Pantheon Report

Generated at 2018-08-11 06:31:58 (UTC).
Data path: GCE Sydney Ethernet (local) → GCE London Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 1 flow.
NTP offsets were measured against time.google.com and have been applied
to correct the timestamps in logs.

System info:
Linux 4.15.0-1014-gcp
net.core.default_qdisc = fq_codel
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: master @ 7719b900495aa706f8452ab7d4a94dd562e9296e
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa8e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38d4dfe0edbf90c077e6d4
third_party/libutp @ b3465b942e2826f2b1b79eaaab4a906ce6bb7cf3c
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55f8ec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8ac08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cfcf42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3dbb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a4ed18c74f941f19a26
third_party/verus @ d4b447ea74c660a2661149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9ddee4735770d143a1fa2851
test from GCE Sydney to GCE London, 10 runs of 30s each per scheme (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>400.91</td>
<td>226.53</td>
<td>1.76</td>
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<td>Copa</td>
<td>10</td>
<td>175.70</td>
<td>143.77</td>
<td>0.01</td>
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<td>TCP Cubic</td>
<td>10</td>
<td>111.38</td>
<td>139.78</td>
<td>0.00</td>
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<td>FillP</td>
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<td>740.71</td>
<td>214.83</td>
<td>5.34</td>
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<td>FillP-Sheep</td>
<td>10</td>
<td>718.65</td>
<td>216.77</td>
<td>6.62</td>
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<td>Indigo</td>
<td>10</td>
<td>158.93</td>
<td>136.66</td>
<td>0.00</td>
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<td>LEDBAT</td>
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<td>4.31</td>
<td>137.43</td>
<td>0.00</td>
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<tr>
<td>PCC-Allegro</td>
<td>10</td>
<td>539.92</td>
<td>197.00</td>
<td>1.96</td>
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<td>PCC-Expr</td>
<td>10</td>
<td>247.11</td>
<td>198.05</td>
<td>1.42</td>
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<td>QUIC Cubic</td>
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<td>52.69</td>
<td>136.20</td>
<td>0.00</td>
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<td>SCReAM</td>
<td>10</td>
<td>0.22</td>
<td>136.53</td>
<td>0.00</td>
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<tr>
<td>Sprout</td>
<td>10</td>
<td>0.16</td>
<td>136.72</td>
<td>0.00</td>
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<td>TaoVA-100x</td>
<td>10</td>
<td>124.63</td>
<td>136.80</td>
<td>0.00</td>
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<td>TCP Vegas</td>
<td>10</td>
<td>75.12</td>
<td>139.11</td>
<td>0.00</td>
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<tr>
<td>Verus</td>
<td>10</td>
<td>153.39</td>
<td>206.74</td>
<td>1.47</td>
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<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>333.84</td>
<td>147.65</td>
<td>0.06</td>
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<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.93</td>
<td>136.28</td>
<td>0.00</td>
</tr>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2018-08-11 00:38:52
End at: 2018-08-11 00:39:22
Local clock offset: 0.141 ms
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2018-08-11 04:49:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 394.94 Mbit/s
95th percentile per-packet one-way delay: 228.657 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 394.94 Mbit/s
95th percentile per-packet one-way delay: 228.657 ms
Loss rate: 1.92%
Run 1: Report of TCP BBR — Data Link

![Throughput Graph](image1)

![Packet Delay Graph](image2)
Run 2: Statistics of TCP BBR

Start at: 2018-08-11 01:02:08
End at: 2018-08-11 01:02:38
Local clock offset: 0.426 ms
Remote clock offset: -0.687 ms

# Below is generated by plot.py at 2018-08-11 04:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 428.56 Mbit/s
95th percentile per-packet one-way delay: 219.526 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 428.56 Mbit/s
95th percentile per-packet one-way delay: 219.526 ms
Loss rate: 1.28%
Run 2: Report of TCP BBR — Data Link

![Graph 1: Throughput vs. Time](image1.png)
- Flow 1 ingress (mean 434.14 Mbit/s)
- Flow 1 egress (mean 428.56 Mbit/s)

![Graph 2: Per-packet one-way delay vs. Time](image2.png)
- Flow 1 (95th percentile 219.53 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-08-11 01:25:32
End at: 2018-08-11 01:26:02
Local clock offset: 0.36 ms
Remote clock offset: -0.353 ms

# Below is generated by plot.py at 2018-08-11 04:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 374.96 Mbit/s
95th percentile per-packet one-way delay: 214.384 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 374.96 Mbit/s
95th percentile per-packet one-way delay: 214.384 ms
Loss rate: 0.76%
Run 3: Report of TCP BBR — Data Link

![Graph of Throughput](image1)

- Flow 1 ingress (mean 377.70 Mbit/s)
- Flow 1 egress (mean 374.96 Mbit/s)

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

- Flow 1 (95th percentile 214.38 ms)
Run 4: Statistics of TCP BBR

Start at: 2018-08-11 01:49:05
End at: 2018-08-11 01:49:35
Local clock offset: 0.023 ms
Remote clock offset: -0.532 ms

# Below is generated by plot.py at 2018-08-11 04:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 395.09 Mbit/s
95th percentile per-packet one-way delay: 217.831 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 395.09 Mbit/s
95th percentile per-packet one-way delay: 217.831 ms
Loss rate: 0.55%
Run 5: Statistics of TCP BBR

Start at: 2018-08-11 02:12:36
End at: 2018-08-11 02:13:06
Local clock offset: 0.543 ms
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2018-08-11 04:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 385.12 Mbit/s
95th percentile per-packet one-way delay: 231.461 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 385.12 Mbit/s
95th percentile per-packet one-way delay: 231.461 ms
Loss rate: 2.24%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-08-11 02:35:58
End at: 2018-08-11 02:36:28
Local clock offset: 0.376 ms
Remote clock offset: -0.215 ms

# Below is generated by plot.py at 2018-08-11 04:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 398.50 Mbit/s
95th percentile per-packet one-way delay: 224.530 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 398.50 Mbit/s
95th percentile per-packet one-way delay: 224.530 ms
Loss rate: 1.49%
Run 6: Report of TCP BBR — Data Link

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

- **Flow 1 ingress** (mean 404.57 Mbps)
- **Flow 1 egress** (mean 398.50 Mbps)

[Graph 2: Packet one way delay (ms) vs Time (s)]

- **Flow 1** (95th percentile 224.53 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-08-11 02:59:19
End at: 2018-08-11 02:59:49
Local clock offset: 0.317 ms
Remote clock offset: -0.221 ms

# Below is generated by plot.py at 2018-08-11 04:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 421.07 Mbit/s
95th percentile per-packet one-way delay: 227.169 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 421.07 Mbit/s
95th percentile per-packet one-way delay: 227.169 ms
Loss rate: 1.87%
Run 7: Report of TCP BBR — Data Link

![Graph showing throughput and packet delay over time for Flow 1 ingress and egress with mean values.](image-url)

- **Flow 1 ingress (mean 429.10 Mbit/s)**
- **Flow 1 egress (mean 421.07 Mbit/s)**

![Graph showing packet delay distribution for Flow 1 with 95th percentile indicated.](image-url)

- **Flow 1 (95th percentile 227.17 ms)**
Run 8: Statistics of TCP BBR

Start at: 2018-08-11 03:23:04
End at: 2018-08-11 03:23:34
Local clock offset: 0.173 ms
Remote clock offset: -0.124 ms

# Below is generated by plot.py at 2018-08-11 04:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 378.87 Mbit/s
95th percentile per-packet one-way delay: 229.785 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 378.87 Mbit/s
95th percentile per-packet one-way delay: 229.785 ms
Loss rate: 1.72%
Run 8: Report of TCP BBR — Data Link

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

- **Flow 1 ingress** (mean 385.50 Mbit/s)
- **Flow 1 egress** (mean 378.87 Mbit/s)

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

- **Flow 1** (95th percentile 229.78 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-08-11 03:46:20
End at: 2018-08-11 03:46:50
Local clock offset: 0.446 ms
Remote clock offset: -0.471 ms

# Below is generated by plot.py at 2018-08-11 04:56:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 409.43 Mbit/s
95th percentile per-packet one-way delay: 231.232 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 409.43 Mbit/s
95th percentile per-packet one-way delay: 231.232 ms
Loss rate: 1.70%
Run 9: Report of TCP BBR — Data Link

![Graph of Throughput (Mbps) over time showing the network performance of TCP BBR for Flow 1 with a mean of 416.54 Mbps for ingress and 409.43 Mbps for egress.]

![Graph of Per-packet one-way delay (ms) over time showing the latency performance of TCP BBR for Flow 1 with a 95th percentile of 231.23 ms.]

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Run 10: Statistics of TCP BBR

Start at: 2018-08-11 04:10:06
End at: 2018-08-11 04:10:36
Local clock offset: 0.453 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-08-11 04:56:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 422.59 Mbit/s
95th percentile per-packet one-way delay: 240.728 ms
Loss rate: 4.05%
-- Flow 1:
Average throughput: 422.59 Mbit/s
95th percentile per-packet one-way delay: 240.728 ms
Loss rate: 4.05%
Run 10: Report of TCP BBR — Data Link

[Graphs showing throughput and packet loss over time, with annotations for Flow 1 ingress and egress.]
Run 1: Statistics of Copa

Start at: 2018-08-11 00:41:37
End at: 2018-08-11 00:42:07
Local clock offset: -0.022 ms
Remote clock offset: -0.272 ms

# Below is generated by plot.py at 2018-08-11 04:56:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.81 Mbit/s
95th percentile per-packet one-way delay: 142.169 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 228.81 Mbit/s
95th percentile per-packet one-way delay: 142.169 ms
Loss rate: 0.07%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-08-11 01:04:56
End at: 2018-08-11 01:05:26
Local clock offset: 0.055 ms
Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2018-08-11 04:56:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 175.04 Mbit/s
95th percentile per-packet one-way delay: 147.861 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 175.04 Mbit/s
95th percentile per-packet one-way delay: 147.861 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link

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

- **Flow 1 ingress (mean 175.04 Mbit/s)**
- **Flow 1 egress (mean 175.04 Mbit/s)**

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

- **Flow 1 (95th percentile 147.86 ms)**
Run 3: Statistics of Copa

Start at: 2018-08-11 01:28:13
End at: 2018-08-11 01:28:43
Local clock offset: 0.053 ms
Remote clock offset: -0.309 ms

# Below is generated by plot.py at 2018-08-11 04:56:52
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 183.60 Mbit/s
  95th percentile per-packet one-way delay: 144.797 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 183.60 Mbit/s
  95th percentile per-packet one-way delay: 144.797 ms
  Loss rate: 0.00%
Run 3: Report of Copa — Data Link

![Graph 1: Throughput (kbps)]

- Flow 1 ingress (mean 183.60 Mbit/s)
- Flow 1 egress (mean 183.60 Mbit/s)

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

- Flow 1 (95th percentile 144.80 ms)
Run 4: Statistics of Copa

Start at: 2018-08-11 01:51:47
End at: 2018-08-11 01:52:17
Local clock offset: 0.068 ms
Remote clock offset: 0.271 ms

# Below is generated by plot.py at 2018-08-11 04:56:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 158.97 Mbit/s
95th percentile per-packet one-way delay: 141.555 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 158.97 Mbit/s
95th percentile per-packet one-way delay: 141.555 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

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

- Flow 1 ingress (mean 158.98 Mbit/s)
- Flow 1 egress (mean 158.97 Mbit/s)

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

- Flow 1 (95th percentile 141.56 ms)
Run 5: Statistics of Copa

Start at: 2018-08-11 02:15:23
End at: 2018-08-11 02:15:53
Local clock offset: 0.404 ms
Remote clock offset: -0.529 ms

# Below is generated by plot.py at 2018-08-11 04:56:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 146.47 Mbit/s
95th percentile per-packet one-way delay: 144.961 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 146.47 Mbit/s
95th percentile per-packet one-way delay: 144.961 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link

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**Graph 1:**
- **Y-axis:** Throughput (Mbps)
- **X-axis:** Time (s)
- **Legend:**
  - Flow 1 ingress (mean 146.48 Mbit/s)
  - Flow 1 egress (mean 146.47 Mbit/s)

**Graph 2:**
- **Y-axis:** Per packet one way delay (ms)
- **X-axis:** Time (s)
- **Legend:**
  - Flow 1 (95th percentile 144.96 ms)
Run 6: Statistics of Copa

Start at: 2018-08-11 02:38:42
End at: 2018-08-11 02:39:12
Local clock offset: 0.168 ms
Remote clock offset: -0.123 ms

# Below is generated by plot.py at 2018-08-11 04:57:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 233.10 Mbit/s
95th percentile per-packet one-way delay: 146.444 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 233.10 Mbit/s
95th percentile per-packet one-way delay: 146.444 ms
Loss rate: 0.02%
Run 6: Report of Copa — Data Link

![Graph 1: Throughput over time](image1)

- **Flow 1 ingress** (mean 233.16 Mbit/s)
- **Flow 1 egress** (mean 233.10 Mbit/s)

![Graph 2: Packet delay over time](image2)

- **Flow 1** (95th percentile 146.44 ms)
Run 7: Statistics of Copa

Start at: 2018-08-11 03:02:07
End at: 2018-08-11 03:02:38
Local clock offset: 0.33 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 212.61 Mbit/s
  95th percentile per-packet one-way delay: 139.876 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 212.61 Mbit/s
  95th percentile per-packet one-way delay: 139.876 ms
  Loss rate: 0.00%
Run 7: Report of Copa — Data Link

Graph 1: Throughput (Mbps) vs Time (s)
- Flow 1 ingress (mean 212.61 Mbit/s)
- Flow 1 egress (mean 212.61 Mbit/s)

Graph 2: Per-packet one-way delay (ms) vs Time (s)
- Flow 1 (95th percentile 139.88 ms)
Run 8: Statistics of Copa

Start at: 2018-08-11 03:25:46
End at: 2018-08-11 03:26:16
Local clock offset: 0.429 ms
Remote clock offset: -0.472 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.02 Mbit/s
95th percentile per-packet one-way delay: 150.217 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.02 Mbit/s
95th percentile per-packet one-way delay: 150.217 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link

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**Graph 1:**
Throughput (Mbps) over time (s).
- **Flow 1 ingress (mean 193.03 Mbps)**
- **Flow 1 egress (mean 193.02 Mbps)**

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**Graph 2:**
Per-packet delay (ms) over time (s).
- **Flow 1 (95th percentile 150.22 ms)**

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Run 9: Statistics of Copa

Start at: 2018-08-11 03:49:04
End at: 2018-08-11 03:49:34
Local clock offset: 0.194 ms
Remote clock offset: -0.484 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 113.09 Mbit/s
95th percentile per-packet one-way delay: 138.103 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 113.09 Mbit/s
95th percentile per-packet one-way delay: 138.103 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 113.10 Mbit/s)  Flow 1 egress (mean 113.09 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 138.10 ms)
Run 10: Statistics of Copa

Start at: 2018-08-11 04:12:54
End at: 2018-08-11 04:13:24
Local clock offset: 0.456 ms
Remote clock offset: -0.135 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 112.30 Mbit/s
95th percentile per-packet one-way delay: 141.752 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 112.30 Mbit/s
95th percentile per-packet one-way delay: 141.752 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link

![Graph 1: Throughput vs Time]

- **Flow 1 ingress (mean 112.30 Mbit/s)**
- **Flow 1 egress (mean 112.30 Mbit/s)**

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

- **Flow 1 (95th percentile 141.75 ms)**
Run 1: Statistics of TCP Cubic

Start at: 2018-08-11 00:58:24
End at: 2018-08-11 00:58:54
Local clock offset: -0.055 ms
Remote clock offset: -0.251 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 157.31 Mbit/s
95th percentile per-packet one-way delay: 139.702 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 157.31 Mbit/s
95th percentile per-packet one-way delay: 139.702 ms
Loss rate: 0.00%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-08-11 01:21:29
End at: 2018-08-11 01:22:00
Local clock offset: 0.403 ms
Remote clock offset: -0.368 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 136.19 Mbit/s
95th percentile per-packet one-way delay: 138.998 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 136.19 Mbit/s
95th percentile per-packet one-way delay: 138.998 ms
Loss rate: 0.00%
Run 2: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 136.18 Mbit/s)**
- **Flow 1 egress (mean 136.19 Mbit/s)**

- **Flow 1 (95th percentile 139.00 ms)**
Run 3: Statistics of TCP Cubic

Start at: 2018-08-11 01:44:57
End at: 2018-08-11 01:45:27
Local clock offset: 0.529 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.00 Mbit/s
95th percentile per-packet one-way delay: 139.792 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 87.00 Mbit/s
95th percentile per-packet one-way delay: 139.792 ms
Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link

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

- Dash line: Flow 1 ingress (mean 87.01 Mbit/s)
- Solid line: Flow 1 egress (mean 87.00 Mbit/s)

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

- Flow 1 (95th percentile 139.79 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-08-11 02:08:44
End at: 2018-08-11 02:09:14
Local clock offset: 0.137 ms
Remote clock offset: -0.551 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.16 Mbit/s
95th percentile per-packet one-way delay: 140.907 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.16 Mbit/s
95th percentile per-packet one-way delay: 140.907 ms
Loss rate: 0.00%
Run 4: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 93.16 Mbit/s)
- Flow 1 egress (mean 93.16 Mbit/s)

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

- Flow 1 (95th percentile 140.91 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-08-11 02:32:03
End at: 2018-08-11 02:32:33
Local clock offset: 0.553 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 122.50 Mbit/s
95th percentile per-packet one-way delay: 138.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 122.50 Mbit/s
95th percentile per-packet one-way delay: 138.522 ms
Loss rate: 0.00%
Run 5: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 122.50 Mbit/s)**
- **Flow 1 egress (mean 122.50 Mbit/s)**

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

- **Flow 1 (95th percentile 138.52 ms)**
Run 6: Statistics of TCP Cubic

Start at: 2018-08-11 02:55:20
End at: 2018-08-11 02:55:50
Local clock offset: 0.391 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 105.90 Mbit/s
95th percentile per-packet one-way delay: 139.052 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 105.90 Mbit/s
95th percentile per-packet one-way delay: 139.052 ms
Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link

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

- **Throughput**:
  - Flow 1 ingress (mean 105.90 Mbit/s)
  - Flow 1 egress (mean 105.90 Mbit/s)

- **Delay**:
  - Flow 1 (99th percentile 139.05 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-08-11 03:18:55
End at: 2018-08-11 03:19:25
Local clock offset: 0.375 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 109.18 Mbit/s
  95th percentile per-packet one-way delay: 142.575 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 109.18 Mbit/s
  95th percentile per-packet one-way delay: 142.575 ms
  Loss rate: 0.00%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-08-11 03:42:33
End at: 2018-08-11 03:43:03
Local clock offset: 0.394 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.06 Mbit/s
95th percentile per-packet one-way delay: 139.825 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 87.06 Mbit/s
95th percentile per-packet one-way delay: 139.825 ms
Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link

![Graph of throughput vs. time for TCP Cubic flow 1 ingressing and egressing with a mean of 87.06 Mbit/s.]

![Graph of per-packet one-way delay vs. time for TCP Cubic flow 1 with a 95th percentile of 139.02 ms.]
Run 9: Statistics of TCP Cubic

Start at: 2018-08-11 04:06:06
End at: 2018-08-11 04:06:36
Local clock offset: 0.211 ms
Remote clock offset: -0.192 ms

# Below is generated by plot.py at 2018-08-11 05:02:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.50 Mbit/s
95th percentile per-packet one-way delay: 139.214 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.50 Mbit/s
95th percentile per-packet one-way delay: 139.214 ms
Loss rate: 0.00%
Run 9: Report of TCP Cubic — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 97.51 Mbit/s)
- Flow 1 egress (mean 97.50 Mbit/s)

![Packet Delay Graph]

- Flow 1 (95th percentile 139.21 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-08-11 04:29:45
End at: 2018-08-11 04:30:15
Local clock offset: 0.075 ms
Remote clock offset: -0.559 ms

# Below is generated by plot.py at 2018-08-11 05:02:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 118.03 Mbit/s
95th percentile per-packet one-way delay: 139.250 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 118.03 Mbit/s
95th percentile per-packet one-way delay: 139.250 ms
Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link
Run 1: Statistics ofFillP

Start at: 2018-08-11 00:51:11
End at: 2018-08-11 00:51:41
Local clock offset: 0.076 ms
Remote clock offset: -0.264 ms

# Below is generated by plot.py at 2018-08-11 05:17:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 696.12 Mbit/s
95th percentile per-packet one-way delay: 213.239 ms
Loss rate: 4.69%
-- Flow 1:
Average throughput: 696.12 Mbit/s
95th percentile per-packet one-way delay: 213.239 ms
Loss rate: 4.69%
Run 1: Report of FillP — Data Link

![Graph of Throughput and Packet Delay]

- **Flow 1 ingress** (mean 730.43 Mbit/s)
- **Flow 1 egress** (mean 696.12 Mbit/s)
Run 2: Statistics of FillP

Start at: 2018-08-11 01:14:16
End at: 2018-08-11 01:14:46
Local clock offset: 0.084 ms
Remote clock offset: -0.358 ms

# Below is generated by plot.py at 2018-08-11 05:17:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 702.89 Mbit/s
95th percentile per-packet one-way delay: 225.185 ms
Loss rate: 7.37%
-- Flow 1:
Average throughput: 702.89 Mbit/s
95th percentile per-packet one-way delay: 225.185 ms
Loss rate: 7.37%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

Start at: 2018-08-11 01:37:41
End at: 2018-08-11 01:38:11
Local clock offset: 0.105 ms
Remote clock offset: -0.224 ms

# Below is generated by plot.py at 2018-08-11 05:17:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 679.00 Mbit/s
95th percentile per-packet one-way delay: 225.963 ms
Loss rate: 6.25%
-- Flow 1:
Average throughput: 679.00 Mbit/s
95th percentile per-packet one-way delay: 225.963 ms
Loss rate: 6.25%
Run 3: Report of FillP — Data Link

![Graph showing throughput over time for two flows, indicating variability and peaks.]

- **Flow 1 ingress (mean 724.33 Mbit/s)**
- **Flow 1 egress (mean 679.00 Mbit/s)**

![Graph showing per-packet one-way delay for Flow 1, with 95th percentile at 225.96 ms.]

- Flow 1 (95th percentile 225.96 ms)
Run 4: Statistics of FillP

Start at: 2018-08-11 02:01:23
End at: 2018-08-11 02:01:53
Local clock offset: 0.489 ms
Remote clock offset: -0.488 ms

# Below is generated by plot.py at 2018-08-11 05:18:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 728.64 Mbit/s
95th percentile per-packet one-way delay: 215.241 ms
Loss rate: 5.32%
-- Flow 1:
Average throughput: 728.64 Mbit/s
95th percentile per-packet one-way delay: 215.241 ms
Loss rate: 5.32%
Run 4: Report of FillP — Data Link

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

- **Flow 1 ingress (mean 769.57 Mb/s)**
- **Flow 1 egress (mean 728.64 Mb/s)**

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

- **Flow 1 (95th percentile 215.24 ms)**
Run 5: Statistics of FillP

Start at: 2018-08-11 02:24:46
End at: 2018-08-11 02:25:16
Local clock offset: 0.057 ms
Remote clock offset: 0.178 ms

# Below is generated by plot.py at 2018-08-11 05:18:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 723.41 Mbit/s
95th percentile per-packet one-way delay: 213.518 ms
Loss rate: 6.46%
-- Flow 1:
Average throughput: 723.41 Mbit/s
95th percentile per-packet one-way delay: 213.518 ms
Loss rate: 6.46%
Run 5: Report of FillP — Data Link

![Graph showing throughput (Mbps) and per-packet one-way delay (ms) over time for Flow 1 (mean 773.33 Mbps) and Flow 1 (mean 723.41 Mbps).]
Run 6: Statistics of FillP

Start at: 2018-08-11 02:48:07
End at: 2018-08-11 02:48:37
Local clock offset: 0.374 ms
Remote clock offset: -0.524 ms

# Below is generated by plot.py at 2018-08-11 05:18:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 711.52 Mbit/s
95th percentile per-packet one-way delay: 219.465 ms
Loss rate: 6.97%
-- Flow 1:
Average throughput: 711.52 Mbit/s
95th percentile per-packet one-way delay: 219.465 ms
Loss rate: 6.97%
Run 6: Report of FillP — Data Link

![Throughput vs Time Graph](image1)

- Flow 1 ingress (mean 784.84 Mbits/s)
- Flow 1 egress (mean 711.52 Mbits/s)

![Packet Delay vs Time Graph](image2)

- Flow 1 (95th percentile 219.47 ms)
Run 7: Statistics of fillp

Start at: 2018-08-11 03:11:41
End at: 2018-08-11 03:12:11
Local clock offset: 0.119 ms
Remote clock offset: -0.195 ms

# Below is generated by plot.py at 2018-08-11 05:19:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 738.47 Mbit/s
95th percentile per-packet one-way delay: 226.519 ms
Loss rate: 6.74%
-- Flow 1:
Average throughput: 738.47 Mbit/s
95th percentile per-packet one-way delay: 226.519 ms
Loss rate: 6.74%
Run 7: Report of FillP — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 791.81 Mbps)
- Flow 1 egress (mean 738.47 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 226.52 ms)
Run 8: Statistics of FillP

Start at: 2018-08-11 03:35:11
End at: 2018-08-11 03:35:41
Local clock offset: 0.297 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2018-08-11 05:21:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 849.71 Mbit/s
95th percentile per-packet one-way delay: 197.094 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 849.71 Mbit/s
95th percentile per-packet one-way delay: 197.094 ms
Loss rate: 2.10%
Run 8: Report of FillP — Data Link

![Graph 1](image1)

- Flow 1 ingress (mean 867.99 Mbit/s)
- Flow 1 egress (mean 849.71 Mbit/s)

![Graph 2](image2)

- Flow 1 (95th percentile 197.09 ms)
Run 9: Statistics of FillP

Start at: 2018-08-11 03:58:33
End at: 2018-08-11 03:59:03
Local clock offset: 0.505 ms
Remote clock offset: -0.117 ms

# Below is generated by plot.py at 2018-08-11 05:33:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 742.58 Mbit/s
95th percentile per-packet one-way delay: 213.280 ms
Loss rate: 5.36%
-- Flow 1:
Average throughput: 742.58 Mbit/s
95th percentile per-packet one-way delay: 213.280 ms
Loss rate: 5.36%
Run 9: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress** (mean 784.65 Mbps)
- **Flow 1 egress** (mean 742.58 Mbps)

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

- **Flow 1** (95th percentile 213.28 ms)
Run 10: Statistics of FillP

Start at: 2018-08-11 04:22:21
End at: 2018-08-11 04:22:51
Local clock offset: 0.213 ms
Remote clock offset: -0.201 ms

# Below is generated by plot.py at 2018-08-11 05:36:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 834.72 Mbit/s
95th percentile per-packet one-way delay: 198.822 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 834.72 Mbit/s
95th percentile per-packet one-way delay: 198.822 ms
Loss rate: 2.18%
Run 10: Report of FillP — Data Link

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**Graph 1:**
- **X-axis:** Time (s)
- **Y-axis:** Throughput (Mbps)
- **Legend:**
  - Flow 1 ingress (mean 853.29 Mbps)
  - Flow 1 egress (mean 834.72 Mbps)

**Graph 2:**
- **X-axis:** Time (s)
- **Y-axis:** Per packet one way delay (ms)
- **Legend:** Flow 1 (95th percentile 198.82 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2018-08-11 00:55:11
End at: 2018-08-11 00:55:41
Local clock offset: 0.186 ms
Remote clock offset: -0.262 ms

# Below is generated by plot.py at 2018-08-11 05:36:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 712.22 Mbit/s
95th percentile per-packet one-way delay: 208.171 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 712.22 Mbit/s
95th percentile per-packet one-way delay: 208.171 ms
Loss rate: 1.42%
Run 1: Report of FillP-Sheep — Data Link
Run 2: Statistics of FillP-Sheep

Start at: 2018-08-11 01:18:16
End at: 2018-08-11 01:18:46
Local clock offset: 0.203 ms
Remote clock offset: -0.714 ms

# Below is generated by plot.py at 2018-08-11 05:36:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 691.25 Mbit/s
95th percentile per-packet one-way delay: 222.127 ms
Loss rate: 7.06%
-- Flow 1:
Average throughput: 691.25 Mbit/s
95th percentile per-packet one-way delay: 222.127 ms
Loss rate: 7.06%
Run 2: Report of FillP-Sheep — Data Link
Run 3: Statistics of FillP-Sheep

Start at: 2018-08-11 01:41:40
End at: 2018-08-11 01:42:10
Local clock offset: 0.365 ms
Remote clock offset: -0.2 ms

# Below is generated by plot.py at 2018-08-11 05:36:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 727.00 Mbit/s
95th percentile per-packet one-way delay: 214.732 ms
Loss rate: 4.63%
-- Flow 1:
Average throughput: 727.00 Mbit/s
95th percentile per-packet one-way delay: 214.732 ms
Loss rate: 4.63%
Run 3: Report of FillP-Sheep — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 4: Statistics of FillP-Sheep

Start at: 2018-08-11 02:05:25
End at: 2018-08-11 02:05:55
Local clock offset: 0.155 ms
Remote clock offset: -0.497 ms

# Below is generated by plot.py at 2018-08-11 05:36:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 756.33 Mbit/s
95th percentile per-packet one-way delay: 218.729 ms
Loss rate: 7.74%
-- Flow 1:
Average throughput: 756.33 Mbit/s
95th percentile per-packet one-way delay: 218.729 ms
Loss rate: 7.74%
Run 4: Report of FillP-Sheep — Data Link

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

- **Flow 1 ingress** (mean 819.86 Mbps)
- **Flow 1 egress** (mean 756.33 Mbps)

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

- **Flow 1 (95th percentile 218.73 ms)**
Run 5: Statistics of FillP-Sheep

Start at: 2018-08-11 02:28:47
End at: 2018-08-11 02:29:17
Local clock offset: 0.387 ms
Remote clock offset: -0.484 ms

# Below is generated by plot.py at 2018-08-11 05:36:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 730.65 Mbit/s
95th percentile per-packet one-way delay: 219.137 ms
Loss rate: 7.40%
-- Flow 1:
Average throughput: 730.65 Mbit/s
95th percentile per-packet one-way delay: 219.137 ms
Loss rate: 7.40%
Run 5: Report of FillP-Sheep — Data Link
Run 6: Statistics of FillP-Sheep

Start at: 2018-08-11 02:52:07
End at: 2018-08-11 02:52:37
Local clock offset: 0.514 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-08-11 05:38:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 691.64 Mbit/s
95th percentile per-packet one-way delay: 217.784 ms
Loss rate: 6.96%
-- Flow 1:
Average throughput: 691.64 Mbit/s
95th percentile per-packet one-way delay: 217.784 ms
Loss rate: 6.96%
Run 6: Report of FillP-Sheep — Data Link

![Graphs showing throughput and delay over time for Flow 1 ingress and egress.]

- Flow 1 ingress (mean 743.44 Mbit/s)
- Flow 1 egress (mean 691.64 Mbit/s)

![Graph showing per packet delay for Flow 1, with 95th percentile at 217.78 ms.]
Run 7: Statistics of FillP-Sheep

Start at: 2018-08-11 03:15:44  
End at: 2018-08-11 03:16:14  
Local clock offset: 0.446 ms  
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-08-11 05:48:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 655.08 Mbit/s
95th percentile per-packet one-way delay: 220.753 ms
Loss rate: 8.47%

-- Flow 1:
Average throughput: 655.08 Mbit/s
95th percentile per-packet one-way delay: 220.753 ms
Loss rate: 8.47%
Run 7: Report of FillP-Sheep — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image)
Run 8: Statistics of FillP-Sheep

Start at: 2018-08-11 03:39:18
End at: 2018-08-11 03:39:48
Local clock offset: 0.288 ms
Remote clock offset: 0.176 ms

# Below is generated by plot.py at 2018-08-11 05:49:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 705.71 Mbit/s
95th percentile per-packet one-way delay: 216.957 ms
Loss rate: 8.86%
-- Flow 1:
Average throughput: 705.71 Mbit/s
95th percentile per-packet one-way delay: 216.957 ms
Loss rate: 8.86%
Run 8: Report of FillP-Sheep — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress** (mean 774.30 Mbps)
- **Flow 1 egress** (mean 705.71 Mbps)

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

- **Flow 1** (95th percentile 216.96 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-08-11 04:02:47
End at: 2018-08-11 04:03:17
Local clock offset: 0.449 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 778.47 Mbit/s
95th percentile per-packet one-way delay: 211.523 ms
Loss rate: 5.73%
-- Flow 1:
Average throughput: 778.47 Mbit/s
95th percentile per-packet one-way delay: 211.523 ms
Loss rate: 5.73%
Run 9: Report of FillP-Sheep — Data Link

![Graph of throughput over time](image1)

- **Flow 1 ingress (mean 825.78 Mbit/s)**
- **Flow 1 egress (mean 778.47 Mbit/s)**

![Graph of round-trip delay over time](image2)

- **Flow 1 (95th percentile 211.52 ms)**
Run 10: Statistics of FillP-Sheep

Start at: 2018-08-11 04:26:27
End at: 2018-08-11 04:26:57
Local clock offset: 0.317 ms
Remote clock offset: -0.255 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 738.19 Mbit/s
95th percentile per-packet one-way delay: 217.760 ms
Loss rate: 7.97%
-- Flow 1:
Average throughput: 738.19 Mbit/s
95th percentile per-packet one-way delay: 217.760 ms
Loss rate: 7.97%
Run 10: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 802.19 Mbps)
- Flow 1 egress (mean 738.19 Mbps)

![Graph 2: Per-Envelope delay (ms) vs Time (s)](image)

- Flow 1 (95th percentile 217.76 ms)
Run 1: Statistics of Indigo

Start at: 2018-08-11 00:44:18
End at: 2018-08-11 00:44:48
Local clock offset: 0.31 ms
Remote clock offset: -0.276 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.78 Mbit/s
95th percentile per-packet one-way delay: 136.678 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 87.78 Mbit/s
95th percentile per-packet one-way delay: 136.678 ms
Loss rate: 0.00%
Run 1: Report of Indigo — Data Link

Graph 1: Throughput (Mbps) over Time (s)
- Flow 1 ingress (mean 87.79 Mbit/s)
- Flow 1 egress (mean 87.78 Mbit/s)

Graph 2: Packet delay (ms) over Time (s)
- Flow 1 (95th percentile 136.68 ms)
Run 2: Statistics of Indigo

Start at: 2018-08-11 01:07:30
End at: 2018-08-11 01:08:01
Local clock offset: 0.215 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 156.07 Mbit/s
95th percentile per-packet one-way delay: 136.997 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 156.07 Mbit/s
95th percentile per-packet one-way delay: 136.997 ms
Loss rate: 0.00%
Run 2: Report of Indigo — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 156.08 Mbit/s)
- Flow 1 egress (mean 156.07 Mbit/s)

![Packet Delay Graph]

- Flow 1 (95th percentile 137.60 ms)
Run 3: Statistics of Indigo

Start at: 2018-08-11 01:30:49
End at: 2018-08-11 01:31:19
Local clock offset: 0.223 ms
Remote clock offset: -0.321 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 166.19 Mbit/s
95th percentile per-packet one-way delay: 136.880 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 166.19 Mbit/s
95th percentile per-packet one-way delay: 136.880 ms
Loss rate: 0.00%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Start at: 2018-08-11 01:54:24
End at: 2018-08-11 01:54:54
Local clock offset: 0.427 ms
Remote clock offset: 0.136 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 167.52 Mbit/s
95th percentile per-packet one-way delay: 136.876 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 167.52 Mbit/s
95th percentile per-packet one-way delay: 136.876 ms
Loss rate: 0.00%
Run 4: Report of Indigo — Data Link
Run 5: Statistics of Indigo

Start at: 2018-08-11 02:17:55
End at: 2018-08-11 02:18:25
Local clock offset: 0.159 ms
Remote clock offset: -0.466 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 171.14 Mbit/s
95th percentile per-packet one-way delay: 136.624 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 171.14 Mbit/s
95th percentile per-packet one-way delay: 136.624 ms
Loss rate: 0.00%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Start at: 2018-08-11 02:41:22
End at: 2018-08-11 02:41:52
Local clock offset: 0.088 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 153.88 Mbit/s
95th percentile per-packet one-way delay: 137.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 153.88 Mbit/s
95th percentile per-packet one-way delay: 137.065 ms
Loss rate: 0.00%
Run 6: Report of Indigo — Data Link
Run 7: Statistics of Indigo

Start at: 2018-08-11 03:04:47
End at: 2018-08-11 03:05:17
Local clock offset: 0.527 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 173.82 Mbit/s
  95th percentile per-packet one-way delay: 136.686 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 173.82 Mbit/s
  95th percentile per-packet one-way delay: 136.686 ms
  Loss rate: 0.00%
Run 7: Report of Indigo — Data Link
Run 8: Statistics of Indigo

Start at: 2018-08-11 03:28:24
End at: 2018-08-11 03:28:54
Local clock offset: 0.358 ms
Remote clock offset: -0.504 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 168.51 Mbit/s
95th percentile per-packet one-way delay: 135.940 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 168.51 Mbit/s
95th percentile per-packet one-way delay: 135.940 ms
Loss rate: 0.00%
Run 8: Report of Indigo — Data Link
Run 9: Statistics of Indigo

Start at: 2018-08-11 03:51:33
End at: 2018-08-11 03:52:03
Local clock offset: 0.304 ms
Remote clock offset: -0.468 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 172.93 Mbit/s
  95th percentile per-packet one-way delay: 136.344 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 172.93 Mbit/s
  95th percentile per-packet one-way delay: 136.344 ms
  Loss rate: 0.00%
Run 9: Report of Indigo — Data Link
Run 10: Statistics of Indigo

Start at: 2018-08-11 04:15:23
End at: 2018-08-11 04:15:53
Local clock offset: 0.721 ms
Remote clock offset: 0.195 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 171.43 Mbit/s
95th percentile per-packet one-way delay: 136.536 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 171.43 Mbit/s
95th percentile per-packet one-way delay: 136.536 ms
Loss rate: 0.01%
Run 10: Report of Indigo — Data Link

![Graph showing throughput over time with two streams: Flow 1 ingress (mean 171.43 Mbit/s) and Flow 1 egress (mean 171.43 Mbit/s).]

![Graph showing packet delay over time for Flow 1, with 95th percentile delay of 136.54 ms.]
Run 1: Statistics of LEDBAT

Start at: 2018-08-11 00:40:27
End at: 2018-08-11 00:40:57
Local clock offset: 0.802 ms
Remote clock offset: -0.247 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.73 Mbit/s
95th percentile per-packet one-way delay: 137.031 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.73 Mbit/s
95th percentile per-packet one-way delay: 137.031 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-08-11 01:03:46
End at: 2018-08-11 01:04:16
Local clock offset: -0.042 ms
Remote clock offset: -0.652 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 137.583 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 137.583 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link

Graph 1: Throughput over time for Flow 1 ingress and egress.

Graph 2: Per-packet one-way delay for Flow 1, with 95th percentile of 137.58 ms.
Run 3: Statistics of LEDBAT

Start at: 2018-08-11 01:27:04
End at: 2018-08-11 01:27:34
Local clock offset: 0.141 ms
Remote clock offset: -0.684 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 137.643 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 137.643 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-08-11 01:50:39
End at: 2018-08-11 01:51:09
Local clock offset: 0.087 ms
Remote clock offset: -0.538 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 136.438 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 136.438 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-08-11 02:14:13
End at: 2018-08-11 02:14:43
Local clock offset: 0.189 ms
Remote clock offset: 0.194 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 4.85 Mbit/s
  95th percentile per-packet one-way delay: 138.036 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.85 Mbit/s
  95th percentile per-packet one-way delay: 138.036 ms
  Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

[Graphs showing throughput and packet delay over time]

Flow 1 ingress (mean 4.85 Mbit/s)  
Flow 1 egress (mean 4.85 Mbit/s)

Flow 1 (99th percentile 138.04 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-08-11 02:37:32
End at: 2018-08-11 02:38:02
Local clock offset: 0.255 ms
Remote clock offset: -0.458 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.80 Mbit/s
95th percentile per-packet one-way delay: 137.539 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.80 Mbit/s
95th percentile per-packet one-way delay: 137.539 ms
Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link

![Graphs showing throughput and packet delay over time for Flow 1.]

- Throughput (Mbps/s)
- Packet delay (ms)
- Flow 1 ingress (mean 4.80 Mbps/s)
- Flow 1 egress (mean 4.80 Mbps/s)
- Flow 1 (95th percentile 137.54 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-08-11 03:00:58
End at: 2018-08-11 03:01:28
Local clock offset: 0.202 ms
Remote clock offset: -0.489 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 137.328 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 137.328 ms
Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link

![Graph of throughput over time showing two flows: Flow 1 ingress and Flow 1 egress.]

![Graph of packet one-way delay showing Flow 1 with 95th percentile at 137.33 ms.]
Run 8: Statistics of LEDBAT

Start at: 2018-08-11 03:24:37
End at: 2018-08-11 03:25:07
Local clock offset: 0.411 ms
Remote clock offset: -0.482 ms

# Below is generated by plot.py at 2018-08-11 05:52:03
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 4.83 Mbit/s
  95th percentile per-packet one-way delay: 137.007 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.83 Mbit/s
  95th percentile per-packet one-way delay: 137.007 ms
  Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

[Graph showing throughput and packet delay over time]
Run 9: Statistics of LEDBAT

Start at: 2018-08-11 03:47:54
End at: 2018-08-11 03:48:24
Local clock offset: 0.161 ms
Remote clock offset: 0.228 ms

# Below is generated by plot.py at 2018-08-11 05:52:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 137.781 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 137.781 ms
Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 4.85 Mbit/s)
- Flow 1 egress (mean 4.85 Mbit/s)

- Flow 1 (95th percentile 137.78 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-08-11 04:11:44
End at: 2018-08-11 04:12:14
Local clock offset: 0.261 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-08-11 05:52:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.80 Mbit/s
95th percentile per-packet one-way delay: 137.901 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.80 Mbit/s
95th percentile per-packet one-way delay: 137.901 ms
Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link

[Graph showing throughput over time]

- Flow 1 ingress (mean 4.80 Mbit/s)
- Flow 1 egress (mean 4.80 Mbit/s)

[Graph showing round-trip time over time]

- Flow 1 (95th percentile 137.90 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-08-11 00:56:53
End at: 2018-08-11 00:57:23
Local clock offset: 0.182 ms
Remote clock offset: 0.099 ms

# Below is generated by plot.py at 2018-08-11 05:53:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 535.46 Mbit/s
95th percentile per-packet one-way delay: 161.081 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 535.46 Mbit/s
95th percentile per-packet one-way delay: 161.081 ms
Loss rate: 0.87%
Run 1: Report of PCC-Allegro — Data Link

![Graph showing throughput and per-packet end-to-end delay over time]

Throughput (Mbps): Flow 1 ingress (mean 540.15 Mbps), Flow 1 egress (mean 535.46 Mbps)

Per-packet end-to-end delay (ms): Flow 1 (95th percentile 161.08 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-08-11 01:19:58
End at: 2018-08-11 01:20:28
Local clock offset: 0.116 ms
Remote clock offset: -0.359 ms

# Below is generated by plot.py at 2018-08-11 05:54:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 538.95 Mbit/s
95th percentile per-packet one-way delay: 213.046 ms
Loss rate: 2.74%
-- Flow 1:
Average throughput: 538.95 Mbit/s
95th percentile per-packet one-way delay: 213.046 ms
Loss rate: 2.74%
Run 2: Report of PCC-Allegro — Data Link

![Graph 1: Throughput over time](image1)

- Flow 1 ingress (mean 354.14 Mbps)
- Flow 1 egress (mean 538.95 Mbps)

![Graph 2: Round-trip time over time](image2)

- Flow 1 (95th percentile 213.05 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-08-11 01:43:24
End at: 2018-08-11 01:43:54
Local clock offset: 0.177 ms
Remote clock offset: -0.557 ms

# Below is generated by plot.py at 2018-08-11 05:55:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 562.66 Mbit/s
95th percentile per-packet one-way delay: 174.929 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 562.66 Mbit/s
95th percentile per-packet one-way delay: 174.929 ms
Loss rate: 1.29%
Run 3: Report of PCC-Allegro — Data Link

![Graph of Throughput vs Time]

- **Flow 1 ingress (mean 570.04 Mbit/s)**
- **Flow 1 egress (mean 562.66 Mbit/s)**

![Graph of RTT vs Time]

- **Flow 1 (95th percentile 174.93 ms)**
Run 4: Statistics of PCC-Allegro

Start at: 2018-08-11 02:07:10
End at: 2018-08-11 02:07:40
Local clock offset: 0.209 ms
Remote clock offset: 0.179 ms

# Below is generated by plot.py at 2018-08-11 05:56:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 585.69 Mbit/s
95th percentile per-packet one-way delay: 285.568 ms
Loss rate: 7.18%
-- Flow 1:
Average throughput: 585.69 Mbit/s
95th percentile per-packet one-way delay: 285.568 ms
Loss rate: 7.18%
Run 4: Report of PCC-Allegro — Data Link

[Graphs showing throughput and delay over time, with labels for Flow 1 ingress and egress.]
Run 5: Statistics of PCC-Allegro

Start at: 2018-08-11 02:30:31
End at: 2018-08-11 02:31:01
Local clock offset: 0.327 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-08-11 05:58:28
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 543.23 Mbit/s
  95th percentile per-packet one-way delay: 218.056 ms
  Loss rate: 2.14%
-- Flow 1:
  Average throughput: 543.23 Mbit/s
  95th percentile per-packet one-way delay: 218.056 ms
  Loss rate: 2.14%
Run 5: Report of PCC-Allegro — Data Link

![Graph of throughput and delay over time]
Run 6: Statistics of PCC-Allegro

Start at: 2018-08-11 02:53:50
End at: 2018-08-11 02:54:20
Local clock offset: 0.59 ms
Remote clock offset: 0.229 ms

# Below is generated by plot.py at 2018-08-11 05:59:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 487.37 Mbit/s
95th percentile per-packet one-way delay: 213.897 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 487.37 Mbit/s
95th percentile per-packet one-way delay: 213.897 ms
Loss rate: 1.52%
Run 6: Report of PCC-Allegro — Data Link

Throughput (Mbps) vs Time (s)

Flow 1 ingress (mean 494.91 Mbps)  Flow 1 egress (mean 487.37 Mbps)

Round-trip time one way delay (ms)

Flow 1 (95th percentile 213.90 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-08-11 03:17:24
End at: 2018-08-11 03:17:54
Local clock offset: 0.567 ms
Remote clock offset: -0.122 ms

# Below is generated by plot.py at 2018-08-11 06:02:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 519.97 Mbit/s
95th percentile per-packet one-way delay: 216.001 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 519.97 Mbit/s
95th percentile per-packet one-way delay: 216.001 ms
Loss rate: 1.73%
Run 7: Report of PCC-Allegro — Data Link

Graph 1: Throughput over Time (Mbps)
- Flow 1 ingress (mean 529.13 Mbps)
- Flow 1 egress (mean 519.97 Mbps)

Graph 2: One-Way Delay over Time (ms)
- Flow 1 (95th percentile 216.00 ms)
Run 8: Statistics of PCC-Allegro

Start at: 2018-08-11 03:41:01
End at: 2018-08-11 03:41:31
Local clock offset: 0.372 ms
Remote clock offset: 0.168 ms

# Below is generated by plot.py at 2018-08-11 06:02:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 547.06 Mbit/s
95th percentile per-packet one-way delay: 162.464 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 547.06 Mbit/s
95th percentile per-packet one-way delay: 162.464 ms
Loss rate: 0.71%
Run 8: Report of PCC-Allegro — Data Link

![Graph of throughput and round-trip delay over time for Flow 1 with ingress and egress mean rates.]
Run 9: Statistics of PCC-Allegro

Start at: 2018-08-11 04:04:35
End at: 2018-08-11 04:05:05
Local clock offset: 0.347 ms
Remote clock offset: -0.458 ms

# Below is generated by plot.py at 2018-08-11 06:03:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 524.79 Mbit/s
95th percentile per-packet one-way delay: 170.828 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 524.79 Mbit/s
95th percentile per-packet one-way delay: 170.828 ms
Loss rate: 1.00%
Run 9: Report of PCC-Allegro — Data Link
Run 10: Statistics of PCC-Allegro

Start at: 2018-08-11 04:28:12
End at: 2018-08-11 04:28:42
Local clock offset: -0.049 ms
Remote clock offset: -0.54 ms

# Below is generated by plot.py at 2018-08-11 06:04:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 554.01 Mbit/s
95th percentile per-packet one-way delay: 154.081 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 554.01 Mbit/s
95th percentile per-packet one-way delay: 154.081 ms
Loss rate: 0.38%
Run 10: Report of PCC-Allegro — Data Link

Throughput (Mbps)

- Flow 1 ingress (mean 356.12 Mbps)
- Flow 1 egress (mean 554.01 Mbps)

Round trip packet delay (ms)

- Flow 1 (95th percentile 154.08 ms)
Run 1: Statistics of PCC-Expr

Start at: 2018-08-11 00:49:33
End at: 2018-08-11 00:50:03
Local clock offset: -0.058 ms
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2018-08-11 06:05:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 287.90 Mbit/s
95th percentile per-packet one-way delay: 267.194 ms
Loss rate: 3.41%
-- Flow 1:
Average throughput: 287.90 Mbit/s
95th percentile per-packet one-way delay: 267.194 ms
Loss rate: 3.41%
Run 1: Report of PCC-Expr — Data Link

![Graph of throughput and packet delay over time for Flow 1.]
Run 2: Statistics of PCC-Expr

Start at: 2018-08-11 01:12:49
End at: 2018-08-11 01:13:19
Local clock offset: 0.375 ms
Remote clock offset: -0.287 ms

# Below is generated by plot.py at 2018-08-11 06:05:33
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 176.89 Mbit/s
  95th percentile per-packet one-way delay: 136.504 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 176.89 Mbit/s
  95th percentile per-packet one-way delay: 136.504 ms
  Loss rate: 0.00%
Run 2: Report of PCC-Expr — Data Link

![Graph showing throughput and latency over time](image-url)
Run 3: Statistics of PCC-Expr

Start at: 2018-08-11 01:36:05
End at: 2018-08-11 01:36:35
Local clock offset: 0.064 ms
Remote clock offset: 0.166 ms

# Below is generated by plot.py at 2018-08-11 06:09:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 263.56 Mbit/s
95th percentile per-packet one-way delay: 231.518 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 263.56 Mbit/s
95th percentile per-packet one-way delay: 231.518 ms
Loss rate: 0.65%
Run 3: Report of PCC-Expr — Data Link

\begin{figure}
\centering
\includegraphics[width=\textwidth]{run3_report.png}
\caption{Throughput and latency graphs for Run 3: Flow 1 ingress and egress performance.}
\end{figure}
Run 4: Statistics of PCC-Expr

Start at: 2018-08-11 01:59:45
End at: 2018-08-11 02:00:15
Local clock offset: 0.286 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-08-11 06:10:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 292.86 Mbit/s
95th percentile per-packet one-way delay: 170.234 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 292.86 Mbit/s
95th percentile per-packet one-way delay: 170.234 ms
Loss rate: 1.05%
Run 4: Report of PCC-Expr — Data Link

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

Flow 1 ingress (mean 295.97 Mbit/s)  
Flow 1 egress (mean 292.86 Mbit/s)

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

flow 1 (95th percentile 170.23 ms)
Run 5: Statistics of PCC-Expr

Start at: 2018-08-11 02:23:15
End at: 2018-08-11 02:23:45
Local clock offset: 0.29 ms
Remote clock offset: 0.223 ms

# Below is generated by plot.py at 2018-08-11 06:10:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 214.57 Mbit/s
95th percentile per-packet one-way delay: 137.445 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 214.57 Mbit/s
95th percentile per-packet one-way delay: 137.445 ms
Loss rate: 0.00%
Run 5: Report of PCC-Expr — Data Link
Run 6: Statistics of PCC-Expr

Start at: 2018-08-11 02:46:39
End at: 2018-08-11 02:47:09
Local clock offset: 0.27 ms
Remote clock offset: -0.478 ms

# Below is generated by plot.py at 2018-08-11 06:10:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 182.63 Mbit/s
95th percentile per-packet one-way delay: 136.424 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 182.63 Mbit/s
95th percentile per-packet one-way delay: 136.424 ms
Loss rate: 0.00%
Run 6: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 182.64 Mbit/s)
- Flow 1 egress (mean 182.63 Mbit/s)

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

- Flow 1 (99th percentile 138.42 ms)
Run 7: Statistics of PCC-Expr

Start at: 2018-08-11 03:10:10
End at: 2018-08-11 03:10:40
Local clock offset: 0.383 ms
Remote clock offset: -0.181 ms

# Below is generated by plot.py at 2018-08-11 06:11:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.92 Mbit/s
95th percentile per-packet one-way delay: 250.253 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 227.92 Mbit/s
95th percentile per-packet one-way delay: 250.253 ms
Loss rate: 0.78%
Run 7: Report of PCC-Expr — Data Link
Run 8: Statistics of PCC-Expr

Start at: 2018-08-11 03:33:41
End at: 2018-08-11 03:34:11
Local clock offset: 0.47 ms
Remote clock offset: 0.198 ms

# Below is generated by plot.py at 2018-08-11 06:11:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.75 Mbit/s
95th percentile per-packet one-way delay: 136.510 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 206.75 Mbit/s
95th percentile per-packet one-way delay: 136.510 ms
Loss rate: 0.00%
Run 8: Report of PCC-Expr — Data Link

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

Flow 1 ingress (mean 206.75 Mbit/s) vs. Flow 1 egress (mean 206.75 Mbit/s)

Flow 1 95th percentile 136.51 ms
Run 9: Statistics of PCC-Expr

Start at: 2018-08-11 03:56:47
End at: 2018-08-11 03:57:17
Local clock offset: 0.426 ms
Remote clock offset: 0.241 ms

# Below is generated by plot.py at 2018-08-11 06:17:18
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 315.79 Mbit/s
  95th percentile per-packet one-way delay: 281.092 ms
  Loss rate: 8.00%
-- Flow 1:
  Average throughput: 315.79 Mbit/s
  95th percentile per-packet one-way delay: 281.092 ms
  Loss rate: 8.00%
Run 9: Report of PCC-Expr — Data Link
Run 10: Statistics of PCC-Expr

Start at: 2018-08-11 04:20:41
End at: 2018-08-11 04:21:11
Local clock offset: 0.204 ms
Remote clock offset: -0.201 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 302.21 Mbit/s
95th percentile per-packet one-way delay: 233.356 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 302.21 Mbit/s
95th percentile per-packet one-way delay: 233.356 ms
Loss rate: 0.29%
Run 10: Report of PCC-Expr — Data Link
Run 1: Statistics of QUIC Cubic

Start at: 2018-08-11 00:43:09
End at: 2018-08-11 00:43:39
Local clock offset: 0.169 ms
Remote clock offset: -0.258 ms
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-08-11 01:06:22  
End at: 2018-08-11 01:06:52  
Local clock offset: 0.202 ms  
Remote clock offset: 0.012 ms
Run 2: Report of QUIC Cubic — Data Link

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

- Flow ingress (mean 0.02 Mbps)
- Flow egress (mean 0.02 Mbps)

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

- Flow 1 (95th percentile 136.50 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-08-11 01:29:41
End at: 2018-08-11 01:30:11
Local clock offset: 0.055 ms
Remote clock offset: -0.345 ms
Run 3: Report of QUIC Cubic — Data Link

![Graph 1: Throughput vs Time]

- **Throughput (Mbps)**

![Graph 2: Packet Delay vs Time]

- **Per-packet one way delay (ms)**
Run 4: Statistics of QUIC Cubic

Start at: 2018-08-11 01:53:12
End at: 2018-08-11 01:53:42
Local clock offset: 0.228 ms
Remote clock offset: -0.544 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 52.69 Mbit/s
  95th percentile per-packet one-way delay: 136.201 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 52.69 Mbit/s
  95th percentile per-packet one-way delay: 136.201 ms
  Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link

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**Throughput (Mb/s) vs Time (s)**

- **Flow 1 ingress (mean 52.69 Mb/s)**
- **Flow 1 egress (mean 52.69 Mb/s)**

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**RTT Packet Delay (ms) vs Time (s)**

- **Flow 1 (95th percentile 136.20 ms)**
Run 5: Statistics of QUIC Cubic

Start at: 2018-08-11 02:16:47
End at: 2018-08-11 02:17:17
Local clock offset: 0.272 ms
Remote clock offset: -0.145 ms
Run 5: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress (mean 0.02 Mbit/s)**
- **Flow 1 egress (mean 0.02 Mbit/s)**

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

Flow 1 (95th percentile 136.87 ms)
Run 6: Statistics of QUIC Cubic

Start at: 2018-08-11 02:40:14
End at: 2018-08-11 02:40:44
Local clock offset: 0.383 ms
Remote clock offset: 0.211 ms
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-08-11 03:03:39  
End at: 2018-08-11 03:04:09  
Local clock offset: 0.384 ms  
Remote clock offset: 0.214 ms
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

Start at: 2018-08-11 03:27:16
End at: 2018-08-11 03:27:46
Local clock offset: 0.372 ms
Remote clock offset: -0.532 ms
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-08-11 03:50:25
End at: 2018-08-11 03:50:55
Local clock offset: 0.501 ms
Remote clock offset: -0.108 ms
Run 9: Report of QUIC Cubic — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 10: Statistics of QUIC Cubic

Start at: 2018-08-11 04:14:14
End at: 2018-08-11 04:14:44
Local clock offset: 0.413 ms
Remote clock offset: -0.49 ms
Run 10: Report of QUIC Cubic — Data Link

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

1. Throughput in Mbps against time in seconds.
2. Per-packet one-way delay in ms against time in seconds.

Legend:
- Flow 1 ingress (mean 0.04 Mbps)
- Flow 1 egress (mean 0.04 Mbps)
- Flow 1 (95th percentile 135.94 ms)
Run 1: Statistics of SCReAM

Start at: 2018-08-11 00:54:03
End at: 2018-08-11 00:54:33
Local clock offset: 0.262 ms
Remote clock offset: -0.284 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.498 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.498 ms
Loss rate: 0.00%
Run 2: Statistics of SCReAM

Start at: 2018-08-11 01:17:08
End at: 2018-08-11 01:17:38
Local clock offset: 0.083 ms
Remote clock offset: -0.693 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.776 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.776 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

![Graph showing throughput and delay over time for Flow 1 ingress and egress]

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

![Graph showing per-packet delay over time for Flow 1]

Flow 1 (95th percentile 136.78 ms)
Run 3: Statistics of SCReAM

Start at: 2018-08-11 01:40:32
End at: 2018-08-11 01:41:02
Local clock offset: 0.092 ms
Remote clock offset: -0.234 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.804 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.804 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

[Graphs showing throughput and packet delay over time for Flow 1 ingress and egress.]
Run 4: Statistics of SCReAM

Start at: 2018-08-11 02:04:16
End at: 2018-08-11 02:04:46
Local clock offset: 0.559 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.024 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.024 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2018-08-11 02:27:38
End at: 2018-08-11 02:28:08
Local clock offset: 0.293 ms
Remote clock offset: -0.13 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.622 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.622 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link
Run 6: Statistics of SCReAM

Start at: 2018-08-11 02:50:59
End at: 2018-08-11 02:51:29
Local clock offset: 0.329 ms
Remote clock offset: 0.245 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.100 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.100 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-08-11 03:14:35
End at: 2018-08-11 03:15:05
Local clock offset: 0.355 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.572 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.572 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 0.22 Mbps)**
- **Flow 1 egress (mean 0.22 Mbps)**

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

- **Flow 1 (95th percentile 136.57 ms)**
Run 8: Statistics of SCReAM

Start at: 2018-08-11 03:38:09
End at: 2018-08-11 03:38:39
Local clock offset: 0.691 ms
Remote clock offset: -0.193 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.322 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.322 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

![Graph showing throughput and packet processing delay over time for Flow 1.]

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

![Graph showing packet processing delay over time for Flow 1 with a 95th percentile of 136.32 ms.]
Run 9: Statistics of SCReAM

Start at: 2018-08-11 04:01:38
End at: 2018-08-11 04:02:08
Local clock offset: 0.311 ms
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.851 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.851 ms
Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

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

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

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

- **Flow 1 (95th percentile 136.85 ms)**

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Run 10: Statistics of SCReAM

Start at: 2018-08-11 04:25:19
End at: 2018-08-11 04:25:49
Local clock offset: 0.438 ms
Remote clock offset: -0.54 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.743 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.743 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of Sprout

Start at: 2018-08-11 00:45:33
End at: 2018-08-11 00:46:03
Local clock offset: 0.165 ms
Remote clock offset: -0.216 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.805 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.805 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.17 Mbit/s)  Flow 1 egress (mean 0.17 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.81 ms)
Run 2: Statistics of Sprout

Start at: 2018-08-11 01:08:51
End at: 2018-08-11 01:09:21
Local clock offset: 0.329 ms
Remote clock offset: -0.351 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.594 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.594 ms
Loss rate: 0.00%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-08-11 01:32:10
End at: 2018-08-11 01:32:40
Local clock offset: 0.177 ms
Remote clock offset: -0.279 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.933 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.933 ms
Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

![Diagram showing throughput and per-packet one-way delay graphs.]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 0.16 Mbit/s)
  - Flow 1 egress (mean 0.16 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 136.93 ms)
Run 4: Statistics of Sprout

Start at: 2018-08-11 01:55:46
End at: 2018-08-11 01:56:16
Local clock offset: 0.153 ms
Remote clock offset: -0.565 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 136.647 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 136.647 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)

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Run 5: Statistics of Sprout

Start at: 2018-08-11 02:19:16
End at: 2018-08-11 02:19:46
Local clock offset: 0.248 ms
Remote clock offset: 0.196 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.14 Mbit/s
  95th percentile per-packet one-way delay: 137.203 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.14 Mbit/s
  95th percentile per-packet one-way delay: 137.203 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

![Graph 1]

![Graph 2]
Run 6: Statistics of Sprout

Start at: 2018-08-11 02:42:43
End at: 2018-08-11 02:43:13
Local clock offset: 0.339 ms
Remote clock offset: -0.129 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.911 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.911 ms
Loss rate: 0.00%
Run 6: Report of Sprout — Data Link

Graph 1: Throughput (Mbps) vs. Time (s)

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

Legend:
- Flow 1 ingress (mean 0.16 Mbit/s)
- Flow 1 egress (mean 0.16 Mbit/s)
- Flow 1 (90th percentile 138.91 ms)
Run 7: Statistics of Sprout

Start at: 2018-08-11 03:06:09
End at: 2018-08-11 03:06:39
Local clock offset: 0.281 ms
Remote clock offset: -0.472 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.537 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.537 ms
  Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

 através (Mbps)
Run 8: Statistics of Sprout

Start at: 2018-08-11 03:29:45
End at: 2018-08-11 03:30:15
Local clock offset: 0.274 ms
Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.333 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.333 ms
  Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

Throughput (Mbps)

Flow 1 ingress (mean 0.16 Mbps)  Flow 1 egress (mean 0.16 Mbps)

End-to-end one way delay (ms)

Flow 1 (95th percentile 136.33 ms)
Run 9: Statistics of Sprout

Start at: 2018-08-11 03:52:55
End at: 2018-08-11 03:53:25
Local clock offset: 0.348 ms
Remote clock offset: -0.169 ms

# Below is generated by plot.py at 2018-08-11 06:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 136.554 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 136.554 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.19 Mbps)  Flow 1 egress (mean 0.19 Mbps)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 136.55 ms)
Run 10: Statistics of Sprout

Start at: 2018-08-11 04:16:44
End at: 2018-08-11 04:17:14
Local clock offset: 0.443 ms
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-08-11 06:17:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.660 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.660 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

![Graph showing throughput and delay over time]

- Flow 1 ingress (mean 0.14 Mbit/s)
- Flow 1 egress (mean 0.14 Mbit/s)

- Flow 1 (95th percentile 136.66 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-08-11 00:36:01
End at: 2018-08-11 00:36:31
Local clock offset: -0.117 ms
Remote clock offset: -0.215 ms

# Below is generated by plot.py at 2018-08-11 06:17:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 187.50 Mbit/s
95th percentile per-packet one-way delay: 137.307 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 187.50 Mbit/s
95th percentile per-packet one-way delay: 137.307 ms
Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 187.50 Mbit/s)
- Flow 1 egress (mean 187.50 Mbit/s)

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

- Flow 1 (95th percentile 137.31 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-08-11 00:59:42
End at: 2018-08-11 01:00:12
Local clock offset: 0.399 ms
Remote clock offset: -0.275 ms

# Below is generated by plot.py at 2018-08-11 06:17:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 136.385 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 136.385 ms
Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link

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Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 10.90 Mbit/s)
- Flow 1 egress (mean 10.90 Mbit/s)

---

Round-trip one-way delay (ms)

Time (s)

- Flow 1 (95th percentile 136.38 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-08-11 01:22:47
End at: 2018-08-11 01:23:17
Local clock offset: 0.269 ms
Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2018-08-11 06:17:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.52 Mbit/s
95th percentile per-packet one-way delay: 137.102 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 192.52 Mbit/s
95th percentile per-packet one-way delay: 137.102 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 192.52 Mbit/s)  Flow 1 egress (mean 192.52 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 137.10 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-08-11 01:46:11  
End at: 2018-08-11 01:46:41  
Local clock offset: -0.031 ms  
Remote clock offset: -0.461 ms

# Below is generated by plot.py at 2018-08-11 06:17:55  
# Datalink statistics
-- Total of 1 flow:  
Average throughput: 194.14 Mbit/s  
95th percentile per-packet one-way delay: 136.883 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 194.14 Mbit/s  
95th percentile per-packet one-way delay: 136.883 ms  
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Per-packet End-to-End Delay vs Time](image2)

*Flow 1 ingress (mean 194.14 Mbit/s) — Flow 1 egress (mean 194.14 Mbit/s)*

*Flow 1 (95th percentile 136.88 ms)*

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Run 5: Statistics of TaoVA-100x

Start at: 2018-08-11 02:09:59
End at: 2018-08-11 02:10:29
Local clock offset: 0.025 ms
Remote clock offset: 0.213 ms

# Below is generated by plot.py at 2018-08-11 06:17:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 137.359 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 137.359 ms
Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link

[Graphs showing throughput and packet delay over time]
Run 6: Statistics of TaoVA-100x

Start at: 2018-08-11 02:33:19
End at: 2018-08-11 02:33:49
Local clock offset: 0.079 ms
Remote clock offset: -0.131 ms

# Below is generated by plot.py at 2018-08-11 06:17:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 144.75 Mbit/s
95th percentile per-packet one-way delay: 137.030 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 144.75 Mbit/s
95th percentile per-packet one-way delay: 137.030 ms
Loss rate: 0.00%
Run 6: Report of TaoVA-100x — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress (mean 144.75 Mbit/s)**
- **Flow 1 egress (mean 144.75 Mbit/s)**

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

- **Flow 1 (95th percentile 137.03 ms)**
Run 7: Statistics of TaoVA-100x

Start at: 2018-08-11 02:56:35
End at: 2018-08-11 02:57:05
Local clock offset: 0.415 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-08-11 06:17:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 136.00 Mbit/s
95th percentile per-packet one-way delay: 136.656 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 136.00 Mbit/s
95th percentile per-packet one-way delay: 136.656 ms
Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link

![Graph showing throughput over time.]

- Flow 1 ingress (mean 136.00 Mbit/s)
- Flow 1 egress (mean 136.00 Mbit/s)

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

- Flow 1 (95th percentile 136.66 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-08-11 03:20:10
End at: 2018-08-11 03:20:40
Local clock offset: 0.224 ms
Remote clock offset: 0.252 ms

# Below is generated by plot.py at 2018-08-11 06:19:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 198.77 Mbit/s
95th percentile per-packet one-way delay: 137.269 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 198.77 Mbit/s
95th percentile per-packet one-way delay: 137.269 ms
Loss rate: 0.00%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-08-11 03:43:48
End at: 2018-08-11 03:44:18
Local clock offset: 0.759 ms
Remote clock offset: -0.518 ms

# Below is generated by plot.py at 2018-08-11 06:19:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 135.721 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 135.721 ms
Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link

![Graph of network performance]

- Flow 1 ingress (mean 13.29 Mbit/s)
- Flow 1 egress (mean 13.29 Mbit/s)

![Graph of packet delay]

- Flow 1 (95th percentile 135.72 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-08-11 04:07:21
End at: 2018-08-11 04:07:51
Local clock offset: 0.527 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 155.16 Mbit/s
95th percentile per-packet one-way delay: 136.336 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 155.16 Mbit/s
95th percentile per-packet one-way delay: 136.336 ms
Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link

**Graph 1:**
- **X-axis:** Time (s)
- **Y-axis:** Throughput (Mbps)
- **Legend:**
  - Flow 1 ingress (mean 155.17 Mbit/s)
  - Flow 1 egress (mean 155.16 Mbit/s)

**Graph 2:**
- **X-axis:** Time (s)
- **Y-axis:** Per-packet one-way delay (ms)
- **Legend:** Flow 1 (95th percentile 136.34 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-08-11 00:46:42
End at: 2018-08-11 00:47:12
Local clock offset: 0.2 ms
Remote clock offset: 0.078 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 138.080 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 138.080 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-08-11 01:09:59
End at: 2018-08-11 01:10:29
Local clock offset: 0.28 ms
Remote clock offset: 0.053 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.84 Mbit/s
95th percentile per-packet one-way delay: 138.553 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.84 Mbit/s
95th percentile per-packet one-way delay: 138.553 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-08-11 01:33:19
End at: 2018-08-11 01:33:49
Local clock offset: 0.265 ms
Remote clock offset: -0.263 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 53.30 Mbit/s
  95th percentile per-packet one-way delay: 143.208 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 53.30 Mbit/s
  95th percentile per-packet one-way delay: 143.208 ms
  Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 53.30 Mbit/s)**
- **Flow 1 egress (mean 53.30 Mbit/s)**

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

- **Flow 1 (95th percentile 143.21 ms)**

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Run 4: Statistics of TCP Vegas

Start at: 2018-08-11 01:56:54
End at: 2018-08-11 01:57:24
Local clock offset: 0.295 ms
Remote clock offset: 0.245 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 105.13 Mbit/s
95th percentile per-packet one-way delay: 138.486 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 105.13 Mbit/s
95th percentile per-packet one-way delay: 138.486 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-08-11 02:20:25
End at: 2018-08-11 02:20:55
Local clock offset: 0.343 ms
Remote clock offset: 0.131 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 100.19 Mbit/s
95th percentile per-packet one-way delay: 139.117 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 100.19 Mbit/s
95th percentile per-packet one-way delay: 139.117 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

---

**Throughput (Mbps)**

0 5 10 15 20 25 30

0 20 40 60 80 100 120 140 160

- Flow 1 ingress (mean 100.19 Mbit/s)
- Flow 1 egress (mean 100.19 Mbit/s)

---

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

0 5 10 15 20 25 30

135 136 137 138 139 140 141 142 143 144 145 146 147 148 149

- Flow 1 (95th percentile 139.12 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-08-11 02:43:51
End at: 2018-08-11 02:44:21
Local clock offset: 0.336 ms
Remote clock offset: 0.277 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.69 Mbit/s
95th percentile per-packet one-way delay: 141.721 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.69 Mbit/s
95th percentile per-packet one-way delay: 141.721 ms
Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 77.69 Mbit/s)
Flow 1 egress (mean 77.69 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 141.72 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-08-11 03:07:17
End at: 2018-08-11 03:07:47
Local clock offset: 0.578 ms
Remote clock offset: 0.217 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 105.15 Mbit/s
95th percentile per-packet one-way delay: 138.419 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 105.15 Mbit/s
95th percentile per-packet one-way delay: 138.419 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

![Graphs showing network performance metrics: Throughput and Per-packet one-way delay over time.]

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 105.16 Mbit/s)
  - Flow 1 egress (mean 105.15 Mbit/s)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 138.42 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-08-11 03:30:54
End at: 2018-08-11 03:31:24
Local clock offset: 0.435 ms
Remote clock offset: -0.446 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 48.20 Mbit/s
  95th percentile per-packet one-way delay: 137.308 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 48.20 Mbit/s
  95th percentile per-packet one-way delay: 137.308 ms
  Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link
Run 9: Statistics of TCP Vegas

Start at: 2018-08-11 03:54:04
End at: 2018-08-11 03:54:34
Local clock offset: 0.334 ms
Remote clock offset: 0.282 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.12 Mbit/s
95th percentile per-packet one-way delay: 138.766 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.12 Mbit/s
95th percentile per-packet one-way delay: 138.766 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-08-11 04:17:53
End at: 2018-08-11 04:18:23
Local clock offset: 0.428 ms
Remote clock offset: -0.484 ms

# Below is generated by plot.py at 2018-08-11 06:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.17 Mbit/s
95th percentile per-packet one-way delay: 137.431 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.17 Mbit/s
95th percentile per-packet one-way delay: 137.431 ms
Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 54.17 Mbps)
- Flow 1 egress (mean 54.17 Mbps)

![Graph 2: Packet One-Way Delay (ms)](image2)

- Flow 1 (95th percentile 137.43 ms)
Run 1: Statistics of Verus

Start at: 2018-08-11 00:37:30
End at: 2018-08-11 00:38:00
Local clock offset: 0.124 ms
Remote clock offset: -0.583 ms

# Below is generated by plot.py at 2018-08-11 06:22:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 184.76 Mbit/s
95th percentile per-packet one-way delay: 189.642 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 184.76 Mbit/s
95th percentile per-packet one-way delay: 189.642 ms
Loss rate: 0.52%
Run 1: Report of Verus — Data Link

![Graph of throughput and packet delay over time for Flow 1, with mean ingress and egress throughput of 185.74 Mbit/s and 184.76 Mbit/s respectively.](image-url)
Run 2: Statistics of Verus

Start at: 2018-08-11 01:00:53
End at: 2018-08-11 01:01:23
Local clock offset: -0.126 ms
Remote clock offset: -0.32 ms

# Below is generated by plot.py at 2018-08-11 06:22:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.48 Mbit/s
95th percentile per-packet one-way delay: 149.576 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.48 Mbit/s
95th percentile per-packet one-way delay: 149.576 ms
Loss rate: 0.00%
Run 2: Report of Verus — Data Link

![Graph of throughput and packet delay over time for Flow 1 ingress and egress.]

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 73.49 Mbit/s)  Flow 1 egress (mean 73.48 Mbit/s)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 149.58 ms)
Run 3: Statistics of Verus

Start at: 2018-08-11 01:24:16
End at: 2018-08-11 01:24:46
Local clock offset: -0.041 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-08-11 06:22:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.68 Mbit/s
95th percentile per-packet one-way delay: 155.072 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 90.68 Mbit/s
95th percentile per-packet one-way delay: 155.072 ms
Loss rate: 0.00%
Run 3: Report of Verus — Data Link

![Graphs showing data link performance metrics](image)

- Flow 1 ingress (mean 90.69 Mbit/s)
- Flow 1 egress (mean 90.68 Mbit/s)

- Flow 1 (95th percentile 155.07 ms)
Run 4: Statistics of Verus

Start at: 2018-08-11 01:47:40
End at: 2018-08-11 01:48:10
Local clock offset: 0.282 ms
Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2018-08-11 06:23:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 205.64 Mbit/s
95th percentile per-packet one-way delay: 240.975 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 205.64 Mbit/s
95th percentile per-packet one-way delay: 240.975 ms
Loss rate: 2.05%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-08-11 02:11:10
End at: 2018-08-11 02:11:40
Local clock offset: 0.112 ms
Remote clock offset: -0.182 ms

# Below is generated by plot.py at 2018-08-11 06:24:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.83 Mbit/s
95th percentile per-packet one-way delay: 259.218 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 225.83 Mbit/s
95th percentile per-packet one-way delay: 259.218 ms
Loss rate: 2.79%
Run 5: Report of Verus — Data Link

![Graph of Throughput and Packet Delay](image)

Throughput (Mbps)

Time (s)

- **Flow 1 ingress (mean 232.45 Mbit/s)**
- **Flow 1 egress (mean 225.83 Mbit/s)**

Packet delay (ms)

Time (s)

- **Flow 1 (95th percentile 259.22 ms)**
Run 6: Statistics of Verus

Start at: 2018-08-11 02:34:43
End at: 2018-08-11 02:35:13
Local clock offset: ~0.006 ms
Remote clock offset: ~0.121 ms

# Below is generated by plot.py at 2018-08-11 06:24:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.59 Mbit/s
95th percentile per-packet one-way delay: 179.783 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.59 Mbit/s
95th percentile per-packet one-way delay: 179.783 ms
Loss rate: 0.00%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-08-11 02:57:58
End at: 2018-08-11 02:58:28
Local clock offset: 0.353 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-08-11 06:24:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 156.06 Mbit/s
95th percentile per-packet one-way delay: 266.376 ms
Loss rate: 5.16%
-- Flow 1:
Average throughput: 156.06 Mbit/s
95th percentile per-packet one-way delay: 266.376 ms
Loss rate: 5.16%
Run 7: Report of Verus — Data Link

![Graph showing throughput and delay over time for Flow 1 ingress and egress with mean values and 95th percentile delay.]
Run 8: Statistics of Verus

Start at: 2018-08-11 03:21:40
End at: 2018-08-11 03:22:10
Local clock offset: 0.154 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at 2018-08-11 06:24:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 207.47 Mbit/s
95th percentile per-packet one-way delay: 194.944 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 207.47 Mbit/s
95th percentile per-packet one-way delay: 194.944 ms
Loss rate: 1.40%
Run 8: Report of Verus — Data Link

---

**Throughput (Mbps)**

- **Flow 1 ingress (mean 210.44 Mbps)**
- **Flow 1 egress (mean 207.47 Mbps)**

---

**Per-packet end-to-end delay (ms)**

- **Flow 1 (95th percentile 194.94 ms)**
Run 9: Statistics of Verus

Start at: 2018-08-11 03:44:58
End at: 2018-08-11 03:45:29
Local clock offset: 0.422 ms
Remote clock offset: -0.459 ms

# Below is generated by plot.py at 2018-08-11 06:24:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.41 Mbit/s
95th percentile per-packet one-way delay: 165.904 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 169.41 Mbit/s
95th percentile per-packet one-way delay: 165.904 ms
Loss rate: 0.00%
Run 9: Report of Verus — Data Link

[Graph of throughput vs. time showing two lines, one for ingress and one for egress.]
Run 10: Statistics of Verus

Start at: 2018-08-11 04:08:46
End at: 2018-08-11 04:09:16
Local clock offset: 0.306 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-08-11 06:24:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 150.96 Mbit/s
95th percentile per-packet one-way delay: 265.873 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 150.96 Mbit/s
95th percentile per-packet one-way delay: 265.873 ms
Loss rate: 2.78%
Run 10: Report of Verus — Data Link

![Graph of throughput over time for two flows.](image)

- **Flow 1 ingress** (mean 155.28 Mbit/s)
- **Flow 1 egress** (mean 150.96 Mbit/s)

![Graph of packet delay over time for Flow 1.](image)

- **Flow 1 (95th percentile 265.87 ms)**
Run 1: Statistics of PCC-Vivace

Start at: 2018-08-11 00:47:57
End at: 2018-08-11 00:48:27
Local clock offset: -0.001 ms
Remote clock offset: -0.234 ms

# Below is generated by plot.py at 2018-08-11 06:29:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 346.27 Mbit/s
95th percentile per-packet one-way delay: 138.232 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 346.27 Mbit/s
95th percentile per-packet one-way delay: 138.232 ms
Loss rate: 0.06%
Run 1: Report of PCC-Vivace — Data Link
Run 2: Statistics of PCC-Vivace

Start at: 2018-08-11 01:11:12
End at: 2018-08-11 01:11:42
Local clock offset: 0.131 ms
Remote clock offset: -0.279 ms

# Below is generated by plot.py at 2018-08-11 06:30:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 364.96 Mbit/s
95th percentile per-packet one-way delay: 136.788 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 364.96 Mbit/s
95th percentile per-packet one-way delay: 136.788 ms
Loss rate: 0.00%
Run 2: Report of PCC-Vivace — Data Link
Run 3: Statistics of PCC-Vivace

Start at: 2018-08-11 01:34:31
End at: 2018-08-11 01:35:01
Local clock offset: 0.39 ms
Remote clock offset: -0.258 ms

# Below is generated by plot.py at 2018-08-11 06:30:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 322.90 Mbit/s
95th percentile per-packet one-way delay: 177.404 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 322.90 Mbit/s
95th percentile per-packet one-way delay: 177.404 ms
Loss rate: 0.00%
Run 3: Report of PCC-Vivace — Data Link

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

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

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Run 4: Statistics of PCC-Vivace

Start at: 2018-08-11 01:58:09
End at: 2018-08-11 01:58:39
Local clock offset: 0.278 ms
Remote clock offset: -0.177 ms

# Below is generated by plot.py at 2018-08-11 06:30:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 345.61 Mbit/s
95th percentile per-packet one-way delay: 139.319 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 345.61 Mbit/s
95th percentile per-packet one-way delay: 139.319 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link

![Graph showing throughput and delay for Flow 1 ingress and egress.]
Run 5: Statistics of PCC-Vivace

Start at: 2018-08-11 02:21:40
End at: 2018-08-11 02:22:10
Local clock offset: 0.51 ms
Remote clock offset: 0.238 ms

# Below is generated by plot.py at 2018-08-11 06:31:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 340.41 Mbit/s
95th percentile per-packet one-way delay: 170.841 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 340.41 Mbit/s
95th percentile per-packet one-way delay: 170.841 ms
Loss rate: 0.58%
Run 5: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 342.40 Mbit/s)  Flow 1 egress (mean 340.41 Mbit/s)

Per packet one way delay (ms)

Time (s)

flow 1 (95th percentile 170.84 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-08-11 02:45:05  
End at: 2018-08-11 02:45:35  
Local clock offset: 0.443 ms  
Remote clock offset: -0.196 ms

# Below is generated by plot.py at 2018-08-11 06:31:08  
# Datalink statistics

-- Total of 1 flow:  
Average throughput: 317.13 Mbit/s  
95th percentile per-packet one-way delay: 149.802 ms  
Loss rate: 0.00%

-- Flow 1:  
Average throughput: 317.13 Mbit/s  
95th percentile per-packet one-way delay: 149.802 ms  
Loss rate: 0.00%
Run 7: Statistics of PCC-Vivace

Start at: 2018-08-11 03:08:32
End at: 2018-08-11 03:09:03
Local clock offset: 0.319 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2018-08-11 06:31:17
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 350.77 Mbit/s
  95th percentile per-packet one-way delay: 137.196 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 350.77 Mbit/s
  95th percentile per-packet one-way delay: 137.196 ms
  Loss rate: 0.00%
Run 8: Statistics of PCC-Vivace

Start at: 2018-08-11 03:32:06
End at: 2018-08-11 03:32:36
Local clock offset: 0.329 ms
Remote clock offset: 0.233 ms

# Below is generated by plot.py at 2018-08-11 06:31:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 332.93 Mbit/s
95th percentile per-packet one-way delay: 147.071 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 332.93 Mbit/s
95th percentile per-packet one-way delay: 147.071 ms
Loss rate: 0.00%
Run 8: Report of PCC-Vivace — Data Link
Run 9: Statistics of PCC-Vivace

Start at: 2018-08-11 03:55:16  
End at: 2018-08-11 03:55:46  
Local clock offset: 0.656 ms  
Remote clock offset: -0.448 ms

# Below is generated by plot.py at 2018-08-11 06:31:43  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 271.01 Mbit/s  
95th percentile per-packet one-way delay: 137.419 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 271.01 Mbit/s  
95th percentile per-packet one-way delay: 137.419 ms  
Loss rate: 0.00%
Run 10: Statistics of PCC-Vivace

Start at: 2018-08-11 04:19:05
End at: 2018-08-11 04:19:35
Local clock offset: 0.301 ms
Remote clock offset: -0.44 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 346.40 Mbit/s
95th percentile per-packet one-way delay: 142.397 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 346.40 Mbit/s
95th percentile per-packet one-way delay: 142.397 ms
Loss rate: 0.00%
Run 10: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 346.40 Mbit/s)
- Flow 1 egress (mean 346.40 Mbit/s)

- Flow 1 (95th percentile 142.40 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-08-11 00:52:54
End at: 2018-08-11 00:53:24
Local clock offset: -0.07 ms
Remote clock offset: -0.675 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 135.607 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 135.607 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

![Graph showing throughput over time for Flow 1 ingress and egress with a mean of 1.94 Mb/s each.]

![Graph showing per packet one way delay with 50th percentile of 135.61 ms.]
Run 2: Statistics of WebRTC media

Start at: 2018-08-11 01:15:59
End at: 2018-08-11 01:16:29
Local clock offset: 0.207 ms
Remote clock offset: -0.692 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 136.037 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 136.037 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-08-11 01:39:23
End at: 2018-08-11 01:39:53
Local clock offset: 0.36 ms
Remote clock offset: -0.204 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 136.600 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 136.600 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-08-11 02:03:07
End at: 2018-08-11 02:03:37
Local clock offset: 0.228 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 136.324 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 136.324 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

![Throughput over time](image1)

- **Flow 1 ingress (mean 1.97 Mbit/s)**
- **Flow 1 egress (mean 1.97 Mbit/s)**

![Packet delay over time](image2)

- **Flow 1 (90th percentile 136.32 ms)**
Run 5: Statistics of WebRTC media

Start at: 2018-08-11 02:26:29
End at: 2018-08-11 02:26:59
Local clock offset: 0.442 ms
Remote clock offset: 0.22 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 137.082 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 137.082 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

![Graph showing throughput over time for Flow 1 ingress and egress]

![Graph showing per-packet one way delay over time for Flow 1]

*Flow 1 (99th percentile 137.08 ms)*
Run 6: Statistics of WebRTC media

Start at: 2018-08-11 02:49:50
End at: 2018-08-11 02:50:20
Local clock offset: 0.632 ms
Remote clock offset: -0.206 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 135.988 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 135.988 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-08-11 03:13:26
End at: 2018-08-11 03:13:56
Local clock offset: 0.393 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 136.391 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 136.391 ms
Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

![Graph showing throughput over time](image)

- Flow 1 ingress (mean 1.84 Mbit/s)
- Flow 1 egress (mean 1.85 Mbit/s)

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

- Flow 1 (99th percentile 136.39 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-08-11 03:37:00
End at: 2018-08-11 03:37:30
Local clock offset: 0.366 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 136.273 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 136.273 ms
Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 1.91 Mbps)
- Flow 1 egress (mean 1.91 Mbps)

![Graph 2: Packet delay (ms)](image2)

- Flow 1 (95th percentile 136.27 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-08-11 04:00:29
End at: 2018-08-11 04:00:59
Local clock offset: 0.131 ms
Remote clock offset: -0.465 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 136.014 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 136.014 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 1.95 Mbps)
- Flow 1 egress (mean 1.95 Mbps)

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

- Flow 1 (90th percentile 136.01 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-08-11 04:24:10
End at: 2018-08-11 04:24:40
Local clock offset: 0.208 ms
Remote clock offset: -0.233 ms

# Below is generated by plot.py at 2018-08-11 06:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 136.437 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 136.437 ms
Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

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

- **Flow 1 ingress (mean 1.99 Mbit/s)**
- **Flow 1 egress (mean 1.99 Mbit/s)**

![Graph showing packet delay over time.]

- **Flow 1 90th percentile 136.44 ms**