Pantheon Report

Generated at 2018-06-30 00:28:56 (UTC).
Tested in mahimahi: mm-delay 30 mm-link 12mbps.trace 12mbps.trace
--uplink-queue=droptail --uplink-queue-args=bytes=45000
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 @ 715dc5f09d172e419699f6f6f17f1cb4c45064f212
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 30060ab034deb3424347f5cc3db86198eac35d2a
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdefe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0edbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaaab4a906ce6bb7c3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82ce8f464b1b39
third_party/pcc @ 1af958fa0d66d623c091a55f8ec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8ac08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143e0c978f3cfc4
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3dab2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2ba86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dade4735770d143a1fa2851
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) flow 1</th>
<th>mean 95th-%ile delay (ms) flow 1</th>
<th>mean loss rate (%) flow 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>11.68</td>
<td>59.23</td>
<td>3.43</td>
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<tr>
<td>Copa</td>
<td>10</td>
<td>11.23</td>
<td>47.86</td>
<td>0.63</td>
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<td>TCP Cubic</td>
<td>10</td>
<td>11.91</td>
<td>58.84</td>
<td>0.36</td>
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<td>11.82</td>
<td>60.99</td>
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<td>FillP-Sheep</td>
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<td>N/A</td>
<td>N/A</td>
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<td>10</td>
<td>11.53</td>
<td>41.00</td>
<td>0.49</td>
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<td>LEDBAT</td>
<td>10</td>
<td>9.69</td>
<td>59.29</td>
<td>0.78</td>
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<td>PCC-Allegro</td>
<td>10</td>
<td>9.53</td>
<td>37.47</td>
<td>0.82</td>
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<td>PCC-Expr</td>
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<td>10.87</td>
<td>60.43</td>
<td>0.63</td>
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<td>QUIC Cubic</td>
<td>10</td>
<td>11.76</td>
<td>59.20</td>
<td>0.31</td>
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<td>SCReAM</td>
<td>10</td>
<td>0.21</td>
<td>31.58</td>
<td>0.08</td>
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<tr>
<td>Sprout</td>
<td>10</td>
<td>4.46</td>
<td>53.35</td>
<td>1.78</td>
</tr>
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<td>TaoVA-100x</td>
<td>10</td>
<td>11.50</td>
<td>32.79</td>
<td>0.74</td>
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<tr>
<td>TCP Vegas</td>
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<td>11.92</td>
<td>37.28</td>
<td>0.27</td>
</tr>
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<td>Verus</td>
<td>10</td>
<td>7.06</td>
<td>61.56</td>
<td>86.14</td>
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<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>10.94</td>
<td>38.62</td>
<td>0.17</td>
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<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.97</td>
<td>35.40</td>
<td>0.12</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-06-29 22:44:50
End at: 2018-06-29 22:45:20

# Below is generated by plot.py at 2018-06-30 00:20:37
# 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: 59.218 ms
  Loss rate: 3.18%
-- Flow 1:
  Average throughput: 11.69 Mbit/s
  95th percentile per-packet one-way delay: 59.218 ms
  Loss rate: 3.18%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-06-29 22:54:37

# Below is generated by plot.py at 2018-06-30 00:20:37
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.67 Mbit/s (97.3% utilization)
95th percentile per-packet one-way delay: 59.301 ms
Loss rate: 3.38%
-- Flow 1:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 59.301 ms
Loss rate: 3.38%
Run 2: Report of TCP BBR — Data Link

![Graph showing network throughput and average capacity](image1)

![Graph showing per-packet one-way delay](image2)
Run 3: Statistics of TCP BBR

Start at: 2018-06-29 23:04:24
End at: 2018-06-29 23:04:54

# 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: 11.68 Mbit/s (97.3% utilization)
  95th percentile per-packet one-way delay: 59.220 ms
  Loss rate: 3.65%
-- Flow 1:
  Average throughput: 11.68 Mbit/s
  95th percentile per-packet one-way delay: 59.220 ms
  Loss rate: 3.65%
Run 3: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 12.11 Mbps)
- Flow 1 egress (mean 11.68 Mbps)

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

- Flow 1 (95th percentile 59.22 ms)
Run 4: Statistics of TCP BBR

Start at: 2018-06-29 23:14:11
End at: 2018-06-29 23:14:41

# 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: 11.68 Mbit/s (97.3% utilization)
95th percentile per-packet one-way delay: 59.446 ms
Loss rate: 3.54%
-- Flow 1:
Average throughput: 11.68 Mbit/s
95th percentile per-packet one-way delay: 59.446 ms
Loss rate: 3.54%
Run 4: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 12.09 Mbit/s)  Flow 1 egress (mean 11.68 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 59.45 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-06-29 23:24:00
End at: 2018-06-29 23:24:30

# 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: 11.68 Mbit/s (97.4% utilization)
95th percentile per-packet one-way delay: 59.296 ms
Loss rate: 3.48%
-- Flow 1:
Average throughput: 11.68 Mbit/s
95th percentile per-packet one-way delay: 59.296 ms
Loss rate: 3.48%
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 12.09 Mbit/s)  Flow 1 egress (mean 11.68 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 59.30 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-06-29 23:33:50
End at: 2018-06-29 23:34:20

# 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: 59.222 ms
  Loss rate: 3.56%
-- Flow 1:
  Average throughput: 11.69 Mbit/s
  95th percentile per-packet one-way delay: 59.222 ms
  Loss rate: 3.56%
Run 6: Report of TCP BBR — Data Link

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

- **Average capacity 12.00 Mbit/s (shaded region)**
- Flow 1 ingress (mean 12.11 Mbit/s) – Flow 1 egress (mean 11.69 Mbit/s)

![Graph 2: Packet Round Trip Delay](image2)

- Flow 1 (95th percentile 59.22 ms)
Run 7: Statistics of TCP BBR

End at: 2018-06-29 23:44:07

# 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: 59.070 ms
  Loss rate: 3.35%
-- Flow 1:
  Average throughput: 11.69 Mbit/s
  95th percentile per-packet one-way delay: 59.070 ms
  Loss rate: 3.35%
Run 7: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 12.08 Mbit/s)**
- **Flow 1 egress (mean 11.69 Mbit/s)**

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

- **Flow 1 (95th percentile 58.07 ms)**
Run 8: Statistics of TCP BBR

End at: 2018-06-29 23:53:54

# 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: 11.68 Mbit/s (97.4% utilization)
  95th percentile per-packet one-way delay: 59.278 ms
  Loss rate: 3.45%
-- Flow 1:
  Average throughput: 11.68 Mbit/s
  95th percentile per-packet one-way delay: 59.278 ms
  Loss rate: 3.45%
Run 8: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 12.09 Mbit/s)**
- **Flow 1 egress (mean 11.68 Mbit/s)**

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

- **Flow 1 (95th percentile 59.28 ms)**
Run 9: Statistics of TCP BBR

Start at: 2018-06-30 00:03:13
End at: 2018-06-30 00:03:43

# Below is generated by plot.py at 2018-06-30 00:20:53
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.68 Mbit/s (97.3% utilization)
  95th percentile per-packet one-way delay: 59.214 ms
  Loss rate: 3.45%
-- Flow 1:
  Average throughput: 11.68 Mbit/s
  95th percentile per-packet one-way delay: 59.214 ms
  Loss rate: 3.45%
Run 9: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 12.08 Mbit/s)  Flow 1 egress (mean 11.68 Mbit/s)

Per-packet one way delay (ms)

Flow 1 (95th percentile 59.21 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-06-30 00:13:02
End at: 2018-06-30 00:13:32

# 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: 11.68 Mbit/s (97.3% utilization)
    95th percentile per-packet one-way delay: 59.062 ms
    Loss rate: 3.30%
-- Flow 1:
    Average throughput: 11.68 Mbit/s
    95th percentile per-packet one-way delay: 59.062 ms
    Loss rate: 3.30%
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 12.07 Mbit/s)  Flow 1 egress (mean 11.68 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 59.06 ms)
Run 1: Statistics of Copa

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

# Below is generated by plot.py at 2018-06-30 00:21:10
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.38 Mbit/s (94.8% utilization)
  95th percentile per-packet one-way delay: 44.327 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 11.38 Mbit/s
  95th percentile per-packet one-way delay: 44.327 ms
  Loss rate: 0.40%
Run 1: Report of Copa — Data Link

![Graph of average capacity and per packet delay](image)

- Average capacity 12.00 Mbit/s (shaded region)
- Flow 1 ingress (mean 11.41 Mbit/s)
- Flow 1 egress (mean 11.38 Mbit/s)
- Flow 1 (95th percentile 44.33 ms)
Run 2: Statistics of Copa

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

# Below is generated by plot.py at 2018-06-30 00:21:11
# 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: 49.423 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 11.45 Mbit/s
95th percentile per-packet one-way delay: 49.423 ms
Loss rate: 0.30%
Run 2: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.47 Mbit/s)  Flow 1 egress (mean 11.45 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 49.42 ms)
Run 3: Statistics of Copa

Start at: 2018-06-29 23:03:15
End at: 2018-06-29 23:03:45

# Below is generated by plot.py at 2018-06-30 00:21:13
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.36 Mbit/s (94.6% utilization)
95th percentile per-packet one-way delay: 44.836 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 11.36 Mbit/s
95th percentile per-packet one-way delay: 44.836 ms
Loss rate: 0.39%
Run 3: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 11.39 Mbit/s)
- Flow 1 egress (mean 11.36 Mbit/s)

Per-packet round-trip delay (ms)

- Flow 1 (95th percentile 44.84 ms)
Run 4: Statistics of Copa

Start at: 2018-06-29 23:13:02

# Below is generated by plot.py at 2018-06-30 00:21:13
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.26 Mbit/s (93.8% utilization)
95th percentile per-packet one-way delay: 47.562 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 11.26 Mbit/s
95th percentile per-packet one-way delay: 47.562 ms
Loss rate: 0.90%
Run 4: Report of Copa — Data Link

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

- Flow 1 ingress (mean 11.35 Mbit/s)
- Flow 1 egress (mean 11.26 Mbit/s)

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

- Flow 1 (95th percentile 47.56 ms)
Run 5: Statistics of Copa

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

# Below is generated by plot.py at 2018-06-30 00:21:13
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.34 Mbit/s (94.5% utilization)
95th percentile per-packet one-way delay: 45.001 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 11.34 Mbit/s
95th percentile per-packet one-way delay: 45.001 ms
Loss rate: 0.39%
Run 5: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.38 Mbit/s)  Flow 1 egress (mean 11.34 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 45.00 ms)
Run 6: Statistics of Copa

Start at: 2018-06-29 23:32:41
End at: 2018-06-29 23:33:11

# Below is generated by plot.py at 2018-06-30 00:21:13
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.00 Mbit/s (91.7% utilization)
  95th percentile per-packet one-way delay: 52.079 ms
  Loss rate: 0.73%
-- Flow 1:
  Average throughput: 11.00 Mbit/s
  95th percentile per-packet one-way delay: 52.079 ms
  Loss rate: 0.73%
Run 6: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.07 Mbit/s)  Flow 1 egress (mean 11.00 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 52.08 ms)
Run 7: Statistics of Copa


# Below is generated by plot.py at 2018-06-30 00:21:32
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.43 Mbit/s (95.2% utilization)
95th percentile per-packet one-way delay: 45.392 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 11.43 Mbit/s
95th percentile per-packet one-way delay: 45.392 ms
Loss rate: 0.43%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-06-29 23:52:15
End at: 2018-06-29 23:52:45

# Below is generated by plot.py at 2018-06-30 00:21:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.45 Mbit/s (95.4% utilization)
95th percentile per-packet one-way delay: 50.534 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 11.45 Mbit/s
95th percentile per-packet one-way delay: 50.534 ms
Loss rate: 0.87%
Run 8: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.54 Mbit/s)  Flow 1 egress (mean 11.45 Mbit/s)

Per packet delivery delay (ms)

Flow 1 (95th percentile 50.53 ms)
Run 9: Statistics of Copa

Start at: 2018-06-30 00:02:03
End at: 2018-06-30 00:02:33

# Below is generated by plot.py at 2018-06-30 00:21:44
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.58 Mbit/s (88.2% utilization)
  95th percentile per-packet one-way delay: 51.198 ms
  Loss rate: 0.85%
-- Flow 1:
  Average throughput: 10.58 Mbit/s
  95th percentile per-packet one-way delay: 51.198 ms
  Loss rate: 0.85%
Run 9: Report of Copa — Data Link

Average capacity 12.00 Mbps (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 10.66 Mbps)  Flow 1 egress (mean 10.58 Mbps)

Per packet delivery delay (ms)

Flow 1 (95th percentile 51.20 ms)
Run 10: Statistics of Copa

Start at: 2018-06-30 00:11:53
End at: 2018-06-30 00:12:23

# Below is generated by plot.py at 2018-06-30 00:21:45
# 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: 48.265 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 11.06 Mbit/s
95th percentile per-packet one-way delay: 48.265 ms
Loss rate: 1.02%
Run 10: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.16 Mbit/s)  Flow 1 egress (mean 11.06 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 48.27 ms)
Run 1: Statistics of TCP Cubic

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

# Below is generated by plot.py at 2018-06-30 00:21:45
# 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: 58.630 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 58.630 ms
Loss rate: 0.25%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

End at: 2018-06-29 22:51:41

# Below is generated by plot.py at 2018-06-30 00:21:45
# 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: 58.620 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 58.620 ms
Loss rate: 0.41%
Run 2: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

<table>
<thead>
<tr>
<th>Time (s)</th>
<th>Throughput (Mbit/s)</th>
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</tr>
<tr>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>35</td>
<td>0</td>
</tr>
</tbody>
</table>

Flow 1 ingress (mean 11.86 Mbit/s)  Flow 1 egress (mean 11.92 Mbit/s)

Flow 1 (95th percentile 58.62 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-06-29 23:00:58
End at: 2018-06-29 23:01:28

# Below is generated by plot.py at 2018-06-30 00:21:45
# 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: 59.307 ms
  Loss rate: 0.33%
-- Flow 1:
  Average throughput: 11.92 Mbit/s
  95th percentile per-packet one-way delay: 59.307 ms
  Loss rate: 0.33%
Run 3: Report of TCP Cubic — 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 delivery delay (ms)

Time (s)

Flow 1 (95th percentile 59.31 ms)
Run 4: Statistics of TCP Cubic

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 00:21:45
# 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: 58.714 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 58.714 ms
Loss rate: 0.33%
Run 4: 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 end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 58.71 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-06-29 23:20:34
End at: 2018-06-29 23:21:04

# Below is generated by plot.py at 2018-06-30 00:21:57
# 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: 59.181 ms
  Loss rate: 0.36%
-- Flow 1:
  Average throughput: 11.92 Mbit/s
  95th percentile per-packet one-way delay: 59.181 ms
  Loss rate: 0.36%
Run 5: Report of TCP Cubic — Data Link

![Graph showing throughput and packet delay over time]
Run 6: Statistics of TCP Cubic

Start at: 2018-06-29 23:30:25
End at: 2018-06-29 23:30:55

# Below is generated by plot.py at 2018-06-30 00:21:58
# 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: 58.904 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 58.904 ms
Loss rate: 0.35%
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 11.92 Mbit/s)

Per packet delivery delay (ms)

Time (s)

Flow 1 (95th percentile 58.90 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-06-29 23:40:11
End at: 2018-06-29 23:40:41

# Below is generated by plot.py at 2018-06-30 00:21:59
# 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: 59.332 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 59.332 ms
Loss rate: 0.36%
Run 7: Report of TCP Cubic — Data Link

![Graph of Throughput](image)

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

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

![Graph of Per Packet Delay](image)

- **Flow 1 (95th percentile 59.33 ms)**
Run 8: Statistics of TCP Cubic

End at: 2018-06-29 23:50:28

# Below is generated by plot.py at 2018-06-30 00:21:59
# 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: 58.467 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 58.467 ms
Loss rate: 0.40%
Run 8: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Flow 1 (95th percentile 58.47 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-06-29 23:59:46
End at: 2018-06-30 00:00:16

# Below is generated by plot.py at 2018-06-30 00:22:00
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.90 Mbit/s (99.1% utilization)
95th percentile per-packet one-way delay: 58.769 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 58.769 ms
Loss rate: 0.50%
Run 9: 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 11.90 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 58.77 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-06-30 00:09:36
End at: 2018-06-30 00:10:06

# Below is generated by plot.py at 2018-06-30 00:22:01
# 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: 58.466 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 58.466 ms
Loss rate: 0.34%
Run 10: Report of TCP Cubic — Data Link

![Graph showing network performance metrics]
Run 1: Statistics of FillP


# Below is generated by plot.py at 2018-06-30 00:22:11
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.83 Mbit/s (98.5% utilization)
95th percentile per-packet one-way delay: 60.971 ms
Loss rate: 6.47%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 60.971 ms
Loss rate: 6.47%
Run 1: Report of FillP — Data Link

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

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

---

**Graph Details**:
- **Throughput (Mbit/s)**
- **Time (s)**
- **Flow 1 ingress (mean 12.63 Mbit/s)**
- **Flow 1 egress (mean 11.83 Mbit/s)**

**Packet Delay (ms)**
- **Flow 1 (95th percentile 60.97 ms)**

---

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Run 2: Statistics of FillP

End at: 2018-06-29 22:59:44

# Below is generated by plot.py at 2018-06-30 00:22:13
# 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: 61.027 ms
Loss rate: 10.25%
-- Flow 1:
Average throughput: 11.86 Mbit/s
95th percentile per-packet one-way delay: 61.027 ms
Loss rate: 10.25%
Run 2: Report of FillP — Data Link

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

- Flow 1 ingress (mean 13.20 Mbit/s)
- Flow 1 egress (mean 11.86 Mbit/s)

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

- Flow 1 (95th percentile 61.53 ms)
Run 3: Statistics of FillP

Start at: 2018-06-29 23:09:01
End at: 2018-06-29 23:09:31

# Below is generated by plot.py at 2018-06-30 00:22:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.72 Mbit/s (97.6% utilization)
95th percentile per-packet one-way delay: 61.025 ms
Loss rate: 6.18%
-- Flow 1:
Average throughput: 11.72 Mbit/s
95th percentile per-packet one-way delay: 61.025 ms
Loss rate: 6.18%
Run 3: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 12.48 Mbit/s)  |  Flow 1 egress (mean 11.72 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 61.52 ms)
Run 4: Statistics of FillP

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

# Below is generated by plot.py at 2018-06-30 00:22:27
# 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: 61.028 ms
Loss rate: 11.07%
-- Flow 1:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 61.028 ms
Loss rate: 11.07%
Run 4: Report of FillP — Data Link

![Graph showing network throughput and average capacity](image)

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

**Throughput (Mbit/s)**

**Time (s)**

**Flow 1 ingress** (mean 13.34 Mbit/s)  
**Flow 1 egress** (mean 11.87 Mbit/s)

![Graph showing packet delivery time](image)

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

**Time (s)**

**Flow 1 (95th percentile 61.03 ms)**
Run 5: Statistics of FillP

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

# Below is generated by plot.py at 2018-06-30 00:22:27
# 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: 60.965 ms
Loss rate: 6.57%
-- Flow 1:
Average throughput: 11.82 Mbit/s
95th percentile per-packet one-way delay: 60.965 ms
Loss rate: 6.57%
Run 5: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 12.64 Mbit/s)  Flow 1 egress (mean 11.82 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 60.97 ms)
Run 6: Statistics of FillP

Start at: 2018-06-29 23:38:27
End at: 2018-06-29 23:38:57

# Below is generated by plot.py at 2018-06-30 00:22:27
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.71 Mbit/s (97.6% utilization)
95th percentile per-packet one-way delay: 60.985 ms
Loss rate: 5.97%
-- Flow 1:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 60.985 ms
Loss rate: 5.97%
Run 6: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 12.44 Mbit/s)  Flow 1 egress (mean 11.71 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 60.98 ms)
Run 7: Statistics of FillP

End at: 2018-06-29 23:48:44

# Below is generated by plot.py at 2018-06-30 00:22:28
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.87 Mbit/s (98.9% utilization)
  95th percentile per-packet one-way delay: 60.984 ms
  Loss rate: 10.22%
-- Flow 1:
  Average throughput: 11.87 Mbit/s
  95th percentile per-packet one-way delay: 60.984 ms
  Loss rate: 10.22%
Run 7: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 13.21 Mbit/s)  Flow 1 egress (mean 11.87 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 60.98 ms)
Run 8: Statistics of FillP

Start at: 2018-06-29 23:58:00
End at: 2018-06-29 23:58:30

# Below is generated by plot.py at 2018-06-30 00:22:28
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.82 Mbit/s (98.5% utilization)
95th percentile per-packet one-way delay: 60.949 ms
Loss rate: 6.21%
-- Flow 1:
Average throughput: 11.82 Mbit/s
95th percentile per-packet one-way delay: 60.949 ms
Loss rate: 6.21%
Run 8: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 12.59 Mbit/s)  Flow 1 egress (mean 11.82 Mbit/s)

Per packet communication delay (ms)

Flow 1 (95th percentile 60.95 ms)
Run 9: Statistics of FillP

Start at: 2018-06-30 00:07:49
End at: 2018-06-30 00:08:19

# Below is generated by plot.py at 2018-06-30 00:22:46
# 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: 60.908 ms
  Loss rate: 10.71%
-- Flow 1:
  Average throughput: 11.87 Mbit/s
  95th percentile per-packet one-way delay: 60.908 ms
  Loss rate: 10.71%
Run 9: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 13.29 Mbit/s)  Flow 1 egress (mean 11.87 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 60.91 ms)
Run 10: Statistics of FillP

Start at: 2018-06-30 00:17:39
End at: 2018-06-30 00:18:09

# Below is generated by plot.py at 2018-06-30 00:22:48
# 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: 61.021 ms
Loss rate: 13.09%
-- Flow 1:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 61.021 ms
Loss rate: 13.09%
Run 10: Report of FillP — Data Link

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

- **Flow 1 ingress** (mean 13.65 Mbit/s)
- **Flow 1 egress** (mean 11.87 Mbit/s)

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

- **Flow 1 (95th percentile 61.02 ms)**
Run 1: Statistics of FillP-Sheep

End at: 2018-06-29 22:43:02
Run 1: 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 31.52 ms)
Run 2: Statistics of FillP-Sheep

End at: 2018-06-29 22:52:50
Run 2: Report of FillP-Sheep — Data Link
Run 3: Statistics of FillP-Sheep

Start at: 2018-06-29 23:02:07
End at: 2018-06-29 23:02:37
Run 3: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

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

Packet one way delay (ms)

Flow 1 (95th percentile 31.56 ms)
Run 4: Statistics of FillP-Sheep

End at: 2018-06-29 23:12:23
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 31.59 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2018-06-29 23:21:42
Run 5: Report of FillP-Sheep — Data Link
Run 6: Statistics of FillP-Sheep

End at: 2018-06-29 23:32:03
Run 6: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (MBit/s)

0  2  4  6  8  10  12

Time (s)

0  5  10  15  20  25  30

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

Per-packet one-way delay (ms)

30.4  30.6  30.8  31.0  31.2  31.4  31.6

0  2  4  6  8  10  12  14

Flow 1 (95th percentile 31.48 ms)
Run 7: Statistics of FillP-Sheep

End at: 2018-06-29 23:41:50
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)

Percentile one way delay (ms)

Time (s)

Flow 1 (95th percentile 31.51 ms)
Run 8: Statistics of FillP-Sheep

Start at: 2018-06-29 23:51:06
End at: 2018-06-29 23:51:36
Run 8: 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 31.48 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-06-30 00:00:55
End at: 2018-06-30 00:01:25
Run 9: 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)

Per packet one way delay (ms)

Flow 1 (95th percentile 31.52 ms)
Run 10: Statistics of FillP-Sheep

Start at: 2018-06-30 00:10:45
End at: 2018-06-30 00:11:15
Run 10: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (MBit/s)

0 2 4 6 8 10 12

Time (s)

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

Per-packet one-way delay (ms)

30.4 30.6 30.8 31.0 31.2 31.4 31.6 31.8

Time (s)

Flow 1 (95th percentile 31.34 ms)
Run 1: Statistics of Indigo

Start at: 2018-06-29 22:50:00
End at: 2018-06-29 22:50:30

# Below is generated by plot.py at 2018-06-30 00:22:59
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.66 Mbit/s (97.2% utilization)
  95th percentile per-packet one-way delay: 40.149 ms
  Loss rate: 0.42%
-- Flow 1:
  Average throughput: 11.66 Mbit/s
  95th percentile per-packet one-way delay: 40.149 ms
  Loss rate: 0.42%
Run 1: Report of Indigo — Data Link

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

![Graph 2: Per-packet end-to-end delay (ms)]
Run 2: Statistics of Indigo

End at: 2018-06-29 23:00:18

# Below is generated by plot.py at 2018-06-30 00:23:00
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.75 Mbit/s (98.0% utilization)
  95th percentile per-packet one-way delay: 41.255 ms
  Loss rate: 0.39%
-- Flow 1:
  Average throughput: 11.75 Mbit/s
  95th percentile per-packet one-way delay: 41.255 ms
  Loss rate: 0.39%
Run 2: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.79 Mbit/s)  Flow 1 egress (mean 11.75 Mbit/s)

Flow 1 (95th percentile 41.26 ms)
Run 3: Statistics of Indigo

Start at: 2018-06-29 23:09:35
End at: 2018-06-29 23:10:05

# 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: 11.89 Mbit/s (99.1% utilization)
  95th percentile per-packet one-way delay: 39.760 ms
  Loss rate: 0.43%
-- Flow 1:
  Average throughput: 11.89 Mbit/s
  95th percentile per-packet one-way delay: 39.760 ms
  Loss rate: 0.43%
Run 3: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.93 Mbit/s)  Flow 1 egress (mean 11.89 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 39.76 ms)
Run 4: Statistics of Indigo

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

# 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: 11.14 Mbit/s (92.8% utilization)
95th percentile per-packet one-way delay: 43.146 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 11.14 Mbit/s
95th percentile per-packet one-way delay: 43.146 ms
Loss rate: 1.04%
Run 4: Report of Indigo — Data Link

![Graph showing throughput and packet delay over time]

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 11.24 Mbit/s)
- Flow 1 egress (mean 11.14 Mbit/s)

![Graph showing packet delay distribution]

- Flow 1 (95th percentile 43.15 ms)
Run 5: Statistics of Indigo

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

# 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: 11.87 Mbit/s (98.9% utilization)
  95th percentile per-packet one-way delay: 39.671 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 11.87 Mbit/s
  95th percentile per-packet one-way delay: 39.671 ms
  Loss rate: 0.28%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Start at: 2018-06-29 23:39:02

# 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: 11.57 Mbit/s (96.4% utilization)
95th percentile per-packet one-way delay: 39.766 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 39.766 ms
Loss rate: 0.41%
Run 6: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.60 Mbit/s)  Flow 1 egress (mean 11.57 Mbit/s)

Flow 1 (95th percentile 39.77 ms)
Run 7: Statistics of Indigo

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

# 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: 11.15 Mbit/s (93.0% utilization)
  95th percentile per-packet one-way delay: 41.529 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 11.15 Mbit/s
  95th percentile per-packet one-way delay: 41.529 ms
  Loss rate: 0.27%
Run 7: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.17 Mbit/s)  Flow 1 egress (mean 11.15 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 41.53 ms)
Run 8: Statistics of Indigo

Start at: 2018-06-29 23:58:35
End at: 2018-06-29 23:59:05

# 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: 11.87 Mbit/s (98.9% utilization)
95th percentile per-packet one-way delay: 39.932 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 39.932 ms
Loss rate: 0.44%
Run 8: Report of Indigo — Data Link

Average capacity 12.00 Mb/s (shaded region)

- Flow 1 ingress (mean 11.91 Mb/s)
- Flow 1 egress (mean 11.87 Mb/s)

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

- Flow 1 (95th percentile 39.93 ms)
Run 9: Statistics of Indigo

Start at: 2018-06-30 00:08:24
End at: 2018-06-30 00:08:54

# Below is generated by plot.py at 2018-06-30 00:23:24
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.15 Mbit/s (92.9% utilization)
  95th percentile per-packet one-way delay: 41.668 ms
  Loss rate: 0.25%
-- Flow 1:
  Average throughput: 11.15 Mbit/s
  95th percentile per-packet one-way delay: 41.668 ms
  Loss rate: 0.25%
Run 9: Report of Indigo — Data Link

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

- **Average capacity 12.00 Mbit/s (shaded region)**
- **Throughput (Mbps)** vs **Time (s)**
  - **Flow 1 ingress** (mean 11.16 Mbit/s)
  - **Flow 1 egress** (mean 11.15 Mbit/s)

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

- **Per-packet end-to-end delay (ms)** vs **Time (s)**
  - **Flow 1** (95th percentile 41.67 ms)
Run 10: Statistics of Indigo

Start at: 2018-06-30 00:18:14
End at: 2018-06-30 00:18:44

# Below is generated by plot.py at 2018-06-30 00:23:27
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.22 Mbit/s (93.5% utilization)
95th percentile per-packet one-way delay: 43.104 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 43.104 ms
Loss rate: 0.98%
Run 10: Report of Indigo — Data Link
Run 1: Statistics of LEDBAT

End at: 2018-06-29 22:47:03

# Below is generated by plot.py at 2018-06-30 00:23:28
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 9.67 Mbit/s (80.6% utilization)
  95th percentile per-packet one-way delay: 59.262 ms
  Loss rate: 0.79%
-- Flow 1:
  Average throughput: 9.67 Mbit/s
  95th percentile per-packet one-way delay: 59.262 ms
  Loss rate: 0.79%
Run 1: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 9.74 Mbit/s)  Flow 1 egress (mean 9.67 Mbit/s)

Per packet round-trip delay (ms)

Time (s)

Flow 1 (95th percentile 58.26 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-06-29 22:56:21
End at: 2018-06-29 22:56:51

# 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: 9.52 Mbit/s (79.3% utilization)
95th percentile per-packet one-way delay: 59.242 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 59.242 ms
Loss rate: 0.81%
Run 2: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 9.59 Mbit/s)  Flow 1 egress (mean 9.52 Mbit/s)

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

Flow 1 (95th percentile 59.24 ms)

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Run 3: Statistics of LEDBAT

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

# 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: 9.77 Mbit/s (81.4% utilization)
  95th percentile per-packet one-way delay: 59.340 ms
  Loss rate: 0.72%
-- Flow 1:
  Average throughput: 9.77 Mbit/s
  95th percentile per-packet one-way delay: 59.340 ms
  Loss rate: 0.72%
Run 3: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 9.83 Mbit/s)  Flow 1 egress (mean 9.77 Mbit/s)

Per packet delay (ms)

Time (s)

Flow 1 (95th percentile 59.34 ms)
Run 4: Statistics of LEDBAT

End at: 2018-06-29 23:16:25

# 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: 9.67 Mbit/s (80.5% utilization)
95th percentile per-packet one-way delay: 59.195 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 59.195 ms
Loss rate: 0.90%
Run 4: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 9.74 Mbit/s)   Flow 1 egress (mean 9.67 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 59.20 ms)
Run 5: Statistics of LEDBAT

Start at: 2018-06-29 23:25:44
End at: 2018-06-29 23:26:14

# 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: 9.68 Mbit/s (80.7% utilization)
95th percentile per-packet one-way delay: 59.266 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 9.68 Mbit/s
95th percentile per-packet one-way delay: 59.266 ms
Loss rate: 0.78%
Run 5: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 9.75 Mbit/s)  Flow 1 egress (mean 9.68 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 59.27 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-06-29 23:35:34
End at: 2018-06-29 23:36:04

# Below is generated by plot.py at 2018-06-30 00:23:34
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 9.68 Mbit/s (80.6% utilization)
  95th percentile per-packet one-way delay: 59.291 ms
  Loss rate: 0.76%
-- Flow 1:
  Average throughput: 9.68 Mbit/s
  95th percentile per-packet one-way delay: 59.291 ms
  Loss rate: 0.76%
Run 6: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 9.74 Mbit/s)  Flow 1 egress (mean 9.68 Mbit/s)

Per-packet two-way delay (ms)

Flow 1 (95th percentile 59.29 ms)
Run 7: Statistics of LEDBAT

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

# Below is generated by plot.py at 2018-06-30 00:23:45
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 9.90 Mbit/s (82.5% utilization)
  95th percentile per-packet one-way delay: 59.413 ms
  Loss rate: 0.70%
-- Flow 1:
  Average throughput: 9.90 Mbit/s
  95th percentile per-packet one-way delay: 59.413 ms
  Loss rate: 0.70%
Run 7: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 9.96 Mbit/s)  Flow 1 egress (mean 9.90 Mbit/s)

Per packet e2e delay (ms)

Time (s)

Flow 1 (95th percentile 59.41 ms)
Run 8: Statistics of LEDBAT


# Below is generated by plot.py at 2018-06-30 00:23:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.77 Mbit/s (81.4% utilization)
95th percentile per-packet one-way delay: 59.386 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 9.77 Mbit/s
95th percentile per-packet one-way delay: 59.386 ms
Loss rate: 0.77%
Run 9: Statistics of LEDEBAT

Start at: 2018-06-30 00:04:56
End at: 2018-06-30 00:05:26

# Below is generated by plot.py at 2018-06-30 00:23:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.54 Mbit/s (79.5% utilization)
95th percentile per-packet one-way delay: 59.262 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 59.262 ms
Loss rate: 0.78%
Run 9: Report of LEDBAT — 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 9.60 Mbit/s)  Flow 1 egress (mean 9.54 Mbit/s)

Per packet end-to-end delay (ms)

30 40 50 60

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 59.26 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-06-30 00:14:46
End at: 2018-06-30 00:15:16

# Below is generated by plot.py at 2018-06-30 00:23:51
# 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: 59.269 ms
  Loss rate: 0.82%
-- Flow 1:
  Average throughput: 9.68 Mbit/s
  95th percentile per-packet one-way delay: 59.269 ms
  Loss rate: 0.82%
Run 10: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 9.75 Mbit/s)  Flow 1 egress (mean 9.68 Mbit/s)

Per packet end-to-end delay (ms)

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

Start at: 2018-06-29 22:44:15
End at: 2018-06-29 22:44:45

# 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: 10.41 Mbit/s (86.7% utilization)
  95th percentile per-packet one-way delay: 52.872 ms
  Loss rate: 0.93%
-- Flow 1:
  Average throughput: 10.41 Mbit/s
  95th percentile per-packet one-way delay: 52.872 ms
  Loss rate: 0.93%
Run 1: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.49 Mbit/s)  Flow 1 egress (mean 10.41 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 52.87 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-06-29 22:54:03
End at: 2018-06-29 22:54:33

# 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: 9.20 Mbit/s (76.7% utilization)
  95th percentile per-packet one-way delay: 32.668 ms
  Loss rate: 1.11%
-- Flow 1:
  Average throughput: 9.20 Mbit/s
  95th percentile per-packet one-way delay: 32.668 ms
  Loss rate: 1.11%
Run 2: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 9.30 Mbit/s)  
Flow 1 egress (mean 9.20 Mbit/s)

Per-packet oneway delay (ms)

Flow 1 (95th percentile 32.67 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-06-29 23:03:50
End at: 2018-06-29 23:04:20

# 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: 10.07 Mbit/s (83.9% utilization)
95th percentile per-packet one-way delay: 32.976 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 10.07 Mbit/s
95th percentile per-packet one-way delay: 32.976 ms
Loss rate: 0.90%
Run 4: Statistics of PCC-Allegro

End at: 2018-06-29 23:14:07

# Below is generated by plot.py at 2018-06-30 00:23:58
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.45 Mbit/s (87.1% utilization)
  95th percentile per-packet one-way delay: 36.642 ms
  Loss rate: 0.89%
-- Flow 1:
  Average throughput: 10.45 Mbit/s
  95th percentile per-packet one-way delay: 36.642 ms
  Loss rate: 0.89%
Run 4: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.53 Mbit/s)  Flow 1 egress (mean 10.45 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 36.64 ms)
Run 5: Statistics of PCC-Allegro

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

# Below is generated by plot.py at 2018-06-30 00:24:09
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.21 Mbit/s (85.1% utilization)
  95th percentile per-packet one-way delay: 38.160 ms
  Loss rate: 0.88%
-- Flow 1:
  Average throughput: 10.21 Mbit/s
  95th percentile per-packet one-way delay: 38.160 ms
  Loss rate: 0.88%
Run 5: Report of PCC-Allegro — Data Link

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

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 10.29 Mbit/s)
- Flow 1 egress (mean 10.21 Mbit/s)

![Graph showing per packet round trip time over time.](image)

- Flow 1 (95th percentile 38.16 ms)
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-29 23:33:16
End at: 2018-06-29 23:33:46

# Below is generated by plot.py at 2018-06-30 00:24:11
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.16 Mbit/s (84.7% utilization)
  95th percentile per-packet one-way delay: 32.954 ms
  Loss rate: 0.78%
-- Flow 1:
  Average throughput: 10.16 Mbit/s
  95th percentile per-packet one-way delay: 32.954 ms
  Loss rate: 0.78%
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 10.23 Mbit/s)  Flow 1 egress (mean 10.16 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 32.95 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-06-29 23:43:03
End at: 2018-06-29 23:43:33

# Below is generated by plot.py at 2018-06-30 00:24:12
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.18 Mbit/s (84.8% utilization)
  95th percentile per-packet one-way delay: 35.454 ms
  Loss rate: 0.90%
-- Flow 1:
  Average throughput: 10.18 Mbit/s
  95th percentile per-packet one-way delay: 35.454 ms
  Loss rate: 0.90%
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 10.26 Mbit/s)  Flow 1 egress (mean 10.18 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 35.45 ms)
Run 8: Statistics of PCC-Allegro

Start at: 2018-06-29 23:52:50
End at: 2018-06-29 23:53:20

# Below is generated by plot.py at 2018-06-30 00:24:12
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.91 Mbit/s (32.6% utilization)
  95th percentile per-packet one-way delay: 32.299 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 3.91 Mbit/s
  95th percentile per-packet one-way delay: 32.299 ms
  Loss rate: 0.11%
Run 8: Report of PCC-Allegro — Data Link
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-30 00:02:38
End at: 2018-06-30 00:03:08

# Below is generated by plot.py at 2018-06-30 00:24:15
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.97 Mbit/s (83.1% utilization)
95th percentile per-packet one-way delay: 35.597 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 9.97 Mbit/s
95th percentile per-packet one-way delay: 35.597 ms
Loss rate: 0.90%
Run 9: Report of PCC-Allegro — Data Link

![Graph 1: Throughput vs. Time (Mb/s) with average capacity of 12.00 Mb/s (shaded region)]

- Flow 1 ingress (mean 10.05 Mb/s)
- Flow 1 egress (mean 9.97 Mb/s)

![Graph 2: Per-packet end-to-end delay vs. Time (ms)]

- Flow 1 (95th percentile 35.60 ms)
Run 10: Statistics of PCC-Allegro

Start at: 2018-06-30 00:12:28
End at: 2018-06-30 00:12:58

# Below is generated by plot.py at 2018-06-30 00:24:17
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.73 Mbit/s (89.4% utilization)
95th percentile per-packet one-way delay: 45.090 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 10.73 Mbit/s
95th percentile per-packet one-way delay: 45.090 ms
Loss rate: 0.84%
Run 10: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.81 Mbit/s)  Flow 1 egress (mean 10.73 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 45.09 ms)
Run 1: Statistics of PCC-Expr

Start at: 2018-06-29 22:47:42

# 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: 10.84 Mbit/s (90.3% utilization)
95th percentile per-packet one-way delay: 61.119 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 10.84 Mbit/s
95th percentile per-packet one-way delay: 61.119 ms
Loss rate: 0.93%
Run 1: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 10.93 Mbit/s)  Flow 1 egress (mean 10.84 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 61.12 ms)
Run 2: Statistics of PCC-Expr

Start at: 2018-06-29 22:57:30
End at: 2018-06-29 22:58:00

# 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: 10.82 Mbit/s (90.2% utilization)
95th percentile per-packet one-way delay: 60.573 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 10.82 Mbit/s
95th percentile per-packet one-way delay: 60.573 ms
Loss rate: 0.65%
Run 2: Report of PCC-Expr — Data Link
Run 3: Statistics of PCC-Expr

Start at: 2018-06-29 23:07:17
End at: 2018-06-29 23:07:47

# Below is generated by plot.py at 2018-06-30 00:24:37
# 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: 59.764 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 10.61 Mbit/s
  95th percentile per-packet one-way delay: 59.764 ms
  Loss rate: 0.30%
Run 3: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 10.63 Mbit/s)
Flow 1 egress (mean 10.61 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 59.76 ms)
Run 4: Statistics of PCC-Expr

Start at: 2018-06-29 23:17:04
End at: 2018-06-29 23:17:34

# Below is generated by plot.py at 2018-06-30 00:24:46
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s  
  Average throughput: 11.04 Mbit/s (92.0% utilization)  
  95th percentile per-packet one-way delay: 60.212 ms  
  Loss rate: 0.45%
-- Flow 1:
  Average throughput: 11.04 Mbit/s  
  95th percentile per-packet one-way delay: 60.212 ms  
  Loss rate: 0.45%
Run 4: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.08 Mbit/s)  Flow 1 egress (mean 11.04 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 60.21 ms)
Run 5: Statistics of PCC-Expr

Start at: 2018-06-29 23:26:53

# Below is generated by plot.py at 2018-06-30 00:24:46
# 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: 60.793 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 10.81 Mbit/s
  95th percentile per-packet one-way delay: 60.793 ms
  Loss rate: 0.58%
Run 6: Statistics of PCC-Expr

Start at: 2018-06-29 23:36:43
End at: 2018-06-29 23:37:13

# 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: 10.97 Mbit/s (91.4% utilization)
  95th percentile per-packet one-way delay: 60.596 ms
  Loss rate: 0.60%
-- Flow 1:
  Average throughput: 10.97 Mbit/s
  95th percentile per-packet one-way delay: 60.596 ms
  Loss rate: 0.60%
Run 6: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.03 Mbit/s)  Flow 1 egress (mean 10.97 Mbit/s)

Per packet delivery delay (ms)

Flow 1 (95th percentile 60.60 ms)
Run 7: Statistics of PCC-Expr

Start at: 2018-06-29 23:46:30
End at: 2018-06-29 23:47:00

# 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: 10.98 Mbit/s (91.5% utilization)
  95th percentile per-packet one-way delay: 59.998 ms
  Loss rate: 0.51%
-- Flow 1:
  Average throughput: 10.98 Mbit/s
  95th percentile per-packet one-way delay: 59.998 ms
  Loss rate: 0.51%
Run 7: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

0 2 4 6 8 10 12
Throughput (Mbit/s)

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

Flow 1 ingress (mean 11.03 Mbit/s)  Flow 1 egress (mean 10.98 Mbit/s)

0 5 10 15 20 25 30
Time (s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 60.00 ms)
Run 8: Statistics of PCC-Expr

Start at: 2018-06-29 23:56:16
End at: 2018-06-29 23:56:46

# Below is generated by plot.py at 2018-06-30 00:24:50
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.53 Mbit/s (87.8% utilization)
95th percentile per-packet one-way delay: 59.468 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 10.53 Mbit/s
95th percentile per-packet one-way delay: 59.468 ms
Loss rate: 0.35%
Run 8: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 10.56 Mbit/s)  Flow 1 egress (mean 10.53 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 59.47 ms)
Run 9: Statistics of PCC-Expr

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

# Below is generated by plot.py at 2018-06-30 00:25:04
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.05 Mbit/s (92.1% utilization)
  95th percentile per-packet one-way delay: 60.552 ms
  Loss rate: 0.66%
-- Flow 1:
  Average throughput: 11.05 Mbit/s
  95th percentile per-packet one-way delay: 60.552 ms
  Loss rate: 0.66%
Run 9: Report of PCC-Expr — Data Link

![Average capacity 12.00 Mbit/s (shaded region)](chart1)

- Flow 1 ingress (mean 11.11 Mbit/s)
- Flow 1 egress (mean 11.05 Mbit/s)

![Per packet end-to-end delay (ms)](chart2)

- Flow 1 (95th percentile 60.55 ms)
Run 10: Statistics of PCC-Expr

Start at: 2018-06-30 00:15:55
End at: 2018-06-30 00:16:25

# Below is generated by plot.py at 2018-06-30 00:25:08
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.10 Mbit/s (92.5% utilization)
  95th percentile per-packet one-way delay: 61.202 ms
  Loss rate: 1.28%
-- Flow 1:
  Average throughput: 11.10 Mbit/s
  95th percentile per-packet one-way delay: 61.202 ms
  Loss rate: 1.28%
Run 10: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 11.23 Mbit/s)  Flow 1 egress (mean 11.10 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 61.20 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-06-29 22:47:08
End at: 2018-06-29 22:47:38

# Below is generated by plot.py at 2018-06-30 00:25:08
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.75 Mbit/s (97.9% utilization)
95th percentile per-packet one-way delay: 59.233 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 59.233 ms
Loss rate: 0.31%
Run 1: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.77 Mbit/s)  Flow 1 egress (mean 11.75 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 59.23 ms)
Run 2: Statistics of QUIC Cubic

End at: 2018-06-29 22:57:25

# 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: 11.74 Mbit/s (97.8% utilization)
95th percentile per-packet one-way delay: 59.203 ms
Loss rate: 0.32%

-- Flow 1:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 59.203 ms
Loss rate: 0.32%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-06-29 23:06:42
End at: 2018-06-29 23:07:12

# Below is generated by plot.py at 2018-06-30 00:25:11
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.75 Mbit/s (97.9% utilization)
95th percentile per-packet one-way delay: 59.255 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 59.255 ms
Loss rate: 0.34%
Run 3: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.78 Mbit/s)  Flow 1 egress (mean 11.75 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 59.26 ms)
Run 4: Statistics of QUIC Cubic

Start at: 2018-06-29 23:16:29
End at: 2018-06-29 23:16:59

# 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: 11.75 Mbit/s (97.9% utilization)
  95th percentile per-packet one-way delay: 59.223 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 11.75 Mbit/s
  95th percentile per-packet one-way delay: 59.223 ms
  Loss rate: 0.30%
Run 4: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.78 Mbit/s)  Flow 1 egress (mean 11.75 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 59.22 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-06-29 23:26:18
End at: 2018-06-29 23:26:48

# Below is generated by plot.py at 2018-06-30 00:25:15
# 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: 59.133 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 11.77 Mbit/s
  95th percentile per-packet one-way delay: 59.133 ms
  Loss rate: 0.26%
Run 5: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.79 Mbit/s)  Flow 1 egress (mean 11.77 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 59.13 ms)
Run 6: Statistics of QUIC Cubic

Start at: 2018-06-29 23:36:09
End at: 2018-06-29 23:36:39

# 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: 11.76 Mbit/s (98.0% utilization)
95th percentile per-packet one-way delay: 59.150 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 11.76 Mbit/s
95th percentile per-packet one-way delay: 59.150 ms
Loss rate: 0.32%
Run 6: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.79 Mbit/s)  Flow 1 egress (mean 11.76 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 59.15 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-06-29 23:45:55
End at: 2018-06-29 23:46:25

# 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: 11.77 Mbit/s (98.0% utilization)
95th percentile per-packet one-way delay: 59.163 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 59.163 ms
Loss rate: 0.32%
Run 7: Report of QUIC Cubic — Data Link

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

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 11.79 Mbit/s)
- Flow 1 egress (mean 11.77 Mbit/s)

![Graph showing packet round-trip time over time.]

- Flow 1 (95th percentile 58.16 ms)
Run 8: Statistics of QUIC Cubic

End at: 2018-06-29 23:56:12

# 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: 11.76 Mbit/s (98.0% utilization)
  95th percentile per-packet one-way delay: 59.211 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 11.76 Mbit/s
  95th percentile per-packet one-way delay: 59.211 ms
  Loss rate: 0.30%
Run 8: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress** (mean 11.78 Mbit/s)
- **Flow 1 egress** (mean 11.76 Mbit/s)

![Graph showing per-packet round-trip delay over time for Flow 1 with 95th percentile of 59.21 ms.]

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Run 9: Statistics of QUIC Cubic

Start at: 2018-06-30 00:05:31
End at: 2018-06-30 00:06:01

# Below is generated by plot.py at 2018-06-30 00:25:37
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.75 Mbit/s (97.9% utilization)
95th percentile per-packet one-way delay: 59.186 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 59.186 ms
Loss rate: 0.32%
Run 9: Report of QUIC Cubic — Data Link

![Graph of average capacity and throughput over time.]

Average capacity 12.00 Mbit/s (shaded region)

Time (s)

Throughput (Mbit/s)

Flow 1 ingress (mean 11.77 Mbit/s)  Flow 1 egress (mean 11.75 Mbit/s)

![Graph of packet delivery delay over time.]

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 59.19 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-30 00:15:21
End at: 2018-06-30 00:15:51

# 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: 11.75 Mbit/s (97.9% utilization)
95th percentile per-packet one-way delay: 59.287 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 59.287 ms
Loss rate: 0.29%
Run 10: Report of QUIC Cubic — Data Link

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

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

**Throughput (Mb/s)**

**Time (s)**

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

**Flow 1 egress (mean 11.75 Mbit/s)**

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

*Flow 1 (95th percentile 58.29 ms)*
Run 1: Statistics of SCReAM


# 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: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.571 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.571 ms
  Loss rate: 0.13%
Run 1: 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 31.57 ms)
Run 2: Statistics of SCReAM

Start at: 2018-06-29 22:58:40
End at: 2018-06-29 22:59:10

# 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: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.629 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.629 ms
Loss rate: 0.13%
Run 2: Report of SCReAM — Data Link

![Throughput Graph]

Average capacity 12.00 Mbit/s (shaded region)

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

![Delay Graph]

- **Flow 1 (95th percentile 31.63 ms)**
Run 3: Statistics of SCReAM

Start at: 2018-06-29 23:08:27
End at: 2018-06-29 23:08:57

# 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: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.667 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.667 ms
Loss rate: 0.00%
Run 3: 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 31.67 ms)
Run 4: Statistics of SCReAM

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 00:25:39
# 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: 31.605 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.605 ms
Loss rate: 0.13%
Run 4: 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)

Flow 1 (95th percentile 31.61 ms)
Run 5: Statistics of SCReAM

Start at: 2018-06-29 23:28:02
End at: 2018-06-29 23:28:32

# 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: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.562 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.562 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 delay (ms)

Time (s)

Flow 1 (95th percentile 31.56 ms)
Run 6: Statistics of SCReAM

Start at: 2018-06-29 23:37:53
End at: 2018-06-29 23:38:23

# 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: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.601 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.601 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

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

Flow 1 (95th percentile 31.60 ms)

Per packet one way delay (ms)

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Run 7: Statistics of SCReAM

Start at: 2018-06-29 23:47:40
End at: 2018-06-29 23:48:10

# 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: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.542 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.542 ms
  Loss rate: 0.13%
Run 7: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Per packet one-way delay (ms)

Flow 1 (95th percentile 31.54 ms)
Run 8: Statistics of SCReAM

Start at: 2018-06-29 23:57:26
End at: 2018-06-29 23:57:56

# 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: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.561 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.561 ms
  Loss rate: 0.00%
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)

Packet one-way delay (ms)

Flow 1 (95th percentile 31.56 ms)
Run 9: Statistics of SCReAM

Start at: 2018-06-30 00:07:15
End at: 2018-06-30 00:07:45

# 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: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.537 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.537 ms
Loss rate: 0.13%
Run 9: 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 31.54 ms)
Run 10: Statistics of SCReAM

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

# Below is generated by plot.py at 2018-06-30 00:25:40
# 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: 31.548 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.548 ms
  Loss rate: 0.00%
Run 10: 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 31.55 ms)
Run 1: Statistics of Sprout

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

# Below is generated by plot.py at 2018-06-30 00:25:44
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.54 Mbit/s (37.9% utilization)
  95th percentile per-packet one-way delay: 54.622 ms
  Loss rate: 2.08%
-- Flow 1:
  Average throughput: 4.54 Mbit/s
  95th percentile per-packet one-way delay: 54.622 ms
  Loss rate: 2.08%
Run 1: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.64 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 2: Statistics of Sprout

Start at: 2018-06-29 22:52:54

# Below is generated by plot.py at 2018-06-30 00:25:49
# 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: 52.175 ms
  Loss rate: 1.19%
-- Flow 1:
  Average throughput: 4.59 Mbit/s
  95th percentile per-packet one-way delay: 52.175 ms
  Loss rate: 1.19%
Run 2: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.64 Mbit/s)  Flow 1 egress (mean 4.59 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 52.17 ms)
Run 3: Statistics of Sprout

Start at: 2018-06-29 23:02:41
End at: 2018-06-29 23:03:11

# Below is generated by plot.py at 2018-06-30 00:25:49
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.00 Mbit/s (33.3% utilization)
  95th percentile per-packet one-way delay: 53.249 ms
  Loss rate: 1.24%
-- Flow 1:
  Average throughput: 4.00 Mbit/s
  95th percentile per-packet one-way delay: 53.249 ms
  Loss rate: 1.24%
Run 3: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

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

Time (s)

Flow 1 ingress (mean 4.04 Mbit/s)  Flow 1 egress (mean 4.00 Mbit/s)

Per packet one-way delay (ms)

30 35 40 45 50 55 60 65

Time (s)

Flow 1 (95th percentile 53.25 ms)
Run 4: Statistics of Sprout

Start at: 2018-06-29 23:12:27
End at: 2018-06-29 23:12:57

# Below is generated by plot.py at 2018-06-30 00:25:52
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.62 Mbit/s (38.5% utilization)
95th percentile per-packet one-way delay: 54.083 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 4.62 Mbit/s
95th percentile per-packet one-way delay: 54.083 ms
Loss rate: 2.15%
Run 4: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.72 Mbit/s)  Flow 1 egress (mean 4.62 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 54.08 ms)
Run 5: Statistics of Sprout


# Below is generated by plot.py at 2018-06-30 00:25:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.55 Mbit/s (37.9% utilization)
  95th percentile per-packet one-way delay: 53.095 ms
  Loss rate: 1.75%
-- Flow 1:
  Average throughput: 4.55 Mbit/s
  95th percentile per-packet one-way delay: 53.095 ms
  Loss rate: 1.75%
Run 5: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.63 Mbit/s)  Flow 1 egress (mean 4.55 Mbit/s)

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

Flow 1 (95th percentile 53.09 ms)

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Run 6: Statistics of Sprout

Start at: 2018-06-29 23:32:07
End at: 2018-06-29 23:32:37

# Below is generated by plot.py at 2018-06-30 00:25:55
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.61 Mbit/s (38.4% utilization)
  95th percentile per-packet one-way delay: 53.521 ms
  Loss rate: 1.38%
-- Flow 1:
  Average throughput: 4.61 Mbit/s
  95th percentile per-packet one-way delay: 53.521 ms
  Loss rate: 1.38%
Run 6: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 4.67 Mbit/s)  Flow 1 egress (mean 4.61 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 53.52 ms)
Run 7: Statistics of Sprout


# Below is generated by plot.py at 2018-06-30 00:25:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.49 Mbit/s (37.4% utilization)
95th percentile per-packet one-way delay: 54.222 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 54.222 ms
Loss rate: 2.69%
Run 7: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.61 Mbit/s)  Flow 1 egress (mean 4.49 Mbit/s)

Packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 54.22 ms)
Run 8: Statistics of Sprout

Start at: 2018-06-29 23:51:40
End at: 2018-06-29 23:52:10

# Below is generated by plot.py at 2018-06-30 00:25:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.38 Mbit/s (36.5% utilization)
95th percentile per-packet one-way delay: 52.025 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 52.025 ms
Loss rate: 0.97%
Run 8: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.42 Mbit/s)  Flow 1 egress (mean 4.38 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 52.02 ms)
Run 9: Statistics of Sprout

Start at: 2018-06-30 00:01:29
End at: 2018-06-30 00:01:59

# Below is generated by plot.py at 2018-06-30 00:26:00
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.26 Mbit/s (35.5% utilization)
  95th percentile per-packet one-way delay: 52.859 ms
  Loss rate: 2.13%
-- Flow 1:
  Average throughput: 4.26 Mbit/s
  95th percentile per-packet one-way delay: 52.859 ms
  Loss rate: 2.13%
Run 9: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.36 Mbit/s)  Flow 1 egress (mean 4.26 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 52.86 ms)
Run 10: Statistics of Sprout

Start at: 2018-06-30 00:11:19
End at: 2018-06-30 00:11:49

# Below is generated by plot.py at 2018-06-30 00:26:03
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.56 Mbit/s (38.0% utilization)
  95th percentile per-packet one-way delay: 53.659 ms
  Loss rate: 2.27%
-- Flow 1:
  Average throughput: 4.56 Mbit/s
  95th percentile per-packet one-way delay: 53.659 ms
  Loss rate: 2.27%
Run 10: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0 1 2 3 4 5 6 7 8 9 10 11 12
0 5 10 15 20 25 30 35

Time (s)

Flow 1 ingress (mean 4.66 Mbit/s) Flow 1 egress (mean 4.56 Mbit/s)

Packet oneway delay (ms)

30 40 50 60
30 50 70 90

Time (s)

Flow 1 (95th percentile 53.66 ms)
Run 1: Statistics of TaoVA-100x


# Below is generated by plot.py at 2018-06-30 00:26:25
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.49 Mbit/s (95.8% utilization)
  95th percentile per-packet one-way delay: 32.757 ms
  Loss rate: 0.70%
-- Flow 1:
  Average throughput: 11.49 Mbit/s
  95th percentile per-packet one-way delay: 32.757 ms
  Loss rate: 0.70%
Run 1: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 32.76 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-06-29 22:58:05
End at: 2018-06-29 22:58:35

# Below is generated by plot.py at 2018-06-30 00:26:27
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.53 Mbit/s (96.0% utilization)
  95th percentile per-packet one-way delay: 32.877 ms
  Loss rate: 0.70%
-- Flow 1:
  Average throughput: 11.53 Mbit/s
  95th percentile per-packet one-way delay: 32.877 ms
  Loss rate: 0.70%
Run 2: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Flow 1 (95th percentile 32.88 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-06-29 23:07:52
End at: 2018-06-29 23:08:22

# Below is generated by plot.py at 2018-06-30 00:26:28
# 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: 32.869 ms
  Loss rate: 0.83%
-- Flow 1:
  Average throughput: 11.51 Mbit/s
  95th percentile per-packet one-way delay: 32.869 ms
  Loss rate: 0.83%
Run 3: Report of TaoVA-100x — 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 11.60 Mbit/s)  Flow 1 egress (mean 11.51 Mbit/s)

Per packet end-to-end delay (ms)

30 35 40 45 50 55 60
0 5 10 15 20 25 30
Time (s)

Flow 1 (95th percentile 32.87 ms)
Run 4: Statistics of TaoVA-100x

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 00:26:30
# 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: 32.811 ms
  Loss rate: 0.70%
-- Flow 1:
  Average throughput: 11.52 Mbit/s
  95th percentile per-packet one-way delay: 32.811 ms
  Loss rate: 0.70%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

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

# Below is generated by plot.py at 2018-06-30 00:26:30
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.49 Mbit/s (95.8% utilization)
  95th percentile per-packet one-way delay: 32.792 ms
  Loss rate: 0.70%
-- Flow 1:
  Average throughput: 11.49 Mbit/s
  95th percentile per-packet one-way delay: 32.792 ms
  Loss rate: 0.70%
Run 5: 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)

Flow 1 (95th percentile 32.79 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-06-29 23:37:18
End at: 2018-06-29 23:37:48

# Below is generated by plot.py at 2018-06-30 00:26:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.49 Mbit/s (95.8% utilization)
95th percentile per-packet one-way delay: 32.758 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 32.758 ms
Loss rate: 0.70%
Run 7: Statistics of TaoVA-100x

Start at: 2018-06-29 23:47:05
End at: 2018-06-29 23:47:35

# Below is generated by plot.py at 2018-06-30 00:26:36
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.49 Mbit/s (95.8% utilization)
  95th percentile per-packet one-way delay: 32.748 ms
  Loss rate: 0.70%
-- Flow 1:
  Average throughput: 11.49 Mbit/s
  95th percentile per-packet one-way delay: 32.748 ms
  Loss rate: 0.70%
Run 7: 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 end-to-end delay (ms)

Flow 1 (95th percentile 32.75 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-06-29 23:56:51
End at: 2018-06-29 23:57:21

# 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 (95.8% utilization)
  95th percentile per-packet one-way delay: 32.759 ms
  Loss rate: 0.70%
-- Flow 1:
  Average throughput: 11.49 Mbit/s
  95th percentile per-packet one-way delay: 32.759 ms
  Loss rate: 0.70%
Run 8: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

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

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

Per packet end-to-end delay (ms)

30  35  40  45  50  55  60
0  5  10  15  20  25  30  35  40  45  50  55  60
Time (s)

Flow 1 (95th percentile 32.76 ms)
Run 9: Statistics of TaoVA-100x

Start at: 2018-06-30 00:06:40
End at: 2018-06-30 00:07:10

# Below is generated by plot.py at 2018-06-30 00:27:01
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.48 Mbit/s (95.6% utilization)
  95th percentile per-packet one-way delay: 32.762 ms
  Loss rate: 0.83%
-- Flow 1:
  Average throughput: 11.48 Mbit/s
  95th percentile per-packet one-way delay: 32.762 ms
  Loss rate: 0.83%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

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

# Below is generated by plot.py at 2018-06-30 00:27:03
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.47 Mbit/s (95.6% utilization)
  95th percentile per-packet one-way delay: 32.756 ms
  Loss rate: 0.82%  
-- Flow 1:
  Average throughput: 11.47 Mbit/s
  95th percentile per-packet one-way delay: 32.756 ms
  Loss rate: 0.82%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-06-29 22:45:24
End at: 2018-06-29 22:45:54

# Below is generated by plot.py at 2018-06-30 00:27:03
# 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: 35.674 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 35.674 ms
Loss rate: 0.26%
Run 1: Report of TCP Vegas — 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 11.94 Mbit/s)
Flow 1 egress (mean 11.92 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 35.67 ms)
Run 2: Statistics of TCP Vegas


# Below is generated by plot.py at 2018-06-30 00:27:03
# 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: 38.464 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 38.464 ms
Loss rate: 0.29%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-06-29 23:04:59
End at: 2018-06-29 23:05:29

# Below is generated by plot.py at 2018-06-30 00:27:03
# 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: 38.426 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 11.92 Mbit/s
  95th percentile per-packet one-way delay: 38.426 ms
  Loss rate: 0.26%
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 38.43 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-06-29 23:14:46
End at: 2018-06-29 23:15:16

# Below is generated by plot.py at 2018-06-30 00:27:03
# 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: 37.420 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 37.420 ms
Loss rate: 0.27%
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 11.92 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 37.42 ms)
Run 5: Statistics of TCP Vegas

End at: 2018-06-29 23:25:05

# Below is generated by plot.py at 2018-06-30 00:27:03
# 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: 38.364 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 38.364 ms
Loss rate: 0.26%
Run 5: 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)

- Flow 1 (95th percentile 38.36 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-06-29 23:34:25
End at: 2018-06-29 23:34:55

# Below is generated by plot.py at 2018-06-30 00:27:03
# 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: 36.627 ms
Loss rate: 0.28%

-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 36.627 ms
Loss rate: 0.28%
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 11.92 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 36.63 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-06-29 23:44:12
End at: 2018-06-29 23:44:42

# Below is generated by plot.py at 2018-06-30 00:27:14
# 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: 37.980 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 11.92 Mbit/s
  95th percentile per-packet one-way delay: 37.980 ms
  Loss rate: 0.28%
Run 7: Report of TCP Vegas — Data Link

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

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

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

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

*Flow 1 (95th percentile 37.98 ms)*
Run 8: Statistics of TCP Vegas

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

# Below is generated by plot.py at 2018-06-30 00:27:15
# 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: 35.694 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 35.694 ms
Loss rate: 0.27%
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 11.92 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 35.69 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-06-30 00:03:47
End at: 2018-06-30 00:04:17

# Below is generated by plot.py at 2018-06-30 00:27:16
# 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: 35.719 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 35.719 ms
Loss rate: 0.27%
Run 9: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0 10 20 30 40 50 60

Time (s)

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

Packet round-trip delay (ms)

0 5 10 15 20 25 30 35 40 45 50 55 60

Time (s)

Flow 1 (95th percentile 35.72 ms)
Run 10: Statistics of TCP Vegas

Start at: 2018-06-30 00:13:37
End at: 2018-06-30 00:14:07

# Below is generated by plot.py at 2018-06-30 00:27:16
# 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: 38.408 ms
  Loss rate: 0.28%
  -- Flow 1:
  Average throughput: 11.92 Mbit/s
  95th percentile per-packet one-way delay: 38.408 ms
  Loss rate: 0.28%
Run 1: Statistics of Verus

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

# Below is generated by plot.py at 2018-06-30 00:27:49
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 7.16 Mbit/s (59.6% utilization)
  95th percentile per-packet one-way delay: 61.651 ms
  Loss rate: 93.57%
-- Flow 1:
  Average throughput: 7.16 Mbit/s
  95th percentile per-packet one-way delay: 61.651 ms
  Loss rate: 93.57%
Run 1: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 111.17 Mbit/s)
Flow 1 egress (mean 7.16 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 61.65 ms)
Run 2: Statistics of Verus

Start at: 2018-06-29 23:00:23
End at: 2018-06-29 23:00:53

# Below is generated by plot.py at 2018-06-30 00:27:49
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 7.73 Mbit/s (64.4% utilization)
95th percentile per-packet one-way delay: 61.264 ms
Loss rate: 74.55%
-- Flow 1:
Average throughput: 7.73 Mbit/s
95th percentile per-packet one-way delay: 61.264 ms
Loss rate: 74.55%
Run 2: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 30.34 Mbit/s)  Flow 1 egress (mean 7.73 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 61.26 ms)
Run 3: Statistics of Verus

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

# Below is generated by plot.py at 2018-06-30 00:27:49
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 8.06 Mbit/s (67.2% utilization)
  95th percentile per-packet one-way delay: 61.058 ms
  Loss rate: 62.56%
-- Flow 1:
  Average throughput: 8.06 Mbit/s
  95th percentile per-packet one-way delay: 61.058 ms
  Loss rate: 62.56%
Run 3: Report of Verus — Data Link

![Graph 1: Average capacity 12.00 Mbps (shaded region)]

- **Flow 1 ingress (mean 21.52 Mbps)**
- **Flow 1 egress (mean 8.06 Mbps)**

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

- **Flow 1 (95th percentile 61.06 ms)**

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Run 4: Statistics of Verus

Start at: 2018-06-29 23:19:57
End at: 2018-06-29 23:20:27

# Below is generated by plot.py at 2018-06-30 00:28:12
# Datalink statistics
-- Total of 1 flow:
   Average capacity: 12.00 Mbit/s
   Average throughput: 5.71 Mbit/s (47.6% utilization)
   95th percentile per-packet one-way delay: 61.960 ms
   Loss rate: 96.56%
-- Flow 1:
   Average throughput: 5.71 Mbit/s
   95th percentile per-packet one-way delay: 61.960 ms
   Loss rate: 96.56%
Run 4: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 165.82 Mbit/s)  Flow 1 egress (mean 5.71 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 61.96 ms)
Run 5: Statistics of Verus

Start at: 2018-06-29 23:29:46
End at: 2018-06-29 23:30:16

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 6.83 Mbit/s (56.9% utilization)
  95th percentile per-packet one-way delay: 61.931 ms
  Loss rate: 97.70%
-- Flow 1:
  Average throughput: 6.83 Mbit/s
  95th percentile per-packet one-way delay: 61.931 ms
  Loss rate: 97.70%
Run 5: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 296.39 Mbit/s)  Flow 1 egress (mean 6.83 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 61.93 ms)
Run 6: Statistics of Verus

End at: 2018-06-29 23:40:06

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 7.71 Mbit/s (64.2% utilization)
95th percentile per-packet one-way delay: 61.103 ms
Loss rate: 71.50%
-- Flow 1:
Average throughput: 7.71 Mbit/s
95th percentile per-packet one-way delay: 61.103 ms
Loss rate: 71.50%
Run 6: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 27.01 Mbit/s)  Flow 1 egress (mean 7.71 Mbit/s)

Flow 1 (95th percentile 61.10 ms)
Run 7: Statistics of Verus


# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 7.48 Mbit/s (62.3% utilization)
95th percentile per-packet one-way delay: 61.342 ms
Loss rate: 83.05%
-- Flow 1:
Average throughput: 7.48 Mbit/s
95th percentile per-packet one-way delay: 61.342 ms
Loss rate: 83.05%
Run 7: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 43.94 Mbit/s)  Flow 1 egress (mean 7.48 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 61.34 ms)
Run 8: Statistics of Verus

Start at: 2018-06-29 23:59:09
End at: 2018-06-29 23:59:39

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 6.22 Mbit/s (51.8% utilization)
  95th percentile per-packet one-way delay: 61.903 ms
  Loss rate: 96.21%
-- Flow 1:
  Average throughput: 6.22 Mbit/s
  95th percentile per-packet one-way delay: 61.903 ms
  Loss rate: 96.21%
Run 8: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 164.24 Mbit/s)  Flow 1 egress (mean 6.22 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 61.90 ms)
Run 9: Statistics of Verus

Start at: 2018-06-30 00:08:58
End at: 2018-06-30 00:09:28

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 6.44 Mbit/s (53.7% utilization)
  95th percentile per-packet one-way delay: 61.903 ms
  Loss rate: 96.61%
-- Flow 1:
  Average throughput: 6.44 Mbit/s
  95th percentile per-packet one-way delay: 61.903 ms
  Loss rate: 96.61%
Run 9: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 190.43 Mbit/s)  Flow 1 egress (mean 6.44 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 61.90 ms)

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Run 10: Statistics of Verus

Start at: 2018-06-30 00:18:48
End at: 2018-06-30 00:19:18

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 7.24 Mbit/s (60.4% utilization)
95th percentile per-packet one-way delay: 61.459 ms
Loss rate: 89.09%
-- Flow 1:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 61.459 ms
Loss rate: 89.09%
Run 10: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 66.28 Mbit/s)  Flow 1 egress (mean 7.24 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 61.46 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2018-06-29 22:45:59

# Below is generated by plot.py at 2018-06-30 00:28:54
# 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: 36.058 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 10.92 Mbit/s
  95th percentile per-packet one-way delay: 36.058 ms
  Loss rate: 0.15%
Run 1: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 10.93 Mbit/s)  Flow 1 egress (mean 10.92 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 36.06 ms)
Run 2: Statistics of PCC-Vivace

End at: 2018-06-29 22:56:16

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.99 Mbit/s (91.6% utilization)
95th percentile per-packet one-way delay: 39.033 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 39.033 ms
Loss rate: 0.12%
Run 2: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 59.03 ms)
Run 3: Statistics of PCC-Vivace

Start at: 2018-06-29 23:05:33
End at: 2018-06-29 23:06:03

# Below is generated by plot.py at 2018-06-30 00:28:54
# 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: 36.500 ms
  Loss rate: 0.14%
-- Flow 1:
  Average throughput: 10.97 Mbit/s
  95th percentile per-packet one-way delay: 36.500 ms
  Loss rate: 0.14%
Run 3: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 36.50 ms)
Run 4: Statistics of PCC-Vivace

End at: 2018-06-29 23:15:50

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.95 Mbit/s (91.3% utilization)
  95th percentile per-packet one-way delay: 38.322 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 10.95 Mbit/s
  95th percentile per-packet one-way delay: 38.322 ms
  Loss rate: 0.15%
Run 4: Report of PCC-Vivace — Data Link

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

![Graph 2: Packet arrival delay (ms)]
Run 5: Statistics of PCC-Vivace

Start at: 2018-06-29 23:25:09
End at: 2018-06-29 23:25:39

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.78 Mbit/s (89.8% utilization)
  95th percentile per-packet one-way delay: 55.749 ms
  Loss rate: 0.43%
-- Flow 1:
  Average throughput: 10.78 Mbit/s
  95th percentile per-packet one-way delay: 55.749 ms
  Loss rate: 0.43%
Run 5: Report of PCC-Vivace — Data Link
Run 6: Statistics of PCC-Vivace

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

# Below is generated by plot.py at 2018-06-30 00:28:54
# 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: 36.443 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 10.97 Mbit/s
95th percentile per-packet one-way delay: 36.443 ms
Loss rate: 0.15%
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 10.97 Mbit/s)  Flow 1 egress (mean 10.97 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 36.44 ms)
Run 7: Statistics of PCC-Vivace

Start at: 2018-06-29 23:44:46
End at: 2018-06-29 23:45:16

# Below is generated by plot.py at 2018-06-30 00:28:54
# 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: 36.049 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 10.94 Mbit/s
95th percentile per-packet one-way delay: 36.049 ms
Loss rate: 0.15%
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 10.95 Mbit/s)  Flow 1 egress (mean 10.84 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 36.05 ms)
Run 8: Statistics of PCC-Vivace

Start at: 2018-06-29 23:54:33
End at: 2018-06-29 23:55:03

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.95 Mbit/s (91.3% utilization)
  95th percentile per-packet one-way delay: 36.039 ms
  Loss rate: 0.16%
-- Flow 1:
  Average throughput: 10.95 Mbit/s
  95th percentile per-packet one-way delay: 36.039 ms
  Loss rate: 0.16%
Run 8: Report of PCC-Vivace — Data Link

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

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

**Throughput (Mbps)**

- **Flow 1 ingress**: mean 10.96 Mbit/s
- **Flow 1 egress**: mean 10.95 Mbit/s

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

- Flow 1 (95th percentile 36.04 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-06-30 00:04:22
End at: 2018-06-30 00:04:52

# Below is generated by plot.py at 2018-06-30 00:28:54
# 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: 35.781 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 35.781 ms
Loss rate: 0.14%
Run 10: Statistics of PCC-Vivace

Start at: 2018-06-30 00:14:11
End at: 2018-06-30 00:14:41

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.98 Mbit/s (91.5% utilization)
95th percentile per-packet one-way delay: 36.271 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 10.98 Mbit/s
95th percentile per-packet one-way delay: 36.271 ms
Loss rate: 0.13%
Run 10: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Per packet one-way delay (ms)

Flow 1 (95th percentile 36.27 ms)
Run 1: Statistics of WebRTC media


# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.96 Mbit/s (16.3% utilization)
95th percentile per-packet one-way delay: 35.058 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 35.058 ms
Loss rate: 0.10%
Run 1: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Time (s)

Throughput (Mbit/s)

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

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

- Flow 1 (95th percentile 35.06 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-06-29 22:51:46
End at: 2018-06-29 22:52:16

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.95 Mbit/s (16.2% utilization)
95th percentile per-packet one-way delay: 35.222 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 35.222 ms
Loss rate: 0.15%
Run 2: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

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

Time (s)

Flow 1 (95th percentile 35.22 ms)

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Run 3: Statistics of WebRTC media

Start at: 2018-06-29 23:01:32
End at: 2018-06-29 23:02:03

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.07 Mbit/s (17.2% utilization)
95th percentile per-packet one-way delay: 35.951 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 35.951 ms
Loss rate: 0.08%
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 2.07 Mbit/s)  Flow 1 egress (mean 2.07 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 35.95 ms)
Run 4: Statistics of WebRTC media

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 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.91 Mbit/s (15.9% utilization)
95th percentile per-packet one-way delay: 35.196 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 35.196 ms
Loss rate: 0.08%
Run 4: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 35.20 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-06-29 23:21:08
End at: 2018-06-29 23:21:38

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.93 Mbit/s (16.1% utilization)
95th percentile per-packet one-way delay: 35.346 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 35.346 ms
Loss rate: 0.16%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-06-29 23:30:59
End at: 2018-06-29 23:31:29

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.93 Mbit/s (16.0% utilization)
  95th percentile per-packet one-way delay: 35.222 ms
  Loss rate: 0.08%
-- Flow 1:
  Average throughput: 1.93 Mbit/s
  95th percentile per-packet one-way delay: 35.222 ms
  Loss rate: 0.08%
Run 6: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 35.22 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-06-29 23:40:45
End at: 2018-06-29 23:41:16

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 1.90 Mbit/s (15.9% utilization)
  95th percentile per-packet one-way delay: 35.105 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 1.90 Mbit/s
  95th percentile per-packet one-way delay: 35.105 ms
  Loss rate: 0.19%
Run 7: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 35.10 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-06-29 23:50:32
End at: 2018-06-29 23:51:02

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.96 Mbit/s (16.3% utilization)
95th percentile per-packet one-way delay: 35.260 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 35.260 ms
Loss rate: 0.15%
Run 8: Report of WebRTC media — Data Link

![Graph showing average capacity and throughput over time with annotations for flow ingress and egress.](image)

![Graph showing per-packet end-to-end delay with a note for flow 1's 95th percentile delay.](image)
Run 9: Statistics of WebRTC media

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

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.21 Mbit/s (18.4% utilization)
95th percentile per-packet one-way delay: 36.239 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 36.239 ms
Loss rate: 0.14%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-06-30 00:10:10
End at: 2018-06-30 00:10:40

# Below is generated by plot.py at 2018-06-30 00:28:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.92 Mbit/s (16.0% utilization)
95th percentile per-packet one-way delay: 35.379 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 35.379 ms
Loss rate: 0.12%
Run 10: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

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

Flow 1 (95th percentile 35.38 ms)