Pantheon Report

Generated at 2018-02-05 03:19:31 (UTC).
Data path: India Ethernet (remote) → AWS India 1 Ethernet (local).
Repeate 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 nets.org.sg and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ 70217998b3c9a7166a95460a70c0854d1326e100
third_party/calibrated_koho @ 3cb73c0d1c0322cdfeae446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ fb9c9ab842e5614ad52911a76fb9bd1c10dca86
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ a9b20604d3e4da2e8987e8933eeca2a6c7cd0a9b
third_party/indigo-1-layer-128-unit @ 3ae9e4e4f230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38cd4fde0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed55b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b93ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea08e6928eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906c6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861dad59ba9013db2674ccf0993
third_party/pcc @ 1afc958f50d66d18b623c091a52f68c872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82b733a86b42f1b8143ebc978f3c4f2
third_party/scream @ c3370fd7bd17265a979eb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1aeeeb3b3267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375e6e265089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580a20172040178d4ef
third_party/webrtc @ a488197d041ace68a12849b2540ad34825f42
test from India Ethernet to AWS India 1 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
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<td>TCP BBR</td>
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<td>flow 3: 258.53</td>
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<td>flow 3: 19.05</td>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2018-02-04 17:51:22
End at: 2018-02-04 17:51:52
Local clock offset: 2.953 ms
Remote clock offset: 32.213 ms

# Below is generated by plot.py at 2018-02-05 03:02:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.24 Mbit/s
95th percentile per-packet one-way delay: 245.332 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 38.49 Mbit/s
95th percentile per-packet one-way delay: 243.450 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 32.47 Mbit/s
95th percentile per-packet one-way delay: 247.726 ms
Loss rate: 2.34%
-- Flow 3:
Average throughput: 25.19 Mbit/s
95th percentile per-packet one-way delay: 243.751 ms
Loss rate: 4.18%
Run 1: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 38.90 Mbps)
- Flow 1 egress (mean 38.49 Mbps)
- Flow 2 ingress (mean 32.82 Mbps)
- Flow 2 egress (mean 32.47 Mbps)
- Flow 3 ingress (mean 25.66 Mbps)
- Flow 3 egress (mean 25.19 Mbps)

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

- Flow 1 (95th percentile 243.45 ms)
- Flow 2 (95th percentile 247.73 ms)
- Flow 3 (95th percentile 243.75 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-02-04 18:34:25
End at: 2018-02-04 18:34:55
Local clock offset: 6.271 ms
Remote clock offset: 23.712 ms

# Below is generated by plot.py at 2018-02-05 03:02:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.87 Mbit/s
95th percentile per-packet one-way delay: 272.431 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 35.93 Mbit/s
95th percentile per-packet one-way delay: 272.143 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 37.65 Mbit/s
95th percentile per-packet one-way delay: 259.308 ms
Loss rate: 2.39%
-- Flow 3:
Average throughput: 21.41 Mbit/s
95th percentile per-packet one-way delay: 280.456 ms
Loss rate: 3.94%
Run 2: Report of TCP BBR — Data Link

![Graph of Throughput and Per-packet One-Way Delay](image)

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 35.20 Mbps)
  - Flow 1 egress (mean 35.93 Mbps)
  - Flow 2 ingress (mean 38.07 Mbps)
  - Flow 2 egress (mean 37.65 Mbps)
  - Flow 3 ingress (mean 21.62 Mbps)
  - Flow 3 egress (mean 21.41 Mbps)

- **Per-packet One-Way Delay (ms):**
  - Flow 1 (95th percentile 272.14 ms)
  - Flow 2 (95th percentile 259.31 ms)
  - Flow 3 (95th percentile 280.46 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-02-04 19:14:32
End at: 2018-02-04 19:15:02
Local clock offset: 0.756 ms
Remote clock offset: 18.479 ms

# Below is generated by plot.py at 2018-02-05 03:02:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.73 Mbit/s
95th percentile per-packet one-way delay: 253.297 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 32.76 Mbit/s
95th percentile per-packet one-way delay: 253.328 ms
Loss rate: 2.05%
-- Flow 2:
Average throughput: 39.54 Mbit/s
95th percentile per-packet one-way delay: 232.904 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 20.63 Mbit/s
95th percentile per-packet one-way delay: 256.959 ms
Loss rate: 4.77%
Run 3: Report of TCP BBR — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)
Run 4: Statistics of TCP BBR

Start at: 2018-02-04 19:50:40
End at: 2018-02-04 19:51:10
Local clock offset: 3.165 ms
Remote clock offset: 1.886 ms

# Below is generated by plot.py at 2018-02-05 03:02:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.13 Mbit/s
95th percentile per-packet one-way delay: 270.997 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 272.198 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 42.28 Mbit/s
95th percentile per-packet one-way delay: 259.802 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 22.84 Mbit/s
95th percentile per-packet one-way delay: 281.405 ms
Loss rate: 1.45%
Run 4: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 43.00 Mbit/s)**
- **Flow 1 egress (mean 42.70 Mbit/s)**
- **Flow 2 ingress (mean 42.28 Mbit/s)**
- **Flow 2 egress (mean 42.28 Mbit/s)**
- **Flow 3 ingress (mean 22.45 Mbit/s)**
- **Flow 3 egress (mean 22.84 Mbit/s)**

![Graph 2: Per-Packet One-Way Delay Over Time](image)

- **Flow 1 (95th percentile 272.20 ms)**
- **Flow 2 (95th percentile 259.80 ms)**
- **Flow 3 (95th percentile 281.40 ms)**

11
Run 5: Statistics of TCP BBR

Start at: 2018-02-04 20:18:55
End at: 2018-02-04 20:19:25
Local clock offset: 1.329 ms
Remote clock offset: 3.406 ms

# Below is generated by plot.py at 2018-02-05 03:02:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.45 Mbit/s
95th percentile per-packet one-way delay: 259.940 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 46.46 Mbit/s
95th percentile per-packet one-way delay: 261.308 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 37.15 Mbit/s
95th percentile per-packet one-way delay: 261.206 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 37.66 Mbit/s
95th percentile per-packet one-way delay: 249.777 ms
Loss rate: 3.30%
Run 6: Statistics of TCP BBR

Start at: 2018-02-04 20:50:03
End at: 2018-02-04 20:50:33
Local clock offset: 5.046 ms
Remote clock offset: 15.773 ms

# Below is generated by plot.py at 2018-02-05 03:02:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.20 Mbit/s
95th percentile per-packet one-way delay: 241.471 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 49.08 Mbit/s
95th percentile per-packet one-way delay: 238.707 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 34.04 Mbit/s
95th percentile per-packet one-way delay: 249.361 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 38.35 Mbit/s
95th percentile per-packet one-way delay: 235.140 ms
Loss rate: 3.04%
Run 6: Report of TCP BBR — Data Link
Run 7: Statistics of TCP BBR

Start at: 2018-02-04 21:21:44
End at: 2018-02-04 21:22:14
Local clock offset: 3.37 ms
Remote clock offset: 3.693 ms

# Below is generated by plot.py at 2018-02-05 03:02:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.43 Mbit/s
95th percentile per-packet one-way delay: 252.653 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 52.29 Mbit/s
95th percentile per-packet one-way delay: 250.969 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 43.36 Mbit/s
95th percentile per-packet one-way delay: 248.225 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 22.54 Mbit/s
95th percentile per-packet one-way delay: 269.840 ms
Loss rate: 2.60%
Run 7: Report of TCP BBR — Data Link
Run 8: Statistics of TCP BBR

Start at: 2018-02-04 21:52:34
End at: 2018-02-04 21:53:04
Local clock offset: 4.238 ms
Remote clock offset: 3.507 ms

# Below is generated by plot.py at 2018-02-05 03:02:57
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 89.26 Mbit/s
  95th percentile per-packet one-way delay: 245.210 ms
   Loss rate: 0.80%
-- Flow 1:
 Average throughput: 58.33 Mbit/s
  95th percentile per-packet one-way delay: 224.106 ms
   Loss rate: 0.58%
-- Flow 2:
 Average throughput: 34.46 Mbit/s
  95th percentile per-packet one-way delay: 256.464 ms
   Loss rate: 1.11%
-- Flow 3:
 Average throughput: 24.94 Mbit/s
  95th percentile per-packet one-way delay: 251.409 ms
   Loss rate: 1.52%
Run 8: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 58.30 Mbps)
Flow 1 egress (mean 58.33 Mbps)
Flow 2 ingress (mean 34.49 Mbps)
Flow 2 egress (mean 34.46 Mbps)
Flow 3 ingress (mean 24.53 Mbps)
Flow 3 egress (mean 24.94 Mbps)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 224.11 ms)
Flow 2 (95th percentile 256.46 ms)
Flow 3 (95th percentile 251.41 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-02-04 22:18:35
End at: 2018-02-04 22:19:05
Local clock offset: 4.836 ms
Remote clock offset: 2.319 ms

# Below is generated by plot.py at 2018-02-05 03:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.88 Mbit/s
95th percentile per-packet one-way delay: 229.736 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 55.58 Mbit/s
95th percentile per-packet one-way delay: 224.171 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 37.67 Mbit/s
95th percentile per-packet one-way delay: 234.383 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 28.87 Mbit/s
95th percentile per-packet one-way delay: 231.654 ms
Loss rate: 3.85%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-02-04 22:43:42
End at: 2018-02-04 22:44:12
Local clock offset: -2.699 ms
Remote clock offset: 7.819 ms

# Below is generated by plot.py at 2018-02-05 03:04:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.53 Mbit/s
  95th percentile per-packet one-way delay: 224.969 ms
  Loss rate: 0.76%
-- Flow 1:
  Average throughput: 52.75 Mbit/s
  95th percentile per-packet one-way delay: 224.735 ms
  Loss rate: 0.36%
-- Flow 2:
  Average throughput: 44.60 Mbit/s
  95th percentile per-packet one-way delay: 209.059 ms
  Loss rate: 1.10%
-- Flow 3:
  Average throughput: 21.86 Mbit/s
  95th percentile per-packet one-way delay: 229.654 ms
  Loss rate: 2.30%
Run 10: Report of TCP BBR — Data Link

**Graph 1:** Throughput (Mbps)
- Flow 1 ingress (mean 52.63 Mbps)
- Flow 1 egress (mean 52.75 Mbps)
- Flow 2 ingress (mean 44.66 Mbps)
- Flow 2 egress (mean 44.60 Mbps)
- Flow 3 ingress (mean 21.94 Mbps)
- Flow 3 egress (mean 21.86 Mbps)

**Graph 2:** Per-packet one way delay (ms)
- Flow 1 (95th percentile 224.74 ms)
- Flow 2 (95th percentile 209.06 ms)
- Flow 3 (95th percentile 229.65 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-02-04 17:46:00
End at: 2018-02-04 17:46:30
Local clock offset: 0.157 ms
Remote clock offset: 26.688 ms

# Below is generated by plot.py at 2018-02-05 03:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 220.318 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 220.462 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 220.903 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 215.486 ms
Loss rate: 2.12%
Run 1: Report of TCP Cubic — Data Link

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

**Throughput:**
- **Flow 1 ingress (mean 1.83 Mbit/s)**
- **Flow 1 egress (mean 1.82 Mbit/s)**
- **Flow 2 ingress (mean 2.36 Mbit/s)**
- **Flow 2 egress (mean 2.36 Mbit/s)**
- **Flow 3 ingress (mean 2.05 Mbit/s)**
- **Flow 3 egress (mean 2.06 Mbit/s)**

**Per-packet one-way delay (ms):**
- **Flow 1 (95th percentile 220.46 ms)**
- **Flow 2 (95th percentile 220.90 ms)**
- **Flow 3 (95th percentile 215.49 ms)**
Run 2: Statistics of TCP Cubic

Start at: 2018-02-04 18:30:02
End at: 2018-02-04 18:30:32
Local clock offset: 3.7 ms
Remote clock offset: 23.812 ms

# Below is generated by plot.py at 2018-02-05 03:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.79 Mbit/s
95th percentile per-packet one-way delay: 231.347 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 2.60 Mbit/s
95th percentile per-packet one-way delay: 231.273 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 225.097 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 238.331 ms
Loss rate: 4.68%
Run 2: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 2.61 Mbit/s)
- Flow 1 egress (mean 2.60 Mbit/s)
- Flow 2 ingress (mean 1.61 Mbit/s)
- Flow 2 egress (mean 1.60 Mbit/s)
- Flow 3 ingress (mean 0.44 Mbit/s)
- Flow 3 egress (mean 0.43 Mbit/s)

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

- Flow 1 (95th percentile 231.27 ms)
- Flow 2 (95th percentile 225.10 ms)
- Flow 3 (95th percentile 238.33 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-02-04 19:09:17
End at: 2018-02-04 19:09:47
Local clock offset: 2.458 ms
Remote clock offset: 18.495 ms

# Below is generated by plot.py at 2018-02-05 03:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.25 Mbit/s
95th percentile per-packet one-way delay: 226.381 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 210.777 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 231.329 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 6.13 Mbit/s
95th percentile per-packet one-way delay: 217.237 ms
Loss rate: 1.54%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-02-04 19:46:19
End at: 2018-02-04 19:46:49
Local clock offset: 3.221 ms
Remote clock offset: 9.183 ms

# Below is generated by plot.py at 2018-02-05 03:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.76 Mbit/s
95th percentile per-packet one-way delay: 253.801 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 14.69 Mbit/s
95th percentile per-packet one-way delay: 256.407 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 247.719 ms
Loss rate: 2.49%
-- Flow 3:
Average throughput: 25.44 Mbit/s
95th percentile per-packet one-way delay: 249.701 ms
Loss rate: 1.90%
Run 4: Report of TCP Cubic — Data Link

![Graph of throughput and latency over time for different flows.](image-url)

- **Flow 1 ingress**: mean 14.67 Mbit/s
- **Flow 1 egress**: mean 14.69 Mbit/s
- **Flow 2 ingress**: mean 1.16 Mbit/s
- **Flow 2 egress**: mean 1.14 Mbit/s
- **Flow 3 ingress**: mean 25.36 Mbit/s
- **Flow 3 egress**: mean 25.44 Mbit/s

![Graph of per-packet round trip time over time for different flows.](image-url)

- **Flow 1 (95th percentile)**: 256.41 ms
- **Flow 2 (95th percentile)**: 247.72 ms
- **Flow 3 (95th percentile)**: 249.70 ms
Run 5: Statistics of TCP Cubic

Start at: 2018-02-04 20:14:26
End at: 2018-02-04 20:14:56
Local clock offset: -1.2 ms
Remote clock offset: -2.907 ms

# Below is generated by plot.py at 2018-02-05 03:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.63 Mbit/s
95th percentile per-packet one-way delay: 240.931 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 26.08 Mbit/s
95th percentile per-packet one-way delay: 238.872 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 23.34 Mbit/s
95th percentile per-packet one-way delay: 243.024 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 15.47 Mbit/s
95th percentile per-packet one-way delay: 247.900 ms
Loss rate: 1.67%
Run 5: Report of TCP Cubic — Data Link

![Graph showing network performance metrics over time.](image-url)
Run 6: Statistics of TCP Cubic

Start at: 2018-02-04 20:45:45
End at: 2018-02-04 20:46:15
Local clock offset: 2.705 ms
Remote clock offset: 15.536 ms

# Below is generated by plot.py at 2018-02-05 03:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.57 Mbit/s
95th percentile per-packet one-way delay: 215.243 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 13.32 Mbit/s
95th percentile per-packet one-way delay: 215.298 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 214.679 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 7.68 Mbit/s
95th percentile per-packet one-way delay: 215.266 ms
Loss rate: 1.40%
Run 6: Report of TCP Cubic — Data Link

![Graph of data link throughput for different flows over time](image)

Graph showing data link throughput over time for multiple flows, with distinct markers and line styles for each flow's ingress and egress data rates.

![Graph of packet loss ratio for different flows over time](image)

Graph showing packet loss ratio over time for multiple flows, with distinct markers indicating the 95th percentile loss rate for each flow.
Run 7: Statistics of TCP Cubic

Start at: 2018-02-04 21:17:15
End at: 2018-02-04 21:17:45
Local clock offset: 3.337 ms
Remote clock offset: 2.113 ms

# Below is generated by plot.py at 2018-02-05 03:04:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 36.95 Mbit/s
  95th percentile per-packet one-way delay: 229.494 ms
  Loss rate: 0.61%
-- Flow 1:
  Average throughput: 30.53 Mbit/s
  95th percentile per-packet one-way delay: 229.661 ms
  Loss rate: 0.32%
-- Flow 2:
  Average throughput: 4.52 Mbit/s
  95th percentile per-packet one-way delay: 227.915 ms
  Loss rate: 1.49%
-- Flow 3:
  Average throughput: 10.49 Mbit/s
  95th percentile per-packet one-way delay: 229.015 ms
  Loss rate: 2.41%
Run 7: Report of TCP Cubic — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 30.42 Mbit/s)
Flow 1 egress (mean 30.53 Mbit/s)
Flow 2 ingress (mean 4.54 Mbit/s)
Flow 2 egress (mean 4.52 Mbit/s)
Flow 3 ingress (mean 10.52 Mbit/s)
Flow 3 egress (mean 10.49 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 229.66 ms)
Flow 2 (95th percentile 227.91 ms)
Flow 3 (95th percentile 229.01 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-02-04 21:47:41
End at: 2018-02-04 21:48:11
Local clock offset: 1.234 ms
Remote clock offset: 3.508 ms

# Below is generated by plot.py at 2018-02-05 03:04:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.52 Mbit/s
95th percentile per-packet one-way delay: 256.637 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 53.70 Mbit/s
95th percentile per-packet one-way delay: 243.924 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 35.57 Mbit/s
95th percentile per-packet one-way delay: 263.373 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 22.04 Mbit/s
95th percentile per-packet one-way delay: 269.972 ms
Loss rate: 3.02%
Run 8: Report of TCP Cubic — Data Link
Run 9: Statistics of TCP Cubic

Start at: 2018-02-04 22:14:21  
End at: 2018-02-04 22:14:51  
Local clock offset: 2.231 ms  
Remote clock offset: 4.474 ms

# Below is generated by plot.py at 2018-02-05 03:04:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.02 Mbit/s  
95th percentile per-packet one-way delay: 227.615 ms  
Loss rate: 1.26%  
-- Flow 1:  
Average throughput: 50.87 Mbit/s  
95th percentile per-packet one-way delay: 223.217 ms  
Loss rate: 0.49%  
-- Flow 2:  
Average throughput: 38.58 Mbit/s  
95th percentile per-packet one-way delay: 228.571 ms  
Loss rate: 1.63%  
-- Flow 3:  
Average throughput: 29.08 Mbit/s  
95th percentile per-packet one-way delay: 236.758 ms  
Loss rate: 4.20%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

End at: 2018-02-04 22:40:05
Local clock offset: 4.997 ms
Remote clock offset: 5.995 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.75 Mbit/s
  95th percentile per-packet one-way delay: 243.391 ms
  Loss rate: 0.88%
-- Flow 1:
  Average throughput: 55.41 Mbit/s
  95th percentile per-packet one-way delay: 246.453 ms
  Loss rate: 0.71%
-- Flow 2:
  Average throughput: 35.04 Mbit/s
  95th percentile per-packet one-way delay: 236.920 ms
  Loss rate: 0.79%
-- Flow 3:
  Average throughput: 21.67 Mbit/s
  95th percentile per-packet one-way delay: 239.308 ms
  Loss rate: 2.51%
Run 10: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 55.45 Mbit/s)
- Flow 1 egress (mean 55.41 Mbit/s)
- Flow 2 ingress (mean 34.95 Mbit/s)
- Flow 2 egress (mean 35.04 Mbit/s)
- Flow 3 ingress (mean 21.71 Mbit/s)
- Flow 3 egress (mean 21.67 Mbit/s)

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

- Flow 1 (95th percentile 246.45 ms)
- Flow 2 (95th percentile 236.92 ms)
- Flow 3 (95th percentile 239.31 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-02-04 17:28:27
End at: 2018-02-04 17:28:57
Local clock offset: 1.776 ms
Remote clock offset: 39.022 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 207.999 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 207.668 ms
Loss rate: 2.05%
-- Flow 2:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 208.618 ms
Loss rate: 2.48%
-- Flow 3:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 207.572 ms
Loss rate: 3.28%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-02-04 18:12:16
End at: 2018-02-04 18:12:46
Local clock offset: 2.21 ms
Remote clock offset: 21.15 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 209.981 ms
  Loss rate: 2.75%
-- Flow 1:
  Average throughput: 1.04 Mbit/s
  95th percentile per-packet one-way delay: 210.245 ms
  Loss rate: 2.64%
-- Flow 2:
  Average throughput: 1.16 Mbit/s
  95th percentile per-packet one-way delay: 209.134 ms
  Loss rate: 2.22%
-- Flow 3:
  Average throughput: 0.87 Mbit/s
  95th percentile per-packet one-way delay: 210.470 ms
  Loss rate: 4.55%
Run 2: Report of LEDBAT — Data Link

![Graph showing throughput and packet delay over time for different flows.]
Run 3: Statistics of LEDBAT

Start at: 2018-02-04 18:53:46
End at: 2018-02-04 18:54:16
Local clock offset: 4.426 ms
Remote clock offset: 20.759 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
95th percentile per-packet one-way delay: 237.982 ms
Loss rate: 1.62%

-- Flow 1:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 208.250 ms
Loss rate: 1.22%

-- Flow 2:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 239.793 ms
Loss rate: 1.07%

-- Flow 3:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 239.570 ms
Loss rate: 5.33%
Run 3: Report of LEDBAT — Data Link

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

Legend:
- Flow 1 ingress (mean 1.64 Mbit/s)
- Flow 1 egress (mean 1.64 Mbit/s)
- Flow 2 ingress (mean 1.21 Mbit/s)
- Flow 2 egress (mean 1.22 Mbit/s)
- Flow 3 ingress (mean 0.89 Mbit/s)
- Flow 3 egress (mean 0.87 Mbit/s)

Per-packet one-way delay (ms): 200 to 240

Flow 1 (95th percentile 208.25 ms)
Flow 2 (95th percentile 239.79 ms)
Flow 3 (95th percentile 239.57 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-02-04 19:33:20
End at: 2018-02-04 19:33:50
Local clock offset: 1.04 ms
Remote clock offset: 17.064 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 234.052 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 210.012 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 238.440 ms
Loss rate: 3.07%
-- Flow 3:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 213.554 ms
Loss rate: 2.69%
Run 4: Report of LEDBAT — Data Link

![Graph of throughput and round-trip time over time for different flows.]

Flow 1 ingress (mean 2.24 Mbit/s)  Flow 1 egress (mean 2.24 Mbit/s)
Flow 2 ingress (mean 2.05 Mbit/s)  Flow 2 egress (mean 2.01 Mbit/s)
Flow 3 ingress (mean 1.45 Mbit/s)  Flow 3 egress (mean 1.44 Mbit/s)

![Graph of per-packet round-trip time over time for different flows.]

Flow 1 (95th percentile 210.01 ms)  Flow 2 (95th percentile 238.44 ms)  Flow 3 (95th percentile 213.55 ms)
Run 5: Statistics of LEDBAT

Start at: 2018-02-04 20:03:21
End at: 2018-02-04 20:03:51
Local clock offset: 1.953 ms
Remote clock offset: 15.368 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.40 Mbit/s
  95th percentile per-packet one-way delay: 241.312 ms
  Loss rate: 1.90%
  -- Flow 1:
  Average throughput: 2.40 Mbit/s
  95th percentile per-packet one-way delay: 240.325 ms
  Loss rate: 1.43%
  -- Flow 2:
  Average throughput: 2.36 Mbit/s
  95th percentile per-packet one-way delay: 243.005 ms
  Loss rate: 1.61%
  -- Flow 3:
  Average throughput: 1.37 Mbit/s
  95th percentile per-packet one-way delay: 236.304 ms
  Loss rate: 5.29%
Run 5: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 2.42 Mbit/s)
- Flow 1 egress (mean 2.40 Mbit/s)
- Flow 2 ingress (mean 2.37 Mbit/s)
- Flow 2 egress (mean 2.36 Mbit/s)
- Flow 3 ingress (mean 1.41 Mbit/s)
- Flow 3 egress (mean 1.37 Mbit/s)
Run 6: Statistics of LEDBAT

Start at: 2018-02-04 20:33:20
End at: 2018-02-04 20:33:50
Local clock offset: 3.524 ms
Remote clock offset: 3.196 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 226.502 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 226.650 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 225.718 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 226.912 ms
Loss rate: 3.92%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-02-04 21:04:56
End at: 2018-02-04 21:05:26
Local clock offset: 4.954 ms
Remote clock offset: 16.014 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 9.05 Mbit/s
  95th percentile per-packet one-way delay: 214.834 ms
  Loss rate: 1.04%
-- Flow 1:
  Average throughput: 6.83 Mbit/s
  95th percentile per-packet one-way delay: 214.424 ms
  Loss rate: 0.70%
-- Flow 2:
  Average throughput: 2.20 Mbit/s
  95th percentile per-packet one-way delay: 215.406 ms
  Loss rate: 1.07%
-- Flow 3:
  Average throughput: 2.32 Mbit/s
  95th percentile per-packet one-way delay: 216.588 ms
  Loss rate: 4.00%
Run 7: Report of LEDBAT — Data Link

![Graph of throughput vs. time for different flows]

- Flow 1 ingress (mean 6.84 Mbit/s)
- Flow 1 egress (mean 6.83 Mbit/s)
- Flow 2 ingress (mean 2.20 Mbit/s)
- Flow 2 egress (mean 2.20 Mbit/s)
- Flow 3 ingress (mean 2.37 Mbit/s)
- Flow 3 egress (mean 2.32 Mbit/s)

![Graph of packet one-way delay vs. time for different flows]

- Flow 1 (95th percentile 214.42 ms)
- Flow 2 (95th percentile 215.41 ms)
- Flow 3 (95th percentile 216.59 ms)
Run 8: Statistics of LEDBAT

Start at: 2018-02-04 21:35:41
End at: 2018-02-04 21:36:11
Local clock offset: 0.482 ms
Remote clock offset: 3.11 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.02 Mbit/s
  95th percentile per-packet one-way delay: 228.076 ms
  Loss rate: 1.24%
-- Flow 1:
  Average throughput: 3.71 Mbit/s
  95th percentile per-packet one-way delay: 227.769 ms
  Loss rate: 0.40%
-- Flow 2:
  Average throughput: 2.65 Mbit/s
  95th percentile per-packet one-way delay: 228.078 ms
  Loss rate: 1.97%
-- Flow 3:
  Average throughput: 1.75 Mbit/s
  95th percentile per-packet one-way delay: 228.930 ms
  Loss rate: 4.23%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-02-04 22:04:26
End at: 2018-02-04 22:04:56
Local clock offset: 2.964 ms
Remote clock offset: 5.163 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.99 Mbit/s
95th percentile per-packet one-way delay: 194.953 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 10.36 Mbit/s
95th percentile per-packet one-way delay: 194.756 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 6.86 Mbit/s
95th percentile per-packet one-way delay: 194.756 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 195.507 ms
Loss rate: 3.70%
Run 9: Report of LEDBAT — Data Link

[Graph showing network throughput over time for different flows with annotations for mean throughput and 95th percentile delay.]
Run 10: Statistics of LEDBAT

End at: 2018-02-04 22:30:23
Local clock offset: 1.958 ms
Remote clock offset: 4.192 ms

# Below is generated by plot.py at 2018-02-05 03:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.05 Mbit/s
95th percentile per-packet one-way delay: 191.356 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 11.20 Mbit/s
95th percentile per-packet one-way delay: 187.625 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 195.928 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 187.175 ms
Loss rate: 3.61%
Run 10: Report of LEDBAT — Data Link

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

- **Flow 1** (Ingress: mean 11.26 Mbit/s, Egress: mean 11.20 Mbit/s)
- **Flow 2** (Ingress: mean 7.10 Mbit/s, Egress: mean 7.03 Mbit/s)
- **Flow 3** (Ingress: mean 5.69 Mbit/s, Egress: mean 3.62 Mbit/s)

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

- **Flow 1** (95th percentile: 187.62 ms)
- **Flow 2** (95th percentile: 195.93 ms)
- **Flow 3** (95th percentile: 187.18 ms)
Run 1: Statistics of PCC

Start at: 2018-02-04 17:33:16
End at: 2018-02-04 17:33:46
Local clock offset: 2.892 ms
Remote clock offset: 34.17 ms

# Below is generated by plot.py at 2018-02-05 03:04:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.25 Mbit/s
95th percentile per-packet one-way delay: 238.058 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 50.64 Mbit/s
95th percentile per-packet one-way delay: 238.178 ms
Loss rate: 1.71%
-- Flow 2:
Average throughput: 29.54 Mbit/s
95th percentile per-packet one-way delay: 240.092 ms
Loss rate: 2.43%
-- Flow 3:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: 227.800 ms
Loss rate: 3.57%
Run 1: Report of PCC — Data Link

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

Legend:
- Flow 1 ingress (mean 51.13 Mbit/s)
- Flow 1 egress (mean 50.64 Mbit/s)
- Flow 2 ingress (mean 29.95 Mbit/s)
- Flow 2 egress (mean 29.54 Mbit/s)
- Flow 3 ingress (mean 31.40 Mbit/s)
- Flow 3 egress (mean 30.94 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 238.18 ms)
- Flow 2 (95th percentile 240.09 ms)
- Flow 3 (95th percentile 227.80 ms)
Run 2: Statistics of PCC

Start at: 2018-02-04 18:18:02
End at: 2018-02-04 18:18:32
Local clock offset: 4.903 ms
Remote clock offset: 21.343 ms

# Below is generated by plot.py at 2018-02-05 03:05:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.50 Mbit/s
95th percentile per-packet one-way delay: 243.755 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 50.79 Mbit/s
95th percentile per-packet one-way delay: 242.825 ms
Loss rate: 2.45%
-- Flow 2:
Average throughput: 30.68 Mbit/s
95th percentile per-packet one-way delay: 231.505 ms
Loss rate: 2.91%
-- Flow 3:
Average throughput: 28.92 Mbit/s
95th percentile per-packet one-way delay: 247.146 ms
Loss rate: 4.73%
Run 2: Report of PCC — Data Link

Time (s)

Throughput (Mb/s)

Flow 1 ingress (mean 51.68 Mbit/s) — Flow 1 egress (mean 50.79 Mbit/s)
Flow 2 ingress (mean 31.25 Mbit/s) — Flow 2 egress (mean 30.66 Mbit/s)
Flow 3 ingress (mean 29.67 Mbit/s) — Flow 3 egress (mean 28.92 Mbit/s)

Time (s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 242.82 ms) — Flow 2 (95th percentile 231.50 ms) — Flow 3 (95th percentile 247.15 ms)
Run 3: Statistics of PCC

Start at: 2018-02-04 18:59:02
End at: 2018-02-04 18:59:32
Local clock offset: 0.663 ms
Remote clock offset: 21.713 ms

# Below is generated by plot.py at 2018-02-05 03:05:07
# Datalink statistics

-- Total of 3 flows:
Average throughput: 81.93 Mbit/s
95th percentile per-packet one-way delay: 238.915 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 51.57 Mbit/s
95th percentile per-packet one-way delay: 240.360 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 31.62 Mbit/s
95th percentile per-packet one-way delay: 236.465 ms
Loss rate: 1.97%
-- Flow 3:
Average throughput: 28.95 Mbit/s
95th percentile per-packet one-way delay: 237.865 ms
Loss rate: 3.73%
Run 3: Report of PCC — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image2)
Run 4: Statistics of PCC

Start at: 2018-02-04 19:37:11
End at: 2018-02-04 19:37:41
Local clock offset: 2.059 ms
Remote clock offset: 11.695 ms

# Below is generated by plot.py at 2018-02-05 03:05:16
# Datalink statistics
-- Total of 3 flows:
    Average throughput: 82.24 Mbit/s
    95th percentile per-packet one-way delay: 249.142 ms
    Loss rate: 1.73%
-- Flow 1:
    Average throughput: 52.20 Mbit/s
    95th percentile per-packet one-way delay: 246.283 ms
    Loss rate: 1.27%
-- Flow 2:
    Average throughput: 30.44 Mbit/s
    95th percentile per-packet one-way delay: 249.750 ms
    Loss rate: 2.03%
-- Flow 3:
    Average throughput: 30.53 Mbit/s
    95th percentile per-packet one-way delay: 260.045 ms
    Loss rate: 3.52%
Run 4: Report of PCC — Data Link
Run 5: Statistics of PCC

Start at: 2018-02-04 20:06:11
End at: 2018-02-04 20:06:41
Local clock offset: 0.502 ms
Remote clock offset: 12.777 ms

# Below is generated by plot.py at 2018-02-05 03:05:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.61 Mbit/s
95th percentile per-packet one-way delay: 271.531 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 53.25 Mbit/s
95th percentile per-packet one-way delay: 267.271 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 31.50 Mbit/s
95th percentile per-packet one-way delay: 271.665 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 29.28 Mbit/s
95th percentile per-packet one-way delay: 277.357 ms
Loss rate: 3.18%
Run 5: Report of PCC — Data Link

---

**Throughput (Mbps)**

- **Flow 1 ingress** (mean 53.21 Mbps)
- **Flow 1 egress** (mean 53.25 Mbps)
- **Flow 2 ingress** (mean 31.58 Mbps)
- **Flow 2 egress** (mean 31.50 Mbps)
- **Flow 3 ingress** (mean 29.32 Mbps)
- **Flow 3 egress** (mean 29.28 Mbps)

**Per-packet delivery delay (ms)**

- **Flow 1** (95th percentile 267.27 ms)
- **Flow 2** (95th percentile 271.67 ms)
- **Flow 3** (95th percentile 277.36 ms)
Run 6: Statistics of PCC

Start at: 2018-02-04 20:37:09
End at: 2018-02-04 20:37:39
Local clock offset: 0.443 ms
Remote clock offset: -73.509 ms

# Below is generated by plot.py at 2018-02-05 03:05:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.32 Mbit/s
  95th percentile per-packet one-way delay: 329.909 ms
  Loss rate: 1.19%
-- Flow 1:
  Average throughput: 53.84 Mbit/s
  95th percentile per-packet one-way delay: 328.001 ms
  Loss rate: 0.87%
-- Flow 2:
  Average throughput: 31.46 Mbit/s
  95th percentile per-packet one-way delay: 330.298 ms
  Loss rate: 1.18%
-- Flow 3:
  Average throughput: 29.71 Mbit/s
  95th percentile per-packet one-way delay: 333.428 ms
  Loss rate: 2.98%
Run 6: Report of PCC — Data Link

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

- Flow 1 ingress (mean 53.95 Mbit/s)
- Flow 1 egress (mean 53.84 Mbit/s)
- Flow 2 ingress (mean 31.48 Mbit/s)
- Flow 2 egress (mean 31.46 Mbit/s)
- Flow 3 ingress (mean 29.99 Mbit/s)
- Flow 3 egress (mean 29.71 Mbit/s)

![Graph showing per-packet delay for different flows.](image)

- Flow 1 (95th percentile 328.00 ms)
- Flow 2 (95th percentile 330.30 ms)
- Flow 3 (95th percentile 333.43 ms)
Run 7: Statistics of PCC

Start at: 2018-02-04 21:09:15
End at: 2018-02-04 21:09:45
Local clock offset: 3.135 ms
Remote clock offset: 15.223 ms

# Below is generated by plot.py at 2018-02-05 03:05:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.61 Mbit/s
95th percentile per-packet one-way delay: 236.225 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 51.57 Mbit/s
95th percentile per-packet one-way delay: 234.194 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 30.87 Mbit/s
95th percentile per-packet one-way delay: 225.136 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 29.48 Mbit/s
95th percentile per-packet one-way delay: 243.690 ms
Loss rate: 2.50%
Run 7: Report of PCC — Data Link

[Graph showing throughput and packet one-way delay over time for different flows with specified mean rates.]
Run 8: Statistics of PCC

Start at: 2018-02-04 21:39:11
End at: 2018-02-04 21:39:41
Local clock offset: 0.491 ms
Remote clock offset: 2.916 ms

# Below is generated by plot.py at 2018-02-05 03:05:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.06 Mbit/s
95th percentile per-packet one-way delay: 243.429 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 55.39 Mbit/s
95th percentile per-packet one-way delay: 241.487 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 33.33 Mbit/s
95th percentile per-packet one-way delay: 228.065 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 17.10 Mbit/s
95th percentile per-packet one-way delay: 253.519 ms
Loss rate: 2.48%
Run 8: Report of PCC — Data Link
Run 9: Statistics of PCC

Start at: 2018-02-04 22:07:11
End at: 2018-02-04 22:07:41
Local clock offset: 3.001 ms
Remote clock offset: 2.827 ms

# Below is generated by plot.py at 2018-02-05 03:06:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.74 Mbit/s
95th percentile per-packet one-way delay: 244.180 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 52.69 Mbit/s
95th percentile per-packet one-way delay: 246.648 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 235.702 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 29.19 Mbit/s
95th percentile per-packet one-way delay: 241.319 ms
Loss rate: 2.60%
Run 9: Report of PCC — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 52.60 Mbps)
- Flow 1 egress (mean 52.69 Mbps)
- Flow 2 ingress (mean 32.56 Mbps)
- Flow 2 egress (mean 32.49 Mbps)
- Flow 3 ingress (mean 29.38 Mbps)
- Flow 3 egress (mean 29.19 Mbps)

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

- Flow 1 (95th percentile 246.65 ms)
- Flow 2 (95th percentile 235.70 ms)
- Flow 3 (95th percentile 241.32 ms)
Run 10: Statistics of PCC

Start at: 2018-02-04 22:32:33
End at: 2018-02-04 22:33:03
Local clock offset: 3.94 ms
Remote clock offset: 6.346 ms

# Below is generated by plot.py at 2018-02-05 03:06:35
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 82.95 Mbit/s
   95th percentile per-packet one-way delay: 242.836 ms
   Loss rate: 0.83%
-- Flow 1:
   Average throughput: 56.87 Mbit/s
   95th percentile per-packet one-way delay: 233.978 ms
   Loss rate: 0.60%
-- Flow 2:
   Average throughput: 31.40 Mbit/s
   95th percentile per-packet one-way delay: 247.607 ms
   Loss rate: 1.12%
-- Flow 3:
   Average throughput: 16.22 Mbit/s
   95th percentile per-packet one-way delay: 263.110 ms
   Loss rate: 2.15%
Run 10: Report of PCC — Data Link

![Graph showing network performance metrics over time.](image-url)
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-04 17:54:16
End at: 2018-02-04 17:54:46
Local clock offset: 4.125 ms
Remote clock offset: 30.326 ms

# Below is generated by plot.py at 2018-02-05 03:06:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.34 Mbit/s
  95th percentile per-packet one-way delay: 225.012 ms
  Loss rate: 1.67%
-- Flow 1:
  Average throughput: 2.47 Mbit/s
  95th percentile per-packet one-way delay: 227.154 ms
  Loss rate: 1.65%
-- Flow 2:
  Average throughput: 2.83 Mbit/s
  95th percentile per-packet one-way delay: 212.753 ms
  Loss rate: 1.50%
-- Flow 3:
  Average throughput: 3.06 Mbit/s
  95th percentile per-packet one-way delay: 218.497 ms
  Loss rate: 2.03%
Run 1: Report of QUIC Cubic — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 2.50 Mbps)
- Flow 1 egress (mean 2.47 Mbps)
- Flow 2 ingress (mean 2.84 Mbps)
- Flow 2 egress (mean 2.83 Mbps)
- Flow 3 ingress (mean 3.06 Mbps)
- Flow 3 egress (mean 3.06 Mbps)

![Graph 2: RTT (ms)]

- Flow 1 (95th percentile 227.15 ms)
- Flow 2 (95th percentile 213.75 ms)
- Flow 3 (95th percentile 218.50 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-04 18:36:59
End at: 2018-02-04 18:37:29
Local clock offset: 5.239 ms
Remote clock offset: 24.228 ms

# Below is generated by plot.py at 2018-02-05 03:06:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.22 Mbit/s
  95th percentile per-packet one-way delay: 234.804 ms
  Loss rate: 1.31%
-- Flow 1:
  Average throughput: 4.78 Mbit/s
  95th percentile per-packet one-way delay: 235.459 ms
  Loss rate: 1.04%
-- Flow 2:
  Average throughput: 2.85 Mbit/s
  95th percentile per-packet one-way delay: 234.103 ms
  Loss rate: 1.47%
-- Flow 3:
  Average throughput: 1.71 Mbit/s
  95th percentile per-packet one-way delay: 210.830 ms
  Loss rate: 3.07%
Run 2: Report of QUIC Cubic — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 4.79 Mbit/s)
Flow 1 egress (mean 4.78 Mbit/s)
Flow 2 ingress (mean 2.86 Mbit/s)
Flow 2 egress (mean 2.85 Mbit/s)
Flow 3 ingress (mean 1.72 Mbit/s)
Flow 3 egress (mean 1.71 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 235.46 ms)
Flow 2 (95th percentile 234.10 ms)
Flow 3 (95th percentile 210.83 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-04 19:17:10
End at: 2018-02-04 19:17:40
Local clock offset: 0.71 ms
Remote clock offset: 17.75 ms

# Below is generated by plot.py at 2018-02-05 03:06:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 215.232 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 3.59 Mbit/s
95th percentile per-packet one-way delay: 215.854 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 215.512 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 5.08 Mbit/s
95th percentile per-packet one-way delay: 210.097 ms
Loss rate: 2.26%
Run 3: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet round-trip delay over time for different flows.]

**Throughput (Mbps):**
- **Flow 1 ingress** (mean 3.61 Mbps)
- **Flow 1 egress** (mean 3.59 Mbps)
- **Flow 2 ingress** (mean 3.93 Mbps)
- **Flow 2 egress** (mean 3.92 Mbps)
- **Flow 3 ingress** (mean 5.06 Mbps)
- **Flow 3 egress** (mean 5.08 Mbps)

**Packet Round-Trip Delay (ms):**
- **Flow 1** (95th percentile 215.85 ms)
- **Flow 2** (95th percentile 215.51 ms)
- **Flow 3** (95th percentile 210.10 ms)
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-04 19:52:37
End at: 2018-02-04 19:53:07
Local clock offset: 4.61 ms
Remote clock offset: 3.979 ms

# Below is generated by plot.py at 2018-02-05 03:06:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.87 Mbit/s
95th percentile per-packet one-way delay: 248.057 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 20.07 Mbit/s
95th percentile per-packet one-way delay: 233.022 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 23.94 Mbit/s
95th percentile per-packet one-way delay: 250.705 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 2.93 Mbit/s
95th percentile per-packet one-way delay: 240.934 ms
Loss rate: 3.17%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-04 20:21:03
End at: 2018-02-04 20:21:33
Local clock offset: 0.892 ms
Remote clock offset: 4.347 ms

# Below is generated by plot.py at 2018-02-05 03:06:35
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 52.08 Mbit/s
   95th percentile per-packet one-way delay: 240.295 ms
   Loss rate: 1.36%
   -- Flow 1:
   Average throughput: 35.88 Mbit/s
   95th percentile per-packet one-way delay: 233.036 ms
   Loss rate: 0.83%
   -- Flow 2:
   Average throughput: 12.24 Mbit/s
   95th percentile per-packet one-way delay: 224.656 ms
   Loss rate: 1.06%
   -- Flow 3:
   Average throughput: 24.84 Mbit/s
   95th percentile per-packet one-way delay: 246.413 ms
   Loss rate: 3.91%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-04 20:52:00
End at: 2018-02-04 20:52:30
Local clock offset: 2.515 ms
Remote clock offset: 16.161 ms

# Below is generated by plot.py at 2018-02-05 03:06:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.38 Mbit/s
95th percentile per-packet one-way delay: 213.081 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 30.78 Mbit/s
95th percentile per-packet one-way delay: 213.578 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 17.18 Mbit/s
95th percentile per-packet one-way delay: 211.789 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 3.72 Mbit/s
95th percentile per-packet one-way delay: 211.817 ms
Loss rate: 2.84%
Run 6: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 30.88 Mbit/s)
- Flow 1 egress (mean 30.78 Mbit/s)
- Flow 2 ingress (mean 17.24 Mbit/s)
- Flow 2 egress (mean 17.18 Mbit/s)
- Flow 3 ingress (mean 3.76 Mbit/s)
- Flow 3 egress (mean 3.72 Mbit/s)
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-04 21:23:27
End at: 2018-02-04 21:23:57
Local clock offset: 2.676 ms
Remote clock offset: 1.53 ms

# Below is generated by plot.py at 2018-02-05 03:06:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.81 Mbit/s
95th percentile per-packet one-way delay: 247.961 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 36.33 Mbit/s
95th percentile per-packet one-way delay: 243.714 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 20.72 Mbit/s
95th percentile per-packet one-way delay: 256.560 ms
Loss rate: 2.27%
-- Flow 3:
Average throughput: 17.67 Mbit/s
95th percentile per-packet one-way delay: 231.905 ms
Loss rate: 2.69%
Run 7: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet round trip delay over time for different flows.]

- **Flow 1 ingress** (mean 36.40 Mbit/s)
- **Flow 1 egress** (mean 36.33 Mbit/s)
- **Flow 2 ingress** (mean 20.96 Mbit/s)
- **Flow 2 egress** (mean 20.72 Mbit/s)
- **Flow 3 ingress** (mean 17.79 Mbit/s)
- **Flow 3 egress** (mean 17.67 Mbit/s)
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-04 21:54:30
End at: 2018-02-04 21:55:00
Local clock offset: 1.741 ms
Remote clock offset: 4.703 ms

# Below is generated by plot.py at 2018-02-05 03:07:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.61 Mbit/s
95th percentile per-packet one-way delay: 228.126 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 51.89 Mbit/s
95th percentile per-packet one-way delay: 225.993 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 234.713 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 32.86 Mbit/s
95th percentile per-packet one-way delay: 231.372 ms
Loss rate: 2.60%
Run 8: Report of QUIC Cubic — Data Link

[Graph showing throughput over time for different flows]

[Graph showing per-packet one-way delay for different flows]
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-04 22:20:03
End at: 2018-02-04 22:20:33
Local clock offset: 5.381 ms
Remote clock offset: 3.361 ms

# Below is generated by plot.py at 2018-02-05 03:07:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.29 Mbit/s
95th percentile per-packet one-way delay: 214.259 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 44.03 Mbit/s
95th percentile per-packet one-way delay: 213.810 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 26.56 Mbit/s
95th percentile per-packet one-way delay: 217.935 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 14.35 Mbit/s
95th percentile per-packet one-way delay: 210.219 ms
Loss rate: 6.53%
Run 9: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress (mean 43.91 Mbps)**
- **Flow 1 egress (mean 44.03 Mbps)**
- **Flow 2 ingress (mean 26.57 Mbps)**
- **Flow 2 egress (mean 26.56 Mbps)**
- **Flow 3 ingress (mean 15.07 Mbps)**
- **Flow 3 egress (mean 14.35 Mbps)**

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

- **Flow 1 (95th percentile 213.81 ms)**
- **Flow 2 (95th percentile 217.94 ms)**
- **Flow 3 (95th percentile 210.22 ms)**
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-04 22:45:05
End at: 2018-02-04 22:45:35
Local clock offset: 4.247 ms
Remote clock offset: 7.096 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.79 Mbit/s
95th percentile per-packet one-way delay: 225.065 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 32.98 Mbit/s
95th percentile per-packet one-way delay: 224.813 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 41.72 Mbit/s
95th percentile per-packet one-way delay: 221.585 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 31.21 Mbit/s
95th percentile per-packet one-way delay: 228.174 ms
Loss rate: 2.90%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-02-04 17:47:23
End at: 2018-02-04 17:47:53
Local clock offset: 1.067 ms
Remote clock offset: 30.979 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.30 Mbit/s
  95th percentile per-packet one-way delay: 216.544 ms
  Loss rate: 1.70%
-- Flow 1:
  Average throughput: 0.12 Mbit/s
  95th percentile per-packet one-way delay: 211.018 ms
  Loss rate: 1.94%
-- Flow 2:
  Average throughput: 0.18 Mbit/s
  95th percentile per-packet one-way delay: 220.290 ms
  Loss rate: 1.36%
-- Flow 3:
  Average throughput: 0.18 Mbit/s
  95th percentile per-packet one-way delay: 213.665 ms
  Loss rate: 1.89%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-02-04 18:31:21  
End at: 2018-02-04 18:31:51  
Local clock offset: 5.124 ms  
Remote clock offset: 19.657 ms

# Below is generated by plot.py at 2018-02-05 03:07:20  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 0.26 Mbit/s  
  95th percentile per-packet one-way delay: 239.243 ms  
  Loss rate: 2.07%  
-- Flow 1:  
  Average throughput: 0.11 Mbit/s  
  95th percentile per-packet one-way delay: 230.214 ms  
  Loss rate: 2.06%  
-- Flow 2:  
  Average throughput: 0.13 Mbit/s  
  95th percentile per-packet one-way delay: 241.479 ms  
  Loss rate: 1.66%  
-- Flow 3:  
  Average throughput: 0.20 Mbit/s  
  95th percentile per-packet one-way delay: 218.181 ms  
  Loss rate: 2.63%
Run 2: Report of SCReAM — Data Link

![Graph showing throughput in Mbps over time for different flows with various ingress and egress rates.](image1)

![Graph showing per-packet one-way delay in ms over time for different flows.](image2)
Run 3: Statistics of SCReAM

Start at: 2018-02-04 19:10:38
End at: 2018-02-04 19:11:08
Local clock offset: 1.178 ms
Remote clock offset: 19.464 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.26 Mbit/s
  95th percentile per-packet one-way delay: 228.191 ms
  Loss rate: 1.61%
-- Flow 1:
  Average throughput: 0.14 Mbit/s
  95th percentile per-packet one-way delay: 226.775 ms
  Loss rate: 1.16%
-- Flow 2:
  Average throughput: 0.13 Mbit/s
  95th percentile per-packet one-way delay: 228.002 ms
  Loss rate: 2.11%
-- Flow 3:
  Average throughput: 0.12 Mbit/s
  95th percentile per-packet one-way delay: 229.958 ms
  Loss rate: 2.16%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2018-02-04 19:47:42
End at: 2018-02-04 19:48:12
Local clock offset: 2.423 ms
Remote clock offset: 16.058 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 232.092 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 233.139 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 230.646 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 230.193 ms
Loss rate: 2.22%
Run 4: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.13 Mbps)   Flow 1 egress (mean 0.13 Mbps)
Flow 2 ingress (mean 0.19 Mbps)   Flow 2 egress (mean 0.19 Mbps)
Flow 3 ingress (mean 0.15 Mbps)   Flow 3 egress (mean 0.15 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 233.14 ms)   Flow 2 (95th percentile 230.65 ms)   Flow 3 (95th percentile 230.19 ms)
Run 5: Statistics of SCReAM

Start at: 2018-02-04 20:16:12
End at: 2018-02-04 20:16:42
Local clock offset: 2.702 ms
Remote clock offset: 7.902 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.32 Mbit/s
  95th percentile per-packet one-way delay: 243.439 ms
  Loss rate: 1.32%
-- Flow 1:
  Average throughput: 0.14 Mbit/s
  95th percentile per-packet one-way delay: 245.864 ms
  Loss rate: 1.33%
-- Flow 2:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 241.874 ms
  Loss rate: 1.02%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 234.383 ms
  Loss rate: 1.79%
Run 5: Report of SCReAM — Data Link

![Graph of Throughput vs Time](image1)

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

Legend:
- Flow 1 ingress (mean 0.14 Mbit/s)
- Flow 1 egress (mean 0.14 Mbit/s)
- Flow 2 ingress (mean 0.17 Mbit/s)
- Flow 2 egress (mean 0.17 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s)
- Flow 3 egress (mean 0.22 Mbit/s)

Legend for packet delay:
- Flow 1 (95th percentile 245.86 ms)
- Flow 2 (95th percentile 241.87 ms)
- Flow 3 (95th percentile 234.38 ms)
Run 6: Statistics of SCReAM

Start at: 2018-02-04 20:47:19
End at: 2018-02-04 20:47:49
Local clock offset: 1.505 ms
Remote clock offset: 16.189 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 209.309 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 209.724 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 208.615 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 209.507 ms
Loss rate: 1.46%
Run 6: Report of SCReAM — Data Link

[Graph showing throughput and packet delay over time for three flows, with annotations for mean and 95th percentile delay.]
Run 7: Statistics of SCReAM

Start at: 2018-02-04 21:18:43
End at: 2018-02-04 21:19:13
Local clock offset: 3.533 ms
Remote clock offset: 3.862 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.33 Mbit/s
  95th percentile per-packet one-way delay: 225.063 ms
  Loss rate: 0.85%
-- Flow 1:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 225.005 ms
  Loss rate: 0.66%
-- Flow 2:
  Average throughput: 0.18 Mbit/s
  95th percentile per-packet one-way delay: 225.314 ms
  Loss rate: 0.71%
-- Flow 3:
  Average throughput: 0.20 Mbit/s
  95th percentile per-packet one-way delay: 223.273 ms
  Loss rate: 1.51%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-02-04 21:49:51
End at: 2018-02-04 21:50:21
Local clock offset: 0.781 ms
Remote clock offset: 1.723 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 224.003 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 225.435 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 222.086 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 212.976 ms
Loss rate: 1.55%
Run 9: Statistics of SCReAM

Start at: 2018-02-04 22:15:48
End at: 2018-02-04 22:16:18
Local clock offset: 4.05 ms
Remote clock offset: 4.088 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 199.152 ms
  Loss rate: 0.85%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 198.865 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 199.756 ms
  Loss rate: 0.85%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 199.672 ms
  Loss rate: 1.49%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-02-04 22:41:00
End at: 2018-02-04 22:41:30
Local clock offset: 3.561 ms
Remote clock offset: 8.923 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.34 Mbit/s
  95th percentile per-packet one-way delay: 212.323 ms
  Loss rate: 0.76%
-- Flow 1:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 213.753 ms
  Loss rate: 0.45%
-- Flow 2:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 213.878 ms
  Loss rate: 0.69%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 186.678 ms
  Loss rate: 1.50%
Run 10: Report of SCReAM — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 0.15 Mbps)
- Flow 1 egress (mean 0.15 Mbps)
- Flow 2 ingress (mean 0.15 Mbps)
- Flow 2 egress (mean 0.17 Mbps)
- Flow 3 ingress (mean 0.22 Mbps)
- Flow 3 egress (mean 0.22 Mbps)

![Delay Graph]

- Flow 1 (95th percentile 213.75 ms)
- Flow 2 (95th percentile 213.88 ms)
- Flow 3 (95th percentile 166.68 ms)
Run 1: Statistics of WebRTC media

Start at: 2018-02-04 17:25:45
End at: 2018-02-04 17:26:15
Local clock offset: 4.877 ms
Remote clock offset: 47.117 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 207.946 ms
Loss rate: 3.54%
-- Flow 1:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 207.829 ms
Loss rate: 3.68%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 208.131 ms
Loss rate: 3.30%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 207.972 ms
Loss rate: 3.83%
Run 1: Report of WebRTC media — Data Link

[Graph showing throughput over time for different flows with specified mean Bitrates and 95th percentiles for delay]
Run 2: Statistics of WebRTC media

Start at: 2018-02-04 18:09:26
End at: 2018-02-04 18:09:56
Local clock offset: 1.306 ms
Remote clock offset: 21.597 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.43 Mbit/s
  95th percentile per-packet one-way delay: 210.170 ms
  Loss rate: 3.01%
-- Flow 1:
  Average throughput: 2.73 Mbit/s
  95th percentile per-packet one-way delay: 210.186 ms
  Loss rate: 2.72%
-- Flow 2:
  Average throughput: 1.32 Mbit/s
  95th percentile per-packet one-way delay: 210.319 ms
  Loss rate: 2.68%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 209.388 ms
  Loss rate: 5.88%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-02-04 18:51:06
End at: 2018-02-04 18:51:36
Local clock offset: 4.106 ms
Remote clock offset: 21.49 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.28 Mbit/s
  95th percentile per-packet one-way delay: 236.385 ms
  Loss rate: 2.38%
-- Flow 1:
  Average throughput: 2.64 Mbit/s
  95th percentile per-packet one-way delay: 236.456 ms
  Loss rate: 1.99%
-- Flow 2:
  Average throughput: 1.24 Mbit/s
  95th percentile per-packet one-way delay: 237.036 ms
  Loss rate: 2.19%
-- Flow 3:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 228.550 ms
  Loss rate: 5.27%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-02-04 19:30:35
End at: 2018-02-04 19:31:05
Local clock offset: 2.142 ms
Remote clock offset: 20.694 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 238.834 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 238.407 ms
Loss rate: 2.17%
-- Flow 2:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 239.077 ms
Loss rate: 2.10%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 240.130 ms
Loss rate: 5.03%
Run 4: Report of WebRTC media — Data Link

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

![Graph 2: Packet one way delay (ms)](image2)
Run 5: Statistics of WebRTC media

Start at: 2018-02-04 20:00:47
End at: 2018-02-04 20:01:17
Local clock offset: 1.989 ms
Remote clock offset: 10.79 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.16 Mbit/s
  95th percentile per-packet one-way delay: 238.569 ms
  Loss rate: 1.57%
-- Flow 1:
  Average throughput: 2.50 Mbit/s
  95th percentile per-packet one-way delay: 238.482 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 1.28 Mbit/s
  95th percentile per-packet one-way delay: 240.056 ms
  Loss rate: 1.65%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 230.407 ms
  Loss rate: 4.84%
Run 5: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.51 Mbit/s), Flow 1 egress (mean 2.50 Mbit/s)
- Flow 2 ingress (mean 1.29 Mbit/s), Flow 2 egress (mean 1.28 Mbit/s)
- Flow 3 ingress (mean 0.43 Mbit/s), Flow 3 egress (mean 0.42 Mbit/s)

![Graphs showing packet one-way delay for different flows.]

- Flow 1 (95th percentile 238.48 ms), Flow 2 (95th percentile 240.06 ms), Flow 3 (95th percentile 230.41 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-02-04 20:30:35
End at: 2018-02-04 20:31:05
Local clock offset: 1.87 ms
Remote clock offset: 1.94 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.11 Mbit/s
  95th percentile per-packet one-way delay: 229.814 ms
  Loss rate: 1.45%
-- Flow 1:
  Average throughput: 1.20 Mbit/s
  95th percentile per-packet one-way delay: 229.528 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 1.48 Mbit/s
  95th percentile per-packet one-way delay: 228.642 ms
  Loss rate: 1.81%
-- Flow 3:
  Average throughput: 0.48 Mbit/s
  95th percentile per-packet one-way delay: 232.359 ms
  Loss rate: 1.79%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-02-04 21:02:14
End at: 2018-02-04 21:02:44
Local clock offset: 5.488 ms
Remote clock offset: 15.198 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 216.557 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 215.587 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 217.903 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 217.029 ms
Loss rate: 4.22%
Run 7: Report of WebRTC media — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.50 Mbps)  Flow 1 egress (mean 2.50 Mbps)
Flow 2 ingress (mean 1.32 Mbps)  Flow 2 egress (mean 1.31 Mbps)
Flow 3 ingress (mean 0.47 Mbps)  Flow 3 egress (mean 0.46 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 215.59 ms)  Flow 2 (95th percentile 217.90 ms)  Flow 3 (95th percentile 217.03 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-02-04 21:33:02
End at: 2018-02-04 21:33:32
Local clock offset: 2.598 ms
Remote clock offset: 3.243 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 231.102 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 231.221 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 231.039 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 229.984 ms
Loss rate: 4.71%
Run 8: Report of WebRTC media — Data Link

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

Legend:
- Flow 1 ingress (mean 2.56 Mbit/s)
- Flow 1 egress (mean 2.55 Mbit/s)
- Flow 2 ingress (mean 1.35 Mbit/s)
- Flow 2 egress (mean 1.34 Mbit/s)
- Flow 3 ingress (mean 0.43 Mbit/s)
- Flow 3 egress (mean 0.41 Mbit/s)

![Graph showing round-trip time for different flows.]

Legend:
- Flow 1 (95th percentile 231.22 ms)
- Flow 2 (95th percentile 231.04 ms)
- Flow 3 (95th percentile 229.98 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-02-04 22:01:56
End at: 2018-02-04 22:02:26
Local clock offset: 1.115 ms
Remote clock offset: 2.763 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.40 Mbit/s
95th percentile per-packet one-way delay: 216.917 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 219.121 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 188.036 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 228.238 ms
Loss rate: 1.49%
Run 9: Report of WebRTC media — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 1.73 Mbit/s)
  - Flow 1 egress (mean 1.72 Mbit/s)
  - Flow 2 ingress (mean 1.29 Mbit/s)
  - Flow 2 egress (mean 1.29 Mbit/s)
  - Flow 3 ingress (mean 0.45 Mbit/s)
  - Flow 3 egress (mean 0.44 Mbit/s)

- **Delay (ms)**
  - Flow 1 (95th percentile 219.12 ms)
  - Flow 2 (95th percentile 188.04 ms)
  - Flow 3 (95th percentile 228.24 ms)
Run 10: Statistics of WebRTC media

Local clock offset: 3.435 ms
Remote clock offset: 3.075 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.77 Mbit/s
  95th percentile per-packet one-way delay: 187.577 ms
  Loss rate: 0.98%
-- Flow 1:
  Average throughput: 2.11 Mbit/s
  95th percentile per-packet one-way delay: 188.490 ms
  Loss rate: 0.64%
-- Flow 2:
  Average throughput: 1.26 Mbit/s
  95th percentile per-packet one-way delay: 187.215 ms
  Loss rate: 0.46%
-- Flow 3:
  Average throughput: 0.45 Mbit/s
  95th percentile per-packet one-way delay: 186.906 ms
  Loss rate: 4.03%
Run 10: Report of WebRTC media — Data Link
Run 1: Statistics of Sprout

Start at: 2018-02-04 17:27:08  
End at: 2018-02-04 17:27:38  
Local clock offset: 2.361 ms  
Remote clock offset: 46.925 ms

# Below is generated by plot.py at 2018-02-05 03:07:20  
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1.79 Mbit/s
  95th percentile per-packet one-way delay: 204.064 ms
  Loss rate: 1.63%
-- Flow 1:
  Average throughput: 0.96 Mbit/s
  95th percentile per-packet one-way delay: 204.325 ms
  Loss rate: 1.14%
-- Flow 2:
  Average throughput: 0.87 Mbit/s
  95th percentile per-packet one-way delay: 203.754 ms
  Loss rate: 2.24%
-- Flow 3:
  Average throughput: 0.76 Mbit/s
  95th percentile per-packet one-way delay: 203.743 ms
  Loss rate: 2.11%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-02-04 18:10:56
End at: 2018-02-04 18:11:26
Local clock offset: 1.915 ms
Remote clock offset: 20.768 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1.22 Mbit/s
  95th percentile per-packet one-way delay: 211.685 ms
  Loss rate: 3.33%
-- Flow 1:
  Average throughput: 0.61 Mbit/s
  95th percentile per-packet one-way delay: 211.462 ms
  Loss rate: 4.04%
-- Flow 2:
  Average throughput: 0.53 Mbit/s
  95th percentile per-packet one-way delay: 211.465 ms
  Loss rate: 3.09%
-- Flow 3:
  Average throughput: 0.81 Mbit/s
  95th percentile per-packet one-way delay: 212.324 ms
  Loss rate: 1.97%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-02-04 18:52:25
End at: 2018-02-04 18:52:55
Local clock offset: 2.028 ms
Remote clock offset: 20.032 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 206.544 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 206.656 ms
Loss rate: 2.36%
-- Flow 2:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 206.599 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 206.019 ms
Loss rate: 0.85%
Run 3: Report of Sprout — Data Link

![Graph of data link throughput and latency over time.]

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 0.54 Mbps)
  - Flow 1 egress (mean 0.53 Mbps)
  - Flow 2 ingress (mean 0.43 Mbps)
  - Flow 2 egress (mean 0.43 Mbps)
  - Flow 3 ingress (mean 0.39 Mbps)
  - Flow 3 egress (mean 0.40 Mbps)

- **Ping packet one-way delay (ms)**
  - Flow 1 (95th percentile 206.66 ms)
  - Flow 2 (95th percentile 206.60 ms)
  - Flow 3 (95th percentile 206.02 ms)
Run 4: Statistics of Sprout

Start at: 2018-02-04 19:31:56
End at: 2018-02-04 19:32:26
Local clock offset: 2.765 ms
Remote clock offset: 20.41 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1.63 Mbit/s
  95th percentile per-packet one-way delay: 242.827 ms
  Loss rate: 2.35%
-- Flow 1:
  Average throughput: 0.93 Mbit/s
  95th percentile per-packet one-way delay: 243.044 ms
  Loss rate: 1.99%
-- Flow 2:
  Average throughput: 0.74 Mbit/s
  95th percentile per-packet one-way delay: 242.493 ms
  Loss rate: 2.02%
-- Flow 3:
  Average throughput: 0.62 Mbit/s
  95th percentile per-packet one-way delay: 243.175 ms
  Loss rate: 4.77%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

Start at: 2018-02-04 20:02:04
End at: 2018-02-04 20:02:34
Local clock offset: 0.644 ms
Remote clock offset: 4.957 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 246.710 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 245.916 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 248.372 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 241.880 ms
Loss rate: 2.82%
Run 5: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 0.71 Mbit/s)
- Flow 1 egress (mean 0.71 Mbit/s)
- Flow 2 ingress (mean 0.83 Mbit/s)
- Flow 2 egress (mean 0.83 Mbit/s)
- Flow 3 ingress (mean 1.14 Mbit/s)
- Flow 3 egress (mean 1.14 Mbit/s)

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

- Flow 1 (95th percentile 245.92 ms)
- Flow 2 (95th percentile 248.37 ms)
- Flow 3 (95th percentile 241.88 ms)
Run 6: Statistics of Sprout

Start at: 2018-02-04 20:31:56
End at: 2018-02-04 20:32:26
Local clock offset: 2.749 ms
Remote clock offset: 1.372 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.10 Mbit/s
  95th percentile per-packet one-way delay: 242.536 ms
  Loss rate: 0.94%
-- Flow 1:
  Average throughput: 1.10 Mbit/s
  95th percentile per-packet one-way delay: 241.812 ms
  Loss rate: 0.59%
-- Flow 2:
  Average throughput: 1.18 Mbit/s
  95th percentile per-packet one-way delay: 246.425 ms
  Loss rate: 0.79%
-- Flow 3:
  Average throughput: 0.66 Mbit/s
  95th percentile per-packet one-way delay: 226.853 ms
  Loss rate: 3.17%
Run 7: Statistics of Sprout

Start at: 2018-02-04 21:03:37
End at: 2018-02-04 21:04:07
Local clock offset: 5.329 ms
Remote clock offset: 15.615 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.06 Mbit/s
95th percentile per-packet one-way delay: 217.557 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 218.565 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 216.435 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 217.471 ms
Loss rate: 4.49%
Run 7: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 1.55 Mbps)
- Flow 1 egress (mean 1.55 Mbps)
- Flow 2 ingress (mean 1.71 Mbps)
- Flow 2 egress (mean 1.71 Mbps)
- Flow 3 ingress (mean 1.20 Mbps)
- Flow 3 egress (mean 1.17 Mbps)

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

- Flow 1 (95th percentile 218.56 ms)
- Flow 2 (95th percentile 216.44 ms)
- Flow 3 (95th percentile 217.47 ms)
Run 8: Statistics of Sprout

Start at: 2018-02-04 21:34:24
End at: 2018-02-04 21:34:54
Local clock offset: -0.491 ms
Remote clock offset: 4.837 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.00 Mbit/s
  95th percentile per-packet one-way delay: 227.725 ms
  Loss rate: 1.78%
-- Flow 1:
  Average throughput: 1.37 Mbit/s
  95th percentile per-packet one-way delay: 226.993 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 1.47 Mbit/s
  95th percentile per-packet one-way delay: 227.657 ms
  Loss rate: 2.77%
-- Flow 3:
  Average throughput: 2.01 Mbit/s
  95th percentile per-packet one-way delay: 229.222 ms
  Loss rate: 3.88%
Run 8: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 1.36 Mbit/s)
- Flow 1 egress (mean 1.37 Mbit/s)
- Flow 2 ingress (mean 1.50 Mbit/s)
- Flow 2 egress (mean 1.47 Mbit/s)
- Flow 3 ingress (mean 2.05 Mbit/s)
- Flow 3 egress (mean 2.01 Mbit/s)
Run 9: Statistics of Sprout

Start at: 2018-02-04 22:03:11
End at: 2018-02-04 22:03:41
Local clock offset: 3.63 ms
Remote clock offset: 3.879 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.80 Mbit/s
  95th percentile per-packet one-way delay: 197.857 ms
  Loss rate: 0.62%
-- Flow 1:
  Average throughput: 4.05 Mbit/s
  95th percentile per-packet one-way delay: 199.803 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.01 Mbit/s
  95th percentile per-packet one-way delay: 192.581 ms
  Loss rate: 1.30%
-- Flow 3:
  Average throughput: 3.33 Mbit/s
  95th percentile per-packet one-way delay: 197.213 ms
  Loss rate: 1.22%
Run 9: Report of Sprout — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows.]
Run 10: Statistics of Sprout

End at: 2018-02-04 22:29:08
Local clock offset: 2.391 ms
Remote clock offset: 4.375 ms

# Below is generated by plot.py at 2018-02-05 03:07:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.41 Mbit/s
  95th percentile per-packet one-way delay: 206.699 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 3.83 Mbit/s
  95th percentile per-packet one-way delay: 207.492 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.51 Mbit/s
  95th percentile per-packet one-way delay: 209.445 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 3.81 Mbit/s
  95th percentile per-packet one-way delay: 193.611 ms
  Loss rate: 1.54%
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-04 17:38:41
End at: 2018-02-04 17:39:11
Local clock offset: 1.042 ms
Remote clock offset: 30.913 ms

# Below is generated by plot.py at 2018-02-05 03:08:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.10 Mbit/s
95th percentile per-packet one-way delay: 226.459 ms
Loss rate: 2.54%
-- Flow 1:
Average throughput: 43.64 Mbit/s
95th percentile per-packet one-way delay: 223.009 ms
Loss rate: 2.28%
-- Flow 2:
Average throughput: 37.63 Mbit/s
95th percentile per-packet one-way delay: 230.555 ms
Loss rate: 2.65%
-- Flow 3:
Average throughput: 13.47 Mbit/s
95th percentile per-packet one-way delay: 242.974 ms
Loss rate: 4.19%
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-04 18:23:32
End at: 2018-02-04 18:24:02
Local clock offset: 4.891 ms
Remote clock offset: 22.288 ms

# Below is generated by plot.py at 2018-02-05 03:09:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.51 Mbit/s
95th percentile per-packet one-way delay: 228.611 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 41.77 Mbit/s
95th percentile per-packet one-way delay: 228.041 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 40.60 Mbit/s
95th percentile per-packet one-way delay: 226.995 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 14.74 Mbit/s
95th percentile per-packet one-way delay: 241.941 ms
Loss rate: 3.11%
Run 2: Report of TaoVA-100x — Data Link

![Graph showing network performance metrics](image)

- **Throughput (Mbps)**: The graph displays the throughput over time for different flows.
  - **Flow 1 ingress** (mean 42.09 Mbps)
  - **Flow 1 egress** (mean 41.77 Mbps)
  - **Flow 2 ingress** (mean 40.94 Mbps)
  - **Flow 2 egress** (mean 40.60 Mbps)
  - **Flow 3 ingress** (mean 14.84 Mbps)
  - **Flow 3 egress** (mean 14.74 Mbps)

- **Packet one-way delay (ms)**: The bottom graph shows the packet delay over time.
  - **Flow 1** (95th percentile 228.04 ms)
  - **Flow 2** (95th percentile 227.00 ms)
  - **Flow 3** (95th percentile 241.94 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-04 19:04:10
End at: 2018-02-04 19:04:40
Local clock offset: 0.264 ms
Remote clock offset: 11.895 ms

# Below is generated by plot.py at 2018-02-05 03:09:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 70.32 Mbit/s
  95th percentile per-packet one-way delay: 252.353 ms
  Loss rate: 1.73%
-- Flow 1:
  Average throughput: 42.07 Mbit/s
  95th percentile per-packet one-way delay: 231.287 ms
  Loss rate: 1.25%
-- Flow 2:
  Average throughput: 35.12 Mbit/s
  95th percentile per-packet one-way delay: 261.016 ms
  Loss rate: 2.37%
-- Flow 3:
  Average throughput: 15.30 Mbit/s
  95th percentile per-packet one-way delay: 232.003 ms
  Loss rate: 2.79%
Run 3: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress** (mean 42.29 Mbit/s)
- **Flow 1 egress** (mean 42.07 Mbit/s)
- **Flow 2 ingress** (mean 35.54 Mbit/s)
- **Flow 2 egress** (mean 35.32 Mbit/s)
- **Flow 3 ingress** (mean 15.43 Mbit/s)
- **Flow 3 egress** (mean 15.30 Mbit/s)

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

- **Flow 1** (95th percentile 231.29 ms)
- **Flow 2** (95th percentile 261.02 ms)
- **Flow 3** (95th percentile 232.00 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-04 19:42:00
End at: 2018-02-04 19:42:30
Local clock offset: -0.477 ms
Remote clock offset: 12.057 ms

# Below is generated by plot.py at 2018-02-05 03:09:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 63.92 Mbit/s
  95th percentile per-packet one-way delay: 252.518 ms
  Loss rate: 1.31%
-- Flow 1:
  Average throughput: 34.47 Mbit/s
  95th percentile per-packet one-way delay: 244.961 ms
  Loss rate: 0.53%
-- Flow 2:
  Average throughput: 37.43 Mbit/s
  95th percentile per-packet one-way delay: 255.216 ms
  Loss rate: 2.03%
-- Flow 3:
  Average throughput: 14.18 Mbit/s
  95th percentile per-packet one-way delay: 262.630 ms
  Loss rate: 3.10%
Run 4: Report of TaoVA-100x — Data Link

![Graph showing throughput and packet delay]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 34.38 Mbps)
  - Flow 1 egress (mean 34.47 Mbps)
  - Flow 2 ingress (mean 37.75 Mbps)
  - Flow 2 egress (mean 37.43 Mbps)
  - Flow 3 ingress (mean 14.27 Mbps)
  - Flow 3 egress (mean 14.18 Mbps)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 244.96 ms)
  - Flow 2 (95th percentile 255.22 ms)
  - Flow 3 (95th percentile 262.63 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-02-04 20:10:43
End at: 2018-02-04 20:11:13
Local clock offset: 0.516 ms
Remote clock offset: 4.415 ms

# Below is generated by plot.py at 2018-02-05 03:09:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.65 Mbit/s
95th percentile per-packet one-way delay: 247.223 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 36.28 Mbit/s
95th percentile per-packet one-way delay: 242.920 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 39.13 Mbit/s
95th percentile per-packet one-way delay: 250.527 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 13.63 Mbit/s
95th percentile per-packet one-way delay: 248.829 ms
Loss rate: 2.24%
Run 5: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 35.22 Mbit/s)
- Flow 1 egress (mean 36.28 Mbit/s)
- Flow 2 ingress (mean 39.31 Mbit/s)
- Flow 2 egress (mean 39.13 Mbit/s)
- Flow 3 ingress (mean 13.64 Mbit/s)
- Flow 3 egress (mean 13.63 Mbit/s)
Run 6: Statistics of TaoVA-100x

Start at: 2018-02-04 20:41:55
End at: 2018-02-04 20:42:25
Local clock offset: 3.523 ms
Remote clock offset: 16.145 ms

# Below is generated by plot.py at 2018-02-05 03:09:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.61 Mbit/s
95th percentile per-packet one-way delay: 228.345 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 33.42 Mbit/s
95th percentile per-packet one-way delay: 219.240 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 30.36 Mbit/s
95th percentile per-packet one-way delay: 225.006 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 33.73 Mbit/s
95th percentile per-packet one-way delay: 234.574 ms
Loss rate: 2.91%
Run 6: Report of TaoVA-100x — Data Link

![Graph 1](Graph_1.png)

![Graph 2](Graph_2.png)
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-04 21:13:44
End at: 2018-02-04 21:14:14
Local clock offset: 4.31 ms
Remote clock offset: 16.727 ms

# Below is generated by plot.py at 2018-02-05 03:09:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.82 Mbit/s
95th percentile per-packet one-way delay: 223.514 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 38.86 Mbit/s
95th percentile per-packet one-way delay: 217.463 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 32.69 Mbit/s
95th percentile per-packet one-way delay: 226.001 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 34.52 Mbit/s
95th percentile per-packet one-way delay: 227.644 ms
Loss rate: 2.13%
Run 7: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 38.87 Mbit/s)
- Flow 1 egress (mean 38.86 Mbit/s)
- Flow 2 ingress (mean 32.77 Mbit/s)
- Flow 2 egress (mean 32.69 Mbit/s)
- Flow 3 ingress (mean 34.52 Mbit/s)
- Flow 3 egress (mean 34.52 Mbit/s)

![Graph 2: Per-packet round trip delay vs Time](image)

- Flow 1 (95th percentile 217.46 ms)
- Flow 2 (95th percentile 226.00 ms)
- Flow 3 (95th percentile 227.64 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-02-04 21:43:54
End at: 2018-02-04 21:44:24
Local clock offset: 4.302 ms
Remote clock offset: 4.233 ms

# Below is generated by plot.py at 2018-02-05 03:09:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.46 Mbit/s
95th percentile per-packet one-way delay: 232.554 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 46.03 Mbit/s
95th percentile per-packet one-way delay: 228.624 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 25.41 Mbit/s
95th percentile per-packet one-way delay: 234.207 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 29.30 Mbit/s
95th percentile per-packet one-way delay: 243.361 ms
Loss rate: 1.38%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-04 22:11:16
End at: 2018-02-04 22:11:46
Local clock offset: 3.485 ms
Remote clock offset: 2.755 ms

# Below is generated by plot.py at 2018-02-05 03:11:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.58 Mbit/s
95th percentile per-packet one-way delay: 213.921 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 52.92 Mbit/s
95th percentile per-packet one-way delay: 209.970 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 37.75 Mbit/s
95th percentile per-packet one-way delay: 217.410 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 17.09 Mbit/s
95th percentile per-packet one-way delay: 221.048 ms
Loss rate: 1.99%
Run 9: Report of TaoVA-100x — Data Link

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

- **Flow 1 Ingress** (mean 52.93 Mbit/s)
- **Flow 1 Egress** (mean 52.92 Mbit/s)
- **Flow 2 Ingress** (mean 37.71 Mbit/s)
- **Flow 2 Egress** (mean 37.75 Mbit/s)
- **Flow 3 Ingress** (mean 17.09 Mbit/s)
- **Flow 3 Egress** (mean 17.09 Mbit/s)

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

- **Flow 1 (95th percentile 209.97 ms)**
- **Flow 2 (95th percentile 217.41 ms)**
- **Flow 3 (95th percentile 221.05 ms)**

181
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-04 22:36:37
End at: 2018-02-04 22:37:07
Local clock offset: 3.901 ms
Remote clock offset: 6.31 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.64 Mbit/s
95th percentile per-packet one-way delay: 219.960 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 40.16 Mbit/s
95th percentile per-packet one-way delay: 222.528 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 39.10 Mbit/s
95th percentile per-packet one-way delay: 218.693 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 41.34 Mbit/s
95th percentile per-packet one-way delay: 207.486 ms
Loss rate: 2.16%
Run 10: Report of TaoVA-100x — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Packet one way delay (ms)]
Run 1: Statistics of TCP Vegas

Start at: 2018-02-04 17:37:14
End at: 2018-02-04 17:37:44
Local clock offset: 1.106 ms
Remote clock offset: 31.163 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1.68 Mbit/s
  95th percentile per-packet one-way delay: 209.423 ms
  Loss rate: 2.67%
-- Flow 1:
  Average throughput: 0.68 Mbit/s
  95th percentile per-packet one-way delay: 208.570 ms
  Loss rate: 2.53%
-- Flow 2:
  Average throughput: 0.84 Mbit/s
  95th percentile per-packet one-way delay: 209.165 ms
  Loss rate: 2.87%
-- Flow 3:
  Average throughput: 1.33 Mbit/s
  95th percentile per-packet one-way delay: 213.754 ms
  Loss rate: 2.63%
Run 1: Report of TCP Vegas — Data Link

![Throughput Graph]

![Delay Graph]
Run 2: Statistics of TCP Vegas

Start at: 2018-02-04 18:22:12
End at: 2018-02-04 18:22:42
Local clock offset: 2.414 ms
Remote clock offset: 21.181 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 215.255 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 216.762 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 209.214 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 209.485 ms
Loss rate: 2.32%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-02-04 19:02:50
End at: 2018-02-04 19:03:20
Local clock offset: 3.481 ms
Remote clock offset: 18.597 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 237.759 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 238.246 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 212.089 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 239.824 ms
Loss rate: 3.97%
Run 3: Report of TCP Vegas — Data Link

![Graph showing network performance metrics over time.]

- Throughput (Mbps): Displays the data transfer rates for different flows.
- Time (s): Represents the time duration for each data point.
- Flow 1 ingress (mean 1.32 Mbps): Blue dotted line.
- Flow 1 egress (mean 1.31 Mbps): Blue solid line.
- Flow 2 ingress (mean 1.68 Mbps): Green dotted line.
- Flow 2 egress (mean 1.68 Mbps): Green solid line.
- Flow 3 ingress (mean 1.04 Mbps): Red dotted line.
- Flow 3 egress (mean 1.03 Mbps): Red solid line.

![Graph showing network latency performance.]

- Percent one-way delay (ms): Displays the latency for different flows.
- Time (s): Represents the time duration for each latency point.
- Flow 1 (95th percentile 238.25 ms): Blue dotted line.
- Flow 2 (95th percentile 212.09 ms): Green dotted line.
- Flow 3 (95th percentile 239.82 ms): Red dotted line.
Run 4: Statistics of TCP Vegas

Start at: 2018-02-04 19:40:39
End at: 2018-02-04 19:41:09
Local clock offset: 1.707 ms
Remote clock offset: 13.114 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.29 Mbit/s
  95th percentile per-packet one-way delay: 249.706 ms
  Loss rate: 1.34%
-- Flow 1:
  Average throughput: 1.62 Mbit/s
  95th percentile per-packet one-way delay: 240.953 ms
  Loss rate: 0.72%
-- Flow 2:
  Average throughput: 2.43 Mbit/s
  95th percentile per-packet one-way delay: 249.885 ms
  Loss rate: 1.53%
-- Flow 3:
  Average throughput: 3.30 Mbit/s
  95th percentile per-packet one-way delay: 250.930 ms
  Loss rate: 1.99%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-02-04 20:09:26
End at: 2018-02-04 20:09:56
Local clock offset: 0.963 ms
Remote clock offset: 4.778 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.96 Mbit/s
95th percentile per-packet one-way delay: 247.231 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 241.038 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 252.987 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 6.89 Mbit/s
95th percentile per-packet one-way delay: 232.612 ms
Loss rate: 1.12%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-02-04 20:40:34
End at: 2018-02-04 20:41:04
Local clock offset: 4.59 ms
Remote clock offset: 16.636 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.98 Mbit/s
95th percentile per-packet one-way delay: 214.664 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 214.745 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 213.954 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 5.69 Mbit/s
95th percentile per-packet one-way delay: 215.474 ms
Loss rate: 0.93%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-02-04 21:12:20
End at: 2018-02-04 21:12:50
Local clock offset: 3.204 ms
Remote clock offset: 15.674 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.18 Mbit/s
95th percentile per-packet one-way delay: 218.821 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 220.712 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 218.199 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 14.83 Mbit/s
95th percentile per-packet one-way delay: 212.341 ms
Loss rate: 1.14%
Run 7: Report of TCP Vegas — Data Link

![Graph of throughput over time showing Flow 1 ingress, Flow 1 egress, Flow 2 ingress, Flow 2 egress, Flow 3 ingress, and Flow 3 egress.]

![Graph of packet delay over time showing Flow 1 95th percentile, Flow 2 95th percentile, and Flow 3 95th percentile.]
Run 8: Statistics of TCP Vegas

Start at: 2018-02-04 21:42:18
End at: 2018-02-04 21:42:48
Local clock offset: 1.738 ms
Remote clock offset: 1.725 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 37.18 Mbit/s
  95th percentile per-packet one-way delay: 215.178 ms
  Loss rate: 0.94%
-- Flow 1:
  Average throughput: 20.14 Mbit/s
  95th percentile per-packet one-way delay: 206.853 ms
  Loss rate: 0.68%
-- Flow 2:
  Average throughput: 21.36 Mbit/s
  95th percentile per-packet one-way delay: 223.722 ms
  Loss rate: 1.11%
-- Flow 3:
  Average throughput: 8.84 Mbit/s
  95th percentile per-packet one-way delay: 223.536 ms
  Loss rate: 1.86%
Run 8: Report of TCP Vegas — Data Link

Throughput (Mb/s) vs Time (s)

- Flow 1 ingress (mean 20.14 Mb/s)
- Flow 1 egress (mean 20.14 Mb/s)
- Flow 2 ingress (mean 21.36 Mb/s)
- Flow 2 egress (mean 21.36 Mb/s)
- Flow 3 ingress (mean 8.84 Mb/s)
- Flow 3 egress (mean 8.84 Mb/s)

Per-packet one-way delay (ms)

- Flow 1 (95th percentile 206.85 ms)
- Flow 2 (95th percentile 223.72 ms)
- Flow 3 (95th percentile 223.54 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-02-04 22:09:51
End at: 2018-02-04 22:10:21
Local clock offset: 4.516 ms
Remote clock offset: 3.234 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.74 Mbit/s
95th percentile per-packet one-way delay: 238.552 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 36.57 Mbit/s
95th percentile per-packet one-way delay: 238.219 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 34.97 Mbit/s
95th percentile per-packet one-way delay: 215.982 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 27.40 Mbit/s
95th percentile per-packet one-way delay: 246.036 ms
Loss rate: 2.51%
Run 9: Report of TCP Vegas — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image2)
Run 10: Statistics of TCP Vegas

Start at: 2018-02-04 22:35:13
End at: 2018-02-04 22:35:43
Local clock offset: 3.3 ms
Remote clock offset: 5.637 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 53.80 Mbit/s
  95th percentile per-packet one-way delay: 214.920 ms
  Loss rate: 0.79%
-- Flow 1:
  Average throughput: 36.99 Mbit/s
  95th percentile per-packet one-way delay: 218.376 ms
  Loss rate: 0.58%
-- Flow 2:
  Average throughput: 20.99 Mbit/s
  95th percentile per-packet one-way delay: 195.595 ms
  Loss rate: 1.09%
-- Flow 3:
  Average throughput: 8.80 Mbit/s
  95th percentile per-packet one-way delay: 221.001 ms
  Loss rate: 2.06%
Run 10: Report of TCP Vegas — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 36.99 Mbit/s)
- Flow 1 egress (mean 36.99 Mbit/s)
- Flow 2 ingress (mean 21.03 Mbit/s)
- Flow 2 egress (mean 20.99 Mbit/s)
- Flow 3 ingress (mean 8.81 Mbit/s)
- Flow 3 egress (mean 8.80 Mbit/s)

![Graph 2: RTT (ms)]

- Flow 1 (95th percentile 218.38 ms)
- Flow 2 (95th percentile 195.59 ms)
- Flow 3 (95th percentile 221.00 ms)
Run 1: Statistics of Verus

Start at: 2018-02-04 17:23:20
End at: 2018-02-04 17:23:50
Local clock offset: 3.756 ms
Remote clock offset: 50.67 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.52 Mbit/s
95th percentile per-packet one-way delay: 231.676 ms
Loss rate: 3.10%
-- Flow 1:
Average throughput: 13.30 Mbit/s
95th percentile per-packet one-way delay: 232.538 ms
Loss rate: 3.29%
-- Flow 2:
Average throughput: 24.41 Mbit/s
95th percentile per-packet one-way delay: 230.150 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 18.79 Mbit/s
95th percentile per-packet one-way delay: 238.895 ms
Loss rate: 5.82%
Run 1: Report of Verus — Data Link

![Graph 1: Throughput vs Time]

![Graph 2: Packet Delay vs Time]

- Flow 1 ingress (mean 13.66 Mbit/s)
- Flow 1 egress (mean 13.30 Mbit/s)
- Flow 2 ingress (mean 24.80 Mbit/s)
- Flow 2 egress (mean 24.41 Mbit/s)
- Flow 3 ingress (mean 19.72 Mbit/s)
- Flow 3 egress (mean 16.79 Mbit/s)
Run 2: Statistics of Verus

Start at: 2018-02-04 18:06:29
End at: 2018-02-04 18:06:59
Local clock offset: 2.596 ms
Remote clock offset: 22.985 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.41 Mbit/s
95th percentile per-packet one-way delay: 231.595 ms
Loss rate: 3.15%
-- Flow 1:
Average throughput: 32.50 Mbit/s
95th percentile per-packet one-way delay: 231.202 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 16.99 Mbit/s
95th percentile per-packet one-way delay: 238.888 ms
Loss rate: 3.63%
-- Flow 3:
Average throughput: 14.19 Mbit/s
95th percentile per-packet one-way delay: 231.464 ms
Loss rate: 7.21%
Run 2: Report of Verus — Data Link

![Graph 1: Throughput over time for different flows]

- **Flow 1 ingress** (mean 33.04 Mbit/s)
- **Flow 1 egress** (mean 32.50 Mbit/s)
- **Flow 2 ingress** (mean 17.43 Mbit/s)
- **Flow 2 egress** (mean 16.99 Mbit/s)
- **Flow 3 ingress** (mean 14.96 Mbit/s)
- **Flow 3 egress** (mean 14.19 Mbit/s)

![Graph 2: Per-packet processing delay over time for different flows]

- **Flow 1** (95th percentile 231.20 ms)
- **Flow 2** (95th percentile 238.89 ms)
- **Flow 3** (95th percentile 231.46 ms)
Run 3: Statistics of Verus

Start at: 2018-02-04 18:48:39
End at: 2018-02-04 18:49:09
Local clock offset: 2.785 ms
Remote clock offset: 19.344 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 35.89 Mbit/s
  95th percentile per-packet one-way delay: 255.609 ms
  Loss rate: 2.68%
-- Flow 1:
  Average throughput: 23.31 Mbit/s
  95th percentile per-packet one-way delay: 254.250 ms
  Loss rate: 2.76%
-- Flow 2:
  Average throughput: 12.79 Mbit/s
  95th percentile per-packet one-way delay: 260.997 ms
  Loss rate: 2.82%
-- Flow 3:
  Average throughput: 12.81 Mbit/s
  95th percentile per-packet one-way delay: 233.393 ms
  Loss rate: 1.93%
Run 3: Report of Verus — Data Link

![Graph showing data link performance metrics for different flows over time.](image)

- **Flow 1 (ingress)**: Mean 23.66 Mbit/s
- **Flow 1 (egress)**: Mean 23.31 Mbit/s
- **Flow 2 (ingress)**: Mean 13.00 Mbit/s
- **Flow 2 (egress)**: Mean 12.79 Mbit/s
- **Flow 3 (ingress)**: Mean 12.79 Mbit/s
- **Flow 3 (egress)**: Mean 12.01 Mbit/s

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

- **Flow 1 (95th percentile)**: 254.25 ms
- **Flow 2 (95th percentile)**: 261.00 ms
- **Flow 3 (95th percentile)**: 233.39 ms

209
Run 4: Statistics of Verus

Start at: 2018-02-04 19:28:04
End at: 2018-02-04 19:28:34
Local clock offset: 0.082 ms
Remote clock offset: 17.836 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.87 Mbit/s
95th percentile per-packet one-way delay: 232.722 ms
Loss rate: 1.96%
-- Flow 1:
Average throughput: 26.41 Mbit/s
95th percentile per-packet one-way delay: 232.510 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 27.88 Mbit/s
95th percentile per-packet one-way delay: 230.524 ms
Loss rate: 2.59%
-- Flow 3:
Average throughput: 30.82 Mbit/s
95th percentile per-packet one-way delay: 245.167 ms
Loss rate: 2.81%
Run 4: Report of Verus — 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 26.42 Mbps)
- Flow 1 egress (mean 26.41 Mbps)
- Flow 2 ingress (mean 28.31 Mbps)
- Flow 2 egress (mean 27.88 Mbps)
- Flow 3 ingress (mean 30.97 Mbps)
- Flow 3 egress (mean 30.62 Mbps)
Run 5: Statistics of Verus

Start at: 2018-02-04 19:59:01
End at: 2018-02-04 19:59:31
Local clock offset: 0.562 ms
Remote clock offset: 4.851 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.62 Mbit/s
95th percentile per-packet one-way delay: 268.764 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 36.68 Mbit/s
95th percentile per-packet one-way delay: 267.828 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 35.00 Mbit/s
95th percentile per-packet one-way delay: 270.460 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 6.46 Mbit/s
95th percentile per-packet one-way delay: 260.875 ms
Loss rate: 0.05%
Run 5: Report of Verus — Data Link

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

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

Start at: 2018-02-04 20:28:40
End at: 2018-02-04 20:29:10
Local clock offset: 0.359 ms
Remote clock offset: 5.174 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 70.94 Mbit/s
  95th percentile per-packet one-way delay: 244.372 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 43.90 Mbit/s
  95th percentile per-packet one-way delay: 239.697 ms
  Loss rate: 0.66%
-- Flow 2:
  Average throughput: 28.03 Mbit/s
  95th percentile per-packet one-way delay: 251.160 ms
  Loss rate: 1.69%
-- Flow 3:
  Average throughput: 25.83 Mbit/s
  95th percentile per-packet one-way delay: 239.726 ms
  Loss rate: 4.15%
Run 6: Report of Verus — Data Link

![Throughput Graph](image1)

- **Flow 1 ingress (mean 43.89 Mbit/s)**
- **Flow 1 egress (mean 43.90 Mbit/s)**
- **Flow 2 ingress (mean 28.16 Mbit/s)**
- **Flow 2 egress (mean 28.03 Mbit/s)**
- **Flow 3 ingress (mean 26.39 Mbit/s)**
- **Flow 3 egress (mean 25.83 Mbit/s)**

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

- **Flow 1 (95th percentile 239.70 ms)**
- **Flow 2 (95th percentile 251.16 ms)**
- **Flow 3 (95th percentile 239.73 ms)**
Run 7: Statistics of Verus

Start at: 2018-02-04 21:00:16
End at: 2018-02-04 21:00:46
Local clock offset: 4.126 ms
Remote clock offset: 15.826 ms

# Below is generated by plot.py at 2018-02-05 03:11:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.18 Mbit/s
95th percentile per-packet one-way delay: 237.749 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 29.08 Mbit/s
95th percentile per-packet one-way delay: 237.261 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 39.10 Mbit/s
95th percentile per-packet one-way delay: 234.751 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 34.14 Mbit/s
95th percentile per-packet one-way delay: 246.728 ms
Loss rate: 1.91%
Run 7: Report of Verus — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 29.15 Mbit/s)
Flow 1 egress (mean 29.08 Mbit/s)
Flow 2 ingress (mean 39.27 Mbit/s)
Flow 2 egress (mean 39.10 Mbit/s)
Flow 3 ingress (mean 34.00 Mbit/s)
Flow 3 egress (mean 34.14 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 237.26 ms)
Flow 2 (95th percentile 234.75 ms)
Flow 3 (95th percentile 246.73 ms)
Run 8: Statistics of Verus

Start at: 2018-02-04 21:31:14  
End at: 2018-02-04 21:31:44  
Local clock offset: 0.284 ms  
Remote clock offset: 4.657 ms

# Below is generated by plot.py at 2018-02-05 03:11:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.41 Mbit/s  
95th percentile per-packet one-way delay: 240.618 ms  
Loss rate: 1.22%
-- Flow 1:
Average throughput: 35.54 Mbit/s  
95th percentile per-packet one-way delay: 238.659 ms  
Loss rate: 1.14%
-- Flow 2:
Average throughput: 42.16 Mbit/s  
95th percentile per-packet one-way delay: 243.013 ms  
Loss rate: 1.46%
-- Flow 3:
Average throughput: 14.88 Mbit/s  
95th percentile per-packet one-way delay: 241.615 ms  
Loss rate: 0.36%
Run 8: Report of Verus — Data Link

![Graph of throughput and per-packet one-way delay over time for different flows](image-url)
Run 9: Statistics of Verus

Start at: 2018-02-04 22:00:33
End at: 2018-02-04 22:01:03
Local clock offset: 4.517 ms
Remote clock offset: 4.265 ms

# Below is generated by plot.py at 2018-02-05 03:11:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.64 Mbit/s
95th percentile per-packet one-way delay: 233.159 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 38.69 Mbit/s
95th percentile per-packet one-way delay: 232.666 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 30.71 Mbit/s
95th percentile per-packet one-way delay: 231.383 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 29.99 Mbit/s
95th percentile per-packet one-way delay: 239.431 ms
Loss rate: 0.02%
Run 9: Report of Verus — Data Link

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

- Flow 1 ingress (mean 38.72 Mbit/s)
- Flow 1 egress (mean 38.69 Mbit/s)
- Flow 2 ingress (mean 30.70 Mbit/s)
- Flow 2 egress (mean 30.71 Mbit/s)
- Flow 3 ingress (mean 29.45 Mbit/s)
- Flow 3 egress (mean 29.99 Mbit/s)

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

- Flow 1 (95th percentile 232.67 ms)
- Flow 2 (95th percentile 231.38 ms)
- Flow 3 (95th percentile 239.43 ms)
Run 10: Statistics of Verus

Start at: 2018-02-04 22:26:02  
End at: 2018-02-04 22:26:32  
Local clock offset: 4.469 ms  
Remote clock offset: 2.445 ms

# Below is generated by plot.py at 2018-02-05 03:11:28
# Datalink statistics
-- Total of 3 flows:  
Average throughput: 64.73 Mbit/s  
95th percentile per-packet one-way delay: 237.121 ms  
Loss rate: 1.02%  
-- Flow 1:  
Average throughput: 28.69 Mbit/s  
95th percentile per-packet one-way delay: 237.148 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 33.79 Mbit/s  
95th percentile per-packet one-way delay: 240.064 ms  
Loss rate: 1.49%  
-- Flow 3:  
Average throughput: 43.45 Mbit/s  
95th percentile per-packet one-way delay: 228.849 ms  
Loss rate: 2.25%
Run 10: Report of Verus — Data Link

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

Start at: 2018-02-04 17:35:45
End at: 2018-02-04 17:36:15
Local clock offset: 3.01 ms
Remote clock offset: 31.637 ms

# Below is generated by plot.py at 2018-02-05 03:11:28
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 4.03 Mbit/s
   95th percentile per-packet one-way delay: 211.100 ms
   Loss rate: 2.09%
-- Flow 1:
   Average throughput: 2.11 Mbit/s
   95th percentile per-packet one-way delay: 206.893 ms
   Loss rate: 1.67%
-- Flow 2:
   Average throughput: 2.16 Mbit/s
   95th percentile per-packet one-way delay: 213.208 ms
   Loss rate: 2.03%
-- Flow 3:
   Average throughput: 1.48 Mbit/s
   95th percentile per-packet one-way delay: 207.068 ms
   Loss rate: 4.01%
Run 1: Report of Copa — Data Link

![Graph showing throughput and packet delay]

- Flow 1 ingress (mean 2.13 Mbit/s)
- Flow 1 egress (mean 2.11 Mbit/s)
- Flow 2 ingress (mean 2.18 Mbit/s)
- Flow 2 egress (mean 2.16 Mbit/s)
- Flow 3 ingress (mean 1.51 Mbit/s)
- Flow 3 egress (mean 1.48 Mbit/s)

![Graph showing packet delay]

- Flow 1 (95th percentile 206.89 ms)
- Flow 2 (95th percentile 213.21 ms)
- Flow 3 (95th percentile 207.07 ms)
Run 2: Statistics of Copa

Start at: 2018-02-04 18:20:47
End at: 2018-02-04 18:21:17
Local clock offset: 3.46 ms
Remote clock offset: 23.803 ms

# Below is generated by plot.py at 2018-02-05 03:11:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 207.509 ms
Loss rate: 1.96%
-- Flow 1:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 207.542 ms
Loss rate: 1.54%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 207.511 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 207.471 ms
Loss rate: 2.60%
Run 2: Report of Copa — Data Link

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

- Flow 1 ingress (mean 1.60 Mbit/s)
- Flow 1 egress (mean 1.58 Mbit/s)
- Flow 2 ingress (mean 1.36 Mbit/s)
- Flow 2 egress (mean 1.34 Mbit/s)
- Flow 3 ingress (mean 2.02 Mbit/s)
- Flow 3 egress (mean 2.01 Mbit/s)

![Graph of per-packet round-trip delay over time for different flows.]

- Flow 1 (95th percentile 207.5 ms)
- Flow 2 (95th percentile 207.51 ms)
- Flow 3 (95th percentile 207.47 ms)
Run 3: Statistics of Copa

Start at: 2018-02-04 19:01:19
End at: 2018-02-04 19:01:49
Local clock offset: 1.356 ms
Remote clock offset: 20.493 ms

# Below is generated by plot.py at 2018-02-05 03:11:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 209.337 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 207.632 ms
Loss rate: 1.41%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 213.624 ms
Loss rate: 2.33%
-- Flow 3:
Average throughput: 2.68 Mbit/s
95th percentile per-packet one-way delay: 207.518 ms
Loss rate: 2.65%
Run 3: Report of Copa — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.12 Mbit/s)  Flow 1 egress (mean 2.10 Mbit/s)
Flow 2 ingress (mean 1.30 Mbit/s)  Flow 2 egress (mean 1.29 Mbit/s)
Flow 3 ingress (mean 2.69 Mbit/s)  Flow 3 egress (mean 2.68 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 207.63 ms)  Flow 2 (95th percentile 213.62 ms)  Flow 3 (95th percentile 207.52 ms)
Run 4: Statistics of Copa

Start at: 2018-02-04 19:39:14
End at: 2018-02-04 19:39:44
Local clock offset: 3.4 ms
Remote clock offset: 19.557 ms

# Below is generated by plot.py at 2018-02-05 03:11:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 239.948 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 239.030 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 240.662 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 242.492 ms
Loss rate: 2.47%
Run 4: Report of Copa — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 1.58 Mbps)
- Flow 1 egress (mean 1.58 Mbps)
- Flow 2 ingress (mean 0.66 Mbps)
- Flow 2 egress (mean 0.66 Mbps)
- Flow 3 ingress (mean 1.07 Mbps)
- Flow 3 egress (mean 1.07 Mbps)

![Graph 2: Packet Loss (ms)]

- Flow 1 (95th percentile 239.03 ms)
- Flow 2 (95th percentile 240.66 ms)
- Flow 3 (95th percentile 242.49 ms)
Run 5: Statistics of Copa

Start at: 2018-02-04 20:08:09
End at: 2018-02-04 20:08:39
Local clock offset: 0.007 ms
Remote clock offset: 4.289 ms

# Below is generated by plot.py at 2018-02-05 03:11:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 233.772 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 234.945 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 228.518 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 229.751 ms
Loss rate: 1.90%
Run 5: Report of Copa — Data Link

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

- Flow 1 ingress (mean 1.08 Mbit/s)
- Flow 1 egress (mean 1.08 Mbit/s)
- Flow 2 ingress (mean 0.78 Mbit/s)
- Flow 2 egress (mean 0.78 Mbit/s)
- Flow 3 ingress (mean 0.69 Mbit/s)
- Flow 3 egress (mean 0.69 Mbit/s)

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

- Flow 1 (95th percentile 234.94 ms)
- Flow 2 (95th percentile 228.52 ms)
- Flow 3 (95th percentile 229.75 ms)
Run 6: Statistics of Copa

Start at: 2018-02-04 20:39:13
End at: 2018-02-04 20:39:43
Local clock offset: 4.045 ms
Remote clock offset: 15.833 ms

# Below is generated by plot.py at 2018-02-05 03:11:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 214.041 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 214.507 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 214.220 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 209.889 ms
Loss rate: 0.48%
Run 6: Report of Copa — Data Link

![Graph of throughput (Mbps) and round-trip time (ms)]

- Flow 1 ingress (mean 0.98 Mbps)
- Flow 1 egress (mean 0.98 Mbps)
- Flow 2 ingress (mean 1.08 Mbps)
- Flow 2 egress (mean 1.08 Mbps)
- Flow 3 ingress (mean 2.18 Mbps)
- Flow 3 egress (mean 2.22 Mbps)

![Graph of packet round-trip time (ms)]

- Flow 1 (95th percentile 214.51 ms)
- Flow 2 (95th percentile 214.22 ms)
- Flow 3 (95th percentile 209.89 ms)
Run 7: Statistics of Copa

Start at: 2018-02-04 21:11:01
End at: 2018-02-04 21:11:31
Local clock offset: 1.737 ms
Remote clock offset: 14.96 ms

# Below is generated by plot.py at 2018-02-05 03:11:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 209.790 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 211.991 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 208.386 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 208.522 ms
Loss rate: 1.10%
Run 7: Report of Copa — Data Link

[Graph showing throughput and packet delay over time for different flows]
Run 8: Statistics of Copa

Start at: 2018-02-04 21:41:00
End at: 2018-02-04 21:41:30
Local clock offset: 2.224 ms
Remote clock offset: 2.761 ms

# Below is generated by plot.py at 2018-02-05 03:11:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 228.641 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 225.705 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 226.281 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 1.53 Mbit/s
95th percentile per-packet one-way delay: 231.193 ms
Loss rate: 1.13%
Run 8: Report of Copa — Data Link
Run 9: Statistics of Copa

Start at: 2018-02-04 22:08:33
End at: 2018-02-04 22:09:03
Local clock offset: 2.828 ms
Remote clock offset: 4.242 ms

# Below is generated by plot.py at 2018-02-05 03:11:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.05 Mbit/s
  95th percentile per-packet one-way delay: 201.333 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 7.37 Mbit/s
  95th percentile per-packet one-way delay: 197.295 ms
  Loss rate: 0.07%
-- Flow 2:
  Average throughput: 3.48 Mbit/s
  95th percentile per-packet one-way delay: 208.342 ms
  Loss rate: 0.28%
-- Flow 3:
  Average throughput: 1.15 Mbit/s
  95th percentile per-packet one-way delay: 214.933 ms
  Loss rate: 1.37%
Run 9: Report of Copa — Data Link

![Graph of Throughput vs Time for different flows]

- Flow 1 ingress (mean 7.33 Mbit/s)
- Flow 1 egress (mean 7.37 Mbit/s)
- Flow 2 ingress (mean 3.46 Mbit/s)
- Flow 2 egress (mean 3.48 Mbit/s)
- Flow 3 ingress (mean 1.14 Mbit/s)
- Flow 3 egress (mean 1.15 Mbit/s)

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

- Flow 1 (95th percentile 197.29 ms)
- Flow 2 (95th percentile 208.34 ms)
- Flow 3 (95th percentile 214.93 ms)
Run 10: Statistics of Copa

End at: 2018-02-04 22:34:23
Local clock offset: 2.749 ms
Remote clock offset: 6.998 ms

# Below is generated by plot.py at 2018-02-05 03:11:42
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 22.74 Mbit/s
 95th percentile per-packet one-way delay: 190.183 ms
 Loss rate: 1.06%
-- Flow 1:
 Average throughput: 14.35 Mbit/s
 95th percentile per-packet one-way delay: 190.778 ms
 Loss rate: 0.67%
-- Flow 2:
 Average throughput: 8.37 Mbit/s
 95th percentile per-packet one-way delay: 190.122 ms
 Loss rate: 1.36%
-- Flow 3:
 Average throughput: 8.63 Mbit/s
 95th percentile per-packet one-way delay: 187.203 ms
 Loss rate: 2.43%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

Start at: 2018-02-04 18:02:05
End at: 2018-02-04 18:02:35
Local clock offset: 3.035 ms
Remote clock offset: 27.197 ms

# Below is generated by plot.py at 2018-02-05 03:13:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.61 Mbit/s
95th percentile per-packet one-way delay: 233.849 ms
Loss rate: 2.74%
-- Flow 1:
Average throughput: 57.66 Mbit/s
95th percentile per-packet one-way delay: 220.495 ms
Loss rate: 2.53%
-- Flow 2:
Average throughput: 34.48 Mbit/s
95th percentile per-packet one-way delay: 235.819 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 21.70 Mbit/s
95th percentile per-packet one-way delay: 237.844 ms
Loss rate: 4.35%
Run 1: Report of FillP — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 58.73 Mbps)
Flow 1 egress (mean 57.66 Mbps)
Flow 2 ingress (mean 35.05 Mbps)
Flow 2 egress (mean 34.45 Mbps)
Flow 3 ingress (mean 22.12 Mbps)
Flow 3 egress (mean 21.70 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 220.50 ms)
Flow 2 (95th percentile 235.82 ms)
Flow 3 (95th percentile 237.84 ms)
Run 2: Statistics of FillP

Start at: 2018-02-04 18:44:39
End at: 2018-02-04 18:45:09
Local clock offset: 4.85 ms
Remote clock offset: 20.543 ms

# Below is generated by plot.py at 2018-02-05 03:13:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.77 Mbit/s
95th percentile per-packet one-way delay: 233.654 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 53.22 Mbit/s
95th percentile per-packet one-way delay: 233.313 ms
Loss rate: 1.39%
-- Flow 2:
Average throughput: 43.05 Mbit/s
95th percentile per-packet one-way delay: 222.345 ms
Loss rate: 2.27%
-- Flow 3:
Average throughput: 21.45 Mbit/s
95th percentile per-packet one-way delay: 237.275 ms
Loss rate: 3.80%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

Start at: 2018-02-04 19:24:32
End at: 2018-02-04 19:25:02
Local clock offset: 0.269 ms
Remote clock offset: 20.624 ms

# Below is generated by plot.py at 2018-02-05 03:13:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.30 Mbit/s
  95th percentile per-packet one-way delay: 250.914 ms
  Loss rate: 2.47%
-- Flow 1:
  Average throughput: 59.99 Mbit/s
  95th percentile per-packet one-way delay: 244.521 ms
  Loss rate: 1.62%
-- Flow 2:
  Average throughput: 33.88 Mbit/s
  95th percentile per-packet one-way delay: 257.729 ms
  Loss rate: 3.37%
-- Flow 3:
  Average throughput: 20.98 Mbit/s
  95th percentile per-packet one-way delay: 264.179 ms
  Loss rate: 6.69%
Run 3: Report of FillP — Data Link

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

- Flow 1 ingress (mean 60.40 Mbit/s)
- Flow 1 egress (mean 59.99 Mbit/s)
- Flow 2 ingress (mean 34.15 Mbit/s)
- Flow 2 egress (mean 33.88 Mbit/s)
- Flow 3 ingress (mean 21.35 Mbit/s)
- Flow 3 egress (mean 20.98 Mbit/s)

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

- Flow 1 (95th percentile 244.52 ms)
- Flow 2 (95th percentile 257.73 ms)
- Flow 3 (95th percentile 264.18 ms)
Run 4: Statistics of FillP

Start at: 2018-02-04 19:57:27
End at: 2018-02-04 19:57:57
Local clock offset: 3.255 ms
Remote clock offset: 7.407 ms

# Below is generated by plot.py at 2018-02-05 03:13:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.43 Mbit/s
95th percentile per-packet one-way delay: 260.834 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 53.38 Mbit/s
95th percentile per-packet one-way delay: 260.148 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 34.16 Mbit/s
95th percentile per-packet one-way delay: 264.768 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 41.06 Mbit/s
95th percentile per-packet one-way delay: 255.044 ms
Loss rate: 3.23%
Run 4: Report of FillP — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 5: Statistics of FillP

Start at: 2018-02-04 20:26:27
End at: 2018-02-04 20:26:57
Local clock offset: 1.161 ms
Remote clock offset: 3.153 ms

# Below is generated by plot.py at 2018-02-05 03:13:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.64 Mbit/s
95th percentile per-packet one-way delay: 241.315 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 54.07 Mbit/s
95th percentile per-packet one-way delay: 240.289 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 44.78 Mbit/s
95th percentile per-packet one-way delay: 236.348 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 21.06 Mbit/s
95th percentile per-packet one-way delay: 250.870 ms
Loss rate: 2.51%
Run 5: Report of FillP — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 53.98 Mbit/s)
Flow 1 egress (mean 54.07 Mbit/s)
Flow 2 ingress (mean 44.48 Mbit/s)
Flow 2 egress (mean 44.78 Mbit/s)
Flow 3 ingress (mean 21.11 Mbit/s)
Flow 3 egress (mean 21.06 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 240.29 ms)
Flow 2 (95th percentile 236.35 ms)
Flow 3 (95th percentile 250.87 ms)
Run 6: Statistics of FillP

Start at: 2018-02-04 20:57:46
End at: 2018-02-04 20:58:16
Local clock offset: 4.958 ms
Remote clock offset: 16.338 ms

# Below is generated by plot.py at 2018-02-05 03:13:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.40 Mbit/s
95th percentile per-packet one-way delay: 232.828 ms
Loss rate: 4.25%
-- Flow 1:
Average throughput: 53.63 Mbit/s
95th percentile per-packet one-way delay: 230.624 ms
Loss rate: 2.74%
-- Flow 2:
Average throughput: 44.83 Mbit/s
95th percentile per-packet one-way delay: 226.829 ms
Loss rate: 7.18%
-- Flow 3:
Average throughput: 21.63 Mbit/s
95th percentile per-packet one-way delay: 242.086 ms
Loss rate: 2.84%
Run 6: Report of FillP — Data Link
Run 7: Statistics of FillP

Start at: 2018-02-04 21:28:56
End at: 2018-02-04 21:29:26
Local clock offset: -0.399 ms
Remote clock offset: -1.03 ms

# Below is generated by plot.py at 2018-02-05 03:13:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.96 Mbit/s
95th percentile per-packet one-way delay: 242.679 ms
Loss rate: 2.20%
-- Flow 1:
Average throughput: 61.12 Mbit/s
95th percentile per-packet one-way delay: 239.200 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 34.68 Mbit/s
95th percentile per-packet one-way delay: 244.779 ms
Loss rate: 3.13%
-- Flow 3:
Average throughput: 20.96 Mbit/s
95th percentile per-packet one-way delay: 248.238 ms
Loss rate: 10.83%
Run 7: Report of FillP — Data Link

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

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

257
Run 8: Statistics of FillP

Start at: 2018-02-04 21:59:04
End at: 2018-02-04 21:59:34
Local clock offset: 4.037 ms
Remote clock offset: 2.238 ms

# Below is generated by plot.py at 2018-02-05 03:14:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.13 Mbit/s
95th percentile per-packet one-way delay: 230.565 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 228.116 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 38.03 Mbit/s
95th percentile per-packet one-way delay: 232.458 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 28.80 Mbit/s
95th percentile per-packet one-way delay: 234.949 ms
Loss rate: 2.16%
Run 8: Report of FillP — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 56.37 Mbps)  Flow 1 egress (mean 56.50 Mbps)
Flow 2 ingress (mean 37.97 Mbps)  Flow 2 egress (mean 38.03 Mbps)
Flow 3 ingress (mean 28.87 Mbps)  Flow 3 egress (mean 28.80 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 228.12 ms)  Flow 2 (95th percentile 232.46 ms)  Flow 3 (95th percentile 234.95 ms)
Run 9: Statistics of FillP

Start at: 2018-02-04 22:24:36
End at: 2018-02-04 22:25:06
Local clock offset: 3.408 ms
Remote clock offset: 4.733 ms

# Below is generated by plot.py at 2018-02-05 03:16:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.48 Mbit/s
95th percentile per-packet one-way delay: 209.052 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 56.89 Mbit/s
95th percentile per-packet one-way delay: 208.329 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 37.97 Mbit/s
95th percentile per-packet one-way delay: 207.933 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 28.70 Mbit/s
95th percentile per-packet one-way delay: 212.556 ms
Loss rate: 2.30%
Run 9: Report of FillP — Data Link

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**Throughput (Mb/s):**

- Flow 1 ingress (mean 56.77 Mb/s)
- Flow 1 egress (mean 56.89 Mb/s)
- Flow 2 ingress (mean 37.93 Mb/s)
- Flow 2 egress (mean 37.97 Mb/s)
- Flow 3 ingress (mean 26.85 Mb/s)
- Flow 3 egress (mean 28.70 Mb/s)

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

- Flow 1 (95th percentile 208.33 ms)
- Flow 2 (95th percentile 207.93 ms)
- Flow 3 (95th percentile 212.56 ms)
Run 10: Statistics of FillP

End at: 2018-02-04 22:50:07
Local clock offset: 2.985 ms
Remote clock offset: 7.714 ms

# Below is generated by plot.py at 2018-02-05 03:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.57 Mbit/s
95th percentile per-packet one-way delay: 242.590 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 61.80 Mbit/s
95th percentile per-packet one-way delay: 234.881 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 34.40 Mbit/s
95th percentile per-packet one-way delay: 246.337 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 21.36 Mbit/s
95th percentile per-packet one-way delay: 255.612 ms
Loss rate: 2.29%
Run 10: Report of FillIP — Data Link

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

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

- Flow 1 ingress (mean 61.73 Mbit/s)
- Flow 1 egress (mean 61.80 Mbit/s)
- Flow 2 ingress (mean 34.28 Mbit/s)
- Flow 2 egress (mean 34.40 Mbit/s)
- Flow 3 ingress (mean 21.40 Mbit/s)
- Flow 3 egress (mean 21.36 Mbit/s)

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

- Flow 1 (95th percentile 234.88 ms)
- Flow 2 (95th percentile 246.34 ms)
- Flow 3 (95th percentile 255.61 ms)
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-04 17:29:48
End at: 2018-02-04 17:30:18
Local clock offset: 3.697 ms
Remote clock offset: 37.819 ms

# Below is generated by plot.py at 2018-02-05 03:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.39 Mbit/s
95th percentile per-packet one-way delay: 240.305 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 56.27 Mbit/s
95th percentile per-packet one-way delay: 240.936 ms
Loss rate: 1.56%
-- Flow 2:
Average throughput: 35.96 Mbit/s
95th percentile per-packet one-way delay: 239.814 ms
Loss rate: 2.17%
-- Flow 3:
Average throughput: 22.58 Mbit/s
95th percentile per-packet one-way delay: 229.442 ms
Loss rate: 3.87%
Run 1: Report of Indigo-1-32 — Data Link
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-04 18:13:38
End at: 2018-02-04 18:14:08
Local clock offset: 0.787 ms
Remote clock offset: 20.809 ms

# Below is generated by plot.py at 2018-02-05 03:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.83 Mbit/s
95th percentile per-packet one-way delay: 242.068 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 56.34 Mbit/s
95th percentile per-packet one-way delay: 240.872 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 34.01 Mbit/s
95th percentile per-packet one-way delay: 243.082 ms
Loss rate: 3.12%
-- Flow 3:
Average throughput: 27.98 Mbit/s
95th percentile per-packet one-way delay: 244.633 ms
Loss rate: 4.69%
Run 2: Report of Indigo-1-32 — Data Link

- **Throughput (Mbit/s)**
  - Flow 1 ingress (mean 57.25 Mbit/s)
  - Flow 1 egress (mean 56.34 Mbit/s)
  - Flow 2 ingress (mean 34.72 Mbit/s)
  - Flow 2 egress (mean 34.01 Mbit/s)
  - Flow 3 ingress (mean 28.70 Mbit/s)
  - Flow 3 egress (mean 27.98 Mbit/s)

- **Round-trip time (ms)**
  - Flow 1 (95th percentile 240.87 ms)
  - Flow 2 (95th percentile 243.08 ms)
  - Flow 3 (95th percentile 244.63 ms)
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-04 18:55:08
End at: 2018-02-04 18:55:38
Local clock offset: 4.897 ms
Remote clock offset: 21.1 ms

# Below is generated by plot.py at 2018-02-05 03:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.82 Mbit/s
95th percentile per-packet one-way delay: 240.991 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 52.62 Mbit/s
95th percentile per-packet one-way delay: 238.610 ms
Loss rate: 1.81%
-- Flow 2:
Average throughput: 37.72 Mbit/s
95th percentile per-packet one-way delay: 245.809 ms
Loss rate: 2.47%
-- Flow 3:
Average throughput: 19.21 Mbit/s
95th percentile per-packet one-way delay: 228.693 ms
Loss rate: 3.48%
Run 3: Report of Indigo-1-32 — Data Link

![Graph 1: Throughput vs. Time]

- Flow 1 ingress (mean 53.20 Mbit/s)
- Flow 1 egress (mean 52.62 Mbit/s)
- Flow 2 ingress (mean 38.25 Mbit/s)
- Flow 2 egress (mean 37.72 Mbit/s)
- Flow 3 ingress (mean 19.46 Mbit/s)
- Flow 3 egress (mean 19.21 Mbit/s)

![Graph 2: Packet Delay vs. Time]

- Flow 1 (95th percentile 238.61 ms)
- Flow 2 (95th percentile 245.81 ms)
- Flow 3 (95th percentile 228.69 ms)

269
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-04 19:34:46
End at: 2018-02-04 19:35:16
Local clock offset: 1.361 ms
Remote clock offset: 20.433 ms

# Below is generated by plot.py at 2018-02-05 03:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.20 Mbit/s
95th percentile per-packet one-way delay: 253.565 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 55.87 Mbit/s
95th percentile per-packet one-way delay: 253.997 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 41.02 Mbit/s
95th percentile per-packet one-way delay: 251.842 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 6.75 Mbit/s
95th percentile per-packet one-way delay: 256.003 ms
Loss rate: 3.52%
Run 4: Report of Indigo-1-32 — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-04 20:04:39  
End at: 2018-02-04 20:05:09  
Local clock offset: 2.967 ms  
Remote clock offset: 7.059 ms

# Below is generated by plot.py at 2018-02-05 03:16:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 37.37 Mbit/s  
95th percentile per-packet one-way delay: 222.444 ms  
Loss rate: 1.10%  
-- Flow 1:  
Average throughput: 6.95 Mbit/s  
95th percentile per-packet one-way delay: 222.885 ms  
Loss rate: 0.59%  
-- Flow 2:  
Average throughput: 44.38 Mbit/s  
95th percentile per-packet one-way delay: 222.208 ms  
Loss rate: 1.14%  
-- Flow 3:  
Average throughput: 3.33 Mbit/s  
95th percentile per-packet one-way delay: 222.635 ms  
Loss rate: 3.18%
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-04 20:35:01
End at: 2018-02-04 20:35:32
Local clock offset: 3.859 ms
Remote clock offset: -75.714 ms

# Below is generated by plot.py at 2018-02-05 03:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.95 Mbit/s
95th percentile per-packet one-way delay: 309.037 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 30.91 Mbit/s
95th percentile per-packet one-way delay: 308.193 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 9.05 Mbit/s
95th percentile per-packet one-way delay: 309.780 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 37.27 Mbit/s
95th percentile per-packet one-way delay: 310.319 ms
Loss rate: 2.40%
Run 6: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 30.97 Mbit/s)
- Flow 1 egress (mean 30.91 Mbit/s)
- Flow 2 ingress (mean 9.07 Mbit/s)
- Flow 2 egress (mean 9.05 Mbit/s)
- Flow 3 ingress (mean 37.37 Mbit/s)
- Flow 3 egress (mean 37.27 Mbit/s)

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

- Flow 1 (95th percentile 308.19 ms)
- Flow 2 (95th percentile 309.78 ms)
- Flow 3 (95th percentile 310.32 ms)
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-04 21:06:18
End at: 2018-02-04 21:06:48
Local clock offset: 2.766 ms
Remote clock offset: 16.087 ms

# Below is generated by plot.py at 2018-02-05 03:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.30 Mbit/s
95th percentile per-packet one-way delay: 237.332 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 48.57 Mbit/s
95th percentile per-packet one-way delay: 231.938 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 41.08 Mbit/s
95th percentile per-packet one-way delay: 243.680 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 26.42 Mbit/s
95th percentile per-packet one-way delay: 221.243 ms
Loss rate: 2.58%
Run 7: Report of Indigo-1-32 — Data Link

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

[Graph 2: Packet Delay vs Time (ms)]
Run 8: Statistics of Indigo-1-32

Start at: 2018-02-04 21:36:58
End at: 2018-02-04 21:37:28
Local clock offset: 3.566 ms
Remote clock offset: 1.594 ms

# Below is generated by plot.py at 2018-02-05 03:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.61 Mbit/s
95th percentile per-packet one-way delay: 243.644 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 57.06 Mbit/s
95th percentile per-packet one-way delay: 245.641 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 37.51 Mbit/s
95th percentile per-packet one-way delay: 237.623 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 226.125 ms
Loss rate: 2.05%
Run 8: Report of Indigo-1-32 — Data Link

![Graphs showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-04 22:05:43
End at: 2018-02-04 22:06:13
Local clock offset: 3.334 ms
Remote clock offset: 3.022 ms

# Below is generated by plot.py at 2018-02-05 03:16:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.04 Mbit/s
  95th percentile per-packet one-way delay: 222.146 ms
  Loss rate: 0.71%
 -- Flow 1:
  Average throughput: 57.20 Mbit/s
  95th percentile per-packet one-way delay: 223.848 ms
  Loss rate: 0.40%
 -- Flow 2:
  Average throughput: 36.03 Mbit/s
  95th percentile per-packet one-way delay: 219.733 ms
  Loss rate: 0.91%
 -- Flow 3:
  Average throughput: 24.81 Mbit/s
  95th percentile per-packet one-way delay: 214.735 ms
  Loss rate: 2.25%
Run 9: Report of Indigo-1-32 — Data Link
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-04 22:31:09
End at: 2018-02-04 22:31:39
Local clock offset: 2.277 ms
Remote clock offset: 5.506 ms

# Below is generated by plot.py at 2018-02-05 03:16:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.59 Mbit/s
95th percentile per-packet one-way delay: 219.954 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 56.56 Mbit/s
95th percentile per-packet one-way delay: 218.327 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 38.73 Mbit/s
95th percentile per-packet one-way delay: 219.430 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 29.14 Mbit/s
95th percentile per-packet one-way delay: 223.686 ms
Loss rate: 1.88%
Run 10: Report of Indigo-1-32 — Data Link

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

- **Flow 1 ingress (mean 56.41 Mbps)**
- **Flow 1 egress (mean 56.56 Mbps)**
- **Flow 2 ingress (mean 38.68 Mbps)**
- **Flow 2 egress (mean 38.73 Mbps)**
- **Flow 3 ingress (mean 29.15 Mbps)**
- **Flow 3 egress (mean 29.14 Mbps)**

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

- **Flow 1 (95th percentile 218.33 ms)**
- **Flow 2 (95th percentile 219.43 ms)**
- **Flow 3 (95th percentile 223.69 ms)**

283
Run 1: Statistics of Vivace-latency

Start at: 2018-02-04 17:48:42
End at: 2018-02-04 17:49:12
Local clock offset: 3.349 ms
Remote clock offset: 31.417 ms

# Below is generated by plot.py at 2018-02-05 03:16:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.74 Mbit/s
95th percentile per-packet one-way delay: 237.059 ms
Loss rate: 2.52%
-- Flow 1:
Average throughput: 38.37 Mbit/s
95th percentile per-packet one-way delay: 242.209 ms
Loss rate: 2.23%
-- Flow 2:
Average throughput: 28.25 Mbit/s
95th percentile per-packet one-way delay: 229.141 ms
Loss rate: 3.07%
-- Flow 3:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 252.540 ms
Loss rate: 3.98%
Run 1: Report of Vivace-latency — Data Link
Run 2: Statistics of Vivace-latency

Start at: 2018-02-04 18:32:37
End at: 2018-02-04 18:33:07
Local clock offset: 6.312 ms
Remote clock offset: 21.613 ms

# Below is generated by plot.py at 2018-02-05 03:16:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.27 Mbit/s
95th percentile per-packet one-way delay: 241.202 ms
Loss rate: 2.64%
-- Flow 1:
Average throughput: 12.30 Mbit/s
95th percentile per-packet one-way delay: 241.692 ms
Loss rate: 2.43%
-- Flow 2:
Average throughput: 3.88 Mbit/s
95th percentile per-packet one-way delay: 229.144 ms
Loss rate: 2.74%
-- Flow 3:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 226.523 ms
Loss rate: 4.20%
Run 2: Report of Vivace-latency — Data Link

![Graph 1](Image 1)

![Graph 2](Image 2)
Run 3: Statistics of Vivace-latency

Start at: 2018-02-04 19:11:57
End at: 2018-02-04 19:12:27
Local clock offset: 2.408 ms
Remote clock offset: 16.268 ms

# Below is generated by plot.py at 2018-02-05 03:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.99 Mbit/s
95th percentile per-packet one-way delay: 221.300 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 51.99 Mbit/s
95th percentile per-packet one-way delay: 215.576 ms
Loss rate: 1.77%
-- Flow 2:
Average throughput: 7.99 Mbit/s
95th percentile per-packet one-way delay: 213.386 ms
Loss rate: 2.95%
-- Flow 3:
Average throughput: 8.34 Mbit/s
95th percentile per-packet one-way delay: 233.827 ms
Loss rate: 4.62%
Run 3: Report of Vivace-latency — Data Link
Run 4: Statistics of Vivace-latency

Start at: 2018-02-04 19:49:00
End at: 2018-02-04 19:49:30
Local clock offset: 2.439 ms
Remote clock offset: 12.713 ms

# Below is generated by plot.py at 2018-02-05 03:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.74 Mbit/s
95th percentile per-packet one-way delay: 237.014 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 237.508 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 236.048 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 5.40 Mbit/s
95th percentile per-packet one-way delay: 237.601 ms
Loss rate: 2.81%
Run 4: Report of Vivace-latency — Data Link

![Graph showing throughput and packet round trip delay over time]

- Throughput (Mbps/s)
  - Flow 1 ingress (mean 7.88 Mbit/s)
  - Flow 2 ingress (mean 9.43 Mbit/s)
  - Flow 3 ingress (mean 5.43 Mbit/s)
  - Flow 1 egress (mean 7.79 Mbit/s)
  - Flow 2 egress (mean 9.35 Mbit/s)
  - Flow 3 egress (mean 5.40 Mbit/s)

- Round trip delay (ms)
  - Flow 1 (95th percentile 237.51 ms)
  - Flow 2 (95th percentile 236.05 ms)
  - Flow 3 (95th percentile 237.60 ms)
Run 5: Statistics of Vivace-latency

Start at: 2018-02-04 20:17:30
End at: 2018-02-04 20:18:00
Local clock offset: 2.65 ms
Remote clock offset: 17.29 ms

# Below is generated by plot.py at 2018-02-05 03:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.05 Mbit/s
95th percentile per-packet one-way delay: 216.735 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 4.64 Mbit/s
95th percentile per-packet one-way delay: 214.796 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 221.153 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 210.890 ms
Loss rate: 1.83%
Run 5: Report of Vivace-latency — Data Link
Run 6: Statistics of Vivace-latency

Start at: 2018-02-04 20:48:34
End at: 2018-02-04 20:49:04
Local clock offset: 4.032 ms
Remote clock offset: 15.629 ms

# Below is generated by plot.py at 2018-02-05 03:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.87 Mbit/s
95th percentile per-packet one-way delay: 214.785 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 3.23 Mbit/s
95th percentile per-packet one-way delay: 214.422 ms
Loss rate: 1.58%
-- Flow 2:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 214.817 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 2.89 Mbit/s
95th percentile per-packet one-way delay: 215.381 ms
Loss rate: 3.98%
Run 6: Report of Vivace-latency — Data Link

**Graph 1:**
- **Y-axis:** Throughput (Mbit/s)
- **X-axis:** Time (s)
- Legend:
  - Flow 1 ingress (mean 3.26 Mbit/s)
  - Flow 1 egress (mean 3.23 Mbit/s)
  - Flow 2 ingress (mean 13.14 Mbit/s)
  - Flow 2 egress (mean 13.12 Mbit/s)
  - Flow 3 ingress (mean 2.93 Mbit/s)
  - Flow 3 egress (mean 2.89 Mbit/s)

**Graph 2:**
- **Y-axis:** Per-packet one-way delay (ms)
- **X-axis:** Time (s)
- Legend:
  - Flow 1 (95th percentile 214.42 ms)
  - Flow 2 (95th percentile 214.82 ms)
  - Flow 3 (95th percentile 215.38 ms)
Run 7: Statistics of Vivace-latency

Start at: 2018-02-04 21:20:05
End at: 2018-02-04 21:20:35
Local clock offset: 2.483 ms
Remote clock offset: 4.621 ms

# Below is generated by plot.py at 2018-02-05 03:16:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.53 Mbit/s
95th percentile per-packet one-way delay: 223.740 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 9.33 Mbit/s
95th percentile per-packet one-way delay: 223.185 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 30.59 Mbit/s
95th percentile per-packet one-way delay: 224.244 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 218.865 ms
Loss rate: 2.05%
Run 7: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 9.34 Mbps/s)
- Flow 1 egress (mean 9.33 Mbps/s)
- Flow 2 ingress (mean 30.68 Mbps/s)
- Flow 2 egress (mean 30.59 Mbps/s)
- Flow 3 ingress (mean 5.84 Mbps/s)
- Flow 3 egress (mean 5.85 Mbps/s)

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

- Flow 1 (95th percentile 223.19 ms)
- Flow 2 (95th percentile 224.24 ms)
- Flow 3 (95th percentile 218.87 ms)
Run 8: Statistics of Vivace-latency

Start at: 2018-02-04 21:51:08
End at: 2018-02-04 21:51:38
Local clock offset: 2.626 ms
Remote clock offset: 4.693 ms

# Below is generated by plot.py at 2018-02-05 03:16:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.61 Mbit/s
  95th percentile per-packet one-way delay: 213.741 ms
  Loss rate: 1.18%
-- Flow 1:
  Average throughput: 1.64 Mbit/s
  95th percentile per-packet one-way delay: 216.950 ms
  Loss rate: 0.53%
-- Flow 2:
  Average throughput: 4.81 Mbit/s
  95th percentile per-packet one-way delay: 213.427 ms
  Loss rate: 1.31%
-- Flow 3:
  Average throughput: 5.47 Mbit/s
  95th percentile per-packet one-way delay: 210.364 ms
  Loss rate: 1.56%
Run 8: Report of Vivace-latency — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 1.64 Mbit/s)
  - Flow 1 egress (mean 1.64 Mbit/s)
  - Flow 2 ingress (mean 4.82 Mbit/s)
  - Flow 2 egress (mean 4.81 Mbit/s)
  - Flow 3 ingress (mean 5.45 Mbit/s)
  - Flow 3 egress (mean 5.47 Mbit/s)

- **Packet One-Way Delay (ms):**
  - Flow 1 (95th percentile 216.95 ms)
  - Flow 2 (95th percentile 213.43 ms)
  - Flow 3 (95th percentile 210.36 ms)
Run 9: Statistics of Vivace-latency

Start at: 2018-02-04 22:17:03
End at: 2018-02-04 22:17:33
Local clock offset: 4.143 ms
Remote clock offset: 3.828 ms

# Below is generated by plot.py at 2018-02-05 03:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.67 Mbit/s
95th percentile per-packet one-way delay: 196.348 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 50.57 Mbit/s
95th percentile per-packet one-way delay: 197.138 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 17.71 Mbit/s
95th percentile per-packet one-way delay: 193.318 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 193.545 ms
Loss rate: 3.22%
Run 9: Report of Vivace-latency — Data Link
Run 10: Statistics of Vivace-latency

End at: 2018-02-04 22:42:44
Local clock offset: 4.213 ms
Remote clock offset: 7.332 ms

# Below is generated by plot.py at 2018-02-05 03:17:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 72.04 Mbit/s
  95th percentile per-packet one-way delay: 211.739 ms
  Loss rate: 0.75%
-- Flow 1:
  Average throughput: 48.53 Mbit/s
  95th percentile per-packet one-way delay: 212.512 ms
  Loss rate: 0.54%
-- Flow 2:
  Average throughput: 32.15 Mbit/s
  95th percentile per-packet one-way delay: 209.840 ms
  Loss rate: 1.05%
-- Flow 3:
  Average throughput: 6.73 Mbit/s
  95th percentile per-packet one-way delay: 193.864 ms
  Loss rate: 2.26%
Run 10: Report of Vivace-latency — Data Link

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**Throughput (Mbps) vs Time (s):**
- Flow 1 ingress (mean 48.50 Mbps)
- Flow 1 egress (mean 48.53 Mbps)
- Flow 2 ingress (mean 32.20 Mbps)
- Flow 2 egress (mean 32.15 Mbps)
- Flow 3 ingress (mean 6.73 Mbps)
- Flow 3 egress (mean 6.73 Mbps)

---

**Per-packet one-way delay (ms) vs Time (s):**
- Flow 1 (95th percentile 212.51 ms)
- Flow 2 (95th percentile 209.84 ms)
- Flow 3 (95th percentile 193.86 ms)
Run 1: Statistics of Vivace-loss

Start at: 2018-02-04 17:59:05
End at: 2018-02-04 17:59:35
Local clock offset: 2.574 ms
Remote clock offset: 27.459 ms

# Below is generated by plot.py at 2018-02-05 03:17:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.53 Mbit/s
95th percentile per-packet one-way delay: 228.186 ms
Loss rate: 3.23%
-- Flow 1:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 209.396 ms
Loss rate: 3.33%
-- Flow 2:
Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 228.743 ms
Loss rate: 3.16%
-- Flow 3:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 217.205 ms
Loss rate: 4.19%
Run 1: Report of Vivace-loss — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 8.85 Mbps)**
- **Flow 1 egress (mean 8.62 Mbps)**
- **Flow 2 ingress (mean 57.70 Mbps)**
- **Flow 2 egress (mean 56.50 Mbps)**
- **Flow 3 ingress (mean 4.61 Mbps)**
- **Flow 3 egress (mean 4.52 Mbps)**

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

- **Flow 1 (95th percentile 209.40 ms)**
- **Flow 2 (95th percentile 228.74 ms)**
- **Flow 3 (95th percentile 217.21 ms)**

305
Run 2: Statistics of Vivace-loss

Start at: 2018-02-04 18:41:36
End at: 2018-02-04 18:42:06
Local clock offset: 2.76 ms
Remote clock offset: 21.231 ms

# Below is generated by plot.py at 2018-02-05 03:17:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.81 Mbit/s
95th percentile per-packet one-way delay: 246.371 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 52.94 Mbit/s
95th percentile per-packet one-way delay: 239.591 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 27.80 Mbit/s
95th percentile per-packet one-way delay: 253.162 ms
Loss rate: 2.54%
-- Flow 3:
Average throughput: 13.74 Mbit/s
95th percentile per-packet one-way delay: 249.757 ms
Loss rate: 4.29%
Run 2: Report of Vivace-loss — Data Link
Run 3: Statistics of Vivace-loss

Start at: 2018-02-04 19:21:35
End at: 2018-02-04 19:22:05
Local clock offset: 2.905 ms
Remote clock offset: 19.292 ms

# Below is generated by plot.py at 2018-02-05 03:17:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.77 Mbit/s
95th percentile per-packet one-way delay: 249.718 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 52.68 Mbit/s
95th percentile per-packet one-way delay: 247.021 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 28.27 Mbit/s
95th percentile per-packet one-way delay: 251.432 ms
Loss rate: 2.19%
-- Flow 3:
Average throughput: 13.40 Mbit/s
95th percentile per-packet one-way delay: 253.753 ms
Loss rate: 3.37%
Run 3: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 53.17 Mbit/s)
- Flow 1 egress (mean 52.68 Mbit/s)
- Flow 2 ingress (mean 28.58 Mbit/s)
- Flow 2 egress (mean 28.27 Mbit/s)
- Flow 3 ingress (mean 13.56 Mbit/s)
- Flow 3 egress (mean 13.40 Mbit/s)
Run 4: Statistics of Vivace-loss

End at: 2018-02-04 19:56:23
Local clock offset: 3.512 ms
Remote clock offset: 2.922 ms

# Below is generated by plot.py at 2018-02-05 03:17:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.13 Mbit/s
95th percentile per-packet one-way delay: 278.638 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 49.98 Mbit/s
95th percentile per-packet one-way delay: 274.230 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 28.41 Mbit/s
95th percentile per-packet one-way delay: 279.930 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 22.64 Mbit/s
95th percentile per-packet one-way delay: 282.827 ms
Loss rate: 2.75%
Run 4: Report of Vivace-loss — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 5: Statistics of Vivace-loss

Start at: 2018-02-04 20:24:24
End at: 2018-02-04 20:24:54
Local clock offset: 1.417 ms
Remote clock offset: 4.673 ms

# Below is generated by plot.py at 2018-02-05 03:17:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.29 Mbit/s
95th percentile per-packet one-way delay: 248.380 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 49.82 Mbit/s
95th percentile per-packet one-way delay: 242.344 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 30.25 Mbit/s
95th percentile per-packet one-way delay: 253.620 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 22.85 Mbit/s
95th percentile per-packet one-way delay: 248.109 ms
Loss rate: 2.78%
Run 5: Report of Vivace-loss — Data Link

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

- **Flow 1 ingress** (mean 49.82 Mbit/s)
- **Flow 1 egress** (mean 49.82 Mbit/s)
- **Flow 2 ingress** (mean 30.42 Mbit/s)
- **Flow 2 egress** (mean 30.25 Mbit/s)
- **Flow 3 ingress** (mean 23.01 Mbit/s)
- **Flow 3 egress** (mean 22.85 Mbit/s)

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

- **Flow 1** (95th percentile 242.34 ms)
- **Flow 2** (95th percentile 253.62 ms)
- **Flow 3** (95th percentile 248.11 ms)
Run 6: Statistics of Vivace-loss

End at: 2018-02-04 20:56:09
Local clock offset: 3.908 ms
Remote clock offset: 15.908 ms

# Below is generated by plot.py at 2018-02-05 03:17:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.30 Mbit/s
95th percentile per-packet one-way delay: 238.454 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 54.90 Mbit/s
95th percentile per-packet one-way delay: 232.573 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 27.01 Mbit/s
95th percentile per-packet one-way delay: 245.426 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 13.79 Mbit/s
95th percentile per-packet one-way delay: 250.634 ms
Loss rate: 2.76%
Run 6: Report of Vivace-loss — Data Link
Run 7: Statistics of Vivace-loss

Start at: 2018-02-04 21:26:57
End at: 2018-02-04 21:27:27
Local clock offset: 2.127 ms
Remote clock offset: 1.479 ms

# Below is generated by plot.py at 2018-02-05 03:18:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.22 Mbit/s
95th percentile per-packet one-way delay: 251.036 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 51.09 Mbit/s
95th percentile per-packet one-way delay: 243.221 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 29.15 Mbit/s
95th percentile per-packet one-way delay: 255.727 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 259.221 ms
Loss rate: 3.27%
Run 7: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 51.07 Mbps)
- Flow 1 egress (mean 51.09 Mbps)
- Flow 2 ingress (mean 29.28 Mbps)
- Flow 2 egress (mean 29.15 Mbps)
- Flow 3 ingress (mean 24.37 Mbps)
- Flow 3 egress (mean 24.05 Mbps)

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

- Flow 1 (95th percentile 243.22 ms)
- Flow 2 (95th percentile 255.73 ms)
- Flow 3 (95th percentile 259.22 ms)
Run 8: Statistics of Vivace-loss

Start at: 2018-02-04 21:57:31
End at: 2018-02-04 21:58:01
Local clock offset: 4.072 ms
Remote clock offset: 2.955 ms

# Below is generated by plot.py at 2018-02-05 03:18:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.95 Mbit/s
95th percentile per-packet one-way delay: 253.337 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 51.42 Mbit/s
95th percentile per-packet one-way delay: 244.430 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 29.74 Mbit/s
95th percentile per-packet one-way delay: 260.784 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 24.20 Mbit/s
95th percentile per-packet one-way delay: 254.938 ms
Loss rate: 3.14%
Run 8: Report of Vivace-loss — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 51.32 Mbit/s)
Flow 1 egress (mean 51.42 Mbit/s)
Flow 2 ingress (mean 29.80 Mbit/s)
Flow 2 egress (mean 29.74 Mbit/s)
Flow 3 ingress (mean 24.43 Mbit/s)
Flow 3 egress (mean 24.20 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 244.43 ms)
Flow 2 (95th percentile 260.78 ms)
Flow 3 (95th percentile 254.94 ms)
Run 9: Statistics of Vivace-loss

End at: 2018-02-04 22:23:34
Local clock offset: 1.59 ms
Remote clock offset: 3.13 ms

# Below is generated by plot.py at 2018-02-05 03:18:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.97 Mbit/s
95th percentile per-packet one-way delay: 217.289 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 50.86 Mbit/s
95th percentile per-packet one-way delay: 215.426 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 29.68 Mbit/s
95th percentile per-packet one-way delay: 227.587 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 25.97 Mbit/s
95th percentile per-packet one-way delay: 208.350 ms
Loss rate: 2.33%
Run 9: Report of Vivace-loss — Data Link

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

- **Throughput:**
  - Flow 1 ingress (mean 50.76 Mbit/s)
  - Flow 1 egress (mean 50.86 Mbit/s)
  - Flow 2 ingress (mean 29.77 Mbit/s)
  - Flow 2 egress (mean 29.68 Mbit/s)
  - Flow 3 ingress (mean 26.08 Mbit/s)
  - Flow 3 egress (mean 25.97 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 215.43 ms)
  - Flow 2 (95th percentile 227.59 ms)
  - Flow 3 (95th percentile 208.35 ms)
Run 10: Statistics of Vivace-loss

Start at: 2018-02-04 22:47:56
End at: 2018-02-04 22:48:26
Local clock offset: 3.488 ms
Remote clock offset: 9.057 ms

# Below is generated by plot.py at 2018-02-05 03:18:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.49 Mbit/s
95th percentile per-packet one-way delay: 246.456 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 49.55 Mbit/s
95th percentile per-packet one-way delay: 245.564 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 228.568 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 25.34 Mbit/s
95th percentile per-packet one-way delay: 251.701 ms
Loss rate: 2.81%
Run 10: Report of Vivace-loss — Data Link

![Graph of throughput and delay over time for three flows.](image)
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-04 17:55:41
End at: 2018-02-04 17:56:11
Local clock offset: 3.668 ms
Remote clock offset: 31.721 ms

# Below is generated by plot.py at 2018-02-05 03:18:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.44 Mbit/s
95th percentile per-packet one-way delay: 252.529 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 50.38 Mbit/s
95th percentile per-packet one-way delay: 253.382 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 27.64 Mbit/s
95th percentile per-packet one-way delay: 229.959 ms
Loss rate: 2.62%
-- Flow 3:
Average throughput: 20.82 Mbit/s
95th percentile per-packet one-way delay: 251.872 ms
Loss rate: 4.17%
Run 1: Report of Vivace-LTE — Data Link

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

- **Flow 1 ingress** (mean 50.92 Mbit/s)
- **Flow 1 egress** (mean 50.38 Mbit/s)
- **Flow 2 ingress** (mean 28.07 Mbit/s)
- **Flow 2 egress** (mean 27.64 Mbit/s)
- **Flow 3 ingress** (mean 21.19 Mbit/s)
- **Flow 3 egress** (mean 20.82 Mbit/s)
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-04 18:38:26
End at: 2018-02-04 18:38:56
Local clock offset: 5.008 ms
Remote clock offset: 21.36 ms

# Below is generated by plot.py at 2018-02-05 03:18:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.42 Mbit/s
  95th percentile per-packet one-way delay: 238.134 ms
  Loss rate: 2.22%
-- Flow 1:
  Average throughput: 48.16 Mbit/s
  95th percentile per-packet one-way delay: 237.192 ms
  Loss rate: 1.81%
-- Flow 2:
  Average throughput: 29.14 Mbit/s
  95th percentile per-packet one-way delay: 238.583 ms
  Loss rate: 2.59%
-- Flow 3:
  Average throughput: 21.41 Mbit/s
  95th percentile per-packet one-way delay: 240.463 ms
  Loss rate: 3.99%
Run 2: Report of Vivace-LTE — Data Link

- Throughput (Mbps)
  - Flow 1 ingress (mean 48.68 Mbps)
  - Flow 1 egress (mean 48.16 Mbps)
  - Flow 2 ingress (mean 29.58 Mbps)
  - Flow 2 egress (mean 29.14 Mbps)
  - Flow 3 ingress (mean 21.80 Mbps)
  - Flow 3 egress (mean 21.41 Mbps)

- Packet one-way delay (ms)
  - Flow 1 (95th percentile 237.19 ms)
  - Flow 2 (95th percentile 238.58 ms)
  - Flow 3 (95th percentile 240.46 ms)
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-04 19:18:36
End at: 2018-02-04 19:19:06
Local clock offset: 0.881 ms
Remote clock offset: 19.401 ms

# Below is generated by plot.py at 2018-02-05 03:18:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.05 Mbit/s
95th percentile per-packet one-way delay: 239.392 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 44.51 Mbit/s
95th percentile per-packet one-way delay: 238.700 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 29.59 Mbit/s
95th percentile per-packet one-way delay: 239.661 ms
Loss rate: 2.32%
-- Flow 3:
Average throughput: 21.37 Mbit/s
95th percentile per-packet one-way delay: 242.047 ms
Loss rate: 3.84%
Run 3: Report of Vivace-LTE — Data Link

![Graph 1: Throughput (Mbps)]

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

Legend:
- Flow 1 ingress (mean 44.85 Mbit/s) - Flow 1 egress (mean 44.51 Mbit/s)
- Flow 2 ingress (mean 29.95 Mbit/s) - Flow 2 egress (mean 29.59 Mbit/s)
- Flow 3 ingress (mean 21.73 Mbit/s) - Flow 3 egress (mean 21.37 Mbit/s)
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-04 19:54:21
End at: 2018-02-04 19:54:51
Local clock offset: 3.179 ms
Remote clock offset: 3.0 ms

# Below is generated by plot.py at 2018-02-05 03:18:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.66 Mbit/s
95th percentile per-packet one-way delay: 250.935 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 251.363 ms
Loss rate: 1.39%
-- Flow 2:
Average throughput: 25.58 Mbit/s
95th percentile per-packet one-way delay: 253.840 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 26.37 Mbit/s
95th percentile per-packet one-way delay: 244.196 ms
Loss rate: 3.50%
Run 4: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 13.23 Mbit/s)
- Flow 1 egress (mean 13.14 Mbit/s)
- Flow 2 ingress (mean 25.77 Mbit/s)
- Flow 2 egress (mean 25.58 Mbit/s)
- Flow 3 ingress (mean 26.74 Mbit/s)
- Flow 3 egress (mean 26.37 Mbit/s)

![Graph showing per-packet round trip time over time for different flows.]
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-04 20:22:38
End at: 2018-02-04 20:23:08
Local clock offset: 2.43 ms
Remote clock offset: 3.096 ms

# Below is generated by plot.py at 2018-02-05 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.80 Mbit/s
95th percentile per-packet one-way delay: 246.108 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 50.34 Mbit/s
95th percentile per-packet one-way delay: 242.753 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 28.71 Mbit/s
95th percentile per-packet one-way delay: 248.465 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 13.74 Mbit/s
95th percentile per-packet one-way delay: 253.569 ms
Loss rate: 2.30%
Run 5: Report of Vivace-LTE — Data Link

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

- **Flow 1**: Ingress (mean 50.46 Mbit/s) and Egress (mean 50.34 Mbit/s)
- **Flow 2**: Ingress (mean 28.85 Mbit/s) and Egress (mean 28.71 Mbit/s)
- **Flow 3**: Ingress (mean 13.77 Mbit/s) and Egress (mean 13.74 Mbit/s)
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-04 20:53:27
End at: 2018-02-04 20:53:57
Local clock offset: 2.69 ms
Remote clock offset: 16.041 ms

# Below is generated by plot.py at 2018-02-05 03:19:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.18 Mbit/s
95th percentile per-packet one-way delay: 233.741 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 52.05 Mbit/s
95th percentile per-packet one-way delay: 228.989 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 29.23 Mbit/s
95th percentile per-packet one-way delay: 241.136 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 251.590 ms
Loss rate: 2.76%
Run 6: Report of Vivace-LTE — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 52.13 Mbps)
Flow 1 egress (mean 52.05 Mbps)
Flow 2 ingress (mean 29.33 Mbps)
Flow 2 egress (mean 29.23 Mbps)
Flow 3 ingress (mean 11.66 Mbps)
Flow 3 egress (mean 11.57 Mbps)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 228.99 ms)
Flow 2 (95th percentile 241.14 ms)
Flow 3 (95th percentile 251.59 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-04 21:24:57
End at: 2018-02-04 21:25:27
Local clock offset: 3.28 ms
Remote clock offset: 4.469 ms

# Below is generated by plot.py at 2018-02-05 03:19:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.29 Mbit/s
95th percentile per-packet one-way delay: 244.899 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 51.19 Mbit/s
95th percentile per-packet one-way delay: 244.634 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 30.35 Mbit/s
95th percentile per-packet one-way delay: 233.345 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 21.57 Mbit/s
95th percentile per-packet one-way delay: 253.505 ms
Loss rate: 3.38%
Run 7: Report of Vivace-LTE — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Percentile Delay (ms)]
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-04 21:56:03
End at: 2018-02-04 21:56:33
Local clock offset: 2.536 ms
Remote clock offset: 3.121 ms

# Below is generated by plot.py at 2018-02-05 03:19:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.93 Mbit/s
95th percentile per-packet one-way delay: 250.405 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 48.99 Mbit/s
95th percentile per-packet one-way delay: 248.311 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 33.81 Mbit/s
95th percentile per-packet one-way delay: 235.050 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 20.27 Mbit/s
95th percentile per-packet one-way delay: 265.154 ms
Loss rate: 3.12%
Run 8: Report of Vivace-LTE — Data Link

[Graph showing throughput and delay over time for different flows.]
Run 9: Statistics of Vivace-LTE

End at: 2018-02-04 22:21:59
Local clock offset: 3.098 ms
Remote clock offset: 1.8 ms

# Below is generated by plot.py at 2018-02-05 03:19:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.46 Mbit/s
95th percentile per-packet one-way delay: 222.450 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 46.83 Mbit/s
95th percentile per-packet one-way delay: 222.346 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 30.30 Mbit/s
95th percentile per-packet one-way delay: 229.726 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 26.21 Mbit/s
95th percentile per-packet one-way delay: 216.802 ms
Loss rate: 2.32%
Run 9: Report of Vivace-LTE — Data Link

![Graphs showing throughput and per-packet one-way delay for different flows.]
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-04 22:46:26
End at: 2018-02-04 22:46:56
Local clock offset: 1.247 ms
Remote clock offset: 7.206 ms

# Below is generated by plot.py at 2018-02-05 03:19:30
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 79.31 Mbit/s
 95th percentile per-packet one-way delay: 218.761 ms
 Loss rate: 0.76%
-- Flow 1:
 Average throughput: 50.59 Mbit/s
 95th percentile per-packet one-way delay: 217.417 ms
 Loss rate: 0.36%
-- Flow 2:
 Average throughput: 32.47 Mbit/s
 95th percentile per-packet one-way delay: 219.009 ms
 Loss rate: 1.15%
-- Flow 3:
 Average throughput: 22.16 Mbit/s
 95th percentile per-packet one-way delay: 220.152 ms
 Loss rate: 2.40%
Run 10: Report of Vivace-LTE — Data Link

![Throughput (Mbps)](image1)

![Packet one-way delay (ms)](image2)

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Flow 1 ingress (mean 50.47 Mbit/s)
Flow 1 egress (mean 50.59 Mbit/s)
Flow 2 ingress (mean 32.53 Mbit/s)
Flow 2 egress (mean 32.47 Mbit/s)
Flow 3 ingress (mean 22.30 Mbit/s)
Flow 3 egress (mean 22.16 Mbit/s)

Flow 1 (95th percentile 217.42 ms)
Flow 2 (95th percentile 219.01 ms)
Flow 3 (95th percentile 220.15 ms)