Pantheon Report

Data path: AWS Korea Ethernet (local) → China Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
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 @ 3cb73c0d1c0322c97a4e3a522e53227db50
  M datagrump)sender.cc
third_party/fillp @ 828bbf95fd4941149b5ec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c448ca1443328df7b0ff6c4a2
third_party/indigo @ a9b2060d394da2a8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4e4f2430db7484501f82ce8b377695f266d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d59d38dc4d9afe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983484360c53d89
third_party/koho_cc @ f0f2e693303ae82ea808e6928eac4f1083a6681
  M datagrump)sender.cc
third_party/libutp @ b3465b942e282f2b179eaab4a906e6bb7c3f3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfc993
third_party/pcc @ 1af9958fa0d66d18b823c091a55f08ec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ec978f3cffe2
third_party/scream @ c3370fd7bd17265a79aaeb344e016d23f8965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeed30a27627cede681
third_party/sprout @ 6f2e6e6e88d91066a9ff023d375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ 7a4ba531e75b4a6f66f5c458019212040178e30
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c458019212040178e30
third_party/webrtc @ a488197edd041ace68a424849b2540ad834825f42
test from AWS Korea Ethernet to China Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
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<td>52.79</td>
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<td>9.50</td>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2018-03-15 09:56:59
End at: 2018-03-15 09:57:29
Local clock offset: 1.28 ms
Remote clock offset: 18.583 ms

# Below is generated by plot.py at 2018-03-15 14:29:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.81 Mbit/s
95th percentile per-packet one-way delay: 141.464 ms
Loss rate: 6.93%
-- Flow 1:
Average throughput: 46.00 Mbit/s
95th percentile per-packet one-way delay: 137.598 ms
Loss rate: 6.64%
-- Flow 2:
Average throughput: 26.72 Mbit/s
95th percentile per-packet one-way delay: 143.072 ms
Loss rate: 7.61%
-- Flow 3:
Average throughput: 21.10 Mbit/s
95th percentile per-packet one-way delay: 145.293 ms
Loss rate: 7.07%
Run 1: Report of TCP BBR — Data Link

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

- **Flow 1 ingress** (mean 49.30 Mbps)
- **Flow 1 egress** (mean 46.00 Mbps)
- **Flow 2 ingress** (mean 28.95 Mbps)
- **Flow 2 egress** (mean 26.72 Mbps)
- **Flow 3 ingress** (mean 22.78 Mbps)
- **Flow 3 egress** (mean 21.10 Mbps)

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

- **Flow 1** (95th percentile 137.60 ms)
- **Flow 2** (95th percentile 143.07 ms)
- **Flow 3** (95th percentile 145.29 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-03-15 10:24:38
End at: 2018-03-15 10:25:08
Local clock offset: -0.059 ms
Remote clock offset: -4.268 ms

# Below is generated by plot.py at 2018-03-15 14:30:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.67 Mbit/s
  95th percentile per-packet one-way delay: 73.149 ms
  Loss rate: 5.24%
-- Flow 1:
  Average throughput: 44.15 Mbit/s
  95th percentile per-packet one-way delay: 73.898 ms
  Loss rate: 5.54%
-- Flow 2:
  Average throughput: 39.71 Mbit/s
  95th percentile per-packet one-way delay: 71.243 ms
  Loss rate: 4.81%
-- Flow 3:
  Average throughput: 12.15 Mbit/s
  95th percentile per-packet one-way delay: 74.463 ms
  Loss rate: 4.83%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2018-03-15 10:52:43
End at: 2018-03-15 10:53:13
Local clock offset: 3.727 ms
Remote clock offset: 47.424 ms

# Below is generated by plot.py at 2018-03-15 14:30:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 55.71 Mbit/s
  95th percentile per-packet one-way delay: 165.199 ms
  Loss rate: 10.86%
-- Flow 1:
  Average throughput: 31.46 Mbit/s
  95th percentile per-packet one-way delay: 165.129 ms
  Loss rate: 9.18%
-- Flow 2:
  Average throughput: 26.28 Mbit/s
  95th percentile per-packet one-way delay: 165.319 ms
  Loss rate: 11.60%
-- Flow 3:
  Average throughput: 20.24 Mbit/s
  95th percentile per-packet one-way delay: 163.379 ms
  Loss rate: 16.24%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-03-15 11:17:51
End at: 2018-03-15 11:18:21
Local clock offset: 9.056 ms
Remote clock offset: 45.518 ms

# Below is generated by plot.py at 2018-03-15 14:30:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.34 Mbit/s
  95th percentile per-packet one-way delay: 51.383 ms
  Loss rate: 9.16%
-- Flow 1:
  Average throughput: 48.68 Mbit/s
  95th percentile per-packet one-way delay: 51.347 ms
  Loss rate: 8.00%
-- Flow 2:
  Average throughput: 37.65 Mbit/s
  95th percentile per-packet one-way delay: 51.444 ms
  Loss rate: 10.50%
-- Flow 3:
  Average throughput: 22.85 Mbit/s
  95th percentile per-packet one-way delay: 51.345 ms
  Loss rate: 11.95%
Run 4: Report of TCP BBR — Data Link

![Graph of Throughput vs Time]

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

- Flow 1 ingress (mean 52.94 Mbit/s)
- Flow 1 egress (mean 48.68 Mbit/s)
- Flow 2 ingress (mean 42.10 Mbit/s)
- Flow 2 egress (mean 37.65 Mbit/s)
- Flow 3 ingress (mean 25.97 Mbit/s)
- Flow 3 egress (mean 22.85 Mbit/s)
Run 5: Statistics of TCP BBR

End at: 2018-03-15 11:43:44
Local clock offset: 3.42 ms
Remote clock offset: 36.291 ms

# Below is generated by plot.py at 2018-03-15 14:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.09 Mbit/s
95th percentile per-packet one-way delay: 226.003 ms
Loss rate: 7.95%
-- Flow 1:
Average throughput: 27.31 Mbit/s
95th percentile per-packet one-way delay: 224.959 ms
Loss rate: 7.64%
-- Flow 2:
Average throughput: 20.46 Mbit/s
95th percentile per-packet one-way delay: 226.540 ms
Loss rate: 8.71%
-- Flow 3:
Average throughput: 15.53 Mbit/s
95th percentile per-packet one-way delay: 227.010 ms
Loss rate: 7.56%
Run 5: Report of TCP BBR — Data Link

Throughput (Mb/s) vs Time (s)

- Flow 1 Ingress (mean 29.59 Mb/s)
- Flow 1 Egress (mean 27.31 Mb/s)
- Flow 2 Ingress (mean 22.43 Mb/s)
- Flow 2 Egress (mean 20.46 Mb/s)
- Flow 3 Ingress (mean 16.76 Mb/s)
- Flow 3 Egress (mean 15.53 Mb/s)

Per packet one way delay (ms) vs Time (s)

- Flow 1 (95th percentile 224.96 ms)
- Flow 2 (95th percentile 226.54 ms)
- Flow 3 (95th percentile 227.01 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-03-15 12:09:20
End at: 2018-03-15 12:09:50
Local clock offset: 2.079 ms
Remote clock offset: 44.289 ms

# Below is generated by plot.py at 2018-03-15 14:30:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 75.02 Mbit/s
  95th percentile per-packet one-way delay: 105.535 ms
  Loss rate: 8.07%
-- Flow 1:
  Average throughput: 40.37 Mbit/s
  95th percentile per-packet one-way delay: 107.540 ms
  Loss rate: 5.54%
-- Flow 2:
  Average throughput: 39.23 Mbit/s
  95th percentile per-packet one-way delay: 93.839 ms
  Loss rate: 10.90%
-- Flow 3:
  Average throughput: 25.74 Mbit/s
  95th percentile per-packet one-way delay: 91.238 ms
  Loss rate: 10.73%
Run 6: Report of TCP BBR — Data Link

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

- Blue line: Flow 1 ingress (mean 42.68 Mbps)
- Green line: Flow 2 ingress (mean 43.95 Mbps)
- Red line: Flow 3 ingress (mean 28.81 Mbps)
- Blue line: Flow 1 egress (mean 40.37 Mbps)
- Green line: Flow 2 egress (mean 39.23 Mbps)
- Red line: Flow 3 egress (mean 25.74 Mbps)

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

- Blue dots: Flow 1 (95th percentile 107.54 ms)
- Green dots: Flow 2 (95th percentile 93.84 ms)
- Red dots: Flow 3 (95th percentile 91.24 ms)
Run 7: Statistics of TCP BBR

Start at: 2018-03-15 12:34:48
End at: 2018-03-15 12:35:18
Local clock offset: 4.321 ms
Remote clock offset: 44.498 ms

# Below is generated by plot.py at 2018-03-15 14:30:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 73.75 Mbit/s
  95th percentile per-packet one-way delay: 92.538 ms
  Loss rate: 10.24%
-- Flow 1:
  Average throughput: 42.10 Mbit/s
  95th percentile per-packet one-way delay: 90.417 ms
  Loss rate: 9.16%
-- Flow 2:
  Average throughput: 36.10 Mbit/s
  95th percentile per-packet one-way delay: 93.797 ms
  Loss rate: 11.67%
-- Flow 3:
  Average throughput: 23.10 Mbit/s
  95th percentile per-packet one-way delay: 96.784 ms
  Loss rate: 11.59%
Run 7: Report of TCP BBR — Data Link

**Throughput (Mbps)**

- **Flow 1 ingress** (mean 46.34 Mbps)
- **Flow 1 egress** (mean 42.10 Mbps)
- **Flow 2 ingress** (mean 40.84 Mbps)
- **Flow 2 egress** (mean 36.10 Mbps)
- **Flow 3 ingress** (mean 26.02 Mbps)
- **Flow 3 egress** (mean 23.10 Mbps)

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

- **Flow 1** (95th percentile 90.42 ms)
- **Flow 2** (95th percentile 93.80 ms)
- **Flow 3** (95th percentile 96.78 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-03-15 13:01:37
End at: 2018-03-15 13:02:07
Local clock offset: 5.509 ms
Remote clock offset: 39.29 ms

# Below is generated by plot.py at 2018-03-15 14:30:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.11 Mbit/s
95th percentile per-packet one-way delay: 51.223 ms
Loss rate: 6.76%
-- Flow 1:
Average throughput: 57.07 Mbit/s
95th percentile per-packet one-way delay: 46.193 ms
Loss rate: 6.79%
-- Flow 2:
Average throughput: 30.15 Mbit/s
95th percentile per-packet one-way delay: 52.959 ms
Loss rate: 5.98%
-- Flow 3:
Average throughput: 20.94 Mbit/s
95th percentile per-packet one-way delay: 55.522 ms
Loss rate: 8.65%
Run 8: Report of TCP BBR — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Per-packet one-way delay vs Time](image2)
Run 9: Statistics of TCP BBR

Start at: 2018-03-15 13:26:37
Local clock offset: 3.38 ms
Remote clock offset: 36.094 ms

# Below is generated by plot.py at 2018-03-15 14:31:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.30 Mbit/s
95th percentile per-packet one-way delay: 39.173 ms
Loss rate: 11.58%
-- Flow 1:
Average throughput: 50.12 Mbit/s
95th percentile per-packet one-way delay: 38.911 ms
Loss rate: 10.04%
-- Flow 2:
Average throughput: 35.82 Mbit/s
95th percentile per-packet one-way delay: 39.453 ms
Loss rate: 12.44%
-- Flow 3:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 39.252 ms
Loss rate: 17.16%
Run 9: Report of TCP BBR — Data Link

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

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

Legend:
- Flow 1 ingress (mean 55.75 Mbps) - Flow 1 egress (mean 50.12 Mbps)
- Flow 2 ingress (mean 40.85 Mbps) - Flow 2 egress (mean 35.82 Mbps)
- Flow 3 ingress (mean 33.45 Mbps) - Flow 3 egress (mean 28.04 Mbps)

Flow 1 (95th percentile 38.91 ms) - Flow 2 (95th percentile 39.45 ms) - Flow 3 (95th percentile 39.25 ms)
Run 10: Statistics of TCP BBR

Local clock offset: 2.493 ms
Remote clock offset: 49.017 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.16 Mbit/s
  95th percentile per-packet one-way delay: 48.884 ms
  Loss rate: 5.98%
-- Flow 1:
  Average throughput: 51.04 Mbit/s
  95th percentile per-packet one-way delay: 48.527 ms
  Loss rate: 5.29%
-- Flow 2:
  Average throughput: 33.64 Mbit/s
  95th percentile per-packet one-way delay: 49.163 ms
  Loss rate: 7.97%
-- Flow 3:
  Average throughput: 17.23 Mbit/s
  95th percentile per-packet one-way delay: 49.275 ms
  Loss rate: 4.12%
Run 1: Statistics of TCP Cubic

Start at: 2018-03-15 09:46:05
End at: 2018-03-15 09:46:35
Local clock offset: 3.736 ms
Remote clock offset: 39.176 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.67 Mbit/s
95th percentile per-packet one-way delay: 111.909 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 6.58 Mbit/s
95th percentile per-packet one-way delay: 114.367 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 110.089 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 7.71 Mbit/s
95th percentile per-packet one-way delay: 100.226 ms
Loss rate: 1.57%
Run 1: Report of TCP Cubic — Data Link

![Graph showing throughput over time for different flows.](image)

![Graph showing per-packet one-way delay over time for different flows.](image)
Run 2: Statistics of TCP Cubic

End at: 2018-03-15 10:14:23
Local clock offset: -0.718 ms
Remote clock offset: 35.882 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.92 Mbit/s
95th percentile per-packet one-way delay: 138.755 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 138.849 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 5.27 Mbit/s
95th percentile per-packet one-way delay: 137.809 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 141.990 ms
Loss rate: 3.44%
Run 2: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress (mean 3.87 Mbit/s)**
- **Flow 1 egress (mean 3.82 Mbit/s)**
- **Flow 2 ingress (mean 5.35 Mbit/s)**
- **Flow 2 egress (mean 5.27 Mbit/s)**
- **Flow 3 ingress (mean 4.95 Mbit/s)**
- **Flow 3 egress (mean 4.78 Mbit/s)**

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

- **Flow 1 (95th percentile 138.85 ms)**
- **Flow 2 (95th percentile 137.81 ms)**
- **Flow 3 (95th percentile 141.99 ms)**
Run 3: Statistics of TCP Cubic

Start at: 2018-03-15 10:40:54
End at: 2018-03-15 10:41:24
Local clock offset: 3.036 ms
Remote clock offset: 22.732 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 210.034 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 220.520 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 209.618 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 4.87 Mbit/s
95th percentile per-packet one-way delay: 153.795 ms
Loss rate: 2.31%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-03-15 11:07:28
End at: 2018-03-15 11:07:58
Local clock offset: 7.306 ms
Remote clock offset: 31.238 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 40.706 ms
Loss rate: 3.33%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 41.425 ms
Loss rate: 3.58%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 39.920 ms
Loss rate: 3.37%
-- Flow 3:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 37.249 ms
Loss rate: 2.69%
Run 4: Report of TCP Cubic — Data Link

![Graph of Throughput vs Time](image1)

- Flow 1 ingress (mean 1.07 Mbit/s)
- Flow 1 egress (mean 1.03 Mbit/s)
- Flow 2 ingress (mean 1.06 Mbit/s)
- Flow 2 egress (mean 1.02 Mbit/s)
- Flow 3 ingress (mean 1.39 Mbit/s)
- Flow 3 egress (mean 1.36 Mbit/s)

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

- Flow 1 (95th percentile 41.42 ms)
- Flow 2 (95th percentile 39.92 ms)
- Flow 3 (95th percentile 37.25 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-03-15 11:32:34
End at: 2018-03-15 11:33:04
Local clock offset: 8.72 ms
Remote clock offset: 44.06 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 25.835 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 25.056 ms
Loss rate: 1.77%
-- Flow 2:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 27.181 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 25.685 ms
Loss rate: 1.95%
Run 5: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 1.67 Mbps)
- Flow 1 egress (mean 1.64 Mbps)
- Flow 2 ingress (mean 1.75 Mbps)
- Flow 2 egress (mean 1.72 Mbps)
- Flow 3 ingress (mean 1.80 Mbps)
- Flow 3 egress (mean 1.76 Mbps)

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

- Flow 1 (95th percentile 25.06 ms)
- Flow 2 (95th percentile 27.18 ms)
- Flow 3 (95th percentile 25.68 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-03-15 11:58:44  
End at: 2018-03-15 11:59:14  
Local clock offset: 1.095 ms  
Remote clock offset: 48.255 ms

# Below is generated by plot.py at 2018-03-15 14:31:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 7.83 Mbit/s  
95th percentile per-packet one-way delay: 51.261 ms  
Loss rate: 2.43%  
-- Flow 1:  
Average throughput: 3.24 Mbit/s  
95th percentile per-packet one-way delay: 51.306 ms  
Loss rate: 2.00%  
-- Flow 2:  
Average throughput: 4.55 Mbit/s  
95th percentile per-packet one-way delay: 55.772 ms  
Loss rate: 2.27%  
-- Flow 3:  
Average throughput: 4.71 Mbit/s  
95th percentile per-packet one-way delay: 47.123 ms  
Loss rate: 3.58%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-03-15 12:24:27
End at: 2018-03-15 12:24:57
Local clock offset: 3.864 ms
Remote clock offset: 43.123 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.27 Mbit/s
  95th percentile per-packet one-way delay: 29.846 ms
  Loss rate: 1.55%
-- Flow 1:
  Average throughput: 2.58 Mbit/s
  95th percentile per-packet one-way delay: 30.354 ms
  Loss rate: 2.37%
-- Flow 2:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 29.282 ms
  Loss rate: 0.74%
-- Flow 3:
  Average throughput: 3.42 Mbit/s
  95th percentile per-packet one-way delay: 29.681 ms
  Loss rate: 0.77%
Run 7: Report of TCP Cubic — Data Link
Run 8: Statistics of TCP Cubic

Start at: 2018-03-15 12:51:10
End at: 2018-03-15 12:51:40
Local clock offset: 5.047 ms
Remote clock offset: 51.144 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 69.859 ms
Loss rate: 2.58%

-- Flow 1:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 72.159 ms
Loss rate: 2.54%

-- Flow 2:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 58.957 ms
Loss rate: 3.25%

-- Flow 3:
Average throughput: 6.53 Mbit/s
95th percentile per-packet one-way delay: 51.207 ms
Loss rate: 2.03%
Run 8: Report of TCP Cubic — Data Link
Run 9: Statistics of TCP Cubic

Start at: 2018-03-15 13:16:15  
End at: 2018-03-15 13:16:45  
Local clock offset: 5.06 ms  
Remote clock offset: 38.818 ms

# Below is generated by plot.py at 2018-03-15 14:31:05  
# Datalink statistics

-- Total of 3 flows:
Average throughput: 6.98 Mbit/s  
95th percentile per-packet one-way delay: 28.682 ms  
Loss rate: 2.67%

-- Flow 1:
Average throughput: 3.13 Mbit/s  
95th percentile per-packet one-way delay: 28.525 ms  
Loss rate: 2.21%

-- Flow 2:
Average throughput: 3.46 Mbit/s  
95th percentile per-packet one-way delay: 27.912 ms  
Loss rate: 1.78%

-- Flow 3:
Average throughput: 4.70 Mbit/s  
95th percentile per-packet one-way delay: 29.541 ms  
Loss rate: 4.83%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

End at: 2018-03-15 13:42:02
Local clock offset: −0.259 ms
Remote clock offset: 0.986 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 92.816 ms
  Loss rate: 9.10%
-- Flow 1:
  Average throughput: 0.24 Mbit/s
  95th percentile per-packet one-way delay: 92.890 ms
  Loss rate: 8.07%
-- Flow 2:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 93.080 ms
  Loss rate: 9.89%
-- Flow 3:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 92.219 ms
  Loss rate: 10.40%
Run 10: Report of TCP Cubic — Data Link
Run 1: Statistics of LEDBAT

Start at: 2018-03-15 09:59:53
End at: 2018-03-15 10:00:23
Local clock offset: 0.68 ms
Remote clock offset: 23.687 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 135.587 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 135.264 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 135.756 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 135.648 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

![Graph of throughput and packet delay over time for different flows.](image-url)
Run 2: Statistics of LEDBAT

Start at: 2018-03-15 10:27:18
End at: 2018-03-15 10:27:48
Local clock offset: 0.811 ms
Remote clock offset: 33.71 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.31 Mbit/s
95th percentile per-packet one-way delay: 75.359 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 75.533 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 4.53 Mbit/s
95th percentile per-packet one-way delay: 75.548 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 54.293 ms
Loss rate: 0.24%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

End at: 2018-03-15 10:55:58
Local clock offset: 3.199 ms
Remote clock offset: 30.991 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 134.303 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 134.338 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 134.231 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 134.193 ms
Loss rate: 2.06%
Run 3: Report of LEDBAT — Data Link

Throughput (Mbps)

Flow 1 ingress (mean 1.50 Mbit/s) — Flow 1 egress (mean 1.49 Mbit/s)
Flow 2 ingress (mean 1.13 Mbit/s) — Flow 2 egress (mean 1.12 Mbit/s)
Flow 3 ingress (mean 0.82 Mbit/s) — Flow 3 egress (mean 0.80 Mbit/s)

Ping round trip time (ms)

Flow 1 (95th percentile 134.34 ms) — Flow 2 (95th percentile 134.23 ms) — Flow 3 (95th percentile 134.19 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-03-15 11:20:29
End at: 2018-03-15 11:20:59
Local clock offset: 9.329 ms
Remote clock offset: 53.772 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.68 Mbit/s
  95th percentile per-packet one-way delay: 41.632 ms
  Loss rate: 2.25%
-- Flow 1:
  Average throughput: 1.23 Mbit/s
  95th percentile per-packet one-way delay: 41.445 ms
  Loss rate: 2.58%
-- Flow 2:
  Average throughput: 1.26 Mbit/s
  95th percentile per-packet one-way delay: 41.653 ms
  Loss rate: 2.15%
-- Flow 3:
  Average throughput: 1.86 Mbit/s
  95th percentile per-packet one-way delay: 42.114 ms
  Loss rate: 1.70%
Run 4: Report of LEDBAT — Data Link

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

- **Flow 1 ingress** (mean 1.26 Mbps)
- **Flow 1 egress** (mean 1.23 Mbps)
- **Flow 2 ingress** (mean 1.29 Mbps)
- **Flow 2 egress** (mean 1.26 Mbps)
- **Flow 3 ingress** (mean 1.90 Mbps)
- **Flow 3 egress** (mean 1.86 Mbps)

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

- **Flow 1** (95th percentile 41.45 ms)
- **Flow 2** (95th percentile 41.65 ms)
- **Flow 3** (95th percentile 42.11 ms)
Run 5: Statistics of LEDBAT

End at: 2018-03-15 11:46:43
Local clock offset: 2.799 ms
Remote clock offset: 35.762 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 200.368 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 200.124 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 200.897 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 195.312 ms
Loss rate: 2.18%
Run 6: Statistics of LEDBAT

Start at: 2018-03-15 12:12:17
End at: 2018-03-15 12:12:47
Local clock offset: 2.692 ms
Remote clock offset: 44.818 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 111.061 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 108.008 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 111.944 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 112.012 ms
Loss rate: 1.57%
Run 6: Report of LEDBAT — Data Link

![Graph of throughput and one-way delay over time for different flows.](image)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 1.97 Mbps)
  - Flow 1 egress (mean 1.95 Mbps)
  - Flow 2 ingress (mean 2.39 Mbps)
  - Flow 2 egress (mean 2.38 Mbps)
  - Flow 3 ingress (mean 1.20 Mbps)
  - Flow 3 egress (mean 1.18 Mbps)

- **Per cent one-way delay (ms)**
  - Flow 1 (95th percentile 108.01 ms)
  - Flow 2 (95th percentile 111.94 ms)
  - Flow 3 (95th percentile 112.01 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-03-15 12:37:25
End at: 2018-03-15 12:37:55
Local clock offset: 4.771 ms
Remote clock offset: 55.291 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 73.553 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 73.511 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 71.605 ms
Loss rate: 2.34%
-- Flow 3:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 77.373 ms
Loss rate: 2.32%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-03-15 13:04:15
End at: 2018-03-15 13:04:45
Local clock offset: 5.372 ms
Remote clock offset: 50.839 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.31 Mbit/s
95th percentile per-packet one-way delay: 46.192 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 47.341 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 3.05 Mbit/s
95th percentile per-packet one-way delay: 45.173 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 43.871 ms
Loss rate: 1.33%
Run 8: Report of LEDBAT — Data Link

![Diagram showing throughput and per-packet end-to-end delay over time for different flows.](image)

Legend:
- Flow 1 ingress (mean 2.61 Mbit/s)
- Flow 1 egress (mean 2.58 Mbit/s)
- Flow 2 ingress (mean 3.07 Mbit/s)
- Flow 2 egress (mean 3.05 Mbit/s)
- Flow 3 ingress (mean 2.15 Mbit/s)
- Flow 3 egress (mean 2.12 Mbit/s)
Run 9: Statistics of LEDBAT

End at: 2018-03-15 13:29:45
Local clock offset: 2.884 ms
Remote clock offset: 53.737 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.86 Mbit/s
  95th percentile per-packet one-way delay: 41.297 ms
  Loss rate: 1.70%
-- Flow 1:
  Average throughput: 1.85 Mbit/s
  95th percentile per-packet one-way delay: 41.506 ms
  Loss rate: 1.97%
-- Flow 2:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 41.190 ms
  Loss rate: 1.76%
-- Flow 3:
  Average throughput: 1.90 Mbit/s
  95th percentile per-packet one-way delay: 41.395 ms
  Loss rate: 0.74%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Local clock offset: 3.39 ms
Remote clock offset: 47.624 ms

# Below is generated by plot.py at 2018-03-15 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 32.161 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 33.159 ms
Loss rate: 1.97%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 31.232 ms
Loss rate: 1.98%
-- Flow 3:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 31.279 ms
Loss rate: 1.29%
Run 10: Report of LEDBAT — Data Link

![Graph showing throughput over time for different flows with annotations for each flow's ingress and egress rates.]

![Graph showing per packet one way delay over time with annotations for each flow's 95th percentile delay.]

Flow 1 ingress (mean 1.94 Mbit/s)  
Flow 1 egress (mean 1.90 Mbit/s)  
Flow 2 ingress (mean 1.52 Mbit/s)  
Flow 2 egress (mean 1.49 Mbit/s)  
Flow 3 ingress (mean 2.12 Mbit/s)  
Flow 3 egress (mean 2.09 Mbit/s)
Run 1: Statistics of PCC

Start at: 2018-03-15 09:50:11
End at: 2018-03-15 09:50:41
Local clock offset: 3.017 ms
Remote clock offset: 28.881 ms

# Below is generated by plot.py at 2018-03-15 14:31:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 82.57 Mbit/s
  95th percentile per-packet one-way delay: 137.882 ms
  Loss rate: 3.01%
-- Flow 1:
  Average throughput: 69.35 Mbit/s
  95th percentile per-packet one-way delay: 137.887 ms
  Loss rate: 3.07%
-- Flow 2:
  Average throughput: 15.92 Mbit/s
  95th percentile per-packet one-way delay: 138.181 ms
  Loss rate: 2.44%
-- Flow 3:
  Average throughput: 7.96 Mbit/s
  95th percentile per-packet one-way delay: 118.349 ms
  Loss rate: 3.67%
Run 1: Report of PCC — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Per-packet one-way delay (ms)
Run 2: Statistics of PCC

Start at: 2018-03-15 10:17:59
End at: 2018-03-15 10:18:29
Local clock offset: -0.747 ms
Remote clock offset: 29.133 ms

# Below is generated by plot.py at 2018-03-15 14:31:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.76 Mbit/s
95th percentile per-packet one-way delay: 43.619 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 59.68 Mbit/s
95th percentile per-packet one-way delay: 43.271 ms
Loss rate: 2.84%
-- Flow 2:
Average throughput: 31.23 Mbit/s
95th percentile per-packet one-way delay: 44.397 ms
Loss rate: 2.80%
-- Flow 3:
Average throughput: 4.11 Mbit/s
95th percentile per-packet one-way delay: 44.732 ms
Loss rate: 3.37%
Run 2: Report of PCC — Data Link

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

- Flow 1 ingress (mean 61.46 Mbit/s)
- Flow 1 egress (mean 59.68 Mbit/s)
- Flow 2 ingress (mean 32.17 Mbit/s)
- Flow 2 egress (mean 31.23 Mbit/s)
- Flow 3 ingress (mean 4.15 Mbit/s)
- Flow 3 egress (mean 4.11 Mbit/s)

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

- Flow 1 (95th percentile 43.27 ms)
- Flow 2 (95th percentile 44.40 ms)
- Flow 3 (95th percentile 44.73 ms)
Run 3: Statistics of PCC

Start at: 2018-03-15 10:45:39
End at: 2018-03-15 10:46:09
Local clock offset: 3.507 ms
Remote clock offset: 27.905 ms

# Below is generated by plot.py at 2018-03-15 14:31:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 82.62 Mbit/s
  95th percentile per-packet one-way delay: 179.608 ms
  Loss rate: 5.27%
-- Flow 1:
  Average throughput: 61.87 Mbit/s
  95th percentile per-packet one-way delay: 178.702 ms
  Loss rate: 5.24%
-- Flow 2:
  Average throughput: 30.18 Mbit/s
  95th percentile per-packet one-way delay: 182.029 ms
  Loss rate: 5.28%
-- Flow 3:
  Average throughput: 2.12 Mbit/s
  95th percentile per-packet one-way delay: 186.037 ms
  Loss rate: 7.33%
Run 3: Report of PCC — Data Link
Run 4: Statistics of PCC

Start at: 2018-03-15 11:11:25
End at: 2018-03-15 11:11:55
Local clock offset: 7.679 ms
Remote clock offset: 16.6 ms

# Below is generated by plot.py at 2018-03-15 14:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.53 Mbit/s
95th percentile per-packet one-way delay: 47.039 ms
Loss rate: 5.58%
-- Flow 1:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 46.136 ms
Loss rate: 2.98%
-- Flow 2:
Average throughput: 56.56 Mbit/s
95th percentile per-packet one-way delay: 47.460 ms
Loss rate: 5.36%
-- Flow 3:
Average throughput: 30.31 Mbit/s
95th percentile per-packet one-way delay: 45.385 ms
Loss rate: 6.87%
Run 4: Report of PCC — Data Link
Run 5: Statistics of PCC

Start at: 2018-03-15 11:36:28
End at: 2018-03-15 11:36:59
Local clock offset: 5.139 ms
Remote clock offset: 62.769 ms

# Below is generated by plot.py at 2018-03-15 14:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.91 Mbit/s
95th percentile per-packet one-way delay: 58.265 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 68.59 Mbit/s
95th percentile per-packet one-way delay: 58.231 ms
Loss rate: 2.86%
-- Flow 2:
Average throughput: 17.95 Mbit/s
95th percentile per-packet one-way delay: 58.296 ms
Loss rate: 2.29%
-- Flow 3:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 58.706 ms
Loss rate: 3.40%
Run 5: Report of PCC — Data Link

![Graphs showing throughput and packet loss over time for different flows.]
Run 6: Statistics of PCC

Start at: 2018-03-15 12:02:43  
End at: 2018-03-15 12:03:13  
Local clock offset: 0.881 ms  
Remote clock offset: 40.381 ms  

# Below is generated by plot.py at 2018-03-15 14:31:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.40 Mbit/s  
95th percentile per-packet one-way delay: 51.343 ms  
Loss rate: 1.56%  
-- Flow 1:  
Average throughput: 4.26 Mbit/s  
95th percentile per-packet one-way delay: 48.461 ms  
Loss rate: 1.68%  
-- Flow 2:  
Average throughput: 4.11 Mbit/s  
95th percentile per-packet one-way delay: 51.325 ms  
Loss rate: 1.50%  
-- Flow 3:  
Average throughput: 4.26 Mbit/s  
95th percentile per-packet one-way delay: 55.727 ms  
Loss rate: 1.34%
Run 6: Report of PCC — Data Link

![Graph showing throughput (Mbps) and per packet one way delay (ms) over time for different flows.]

Legend:
- Flow 1 ingress (mean 4.34 Mbit/s)
- Flow 1 egress (mean 4.26 Mbit/s)
- Flow 2 ingress (mean 4.17 Mbit/s)
- Flow 2 egress (mean 4.11 Mbit/s)
- Flow 3 ingress (mean 4.32 Mbit/s)
- Flow 3 egress (mean 4.26 Mbit/s)
- Flow 1 (95th percentile 48.46 ms)
- Flow 2 (95th percentile 51.33 ms)
- Flow 3 (95th percentile 55.73 ms)
Run 7: Statistics of PCC

End at: 2018-03-15 12:28:52
Local clock offset: 4.364 ms
Remote clock offset: 48.238 ms

# Below is generated by plot.py at 2018-03-15 14:32:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.42 Mbit/s
  95th percentile per-packet one-way delay: 44.083 ms
  Loss rate: 2.92%
-- Flow 1:
  Average throughput: 66.10 Mbit/s
  95th percentile per-packet one-way delay: 43.907 ms
  Loss rate: 2.89%
-- Flow 2:
  Average throughput: 15.99 Mbit/s
  95th percentile per-packet one-way delay: 44.463 ms
  Loss rate: 2.93%
-- Flow 3:
  Average throughput: 8.14 Mbit/s
  95th percentile per-packet one-way delay: 44.854 ms
  Loss rate: 3.43%
Run 7: Report of PCC — Data Link

- Flow 1 ingress (mean 68.09 Mbit/s)
- Flow 1 egress (mean 66.10 Mbit/s)
- Flow 2 ingress (mean 16.48 Mbit/s)
- Flow 2 egress (mean 15.99 Mbit/s)
- Flow 3 ingress (mean 8.43 Mbit/s)
- Flow 3 egress (mean 8.14 Mbit/s)

- Flow 1 (95th percentile 43.91 ms)
- Flow 2 (95th percentile 44.46 ms)
- Flow 3 (95th percentile 44.85 ms)
Run 8: Statistics of PCC

Local clock offset: 5.139 ms
Remote clock offset: 50.058 ms

# Below is generated by plot.py at 2018-03-15 14:32:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.11 Mbit/s
  95th percentile per-packet one-way delay: 52.040 ms
  Loss rate: 3.61%
-- Flow 1:
  Average throughput: 65.42 Mbit/s
  95th percentile per-packet one-way delay: 51.662 ms
  Loss rate: 3.49%
-- Flow 2:
  Average throughput: 16.05 Mbit/s
  95th percentile per-packet one-way delay: 52.609 ms
  Loss rate: 3.27%
-- Flow 3:
  Average throughput: 15.21 Mbit/s
  95th percentile per-packet one-way delay: 53.297 ms
  Loss rate: 5.70%
Run 8: Report of PCC — Data Link

---

**Graph 1:**
- X-axis: Time (s)
- Y-axis: Throughput (Mbps)
- Legend:
  - Flow 1 ingress (mean 67.81 Mbps)
  - Flow 1 egress (mean 65.42 Mbps)
  - Flow 2 ingress (mean 16.61 Mbps)
  - Flow 2 egress (mean 16.05 Mbps)
  - Flow 3 ingress (mean 16.14 Mbps)
  - Flow 3 egress (mean 15.21 Mbps)

**Graph 2:**
- X-axis: Time (s)
- Y-axis: Per-packet one way delay (ms)
- Legend:
  - Flow 1 (95th percentile 51.66 ms)
  - Flow 2 (95th percentile 52.61 ms)
  - Flow 3 (95th percentile 53.30 ms)
Run 9: Statistics of PCC

End at: 2018-03-15 13:20:44
Local clock offset: 3.993 ms
Remote clock offset: 48.771 ms

# Below is generated by plot.py at 2018-03-15 14:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.52 Mbit/s
95th percentile per-packet one-way delay: 51.696 ms
Loss rate: 3.30%
-- Flow 1:
Average throughput: 34.35 Mbit/s
95th percentile per-packet one-way delay: 51.581 ms
Loss rate: 2.60%
-- Flow 2:
Average throughput: 32.63 Mbit/s
95th percentile per-packet one-way delay: 51.673 ms
Loss rate: 3.36%
-- Flow 3:
Average throughput: 28.69 Mbit/s
95th percentile per-packet one-way delay: 51.877 ms
Loss rate: 5.66%
Run 9: Report of PCC — Data Link

![Graph showing network performance metrics for different flows over time. The graphs display throughput and packet loss rate with time as the parameter. The lines represent different flow types with their respective mean rates and the 95th percentile delay.](image-url)
Run 10: Statistics of PCC

Start at: 2018-03-15 13:45:33
End at: 2018-03-15 13:46:03
Local clock offset: 2.501 ms
Remote clock offset: 48.195 ms

# Below is generated by plot.py at 2018-03-15 14:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.47 Mbit/s
95th percentile per-packet one-way delay: 38.605 ms
Loss rate: 3.51%
-- Flow 1:
Average throughput: 2.85 Mbit/s
95th percentile per-packet one-way delay: 37.286 ms
Loss rate: 2.05%
-- Flow 2:
Average throughput: 61.99 Mbit/s
95th percentile per-packet one-way delay: 37.876 ms
Loss rate: 3.71%
-- Flow 3:
Average throughput: 16.39 Mbit/s
95th percentile per-packet one-way delay: 43.154 ms
Loss rate: 2.77%
Run 10: Report of PCC — Data Link

![Graphs showing data link performance metrics, including throughput and per-packet error rate over time.]

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**Throughput (Mbps)**
- Flow 1 ingress (mean 2.91 Mbps)
- Flow 1 egress (mean 2.85 Mbps)
- Flow 2 ingress (mean 64.40 Mbps)
- Flow 2 egress (mean 61.99 Mbps)
- Flow 3 ingress (mean 16.85 Mbps)
- Flow 3 egress (mean 16.39 Mbps)

**Per-packet error rate (ms)**
- Flow 1 (95th percentile 37.29 ms)
- Flow 2 (95th percentile 37.88 ms)
- Flow 3 (95th percentile 43.15 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-15 09:51:32
End at: 2018-03-15 09:52:02
Local clock offset: 2.775 ms
Remote clock offset: 25.103 ms

# Below is generated by plot.py at 2018-03-15 14:33:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.57 Mbit/s
95th percentile per-packet one-way delay: 120.908 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 20.40 Mbit/s
95th percentile per-packet one-way delay: 118.152 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 32.96 Mbit/s
95th percentile per-packet one-way delay: 124.674 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 25.72 Mbit/s
95th percentile per-packet one-way delay: 110.744 ms
Loss rate: 0.92%
Run 1: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 20.44 Mbps)
- Flow 1 egress (mean 20.40 Mbps)
- Flow 2 ingress (mean 33.05 Mbps)
- Flow 2 egress (mean 32.96 Mbps)
- Flow 3 ingress (mean 25.86 Mbps)
- Flow 3 egress (mean 25.72 Mbps)

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

- Flow 1 (95th percentile 118.15 ms)
- Flow 2 (95th percentile 124.67 ms)
- Flow 3 (95th percentile 110.74 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-15 10:19:16
End at: 2018-03-15 10:19:46
Local clock offset: -1.018 ms
Remote clock offset: 36.02 ms

# Below is generated by plot.py at 2018-03-15 14:33:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.67 Mbit/s
95th percentile per-packet one-way delay: 61.080 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 59.057 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 30.29 Mbit/s
95th percentile per-packet one-way delay: 60.593 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 23.53 Mbit/s
95th percentile per-packet one-way delay: 63.954 ms
Loss rate: 1.72%
Run 2: Report of QUIC Cubic — Data Link

![Graphs showing throughput and per-packet one-way delay for different flows over time.]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 10.96 Mbps)
  - Flow 1 egress (mean 10.91 Mbps)
  - Flow 2 ingress (mean 30.51 Mbps)
  - Flow 2 egress (mean 30.29 Mbps)
  - Flow 3 ingress (mean 24.00 Mbps)
  - Flow 3 egress (mean 23.53 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 59.06 ms)
  - Flow 2 (95th percentile 60.59 ms)
  - Flow 3 (95th percentile 63.95 ms)

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Run 3: Statistics of QUIC Cubic

Start at: 2018-03-15 10:47:09
End at: 2018-03-15 10:47:39
Local clock offset: 3.457 ms
Remote clock offset: 24.678 ms

# Below is generated by plot.py at 2018-03-15 14:33:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 8.47 Mbit/s
  95th percentile per-packet one-way delay: 150.480 ms
  Loss rate: 0.41%
-- Flow 1:
  Average throughput: 5.41 Mbit/s
  95th percentile per-packet one-way delay: 152.916 ms
  Loss rate: 0.41%
-- Flow 2:
  Average throughput: 3.32 Mbit/s
  95th percentile per-packet one-way delay: 125.486 ms
  Loss rate: 0.43%
-- Flow 3:
  Average throughput: 2.66 Mbit/s
  95th percentile per-packet one-way delay: 125.212 ms
  Loss rate: 0.35%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-03-15 11:12:41
End at: 2018-03-15 11:13:11
Local clock offset: 8.333 ms
Remote clock offset: 35.233 ms

# Below is generated by plot.py at 2018-03-15 14:33:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.77 Mbit/s
95th percentile per-packet one-way delay: 33.873 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 34.015 ms
Loss rate: 2.19%
-- Flow 2:
Average throughput: 2.57 Mbit/s
95th percentile per-packet one-way delay: 35.036 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 30.964 ms
Loss rate: 3.25%
Run 4: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet loss over time for different flows.]

- **Flow 1**: ingress (mean 3.44 Mbit/s), egress (mean 3.37 Mbit/s)
- **Flow 2**: ingress (mean 2.62 Mbit/s), egress (mean 2.57 Mbit/s)
- **Flow 3**: ingress (mean 2.20 Mbit/s), egress (mean 2.13 Mbit/s)

![Graph showing packet loss over time for different flows.]

- **Flow 1**: 95th percentile 34.02 ms
- **Flow 2**: 95th percentile 35.04 ms
- **Flow 3**: 95th percentile 30.96 ms
Run 5: Statistics of QUIC Cubic

Start at: 2018-03-15 11:37:47
End at: 2018-03-15 11:38:17
Local clock offset: 5.095 ms
Remote clock offset: 52.584 ms

# Below is generated by plot.py at 2018-03-15 14:33:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 8.50 Mbit/s
  95th percentile per-packet one-way delay: 104.566 ms
  Loss rate: 2.41%
-- Flow 1:
  Average throughput: 3.97 Mbit/s
  95th percentile per-packet one-way delay: 99.748 ms
  Loss rate: 2.72%
-- Flow 2:
  Average throughput: 4.72 Mbit/s
  95th percentile per-packet one-way delay: 105.086 ms
  Loss rate: 2.34%
-- Flow 3:
  Average throughput: 4.39 Mbit/s
  95th percentile per-packet one-way delay: 106.490 ms
  Loss rate: 1.72%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-03-15 12:03:57
End at: 2018-03-15 12:04:27
Local clock offset: 0.774 ms
Remote clock offset: 50.346 ms

# Below is generated by plot.py at 2018-03-15 14:33:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 14.93 Mbit/s
  95th percentile per-packet one-way delay: 54.358 ms
  Loss rate: 1.71%
-- Flow 1:
  Average throughput: 5.14 Mbit/s
  95th percentile per-packet one-way delay: 55.410 ms
  Loss rate: 1.77%
-- Flow 2:
  Average throughput: 10.32 Mbit/s
  95th percentile per-packet one-way delay: 54.178 ms
  Loss rate: 1.67%
-- Flow 3:
  Average throughput: 9.05 Mbit/s
  95th percentile per-packet one-way delay: 47.354 ms
  Loss rate: 1.71%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-03-15 12:29:38
End at: 2018-03-15 12:30:08
Local clock offset: 4.415 ms
Remote clock offset: 54.586 ms

# Below is generated by plot.py at 2018-03-15 14:33:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.11 Mbit/s
95th percentile per-packet one-way delay: 37.766 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 4.40 Mbit/s
95th percentile per-packet one-way delay: 37.676 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 3.52 Mbit/s
95th percentile per-packet one-way delay: 37.665 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 37.903 ms
Loss rate: 0.91%
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

Start at: 2018-03-15 12:56:30
End at: 2018-03-15 12:57:00
Local clock offset: 5.179 ms
Remote clock offset: 50.311 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 32.97 Mbit/s
   95th percentile per-packet one-way delay: 45.427 ms
   Loss rate: 1.83%
-- Flow 1:
   Average throughput: 12.43 Mbit/s
   95th percentile per-packet one-way delay: 45.458 ms
   Loss rate: 2.00%
-- Flow 2:
   Average throughput: 20.48 Mbit/s
   95th percentile per-packet one-way delay: 44.872 ms
   Loss rate: 2.03%
-- Flow 3:
   Average throughput: 21.46 Mbit/s
   95th percentile per-packet one-way delay: 46.566 ms
   Loss rate: 1.14%
Run 8: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 12.68 Mbps/s)
- Flow 1 egress (mean 12.43 Mbps/s)
- Flow 2 ingress (mean 20.91 Mbps/s)
- Flow 2 egress (mean 20.48 Mbps/s)
- Flow 3 ingress (mean 21.68 Mbps/s)
- Flow 3 egress (mean 21.46 Mbps/s)

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

- Flow 1 (95th percentile 45.46 ms)
- Flow 2 (95th percentile 44.87 ms)
- Flow 3 (95th percentile 46.57 ms)
Run 9: Statistics of QUIC Cubic

End at: 2018-03-15 13:22:00
Local clock offset: 4.012 ms
Remote clock offset: 49.578 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 36.442 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 5.23 Mbit/s
95th percentile per-packet one-way delay: 36.811 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 5.20 Mbit/s
95th percentile per-packet one-way delay: 36.313 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 36.473 ms
Loss rate: 0.95%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

End at: 2018-03-15 13:47:18
Local clock offset: 2.306 ms
Remote clock offset: 49.707 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.63 Mbit/s
95th percentile per-packet one-way delay: 35.433 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 6.17 Mbit/s
95th percentile per-packet one-way delay: 35.846 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 5.76 Mbit/s
95th percentile per-packet one-way delay: 35.275 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 5.04 Mbit/s
95th percentile per-packet one-way delay: 34.606 ms
Loss rate: 1.87%
Run 10: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet round-trip time over time for different flows.]
Run 1: Statistics of SCReAM

Start at: 2018-03-15 09:54:14
End at: 2018-03-15 09:54:44
Local clock offset: 1.843 ms
Remote clock offset: 21.396 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 132.033 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 132.068 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 132.017 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 131.950 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Local clock offset: -1.321 ms
Remote clock offset: 16.97 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 120.699 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 120.906 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 120.005 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 121.248 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

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

Legend:
- Flow 1 ingress (mean 0.15 Mbit/s)
- Flow 1 egress (mean 0.15 Mbit/s)
- Flow 2 ingress (mean 0.18 Mbit/s)
- Flow 2 egress (mean 0.18 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s)
- Flow 3 egress (mean 0.22 Mbit/s)
Run 3: Statistics of SCReAM

Start at: 2018-03-15 10:49:57
End at: 2018-03-15 10:50:27
Local clock offset: 3.462 ms
Remote clock offset: 38.488 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 139.282 ms
  Loss rate: 0.47%
-- Flow 1:
  Average throughput: 0.20 Mbit/s
  95th percentile per-packet one-way delay: 139.309 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 0.18 Mbit/s
  95th percentile per-packet one-way delay: 139.226 ms
  Loss rate: 0.64%
-- Flow 3:
  Average throughput: 0.19 Mbit/s
  95th percentile per-packet one-way delay: 138.992 ms
  Loss rate: 0.83%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2018-03-15 11:15:15
End at: 2018-03-15 11:15:45
Local clock offset: 8.624 ms
Remote clock offset: 34.028 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 26.859 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 26.594 ms
Loss rate: 3.36%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 27.107 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 26.577 ms
Loss rate: 0.81%
Run 4: Report of SCReAM — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 5: Statistics of SCReAM

End at: 2018-03-15 11:40:58
Local clock offset: 4.274 ms
Remote clock offset: 49.862 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.33 Mbit/s
  95th percentile per-packet one-way delay: 101.612 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 0.14 Mbit/s
  95th percentile per-packet one-way delay: 105.526 ms
  Loss rate: 0.47%
-- Flow 2:
  Average throughput: 0.18 Mbit/s
  95th percentile per-packet one-way delay: 94.996 ms
  Loss rate: 0.53%
-- Flow 3:
  Average throughput: 0.20 Mbit/s
  95th percentile per-packet one-way delay: 93.882 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows (1 ingress, 2 ingress, 3 ingress, 1 egress, 2 egress, 3 egress).]

Throughput (Mbps)

Time (s)

0  5  10  15  20  25  30

0.00  0.05  0.10  0.15  0.20  0.25  0.30

Flow 1 ingress (mean 0.14 Mbps)  Flow 1 egress (mean 0.14 Mbps)
Flow 2 ingress (mean 0.18 Mbps)  Flow 2 egress (mean 0.18 Mbps)
Flow 3 ingress (mean 0.20 Mbps)  Flow 3 egress (mean 0.20 Mbps)

Per-packet one-way delay (ms)

Time (s)

0  5  10  15  20  25  30

70  80  90  100  110

Flow 1 (95th percentile 105.53 ms)  Flow 2 (95th percentile 95.00 ms)  Flow 3 (95th percentile 93.88 ms)
Run 6: Statistics of SCReAM

Start at: 2018-03-15 12:06:31
End at: 2018-03-15 12:07:01
Local clock offset: 1.319 ms
Remote clock offset: 45.981 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 69.464 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 68.857 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 70.279 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 68.343 ms
Loss rate: 1.59%
Run 6: Report of SCReAM — Data Link

![Graph showing throughput and packet loss over time for different flows.]

- **Throughput (Mbps)**
  - X-axis: Time (s)
  - Y-axis: Throughput (Mbps)
  - Legend:
    - Flow 1 ingress (mean 0.11 Mbps)
    - Flow 1 egress (mean 0.11 Mbps)
    - Flow 2 ingress (mean 0.15 Mbps)
    - Flow 2 egress (mean 0.15 Mbps)
    - Flow 3 ingress (mean 0.19 Mbps)
    - Flow 3 egress (mean 0.18 Mbps)

- **Per-packet one-way delay (ms)**
  - X-axis: Time (s)
  - Y-axis: Per-packet delay (ms)
  - Legend:
    - Flow 1 (95th percentile 68.86 ms)
    - Flow 2 (95th percentile 70.28 ms)
    - Flow 3 (95th percentile 68.34 ms)
Run 7: Statistics of SCReAM

Start at: 2018-03-15 12:32:12
End at: 2018-03-15 12:32:42
Local clock offset: 4.404 ms
Remote clock offset: 47.911 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 66.410 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 63.443 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 64.789 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 73.019 ms
Loss rate: 2.17%
Run 7: Report of SCReAM — Data Link

Graphs showing throughput and packet mean delay for different flows.

Throughput (Mbps):
- Flow 1 ingress (mean 0.14 Mbps)
- Flow 1 egress (mean 0.14 Mbps)
- Flow 2 ingress (mean 0.18 Mbps)
- Flow 2 egress (mean 0.18 Mbps)
- Flow 3 ingress (mean 0.17 Mbps)
- Flow 3 egress (mean 0.16 Mbps)

Packet mean delay (ms):
- Flow 1 (95th percentile 63.44 ms)
- Flow 2 (95th percentile 64.79 ms)
- Flow 3 (95th percentile 73.02 ms)
Run 8: Statistics of SCReAM

Start at: 2018-03-15 12:59:05
End at: 2018-03-15 12:59:35
Local clock offset: 5.366 ms
Remote clock offset: 47.75 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 39.246 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 38.835 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 39.728 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 39.329 ms
Loss rate: 1.44%
Run 8: Report of SCReAM — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 0.11 Mbps)
- Flow 1 egress (mean 0.11 Mbps)
- Flow 2 ingress (mean 0.16 Mbps)
- Flow 2 egress (mean 0.16 Mbps)
- Flow 3 ingress (mean 0.19 Mbps)
- Flow 3 egress (mean 0.19 Mbps)

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

- Flow 1 (95th percentile 38.84 ms)
- Flow 2 (95th percentile 39.73 ms)
- Flow 3 (95th percentile 39.33 ms)
Run 9: Statistics of SCReAM

Start at: 2018-03-15 13:24:05
Local clock offset: 3.447 ms
Remote clock offset: 46.405 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 34.411 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 34.363 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 34.115 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 35.863 ms
Loss rate: 0.35%
Run 9: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.12 Mbit/s)
- Flow 1 egress (mean 0.12 Mbit/s)
- Flow 2 ingress (mean 0.15 Mbit/s)
- Flow 2 egress (mean 0.15 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s)
- Flow 3 egress (mean 0.22 Mbit/s)
Run 10: Statistics of SCReAM

End at: 2018-03-15 13:49:52
Local clock offset: 2.931 ms
Remote clock offset: 48.841 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 34.286 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 35.478 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 33.826 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 33.017 ms
Loss rate: 0.76%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-03-15 10:06:09
End at: 2018-03-15 10:06:39
Local clock offset: 0.076 ms
Remote clock offset: 61.551 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 166.186 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 163.933 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 165.926 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 168.060 ms
Loss rate: 0.06%
Run 1: Report of WebRTC media — Data Link

![Graph 1](image1)

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

Start at: 2018-03-15 10:32:51
End at: 2018-03-15 10:33:21
Local clock offset: 2.211 ms
Remote clock offset: 41.28 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.42 Mbit/s
95th percentile per-packet one-way delay: 60.010 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 62.535 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 52.245 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 57.626 ms
Loss rate: 0.05%
Run 2: Report of WebRTC media — Data Link

![Graphs showing data link performance for different flows over time.](image-url)
Run 3: Statistics of WebRTC media

Start at: 2018-03-15 11:00:56
End at: 2018-03-15 11:01:26
Local clock offset: 5.523 ms
Remote clock offset: 33.172 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.09 Mbit/s
95th percentile per-packet one-way delay: 110.433 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 111.598 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 105.925 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 102.017 ms
Loss rate: 0.70%
Run 3: Report of WebRTC media — Data Link

![Graph showing network performance metrics over time](image1)

- **Throughput (Mbps):**
  - Blue dashed line: Flow 1 ingress (mean 2.67 Mbps)
  - Blue solid line: Flow 1 egress (mean 2.65 Mbps)
  - Green dashed line: Flow 2 ingress (mean 1.84 Mbps)
  - Green solid line: Flow 2 egress (mean 1.82 Mbps)
  - Red dashed line: Flow 3 ingress (mean 0.67 Mbps)
  - Red solid line: Flow 3 egress (mean 0.66 Mbps)

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

- **Packet delay (ms):**
  - Blue: Flow 1 (95th percentile 111.60 ms)
  - Green: Flow 2 (95th percentile 105.92 ms)
  - Red: Flow 3 (95th percentile 102.02 ms)
Run 4: Statistics of WebRTC media

Start at: 2018-03-15 11:26:09
End at: 2018-03-15 11:26:39
Local clock offset: 9.196 ms
Remote clock offset: 48.554 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.52 Mbit/s
95th percentile per-packet one-way delay: 34.238 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 34.432 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 1.75 Mbit/s
95th percentile per-packet one-way delay: 34.162 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 33.827 ms
Loss rate: 0.71%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-03-15 11:51:56
End at: 2018-03-15 11:52:26
Local clock offset: 1.852 ms
Remote clock offset: 51.754 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.26 Mbit/s
  95th percentile per-packet one-way delay: 88.389 ms
  Loss rate: 1.02%
-- Flow 1:
  Average throughput: 2.36 Mbit/s
  95th percentile per-packet one-way delay: 91.740 ms
  Loss rate: 1.11%
-- Flow 2:
  Average throughput: 1.25 Mbit/s
  95th percentile per-packet one-way delay: 84.628 ms
  Loss rate: 0.84%
-- Flow 3:
  Average throughput: 0.69 Mbit/s
  95th percentile per-packet one-way delay: 82.833 ms
  Loss rate: 1.06%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-03-15 12:18:01
End at: 2018-03-15 12:18:31
Local clock offset: 3.454 ms
Remote clock offset: 41.277 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.96 Mbit/s
  95th percentile per-packet one-way delay: 87.617 ms
  Loss rate: 0.72%
-- Flow 1:
  Average throughput: 2.77 Mbit/s
  95th percentile per-packet one-way delay: 84.741 ms
  Loss rate: 0.79%
-- Flow 2:
  Average throughput: 1.64 Mbit/s
  95th percentile per-packet one-way delay: 88.333 ms
  Loss rate: 0.66%
-- Flow 3:
  Average throughput: 0.58 Mbit/s
  95th percentile per-packet one-way delay: 93.220 ms
  Loss rate: 0.57%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

End at: 2018-03-15 12:44:28
Local clock offset: 4.741 ms
Remote clock offset: 35.053 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.27 Mbit/s
  95th percentile per-packet one-way delay: 218.522 ms
  Loss rate: 36.25%
-- Flow 1:
  Average throughput: 0.12 Mbit/s
  95th percentile per-packet one-way delay: 218.318 ms
  Loss rate: 39.27%
-- Flow 2:
  Average throughput: 0.12 Mbit/s
  95th percentile per-packet one-way delay: 218.824 ms
  Loss rate: 33.11%
-- Flow 3:
  Average throughput: 0.04 Mbit/s
  95th percentile per-packet one-way delay: 218.550 ms
  Loss rate: 35.68%
Run 7: Report of WebRTC media — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 0.19 Mbps)
- Flow 1 egress (mean 0.12 Mbps)
- Flow 2 ingress (mean 0.18 Mbps)
- Flow 2 egress (mean 0.12 Mbps)
- Flow 3 ingress (mean 0.06 Mbps)
- Flow 3 egress (mean 0.04 Mbps)

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

- Flow 1 (95th percentile 218.32 ms)
- Flow 2 (95th percentile 218.82 ms)
- Flow 3 (95th percentile 218.55 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-03-15 13:09:51
End at: 2018-03-15 13:10:21
Local clock offset: 5.683 ms
Remote clock offset: 41.312 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.19 Mbit/s
  95th percentile per-packet one-way delay: 30.054 ms
  Loss rate: 1.59%
-- Flow 1:
  Average throughput: 2.76 Mbit/s
  95th percentile per-packet one-way delay: 29.994 ms
  Loss rate: 1.45%
-- Flow 2:
  Average throughput: 1.74 Mbit/s
  95th percentile per-packet one-way delay: 30.171 ms
  Loss rate: 1.81%
-- Flow 3:
  Average throughput: 0.73 Mbit/s
  95th percentile per-packet one-way delay: 30.107 ms
  Loss rate: 1.63%
Run 8: Report of WebRTC media — Data Link

[Graph showing throughput (Mbps) over time for different flows with specified mean values for ingress and egress.]
Run 9: Statistics of WebRTC media

Start at: 2018-03-15 13:34:40
End at: 2018-03-15 13:35:10
Local clock offset: 2.905 ms
Remote clock offset: 51.546 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.10 Mbit/s
  95th percentile per-packet one-way delay: 38.371 ms
  Loss rate: 1.02%
-- Flow 1:
  Average throughput: 2.73 Mbit/s
  95th percentile per-packet one-way delay: 38.357 ms
  Loss rate: 1.01%
-- Flow 2:
  Average throughput: 1.92 Mbit/s
  95th percentile per-packet one-way delay: 38.088 ms
  Loss rate: 0.98%
-- Flow 3:
  Average throughput: 0.48 Mbit/s
  95th percentile per-packet one-way delay: 40.406 ms
  Loss rate: 1.28%
Run 9: Report of WebRTC media — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 10: Statistics of WebRTC media

End at: 2018-03-15 14:00:17
Local clock offset: 3.573 ms
Remote clock offset: 65.83 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 56.267 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 58.977 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 53.761 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 53.447 ms
Loss rate: 0.60%
Run 10: Report of WebRTC media — Data Link

![Throughput and Delay Graphs](image.png)
Run 1: Statistics of Sprout

Start at: 2018-03-15 09:43:36
End at: 2018-03-15 09:44:06
Local clock offset: 0.727 ms
Remote clock offset: 46.144 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 9.13 Mbit/s
  95th percentile per-packet one-way delay: 59.963 ms
  Loss rate: 1.88%
-- Flow 1:
  Average throughput: 4.72 Mbit/s
  95th percentile per-packet one-way delay: 59.993 ms
  Loss rate: 1.52%
-- Flow 2:
  Average throughput: 4.65 Mbit/s
  95th percentile per-packet one-way delay: 60.025 ms
  Loss rate: 2.28%
-- Flow 3:
  Average throughput: 4.01 Mbit/s
  95th percentile per-packet one-way delay: 59.718 ms
  Loss rate: 2.24%
Run 1: Report of Sprout — Data Link

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

Legend:
- Flow 1 ingress (mean 4.79 Mbit/s)
- Flow 1 egress (mean 4.72 Mbit/s)
- Flow 2 ingress (mean 4.76 Mbit/s)
- Flow 2 egress (mean 4.65 Mbit/s)
- Flow 3 ingress (mean 4.10 Mbit/s)
- Flow 3 egress (mean 4.01 Mbit/s)
Run 2: Statistics of Sprout

Start at: 2018-03-15 10:11:05
End at: 2018-03-15 10:11:35
Local clock offset: ~1.099 ms
Remote clock offset: 56.166 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.17 Mbit/s
  95th percentile per-packet one-way delay: 104.028 ms
  Loss rate: 3.65%
-- Flow 1:
  Average throughput: 3.40 Mbit/s
  95th percentile per-packet one-way delay: 94.618 ms
  Loss rate: 4.59%
-- Flow 2:
  Average throughput: 2.80 Mbit/s
  95th percentile per-packet one-way delay: 106.409 ms
  Loss rate: 2.39%
-- Flow 3:
  Average throughput: 2.75 Mbit/s
  95th percentile per-packet one-way delay: 107.425 ms
  Loss rate: 2.62%
Run 2: Report of Sprout — Data Link

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

- **Flow 1 ingress (mean 3.57 Mbit/s)**
- **Flow 1 egress (mean 3.40 Mbit/s)**
- **Flow 2 ingress (mean 2.88 Mbit/s)**
- **Flow 2 egress (mean 2.80 Mbit/s)**
- **Flow 3 ingress (mean 2.83 Mbit/s)**
- **Flow 3 egress (mean 2.75 Mbit/s)**

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

- **Flow 1 (95th percentile 94.62 ms)**
- **Flow 2 (95th percentile 106.41 ms)**
- **Flow 3 (95th percentile 107.42 ms)**
Run 3: Statistics of Sprout

Start at: 2018-03-15 10:38:06
End at: 2018-03-15 10:38:36
Local clock offset: 2.764 ms
Remote clock offset: 32.619 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1.93 Mbit/s
  95th percentile per-packet one-way delay: 104.713 ms
  Loss rate: 1.59%
-- Flow 1:
  Average throughput: 1.07 Mbit/s
  95th percentile per-packet one-way delay: 107.500 ms
  Loss rate: 1.19%
-- Flow 2:
  Average throughput: 1.00 Mbit/s
  95th percentile per-packet one-way delay: 102.283 ms
  Loss rate: 2.39%
-- Flow 3:
  Average throughput: 0.59 Mbit/s
  95th percentile per-packet one-way delay: 92.864 ms
  Loss rate: 1.03%
Run 3: Report of Sprout — Data Link

[Graphs showing network throughput and per-packet one-way delay over time for different flows, with annotations for mean values and 95th percentiles.]
Run 4: Statistics of Sprout

Start at: 2018-03-15 11:04:57
End at: 2018-03-15 11:05:27
Local clock offset: 5.974 ms
Remote clock offset: 34.722 ms

# Below is generated by plot.py at 2018-03-15 14:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 107.090 ms
Loss rate: 3.43%
-- Flow 1:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 106.358 ms
Loss rate: 4.10%
-- Flow 2:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 107.460 ms
Loss rate: 3.23%
-- Flow 3:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 108.383 ms
Loss rate: 1.70%
Run 4: Report of Sprout — Data Link

Throughput (Mbit/s)

Flow 1 ingress (mean 1.17 Mbit/s)  
Flow 1 egress (mean 1.13 Mbit/s)  
Flow 2 ingress (mean 1.00 Mbit/s)  
Flow 2 egress (mean 0.97 Mbit/s)  
Flow 3 ingress (mean 1.14 Mbit/s)  
Flow 3 egress (mean 1.12 Mbit/s)

Delay (ms)

Flow 1 (95th percentile 106.36 ms)  
Flow 2 (95th percentile 107.46 ms)  
Flow 3 (95th percentile 108.38 ms)
Run 5: Statistics of Sprout

Start at: 2018-03-15 11:30:06
End at: 2018-03-15 11:30:36
Local clock offset: 9.577 ms
Remote clock offset: 51.462 ms

# Below is generated by plot.py at 2018-03-15 14:33:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 38.990 ms
Loss rate: 4.65%
-- Flow 1:
Average throughput: 2.60 Mbit/s
95th percentile per-packet one-way delay: 39.697 ms
Loss rate: 4.85%
-- Flow 2:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 38.378 ms
Loss rate: 4.25%
-- Flow 3:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 37.943 ms
Loss rate: 4.86%
Run 5: Report of Sprout — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows with mean rates and 95th percentile delays.]
Run 6: Statistics of Sprout

Start at: 2018-03-15 11:56:16
End at: 2018-03-15 11:56:46
Local clock offset: 0.561 ms
Remote clock offset: 53.626 ms

# Below is generated by plot.py at 2018-03-15 14:33:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.98 Mbit/s
95th percentile per-packet one-way delay: 61.640 ms
Loss rate: 5.54%
-- Flow 1:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 63.217 ms
Loss rate: 4.67%
-- Flow 2:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 59.740 ms
Loss rate: 5.83%
-- Flow 3:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 57.882 ms
Loss rate: 7.80%
Run 6: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 3.54 Mbps)
- Flow 1 egress (mean 3.37 Mbps)
- Flow 2 ingress (mean 2.46 Mbps)
- Flow 2 egress (mean 2.32 Mbps)
- Flow 3 ingress (mean 3.52 Mbps)
- Flow 3 egress (mean 3.25 Mbps)

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

- Flow 1 (95th percentile 63.22 ms)
- Flow 2 (95th percentile 59.74 ms)
- Flow 3 (95th percentile 57.88 ms)
Run 7: Statistics of Sprout

Start at: 2018-03-15 12:22:00
End at: 2018-03-15 12:22:30
Local clock offset: 3.034 ms
Remote clock offset: 55.472 ms

# Below is generated by plot.py at 2018-03-15 14:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.31 Mbit/s
95th percentile per-packet one-way delay: 46.228 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 46.277 ms
Loss rate: 2.55%
-- Flow 2:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 46.216 ms
Loss rate: 2.29%
-- Flow 3:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 45.885 ms
Loss rate: 3.49%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Local clock offset: 4.85 ms
Remote clock offset: 83.99 ms

# Below is generated by plot.py at 2018-03-15 14:33:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.65 Mbit/s
  95th percentile per-packet one-way delay: 75.121 ms
  Loss rate: 1.81%
-- Flow 1:
  Average throughput: 0.25 Mbit/s
  95th percentile per-packet one-way delay: 73.320 ms
  Loss rate: 2.60%
-- Flow 2:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 74.717 ms
  Loss rate: 0.76%
-- Flow 3:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 76.258 ms
  Loss rate: 2.33%
Run 8: Report of Sprout — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)

- Flow 1 ingress (mean 0.26 Mbit/s)
- Flow 1 egress (mean 0.25 Mbit/s)
- Flow 2 ingress (mean 0.40 Mbit/s)
- Flow 2 egress (mean 0.39 Mbit/s)
- Flow 3 ingress (mean 0.41 Mbit/s)
- Flow 3 egress (mean 0.40 Mbit/s)
Run 9: Statistics of Sprout

Local clock offset: 5.804 ms
Remote clock offset: 46.917 ms

# Below is generated by plot.py at 2018-03-15 14:33:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.72 Mbit/s
  95th percentile per-packet one-way delay: 37.820 ms
  Loss rate: 3.79%
-- Flow 1:
  Average throughput: 3.88 Mbit/s
  95th percentile per-packet one-way delay: 37.842 ms
  Loss rate: 3.47%
-- Flow 2:
  Average throughput: 4.15 Mbit/s
  95th percentile per-packet one-way delay: 37.759 ms
  Loss rate: 3.78%
-- Flow 3:
  Average throughput: 3.28 Mbit/s
  95th percentile per-packet one-way delay: 37.960 ms
  Loss rate: 4.98%
Run 9: Report of Sprout — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 4.02 Mbps)
  - Flow 1 egress (mean 3.88 Mbps)
  - Flow 2 ingress (mean 4.31 Mbps)
  - Flow 2 egress (mean 4.15 Mbps)
  - Flow 3 ingress (mean 3.45 Mbps)
  - Flow 3 egress (mean 3.28 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 37.84 ms)
  - Flow 2 (95th percentile 37.76 ms)
  - Flow 3 (95th percentile 37.96 ms)
Run 10: Statistics of Sprout

Local clock offset: 2.921 ms
Remote clock offset: 46.51 ms

# Below is generated by plot.py at 2018-03-15 14:33:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.23 Mbit/s
  95th percentile per-packet one-way delay: 35.563 ms
  Loss rate: 4.31%
-- Flow 1:
  Average throughput: 3.65 Mbit/s
  95th percentile per-packet one-way delay: 35.568 ms
  Loss rate: 3.69%
-- Flow 2:
  Average throughput: 3.74 Mbit/s
  95th percentile per-packet one-way delay: 35.598 ms
  Loss rate: 4.35%
-- Flow 3:
  Average throughput: 3.32 Mbit/s
  95th percentile per-packet one-way delay: 35.483 ms
  Loss rate: 6.21%
Run 10: Report of Sprout — Data Link

![Graph of Throughput (Mbps)]

![Graph of Per-packet End-to-End Delay (ms)]
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-15 10:07:28
End at: 2018-03-15 10:07:58
Local clock offset: -0.628 ms
Remote clock offset: 61.71 ms

# Below is generated by plot.py at 2018-03-15 14:34:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.61 Mbit/s
95th percentile per-packet one-way delay: 117.931 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 61.04 Mbit/s
95th percentile per-packet one-way delay: 117.896 ms
Loss rate: 1.85%
-- Flow 2:
Average throughput: 5.53 Mbit/s
95th percentile per-packet one-way delay: 118.428 ms
Loss rate: 6.50%
-- Flow 3:
Average throughput: 5.70 Mbit/s
95th percentile per-packet one-way delay: 118.341 ms
Loss rate: 5.43%
Run 1: Report of TaoVA-100x — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-15 10:34:20
End at: 2018-03-15 10:34:50
Local clock offset: -0.258 ms
Remote clock offset: 41.349 ms

# Below is generated by plot.py at 2018-03-15 14:35:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 72.40 Mbit/s
  95th percentile per-packet one-way delay: 53.015 ms
  Loss rate: 5.39%
-- Flow 1:
  Average throughput: 66.40 Mbit/s
  95th percentile per-packet one-way delay: 53.051 ms
  Loss rate: 4.61%
-- Flow 2:
  Average throughput: 6.20 Mbit/s
  95th percentile per-packet one-way delay: 50.611 ms
  Loss rate: 13.30%
-- Flow 3:
  Average throughput: 5.65 Mbit/s
  95th percentile per-packet one-way delay: 54.109 ms
  Loss rate: 12.91%
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-15 11:02:13
End at: 2018-03-15 11:02:43
Remote clock offset: 6.121 ms
Local clock offset: 44.395 ms

# Below is generated by plot.py at 2018-03-15 14:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.83 Mbit/s
95th percentile per-packet one-way delay: 128.470 ms
Loss rate: 7.24%
-- Flow 1:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 132.496 ms
Loss rate: 5.53%
-- Flow 2:
Average throughput: 22.97 Mbit/s
95th percentile per-packet one-way delay: 123.828 ms
Loss rate: 6.44%
-- Flow 3:
Average throughput: 19.84 Mbit/s
95th percentile per-packet one-way delay: 122.343 ms
Loss rate: 10.71%
Run 3: Report of TaoVA-100x — Data Link

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

- **Throughput**
  - **Flow 1 Ingress**: Mean 7.37 Mbit/s
  - **Flow 1 Egress**: Mean 6.96 Mbit/s
  - **Flow 2 Ingress**: Mean 24.36 Mbit/s
  - **Flow 2 Egress**: Mean 22.97 Mbit/s
  - **Flow 3 Ingress**: Mean 22.21 Mbit/s
  - **Flow 3 Egress**: Mean 19.84 Mbit/s

- **Per-packet one-way delay (ms)**
  - **Flow 1 95th percentile**: 132.50 ms
  - **Flow 2 95th percentile**: 123.83 ms
  - **Flow 3 95th percentile**: 122.34 ms
Run 4: Statistics of TaoVA-100x

End at: 2018-03-15 11:27:52
Local clock offset: 9.227 ms
Remote clock offset: 52.068 ms

# Below is generated by plot.py at 2018-03-15 14:35:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.92 Mbit/s
  95th percentile per-packet one-way delay: 49.733 ms
  Loss rate: 5.85%
-- Flow 1:
  Average throughput: 67.92 Mbit/s
  95th percentile per-packet one-way delay: 49.485 ms
  Loss rate: 5.22%
-- Flow 2:
  Average throughput: 7.82 Mbit/s
  95th percentile per-packet one-way delay: 51.073 ms
  Loss rate: 10.55%
-- Flow 3:
  Average throughput: 5.39 Mbit/s
  95th percentile per-packet one-way delay: 50.339 ms
  Loss rate: 14.11%
Run 4: Report of TaoVA-100x — Data Link

[Graph showing throughput in Mbps over time]

[Graph showing per-packet one-way delay in ms over time]
Run 5: Statistics of TaoVA-100x

Start at: 2018-03-15 11:53:12
End at: 2018-03-15 11:53:42
Local clock offset: 1.456 ms
Remote clock offset: 45.122 ms

# Below is generated by plot.py at 2018-03-15 14:35:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 37.45 Mbit/s
  95th percentile per-packet one-way delay: 51.766 ms
  Loss rate: 7.85%
-- Flow 1:
  Average throughput: 30.64 Mbit/s
  95th percentile per-packet one-way delay: 51.767 ms
  Loss rate: 6.04%
-- Flow 2:
  Average throughput: 8.57 Mbit/s
  95th percentile per-packet one-way delay: 51.705 ms
  Loss rate: 15.18%
-- Flow 3:
  Average throughput: 3.34 Mbit/s
  95th percentile per-packet one-way delay: 51.936 ms
  Loss rate: 15.25%
Run 5: Report of TaoVA-100x — Data Link

![Graph of data link throughput and per-packet one-way delay]
Run 6: Statistics of TaoVA-100x

Start at: 2018-03-15 12:19:18
End at: 2018-03-15 12:19:48
Local clock offset: 3.55 ms
Remote clock offset: 52.924 ms

# Below is generated by plot.py at 2018-03-15 14:35:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.00 Mbit/s
95th percentile per-packet one-way delay: 99.375 ms
Loss rate: 5.20%
-- Flow 1:
Average throughput: 27.98 Mbit/s
95th percentile per-packet one-way delay: 101.242 ms
Loss rate: 4.58%
-- Flow 2:
Average throughput: 51.50 Mbit/s
95th percentile per-packet one-way delay: 70.887 ms
Loss rate: 5.31%
-- Flow 3:
Average throughput: 5.33 Mbit/s
95th percentile per-packet one-way delay: 60.360 ms
Loss rate: 12.31%
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-15 12:45:35
End at: 2018-03-15 12:46:05
Local clock offset: 4.899 ms
Remote clock offset: 74.061 ms

# Below is generated by plot.py at 2018-03-15 14:35:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.44 Mbit/s
95th percentile per-packet one-way delay: 136.975 ms
Loss rate: 8.96%
-- Flow 1:
Average throughput: 12.49 Mbit/s
95th percentile per-packet one-way delay: 140.310 ms
Loss rate: 8.85%
-- Flow 2:
Average throughput: 12.87 Mbit/s
95th percentile per-packet one-way delay: 126.744 ms
Loss rate: 9.66%
-- Flow 3:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 127.802 ms
Loss rate: 7.02%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

End at: 2018-03-15 13:11:34
Local clock offset: 5.555 ms
Remote clock offset: 40.114 ms

# Below is generated by plot.py at 2018-03-15 14:35:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 73.44 Mbit/s
  95th percentile per-packet one-way delay: 40.035 ms
  Loss rate: 5.96%
-- Flow 1:
  Average throughput: 68.37 Mbit/s
  95th percentile per-packet one-way delay: 39.904 ms
  Loss rate: 5.70%
-- Flow 2:
  Average throughput: 5.02 Mbit/s
  95th percentile per-packet one-way delay: 40.291 ms
  Loss rate: 8.97%
-- Flow 3:
  Average throughput: 5.23 Mbit/s
  95th percentile per-packet one-way delay: 42.402 ms
  Loss rate: 10.08%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-15 13:36:05
End at: 2018-03-15 13:36:35
Local clock offset: 2.927 ms
Remote clock offset: 30.716 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 70.33 Mbit/s
  95th percentile per-packet one-way delay: 21.236 ms
  Loss rate: 16.56%
-- Flow 1:
  Average throughput: 65.81 Mbit/s
  95th percentile per-packet one-way delay: 21.311 ms
  Loss rate: 16.40%
-- Flow 2:
  Average throughput: 4.91 Mbit/s
  95th percentile per-packet one-way delay: 20.530 ms
  Loss rate: 17.97%
-- Flow 3:
  Average throughput: 4.75 Mbit/s
  95th percentile per-packet one-way delay: 20.661 ms
  Loss rate: 20.33%
Run 9: Report of TaoVA-100x — Data Link

![Graph showing throughput and packet delay for different flows.](image)

- Flow 1 ingress (mean 78.73 Mbit/s)
- Flow 1 egress (mean 65.81 Mbit/s)
- Flow 2 ingress (mean 5.39 Mbit/s)
- Flow 2 egress (mean 4.91 Mbit/s)
- Flow 3 ingress (mean 5.96 Mbit/s)
- Flow 3 egress (mean 4.75 Mbit/s)
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-15 14:01:01
End at: 2018-03-15 14:01:31
Local clock offset: 3.721 ms
Remote clock offset: 49.106 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.03 Mbit/s
95th percentile per-packet one-way delay: 46.364 ms
Loss rate: 6.97%
-- Flow 1:
Average throughput: 62.02 Mbit/s
95th percentile per-packet one-way delay: 46.422 ms
Loss rate: 6.30%
-- Flow 2:
Average throughput: 7.78 Mbit/s
95th percentile per-packet one-way delay: 45.760 ms
Loss rate: 13.16%
-- Flow 3:
Average throughput: 5.51 Mbit/s
95th percentile per-packet one-way delay: 46.080 ms
Loss rate: 10.52%
Run 10: Report of TaoVA-100x — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 65.21 Mbps)
  - Flow 1 egress (mean 62.02 Mbps)
  - Flow 2 ingress (mean 8.96 Mbps)
  - Flow 2 egress (mean 7.78 Mbps)
  - Flow 3 ingress (mean 6.16 Mbps)
  - Flow 3 egress (mean 5.31 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 46.42 ms)
  - Flow 2 (95th percentile 45.76 ms)
  - Flow 3 (95th percentile 46.08 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-03-15 09:44:49
End at: 2018-03-15 09:45:19
Local clock offset: 3.763 ms
Remote clock offset: 32.679 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.37 Mbit/s
95th percentile per-packet one-way delay: 90.676 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 88.425 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 94.037 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 97.382 ms
Loss rate: 0.09%
Run 1: Report of TCP Vegas — Data Link

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

![Graph 2: Per-packet size vs Time](image2)
Run 2: Statistics of TCP Vegas

Start at: 2018-03-15 10:12:32
End at: 2018-03-15 10:13:02
Local clock offset: -0.549 ms
Remote clock offset: 53.802 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 2.96 Mbit/s
   95th percentile per-packet one-way delay: 155.697 ms
   Loss rate: 2.59%
-- Flow 1:
   Average throughput: 1.20 Mbit/s
   95th percentile per-packet one-way delay: 152.135 ms
   Loss rate: 1.48%
-- Flow 2:
   Average throughput: 1.48 Mbit/s
   95th percentile per-packet one-way delay: 154.690 ms
   Loss rate: 0.49%
-- Flow 3:
   Average throughput: 2.36 Mbit/s
   95th percentile per-packet one-way delay: 157.703 ms
   Loss rate: 6.70%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-03-15 10:39:27
End at: 2018-03-15 10:39:57
Local clock offset: 5.35 ms
Remote clock offset: 40.064 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.21 Mbit/s
  95th percentile per-packet one-way delay: 148.639 ms
  Loss rate: 2.61%
-- Flow 1:
  Average throughput: 1.57 Mbit/s
  95th percentile per-packet one-way delay: 142.873 ms
  Loss rate: 2.49%
-- Flow 2:
  Average throughput: 2.04 Mbit/s
  95th percentile per-packet one-way delay: 141.446 ms
  Loss rate: 3.21%
-- Flow 3:
  Average throughput: 0.85 Mbit/s
  95th percentile per-packet one-way delay: 180.788 ms
  Loss rate: 0.28%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-03-15 11:06:13
End at: 2018-03-15 11:06:43
Local clock offset: 6.999 ms
Remote clock offset: 34.759 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.18 Mbit/s
  95th percentile per-packet one-way delay: 73.592 ms
  Loss rate: 2.81%
-- Flow 1:
  Average throughput: 0.96 Mbit/s
  95th percentile per-packet one-way delay: 72.925 ms
  Loss rate: 2.59%
-- Flow 2:
  Average throughput: 1.11 Mbit/s
  95th percentile per-packet one-way delay: 73.227 ms
  Loss rate: 3.76%
-- Flow 3:
  Average throughput: 1.45 Mbit/s
  95th percentile per-packet one-way delay: 77.457 ms
  Loss rate: 1.80%
Run 4: Report of TCP Vegas — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 0.99 Mbps)
- Flow 2 ingress (mean 1.15 Mbps)
- Flow 3 ingress (mean 1.48 Mbps)

Flow 1 egress (mean 0.96 Mbps)
Flow 2 egress (mean 1.11 Mbps)
Flow 3 egress (mean 1.45 Mbps)

Per packet one way delay (ms):
- Flow 1 (95th percentile 72.92 ms)
- Flow 2 (95th percentile 73.23 ms)
- Flow 3 (95th percentile 77.46 ms)
Run 5: Statistics of TCP Vegas

Start at: 2018-03-15 11:31:21
End at: 2018-03-15 11:31:51
Local clock offset: 9.763 ms
Remote clock offset: 52.925 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 37.719 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 38.159 ms
Loss rate: 3.27%
-- Flow 2:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 35.656 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 38.266 ms
Loss rate: 3.39%
Run 5: Report of TCP Vegas — Data Link

![Graphs showing network throughput and packet delay over time for different flows.]

- **Throughput Graph**: Various flow ingress and egress rates are depicted, with mean values provided.
- **Delay Graph**: Packet delay data is shown with 95th percentile values for each flow.
Run 6: Statistics of TCP Vegas

Start at: 2018-03-15 11:57:30
End at: 2018-03-15 11:58:00
Local clock offset: 1.273 ms
Remote clock offset: 41.539 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.67 Mbit/s
95th percentile per-packet one-way delay: 44.460 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 44.366 ms
Loss rate: 2.13%
-- Flow 2:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 44.315 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 44.577 ms
Loss rate: 0.66%
Run 6: Report of TCP Vegas — Data Link

![Graph showing data link throughput over time for different flows.]

- **Flow 1 ingress (mean 2.31 Mbit/s)**
- **Flow 1 egress (mean 2.26 Mbit/s)**
- **Flow 2 ingress (mean 2.37 Mbit/s)**
- **Flow 2 egress (mean 2.35 Mbit/s)**
- **Flow 3 ingress (mean 2.56 Mbit/s)**
- **Flow 3 egress (mean 2.54 Mbit/s)**

![Graph showing per-packet one-way delay over time for different flows.]

- **Flow 1 (95th percentile 44.37 ms)**
- **Flow 2 (95th percentile 44.31 ms)**
- **Flow 3 (95th percentile 44.58 ms)**
Run 7: Statistics of TCP Vegas

End at: 2018-03-15 12:23:44
Local clock offset: 3.859 ms
Remote clock offset: 53.208 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.74 Mbit/s
  95th percentile per-packet one-way delay: 40.721 ms
  Loss rate: 1.70%
-- Flow 1:
  Average throughput: 2.13 Mbit/s
  95th percentile per-packet one-way delay: 41.590 ms
  Loss rate: 2.37%
-- Flow 2:
  Average throughput: 2.73 Mbit/s
  95th percentile per-packet one-way delay: 40.066 ms
  Loss rate: 0.96%
-- Flow 3:
  Average throughput: 2.39 Mbit/s
  95th percentile per-packet one-way delay: 40.256 ms
  Loss rate: 1.59%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-03-15 12:49:45
End at: 2018-03-15 12:50:15
Local clock offset: 4.908 ms
Remote clock offset: 66.07 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 115.960 ms
Loss rate: 2.71%
-- Flow 1:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 95.537 ms
Loss rate: 2.73%
-- Flow 2:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 114.915 ms
Loss rate: 3.62%
-- Flow 3:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 123.210 ms
Loss rate: 0.29%
Run 8: Report of TCP Vegas — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 1.42 Mbit/s)
  - Flow 1 egress (mean 1.38 Mbit/s)
  - Flow 2 ingress (mean 1.07 Mbit/s)
  - Flow 2 egress (mean 1.03 Mbit/s)
  - Flow 3 ingress (mean 0.84 Mbit/s)
  - Flow 3 egress (mean 0.84 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 95.54 ms)
  - Flow 2 (95th percentile 114.92 ms)
  - Flow 3 (95th percentile 123.21 ms)
Run 9: Statistics of TCP Vegas

End at: 2018-03-15 13:15:27
Local clock offset: 5.37 ms
Remote clock offset: 41.357 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.39 Mbit/s
  95th percentile per-packet one-way delay: 31.332 ms
  Loss rate: 2.48%
-- Flow 1:
  Average throughput: 2.64 Mbit/s
  95th percentile per-packet one-way delay: 30.822 ms
  Loss rate: 1.83%
-- Flow 2:
  Average throughput: 2.53 Mbit/s
  95th percentile per-packet one-way delay: 31.141 ms
  Loss rate: 2.84%
-- Flow 3:
  Average throughput: 3.21 Mbit/s
  95th percentile per-packet one-way delay: 32.330 ms
  Loss rate: 3.49%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

End at: 2018-03-15 13:40:41
Local clock offset: 2.873 ms
Remote clock offset: 51.081 ms

# Below is generated by plot.py at 2018-03-15 14:35:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.93 Mbit/s
  95th percentile per-packet one-way delay: 139.031 ms
  Loss rate: 2.38%
-- Flow 1:
  Average throughput: 0.36 Mbit/s
  95th percentile per-packet one-way delay: 139.115 ms
  Loss rate: 0.99%
-- Flow 2:
  Average throughput: 0.58 Mbit/s
  95th percentile per-packet one-way delay: 138.755 ms
  Loss rate: 2.43%
-- Flow 3:
  Average throughput: 0.58 Mbit/s
  95th percentile per-packet one-way delay: 139.507 ms
  Loss rate: 4.79%
Run 10: Report of TCP Vegas — Data Link
Run 1: Statistics of Verus

Start at: 2018-03-15 10:01:11
End at: 2018-03-15 10:01:41
Local clock offset: 0.823 ms
Remote clock offset: 30.317 ms

# Below is generated by plot.py at 2018-03-15 14:37:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.97 Mbit/s
95th percentile per-packet one-way delay: 191.565 ms
Loss rate: 89.92%
-- Flow 1:
Average throughput: 48.96 Mbit/s
95th percentile per-packet one-way delay: 191.567 ms
Loss rate: 89.93%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 172.836 ms
Loss rate: 62.30%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 153.918 ms
Loss rate: 68.42%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Start at: 2018-03-15 10:28:34
End at: 2018-03-15 10:29:04
Local clock offset: 1.372 ms
Remote clock offset: 38.573 ms

# Below is generated by plot.py at 2018-03-15 14:37:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.96 Mbit/s
95th percentile per-packet one-way delay: 205.380 ms
Loss rate: 82.76%
-- Flow 1:
Average throughput: 14.19 Mbit/s
95th percentile per-packet one-way delay: 121.426 ms
Loss rate: 70.34%
-- Flow 2:
Average throughput: 24.60 Mbit/s
95th percentile per-packet one-way delay: 211.664 ms
Loss rate: 86.89%
-- Flow 3:
Average throughput: 14.34 Mbit/s
95th percentile per-packet one-way delay: 238.148 ms
Loss rate: 85.40%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2018-03-15 10:56:46
End at: 2018-03-15 10:57:16
Local clock offset: 3.871 ms
Remote clock offset: 35.993 ms

# Below is generated by plot.py at 2018-03-15 14:37:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 31.13 Mbit/s
  95th percentile per-packet one-way delay: 160.861 ms
  Loss rate: 82.57%
-- Flow 1:
  Average throughput: 23.66 Mbit/s
  95th percentile per-packet one-way delay: 162.809 ms
  Loss rate: 83.57%
-- Flow 2:
  Average throughput: 11.11 Mbit/s
  95th percentile per-packet one-way delay: 151.948 ms
  Loss rate: 78.78%
-- Flow 3:
  Average throughput: 0.77 Mbit/s
  95th percentile per-packet one-way delay: 143.220 ms
  Loss rate: 39.32%
Run 3: Report of Verus — Data Link

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

- **Flow 1 ingress** (mean 144.16 Mbit/s)
- **Flow 1 egress** (mean 23.66 Mbit/s)
- **Flow 2 ingress** (mean 52.31 Mbit/s)
- **Flow 2 egress** (mean 11.11 Mbit/s)
- **Flow 3 ingress** (mean 0.98 Mbit/s)
- **Flow 3 egress** (mean 0.77 Mbit/s)

![Graph showing per-packet one-way delay over time for different flows.]

- **Flow 1** (95th percentile 162.91 ms)
- **Flow 2** (95th percentile 151.95 ms)
- **Flow 3** (95th percentile 143.22 ms)
Run 4: Statistics of Verus

Local clock offset: 9.358 ms
Remote clock offset: 46.06 ms

# Below is generated by plot.py at 2018-03-15 14:37:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.04 Mbit/s
95th percentile per-packet one-way delay: 59.407 ms
Loss rate: 88.94%
-- Flow 1:
Average throughput: 44.92 Mbit/s
95th percentile per-packet one-way delay: 59.556 ms
Loss rate: 89.16%
-- Flow 2:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 41.502 ms
Loss rate: 38.58%
-- Flow 3:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 38.628 ms
Loss rate: 41.91%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-03-15 11:47:37
End at: 2018-03-15 11:48:07
Local clock offset: 2.5 ms
Remote clock offset: 43.83 ms

# Below is generated by plot.py at 2018-03-15 14:37:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.39 Mbit/s
95th percentile per-packet one-way delay: 219.291 ms
Loss rate: 77.30%
-- Flow 1:
Average throughput: 16.74 Mbit/s
95th percentile per-packet one-way delay: 224.324 ms
Loss rate: 77.60%
-- Flow 2:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 199.963 ms
Loss rate: 78.85%
-- Flow 3:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 186.359 ms
Loss rate: 10.61%
Run 5: Report of Verus — Data Link

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**Throughput (Mbps)**

**Time (s)**

- **Flow 1 ingress** (mean 74.82 Mbps)
- **Flow 1 egress** (mean 16.74 Mbps)
- **Flow 2 ingress** (mean 35.45 Mbps)
- **Flow 2 egress** (mean 7.52 Mbps)
- **Flow 3 ingress** (mean 2.73 Mbps)
- **Flow 3 egress** (mean 2.44 Mbps)

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

**Time (s)**

- **Flow 1** (95th percentile 224.32 ms)
- **Flow 2** (95th percentile 199.96 ms)
- **Flow 3** (95th percentile 186.36 ms)

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Run 6: Statistics of Verus

End at: 2018-03-15 12:14:09
Local clock offset: 2.392 ms
Remote clock offset: 48.699 ms

# Below is generated by plot.py at 2018-03-15 14:37:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 25.42 Mbit/s
  95th percentile per-packet one-way delay: 150.188 ms
  Loss rate: 80.77%
-- Flow 1:
  Average throughput: 9.84 Mbit/s
  95th percentile per-packet one-way delay: 142.184 ms
  Loss rate: 59.07%
-- Flow 2:
  Average throughput: 23.39 Mbit/s
  95th percentile per-packet one-way delay: 151.676 ms
  Loss rate: 85.66%
-- Flow 3:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 130.027 ms
  Loss rate: 24.35%
Run 6: Report of Verus — Data Link

![Graph showing network throughput over time with legends for different flows and their ingress/egress mean bandwidths.

![Graph showing per-packet one-way delay over time with legends for different flows and their 95th percentile delays.](Image)
Run 7: Statistics of Verus

Start at: 2018-03-15 12:38:39
End at: 2018-03-15 12:39:09
Local clock offset: 4.574 ms
Remote clock offset: 50.856 ms

# Below is generated by plot.py at 2018-03-15 14:37:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.38 Mbit/s
95th percentile per-packet one-way delay: 91.520 ms
Loss rate: 83.64%
-- Flow 1:
Average throughput: 16.94 Mbit/s
95th percentile per-packet one-way delay: 94.437 ms
Loss rate: 78.15%
-- Flow 2:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 89.303 ms
Loss rate: 87.67%
-- Flow 3:
Average throughput: 9.77 Mbit/s
95th percentile per-packet one-way delay: 93.269 ms
Loss rate: 75.42%
Run 7: Report of Verus — Data Link
Run 8: Statistics of Verus

Start at: 2018-03-15 13:05:29
End at: 2018-03-15 13:05:59
Local clock offset: 5.733 ms
Remote clock offset: 46.172 ms

# Below is generated by plot.py at 2018-03-15 14:37:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.62 Mbit/s
95th percentile per-packet one-way delay: 71.051 ms
Loss rate: 80.95%
-- Flow 1:
Average throughput: 16.36 Mbit/s
95th percentile per-packet one-way delay: 79.537 ms
Loss rate: 80.33%
-- Flow 2:
Average throughput: 22.35 Mbit/s
95th percentile per-packet one-way delay: 64.238 ms
Loss rate: 80.94%
-- Flow 3:
Average throughput: 13.17 Mbit/s
95th percentile per-packet one-way delay: 60.375 ms
Loss rate: 83.15%
Run 8: Report of Verus — Data Link

![Graph showing network traffic and packet delay over time for three different flows.](image-url)
Run 9: Statistics of Verus

End at: 2018-03-15 13:30:58
Local clock offset: 3.313 ms
Remote clock offset: 44.77 ms

# Below is generated by plot.py at 2018-03-15 14:37:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.13 Mbit/s
95th percentile per-packet one-way delay: 66.872 ms
Loss rate: 79.16%
-- Flow 1:
Average throughput: 21.09 Mbit/s
95th percentile per-packet one-way delay: 42.392 ms
Loss rate: 66.36%
-- Flow 2:
Average throughput: 26.95 Mbit/s
95th percentile per-packet one-way delay: 78.681 ms
Loss rate: 83.97%
-- Flow 3:
Average throughput: 19.21 Mbit/s
95th percentile per-packet one-way delay: 71.593 ms
Loss rate: 85.23%
Run 9: Report of Verus — Data Link

![Graph showing data link performance over time]

- **Flow 1** ingress (mean 62.43 Mbit/s) and egress (mean 21.09 Mbit/s)
- **Flow 2** ingress (mean 168.56 Mbit/s) and egress (mean 26.95 Mbit/s)
- **Flow 3** ingress (mean 130.74 Mbit/s) and egress (mean 19.21 Mbit/s)

![Graph showing packet delay over time]

- **Flow 1** (95th percentile 42.39 ms), **Flow 2** (95th percentile 78.68 ms), **Flow 3** (95th percentile 71.59 ms)
Run 10: Statistics of Verus

End at: 2018-03-15 13:56:14
Local clock offset: 0.509 ms
Remote clock offset: 55.091 ms

# Below is generated by plot.py at 2018-03-15 14:37:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.00 Mbit/s
95th percentile per-packet one-way delay: 61.530 ms
Loss rate: 83.06%
-- Flow 1:
Average throughput: 25.65 Mbit/s
95th percentile per-packet one-way delay: 63.588 ms
Loss rate: 83.82%
-- Flow 2:
Average throughput: 23.33 Mbit/s
95th percentile per-packet one-way delay: 58.582 ms
Loss rate: 81.54%
-- Flow 3:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 51.429 ms
Loss rate: 27.00%
Run 10: Report of Verus — Data Link

![Graph 1: Throughput](image1)

- Flow 1 ingress (mean 158.59 Mbit/s)
- Flow 1 egress (mean 25.65 Mbit/s)
- Flow 2 ingress (mean 94.26 Mbit/s)
- Flow 2 egress (mean 23.33 Mbit/s)
- Flow 3 ingress (mean 1.85 Mbit/s)
- Flow 3 egress (mean 1.97 Mbit/s)

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

- Flow 1 (95th percentile 63.59 ms)
- Flow 2 (95th percentile 58.58 ms)
- Flow 3 (95th percentile 51.43 ms)
Run 1: Statistics of Copa

Start at: 2018-03-15 10:04:13
End at: 2018-03-15 10:04:43
Local clock offset: 0.442 ms
Remote clock offset: 36.054 ms

# Below is generated by plot.py at 2018-03-15 14:38:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 36.21 Mbit/s
  95th percentile per-packet one-way delay: 319.913 ms
  Loss rate: 86.99%
-- Flow 1:
  Average throughput: 8.82 Mbit/s
  95th percentile per-packet one-way delay: 145.287 ms
  Loss rate: 0.52%
-- Flow 2:
  Average throughput: 5.08 Mbit/s
  95th percentile per-packet one-way delay: 145.434 ms
  Loss rate: 2.38%
-- Flow 3:
  Average throughput: 72.54 Mbit/s
  95th percentile per-packet one-way delay: 321.123 ms
  Loss rate: 90.87%
Run 1: Report of Copa — Data Link

![Graph of data link performance]
Run 2: Statistics of Copa

Start at: 2018-03-15 10:31:20
End at: 2018-03-15 10:31:50
Local clock offset: 1.883 ms
Remote clock offset: 47.359 ms

# Below is generated by plot.py at 2018-03-15 14:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.20 Mbit/s
95th percentile per-packet one-way delay: 162.826 ms
Loss rate: 90.12%
-- Flow 1:
Average throughput: 63.02 Mbit/s
95th percentile per-packet one-way delay: 162.842 ms
Loss rate: 90.14%
-- Flow 2:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 48.625 ms
Loss rate: 46.91%
-- Flow 3:
Average throughput: 0.00 Mbit/s
Run 2: Report of Copa — Data Link

---

**Throughput (Mbps):**

- **Flow 1 Ingress (mean 641.37 Mbps):**
- **Flow 1 Egress (mean 63.02 Mbps):**
- **Flow 2 Ingress (mean 0.56 Mbps):**
- **Flow 2 Egress (mean 0.30 Mbps):**
- **Flow 3 Ingress (mean 0.00 Mbps):**
- **Flow 3 Egress (mean 0.00 Mbps):**

---

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

- **Flow 1 (95th percentile 162.84 ms):**
- **Flow 2 (95th percentile 48.62 ms):**
Run 3: Statistics of Copa

Start at: 2018-03-15 10:59:36
End at: 2018-03-15 11:00:06
Local clock offset: 5.115 ms
Remote clock offset: 29.352 ms

# Below is generated by plot.py at 2018-03-15 14:41:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 11.41 Mbit/s
  95th percentile per-packet one-way delay: 104.891 ms
  Loss rate: 0.92%
-- Flow 1:
  Average throughput: 6.13 Mbit/s
  95th percentile per-packet one-way delay: 105.826 ms
  Loss rate: 0.94%
-- Flow 2:
  Average throughput: 3.94 Mbit/s
  95th percentile per-packet one-way delay: 104.795 ms
  Loss rate: 0.96%
-- Flow 3:
  Average throughput: 8.00 Mbit/s
  95th percentile per-packet one-way delay: 101.935 ms
  Loss rate: 0.83%
Run 3: Report of Copa — Data Link

![Graph of Throughput and Delay](image)

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 6.19 Mbps)
  - Flow 1 egress (mean 6.13 Mbps)
  - Flow 2 ingress (mean 3.98 Mbps)
  - Flow 2 egress (mean 3.94 Mbps)
  - Flow 3 ingress (mean 8.06 Mbps)
  - Flow 3 egress (mean 8.00 Mbps)

- **Delay (ms):**
  - Flow 1 (95th percentile 105.83 ms)
  - Flow 2 (95th percentile 104.80 ms)
  - Flow 3 (95th percentile 101.94 ms)
Run 4: Statistics of Copa

Start at: 2018-03-15 11:24:34
End at: 2018-03-15 11:25:04
Local clock offset: 9.61 ms
Remote clock offset: 40.12 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.07 Mbit/s
95th percentile per-packet one-way delay: 144.087 ms
Loss rate: 88.43%
-- Flow 1:
Average throughput: 87.07 Mbit/s
95th percentile per-packet one-way delay: 144.087 ms
Loss rate: 88.43%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
Run 4: Report of Copa — Data Link

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

- Flow 1 Ingress (mean 755.16 Mbps)
- Flow 1 Egress (mean 87.07 Mbps)
- Flow 2 Ingress (mean 0.00 Mbps)
- Flow 2 Egress (mean 0.00 Mbps)
- Flow 3 Ingress (mean 0.00 Mbps)
- Flow 3 Egress (mean 0.00 Mbps)

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

- Flow 1 (95th percentile 144.09 ms)
Run 5: Statistics of Copa

Start at: 2018-03-15 11:50:38
End at: 2018-03-15 11:51:08
Local clock offset: 1.846 ms
Remote clock offset: 13.634 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 115.005 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 3.72 Mbit/s
95th percentile per-packet one-way delay: 124.390 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 89.717 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 92.309 ms
Loss rate: 0.87%
Run 5: Report of Copa — Data Link

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

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

[Legend for Graphs 1 and 2]

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Run 6: Statistics of Copa

Start at: 2018-03-15 12:16:39
End at: 2018-03-15 12:17:09
Local clock offset: 3.324 ms
Remote clock offset: 44.233 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.79 Mbit/s
  95th percentile per-packet one-way delay: 118.259 ms
  Loss rate: 0.89%
-- Flow 1:
  Average throughput: 6.07 Mbit/s
  95th percentile per-packet one-way delay: 117.062 ms
  Loss rate: 0.93%
-- Flow 2:
  Average throughput: 3.85 Mbit/s
  95th percentile per-packet one-way delay: 118.024 ms
  Loss rate: 0.94%
-- Flow 3:
  Average throughput: 6.50 Mbit/s
  95th percentile per-packet one-way delay: 118.795 ms
  Loss rate: 0.71%
Run 6: Report of Copa — Data Link

![Graph of throughput and packet delay]

- **Throughput**:
  - Flow 1 ingress (mean 6.12 Mbit/s)
  - Flow 1 egress (mean 6.07 Mbit/s)
  - Flow 2 ingress (mean 3.89 Mbit/s)
  - Flow 2 egress (mean 3.85 Mbit/s)
  - Flow 3 ingress (mean 6.35 Mbit/s)
  - Flow 3 egress (mean 6.30 Mbit/s)

- **Packet delay (ms)**:
  - Flow 1 (95th percentile 117.06 ms)
  - Flow 2 (95th percentile 118.02 ms)
  - Flow 3 (95th percentile 118.80 ms)
Run 7: Statistics of Copa

Start at: 2018-03-15 12:42:06
End at: 2018-03-15 12:42:36
Local clock offset: 4.868 ms
Remote clock offset: 21.502 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 204.869 ms
Loss rate: 34.94%
-- Flow 1:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 204.892 ms
Loss rate: 35.99%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 203.820 ms
Loss rate: 50.00%
-- Flow 3:
Average throughput: 8.38 Mbit/s
95th percentile per-packet one-way delay: 204.808 ms
Loss rate: 33.52%
Run 8: Statistics of Copa

Start at: 2018-03-15 13:08:16
End at: 2018-03-15 13:08:46
Local clock offset: 5.009 ms
Remote clock offset: 47.339 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.69 Mbit/s
95th percentile per-packet one-way delay: 192.918 ms
Loss rate: 88.93%
-- Flow 1:
Average throughput: 77.48 Mbit/s
95th percentile per-packet one-way delay: 193.127 ms
Loss rate: 89.08%
-- Flow 2:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 40.450 ms
Loss rate: 28.93%
-- Flow 3:
Average throughput: 0.00 Mbit/s
Run 8: Report of Copa — Data Link
Run 9: Statistics of Copa

Start at: 2018-03-15 13:33:10
End at: 2018-03-15 13:33:40
Local clock offset: 0.116 ms
Remote clock offset: 48.492 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 77.72 Mbit/s
  95th percentile per-packet one-way delay: 159.123 ms
  Loss rate: 78.39%
-- Flow 1:
  Average throughput: 55.62 Mbit/s
  95th percentile per-packet one-way delay: 159.630 ms
  Loss rate: 76.24%
-- Flow 2:
  Average throughput: 29.23 Mbit/s
  95th percentile per-packet one-way delay: 156.277 ms
  Loss rate: 84.10%
-- Flow 3:
  Average throughput: 15.26 Mbit/s
  95th percentile per-packet one-way delay: 50.436 ms
  Loss rate: 8.94%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa

Local clock offset: 3.547 ms
Remote clock offset: 51.951 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 35.87 Mbit/s
  95th percentile per-packet one-way delay: 42.566 ms
  Loss rate: 0.97%
  -- Flow 1:
    Average throughput: 24.45 Mbit/s
    95th percentile per-packet one-way delay: 42.309 ms
    Loss rate: 0.90%
  -- Flow 2:
    Average throughput: 13.23 Mbit/s
    95th percentile per-packet one-way delay: 43.011 ms
    Loss rate: 1.09%
  -- Flow 3:
    Average throughput: 7.85 Mbit/s
    95th percentile per-packet one-way delay: 44.000 ms
    Loss rate: 1.32%
Run 10: Report of Copa — Data Link

![Throughput Graph](image)

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

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Run 1: Statistics of FillP

Start at: 2018-03-15 09:55:33
End at: 2018-03-15 09:56:03
Local clock offset: 1.464 ms
Remote clock offset: 37.109 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.76 Mbit/s
95th percentile per-packet one-way delay: 162.993 ms
Loss rate: 35.76%
-- Flow 1:
Average throughput: 33.10 Mbit/s
95th percentile per-packet one-way delay: 157.752 ms
Loss rate: 33.90%
-- Flow 2:
Average throughput: 48.38 Mbit/s
95th percentile per-packet one-way delay: 162.411 ms
Loss rate: 33.05%
-- Flow 3:
Average throughput: 70.72 Mbit/s
95th percentile per-packet one-way delay: 163.906 ms
Loss rate: 41.35%
Run 1: Report of FillP — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 50.12 Mbit/s) — Flow 1 egress (mean 35.10 Mbit/s)
Flow 2 ingress (mean 72.32 Mbit/s) — Flow 2 egress (mean 48.38 Mbit/s)
Flow 3 ingress (mean 120.69 Mbit/s) — Flow 3 egress (mean 70.72 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 157.75 ms) — Flow 2 (95th percentile 162.41 ms) — Flow 3 (95th percentile 163.91 ms)
Run 2: Statistics of FillP

Start at: 2018-03-15 10:23:12
End at: 2018-03-15 10:23:42
Local clock offset: -0.928 ms
Remote clock offset: 14.393 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.48 Mbit/s
95th percentile per-packet one-way delay: 126.991 ms
Loss rate: 37.97%
-- Flow 1:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 125.713 ms
Loss rate: 36.16%
-- Flow 2:
Average throughput: 46.64 Mbit/s
95th percentile per-packet one-way delay: 123.105 ms
Loss rate: 37.58%
-- Flow 3:
Average throughput: 74.75 Mbit/s
95th percentile per-packet one-way delay: 129.810 ms
Loss rate: 40.58%
Run 2: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 49.74 Mbps)
- Flow 1 egress (mean 31.75 Mbps)
- Flow 2 ingress (mean 74.69 Mbps)
- Flow 2 egress (mean 46.64 Mbps)
- Flow 3 ingress (mean 125.03 Mbps)
- Flow 3 egress (mean 74.75 Mbps)

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

- Flow 1 (95th percentile 125.71 ms)
- Flow 2 (95th percentile 123.11 ms)
- Flow 3 (95th percentile 129.81 ms)
Run 3: Statistics of FillP

Start at: 2018-03-15 10:51:16
End at: 2018-03-15 10:51:46
Local clock offset: 3.318 ms
Remote clock offset: 51.095 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.43 Mbit/s
95th percentile per-packet one-way delay: 167.980 ms
Loss rate: 40.20%
-- Flow 1:
Average throughput: 31.39 Mbit/s
95th percentile per-packet one-way delay: 167.892 ms
Loss rate: 38.33%
-- Flow 2:
Average throughput: 43.21 Mbit/s
95th percentile per-packet one-way delay: 167.928 ms
Loss rate: 44.03%
-- Flow 3:
Average throughput: 79.32 Mbit/s
95th percentile per-packet one-way delay: 168.149 ms
Loss rate: 37.80%
Run 3: Report of FillP — Data Link

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

- Flow 1 ingress (mean 50.91 Mbit/s)
- Flow 1 egress (mean 31.39 Mbit/s)
- Flow 2 ingress (mean 77.22 Mbit/s)
- Flow 2 egress (mean 45.21 Mbit/s)
- Flow 3 ingress (mean 127.62 Mbit/s)
- Flow 3 egress (mean 70.32 Mbit/s)

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

- Flow 1 (95th percentile 167.99 ms)
- Flow 2 (95th percentile 167.93 ms)
- Flow 3 (95th percentile 168.15 ms)
Run 4: Statistics of FillP

Start at: 2018-03-15 11:16:27
End at: 2018-03-15 11:16:57
Local clock offset: 8.568 ms
Remote clock offset: 37.13 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.03 Mbit/s
95th percentile per-packet one-way delay: 44.072 ms
Loss rate: 33.21%
-- Flow 1:
Average throughput: 45.63 Mbit/s
95th percentile per-packet one-way delay: 44.096 ms
Loss rate: 24.79%
-- Flow 2:
Average throughput: 46.62 Mbit/s
95th percentile per-packet one-way delay: 44.091 ms
Loss rate: 34.83%
-- Flow 3:
Average throughput: 41.04 Mbit/s
95th percentile per-packet one-way delay: 43.938 ms
Loss rate: 49.35%
Run 4: Report of FillP — Data Link

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

![Graph 2: Per-packet one way delay (ms)](Image)
Run 5: Statistics of FillP

Start at: 2018-03-15 11:41:44
End at: 2018-03-15 11:42:14
Local clock offset: 3.678 ms
Remote clock offset: 56.019 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.68 Mbit/s
95th percentile per-packet one-way delay: 169.008 ms
Loss rate: 33.71%
-- Flow 1:
Average throughput: 31.62 Mbit/s
95th percentile per-packet one-way delay: 119.597 ms
Loss rate: 33.12%
-- Flow 2:
Average throughput: 48.19 Mbit/s
95th percentile per-packet one-way delay: 146.327 ms
Loss rate: 32.40%
-- Flow 3:
Average throughput: 78.10 Mbit/s
95th percentile per-packet one-way delay: 174.415 ms
Loss rate: 35.95%
Run 5: Report of FillP — Data Link
Run 6: Statistics of FillP

Start at: 2018-03-15 12:07:46
End at: 2018-03-15 12:08:16
Local clock offset: -1.147 ms
Remote clock offset: 47.064 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.26 Mbit/s
95th percentile per-packet one-way delay: 107.473 ms
Loss rate: 37.19%
-- Flow 1:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 111.710 ms
Loss rate: 33.81%
-- Flow 2:
Average throughput: 45.35 Mbit/s
95th percentile per-packet one-way delay: 98.532 ms
Loss rate: 38.87%
-- Flow 3:
Average throughput: 81.21 Mbit/s
95th percentile per-packet one-way delay: 102.306 ms
Loss rate: 38.97%
Run 6: Report of FillP — Data Link

**Throughput (Mbit/s)**

- Flow 1 ingress (mean 47.42 Mbit/s)
- Flow 1 egress (mean 31.38 Mbit/s)
- Flow 2 ingress (mean 73.60 Mbit/s)
- Flow 2 egress (mean 45.35 Mbit/s)
- Flow 3 ingress (mean 133.34 Mbit/s)
- Flow 3 egress (mean 81.21 Mbit/s)

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

- Flow 1 (95th percentile 111.71 ms)
- Flow 2 (95th percentile 98.53 ms)
- Flow 3 (95th percentile 102.31 ms)
Run 7: Statistics of FillP

Start at: 2018-03-15 12:33:26
End at: 2018-03-15 12:33:56
Local clock offset: 4.493 ms
Remote clock offset: 49.929 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.12 Mbit/s
95th percentile per-packet one-way delay: 94.012 ms
Loss rate: 37.24%
-- Flow 1:
Average throughput: 37.33 Mbit/s
95th percentile per-packet one-way delay: 92.885 ms
Loss rate: 32.58%
-- Flow 2:
Average throughput: 46.11 Mbit/s
95th percentile per-packet one-way delay: 92.615 ms
Loss rate: 38.07%
-- Flow 3:
Average throughput: 66.78 Mbit/s
95th percentile per-packet one-way delay: 98.350 ms
Loss rate: 42.83%
Run 7: Report of FillP — Data Link

![Image of throughput and delay graphs with labels for different flows.

- Flow 1 (ingress: 55.42 Mbit/s, egress: 37.33 Mbit/s)
- Flow 2 (ingress: 74.49 Mbit/s, egress: 46.11 Mbit/s)
- Flow 3 (ingress: 116.87 Mbit/s, egress: 66.78 Mbit/s)

- Flow 1 (95th percentile delay: 92.89 ms)
- Flow 2 (95th percentile delay: 92.61 ms)
- Flow 3 (95th percentile delay: 98.35 ms)
Run 8: Statistics of FillP

Start at: 2018-03-15 13:00:18
End at: 2018-03-15 13:00:48
Local clock offset: 5.457 ms
Remote clock offset: 51.565 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 91.00 Mbit/s
  95th percentile per-packet one-way delay: 55.524 ms
  Loss rate: 29.86%
-- Flow 1:
  Average throughput: 34.26 Mbit/s
  95th percentile per-packet one-way delay: 52.617 ms
  Loss rate: 30.59%
-- Flow 2:
  Average throughput: 49.60 Mbit/s
  95th percentile per-packet one-way delay: 55.412 ms
  Loss rate: 28.75%
-- Flow 3:
  Average throughput: 71.61 Mbit/s
  95th percentile per-packet one-way delay: 56.820 ms
  Loss rate: 30.32%
Run 8: Report of FillP — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 9: Statistics of FillP

Local clock offset: 3.335 ms
Remote clock offset: 49.167 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.85 Mbit/s
95th percentile per-packet one-way delay: 52.233 ms
Loss rate: 31.08%
-- Flow 1:
Average throughput: 33.66 Mbit/s
95th percentile per-packet one-way delay: 51.860 ms
Loss rate: 26.67%
-- Flow 2:
Average throughput: 47.99 Mbit/s
95th percentile per-packet one-way delay: 56.134 ms
Loss rate: 30.71%
-- Flow 3:
Average throughput: 76.29 Mbit/s
95th percentile per-packet one-way delay: 52.181 ms
Loss rate: 36.58%
Run 9: Report of FillP — Data Link
Run 10: Statistics of FillP

End at: 2018-03-15 13:51:06  
Local clock offset: 2.86 ms  
Remote clock offset: 48.257 ms

# Below is generated by plot.py at 2018-03-15 14:44:08  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 89.10 Mbit/s  
  95th percentile per-packet one-way delay: 47.468 ms  
  Loss rate: 30.86%  
-- Flow 1:  
  Average throughput: 32.42 Mbit/s  
  95th percentile per-packet one-way delay: 47.112 ms  
  Loss rate: 30.70%  
-- Flow 2:  
  Average throughput: 49.53 Mbit/s  
  95th percentile per-packet one-way delay: 47.434 ms  
  Loss rate: 30.70%  
-- Flow 3:  
  Average throughput: 71.49 Mbit/s  
  95th percentile per-packet one-way delay: 47.646 ms  
  Loss rate: 31.31%
Run 10: Report of FillIP — Data Link
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-15 10:02:46
End at: 2018-03-15 10:03:16
Local clock offset: 0.607 ms
Remote clock offset: 28.169 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.81 Mbit/s
95th percentile per-packet one-way delay: 154.677 ms
Loss rate: 50.47%
-- Flow 1:
Average throughput: 25.57 Mbit/s
95th percentile per-packet one-way delay: 148.999 ms
Loss rate: 39.03%
-- Flow 2:
Average throughput: 53.49 Mbit/s
95th percentile per-packet one-way delay: 155.059 ms
Loss rate: 52.62%
-- Flow 3:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 154.594 ms
Loss rate: 62.20%
Run 1: Report of Indigo-1-32 — Data Link

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

- Throughput (Mbps):
  - Flow 1 ingress (mean 41.96 Mbps)
  - Flow 1 egress (mean 25.57 Mbps)
  - Flow 2 ingress (mean 112.89 Mbps)
  - Flow 2 egress (mean 53.49 Mbps)
  - Flow 3 ingress (mean 84.30 Mbps)
  - Flow 3 egress (mean 31.87 Mbps)

- Per-packet one-way delay (ms):
  - Flow 1 (95th percentile 149.00 ms)
  - Flow 2 (95th percentile 155.06 ms)
  - Flow 3 (95th percentile 154.59 ms)
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-15 10:29:56
End at: 2018-03-15 10:30:26
Local clock offset: 1.444 ms
Remote clock offset: 69.403 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.06 Mbit/s
95th percentile per-packet one-way delay: 141.432 ms
Loss rate: 49.14%
-- Flow 1:
Average throughput: 63.26 Mbit/s
95th percentile per-packet one-way delay: 139.708 ms
Loss rate: 48.59%
-- Flow 2:
Average throughput: 15.83 Mbit/s
95th percentile per-packet one-way delay: 142.393 ms
Loss rate: 50.84%
-- Flow 3:
Average throughput: 31.15 Mbit/s
95th percentile per-packet one-way delay: 143.819 ms
Loss rate: 50.78%
Run 2: Report of Indigo-1-32 — Data Link

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[Graphs showing throughput and per-packet one-way delay over time for different flows.]
Run 3: Statistics of Indigo-1-32

Start at: 2018-03-15 10:58:10
End at: 2018-03-15 10:58:40
Local clock offset: 3.888 ms
Remote clock offset: 43.105 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.83 Mbit/s
95th percentile per-packet one-way delay: 159.252 ms
Loss rate: 54.11%
-- Flow 1:
Average throughput: 57.74 Mbit/s
95th percentile per-packet one-way delay: 157.385 ms
Loss rate: 46.89%
-- Flow 2:
Average throughput: 27.20 Mbit/s
95th percentile per-packet one-way delay: 158.998 ms
Loss rate: 58.76%
-- Flow 3:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 162.458 ms
Loss rate: 70.80%
Run 3: Report of Indigo-1-32 — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 108.79 Mbps)
  - Flow 1 egress (mean 57.74 Mbps)
  - Flow 2 ingress (mean 66.02 Mbps)
  - Flow 2 egress (mean 27.20 Mbps)
  - Flow 3 ingress (mean 108.06 Mbps)
  - Flow 3 egress (mean 31.71 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 157.38 ms)
  - Flow 2 (95th percentile 159.00 ms)
  - Flow 3 (95th percentile 162.46 ms)
Run 4: Statistics of Indigo-1-32

End at: 2018-03-15 11:23:44
Local clock offset: 9.564 ms
Remote clock offset: 48.269 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.86 Mbit/s
95th percentile per-packet one-way delay: 49.890 ms
Loss rate: 52.93%
-- Flow 1:
Average throughput: 58.47 Mbit/s
95th percentile per-packet one-way delay: 49.684 ms
Loss rate: 44.13%
-- Flow 2:
Average throughput: 31.48 Mbit/s
95th percentile per-packet one-way delay: 50.005 ms
Loss rate: 53.29%
-- Flow 3:
Average throughput: 37.85 Mbit/s
95th percentile per-packet one-way delay: 50.255 ms
Loss rate: 73.34%
Run 4: Report of Indigo-1-32 — Data Link

**Throughput Graph**
- Flow 1 ingress (mean 104.67 Mbit/s)
- Flow 1 egress (mean 58.47 Mbit/s)
- Flow 2 ingress (mean 67.42 Mbit/s)
- Flow 2 egress (mean 31.48 Mbit/s)
- Flow 3 ingress (mean 141.98 Mbit/s)
- Flow 3 egress (mean 37.85 Mbit/s)

**Per-packet one way delay Graph**
- Flow 1 (95th percentile 49.68 ms)
- Flow 2 (95th percentile 50.01 ms)
- Flow 3 (95th percentile 50.26 ms)

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Run 5: Statistics of Indigo-1-32

Start at: 2018-03-15 11:49:10
End at: 2018-03-15 11:49:40
Local clock offset: 1.461 ms
Remote clock offset: 20.763 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.23 Mbit/s
95th percentile per-packet one-way delay: 197.489 ms
Loss rate: 23.84%
-- Flow 1:
Average throughput: 20.42 Mbit/s
95th percentile per-packet one-way delay: 191.518 ms
Loss rate: 29.05%
-- Flow 2:
Average throughput: 21.68 Mbit/s
95th percentile per-packet one-way delay: 196.765 ms
Loss rate: 12.12%
-- Flow 3:
Average throughput: 32.59 Mbit/s
95th percentile per-packet one-way delay: 207.846 ms
Loss rate: 26.73%
Run 6: Statistics of Indigo-1-32

Start at: 2018-03-15 12:15:07
End at: 2018-03-15 12:15:37
Local clock offset: 2.865 ms
Remote clock offset: 42.687 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.28 Mbit/s
95th percentile per-packet one-way delay: 136.974 ms
Loss rate: 42.43%
-- Flow 1:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 130.605 ms
Loss rate: 15.58%
-- Flow 2:
Average throughput: 48.72 Mbit/s
95th percentile per-packet one-way delay: 134.541 ms
Loss rate: 34.73%
-- Flow 3:
Average throughput: 53.83 Mbit/s
95th percentile per-packet one-way delay: 140.453 ms
Loss rate: 54.81%
Run 6: Report of Indigo-1-32 — Data Link
Run 7: Statistics of Indigo-1-32

Start at: 2018-03-15 12:40:01
End at: 2018-03-15 12:40:31
Local clock offset: 4.517 ms
Remote clock offset: 52.871 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.84 Mbit/s
95th percentile per-packet one-way delay: 250.154 ms
Loss rate: 55.42%
-- Flow 1:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 244.007 ms
Loss rate: 30.52%
-- Flow 2:
Average throughput: 42.04 Mbit/s
95th percentile per-packet one-way delay: 250.688 ms
Loss rate: 57.02%
-- Flow 3:
Average throughput: 12.35 Mbit/s
95th percentile per-packet one-way delay: 251.466 ms
Loss rate: 60.71%
Run 7: Report of Indigo-1-32 — Data Link
Run 8: Statistics of Indigo-1-32

Start at: 2018-03-15 13:06:54
End at: 2018-03-15 13:07:24
Local clock offset: 5.613 ms
Remote clock offset: 50.268 ms

# Below is generated by plot.py at 2018-03-15 14:44:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.46 Mbit/s
  95th percentile per-packet one-way delay: 52.362 ms
  Loss rate: 42.30%
-- Flow 1:
  Average throughput: 55.92 Mbit/s
  95th percentile per-packet one-way delay: 51.931 ms
  Loss rate: 34.76%
-- Flow 2:
  Average throughput: 28.24 Mbit/s
  95th percentile per-packet one-way delay: 52.659 ms
  Loss rate: 47.19%
-- Flow 3:
  Average throughput: 39.95 Mbit/s
  95th percentile per-packet one-way delay: 52.739 ms
  Loss rate: 57.81%
Run 8: Report of Indigo-1-32 — Data Link
Run 9: Statistics of Indigo-1-32

End at: 2018-03-15 13:32:18
Local clock offset: 3.011 ms
Remote clock offset: 44.76 ms

# Below is generated by plot.py at 2018-03-15 14:44:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.86 Mbit/s
95th percentile per-packet one-way delay: 46.445 ms
Loss rate: 49.48%
-- Flow 1:
Average throughput: 51.60 Mbit/s
95th percentile per-packet one-way delay: 45.785 ms
Loss rate: 37.29%
-- Flow 2:
Average throughput: 35.48 Mbit/s
95th percentile per-packet one-way delay: 46.679 ms
Loss rate: 51.75%
-- Flow 3:
Average throughput: 44.81 Mbit/s
95th percentile per-packet one-way delay: 47.198 ms
Loss rate: 69.25%
Run 9: Report of Indigo-1-32 — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 82.29 Mbit/s)  Flow 1 egress (mean 51.60 Mbit/s)
Flow 2 ingress (mean 73.53 Mbit/s)  Flow 2 egress (mean 35.48 Mbit/s)
Flow 3 ingress (mean 145.70 Mbit/s)  Flow 3 egress (mean 44.81 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 45.78 ms)  Flow 2 (95th percentile 46.68 ms)  Flow 3 (95th percentile 47.20 ms)
Run 10: Statistics of Indigo-1-32

Start at: 2018-03-15 13:57:03
End at: 2018-03-15 13:57:33
Local clock offset: 3.537 ms
Remote clock offset: 54.941 ms

# Below is generated by plot.py at 2018-03-15 14:44:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.52 Mbit/s
  95th percentile per-packet one-way delay: 54.767 ms
  Loss rate: 55.57%
-- Flow 1:
  Average throughput: 45.97 Mbit/s
  95th percentile per-packet one-way delay: 54.654 ms
  Loss rate: 41.52%
-- Flow 2:
  Average throughput: 42.29 Mbit/s
  95th percentile per-packet one-way delay: 55.154 ms
  Loss rate: 61.00%
-- Flow 3:
  Average throughput: 46.11 Mbit/s
  95th percentile per-packet one-way delay: 54.516 ms
  Loss rate: 71.59%
Run 10: Report of Indigo-1-32 — Data Link

![Graphs showing throughput and per packet one-way delay for different flows.](image)

- Flow 1 ingress (mean 78.61 Mbit/s)
- Flow 1 egress (mean 45.97 Mbit/s)
- Flow 2 ingress (mean 108.45 Mbit/s)
- Flow 2 egress (mean 42.29 Mbit/s)
- Flow 3 ingress (mean 162.09 Mbit/s)
- Flow 3 egress (mean 46.11 Mbit/s)

![Graphs showing throughput and per packet one-way delay for different flows.](image)
Run 1: Statistics of Vivace-latency

Start at: 2018-03-15 09:58:28
End at: 2018-03-15 09:58:58
Local clock offset: 0.993 ms
Remote clock offset: 26.705 ms

# Below is generated by plot.py at 2018-03-15 14:44:37
#
Datalink statistics
-- Total of 3 flows:
Average throughput: 37.90 Mbit/s
95th percentile per-packet one-way delay: 137.196 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 9.37 Mbit/s
95th percentile per-packet one-way delay: 137.197 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 137.150 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 3.98 Mbit/s
95th percentile per-packet one-way delay: 137.801 ms
Loss rate: 0.35%
Run 1: Report of Vivace-latency — Data Link
Run 2: Statistics of Vivace-latency

Start at: 2018-03-15 10:26:01
End at: 2018-03-15 10:26:31
Local clock offset: 0.414 ms
Remote clock offset: 15.538 ms

# Below is generated by plot.py at 2018-03-15 14:44:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 50.97 Mbit/s
  95th percentile per-packet one-way delay: 23.323 ms
  Loss rate: 0.88%
-- Flow 1:
  Average throughput: 15.76 Mbit/s
  95th percentile per-packet one-way delay: 23.013 ms
  Loss rate: 0.83%
-- Flow 2:
  Average throughput: 49.25 Mbit/s
  95th percentile per-packet one-way delay: 23.390 ms
  Loss rate: 0.95%
-- Flow 3:
  Average throughput: 7.45 Mbit/s
  95th percentile per-packet one-way delay: 23.888 ms
  Loss rate: 0.42%
Run 2: Report of Vivace-latency — Data Link
Run 3: Statistics of Vivace-latency

Start at: 2018-03-15 10:54:06
End at: 2018-03-15 10:54:36
Local clock offset: 3.701 ms
Remote clock offset: 22.928 ms

# Below is generated by plot.py at 2018-03-15 14:44:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 19.11 Mbit/s
  95th percentile per-packet one-way delay: 139.833 ms
  Loss rate: 1.06%
-- Flow 1:
  Average throughput: 6.08 Mbit/s
  95th percentile per-packet one-way delay: 140.936 ms
  Loss rate: 1.14%
-- Flow 2:
  Average throughput: 15.06 Mbit/s
  95th percentile per-packet one-way delay: 138.983 ms
  Loss rate: 1.06%
-- Flow 3:
  Average throughput: 9.16 Mbit/s
  95th percentile per-packet one-way delay: 134.249 ms
  Loss rate: 0.88%
Run 3: Report of Vivace-latency — Data Link
Run 4: Statistics of Vivace-latency

Start at: 2018-03-15 11:19:14
End at: 2018-03-15 11:19:44
Local clock offset: 9.187 ms
Remote clock offset: 48.35 ms

# Below is generated by plot.py at 2018-03-15 14:44:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.95 Mbit/s
95th percentile per-packet one-way delay: 36.703 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 14.49 Mbit/s
95th percentile per-packet one-way delay: 36.720 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 16.62 Mbit/s
95th percentile per-packet one-way delay: 36.702 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 36.376 ms
Loss rate: 1.74%
Run 4: Report of Vivace-latency — Data Link
Run 5: Statistics of Vivace-latency

Start at: 2018-03-15 11:44:45
End at: 2018-03-15 11:45:15
Local clock offset: 3.178 ms
Remote clock offset: 14.895 ms

# Below is generated by plot.py at 2018-03-15 14:44:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.14 Mbit/s
95th percentile per-packet one-way delay: 199.699 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 196.817 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 43.89 Mbit/s
95th percentile per-packet one-way delay: 199.932 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 199.488 ms
Loss rate: 1.60%
Run 5: Report of Vivace-latency — Data Link

![Graphs showing throughput and per-packet one-way delay over time for different flows.]

- **Flow 1 ingress** (mean 8.01 Mbit/s)
- **Flow 1 egress** (mean 7.87 Mbit/s)
- **Flow 2 ingress** (mean 64.77 Mbit/s)
- **Flow 2 egress** (mean 43.89 Mbit/s)
- **Flow 3 ingress** (mean 3.36 Mbit/s)
- **Flow 3 egress** (mean 3.32 Mbit/s)
Run 6: Statistics of Vivace-latency

Start at: 2018-03-15 12:10:53
End at: 2018-03-15 12:11:23
Local clock offset: 2.404 ms
Remote clock offset: 49.139 ms

# Below is generated by plot.py at 2018-03-15 14:44:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.84 Mbit/s
95th percentile per-packet one-way delay: 123.304 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 34.29 Mbit/s
95th percentile per-packet one-way delay: 120.855 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 125.119 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 126.753 ms
Loss rate: 0.55%
Run 6: Report of Vivace-latency — Data Link

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

- **Flow 1 Ingress**: Mean 34.52 Mbit/s
- **Flow 1 Egress**: Mean 34.29 Mbit/s
- **Flow 2 Ingress**: Mean 8.63 Mbit/s
- **Flow 2 Egress**: Mean 8.58 Mbit/s
- **Flow 3 Ingress**: Mean 5.59 Mbit/s
- **Flow 3 Egress**: Mean 5.37 Mbit/s

![Graph showing per-packet one-way delay over time for different flows.]

- **Flow 1 (95th percentile)**: 120.86 ms
- **Flow 2 (95th percentile)**: 125.12 ms
- **Flow 3 (95th percentile)**: 126.75 ms
Run 7: Statistics of Vivace-latency

Start at: 2018-03-15 12:36:08
End at: 2018-03-15 12:36:39
Local clock offset: 4.234 ms
Remote clock offset: 46.911 ms

# Below is generated by plot.py at 2018-03-15 14:44:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.45 Mbit/s
95th percentile per-packet one-way delay: 86.232 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 13.50 Mbit/s
95th percentile per-packet one-way delay: 86.395 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 7.47 Mbit/s
95th percentile per-packet one-way delay: 85.204 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 89.539 ms
Loss rate: 1.47%
Run 7: Report of Vivace-latency — Data Link

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

- **Flow 1**: Ingress (mean 13.68 Mbit/s), Egress (mean 13.50 Mbit/s)
- **Flow 2**: Ingress (mean 7.57 Mbit/s), Egress (mean 7.47 Mbit/s)
- **Flow 3**: Ingress (mean 3.07 Mbit/s), Egress (mean 3.10 Mbit/s)
Run 8: Statistics of Vivace-latency

Start at: 2018-03-15 13:02:57
End at: 2018-03-15 13:03:27
Local clock offset: 5.301 ms
Remote clock offset: 54.48 ms

# Below is generated by plot.py at 2018-03-15 14:45:02
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 54.35 Mbit/s
   95th percentile per-packet one-way delay: 58.753 ms
   Loss rate: 1.80%
-- Flow 1:
   Average throughput: 17.25 Mbit/s
   95th percentile per-packet one-way delay: 59.048 ms
   Loss rate: 1.59%
-- Flow 2:
   Average throughput: 52.52 Mbit/s
   95th percentile per-packet one-way delay: 58.595 ms
   Loss rate: 1.86%
-- Flow 3:
   Average throughput: 6.57 Mbit/s
   95th percentile per-packet one-way delay: 59.971 ms
   Loss rate: 2.54%
Run 8: Report of Vivace-latency — Data Link

![Graphs showing throughput and per-packet one-way delay for different flows.](image)
Run 9: Statistics of Vivace-latency

Local clock offset: 3.302 ms
Remote clock offset: 50.717 ms

# Below is generated by plot.py at 2018-03-15 14:45:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 55.84 Mbit/s
  95th percentile per-packet one-way delay: 51.133 ms
  Loss rate: 2.03%
-- Flow 1:
  Average throughput: 13.12 Mbit/s
  95th percentile per-packet one-way delay: 47.962 ms
  Loss rate: 2.08%
-- Flow 2:
  Average throughput: 60.98 Mbit/s
  95th percentile per-packet one-way delay: 51.406 ms
  Loss rate: 1.98%
-- Flow 3:
  Average throughput: 6.60 Mbit/s
  95th percentile per-packet one-way delay: 53.420 ms
  Loss rate: 2.60%
Run 9: Report of Vivace-latency — Data Link
Run 10: Statistics of Vivace-latency

Local clock offset: 0.563 ms
Remote clock offset: 50.698 ms

# Below is generated by plot.py at 2018-03-15 14:45:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 60.12 Mbit/s
  95th percentile per-packet one-way delay: 55.857 ms
  Loss rate: 3.61%
-- Flow 1:
  Average throughput: 39.72 Mbit/s
  95th percentile per-packet one-way delay: 56.102 ms
  Loss rate: 3.51%
-- Flow 2:
  Average throughput: 24.18 Mbit/s
  95th percentile per-packet one-way delay: 55.713 ms
  Loss rate: 4.40%
-- Flow 3:
  Average throughput: 13.11 Mbit/s
  95th percentile per-packet one-way delay: 52.702 ms
  Loss rate: 1.48%
Run 10: Report of Vivace-latency — Data Link

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

Legend:
- **Flow 1 ingress (mean 41.17 Mbit/s)**
- **Flow 1 egress (mean 39.72 Mbit/s)**
- **Flow 2 ingress (mean 25.30 Mbit/s)**
- **Flow 2 egress (mean 24.18 Mbit/s)**
- **Flow 3 ingress (mean 13.29 Mbit/s)**
- **Flow 3 egress (mean 13.11 Mbit/s)**
Run 1: Statistics of Vivace-loss

Start at: 2018-03-15 10:09:35
End at: 2018-03-15 10:10:05
Local clock offset: ~0.275 ms
Remote clock offset: 58.281 ms

# Below is generated by plot.py at 2018-03-15 14:45:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 66.21 Mbit/s
  95th percentile per-packet one-way delay: 117.041 ms
  Loss rate: 2.27%
-- Flow 1:
  Average throughput: 35.95 Mbit/s
  95th percentile per-packet one-way delay: 116.653 ms
  Loss rate: 1.69%
-- Flow 2:
  Average throughput: 43.28 Mbit/s
  95th percentile per-packet one-way delay: 118.568 ms
  Loss rate: 2.90%
-- Flow 3:
  Average throughput: 4.46 Mbit/s
  95th percentile per-packet one-way delay: 115.739 ms
  Loss rate: 3.84%
Run 1: Report of Vivace-loss — Data Link
Run 2: Statistics of Vivace-loss

Start at: 2018-03-15 10:36:30
End at: 2018-03-15 10:37:00
Local clock offset: 2.516 ms
Remote clock offset: 35.506 ms

# Below is generated by plot.py at 2018-03-15 14:45:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.72 Mbit/s
95th percentile per-packet one-way delay: 118.722 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 30.25 Mbit/s
95th percentile per-packet one-way delay: 118.953 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 107.986 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 45.070 ms
Loss rate: 0.91%
Run 2: Report of Vivace-loss — Data Link
Run 3: Statistics of Vivace-loss

Start at: 2018-03-15 11:03:34
End at: 2018-03-15 11:04:04
Local clock offset: 6.488 ms
Remote clock offset: 26.579 ms

# Below is generated by plot.py at 2018-03-15 14:45:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.44 Mbit/s
95th percentile per-packet one-way delay: 107.881 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 66.96 Mbit/s
95th percentile per-packet one-way delay: 107.477 ms
Loss rate: 2.06%
-- Flow 2:
Average throughput: 11.00 Mbit/s
95th percentile per-packet one-way delay: 110.874 ms
Loss rate: 3.20%
-- Flow 3:
Average throughput: 3.56 Mbit/s
95th percentile per-packet one-way delay: 113.096 ms
Loss rate: 2.56%
Run 3: Report of Vivace-loss — Data Link
Run 4: Statistics of Vivace-loss

End at: 2018-03-15 11:29:13
Local clock offset: 10.127 ms
Remote clock offset: 47.937 ms

# Below is generated by plot.py at 2018-03-15 14:45:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 72.00 Mbit/s
  95th percentile per-packet one-way delay: 47.495 ms
  Loss rate: 2.53%
-- Flow 1:
  Average throughput: 65.25 Mbit/s
  95th percentile per-packet one-way delay: 47.479 ms
  Loss rate: 2.45%
-- Flow 2:
  Average throughput: 8.41 Mbit/s
  95th percentile per-packet one-way delay: 47.453 ms
  Loss rate: 3.07%
-- Flow 3:
  Average throughput: 3.53 Mbit/s
  95th percentile per-packet one-way delay: 48.499 ms
  Loss rate: 4.23%
Run 4: Report of Vivace-loss — Data Link

![Throughput Graph]

![Delay Graph]

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Run 5: Statistics of Vivace-loss

Start at: 2018-03-15 11:55:00
End at: 2018-03-15 11:55:30
Local clock offset: 1.37 ms
Remote clock offset: 53.366 ms

# Below is generated by plot.py at 2018-03-15 14:45:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.41 Mbit/s
95th percentile per-packet one-way delay: 61.045 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 7.83 Mbit/s
95th percentile per-packet one-way delay: 60.757 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 61.562 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 12.84 Mbit/s
95th percentile per-packet one-way delay: 60.641 ms
Loss rate: 2.22%
Run 5: Report of Vivace-loss — Data Link
Run 6: Statistics of Vivace-loss

Start at: 2018-03-15 12:20:40
End at: 2018-03-15 12:21:10
Local clock offset: 3.487 ms
Remote clock offset: 52.537 ms

# Below is generated by plot.py at 2018-03-15 14:46:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.95 Mbit/s
95th percentile per-packet one-way delay: 55.498 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 65.80 Mbit/s
95th percentile per-packet one-way delay: 55.324 ms
Loss rate: 2.16%
-- Flow 2:
Average throughput: 14.83 Mbit/s
95th percentile per-packet one-way delay: 55.986 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 6.94 Mbit/s
95th percentile per-packet one-way delay: 56.738 ms
Loss rate: 4.33%
Run 6: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 67.30 Mbit/s)
- Flow 1 egress (mean 65.80 Mbit/s)
- Flow 2 ingress (mean 15.30 Mbit/s)
- Flow 2 egress (mean 14.83 Mbit/s)
- Flow 3 ingress (mean 7.26 Mbit/s)
- Flow 3 egress (mean 6.94 Mbit/s)

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

- Flow 1 (95th percentile 55.32 ms)
- Flow 2 (95th percentile 55.99 ms)
- Flow 3 (95th percentile 56.74 ms)
Run 7: Statistics of Vivace-loss

Start at: 2018-03-15 12:47:05
End at: 2018-03-15 12:47:35
Local clock offset: 5.088 ms
Remote clock offset: 83.631 ms

# Below is generated by plot.py at 2018-03-15 14:46:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.83 Mbit/s
  95th percentile per-packet one-way delay: 68.547 ms
  Loss rate: 1.17%
-- Flow 1:
  Average throughput: 1.98 Mbit/s
  95th percentile per-packet one-way delay: 67.077 ms
  Loss rate: 1.33%
-- Flow 2:
  Average throughput: 1.45 Mbit/s
  95th percentile per-packet one-way delay: 69.290 ms
  Loss rate: 0.77%
-- Flow 3:
  Average throughput: 5.72 Mbit/s
  95th percentile per-packet one-way delay: 73.153 ms
  Loss rate: 1.21%
Run 7: Report of Vivace-loss — Data Link

![Graph showing throughput and packet loss over time for three different flows: Flow 1 ingress, Flow 1 egress, Flow 2 ingress, Flow 2 egress, Flow 3 ingress, Flow 3 egress. The graphs display throughput in Mbps and per-packet one-way delay in ms.](image)

Flow 1 ingress (mean 2.01 Mbps) | Flow 1 egress (mean 1.98 Mbps)
Flow 2 ingress (mean 1.46 Mbps) | Flow 2 egress (mean 1.45 Mbps)
Flow 3 ingress (mean 5.79 Mbps) | Flow 3 egress (mean 5.72 Mbps)

Flow 1 (95th percentile 67.08 ms) | Flow 2 (95th percentile 69.29 ms) | Flow 3 (95th percentile 73.15 ms)
Run 8: Statistics of Vivace-loss

Start at: 2018-03-15 13:12:25
End at: 2018-03-15 13:12:55
Local clock offset: 5.865 ms
Remote clock offset: 39.297 ms

# Below is generated by plot.py at 2018-03-15 14:46:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.49 Mbit/s
95th percentile per-packet one-way delay: 37.318 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 37.46 Mbit/s
95th percentile per-packet one-way delay: 37.037 ms
Loss rate: 2.20%
-- Flow 2:
Average throughput: 13.32 Mbit/s
95th percentile per-packet one-way delay: 37.285 ms
Loss rate: 2.55%
-- Flow 3:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 41.374 ms
Loss rate: 3.14%
Run 8: Report of Vivace-loss — Data Link

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

- **Flow 1 Ingress** (mean 38.31 Mbit/s)
- **Flow 1 Egress** (mean 37.46 Mbit/s)
- **Flow 2 Ingress** (mean 13.87 Mbit/s)
- **Flow 2 Egress** (mean 13.32 Mbit/s)
- **Flow 3 Ingress** (mean 13.07 Mbit/s)
- **Flow 3 Egress** (mean 12.63 Mbit/s)

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

- **Flow 1 (95th percentile 37.04 ms)**
- **Flow 2 (95th percentile 37.28 ms)**
- **Flow 3 (95th percentile 41.37 ms)**
Run 9: Statistics of Vivace-loss

End at: 2018-03-15 13:38:05  
Local clock offset: 2.153 ms  
Remote clock offset: 32.897 ms  

# Below is generated by plot.py at 2018-03-15 14:46:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.04 Mbit/s  
95th percentile per-packet one-way delay: 34.044 ms  
Loss rate: 2.87%  
-- Flow 1:  
Average throughput: 28.17 Mbit/s  
95th percentile per-packet one-way delay: 34.110 ms  
Loss rate: 2.69%  
-- Flow 2:  
Average throughput: 46.99 Mbit/s  
95th percentile per-packet one-way delay: 33.962 ms  
Loss rate: 3.00%  
-- Flow 3:  
Average throughput: 4.93 Mbit/s  
95th percentile per-packet one-way delay: 34.250 ms  
Loss rate: 3.39%
Run 9: Report of Vivace-loss — Data Link

[Graph showing throughput and packet loss over time for different flows.]

- Flow 1 ingress (mean 28.95 Mbit/s)
- Flow 1 egress (mean 28.17 Mbit/s)
- Flow 2 ingress (mean 48.96 Mbit/s)
- Flow 2 egress (mean 46.99 Mbit/s)
- Flow 3 ingress (mean 5.10 Mbit/s)
- Flow 3 egress (mean 4.93 Mbit/s)
Run 10: Statistics of Vivace-loss

Start at: 2018-03-15 14:02:22
End at: 2018-03-15 14:02:52
Local clock offset: 3.725 ms
Remote clock offset: 50.154 ms

# Below is generated by plot.py at 2018-03-15 14:46:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.07 Mbit/s
95th percentile per-packet one-way delay: 48.990 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 59.80 Mbit/s
95th percentile per-packet one-way delay: 48.956 ms
Loss rate: 1.87%
-- Flow 2:
Average throughput: 25.76 Mbit/s
95th percentile per-packet one-way delay: 49.066 ms
Loss rate: 2.37%
-- Flow 3:
Average throughput: 3.46 Mbit/s
95th percentile per-packet one-way delay: 49.771 ms
Loss rate: 4.41%
Run 10: Report of Vivace-loss — Data Link

![Graph 1: Bandwidth Throughput](image1)

- **Flow 1 Ingress**: (mean 60.94 Mbit/s)
- **Flow 1 Egress**: (mean 59.80 Mbit/s)
- **Flow 2 Ingress**: (mean 26.38 Mbit/s)
- **Flow 2 Egress**: (mean 25.76 Mbit/s)
- **Flow 3 Ingress**: (mean 3.61 Mbit/s)
- **Flow 3 Egress**: (mean 3.46 Mbit/s)

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

- **Flow 1 (95th percentile 48.96 ms)**
- **Flow 2 (95th percentile 49.07 ms)**
- **Flow 3 (95th percentile 49.77 ms)**
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-15 09:48:43
End at: 2018-03-15 09:49:13
Local clock offset: 3.504 ms
Remote clock offset: 46.201 ms

# Below is generated by plot.py at 2018-03-15 14:46:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.71 Mbit/s
95th percentile per-packet one-way delay: 145.808 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 60.38 Mbit/s
95th percentile per-packet one-way delay: 145.313 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 22.66 Mbit/s
95th percentile per-packet one-way delay: 146.770 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 6.95 Mbit/s
95th percentile per-packet one-way delay: 147.760 ms
Loss rate: 3.91%
Run 1: Report of Vivace-LTE — Data Link

![Graph 1: Throughput (Mbps)]

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

Start at: 2018-03-15 10:16:40
End at: 2018-03-15 10:17:10
Local clock offset: -0.798 ms
Remote clock offset: 36.645 ms

# Below is generated by plot.py at 2018-03-15 14:46:47
# Datalink statistics
   -- Total of 3 flows:
   Average throughput: 74.43 Mbit/s
   95th percentile per-packet one-way delay: 86.857 ms
   Loss rate: 1.30%
   -- Flow 1:
   Average throughput: 53.85 Mbit/s
   95th percentile per-packet one-way delay: 90.987 ms
   Loss rate: 1.07%
   -- Flow 2:
   Average throughput: 28.90 Mbit/s
   95th percentile per-packet one-way delay: 80.369 ms
   Loss rate: 1.72%
   -- Flow 3:
   Average throughput: 4.10 Mbit/s
   95th percentile per-packet one-way delay: 80.407 ms
   Loss rate: 4.37%
Run 2: Report of Vivace-LTE — Data Link
Run 3: Statistics of Vivace-LTE

Start at: 2018-03-15 10:44:07
End at: 2018-03-15 10:44:37
Local clock offset: 3.347 ms
Remote clock offset: 30.314 ms

# Below is generated by plot.py at 2018-03-15 14:46:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.25 Mbit/s
95th percentile per-packet one-way delay: 188.496 ms
Loss rate: 3.97%
-- Flow 1:
Average throughput: 25.44 Mbit/s
95th percentile per-packet one-way delay: 172.969 ms
Loss rate: 2.43%
-- Flow 2:
Average throughput: 9.97 Mbit/s
95th percentile per-packet one-way delay: 176.103 ms
Loss rate: 3.79%
-- Flow 3:
Average throughput: 40.04 Mbit/s
95th percentile per-packet one-way delay: 194.647 ms
Loss rate: 6.88%
Run 3: Report of Vivace-LTE — Data Link

![Graph showing throughput and latency over time for different flows]

- **Throughput (Mbps)**
  - **Flow 1 ingress** (mean 26.08 Mbps)
  - **Flow 1 egress** (mean 25.44 Mbps)
  - **Flow 2 ingress** (mean 10.37 Mbps)
  - **Flow 2 egress** (mean 9.97 Mbps)
  - **Flow 3 ingress** (mean 42.96 Mbps)
  - **Flow 3 egress** (mean 40.04 Mbps)

- **Per-packet one-way delay (ms)**
  - **Flow 1** (95th percentile 172.97 ms)
  - **Flow 2** (95th percentile 176.10 ms)
  - **Flow 3** (95th percentile 194.65 ms)
Run 4: Statistics of Vivace-LTE

Start at: 2018-03-15 11:10:03
End at: 2018-03-15 11:10:33
Local clock offset: 7.777 ms
Remote clock offset: 25.171 ms

# Below is generated by plot.py at 2018-03-15 14:47:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 77.57 Mbit/s
  95th percentile per-packet one-way delay: 62.211 ms
  Loss rate: 2.26%
-- Flow 1:
  Average throughput: 69.17 Mbit/s
  95th percentile per-packet one-way delay: 61.954 ms
  Loss rate: 2.12%
-- Flow 2:
  Average throughput: 11.20 Mbit/s
  95th percentile per-packet one-way delay: 63.731 ms
  Loss rate: 3.49%
-- Flow 3:
  Average throughput: 2.89 Mbit/s
  95th percentile per-packet one-way delay: 65.454 ms
  Loss rate: 2.25%
Run 4: Report of Vivace-LTE — Data Link

![Chart 1: Throughput vs Time](chart1.png)

![Chart 2: Per-packet one way delay vs Time](chart2.png)
Run 5: Statistics of Vivace-LTE

Start at: 2018-03-15 11:35:09  
End at: 2018-03-15 11:35:39  
Local clock offset: 6.08 ms  
Remote clock offset: 48.764 ms

# Below is generated by plot.py at 2018-03-15 14:47:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 47.97 Mbit/s  
  95th percentile per-packet one-way delay: 34.075 ms  
  Loss rate: 1.99%
-- Flow 1:
  Average throughput: 11.63 Mbit/s  
  95th percentile per-packet one-way delay: 31.583 ms  
  Loss rate: 2.19%
-- Flow 2:
  Average throughput: 48.62 Mbit/s  
  95th percentile per-packet one-way delay: 34.252 ms  
  Loss rate: 2.00%
-- Flow 3:
  Average throughput: 12.18 Mbit/s  
  95th percentile per-packet one-way delay: 33.831 ms  
  Loss rate: 1.28%
Run 5: Report of Vivace-LTE — Data Link

Graph 1: Throughput (Mbps)

- Flow 1 ingress (mean 11.89 Mbps)
- Flow 1 egress (mean 11.63 Mbps)
- Flow 2 ingress (mean 49.61 Mbps)
- Flow 2 egress (mean 48.62 Mbps)
- Flow 3 ingress (mean 12.34 Mbps)
- Flow 3 egress (mean 12.18 Mbps)

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

- Flow 1 (95th percentile 31.58 ms)
- Flow 2 (95th percentile 34.25 ms)
- Flow 3 (95th percentile 33.83 ms)
Run 6: Statistics of Vivace-LTE

Start at: 2018-03-15 12:01:23
End at: 2018-03-15 12:01:53
Local clock offset: -1.934 ms
Remote clock offset: 53.381 ms

# Below is generated by plot.py at 2018-03-15 14:47:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.63 Mbit/s
95th percentile per-packet one-way delay: 79.670 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 55.38 Mbit/s
95th percentile per-packet one-way delay: 79.175 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 6.34 Mbit/s
95th percentile per-packet one-way delay: 84.312 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 86.053 ms
Loss rate: 1.69%
Run 6: Report of Vivace-LTE — Data Link

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

- **Flow 1 ingress** (mean 56.17 Mbit/s)
- **Flow 1 egress** (mean 55.38 Mbit/s)
- **Flow 2 ingress** (mean 6.44 Mbit/s)
- **Flow 2 egress** (mean 6.34 Mbit/s)
- **Flow 3 ingress** (mean 3.19 Mbit/s)
- **Flow 3 egress** (mean 3.12 Mbit/s)

![Graph 2: Per-packet end-to-end delay vs. Time](image2)

- **Flow 1** (95th percentile 79.17 ms)
- **Flow 2** (95th percentile 84.31 ms)
- **Flow 3** (95th percentile 86.05 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-03-15 12:27:02
End at: 2018-03-15 12:27:32
Local clock offset: 4.165 ms
Remote clock offset: 43.286 ms

# Below is generated by plot.py at 2018-03-15 14:47:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.18 Mbit/s
  95th percentile per-packet one-way delay: 41.718 ms
  Loss rate: 0.97%
-- Flow 1:
  Average throughput: 71.04 Mbit/s
  95th percentile per-packet one-way delay: 41.597 ms
  Loss rate: 0.93%
-- Flow 2:
  Average throughput: 10.28 Mbit/s
  95th percentile per-packet one-way delay: 41.883 ms
  Loss rate: 1.20%
-- Flow 3:
  Average throughput: 3.95 Mbit/s
  95th percentile per-packet one-way delay: 43.054 ms
  Loss rate: 2.11%
Run 7: Report of Vivace-LTE — Data Link

The graph shows the throughput in Mbps over time for different flows:
- Flow 1 ingress (mean 71.73 Mbps)
- Flow 1 egress (mean 71.04 Mbps)
- Flow 2 ingress (mean 10.41 Mbps)
- Flow 2 egress (mean 10.28 Mbps)
- Flow 3 ingress (mean 4.04 Mbps)
- Flow 3 egress (mean 3.95 Mbps)

The second graph displays the per-packet one-way delay in ms over time for different flows:
- Flow 1 (95th percentile 41.60 ms)
- Flow 2 (95th percentile 41.88 ms)
- Flow 3 (95th percentile 43.05 ms)
Run 8: Statistics of Vivace-LTE

End at: 2018-03-15 12:54:23
Local clock offset: 5.268 ms
Remote clock offset: 69.265 ms

# Below is generated by plot.py at 2018-03-15 14:47:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.88 Mbit/s
95th percentile per-packet one-way delay: 92.288 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 56.58 Mbit/s
95th percentile per-packet one-way delay: 91.342 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 27.39 Mbit/s
95th percentile per-packet one-way delay: 94.246 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 94.523 ms
Loss rate: 2.42%
Run 8: Report of Vivace-LTE — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 57.56 Mbps)
  - Flow 1 egress (mean 56.58 Mbps)
  - Flow 2 ingress (mean 27.90 Mbps)
  - Flow 2 egress (mean 27.39 Mbps)
  - Flow 3 ingress (mean 3.44 Mbps)
  - Flow 3 egress (mean 3.36 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 91.34 ms)
  - Flow 2 (95th percentile 94.25 ms)
  - Flow 3 (95th percentile 94.52 ms)
Run 9: Statistics of Vivace-LTE

Local clock offset: 4.249 ms
Remote clock offset: 41.835 ms

# Below is generated by plot.py at 2018-03-15 14:47:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.52 Mbit/s
95th percentile per-packet one-way delay: 39.228 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 55.28 Mbit/s
95th percentile per-packet one-way delay: 39.201 ms
Loss rate: 1.67%
-- Flow 2:
Average throughput: 22.64 Mbit/s
95th percentile per-packet one-way delay: 39.350 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 38.907 ms
Loss rate: 2.68%
Run 10: Statistics of Vivace-LTE

End at: 2018-03-15 13:44:44
Local clock offset: 2.492 ms
Remote clock offset: 52.382 ms

# Below is generated by plot.py at 2018-03-15 14:47:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.38 Mbit/s
95th percentile per-packet one-way delay: 52.096 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 69.12 Mbit/s
95th percentile per-packet one-way delay: 51.977 ms
Loss rate: 1.92%
-- Flow 2:
Average throughput: 5.07 Mbit/s
95th percentile per-packet one-way delay: 52.480 ms
Loss rate: 3.39%
-- Flow 3:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 52.467 ms
Loss rate: 3.72%
Run 10: Report of Vivace-LTE — Data Link