Pantheon Report

Generated at 2018-08-03 10:23:03 (UTC).
Data path: GCE Sydney Ethernet (local) → GCE Tokyo Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 1 flow.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
NTP offsets were measured against time.google.com and have been applied
to correct the timestamps in logs.

Git summary:
branch: master @ 640164b5b17c7c6561fff57729b3b5935d8596ce
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd48834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594a89e93b032143cedbbfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaeb4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afccc958fa0d66d18b623c091a55f8c872b498e1e
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fa9b24eb21f2ab
third_party/proto-quic @ 77961f1a28733a86b42f1bc8143ebc978f3c5642
third_party/scream-reproduce @ f099918d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f945f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9d4e4735770d143a1fa2851
test from GCE Sydney to GCE Tokyo, 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>214.59</td>
<td>54.26</td>
<td>0.00</td>
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<td>Copa</td>
<td>10</td>
<td>195.80</td>
<td>59.08</td>
<td>0.00</td>
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<td>TCP Cubic</td>
<td>10</td>
<td>158.12</td>
<td>58.15</td>
<td>0.02</td>
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<td>FillP</td>
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<td>870.12</td>
<td>120.55</td>
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<td>FillP-Sheep</td>
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<td>898.66</td>
<td>93.94</td>
<td>0.14</td>
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<td>Indigo</td>
<td>10</td>
<td>225.27</td>
<td>52.96</td>
<td>0.00</td>
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<tr>
<td>LEDBAT</td>
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<td>31.26</td>
<td>54.28</td>
<td>0.00</td>
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<tr>
<td>PCC-Allegro</td>
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<td>703.92</td>
<td>126.98</td>
<td>1.32</td>
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<td>PCC-Expr</td>
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<td>338.23</td>
<td>134.63</td>
<td>3.23</td>
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<td>71.16</td>
<td>52.11</td>
<td>0.01</td>
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<td>SCReAM</td>
<td>10</td>
<td>0.21</td>
<td>52.85</td>
<td>0.00</td>
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<td>Sprout</td>
<td>10</td>
<td>6.52</td>
<td>53.40</td>
<td>0.00</td>
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<td>TaoVA-100x</td>
<td>10</td>
<td>132.35</td>
<td>52.89</td>
<td>0.00</td>
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<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>83.82</td>
<td>54.46</td>
<td>0.00</td>
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<td>Verus</td>
<td>10</td>
<td>274.65</td>
<td>106.06</td>
<td>0.32</td>
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<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>429.24</td>
<td>65.53</td>
<td>0.03</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.94</td>
<td>52.33</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-08-03 04:50:21
End at: 2018-08-03 04:50:51
Local clock offset: -0.013 ms
Remote clock offset: -0.3 ms

# Below is generated by plot.py at 2018-08-03 08:37:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.71 Mbit/s
95th percentile per-packet one-way delay: 53.872 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 210.71 Mbit/s
95th percentile per-packet one-way delay: 53.872 ms
Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link

![Graph showing throughput and packet delay over time]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 210.60 Mbit/s)
  - Flow 1 egress (mean 210.71 Mbit/s)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 53.87 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-08-03 05:12:50
End at: 2018-08-03 05:13:20
Local clock offset: 0.034 ms
Remote clock offset: -0.274 ms

# Below is generated by plot.py at 2018-08-03 08:37:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.27 Mbit/s
95th percentile per-packet one-way delay: 58.268 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.27 Mbit/s
95th percentile per-packet one-way delay: 58.268 ms
Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link

![Graph of TCP BBR data link]

**Throughput (Mbps)**

- **Flow 1 ingress (mean 218.25 Mbps)**
- **Flow 1 egress (mean 218.27 Mbps)**

![Graph of round trip time (ms)]

- **Flow 1 (95th percentile 58.27 ms)**
Run 3: Statistics of TCP BBR

Start at: 2018-08-03 05:35:29
End at: 2018-08-03 05:35:59
Local clock offset: 0.056 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-08-03 08:37:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.37 Mbit/s
95th percentile per-packet one-way delay: 54.147 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 213.37 Mbit/s
95th percentile per-packet one-way delay: 54.147 ms
Loss rate: 0.00%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-08-03 05:57:42
End at: 2018-08-03 05:58:12
Local clock offset: -0.061 ms
Remote clock offset: -0.224 ms

# Below is generated by plot.py at 2018-08-03 08:37:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.55 Mbit/s
95th percentile per-packet one-way delay: 53.868 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 210.55 Mbit/s
95th percentile per-packet one-way delay: 53.868 ms
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-08-03 06:19:39
End at: 2018-08-03 06:20:09
Local clock offset: 0.175 ms
Remote clock offset: -1.509 ms

# Below is generated by plot.py at 2018-08-03 08:37:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.81 Mbit/s
95th percentile per-packet one-way delay: 52.295 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 213.81 Mbit/s
95th percentile per-packet one-way delay: 52.295 ms
Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-08-03 06:42:01
End at: 2018-08-03 06:42:31
Local clock offset: 0.088 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2018-08-03 08:37:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.63 Mbit/s
95th percentile per-packet one-way delay: 53.826 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 216.63 Mbit/s
95th percentile per-packet one-way delay: 53.826 ms
Loss rate: 0.00%
Run 6: Report of TCP BBR — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)
Run 7: Statistics of TCP BBR

Start at: 2018-08-03 07:03:52
End at: 2018-08-03 07:04:22
Local clock offset: 0.072 ms
Remote clock offset: -0.245 ms

# Below is generated by plot.py at 2018-08-03 08:37:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.56 Mbit/s
95th percentile per-packet one-way delay: 53.665 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.56 Mbit/s
95th percentile per-packet one-way delay: 53.665 ms
Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 218.58 Mbit/s)  Flow 1 egress (mean 218.56 Mbit/s)

Bandwidth over time (ms)

Time (s)

Flow 1 (95th percentile 53.66 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-08-03 07:26:04
End at: 2018-08-03 07:26:34
Local clock offset: -0.013 ms
Remote clock offset: -0.148 ms

# Below is generated by plot.py at 2018-08-03 08:37:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.85 Mbit/s
95th percentile per-packet one-way delay: 54.980 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 221.85 Mbit/s
95th percentile per-packet one-way delay: 54.980 ms
Loss rate: 0.01%
Run 8: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 221.87 Mbit/s)
- Flow 1 egress (mean 221.85 Mbit/s)

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

- Flow 1 (95th percentile 54.98 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-08-03 07:48:29
End at: 2018-08-03 07:48:59
Local clock offset: 0.246 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-08-03 08:40:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.62 Mbit/s
95th percentile per-packet one-way delay: 52.882 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 211.62 Mbit/s
95th percentile per-packet one-way delay: 52.882 ms
Loss rate: 0.00%
Run 9: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 211.60 Mbit/s)
- Flow 1 egress (mean 211.62 Mbit/s)

Flow 1 (95th percentile 52.88 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-08-03 08:10:48
End at: 2018-08-03 08:11:18
Local clock offset: -0.276 ms
Remote clock offset: -1.569 ms

# Below is generated by plot.py at 2018-08-03 08:40:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.57 Mbit/s
95th percentile per-packet one-way delay: 54.780 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 210.57 Mbit/s
95th percentile per-packet one-way delay: 54.780 ms
Loss rate: 0.00%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of Copa

Start at: 2018-08-03 04:49:00
End at: 2018-08-03 04:49:30
Local clock offset: 0.019 ms
Remote clock offset: -0.464 ms

# Below is generated by plot.py at 2018-08-03 08:42:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 194.16 Mbit/s
95th percentile per-packet one-way delay: 57.676 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 194.16 Mbit/s
95th percentile per-packet one-way delay: 57.676 ms
Loss rate: 0.00%
Run 1: Report of Copa — 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 194.16 Mbps)
- Flow 1 egress (mean 194.16 Mbps)
- Flow 1 (95th percentile 57.68 ms)
Run 2: Statistics of Copa

Start at: 2018-08-03 05:11:21
End at: 2018-08-03 05:11:51
Local clock offset: 0.015 ms
Remote clock offset: -1.657 ms

# Below is generated by plot.py at 2018-08-03 08:45:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 287.01 Mbit/s
95th percentile per-packet one-way delay: 61.705 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 287.01 Mbit/s
95th percentile per-packet one-way delay: 61.705 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link

![Graph of throughput over time showing two distinct flows: Flow 1 ingress (mean 287.64 Mbps) and Flow 1 egress (mean 287.01 Mbps).]

![Graph of per-packet one-way delay showing Flow 1 (95th percentile 61.70 ms).]
Run 3: Statistics of Copa

Start at: 2018-08-03 05:33:59
End at: 2018-08-03 05:34:29
Local clock offset: 0.095 ms
Remote clock offset: 0.068 ms

# Below is generated by plot.py at 2018-08-03 08:45:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 303.92 Mbit/s
95th percentile per-packet one-way delay: 64.986 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 303.92 Mbit/s
95th percentile per-packet one-way delay: 64.986 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link

![Graph of Throughput vs Time]

Throughput (Mbit/s)

0 0 5 10 15 20 25 30
Time (s)

- Flow 1 ingress (mean 301.89 Mbit/s)
- Flow 1 egress (mean 303.92 Mbit/s)

![Graph of Per-packet One-Way Delay vs Time]

Per-packet one-way delay (ms)

0 5 10 15 20 25 30
Time (s)

- Flow 1 (95th percentile 64.99 ms)
Run 4: Statistics of Copa

Start at: 2018-08-03 05:56:30
End at: 2018-08-03 05:57:00
Local clock offset: -0.048 ms
Remote clock offset: -0.406 ms

# Below is generated by plot.py at 2018-08-03 08:45:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.10 Mbit/s
95th percentile per-packet one-way delay: 57.376 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.10 Mbit/s
95th percentile per-packet one-way delay: 57.376 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

Throughput (Mbps)

- Flow 1 ingress (mean 77.69 Mbit/s)
- Flow 1 egress (mean 77.10 Mbit/s)

Delay (ms)

- Flow 1 (95th percentile 57.38 ms)
Run 5: Statistics of Copa

Start at: 2018-08-03 06:18:12
End at: 2018-08-03 06:18:42
Local clock offset: -0.132 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2018-08-03 08:45:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.26 Mbit/s
95th percentile per-packet one-way delay: 53.807 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.26 Mbit/s
95th percentile per-packet one-way delay: 53.807 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link

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

- Flow 1 ingress (mean 251.29 Mbps)
- Flow 1 egress (mean 251.26 Mbps)

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

- Flow 1 (95th percentile 53.81 ms)
Run 6: Statistics of Copa

Start at: 2018-08-03 06:40:43
End at: 2018-08-03 06:41:13
Local clock offset: 0.153 ms
Remote clock offset: -1.531 ms

# Below is generated by plot.py at 2018-08-03 08:45:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 158.01 Mbit/s
95th percentile per-packet one-way delay: 61.825 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 158.01 Mbit/s
95th percentile per-packet one-way delay: 61.825 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link

![Graph of throughput](image1.png)

- Flow 1 ingress (mean 158.00 Mbit/s)
- Flow 1 egress (mean 158.01 Mbit/s)

![Graph of packet delay](image2.png)

- Flow 1 (95th percentile 61.83 ms)
Run 7: Statistics of Copa

Start at: 2018-08-03 07:02:39
End at: 2018-08-03 07:03:09
Local clock offset: -0.008 ms
Remote clock offset: -0.187 ms

# Below is generated by plot.py at 2018-08-03 08:45:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 104.40 Mbit/s
95th percentile per-packet one-way delay: 66.935 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 104.40 Mbit/s
95th percentile per-packet one-way delay: 66.935 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-08-03 07:24:40
End at: 2018-08-03 07:25:10
Local clock offset: -0.019 ms
Remote clock offset: -1.46 ms

# Below is generated by plot.py at 2018-08-03 08:47:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 236.39 Mbit/s
95th percentile per-packet one-way delay: 56.158 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 236.39 Mbit/s
95th percentile per-packet one-way delay: 56.158 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link
Run 9: Statistics of Copa

Start at: 2018-08-03 07:47:19
End at: 2018-08-03 07:47:49
Local clock offset: -0.064 ms
Remote clock offset: 1.168 ms

# Below is generated by plot.py at 2018-08-03 08:47:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.49 Mbit/s
95th percentile per-packet one-way delay: 54.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.49 Mbit/s
95th percentile per-packet one-way delay: 54.469 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link

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

- **Flow 1 ingress (mean 73.49 Mbit/s)**
- **Flow 1 egress (mean 73.49 Mbit/s)**

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

- **Flow 1 (95th percentile 54.47 ms)**
Run 10: Statistics of Copa

Start at: 2018-08-03 08:09:20
End at: 2018-08-03 08:09:50
Local clock offset: -0.117 ms
Remote clock offset: -1.478 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 272.22 Mbit/s
95th percentile per-packet one-way delay: 55.846 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 272.22 Mbit/s
95th percentile per-packet one-way delay: 55.846 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link

![Graph showing throughput and delay over time]
Run 1: Statistics of TCP Cubic

Start at: 2018-08-03 04:47:48
End at: 2018-08-03 04:48:18
Local clock offset: -0.047 ms
Remote clock offset: -0.175 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 147.84 Mbit/s
95th percentile per-packet one-way delay: 58.506 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 147.84 Mbit/s
95th percentile per-packet one-way delay: 58.506 ms
Loss rate: 0.00%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-08-03 05:10:08
End at: 2018-08-03 05:10:38
Local clock offset: 0.007 ms
Remote clock offset: -0.328 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 160.52 Mbit/s
95th percentile per-packet one-way delay: 59.493 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 160.52 Mbit/s
95th percentile per-packet one-way delay: 59.493 ms
Loss rate: 0.04%
Run 2: Report of TCP Cubic — Data Link

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**Graph 1:**
- **Y-axis:** Throughput (Mbps)
- **X-axis:** Time (s)
- **Legend:**
  - Flow 1 ingress (mean 160.63 Mbit/s)
  - Flow 1 egress (mean 160.52 Mbit/s)

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**Graph 2:**
- **Y-axis:** Per-packet one-way delay (ms)
- **X-axis:** Time (s)
- **Legend:** Flow 1 (95th percentile 59.49 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-08-03 05:32:46
End at: 2018-08-03 05:33:16
Local clock offset: -0.021 ms
Remote clock offset: -0.202 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 159.16 Mbit/s
95th percentile per-packet one-way delay: 56.226 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 159.16 Mbit/s
95th percentile per-packet one-way delay: 56.226 ms
Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 159.18 Mbit/s)
- Flow 1 egress (mean 159.16 Mbit/s)

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

- Flow 1 (95th percentile 56.23 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-08-03 05:55:18
End at: 2018-08-03 05:55:48
Local clock offset: 0.219 ms
Remote clock offset: -0.381 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 134.49 Mbit/s
  95th percentile per-packet one-way delay: 55.921 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 134.49 Mbit/s
  95th percentile per-packet one-way delay: 55.921 ms
  Loss rate: 0.00%
Run 4: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 134.48 Mbps)
- Flow 1 egress (mean 134.49 Mbps)

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

- Flow 1 (95th percentile 55.92 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-08-03 06:16:59
End at: 2018-08-03 06:17:29
Local clock offset: 0.039 ms
Remote clock offset: -1.464 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 161.29 Mbit/s
95th percentile per-packet one-way delay: 58.462 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 161.29 Mbit/s
95th percentile per-packet one-way delay: 58.462 ms
Loss rate: 0.00%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-08-03 06:39:31
End at: 2018-08-03 06:40:01
Local clock offset: -0.007 ms
Remote clock offset: -0.217 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 147.22 Mbit/s
95th percentile per-packet one-way delay: 59.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 147.22 Mbit/s
95th percentile per-packet one-way delay: 59.389 ms
Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-08-03 07:01:26
End at: 2018-08-03 07:01:56
Local clock offset: 0.04 ms
Remote clock offset: 0.042 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 152.78 Mbit/s
95th percentile per-packet one-way delay: 59.371 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 152.78 Mbit/s
95th percentile per-packet one-way delay: 59.371 ms
Loss rate: 0.01%
Run 7: Report of TCP Cubic — Data Link

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

![Graph 2: Per-packet round-trip delay (ms) vs Time (s)]
Run 8: Statistics of TCP Cubic

Start at: 2018-08-03 07:23:26
End at: 2018-08-03 07:23:56
Local clock offset: 0.057 ms
Remote clock offset: -0.319 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.42 Mbit/s
95th percentile per-packet one-way delay: 59.056 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 185.42 Mbit/s
95th percentile per-packet one-way delay: 59.056 ms
Loss rate: 0.04%
Run 8: Report of TCP Cubic — Data Link
Run 9: Statistics of TCP Cubic

Start at: 2018-08-03 07:46:05
End at: 2018-08-03 07:46:35
Local clock offset: -0.263 ms
Remote clock offset: -0.282 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.60 Mbit/s
95th percentile per-packet one-way delay: 59.099 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 178.60 Mbit/s
95th percentile per-packet one-way delay: 59.099 ms
Loss rate: 0.04%
Run 9: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress** (mean 178.70 Mbit/s)
- **Flow 1 egress** (mean 178.60 Mbit/s)

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

- **Flow 1** (95th percentile 59.10 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-08-03 08:08:07
End at: 2018-08-03 08:08:37
Local clock offset: -0.061 ms
Remote clock offset: 0.157 ms

# Below is generated by plot.py at 2018-08-03 08:49:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 153.86 Mbit/s
95th percentile per-packet one-way delay: 56.004 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 153.86 Mbit/s
95th percentile per-packet one-way delay: 56.004 ms
Loss rate: 0.07%
Run 10: Report of TCP Cubic — Data Link

![Throughput vs Time Chart]

- Flow 1 ingress (mean 153.97 Mbit/s)
- Flow 1 egress (mean 153.86 Mbit/s)

![Latency vs Time Chart]

- Flow 1 (95th percentile 56.00 ms)
Run 1: Statistics of FillP

Start at: 2018-08-03 04:41:29
End at: 2018-08-03 04:41:59
Local clock offset: -0.017 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-08-03 09:04:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 882.75 Mbit/s
95th percentile per-packet one-way delay: 118.375 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 882.75 Mbit/s
95th percentile per-packet one-way delay: 118.375 ms
Loss rate: 2.36%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

Start at: 2018-08-03 05:03:51
End at: 2018-08-03 05:04:21
Local clock offset: -0.134 ms
Remote clock offset: -1.522 ms

# Below is generated by plot.py at 2018-08-03 09:04:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 912.91 Mbit/s
95th percentile per-packet one-way delay: 114.253 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 912.91 Mbit/s
95th percentile per-packet one-way delay: 114.253 ms
Loss rate: 1.18%
Run 2: Report of FillP — Data Link

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

- Flow 1 ingress (mean 923.76 Mbits)
- Flow 1 egress (mean 912.91 Mbits)

- Flow 1 (95th percentile 114.25 ms)
Run 3: Statistics of FillP

Start at: 2018-08-03 05:26:26
End at: 2018-08-03 05:26:56
Local clock offset: -0.261 ms
Remote clock offset: -0.213 ms

# Below is generated by plot.py at 2018-08-03 09:04:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 839.27 Mbit/s
95th percentile per-packet one-way delay: 121.669 ms
Loss rate: 3.50%
-- Flow 1:
Average throughput: 839.27 Mbit/s
95th percentile per-packet one-way delay: 121.669 ms
Loss rate: 3.50%
Run 3: Report of FillP — Data Link

![Graph of Throughput vs Time]

- Flow 1 ingress (mean 869.75 Mb/s)
- Flow 1 egress (mean 839.27 Mb/s)

![Graph of Packet Delay vs Time]

- Flow 1 (95th percentile 121.67 ms)
Run 4: Statistics of FillP

Start at: 2018-08-03 05:49:00
End at: 2018-08-03 05:49:30
Local clock offset: 0.008 ms
Remote clock offset: -1.475 ms

# Below is generated by plot.py at 2018-08-03 09:04:31
# Datalink statistics
  -- Total of 1 flow:
  Average throughput: 904.35 Mbit/s
  95th percentile per-packet one-way delay: 118.352 ms
  Loss rate: 1.20%
  -- Flow 1:
  Average throughput: 904.35 Mbit/s
  95th percentile per-packet one-way delay: 118.352 ms
  Loss rate: 1.20%
Run 4: Report of FillP — Data Link

![Throughput Graph](image)

- **Flow 1 ingress** (mean 915.37 Mbit/s)
- **Flow 1 egress** (mean 904.35 Mbit/s)

![Delay Graph](image)

- **Flow 1** (95th percentile 118.35 ms)
Run 5: Statistics of FillP

Start at: 2018-08-03 06:10:41
End at: 2018-08-03 06:11:11
Local clock offset: -0.086 ms
Remote clock offset: 0.971 ms

# Below is generated by plot.py at 2018-08-03 09:04:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 849.43 Mbit/s
95th percentile per-packet one-way delay: 124.291 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 849.43 Mbit/s
95th percentile per-packet one-way delay: 124.291 ms
Loss rate: 3.03%
Run 5: Report of FillP — Data Link

---

**Throughput** (Mbps)

- Flow 1 ingress (mean 875.99 Mbps)
- Flow 1 egress (mean 849.43 Mbps)

---

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

- Flow 1 (95th percentile 124.29 ms)
Run 6: Statistics of FillP

Start at: 2018-08-03 06:33:12
End at: 2018-08-03 06:33:42
Local clock offset: -0.106 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2018-08-03 09:05:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 903.37 Mbit/s
95th percentile per-packet one-way delay: 117.929 ms
Loss rate: 2.06%
-- Flow 1:
Average throughput: 903.37 Mbit/s
95th percentile per-packet one-way delay: 117.929 ms
Loss rate: 2.06%
Run 6: Report of FillP — Data Link
Run 7: Statistics of FillP

Start at: 2018-08-03 06:55:08
End at: 2018-08-03 06:55:38
Local clock offset: 0.169 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-08-03 09:05:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 876.33 Mbit/s
95th percentile per-packet one-way delay: 121.847 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 876.33 Mbit/s
95th percentile per-packet one-way delay: 121.847 ms
Loss rate: 1.84%
Run 7: Report of FillP — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 892.71 Mbps)  Flow 1 egress (mean 876.33 Mbps)

Round trip delay (ms)

Time (s)

Flow 1 (95th percentile 121.85 ms)
Run 8: Statistics of FillP

Start at: 2018-08-03 07:17:14
End at: 2018-08-03 07:17:44
Local clock offset: -0.008 ms
Remote clock offset: 0.847 ms

# Below is generated by plot.py at 2018-08-03 09:05:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 801.53 Mbit/s
95th percentile per-packet one-way delay: 127.866 ms
Loss rate: 4.28%
-- Flow 1:
Average throughput: 801.53 Mbit/s
95th percentile per-packet one-way delay: 127.866 ms
Loss rate: 4.28%
Run 8: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 837.25 Mbits/s)
- Flow 1 Egress (mean 801.53 Mbits/s)

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

- Flow 1 (95th percentile 127.87 ms)
Run 9: Statistics of FillP

Start at: 2018-08-03 07:39:46
End at: 2018-08-03 07:40:16
Local clock offset: 0.061 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-08-03 09:20:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 877.96 Mbit/s
95th percentile per-packet one-way delay: 121.418 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 877.96 Mbit/s
95th percentile per-packet one-way delay: 121.418 ms
Loss rate: 2.00%
Run 9: Report of FillP — Data Link

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

- **Flow 1 Ingress (mean 895.91 Mbps)**
- **Flow 1 Egress (mean 877.96 Mbps)**

![Graph 2: RTT vs. Time](image2)

- **Flow 1 (95th percentile 121.42 ms)**
Run 10: Statistics of FillP

Start at: 2018-08-03 08:01:47
End at: 2018-08-03 08:02:17
Local clock offset: -0.06 ms
Remote clock offset: -0.302 ms

# Below is generated by plot.py at 2018-08-03 09:20:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 853.26 Mbit/s
95th percentile per-packet one-way delay: 119.497 ms
Loss rate: 2.80%

-- Flow 1:
Average throughput: 853.26 Mbit/s
95th percentile per-packet one-way delay: 119.497 ms
Loss rate: 2.80%
Run 10: Report of FillP — Data Link

![Throughput Graph]

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 877.91 Mbps)  Flow 1 egress (mean 853.26 Mbps)

![Delay Graph]

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 119.50 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2018-08-03 04:44:36
End at: 2018-08-03 04:45:06
Local clock offset: 0.132 ms
Remote clock offset: -0.143 ms

# Below is generated by plot.py at 2018-08-03 09:20:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 870.40 Mbit/s
95th percentile per-packet one-way delay: 99.837 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 870.40 Mbit/s
95th percentile per-packet one-way delay: 99.837 ms
Loss rate: 0.13%
Run 1: Report of FillP-Sheep — Data Link

![Throughtput (Mbps) vs Time (s)](image1)

Flow 1 ingress (mean 871.59 Mbps)  Flow 1 egress (mean 870.40 Mbps)

![Per-packet end-to-end delay (ms) vs Time (s)](image2)

Flow 1 (95th percentile 99.84 ms)
Run 2: Statistics of FillP-Sheep

Start at: 2018-08-03 05:06:56
End at: 2018-08-03 05:07:26
Local clock offset: 0.121 ms
Remote clock offset: -0.194 ms

# Below is generated by plot.py at 2018-08-03 09:21:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 891.27 Mbit/s
95th percentile per-packet one-way delay: 90.297 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 891.27 Mbit/s
95th percentile per-packet one-way delay: 90.297 ms
Loss rate: 0.12%
Run 2: Report of FillP-Sheep — Data Link
Run 3: Statistics of FillP-Sheep

Start at: 2018-08-03 05:29:33
End at: 2018-08-03 05:30:03
Local clock offset: -0.032 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-08-03 09:22:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 960.41 Mbit/s
95th percentile per-packet one-way delay: 85.223 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 960.41 Mbit/s
95th percentile per-packet one-way delay: 85.223 ms
Loss rate: 0.08%
Run 3: Report of FillP-Sheep — Data Link
Run 4: Statistics of FillP-Sheep

Start at: 2018-08-03 05:52:08
End at: 2018-08-03 05:52:38
Local clock offset: 0.246 ms
Remote clock offset: 0.065 ms

# Below is generated by plot.py at 2018-08-03 09:22:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 876.53 Mbit/s
95th percentile per-packet one-way delay: 100.607 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 876.53 Mbit/s
95th percentile per-packet one-way delay: 100.607 ms
Loss rate: 0.11%
Run 4: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 877.54 Mbps)
- Flow 1 egress (mean 876.53 Mbps)

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

- Flow 1 (95th percentile 100.61 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2018-08-03 06:13:47
End at: 2018-08-03 06:14:17
Local clock offset: 0.125 ms
Remote clock offset: -1.332 ms

# Below is generated by plot.py at 2018-08-03 09:22:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 891.10 Mbit/s
95th percentile per-packet one-way delay: 94.095 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 891.10 Mbit/s
95th percentile per-packet one-way delay: 94.095 ms
Loss rate: 0.08%
Run 5: Report of FillP-Sheep — Data Link

![Graph of throughput over time for Flow 1 ingress and egress with mean values indicated.](image)

![Graph of per-packet delay over time for Flow 1 with 95th percentile value.](image)
Run 6: Statistics of FillP-Sheep

Start at: 2018-08-03 06:36:21
End at: 2018-08-03 06:36:51
Local clock offset: -0.234 ms
Remote clock offset: -0.207 ms

# Below is generated by plot.py at 2018-08-03 09:22:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 900.93 Mbit/s
95th percentile per-packet one-way delay: 98.287 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 900.93 Mbit/s
95th percentile per-packet one-way delay: 98.287 ms
Loss rate: 0.43%
Run 6: Report of FillP-Sheep — Data Link

[Graph showing network throughput and packet latency over time]

Flow 1 ingress (mean 904.74 Mbps)  Flow 1 egress (mean 900.93 Mbps)
Run 7: Statistics of FillP-Sheep

Start at: 2018-08-03 06:58:14
End at: 2018-08-03 06:58:44
Local clock offset: -0.164 ms
Remote clock offset: -0.319 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 952.34 Mbit/s
95th percentile per-packet one-way delay: 95.600 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 952.34 Mbit/s
95th percentile per-packet one-way delay: 95.600 ms
Loss rate: 0.06%
Run 7: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 952.96 Mbps)
- Flow 1 egress (mean 952.34 Mbps)

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

- Flow 1 (95th percentile 95.60 ms)
Run 8: Statistics of FillP-Sheep

Start at: 2018-08-03 07:20:16
End at: 2018-08-03 07:20:46
Local clock offset: 0.165 ms
Remote clock offset: -0.13 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 886.76 Mbit/s
  95th percentile per-packet one-way delay: 87.444 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 886.76 Mbit/s
  95th percentile per-packet one-way delay: 87.444 ms
  Loss rate: 0.13%
Run 8: Report of FillP-Sheep — Data Link

![Graph showing network performance metrics over time, including throughput and packet delay.]
Run 9: Statistics of FillP-Sheep

Start at: 2018-08-03 07:42:53
End at: 2018-08-03 07:43:23
Local clock offset: 0.05 ms
Remote clock offset: -0.17 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 880.41 Mbit/s
95th percentile per-packet one-way delay: 89.825 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 880.41 Mbit/s
95th percentile per-packet one-way delay: 89.825 ms
Loss rate: 0.15%
Run 9: Report of FillP-Sheep — Data Link

![Graph of data link performance over time]

- **Flow 1 Ingress (mean 881.74 Mbit/s)**
- **Flow 1 Egress (mean 880.41 Mbit/s)**

![Graph of per socket one way delay over time]

- **Flow 1 (95th percentile 89.83 ms)**
Run 10: Statistics of FillP-Sheep

Start at: 2018-08-03 08:04:54
End at: 2018-08-03 08:05:24
Local clock offset: 0.006 ms
Remote clock offset: -0.45 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 876.44 Mbit/s
95th percentile per-packet one-way delay: 98.140 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 876.44 Mbit/s
95th percentile per-packet one-way delay: 98.140 ms
Loss rate: 0.14%
Run 10: Report of FillIP-Sheep — Data Link
Run 1: Statistics of Indigo

Start at: 2018-08-03 04:55:35
End at: 2018-08-03 04:56:05
Local clock offset: -0.001 ms
Remote clock offset: -0.167 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 166.94 Mbit/s
95th percentile per-packet one-way delay: 53.692 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 166.94 Mbit/s
95th percentile per-packet one-way delay: 53.692 ms
Loss rate: 0.00%
Run 1: Report of Indigo — Data Link

![Graph of Throughput (Mbps) and Time (s) for Flow 1 ingress and egress](image1)

![Graph of Per-packet one-way delay (ms) and Time (s) for Flow 1 95th percentile 53.69 ms](image2)
Run 2: Statistics of Indigo

Start at: 2018-08-03 05:18:10  
End at: 2018-08-03 05:18:40  
Local clock offset: -0.016 ms  
Remote clock offset: -0.216 ms

# Below is generated by plot.py at 2018-08-03 09:37:22  
# Datalink statistics

-- Total of 1 flow:
Average throughput: 216.79 Mbit/s
95th percentile per-packet one-way delay: 53.610 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 216.79 Mbit/s
95th percentile per-packet one-way delay: 53.610 ms
Loss rate: 0.00%
Run 2: Report of Indigo — Data Link
Run 3: Statistics of Indigo

Start at: 2018-08-03 05:40:41
End at: 2018-08-03 05:41:11
Local clock offset: 0.015 ms
Remote clock offset: -0.169 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.78 Mbit/s
95th percentile per-packet one-way delay: 53.521 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.78 Mbit/s
95th percentile per-packet one-way delay: 53.521 ms
Loss rate: 0.00%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Start at: 2018-08-03 06:02:24
End at: 2018-08-03 06:02:54
Local clock offset: 0.19 ms
Remote clock offset: -1.56 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.57 Mbit/s
95th percentile per-packet one-way delay: 52.019 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.57 Mbit/s
95th percentile per-packet one-way delay: 52.019 ms
Loss rate: 0.00%
Run 4: Report of Indigo — Data Link

![Graph 1: Throughput vs Time]

- **Flow 1 ingress (mean 235.57 Mbit/s)**
- **Flow 1 egress (mean 235.57 Mbit/s)**

![Graph 2: Packet Loss vs Time]

- **Flow 1 (95th percentile 52.02 ms)**
Run 5: Statistics of Indigo

Start at: 2018-08-03 06:24:54
End at: 2018-08-03 06:25:24
Local clock offset: 0.006 ms
Remote clock offset: -0.243 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 243.92 Mbit/s
  95th percentile per-packet one-way delay: 53.535 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 243.92 Mbit/s
  95th percentile per-packet one-way delay: 53.535 ms
  Loss rate: 0.00%
Run 5: Report of Indigo — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 243.95 Mbit/s)
- Flow 1 egress (mean 243.92 Mbit/s)

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

- Flow 1 (95th percentile 53.53 ms)
Run 6: Statistics of Indigo

Start at: 2018-08-03 06:46:56
End at: 2018-08-03 06:47:26
Local clock offset: 0.063 ms
Remote clock offset: -1.629 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.95 Mbit/s
95th percentile per-packet one-way delay: 52.147 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.95 Mbit/s
95th percentile per-packet one-way delay: 52.147 ms
Loss rate: 0.00%
Run 6: Report of Indigo — Data Link

![Graph showing throughput and packet delay over time for two data flows: Flow 1 ingress (mean 235.95 Mbit/s) and Flow 1 egress (mean 235.95 Mbit/s).]
Run 7: Statistics of Indigo

Start at: 2018-08-03 07:08:56
End at: 2018-08-03 07:09:26
Local clock offset: 0.277 ms
Remote clock offset: -0.385 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 241.16 Mbit/s
95th percentile per-packet one-way delay: 53.047 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 241.16 Mbit/s
95th percentile per-packet one-way delay: 53.047 ms
Loss rate: 0.00%
Run 7: Report of Indigo — Data Link

[Graphs showing network throughput and packet delay over time]
Run 8: Statistics of Indigo

Start at: 2018-08-03 07:31:30
End at: 2018-08-03 07:32:01
Local clock offset: -0.001 ms
Remote clock offset: -0.195 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.92 Mbit/s
95th percentile per-packet one-way delay: 52.857 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.92 Mbit/s
95th percentile per-packet one-way delay: 52.857 ms
Loss rate: 0.00%
Run 8: Report of Indigo — Data Link

[Graphs showing throughput and delay for Flow 1 ingress and egress]
Run 9: Statistics of Indigo

Start at: 2018-08-03 07:53:32
End at: 2018-08-03 07:54:02
Local clock offset: -0.02 ms
Remote clock offset: -1.378 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.54 Mbit/s
95th percentile per-packet one-way delay: 52.253 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.54 Mbit/s
95th percentile per-packet one-way delay: 52.253 ms
Loss rate: 0.00%
Run 9: Report of Indigo — Data Link

Graph showing throughput over time with two distinct lines indicating different flow rates.
Run 10: Statistics of Indigo

Start at: 2018-08-03 08:16:00
End at: 2018-08-03 08:16:30
Local clock offset: -0.094 ms
Remote clock offset: -0.212 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.08 Mbit/s
95th percentile per-packet one-way delay: 52.899 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.08 Mbit/s
95th percentile per-packet one-way delay: 52.899 ms
Loss rate: 0.00%
Run 10: Report of Indigo — Data Link

Graph 1: Throughput (Mbps) vs Time (s)
- Flow 1 ingress (mean 223.10 Mbit/s)
- Flow 1 egress (mean 223.08 Mbit/s)

Graph 2: Per Packet Drop Delay (ms) vs Time (s)
- Flow 1 (95th percentile 52.90 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-08-03 04:58:06
End at: 2018-08-03 04:58:36
Local clock offset: -0.047 ms
Remote clock offset: -0.305 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.47 Mbit/s
95th percentile per-packet one-way delay: 54.521 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.47 Mbit/s
95th percentile per-packet one-way delay: 54.521 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

![Graph of Run 1: Data Link Throughput and Packet Delay]

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 33.47 Mbps)
  - Flow 1 egress (mean 33.47 Mbps)

- **Packet One-Way Delay (ms)**
  - Flow 1 (95th percentile 54.52 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-08-03 05:20:39
End at: 2018-08-03 05:21:09
Local clock offset: 0.032 ms
Remote clock offset: 0.094 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.53 Mbit/s
95th percentile per-packet one-way delay: 54.692 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 31.53 Mbit/s
95th percentile per-packet one-way delay: 54.692 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-08-03 05:43:08
End at: 2018-08-03 05:43:38
Local clock offset: -0.08 ms
Remote clock offset: 1.133 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.86 Mbit/s
95th percentile per-packet one-way delay: 55.757 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.86 Mbit/s
95th percentile per-packet one-way delay: 55.757 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

[Graph showing throughput and delay over time with annotations for Flow 1 ingress and egress]
Run 4: Statistics of LEDBAT

Start at: 2018-08-03 06:04:55
End at: 2018-08-03 06:05:25
Local clock offset: -0.152 ms
Remote clock offset: -0.335 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.82 Mbit/s
95th percentile per-packet one-way delay: 54.676 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 19.82 Mbit/s
95th percentile per-packet one-way delay: 54.676 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

![Graphs showing throughput and per-packet one-way delay](image-url)
Run 5: Statistics of LEDBAT

Start at: 2018-08-03 06:27:23
End at: 2018-08-03 06:27:53
Local clock offset: 0.058 ms
Remote clock offset: -1.59 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.27 Mbit/s
95th percentile per-packet one-way delay: 52.416 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.27 Mbit/s
95th percentile per-packet one-way delay: 52.416 ms
Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress (mean 33.27 Mbps)**
- **Flow 1 egress (mean 33.27 Mbps)**

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

- **Flow 1 (95th percentile 52.42 ms)**

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Run 6: Statistics of LEDBAT

Start at: 2018-08-03 06:49:23
End at: 2018-08-03 06:49:53
Local clock offset: 0.014 ms
Remote clock offset: -1.496 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.98 Mbit/s
95th percentile per-packet one-way delay: 53.557 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.98 Mbit/s
95th percentile per-packet one-way delay: 53.557 ms
Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-08-03 07:11:25
End at: 2018-08-03 07:11:55
Local clock offset: -0.152 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.58 Mbit/s
95th percentile per-packet one-way delay: 54.881 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 31.58 Mbit/s
95th percentile per-packet one-way delay: 54.881 ms
Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link

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

Legend:
- Flow 1 ingress (mean 31.58 Mbit/s)
- Flow 1 egress (mean 31.58 Mbit/s)

Flow 1 (95th percentile 54.88 ms)
Run 8: Statistics of LEDBAT

Start at: 2018-08-03 07:33:56
End at: 2018-08-03 07:34:26
Local clock offset: -0.218 ms
Remote clock offset: -1.55 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.78 Mbit/s
95th percentile per-packet one-way delay: 53.387 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.78 Mbit/s
95th percentile per-packet one-way delay: 53.387 ms
Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-08-03 07:56:00
End at: 2018-08-03 07:56:30
Local clock offset: 0.033 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.83 Mbit/s
95th percentile per-packet one-way delay: 54.613 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.83 Mbit/s
95th percentile per-packet one-way delay: 54.613 ms
Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-08-03 08:18:27
End at: 2018-08-03 08:18:57
Local clock offset: -0.112 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2018-08-03 09:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.47 Mbit/s
95th percentile per-packet one-way delay: 54.290 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.47 Mbit/s
95th percentile per-packet one-way delay: 54.290 ms
Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 33.47 Mbit/s)
- Flow 1 egress (mean 33.47 Mbit/s)

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

- Flow 1 (95th percentile 54.29 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-08-03 04:43:07
End at: 2018-08-03 04:43:37
Local clock offset: -0.096 ms
Remote clock offset: -1.159 ms

# Below is generated by plot.py at 2018-08-03 09:42:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 710.78 Mbit/s
95th percentile per-packet one-way delay: 145.738 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 710.78 Mbit/s
95th percentile per-packet one-way delay: 145.738 ms
Loss rate: 2.39%
Run 1: Report of PCC-Allegro — Data Link

![Graph showing throughput and delay over time for Flow 1 with ingress and egress data in Mbps and ms respectively.]

- **Flow 1 ingress (mean 728.39 Mbps)**
- **Flow 1 egress (mean 710.78 Mbps)**

![Graph showing per packet delay over time for Flow 1 with 95th percentile at 145.74 ms.]

Flow 1 (95th percentile 145.74 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-08-03 05:05:30
End at: 2018-08-03 05:06:00
Local clock offset: 0.107 ms
Remote clock offset: -0.192 ms

# Below is generated by plot.py at 2018-08-03 09:42:48
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 608.47 Mbit/s
  95th percentile per-packet one-way delay: 123.875 ms
  Loss rate: 2.88%
-- Flow 1:
  Average throughput: 608.47 Mbit/s
  95th percentile per-packet one-way delay: 123.875 ms
  Loss rate: 2.88%
Run 2: Report of PCC-Allegro — Data Link

[Graph showing throughput and packet delay over time for Flow 1 ingress and egress.]
Run 3: Statistics of PCC-Allegro

Start at: 2018-08-03 05:28:03
End at: 2018-08-03 05:28:33
Local clock offset: 0.014 ms
Remote clock offset: -1.236 ms

# Below is generated by plot.py at 2018-08-03 09:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 747.83 Mbit/s
95th percentile per-packet one-way delay: 119.832 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 747.83 Mbit/s
95th percentile per-packet one-way delay: 119.832 ms
Loss rate: 0.58%
Run 3: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 752.36 Mbit/s)
- Flow 1 egress (mean 747.83 Mbit/s)

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

- Flow 1 (95th percentile 119.83 ms)
Run 4: Statistics of PCC-Allegro

Start at: 2018-08-03 05:50:38
End at: 2018-08-03 05:51:08
Local clock offset: 0.125 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-08-03 09:44:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 744.18 Mbit/s
95th percentile per-packet one-way delay: 143.020 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 744.18 Mbit/s
95th percentile per-packet one-way delay: 143.020 ms
Loss rate: 0.77%
Run 4: Report of PCC-Allegro — Data Link

![Graph of Throughput and Delay](image)

- **Flow 1 ingress** (mean 750.72 Mbit/s)
- **Flow 1 egress** (mean 744.18 Mbit/s)

- **Flow 1** (95th percentile 143.62 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2018-08-03 06:12:18
End at: 2018-08-03 06:12:48
Local clock offset: -0.05 ms
Remote clock offset: -0.387 ms

# Below is generated by plot.py at 2018-08-03 09:47:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 709.69 Mbit/s
95th percentile per-packet one-way delay: 102.903 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 709.69 Mbit/s
95th percentile per-packet one-way delay: 102.903 ms
Loss rate: 0.32%
Run 5: Report of PCC-Allegro — Data Link
Run 6: Statistics of PCC-Allegro

Start at: 2018-08-03 06:34:51
End at: 2018-08-03 06:35:21
Local clock offset: 0.035 ms
Remote clock offset: -0.3 ms

# Below is generated by plot.py at 2018-08-03 09:48:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 740.83 Mbit/s
95th percentile per-packet one-way delay: 113.966 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 740.83 Mbit/s
95th percentile per-packet one-way delay: 113.966 ms
Loss rate: 0.33%
Run 6: Report of PCC-Allegro — Data Link
Run 7: Statistics of PCC-Allegro

Start at: 2018-08-03 06:56:46
End at: 2018-08-03 06:57:16
Local clock offset: -0.25 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-08-03 09:48:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 701.45 Mbit/s
95th percentile per-packet one-way delay: 119.217 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 701.45 Mbit/s
95th percentile per-packet one-way delay: 119.217 ms
Loss rate: 0.60%
Run 7: Report of PCC-Allegro — Data Link

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

- **Flow 1 ingress (mean: 705.62 Mbit/s)**
- **Flow 1 egress (mean: 701.45 Mbit/s)**

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

- **Flow 1 (95th percentile: 119.22 ms)**
Run 8: Statistics of PCC-Allegro

Start at: 2018-08-03 07:18:49
End at: 2018-08-03 07:19:19
Local clock offset: 0.234 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-08-03 09:48:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 646.75 Mbit/s
95th percentile per-packet one-way delay: 110.873 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 646.75 Mbit/s
95th percentile per-packet one-way delay: 110.873 ms
Loss rate: 0.36%
Run 8: Report of PCC-Allegro — Data Link
Run 9: Statistics of PCC-Allegro

Start at: 2018-08-03 07:41:24
End at: 2018-08-03 07:41:54
Local clock offset: -0.185 ms
Remote clock offset: -0.345 ms

# Below is generated by plot.py at 2018-08-03 09:53:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 713.86 Mbit/s
95th percentile per-packet one-way delay: 89.707 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 713.86 Mbit/s
95th percentile per-packet one-way delay: 89.707 ms
Loss rate: 0.06%
Run 9: Report of PCC-Allegro — Data Link

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

- **Flow 1 ingress** (mean 714.27 Mbps)
- **Flow 1 egress** (mean 713.86 Mbps)

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

- Flow 1 (95th percentile 89.71 ms)
Run 10: Statistics of PCC-Allegro

Start at: 2018-08-03 08:03:24
End at: 2018-08-03 08:03:54
Local clock offset: 0.057 ms
Remote clock offset: -0.251 ms

# Below is generated by plot.py at 2018-08-03 09:54:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 715.32 Mbit/s
95th percentile per-packet one-way delay: 200.642 ms
Loss rate: 4.90%
-- Flow 1:
Average throughput: 715.32 Mbit/s
95th percentile per-packet one-way delay: 200.642 ms
Loss rate: 4.90%
Run 10: Report of PCC-Allegro — Data Link

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

**Throughput (Mbps)**

- **Flow 1 ingress** (mean 752.24 Mbps)
- **Flow 1 egress** (mean 715.32 Mbps)

**Delay (ms)**

- **Flow 1** (95th percentile 208.64 ms)
Run 1: Statistics of PCC-Expr

Start at: 2018-08-03 04:51:36
End at: 2018-08-03 04:52:07
Local clock offset: 0.135 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2018-08-03 09:54:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 353.15 Mbit/s
95th percentile per-packet one-way delay: 163.390 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 353.15 Mbit/s
95th percentile per-packet one-way delay: 163.390 ms
Loss rate: 2.27%
Run 1: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 361.38 Mbit/s)
- Flow 1 egress (mean 353.15 Mbit/s)

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

- Flow 1 (95th percentile 163.39 ms)
Run 2: Statistics of PCC-Expr

Start at: 2018-08-03 05:14:05
End at: 2018-08-03 05:14:35
Local clock offset: 0.04 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-08-03 09:56:47
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 389.03 Mbit/s
  95th percentile per-packet one-way delay: 173.650 ms
  Loss rate: 8.60%
-- Flow 1:
  Average throughput: 389.03 Mbit/s
  95th percentile per-packet one-way delay: 173.650 ms
  Loss rate: 8.60%
Run 2: Report of PCC-Expr — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 425.60 Mbit/s)
Flow 1 egress (mean 389.03 Mbit/s)

Per packet delay (ms)

Flow 1 (95th percentile 173.65 ms)
Run 3: Statistics of PCC-Expr

Start at: 2018-08-03 05:36:45
End at: 2018-08-03 05:37:15
Local clock offset: -0.029 ms
Remote clock offset: -1.518 ms

# Below is generated by plot.py at 2018-08-03 09:56:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 292.64 Mbit/s
95th percentile per-packet one-way delay: 67.867 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 292.64 Mbit/s
95th percentile per-packet one-way delay: 67.867 ms
Loss rate: 0.03%
Run 3: Report of PCC-Expr — Data Link

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The graphs depict the throughput and packet delay over time for Flow 1.

- **Throughput (Mbps):**
  - **Flow 1 ingress (mean 292.76 Mbit/s)**
  - **Flow 1 egress (mean 292.64 Mbit/s)**

- **Packet Delay (ms):**
  - **Flow 1 (95th percentile 67.87 ms)**
Run 4: Statistics of PCC-Expr

Start at: 2018-08-03 05:58:57
End at: 2018-08-03 05:59:27
Local clock offset: 0.159 ms
Remote clock offset: -0.208 ms

# Below is generated by plot.py at 2018-08-03 09:56:55
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 117.54 Mbit/s
  95th percentile per-packet one-way delay: 53.397 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 117.54 Mbit/s
  95th percentile per-packet one-way delay: 53.397 ms
  Loss rate: 0.00%
Run 4: Report of PCC-Expr — Data Link

[Graphs showing throughput and packet delay over time with labels for flow ingress and egress with mean values.]

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Run 5: Statistics of PCC-Expr

Start at: 2018-08-03 06:20:54
End at: 2018-08-03 06:21:24
Local clock offset: 0.091 ms
Remote clock offset: -0.448 ms

# Below is generated by plot.py at 2018-08-03 09:59:23
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 367.89 Mbit/s
  95th percentile per-packet one-way delay: 158.329 ms
  Loss rate: 0.70%
-- Flow 1:
  Average throughput: 367.89 Mbit/s
  95th percentile per-packet one-way delay: 158.329 ms
  Loss rate: 0.70%
Run 5: Report of PCC-Expr — Data Link

![Graph 1: Throughput (Mbps)]

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

Flow 1 ingress (mean 370.54 Mbit/s) • Flow 1 egress (mean 367.89 Mbit/s)
Flow 1 (95th percentile 158.33 ms)
Run 6: Statistics of PCC-Expr

Start at: 2018-08-03 06:43:17
End at: 2018-08-03 06:43:47
Local clock offset: 0.016 ms
Remote clock offset: -0.429 ms

# Below is generated by plot.py at 2018-08-03 09:59:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 350.19 Mbit/s
95th percentile per-packet one-way delay: 129.362 ms
Loss rate: 2.70%
-- Flow 1:
Average throughput: 350.19 Mbit/s
95th percentile per-packet one-way delay: 129.362 ms
Loss rate: 2.70%
Run 6: Report of PCC-Expr — Data Link
Run 7: Statistics of PCC-Expr

Start at: 2018-08-03 07:05:07
End at: 2018-08-03 07:05:37
Local clock offset: 0.036 ms
Remote clock offset: -0.262 ms

# Below is generated by plot.py at 2018-08-03 10:05:03
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 403.65 Mbit/s
  95th percentile per-packet one-way delay: 163.751 ms
  Loss rate: 13.47%
-- Flow 1:
  Average throughput: 403.65 Mbit/s
  95th percentile per-packet one-way delay: 163.751 ms
  Loss rate: 13.47%
Run 7: Report of PCC-Expr — Data Link

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

*Flow 1 ingress (mean 466.49 Mbit/s) — Flow 1 egress (mean 403.65 Mbit/s)*

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

*Flow 1 (95th percentile 163.75 ms)*
Run 8: Statistics of PCC-Expr

Start at: 2018-08-03 07:27:20
End at: 2018-08-03 07:27:50
Local clock offset: 0.038 ms
Remote clock offset: -1.486 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 419.75 Mbit/s
95th percentile per-packet one-way delay: 151.035 ms
Loss rate: 3.21%
-- Flow 1:
Average throughput: 419.75 Mbit/s
95th percentile per-packet one-way delay: 151.035 ms
Loss rate: 3.21%
Run 8: Report of PCC-Expr — Data Link
Run 9: Statistics of PCC-Expr

Start at: 2018-08-03 07:49:44
End at: 2018-08-03 07:50:14
Local clock offset: 0.037 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 349.48 Mbit/s
95th percentile per-packet one-way delay: 153.259 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 349.48 Mbit/s
95th percentile per-packet one-way delay: 153.259 ms
Loss rate: 1.05%
Run 9: Report of PCC-Expr — Data Link
Run 10: Statistics of PCC-Expr

Start at: 2018-08-03 08:12:03
End at: 2018-08-03 08:12:33
Local clock offset: 0.217 ms
Remote clock offset: -0.419 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 339.02 Mbit/s
95th percentile per-packet one-way delay: 132.262 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 339.02 Mbit/s
95th percentile per-packet one-way delay: 132.262 ms
Loss rate: 0.28%
Run 10: Report of PCC-Expr — Data Link

**Throughput (Mbps)**

- Flow 1 ingress (mean 339.99 Mbps)
- Flow 1 egress (mean 339.02 Mbps)

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

- Flow 1 (95th percentile 132.26 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-08-03 04:39:03
End at: 2018-08-03 04:39:33
Local clock offset: 0.036 ms
Remote clock offset: 0.235 ms
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-08-03 05:01:26
End at: 2018-08-03 05:01:56
Local clock offset: 0.077 ms
Remote clock offset: -0.135 ms
Run 2: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 0.06 Mbps)
- Flow 1 egress (mean 0.06 Mbps)

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

- Flow 1 (95th percentile 50.11 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-08-03 05:23:59
End at: 2018-08-03 05:24:29
Local clock offset: 0.059 ms
Remote clock offset: -0.328 ms
Run 3: Report of QUIC Cubic — Data Link

[Graph showing throughput over time with two lines for different flows.]

[Graph showing per-packet round-trip delay over time with a single line for a flow.]
Run 4: Statistics of QUIC Cubic

Start at: 2018-08-03 05:46:27
End at: 2018-08-03 05:46:57
Local clock offset: -0.239 ms
Remote clock offset: -0.267 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.05 Mbit/s
95th percentile per-packet one-way delay: 50.582 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.05 Mbit/s
95th percentile per-packet one-way delay: 50.582 ms
Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-08-03 06:08:14
End at: 2018-08-03 06:08:44
Local clock offset: -0.07 ms
Remote clock offset: -1.485 ms
Run 5: Report of QUIC Cubic — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Per-packet one way delay vs Time](image2)
Run 6: Statistics of QUIC Cubic

Start at: 2018-08-03 06:30:43
End at: 2018-08-03 06:31:13
Local clock offset: -0.016 ms
Remote clock offset: -0.008 ms
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-08-03 06:52:43
End at: 2018-08-03 06:53:13
Local clock offset: 0.0 ms
Remote clock offset: -0.193 ms
Run 7: Report of QUIC Cubic — Data Link

\[ \text{Throughput (Mbps)} \]

\[ \begin{array}{c}
0.00 \quad 0.002 \quad 0.004 \quad 0.006 \quad 0.008 \quad 0.01 \quad 0.012 \\
0.0 \quad 0.1 \quad 0.2 \quad 0.3 \quad 0.4 \quad 0.5 \\
\end{array} \]

\[ \text{Time (s)} \]

Flow 1 ingress (mean 0.06 Mbps)  
Flow 1 egress (mean 0.06 Mbps)

\[ \text{Per-packet one-way delay (ms)} \]

\[ \begin{array}{c}
50.220 \quad 50.225 \quad 50.230 \quad 50.235 \quad 50.240 \quad 50.245 \quad 50.250 \\
0.0 \quad 0.2 \quad 0.4 \quad 0.6 \quad 0.8 \quad 1.0 \\
\end{array} \]

Flow 1 (95th percentile 50.45 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-08-03 07:14:45
End at: 2018-08-03 07:15:15
Local clock offset: 0.028 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.27 Mbit/s
95th percentile per-packet one-way delay: 53.644 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 65.27 Mbit/s
95th percentile per-packet one-way delay: 53.644 ms
Loss rate: 0.02%
Run 8: Report of QUIC Cubic — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 65.28 Mbit/s)
- Flow 1 egress (mean 65.27 Mbit/s)

![Packet Delay Graph](image2)

- Flow 1 (95th percentile 53.64 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-08-03 07:37:15
End at: 2018-08-03 07:37:45
Local clock offset: 0.063 ms
Remote clock offset: -0.291 ms
Run 9: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 0.06 Mbps)
- Flow 1 egress (mean 0.06 Mbps)

- Flow 1 (95th percentile 50.11 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-08-03 07:59:20
End at: 2018-08-03 07:59:50
Local clock offset: -0.048 ms
Remote clock offset: -0.133 ms
Run 10: Report of QUIC Cubic — Data Link

![Graphs showing throughput and packet round trip time over time.]

- **Throughput (Mbps):**
  - x-axis: Time (s)
  - y-axis: Throughput (Mbps)
  - Two lines indicating mean throughput for ingress and egress.

- **Packet Round Trip Time (ms):**
  - x-axis: Time (s)
  - y-axis: Round Trip Time (ms)
  - Points indicating 99th percentile round trip time.

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Run 1: Statistics of SCReAM

Start at: 2018-08-03 04:53:10
End at: 2018-08-03 04:53:40
Local clock offset: -0.119 ms
Remote clock offset: 0.127 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.276 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.276 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-08-03 05:15:39
End at: 2018-08-03 05:16:09
Local clock offset: 0.118 ms
Remote clock offset: -0.416 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.581 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.581 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.21 Mbit/s)
- Flow 1 egress (mean 0.21 Mbit/s)

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

- Flow 1 (95th percentile 53.58 ms)
Run 3: Statistics of SCReAM

Start at: 2018-08-03 05:38:10
End at: 2018-08-03 05:38:40
Local clock offset: -0.026 ms
Remote clock offset: -0.358 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.582 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.582 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

![Graph showing throughput and packet delay over time]

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

- Flow 1 (95th percentile 50.58 ms)
Run 4: Statistics of SCReAM

Start at: 2018-08-03 06:00:12
End at: 2018-08-03 06:00:42
Local clock offset: 0.171 ms
Remote clock offset: -0.349 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.396 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.396 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.21 Mbit/s)
- Flow 1 egress (mean 0.21 Mbit/s)

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

- Flow 1 (95th percentile 53.40 ms)
Run 5: Statistics of SCReAM

Start at: 2018-08-03 06:22:27
End at: 2018-08-03 06:22:57
Local clock offset: 0.243 ms
Remote clock offset: -0.267 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.985 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.985 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link
Run 6: Statistics of SCReAM

Start at: 2018-08-03 06:44:43
End at: 2018-08-03 06:45:13
Local clock offset: 0.057 ms
Remote clock offset: -0.477 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.082 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.082 ms
Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

![Graph showing throughput and round-trip time for Run 6.](image-url)
Run 7: Statistics of SCReAM

Start at: 2018-08-03 07:06:44
End at: 2018-08-03 07:07:14
Local clock offset: -0.165 ms
Remote clock offset: -0.242 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.777 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.777 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.21 Mbit/s)
- Flow 1 egress (mean 0.21 Mbit/s)

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

- Flow 1 (95th percentile 53.78 ms)
Run 8: Statistics of SCReAM

Start at: 2018-08-03 07:28:58
End at: 2018-08-03 07:29:28
Local clock offset: 0.021 ms
Remote clock offset: -0.129 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.769 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.769 ms
Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link
Run 9: Statistics of SCReAM

Start at: 2018-08-03 07:51:19
End at: 2018-08-03 07:51:49
Local clock offset: -0.052 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 53.664 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 53.664 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 10: Statistics of SCReAM

Start at: 2018-08-03 08:13:37
End at: 2018-08-03 08:14:07
Local clock offset: 0.031 ms
Remote clock offset: -1.452 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.383 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.383 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of Sprout

Start at: 2018-08-03 05:00:20  
End at: 2018-08-03 05:00:50  
Local clock offset: 0.025 ms  
Remote clock offset: -0.201 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow: 
Average throughput: 7.49 Mbit/s  
95th percentile per-packet one-way delay: 53.481 ms  
Loss rate: 0.00%  
-- Flow 1: 
Average throughput: 7.49 Mbit/s  
95th percentile per-packet one-way delay: 53.481 ms  
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

![Graph showing throughput and delay over time for Flow 1 with 7.44 Mbit/s mean ingress and egress speeds.](image_url)

- **Flow 1 ingress**: Mean 7.44 Mbit/s
- **Flow 1 egress**: Mean 7.44 Mbit/s

![Graph showing packet delay for Flow 1 with 99th percentile 53.48 ms](image_url)
Run 2: Statistics of Sprout

Start at: 2018-08-03 05:22:53
End at: 2018-08-03 05:23:23
Local clock offset: 0.096 ms
Remote clock offset: -0.387 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 53.563 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 53.563 ms
Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 6.40 Mbit/s)
  - Flow 1 egress (mean 6.40 Mbit/s)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 53.56 ms)
Run 3: Statistics of Sprout

Start at: 2018-08-03 05:45:21
End at: 2018-08-03 05:45:51
Local clock offset: 0.012 ms
Remote clock offset: 0.124 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 4.68 Mbit/s
  95th percentile per-packet one-way delay: 54.279 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.68 Mbit/s
  95th percentile per-packet one-way delay: 54.279 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

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

- **Flow 1 ingress (mean 4.68 Mbit/s)**
- **Flow 1 egress (mean 4.68 Mbit/s)**

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

- **Flow 1 95th percentile 54.28 ms**
Run 4: Statistics of Sprout

Start at: 2018-08-03 06:07:08
End at: 2018-08-03 06:07:38
Local clock offset: ~0.1 ms
Remote clock offset: ~1.372 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.72 Mbit/s
95th percentile per-packet one-way delay: 53.061 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.72 Mbit/s
95th percentile per-packet one-way delay: 53.061 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

![Graph showing throughput and packet delay over time]

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 5.72 Mbps)
  - Flow 1 egress (mean 5.72 Mbps)

- **Packet Delay (ms)**
  - Flow 1 95th percentile 53.06 ms
Run 5: Statistics of Sprout

Start at: 2018-08-03 06:29:36
End at: 2018-08-03 06:30:06
Local clock offset: 0.004 ms
Remote clock offset: -1.355 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.49 Mbit/s
95th percentile per-packet one-way delay: 52.817 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.49 Mbit/s
95th percentile per-packet one-way delay: 52.817 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-08-03 06:51:37
End at: 2018-08-03 06:52:07
Local clock offset: 0.118 ms
Remote clock offset: -0.243 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 53.862 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 53.862 ms
Loss rate: 0.00%
Run 7: Statistics of Sprout

Start at: 2018-08-03 07:13:38
End at: 2018-08-03 07:14:08
Local clock offset: -0.147 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 54.066 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 54.066 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-08-03 07:36:09
End at: 2018-08-03 07:36:39
Local clock offset: -0.087 ms
Remote clock offset: -0.54 ms

# Below is generated by plot.py at 2018-08-03 10:06:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 6.16 Mbit/s
  95th percentile per-packet one-way delay: 53.216 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.16 Mbit/s
  95th percentile per-packet one-way delay: 53.216 ms
  Loss rate: 0.00%
Run 8: Report of Sprout — Data Link
Run 9: Statistics of Sprout

Start at: 2018-08-03 07:58:13
End at: 2018-08-03 07:58:43
Local clock offset: 0.031 ms
Remote clock offset: -1.395 ms

# Below is generated by plot.py at 2018-08-03 10:06:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 52.252 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 52.252 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-08-03 08:20:41
End at: 2018-08-03 08:21:11
Local clock offset: 0.067 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2018-08-03 10:06:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 53.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 53.353 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

- Throughput (Mbps):
  - Flow 1 ingress (mean 6.83 Mbit/s)
  - Flow 1 egress (mean 6.83 Mbit/s)

- Per-packet one-way delay (ms):
  - Flow 1 (95th percentile 53.35 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-08-03 04:54:16
End at: 2018-08-03 04:54:46
Local clock offset: -0.057 ms
Remote clock offset: 1.058 ms

# Below is generated by plot.py at 2018-08-03 10:06:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 173.43 Mbit/s
95th percentile per-packet one-way delay: 54.974 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 173.43 Mbit/s
95th percentile per-packet one-way delay: 54.974 ms
Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 173.43 Mbit/s)  Flow 1 egress (mean 173.43 Mbit/s)

Packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 54.97 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-08-03 05:16:45
End at: 2018-08-03 05:17:15
Local clock offset: 0.066 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2018-08-03 10:06:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 240.46 Mbit/s
95th percentile per-packet one-way delay: 53.649 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 240.46 Mbit/s
95th percentile per-packet one-way delay: 53.649 ms
Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-08-03 05:39:15
End at: 2018-08-03 05:39:45
Local clock offset: 0.036 ms
Remote clock offset: -0.411 ms

# Below is generated by plot.py at 2018-08-03 10:07:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.06 Mbit/s
95th percentile per-packet one-way delay: 53.308 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.06 Mbit/s
95th percentile per-packet one-way delay: 53.308 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 251.05 Mbps)
- Flow 1 egress (mean 251.06 Mbps)

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

- Flow 1 (95th percentile 53.31 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-08-03 06:01:17
End at: 2018-08-03 06:01:47
Local clock offset: 0.094 ms
Remote clock offset: -0.22 ms

# Below is generated by plot.py at 2018-08-03 10:07:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.26 Mbit/s
95th percentile per-packet one-way delay: 53.488 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.26 Mbit/s
95th percentile per-packet one-way delay: 53.488 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-08-03 06:23:33
End at: 2018-08-03 06:24:03
Local clock offset: -0.003 ms
Remote clock offset: -1.5 ms

# Below is generated by plot.py at 2018-08-03 10:07:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 196.95 Mbit/s
95th percentile per-packet one-way delay: 52.292 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 196.95 Mbit/s
95th percentile per-packet one-way delay: 52.292 ms
Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Start at: 2018-08-03 06:45:49
End at: 2018-08-03 06:46:19
Local clock offset: -0.081 ms
Remote clock offset: -0.27 ms

# Below is generated by plot.py at 2018-08-03 10:07:13
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 16.80 Mbit/s
  95th percentile per-packet one-way delay: 53.621 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 16.80 Mbit/s
  95th percentile per-packet one-way delay: 53.621 ms
  Loss rate: 0.00%
Run 6: Report of TaoVA-100x — Data Link

![Graph 1: Throughput Over Time]

- Flow 1 ingress (mean 16.80 Mbit/s)
- Flow 1 egress (mean 16.80 Mbit/s)

![Graph 2: Packet Loss Over Time]

- Flow 1 (95th percentile 53.62 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-08-03 07:07:49
End at: 2018-08-03 07:08:19
Local clock offset: 0.141 ms
Remote clock offset: -0.312 ms

# Below is generated by plot.py at 2018-08-03 10:07:13
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 15.71 Mbit/s
  95th percentile per-packet one-way delay: 53.284 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 15.71 Mbit/s
  95th percentile per-packet one-way delay: 53.284 ms
  Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-08-03 07:30:04
End at: 2018-08-03 07:30:34
Local clock offset: 0.002 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 256.60 Mbit/s
  95th percentile per-packet one-way delay: 53.590 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 256.60 Mbit/s
  95th percentile per-packet one-way delay: 53.590 ms
  Loss rate: 0.00%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-08-03 07:52:25
End at: 2018-08-03 07:52:55
Local clock offset: -0.119 ms
Remote clock offset: -1.502 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.49 Mbit/s
95th percentile per-packet one-way delay: 51.787 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.49 Mbit/s
95th percentile per-packet one-way delay: 51.787 ms
Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-08-03 08:14:42
End at: 2018-08-03 08:15:12
Local clock offset: -0.079 ms
Remote clock offset: -1.478 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 148.74 Mbit/s
95th percentile per-packet one-way delay: 48.940 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 148.74 Mbit/s
95th percentile per-packet one-way delay: 48.940 ms
Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-08-03 04:56:51
End at: 2018-08-03 04:57:21
Local clock offset: 0.052 ms
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.87 Mbit/s
95th percentile per-packet one-way delay: 59.530 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 216.87 Mbit/s
95th percentile per-packet one-way delay: 59.530 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link

![Throughput](image1)

**Throughput (Mbps)**

- Flow 1 ingress (mean 216.87 Mbps)
- Flow 1 egress (mean 216.87 Mbps)

![Delay](image2)

**Delay (ms)**

- Flow 1 (95th percentile 59.53 ms)
Run 2: Statistics of TCP Vegas

Start at: 2018-08-03 05:19:28
End at: 2018-08-03 05:19:58
Local clock offset: -0.019 ms
Remote clock offset: -1.426 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 118.17 Mbit/s
95th percentile per-packet one-way delay: 52.935 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 118.17 Mbit/s
95th percentile per-packet one-way delay: 52.935 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 118.17 Mbit/s)
- Flow 1 egress (mean 118.17 Mbit/s)

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

- Flow 1 (95th percentile 52.94 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-08-03 05:42:01
End at: 2018-08-03 05:42:31
Local clock offset: -0.055 ms
Remote clock offset: -0.155 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 25.21 Mbit/s
95th percentile per-packet one-way delay: 54.293 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 25.21 Mbit/s
95th percentile per-packet one-way delay: 54.293 ms
Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 25.21 Mbps)
  - Flow 1 egress (mean 25.21 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 54.29 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-08-03 06:03:43
End at: 2018-08-03 06:04:13
Local clock offset: 0.067 ms
Remote clock offset: -0.185 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 142.85 Mbit/s
95th percentile per-packet one-way delay: 54.310 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 142.85 Mbit/s
95th percentile per-packet one-way delay: 54.310 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

![Graph of Throughput (Mbps)]

- Flow 1 ingress (mean 142.84 Mbps)
- Flow 1 egress (mean 142.85 Mbps)

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

- Flow 1 (95th percentile 54.31 ms)
Run 5: Statistics of TCP Vegas

Start at: 2018-08-03 06:26:15
End at: 2018-08-03 06:26:45
Local clock offset: -0.11 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.53 Mbit/s
95th percentile per-packet one-way delay: 55.003 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.53 Mbit/s
95th percentile per-packet one-way delay: 55.003 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

![Throughput Graph]

- **Flow 1 ingress (mean 56.53 Mbit/s)**
- **Flow 1 egress (mean 56.53 Mbit/s)**

![Delay Graph]

- **Flow 1 (95th percentile 55.00 ms)**
Run 6: Statistics of TCP Vegas

Start at: 2018-08-03 06:48:15
End at: 2018-08-03 06:48:45
Local clock offset: 0.06 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
  -- Total of 1 flow:
  Average throughput: 59.01 Mbit/s
  95th percentile per-packet one-way delay: 54.184 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 59.01 Mbit/s
  95th percentile per-packet one-way delay: 54.184 ms
  Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

- Throughput (Mbps)
- Time (s)

- Flow 1 ingress (mean 59.01 Mbit/s)
- Flow 1 egress (mean 59.01 Mbit/s)

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

- Flow 1 (95th percentile 54.18 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-08-03 07:10:16
End at: 2018-08-03 07:10:46
Local clock offset: 0.228 ms
Remote clock offset: -0.192 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.83 Mbit/s
95th percentile per-packet one-way delay: 53.844 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.83 Mbit/s
95th percentile per-packet one-way delay: 53.844 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-08-03 07:32:49  
End at: 2018-08-03 07:33:19  
Local clock offset: ~0.132 ms  
Remote clock offset: 0.174 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 22.72 Mbit/s
  95th percentile per-packet one-way delay: 54.070 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 22.72 Mbit/s
  95th percentile per-packet one-way delay: 54.070 ms
  Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link
Run 9: Statistics of TCP Vegas

Start at: 2018-08-03 07:54:51
End at: 2018-08-03 07:55:21
Local clock offset: 0.024 ms
Remote clock offset: -1.576 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.15 Mbit/s
95th percentile per-packet one-way delay: 52.298 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 76.15 Mbit/s
95th percentile per-packet one-way delay: 52.298 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 76.15 Mbps)
- Flow 1 egress (mean 76.15 Mbps)

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

- Flow 1 (95th percentile 52.30 ms)
Run 10: Statistics of TCP Vegas

Start at: 2018-08-03 08:17:19
End at: 2018-08-03 08:17:49
Local clock offset: -0.17 ms
Remote clock offset: -0.266 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.83 Mbit/s
95th percentile per-packet one-way delay: 54.115 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.83 Mbit/s
95th percentile per-packet one-way delay: 54.115 ms
Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

![Graph showing throughput and delay over time for TCP Vegas data link with two lines, one for ingress and one for egress, with labels indicating mean throughput and delay at 95th percentile.](image)

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Run 1: Statistics of Verus

Start at: 2018-08-03 04:40:08
End at: 2018-08-03 04:40:38
Local clock offset: 0.157 ms
Remote clock offset: -0.221 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 265.01 Mbit/s
95th percentile per-packet one-way delay: 80.024 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 265.01 Mbit/s
95th percentile per-packet one-way delay: 80.024 ms
Loss rate: 0.00%
Run 1: Report of Verus — Data Link

![Graph of throughput vs. time](image1)

![Graph of packet delay vs. time](image2)
Run 2: Statistics of Verus

Start at: 2018-08-03 05:02:31
End at: 2018-08-03 05:03:01
Local clock offset: 0.164 ms
Remote clock offset: -0.16 ms

# Below is generated by plot.py at 2018-08-03 10:12:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 237.85 Mbit/s
95th percentile per-packet one-way delay: 106.968 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 237.85 Mbit/s
95th percentile per-packet one-way delay: 106.968 ms
Loss rate: 0.27%
Run 2: Report of Verus — Data Link

![Graph of Throughput (Mbps) over time](image1)

- Flow 1 ingress (mean 239.03 Mbit/s)
- Flow 1 egress (mean 237.85 Mbit/s)

![Graph of per packet one way delay (ms) over time](image2)

- Flow 1 (95th percentile 106.97 ms)
Run 3: Statistics of Verus

Start at: 2018-08-03 05:25:04
End at: 2018-08-03 05:25:34
Local clock offset: 0.127 ms
Remote clock offset: -0.429 ms

# Below is generated by plot.py at 2018-08-03 10:12:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 263.47 Mbit/s
95th percentile per-packet one-way delay: 81.382 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 263.47 Mbit/s
95th percentile per-packet one-way delay: 81.382 ms
Loss rate: 0.00%
Run 3: Report of Verus — Data Link

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

- Flow 1 ingress (mean 263.47 Mbit/s)
- Flow 1 egress (mean 263.47 Mbit/s)

![Graph showing packet delay over time](image)

- Flow 1 (95th percentile 81.38 ms)
Run 4: Statistics of Verus

Start at: 2018-08-03 05:47:37
End at: 2018-08-03 05:48:07
Local clock offset: -0.088 ms
Remote clock offset: -1.429 ms

# Below is generated by plot.py at 2018-08-03 10:13:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 295.63 Mbit/s
95th percentile per-packet one-way delay: 74.865 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 295.63 Mbit/s
95th percentile per-packet one-way delay: 74.865 ms
Loss rate: 0.00%
Run 4: Report of Verus — Data Link

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

Legend:
- Flow 1 ingress (mean 296.20 Mbit/s)
- Flow 1 egress (mean 295.63 Mbit/s)
- Flow 1 (95th percentile 74.86 ms)
Run 5: Statistics of Verus

Start at: 2018-08-03 06:09:19
End at: 2018-08-03 06:09:49
Local clock offset: 0.119 ms
Remote clock offset: -0.275 ms

# Below is generated by plot.py at 2018-08-03 10:13:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 275.42 Mbit/s
95th percentile per-packet one-way delay: 164.139 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 275.42 Mbit/s
95th percentile per-packet one-way delay: 164.139 ms
Loss rate: 1.81%
Run 5: Report of Verus — Data Link

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

- Flow 1 ingress (mean 280.54 Mbps)
- Flow 1 egress (mean 275.42 Mbps)

- Flow 1 (95th percentile 164.14 ms)
Run 6: Statistics of Verus

Start at: 2018-08-03 06:31:48
End at: 2018-08-03 06:32:18
Local clock offset: 0.062 ms
Remote clock offset: -0.308 ms

# Below is generated by plot.py at 2018-08-03 10:13:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 304.81 Mbit/s
95th percentile per-packet one-way delay: 129.041 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 304.81 Mbit/s
95th percentile per-packet one-way delay: 129.041 ms
Loss rate: 0.21%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-08-03 06:53:48
End at: 2018-08-03 06:54:18
Local clock offset: 0.16 ms
Remote clock offset: -0.358 ms

# Below is generated by plot.py at 2018-08-03 10:13:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 241.76 Mbit/s
95th percentile per-packet one-way delay: 97.743 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 241.76 Mbit/s
95th percentile per-packet one-way delay: 97.743 ms
Loss rate: 0.00%
Run 7: Report of Verus — Data Link

![Graph of Throughput vs. Time for Flow 1 ingress (mean 242.13 Mbit/s) and Flow 1 egress (mean 241.76 Mbit/s)]

![Graph of Per-packet one-way delay vs. Time for Flow 1 (95th percentile 97.74 ms)]
Run 8: Statistics of Verus

Start at: 2018-08-03 07:15:53
End at: 2018-08-03 07:16:23
Local clock offset: -0.02 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-08-03 10:15:42
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 250.59 Mbit/s
  95th percentile per-packet one-way delay: 74.667 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 250.59 Mbit/s
  95th percentile per-packet one-way delay: 74.667 ms
  Loss rate: 0.07%
Run 8: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 250.79 Mbps)
- Flow 1 egress (mean 250.59 Mbps)

![Graph 2: End-to-end delay (ms)]

- Flow 1 (95th percentile 74.67 ms)
Run 9: Statistics of Verus

Start at: 2018-08-03 07:38:21
End at: 2018-08-03 07:38:51
Local clock offset: -0.048 ms
Remote clock offset: 1.143 ms

# Below is generated by plot.py at 2018-08-03 10:16:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 335.51 Mbit/s
95th percentile per-packet one-way delay: 151.872 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 335.51 Mbit/s
95th percentile per-packet one-way delay: 151.872 ms
Loss rate: 0.81%
Run 9: Report of Verus — Data Link

[Graph showing throughput and packet delay over time with annotations for Flow 1 ingress and egress.]
Run 10: Statistics of Verus

Start at: 2018-08-03 08:00:25
End at: 2018-08-03 08:00:55
Local clock offset: -0.139 ms
Remote clock offset: -0.199 ms

# Below is generated by plot.py at 2018-08-03 10:16:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 276.49 Mbit/s
95th percentile per-packet one-way delay: 99.883 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 276.49 Mbit/s
95th percentile per-packet one-way delay: 99.883 ms
Loss rate: 0.00%
Run 10: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 276.47 Mbps)
- Flow 1 egress (mean 276.49 Mbps)

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

- Flow 1 (95th percentile 99.88 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2018-08-03 04:46:14
End at: 2018-08-03 04:46:44
Local clock offset: 0.098 ms
Remote clock offset: -0.307 ms

# Below is generated by plot.py at 2018-08-03 10:19:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 445.50 Mbit/s
95th percentile per-packet one-way delay: 54.431 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 445.50 Mbit/s
95th percentile per-packet one-way delay: 54.431 ms
Loss rate: 0.01%
Run 1: Report of PCC-Vivace — Data Link

![Graph showing throughput and one-way delay over time for Flow 1.]

- Flow 1 ingress (mean 445.50 Mbit/s)
- Flow 1 egress (mean 445.50 Mbit/s)

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

- Flow 1 (95th percentile: 54.43 ms)
Run 2: Statistics of PCC-Vivace

Start at: 2018-08-03 05:08:35
End at: 2018-08-03 05:09:05
Local clock offset: -0.09 ms
Remote clock offset: -0.123 ms

# Below is generated by plot.py at 2018-08-03 10:19:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 436.49 Mbit/s
95th percentile per-packet one-way delay: 53.732 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 436.49 Mbit/s
95th percentile per-packet one-way delay: 53.732 ms
Loss rate: 0.00%
Run 2: Report of PCC-Vivace — Data Link

![Graph of network performance metrics](image-url)

- **Flow 1 ingress (mean 436.54 Mbit/s)**
- **Flow 1 egress (mean 436.49 Mbit/s)**
Run 3: Statistics of PCC-Vivace

Start at: 2018-08-03 05:31:15
End at: 2018-08-03 05:31:45
Local clock offset: 0.156 ms
Remote clock offset: 1.212 ms

# Below is generated by plot.py at 2018-08-03 10:19:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 414.61 Mbit/s
95th percentile per-packet one-way delay: 72.794 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 414.61 Mbit/s
95th percentile per-packet one-way delay: 72.794 ms
Loss rate: 0.09%
Run 3: Report of PCC-Vivace — Data Link

![Graph showing throughput over time for run 3.]

- **Flow 1 ingress (mean 414.93 Mbit/s)**
- **Flow 1 egress (mean 414.61 Mbit/s)**

![Graph showing packet delay over time for run 3.]

- **Flow 1 (95th percentile 72.79 ms)**
Run 4: Statistics of PCC-Vivace

Start at: 2018-08-03 05:53:46
End at: 2018-08-03 05:54:17
Local clock offset: 0.235 ms
Remote clock offset: -0.291 ms

# Below is generated by plot.py at 2018-08-03 10:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 423.77 Mbit/s
95th percentile per-packet one-way delay: 53.264 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 423.77 Mbit/s
95th percentile per-packet one-way delay: 53.264 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 423.76 Mbps)**
- **Flow 1 egress (mean 423.77 Mbps)**

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

- **Flow 1 (95th percentile 53.26 ms)**
Run 5: Statistics of PCC-Vivace

Start at: 2018-08-03 06:15:25
End at: 2018-08-03 06:15:55
Local clock offset: 0.124 ms
Remote clock offset: -0.377 ms

# Below is generated by plot.py at 2018-08-03 10:20:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 431.74 Mbit/s
95th percentile per-packet one-way delay: 53.478 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 431.74 Mbit/s
95th percentile per-packet one-way delay: 53.478 ms
Loss rate: 0.00%
Run 5: Report of PCC-Vivace — Data Link

Throughput (kbps)

Time (s)

Flow 1 ingress (mean 431.69 Mbit/s)  Flow 1 egress (mean 431.74 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 53.48 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-08-03 06:38:00
End at: 2018-08-03 06:38:30
Local clock offset: -0.061 ms
Remote clock offset: -0.342 ms

# Below is generated by plot.py at 2018-08-03 10:21:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 414.07 Mbit/s
95th percentile per-packet one-way delay: 91.699 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 414.07 Mbit/s
95th percentile per-packet one-way delay: 91.699 ms
Loss rate: 0.00%
Run 6: Report of PCC-Vivace — Data Link
Run 7: Statistics of PCC-Vivace

Start at: 2018-08-03 06:59:55
End at: 2018-08-03 07:00:25
Local clock offset: -0.034 ms
Remote clock offset: 1.019 ms

# Below is generated by plot.py at 2018-08-03 10:22:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 410.01 Mbit/s
95th percentile per-packet one-way delay: 117.904 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 410.01 Mbit/s
95th percentile per-packet one-way delay: 117.904 ms
Loss rate: 0.17%
Run 7: Report of PCC-Vivace — Data Link

![Graph 1](image1)

![Graph 2](image2)

Flow 1 ingress (mean 410.72 Mbit/s)  
Flow 1 egress (mean 410.01 Mbit/s)

Flow 1 (95th percentile 117.90 ms)
Run 8: Statistics of PCC-Vivace

Start at: 2018-08-03 07:21:54
End at: 2018-08-03 07:22:24
Local clock offset: 0.052 ms
Remote clock offset: -1.253 ms

# Below is generated by plot.py at 2018-08-03 10:22:16
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 421.95 Mbit/s
  95th percentile per-packet one-way delay: 52.697 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 421.95 Mbit/s
  95th percentile per-packet one-way delay: 52.697 ms
  Loss rate: 0.00%
Run 8: Report of PCC-Vivace — Data Link

Graph 1: Throughput (Mbps) over time (s)
- Flow 1 ingress (mean 421.96 Mbps)
- Flow 1 egress (mean 421.95 Mbps)

Graph 2: Per packet one way delay (ms) over time (s)
- Flow 1 (95th percentile 52.70 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-08-03 07:44:32
End at: 2018-08-03 07:45:02
Local clock offset: -0.078 ms
Remote clock offset: -1.141 ms

# Below is generated by plot.py at 2018-08-03 10:22:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 441.65 Mbit/s
95th percentile per-packet one-way delay: 52.213 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 441.65 Mbit/s
95th percentile per-packet one-way delay: 52.213 ms
Loss rate: 0.01%
Run 9: Report of PCC-Vivace — Data Link

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

**Legend:**
- Dashed line: Flow 1 ingress (mean 441.65 Mbit/s)
- Solid line: Flow 1 egress (mean 441.65 Mbit/s)

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

**Legend:**
- Flow 1 (95th percentile 52.21 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-08-03 08:06:32
End at: 2018-08-03 08:07:02
Local clock offset: 0.003 ms
Remote clock offset: -0.319 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 452.56 Mbit/s
  95th percentile per-packet one-way delay: 53.068 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 452.56 Mbit/s
  95th percentile per-packet one-way delay: 53.068 ms
  Loss rate: 0.00%
Run 10: Report of PCC-Vivace — Data Link

![Graph 1: Throughput vs Time (0-30 seconds)]

![Graph 2: Packet Delay vs Time (0-30 seconds)]
Run 1: Statistics of WebRTC media

Start at: 2018-08-03 04:59:14
End at: 2018-08-03 04:59:44
Local clock offset: 0.087 ms
Remote clock offset: 0.103 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 50.595 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 50.595 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

![Graph showing throughput and packet queue delay over time](image-url)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 2.10 Mbit/s)
  - Flow 1 egress (mean 2.10 Mbit/s)

- **Packet Queue Delay (ms)**
  - Flow 1 (95th percentile 50.59 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-08-03 05:21:47
End at: 2018-08-03 05:22:17
Local clock offset: 0.055 ms
Remote clock offset: -1.408 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 49.458 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 49.458 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

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

Flow 1 ingress (mean 2.00 Mbit/s)  
Flow 1 egress (mean 2.00 Mbit/s)
Run 3: Statistics of WebRTC media

Start at: 2018-08-03 05:44:15
End at: 2018-08-03 05:44:45
Local clock offset: 0.093 ms
Remote clock offset: -1.416 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 52.371 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 52.371 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-08-03 06:06:02
End at: 2018-08-03 06:06:32
Local clock offset: 0.124 ms
Remote clock offset: -0.201 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 53.553 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 53.553 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

![Graph 1](image1.png)

- **Flow 1 ingress (mean 1.91 Mbit/s)**
- **Flow 1 egress (mean 1.91 Mbit/s)**

![Graph 2](image2.png)

- **Flow 1 (95th percentile 53.55 ms)**
Run 5: Statistics of WebRTC media

Start at: 2018-08-03 06:28:31
End at: 2018-08-03 06:29:01
Local clock offset: -0.158 ms
Remote clock offset: -0.203 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 54.062 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 54.062 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

[Graph showing throughput over time]

[Graph showing per-packet one-way delay over time]
Run 6: Statistics of WebRTC media

Start at: 2018-08-03 06:50:31
End at: 2018-08-03 06:51:01
Local clock offset: -0.09 ms
Remote clock offset: -0.399 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.92 Mbit/s
  95th percentile per-packet one-way delay: 53.549 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.92 Mbit/s
  95th percentile per-packet one-way delay: 53.549 ms
  Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

![Graph showing throughput and packet delay. The graph has two plots: one for throughput and another for packet delay. The throughput plot shows fluctuations in data transfer rate over time, while the packet delay plot shows the variability in delay across the same time frame.](image-url)
Run 7: Statistics of WebRTC media

Start at: 2018-08-03 07:12:33
End at: 2018-08-03 07:13:03
Local clock offset: 0.112 ms
Remote clock offset: -1.396 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.92 Mbit/s
  95th percentile per-packet one-way delay: 52.463 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.92 Mbit/s
  95th percentile per-packet one-way delay: 52.463 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

![Graph 1: Throughput Over Time (Mbps)](image1)
- Flow 1 ingress (mean 1.92 Mbps)
- Flow 1 egress (mean 1.92 Mbps)

![Graph 2: Packet Delay Distribution (ms)](image2)
- Flow 1 (95th percentile 52.46 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-08-03 07:35:04
End at: 2018-08-03 07:35:34
Local clock offset: -0.081 ms
Remote clock offset: -0.199 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 50.632 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 50.632 ms
Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 1.90 Mbit/s)
- Flow 1 egress (mean 1.90 Mbit/s)

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

- Flow 1 (95th percentile 50.63 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-08-03 07:57:08
End at: 2018-08-03 07:57:38
Local clock offset: 0.137 ms
Remote clock offset: -0.183 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.89 Mbit/s
  95th percentile per-packet one-way delay: 52.897 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.89 Mbit/s
  95th percentile per-packet one-way delay: 52.897 ms
  Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.89 Mbit/s)  Flow 1 egress (mean 1.89 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 52.90 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-08-03 08:19:35
End at: 2018-08-03 08:20:05
Local clock offset: -0.271 ms
Remote clock offset: 0.209 ms

# Below is generated by plot.py at 2018-08-03 10:23:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 53.736 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 53.736 ms
Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

![Run 10: Report of WebRTC media — Data Link](image-url)