Pantheon Report

Generated at 2018-06-30 00:23:17 (UTC).
Tested in mahimahi: mm-delay 10 mm-link 12mbps.trace 0.12mbps.trace
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).

Git summary:
branch: master @ 715dc5f09d172e419699f6f17f1cb4c45064f212
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 30060ab034deb342437f5cc3db86198eac35d2a
third_party/genericCC @ d0153f8e594a89e93b032143cedb0fe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f46b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55fetc872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8ac08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ec978f3c6f42
third_party/scream-reproduce @ f099118d1421a3131bf11ff1964974e1da3b0b2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c61788b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
### Table

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Average Throughput (Mbit/s)</th>
<th>95th Percentile One-Way Delay (ms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FillP</td>
<td>12.0</td>
<td>0</td>
</tr>
<tr>
<td>Copa</td>
<td>10.0</td>
<td>2</td>
</tr>
<tr>
<td>Indigo</td>
<td>8.0</td>
<td>4</td>
</tr>
<tr>
<td>QUIC Cubic</td>
<td>6.0</td>
<td>6</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>4.0</td>
<td>8</td>
</tr>
<tr>
<td>Sprout</td>
<td>2.0</td>
<td>10</td>
</tr>
<tr>
<td>PCC-Vivace</td>
<td>2.0</td>
<td>12</td>
</tr>
<tr>
<td>SCReAM</td>
<td>2.0</td>
<td>14</td>
</tr>
<tr>
<td>TCP Vegas</td>
<td>2.0</td>
<td>16</td>
</tr>
<tr>
<td>TCP BBR</td>
<td>2.0</td>
<td>18</td>
</tr>
<tr>
<td>Verus</td>
<td>2.0</td>
<td>20</td>
</tr>
<tr>
<td>PCC-Allegro</td>
<td>2.0</td>
<td>22</td>
</tr>
<tr>
<td>PCC-Expr</td>
<td>2.0</td>
<td>24</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>2.0</td>
<td>26</td>
</tr>
<tr>
<td>TaoVA-100x</td>
<td>2.0</td>
<td>28</td>
</tr>
<tr>
<td>LEDBAT</td>
<td>2.0</td>
<td>30</td>
</tr>
</tbody>
</table>

*local test in mahimahi, 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></td>
<td></td>
<td>flow 1</td>
<td>flow 1</td>
<td></td>
</tr>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>1.75</td>
<td>12.65</td>
<td>0.04</td>
</tr>
<tr>
<td>Copa</td>
<td>10</td>
<td>1.77</td>
<td>12.91</td>
<td>0.08</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>4.06</td>
<td>487.43</td>
<td>1.50</td>
</tr>
<tr>
<td>FillP</td>
<td>10</td>
<td>11.86</td>
<td>4146.43</td>
<td>14.59</td>
</tr>
<tr>
<td>FillP-Sheep</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Indigo</td>
<td>10</td>
<td>1.25</td>
<td>21.28</td>
<td>0.11</td>
</tr>
<tr>
<td>LEDBAT</td>
<td>10</td>
<td>2.31</td>
<td>30.00</td>
<td>0.15</td>
</tr>
<tr>
<td>PCC-Allegro</td>
<td>10</td>
<td>4.91</td>
<td>42.96</td>
<td>0.04</td>
</tr>
<tr>
<td>PCC-Expr</td>
<td>10</td>
<td>5.75</td>
<td>12.72</td>
<td>0.04</td>
</tr>
<tr>
<td>QUIC Cubic</td>
<td>10</td>
<td>3.15</td>
<td>12.16</td>
<td>0.05</td>
</tr>
<tr>
<td>SCReAM</td>
<td>10</td>
<td>0.22</td>
<td>11.57</td>
<td>0.08</td>
</tr>
<tr>
<td>Sprout</td>
<td>10</td>
<td>0.76</td>
<td>19.10</td>
<td>0.03</td>
</tr>
<tr>
<td>TaoVA-100x</td>
<td>10</td>
<td>1.95</td>
<td>17.09</td>
<td>0.05</td>
</tr>
<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>3.83</td>
<td>41.27</td>
<td>0.22</td>
</tr>
<tr>
<td>Verus</td>
<td>10</td>
<td>1.63</td>
<td>24.56</td>
<td>0.08</td>
</tr>
<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>1.43</td>
<td>12.10</td>
<td>0.04</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.95</td>
<td>15.36</td>
<td>0.06</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

End at: 2018-06-29 22:48:42

# Below is generated by plot.py at 2018-06-30 00:18:07
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.72 Mbit/s (14.3% utilization)
95th percentile per-packet one-way delay: 12.646 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 12.646 ms
Loss rate: 0.05%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-06-29 22:57:49
End at: 2018-06-29 22:58:19

# Below is generated by plot.py at 2018-06-30 00:18:09
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.94 Mbit/s (16.2% utilization)
  95th percentile per-packet one-way delay: 12.702 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.94 Mbit/s
  95th percentile per-packet one-way delay: 12.702 ms
  Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.94 Mbit/s)  Flow 1 egress (mean 1.94 Mbit/s)

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

Flow 1 (95th percentile 12.70 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-06-29 23:07:27
End at: 2018-06-29 23:07:57

# Below is generated by plot.py at 2018-06-30 00:18:09
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.84 Mbit/s (15.3% utilization)
95th percentile per-packet one-way delay: 12.712 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 12.712 ms
Loss rate: 0.04%
Run 3: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

0 1 2 3 4 5 6 7 8 9 10 11 12

Time (s)

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

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

10 11 12 13 14 15

Time (s)

Flow 1 (95th percentile 12.71 ms)
Run 4: Statistics of TCP BBR

Start at: 2018-06-29 23:17:05
End at: 2018-06-29 23:17:35

# Below is generated by plot.py at 2018-06-30 00:18:09
# Datalink statistics
-- Total of 1 flow:
   Average capacity: 12.00 Mbit/s
   Average throughput: 1.66 Mbit/s (13.9% utilization)
   95th percentile per-packet one-way delay: 12.623 ms
   Loss rate: 0.05%
-- Flow 1:
   Average throughput: 1.66 Mbit/s
   95th percentile per-packet one-way delay: 12.623 ms
   Loss rate: 0.05%
Run 4: Report of TCP BBR — Data Link

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

- **Average capacity**: 12.00 Mbit/s (shaded region)
- **Throughput (Mbps)**
- **Time (s)**

- **Flow 1 ingress (mean 1.66 Mbit/s)**
- **Flow 1 egress (mean 1.66 Mbit/s)**

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

- **Flow 1 (95th percentile 12.62 ms)**
Run 5: Statistics of TCP BBR

Start at: 2018-06-29 23:26:43

# Below is generated by plot.py at 2018-06-30 00:18:09
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.66 Mbit/s (13.9% utilization)
  95th percentile per-packet one-way delay: 12.630 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 1.66 Mbit/s
  95th percentile per-packet one-way delay: 12.630 ms
  Loss rate: 0.05%
Run 5: Report of TCP BBR — Data Link

![Throughput Graph](image1)

Average capacity 12.00 Mbit/s (shaded region)

![Per-packet delivery delay Graph](image2)

- Flow 1 ingress (mean 1.66 Mbit/s)
- Flow 1 egress (mean 1.66 Mbit/s)

- Flow 1 (95th percentile 12.63 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-06-29 23:36:21
End at: 2018-06-29 23:36:51

# Below is generated by plot.py at 2018-06-30 00:18:09
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.73 Mbit/s (14.4% utilization)
  95th percentile per-packet one-way delay: 12.652 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 1.73 Mbit/s
  95th percentile per-packet one-way delay: 12.652 ms
  Loss rate: 0.07%
Run 6: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 1.73 Mbit/s)  Flow 1 egress (mean 1.73 Mbit/s)

Per-jacket end-to-end delay (ms)

Flow 1 (95th percentile 12.65 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-06-29 23:45:59
End at: 2018-06-29 23:46:29

# Below is generated by plot.py at 2018-06-30 00:18:09
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.88 Mbit/s (15.6% utilization)
95th percentile per-packet one-way delay: 12.635 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 12.635 ms
Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.88 Mbit/s)  Flow 1 egress (mean 1.88 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 12.63 ms)
Run 8: Statistics of TCP BBR

End at: 2018-06-29 23:56:07

# Below is generated by plot.py at 2018-06-30 00:18:09
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.71 Mbit/s (14.3% utilization)
  95th percentile per-packet one-way delay: 12.639 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 1.71 Mbit/s
  95th percentile per-packet one-way delay: 12.639 ms
  Loss rate: 0.05%
Run 8: Report of TCP BBR — Data Link

**Average capacity 12.00 Mbit/s (shaded region)**

**Throughput (Mbit/s)**

- **Flow 1 ingress (mean 1.71 Mbit/s)**
- **Flow 1 egress (mean 1.71 Mbit/s)**

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

- **Flow 1 (95th percentile 12.64 ms)**
Run 9: Statistics of TCP BBR

Start at: 2018-06-30 00:05:15
End at: 2018-06-30 00:05:45

# Below is generated by plot.py at 2018-06-30 00:18:15
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.67 Mbit/s (13.9% utilization)
  95th percentile per-packet one-way delay: 12.635 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 1.67 Mbit/s
  95th percentile per-packet one-way delay: 12.635 ms
  Loss rate: 0.05%
Run 9: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.67 Mbit/s)  Flow 1 egress (mean 1.67 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 12.63 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-06-30 00:14:53
End at: 2018-06-30 00:15:23

# Below is generated by plot.py at 2018-06-30 00:18:15
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.69 Mbit/s (14.1% utilization)
  95th percentile per-packet one-way delay: 12.614 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 1.69 Mbit/s
  95th percentile per-packet one-way delay: 12.614 ms
  Loss rate: 0.05%
Run 10: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

0 10 20 30 35
0 2 4 6 8 10 12
Time (s) Throughput (Mbit/s)

- Flow 1 ingress (mean 1.69 Mbit/s)
- Flow 1 egress (mean 1.69 Mbit/s)

0 5 10 15 20 25 30
0 1.5 3 4.5 6 7.5 9 10.5 12
Time (s) Per-packet one way delay (ms)

Flow 1 (95th percentile 12.61 ms)
Run 1: Statistics of Copa

End at: 2018-06-29 22:43:02

# Below is generated by plot.py at 2018-06-30 00:18:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.97 Mbit/s (16.4% utilization)
  95th percentile per-packet one-way delay: 12.910 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.97 Mbit/s
  95th percentile per-packet one-way delay: 12.910 ms
  Loss rate: 0.00%
Run 1: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per-packet oneway delay (ms)

Time (s)

Flow 1 (95th percentile 12.91 ms)
Run 2: Statistics of Copa

Start at: 2018-06-29 22:52:10
End at: 2018-06-29 22:52:40

# Below is generated by plot.py at 2018-06-30 00:18:23
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.85 Mbit/s (15.5% utilization)
95th percentile per-packet one-way delay: 12.910 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 12.910 ms
Loss rate: 0.02%
Run 2: Report of Copa — Data Link

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

Average capacity 12.00 Mbit/s (shaded region)

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

Packet delay vs. time (ms)

- Flow 1 (95th percentile 12.91 ms)
Run 3: Statistics of Copa

Start at: 2018-06-29 23:01:47
End at: 2018-06-29 23:02:17

# Below is generated by plot.py at 2018-06-30 00:18:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.61 Mbit/s (13.4% utilization)
  95th percentile per-packet one-way delay: 12.910 ms
  Loss rate: 0.08%
-- Flow 1:
  Average throughput: 1.61 Mbit/s
  95th percentile per-packet one-way delay: 12.910 ms
  Loss rate: 0.08%
Run 3: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.61 Mbit/s)  Flow 1 egress (mean 1.61 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 12.91 ms)
Run 4: Statistics of Copa

Start at: 2018-06-29 23:11:25
End at: 2018-06-29 23:11:55

# Below is generated by plot.py at 2018-06-30 00:18:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.66 Mbit/s (13.9% utilization)
  95th percentile per-packet one-way delay: 12.914 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 1.66 Mbit/s
  95th percentile per-packet one-way delay: 12.914 ms
  Loss rate: 0.13%
Run 4: Report of Copa — Data Link

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

**Average capacity 12.00 Mbit/s (shaded region)**

- Flow 1 ingress (mean 1.67 Mbit/s)
- Flow 1 egress (mean 1.66 Mbit/s)

![Graph showing packet delivery delay over time.]

- Flow 1 (95th percentile 12.91 ms)
Run 5: Statistics of Copa

Start at: 2018-06-29 23:21:03
End at: 2018-06-29 23:21:33

# Below is generated by plot.py at 2018-06-30 00:18:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.61 Mbit/s (13.4% utilization)
  95th percentile per-packet one-way delay: 12.947 ms
  Loss rate: 0.14%
-- Flow 1:
  Average throughput: 1.61 Mbit/s
  95th percentile per-packet one-way delay: 12.947 ms
  Loss rate: 0.14%
Run 5: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 1.61 Mbit/s)  Flow 1 egress (mean 1.61 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 12.95 ms)
Run 6: Statistics of Copa

Start at: 2018-06-29 23:30:41
End at: 2018-06-29 23:31:11

# Below is generated by plot.py at 2018-06-30 00:18:23
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.71 Mbit/s (14.2% utilization)
95th percentile per-packet one-way delay: 12.899 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 12.899 ms
Loss rate: 0.10%
Run 6: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.71 Mbit/s)  Flow 1 egress (mean 1.71 Mbit/s)

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

Flow 1 (95th percentile 12.90 ms)
Run 7: Statistics of Copa

Start at: 2018-06-29 23:40:19
End at: 2018-06-29 23:40:49

# Below is generated by plot.py at 2018-06-30 00:18:29
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.79 Mbit/s (14.9% utilization)
95th percentile per-packet one-way delay: 12.913 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 12.913 ms
Loss rate: 0.10%
Run 7: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.79 Mbit/s)  Flow 1 egress (mean 1.79 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 12.91 ms)
Run 8: Statistics of Copa

End at: 2018-06-29 23:50:27

# Below is generated by plot.py at 2018-06-30 00:18:29
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.62 Mbit/s (13.5% utilization)
  95th percentile per-packet one-way delay: 12.925 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 1.62 Mbit/s
  95th percentile per-packet one-way delay: 12.925 ms
  Loss rate: 0.11%
Run 8: Report of Copa — Data Link

Average capacity 12.00 Mbps (shaded region)

Throughput (Mbps)

0 2 4 6 8 10 12

Time (s)

0 5 10 15 20 25 30 35

Flow 1 ingress (mean 1.62 Mbps)  Flow 1 egress (mean 1.62 Mbps)

Per-packet one-way delay (ms)

0 10 15 20 25 30 35

Time (s)

Flow 1 (95th percentile 12.93 ms)
Run 9: Statistics of Copa

Start at: 2018-06-29 23:59:35
End at: 2018-06-30 00:00:05

# Below is generated by plot.py at 2018-06-30 00:18:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.96 Mbit/s (16.3% utilization)
95th percentile per-packet one-way delay: 12.904 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 12.904 ms
Loss rate: 0.09%
Run 9: Report of Copa — Data Link

**Average capacity 12.00 Mbit/s (shaded region)**

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

**Per-packet one-way delay (ms)**
- **Flow 1 (95th percentile 12.90 ms)**
Run 10: Statistics of Copa

Start at: 2018-06-30 00:09:13
End at: 2018-06-30 00:09:43

# Below is generated by plot.py at 2018-06-30 00:18:35
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.87 Mbit/s (15.6% utilization)
  95th percentile per-packet one-way delay: 12.906 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 1.87 Mbit/s
  95th percentile per-packet one-way delay: 12.906 ms
  Loss rate: 0.07%
Run 10: Report of Copa — Data Link

![Graph showing average capacity, throughput, and packet delivery delay over time.](image-url)
Run 1: Statistics of TCP Cubic

Start at: 2018-06-29 22:43:06
End at: 2018-06-29 22:43:36

# Below is generated by plot.py at 2018-06-30 00:18:36
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.17 Mbit/s (34.7% utilization)
  95th percentile per-packet one-way delay: 441.798 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.17 Mbit/s
  95th percentile per-packet one-way delay: 441.798 ms
  Loss rate: 0.00%
Run 1: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 4.24 Mbit/s)
- Flow 1 egress (mean 4.17 Mbit/s)

Per packet one-way delay (ms)

- Flow 1 (95th percentile 441.80 ms)
Run 2: Statistics of TCP Cubic


# Below is generated by plot.py at 2018-06-30 00:18:38
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.96 Mbit/s (33.0% utilization)
95th percentile per-packet one-way delay: 525.759 ms
Loss rate: 5.98%
-- Flow 1:
Average throughput: 3.96 Mbit/s
95th percentile per-packet one-way delay: 525.759 ms
Loss rate: 5.98%
Run 2: Report of TCP Cubic — Data Link

![Graph 1: Average capacity 12.00 Mbit/s (shaded region)]

- **Flow 1 ingress (mean 4.21 Mbit/s)**
- **Flow 1 egress (mean 3.96 Mbit/s)**

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

- **Flow 1 (95th percentile 525.76 ms)**
Run 3: Statistics of TCP Cubic

Start at: 2018-06-29 23:02:21
End at: 2018-06-29 23:02:51

# Below is generated by plot.py at 2018-06-30 00:18:38
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.13 Mbit/s (34.4% utilization)
  95th percentile per-packet one-way delay: 471.105 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.13 Mbit/s
  95th percentile per-packet one-way delay: 471.105 ms
  Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link

![Graph showing throughput and delay]

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 4.20 Mbit/s)
- Flow 1 egress (mean 4.13 Mbit/s)

![Graph showing per-packet one-way delay]

Flow 1 (95th percentile 471.11 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-06-29 23:12:59
End at: 2018-06-29 23:12:29

# Below is generated by plot.py at 2018-06-30 00:18:38
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.04 Mbit/s (33.6% utilization)
95th percentile per-packet one-way delay: 439.861 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 439.861 ms
Loss rate: 2.10%
Run 4: Report of TCP Cubic — Data Link
Run 5: Statistics of TCP Cubic


# Below is generated by plot.py at 2018-06-30 00:18:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.07 Mbit/s (33.9% utilization)
95th percentile per-packet one-way delay: 527.768 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 527.768 ms
Loss rate: 0.09%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-06-29 23:31:15
End at: 2018-06-29 23:31:45

# Below is generated by plot.py at 2018-06-30 00:18:44
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.02 Mbit/s (33.5% utilization)
  95th percentile per-packet one-way delay: 494.462 ms
  Loss rate: 2.11%
-- Flow 1:
  Average throughput: 4.02 Mbit/s
  95th percentile per-packet one-way delay: 494.462 ms
  Loss rate: 2.11%
Run 6: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5

Time (s) 0 5 10 15 20 25 30 35

- Flow 1 ingress (mean 4.10 Mbit/s)
- Flow 1 egress (mean 4.02 Mbit/s)

Per packet one-way delay (ms)

0 100 200 300 400 500 600 700

Time (s) 0 5 10 15 20 25 30

- Flow 1 (95th percentile 494.46 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-06-29 23:40:53
End at: 2018-06-29 23:41:23

# Below is generated by plot.py at 2018-06-30 00:18:48
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.91 Mbit/s (32.6% utilization)
  95th percentile per-packet one-way delay: 466.610 ms
  Loss rate: 4.72%
-- Flow 1:
  Average throughput: 3.91 Mbit/s
  95th percentile per-packet one-way delay: 466.610 ms
  Loss rate: 4.72%
Run 7: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 4.10 Mbit/s)  Flow 1 egress (mean 3.91 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 466.61 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-06-29 23:50:31
End at: 2018-06-29 23:51:01

# Below is generated by plot.py at 2018-06-30 00:18:49
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.15 Mbit/s (34.6% utilization)
  95th percentile per-packet one-way delay: 493.501 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.15 Mbit/s
  95th percentile per-packet one-way delay: 493.501 ms
  Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link

![Graph showing throughput and latency over time for TCP Cubic traffic. The top graph illustrates the average capacity of 12.00 Mbit/s, with shaded regions highlighting flows. The bottom graph depicts per-socket one-way delay with a 95th percentile of 493.50 ms.]
Run 9: Statistics of TCP Cubic

Start at: 2018-06-30 00:00:09
End at: 2018-06-30 00:00:39

# Below is generated by plot.py at 2018-06-30 00:18:50
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.12 Mbit/s (34.3% utilization)
  95th percentile per-packet one-way delay: 465.827 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.12 Mbit/s
  95th percentile per-packet one-way delay: 465.827 ms
  Loss rate: 0.00%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-06-30 00:09:47
End at: 2018-06-30 00:10:17

# Below is generated by plot.py at 2018-06-30 00:18:51
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.06 Mbit/s (33.8% utilization)
95th percentile per-packet one-way delay: 547.565 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.06 Mbit/s
95th percentile per-packet one-way delay: 547.565 ms
Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.06 Mbit/s)  Flow 1 egress (mean 4.06 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 547.57 ms)
Run 1: Statistics of FillP

End at: 2018-06-29 22:49:49

# Below is generated by plot.py at 2018-06-30 00:19:03
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.80 Mbit/s (98.3% utilization)
95th percentile per-packet one-way delay: 3377.175 ms
Loss rate: 11.84%
-- Flow 1:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 3377.175 ms
Loss rate: 11.84%
Run 1: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 13.38 Mbit/s)  Flow 1 egress (mean 11.80 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 3377.18 ms)
Run 2: Statistics of FillP

End at: 2018-06-29 22:59:27

# Below is generated by plot.py at 2018-06-30 00:19:04
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.90 Mbit/s (99.2% utilization)
  95th percentile per-packet one-way delay: 4407.392 ms
  Loss rate: 14.77%
-- Flow 1:
  Average throughput: 11.90 Mbit/s
  95th percentile per-packet one-way delay: 4407.392 ms
  Loss rate: 14.77%
Run 2: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 13.96 Mbit/s)  Flow 1 egress (mean 11.90 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 4407.39 ms)
Run 3: Statistics of FillP

Start at: 2018-06-29 23:08:35
End at: 2018-06-29 23:09:05

# Below is generated by plot.py at 2018-06-30 00:19:13
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.85 Mbit/s (98.8% utilization)
95th percentile per-packet one-way delay: 4268.159 ms
Loss rate: 15.23%
-- Flow 1:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 4268.159 ms
Loss rate: 15.23%
Run 3: Report of FillP — Data Link

![Graph of Average capacity 12.00 Mbit/s (shaded region)]

- Flow 1 ingress (mean 13.98 Mbit/s)
- Flow 1 egress (mean 11.85 Mbit/s)

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

- Flow 1 (95th percentile 4268.16 ms)
Run 4: Statistics of FillP

End at: 2018-06-29 23:18:43

# Below is generated by plot.py at 2018-06-30 00:19:14
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.90 Mbit/s (99.2% utilization)
  95th percentile per-packet one-way delay: 6174.738 ms
  Loss rate: 20.31%
-- Flow 1:
  Average throughput: 11.90 Mbit/s
  95th percentile per-packet one-way delay: 6174.738 ms
  Loss rate: 20.31%
Run 4: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0  5  10  15  20  25  30  35
Time (s)

Flow 1 ingress (mean 14.94 Mbit/s)  Flow 1 egress (mean 11.90 Mbit/s)

Per-packet one way delay (ms)

0  1000  2000  3000  4000  5000  6000
Time (s)

Flow 1 (95th percentile 6174.74 ms)
Run 5: Statistics of FillP

Start at: 2018-06-29 23:27:51
End at: 2018-06-29 23:28:21

# Below is generated by plot.py at 2018-06-30 00:19:15
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.86 Mbit/s (98.8% utilization)
95th percentile per-packet one-way delay: 3239.267 ms
Loss rate: 11.97%
-- Flow 1:
Average throughput: 11.86 Mbit/s
95th percentile per-packet one-way delay: 3239.267 ms
Loss rate: 11.97%
Run 5: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 13.46 Mbit/s)  Flow 1 egress (mean 11.86 Mbit/s)

Per packet inter-packet delay (ms)

Time (s)

Flow 1 (95th percentile 3239.27 ms)
Run 6: Statistics of FillP

Start at: 2018-06-29 23:37:29
End at: 2018-06-29 23:37:59

# Below is generated by plot.py at 2018-06-30 00:19:16
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.90 Mbit/s (99.2% utilization)
95th percentile per-packet one-way delay: 3954.011 ms
Loss rate: 12.98%
-- Flow 1:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 3954.011 ms
Loss rate: 12.98%
Run 6: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 13.67 Mbit/s)  Flow 1 egress (mean 11.90 Mbit/s)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 3954.01 ms)
Run 7: Statistics of FillP

Start at: 2018-06-29 23:47:07
End at: 2018-06-29 23:47:37

# Below is generated by plot.py at 2018-06-30 00:19:17
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.83 Mbit/s (98.6% utilization)
95th percentile per-packet one-way delay: 4186.266 ms
Loss rate: 15.20%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 4186.266 ms
Loss rate: 15.20%
Run 7: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 13.95 Mbit/s)  Flow 1 egress (mean 11.83 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 4186.27 ms)
Run 8: Statistics of FillP

Start at: 2018-06-29 23:56:45
End at: 2018-06-29 23:57:15

# Below is generated by plot.py at 2018-06-30 00:19:18
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.84 Mbit/s (98.7% utilization)
95th percentile per-packet one-way delay: 3596.382 ms
Loss rate: 13.15%
-- Flow 1:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 3596.382 ms
Loss rate: 13.15%
Run 8: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 13.63 Mbit/s)  Flow 1 egress (mean 11.84 Mbit/s)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 3596.38 ms)
Run 9: Statistics of FillP

Start at: 2018-06-30 00:06:23
End at: 2018-06-30 00:06:53

# Below is generated by plot.py at 2018-06-30 00:19:39
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.86 Mbit/s (98.9% utilization)
  95th percentile per-packet one-way delay: 4502.365 ms
  Loss rate: 16.50%
-- Flow 1:
  Average throughput: 11.86 Mbit/s
  95th percentile per-packet one-way delay: 4502.365 ms
  Loss rate: 16.50%
Run 9: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 14.20 Mbit/s)  Flow 1 egress (mean 11.86 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 4502.36 ms)
Run 10: Statistics of FillP

Start at: 2018-06-30 00:16:01
End at: 2018-06-30 00:16:31

# Below is generated by plot.py at 2018-06-30 00:19:40
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.84 Mbit/s (98.7% utilization)
  95th percentile per-packet one-way delay: 3758.526 ms
  Loss rate: 13.96%
-- Flow 1:
  Average throughput: 11.84 Mbit/s
  95th percentile per-packet one-way delay: 3758.526 ms
  Loss rate: 13.96%
Run 10: Report of FillIP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

**Flow 1 ingress** (mean 13.76 Mbit/s)  **Flow 1 egress** (mean 11.84 Mbit/s)

Packet delay (ms)

**Flow 1** (95th percentile 3358.53 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2018-06-29 22:44:14
End at: 2018-06-29 22:44:44
Run 1: Report of FillP-Sheep — Data Link

![Graph showing average capacity and throughput over time with labeled lines for ingress and egress flows.]

Average capacity 12.00 Mbit/s (shaded region)

Throughput (MBits)

Time (s)

Flow 1 ingress (mean 0.00 Mbit/s)  Flow 1 egress (mean 0.00 Mbit/s)

![Graph showing packet delay over time with 95th percentile标注.]

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 11.57 ms)
Run 2: Statistics of FillP-Sheep

Start at: 2018-06-29 22:53:52
End at: 2018-06-29 22:54:22
Run 2: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (MBit/s)

0  2  4  6  8  10  12

Time (s)

0  5  10  15  20  25  30

Flow 1 ingress (mean 0.00 Mbit/s)  Flow 1 egress (mean 0.00 Mbit/s)

Per packet one-way delay (ms)

10.4  10.6  10.8  11.0  11.2  11.4  11.6  11.8  12.0  12.2  12.4

Time (s)

0  2  4  6  8  10  12  14

Flow 1 95th percentile 11.55 ms
Run 3: Statistics of FillP-Sheep

Start at: 2018-06-29 23:03:30
End at: 2018-06-29 23:04:00
Run 3: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.00 Mbit/s)  Flow 1 egress (mean 0.00 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 11.55 ms)
Run 4: Statistics of FillP-Sheep

Start at: 2018-06-29 23:13:08
Run 4: Report of FillP-Sheep — Data Link

![Graph of data link performance](image)

Average capacity 12.00 Mbit/s (shaded region)

- **Flow 1 ingress (mean 0.00 Mbit/s)**
- **Flow 1 egress (mean 0.00 Mbit/s)**

![Graph of packet delay](image)

- **Flow 1 (95th percentile 11.56 ms)**
Run 5: Statistics of FillP-Sheep

Start at: 2018-06-29 23:22:45
End at: 2018-06-29 23:23:15
Run 5: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (MBit/s)

Time (s)

Flow 1 ingress (mean 0.00 Mbit/s)  Flow 1 egress (mean 0.00 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 11.58 ms)
Run 6: Statistics of FillP-Sheep

End at: 2018-06-29 23:32:53
Run 6: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.00 Mbit/s)  Flow 1 egress (mean 0.00 Mbit/s)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 11.54 ms)
Run 7: Statistics of FillP-Sheep

Start at: 2018-06-29 23:42:01
End at: 2018-06-29 23:42:31
Run 7: Report of FillP-Sheep — Data Link
Run 8: Statistics of FillP-Sheep

Start at: 2018-06-29 23:51:39
End at: 2018-06-29 23:52:09
Run 8: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 0.00 Mbit/s)  Flow 1 egress (mean 0.00 Mbit/s)

Ping packet interarrival delay (ms)

Flow 1 (95th percentile 11.56 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-06-30 00:01:17
End at: 2018-06-30 00:01:47
Run 9: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 0.00 Mbit/s)
- Flow 1 egress (mean 0.00 Mbit/s)

Packet egress one-way delay (ms)

Time (s)

- Flow 1 (95th percentile 11.52 ms)
Run 10: Statistics of FillP-Sheep

Start at: 2018-06-30 00:10:55
End at: 2018-06-30 00:11:25
Run 10: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.00 Mbit/s)  Flow 1 egress (mean 0.00 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 11.54 ms)
Run 1: Statistics of Indigo

Start at: 2018-06-29 22:49:54
End at: 2018-06-29 22:50:24

# Below is generated by plot.py at 2018-06-30 00:19:40
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.26 Mbit/s (10.5% utilization)
  95th percentile per-packet one-way delay: 21.279 ms
  Loss rate: 0.32%
-- Flow 1:
  Average throughput: 1.26 Mbit/s
  95th percentile per-packet one-way delay: 21.279 ms
  Loss rate: 0.32%
Run 1: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.26 Mbit/s)  Flow 1 egress (mean 1.26 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 21.28 ms)
Run 2: Statistics of Indigo

End at: 2018-06-29 23:00:02

# Below is generated by plot.py at 2018-06-30 00:19:40
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.25 Mbit/s (10.5% utilization)
  95th percentile per-packet one-way delay: 21.143 ms
  Loss rate: 0.32%
-- Flow 1:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 21.143 ms
  Loss rate: 0.32%
Run 2: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.25 Mbit/s)  Flow 1 egress (mean 1.25 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 21.14 ms)
Run 3: Statistics of Indigo

Start at: 2018-06-29 23:09:09
End at: 2018-06-29 23:09:39

# Below is generated by plot.py at 2018-06-30 00:19:40
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.25 Mbit/s (10.4% utilization)
  95th percentile per-packet one-way delay: 21.210 ms
  Loss rate: 0.32%
-- Flow 1:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 21.210 ms
  Loss rate: 0.32%
Run 3: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 1.25 Mbit/s)
- Flow 1 egress (mean 1.25 Mbit/s)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 21.21 ms)
Run 4: Statistics of Indigo

Start at: 2018-06-29 23:18:47
End at: 2018-06-29 23:19:17

# Below is generated by plot.py at 2018-06-30 00:19:42
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.26 Mbit/s (10.5% utilization)
  95th percentile per-packet one-way delay: 21.469 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.26 Mbit/s
  95th percentile per-packet one-way delay: 21.469 ms
  Loss rate: 0.00%
Run 4: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 1.26 Mbit/s)  Flow 1 egress (mean 1.26 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 21.47 ms)
Run 5: Statistics of Indigo


# Below is generated by plot.py at 2018-06-30 00:19:44
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.25 Mbit/s (10.4% utilization)
  95th percentile per-packet one-way delay: 21.149 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 21.149 ms
  Loss rate: 0.00%
Run 5: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.25 Mbit/s)  Flow 1 egress (mean 1.25 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 21.15 ms)
Run 6: Statistics of Indigo

Start at: 2018-06-29 23:38:03
End at: 2018-06-29 23:38:33

# Below is generated by plot.py at 2018-06-30 00:19:45
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.25 Mbit/s (10.4% utilization)
  95th percentile per-packet one-way delay: 21.136 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 21.136 ms
  Loss rate: 0.00%
Run 6: Report of Indigo — Data Link

![Graph 1: Average capacity 12.00 Mbit/s (shaded region)]

![Graph 2: Per-packet one-way delay (ms)]
Run 7: Statistics of Indigo


# Below is generated by plot.py at 2018-06-30 00:19:47
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.26 Mbit/s (10.5% utilization)
  95th percentile per-packet one-way delay: 21.508 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.26 Mbit/s
  95th percentile per-packet one-way delay: 21.508 ms
  Loss rate: 0.00%
Run 7: Report of Indigo — Data Link
Run 8: Statistics of Indigo

Start at: 2018-06-29 23:57:19
End at: 2018-06-29 23:57:49

# Below is generated by plot.py at 2018-06-30 00:19:49
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.26 Mbit/s (10.5% utilization)
  95th percentile per-packet one-way delay: 21.253 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.26 Mbit/s
  95th percentile per-packet one-way delay: 21.253 ms
  Loss rate: 0.00%
Run 8: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.26 Mbit/s)  Flow 1 egress (mean 1.26 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 21.25 ms)
Run 9: Statistics of Indigo

Start at: 2018-06-30 00:06:57
End at: 2018-06-30 00:07:27

# Below is generated by plot.py at 2018-06-30 00:19:51
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.26 Mbit/s (10.5% utilization)
  95th percentile per-packet one-way delay: 21.452 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 1.26 Mbit/s
  95th percentile per-packet one-way delay: 21.452 ms
  Loss rate: 0.19%
Run 9: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.26 Mbit/s)  Flow 1 egress (mean 1.26 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 21.45 ms)

121
Run 10: Statistics of Indigo

Start at: 2018-06-30 00:16:35
End at: 2018-06-30 00:17:05

# Below is generated by plot.py at 2018-06-30 00:19:51
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.25 Mbit/s (10.4% utilization)
95th percentile per-packet one-way delay: 21.181 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 21.181 ms
Loss rate: 0.00%
Run 10: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.25 Mbit/s)  Flow 1 egress (mean 1.25 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 21.18 ms)

123
Run 1: Statistics of LEDBAT

End at: 2018-06-29 22:50:58

# Below is generated by plot.py at 2018-06-30 00:19:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.31 Mbit/s (19.2% utilization)
95th percentile per-packet one-way delay: 30.007 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 30.007 ms
Loss rate: 0.36%
Run 1: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Time (s)

Flow 1 ingress (mean 2.31 Mbit/s)  Flow 1 egress (mean 2.31 Mbit/s)

Per-packet round-trip delay (ms)

Flow 1 (95th percentile 30.01 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-06-29 23:00:05
End at: 2018-06-29 23:00:35

# Below is generated by plot.py at 2018-06-30 00:19:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.32 Mbit/s (19.3% utilization)
  95th percentile per-packet one-way delay: 30.029 ms
  Loss rate: 0.34%
-- Flow 1:
  Average throughput: 2.32 Mbit/s
  95th percentile per-packet one-way delay: 30.029 ms
  Loss rate: 0.34%
Run 2: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 2.33 Mbit/s)  Flow 1 egress (mean 2.32 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 30.03 ms)
Run 3: Statistics of LEDBAT

Start at: 2018-06-29 23:09:43
End at: 2018-06-29 23:10:13

# Below is generated by plot.py at 2018-06-30 00:19:56
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.33 Mbit/s (19.4% utilization)
  95th percentile per-packet one-way delay: 30.158 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 2.33 Mbit/s
  95th percentile per-packet one-way delay: 30.158 ms
  Loss rate: 0.15%
Run 3: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 2.34 Mbit/s)  Flow 1 egress (mean 2.33 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 30.16 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-06-29 23:19:21
End at: 2018-06-29 23:19:51

# Below is generated by plot.py at 2018-06-30 00:19:57
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.32 Mbit/s (19.3% utilization)
  95th percentile per-packet one-way delay: 29.993 ms
  Loss rate: 0.08%
-- Flow 1:
  Average throughput: 2.32 Mbit/s
  95th percentile per-packet one-way delay: 29.993 ms
  Loss rate: 0.08%
Run 4: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 2.32 Mbit/s)  Flow 1 egress (mean 2.32 Mbit/s)

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

Flow 1 (95th percentile 29.99 ms)
Run 5: Statistics of LEDBAT

End at: 2018-06-29 23:29:29

# Below is generated by plot.py at 2018-06-30 00:20:00
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.31 Mbit/s (19.2% utilization)
  95th percentile per-packet one-way delay: 29.966 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 2.31 Mbit/s
  95th percentile per-packet one-way delay: 29.966 ms
  Loss rate: 0.19%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Start at: 2018-06-29 23:38:37
End at: 2018-06-29 23:39:07

# Below is generated by plot.py at 2018-06-30 00:20:02
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.31 Mbit/s (19.3% utilization)
  95th percentile per-packet one-way delay: 29.921 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 2.31 Mbit/s
  95th percentile per-packet one-way delay: 29.921 ms
  Loss rate: 0.19%
Run 6: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

| Flow 1 ingress (mean 2.32 Mbit/s) | Flow 1 egress (mean 2.31 Mbit/s) |

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 29.92 ms)
Run 7: Statistics of LEDBAT

End at: 2018-06-29 23:48:45

# Below is generated by plot.py at 2018-06-30 00:20:04
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.32 Mbit/s (19.3% utilization)
95th percentile per-packet one-way delay: 29.992 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 29.992 ms
Loss rate: 0.03%
Run 7: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100

Time (s)

Flow 1 ingress (mean 2.32 Mbit/s)  Flow 1 egress (mean 2.32 Mbit/s)

Per-jacket one-way delay (ms)

10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100

Time (s)

Flow 1 (95th percentile 29.99 ms)
Run 8: Statistics of LEDBAT

End at: 2018-06-29 23:58:23

# Below is generated by plot.py at 2018-06-30 00:20:04
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.31 Mbit/s (19.2% utilization)
  95th percentile per-packet one-way delay: 29.947 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.31 Mbit/s
  95th percentile per-packet one-way delay: 29.947 ms
  Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 2.31 Mbit/s)  Flow 1 egress (mean 2.31 Mbit/s)

Per-packet round-trip delay (ms)

Flow 1 (95th percentile 29.95 ms)
Run 9: Statistics of LEDBAT

Start at: 2018-06-30 00:07:31
End at: 2018-06-30 00:08:01

# Below is generated by plot.py at 2018-06-30 00:20:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.31 Mbit/s (19.3% utilization)
95th percentile per-packet one-way delay: 29.984 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 29.984 ms
Loss rate: 0.14%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-06-30 00:17:09
End at: 2018-06-30 00:17:39

# Below is generated by plot.py at 2018-06-30 00:20:07
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.30 Mbit/s (19.2% utilization)
95th percentile per-packet one-way delay: 30.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 30.012 ms
Loss rate: 0.00%
Run 1: Statistics of PCC-Allegro

End at: 2018-06-29 22:41:54

# Below is generated by plot.py at 2018-06-30 00:20:11
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.16 Mbit/s (34.6% utilization)
  95th percentile per-packet one-way delay: 12.196 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 4.16 Mbit/s
  95th percentile per-packet one-way delay: 12.196 ms
  Loss rate: 0.04%
Run 1: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 4.16 Mbit/s)  Flow 1 egress (mean 4.16 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 12.20 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-06-29 22:51:02
End at: 2018-06-29 22:51:32

# Below is generated by plot.py at 2018-06-30 00:20:22
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 8.72 Mbit/s (72.6% utilization)
  95th percentile per-packet one-way delay: 123.293 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 8.72 Mbit/s
  95th percentile per-packet one-way delay: 123.293 ms
  Loss rate: 0.04%
Run 2: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 8.72 Mbit/s)  Flow 1 egress (mean 8.72 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 123.29 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-06-29 23:00:39
End at: 2018-06-29 23:01:09

# Below is generated by plot.py at 2018-06-30 00:20:22
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.78 Mbit/s (31.5% utilization)
  95th percentile per-packet one-way delay: 12.239 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 3.78 Mbit/s
  95th percentile per-packet one-way delay: 12.239 ms
  Loss rate: 0.03%
Run 3: Report of PCC-Allegro — Data Link
Run 4: Statistics of PCC-Allegro

Start at: 2018-06-29 23:10:17
End at: 2018-06-29 23:10:47

# Below is generated by plot.py at 2018-06-30 00:20:22
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.62 Mbit/s (30.1% utilization)
95th percentile per-packet one-way delay: 12.250 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 12.250 ms
Loss rate: 0.04%
Run 4: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 3.62 Mbit/s)  Flow 1 egress (mean 3.62 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 12.25 ms)
Run 5: Statistics of PCC-Allegro

End at: 2018-06-29 23:20:25

# Below is generated by plot.py at 2018-06-30 00:20:22
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.95 Mbit/s (32.9% utilization)
  95th percentile per-packet one-way delay: 12.149 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 3.95 Mbit/s
  95th percentile per-packet one-way delay: 12.149 ms
  Loss rate: 0.03\%
Run 5: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 3.95 Mbit/s)  Flow 1 egress (mean 3.95 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 12.15 ms)
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-29 23:29:33
End at: 2018-06-29 23:30:03

# Below is generated by plot.py at 2018-06-30 00:20:28
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 8.35 Mbit/s (69.6% utilization)
95th percentile per-packet one-way delay: 208.566 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 8.35 Mbit/s
95th percentile per-packet one-way delay: 208.566 ms
Loss rate: 0.04%
Run 6: Report of PCC-Allegro — Data Link

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

- **Average capacity:** 12.00 Mbit/s (shaded region)
- **Flow 1 ingress (mean 8.35 Mbit/s)**
- **Flow 1 egress (mean 8.35 Mbit/s)**

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

- **Flow 1 (95th percentile 208.57 ms)**
Run 7: Statistics of PCC-Allegro


# Below is generated by plot.py at 2018-06-30 00:20:28
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.31 Mbit/s (36.0% utilization)
  95th percentile per-packet one-way delay: 12.135 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 4.31 Mbit/s
  95th percentile per-packet one-way delay: 12.135 ms
  Loss rate: 0.04%
Run 7: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.31 Mbit/s)  Flow 1 egress (mean 4.31 Mbit/s)

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

Flow 1 (95th percentile 12.13 ms)
Run 8: Statistics of PCC-Allegro

End at: 2018-06-29 23:49:19

# Below is generated by plot.py at 2018-06-30 00:20:28
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.42 Mbit/s (36.8% utilization)
  95th percentile per-packet one-way delay: 12.135 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 4.42 Mbit/s
  95th percentile per-packet one-way delay: 12.135 ms
  Loss rate: 0.04%
Run 8: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.42 Mbit/s)  Flow 1 egress (mean 4.42 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 12.13 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-29 23:58:27
End at: 2018-06-29 23:58:57

# Below is generated by plot.py at 2018-06-30 00:20:28
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.39 Mbit/s (28.3% utilization)
  95th percentile per-packet one-way delay: 12.479 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 3.39 Mbit/s
  95th percentile per-packet one-way delay: 12.479 ms
  Loss rate: 0.02%
Run 9: Report of PCC-Allegro — Data Link

![Graph 1: Throughput vs Time](image1)
- Average capacity 12.00 Mbit/s (shaded region)
- Flow 1 ingress (mean 3.39 Mbit/s)
- Flow 1 egress (mean 3.39 Mbit/s)

![Graph 2: Packet Delay vs Time](image2)
- Flow 1 (95th percentile 12.48 ms)
Run 10: Statistics of PCC-Allegro

Start at: 2018-06-30 00:08:05
End at: 2018-06-30 00:08:35

# Below is generated by plot.py at 2018-06-30 00:20:33
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.38 Mbit/s (36.5% utilization)
  95th percentile per-packet one-way delay: 12.118 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 4.38 Mbit/s
  95th percentile per-packet one-way delay: 12.118 ms
  Loss rate: 0.04%
Run 10: Report of PCC-Allegro — Data Link

![Graphs showing throughput and packet delay over time]

- Average capacity 12.00 Mbit/s (shaded region)
- Flow 1 ingress (mean 4.38 Mbit/s)
- Flow 1 egress (mean 4.38 Mbit/s)

- Per-packet one-way delay (ms)
- Flow 1 (95th percentile 12.12 ms)
Run 1: Statistics of PCC-Expr

Start at: 2018-06-29 22:43:40
End at: 2018-06-29 22:44:10

# Below is generated by plot.py at 2018-06-30 00:20:44
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.94 Mbit/s (49.5% utilization)
  95th percentile per-packet one-way delay: 12.499 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 5.94 Mbit/s
  95th percentile per-packet one-way delay: 12.499 ms
  Loss rate: 0.04%
Run 1: Report of PCC-Expr — Data Link

![Graph showing throughput over time with shaded region indicating average capacity of 12.00 Mbit/s.]

Flow 1 ingress (mean 5.94 Mbit/s)  Flow 1 egress (mean 5.94 Mbit/s)

![Graph showing packet inter-arrival delay over time for Flow 1 with a 95th percentile of 12.50 ms.]

Flow 1 (95th percentile 12.50 ms)
Run 2: Statistics of PCC-Expr


# Below is generated by plot.py at 2018-06-30 00:20:44
# Datalink statistics
--- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.57 Mbit/s (46.4% utilization)
95th percentile per-packet one-way delay: 12.941 ms
Loss rate: 0.04%
--- Flow 1:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 12.941 ms
Loss rate: 0.04%
Run 2: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 5.57 Mbit/s)  Flow 1 egress (mean 5.57 Mbit/s)

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

Flow 1 (95th percentile 12.94 ms)
Run 3: Statistics of PCC-Expr

Start at: 2018-06-29 23:02:55
End at: 2018-06-29 23:03:25

# Below is generated by plot.py at 2018-06-30 00:20:45
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.59 Mbit/s (46.6% utilization)
  95th percentile per-packet one-way delay: 12.938 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 5.59 Mbit/s
  95th percentile per-packet one-way delay: 12.938 ms
  Loss rate: 0.03%
Run 3: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 5.59 Mbit/s)  Flow 1 egress (mean 5.59 Mbit/s)

Per-packet e2e way delay (ms)

Flow 1 (95th percentile 12.94 ms)
Run 4: Statistics of PCC-Expr

Start at: 2018-06-29 23:12:33
End at: 2018-06-29 23:13:03

# Below is generated by plot.py at 2018-06-30 00:20:47
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.97 Mbit/s (49.7% utilization)
  95th percentile per-packet one-way delay: 12.535 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 5.97 Mbit/s
  95th percentile per-packet one-way delay: 12.535 ms
  Loss rate: 0.03%
Run 4: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0 5 10 15 20 25 30 35

Time (s)

Flow 1 ingress (mean 5.97 Mbit/s)  Flow 1 egress (mean 5.97 Mbit/s)

Per-packet one-way delay (ms)

10 12 14 16 18 20

Time (s)

Flow 1 (95th percentile 12.54 ms)
Run 5: Statistics of PCC-Expr


# Below is generated by plot.py at 2018-06-30 00:20:49
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.86 Mbit/s (48.8% utilization)
  95th percentile per-packet one-way delay: 12.519 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 5.86 Mbit/s
  95th percentile per-packet one-way delay: 12.519 ms
  Loss rate: 0.04%
Run 5: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0 5 10 15 20 25 30 35

Time (s)

Flow 1 ingress (mean 5.86 Mbit/s)  Flow 1 egress (mean 5.86 Mbit/s)

Per packet delivery delay (ms)

0 5 10 15 20 25 30

Time (s)

Flow 1 (95th percentile 12.52 ms)
Run 6: Statistics of PCC-Expr

Start at: 2018-06-29 23:31:49
End at: 2018-06-29 23:32:19

# Below is generated by plot.py at 2018-06-30 00:20:52
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.58 Mbit/s (46.5% utilization)
  95th percentile per-packet one-way delay: 12.927 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 5.58 Mbit/s
  95th percentile per-packet one-way delay: 12.927 ms
  Loss rate: 0.04%
Run 6: Report of PCC-Expr — Data Link
Run 7: Statistics of PCC-Expr

Start at: 2018-06-29 23:41:27
End at: 2018-06-29 23:41:57

# Below is generated by plot.py at 2018-06-30 00:20:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.87 Mbit/s (48.9% utilization)
95th percentile per-packet one-way delay: 12.499 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 5.87 Mbit/s
95th percentile per-packet one-way delay: 12.499 ms
Loss rate: 0.04%
Run 7: Report of PCC-Expr — Data Link
Run 8: Statistics of PCC-Expr

Start at: 2018-06-29 23:51:05
End at: 2018-06-29 23:51:35

# Below is generated by plot.py at 2018-06-30 00:20:58
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.57 Mbit/s (46.4% utilization)
95th percentile per-packet one-way delay: 12.916 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 12.916 ms
Loss rate: 0.04%
Run 8: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 5.57 Mbit/s)  Flow 1 egress (mean 5.57 Mbit/s)

Flow 1 (95th percentile 12.92 ms)
Run 9: Statistics of PCC-Expr

Start at: 2018-06-30 00:00:43
End at: 2018-06-30 00:01:13

# Below is generated by plot.py at 2018-06-30 00:21:10
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.94 Mbit/s (49.5% utilization)
  95th percentile per-packet one-way delay: 12.524 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 5.94 Mbit/s
  95th percentile per-packet one-way delay: 12.524 ms
  Loss rate: 0.04%
Run 9: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 5.94 Mbit/s)  Flow 1 egress (mean 5.94 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 12.52 ms)
Run 10: Statistics of PCC-Expr

Start at: 2018-06-30 00:10:21
End at: 2018-06-30 00:10:51

# Below is generated by plot.py at 2018-06-30 00:21:10
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.56 Mbit/s (46.4% utilization)
  95th percentile per-packet one-way delay: 12.911 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 5.56 Mbit/s
  95th percentile per-packet one-way delay: 12.911 ms
  Loss rate: 0.03%
Run 10: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 5.57 Mbit/s)  Flow 1 egress (mean 5.56 Mbit/s)

Packet delivery delay (ms)

Time (s)

Flow 1 (95th percentile 12.91 ms)
Run 1: Statistics of QUIC Cubic

End at: 2018-06-29 22:47:34

# Below is generated by plot.py at 2018-06-30 00:21:10
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.15 Mbit/s (26.3% utilization)
  95th percentile per-packet one-way delay: 12.172 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 3.15 Mbit/s
  95th percentile per-packet one-way delay: 12.172 ms
  Loss rate: 0.05%
Run 1: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 3.15 Mbit/s)  Flow 1 egress (mean 3.15 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 12.17 ms)
Run 2: Statistics of QUIC Cubic

End at: 2018-06-29 22:57:11

# Below is generated by plot.py at 2018-06-30 00:21:10
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.15 Mbit/s (26.2% utilization)
  95th percentile per-packet one-way delay: 12.165 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 3.15 Mbit/s
  95th percentile per-packet one-way delay: 12.165 ms
  Loss rate: 0.05%
Run 2: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 3.15 Mbit/s)  Flow 1 egress (mean 3.15 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 12.16 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-06-29 23:06:19
End at: 2018-06-29 23:06:49

# Below is generated by plot.py at 2018-06-30 00:21:10
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.15 Mbit/s (26.3% utilization)
95th percentile per-packet one-way delay: 12.179 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 12.179 ms
Loss rate: 0.04%
Run 3: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 3.15 Mbit/s)  Flow 1 egress (mean 3.15 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 12.18 ms)
Run 4: Statistics of QUIC Cubic

Start at: 2018-06-29 23:15:57
End at: 2018-06-29 23:16:27

# Below is generated by plot.py at 2018-06-30 00:21:10
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.15 Mbit/s (26.2% utilization)
95th percentile per-packet one-way delay: 12.176 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 12.176 ms
Loss rate: 0.05%
Run 4: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 3.15 Mbit/s)  Flow 1 egress (mean 3.15 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 12.18 ms)
Run 5: Statistics of QUIC Cubic

End at: 2018-06-29 23:26:05

# Below is generated by plot.py at 2018-06-30 00:21:10
# Datalink statistics
-- Total of 1 flow:
平均容量: 12.00 Mbit/s
平均吞吐量: 3.15 Mbit/s (26.3% 利用率)
95th percentile per-packet one-way delay: 12.159 ms
损耗率: 0.06%
-- Flow 1:
平均吞吐量: 3.15 Mbit/s
95th percentile per-packet one-way delay: 12.159 ms
损耗率: 0.06%
Run 5: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 3.15 Mbit/s)  Flow 1 egress (mean 3.15 Mbit/s)

Packet oneway delay (ms)

Flow 1 (95th percentile 12.16 ms)
Run 6: Statistics of QUIC Cubic

Start at: 2018-06-29 23:35:13
End at: 2018-06-29 23:35:43

# Below is generated by plot.py at 2018-06-30 00:21:14
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.15 Mbit/s (26.3% utilization)
  95th percentile per-packet one-way delay: 12.180 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 3.15 Mbit/s
  95th percentile per-packet one-way delay: 12.180 ms
  Loss rate: 0.05%
Run 6: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 3.15 Mbit/s)  Flow 1 egress (mean 3.15 Mbit/s)

Packet delivery delay (ms)

Flow 1 (95th percentile 12.18 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-06-29 23:44:51
End at: 2018-06-29 23:45:21

# Below is generated by plot.py at 2018-06-30 00:21:15
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.15 Mbit/s (26.2% utilization)
  95th percentile per-packet one-way delay: 12.171 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 3.15 Mbit/s
  95th percentile per-packet one-way delay: 12.171 ms
  Loss rate: 0.05%
Run 7: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 3.15 Mbit/s)  Flow 1 egress (mean 3.15 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 12.17 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-06-29 23:54:29
End at: 2018-06-29 23:54:59

# Below is generated by plot.py at 2018-06-30 00:21:16
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.15 Mbit/s (26.2% utilization)
  95th percentile per-packet one-way delay: 12.159 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 3.15 Mbit/s
  95th percentile per-packet one-way delay: 12.159 ms
  Loss rate: 0.05%
Run 8: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

- Flow 1 ingress (mean 3.15 Mbit/s)
- Flow 1 egress (mean 3.15 Mbit/s)

Packet one-way delay (ms)

- Flow 1 (95th percentile 12.16 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-06-30 00:04:07
End at: 2018-06-30 00:04:37

# Below is generated by plot.py at 2018-06-30 00:21:18
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.13 Mbit/s (26.1% utilization)
95th percentile per-packet one-way delay: 12.064 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 12.064 ms
Loss rate: 0.05%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-30 00:13:45
End at: 2018-06-30 00:14:15

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.15 Mbit/s (26.3% utilization)
95th percentile per-packet one-way delay: 12.164 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 12.164 ms
Loss rate: 0.05%
Run 10: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 3.15 Mbit/s)  Flow 1 egress (mean 3.15 Mbit/s)

Flow 1 (95th percentile 12.16 ms)
Run 1: Statistics of SCRReAM

Start at: 2018-06-29 22:45:56
End at: 2018-06-29 22:46:26

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.22 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 11.605 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 11.605 ms
  Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

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

Per packet one-way delay (ms)

Flow 1 (95th percentile 11.61 ms)
Run 2: Statistics of SCReAM

End at: 2018-06-29 22:56:04

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.22 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 11.574 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.574 ms
Loss rate: 0.13%
Run 2: Report of SCReAM — Data Link

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

- **Average capacity**: 12.00 Mbit/s (shaded region)
- **Flow 1 ingress**: Mean 0.22 Mbit/s
- **Flow 1 egress**: Mean 0.22 Mbit/s
- **Flow 1**: 95th percentile 11.57 ms
Run 3: Statistics of SCReAM

Start at: 2018-06-29 23:05:11
End at: 2018-06-29 23:05:41

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.22 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 11.562 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 11.562 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

![Graph 1: Average capacity 12.00 Mbit/s (shaded region)]

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

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

- Flow 1 (95th percentile 11.56 ms)
Run 4: Statistics of SCReAM

Start at: 2018-06-29 23:14:49
End at: 2018-06-29 23:15:19

# Below is generated by plot.py at 2018-06-30 00:21:25
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.22 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 11.561 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.561 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

- Flow 1 (95th percentile 11.56 ms)
Run 5: Statistics of SCReAM

End at: 2018-06-29 23:24:57

# Below is generated by plot.py at 2018-06-30 00:21:26
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.22 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 11.581 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 11.581 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 11.58 ms)
Run 6: Statistics of SCReAM

Start at: 2018-06-29 23:34:05
End at: 2018-06-29 23:34:35

# Below is generated by plot.py at 2018-06-30 00:21:27
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.22 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 11.548 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 11.548 ms
  Loss rate: 0.13%
Run 6: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 11.55 ms)
Run 7: Statistics of SCReAM

Start at: 2018-06-29 23:43:43
End at: 2018-06-29 23:44:13

# Below is generated by plot.py at 2018-06-30 00:21:29
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.22 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 11.542 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 11.542 ms
  Loss rate: 0.13%
Run 7: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Per packet one way delay (ms)

- Flow 1 (95th percentile 11.54 ms)
Run 8: Statistics of SCReAM

Start at: 2018-06-29 23:53:21
End at: 2018-06-29 23:53:51

# Below is generated by plot.py at 2018-06-30 00:21:30
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.22 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 11.575 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.575 ms
Loss rate: 0.13%
Run 8: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 11.57 ms)
Run 9: Statistics of SCReAM

Start at: 2018-06-30 00:02:59
End at: 2018-06-30 00:03:29

# Below is generated by plot.py at 2018-06-30 00:21:33
# Datalink statistics
-- Total of 1 flow:
   Average capacity: 12.00 Mbit/s
   Average throughput: 0.22 Mbit/s (1.8% utilization)
   95th percentile per-packet one-way delay: 11.618 ms
   Loss rate: 0.13%
-- Flow 1:
   Average throughput: 0.22 Mbit/s
   95th percentile per-packet one-way delay: 11.618 ms
   Loss rate: 0.13%
Run 9: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

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

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 11.62 ms)
Run 10: Statistics of SCReAM

Start at: 2018-06-30 00:12:37
End at: 2018-06-30 00:13:07

# Below is generated by plot.py at 2018-06-30 00:21:33
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.22 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 11.527 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 11.527 ms
  Loss rate: 0.13%
Run 10: Report of SCReAM — Data Link

**Average capacity 12.00 Mbit/s (shaded region)**

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

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

**Flow 1 (95th percentile 11.53 ms)**
Run 1: Statistics of Sprout

End at: 2018-06-29 22:45:18

# Below is generated by plot.py at 2018-06-30 00:21:34
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.32 Mbit/s (2.7% utilization)
95th percentile per-packet one-way delay: 14.316 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 14.316 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 0.32 Mbit/s)  Flow 1 egress (mean 0.32 Mbit/s)

Per packet round-trip delay (ms)

Flow 1 (95th percentile 14.32 ms)
Run 2: Statistics of Sprout

Start at: 2018-06-29 22:54:26
End at: 2018-06-29 22:54:56

# Below is generated by plot.py at 2018-06-30 00:21:36
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.48 Mbit/s (4.0% utilization)
  95th percentile per-packet one-way delay: 17.588 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.48 Mbit/s
  95th percentile per-packet one-way delay: 17.588 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.48 Mbit/s)  Flow 1 egress (mean 0.48 Mbit/s)

Per-packet delivery delay (ms)

Time (s)

Flow 1 (95th percentile 17.59 ms)
Run 3: Statistics of Sprout

Start at: 2018-06-29 23:04:03
End at: 2018-06-29 23:04:33

# Below is generated by plot.py at 2018-06-30 00:21:38
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.15 Mbit/s (9.6% utilization)
  95th percentile per-packet one-way delay: 22.427 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.15 Mbit/s
  95th percentile per-packet one-way delay: 22.427 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.15 Mbit/s)  Flow 1 egress (mean 1.15 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 22.43 ms)

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Run 4: Statistics of Sprout

End at: 2018-06-29 23:14:12

# Below is generated by plot.py at 2018-06-30 00:21:39
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.64 Mbit/s (5.3% utilization)
  95th percentile per-packet one-way delay: 18.797 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.64 Mbit/s
  95th percentile per-packet one-way delay: 18.797 ms
  Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 0.64 Mbit/s)  Flow 1 egress (mean 0.64 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 18.80 ms)
Run 5: Statistics of Sprout

End at: 2018-06-29 23:23:49

# Below is generated by plot.py at 2018-06-30 00:21:41
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.46 Mbit/s (3.8% utilization)
95th percentile per-packet one-way delay: 17.908 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 17.908 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 0.46 Mbit/s)
- Flow 1 egress (mean 0.46 Mbit/s)

Per packet one-way delay (ms)

- Flow 1 (95th percentile 17.91 ms)
Run 6: Statistics of Sprout

Start at: 2018-06-29 23:32:57
End at: 2018-06-29 23:33:27

# Below is generated by plot.py at 2018-06-30 00:21:41
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.39 Mbit/s (3.3% utilization)
  95th percentile per-packet one-way delay: 15.564 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 15.564 ms
  Loss rate: 0.10%
Run 6: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.39 Mbit/s)  Flow 1 egress (mean 0.39 Mbit/s)

Per packet delivery delay (ms)

Time (s)

Flow 1 (95th percentile 15.56 ms)
Run 7: Statistics of Sprout

End at: 2018-06-29 23:43:05

# Below is generated by plot.py at 2018-06-30 00:21:44
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.76 Mbit/s (6.3% utilization)
  95th percentile per-packet one-way delay: 18.808 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 0.76 Mbit/s
  95th percentile per-packet one-way delay: 18.808 ms
  Loss rate: 0.04%
Run 7: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

![Graph showing throughput over time with shaded area indicating average capacity.

Flow 1 ingress (mean 0.75 Mbit/s) vs Flow 1 egress (mean 0.76 Mbit/s)

![Graph showing packet delay over time with a specific 95th percentile delay of 18.81 ms indicated.

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Run 8: Statistics of Sprout

End at: 2018-06-29 23:52:43

# Below is generated by plot.py at 2018-06-30 00:21:46
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.43 Mbit/s (11.9% utilization)
95th percentile per-packet one-way delay: 22.335 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 22.335 ms
Loss rate: 0.06%
Run 8: Report of Sprout — Data Link

**Average capacity 12.00 Mbit/s (shaded region)**

- **Flow 1 ingress (mean 1.43 Mbit/s)**
- **Flow 1 egress (mean 1.43 Mbit/s)**

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

- **Flow 1 (95th percentile 22.34 ms)**

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Run 9: Statistics of Sprout

Start at: 2018-06-30 00:01:51
End at: 2018-06-30 00:02:21

# Below is generated by plot.py at 2018-06-30 00:21:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.18 Mbit/s (9.9% utilization)
95th percentile per-packet one-way delay: 23.226 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 23.226 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

0 2 4 6 8 10 12

Time (s)

0 5 10 15 20 25 30 35

Flow 1 ingress (mean 1.18 Mbit/s)  Flow 1 egress (mean 1.18 Mbit/s)

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

0 5 10 15 20 25 30

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 23.23 ms)
Run 10: Statistics of Sprout

Start at: 2018-06-30 00:11:29
End at: 2018-06-30 00:11:59

# Below is generated by plot.py at 2018-06-30 00:21:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.80 Mbit/s (6.7% utilization)
95th percentile per-packet one-way delay: 20.011 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 20.011 ms
Loss rate: 0.05%
Run 10: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.80 Mbit/s)  Flow 1 egress (mean 0.80 Mbit/s)

Per packet delay (ms)

Time (s)

Flow 1 (95th percentile 20.01 ms)
Run 1: Statistics of TaoVA-100x

End at: 2018-06-29 22:48:08

# Below is generated by plot.py at 2018-06-30 00:21:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.95 Mbit/s (16.2% utilization)
95th percentile per-packet one-way delay: 13.041 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 13.041 ms
Loss rate: 0.04%
Run 1: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 13.54 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-06-29 22:57:15
End at: 2018-06-29 22:57:45

# Below is generated by plot.py at 2018-06-30 00:21:55
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.95 Mbit/s (16.3% utilization)
95th percentile per-packet one-way delay: 32.983 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 32.983 ms
Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 32.98 ms)

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Run 3: Statistics of TaoVA-100x

Start at: 2018-06-29 23:06:53
End at: 2018-06-29 23:07:23

# Below is generated by plot.py at 2018-06-30 00:21:56
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.95 Mbit/s (16.2% utilization)
  95th percentile per-packet one-way delay: 13.043 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 1.95 Mbit/s
  95th percentile per-packet one-way delay: 13.043 ms
  Loss rate: 0.04%
Run 3: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0 5 10 15 20 25 30 35

Time (s)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Per packet one way delay (ms)

0 10 20 30 40 50 60 70 80

Time (s)

Flow 1 (95th percentile 13.54 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-06-29 23:16:31
End at: 2018-06-29 23:17:01

# Below is generated by plot.py at 2018-06-30 00:21:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.95 Mbit/s (16.2% utilization)
95th percentile per-packet one-way delay: 13.030 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 13.030 ms
Loss rate: 0.07%
Run 4: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 13.03 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-06-29 23:26:09
End at: 2018-06-29 23:26:39

# Below is generated by plot.py at 2018-06-30 00:22:00
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.95 Mbit/s (16.3% utilization)
95th percentile per-packet one-way delay: 33.637 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 33.637 ms
Loss rate: 0.07%
Run 5: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Average packet one way delay (ms)

Flow 1 (95th percentile 33.64 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-06-29 23:35:47
End at: 2018-06-29 23:36:17

# Below is generated by plot.py at 2018-06-30 00:22:02
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.95 Mbit/s (16.2% utilization)
95th percentile per-packet one-way delay: 13.032 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 13.032 ms
Loss rate: 0.09%
Run 6: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 13.03 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-06-29 23:45:25
End at: 2018-06-29 23:45:55

# Below is generated by plot.py at 2018-06-30 00:22:03
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.95 Mbit/s (16.2% utilization)
95th percentile per-packet one-way delay: 13.026 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 13.026 ms
Loss rate: 0.04%
Run 7: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Per packet round-trip delay (ms)

Time (s)

Flow 1 (95th percentile 13.03 ms)
Run 8: Statistics of TaoVA-100x


# Below is generated by plot.py at 2018-06-30 00:22:04
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.95 Mbit/s (16.2% utilization)
  95th percentile per-packet one-way delay: 13.022 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 1.95 Mbit/s
  95th percentile per-packet one-way delay: 13.022 ms
  Loss rate: 0.05%
Run 8: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 13.02 ms)
Run 9: Statistics of TaoVA-100x

Start at: 2018-06-30 00:04:41
End at: 2018-06-30 00:05:11

# Below is generated by plot.py at 2018-06-30 00:22:10
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.95 Mbit/s (16.2% utilization)
95th percentile per-packet one-way delay: 13.044 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 13.044 ms
Loss rate: 0.04%
Run 9: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 1.95 Mbit/s)
- Flow 1 egress (mean 1.95 Mbit/s)

Per packet one-way delay (ms)

- Flow 1 (95th percentile 13.54 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-06-30 00:14:19
End at: 2018-06-30 00:14:49

# Below is generated by plot.py at 2018-06-30 00:22:10
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.95 Mbit/s (16.2% utilization)
  95th percentile per-packet one-way delay: 13.025 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 1.95 Mbit/s
  95th percentile per-packet one-way delay: 13.025 ms
  Loss rate: 0.04%
Run 10: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 13.03 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-06-29 22:45:22
End at: 2018-06-29 22:45:52

# Below is generated by plot.py at 2018-06-30 00:22:11
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.82 Mbit/s (31.8% utilization)
  95th percentile per-packet one-way delay: 41.246 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 3.82 Mbit/s
  95th percentile per-packet one-way delay: 41.246 ms
  Loss rate: 0.12%
Run 1: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 3.83 Mbit/s)  Flow 1 egress (mean 3.82 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 41.25 ms)
Run 2: Statistics of TCP Vegas

Start at: 2018-06-29 22:55:00

# Below is generated by plot.py at 2018-06-30 00:22:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.83 Mbit/s (31.9% utilization)
95th percentile per-packet one-way delay: 41.301 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 41.301 ms
Loss rate: 0.09%
Run 2: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 3.83 Mbit/s)
Flow 1 egress (mean 3.83 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 41.30 ms)

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Run 3: Statistics of TCP Vegas

Start at: 2018-06-29 23:04:37
End at: 2018-06-29 23:05:07

# Below is generated by plot.py at 2018-06-30 00:22:16
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.82 Mbit/s (31.8% utilization)
  95th percentile per-packet one-way delay: 41.213 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 3.82 Mbit/s
  95th percentile per-packet one-way delay: 41.213 ms
  Loss rate: 0.17%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-06-29 23:14:15
End at: 2018-06-29 23:14:45

# Below is generated by plot.py at 2018-06-30 00:22:17
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.83 Mbit/s (31.9% utilization)
95th percentile per-packet one-way delay: 41.323 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 41.323 ms
Loss rate: 0.34%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas


# Below is generated by plot.py at 2018-06-30 00:22:18
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.83 Mbit/s (31.9% utilization)
95th percentile per-packet one-way delay: 41.241 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 41.241 ms
Loss rate: 0.33%
Run 5: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Time (s)

Throughput (Mbit/s)

Flow 1 ingress (mean 3.83 Mbit/s)
Flow 1 egress (mean 3.83 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 41.24 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-06-29 23:33:31
End at: 2018-06-29 23:34:01

# Below is generated by plot.py at 2018-06-30 00:22:19
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.83 Mbit/s (31.9% utilization)
95th percentile per-packet one-way delay: 41.308 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 41.308 ms
Loss rate: 0.19%
Run 6: Report of TCP Vegas — Data Link

![Graph 1: Average capacity 12.00 Mbit/s (shaded region)]

- **Flow 1 ingress (mean 3.84 Mbit/s)**
- **Flow 1 egress (mean 3.83 Mbit/s)**

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

- **Flow 1 (95th percentile 41.31 ms)**
Run 7: Statistics of TCP Vegas

Start at: 2018-06-29 23:43:09
End at: 2018-06-29 23:43:39

# Below is generated by plot.py at 2018-06-30 00:22:25
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.83 Mbit/s (31.9% utilization)
95th percentile per-packet one-way delay: 41.271 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 41.271 ms
Loss rate: 0.34%
Run 7: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 3.83 Mbit/s)  Flow 1 egress (mean 3.83 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 41.27 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-06-29 23:52:47
End at: 2018-06-29 23:53:17

# Below is generated by plot.py at 2018-06-30 00:22:26
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.82 Mbit/s (31.9% utilization)
  95th percentile per-packet one-way delay: 41.223 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 3.82 Mbit/s
  95th percentile per-packet one-way delay: 41.223 ms
  Loss rate: 0.12%
Run 8: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 3.83 Mbit/s)  Flow 1 egress (mean 3.82 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 41.22 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-06-30 00:02:25
End at: 2018-06-30 00:02:55

# Below is generated by plot.py at 2018-06-30 00:22:28
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.83 Mbit/s (31.9% utilization)
  95th percentile per-packet one-way delay: 41.300 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 3.83 Mbit/s
  95th percentile per-packet one-way delay: 41.300 ms
  Loss rate: 0.17%
Run 9: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 3.84 Mbit/s)  Flow 1 egress (mean 3.83 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 41.30 ms)
Run 10: Statistics of TCP Vegas

Start at: 2018-06-30 00:12:03
End at: 2018-06-30 00:12:33

# Below is generated by plot.py at 2018-06-30 00:22:29
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.83 Mbit/s (31.9% utilization)
95th percentile per-packet one-way delay: 41.274 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 41.274 ms
Loss rate: 0.34%
Run 10: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 3.84 Mbit/s)  Flow 1 egress (mean 3.83 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 41.27 ms)
Run 1: Statistics of Verus

Start at: 2018-06-29 22:46:30
End at: 2018-06-29 22:47:00

# Below is generated by plot.py at 2018-06-30 00:22:29
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.74 Mbit/s (14.5% utilization)
  95th percentile per-packet one-way delay: 26.297 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.74 Mbit/s
  95th percentile per-packet one-way delay: 26.297 ms
  Loss rate: 0.00%
Run 1: Report of Verus — Data Link

![Graph showing data link performance with average capacity of 12.00 Mbit/s (shaded region).](image)

- **Flow 1 ingress (mean 1.74 Mbit/s)**
- **Flow 1 egress (mean 1.74 Mbit/s)**

![Graph showing packet delay with 95th percentile of 26.30 ms.](image)
Run 2: Statistics of Verus

Start at: 2018-06-29 22:56:07
End at: 2018-06-29 22:56:37

# Below is generated by plot.py at 2018-06-30 00:22:30
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.71 Mbit/s (14.3% utilization)
  95th percentile per-packet one-way delay: 24.654 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.71 Mbit/s
  95th percentile per-packet one-way delay: 24.654 ms
  Loss rate: 0.00%
Run 2: Report of Verus — Data Link

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

- Average capacity 12.00 Mbit/s (shaded region)
- Network throughput over time with two flows: Ingress (mean 1.71 Mbit/s) and Egress (mean 1.71 Mbit/s)
- Packet delay per packet over time with 95th percentile delay of 24.65 ms
Run 3: Statistics of Verus

Start at: 2018-06-29 23:05:45
End at: 2018-06-29 23:06:15

# Below is generated by plot.py at 2018-06-30 00:22:31
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.72 Mbit/s (14.3% utilization)
  95th percentile per-packet one-way delay: 24.337 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 1.72 Mbit/s
  95th percentile per-packet one-way delay: 24.337 ms
  Loss rate: 0.30%
Run 3: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.72 Mbit/s)  Flow 1 egress (mean 1.72 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 24.34 ms)
Run 4: Statistics of Verus

End at: 2018-06-29 23:15:53

# Below is generated by plot.py at 2018-06-30 00:22:32
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.37 Mbit/s (11.4% utilization)
  95th percentile per-packet one-way delay: 24.715 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.37 Mbit/s
  95th percentile per-packet one-way delay: 24.715 ms
  Loss rate: 0.00%
Run 4: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 1.37 Mbit/s)
- Flow 1 egress (mean 1.37 Mbit/s)

Per packet one-way delay (ms)

Time (s)

- Flow 1 (95th percentile 24.71 ms)
Run 5: Statistics of Verus

Start at: 2018-06-29 23:25:01
End at: 2018-06-29 23:25:31

# Below is generated by plot.py at 2018-06-30 00:22:37
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.74 Mbit/s (14.5% utilization)
95th percentile per-packet one-way delay: 24.112 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 24.112 ms
Loss rate: 0.32%
Run 5: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.74 Mbit/s)  Flow 1 egress (mean 1.74 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 24.11 ms)
Run 6: Statistics of Verus

Start at: 2018-06-29 23:34:39
End at: 2018-06-29 23:35:09

# Below is generated by plot.py at 2018-06-30 00:22:38
# Datalink statistics
-- Total of 1 flow:
 Average capacity: 12.00 Mbit/s
 Average throughput: 1.73 Mbit/s (14.4% utilization)
 95th percentile per-packet one-way delay: 23.968 ms
 Loss rate: 0.00%
-- Flow 1:
 Average throughput: 1.73 Mbit/s
 95th percentile per-packet one-way delay: 23.968 ms
 Loss rate: 0.00%
Run 6: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0  10  20  30  40  50  60  70  80  90  100

Flow 1 ingress (mean 1.73 Mbit/s)  Flow 1 egress (mean 1.73 Mbit/s)

Per packet one-way delay (ms)

0  10  20  30  40  50  60  70  80  90  100

Flow 1 (95th percentile 23.97 ms)
Run 7: Statistics of Verus

Start at: 2018-06-29 23:44:17
End at: 2018-06-29 23:44:47

# Below is generated by plot.py at 2018-06-30 00:22:41
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.40 Mbit/s (11.7% utilization)
95th percentile per-packet one-way delay: 24.968 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 24.968 ms
Loss rate: 0.17%
Run 7: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0 2 4 6 8 10 12

Time (s)

0 5 10 15 20 25 30 35

Flow 1 ingress (mean 1.40 Mbit/s)
Flow 1 egress (mean 1.40 Mbit/s)

Per packet one-way delay (ms)

10 20 30 40 50 60 70

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 24.97 ms)
Run 8: Statistics of Verus

End at: 2018-06-29 23:54:25

# Below is generated by plot.py at 2018-06-30 00:22:41
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.42 Mbit/s (11.8% utilization)
  95th percentile per-packet one-way delay: 23.597 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.42 Mbit/s
  95th percentile per-packet one-way delay: 23.597 ms
  Loss rate: 0.00%
Run 8: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 1.42 Mbit/s)
- Flow 1 egress (mean 1.42 Mbit/s)

Per packet one-way delay (ms)

- Flow 1 (95th percentile 23.60 ms)
Run 9: Statistics of Verus

Start at: 2018-06-30 00:03:33
End at: 2018-06-30 00:04:03

# Below is generated by plot.py at 2018-06-30 00:22:42
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.73 Mbit/s (14.4% utilization)
95th percentile per-packet one-way delay: 24.910 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 24.910 ms
Loss rate: 0.02%
Run 9: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.73 Mbit/s)  Flow 1 egress (mean 1.73 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 24.91 ms)
Run 10: Statistics of Verus

Start at: 2018-06-30 00:13:11
End at: 2018-06-30 00:13:41

# Below is generated by plot.py at 2018-06-30 00:22:43
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.72 Mbit/s (14.3% utilization)
  95th percentile per-packet one-way delay: 24.023 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.72 Mbit/s
  95th percentile per-packet one-way delay: 24.023 ms
  Loss rate: 0.00%
Run 10: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.72 Mbit/s)  Flow 1 egress (mean 1.72 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 24.02 ms)
Run 1: Statistics of PCC-Vivace


# Below is generated by plot.py at 2018-06-30 00:22:45
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.44 Mbit/s (12.0% utilization)
  95th percentile per-packet one-way delay: 12.103 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 1.44 Mbit/s
  95th percentile per-packet one-way delay: 12.103 ms
  Loss rate: 0.03%
Run 1: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.44 Mbit/s)  Flow 1 egress (mean 1.44 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 12.10 ms)
Run 2: Statistics of PCC-Vivace

End at: 2018-06-29 22:52:06

# Below is generated by plot.py at 2018-06-30 00:22:45
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.43 Mbit/s (11.9% utilization)
  95th percentile per-packet one-way delay: 12.112 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 1.43 Mbit/s
  95th percentile per-packet one-way delay: 12.112 ms
  Loss rate: 0.03%
Run 2: Report of PCC-Vivace — Data Link
Run 3: Statistics of PCC-Vivace

Start at: 2018-06-29 23:01:13
End at: 2018-06-29 23:01:43

# Below is generated by plot.py at 2018-06-30 00:22:50
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.43 Mbit/s (11.9% utilization)
95th percentile per-packet one-way delay: 12.091 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 12.091 ms
Loss rate: 0.03%
Run 3: Report of PCC-Vivace — Data Link

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

Average capacity 12.00 Mbit/s (shaded region)

- **Flow 1 ingress**: mean 1.43 Mbit/s
- **Flow 1 egress**: mean 1.43 Mbit/s

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

- **Flow 1**: 95th percentile 12.09 ms
Run 4: Statistics of PCC-Vivace

Start at: 2018-06-29 23:10:51
End at: 2018-06-29 23:11:21

# Below is generated by plot.py at 2018-06-30 00:22:51
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.40 Mbit/s (11.6% utilization)
  95th percentile per-packet one-way delay: 12.136 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 1.40 Mbit/s
  95th percentile per-packet one-way delay: 12.136 ms
  Loss rate: 0.05%
Run 4: Report of PCC-Vivace — Data Link

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

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 1.40 Mbit/s)
- Flow 1 egress (mean 1.40 Mbit/s)

![Graph showing packet delay distribution.](image)

Flow 1 (95th percentile 12.14 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2018-06-29 23:20:29
End at: 2018-06-29 23:20:59

# Below is generated by plot.py at 2018-06-30 00:22:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.44 Mbit/s (12.0% utilization)
  95th percentile per-packet one-way delay: 12.062 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 1.44 Mbit/s
  95th percentile per-packet one-way delay: 12.062 ms
  Loss rate: 0.05%
Run 5: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.44 Mbit/s)  Flow 1 egress (mean 1.44 Mbit/s)

Flow 1 (95th percentile 12.06 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-06-29 23:30:07
End at: 2018-06-29 23:30:37

# Below is generated by plot.py at 2018-06-30 00:22:55
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.43 Mbit/s (11.9% utilization)
  95th percentile per-packet one-way delay: 12.094 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 1.43 Mbit/s
  95th percentile per-packet one-way delay: 12.094 ms
  Loss rate: 0.03%
Run 6: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0  5  10  15  20  25  30  35

Time (s)

Flow 1 ingress (mean 1.43 Mbit/s)  Flow 1 egress (mean 1.43 Mbit/s)

Per-packet one-way delay (ms)

10  12  14  16  18  20

Time (s)

Flow 1 (95th percentile 12.09 ms)
Run 7: Statistics of PCC-Vivace

Start at: 2018-06-29 23:39:45
End at: 2018-06-29 23:40:15

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.44 Mbit/s (12.0% utilization)
95th percentile per-packet one-way delay: 12.112 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 12.112 ms
Loss rate: 0.05%
Run 7: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.44 Mbit/s)  Flow 1 egress (mean 1.44 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 12.11 ms)
Run 8: Statistics of PCC-Vivace


# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.42 Mbit/s (11.8% utilization)
  95th percentile per-packet one-way delay: 12.076 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 1.42 Mbit/s
  95th percentile per-packet one-way delay: 12.076 ms
  Loss rate: 0.03%
Run 8: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 1.42 Mbit/s)  Flow 1 egress (mean 1.42 Mbit/s)

Per packet delivery delay (ms)

Flow 1 (95th percentile 12.08 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-06-29 23:59:01
End at: 2018-06-29 23:59:31

# Below is generated by plot.py at 2018-06-30 00:22:58
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.43 Mbit/s (11.9% utilization)
95th percentile per-packet one-way delay: 12.070 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 12.070 ms
Loss rate: 0.02%
Run 9: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 1.43 Mbit/s)
- Flow 1 egress (mean 1.43 Mbit/s)

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

- Flow 1 (95th percentile 12.07 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-06-30 00:08:39
End at: 2018-06-30 00:09:09

# Below is generated by plot.py at 2018-06-30 00:22:59
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.45 Mbit/s (12.1% utilization)
95th percentile per-packet one-way delay: 12.105 ms
Loss rate: 0.03%

-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 12.105 ms
Loss rate: 0.03%
Run 10: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.45 Mbit/s)  Flow 1 egress (mean 1.45 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 12.11 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-06-29 22:48:45
End at: 2018-06-29 22:49:15

# Below is generated by plot.py at 2018-06-30 00:23:04
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.93 Mbit/s (16.1% utilization)
95th percentile per-packet one-way delay: 15.403 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 15.403 ms
Loss rate: 0.08%
Run 1: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.94 Mbit/s)  Flow 1 egress (mean 1.93 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 15.40 ms)
Run 2: Statistics of WebRTC media

End at: 2018-06-29 22:58:53

# Below is generated by plot.py at 2018-06-30 00:23:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.94 Mbit/s (16.2% utilization)
95th percentile per-packet one-way delay: 15.407 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 15.407 ms
Loss rate: 0.03%
Run 2: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.94 Mbit/s)  Flow 1 egress (mean 1.94 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 15.41 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-06-29 23:08:01
End at: 2018-06-29 23:08:31

# Below is generated by plot.py at 2018-06-30 00:23:08
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.93 Mbit/s (16.1% utilization)
95th percentile per-packet one-way delay: 15.459 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 15.459 ms
Loss rate: 0.07%
Run 3: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 1.93 Mbit/s)  Flow 1 egress (mean 1.93 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 15.46 ms)
Run 4: Statistics of WebRTC media

Start at: 2018-06-29 23:17:39
End at: 2018-06-29 23:18:09

# Below is generated by plot.py at 2018-06-30 00:23:09
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.95 Mbit/s (16.3% utilization)
  95th percentile per-packet one-way delay: 15.269 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 1.95 Mbit/s
  95th percentile per-packet one-way delay: 15.269 ms
  Loss rate: 0.07%
Run 4: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 15.27 ms)
Run 5: Statistics of WebRTC media

End at: 2018-06-29 23:27:47

# Below is generated by plot.py at 2018-06-30 00:23:11
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.95 Mbit/s (16.2% utilization)
95th percentile per-packet one-way delay: 15.192 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 15.192 ms
Loss rate: 0.06%
Run 5: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 1.95 Mbit/s)  Flow 1 egress (mean 1.95 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 15.19 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-06-29 23:36:55
End at: 2018-06-29 23:37:25

# Below is generated by plot.py at 2018-06-30 00:23:11
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.90 Mbit/s (15.8% utilization)
95th percentile per-packet one-way delay: 15.350 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 15.350 ms
Loss rate: 0.06%
Run 6: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

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

Packet per packet delay (ms)

Time (s)

Flow 1 (95th percentile 15.33 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-06-29 23:46:33
End at: 2018-06-29 23:47:03

# Below is generated by plot.py at 2018-06-30 00:23:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.92 Mbit/s (16.0% utilization)
95th percentile per-packet one-way delay: 15.328 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 15.328 ms
Loss rate: 0.04%
Run 7: Report of WebRTC media — Data Link

Average capacity 12.00 Mb/s (shaded region)

Flow 1 ingress (mean 1.92 Mb/s)  Flow 1 egress (mean 1.92 Mb/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 15.33 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-06-29 23:56:11
End at: 2018-06-29 23:56:41

# Below is generated by plot.py at 2018-06-30 00:23:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.92 Mbit/s (16.0% utilization)
95th percentile per-packet one-way delay: 15.308 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 15.308 ms
Loss rate: 0.08%
Run 8: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.92 Mbit/s)  Flow 1 egress (mean 1.92 Mbit/s)

Per packet delivery delay (ms)

Time (s)

Flow 1 (95th percentile 15.31 ms)

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Run 9: Statistics of WebRTC media

Start at: 2018-06-30 00:05:49
End at: 2018-06-30 00:06:19

# Below is generated by plot.py at 2018-06-30 00:23:14
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.12 Mbit/s (17.7% utilization)
95th percentile per-packet one-way delay: 15.606 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 15.606 ms
Loss rate: 0.07%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-06-30 00:15:27
End at: 2018-06-30 00:15:57

# Below is generated by plot.py at 2018-06-30 00:23:14
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.91 Mbit/s (16.0% utilization)
  95th percentile per-packet one-way delay: 15.309 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 1.91 Mbit/s
  95th percentile per-packet one-way delay: 15.309 ms
  Loss rate: 0.07%
Run 10: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.92 Mbit/s)  Flow 1 egress (mean 1.91 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 15.31 ms)

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