Pantheon Report

Generated at 2018-07-12 16:30:24 (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 @ 37162fe9af85249aeccac061c93e7f5640ef710b5
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e562f4
third_party/indigo @ 2601c92e4a9d58d38dc4dfe0edbf90c07e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3
third_party/pantheon-tunnel @ 6f038ed31259d366f984065b82cbe8f64b1b39
third_party/pcc @ 1af958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f613e8acd08faba92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3ccf42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3b4b2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366a3e5c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c6a261149af2629562939f9a494
  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>
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<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>
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<td>57.14</td>
<td>0.37</td>
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<td>Copa</td>
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<td>128.44</td>
<td>58.96</td>
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<td>60.81</td>
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<tr>
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<td>732.52</td>
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<td>266.75</td>
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<tr>
<td>Indigo</td>
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<td>215.70</td>
<td>53.16</td>
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<tr>
<td>LEDBAT</td>
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<td>32.02</td>
<td>54.55</td>
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<tr>
<td>PCC-Allegro</td>
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<td>395.10</td>
<td>152.33</td>
<td>1.90</td>
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<tr>
<td>PCC-Expr</td>
<td>10</td>
<td>284.81</td>
<td>152.10</td>
<td>1.98</td>
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<tr>
<td>QUIC Cubic</td>
<td>8</td>
<td>51.59</td>
<td>53.04</td>
<td>0.59</td>
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<tr>
<td>SCRReAM</td>
<td>10</td>
<td>0.21</td>
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<td>0.33</td>
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<tr>
<td>Sprout</td>
<td>10</td>
<td>6.82</td>
<td>54.10</td>
<td>0.37</td>
</tr>
<tr>
<td>TaoVA-100x</td>
<td>6</td>
<td>104.38</td>
<td>53.71</td>
<td>0.12</td>
</tr>
<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>141.40</td>
<td>57.71</td>
<td>0.32</td>
</tr>
<tr>
<td>Verus</td>
<td>10</td>
<td>261.14</td>
<td>105.38</td>
<td>1.01</td>
</tr>
<tr>
<td>PCC-Vivace</td>
<td>10</td>
<td>375.75</td>
<td>71.31</td>
<td>0.47</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>1.91</td>
<td>52.89</td>
<td>0.41</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-07-12 11:08:34
End at: 2018-07-12 11:09:04
Local clock offset: -0.132 ms
Remote clock offset: -1.495 ms

# Below is generated by plot.py at 2018-07-12 14:56:21
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 217.51 Mbit/s
  95th percentile per-packet one-way delay: 55.359 ms
  Loss rate: 0.37%
-- Flow 1:
  Average throughput: 217.51 Mbit/s
  95th percentile per-packet one-way delay: 55.359 ms
  Loss rate: 0.37%
Run 1: Report of TCP BBR — Data Link

![Graph of Throughput](image1)

- **Flow 1 ingress** (mean 217.53 Mbit/s)
- **Flow 1 egress** (mean 217.51 Mbit/s)

![Graph of RTT](image2)

- **Flow 1 (95th percentile 55.36 ms)**
Run 2: Statistics of TCP BBR

Start at: 2018-07-12 11:30:22
End at: 2018-07-12 11:30:52
Local clock offset: -0.092 ms
Remote clock offset: -0.292 ms

# Below is generated by plot.py at 2018-07-12 14:56:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.69 Mbit/s
95th percentile per-packet one-way delay: 60.482 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 220.69 Mbit/s
95th percentile per-packet one-way delay: 60.482 ms
Loss rate: 0.37%
Run 3: Statistics of TCP BBR

Start at: 2018-07-12 11:52:15
End at: 2018-07-12 11:52:45
Local clock offset: -0.064 ms
Remote clock offset: 0.082 ms

# Below is generated by plot.py at 2018-07-12 14:56:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.45 Mbit/s
95th percentile per-packet one-way delay: 60.379 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 216.45 Mbit/s
95th percentile per-packet one-way delay: 60.379 ms
Loss rate: 0.36%
Run 3: Report of TCP BBR — Data Link

![Graph of Throughput (Mbps) over time for Flow 1 ingress and egress, showing mean rates of 216.48 Mbps and 216.45 Mbps respectively.]

![Graph of Pre-packet one-way delay (ms) over time for Flow 1, with a 95th percentile of 60.38 ms.]
Run 4: Statistics of TCP BBR

Start at: 2018-07-12 12:14:15
End at: 2018-07-12 12:14:45
Local clock offset: ~0.228 ms
Remote clock offset: ~0.226 ms

# Below is generated by plot.py at 2018-07-12 14:56:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.21 Mbit/s
95th percentile per-packet one-way delay: 52.068 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 215.21 Mbit/s
95th percentile per-packet one-way delay: 52.068 ms
Loss rate: 0.36%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-07-12 12:36:12
End at: 2018-07-12 12:36:42
Local clock offset: 0.032 ms
Remote clock offset: -1.389 ms

# Below is generated by plot.py at 2018-07-12 14:56:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.28 Mbit/s
95th percentile per-packet one-way delay: 62.600 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 213.28 Mbit/s
95th percentile per-packet one-way delay: 62.600 ms
Loss rate: 0.38%
Run 5: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 213.40 Mbit/s)
- Flow 1 egress (mean 213.28 Mbit/s)

![Graph showing one-way delay over time]

- Flow 1 (95th percentile 62.60 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-07-12 12:58:01
End at: 2018-07-12 12:58:31
Local clock offset: -0.084 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-07-12 14:56:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.45 Mbit/s
95th percentile per-packet one-way delay: 60.162 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 213.45 Mbit/s
95th percentile per-packet one-way delay: 60.162 ms
Loss rate: 0.38%
Run 6: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 213.49 Mbps)
- Flow 1 egress (mean 213.45 Mbps)

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

- Flow 1 (95th percentile 60.16 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-07-12 13:19:52
End at: 2018-07-12 13:20:22
Local clock offset: 0.026 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-07-12 14:56:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.74 Mbit/s
95th percentile per-packet one-way delay: 54.117 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 216.74 Mbit/s
95th percentile per-packet one-way delay: 54.117 ms
Loss rate: 0.35%
Run 7: Report of TCP BBR — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 216.74 Mbit/s)
- **Flow 1 egress** (mean 216.74 Mbit/s)

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

- **Flow 1** (95th percentile 54.12 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-07-12 13:41:34
End at: 2018-07-12 13:42:04
Local clock offset: -0.148 ms
Remote clock offset: 0.119 ms

# Below is generated by plot.py at 2018-07-12 14:56:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.59 Mbit/s
95th percentile per-packet one-way delay: 59.305 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 221.59 Mbit/s
95th percentile per-packet one-way delay: 59.305 ms
Loss rate: 0.36%
Run 8: Report of TCP BBR — Data Link
Run 9: Statistics of TCP BBR

Start at: 2018-07-12 14:03:25
End at: 2018-07-12 14:03:55
Local clock offset: -0.047 ms
Remote clock offset: 1.216 ms

# Below is generated by plot.py at 2018-07-12 14:59:49
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 218.15 Mbit/s
  95th percentile per-packet one-way delay: 52.866 ms
  Loss rate: 0.36%
-- Flow 1:
  Average throughput: 218.15 Mbit/s
  95th percentile per-packet one-way delay: 52.866 ms
  Loss rate: 0.36%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-07-12 14:25:02
End at: 2018-07-12 14:25:32
Local clock offset: 0.011 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-07-12 14:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 214.20 Mbit/s
95th percentile per-packet one-way delay: 54.065 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 214.20 Mbit/s
95th percentile per-packet one-way delay: 54.065 ms
Loss rate: 0.38%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of Copa

Start at: 2018-07-12 11:17:29
End at: 2018-07-12 11:17:59
Local clock offset: -0.086 ms
Remote clock offset: -0.207 ms

# Below is generated by plot.py at 2018-07-12 15:03:26
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 228.72 Mbit/s
  95th percentile per-packet one-way delay: 56.183 ms
  Loss rate: 0.39%
-- Flow 1:
  Average throughput: 228.72 Mbit/s
  95th percentile per-packet one-way delay: 56.183 ms
  Loss rate: 0.39%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-07-12 11:39:34
End at: 2018-07-12 11:40:04
Local clock offset: -0.262 ms
Remote clock offset: -1.532 ms

# Below is generated by plot.py at 2018-07-12 15:03:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.09 Mbit/s
95th percentile per-packet one-way delay: 58.167 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.09 Mbit/s
95th percentile per-packet one-way delay: 58.167 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link
Run 3: Statistics of Copa

Start at: 2018-07-12 12:01:31
End at: 2018-07-12 12:02:01
Local clock offset: -0.149 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2018-07-12 15:03:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 176.56 Mbit/s
95th percentile per-packet one-way delay: 78.418 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 176.56 Mbit/s
95th percentile per-packet one-way delay: 78.418 ms
Loss rate: 0.16%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

Start at: 2018-07-12 12:23:31
End at: 2018-07-12 12:24:01
Local clock offset: 0.163 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2018-07-12 15:03:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 161.82 Mbit/s
95th percentile per-packet one-way delay: 54.184 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 161.82 Mbit/s
95th percentile per-packet one-way delay: 54.184 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-07-12 12:45:22
End at: 2018-07-12 12:45:52
Local clock offset: -0.081 ms
Remote clock offset: 1.008 ms

# Below is generated by plot.py at 2018-07-12 15:03:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 157.72 Mbit/s
95th percentile per-packet one-way delay: 61.281 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 157.72 Mbit/s
95th percentile per-packet one-way delay: 61.281 ms
Loss rate: 0.13%
Run 5: Report of Copa — Data Link

![Throughput vs Time](image1)

- Flow 1 ingress (mean 157.37 Mbit/s)
- Flow 1 egress (mean 157.72 Mbit/s)

![Packet interarrival delay](image2)

- Flow 1 (95th percentile 61.28 ms)
Run 6: Statistics of Copa

Start at: 2018-07-12 13:07:21
End at: 2018-07-12 13:07:51
Local clock offset: ~0.134 ms
Remote clock offset: 1.076 ms

# Below is generated by plot.py at 2018-07-12 15:03:26
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 55.94 Mbit/s
  95th percentile per-packet one-way delay: 52.386 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 55.94 Mbit/s
  95th percentile per-packet one-way delay: 52.386 ms
  Loss rate: 0.38%
Run 6: Report of Copa — Data Link

![Graph of throughput and delay over time]

- **Flow 1 ingress (mean 55.93 Mbit/s)**
- **Flow 1 egress (mean 55.94 Mbit/s)**

![Graph of per-packet delay over time]

- **Flow 1 95th percentile 52.39 ms**
Run 7: Statistics of Copa

End at: 2018-07-12 13:29:29
Local clock offset: -0.014 ms
Remote clock offset: -1.369 ms

# Below is generated by plot.py at 2018-07-12 15:03:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.76 Mbit/s
95th percentile per-packet one-way delay: 55.824 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 85.76 Mbit/s
95th percentile per-packet one-way delay: 55.824 ms
Loss rate: 0.29%
Run 7: Report of Copa — Data Link

![Graph showing throughput and delay over time for Flow 1 with ingress and egress data rates.]
Run 8: Statistics of Copa

Start at: 2018-07-12 13:50:37
End at: 2018-07-12 13:51:07
Local clock offset: 0.06 ms
Remote clock offset: -0.24 ms

# Below is generated by plot.py at 2018-07-12 15:03:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 131.46 Mbit/s
95th percentile per-packet one-way delay: 55.519 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 131.46 Mbit/s
95th percentile per-packet one-way delay: 55.519 ms
Loss rate: 0.35%
Run 8: Report of Copa — Data Link

![Throughput Graph]

Flow 1 ingress (mean 131.46 Mbit/s)  Flow 1 egress (mean 131.46 Mbit/s)

![Ping Packet Graph]

Flow 1 (95th percentile 55.52 ms)
Run 9: Statistics of Copa

Start at: 2018-07-12 14:12:28
End at: 2018-07-12 14:12:58
Local clock offset: -0.114 ms
Remote clock offset: 0.162 ms

# Below is generated by plot.py at 2018-07-12 15:03:26
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 51.51 Mbit/s
  95th percentile per-packet one-way delay: 53.282 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 51.51 Mbit/s
  95th percentile per-packet one-way delay: 53.282 ms
  Loss rate: 0.38%
Run 9: Report of Copa — Data Link

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

- Flow 1 ingress (mean 51.52 Mbps)
- Flow 1 egress (mean 51.51 Mbps)

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

- Flow 1 (95th percentile 53.28 ms)
Run 10: Statistics of Copa

Start at: 2018-07-12 14:33:45
End at: 2018-07-12 14:34:16
Local clock offset: -0.028 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2018-07-12 15:05:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 161.78 Mbit/s
95th percentile per-packet one-way delay: 64.312 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 161.78 Mbit/s
95th percentile per-packet one-way delay: 64.312 ms
Loss rate: 0.18%
Run 10: Report of Copa — Data Link

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Run 1: Statistics of TCP Cubic

Start at: 2018-07-12 11:15:09
End at: 2018-07-12 11:15:39
Local clock offset: -0.056 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-07-12 15:05:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 168.87 Mbit/s
95th percentile per-packet one-way delay: 61.503 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 168.87 Mbit/s
95th percentile per-packet one-way delay: 61.503 ms
Loss rate: 0.39%
Run 1: Report of TCP Cubic — Data Link

![Throughput Graph](image)

- Layer ingress (mean 168.93 Mbit/s)
- Layer egress (mean 168.87 Mbit/s)

![Packet Delay Graph](image)

- Flow 1 (95th percentile 61.50 ms)
Run 2: Statistics of TCP Cubic

Start at: 2018-07-12 11:37:12
End at: 2018-07-12 11:37:42
Local clock offset: -0.058 ms
Remote clock offset: -0.496 ms

# Below is generated by plot.py at 2018-07-12 15:05:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.72 Mbit/s
95th percentile per-packet one-way delay: 61.726 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 219.72 Mbit/s
95th percentile per-packet one-way delay: 61.726 ms
Loss rate: 0.37%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

Start at: 2018-07-12 11:59:11
End at: 2018-07-12 11:59:41
Local clock offset: -0.179 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2018-07-12 15:05:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 172.34 Mbit/s
95th percentile per-packet one-way delay: 58.759 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 172.34 Mbit/s
95th percentile per-packet one-way delay: 58.759 ms
Loss rate: 0.51%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-07-12 12:21:09
End at: 2018-07-12 12:21:39
Local clock offset: -0.059 ms
Remote clock offset: -0.181 ms

# Below is generated by plot.py at 2018-07-12 15:05:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.69 Mbit/s
95th percentile per-packet one-way delay: 62.339 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 222.69 Mbit/s
95th percentile per-packet one-way delay: 62.339 ms
Loss rate: 0.37%
Run 4: Report of TCP Cubic — Data Link

![Graph of throughput over time](image1)

![Graph of ping packet round-trip delay over time](image2)
Run 5: Statistics of TCP Cubic

Start at: 2018-07-12 12:43:00
End at: 2018-07-12 12:43:30
Local clock offset: -0.118 ms
Remote clock offset: 1.293 ms

# Below is generated by plot.py at 2018-07-12 15:05:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.92 Mbit/s
95th percentile per-packet one-way delay: 57.568 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 224.92 Mbit/s
95th percentile per-packet one-way delay: 57.568 ms
Loss rate: 0.39%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-07-12 13:04:58
End at: 2018-07-12 13:05:28
Local clock offset: -0.026 ms
Remote clock offset: 1.122 ms

# Below is generated by plot.py at 2018-07-12 15:06:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.22 Mbit/s
95th percentile per-packet one-way delay: 62.130 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 221.22 Mbit/s
95th percentile per-packet one-way delay: 62.130 ms
Loss rate: 0.37%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-07-12 13:26:40
End at: 2018-07-12 13:27:10
Local clock offset: -0.116 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2018-07-12 15:06:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 143.72 Mbit/s
95th percentile per-packet one-way delay: 62.360 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 143.72 Mbit/s
95th percentile per-packet one-way delay: 62.360 ms
Loss rate: 0.61%
Run 7: Report of TCP Cubic — Data Link

![Graph of Throughput](image1)

- Flow 1 ingress (mean 144.69 Mbit/s)
- Flow 1 egress (mean 143.72 Mbit/s)

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

- Flow 1 (95th percentile 62.36 ms)
Run 8: Statistics of TCP Cubic

End at: 2018-07-12 13:48:45
Local clock offset: -0.043 ms
Remote clock offset: 0.076 ms

# Below is generated by plot.py at 2018-07-12 15:07:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 217.59 Mbit/s
95th percentile per-packet one-way delay: 62.837 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 217.59 Mbit/s
95th percentile per-packet one-way delay: 62.837 ms
Loss rate: 0.40%
Run 8: Report of TCP Cubic — Data Link

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**Throughput (Mb/s)**

- **Flow 1 ingress** (mean 217.70 Mb/s)
- **Flow 1 egress** (mean 217.59 Mb/s)

---

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

- **Flow 1** (95th percentile 62.84 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-07-12 14:10:06
End at: 2018-07-12 14:10:36
Local clock offset: 0.254 ms
Remote clock offset: -1.51 ms

# Below is generated by plot.py at 2018-07-12 15:08:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.17 Mbit/s
95th percentile per-packet one-way delay: 60.304 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 226.17 Mbit/s
95th percentile per-packet one-way delay: 60.304 ms
Loss rate: 0.37%
Run 9: Report of TCP Cubic — Data Link

![Graph showing throughput and delay over time for TCP Cubic flow 1.]

- Throughput in Mbps: 
  - Flow 1 ingress (mean 226.25 Mbps) 
  - Flow 1 egress (mean 226.17 Mbps)

- Delay in ms: 
  - Flow 1 (95th percentile 60.30 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-07-12 14:31:23
End at: 2018-07-12 14:31:54
Local clock offset: -0.059 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-07-12 15:08:39
# Datalink statistics
-- Total of 1 flow:
* Average throughput: 223.32 Mbit/s
* 95th percentile per-packet one-way delay: 58.539 ms
* Loss rate: 0.36%
-- Flow 1:
* Average throughput: 223.32 Mbit/s
* 95th percentile per-packet one-way delay: 58.539 ms
* Loss rate: 0.36%
Run 10: Report of TCP Cubic — Data Link
Run 1: Statistics of FillP

Start at: 2018-07-12 11:21:20
End at: 2018-07-12 11:21:50
Local clock offset: -0.059 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2018-07-12 15:20:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 747.99 Mbit/s
95th percentile per-packet one-way delay: 195.824 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 747.99 Mbit/s
95th percentile per-packet one-way delay: 195.824 ms
Loss rate: 0.83%
Run 1: Report of FillP — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 751.64 Mbit/s)
- Flow 1 egress (mean 747.99 Mbit/s)

![Packet Delay Graph](image2)

Flow 1 (95th percentile 195.82 ms)
Run 2: Statistics of FillP

Start at: 2018-07-12 11:43:13
End at: 2018-07-12 11:43:43
Local clock offset: 0.028 ms
Remote clock offset: -0.241 ms

# Below is generated by plot.py at 2018-07-12 15:21:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 746.60 Mbit/s
95th percentile per-packet one-way delay: 185.301 ms
Loss rate: 2.47%
-- Flow 1:
Average throughput: 746.60 Mbit/s
95th percentile per-packet one-way delay: 185.301 ms
Loss rate: 2.47%
Run 2: Report of FillP — Data Link

![Graph 1: Throughput (Mbps) vs. Time (s)]
- Line: Flow 1 ingress (mean 762.86 Mbit/s)
- Line: Flow 1 egress (mean 746.60 Mbit/s)

![Graph 2: Per-packet one way delay (ms) vs. Time (s)]
- Flow 1 (95th percentile 185.30 ms)
Run 3: Statistics of FillIP

Start at: 2018-07-12 12:05:17
End at: 2018-07-12 12:05:47
Local clock offset: -0.111 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-07-12 15:22:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 754.71 Mbit/s
95th percentile per-packet one-way delay: 231.158 ms
Loss rate: 2.26%
-- Flow 1:
Average throughput: 754.71 Mbit/s
95th percentile per-packet one-way delay: 231.158 ms
Loss rate: 2.26%
Run 3: Report of FillP — Data Link
Run 4: Statistics of FillP

Start at: 2018-07-12 12:27:16
End at: 2018-07-12 12:27:46
Local clock offset: -0.208 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2018-07-12 15:22:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 710.45 Mbit/s
95th percentile per-packet one-way delay: 233.730 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 710.45 Mbit/s
95th percentile per-packet one-way delay: 233.730 ms
Loss rate: 2.10%
Run 4: Report of FillP — Data Link
Run 5: Statistics of FillP

Start at: 2018-07-12 12:49:07
End at: 2018-07-12 12:49:37
Local clock offset: 0.048 ms
Remote clock offset: 1.389 ms

# Below is generated by plot.py at 2018-07-12 15:22:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 680.85 Mbit/s
95th percentile per-packet one-way delay: 152.970 ms
Loss rate: 3.49%
-- Flow 1:
Average throughput: 680.85 Mbit/s
95th percentile per-packet one-way delay: 152.970 ms
Loss rate: 3.49%
Run 5: Report of FillP — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Ping Latency vs Time](image2)

*Throughput (Mbps)*

*Flow 1 ingress (mean 702.99 Mbit/s)  Flow 1 egress (mean 680.85 Mbit/s)*

*Ping latency (ms)*

*Flow 1 (95th percentile 152.97 ms)*
Run 6: Statistics of FillP

Start at: 2018-07-12 13:10:59
End at: 2018-07-12 13:11:29
Local clock offset: 0.005 ms
Remote clock offset: 0.093 ms

# Below is generated by plot.py at 2018-07-12 15:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 831.75 Mbit/s
95th percentile per-packet one-way delay: 190.032 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 831.75 Mbit/s
95th percentile per-packet one-way delay: 190.032 ms
Loss rate: 0.64%
Run 6: Report of FillP — Data Link

Throughput (Mbps) vs Time (s)

- Flow 1 Ingress (mean 834.19 Mbps)
- Flow 1 Egress (mean 831.75 Mbps)

Packet Delay (ms) vs Time (s)

- Flow 1 (95th percentile 190.03 ms)
Run 7: Statistics of FillP

Start at: 2018-07-12 13:32:42
End at: 2018-07-12 13:33:12
Local clock offset: 0.047 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2018-07-12 15:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 709.73 Mbit/s
95th percentile per-packet one-way delay: 238.688 ms
Loss rate: 3.91%
-- Flow 1:
Average throughput: 709.73 Mbit/s
95th percentile per-packet one-way delay: 238.688 ms
Loss rate: 3.91%
Run 7: Report of FillP — Data Link

Throughput (Mb/s)

Flow 1 ingress (mean 736.71 Mb/s)  Flow 1 egress (mean 709.73 Mb/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 238.69 ms)
Run 8: Statistics of FillP

Start at: 2018-07-12 13:54:24
End at: 2018-07-12 13:54:54
Local clock offset: -0.01 ms
Remote clock offset: -1.311 ms

# Below is generated by plot.py at 2018-07-12 15:25:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 696.87 Mbit/s
95th percentile per-packet one-way delay: 144.742 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 696.87 Mbit/s
95th percentile per-packet one-way delay: 144.742 ms
Loss rate: 1.89%
Run 8: Report of FillP — Data Link
Run 9: Statistics of FillP

Start at: 2018-07-12 14:16:07
End at: 2018-07-12 14:16:37
Local clock offset: -0.1 ms
Remote clock offset: -0.23 ms

# Below is generated by plot.py at 2018-07-12 15:36:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 745.41 Mbit/s
95th percentile per-packet one-way delay: 241.873 ms
Loss rate: 3.35%
-- Flow 1:
Average throughput: 745.41 Mbit/s
95th percentile per-packet one-way delay: 241.873 ms
Loss rate: 3.35%
Run 9: Report of FillP — Data Link

- **Flow 1 ingress (mean 788.49 Mbits)**
- **Flow 1 egress (mean 745.41 Mbits)**

- **Flow 1 (95th percentile 241.87 ms)**
Run 10: Statistics of FillP

Start at: 2018-07-12 14:37:34
End at: 2018-07-12 14:38:04
Local clock offset: -0.11 ms
Remote clock offset: 0.852 ms

# Below is generated by plot.py at 2018-07-12 15:36:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 700.82 Mbit/s
95th percentile per-packet one-way delay: 221.553 ms
Loss rate: 3.40%
-- Flow 1:
Average throughput: 700.82 Mbit/s
95th percentile per-packet one-way delay: 221.553 ms
Loss rate: 3.40%
Run 10: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 722.95 Mbit/s)**
- **Flow 1 egress (mean 700.82 Mbit/s)**

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

- **Flow 1 (95th percentile 221.55 ms)**
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-12 11:09:49
End at: 2018-07-12 11:10:19
Local clock offset: -0.031 ms
Remote clock offset: 0.098 ms

# Below is generated by plot.py at 2018-07-12 15:36:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 402.54 Mbit/s
95th percentile per-packet one-way delay: 279.068 ms
Loss rate: 8.51%
-- Flow 1:
Average throughput: 402.54 Mbit/s
95th percentile per-packet one-way delay: 279.068 ms
Loss rate: 8.51%
Run 1: Report of FillP-Sheep — Data Link

![Graph showing throughput and delay over time for Flow 1 ingress and egress](image)

- **Flow 1 ingress (mean 438.73 Mbit/s)**
- **Flow 1 egress (mean 402.54 Mbit/s)**

![Graph showing per-packet one-way delay over time for Flow 1](image)

- **Flow 1 (95th percentile 279.67 ms)**
Run 2: Statistics of FillP-Sheep

Start at: 2018-07-12 11:31:38
End at: 2018-07-12 11:32:08
Local clock offset: -0.112 ms
Remote clock offset: -0.152 ms

# Below is generated by plot.py at 2018-07-12 15:36:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 692.59 Mbit/s
95th percentile per-packet one-way delay: 264.596 ms
Loss rate: 7.81%
-- Flow 1:
Average throughput: 692.59 Mbit/s
95th percentile per-packet one-way delay: 264.596 ms
Loss rate: 7.81%
Run 2: Report of FillP-Sheep — Data Link

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

- **Flow 1 ingress (mean 748.53 Mb/s)**
- **Flow 1 egress (mean 692.59 Mb/s)**
Run 3: Statistics of FillP-Sheep

Start at: 2018-07-12 11:53:31
End at: 2018-07-12 11:54:01
Local clock offset: -0.254 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-12 15:36:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 597.88 Mbit/s
95th percentile per-packet one-way delay: 240.417 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 597.88 Mbit/s
95th percentile per-packet one-way delay: 240.417 ms
Loss rate: 1.39%
Run 3: Report of FillP-Sheep — Data Link
Run 4: Statistics of FILLP-Sheep

Start at: 2018-07-12 12:15:31
End at: 2018-07-12 12:16:01
Local clock offset: ~0.162 ms
Remote clock offset: ~0.162 ms

# Below is generated by plot.py at 2018-07-12 15:38:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 711.18 Mbit/s
95th percentile per-packet one-way delay: 293.293 ms
Loss rate: 7.83%
-- Flow 1:
Average throughput: 711.18 Mbit/s
95th percentile per-packet one-way delay: 293.293 ms
Loss rate: 7.83%
Run 4: Report of FillP-Sheep — Data Link

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

- Blue line: Flow 1 ingress (mean 788.91 Mbits)
- Blue line: Flow 1 egress (mean 711.18 Mbits)
- Blue line: Flow 1 (95th percentile 293.29 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-12 12:37:28
End at: 2018-07-12 12:37:58
Local clock offset: 0.121 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-07-12 15:38:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 473.76 Mbit/s
95th percentile per-packet one-way delay: 266.100 ms
Loss rate: 2.92%
-- Flow 1:
Average throughput: 473.76 Mbit/s
95th percentile per-packet one-way delay: 266.100 ms
Loss rate: 2.92%
Run 5: Report of FillP-Sheep — Data Link

![Throughput vs Time Graph]

- Flow 1 Ingress (mean 486.88 Mb/s)
- Flow 1 Egress (mean 473.76 Mb/s)

![Per-packet one-way delay vs Time Graph]

- Flow 1 (95th percentile 266.10 ms)
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-12 12:59:17
End at: 2018-07-12 12:59:47
Local clock offset: -0.021 ms
Remote clock offset: -1.236 ms

# Below is generated by plot.py at 2018-07-12 15:45:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 888.12 Mbit/s
95th percentile per-packet one-way delay: 243.628 ms
Loss rate: 2.87%
-- Flow 1:
Average throughput: 888.12 Mbit/s
95th percentile per-packet one-way delay: 243.628 ms
Loss rate: 2.87%
Run 6: Report of FillP-Sheep — Data Link

Throughput (Mbit/s)

Flow 1 ingress (mean 910.26 Mbit/s)  Flow 1 egress (mean 888.12 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 243.63 ms)
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-12 13:21:08
End at: 2018-07-12 13:21:38
Local clock offset: -0.037 ms
Remote clock offset: -0.253 ms

# Below is generated by plot.py at 2018-07-12 15:45:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 504.79 Mbit/s
95th percentile per-packet one-way delay: 274.338 ms
Loss rate: 8.60%
-- Flow 1:
Average throughput: 504.79 Mbit/s
95th percentile per-packet one-way delay: 274.338 ms
Loss rate: 8.60%
Run 7: Report of FillP-Sheep — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 550.29 Mbps)
  - Flow 1 egress (mean 504.79 Mbps)

- **Delay (ms)**
  - Flow 1 (95th percentile 274.34 ms)
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-12 13:42:49
End at: 2018-07-12 13:43:19
Local clock offset: 0.245 ms
Remote clock offset: -0.155 ms

# Below is generated by plot.py at 2018-07-12 15:45:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 377.66 Mbit/s
95th percentile per-packet one-way delay: 273.508 ms
Loss rate: 4.48%
-- Flow 1:
Average throughput: 377.66 Mbit/s
95th percentile per-packet one-way delay: 273.508 ms
Loss rate: 4.48%
Run 8: Report of FillP-Sheep — Data Link

![Graph showing throughput and delay over time]

- Flow 1 ingress (mean 394.10 Mbit/s)
- Flow 1 egress (mean 377.66 Mbit/s)

- Flow 1 (95th percentile 273.51 ms)
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-12 14:04:40
End at: 2018-07-12 14:05:10
Local clock offset: 0.094 ms
Remote clock offset: -0.327 ms

# Below is generated by plot.py at 2018-07-12 15:46:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 511.83 Mbit/s
95th percentile per-packet one-way delay: 273.322 ms
Loss rate: 11.83%
-- Flow 1:
Average throughput: 511.83 Mbit/s
95th percentile per-packet one-way delay: 273.322 ms
Loss rate: 11.83%
Run 9: Report of FillP-Sheep — Data Link

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

- **Flow 1 Ingress (mean 578.47 Mb/s)**
- **Flow 1 Egress (mean 511.83 Mb/s)**

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

- **Flow 1 (95th percentile 273.32 ms)**
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-12 14:26:17
End at: 2018-07-12 14:26:47
Local clock offset: 0.182 ms
Remote clock offset: -0.325 ms

# Below is generated by plot.py at 2018-07-12 15:46:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 457.50 Mbit/s
95th percentile per-packet one-way delay: 259.191 ms
Loss rate: 6.23%
-- Flow 1:
Average throughput: 457.50 Mbit/s
95th percentile per-packet one-way delay: 259.191 ms
Loss rate: 6.23%
Run 10: Report of FillIP-Sheep — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 485.44 Mb/s)  Flow 1 egress (mean 457.50 Mb/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 259.19 ms)

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Run 1: Statistics of Indigo

Start at: 2018-07-12 11:13:51
End at: 2018-07-12 11:14:21
Local clock offset: -0.099 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-07-12 15:46:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.44 Mbit/s
95th percentile per-packet one-way delay: 53.569 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 211.44 Mbit/s
95th percentile per-packet one-way delay: 53.569 ms
Loss rate: 0.37%
Run 1: Report of Indigo — Data Link

Throughput (Mbps)

Time (s)

- Flow 1 ingress (mean 211.42 Mbps)
- Flow 1 egress (mean 211.44 Mbps)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 53.57 ms)
Run 2: Statistics of Indigo

Start at: 2018-07-12 11:35:53
End at: 2018-07-12 11:36:23
Local clock offset: 0.127 ms
Remote clock offset: -0.411 ms

# Below is generated by plot.py at 2018-07-12 15:46:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.12 Mbit/s
95th percentile per-packet one-way delay: 54.214 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 227.12 Mbit/s
95th percentile per-packet one-way delay: 54.214 ms
Loss rate: 0.33%
Run 2: Report of Indigo — Data Link

![Graph of throughput and packet delay over time]

- Flow 1 ingress (mean 227.68 Mbit/s)
- Flow 1 egress (mean 227.12 Mbit/s)
Run 3: Statistics of Indigo

Start at: 2018-07-12 11:57:52
End at: 2018-07-12 11:58:22
Local clock offset: 0.021 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-07-12 15:46:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.67 Mbit/s
95th percentile per-packet one-way delay: 53.612 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 231.67 Mbit/s
95th percentile per-packet one-way delay: 53.612 ms
Loss rate: 0.33%
Run 3: Report of Indigo — Data Link

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

- Flow 1 ingress (mean 231.61 Mbps)
- Flow 1 egress (mean 231.67 Mbps)

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

- Flow 1 (95th percentile 53.61 ms)
Run 4: Statistics of Indigo

Start at: 2018-07-12 12:19:50
End at: 2018-07-12 12:20:20
Local clock offset: -0.094 ms
Remote clock offset: -0.172 ms

# Below is generated by plot.py at 2018-07-12 15:46:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.07 Mbit/s
95th percentile per-packet one-way delay: 50.303 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 226.07 Mbit/s
95th percentile per-packet one-way delay: 50.303 ms
Loss rate: 0.35%
Run 4: Report of Indigo — Data Link
Run 5: Statistics of Indigo

Start at: 2018-07-12 12:41:40
End at: 2018-07-12 12:42:10
Local clock offset: -0.21 ms
Remote clock offset: -1.324 ms

# Below is generated by plot.py at 2018-07-12 15:46:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.55 Mbit/s
95th percentile per-packet one-way delay: 51.322 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 231.55 Mbit/s
95th percentile per-packet one-way delay: 51.322 ms
Loss rate: 0.36%
Run 5: Report of Indigo — Data Link

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

- **Flow 1 ingress** (mean 231.60 Mbit/s)
- **Flow 1 egress** (mean 231.55 Mbit/s)

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Run 6: Statistics of Indigo

Start at: 2018-07-12 13:03:39
End at: 2018-07-12 13:04:09
Local clock offset: -0.154 ms
Remote clock offset: -0.235 ms

# Below is generated by plot.py at 2018-07-12 15:46:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 217.45 Mbit/s
95th percentile per-packet one-way delay: 53.774 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 217.45 Mbit/s
95th percentile per-packet one-way delay: 53.774 ms
Loss rate: 0.34%
Run 6: Report of Indigo — Data Link

![Graph showing throughput and packet one-way delay over time. The throughput graph indicates a peak at around 210 Mbps, followed by a decrease. The packet delay graph shows a 95th percentile delay of approximately 53.77 ms.](image-url)
Run 7: Statistics of Indigo

End at: 2018-07-12 13:25:52
Local clock offset: -0.112 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2018-07-12 15:46:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.09 Mbit/s
95th percentile per-packet one-way delay: 53.630 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 206.09 Mbit/s
95th percentile per-packet one-way delay: 53.630 ms
Loss rate: 0.40%
Run 7: Report of Indigo — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 206.17 Mbps)
  - Flow 1 egress (mean 206.09 Mbps)

- **Packet One-Way Delay (ms):**
  - Flow 1 (99th percentile 53.63 ms)
Run 8: Statistics of Indigo

Start at: 2018-07-12 13:46:56
End at: 2018-07-12 13:47:26
Local clock offset: -0.018 ms
Remote clock offset: 0.173 ms

# Below is generated by plot.py at 2018-07-12 15:47:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.98 Mbit/s
95th percentile per-packet one-way delay: 53.617 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 218.98 Mbit/s
95th percentile per-packet one-way delay: 53.617 ms
Loss rate: 0.38%
Run 9: Statistics of Indigo

Start at: 2018-07-12 14:08:48
End at: 2018-07-12 14:09:18
Local clock offset: -0.17 ms
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2018-07-12 15:47:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.52 Mbit/s
95th percentile per-packet one-way delay: 53.638 ms
Loss rate: 0.36%

-- Flow 1:
Average throughput: 209.52 Mbit/s
95th percentile per-packet one-way delay: 53.638 ms
Loss rate: 0.36%
Run 9: Report of Indigo — Data Link
Run 10: Statistics of Indigo

Start at: 2018-07-12 14:30:07
End at: 2018-07-12 14:30:37
Local clock offset: 0.22 ms
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-07-12 15:47:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.13 Mbit/s
95th percentile per-packet one-way delay: 53.970 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 177.13 Mbit/s
95th percentile per-packet one-way delay: 53.970 ms
Loss rate: 0.40%
Run 10: Report of Indigo — Data Link

![Graph showing network performance metrics]

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Run 1: Statistics of LEDBAT

Start at: 2018-07-12 11:04:53
End at: 2018-07-12 11:05:23
Local clock offset: -0.032 ms
Remote clock offset: -0.243 ms

# Below is generated by plot.py at 2018-07-12 15:47:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 55.211 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 55.211 ms
Loss rate: 0.69%
Run 1: Report of LEDBAT — Data Link

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

Flow 1 ingress (mean 31.52 Mbit/s)  
Flow 1 egress (mean 31.42 Mbit/s)
Run 2: Statistics of LEDBAT

Start at: 2018-07-12 11:26:39
End at: 2018-07-12 11:27:09
Local clock offset: -0.074 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-07-12 15:47:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.61 Mbit/s
95th percentile per-packet one-way delay: 54.760 ms
Loss rate: 0.69%

-- Flow 1:
Average throughput: 32.61 Mbit/s
95th percentile per-packet one-way delay: 54.760 ms
Loss rate: 0.69%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-07-12 11:48:30
End at: 2018-07-12 11:49:00
Local clock offset: -0.143 ms
Remote clock offset: -0.243 ms

# Below is generated by plot.py at 2018-07-12 15:47:53
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 31.60 Mbit/s
  95th percentile per-packet one-way delay: 54.669 ms
  Loss rate: 0.70%
-- Flow 1:
  Average throughput: 31.60 Mbit/s
  95th percentile per-packet one-way delay: 54.669 ms
  Loss rate: 0.70%
Run 3: Report of LEDBAT — Data Link

![Graph showing throughput over time](image1)

- **Flow 1 ingress (mean 31.71 Mbit/s)**
- **Flow 1 egress (mean 31.60 Mbit/s)**

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

- **Flow 1 95th percentile 54.67 ms**

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Run 4: Statistics of LEDBAT

Start at: 2018-07-12 12:10:35
End at: 2018-07-12 12:11:05
Local clock offset: -0.265 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2018-07-12 15:47:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.75 Mbit/s
95th percentile per-packet one-way delay: 51.071 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 32.75 Mbit/s
95th percentile per-packet one-way delay: 51.071 ms
Loss rate: 0.69%
Run 4: Report of LEDBAT — Data Link

![Graph 1](image1)

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

Start at: 2018-07-12 12:32:31
End at: 2018-07-12 12:33:01
Local clock offset: -0.092 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-07-12 15:47:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.28 Mbit/s
95th percentile per-packet one-way delay: 54.409 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 31.28 Mbit/s
95th percentile per-packet one-way delay: 54.409 ms
Loss rate: 0.70%
Run 5: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 31.40 Mbit/s)
- Flow 1 egress (mean 31.28 Mbit/s)

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

- Flow 1 (95th percentile 54.41 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-07-12 12:54:22
End at: 2018-07-12 12:54:52
Local clock offset: ~0.115 ms
Remote clock offset: 0.043 ms

# Below is generated by plot.py at 2018-07-12 15:47:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.46 Mbit/s
95th percentile per-packet one-way delay: 54.722 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 31.46 Mbit/s
95th percentile per-packet one-way delay: 54.722 ms
Loss rate: 0.69%
Run 6: Report of LEDBAT — Data Link

![Graph of Throughput vs. Time]

- Flow 1 ingress (mean 31.58 Mbit/s)
- Flow 1 egress (mean 31.46 Mbit/s)

![Graph of End-to-End Delay vs. Time]

- Flow 1 (95th percentile 54.72 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-07-12 13:16:21
End at: 2018-07-12 13:16:52
Local clock offset: -0.01 ms
Remote clock offset: -0.2 ms

# Below is generated by plot.py at 2018-07-12 15:47:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.25 Mbit/s
95th percentile per-packet one-way delay: 55.451 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 30.25 Mbit/s
95th percentile per-packet one-way delay: 55.451 ms
Loss rate: 0.23%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-07-12 13:37:58
End at: 2018-07-12 13:38:28
Local clock offset: -0.033 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-07-12 15:47:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 54.884 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 54.884 ms
Loss rate: 0.70%
Run 9: Statistics of LEDBAT

Start at: 2018-07-12 13:59:41
End at: 2018-07-12 14:00:11
Local clock offset: -0.203 ms
Remote clock offset: 0.15 ms

# Below is generated by plot.py at 2018-07-12 15:47:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.39 Mbit/s
95th percentile per-packet one-way delay: 53.795 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 34.39 Mbit/s
95th percentile per-packet one-way delay: 53.795 ms
Loss rate: 0.67%
Run 9: Report of LEDBAT — Data Link

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

- **Flow 1 ingress (mean 34.51 Mbit/s)**
- **Flow 1 egress (mean 34.39 Mbit/s)**

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

- **Flow 1 (95th percentile 53.80 ms)**
Run 10: Statistics of LEDBAT

Start at: 2018-07-12 14:21:27
End at: 2018-07-12 14:21:57
Local clock offset: 0.07 ms
Remote clock offset: -1.503 ms

# Below is generated by plot.py at 2018-07-12 15:47:54
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 32.86 Mbit/s
  95th percentile per-packet one-way delay: 56.540 ms
  Loss rate: 0.68%
-- Flow 1:
  Average throughput: 32.86 Mbit/s
  95th percentile per-packet one-way delay: 56.540 ms
  Loss rate: 0.68%
Run 10: Report of LEDBAT — Data Link

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

- **Flow 1 ingress (mean 32.97 Mbit/s)**
- **Flow 1 egress (mean 32.86 Mbit/s)**

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

- **Flow 1 (95th percentile 56.54 ms)**

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Run 1: Statistics of PCC-Allegro

Start at: 2018-07-12 11:07:12
End at: 2018-07-12 11:07:42
Local clock offset: 0.052 ms
Remote clock offset: 0.104 ms

# Below is generated by plot.py at 2018-07-12 15:54:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 465.74 Mbit/s
95th percentile per-packet one-way delay: 203.856 ms
Loss rate: 7.06%
-- Flow 1:
Average throughput: 465.74 Mbit/s
95th percentile per-packet one-way delay: 203.856 ms
Loss rate: 7.06%
Run 1: Report of PCC-Allegro — Data Link

Graph 1: Throughput (Mbps)

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

Legend:
- Flow 1 ingress (mean 499.35 Mbit/s)
- Flow 1 egress (mean 465.74 Mbit/s)
- Flow 1 (95th percentile 203.86 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-12 11:29:03
End at: 2018-07-12 11:29:33
Local clock offset: 0.111 ms
Remote clock offset: -0.202 ms

# Below is generated by plot.py at 2018-07-12 15:54:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 393.22 Mbit/s
95th percentile per-packet one-way delay: 81.887 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 393.22 Mbit/s
95th percentile per-packet one-way delay: 81.887 ms
Loss rate: 0.44%
Run 2: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 393.53 Mbps)
- Flow 1 egress (mean 393.22 Mbps)

![Graph of RTT (ms) vs Time (s)]

- Flow 1 (95th percentile 81.89 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-12 11:50:54
End at: 2018-07-12 11:51:24
Local clock offset: -0.155 ms
Remote clock offset: 1.194 ms

# Below is generated by plot.py at 2018-07-12 15:54:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 469.93 Mbit/s
95th percentile per-packet one-way delay: 205.622 ms
Loss rate: 2.87%
-- Flow 1:
Average throughput: 469.93 Mbit/s
95th percentile per-packet one-way delay: 205.622 ms
Loss rate: 2.87%
Run 3: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per packet one way delay (ms)]
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-12 12:12:56
End at: 2018-07-12 12:13:26
Local clock offset: -0.139 ms
Remote clock offset: -0.261 ms

# Below is generated by plot.py at 2018-07-12 15:54:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 391.20 Mbit/s
95th percentile per-packet one-way delay: 206.405 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 391.20 Mbit/s
95th percentile per-packet one-way delay: 206.405 ms
Loss rate: 1.06%
Run 4: Report of PCC-Allegro — Data Link

Graph 1: Throughput vs. Time

Graph 2: Packet delay vs. Time
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-12 12:34:53
End at: 2018-07-12 12:35:23
Local clock offset: -0.119 ms
Remote clock offset: 0.892 ms

# Below is generated by plot.py at 2018-07-12 15:54:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 394.90 Mbit/s
95th percentile per-packet one-way delay: 115.649 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 394.90 Mbit/s
95th percentile per-packet one-way delay: 115.649 ms
Loss rate: 0.86%
Run 5: Report of PCC-Allegro — Data Link
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-12 12:56:46
End at: 2018-07-12 12:57:16
Local clock offset: -0.073 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2018-07-12 15:54:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 295.16 Mbit/s
95th percentile per-packet one-way delay: 57.558 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 295.16 Mbit/s
95th percentile per-packet one-way delay: 57.558 ms
Loss rate: 0.57%
Run 6: Report of PCC-Allegro — Data Link

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

- Flow 1 ingress (mean 295.83 Mbit/s)
- Flow 1 egress (mean 295.16 Mbit/s)

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

- Flow 1 (95th percentile 57.56 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-12 13:18:37
End at: 2018-07-12 13:19:07
Local clock offset: -0.069 ms
Remote clock offset: -0.232 ms

# Below is generated by plot.py at 2018-07-12 15:54:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 277.28 Mbit/s
95th percentile per-packet one-way delay: 53.962 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 277.28 Mbit/s
95th percentile per-packet one-way delay: 53.962 ms
Loss rate: 0.46%
Run 7: Report of PCC-Allegro — Data Link

![Graph of throughput and delay over time]

- Flow 1 ingress (mean 277.60 Mbit/s)
- Flow 1 egress (mean 277.28 Mbit/s)

![Graph of packet delay over time]

- Flow 1 (95th percentile 53.96 ms)
Run 8: Statistics of PCC-Allegro

End at: 2018-07-12 13:40:43
Local clock offset: -0.148 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-07-12 15:55:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 429.20 Mbit/s
95th percentile per-packet one-way delay: 192.737 ms
Loss rate: 2.53%
-- Flow 1:
Average throughput: 429.20 Mbit/s
95th percentile per-packet one-way delay: 192.737 ms
Loss rate: 2.53%
Run 8: Report of PCC-Allegro — Data Link
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-12 14:02:05
End at: 2018-07-12 14:02:35
Local clock offset: 0.024 ms
Remote clock offset: -0.19 ms

# Below is generated by plot.py at 2018-07-12 15:59:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 427.80 Mbit/s
95th percentile per-packet one-way delay: 207.057 ms
Loss rate: 2.72%
-- Flow 1:
Average throughput: 427.80 Mbit/s
95th percentile per-packet one-way delay: 207.057 ms
Loss rate: 2.72%
Run 9: Report of PCC-Allegro — Data Link

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

![Graph 2: Packet per Second vs Time](image2)
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-12 14:23:42
End at: 2018-07-12 14:24:12
Local clock offset: 0.21 ms
Remote clock offset: 1.001 ms

# Below is generated by plot.py at 2018-07-12 15:59:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 406.59 Mbit/s
95th percentile per-packet one-way delay: 198.527 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 406.59 Mbit/s
95th percentile per-packet one-way delay: 198.527 ms
Loss rate: 0.47%
Run 10: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 407.08 Mbit/s)
- Flow 1 egress (mean 406.59 Mbit/s)

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

- Flow 1 (95th percentile 198.53 ms)
Run 1: Statistics of PCC-Expr

Start at: 2018-07-12 11:12:19
End at: 2018-07-12 11:12:50
Local clock offset: -0.042 ms
Remote clock offset: -0.322 ms

# Below is generated by plot.py at 2018-07-12 16:03:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 303.37 Mbit/s
95th percentile per-packet one-way delay: 206.967 ms
Loss rate: 4.33%
-- Flow 1:
Average throughput: 303.37 Mbit/s
95th percentile per-packet one-way delay: 206.967 ms
Loss rate: 4.33%
Run 1: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress (mean 315.98 Mbit/s)**
- **Flow 1 egress (mean 303.37 Mbit/s)**

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

- **Flow 1 (95th percentile 206.97 ms)**
Run 2: Statistics of PCC-Expr

Start at: 2018-07-12 11:34:24
End at: 2018-07-12 11:34:54
Local clock offset: -0.034 ms
Remote clock offset: -0.27 ms

# Below is generated by plot.py at 2018-07-12 16:03:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 269.93 Mbit/s
95th percentile per-packet one-way delay: 173.500 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 269.93 Mbit/s
95th percentile per-packet one-way delay: 173.500 ms
Loss rate: 1.97%
Run 2: Report of PCC-Expr — Data Link

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

Flow 1 ingress (mean 274.39 Mbit/s) and Flow 1 egress (mean 269.93 Mbit/s).]
Run 3: Statistics of PCC-Expr

Start at: 2018-07-12 11:56:20
End at: 2018-07-12 11:56:50
Local clock offset: -0.035 ms
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2018-07-12 16:04:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 302.55 Mbit/s
95th percentile per-packet one-way delay: 158.405 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 302.55 Mbit/s
95th percentile per-packet one-way delay: 158.405 ms
Loss rate: 0.92%
Run 3: Report of PCC-Expr — Data Link

![Graph 1](image1.png)

**Flow 1 ingress (mean 304.27 Mbit/s)**

![Graph 2](image2.png)

**Flow 1 egress (mean 302.55 Mbit/s)**

Flow 1 (95th percentile 158.41 ms)
Run 4: Statistics of PCC-Expr

Start at: 2018-07-12 12:18:19
End at: 2018-07-12 12:18:49
Local clock offset: -0.343 ms
Remote clock offset: -0.236 ms

# Below is generated by plot.py at 2018-07-12 16:07:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 383.91 Mbit/s
95th percentile per-packet one-way delay: 146.149 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 383.91 Mbit/s
95th percentile per-packet one-way delay: 146.149 ms
Loss rate: 1.46%
Run 4: Report of PCC-Expr — Data Link

![Graph of Throughput over Time](image)

**Throughput (Mbps)**

![Graph of Packet One Way Delay over Time](image)

**Packet One Way Delay (ms)**

Legend:
- Flow 1 ingress (mean 388.17 Mbit/s)
- Flow 1 egress (mean 383.91 Mbit/s)
- Flow 1 (95th percentile 146.15 ms)
Run 5: Statistics of PCC-Expr

Start at: 2018-07-12 12:40:11
End at: 2018-07-12 12:40:41
Local clock offset: -0.013 ms
Remote clock offset: -0.22 ms

# Below is generated by plot.py at 2018-07-12 16:07:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 274.68 Mbit/s
95th percentile per-packet one-way delay: 213.253 ms
Loss rate: 4.68%
-- Flow 1:
Average throughput: 274.68 Mbit/s
95th percentile per-packet one-way delay: 213.253 ms
Loss rate: 4.68%
Run 5: Report of PCC-Expr — Data Link
Run 6: Statistics of PCC-Expr

Start at: 2018-07-12 13:02:10
End at: 2018-07-12 13:02:40
Local clock offset: -0.016 ms
Remote clock offset: -0.367 ms

# Below is generated by plot.py at 2018-07-12 16:07:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 293.15 Mbit/s
95th percentile per-packet one-way delay: 141.488 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 293.15 Mbit/s
95th percentile per-packet one-way delay: 141.488 ms
Loss rate: 1.15%
Run 6: Report of PCC-Expr — Data Link

![Graph showing network performance metrics]

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 295.52 Mbps)
  - Flow 1 egress (mean 293.15 Mbps)

- **End-to-end delay (ms)**
  - Flow 1 (95th percentile 141.49 ms)
Run 7: Statistics of PCC-Expr

End at: 2018-07-12 13:24:23
Local clock offset: 0.024 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2018-07-12 16:09:08
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 269.38 Mbit/s
  95th percentile per-packet one-way delay: 98.110 ms
  Loss rate: 0.36%
-- Flow 1:
  Average throughput: 269.38 Mbit/s
  95th percentile per-packet one-way delay: 98.110 ms
  Loss rate: 0.36%
Run 7: Report of PCC-Expr — Data Link
Run 8: Statistics of PCC-Expr

Start at: 2018-07-12 13:45:25
End at: 2018-07-12 13:45:55
Local clock offset: -0.191 ms
Remote clock offset: -0.329 ms

# Below is generated by plot.py at 2018-07-12 16:11:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 309.85 Mbit/s
95th percentile per-packet one-way delay: 177.876 ms
Loss rate: 3.45%
-- Flow 1:
Average throughput: 309.85 Mbit/s
95th percentile per-packet one-way delay: 177.876 ms
Loss rate: 3.45%
Run 8: Report of PCC-Expr — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 319.78 Mbit/s)
  - Flow 1 egress (mean 309.85 Mbit/s)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 177.88 ms)
Run 9: Statistics of PCC-Expr

Start at: 2018-07-12 14:07:17
End at: 2018-07-12 14:07:47
Local clock offset: -0.19 ms
Remote clock offset: -0.333 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 296.64 Mbit/s
95th percentile per-packet one-way delay: 141.159 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 296.64 Mbit/s
95th percentile per-packet one-way delay: 141.159 ms
Loss rate: 0.51%
Run 9: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 297.09 Mbit/s)
- Flow 1 egress (mean 296.64 Mbit/s)

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

Flow 1 (95th percentile 141.16 ms)
Run 10: Statistics of PCC-Expr

Start at: 2018-07-12 14:28:49
End at: 2018-07-12 14:29:19
Local clock offset: -0.022 ms
Remote clock offset: -0.29 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 144.66 Mbit/s
95th percentile per-packet one-way delay: 64.137 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 144.66 Mbit/s
95th percentile per-packet one-way delay: 64.137 ms
Loss rate: 0.96%
Run 10: Report of PCC-Expr — Data Link
Run 1: Statistics of QUIC Cubic

Start at: 2018-07-12 11:25:31
End at: 2018-07-12 11:26:01
Local clock offset: 0.105 ms
Remote clock offset: 0.086 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.88 Mbit/s
95th percentile per-packet one-way delay: 53.543 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 51.88 Mbit/s
95th percentile per-packet one-way delay: 53.543 ms
Loss rate: 0.60%
Run 1: Report of QUIC Cubic — Data Link

[Graphs showing throughput and packet delay over time for Flow 1]
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-12 11:47:22
End at: 2018-07-12 11:47:52
Local clock offset: -0.015 ms
Remote clock offset: 0.979 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.82 Mbit/s
95th percentile per-packet one-way delay: 52.173 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 49.82 Mbit/s
95th percentile per-packet one-way delay: 52.173 ms
Loss rate: 0.66%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-12 12:09:29
End at: 2018-07-12 12:09:59
Local clock offset: -0.096 ms
Remote clock offset: -0.151 ms
Run 3: Report of QUIC Cubic — Data Link

Throughput (Mbit/s)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 50.08 ms)
Run 4: Statistics of QUIC Cubic

Start at: 2018-07-12 12:31:25
End at: 2018-07-12 12:31:55
Local clock offset: -0.261 ms
Remote clock offset: -0.159 ms
Run 4: Report of QUIC Cubic — Data Link

Graph 1: Throughput vs Time

Graph 2: Packet Delay vs Time

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

Flow 1 (95th percentile 53.69 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-12 12:53:14
End at: 2018-07-12 12:53:44
Local clock offset: 0.154 ms
Remote clock offset: 1.232 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.73 Mbit/s
95th percentile per-packet one-way delay: 52.469 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 53.73 Mbit/s
95th percentile per-packet one-way delay: 52.469 ms
Loss rate: 0.47%
Run 5: Report of QUIC Cubic — Data Link

![Graph of Throughput](image1)

- **Flow 1 ingress (mean 53.80 Mbit/s)**
- **Flow 1 egress (mean 53.73 Mbit/s)**

![Graph of Ping-Ping Delay](image2)

- **Flow 1 (95th percentile 52.47 ms)**
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-12 13:15:13
End at: 2018-07-12 13:15:43
Local clock offset: -0.178 ms
Remote clock offset: -1.213 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.39 Mbit/s
95th percentile per-packet one-way delay: 54.584 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 56.39 Mbit/s
95th percentile per-packet one-way delay: 54.584 ms
Loss rate: 0.56%
Run 6: Report of QUIC Cubic — Data Link

[Graph showing throughput and packet completion delay over time]

Flow 1 ingress (mean 56.51 Mbit/s)  Flow 1 egress (mean 56.39 Mbit/s)

Flow 1 (95th percentile 54.58 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-12 13:36:50
End at: 2018-07-12 13:37:20
Local clock offset: -0.095 ms
Remote clock offset: 0.094 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 43.47 Mbit/s
  95th percentile per-packet one-way delay: 53.557 ms
  Loss rate: 0.65%
-- Flow 1:
  Average throughput: 43.47 Mbit/s
  95th percentile per-packet one-way delay: 53.557 ms
  Loss rate: 0.65%
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-12 13:58:32
End at: 2018-07-12 13:59:02
Local clock offset: -0.127 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.00 Mbit/s
95th percentile per-packet one-way delay: 50.396 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 55.00 Mbit/s
95th percentile per-packet one-way delay: 50.396 ms
Loss rate: 0.58%
Run 8: Report of QUIC Cubic — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 55.12 Mbit/s)  Flow 1 egress (mean 55.00 Mbit/s)

Per packet one-way delay (ms)

Flow 1 (95th percentile 50.40 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-12 14:20:19
End at: 2018-07-12 14:20:49
Local clock offset: -0.145 ms
Remote clock offset: -0.479 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.59 Mbit/s
95th percentile per-packet one-way delay: 53.904 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 48.59 Mbit/s
95th percentile per-packet one-way delay: 53.904 ms
Loss rate: 0.59%
Run 9: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet delay over time]

- **Flow 1 ingress (mean 48.71 Mbit/s)**
- **Flow 1 egress (mean 48.59 Mbit/s)**

![Graph showing packet delay over time]

- **Flow 1 (95th percentile 53.90 ms)**
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-12 14:41:44
End at: 2018-07-12 14:42:15
Local clock offset: -0.058 ms
Remote clock offset: -0.3 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.85 Mbit/s
95th percentile per-packet one-way delay: 53.730 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 53.85 Mbit/s
95th percentile per-packet one-way delay: 53.730 ms
Loss rate: 0.59%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

End at: 2018-07-12 11:23:25
Local clock offset: -0.169 ms
Remote clock offset: -0.17 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.975 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.975 ms
Loss rate: 0.39%
Run 1: 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 53.98 ms)
Run 2: Statistics of SCReAM

Start at: 2018-07-12 11:44:48
End at: 2018-07-12 11:45:18
Local clock offset: 0.111 ms
Remote clock offset: -0.52 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.671 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.671 ms
Loss rate: 0.38%
Run 2: Report of SCReAM — Data Link

![Graph showing throughput over time (Mbps) and per-packet one way delay (ms) for Flow 1 ingress and egress, with mean 0.22 Mbps and 95th percentile 50.67 ms, respectively.]
Run 3: Statistics of SCReAM

Start at: 2018-07-12 12:06:54
End at: 2018-07-12 12:07:24
Local clock offset: -0.213 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.558 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.558 ms
Loss rate: 0.38%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2018-07-12 12:28:50
End at: 2018-07-12 12:29:20
Local clock offset: -0.315 ms
Remote clock offset: -0.285 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.064 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.064 ms
Loss rate: 0.38%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2018-07-12 12:50:39
End at: 2018-07-12 12:51:09
Local clock offset: -0.187 ms
Remote clock offset: -0.346 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.989 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.989 ms
Loss rate: 0.38%
Run 5: Report of SCReAM — Data Link

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

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

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 50.99 ms)
Run 6: Statistics of SCReAM

Start at: 2018-07-12 13:12:37
End at: 2018-07-12 13:13:07
Local clock offset: 0.085 ms
Remote clock offset: -1.17 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 51.506 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 51.506 ms
  Loss rate: 0.26%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-07-12 13:34:16
End at: 2018-07-12 13:34:46
Local clock offset: 0.037 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 53.681 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 53.681 ms
  Loss rate: 0.38%
Run 7: Report of SCReAM — Data Link

---

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

---

Flow 1 (95th percentile 53.68 ms)
Run 8: Statistics of SCReAM

End at: 2018-07-12 13:56:27
Local clock offset: 0.011 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.343 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.343 ms
Loss rate: 0.26%
Run 8: Report of SCReAM — Data Link

![Graph showing throughput over time](image1)

**Throughput (Mbps)**

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

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

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

- Flow 1 (95th percentile 50.34 ms)
Run 9: Statistics of SCReAM

Start at: 2018-07-12 14:17:42
End at: 2018-07-12 14:18:12
Local clock offset: -0.056 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 53.682 ms
  Loss rate: 0.26%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 53.682 ms
  Loss rate: 0.26%
Run 9: Report of SCReAM — Data Link

![Graph of network traffic and latency](image)

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

- Flow 1 (95th percentile 53.68 ms)
Run 10: Statistics of SCReAM

Start at: 2018-07-12 14:39:08
End at: 2018-07-12 14:39:38
Local clock offset: -0.038 ms
Remote clock offset: 0.099 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.709 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.709 ms
Loss rate: 0.25%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of Sprout

Start at: 2018-07-12 11:20:14
End at: 2018-07-12 11:20:44
Local clock offset: -0.114 ms
Remote clock offset: 0.16 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.00 Mbit/s
95th percentile per-packet one-way delay: 53.963 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 7.00 Mbit/s
95th percentile per-packet one-way delay: 53.963 ms
Loss rate: 0.51%
Run 1: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 7.02 Mbps)  Flow 1 egress (mean 7.00 Mbps)

Average packet round-trip delay (ms)

Time (s)

Flow 1 (95th percentile 53.96 ms)
Run 2: Statistics of Sprout

Start at: 2018-07-12 11:42:07
End at: 2018-07-12 11:42:37
Local clock offset: -0.145 ms
Remote clock offset: 0.125 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 54.063 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 54.063 ms
Loss rate: 0.53%
Run 3: Statistics of Sprout

Start at: 2018-07-12 12:04:11
End at: 2018-07-12 12:04:41
Local clock offset: 0.019 ms
Remote clock offset: 1.204 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.52 Mbit/s
95th percentile per-packet one-way delay: 52.987 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 6.52 Mbit/s
95th percentile per-packet one-way delay: 52.987 ms
Loss rate: 0.43%
Run 3: Report of Sprout — Data Link

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

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

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Run 4: Statistics of Sprout

Start at: 2018-07-12 12:26:10  
End at: 2018-07-12 12:26:40  
Local clock offset: -0.116 ms  
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2018-07-12 16:13:14  
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 6.45 Mbit/s
  95th percentile per-packet one-way delay: 54.359 ms
  Loss rate: 0.31%
-- Flow 1:
  Average throughput: 6.45 Mbit/s
  95th percentile per-packet one-way delay: 54.359 ms
  Loss rate: 0.31%
Run 4: Report of Sprout — Data Link

![Graph of throughput and packet delay over time]

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 6.45 Mbit/s)
  - Flow 1 egress (mean 6.45 Mbit/s)

- **Packet Delay (ms)**
  - Flow 1 (95th percentile 54.36 ms)
Run 5: Statistics of Sprout

Start at: 2018-07-12 12:48:01
End at: 2018-07-12 12:48:31
Local clock offset: -0.034 ms
Remote clock offset: 1.321 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 52.745 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 52.745 ms
Loss rate: 0.21%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-07-12 13:09:53
End at: 2018-07-12 13:10:23
Local clock offset: 0.238 ms
Remote clock offset: -0.211 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 54.516 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 54.516 ms
Loss rate: 0.25%
Run 6: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 7.31 Mbps)
- Flow 1 egress (mean 7.31 Mbps)

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

- Flow 1 95th percentile 54.52 ms
Run 7: Statistics of Sprout

End at: 2018-07-12 13:32:05
Local clock offset: -0.235 ms
Remote clock offset: -1.329 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.49 Mbit/s
95th percentile per-packet one-way delay: 55.547 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 7.49 Mbit/s
95th percentile per-packet one-way delay: 55.547 ms
Loss rate: 0.20%
Run 7: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 7.47 Mbit/s)
- Flow 1 egress (mean 7.49 Mbit/s)

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

- Flow 1 95th percentile 55.55 ms
Run 8: Statistics of Sprout

Start at: 2018-07-12 13:53:18
End at: 2018-07-12 13:53:48
Local clock offset: 0.048 ms
Remote clock offset: 0.116 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.98 Mbit/s
95th percentile per-packet one-way delay: 54.049 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 5.98 Mbit/s
95th percentile per-packet one-way delay: 54.049 ms
Loss rate: 0.52%
Run 8: Report of Sprout — Data Link

![Graph showing throughput and delay over time for data link.]
Run 9: Statistics of Sprout

Start at: 2018-07-12 14:15:00
End at: 2018-07-12 14:15:30
Local clock offset: -0.201 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.99 Mbit/s
95th percentile per-packet one-way delay: 54.330 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 6.99 Mbit/s
95th percentile per-packet one-way delay: 54.330 ms
Loss rate: 0.40%
Run 9: Report of Sprout — Data Link

![Throughput Graph]

- **Flow 1 ingress (mean 6.99 Mbit/s)**
- **Flow 1 egress (mean 6.99 Mbit/s)**

![Delay Graph]

- **Flow 1 95th percentile 54.33 ms**
Run 10: Statistics of Sprout

Start at: 2018-07-12 14:36:28
End at: 2018-07-12 14:36:58
Local clock offset: 0.115 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-07-12 16:13:14
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 6.74 Mbit/s
  95th percentile per-packet one-way delay: 54.443 ms
  Loss rate: 0.35%
-- Flow 1:
  Average throughput: 6.74 Mbit/s
  95th percentile per-packet one-way delay: 54.443 ms
  Loss rate: 0.35%
Run 10: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

Start at: 2018-07-12 11:11:12
End at: 2018-07-12 11:11:42
Local clock offset: 0.101 ms
Remote clock offset: -0.033 ms
Run 2: Statistics of TaoVA-100x

Start at: 2018-07-12 11:33:11
End at: 2018-07-12 11:33:41
Local clock offset: -0.006 ms
Remote clock offset: -0.187 ms
Run 2: Report of TaoVA-100x — Data Link

Graph 1: Throughput (Mbps) over time (s)
- Dashed line: Flow 1 ingress (mean 219.25 Mbps)
- Solid line: Flow 1 egress (mean 219.26 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Solid line: Flow 1 (95th percentile 53.91 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-07-12 11:55:01
End at: 2018-07-12 11:55:31
Local clock offset: -0.004 ms
Remote clock offset: -1.331 ms

# Below is generated by plot.py at 2018-07-12 16:13:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 154.99 Mbit/s
95th percentile per-packet one-way delay: 51.477 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 154.99 Mbit/s
95th percentile per-packet one-way delay: 51.477 ms
Loss rate: 0.03%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-07-12 12:17:06
End at: 2018-07-12 12:17:36
Local clock offset: -0.035 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2018-07-12 16:13:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.90 Mbit/s
95th percentile per-packet one-way delay: 53.732 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 76.90 Mbit/s
95th percentile per-packet one-way delay: 53.732 ms
Loss rate: 0.05%
Run 4: Report of TaoVA-100x — Data Link

[Graph showing throughput and delay over time]
Run 5: Statistics of TaoVA-100x

Start at: 2018-07-12 12:38:54
End at: 2018-07-12 12:39:24
Local clock offset: -0.255 ms
Remote clock offset: -0.327 ms

# Below is generated by plot.py at 2018-07-12 16:13:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 141.15 Mbit/s
95th percentile per-packet one-way delay: 53.771 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 141.15 Mbit/s
95th percentile per-packet one-way delay: 53.771 ms
Loss rate: 0.04%
Run 5: Report of TaoVA-100x — Data Link

[Chart 1: Throughput (Mbps)
- Flow 1 ingress (mean 140.71 Mbit/s)
- Flow 1 egress (mean 141.15 Mbit/s)]

[Chart 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 53.77 ms)]
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-12 13:01:02
End at: 2018-07-12 13:01:32
Local clock offset: -0.069 ms
Remote clock offset: -0.014 ms
Run 6: Report of TaoVA-100x — Data Link

---

[Graph 1: Throughput (Mbps) over Time (s)]
- Flow 1 ingress (mean 118.95 Mbit/s)
- Flow 1 egress (mean 118.95 Mbit/s)

---

[Graph 2: Per-packet one-way delay (ms) over Time (s)]
- Flow 1 (95th percentile 53.66 ms)
Run 7: Statistics of TaoVA-100x

End at: 2018-07-12 13:23:05
Local clock offset: 0.093 ms
Remote clock offset: -1.179 ms

# Below is generated by plot.py at 2018-07-12 16:14:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 144.65 Mbit/s
95th percentile per-packet one-way delay: 54.759 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 144.65 Mbit/s
95th percentile per-packet one-way delay: 54.759 ms
Loss rate: 0.28%
Run 7: Report of Taova-100x — Data Link

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

Flow 1 ingress (mean 144.42 Mbit/s)  Flow 1 egress (mean 144.65 Mbit/s)
Run 8: Statistics of TaoVA-100x

Start at: 2018-07-12 13:44:11
End at: 2018-07-12 13:44:41
Local clock offset: -0.021 ms
Remote clock offset: 0.083 ms

# Below is generated by plot.py at 2018-07-12 16:14:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.18 Mbit/s
95th percentile per-packet one-way delay: 53.553 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 95.18 Mbit/s
95th percentile per-packet one-way delay: 53.553 ms
Loss rate: 0.05%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-12 14:06:10
End at: 2018-07-12 14:06:40
Local clock offset: 0.03 ms
Remote clock offset: -0.53 ms
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-12 14:27:42  
End at: 2018-07-12 14:28:12  
Local clock offset: 0.078 ms  
Remote clock offset: -1.373 ms

# Below is generated by plot.py at 2018-07-12 16:14:03  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 13.39 Mbit/s  
95th percentile per-packet one-way delay: 54.953 ms  
Loss rate: 0.30%  
-- Flow 1:  
Average throughput: 13.39 Mbit/s  
95th percentile per-packet one-way delay: 54.953 ms  
Loss rate: 0.30%
Run 10: Report of TaoVA-100x — Data Link

![Graph showing throughput and ping delay over time]

---

Flow 1 ingress (mean 13.38 Mbit/s)
Flow 1 egress (mean 13.39 Mbit/s)
Run 1: Statistics of TCP Vegas

Start at: 2018-07-12 11:06:01
End at: 2018-07-12 11:06:31
Local clock offset: -0.059 ms
Remote clock offset: -0.222 ms

# Below is generated by plot.py at 2018-07-12 16:14:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 104.08 Mbit/s
95th percentile per-packet one-way delay: 54.974 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 104.08 Mbit/s
95th percentile per-packet one-way delay: 54.974 ms
Loss rate: 0.40%
Run 1: Report of TCP Vegas — Data Link

---

Flow 1 ingress (mean 104.14 Mbit/s)  Flow 1 egress (mean 104.08 Mbit/s)

Flow 1 (95th percentile 54.97 ms)
Run 2: Statistics of TCP Vegas

Start at: 2018-07-12 11:27:47
End at: 2018-07-12 11:28:17
Local clock offset: -0.269 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-07-12 16:15:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.65 Mbit/s
95th percentile per-packet one-way delay: 61.346 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 224.65 Mbit/s
95th percentile per-packet one-way delay: 61.346 ms
Loss rate: 0.38%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-07-12 11:49:38
End at: 2018-07-12 11:50:08
Local clock offset: -0.046 ms
Remote clock offset: 0.118 ms

# Below is generated by plot.py at 2018-07-12 16:15:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.10 Mbit/s
95th percentile per-packet one-way delay: 60.796 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 210.10 Mbit/s
95th percentile per-packet one-way delay: 60.796 ms
Loss rate: 0.16%
Run 3: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 209.71 Mbit/s)
- Flow 1 egress (mean 210.10 Mbit/s)

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

- Flow 1 (95th percentile 60.80 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-07-12 12:11:42
End at: 2018-07-12 12:12:12
Local clock offset: -0.038 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-07-12 16:15:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 155.08 Mbit/s
95th percentile per-packet one-way delay: 61.669 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 155.08 Mbit/s
95th percentile per-packet one-way delay: 61.669 ms
Loss rate: 0.14%
Run 4: Report of TCP Vegas — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 154.74 Mbps)
  - Flow 1 egress (mean 155.08 Mbps)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 61.67 ms)
Run 5: Statistics of TCP Vegas

Start at: 2018-07-12 12:33:38
End at: 2018-07-12 12:34:08
Local clock offset: 0.029 ms
Remote clock offset: 1.14 ms

# Below is generated by plot.py at 2018-07-12 16:16:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.97 Mbit/s
95th percentile per-packet one-way delay: 53.441 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 191.97 Mbit/s
95th percentile per-packet one-way delay: 53.441 ms
Loss rate: 0.35%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-07-12 12:55:30
End at: 2018-07-12 12:56:00
Local clock offset: 0.006 ms
Remote clock offset: -0.299 ms

# Below is generated by plot.py at 2018-07-12 16:16:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.94 Mbit/s
95th percentile per-packet one-way delay: 62.952 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 218.94 Mbit/s
95th percentile per-packet one-way delay: 62.952 ms
Loss rate: 0.13%
Run 6: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 218.47 Mbit/s)
- Flow 1 egress (mean 218.94 Mbit/s)
Run 7: Statistics of TCP Vegas

Start at: 2018-07-12 13:17:29
End at: 2018-07-12 13:17:59
Local clock offset: -0.03 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-07-12 16:16:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 54.253 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 54.253 ms
Loss rate: 0.46%
Run 7: Report of TCP Vegas — Data Link

![Graph](image)

- Flow 1 ingress (mean 40.74 Mbit/s)
- Flow 1 egress (mean 40.69 Mbit/s)

![Graph](image)

- Flow 1 95th percentile 54.25 ms
Run 8: Statistics of TCP Vegas

Start at: 2018-07-12 13:39:06
End at: 2018-07-12 13:39:36
Local clock offset: -0.055 ms
Remote clock offset: 1.168 ms

# Below is generated by plot.py at 2018-07-12 16:16:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.81 Mbit/s
95th percentile per-packet one-way delay: 53.120 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 21.81 Mbit/s
95th percentile per-packet one-way delay: 53.120 ms
Loss rate: 0.53%
Run 8: Report of TCP Vegas — Data Link

![Graph of Throughput vs Time](image1)

- **Flow 1 ingress (mean 21.85 Mbit/s)**
- **Flow 1 egress (mean 21.81 Mbit/s)**

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

- **Flow 1 (95th percentile 53.12 ms)**

---

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Run 9: Statistics of TCP Vegas

Start at: 2018-07-12 14:00:49
End at: 2018-07-12 14:01:19
Local clock offset: 0.011 ms
Remote clock offset: 1.115 ms

# Below is generated by plot.py at 2018-07-12 16:17:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.78 Mbit/s
95th percentile per-packet one-way delay: 60.365 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 211.78 Mbit/s
95th percentile per-packet one-way delay: 60.365 ms
Loss rate: 0.17%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-07-12 14:22:35
End at: 2018-07-12 14:23:05
Local clock offset: -0.128 ms
Remote clock offset: -0.233 ms

# Below is generated by plot.py at 2018-07-12 16:17:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.94 Mbit/s
95th percentile per-packet one-way delay: 54.226 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 34.94 Mbit/s
95th percentile per-packet one-way delay: 54.226 ms
Loss rate: 0.44%
Run 10: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 34.98 Mbit/s)
- Flow 1 egress (mean 34.94 Mbit/s)

![Graph 2: Delay over time](image2)

- Flow 1 95th percentile 54.23 ms

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Run 1: Statistics of Verus

Start at: 2018-07-12 11:18:54
End at: 2018-07-12 11:19:24
Local clock offset: -0.013 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-07-12 16:18:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 244.88 Mbit/s
95th percentile per-packet one-way delay: 81.899 ms
Loss rate: 1.79%
-- Flow 1:
Average throughput: 244.88 Mbit/s
95th percentile per-packet one-way delay: 81.899 ms
Loss rate: 1.79%
Run 1: Report of Verus — Data Link

![Throughput Graph]

- **Flow 1 ingress (mean 248.44 Mbit/s)**
- **Flow 1 egress (mean 244.88 Mbit/s)**

![Delay Graph]

- **Flow 1 (95th percentile 81.90 ms)**
Run 2: Statistics of Verus

Start at: 2018-07-12 11:40:45
End at: 2018-07-12 11:41:15
Local clock offset: 0.008 ms
Remote clock offset: 1.268 ms

# Below is generated by plot.py at 2018-07-12 16:19:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 261.49 Mbit/s
95th percentile per-packet one-way delay: 115.202 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 261.49 Mbit/s
95th percentile per-packet one-way delay: 115.202 ms
Loss rate: 1.63%
Run 2: Report of Verus — Data Link

![Graph of Throughput vs Time](image1)

- **Flow 1 ingress (mean 265.74 Mbit/s)**
- **Flow 1 egress (mean 261.49 Mbit/s)**

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

- **Flow 1 (95th percentile 115.20 ms)**
Run 3: Statistics of Verus

Start at: 2018-07-12 12:02:51
End at: 2018-07-12 12:03:21
Local clock offset: -0.157 ms
Remote clock offset: -0.254 ms

# Below is generated by plot.py at 2018-07-12 16:19:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.93 Mbit/s
95th percentile per-packet one-way delay: 97.096 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 216.93 Mbit/s
95th percentile per-packet one-way delay: 97.096 ms
Loss rate: 0.52%
Run 3: Report of Verus — Data Link

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

- **Flow 1 ingress (mean 217.27 Mbps)**
- **Flow 1 egress (mean 216.93 Mbps)**

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

- **Flow 1 (95th percentile 97.10 ms)**
Run 4: Statistics of Verus

Start at: 2018-07-12 12:24:50
End at: 2018-07-12 12:25:20
Local clock offset: -0.108 ms
Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2018-07-12 16:19:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 239.27 Mbit/s
95th percentile per-packet one-way delay: 120.172 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 239.27 Mbit/s
95th percentile per-packet one-way delay: 120.172 ms
Loss rate: 0.83%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-07-12 12:46:41
End at: 2018-07-12 12:47:11
Local clock offset: 0.025 ms
Remote clock offset: 0.228 ms

# Below is generated by plot.py at 2018-07-12 16:20:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 238.70 Mbit/s
95th percentile per-packet one-way delay: 161.170 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 238.70 Mbit/s
95th percentile per-packet one-way delay: 161.170 ms
Loss rate: 1.70%
Run 5: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 242.89 Mbit/s)
- **Flow 1 egress** (mean 238.70 Mbit/s)

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

- **Flow 1 (95th percentile 161.17 ms)**
Run 6: Statistics of Verus

Start at: 2018-07-12 13:08:31
End at: 2018-07-12 13:09:01
Local clock offset: -0.039 ms
Remote clock offset: 1.165 ms

# Below is generated by plot.py at 2018-07-12 16:21:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 263.70 Mbit/s
95th percentile per-packet one-way delay: 82.946 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 263.70 Mbit/s
95th percentile per-packet one-way delay: 82.946 ms
Loss rate: 1.42%
Run 6: Report of Verus — Data Link

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

Flow 1 ingress (mean 266.32 Mbit/s)  
Flow 1 egress (mean 263.70 Mbit/s)

Flow 1 (95th percentile 82.95 ms)
Run 7: Statistics of Verus

Start at: 2018-07-12 13:30:11
End at: 2018-07-12 13:30:41
Local clock offset: -0.277 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2018-07-12 16:22:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 292.33 Mbit/s
95th percentile per-packet one-way delay: 90.392 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 292.33 Mbit/s
95th percentile per-packet one-way delay: 90.392 ms
Loss rate: 0.00%
Run 7: Report of Verus — Data Link

![Graph showing throughput and delay over time for two flow types.]

**Throughput (Mbps)**

- **Flow 1 ingress (mean 292.58 Mbps)**
- **Flow 1 egress (mean 292.33 Mbps)**

**Delay (ms)**

- **Flow 1 (95th percentile 90.39 ms)**
Run 8: Statistics of Verus

Start at: 2018-07-12 13:51:53
End at: 2018-07-12 13:52:23
Local clock offset: -0.025 ms
Remote clock offset: -1.25 ms

# Below is generated by plot.py at 2018-07-12 16:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 300.27 Mbit/s
95th percentile per-packet one-way delay: 86.380 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 300.27 Mbit/s
95th percentile per-packet one-way delay: 86.380 ms
Loss rate: 1.00%
Run 8: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 302.06 Mbps)**
- **Flow 1 egress (mean 300.27 Mbps)**

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

- **Flow 1 (95th percentile 66.38 ms)**
Run 9: Statistics of Verus

Start at: 2018-07-12 14:13:38
End at: 2018-07-12 14:14:08
Local clock offset: 0.22 ms
Remote clock offset: 0.16 ms

# Below is generated by plot.py at 2018-07-12 16:23:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 273.13 Mbit/s
95th percentile per-packet one-way delay: 90.631 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 273.13 Mbit/s
95th percentile per-packet one-way delay: 90.631 ms
Loss rate: 1.05%
Run 9: Report of Verus — Data Link

![Throughput Graph](image)

- Flow 1 ingress (mean 274.56 Mbit/s)
- Flow 1 egress (mean 273.33 Mbit/s)

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

- Flow 1 (95th percentile 90.63 ms)
Run 10: Statistics of Verus

Start at: 2018-07-12 14:35:05
End at: 2018-07-12 14:35:35
Local clock offset: 0.062 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-07-12 16:23:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 280.74 Mbit/s
95th percentile per-packet one-way delay: 127.896 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 280.74 Mbit/s
95th percentile per-packet one-way delay: 127.896 ms
Loss rate: 0.20%
Run 10: Report of Verus — Data Link

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

- Flow 1 ingress (mean 281.43 Mbit/s)
- Flow 1 egress (mean 280.74 Mbit/s)

![Graph 2: Per packet round trip time vs Time](image2.png)

Flow 1 (95th percentile 127.90 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-12 11:24:00
End at: 2018-07-12 11:24:30
Local clock offset: -0.081 ms
Remote clock offset: -1.373 ms

# Below is generated by plot.py at 2018-07-12 16:25:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 377.10 Mbit/s
95th percentile per-packet one-way delay: 92.772 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 377.10 Mbit/s
95th percentile per-packet one-way delay: 92.772 ms
Loss rate: 0.66%
Run 1: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 378.22 Mbps)
- Flow 1 egress (mean 377.10 Mbps)

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

- Flow 1 (95th percentile 92.77 ms)
Run 2: Statistics of PCC-Vivace

Start at: 2018-07-12 11:45:54
End at: 2018-07-12 11:46:24
Local clock offset: -0.222 ms
Remote clock offset: -0.292 ms

# Below is generated by plot.py at 2018-07-12 16:25:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 348.90 Mbit/s
95th percentile per-packet one-way delay: 118.959 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 348.90 Mbit/s
95th percentile per-packet one-way delay: 118.959 ms
Loss rate: 0.43%
Run 2: Report of PCC-Vivace — Data Link

![Graph showing throughput and packet delay over time]

Throughput (Mbit/s)

Flow 1 ingress (mean 349.16 Mbit/s)  Flow 1 egress (mean 348.90 Mbit/s)

Packet delay (ms)

Flow 1 (95th percentile 118.96 ms)
Run 3: Statistics of PCC-Vivace

Start at: 2018-07-12 12:08:00
End at: 2018-07-12 12:08:30
Local clock offset: -0.126 ms
Remote clock offset: -0.218 ms

# Below is generated by plot.py at 2018-07-12 16:26:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 362.31 Mbit/s
95th percentile per-packet one-way delay: 63.901 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 362.31 Mbit/s
95th percentile per-packet one-way delay: 63.901 ms
Loss rate: 0.43%
Run 3: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 362.59 Mbit/s)
- Flow 1 egress (mean 362.31 Mbit/s)

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

- Flow 1 (95th percentile 63.90 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-12 12:29:55
End at: 2018-07-12 12:30:25
Local clock offset: -0.293 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-07-12 16:28:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 381.50 Mbit/s
95th percentile per-packet one-way delay: 60.638 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 381.50 Mbit/s
95th percentile per-packet one-way delay: 60.638 ms
Loss rate: 0.46%
Run 4: Report of PCC-Vivace — Data Link

![Graph showing throughput and delay over time.]

- Flow 1 ingress (mean 381.89 Mbit/s)
- Flow 1 egress (mean 381.50 Mbit/s)
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-12 12:51:44
End at: 2018-07-12 12:52:14
Local clock offset: -0.12 ms
Remote clock offset: 1.284 ms

# Below is generated by plot.py at 2018-07-12 16:28:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 356.32 Mbit/s
95th percentile per-packet one-way delay: 58.680 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 356.32 Mbit/s
95th percentile per-packet one-way delay: 58.680 ms
Loss rate: 0.36%
Run 5: Report of PCC-Vivace — Data Link
Run 6: Statistics of PCC-Vivace

End at: 2018-07-12 13:14:12
Local clock offset: -0.079 ms
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2018-07-12 16:29:29
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 389.18 Mbit/s
  95th percentile per-packet one-way delay: 55.874 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 389.18 Mbit/s
  95th percentile per-packet one-way delay: 55.874 ms
  Loss rate: 0.40%
Run 6: Report of PCC-Vivace — Data Link
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-12 13:35:21
End at: 2018-07-12 13:35:51
Local clock offset: 0.03 ms
Remote clock offset: -0.215 ms

# Below is generated by plot.py at 2018-07-12 16:29:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 367.94 Mbit/s
95th percentile per-packet one-way delay: 97.707 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 367.94 Mbit/s
95th percentile per-packet one-way delay: 97.707 ms
Loss rate: 0.55%
Run 7: Report of PCC-Vivace — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Packet delay (ms)]
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-12 13:57:02
End at: 2018-07-12 13:57:32
Local clock offset: 0.102 ms
Remote clock offset: 1.044 ms

# Below is generated by plot.py at 2018-07-12 16:29:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 382.51 Mbit/s
95th percentile per-packet one-way delay: 55.508 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 382.51 Mbit/s
95th percentile per-packet one-way delay: 55.508 ms
Loss rate: 0.59%
Run 8: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 383.39 Mbit/s)
- Flow 1 egress (mean 382.51 Mbit/s)

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

- Flow 1 (95th percentile 55.51 ms)
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-12 14:18:47
End at: 2018-07-12 14:19:17
Local clock offset: -0.059 ms
Remote clock offset: -0.264 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 402.70 Mbit/s
95th percentile per-packet one-way delay: 55.720 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 402.70 Mbit/s
95th percentile per-packet one-way delay: 55.720 ms
Loss rate: 0.37%
Run 9: Report of PCC-Vivace — Data Link

![Graph 1: Throughput](image1)

- Flow 1 ingress (mean 402.73 Mb/s)
- Flow 1 egress (mean 402.70 Mb/s)

![Graph 2: Packet Delay](image2)

- Flow 1 (95th percentile 55.72 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-12 14:40:13
End at: 2018-07-12 14:40:43
Local clock offset: -0.067 ms
Remote clock offset: -0.269 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 389.09 Mbit/s
95th percentile per-packet one-way delay: 53.372 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 389.09 Mbit/s
95th percentile per-packet one-way delay: 53.372 ms
Loss rate: 0.50%
Run 10: Report of PCC-Vivace — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-07-12 11:16:23
End at: 2018-07-12 11:16:53
Local clock offset: -0.015 ms
Remote clock offset: -0.218 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 1.68 Mbit/s
  95th percentile per-packet one-way delay: 50.589 ms
  Loss rate: 0.49%
-- Flow 1:
  Average throughput: 1.68 Mbit/s
  95th percentile per-packet one-way delay: 50.589 ms
  Loss rate: 0.49%
Run 1: Report of WebRTC media — Data Link

![Data Link Throughput Graph]

![Data Link Delay Graph]
Run 2: Statistics of WebRTC media

Start at: 2018-07-12 11:38:28
End at: 2018-07-12 11:38:58
Local clock offset: 0.189 ms
Remote clock offset: -0.311 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.811 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.811 ms
Loss rate: 0.43%
Run 2: Report of WebRTC media — Data Link

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

- Flow 1 ingress: mean 1.94 Mbit/s
- Flow 1 egress: mean 1.94 Mbit/s

![Graph showing packet delay distribution.](image)

- Flow 1 95th percentile: 53.81 ms
Run 3: Statistics of WebRTC media

Start at: 2018-07-12 12:00:25
End at: 2018-07-12 12:00:55
Local clock offset: 0.039 ms
Remote clock offset: 1.129 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 52.596 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 52.596 ms
Loss rate: 0.42%
Run 3: Report of WebRTC media — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 1.93 Mbit/s)
- Flow 1 egress (mean 1.93 Mbit/s)

**Packet delay (ms)**

- Flow 1 (95th percentile 52.60 ms)
Run 4: Statistics of WebRTC media

End at: 2018-07-12 12:22:55
Local clock offset: -0.151 ms
Remote clock offset: -0.456 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.707 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 50.707 ms
Loss rate: 0.37%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-07-12 12:44:16
End at: 2018-07-12 12:44:46
Local clock offset: -0.117 ms
Remote clock offset: -1.507 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 55.155 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 55.155 ms
Loss rate: 0.37%
Run 5: Report of WebRTC media — Data Link

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

- **Flow 1 ingress (mean 1.96 Mbit/s)**
- **Flow 1 egress (mean 1.95 Mbit/s)**

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

- **Flow 1 (95th percentile 55.16 ms)**
Run 6: Statistics of WebRTC media

Start at: 2018-07-12 13:06:15
End at: 2018-07-12 13:06:45
Local clock offset: -0.085 ms
Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 53.528 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 53.528 ms
Loss rate: 0.36%
Run 6: Report of WebRTC media — Data Link

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

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

- Flow 1 (95th percentile 53.53 ms)
Run 7: Statistics of WebRTC media

End at: 2018-07-12 13:28:23
Local clock offset: 0.13 ms
Remote clock offset: 1.066 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 52.828 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 52.828 ms
Loss rate: 0.36%
Run 7: Report of WebRTC media — Data Link

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

![Graph 2: Packet One-Way Delay vs Time](image2)
Run 8: Statistics of WebRTC media

End at: 2018-07-12 13:50:01
Local clock offset: -0.208 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 53.371 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 53.371 ms
Loss rate: 0.42%
Run 8: Report of WebRTC media — Data Link

![Graph 1: Throughput (kbps)]

- Flow 1 ingress (mean 1.94 Mbit/s)
- Flow 1 egress (mean 1.93 Mbit/s)

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

- Flow 1 (95th percentile 53.37 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-07-12 14:11:22
End at: 2018-07-12 14:11:52
Local clock offset: -0.025 ms
Remote clock offset: 0.852 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 52.490 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 52.490 ms
Loss rate: 0.42%
Run 10: Statistics of WebRTC media

Start at: 2018-07-12 14:32:40
End at: 2018-07-12 14:33:10
Local clock offset: -0.097 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-07-12 16:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.828 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.828 ms
Loss rate: 0.42%
Run 10: Report of WebRTC media — Data Link

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

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

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