Pantheon Report

Generated at 2018-06-30 00:28:01 (UTC).
Tested in mahimahi: mm-delay 30 mm-link 12mbps.trace 12mbps.trace
--uplink-queue=droptail --uplink-queue-args=bytes=9000
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 @ 715dc5f09d172e419699f6f6f17f1cb4c45064f2f12
third_party/fillp @ d47f4fa1b45a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 30060ab034deb3424347f5cc3db86198edc35d2a
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf8e562f4
third_party/indigo @ 2601c92e4a9da9d8d38dc4dfbe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed3125943666f9840f65b8cbe8f464b1b39
third_party/pcc @ 1af958fa0d66d18b623c091a55f8c872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8a0d08fab92c4eb24f974ab
third_party/proto-quic @ 77961fa82733a86b42f1bc8143e89f3c9f42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3dbb2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e3ad4a46ad18c74f9415f291a26
third_party/verus @ d4b447ea74c6e6a260a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webRTC @ 3f0cc2a9061a41b6f9d94de4735770d143a1fa2851
local test in mahimahi, 10 runs of 30s each per scheme (mean of all runs by scheme)
<table>
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<tr>
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<th># runs</th>
<th>mean avg tput (Mbit/s) flow 1</th>
<th>mean 95th-%ile delay (ms) flow 1</th>
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<tr>
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<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Indigo</td>
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<td>35.84</td>
<td>60.26</td>
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<tr>
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<tr>
<td>PCC-Allegro</td>
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<td>9.88</td>
<td>34.10</td>
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<td>PCC-Expr</td>
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<td>11.26</td>
<td>37.02</td>
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<tr>
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<td>10</td>
<td>11.09</td>
<td>35.88</td>
<td>0.47</td>
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<td>SCReAM</td>
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<td>0.67</td>
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<td>TaoVA-100x</td>
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<td>0.81</td>
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<tr>
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<td>6.49</td>
<td>34.58</td>
<td>0.26</td>
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<tr>
<td>Verus</td>
<td>10</td>
<td>5.18</td>
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<td>96.67</td>
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<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>10.96</td>
<td>35.01</td>
<td>0.28</td>
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<tr>
<td>WebRTC media</td>
<td>10</td>
<td>2.45</td>
<td>35.99</td>
<td>1.22</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR


# Below is generated by plot.py at 2018-06-30 00:20:15
# 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: 35.484 ms
  Loss rate: 4.60%
-- Flow 1:
  Average throughput: 11.82 Mbit/s
  95th percentile per-packet one-way delay: 35.484 ms
  Loss rate: 4.60%
Run 1: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 12.37 Mbit/s)  Flow 1 egress (mean 11.82 Mbit/s)

Per-packet round trip delay (ms)

Time (s)

Flow 1 (95th percentile 35.48 ms)
Run 2: Statistics of TCP BBR

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 00:20:18
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.84 Mbit/s (98.7% utilization)
  95th percentile per-packet one-way delay: 35.542 ms
  Loss rate: 4.58%
-- Flow 1:
  Average throughput: 11.84 Mbit/s
  95th percentile per-packet one-way delay: 35.542 ms
  Loss rate: 4.58%
Run 2: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 12.40 Mbit/s)  Flow 1 egress (mean 11.84 Mbit/s)

Per-packet on-way delay (ms)

Flow 1 (95th percentile 35.54 ms)
Run 3: Statistics of TCP BBR

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 00:20:18
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.84 Mbit/s (98.7% utilization)
  95th percentile per-packet one-way delay: 35.600 ms
  Loss rate: 4.60%
-- Flow 1:
  Average throughput: 11.84 Mbit/s
  95th percentile per-packet one-way delay: 35.600 ms
  Loss rate: 4.60%
Run 3: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 12.40 Mbit/s)  Flow 1 egress (mean 11.84 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 35.60 ms)
Run 4: Statistics of TCP BBR

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

# Below is generated by plot.py at 2018-06-30 00:20:18
# 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: 35.480 ms
Loss rate: 4.25%
-- Flow 1:
Average throughput: 11.82 Mbit/s
95th percentile per-packet one-way delay: 35.480 ms
Loss rate: 4.25%
Run 5: Statistics of TCP BBR


# Below is generated by plot.py at 2018-06-30 00:20:19
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.83 Mbit/s (98.6% utilization)
  95th percentile per-packet one-way delay: 35.457 ms
  Loss rate: 4.63%
-- Flow 1:
  Average throughput: 11.83 Mbit/s
  95th percentile per-packet one-way delay: 35.457 ms
  Loss rate: 4.63%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-06-29 23:37:10
End at: 2018-06-29 23:37:40

# Below is generated by plot.py at 2018-06-30 00:20:19
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.83 Mbit/s (98.6% utilization)
95th percentile per-packet one-way delay: 35.477 ms
Loss rate: 4.42%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 35.477 ms
Loss rate: 4.42%
Run 6: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 12.36 Mbit/s)
- Flow 1 egress (mean 11.83 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

- Flow 1 (95th percentile 35.48 ms)
Run 7: Statistics of TCP BBR

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

# Below is generated by plot.py at 2018-06-30 00:20:19
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.84 Mbit/s (98.7% utilization)
95th percentile per-packet one-way delay: 35.557 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 35.557 ms
Loss rate: 4.73%
Run 7: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 12.42 Mbit/s)
Flow 1 egress (mean 11.84 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 35.56 ms)
Run 8: Statistics of TCP BBR

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

# Below is generated by plot.py at 2018-06-30 00:20:19
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.83 Mbit/s (98.6% utilization)
95th percentile per-packet one-way delay: 35.487 ms
Loss rate: 4.72%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 35.487 ms
Loss rate: 4.72%
Run 8: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 12.41 Mbit/s)  Flow 1 egress (mean 11.83 Mbit/s)

Packet on-way delay (ms)

Time (s)

Flow 1 (95th percentile 35.49 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-06-30 00:06:32
End at: 2018-06-30 00:07:02

# Below is generated by plot.py at 2018-06-30 00:20:32
# 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: 35.506 ms
  Loss rate: 4.09%
-- Flow 1:
  Average throughput: 11.82 Mbit/s
  95th percentile per-packet one-way delay: 35.506 ms
  Loss rate: 4.09%
Run 9: Report of TCP BBR — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 12.31 Mbit/s)  Flow 1 egress (mean 11.82 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 35.51 ms)
Run 10: Statistics of TCP BBR

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

# Below is generated by plot.py at 2018-06-30 00:20:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.84 Mbit/s (98.7% utilization)
95th percentile per-packet one-way delay: 35.580 ms
Loss rate: 4.52%
-- Flow 1:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 35.580 ms
Loss rate: 4.52%
Run 10: Report of TCP BBR — Data Link

![Graph](image)

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

- Flow 1 ingress (mean 12.39 Mbit/s)
- Flow 1 egress (mean 11.84 Mbit/s)

![Graph](image)

**Per-packet oneway delay (ms)**

- Flow 1 (95th percentile 35.58 ms)
Run 1: Statistics of Copa


# Below is generated by plot.py at 2018-06-30 00:20:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.19 Mbit/s (76.5% utilization)
95th percentile per-packet one-way delay: 37.694 ms
Loss rate: 32.13%
-- Flow 1:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 37.694 ms
Loss rate: 32.13%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-06-29 22:53:29

# Below is generated by plot.py at 2018-06-30 00:20:48
# Datalink statistics
-- Total of 1 flow:
    Average capacity: 12.00 Mbit/s
    Average throughput: 7.72 Mbit/s (64.3% utilization)
    95th percentile per-packet one-way delay: 37.840 ms
    Loss rate: 46.64%
-- Flow 1:
    Average throughput: 7.72 Mbit/s
    95th percentile per-packet one-way delay: 37.840 ms
    Loss rate: 46.64%
Run 2: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 14.45 Mbit/s)  Flow 1 egress (mean 7.72 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 37.84 ms)
Run 3: Statistics of Copa

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

# Below is generated by plot.py at 2018-06-30 00:20:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 7.91 Mbit/s (65.9% utilization)
95th percentile per-packet one-way delay: 37.828 ms
Loss rate: 44.98%
-- Flow 1:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 37.828 ms
Loss rate: 44.98%
Run 3: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 14.35 Mbit/s)  Flow 1 egress (mean 7.91 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 37.83 ms)
Run 4: Statistics of Copa

End at: 2018-06-29 23:13:34

# Below is generated by plot.py at 2018-06-30 00:20:48
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 7.66 Mbit/s (63.8% utilization)
  95th percentile per-packet one-way delay: 37.840 ms
  Loss rate: 46.41%
-- Flow 1:
  Average throughput: 7.66 Mbit/s
  95th percentile per-packet one-way delay: 37.840 ms
  Loss rate: 46.41%
Run 4: Report of Copa — Data Link

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

- **Flow 1 ingress (mean 14.28 Mbit/s)**
- **Flow 1 egress (mean 7.66 Mbit/s)**

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

- **Flow 1 (95th percentile 37.84 ms)**
Run 5: Statistics of Copa


# Below is generated by plot.py at 2018-06-30 00:20:49
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 9.04 Mbit/s (75.4% utilization)
  95th percentile per-packet one-way delay: 37.715 ms
  Loss rate: 33.60%
-- Flow 1:
  Average throughput: 9.04 Mbit/s
  95th percentile per-packet one-way delay: 37.715 ms
  Loss rate: 33.60%
Run 5: Report of Copa — Data Link

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

- Flow 1 ingress (mean 13.61 Mbit/s)
- Flow 1 egress (mean 9.94 Mbit/s)
Run 6: Statistics of Copa

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

# Below is generated by plot.py at 2018-06-30 00:20:49  
# Datalink statistics
-- Total of 1 flow: 
Average capacity: 12.00 Mbit/s  
Average throughput: 9.34 Mbit/s (77.8% utilization)  
95th percentile per-packet one-way delay: 37.650 ms  
Loss rate: 29.40%  
-- Flow 1: 
Average throughput: 9.34 Mbit/s  
95th percentile per-packet one-way delay: 37.650 ms  
Loss rate: 29.40%
Run 6: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 13.21 Mbit/s)
Flow 1 egress (mean 9.34 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 37.65 ms)
Run 7: Statistics of Copa

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

# Below is generated by plot.py at 2018-06-30 00:21:08
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.23 Mbit/s (85.3% utilization)
95th percentile per-packet one-way delay: 37.486 ms
Loss rate: 18.82%
-- Flow 1:
Average throughput: 10.23 Mbit/s
95th percentile per-packet one-way delay: 37.486 ms
Loss rate: 18.82%
Run 7: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 12.59 Mbit/s)  Flow 1 egress (mean 10.23 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 37.49 ms)
Run 8: Statistics of Copa

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

# Below is generated by plot.py at 2018-06-30 00:21:09
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 9.12 Mbit/s (76.0% utilization)
  95th percentile per-packet one-way delay: 37.711 ms
  Loss rate: 32.43%
-- Flow 1:
  Average throughput: 9.12 Mbit/s
  95th percentile per-packet one-way delay: 37.711 ms
  Loss rate: 32.43%
Run 8: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 13.50 Mbit/s)  Flow 1 egress (mean 9.12 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 37.71 ms)
Run 9: Statistics of Copa

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

# Below is generated by plot.py at 2018-06-30 00:21:23
# 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: 37.442 ms
Loss rate: 18.45%
-- Flow 1:
Average throughput: 10.73 Mbit/s
95th percentile per-packet one-way delay: 37.442 ms
Loss rate: 18.45%
Run 9: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 13.15 Mbit/s)  Flow 1 egress (mean 10.73 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 37.44 ms)
Run 10: Statistics of Copa

Start at: 2018-06-30 00:11:40
End at: 2018-06-30 00:12:10

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.73 Mbit/s (89.4% utilization)
  95th percentile per-packet one-way delay: 37.379 ms
  Loss rate: 15.71%
-- Flow 1:
  Average throughput: 10.73 Mbit/s
  95th percentile per-packet one-way delay: 37.379 ms
  Loss rate: 15.71%
Run 10: Report of Copa — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 12.71 Mbit/s)  Flow 1 egress (mean 10.73 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 37.38 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-06-29 22:45:27
End at: 2018-06-29 22:45:57

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 7.73 Mbit/s (64.4% utilization)
  95th percentile per-packet one-way delay: 34.067 ms
  Loss rate: 0.25%
-- Flow 1:
  Average throughput: 7.73 Mbit/s
  95th percentile per-packet one-way delay: 34.067 ms
  Loss rate: 0.25%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic


# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 8.08 Mbit/s (67.4% utilization)
  95th percentile per-packet one-way delay: 34.246 ms
  Loss rate: 0.22%
-- Flow 1:
  Average throughput: 8.08 Mbit/s
  95th percentile per-packet one-way delay: 34.246 ms
  Loss rate: 0.22%
Run 2: Report of TCP Cubic — Data Link

![Graph of throughput over time](image1)

Average capacity 12.00 Mbit/s (shaded region)

- **Flow 1 ingress (mean 8.09 Mbit/s)**
- **Flow 1 egress (mean 8.08 Mbit/s)**

![Graph of packet per-second delay](image2)

- **Flow 1 (95th percentile 34.25 ms)**
Run 3: Statistics of TCP Cubic

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

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
 Average capacity: 12.00 Mbit/s
 Average throughput: 7.56 Mbit/s (63.0% utilization)
 95th percentile per-packet one-way delay: 34.165 ms
 Loss rate: 0.24%
-- Flow 1:
 Average throughput: 7.56 Mbit/s
 95th percentile per-packet one-way delay: 34.165 ms
 Loss rate: 0.24%
Run 3: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 7.57 Mbit/s)  Flow 1 egress (mean 7.56 Mbit/s)

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

Flow 1 (95th percentile 34.16 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-06-29 23:14:48
End at: 2018-06-29 23:15:18

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 8.23 Mbit/s (68.6% utilization)
95th percentile per-packet one-way delay: 34.171 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 8.23 Mbit/s
95th percentile per-packet one-way delay: 34.171 ms
Loss rate: 0.23%
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 8.24 Mbit/s)  Flow 1 egress (mean 8.23 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 34.17 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-06-29 23:24:34
End at: 2018-06-29 23:25:04

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 8.53 Mbit/s (71.1% utilization)
  95th percentile per-packet one-way delay: 34.235 ms
  Loss rate: 0.23%
-- Flow 1:
  Average throughput: 8.53 Mbit/s
  95th percentile per-packet one-way delay: 34.235 ms
  Loss rate: 0.23%
Run 5: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 8.54 Mbit/s)  Flow 1 egress (mean 8.53 Mbit/s)

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 34.23 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-06-29 23:34:19
End at: 2018-06-29 23:34:49

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 8.08 Mbit/s (67.4% utilization)
95th percentile per-packet one-way delay: 34.239 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 8.08 Mbit/s
95th percentile per-packet one-way delay: 34.239 ms
Loss rate: 0.19%
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 8.09 Mbit/s)  Flow 1 egress (mean 8.08 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 34.24 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-06-29 23:44:06
End at: 2018-06-29 23:44:37

# Below is generated by plot.py at 2018-06-30 00:21:23
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 7.86 Mbit/s (65.5% utilization)
95th percentile per-packet one-way delay: 34.078 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 7.86 Mbit/s
95th percentile per-packet one-way delay: 34.078 ms
Loss rate: 0.25%
Run 7: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 7.87 Mbit/s)  Flow 1 egress (mean 7.86 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 34.08 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-06-29 23:53:54
End at: 2018-06-29 23:54:24

# Below is generated by plot.py at 2018-06-30 00:21:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 8.10 Mbit/s (67.5% utilization)
95th percentile per-packet one-way delay: 34.176 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 8.10 Mbit/s
95th percentile per-packet one-way delay: 34.176 ms
Loss rate: 0.21%
Run 8: Report of TCP Cubic — Data Link

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

- **Average capacity 12.00 Mbit/s (shaded region)**
- **Flow 1 ingress (mean 8.11 Mbit/s)**
- **Flow 1 egress (mean 8.10 Mbit/s)**

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

- **Flow 1 (95th percentile 34.18 ms)**
Run 9: Statistics of TCP Cubic

Start at: 2018-06-30 00:03:40
End at: 2018-06-30 00:04:10

# Below is generated by plot.py at 2018-06-30 00:21:28
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 7.57 Mbit/s (63.1% utilization)
95th percentile per-packet one-way delay: 34.158 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 7.57 Mbit/s
95th percentile per-packet one-way delay: 34.158 ms
Loss rate: 0.21%
Run 9: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 7.58 Mbit/s)**
- **Flow 1 egress (mean 7.57 Mbit/s)**

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

- **Flow 1 (95th percentile 34.16 ms)**
Run 10: Statistics of TCP Cubic

Start at: 2018-06-30 00:13:24
End at: 2018-06-30 00:13:54

# Below is generated by plot.py at 2018-06-30 00:21:29
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 7.71 Mbit/s (64.2% utilization)
  95th percentile per-packet one-way delay: 33.931 ms
  Loss rate: 0.22%
-- Flow 1:
  Average throughput: 7.71 Mbit/s
  95th percentile per-packet one-way delay: 33.931 ms
  Loss rate: 0.22%
Run 10: Report of TCP Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 33.93 ms)
Run 1: Statistics of FillP

Start at: 2018-06-29 22:42:00
End at: 2018-06-29 22:42:30

# 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: 10.21 Mbit/s (85.0% utilization)
95th percentile per-packet one-way delay: 37.498 ms
Loss rate: 14.27%
-- Flow 1:
Average throughput: 10.21 Mbit/s
95th percentile per-packet one-way delay: 37.498 ms
Loss rate: 14.27%
Run 1: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.89 Mbit/s)  Flow 1 egress (mean 10.21 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 37.50 ms)
Run 2: Statistics of FillP

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 00:21:45
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.00 Mbit/s (83.3% utilization)
95th percentile per-packet one-way delay: 37.470 ms
Loss rate: 13.84%
-- Flow 1:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 37.470 ms
Loss rate: 13.84%
Run 2: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.60 Mbit/s)  Flow 1 egress (mean 10.00 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 37.47 ms)
Run 3: Statistics of FillP

Start at: 2018-06-29 23:01:34
End at: 2018-06-29 23:02:04

# 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: 10.27 Mbit/s (85.6% utilization)
95th percentile per-packet one-way delay: 37.503 ms
Loss rate: 13.75%
-- Flow 1:
Average throughput: 10.27 Mbit/s
95th percentile per-packet one-way delay: 37.503 ms
Loss rate: 13.75%
Run 3: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.89 Mbit/s)  Flow 1 egress (mean 10.27 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 37.50 ms)
Run 4: Statistics of FillP

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

# Below is generated by plot.py at 2018-06-30 00:21:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.06 Mbit/s (83.9% utilization)
95th percentile per-packet one-way delay: 37.458 ms
Loss rate: 13.83%
-- Flow 1:
Average throughput: 10.06 Mbit/s
95th percentile per-packet one-way delay: 37.458 ms
Loss rate: 13.83%
Run 4: Report of FillP — Data Link

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

- **Flow 1 ingress** (mean 11.67 Mbit/s)
- **Flow 1 egress** (mean 10.06 Mbit/s)

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

- **Flow 1** (95th percentile 37.46 ms)
Run 5: Statistics of FillP

End at: 2018-06-29 23:21:37

# Below is generated by plot.py at 2018-06-30 00:21:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.00 Mbit/s (83.4% utilization)
95th percentile per-packet one-way delay: 37.442 ms
Loss rate: 13.58%
-- Flow 1:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 37.442 ms
Loss rate: 13.58%
Run 5: Report of FillP — 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 10.00 Mbit/s)

Per-packet one-way delay (msec)

Time (s)

Flow 1 (95th percentile 37.44 msec)
Run 6: Statistics of FillP

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

# Below is generated by plot.py at 2018-06-30 00:21:49
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.10 Mbit/s (84.2% utilization)
95th percentile per-packet one-way delay: 37.484 ms
Loss rate: 14.04%
-- Flow 1:
Average throughput: 10.10 Mbit/s
95th percentile per-packet one-way delay: 37.484 ms
Loss rate: 14.04%
Run 6: Report of FillP — Data Link

Average capacity 12.00 Mb/s (shaded region)

Flow 1 ingress (mean 11.74 Mb/s)  Flow 1 egress (mean 10.10 Mb/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 37.48 ms)
Run 7: Statistics of FillP

Start at: 2018-06-29 23:40:39
End at: 2018-06-29 23:41:09

# Below is generated by plot.py at 2018-06-30 00:21:52
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.08 Mbit/s (84.0% utilization)
95th percentile per-packet one-way delay: 37.466 ms
Loss rate: 13.92%
-- Flow 1:
Average throughput: 10.08 Mbit/s
95th percentile per-packet one-way delay: 37.466 ms
Loss rate: 13.92%
Run 7: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.70 Mbit/s)  Flow 1 egress (mean 10.08 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 37.47 ms)
Run 8: Statistics of FillP

Start at: 2018-06-29 23:50:26
End at: 2018-06-29 23:50:56

# Below is generated by plot.py at 2018-06-30 00:21:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.04 Mbit/s (83.6% utilization)
95th percentile per-packet one-way delay: 37.472 ms
Loss rate: 14.61%
-- Flow 1:
Average throughput: 10.04 Mbit/s
95th percentile per-packet one-way delay: 37.472 ms
Loss rate: 14.61%
Run 8: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.74 Mbit/s)  Flow 1 egress (mean 10.04 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 37.47 ms)
Run 9: Statistics of FillP

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

# 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: 10.02 Mbit/s (83.5% utilization)
95th percentile per-packet one-way delay: 37.466 ms
Loss rate: 14.18%
-- Flow 1:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 37.466 ms
Loss rate: 14.18%
Run 9: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Time (s)

Throughput (Mbit/s)

Flow 1 ingress (mean 11.67 Mbit/s)  Flow 1 egress (mean 10.02 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 37.47 ms)
Run 10: Statistics of FillP

Start at: 2018-06-30 00:09:57
End at: 2018-06-30 00:10:27

# Below is generated by plot.py at 2018-06-30 00:22:12
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.15 Mbit/s (84.6% utilization)
  95th percentile per-packet one-way delay: 37.473 ms
  Loss rate: 14.09%
-- Flow 1:
  Average throughput: 10.15 Mbit/s
  95th percentile per-packet one-way delay: 37.473 ms
  Loss rate: 14.09%
Run 10: Report of FillP — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Time (s)

Throughput (Mbit/s)

Flow 1 ingress (mean 11.81 Mbit/s)  Flow 1 egress (mean 10.15 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 37.47 ms)

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Run 1: Statistics of FillP-Sheep

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

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 31.60 ms)
Run 2: Statistics of FillP-Sheep

Start at: 2018-06-29 23:00:21
End at: 2018-06-29 23:00:51
Run 2: Report of FillP-Sheep — Data Link
Run 3: Statistics of FillP-Sheep

Start at: 2018-06-29 23:10:08
End at: 2018-06-29 23:10:38
Run 3: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (MB/s)

<table>
<thead>
<tr>
<th>Time (s)</th>
<th>Throughput</th>
</tr>
</thead>
<tbody>
<tr>
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<td>20</td>
<td>0</td>
</tr>
<tr>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>30</td>
<td>0</td>
</tr>
</tbody>
</table>

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

Per-packet delay (ms)

<table>
<thead>
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<th>Time (s)</th>
<th>Delay (ms)</th>
</tr>
</thead>
<tbody>
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<tr>
<td>4</td>
<td>31.58</td>
</tr>
<tr>
<td>6</td>
<td>31.58</td>
</tr>
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</tr>
<tr>
<td>12</td>
<td>31.58</td>
</tr>
<tr>
<td>14</td>
<td>31.58</td>
</tr>
</tbody>
</table>

Flow 1 (95th percentile 31.58 ms)
Run 4: Statistics of FillP-Sheep

Start at: 2018-06-29 23:19:56
End at: 2018-06-29 23:20:26
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 (99th percentile 31.58 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2018-06-29 23:29:42
End at: 2018-06-29 23:30:12
Run 5: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 31.53 ms)
Run 6: Statistics of FillP-Sheep

End at: 2018-06-29 23:39:57
Run 6: 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 31.60 ms)
Run 7: Statistics of FillP-Sheep

End at: 2018-06-29 23:49:44
Run 7: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Ping packet one-way delay (ms)

Flow 1 (95th percentile 31.64 ms)
Run 8: Statistics of FillP-Sheep

Start at: 2018-06-29 23:59:02
End at: 2018-06-29 23:59:32
Run 8: Report of FillP-Sheep — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (MB/s)

Time (s)

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

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 31.61 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-06-30 00:08:48
End at: 2018-06-30 00:09:18
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)

Flow 1 (95th percentile 31.55 ms)
Run 10: Statistics of FillP-Sheep

Start at: 2018-06-30 00:18:32
End at: 2018-06-30 00:19:02
Run 10: 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)

Per packet one way delay (ms)

Flow 1 (95th percentile 31.38 ms)
Run 1: Statistics of Indigo

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

# 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: 10.11 Mbit/s (84.2% utilization)
  95th percentile per-packet one-way delay: 35.789 ms
  Loss rate: 58.26%
-- Flow 1:
  Average throughput: 10.11 Mbit/s
  95th percentile per-packet one-way delay: 35.789 ms
  Loss rate: 58.26%
Run 2: Statistics of Indigo

End at: 2018-06-29 22:56:52

# Below is generated by plot.py at 2018-06-30 00:22:26
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.01 Mbit/s (83.4% utilization)
  95th percentile per-packet one-way delay: 35.831 ms
  Loss rate: 61.15%
-- Flow 1:
  Average throughput: 10.01 Mbit/s
  95th percentile per-packet one-way delay: 35.831 ms
  Loss rate: 61.15%
Run 2: Report of Indigo — Data Link

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

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

*Flow 1 ingress (mean 25.73 Mbit/s)*  
*Flow 1 egress (mean 10.01 Mbit/s)*
Run 3: Statistics of Indigo

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

# 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: 10.33 Mbit/s (86.1% utilization)
95th percentile per-packet one-way delay: 35.857 ms
Loss rate: 57.16%
-- Flow 1:
Average throughput: 10.33 Mbit/s
95th percentile per-packet one-way delay: 35.857 ms
Loss rate: 57.16%
Run 3: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 24.09 Mbit/s)
- Flow 1 egress (mean 10.33 Mbit/s)

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

- Flow 1 (95th percentile 35.86 ms)
Run 4: Statistics of Indigo

Start at: 2018-06-29 23:15:56
End at: 2018-06-29 23:16:26

# Below is generated by plot.py at 2018-06-30 00:22:29
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.09 Mbit/s (84.1% utilization)
  95th percentile per-packet one-way delay: 35.883 ms
  Loss rate: 64.79%
-- Flow 1:
  Average throughput: 10.09 Mbit/s
  95th percentile per-packet one-way delay: 35.883 ms
  Loss rate: 64.79%
Run 4: Report of Indigo — Data Link
Run 5: Statistics of Indigo

Start at: 2018-06-29 23:25:42
End at: 2018-06-29 23:26:12

# Below is generated by plot.py at 2018-06-30 00:22:29
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.44 Mbit/s (87.0% utilization)
95th percentile per-packet one-way delay: 35.806 ms
Loss rate: 56.10%
-- Flow 1:
Average throughput: 10.44 Mbit/s
95th percentile per-packet one-way delay: 35.806 ms
Loss rate: 56.10%
Run 5: Report of Indigo — Data Link

Average capacity 12.00 Mb/s (shaded region)

Throughput (Mb/s)

Time (s)

- Flow 1 ingress (mean 23.76 Mb/s)
- Flow 1 egress (mean 10.44 Mb/s)

Per-packet one-way delay (ms)

Time (s)

- Flow 1 (95th percentile 35.81 ms)
Run 6: Statistics of Indigo

Start at: 2018-06-29 23:35:27
End at: 2018-06-29 23:35:57

# Below is generated by plot.py at 2018-06-30 00:22:30
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.29 Mbit/s (85.7% utilization)
95th percentile per-packet one-way delay: 35.858 ms
Loss rate: 65.32%
-- Flow 1:
Average throughput: 10.29 Mbit/s
95th percentile per-packet one-way delay: 35.858 ms
Loss rate: 65.32%
Run 6: Report of Indigo — 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 29.62 Mbit/s)  Flow 1 egress (mean 10.29 Mbit/s)

Per-packet one-way delay (ms)

0  5  10  15  20  25  30
Time (s)

Flow 1 (95th percentile 35.86 ms)
Run 7: Statistics of Indigo

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

# Below is generated by plot.py at 2018-06-30 00:22:35
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.17 Mbit/s (84.7% utilization)
95th percentile per-packet one-way delay: 35.857 ms
Loss rate: 58.57%
-- Flow 1:
Average throughput: 10.17 Mbit/s
95th percentile per-packet one-way delay: 35.857 ms
Loss rate: 58.57%
Run 7: Report of Indigo — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 24.51 Mbit/s)  Flow 1 egress (mean 10.17 Mbit/s)

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

Flow 1 (95th percentile 35.86 ms)
Run 8: Statistics of Indigo

Start at: 2018-06-29 23:55:02

# Below is generated by plot.py at 2018-06-30 00:22:38
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.20 Mbit/s (85.0% utilization)
95th percentile per-packet one-way delay: 35.850 ms
Loss rate: 60.13%
-- Flow 1:
Average throughput: 10.20 Mbit/s
95th percentile per-packet one-way delay: 35.850 ms
Loss rate: 60.13%
Run 8: Report of Indigo — Data Link

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

- **Flow 1 ingress (mean 30.57 Mbit/s)**
- **Flow 1 egress (mean 10.20 Mbit/s)**

![Graph showing per-packet one-way delay (ms) over time.](image)

- **Flow 1 (95th percentile 35.85 ms)**
Run 9: Statistics of Indigo

Start at: 2018-06-30 00:04:48
End at: 2018-06-30 00:05:18

# Below is generated by plot.py at 2018-06-30 00:22:55
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.23 Mbit/s (85.3% utilization)
95th percentile per-packet one-way delay: 35.833 ms
Loss rate: 61.60%

-- Flow 1:
Average throughput: 10.23 Mbit/s
95th percentile per-packet one-way delay: 35.833 ms
Loss rate: 61.60%
Run 9: Report of Indigo — Data Link

![Graph showing throughput and packet delay over time. The graph indicates an average capacity of 12.00 Mbit/s (shaded region).](image)

- Flow 1 ingress (mean 26.62 Mbit/s)
- Flow 1 egress (mean 10.23 Mbit/s)

![Graph showing packet delay over time. The graph shows the 95th percentile packet delay as 35.83 ms.](image)
Run 10: Statistics of Indigo

Start at: 2018-06-30 00:14:32
End at: 2018-06-30 00:15:02

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.22 Mbit/s (85.2% utilization)
  95th percentile per-packet one-way delay: 35.831 ms
  Loss rate: 59.52%
-- Flow 1:
  Average throughput: 10.22 Mbit/s
  95th percentile per-packet one-way delay: 35.831 ms
  Loss rate: 59.52%
Run 10: Report of Indigo — Data Link

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

- **Flow 1 ingress (mean 25.22 Mbit/s)**
- **Flow 1 egress (mean 10.22 Mbit/s)**

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

- **Flow 1 (95th percentile 35.83 ms)**
Run 1: Statistics of LEDBAT

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

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 4.34 Mbit/s (36.2% utilization)
  95th percentile per-packet one-way delay: 36.275 ms
  Loss rate: 2.79%
-- Flow 1:
  Average throughput: 4.34 Mbit/s
  95th percentile per-packet one-way delay: 36.275 ms
  Loss rate: 2.79%
Run 2: Statistics of LEDEBAT

End at: 2018-06-29 23:00:17

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.19 Mbit/s (26.6% utilization)
95th percentile per-packet one-way delay: 36.252 ms
Loss rate: 2.91%
-- Flow 1:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 36.252 ms
Loss rate: 2.91%
Run 3: Statistics of LEDBAT

Start at: 2018-06-29 23:09:34
End at: 2018-06-29 23:10:04

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.84 Mbit/s (32.0% utilization)
  95th percentile per-packet one-way delay: 36.251 ms
  Loss rate: 2.99%
-- Flow 1:
  Average throughput: 3.84 Mbit/s
  95th percentile per-packet one-way delay: 36.251 ms
  Loss rate: 2.99%
Run 3: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 3.96 Mbit/s)  Flow 1 egress (mean 3.84 Mbit/s)

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

Flow 1 (95th percentile 36.25 ms)
Run 4: Statistics of LEDBAT

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

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 3.35 Mbit/s (27.9% utilization)
  95th percentile per-packet one-way delay: 36.278 ms
  Loss rate: 2.79%
-- Flow 1:
  Average throughput: 3.35 Mbit/s
  95th percentile per-packet one-way delay: 36.278 ms
  Loss rate: 2.79%
Run 4: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 3.44 Mbit/s)
Flow 1 egress (mean 3.35 Mbit/s)

Per-packet average delay (ms)

Time (s)

Flow 1 (95th percentile 36.28 ms)
Run 5: Statistics of LEDBAT

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

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
    Average capacity: 12.00 Mbit/s
    Average throughput: 2.73 Mbit/s (22.7% utilization)
    95th percentile per-packet one-way delay: 36.293 ms
    Loss rate: 2.94%
-- Flow 1:
    Average throughput: 2.73 Mbit/s
    95th percentile per-packet one-way delay: 36.293 ms
    Loss rate: 2.94%
Run 5: Report of LEDBAT — Data Link

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

- **Flow 1 ingress (mean 2.81 Mbit/s)**
- **Flow 1 egress (mean 2.73 Mbit/s)**

**Per-packet end-to-end delay (ms)**
- **Flow 1 (95th percentile 36.29 ms)**

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Run 6: Statistics of LEDBAT

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

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.16 Mbit/s (26.4% utilization)
95th percentile per-packet one-way delay: 36.140 ms
Loss rate: 2.91%
-- Flow 1:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 36.140 ms
Loss rate: 2.91%
Run 6: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 3.26 Mbit/s)
- Flow 1 egress (mean 3.16 Mbit/s)

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

Time (s)

- Flow 1 (95th percentile 36.14 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-06-29 23:48:40
End at: 2018-06-29 23:49:10

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.64 Mbit/s (22.0% utilization)
  95th percentile per-packet one-way delay: 36.236 ms
  Loss rate: 3.26%
-- Flow 1:
  Average throughput: 2.64 Mbit/s
  95th percentile per-packet one-way delay: 36.236 ms
  Loss rate: 3.26%
Run 7: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 2.73 Mbit/s)
- Flow 1 egress (mean 2.64 Mbit/s)

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

- Flow 1 (95th percentile 36.24 ms)
Run 8: Statistics of LEDBAT

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

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.28 Mbit/s (27.4% utilization)
95th percentile per-packet one-way delay: 36.266 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 3.28 Mbit/s
95th percentile per-packet one-way delay: 36.266 ms
Loss rate: 2.57%
Run 8: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 3.37 Mbit/s)  Flow 1 egress (mean 3.28 Mbit/s)

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

Flow 1 (95th percentile 36.27 ms)
Run 9: Statistics of LEDBAT

Start at: 2018-06-30 00:08:14
End at: 2018-06-30 00:08:44

# Below is generated by plot.py at 2018-06-30 00:22:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.64 Mbit/s (22.0% utilization)
95th percentile per-packet one-way delay: 36.167 ms
Loss rate: 3.00%
-- Flow 1:
Average throughput: 2.64 Mbit/s
95th percentile per-packet one-way delay: 36.167 ms
Loss rate: 3.00%
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 2.71 Mbit/s)  Flow 1 egress (mean 2.64 Mbit/s)

Per-packet one-way delay (ms)

30  32  34  36  38

Time (s)

0  5  10  15  20  25  30

Flow 1 (95th percentile 36.17 ms)
Run 10: Statistics of LEDBAT

Start at: 2018-06-30 00:17:58
End at: 2018-06-30 00:18:28

# Below is generated by plot.py at 2018-06-30 00:22:57
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.24 Mbit/s (27.0% utilization)
95th percentile per-packet one-way delay: 36.293 ms
Loss rate: 2.83%

-- Flow 1:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 36.293 ms
Loss rate: 2.83%
Run 10: Report of LEDBAT — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 3.33 Mbit/s)  Flow 1 egress (mean 3.24 Mbit/s)

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

Flow 1 (95th percentile 36.29 ms)
Run 1: Statistics of PCC-Allegro


# Below is generated by plot.py at 2018-06-30 00:23:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.90 Mbit/s (90.8% utilization)
95th percentile per-packet one-way delay: 35.475 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 35.475 ms
Loss rate: 0.78%
Run 1: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 10.97 Mbit/s)  Flow 1 egress (mean 10.90 Mbit/s)

Flow 1 (95th percentile 35.48 ms)
Run 2: Statistics of PCC-Allegro

End at: 2018-06-29 22:59:09

# 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: 9.60 Mbit/s (80.0% utilization)
  95th percentile per-packet one-way delay: 34.379 ms
  Loss rate: 0.87%
-- Flow 1:
  Average throughput: 9.60 Mbit/s
  95th percentile per-packet one-way delay: 34.379 ms
  Loss rate: 0.87%
Run 2: Report of PCC-Allegro — Data Link

![Graph showing network data](image)

Average capacity 12.00 Mbit/s (shaded region)

- **Flow 1 ingress (mean 9.68 Mbit/s)**
- **Flow 1 egress (mean 9.60 Mbit/s)**

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

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

- **Flow 1 (95th percentile 34.38 ms)**
Run 3: Statistics of PCC-Allegro

Start at: 2018-06-29 23:08:26
End at: 2018-06-29 23:08:56

# 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: 9.60 Mbit/s (80.0% utilization)
  95th percentile per-packet one-way delay: 34.683 ms
  Loss rate: 0.90%
-- Flow 1:
  Average throughput: 9.60 Mbit/s
  95th percentile per-packet one-way delay: 34.683 ms
  Loss rate: 0.90%
Run 3: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 9.68 Mbit/s)  Flow 1 egress (mean 9.60 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 34.68 ms)
Run 4: Statistics of PCC-Allegro

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

# Below is generated by plot.py at 2018-06-30 00:23:15
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 9.88 Mbit/s (82.4% utilization)
  95th percentile per-packet one-way delay: 35.075 ms
  Loss rate: 0.87%
-- Flow 1:
  Average throughput: 9.88 Mbit/s
  95th percentile per-packet one-way delay: 35.075 ms
  Loss rate: 0.87%
Run 4: Report of PCC-Allegro — 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 9.96 Mbit/s)  Flow 1 egress (mean 9.88 Mbit/s)

Per-packet one-way delay (ms)
30 31 32 33 34 35 36 37 38 39 40
0 5 10 15 20 25 30 35 40
Time (s)

Flow 1 (95th percentile 35.08 ms)
Run 5: Statistics of PCC-Allegro

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

# Below is generated by plot.py at 2018-06-30 00:23:17
# 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: 33.748 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 10.81 Mbit/s
95th percentile per-packet one-way delay: 33.748 ms
Loss rate: 0.70%
Run 5: Report of PCC-Allegro — Data Link

![Graph showing average capacity 12.00 Mbit/s (shaded region)]

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 10.87 Mbit/s)
- Flow 1 egress (mean 10.81 Mbit/s)

![Graph showing per-packet end-to-end delay (ms)]

Delay (ms)

Time (s)

Flow 1 (95th percentile 33.75 ms)
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-29 23:37:45
End at: 2018-06-29 23:38:15

# Below is generated by plot.py at 2018-06-30 00:23:17
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.13 Mbit/s (84.5% utilization)
  95th percentile per-packet one-way delay: 33.141 ms
  Loss rate: 0.71%
-- Flow 1:
  Average throughput: 10.13 Mbit/s
  95th percentile per-packet one-way delay: 33.141 ms
  Loss rate: 0.71%
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 10.20 Mbit/s)  Flow 1 egress (mean 10.13 Mbit/s)

Packet size one way delay (ms)

Time (s)

Flow 1 (95th percentile 33.14 ms)
Run 7: Statistics of PCC-Allegro

End at: 2018-06-29 23:48:02

# Below is generated by plot.py at 2018-06-30 00:23:19
# Datalink statistics
-- Total of 1 flow:
    Average capacity: 12.00 Mbit/s
    Average throughput: 10.34 Mbit/s (86.1% utilization)
    95th percentile per-packet one-way delay: 34.446 ms
    Loss rate: 0.78%
-- Flow 1:
    Average throughput: 10.34 Mbit/s
    95th percentile per-packet one-way delay: 34.446 ms
    Loss rate: 0.78%
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 10.41 Mbit/s) — Flow 1 egress (mean 10.34 Mbit/s)

Packet on-way delay (ms)

Time (s)

— Flow 1 (95th percentile 34.45 ms)
Run 8: Statistics of PCC-Allegro

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

# Below is generated by plot.py at 2018-06-30 00:23:19
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.15 Mbit/s (84.6% utilization)
  95th percentile per-packet one-way delay: 35.280 ms
  Loss rate: 0.79%
-- Flow 1:
  Average throughput: 10.15 Mbit/s
  95th percentile per-packet one-way delay: 35.280 ms
  Loss rate: 0.79%
Run 8: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.22 Mbit/s)  Flow 1 egress (mean 10.15 Mbit/s)

Packet delivery delay (ms)

Time (s)

Flow 1 (95th percentile 35.28 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-30 00:07:06
End at: 2018-06-30 00:07:36

# 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: 8.59 Mbit/s (71.6% utilization)
  95th percentile per-packet one-way delay: 32.328 ms
  Loss rate: 0.90%
-- Flow 1:
  Average throughput: 8.59 Mbit/s
  95th percentile per-packet one-way delay: 32.328 ms
  Loss rate: 0.90%
Run 9: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 8.66 Mbit/s)  Flow 1 egress (mean 8.59 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 32.33 ms)
Run 10: Statistics of PCC-Allegro

Start at: 2018-06-30 00:16:50
End at: 2018-06-30 00:17:20

# 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: 8.78 Mbit/s (73.2% utilization)
95th percentile per-packet one-way delay: 32.451 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 8.78 Mbit/s
95th percentile per-packet one-way delay: 32.451 ms
Loss rate: 0.95%
Run 10: Report of PCC-Allegro — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Time (s)

Throughput (Mbit/s)

Flow 1 ingress (mean 8.56 Mbit/s)  Flow 1 egress (mean 8.78 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 32.45 ms)
Run 1: Statistics of PCC-Expr

Start at: 2018-06-29 22:44:18
End at: 2018-06-29 22:44:48

# 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: 11.24 Mbit/s (93.7% utilization)
95th percentile per-packet one-way delay: 37.073 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 11.24 Mbit/s
95th percentile per-packet one-way delay: 37.073 ms
Loss rate: 2.01%
Run 1: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.46 Mbit/s)  Flow 1 egress (mean 11.24 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 37.57 ms)
Run 2: Statistics of PCC-Expr

Start at: 2018-06-29 22:54:04
End at: 2018-06-29 22:54:34

# Below is generated by plot.py at 2018-06-30 00:23:46
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.17 Mbit/s (93.1% utilization)
  95th percentile per-packet one-way delay: 37.035 ms
  Loss rate: 1.82%
-- Flow 1:
  Average throughput: 11.17 Mbit/s
  95th percentile per-packet one-way delay: 37.035 ms
  Loss rate: 1.82%
Run 2: Report of PCC-Expr — Data Link
Run 3: Statistics of PCC-Expr

Start at: 2018-06-29 23:03:51
End at: 2018-06-29 23:04:21

# 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: 11.26 Mbit/s (93.9% utilization)
  95th percentile per-packet one-way delay: 36.969 ms
  Loss rate: 1.78%
-- Flow 1:
  Average throughput: 11.26 Mbit/s
  95th percentile per-packet one-way delay: 36.969 ms
  Loss rate: 1.78%
Run 3: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.46 Mbit/s)  Flow 1 egress (mean 11.26 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 36.97 ms)
Run 4: Statistics of PCC-Expr

End at: 2018-06-29 23:14:09

# 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: 11.33 Mbit/s (94.4% utilization)
95th percentile per-packet one-way delay: 37.060 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 11.33 Mbit/s
95th percentile per-packet one-way delay: 37.060 ms
Loss rate: 2.04%
Run 4: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 11.56 Mbit/s)
- Flow 1 egress (mean 11.33 Mbit/s)

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

- Flow 1 (95th percentile 37.56 ms)
Run 5: Statistics of PCC-Expr


# Below is generated by plot.py at 2018-06-30 00:23:50
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.20 Mbit/s (93.3% utilization)
  95th percentile per-packet one-way delay: 37.007 ms
  Loss rate: 1.71%
-- Flow 1:
  Average throughput: 11.20 Mbit/s
  95th percentile per-packet one-way delay: 37.007 ms
  Loss rate: 1.71%
Run 5: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 11.38 Mbit/s)
- Flow 1 egress (mean 11.20 Mbit/s)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 37.01 ms)
Run 6: Statistics of PCC-Expr

Start at: 2018-06-29 23:33:09
End at: 2018-06-29 23:33:39

# Below is generated by plot.py at 2018-06-30 00:23:50
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.19 Mbit/s (93.2% utilization)
  95th percentile per-packet one-way delay: 37.109 ms
  Loss rate: 1.94%
-- Flow 1:
  Average throughput: 11.19 Mbit/s
  95th percentile per-packet one-way delay: 37.109 ms
  Loss rate: 1.94%
Run 6: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 11.40 Mbit/s)  Flow 1 egress (mean 11.19 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 37.11 ms)
Run 7: Statistics of PCC-Expr

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

# Below is generated by plot.py at 2018-06-30 00:24:00
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.24 Mbit/s (93.7% utilization)
95th percentile per-packet one-way delay: 37.064 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 11.24 Mbit/s
95th percentile per-packet one-way delay: 37.064 ms
Loss rate: 1.82%
Run 8: Statistics of PCC-Expr

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

# Below is generated by plot.py at 2018-06-30 00:24:02
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.28 Mbit/s (94.0% utilization)
95th percentile per-packet one-way delay: 36.943 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 11.28 Mbit/s
95th percentile per-packet one-way delay: 36.943 ms
Loss rate: 1.59%
Run 8: Report of PCC-Expr — Data Link
Run 9: Statistics of PCC-Expr

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

# Below is generated by plot.py at 2018-06-30 00:24:18
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.25 Mbit/s (93.8% utilization)
95th percentile per-packet one-way delay: 36.995 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 11.25 Mbit/s
95th percentile per-packet one-way delay: 36.995 ms
Loss rate: 1.99%
Run 9: Report of PCC-Expr — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.47 Mbit/s)  Flow 1 egress (mean 11.25 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 36.99 ms)
Run 10: Statistics of PCC-Expr

Start at: 2018-06-30 00:12:15
End at: 2018-06-30 00:12:45

# Below is generated by plot.py at 2018-06-30 00:24:20
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.40 Mbit/s (95.0% utilization)
95th percentile per-packet one-way delay: 36.980 ms
Loss rate: 2.23%
-- Flow 1:
Average throughput: 11.40 Mbit/s
95th percentile per-packet one-way delay: 36.980 ms
Loss rate: 2.23%
Run 10: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress (mean 11.65 Mbit/s)**
- **Flow 1 egress (mean 11.40 Mbit/s)**

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

- **Flow 1 (95th percentile 36.98 ms)**
Run 1: Statistics of QUIC Cubic

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

# Below is generated by plot.py at 2018-06-30 00:24:20
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.08 Mbit/s (92.3% utilization)
95th percentile per-packet one-way delay: 35.919 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 11.08 Mbit/s
95th percentile per-packet one-way delay: 35.919 ms
Loss rate: 0.48%
Run 1: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

**Flow 1 ingress (mean 11.12 Mbit/s)**   **Flow 1 egress (mean 11.08 Mbit/s)**

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

**Flow 1 (95th percentile 35.92 ms)**

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Run 2: Statistics of QUIC Cubic

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 00:24:20
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.02 Mbit/s (91.8% utilization)
95th percentile per-packet one-way delay: 35.828 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 35.828 ms
Loss rate: 0.44%
Run 2: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.06 Mbit/s)  Flow 1 egress (mean 11.02 Mbit/s)

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

Flow 1 (95th percentile 35.83 ms)
Run 3: Statistics of QUIC Cubic

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 00:24:20
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.08 Mbit/s (92.3% utilization)
95th percentile per-packet one-way delay: 35.879 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 11.08 Mbit/s
95th percentile per-packet one-way delay: 35.879 ms
Loss rate: 0.49%
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 11.12 Mbit/s)  Flow 1 egress (mean 11.08 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 35.88 ms)
Run 4: Statistics of QUIC Cubic

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

# Below is generated by plot.py at 2018-06-30 00:24:20
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.11 Mbit/s (92.6% utilization)
95th percentile per-packet one-way delay: 35.811 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 11.11 Mbit/s
95th percentile per-packet one-way delay: 35.811 ms
Loss rate: 0.45%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

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

# Below is generated by plot.py at 2018-06-30 00:24:25
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.16 Mbit/s (93.0% utilization)
95th percentile per-packet one-way delay: 35.956 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 11.16 Mbit/s
95th percentile per-packet one-way delay: 35.956 ms
Loss rate: 0.51%
Run 5: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

![Graph 1](image1)

Flow 1 ingress (mean 11.21 Mbit/s)  Flow 1 egress (mean 11.16 Mbit/s)

![Graph 2](image2)

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

Flow 1 (95th percentile 35.96 ms)
Run 6: Statistics of QUIC Cubic

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

# Below is generated by plot.py at 2018-06-30 00:24:28
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.09 Mbit/s (92.4% utilization)
  95th percentile per-packet one-way delay: 35.846 ms
  Loss rate: 0.45%
-- Flow 1:
  Average throughput: 11.09 Mbit/s
  95th percentile per-packet one-way delay: 35.846 ms
  Loss rate: 0.45%
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 11.13 Mbit/s)  Flow 1 egress (mean 11.09 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 35.85 ms)
Run 7: Statistics of QUIC Cubic


# Below is generated by plot.py at 2018-06-30 00:24:33
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.12 Mbit/s (92.6% utilization)
  95th percentile per-packet one-way delay: 35.928 ms
  Loss rate: 0.46%
-- Flow 1:
  Average throughput: 11.12 Mbit/s
  95th percentile per-packet one-way delay: 35.928 ms
  Loss rate: 0.46%
Run 7: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.15 Mbit/s)  Flow 1 egress (mean 11.12 Mbit/s)

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

Flow 1 (95th percentile 35.93 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-06-29 23:56:10
End at: 2018-06-29 23:56:40

# Below is generated by plot.py at 2018-06-30 00:24:34
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.08 Mbit/s (92.3% utilization)
95th percentile per-packet one-way delay: 35.857 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 11.08 Mbit/s
95th percentile per-packet one-way delay: 35.857 ms
Loss rate: 0.48%
Run 8: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.12 Mbit/s)  Flow 1 egress (mean 11.08 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 35.86 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-06-30 00:05:57  
End at: 2018-06-30 00:06:27

# Below is generated by plot.py at 2018-06-30 00:24:35  
# 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: 35.876 ms  
  Loss rate: 0.46%  
-- Flow 1: 
  Average throughput: 11.00 Mbit/s  
  95th percentile per-packet one-way delay: 35.876 ms  
  Loss rate: 0.46%
Run 9: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 11.04 Mbit/s)
- Flow 1 egress (mean 11.00 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 35.58 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-30 00:15:41
End at: 2018-06-30 00:16:11

# Below is generated by plot.py at 2018-06-30 00:24:36
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.13 Mbit/s (92.8% utilization)
  95th percentile per-packet one-way delay: 35.869 ms
  Loss rate: 0.44%
-- Flow 1:
  Average throughput: 11.13 Mbit/s
  95th percentile per-packet one-way delay: 35.869 ms
  Loss rate: 0.44%
Run 10: Report of QUIC Cubic — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.17 Mbit/s)  Flow 1 egress (mean 11.13 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 35.87 ms)
Run 1: Statistics of SCReAM

Start at: 2018-06-29 22:46:01

# Below is generated by plot.py at 2018-06-30 00:24:36
# 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: 31.620 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.620 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 delay (ms)**

- **Flow 1 (95th percentile 31.62 ms)**
Run 2: Statistics of SCReAM

End at: 2018-06-29 22:56:18

# Below is generated by plot.py at 2018-06-30 00:24:36
# 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: 31.610 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.610 ms
Loss rate: 0.13%
Run 2: Report of SCReAM — Data Link

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

![Graph 2: Flow 1 ingress (mean 0.21 Mbit/s) — Flow 1 egress (mean 0.21 Mbit/s)]

![Graph 3: Flow 1 (95th percentile 31.61 ms)]
Run 3: Statistics of SCReAM

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

# 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: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.594 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.594 ms
  Loss rate: 0.13%
Run 3: Report of SCReAM — Data Link

![Chart 1](image1)

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

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

![Chart 2](image2)

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

- **Flow 1** (95th percentile 31.59 ms)
Run 4: Statistics of SCReAM

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

# Below is generated by plot.py at 2018-06-30 00:24:37
# 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: 31.579 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.579 ms
  Loss rate: 0.13%
Run 4: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 31.58 ms)
Run 5: Statistics of SCReAM

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

# Below is generated by plot.py at 2018-06-30 00:24:38
# 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: 31.569 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.569 ms
Loss rate: 0.13%
Run 5: 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)

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Run 6: Statistics of SCReAM

Start at: 2018-06-29 23:34:53
End at: 2018-06-29 23:35:23

# Below is generated by plot.py at 2018-06-30 00:24:40
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.604 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.604 ms
Loss rate: 0.13%
Run 6: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 31.60 ms)
Run 7: Statistics of SCReAM

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

# Below is generated by plot.py at 2018-06-30 00:24:42
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.600 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.600 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

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

Per packet one-way delay (ms)

Time (s)

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

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

# Below is generated by plot.py at 2018-06-30 00:24:43
# 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: 31.570 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.570 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)

Per-packet one-way delay (ms)

Flow 1 (99th percentile 31.57 ms)
Run 9: Statistics of SCReAM

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

# Below is generated by plot.py at 2018-06-30 00:24:44
# 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: 31.621 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.621 ms
  Loss rate: 0.13%
Run 9: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Per packet end-to-end delay (ms)

Flow 1 (95th percentile 31.62 ms)
Run 10: Statistics of SCReAM

Start at: 2018-06-30 00:13:59
End at: 2018-06-30 00:14:29

# 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: 0.21 Mbit/s (1.8% utilization)
  95th percentile per-packet one-way delay: 31.601 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 31.601 ms
  Loss rate: 0.13%
Run 10: Report of SCReAM — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

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


# Below is generated by plot.py at 2018-06-30 00:24:48
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.64 Mbit/s (5.4% utilization)
  95th percentile per-packet one-way delay: 36.337 ms
  Loss rate: 11.80%
-- Flow 1:
  Average throughput: 0.64 Mbit/s
  95th percentile per-packet one-way delay: 36.337 ms
  Loss rate: 11.80%
Run 1: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.73 Mbit/s)  Flow 1 egress (mean 0.64 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 36.34 ms)
Run 2: Statistics of Sprout

End at: 2018-06-29 22:59:43

# Below is generated by plot.py at 2018-06-30 00:24:48
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.66 Mbit/s (5.5% utilization)
  95th percentile per-packet one-way delay: 36.329 ms
  Loss rate: 11.17%
-- Flow 1:
  Average throughput: 0.66 Mbit/s
  95th percentile per-packet one-way delay: 36.329 ms
  Loss rate: 11.17%
Run 2: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.74 Mbit/s)  Flow 1 egress (mean 0.66 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 36.33 ms)
Run 3: Statistics of Sprout

Start at: 2018-06-29 23:09:00
End at: 2018-06-29 23:09:30

# 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: 0.66 Mbit/s (5.5% utilization)
  95th percentile per-packet one-way delay: 36.365 ms
  Loss rate: 10.16%
-- Flow 1:
  Average throughput: 0.66 Mbit/s
  95th percentile per-packet one-way delay: 36.365 ms
  Loss rate: 10.16%
Run 3: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.73 Mbit/s)  Flow 1 egress (mean 0.66 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 36.37 ms)
Run 4: Statistics of Sprout

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

# 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: 0.68 Mbit/s (5.6% utilization)
  95th percentile per-packet one-way delay: 36.345 ms
  Loss rate: 11.14%
-- Flow 1:
  Average throughput: 0.68 Mbit/s
  95th percentile per-packet one-way delay: 36.345 ms
  Loss rate: 11.14%
Run 4: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

Time (s)

0 5 10 15 20 25 30 35

Flow 1 ingress (mean 0.76 Mbit/s)  Flow 1 egress (mean 0.68 Mbit/s)

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

0 10 20 30 40 50 60 70 80 90 100

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 36.34 ms)
Run 5: Statistics of Sprout

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

# Below is generated by plot.py at 2018-06-30 00:24:53
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 0.69 Mbit/s (5.7% utilization)
  95th percentile per-packet one-way delay: 36.319 ms
  Loss rate: 11.11%
-- Flow 1:
  Average throughput: 0.69 Mbit/s
  95th percentile per-packet one-way delay: 36.319 ms
  Loss rate: 11.11%
Run 5: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Time (s)

Throughput (Mbit/s)

Flow 1 ingress (mean 0.77 Mbit/s)  Flow 1 egress (mean 0.69 Mbit/s)

Per-packet round trip delay (ms)

Flow 1 (95th percentile 36.32 ms)
Run 6: Statistics of Sprout

Start at: 2018-06-29 23:38:19
End at: 2018-06-29 23:38:49

# Below is generated by plot.py at 2018-06-30 00:24:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.65 Mbit/s (5.4% utilization)
95th percentile per-packet one-way delay: 36.313 ms
Loss rate: 11.08%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 36.313 ms
Loss rate: 11.08%
Run 6: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.73 Mbit/s)  Flow 1 egress (mean 0.65 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 36.31 ms)
Run 7: Statistics of Sprout

End at: 2018-06-29 23:48:36

# Below is generated by plot.py at 2018-06-30 00:24:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.65 Mbit/s (5.4% utilization)
95th percentile per-packet one-way delay: 36.317 ms
Loss rate: 11.43%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 36.317 ms
Loss rate: 11.43%
Run 7: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 0.73 Mbit/s)
- Flow 1 egress (mean 0.65 Mbit/s)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 36.32 ms)
Run 8: Statistics of Sprout

Start at: 2018-06-29 23:57:54
End at: 2018-06-29 23:58:24

# Below is generated by plot.py at 2018-06-30 00:24:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.68 Mbit/s (5.6% utilization)
95th percentile per-packet one-way delay: 36.346 ms
Loss rate: 11.00%
-- Flow 1:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 36.346 ms
Loss rate: 11.00%
Run 8: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 0.76 Mbit/s)
- Flow 1 egress (mean 0.68 Mbit/s)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 36.35 ms)
Run 9: Statistics of Sprout

Start at: 2018-06-30 00:07:40
End at: 2018-06-30 00:08:10

# Below is generated by plot.py at 2018-06-30 00:24:58
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.69 Mbit/s (5.7% utilization)
95th percentile per-packet one-way delay: 36.351 ms
Loss rate: 11.71%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 36.351 ms
Loss rate: 11.71%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

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

# Below is generated by plot.py at 2018-06-30 00:24:59
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.65 Mbit/s (5.4% utilization)
95th percentile per-packet one-way delay: 36.369 ms
Loss rate: 10.86%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 36.369 ms
Loss rate: 10.86%
Run 10: Report of Sprout — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 0.73 Mbit/s)  Flow 1 egress (mean 0.65 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 36.37 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-06-29 22:44:52
End at: 2018-06-29 22:45:22

# Below is generated by plot.py at 2018-06-30 00:25:24
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.50 Mbit/s (95.9% utilization)
  95th percentile per-packet one-way delay: 32.793 ms
  Loss rate: 0.79%
-- Flow 1:
  Average throughput: 11.50 Mbit/s
  95th percentile per-packet one-way delay: 32.793 ms
  Loss rate: 0.79%
Run 2: Statistics of TaoVA-100x


# Below is generated by plot.py at 2018-06-30 00:25:25
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.50 Mbit/s (95.9% utilization)
  95th percentile per-packet one-way delay: 32.786 ms
  Loss rate: 0.78%
-- Flow 1:
  Average throughput: 11.50 Mbit/s
  95th percentile per-packet one-way delay: 32.786 ms
  Loss rate: 0.78%
Run 2: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.58 Mbit/s)  Flow 1 egress (mean 11.50 Mbit/s)

Per-packet carry-over delay (ms)

Time (s)

Flow 1 (95th percentile 32.79 ms)
Run 3: Statistics of TaoVA-100x

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

# Below is generated by plot.py at 2018-06-30 00:25:27
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.50 Mbit/s (95.8% utilization)
  95th percentile per-packet one-way delay: 32.780 ms
  Loss rate: 0.79%
-- Flow 1:
  Average throughput: 11.50 Mbit/s
  95th percentile per-packet one-way delay: 32.780 ms
  Loss rate: 0.79%
Run 3: Report of TaoVA-100x — Data Link

![Graph showing throughput and packet delay over time]

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

- **Flow 1 ingress (mean 11.58 Mbit/s)**
- **Flow 1 egress (mean 11.50 Mbit/s)**

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

- **Flow 1 (95th percentile 32.78 ms)**
Run 4: Statistics of TaoVA-100x

End at: 2018-06-29 23:14:43

# Below is generated by plot.py at 2018-06-30 00:25:27
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.50 Mbit/s (95.8% utilization)
95th percentile per-packet one-way delay: 32.781 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 32.781 ms
Loss rate: 0.79%
Run 4: Report of TaoVA-100x — Data Link

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

- Average capacity: 12.00 Mbit/s (shaded region).
- Flow 1 ingress (mean 11.58 Mbit/s).
- Flow 1 egress (mean 11.50 Mbit/s).

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

- Flow 1 (95th percentile 32.78 ms).
Run 5: Statistics of TaoVA-100x

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

# Below is generated by plot.py at 2018-06-30 00:25:28
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.50 Mbit/s (95.8% utilization)
95th percentile per-packet one-way delay: 32.794 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 32.794 ms
Loss rate: 0.79%
Run 5: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.58 Mbit/s)  Flow 1 egress (mean 11.50 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

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

Start at: 2018-06-29 23:33:44
End at: 2018-06-29 23:34:14

# 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: 11.50 Mbit/s (95.8% utilization)
  95th percentile per-packet one-way delay: 32.780 ms
  Loss rate: 0.79%
-- Flow 1:
  Average throughput: 11.50 Mbit/s
  95th percentile per-packet one-way delay: 32.780 ms
  Loss rate: 0.79%
Run 6: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

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

Per-packet one-way delay (ms)

Flow 1 (95th percentile 32.78 ms)
Run 7: Statistics of TaoVA-100x

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

# Below is generated by plot.py at 2018-06-30 00:25:30
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.49 Mbit/s (95.7% utilization)
95th percentile per-packet one-way delay: 32.760 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 32.760 ms
Loss rate: 0.79%
Run 7: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 11.57 Mbit/s)
- Flow 1 egress (mean 11.49 Mbit/s)

Per-packet delivery delay (ms)

- Flow 1 (95th percentile 32.76 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-06-29 23:53:19
End at: 2018-06-29 23:53:49

# Below is generated by plot.py at 2018-06-30 00:25:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.49 Mbit/s (95.7% utilization)
95th percentile per-packet one-way delay: 32.782 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 32.782 ms
Loss rate: 0.83%
Run 8: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.57 Mbit/s)  Flow 1 egress (mean 11.49 Mbit/s)

Per-packet one-way delay (μs)

Flow 1 (95th percentile 32.78 ms)
Run 9: Statistics of TaoVA-100x

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

# Below is generated by plot.py at 2018-06-30 00:25:59
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.50 Mbit/s (95.8% utilization)
  95th percentile per-packet one-way delay: 32.781 ms
  Loss rate: 0.80%
-- Flow 1:
  Average throughput: 11.50 Mbit/s
  95th percentile per-packet one-way delay: 32.781 ms
  Loss rate: 0.80%
Run 9: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.58 Mbit/s) — Flow 1 egress (mean 11.50 Mbit/s)

Per-packet delivery delay (ms)

Time (s)

Flow 1 (95th percentile 32.78 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-06-30 00:12:50
End at: 2018-06-30 00:13:20

# 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: 11.48 Mbit/s (95.7% utilization)
  95th percentile per-packet one-way delay: 32.788 ms
  Loss rate: 0.91%
-- Flow 1:
  Average throughput: 11.48 Mbit/s
  95th percentile per-packet one-way delay: 32.788 ms
  Loss rate: 0.91%
Run 10: Report of TaoVA-100x — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.58 Mbit/s)  Flow 1 egress (mean 11.48 Mbit/s)

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

Flow 1 (95th percentile 32.79 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-06-29 22:42:34
End at: 2018-06-29 22:43:04

# 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: 6.87 Mbit/s (57.2% utilization)
  95th percentile per-packet one-way delay: 34.537 ms
  Loss rate: 0.24%
-- Flow 1:
  Average throughput: 6.87 Mbit/s
  95th percentile per-packet one-way delay: 34.537 ms
  Loss rate: 0.24%
Run 1: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 6.58 Mbit/s)  Flow 1 egress (mean 6.87 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 34.54 ms)
Run 2: Statistics of TCP Vegas

End at: 2018-06-29 22:52:51

# 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: 5.77 Mbit/s (48.1% utilization)
  95th percentile per-packet one-way delay: 34.508 ms
  Loss rate: 0.30%
-- Flow 1:
  Average throughput: 5.77 Mbit/s
  95th percentile per-packet one-way delay: 34.508 ms
  Loss rate: 0.30%
Run 2: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 5.78 Mbit/s)  Flow 1 egress (mean 5.77 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 34.51 ms)
Run 3: Statistics of TCP Vegas

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

# Below is generated by plot.py at 2018-06-30 00:26:00
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.34 Mbit/s (36.1% utilization)
95th percentile per-packet one-way delay: 34.519 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 34.519 ms
Loss rate: 0.40%
Run 3: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Flow 1 ingress (mean 4.35 Mbit/s)  Flow 1 egress (mean 4.34 Mbit/s)

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

Flow 1 (95th percentile 34.52 ms)

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Run 4: Statistics of TCP Vegas

End at: 2018-06-29 23:12:25

# 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: 6.03 Mbit/s (50.2% utilization)
95th percentile per-packet one-way delay: 34.556 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 6.03 Mbit/s
95th percentile per-packet one-way delay: 34.556 ms
Loss rate: 0.25%
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 6.04 Mbit/s)  Flow 1 egress (mean 6.03 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 34.56 ms)
Run 5: Statistics of TCP Vegas


# 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: 7.61 Mbit/s (63.4% utilization)
  95th percentile per-packet one-way delay: 34.880 ms
  Loss rate: 0.25%
-- Flow 1:
  Average throughput: 7.61 Mbit/s
  95th percentile per-packet one-way delay: 34.880 ms
  Loss rate: 0.25%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

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

# Below is generated by plot.py at 2018-06-30 00:26:00
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 7.42 Mbit/s (61.8% utilization)
  95th percentile per-packet one-way delay: 34.576 ms
  Loss rate: 0.25%
-- Flow 1:
  Average throughput: 7.42 Mbit/s
  95th percentile per-packet one-way delay: 34.576 ms
  Loss rate: 0.25%
Run 6: Report of TCP Vegas — Data Link

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

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 7.43 Mbit/s)  Flow 1 egress (mean 7.42 Mbit/s)

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

Per-packet one-way delay (ms)

Flow 1 (95th percentile 34.58 ms)
Run 7: Statistics of TCP Vegas

End at: 2018-06-29 23:41:44

# 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: 6.37 Mbit/s (53.1% utilization)
  95th percentile per-packet one-way delay: 34.377 ms
  Loss rate: 0.22%
-- Flow 1:
  Average throughput: 6.37 Mbit/s
  95th percentile per-packet one-way delay: 34.377 ms
  Loss rate: 0.22%
Run 7: 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 6.38 Mbit/s)  Flow 1 egress (mean 6.37 Mbit/s)

Per packet one-way delay (ms)

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

Flow 1 (95th percentile 34.38 ms)
Run 8: Statistics of TCP Vegas

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

# 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: 6.48 Mbit/s (54.0% utilization)
95th percentile per-packet one-way delay: 34.594 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 6.48 Mbit/s
95th percentile per-packet one-way delay: 34.594 ms
Loss rate: 0.24%
Run 8: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 6.48 Mbit/s)  Flow 1 egress (mean 6.48 Mbit/s)

Flow 1 (95th percentile 34.59 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-06-30 00:00:47
End at: 2018-06-30 00:01:17

# 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: 6.80 Mbit/s (56.7% utilization)
  95th percentile per-packet one-way delay: 34.648 ms
  Loss rate: 0.24%
-- Flow 1:
  Average throughput: 6.80 Mbit/s
  95th percentile per-packet one-way delay: 34.648 ms
  Loss rate: 0.24%
Run 9: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 6.81 Mbit/s)  Flow 1 egress (mean 6.80 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 34.65 ms)
Run 10: Statistics of TCP Vegas

Start at: 2018-06-30 00:10:31  
End at: 2018-06-30 00:11:01

# Below is generated by plot.py at 2018-06-30 00:26:01
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 7.25 Mbit/s (60.4% utilization)  
95th percentile per-packet one-way delay: 34.604 ms  
Loss rate: 0.17%
-- Flow 1:
Average throughput: 7.25 Mbit/s
95th percentile per-packet one-way delay: 34.604 ms  
Loss rate: 0.17%
Run 10: Report of TCP Vegas — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 7.26 Mbit/s)  Flow 1 egress (mean 7.25 Mbit/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 34.60 ms)
Run 1: Statistics of Verus

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

# 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: 5.20 Mbit/s (43.4% utilization)
95th percentile per-packet one-way delay: 37.993 ms
Loss rate: 95.75%
-- Flow 1:
Average throughput: 5.20 Mbit/s
95th percentile per-packet one-way delay: 37.993 ms
Loss rate: 95.75%
Run 1: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 122.43 Mbit/s)  Flow 1 egress (mean 5.20 Mbit/s)

Flow 1 (95th percentile 37.99 ms)
Run 2: Statistics of Verus

Start at: 2018-06-29 22:51:09
End at: 2018-06-29 22:51:39

# Below is generated by plot.py at 2018-06-30 00:26:54
# 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: 38.069 ms
Loss rate: 98.07%
-- Flow 1:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 38.069 ms
Loss rate: 98.07%
Run 2: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 221.06 Mbit/s) — Flow 1 egress (mean 4.26 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 38.07 ms)
Run 3: Statistics of Verus

Start at: 2018-06-29 23:00:55
End at: 2018-06-29 23:01:25

# Below is generated by plot.py at 2018-06-30 00:27:20
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.34 Mbit/s (44.5% utilization)
  95th percentile per-packet one-way delay: 38.045 ms
  Loss rate: 98.07%
-- Flow 1:
  Average throughput: 5.34 Mbit/s
  95th percentile per-packet one-way delay: 38.045 ms
  Loss rate: 98.07%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

Start at: 2018-06-29 23:10:42
End at: 2018-06-29 23:11:12

# Below is generated by plot.py at 2018-06-30 00:27:27
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.60 Mbit/s (46.7% utilization)
95th percentile per-packet one-way delay: 38.070 ms
Loss rate: 98.10%
-- Flow 1:
Average throughput: 5.60 Mbit/s
95th percentile per-packet one-way delay: 38.070 ms
Loss rate: 98.10%
Run 4: Report of Verus — Data Link

Average capacity 12.00 Mb/s (shaded region)

Flow 1 ingress (mean 294.30 Mb/s)  Flow 1 egress (mean 5.60 Mb/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 38.07 ms)
Run 5: Statistics of Verus

Start at: 2018-06-29 23:20:30
End at: 2018-06-29 23:21:00

# Below is generated by plot.py at 2018-06-30 00:27:27
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.18 Mbit/s (43.2% utilization)
  95th percentile per-packet one-way delay: 37.996 ms
  Loss rate: 97.43%
-- Flow 1:
  Average throughput: 5.18 Mbit/s
  95th percentile per-packet one-way delay: 37.996 ms
  Loss rate: 97.43%
Run 5: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 201.07 Mbit/s)  Flow 1 egress (mean 5.18 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 38.00 ms)
Run 6: Statistics of Verus

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

# Below is generated by plot.py at 2018-06-30 00:27:27
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.04 Mbit/s (42.0% utilization)
  95th percentile per-packet one-way delay: 37.958 ms
  Loss rate: 95.61%
-- Flow 1:
  Average throughput: 5.04 Mbit/s
  95th percentile per-packet one-way delay: 37.958 ms
  Loss rate: 95.61%
Run 6: Report of Verus — Data Link

![Diagram showing network performance metrics]

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

**Throughput (Mbit/s)**

- **Flow 1 ingress** (mean 114.75 Mbit/s)
- **Flow 1 egress** (mean 5.04 Mbit/s)

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

- **Flow 1** (95th percentile 37.96 ms)
Run 7: Statistics of Verus

Start at: 2018-06-29 23:40:01
End at: 2018-06-29 23:40:31

# Below is generated by plot.py at 2018-06-30 00:27:27
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.47 Mbit/s (45.6% utilization)
95th percentile per-packet one-way delay: 38.064 ms
Loss rate: 98.08%
-- Flow 1:
Average throughput: 5.47 Mbit/s
95th percentile per-packet one-way delay: 38.064 ms
Loss rate: 98.08%
Run 7: Report of Verus — Data Link

![Graph of network traffic and delay]

Average capacity 12.00 Mbits (shaded region)

- Flow 1 ingress (mean 284.62 Mbit/s)
- Flow 1 egress (mean 5.47 Mbit/s)

Per packet one-way delay (ms)

- Flow 1 (95th percentile 38.06 ms)
Run 8: Statistics of Verus

Start at: 2018-06-29 23:49:48
End at: 2018-06-29 23:50:18

# Below is generated by plot.py at 2018-06-30 00:27:27
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 5.26 Mbit/s (43.8% utilization)
  95th percentile per-packet one-way delay: 38.032 ms
  Loss rate: 97.81%
-- Flow 1:
  Average throughput: 5.26 Mbit/s
  95th percentile per-packet one-way delay: 38.032 ms
  Loss rate: 97.81%
Run 8: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 240.05 Mbit/s)  Flow 1 egress (mean 5.26 Mbit/s)

Flow 1 (95th percentile 38.03 ms)
Run 9: Statistics of Verus

Start at: 2018-06-29 23:59:36
End at: 2018-06-30 00:00:06

# Below is generated by plot.py at 2018-06-30 00:27:40
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.66 Mbit/s (47.2% utilization)
95th percentile per-packet one-way delay: 38.025 ms
Loss rate: 97.05%
-- Flow 1:
Average throughput: 5.66 Mbit/s
95th percentile per-packet one-way delay: 38.025 ms
Loss rate: 97.05%
Run 9: Report of Verus — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 192.09 Mbit/s)  Flow 1 egress (mean 5.66 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 38.02 ms)
Run 10: Statistics of Verus

Start at: 2018-06-30 00:09:22
End at: 2018-06-30 00:09:52

# Below is generated by plot.py at 2018-06-30 00:27:40
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.81 Mbit/s (40.1% utilization)
95th percentile per-packet one-way delay: 37.837 ms
Loss rate: 90.76%
-- Flow 1:
Average throughput: 4.81 Mbit/s
95th percentile per-packet one-way delay: 37.837 ms
Loss rate: 90.76%
Run 10: Report of Verus — Data Link
Run 1: Statistics of PCC-Vivace

Start at: 2018-06-29 22:43:08
End at: 2018-06-29 22:43:38

# Below is generated by plot.py at 2018-06-30 00:27:40
# 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: 34.980 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 34.980 ms
Loss rate: 0.28%
Run 1: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.92 Mbit/s)
Flow 1 egress (mean 10.90 Mbit/s)

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

Flow 1 (95th percentile 34.98 ms)
Run 2: Statistics of PCC-Vivace


# Below is generated by plot.py at 2018-06-30 00:27:40
# 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: 35.498 ms
  Loss rate: 0.35%
-- Flow 1:
  Average throughput: 10.99 Mbit/s
  95th percentile per-packet one-way delay: 35.498 ms
  Loss rate: 0.35%
Run 2: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 11.01 Mbit/s)  Flow 1 egress (mean 10.99 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 35.50 ms)
Run 3: Statistics of PCC-Vivace

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

# Below is generated by plot.py at 2018-06-30 00:27:40
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.96 Mbit/s (91.3% utilization)
  95th percentile per-packet one-way delay: 34.859 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 10.96 Mbit/s
  95th percentile per-packet one-way delay: 34.859 ms
  Loss rate: 0.28%
Run 3: 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 10.96 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 34.56 ms)
Run 4: Statistics of PCC-Vivace

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

# Below is generated by plot.py at 2018-06-30 00:27:40
# 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: 35.240 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 10.94 Mbit/s
95th percentile per-packet one-way delay: 35.240 ms
Loss rate: 0.27%
Average capacity 12.00 Mbit/s (shaded region)

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

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

Flow 1 (95th percentile 35.24 ms)
Run 5: Statistics of PCC-Vivace

End at: 2018-06-29 23:22:45

# Below is generated by plot.py at 2018-06-30 00:27:40
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 11.00 Mbit/s (91.6% utilization)
  95th percentile per-packet one-way delay: 35.161 ms
  Loss rate: 0.24%
-- Flow 1:
  Average throughput: 11.00 Mbit/s
  95th percentile per-packet one-way delay: 35.161 ms
  Loss rate: 0.24%
Run 5: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 11.01 Mbit/s)
- Flow 1 egress (mean 11.00 Mbit/s)

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

Flow 1 (95th percentile 35.16 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-06-29 23:32:00
End at: 2018-06-29 23:32:30

# Below is generated by plot.py at 2018-06-30 00:27:40
# 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: 35.406 ms
  Loss rate: 0.29%
-- Flow 1:
  Average throughput: 10.95 Mbit/s
  95th percentile per-packet one-way delay: 35.406 ms
  Loss rate: 0.29%
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 10.95 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 35.41 ms)
Run 7: Statistics of PCC-Vivace

End at: 2018-06-29 23:42:18

# Below is generated by plot.py at 2018-06-30 00:27:40
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.91 Mbit/s (90.9% utilization)
  95th percentile per-packet one-way delay: 34.644 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 10.91 Mbit/s
  95th percentile per-packet one-way delay: 34.644 ms
  Loss rate: 0.28%
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 10.93 Mbit/s)  Flow 1 egress (mean 10.91 Mbit/s)

Packet per second vs. delay (ms)

Flow 1 (95th percentile 34.64 ms)
Run 8: Statistics of PCC-Vivace

Start at: 2018-06-29 23:51:35
End at: 2018-06-29 23:52:05

# Below is generated by plot.py at 2018-06-30 00:27:44
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 10.96 Mbit/s (91.3% utilization)
  95th percentile per-packet one-way delay: 34.932 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 10.96 Mbit/s
  95th percentile per-packet one-way delay: 34.932 ms
  Loss rate: 0.27%
Run 8: 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 10.96 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 34.93 ms)
Run 9: Statistics of PCC-Vivace

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

# Below is generated by plot.py at 2018-06-30 00:27:52
# 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: 34.329 ms
  Loss rate: 0.28%
-- Flow 1:
  Average throughput: 10.97 Mbit/s
  95th percentile per-packet one-way delay: 34.329 ms
  Loss rate: 0.28%
Run 9: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 10.98 Mbit/s)  Flow 1 egress (mean 10.97 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 3.33 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-06-30 00:11:05
End at: 2018-06-30 00:11:35

# Below is generated by plot.py at 2018-06-30 00:27:53
# 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: 35.091 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 35.091 ms
Loss rate: 0.28%
Run 10: Report of PCC-Vivace — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 11.01 Mbit/s)  Flow 1 egress (mean 10.99 Mbit/s)

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

Time (s)

Flow 1 (95th percentile 35.09 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-06-29 22:47:10
End at: 2018-06-29 22:47:40

# Below is generated by plot.py at 2018-06-30 00:27:53
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.43 Mbit/s (20.2% utilization)
  95th percentile per-packet one-way delay: 35.960 ms
  Loss rate: 1.04%
-- Flow 1:
  Average throughput: 2.43 Mbit/s
  95th percentile per-packet one-way delay: 35.960 ms
  Loss rate: 1.04%
Run 1: Report of WebRTC media — Data Link

Average capacity 12.00 Mbps (shaded region)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.45 Mbps)  Flow 1 egress (mean 2.43 Mbps)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 35.96 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-06-29 22:56:56
End at: 2018-06-29 22:57:26

# Below is generated by plot.py at 2018-06-30 00:27:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.17 Mbit/s (18.1% utilization)
95th percentile per-packet one-way delay: 35.627 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 35.627 ms
Loss rate: 0.42%
Run 2: Report of WebRTC media — Data Link

![Graph showing throughput over time with shaded region indicating average capacity of 12.00 Mbps.](image)

- **Flow 1 ingress** (mean 2.18 Mbps)
- **Flow 1 egress** (mean 2.17 Mbps)

![Graph showing packet one-way delay over time.](image)

- **Flow 1** (95th percentile 35.63 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-06-29 23:06:43
End at: 2018-06-29 23:07:13

# Below is generated by plot.py at 2018-06-30 00:27:53
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.55 Mbit/s (21.3% utilization)
  95th percentile per-packet one-way delay: 36.355 ms
  Loss rate: 1.67%
-- Flow 1:
  Average throughput: 2.55 Mbit/s
  95th percentile per-packet one-way delay: 36.355 ms
  Loss rate: 1.67%
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 2.59 Mbit/s)  Flow 1 egress (mean 2.55 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 36.35 ms)
Run 4: Statistics of WebRTC media

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

# Below is generated by plot.py at 2018-06-30 00:27:53
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.08 Mbit/s (17.4% utilization)
  95th percentile per-packet one-way delay: 35.419 ms
  Loss rate: 0.52%
-- Flow 1:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 35.419 ms
  Loss rate: 0.52%
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 2.09 Mbit/s)  Flow 1 egress (mean 2.08 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 35.42 ms)
Run 5: Statistics of WebRTC media

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

# Below is generated by plot.py at 2018-06-30 00:27:54
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.75 Mbit/s (22.9% utilization)
95th percentile per-packet one-way delay: 36.230 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 36.230 ms
Loss rate: 1.64%
Run 5: Report of WebRTC media — Data Link

![Graph showing average capacity of 12.00 Mbps (shaded region) over time. Two lines represent flow ingress (mean 2.79 Mbps) and egress (mean 2.75 Mbps).]

![Graph showing per packet one-way delay over time. A dotted line represents flow 1 with a 95th percentile of 36.23 ms.]
Run 6: Statistics of WebRTC media

Start at: 2018-06-29 23:36:02
End at: 2018-06-29 23:36:32

# Below is generated by plot.py at 2018-06-30 00:27:57
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.59 Mbit/s (21.6% utilization)
  95th percentile per-packet one-way delay: 36.159 ms
  Loss rate: 1.44%
-- Flow 1:
  Average throughput: 2.59 Mbit/s
  95th percentile per-packet one-way delay: 36.159 ms
  Loss rate: 1.44%
Run 6: Report of WebRTC media — 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 2.63 Mbit/s)  Flow 1 egress (mean 2.59 Mbit/s)

Per-packet one-way delay (ms)

30 32 34 36 38 40

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 36.16 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-06-29 23:45:49
End at: 2018-06-29 23:46:19

# Below is generated by plot.py at 2018-06-30 00:27:58
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.51 Mbit/s (20.9% utilization)
  95th percentile per-packet one-way delay: 36.100 ms
  Loss rate: 1.40%
-- Flow 1:
  Average throughput: 2.51 Mbit/s
  95th percentile per-packet one-way delay: 36.100 ms
  Loss rate: 1.40%
Run 7: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 2.54 Mbit/s)
- Flow 1 egress (mean 2.51 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

- Flow 1 (95th percentile 36.10 ms)
Run 8: Statistics of WebRTC media

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

# Below is generated by plot.py at 2018-06-30 00:27:58
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.48 Mbit/s (20.7% utilization)
95th percentile per-packet one-way delay: 36.025 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 2.48 Mbit/s
95th percentile per-packet one-way delay: 36.025 ms
Loss rate: 1.12%
Run 8: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 2.50 Mbit/s)  Flow 1 egress (mean 2.48 Mbit/s)

Per packet one-way delay (ms)

Time (s)

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

Start at: 2018-06-30 00:05:23
End at: 2018-06-30 00:05:53

# Below is generated by plot.py at 2018-06-30 00:27:59
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.17 Mbit/s (18.1% utilization)
95th percentile per-packet one-way delay: 35.605 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 35.605 ms
Loss rate: 0.88%
Run 9: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

Flow 1 ingress (mean 2.19 Mbit/s)  Flow 1 egress (mean 2.17 Mbit/s)

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

Flow 1 (95th percentile 35.60 ms)
Run 10: Statistics of WebRTC media

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

# Below is generated by plot.py at 2018-06-30 00:27:59
# Datalink statistics
-- Total of 1 flow:
  Average capacity: 12.00 Mbit/s
  Average throughput: 2.76 Mbit/s (23.0% utilization)
  95th percentile per-packet one-way delay: 36.416 ms
  Loss rate: 2.03%
-- Flow 1:
  Average throughput: 2.76 Mbit/s
  95th percentile per-packet one-way delay: 36.416 ms
  Loss rate: 2.03%
Run 10: Report of WebRTC media — Data Link

Average capacity 12.00 Mbit/s (shaded region)

- Flow 1 ingress (mean 2.81 Mbit/s)
- Flow 1 egress (mean 2.76 Mbit/s)

Per packet round-trip delay (ms)

- Flow 1 (95th percentile 36.42 ms)