Pantheon Report

Generated at 2018-07-26 17:52:14 (UTC).
Data path: GCE London Ethernet (local) → GCE Iowa 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 @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143ceddbf5e8562f4
third_party/indigo @ 2601c92e4a9d58d38dc4dfed0edcbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55f9ec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fb92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3c9f42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3b8d2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2bf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9d1e4735770d143a1fa2851
test from GCE London to GCE Iowa, 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>223.28</td>
<td>55.63</td>
<td>0.00</td>
</tr>
<tr>
<td>Copa</td>
<td>10</td>
<td>198.43</td>
<td>59.48</td>
<td>0.00</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>182.74</td>
<td>59.08</td>
<td>0.03</td>
</tr>
<tr>
<td>FillP</td>
<td>10</td>
<td>718.64</td>
<td>161.60</td>
<td>3.93</td>
</tr>
<tr>
<td>FillP-Sheep</td>
<td>10</td>
<td>689.20</td>
<td>102.61</td>
<td>0.24</td>
</tr>
<tr>
<td>Indigo</td>
<td>10</td>
<td>216.11</td>
<td>50.41</td>
<td>0.00</td>
</tr>
<tr>
<td>LEDBAT</td>
<td>10</td>
<td>32.89</td>
<td>51.68</td>
<td>0.00</td>
</tr>
<tr>
<td>PCC-Allegro</td>
<td>10</td>
<td>513.32</td>
<td>162.66</td>
<td>1.23</td>
</tr>
<tr>
<td>PCC-Expr</td>
<td>10</td>
<td>269.74</td>
<td>155.18</td>
<td>1.16</td>
</tr>
<tr>
<td>QUIC Cubic</td>
<td>5</td>
<td>43.08</td>
<td>49.93</td>
<td>0.00</td>
</tr>
<tr>
<td>SCRReAM</td>
<td>10</td>
<td>0.22</td>
<td>50.27</td>
<td>0.00</td>
</tr>
<tr>
<td>Sprout</td>
<td>10</td>
<td>6.17</td>
<td>50.85</td>
<td>0.00</td>
</tr>
<tr>
<td>TaoVA-100x</td>
<td>10</td>
<td>231.22</td>
<td>50.75</td>
<td>0.00</td>
</tr>
<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>131.84</td>
<td>55.02</td>
<td>0.00</td>
</tr>
<tr>
<td>Verus</td>
<td>9</td>
<td>249.32</td>
<td>111.94</td>
<td>1.12</td>
</tr>
<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>315.16</td>
<td>67.65</td>
<td>0.12</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.91</td>
<td>50.57</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

End at: 2018-07-26 12:21:44
Local clock offset: -0.078 ms
Remote clock offset: -0.34 ms

# Below is generated by plot.py at 2018-07-26 16:11:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.43 Mbit/s
95th percentile per-packet one-way delay: 57.544 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.43 Mbit/s
95th percentile per-packet one-way delay: 57.544 ms
Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 222.43 Mbit/s)
- Flow 1 egress (mean 222.43 Mbit/s)

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

- Flow 1 (95th percentile 57.54 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-07-26 12:43:03  
End at: 2018-07-26 12:43:33  
Local clock offset: 0.248 ms  
Remote clock offset: -0.542 ms

# Below is generated by plot.py at 2018-07-26 16:11:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.72 Mbit/s
95th percentile per-packet one-way delay: 53.143 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.72 Mbit/s
95th percentile per-packet one-way delay: 53.143 ms
Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2018-07-26 13:05:14
End at: 2018-07-26 13:05:44
Local clock offset: -0.169 ms
Remote clock offset: -0.736 ms

# Below is generated by plot.py at 2018-07-26 16:11:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.31 Mbit/s
95th percentile per-packet one-way delay: 56.749 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 222.31 Mbit/s
95th percentile per-packet one-way delay: 56.749 ms
Loss rate: 0.01%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Local clock offset: -0.204 ms
Remote clock offset: -0.871 ms

# Below is generated by plot.py at 2018-07-26 16:11:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.10 Mbit/s
95th percentile per-packet one-way delay: 55.683 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 221.10 Mbit/s
95th percentile per-packet one-way delay: 55.683 ms
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 221.09 Mbit/s)**
- **Flow 1 egress (mean 221.10 Mbit/s)**

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

- **Flow 1 (95th percentile 55.68 ms)**
Run 5: Statistics of TCP BBR

Local clock offset: 0.038 ms
Remote clock offset: 0.0 ms

# Below is generated by plot.py at 2018-07-26 16:11:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.43 Mbit/s
95th percentile per-packet one-way delay: 53.685 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.43 Mbit/s
95th percentile per-packet one-way delay: 53.685 ms
Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 223.42 Mbit/s)
- Flow 1 egress (mean 223.43 Mbit/s)

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

- Flow 1 (95th percentile 53.69 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-07-26 14:11:35
End at: 2018-07-26 14:12:05
Local clock offset: 0.078 ms
Remote clock offset: 0.09 ms

# Below is generated by plot.py at 2018-07-26 16:11:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.88 Mbit/s
95th percentile per-packet one-way delay: 56.470 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 221.88 Mbit/s
95th percentile per-packet one-way delay: 56.470 ms
Loss rate: 0.00%
Run 6: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 221.87 Mbit/s)
- Flow 1 egress (mean 221.88 Mbit/s)

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

- Flow 1 (95th percentile 56.47 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-07-26 14:33:45
End at: 2018-07-26 14:34:15
Local clock offset: 0.552 ms
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2018-07-26 16:11:12
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 228.52 Mbit/s
  95th percentile per-packet one-way delay: 56.444 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 228.52 Mbit/s
  95th percentile per-packet one-way delay: 56.444 ms
  Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

![Graph showing throughput and delay over time for TCP BBR with data link.]
Run 8: Statistics of TCP BBR

Start at: 2018-07-26 14:55:54
End at: 2018-07-26 14:56:24
Local clock offset: 0.253 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-07-26 16:11:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.04 Mbit/s
95th percentile per-packet one-way delay: 58.071 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.04 Mbit/s
95th percentile per-packet one-way delay: 58.071 ms
Loss rate: 0.00%
Run 8: Report of TCP BBR — Data Link

![Graph 1](image1)

- Flow 1 ingress (mean 227.03 Mbit/s)
- Flow 1 egress (mean 227.04 Mbit/s)

![Graph 2](image2)

- Flow 1 (95th percentile 58.07 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-07-26 15:17:57
End at: 2018-07-26 15:18:28
Local clock offset: 0.25 ms
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2018-07-26 16:14:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.59 Mbit/s
95th percentile per-packet one-way delay: 55.462 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 221.59 Mbit/s
95th percentile per-packet one-way delay: 55.462 ms
Loss rate: 0.00%
Run 9: Report of TCP BBR — Data Link

[Graphs showing network performance metrics over time]
Run 10: Statistics of TCP BBR

Start at: 2018-07-26 15:39:58
End at: 2018-07-26 15:40:28
Local clock offset: 0.212 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-07-26 16:14:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.79 Mbit/s
95th percentile per-packet one-way delay: 53.074 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.79 Mbit/s
95th percentile per-packet one-way delay: 53.074 ms
Loss rate: 0.00%
Run 10: Report of TCP BBR — Data Link

![Graphs showing throughput and ping latency over time for a TCP BBR connection.]
Run 1: Statistics of Copa

Start at: 2018-07-26 12:35:14
End at: 2018-07-26 12:35:44
Local clock offset: 0.259 ms
Remote clock offset: -0.454 ms

# Below is generated by plot.py at 2018-07-26 16:14:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 140.57 Mbit/s
95th percentile per-packet one-way delay: 56.609 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 140.57 Mbit/s
95th percentile per-packet one-way delay: 56.609 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-07-26 12:57:15
End at: 2018-07-26 12:57:45
Local clock offset: 0.242 ms
Remote clock offset: -0.654 ms

# Below is generated by plot.py at 2018-07-26 16:18:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.36 Mbit/s
95th percentile per-packet one-way delay: 58.433 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.36 Mbit/s
95th percentile per-packet one-way delay: 58.433 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link

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

End at: 2018-07-26 13:19:57
Local clock offset: -0.235 ms
Remote clock offset: -0.843 ms

# Below is generated by plot.py at 2018-07-26 16:18:05
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 215.12 Mbit/s
  95th percentile per-packet one-way delay: 57.192 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 215.12 Mbit/s
  95th percentile per-packet one-way delay: 57.192 ms
  Loss rate: 0.00%
Run 3: Report of Copa — Data Link

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

- Flow 1 ingress (mean 215.12 Mbit/s)
- Flow 1 egress (mean 215.12 Mbit/s)
- Flow 1 (95th percentile 57.19 ms)
Run 4: Statistics of Copa

Start at: 2018-07-26 13:41:30
End at: 2018-07-26 13:42:00
Local clock offset: -0.02 ms
Remote clock offset: -0.179 ms

# Below is generated by plot.py at 2018-07-26 16:18:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 143.75 Mbit/s
95th percentile per-packet one-way delay: 53.446 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 143.75 Mbit/s
95th percentile per-packet one-way delay: 53.446 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

![Graph showing throughput and packet delay over time]

Flow 1 ingress (mean 143.74 Mbit/s)  Flow 1 egress (mean 143.75 Mbit/s)
Run 5: Statistics of Copa

Start at: 2018-07-26 14:03:25
End at: 2018-07-26 14:03:55
Local clock offset: 0.446 ms
Remote clock offset: 0.114 ms

# Below is generated by plot.py at 2018-07-26 16:20:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 313.00 Mbit/s
95th percentile per-packet one-way delay: 56.812 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 313.00 Mbit/s
95th percentile per-packet one-way delay: 56.812 ms
Loss rate: 0.01%
Run 5: Report of Copa — Data Link

![Graph showing throughput and delay over time for Flow 1 ingress and egress.]
Run 6: Statistics of Copa

Start at: 2018-07-26 14:25:51  
End at: 2018-07-26 14:26:21  
Local clock offset: 0.152 ms  
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-07-26 16:20:59
# Datalink statistics
-- Total of 1 flow:
 Average throughput: 181.47 Mbit/s
  95th percentile per-packet one-way delay: 58.855 ms
  Loss rate: 0.00%
-- Flow 1:
 Average throughput: 181.47 Mbit/s
  95th percentile per-packet one-way delay: 58.855 ms
  Loss rate: 0.00%
Run 6: Report of Copa — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Packet Delay vs Time](image2)
Run 7: Statistics of Copa

Start at: 2018-07-26 14:47:50
End at: 2018-07-26 14:48:20
Local clock offset: -0.393 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-07-26 16:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 269.68 Mbit/s
95th percentile per-packet one-way delay: 65.149 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 269.68 Mbit/s
95th percentile per-packet one-way delay: 65.149 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link

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

- Flow 1 ingress (mean 269.68 Mbit/s)
- Flow 1 egress (mean 269.68 Mbit/s)

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

- Flow 1 (95th percentile 65.15 ms)
Run 8: Statistics of Copa

Start at: 2018-07-26 15:09:59
End at: 2018-07-26 15:10:29
Local clock offset: 0.242 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-07-26 16:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 217.08 Mbit/s
95th percentile per-packet one-way delay: 58.417 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 217.08 Mbit/s
95th percentile per-packet one-way delay: 58.417 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link

---

**Graph 1:**
Throughput (Mbps)
- **Flow 1 ingress (mean 217.08 Mbit/s)**
- **Flow 1 egress (mean 217.08 Mbit/s)**

**Graph 2:**
Per-packet one-way delay (ms)
- **Flow 1 (95th percentile 58.42 ms)**
Run 9: Statistics of Copa

Start at: 2018-07-26 15:32:08
End at: 2018-07-26 15:32:38
Local clock offset: -0.132 ms
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2018-07-26 16:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 150.02 Mbit/s
95th percentile per-packet one-way delay: 56.632 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 150.02 Mbit/s
95th percentile per-packet one-way delay: 56.632 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link

![Graph of throughput and packet delay over time for Flow 1 ingress and egress with specified mean values.](image-url)
Run 10: Statistics of Copa

Start at: 2018-07-26 15:54:08
End at: 2018-07-26 15:54:38
Local clock offset: 0.188 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2018-07-26 16:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 123.23 Mbit/s
95th percentile per-packet one-way delay: 73.290 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 123.23 Mbit/s
95th percentile per-packet one-way delay: 73.290 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2018-07-26 12:33:58
End at: 2018-07-26 12:34:28
Local clock offset: -0.066 ms
Remote clock offset: -0.45 ms

# Below is generated by plot.py at 2018-07-26 16:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.63 Mbit/s
95th percentile per-packet one-way delay: 60.721 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.63 Mbit/s
95th percentile per-packet one-way delay: 60.721 ms
Loss rate: 0.00%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

End at: 2018-07-26 12:56:29
Local clock offset: -0.098 ms
Remote clock offset: -0.643 ms

# Below is generated by plot.py at 2018-07-26 16:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.97 Mbit/s
95th percentile per-packet one-way delay: 59.774 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 202.97 Mbit/s
95th percentile per-packet one-way delay: 59.774 ms
Loss rate: 0.24%
Run 2: Report of TCP Cubic — Data Link

![Graph showing throughput and latency over time]

- **Throughput (Mbps)**
  - X-axis: Time (s)
  - Y-axis: Throughput (Mbps)

- **Flow 1**:
  - Ingress (mean 203.51 Mbps)
  - Egress (mean 202.97 Mbps)

- **Per-packet one-way delay (ms)**
  - X-axis: Time (s)
  - Y-axis: Per-packet one-way delay (ms)

- **Flow 1**: 95th percentile 59.77 ms

---

47
Run 3: Statistics of TCP Cubic

End at: 2018-07-26 13:18:43
Local clock offset: -0.207 ms
Remote clock offset: -0.811 ms

# Below is generated by plot.py at 2018-07-26 16:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 175.33 Mbit/s
95th percentile per-packet one-way delay: 58.467 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 175.33 Mbit/s
95th percentile per-packet one-way delay: 58.467 ms
Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 175.33 Mbit/s)**
- **Flow 1 egress (mean 175.33 Mbit/s)**

- **Flow 1 (95th percentile 58.47 ms)**
Run 4: Statistics of TCP Cubic

Start at: 2018-07-26 13:40:16
End at: 2018-07-26 13:40:46
Local clock offset: 0.257 ms
Remote clock offset: -0.231 ms

# Below is generated by plot.py at 2018-07-26 16:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.13 Mbit/s
95th percentile per-packet one-way delay: 58.568 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 177.13 Mbit/s
95th percentile per-packet one-way delay: 58.568 ms
Loss rate: 0.06%
Run 4: Report of TCP Cubic — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 177.26 Mbit/s)
- Flow 1 egress (mean 177.13 Mbit/s)

**Packet delay (ms)**

- Flow 1 (95th percentile 58.57 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-07-26 14:02:13
End at: 2018-07-26 14:02:43
Local clock offset: 0.423 ms
Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2018-07-26 16:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 137.52 Mbit/s
95th percentile per-packet one-way delay: 57.221 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 137.52 Mbit/s
95th percentile per-packet one-way delay: 57.221 ms
Loss rate: 0.02%
Run 5: Report of TCP Cubic — Data Link

![Graph 1](image1)

- Flow 1 ingress (mean 137.55 Mbit/s)
- Flow 1 egress (mean 137.52 Mbit/s)

![Graph 2](image2)

- Flow 1 (95th percentile 57.22 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-07-26 14:24:37
End at: 2018-07-26 14:25:07
Local clock offset: 0.141 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2018-07-26 16:23:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 170.71 Mbit/s
95th percentile per-packet one-way delay: 59.380 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 170.71 Mbit/s
95th percentile per-packet one-way delay: 59.380 ms
Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link

![Graph of throughput (Mbps)](image)

- **Flow 1 ingress** (mean 170.72 Mbit/s)
- **Flow 1 egress** (mean 170.71 Mbit/s)

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

- **Flow 1** (95th percentile 59.38 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-07-26 14:46:34
End at: 2018-07-26 14:47:04
Local clock offset: 0.385 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-07-26 16:24:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.88 Mbit/s
95th percentile per-packet one-way delay: 59.602 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 229.88 Mbit/s
95th percentile per-packet one-way delay: 59.602 ms
Loss rate: 0.00%
Run 7: Report of TCP Cubic — Data Link

[Graph showing throughput and packet delay over time for two flows: Flow 1 ingress and Flow 1 egress.]
Run 8: Statistics of TCP Cubic

Start at: 2018-07-26 15:08:46
End at: 2018-07-26 15:09:16
Local clock offset: -0.148 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-07-26 16:24:32
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 170.39 Mbit/s
  95th percentile per-packet one-way delay: 58.613 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 170.39 Mbit/s
  95th percentile per-packet one-way delay: 58.613 ms
  Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress** (mean 170.43 Mbit/s)
- **Flow 1 egress** (mean 170.39 Mbit/s)

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

- **Flow 1** (95th percentile 58.61 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-07-26 15:30:54
End at: 2018-07-26 15:31:24
Local clock offset: -0.131 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2018-07-26 16:24:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 164.27 Mbit/s
95th percentile per-packet one-way delay: 59.197 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 164.27 Mbit/s
95th percentile per-packet one-way delay: 59.197 ms
Loss rate: 0.00%
Run 9: Report of TCP Cubic — Data Link

![Graph 1](image1)

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

Start at: 2018-07-26 15:52:54
End at: 2018-07-26 15:53:24
Local clock offset: 0.192 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-07-26 16:24:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 171.61 Mbit/s
95th percentile per-packet one-way delay: 59.265 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 171.61 Mbit/s
95th percentile per-packet one-way delay: 59.265 ms
Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 171.62 Mbit/s)
- Flow 1 egress (mean 171.61 Mbit/s)

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

- Flow 1 (95th percentile 59.27 ms)
Run 1: Statistics of FillP

Start at: 2018-07-26 12:18:09
End at: 2018-07-26 12:18:39
Local clock offset: -0.46 ms
Remote clock offset: -0.329 ms

# Below is generated by plot.py at 2018-07-26 16:38:30
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 819.57 Mbit/s
  95th percentile per-packet one-way delay: 166.693 ms
  Loss rate: 1.45%
-- Flow 1:
  Average throughput: 819.57 Mbit/s
  95th percentile per-packet one-way delay: 166.693 ms
  Loss rate: 1.45%
Run 1: Report of FillP — Data Link

![Graph showing throughput and delay over time]

- **Throughput (Mbps)**: The graph illustrates the throughput of data over time, showing peaks and troughs indicating the data flow rate.
- **Delay (ms)**: The lower graph shows the delay experienced by packets, with peaks indicating increased delay.

Legend:
- Flow 1 ingress (mean 831.67 Mbps)
- Flow 1 egress (mean 819.57 Mbps)
- Flow 1 (95th percentile 166.69 ms)
Run 2: Statistics of FillP

Start at: 2018-07-26 12:40:05
End at: 2018-07-26 12:40:35
Local clock offset: 0.252 ms
Remote clock offset: -0.519 ms

# Below is generated by plot.py at 2018-07-26 16:38:30
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 712.64 Mbit/s
  95th percentile per-packet one-way delay: 132.794 ms
  Loss rate: 5.63%
-- Flow 1:
  Average throughput: 712.64 Mbit/s
  95th percentile per-packet one-way delay: 132.794 ms
  Loss rate: 5.63%
Run 2: Report of FillP — Data Link

![Graph 1]: Throughput (Mbps)
- Flow 1 ingress (mean 755.20 Mbit/s)
- Flow 1 egress (mean 712.64 Mbit/s)

![Graph 2]: Per packet one-way delay (ms)
- Flow 1 (95th percentile 132.79 ms)
Run 3: Statistics of FillP

Start at: 2018-07-26 13:02:13
End at: 2018-07-26 13:02:43
Local clock offset: 0.239 ms
Remote clock offset: -0.665 ms

# Below is generated by plot.py at 2018-07-26 16:38:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 699.45 Mbit/s
95th percentile per-packet one-way delay: 132.171 ms
Loss rate: 4.33%
-- Flow 1:
Average throughput: 699.45 Mbit/s
95th percentile per-packet one-way delay: 132.171 ms
Loss rate: 4.33%
Run 3: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 731.13 Mbps)
- Flow 1 egress (mean 699.45 Mbps)

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

- Flow 1 (95th percentile 132.17 ms)
Run 4: Statistics of FillP

End at: 2018-07-26 13:24:56
Local clock offset: -0.272 ms
Remote clock offset: -0.829 ms

# Below is generated by plot.py at 2018-07-26 16:38:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 647.45 Mbit/s
95th percentile per-packet one-way delay: 143.639 ms
Loss rate: 6.06%
-- Flow 1:
Average throughput: 647.45 Mbit/s
95th percentile per-packet one-way delay: 143.639 ms
Loss rate: 6.06%
Run 4: Report of FillP — Data Link

![Throughput Graph]

- **Flow 1 ingress (mean 689.25 Mbit/s)**
- **Flow 1 egress (mean 647.45 Mbit/s)**

![Delay Graph]

- **Flow 1 (95th percentile 143.64 ms)**
Run 5: Statistics of FillP

End at: 2018-07-26 13:46:51
Local clock offset: -0.021 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-07-26 16:39:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 765.24 Mbit/s
95th percentile per-packet one-way delay: 138.554 ms
Loss rate: 3.37%
-- Flow 1:
Average throughput: 765.24 Mbit/s
95th percentile per-packet one-way delay: 138.554 ms
Loss rate: 3.37%
Run 5: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)](image1)
- **Flow 1 ingress (mean 791.93 Mbps)**
- **Flow 1 egress (mean 765.24 Mbps)**

![Graph 2: Per packet one way delay (ms)](image2)
- **Flow 1 (95th percentile 138.55 ms)**
Run 6: Statistics of FillP

Start at: 2018-07-26 14:08:33
End at: 2018-07-26 14:09:03
Local clock offset: 0.463 ms
Remote clock offset: 0.068 ms

# Below is generated by plot.py at 2018-07-26 16:39:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 751.76 Mbit/s
95th percentile per-packet one-way delay: 216.016 ms
Loss rate: 3.15%
-- Flow 1:
Average throughput: 751.76 Mbit/s
95th percentile per-packet one-way delay: 216.016 ms
Loss rate: 3.15%
Run 6: Report of FillP — Data Link

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

**Throughput (Mbit/s)**

- **Flow 1 ingress** (mean 776.24 Mbit/s)
- **Flow 1 egress** (mean 751.76 Mbit/s)

**Delay (ms)**

- **Flow 1** (95th percentile 216.02 ms)
Run 7: Statistics of FillP

Start at: 2018-07-26 14:30:47
End at: 2018-07-26 14:31:17
Local clock offset: 0.163 ms
Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2018-07-26 16:39:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 673.86 Mbit/s
95th percentile per-packet one-way delay: 136.894 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 673.86 Mbit/s
95th percentile per-packet one-way delay: 136.894 ms
Loss rate: 3.75%
Run 7: Report of FillP — Data Link

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

- Flow 1 ingress (mean 700.16 Mbit/s)
- Flow 1 egress (mean 673.86 Mbit/s)

![Graph showing packet delay over time.]

- Flow 1 (95th percentile 136.89 ms)
Run 8: Statistics of FillP

Start at: 2018-07-26 14:52:54
End at: 2018-07-26 14:53:24
Local clock offset: -0.484 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-07-26 16:39:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 719.66 Mbit/s
95th percentile per-packet one-way delay: 252.055 ms
Loss rate: 2.86%
-- Flow 1:
Average throughput: 719.66 Mbit/s
95th percentile per-packet one-way delay: 252.055 ms
Loss rate: 2.86%
Run 8: Report of FillP — Data Link

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

- Flow 1 ingress (mean 740.92 Mbit/s)
- Flow 1 egress (mean 719.66 Mbit/s)

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

- Flow 1 (95th percentile 252.66 ms)
Run 9: Statistics of FillP

Start at: 2018-07-26 15:14:58
End at: 2018-07-26 15:15:28
Local clock offset: -0.137 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-07-26 16:51:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 694.81 Mbit/s
95th percentile per-packet one-way delay: 141.879 ms
Loss rate: 5.10%
-- Flow 1:
Average throughput: 694.81 Mbit/s
95th percentile per-packet one-way delay: 141.879 ms
Loss rate: 5.10%
Run 9: Report of FillP — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 732.11 Mbps)  Flow 1 egress (mean 694.81 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 141.88 ms)
Run 10: Statistics of FillP

Start at: 2018-07-26 15:37:00
End at: 2018-07-26 15:37:30
Local clock offset: 0.18 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2018-07-26 16:51:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 701.95 Mbit/s
95th percentile per-packet one-way delay: 155.339 ms
Loss rate: 3.61%
-- Flow 1:
Average throughput: 701.95 Mbit/s
95th percentile per-packet one-way delay: 155.339 ms
Loss rate: 3.61%
Run 10: Report of FillIP — Data Link

**Throughput (Mbps):**

- **Flow 1 ingress (mean 728.26 Mbps)**
- **Flow 1 egress (mean 701.95 Mbps)**

**Packet one way delay (ms):**

- **Flow 1 (95th percentile 155.34 ms)**
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-26 12:28:50
End at: 2018-07-26 12:29:20
Local clock offset: -0.095 ms
Remote clock offset: -0.428 ms

# Below is generated by plot.py at 2018-07-26 16:51:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 590.95 Mbit/s
95th percentile per-packet one-way delay: 94.025 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 590.95 Mbit/s
95th percentile per-packet one-way delay: 94.025 ms
Loss rate: 0.36%
Run 1: Report of FillP-Sheep — Data Link

![Graph 1: Throughput (Mbps)]

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

Start at: 2018-07-26 12:50:38
End at: 2018-07-26 12:51:08
Local clock offset: 0.253 ms
Remote clock offset: -0.605 ms

# Below is generated by plot.py at 2018-07-26 16:52:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 701.98 Mbit/s
95th percentile per-packet one-way delay: 102.616 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 701.98 Mbit/s
95th percentile per-packet one-way delay: 102.616 ms
Loss rate: 0.34%
Run 2: Report of FillP-Sheep — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 704.37 Mbit/s)
- Flow 1 egress (mean 701.98 Mbit/s)

![Delay Graph]

- Flow 1 (95th percentile 102.62 ms)
Run 3: Statistics of FillP-Sheep

Start at: 2018-07-26 13:12:54
Local clock offset: 0.168 ms
Remote clock offset: -0.767 ms

# Below is generated by plot.py at 2018-07-26 16:52:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 668.28 Mbit/s
95th percentile per-packet one-way delay: 101.482 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 668.28 Mbit/s
95th percentile per-packet one-way delay: 101.482 ms
Loss rate: 0.59%
Run 3: Report of FillP-Sheep — Data Link
Run 4: Statistics of FillP-Sheep

Start at: 2018-07-26 13:34:50
End at: 2018-07-26 13:35:20
Local clock offset: 0.286 ms
Remote clock offset: -0.509 ms

# Below is generated by plot.py at 2018-07-26 16:54:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 779.56 Mbit/s
95th percentile per-packet one-way delay: 108.386 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 779.56 Mbit/s
95th percentile per-packet one-way delay: 108.386 ms
Loss rate: 0.24%
Run 4: Report of FillP-Sheep — Data Link
Run 5: Statistics of FillP-Sheep

End at: 2018-07-26 13:57:27
Local clock offset: 0.059 ms
Remote clock offset: 0.076 ms

# Below is generated by plot.py at 2018-07-26 16:54:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 682.33 Mbit/s
95th percentile per-packet one-way delay: 104.421 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 682.33 Mbit/s
95th percentile per-packet one-way delay: 104.421 ms
Loss rate: 0.09%
Run 5: Report of FillP-Sheep — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 682.96 Mbps)
- Flow 1 egress (mean 682.33 Mbps)

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

- Flow 1 (95th percentile 104.42 ms)
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-26 14:19:15
End at: 2018-07-26 14:19:45
Local clock offset: 0.152 ms
Remote clock offset: 0.057 ms

# Below is generated by plot.py at 2018-07-26 16:54:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 685.25 Mbit/s
95th percentile per-packet one-way delay: 93.959 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 685.25 Mbit/s
95th percentile per-packet one-way delay: 93.959 ms
Loss rate: 0.12%
Run 6: Report of FillP-Sheep — Data Link
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-26 14:41:18
End at: 2018-07-26 14:41:48
Local clock offset: 0.096 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2018-07-26 17:04:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 712.52 Mbit/s
95th percentile per-packet one-way delay: 110.333 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 712.52 Mbit/s
95th percentile per-packet one-way delay: 110.333 ms
Loss rate: 0.28%
Run 7: Report of FillP-Sheep — Data Link

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

- **Flow 1 ingress** (mean 714.52 Mbit/s)
- **Flow 1 egress** (mean 712.52 Mbit/s)

![Graph 2: Packet Delays Over Time](image2)

- **Flow 1 (95th percentile 110.33 ms)**
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-26 15:03:33
End at: 2018-07-26 15:04:03
Local clock offset: 0.27 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2018-07-26 17:05:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 679.53 Mbit/s
95th percentile per-packet one-way delay: 99.908 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 679.53 Mbit/s
95th percentile per-packet one-way delay: 99.908 ms
Loss rate: 0.08%
Run 8: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 680.14 Mbit/s)
- Flow 1 egress (mean 679.53 Mbit/s)
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-26 15:25:36
End at: 2018-07-26 15:26:06
Local clock offset: -0.147 ms
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2018-07-26 17:05:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 681.62 Mbit/s
95th percentile per-packet one-way delay: 105.803 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 681.62 Mbit/s
95th percentile per-packet one-way delay: 105.803 ms
Loss rate: 0.07%
Run 9: Report of FillP-Sheep — Data Link

![Data Link Throughput Graph](image1)

![Data Link Round Trip Time Graph](image2)
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-26 15:47:39
End at: 2018-07-26 15:48:09
Local clock offset: -0.169 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 710.00 Mbit/s
95th percentile per-packet one-way delay: 105.132 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 710.00 Mbit/s
95th percentile per-packet one-way delay: 105.132 ms
Loss rate: 0.23%
Run 10: Report of FillIP-Sheep — Data Link

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

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

103
Run 1: Statistics of Indigo

Start at: 2018-07-26 12:26:25
End at: 2018-07-26 12:26:55
Local clock offset: 0.307 ms
Remote clock offset: -0.404 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.64 Mbit/s
95th percentile per-packet one-way delay: 50.119 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.64 Mbit/s
95th percentile per-packet one-way delay: 50.119 ms
Loss rate: 0.00%
Run 1: Report of Indigo — Data Link

![Graph showing throughput and packet delay over time](image_url)
Run 2: Statistics of Indigo

End at: 2018-07-26 12:48:45
Local clock offset: -0.104 ms
Remote clock offset: -0.556 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 188.23 Mbit/s
95th percentile per-packet one-way delay: 50.875 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 188.23 Mbit/s
95th percentile per-packet one-way delay: 50.875 ms
Loss rate: 0.00%
Run 2: Report of Indigo — Data Link

![Graph of throughput and packet delay over time]

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 188.22 Mbps)  Flow 1 egress (mean 188.23 Mbps)

Packet one-way delay (ms)

Flow 1 (95th percentile 50.88 ms)
Run 3: Statistics of Indigo

Start at: 2018-07-26 13:10:29
End at: 2018-07-26 13:10:59
Local clock offset: -0.174 ms
Remote clock offset: -0.766 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.75 Mbit/s
95th percentile per-packet one-way delay: 50.501 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.75 Mbit/s
95th percentile per-packet one-way delay: 50.501 ms
Loss rate: 0.00%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Local clock offset: 0.17 ms
Remote clock offset: -0.661 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.59 Mbit/s
95th percentile per-packet one-way delay: 48.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.59 Mbit/s
95th percentile per-packet one-way delay: 48.942 ms
Loss rate: 0.00%
Run 4: Report of Indigo — Data Link

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

- **Throughput (Mbps):**
  - **Flow 1 ingress** (mean 220.72 Mbps)
  - **Flow 1 egress** (mean 220.59 Mbps)

- **Packet Delay (ms):**
  - **Flow 1 (99th percentile 48.94 ms)**
Run 5: Statistics of Indigo

Start at: 2018-07-26 13:54:33
End at: 2018-07-26 13:55:03
Local clock offset: 0.035 ms
Remote clock offset: 0.032 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.71 Mbit/s
95th percentile per-packet one-way delay: 50.798 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.71 Mbit/s
95th percentile per-packet one-way delay: 50.798 ms
Loss rate: 0.00%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Start at: 2018-07-26 14:16:50
End at: 2018-07-26 14:17:20
Local clock offset: 0.508 ms
Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 227.35 Mbit/s
  95th percentile per-packet one-way delay: 50.129 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 227.35 Mbit/s
  95th percentile per-packet one-way delay: 50.129 ms
  Loss rate: 0.00%
Run 6: Report of Indigo — Data Link
Run 7: Statistics of Indigo

Start at: 2018-07-26 14:38:53
End at: 2018-07-26 14:39:23
Local clock offset: 0.54 ms
Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.71 Mbit/s
95th percentile per-packet one-way delay: 50.565 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 216.71 Mbit/s
95th percentile per-packet one-way delay: 50.565 ms
Loss rate: 0.00%
Run 7: Report of Indigo — Data Link
Run 8: Statistics of Indigo

Start at: 2018-07-26 15:01:08
End at: 2018-07-26 15:01:38
Local clock offset: -0.468 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.98 Mbit/s
95th percentile per-packet one-way delay: 51.006 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 209.98 Mbit/s
95th percentile per-packet one-way delay: 51.006 ms
Loss rate: 0.00%
Run 8: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 209.99 Mbps)
- Flow 1 egress (mean 209.98 Mbps)

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

- Flow 1 (90th percentile 51.01 ms)
Run 9: Statistics of Indigo

Start at: 2018-07-26 15:23:11
End at: 2018-07-26 15:23:41
Local clock offset: 0.232 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.99 Mbit/s
95th percentile per-packet one-way delay: 50.444 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 219.99 Mbit/s
95th percentile per-packet one-way delay: 50.444 ms
Loss rate: 0.00%
Run 9: Report of Indigo — Data Link
Run 10: Statistics of Indigo

Start at: 2018-07-26 15:45:13
End at: 2018-07-26 15:45:43
Local clock offset: -0.175 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.16 Mbit/s
95th percentile per-packet one-way delay: 50.718 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.16 Mbit/s
95th percentile per-packet one-way delay: 50.718 ms
Loss rate: 0.00%
Run 10: Report of Indigo — Data Link
Run 1: Statistics of LEDBAT

Start at: 2018-07-26 12:31:44
End at: 2018-07-26 12:32:14
Local clock offset: -0.092 ms
Remote clock offset: -0.411 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.58 Mbit/s
95th percentile per-packet one-way delay: 52.096 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 29.58 Mbit/s
95th percentile per-packet one-way delay: 52.096 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

![Graph showing throughput over time for Flow 1 ingress and egress with mean 29.58 Mbit/s.]

![Graph showing per-packet one-way delay for Flow 1 with 95th percentile 52.10 ms.]
Run 2: Statistics of LEDBAT

Start at: 2018-07-26 12:53:35
End at: 2018-07-26 12:54:05
Local clock offset: 0.257 ms
Remote clock offset: -0.612 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.33 Mbit/s
95th percentile per-packet one-way delay: 50.939 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.33 Mbit/s
95th percentile per-packet one-way delay: 50.939 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEADBAT

Local clock offset: 0.176 ms
Remote clock offset: -0.808 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.72 Mbit/s
95th percentile per-packet one-way delay: 51.646 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.72 Mbit/s
95th percentile per-packet one-way delay: 51.646 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

![Graph showing throughput over time with two lines representing Flow 1 ingress and egress with a 95th percentile delay]

![Graph showing per-packet round-trip delay over time with a 95th percentile delay indicated]

129
Run 4: Statistics of LEDBAT

End at: 2018-07-26 13:38:25
Local clock offset: -0.085 ms
Remote clock offset: -0.332 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.05 Mbit/s
95th percentile per-packet one-way delay: 52.380 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 29.05 Mbit/s
95th percentile per-packet one-way delay: 52.380 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

End at: 2018-07-26 14:00:25
Local clock offset: 0.063 ms
Remote clock offset: 0.092 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.62 Mbit/s
95th percentile per-packet one-way delay: 51.947 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.62 Mbit/s
95th percentile per-packet one-way delay: 51.947 ms
Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

[Graphs showing throughput and packet delay over time]
Run 6: Statistics of LEDBAT

End at: 2018-07-26 14:22:43
Local clock offset: 0.171 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.24 Mbit/s
95th percentile per-packet one-way delay: 51.895 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.24 Mbit/s
95th percentile per-packet one-way delay: 51.895 ms
Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link

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

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

- **Flow 1 ingress** (mean 35.24 Mbps)
- **Flow 1 egress** (mean 35.24 Mbps)

**Flow 1** (95th percentile 51.90 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-07-26 14:44:19
End at: 2018-07-26 14:44:49
Local clock offset: 0.407 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.38 Mbit/s
95th percentile per-packet one-way delay: 51.616 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.38 Mbit/s
95th percentile per-packet one-way delay: 51.616 ms
Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link

![Graph 1: Throughput vs Time]

![Graph 2: Packet Arrival vs Time]

Legend:
- **Flow 1 ingress (mean 35.38 Mbit/s)**
- **Flow 1 egress (mean 35.38 Mbit/s)**

Flow 1 (95th percentile 51.62 ms)
Run 8: Statistics of LEDBAT

Start at: 2018-07-26 15:06:27
End at: 2018-07-26 15:06:57
Local clock offset: -0.144 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.54 Mbit/s
95th percentile per-packet one-way delay: 52.214 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.54 Mbit/s
95th percentile per-packet one-way delay: 52.214 ms
Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

![Graph 1](chart1.png)

- Flow 1 ingress (mean 35.54 Mbit/s)
- Flow 1 egress (mean 35.54 Mbit/s)

![Graph 2](chart2.png)

- Flow 1 95th percentile 52.21 ms
Run 9: Statistics of LEDBAT

Start at: 2018-07-26 15:28:33
End at: 2018-07-26 15:29:03
Local clock offset: 0.222 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.72 Mbit/s
95th percentile per-packet one-way delay: 50.443 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.72 Mbit/s
95th percentile per-packet one-way delay: 50.443 ms
Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-07-26 15:50:36
End at: 2018-07-26 15:51:06
Local clock offset: 0.19 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-07-26 17:06:35
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 34.69 Mbit/s
  95th percentile per-packet one-way delay: 51.594 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 34.69 Mbit/s
  95th percentile per-packet one-way delay: 51.594 ms
  Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link

Flow 1 ingress (mean 34.70 Mbit/s)  Flow 1 egress (mean 34.69 Mbit/s)

Flow 1 (95th percentile 51.59 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-07-26 12:16:45
End at: 2018-07-26 12:17:16
Local clock offset: ~0.083 ms
Remote clock offset: ~0.309 ms

# Below is generated by plot.py at 2018-07-26 17:13:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 528.14 Mbit/s
95th percentile per-packet one-way delay: 141.929 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 528.14 Mbit/s
95th percentile per-packet one-way delay: 141.929 ms
Loss rate: 1.40%
Run 1: Report of PCC-Allegro — Data Link

*Throughput (Mbps)*

- Flow 1 ingress (mean 535.68 Mbit/s)
- Flow 1 egress (mean 528.14 Mbit/s)

*Per-packet one way delay (ms)*

- Flow 1 (95th percentile 141.93 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-26 12:38:42
End at: 2018-07-26 12:39:12
Local clock offset: -0.1 ms
Remote clock offset: -0.438 ms

# Below is generated by plot.py at 2018-07-26 17:13:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 504.48 Mbit/s
95th percentile per-packet one-way delay: 115.924 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 504.48 Mbit/s
95th percentile per-packet one-way delay: 115.924 ms
Loss rate: 0.61%
Run 2: Report of PCC-Allegro — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 507.64 Mbit/s)
- Flow 1 egress (mean 504.48 Mbit/s)

![Latency Graph]

Flow 1 (95th percentile 115.92 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-26 13:00:50
End at: 2018-07-26 13:01:20
Local clock offset: 0.219 ms
Remote clock offset: -0.686 ms

# Below is generated by plot.py at 2018-07-26 17:13:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 500.95 Mbit/s
95th percentile per-packet one-way delay: 169.887 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 500.95 Mbit/s
95th percentile per-packet one-way delay: 169.887 ms
Loss rate: 0.42%
Run 3: Report of PCC-Allegro — Data Link

![Graph showing throughput and packet delay over time for flow 1 ingress and egress.]

- Flow 1 ingress (mean 503.64 Mbit/s)
- Flow 1 egress (mean 500.95 Mbit/s)

![Graph showing packet delay distribution for flow 1, with 95th percentile at 169.89 ms.]
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-26 13:23:02
Local clock offset: -0.22 ms
Remote clock offset: -0.843 ms

# Below is generated by plot.py at 2018-07-26 17:13:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 541.45 Mbit/s
95th percentile per-packet one-way delay: 156.165 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 541.45 Mbit/s
95th percentile per-packet one-way delay: 156.165 ms
Loss rate: 0.29%
Run 4: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 543.06 Mbit/s)
- Flow 1 egress (mean 541.45 Mbit/s)

![Graph 2: Round-trip Time Over Time](image)

- Flow 1 (95th percentile 156.16 ms)
Run 5: Statistics of PCC-Allegro

End at: 2018-07-26 13:45:28
Local clock offset: 0.35 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-07-26 17:13:32
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 493.43 Mbit/s
  95th percentile per-packet one-way delay: 188.959 ms
  Loss rate: 2.41%
-- Flow 1:
  Average throughput: 493.43 Mbit/s
  95th percentile per-packet one-way delay: 188.959 ms
  Loss rate: 2.41%
Run 5: Report of PCC-Allegro — Data Link
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-26 14:07:09
End at: 2018-07-26 14:07:39
Local clock offset: 0.104 ms
Remote clock offset: 0.107 ms

# Below is generated by plot.py at 2018-07-26 17:13:48
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 508.30 Mbit/s
  95th percentile per-packet one-way delay: 205.133 ms
  Loss rate: 4.80%
-- Flow 1:
  Average throughput: 508.30 Mbit/s
  95th percentile per-packet one-way delay: 205.133 ms
  Loss rate: 4.80%
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-26 14:29:23
End at: 2018-07-26 14:29:53
Local clock offset: -0.197 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-07-26 17:14:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 509.74 Mbit/s
95th percentile per-packet one-way delay: 176.699 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 509.74 Mbit/s
95th percentile per-packet one-way delay: 176.699 ms
Loss rate: 0.68%
Run 7: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 513.25 Mbit/s)
- Flow 1 egress (mean 509.74 Mbit/s)
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-26 14:51:30
End at: 2018-07-26 14:52:00
Local clock offset: -0.065 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2018-07-26 17:16:18
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 520.27 Mbit/s
  95th percentile per-packet one-way delay: 155.912 ms
  Loss rate: 0.23%
-- Flow 1:
  Average throughput: 520.27 Mbit/s
  95th percentile per-packet one-way delay: 155.912 ms
  Loss rate: 0.23%
Run 8: Report of PCC-Allegro — Data Link

![Graph of Throughput and Delay](image)

- **Throughput**: Flow 1 ingress (mean 521.51 Mbit/s) and Flow 1 egress (mean 520.27 Mbit/s)
- **Delay**: Flow 1 (95th percentile 155.91 ms)
Run 9: Statistics of PCC-Allegro

End at: 2018-07-26 15:14:05
Local clock offset: 0.194 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-07-26 17:21:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 513.42 Mbit/s
95th percentile per-packet one-way delay: 188.216 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 513.42 Mbit/s
95th percentile per-packet one-way delay: 188.216 ms
Loss rate: 0.98%
Run 9: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 518.52 Mbit/s)
- Flow 1 egress (mean 513.42 Mbit/s)

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

- Flow 1 (95th percentile 188.22 ms)
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-26 15:35:36
End at: 2018-07-26 15:36:06
Local clock offset: -0.165 ms
Remote clock offset: -0.138 ms

# Below is generated by plot.py at 2018-07-26 17:21:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 513.02 Mbit/s
95th percentile per-packet one-way delay: 127.764 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 513.02 Mbit/s
95th percentile per-packet one-way delay: 127.764 ms
Loss rate: 0.49%
Run 10: Report of PCC-Allegro — Data Link

---

![Graph 1: Throughput](image1)

**Throughput (Mbps) vs Time (s)**

- **Flow 1 ingress (mean 515.55 Mbit/s)**
- **Flow 1 egress (mean 513.02 Mbit/s)**

---

![Graph 2: RTT](image2)

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

- **Flow 1 (95th percentile 127.76 ms)**
Run 1: Statistics of PCC-Expr

End at: 2018-07-26 12:24:18
Local clock offset: -0.063 ms
Remote clock offset: -0.367 ms

# Below is generated by plot.py at 2018-07-26 17:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 284.36 Mbit/s
95th percentile per-packet one-way delay: 163.447 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 284.36 Mbit/s
95th percentile per-packet one-way delay: 163.447 ms
Loss rate: 0.45%
Run 1: Report of PCC-Expr — Data Link
Run 2: Statistics of PCC-Expr

Start at: 2018-07-26 12:45:42
End at: 2018-07-26 12:46:12
Local clock offset: 0.238 ms
Remote clock offset: -0.563 ms

# Below is generated by plot.py at 2018-07-26 17:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 255.87 Mbit/s
95th percentile per-packet one-way delay: 176.223 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 255.87 Mbit/s
95th percentile per-packet one-way delay: 176.223 ms
Loss rate: 1.76%
Run 2: Report of PCC-Expr — Data Link

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

Start at: 2018-07-26 13:07:52
End at: 2018-07-26 13:08:22
Local clock offset: 0.187 ms
Remote clock offset: -0.729 ms

# Below is generated by plot.py at 2018-07-26 17:24:22
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 312.70 Mbit/s
  95th percentile per-packet one-way delay: 88.505 ms
  Loss rate: 0.77%
-- Flow 1:
  Average throughput: 312.70 Mbit/s
  95th percentile per-packet one-way delay: 88.505 ms
  Loss rate: 0.77%
Run 3: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress (mean 315.28 Mbit/s)**
- **Flow 1 egress (mean 312.70 Mbit/s)**

![Graph 2: One-way delay vs Time](image)

- **Flow 1 (95th percentile 88.50 ms)**
Run 4: Statistics of PCC-Expr

End at: 2018-07-26 13:30:20  
Local clock offset: 0.161 ms  
Remote clock offset: -0.885 ms

# Below is generated by plot.py at 2018-07-26 17:24:22  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 242.42 Mbit/s  
95th percentile per-packet one-way delay: 178.439 ms  
Loss rate: 0.43%  
-- Flow 1:  
Average throughput: 242.42 Mbit/s  
95th percentile per-packet one-way delay: 178.439 ms  
Loss rate: 0.43%
Run 4: Report of PCC-Expr — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 243.47 Mbit/s)  Flow 1 egress (mean 242.42 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 178.44 ms)
Run 5: Statistics of PCC-Expr

End at: 2018-07-26 13:52:29
Local clock offset: 0.074 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-07-26 17:24:22
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 238.43 Mbit/s
  95th percentile per-packet one-way delay: 51.034 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 238.43 Mbit/s
  95th percentile per-packet one-way delay: 51.034 ms
  Loss rate: 0.01%
Run 5: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 238.47 Mb/s)
- Flow 1 egress (mean 238.43 Mb/s)

![Graph showing packet delay distribution for Flow 1.]

- Flow 1 (95th percentile 51.03 ms)
Run 6: Statistics of PCC-Expr

Start at: 2018-07-26 14:14:14
End at: 2018-07-26 14:14:44
Local clock offset: 0.122 ms
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-07-26 17:25:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 260.77 Mbit/s
95th percentile per-packet one-way delay: 181.045 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 260.77 Mbit/s
95th percentile per-packet one-way delay: 181.045 ms
Loss rate: 1.41%
Run 6: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress (mean 264.51 Mbit/s)**
- **Flow 1 egress (mean 260.77 Mbit/s)**

![Graph 2: RTT Over Time](chart2.png)

- **Flow 1 (95th percentile 181.04 ms)**
Run 7: Statistics of PCC-Expr

Start at: 2018-07-26 14:36:22
End at: 2018-07-26 14:36:52
Local clock offset: 0.212 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2018-07-26 17:29:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.85 Mbit/s
95th percentile per-packet one-way delay: 200.264 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 228.85 Mbit/s
95th percentile per-packet one-way delay: 200.264 ms
Loss rate: 4.73%
Run 7: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 240.20 Mbit/s)
- Flow 1 egress (mean 228.85 Mbit/s)

![Graph 2: Per-Packet One-Way Delay (ms) Over Time (s)]

- Flow 1 (95th percentile 208.26 ms)
Run 8: Statistics of PCC-Expr

Start at: 2018-07-26 14:58:31
End at: 2018-07-26 14:59:01
Local clock offset: -0.117 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-07-26 17:31:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 295.25 Mbit/s
95th percentile per-packet one-way delay: 178.786 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 295.25 Mbit/s
95th percentile per-packet one-way delay: 178.786 ms
Loss rate: 0.89%
Run 8: Report of PCC-Expr — Data Link
Run 9: Statistics of PCC-Expr

Start at: 2018-07-26 15:20:35
End at: 2018-07-26 15:21:05
Local clock offset: 0.233 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-07-26 17:31:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 280.96 Mbit/s
95th percentile per-packet one-way delay: 168.705 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 280.96 Mbit/s
95th percentile per-packet one-way delay: 168.705 ms
Loss rate: 0.57%
Run 9: Report of PCC-Expr — Data Link
Run 10: Statistics of PCC-Expr

End at: 2018-07-26 15:43:05
Local clock offset: −0.107 ms
Remote clock offset: −0.084 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 297.83 Mbit/s
95th percentile per-packet one-way delay: 165.365 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 297.83 Mbit/s
95th percentile per-packet one-way delay: 165.365 ms
Loss rate: 0.61%
Run 10: Report of PCC-Expr — Data Link

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

Throughput (Mbps)

Flow 1 ingress (mean 299.66 Mbit/s) vs Flow 1 egress (mean 297.83 Mbit/s)

Packet delay (ms)

Flow 1 (95th percentile 165.37 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-07-26 12:25:18
End at: 2018-07-26 12:25:48
Local clock offset: 0.258 ms
Remote clock offset: -0.349 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.55 Mbit/s
95th percentile per-packet one-way delay: 49.405 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 37.55 Mbit/s
95th percentile per-packet one-way delay: 49.405 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-26 12:47:10
End at: 2018-07-26 12:47:40
Local clock offset: -0.507 ms
Remote clock offset: -0.541 ms
Run 2: Report of QUIC Cubic — Data Link

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

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

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

- Flow 1 (99th percentile 51.17 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-26 13:09:21
End at: 2018-07-26 13:09:51
Local clock offset: -0.167 ms
Remote clock offset: -0.722 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 42.03 Mbit/s
  95th percentile per-packet one-way delay: 50.604 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 42.03 Mbit/s
  95th percentile per-packet one-way delay: 50.604 ms
  Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet delivery delay over time for two flows: Flow 1 ingress and egress with mean 42.03 Mbit/s, and Flow 1 95th percentile 50.60 ms.](image-url)

189
Run 4: Statistics of QUIC Cubic

Local clock offset: -0.19 ms
Remote clock offset: -0.805 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.84 Mbit/s
95th percentile per-packet one-way delay: 50.593 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.84 Mbit/s
95th percentile per-packet one-way delay: 50.593 ms
Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link

[Graphs showing throughput and packet inter-packet delay]
Run 5: Statistics of QUIC Cubic

Local clock offset: 0.032 ms
Remote clock offset: 0.043 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.54 Mbit/s
95th percentile per-packet one-way delay: 49.627 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.54 Mbit/s
95th percentile per-packet one-way delay: 49.627 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link

[Graph showing throughput and packet delay over time]

Flow 1 ingress (mean 40.54 Mbit/s)  Flow 1 egress (mean 40.54 Mbit/s)

Flow 1 (95th percentile 49.63 ms)
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-26 14:15:42
End at: 2018-07-26 14:16:12
Local clock offset: 0.491 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.45 Mbit/s
95th percentile per-packet one-way delay: 49.435 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.45 Mbit/s
95th percentile per-packet one-way delay: 49.435 ms
Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-26 14:37:48
End at: 2018-07-26 14:38:18
Local clock offset: 0.582 ms
Remote clock offset: 0.068 ms
Run 7: Report of QUIC Cubic — Data Link

![Graph 1: Throughput (Mbps)]

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

197
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-26 15:00:03
End at: 2018-07-26 15:00:33
Local clock offset: 0.276 ms
Remote clock offset: -0.057 ms
Run 8: Report of QUIC Cubic — Data Link

![Graph showing network performance metrics](image1)

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

![Graph showing packet delay](image2)

- Flow 1 (95th percentile 50.18 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-26 15:22:06
End at: 2018-07-26 15:22:36
Local clock offset: -0.498 ms
Remote clock offset: -0.076 ms
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-26 15:44:08
End at: 2018-07-26 15:44:38
Local clock offset: -0.168 ms
Remote clock offset: -0.102 ms
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-07-26 12:14:35
End at: 2018-07-26 12:15:05
Local clock offset: 0.257 ms
Remote clock offset: -0.252 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.665 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.665 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

![Throughput Graph](image)

![Delay Graph](image)

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

[Flow 1 (95th percentile 49.66 ms)]
Run 2: Statistics of SCReAM

Start at: 2018-07-26 12:36:31
End at: 2018-07-26 12:37:01
Local clock offset: 0.28 ms
Remote clock offset: -0.503 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.497 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.497 ms
  Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

![Graph](image1)

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

![Graph](image2)

- Flow 1 (95th percentile 50.50 ms)
Run 3: Statistics of SCReAM

Start at: 2018-07-26 12:58:40
End at: 2018-07-26 12:59:10
Local clock offset: -0.166 ms
Remote clock offset: -0.657 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.823 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.823 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

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

Round-trip time (ms)

Time (s)

Flow 1 (95th percentile 50.82 ms)
Run 4: Statistics of SCReAM

Start at: 2018-07-26 13:20:51
End at: 2018-07-26 13:21:21
Local clock offset: 0.164 ms
Remote clock offset: -0.854 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.326 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.326 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

End at: 2018-07-26 13:43:17
Local clock offset: -0.011 ms
Remote clock offset: -0.178 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.684 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.684 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

![Throughput Graph]

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

![Packet Loss Graph]

- Flow 1 (95th percentile 50.68 ms)
Run 6: Statistics of SCReAM

Start at: 2018-07-26 14:04:58
End at: 2018-07-26 14:05:28
Local clock offset: 0.092 ms
Remote clock offset: 0.088 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.800 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.800 ms
Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-07-26 14:27:12
End at: 2018-07-26 14:27:42
Local clock offset: 0.519 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.620 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.620 ms
  Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-07-26 14:49:19
End at: 2018-07-26 14:49:49
Local clock offset: -0.051 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.783 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.783 ms
Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

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

Throughput (Mb/s)

0.00 0.05 0.10 0.15 0.20 0.25

Time (s) 0 5 10 15 20 25 30

Flow 1 ingress (mean 0.22 Mb/s)  Flow 1 egress (mean 0.22 Mb/s)

Delay (ms)

0 5 10 15 20 25 30

Time (s) 0 5 10 15 20 25 30

Flow 1 (95th percentile 50.78 ms)
Run 9: Statistics of SCReAM

Start at: 2018-07-26 15:11:24  
End at: 2018-07-26 15:11:54  
Local clock offset: 0.207 ms  
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.747 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.747 ms
Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-07-26 15:33:26
End at: 2018-07-26 15:33:56
Local clock offset: 0.245 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.727 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.727 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of Sprout

Start at: 2018-07-26 12:27:44
End at: 2018-07-26 12:28:14
Local clock offset: 0.219 ms
Remote clock offset: -0.383 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.61 Mbit/s
95th percentile per-packet one-way delay: 50.803 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.61 Mbit/s
95th percentile per-packet one-way delay: 50.803 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

End at: 2018-07-26 12:50:02
Local clock offset: 0.242 ms
Remote clock offset: -0.568 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 50.963 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 50.963 ms
Loss rate: 0.00%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

End at: 2018-07-26 13:12:18
Local clock offset: 0.161 ms
Remote clock offset: -0.762 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 6.93 Mbit/s
  95th percentile per-packet one-way delay: 50.586 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.93 Mbit/s
  95th percentile per-packet one-way delay: 50.586 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

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

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

---

229
Run 4: Statistics of Sprout

End at: 2018-07-26 13:34:14
Local clock offset: 0.209 ms
Remote clock offset: -0.589 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 5.13 Mbit/s
  95th percentile per-packet one-way delay: 50.827 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 5.13 Mbit/s
  95th percentile per-packet one-way delay: 50.827 ms
  Loss rate: 0.00%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

End at: 2018-07-26 13:56:21
Local clock offset: 0.07 ms
Remote clock offset: 0.074 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.81 Mbit/s
95th percentile per-packet one-way delay: 50.881 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.81 Mbit/s
95th percentile per-packet one-way delay: 50.881 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

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

- **Throughput (Mbps)**: The graph displays the throughput in Mbps over time, with two distinct lines representing different flow types.
- **Delay (ms)**: Another graph illustrates the round-trip delay, showing the 95th percentile delay.

---

233
Run 6: Statistics of Sprout

Start at: 2018-07-26 14:18:09
End at: 2018-07-26 14:18:39
Local clock offset: -0.224 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 3.00 Mbit/s
  95th percentile per-packet one-way delay: 51.035 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.00 Mbit/s
  95th percentile per-packet one-way delay: 51.035 ms
  Loss rate: 0.00%
Run 6: Report of Sprout — Data Link

![Graph showing throughput and delay over time](image-url)
Run 7: Statistics of Sprout

Start at: 2018-07-26 14:40:12
End at: 2018-07-26 14:40:42
Local clock offset: 0.511 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.97 Mbit/s
95th percentile per-packet one-way delay: 50.670 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.97 Mbit/s
95th percentile per-packet one-way delay: 50.670 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

![Graph of throughput over time showing fluctuations with annotations for flow ingress and egress at 6.97 Mbps.]

![Graph of per-packet one-way delay showing small fluctuations with a 95th percentile of 50.67 ms.]
Run 8: Statistics of Sprout

Start at: 2018-07-26 15:02:27
End at: 2018-07-26 15:02:57
Local clock offset: -0.127 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 51.113 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 51.113 ms
Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

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

*Flow 1 ingress (mean 6.40 Mbit/s)  Flow 1 egress (mean 6.40 Mbit/s)*

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

*Flow 1 (95th percentile 51.11 ms)
Run 9: Statistics of Sprout

Start at: 2018-07-26 15:24:30
End at: 2018-07-26 15:25:00
Local clock offset: 0.215 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 6.90 Mbit/s
  95th percentile per-packet one-way delay: 50.452 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.90 Mbit/s
  95th percentile per-packet one-way delay: 50.452 ms
  Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

![Graph showing throughput and delay over time. The graph plots throughput (Mbps) against time (s) with two lines: one dashed blue line labeled 'Flow 1 ingress (mean 6.90 Mbit/s)' and one solid blue line labeled 'Flow 1 egress (mean 6.90 Mbit/s). The second graph shows the 95th percentile delay (ms) with a dotted line labeled 'Flow 1 95th percentile 50.45 ms.'
Run 10: Statistics of Sprout

Start at: 2018-07-26 15:46:32
End at: 2018-07-26 15:47:03
Local clock offset: -0.191 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-07-26 17:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.07 Mbit/s
95th percentile per-packet one-way delay: 51.121 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.07 Mbit/s
95th percentile per-packet one-way delay: 51.121 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

Throughput (Mbps/s) vs. Time (s)
- Flow 1 ingress (mean 7.07 Mbps/s)
- Flow 1 egress (mean 7.07 Mbps/s)

Per-packet one-way delay (ms) vs. Time (s)
- Flow 1 (90th percentile 51.12 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-07-26 12:19:47
End at: 2018-07-26 12:20:17
Local clock offset: 0.279 ms
Remote clock offset: -0.34 ms

# Below is generated by plot.py at 2018-07-26 17:32:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 245.45 Mbit/s
95th percentile per-packet one-way delay: 50.478 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 245.45 Mbit/s
95th percentile per-packet one-way delay: 50.478 ms
Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2018-07-26 12:41:39
End at: 2018-07-26 12:42:09
Local clock offset: 0.244 ms
Remote clock offset: -0.496 ms

# Below is generated by plot.py at 2018-07-26 17:32:18
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 221.82 Mbit/s
  95th percentile per-packet one-way delay: 50.390 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 221.82 Mbit/s
  95th percentile per-packet one-way delay: 50.390 ms
  Loss rate: 0.02%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-07-26 13:03:47
End at: 2018-07-26 13:04:17
Local clock offset: -0.106 ms
Remote clock offset: -0.643 ms

# Below is generated by plot.py at 2018-07-26 17:32:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 255.77 Mbit/s
95th percentile per-packet one-way delay: 50.985 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 255.77 Mbit/s
95th percentile per-packet one-way delay: 50.985 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

![Throughput Graph](image1)

- **Flow 1 ingress (mean 255.77 Mbit/s)**
- **Flow 1 egress (mean 255.77 Mbit/s)**

![Delay Graph](image2)

- **Flow 1 (95th percentile 50.98 ms)**
Run 4: Statistics of TaoVA-100x

End at: 2018-07-26 13:26:28
Local clock offset: 0.186 ms
Remote clock offset: -0.878 ms

# Below is generated by plot.py at 2018-07-26 17:34:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 248.69 Mbit/s
95th percentile per-packet one-way delay: 49.947 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 248.69 Mbit/s
95th percentile per-packet one-way delay: 49.947 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Local clock offset: 0.388 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-07-26 17:35:17
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 207.89 Mbit/s
  95th percentile per-packet one-way delay: 50.636 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 207.89 Mbit/s
  95th percentile per-packet one-way delay: 50.636 ms
  Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-26 14:10:08
End at: 2018-07-26 14:10:38
Local clock offset: 0.447 ms
Remote clock offset: 0.053 ms

# Below is generated by plot.py at 2018-07-26 17:38:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 245.04 Mbit/s
95th percentile per-packet one-way delay: 50.506 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 245.04 Mbit/s
95th percentile per-packet one-way delay: 50.506 ms
Loss rate: 0.00%
Run 6: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 245.04 Mbit/s)
- Flow 1 egress (mean 245.04 Mbit/s)

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

- Flow 1 (95th percentile 50.51 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-07-26 14:32:20
End at: 2018-07-26 14:32:50
Local clock offset: 0.151 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2018-07-26 17:38:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.50 Mbit/s
95th percentile per-packet one-way delay: 52.169 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.50 Mbit/s
95th percentile per-packet one-way delay: 52.169 ms
Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link

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

**Throughput (Mbps)**

**Time (s)**

- Flow 1 ingress (mean 218.50 Mb/s)
- Flow 1 egress (mean 218.50 Mb/s)

**Delay (ms)**

- Flow 1 (95th percentile 52.17 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-07-26 14:54:30
End at: 2018-07-26 14:55:00
Local clock offset: -0.092 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-07-26 17:38:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.94 Mbit/s
95th percentile per-packet one-way delay: 51.629 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.94 Mbit/s
95th percentile per-packet one-way delay: 51.629 ms
Loss rate: 0.00%
Run 8: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress (mean 222.94 Mbit/s)**
- **Flow 1 egress (mean 222.94 Mbit/s)**

![Graph of Per-packet delay vs Time](image2.png)

- **Flow 1 (95th percentile 51.63 ms)**
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-26 15:16:31
End at: 2018-07-26 15:17:01
Local clock offset: 0.155 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-07-26 17:39:12
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 239.98 Mbit/s
  95th percentile per-packet one-way delay: 50.323 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 239.98 Mbit/s
  95th percentile per-packet one-way delay: 50.323 ms
  Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-26 15:38:34
End at: 2018-07-26 15:39:04
Local clock offset: 0.169 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2018-07-26 17:39:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.09 Mbit/s
95th percentile per-packet one-way delay: 50.420 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 206.09 Mbit/s
95th percentile per-packet one-way delay: 50.420 ms
Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 206.68 Mbit/s)
- Flow 1 egress (mean 206.09 Mbit/s)

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

- Flow 1 (95th percentile 50.42 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-07-26 12:32:51
End at: 2018-07-26 12:33:21
Local clock offset: 0.244 ms
Remote clock offset: -0.433 ms

# Below is generated by plot.py at 2018-07-26 17:39:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.71 Mbit/s
95th percentile per-packet one-way delay: 51.103 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 20.71 Mbit/s
95th percentile per-packet one-way delay: 51.103 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 20.71 Mbit/s)  Flow 1 egress (mean 20.71 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 51.10 ms)
Run 2: Statistics of TCP Vegas

Start at: 2018-07-26 12:54:43
Local clock offset: -0.088 ms
Remote clock offset: -0.633 ms

# Below is generated by plot.py at 2018-07-26 17:39:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.82 Mbit/s
95th percentile per-packet one-way delay: 59.943 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.82 Mbit/s
95th percentile per-packet one-way delay: 59.943 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link

![Graph of network throughput and packet delay over time for flow 1]

- Flow 1 ingress (mean 230.92 Mbit/s)
- Flow 1 egress (mean 230.82 Mbit/s)

![Graph of packet delay over time for flow 1]

- Flow 1 (95th percentile 59.94 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-07-26 13:17:00
End at: 2018-07-26 13:17:30
Local clock offset: 0.144 ms
Remote clock offset: -0.795 ms

# Below is generated by plot.py at 2018-07-26 17:39:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 146.63 Mbit/s
95th percentile per-packet one-way delay: 51.417 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 146.63 Mbit/s
95th percentile per-packet one-way delay: 51.417 ms
Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link

---

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

- **Flow 1 ingress** (mean 146.63 Mbit/s)
- **Flow 1 egress** (mean 146.63 Mbit/s)

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

- **Flow 1 (95th percentile 51.42 ms)**
Run 4: Statistics of TCP Vegas

Start at: 2018-07-26 13:39:02
Local clock offset: 0.278 ms
Remote clock offset: -0.279 ms

# Below is generated by plot.py at 2018-07-26 17:39:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 175.54 Mbit/s
95th percentile per-packet one-way delay: 61.109 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 175.54 Mbit/s
95th percentile per-packet one-way delay: 61.109 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-07-26 14:01:03
End at: 2018-07-26 14:01:33
Local clock offset: 0.074 ms
Remote clock offset: 0.104 ms

# Below is generated by plot.py at 2018-07-26 17:39:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.88 Mbit/s
95th percentile per-packet one-way delay: 51.890 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 92.88 Mbit/s
95th percentile per-packet one-way delay: 51.890 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 92.88 Mbit/s)
- Flow 1 egress (mean 92.88 Mbit/s)

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

- Flow 1 (95th percentile 51.89 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-07-26 14:23:21
End at: 2018-07-26 14:23:51
Local clock offset: 0.529 ms
Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2018-07-26 17:40:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.31 Mbit/s
95th percentile per-packet one-way delay: 59.179 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.31 Mbit/s
95th percentile per-packet one-way delay: 59.179 ms
Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-07-26 14:45:26
End at: 2018-07-26 14:45:56
Local clock offset: 0.012 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-07-26 17:40:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.99 Mbit/s
95th percentile per-packet one-way delay: 51.622 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.99 Mbit/s
95th percentile per-packet one-way delay: 51.622 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

![Graph showing throughput and delay over time]

- Flow 1 ingress (mean 30.99 Mbit/s)
- Flow 1 egress (mean 30.99 Mbit/s)

![Graph showing per-packet round-trip delay over time]

- Flow 1 (95th percentile 51.62 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-07-26 15:07:34
End at: 2018-07-26 15:08:04
Local clock offset: -0.152 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2018-07-26 17:40:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.17 Mbit/s
95th percentile per-packet one-way delay: 52.013 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 124.17 Mbit/s
95th percentile per-packet one-way delay: 52.013 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress** (mean 124.16 Mbit/s)
- **Flow 1 egress** (mean 124.17 Mbit/s)

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

- **Flow 1** (95th percentile 52.01 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-07-26 15:29:40
End at: 2018-07-26 15:30:10
Local clock offset: -0.513 ms
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2018-07-26 17:41:27
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 174.21 Mbit/s
  95th percentile per-packet one-way delay: 60.088 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 174.21 Mbit/s
  95th percentile per-packet one-way delay: 60.088 ms
  Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-07-26 15:51:44
End at: 2018-07-26 15:52:14
Local clock offset: 0.168 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at 2018-07-26 17:41:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.15 Mbit/s
95th percentile per-packet one-way delay: 51.834 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 94.15 Mbit/s
95th percentile per-packet one-way delay: 51.834 ms
Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

![Graph showing throughput and delay over time]

---

283
Run 1: Statistics of Verus

End at: 2018-07-26 12:23:00
Local clock offset: 0.264 ms
Remote clock offset: -0.364 ms

# Below is generated by plot.py at 2018-07-26 17:42:07
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 207.80 Mbit/s
  95th percentile per-packet one-way delay: 114.681 ms
  Loss rate: 1.18%
-- Flow 1:
  Average throughput: 207.80 Mbit/s
  95th percentile per-packet one-way delay: 114.681 ms
  Loss rate: 1.18%
Run 1: Report of Verus — Data Link

---

Throughput (Mbit/s)

- Flow 1 ingress (mean 210.28 Mbit/s)
- Flow 1 egress (mean 207.80 Mbit/s)

---

Per packet one way delay (ms)

- Flow 1 (95th percentile 114.68 ms)
Run 2: Statistics of Verus

Start at: 2018-07-26 12:44:19
End at: 2018-07-26 12:44:49
Local clock offset: 0.296 ms
Remote clock offset: -0.546 ms

# Below is generated by plot.py at 2018-07-26 17:42:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 250.41 Mbit/s
95th percentile per-packet one-way delay: 97.505 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 250.41 Mbit/s
95th percentile per-packet one-way delay: 97.505 ms
Loss rate: 1.46%
Run 2: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 254.12 Mbit/s)**
- **Flow 1 egress (mean 250.41 Mbit/s)**

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

- **Flow 1 (95th percentile 97.50 ms)**
Run 3: Statistics of Verus

Start at: 2018-07-26 13:06:30
End at: 2018-07-26 13:07:00
Local clock offset: 0.204 ms
Remote clock offset: -0.698 ms

# Below is generated by plot.py at 2018-07-26 17:43:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 273.26 Mbit/s
95th percentile per-packet one-way delay: 78.555 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 273.26 Mbit/s
95th percentile per-packet one-way delay: 78.555 ms
Loss rate: 1.52%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

End at: 2018-07-26 13:29:11
Local clock offset: 0.196 ms
Remote clock offset: -0.923 ms
Run 4: Report of Verus — Data Link

![Graph showing throughput and packet delay over time.](image-url)
Run 5: Statistics of Verus

End at: 2018-07-26 13:51:06
Local clock offset: 0.416 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-07-26 17:45:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 283.04 Mbit/s
95th percentile per-packet one-way delay: 91.462 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 283.04 Mbit/s
95th percentile per-packet one-way delay: 91.462 ms
Loss rate: 1.65%
Run 5: Report of Verus — Data Link

![Graph 1: Throughput vs Time](image1)
- Flow 1 ingress (mean 287.98 Mbit/s)
- Flow 1 egress (mean 283.04 Mbit/s)

![Graph 2: Packet Delay vs Time](image2)
- Flow 1 (95th percentile 91.46 ms)
Run 6: Statistics of Verus

Start at: 2018-07-26 14:12:51
End at: 2018-07-26 14:13:21
Local clock offset: 0.055 ms
Remote clock offset: 0.07 ms

# Below is generated by plot.py at 2018-07-26 17:45:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 256.75 Mbit/s
95th percentile per-packet one-way delay: 215.820 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 256.75 Mbit/s
95th percentile per-packet one-way delay: 215.820 ms
Loss rate: 1.50%
Run 6: Report of Verus — Data Link

![Graph showing throughput over time.]

![Graph showing packet delay over time.]

Flow 1 ingress (mean 262.03 Mbit/s) and Flow 1 egress (mean 256.75 Mbit/s) are compared in the throughput graph. In the packet delay graph, Flow 1 shows a 95th percentile delay of 215.82 ms.
Run 7: Statistics of Verus

Start at: 2018-07-26 14:35:01
End at: 2018-07-26 14:35:31
Local clock offset: 0.208 ms
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-07-26 17:45:06
# Datalink statistics

-- Total of 1 flow:
Average throughput: 222.99 Mbit/s
95th percentile per-packet one-way delay: 86.798 ms
Loss rate: 0.15%

-- Flow 1:
Average throughput: 222.99 Mbit/s
95th percentile per-packet one-way delay: 86.798 ms
Loss rate: 0.15%
Run 7: Report of Verus — Data Link

![Throughput Graph]

- **Flow 1 ingress (mean 223.38 Mbit/s)**
- **Flow 1 egress (mean 222.99 Mbit/s)**

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

- **Flow 1 (95th percentile 86.60 ms)**
Run 8: Statistics of Verus

Start at: 2018-07-26 14:57:11
End at: 2018-07-26 14:57:41
Local clock offset: 0.241 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-07-26 17:45:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 246.58 Mbit/s
95th percentile per-packet one-way delay: 103.118 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 246.58 Mbit/s
95th percentile per-packet one-way delay: 103.118 ms
Loss rate: 1.59%
Run 8: Report of Verus — Data Link
Run 9: Statistics of Verus

End at: 2018-07-26 15:19:43
Local clock offset: -0.163 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2018-07-26 17:46:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 269.27 Mbit/s
95th percentile per-packet one-way delay: 129.742 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 269.27 Mbit/s
95th percentile per-packet one-way delay: 129.742 ms
Loss rate: 0.13%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-07-26 15:41:15
End at: 2018-07-26 15:41:45
Local clock offset: 0.215 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-07-26 17:46:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 233.82 Mbit/s
95th percentile per-packet one-way delay: 89.742 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 233.82 Mbit/s
95th percentile per-packet one-way delay: 89.742 ms
Loss rate: 0.88%
Run 10: Report of Verus — Data Link

![Graphs showing throughput and delay over time for data link.]
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-26 12:30:17
End at: 2018-07-26 12:30:47
Local clock offset: 0.278 ms
Remote clock offset: -0.411 ms

# Below is generated by plot.py at 2018-07-26 17:48:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 321.27 Mbit/s
95th percentile per-packet one-way delay: 65.980 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 321.27 Mbit/s
95th percentile per-packet one-way delay: 65.980 ms
Loss rate: 0.14%
Run 1: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress (mean 321.72 Mbps)**
- **Flow 1 egress (mean 321.27 Mbps)**

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

- **Flow 1 (95th percentile 65.98 ms)**
Run 2: Statistics of PCC-Vivace

Start at: 2018-07-26 12:52:10
End at: 2018-07-26 12:52:40
Local clock offset: 0.263 ms
Remote clock offset: -0.553 ms

# Below is generated by plot.py at 2018-07-26 17:49:47
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 312.60 Mbit/s
  95th percentile per-packet one-way delay: 50.335 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 312.60 Mbit/s
  95th percentile per-packet one-way delay: 50.335 ms
  Loss rate: 0.00%
Run 2: Report of PCC-Vivace — Data Link
Run 3: Statistics of PCC-Vivace

Local clock offset: 0.146 ms
Remote clock offset: -0.78 ms

# Below is generated by plot.py at 2018-07-26 17:50:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 341.39 Mbit/s
95th percentile per-packet one-way delay: 62.361 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 341.39 Mbit/s
95th percentile per-packet one-way delay: 62.361 ms
Loss rate: 0.00%
Run 3: Report of PCC-Vivace — Data Link

![Graph 1](image1)

Flow 1 ingress (mean 341.36 Mbit/s) — Flow 1 egress (mean 341.39 Mbit/s)

![Graph 2](image2)

Flow 1 (95th percentile 62.36 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-26 13:36:26
End at: 2018-07-26 13:36:56
Local clock offset: -0.101 ms
Remote clock offset: -0.407 ms

# Below is generated by plot.py at 2018-07-26 17:51:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 353.07 Mbit/s
95th percentile per-packet one-way delay: 51.768 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 353.07 Mbit/s
95th percentile per-packet one-way delay: 51.768 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 353.06 Mbit/s)
- Flow 1 egress (mean 353.07 Mbit/s)

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

- Flow 1 (95th percentile 51.77 ms)
Run 5: Statistics of PCC-Vivace

End at: 2018-07-26 13:58:58
Local clock offset: 0.435 ms
Remote clock offset: 0.076 ms

# Below is generated by plot.py at 2018-07-26 17:51:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 335.42 Mbit/s
95th percentile per-packet one-way delay: 56.727 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 335.42 Mbit/s
95th percentile per-packet one-way delay: 56.727 ms
Loss rate: 0.01%
Run 5: Report of PCC-Vivace — Data Link

![Graph showing network performance metrics](image1)

Flow 1 ingress (mean 335.46 Mbit/s) | Flow 1 egress (mean 335.42 Mbit/s)

![Graph showing packet delay](image2)

* Flow 1 (95th percentile 56.73 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-26 14:20:47
End at: 2018-07-26 14:21:17
Local clock offset: 0.477 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2018-07-26 17:51:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 310.49 Mbit/s
95th percentile per-packet one-way delay: 52.635 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 310.49 Mbit/s
95th percentile per-packet one-way delay: 52.635 ms
Loss rate: 0.00%
Run 6: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 310.51 Mbit/s)
- Flow 1 egress (mean 310.49 Mbit/s)

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

- Flow 1 (95th percentile 52.63 ms)
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-26 14:42:51
End at: 2018-07-26 14:43:21
Local clock offset: 0.415 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2018-07-26 17:51:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 333.87 Mbit/s
95th percentile per-packet one-way delay: 177.577 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 333.87 Mbit/s
95th percentile per-packet one-way delay: 177.577 ms
Loss rate: 0.65%
Run 7: Report of PCC-Vivace — Data Link

---

Throughput (Mbps) vs Time (s)

- **Flow 1 ingress (mean 336.06 Mbit/s)**
- **Flow 1 egress (mean 333.87 Mbit/s)**

---

RTT (ms) vs Time (s)

- **Flow 1 (95th percentile 177.58 ms)**
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-26 15:05:04
End at: 2018-07-26 15:05:34
Local clock offset: 0.186 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2018-07-26 17:51:38
# Datalink statistics

-- Total of 1 flow:
Average throughput: 251.75 Mbit/s
95th percentile per-packet one-way delay: 52.970 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 251.75 Mbit/s
95th percentile per-packet one-way delay: 52.970 ms
Loss rate: 0.00%
Run 8: Report of PCC-Vivace — Data Link
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-26 15:27:08
End at: 2018-07-26 15:27:38
Local clock offset: -0.135 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-07-26 17:52:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 294.12 Mbit/s
95th percentile per-packet one-way delay: 50.637 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 294.12 Mbit/s
95th percentile per-packet one-way delay: 50.637 ms
Loss rate: 0.00%
Run 9: Report of PCC-Vivace — Data Link
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-26 15:49:11
End at: 2018-07-26 15:49:41
Local clock offset: -0.166 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-07-26 17:52:10
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 297.65 Mbit/s
  95th percentile per-packet one-way delay: 55.490 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 297.65 Mbit/s
  95th percentile per-packet one-way delay: 55.490 ms
  Loss rate: 0.38%
Run 10: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 298.79 Mbit/s)  Flow 1 egress (mean 297.65 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 55.49 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-07-26 12:15:40
End at: 2018-07-26 12:16:10
Local clock offset: -0.082 ms
Remote clock offset: -0.302 ms

# Below is generated by plot.py at 2018-07-26 17:52:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 50.637 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 50.637 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

![Graph of throughput vs time for WebRTC media flow 1 ingress and egress](image1)

![Graph of per-packet one-way delay vs time for WebRTC media flow 1 with 95th percentile delay](image2)
Run 2: Statistics of WebRTC media

Start at: 2018-07-26 12:37:36
End at: 2018-07-26 12:38:06
Local clock offset: -0.486 ms
Remote clock offset: -0.465 ms

# Below is generated by plot.py at 2018-07-26 17:52:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 51.137 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 51.137 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

![Graph showing throughput and packet delay over time for WebRTC media]
Run 3: Statistics of WebRTC media

Start at: 2018-07-26 12:59:45
End at: 2018-07-26 13:00:15
Local clock offset: -0.155 ms
Remote clock offset: -0.669 ms

# Below is generated by plot.py at 2018-07-26 17:52:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 50.986 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 50.986 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

**Throughput (Mbps)**

- **Flow 1 ingress (mean 1.98 Mbit/s)**
- **Flow 1 egress (mean 1.98 Mbit/s)**

**Delay (ms)**

- **Flow 1 (95th percentile 50.99 ms)**
Run 4: Statistics of WebRTC media

Local clock offset: 0.125 ms
Remote clock offset: -0.834 ms

# Below is generated by plot.py at 2018-07-26 17:52:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 50.210 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 50.210 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

Throughput (Mbps)

Time (s)

- Flow 1 ingress (mean 1.93 Mbps)
- Flow 1 egress (mean 1.93 Mbps)

Round-trip one-way delay (ms)

Time (s)

Flow 1 (95th percentile 50.21 ms)
Run 5: Statistics of WebRTC media

End at: 2018-07-26 13:44:23
Local clock offset: 0.363 ms
Remote clock offset: -0.153 ms

# Below is generated by plot.py at 2018-07-26 17:52:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.469 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

Throughput (Mbps) vs. Time (s)

- Flow 1 ingress (mean 1.96 Mbit/s)
- Flow 1 egress (mean 1.96 Mbit/s)

Packet one-way delay (ms) vs. Time (s)

- Flow 1 (95th percentile 50.47 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-07-26 14:06:04
End at: 2018-07-26 14:06:34
Local clock offset: 0.458 ms
Remote clock offset: 0.128 ms

# Below is generated by plot.py at 2018-07-26 17:52:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 50.531 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 50.531 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

![Graph showing throughput over time with two lines representing different flows.](image)

![Graph showing packet one-way delay over time with a single line representing flow 1.](image)

335
Run 7: Statistics of WebRTC media

Start at: 2018-07-26 14:28:17
End at: 2018-07-26 14:28:47
Local clock offset: 0.169 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2018-07-26 17:52:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 50.484 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 50.484 ms
Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-07-26 14:50:25
End at: 2018-07-26 14:50:55
Local clock offset: 0.297 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-07-26 17:52:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 50.281 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 50.281 ms
Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

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

Flow 1 ingress (mean 2.09 Mbit/s)  Flow 1 egress (mean 2.09 Mbit/s)

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

Flow 1 (95th percentile 50.28 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-07-26 15:12:29
End at: 2018-07-26 15:12:59
Local clock offset: -0.219 ms
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2018-07-26 17:52:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 49.876 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 49.876 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

![Graph showing throughput and delay over time with legend indicating flow ingress and egress.]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 1.94 Mbit/s)
  - Flow 1 egress (mean 1.94 Mbit/s)

- **Delay (ms):**
  - Flow 1 (95th percentile 49.88 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-07-26 15:34:31
End at: 2018-07-26 15:35:01
Local clock offset: -0.126 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-07-26 17:52:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 51.110 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 51.110 ms
Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link