Pantheon Report

Data path: GCE London Ethernet (remote) → GCE Sydney Ethernet (local).
Repeated the test of 16 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 @ 9141c5f9450c85ea5ea2ea755a8e946998d3abf3
third_party/fillp @ d47f4fa1b454a5e3c0537f115c5a28436dbd4b834
third_party/genericCC @ c7966e494a9299986ea5a9c169a7f381fe1bbbe5
third_party/indigo @ 2601c92e4aa9d58d38dc44de0ecdbf90c077e6d4
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1af958fa0d66d8b623c091a55feca872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ecb978f33cf4f2
third_party/scream-reproduce @ f099118d1421a313bf11ff1964974e1da3d2b2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af262956293f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webtc @ 3f0cc2a9061a41b6f9d8e4735770d143a1fa2851
test from GCE London to GCE Sydney, 10 runs of 30s each per scheme
(mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>flow 1</th>
<th>flow 1</th>
<th>flow 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>74.72</td>
<td>138.86</td>
<td>0.98</td>
</tr>
<tr>
<td>Copa</td>
<td>10</td>
<td>172.06</td>
<td>144.95</td>
<td>0.83</td>
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<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>69.32</td>
<td>144.91</td>
<td>0.98</td>
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<tr>
<td>FillP</td>
<td>10</td>
<td>766.97</td>
<td>231.48</td>
<td>3.56</td>
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<tr>
<td>Indigo</td>
<td>10</td>
<td>165.11</td>
<td>138.90</td>
<td>0.91</td>
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<tr>
<td>LEDBAT</td>
<td>10</td>
<td>4.14</td>
<td>136.95</td>
<td>2.08</td>
</tr>
<tr>
<td>PCC-Allegro</td>
<td>10</td>
<td>535.20</td>
<td>232.20</td>
<td>3.10</td>
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<tr>
<td>PCC-Expr</td>
<td>10</td>
<td>261.96</td>
<td>193.28</td>
<td>1.54</td>
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<td>QUIC Cubic</td>
<td>6</td>
<td>51.50</td>
<td>140.71</td>
<td>1.35</td>
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<td>SCReAM</td>
<td>10</td>
<td>0.22</td>
<td>136.10</td>
<td>0.82</td>
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<td>Sprout</td>
<td>10</td>
<td>0.16</td>
<td>139.01</td>
<td>0.84</td>
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<tr>
<td>TaoVA-100x</td>
<td>10</td>
<td>69.37</td>
<td>139.10</td>
<td>1.12</td>
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<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>56.35</td>
<td>142.73</td>
<td>0.92</td>
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<tr>
<td>Verus</td>
<td>10</td>
<td>133.26</td>
<td>197.40</td>
<td>2.18</td>
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<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>299.17</td>
<td>148.71</td>
<td>1.25</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.80</td>
<td>139.46</td>
<td>1.33</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Local clock offset: -0.134 ms
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2018-06-19 20:43:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.00 Mbit/s
95th percentile per-packet one-way delay: 136.171 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 77.00 Mbit/s
95th percentile per-packet one-way delay: 136.171 ms
Loss rate: 0.93%
Run 1: Report of TCP BBR — Data Link

![Graph showing throughput and packet one-way delay](image-url)
Run 2: Statistics of TCP BBR

Start at: 2018-06-19 17:43:01
End at: 2018-06-19 17:43:31
Local clock offset: 0.09 ms
Remote clock offset: 0.359 ms

# Below is generated by plot.py at 2018-06-19 20:43:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.02 Mbit/s
95th percentile per-packet one-way delay: 135.859 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 74.02 Mbit/s
95th percentile per-packet one-way delay: 135.859 ms
Loss rate: 0.96%
Run 3: Statistics of TCP BBR

Start at: 2018-06-19 18:04:14
End at: 2018-06-19 18:04:44
Local clock offset: 0.144 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-06-19 20:43:39
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 75.58 Mbit/s
  95th percentile per-packet one-way delay: 136.301 ms
  Loss rate: 0.94%
-- Flow 1:
  Average throughput: 75.58 Mbit/s
  95th percentile per-packet one-way delay: 136.301 ms
  Loss rate: 0.94%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

End at: 2018-06-19 18:25:25
Local clock offset: 0.047 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-06-19 20:43:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.41 Mbit/s
95th percentile per-packet one-way delay: 163.631 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 72.41 Mbit/s
95th percentile per-packet one-way delay: 163.631 ms
Loss rate: 0.99%
Run 4: Report of TCP BBR — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 72.41 Mb/s)
- Flow 1 egress (mean 72.41 Mb/s)

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

- Flow 1 (95th percentile 163.63 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-06-19 18:45:52
Local clock offset: 0.148 ms
Remote clock offset: -0.283 ms

# Below is generated by plot.py at 2018-06-19 20:43:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.19 Mbit/s
95th percentile per-packet one-way delay: 137.171 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 77.19 Mbit/s
95th percentile per-packet one-way delay: 137.171 ms
Loss rate: 1.01%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-06-19 19:06:49
End at: 2018-06-19 19:07:19
Local clock offset: 0.251 ms
Remote clock offset: 0.074 ms

# Below is generated by plot.py at 2018-06-19 20:43:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.24 Mbit/s
95th percentile per-packet one-way delay: 136.288 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 75.24 Mbit/s
95th percentile per-packet one-way delay: 136.288 ms
Loss rate: 1.04%
Run 6: Report of TCP BBR — Data Link

![Graph of throughput over time showing two lines with legends: Flow 1 ingress (mean 75.28 Mbit/s) and Flow 1 egress (mean 75.24 Mbit/s).]

![Graph of packet delay over time showing a scatter plot with legend: Flow 1 (95th percentile 136.29 ms).]
Run 7: Statistics of TCP BBR

Start at: 2018-06-19 19:28:03
End at: 2018-06-19 19:28:33
Local clock offset: 0.106 ms
Remote clock offset: -0.283 ms

# Below is generated by plot.py at 2018-06-19 20:43:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.37 Mbit/s
95th percentile per-packet one-way delay: 136.452 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 73.37 Mbit/s
95th percentile per-packet one-way delay: 136.452 ms
Loss rate: 0.97%
Run 7: Report of TCP BBR — Data Link

![Graph of Throughput (Mbps)]

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

Legend:
- Flow 1 ingress (mean 73.50 Mbit/s)
- Flow 1 egress (mean 73.37 Mbit/s)

Flow 1 (95th percentile 136.45 ms)
Run 8: Statistics of TCP BBR

End at: 2018-06-19 19:50:20
Local clock offset: -0.105 ms
Remote clock offset: 0.336 ms

# Below is generated by plot.py at 2018-06-19 20:43:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.80 Mbit/s
95th percentile per-packet one-way delay: 135.568 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 73.80 Mbit/s
95th percentile per-packet one-way delay: 135.568 ms
Loss rate: 0.96%
Run 8: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 73.84 Mbit/s)
- Flow 1 egress (mean 73.80 Mbit/s)

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

- Flow 1 (95th percentile 135.57 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-06-19 20:11:11
End at: 2018-06-19 20:11:41
Local clock offset: -0.135 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-06-19 20:44:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.88 Mbit/s
95th percentile per-packet one-way delay: 135.088 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 72.88 Mbit/s
95th percentile per-packet one-way delay: 135.088 ms
Loss rate: 1.07%
Run 9: Report of TCP BBR — Data Link

![Graph 1: Throughput vs Time]

- **Flow 1 ingress** (mean 72.95 Mbit/s)
- **Flow 1 egress** (mean 72.88 Mbit/s)

![Graph 2: Per-packet end-to-end delay vs Time]

- **Flow 1 (95th percentile 135.09 ms)**
Run 10: Statistics of TCP BBR

Start at: 2018-06-19 20:32:09
End at: 2018-06-19 20:32:39
Local clock offset: -0.197 ms
Remote clock offset: 0.059 ms

# Below is generated by plot.py at 2018-06-19 20:44:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.76 Mbit/s
95th percentile per-packet one-way delay: 136.036 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 75.76 Mbit/s
95th percentile per-packet one-way delay: 136.036 ms
Loss rate: 0.93%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of Copa

Start at: 2018-06-19 17:03:14
End at: 2018-06-19 17:03:44
Local clock offset: -0.102 ms
Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2018-06-19 20:48:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 180.94 Mbit/s
95th percentile per-packet one-way delay: 139.233 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 180.94 Mbit/s
95th percentile per-packet one-way delay: 139.233 ms
Loss rate: 0.54%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-06-19 17:24:28
End at: 2018-06-19 17:24:58
Local clock offset: -0.164 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-06-19 20:49:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.55 Mbit/s
95th percentile per-packet one-way delay: 141.841 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 197.55 Mbit/s
95th percentile per-packet one-way delay: 141.841 ms
Loss rate: 0.97%
Run 2: Report of Copa — Data Link

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

![Graph showing packet delay over time with a line indicating flow 1 at the 95th percentile.]

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Run 3: Statistics of Copa

Start at: 2018-06-19 17:45:25
End at: 2018-06-19 17:45:55
Local clock offset: 0.02 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-06-19 20:49:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.70 Mbit/s
95th percentile per-packet one-way delay: 148.599 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 185.70 Mbit/s
95th percentile per-packet one-way delay: 148.599 ms
Loss rate: 0.68%
Run 3: Report of Copa — Data Link

![Graph 1](image1)

- **Flow 1 ingress (mean 185.28 Mbit/s)**
- **Flow 1 egress (mean 185.70 Mbit/s)**

![Graph 2](image2)

- **Flow 1 (95th percentile 148.60 ms)**
Run 4: Statistics of Copa

Start at: 2018-06-19 18:06:38
End at: 2018-06-19 18:07:08
Local clock offset: 0.027 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2018-06-19 20:49:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.46 Mbit/s
95th percentile per-packet one-way delay: 140.773 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 177.46 Mbit/s
95th percentile per-packet one-way delay: 140.773 ms
Loss rate: 0.94%
Run 4: Report of Copa — Data Link

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

- Flow 1 ingress (mean 177.53 Mbps)
- Flow 1 egress (mean 177.46 Mbps)

![Graph 2: RTT (ms)](image2)

- Flow 1 (95th percentile 140.77 ms)
Run 5: Statistics of Copa

End at: 2018-06-19 18:27:48
Local clock offset: -0.043 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-06-19 20:49:31
# Datalink statistics

-- Total of 1 flow:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 142.963 ms
Loss rate: 1.50%

-- Flow 1:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 142.963 ms
Loss rate: 1.50%
Run 5: Report of Copa — Data Link

![Graph showing throughput vs time for flows ingressing and egressing data.]

![Graph showing per-packet one way delay vs time for a specific flow.]

Flow 1 (95th percentile 142.96 ms)
Run 6: Statistics of Copa

Local clock offset: 0.046 ms
Remote clock offset: 0.068 ms

# Below is generated by plot.py at 2018-06-19 20:50:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.76 Mbit/s
95th percentile per-packet one-way delay: 163.157 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 225.76 Mbit/s
95th percentile per-packet one-way delay: 163.157 ms
Loss rate: 0.96%
Run 6: Report of Copa — Data Link
Run 7: Statistics of Copa

End at: 2018-06-19 19:09:43
Local clock offset: 0.038 ms
Remote clock offset: -0.298 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 285.77 Mbit/s
95th percentile per-packet one-way delay: 142.366 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 285.77 Mbit/s
95th percentile per-packet one-way delay: 142.366 ms
Loss rate: 0.98%
Run 7: Report of Copa — Data Link

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

- Flow 1 ingress (mean 285.98 Mbit/s)
- Flow 1 egress (mean 285.77 Mbit/s)

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

- Flow 1 (95th percentile 142.37 ms)
Run 8: Statistics of Copa

Start at: 2018-06-19 19:30:46  
End at: 2018-06-19 19:31:16  
Local clock offset: 0.093 ms  
Remote clock offset: 0.061 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 136.63 Mbit/s
  95th percentile per-packet one-way delay: 143.189 ms
  Loss rate: 0.62%
-- Flow 1:
  Average throughput: 136.63 Mbit/s
  95th percentile per-packet one-way delay: 143.189 ms
  Loss rate: 0.62%
Run 8: Report of Copa — Data Link

![Throughput Graph](chart1.png)

![Delay Graph](chart2.png)

- Flow 1 ingress (mean 136.24 Mbit/s) vs Flow 1 egress (mean 136.63 Mbit/s)
- Flow 1 (95th percentile 143.19 ms)
Run 9: Statistics of Copa

End at: 2018-06-19 19:53:01
Local clock offset: -0.025 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 117.36 Mbit/s
  95th percentile per-packet one-way delay: 143.919 ms
  Loss rate: 0.54%
-- Flow 1:
  Average throughput: 117.36 Mbit/s
  95th percentile per-packet one-way delay: 143.919 ms
  Loss rate: 0.54%
Run 9: Report of Copa — Data Link

Throughput (Mbps)

Flow 1 ingress (mean 116.93 Mbit/s)  Flow 1 egress (mean 117.36 Mbit/s)

Packet one way delay (ms)

Flow 1 (95th percentile 143.92 ms)
Run 10: Statistics of Copa

End at: 2018-06-19 20:14:05
Local clock offset: 0.002 ms
Remote clock offset: -0.443 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 117.22 Mbit/s
95th percentile per-packet one-way delay: 143.436 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 117.22 Mbit/s
95th percentile per-packet one-way delay: 143.436 ms
Loss rate: 0.59%
Run 10: Report of Copa — Data Link

![Graph showing throughput and packet delay over time for Flow 1 with ingress and egress data]
Run 1: Statistics of TCP Cubic

Start at: 2018-06-19 17:17:15
End at: 2018-06-19 17:17:45
Local clock offset: -0.076 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.07 Mbit/s
95th percentile per-packet one-way delay: 145.839 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 84.07 Mbit/s
95th percentile per-packet one-way delay: 145.839 ms
Loss rate: 0.98%
Run 1: Report of TCP Cubic — Data Link

![Graph 1](image.png)

![Graph 2](image.png)
Run 2: Statistics of TCP Cubic

Start at: 2018-06-19 17:38:17
End at: 2018-06-19 17:38:47
Local clock offset: -0.268 ms
Remote clock offset: -0.387 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.59 Mbit/s
95th percentile per-packet one-way delay: 146.807 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 84.59 Mbit/s
95th percentile per-packet one-way delay: 146.807 ms
Loss rate: 0.99%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

Start at: 2018-06-19 17:59:28
End at: 2018-06-19 17:59:58
Local clock offset: -0.144 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.00 Mbit/s
95th percentile per-packet one-way delay: 146.137 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 84.00 Mbit/s
95th percentile per-packet one-way delay: 146.137 ms
Loss rate: 0.99%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-06-19 18:20:09
End at: 2018-06-19 18:20:39
Local clock offset: -0.046 ms
Remote clock offset: 0.315 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.06 Mbit/s
95th percentile per-packet one-way delay: 145.194 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 59.06 Mbit/s
95th percentile per-packet one-way delay: 145.194 ms
Loss rate: 0.55%
Run 4: Report of TCP Cubic — Data Link

![Graph 1](image1)

- **Flow 1 ingress** (mean 58.85 Mbit/s)
- **Flow 1 egress** (mean 59.06 Mbit/s)

![Graph 2](image2)

- **Flow 1** (95th percentile 145.19 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-06-19 18:41:11
End at: 2018-06-19 18:41:41
Local clock offset: 0.062 ms
Remote clock offset: 0.042 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.11 Mbit/s
95th percentile per-packet one-way delay: 145.404 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 71.11 Mbit/s
95th percentile per-packet one-way delay: 145.404 ms
Loss rate: 0.75%
Run 5: Report of TCP Cubic — Data Link

![Graph 1](image1.png)

- Flow 1 ingress (mean 70.99 Mbit/s)
- Flow 1 egress (mean 71.11 Mbit/s)

![Graph 2](image2.png)

- Flow 1 (95th percentile 145.40 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-06-19 19:02:10
End at: 2018-06-19 19:02:40
Local clock offset: -0.054 ms
Remote clock offset: 0.084 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.45 Mbit/s
95th percentile per-packet one-way delay: 144.458 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 47.45 Mbit/s
95th percentile per-packet one-way delay: 144.458 ms
Loss rate: 1.65%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Local clock offset: -0.096 ms
Remote clock offset: 0.084 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.57 Mbit/s
95th percentile per-packet one-way delay: 146.670 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 79.57 Mbit/s
95th percentile per-packet one-way delay: 146.670 ms
Loss rate: 0.54%
Run 7: Report of TCP Cubic — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per packet one way delay (ms)]
Run 8: Statistics of TCP Cubic

Start at: 2018-06-19 19:45:02
End at: 2018-06-19 19:45:32
Local clock offset: 0.291 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.96 Mbit/s
95th percentile per-packet one-way delay: 140.166 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 65.96 Mbit/s
95th percentile per-packet one-way delay: 140.166 ms
Loss rate: 1.17%
Run 8: Report of TCP Cubic — Data Link

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{run8_report_tcp_cubic_data_link.png}
\caption{Throughput and Packet Delay Analysis for TCP Cubic Data Link}
\end{figure}

\begin{itemize}
\item Flow 1 ingress (mean 65.14 Mbit/s)
\item Flow 1 egress (mean 65.96 Mbit/s)
\item Flow 1 (95th percentile 140.17 ms)
\end{itemize}
Run 9: Statistics of TCP Cubic

Start at: 2018-06-19 20:06:25
End at: 2018-06-19 20:06:55
Local clock offset: -0.162 ms
Remote clock offset: -0.44 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.29 Mbit/s
95th percentile per-packet one-way delay: 143.693 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 48.29 Mbit/s
95th percentile per-packet one-way delay: 143.693 ms
Loss rate: 1.55%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Local clock offset: -0.149 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2018-06-19 20:53:36
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 69.09 Mbit/s
  95th percentile per-packet one-way delay: 144.762 ms
  Loss rate: 0.64%
-- Flow 1:
  Average throughput: 69.09 Mbit/s
  95th percentile per-packet one-way delay: 144.762 ms
  Loss rate: 0.64%
Run 10: Report of TCP Cubic — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 68.90 Mbit/s)
- Flow 1 egress (mean 69.09 Mbit/s)

![Delay Graph](image2)

- Flow 1 (95th percentile 144.76 ms)
Run 1: Statistics of FillP

Start at: 2018-06-19 17:08:16
End at: 2018-06-19 17:08:46
Local clock offset: 0.144 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-06-19 21:06:19
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 751.45 Mbit/s
  95th percentile per-packet one-way delay: 208.469 ms
  Loss rate: 2.77%
-- Flow 1:
  Average throughput: 751.45 Mbit/s
  95th percentile per-packet one-way delay: 208.469 ms
  Loss rate: 2.77%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

Start at: 2018-06-19 17:29:32
End at: 2018-06-19 17:30:02
Local clock offset: -0.009 ms
Remote clock offset: -0.382 ms

# Below is generated by plot.py at 2018-06-19 21:07:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 787.37 Mbit/s
95th percentile per-packet one-way delay: 227.480 ms
Loss rate: 3.93%
-- Flow 1:
Average throughput: 787.37 Mbit/s
95th percentile per-packet one-way delay: 227.480 ms
Loss rate: 3.93%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

Start at: 2018-06-19 17:50:29
End at: 2018-06-19 17:50:59
Local clock offset: -0.031 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2018-06-19 21:07:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 769.48 Mbit/s
95th percentile per-packet one-way delay: 209.130 ms
Loss rate: 4.05%
-- Flow 1:
Average throughput: 769.48 Mbit/s
95th percentile per-packet one-way delay: 209.130 ms
Loss rate: 4.05%
Run 3: Report of FillP — Data Link

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

- **Flow 1 ingress (mean 794.69 Mbps)**
- **Flow 1 egress (mean 769.48 Mbps)**

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

- **Flow 1 (95th percentile 209.13 ms)**

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Run 4: Statistics of FillP

Start at: 2018-06-19 18:11:44
End at: 2018-06-19 18:12:14
Local clock offset: 0.005 ms
Remote clock offset: -0.398 ms

# Below is generated by plot.py at 2018-06-19 21:07:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 737.50 Mbit/s
95th percentile per-packet one-way delay: 245.561 ms
Loss rate: 4.51%
-- Flow 1:
Average throughput: 737.50 Mbit/s
95th percentile per-packet one-way delay: 245.561 ms
Loss rate: 4.51%
Run 4: Report of FillP — Data Link

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

**Throughput (Mbps)**

- **Flow 1 Ingress (mean 794.59 Mbps)**
- **Flow 1 Egress (mean 737.50 Mbps)**

![Graph 2: Per-Socket One-Way Delay vs Time](image)

**Per-Socket One-Way Delay (ms)**

- **Flow 1 (95th percentile 245.56 ms)**
Run 5: Statistics of FillP

Start at: 2018-06-19 18:32:17
End at: 2018-06-19 18:32:47
Local clock offset: 0.02 ms
Remote clock offset: 0.386 ms

# Below is generated by plot.py at 2018-06-19 21:07:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 654.07 Mbit/s
95th percentile per-packet one-way delay: 265.421 ms
Loss rate: 2.75%
-- Flow 1:
Average throughput: 654.07 Mbit/s
95th percentile per-packet one-way delay: 265.421 ms
Loss rate: 2.75%
Run 5: Report of FillP — Data Link
Run 6: Statistics of FillP

Local clock offset: 0.039 ms
Remote clock offset: 0.077 ms

# Below is generated by plot.py at 2018-06-19 21:08:21
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 803.35 Mbit/s
  95th percentile per-packet one-way delay: 201.063 ms
  Loss rate: 2.65%
-- Flow 1:
  Average throughput: 803.35 Mbit/s
  95th percentile per-packet one-way delay: 201.063 ms
  Loss rate: 2.65%
Run 6: Report of FillP — Data Link
Run 7: Statistics of FillP

Start at: 2018-06-19 19:14:25
End at: 2018-06-19 19:14:55
Local clock offset: 0.209 ms
Remote clock offset: 0.095 ms

# Below is generated by plot.py at 2018-06-19 21:08:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 765.18 Mbit/s
95th percentile per-packet one-way delay: 231.258 ms
Loss rate: 3.70%
-- Flow 1:
Average throughput: 765.18 Mbit/s
95th percentile per-packet one-way delay: 231.258 ms
Loss rate: 3.70%
Run 7: Report of FillP — Data Link

[Graph showing throughput and per-packet one-way delay over time for Flow 1, with annotations for mean values and percentile delay.]
Run 8: Statistics of FillP

Start at: 2018-06-19 19:35:54
End at: 2018-06-19 19:36:24
Local clock offset: 0.205 ms
Remote clock offset: 0.106 ms

# Below is generated by plot.py at 2018-06-19 21:11:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 848.47 Mbit/s
95th percentile per-packet one-way delay: 260.511 ms
Loss rate: 2.74%
-- Flow 1:
Average throughput: 848.47 Mbit/s
95th percentile per-packet one-way delay: 260.511 ms
Loss rate: 2.74%
Run 8: Report of FillP — Data Link

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

![Graph 2: Per-Socket One-Way Delay vs Time](image2)
Run 9: Statistics of FillP

Local clock offset: 0.073 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-06-19 21:22:07
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 773.47 Mbit/s
  95th percentile per-packet one-way delay: 251.295 ms
  Loss rate: 3.80%
-- Flow 1:
  Average throughput: 773.47 Mbit/s
  95th percentile per-packet one-way delay: 251.295 ms
  Loss rate: 3.80%
Run 9: Report of FillP — Data Link

![Graphs showing data link throughput and ping results.]

- Flow 1 Ingress (mean 796.49 Mbps)
- Flow 1 Egress (mean 773.47 Mbps)

- Flow 1 (95th percentile 251.29 ms)
Run 10: Statistics of FillP

End at: 2018-06-19 20:18:58
Local clock offset: 0.079 ms
Remote clock offset: -0.402 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 779.33 Mbit/s
  95th percentile per-packet one-way delay: 214.600 ms
  Loss rate: 4.67%
-- Flow 1:
  Average throughput: 779.33 Mbit/s
  95th percentile per-packet one-way delay: 214.600 ms
  Loss rate: 4.67%
Run 10: Report of FillIP — Data Link

[Graph showing throughput and packet delay over time]

Flow 1 ingress (mean 810.05 Mbps)  Flow 1 egress (mean 779.33 Mbps)

Flow 1 (95th percentile 214.60 ms)
Run 1: Statistics of Indigo

Start at: 2018-06-19 17:15:54
End at: 2018-06-19 17:16:24
Local clock offset: -0.025 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 175.86 Mbit/s
95th percentile per-packet one-way delay: 135.311 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 175.86 Mbit/s
95th percentile per-packet one-way delay: 135.311 ms
Loss rate: 0.95%
Run 1: Report of Indigo — Data Link

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

- **Flow 1 ingress** (mean 175.87 Mbit/s)
- **Flow 1 egress** (mean 175.86 Mbit/s)

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

- **Flow 1** (95th percentile 135.31 ms)
Run 2: Statistics of Indigo

Start at: 2018-06-19 17:36:58
End at: 2018-06-19 17:37:28
Local clock offset: 0.115 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 134.64 Mbit/s
95th percentile per-packet one-way delay: 136.336 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 134.64 Mbit/s
95th percentile per-packet one-way delay: 136.336 ms
Loss rate: 0.97%
Run 2: Report of Indigo — Data Link
Run 3: Statistics of Indigo

Start at: 2018-06-19 17:58:07
End at: 2018-06-19 17:58:37
Local clock offset: 0.022 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 176.39 Mbit/s
95th percentile per-packet one-way delay: 136.092 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 176.39 Mbit/s
95th percentile per-packet one-way delay: 136.092 ms
Loss rate: 0.90%
Run 4: Statistics of Indigo

Start at: 2018-06-19 18:18:51
End at: 2018-06-19 18:19:21
Local clock offset: 0.042 ms
Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 129.72 Mbit/s
95th percentile per-packet one-way delay: 163.529 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 129.72 Mbit/s
95th percentile per-packet one-way delay: 163.529 ms
Loss rate: 0.96%
Run 4: Report of Indigo — Data Link

![Graph 1: Throughput vs Time]

- **Flow 1 ingress (mean 129.78 Mbit/s)**
- **Flow 1 egress (mean 129.72 Mbit/s)**

![Graph 2: Packet Delay vs Time]

- **Flow 1 (95th percentile 163.53 ms)**
Run 5: Statistics of Indigo

End at: 2018-06-19 18:40:21
Local clock offset: 0.047 ms
Remote clock offset: 0.047 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 154.06 Mbit/s
95th percentile per-packet one-way delay: 136.419 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 154.06 Mbit/s
95th percentile per-packet one-way delay: 136.419 ms
Loss rate: 0.87%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Start at: 2018-06-19 19:00:48
End at: 2018-06-19 19:01:18
Local clock offset: 0.109 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 175.22 Mbit/s
95th percentile per-packet one-way delay: 136.153 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 175.22 Mbit/s
95th percentile per-packet one-way delay: 136.153 ms
Loss rate: 0.90%
Run 6: Report of Indigo — Data Link

![Graph of throughput and delay over time for a data link flow.]

- Flow 1 ingress (mean 175.19 Mbit/s)
- Flow 1 egress (mean 175.22 Mbit/s)

**Throughput (Mbit/s)**

**Time (s)**

**Packet one way delay (ms)**

- Flow 1 (95th percentile 136.15 ms)
Run 7: Statistics of Indigo

Local clock offset: -0.068 ms
Remote clock offset: -0.284 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 174.59 Mbit/s
95th percentile per-packet one-way delay: 136.468 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 174.59 Mbit/s
95th percentile per-packet one-way delay: 136.468 ms
Loss rate: 0.85%
Run 7: Report of Indigo — Data Link

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

- **Flow 1 ingress** (mean 174.48 Mbit/s)
- **Flow 1 egress** (mean 174.59 Mbit/s)

- **Flow 1 (95th percentile 136.47 ms)**
Run 8: Statistics of Indigo

Start at: 2018-06-19 19:43:40
End at: 2018-06-19 19:44:10
Local clock offset: 0.1 ms
Remote clock offset: -0.377 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 175.26 Mbit/s
95th percentile per-packet one-way delay: 136.516 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 175.26 Mbit/s
95th percentile per-packet one-way delay: 136.516 ms
Loss rate: 0.89%
Run 8: Report of Indigo — Data Link

![Graph 1: Throughput](image1)

- **Flow 1 ingress (mean 175.20 Mbit/s)**
- **Flow 1 egress (mean 175.26 Mbit/s)**

![Graph 2: Packet Delay](image2)

- **Flow 1 (95th percentile 136.52 ms)**
Run 9: Statistics of Indigo

Start at: 2018-06-19 20:05:03
End at: 2018-06-19 20:05:33
Local clock offset: -0.096 ms
Remote clock offset: -0.422 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.72 Mbit/s
95th percentile per-packet one-way delay: 135.442 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 177.72 Mbit/s
95th percentile per-packet one-way delay: 135.442 ms
Loss rate: 0.90%
Run 9: Report of Indigo — Data Link
Run 10: Statistics of Indigo

Start at: 2018-06-19 20:26:06
End at: 2018-06-19 20:26:36
Local clock offset: -0.144 ms
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.63 Mbit/s
95th percentile per-packet one-way delay: 136.690 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 177.63 Mbit/s
95th percentile per-packet one-way delay: 136.690 ms
Loss rate: 0.91%
Run 10: Report of Indigo — Data Link

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

- **Flow 1 ingress (mean 177.62 Mbit/s)**
- **Flow 1 egress (mean 177.63 Mbit/s)**

![Graph 2: Packet Delay vs Time](image2)

- **Flow 1 (95th percentile 136.69 ms)**
Run 1: Statistics of LEDBAT

Start at: 2018-06-19 17:04:41
End at: 2018-06-19 17:05:11
Local clock offset: 0.117 ms
Remote clock offset: -0.421 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 136.959 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 136.959 ms
Loss rate: 1.94%
Run 1: Report of LEDBAT — Data Link

---

**Throughput** (Mbps):

```
Time (s) | Ingress (Mean 4.32 Mbps) | Egress (Mean 4.27 Mbps)
0        | 0                        | 0
5        | 0.5                      | 0.5
10       | 1.0                      | 1.0
15       | 1.5                      | 1.5
20       | 2.0                      | 2.0
25       | 2.5                      | 2.5
30       | 3.0                      | 3.0
```

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

```
Time (s) | 135.0 | 135.5 | 136.0 | 136.5 | 137.0 | 137.5 | 138.0
0        | 135.0 | 135.5 | 136.0 | 136.5 | 137.0 | 137.5 | 138.0
5        | 135.0 | 135.5 | 136.0 | 136.5 | 137.0 | 137.5 | 138.0
10       | 135.0 | 135.5 | 136.0 | 136.5 | 137.0 | 137.5 | 138.0
15       | 135.0 | 135.5 | 136.0 | 136.5 | 137.0 | 137.5 | 138.0
20       | 135.0 | 135.5 | 136.0 | 136.5 | 137.0 | 137.5 | 138.0
25       | 135.0 | 135.5 | 136.0 | 136.5 | 137.0 | 137.5 | 138.0
30       | 135.0 | 135.5 | 136.0 | 136.5 | 137.0 | 137.5 | 138.0
```

---

Flow 1 (95th percentile 136.96 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-06-19 17:25:57
End at: 2018-06-19 17:26:27
Local clock offset: -0.065 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 4.86 Mbit/s
  95th percentile per-packet one-way delay: 136.976 ms
  Loss rate: 1.82%
-- Flow 1:
  Average throughput: 4.86 Mbit/s
  95th percentile per-packet one-way delay: 136.976 ms
  Loss rate: 1.82%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-06-19 17:46:52
End at: 2018-06-19 17:47:22
Local clock offset: -0.051 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 4.55 Mbit/s
  95th percentile per-packet one-way delay: 137.188 ms
  Loss rate: 1.87%
-- Flow 1:
  Average throughput: 4.55 Mbit/s
  95th percentile per-packet one-way delay: 137.188 ms
  Loss rate: 1.87%
Run 3: Report of LEDBAT — Data Link

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

- Throughput (Mbps):
  - Flow 1 ingress (mean 4.60 Mbps)
  - Flow 1 egress (mean 4.55 Mbps)

- End-to-end delay (ms):
  - Flow 1 (95th percentile 137.19 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-06-19 18:08:05
End at: 2018-06-19 18:08:35
Local clock offset: -0.143 ms
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 136.459 ms
Loss rate: 3.85%
-- Flow 1:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 136.459 ms
Loss rate: 3.85%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

End at: 2018-06-19 18:29:07
Local clock offset: 0.035 ms
Remote clock offset: -0.335 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 137.607 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 137.607 ms
Loss rate: 1.94%
Run 5: Report of LEDBAT — Data Link

---

**Throughput (Mbps/s)**

- **Flow 1 ingress (mean 4.25 Mbps/s)**
- **Flow 1 egress (mean 4.20 Mbps/s)**

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

- **Flow 1 (95th percentile 137.61 ms)**

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Run 6: Statistics of LEDBAT

End at: 2018-06-19 18:50:17
Local clock offset: -0.041 ms
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 137.100 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 137.100 ms
Loss rate: 1.84%
Run 6: Report of LEDBAT — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 4.84 Mbit/s)
- Flow 1 egress (mean 4.76 Mbit/s)

![Delay Graph]

Flow 1 (90th percentile 137.10 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-06-19 19:10:51
End at: 2018-06-19 19:11:21
Local clock offset: -0.211 ms
Remote clock offset: 0.115 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 136.668 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 136.668 ms
Loss rate: 1.83%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-06-19 19:32:09
End at: 2018-06-19 19:32:39
Local clock offset: 0.248 ms
Remote clock offset: -0.311 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 137.466 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 137.466 ms
Loss rate: 1.87%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-06-19 19:53:52
End at: 2018-06-19 19:54:22
Local clock offset: -0.042 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 4.36 Mbit/s
  95th percentile per-packet one-way delay: 136.818 ms
  Loss rate: 1.91%
-- Flow 1:
  Average throughput: 4.36 Mbit/s
  95th percentile per-packet one-way delay: 136.818 ms
  Loss rate: 1.91%
Run 9: Report of LEDBAT — Data Link

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

Throughput (Mbit/s) vs Time (s)

- Flow 1 ingress (mean 4.41 Mbit/s)
- Flow 1 egress (mean 4.36 Mbit/s)

Packet delay (ms) vs Time (s)

- Flow 1 (95th percentile 136.82 ms)
Run 10: Statistics of LEDBAT

End at: 2018-06-19 20:15:25
Local clock offset: 0.0 ms
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 136.296 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 136.296 ms
Loss rate: 1.94%
Run 10: Report of LEDBAT — Data Link

Graph 1: Throughput over time (Mbps)
- Flow 1 ingress (mean 4.29 Mbps)
- Flow 1 egress (mean 4.24 Mbps)

Graph 2: Packet delay over time (ms)
- Flow 1 (95th percentile 136.30 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-19 17:14:23
End at: 2018-06-19 17:14:53
Local clock offset: 0.14 ms
Remote clock offset: -0.397 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 527.98 Mbit/s
95th percentile per-packet one-way delay: 269.035 ms
Loss rate: 3.25%
-- Flow 1:
Average throughput: 527.98 Mbit/s
95th percentile per-packet one-way delay: 269.035 ms
Loss rate: 3.25%
Run 1: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mb/s)]

- Flow 1 ingress (mean 540.73 Mb/s)
- Flow 1 egress (mean 527.98 Mb/s)

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

- Flow 1 (95th percentile 269.04 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-06-19 17:35:27
End at: 2018-06-19 17:35:57
Local clock offset: -0.15 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 548.76 Mbit/s
95th percentile per-packet one-way delay: 244.863 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 548.76 Mbit/s
95th percentile per-packet one-way delay: 244.863 ms
Loss rate: 2.29%
Run 2: Report of PCC-Allegro — Data Link

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

- **Flow 1 ingress (mean 556.51 Mbps)**
- **Flow 1 egress (mean 548.76 Mbps)**

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

- **Flow 1 (95th percentile 244.86 ms)**
Run 3: Statistics of PCC-Allegro

Start at: 2018-06-19 17:56:35
End at: 2018-06-19 17:57:05
Local clock offset: -0.038 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 561.69 Mbit/s
95th percentile per-packet one-way delay: 249.998 ms
Loss rate: 3.29%
-- Flow 1:
Average throughput: 561.69 Mbit/s
95th percentile per-packet one-way delay: 249.998 ms
Loss rate: 3.29%
Run 3: Report of PCC-Allegro — Data Link

![Graph](image1)

**Throughput (Mbps)**

- **Flow 1 Ingress (mean 575.55 Mbps)**
- **Flow 1 Egress (mean 561.69 Mbps)**

![Graph](image2)

**Packet Round-trip delay (ms)**

- **Flow 1 (95th percentile 250.80 ms)**
Run 4: Statistics of PCC-Allegro

Start at: 2018-06-19 18:17:22
End at: 2018-06-19 18:17:52
Local clock offset: 0.121 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-06-19 21:22:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 481.51 Mbit/s
95th percentile per-packet one-way delay: 166.868 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 481.51 Mbit/s
95th percentile per-packet one-way delay: 166.868 ms
Loss rate: 2.15%
Run 4: Report of PCC-Allegro — Data Link
Run 5: Statistics of PCC-Allegro

Start at: 2018-06-19 18:38:19
End at: 2018-06-19 18:38:49
Local clock offset: -0.025 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2018-06-19 21:23:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 573.86 Mbit/s
95th percentile per-packet one-way delay: 234.224 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 573.86 Mbit/s
95th percentile per-packet one-way delay: 234.224 ms
Loss rate: 2.32%
Run 5: Report of PCC-Allegro — Data Link

![Graphs of throughput and per-packet delay over time for Flow 1, showing ingress and egress data with specified mean values.](image-url)
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-19 18:59:15
End at: 2018-06-19 18:59:46
Local clock offset: 0.158 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2018-06-19 21:23:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 572.92 Mbit/s
95th percentile per-packet one-way delay: 156.745 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 572.92 Mbit/s
95th percentile per-packet one-way delay: 156.745 ms
Loss rate: 2.05%
Run 6: Report of PCC-Allegro — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)
Run 7: Statistics of PCC-Allegro

End at: 2018-06-19 19:20:54
Local clock offset: -0.025 ms
Remote clock offset: -0.294 ms

# Below is generated by plot.py at 2018-06-19 21:30:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 525.26 Mbit/s
95th percentile per-packet one-way delay: 279.811 ms
Loss rate: 4.10%
-- Flow 1:
Average throughput: 525.26 Mbit/s
95th percentile per-packet one-way delay: 279.811 ms
Loss rate: 4.10%
Run 7: Report of PCC-Allegro — Data Link

![Graph showing network performance metrics](image1)

![Graph showing packet delay](image2)

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Run 8: Statistics of PCC-Allegro

Local clock offset: -0.095 ms
Remote clock offset: -0.344 ms

# Below is generated by plot.py at 2018-06-19 21:31:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 536.00 Mbit/s
95th percentile per-packet one-way delay: 280.555 ms
Loss rate: 4.42%
-- Flow 1:
Average throughput: 536.00 Mbit/s
95th percentile per-packet one-way delay: 280.555 ms
Loss rate: 4.42%
Run 8: Report of PCC-Allegro — Data Link

---

**Diagram 1:**
- **Throughput (Mbps):**
  - Flow 1 Ingress (mean 355.71 Mbps)
  - Flow 1 Egress (mean 536.00 Mbps)

**Diagram 2:**
- **Per-Packet One-Way Delay (ms):**
  - Flow 1 (95th percentile 280.56 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-19 20:03:32
End at: 2018-06-19 20:04:02
Local clock offset: -0.19 ms
Remote clock offset: -0.442 ms

# Below is generated by plot.py at 2018-06-19 21:31:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 527.96 Mbit/s
95th percentile per-packet one-way delay: 281.812 ms
Loss rate: 5.06%
-- Flow 1:
Average throughput: 527.96 Mbit/s
95th percentile per-packet one-way delay: 281.812 ms
Loss rate: 5.06%
Run 9: Report of PCC-Allegro — Data Link

Throughput (Mb/s)

0 5 10 15 20 25 30

Time (s)

Flow 1 ingress (mean 351.00 Mb/s)  Flow 1 egress (mean 527.96 Mb/s)

Per-packet one-way delay (ms)

0 5 10 15 20 25 30

Time (s)

Flow 1 (95th percentile 281.81 ms)
Run 10: Statistics of PCC-Allegro

End at: 2018-06-19 20:25:07
Local clock offset: 0.096 ms
Remote clock offset: 0.036 ms

# Below is generated by plot.py at 2018-06-19 21:31:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 496.09 Mbit/s
95th percentile per-packet one-way delay: 158.099 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 496.09 Mbit/s
95th percentile per-packet one-way delay: 158.099 ms
Loss rate: 2.12%
Run 10: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 302.10 Mbit/s)
- Flow 1 egress (mean 496.09 Mbit/s)

- Flow 1 (95th percentile 158.10 ms)
Run 1: Statistics of PCC-Expr

Start at: 2018-06-19 17:10:00
End at: 2018-06-19 17:10:30
Local clock offset: -0.235 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-06-19 21:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 288.49 Mbit/s
95th percentile per-packet one-way delay: 214.828 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 288.49 Mbit/s
95th percentile per-packet one-way delay: 214.828 ms
Loss rate: 1.61%
Run 1: Report of PCC-Expr — Data Link

![Graph showing throughput and per-packet delay over time](image-url)
Run 2: Statistics of PCC-Expr

Start at: 2018-06-19 17:31:18
End at: 2018-06-19 17:31:48
Local clock offset: -0.039 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-06-19 21:31:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 212.26 Mbit/s
95th percentile per-packet one-way delay: 154.966 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 212.26 Mbit/s
95th percentile per-packet one-way delay: 154.966 ms
Loss rate: 1.63%
Run 2: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 213.82 Mbps)
- Flow 1 egress (mean 212.26 Mbps)

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

- Flow 1 (95th percentile 154.97 ms)
Run 3: Statistics of PCC-Expr

Start at: 2018-06-19 17:52:14
End at: 2018-06-19 17:52:44
Local clock offset: -0.001 ms
Remote clock offset: -0.358 ms

# Below is generated by plot.py at 2018-06-19 21:33:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 299.59 Mbit/s
95th percentile per-packet one-way delay: 236.691 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 299.59 Mbit/s
95th percentile per-packet one-way delay: 236.691 ms
Loss rate: 2.32%
Run 3: Report of PCC-Expr — Data Link

![Graph showing throughput and packet delay over time for two flow types: ingress and egress.]

**Throughput Graph**:
- Y-axis: Throughput in Mb/s
- X-axis: Time in s
- Two lines: one for ingress (mean 303.93 Mb/s) and one for egress (mean 299.59 Mb/s)

**Packet Delay Graph**:
- Y-axis: Round-trip delay in ms
- X-axis: Time in s
- One line: Flow 1 (95th percentile 236.69 ms)
Run 4: Statistics of PCC-Expr

Local clock offset: 0.042 ms
Remote clock offset: -0.387 ms

# Below is generated by plot.py at 2018-06-19 21:33:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.52 Mbit/s
95th percentile per-packet one-way delay: 164.093 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 13.52 Mbit/s
95th percentile per-packet one-way delay: 164.093 ms
Loss rate: 1.15%
Run 4: Report of PCC-Expr — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 13.54 Mbit/s)
- Flow 1 egress (mean 13.52 Mbit/s)

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

- Flow 1 (95th percentile 164.09 ms)
Run 5: Statistics of PCC-Expr

Start at: 2018-06-19 18:33:56
End at: 2018-06-19 18:34:26
Local clock offset: 0.168 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2018-06-19 21:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 327.40 Mbit/s
95th percentile per-packet one-way delay: 177.395 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 327.40 Mbit/s
95th percentile per-packet one-way delay: 177.395 ms
Loss rate: 1.11%
Run 5: Report of PCC-Expr — Data Link
Run 6: Statistics of PCC-Expr

Local clock offset: 0.167 ms
Remote clock offset: 0.071 ms

# Below is generated by plot.py at 2018-06-19 21:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.36 Mbit/s
95th percentile per-packet one-way delay: 136.465 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 177.36 Mbit/s
95th percentile per-packet one-way delay: 136.465 ms
Loss rate: 1.00%
Run 6: Report of PCC-Expr — Data Link

![Graph of Throughput vs Time](image1)

- Flow 1 ingress (mean 177.53 Mbit/s)
- Flow 1 egress (mean 177.36 Mbit/s)

![Graph of Per-packet round trip delay vs Time](image2)

- Flow 1 (95th percentile 136.47 ms)
Run 7: Statistics of PCC-Expr

Start at: 2018-06-19 19:16:10
End at: 2018-06-19 19:16:40
Local clock offset: 0.141 ms
Remote clock offset: 0.086 ms

# Below is generated by plot.py at 2018-06-19 21:40:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 300.64 Mbit/s
95th percentile per-packet one-way delay: 192.971 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 300.64 Mbit/s
95th percentile per-packet one-way delay: 192.971 ms
Loss rate: 1.67%
Run 7: Report of PCC-Expr — Data Link

![Graph 1: Throughput vs. Time]

- Flow 1 ingress (mean 302.98 Mbit/s)
- Flow 1 egress (mean 300.64 Mbit/s)

![Graph 2: RTT vs. Time]

- Flow 1 (95th percentile 192.97 ms)
Run 8: Statistics of PCC-Expr

Local clock offset: 0.219 ms
Remote clock offset: -0.301 ms

# Below is generated by plot.py at 2018-06-19 21:41:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 318.85 Mbit/s
95th percentile per-packet one-way delay: 215.190 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 318.85 Mbit/s
95th percentile per-packet one-way delay: 215.190 ms
Loss rate: 1.54%
Run 8: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress (mean 320.90 Mbit/s)**
- **Flow 1 egress (mean 318.85 Mbit/s)**

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

- **Flow 1 (95th percentile 215.19 ms)**
Run 9: Statistics of PCC-Expr

Start at: 2018-06-19 19:59:10
End at: 2018-06-19 19:59:40
Local clock offset: -0.0 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 354.58 Mbit/s
95th percentile per-packet one-way delay: 252.849 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 354.58 Mbit/s
95th percentile per-packet one-way delay: 252.849 ms
Loss rate: 1.94%
Run 9: Report of PCC-Expr — Data Link

Graph 1: Throughput (Mbps) vs Time (s)
- Flow 1 ingress (mean 358.32 Mbps)
- Flow 1 egress (mean 354.58 Mbps)

Graph 2: Per-packet one-way delay (ms) vs Time (s)
- Flow 1 (95th percentile 252.85 ms)
Run 10: Statistics of PCC-Expr

End at: 2018-06-19 20:20:43
Local clock offset: -0.06 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 326.94 Mbit/s
95th percentile per-packet one-way delay: 187.380 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 326.94 Mbit/s
95th percentile per-packet one-way delay: 187.380 ms
Loss rate: 1.45%
Run 10: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress (mean 328.72 Mbps)**
- **Flow 1 egress (mean 326.94 Mbps)**

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

- **Flow 1 (95th percentile 187.38 ms)**
Run 1: Statistics of QUIC Cubic

Start at: 2018-06-19 17:19:38
End at: 2018-06-19 17:20:08
Local clock offset: -0.195 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.39 Mbit/s
95th percentile per-packet one-way delay: 135.303 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 50.39 Mbit/s
95th percentile per-packet one-way delay: 135.303 ms
Loss rate: 1.43%
Run 1: Report of QUIC Cubic — Data Link

![Graph of throughput and per-packet one-way delay over time for Flow 1 ingress and egress.]
Run 2: Statistics of QUIC Cubic

Start at: 2018-06-19 17:40:39
End at: 2018-06-19 17:41:09
Local clock offset: -0.082 ms
Remote clock offset: 0.001 ms
Run 2: Report of QUIC Cubic — Data Link

![Graph showing throughput over time for two flows: ingress and egress.]

![Graph showing per-packet end-to-end delay over time for Flow 1 with a 95th percentile of 134.71 ms.]
Run 3: Statistics of QUIC Cubic

Start at: 2018-06-19 18:01:51
End at: 2018-06-19 18:02:21
Local clock offset: 0.157 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.60 Mbit/s
95th percentile per-packet one-way delay: 135.772 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 52.60 Mbit/s
95th percentile per-packet one-way delay: 135.772 ms
Loss rate: 1.33%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

End at: 2018-06-19 18:23:00
Local clock offset: -0.12 ms
Remote clock offset: -0.366 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.21 Mbit/s
95th percentile per-packet one-way delay: 163.700 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 49.21 Mbit/s
95th percentile per-packet one-way delay: 163.700 ms
Loss rate: 1.42%
Run 4: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 49.47 Mbps)
- Flow 1 egress (mean 49.21 Mbps)

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

- Flow 1 (95th percentile 163.70 ms)
Run 5: Statistics of QUIC Cubic

End at: 2018-06-19 18:44:03
Local clock offset: −0.283 ms
Remote clock offset: 0.433 ms
Run 5: Report of QUIC Cubic — Data Link

![Graph of Throughput vs. Time](image1)

- Flow 1 ingress (mean 0.04 Mbit/s)
- Flow 1 egress (mean 0.04 Mbit/s)

![Graph of One-Way Delay vs. Time](image2)

- Flow 1 (95th percentile 135.68 ms)
Run 6: Statistics of QUIC Cubic

Start at: 2018-06-19 19:04:30
End at: 2018-06-19 19:05:00
Local clock offset: 0.062 ms
Remote clock offset: 0.112 ms
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

End at: 2018-06-19 19:26:09
Local clock offset: -0.027 ms
Remote clock offset: -0.301 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.51 Mbit/s
95th percentile per-packet one-way delay: 136.828 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 51.51 Mbit/s
95th percentile per-packet one-way delay: 136.828 ms
Loss rate: 1.34%
Run 8: Statistics of QUIC Cubic

End at: 2018-06-19 19:47:54
Local clock offset: 0.019 ms
Remote clock offset: -0.393 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.16 Mbit/s
95th percentile per-packet one-way delay: 136.922 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 53.16 Mbit/s
95th percentile per-packet one-way delay: 136.922 ms
Loss rate: 1.26%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-06-19 20:08:45
End at: 2018-06-19 20:09:15
Local clock offset: -0.155 ms
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.15 Mbit/s
95th percentile per-packet one-way delay: 135.752 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 52.15 Mbit/s
95th percentile per-packet one-way delay: 135.752 ms
Loss rate: 1.32%
Run 9: Report of QUIC Cubic — Data Link

![Graphs showing throughput and round-trip time over time.](image)

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 52.37 Mbps)
  - Flow 1 egress (mean 52.15 Mbps)

- **Round-trip time (ms):**
  - Flow 1 (95th percentile 135.75 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-19 20:29:49
End at: 2018-06-19 20:30:19
Local clock offset: -0.172 ms
Remote clock offset: -0.002 ms
Run 10: Report of QUIC Cubic — Data Link

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

*Flow 1 ingress (mean 0.02 Mbit/s)  Flow 1 egress (mean 0.02 Mbit/s)*

*Flow 1 (95th percentile 135.53 ms)*
Run 1: Statistics of SCReAM

Start at: 2018-06-19 17:05:50
End at: 2018-06-19 17:06:20
Local clock offset: 0.133 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.498 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.498 ms
Loss rate: 0.76%
Run 1: Report of SCReAM — Data Link

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

![Graph 2: Packet Delay vs Time](image2)
Run 2: Statistics of SCReAM

Start at: 2018-06-19 17:27:07
End at: 2018-06-19 17:27:37
Local clock offset: 0.066 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.111 ms
  Loss rate: 0.76%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.111 ms
  Loss rate: 0.76%
Run 2: Report of SCReAM — Data Link

![Graph of throughput over time with two lines indicating flow ingress and egress]

![Graph of packet delay over time with markers indicating 95th percentile]

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

Flow 1 (95th percentile 136.11 ms)
Run 3: Statistics of SCReAM

Start at: 2018-06-19 17:48:01
End at: 2018-06-19 17:48:31
Local clock offset: -0.113 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.663 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.663 ms
Loss rate: 0.89%
Run 3: Report of SCReAM — Data Link

**Graph 1:**
- **Throughput (Mbps)**
- **Time (s)**
- **Flow 1 ingress (mean 0.22 Mbps)**
- **Flow 1 egress (mean 0.22 Mbps)**

**Graph 2:**
- **Round-trip delay (ms)**
- **Flow 1 (95th percentile 136.66 ms)**

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Run 4: Statistics of SCReAM

End at: 2018-06-19 18:09:43
Local clock offset: 0.129 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.820 ms
  Loss rate: 0.89%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.820 ms
  Loss rate: 0.89%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2018-06-19 18:29:46
End at: 2018-06-19 18:30:16
Local clock offset: 0.04 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.590 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.590 ms
Loss rate: 0.89%
Run 5: Report of SCReAM — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 6: Statistics of SCReAM

Start at: 2018-06-19 18:50:57
End at: 2018-06-19 18:51:27
Local clock offset: -0.186 ms
Remote clock offset: 0.098 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.216 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.216 ms
Loss rate: 0.76%
Run 6: Report of SCReAM — Data Link

![Throughput Graph](image1)

![Round-Trip Time Graph](image2)

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

Flow 1 (95th percentile 136.22 ms)
Run 7: Statistics of SCReAM

Start at: 2018-06-19 19:12:00
End at: 2018-06-19 19:12:30
Local clock offset: 0.232 ms
Remote clock offset: 0.096 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 136.653 ms
    Loss rate: 0.76%
-- Flow 1:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 136.653 ms
    Loss rate: 0.76%
Run 8: Statistics of SCReAM

Start at: 2018-06-19 19:33:18
Local clock offset: 0.066 ms
Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.956 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.956 ms
Loss rate: 0.89%
Run 8: Report of SCReAM — Data Link

![Graph showing throughput and delay over time for flow 1 with ingress and egress data.]
Run 9: Statistics of SCReAM

Local clock offset: 0.244 ms
Remote clock offset: 0.32 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.285 ms
  Loss rate: 0.89%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.285 ms
  Loss rate: 0.89%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-06-19 20:16:04
End at: 2018-06-19 20:16:34
Local clock offset: -0.062 ms
Remote clock offset: -0.414 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.184 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.184 ms
Loss rate: 0.76%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of Sprout

Start at: 2018-06-19 17:18:29
End at: 2018-06-19 17:18:59
Local clock offset: 0.016 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 135.336 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 135.336 ms
Loss rate: 0.88%
Run 1: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.18 Mbit/s)  Flow 1 egress (mean 0.18 Mbit/s)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 135.34 ms)
Run 2: Statistics of Sprout

Start at: 2018-06-19 17:39:31
End at: 2018-06-19 17:40:01
Local clock offset: -0.04 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.049 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.049 ms
Loss rate: 1.72%
Run 2: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 0.16 Mbit/s)
- Flow 1 egress (mean 0.16 Mbit/s)

- Flow 1 (95th percentile 136.05 ms)
Run 3: Statistics of Sprout

Start at: 2018-06-19 18:00:42
End at: 2018-06-19 18:01:12
Local clock offset: 0.072 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.051 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.051 ms
Loss rate: 1.11%
Run 3: Report of Sprout — Data Link

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

**Flow 1 Ingress (mean 0.14 Mbit/s)**

**Flow 1 Egress (mean 0.14 Mbit/s)**

**Flow 1 (95th percentile 136.05 ms)**
Run 4: Statistics of Sprout

End at: 2018-06-19 18:21:52
Local clock offset: 0.089 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 163.847 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 163.847 ms
Loss rate: 0.26%
Run 4: Report of Sprout — Data Link

![Graph showing throughput and per-packet one-way delay over time for Flow 1 with ingress and egress rates of 0.17 Mbit/s.]

Flow 1 (95th percentile 163.85 ms)
Run 5: Statistics of Sprout

Local clock offset: -0.079 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.488 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.488 ms
Loss rate: 1.07%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-06-19 19:03:22
End at: 2018-06-19 19:03:52
Local clock offset: -0.123 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.572 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.572 ms
Loss rate: 0.95%
Run 7: Statistics of Sprout

End at: 2018-06-19 19:25:01
Local clock offset: 0.084 ms
Remote clock offset: 0.082 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.604 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.604 ms
Loss rate: 0.30%
Run 7: Report of Sprout — Data Link

![Graph of Throughput (Mbps) vs Time (s)]
- Dashed line: Flow 1 ingress (mean 0.14 Mbit/s)
- Solid line: Flow 1 egress (mean 0.14 Mbit/s)

![Graph of Per-packet one way delay (ms) vs Time (s)]
- Dotted line: Flow 1 (50th percentile 136.60 ms)
Run 8: Statistics of Sprout

End at: 2018-06-19 19:46:45
Local clock offset: 0.004 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 136.585 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 136.585 ms
Loss rate: 0.57%
Run 8: Report of Sprout — Data Link

![Graph showing throughput and round-trip delay over time. The graph includes a legend indicating the mean throughput for each flow.]
Run 9: Statistics of Sprout

Start at: 2018-06-19 20:07:37
End at: 2018-06-19 20:08:07
Local clock offset: 0.168 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.559 ms
  Loss rate: 1.00%
-- Flow 1:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.559 ms
  Loss rate: 1.00%
Run 9: Report of Sprout — Data Link

Graph 1: Throughput (Mbps)

- Flow 1 ingress (mean 0.16 Mbit/s)
- Flow 1 egress (mean 0.16 Mbit/s)

Graph 2: Per packet one way delay (ms)

- Flow 1 (95th percentile 136.56 ms)
Run 10: Statistics of Sprout

End at: 2018-06-19 20:29:11
Local clock offset: -0.056 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 135.990 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 135.990 ms
Loss rate: 0.52%
Run 10: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

Start at: 2018-06-19 17:23:18
End at: 2018-06-19 17:23:48
Local clock offset: -0.214 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.33 Mbit/s
95th percentile per-packet one-way delay: 136.081 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 13.33 Mbit/s
95th percentile per-packet one-way delay: 136.081 ms
Loss rate: 0.90%
Run 1: Report of TaoVA-100x — Data Link

![Graph showing throughput over time for two data link flows.]
Run 2: Statistics of TaoVA-100x

Start at: 2018-06-19 17:44:14
End at: 2018-06-19 17:44:44
Local clock offset: -0.139 ms
Remote clock offset: 0.35 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 13.39 Mbit/s
  95th percentile per-packet one-way delay: 135.393 ms
  Loss rate: 0.93%
-- Flow 1:
  Average throughput: 13.39 Mbit/s
  95th percentile per-packet one-way delay: 135.393 ms
  Loss rate: 0.93%
Run 2: Report of TaoVA-100x — Data Link

![Graph showing throughput over time for two flows with different speeds.](image-url)

- Flow 1 ingress (mean 13.40 Mb/s)
- Flow 1 egress (mean 13.39 Mb/s)

![Graph showing packet delay over time for Flow 1.](image-url)

- Flow 1 (95th percentile 135.39 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-06-19 18:05:27
End at: 2018-06-19 18:05:57
Local clock offset: 0.062 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.37 Mbit/s
95th percentile per-packet one-way delay: 136.728 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 13.37 Mbit/s
95th percentile per-packet one-way delay: 136.728 ms
Loss rate: 0.93%
Run 3: Report of TaoVA-100x — Data Link

![Graph showing throughput and packet overhead delay for Flow 1.](image-url)

- Flow 1 ingress (mean 13.37 Mbit/s)
- Flow 1 egress (mean 13.37 Mbit/s)
Run 4: Statistics of TaoVA-100x

Start at: 2018-06-19 18:26:09
End at: 2018-06-19 18:26:39
Local clock offset: -0.117 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 165.399 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 165.399 ms
Loss rate: 2.84%
Run 4: Report of TaoVA-100x — Data Link

![Graph of Throughput vs Time]

- Flow 1 ingress (mean 4.12 Mbit/s)
- Flow 1 egress (mean 4.04 Mbit/s)

![Graph of Packet One-Way Delay vs Time]

- Flow 1 (95th percentile 165.40 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-06-19 18:47:05
End at: 2018-06-19 18:47:35
Local clock offset: 0.035 ms
Remote clock offset: 0.135 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 13.16 Mbit/s
  95th percentile per-packet one-way delay: 135.811 ms
  Loss rate: 0.93%
-- Flow 1:
  Average throughput: 13.16 Mbit/s
  95th percentile per-packet one-way delay: 135.811 ms
  Loss rate: 0.93%
Run 5: Report of TaoVA-100x — Data Link

![Graphs showing network performance metrics over time.](image-url)
Run 6: Statistics of TaoVA-100x

Start at: 2018-06-19 19:08:02
End at: 2018-06-19 19:08:32
Local clock offset: 0.03 ms
Remote clock offset: 0.092 ms

# Below is generated by plot.py at 2018-06-19 21:42:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.43 Mbit/s
95th percentile per-packet one-way delay: 136.264 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 13.43 Mbit/s
95th percentile per-packet one-way delay: 136.264 ms
Loss rate: 0.93%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

Start at: 2018-06-19 19:29:16
End at: 2018-06-19 19:29:46
Local clock offset: 0.02 ms
Remote clock offset: -0.292 ms

# Below is generated by plot.py at 2018-06-19 21:43:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 208.45 Mbit/s
95th percentile per-packet one-way delay: 136.333 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 208.45 Mbit/s
95th percentile per-packet one-way delay: 136.333 ms
Loss rate: 0.97%
Run 8: Statistics of TaoVA-100x

Start at: 2018-06-19 19:51:03
End at: 2018-06-19 19:51:33
Local clock offset: 0.07 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-06-19 21:43:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.34 Mbit/s
95th percentile per-packet one-way delay: 136.286 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 192.34 Mbit/s
95th percentile per-packet one-way delay: 136.286 ms
Loss rate: 1.07%
Run 8: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 192.65 Mbit/s)
- Flow 1 egress (mean 192.34 Mbit/s)

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

- Flow 1 (95th percentile 136.29 ms)

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Run 9: Statistics of TaoVA-100x

Start at: 2018-06-19 20:12:24
End at: 2018-06-19 20:12:54
Local clock offset: 0.201 ms
Remote clock offset: -0.451 ms

# Below is generated by plot.py at 2018-06-19 21:43:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.32 Mbit/s
95th percentile per-packet one-way delay: 136.950 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 13.32 Mbit/s
95th percentile per-packet one-way delay: 136.950 ms
Loss rate: 0.86%
Run 9: Report of TaoVA-100x — Data Link

![Graph of Throughput](image1)

![Graph of Packet Delay](image2)

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Run 10: Statistics of TaoVA-100x

End at: 2018-06-19 20:33:52
Local clock offset: ~0.076 ms
Remote clock offset: 0.394 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 208.90 Mbit/s
95th percentile per-packet one-way delay: 135.732 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 208.90 Mbit/s
95th percentile per-packet one-way delay: 135.732 ms
Loss rate: 0.86%
Run 10: Report of TaoVA-100x — Data Link

![Graph showing throughput and delay over time]

- Flow 1 ingress (mean 208.80 Mbps)
- Flow 1 egress (mean 208.90 Mbps)

![Graph showing packet delay over time]

- Flow 1 (95th percentile 135.73 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-06-19 17:20:50
End at: 2018-06-19 17:21:20
Local clock offset: 0.108 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.85 Mbit/s
95th percentile per-packet one-way delay: 148.839 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 82.85 Mbit/s
95th percentile per-packet one-way delay: 148.839 ms
Loss rate: 1.01%
Run 1: Report of TCP Vegas — Data Link

![Graph of throughput over time](image1)

![Graph of packet delay over time](image2)
Run 2: Statistics of TCP Vegas

Start at: 2018-06-19 17:41:47
End at: 2018-06-19 17:42:17
Local clock offset: 0.009 ms
Remote clock offset: 0.021 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 82.08 Mbit/s
  95th percentile per-packet one-way delay: 147.413 ms
  Loss rate: 0.93%
-- Flow 1:
  Average throughput: 82.08 Mbit/s
  95th percentile per-packet one-way delay: 147.413 ms
  Loss rate: 0.93%
Run 2: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 82.11 Mbit/s)
- Flow 1 egress (mean 82.98 Mbit/s)

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

- Flow 1 (95th percentile 147.41 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-06-19 18:03:03
End at: 2018-06-19 18:03:33
Local clock offset: -0.037 ms
Remote clock offset: 0.324 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 25.10 Mbit/s
95th percentile per-packet one-way delay: 137.896 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 25.10 Mbit/s
95th percentile per-packet one-way delay: 137.896 ms
Loss rate: 1.01%
Run 3: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 25.13 Mbit/s)
- Flow 1 egress (mean 25.10 Mbit/s)

Flow 1 (95th percentile 137.90 ms)
Run 4: Statistics of TCP Vegas

End at: 2018-06-19 18:24:12
Local clock offset: 0.103 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.19 Mbit/s
95th percentile per-packet one-way delay: 138.061 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 66.19 Mbit/s
95th percentile per-packet one-way delay: 138.061 ms
Loss rate: 1.00%
Run 4: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 66.19 Mbit/s)**
- **Flow 1 egress (mean 66.19 Mbit/s)**

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

- **Flow 1 (95th percentile 138.06 ms)**

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Run 5: Statistics of TCP Vegas

Start at: 2018-06-19 18:44:41
End at: 2018-06-19 18:45:11
Local clock offset: -0.006 ms
Remote clock offset: -0.311 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.49 Mbit/s
95th percentile per-packet one-way delay: 139.772 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 27.49 Mbit/s
95th percentile per-packet one-way delay: 139.772 ms
Loss rate: 0.54%
Run 5: Report of TCP Vegas — Data Link

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**Throughput (Mbit/s)**

- **Flow 1 ingress** (mean 27.39 Mbit/s)
- **Flow 1 egress** (mean 27.49 Mbit/s)

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

- **Flow 1** (95th percentile 139.77 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-06-19 19:05:38
End at: 2018-06-19 19:06:08
Local clock offset: 0.126 ms
Remote clock offset: -0.281 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.48 Mbit/s
95th percentile per-packet one-way delay: 138.467 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 33.48 Mbit/s
95th percentile per-packet one-way delay: 138.467 ms
Loss rate: 0.97%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-06-19 19:26:51
End at: 2018-06-19 19:27:21
Local clock offset: 0.202 ms
Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.72 Mbit/s
95th percentile per-packet one-way delay: 139.146 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 45.72 Mbit/s
95th percentile per-packet one-way delay: 139.146 ms
Loss rate: 0.99%
Run 7: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 45.76 Mbps)**
- **Flow 1 egress (mean 45.72 Mbps)**

![Graph 2: One-way delay (ms)](image2)

- **Flow 1 (95th percentile 139.15 ms)**
Run 8: Statistics of TCP Vegas

End at: 2018-06-19 19:49:06
Local clock offset: 0.051 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.56 Mbit/s
95th percentile per-packet one-way delay: 145.539 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 82.56 Mbit/s
95th percentile per-packet one-way delay: 145.539 ms
Loss rate: 0.98%
Run 8: Report of TCP Vegas — Data Link
Run 9: Statistics of TCP Vegas

Start at: 2018-06-19 20:09:57
End at: 2018-06-19 20:10:27
Local clock offset: 0.264 ms
Remote clock offset: -0.454 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.14 Mbit/s
95th percentile per-packet one-way delay: 145.847 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 82.14 Mbit/s
95th percentile per-packet one-way delay: 145.847 ms
Loss rate: 0.98%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-06-19 20:30:57
End at: 2018-06-19 20:31:27
Local clock offset: 0.054 ms
Remote clock offset: -0.345 ms

# Below is generated by plot.py at 2018-06-19 21:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.88 Mbit/s
95th percentile per-packet one-way delay: 146.305 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 35.88 Mbit/s
95th percentile per-packet one-way delay: 146.305 ms
Loss rate: 0.80%
Run 10: Report of TCP Vegas — Data Link

![Graph of Throughput (Mbps) vs Time (s)]

- Flow 1 ingress (mean 35.84 Mbit/s)
- Flow 1 egress (mean 35.88 Mbit/s)

![Graph of Per packet one way delay (ms) vs Time (s)]

- Flow 1 (95th percentile 146.31 ms)
Run 1: Statistics of Verus

Start at: 2018-06-19 17:06:58
End at: 2018-06-19 17:07:28
Local clock offset: 0.253 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-06-19 21:44:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 113.87 Mbit/s
95th percentile per-packet one-way delay: 176.109 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 113.87 Mbit/s
95th percentile per-packet one-way delay: 176.109 ms
Loss rate: 0.01%
Run 1: Report of Verus — Data Link

Diagram showing throughput and per-packet one-way delay over time for Flow 1 ingress and egress with mean values of 112.85 Mbit/s and 113.87 Mbit/s respectively.
Run 2: Statistics of Verus

Start at: 2018-06-19 17:28:15
End at: 2018-06-19 17:28:45
Local clock offset: 0.003 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2018-06-19 21:44:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 110.45 Mbit/s
95th percentile per-packet one-way delay: 194.898 ms
Loss rate: 5.04%
-- Flow 1:
Average throughput: 110.45 Mbit/s
95th percentile per-packet one-way delay: 194.898 ms
Loss rate: 5.04%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2018-06-19 17:49:10
End at: 2018-06-19 17:49:40
Local clock offset: -0.05 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-06-19 21:45:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 140.92 Mbit/s
95th percentile per-packet one-way delay: 192.245 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 140.92 Mbit/s
95th percentile per-packet one-way delay: 192.245 ms
Loss rate: 1.25%
Run 3: Report of Verus — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 140.15 Mbps)  Flow 1 egress (mean 140.92 Mbps)

Round-trip delay (ms)

Time (s)

Flow 1 (95th percentile 192.25 ms)
Run 4: Statistics of Verus

Start at: 2018-06-19 18:10:22
End at: 2018-06-19 18:10:52
Local clock offset: -0.098 ms
Remote clock offset: 0.347 ms

# Below is generated by plot.py at 2018-06-19 21:45:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.38 Mbit/s
95th percentile per-packet one-way delay: 308.340 ms
Loss rate: 4.90%
-- Flow 1:
Average throughput: 169.38 Mbit/s
95th percentile per-packet one-way delay: 308.340 ms
Loss rate: 4.90%
Run 4: Report of Verus — Data Link

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

- Flow 1 ingress (mean 177.78 Mbit/s)
- Flow 1 egress (mean 169.38 Mbit/s)

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

- Flow 1 (95th percentile 308.34 ms)
Run 5: Statistics of Verus

Start at: 2018-06-19 18:30:54
End at: 2018-06-19 18:31:24
Local clock offset: -0.172 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2018-06-19 21:46:14
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 181.59 Mbit/s
  95th percentile per-packet one-way delay: 162.592 ms
  Loss rate: 1.56%
-- Flow 1:
  Average throughput: 181.59 Mbit/s
  95th percentile per-packet one-way delay: 162.592 ms
  Loss rate: 1.56%
Run 5: Report of Verus — Data Link
Run 6: Statistics of Verus

Start at: 2018-06-19 18:52:05
End at: 2018-06-19 18:52:35
Local clock offset: -0.02 ms
Remote clock offset: 0.051 ms

# Below is generated by plot.py at 2018-06-19 21:46:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 117.36 Mbit/s
95th percentile per-packet one-way delay: 208.827 ms
Loss rate: 2.77%
-- Flow 1:
Average throughput: 117.36 Mbit/s
95th percentile per-packet one-way delay: 208.827 ms
Loss rate: 2.77%
Run 6: Report of Verus — Data Link

![Graph of Throughput (Mbps) over time for Flow 1 ingress (mean 119.21 Mbps) and Flow 1 egress (mean 117.36 Mbps).]

![Graph of Per-packet one-way delay (ms) over time for Flow 1 (95th percentile 208.83 ms).]
Run 7: Statistics of Verus

Local clock offset: 0.093 ms
Remote clock offset: 0.115 ms

# Below is generated by plot.py at 2018-06-19 21:46:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.52 Mbit/s
95th percentile per-packet one-way delay: 237.226 ms
Loss rate: 3.22%
-- Flow 1:
Average throughput: 86.52 Mbit/s
95th percentile per-packet one-way delay: 237.226 ms
Loss rate: 3.22%
Run 7: Report of Verus — Data Link

![Graph](image1)

**Throughput (Mbps)**

Time (s)

- Flow 1 ingress (mean 88.29 Mbit/s)
- Flow 1 egress (mean 86.52 Mbit/s)

![Graph](image2)

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

Time (s)

- Flow 1 (95th percentile 237.23 ms)
Run 8: Statistics of Verus

Start at: 2018-06-19 19:34:26
End at: 2018-06-19 19:34:56
Local clock offset: 0.244 ms
Remote clock offset: 0.089 ms

# Below is generated by plot.py at 2018-06-19 21:47:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.56 Mbit/s
95th percentile per-packet one-way delay: 184.133 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 249.56 Mbit/s
95th percentile per-packet one-way delay: 184.133 ms
Loss rate: 0.22%
Run 8: Report of Verus — Data Link
Run 9: Statistics of Verus

Start at: 2018-06-19 19:56:09
End at: 2018-06-19 19:56:39
Local clock offset: 0.062 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-06-19 21:47:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.61 Mbit/s
95th percentile per-packet one-way delay: 152.799 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 83.61 Mbit/s
95th percentile per-packet one-way delay: 152.799 ms
Loss rate: 1.54%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-06-19 20:17:12
End at: 2018-06-19 20:17:42
Local clock offset: -0.105 ms
Remote clock offset: -0.442 ms

# Below is generated by plot.py at 2018-06-19 21:47:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.35 Mbit/s
95th percentile per-packet one-way delay: 156.860 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 79.35 Mbit/s
95th percentile per-packet one-way delay: 156.860 ms
Loss rate: 1.31%
Run 10: Report of Verus — Data Link

![Graph showing throughput over time for Flow 1 ingress and egress with mean rates of 79.66 Mbit/s and 79.35 Mbit/s respectively.]

![Graph showing packet delay over time for Flow 1 with 95th percentile delay of 156.86 ms.]

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Run 1: Statistics of PCC-Vivace

Start at: 2018-06-19 17:11:39
End at: 2018-06-19 17:12:09
Local clock offset: -0.262 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2018-06-19 21:50:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 327.56 Mbit/s
95th percentile per-packet one-way delay: 162.756 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 327.56 Mbit/s
95th percentile per-packet one-way delay: 162.756 ms
Loss rate: 1.31%
Run 1: Report of PCC-Vivace — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 328.89 Mbit/s) — Flow 1 egress (mean 327.56 Mbit/s)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 162.76 ms)
Run 2: Statistics of PCC-Vivace

Start at: 2018-06-19 17:32:49
End at: 2018-06-19 17:33:19
Local clock offset: 0.083 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2018-06-19 21:50:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 260.88 Mbit/s
95th percentile per-packet one-way delay: 157.002 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 260.88 Mbit/s
95th percentile per-packet one-way delay: 157.002 ms
Loss rate: 1.69%
Run 3: Statistics of PCC-Vivace

End at: 2018-06-19 17:54:23
Local clock offset: 0.056 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-06-19 21:50:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 300.76 Mbit/s
95th percentile per-packet one-way delay: 146.363 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 300.76 Mbit/s
95th percentile per-packet one-way delay: 146.363 ms
Loss rate: 1.44%
Run 3: Report of PCC-Vivace — Data Link
Run 4: Statistics of PCC-Vivace

Start at: 2018-06-19 18:14:39
End at: 2018-06-19 18:15:09
Local clock offset: -0.115 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-06-19 21:51:22
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 320.01 Mbit/s
  95th percentile per-packet one-way delay: 161.971 ms
  Loss rate: 1.17%
-- Flow 1:
  Average throughput: 320.01 Mbit/s
  95th percentile per-packet one-way delay: 161.971 ms
  Loss rate: 1.17%
Run 5: Statistics of PCC-Vivace

Start at: 2018-06-19 18:35:37
End at: 2018-06-19 18:36:07
Local clock offset: 0.042 ms
Remote clock offset: 0.028 ms

# Below is generated by plot.py at 2018-06-19 21:51:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 318.72 Mbit/s
95th percentile per-packet one-way delay: 136.758 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 318.72 Mbit/s
95th percentile per-packet one-way delay: 136.758 ms
Loss rate: 1.06%
Run 5: Report of PCC-Vivace — Data Link
Run 6: Statistics of PCC-Vivace

Start at: 2018-06-19 18:56:36
End at: 2018-06-19 18:57:06
Local clock offset: 0.12 ms
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2018-06-19 21:51:24
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 282.85 Mbit/s
  95th percentile per-packet one-way delay: 138.659 ms
  Loss rate: 1.22%
-- Flow 1:
  Average throughput: 282.85 Mbit/s
  95th percentile per-packet one-way delay: 138.659 ms
  Loss rate: 1.22%
Run 6: Report of PCC-Vivace — Data Link
Run 7: Statistics of PCC-Vivace

Start at: 2018-06-19 19:17:49
End at: 2018-06-19 19:18:19
Local clock offset: 0.041 ms
Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2018-06-19 21:51:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.63 Mbit/s
95th percentile per-packet one-way delay: 150.340 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 223.63 Mbit/s
95th percentile per-packet one-way delay: 150.340 ms
Loss rate: 1.53%
Run 7: Report of PCC-Vivace — Data Link
Run 8: Statistics of PCC-Vivace

End at: 2018-06-19 19:39:54
Local clock offset: -0.059 ms
Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2018-06-19 21:52:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 341.22 Mbit/s
95th percentile per-packet one-way delay: 136.733 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 341.22 Mbit/s
95th percentile per-packet one-way delay: 136.733 ms
Loss rate: 0.98%
Run 8: Report of PCC-Vivace — Data Link
Run 9: Statistics of PCC-Vivace

Start at: 2018-06-19 20:00:51
End at: 2018-06-19 20:01:21
Local clock offset: -0.07 ms
Remote clock offset: -0.404 ms

# Below is generated by plot.py at 2018-06-19 21:52:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 307.26 Mbit/s
95th percentile per-packet one-way delay: 159.574 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 307.26 Mbit/s
95th percentile per-packet one-way delay: 159.574 ms
Loss rate: 1.00%
Run 9: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 307.51 Mbit/s)  Flow 1 egress (mean 307.26 Mbit/s)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 159.57 ms)
Run 10: Statistics of PCC-Vivace

Local clock offset: -0.094 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 308.76 Mbit/s
95th percentile per-packet one-way delay: 136.990 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 308.76 Mbit/s
95th percentile per-packet one-way delay: 136.990 ms
Loss rate: 1.10%
Run 1: Statistics of WebRTC media

End at: 2018-06-19 17:13:44
Local clock offset: -0.028 ms
Remote clock offset: -0.409 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.51 Mbit/s
  95th percentile per-packet one-way delay: 136.438 ms
  Loss rate: 1.74%
-- Flow 1:
  Average throughput: 1.51 Mbit/s
  95th percentile per-packet one-way delay: 136.438 ms
  Loss rate: 1.74%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-06-19 17:34:18
End at: 2018-06-19 17:34:48
Local clock offset: -0.165 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.82 Mbit/s
  95th percentile per-packet one-way delay: 136.712 ms
  Loss rate: 1.28%
-- Flow 1:
  Average throughput: 1.82 Mbit/s
  95th percentile per-packet one-way delay: 136.712 ms
  Loss rate: 1.28%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-06-19 17:55:26
End at: 2018-06-19 17:55:56
Local clock offset: -0.296 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 136.221 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 136.221 ms
Loss rate: 1.26%
Run 3: Report of WebRTC media — Data Link

![Graph of throughput and packet delay over time for WebRTC media flows.](image-url)
Run 4: Statistics of WebRTC media

End at: 2018-06-19 18:16:43
Local clock offset: 0.069 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 165.763 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 165.763 ms
Loss rate: 1.25%
Run 4: Report of WebRTC media — Data Link

![Graph 1: Throughput (Mbps)]

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

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

Flow 1 (95th percentile 165.76 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-06-19 18:37:10
End at: 2018-06-19 18:37:40
Local clock offset: 0.166 ms
Remote clock offset: 0.08 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 136.792 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 136.792 ms
Loss rate: 1.27%
Run 5: Report of WebRTC media — Data Link

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

![Graph of one-way delay for Flow 1.]

Flow 1 ingress (mean 1.83 Mbit/s)  Flow 1 egress (mean 1.82 Mbit/s)

Flow 1 (95th percentile 136.79 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-06-19 18:58:07
End at: 2018-06-19 18:58:37
Local clock offset: -0.214 ms
Remote clock offset: 0.099 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 135.502 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 135.502 ms
Loss rate: 1.31%
Run 6: Report of WebRTC media — Data Link

![Graph showing Throughput (Mbps) over time with two lines representing Flow 1 ingress and egress.]

- Flow 1 ingress (mean 1.89 Mbps)
- Flow 1 egress (mean 1.88 Mbps)

![Graph showing per-packet one-way delay with a dot representing Flow 1 (95th percentile 135.50 ms).]
Run 7: Statistics of WebRTC media

Start at: 2018-06-19 19:19:16
End at: 2018-06-19 19:19:46
Local clock offset: 0.064 ms
Remote clock offset: -0.341 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 137.220 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 137.220 ms
Loss rate: 1.29%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-06-19 19:41:00
End at: 2018-06-19 19:41:30
Local clock offset: 0.162 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 136.381 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 136.381 ms
Loss rate: 1.28%
Run 8: Report of WebRTC media — Data Link
Run 9: Statistics of WebRTC media

Start at: 2018-06-19 20:02:23
End at: 2018-06-19 20:02:53
Local clock offset: -0.007 ms
Remote clock offset: -0.467 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 137.106 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 137.106 ms
Loss rate: 1.28%
Run 9: Report of WebRTC media — Data Link

![Graph showing throughput and packet delay over time for two flows: flow 1 ingress and egress.]

- Flow 1 ingress (mean 1.81 Mbit/s)
- Flow 1 egress (mean 1.80 Mbit/s)

- Flow 1 (95th percentile 137.11 ms)
Run 10: Statistics of WebRTC media

Local clock offset: 0.174 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2018-06-19 21:52:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 136.435 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 136.435 ms
Loss rate: 1.33%
Run 10: Report of WebRTC media — Data Link

![Throughput Graph](#)

![Delay Graph](#)

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