Pantheon Report

Generated at 2018-07-06 07:08:28 (UTC).
Data path: GCE Tokyo Ethernet (remote) → GCE Sydney Ethernet (local).
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 @ 9250dbec7fb57193cdff1ba8c440b4e16ab30f0
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 37162fe9af852b49aeccac061c93e75640ef710b5
third_party/genericCC @ d0153f8e594aa89e9b032143cedbdfed5e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0edbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7c3cf3
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc955fa0d66d18b623c091a55f3c872b4981e1
	M receiver/src/buffer.h
	M receiver/src/core.cpp
	M sender/src/buffer.h
	M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f6613e8ac08f242e24f974ab
third_party/proto-quic @ 77961f1a82733ac66b42f1bc8143ebc978f3c3f42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3b282
	M src/ScreamClient
	M src/ScreamServer
third_party/sprout @ 366e35c6170b01e31d4a46ad18c7f4f9415f19a26
third_party/verus @ d4b44f7ea74c6c60a2b1149af2629562939f9a494
	M src/verus.hpp
	M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webRTC @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
test from GCE Tokyo to GCE Sydney, 10 runs of 30s each per scheme (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>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>214.76</td>
<td>59.68</td>
<td>0.34</td>
</tr>
<tr>
<td>Copa</td>
<td>10</td>
<td>167.11</td>
<td>61.48</td>
<td>0.26</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>215.50</td>
<td>63.03</td>
<td>0.36</td>
</tr>
<tr>
<td>FillP</td>
<td>10</td>
<td>712.92</td>
<td>202.04</td>
<td>3.39</td>
</tr>
<tr>
<td>FillP-Sheep</td>
<td>10</td>
<td>532.17</td>
<td>237.02</td>
<td>6.79</td>
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<tr>
<td>Indigo</td>
<td>10</td>
<td>229.45</td>
<td>53.73</td>
<td>0.35</td>
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<tr>
<td>LEDBAT</td>
<td>10</td>
<td>28.37</td>
<td>55.21</td>
<td>0.82</td>
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<tr>
<td>PCC-Allegro</td>
<td>10</td>
<td>430.87</td>
<td>175.94</td>
<td>1.35</td>
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<td>PCC-Expr</td>
<td>10</td>
<td>225.11</td>
<td>172.11</td>
<td>5.86</td>
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<tr>
<td>QUIC Cubic</td>
<td>10</td>
<td>56.09</td>
<td>52.59</td>
<td>0.54</td>
</tr>
<tr>
<td>SCReAM</td>
<td>10</td>
<td>0.21</td>
<td>52.26</td>
<td>0.36</td>
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<tr>
<td>Sprout</td>
<td>10</td>
<td>6.67</td>
<td>54.13</td>
<td>0.29</td>
</tr>
<tr>
<td>TaoVA-100x</td>
<td>7</td>
<td>154.20</td>
<td>53.80</td>
<td>0.60</td>
</tr>
<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>166.13</td>
<td>59.44</td>
<td>0.34</td>
</tr>
<tr>
<td>Verus</td>
<td>10</td>
<td>252.43</td>
<td>114.35</td>
<td>0.84</td>
</tr>
<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>350.09</td>
<td>87.03</td>
<td>0.53</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.93</td>
<td>52.38</td>
<td>0.39</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-07-06 01:37:19
End at: 2018-07-06 01:37:49
Local clock offset: 0.13 ms
Remote clock offset: -0.121 ms

# Below is generated by plot.py at 2018-07-06 05:29:00
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 209.54 Mbit/s
  95th percentile per-packet one-way delay: 60.436 ms
  Loss rate: 0.35%
-- Flow 1:
  Average throughput: 209.54 Mbit/s
  95th percentile per-packet one-way delay: 60.436 ms
  Loss rate: 0.35%
Run 1: Report of TCP BBR — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 209.54 Mbit/s)
  - Flow 1 egress (mean 209.54 Mbit/s)

- **Packet one-way delay (ms):**
  - Flow 1 (95th percentile 60.44 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-07-06 01:59:08
End at: 2018-07-06 01:59:38
Local clock offset: -0.037 ms
Remote clock offset: -0.16 ms

# Below is generated by plot.py at 2018-07-06 05:29:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 214.89 Mbit/s
95th percentile per-packet one-way delay: 61.573 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 214.89 Mbit/s
95th percentile per-packet one-way delay: 61.573 ms
Loss rate: 0.06%
Run 2: Report of TCP BBR — Data Link

![Graph showing throughput and packet delay](image1)

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

Start at: 2018-07-06 02:21:08
End at: 2018-07-06 02:21:38
Local clock offset: 0.002 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2018-07-06 05:29:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.68 Mbit/s
95th percentile per-packet one-way delay: 60.608 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 218.68 Mbit/s
95th percentile per-packet one-way delay: 60.608 ms
Loss rate: 0.37%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-07-06 02:42:44
End at: 2018-07-06 02:43:14
Local clock offset: -0.317 ms
Remote clock offset: 1.514 ms

# Below is generated by plot.py at 2018-07-06 05:29:12
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 219.33 Mbit/s
  95th percentile per-packet one-way delay: 58.807 ms
  Loss rate: 0.37%
-- Flow 1:
  Average throughput: 219.33 Mbit/s
  95th percentile per-packet one-way delay: 58.807 ms
  Loss rate: 0.37%
Run 4: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 219.35 Mbit/s)
- Flow 1 egress (mean 219.33 Mbit/s)

![Graph showing packet delay distribution](image)

- Flow 1 (99th percentile 58.81 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-07-06 03:04:39
End at: 2018-07-06 03:05:09
Local clock offset: 0.217 ms
Remote clock offset: -1.281 ms

# Below is generated by plot.py at 2018-07-06 05:29:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.50 Mbit/s
95th percentile per-packet one-way delay: 55.633 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 209.50 Mbit/s
95th percentile per-packet one-way delay: 55.633 ms
Loss rate: 0.37%
Run 5: Report of TCP BBR — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 209.53 Mbit/s)  Flow 1 egress (mean 209.50 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 55.63 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-07-06 03:26:29
End at: 2018-07-06 03:26:59
Local clock offset: -0.084 ms
Remote clock offset: 1.325 ms

# Below is generated by plot.py at 2018-07-06 05:29:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.41 Mbit/s
95th percentile per-packet one-way delay: 59.048 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 209.41 Mbit/s
95th percentile per-packet one-way delay: 59.048 ms
Loss rate: 0.36%
Run 6: Report of TCP BBR — Data Link

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

Flow 1 ingress (mean 209.43 Mbit/s)  Flow 1 egress (mean 209.41 Mbit/s)

Flow 1 (95th percentile 59.05 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-07-06 03:47:53
End at: 2018-07-06 03:48:23
Local clock offset: -0.012 ms
Remote clock offset: 1.058 ms

# Below is generated by plot.py at 2018-07-06 05:29:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.46 Mbit/s
95th percentile per-packet one-way delay: 59.729 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 218.46 Mbit/s
95th percentile per-packet one-way delay: 59.729 ms
Loss rate: 0.37%
Run 7: Report of TCP BBR — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 218.51 Mbps)
- **Flow 1 egress** (mean 218.46 Mbps)

**Packet error rate**

- **Flow 1 (95th percentile 59.73 ms)**

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Run 8: Statistics of TCP BBR

Start at: 2018-07-06 04:09:55
End at: 2018-07-06 04:10:25
Local clock offset: 0.147 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-07-06 05:29:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.09 Mbit/s
95th percentile per-packet one-way delay: 59.965 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 216.09 Mbit/s
95th percentile per-packet one-way delay: 59.965 ms
Loss rate: 0.37%
Run 8: Report of TCP BBR — Data Link

![Graph showing throughput and packet delivery delay over time](image-url)
Run 9: Statistics of TCP BBR

Start at: 2018-07-06 04:31:51
End at: 2018-07-06 04:32:21
Local clock offset: -0.201 ms
Remote clock offset: 0.142 ms

# Below is generated by plot.py at 2018-07-06 05:32:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 214.61 Mbit/s
95th percentile per-packet one-way delay: 59.406 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 214.61 Mbit/s
95th percentile per-packet one-way delay: 59.406 ms
Loss rate: 0.36%
Run 9: Report of TCP BBR — Data Link

![Graph showing throughput and packet delay over time]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 214.61 Mbps)
  - Flow 1 egress (mean 214.61 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 59.41 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-07-06 04:53:29
End at: 2018-07-06 04:53:59
Local clock offset: 0.12 ms
Remote clock offset: -0.175 ms

# Below is generated by plot.py at 2018-07-06 05:32:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 217.08 Mbit/s
95th percentile per-packet one-way delay: 61.563 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 217.08 Mbit/s
95th percentile per-packet one-way delay: 61.563 ms
Loss rate: 0.40%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of Copa

Start at: 2018-07-06 01:46:16
End at: 2018-07-06 01:46:46
Local clock offset: -0.099 ms
Remote clock offset: 0.184 ms

# Below is generated by plot.py at 2018-07-06 05:37:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.38 Mbit/s
95th percentile per-packet one-way delay: 63.438 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 249.38 Mbit/s
95th percentile per-packet one-way delay: 63.438 ms
Loss rate: 0.17%
Run 1: Report of Copa — Data Link

![Graph of throughput and packet delay over time](image)
Run 2: Statistics of Copa

Start at: 2018-07-06 02:08:06
End at: 2018-07-06 02:08:36
Local clock offset: 0.24 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2018-07-06 05:37:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 261.11 Mbit/s
95th percentile per-packet one-way delay: 70.520 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 261.11 Mbit/s
95th percentile per-packet one-way delay: 70.520 ms
Loss rate: 0.39%
Run 2: Report of Copa — Data Link

![Graph of Throughput and Latency]
Run 3: Statistics of Copa

Start at: 2018-07-06 02:29:42
End at: 2018-07-06 02:30:12
Local clock offset: 0.083 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-07-06 05:37:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.14 Mbit/s
95th percentile per-packet one-way delay: 61.594 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 222.14 Mbit/s
95th percentile per-packet one-way delay: 61.594 ms
Loss rate: 0.17%
Run 3: Report of Copa — Data Link

![Graph 1: Throughput over time](image1)

- **Flow 1 ingress (mean 221.71 Mbit/s)**
- **Flow 1 egress (mean 222.14 Mbit/s)**

![Graph 2: Packet delivery delay over time](image2)

- **Flow 1 (95th percentile 61.59 ms)**
Run 4: Statistics of Copa

Start at: 2018-07-06 02:51:51
End at: 2018-07-06 02:52:21
Local clock offset: -0.148 ms
Remote clock offset: 1.538 ms

# Below is generated by plot.py at 2018-07-06 05:37:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 146.88 Mbit/s
95th percentile per-packet one-way delay: 63.748 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 146.88 Mbit/s
95th percentile per-packet one-way delay: 63.748 ms
Loss rate: 0.13%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-07-06 03:13:45
End at: 2018-07-06 03:14:15
Local clock offset: 0.036 ms
Remote clock offset: 0.085 ms

# Below is generated by plot.py at 2018-07-06 05:37:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.78 Mbit/s
95th percentile per-packet one-way delay: 61.575 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 87.78 Mbit/s
95th percentile per-packet one-way delay: 61.575 ms
Loss rate: 0.27%
Run 5: Report of Copa — Data Link

![Graph showingThroughput (Mbit/s) over Time (s)](image)

- Flow 1 ingress (mean 87.68 Mbit/s)
- Flow 1 egress (mean 87.78 Mbit/s)

![Graph showing Per-packet one-way delay (ms) over Time (s)](image)

Flow 1 (95th percentile 61.58 ms)
Run 6: Statistics of Copa

Start at: 2018-07-06 03:35:16
End at: 2018-07-06 03:35:46
Local clock offset: 0.142 ms
Remote clock offset: 0.162 ms

# Below is generated by plot.py at 2018-07-06 05:37:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.70 Mbit/s
95th percentile per-packet one-way delay: 53.215 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 70.70 Mbit/s
95th percentile per-packet one-way delay: 53.215 ms
Loss rate: 0.40%
Run 6: Report of Copa — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 70.73 Mbps) vs. Flow 1 egress (mean 70.70 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (99th percentile 53.22 ms)
Run 7: Statistics of Copa

Start at: 2018-07-06 03:57:04
End at: 2018-07-06 03:57:34
Local clock offset: 0.004 ms
Remote clock offset: 0.028 ms

# Below is generated by plot.py at 2018-07-06 05:37:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 135.72 Mbit/s
95th percentile per-packet one-way delay: 67.307 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 135.72 Mbit/s
95th percentile per-packet one-way delay: 67.307 ms
Loss rate: 0.16%
Run 7: Report of Copa — Data Link

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

- **Flow 1 ingress**: mean 135.46 Mbps
- **Flow 1 egress**: mean 135.72 Mbps

![Graph showing packet delay distribution over time.]

- **Flow 1**: 95th percentile 67.31 ms
Run 8: Statistics of Copa

Start at: 2018-07-06 04:18:53
End at: 2018-07-06 04:19:23
Local clock offset: 0.044 ms
Remote clock offset: 0.036 ms

# Below is generated by plot.py at 2018-07-06 05:37:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 180.52 Mbit/s
95th percentile per-packet one-way delay: 61.973 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 180.52 Mbit/s
95th percentile per-packet one-way delay: 61.973 ms
Loss rate: 0.50%
Run 8: Report of Copa — Data Link

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

- **Flow 1 ingress (mean 180.80 Mbit/s)**
- **Flow 1 egress (mean 180.52 Mbit/s)**
Run 9: Statistics of Copa

Start at: 2018-07-06 04:40:44
End at: 2018-07-06 04:41:14
Local clock offset: -0.071 ms
Remote clock offset: 1.182 ms

# Below is generated by plot.py at 2018-07-06 05:37:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.17 Mbit/s
95th percentile per-packet one-way delay: 52.021 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 58.17 Mbit/s
95th percentile per-packet one-way delay: 52.021 ms
Loss rate: 0.28%
Run 9: Report of Copa — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 58.11 Mbit/s)
- **Flow 1 egress** (mean 58.17 Mbit/s)

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

- **Flow 1** (95th percentile 52.02 ms)
Run 10: Statistics of Copa

Start at: 2018-07-06 05:02:19
End at: 2018-07-06 05:02:49
Local clock offset: 0.061 ms
Remote clock offset: -0.189 ms

# Below is generated by plot.py at 2018-07-06 05:41:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 258.69 Mbit/s
95th percentile per-packet one-way delay: 59.445 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 258.69 Mbit/s
95th percentile per-packet one-way delay: 59.445 ms
Loss rate: 0.10%
Run 10: Report of Copa — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2018-07-06 01:52:48
End at: 2018-07-06 01:53:18
Local clock offset: 0.191 ms
Remote clock offset: -1.266 ms

# Below is generated by plot.py at 2018-07-06 05:41:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.60 Mbit/s
95th percentile per-packet one-way delay: 64.138 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 216.60 Mbit/s
95th percentile per-packet one-way delay: 64.138 ms
Loss rate: 0.38%
Run 2: Statistics of TCP Cubic

Start at: 2018-07-06 02:14:41
End at: 2018-07-06 02:15:11
Local clock offset: 0.24 ms
Remote clock offset: 0.106 ms

# Below is generated by plot.py at 2018-07-06 05:41:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.98 Mbit/s
95th percentile per-packet one-way delay: 61.921 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 221.98 Mbit/s
95th percentile per-packet one-way delay: 61.921 ms
Loss rate: 0.36%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

Start at: 2018-07-06 02:36:15
End at: 2018-07-06 02:36:45
Local clock offset: -0.05 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-07-06 05:41:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.97 Mbit/s
95th percentile per-packet one-way delay: 62.512 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 215.97 Mbit/s
95th percentile per-packet one-way delay: 62.512 ms
Loss rate: 0.38%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-07-06 02:58:15
End at: 2018-07-06 02:58:45
Local clock offset: -0.006 ms
Remote clock offset: -1.214 ms

# Below is generated by plot.py at 2018-07-06 05:41:30
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 218.57 Mbit/s
  95th percentile per-packet one-way delay: 64.708 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 218.57 Mbit/s
  95th percentile per-packet one-way delay: 64.708 ms
  Loss rate: 0.38%
Run 4: Report of TCP Cubic — Data Link
Run 5: Statistics of TCP Cubic

Start at: 2018-07-06 03:20:05
End at: 2018-07-06 03:20:35
Local clock offset: 0.169 ms
Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2018-07-06 05:41:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.22 Mbit/s
95th percentile per-packet one-way delay: 63.854 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 215.22 Mbit/s
95th percentile per-packet one-way delay: 63.854 ms
Loss rate: 0.36%
Run 5: Report of TCP Cubic — Data Link

![Graph of Throughput](image1)

- **Flow 1 ingress (mean 215.26 Mbit/s)**
- **Flow 1 egress (mean 215.22 Mbit/s)**

![Graph of Pre-packet one-way delay](image2)

- **Flow 1 (95th percentile 63.85 ms)**

53
Run 6: Statistics of TCP Cubic

Start at: 2018-07-06 03:41:32
End at: 2018-07-06 03:42:02
Local clock offset: -0.1 ms
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2018-07-06 05:41:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 214.69 Mbit/s
95th percentile per-packet one-way delay: 63.854 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 214.69 Mbit/s
95th percentile per-packet one-way delay: 63.854 ms
Loss rate: 0.36%
Run 6: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 215.69 Mbit/s)
- Flow 1 egress (mean 214.69 Mbit/s)

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

- Flow 1 (95th percentile 63.85 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-07-06 04:03:27
End at: 2018-07-06 04:03:57
Local clock offset: -0.053 ms
Remote clock offset: -0.245 ms

# Below is generated by plot.py at 2018-07-06 05:41:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.93 Mbit/s
95th percentile per-packet one-way delay: 62.258 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 210.93 Mbit/s
95th percentile per-packet one-way delay: 62.258 ms
Loss rate: 0.21%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-07-06 04:25:23
End at: 2018-07-06 04:25:53
Local clock offset: -0.053 ms
Remote clock offset: 0.215 ms

# Below is generated by plot.py at 2018-07-06 05:42:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.78 Mbit/s
95th percentile per-packet one-way delay: 62.343 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 216.78 Mbit/s
95th percentile per-packet one-way delay: 62.343 ms
Loss rate: 0.39%
Run 8: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 216.84 Mbit/s)
- Flow 1 egress (mean 216.78 Mbit/s)

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

- Flow 1 (95th percentile 62.34 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-07-06 04:47:02
End at: 2018-07-06 04:47:32
Local clock offset: 0.214 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-07-06 05:42:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.28 Mbit/s
95th percentile per-packet one-way delay: 63.393 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 221.28 Mbit/s
95th percentile per-packet one-way delay: 63.393 ms
Loss rate: 0.40%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-07-06 05:08:57
End at: 2018-07-06 05:09:27
Local clock offset: -0.116 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-07-06 05:43:27
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 202.98 Mbit/s
  95th percentile per-packet one-way delay: 61.314 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 202.98 Mbit/s
  95th percentile per-packet one-way delay: 61.314 ms
  Loss rate: 0.40%
Run 10: Report of TCP Cubic — Data Link

[Graph showing throughput and packet delay over time for Flow 1 ingress and egress with mean values and 95th percentile delay.]
Run 1: Statistics of FillP

Start at: 2018-07-06 01:47:42
End at: 2018-07-06 01:48:12
Local clock offset: -0.066 ms
Remote clock offset: 0.253 ms

# Below is generated by plot.py at 2018-07-06 05:55:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 671.40 Mbit/s
95th percentile per-packet one-way delay: 263.188 ms
Loss rate: 3.57%
-- Flow 1:
Average throughput: 671.40 Mbit/s
95th percentile per-packet one-way delay: 263.188 ms
Loss rate: 3.57%
Run 1: Report of FillP — Data Link

![Graph showing throughput and delay over time]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 693.86 Mbps)
  - Flow 1 egress (mean 671.40 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 263.19 ms)
Run 2: Statistics of FillP

Start at: 2018-07-06 02:09:34
End at: 2018-07-06 02:10:04
Local clock offset: -0.106 ms
Remote clock offset: -0.998 ms

# Below is generated by plot.py at 2018-07-06 05:56:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 702.67 Mbit/s
95th percentile per-packet one-way delay: 148.467 ms
Loss rate: 4.27%
-- Flow 1:
Average throughput: 702.67 Mbit/s
95th percentile per-packet one-way delay: 148.467 ms
Loss rate: 4.27%
Run 2: Report of FillP — Data Link

![Graph of throughput (Mbps) over time (s)](image1)

- Flow 1 ingress (mean 731.56 Mbit/s)
- Flow 1 egress (mean 702.67 Mbit/s)

![Graph of per packet one way delay (ms) over time (s)](image2)

- Flow 1 (95th percentile 148.47 ms)
Run 3: Statistics of FillP

Start at: 2018-07-06 02:31:07  
End at: 2018-07-06 02:31:37  
Local clock offset: -0.057 ms  
Remote clock offset: -0.261 ms

# Below is generated by plot.py at 2018-07-06 05:57:01  
# Datalink statistics
-- Total of 1 flow:
Average throughput: 712.14 Mbit/s  
95th percentile per-packet one-way delay: 218.930 ms  
Loss rate: 3.34%
-- Flow 1:
Average throughput: 712.14 Mbit/s  
95th percentile per-packet one-way delay: 218.930 ms  
Loss rate: 3.34%
Run 3: Report of FillP — Data Link

![Throughput graph](image1)

- Flow 1 ingress (mean 734.17 Mbit/s)
- Flow 1 egress (mean 712.14 Mbit/s)

![Packet delay graph](image2)

- Flow 1 (95th percentile 218.93 ms)
Run 4: Statistics of FillP

Start at: 2018-07-06 02:53:08
End at: 2018-07-06 02:53:38
Local clock offset: -0.091 ms
Remote clock offset: 0.236 ms

# Below is generated by plot.py at 2018-07-06 05:57:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 705.56 Mbit/s
95th percentile per-packet one-way delay: 169.646 ms
Loss rate: 3.74%
-- Flow 1:
Average throughput: 705.56 Mbit/s
95th percentile per-packet one-way delay: 169.646 ms
Loss rate: 3.74%
Run 4: Report of FillP — Data Link
Run 5: Statistics of FillP

Start at: 2018-07-06 03:14:57
End at: 2018-07-06 03:15:27
Local clock offset: 0.017 ms
Remote clock offset: -0.293 ms

# Below is generated by plot.py at 2018-07-06 05:57:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 710.68 Mbit/s
95th percentile per-packet one-way delay: 226.454 ms
Loss rate: 3.62%
-- Flow 1:
Average throughput: 710.68 Mbit/s
95th percentile per-packet one-way delay: 226.454 ms
Loss rate: 3.62%
Run 5: Report of FillP — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 734.78 Mbit/s)  Flow 1 egress (mean 710.68 Mbit/s)

Per packet end-to-end delay (ms)

Time (s)

Flow 1 (95th percentile 226.45 ms)
Run 6: Statistics of FillP

Start at: 2018-07-06 03:36:27
End at: 2018-07-06 03:36:57
Local clock offset: 0.041 ms
Remote clock offset: 0.099 ms

# Below is generated by plot.py at 2018-07-06 05:57:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 683.13 Mbit/s
95th percentile per-packet one-way delay: 197.023 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 683.13 Mbit/s
95th percentile per-packet one-way delay: 197.023 ms
Loss rate: 0.66%
Run 6: Report of FillP — Data Link

![Graph showing Throughput and Delay over time for Flow 1]
Run 7: Statistics of FillP

Start at: 2018-07-06 03:58:20
End at: 2018-07-06 03:58:50
Local clock offset: 0.046 ms
Remote clock offset: -0.208 ms

# Below is generated by plot.py at 2018-07-06 05:58:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 682.42 Mbit/s
95th percentile per-packet one-way delay: 163.899 ms
Loss rate: 4.50%
-- Flow 1:
Average throughput: 682.42 Mbit/s
95th percentile per-packet one-way delay: 163.899 ms
Loss rate: 4.50%
Run 7: Report of FillP — Data Link

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

- **Flow 1 ingress (mean: 712.16 Mbps)**
- **Flow 1 egress (mean: 682.42 Mbps)**

![Graph 2: Round Trip Time (ms)](image2)

- **Flow 1 (95th percentile: 163.90 ms)**
Run 8: Statistics of FillP

Start at: 2018-07-06 04:20:14
End at: 2018-07-06 04:20:44
Local clock offset: 0.016 ms
Remote clock offset: 0.048 ms

# Below is generated by plot.py at 2018-07-06 05:59:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 723.52 Mbit/s
95th percentile per-packet one-way delay: 245.264 ms
Loss rate: 2.09%
-- Flow 1:
Average throughput: 723.52 Mbit/s
95th percentile per-packet one-way delay: 245.264 ms
Loss rate: 2.09%
Run 8: Report of FillP — Data Link

---

**Graph 1:**
- **Y-axis:** Throughput (Mbps)
- **X-axis:** Time (s)
- **Legend:**
  - Flow 1 Ingress (mean 736.47 Mbps)
  - Flow 1 Egress (mean 723.52 Mbps)

**Graph 2:**
- **Y-axis:** Per-Socket One-Way Delay (ms)
- **X-axis:** Time (s)
- **Legend:**
  - Flow 1 (95th percentile 245.26 ms)
Run 9: Statistics of FillP

Start at: 2018-07-06 04:41:53
End at: 2018-07-06 04:42:23
Local clock offset: -0.189 ms
Remote clock offset: -1.401 ms

# Below is generated by plot.py at 2018-07-06 06:11:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 730.28 Mbit/s
95th percentile per-packet one-way delay: 151.089 ms
Loss rate: 4.51%
-- Flow 1:
Average throughput: 730.28 Mbit/s
95th percentile per-packet one-way delay: 151.089 ms
Loss rate: 4.51%
Run 9: Report of FillP — Data Link

![Graph showing throughput and packet delay over time]

- **Flow 1 ingress** (mean: 762.10 Mbit/s)
- **Flow 1 egress** (mean: 730.28 Mbit/s)

![Graph showing packet delay distribution]

- **Flow 1 (95th percentile: 151.09 ms)**
Run 10: Statistics of FillP

Start at: 2018-07-06 05:03:46
End at: 2018-07-06 05:04:16
Local clock offset: 0.127 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2018-07-06 06:13:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 807.36 Mbit/s
95th percentile per-packet one-way delay: 236.407 ms
Loss rate: 3.59%
-- Flow 1:
Average throughput: 807.36 Mbit/s
95th percentile per-packet one-way delay: 236.407 ms
Loss rate: 3.59%
Run 10: Report of FillIP — Data Link
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-06 01:39:42
End at: 2018-07-06 01:40:12
Local clock offset: -0.05 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2018-07-06 06:13:19
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 658.40 Mbit/s
  95th percentile per-packet one-way delay: 149.353 ms
  Loss rate: 7.42%
-- Flow 1:
  Average throughput: 658.40 Mbit/s
  95th percentile per-packet one-way delay: 149.353 ms
  Loss rate: 7.42%
Run 2: Statistics of FillP-Sheep

Start at: 2018-07-06 02:01:49
End at: 2018-07-06 02:02:19
Local clock offset: -0.02 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2018-07-06 06:13:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 286.61 Mbit/s
95th percentile per-packet one-way delay: 283.449 ms
Loss rate: 5.89%
-- Flow 1:
Average throughput: 286.61 Mbit/s
95th percentile per-packet one-way delay: 283.449 ms
Loss rate: 5.89%
Run 2: Report of FillP-Sheep — Data Link

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

- Flow 1 ingress (mean 303.48 Mbit/s)
- Flow 1 egress (mean 286.61 Mbit/s)

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

- Flow 1 (95th percentile 283.45 ms)
Run 3: Statistics of FillP-Sheep

Start at: 2018-07-06 02:23:40
End at: 2018-07-06 02:24:10
Local clock offset: 0.001 ms
Remote clock offset: -0.208 ms

# Below is generated by plot.py at 2018-07-06 06:13:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 232.82 Mbit/s
95th percentile per-packet one-way delay: 259.843 ms
Loss rate: 4.43%
-- Flow 1:
Average throughput: 232.82 Mbit/s
95th percentile per-packet one-way delay: 259.843 ms
Loss rate: 4.43%
Run 3: Report of FillP-Sheep — Data Link

![Graph of Throughput vs Time](image1)

- Flow 1 ingress (mean 242.78 Mb/s)
- Flow 1 egress (mean 232.82 Mb/s)

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

- Flow 1 (95th percentile 259.84 ms)
Run 4: Statistics of FillP-Sheep

Start at: 2018-07-06 02:45:17
End at: 2018-07-06 02:45:47
Local clock offset: -0.184 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2018-07-06 06:13:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 661.10 Mbit/s
95th percentile per-packet one-way delay: 212.547 ms
Loss rate: 7.96%
-- Flow 1:
Average throughput: 661.10 Mbit/s
95th percentile per-packet one-way delay: 212.547 ms
Loss rate: 7.96%
Run 4: Report of FillP-Sheep — Data Link

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

- **Flow 1 ingress (mean 715.76 Mbit/s)**
- **Flow 1 egress (mean 661.10 Mbit/s)**

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

- **Flow 1 (95th percentile 212.55 ms)**
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-06 03:07:21
End at: 2018-07-06 03:07:51
Local clock offset: -0.052 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-07-06 06:13:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 720.30 Mbit/s
95th percentile per-packet one-way delay: 216.006 ms
Loss rate: 9.52%
-- Flow 1:
Average throughput: 720.30 Mbit/s
95th percentile per-packet one-way delay: 216.006 ms
Loss rate: 9.52%
Run 5: Report of FillP-Sheep — Data Link

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

- **Flow 1 ingress** (mean 793.31 Mbit/s)
- **Flow 1 egress** (mean 720.30 Mbit/s)

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

- **Flow 1** (95th percentile 216.01 ms)
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-06 03:28:52
End at: 2018-07-06 03:29:22
Local clock offset: 0.009 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2018-07-06 06:13:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 565.10 Mbit/s
95th percentile per-packet one-way delay: 273.030 ms
Loss rate: 4.05%
-- Flow 1:
Average throughput: 565.10 Mbit/s
95th percentile per-packet one-way delay: 273.030 ms
Loss rate: 4.05%
Run 6: Report of FillP-Sheep — Data Link

![Graph of Throughput and Per-Packet End-to-End Delay vs Time](image)

- Flow 1 Ingress (mean 587.05 Mbit/s)
- Flow 1 Egress (mean 565.10 Mbit/s)

![Graph of Flow 1 (95th percentile 273.03 ms)](image)
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-06 03:50:36  
End at: 2018-07-06 03:51:06  
Local clock offset: -0.211 ms  
Remote clock offset: -0.479 ms

# Below is generated by plot.py at 2018-07-06 06:19:28  
# Datalink statistics
-- Total of 1 flow:
Average throughput: 773.59 Mbit/s
95th percentile per-packet one-way delay: 246.687 ms
Loss rate: 6.40%
-- Flow 1:
Average throughput: 773.59 Mbit/s
95th percentile per-packet one-way delay: 246.687 ms
Loss rate: 6.40%
Run 7: Report of FillP-Sheep — Data Link

![Graph of throughput and delay over time]

Flow 1 ingress (mean 823.67 Mbits/s)  Flow 1 egress (mean 773.59 Mbits/s)

Flow 1 (95th percentile 246.69 ms)
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-06 04:12:22
End at: 2018-07-06 04:12:52
Local clock offset: 0.056 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-07-06 06:19:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 707.61 Mbit/s
95th percentile per-packet one-way delay: 202.848 ms
Loss rate: 8.65%
-- Flow 1:
Average throughput: 707.61 Mbit/s
95th percentile per-packet one-way delay: 202.848 ms
Loss rate: 8.65%
Run 8: Report of FillP-Sheep — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 771.91 Mbit/s)
- Flow 1 egress (mean 707.61 Mbit/s)

![Graph 2: Packet delay (ms)]

- Flow 1 (95th percentile 202.85 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-06 04:34:14
End at: 2018-07-06 04:34:44
Local clock offset: 0.013 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-07-06 06:23:07
# Datalink statistics
  -- Total of 1 flow:
  Average throughput: 511.35 Mbit/s
  95th percentile per-packet one-way delay: 254.425 ms
  Loss rate: 6.96%
  -- Flow 1:
  Average throughput: 511.35 Mbit/s
  95th percentile per-packet one-way delay: 254.425 ms
  Loss rate: 6.96%
Run 9: Report of FillP-Sheep — Data Link

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

- **Flow 1 Ingress** (mean 546.98 Mbit/s)
- **Flow 1 Egress** (mean 511.35 Mbit/s)

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

- **Flow 1** (95th percentile 254.43 ms)
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-06 04:56:04
End at: 2018-07-06 04:56:34
Local clock offset: 0.009 ms
Remote clock offset: 0.117 ms

# Below is generated by plot.py at 2018-07-06 06:23:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.86 Mbit/s
95th percentile per-packet one-way delay: 271.966 ms
Loss rate: 6.59%
-- Flow 1:
Average throughput: 204.86 Mbit/s
95th percentile per-packet one-way delay: 271.966 ms
Loss rate: 6.59%
Run 10: Report of FillIP-Sheep — Data Link

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

- Flow 1 ingress (mean 218.54 Mbit/s)
- Flow 1 egress (mean 204.86 Mbit/s)

- Flow 1 (95th percentile 271.97 ms)
Run 1: Statistics of Indigo

Start at: 2018-07-06 01:51:29
End at: 2018-07-06 01:51:59
Local clock offset: 0.121 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2018-07-06 06:23:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.96 Mbit/s
95th percentile per-packet one-way delay: 54.067 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 227.96 Mbit/s
95th percentile per-packet one-way delay: 54.067 ms
Loss rate: 0.38%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

Start at: 2018-07-06 02:13:21
End at: 2018-07-06 02:13:51
Local clock offset: 0.157 ms
Remote clock offset: -1.377 ms

# Below is generated by plot.py at 2018-07-06 06:23:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.34 Mbit/s
95th percentile per-packet one-way delay: 54.720 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 227.34 Mbit/s
95th percentile per-packet one-way delay: 54.720 ms
Loss rate: 0.32%
Run 3: Statistics of Indigo

Start at: 2018-07-06 02:34:54
End at: 2018-07-06 02:35:24
Local clock offset: -0.066 ms
Remote clock offset: 0.079 ms

# Below is generated by plot.py at 2018-07-06 06:23:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.22 Mbit/s
95th percentile per-packet one-way delay: 53.813 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 249.22 Mbit/s
95th percentile per-packet one-way delay: 53.813 ms
Loss rate: 0.32%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Start at: 2018-07-06 02:56:57
End at: 2018-07-06 02:57:27
Local clock offset: 0.054 ms
Remote clock offset: 0.306 ms

# Below is generated by plot.py at 2018-07-06 06:23:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.84 Mbit/s
95th percentile per-packet one-way delay: 53.692 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 218.84 Mbit/s
95th percentile per-packet one-way delay: 53.692 ms
Loss rate: 0.34%
Run 4: Report of Indigo — Data Link
Run 5: Statistics of Indigo

Start at: 2018-07-06 03:18:45
End at: 2018-07-06 03:19:15
Local clock offset: 0.004 ms
Remote clock offset: 0.093 ms

# Below is generated by plot.py at 2018-07-06 06:23:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 232.69 Mbit/s
95th percentile per-packet one-way delay: 53.639 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 232.69 Mbit/s
95th percentile per-packet one-way delay: 53.639 ms
Loss rate: 0.39%
Run 5: Report of Indigo — Data Link

Throughput (Mbps)

Flow 1 ingress (mean 232.77 Mbps)  Flow 1 egress (mean 232.69 Mbps)

Per packet one-way delay (ms)

Flow 1 (95th percentile 53.64 ms)
Run 6: Statistics of Indigo

Start at: 2018-07-06 03:40:14
End at: 2018-07-06 03:40:44
Local clock offset: -0.136 ms
Remote clock offset: -1.242 ms

# Below is generated by plot.py at 2018-07-06 06:23:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.04 Mbit/s
95th percentile per-packet one-way delay: 54.696 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 218.04 Mbit/s
95th percentile per-packet one-way delay: 54.696 ms
Loss rate: 0.35%
Run 6: Report of Indigo — Data Link
Run 7: Statistics of Indigo

Start at: 2018-07-06 04:02:07
End at: 2018-07-06 04:02:37
Local clock offset: -0.186 ms
Remote clock offset: 1.136 ms

# Below is generated by plot.py at 2018-07-06 06:23:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 233.14 Mbit/s
95th percentile per-packet one-way delay: 52.121 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 233.14 Mbit/s
95th percentile per-packet one-way delay: 52.121 ms
Loss rate: 0.35%
Run 7: Report of Indigo — Data Link

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

- **Flow 1 ingress** (mean 233.11 Mbps)
- **Flow 1 egress** (mean 233.14 Mbps)

![Graph of Packet delay (ms) vs Time (s)]

- **Flow 1** (95th percentile 52.12 ms)
Run 8: Statistics of Indigo

Start at: 2018-07-06 04:24:03
End at: 2018-07-06 04:24:33
Local clock offset: -0.121 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-07-06 06:23:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 246.00 Mbit/s
95th percentile per-packet one-way delay: 53.388 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 246.00 Mbit/s
95th percentile per-packet one-way delay: 53.388 ms
Loss rate: 0.33%
Run 8: Report of Indigo — Data Link
Run 9: Statistics of Indigo

Start at: 2018-07-06 04:45:42
End at: 2018-07-06 04:46:12
Local clock offset: -0.186 ms
Remote clock offset: 0.123 ms

# Below is generated by plot.py at 2018-07-06 06:23:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.08 Mbit/s
95th percentile per-packet one-way delay: 53.719 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 230.08 Mbit/s
95th percentile per-packet one-way delay: 53.719 ms
Loss rate: 0.36%
Run 9: Report of Indigo — Data Link

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

- **Flow 1 Ingress** (mean 230.09 Mbit/s)
- **Flow 1 Egress** (mean 230.08 Mbit/s)

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

- **Flow 1** (95th percentile 53.72 ms)
Run 10: Statistics of Indigo

Start at: 2018-07-06 05:07:38
End at: 2018-07-06 05:08:08
Local clock offset: -0.107 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.21 Mbit/s
95th percentile per-packet one-way delay: 53.401 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 211.21 Mbit/s
95th percentile per-packet one-way delay: 53.401 ms
Loss rate: 0.39%
Run 10: Report of Indigo — Data Link

Throughput (Mbit/s)

0  5  10  15  20  25  30
0  50  100  150  200  250

Time (s)

Flow 1 ingress (mean 211.30 Mbit/s)  Flow 1 egress (mean 211.21 Mbit/s)

Per packet one way delay (ms)

0  5  10  15  20  25  30
50  55  60  65  70  75  80  85

Time (s)

Flow 1 (95th percentile 53.40 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-07-06 01:42:30
End at: 2018-07-06 01:43:00
Local clock offset: -0.136 ms
Remote clock offset: 1.27 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.51 Mbit/s
95th percentile per-packet one-way delay: 54.080 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 31.51 Mbit/s
95th percentile per-packet one-way delay: 54.080 ms
Loss rate: 0.70%
Run 1: Report of LEDBAT — Data Link

![Graph showing throughput over time](image1)

- **Flow 1 ingress (mean 31.62 Mbit/s)**
- **Flow 1 egress (mean 31.51 Mbit/s)**

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

- **Flow 1 (95th percentile 54.08 ms)**
Run 2: Statistics of LEDBAT

Start at: 2018-07-06 02:04:30
End at: 2018-07-06 02:05:00
Local clock offset: -0.088 ms
Remote clock offset: 0.078 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 55.070 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 55.070 ms
Loss rate: 0.60%
Run 2: Report of LEDBAT — Data Link

![Graph 1](image1)

- **Flow 1 ingress (mean 31.71 Mbit/s)**
- **Flow 1 egress (mean 31.63 Mbit/s)**

![Graph 2](image2)

- **Flow 1 (95th percentile 55.07 ms)**
Run 3: Statistics of LEDBAT

Start at: 2018-07-06 02:26:14
End at: 2018-07-06 02:26:44
Local clock offset: -0.301 ms
Remote clock offset: -0.181 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 54.941 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 54.941 ms
Loss rate: 0.71%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-07-06 02:48:10
End at: 2018-07-06 02:48:40
Local clock offset: 0.112 ms
Remote clock offset: -0.215 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.69 Mbit/s
95th percentile per-packet one-way delay: 56.153 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 29.69 Mbit/s
95th percentile per-packet one-way delay: 56.153 ms
Loss rate: 0.71%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-07-06 03:10:16
End at: 2018-07-06 03:10:46
Local clock offset: -0.149 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.24 Mbit/s
95th percentile per-packet one-way delay: 55.735 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 31.24 Mbit/s
95th percentile per-packet one-way delay: 55.735 ms
Loss rate: 0.70%
Run 5: Report of LEDBAT — Data Link

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

- **Flow 1 ingress (mean 31.35 Mbit/s)**
- **Flow 1 egress (mean 31.24 Mbit/s)**

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

- **Flow 1 [95th percentile 55.73 ms]**
Run 6: Statistics of LEDBAT

Start at: 2018-07-06 03:31:43
End at: 2018-07-06 03:32:13
Local clock offset: -0.21 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.03 Mbit/s
95th percentile per-packet one-way delay: 55.527 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 30.03 Mbit/s
95th percentile per-packet one-way delay: 55.527 ms
Loss rate: 0.62%
Run 6: Report of LEDBAT — Data Link

![Graph showing data link throughput over time.]
Run 7: Statistics of LEDBAT

Start at: 2018-07-06 03:53:34
End at: 2018-07-06 03:54:04
Local clock offset: 0.081 ms
Remote clock offset: -0.274 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 55.562 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 55.562 ms
Loss rate: 0.69%
Run 8: Statistics of LEDBAT

Start at: 2018-07-06 04:15:17
End at: 2018-07-06 04:15:47
Local clock offset: 0.078 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 3.30 Mbit/s
  95th percentile per-packet one-way delay: 54.428 ms
  Loss rate: 2.06%
-- Flow 1:
  Average throughput: 3.30 Mbit/s
  95th percentile per-packet one-way delay: 54.428 ms
  Loss rate: 2.06%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-07-06 04:37:03
End at: 2018-07-06 04:37:33
Local clock offset: -0.134 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.39 Mbit/s
95th percentile per-packet one-way delay: 55.388 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 31.39 Mbit/s
95th percentile per-packet one-way delay: 55.388 ms
Loss rate: 0.70%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-07-06 04:58:39
End at: 2018-07-06 04:59:09
Local clock offset: 0.103 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2018-07-06 06:23:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.49 Mbit/s
95th percentile per-packet one-way delay: 55.207 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 30.49 Mbit/s
95th percentile per-packet one-way delay: 55.207 ms
Loss rate: 0.71%
Run 10: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 30.60 Mbit/s)
- Flow 1 egress (mean 30.49 Mbit/s)

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

- Flow 1 (95th percentile 55.21 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-07-06 01:41:14
End at: 2018-07-06 01:41:44
Local clock offset: ~0.053 ms
Remote clock offset: 1.29 ms

# Below is generated by plot.py at 2018-07-06 06:26:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 286.00 Mbit/s
95th percentile per-packet one-way delay: 52.468 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 286.00 Mbit/s
95th percentile per-packet one-way delay: 52.468 ms
Loss rate: 0.45%
Run 1: Report of PCC-Allegro — Data Link
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-06 02:03:07
End at: 2018-07-06 02:03:37
Local clock offset: -0.069 ms
Remote clock offset: -1.276 ms

# Below is generated by plot.py at 2018-07-06 06:30:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 500.03 Mbit/s
95th percentile per-packet one-way delay: 192.907 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 500.03 Mbit/s
95th percentile per-packet one-way delay: 192.907 ms
Loss rate: 1.12%
Run 2: Report of PCC-Allegro — Data Link

![Graph showing network performance metrics]

- **Flow 1 ingress** (mean 503.90 Mbit/s)
- **Flow 1 egress** (mean 500.03 Mbit/s)

![Graph showing packet delay]

- **Flow 1 (95th percentile 192.91 ms)**
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-06 02:24:56
End at: 2018-07-06 02:25:26
Local clock offset: 0.19 ms
Remote clock offset: 0.13 ms

# Below is generated by plot.py at 2018-07-06 06:30:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 342.92 Mbit/s
95th percentile per-packet one-way delay: 198.695 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 342.92 Mbit/s
95th percentile per-packet one-way delay: 198.695 ms
Loss rate: 2.38%
Run 3: Report of PCC-Allegro — Data Link

![Graphs showing network performance metrics over time. The graphs illustrate throughput and packet delay trends for a data link flow.](image-url)
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-06 02:46:49  
End at: 2018-07-06 02:47:19  
Local clock offset: -0.031 ms  
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-07-06 06:30:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 450.29 Mbit/s
95th percentile per-packet one-way delay: 183.109 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 450.29 Mbit/s
95th percentile per-packet one-way delay: 183.109 ms
Loss rate: 0.77%
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-06 03:08:56
End at: 2018-07-06 03:09:26
Local clock offset: -0.246 ms
Remote clock offset: 0.128 ms

# Below is generated by plot.py at 2018-07-06 06:30:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 438.99 Mbit/s
95th percentile per-packet one-way delay: 194.664 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 438.99 Mbit/s
95th percentile per-packet one-way delay: 194.664 ms
Loss rate: 2.16%
Run 5: Report of PCC-Allegro — Data Link
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-06 03:30:22
End at: 2018-07-06 03:30:52
Local clock offset: 0.254 ms
Remote clock offset: 0.356 ms

# Below is generated by plot.py at 2018-07-06 06:31:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 466.89 Mbit/s
95th percentile per-packet one-way delay: 172.806 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 466.89 Mbit/s
95th percentile per-packet one-way delay: 172.806 ms
Loss rate: 1.27%
Run 6: Report of PCC-Allegro — Data Link

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

- **Flow 1 ingress (mean 471.22 Mbit/s)**
- **Flow 1 egress (mean 466.89 Mbit/s)**

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

- **Flow 1 (95th percentile 172.81 ms)**
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-06 03:52:14
End at: 2018-07-06 03:52:44
Local clock offset: 0.014 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-07-06 06:31:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 433.22 Mbit/s
95th percentile per-packet one-way delay: 189.154 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 433.22 Mbit/s
95th percentile per-packet one-way delay: 189.154 ms
Loss rate: 0.97%
Run 7: Report of PCC-Allegro — Data Link

![Graph showing data link throughput and packet delay over time.](image-url)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 435.94 Mbps)
  - Flow 1 egress (mean 433.22 Mbps)

- **Packet Delay (ms)**
  - Flow 1 (95th percentile 109.15 ms)
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-06 04:13:56
End at: 2018-07-06 04:14:26
Local clock offset: -0.168 ms
Remote clock offset: 1.328 ms

# Below is generated by plot.py at 2018-07-06 06:31:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 458.75 Mbit/s
95th percentile per-packet one-way delay: 193.183 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 458.75 Mbit/s
95th percentile per-packet one-way delay: 193.183 ms
Loss rate: 1.84%
Run 8: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 465.70 Mbit/s)
- Flow 1 egress (mean 458.75 Mbit/s)

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

- Flow 1 (95th percentile 193.18 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-06 04:35:41
End at: 2018-07-06 04:36:11
Local clock offset: -0.093 ms
Remote clock offset: 0.101 ms

# Below is generated by plot.py at 2018-07-06 06:35:56
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 496.52 Mbit/s
  95th percentile per-packet one-way delay: 193.504 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 496.52 Mbit/s
  95th percentile per-packet one-way delay: 193.504 ms
  Loss rate: 1.37%
Run 9: Report of PCC-Allegro — Data Link
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-06 04:57:18
End at: 2018-07-06 04:57:48
Local clock offset: -0.006 ms
Remote clock offset: 0.159 ms

# Below is generated by plot.py at 2018-07-06 06:36:05
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 435.13 Mbit/s
  95th percentile per-packet one-way delay: 188.886 ms
  Loss rate: 1.13%
-- Flow 1:
  Average throughput: 435.13 Mbit/s
  95th percentile per-packet one-way delay: 188.886 ms
  Loss rate: 1.13%
Run 10: Report of PCC-Allegro — Data Link

[Graphs showing throughput and packet delay over time]
Run 1: Statistics of PCC-Expr

Start at: 2018-07-06 01:44:44
End at: 2018-07-06 01:45:14
Local clock offset: 0.157 ms
Remote clock offset: 0.021 ms

# Below is generated by plot.py at 2018-07-06 06:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 360.46 Mbit/s
95th percentile per-packet one-way delay: 301.324 ms
Loss rate: 13.12%
-- Flow 1:
Average throughput: 360.46 Mbit/s
95th percentile per-packet one-way delay: 301.324 ms
Loss rate: 13.12%
Run 1: Report of PCC-Expr — Data Link

Throughput (Mbps)

0 5 10 15 20 25 30
Time (s)

---

Flow 1 ingress (mean 413.42 Mbit/s)
Flow 1 egress (mean 360.46 Mbit/s)

---

Per packet one way delay (ms)

0 5 10 15 20 25 30
Time (s)

Flow 1 (95th percentile 301.32 ms)
Run 2: Statistics of PCC-Expr

Start at: 2018-07-06 02:06:43
End at: 2018-07-06 02:07:13
Local clock offset: 0.198 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-07-06 06:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 241.34 Mbit/s
95th percentile per-packet one-way delay: 175.062 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 241.34 Mbit/s
95th percentile per-packet one-way delay: 175.062 ms
Loss rate: 0.42%
Run 2: Report of PCC-Expr — Data Link

![Graph showing throughput and packet delay over time for Flow 1 ingress and egress with mean rates of 241.51 Mbit/s and 241.34 Mbit/s respectively.]

---

Flow 1 (95th percentile 175.06 ms)
Run 3: Statistics of PCC-Expr

Start at: 2018-07-06 02:28:27
End at: 2018-07-06 02:28:57
Local clock offset: 0.035 ms
Remote clock offset: 0.048 ms

# Below is generated by plot.py at 2018-07-06 06:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 117.33 Mbit/s
95th percentile per-packet one-way delay: 53.064 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 117.33 Mbit/s
95th percentile per-packet one-way delay: 53.064 ms
Loss rate: 0.36%
Run 3: Report of PCC-Expr — Data Link
Run 4: Statistics of PCC-Expr

Start at: 2018-07-06 02:50:23
End at: 2018-07-06 02:50:53
Local clock offset: 0.02 ms
Remote clock offset: -1.268 ms

# Below is generated by plot.py at 2018-07-06 06:43:25
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 275.93 Mbit/s
  95th percentile per-packet one-way delay: 304.368 ms
  Loss rate: 29.85%
-- Flow 1:
  Average throughput: 275.93 Mbit/s
  95th percentile per-packet one-way delay: 304.368 ms
  Loss rate: 29.85%
Run 4: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 392.04 Mbit/s)
- Flow 1 egress (mean 275.93 Mbit/s)

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

- Flow 1 (95th percentile 304.37 ms)
Run 5: Statistics of PCC-Expr

Start at: 2018-07-06 03:12:29
End at: 2018-07-06 03:12:59
Local clock offset: -0.153 ms
Remote clock offset: -1.088 ms

# Below is generated by plot.py at 2018-07-06 06:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 118.72 Mbit/s
95th percentile per-packet one-way delay: 54.560 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 118.72 Mbit/s
95th percentile per-packet one-way delay: 54.560 ms
Loss rate: 0.57%
Run 5: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 118.80 Mbit/s)
- Flow 1 egress (mean 118.72 Mbit/s)

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

- Flow 1 (95th percentile 54.56 ms)
Run 6: Statistics of PCC-Expr

Start at: 2018-07-06 03:33:57
End at: 2018-07-06 03:34:27
Local clock offset: -0.105 ms
Remote clock offset: 0.157 ms

# Below is generated by plot.py at 2018-07-06 06:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 163.45 Mbit/s
95th percentile per-packet one-way delay: 163.791 ms
Loss rate: 2.76%
-- Flow 1:
Average throughput: 163.45 Mbit/s
95th percentile per-packet one-way delay: 163.791 ms
Loss rate: 2.76%
Run 6: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 167.50 Mbit/s)
- Flow 1 egress (mean 163.45 Mbit/s)

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

- Flow 1 (95th percentile 163.79 ms)
Run 7: Statistics of PCC-Expr

Start at: 2018-07-06 03:55:48
End at: 2018-07-06 03:56:18
Local clock offset: -0.236 ms
Remote clock offset: -0.206 ms

# Below is generated by plot.py at 2018-07-06 06:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 125.58 Mbit/s
95th percentile per-packet one-way delay: 53.204 ms
Loss rate: 0.36%

-- Flow 1:
Average throughput: 125.58 Mbit/s
95th percentile per-packet one-way delay: 53.204 ms
Loss rate: 0.36%
Run 7: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 125.58 Mbps)
- Flow 1 egress (mean 125.58 Mbps)

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

- Flow 1 (95th percentile 53.20 ms)
Run 8: Statistics of PCC-Expr

Start at: 2018-07-06 04:17:29
End at: 2018-07-06 04:17:59
Local clock offset: -0.156 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2018-07-06 06:44:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 256.62 Mbit/s
95th percentile per-packet one-way delay: 179.851 ms
Loss rate: 4.47%
-- Flow 1:
Average throughput: 256.62 Mbit/s
95th percentile per-packet one-way delay: 179.851 ms
Loss rate: 4.47%
Run 8: Report of PCC-Expr — Data Link

![Graph 1: Throughput (Mbps)]

Flow 1 ingress (mean 267.70 Mbps)  
Flow 1 egress (mean 256.62 Mbps)

![Graph 2: RTT (ms)]

Flow 1 (95th percentile 179.85 ms)
Run 9: Statistics of PCC-Expr

Start at: 2018-07-06 04:39:17
End at: 2018-07-06 04:39:47
Local clock offset: -0.284 ms
Remote clock offset: -1.235 ms

# Below is generated by plot.py at 2018-07-06 06:46:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 286.99 Mbit/s
95th percentile per-packet one-way delay: 130.717 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 286.99 Mbit/s
95th percentile per-packet one-way delay: 130.717 ms
Loss rate: 1.09%
Run 9: Report of PCC-Expr — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 289.10 Mbit/s)
- Flow 1 egress (mean 286.99 Mbit/s)

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

- Flow 1 (95th percentile 130.72 ms)
Run 10: Statistics of PCC-Expr

Start at: 2018-07-06 05:00:52
End at: 2018-07-06 05:01:22
Local clock offset: -0.157 ms
Remote clock offset: 0.169 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 304.68 Mbit/s
  95th percentile per-packet one-way delay: 305.169 ms
  Loss rate: 5.58%
-- Flow 1:
  Average throughput: 304.68 Mbit/s
  95th percentile per-packet one-way delay: 305.169 ms
  Loss rate: 5.58%
Run 10: Report of PCC-Expr — Data Link

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

Start at: 2018-07-06 01:50:20
End at: 2018-07-06 01:50:50
Local clock offset: -0.058 ms
Remote clock offset: 0.057 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.02 Mbit/s
95th percentile per-packet one-way delay: 53.471 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 55.02 Mbit/s
95th percentile per-packet one-way delay: 53.471 ms
Loss rate: 0.61%
Run 1: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 55.15 Mbit/s)
- Flow 1 egress (mean 55.02 Mbit/s)
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-06 02:12:13
End at: 2018-07-06 02:12:43
Local clock offset: -0.138 ms
Remote clock offset: -0.321 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.79 Mbit/s
95th percentile per-packet one-way delay: 53.834 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 51.79 Mbit/s
95th percentile per-packet one-way delay: 53.834 ms
Loss rate: 0.49%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-06 02:33:46
End at: 2018-07-06 02:34:16
Local clock offset: 0.11 ms
Remote clock offset: 0.183 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.00 Mbit/s
95th percentile per-packet one-way delay: 49.923 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 54.00 Mbit/s
95th percentile per-packet one-way delay: 49.923 ms
Loss rate: 0.57%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-07-06 02:55:48
End at: 2018-07-06 02:56:18
Local clock offset: -0.164 ms
Remote clock offset: 0.238 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.47 Mbit/s
95th percentile per-packet one-way delay: 49.893 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 58.47 Mbit/s
95th percentile per-packet one-way delay: 49.893 ms
Loss rate: 0.46%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-06 03:17:37
End at: 2018-07-06 03:18:07
Local clock offset: -0.043 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.45 Mbit/s
95th percentile per-packet one-way delay: 53.534 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 56.45 Mbit/s
95th percentile per-packet one-way delay: 53.534 ms
Loss rate: 0.54%
Run 5: Report of QUIC Cubic — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image2)
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-06 03:39:05
End at: 2018-07-06 03:39:35
Local clock offset: 0.056 ms
Remote clock offset: -1.308 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 61.41 Mbit/s 
  95th percentile per-packet one-way delay: 55.229 ms
  Loss rate: 0.54%
-- Flow 1:
  Average throughput: 61.41 Mbit/s 
  95th percentile per-packet one-way delay: 55.229 ms
  Loss rate: 0.54%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-06 04:00:59
End at: 2018-07-06 04:01:29
Local clock offset: -0.074 ms
Remote clock offset: -0.205 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.14 Mbit/s
95th percentile per-packet one-way delay: 53.674 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 52.14 Mbit/s
95th percentile per-packet one-way delay: 53.674 ms
Loss rate: 0.61%
Run 7: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress (mean 52.28 Mbit/s)**
- **Flow 1 egress (mean 52.14 Mbit/s)**

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

- **Flow 1 (95th percentile 53.67 ms)**
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-06 04:22:54
End at: 2018-07-06 04:23:24
Local clock offset: -0.183 ms
Remote clock offset: 0.105 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.36 Mbit/s
95th percentile per-packet one-way delay: 53.397 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 58.36 Mbit/s
95th percentile per-packet one-way delay: 53.397 ms
Loss rate: 0.53%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-06 04:44:34
End at: 2018-07-06 04:45:04
Local clock offset: 0.153 ms
Remote clock offset: 1.281 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.46 Mbit/s
95th percentile per-packet one-way delay: 49.725 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 62.46 Mbit/s
95th percentile per-packet one-way delay: 49.725 ms
Loss rate: 0.49%
Run 9: Report of QUIC Cubic — Data Link

[Graphs showing throughput and round-trip time over time for different flow types and their means.]
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-06 05:06:30
End at: 2018-07-06 05:07:00
Local clock offset: 0.145 ms
Remote clock offset: 0.157 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 50.84 Mbit/s
  95th percentile per-packet one-way delay: 53.264 ms
  Loss rate: 0.59%
-- Flow 1:
  Average throughput: 50.84 Mbit/s
  95th percentile per-packet one-way delay: 53.264 ms
  Loss rate: 0.59%
Run 10: Report of QUIC Cubic — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)

203
Run 1: Statistics of SCReAM

Start at: 2018-07-06 01:54:04
End at: 2018-07-06 01:54:34
Local clock offset: 0.066 ms
Remote clock offset: -0.195 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.662 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.662 ms
Loss rate: 0.38%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-07-06 02:15:57
End at: 2018-07-06 02:16:27
Local clock offset: -0.203 ms
Remote clock offset: -1.228 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.398 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.398 ms
Loss rate: 0.39%
Run 3: Statistics of SCReAM

Start at: 2018-07-06 02:37:30
End at: 2018-07-06 02:38:00
Local clock offset: -0.187 ms
Remote clock offset: 0.437 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.854 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.854 ms
Loss rate: 0.39%
Run 3: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

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

Per-packet one way delay (ms)

Flow 1 (95th percentile 49.85 ms)
Run 4: Statistics of SCReAM

Start at: 2018-07-06 02:59:31
End at: 2018-07-06 03:00:01
Local clock offset: -0.04 ms
Remote clock offset: -0.211 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.988 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.988 ms
Loss rate: 0.39%
Run 4: Report of SCReAM — Data Link

![Graph: Throughput vs Time](image1)

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

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

- Flow 1 (95th percentile 53.99 ms)
Run 5: Statistics of SCReAM

Start at: 2018-07-06 03:21:21
End at: 2018-07-06 03:21:51
Local clock offset: -0.043 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.622 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.622 ms
Loss rate: 0.37%
Run 5: Report of SCReAM — Data Link
Run 6: Statistics of SCReAM

Start at: 2018-07-06 03:42:48
End at: 2018-07-06 03:43:18
Local clock offset: -0.06 ms
Remote clock offset: 0.086 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.634 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.634 ms
Loss rate: 0.38%
Run 6: Report of SCReAM — Data Link

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

Throughput (Mbps)

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

Per-packet delay (ms)

- Flow 1 (95th percentile 53.63 ms)
Run 7: Statistics of SCReAM

Start at: 2018-07-06 04:04:42
End at: 2018-07-06 04:05:12
Local clock offset: -0.14 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.054 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.054 ms
Loss rate: 0.26%
Run 7: Report of SCReAM — Data Link

![Graph of throughput and delay over time]

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

- **Delay (ms):**
  - Flow 1 (95th percentile 50.05 ms)
Run 8: Statistics of SCReAM

Start at: 2018-07-06 04:26:39
End at: 2018-07-06 04:27:09
Local clock offset: -0.215 ms
Remote clock offset: -0.262 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.234 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.234 ms
  Loss rate: 0.38%
Run 8: Report of SCReAM — Data Link

Throughput (MB/s)

Time (s)

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

One-way delay (ms)

Time (s)

Flow 1 (95th percentile 50.23 ms)
Run 9: Statistics of SCReAM

Start at: 2018-07-06 04:48:18
End at: 2018-07-06 04:48:48
Local clock offset: -0.159 ms
Remote clock offset: 1.363 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 52.394 ms
  Loss rate: 0.39%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 52.394 ms
  Loss rate: 0.39%
Run 9: Report of SCReAM — Data Link

![Graph showing throughput over time for Flow 1 ingress and egress with mean 0.21 Mbit/s.]

![Graph showing per-packet round-trip delay for Flow 1 with 95th percentile 52.39 ms.]
Run 10: Statistics of SCRReAM

Start at: 2018-07-06 05:10:12
End at: 2018-07-06 05:10:42
Local clock offset: 0.079 ms
Remote clock offset: 0.151 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.737 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.737 ms
Loss rate: 0.26%
Run 10: Report of SCReAM — Data Link

![Throughput graph](image1)

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

![Packet delay graph](image2)

*Flow 1 (95th percentile 53.74 ms)*
Run 1: Statistics of Sprout

Start at: 2018-07-06 01:49:14
End at: 2018-07-06 01:49:44
Local clock offset: -0.121 ms
Remote clock offset: -0.185 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.20 Mbit/s
95th percentile per-packet one-way delay: 54.808 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 7.20 Mbit/s
95th percentile per-packet one-way delay: 54.808 ms
Loss rate: 0.22%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-07-06 22:11:07
End at: 2018-07-06 22:11:37
Local clock offset: 0.042 ms
Remote clock offset: -0.323 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.76 Mbit/s
95th percentile per-packet one-way delay: 54.416 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 6.76 Mbit/s
95th percentile per-packet one-way delay: 54.416 ms
Loss rate: 0.22%
Run 2: Report of Sprout — Data Link

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

- **Flow 1 ingress (mean 6.75 Mbit/s)**
- **Flow 1 egress (mean 6.76 Mbit/s)**

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

- **Flow 1 95th percentile 54.42 ms**
Run 3: Statistics of Sprout

Start at: 2018-07-06 02:32:40
End at: 2018-07-06 02:33:10
Local clock offset: 0.031 ms
Remote clock offset: 1.439 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.95 Mbit/s
95th percentile per-packet one-way delay: 52.714 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 5.95 Mbit/s
95th percentile per-packet one-way delay: 52.714 ms
Loss rate: 0.81%
Run 3: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 5.97 Mbit/s)
- Flow 1 egress (mean 5.95 Mbit/s)

![Graph showing packet delay](image)

- Flow 1 (90th percentile 52.71 ms)
Run 4: Statistics of Sprout

Start at: 2018-07-06 02:54:42
End at: 2018-07-06 02:55:12
Local clock offset: 0.122 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 54.868 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 54.868 ms
Loss rate: 0.20%
Run 4: Report of Sprout — Data Link

![Graph showing throughput and delay over time]
Run 5: Statistics of Sprout

Start at: 2018-07-06 03:16:31
End at: 2018-07-06 03:17:01
Local clock offset: -0.165 ms
Remote clock offset: -1.471 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 55.885 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 55.885 ms
Loss rate: 0.18%
Run 5: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 6.62 Mbit/s)  Flow 1 egress (mean 6.62 Mbit/s)

Packet one way delay (ms)

Time (s)

Flow 1 95th percentile 55.88 ms
Run 6: Statistics of Sprout

Start at: 2018-07-06 03:37:59
End at: 2018-07-06 03:38:29
Local clock offset: -0.068 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.73 Mbit/s
95th percentile per-packet one-way delay: 54.300 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 6.73 Mbit/s
95th percentile per-packet one-way delay: 54.300 ms
Loss rate: 0.48%
Run 6: Report of Sprout — Data Link

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

- **Flow 1 ingress** (mean 6.74 Mbit/s)
- **Flow 1 egress** (mean 6.73 Mbit/s)

**Per-packet one-way delay** (ms):
- **Flow 1 95th percentile 54.30 ms**
Run 7: Statistics of Sprout

Start at: 2018-07-06 03:59:53
End at: 2018-07-06 04:00:23
Local clock offset: -0.113 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 54.361 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 54.361 ms
Loss rate: 0.26%
Run 7: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 6.68 Mbit/s)
- Flow 1 egress (mean 6.69 Mbit/s)

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

- Flow 1 (95th percentile 54.36 ms)
Run 8: Statistics of Sprout

Start at: 2018-07-06 04:21:48
End at: 2018-07-06 04:22:18
Local clock offset: -0.149 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2018-07-06 06:47:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.06 Mbit/s
95th percentile per-packet one-way delay: 54.200 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 7.06 Mbit/s
95th percentile per-packet one-way delay: 54.200 ms
Loss rate: 0.06%
Run 8: Report of Sprout — Data Link

![Graphs showing throughput and packet delay](image_url)
Run 9: Statistics of Sprout

Start at: 2018-07-06 04:43:27
End at: 2018-07-06 04:43:57
Local clock offset: -0.089 ms
Remote clock offset: 1.306 ms

# Below is generated by plot.py at 2018-07-06 06:47:42
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 5.87 Mbit/s
  95th percentile per-packet one-way delay: 52.699 ms
  Loss rate: 0.36%
-- Flow 1:
  Average throughput: 5.87 Mbit/s
  95th percentile per-packet one-way delay: 52.699 ms
  Loss rate: 0.36%
Run 9: Report of Sprout — Data Link

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

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 5.88 Mbit/s)  Flow 1 egress (mean 5.87 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 52.70 ms)
Run 10: Statistics of Sprout

Start at: 2018-07-06 05:05:24
End at: 2018-07-06 05:05:54
Local clock offset: -0.012 ms
Remote clock offset: 1.232 ms

# Below is generated by plot.py at 2018-07-06 06:47:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.02 Mbit/s
95th percentile per-packet one-way delay: 53.056 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 7.02 Mbit/s
95th percentile per-packet one-way delay: 53.056 ms
Loss rate: 0.16%
Run 10: Report of Sprout — Data Link

Throughput (Mbps/s) over time:

- Flow 1 ingress (mean 7.01 Mbps/s)
- Flow 1 egress (mean 7.02 Mbps/s)

Packet delay (ms) over time:

- Flow 1 (95th percentile 53.06 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-07-06 01:38:34
End at: 2018-07-06 01:39:04
Local clock offset: ~0.028 ms
Remote clock offset: 0.108 ms
Run 1: Report of TaoVA-100x — Data Link

![Graph showing data link performance over time with throughput and packet delivery time metrics.]

Flow 1 ingress (mean 92.45 Mbit/s) — Flow 1 egress (mean 92.45 Mbit/s)

Flow 1 (95th percentile 53.63 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-07-06 02:00:23
End at: 2018-07-06 02:00:53
Local clock offset: -0.082 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-07-06 06:52:10
# Datalink statistics

-- Total of 1 flow:
Average throughput: 253.17 Mbit/s
95th percentile per-packet one-way delay: 54.002 ms
Loss rate: 0.35%

-- Flow 1:
Average throughput: 253.17 Mbit/s
95th percentile per-packet one-way delay: 54.002 ms
Loss rate: 0.35%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-07-06 02:22:24
End at: 2018-07-06 02:22:54
Local clock offset: 0.111 ms
Remote clock offset: 0.226 ms

# Below is generated by plot.py at 2018-07-06 06:52:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 125.31 Mbit/s
95th percentile per-packet one-way delay: 53.572 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 125.31 Mbit/s
95th percentile per-packet one-way delay: 53.572 ms
Loss rate: 0.76%
Run 3: Report of TaoVA-100x — Data Link

![Graph of data link performance over time](image)

- **Flow 1 ingress (mean 125.82 Mbit/s)**
- **Flow 1 egress (mean 125.31 Mbit/s)**

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

- **Flow 1 (95th percentile 53.57 ms)**
Run 4: Statistics of TaoVA-100x

Start at: 2018-07-06 02:44:00
End at: 2018-07-06 02:44:30
Local clock offset: -0.07 ms
Remote clock offset: -0.151 ms
Run 4: Report of TaoVA-100x — Data Link

![Graph 1: Throughput (Mbps)](image1)
- Flow 1 ingress (mean 230.75 Mbps)
- Flow 1 egress (mean 230.75 Mbps)

![Graph 2: Packet delay (ms)](image2)
- Flow 1 (95th percentile 53.98 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-07-06 03:05:55
End at: 2018-07-06 03:06:25
Local clock offset: 0.203 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-07-06 06:52:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 247.24 Mbit/s
95th percentile per-packet one-way delay: 54.135 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 247.24 Mbit/s
95th percentile per-packet one-way delay: 54.135 ms
Loss rate: 0.31%
Run 5: Report of TaoVA-100x — Data Link

![Graph 1: Throughput over time]

- **Flow 1 ingress (mean 247.15 Mbit/s)**
- **Flow 1 egress (mean 247.24 Mbit/s)**

![Graph 2: Packet delay over time]

- **Flow 1 (95th percentile 54.13 ms)**
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-06 03:27:45
End at: 2018-07-06 03:28:15
Local clock offset: -0.011 ms
Remote clock offset: 0.255 ms

# Below is generated by plot.py at 2018-07-06 06:52:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.73 Mbit/s
95th percentile per-packet one-way delay: 53.345 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 13.73 Mbit/s
95th percentile per-packet one-way delay: 53.345 ms
Loss rate: 0.30%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

Start at: 2018-07-06 03:49:09
End at: 2018-07-06 03:49:39
Local clock offset: -0.186 ms
Remote clock offset: -0.167 ms

# Below is generated by plot.py at 2018-07-06 06:53:37
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 258.06 Mbit/s
  95th percentile per-packet one-way delay: 53.781 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 258.06 Mbit/s
  95th percentile per-packet one-way delay: 53.781 ms
  Loss rate: 0.38%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-07-06 04:11:11
End at: 2018-07-06 04:11:41
Local clock offset: ~0.046 ms
Remote clock offset: 0.025 ms
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-06 04:33:06
End at: 2018-07-06 04:33:36
Local clock offset: -0.137 ms
Remote clock offset: -0.221 ms

# Below is generated by plot.py at 2018-07-06 06:53:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 53.378 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 53.378 ms
Loss rate: 1.45%
Run 9: Report of TaoVA-100x — Data Link

![Graph of throughput over time for flow ingress and egress](image)

- Flow 1 ingress (mean 28.35 Mbit/s)
- Flow 1 egress (mean 28.04 Mbit/s)

![Graph of packet delay for flow 1](image)

- Flow 1 (95th percentile 53.38 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-06 04:54:45
End at: 2018-07-06 04:55:15
Local clock offset: 0.196 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2018-07-06 06:53:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 153.84 Mbit/s
95th percentile per-packet one-way delay: 54.355 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 153.84 Mbit/s
95th percentile per-packet one-way delay: 54.355 ms
Loss rate: 0.63%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-07-06 01:56:25
End at: 2018-07-06 01:56:55
Local clock offset: -0.046 ms
Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2018-07-06 06:53:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 217.91 Mbit/s
95th percentile per-packet one-way delay: 63.075 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 217.91 Mbit/s
95th percentile per-packet one-way delay: 63.075 ms
Loss rate: 0.37%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-07-06 02:18:22
End at: 2018-07-06 02:18:52
Local clock offset: 0.122 ms
Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2018-07-06 06:53:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.34 Mbit/s
95th percentile per-packet one-way delay: 62.165 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 215.34 Mbit/s
95th percentile per-packet one-way delay: 62.165 ms
Loss rate: 0.41%
Run 2: Report of TCP Vegas — Data Link

![Graph 1](Image 1)

- Flow 1 ingress (mean 215.49 Mbit/s)
- Flow 1 egress (mean 215.34 Mbit/s)

![Graph 2](Image 2)

- Flow 1 (95th percentile 62.16 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-07-06 02:39:59
End at: 2018-07-06 02:40:29
Local clock offset: -0.158 ms
Remote clock offset: -0.199 ms

# Below is generated by plot.py at 2018-07-06 06:53:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.67 Mbit/s
95th percentile per-packet one-way delay: 64.734 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 218.67 Mbit/s
95th percentile per-packet one-way delay: 64.734 ms
Loss rate: 0.37%
Run 4: Statistics of TCP Vegas

Start at: 2018-07-06 03:02:01
End at: 2018-07-06 03:02:31
Local clock offset: -0.018 ms
Remote clock offset: -0.187 ms

# Below is generated by plot.py at 2018-07-06 06:53:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 126.45 Mbit/s
95th percentile per-packet one-way delay: 55.489 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 126.45 Mbit/s
95th percentile per-packet one-way delay: 55.489 ms
Loss rate: 0.37%
Run 4: Report of TCP Vegas — Data Link

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

*Flow 1 ingress (mean 126.49 Mbit/s)  Flow 1 egress (mean 126.45 Mbit/s)*

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

*Flow 1 (95th percentile 55.49 ms)*
Run 5: Statistics of TCP Vegas

Start at: 2018-07-06 03:23:49
End at: 2018-07-06 03:24:19
Local clock offset: 0.056 ms
Remote clock offset: 0.152 ms

# Below is generated by plot.py at 2018-07-06 06:54:14
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 211.08 Mbit/s
  95th percentile per-packet one-way delay: 62.524 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 211.08 Mbit/s
  95th percentile per-packet one-way delay: 62.524 ms
  Loss rate: 0.10%
Run 5: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 210.56 Mbps)**
- **Flow 1 egress (mean 211.08 Mbps)**

![Graph 2: Packet End-to-End Delay (ms)]

- **Flow 1 (95th percentile 62.52 ms)**
Run 6: Statistics of TCP Vegas

Start at: 2018-07-06 03:45:14
End at: 2018-07-06 03:45:44
Local clock offset: 0.187 ms
Remote clock offset: -0.448 ms

# Below is generated by plot.py at 2018-07-06 06:54:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.83 Mbit/s
95th percentile per-packet one-way delay: 55.102 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 27.83 Mbit/s
95th percentile per-packet one-way delay: 55.102 ms
Loss rate: 0.23%
Run 6: Report of TCP Vegas — Data Link

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

![Graph 2: Per-packet One-Way Delay over Time](image2)

275
Run 7: Statistics of TCP Vegas

Start at: 2018-07-06 04:07:11
End at: 2018-07-06 04:07:41
Local clock offset: -0.089 ms
Remote clock offset: 1.124 ms

# Below is generated by plot.py at 2018-07-06 06:55:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 180.22 Mbit/s
95th percentile per-packet one-way delay: 52.918 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 180.22 Mbit/s
95th percentile per-packet one-way delay: 52.918 ms
Loss rate: 0.35%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-07-06 04:29:06
End at: 2018-07-06 04:29:36
Local clock offset: -0.081 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2018-07-06 06:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.48 Mbit/s
95th percentile per-packet one-way delay: 61.904 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 220.48 Mbit/s
95th percentile per-packet one-way delay: 61.904 ms
Loss rate: 0.40%
Run 8: Report of TCP Vegas — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 220.59 Mbps)
- Flow 1 egress (mean 220.48 Mbps)

![Graph 2: Packet delay (ms)]

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

Start at: 2018-07-06 04:50:43
End at: 2018-07-06 04:51:13
Local clock offset: -0.016 ms
Remote clock offset: 1.27 ms

# Below is generated by plot.py at 2018-07-06 06:56:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.85 Mbit/s
95th percentile per-packet one-way delay: 61.235 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 221.85 Mbit/s
95th percentile per-packet one-way delay: 61.235 ms
Loss rate: 0.40%
Run 9: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 221.96 Mbit/s)
- Flow 1 egress (mean 221.85 Mbit/s)

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

- Flow 1 (95th percentile 61.23 ms)
Run 10: Statistics of TCP Vegas

Start at: 2018-07-06 05:12:41
End at: 2018-07-06 05:13:11
Local clock offset: -0.287 ms
Remote clock offset: -1.121 ms

# Below is generated by plot.py at 2018-07-06 06:56:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.51 Mbit/s
95th percentile per-packet one-way delay: 55.209 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 21.51 Mbit/s
95th percentile per-packet one-way delay: 55.209 ms
Loss rate: 0.35%
Run 10: Report of TCP Vegas — Data Link

![Diagram](image1.png)

![Diagram](image2.png)
Run 1: Statistics of Verus

Start at: 2018-07-06 01:55:09
End at: 2018-07-06 01:55:39
Local clock offset: -0.006 ms
Remote clock offset: 0.199 ms

# Below is generated by plot.py at 2018-07-06 06:56:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 168.51 Mbit/s
95th percentile per-packet one-way delay: 91.448 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 168.51 Mbit/s
95th percentile per-packet one-way delay: 91.448 ms
Loss rate: 1.27%
Run 1: Report of Verus — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 170.10 Mbit/s)
  - Flow 1 egress (mean 168.51 Mbit/s)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 91.45 ms)
Run 2: Statistics of Verus

Start at: 2018-07-06 02:17:02
End at: 2018-07-06 02:17:32
Local clock offset: -0.064 ms
Remote clock offset: -1.369 ms

# Below is generated by plot.py at 2018-07-06 06:56:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.44 Mbit/s
95th percentile per-packet one-way delay: 193.889 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 229.44 Mbit/s
95th percentile per-packet one-way delay: 193.889 ms
Loss rate: 0.07%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2018-07-06 02:38:36
End at: 2018-07-06 02:39:06
Local clock offset: -0.055 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-07-06 06:57:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 274.05 Mbit/s
95th percentile per-packet one-way delay: 81.513 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 274.05 Mbit/s
95th percentile per-packet one-way delay: 81.513 ms
Loss rate: 1.39%
Run 3: Report of Verus — Data Link

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

Flow 1 ingress (mean 277.94 Mbit/s)  Flow 1 egress (mean 274.05 Mbit/s)

![Graph 2: Time vs. Per Packet One Way Delay (ms)](image2)

Flow 1 (95th percentile 81.51 ms)
Run 4: Statistics of Verus

Start at: 2018-07-06 03:00:37
End at: 2018-07-06 03:01:07
Local clock offset: -0.219 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-07-06 06:59:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 302.62 Mbit/s
95th percentile per-packet one-way delay: 79.388 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 302.62 Mbit/s
95th percentile per-packet one-way delay: 79.388 ms
Loss rate: 1.22%
Run 4: Report of Verus — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 5: Statistics of Verus

Start at: 2018-07-06 03:22:26
End at: 2018-07-06 03:22:56
Local clock offset: 0.129 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-07-06 06:59:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 273.67 Mbit/s
95th percentile per-packet one-way delay: 84.543 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 273.67 Mbit/s
95th percentile per-packet one-way delay: 84.543 ms
Loss rate: 0.71%
Run 5: Report of Verus — Data Link

![Graph showing throughput and packet delay over time for Flow 1 ingress and egress.]
Run 6: Statistics of Verus

Start at: 2018-07-06 03:43:54
End at: 2018-07-06 03:44:24
Local clock offset: -0.089 ms
Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2018-07-06 06:59:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 240.87 Mbit/s
95th percentile per-packet one-way delay: 91.270 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 240.87 Mbit/s
95th percentile per-packet one-way delay: 91.270 ms
Loss rate: 0.41%
Run 6: Report of Verus — Data Link

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

- Flow 1 ingress (mean 241.27 Mbps)
- Flow 1 egress (mean 240.87 Mbps)

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

- Flow 1 (95th percentile 91.27 ms)
Run 7: Statistics of Verus

Start at: 2018-07-06 04:05:48
End at: 2018-07-06 04:06:18
Local clock offset: -0.049 ms
Remote clock offset: -0.152 ms

# Below is generated by plot.py at 2018-07-06 07:00:49
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 287.86 Mbit/s
  95th percentile per-packet one-way delay: 174.505 ms
  Loss rate: 0.60%
-- Flow 1:
  Average throughput: 287.86 Mbit/s
  95th percentile per-packet one-way delay: 174.505 ms
  Loss rate: 0.60%
Run 7: Report of Verus — Data Link

[Graph showing throughput (Mbps) over time (s) with two lines: one for Flow 1 ingress (mean 288.57 Mbit/s) and one for Flow 1 egress (mean 287.86 Mbit/s).]

[Graph showing one-way packet delay (ms) over time (s) with a line for Flow 1 (95th percentile 174.50 ms).]
Run 8: Statistics of Verus

Start at: 2018-07-06 04:27:44
End at: 2018-07-06 04:28:14
Local clock offset: 0.021 ms
Remote clock offset: 0.12 ms

# Below is generated by plot.py at 2018-07-06 07:00:49
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 253.52 Mbit/s
  95th percentile per-packet one-way delay: 130.357 ms
  Loss rate: 1.41%
-- Flow 1:
  Average throughput: 253.52 Mbit/s
  95th percentile per-packet one-way delay: 130.357 ms
  Loss rate: 1.41%
Run 8: Report of Verus — Data Link

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

- **Flow 1 ingress (mean 256.24 Mbit/s)**
- **Flow 1 egress (mean 253.52 Mbit/s)**
Run 9: Statistics of Verus

Start at: 2018-07-06 04:49:24
End at: 2018-07-06 04:49:54
Local clock offset: 0.153 ms
Remote clock offset: -1.243 ms

# Below is generated by plot.py at 2018-07-06 07:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.03 Mbit/s
95th percentile per-packet one-way delay: 143.416 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 221.03 Mbit/s
95th percentile per-packet one-way delay: 143.416 ms
Loss rate: 0.80%
Run 9: Report of Verus — Data Link

![Graph showing throughput and packet delay over time.](image-url)
Run 10: Statistics of Verus

Start at: 2018-07-06 05:11:18
End at: 2018-07-06 05:11:48
Local clock offset: -0.198 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-07-06 07:01:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 272.77 Mbit/s
95th percentile per-packet one-way delay: 73.154 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 272.77 Mbit/s
95th percentile per-packet one-way delay: 73.154 ms
Loss rate: 0.57%
Run 10: Report of Verus — Data Link
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-06 01:57:42
End at: 2018-07-06 01:58:12
Local clock offset: -0.012 ms
Remote clock offset: -0.173 ms

# Below is generated by plot.py at 2018-07-06 07:03:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 317.24 Mbit/s
95th percentile per-packet one-way delay: 188.432 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 317.24 Mbit/s
95th percentile per-packet one-way delay: 188.432 ms
Loss rate: 0.73%
Run 1: Report of PCC-Vivace — Data Link

[Graph showing throughput and packet delay over time for Flow 1]
Run 2: Statistics of PCC-Vivace

Start at: 2018-07-06 02:19:38
End at: 2018-07-06 02:20:08
Local clock offset: -0.112 ms
Remote clock offset: -1.231 ms

# Below is generated by plot.py at 2018-07-06 07:06:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 375.55 Mbit/s
95th percentile per-packet one-way delay: 80.526 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 375.55 Mbit/s
95th percentile per-packet one-way delay: 80.526 ms
Loss rate: 0.53%
Run 2: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 376.23 Mbit/s)
- Flow 1 egress (mean 375.55 Mbit/s)

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

- Flow 1 (95th percentile 80.53 ms)
Run 3: Statistics of PCC-Vivace

Start at: 2018-07-06 02:41:15
End at: 2018-07-06 02:41:45
Local clock offset: -0.044 ms
Remote clock offset: -1.222 ms

# Below is generated by plot.py at 2018-07-06 07:06:53
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 372.77 Mbit/s
  95th percentile per-packet one-way delay: 123.288 ms
  Loss rate: 0.50%
-- Flow 1:
  Average throughput: 372.77 Mbit/s
  95th percentile per-packet one-way delay: 123.288 ms
  Loss rate: 0.50%
Run 3: Report of PCC-Vivace — Data Link
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-06 03:03:12
End at: 2018-07-06 03:03:42
Local clock offset: -0.26 ms
Remote clock offset: 1.403 ms

# Below is generated by plot.py at 2018-07-06 07:06:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 331.09 Mbit/s
95th percentile per-packet one-way delay: 57.621 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 331.09 Mbit/s
95th percentile per-packet one-way delay: 57.621 ms
Loss rate: 0.40%
Run 4: Report of PCC-Vivace — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-06 03:25:05
End at: 2018-07-06 03:25:35
Local clock offset: 0.042 ms
Remote clock offset: -0.307 ms

# Below is generated by plot.py at 2018-07-06 07:06:53
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 296.99 Mbit/s
  95th percentile per-packet one-way delay: 60.814 ms
  Loss rate: 0.50%
-- Flow 1:
  Average throughput: 296.99 Mbit/s
  95th percentile per-packet one-way delay: 60.814 ms
  Loss rate: 0.50%
Run 5: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 297.47 Mb/s)  Flow 1 egress (mean 296.99 Mb/s)

Packet delivery delay (ms)

Flow 1 (95th percentile: 60.81 ms)
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-06 03:46:21
End at: 2018-07-06 03:46:51
Local clock offset: 0.084 ms
Remote clock offset: -0.274 ms

# Below is generated by plot.py at 2018-07-06 07:07:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 393.34 Mbit/s
95th percentile per-packet one-way delay: 56.644 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 393.34 Mbit/s
95th percentile per-packet one-way delay: 56.644 ms
Loss rate: 0.63%
Run 6: Report of PCC-Vivace — Data Link
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-06 04:08:25
End at: 2018-07-06 04:08:55
Local clock offset: -0.032 ms
Remote clock offset: 1.201 ms

# Below is generated by plot.py at 2018-07-06 07:07:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 382.43 Mbit/s
95th percentile per-packet one-way delay: 59.956 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 382.43 Mbit/s
95th percentile per-packet one-way delay: 59.956 ms
Loss rate: 0.35%
Run 7: Report of PCC-Vivace — Data Link
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-06 04:30:22  
End at: 2018-07-06 04:30:52  
Local clock offset: -0.039 ms  
Remote clock offset: -0.267 ms

# Below is generated by plot.py at 2018-07-06 07:07:49  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 366.12 Mbit/s  
95th percentile per-packet one-way delay: 132.462 ms  
Loss rate: 0.71%  
-- Flow 1:  
Average throughput: 366.12 Mbit/s  
95th percentile per-packet one-way delay: 132.462 ms  
Loss rate: 0.71%
Run 8: Report of PCC-Vivace — Data Link

![Graph of throughput (Mbps) vs time (s)]

- Flow 1 ingress (mean 367.01 Mbit/s)
- Flow 1 egress (mean 366.12 Mbit/s)

![Graph of packet latency (ms) vs time (s)]

- Flow 1 (95th percentile 132.46 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-06 04:51:59
End at: 2018-07-06 04:52:29
Local clock offset: 0.072 ms
Remote clock offset: 0.161 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 384.46 Mbit/s
95th percentile per-packet one-way delay: 58.004 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 384.46 Mbit/s
95th percentile per-packet one-way delay: 58.004 ms
Loss rate: 0.65%
Run 9: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 385.66 Mbit/s)
- Flow 1 egress (mean 384.46 Mbit/s)

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

- Flow 1 (95th percentile 58.00 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-06 05:13:47
End at: 2018-07-06 05:14:17
Local clock offset: -0.043 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 280.94 Mbit/s
95th percentile per-packet one-way delay: 52.585 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 280.94 Mbit/s
95th percentile per-packet one-way delay: 52.585 ms
Loss rate: 0.34%
Run 10: Report of PCC-Vivace — Data Link

![Graph showing throughput and packet delay.]
Run 1: Statistics of WebRTC media

Start at: 2018-07-06 01:43:38
End at: 2018-07-06 01:44:08
Local clock offset: -0.079 ms
Remote clock offset: -1.313 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 54.936 ms
Loss rate: 0.48%

-- Flow 1:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 54.936 ms
Loss rate: 0.48%
Run 1: Report of WebRTC media — Data Link

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

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

Start at: 2018-07-06 02:05:37
End at: 2018-07-06 02:06:07
Local clock offset: -0.069 ms
Remote clock offset: 1.247 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 49.038 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 49.038 ms
Loss rate: 0.42%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-07-06 02:27:21
End at: 2018-07-06 02:27:52
Local clock offset: 0.14 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 54.131 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 54.131 ms
Loss rate: 0.36%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-07-06 02:49:18
End at: 2018-07-06 02:49:48
Local clock offset: -0.141 ms
Remote clock offset: 0.065 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.788 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.788 ms
Loss rate: 0.36%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-07-06 03:11:24
End at: 2018-07-06 03:11:54
Local clock offset: -0.126 ms
Remote clock offset: 1.131 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 52.668 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 52.668 ms
Loss rate: 0.37%
Run 5: Report of WebRTC media — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 1.95 Mbps)  Flow 1 egress (mean 1.95 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 52.67 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-07-06 03:32:51
End at: 2018-07-06 03:33:21
Local clock offset: -0.045 ms
Remote clock offset: 0.182 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.536 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.536 ms
Loss rate: 0.37%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-07-06 03:54:42
End at: 2018-07-06 03:55:12
Local clock offset: -0.035 ms
Remote clock offset: -1.371 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.94 Mbit/s
  95th percentile per-packet one-way delay: 52.086 ms
  Loss rate: 0.42%
-- Flow 1:
  Average throughput: 1.94 Mbit/s
  95th percentile per-packet one-way delay: 52.086 ms
  Loss rate: 0.42%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-07-06 04:16:23
End at: 2018-07-06 04:16:53
Local clock offset: 0.185 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.518 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.518 ms
Loss rate: 0.36%
Run 8: Report of WebRTC media — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 1.94 Mbit/s)**
- **Flow 1 egress (mean 1.94 Mbit/s)**

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

- **Flow 1 (95th percentile 53.52 ms)**
Run 9: Statistics of WebRTC media

Start at: 2018-07-06 04:38:11
End at: 2018-07-06 04:38:41
Local clock offset: -0.216 ms
Remote clock offset: 0.072 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 53.595 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 53.595 ms
Loss rate: 0.36%
Run 9: Report of WebRTC media — Data Link

![Graph of throughput and packet delay over time]

- **Throughput**: The blue and purple lines represent the throughput for different flows, with the mean throughput for each flow indicated.
- **Packet Delay**: The graph on the right shows the 95th percentile packet delay for Flow 1, with a value of 53.59 ms.
Run 10: Statistics of WebRTC media

Start at: 2018-07-06 04:59:46
End at: 2018-07-06 05:00:16
Local clock offset: -0.139 ms
Remote clock offset: 1.182 ms

# Below is generated by plot.py at 2018-07-06 07:08:25
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.96 Mbit/s
  95th percentile per-packet one-way delay: 49.507 ms
  Loss rate: 0.36%
-- Flow 1:
  Average throughput: 1.96 Mbit/s
  95th percentile per-packet one-way delay: 49.507 ms
  Loss rate: 0.36%
Run 10: Report of WebRTC media — Data Link

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

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

343