Pantheon Report

Generated at 2018-06-30 00:28:09 (UTC).
Tested in mahimahi: `mm-delay 30 mm-link 12mbps.trace 12mbps.trace
--uplink-queue=droptail --uplink-queue-args=bytes=90000`
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 @ 715dc5f09d17e419699f6f6f17f1cb4c45064f212
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 30060ab034deb3424347f5cc3dbb86198eac35d2a
third_party/genericCC @ d0153f8e594aa89e93b032143cedbde5e8e562f4
third_party/indigo @ 2601c92e4aa9d58d38d4dfe0ecd6f90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaaab4a906ce6bb7cfc3f
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3ccff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c6a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baef86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9d9d4735770d143a1fa2851
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>
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<tr>
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<td>11.69</td>
<td>88.97</td>
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<tr>
<td>Copa</td>
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<td>11.13</td>
<td>50.08</td>
<td>0.15</td>
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<tr>
<td>TCP Cubic</td>
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<td>11.93</td>
<td>88.56</td>
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<tr>
<td>FillP</td>
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<td>11.85</td>
<td>90.68</td>
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<tr>
<td>FillP-Sheep</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Indigo</td>
<td>10</td>
<td>11.52</td>
<td>39.55</td>
<td>0.13</td>
</tr>
<tr>
<td>LEDBAT</td>
<td>10</td>
<td>10.91</td>
<td>89.12</td>
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<tr>
<td>PCC-Allegro</td>
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<td>9.69</td>
<td>36.95</td>
<td>0.94</td>
</tr>
<tr>
<td>PCC-Expr</td>
<td>10</td>
<td>10.85</td>
<td>83.80</td>
<td>0.68</td>
</tr>
<tr>
<td>QUIC Cubic</td>
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<td>11.78</td>
<td>89.41</td>
<td>0.91</td>
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<tr>
<td>SCReAM</td>
<td>10</td>
<td>0.21</td>
<td>31.60</td>
<td>0.10</td>
</tr>
<tr>
<td>Sprout</td>
<td>10</td>
<td>4.73</td>
<td>55.05</td>
<td>0.13</td>
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<tr>
<td>TaoVA-100x</td>
<td>10</td>
<td>11.51</td>
<td>32.84</td>
<td>0.53</td>
</tr>
<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>11.93</td>
<td>38.28</td>
<td>0.24</td>
</tr>
<tr>
<td>Verus</td>
<td>10</td>
<td>10.90</td>
<td>88.01</td>
<td>19.21</td>
</tr>
<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>10.93</td>
<td>40.13</td>
<td>0.14</td>
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<tr>
<td>WebRTC media</td>
<td>10</td>
<td>2.16</td>
<td>36.03</td>
<td>0.14</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR


# Below is generated by plot.py at 2018-06-30 00:20:21
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.70 Mbit/s (97.5% utilization)
  95th percentile per-packet one-way delay: 88.869 ms
  Loss rate: 2.25%
-- Flow 1:
  Average throughput: 11.70 Mbit/s
  95th percentile per-packet one-way delay: 88.869 ms
  Loss rate: 2.25%
Run 1: Report of TCP BBR — Data Link

![Graph showing throughput and packet delay over time]

- Average capacity 12.00 Mbit/s (shaded region)
- Flow 1 ingress (mean 11.95 Mbit/s)
- Flow 1 egress (mean 11.70 Mbit/s)

![Graph showing packet delay over time]

- Flow 1 (95th percentile 88.57 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-06-29 22:58:07
End at: 2018-06-29 22:58:37

# Below is generated by plot.py at 2018-06-30 00:20:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.69 Mbit/s (97.4% utilization)
  95th percentile per-packet one-way delay: 89.055 ms
  Loss rate: 2.33%
-- Flow 1:
  Average throughput: 11.69 Mbit/s
  95th percentile per-packet one-way delay: 89.055 ms
  Loss rate: 2.33%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2018-06-29 23:07:53
End at: 2018-06-29 23:08:23

# Below is generated by plot.py at 2018-06-30 00:20:25
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.69 Mbit/s (97.4% utilization)
  95th percentile per-packet one-way delay: 88.799 ms
  Loss rate: 2.26%
-- Flow 1:
  Average throughput: 11.69 Mbit/s
  95th percentile per-packet one-way delay: 88.799 ms
  Loss rate: 2.26%
Run 3: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.95 Mbit/s)  Flow 1 egress (mean 11.69 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 88.50 ms)
Run 4: Statistics of TCP BBR

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 00:20:25
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.69 Mbit/s (97.4% utilization)
95th percentile per-packet one-way delay: 88.889 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 88.889 ms
Loss rate: 2.30%
Run 4: Report of TCP BBR — Data Link

![Graph of TCP BBR data link performance with throughput and packet delay over time.]

Average capacity 12.00 Mbit/s (shaded region)

- **Flow 1 ingress (mean 11.96 Mbit/s)**
- **Flow 1 egress (mean 11.69 Mbit/s)**

![Graph of packet oneway delay over time.]

- **Flow 1 (95th percentile 88.59 ms)**
Run 5: Statistics of TCP BBR


# Below is generated by plot.py at 2018-06-30 00:20:25
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.69 Mbit/s (97.5% utilization)
95th percentile per-packet one-way delay: 89.028 ms
Loss rate: 2.23%
-- Flow 1:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 89.028 ms
Loss rate: 2.23%
Run 5: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.95 Mbit/s)  Flow 1 egress (mean 11.69 Mbit/s)

Per-packet on-way delay (ms)

Time (s)

Flow 1 (95th percentile 89.03 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-06-29 23:37:12
End at: 2018-06-29 23:37:42

# Below is generated by plot.py at 2018-06-30 00:20:25
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.69 Mbit/s (97.4% utilization)
  95th percentile per-packet one-way delay: 89.061 ms
  Loss rate: 2.21%
-- Flow 1:
  Average throughput: 11.69 Mbit/s
  95th percentile per-packet one-way delay: 89.061 ms
  Loss rate: 2.21%
Run 6: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.94 Mbit/s)  Flow 1 egress (mean 11.69 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 89.06 ms)
Run 7: Statistics of TCP BBR

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

# Below is generated by plot.py at 2018-06-30 00:20:25
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.69 Mbit/s (97.5% utilization)
  95th percentile per-packet one-way delay: 89.079 ms
  Loss rate: 2.32%
-- Flow 1:
  Average throughput: 11.69 Mbit/s
  95th percentile per-packet one-way delay: 89.079 ms
  Loss rate: 2.32%
Run 7: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.96 Mbit/s)  Flow 1 egress (mean 11.69 Mbit/s)

Packet on way delay (ms)

Flow 1 (95th percentile 89.08 ms)
Run 8: Statistics of TCP BBR

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 00:20:25
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.69 Mbit/s (97.4% utilization)
  95th percentile per-packet one-way delay: 89.039 ms
  Loss rate: 2.23%
-- Flow 1:
  Average throughput: 11.69 Mbit/s
  95th percentile per-packet one-way delay: 89.039 ms
  Loss rate: 2.23%
Run 8: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 11.94 Mbit/s)
- Flow 1 egress (mean 11.69 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 89.04 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-06-30 00:06:33
End at: 2018-06-30 00:07:03

# Below is generated by plot.py at 2018-06-30 00:20:39
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.69 Mbit/s (97.4% utilization)
95th percentile per-packet one-way delay: 88.958 ms
Loss rate: 2.26%
-- Flow 1:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 88.958 ms
Loss rate: 2.26%
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 11.95 Mbit/s)  Flow 1 egress (mean 11.69 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 88.96 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-06-30 00:16:20
End at: 2018-06-30 00:16:50

# Below is generated by plot.py at 2018-06-30 00:20:40
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.70 Mbit/s (97.5% utilization)
  95th percentile per-packet one-way delay: 88.918 ms
  Loss rate: 2.24%
-- Flow 1:
  Average throughput: 11.70 Mbit/s
  95th percentile per-packet one-way delay: 88.918 ms
  Loss rate: 2.24%
Run 10: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.95 Mbit/s)  Flow 1 egress (mean 11.70 Mbit/s)

Per-packet oneway delay (ms)

Time (s)

Flow 1 (95th percentile 88.92 ms)
Run 1: Statistics of Copa

Start at: 2018-06-29 22:44:51
End at: 2018-06-29 22:45:21

# 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: 11.16 Mbit/s (93.0% utilization)
95th percentile per-packet one-way delay: 49.422 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 11.16 Mbit/s
95th percentile per-packet one-way delay: 49.422 ms
Loss rate: 0.12%
Run 1: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.17 Mbit/s)  Flow 1 egress (mean 11.16 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 49.42 ms)
Run 2: Statistics of Copa

Start at: 2018-06-29 22:54:40

# Below is generated by plot.py at 2018-06-30 00:20:55
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.03 Mbit/s (91.9% utilization)
  95th percentile per-packet one-way delay: 51.757 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 11.03 Mbit/s
  95th percentile per-packet one-way delay: 51.757 ms
  Loss rate: 0.13%
Run 2: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.03 Mbit/s)  Flow 1 egress (mean 11.03 Mbit/s)

End-to-end delay (ms)

Flow 1 (95th percentile 51.76 ms)
Run 3: Statistics of Copa

Start at: 2018-06-29 23:04:26
End at: 2018-06-29 23:04:56

# Below is generated by plot.py at 2018-06-30 00:20:56
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.18 Mbit/s (93.1% utilization)
  95th percentile per-packet one-way delay: 49.972 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 11.18 Mbit/s
  95th percentile per-packet one-way delay: 49.972 ms
  Loss rate: 0.13%
Run 3: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 11.18 Mbit/s)  Flow 1 egress (mean 11.18 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 49.97 ms)
Run 4: Statistics of Copa

Start at: 2018-06-29 23:14:12
End at: 2018-06-29 23:14:42

# Below is generated by plot.py at 2018-06-30 00:20:57
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.21 Mbit/s (93.4% utilization)
95th percentile per-packet one-way delay: 46.749 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 46.749 ms
Loss rate: 0.15%
Run 4: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput vs Time

Flow 1 ingress (mean 11.22 Mbit/s)  Flow 1 egress (mean 11.21 Mbit/s)

Per-packet error delay (ms)

Flow 1 (95th percentile 46.75 ms)
Run 5: Statistics of Copa

End at: 2018-06-29 23:24:28

# 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: 11.50 Mbit/s (95.8% utilization)
   95th percentile per-packet one-way delay: 42.242 ms
   Loss rate: 0.12%
-- Flow 1:
   Average throughput: 11.50 Mbit/s
   95th percentile per-packet one-way delay: 42.242 ms
   Loss rate: 0.12%
Run 5: Report of Copa — Data Link

![Throughput Graph]

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 11.50 Mbit/s)
- Flow 1 egress (mean 11.50 Mbit/s)

![Delay Graph]

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

- Flow 1 (95th percentile 42.24 ms)
Run 6: Statistics of Copa

Start at: 2018-06-29 23:33:45
End at: 2018-06-29 23:34:15

# 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: 11.01 Mbit/s (91.7% utilization)
95th percentile per-packet one-way delay: 56.550 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 11.01 Mbit/s
95th percentile per-packet one-way delay: 56.550 ms
Loss rate: 0.40%
Run 7: Statistics of Copa

End at: 2018-06-29 23:44:02

# 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: 11.03 Mbit/s (91.9% utilization)
95th percentile per-packet one-way delay: 52.167 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 11.03 Mbit/s
95th percentile per-packet one-way delay: 52.167 ms
Loss rate: 0.09%
Run 7: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Time (s)

Throughput (Mbit/s)

Flow 1 ingress (mean 11.02 Mbit/s)  Flow 1 egress (mean 11.03 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 52.17 ms)
Run 8: Statistics of Copa

Start at: 2018-06-29 23:53:18
End at: 2018-06-29 23:53:49

# 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: 10.88 Mbit/s (90.6% utilization)
  95th percentile per-packet one-way delay: 52.799 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 10.88 Mbit/s
  95th percentile per-packet one-way delay: 52.799 ms
  Loss rate: 0.13%
Run 8: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s) vs Time (s)

Flow 1 ingress (mean 10.88 Mbit/s)  Flow 1 egress (mean 10.88 Mbit/s)

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

Flow 1 (95th percentile 52.80 ms)
Run 9: Statistics of Copa

Start at: 2018-06-30 00:03:06
End at: 2018-06-30 00:03:36

# 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: 10.91 Mbit/s (90.9% utilization)
95th percentile per-packet one-way delay: 53.123 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 53.123 ms
Loss rate: 0.13%
Run 9: Report of Copa — Data Link

Average capacity 12.00 Mb/s (shaded region)

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 10.91 Mb/s)  Flow 1 egress (mean 10.91 Mb/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 53.12 ms)
Run 10: Statistics of Copa

Start at: 2018-06-30 00:12:53
End at: 2018-06-30 00:13:23

# 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: 11.42 Mbit/s (95.1% utilization)
95th percentile per-packet one-way delay: 46.063 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 11.42 Mbit/s
95th percentile per-packet one-way delay: 46.063 ms
Loss rate: 0.11%
Run 10: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.42 Mbit/s)  Flow 1 egress (mean 11.42 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 46.06 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-06-29 22:44:17
End at: 2018-06-29 22:44:47

# 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: 11.93 Mbit/s (99.4% utilization)
  95th percentile per-packet one-way delay: 88.594 ms
  Loss rate: 0.32%
-- Flow 1:
  Average throughput: 11.93 Mbit/s
  95th percentile per-packet one-way delay: 88.594 ms
  Loss rate: 0.32%
Run 1: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0  2  4  6  8  10  12
0  5  10  15  20  25  30  35
Time (s)

- Flow 1 ingress (mean 11.95 Mbit/s)
- Flow 1 egress (mean 11.93 Mbit/s)

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

0  30  60  90
0  5  10  15  20  25  30
Time (s)

Flow 1 (95th percentile 88.59 ms)
Run 2: Statistics of TCP Cubic

Start at: 2018-06-29 22:54:06
End at: 2018-06-29 22:54:36

# 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: 11.92 Mbit/s (99.3% utilization)
95th percentile per-packet one-way delay: 88.491 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 88.491 ms
Loss rate: 0.54%
Run 2: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.97 Mbit/s)  Flow 1 egress (mean 11.92 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 88.49 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-06-29 23:03:52
End at: 2018-06-29 23:04:22

# 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: 11.93 Mbit/s (99.4% utilization)
95th percentile per-packet one-way delay: 88.630 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 11.93 Mbit/s
95th percentile per-packet one-way delay: 88.630 ms
Loss rate: 0.48%
Run 3: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 11.97 Mbit/s)  Flow 1 egress (mean 11.93 Mbit/s)

Per packet delivery delay (ms)

Time (s)

Flow 1 (95th percentile 88.63 ms)
Run 4: Statistics of TCP Cubic

End at: 2018-06-29 23:14:08

# 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: 11.93 Mbit/s (99.4% utilization)
  95th percentile per-packet one-way delay: 88.630 ms
  Loss rate: 0.48%
-- Flow 1:
  Average throughput: 11.93 Mbit/s
  95th percentile per-packet one-way delay: 88.630 ms
  Loss rate: 0.48%
Run 4: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.97 Mbit/s)  Flow 1 egress (mean 11.93 Mbit/s)

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

Flow 1 (95th percentile 88.63 ms)
Run 5: Statistics of TCP Cubic

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

# Below is generated by plot.py at 2018-06-30 00:21:40
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.92 Mbit/s (99.3% utilization)
95th percentile per-packet one-way delay: 88.345 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 88.345 ms
Loss rate: 0.43%
Run 5: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.96 Mbit/s)  Flow 1 egress (mean 11.92 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 88.34 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-06-29 23:33:10
End at: 2018-06-29 23:33:40

# Below is generated by plot.py at 2018-06-30 00:21:40
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.93 Mbit/s (99.4% utilization)
  95th percentile per-packet one-way delay: 88.824 ms
  Loss rate: 0.29%
-- Flow 1:
  Average throughput: 11.93 Mbit/s
  95th percentile per-packet one-way delay: 88.824 ms
  Loss rate: 0.29%
Run 6: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.95 Mbit/s)  Flow 1 egress (mean 11.93 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 88.52 ms)
Run 7: Statistics of TCP Cubic

End at: 2018-06-29 23:43:27

# 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: 11.92 Mbit/s (99.3% utilization)
95th percentile per-packet one-way delay: 88.367 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 88.367 ms
Loss rate: 0.35%
Run 7: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.95 Mbit/s)  Flow 1 egress (mean 11.92 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 88.37 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-06-29 23:52:44
End at: 2018-06-29 23:53:14

# Below is generated by plot.py at 2018-06-30 00:21:42
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.93 Mbit/s (99.4% utilization)
  95th percentile per-packet one-way delay: 88.906 ms
  Loss rate: 0.46%
-- Flow 1:
  Average throughput: 11.93 Mbit/s
  95th percentile per-packet one-way delay: 88.906 ms
  Loss rate: 0.46%
Run 8: Report of TCP Cubic — Data Link

![Graph showing throughput over time with shaded regions and line graphs for average capacity and flow ingress/egress.]

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.97 Mbit/s)  Flow 1 egress (mean 11.93 Mbit/s)

![Graph showing packet delay over time with line graph for flow 1 (95th percentile 88.91 ms).]
Run 9: Statistics of TCP Cubic

Start at: 2018-06-30 00:02:31
End at: 2018-06-30 00:03:01

# Below is generated by plot.py at 2018-06-30 00:21:43
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.93 Mbit/s (99.4% utilization)
  95th percentile per-packet one-way delay: 88.605 ms
  Loss rate: 0.46%
-- Flow 1:
  Average throughput: 11.93 Mbit/s
  95th percentile per-packet one-way delay: 88.605 ms
  Loss rate: 0.46%
Run 9: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.97 Mbit/s)  Flow 1 egress (mean 11.93 Mbit/s)

Flow 1 (95th percentile 88.61 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-06-30 00:12:18
End at: 2018-06-30 00:12:48

# Below is generated by plot.py at 2018-06-30 00:21:43
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.92 Mbit/s (99.3% utilization)
  95th percentile per-packet one-way delay: 88.172 ms
  Loss rate: 0.54%
-- Flow 1:
  Average throughput: 11.92 Mbit/s
  95th percentile per-packet one-way delay: 88.172 ms
  Loss rate: 0.54%
Run 10: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.97 Mbit/s)  Flow 1 egress (mean 11.92 Mbit/s)

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

Flow 1 (95th percentile 88.17 ms)
Run 1: Statistics of FillP

Start at: 2018-06-29 22:50:01
End at: 2018-06-29 22:50:31

# 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: 11.88 Mbit/s (99.0% utilization)
  95th percentile per-packet one-way delay: 90.711 ms
  Loss rate: 17.50%
-- Flow 1:
  Average throughput: 11.88 Mbit/s
  95th percentile per-packet one-way delay: 90.711 ms
  Loss rate: 17.50%
Run 1: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 14.39 Mbit/s)  Flow 1 egress (mean 11.88 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 90.71 ms)
Run 2: Statistics of FillP

Start at: 2018-06-29 22:59:50
End at: 2018-06-29 23:00:20

# 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: 11.71 Mbit/s (97.5% utilization)
95th percentile per-packet one-way delay: 90.665 ms
Loss rate: 5.55%
-- Flow 1:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 90.665 ms
Loss rate: 5.55%
Run 2: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 12.38 Mbit/s)  Flow 1 egress (mean 11.71 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 90.67 ms)
Run 3: Statistics of FillP

Start at: 2018-06-29 23:09:36
End at: 2018-06-29 23:10:06

# Below is generated by plot.py at 2018-06-30 00:22:07
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.88 Mbit/s (99.0% utilization)
  95th percentile per-packet one-way delay: 90.715 ms
  Loss rate: 16.71%
-- Flow 1:
  Average throughput: 11.88 Mbit/s
  95th percentile per-packet one-way delay: 90.715 ms
  Loss rate: 16.71%
Run 3: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- **Flow 1 ingress** (mean 14.25 Mbit/s)
- **Flow 1 egress** (mean 11.88 Mbit/s)

Packet egress one-way delay (ms)

- **Flow 1 (95th percentile 90.72 ms)**
Run 4: Statistics of FillP

End at: 2018-06-29 23:19:52

# Below is generated by plot.py at 2018-06-30 00:22:07
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.82 Mbit/s (98.5% utilization)
95th percentile per-packet one-way delay: 90.663 ms
Loss rate: 5.77%
-- Flow 1:
Average throughput: 11.82 Mbit/s
95th percentile per-packet one-way delay: 90.663 ms
Loss rate: 5.77%
Run 4: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 12.53 Mbit/s)  Flow 1 egress (mean 11.82 Mbit/s)

Per packet oneway delay (ms)

Time (s)

Flow 1 (95th percentile 90.66 ms)
Run 5: Statistics of FillP

Start at: 2018-06-29 23:29:08
End at: 2018-06-29 23:29:38

# Below is generated by plot.py at 2018-06-30 00:22:08
# 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: 90.621 ms
  Loss rate: 5.45%
-- Flow 1:
  Average throughput: 11.83 Mbit/s
  95th percentile per-packet one-way delay: 90.621 ms
  Loss rate: 5.45%
Run 5: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 12.50 Mbit/s)  Flow 1 egress (mean 11.83 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 90.62 ms)
Run 6: Statistics of FillP

Start at: 2018-06-29 23:38:55  
End at: 2018-06-29 23:39:25

# 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: 11.88 Mbit/s (99.0% utilization)
95th percentile per-packet one-way delay: 90.708 ms
Loss rate: 16.62%
-- Flow 1:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 90.708 ms
Loss rate: 16.62%
Run 6: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 14.23 Mbit/s)  Flow 1 egress (mean 11.88 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 90.71 ms)
Run 7: Statistics of FillP

End at: 2018-06-29 23:49:12

# 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: 11.82 Mbit/s (98.5% utilization)
  95th percentile per-packet one-way delay: 90.659 ms
  Loss rate: 5.62%
-- Flow 1:
  Average throughput: 11.82 Mbit/s
  95th percentile per-packet one-way delay: 90.659 ms
  Loss rate: 5.62%
Run 7: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 12.51 Mbit/s)  Flow 1 egress (mean 11.82 Mbit/s)

Per packet on-way delay (ms)

Time (s)

Flow 1 (95th percentile 90.66 ms)
Run 8: Statistics of FillP

Start at: 2018-06-29 23:58:28
End at: 2018-06-29 23:58:59

# 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: 11.88 Mbit/s (99.0% utilization)
  95th percentile per-packet one-way delay: 90.676 ms
  Loss rate: 16.59%
-- Flow 1:
  Average throughput: 11.88 Mbit/s
  95th percentile per-packet one-way delay: 90.676 ms
  Loss rate: 16.59%
Run 8: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0 0 20 40 60 80 100 120

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

Flow 1 ingress (mean 14.23 Mbit/s) Flow 1 egress (mean 11.88 Mbit/s)

Per-packet one-way delay (ms)

30 40 50 60 70 80 90 100

Time (s) 0 5 10 15 20 25 30

Flow 1 (95th percentile 90.68 ms)
Run 9: Statistics of FillP

Start at: 2018-06-30 00:08:16
End at: 2018-06-30 00:08:46

# 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: 11.88 Mbit/s (99.0% utilization)
  95th percentile per-packet one-way delay: 90.677 ms
  Loss rate: 16.83%
-- Flow 1:
  Average throughput: 11.88 Mbit/s
  95th percentile per-packet one-way delay: 90.677 ms
  Loss rate: 16.83%
Run 9: Report of FillP — Data Link

![Graph showing network performance metrics](image)

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

- **Flow 1 ingress** (mean 14.27 Mbit/s)
- **Flow 1 egress** (mean 11.88 Mbit/s)

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

- Flow 1 (95th percentile 90.68 ms)
Run 10: Statistics of FillP

Start at: 2018-06-30 00:18:03
End at: 2018-06-30 00:18:33

# 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: 11.87 Mbit/s (98.9% utilization)
95th percentile per-packet one-way delay: 90.750 ms
Loss rate: 18.59%
-- Flow 1:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 90.750 ms
Loss rate: 18.59%
Run 10: Report of FillP — Data Link

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

- **Flow 1 ingress (mean 14.57 Mbit/s)**
- **Flow 1 egress (mean 11.87 Mbit/s)**

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

- **Flow 1 (95th percentile 90.75 ms)**
Run 1: Statistics of FillP-Sheep

Start at: 2018-06-29 22:47:10
End at: 2018-06-29 22:47:40
Run 1: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (MB/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 31.70 ms)
Run 2: Statistics of FillP-Sheep

End at: 2018-06-29 22:57:29
Run 2: 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 31.61 ms)
Run 3: Statistics of FillP-Sheep

Start at: 2018-06-29 23:06:45
End at: 2018-06-29 23:07:15
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)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 31.64 ms)
Run 4: Statistics of FillP-Sheep

Start at: 2018-06-29 23:16:31
End at: 2018-06-29 23:17:01
Run 4: 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 31.57 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2018-06-29 23:26:17
End at: 2018-06-29 23:26:47
Run 5: 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)

Flow 1 (95th percentile 31.66 ms)
Run 6: Statistics of FillP-Sheep

Start at: 2018-06-29 23:36:04
End at: 2018-06-29 23:36:34
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)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 31.66 ms)
Run 7: Statistics of FillP-Sheep

Start at: 2018-06-29 23:45:50
End at: 2018-06-29 23:46:21
Run 7: 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 round-trip delay (ms)

Time (s)

Flow 1 (95th percentile 31.62 ms)
Run 8: Statistics of FillP-Sheep

End at: 2018-06-29 23:56:07
Run 8: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

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 31.59 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-06-30 00:05:25
End at: 2018-06-30 00:05:55
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 one way delay (ms)

Time (s)

Flow 1 (95th percentile 31.38 ms)
Run 10: Statistics of FillP-Sheep

Start at: 2018-06-30 00:15:12
End at: 2018-06-30 00:15:42
Run 10: Report of FillP-Sheep — Data Link

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

**Throughput (Mbps)**

**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 31.69 ms)**

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Run 1: Statistics of Indigo

End at: 2018-06-29 22:51:05

# 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: 11.90 Mbit/s (99.2% utilization)
  95th percentile per-packet one-way delay: 39.731 ms
  Loss rate: 0.14%
-- Flow 1:
  Average throughput: 11.90 Mbit/s
  95th percentile per-packet one-way delay: 39.731 ms
  Loss rate: 0.14%
Run 1: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Per-packet one-way delay (ms)

Flow 1 (95th percentile 39.73 ms)
Run 2: Statistics of Indigo

Start at: 2018-06-29 23:00:24
End at: 2018-06-29 23:00:54

# 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: 11.08 Mbit/s (92.3% utilization)
95th percentile per-packet one-way delay: 40.015 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 11.08 Mbit/s
95th percentile per-packet one-way delay: 40.015 ms
Loss rate: 0.13%
Run 2: Report of Indigo — Data Link

![Graph 1](image1.png)
Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 11.08 Mbit/s)
- Flow 1 egress (mean 11.08 Mbit/s)

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

- Flow 1 (95th percentile 40.02 ms)
Run 3: Statistics of Indigo

Start at: 2018-06-29 23:10:11
End at: 2018-06-29 23:10:41

# Below is generated by plot.py at 2018-06-30 00:22:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.74 Mbit/s (97.8% utilization)
95th percentile per-packet one-way delay: 42.316 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 42.316 ms
Loss rate: 0.12%
Run 3: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.75 Mbit/s)  Flow 1 egress (mean 11.74 Mbit/s)

Per-packet delivery delay (ms)
Flow 1 (95th percentile 42.32 ms)
Run 4: Statistics of Indigo

Start at: 2018-06-29 23:19:56
End at: 2018-06-29 23:20:27

# Below is generated by plot.py at 2018-06-30 00:22:47
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.06 Mbit/s (92.2% utilization)
  95th percentile per-packet one-way delay: 39.643 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 11.06 Mbit/s
  95th percentile per-packet one-way delay: 39.643 ms
  Loss rate: 0.13%
Run 4: Report of Indigo — 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 11.06 Mbit/s)  Flow 1 egress (mean 11.06 Mbit/s)

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

0 10 20 30 40 50 60 70 80 90

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 39.64 ms)
Run 5: Statistics of Indigo

Start at: 2018-06-29 23:29:43
End at: 2018-06-29 23:30:13

# Below is generated by plot.py at 2018-06-30 00:22:49
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.77 Mbit/s (98.1% utilization)
95th percentile per-packet one-way delay: 35.506 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 35.506 ms
Loss rate: 0.13%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

End at: 2018-06-29 23:39:59

# Below is generated by plot.py at 2018-06-30 00:22:49
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.08 Mbit/s (92.4% utilization)
95th percentile per-packet one-way delay: 41.368 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 11.08 Mbit/s
95th percentile per-packet one-way delay: 41.368 ms
Loss rate: 0.12%
Run 6: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.09 Mbit/s)  Flow 1 egress (mean 11.08 Mbit/s)

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

Flow 1 (95th percentile 41.37 ms)
Run 7: Statistics of Indigo

Start at: 2018-06-29 23:49:16
End at: 2018-06-29 23:49:46

# Below is generated by plot.py at 2018-06-30 00:22:52
# 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: 35.712 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 35.712 ms
Loss rate: 0.13%
Run 7: Report of Indigo — Data Link
Run 8: Statistics of Indigo

Start at: 2018-06-29 23:59:03
End at: 2018-06-29 23:59:33

# Below is generated by plot.py at 2018-06-30 00:22:53
# 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: 39.885 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 11.86 Mbit/s
  95th percentile per-packet one-way delay: 39.885 ms
  Loss rate: 0.15%
Run 8: Report of Indigo — Data Link
Run 9: Statistics of Indigo

Start at: 2018-06-30 00:08:50
End at: 2018-06-30 00:09:20

# Below is generated by plot.py at 2018-06-30 00:23:03
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.13 Mbit/s (92.7% utilization)
95th percentile per-packet one-way delay: 41.988 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 41.988 ms
Loss rate: 0.13%
Run 9: Report of Indigo — Data Link

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

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.13 Mbit/s)  Flow 1 egress (mean 11.13 Mbit/s)

Flow 1 (95th percentile 41.99 ms)
Run 10: Statistics of Indigo

Start at: 2018-06-30 00:18:37
End at: 2018-06-30 00:19:07

# 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: 11.78 Mbit/s (98.1% utilization)
95th percentile per-packet one-way delay: 39.333 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 39.333 ms
Loss rate: 0.13%
Run 10: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.78 Mbit/s)  Flow 1 egress (mean 11.78 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 39.33 ms)
Run 1: Statistics of LEDBAT


# 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: 10.97 Mbit/s (91.4% utilization)
95th percentile per-packet one-way delay: 89.208 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 10.97 Mbit/s
95th percentile per-packet one-way delay: 89.208 ms
Loss rate: 0.28%
Run 1: Report of LEDBAT — 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 10.99 Mbit/s)  Flow 1 egress (mean 10.97 Mbit/s)

Per packet one way delay (ms)

0 5 10 15 20 25 30

Time (s)

Flow 1 (95th percentile 89.21 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-06-29 22:58:41
End at: 2018-06-29 22:59:11

# 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: 10.86 Mbit/s (90.5% utilization)
  95th percentile per-packet one-way delay: 89.086 ms
  Loss rate: 0.21%
-- Flow 1:
  Average throughput: 10.86 Mbit/s
  95th percentile per-packet one-way delay: 89.086 ms
  Loss rate: 0.21%
Run 2: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 10.87 Mbit/s)  Flow 1 egress (mean 10.86 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 89.09 ms)
Run 3: Statistics of LEDBAT

Start at: 2018-06-29 23:08:28
End at: 2018-06-29 23:08:58

# Below is generated by plot.py at 2018-06-30 00:23:10
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.97 Mbit/s (91.4% utilization)
95th percentile per-packet one-way delay: 89.101 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 10.97 Mbit/s
95th percentile per-packet one-way delay: 89.101 ms
Loss rate: 0.27%
Run 3: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 10.99 Mbit/s)  Flow 1 egress (mean 10.97 Mbit/s)

Per-packet oneway delay (ms)

Flow 1 (95th percentile 89.10 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-06-29 23:18:14
End at: 2018-06-29 23:18:44

# 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: 10.86 Mbit/s (90.5% utilization)
95th percentile per-packet one-way delay: 89.146 ms
Loss rate: 0.20%

-- Flow 1:
Average throughput: 10.86 Mbit/s
95th percentile per-packet one-way delay: 89.146 ms
Loss rate: 0.20%
Run 4: Report of LEDBAT — Data Link

![Graph 1: Average capacity 12.00 Mbit/s (shaded region)]
- Flow 1 ingress (mean 10.87 Mbit/s)
- Flow 1 egress (mean 10.86 Mbit/s)

![Graph 2: Per-packet end-to-end delay (ms)]
- Flow 1 (95th percentile 89.15 ms)
Run 5: Statistics of LEDBAT

Start at: 2018-06-29 23:28:00
End at: 2018-06-29 23:28:30

# 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: 10.86 Mbit/s (90.5% utilization)
  95th percentile per-packet one-way delay: 89.072 ms
  Loss rate: 0.21%
-- Flow 1:
  Average throughput: 10.86 Mbit/s
  95th percentile per-packet one-way delay: 89.072 ms
  Loss rate: 0.21%
Run 5: Report of LEDBAT — 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 10.87 Mbit/s)  Flow 1 egress (mean 10.86 Mbit/s)

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

0 5 10 15 20 25 30 35

Time (s)

Flow 1 (95th percentile 89.07 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-06-29 23:37:46
End at: 2018-06-29 23:38:16

# Below is generated by plot.py at 2018-06-30 00:23:16
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.96 Mbit/s (91.3% utilization)
  95th percentile per-packet one-way delay: 89.128 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 10.96 Mbit/s
  95th percentile per-packet one-way delay: 89.128 ms
  Loss rate: 0.27%
Run 6: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.98 Mbit/s)  Flow 1 egress (mean 10.96 Mbit/s)

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

Flow 1 (95th percentile 89.13 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-06-29 23:47:33
End at: 2018-06-29 23:48:03

# Below is generated by plot.py at 2018-06-30 00:23:26
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.86 Mbit/s (90.6% utilization)
  95th percentile per-packet one-way delay: 89.119 ms
  Loss rate: 0.21%
-- Flow 1:
  Average throughput: 10.86 Mbit/s
  95th percentile per-packet one-way delay: 89.119 ms
  Loss rate: 0.21%
Run 7: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.87 Mbit/s)  Flow 1 egress (mean 10.86 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 89.12 ms)
Run 8: Statistics of LEDBAT

End at: 2018-06-29 23:57:50

# Below is generated by plot.py at 2018-06-30 00:23:29
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.09 Mbit/s (92.4% utilization)
  95th percentile per-packet one-way delay: 89.168 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 11.09 Mbit/s
  95th percentile per-packet one-way delay: 89.168 ms
  Loss rate: 0.30%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

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

# Below is generated by plot.py at 2018-06-30 00:23:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.86 Mbit/s (90.5% utilization)
95th percentile per-packet one-way delay: 89.089 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 10.86 Mbit/s
95th percentile per-packet one-way delay: 89.089 ms
Loss rate: 0.21%
Run 9: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 10.87 Mbit/s)
- Flow 1 egress (mean 10.86 Mbit/s)

Per-packet oneway delay (ms)

- Flow 1 (95th percentile 89.09 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-06-30 00:16:54
End at: 2018-06-30 00:17:24

# Below is generated by plot.py at 2018-06-30 00:23:32
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.86 Mbit/s (90.5% utilization)
  95th percentile per-packet one-way delay: 89.108 ms
  Loss rate: 0.21%
-- Flow 1:
  Average throughput: 10.86 Mbit/s
  95th percentile per-packet one-way delay: 89.108 ms
  Loss rate: 0.21%
Run 10: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 10.87 Mbit/s)  Flow 1 egress (mean 10.86 Mbit/s)

Per-packet on-way delay (ms)

Flow 1 (95th percentile 89.11 ms)
Run 1: Statistics of PCC-Allegro

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

# Below is generated by plot.py at 2018-06-30 00:23:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.86 Mbit/s (82.2% utilization)
95th percentile per-packet one-way delay: 43.595 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 9.86 Mbit/s
95th percentile per-packet one-way delay: 43.595 ms
Loss rate: 0.79%
Run 1: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 9.93 Mbit/s)  Flow 1 egress (mean 9.86 Mbit/s)

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

Flow 1 (95th percentile 43.59 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-06-29 22:51:10
End at: 2018-06-29 22:51:40

# Below is generated by plot.py at 2018-06-30 00:23:35
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.09 Mbit/s (84.1% utilization)
  95th percentile per-packet one-way delay: 34.775 ms
  Loss rate: 0.94%
-- Flow 1:
  Average throughput: 10.09 Mbit/s
  95th percentile per-packet one-way delay: 34.775 ms
  Loss rate: 0.94%
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 10.17 Mbit/s)  Flow 1 egress (mean 10.09 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 34.77 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-06-29 23:00:59
End at: 2018-06-29 23:01:29

# Below is generated by plot.py at 2018-06-30 00:23:35
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 7.91 Mbit/s (65.9% utilization)
95th percentile per-packet one-way delay: 32.377 ms
Loss rate: 1.28%

-- Flow 1:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 32.377 ms
Loss rate: 1.28%
Run 3: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 8.01 Mbit/s)  Flow 1 egress (mean 7.91 Mbit/s)

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

Flow 1 (95th percentile 32.38 ms)
Run 4: Statistics of PCC-Allegro

Start at: 2018-06-29 23:10:45
End at: 2018-06-29 23:11:15

# Below is generated by plot.py at 2018-06-30 00:23:38
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.35 Mbit/s (77.9% utilization)
95th percentile per-packet one-way delay: 32.663 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 32.663 ms
Loss rate: 0.92%
Run 4: Report of PCC-Allegro — Data Link

![Graph showing average capacity and throughput over time with a shaded region indicating the average capacity of 12 Mbit/s.]

- Flow 1 ingress (mean: 9.42 Mbit/s)
- Flow 1 egress (mean: 9.35 Mbit/s)

![Graph showing per-packet end-to-end delay over time with a marker indicating the 95th percentile delay of 32.66 ms.]

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Run 5: Statistics of PCC-Allegro

Start at: 2018-06-29 23:20:31
End at: 2018-06-29 23:21:01

# Below is generated by plot.py at 2018-06-30 00:23:50
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.51 Mbit/s (87.6% utilization)
95th percentile per-packet one-way delay: 35.299 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 10.51 Mbit/s
95th percentile per-packet one-way delay: 35.299 ms
Loss rate: 0.74%
Run 5: Report of PCC-Allegro — Data Link
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-29 23:30:17
End at: 2018-06-29 23:30:47

# Below is generated by plot.py at 2018-06-30 00:23:50
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 8.64 Mbit/s (72.0% utilization)
95th percentile per-packet one-way delay: 32.582 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 32.582 ms
Loss rate: 1.22%
Run 6: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 8.74 Mbit/s)  Flow 1 egress (mean 8.64 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 32.58 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-06-29 23:40:04
End at: 2018-06-29 23:40:34

# Below is generated by plot.py at 2018-06-30 00:23:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.68 Mbit/s (80.7% utilization)
95th percentile per-packet one-way delay: 32.845 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 9.68 Mbit/s
95th percentile per-packet one-way delay: 32.845 ms
Loss rate: 0.94%
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 9.76 Mbit/s)  Flow 1 egress (mean 9.68 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 32.84 ms)
Run 8: Statistics of PCC-Allegro

Start at: 2018-06-29 23:49:51
End at: 2018-06-29 23:50:21

# Below is generated by plot.py at 2018-06-30 00:23:55
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.56 Mbit/s (88.0% utilization)
  95th percentile per-packet one-way delay: 53.319 ms
  Loss rate: 0.84%
-- Flow 1:
  Average throughput: 10.56 Mbit/s
  95th percentile per-packet one-way delay: 53.319 ms
  Loss rate: 0.84%
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-29 23:59:38
End at: 2018-06-30 00:00:08

# Below is generated by plot.py at 2018-06-30 00:23:55
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.12 Mbit/s (76.0% utilization)
95th percentile per-packet one-way delay: 32.664 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 9.12 Mbit/s
95th percentile per-packet one-way delay: 32.664 ms
Loss rate: 0.82%
Run 10: Statistics of PCC-Allegro

Start at: 2018-06-30 00:09:25
End at: 2018-06-30 00:09:55

# Below is generated by plot.py at 2018-06-30 00:23:57
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.20 Mbit/s (93.3% utilization)
95th percentile per-packet one-way delay: 39.375 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 11.20 Mbit/s
95th percentile per-packet one-way delay: 39.375 ms
Loss rate: 0.88%
Run 10: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (MB/s)

Time (s)

Flow 1 ingress (mean 11.29 Mbit/s)  Flow 1 egress (mean 11.20 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 39.38 ms)
Run 1: Statistics of PCC-Expr

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

# Below is generated by plot.py at 2018-06-30 00:24:05
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.81 Mbit/s (90.1% utilization)
95th percentile per-packet one-way delay: 84.126 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 10.81 Mbit/s
95th percentile per-packet one-way delay: 84.126 ms
Loss rate: 0.20%
Run 1: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

0 2 4 6 8 10 12

Time (s)

Flow 1 ingress (mean 10.82 Mbit/s)  Flow 1 egress (mean 10.81 Mbit/s)

Packet oneway delay (ms)

0 20 40 60 80 100

Time (s)

Flow 1 (95th percentile 84.13 ms)
Run 2: Statistics of PCC-Expr

End at: 2018-06-29 22:56:20

# Below is generated by plot.py at 2018-06-30 00:24:08
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.77 Mbit/s (89.7% utilization)
95th percentile per-packet one-way delay: 90.339 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 10.77 Mbit/s
95th percentile per-packet one-way delay: 90.339 ms
Loss rate: 0.61%
Run 2: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.82 Mbit/s)  Flow 1 egress (mean 10.77 Mbit/s)

Per-packet on-way delay (ms)

Flow 1 (95th percentile 90.34 ms)
Run 3: Statistics of PCC-Expr

Start at: 2018-06-29 23:05:36
End at: 2018-06-29 23:06:06

# Below is generated by plot.py at 2018-06-30 00:24:21
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.57 Mbit/s (88.1% utilization)
95th percentile per-packet one-way delay: 90.553 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 10.57 Mbit/s
95th percentile per-packet one-way delay: 90.553 ms
Loss rate: 0.90%
Run 3: Report of PCC-Expr — Data Link
Run 4: Statistics of PCC-Expr

Start at: 2018-06-29 23:15:22
End at: 2018-06-29 23:15:52

# Below is generated by plot.py at 2018-06-30 00:24:23
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.11 Mbit/s (92.6% utilization)
95th percentile per-packet one-way delay: 71.569 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 11.11 Mbit/s
95th percentile per-packet one-way delay: 71.569 ms
Loss rate: 0.21%
Run 4: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.12 Mbit/s)  Flow 1 egress (mean 11.11 Mbit/s)

Per-packet on-way delay (ms)

Time (s)

Flow 1 (95th percentile 71.57 ms)
Run 5: Statistics of PCC-Expr

Start at: 2018-06-29 23:25:08
End at: 2018-06-29 23:25:38

# Below is generated by plot.py at 2018-06-30 00:24:25
# Datalink statistics
-- Total of 1 flow:
   Average capacity: 12.00 Mbit/s
   Average throughput: 10.85 Mbit/s (90.4% utilization)
   95th percentile per-packet one-way delay: 66.816 ms
   Loss rate: 0.25%
-- Flow 1:
   Average throughput: 10.85 Mbit/s
   95th percentile per-packet one-way delay: 66.816 ms
   Loss rate: 0.25%
Run 5: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 10.87 Mbit/s)  Flow 1 egress (mean 10.85 Mbit/s)

Packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 66.52 ms)

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Run 6: Statistics of PCC-Expr

Start at: 2018-06-29 23:34:54
End at: 2018-06-29 23:35:24

# Below is generated by plot.py at 2018-06-30 00:24:26
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.79 Mbit/s (89.9% utilization)
95th percentile per-packet one-way delay: 85.132 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 10.79 Mbit/s
95th percentile per-packet one-way delay: 85.132 ms
Loss rate: 0.19%
Run 7: Statistics of PCC-Expr

Start at: 2018-06-29 23:44:41
End at: 2018-06-29 23:45:11

# Below is generated by plot.py at 2018-06-30 00:24:27
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.90 Mbit/s (90.9% utilization)
  95th percentile per-packet one-way delay: 89.388 ms
  Loss rate: 0.47%
-- Flow 1:
  Average throughput: 10.90 Mbit/s
  95th percentile per-packet one-way delay: 89.388 ms
  Loss rate: 0.47%
Run 7: 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 10.95 Mbit/s)  Flow 1 egress (mean 10.90 Mbit/s)

Packet delivery one way delay (ms)

0  30  60  90  120  150  180  210  240  270  300  330  360  390  420
Time (s)

Flow 1 (95th percentile 89.39 ms)
Run 8: Statistics of PCC-Expr

Start at: 2018-06-29 23:54:28
End at: 2018-06-29 23:54:58

# Below is generated by plot.py at 2018-06-30 00:24:30
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.09 Mbit/s (92.4% utilization)
95th percentile per-packet one-way delay: 91.136 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 11.09 Mbit/s
95th percentile per-packet one-way delay: 91.136 ms
Loss rate: 1.94%
Run 8: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 11.29 Mbit/s)  Flow 1 egress (mean 11.09 Mbit/s)

Packet on-way delay (ms)

Time (s)

Flow 1 (95th percentile 91.14 ms)
Run 9: Statistics of PCC-Expr

Start at: 2018-06-30 00:04:15
End at: 2018-06-30 00:04:45

# Below is generated by plot.py at 2018-06-30 00:24:40
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.95 Mbit/s (91.2% utilization)
  95th percentile per-packet one-way delay: 78.065 ms
  Loss rate: 0.59%
-- Flow 1:
  Average throughput: 10.95 Mbit/s
  95th percentile per-packet one-way delay: 78.065 ms
  Loss rate: 0.59%
Run 9: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)
0 2 4 6 8 10 12 14 16
0 5 10 15 20 25 30 35
Time (s)

Flow 1 ingress (mean 11.00 Mbit/s)  Flow 1 egress (mean 10.95 Mbit/s)

Per-packet end-to-end delay (ms)
30 40 50 60 70 80 90
0 5 10 15 20 25 30
Time (s)

Flow 1 (95th percentile 78.06 ms)
Run 10: Statistics of PCC-Expr

Start at: 2018-06-30 00:14:02  
End at: 2018-06-30 00:14:32

# Below is generated by plot.py at 2018-06-30 00:24:45  
# Datalink statistics

-- Total of 1 flow:  
Average capacity: 12.00 Mbit/s  
Average throughput: 10.61 Mbit/s (88.4% utilization)  
95th percentile per-packet one-way delay: 90.910 ms  
Loss rate: 1.45%  
-- Flow 1:  
Average throughput: 10.61 Mbit/s  
95th percentile per-packet one-way delay: 90.910 ms  
Loss rate: 1.45%
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 10.75 Mbit/s)  Flow 1 egress (mean 10.61 Mbit/s)

Per packet oneway delay (ms)

Time (s)

Flow 1 (95th percentile 90.91 ms)

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Run 1: Statistics of QUIC Cubic

End at: 2018-06-29 22:47:05

# Below is generated by plot.py at 2018-06-30 00:24:45
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.78 Mbit/s (98.2% utilization)
95th percentile per-packet one-way delay: 89.245 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 89.245 ms
Loss rate: 0.88%
Run 1: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.88 Mbit/s)  Flow 1 egress (mean 11.78 Mbit/s)

Per-packet oneway delay (ms)

Flow 1 (95th percentile 89.25 ms)
Run 2: Statistics of QUIC Cubic

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

# Below is generated by plot.py at 2018-06-30 00:24:47
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.78 Mbit/s (98.2% utilization)
  95th percentile per-packet one-way delay: 89.340 ms
  Loss rate: 0.86%
-- Flow 1:
  Average throughput: 11.78 Mbit/s
  95th percentile per-packet one-way delay: 89.340 ms
  Loss rate: 0.86%
Run 2: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.87 Mbit/s)  Flow 1 egress (mean 11.78 Mbit/s)

Packet on-way delay (ms)

Time (s)

Flow 1 (95th percentile 89.34 ms)
Run 3: Statistics of QUIC Cubic

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

# Below is generated by plot.py at 2018-06-30 00:24:49
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.78 Mbit/s (98.2% utilization)
  95th percentile per-packet one-way delay: 89.449 ms
  Loss rate: 0.97%
-- Flow 1:
  Average throughput: 11.78 Mbit/s
  95th percentile per-packet one-way delay: 89.449 ms
  Loss rate: 0.97%
Run 3: Report of QUIC Cubic — Data Link
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 00:24:49
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.79 Mbit/s (98.2% utilization)
  95th percentile per-packet one-way delay: 89.385 ms
  Loss rate: 0.93%
-- Flow 1:
  Average throughput: 11.79 Mbit/s
  95th percentile per-packet one-way delay: 89.385 ms
  Loss rate: 0.93%
Run 4: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 11.89 Mbit/s)
- Flow 1 egress (mean 11.79 Mbit/s)

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

- Flow 1 (95th percentile 88.39 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-06-29 23:25:43
End at: 2018-06-29 23:26:13

# Below is generated by plot.py at 2018-06-30 00:24:52
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.78 Mbit/s (98.2% utilization)
95th percentile per-packet one-way delay: 89.417 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 89.417 ms
Loss rate: 0.93%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-06-29 23:35:29
End at: 2018-06-29 23:35:59

# Below is generated by plot.py at 2018-06-30 00:24:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.77 Mbit/s (98.1% utilization)
95th percentile per-packet one-way delay: 89.538 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 89.538 ms
Loss rate: 0.91%
Run 6: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.87 Mbit/s)  Flow 1 egress (mean 11.77 Mbit/s)

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

Flow 1 (95th percentile 89.54 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-06-29 23:45:16
End at: 2018-06-29 23:45:46

# Below is generated by plot.py at 2018-06-30 00:25:10
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.77 Mbit/s (98.1% utilization)
  95th percentile per-packet one-way delay: 89.478 ms
  Loss rate: 0.90%
-- Flow 1:
  Average throughput: 11.77 Mbit/s
  95th percentile per-packet one-way delay: 89.478 ms
  Loss rate: 0.90%
Run 7: Report of QUIC Cubic — Data Link

![Graph showing throughput over time with average capacity at 12.00 Mbps (shaded region).](image1)

Flow 1 ingress (mean 11.87 Mbps)  Flow 1 egress (mean 11.77 Mbps)

![Graph showing per packet delivery delay over time.](image2)

Flow 1 (95th percentile 89.48 ms)
Run 8: Statistics of QUIC Cubic


# Below is generated by plot.py at 2018-06-30 00:25:12
# Datalink statistics
-- Total of 1 flow:
 Average capacity: 12.00 Mbit/s
 Average throughput: 11.79 Mbit/s (98.2% utilization)
 95th percentile per-packet one-way delay: 89.413 ms
 Loss rate: 0.91%
-- Flow 1:
 Average throughput: 11.79 Mbit/s
 95th percentile per-packet one-way delay: 89.413 ms
 Loss rate: 0.91%
Run 8: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.88 Mbit/s)  Flow 1 egress (mean 11.79 Mbit/s)

Per packet oneway delay (ms)

Time (s)

Flow 1 (95th percentile 89.41 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-06-30 00:04:50
End at: 2018-06-30 00:05:20

# Below is generated by plot.py at 2018-06-30 00:25:12
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.78 Mbit/s (98.2% utilization)
  95th percentile per-packet one-way delay: 89.414 ms
  Loss rate: 0.89%
-- Flow 1:
  Average throughput: 11.78 Mbit/s
  95th percentile per-packet one-way delay: 89.414 ms
  Loss rate: 0.89%
Run 9: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 11.87 Mbit/s)  Flow 1 egress (mean 11.78 Mbit/s)

Time (s)

Per packet one way delay (ms)

Flow 1 (95th percentile 89.41 ms)

Time (s)
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-30 00:14:37
End at: 2018-06-30 00:15:07

# Below is generated by plot.py at 2018-06-30 00:25:13
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.78 Mbit/s (98.2% utilization)
95th percentile per-packet one-way delay: 89.372 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 89.372 ms
Loss rate: 0.94%
Run 10: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.88 Mbit/s)  Flow 1 egress (mean 11.78 Mbit/s)

Packet oneway delay (ms)

Time (s)

Flow 1 (95th percentile 89.37 ms)
Run 1: Statistics of SCReAM


# Below is generated by plot.py at 2018-06-30 00:25:13
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.618 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.618 ms
  Loss rate: 0.13%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-06-29 22:59:16
End at: 2018-06-29 22:59:46

# Below is generated by plot.py at 2018-06-30 00:25:13
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.594 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.594 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-06-29 23:09:02
End at: 2018-06-29 23:09:32

# Below is generated by plot.py at 2018-06-30 00:25:13
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.624 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.624 ms
  Loss rate: 0.13%
Run 3: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Per packet one way delay (ms)

Flow 1 (95th percentile 31.62 ms)
Run 4: Statistics of SCReAM

End at: 2018-06-29 23:19:18

# Below is generated by plot.py at 2018-06-30 00:25:13
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.593 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.593 ms
  Loss rate: 0.13%
Run 4: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 31.59 ms)
Run 5: Statistics of SCReAM

Start at: 2018-06-29 23:28:34
End at: 2018-06-29 23:29:04

# Below is generated by plot.py at 2018-06-30 00:25:13
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.586 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.586 ms
  Loss rate: 0.13%
Run 5: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per Packet One Way delay (ms)

Time (s)

Flow 1 (95th percentile 31.59 ms)
Run 6: Statistics of SCReAM

Start at: 2018-06-29 23:38:21
End at: 2018-06-29 23:38:51

# Below is generated by plot.py at 2018-06-30 00:25:13
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.602 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.602 ms
Loss rate: 0.13%
Run 6: Report of SCReAM — Data Link

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

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

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

- **Flow 1 (95th percentile 31.60 ms)**

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Run 7: Statistics of SCReAM

Start at: 2018-06-29 23:48:08
End at: 2018-06-29 23:48:38

# Below is generated by plot.py at 2018-06-30 00:25:13
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.600 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.600 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 31.60 ms)
Run 8: Statistics of SCReAM

Start at: 2018-06-29 23:57:54
End at: 2018-06-29 23:58:25

# Below is generated by plot.py at 2018-06-30 00:25:14
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.590 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.590 ms
Loss rate: 0.13%
Run 8: Report of SCReAM — Data Link

- Average capacity 12.00 Mbit/s (shaded region)
- Flow 1 ingress (mean 0.21 Mbit/s)
- Flow 1 egress (mean 0.21 Mbit/s)

- Per-packet end-to-end delay vs. time
- Flow 1 (95th percentile 31.59 ms)

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Run 9: Statistics of SCReAM

Start at: 2018-06-30 00:07:42
End at: 2018-06-30 00:08:12

# Below is generated by plot.py at 2018-06-30 00:25:16
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.626 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.626 ms
Loss rate: 0.13%
Run 9: Report of SCReAM — Data Link

![Diagram showing data throughput and packet delay]

Average capacity 12.00 Mbit/s (shaded region)

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

Per-packet one-way delay (ms)

- **Flow 1 (95th percentile 31.63 ms)**
Run 10: Statistics of SCReAM

Start at: 2018-06-30 00:17:29
End at: 2018-06-30 00:17:59

# Below is generated by plot.py at 2018-06-30 00:25:17
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.599 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.599 ms
  Loss rate: 0.13%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of Sprout


# Below is generated by plot.py at 2018-06-30 00:25:22
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.59 Mbit/s (38.3% utilization)
  95th percentile per-packet one-way delay: 53.802 ms
  Loss rate: 0.08%
-- Flow 1:
  Average throughput: 4.59 Mbit/s
  95th percentile per-packet one-way delay: 53.802 ms
  Loss rate: 0.08%
Run 1: Report of Sprout — Data Link

![Graph showing throughput and delay]

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 4.60 Mbit/s)
- Flow 1 egress (mean 4.59 Mbit/s)

Packet on way delay (ms)

Flow 1 (95th percentile 53.80 ms)
Run 2: Statistics of Sprout

Start at: 2018-06-29 22:51:45
End at: 2018-06-29 22:52:15

# Below is generated by plot.py at 2018-06-30 00:25:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.94 Mbit/s (41.2% utilization)
  95th percentile per-packet one-way delay: 55.741 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 4.94 Mbit/s
  95th percentile per-packet one-way delay: 55.741 ms
  Loss rate: 0.13%
Run 2: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.94 Mbit/s)  Flow 1 egress (mean 4.94 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 55.74 ms)
Run 3: Statistics of Sprout

Start at: 2018-06-29 23:01:33
End at: 2018-06-29 23:02:03

# Below is generated by plot.py at 2018-06-30 00:25:27
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.54 Mbit/s (37.8% utilization)
95th percentile per-packet one-way delay: 54.920 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 4.54 Mbit/s
95th percentile per-packet one-way delay: 54.920 ms
Loss rate: 0.08%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2018-06-29 23:11:19
End at: 2018-06-29 23:11:49

# Below is generated by plot.py at 2018-06-30 00:25:29
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.79 Mbit/s (40.0% utilization)
95th percentile per-packet one-way delay: 55.652 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 55.652 ms
Loss rate: 0.05%
Run 4: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.79 Mbit/s)  Flow 1 egress (mean 4.79 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 55.65 ms)
Run 5: Statistics of Sprout

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

# Below is generated by plot.py at 2018-06-30 00:25:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.02 Mbit/s (41.8% utilization)
95th percentile per-packet one-way delay: 55.401 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 5.02 Mbit/s
95th percentile per-packet one-way delay: 55.401 ms
Loss rate: 0.24%
Run 5: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 5.03 Mbit/s)  Flow 1 egress (mean 5.02 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 55.40 ms)
Run 6: Statistics of Sprout

Start at: 2018-06-29 23:30:52

# Below is generated by plot.py at 2018-06-30 00:25:31
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.57 Mbit/s (38.1% utilization)
  95th percentile per-packet one-way delay: 54.628 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 4.57 Mbit/s
  95th percentile per-packet one-way delay: 54.628 ms
  Loss rate: 0.15%
Run 6: Report of Sprout — 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 4.57 Mbit/s)  Flow 1 egress (mean 4.57 Mbit/s)

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

30 35 40 45 50 55 60 65 70

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 54.63 ms)
Run 7: Statistics of Sprout

Start at: 2018-06-29 23:40:38
End at: 2018-06-29 23:41:09

# Below is generated by plot.py at 2018-06-30 00:25:32
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.73 Mbit/s (39.4% utilization)
  95th percentile per-packet one-way delay: 54.790 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 4.73 Mbit/s
  95th percentile per-packet one-way delay: 54.790 ms
  Loss rate: 0.13%
Run 8: Statistics of Sprout

Start at: 2018-06-29 23:50:25
End at: 2018-06-29 23:50:55

# Below is generated by plot.py at 2018-06-30 00:25:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.04 Mbit/s (42.0% utilization)
95th percentile per-packet one-way delay: 56.944 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 5.04 Mbit/s
95th percentile per-packet one-way delay: 56.944 ms
Loss rate: 0.15%
Run 8: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 5.05 Mbit/s)  Flow 1 egress (mean 5.04 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 56.94 ms)
Run 9: Statistics of Sprout

Start at: 2018-06-30 00:00:12
End at: 2018-06-30 00:00:42

# Below is generated by plot.py at 2018-06-30 00:25:38
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.54 Mbit/s (37.8% utilization)
  95th percentile per-packet one-way delay: 54.621 ms
  Loss rate: 0.14%
-- Flow 1:
  Average throughput: 4.54 Mbit/s
  95th percentile per-packet one-way delay: 54.621 ms
  Loss rate: 0.14%
Run 9: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Time (s)

Throughput (Mbit/s)

Flow 1 ingress (mean 4.55 Mbit/s)
Flow 1 egress (mean 4.54 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 54.62 ms)
Run 10: Statistics of Sprout

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

# Below is generated by plot.py at 2018-06-30 00:25:39
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.54 Mbit/s (37.8% utilization)
  95th percentile per-packet one-way delay: 53.956 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 4.54 Mbit/s
  95th percentile per-packet one-way delay: 53.956 ms
  Loss rate: 0.17%
Run 10: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 4.55 Mbit/s)  Flow 1 egress (mean 4.54 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 53.96 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-06-29 22:43:42
End at: 2018-06-29 22:44:12

# Below is generated by plot.py at 2018-06-30 00:26:01
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.51 Mbit/s (95.9% utilization)
  95th percentile per-packet one-way delay: 32.793 ms
  Loss rate: 0.60%
-- Flow 1:
  Average throughput: 11.51 Mbit/s
  95th percentile per-packet one-way delay: 32.793 ms
  Loss rate: 0.60%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

End at: 2018-06-29 22:54:01

# Below is generated by plot.py at 2018-06-30 00:26:02
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.51 Mbit/s (96.0% utilization)
95th percentile per-packet one-way delay: 32.794 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 32.794 ms
Loss rate: 0.15%
Run 2: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.52 Mbit/s)  Flow 1 egress (mean 11.51 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 32.79 ms)

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Run 3: Statistics of TaoVA-100x

Start at: 2018-06-29 23:03:17
End at: 2018-06-29 23:03:47

# Below is generated by plot.py at 2018-06-30 00:26:05
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.53 Mbit/s (96.1% utilization)
95th percentile per-packet one-way delay: 32.996 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 11.53 Mbit/s
95th percentile per-packet one-way delay: 32.996 ms
Loss rate: 0.60%
Run 3: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.59 Mbit/s)  Flow 1 egress (mean 11.53 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 33.00 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-06-29 23:13:03

# Below is generated by plot.py at 2018-06-30 00:26:05
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.50 Mbit/s (95.8% utilization)
  95th percentile per-packet one-way delay: 32.792 ms
  Loss rate: 0.72%
-- Flow 1:
  Average throughput: 11.50 Mbit/s
  95th percentile per-packet one-way delay: 32.792 ms
  Loss rate: 0.72%
Run 4: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.57 Mbit/s)  Flow 1 egress (mean 11.50 Mbit/s)

Packet-on-way delay (ms)

Per-packet on-way delay (ms)

Time (s)

Flow 1 (95th percentile 32.79 ms)
Run 5: Statistics of TaoVA-100x

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

# Below is generated by plot.py at 2018-06-30 00:26:07
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.51 Mbit/s (95.9% utilization)
95th percentile per-packet one-way delay: 32.795 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 32.795 ms
Loss rate: 0.59%
Run 5: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.56 Mbit/s)  Flow 1 egress (mean 11.51 Mbit/s)

Per-packet oneway delay (ms)

Time (s)

Flow 1 (95th percentile 32.80 ms)
Run 6: Statistics of TaoVA-100x

End at: 2018-06-29 23:33:05

# Below is generated by plot.py at 2018-06-30 00:26:08
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.52 Mbit/s (96.0% utilization)
95th percentile per-packet one-way delay: 32.809 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 11.52 Mbit/s
95th percentile per-packet one-way delay: 32.809 ms
Loss rate: 0.15%
Run 6: Report of TaoVA-100x — Data Link

![Graph showing throughput and packet loss over time]

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

- **Flow 1 ingress (mean 11.52 Mbit/s)**
- **Flow 1 egress (mean 11.52 Mbit/s)**

![Graph showing packet loss over time]

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

- **Flow 1 (95th percentile 32.81 ms)**

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Run 7: Statistics of TaoVA-100x

End at: 2018-06-29 23:42:52

# Below is generated by plot.py at 2018-06-30 00:26:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.51 Mbit/s (95.9% utilization)
95th percentile per-packet one-way delay: 32.811 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 32.811 ms
Loss rate: 0.60%
Run 7: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 11.57 Mbit/s)
- Flow 1 egress (mean 11.51 Mbit/s)

![Graph showing packet delay over time.]

- Flow 1 (95th percentile 32.81 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-06-29 23:52:09
End at: 2018-06-29 23:52:39

# Below is generated by plot.py at 2018-06-30 00:26:13
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.52 Mbit/s (96.0% utilization)
95th percentile per-packet one-way delay: 32.831 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 11.52 Mbit/s
95th percentile per-packet one-way delay: 32.831 ms
Loss rate: 0.59%
Run 8: Report of TaoVA-100x — Data Link

![Graph of throughput over time](image1)

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 11.58 Mbit/s)
- Flow 1 egress (mean 11.52 Mbit/s)

![Graph of packet latency over time](image2)

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

- Flow 1 (95th percentile 32.83 ms)
Run 9: Statistics of TaoVA-100x

Start at: 2018-06-30 00:01:56
End at: 2018-06-30 00:02:26

# Below is generated by plot.py at 2018-06-30 00:26:37
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.53 Mbit/s (96.1% utilization)
  95th percentile per-packet one-way delay: 32.969 ms
  Loss rate: 0.60%
-- Flow 1:
  Average throughput: 11.53 Mbit/s
  95th percentile per-packet one-way delay: 32.969 ms
  Loss rate: 0.60%
Run 9: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.59 Mbit/s)  Flow 1 egress (mean 11.53 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 32.87 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-06-30 00:11:43
End at: 2018-06-30 00:12:13

# Below is generated by plot.py at 2018-06-30 00:26:38
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.49 Mbit/s (95.7% utilization)
  95th percentile per-packet one-way delay: 32.813 ms
  Loss rate: 0.72%
-- Flow 1:
  Average throughput: 11.49 Mbit/s
  95th percentile per-packet one-way delay: 32.813 ms
  Loss rate: 0.72%
Run 10: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- **Flow 1 ingress** (mean 11.56 Mbit/s)
- **Flow 1 egress** (mean 11.49 Mbit/s)

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

- **Flow 1** (95th percentile 32.81 ms)
Run 1: Statistics of TCP Vegas

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

# Below is generated by plot.py at 2018-06-30 00:26:38
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.92 Mbit/s (99.4% utilization)
95th percentile per-packet one-way delay: 38.749 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 38.749 ms
Loss rate: 0.24%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

End at: 2018-06-29 22:55:45

# Below is generated by plot.py at 2018-06-30 00:26:38
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.93 Mbit/s (99.4% utilization)
95th percentile per-packet one-way delay: 38.935 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 11.93 Mbit/s
95th percentile per-packet one-way delay: 38.935 ms
Loss rate: 0.25%
Run 2: Report of TCP Vegas — Data Link

Average capacity 12.00 Mb/s (shaded region)

Throughput (Mb/s)

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

- Flow 1 ingress (mean 11.94 Mb/s)
- Flow 1 egress (mean 11.93 Mb/s)

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

0  10  20  30  40  50  60  70  80  90
Time (s)

Flow 1 (95th percentile 38.94 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-06-29 23:05:01
End at: 2018-06-29 23:05:31

# Below is generated by plot.py at 2018-06-30 00:26:38
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.92 Mbit/s (99.4% utilization)
  95th percentile per-packet one-way delay: 38.314 ms
  Loss rate: 0.24%
-- Flow 1:
  Average throughput: 11.92 Mbit/s
  95th percentile per-packet one-way delay: 38.314 ms
  Loss rate: 0.24%
Run 3: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.94 Mbit/s)  Flow 1 egress (mean 11.92 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 38.31 ms)
Run 4: Statistics of TCP Vegas

End at: 2018-06-29 23:15:17

# Below is generated by plot.py at 2018-06-30 00:26:38
# Datalink statistics
--- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.93 Mbit/s (99.4% utilization)
95th percentile per-packet one-way delay: 37.870 ms
Loss rate: 0.24%
--- Flow 1:
Average throughput: 11.93 Mbit/s
95th percentile per-packet one-way delay: 37.870 ms
Loss rate: 0.24%
Run 4: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.94 Mbit/s)
Flow 1 egress (mean 11.93 Mbit/s)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 37.87 ms)
Run 5: Statistics of TCP Vegas

Start at: 2018-06-29 23:24:33
End at: 2018-06-29 23:25:03

# Below is generated by plot.py at 2018-06-30 00:26:38
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.93 Mbit/s (99.4% utilization)
  95th percentile per-packet one-way delay: 37.775 ms
  Loss rate: 0.24%
-- Flow 1:
  Average throughput: 11.93 Mbit/s
  95th percentile per-packet one-way delay: 37.775 ms
  Loss rate: 0.24%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-06-29 23:34:20
End at: 2018-06-29 23:34:50

# Below is generated by plot.py at 2018-06-30 00:26:38
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.93 Mbit/s (99.4% utilization)
95th percentile per-packet one-way delay: 37.980 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 11.93 Mbit/s
95th percentile per-packet one-way delay: 37.980 ms
Loss rate: 0.24%
Run 6: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.94 Mbit/s)  Flow 1 egress (mean 11.93 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 37.98 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-06-29 23:44:06
End at: 2018-06-29 23:44:36

# Below is generated by plot.py at 2018-06-30 00:26:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.93 Mbit/s (99.4% utilization)
95th percentile per-packet one-way delay: 37.777 ms
Loss rate: 0.23%

-- Flow 1:
Average throughput: 11.93 Mbit/s
95th percentile per-packet one-way delay: 37.777 ms
Loss rate: 0.23%
Run 7: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 11.94 Mbit/s)  Flow 1 egress (mean 11.93 Mbit/s)

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

Flow 1 (95th percentile 37.78 ms)
Run 8: Statistics of TCP Vegas

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

# Below is generated by plot.py at 2018-06-30 00:26:48
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.93 Mbit/s (99.4% utilization)
  95th percentile per-packet one-way delay: 38.534 ms
  Loss rate: 0.24%
-- Flow 1:
  Average throughput: 11.93 Mbit/s
  95th percentile per-packet one-way delay: 38.534 ms
  Loss rate: 0.24%
Run 8: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.94 Mbit/s)  Flow 1 egress (mean 11.93 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 38.53 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-06-30 00:03:41
End at: 2018-06-30 00:04:11

# Below is generated by plot.py at 2018-06-30 00:26:49
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.92 Mbit/s (99.4% utilization)
  95th percentile per-packet one-way delay: 37.717 ms
  Loss rate: 0.23%
-- Flow 1:
  Average throughput: 11.92 Mbit/s
  95th percentile per-packet one-way delay: 37.717 ms
  Loss rate: 0.23%
Run 9: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.94 Mbit/s)  Flow 1 egress (mean 11.92 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 37.72 ms)
Run 10: Statistics of TCP Vegas

Start at: 2018-06-30 00:13:28
End at: 2018-06-30 00:13:58

# Below is generated by plot.py at 2018-06-30 00:26:51
# Datalink statistics
-- Total of 1 flow:
   Average capacity: 12.00 Mbit/s
   Average throughput: 11.92 Mbit/s (99.4% utilization)
   95th percentile per-packet one-way delay: 39.171 ms
   Loss rate: 0.25%
-- Flow 1:
   Average throughput: 11.92 Mbit/s
   95th percentile per-packet one-way delay: 39.171 ms
   Loss rate: 0.25%
Run 10: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 11.94 Mbit/s)  Flow 1 egress (mean 11.92 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 39.17 ms)
Run 1: Statistics of Verus

End at: 2018-06-29 22:43:03

# Below is generated by plot.py at 2018-06-30 00:26:57
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.40 Mbit/s (95.0% utilization)
  95th percentile per-packet one-way delay: 86.624 ms
  Loss rate: 5.17%
-- Flow 1:
  Average throughput: 11.40 Mbit/s
  95th percentile per-packet one-way delay: 86.624 ms
  Loss rate: 5.17%
Run 1: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 12.01 Mbit/s)  Flow 1 egress (mean 11.40 Mbit/s)

Per packet oneway delay (ms)

Time (s)

Flow 1 (95th percentile 86.62 ms)
Run 2: Statistics of Verus

Start at: 2018-06-29 22:52:19
End at: 2018-06-29 22:52:49

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 8.09 Mbit/s (67.4% utilization)
  95th percentile per-packet one-way delay: 91.213 ms
  Loss rate: 95.67%
-- Flow 1:
  Average throughput: 8.09 Mbit/s
  95th percentile per-packet one-way delay: 91.213 ms
  Loss rate: 95.67%
Run 2: Report of Verus — 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 187.40 Mbit/s)  Flow 1 egress (mean 8.09 Mbit/s)

Per packet one way delay (ms)

0 30 60 90

Time (s)

Flow 1 (95th percentile 91.21 ms)
Run 3: Statistics of Verus

Start at: 2018-06-29 23:02:08
End at: 2018-06-29 23:02:38

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
 Average capacity: 12.00 Mbit/s
 Average throughput: 11.66 Mbit/s (97.2% utilization)
 95th percentile per-packet one-way delay: 88.158 ms
 Loss rate: 4.05%
-- Flow 1:
 Average throughput: 11.66 Mbit/s
 95th percentile per-packet one-way delay: 88.158 ms
 Loss rate: 4.05%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

Start at: 2018-06-29 23:11:54
End at: 2018-06-29 23:12:24

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.45 Mbit/s (95.4% utilization)
95th percentile per-packet one-way delay: 87.332 ms
Loss rate: 5.26%
-- Flow 1:
Average throughput: 11.45 Mbit/s
95th percentile per-packet one-way delay: 87.332 ms
Loss rate: 5.26%
Run 4: Report of Verus — Data Link

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

- Flow 1 ingress (mean 12.07 Mbit/s)
- Flow 1 egress (mean 11.45 Mbit/s)

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

- Flow 1 (95th percentile 87.33 ms)
Run 5: Statistics of Verus

Start at: 2018-06-29 23:21:40
End at: 2018-06-29 23:22:10

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.50 Mbit/s (95.8% utilization)
  95th percentile per-packet one-way delay: 86.497 ms
  Loss rate: 5.32%
-- Flow 1:
  Average throughput: 11.50 Mbit/s
  95th percentile per-packet one-way delay: 86.497 ms
  Loss rate: 5.32%
Run 5: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s) vs Time (s)

- Flow 1 ingress (mean 12.13 Mbit/s)
- Flow 1 egress (mean 11.50 Mbit/s)

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

- Flow 1 (95th percentile 86.50 ms)
Run 6: Statistics of Verus

Start at: 2018-06-29 23:31:26
End at: 2018-06-29 23:31:56

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.64 Mbit/s (97.0% utilization)
95th percentile per-packet one-way delay: 88.191 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 11.64 Mbit/s
95th percentile per-packet one-way delay: 88.191 ms
Loss rate: 3.86%
Run 6: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 12.09 Mbit/s)  Flow 1 egress (mean 11.64 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 88.19 ms)
Run 7: Statistics of Verus

End at: 2018-06-29 23:41:43

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.41 Mbit/s (95.1% utilization)
95th percentile per-packet one-way delay: 87.034 ms
Loss rate: 5.82%
-- Flow 1:
Average throughput: 11.41 Mbit/s
95th percentile per-packet one-way delay: 87.034 ms
Loss rate: 5.82%
Run 7: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 12.11 Mbit/s)  Flow 1 egress (mean 11.41 Mbit/s)

Flow 1 (95th percentile 97.03 ms)
Run 8: Statistics of Verus

Start at: 2018-06-29 23:51:00
End at: 2018-06-29 23:51:30

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.27 Mbit/s (93.9% utilization)
95th percentile per-packet one-way delay: 87.163 ms
Loss rate: 6.52%
-- Flow 1:
Average throughput: 11.27 Mbit/s
95th percentile per-packet one-way delay: 87.163 ms
Loss rate: 6.52%
Run 8: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 12.04 Mbit/s)  Flow 1 egress (mean 11.27 Mbit/s)

Packet on way delay (ms)

Flow 1 (95th percentile 87.16 ms)
Run 9: Statistics of Verus

Start at: 2018-06-30 00:00:46
End at: 2018-06-30 00:01:16

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.06 Mbit/s (92.1% utilization)
  95th percentile per-packet one-way delay: 88.268 ms
  Loss rate: 19.50%
-- Flow 1:
  Average throughput: 11.06 Mbit/s
  95th percentile per-packet one-way delay: 88.268 ms
  Loss rate: 19.50%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-06-30 00:10:34
End at: 2018-06-30 00:11:04

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.53 Mbit/s (79.5% utilization)
95th percentile per-packet one-way delay: 89.602 ms
Loss rate: 40.88%
-- Flow 1:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 89.602 ms
Loss rate: 40.88%
Run 10: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 16.11 Mbit/s)  Flow 1 egress (mean 9.53 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 89.60 ms)
Run 1: Statistics of PCC-Vivace

End at: 2018-06-29 22:43:37

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.92 Mbit/s (91.0% utilization)
  95th percentile per-packet one-way delay: 38.787 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 10.92 Mbit/s
  95th percentile per-packet one-way delay: 38.787 ms
  Loss rate: 0.12%
Run 2: Statistics of PCC-Vivace

Start at: 2018-06-29 22:52:56
End at: 2018-06-29 22:53:26

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.90 Mbit/s (90.8% utilization)
  95th percentile per-packet one-way delay: 37.379 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 10.90 Mbit/s
  95th percentile per-packet one-way delay: 37.379 ms
  Loss rate: 0.12%
Run 2: Report of PCC-Vivace — Data Link
Run 3: Statistics of PCC-Vivace

Start at: 2018-06-29 23:02:42
End at: 2018-06-29 23:03:12

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.94 Mbit/s (91.2% utilization)
  95th percentile per-packet one-way delay: 58.794 ms
  Loss rate: 0.31%
-- Flow 1:
  Average throughput: 10.94 Mbit/s
  95th percentile per-packet one-way delay: 58.794 ms
  Loss rate: 0.31%
Run 3: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 10.96 Mbit/s)  Flow 1 egress (mean 10.94 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 58.79 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2018-06-29 23:12:28
End at: 2018-06-29 23:12:58

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.92 Mbit/s (91.0% utilization)
95th percentile per-packet one-way delay: 37.837 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 10.92 Mbit/s
95th percentile per-packet one-way delay: 37.837 ms
Loss rate: 0.11%
Run 4: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 10.92 Mbit/s)
- Flow 1 egress (mean 10.92 Mbit/s)

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

Flow 1 (95th percentile 37.84 ms)
Run 5: Statistics of PCC-Vivace


# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.94 Mbit/s (91.1% utilization)
95th percentile per-packet one-way delay: 37.695 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 10.94 Mbit/s
95th percentile per-packet one-way delay: 37.695 ms
Loss rate: 0.12%
Run 5: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 10.94 Mbit/s)  Flow 1 egress (mean 10.94 Mbit/s)

Flow 1 (95th percentile 37.70 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-06-29 23:32:01
End at: 2018-06-29 23:32:31

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.93 Mbit/s (91.1% utilization)
95th percentile per-packet one-way delay: 38.120 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 38.120 ms
Loss rate: 0.11%
Run 6: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.94 Mbit/s)  Flow 1 egress (mean 10.93 Mbit/s)

Ping packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 38.12 ms)
Run 7: Statistics of PCC-Vivace

Start at: 2018-06-29 23:41:47
End at: 2018-06-29 23:42:18

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.91 Mbit/s (90.9% utilization)
  95th percentile per-packet one-way delay: 37.379 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 10.91 Mbit/s
  95th percentile per-packet one-way delay: 37.379 ms
  Loss rate: 0.12%
Run 7: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.91 Mbit/s)  Flow 1 egress (mean 10.91 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 37.38 ms)
Run 8: Statistics of PCC-Vivace

Start at: 2018-06-29 23:51:34
End at: 2018-06-29 23:52:04

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.93 Mbit/s (91.1% utilization)
95th percentile per-packet one-way delay: 38.256 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 38.256 ms
Loss rate: 0.13%
Run 8: Report of PCC-Vivace — Data Link
Run 9: Statistics of PCC-Vivace

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

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.94 Mbit/s (91.2% utilization)
95th percentile per-packet one-way delay: 38.411 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 10.94 Mbit/s
95th percentile per-packet one-way delay: 38.411 ms
Loss rate: 0.10%
Run 9: Report of PCC-Vivace — Data Link

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

![Graph 2: Packet on way delay (ms)]

Flow 1 (95th percentile 38.41 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-06-30 00:11:09
End at: 2018-06-30 00:11:39

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.95 Mbit/s (91.2% utilization)
  95th percentile per-packet one-way delay: 38.667 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 10.95 Mbit/s
  95th percentile per-packet one-way delay: 38.667 ms
  Loss rate: 0.11%
Run 10: Report of PCC-Vivace — Data Link

![Graph showing throughput and packet delay over time]

- Average capacity: 12.00 Mbit/s (shaded region)
- Flow 1 ingress (mean 10.95 Mbit/s)
- Flow 1 egress (mean 10.95 Mbit/s)

![Graph showing per-packet end-to-end delay]

- Flow 1 (95th percentile 38.67 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-06-29 22:47:44

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.19 Mbit/s (18.3% utilization)
  95th percentile per-packet one-way delay: 36.282 ms
  Loss rate: 0.14%
-- Flow 1:
  Average throughput: 2.19 Mbit/s
  95th percentile per-packet one-way delay: 36.282 ms
  Loss rate: 0.14%
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 2.19 Mbit/s)  Flow 1 egress (mean 2.19 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 36.28 ms)
Run 2: Statistics of WebRTC media

End at: 2018-06-29 22:58:03

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.12 Mbit/s (17.6% utilization)
95th percentile per-packet one-way delay: 35.887 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 35.887 ms
Loss rate: 0.19%
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 2.12 Mbit/s)  Flow 1 egress (mean 2.12 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 35.89 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-06-29 23:07:19
End at: 2018-06-29 23:07:49

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.09 Mbit/s (17.5% utilization)
  95th percentile per-packet one-way delay: 35.943 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 35.943 ms
  Loss rate: 0.15%
Run 3: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 2.10 Mbit/s)  Flow 1 egress (mean 2.09 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 35.94 ms)
Run 4: Statistics of WebRTC media

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 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.19 Mbit/s (18.2% utilization)
95th percentile per-packet one-way delay: 35.802 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 35.802 ms
Loss rate: 0.12%
Run 4: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 2.19 Mbit/s)
- Flow 1 egress (mean 2.19 Mbit/s)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 35.80 ms)

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Run 5: Statistics of WebRTC media

Start at: 2018-06-29 23:26:51
End at: 2018-06-29 23:27:21

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.18 Mbit/s (18.1% utilization)
95th percentile per-packet one-way delay: 35.923 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 35.923 ms
Loss rate: 0.14%
Run 5: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 2.18 Mbit/s)  Flow 1 egress (mean 2.18 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 35.92 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-06-29 23:36:38
End at: 2018-06-29 23:37:08

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.11 Mbit/s (17.6% utilization)
95th percentile per-packet one-way delay: 35.962 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 35.962 ms
Loss rate: 0.13%
Run 6: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.12 Mbit/s)  Flow 1 egress (mean 2.11 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 35.96 ms)
Run 7: Statistics of WebRTC media


# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.13 Mbit/s (17.7% utilization)
95th percentile per-packet one-way delay: 36.079 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 36.079 ms
Loss rate: 0.14%
Run 7: Report of WebRTC media — Data Link

![Graph showing throughput and delay over time for WebRTC media.]

Average capacity 12.00 Mbit/s (shaded region)

- **Flow 1 ingress (mean 2.13 Mbit/s)**
- **Flow 1 egress (mean 2.13 Mbit/s)**

Per-packet one-way delay (ms)

- **Flow 1 (95th percentile 36.08 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 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.14 Mbit/s (17.8% utilization)
95th percentile per-packet one-way delay: 36.020 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 36.020 ms
Loss rate: 0.13%
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 2.14 Mbit/s)
- Flow 1 egress (mean 2.14 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 36.02 ms)
Run 9: Statistics of WebRTC media

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

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.23 Mbit/s (18.6% utilization)
95th percentile per-packet one-way delay: 36.193 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 36.193 ms
Loss rate: 0.12%
Run 9: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 2.23 Mbit/s)  Flow 1 egress (mean 2.23 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 36.19 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-06-30 00:15:46
End at: 2018-06-30 00:16:16

# Below is generated by plot.py at 2018-06-30 00:28:06
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.19 Mbit/s (18.2% utilization)
  95th percentile per-packet one-way delay: 36.257 ms
  Loss rate: 0.14%
-- Flow 1:
  Average throughput: 2.19 Mbit/s
  95th percentile per-packet one-way delay: 36.257 ms
  Loss rate: 0.14%
Run 10: Report of WebRTC media — 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 2.19 Mbit/s)  Flow 1 egress (mean 2.19 Mbit/s)

Per-packet one-way delay (ms)

0 5 10 15 20 25 30 35 40 45 50

Time (s)

Flow 1 (95th percentile 36.26 ms)