Pantheon Report

Generated at 2018-07-12 03:36:59 (UTC).
Data path: GCE Sydney Ethernet (local) → GCE Tokyo Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 1 flow.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
NTP offsets were measured against time.google.com and have been applied
to correct the timestamps in logs.

Git summary:
branch: master @ 9250dbec7fb57193c03f0d30f0
third_party/fillp @ d47f4fa1b45a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 37162fe9af85249aeccac061c93e75640ef710b5
third_party/genericCC @ d0153f8e594aa89e93b032143cedbbfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179baab4a906ce6bb7cf3c3f
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f613e8acd08f92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1b8143ebc978f3c942
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3b6b2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46a18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2ba886211435ae071a32f96b7d8c504587f57df4
third_party/webrtc @ 3f0cc2a9061a41b6f9b4735770d143a1fa2851
test from GCE Sydney to GCE Tokyo, 10 runs of 30s each per scheme (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>218.40</td>
<td>56.43</td>
<td>0.00</td>
</tr>
<tr>
<td>Copa</td>
<td>10</td>
<td>156.71</td>
<td>60.40</td>
<td>0.00</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>171.00</td>
<td>58.21</td>
<td>0.02</td>
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<td>FillP</td>
<td>10</td>
<td>829.30</td>
<td>205.34</td>
<td>1.69</td>
</tr>
<tr>
<td>FillP-Sheep</td>
<td>10</td>
<td>664.59</td>
<td>238.05</td>
<td>4.06</td>
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<tr>
<td>Indigo</td>
<td>10</td>
<td>214.37</td>
<td>53.15</td>
<td>0.01</td>
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<tr>
<td>LEDBAT</td>
<td>10</td>
<td>30.51</td>
<td>54.52</td>
<td>0.01</td>
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<tr>
<td>PCC-Allegro</td>
<td>10</td>
<td>517.74</td>
<td>148.07</td>
<td>1.43</td>
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<tr>
<td>PCC-Expr</td>
<td>10</td>
<td>247.25</td>
<td>81.43</td>
<td>0.46</td>
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<tr>
<td>QUIC Cubic</td>
<td>7</td>
<td>68.84</td>
<td>53.10</td>
<td>0.01</td>
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<tr>
<td>SCReAM</td>
<td>10</td>
<td>0.21</td>
<td>53.00</td>
<td>0.00</td>
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<tr>
<td>Sprout</td>
<td>10</td>
<td>7.21</td>
<td>54.39</td>
<td>0.01</td>
</tr>
<tr>
<td>TaoVA-100x</td>
<td>10</td>
<td>132.74</td>
<td>53.37</td>
<td>0.01</td>
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<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>87.33</td>
<td>54.85</td>
<td>0.00</td>
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<tr>
<td>Verus</td>
<td>10</td>
<td>241.74</td>
<td>111.58</td>
<td>0.17</td>
</tr>
<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>365.80</td>
<td>52.78</td>
<td>0.01</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.99</td>
<td>53.09</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Local clock offset: -0.003 ms
Remote clock offset: 0.145 ms

# Below is generated by plot.py at 2018-07-12 01:57:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.03 Mbit/s
95th percentile per-packet one-way delay: 56.283 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 215.03 Mbit/s
95th percentile per-packet one-way delay: 56.283 ms
Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

End at: 2018-07-11 22:43:05
Local clock offset: 0.04 ms
Remote clock offset: 0.145 ms

# Below is generated by plot.py at 2018-07-12 01:57:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.54 Mbit/s
95th percentile per-packet one-way delay: 59.162 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.54 Mbit/s
95th percentile per-packet one-way delay: 59.162 ms
Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link

![Graph showing throughput (Mbps) over time (s). Legend: Flow 1 ingress (mean 218.52 Mbit/s) and Flow 1 egress (mean 218.54 Mbit/s).]

![Graph showing packet one-way delay (ms) over time (s). Legend: Flow 1 (95th percentile 59.16 ms).]
Run 3: Statistics of TCP BBR

Start at: 2018-07-11 23:04:49
End at: 2018-07-11 23:05:19
Local clock offset: ~0.1 ms
Remote clock offset: 1.076 ms

# Below is generated by plot.py at 2018-07-12 01:57:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.11 Mbit/s
95th percentile per-packet one-way delay: 58.186 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.11 Mbit/s
95th percentile per-packet one-way delay: 58.186 ms
Loss rate: 0.00%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-07-11 23:26:40
End at: 2018-07-11 23:27:10
Local clock offset: -0.109 ms
Remote clock offset: 1.157 ms

# Below is generated by plot.py at 2018-07-12 01:58:00
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 221.68 Mbit/s
  95th percentile per-packet one-way delay: 58.528 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 221.68 Mbit/s
  95th percentile per-packet one-way delay: 58.528 ms
  Loss rate: 0.01%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

End at: 2018-07-11 23:49:19
Local clock offset: -0.02 ms
Remote clock offset: 1.358 ms

# Below is generated by plot.py at 2018-07-12 01:58:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.37 Mbit/s
95th percentile per-packet one-way delay: 56.008 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.37 Mbit/s
95th percentile per-packet one-way delay: 56.008 ms
Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 220.44 Mbit/s)**
- **Flow 1 egress (mean 220.37 Mbit/s)**

![Packet Drop Graph](attachment:image2.png)

- **Flow 1 (95th percentile 56.01 ms)**
Run 6: Statistics of TCP BBR

Start at: 2018-07-12 00:10:39
End at: 2018-07-12 00:11:09
Local clock offset: -0.149 ms
Remote clock offset: 0.128 ms

# Below is generated by plot.py at 2018-07-12 01:58:00
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 212.14 Mbit/s
  95th percentile per-packet one-way delay: 57.477 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 212.14 Mbit/s
  95th percentile per-packet one-way delay: 57.477 ms
  Loss rate: 0.02%
Run 6: Report of TCP BBR — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress** (mean 212.17 Mbps)
- **Flow 1 egress** (mean 212.14 Mbps)

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

- **Flow 1** (95th percentile 57.48 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-07-12 00:32:50
End at: 2018-07-12 00:33:20
Local clock offset: -0.303 ms
Remote clock offset: -0.277 ms

# Below is generated by plot.py at 2018-07-12 01:58:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.57 Mbit/s
95th percentile per-packet one-way delay: 54.332 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.57 Mbit/s
95th percentile per-packet one-way delay: 54.332 ms
Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 223.57 Mbit/s)  Flow 1 egress (mean 223.57 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 54.33 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-07-12 00:54:45
End at: 2018-07-12 00:55:15
Local clock offset: 0.072 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-07-12 01:58:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.95 Mbit/s
95th percentile per-packet one-way delay: 53.845 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 221.95 Mbit/s
95th percentile per-packet one-way delay: 53.845 ms
Loss rate: 0.00%
Run 8: Report of TCP BBR — Data Link
Run 9: Statistics of TCP BBR

Start at: 2018-07-12 01:16:15  
End at: 2018-07-12 01:16:45  
Local clock offset: ~0.045 ms  
Remote clock offset: 0.229 ms

# Below is generated by plot.py at 2018-07-12 02:00:51  
# Datalink statistics

-- Total of 1 flow:  
Average throughput: 212.25 Mbit/s  
95th percentile per-packet one-way delay: 54.005 ms  
Loss rate: 0.01%  

-- Flow 1:  
Average throughput: 212.25 Mbit/s  
95th percentile per-packet one-way delay: 54.005 ms  
Loss rate: 0.01%
Run 9: Report of TCP BBR — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 212.26 Mbps)**
- **Flow 1 egress (mean 212.25 Mbps)**

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

- **Flow 1 (95th percentile 54.01 ms)**
Run 10: Statistics of TCP BBR

Start at: 2018-07-12 01:38:13
End at: 2018-07-12 01:38:43
Local clock offset: -0.231 ms
Remote clock offset: -1.277 ms

# Below is generated by plot.py at 2018-07-12 02:00:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.34 Mbit/s
95th percentile per-packet one-way delay: 56.452 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.34 Mbit/s
95th percentile per-packet one-way delay: 56.452 ms
Loss rate: 0.00%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of Copa

Local clock offset: -0.107 ms
Remote clock offset: -0.517 ms

# Below is generated by plot.py at 2018-07-12 02:04:49
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 228.05 Mbit/s
  95th percentile per-packet one-way delay: 57.217 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 228.05 Mbit/s
  95th percentile per-packet one-way delay: 57.217 ms
  Loss rate: 0.00%
Run 1: Report of Copa — Data Link

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

Flow 1 ingress (mean 228.07 Mbit/s) and Flow 1 egress (mean 228.05 Mbit/s) are plotted over time. There are significant variations in throughput and delay throughout the period shown.

Flow 1 (95th percentile 57.22 ms) indicates that 95% of the data packets had a delay of 57.22 milliseconds.
Run 2: Statistics of Copa

Start at: 2018-07-11 22:36:34
Local clock offset: -0.096 ms
Remote clock offset: -0.332 ms

# Below is generated by plot.py at 2018-07-12 02:04:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.90 Mbit/s
95th percentile per-packet one-way delay: 63.120 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 216.90 Mbit/s
95th percentile per-packet one-way delay: 63.120 ms
Loss rate: 0.02%
Run 2: Report of Copa — Data Link

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**Throughput vs Time**

- **Flow 1 ingress (mean 216.91 Mbit/s)**
- **Flow 1 egress (mean 216.90 Mbit/s)**

**Per-packet one-way delay vs Time**

- **Flow 1 (95th percentile 63.12 ms)**
Run 3: Statistics of Copa

Local clock offset: -0.068 ms
Remote clock offset: 0.042 ms

# Below is generated by plot.py at 2018-07-12 02:04:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.30 Mbit/s
95th percentile per-packet one-way delay: 63.278 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.30 Mbit/s
95th percentile per-packet one-way delay: 63.278 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link

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

- Flow 1 ingress (mean 223.31 Mbps)
- Flow 1 egress (mean 223.30 Mbps)

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

- Flow 1 (95th percentile 63.28 ms)
Run 4: Statistics of Copa

End at: 2018-07-11 23:21:01
Local clock offset: -0.014 ms
Remote clock offset: -1.365 ms

# Below is generated by plot.py at 2018-07-12 02:04:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 167.04 Mbit/s
95th percentile per-packet one-way delay: 55.783 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 167.04 Mbit/s
95th percentile per-packet one-way delay: 55.783 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

![Graph showing throughput and packet delay over time]

- **Throughput (Mbit/s)**
  - Flow 1 ingress (mean 167.03 Mbit/s)
  - Flow 1 egress (mean 167.04 Mbit/s)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 55.78 ms)
Run 5: Statistics of Copa

End at: 2018-07-11 23:43:09
Local clock offset: -0.131 ms
Remote clock offset: 0.173 ms

# Below is generated by plot.py at 2018-07-12 02:04:49
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 116.08 Mbit/s
  95th percentile per-packet one-way delay: 55.927 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 116.08 Mbit/s
  95th percentile per-packet one-way delay: 55.927 ms
  Loss rate: 0.00%
Run 5: Report of Copa — Data Link
Run 6: Statistics of Copa

Start at: 2018-07-12 00:04:38
End at: 2018-07-12 00:05:08
Local clock offset: 0.189 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2018-07-12 02:04:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.32 Mbit/s
95th percentile per-packet one-way delay: 63.148 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.32 Mbit/s
95th percentile per-packet one-way delay: 63.148 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link
Run 7: Statistics of Copa

Start at: 2018-07-12 00:26:37
End at: 2018-07-12 00:27:07
Local clock offset: ~0.039 ms
Remote clock offset: ~0.254 ms

# Below is generated by plot.py at 2018-07-12 02:04:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 140.56 Mbit/s
95th percentile per-packet one-way delay: 64.159 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 140.56 Mbit/s
95th percentile per-packet one-way delay: 64.159 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link

![Graph showing throughput and packet delay over time for two flows.](image1)

- **Flow 1 ingress** (mean 140.55 Mbit/s)
- **Flow 1 egress** (mean 140.56 Mbit/s)

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

- **Flow 1** (95th percentile 64.16 ms)
Run 8: Statistics of Copa

Start at: 2018-07-12 00:48:37
End at: 2018-07-12 00:49:07
Local clock offset: 0.01 ms
Remote clock offset: 1.321 ms

# Below is generated by plot.py at 2018-07-12 02:06:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 145.40 Mbit/s
95th percentile per-packet one-way delay: 69.762 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 145.40 Mbit/s
95th percentile per-packet one-way delay: 69.762 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link

[Graph showing throughput and packet delay over time]
Run 9: Statistics of Copa

Start at: 2018-07-12 01:10:20
End at: 2018-07-12 01:10:50
Local clock offset: -0.249 ms
Remote clock offset: -0.427 ms

# Below is generated by plot.py at 2018-07-12 02:06:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.87 Mbit/s
95th percentile per-packet one-way delay: 53.164 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 63.87 Mbit/s
95th percentile per-packet one-way delay: 53.164 ms
Loss rate: 0.01%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa

Start at: 2018-07-12 01:32:12
End at: 2018-07-12 01:32:42
Local clock offset: -0.205 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2018-07-12 02:07:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 184.58 Mbit/s
95th percentile per-packet one-way delay: 58.492 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 184.58 Mbit/s
95th percentile per-packet one-way delay: 58.492 ms
Loss rate: 0.01%
Run 10: Report of Copa — Data Link

![Graph showing throughput and delay over time for two data flows. The graph displays two lines, one representing the input (blue) and the other the output (red), with data points indicating fluctuations in throughput. Below, a bar graph illustrates the distribution of packet delay, showing spikes at specific time points. The legend indicates that Flow 1 has an ingress mean of 184.60 Mbit/s and an egress mean of 184.58 Mbit/s. Additionally, the 95th percentile delay for Flow 1 is 58.49 ms.]
Run 1: Statistics of TCP Cubic

End at: 2018-07-11 22:05:58
Local clock offset: -0.079 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-07-12 02:07:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.35 Mbit/s
95th percentile per-packet one-way delay: 59.591 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 215.35 Mbit/s
95th percentile per-packet one-way delay: 59.591 ms
Loss rate: 0.00%
Run 1: Report of TCP Cubic — Data Link

![Throughput Graph]

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 215.35 Mbit/s)  Flow 1 egress (mean 215.35 Mbit/s)

![Latency Graph]

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 59.59 ms)
Run 2: Statistics of TCP Cubic

Local clock offset: -0.066 ms
Remote clock offset: -1.287 ms

# Below is generated by plot.py at 2018-07-12 02:07:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.55 Mbit/s
95th percentile per-packet one-way delay: 58.561 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 221.55 Mbit/s
95th percentile per-packet one-way delay: 58.561 ms
Loss rate: 0.00%
Run 2: Report of TCP Cubic — Data Link

![Throughput graph](image1)

- **Flow 1 ingress** (mean 221.58 Mbit/s)
- **Flow 1 egress** (mean 221.55 Mbit/s)

![Delay graph](image2)

- **Flow 1** (95th percentile 58.56 ms)

47
Run 3: Statistics of TCP Cubic

Local clock offset: -0.173 ms
Remote clock offset: -0.201 ms

# Below is generated by plot.py at 2018-07-12 02:07:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 148.56 Mbit/s
95th percentile per-packet one-way delay: 58.106 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 148.56 Mbit/s
95th percentile per-packet one-way delay: 58.106 ms
Loss rate: 0.04%
Run 3: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 148.64 Mbit/s)
- Flow 1 egress (mean 148.56 Mbit/s)

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

- Flow 1 (95th percentile 58.11 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-07-11 23:10:46
End at: 2018-07-11 23:11:16
Local clock offset: -0.086 ms
Remote clock offset: 1.256 ms

# Below is generated by plot.py at 2018-07-12 02:08:09
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 185.61 Mbit/s
  95th percentile per-packet one-way delay: 61.463 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 185.61 Mbit/s
  95th percentile per-packet one-way delay: 61.463 ms
  Loss rate: 0.02%
Run 4: Report of TCP Cubic — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 185.64 Mbit/s)
- Flow 1 egress (mean 185.61 Mbit/s)

![Per-packet RTT Graph]

- Flow 1 (95th percentile 61.46 ms)
Run 5: Statistics of TCP Cubic

Local clock offset: 0.036 ms
Remote clock offset: -0.507 ms

# Below is generated by plot.py at 2018-07-12 02:08:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 174.96 Mbit/s
95th percentile per-packet one-way delay: 55.463 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 174.96 Mbit/s
95th percentile per-packet one-way delay: 55.463 ms
Loss rate: 0.00%
Run 6: Statistics of TCP Cubic

Local clock offset: ~0.115 ms
Remote clock offset: ~1.225 ms

# Below is generated by plot.py at 2018-07-12 02:08:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 156.45 Mbit/s
95th percentile per-packet one-way delay: 57.172 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 156.45 Mbit/s
95th percentile per-packet one-way delay: 57.172 ms
Loss rate: 0.05%
Run 6: Report of TCP Cubic — Data Link

![Graph of Throughput (Mbps)]

Flow 1 ingress (mean 156.53 Mbit/s) vs Flow 1 egress (mean 156.45 Mbit/s)

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

Flow 1 (95th percentile 57.17 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-07-12 00:16:49
End at: 2018-07-12 00:17:19
Local clock offset: -0.125 ms
Remote clock offset: 1.192 ms

# Below is generated by plot.py at 2018-07-12 02:08:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 158.74 Mbit/s
95th percentile per-packet one-way delay: 55.974 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 158.74 Mbit/s
95th percentile per-packet one-way delay: 55.974 ms
Loss rate: 0.00%
Run 7: Report of TCP Cubic — Data Link

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**Graph 1:**
- X-axis: Time (s)
- Y-axis: Throughput (Mbps)
- Legend: Flow 1 ingress (mean 158.70 Mbit/s) and Flow 1 egress (mean 158.74 Mbit/s)

**Graph 2:**
- X-axis: Time (s)
- Y-axis: Per-packet one-way delay (ms)
- Legend: Flow 1 (95th percentile 55.97 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-07-12 00:39:09
End at: 2018-07-12 00:39:39
Local clock offset: -0.02 ms
Remote clock offset: -0.257 ms

# Below is generated by plot.py at 2018-07-12 02:09:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 141.06 Mbit/s
95th percentile per-packet one-way delay: 58.013 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 141.06 Mbit/s
95th percentile per-packet one-way delay: 58.013 ms
Loss rate: 0.03%
Run 8: Report of TCP Cubic — Data Link

[Graph showing throughput and per-packet one-way delay over time.]
Run 9: Statistics of TCP Cubic

Start at: 2018-07-12 01:00:41
End at: 2018-07-12 01:01:11
Local clock offset: -0.039 ms
Remote clock offset: -0.418 ms

# Below is generated by plot.py at 2018-07-12 02:09:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 151.25 Mbit/s
95th percentile per-packet one-way delay: 59.155 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 151.25 Mbit/s
95th percentile per-packet one-way delay: 59.155 ms
Loss rate: 0.03%
Run 9: Report of TCP Cubic — Data Link

![Graph 1: Throughput vs. Time]

- Flow 1 ingress (mean 151.30 Mbit/s)
- Flow 1 egress (mean 151.23 Mbit/s)

![Graph 2: Packet Delay vs. Time]

- Flow 1 (95th percentile 59.16 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-07-12 01:22:32
End at: 2018-07-12 01:23:02
Local clock offset: -0.183 ms
Remote clock offset: -0.214 ms

# Below is generated by plot.py at 2018-07-12 02:09:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 156.51 Mbit/s
95th percentile per-packet one-way delay: 58.599 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 156.51 Mbit/s
95th percentile per-packet one-way delay: 58.599 ms
Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 156.51 Mbit/s)**
- **Flow 1 egress (mean 156.51 Mbit/s)**

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

- **Flow 1 (95th percentile 58.60 ms)**
Run 1: Statistics of FillP

Local clock offset: 0.001 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-07-12 02:25:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 824.00 Mbit/s
95th percentile per-packet one-way delay: 210.589 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 824.00 Mbit/s
95th percentile per-packet one-way delay: 210.589 ms
Loss rate: 1.33%
Run 1: Report of FillP — Data Link

![Graph of Throughput vs Time](image1)

- Flow 1 ingress (mean 835.03 Mbits/s)
- Flow 1 egress (mean 824.00 Mbits/s)

![Graph of Per-packet one-way delay vs Time](image2)

- Flow 1 (95th percentile 210.59 ms)
Run 2: Statistics of FillP

Local clock offset: -0.009 ms
Remote clock offset: -0.176 ms

# Below is generated by plot.py at 2018-07-12 02:26:20
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 907.19 Mbit/s
  95th percentile per-packet one-way delay: 176.380 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 907.19 Mbit/s
  95th percentile per-packet one-way delay: 176.380 ms
  Loss rate: 0.27%
Run 2: Report of FillP — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 Ingress (mean 909.67 Mbps)
- Flow 1 Egress (mean 907.19 Mbps)

Graph 2: Per Packet One Way Delay (ms)
- Flow 1 (95th percentile 176.38 ms)
Run 3: Statistics of FillP

Local clock offset: -0.001 ms
Remote clock offset: -0.187 ms

# Below is generated by plot.py at 2018-07-12 02:26:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 836.54 Mbit/s
95th percentile per-packet one-way delay: 229.108 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 836.54 Mbit/s
95th percentile per-packet one-way delay: 229.108 ms
Loss rate: 2.03%
Run 3: Report of FillP — Data Link

![Graph of Throughput vs Time](image1)

- **Flow 1 Ingress (mean 853.86 Mbit/s)**
- **Flow 1 Egress (mean 836.54 Mbit/s)**

![Graph of Per-packet End-to-End Delay vs Time](image2)

- **Flow 1 (95th percentile 229.11 ms)**
Run 4: Statistics of FillP

Start at: 2018-07-11 23:12:00
End at: 2018-07-11 23:12:30
Local clock offset: ~0.003 ms
Remote clock offset: ~0.138 ms

# Below is generated by plot.py at 2018-07-12 02:26:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 867.04 Mbit/s
95th percentile per-packet one-way delay: 193.074 ms
Loss rate: 2.76%
-- Flow 1:
Average throughput: 867.04 Mbit/s
95th percentile per-packet one-way delay: 193.074 ms
Loss rate: 2.76%
Run 4: Report of FillP — Data Link

![Graph 1: Throughput (Mb/s)](image1)

- Flow 1 ingress (mean 891.49 Mb/s)
- Flow 1 egress (mean 867.04 Mb/s)

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

- Flow 1 (95th percentile 193.07 ms)
Run 5: Statistics of FillP

Start at: 2018-07-11 23:34:06
End at: 2018-07-11 23:34:36
Local clock offset: 0.119 ms
Remote clock offset: -1.407 ms

# Below is generated by plot.py at 2018-07-12 02:26:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 817.99 Mbit/s
95th percentile per-packet one-way delay: 127.230 ms
Loss rate: 2.68%
-- Flow 1:
Average throughput: 817.99 Mbit/s
95th percentile per-packet one-way delay: 127.230 ms
Loss rate: 2.68%
Run 5: Report of FillP — Data Link

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

- Flow 1 ingress (mean 840.45 Mbps)
- Flow 1 egress (mean 817.99 Mbps)

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

- Flow 1 (95th percentile 127.23 ms)
Run 6: Statistics of FillP

End at: 2018-07-11 23:56:44
Local clock offset: ~0.057 ms
Remote clock offset: ~0.09 ms

# Below is generated by plot.py at 2018-07-12 02:26:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 811.63 Mbit/s
95th percentile per-packet one-way delay: 222.136 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 811.63 Mbit/s
95th percentile per-packet one-way delay: 222.136 ms
Loss rate: 0.85%
Run 6: Report of FillP — Data Link

![Graph showing throughput vs time]

- Flow 1 ingress (mean 818.59 Mb/s)
- Flow 1 egress (mean 811.63 Mb/s)

![Graph showing round-trip delay vs time]

- Flow 1 (95th percentile 222.14 ms)
Run 7: Statistics of FillP

Start at: 2018-07-12 00:18:01
End at: 2018-07-12 00:18:31
Local clock offset: 0.09 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-07-12 02:26:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 809.58 Mbit/s
95th percentile per-packet one-way delay: 208.115 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 809.58 Mbit/s
95th percentile per-packet one-way delay: 208.115 ms
Loss rate: 2.18%
Run 7: Report of FillP — Data Link

**Graph 1:**
- **Throughput (Mbps):**
- **Time (s):**
- **Flow 1 Ingress (mean 827.61 Mbps):**
- **Flow 1 Egress (mean 809.58 Mbps):**

**Graph 2:**
- **Per-packet one-way delay (ms):**
- **Flow 1 (95th percentile 208.12 ms):**
Run 8: Statistics of FillP

Start at: 2018-07-12 00:40:21
End at: 2018-07-12 00:40:51
Local clock offset: -0.172 ms
Remote clock offset: 1.168 ms

# Below is generated by plot.py at 2018-07-12 02:27:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 831.12 Mbit/s
95th percentile per-packet one-way delay: 229.622 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 831.12 Mbit/s
95th percentile per-packet one-way delay: 229.622 ms
Loss rate: 0.49%
Run 8: Report of FillP — Data Link
Run 9: Statistics of FillP

Start at: 2018-07-12 01:01:54
End at: 2018-07-12 01:02:24
Local clock offset: -0.161 ms
Remote clock offset: 1.153 ms

# Below is generated by plot.py at 2018-07-12 02:40:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 773.69 Mbit/s
95th percentile per-packet one-way delay: 256.495 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 773.69 Mbit/s
95th percentile per-packet one-way delay: 256.495 ms
Loss rate: 2.44%
Run 9: Report of FillP — Data Link
Run 10: Statistics of FillP

Start at: 2018-07-12 01:23:45
End at: 2018-07-12 01:24:15
Local clock offset: -0.031 ms
Remote clock offset: -1.59 ms

# Below is generated by plot.py at 2018-07-12 02:41:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 814.24 Mbit/s
95th percentile per-packet one-way delay: 200.622 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 814.24 Mbit/s
95th percentile per-packet one-way delay: 200.622 ms
Loss rate: 1.84%
Run 10: Report of FillP — Data Link
Run 1: Statistics of FillP-Sheep

End at: 2018-07-11 22:11:42
Local clock offset: -0.321 ms
Remote clock offset: -0.268 ms

# Below is generated by plot.py at 2018-07-12 02:41:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 324.35 Mbit/s
95th percentile per-packet one-way delay: 264.325 ms
Loss rate: 4.47%
-- Flow 1:
Average throughput: 324.35 Mbit/s
95th percentile per-packet one-way delay: 264.325 ms
Loss rate: 4.47%
Run 1: Report of FillP-Sheep — Data Link

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

- **Flow 1 ingress (mean 339.51 Mbits)**
- **Flow 1 egress (mean 324.35 Mbits)**

![Graph 2: Round-trip delay vs Time](image)

- **Flow 1 (95th percentile 264.32 ms)**
Run 2: Statistics of FillP-Sheep

Local clock offset: -0.09 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-07-12 02:41:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 544.21 Mbit/s
95th percentile per-packet one-way delay: 257.038 ms
Loss rate: 3.30%
-- Flow 1:
Average throughput: 544.21 Mbit/s
95th percentile per-packet one-way delay: 257.038 ms
Loss rate: 3.30%
Run 2: Report of FillP-Sheep — Data Link

![Graphs showing throughput and per-packet one-way delay](image_url)

- Throughput (Mbps)
  - Flow 1 ingress (mean 562.76 Mbps)
  - Flow 1 egress (mean 544.21 Mbps)

- Per-packet one-way delay (ms)
  - Flow 1 (95th percentile 257.04 ms)
Run 3: Statistics of FillP-Sheep

Local clock offset: -0.183 ms
Remote clock offset: 0.158 ms

# Below is generated by plot.py at 2018-07-12 02:43:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 861.79 Mbit/s
95th percentile per-packet one-way delay: 246.289 ms
Loss rate: 3.33%
-- Flow 1:
Average throughput: 861.79 Mbit/s
95th percentile per-packet one-way delay: 246.289 ms
Loss rate: 3.33%
Run 3: Report of FillP-Sheep — Data Link
Run 4: Statistics of FillP-Sheep

End at: 2018-07-11 23:16:54
Local clock offset: 0.098 ms
Remote clock offset: 1.107 ms

# Below is generated by plot.py at 2018-07-12 02:43:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 833.61 Mbit/s
95th percentile per-packet one-way delay: 241.528 ms
Loss rate: 4.99%
-- Flow 1:
Average throughput: 833.61 Mbit/s
95th percentile per-packet one-way delay: 241.528 ms
Loss rate: 4.99%
Run 4: Report of FillP-Sheep — Data Link
Run 5: Statistics of FillP-Sheep

End at: 2018-07-11 23:39:01
Local clock offset: -0.014 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-07-12 02:43:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 847.05 Mbit/s
95th percentile per-packet one-way delay: 239.329 ms
Loss rate: 5.32%
-- Flow 1:
Average throughput: 847.05 Mbit/s
95th percentile per-packet one-way delay: 239.329 ms
Loss rate: 5.32%
Run 5: Report of FillP-Sheep — Data Link

![Througput Graph](image1)

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

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93
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-12 00:00:42
End at: 2018-07-12 00:01:12
Local clock offset: -0.001 ms
Remote clock offset: 0.034 ms

# Below is generated by plot.py at 2018-07-12 02:43:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 631.68 Mbit/s
95th percentile per-packet one-way delay: 237.836 ms
Loss rate: 4.54%
-- Flow 1:
Average throughput: 631.68 Mbit/s
95th percentile per-packet one-way delay: 237.836 ms
Loss rate: 4.54%
Run 6: Report of FillP-Sheep — Data Link

![Graph showing throughput and per-packet one-way delay over time for Flow 1.]
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-12 00:22:31
End at: 2018-07-12 00:23:01
Local clock offset: -0.046 ms
Remote clock offset: 0.175 ms

# Below is generated by plot.py at 2018-07-12 02:50:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 802.78 Mbit/s
95th percentile per-packet one-way delay: 243.083 ms
Loss rate: 5.24%
-- Flow 1:
Average throughput: 802.78 Mbit/s
95th percentile per-packet one-way delay: 243.083 ms
Loss rate: 5.24%
Run 7: Report of FillP-Sheep — Data Link
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-12 00:44:50
End at: 2018-07-12 00:45:20
Local clock offset: 0.002 ms
Remote clock offset: -1.341 ms

# Below is generated by plot.py at 2018-07-12 02:50:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 315.60 Mbit/s
95th percentile per-packet one-way delay: 261.840 ms
Loss rate: 1.05%

-- Flow 1:
Average throughput: 315.60 Mbit/s
95th percentile per-packet one-way delay: 261.840 ms
Loss rate: 1.05%
Run 8: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 318.94 Mbps)
- Flow 1 egress (mean 315.60 Mbps)

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

- Flow 1 (95th percentile 261.84 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-12 01:06:20
End at: 2018-07-12 01:06:50
Local clock offset: -0.285 ms
Remote clock offset: -0.459 ms

# Below is generated by plot.py at 2018-07-12 02:54:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 652.39 Mbit/s
95th percentile per-packet one-way delay: 225.430 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 652.39 Mbit/s
95th percentile per-packet one-way delay: 225.430 ms
Loss rate: 1.99%
Run 9: Report of FillP-Sheep — Data Link
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-12 01:28:10
End at: 2018-07-12 01:28:40
Local clock offset: 0.247 ms
Remote clock offset: 1.26 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 832.44 Mbit/s
95th percentile per-packet one-way delay: 163.839 ms
Loss rate: 6.34%
-- Flow 1:
Average throughput: 832.44 Mbit/s
95th percentile per-packet one-way delay: 163.839 ms
Loss rate: 6.34%
Run 10: Report of FillP-Sheep — Data Link

![Graph of Throughput and Per-Socket One-Way Delay](image_url)

Legend:
- Flow 1 ingress (mean 888.81 Mbps)
- Flow 1 egress (mean 832.44 Mbps)

Flow 1 (95th percentile 163.84 ms)
Run 1: Statistics of Indigo

Local clock offset: -0.098 ms
Remote clock offset: -0.3 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
  -- Total of 1 flow:
  Average throughput: 180.83 Mbit/s
  95th percentile per-packet one-way delay: 53.363 ms
  Loss rate: 0.01%
  -- Flow 1:
  Average throughput: 180.83 Mbit/s
  95th percentile per-packet one-way delay: 53.363 ms
  Loss rate: 0.01%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

Start at: 2018-07-11 22:34:08
End at: 2018-07-11 22:34:38
Local clock offset: -0.042 ms
Remote clock offset: -0.449 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 186.45 Mbit/s
95th percentile per-packet one-way delay: 52.824 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 186.45 Mbit/s
95th percentile per-packet one-way delay: 52.824 ms
Loss rate: 0.00%
Run 2: Report of Indigo — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 186.45 Mbit/s)**
- **Flow 1 egress (mean 186.45 Mbit/s)**

![Graph 2: Per-packet round-trip delay (ms)]

- **Flow 1 (95th percentile 52.82 ms)**
Run 3: Statistics of Indigo

End at: 2018-07-11 22:56:45
Local clock offset: -0.158 ms
Remote clock offset: -1.172 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.33 Mbit/s
95th percentile per-packet one-way delay: 52.716 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.33 Mbit/s
95th percentile per-packet one-way delay: 52.716 ms
Loss rate: 0.00%
Run 3: Report of Indigo — Data Link

![Graph showing throughput over time](image1)

- **Flow 1 ingress (mean 228.32 Mbit/s)**
- **Flow 1 egress (mean 228.33 Mbit/s)**

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

- **Flow 1 (95th percentile 52.72 ms)**
Run 4: Statistics of Indigo

Start at: 2018-07-11 23:18:03
End at: 2018-07-11 23:18:33
Local clock offset: -0.045 ms
Remote clock offset: 0.157 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.76 Mbit/s
95th percentile per-packet one-way delay: 53.850 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 218.76 Mbit/s
95th percentile per-packet one-way delay: 53.850 ms
Loss rate: 0.01%
Run 4: Report of Indigo — Data Link

![Throughput Graph](image)

- **Flow 1 ingress (mean 218.78 Mbit/s)**
- **Flow 1 egress (mean 218.76 Mbit/s)**

![Packet Delivery Graph](image)

- **Flow 1 (95th percentile 53.85 ms)**
Run 5: Statistics of Indigo

End at: 2018-07-11 23:40:41
Local clock offset: -0.204 ms
Remote clock offset: 0.097 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.66 Mbit/s
95th percentile per-packet one-way delay: 53.957 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.66 Mbit/s
95th percentile per-packet one-way delay: 53.957 ms
Loss rate: 0.00%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Start at: 2018-07-12 00:02:13
End at: 2018-07-12 00:02:43
Local clock offset: -0.114 ms
Remote clock offset: -0.258 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.21 Mbit/s
95th percentile per-packet one-way delay: 53.574 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.21 Mbit/s
95th percentile per-packet one-way delay: 53.574 ms
Loss rate: 0.00%
Run 7: Statistics of Indigo

Start at: 2018-07-12 00:24:09
End at: 2018-07-12 00:24:39
Local clock offset: 0.064 ms
Remote clock offset: 0.075 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.69 Mbit/s
95th percentile per-packet one-way delay: 53.726 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 223.69 Mbit/s
95th percentile per-packet one-way delay: 53.726 ms
Loss rate: 0.01%
Run 7: Report of Indigo — Data Link
Run 8: Statistics of Indigo

Start at: 2018-07-12 00:46:09
End at: 2018-07-12 00:46:39
Local clock offset: -0.094 ms
Remote clock offset: -0.318 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 219.78 Mbit/s
  95th percentile per-packet one-way delay: 53.430 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 219.78 Mbit/s
  95th percentile per-packet one-way delay: 53.430 ms
  Loss rate: 0.01%
Run 8: Report of Indigo — Data Link

![Graph showing data link throughput over time]

- **Flow 1 ingress (mean 219.81 Mbit/s)**
- **Flow 1 egress (mean 219.78 Mbit/s)**

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

- **Flow 1 (95th percentile 53.43 ms)**
Run 9: Statistics of Indigo

Start at: 2018-07-12 01:07:52
End at: 2018-07-12 01:08:22
Local clock offset: 0.074 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.08 Mbit/s
95th percentile per-packet one-way delay: 50.537 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 229.08 Mbit/s
95th percentile per-packet one-way delay: 50.537 ms
Loss rate: 0.00%
Run 9: Report of Indigo — Data Link
Run 10: Statistics of Indigo

Start at: 2018-07-12 01:29:49
End at: 2018-07-12 01:30:19
Local clock offset: -0.171 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.91 Mbit/s
95th percentile per-packet one-way delay: 53.544 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 202.91 Mbit/s
95th percentile per-packet one-way delay: 53.544 ms
Loss rate: 0.01%
Run 10: Report of Indigo — Data Link

[Graph showing throughput over time with two lines indicating Flow 1 ingress and egress with mean 202.93 Mbit/s and 202.91 Mbit/s respectively]

[Graph showing one-way packet delay over time with one line indicating Flow 1 (95th percentile 53.54 ms)]
Run 1: Statistics of LEDBAT

Start at: 2018-07-11 22:17:34
Local clock offset: -0.118 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.07 Mbit/s
95th percentile per-packet one-way delay: 54.509 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.07 Mbit/s
95th percentile per-packet one-way delay: 54.509 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one way delay (ms)]
Run 2: Statistics of LEDBAT

Local clock offset: -0.136 ms
Remote clock offset: -0.243 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 54.904 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 54.904 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-07-11 23:01:28
End at: 2018-07-11 23:01:58
Local clock offset: -0.122 ms
Remote clock offset: -1.384 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 23.06 Mbit/s
95th percentile per-packet one-way delay: 53.554 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.06 Mbit/s
95th percentile per-packet one-way delay: 53.554 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Local clock offset: 0.15 ms
Remote clock offset: -0.286 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.27 Mbit/s
95th percentile per-packet one-way delay: 54.118 ms
Loss rate: 0.00%
-- Flow 1:
  Average throughput: 33.27 Mbit/s
  95th percentile per-packet one-way delay: 54.118 ms
  Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-07-11 23:45:26
End at: 2018-07-11 23:45:56
Local clock offset: -0.045 ms
Remote clock offset: 1.321 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 31.88 Mbit/s
  95th percentile per-packet one-way delay: 53.265 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 31.88 Mbit/s
  95th percentile per-packet one-way delay: 53.265 ms
  Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

![Graph showing throughput over time](image1)

*Flow 1 ingress (mean 31.88 Mbit/s)  Flow 1 egress (mean 31.88 Mbit/s)*

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

*Flow 1 (95th percentile 53.27 ms)*
Run 6: Statistics of LEDBAT

Start at: 2018-07-12 00:07:16
End at: 2018-07-12 00:07:46
Local clock offset: -0.173 ms
Remote clock offset: -1.496 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 33.01 Mbit/s
  95th percentile per-packet one-way delay: 53.468 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 33.01 Mbit/s
  95th percentile per-packet one-way delay: 53.468 ms
  Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link

---

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

- Flow 1 ingress (mean 33.01 Mbit/s)
- Flow 1 egress (mean 33.01 Mbit/s)

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

- Flow 1 (95th percentile 53.47 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-07-12 00:29:29
End at: 2018-07-12 00:29:59
Local clock offset: -0.256 ms
Remote clock offset: 1.198 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.09 Mbit/s
95th percentile per-packet one-way delay: 56.255 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 32.09 Mbit/s
95th percentile per-packet one-way delay: 56.255 ms
Loss rate: 0.13%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-07-12 00:51:24
End at: 2018-07-12 00:51:54
Local clock offset: -0.028 ms
Remote clock offset: 0.075 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.60 Mbit/s
95th percentile per-packet one-way delay: 54.661 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.60 Mbit/s
95th percentile per-packet one-way delay: 54.661 ms
Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-07-12 01:12:52
End at: 2018-07-12 01:13:22
Local clock offset: 0.029 ms
Remote clock offset: 1.26 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 56.014 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 56.014 ms
Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**:
  - Flow 1 ingress (mean 31.31 Mbps)
  - Flow 1 egress (mean 31.30 Mbps)

- **Packet Delay (ms)**:
  - Flow 1 95th percentile 56.01 ms
Run 10: Statistics of LEDBAT

Start at: 2018-07-12 01:34:50
End at: 2018-07-12 01:35:20
Local clock offset: -0.124 ms
Remote clock offset: -0.238 ms

# Below is generated by plot.py at 2018-07-12 02:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 54.483 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 54.483 ms
Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC-Allegro

Local clock offset: -0.15 ms
Remote clock offset: 1.339 ms

# Below is generated by plot.py at 2018-07-12 03:00:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 544.91 Mbit/s
95th percentile per-packet one-way delay: 215.392 ms
Loss rate: 6.42%
-- Flow 1:
Average throughput: 544.91 Mbit/s
95th percentile per-packet one-way delay: 215.392 ms
Loss rate: 6.42%
Run 1: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 582.80 Mbit/s)
- Flow 1 egress (mean 544.91 Mbit/s)

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

Flow 1 (95th percentile 215.39 ms)
Run 2: Statistics of PCC-Allegro

End at: 2018-07-11 22:45:27
Local clock offset: 0.051 ms
Remote clock offset: -1.223 ms

# Below is generated by plot.py at 2018-07-12 03:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 550.28 Mbit/s
95th percentile per-packet one-way delay: 174.438 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 550.28 Mbit/s
95th percentile per-packet one-way delay: 174.438 ms
Loss rate: 0.59%
Run 2: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 553.54 Mbps)
- Flow 1 egress (mean 550.28 Mbps)

![Graph 2: RTT (ms) vs Time (s)]

- Flow 1 (95th percentile 174.44 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-11 23:07:11
End at: 2018-07-11 23:07:41
Local clock offset: -0.177 ms
Remote clock offset: -0.245 ms

# Below is generated by plot.py at 2018-07-12 03:00:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 530.53 Mbit/s
95th percentile per-packet one-way delay: 97.190 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 530.53 Mbit/s
95th percentile per-packet one-way delay: 97.190 ms
Loss rate: 0.01%
Run 3: Report of PCC-Allegro — Data Link

![Graph showing throughput over time for Flow 1 ingress and egress with mean values]

![Graph showing per packet one-way delay for Flow 1 with 95th percentile value]

149
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-11 23:29:03
End at: 2018-07-11 23:29:33
Local clock offset: 0.031 ms
Remote clock offset: 1.279 ms

# Below is generated by plot.py at 2018-07-12 03:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 551.98 Mbit/s
95th percentile per-packet one-way delay: 78.689 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 551.98 Mbit/s
95th percentile per-packet one-way delay: 78.689 ms
Loss rate: 0.29%
Run 4: Report of PCC-Allegro — Data Link
Run 5: Statistics of PCC-Allegro

Local clock offset: -0.102 ms  
Remote clock offset: 0.179 ms  

# Below is generated by plot.py at 2018-07-12 03:01:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 539.24 Mbit/s  
95th percentile per-packet one-way delay: 85.394 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 539.24 Mbit/s  
95th percentile per-packet one-way delay: 85.394 ms  
Loss rate: 0.31%
Run 5: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 540.84 Mbit/s)**
- **Flow 1 egress (mean 539.24 Mbit/s)**

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

- **Flow 1 (95th percentile 85.39 ms)**
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-12 00:13:01
End at: 2018-07-12 00:13:31
Local clock offset: 0.12 ms
Remote clock offset: 1.129 ms

# Below is generated by plot.py at 2018-07-12 03:01:04
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 536.34 Mbit/s
  95th percentile per-packet one-way delay: 200.143 ms
  Loss rate: 0.80%
-- Flow 1:
  Average throughput: 536.34 Mbit/s
  95th percentile per-packet one-way delay: 200.143 ms
  Loss rate: 0.80%
Run 6: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 540.61 Mbit/s)
- Flow 1 egress (mean 536.34 Mbit/s)

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

- Flow 1 (95th percentile 200.14 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-12 00:35:12
End at: 2018-07-12 00:35:42
Local clock offset: -0.031 ms
Remote clock offset: -0.304 ms

# Below is generated by plot.py at 2018-07-12 03:04:32
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 568.86 Mbit/s
  95th percentile per-packet one-way delay: 179.852 ms
  Loss rate: 1.22%
-- Flow 1:
  Average throughput: 568.86 Mbit/s
  95th percentile per-packet one-way delay: 179.852 ms
  Loss rate: 1.22%
Run 7: Report of PCC-Allegro — Data Link

[Graph 1: Throughput vs Time with two lines indicating Flow 1 ingress (mean 575.87 Mbit/s) and Flow 1 egress (mean 568.86 Mbit/s).]

[Graph 2: Per packet one-way delay vs Time with a line indicating Flow 1 (99th percentile 179.85 ms).]
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-12 00:57:07
End at: 2018-07-12 00:57:37
Local clock offset: 0.145 ms
Remote clock offset: 0.172 ms

# Below is generated by plot.py at 2018-07-12 03:07:51
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 483.59 Mbit/s
  95th percentile per-packet one-way delay: 211.201 ms
  Loss rate: 3.71%
-- Flow 1:
  Average throughput: 483.59 Mbit/s
  95th percentile per-packet one-way delay: 211.201 ms
  Loss rate: 3.71%
Run 8: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 502.69 Mbps)
- Flow 1 egress (mean 483.59 Mbps)

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

- Flow 1 (95th percentile 211.20 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-12 01:18:36  
End at: 2018-07-12 01:19:07  
Local clock offset: -0.09 ms  
Remote clock offset: -0.401 ms

# Below is generated by plot.py at 2018-07-12 03:09:33  
# Datalink statistics

-- Total of 1 flow:
Average throughput: 548.99 Mbit/s
95th percentile per-packet one-way delay: 184.991 ms
Loss rate: 0.95%

-- Flow 1:
Average throughput: 548.99 Mbit/s
95th percentile per-packet one-way delay: 184.991 ms
Loss rate: 0.95%
Run 9: Report of PCC-Allegro — Data Link

Throughput (Mbps)

Flow 1 ingress (mean 554.90 Mbit/s)  Flow 1 egress (mean 548.99 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 184.99 ms)
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-12 01:40:35
End at: 2018-07-12 01:41:05
Local clock offset: -0.018 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2018-07-12 03:09:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 322.64 Mbit/s
95th percentile per-packet one-way delay: 53.426 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 322.64 Mbit/s
95th percentile per-packet one-way delay: 53.426 ms
Loss rate: 0.00%
Run 10: Report of PCC-Allegro — Data Link

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

- **Flow 1 ingress** (mean 322.64 Mbit/s)
- **Flow 1 egress** (mean 322.64 Mbit/s)

- **Flow 1** (95th percentile 53.43 ms)
Run 1: Statistics of PCC-Expr

Local clock offset: -0.061 ms
Remote clock offset: -1.365 ms

# Below is generated by plot.py at 2018-07-12 03:09:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 133.90 Mbit/s
95th percentile per-packet one-way delay: 52.392 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 133.90 Mbit/s
95th percentile per-packet one-way delay: 52.392 ms
Loss rate: 0.01%
Run 1: Report of PCC-Expr — Data Link

The graphs show the throughput and packet one-way delay for Flow 1 over time. The throughput (upper graph) demonstrates initial spikes and steady increases, peaking and then stabilizing. The packet delay (lower graph) exhibits variability over time, with sharp peaks indicating moments of high delay. The graphs provide insights into the performance characteristics of the data link under test.
Run 2: Statistics of PCC-Expr

Local clock offset: -0.142 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2018-07-12 03:09:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 137.62 Mbit/s
95th percentile per-packet one-way delay: 53.151 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 137.62 Mbit/s
95th percentile per-packet one-way delay: 53.151 ms
Loss rate: 0.00%
Run 2: Report of PCC-Expr — Data Link
Run 3: Statistics of PCC-Expr

Start at: 2018-07-11 23:00:07
End at: 2018-07-11 23:00:37
Local clock offset: 0.095 ms
Remote clock offset: -1.336 ms

# Below is generated by plot.py at 2018-07-12 03:09:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.31 Mbit/s
95th percentile per-packet one-way delay: 72.538 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 192.31 Mbit/s
95th percentile per-packet one-way delay: 72.538 ms
Loss rate: 0.01%
Run 3: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress** (mean 192.34 Mbit/s)
- **Flow 1 egress** (mean 192.31 Mbit/s)

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

- **Flow 1** (95th percentile 72.54 ms)
Run 4: Statistics of PCC-Expr

Local clock offset: -0.076 ms
Remote clock offset: -1.282 ms

# Below is generated by plot.py at 2018-07-12 03:09:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 272.74 Mbit/s
95th percentile per-packet one-way delay: 52.228 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 272.74 Mbit/s
95th percentile per-packet one-way delay: 52.228 ms
Loss rate: 0.07%
Run 4: Report of PCC-Expr — Data Link

![Graph of throughput and delay over time for two flows.](image)

- Flow 1 ingress (mean 272.90 Mbit/s)
- Flow 1 egress (mean 272.74 Mbit/s)

![Graph of 99th percentile delay for Flow 1 over time.](image)

- Flow 1 (99th percentile 52.23 ms)
Run 5: Statistics of PCC-Expr

End at: 2018-07-11 23:44:24
Local clock offset: -0.098 ms
Remote clock offset: -1.551 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 379.65 Mbit/s
95th percentile per-packet one-way delay: 132.358 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 379.65 Mbit/s
95th percentile per-packet one-way delay: 132.358 ms
Loss rate: 0.22%
Run 5: Report of PCC-Expr — Data Link
Run 6: Statistics of PCC-Expr

Start at: 2018-07-12 00:05:49
End at: 2018-07-12 00:06:19
Local clock offset: -0.119 ms
Remote clock offset: -0.239 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 324.50 Mbit/s
95th percentile per-packet one-way delay: 213.575 ms
Loss rate: 4.14%
-- Flow 1:
Average throughput: 324.50 Mbit/s
95th percentile per-packet one-way delay: 213.575 ms
Loss rate: 4.14%
Run 6: Report of PCC-Expr — Data Link

---

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

**Flow 1 ingress (mean 339.86 Mbit/s) — Flow 1 egress (mean 324.50 Mbit/s)**

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

*Flow 1 (95th percentile 213.57 ms)*

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175
Run 7: Statistics of PCC-Expr

Start at: 2018-07-12 00:27:54
End at: 2018-07-12 00:28:24
Local clock offset: -0.01 ms
Remote clock offset: 1.091 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 351.58 Mbit/s
95th percentile per-packet one-way delay: 61.103 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 351.58 Mbit/s
95th percentile per-packet one-way delay: 61.103 ms
Loss rate: 0.01%
Run 7: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 351.58 Mbps)
- Flow 1 egress (mean 351.58 Mbps)

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

- Flow 1 (95th percentile 61.10 ms)
Run 8: Statistics of PCC-Expr

Start at: 2018-07-12 00:49:55
End at: 2018-07-12 00:50:25
Local clock offset: -0.051 ms
Remote clock offset: -0.297 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 325.16 Mbit/s
95th percentile per-packet one-way delay: 69.706 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 325.16 Mbit/s
95th percentile per-packet one-way delay: 69.706 ms
Loss rate: 0.09%
Run 8: Report of PCC-Expr — Data Link

![Graph showing throughput and packet delay over time]

- **Throughput (Mbps)**: The graph illustrates the throughput over time, with two lines indicating different flows (ingress and egress) and their respective mean rates.
- **Packet Delay (ms)**: The lower graph shows the variation in packet delay over time, highlighting spikes that indicate periods of high delay.

**Legend:**
- Flow 1 ingress (mean 325.44 Mbps)
- Flow 1 egress (mean 325.16 Mbps)
- Flow 1 (95th percentile 69.71 ms)
Run 9: Statistics of PCC-Expr

Start at: 2018-07-12 01:11:30  
End at: 2018-07-12 01:12:00  
Local clock offset: 0.112 ms  
Remote clock offset: -0.123 ms

# Below is generated by plot.py at 2018-07-12 03:17:21  
# Datalink statistics
   -- Total of 1 flow:
      Average throughput: 222.67 Mbit/s
      95th percentile per-packet one-way delay: 53.936 ms
      Loss rate: 0.01%
   -- Flow 1:
      Average throughput: 222.67 Mbit/s
      95th percentile per-packet one-way delay: 53.936 ms
      Loss rate: 0.01%
Run 9: Report of PCC-Expr — Data Link
Run 10: Statistics of PCC-Expr

Start at: 2018-07-12 01:33:33
End at: 2018-07-12 01:34:03
Local clock offset: -0.239 ms
Remote clock offset: -0.207 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 132.40 Mbit/s
95th percentile per-packet one-way delay: 53.325 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 132.40 Mbit/s
95th percentile per-packet one-way delay: 53.325 ms
Loss rate: 0.00%
Run 10: Report of PCC-Expr — Data Link

![Graph showing network performance metrics over time.]

Legend:
- Flow 1 ingress (mean 132.40 Mbit/s)
- Flow 1 egress (mean 132.40 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 53.33 ms)
Run 1: Statistics of QUIC Cubic

Local clock offset: -0.104 ms
Remote clock offset: -1.463 ms
Run 1: Report of QUIC Cubic — Data Link

![Graph 1] (Throughput vs. Time)

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

185
Run 2: Statistics of QUIC Cubic

Local clock offset: -0.197 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.00 Mbit/s
95th percentile per-packet one-way delay: 50.733 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.00 Mbit/s
95th percentile per-packet one-way delay: 50.733 ms
Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Local clock offset: 0.043 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.51 Mbit/s
95th percentile per-packet one-way delay: 53.581 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 68.51 Mbit/s
95th percentile per-packet one-way delay: 53.581 ms
Loss rate: 0.01%
Run 3: Report of QUIC Cubic — Data Link

![Graph 1: Throughput vs. Time]

- Flow 1 ingress (mean 68.52 Mbit/s)
- Flow 1 egress (mean 68.51 Mbit/s)

![Graph 2: Packet Loss vs. Time]

- Flow 1 (95th percentile 53.58 ms)
Run 4: Statistics of QUIC Cubic

End at: 2018-07-11 23:19:52
Local clock offset: -0.158 ms
Remote clock offset: 1.203 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.64 Mbit/s
95th percentile per-packet one-way delay: 54.920 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.64 Mbit/s
95th percentile per-packet one-way delay: 54.920 ms
Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 72.64 Mbit/s)
  - Flow 1 egress (mean 72.64 Mbit/s)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 54.92 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-11 23:41:30
End at: 2018-07-11 23:42:00
Local clock offset: -0.372 ms
Remote clock offset: 0.174 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.44 Mbit/s
95th percentile per-packet one-way delay: 54.184 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 70.44 Mbit/s
95th percentile per-packet one-way delay: 54.184 ms
Loss rate: 0.01%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-12 00:03:32
End at: 2018-07-12 00:04:02
Local clock offset: -0.081 ms
Remote clock offset: -0.097 ms
Run 6: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet loss over time]

- **Throughput**: Mean 0.06 Mbit/s
- **Packet Loss**: 50.46 ms (95th percentile)

195
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-12 00:25:28
End at: 2018-07-12 00:25:58
Local clock offset: -0.041 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.14 Mbit/s
95th percentile per-packet one-way delay: 53.602 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 70.14 Mbit/s
95th percentile per-packet one-way delay: 53.602 ms
Loss rate: 0.01%
Run 7: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet one-way delay over time for Flow 1 with ingress and egress rates of 70.14 Mbit/s](image)

Flow 1 ingress (mean 70.14 Mbit/s)  
Flow 1 egress (mean 70.14 Mbit/s)
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-12 00:47:28
End at: 2018-07-12 00:47:58
Local clock offset: 0.106 ms
Remote clock offset: -0.306 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.13 Mbit/s
95th percentile per-packet one-way delay: 49.902 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.13 Mbit/s
95th percentile per-packet one-way delay: 49.902 ms
Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress (mean 68.13 Mbit/s)**
- **Flow 1 egress (mean 68.13 Mbit/s)**

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

- **Flow 1 (95th percentile 49.90 ms)**
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-12 01:09:11
End at: 2018-07-12 01:09:41
Local clock offset: -0.162 ms
Remote clock offset: 1.012 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.05 Mbit/s
95th percentile per-packet one-way delay: 54.789 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 62.05 Mbit/s
95th percentile per-packet one-way delay: 54.789 ms
Loss rate: 0.01%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-12 01:31:06
End at: 2018-07-12 01:31:36
Local clock offset: 0.001 ms
Remote clock offset: 0.071 ms
Run 10: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 0.06 Mbit/s)
- Flow 1 egress (mean 0.06 Mbit/s)

![Graph 2: Per-Circuit One-Way Delay vs Time](image2)

- Flow 1 (95th percentile 50.74 ms)
Run 1: Statistics of SCReAM

Local clock offset: -0.074 ms
Remote clock offset: 1.226 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 55.233 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 55.233 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Local clock offset: -0.061 ms
Remote clock offset: 1.284 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.686 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.686 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-07-11 23:08:34
End at: 2018-07-11 23:09:04
Local clock offset: -0.011 ms
Remote clock offset: -1.575 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.209 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.209 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

![Graph of network traffic and delay]

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

- **Per packet one-way delay (ms)**
  - Flow 1 (95th percentile 52.21 ms)
Run 4: Statistics of SCReAM

Start at: 2018-07-11 23:30:27
End at: 2018-07-11 23:30:57
Local clock offset: -0.204 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.866 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.866 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2018-07-11 23:52:34  
Local clock offset: -0.132 ms  
Remote clock offset: -0.3 ms

# Below is generated by plot.py at 2018-07-12 03:17:21  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 50.628 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 50.628 ms  
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

![Graph showing throughput and packet delay over time for Flow 1 and Flow 2. The throughput graph displays peaks and troughs throughout the 30-second interval. The packet delay graph shows a slight increase in delay towards the end of the interval.](image-url)
Run 6: Statistics of SCReAM

Start at: 2018-07-12 00:14:24
End at: 2018-07-12 00:14:54
Local clock offset: 0.041 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.800 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.800 ms
Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

![Graph of data link performance metrics over time.](chart1)

**Throughput (Mbps)**

**Time (s)**

- **Flow 1 ingress (mean 0.21 Mbps)**
- **Flow 1 egress (mean 0.21 Mbps)**

![Graph of packet delay distribution over time.](chart2)

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

**Time (s)**

- **Flow 1 (95th percentile 53.80 ms)**
Run 7: Statistics of SCReAM

Start at: 2018-07-12 00:36:37
End at: 2018-07-12 00:37:07
Local clock offset: 0.023 ms
Remote clock offset: 0.905 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics

-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.880 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.880 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-07-12 00:58:29
End at: 2018-07-12 00:58:59
Local clock offset: 0.083 ms
Remote clock offset: -1.449 ms

# Below is generated by plot.py at 2018-07-12 03:17:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.938 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.938 ms
Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

![Graph of network traffic over time]

- **Throughput (Mbps)**
  - X-axis: Time (s)
  - Y-axis: Throughput (Mbps)

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

![Graph of packet delay over time]

- **Packet delay (ms)**
  - X-axis: Time (s)
  - Y-axis: Packet delay (ms)

  - Flow 1 (95th percentile 51.94 ms)
Run 9: Statistics of SCReAM

Start at: 2018-07-12 01:20:00
End at: 2018-07-12 01:20:31
Local clock offset: 0.195 ms
Remote clock offset: 0.057 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.699 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.699 ms
Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-07-12 01:41:52
End at: 2018-07-12 01:42:22
Local clock offset: 0.006 ms
Remote clock offset: -1.562 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 52.058 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 52.058 ms
Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

![Graph showing network performance metrics](image)

- **Throughput (Mbps)**
- **Time (s)**

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

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

---

![Graph showing packet delay](image)

- **Packet delay (ms)**
- **Time (s)**

**Flow 1 (95th percentile 52.06 ms)**
Run 1: Statistics of Sprout

Local clock offset: 0.179 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 54.248 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 54.248 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Local clock offset: -0.113 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 7.41 Mbit/s
  95th percentile per-packet one-way delay: 54.449 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.41 Mbit/s
  95th percentile per-packet one-way delay: 54.449 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-07-11 23:06:04
End at: 2018-07-11 23:06:34
Local clock offset: 0.069 ms
Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 54.429 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 54.429 ms
Loss rate: 0.00%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Local clock offset: -0.131 ms
Remote clock offset: 1.258 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 7.56 Mbit/s
  95th percentile per-packet one-way delay: 55.923 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.56 Mbit/s
  95th percentile per-packet one-way delay: 55.923 ms
  Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

Throughput (Mbps/s)

Time (s)

- Flow 1 ingress (mean 7.56 Mbps/s)
- Flow 1 egress (mean 7.56 Mbps/s)

Latency (ms)

Time (s)

- Flow 1 95th percentile 55.92 ms
Run 5: Statistics of Sprout

End at: 2018-07-11 23:50:34
Local clock offset: -0.03 ms
Remote clock offset: 1.118 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 55.917 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 55.917 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

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

- **Flow 1 ingress (mean 6.69 Mbit/s)**
- **Flow 1 egress (mean 6.69 Mbit/s)**

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

- **Flow 1 (95th percentile 55.92 ms)**
Run 6: Statistics of Sprout

Start at: 2018-07-12 00:11:54
End at: 2018-07-12 00:12:24
Local clock offset: 0.088 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: 54.406 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: 54.406 ms
Loss rate: 0.00%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

Start at: 2018-07-12 00:34:06
End at: 2018-07-12 00:34:36
Local clock offset: -0.079 ms
Remote clock offset: -1.494 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.07 Mbit/s
95th percentile per-packet one-way delay: 52.651 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 7.07 Mbit/s
95th percentile per-packet one-way delay: 52.651 ms
Loss rate: 0.06%
Run 7: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 7.08 Mbit/s)
- Flow 1 egress (mean 7.07 Mbit/s)

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

- Flow 1 95th percentile 52.65 ms
Run 8: Statistics of Sprout

Start at: 2018-07-12 00:56:01
End at: 2018-07-12 00:56:31
Local clock offset: 0.055 ms
Remote clock offset: -0.252 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.35 Mbit/s
95th percentile per-packet one-way delay: 54.032 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.35 Mbit/s
95th percentile per-packet one-way delay: 54.032 ms
Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

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

- **Flow 1 ingress (mean 7.33 Mbit/s)**
- **Flow 1 egress (mean 7.35 Mbit/s)**

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

- **Flow 1 95th percentile 54.03 ms**

239
Run 9: Statistics of Sprout

Start at: 2018-07-12 01:17:30
End at: 2018-07-12 01:18:00
Local clock offset: -0.038 ms
Remote clock offset: -0.264 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 53.598 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 53.598 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-07-12 01:39:29
End at: 2018-07-12 01:39:59
Local clock offset: 0.014 ms
Remote clock offset: 0.117 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 54.296 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 54.296 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

[Graph showing throughput over time for Flow 1 ingress and egress, indicating fluctuations and peak at approximately 10 Mbit/s.]

[Graph showing packet queue wait delay for Flow 1, with 95th percentile at 54.30 ms.]
Run 1: Statistics of TaoVA-100x

Local clock offset: -0.087 ms
Remote clock offset: -0.268 ms

# Below is generated by plot.py at 2018-07-12 03:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 53.382 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 53.382 ms
Loss rate: 0.01%
Run 1: Report of TaoVA-100x — Data Link

![Graph of throughput over time with two lines: one for ingress (mean 11.57 Mbit/s) and one for egress (mean 11.57 Mbit/s).]

![Graph of packet loss over time with points indicating packet loss delay (ms). A line with markers indicates Flow 1 (95th percentile 53.38 ms).]
Run 2: Statistics of TaoVA-100x

Local clock offset: 0.166 ms
Remote clock offset: -0.185 ms

# Below is generated by plot.py at 2018-07-12 03:23:17
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 245.31 Mbit/s
  95th percentile per-packet one-way delay: 53.146 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 245.31 Mbit/s
  95th percentile per-packet one-way delay: 53.146 ms
  Loss rate: 0.01%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

End at: 2018-07-11 23:10:09
Local clock offset: -0.26 ms
Remote clock offset: 0.162 ms

# Below is generated by plot.py at 2018-07-12 03:23:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.21 Mbit/s
95th percentile per-packet one-way delay: 54.153 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 14.21 Mbit/s
95th percentile per-packet one-way delay: 54.153 ms
Loss rate: 0.01%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

End at: 2018-07-11 23:32:03
Local clock offset: -0.185 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2018-07-12 03:23:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 165.95 Mbit/s
95th percentile per-packet one-way delay: 53.236 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 165.95 Mbit/s
95th percentile per-packet one-way delay: 53.236 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 165.94 Mbit/s)
- Flow 1 egress (mean 165.95 Mbit/s)

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

- Flow 1 (95th percentile 53.24 ms)
Run 5: Statistics of TaoVA-100x

End at: 2018-07-11 23:54:09
Local clock offset: -0.028 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-07-12 03:23:17
# Datalink statistics
-- Total of 1 flow:
   Average throughput: 194.28 Mbit/s
   95th percentile per-packet one-way delay: 53.619 ms
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 194.28 Mbit/s
   95th percentile per-packet one-way delay: 53.619 ms
   Loss rate: 0.00%
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-12 00:15:29
End at: 2018-07-12 00:15:59
Local clock offset: -0.203 ms
Remote clock offset: -0.218 ms

# Below is generated by plot.py at 2018-07-12 03:23:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 163.11 Mbit/s
95th percentile per-packet one-way delay: 53.783 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 163.11 Mbit/s
95th percentile per-packet one-way delay: 53.783 ms
Loss rate: 0.00%
Run 7: Statistics of TaoVA-100x

Start at: 2018-07-12 00:37:42
End at: 2018-07-12 00:38:12
Local clock offset: -0.058 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2018-07-12 03:24:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 258.03 Mbit/s
95th percentile per-packet one-way delay: 50.796 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 258.03 Mbit/s
95th percentile per-packet one-way delay: 50.796 ms
Loss rate: 0.01%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-07-12 00:59:34
End at: 2018-07-12 01:00:04
Local clock offset: 0.103 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2018-07-12 03:24:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 53.417 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 53.417 ms
Loss rate: 0.00%
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-12 01:21:06
End at: 2018-07-12 01:21:36
Local clock offset: -0.208 ms
Remote clock offset: 1.21 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 250.95 Mbit/s
95th percentile per-packet one-way delay: 54.888 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 250.95 Mbit/s
95th percentile per-packet one-way delay: 54.888 ms
Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress** (mean 250.92 Mbit/s)
- **Flow 1 egress** (mean 250.95 Mbit/s)

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

- **Flow 1 (95th percentile 54.89 ms)**
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-12 01:42:58
End at: 2018-07-12 01:43:28
Local clock offset: 0.056 ms
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 53.316 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 53.316 ms
Loss rate: 0.01%
Run 10: Report of TaoVA-100x — Data Link

Throughput (Mb/s) vs. Time (s)

Flow 1 ingress (mean 11.84 Mb/s)  Flow 1 egress (mean 11.84 Mb/s)

Per-packet round-trip delay (ms) vs. Time (s)

Flow 1 (95th percentile 53.32 ms)

263
Run 1: Statistics of TCP Vegas

Local clock offset: 0.064 ms
Remote clock offset: 0.112 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 151.30 Mbit/s
95th percentile per-packet one-way delay: 54.278 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 151.30 Mbit/s
95th percentile per-packet one-way delay: 54.278 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 151.30 Mbit/s)
- Flow 1 egress (mean 151.30 Mbit/s)

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

- Flow 1 (95th percentile 54.28 ms)
Run 2: Statistics of TCP Vegas

Local clock offset: -0.212 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.96 Mbit/s
95th percentile per-packet one-way delay: 54.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 19.96 Mbit/s
95th percentile per-packet one-way delay: 54.374 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 19.96 Mbps)
- Flow 1 egress (mean 19.96 Mbps)

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

- Flow 1 (95th percentile 54.37 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-07-11 23:02:35
End at: 2018-07-11 23:03:05
Local clock offset: 0.082 ms
Remote clock offset: 0.175 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 66.15 Mbit/s
  95th percentile per-packet one-way delay: 54.393 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 66.15 Mbit/s
  95th percentile per-packet one-way delay: 54.393 ms
  Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 66.15 Mb/s)
- Flow 1 egress (mean 66.15 Mb/s)

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

- Flow 1 (95th percentile 54.39 ms)
Run 4: Statistics of TCP Vegas

End at: 2018-07-11 23:24:50
Local clock offset: -0.096 ms
Remote clock offset: -0.217 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.22 Mbit/s
95th percentile per-packet one-way delay: 59.364 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 197.22 Mbit/s
95th percentile per-packet one-way delay: 59.364 ms
Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

---

**Graph 1: Throughput (Mbps)**

- **Flow 1 ingress (mean 197.23 Mbps)**
- **Flow 1 egress (mean 197.22 Mbps)**

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

- **Flow 1 (95th percentile 59.36 ms)**
Run 5: Statistics of TCP Vegas

Local clock offset: 0.062 ms
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.53 Mbit/s
95th percentile per-packet one-way delay: 54.131 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 77.53 Mbit/s
95th percentile per-packet one-way delay: 54.131 ms
Loss rate: 0.04%
Run 5: Report of TCP Vegas — Data Link

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

![Graph 2: Packet Round-trip delay](image)
Run 6: Statistics of TCP Vegas

Start at: 2018-07-12 00:08:24
End at: 2018-07-12 00:08:54
Local clock offset: -0.242 ms
Remote clock offset: 1.064 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.00 Mbit/s
95th percentile per-packet one-way delay: 57.375 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.00 Mbit/s
95th percentile per-packet one-way delay: 57.375 ms
Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-07-12 00:30:36
End at: 2018-07-12 00:31:06
Local clock offset: 0.183 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.69 Mbit/s
95th percentile per-packet one-way delay: 54.195 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.69 Mbit/s
95th percentile per-packet one-way delay: 54.195 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

![Graph of Throughput vs Time]

- Flow 1 ingress (mean 47.69 Mbit/s)
- Flow 1 egress (mean 47.69 Mbit/s)

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

- Flow 1 (95th percentile 54.20 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-07-12 00:52:31
End at: 2018-07-12 00:53:01
Local clock offset: 0.031 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.08 Mbit/s
95th percentile per-packet one-way delay: 51.614 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.08 Mbit/s
95th percentile per-packet one-way delay: 51.614 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 53.07 Mbps/s)
- Flow 1 egress (mean 53.08 Mbps/s)

![Graph 2: Packet inter-arrival delay (ms) vs Time (s)]

- Flow 1 (95th percentile 51.61 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-07-12 01:13:59
End at: 2018-07-12 01:14:29
Local clock offset: -0.3 ms
Remote clock offset: 0.091 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 88.11 Mbit/s
  95th percentile per-packet one-way delay: 54.676 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 88.11 Mbit/s
  95th percentile per-packet one-way delay: 54.676 ms
  Loss rate: 0.00%
Run 10: Statistics of TCP Vegas

Start at: 2018-07-12 01:35:57
End at: 2018-07-12 01:36:27
Local clock offset: -0.195 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2018-07-12 03:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.22 Mbit/s
95th percentile per-packet one-way delay: 54.094 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 91.22 Mbit/s
95th percentile per-packet one-way delay: 54.094 ms
Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

---

**Graph 1:**
Throughput (Mbps)

- **Flow 1 ingress (mean 91.21 Mbit/s)**
- **Flow 1 egress (mean 91.22 Mbit/s)**

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

- **Flow 1 (95th percentile 54.09 ms)**

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283
Run 1: Statistics of Verus

End at: 2018-07-11 22:08:50
Local clock offset: -0.349 ms
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-07-12 03:26:41
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 256.76 Mbit/s
  95th percentile per-packet one-way delay: 73.356 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 256.76 Mbit/s
  95th percentile per-packet one-way delay: 73.356 ms
  Loss rate: 0.00%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Local clock offset: -0.214 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-07-12 03:27:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 275.38 Mbit/s
95th percentile per-packet one-way delay: 205.735 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 275.38 Mbit/s
95th percentile per-packet one-way delay: 205.735 ms
Loss rate: 0.87%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Local clock offset: -0.18 ms
Remote clock offset: 0.106 ms

# Below is generated by plot.py at 2018-07-12 03:27:11
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 237.75 Mbit/s
  95th percentile per-packet one-way delay: 88.377 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 237.75 Mbit/s
  95th percentile per-packet one-way delay: 88.377 ms
  Loss rate: 0.05%
Run 3: Report of Verus — Data Link

![Graph showing throughput and packet delay over time for Flow 1 with ingress and egress rates, and 95th percentile delay](image-url)
Run 4: Statistics of Verus

End at: 2018-07-11 23:14:09
Local clock offset: -0.306 ms
Remote clock offset: -1.34 ms

# Below is generated by plot.py at 2018-07-12 03:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 273.56 Mbit/s
95th percentile per-packet one-way delay: 98.616 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 273.56 Mbit/s
95th percentile per-packet one-way delay: 98.616 ms
Loss rate: 0.02%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-07-11 23:35:42
End at: 2018-07-11 23:36:12
Local clock offset: 0.012 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2018-07-12 03:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 233.24 Mbit/s
95th percentile per-packet one-way delay: 103.856 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 233.24 Mbit/s
95th percentile per-packet one-way delay: 103.856 ms
Loss rate: 0.00%
Run 5: Report of Verus — Data Link

![Graph](image1)

![Graph](image2)
Run 6: Statistics of Verus

End at: 2018-07-11 23:58:21
Local clock offset: -0.163 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2018-07-12 03:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 234.67 Mbit/s
95th percentile per-packet one-way delay: 142.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 234.67 Mbit/s
95th percentile per-packet one-way delay: 142.636 ms
Loss rate: 0.00%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-07-12 00:19:39
End at: 2018-07-12 00:20:09
Local clock offset: -0.101 ms
Remote clock offset: -0.252 ms

# Below is generated by plot.py at 2018-07-12 03:28:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 239.58 Mbit/s
95th percentile per-packet one-way delay: 74.543 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 239.58 Mbit/s
95th percentile per-packet one-way delay: 74.543 ms
Loss rate: 0.19%
Run 7: Report of Verus — Data Link

![Graph 1: Throughput vs. Time]

- **Flow 1 ingress (mean 240.07 Mbit/s)**
- **Flow 1 egress (mean 239.58 Mbit/s)**

![Graph 2: Packet Delay Distribution]

- **Flow 1 (95th percentile 74.54 ms)**

297
Run 8: Statistics of Verus

Start at: 2018-07-12 00:41:59
End at: 2018-07-12 00:42:29
Local clock offset: 0.119 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2018-07-12 03:29:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.60 Mbit/s
95th percentile per-packet one-way delay: 66.813 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 226.60 Mbit/s
95th percentile per-packet one-way delay: 66.813 ms
Loss rate: 0.02%
Run 8: Report of Verus — Data Link

![Throughput Graph](image1)

![Per Packet Delay Graph](image2)
Run 9: Statistics of Verus

Start at: 2018-07-12 01:03:30
End at: 2018-07-12 01:04:00
Local clock offset: -0.158 ms
Remote clock offset: 0.04 ms

# Below is generated by plot.py at 2018-07-12 03:30:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 246.27 Mbit/s
95th percentile per-packet one-way delay: 184.160 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 246.27 Mbit/s
95th percentile per-packet one-way delay: 184.160 ms
Loss rate: 0.53%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-07-12 01:25:23
End at: 2018-07-12 01:25:53
Local clock offset: -0.061 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2018-07-12 03:30:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.63 Mbit/s
95th percentile per-packet one-way delay: 77.741 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.63 Mbit/s
95th percentile per-packet one-way delay: 77.741 ms
Loss rate: 0.00%
Run 10: Report of Verus — Data Link

![Graph showing throughput and packet delay over time. The charts display fluctuating data points indicating variations in network performance.](image-url)
Run 1: Statistics of PCC-Vivace

End at: 2018-07-11 22:10:12
Local clock offset: -0.149 ms
Remote clock offset: -0.49 ms

# Below is generated by plot.py at 2018-07-12 03:33:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 381.10 Mbit/s
95th percentile per-packet one-way delay: 53.419 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 381.10 Mbit/s
95th percentile per-packet one-way delay: 53.419 ms
Loss rate: 0.01%
Run 1: Report of PCC-Vivace — Data Link
Run 2: Statistics of PCC-Vivace

End at: 2018-07-11 22:31:45
Local clock offset: -0.142 ms
Remote clock offset: 0.159 ms

# Below is generated by plot.py at 2018-07-12 03:33:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 306.02 Mbit/s
95th percentile per-packet one-way delay: 53.268 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 306.02 Mbit/s
95th percentile per-packet one-way delay: 53.268 ms
Loss rate: 0.00%
Run 3: Statistics of PCC-Vivace

Local clock offset: 0.059 ms
Remote clock offset: 1.012 ms

# Below is generated by plot.py at 2018-07-12 03:34:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 391.55 Mbit/s
95th percentile per-packet one-way delay: 51.741 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 391.55 Mbit/s
95th percentile per-packet one-way delay: 51.741 ms
Loss rate: 0.00%
Run 3: Report of PCC-Vivace — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 391.55 Mbit/s)
- **Flow 1 egress** (mean 391.55 Mbit/s)

---

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

- **Flow 1** (95th percentile 51.74 ms)

---

309
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-11 23:15:01
Local clock offset: -0.116 ms
Remote clock offset: 0.173 ms

# Below is generated by plot.py at 2018-07-12 03:34:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 279.89 Mbit/s
95th percentile per-packet one-way delay: 50.939 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 279.89 Mbit/s
95th percentile per-packet one-way delay: 50.939 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress** (mean 279.86 Mbit/s)
- **Flow 1 egress** (mean 279.89 Mbit/s)

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

- **Flow 1** (95th percentile 50.94 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-11 23:37:02
End at: 2018-07-11 23:37:32
Local clock offset: 0.055 ms
Remote clock offset: 1.223 ms

# Below is generated by plot.py at 2018-07-12 03:34:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 349.80 Mbit/s
95th percentile per-packet one-way delay: 54.820 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 349.80 Mbit/s
95th percentile per-packet one-way delay: 54.820 ms
Loss rate: 0.01%
Run 5: Report of PCC-Vivace — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 349.84 Mb/s)  Flow 1 egress (mean 349.80 Mb/s)

Packet size (bytes)

Time (s)

Flow 1 (95th percentile 54.82 ms)

313
Run 6: Statistics of PCC-Vivace

Local clock offset: 0.049 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-07-12 03:35:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 384.00 Mbit/s
95th percentile per-packet one-way delay: 50.504 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 384.00 Mbit/s
95th percentile per-packet one-way delay: 50.504 ms
Loss rate: 0.00%
Run 6: Report of PCC-Vivace — Data Link
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-12 00:20:58
End at: 2018-07-12 00:21:28
Local clock offset: -0.264 ms
Remote clock offset: 0.111 ms

# Below is generated by plot.py at 2018-07-12 03:36:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 412.27 Mbit/s
95th percentile per-packet one-way delay: 54.686 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 412.27 Mbit/s
95th percentile per-packet one-way delay: 54.686 ms
Loss rate: 0.01%
Run 7: Report of PCC-Vivace — Data Link

The graph shows the throughput and packet delay over time for Flow 1. The throughput graph indicates a peak at the beginning, with values around 500 Mbps, followed by a steady decrease. The packet delay graph shows spikes at certain times, with the 99th percentile delay being significantly higher than the 95th percentile delay, indicating variability in delay times.

Flow 1 ingress (mean 412.26 Mbit/s)  Flow 1 egress (mean 412.27 Mbit/s)
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-12 00:43:18
End at: 2018-07-12 00:43:48
Local clock offset: -0.113 ms
Remote clock offset: -0.311 ms

# Below is generated by plot.py at 2018-07-12 03:36:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 397.49 Mbit/s
95th percentile per-packet one-way delay: 53.667 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 397.49 Mbit/s
95th percentile per-packet one-way delay: 53.667 ms
Loss rate: 0.01%
Run 8: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 397.49 Mbps)
Flow 1 egress (mean 397.49 Mbps)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 53.67 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-12 01:04:50
End at: 2018-07-12 01:05:20
Local clock offset: -0.062 ms
Remote clock offset: 0.082 ms

# Below is generated by plot.py at 2018-07-12 03:36:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 374.48 Mbit/s
95th percentile per-packet one-way delay: 51.041 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 374.48 Mbit/s
95th percentile per-packet one-way delay: 51.041 ms
Loss rate: 0.00%
Run 9: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress (mean 374.47 Mbit/s)**
- **Flow 1 egress (mean 374.48 Mbit/s)**

![Graph 2: Per-packet maximum delay (ms) over Time (s)]

- **Flow 1 (95th percentile 51.04 ms)**
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-12 01:26:40
End at: 2018-07-12 01:27:10
Local clock offset: 0.153 ms
Remote clock offset: 0.088 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 381.43 Mbit/s
95th percentile per-packet one-way delay: 53.667 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 381.43 Mbit/s
95th percentile per-packet one-way delay: 53.667 ms
Loss rate: 0.01%
Run 10: Report of PCC-Vivace — Data Link
Run 1: Statistics of WebRTC media

Local clock offset: 0.112 ms
Remote clock offset: 0.221 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 2.16 Mbit/s
  95th percentile per-packet one-way delay: 50.528 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.16 Mbit/s
  95th percentile per-packet one-way delay: 50.528 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Local clock offset: -0.089 ms
Remote clock offset: 1.154 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.95 Mbit/s
  95th percentile per-packet one-way delay: 55.216 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.95 Mbit/s
  95th percentile per-packet one-way delay: 55.216 ms
  Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

![Graph of throughput over time]

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

![Graph of packet delay over time]

- **Flow 1 (95th percentile 55.22 ms)**

327
Run 3: Statistics of WebRTC media

Start at: 2018-07-11 23:03:43
Local clock offset: 0.058 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 50.881 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 50.881 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

End at: 2018-07-11 23:26:05
Local clock offset: -0.044 ms
Remote clock offset: -0.284 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.510 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.510 ms
Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

![Graph of throughput and packet delay over time]

- Throughput (Mbps):
  - Flow 1 ingress (mean 1.94 Mbps)
  - Flow 1 egress (mean 1.94 Mbps)

- Packet delay (ms):
  - Flow 1 (95th percentile 53.51 ms)
Run 5: Statistics of WebRTC media

Local clock offset: 0.033 ms
Remote clock offset: 0.088 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.96 Mbit/s
  95th percentile per-packet one-way delay: 53.934 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.96 Mbit/s
  95th percentile per-packet one-way delay: 53.934 ms
  Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

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

- **Throughput (Mbps)**
  - **Flow 1 ingress (mean 1.96 Mbps)**
  - **Flow 1 egress (mean 1.96 Mbps)**

- **Packet Delay (ms)**
  - Flow 1 (95th percentile 53.93 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-07-12 00:09:33
End at: 2018-07-12 00:10:03
Local clock offset: -0.145 ms
Remote clock offset: -0.485 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 53.744 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 53.744 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-07-12 00:31:44
End at: 2018-07-12 00:32:14
Local clock offset: -0.041 ms
Remote clock offset: -0.312 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 53.766 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 53.766 ms
Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 8: Statistics of WebRTC media

Start at: 2018-07-12 00:53:39
End at: 2018-07-12 00:54:10
Local clock offset: 0.092 ms
Remote clock offset: 1.139 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 55.038 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 55.038 ms
Loss rate: 0.01%
Run 8: Report of WebRTC media — Data Link

Graph 1: Throughput (Mbps) vs Time (s)
- Flow 1 ingress (mean 1.94 Mbit/s)
- Flow 1 egress (mean 1.94 Mbit/s)

Graph 2: Per packet one way delay (ms) vs Time (s)
- Flow 1 (95th percentile 55.04 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-07-12 01:15:09
End at: 2018-07-12 01:15:39
Local clock offset: 0.129 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 53.618 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 53.618 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-07-12 01:37:07
End at: 2018-07-12 01:37:37
Local clock offset: -0.106 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-07-12 03:36:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 50.625 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 50.625 ms
Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link