Pantheon Report

Generated at 2018-07-12 03:46:42 (UTC).
Data path: GCE London Ethernet (local) → GCE Iowa Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 1 flow.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
NTP offsets were measured against time.google.com and have been applied
to correct the timestamps in logs.

Git summary:
branch: master @ 9250dbeec7fb57193cddf1ba8c440b4e16ab30f0
third_party/fillp @ d47f4fa1b45a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 37162fe9af85249aeccac061c93e75640ef710b5
third_party/genericCC @ d0153f8e594a89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4a9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3c3
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8ac08f9b24eb24f974ab
third_party/protoc-cc @ 77961f1a82733a86b42f1814adec978f3ccf42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bde2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af262952939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9ddee4735770d143a1fa2851
test from GCE London to GCE Iowa, 10 runs of 30s each per scheme
(mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>222.55</td>
<td>55.64</td>
<td>0.00</td>
</tr>
<tr>
<td>Copa</td>
<td>10</td>
<td>191.29</td>
<td>60.67</td>
<td>0.00</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>195.27</td>
<td>60.57</td>
<td>0.01</td>
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<tr>
<td>FillP</td>
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<td>763.48</td>
<td>174.31</td>
<td>4.56</td>
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<td>10</td>
<td>736.64</td>
<td>192.16</td>
<td>10.35</td>
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<tr>
<td>Indigo</td>
<td>10</td>
<td>227.25</td>
<td>51.30</td>
<td>0.01</td>
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<td>LEDBAT</td>
<td>10</td>
<td>32.10</td>
<td>52.17</td>
<td>0.00</td>
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<td>PCC-Allegro</td>
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<td>510.71</td>
<td>120.41</td>
<td>0.48</td>
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<tr>
<td>PCC-Expr</td>
<td>10</td>
<td>275.22</td>
<td>138.58</td>
<td>4.12</td>
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<td>QUIC Cubic</td>
<td>4</td>
<td>44.77</td>
<td>50.71</td>
<td>0.00</td>
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<td>SCReAM</td>
<td>10</td>
<td>0.22</td>
<td>50.90</td>
<td>0.00</td>
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<td>Sprout</td>
<td>10</td>
<td>6.57</td>
<td>51.10</td>
<td>0.00</td>
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<td>TaoVA-100x</td>
<td>10</td>
<td>236.10</td>
<td>54.48</td>
<td>0.00</td>
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<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>157.78</td>
<td>56.78</td>
<td>0.00</td>
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<tr>
<td>Verus</td>
<td>10</td>
<td>254.63</td>
<td>157.37</td>
<td>1.54</td>
</tr>
<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>297.05</td>
<td>77.06</td>
<td>0.12</td>
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<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.86</td>
<td>50.58</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Local clock offset: 0.017 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-07-12 02:03:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.48 Mbit/s
95th percentile per-packet one-way delay: 56.937 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.48 Mbit/s
95th percentile per-packet one-way delay: 56.937 ms
Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link

Graphs showing data on throughput and packet delay over time.
Run 2: Statistics of TCP BBR

Local clock offset: -0.421 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-07-12 02:03:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.94 Mbit/s
95th percentile per-packet one-way delay: 57.259 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 222.94 Mbit/s
95th percentile per-packet one-way delay: 57.259 ms
Loss rate: 0.03%
Run 2: Report of TCP BBR — Data Link

The first graph shows the throughput (Mbps) over time (s) for two flows: Flow 1 ingress (mean 223.01 Mbps) and Flow 1 egress (mean 222.94 Mbps).

The second graph displays the per-packet one-way delay (ms) over time (s) for Flow 1 with a 95th percentile of 57.26 ms.
Run 3: Statistics of TCP BBR

End at: 2018-07-11 23:08:17
Local clock offset: -0.058 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2018-07-12 02:03:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.74 Mbit/s
95th percentile per-packet one-way delay: 54.082 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.74 Mbit/s
95th percentile per-packet one-way delay: 54.082 ms
Loss rate: 0.00%
Run 3: Report of TCP BBR — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 220.75 Mbit/s)
- Flow 1 egress (mean 220.74 Mbit/s)

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

- Flow 1 (95th percentile 54.08 ms)
Run 4: Statistics of TCP BBR

Start at: 2018-07-11 23:29:54
End at: 2018-07-11 23:30:24
Local clock offset: -0.038 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-07-12 02:03:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.68 Mbit/s
95th percentile per-packet one-way delay: 56.917 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.68 Mbit/s
95th percentile per-packet one-way delay: 56.917 ms
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 222.68 Mbps)
- **Flow 1 egress** (mean 222.68 Mbps)

**Packet error rate**

- **Flow 1** (95th percentile 56.92 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-07-11 23:52:02
Local clock offset: -0.059 ms
Remote clock offset: 0.0 ms

# Below is generated by plot.py at 2018-07-12 02:03:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.71 Mbit/s
95th percentile per-packet one-way delay: 57.861 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 224.71 Mbit/s
95th percentile per-packet one-way delay: 57.861 ms
Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 224.70 Mbit/s)**
- **Flow 1 egress (mean 224.71 Mbit/s)**
Run 6: Statistics of TCP BBR

Start at: 2018-07-12 00:14:15
End at: 2018-07-12 00:14:45
Local clock offset: -0.365 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-07-12 02:03:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.76 Mbit/s
95th percentile per-packet one-way delay: 59.019 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.76 Mbit/s
95th percentile per-packet one-way delay: 59.019 ms
Loss rate: 0.00%
Run 6: Report of TCP BBR — Data Link

![Graph 1: Throughput (Mbps) vs Time (s)
Flow 1 ingress (mean 226.76 Mbit/s) vs Flow 1 egress (mean 226.76 Mbit/s)]

![Graph 2: Per-packet one-way delay (ms) vs Time (s)
Flow 1 (95th percentile 59.02 ms)]
Run 7: Statistics of TCP BBR

Start at: 2018-07-12 00:36:30
End at: 2018-07-12 00:37:00
Local clock offset: -0.06 ms
Remote clock offset: 0.032 ms

# Below is generated by plot.py at 2018-07-12 02:03:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.42 Mbit/s
95th percentile per-packet one-way delay: 51.946 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.42 Mbit/s
95th percentile per-packet one-way delay: 51.946 ms
Loss rate: 0.00%
Run 8: Statistics of TCP BBR

Start at: 2018-07-12 00:58:31
End at: 2018-07-12 00:59:01
Local clock offset: 0.324 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2018-07-12 02:03:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.46 Mbit/s
95th percentile per-packet one-way delay: 53.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.46 Mbit/s
95th percentile per-packet one-way delay: 53.636 ms
Loss rate: 0.00%
Run 9: Statistics of TCP BBR

Start at: 2018-07-12 01:20:53
End at: 2018-07-12 01:21:23
Local clock offset: -0.078 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2018-07-12 02:06:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.36 Mbit/s
95th percentile per-packet one-way delay: 51.263 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 219.36 Mbit/s
95th percentile per-packet one-way delay: 51.263 ms
Loss rate: 0.00%
Run 10: Statistics of TCP BBR

Start at: 2018-07-12 01:42:55
End at: 2018-07-12 01:43:25
Local clock offset: -0.041 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-07-12 02:06:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.93 Mbit/s
95th percentile per-packet one-way delay: 57.468 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.93 Mbit/s
95th percentile per-packet one-way delay: 57.468 ms
Loss rate: 0.00%
Run 10: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 222.94 Mb/s)
- Flow 1 egress (mean 222.93 Mb/s)

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

- Flow 1 (95th percentile 57.47 ms)
Run 1: Statistics of Copa

End at: 2018-07-11 22:26:46
Local clock offset: -0.034 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-07-12 02:09:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.32 Mbit/s
95th percentile per-packet one-way delay: 59.840 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 215.32 Mbit/s
95th percentile per-packet one-way delay: 59.840 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link

![Graph of throughput over time for Flow 1 ingress (mean 215.31 Mbit/s) and egress (mean 215.32 Mbit/s).]

![Graph of per-packet one-way delay over time for Flow 1 (95th percentile 59.84 ms).]
Run 2: Statistics of Copa

Local clock offset: -0.069 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2018-07-12 02:09:15
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 128.57 Mbit/s
  95th percentile per-packet one-way delay: 53.083 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 128.57 Mbit/s
  95th percentile per-packet one-way delay: 53.083 ms
  Loss rate: 0.00%
Run 2: Report of Copa — Data Link

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

- Flow 1 ingress (mean 128.57 Mbit/s)
- Flow 1 egress (mean 128.57 Mbit/s)

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

- Flow 1 (95th percentile 53.08 ms)
Run 3: Statistics of Copa

Start at: 2018-07-11 23:10:43
Local clock offset: ~0.05 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2018-07-12 02:10:13
# Datalink statistics
  -- Total of 1 flow:
  Average throughput: 241.12 Mbit/s
  95th percentile per-packet one-way delay: 55.131 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 241.12 Mbit/s
  95th percentile per-packet one-way delay: 55.131 ms
  Loss rate: 0.00%
Run 3: Report of Copa — Data Link

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

- Flow 1 ingress (mean 241.12 Mbit/s)
- Flow 1 egress (mean 241.12 Mbit/s)

![Graph 2: Packet delay over Time (s)]

- Flow 1 (95th percentile 55.13 ms)
Run 4: Statistics of Copa

Local clock offset: -0.047 ms  
Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2018-07-12 02:10:13  
# Datalink statistics  
-- Total of 1 flow:
Average throughput: 193.05 Mbit/s  
95th percentile per-packet one-way delay: 57.192 ms  
Loss rate: 0.00%  
-- Flow 1:
Average throughput: 193.05 Mbit/s  
95th percentile per-packet one-way delay: 57.192 ms  
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

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

- Flow 1 ingress (mean 193.05 Mbit/s)
- Flow 1 egress (mean 193.05 Mbit/s)

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

- Flow 1 (95th percentile: 57.19 ms)
Run 5: Statistics of Copa

Start at: 2018-07-11 23:54:56
Local clock offset: -0.038 ms
Remote clock offset: 0.049 ms

# Below is generated by plot.py at 2018-07-12 02:10:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 164.29 Mbit/s
95th percentile per-packet one-way delay: 59.050 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 164.29 Mbit/s
95th percentile per-packet one-way delay: 59.050 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link

![Graphs showing throughput and delay over time for COPA data link]
Run 6: Statistics of Copa

Start at: 2018-07-12 00:17:07
End at: 2018-07-12 00:17:37
Local clock offset: 0.009 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-07-12 02:10:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 250.88 Mbit/s
95th percentile per-packet one-way delay: 60.761 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 250.88 Mbit/s
95th percentile per-packet one-way delay: 60.761 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link

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

- Flow 1 ingress (mean 250.87 Mbps)
- Flow 1 egress (mean 250.88 Mbps)

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

- Flow 1 (95th percentile 60.76 ms)
Run 7: Statistics of Copa

Start at: 2018-07-12 00:39:22
End at: 2018-07-12 00:39:52
Local clock offset: -0.075 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-07-12 02:11:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 160.45 Mbit/s
95th percentile per-packet one-way delay: 56.937 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 160.45 Mbit/s
95th percentile per-packet one-way delay: 56.937 ms
Loss rate: 0.01%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-07-12 01:01:25
End at: 2018-07-12 01:01:55
Local clock offset: 0.048 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2018-07-12 02:11:22
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 158.02 Mbit/s
  95th percentile per-packet one-way delay: 74.564 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 158.02 Mbit/s
  95th percentile per-packet one-way delay: 74.564 ms
  Loss rate: 0.00%
Run 8: Report of Copa — Data Link

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**Throughput (Mbps)**

- Flow 1 ingress (mean 158.02 Mbit/s)
- Flow 1 egress (mean 158.02 Mbit/s)

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

- Flow 1 (95th percentile 74.56 ms)
Run 9: Statistics of Copa

Start at: 2018-07-12 01:23:43
End at: 2018-07-12 01:24:13
Local clock offset: -0.066 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-07-12 02:13:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 207.64 Mbit/s
95th percentile per-packet one-way delay: 63.954 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 207.64 Mbit/s
95th percentile per-packet one-way delay: 63.954 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa

Start at: 2018-07-12 01:45:45
End at: 2018-07-12 01:46:15
Local clock offset: -0.069 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2018-07-12 02:14:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.58 Mbit/s
95th percentile per-packet one-way delay: 66.156 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.58 Mbit/s
95th percentile per-packet one-way delay: 66.156 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link

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

- **Throughput**: Dashed line represents Flow 1 ingress (mean 193.58 Mbit/s), solid line represents Flow 1 egress (mean 193.58 Mbit/s).
- **Packet Delay**: Line graph showing packet delay (ms) with a 95th percentile of 66.16 ms.
Run 1: Statistics of TCP Cubic

Local clock offset: 0.309 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2018-07-12 02:14:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 174.16 Mbit/s
95th percentile per-packet one-way delay: 59.694 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 174.16 Mbit/s
95th percentile per-packet one-way delay: 59.694 ms
Loss rate: 0.00%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Local clock offset: -0.017 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-07-12 02:14:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.29 Mbit/s
95th percentile per-packet one-way delay: 60.551 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.29 Mbit/s
95th percentile per-packet one-way delay: 60.551 ms
Loss rate: 0.00%
Run 2: Report of TCP Cubic — Data Link

[Graphs showing throughput and packet delay over time]

Flow 1 ingress (mean 228.35 Mbit/s)  Flow 1 egress (mean 228.29 Mbit/s)

Flow 1 (95th percentile 60.55 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-07-11 23:00:06
End at: 2018-07-11 23:00:36
Local clock offset: -0.027 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2018-07-12 02:14:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.10 Mbit/s
95th percentile per-packet one-way delay: 61.582 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.10 Mbit/s
95th percentile per-packet one-way delay: 61.582 ms
Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 223.10 Mbit/s)
- Flow 1 egress (mean 223.10 Mbit/s)

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

- Flow 1 (95th percentile 61.58 ms)
Run 4: Statistics of TCP Cubic

Local clock offset: -0.052 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-07-12 02:14:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.50 Mbit/s
95th percentile per-packet one-way delay: 61.151 ms
Loss rate: 0.00%
-- Flow 1:
  Average throughput: 226.50 Mbit/s
  95th percentile per-packet one-way delay: 61.151 ms
  Loss rate: 0.00%
Run 4: Report of TCP Cubic — Data Link
Run 5: Statistics of TCP Cubic

End at: 2018-07-11 23:44:57
Local clock offset: -0.057 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-07-12 02:14:23
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 171.70 Mbit/s
  95th percentile per-packet one-way delay: 59.955 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 171.70 Mbit/s
  95th percentile per-packet one-way delay: 59.955 ms
  Loss rate: 0.05%
Run 5: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 171.80 Mbit/s)**
- **Flow 1 egress (mean 171.70 Mbit/s)**

- **Flow 1 (95th percentile 59.95 ms)**
Run 6: Statistics of TCP Cubic

Start at: 2018-07-12 00:06:35
End at: 2018-07-12 00:07:05
Local clock offset: -0.064 ms
Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2018-07-12 02:14:47
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 204.48 Mbit/s
  95th percentile per-packet one-way delay: 62.318 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 204.48 Mbit/s
  95th percentile per-packet one-way delay: 62.318 ms
  Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link

![Throughput graph]

- Flow 1 ingress (mean 204.46 Mbit/s)
- Flow 1 egress (mean 204.48 Mbit/s)

![Per packet one way delay graph]

Flow 1 (95th percentile 62.32 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-07-12 00:28:48
End at: 2018-07-12 00:29:18
Local clock offset: 0.343 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-07-12 02:14:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 157.30 Mbit/s
95th percentile per-packet one-way delay: 60.544 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 157.30 Mbit/s
95th percentile per-packet one-way delay: 60.544 ms
Loss rate: 0.00%
Run 7: Report of TCP Cubic — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 157.32 Mbit/s)
- Flow 1 egress (mean 157.30 Mbit/s)

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

- Flow 1 (95th percentile 60.54 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-07-12 00:50:57
End at: 2018-07-12 00:51:27
Local clock offset: 0.031 ms
Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2018-07-12 02:15:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.29 Mbit/s
95th percentile per-packet one-way delay: 59.715 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 178.29 Mbit/s
95th percentile per-packet one-way delay: 59.715 ms
Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link

---

**Graph 1:**
- **Y-axis:** Throughput (Mbit/s)
- **X-axis:** Time (s)
- **Legend:**
  - Flow 1 ingress (mean 178.29 Mbit/s)
  - Flow 1 egress (mean 178.29 Mbit/s)

**Graph 2:**
- **Y-axis:** Per-packet one-way delay (ms)
- **X-axis:** Time (s)
- **Legend:**
  - Flow 1 (95th percentile 59.72 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-07-12 01:13:10
End at: 2018-07-12 01:13:40
Local clock offset: -0.008 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-07-12 02:15:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 160.73 Mbit/s
95th percentile per-packet one-way delay: 59.222 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 160.73 Mbit/s
95th percentile per-packet one-way delay: 59.222 ms
Loss rate: 0.06%
Run 9: Report of TCP Cubic — Data Link

![Graph 1: Throughput](image1)

*Flow 1 ingress (mean 160.83 Mbit/s)  Flow 1 egress (mean 160.73 Mbit/s)*

![Graph 2: Packet delay](image2)

*Flow 1 (95th percentile 59.22 ms)*
Run 10: Statistics of TCP Cubic

Start at: 2018-07-12 01:35:19
End at: 2018-07-12 01:35:49
Local clock offset: -0.114 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2018-07-12 02:17:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.17 Mbit/s
95th percentile per-packet one-way delay: 60.999 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.17 Mbit/s
95th percentile per-packet one-way delay: 60.999 ms
Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link

![Graph 1: Throughput (Mbps)](image1.png)
- Flow 1 ingress (mean 228.26 Mbps)
- Flow 1 egress (mean 228.17 Mbps)

![Graph 2: Per packet one-way delay (ms)](image2.png)
- Flow 1 (95th percentile 61.00 ms)
Run 1: Statistics of FillIP

Local clock offset: -0.033 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-07-12 02:27:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 681.83 Mbit/s
95th percentile per-packet one-way delay: 136.480 ms
Loss rate: 7.03%
-- Flow 1:
Average throughput: 681.83 Mbit/s
95th percentile per-packet one-way delay: 136.480 ms
Loss rate: 7.03%
Run 1: Report of FillP — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 733.38 Mbit/s)  Flow 1 egress (mean 681.83 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 136.48 ms)
Run 2: Statistics of FillP

Local clock offset: -0.037 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2018-07-12 02:27:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 587.47 Mbit/s
95th percentile per-packet one-way delay: 142.206 ms
Loss rate: 7.88%
-- Flow 1:
Average throughput: 587.47 Mbit/s
95th percentile per-packet one-way delay: 142.206 ms
Loss rate: 7.88%
Run 2: Report of FillP — Data Link

Graph 1: Throughput (Mbps)

- Flow 1 ingress (mean 637.71 Mbit/s)
- Flow 1 egress (mean 587.47 Mbit/s)

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

- Flow 1 (95th percentile 142.21 ms)
Run 3: Statistics of FillP

Start at: 2018-07-11 23:09:02
End at: 2018-07-11 23:09:32
Local clock offset: -0.02 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-07-12 02:31:08
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 852.87 Mbit/s
  95th percentile per-packet one-way delay: 220.988 ms
  Loss rate: 2.54%
-- Flow 1:
  Average throughput: 852.87 Mbit/s
  95th percentile per-packet one-way delay: 220.988 ms
  Loss rate: 2.54%
Run 3: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 Ingress (mean 875.05 Mbps)
- Flow 1 Egress (mean 852.87 Mbps)

![Graph 2: Per-packet round-trip delay (ms) for Flow 1 (95th percentile 220.99 ms)]
Run 4: Statistics of FillP

End at: 2018-07-11 23:31:40
Local clock offset: -0.404 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-07-12 02:31:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 742.24 Mbit/s
95th percentile per-packet one-way delay: 157.500 ms
Loss rate: 5.71%
-- Flow 1:
Average throughput: 742.24 Mbit/s
95th percentile per-packet one-way delay: 157.500 ms
Loss rate: 5.71%
Run 4: Report of FillP — Data Link
Run 5: Statistics of FillP

Local clock offset: -0.028 ms
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2018-07-12 02:31:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 879.59 Mbit/s
95th percentile per-packet one-way delay: 165.672 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 879.59 Mbit/s
95th percentile per-packet one-way delay: 165.672 ms
Loss rate: 1.35%
Run 5: Report of FillP — Data Link

![Graph showing data link performance metrics over time.](image)

**Notes:**
- Flow 1 ingress (mean 891.65 Mb/s)
- Flow 1 egress (mean 879.59 Mb/s)
- Flow 1 (95th percentile 165.67 ms)
Run 6: Statistics of FillP

Start at: 2018-07-12 00:15:31
End at: 2018-07-12 00:16:01
Local clock offset: -0.021 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2018-07-12 02:31:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 795.41 Mbit/s
95th percentile per-packet one-way delay: 139.903 ms
Loss rate: 4.26%
-- Flow 1:
Average throughput: 795.41 Mbit/s
95th percentile per-packet one-way delay: 139.903 ms
Loss rate: 4.26%
Run 6: Report of FillP — Data Link

[Graphs showing throughput and per-packet round-trip delay over time for Flow 1 Ingress and Egress]
Run 7: Statistics of FillP

Start at: 2018-07-12 00:37:45
End at: 2018-07-12 00:38:15
Local clock offset: -0.012 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-07-12 02:32:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 819.77 Mbit/s
95th percentile per-packet one-way delay: 205.059 ms
Loss rate: 3.02%
-- Flow 1:
Average throughput: 819.77 Mbit/s
95th percentile per-packet one-way delay: 205.059 ms
Loss rate: 3.02%
Run 7: Report of FillP — Data Link

Throughput (Mbit/s)

Flow 1 ingress (mean 845.28 Mbit/s)  Flow 1 egress (mean 819.77 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 205.66 ms)
Run 8: Statistics of FillP

Start at: 2018-07-12 00:59:47
End at: 2018-07-12 01:00:17
Local clock offset: -0.057 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2018-07-12 02:33:44
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 845.93 Mbit/s
  95th percentile per-packet one-way delay: 217.888 ms
  Loss rate: 2.61%
-- Flow 1:
  Average throughput: 845.93 Mbit/s
  95th percentile per-packet one-way delay: 217.888 ms
  Loss rate: 2.61%
Run 8: Report of FillP — Data Link

![Graph 1: Throughput vs Time](chart1)

- Flow 1 ingress (mean 868.60 Mbit/s)
- Flow 1 egress (mean 845.93 Mbit/s)

![Graph 2: Packet Delay vs Time](chart2)

- Flow 1 (95th percentile 217.89 ms)
Run 9: Statistics of FillP

Start at: 2018-07-12 01:22:08
End at: 2018-07-12 01:22:38
Local clock offset: -0.051 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-07-12 02:39:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 725.49 Mbit/s
95th percentile per-packet one-way delay: 143.179 ms
Loss rate: 5.25%
-- Flow 1:
Average throughput: 725.49 Mbit/s
95th percentile per-packet one-way delay: 143.179 ms
Loss rate: 5.25%
Run 9: Report of FillP — Data Link

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

- Flow 1 ingress (mean 765.74 Mbit/s)
- Flow 1 egress (mean 725.49 Mbit/s)

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

- Flow 1 (95th percentile 143.18 ms)
Run 10: Statistics of FillP

Start at: 2018-07-12 01:44:11
End at: 2018-07-12 01:44:41
Local clock offset: -0.083 ms
Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2018-07-12 02:40:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 704.19 Mbit/s
95th percentile per-packet one-way delay: 214.183 ms
Loss rate: 5.96%
-- Flow 1:
Average throughput: 704.19 Mbit/s
95th percentile per-packet one-way delay: 214.183 ms
Loss rate: 5.96%
Run 10: Report of FillP — Data Link
Run 1: Statistics of FillP-Sheep

End at: 2018-07-11 22:11:52
Local clock offset: -0.392 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-07-12 02:44:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 738.18 Mbit/s
95th percentile per-packet one-way delay: 143.614 ms
Loss rate: 10.39%
-- Flow 1:
Average throughput: 738.18 Mbit/s
95th percentile per-packet one-way delay: 143.614 ms
Loss rate: 10.39%
Run 1: Report of FillP-Sheep — Data Link

![Graph of throughput over time with labels indicating mean ingress and egress values.]

![Graph of one-way delay over time with a note indicating the 95th percentile delay.]

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Run 2: Statistics of FillP-Sheep

Local clock offset: -0.069 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2018-07-12 02:44:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 679.23 Mbit/s
95th percentile per-packet one-way delay: 148.423 ms
Loss rate: 14.97%
-- Flow 1:
Average throughput: 679.23 Mbit/s
95th percentile per-packet one-way delay: 148.423 ms
Loss rate: 14.97%
Run 2: Report of FillP-Sheep — Data Link
Run 3: Statistics of FillP-Sheep

Local clock offset: -0.045 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-07-12 02:46:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 746.13 Mbit/s
95th percentile per-packet one-way delay: 215.639 ms
Loss rate: 9.78%
-- Flow 1:
Average throughput: 746.13 Mbit/s
95th percentile per-packet one-way delay: 215.639 ms
Loss rate: 9.78%
Run 3: Report of FillP-Sheep — Data Link

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

- **Flow 1 ingress** (mean 827.10 Mbit/s)
- **Flow 1 egress** (mean 746.13 Mbit/s)

![Graph of packet delay over time](image)

- **Flow 1** (95th percentile 215.64 ms)
Run 4: Statistics of FillP-Sheep

Start at: 2018-07-11 23:17:56
End at: 2018-07-11 23:18:26
Local clock offset: -0.075 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-07-12 02:46:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 670.73 Mbit/s
95th percentile per-packet one-way delay: 145.627 ms
Loss rate: 12.82%
-- Flow 1:
Average throughput: 670.73 Mbit/s
95th percentile per-packet one-way delay: 145.627 ms
Loss rate: 12.82%
Run 4: Report of FillP-Sheep — Data Link

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

End at: 2018-07-11 23:40:25
Local clock offset: -0.075 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-07-12 02:46:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 704.68 Mbit/s
95th percentile per-packet one-way delay: 168.514 ms
Loss rate: 11.32%
-- Flow 1:
Average throughput: 704.68 Mbit/s
95th percentile per-packet one-way delay: 168.514 ms
Loss rate: 11.32%
Run 5: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 794.67 Mbps)
- Flow 1 egress (mean 704.68 Mbps)

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

- Flow 1 (95th percentile 168.51 ms)
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-12 00:02:03
End at: 2018-07-12 00:02:33
Local clock offset: -0.025 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-07-12 02:50:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 772.20 Mbit/s
95th percentile per-packet one-way delay: 250.931 ms
Loss rate: 11.68%
-- Flow 1:
Average throughput: 772.20 Mbit/s
95th percentile per-packet one-way delay: 250.931 ms
Loss rate: 11.68%
Run 6: Report of FillP-Sheep — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 874.36 Mbps)
  - Flow 1 egress (mean 772.20 Mbps)

- **Delay:**
  - Flow 1 (95th percentile 250.93 ms)
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-12 00:24:22
End at: 2018-07-12 00:24:52
Local clock offset: -0.018 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-07-12 02:55:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 690.69 Mbit/s
95th percentile per-packet one-way delay: 178.840 ms
Loss rate: 12.49%
-- Flow 1:
Average throughput: 690.69 Mbit/s
95th percentile per-packet one-way delay: 178.840 ms
Loss rate: 12.49%
Run 7: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 799.25 Mbps)
- Flow 1 egress (mean 690.69 Mbps)

![Graph 2: Per Packet One-Way Delay (ms)](image2)

- Flow 1 (95th percentile 178.84 ms)
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-12 00:46:31
End at: 2018-07-12 00:47:01
Local clock offset: 0.297 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-07-12 02:59:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 794.62 Mbit/s
95th percentile per-packet one-way delay: 234.667 ms
Loss rate: 8.47%
-- Flow 1:
Average throughput: 794.62 Mbit/s
95th percentile per-packet one-way delay: 234.667 ms
Loss rate: 8.47%
Run 8: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 868.24 Mbit/s)
- Flow 1 egress (mean 794.62 Mbit/s)

![Graph showing per-packet one-way delay for Flow 1.]

- Flow 1 (95th percentile 234.67 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-12 01:08:33
End at: 2018-07-12 01:09:03
Local clock offset: 0.335 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-07-12 03:02:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 900.36 Mbit/s
95th percentile per-packet one-way delay: 213.565 ms
Loss rate: 4.69%
-- Flow 1:
Average throughput: 900.36 Mbit/s
95th percentile per-packet one-way delay: 213.565 ms
Loss rate: 4.69%
Run 9: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 944.66 Mbit/s)
- Flow 1 egress (mean 900.96 Mbit/s)

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

- Flow 1 (95th percentile 213.56 ms)
Run 10: Statistics of FillIP-Sheep

Start at: 2018-07-12 01:30:53
End at: 2018-07-12 01:31:23
Local clock offset: -0.107 ms
Remote clock offset: 0.053 ms

# Below is generated by plot.py at 2018-07-12 03:02:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 669.54 Mbit/s
95th percentile per-packet one-way delay: 221.789 ms
Loss rate: 6.86%
-- Flow 1:
Average throughput: 669.54 Mbit/s
95th percentile per-packet one-way delay: 221.789 ms
Loss rate: 6.86%
Run 10: Report of FillP-Sheep — Data Link

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**Throughput:**

![Throughput Graph]

**Flow 1 Ingress (mean 718.90 Mbit/s)**

**Flow 1 Egress (mean 669.54 Mbit/s)**

---

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

![Delay Graph]

Flow 1 (95th percentile 221.79 ms)
Run 1: Statistics of Indigo

Local clock offset: -0.396 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-07-12 03:02:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 212.07 Mbit/s
95th percentile per-packet one-way delay: 51.573 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 212.07 Mbit/s
95th percentile per-packet one-way delay: 51.573 ms
Loss rate: 0.15%
Run 2: Statistics of Indigo

Local clock offset: -0.066 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-07-12 03:02:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.75 Mbit/s
95th percentile per-packet one-way delay: 51.292 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 224.75 Mbit/s
95th percentile per-packet one-way delay: 51.292 ms
Loss rate: 0.00%
Run 2: Report of Indigo — Data Link
Run 3: Statistics of Indigo

Start at: 2018-07-11 23:02:34
End at: 2018-07-11 23:03:04
Local clock offset: -0.066 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2018-07-12 03:02:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 243.00 Mbit/s
95th percentile per-packet one-way delay: 51.309 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 243.00 Mbit/s
95th percentile per-packet one-way delay: 51.309 ms
Loss rate: 0.00%
Run 3: Report of Indigo — Data Link

[Graph 1: Throughput (Mbps) vs. Time (s)]
- Flow 1 ingress (mean 243.00 Mbit/s)
- Flow 1 egress (mean 243.00 Mbit/s)

[Graph 2: Per packet one way delay (ms) vs. Time (s)]
- Flow 1 (95th percentile 51.31 ms)
Run 4: Statistics of Indigo

Local clock offset: -0.053 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2018-07-12 03:02:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.26 Mbit/s
95th percentile per-packet one-way delay: 51.648 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.26 Mbit/s
95th percentile per-packet one-way delay: 51.648 ms
Loss rate: 0.00%
Run 4: Report of Indigo — Data Link
Run 5: Statistics of Indigo

Local clock offset: -0.053 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2018-07-12 03:02:27
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 218.36 Mbit/s
  95th percentile per-packet one-way delay: 50.991 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 218.36 Mbit/s
  95th percentile per-packet one-way delay: 50.991 ms
  Loss rate: 0.00%
Run 5: Report of Indigo — Data Link

![Graph: Throughput vs Time](image1)

- **Flow 1 ingress (mean 218.35 Mbit/s)**
- **Flow 1 egress (mean 218.36 Mbit/s)**

![Graph: Packet delay vs Time](image2)

- **Flow 1 (95th percentile 50.99 ms)**
Run 6: Statistics of Indigo

Start at: 2018-07-12 00:09:03
End at: 2018-07-12 00:09:33
Local clock offset: -0.057 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 234.84 Mbit/s
95th percentile per-packet one-way delay: 50.651 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 234.84 Mbit/s
95th percentile per-packet one-way delay: 50.651 ms
Loss rate: 0.00%
Run 6: Report of Indigo — Data Link
Run 7: Statistics of Indigo

Start at: 2018-07-12 00:31:15
End at: 2018-07-12 00:31:45
Local clock offset: 0.319 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.44 Mbit/s
95th percentile per-packet one-way delay: 51.486 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.44 Mbit/s
95th percentile per-packet one-way delay: 51.486 ms
Loss rate: 0.00%
Run 7: Report of Indigo — Data Link

![Graph of throughput and packet delay]

- **Flow 1 ingress (mean 2.35.44 Mbit/s)**
- **Flow 1 egress (mean 2.35.44 Mbit/s)**

- **Flow 1 (95th percentile 51.49 ms)**
Run 8: Statistics of Indigo

Start at: 2018-07-12 00:53:20
End at: 2018-07-12 00:53:50
Local clock offset: -0.014 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.45 Mbit/s
95th percentile per-packet one-way delay: 51.195 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.45 Mbit/s
95th percentile per-packet one-way delay: 51.195 ms
Loss rate: 0.00%
Run 8: Report of Indigo — Data Link
Run 9: Statistics of Indigo

Start at: 2018-07-12 01:15:39
End at: 2018-07-12 01:16:09
Local clock offset: -0.053 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.78 Mbit/s
95th percentile per-packet one-way delay: 51.139 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.78 Mbit/s
95th percentile per-packet one-way delay: 51.139 ms
Loss rate: 0.00%
Run 9: Report of Indigo — Data Link
Run 10: Statistics of Indigo

Start at: 2018-07-12 01:37:43
End at: 2018-07-12 01:38:14
Local clock offset: ~0.072 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.53 Mbit/s
95th percentile per-packet one-way delay: 51.766 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.53 Mbit/s
95th percentile per-packet one-way delay: 51.766 ms
Loss rate: 0.00%
Run 1: Statistics of LEDBAT

End at: 2018-07-11 22:09:21
Local clock offset: ~0.056 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.55 Mbit/s
95th percentile per-packet one-way delay: 52.770 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.55 Mbit/s
95th percentile per-packet one-way delay: 52.770 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Local clock offset: -0.073 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.98 Mbit/s
95th percentile per-packet one-way delay: 52.101 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.98 Mbit/s
95th percentile per-packet one-way delay: 52.101 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Local clock offset: -0.04 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.85 Mbit/s
95th percentile per-packet one-way delay: 52.254 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.85 Mbit/s
95th percentile per-packet one-way delay: 52.254 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

![Graph showing throughput over time with two lines indicating flow ingress and egress speeds.]

![Graph showing packet delay over time with blue markers indicating 95th percentile delay time.]
Run 4: Statistics of LEDBAT

End at: 2018-07-11 23:15:56
Local clock offset: -0.033 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.33 Mbit/s
95th percentile per-packet one-way delay: 52.228 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.33 Mbit/s
95th percentile per-packet one-way delay: 52.228 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 35.33 Mbit/s)
- Flow 1 egress (mean 35.33 Mbit/s)

![Graph 2: Ping Round Trip Time (ms)]

- Flow 1 (95th percentile 52.23 ms)
Run 5: Statistics of LEDBAT

Local clock offset: -0.02 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.53 Mbit/s
95th percentile per-packet one-way delay: 52.583 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.53 Mbit/s
95th percentile per-packet one-way delay: 52.583 ms
Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Start at: 2018-07-11 23:59:34
End at: 2018-07-12 00:00:04
Local clock offset: 0.291 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 50.980 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 50.980 ms
Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link

![Graphs showing throughput and packet error rate vs time.]

- **Throughput** vs **Time (s)**
  - Dashed line: Flow 1 ingress (mean 30.70 Mbit/s)
  - Solid line: Flow 1 egress (mean 30.70 Mbit/s)

- **Packet error rate** vs **Time (s)**
  - Flow 1 (95th percentile 50.98 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-07-12 00:21:51
End at: 2018-07-12 00:22:21
Local clock offset: 0.023 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.15 Mbit/s
95th percentile per-packet one-way delay: 52.097 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 35.15 Mbit/s
95th percentile per-packet one-way delay: 52.097 ms
Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link

[Diagram showing throughput and latency over time for a data link flow, with labels for flow ingress and egress rates.]
Run 8: Statistics of LEDBAT

Start at: 2018-07-12 00:44:00
End at: 2018-07-12 00:44:31
Local clock offset: -0.036 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.38 Mbit/s
95th percentile per-packet one-way delay: 51.542 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.38 Mbit/s
95th percentile per-packet one-way delay: 51.542 ms
Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

![Graph 1: Throughput vs Time]

- Flow 1 ingress (mean 33.37 Mbit/s)
- Flow 1 egress (mean 33.38 Mbit/s)

![Graph 2: Delay vs Time]

- Flow 1 (95th percentile 51.54 ms)
Run 9: Statistics of LEDBAT

Start at: 2018-07-12 01:06:01
End at: 2018-07-12 01:06:31
Local clock offset: 0.327 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 34.90 Mbit/s
  95th percentile per-packet one-way delay: 52.100 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 34.90 Mbit/s
  95th percentile per-packet one-way delay: 52.100 ms
  Loss rate: 0.00%
Run 10: Statistics of LEDBAT

Start at: 2018-07-12 01:28:22
End at: 2018-07-12 01:28:52
Local clock offset: -0.067 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-07-12 03:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.66 Mbit/s
95th percentile per-packet one-way delay: 53.063 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.66 Mbit/s
95th percentile per-packet one-way delay: 53.063 ms
Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link

![Graph showing throughput and delay over time](image-url)
Run 1: Statistics of PCC-Allegro

Local clock offset: -0.326 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2018-07-12 03:06:51
# Datalink statistics

-- Total of 1 flow:
Average throughput: 515.29 Mbit/s
95th percentile per-packet one-way delay: 120.294 ms
Loss rate: 0.72%

-- Flow 1:
Average throughput: 515.29 Mbit/s
95th percentile per-packet one-way delay: 120.294 ms
Loss rate: 0.72%
Run 1: Report of PCC-Allegro — Data Link
Run 2: Statistics of PCC-Allegro

Local clock offset: -0.046 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-07-12 03:06:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 505.91 Mbit/s
95th percentile per-packet one-way delay: 145.613 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 505.91 Mbit/s
95th percentile per-packet one-way delay: 145.613 ms
Loss rate: 0.41%
Run 2: Report of PCC-Allegro — Data Link

---

**Graph 1:**

- *Flow 1 ingress (mean 507.96 Mbit/s)*
- *Flow 1 egress (mean 505.91 Mbit/s)*

**Graph 2:**

- *Flow 1 (95th percentile 145.61 ms)*
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-11 22:54:02
Local clock offset: -0.045 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-07-12 03:06:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 510.45 Mbit/s
95th percentile per-packet one-way delay: 149.449 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 510.45 Mbit/s
95th percentile per-packet one-way delay: 149.449 ms
Loss rate: 0.26%
Run 3: Report of PCC-Allegro — Data Link

![Graph of Throughput vs Time](image1)

- Flow 1 ingress (mean 511.79 Mbit/s)
- Flow 1 egress (mean 510.45 Mbit/s)

![Graph of Round Trip Time vs Time](image2)

- Flow 1 (95th percentile 149.45 ms)
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-11 23:16:34
End at: 2018-07-11 23:17:04
Local clock offset: -0.061 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-07-12 03:06:58
# Datalink statistics
# Total of 1 flow:
Average throughput: 502.89 Mbit/s
95th percentile per-packet one-way delay: 127.063 ms
Loss rate: 0.44%
Flow 1:
Average throughput: 502.89 Mbit/s
95th percentile per-packet one-way delay: 127.063 ms
Loss rate: 0.44%
Run 5: Statistics of PCC-Allegro

End at: 2018-07-11 23:39:03
Local clock offset: -0.071 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2018-07-12 03:07:12
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 493.51 Mbit/s
  95th percentile per-packet one-way delay: 67.791 ms
  Loss rate: 0.39%
-- Flow 1:
  Average throughput: 493.51 Mbit/s
  95th percentile per-packet one-way delay: 67.791 ms
  Loss rate: 0.39%
Run 5: Report of PCC-Allegro — Data Link

---

**Throughput (Mbps)**
- Flow 1 ingress (mean 495.43 Mbps)
- Flow 1 egress (mean 493.51 Mbps)

---

**Packet one way delay (ms)**
- Flow 1 (95th percentile 67.79 ms)
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-12 00:00:41
End at: 2018-07-12 00:01:11
Local clock offset: ~0.068 ms
Remote clock offset: ~0.037 ms

# Below is generated by plot.py at 2018-07-12 03:07:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 509.73 Mbit/s
95th percentile per-packet one-way delay: 118.888 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 509.73 Mbit/s
95th percentile per-packet one-way delay: 118.888 ms
Loss rate: 0.32%
Run 6: Report of PCC-Allegro — Data Link
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-12 00:22:59
End at: 2018-07-12 00:23:29
Local clock offset: -0.038 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-07-12 03:08:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 518.67 Mbit/s
95th percentile per-packet one-way delay: 179.379 ms
Loss rate: 0.65%

-- Flow 1:
Average throughput: 518.67 Mbit/s
95th percentile per-packet one-way delay: 179.379 ms
Loss rate: 0.65%
Run 7: Report of PCC-Allegro — Data Link

![Graph showing throughput and packet delay over time]

**Graph Notes:**
- **Throughput (Mbps):**
  - Flow 1 ingress (mean 522.08 Mbit/s)
  - Flow 1 egress (mean 518.67 Mbit/s)
- **Packet Delay (ms):**
  - Flow 1 95th percentile 179.38 ms
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-12 00:45:08
End at: 2018-07-12 00:45:38
Local clock offset: -0.364 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2018-07-12 03:13:33
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 514.54 Mbit/s
  95th percentile per-packet one-way delay: 86.132 ms
  Loss rate: 0.62%
-- Flow 1:
  Average throughput: 514.54 Mbit/s
  95th percentile per-packet one-way delay: 86.132 ms
  Loss rate: 0.62%
Run 8: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 517.74 Mbit/s)
- Flow 1 egress (mean 514.54 Mbit/s)

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

- Flow 1 (95th percentile 86.13 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-12 01:07:09
End at: 2018-07-12 01:07:39
Local clock offset: -0.115 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-07-12 03:14:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 522.66 Mbit/s
95th percentile per-packet one-way delay: 105.802 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 522.66 Mbit/s
95th percentile per-packet one-way delay: 105.802 ms
Loss rate: 0.43%
Run 9: Report of PCC-Allegro — Data Link

![Graph showing throughput and latency over time for data link.]

- Flow 1 ingress (mean 524.94 Mbit/s)
- Flow 1 egress (mean 522.66 Mbit/s)

- Flow 1 (95th percentile 105.80 ms)
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-12 01:29:30
End at: 2018-07-12 01:30:00
Local clock offset: 0.311 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2018-07-12 03:14:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 513.44 Mbit/s
95th percentile per-packet one-way delay: 103.649 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 513.44 Mbit/s
95th percentile per-packet one-way delay: 103.649 ms
Loss rate: 0.52%
Run 10: Report of PCC-Allegro — Data Link

![Graph showing throughput and latency over time.]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 516.12 Mbit/s)
  - Flow 1 egress (mean 513.44 Mbit/s)

- **Latency (ms):**
  - Flow 1 (95th percentile 103.65 ms)
Run 1: Statistics of PCC-Expr

Local clock offset: -0.451 ms
Remote clock offset: -0.05 ms

Datalink statistics
-- Total of 1 flow:
Average throughput: 290.91 Mbit/s
95th percentile per-packet one-way delay: 178.102 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 290.91 Mbit/s
95th percentile per-packet one-way delay: 178.102 ms
Loss rate: 1.61%
Run 1: Report of PCC-Expr — Data Link

[Graph showing throughput and delay over time for Flow 1 ingress and egress.]
Run 2: Statistics of PCC-Expr

Start at: 2018-07-11 22:35:00
End at: 2018-07-11 22:35:30
Local clock offset: ~0.419 ms
Remote clock offset: ~0.035 ms

# Below is generated by plot.py at 2018-07-12 03:15:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 255.92 Mbit/s
95th percentile per-packet one-way delay: 175.457 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 255.92 Mbit/s
95th percentile per-packet one-way delay: 175.457 ms
Loss rate: 0.48%
Run 2: Report of PCC-Expr — Data Link

[Graph showing throughput and delay over time]
Run 3: Statistics of PCC-Expr

Local clock offset: -0.415 ms  
Remote clock offset: 0.021 ms

# Below is generated by plot.py at 2018-07-12 03:22:06  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 384.26 Mbit/s  
95th percentile per-packet one-way delay: 288.976 ms  
Loss rate: 36.72%  
-- Flow 1:  
Average throughput: 384.26 Mbit/s  
95th percentile per-packet one-way delay: 288.976 ms  
Loss rate: 36.72%
Run 3: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 607.29 Mbit/s)
- Flow 1 egress (mean 384.26 Mbit/s)

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

- Flow 1 (95th percentile 208.98 ms)
Run 4: Statistics of PCC-Expr

Local clock offset: -0.023 ms
Remote clock offset: 0.021 ms

# Below is generated by plot.py at 2018-07-12 03:22:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 240.03 Mbit/s
95th percentile per-packet one-way delay: 180.719 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 240.03 Mbit/s
95th percentile per-packet one-way delay: 180.719 ms
Loss rate: 1.97%
Run 4: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress (mean 244.85 Mbit/s)**
- **Flow 1 egress (mean 240.03 Mbit/s)**

![Graph of packet delay over time](image)

- **Flow 1 (95th percentile 180.72 ms)**
Run 5: Statistics of PCC-Expr

Local clock offset: -0.005 ms
Remote clock offset: 0.034 ms

# Below is generated by plot.py at 2018-07-12 03:22:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 326.67 Mbit/s
95th percentile per-packet one-way delay: 147.639 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 326.67 Mbit/s
95th percentile per-packet one-way delay: 147.639 ms
Loss rate: 0.42%
Run 5: Report of PCC-Expr — Data Link

![Graph showing throughput and packet delay over time for Flow 1.](image_url)
Run 6: Statistics of PCC-Expr

Start at: 2018-07-12 00:03:41
End at: 2018-07-12 00:04:11
Local clock offset: 0.302 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-07-12 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 281.21 Mbit/s
95th percentile per-packet one-way delay: 86.021 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 281.21 Mbit/s
95th percentile per-packet one-way delay: 86.021 ms
Loss rate: 0.00%
Run 6: Report of PCC-Expr — Data Link

![Graphs showing network traffic and delay]

- Flow 1 ingress (mean 281.21 Mbit/s)
- Flow 1 egress (mean 281.21 Mbit/s)

![Graph showing packet delay]

- Flow 1 (95th percentile 86.02 ms)
Run 7: Statistics of PCC-Expr

Start at: 2018-07-12 00:25:55
End at: 2018-07-12 00:26:25
Local clock offset: 0.308 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 260.23 Mbit/s
95th percentile per-packet one-way delay: 130.738 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 260.23 Mbit/s
95th percentile per-packet one-way delay: 130.738 ms
Loss rate: 0.00%
Run 7: Report of PCC-Expr — Data Link

![Graph showing throughput and packet delay over time]

- Flow 1 ingress (mean 260.25 Mbit/s)
- Flow 1 egress (mean 260.23 Mbit/s)

![Graph showing packet delay over time]

- Flow 1 (95th percentile 130.74 ms)
Run 8: Statistics of PCC-Expr

Start at: 2018-07-12 00:48:09
End at: 2018-07-12 00:48:39
Local clock offset: -0.016 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.34 Mbit/s
95th percentile per-packet one-way delay: 64.261 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 249.34 Mbit/s
95th percentile per-packet one-way delay: 64.261 ms
Loss rate: 0.00%
Run 8: Report of PCC-Expr — Data Link

![Graph of throughput over time]

- Flow 1 ingress (mean 249.34 Mbit/s)
- Flow 1 egress (mean 249.34 Mbit/s)

![Graph of packet delay over time]

- Flow 1 (95th percentile 64.26 ms)
Run 9: Statistics of PCC-Expr

Start at: 2018-07-12 01:10:15
End at: 2018-07-12 01:10:45
Local clock offset: -0.015 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 234.47 Mbit/s
95th percentile per-packet one-way delay: 65.815 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 234.47 Mbit/s
95th percentile per-packet one-way delay: 65.815 ms
Loss rate: 0.00%
Run 9: Report of PCC-Expr — Data Link
Run 10: Statistics of PCC-Expr

Start at: 2018-07-12 01:32:27
End at: 2018-07-12 01:32:57
Local clock offset: -0.411 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.20 Mbit/s
95th percentile per-packet one-way delay: 68.086 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 229.20 Mbit/s
95th percentile per-packet one-way delay: 68.086 ms
Loss rate: 0.00%
Run 10: Report of PCC-Expr — Data Link
Run 1: Statistics of QUIC Cubic

End at: 2018-07-11 22:07:08
Local clock offset: 0.013 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.16 Mbit/s
95th percentile per-packet one-way delay: 50.843 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.16 Mbit/s
95th percentile per-packet one-way delay: 50.843 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Local clock offset: -0.034 ms
Remote clock offset: -0.034 ms
Run 2: Report of QUIC Cubic — Data Link

[Graphs showing data for flow ingress and egress with Throughput and Time (s) axes.]
Run 3: Statistics of QUIC Cubic

Local clock offset: -0.057 ms
Remote clock offset: -0.022 ms
Run 3: Report of QUIC Cubic — Data Link

---

**Graph 1:**
- Title: Throughput vs Time
- X-axis: Time (s)
- Y-axis: Throughput (Mbps)
- Legend:
  - Light blue: Flow 1 ingress (mean 0.06 Mbps)
  - Blue: Flow 1 egress (mean 0.06 Mbps)
- Description: The graph shows the throughput over time for two different flows, with Flow 1 ingress maintaining a steady and higher throughput compared to Flow 1 egress.

**Graph 2:**
- Title: Per-packet one-way delay (ms)
- X-axis: Time (s)
- Y-axis: Per-packet one-way delay (ms)
- Legend:
  - Blue: Flow 1 (95th percentile 50.81 ms)
- Description: The graph illustrates the delay experienced per packet over time for Flow 1, with a 95th percentile delay of 50.81 milliseconds.

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Run 4: Statistics of QUIC Cubic

End at: 2018-07-11 23:13:45
Local clock offset: -0.443 ms
Remote clock offset: 0.004 ms
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-11 23:35:12
End at: 2018-07-11 23:35:42
Local clock offset: -0.067 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.07 Mbit/s
95th percentile per-packet one-way delay: 50.658 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.07 Mbit/s
95th percentile per-packet one-way delay: 50.658 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet delay over time]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 47.07 Mbps)
  - Flow 1 egress (mean 47.07 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 50.66 ms)
Run 6: Statistics of QUIC Cubic

End at: 2018-07-11 23:57:50
Local clock offset: -0.072 ms
Remote clock offset: 0.028 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.96 Mbit/s
95th percentile per-packet one-way delay: 50.779 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.96 Mbit/s
95th percentile per-packet one-way delay: 50.779 ms
Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet delivery delay over time for Flow 1 with ingress and egress rates of 44.96 Mbit/s.]

- Flow 1 ingress (mean 44.96 Mbit/s)
- Flow 1 egress (mean 44.96 Mbit/s)
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-12 00:19:39
End at: 2018-07-12 00:20:10
Local clock offset: -0.015 ms
Remote clock offset: 0.005 ms
Run 7: Report of QUIC Cubic — Data Link

![Graph 1: Throughput vs Time for Flow Ingress and Egress](image1)

![Graph 2: Packet One-Way Delay vs Time for Flow 1](image2)

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Run 8: Statistics of QUIC Cubic

Start at: 2018-07-12 00:41:47
End at: 2018-07-12 00:42:17
Local clock offset: 0.024 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.90 Mbit/s
95th percentile per-packet one-way delay: 50.578 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.90 Mbit/s
95th percentile per-packet one-way delay: 50.578 ms
Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link

![Graph showing network performance metrics over time.]

- **Throughput (Mbps):**
  - Blue dashed line: Flow 1 ingress (mean 41.90 Mbit/s)
  - Blue solid line: Flow 1 egress (mean 41.90 Mbit/s)

- **Round-trip time (ms):**
  - Blue markers: Flow 1 (95th percentile 50.58 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-12 01:03:50
End at: 2018-07-12 01:04:20
Local clock offset: -0.039 ms
Remote clock offset: -0.037 ms
Run 9: Report of QUIC Cubic — Data Link

![Graph showing throughput vs time for Flow 1 ingress and egress with a linear relationship.

Another graph showing ping-pong round trip time vs time for Flow 1 with a 95th percentile of 50.97 ms.]
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-12 01:26:11
End at: 2018-07-12 01:26:41
Local clock offset: 0.291 ms
Remote clock offset: 0.002 ms
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

End at: 2018-07-11 22:20:05
Local clock offset: -0.044 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.447 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.447 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Local clock offset: 0.294 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.519 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.519 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

Throughput (Mbit/s) vs Time (s)

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

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

- Flow 1 (95th percentile 50.52 ms)
Run 3: Statistics of SCReAM

Start at: 2018-07-11 23:03:55
End at: 2018-07-11 23:04:25
Local clock offset: -0.058 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.887 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.887 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

**Throughput (Mbps)**

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

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

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

**Flow 1 (95th percentile 50.89 ms)**
Run 4: Statistics of SCReAM

Start at: 2018-07-11 23:26:01
End at: 2018-07-11 23:26:31
Local clock offset: -0.072 ms
Remote clock offset: 0.026 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.012 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

Throughput (Mbps)

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

Per-packet one-way delay (ms)

Flow 1 (95th percentile 51.01 ms)
Run 5: Statistics of SCReAM

Local clock offset: -0.394 ms
Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 51.197 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 51.197 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

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

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

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

- **Flow 1 (95th percentile 51.20 ms)**
Run 6: Statistics of SCReAM

Start at: 2018-07-12 00:10:23
End at: 2018-07-12 00:10:53
Local clock offset: -0.067 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.767 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.767 ms
Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-07-12 00:32:35
End at: 2018-07-12 00:33:05
Local clock offset: -0.048 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.001 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.001 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

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Run 8: Statistics of SCReAM

Start at: 2018-07-12 00:54:40
End at: 2018-07-12 00:55:10
Local clock offset: -0.007 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.884 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.884 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

![Graph of Throughput (Mbps)](image1)

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

![Graph of Per Packet One-Way Delay (μs)](image2)

- Flow 1 (95th percentile 50.88 μs)
Run 9: Statistics of SCReAM

Start at: 2018-07-12 01:16:59
End at: 2018-07-12 01:17:29
Local clock offset: -0.023 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-07-12 03:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.387 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.387 ms
Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

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

- Packet delay (ms)
  - Flow 1 (95th percentile 50.39 ms)
Run 10: Statistics of SCReAM

Start at: 2018-07-12 01:39:03
End at: 2018-07-12 01:39:33
Local clock offset: -0.093 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.925 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.925 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

Graph 1: Throughput vs Time (s)
- Flow 1 ingress (mean 0.22 Mbit/s)
- Flow 1 egress (mean 0.22 Mbit/s)

Graph 2: Round-trip delay vs Time (s)
- Flow 1 (95th percentile 50.92 ms)
Run 1: Statistics of Sprout

Start at: 2018-07-11 22:07:45
End at: 2018-07-11 22:08:15
Local clock offset: -0.014 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.26 Mbit/s
95th percentile per-packet one-way delay: 51.338 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.26 Mbit/s
95th percentile per-packet one-way delay: 51.338 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 6.26 Mbps)
Flow 1 egress (mean 6.26 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (99th percentile 51.34 ms)
Run 2: Statistics of Sprout

End at: 2018-07-11 22:30:21
Local clock offset: -0.05 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 50.845 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 50.845 ms
Loss rate: 0.00%
Run 3: Statistics of Sprout

Local clock offset: -0.029 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.46 Mbit/s
95th percentile per-packet one-way delay: 50.470 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.46 Mbit/s
95th percentile per-packet one-way delay: 50.470 ms
Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 6.46 Mbit/s)
- Flow 1 egress (mean 6.46 Mbit/s)

![Graph 2: Per-packet end-to-end delay](image2)

- Flow 1 (95th percentile 50.47 ms)
Run 4: Statistics of Sprout

End at: 2018-07-11 23:14:50
Local clock offset: -0.007 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.53 Mbit/s
95th percentile per-packet one-way delay: 51.280 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.53 Mbit/s
95th percentile per-packet one-way delay: 51.280 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

![Graph of data link performance with throughput and packet delay measurements over time.](image-url)
Run 5: Statistics of Sprout

End at: 2018-07-11 23:36:50
Local clock offset: -0.054 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.70 Mbit/s
95th percentile per-packet one-way delay: 51.155 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.70 Mbit/s
95th percentile per-packet one-way delay: 51.155 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

![Graphs showing throughput and delay over time.]

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Flow 1 ingress (mean 6.70 Mbit/s)
Flow 1 egress (mean 6.70 Mbit/s)
Flow 1 (95th percentile 51.16 ms)
Run 6: Statistics of Sprout

End at: 2018-07-11 23:58:58
Local clock offset: -0.047 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 6.97 Mbit/s
  95th percentile per-packet one-way delay: 51.321 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 6.97 Mbit/s
  95th percentile per-packet one-way delay: 51.321 ms
  Loss rate: 0.00%
Run 6: Report of Sprout — Data Link

![Graph showing throughput and round-trip delay over time for Flow 1 ingress and egress, with annotations indicating mean 6.97 Mbps and 95th percentile delay of 51.32 ms.]
Run 7: Statistics of Sprout

Start at: 2018-07-12 00:20:45
End at: 2018-07-12 00:21:15
Local clock offset: -0.014 ms
Remote clock offset: 0.027 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 51.238 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 51.238 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

![Graph showing throughput and packet delay over time.](image-url)
Run 8: Statistics of Sprout

Start at: 2018-07-12 00:42:54
End at: 2018-07-12 00:43:24
Local clock offset: -0.008 ms
Remote clock offset: 0.065 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 7.16 Mbit/s
  95th percentile per-packet one-way delay: 51.257 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.16 Mbit/s
  95th percentile per-packet one-way delay: 51.257 ms
  Loss rate: 0.00%
Run 9: Statistics of Sprout

Start at: 2018-07-12 01:04:55
End at: 2018-07-12 01:05:25
Local clock offset: 0.327 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.66 Mbit/s
95th percentile per-packet one-way delay: 51.058 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.66 Mbit/s
95th percentile per-packet one-way delay: 51.058 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-07-12 01:27:16
End at: 2018-07-12 01:27:46
Local clock offset: -0.065 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-07-12 03:22:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.37 Mbit/s
95th percentile per-packet one-way delay: 51.068 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.37 Mbit/s
95th percentile per-packet one-way delay: 51.068 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

![Graph](image1)

![Graph](image2)

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Run 1: Statistics of TaoVA-100x

Local clock offset: -0.021 ms
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2018-07-12 03:27:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 237.13 Mbit/s
95th percentile per-packet one-way delay: 51.542 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 237.13 Mbit/s
95th percentile per-packet one-way delay: 51.542 ms
Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

![Data Link Throughput](chart1)

![Data Link Delay](chart2)

- Flow 1 ingress (mean 237.12 Mbit/s)
- Flow 1 egress (mean 237.13 Mbit/s)

- Flow 1 (95th percentile 51.54 ms)
Run 2: Statistics of TaoVA-100x

Local clock offset: -0.032 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-07-12 03:27:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.44 Mbit/s
95th percentile per-packet one-way delay: 59.350 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.44 Mbit/s
95th percentile per-packet one-way delay: 59.350 ms
Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress (mean 223.44 Mbps)**
- **Flow 1 egress (mean 223.44 Mbps)**

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

- **Flow 1 (95th percentile 59.35 ms)**

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Run 3: Statistics of TaoVA-100x

Start at: 2018-07-11 23:05:00
End at: 2018-07-11 23:05:30
Local clock offset: -0.073 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-07-12 03:29:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 248.15 Mbit/s
95th percentile per-packet one-way delay: 53.275 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 248.15 Mbit/s
95th percentile per-packet one-way delay: 53.275 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 248.15 Mbit/s)
  - Flow 1 egress (mean 248.15 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 53.27 ms)
Run 4: Statistics of TaoVA-100x

Local clock offset: -0.034 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2018-07-12 03:29:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 245.71 Mbit/s
95th percentile per-packet one-way delay: 51.435 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 245.71 Mbit/s
95th percentile per-packet one-way delay: 51.435 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link

![Graph showing throughput and delay over time]

- **Flow 1 ingress**: mean 245.71 Mbps
- **Flow 1 egress**: mean 245.71 Mbps

- **Per-packet one-way delay**: 51.44 ms
Run 5: Statistics of TaoVA-100x

Local clock offset: -0.06 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-07-12 03:29:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.36 Mbit/s
95th percentile per-packet one-way delay: 51.670 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 229.36 Mbit/s
95th percentile per-packet one-way delay: 51.670 ms
Loss rate: 0.01%
Run 5: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 229.39 Mbit/s)
- Flow 1 egress (mean 229.36 Mbit/s)

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

- Flow 1 (95th percentile 51.67 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-12 00:11:28
End at: 2018-07-12 00:11:58
Local clock offset: -0.028 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2018-07-12 03:29:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.61 Mbit/s
95th percentile per-packet one-way delay: 57.013 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 229.61 Mbit/s
95th percentile per-packet one-way delay: 57.013 ms
Loss rate: 0.01%
Run 6: Report of TaoVA-100x — Data Link

![Graph of throughput and packet delay](image_url)
Run 7: Statistics of TaoVA-100x

Start at: 2018-07-12 00:33:40
End at: 2018-07-12 00:34:10
Local clock offset: -0.082 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2018-07-12 03:30:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 246.13 Mbit/s
95th percentile per-packet one-way delay: 53.963 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 246.13 Mbit/s
95th percentile per-packet one-way delay: 53.963 ms
Loss rate: 0.01%
Run 7: Report of TaoVA-100x — Data Link

![Graph 1: Throughput] (257)

- Flow 1 ingress (mean 246.18 Mb/s)
- Flow 1 egress (mean 246.13 Mb/s)

![Graph 2: Packet Delay]
Run 8: Statistics of TaoVA-100x

Start at: 2018-07-12 00:55:45
End at: 2018-07-12 00:56:15
Local clock offset: -0.084 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2018-07-12 03:30:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.93 Mbit/s
95th percentile per-packet one-way delay: 57.002 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 231.93 Mbit/s
95th percentile per-packet one-way delay: 57.002 ms
Loss rate: 0.00%
Run 8: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 231.93 Mbit/s)
- Flow 1 egress (mean 231.93 Mbit/s)

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

- Flow 1 (95th percentile 57.00 ms)
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-12 01:18:05
End at: 2018-07-12 01:18:35
Local clock offset: -0.026 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-07-12 03:34:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 238.47 Mbit/s
95th percentile per-packet one-way delay: 55.757 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 238.47 Mbit/s
95th percentile per-packet one-way delay: 55.757 ms
Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress (mean 237.47 Mbps)**
- **Flow 1 egress (mean 238.47 Mbps)**

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

- **Flow 1 (95th percentile 55.76 ms)**
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-12 01:40:08
End at: 2018-07-12 01:40:38
Local clock offset: 0.33 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-07-12 03:35:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.06 Mbit/s
95th percentile per-packet one-way delay: 53.842 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 231.06 Mbit/s
95th percentile per-packet one-way delay: 53.842 ms
Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-07-11 22:17:05
End at: 2018-07-11 22:17:35
Local clock offset: 0.344 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-07-12 03:35:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 148.19 Mbit/s
95th percentile per-packet one-way delay: 52.091 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 148.19 Mbit/s
95th percentile per-packet one-way delay: 52.091 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Local clock offset: -0.053 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-07-12 03:35:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.56 Mbit/s
95th percentile per-packet one-way delay: 61.494 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.56 Mbit/s
95th percentile per-packet one-way delay: 61.494 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link

![Graph showing throughput and per-packet one-way delay](image.png)
Run 3: Statistics of TCP Vegas

Start at: 2018-07-11 23:01:22  
End at: 2018-07-11 23:01:52  
Local clock offset: -0.038 ms  
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-07-12 03:35:21  
# Datalink statistics
   -- Total of 1 flow:
      Average throughput: 137.32 Mbit/s  
      95th percentile per-packet one-way delay: 61.256 ms  
      Loss rate: 0.00%
   -- Flow 1:
      Average throughput: 137.32 Mbit/s  
      95th percentile per-packet one-way delay: 61.256 ms  
      Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Local clock offset: -0.002 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-07-12 03:35:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.98 Mbit/s
95th percentile per-packet one-way delay: 52.045 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 213.98 Mbit/s
95th percentile per-packet one-way delay: 52.045 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 213.97 Mbps)
Flow 1 egress (mean 213.98 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 52.05 ms)

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Run 5: Statistics of TCP Vegas

Start at: 2018-07-11 23:45:41
Local clock offset: 0.309 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-07-12 03:35:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 131.69 Mbit/s
95th percentile per-packet one-way delay: 60.865 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 131.69 Mbit/s
95th percentile per-packet one-way delay: 60.865 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

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

- Dashed line: Flow 1 ingress (mean 131.69 Mbit/s)
- Solid line: Flow 1 egress (mean 131.69 Mbit/s)

![Graph showing packet delay over time.]

- Solid line: Flow 1 (95th percentile 60.87 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-07-12 00:07:50
End at: 2018-07-12 00:08:20
Local clock offset: -0.06 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-07-12 03:35:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 175.15 Mbit/s
95th percentile per-packet one-way delay: 61.602 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 175.15 Mbit/s
95th percentile per-packet one-way delay: 61.602 ms
Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 175.15 Mbit/s)
- Flow 1 egress (mean 175.15 Mbit/s)

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

- Flow 1 (95th percentile 61.60 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-07-12 00:30:01
End at: 2018-07-12 00:30:31
Local clock offset: 0.332 ms
Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2018-07-12 03:35:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 180.38 Mbit/s
95th percentile per-packet one-way delay: 51.963 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 180.38 Mbit/s
95th percentile per-packet one-way delay: 51.963 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 180.38 Mbit/s)**
- **Flow 1 egress (mean 180.38 Mbit/s)**

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

- **Flow 1 (95th percentile 51.96 ms)**
Run 8: Statistics of TCP Vegas

Start at: 2018-07-12 00:52:11
End at: 2018-07-12 00:52:41
Local clock offset: 0.296 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2018-07-12 03:35:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.66 Mbit/s
95th percentile per-packet one-way delay: 51.330 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 85.66 Mbit/s
95th percentile per-packet one-way delay: 51.330 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 85.66 Mbit/s)**
- **Flow 1 egress (mean 85.66 Mbit/s)**

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

- **Flow 1 (95th percentile 51.33 ms)**
Run 9: Statistics of TCP Vegas

Start at: 2018-07-12 01:14:23
End at: 2018-07-12 01:14:53
Local clock offset: -0.059 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-07-12 03:36:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.74 Mbit/s
95th percentile per-packet one-way delay: 61.332 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.74 Mbit/s
95th percentile per-packet one-way delay: 61.332 ms
Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-07-12 01:36:36
End at: 2018-07-12 01:37:06
Local clock offset: -0.053 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-07-12 03:36:41
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 51.10 Mbit/s
  95th percentile per-packet one-way delay: 53.783 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 51.10 Mbit/s
  95th percentile per-packet one-way delay: 53.783 ms
  Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link
Run 1: Statistics of Verus

Local clock offset: -0.076 ms  
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2018-07-12 03:37:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 243.39 Mbit/s
95th percentile per-packet one-way delay: 81.351 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 243.39 Mbit/s
95th percentile per-packet one-way delay: 81.351 ms
Loss rate: 0.92%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Local clock offset: -0.01 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-07-12 03:37:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 236.75 Mbit/s
95th percentile per-packet one-way delay: 99.224 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 236.75 Mbit/s
95th percentile per-packet one-way delay: 99.224 ms
Loss rate: 0.68%
Run 2: Report of Verus — Data Link

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

![Graph showing packet delay over time for flow.]

Flow 1 ingress (mean 238.80 Mbit/s) | Flow 1 egress (mean 236.75 Mbit/s)

Flow 1 (95th percentile 99.22 ms)
Run 3: Statistics of Verus

Start at: 2018-07-11 23:06:27
End at: 2018-07-11 23:06:57
Local clock offset: 0.319 ms
Remote clock offset: 0.025 ms

# Below is generated by plot.py at 2018-07-12 03:37:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 240.85 Mbit/s
95th percentile per-packet one-way delay: 115.754 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 240.85 Mbit/s
95th percentile per-packet one-way delay: 115.754 ms
Loss rate: 0.08%
Run 3: Report of Verus — Data Link

![Graph 1](https://via.placeholder.com/150)

![Graph 2](https://via.placeholder.com/150)
Run 4: Statistics of Verus

End at: 2018-07-11 23:29:03
Local clock offset: -0.077 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2018-07-12 03:38:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 262.27 Mbit/s
95th percentile per-packet one-way delay: 243.477 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 262.27 Mbit/s
95th percentile per-packet one-way delay: 243.477 ms
Loss rate: 1.93%
Run 4: Report of Verus — Data Link

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

End at: 2018-07-11 23:51:11
Local clock offset: -0.414 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-07-12 03:39:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 256.96 Mbit/s
95th percentile per-packet one-way delay: 175.573 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 256.96 Mbit/s
95th percentile per-packet one-way delay: 175.573 ms
Loss rate: 0.58%
Run 5: Report of Verus — Data Link

![Graph of throughput over time for Flow 1 ingress and egress](image1)

![Graph of packet delay for Flow 1](image2)

- Flow 1 ingress (mean 258.62 Mbit/s)
- Flow 1 egress (mean 256.96 Mbit/s)

Flow 1 (95th percentile 175.57 ms)
Run 6: Statistics of Verus

Start at: 2018-07-12 00:12:53
End at: 2018-07-12 00:13:23
Local clock offset: -0.028 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2018-07-12 03:39:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 282.01 Mbit/s
95th percentile per-packet one-way delay: 253.020 ms
Loss rate: 3.54%
-- Flow 1:
Average throughput: 282.01 Mbit/s
95th percentile per-packet one-way delay: 253.020 ms
Loss rate: 3.54%
Run 6: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

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

*Flow 1 ingress (mean 293.38 Mbit/s)  Flow 1 egress (mean 282.01 Mbit/s)*
Run 7: Statistics of Verus

Start at: 2018-07-12 00:35:06
End at: 2018-07-12 00:35:36
Local clock offset: -0.05 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-07-12 03:39:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 261.39 Mbit/s
95th percentile per-packet one-way delay: 149.218 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 261.39 Mbit/s
95th percentile per-packet one-way delay: 149.218 ms
Loss rate: 1.85%
Run 7: Report of Verus — Data Link

![Graph showing network performance metrics](image)

- **Flow 1 ingress (mean 266.32 Mbit/s)**
- **Flow 1 egress (mean 261.39 Mbit/s)**

![Graph showing packet delay](image)

- **Flow 1 (95th percentile 149.22 ms)**
Run 8: Statistics of Verus

Start at: 2018-07-12 00:57:11
End at: 2018-07-12 00:57:41
Local clock offset: -0.045 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2018-07-12 03:40:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 246.82 Mbit/s
95th percentile per-packet one-way delay: 104.649 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 246.82 Mbit/s
95th percentile per-packet one-way delay: 104.649 ms
Loss rate: 1.55%
Run 8: Report of Verus — Data Link

![Graph showing network performance metrics over time]

- **Flow 1 ingress (mean 250.72 Mbit/s)**
- **Flow 1 egress (mean 246.82 Mbit/s)**

![Graph showing packet delay]

- **Flow 1 (95th percentile 104.65 ms)**
Run 9: Statistics of Verus

Start at: 2018-07-12 01:19:31
End at: 2018-07-12 01:20:01
Local clock offset: ~0.074 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-07-12 03:41:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 260.64 Mbit/s
95th percentile per-packet one-way delay: 99.577 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 260.64 Mbit/s
95th percentile per-packet one-way delay: 99.577 ms
Loss rate: 0.79%
Run 9: Report of Verus — Data Link

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

- **Flow 1 ingress (mean 262.78 Mbit/s)**
- **Flow 1 egress (mean 260.64 Mbit/s)**

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

- **Flow 1 (95th percentile 99.58 ms)**
Run 10: Statistics of Verus

Start at: 2018-07-12 01:41:34
End at: 2018-07-12 01:42:04
Local clock offset: -0.129 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2018-07-12 03:41:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 255.25 Mbit/s
95th percentile per-packet one-way delay: 251.857 ms
Loss rate: 3.45%
-- Flow 1:
Average throughput: 255.25 Mbit/s
95th percentile per-packet one-way delay: 251.857 ms
Loss rate: 3.45%
Run 10: Report of Verus — Data Link

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

- Flow 1 ingress (mean 264.38 Mbit/s)
- Flow 1 egress (mean 255.25 Mbit/s)

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

- Flow 1 (95th percentile 251.86 ms)
Run 1: Statistics of PCC-Vivace

Local clock offset: -0.01 ms
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2018-07-12 03:42:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 281.62 Mbit/s
95th percentile per-packet one-way delay: 57.864 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 281.62 Mbit/s
95th percentile per-packet one-way delay: 57.864 ms
Loss rate: 0.00%
Run 1: Report of PCC-Vivace — Data Link

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

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

Flow 1 ingress (mean 281.62 Mbit/s)  Flow 1 egress (mean 281.62 Mbit/s)

Flow 1 (95th percentile 57.86 ms)
Run 2: Statistics of PCC-Vivace

Local clock offset: -0.067 ms
Remote clock offset: 0.026 ms

# Below is generated by plot.py at 2018-07-12 03:44:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 341.61 Mbit/s
95th percentile per-packet one-way delay: 76.628 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 341.61 Mbit/s
95th percentile per-packet one-way delay: 76.628 ms
Loss rate: 0.17%
Run 2: Report of PCC-Vivace — Data Link

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

Flow 1 ingress (mean 342.20 Mbit/s)
Flow 1 egress (mean 341.61 Mbit/s)

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

Flow 1 (95th percentile 76.63 ms)
Run 3: Statistics of PCC-Vivace

Local clock offset: -0.028 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2018-07-12 03:45:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 356.77 Mbit/s
95th percentile per-packet one-way delay: 70.626 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 356.77 Mbit/s
95th percentile per-packet one-way delay: 70.626 ms
Loss rate: 0.07%
Run 3: Report of PCC-Vivace — Data Link

![Graph showing throughput and round-trip time for Flow 1 ingress and egress.]
Run 4: Statistics of PCC-Vivace

Local clock offset: -0.404 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-07-12 03:45:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 155.38 Mbit/s
95th percentile per-packet one-way delay: 52.325 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 155.38 Mbit/s
95th percentile per-packet one-way delay: 52.325 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 155.38 Mbit/s)
  - Flow 1 egress (mean 155.38 Mbit/s)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 52.33 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-11 23:43:03
Local clock offset: -0.08 ms
Remote clock offset: 0.072 ms

# Below is generated by plot.py at 2018-07-12 03:45:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 293.82 Mbit/s
95th percentile per-packet one-way delay: 56.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 293.82 Mbit/s
95th percentile per-packet one-way delay: 56.942 ms
Loss rate: 0.00%
Run 5: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 293.82 Mbit/s)
- Flow 1 egress (mean 293.82 Mbit/s)

![Graph showing packet delay distribution over time.]

- Flow 1 (95th percentile 56.94 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-12 00:05:10
End at: 2018-07-12 00:05:40
Local clock offset: -0.062 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-07-12 03:45:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 298.15 Mbit/s
95th percentile per-packet one-way delay: 56.884 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 298.15 Mbit/s
95th percentile per-packet one-way delay: 56.884 ms
Loss rate: 0.00%
Run 6: Report of PCC-Vivace — Data Link

[Graph of throughput vs time showing two lines: Flow 1 ingress and Flow 1 egress.]

[Graph of per-packet one-way delay vs time showing a distribution with 95th percentile at 56.88 ms.]
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-12 00:27:23
End at: 2018-07-12 00:27:53
Local clock offset: -0.048 ms
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2018-07-12 03:46:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 300.28 Mbit/s
95th percentile per-packet one-way delay: 58.774 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 300.28 Mbit/s
95th percentile per-packet one-way delay: 58.774 ms
Loss rate: 0.00%
Run 7: Report of PCC-Vivace — Data Link

![Graph 1: Throughput over time](image1)
- *Flow 1 ingress (mean 300.26 Mbit/s)*
- *Flow 1 egress (mean 300.28 Mbit/s)*

![Graph 2: Packet loss over time](image2)
- *Flow 1 (95th percentile 58.77 ms)*
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-12 00:49:35
End at: 2018-07-12 00:50:05
Local clock offset: 0.351 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-07-12 03:46:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 248.77 Mbit/s
95th percentile per-packet one-way delay: 72.182 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 248.77 Mbit/s
95th percentile per-packet one-way delay: 72.182 ms
Loss rate: 0.00%
Run 8: Report of PCC-Vivace — Data Link

![Graph showing network performance metrics]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 248.82 Mbps)
  - Flow 1 egress (mean 248.77 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 72.18 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-12 01:11:40
End at: 2018-07-12 01:12:10
Local clock offset: 0.28 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-07-12 03:46:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 361.68 Mbit/s
95th percentile per-packet one-way delay: 188.882 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 361.68 Mbit/s
95th percentile per-packet one-way delay: 188.882 ms
Loss rate: 0.91%
Run 9: Report of PCC-Vivace — Data Link

Graph 1: Throughput (Mbps) vs. Time (s)

- Flow 1 ingress (mean 365.01 Mbps)
- Flow 1 egress (mean 361.68 Mbps)

Graph 2: Round-trip delay (ms) vs. Time (s)

- Flow 1 (95th percentile 108.88 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-12 01:33:52
End at: 2018-07-12 01:34:22
Local clock offset: 0.299 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-07-12 03:46:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 332.44 Mbit/s
95th percentile per-packet one-way delay: 79.536 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 332.44 Mbit/s
95th percentile per-packet one-way delay: 79.536 ms
Loss rate: 0.00%
Run 10: Report of PCC-Vivace — Data Link
Run 1: Statistics of WebRTC media

End at: 2018-07-11 22:06:02
Local clock offset: -0.402 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-07-12 03:46:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 51.404 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 51.404 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

```
<table>
<thead>
<tr>
<th>Time (s)</th>
<th>Throughput (Mbit/s)</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
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<tr>
<td>25</td>
<td>0.0</td>
</tr>
<tr>
<td>30</td>
<td>3.0</td>
</tr>
</tbody>
</table>
```

Throughput at 20 seconds:
- Flow 1 ingress (mean 0.82 Mbit/s)
- Flow 1 egress (mean 0.82 Mbit/s)

```
<table>
<thead>
<tr>
<th>Time (s)</th>
<th>End-to-end delay (ms)</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>25</td>
<td>0.0</td>
</tr>
<tr>
<td>30</td>
<td>54.0</td>
</tr>
</tbody>
</table>
```

End-to-end delay at 30 seconds:
- Flow 1 (95th percentile 51.40 ms)
Run 2: Statistics of WebRTC media

Local clock offset: 0.306 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-07-12 03:46:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.631 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.631 ms
Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

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

- **Throughput**: The graph shows the throughput in Mbps (Mbit/s) over time. Two lines are plotted:
  - Dashed line: Flow 1 ingress (mean 1.96 Mbit/s)
  - Solid line: Flow 1 egress (mean 1.96 Mbit/s)

- **Packet Delay**: The lower graph displays the per-packet one-way delay (ms) over time.
  - **Flow 1 95th percentile**: 50.63 ms

---

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Run 3: Statistics of WebRTC media

End at: 2018-07-11 22:50:08
Local clock offset: 0.311 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-07-12 03:46:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 50.777 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 50.777 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-07-11 23:12:09  
End at: 2018-07-11 23:12:39
Local clock offset: ~0.088 ms 
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-07-12 03:46:39
# Datalink statistics

-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 50.498 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 50.498 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

![Graph of WebRTC media data link throughput and delay](image)

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 1.95 Mbit/s)
  - Flow 1 egress (mean 1.95 Mbit/s)

- **Packet one-way delay (ms):**
  - Flow 1 (95th percentile 50.50 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-07-11 23:34:06
End at: 2018-07-11 23:34:36
Local clock offset: -0.078 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2018-07-12 03:46:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 50.788 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 50.788 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

![Graph showing throughput and delay over time for WebRTC media flows.](image-url)
Run 6: Statistics of WebRTC media

Start at: 2018-07-11 23:56:15
End at: 2018-07-11 23:56:45
Local clock offset: -0.059 ms
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2018-07-12 03:46:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.034 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.034 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

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

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

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

- Flow 1 (95th percentile 50.03 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-07-12 00:18:34
End at: 2018-07-12 00:19:04
Local clock offset: 0.33 ms
Remote clock offset: 0.032 ms

# Below is generated by plot.py at 2018-07-12 03:46:39
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 2.15 Mbit/s
  95th percentile per-packet one-way delay: 50.524 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.15 Mbit/s
  95th percentile per-packet one-way delay: 50.524 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-07-12 00:40:41
End at: 2018-07-12 00:41:11
Local clock offset: -0.034 ms
Remote clock offset: 0.04 ms

# Below is generated by plot.py at 2018-07-12 03:46:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.917 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.917 ms
Loss rate: 0.02%
Run 8: Report of WebRTC media — Data Link

[Graph 1: Throughput (Mbps) vs Time (s)]
- Flow 1 ingress (mean 1.96 Mbps)
- Flow 1 egress (mean 1.96 Mbps)

[Graph 2: Per-packet one-way delay (ms) vs Time (s)]
- Flow 1 (95th percentile 50.92 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-07-12 01:02:44
End at: 2018-07-12 01:03:14
Local clock offset: -0.053 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-07-12 03:46:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 50.618 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 50.618 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

[Graph showing throughput over time with two lines representing ingress and egress]

[Graph showing packet one-way delay with a line representing the 95th percentile delay]

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Run 10: Statistics of WebRTC media

Start at: 2018-07-12 01:25:06  
End at: 2018-07-12 01:25:36  
Local clock offset: 0.347 ms  
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-07-12 03:46:39
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.93 Mbit/s
  95th percentile per-packet one-way delay: 49.586 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.93 Mbit/s
  95th percentile per-packet one-way delay: 49.586 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link