow 3:
Average throughput: 33.46 Mbit/s
95th percentile per-packet one-way delay: 136.760 ms
Loss rate: 1.72%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-05 07:41:41
End at: 2018-07-05 07:42:11
Local clock offset: 0.038 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.55 Mbit/s
95th percentile per-packet one-way delay: 135.827 ms
Loss rate: 1.79%
-- Flow 1:
Average throughput: 44.32 Mbit/s
95th percentile per-packet one-way delay: 135.214 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 135.869 ms
Loss rate: 2.58%
-- Flow 3:
Average throughput: 26.04 Mbit/s
95th percentile per-packet one-way delay: 135.283 ms
Loss rate: 2.05%
Run 6: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 44.49 Mbit/s)
- Flow 1 egress (mean 44.32 Mbit/s)
- Flow 2 ingress (mean 39.47 Mbit/s)
- Flow 2 egress (mean 38.98 Mbit/s)
- Flow 3 ingress (mean 25.86 Mbit/s)
- Flow 3 egress (mean 26.04 Mbit/s)

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

- Flow 1 (95th percentile 135.21 ms)
- Flow 2 (95th percentile 135.87 ms)
- Flow 3 (95th percentile 135.28 ms)

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Run 7: Statistics of QUIC Cubic

Start at: 2018-07-05 08:08:40
End at: 2018-07-05 08:09:10
Local clock offset: 0.054 ms
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.46 Mbit/s
95th percentile per-packet one-way delay: 136.500 ms
Loss rate: 2.43%
-- Flow 1:
Average throughput: 41.37 Mbit/s
95th percentile per-packet one-way delay: 136.101 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 33.45 Mbit/s
95th percentile per-packet one-way delay: 136.130 ms
Loss rate: 2.65%
-- Flow 3:
Average throughput: 37.13 Mbit/s
95th percentile per-packet one-way delay: 136.613 ms
Loss rate: 5.73%
Run 7: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet latency over time for different flows.](image-url)
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-05 08:35:38
End at: 2018-07-05 08:36:08
Local clock offset: -0.342 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.22 Mbit/s
95th percentile per-packet one-way delay: 135.961 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 51.07 Mbit/s
95th percentile per-packet one-way delay: 134.827 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 45.52 Mbit/s
95th percentile per-packet one-way delay: 135.712 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 34.12 Mbit/s
95th percentile per-packet one-way delay: 136.030 ms
Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link

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

Flow 1 ingress (mean 51.19 Mbit/s), Flow 1 egress (mean 51.07 Mbit/s), Flow 2 ingress (mean 45.74 Mbit/s), Flow 2 egress (mean 45.52 Mbit/s), Flow 3 ingress (mean 33.14 Mbit/s), Flow 3 egress (mean 34.12 Mbit/s)

Flow 1 (95th percentile 134.83 ms), Flow 2 (95th percentile 135.71 ms), Flow 3 (95th percentile 136.03 ms) 

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Run 9: Statistics of QUIC Cubic

Start at: 2018-07-05 09:02:31
End at: 2018-07-05 09:03:02
Local clock offset: 0.053 ms
Remote clock offset: -0.457 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.42 Mbit/s
  95th percentile per-packet one-way delay: 136.051 ms
  Loss rate: 2.10%
-- Flow 1:
  Average throughput: 51.84 Mbit/s
  95th percentile per-packet one-way delay: 136.064 ms
  Loss rate: 1.16%
-- Flow 2:
  Average throughput: 42.52 Mbit/s
  95th percentile per-packet one-way delay: 135.474 ms
  Loss rate: 2.05%
-- Flow 3:
  Average throughput: 22.82 Mbit/s
  95th percentile per-packet one-way delay: 136.648 ms
  Loss rate: 8.32%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-05 09:29:33
End at: 2018-07-05 09:30:03
Local clock offset: -0.147 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.78 Mbit/s
95th percentile per-packet one-way delay: 135.670 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 49.71 Mbit/s
95th percentile per-packet one-way delay: 134.898 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 46.83 Mbit/s
95th percentile per-packet one-way delay: 135.574 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 40.18 Mbit/s
95th percentile per-packet one-way delay: 135.765 ms
Loss rate: 5.44%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-07-05 05:25:00
End at: 2018-07-05 05:25:30
Local clock offset: -0.316 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.188 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.203 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.823 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 136.164 ms
Loss rate: 2.57%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-07-05 05:52:03
End at: 2018-07-05 05:52:33
Local clock offset: -0.074 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.407 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.386 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.428 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.943 ms
  Loss rate: 2.59%
Run 2: Report of SCReAM — Data Link

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

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

- **Per-packet round-trip delay (ms)**
  - Flow 1 (95th percentile 136.39 ms)
  - Flow 2 (95th percentile 136.74 ms)
  - Flow 3 (95th percentile 135.94 ms)
Run 3: Statistics of SCReAM

Start at: 2018-07-05 06:19:14
End at: 2018-07-05 06:19:44
Local clock offset: -0.256 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.398 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.906 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.289 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.461 ms
  Loss rate: 2.59%
Run 3: Report of SCReAM — Data Link

![Graph showing network performance metrics]
Run 4: Statistics of SCReAM

Start at: 2018-07-05 06:46:28
End at: 2018-07-05 06:46:58
Local clock offset: -0.109 ms
Remote clock offset: -0.124 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.458 ms
  Loss rate: 1.30%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.480 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.921 ms
  Loss rate: 1.24%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.180 ms
  Loss rate: 2.59%
Run 4: Report of SCReAM — Data Link

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

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

![Graph of Percentage One-way Delay (ms) vs Time (s)]

- Flow 1 (95th percentile 136.48 ms)
- Flow 2 (95th percentile 135.92 ms)
- Flow 3 (95th percentile 135.18 ms)
Run 5: Statistics of SCReAM

Start at: 2018-07-05 07:13:17
End at: 2018-07-05 07:13:47
Local clock offset: -0.077 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.034 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.063 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.083 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.490 ms
  Loss rate: 2.59%
Run 6: Statistics of SCReAM

Start at: 2018-07-05 07:40:26  
End at: 2018-07-05 07:40:56  
Local clock offset: -0.232 ms  
Remote clock offset: -0.483 ms

# Below is generated by plot.py at 2018-07-05 11:48:14  
# Datalink statistics

-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 136.569 ms
Loss rate: 1.27%

-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.352 ms
Loss rate: 0.89%

-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.598 ms
Loss rate: 1.43%

-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 135.361 ms
Loss rate: 2.23%
Run 6: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.22 Mbps)
Flow 1 egress (mean 0.22 Mbps)
Flow 2 ingress (mean 0.22 Mbps)
Flow 2 egress (mean 0.22 Mbps)
Flow 3 ingress (mean 0.19 Mbps)
Flow 3 egress (mean 0.19 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 135.35 ms)
Flow 2 (95th percentile 136.60 ms)
Flow 3 (95th percentile 135.36 ms)
Run 7: Statistics of SCReAM

Start at: 2018-07-05 08:07:25
End at: 2018-07-05 08:07:55
Local clock offset: -0.116 ms
Remote clock offset: 0.279 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 135.707 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.283 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.738 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.727 ms
Loss rate: 2.59%
Run 7: Report of SCReAM — Data Link

![Graph of Throughput vs Time for different flows]  
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 of One-Way Delay vs Time for different flows]  
Flow 1 (95th percentile 135.28 ms)  | Flow 2 (95th percentile 135.74 ms)  | Flow 3 (95th percentile 135.73 ms)
Run 8: Statistics of SCReAM

Start at: 2018-07-05 08:34:23
End at: 2018-07-05 08:34:53
Local clock offset: 0.026 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.549 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.244 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.876 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.522 ms
  Loss rate: 2.59%
Run 8: Report of SCReAM — Data Link
Run 9: Statistics of SCReAM

Start at: 2018-07-05 09:01:16
End at: 2018-07-05 09:01:46
Local clock offset: 0.188 ms
Remote clock offset: 0.245 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.450 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.466 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.238 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.903 ms
Loss rate: 2.25%
Run 9: Report of SCReAM — Data Link

[Graph showing throughput over time for different flows and their ingress and egress data rates]

[Graph showing per-packet one-way delay for different flows and their 95th percentile delay times]
Run 10: Statistics of SCReAM

Start at: 2018-07-05 09:28:18
End at: 2018-07-05 09:28:48
Local clock offset: 0.021 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 135.823 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.805 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.131 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.487 ms
Loss rate: 2.59%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of Sprout

Start at: 2018-07-05 05:30:38  
End at: 2018-07-05 05:31:08  
Local clock offset: -0.1 ms  
Remote clock offset: -0.386 ms

# Below is generated by plot.py at 2018-07-05 11:48:14  
# Datalink statistics
-- Total of 3 flows:  
Average throughput: 0.32 Mbit/s  
95th percentile per-packet one-way delay: 136.880 ms  
Loss rate: 0.82%
-- Flow 1:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 136.697 ms  
Loss rate: 0.79%
-- Flow 2:  
Average throughput: 0.18 Mbit/s  
95th percentile per-packet one-way delay: 136.915 ms  
Loss rate: 0.45%
-- Flow 3:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 136.733 ms  
Loss rate: 1.74%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-07-05 05:57:56
End at: 2018-07-05 05:58:26
Local clock offset: -0.244 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 136.534 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 135.997 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 136.011 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 136.589 ms
Loss rate: 1.86%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-07-05 06:25:01
End at: 2018-07-05 06:25:31
Local clock offset: -0.096 ms
Remote clock offset: -0.439 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.31 Mbit/s
  95th percentile per-packet one-way delay: 136.967 ms
  Loss rate: 1.01%
-- Flow 1:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 136.984 ms
  Loss rate: 0.53%
-- Flow 2:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.843 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.828 ms
  Loss rate: 1.55%
Run 3: Report of Sprout — Data Link

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

Flow 1 ingress (mean 0.15 Mbit/s)  Flow 1 egress (mean 0.15 Mbit/s)
Flow 2 ingress (mean 0.16 Mbit/s)  Flow 2 egress (mean 0.16 Mbit/s)
Flow 3 ingress (mean 0.16 Mbit/s)  Flow 3 egress (mean 0.16 Mbit/s)
Run 4: Statistics of Sprout

Start at: 2018-07-05 06:52:12
End at: 2018-07-05 06:52:42
Local clock offset: -0.159 ms
Remote clock offset: -0.129 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.32 Mbit/s
  95th percentile per-packet one-way delay: 136.463 ms
  Loss rate: 1.21%
-- Flow 1:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.447 ms
  Loss rate: 0.75%
-- Flow 2:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.498 ms
  Loss rate: 1.17%
-- Flow 3:
  Average throughput: 0.19 Mbit/s
  95th percentile per-packet one-way delay: 136.459 ms
  Loss rate: 2.43%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

Start at: 2018-07-05 07:19:08
End at: 2018-07-05 07:19:38
Local clock offset: -0.036 ms
Remote clock offset: -0.463 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 136.961 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.737 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 137.014 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 136.737 ms
Loss rate: 2.15%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-07-05 07:46:05
End at: 2018-07-05 07:46:35
Local clock offset: -0.054 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 136.716 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.366 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.162 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 136.851 ms
Loss rate: 1.78%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

Start at: 2018-07-05 08:13:09
End at: 2018-07-05 08:13:39
Local clock offset: -0.07 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 136.151 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.166 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.094 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 136.116 ms
Loss rate: 0.23%
Run 7: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.15 Mbps)  
Flow 1 egress (mean 0.15 Mbps)  
Flow 2 ingress (mean 0.16 Mbps)  
Flow 2 egress (mean 0.16 Mbps)  
Flow 3 ingress (mean 0.17 Mbps)  
Flow 3 egress (mean 0.18 Mbps)

Delay (ms)

Time (s)

Flow 1 (95th percentile 136.17 ms)  
Flow 2 (95th percentile 136.09 ms)  
Flow 3 (95th percentile 136.12 ms)
Run 8: Statistics of Sprout

Start at: 2018-07-05 08:40:09
End at: 2018-07-05 08:40:39
Local clock offset: -0.208 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.31 Mbit/s
  95th percentile per-packet one-way delay: 135.973 ms
  Loss rate: 0.93%
-- Flow 1:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 135.960 ms
  Loss rate: 1.05%
-- Flow 2:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 135.953 ms
  Loss rate: 0.81%
-- Flow 3:
  Average throughput: 0.19 Mbit/s
  95th percentile per-packet one-way delay: 136.404 ms
  Loss rate: 0.85%
Run 8: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.15 Mbit/s)  Flow 1 egress (mean 0.15 Mbit/s)
Flow 2 ingress (mean 0.15 Mbit/s)  Flow 2 egress (mean 0.15 Mbit/s)
Flow 3 ingress (mean 0.19 Mbit/s)  Flow 3 egress (mean 0.19 Mbit/s)

Round-trip time (ms)

Time (s)

Flow 1 (95th percentile 135.96 ms)  Flow 2 (95th percentile 135.95 ms)  Flow 3 (95th percentile 136.40 ms)
Run 9: Statistics of Sprout

Start at: 2018-07-05 09:07:07
End at: 2018-07-05 09:07:37
Local clock offset: -0.002 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.371 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 136.391 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 136.061 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.319 ms
Loss rate: 2.23%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-07-05 09:33:39
End at: 2018-07-05 09:34:09
Local clock offset: 0.146 ms
Remote clock offset: 0.31 ms

# Below is generated by plot.py at 2018-07-05 11:48:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.31 Mbit/s
  95th percentile per-packet one-way delay: 135.918 ms
  Loss rate: 1.25%
-- Flow 1:
  Average throughput: 0.14 Mbit/s
  95th percentile per-packet one-way delay: 135.894 ms
  Loss rate: 0.86%
-- Flow 2:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 135.878 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 136.112 ms
  Loss rate: 1.75%
Run 10: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

Start at: 2018-07-05 05:29:02
End at: 2018-07-05 05:29:32
Local clock offset: -0.182 ms
Remote clock offset: -0.409 ms

# Below is generated by plot.py at 2018-07-05 11:50:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 185.95 Mbit/s
95th percentile per-packet one-way delay: 150.165 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 13.20 Mbit/s
95th percentile per-packet one-way delay: 136.992 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 173.69 Mbit/s
95th percentile per-packet one-way delay: 151.847 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 176.39 Mbit/s
95th percentile per-packet one-way delay: 146.003 ms
Loss rate: 2.82%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2018-07-05 05:56:05  
End at: 2018-07-05 05:56:35  
Local clock offset: -0.266 ms  
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-07-05 11:55:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 309.45 Mbit/s  
95th percentile per-packet one-way delay: 139.828 ms  
Loss rate: 0.97%  
-- Flow 1:  
Average throughput: 186.49 Mbit/s  
95th percentile per-packet one-way delay: 138.368 ms  
Loss rate: 0.39%  
-- Flow 2:  
Average throughput: 179.77 Mbit/s  
95th percentile per-packet one-way delay: 142.592 ms  
Loss rate: 1.79%  
-- Flow 3:  
Average throughput: 13.14 Mbit/s  
95th percentile per-packet one-way delay: 136.993 ms  
Loss rate: 2.79%
Run 2: Report of TaoVA-100x — Data Link

Graphs showing throughput (Mbps) and per-packet one-way delay (ms) over time (s) for different flows.
Run 3: Statistics of TaoVA-100x

Start at: 2018-07-05 06:23:16
End at: 2018-07-05 06:23:46
Local clock offset: -0.048 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-07-05 11:55:24
# Datalink statistics
  -- Total of 3 flows:
        Average throughput: 270.71 Mbit/s
        95th percentile per-packet one-way delay: 136.904 ms
        Loss rate: 1.52%
  -- Flow 1:
        Average throughput: 196.54 Mbit/s
        95th percentile per-packet one-way delay: 136.755 ms
        Loss rate: 0.88%
  -- Flow 2:
        Average throughput: 13.16 Mbit/s
        95th percentile per-packet one-way delay: 136.958 ms
        Loss rate: 1.41%
  -- Flow 3:
        Average throughput: 200.63 Mbit/s
        95th percentile per-packet one-way delay: 137.441 ms
        Loss rate: 3.42%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-07-05 06:50:30
End at: 2018-07-05 06:51:00
Local clock offset: -0.07 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at 2018-07-05 11:55:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 234.22 Mbit/s
95th percentile per-packet one-way delay: 137.551 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 221.53 Mbit/s
95th percentile per-packet one-way delay: 137.610 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 13.02 Mbit/s
95th percentile per-packet one-way delay: 136.960 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 136.673 ms
Loss rate: 3.00%
Run 4: Report of TaoVA-100x — Data Link

![Graph of Throughput (Mb/s) vs Time (s)]

- Flow 1 ingress (mean 221.91 Mb/s)
- Flow 1 egress (mean 221.53 Mb/s)
- Flow 2 ingress (mean 13.03 Mb/s)
- Flow 2 egress (mean 13.02 Mb/s)
- Flow 3 ingress (mean 12.93 Mb/s)
- Flow 3 egress (mean 12.50 Mb/s)

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

- Flow 1 (95th percentile 137.61 ms)
- Flow 2 (95th percentile 136.96 ms)
- Flow 3 (95th percentile 136.67 ms)

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Run 5: Statistics of TaoVA-100x

Start at: 2018-07-05 07:17:15
End at: 2018-07-05 07:17:45
Local clock offset: 0.094 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-07-05 11:57:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 331.36 Mbit/s
95th percentile per-packet one-way delay: 140.909 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 198.38 Mbit/s
95th percentile per-packet one-way delay: 139.450 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 189.91 Mbit/s
95th percentile per-packet one-way delay: 143.798 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 22.34 Mbit/s
95th percentile per-packet one-way delay: 144.747 ms
Loss rate: 1.67%
Run 5: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 197.96 Mbit/s)
Flow 1 egress (mean 198.38 Mbit/s)
Flow 2 ingress (mean 189.83 Mbit/s)
Flow 2 egress (mean 189.91 Mbit/s)
Flow 3 ingress (mean 22.10 Mbit/s)
Flow 3 egress (mean 22.34 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 139.45 ms)
Flow 2 (95th percentile 143.80 ms)
Flow 3 (95th percentile 144.75 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-05 07:44:28
End at: 2018-07-05 07:44:58
Local clock offset: -0.246 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2018-07-05 11:57:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 182.89 Mbit/s
95th percentile per-packet one-way delay: 163.981 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 110.66 Mbit/s
95th percentile per-packet one-way delay: 159.805 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 58.51 Mbit/s
95th percentile per-packet one-way delay: 156.743 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 102.58 Mbit/s
95th percentile per-packet one-way delay: 181.815 ms
Loss rate: 2.53%
Run 6: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 110.88 Mbps)
- Flow 1 egress (mean 110.66 Mbps)
- Flow 2 ingress (mean 57.52 Mbps)
- Flow 2 egress (mean 58.51 Mbps)
- Flow 3 ingress (mean 102.37 Mbps)
- Flow 3 egress (mean 102.58 Mbps)

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

- Flow 1 (95th percentile 159.81 ms)
- Flow 2 (95th percentile 156.74 ms)
- Flow 3 (95th percentile 181.81 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-07-05 08:11:23
End at: 2018-07-05 08:11:53
Local clock offset: 0.028 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-07-05 11:57:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 276.12 Mbit/s
95th percentile per-packet one-way delay: 140.367 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 195.05 Mbit/s
95th percentile per-packet one-way delay: 141.005 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 115.89 Mbit/s
95th percentile per-packet one-way delay: 139.488 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 12.98 Mbit/s
95th percentile per-packet one-way delay: 138.603 ms
Loss rate: 2.66%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-07-05 08:38:25
End at: 2018-07-05 08:38:55
Local clock offset: -0.014 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-07-05 11:57:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 243.17 Mbit/s
  95th percentile per-packet one-way delay: 142.725 ms
  Loss rate: 1.30%
-- Flow 1:
  Average throughput: 90.49 Mbit/s
  95th percentile per-packet one-way delay: 139.626 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 198.17 Mbit/s
  95th percentile per-packet one-way delay: 143.429 ms
  Loss rate: 1.72%
-- Flow 3:
  Average throughput: 66.03 Mbit/s
  95th percentile per-packet one-way delay: 145.477 ms
  Loss rate: 3.77%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-05 09:05:18
End at: 2018-07-05 09:05:48
Local clock offset: -0.119 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 302.96 Mbit/s
  95th percentile per-packet one-way delay: 143.879 ms
  Loss rate: 1.09%
-- Flow 1:
  Average throughput: 181.76 Mbit/s
  95th percentile per-packet one-way delay: 144.086 ms
  Loss rate: 0.76%
-- Flow 2:
  Average throughput: 177.05 Mbit/s
  95th percentile per-packet one-way delay: 143.759 ms
  Loss rate: 1.52%
-- Flow 3:
  Average throughput: 12.61 Mbit/s
  95th percentile per-packet one-way delay: 137.271 ms
  Loss rate: 2.91%
Run 9: Report of TaoVA-100x — Data Link

![Throughput Graph](image)

![Delay Graph](image)

Flow 1 ingress (mean 181.19 Mbit/s)  
Flow 1 egress (mean 181.76 Mbit/s)  
Flow 2 ingress (mean 177.31 Mbit/s)  
Flow 2 egress (mean 177.05 Mbit/s)  
Flow 3 ingress (mean 12.63 Mbit/s)  
Flow 3 egress (mean 12.61 Mbit/s)  

Flow 1 (95th percentile 144.09 ms)  
Flow 2 (95th percentile 143.76 ms)  
Flow 3 (95th percentile 137.27 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-05 09:32:20
End at: 2018-07-05 09:32:50
Local clock offset: -0.007 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.29 Mbit/s
95th percentile per-packet one-way delay: 136.298 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 13.41 Mbit/s
95th percentile per-packet one-way delay: 135.933 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 136.347 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 12.84 Mbit/s
95th percentile per-packet one-way delay: 135.983 ms
Loss rate: 2.92%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-07-05 05:27:37
End at: 2018-07-05 05:28:07
Local clock offset: -0.074 ms
Remote clock offset: -0.43 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics

-- Total of 3 flows:
Average throughput: 144.34 Mbit/s
95th percentile per-packet one-way delay: 148.672 ms
Loss rate: 1.40%

-- Flow 1:
Average throughput: 81.69 Mbit/s
95th percentile per-packet one-way delay: 149.056 ms
Loss rate: 1.08%

-- Flow 2:
Average throughput: 80.12 Mbit/s
95th percentile per-packet one-way delay: 148.732 ms
Loss rate: 1.52%

-- Flow 3:
Average throughput: 30.36 Mbit/s
95th percentile per-packet one-way delay: 140.614 ms
Loss rate: 3.34%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-07-05 05:54:39
End at: 2018-07-05 05:55:09
Local clock offset: -0.308 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 158.75 Mbit/s
95th percentile per-packet one-way delay: 149.807 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 82.93 Mbit/s
95th percentile per-packet one-way delay: 149.619 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 80.94 Mbit/s
95th percentile per-packet one-way delay: 149.169 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 70.05 Mbit/s
95th percentile per-packet one-way delay: 152.005 ms
Loss rate: 3.77%
Run 3: Statistics of TCP Vegas

Start at: 2018-07-05 06:21:51
End at: 2018-07-05 06:22:21
Local clock offset: -0.235 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.54 Mbit/s
95th percentile per-packet one-way delay: 148.768 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 82.09 Mbit/s
95th percentile per-packet one-way delay: 149.548 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 79.74 Mbit/s
95th percentile per-packet one-way delay: 146.589 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 70.33 Mbit/s
95th percentile per-packet one-way delay: 151.756 ms
Loss rate: 3.44%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-07-05 06:49:05
End at: 2018-07-05 06:49:35
Local clock offset: -0.01 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 156.79 Mbit/s
95th percentile per-packet one-way delay: 150.668 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 82.62 Mbit/s
95th percentile per-packet one-way delay: 150.673 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 78.07 Mbit/s
95th percentile per-packet one-way delay: 151.049 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 70.01 Mbit/s
95th percentile per-packet one-way delay: 149.634 ms
Loss rate: 3.64%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-07-05 07:15:54
End at: 2018-07-05 07:16:24
Local clock offset: 0.135 ms
Remote clock offset: -0.435 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 147.091 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 33.72 Mbit/s
95th percentile per-packet one-way delay: 142.142 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 79.81 Mbit/s
95th percentile per-packet one-way delay: 149.321 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 27.48 Mbit/s
95th percentile per-packet one-way delay: 144.543 ms
Loss rate: 3.10%
Run 6: Statistics of TCP Vegas

Start at: 2018-07-05 07:43:02
End at: 2018-07-05 07:43:32
Local clock offset: -0.172 ms
Remote clock offset: -0.469 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.20 Mbit/s
95th percentile per-packet one-way delay: 147.978 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 81.68 Mbit/s
95th percentile per-packet one-way delay: 148.312 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 79.72 Mbit/s
95th percentile per-packet one-way delay: 147.110 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 70.32 Mbit/s
95th percentile per-packet one-way delay: 148.043 ms
Loss rate: 3.70%
Run 6: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 82.38 Mbit/s)
- Flow 1 egress (mean 81.68 Mbit/s)
- Flow 2 ingress (mean 79.85 Mbit/s)
- Flow 2 egress (mean 79.72 Mbit/s)
- Flow 3 ingress (mean 71.03 Mbit/s)
- Flow 3 egress (mean 70.32 Mbit/s)

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

- Flow 1 (95th percentile 148.31 ms)
- Flow 2 (95th percentile 147.11 ms)
- Flow 3 (95th percentile 140.04 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-07-05 08:10:00
End at: 2018-07-05 08:10:30
Local clock offset: -0.041 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.50 Mbit/s
95th percentile per-packet one-way delay: 143.773 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 34.89 Mbit/s
95th percentile per-packet one-way delay: 138.916 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 73.34 Mbit/s
95th percentile per-packet one-way delay: 141.228 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 71.01 Mbit/s
95th percentile per-packet one-way delay: 146.015 ms
Loss rate: 3.44%
Run 7: Report of TCP Vegas — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 34.91 Mbps)
  - Flow 1 egress (mean 34.89 Mbps)
  - Flow 2 ingress (mean 73.47 Mbps)
  - Flow 2 egress (mean 73.34 Mbps)
  - Flow 3 ingress (mean 71.55 Mbps)
  - Flow 3 egress (mean 71.01 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 138.92 ms)
  - Flow 2 (95th percentile 141.23 ms)
  - Flow 3 (95th percentile 146.01 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-07-05 08:37:00
End at: 2018-07-05 08:37:30
Local clock offset: 0.059 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.16 Mbit/s
95th percentile per-packet one-way delay: 148.782 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 82.55 Mbit/s
95th percentile per-packet one-way delay: 149.166 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 79.76 Mbit/s
95th percentile per-packet one-way delay: 147.940 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 25.11 Mbit/s
95th percentile per-packet one-way delay: 149.748 ms
Loss rate: 2.45%
Run 8: Report of TCP Vegas — Data Link
Run 9: Statistics of TCP Vegas

Start at: 2018-07-05 09:03:53
End at: 2018-07-05 09:04:23
Local clock offset: 0.084 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.73 Mbit/s
95th percentile per-packet one-way delay: 146.326 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 82.48 Mbit/s
95th percentile per-packet one-way delay: 146.288 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 79.07 Mbit/s
95th percentile per-packet one-way delay: 146.361 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 140.959 ms
Loss rate: 6.26%
Run 9: Report of TCP Vegas — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Per-Packet End-to-End Delay vs Time](image2)
Run 10: Statistics of TCP Vegas

Start at: 2018-07-05 09:30:55
End at: 2018-07-05 09:31:25
Local clock offset: 0.014 ms
Remote clock offset: 0.334 ms

# Below is generated by plot.py at 2018-07-05 12:02:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.11 Mbit/s
95th percentile per-packet one-way delay: 146.576 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 76.76 Mbit/s
95th percentile per-packet one-way delay: 146.662 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 79.60 Mbit/s
95th percentile per-packet one-way delay: 147.584 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 54.94 Mbit/s
95th percentile per-packet one-way delay: 141.123 ms
Loss rate: 3.35%
Run 10: Report of TCP Vegas — Data Link

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

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

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Run 1: Statistics of Verus

Start at: 2018-07-05 05:12:14
End at: 2018-07-05 05:12:44
Local clock offset: 0.041 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-07-05 12:02:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 232.20 Mbit/s
  95th percentile per-packet one-way delay: 240.867 ms
  Loss rate: 2.19%
-- Flow 1:
  Average throughput: 172.99 Mbit/s
  95th percentile per-packet one-way delay: 227.749 ms
  Loss rate: 1.31%
-- Flow 2:
  Average throughput: 57.55 Mbit/s
  95th percentile per-packet one-way delay: 315.749 ms
  Loss rate: 3.16%
-- Flow 3:
  Average throughput: 64.91 Mbit/s
  95th percentile per-packet one-way delay: 226.695 ms
  Loss rate: 7.30%
Run 1: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 173.87 Mbit/s)
- **Flow 1 egress** (mean 172.99 Mbit/s)
- **Flow 2 ingress** (mean 58.37 Mbit/s)
- **Flow 2 egress** (mean 57.35 Mbit/s)
- **Flow 3 ingress** (mean 68.09 Mbit/s)
- **Flow 3 egress** (mean 64.91 Mbit/s)

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

- **Flow 1 (95th percentile 227.75 ms)**
- **Flow 2 (95th percentile 315.75 ms)**
- **Flow 3 (95th percentile 226.69 ms)**
Run 2: Statistics of Verus

Start at: 2018-07-05 05:39:26
End at: 2018-07-05 05:39:56
Local clock offset: -0.025 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-07-05 12:02:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.64 Mbit/s
95th percentile per-packet one-way delay: 191.156 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 71.13 Mbit/s
95th percentile per-packet one-way delay: 182.058 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 62.35 Mbit/s
95th percentile per-packet one-way delay: 204.499 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 32.10 Mbit/s
95th percentile per-packet one-way delay: 203.655 ms
Loss rate: 8.38%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2018-07-05 06:06:42
End at: 2018-07-05 06:07:12
Local clock offset: -0.085 ms
Remote clock offset: -0.379 ms

# Below is generated by plot.py at 2018-07-05 12:03:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 189.40 Mbit/s
  95th percentile per-packet one-way delay: 245.847 ms
  Loss rate: 0.47%
-- Flow 1:
  Average throughput: 114.72 Mbit/s
  95th percentile per-packet one-way delay: 248.967 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 81.44 Mbit/s
  95th percentile per-packet one-way delay: 277.206 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 66.42 Mbit/s
  95th percentile per-packet one-way delay: 175.817 ms
  Loss rate: 0.01%
Run 4: Statistics of Verus

Start at: 2018-07-05 06:33:50
End at: 2018-07-05 06:34:20
Local clock offset: -0.069 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-07-05 12:03:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 176.47 Mbit/s
95th percentile per-packet one-way delay: 226.214 ms
Loss rate: 2.65%
-- Flow 1:
Average throughput: 115.03 Mbit/s
95th percentile per-packet one-way delay: 204.759 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 75.44 Mbit/s
95th percentile per-packet one-way delay: 251.457 ms
Loss rate: 4.65%
-- Flow 3:
Average throughput: 40.59 Mbit/s
95th percentile per-packet one-way delay: 307.438 ms
Loss rate: 6.52%
Run 4: Report of Verus — Data Link

![Graph showing data link performance metrics with time on the x-axis and throughput or delay on the y-axis. The graphs illustrate the performance of different flows with various mean throughput values (e.g., Flow 1 ingress mean 115.54 Mbit/s).]
Run 5: Statistics of Verus

Start at: 2018-07-05 07:00:46
End at: 2018-07-05 07:01:16
Local clock offset: -0.309 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-07-05 12:05:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 230.13 Mbit/s
95th percentile per-packet one-way delay: 284.071 ms
Loss rate: 2.99%
-- Flow 1:
Average throughput: 176.74 Mbit/s
95th percentile per-packet one-way delay: 297.382 ms
Loss rate: 2.07%
-- Flow 2:
Average throughput: 62.29 Mbit/s
95th percentile per-packet one-way delay: 226.952 ms
Loss rate: 6.29%
-- Flow 3:
Average throughput: 44.84 Mbit/s
95th percentile per-packet one-way delay: 253.882 ms
Loss rate: 4.50%
Run 5: Report of Verus — Data Link

[Graph 1: Throughput vs Time]  
- Flow 1 ingress (mean 178.11 Mbit/s)  
- Flow 1 egress (mean 176.74 Mbit/s)  
- Flow 2 ingress (mean 66.52 Mbit/s)  
- Flow 2 egress (mean 62.29 Mbit/s)  
- Flow 3 ingress (mean 40.07 Mbit/s)  
- Flow 3 egress (mean 44.84 Mbit/s)

[Graph 2: Per packet one-way delay vs Time]  
- Flow 1 (95th percentile 297.38 ms)  
- Flow 2 (95th percentile 226.95 ms)  
- Flow 3 (95th percentile 253.88 ms)
Run 6: Statistics of Verus

Start at: 2018-07-05 07:27:47
End at: 2018-07-05 07:28:17
Local clock offset: -0.235 ms
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2018-07-05 12:05:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 227.34 Mbit/s
  95th percentile per-packet one-way delay: 254.293 ms
  Loss rate: 3.00%
-- Flow 1:
  Average throughput: 161.47 Mbit/s
  95th percentile per-packet one-way delay: 211.345 ms
  Loss rate: 1.68%
-- Flow 2:
  Average throughput: 66.81 Mbit/s
  95th percentile per-packet one-way delay: 277.064 ms
  Loss rate: 3.87%
-- Flow 3:
  Average throughput: 69.78 Mbit/s
  95th percentile per-packet one-way delay: 306.943 ms
  Loss rate: 10.00%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-07-05 07:54:51
End at: 2018-07-05 07:55:21
Local clock offset: -0.224 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2018-07-05 12:05:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 160.24 Mbit/s
  95th percentile per-packet one-way delay: 225.143 ms
  Loss rate: 3.75%
-- Flow 1:
  Average throughput: 53.02 Mbit/s
  95th percentile per-packet one-way delay: 201.885 ms
  Loss rate: 1.99%
-- Flow 2:
  Average throughput: 129.82 Mbit/s
  95th percentile per-packet one-way delay: 270.311 ms
  Loss rate: 4.00%
-- Flow 3:
  Average throughput: 65.01 Mbit/s
  95th percentile per-packet one-way delay: 179.041 ms
  Loss rate: 6.93%
Run 7: Report of Verus — Data Link

![Graph showing throughput over time for different flows.](image1)

![Graph showing per-packet one-way delay over time for different flows.](image2)
Run 8: Statistics of Verus

Start at: 2018-07-05 08:21:48
End at: 2018-07-05 08:22:18
Local clock offset: -0.054 ms
Remote clock offset: -0.424 ms

# Below is generated by plot.py at 2018-07-05 12:05:00
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 168.86 Mbit/s
   95th percentile per-packet one-way delay: 379.203 ms
   Loss rate: 9.17%
   -- Flow 1:
   Average throughput: 62.78 Mbit/s
   95th percentile per-packet one-way delay: 246.620 ms
   Loss rate: 3.29%
   -- Flow 2:
   Average throughput: 153.29 Mbit/s
   95th percentile per-packet one-way delay: 392.473 ms
   Loss rate: 12.85%
   -- Flow 3:
   Average throughput: 17.66 Mbit/s
   95th percentile per-packet one-way delay: 258.133 ms
   Loss rate: 1.88%
Run 9: Statistics of Verus

Start at: 2018-07-05 08:48:38
End at: 2018-07-05 08:49:08
Local clock offset: 0.022 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2018-07-05 12:05:45
# Datalink statistics
   -- Total of 3 flows:
   Average throughput: 167.22 Mbit/s
   95th percentile per-packet one-way delay: 264.727 ms
   Loss rate: 3.26%
   -- Flow 1:
   Average throughput: 82.22 Mbit/s
   95th percentile per-packet one-way delay: 223.259 ms
   Loss rate: 2.39%
   -- Flow 2:
   Average throughput: 104.64 Mbit/s
   95th percentile per-packet one-way delay: 317.575 ms
   Loss rate: 3.44%
   -- Flow 3:
   Average throughput: 49.33 Mbit/s
   95th percentile per-packet one-way delay: 340.260 ms
   Loss rate: 6.83%
Run 10: Statistics of Verus

Start at: 2018-07-05 09:15:48  
End at: 2018-07-05 09:16:18  
Local clock offset: 0.281 ms  
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-07-05 12:06:30
# Datalink statistics
-- Total of 3 flows:  
Average throughput: 195.57 Mbit/s  
95th percentile per-packet one-way delay: 225.426 ms  
Loss rate: 2.70%
-- Flow 1:  
Average throughput: 143.74 Mbit/s  
95th percentile per-packet one-way delay: 247.310 ms  
Loss rate: 2.72%
-- Flow 2:  
Average throughput: 63.38 Mbit/s  
95th percentile per-packet one-way delay: 182.017 ms  
Loss rate: 1.44%
-- Flow 3:  
Average throughput: 32.90 Mbit/s  
95th percentile per-packet one-way delay: 197.629 ms  
Loss rate: 6.99%
Run 10: Report of Verus — Data Link

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

Legend:
- Flow 1 ingress (mean 145.79 Mbit/s)
- Flow 1 egress (mean 143.74 Mbit/s)
- Flow 2 ingress (mean 62.97 Mbit/s)
- Flow 2 egress (mean 63.38 Mbit/s)
- Flow 3 ingress (mean 34.39 Mbit/s)
- Flow 3 egress (mean 32.90 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 247.31 ms)
- Flow 2 (95th percentile 182.02 ms)
- Flow 3 (95th percentile 197.63 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-05 05:10:17
End at: 2018-07-05 05:10:47
Local clock offset: -0.018 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2018-07-05 12:12:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 491.99 Mbit/s
  95th percentile per-packet one-way delay: 245.123 ms
  Loss rate: 1.86%
-- Flow 1:
  Average throughput: 337.39 Mbit/s
  95th percentile per-packet one-way delay: 246.957 ms
  Loss rate: 1.34%
-- Flow 2:
  Average throughput: 176.31 Mbit/s
  95th percentile per-packet one-way delay: 257.361 ms
  Loss rate: 2.48%
-- Flow 3:
  Average throughput: 116.91 Mbit/s
  95th percentile per-packet one-way delay: 172.048 ms
  Loss rate: 4.46%
Run 1: Report of PCC-Vivace — Data Link

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

Start at: 2018-07-05 05:37:31
End at: 2018-07-05 05:38:01
Local clock offset: 0.161 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-07-05 12:12:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 438.43 Mbit/s
95th percentile per-packet one-way delay: 217.511 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 277.56 Mbit/s
95th percentile per-packet one-way delay: 246.312 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 183.66 Mbit/s
95th percentile per-packet one-way delay: 139.501 ms
Loss rate: 1.91%
-- Flow 3:
Average throughput: 121.51 Mbit/s
95th percentile per-packet one-way delay: 145.860 ms
Loss rate: 4.82%
Run 3: Statistics of PCC-Vivace

Start at: 2018-07-05 06:04:43
End at: 2018-07-05 06:05:13
Local clock offset: -0.088 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-07-05 12:14:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 511.75 Mbit/s
  95th percentile per-packet one-way delay: 302.614 ms
  Loss rate: 2.99%
-- Flow 1:
  Average throughput: 307.67 Mbit/s
  95th percentile per-packet one-way delay: 305.970 ms
  Loss rate: 3.20%
-- Flow 2:
  Average throughput: 249.44 Mbit/s
  95th percentile per-packet one-way delay: 298.088 ms
  Loss rate: 1.18%
-- Flow 3:
  Average throughput: 120.41 Mbit/s
  95th percentile per-packet one-way delay: 174.190 ms
  Loss rate: 8.55%
Run 3: Report of PCC-Vivace — Data Link

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

Graph showing throughput vs time for different flows.

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

Graph showing per-packet one-way delay vs time for different flows.

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Run 4: Statistics of PCC-Vivace

Start at: 2018-07-05 06:31:52
End at: 2018-07-05 06:32:22
Local clock offset: -0.005 ms
Remote clock offset: 0.254 ms

# Below is generated by plot.py at 2018-07-05 12:14:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 489.25 Mbit/s
95th percentile per-packet one-way delay: 238.264 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 307.19 Mbit/s
95th percentile per-packet one-way delay: 195.325 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 217.53 Mbit/s
95th percentile per-packet one-way delay: 258.502 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 117.69 Mbit/s
95th percentile per-packet one-way delay: 158.944 ms
Loss rate: 4.69%
Run 4: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 309.58 Mbit/s)
- Flow 1 egress (mean 307.19 Mbit/s)
- Flow 2 ingress (mean 217.86 Mbit/s)
- Flow 2 egress (mean 217.53 Mbit/s)
- Flow 3 ingress (mean 120.06 Mbit/s)
- Flow 3 egress (mean 117.69 Mbit/s)

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

- Flow 1 (95th percentile 195.32 ms)
- Flow 2 (95th percentile 258.50 ms)
- Flow 3 (95th percentile 158.94 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-05 06:58:58
End at: 2018-07-05 06:59:28
Local clock offset: -0.106 ms
Remote clock offset: -0.16 ms

# Below is generated by plot.py at 2018-07-05 12:14:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 381.43 Mbit/s
95th percentile per-packet one-way delay: 224.407 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 271.48 Mbit/s
95th percentile per-packet one-way delay: 189.995 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 109.83 Mbit/s
95th percentile per-packet one-way delay: 307.358 ms
Loss rate: 5.24%
-- Flow 3:
Average throughput: 114.97 Mbit/s
95th percentile per-packet one-way delay: 218.640 ms
Loss rate: 4.65%
Run 5: Report of PCC-Vivace — Data Link

![Graph 1](Run 5 graph 1)

![Graph 2](Run 5 graph 2)
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-05 07:25:56
End at: 2018-07-05 07:26:27
Local clock offset: -0.073 ms
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2018-07-05 12:14:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 398.47 Mbit/s
95th percentile per-packet one-way delay: 171.451 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 238.30 Mbit/s
95th percentile per-packet one-way delay: 184.027 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 186.52 Mbit/s
95th percentile per-packet one-way delay: 140.325 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 113.30 Mbit/s
95th percentile per-packet one-way delay: 164.407 ms
Loss rate: 4.69%
Run 6: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 242.98 Mbit/s)
- Flow 1 egress (mean 238.30 Mbit/s)
- Flow 2 ingress (mean 188.17 Mbit/s)
- Flow 2 egress (mean 186.52 Mbit/s)
- Flow 3 ingress (mean 115.60 Mbit/s)
- Flow 3 egress (mean 113.30 Mbit/s)
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-05 07:52:54
End at: 2018-07-05 07:53:24
Local clock offset: -0.217 ms
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2018-07-05 12:14:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 471.02 Mbit/s
95th percentile per-packet one-way delay: 185.014 ms
Loss rate: 1.98%
-- Flow 1:
Average throughput: 274.79 Mbit/s
95th percentile per-packet one-way delay: 182.543 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 230.46 Mbit/s
95th percentile per-packet one-way delay: 154.719 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 134.90 Mbit/s
95th percentile per-packet one-way delay: 290.110 ms
Loss rate: 8.75%
Run 7: Report of PCC-Vivace — Data Link

![Graph of data link performance](image)

- Flow 1 ingress (mean 274.71 Mbit/s)
- Flow 1 egress (mean 274.79 Mbit/s)
- Flow 2 ingress (mean 231.58 Mbit/s)
- Flow 2 egress (mean 230.46 Mbit/s)
- Flow 3 ingress (mean 143.76 Mbit/s)
- Flow 3 egress (mean 134.90 Mbit/s)

![Graph of packet delay](image)

- Flow 1 (95th percentile 182.54 ms)
- Flow 2 (95th percentile 154.72 ms)
- Flow 3 (95th percentile 290.11 ms)
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-05 08:19:58
End at: 2018-07-05 08:20:28
Local clock offset: -0.013 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-07-05 12:14:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 394.24 Mbit/s
  95th percentile per-packet one-way delay: 201.982 ms
  Loss rate: 2.30%
-- Flow 1:
  Average throughput: 239.11 Mbit/s
  95th percentile per-packet one-way delay: 231.507 ms
  Loss rate: 2.11%
-- Flow 2:
  Average throughput: 177.53 Mbit/s
  95th percentile per-packet one-way delay: 138.385 ms
  Loss rate: 1.77%
-- Flow 3:
  Average throughput: 116.18 Mbit/s
  95th percentile per-packet one-way delay: 140.463 ms
  Loss rate: 5.08%
Run 8: Report of PCC-Vivace — Data Link

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

Flow 1 ingress (mean 242.06 Mbit/s)  Flow 1 egress (mean 239.11 Mbit/s)
Flow 2 ingress (mean 178.25 Mbit/s)  Flow 2 egress (mean 177.53 Mbit/s)
Flow 3 ingress (mean 119.00 Mbit/s)  Flow 3 egress (mean 116.18 Mbit/s)

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

Flow 1 (95th percentile 231.51 ms)  Flow 2 (95th percentile 138.38 ms)  Flow 3 (95th percentile 140.46 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-05 08:46:55
End at: 2018-07-05 08:47:25
Local clock offset: -0.026 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-07-05 12:15:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 297.81 Mbit/s
  95th percentile per-packet one-way delay: 162.922 ms
  Loss rate: 2.66%
-- Flow 1:
  Average throughput: 142.30 Mbit/s
  95th percentile per-packet one-way delay: 244.250 ms
  Loss rate: 2.60%
-- Flow 2:
  Average throughput: 174.59 Mbit/s
  95th percentile per-packet one-way delay: 140.239 ms
  Loss rate: 1.96%
-- Flow 3:
  Average throughput: 123.25 Mbit/s
  95th percentile per-packet one-way delay: 160.898 ms
  Loss rate: 4.85%
Run 9: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 144.76 Mbps)  
Flow 1 egress (mean 142.30 Mbps)  
Flow 2 ingress (mean 175.68 Mbps)  
Flow 2 egress (mean 174.59 Mbps)  
Flow 3 ingress (mean 125.97 Mbps)  
Flow 3 egress (mean 123.25 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 244.25 ms)  
Flow 2 (95th percentile 140.24 ms)  
Flow 3 (95th percentile 160.90 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-05 09:13:56
End at: 2018-07-05 09:14:26
Local clock offset: -0.073 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 407.50 Mbit/s
95th percentile per-packet one-way delay: 171.109 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 236.33 Mbit/s
95th percentile per-packet one-way delay: 163.357 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 182.87 Mbit/s
95th percentile per-packet one-way delay: 141.657 ms
Loss rate: 2.07%
-- Flow 3:
Average throughput: 154.48 Mbit/s
95th percentile per-packet one-way delay: 303.031 ms
Loss rate: 9.61%
Run 10: Report of PCC-Vivace — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-07-05 05:06:03
End at: 2018-07-05 05:06:33
Local clock offset: -0.187 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 136.489 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 136.506 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 135.993 ms
Loss rate: 2.25%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 136.552 ms
Loss rate: 6.38%
Run 1: Report of WebRTC media — Data Link

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

Throughput (Mbps)

Time (s)

Legend:
- Blue dashed line: Flow 1 ingress (mean 1.54 Mbps)
- Blue solid line: Flow 1 egress (mean 1.54 Mbps)
- Green dashed line: Flow 2 ingress (mean 1.11 Mbps)
- Green solid line: Flow 2 egress (mean 1.09 Mbps)
- Red dashed line: Flow 3 ingress (mean 0.39 Mbps)
- Red solid line: Flow 3 egress (mean 0.37 Mbps)

Round-trip delay (ms)

Time (s)

Legend:
- Blue circle: Flow 1 (95th percentile 136.51 ms)
- Green circle: Flow 2 (95th percentile 135.99 ms)
- Red circle: Flow 3 (95th percentile 136.55 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-07-05 05:33:20
End at: 2018-07-05 05:33:50
Local clock offset: 0.116 ms
Remote clock offset: 0.289 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.26 Mbit/s
95th percentile per-packet one-way delay: 136.042 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 135.997 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 136.085 ms
Loss rate: 2.15%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.391 ms
Loss rate: 5.65%

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Run 2: Report of WebRTC media — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.85 Mbit/s)
Flow 1 egress (mean 1.83 Mbit/s)
Flow 2 ingress (mean 1.11 Mbit/s)
Flow 2 egress (mean 1.10 Mbit/s)
Flow 3 ingress (mean 0.37 Mbit/s)
Flow 3 egress (mean 0.36 Mbit/s)

End-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 136.00 ms)
Flow 2 (95th percentile 136.09 ms)
Flow 3 (95th percentile 136.39 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-07-05 06:00:35
End at: 2018-07-05 06:01:05
Local clock offset: 0.088 ms
Remote clock offset: 0.338 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.31 Mbit/s
95th percentile per-packet one-way delay: 136.308 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 135.998 ms
Loss rate: 1.77%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 136.346 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.254 ms
Loss rate: 5.69%
Run 3: Report of WebRTC media — Data Link

The first diagram shows the throughput over time for different flows. The y-axis represents throughput in Mbit/s, and the x-axis represents time in seconds. The legend indicates that:

- Flow 1 ingress (mean 1.83 Mbit/s)
- Flow 1 egress (mean 1.81 Mbit/s)
- Flow 2 ingress (mean 1.19 Mbit/s)
- Flow 2 egress (mean 1.17 Mbit/s)
- Flow 3 ingress (mean 0.38 Mbit/s)
- Flow 3 egress (mean 0.36 Mbit/s)

The second diagram illustrates the packet delay for the same flows. The y-axis represents packet delay in milliseconds, and the x-axis represents time in seconds. The legend specifies:

- Flow 1 (95th percentile 136.00 ms)
- Flow 2 (95th percentile 136.35 ms)
- Flow 3 (95th percentile 136.25 ms)
Run 4: Statistics of WebRTC media

Start at: 2018-07-05 06:27:41
End at: 2018-07-05 06:28:11
Local clock offset: -0.272 ms
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 136.469 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 135.814 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 136.513 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.395 ms
Loss rate: 5.78%
Run 4: Report of WebRTC media — Data Link

![Graph of WebRTC media throughput and delay over time]

- Flow 1 ingress (mean 1.85 Mbit/s)
- Flow 1 egress (mean 1.84 Mbit/s)
- Flow 2 ingress (mean 1.08 Mbit/s)
- Flow 2 egress (mean 1.07 Mbit/s)
- Flow 3 ingress (mean 0.38 Mbit/s)
- Flow 3 egress (mean 0.36 Mbit/s)

![Graph of WebRTC media per-packet one-way delay over time]

- Flow 1 (95th percentile 135.81 ms)
- Flow 2 (95th percentile 136.51 ms)
- Flow 3 (95th percentile 136.40 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-07-05 06:54:49
End at: 2018-07-05 06:55:19
Local clock offset: -0.024 ms
Remote clock offset: -0.135 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.24 Mbit/s
  95th percentile per-packet one-way delay: 136.561 ms
  Loss rate: 1.81%
-- Flow 1:
  Average throughput: 1.84 Mbit/s
  95th percentile per-packet one-way delay: 136.572 ms
  Loss rate: 1.22%
-- Flow 2:
  Average throughput: 1.08 Mbit/s
  95th percentile per-packet one-way delay: 136.169 ms
  Loss rate: 1.48%
-- Flow 3:
  Average throughput: 0.35 Mbit/s
  95th percentile per-packet one-way delay: 136.612 ms
  Loss rate: 5.82%
Run 5: Report of WebRTC media — Data Link

![Graph showing throughput and network latency over time]

Flow 1 ingress (mean 1.85 Mbit/s)  |  Flow 1 egress (mean 1.84 Mbit/s)
Flow 2 ingress (mean 1.09 Mbit/s)  |  Flow 2 egress (mean 1.08 Mbit/s)
Flow 3 ingress (mean 0.37 Mbit/s)  |  Flow 3 egress (mean 0.35 Mbit/s)

Per-packet round-trip delay (ms)

Key:
- Flow 1 (95th percentile 136.57 ms)
- Flow 2 (95th percentile 136.17 ms)
- Flow 3 (95th percentile 136.61 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-07-05 07:21:48
End at: 2018-07-05 07:22:18
Local clock offset: -0.04 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.28 Mbit/s
95th percentile per-packet one-way delay: 136.168 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 136.185 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 135.441 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.148 ms
Loss rate: 4.35%
Run 6: Report of WebRTC media — Data Link

![Graph of WebRTC media data](image1)

![Graph of packet round-trip delay](image2)
Run 7: Statistics of WebRTC media

Start at: 2018-07-05 07:48:44
End at: 2018-07-05 07:49:14
Local clock offset: 0.008 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 136.625 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 136.653 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 136.325 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 136.606 ms
Loss rate: 5.11%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-07-05 08:15:48
End at: 2018-07-05 08:16:18
Local clock offset: -0.237 ms
Remote clock offset: 0.248 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.28 Mbit/s
95th percentile per-packet one-way delay: 135.598 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 134.837 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 134.805 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 135.699 ms
Loss rate: 4.96%
Run 8: Report of WebRTC media — Data Link

Throughput (MB/s) vs Time (s)

- Blue dashed: Flow 1 egress (mean 1.85 Mbit/s)
- Blue solid: Flow 1 ingress (mean 1.86 Mbit/s)
- Green dashed: Flow 2 egress (mean 1.08 Mbit/s)
- Green solid: Flow 2 ingress (mean 1.09 Mbit/s)
- Red dashed: Flow 3 egress (mean 0.37 Mbit/s)
- Red solid: Flow 3 ingress (mean 0.39 Mbit/s)

Packet delay (ms) vs Time (s)

- Blue stars: Flow 1 (95th percentile 134.86 ms)
- Red stars: Flow 2 (95th percentile 134.81 ms)
- Green stars: Flow 3 (95th percentile 135.70 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-07-05 08:42:46
End at: 2018-07-05 08:43:16
Local clock offset: -0.059 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.20 Mbit/s
95th percentile per-packet one-way delay: 136.422 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 135.919 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 136.466 ms
Loss rate: 1.97%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.443 ms
Loss rate: 5.20%
Run 9: Report of WebRTC media — Data Link

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[Graph showing throughput and packet delay over time for different flows.]
Run 10: Statistics of WebRTC media

Start at: 2018-07-05 09:09:47
End at: 2018-07-05 09:10:17
Local clock offset: 0.09 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2018-07-05 12:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 136.584 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 136.478 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 136.617 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.178 ms
Loss rate: 4.69%
Run 10: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 1.84 Mbit/s)
- Flow 1 egress (mean 1.81 Mbit/s)
- Flow 2 ingress (mean 1.11 Mbit/s)
- Flow 2 egress (mean 1.10 Mbit/s)
- Flow 3 ingress (mean 0.37 Mbit/s)
- Flow 3 egress (mean 0.36 Mbit/s)

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

Flow 1 (95th percentile 136.48 ms)  Flow 2 (95th percentile 136.62 ms)  Flow 3 (95th percentile 136.18 ms)