Pantheon Report

Generated at 2018-03-15 05:06:21 (UTC).
Data path: China Ethernet (remote) → AWS Korea 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).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).
NTP offsets were measured against ntp.nict.jp and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322c0fa446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5c9cc90f281d1c69a1a5c6
third_party/genericCC @ 9249eeaa3238475c4d8ca1433d28df70b6f6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e9e4ef4230db7484501f82e88b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92a4aa9d58d38dc4f4fe0ecbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b83ad84360c538d89
third_party/koho_cc @ f0f2e693303ae82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744cfcf993
third_party/pcc @ 1a9c5f5f0d9e6d10b623c091a55f8c872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/protobuf-ic @ 77961f1a82733a86b42f1bc8143ebc978f3cfe2f
third_party/scream @ c3370fd7b17265a799e5b3e016ad23af5968885
third_party/sourdough @ f1a14bfe749737437f61b1eae8b30b267cede81
third_party/sprout @ 6f2e6e6e088d91066a9f023df375ee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149a2f629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webRTC @ a488197ddd041ace68a42849b2540ad83428254f2
test from China Ethernet to AWS Korea Ethernet, 10 runs of 30s each per scheme (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>88.44</td>
<td>88.94</td>
<td>0.52</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>89.78</td>
<td>86.03</td>
<td>0.49</td>
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<td>LEDBAT</td>
<td>10</td>
<td>21.33</td>
<td>63.86</td>
<td>0.86</td>
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<td>PCC</td>
<td>10</td>
<td>81.03</td>
<td>78.27</td>
<td>0.50</td>
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<td>QUIC Cubic</td>
<td>10</td>
<td>54.32</td>
<td>81.46</td>
<td>0.72</td>
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<td>SCReAM</td>
<td>10</td>
<td>0.22</td>
<td>63.71</td>
<td>0.39</td>
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<td>WebRTC media</td>
<td>10</td>
<td>2.51</td>
<td>63.87</td>
<td>0.53</td>
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<td>Sprout</td>
<td>9</td>
<td>6.12</td>
<td>68.51</td>
<td>0.48</td>
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<td>TaoVA-100x</td>
<td>10</td>
<td>85.85</td>
<td>73.81</td>
<td>1.13</td>
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<tr>
<td>TCP Vegas</td>
<td>9</td>
<td>66.70</td>
<td>69.39</td>
<td>0.44</td>
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<td>Verus</td>
<td>10</td>
<td>56.74</td>
<td>84.73</td>
<td>0.57</td>
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<tr>
<td>Copa</td>
<td>10</td>
<td>73.73</td>
<td>66.19</td>
<td>0.46</td>
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<tr>
<td>FillP</td>
<td>10</td>
<td>95.25</td>
<td>87.80</td>
<td>0.54</td>
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<td>Indigo-1-32</td>
<td>10</td>
<td>91.34</td>
<td>79.64</td>
<td>0.47</td>
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<tr>
<td>Vivace-latency</td>
<td>10</td>
<td>70.23</td>
<td>73.08</td>
<td>0.55</td>
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<tr>
<td>Vivace-loss</td>
<td>10</td>
<td>82.71</td>
<td>86.83</td>
<td>0.63</td>
</tr>
<tr>
<td>Vivace-LTE</td>
<td>10</td>
<td>77.92</td>
<td>79.26</td>
<td>0.54</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-03-14 20:50:26
End at: 2018-03-14 20:50:56
Local clock offset: -5.434 ms
Remote clock offset: -0.739 ms

# Below is generated by plot.py at 2018-03-15 04:44:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.25 Mbit/s
95th percentile per-packet one-way delay: 86.195 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 87.25 Mbit/s
95th percentile per-packet one-way delay: 86.195 ms
Loss rate: 0.58%
Run 1: Report of TCP BBR — Data Link

![Graph of TCP BBR Data Link]

- Throughput (Mbps)
- Time (s)
- Flow 1 ingress (mean 87.37 Mbps)
- Flow 1 egress (mean 87.25 Mbps)

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

- Time (s)
- Per-packet one-way delay (ms)
- Flow 1 (95th percentile 86.19 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-03-14 21:13:43
End at: 2018-03-14 21:14:13
Local clock offset: -9.231 ms
Remote clock offset: -3.628 ms

# Below is generated by plot.py at 2018-03-15 04:44:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.75 Mbit/s
95th percentile per-packet one-way delay: 88.051 ms
Loss rate: 0.60%

-- Flow 1:
Average throughput: 87.75 Mbit/s
95th percentile per-packet one-way delay: 88.051 ms
Loss rate: 0.60%
Run 2: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 87.88 Mbit/s)
- Flow 1 egress (mean 87.75 Mbit/s)

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

- Flow 1 (95th percentile 88.05 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-03-14 21:37:37
End at: 2018-03-14 21:38:08
Local clock offset: -7.16 ms
Remote clock offset: -2.005 ms

# Below is generated by plot.py at 2018-03-15 04:44:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.88 Mbit/s
95th percentile per-packet one-way delay: 95.735 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 87.88 Mbit/s
95th percentile per-packet one-way delay: 95.735 ms
Loss rate: 0.49%
Run 3: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 87.90 Mbit/s)**
- **Flow 1 egress (mean 87.88 Mbit/s)**

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

- **Flow 1 (95th percentile 95.73 ms)**
Run 4: Statistics of TCP BBR

Start at: 2018-03-14 22:01:01
End at: 2018-03-14 22:01:31
Local clock offset: -1.355 ms
Remote clock offset: 1.077 ms

# Below is generated by plot.py at 2018-03-15 04:44:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.29 Mbit/s
95th percentile per-packet one-way delay: 84.322 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 89.29 Mbit/s
95th percentile per-packet one-way delay: 84.322 ms
Loss rate: 0.57%
Run 4: Report of TCP BBR — Data Link

![Graph 1: Throughput vs Time for Flow 1 ingress and egress]

![Graph 2: Per-packet end-to-end delay vs Time for Flow 1]

Flow 1 (95th percentile 84.32 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-03-14 22:24:26
End at: 2018-03-14 22:24:56
Local clock offset: 1.298 ms
Remote clock offset: -7.588 ms

# Below is generated by plot.py at 2018-03-15 04:44:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.19 Mbit/s
95th percentile per-packet one-way delay: 93.748 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 89.19 Mbit/s
95th percentile per-packet one-way delay: 93.748 ms
Loss rate: 0.55%
Run 5: Report of TCP BBR — Data Link

Diagram 1: Throughput (Mbps) vs Time (s)
- Flow 1 ingress (mean 89.29 Mbps)
- Flow 1 egress (mean 89.19 Mbps)

Diagram 2: Per-packet one-way delay (ms) vs Time (s)
- Flow 1 (95th percentile 93.75 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-03-14 22:47:44
End at: 2018-03-14 22:48:14
Local clock offset: -1.484 ms
Remote clock offset: -3.519 ms

# Below is generated by plot.py at 2018-03-15 04:44:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.93 Mbit/s
95th percentile per-packet one-way delay: 85.716 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 87.93 Mbit/s
95th percentile per-packet one-way delay: 85.716 ms
Loss rate: 0.59%
Run 6: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 88.04 Mbit/s)
- Flow 1 egress (mean 87.93 Mbit/s)

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

- Flow 1 (95th percentile 85.72 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-03-14 23:11:01
End at: 2018-03-14 23:11:31
Local clock offset: 1.492 ms
Remote clock offset: 1.577 ms

# Below is generated by plot.py at 2018-03-15 04:44:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.67 Mbit/s
95th percentile per-packet one-way delay: 92.310 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 89.67 Mbit/s
95th percentile per-packet one-way delay: 92.310 ms
Loss rate: 0.57%
Run 7: Report of TCP BBR — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 89.77 Mbit/s)
  - Flow 1 egress (mean 89.67 Mbit/s)

- **Per-packet round trip time (ms):**
  - Flow 1 (95th percentile 92.31 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-03-14 23:34:20
End at: 2018-03-14 23:34:50
Local clock offset: 2.52 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2018-03-15 04:44:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.33 Mbit/s
95th percentile per-packet one-way delay: 84.889 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 88.33 Mbit/s
95th percentile per-packet one-way delay: 84.889 ms
Loss rate: 0.14%
Run 8: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 88.07 Mbit/s)  Flow 1 egress (mean 88.33 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 84.89 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-03-14 23:57:38
End at: 2018-03-14 23:58:08
Local clock offset: 4.967 ms
Remote clock offset: 0.098 ms

# Below is generated by plot.py at 2018-03-15 04:46:13
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 89.13 Mbit/s
  95th percentile per-packet one-way delay: 95.874 ms
  Loss rate: 0.57%
-- Flow 1:
  Average throughput: 89.13 Mbit/s
  95th percentile per-packet one-way delay: 95.874 ms
  Loss rate: 0.57%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-03-15 00:20:54  
End at: 2018-03-15 00:21:24  
Local clock offset: 2.786 ms  
Remote clock offset: 0.518 ms

# Below is generated by plot.py at 2018-03-15 04:46:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.95 Mbit/s
95th percentile per-packet one-way delay: 82.586 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 87.95 Mbit/s
95th percentile per-packet one-way delay: 82.586 ms
Loss rate: 0.57%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2018-03-14 20:55:18
End at: 2018-03-14 20:55:48
Local clock offset: -2.008 ms
Remote clock offset: -0.695 ms

# Below is generated by plot.py at 2018-03-15 04:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.79 Mbit/s
95th percentile per-packet one-way delay: 82.142 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 90.79 Mbit/s
95th percentile per-packet one-way delay: 82.142 ms
Loss rate: 0.56%
Run 1: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 90.88 Mbit/s)**
- **Flow 1 egress (mean 90.79 Mbit/s)**

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

- **Flow 1 (95th percentile 82.14 ms)**
Run 2: Statistics of TCP Cubic

Start at: 2018-03-14 21:18:36
End at: 2018-03-14 21:19:06
Local clock offset: -9.692 ms
Remote clock offset: -3.989 ms

# Below is generated by plot.py at 2018-03-15 04:46:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.47 Mbit/s
95th percentile per-packet one-way delay: 90.884 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 91.47 Mbit/s
95th percentile per-packet one-way delay: 90.884 ms
Loss rate: 0.48%
Run 2: Report of TCP Cubic — Data Link

[Graph showing throughput over time with legends indicating flow 1 ingress and egress with mean values.]

[Graph showing packet one-way delay over time with legend indicating flow 1 95th percentile value.]
Run 3: Statistics of TCP Cubic

Start at: 2018-03-14 21:42:34
End at: 2018-03-14 21:43:05
Local clock offset: -11.697 ms
Remote clock offset: -0.865 ms

# Below is generated by plot.py at 2018-03-15 04:46:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.31 Mbit/s
95th percentile per-packet one-way delay: 81.673 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 91.31 Mbit/s
95th percentile per-packet one-way delay: 81.673 ms
Loss rate: 0.47%
Run 3: Report of TCP Cubic — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 91.35 Mbps)
- Blue solid line: Flow 1 egress (mean 91.31 Mbps)

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

- Blue points: Flow 1 (95th percentile 81.67 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-03-14 22:05:53
End at: 2018-03-14 22:06:23
Local clock offset: 1.064 ms
Remote clock offset: 0.77 ms

# Below is generated by plot.py at 2018-03-15 04:46:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.18 Mbit/s
95th percentile per-packet one-way delay: 93.724 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 91.18 Mbit/s
95th percentile per-packet one-way delay: 93.724 ms
Loss rate: 0.49%
Run 4: Report of TCP Cubic — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 91.22 Mbps)
- Flow 1 egress (mean 91.18 Mbps)

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

- Flow 1 (95th percentile 93.72 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-03-14 22:29:18
End at: 2018-03-14 22:29:48
Local clock offset: 0.109 ms
Remote clock offset: -8.275 ms

# Below is generated by plot.py at 2018-03-15 04:46:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.74 Mbit/s
95th percentile per-packet one-way delay: 88.799 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 90.74 Mbit/s
95th percentile per-packet one-way delay: 88.799 ms
Loss rate: 0.46%
Run 5: Report of TCP Cubic — Data Link

![Graph showing throughput over time with two lines indicating flow ingress and egress with their respective mean values.](image1)

![Graph showing packet oneway delay with flow 1's 95th percentile delay marked.](image2)
Run 6: Statistics of TCP Cubic

Start at: 2018-03-14 22:52:36
End at: 2018-03-14 22:53:06
Local clock offset: -2.28 ms
Remote clock offset: -1.768 ms

# Below is generated by plot.py at 2018-03-15 04:46:18
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 78.90 Mbit/s
  95th percentile per-packet one-way delay: 84.372 ms
  Loss rate: 0.54%
-- Flow 1:
  Average throughput: 78.90 Mbit/s
  95th percentile per-packet one-way delay: 84.372 ms
  Loss rate: 0.54%
Run 6: Report of TCP Cubic — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 78.99 Mbit/s)
- Flow 1 egress (mean 78.90 Mbit/s)

Graph 2: Per packet one way delay (ms)
- Flow 1 (95th percentile 84.37 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-03-14 23:15:54
End at: 2018-03-14 23:16:24
Local clock offset: 2.181 ms
Remote clock offset: 1.208 ms

# Below is generated by plot.py at 2018-03-15 04:47:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.08 Mbit/s
95th percentile per-packet one-way delay: 85.679 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 91.08 Mbit/s
95th percentile per-packet one-way delay: 85.679 ms
Loss rate: 0.47%
Run 7: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 91.11 Mbit/s)**
- **Flow 1 egress (mean 91.08 Mbit/s)**
Run 8: Statistics of TCP Cubic

Start at: 2018-03-14 23:39:12
End at: 2018-03-14 23:39:42
Local clock offset: 3.596 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2018-03-15 04:47:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.29 Mbit/s
95th percentile per-packet one-way delay: 84.230 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 91.29 Mbit/s
95th percentile per-packet one-way delay: 84.230 ms
Loss rate: 0.47%
Run 8: Report of TCP Cubic — Data Link

![Graph showing Throughput vs. Time with data points for Flow 1 ingress and egress.]

![Graph showing RTT vs. Time with data points for Flow 1.]

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 91.33 Mbit/s)
Flow 1 egress (mean 91.29 Mbit/s)

RTT (ms)

Time (s)

Flow 1 (95th percentile 84.23 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-03-15 00:02:30
End at: 2018-03-15 00:03:00
Local clock offset: 4.986 ms
Remote clock offset: 0.127 ms

# Below is generated by plot.py at 2018-03-15 04:47:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.34 Mbit/s
95th percentile per-packet one-way delay: 84.311 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 90.34 Mbit/s
95th percentile per-packet one-way delay: 84.311 ms
Loss rate: 0.47%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-03-15 00:26:33
End at: 2018-03-15 00:27:03
Local clock offset: 5.628 ms
Remote clock offset: 4.742 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.68 Mbit/s
95th percentile per-packet one-way delay: 84.478 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 90.68 Mbit/s
95th percentile per-packet one-way delay: 84.478 ms
Loss rate: 0.47%
Run 10: Report of TCP Cubic — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 90.72 Mbit/s)  Flow 1 egress (mean 90.68 Mbit/s)

Per packet, one way delay (ms)

Flow 1 (95th percentile 84.48 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-03-14 21:00:17
End at: 2018-03-14 21:00:47
Local clock offset: -4.261 ms
Remote clock offset: -1.779 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 64.257 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 64.257 ms
Loss rate: 0.86%
Run 1: Report of LEDBAT — Data Link

![Graphs showing network performance metrics over time.](image-url)
Run 2: Statistics of LEDBAT

Start at: 2018-03-14 21:23:35
End at: 2018-03-14 21:24:05
Local clock offset: -6.062 ms
Remote clock offset: -4.27 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 21.35 Mbit/s
  95th percentile per-packet one-way delay: 63.859 ms
  Loss rate: 0.86%
-- Flow 1:
  Average throughput: 21.35 Mbit/s
  95th percentile per-packet one-way delay: 63.859 ms
  Loss rate: 0.86%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-03-14 21:47:34
End at: 2018-03-14 21:48:04
Local clock offset: -11.048 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.47 Mbit/s
95th percentile per-packet one-way delay: 64.286 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 21.47 Mbit/s
95th percentile per-packet one-way delay: 64.286 ms
Loss rate: 0.86%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-03-14 22:10:57
End at: 2018-03-14 22:11:27
Local clock offset: 1.957 ms
Remote clock offset: -3.088 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
   Average throughput: 21.35 Mbit/s
   95th percentile per-packet one-way delay: 63.736 ms
   Loss rate: 0.86%
-- Flow 1:
   Average throughput: 21.35 Mbit/s
   95th percentile per-packet one-way delay: 63.736 ms
   Loss rate: 0.86%
Run 4: Report of LEDBAT — Data Link

![Graph of throughput over time for Flow 1 ingress (mean 21.45 Mbit/s) and Flow 1 egress (mean 21.35 Mbit/s).](image)

![Graph of per-packet round-trip delay for Flow 1 (95th percentile 63.74 ms).](image)
Run 5: Statistics of LEDBAT

Start at: 2018-03-14 22:34:17
End at: 2018-03-14 22:34:47
Local clock offset: 0.102 ms
Remote clock offset: -8.883 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.42 Mbit/s
95th percentile per-packet one-way delay: 63.907 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 21.42 Mbit/s
95th percentile per-packet one-way delay: 63.907 ms
Loss rate: 0.86%
Run 5: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 21.51 Mbps)  
- Flow 1 egress (mean 21.42 Mbps)

![Graph 2: Per Packet End-to-End Delay (ms)](image2)

- Flow 1 (95th percentile 63 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-03-14 22:57:35
End at: 2018-03-14 22:58:05
Local clock offset: -3.745 ms
Remote clock offset: -0.608 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 63.863 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 63.863 ms
Loss rate: 0.86%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-03-14 23:20:53
End at: 2018-03-14 23:21:23
Local clock offset: 2.384 ms
Remote clock offset: 0.332 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.47 Mbit/s
95th percentile per-packet one-way delay: 63.564 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 21.47 Mbit/s
95th percentile per-packet one-way delay: 63.564 ms
Loss rate: 0.85%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-03-14 23:44:10
End at: 2018-03-14 23:44:40
Local clock offset: 4.45 ms
Remote clock offset: 0.287 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 64.292 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 64.292 ms
Loss rate: 0.86%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-03-15 00:07:29
End at: 2018-03-15 00:07:59
Local clock offset: 2.161 ms
Remote clock offset: 0.204 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.10 Mbit/s
95th percentile per-packet one-way delay: 62.049 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 21.10 Mbit/s
95th percentile per-packet one-way delay: 62.049 ms
Loss rate: 0.86%
Run 9: Report of LEDBAT — Data Link

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

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

Flow 1 ingress (mean 21.19 Mbit/s)  Flow 1 egress (mean 21.10 Mbit/s)

Flow 1 95th percentile 62.05 ms
Run 10: Statistics of LEDBAT

Start at: 2018-03-15 00:31:32
End at: 2018-03-15 00:32:02
Local clock offset: 6.107 ms
Remote clock offset: 7.658 ms

# Below is generated by plot.py at 2018-03-15 04:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.22 Mbit/s
95th percentile per-packet one-way delay: 64.752 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 21.22 Mbit/s
95th percentile per-packet one-way delay: 64.752 ms
Loss rate: 0.86%
Run 10: Report of LEDBAT — Data Link

![Graph showing throughput over time for Flow 1 ingress and egress.]
Run 1: Statistics of PCC

Start at: 2018-03-14 21:05:09
End at: 2018-03-14 21:05:39
Local clock offset: -4.129 ms
Remote clock offset: -2.685 ms

# Below is generated by plot.py at 2018-03-15 04:48:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.90 Mbit/s
95th percentile per-packet one-way delay: 72.931 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 81.90 Mbit/s
95th percentile per-packet one-way delay: 72.931 ms
Loss rate: 0.47%
Run 1: Report of PCC — Data Link

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

- Flow 1 ingress (mean 81.94 Mbit/s)
- Flow 1 egress (mean 81.90 Mbit/s)

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

- Flow 1 (95th percentile 72.93 ms)
Run 2: Statistics of PCC

Start at: 2018-03-14 21:28:43
End at: 2018-03-14 21:29:13
Local clock offset: -5.487 ms
Remote clock offset: -4.534 ms

# Below is generated by plot.py at 2018-03-15 04:48:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.08 Mbit/s
95th percentile per-packet one-way delay: 80.570 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 85.08 Mbit/s
95th percentile per-packet one-way delay: 80.570 ms
Loss rate: 0.54%
Run 2: Report of PCC — Data Link

![Graph](#)
Run 3: Statistics of PCC

Start at: 2018-03-14 21:52:26
End at: 2018-03-14 21:52:56
Local clock offset: -10.377 ms
Remote clock offset: 0.422 ms

# Below is generated by plot.py at 2018-03-15 04:48:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.54 Mbit/s
95th percentile per-packet one-way delay: 82.195 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 83.54 Mbit/s
95th percentile per-packet one-way delay: 82.195 ms
Loss rate: 0.45%
Run 3: Report of PCC — Data Link
Run 4: Statistics of PCC

Start at: 2018-03-14 22:15:51
End at: 2018-03-14 22:16:21
Local clock offset: 1.735 ms
Remote clock offset: -5.369 ms

# Below is generated by plot.py at 2018-03-15 04:48:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.45 Mbit/s
95th percentile per-packet one-way delay: 76.201 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 81.45 Mbit/s
95th percentile per-packet one-way delay: 76.201 ms
Loss rate: 0.50%
Run 4: Report of PCC — Data Link
Run 5: Statistics of PCC

Start at: 2018-03-14 22:39:10
End at: 2018-03-14 22:39:40
Local clock offset: -0.15 ms
Remote clock offset: -9.336 ms

# Below is generated by plot.py at 2018-03-15 04:48:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.43 Mbit/s
95th percentile per-packet one-way delay: 74.087 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 79.43 Mbit/s
95th percentile per-packet one-way delay: 74.087 ms
Loss rate: 0.50%
Run 5: Report of PCC — Data Link
Run 6: Statistics of PCC

Start at: 2018-03-14 23:02:28
End at: 2018-03-14 23:02:58
Local clock offset: -1.464 ms
Remote clock offset: 0.362 ms

# Below is generated by plot.py at 2018-03-15 04:48:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.63 Mbit/s
95th percentile per-packet one-way delay: 93.519 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 70.63 Mbit/s
95th percentile per-packet one-way delay: 93.519 ms
Loss rate: 0.43%
Run 6: Report of PCC — Data Link

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

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

Flow 1 ingress (mean 70.63 Mbit/s)  
Flow 1 egress (mean 70.63 Mbit/s)
Run 7: Statistics of PCC

Start at: 2018-03-14 23:25:46
End at: 2018-03-14 23:26:16
Local clock offset: 2.657 ms
Remote clock offset: 0.057 ms

# Below is generated by plot.py at 2018-03-15 04:48:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.28 Mbit/s
95th percentile per-packet one-way delay: 73.404 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 84.28 Mbit/s
95th percentile per-packet one-way delay: 73.404 ms
Loss rate: 0.49%
Run 7: Report of PCC — Data Link
Run 8: Statistics of PCC

Start at: 2018-03-14 23:49:03
End at: 2018-03-14 23:49:33
Local clock offset: 4.524 ms
Remote clock offset: 0.246 ms

# Below is generated by plot.py at 2018-03-15 04:48:54
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 85.98 Mbit/s
  95th percentile per-packet one-way delay: 83.521 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 85.98 Mbit/s
  95th percentile per-packet one-way delay: 83.521 ms
  Loss rate: 0.58%
Run 8: Report of PCC — Data Link
Run 9: Statistics of PCC

Start at: 2018-03-15 00:12:20
End at: 2018-03-15 00:12:50
Local clock offset: 5.572 ms
Remote clock offset: 0.244 ms

# Below is generated by plot.py at 2018-03-15 04:49:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.26 Mbit/s
95th percentile per-packet one-way delay: 72.932 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 74.26 Mbit/s
95th percentile per-packet one-way delay: 72.932 ms
Loss rate: 0.56%
Run 9: Report of PCC — Data Link
Run 10: Statistics of PCC

Start at: 2018-03-15 00:36:25
End at: 2018-03-15 00:36:55
Local clock offset: 5.784 ms
Remote clock offset: 9.588 ms

# Below is generated by plot.py at 2018-03-15 04:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.73 Mbit/s
95th percentile per-packet one-way delay: 73.365 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 83.73 Mbit/s
95th percentile per-packet one-way delay: 73.365 ms
Loss rate: 0.47%
Run 10: Report of PCC — Data Link
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-14 21:10:01
End at: 2018-03-14 21:10:31
Local clock offset: -6.632 ms
Remote clock offset: -3.371 ms

# Below is generated by plot.py at 2018-03-15 04:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.32 Mbit/s
95th percentile per-packet one-way delay: 85.349 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 52.32 Mbit/s
95th percentile per-packet one-way delay: 85.349 ms
Loss rate: 0.71%
Run 1: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 52.46 Mbit/s)
- Flow 1 egress (mean 52.32 Mbit/s)

![Graph showing packet delay distribution for flow 1 with 95th percentile 85.35 ms.]

- Flow 1 (95th percentile 85.35 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-14 21:33:54
End at: 2018-03-14 21:34:24
Local clock offset: -6.035 ms
Remote clock offset: -3.345 ms

# Below is generated by plot.py at 2018-03-15 04:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.51 Mbit/s
95th percentile per-packet one-way delay: 83.978 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 54.51 Mbit/s
95th percentile per-packet one-way delay: 83.978 ms
Loss rate: 0.71%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-03-14 21:57:19
End at: 2018-03-14 21:57:49
Local clock offset: -3.561 ms
Remote clock offset: 0.816 ms

# Below is generated by plot.py at 2018-03-15 04:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.16 Mbit/s
95th percentile per-packet one-way delay: 82.343 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 51.16 Mbit/s
95th percentile per-packet one-way delay: 82.343 ms
Loss rate: 0.81%
Run 3: Report of QUIC Cubic — Data Link

![Graphs showing throughput and per-packet one-way delay over time](image)
Run 4: Statistics of QUIC Cubic

Start at: 2018-03-14 22:20:44
End at: 2018-03-14 22:21:14
Local clock offset: 1.543 ms
Remote clock offset: -6.74 ms

# Below is generated by plot.py at 2018-03-15 04:49:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.45 Mbit/s
95th percentile per-packet one-way delay: 83.889 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 56.45 Mbit/s
95th percentile per-packet one-way delay: 83.889 ms
Loss rate: 0.69%
Run 4: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 56.59 Mbit/s)
- Flow 1 egress (mean 56.45 Mbit/s)

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

- Flow 1 (95th percentile 83.89 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-03-14 22:44:02
End at: 2018-03-14 22:44:33
Local clock offset: -1.217 ms
Remote clock offset: -5.485 ms

# Below is generated by plot.py at 2018-03-15 04:49:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.30 Mbit/s
95th percentile per-packet one-way delay: 83.090 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 53.30 Mbit/s
95th percentile per-packet one-way delay: 83.090 ms
Loss rate: 0.68%
Run 5: Report of QUIC Cubic — Data Link

![Graphs showing throughput and packet delay over time for a QUIC Cubic flow with ingress and egress rates.]
Run 6: Statistics of QUIC Cubic

Start at: 2018-03-14 23:07:20
End at: 2018-03-14 23:07:50
Local clock offset: 0.684 ms
Remote clock offset: 1.062 ms

# Below is generated by plot.py at 2018-03-15 04:50:02
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 55.96 Mbit/s
  95th percentile per-packet one-way delay: 86.045 ms
  Loss rate: 0.69%
-- Flow 1:
  Average throughput: 55.96 Mbit/s
  95th percentile per-packet one-way delay: 86.045 ms
  Loss rate: 0.69%
Run 6: Report of QUIC Cubic — Data Link

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

Flow 1 ingress (mean 56.09 Mbit/s)  Flow 1 egress (mean 55.96 Mbit/s)

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

Flow 1 (95th percentile 86.05 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-03-14 23:30:38
End at: 2018-03-14 23:31:08
Local clock offset: 2.203 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-03-15 04:50:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.61 Mbit/s
95th percentile per-packet one-way delay: 74.908 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 54.61 Mbit/s
95th percentile per-packet one-way delay: 74.908 ms
Loss rate: 0.66%
Run 7: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 54.74 Mbit/s)
- Flow 1 egress (mean 54.61 Mbit/s)

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

- Flow 1 (95th percentile 74.91 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-03-14 23:53:56
End at: 2018-03-14 23:54:26
Local clock offset: 4.669 ms
Remote clock offset: 0.144 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.57 Mbit/s
95th percentile per-packet one-way delay: 85.002 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 66.57 Mbit/s
95th percentile per-packet one-way delay: 85.002 ms
Loss rate: 0.76%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-03-15 00:17:12
End at: 2018-03-15 00:17:42
Local clock offset: 5.745 ms
Remote clock offset: 0.382 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.79 Mbit/s
95th percentile per-packet one-way delay: 74.870 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 52.79 Mbit/s
95th percentile per-packet one-way delay: 74.870 ms
Loss rate: 0.73%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-15 00:41:18
End at: 2018-03-15 00:41:48
Local clock offset: 5.856 ms
Remote clock offset: 10.98 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.52 Mbit/s
95th percentile per-packet one-way delay: 75.117 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 45.52 Mbit/s
95th percentile per-packet one-way delay: 75.117 ms
Loss rate: 0.78%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-03-14 21:02:44
End at: 2018-03-14 21:03:14
Local clock offset: -3.773 ms
Remote clock offset: -2.314 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.033 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.033 ms
Loss rate: 0.38%
Run 1: Report of SCReAM — Data Link

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

- Per packet end-to-end delay (ms)
- Time (s)
- Flow 1 (95th percentile 64.03 ms)
Run 2: Statistics of SCReAM

Start at: 2018-03-14 21:26:12
End at: 2018-03-14 21:26:42
Local clock offset: -5.238 ms
Remote clock offset: -4.373 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.160 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.160 ms
Loss rate: 0.38%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-03-14 21:50:01
End at: 2018-03-14 21:50:31
Local clock offset: -12.078 ms
Remote clock offset: 0.16 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 64.211 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 64.211 ms
  Loss rate: 0.38%
Run 4: Statistics of SCReAM

Local clock offset: 1.333 ms
Remote clock offset: -4.512 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.792 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.792 ms
Loss rate: 0.38%
Run 4: Report of SCReAM — Data Link

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

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

![Graph showing packet delay for Flow 1.]

- Flow 1 (95th percentile 62.79 ms)
Run 5: Statistics of SCReAM

Start at: 2018-03-14 22:36:44
End at: 2018-03-14 22:37:14
Local clock offset: -0.009 ms
Remote clock offset: -9.092 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.786 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.786 ms
Loss rate: 0.38%
Run 5: Report of SCReAM — Data Link
Run 6: Statistics of SCReAM

Start at: 2018-03-14 23:00:02
End at: 2018-03-14 23:00:32
Local clock offset: -2.888 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.319 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.319 ms
Loss rate: 0.38%
Run 6: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 63.32 ms)
Run 7: Statistics of SCReAM

End at: 2018-03-14 23:23:50
Local clock offset: 2.37 ms
Remote clock offset: 0.136 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.206 ms
  Loss rate: 0.51%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.206 ms
  Loss rate: 0.51%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-03-14 23:46:37
End at: 2018-03-14 23:47:07
Local clock offset: 4.44 ms
Remote clock offset: 0.303 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.760 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.760 ms
Loss rate: 0.38%
Run 8: Report of SCReAM — Data Link

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

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

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

- **Flow 1 (95th percentile 63.76 ms)**

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Run 9: Statistics of SCReAM

Start at: 2018-03-15 00:09:55
End at: 2018-03-15 00:10:25
Local clock offset: 5.239 ms
Remote clock offset: 0.186 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.925 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 63.925 ms
  Loss rate: 0.38%
Run 9: Report of SCReAM — Data Link

\begin{center}
\begin{tikzpicture}
\begin{axis}[
width=\textwidth,
height=0.4\textwidth,
no markers,\]
\addplot+[ycomb, blue, dashed] table[row sep=crcr]{
0 0.163
5 0.265
10 0.246
15 0.225
20 0.209
25 0.234
30 0.201
};
\addlegendentry{Flow 1 ingress (mean 0.22 Mbit/s)}
\plot[blue, dashed] table[row sep=crcr]{
0 0.205
5 0.231
10 0.247
15 0.252
20 0.249
25 0.228
30 0.199
};
\addlegendentry{Flow 1 egress (mean 0.22 Mbit/s)}
\end{axis}
\end{tikzpicture}
\end{center}

\begin{center}
\begin{tikzpicture}
\begin{axis}[
width=\textwidth,
height=0.4\textwidth,
no markers,\]
\addplot+[ycomb, blue, dashed] table[row sep=crcr]{
0 64
5 65
10 64
15 63
20 64
25 65
30 64
};
\addlegendentry{Flow 1 (95th percentile 63.92 ms)}
\end{axis}
\end{tikzpicture}
\end{center}
Run 10: Statistics of SCReAM

Start at: 2018-03-15 00:33:59
End at: 2018-03-15 00:34:29
Local clock offset: 5.822 ms
Remote clock offset: 8.781 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.938 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.938 ms
Loss rate: 0.38%
Run 10: Report of SCReAM — Data Link

Throughput (Mbit/s)

Time (s)

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

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 63.94 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-03-14 21:08:51
End at: 2018-03-14 21:09:21
Local clock offset: -5.676 ms
Remote clock offset: -3.26 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 64.171 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 64.171 ms
Loss rate: 0.42%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-03-14 21:32:44
End at: 2018-03-14 21:33:14
Local clock offset: -6.09 ms
Remote clock offset: -3.831 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 64.161 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 64.161 ms
Loss rate: 0.65%
Run 2: Report of WebRTC media — Data Link

![Graph 1: Throughput](#)

- **Flow 1 ingress (mean 2.54 Mbit/s)**
- **Flow 1 egress (mean 2.54 Mbit/s)**

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

- **Flow 1 (95th percentile 64.16 ms)**
Run 3: Statistics of WebRTC media

Start at: 2018-03-14 21:56:09
End at: 2018-03-14 21:56:39
Local clock offset: ~4.977 ms
Remote clock offset: 0.669 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 63.018 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 63.018 ms
Loss rate: 0.47%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-03-14 22:19:34
End at: 2018-03-14 22:20:04
Local clock offset: 1.0 ms
Remote clock offset: -6.562 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 63.276 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 63.276 ms
Loss rate: 0.31%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

End at: 2018-03-14 22:43:23
Local clock offset: -1.437 ms
Remote clock offset: -6.364 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 64.191 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 64.191 ms
Loss rate: 0.65%
Run 5: Report of WebRTC media — Data Link

Throughput (Mbps) vs. Time (s)

- Blue dashed line: Flow 1 ingress (mean 2.52 Mbps)
- Blue solid line: Flow 1 egress (mean 2.52 Mbps)

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

- Blue dots: Flow 1 (95th percentile 64.19 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-03-14 23:06:10
End at: 2018-03-14 23:06:40
Local clock offset: 0.342 ms
Remote clock offset: 0.922 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 63.766 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 63.766 ms
Loss rate: 0.67%
Run 6: Report of WebRTC media — Data Link

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

- **Flow 1 ingress (mean 2.52 Mbps)**
- **Flow 1 egress (mean 2.52 Mbps)**

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

- **Flow 1 (95th percentile 63.77 ms)**
Run 7: Statistics of WebRTC media

Start at: 2018-03-14 23:29:28
End at: 2018-03-14 23:29:58
Local clock offset: 2.459 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 2.52 Mbit/s
  95th percentile per-packet one-way delay: 64.080 ms
  Loss rate: 0.65%
-- Flow 1:
  Average throughput: 2.52 Mbit/s
  95th percentile per-packet one-way delay: 64.080 ms
  Loss rate: 0.65%
Run 7: Report of WebRTC media — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 2.52 Mbit/s)
- Flow 1 egress (mean 2.52 Mbit/s)

![Delay Graph](image2)

- Flow 1 (95th percentile 64.08 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-03-14 23:52:46
End at: 2018-03-14 23:53:16
Local clock offset: 4.886 ms
Remote clock offset: 0.141 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 63.677 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 63.677 ms
Loss rate: 0.64%
Run 8: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.52 Mbit/s)
- Flow 1 egress (mean 2.51 Mbit/s)
Run 9: Statistics of WebRTC media

Start at: 2018-03-15 00:16:02
End at: 2018-03-15 00:16:32
Local clock offset: 5.393 ms
Remote clock offset: 0.322 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 64.409 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 64.409 ms
Loss rate: 0.49%
Run 9: Report of WebRTC media — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 2.51 Mbit/s)
- Blue solid line: Flow 1 egress (mean 2.51 Mbit/s)

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

- Blue dots: Flow 1 (95th percentile 64.41 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-03-15 00:40:08
End at: 2018-03-15 00:40:38
Local clock offset: 5.843 ms
Remote clock offset: 10.665 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 63.961 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 63.961 ms
Loss rate: 0.31%
Run 10: Report of WebRTC media — Data Link

![Graph of throughput and data link delay over time]

- Flow 1 ingress (mean 2.51 Mbit/s)
- Flow 1 egress (mean 2.52 Mbit/s)

Flow 1 [95th percentile 63.96 ms]
Run 1: Statistics of Sprout

Start at: 2018-03-14 20:52:53
End at: 2018-03-14 20:53:23
Local clock offset: -3.397 ms
Remote clock offset: -0.7 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.90 Mbit/s
95th percentile per-packet one-way delay: 67.426 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 5.90 Mbit/s
95th percentile per-packet one-way delay: 67.426 ms
Loss rate: 0.55%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-03-14 21:16:11
End at: 2018-03-14 21:16:41
Local clock offset: -10.894 ms
Remote clock offset: -3.788 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.23 Mbit/s
95th percentile per-packet one-way delay: 68.685 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 6.23 Mbit/s
95th percentile per-packet one-way delay: 68.685 ms
Loss rate: 0.52%
Run 2: Report of Sprout — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 6.25 Mbps)
- Blue solid line: Flow 1 egress (mean 6.23 Mbps)

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

- Blue line: Flow 1 (95th percentile 68.69 ms)
Run 3: Statistics of Sprout

Start at: 2018-03-14 21:40:08
End at: 2018-03-14 21:40:38
Local clock offset: -10.734 ms
Remote clock offset: -1.352 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 66.178 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 66.178 ms
Loss rate: 0.51%
Run 3: Report of Sprout — Data Link

![Throughput Graph](image)

- **Flow 1 ingress** (mean 6.33 Mbit/s)
- **Flow 1 egress** (mean 6.32 Mbit/s)

![Packet Delay Graph](image)

- **Flow 1** (95th percentile 66.18 ms)
Run 4: Statistics of Sprout

Start at: 2018-03-14 22:03:27
End at: 2018-03-14 22:03:57
Local clock offset: 0.376 ms
Remote clock offset: 1.281 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 71.836 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 71.836 ms
Loss rate: 0.31%
Run 4: Report of Sprout — Data Link

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

- **Flow 1 ingress (mean 5.67 Mbps)**
- **Flow 1 egress (mean 5.68 Mbps)**

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

- **Flow 1 (95th percentile 71.84 ms)**
Run 5: Statistics of Sprout

Start at: 2018-03-14 22:26:52
End at: 2018-03-14 22:27:22
Local clock offset: 0.849 ms
Remote clock offset: -7.878 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.16 Mbit/s
95th percentile per-packet one-way delay: 68.272 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 6.16 Mbit/s
95th percentile per-packet one-way delay: 68.272 ms
Loss rate: 0.47%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-03-14 22:50:11
End at: 2018-03-14 22:50:41
Local clock offset: -1.869 ms
Remote clock offset: -2.559 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 68.766 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 68.766 ms
Loss rate: 0.54%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

End at: 2018-03-14 23:13:58
Local clock offset: 2.106 ms
Remote clock offset: 1.949 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.35 Mbit/s
95th percentile per-packet one-way delay: 68.264 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 6.35 Mbit/s
95th percentile per-packet one-way delay: 68.264 ms
Loss rate: 0.43%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-03-14 23:36:47
End at: 2018-03-14 23:37:17
Local clock offset: 3.058 ms
Remote clock offset: 0.04 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 6.30 Mbit/s
  95th percentile per-packet one-way delay: 68.095 ms
  Loss rate: 0.47%
-- Flow 1:
  Average throughput: 6.30 Mbit/s
  95th percentile per-packet one-way delay: 68.095 ms
  Loss rate: 0.47%
Run 8: Report of Sprout — Data Link

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

Start at: 2018-03-15 00:00:05
End at: 2018-03-15 00:00:35
Local clock offset: 4.872 ms
Remote clock offset: 0.079 ms

# Below is generated by plot.py at 2018-03-15 04:50:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.07 Mbit/s
95th percentile per-packet one-way delay: 69.025 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 6.07 Mbit/s
95th percentile per-packet one-way delay: 69.025 ms
Loss rate: 0.53%
Run 9: Report of Sprout — Data Link

![Graph showing network performance metrics](image)

- Flow 1 ingress (mean 6.08 Mbit/s)
- Flow 1 egress (mean 6.07 Mbit/s)

---

Per packet one way delay (ms)

- Flow 1 (95th percentile 69.03 ms)
Run 10: Statistics of Sprout

/home/ubuntu/pantheon_data/2018-03-14T20-47-China-to-AWS-Korea-10-runs/sprout_stats_run10.log does not exist
Run 10: Report of Sprout — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-14 20:57:46
End at: 2018-03-14 20:58:16
Local clock offset: -3.226 ms
Remote clock offset: -0.96 ms

# Below is generated by plot.py at 2018-03-15 04:52:43
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 85.74 Mbit/s
  95th percentile per-packet one-way delay: 73.598 ms
  Loss rate: 1.18%
-- Flow 1:
  Average throughput: 85.74 Mbit/s
  95th percentile per-packet one-way delay: 73.598 ms
  Loss rate: 1.18%
Run 1: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 86.40 Mbit/s)
- Flow 1 egress (mean 85.74 Mbit/s)

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

- Flow 1 (95th percentile 73.60 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-14 21:21:04
End at: 2018-03-14 21:21:34
Local clock offset: -7.293 ms
Remote clock offset: -4.132 ms

# Below is generated by plot.py at 2018-03-15 04:52:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.71 Mbit/s
95th percentile per-packet one-way delay: 73.635 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 85.71 Mbit/s
95th percentile per-packet one-way delay: 73.635 ms
Loss rate: 1.11%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-14 21:45:03
End at: 2018-03-14 21:45:33
Local clock offset: -10.164 ms
Remote clock offset: -0.459 ms

# Below is generated by plot.py at 2018-03-15 04:52:46
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 86.26 Mbit/s
  95th percentile per-packet one-way delay: 73.563 ms
  Loss rate: 0.96%
-- Flow 1:
  Average throughput: 86.26 Mbit/s
  95th percentile per-packet one-way delay: 73.563 ms
  Loss rate: 0.96%
Run 3: Report of TaoVA-100x — Data Link

![Graph of throughput over time with data link information]

![Graph of per-packet one-way delay over time with data link information]
Run 4: Statistics of TaoVA-100x

Start at: 2018-03-14 22:08:21
End at: 2018-03-14 22:08:51
Local clock offset: 1.757 ms
Remote clock offset: -1.499 ms

# Below is generated by plot.py at 2018-03-15 04:52:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.39 Mbit/s
95th percentile per-packet one-way delay: 74.285 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 85.39 Mbit/s
95th percentile per-packet one-way delay: 74.285 ms
Loss rate: 1.06%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-03-14 22:31:45
End at: 2018-03-14 22:32:15
Local clock offset: 0.532 ms
Remote clock offset: -8.368 ms

# Below is generated by plot.py at 2018-03-15 04:52:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.02 Mbit/s
95th percentile per-packet one-way delay: 72.924 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 86.02 Mbit/s
95th percentile per-packet one-way delay: 72.924 ms
Loss rate: 1.14%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Start at: 2018-03-14 22:55:03
Local clock offset: -2.913 ms
Remote clock offset: -1.149 ms

# Below is generated by plot.py at 2018-03-15 04:52:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.44 Mbit/s
95th percentile per-packet one-way delay: 73.632 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 86.44 Mbit/s
95th percentile per-packet one-way delay: 73.632 ms
Loss rate: 0.89%
Run 6: Report of TaoVA-100x — Data Link

![Graph of throughput over time with legends: Flow 1 ingress (mean 86.84 Mbps), Flow 1 egress (mean 86.44 Mbps).]

![Graph of per-packet one-way delay over time with a 95th percentile of 73.63 ms.]

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Run 7: Statistics of TaoVA-100x

Start at: 2018-03-14 23:18:21
End at: 2018-03-14 23:18:51
Local clock offset: 2.392 ms
Remote clock offset: 0.745 ms

# Below is generated by plot.py at 2018-03-15 04:52:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.21 Mbit/s
95th percentile per-packet one-way delay: 73.337 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 86.21 Mbit/s
95th percentile per-packet one-way delay: 73.337 ms
Loss rate: 1.02%
Run 7: Report of TaoVA-100x — Data Link

![Graph](image1)

![Graph](image2)
Run 8: Statistics of TaoVA-100x

Start at: 2018-03-14 23:41:40
End at: 2018-03-14 23:42:10
Local clock offset: 3.919 ms
Remote clock offset: 0.127 ms

# Below is generated by plot.py at 2018-03-15 04:53:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.45 Mbit/s
95th percentile per-packet one-way delay: 73.530 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 85.45 Mbit/s
95th percentile per-packet one-way delay: 73.530 ms
Loss rate: 1.42%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-15 00:04:57
End at: 2018-03-15 00:05:27
Local clock offset: 5.011 ms
Remote clock offset: 0.12 ms

# Below is generated by plot.py at 2018-03-15 04:55:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.51 Mbit/s
95th percentile per-packet one-way delay: 75.764 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 85.51 Mbit/s
95th percentile per-packet one-way delay: 75.764 ms
Loss rate: 1.29%
Run 9: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress (mean 85.25 Mbit/s)**
- **Flow 1 egress (mean 85.51 Mbit/s)**

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

- **Flow 1 (95th percentile 75.76 ms)**

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Run 10: Statistics of TaoVA-100x

Start at: 2018-03-15 00:29:01
End at: 2018-03-15 00:29:31
Local clock offset: 5.706 ms
Remote clock offset: 6.402 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.75 Mbit/s
95th percentile per-packet one-way delay: 73.846 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 85.75 Mbit/s
95th percentile per-packet one-way delay: 73.846 ms
Loss rate: 1.23%
Run 10: Report of TaoVA-100x — Data Link

[Graph 1: Throughput vs Time (Mbps)]

[Graph 2: Per-packet one-way delay (ms)]
Run 1: Statistics of TCP Vegas

Start at: 2018-03-14 20:51:40
End at: 2018-03-14 20:52:10
Local clock offset: -6.195 ms
Remote clock offset: -0.644 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.10 Mbit/s
95th percentile per-packet one-way delay: 63.369 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 55.10 Mbit/s
95th percentile per-packet one-way delay: 63.369 ms
Loss rate: 0.44%
Run 1: Report of TCP Vegas — Data Link

---

**Throughput (Mbps)**

Time (s)

- **Flow 1 ingress (mean 55.10 Mbps)**
- **Flow 1 egress (mean 55.10 Mbps)**

---

**Packet one-way delay (ms)**

Time (s)

- **Flow 1 (95th percentile 63.37 ms)**

---

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Run 2: Statistics of TCP Vegas

Start at: 2018-03-14 21:14:57
End at: 2018-03-14 21:15:27
Local clock offset: -12.43 ms
Remote clock offset: -3.748 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.94 Mbit/s
95th percentile per-packet one-way delay: 74.496 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 92.94 Mbit/s
95th percentile per-packet one-way delay: 74.496 ms
Loss rate: 0.45%
Run 2: Report of TCP Vegas — Data Link

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

![Graph 2: Packet delivery delay](image2)
Run 3: Statistics of TCP Vegas

Start at: 2018-03-14 21:38:53
End at: 2018-03-14 21:39:23
Local clock offset: -7.601 ms
Remote clock offset: -1.639 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.73 Mbit/s
95th percentile per-packet one-way delay: 82.817 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 93.73 Mbit/s
95th percentile per-packet one-way delay: 82.817 ms
Loss rate: 0.46%
Run 3: Report of TCP Vegas — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 93.76 Mbit/s)  Flow 1 egress (mean 93.73 Mbit/s)

Packet end-to-end delay (ms)

Flow 1 (95th percentile 82.82 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-03-14 22:02:15
End at: 2018-03-14 22:02:45
Local clock offset: -2.751 ms
Remote clock offset: 1.188 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.82 Mbit/s
95th percentile per-packet one-way delay: 65.190 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 55.82 Mbit/s
95th percentile per-packet one-way delay: 65.190 ms
Loss rate: 0.44%
Run 4: Report of TCP Vegas — Data Link

**Throughput (Mbps) vs. Time (s)**
- Flow 1 ingress (mean 55.83 Mbps)
- Flow 1 egress (mean 55.82 Mbps)

**Per-packet one-way delay (ms) vs. Time (s)**
- Flow 1 (95th percentile 65.19 ms)
Run 5: Statistics of TCP Vegas

Start at: 2018-03-14 22:25:40
End at: 2018-03-14 22:26:10
Local clock offset: 1.105 ms
Remote clock offset: -7.727 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.86 Mbit/s
95th percentile per-packet one-way delay: 68.316 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 55.86 Mbit/s
95th percentile per-packet one-way delay: 68.316 ms
Loss rate: 0.44%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Local clock offset: -1.866 ms
Remote clock offset: -2.997 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.32 Mbit/s
95th percentile per-packet one-way delay: 65.283 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 61.32 Mbit/s
95th percentile per-packet one-way delay: 65.283 ms
Loss rate: 0.29%
Run 6: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 61.23 Mbit/s)**
- **Flow 1 egress (mean 61.32 Mbit/s)**

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

- **Flow 1 95th percentile 65.28 ms**
Run 7: Statistics of TCP Vegas

Start at: 2018-03-14 23:12:15
End at: 2018-03-14 23:12:45
Local clock offset: 2.011 ms
Remote clock offset: 1.702 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.87 Mbit/s
95th percentile per-packet one-way delay: 67.481 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 64.87 Mbit/s
95th percentile per-packet one-way delay: 67.481 ms
Loss rate: 0.50%
Run 7: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 64.92 Mbps)
- Flow 1 egress (mean 64.87 Mbps)

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

- Flow 1 95th percentile 67.48 ms

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Run 8: Statistics of TCP Vegas

Start at: 2018-03-14 23:35:34
End at: 2018-03-14 23:36:04
Local clock offset: 3.012 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.78 Mbit/s
95th percentile per-packet one-way delay: 69.205 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 64.78 Mbit/s
95th percentile per-packet one-way delay: 69.205 ms
Loss rate: 0.51%
Run 8: Report of TCP Vegas — Data Link

![Throughput Graph]

![Delay Graph]

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Run 9: Statistics of TCP Vegas

Start at: 2018-03-14 23:58:52
End at: 2018-03-14 23:59:22
Local clock offset: 4.994 ms
Remote clock offset: 0.112 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.92 Mbit/s
95th percentile per-packet one-way delay: 68.345 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 55.92 Mbit/s
95th percentile per-packet one-way delay: 68.345 ms
Loss rate: 0.44%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

/home/ubuntu/pantheon_data/2018-03-14T20-47-China-to-AWS-Korea-10-runs/vegas_stats_run10.log does not exist
Run 10: Report of TCP Vegas — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of Verus

Start at: 2018-03-14 20:49:13
End at: 2018-03-14 20:49:43
Local clock offset: -4.139 ms
Remote clock offset: -0.744 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.49 Mbit/s
95th percentile per-packet one-way delay: 84.676 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 55.49 Mbit/s
95th percentile per-packet one-way delay: 84.676 ms
Loss rate: 0.70%
Run 1: Report of Verus — Data Link

Graph showing throughput and packet delay over time.
Run 2: Statistics of Verus

Start at: 2018-03-14 21:12:29
End at: 2018-03-14 21:12:59
Local clock offset: -7.924 ms
Remote clock offset: -3.56 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.28 Mbit/s
95th percentile per-packet one-way delay: 86.425 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 57.28 Mbit/s
95th percentile per-packet one-way delay: 86.425 ms
Loss rate: 0.43%
Run 2: Report of Verus — Data Link

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

Flow 1 ingress (mean 57.23 Mbit/s)  Flow 1 egress (mean 57.28 Mbit/s)

![Graph of Per-packet delay vs. Time](image)

Flow 1 (95th percentile 86.42 ms)
Run 3: Statistics of Verus

Start at: 2018-03-14 21:36:23
End at: 2018-03-14 21:36:53
Local clock offset: -6.801 ms
Remote clock offset: -2.402 ms

# Below is generated by plot.py at 2018-03-15 04:55:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.37 Mbit/s
95th percentile per-packet one-way delay: 84.959 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 55.37 Mbit/s
95th percentile per-packet one-way delay: 84.959 ms
Loss rate: 0.36%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

Start at: 2018-03-14 21:59:47  
End at: 2018-03-14 22:00:17  
Local clock offset: -1.335 ms  
Remote clock offset: 1.009 ms

# Below is generated by plot.py at 2018-03-15 04:55:24  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 57.52 Mbit/s  
95th percentile per-packet one-way delay: 84.464 ms  
Loss rate: 0.30%  
-- Flow 1:  
Average throughput: 57.52 Mbit/s  
95th percentile per-packet one-way delay: 84.464 ms  
Loss rate: 0.30%
Run 4: Report of Verus — Data Link

[Graphs showing throughput and packet delay over time.]

Flow 1 ingress (mean 57.38 Mbit/s) | Flow 1 egress (mean 57.52 Mbit/s)

Flow 1 (95th percentile 84.46 ms)
Run 5: Statistics of Verus

Start at: 2018-03-14 22:23:12
End at: 2018-03-14 22:23:42
Local clock offset: 1.268 ms
Remote clock offset: -7.327 ms

# Below is generated by plot.py at 2018-03-15 04:55:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.47 Mbit/s
95th percentile per-packet one-way delay: 84.385 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 52.47 Mbit/s
95th percentile per-packet one-way delay: 84.385 ms
Loss rate: 0.84%
Run 5: Report of Verus — Data Link

![Graph showing network throughput and packet delay for Flow 1. The graph displays two main plots: one for throughput plotted against time (s), and another for packet delay also plotted against time (s). The throughput graph shows two distinct trends, with one consistently higher than the other. The packet delay graph shows a more uniform pattern with occasional spikes. The legend indicates that Flow 1 ingress has a mean throughput of 52.69 Mbit/s, and Flow 1 egress has a mean throughput of 52.47 Mbit/s. The packet delay for Flow 1 is marked with a 95th percentile of 84.39 ms.]

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Run 6: Statistics of Verus

Start at: 2018-03-14 22:46:30
End at: 2018-03-14 22:47:01
Local clock offset: -4.262 ms
Remote clock offset: -4.165 ms

# Below is generated by plot.py at 2018-03-15 04:55:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.38 Mbit/s
95th percentile per-packet one-way delay: 82.698 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 54.38 Mbit/s
95th percentile per-packet one-way delay: 82.698 ms
Loss rate: 0.05%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-03-14 23:09:47
End at: 2018-03-14 23:10:17
Local clock offset: 1.514 ms
Remote clock offset: 1.422 ms

# Below is generated by plot.py at 2018-03-15 04:55:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.04 Mbit/s
95th percentile per-packet one-way delay: 86.802 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 65.04 Mbit/s
95th percentile per-packet one-way delay: 86.802 ms
Loss rate: 0.67%
Run 7: Report of Verus — Data Link

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

- Flow 1 ingress (mean 65.20 Mbit/s)
- Flow 1 egress (mean 65.04 Mbit/s)

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

- Flow 1 (95th percentile 66.80 ms)
Run 8: Statistics of Verus

Start at: 2018-03-14 23:33:06
End at: 2018-03-14 23:33:36
Local clock offset: 2.468 ms
Remote clock offset: 0.028 ms

# Below is generated by plot.py at 2018-03-15 04:55:57
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 61.99 Mbit/s
  95th percentile per-packet one-way delay: 84.633 ms
  Loss rate: 0.73%
-- Flow 1:
  Average throughput: 61.99 Mbit/s
  95th percentile per-packet one-way delay: 84.633 ms
  Loss rate: 0.73%
Run 8: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 62.16 Mbit/s)
- **Flow 1 egress** (mean 61.99 Mbit/s)

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

- **Flow 1** (95th percentile 84.63 ms)
Run 9: Statistics of Verus

Start at: 2018-03-14 23:56:24
End at: 2018-03-14 23:56:54
Local clock offset: 4.689 ms
Remote clock offset: 0.118 ms

# Below is generated by plot.py at 2018-03-15 04:55:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.65 Mbit/s
95th percentile per-packet one-way delay: 83.745 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 55.65 Mbit/s
95th percentile per-packet one-way delay: 83.745 ms
Loss rate: 0.72%
Run 9: Report of Verus — Data Link

![Graph showing throughput and delay over time for two different flows](image)

- **Flow 1 ingress (mean 55.63 Mbit/s)**
- **Flow 1 egress (mean 55.65 Mbit/s)**
Run 10: Statistics of Verus

Start at: 2018-03-15 00:19:40
End at: 2018-03-15 00:20:10
Local clock offset: 5.865 ms
Remote clock offset: 0.446 ms

# Below is generated by plot.py at 2018-03-15 04:55:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.18 Mbit/s
95th percentile per-packet one-way delay: 84.525 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 52.18 Mbit/s
95th percentile per-packet one-way delay: 84.525 ms
Loss rate: 0.87%
Run 10: Report of Verus — Data Link

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

- Flow 1 ingress (mean 52.40 Mbit/s)
- Flow 1 egress (mean 52.18 Mbit/s)
- Flow 1 (95th percentile 84.53 ms)
Run 1: Statistics of Copa

Start at: 2018-03-14 21:03:54
End at: 2018-03-14 21:04:24
Local clock offset: -3.905 ms
Remote clock offset: -2.5 ms

# Below is generated by plot.py at 2018-03-15 04:56:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.52 Mbit/s
95th percentile per-packet one-way delay: 65.429 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 62.52 Mbit/s
95th percentile per-packet one-way delay: 65.429 ms
Loss rate: 0.51%
Run 1: Report of Copa — Data Link

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

![Graph showing packet delay distribution for Flow 1](image)
Run 2: Statistics of Copa

Start at: 2018-03-14 21:27:22
End at: 2018-03-14 21:27:52
Local clock offset: -5.498 ms
Remote clock offset: -4.432 ms

# Below is generated by plot.py at 2018-03-15 04:57:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.20 Mbit/s
95th percentile per-packet one-way delay: 63.899 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 72.20 Mbit/s
95th percentile per-packet one-way delay: 63.899 ms
Loss rate: 0.49%
Run 2: Report of Copa — Data Link

![Graph of throughput over time for Flow 1 ingress (mean 72.24 Mbit/s) and Flow 1 egress (mean 72.20 Mbit/s).]

![Graph of per-packet one-way delay for Flow 1 (95th percentile 63.90 ms).]
Run 3: Statistics of Copa

Start at: 2018-03-14 21:51:10
End at: 2018-03-14 21:51:40
Local clock offset: -12.884 ms
Remote clock offset: 0.291 ms

# Below is generated by plot.py at 2018-03-15 04:57:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.93 Mbit/s
95th percentile per-packet one-way delay: 63.527 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 74.93 Mbit/s
95th percentile per-packet one-way delay: 63.527 ms
Loss rate: 0.44%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

Start at: 2018-03-14 22:14:34
End at: 2018-03-14 22:15:05
Local clock offset: 2.012 ms
Remote clock offset: -4.955 ms

# Below is generated by plot.py at 2018-03-15 04:57:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.10 Mbit/s
95th percentile per-packet one-way delay: 67.013 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 78.10 Mbit/s
95th percentile per-packet one-way delay: 67.013 ms
Loss rate: 0.41%
Run 4: Report of Copa — Data Link

![Graph of throughput over time]

- Flow 1 ingress (mean 78.09 Mbit/s)
- Flow 1 egress (mean 78.10 Mbit/s)

![Graph of packet delay over time]

- Flow 1 95th percentile 67.01 ms
Run 5: Statistics of Copa

Start at: 2018-03-14 22:37:53
End at: 2018-03-14 22:38:23
Local clock offset: -0.148 ms
Remote clock offset: -9.209 ms

# Below is generated by plot.py at 2018-03-15 04:57:57
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 80.65 Mbit/s
  95th percentile per-packet one-way delay: 73.186 ms
  Loss rate: 0.53%
-- Flow 1:
  Average throughput: 80.65 Mbit/s
  95th percentile per-packet one-way delay: 73.186 ms
  Loss rate: 0.53%
Run 5: Report of Copa — Data Link
Run 6: Statistics of Copa

Start at: 2018-03-14 23:01:11
End at: 2018-03-14 23:01:41
Local clock offset: -2.819 ms
Remote clock offset: 0.097 ms

# Below is generated by plot.py at 2018-03-15 04:58:00
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 79.29 Mbit/s
  95th percentile per-packet one-way delay: 66.276 ms
  Loss rate: 0.44%
-- Flow 1:
  Average throughput: 79.29 Mbit/s
  95th percentile per-packet one-way delay: 66.276 ms
  Loss rate: 0.44%
Run 6: Report of Copa — Data Link

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**Throughput (Mbps/s)**

- Flow 1 ingress (mean 79.30 Mbps/s)
- Flow 1 egress (mean 79.29 Mbps/s)

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

- Flow 1 (95th percentile 66.28 ms)
Run 7: Statistics of Copa

Start at: 2018-03-14 23:24:30
End at: 2018-03-14 23:25:00
Local clock offset: 2.419 ms
Remote clock offset: 0.111 ms

# Below is generated by plot.py at 2018-03-15 04:58:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.80 Mbit/s
95th percentile per-packet one-way delay: 65.242 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 72.80 Mbit/s
95th percentile per-packet one-way delay: 65.242 ms
Loss rate: 0.42%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-03-14 23:47:47
End at: 2018-03-14 23:48:17
Local clock offset: 4.647 ms
Remote clock offset: 0.382 ms

# Below is generated by plot.py at 2018-03-15 04:58:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.45 Mbit/s
95th percentile per-packet one-way delay: 65.370 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 75.45 Mbit/s
95th percentile per-packet one-way delay: 65.370 ms
Loss rate: 0.46%
Run 8: Report of Copa — Data Link

![Graph showing network performance metrics](image-url)

**Legend:**
- Flow 1 ingress (mean 75.48 Mbit/s)
- Flow 1 egress (mean 75.45 Mbit/s)

**Graph Description:**
- The top graph shows the throughput over time, with a steady increase followed by a slight drop.
- The bottom graph illustrates the packet delay, indicating a consistent delay time throughout the test period.
Run 9: Statistics of Copa

Start at: 2018-03-15 00:11:05
End at: 2018-03-15 00:11:35
Local clock offset: 5.036 ms
Remote clock offset: 0.205 ms

# Below is generated by plot.py at 2018-03-15 04:58:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.66 Mbit/s
95th percentile per-packet one-way delay: 64.790 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 61.66 Mbit/s
95th percentile per-packet one-way delay: 64.790 ms
Loss rate: 0.47%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa

Start at: 2018-03-15 00:35:08  
End at: 2018-03-15 00:35:38  
Local clock offset: 5.913 ms  
Remote clock offset: 9.114 ms

# Below is generated by plot.py at 2018-03-15 04:59:31  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 79.75 Mbit/s  
95th percentile per-packet one-way delay: 67.142 ms  
Loss rate: 0.47%  
-- Flow 1:  
Average throughput: 79.75 Mbit/s  
95th percentile per-packet one-way delay: 67.142 ms  
Loss rate: 0.47%
Run 10: Report of Copa — Data Link

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

- Blue line: Flow 1 ingress (mean 79.79 Mbps/s)
- Blue line: Flow 1 egress (mean 79.75 Mbps/s)

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

- Blue line: Flow 1 (95th percentile 67.14 ms)
Run 1: Statistics of FillP

Start at: 2018-03-14 20:56:33
End at: 2018-03-14 20:57:03
Local clock offset: -2.435 ms
Remote clock offset: -0.695 ms

# Below is generated by plot.py at 2018-03-15 04:59:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.43 Mbit/s
95th percentile per-packet one-way delay: 83.676 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 95.43 Mbit/s
95th percentile per-packet one-way delay: 83.676 ms
Loss rate: 0.51%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

Start at: 2018-03-14 21:19:51
End at: 2018-03-14 21:20:21
Local clock offset: -7.905 ms
Remote clock offset: -4.041 ms

# Below is generated by plot.py at 2018-03-15 04:59:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.40 Mbit/s
95th percentile per-packet one-way delay: 87.298 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 95.40 Mbit/s
95th percentile per-packet one-way delay: 87.298 ms
Loss rate: 0.52%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

Start at: 2018-03-14 21:43:49
End at: 2018-03-14 21:44:19
Local clock offset: -9.517 ms
Remote clock offset: -0.685 ms

# Below is generated by plot.py at 2018-03-15 04:59:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.39 Mbit/s
95th percentile per-packet one-way delay: 83.948 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 95.39 Mbit/s
95th percentile per-packet one-way delay: 83.948 ms
Loss rate: 0.52%
Run 3: Report of FillP — Data Link

![Graph of Throughput](image1)

![Graph of Packet Loss](image2)
Run 4: Statistics of FillP

Start at: 2018-03-14 22:07:07
End at: 2018-03-14 22:07:37
Local clock offset: 1.479 ms
Remote clock offset: -0.383 ms

# Below is generated by plot.py at 2018-03-15 04:59:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 92.634 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 92.634 ms
Loss rate: 0.55%
Run 4: Report of FillP — Data Link

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

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

- Flow 1 ingress (mean 95.35 Mbit/s)
- Flow 1 egress (mean 95.27 Mbit/s)

- Flow 1 (95th percentile 92.63 ms)
Run 5: Statistics of FillP

Start at: 2018-03-14 22:30:32
End at: 2018-03-14 22:31:02
Local clock offset: 0.871 ms
Remote clock offset: -8.428 ms

# Below is generated by plot.py at 2018-03-15 04:59:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.44 Mbit/s
95th percentile per-packet one-way delay: 83.975 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 95.44 Mbit/s
95th percentile per-packet one-way delay: 83.975 ms
Loss rate: 0.53%
Run 5: Report of FillP — Data Link
Run 6: Statistics of FillP

Start at: 2018-03-14 22:53:50
End at: 2018-03-14 22:54:20
Local clock offset: -2.515 ms
Remote clock offset: -1.411 ms

# Below is generated by plot.py at 2018-03-15 04:59:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.37 Mbit/s
95th percentile per-packet one-way delay: 91.950 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 95.37 Mbit/s
95th percentile per-packet one-way delay: 91.950 ms
Loss rate: 0.52%
Run 6: Report of FillP — Data Link

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

- **Flow 1 ingress (mean 95.42 Mbit/s)**
- **Flow 1 egress (mean 95.37 Mbit/s)**

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

- **Flow 1 (95th percentile 91.95 ms)**
Run 7: Statistics of FillP

Start at: 2018-03-14 23:17:08
End at: 2018-03-14 23:17:38
Local clock offset: 2.064 ms
Remote clock offset: 0.95 ms

# Below is generated by plot.py at 2018-03-15 04:59:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.54 Mbit/s
95th percentile per-packet one-way delay: 83.068 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 95.54 Mbit/s
95th percentile per-packet one-way delay: 83.068 ms
Loss rate: 0.52%
Run 7: Report of FillP — Data Link

![Graph showing throughput over time with two lines indicating Flow 1 ingress and egress (mean 95.60 Mbit/s and 95.54 Mbit/s respectively).]

![Graph showing per-packet one-way delay (ms) over time with Flow 1's 95th percentile delay as 83.07 ms.]
Run 8: Statistics of FillP

Start at: 2018-03-14 23:40:26
End at: 2018-03-14 23:40:56
Local clock offset: 3.918 ms
Remote clock offset: 0.152 ms

# Below is generated by plot.py at 2018-03-15 05:00:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.46 Mbit/s
95th percentile per-packet one-way delay: 83.336 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 95.46 Mbit/s
95th percentile per-packet one-way delay: 83.336 ms
Loss rate: 0.52%
Run 8: Report of FillP — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Per-packet delay (ms)

Legend:
- Flow 1 ingress (mean 95.53 Mbit/s)
- Flow 1 egress (mean 95.46 Mbit/s)

Flow 1 (95th percentile 83.34 ms)
Run 9: Statistics of FillP

Start at: 2018-03-15 00:03:44
End at: 2018-03-15 00:04:14
Local clock offset: 5.136 ms
Remote clock offset: 0.101 ms

# Below is generated by plot.py at 2018-03-15 05:00:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.88 Mbit/s
95th percentile per-packet one-way delay: 104.033 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 93.88 Mbit/s
95th percentile per-packet one-way delay: 104.033 ms
Loss rate: 0.68%
Run 9: Report of FillP — Data Link

![Throughput Graph](image1)

![Ping Graph](image2)
Run 10: Statistics of FillP

Start at: 2018-03-15 00:27:47
End at: 2018-03-15 00:28:18
Local clock offset: 5.934 ms
Remote clock offset: 5.73 ms

# Below is generated by plot.py at 2018-03-15 05:01:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.37 Mbit/s
95th percentile per-packet one-way delay: 84.106 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 95.37 Mbit/s
95th percentile per-packet one-way delay: 84.106 ms
Loss rate: 0.52%
Run 10: Report of FillIP — Data Link
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-14 21:06:21
End at: 2018-03-14 21:06:52
Local clock offset: -4.784 ms
Remote clock offset: -2.971 ms

# Below is generated by plot.py at 2018-03-15 05:01:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.31 Mbit/s
95th percentile per-packet one-way delay: 85.798 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 93.31 Mbit/s
95th percentile per-packet one-way delay: 85.798 ms
Loss rate: 0.47%
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-14 21:29:59
End at: 2018-03-14 21:30:29
Local clock offset: -5.348 ms
Remote clock offset: -4.576 ms

# Below is generated by plot.py at 2018-03-15 05:01:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.10 Mbit/s
95th percentile per-packet one-way delay: 83.760 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 94.10 Mbit/s
95th percentile per-packet one-way delay: 83.760 ms
Loss rate: 0.53%
Run 2: Report of Indigo-1-32 — Data Link
Run 3: Statistics of Indigo-1-32

Start at: 2018-03-14 21:53:39
End at: 2018-03-14 21:54:09
Local clock offset: -8.123 ms
Remote clock offset: 0.519 ms

# Below is generated by plot.py at 2018-03-15 05:01:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.72 Mbit/s
95th percentile per-packet one-way delay: 74.557 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 90.72 Mbit/s
95th percentile per-packet one-way delay: 74.557 ms
Loss rate: 0.42%
Run 3: Report of Indigo-1-32 — Data Link

[Graph 1: Throughput (Mbps) vs. Time (s)
- Flow 1 ingress (mean 90.72 Mbit/s)
- Flow 1 egress (mean 90.72 Mbit/s)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 74.56 ms)
Run 4: Statistics of Indigo-1-32

Start at: 2018-03-14 22:17:04
End at: 2018-03-14 22:17:34
Local clock offset: 2.116 ms
Remote clock offset: -5.806 ms

# Below is generated by plot.py at 2018-03-15 05:01:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.34 Mbit/s
95th percentile per-packet one-way delay: 85.566 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 93.34 Mbit/s
95th percentile per-packet one-way delay: 85.566 ms
Loss rate: 0.48%
Run 4: Report of Indigo-1-32 — Data Link

![Graph of Throughput (Mbps) over Time (s) for Flow 1 ingress (mean 93.39 Mbit/s) and Flow 1 egress (mean 93.34 Mbit/s).]

![Graph of Per-packet one-way delay (ms) over Time (s) for Flow 1 (95th percentile 85.57 ms).]

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Run 5: Statistics of Indigo-1-32

Start at: 2018-03-14 22:40:22
End at: 2018-03-14 22:40:53
Local clock offset: -0.504 ms
Remote clock offset: -8.426 ms

# Below is generated by plot.py at 2018-03-15 05:01:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.73 Mbit/s
95th percentile per-packet one-way delay: 76.061 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 91.73 Mbit/s
95th percentile per-packet one-way delay: 76.061 ms
Loss rate: 0.47%
Run 5: Report of Indigo-1-32 — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 6: Statistics of Indigo-1-32

Start at: 2018-03-14 23:03:40
End at: 2018-03-14 23:04:10
Local clock offset: -0.806 ms
Remote clock offset: 0.514 ms

# Below is generated by plot.py at 2018-03-15 05:01:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.67 Mbit/s
95th percentile per-packet one-way delay: 74.946 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 85.67 Mbit/s
95th percentile per-packet one-way delay: 74.946 ms
Loss rate: 0.44%
Run 6: Report of Indigo-1-32 — Data Link
Run 7: Statistics of Indigo-1-32

Start at: 2018-03-14 23:26:58
End at: 2018-03-14 23:27:28
Local clock offset: 2.658 ms
Remote clock offset: 0.034 ms

# Below is generated by plot.py at 2018-03-15 05:02:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.42 Mbit/s
95th percentile per-packet one-way delay: 75.347 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 90.42 Mbit/s
95th percentile per-packet one-way delay: 75.347 ms
Loss rate: 0.43%
Run 7: Report of Indigo-1-32 — Data Link

![Throughput over time](image1)

![Packet delay over time](image2)
Run 8: Statistics of Indigo-1-32

Start at: 2018-03-14 23:50:16
End at: 2018-03-14 23:50:46
Local clock offset: 4.671 ms
Remote clock offset: 0.199 ms

# Below is generated by plot.py at 2018-03-15 05:02:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.74 Mbit/s
95th percentile per-packet one-way delay: 75.114 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 90.74 Mbit/s
95th percentile per-packet one-way delay: 75.114 ms
Loss rate: 0.47%
Run 8: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 90.77 Mbit/s)
- Flow 1 egress (mean 90.74 Mbit/s)

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

- Flow 1 (95th percentile 75.11 ms)
Run 9: Statistics of Indigo-1-32

Start at: 2018-03-15 00:13:33
End at: 2018-03-15 00:14:03
Local clock offset: 4.853 ms
Remote clock offset: 0.269 ms

# Below is generated by plot.py at 2018-03-15 05:02:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.05 Mbit/s
95th percentile per-packet one-way delay: 82.421 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 91.05 Mbit/s
95th percentile per-packet one-way delay: 82.421 ms
Loss rate: 0.46%
Run 9: Report of Indigo-1-32 — Data Link

![Graph 1: Throughput (Mbps)]

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

Flow 1 ingress (mean 91.08 Mbit/s)  Flow 1 egress (mean 91.05 Mbit/s)

Flow 1 (95th percentile 82.42 ms)
Run 10: Statistics of Indigo-1-32

Start at: 2018-03-15 00:37:38
End at: 2018-03-15 00:38:08
Local clock offset: 6.23 ms
Remote clock offset: 9.986 ms

# Below is generated by plot.py at 2018-03-15 05:02:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.30 Mbit/s
95th percentile per-packet one-way delay: 82.785 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 92.30 Mbit/s
95th percentile per-packet one-way delay: 82.785 ms
Loss rate: 0.49%
Run 10: Report of Indigo-1-32 — Data Link

**Throughput (Mbps)**

![Graph of Throughput](image1)

```latex
\text{Flow 1 ingress (mean 92.35 Mbit/s)} \quad \text{Flow 1 egress (mean 92.30 Mbit/s)}
```

**Packets per second (pps)**

![Graph of Packets per second](image2)

```latex
\text{Flow 1 (95th percentile 82.78 ms)}
```

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Run 1: Statistics of Vivace-latency

Start at: 2018-03-14 21:07:37
End at: 2018-03-14 21:08:07
Local clock offset: -5.239 ms
Remote clock offset: -3.097 ms

# Below is generated by plot.py at 2018-03-15 05:02:22
# Datalink statistics
   -- Total of 1 flow:
      Average throughput: 69.17 Mbit/s
      95th percentile per-packet one-way delay: 68.474 ms
      Loss rate: 0.51%
   -- Flow 1:
      Average throughput: 69.17 Mbit/s
      95th percentile per-packet one-way delay: 68.474 ms
      Loss rate: 0.51%
Run 1: Report of Vivace-latency — Data Link
Run 2: Statistics of Vivace-latency

Start at: 2018-03-14 21:31:25
End at: 2018-03-14 21:31:55
Local clock offset: -5.669 ms
Remote clock offset: -4.425 ms

# Below is generated by plot.py at 2018-03-15 05:02:22
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 74.40 Mbit/s
  95th percentile per-packet one-way delay: 71.044 ms
  Loss rate: 0.55%
-- Flow 1:
  Average throughput: 74.40 Mbit/s
  95th percentile per-packet one-way delay: 71.044 ms
  Loss rate: 0.55%
Run 2: Report of Vivace-latency — Data Link
Run 3: Statistics of Vivace-latency

Start at: 2018-03-14 21:54:55
End at: 2018-03-14 21:55:25
Local clock offset: -6.085 ms
Remote clock offset: 0.651 ms

# Below is generated by plot.py at 2018-03-15 05:02:29
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 70.79 Mbit/s
  95th percentile per-packet one-way delay: 71.591 ms
  Loss rate: 0.55%
-- Flow 1:
  Average throughput: 70.79 Mbit/s
  95th percentile per-packet one-way delay: 71.591 ms
  Loss rate: 0.55%
Run 3: Report of Vivace-latency — Data Link

![Graph of throughput and delay over time for Flow 1 ingress and egress. The graphs show fluctuations in throughput and delay throughout the 30-second interval, with specific markers indicating mean values and percentiles.]
Run 4: Statistics of Vivace-latency

Start at: 2018-03-14 22:18:20
End at: 2018-03-14 22:18:50
Local clock offset: 1.943 ms
Remote clock offset: -6.273 ms

# Below is generated by plot.py at 2018-03-15 05:02:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.72 Mbit/s
95th percentile per-packet one-way delay: 70.681 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 68.72 Mbit/s
95th percentile per-packet one-way delay: 70.681 ms
Loss rate: 0.58%
Run 4: Report of Vivace-latency — Data Link

![Graph showing throughput and packet delay over time for Flow 1]
Run 5: Statistics of Vivace-latency

Start at: 2018-03-14 22:41:38
End at: 2018-03-14 22:42:08
Local clock offset: -3.585 ms
Remote clock offset: -7.421 ms

# Below is generated by plot.py at 2018-03-15 05:03:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.84 Mbit/s
95th percentile per-packet one-way delay: 69.978 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 74.84 Mbit/s
95th percentile per-packet one-way delay: 69.978 ms
Loss rate: 0.40%
Run 5: Report of Vivace-latency — Data Link
Run 6: Statistics of Vivace-latency

Start at: 2018-03-14 23:04:55
End at: 2018-03-14 23:05:25
Local clock offset: -0.367 ms
Remote clock offset: 0.689 ms

# Below is generated by plot.py at 2018-03-15 05:03:19
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 71.03 Mbit/s
  95th percentile per-packet one-way delay: 73.550 ms
  Loss rate: 0.55%
-- Flow 1:
  Average throughput: 71.03 Mbit/s
  95th percentile per-packet one-way delay: 73.550 ms
  Loss rate: 0.55%
Run 6: Report of Vivace-latency — Data Link
Run 7: Statistics of Vivace-latency

Start at: 2018-03-14 23:28:14
End at: 2018-03-14 23:28:44
Local clock offset: 2.241 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2018-03-15 05:03:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.86 Mbit/s
95th percentile per-packet one-way delay: 65.854 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 62.86 Mbit/s
95th percentile per-packet one-way delay: 65.854 ms
Loss rate: 0.49%
Run 7: Report of Vivace-latency — Data Link

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

- **Flow 1 ingress (mean 62.90 Mbps/s)**
- **Flow 1 egress (mean 62.86 Mbps/s)**

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

- **Flow 1 (95th percentile 65.85 ms)**
Run 8: Statistics of Vivace-latency

Start at: 2018-03-14 23:51:31
End at: 2018-03-14 23:52:01
Local clock offset: 4.616 ms
Remote clock offset: 0.139 ms

# Below is generated by plot.py at 2018-03-15 05:03:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.11 Mbit/s
95th percentile per-packet one-way delay: 70.822 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 72.11 Mbit/s
95th percentile per-packet one-way delay: 70.822 ms
Loss rate: 0.50%
Run 8: Report of Vivace-latency — Data Link
Run 9: Statistics of Vivace-latency

Start at: 2018-03-15 00:14:48  
End at: 2018-03-15 00:15:18  
Local clock offset: 5.442 ms  
Remote clock offset: 0.287 ms

# Below is generated by plot.py at 2018-03-15 05:03:25
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 64.59 Mbit/s
  95th percentile per-packet one-way delay: 94.628 ms
  Loss rate: 0.64%
-- Flow 1:
  Average throughput: 64.59 Mbit/s
  95th percentile per-packet one-way delay: 94.628 ms
  Loss rate: 0.64%
Run 9: Report of Vivace-latency — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 64.72 Mbit/s)
- Flow 1 egress (mean 64.59 Mbit/s)

![Latency Graph]

- Flow 1 (95th percentile 94.63 ms)
Run 10: Statistics of Vivace-latency

Start at: 2018-03-15 00:38:53
End at: 2018-03-15 00:39:23
Local clock offset: 5.904 ms
Remote clock offset: 10.329 ms

# Below is generated by plot.py at 2018-03-15 05:03:32
# Datalink statistics
-- Total of 1 flow:
 Average throughput: 73.76 Mbit/s
 95th percentile per-packet one-way delay: 74.193 ms
 Loss rate: 0.70%
-- Flow 1:
 Average throughput: 73.76 Mbit/s
 95th percentile per-packet one-way delay: 74.193 ms
 Loss rate: 0.70%
Run 10: Report of Vivace-latency — Data Link

![Graph showing throughput and packet delay over time with relevant annotations and labels.]

- Throughput (Mbps)
- Time (s)
- Flow 1 ingress (mean 73.92 Mbit/s)
- Flow 1 egress (mean 73.76 Mbit/s)
- Per packet one way delay (ms)

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Run 1: Statistics of Vivace-loss

Start at: 2018-03-14 20:54:03
End at: 2018-03-14 20:54:33
Local clock offset: -2.067 ms
Remote clock offset: -0.676 ms

# Below is generated by plot.py at 2018-03-15 05:03:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.92 Mbit/s
95th percentile per-packet one-way delay: 84.424 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 82.92 Mbit/s
95th percentile per-packet one-way delay: 84.424 ms
Loss rate: 0.59%
Run 1: Report of Vivace-loss — Data Link

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

Flow 1 ingress (mean 83.04 Mbit/s)  Flow 1 egress (mean 82.92 Mbit/s)

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

Flow 1 (95th percentile 84.42 ms)
Run 2: Statistics of Vivace-loss

Start at: 2018-03-14 21:17:21
End at: 2018-03-14 21:17:51
Local clock offset: -10.575 ms
Remote clock offset: -3.91 ms

# Below is generated by plot.py at 2018-03-15 05:04:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.81 Mbit/s
95th percentile per-packet one-way delay: 94.369 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 82.81 Mbit/s
95th percentile per-packet one-way delay: 94.369 ms
Loss rate: 0.61%
Run 2: Report of Vivace-loss — Data Link
Run 3: Statistics of Vivace-loss

Start at: 2018-03-14 21:41:18
End at: 2018-03-14 21:41:48
Local clock offset: -8.353 ms
Remote clock offset: -1.126 ms

# Below is generated by plot.py at 2018-03-15 05:04:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.81 Mbit/s
95th percentile per-packet one-way delay: 85.295 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 82.81 Mbit/s
95th percentile per-packet one-way delay: 85.295 ms
Loss rate: 0.61%
Run 3: Report of Vivace-loss — Data Link

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

![Graph 2: Packet Delivery Over Time](image2)
Run 4: Statistics of Vivace-loss

Start at: 2018-03-14 22:04:37
End at: 2018-03-14 22:05:08
Local clock offset: 0.859 ms
Remote clock offset: 1.379 ms

# Below is generated by plot.py at 2018-03-15 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.22 Mbit/s
95th percentile per-packet one-way delay: 93.991 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 82.22 Mbit/s
95th percentile per-packet one-way delay: 93.991 ms
Loss rate: 0.82%
Run 4: Report of Vivace-loss — Data Link
Run 5: Statistics of Vivace-loss

Start at: 2018-03-14 22:28:03
End at: 2018-03-14 22:28:33
Local clock offset: 0.894 ms
Remote clock offset: -8.058 ms

# Below is generated by plot.py at 2018-03-15 05:04:37
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 82.70 Mbit/s
  95th percentile per-packet one-way delay: 84.589 ms
  Loss rate: 0.62%
-- Flow 1:
  Average throughput: 82.70 Mbit/s
  95th percentile per-packet one-way delay: 84.589 ms
  Loss rate: 0.62%
Run 5: Report of Vivace-loss — Data Link
Run 6: Statistics of Vivace-loss

Start at: 2018-03-14 22:51:21
End at: 2018-03-14 22:51:51
Local clock offset: -2.366 ms
Remote clock offset: -2.22 ms

# Below is generated by plot.py at 2018-03-15 05:04:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.93 Mbit/s
95th percentile per-packet one-way delay: 84.712 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 82.93 Mbit/s
95th percentile per-packet one-way delay: 84.712 ms
Loss rate: 0.61%
Run 6: Report of Vivace-loss — Data Link
Run 7: Statistics of Vivace-loss

Start at: 2018-03-14 23:14:39
End at: 2018-03-14 23:15:09
Local clock offset: 1.759 ms
Remote clock offset: 1.616 ms

# Below is generated by plot.py at 2018-03-15 05:04:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.43 Mbit/s
95th percentile per-packet one-way delay: 86.411 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 82.43 Mbit/s
95th percentile per-packet one-way delay: 86.411 ms
Loss rate: 0.61%
Run 7: Report of Vivace-loss — Data Link
Run 8: Statistics of Vivace-loss

Start at: 2018-03-14 23:37:57
End at: 2018-03-14 23:38:27
Local clock offset: 3.444 ms
Remote clock offset: 0.083 ms

# Below is generated by plot.py at 2018-03-15 05:04:51
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 82.84 Mbit/s
  95th percentile per-packet one-way delay: 84.578 ms
  Loss rate: 0.61%
-- Flow 1:
  Average throughput: 82.84 Mbit/s
  95th percentile per-packet one-way delay: 84.578 ms
  Loss rate: 0.61%
Run 8: Report of Vivace-loss — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 82.97 Mbit/s)  Flow 1 egress (mean 82.84 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 84.58 ms)
Run 9: Statistics of Vivace-loss

Start at: 2018-03-15 00:01:15
End at: 2018-03-15 00:01:45
Local clock offset: 5.079 ms
Remote clock offset: 0.096 ms

# Below is generated by plot.py at 2018-03-15 05:05:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.76 Mbit/s
95th percentile per-packet one-way delay: 84.642 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 82.76 Mbit/s
95th percentile per-packet one-way delay: 84.642 ms
Loss rate: 0.60%
Run 9: Report of Vivace-loss — Data Link

![Graph showing throughput and packet delay](image-url)
Run 10: Statistics of Vivace-loss

Start at: 2018-03-15 00:25:18
End at: 2018-03-15 00:25:48
Local clock offset: 5.49 ms
Remote clock offset: 3.906 ms

# Below is generated by plot.py at 2018-03-15 05:05:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.67 Mbit/s
95th percentile per-packet one-way delay: 85.278 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 82.67 Mbit/s
95th percentile per-packet one-way delay: 85.278 ms
Loss rate: 0.61%
Run 10: Report of Vivace-loss — Data Link

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

- **Throughput (Mbps):**
  - **Flow 1 ingress (mean 82.79 Mbps)**
  - **Flow 1 egress (mean 82.67 Mbps)**

- **Packet Delay (ms):**
  - **Flow 1 (95th percentile 85.28 ms)**
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-14 20:47:58
End at: 2018-03-14 20:48:28
Local clock offset: -1.809 ms
Remote clock offset: -0.68 ms

# Below is generated by plot.py at 2018-03-15 05:05:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.59 Mbit/s
95th percentile per-packet one-way delay: 84.633 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 81.59 Mbit/s
95th percentile per-packet one-way delay: 84.633 ms
Loss rate: 0.52%
Run 1: Report of Vivace-LTE — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 81.67 Mbit/s)
  - Flow 1 egress (mean 81.59 Mbit/s)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 84.63 ms)
Run 2: Statistics of Vivace-LTE

Start at: 2018-03-14 21:11:14
End at: 2018-03-14 21:11:44
Local clock offset: -7.252 ms
Remote clock offset: -3.454 ms

# Below is generated by plot.py at 2018-03-15 05:05:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.43 Mbit/s
95th percentile per-packet one-way delay: 77.979 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 80.43 Mbit/s
95th percentile per-packet one-way delay: 77.979 ms
Loss rate: 0.51%
Run 2: Report of Vivace-LTE — Data Link

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

- **Flow 1 ingress (mean 80.49 Mbit/s)**
- **Flow 1 egress (mean 80.43 Mbit/s)**

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

- **Flow 1** (95th percentile 77.98 ms)
Run 3: Statistics of Vivace-LTE

Start at: 2018-03-14 21:35:08
End at: 2018-03-14 21:35:38
Local clock offset: -6.513 ms
Remote clock offset: -2.868 ms

# Below is generated by plot.py at 2018-03-15 05:05:53
# Datalink statistics
-- Total of 1 flow:
  Average throughput: 78.37 Mbit/s
  95th percentile per-packet one-way delay: 78.372 ms
  Loss rate: 0.55%
-- Flow 1:
  Average throughput: 78.37 Mbit/s
  95th percentile per-packet one-way delay: 78.372 ms
  Loss rate: 0.55%
Run 3: Report of Vivace-LTE — Data Link

![Throughput graph](image1)

![Packet error rate graph](image2)
Run 4: Statistics of Vivace-LTE

Start at: 2018-03-14 21:58:32
End at: 2018-03-14 21:59:02
Local clock offset: -2.29 ms
Remote clock offset: 0.92 ms

# Below is generated by plot.py at 2018-03-15 05:05:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.43 Mbit/s
95th percentile per-packet one-way delay: 74.317 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 76.43 Mbit/s
95th percentile per-packet one-way delay: 74.317 ms
Loss rate: 0.54%
Run 4: Report of Vivace-LTE — Data Link

[Graph showing throughput and packet delay over time]

Flow 1 ingress (mean 76.48 Mbit/s)  Flow 1 egress (mean 76.43 Mbit/s)

Flow 1 (95th percentile 74.32 ms)
Run 5: Statistics of Vivace-LTE

Local clock offset: -1.228 ms
Remote clock offset: -7.036 ms

# Below is generated by plot.py at 2018-03-15 05:05:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.22 Mbit/s
95th percentile per-packet one-way delay: 80.646 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 79.22 Mbit/s
95th percentile per-packet one-way delay: 80.646 ms
Loss rate: 0.51%
Run 5: Report of Vivace-LTE — Data Link
Run 6: Statistics of Vivace-LTE

Start at: 2018-03-14 22:45:15
End at: 2018-03-14 22:45:45
Local clock offset: -1.079 ms
Remote clock offset: -4.928 ms

# Below is generated by plot.py at 2018-03-15 05:06:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.54 Mbit/s
95th percentile per-packet one-way delay: 78.594 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 79.54 Mbit/s
95th percentile per-packet one-way delay: 78.594 ms
Loss rate: 0.57%
Run 6: Report of Vivace-LTE — Data Link

![Graph of throughput and packet loss](image-url)
Run 7: Statistics of Vivace-LTE

Start at: 2018-03-14 23:08:33
End at: 2018-03-14 23:09:03
Local clock offset: 0.949 ms
Remote clock offset: 1.243 ms

# Below is generated by plot.py at 2018-03-15 05:06:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.80 Mbit/s
95th percentile per-packet one-way delay: 83.078 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 63.80 Mbit/s
95th percentile per-packet one-way delay: 83.078 ms
Loss rate: 0.53%
Run 7: Report of Vivace-LTE — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 63.86 Mbit/s)
  - Flow 1 egress (mean 63.80 Mbit/s)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 83.08 ms)
Run 8: Statistics of Vivace-LTE

Start at: 2018-03-14 23:31:51
End at: 2018-03-14 23:32:21
Local clock offset: 2.387 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-03-15 05:06:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.23 Mbit/s
95th percentile per-packet one-way delay: 83.537 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 82.23 Mbit/s
95th percentile per-packet one-way delay: 83.537 ms
Loss rate: 0.49%
Run 8: Report of Vivace-LTE — Data Link

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

[Graph 2: Per-packet one-way delay (ms) vs Time (s)]
Run 9: Statistics of Vivace-LTE

Start at: 2018-03-14 23:55:09
End at: 2018-03-14 23:55:39
Local clock offset: 4.832 ms
Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2018-03-15 05:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.30 Mbit/s
95th percentile per-packet one-way delay: 73.711 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 76.30 Mbit/s
95th percentile per-packet one-way delay: 73.711 ms
Loss rate: 0.61%
Run 9: Report of Vivace-LTE — Data Link

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

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

Flow 1 ingress (mean 76.42 Mbit/s)
Flow 1 egress (mean 76.30 Mbit/s)
Flow 1 (95th percentile 73.71 ms)
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-15 00:18:25
End at: 2018-03-15 00:18:55
Local clock offset: 5.714 ms
Remote clock offset: 0.417 ms

# Below is generated by plot.py at 2018-03-15 05:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.33 Mbit/s
95th percentile per-packet one-way delay: 77.768 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 81.33 Mbit/s
95th percentile per-packet one-way delay: 77.768 ms
Loss rate: 0.56%
Run 10: Report of Vivace-LTE — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 81.42 Mbit/s)  Flow 1 egress (mean 81.33 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 77.77 ms)