Pantheon Report

Generated at 2018-02-21 03:34:31 (UTC).
Data path: GCE London Ethernet (local) → GCE Tokyo Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).

Git summary:
branch: master @ f12c42a2e63f0d9a86e6ea046f8859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf956f49411495b5ec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eaa3238475c4d8c51443d28df70b86684a
third_party/indigo @ a9b2060d39ed9e2a2e8987e893d3ca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4e4230db7484551f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b411135ed5b40c0f3d509539528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a0448d306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303e82ea0896e928ed44ac4f4f38a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eab4a906ce6bb7ff3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1af958fa0d66d18b623c091a55f68872b4981e1
  M receiver/src/core ccp
  M sender/src/core ccp
M sender/src/buffer.h
M sender/src/buffer.h
M sender/src/core ccp
third_party/proto-quic @ 77961fa82733a86b42f1b8143eb2978f3ff42
third_party/scream @ c3370f7bd17265a79aeb34e016a23f568588
third_party/sourdough @ f1a14bfe749737437f61b1eae030267cde681
third_party/sprout @ 6f2e6e6e088d91066a9f023df375ee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4ba447e4a74c6c60a261149af2629562539f9a494
  M src/verus.hpp
M tools/plot.py
third_party/vivace @ 7a4ba51e75b4a66f65f5c4580192120401784ce3
third_party/webrtc @ a4881970d041ace684a2849b2540ad34825f42
test from GCE London Ethernet to GCE Tokyo Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from GCE London Ethernet to GCE Tokyo Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
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<th>mean 95th-%ile delay (ms)</th>
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<td>Vivace-LTE</td>
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<td>293.36</td>
<td>276.79</td>
<td>167.58</td>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2018-02-20 20:31:05
End at: 2018-02-20 20:31:35

# Below is generated by plot.py at 2018-02-21 01:49:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 183.66 Mbit/s
  95th percentile per-packet one-way delay: 109.513 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 94.51 Mbit/s
  95th percentile per-packet one-way delay: 109.328 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 91.63 Mbit/s
  95th percentile per-packet one-way delay: 109.664 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 84.85 Mbit/s
  95th percentile per-packet one-way delay: 109.718 ms
  Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-02-20 20:50:46
End at: 2018-02-20 20:51:16

# Below is generated by plot.py at 2018-02-21 01:49:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 190.30 Mbit/s
  95th percentile per-packet one-way delay: 112.706 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 99.17 Mbit/s
  95th percentile per-packet one-way delay: 112.775 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 95.08 Mbit/s
  95th percentile per-packet one-way delay: 113.290 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 84.42 Mbit/s
  95th percentile per-packet one-way delay: 111.084 ms
  Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 99.16 Mbps)  Flow 1 egress (mean 99.17 Mbps)
Flow 2 ingress (mean 95.08 Mbps)  Flow 2 egress (mean 95.08 Mbps)
Flow 3 ingress (mean 94.42 Mbps)  Flow 3 egress (mean 94.42 Mbps)

Delay (ms)

Time (s)

Flow 1 (95th percentile 112.78 ms)  Flow 2 (95th percentile 113.29 ms)  Flow 3 (95th percentile 111.08 ms)
Run 3: Statistics of TCP BBR

Start at: 2018-02-20 21:10:18
End at: 2018-02-20 21:10:48

# Below is generated by plot.py at 2018-02-21 01:49:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 186.30 Mbit/s
  95th percentile per-packet one-way delay: 115.096 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 94.62 Mbit/s
  95th percentile per-packet one-way delay: 113.677 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 94.38 Mbit/s
  95th percentile per-packet one-way delay: 114.695 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 87.00 Mbit/s
  95th percentile per-packet one-way delay: 117.711 ms
  Loss rate: 0.00%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

Start at: 2018-02-20 21:29:45
End at: 2018-02-20 21:30:15

# Below is generated by plot.py at 2018-02-21 01:49:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 186.97 Mbit/s
  95th percentile per-packet one-way delay: 113.151 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 95.66 Mbit/s
  95th percentile per-packet one-way delay: 111.943 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 93.43 Mbit/s
  95th percentile per-packet one-way delay: 113.196 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 87.80 Mbit/s
  95th percentile per-packet one-way delay: 115.027 ms
  Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-02-20 21:49:26
End at: 2018-02-20 21:49:56

# Below is generated by plot.py at 2018-02-21 01:49:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 190.93 Mbit/s
  95th percentile per-packet one-way delay: 113.301 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 97.74 Mbit/s
  95th percentile per-packet one-way delay: 111.975 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 95.89 Mbit/s
  95th percentile per-packet one-way delay: 113.135 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 88.61 Mbit/s
  95th percentile per-packet one-way delay: 116.062 ms
  Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link

![Graph showing throughput and per-packet transmission delay over time for different flows.](image-url)
Run 6: Statistics of TCP BBR

Start at: 2018-02-20 22:08:55
End at: 2018-02-20 22:09:25

# Below is generated by plot.py at 2018-02-21 01:49:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 183.07 Mbit/s
95th percentile per-packet one-way delay: 113.695 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 92.36 Mbit/s
95th percentile per-packet one-way delay: 113.111 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 92.43 Mbit/s
95th percentile per-packet one-way delay: 113.420 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 88.88 Mbit/s
95th percentile per-packet one-way delay: 114.898 ms
Loss rate: 0.00%
Run 6: Report of TCP BBR — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 92.37 Mbps)
  - Flow 1 egress (mean 92.36 Mbps)
  - Flow 2 ingress (mean 92.43 Mbps)
  - Flow 2 egress (mean 92.45 Mbps)
  - Flow 3 ingress (mean 98.91 Mbps)
  - Flow 3 egress (mean 98.88 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 113.11 ms)
  - Flow 2 (95th percentile 113.42 ms)
  - Flow 3 (95th percentile 114.90 ms)
Run 7: Statistics of TCP BBR

End at: 2018-02-20 22:29:09

# Below is generated by plot.py at 2018-02-21 01:49:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 186.45 Mbit/s
  95th percentile per-packet one-way delay: 114.506 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 95.20 Mbit/s
  95th percentile per-packet one-way delay: 113.568 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 95.99 Mbit/s
  95th percentile per-packet one-way delay: 115.294 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 82.73 Mbit/s
  95th percentile per-packet one-way delay: 115.768 ms
  Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 95.21 Mbit/s)
- Flow 1 egress (mean 95.20 Mbit/s)
- Flow 2 ingress (mean 96.00 Mbit/s)
- Flow 2 egress (mean 95.99 Mbit/s)
- Flow 3 ingress (mean 82.72 Mbit/s)
- Flow 3 egress (mean 82.73 Mbit/s)
Run 8: Statistics of TCP BBR

Start at: 2018-02-20 22:48:01
End at: 2018-02-20 22:48:31

# Below is generated by plot.py at 2018-02-21 01:49:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 184.23 Mbit/s
95th percentile per-packet one-way delay: 115.232 ms
Loss rate: 0.01%
-- Flow 1:
95th percentile per-packet one-way delay: 114.211 ms
Loss rate: 0.00%
-- Flow 2:
95th percentile per-packet one-way delay: 115.455 ms
Loss rate: 0.01%
-- Flow 3:
95th percentile per-packet one-way delay: 116.618 ms
Loss rate: 0.02%
Run 8: Report of TCP BBR — Data Link

![Graph of Throughput](image1)

- Flow 1 ingress (mean 94.14 Mbit/s)
- Flow 1 egress (mean 94.13 Mbit/s)
- Flow 2 ingress (mean 92.50 Mbit/s)
- Flow 2 egress (mean 92.45 Mbit/s)
- Flow 3 ingress (mean 96.05 Mbit/s)
- Flow 3 egress (mean 96.03 Mbit/s)

![Graph of Delay](image2)

- Flow 1 (95th percentile 114.21 ms)
- Flow 2 (95th percentile 115.45 ms)
- Flow 3 (95th percentile 116.62 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-02-20 23:07:19
End at: 2018-02-20 23:07:49

# Below is generated by plot.py at 2018-02-21 01:52:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 185.49 Mbit/s
95th percentile per-packet one-way delay: 115.094 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.17 Mbit/s
95th percentile per-packet one-way delay: 114.294 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 93.63 Mbit/s
95th percentile per-packet one-way delay: 115.020 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.62 Mbit/s
95th percentile per-packet one-way delay: 116.456 ms
Loss rate: 0.00%
Run 9: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 95.17 Mbit/s)
- Flow 1 egress (mean 95.17 Mbit/s)
- Flow 2 ingress (mean 93.63 Mbit/s)
- Flow 2 egress (mean 93.63 Mbit/s)
- Flow 3 ingress (mean 94.58 Mbit/s)
- Flow 3 egress (mean 94.62 Mbit/s)

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

- Flow 1 (95th percentile 114.29 ms)
- Flow 2 (95th percentile 115.02 ms)
- Flow 3 (95th percentile 116.46 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-02-20 23:27:00
End at: 2018-02-20 23:27:30

# Below is generated by plot.py at 2018-02-21 01:52:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 183.70 Mbit/s
  95th percentile per-packet one-way delay: 114.361 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 94.45 Mbit/s
  95th percentile per-packet one-way delay: 114.037 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 90.19 Mbit/s
  95th percentile per-packet one-way delay: 114.335 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 88.47 Mbit/s
  95th percentile per-packet one-way delay: 114.855 ms
  Loss rate: 0.00%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2018-02-20 20:28:14
End at: 2018-02-20 20:28:44

# Below is generated by plot.py at 2018-02-21 01:52:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 150.34 Mbit/s
  95th percentile per-packet one-way delay: 117.147 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 104.75 Mbit/s
  95th percentile per-packet one-way delay: 117.563 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 67.88 Mbit/s
  95th percentile per-packet one-way delay: 113.887 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.75 Mbit/s
  95th percentile per-packet one-way delay: 113.330 ms
  Loss rate: 0.55%
Run 1: Report of TCP Cubic — Data Link

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

- **Flow 1** ingress (mean 104.79 Mbit/s)
- **Flow 1** egress (mean 104.75 Mbit/s)
- **Flow 2** ingress (mean 67.87 Mbit/s)
- **Flow 2** egress (mean 67.88 Mbit/s)
- **Flow 3** ingress (mean 1.76 Mbit/s)
- **Flow 3** egress (mean 1.75 Mbit/s)

![Graph of per-packet one-way delays for different traffic flows.](image-url)

- **Flow 1** (95th percentile 117.56 ms)
- **Flow 2** (95th percentile 113.89 ms)
- **Flow 3** (95th percentile 113.33 ms)
Run 2: Statistics of TCP Cubic

Start at: 2018-02-20 20:47:56
End at: 2018-02-20 20:48:26

# Below is generated by plot.py at 2018-02-21 01:52:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 140.56 Mbit/s
  95th percentile per-packet one-way delay: 119.026 ms
  Loss rate: 0.06%
  -- Flow 1:
  Average throughput: 73.02 Mbit/s
  95th percentile per-packet one-way delay: 118.678 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 67.10 Mbit/s
  95th percentile per-packet one-way delay: 119.063 ms
  Loss rate: 0.03%
  -- Flow 3:
  Average throughput: 69.26 Mbit/s
  95th percentile per-packet one-way delay: 119.510 ms
  Loss rate: 0.32%
Run 2: Report of TCP Cubic — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 73.04 Mbit/s)  Flow 1 egress (mean 73.02 Mbit/s)
Flow 2 ingress (mean 67.65 Mbit/s)  Flow 2 egress (mean 67.10 Mbit/s)
Flow 3 ingress (mean 69.47 Mbit/s)  Flow 3 egress (mean 69.26 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 118.68 ms)  Flow 2 (95th percentile 119.06 ms)  Flow 3 (95th percentile 119.51 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-02-20 21:07:33
End at: 2018-02-20 21:08:03

# Below is generated by plot.py at 2018-02-21 01:52:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.10 Mbit/s
95th percentile per-packet one-way delay: 117.229 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 65.88 Mbit/s
95th percentile per-packet one-way delay: 117.649 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.90 Mbit/s
95th percentile per-packet one-way delay: 114.320 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 117.187 ms
Loss rate: 0.37%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-02-20 21:26:53
End at: 2018-02-20 21:27:23

# Below is generated by plot.py at 2018-02-21 01:52:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 191.00 Mbit/s
  95th percentile per-packet one-way delay: 121.033 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 104.49 Mbit/s
  95th percentile per-packet one-way delay: 121.020 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 84.16 Mbit/s
  95th percentile per-packet one-way delay: 120.227 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 92.83 Mbit/s
  95th percentile per-packet one-way delay: 123.094 ms
  Loss rate: 0.00%
Run 4: Report of TCP Cubic — Data Link
Run 5: Statistics of TCP Cubic

Start at: 2018-02-20 21:46:37
End at: 2018-02-20 21:47:08

# Below is generated by plot.py at 2018-02-21 01:52:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 151.59 Mbit/s
  95th percentile per-packet one-way delay: 119.854 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 78.99 Mbit/s
  95th percentile per-packet one-way delay: 119.568 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 63.71 Mbit/s
  95th percentile per-packet one-way delay: 120.909 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 92.50 Mbit/s
  95th percentile per-packet one-way delay: 119.114 ms
  Loss rate: 0.00%
Run 5: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 78.99 Mbit/s)
- Flow 1 egress (mean 78.99 Mbit/s)
- Flow 2 ingress (mean 63.69 Mbit/s)
- Flow 2 egress (mean 63.71 Mbit/s)
- Flow 3 ingress (mean 92.61 Mbit/s)
- Flow 3 egress (mean 92.50 Mbit/s)

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

- Flow 1 (95th percentile 119.57 ms)
- Flow 2 (95th percentile 120.91 ms)
- Flow 3 (95th percentile 119.11 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-02-20 22:06:06
End at: 2018-02-20 22:06:36

# Below is generated by plot.py at 2018-02-21 01:52:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 116.62 Mbit/s
95th percentile per-packet one-way delay: 119.103 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.77 Mbit/s
95th percentile per-packet one-way delay: 119.869 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.47 Mbit/s
95th percentile per-packet one-way delay: 117.791 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 115.710 ms
Loss rate: 0.31%
Run 6: Report of TCP Cubic — Data Link

![Graph 1: Throughput over time]

![Graph 2: Packet Delays over time]

Legend for Graph 1:
- Flow 1 ingress (mean 74.79 Mbit/s)
- Flow 1 egress (mean 74.77 Mbit/s)
- Flow 2 ingress (mean 62.46 Mbit/s)
- Flow 2 egress (mean 62.47 Mbit/s)
- Flow 3 ingress (mean 1.97 Mbit/s)
- Flow 3 egress (mean 1.97 Mbit/s)

Legend for Graph 2:
- Flow 1 (95th percentile 119.87 ms)
- Flow 2 (95th percentile 117.79 ms)
- Flow 3 (95th percentile 115.71 ms)
Run 7: Statistics of TCP Cubic

End at: 2018-02-20 22:26:18

# Below is generated by plot.py at 2018-02-21 01:52:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 133.58 Mbit/s
95th percentile per-packet one-way delay: 125.320 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.96 Mbit/s
95th percentile per-packet one-way delay: 120.134 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 98.50 Mbit/s
95th percentile per-packet one-way delay: 127.772 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 119.105 ms
Loss rate: 0.06%
Run 7: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 67.97 Mbit/s)
- Flow 1 egress (mean 67.96 Mbit/s)
- Flow 2 ingress (mean 98.53 Mbit/s)
- Flow 2 egress (mean 98.50 Mbit/s)
- Flow 3 ingress (mean 2.00 Mbit/s)
- Flow 3 egress (mean 2.00 Mbit/s)
Run 8: Statistics of TCP Cubic

Start at: 2018-02-20 22:45:11
End at: 2018-02-20 22:45:41

# Below is generated by plot.py at 2018-02-21 01:53:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 122.25 Mbit/s
  95th percentile per-packet one-way delay: 120.190 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 67.87 Mbit/s
  95th percentile per-packet one-way delay: 119.834 ms
  Loss rate: 0.39%
-- Flow 2:
  Average throughput: 55.86 Mbit/s
  95th percentile per-packet one-way delay: 120.838 ms
  Loss rate: 0.18%
-- Flow 3:
  Average throughput: 51.89 Mbit/s
  95th percentile per-packet one-way delay: 119.998 ms
  Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link

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

Flow 1 ingress (mean 68.13 Mbit/s)
Flow 1 egress (mean 67.87 Mbit/s)
Flow 2 ingress (mean 55.97 Mbit/s)
Flow 2 egress (mean 55.86 Mbit/s)
Flow 3 ingress (mean 51.97 Mbit/s)
Flow 3 egress (mean 51.89 Mbit/s)

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

Flow 1 (95th percentile 119.83 ms)
Flow 2 (95th percentile 120.84 ms)
Flow 3 (95th percentile 120.00 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-02-20 23:04:26
End at: 2018-02-20 23:04:56

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 183.71 Mbit/s
95th percentile per-packet one-way delay: 126.818 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.16 Mbit/s
95th percentile per-packet one-way delay: 125.309 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.06 Mbit/s
95th percentile per-packet one-way delay: 128.358 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.23 Mbit/s
95th percentile per-packet one-way delay: 131.818 ms
Loss rate: 0.00%
Run 9: Report of TCP Cubic — Data Link

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 103.20 Mbit/s)
- Blue solid line: Flow 1 egress (mean 103.16 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 99.04 Mbit/s)
- Green solid line: Flow 2 egress (mean 99.06 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 44.22 Mbit/s)
- Red solid line: Flow 3 egress (mean 44.23 Mbit/s)
Run 10: Statistics of TCP Cubic

Start at: 2018-02-20 23:24:12
End at: 2018-02-20 23:24:42

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.98 Mbit/s
95th percentile per-packet one-way delay: 124.419 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 73.60 Mbit/s
95th percentile per-packet one-way delay: 124.354 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.84 Mbit/s
95th percentile per-packet one-way delay: 124.743 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 54.46 Mbit/s
95th percentile per-packet one-way delay: 124.032 ms
Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 73.64 Mbit/s)
- Flow 1 egress (mean 73.60 Mbit/s)
- Flow 2 ingress (mean 99.96 Mbit/s)
- Flow 2 egress (mean 99.84 Mbit/s)
- Flow 3 ingress (mean 54.29 Mbit/s)
- Flow 3 egress (mean 54.46 Mbit/s)
Run 1: Statistics of LEDBAT

Start at: 2018-02-20 20:27:27
End at: 2018-02-20 20:27:57

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.92 Mbit/s
95th percentile per-packet one-way delay: 112.827 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 112.953 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 112.581 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 112.361 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-02-20 20:47:09
End at: 2018-02-20 20:47:39

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.33 Mbit/s
95th percentile per-packet one-way delay: 113.068 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.91 Mbit/s
95th percentile per-packet one-way delay: 113.139 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.99 Mbit/s
95th percentile per-packet one-way delay: 112.840 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 113.166 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 6.91 Mbps)
Flow 1 egress (mean 6.91 Mbps)
Flow 2 ingress (mean 3.99 Mbps)
Flow 2 egress (mean 3.99 Mbps)
Flow 3 ingress (mean 2.35 Mbps)
Flow 3 egress (mean 2.35 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 113.14 ms)
Flow 2 (95th percentile 112.84 ms)
Flow 3 (95th percentile 113.17 ms)
Run 3: Statistics of LEDBAT

Start at: 2018-02-20 21:06:45
End at: 2018-02-20 21:07:15

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 11.10 Mbit/s
  95th percentile per-packet one-way delay: 114.208 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.23 Mbit/s
  95th percentile per-packet one-way delay: 114.305 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.78 Mbit/s
  95th percentile per-packet one-way delay: 114.041 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.15 Mbit/s
  95th percentile per-packet one-way delay: 113.912 ms
  Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 7.23 Mbps)
Flow 1 egress (mean 7.23 Mbps)
Flow 2 ingress (mean 4.78 Mbps)
Flow 2 egress (mean 4.78 Mbps)
Flow 3 ingress (mean 2.15 Mbps)
Flow 3 egress (mean 2.15 Mbps)

Delay (ms)

Flow 1 (95th percentile 114.31 ms)
Flow 2 (95th percentile 114.04 ms)
Flow 3 (95th percentile 113.91 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-02-20 21:26:06
End at: 2018-02-20 21:26:36

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 112.215 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.27 Mbit/s
95th percentile per-packet one-way delay: 112.245 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.81 Mbit/s
95th percentile per-packet one-way delay: 112.205 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 111.942 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

![Throughput Graph]

Throughput (Mbps)

0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5

0 5 10 15 20 25 30 Time (s)

Flow 1 ingress (mean 7.27 Mbps)  Flow 1 egress (mean 7.27 Mbps)
Flow 2 ingress (mean 4.81 Mbps)  Flow 2 egress (mean 4.81 Mbps)
Flow 3 ingress (mean 2.41 Mbps)  Flow 3 egress (mean 2.41 Mbps)

![Delay Graph]

Per-packet one-way delay (ms)

109 110 111 112 113 114 115

0 5 10 15 20 25 30 Time (s)

Flow 1 (95th percentile 112.25 ms)  Flow 2 (95th percentile 112.20 ms)  Flow 3 (95th percentile 111.94 ms)
Run 5: Statistics of LEDBAT

Start at: 2018-02-20 21:45:50
End at: 2018-02-20 21:46:20

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.64 Mbit/s
95th percentile per-packet one-way delay: 112.188 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.68 Mbit/s
95th percentile per-packet one-way delay: 112.312 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.83 Mbit/s
95th percentile per-packet one-way delay: 112.062 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 111.835 ms
Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

---

**Throughput (Mbps)**

- Flow 1 ingress (mean 6.68 Mbps)
- Flow 1 egress (mean 6.68 Mbps)
- Flow 2 ingress (mean 4.83 Mbps)
- Flow 2 egress (mean 4.83 Mbps)
- Flow 3 ingress (mean 2.34 Mbps)
- Flow 3 egress (mean 2.34 Mbps)

---

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

- Flow 1 (95th percentile 112.31 ms)
- Flow 2 (95th percentile 112.06 ms)
- Flow 3 (95th percentile 111.83 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-02-20 22:05:19
End at: 2018-02-20 22:05:49

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.44 Mbit/s
  95th percentile per-packet one-way delay: 112.890 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.14 Mbit/s
  95th percentile per-packet one-way delay: 112.711 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.03 Mbit/s
  95th percentile per-packet one-way delay: 113.235 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.89 Mbit/s
  95th percentile per-packet one-way delay: 112.845 ms
  Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 7.14 Mbit/s)
- Flow 1 egress (mean 7.14 Mbit/s)
- Flow 2 ingress (mean 4.03 Mbit/s)
- Flow 2 egress (mean 4.03 Mbit/s)
- Flow 3 ingress (mean 1.89 Mbit/s)
- Flow 3 egress (mean 1.89 Mbit/s)

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

- Flow 1 (95th percentile 112.71 ms)
- Flow 2 (95th percentile 113.23 ms)
- Flow 3 (95th percentile 112.84 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-02-20 22:25:01
End at: 2018-02-20 22:25:31

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.39 Mbit/s
  95th percentile per-packet one-way delay: 113.857 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.23 Mbit/s
  95th percentile per-packet one-way delay: 113.972 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.65 Mbit/s
  95th percentile per-packet one-way delay: 113.517 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.26 Mbit/s
  95th percentile per-packet one-way delay: 113.447 ms
  Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-02-20 22:44:24
End at: 2018-02-20 22:44:54

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.92 Mbit/s
  95th percentile per-packet one-way delay: 114.732 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.32 Mbit/s
  95th percentile per-packet one-way delay: 114.822 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.35 Mbit/s
  95th percentile per-packet one-way delay: 114.420 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.25 Mbit/s
  95th percentile per-packet one-way delay: 114.233 ms
  Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link

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

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Run 9: Statistics of LEDBAT

Start at: 2018-02-20 23:03:39
End at: 2018-02-20 23:04:09

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.73 Mbit/s
95th percentile per-packet one-way delay: 113.314 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.84 Mbit/s
95th percentile per-packet one-way delay: 113.399 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.70 Mbit/s
95th percentile per-packet one-way delay: 113.133 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 112.115 ms
Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 6.84 Mbps)
  - Flow 1 egress (mean 6.84 Mbps)
  - Flow 2 ingress (mean 4.70 Mbps)
  - Flow 2 egress (mean 4.70 Mbps)
  - Flow 3 ingress (mean 2.34 Mbps)
  - Flow 3 egress (mean 2.34 Mbps)

- **Delay (ms)**
  - Flow 1 (95th percentile 113.40 ms)
  - Flow 2 (95th percentile 113.13 ms)
  - Flow 3 (95th percentile 112.11 ms)
Run 10: Statistics of LEDBAT

End at: 2018-02-20 23:23:55

# Below is generated by plot.py at 2018-02-21 01:54:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 10.94 Mbit/s
  95th percentile per-packet one-way delay: 114.884 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 7.12 Mbit/s
  95th percentile per-packet one-way delay: 114.982 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 4.60 Mbit/s
  95th percentile per-packet one-way delay: 114.710 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.32 Mbit/s
  95th percentile per-packet one-way delay: 114.326 ms
  Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC

Start at: 2018-02-20 20:29:10
End at: 2018-02-20 20:29:40

# Below is generated by plot.py at 2018-02-21 02:00:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 516.56 Mbit/s
95th percentile per-packet one-way delay: 236.830 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 490.93 Mbit/s
95th percentile per-packet one-way delay: 236.849 ms
Loss rate: 2.98%
-- Flow 2:
Average throughput: 8.31 Mbit/s
95th percentile per-packet one-way delay: 235.400 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 60.82 Mbit/s
95th percentile per-packet one-way delay: 236.849 ms
Loss rate: 4.60%
Run 1: Report of PCC — Data Link

---

**Throughput (Mbps):**

- Flow 1 ingress (mean 505.99 Mbps)
- Flow 1 egress (mean 490.93 Mbps)
- Flow 2 ingress (mean 8.49 Mbps)
- Flow 2 egress (mean 8.31 Mbps)
- Flow 3 ingress (mean 63.75 Mbps)
- Flow 3 egress (mean 60.82 Mbps)

---

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

- Flow 1 (95th percentile 236.85 ms)
- Flow 2 (95th percentile 233.40 ms)
- Flow 3 (95th percentile 236.85 ms)
Run 2: Statistics of PCC

Start at: 2018-02-20 20:48:51
End at: 2018-02-20 20:49:21

# Below is generated by plot.py at 2018-02-21 02:01:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 520.32 Mbit/s
95th percentile per-packet one-way delay: 210.370 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 487.40 Mbit/s
95th percentile per-packet one-way delay: 212.774 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 33.40 Mbit/s
95th percentile per-packet one-way delay: 159.982 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 32.90 Mbit/s
95th percentile per-packet one-way delay: 165.058 ms
Loss rate: 0.02%
Run 3: Statistics of PCC

Start at: 2018-02-20 21:08:24
End at: 2018-02-20 21:08:54

# Below is generated by plot.py at 2018-02-21 02:01:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 514.72 Mbit/s
95th percentile per-packet one-way delay: 233.931 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 473.05 Mbit/s
95th percentile per-packet one-way delay: 234.203 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 31.70 Mbit/s
95th percentile per-packet one-way delay: 223.625 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 62.70 Mbit/s
95th percentile per-packet one-way delay: 234.772 ms
Loss rate: 0.11%
Run 3: Report of PCC — Data Link
Run 4: Statistics of PCC

Start at: 2018-02-20 21:27:50
End at: 2018-02-20 21:28:20

# Below is generated by plot.py at 2018-02-21 02:01:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 523.53 Mbit/s
  95th percentile per-packet one-way delay: 232.916 ms
  Loss rate: 2.25%
-- Flow 1:
  Average throughput: 443.15 Mbit/s
  95th percentile per-packet one-way delay: 237.368 ms
  Loss rate: 2.11%
-- Flow 2:
  Average throughput: 63.85 Mbit/s
  95th percentile per-packet one-way delay: 226.528 ms
  Loss rate: 1.35%
-- Flow 3:
  Average throughput: 115.54 Mbit/s
  95th percentile per-packet one-way delay: 228.640 ms
  Loss rate: 4.87%
Run 4: Report of PCC — Data Link

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

- Flow 1 Ingress (mean 452.66 Mbit/s)
- Flow 1 Egress (mean 443.15 Mbit/s)
- Flow 2 Ingress (mean 64.72 Mbit/s)
- Flow 2 Egress (mean 63.85 Mbit/s)
- Flow 3 Ingress (mean 121.43 Mbit/s)
- Flow 3 Egress (mean 115.54 Mbit/s)

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

- Flow 1 (95th percentile 237.37 ms)
- Flow 2 (95th percentile 226.53 ms)
- Flow 3 (95th percentile 228.64 ms)
Run 5: Statistics of PCC

Start at: 2018-02-20 21:47:33
End at: 2018-02-20 21:48:03

# Below is generated by plot.py at 2018-02-21 02:01:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 470.79 Mbit/s
  95th percentile per-packet one-way delay: 229.597 ms
  Loss rate: 3.12%
-- Flow 1:
  Average throughput: 317.96 Mbit/s
  95th percentile per-packet one-way delay: 229.606 ms
  Loss rate: 3.13%
-- Flow 2:
  Average throughput: 118.75 Mbit/s
  95th percentile per-packet one-way delay: 227.476 ms
  Loss rate: 2.51%
-- Flow 3:
  Average throughput: 224.54 Mbit/s
  95th percentile per-packet one-way delay: 233.586 ms
  Loss rate: 3.69%
Run 5: Report of PCC — Data Link

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

- Flow 1 ingress (mean 328.24 Mbps/s)
- Flow 1 egress (mean 317.96 Mbps/s)
- Flow 2 ingress (mean 121.01 Mbps/s)
- Flow 2 egress (mean 118.75 Mbps/s)
- Flow 3 ingress (mean 233.20 Mbps/s)
- Flow 3 egress (mean 224.54 Mbps/s)

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

- Flow 1 (95th percentile 229.61 ms)
- Flow 2 (95th percentile 227.48 ms)
- Flow 3 (95th percentile 233.59 ms)
Run 6: Statistics of PCC

Start at: 2018-02-20 22:07:00
End at: 2018-02-20 22:07:30

# Below is generated by plot.py at 2018-02-21 02:02:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 536.36 Mbit/s
  95th percentile per-packet one-way delay: 241.260 ms
  Loss rate: 1.86%
-- Flow 1:
  Average throughput: 474.34 Mbit/s
  95th percentile per-packet one-way delay: 242.624 ms
  Loss rate: 1.90%
-- Flow 2:
  Average throughput: 61.83 Mbit/s
  95th percentile per-packet one-way delay: 235.385 ms
  Loss rate: 1.50%
-- Flow 3:
  Average throughput: 63.52 Mbit/s
  95th percentile per-packet one-way delay: 233.138 ms
  Loss rate: 1.85%
Run 6: Report of PCC — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 7: Statistics of PCC

Start at: 2018-02-20 22:26:43

# Below is generated by plot.py at 2018-02-21 02:03:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 534.39 Mbit/s
  95th percentile per-packet one-way delay: 252.720 ms
  Loss rate: 3.09%
  -- Flow 1:
    Average throughput: 452.69 Mbit/s
    95th percentile per-packet one-way delay: 255.461 ms
    Loss rate: 3.08%
  -- Flow 2:
    Average throughput: 121.70 Mbit/s
    95th percentile per-packet one-way delay: 234.402 ms
    Loss rate: 3.18%
  -- Flow 3:
    Average throughput: 2.41 Mbit/s
    95th percentile per-packet one-way delay: 232.759 ms
    Loss rate: 2.48%
Run 7: Report of PCC — Data Link
Run 8: Statistics of PCC

Start at: 2018-02-20 22:46:05
End at: 2018-02-20 22:46:35

# Below is generated by plot.py at 2018-02-21 02:03:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 521.30 Mbit/s
  95th percentile per-packet one-way delay: 230.094 ms
  Loss rate: 1.02%
-- Flow 1:
  Average throughput: 469.44 Mbit/s
  95th percentile per-packet one-way delay: 230.217 ms
  Loss rate: 1.09%
-- Flow 2:
  Average throughput: 62.10 Mbit/s
  95th percentile per-packet one-way delay: 230.158 ms
  Loss rate: 0.37%
-- Flow 3:
  Average throughput: 32.32 Mbit/s
  95th percentile per-packet one-way delay: 175.467 ms
  Loss rate: 0.43%
Run 8: Report of PCC — Data Link

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

**Throughput (Mbps):**
- Blue dashed line: Flow 1 ingress (mean 474.45 Mbps)
- Blue solid line: Flow 1 egress (mean 469.48 Mbps)
- Green dashed line: Flow 2 ingress (mean 62.36 Mbps)
- Green solid line: Flow 2 egress (mean 62.10 Mbps)
- Red dashed line: Flow 3 ingress (mean 32.49 Mbps)
- Red solid line: Flow 3 egress (mean 32.32 Mbps)

**Delay (ms):**
- Blue dashed line: Flow 1 (95th percentile 230.22 ms)
- Green dashed line: Flow 2 (95th percentile 230.16 ms)
- Red dashed line: Flow 3 (95th percentile 175.47 ms)
Run 9: Statistics of PCC

Start at: 2018-02-20 23:05:24
End at: 2018-02-20 23:05:54

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 530.09 Mbit/s
95th percentile per-packet one-way delay: 241.441 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 427.60 Mbit/s
95th percentile per-packet one-way delay: 244.461 ms
Loss rate: 1.57%
-- Flow 2:
Average throughput: 123.25 Mbit/s
95th percentile per-packet one-way delay: 235.099 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 62.42 Mbit/s
95th percentile per-packet one-way delay: 232.809 ms
Loss rate: 0.44%
Run 9: Report of PCC — Data Link

![Graph showing throughput and per-packet delay over time for data link with details on flow ingress and egress rates and 95th percentile delays.](image-url)
Run 10: Statistics of PCC

Start at: 2018-02-20 23:25:08
End at: 2018-02-20 23:25:38

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.19 Mbit/s
95th percentile per-packet one-way delay: 242.585 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 348.08 Mbit/s
95th percentile per-packet one-way delay: 242.819 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 121.73 Mbit/s
95th percentile per-packet one-way delay: 242.060 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 64.68 Mbit/s
95th percentile per-packet one-way delay: 242.453 ms
Loss rate: 1.63%
Run 10: Report of PCC — Data Link
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-20 20:23:53
End at: 2018-02-20 20:24:23

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.04 Mbit/s
95th percentile per-packet one-way delay: 112.076 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.78 Mbit/s
95th percentile per-packet one-way delay: 112.111 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.60 Mbit/s
95th percentile per-packet one-way delay: 110.568 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.01 Mbit/s
95th percentile per-packet one-way delay: 109.603 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link

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

- **Flow 1**
  - Ingress: Mean 54.77 Mbit/s
  - Egress: Mean 54.78 Mbit/s

- **Flow 2**
  - Ingress: Mean 46.53 Mbit/s
  - Egress: Mean 46.60 Mbit/s

- **Flow 3**
  - Ingress: Mean 17.01 Mbit/s
  - Egress: Mean 17.01 Mbit/s

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

- **Flow 1** (95th percentile 112.11 ms)
- **Flow 2** (95th percentile 110.57 ms)
- **Flow 3** (95th percentile 109.60 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-20 20:43:34
End at: 2018-02-20 20:44:04

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.80 Mbit/s
  95th percentile per-packet one-way delay: 113.511 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 46.84 Mbit/s
  95th percentile per-packet one-way delay: 110.586 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 42.04 Mbit/s
  95th percentile per-packet one-way delay: 112.707 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 22.04 Mbit/s
  95th percentile per-packet one-way delay: 113.771 ms
  Loss rate: 0.12%
Run 2: Report of QUIC Cubic — Data Link

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

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

Legend:
- Flow 1 ingress (mean 46.84 Mbit/s)
- Flow 1 egress (mean 46.84 Mbit/s)
- Flow 2 ingress (mean 42.05 Mbit/s)
- Flow 2 egress (mean 42.04 Mbit/s)
- Flow 3 ingress (mean 22.06 Mbit/s)
- Flow 3 egress (mean 22.04 Mbit/s)

Legend for delay:
- Flow 1 (95th percentile 110.59 ms)
- Flow 2 (95th percentile 112.71 ms)
- Flow 3 (95th percentile 113.77 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-20 21:03:11
End at: 2018-02-20 21:03:41

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.65 Mbit/s
  95th percentile per-packet one-way delay: 112.720 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 49.89 Mbit/s
  95th percentile per-packet one-way delay: 112.740 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 44.14 Mbit/s
  95th percentile per-packet one-way delay: 112.684 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 20.23 Mbit/s
  95th percentile per-packet one-way delay: 110.142 ms
  Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link

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

![Graph of Packet Rate vs. Time](image2)
Run 4: Statistics of QUIC Cubic

End at: 2018-02-20 21:23:02

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 73.29 Mbit/s
  95th percentile per-packet one-way delay: 112.797 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 42.48 Mbit/s
  95th percentile per-packet one-way delay: 112.827 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 36.65 Mbit/s
  95th percentile per-packet one-way delay: 111.741 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 20.48 Mbit/s
  95th percentile per-packet one-way delay: 112.901 ms
  Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-20 21:42:15
End at: 2018-02-20 21:42:45

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.07 Mbit/s
95th percentile per-packet one-way delay: 111.480 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 49.53 Mbit/s
95th percentile per-packet one-way delay: 111.523 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 43.70 Mbit/s
95th percentile per-packet one-way delay: 110.683 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 20.47 Mbit/s
95th percentile per-packet one-way delay: 110.838 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress**: mean 49.53 Mbit/s
- **Flow 1 egress**: mean 49.53 Mbit/s
- **Flow 2 ingress**: mean 43.70 Mbit/s
- **Flow 2 egress**: mean 43.70 Mbit/s
- **Flow 3 ingress**: mean 20.47 Mbit/s
- **Flow 3 egress**: mean 20.47 Mbit/s

![Graph 2: Round-trip time (ms) over Time (s)]

- **Flow 1 (95th percentile)**: 111.52 ms
- **Flow 2 (95th percentile)**: 110.68 ms
- **Flow 3 (95th percentile)**: 110.84 ms
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-20 22:01:38
End at: 2018-02-20 22:02:08

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.61 Mbit/s
  95th percentile per-packet one-way delay: 112.415 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 48.96 Mbit/s
  95th percentile per-packet one-way delay: 112.292 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 34.37 Mbit/s
  95th percentile per-packet one-way delay: 112.593 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 21.29 Mbit/s
  95th percentile per-packet one-way delay: 111.912 ms
  Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 48.96 Mbps)
  - Flow 2 ingress (mean 34.37 Mbps)
  - Flow 3 ingress (mean 21.29 Mbps)
  - Flow 1 egress (mean 48.96 Mbps)
  - Flow 2 egress (mean 34.37 Mbps)
  - Flow 3 egress (mean 21.29 Mbps)

- **Delay (ms)**
  - Flow 1 (95th percentile 112.29 ms)
  - Flow 2 (95th percentile 112.59 ms)
  - Flow 3 (95th percentile 111.91 ms)
Run 7: Statistics of QUIC Cubic


# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.28 Mbit/s
  95th percentile per-packet one-way delay: 112.488 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 44.48 Mbit/s
  95th percentile per-packet one-way delay: 112.473 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 44.37 Mbit/s
  95th percentile per-packet one-way delay: 112.539 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 23.10 Mbit/s
  95th percentile per-packet one-way delay: 111.196 ms
  Loss rate: 0.00%
Run 7: Report of QUIC Cubic — Data Link

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

**Throughput (Mbps/s)**
- **Flow 1 ingress (mean 44.48 Mbps/s)**
- **Flow 1 egress (mean 44.48 Mbps/s)**
- **Flow 2 ingress (mean 44.37 Mbps/s)**
- **Flow 2 egress (mean 44.37 Mbps/s)**
- **Flow 3 ingress (mean 23.10 Mbps/s)**
- **Flow 3 egress (mean 23.10 Mbps/s)**

**Ping (ms)**
- **Flow 1 (95th percentile 112.47 ms)**
- **Flow 2 (95th percentile 112.54 ms)**
- **Flow 3 (95th percentile 111.20 ms)**
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-20 22:40:44
End at: 2018-02-20 22:41:14

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.81 Mbit/s
  95th percentile per-packet one-way delay: 113.103 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 43.31 Mbit/s
  95th percentile per-packet one-way delay: 113.183 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 51.21 Mbit/s
  95th percentile per-packet one-way delay: 112.716 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 48.36 Mbit/s
  95th percentile per-packet one-way delay: 109.510 ms
  Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link

**Graph 1:**
- **Throughput (Mbps):**
  - Flow 1 ingress (mean 43.31 Mbps)
  - Flow 1 egress (mean 43.31 Mbps)
  - Flow 2 ingress (mean 51.21 Mbps)
  - Flow 2 egress (mean 51.21 Mbps)
  - Flow 3 ingress (mean 48.36 Mbps)
  - Flow 3 egress (mean 48.36 Mbps)

**Graph 2:**
- **End-to-end one-way delay (ms):**
  - Flow 1 (95th percentile 113.18 ms)
  - Flow 2 (95th percentile 112.72 ms)
  - Flow 3 (95th percentile 109.51 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-20 23:00:13
End at: 2018-02-20 23:00:43

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 71.96 Mbit/s
  95th percentile per-packet one-way delay: 112.610 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 43.78 Mbit/s
  95th percentile per-packet one-way delay: 110.958 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 32.59 Mbit/s
  95th percentile per-packet one-way delay: 112.701 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 20.35 Mbit/s
  95th percentile per-packet one-way delay: 111.379 ms
  Loss rate: 0.00%
Run 9: Report of QUIC Cubic — Data Link

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

- Blue: Flow 1 ingress (mean 43.78 Mbps)
- Blue: Flow 1 egress (mean 43.78 Mbps)
- Green: Flow 2 ingress (mean 32.59 Mbps)
- Green: Flow 2 egress (mean 32.59 Mbps)
- Red: Flow 3 ingress (mean 20.35 Mbps)
- Red: Flow 3 egress (mean 20.35 Mbps)

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

- Blue: Flow 1 (95th percentile 110.96 ms)
- Green: Flow 2 (95th percentile 112.70 ms)
- Red: Flow 3 (95th percentile 111.38 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-20 23:19:47
End at: 2018-02-20 23:20:17

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 74.43 Mbit/s
  95th percentile per-packet one-way delay: 112.989 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 41.26 Mbit/s
  95th percentile per-packet one-way delay: 113.069 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 36.21 Mbit/s
  95th percentile per-packet one-way delay: 112.118 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 28.44 Mbit/s
  95th percentile per-packet one-way delay: 109.680 ms
  Loss rate: 0.00%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-02-20 20:30:18
End at: 2018-02-20 20:30:48

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 111.692 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 108.878 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.772 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.13 Mbit/s
  95th percentile per-packet one-way delay: 111.750 ms
  Loss rate: 0.00%
Run 2: Statistics of SCReAM

Start at: 2018-02-20 20:50:00
End at: 2018-02-20 20:50:30

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.856 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.875 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.783 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.840 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

![Graph of throughput over time for different flows]

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

Flow 1 ingress (mean 0.21 Mbps)  Flow 1 egress (mean 0.21 Mbps)
Flow 2 ingress (mean 0.22 Mbps)  Flow 2 egress (mean 0.22 Mbps)
Flow 3 ingress (mean 0.22 Mbps)  Flow 3 egress (mean 0.22 Mbps)

Flow 1 (95th percentile 112.88 ms)  Flow 2 (95th percentile 111.78 ms)  Flow 3 (95th percentile 112.04 ms)
Run 3: Statistics of SCReAM

Start at: 2018-02-20 21:09:32
End at: 2018-02-20 21:10:02

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.867 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.740 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.876 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 112.940 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

![Throughput plot](image1)

![Delay plot](image2)
Run 4: Statistics of SCReAM

End at: 2018-02-20 21:29:29

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 111.671 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.701 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.19 Mbit/s
  95th percentile per-packet one-way delay: 110.864 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.056 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

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

- Blue line: Flow 1 ingress (mean 0.22 Mbps)
- Blue dashed line: Flow 1 egress (mean 0.22 Mbps)
- Green line: Flow 2 ingress (mean 0.19 Mbps)
- Red dashed line: Flow 2 egress (mean 0.19 Mbps)
- Yellow line: Flow 3 ingress (mean 0.22 Mbps)
- Red dashed line: Flow 3 egress (mean 0.22 Mbps)

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

- Blue line: Flow 1 (95th percentile 111.70 ms)
- Green line: Flow 2 (95th percentile 110.86 ms)
- Red line: Flow 3 (95th percentile 111.06 ms)
Run 5: Statistics of SCReAM

Start at: 2018-02-20 21:48:40
End at: 2018-02-20 21:49:10

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 110.778 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 109.937 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 109.085 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 110.861 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

![Graph of throughput vs time](image)

- Flow 1 ingress (mean 0.22 Mbit/s)
- Flow 1 egress (mean 0.22 Mbit/s)
- Flow 2 ingress (mean 0.22 Mbit/s)
- Flow 2 egress (mean 0.22 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s)
- Flow 3 egress (mean 0.22 Mbit/s)

![Graph of network latency vs time](image)

- Flow 1 (95th percentile 109.94 ms)
- Flow 2 (95th percentile 109.08 ms)
- Flow 3 (95th percentile 110.86 ms)
Run 6: Statistics of SCReAM

Start at: 2018-02-20 22:08:09
End at: 2018-02-20 22:08:39

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 112.570 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.521 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 112.632 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.792 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-02-20 22:27:52
End at: 2018-02-20 22:28:22

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.123 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.986 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.190 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.986 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

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

- Flow 1 ingress (mean 0.22 Mbps)
- Flow 1 egress (mean 0.22 Mbps)
- Flow 2 ingress (mean 0.21 Mbps)
- Flow 2 egress (mean 0.21 Mbps)
- Flow 3 ingress (mean 0.22 Mbps)
- Flow 3 egress (mean 0.22 Mbps)
Run 8: Statistics of SCReAM

Start at: 2018-02-20 22:47:14
End at: 2018-02-20 22:47:44

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 113.257 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 113.203 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 113.295 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 111.191 ms
  Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link
Run 9: Statistics of SCReAM

Start at: 2018-02-20 23:06:33
End at: 2018-02-20 23:07:03

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 113.009 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 113.020 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 113.015 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 109.596 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

![Graph 1: Throughput vs Time]

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

Legend:
- Flow 1 ingress (mean 0.22 Mbit/s)
- Flow 1 egress (mean 0.22 Mbit/s)
- Flow 2 ingress (mean 0.21 Mbit/s)
- Flow 2 egress (mean 0.21 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s)
- Flow 3 egress (mean 0.22 Mbit/s)

Legend:
- Flow 1 (95th percentile 113.02 ms)
- Flow 2 (95th percentile 113.02 ms)
- Flow 3 (95th percentile 109.60 ms)
Run 10: Statistics of SCReAM

Start at: 2018-02-20 23:26:14
End at: 2018-02-20 23:26:44

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.36 Mbit/s
  95th percentile per-packet one-way delay: 113.417 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 113.226 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.12 Mbit/s
  95th percentile per-packet one-way delay: 112.466 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 113.527 ms
  Loss rate: 0.00%
Run 1: Statistics of WebRTC media

Start at: 2018-02-20 20:34:43
End at: 2018-02-20 20:35:13

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.01 Mbit/s
  95th percentile per-packet one-way delay: 112.811 ms
  Loss rate: 0.01%
  -- Flow 1:
  Average throughput: 2.18 Mbit/s
  95th percentile per-packet one-way delay: 110.620 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 1.34 Mbit/s
  95th percentile per-packet one-way delay: 112.876 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 111.776 ms
  Loss rate: 0.06%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-02-20 20:54:20
End at: 2018-02-20 20:54:50

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 112.878 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 110.719 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 112.966 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 112.854 ms
Loss rate: 0.06%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-02-20 21:14:04
End at: 2018-02-20 21:14:34

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.86 Mbit/s
  95th percentile per-packet one-way delay: 112.872 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 111.136 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 112.533 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 113.034 ms
  Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-02-20 21:33:27
End at: 2018-02-20 21:33:57

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.86 Mbit/s
  95th percentile per-packet one-way delay: 110.917 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 110.963 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 1.32 Mbit/s
  95th percentile per-packet one-way delay: 109.265 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 110.691 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows. The graphs illustrate the variability in throughput and delay across the flows, with distinct lines for each flow's ingress and egress data. The graphs are labeled with mean rates and indicate the 95th percentile delays for each flow.]
Run 5: Statistics of WebRTC media

Start at: 2018-02-20 21:53:00
End at: 2018-02-20 21:53:30

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.82 Mbit/s
  95th percentile per-packet one-way delay: 112.591 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 112.609 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 1.30 Mbit/s
  95th percentile per-packet one-way delay: 112.584 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 110.910 ms
  Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

![Graph 1: Throughput (Mbps)]

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

Start at: 2018-02-20 22:12:31
End at: 2018-02-20 22:13:01

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 112.588 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 111.009 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 112.668 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 112.689 ms
Loss rate: 0.01%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-02-20 22:32:18
End at: 2018-02-20 22:32:48

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.84 Mbit/s
  95th percentile per-packet one-way delay: 113.154 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.09 Mbit/s
  95th percentile per-packet one-way delay: 113.208 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.30 Mbit/s
  95th percentile per-packet one-way delay: 111.084 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 112.952 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-02-20 22:51:35
End at: 2018-02-20 22:52:05

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.86 Mbit/s
  95th percentile per-packet one-way delay: 113.165 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.10 Mbit/s
  95th percentile per-packet one-way delay: 111.288 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 113.293 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 111.307 ms
  Loss rate: 0.01%
Run 8: Report of WebRTC media — Data Link

[Graph showing throughput over time for different flows with mean rates and median round-trip times indicated.]

Throughput (Mbit/s)

Time (s)

0.0 0.5 1.0 1.5 2.0 2.5 3.0

Flow 1 ingress (mean 2.10 Mbit/s) - Flow 1 egress (mean 2.10 Mbit/s)
Flow 2 ingress (mean 1.31 Mbit/s) - Flow 2 egress (mean 1.31 Mbit/s)
Flow 3 ingress (mean 0.49 Mbit/s) - Flow 3 egress (mean 0.49 Mbit/s)

Median round-trip time (ms)

Time (s)

0.0 5.0 10.0 15.0 20.0 25.0 30.0

Flow 1 (95th percentile 111.29 ms) - Flow 2 (95th percentile 113.29 ms) - Flow 3 (95th percentile 111.31 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-02-20 23:11:04
End at: 2018-02-20 23:11:34

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 113.767 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 113.305 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 113.216 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 115.076 ms
Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-02-20 23:30:33
End at: 2018-02-20 23:31:03

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.88 Mbit/s
  95th percentile per-packet one-way delay: 113.609 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.10 Mbit/s
  95th percentile per-packet one-way delay: 113.310 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 1.31 Mbit/s
  95th percentile per-packet one-way delay: 111.573 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.49 Mbit/s
  95th percentile per-packet one-way delay: 113.853 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link
Run 1: Statistics of Sprout

Start at: 2018-02-20 20:36:54
End at: 2018-02-20 20:37:24

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.71 Mbit/s
  95th percentile per-packet one-way delay: 112.743 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.72 Mbit/s
  95th percentile per-packet one-way delay: 112.784 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.85 Mbit/s
  95th percentile per-packet one-way delay: 112.507 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.31 Mbit/s
  95th percentile per-packet one-way delay: 112.830 ms
  Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.72 Mbps)  Flow 1 egress (mean 2.72 Mbps)
Flow 2 ingress (mean 1.85 Mbps)  Flow 2 egress (mean 1.85 Mbps)
Flow 3 ingress (mean 2.31 Mbps)  Flow 3 egress (mean 2.31 Mbps)

Percent packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 112.78 ms)  Flow 2 (95th percentile 112.51 ms)  Flow 3 (95th percentile 112.83 ms)
Run 2: Statistics of Sprout

Start at: 2018-02-20 20:56:27
End at: 2018-02-20 20:56:57

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.73 Mbit/s
  95th percentile per-packet one-way delay: 113.673 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.62 Mbit/s
  95th percentile per-packet one-way delay: 113.700 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.05 Mbit/s
  95th percentile per-packet one-way delay: 113.575 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.27 Mbit/s
  95th percentile per-packet one-way delay: 113.722 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

![Graphs showing throughput and delay for different flows over time.](image-url)
Run 3: Statistics of Sprout

Start at: 2018-02-20 21:16:06
End at: 2018-02-20 21:16:36

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.07 Mbit/s
  95th percentile per-packet one-way delay: 113.673 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.97 Mbit/s
  95th percentile per-packet one-way delay: 113.733 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.54 Mbit/s
  95th percentile per-packet one-way delay: 113.598 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.26 Mbit/s
  95th percentile per-packet one-way delay: 113.469 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

![Graph 1: Throughput vs. Time]

- Flow 1 ingress (mean 2.97 Mbit/s)
- Flow 1 egress (mean 2.97 Mbit/s)
- Flow 2 ingress (mean 2.54 Mbit/s)
- Flow 2 egress (mean 2.54 Mbit/s)
- Flow 3 ingress (mean 1.26 Mbit/s)
- Flow 3 egress (mean 1.26 Mbit/s)

![Graph 2: Percentile vs. Time]

- Flow 1 (95th percentile 113.33 ms)
- Flow 2 (95th percentile 113.60 ms)
- Flow 3 (95th percentile 113.47 ms)
Run 4: Statistics of Sprout

Start at: 2018-02-20 21:35:41
End at: 2018-02-20 21:36:11

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.65 Mbit/s
  95th percentile per-packet one-way delay: 111.517 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.22 Mbit/s
  95th percentile per-packet one-way delay: 111.430 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.47 Mbit/s
  95th percentile per-packet one-way delay: 111.275 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.39 Mbit/s
  95th percentile per-packet one-way delay: 112.029 ms
  Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 2.22 Mbps)
- Flow 1 egress (mean 2.22 Mbps)
- Flow 2 ingress (mean 2.47 Mbps)
- Flow 2 egress (mean 2.47 Mbps)
- Flow 3 ingress (mean 2.39 Mbps)
- Flow 3 egress (mean 2.39 Mbps)

**Latency (ms):**
- Flow 1 (95th percentile 111.43 ms)
- Flow 2 (95th percentile 111.28 ms)
- Flow 3 (95th percentile 112.03 ms)
Run 5: Statistics of Sprout

End at: 2018-02-20 21:55:43

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.49 Mbit/s
  95th percentile per-packet one-way delay: 112.944 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.26 Mbit/s
  95th percentile per-packet one-way delay: 112.872 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.26 Mbit/s
  95th percentile per-packet one-way delay: 113.106 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.21 Mbit/s
  95th percentile per-packet one-way delay: 112.550 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-02-20 22:14:46
End at: 2018-02-20 22:15:16

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.89 Mbit/s
  95th percentile per-packet one-way delay: 112.701 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.11 Mbit/s
  95th percentile per-packet one-way delay: 112.854 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.25 Mbit/s
  95th percentile per-packet one-way delay: 112.094 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.86 Mbit/s
  95th percentile per-packet one-way delay: 111.418 ms
  Loss rate: 0.00%
Run 6: Report of Sprout — Data Link

Throughput (Mb/s) vs Time (s)

- Flow 1 ingress (mean 3.11 Mb/s)
- Flow 1 egress (mean 3.11 Mb/s)
- Flow 2 ingress (mean 3.25 Mb/s)
- Flow 2 egress (mean 3.25 Mb/s)
- Flow 3 ingress (mean 1.86 Mb/s)
- Flow 3 egress (mean 1.86 Mb/s)

End-to-end delay (ms) vs Time (s)

- Flow 1 (95th percentile 112.85 ms)
- Flow 2 (95th percentile 112.09 ms)
- Flow 3 (95th percentile 111.42 ms)
Run 7: Statistics of Sprout

Start at: 2018-02-20 22:34:20
End at: 2018-02-20 22:34:50

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.36 Mbit/s
95th percentile per-packet one-way delay: 113.610 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 113.579 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.59 Mbit/s
95th percentile per-packet one-way delay: 113.781 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 113.169 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

![Graph showing network performance metrics](image1)

![Graph showing network delay metrics](image2)
Run 8: Statistics of Sprout

Start at: 2018-02-20 22:53:43
End at: 2018-02-20 22:54:13

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.06 Mbit/s
  95th percentile per-packet one-way delay: 112.579 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.36 Mbit/s
  95th percentile per-packet one-way delay: 112.582 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.90 Mbit/s
  95th percentile per-packet one-way delay: 112.697 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 112.494 ms
  Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 9: Statistics of Sprout

Start at: 2018-02-20 23:13:08
End at: 2018-02-20 23:13:38

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.65 Mbit/s
95th percentile per-packet one-way delay: 113.723 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 113.469 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 114.427 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 113.711 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-02-20 23:32:35
End at: 2018-02-20 23:33:05

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.71 Mbit/s
  95th percentile per-packet one-way delay: 113.744 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.29 Mbit/s
  95th percentile per-packet one-way delay: 113.732 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.92 Mbit/s
  95th percentile per-packet one-way delay: 113.854 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.46 Mbit/s
  95th percentile per-packet one-way delay: 113.459 ms
  Loss rate: 0.00%
Run 1: Statistics of TaoVA-100x

End at: 2018-02-20 20:23:23

# Below is generated by plot.py at 2018-02-21 02:09:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 117.88 Mbit/s
  95th percentile per-packet one-way delay: 111.571 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 68.62 Mbit/s
  95th percentile per-packet one-way delay: 110.773 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 59.08 Mbit/s
  95th percentile per-packet one-way delay: 110.917 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 29.94 Mbit/s
  95th percentile per-packet one-way delay: 114.429 ms
  Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

![Graph of Throughput and Latency over Time]
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-20 20:42:27
End at: 2018-02-20 20:42:57

# Below is generated by plot.py at 2018-02-21 02:11:04
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 204.59 Mbit/s
   95th percentile per-packet one-way delay: 112.461 ms
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 144.13 Mbit/s
   95th percentile per-packet one-way delay: 112.142 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 12.49 Mbit/s
   95th percentile per-packet one-way delay: 112.453 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 157.33 Mbit/s
   95th percentile per-packet one-way delay: 112.907 ms
   Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link

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

Flow 1 ingress (mean 144.13 Mbit/s)  Flow 1 egress (mean 144.13 Mbit/s)
Flow 2 ingress (mean 12.49 Mbit/s)  Flow 2 egress (mean 12.49 Mbit/s)
Flow 3 ingress (mean 157.30 Mbit/s) Flow 3 egress (mean 157.33 Mbit/s)

Flow 1 (95th percentile 112.14 ms)  Flow 2 (95th percentile 112.45 ms)  Flow 3 (95th percentile 112.91 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-20 21:02:01
End at: 2018-02-20 21:02:31

# Below is generated by plot.py at 2018-02-21 02:11:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 223.54 Mbit/s
  95th percentile per-packet one-way delay: 113.880 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 96.70 Mbit/s
  95th percentile per-packet one-way delay: 113.879 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 115.64 Mbit/s
  95th percentile per-packet one-way delay: 114.070 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 151.11 Mbit/s
  95th percentile per-packet one-way delay: 113.622 ms
  Loss rate: 0.02%
Run 3: Report of TaoVA-100x — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)

Flow 1 ingress (mean 96.71 Mbit/s) | Flow 1 egress (mean 96.70 Mbit/s)
Flow 2 ingress (mean 115.64 Mbit/s) | Flow 2 egress (mean 115.64 Mbit/s)
Flow 3 ingress (mean 151.09 Mbit/s) | Flow 3 egress (mean 151.11 Mbit/s)

Flow 1 (95th percentile 113.88 ms) | Flow 2 (95th percentile 114.07 ms) | Flow 3 (95th percentile 113.62 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-20 21:21:38
End at: 2018-02-20 21:22:08

# Below is generated by plot.py at 2018-02-21 02:11:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 72.68 Mbit/s
  95th percentile per-packet one-way delay: 112.930 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 14.79 Mbit/s
  95th percentile per-packet one-way delay: 112.818 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 18.22 Mbit/s
  95th percentile per-packet one-way delay: 112.767 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 138.18 Mbit/s
  95th percentile per-packet one-way delay: 113.448 ms
  Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link

Throughput (Mbps)

Time (s)

- Flow 1 ingress (mean 14.79 Mbps)
- Flow 1 egress (mean 14.79 Mbps)
- Flow 2 ingress (mean 18.22 Mbps)
- Flow 2 egress (mean 18.22 Mbps)
- Flow 3 ingress (mean 138.21 Mbps)
- Flow 3 egress (mean 138.18 Mbps)

Packet delay (ms)

Time (s)

- Flow 1 (95th percentile 112.82 ms)
- Flow 2 (95th percentile 112.77 ms)
- Flow 3 (95th percentile 113.45 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-02-20 21:41:07
End at: 2018-02-20 21:41:37

# Below is generated by plot.py at 2018-02-21 02:11:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 205.26 Mbit/s
95th percentile per-packet one-way delay: 113.807 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 78.11 Mbit/s
95th percentile per-packet one-way delay: 112.317 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 121.25 Mbit/s
95th percentile per-packet one-way delay: 114.709 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 139.90 Mbit/s
95th percentile per-packet one-way delay: 114.669 ms
Loss rate: 0.02%
Run 6: Statistics of TaoVA-100x

Start at: 2018-02-20 22:00:36
End at: 2018-02-20 22:01:06

# Below is generated by plot.py at 2018-02-21 02:11:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.03 Mbit/s
95th percentile per-packet one-way delay: 113.796 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 130.23 Mbit/s
95th percentile per-packet one-way delay: 113.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 16.01 Mbit/s
95th percentile per-packet one-way delay: 112.452 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.52 Mbit/s
95th percentile per-packet one-way delay: 112.470 ms
Loss rate: 0.00%
Run 6: Report of TaoVA-100x — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 130.22 Mbps)
  - Flow 1 egress (mean 130.23 Mbps)
  - Flow 2 ingress (mean 16.01 Mbps)
  - Flow 2 egress (mean 16.01 Mbps)
  - Flow 3 ingress (mean 15.52 Mbps)
  - Flow 3 egress (mean 15.52 Mbps)

- **Delay (ms)**
  - Flow 1 (95th percentile 113.98 ms)
  - Flow 2 (95th percentile 112.45 ms)
  - Flow 3 (95th percentile 112.47 ms)
Run 7: Statistics of TaoVA-100x

End at: 2018-02-20 22:20:53

# Below is generated by plot.py at 2018-02-21 02:11:43
# Datalink statistics
-- Total of 3 flows:
    Average throughput: 143.74 Mbit/s
    95th percentile per-packet one-way delay: 113.163 ms
    Loss rate: 0.00%
-- Flow 1:
    Average throughput: 123.69 Mbit/s
    95th percentile per-packet one-way delay: 113.178 ms
    Loss rate: 0.00%
-- Flow 2:
    Average throughput: 47.55 Mbit/s
    95th percentile per-packet one-way delay: 113.175 ms
    Loss rate: 0.00%
-- Flow 3:
    Average throughput: 12.21 Mbit/s
    95th percentile per-packet one-way delay: 112.384 ms
    Loss rate: 0.00%
Run 7: Report of TaoVA-100x — Data Link

![Graph 1: Throughput vs. Time]

- Flow 1 ingress (mean 123.70 Mbit/s)
- Flow 1 egress (mean 123.69 Mbit/s)
- Flow 2 ingress (mean 47.57 Mbit/s)
- Flow 2 egress (mean 47.55 Mbit/s)
- Flow 3 ingress (mean 12.21 Mbit/s)
- Flow 3 egress (mean 12.21 Mbit/s)

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

- Flow 1 (95th percentile 113.18 ms)
- Flow 2 (95th percentile 113.17 ms)
- Flow 3 (95th percentile 112.38 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-02-20 22:39:52
End at: 2018-02-20 22:40:22

# Below is generated by plot.py at 2018-02-21 02:11:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 46.95 Mbit/s
  95th percentile per-packet one-way delay: 114.127 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 14.07 Mbit/s
  95th percentile per-packet one-way delay: 113.057 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 43.18 Mbit/s
  95th percentile per-packet one-way delay: 114.490 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 12.46 Mbit/s
  95th percentile per-packet one-way delay: 113.247 ms
  Loss rate: 0.02%
Run 8: Report of TaoVA-100x — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 14.07 Mbit/s)
- Flow 1 egress (mean 14.07 Mbit/s)
- Flow 2 ingress (mean 43.17 Mbit/s)
- Flow 2 egress (mean 43.18 Mbit/s)
- Flow 3 ingress (mean 12.47 Mbit/s)
- Flow 3 egress (mean 12.46 Mbit/s)

![Delay Graph]

- Flow 1 (95th percentile 113.06 ms)
- Flow 2 (95th percentile 114.49 ms)
- Flow 3 (95th percentile 113.25 ms)
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-20 22:59:10
End at: 2018-02-20 22:59:40

# Below is generated by plot.py at 2018-02-21 02:13:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 156.32 Mbit/s
  95th percentile per-packet one-way delay: 114.269 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 88.76 Mbit/s
  95th percentile per-packet one-way delay: 114.337 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 52.31 Mbit/s
  95th percentile per-packet one-way delay: 113.671 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 98.66 Mbit/s
  95th percentile per-packet one-way delay: 114.699 ms
  Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-20 23:18:38
End at: 2018-02-20 23:19:08

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.58 Mbit/s
95th percentile per-packet one-way delay: 114.238 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 89.78 Mbit/s
95th percentile per-packet one-way delay: 113.519 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 165.86 Mbit/s
95th percentile per-packet one-way delay: 115.211 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 113.844 ms
Loss rate: 0.01%
Run 10: Report of TaoVA-100x — Data Link

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

Legend:
- Flow 1 ingress (mean 89.78 Mbit/s)
- Flow 1 egress (mean 89.78 Mbit/s)
- Flow 2 ingress (mean 165.86 Mbit/s)
- Flow 2 egress (mean 165.86 Mbit/s)
- Flow 3 ingress (mean 31.42 Mbit/s)
- Flow 3 egress (mean 31.42 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 113.52 ms)
- Flow 2 (95th percentile 115.21 ms)
- Flow 3 (95th percentile 113.84 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-02-20 20:24:45
End at: 2018-02-20 20:25:15

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 39.25 Mbit/s
  95th percentile per-packet one-way delay: 113.106 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 31.69 Mbit/s
  95th percentile per-packet one-way delay: 113.128 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.28 Mbit/s
  95th percentile per-packet one-way delay: 112.185 ms
  Loss rate: 0.29%
-- Flow 3:
  Average throughput: 18.28 Mbit/s
  95th percentile per-packet one-way delay: 113.230 ms
  Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link

![Graph of TCP Vegas data link performance with throughput and delay metrics for different flows.]

- **Flow 1 ingress (mean 31.69 Mbit/s)**
- **Flow 1 egress (mean 31.69 Mbit/s)**
- **Flow 2 ingress (mean 2.28 Mbit/s)**
- **Flow 2 egress (mean 2.28 Mbit/s)**
- **Flow 3 ingress (mean 10.28 Mbit/s)**
- **Flow 3 egress (mean 10.28 Mbit/s)**

![Graph of TCP Vegas data link latency with 95th percentile delay metrics for different flows.]

- **Flow 1 (95th percentile 113.13 ms)**
- **Flow 2 (95th percentile 112.19 ms)**
- **Flow 3 (95th percentile 113.23 ms)**

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Run 2: Statistics of TCP Vegas

Start at: 2018-02-20 20:44:25
End at: 2018-02-20 20:44:55

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 57.69 Mbit/s
  95th percentile per-packet one-way delay: 113.834 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 19.72 Mbit/s
  95th percentile per-packet one-way delay: 113.369 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 21.81 Mbit/s
  95th percentile per-packet one-way delay: 113.273 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 70.89 Mbit/s
  95th percentile per-packet one-way delay: 114.462 ms
  Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link

![Graphs showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 3: Statistics of TCP Vegas

Start at: 2018-02-20 21:04:03
End at: 2018-02-20 21:04:33

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 64.58 Mbit/s
  95th percentile per-packet one-way delay: 115.456 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 33.45 Mbit/s
  95th percentile per-packet one-way delay: 115.188 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 27.44 Mbit/s
  95th percentile per-packet one-way delay: 115.710 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 38.82 Mbit/s
  95th percentile per-packet one-way delay: 116.240 ms
  Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 4: Statistics of TCP Vegas

End at: 2018-02-20 21:23:53

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 102.47 Mbit/s
  95th percentile per-packet one-way delay: 122.476 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 36.25 Mbit/s
  95th percentile per-packet one-way delay: 118.269 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 99.19 Mbit/s
  95th percentile per-packet one-way delay: 124.462 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.33 Mbit/s
  95th percentile per-packet one-way delay: 116.275 ms
  Loss rate: 0.81%
Run 4: Report of TCP Vegas — Data Link

[Graph showing throughput and delay over time]
Run 5: Statistics of TCP Vegas

Start at: 2018-02-20 21:43:07
End at: 2018-02-20 21:43:37

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.66 Mbit/s
  95th percentile per-packet one-way delay: 112.180 ms
  Loss rate: 0.02%
  -- Flow 1:
    Average throughput: 23.47 Mbit/s
    95th percentile per-packet one-way delay: 111.664 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 81.21 Mbit/s
    95th percentile per-packet one-way delay: 111.469 ms
    Loss rate: 0.04%
  -- Flow 3:
    Average throughput: 33.65 Mbit/s
    95th percentile per-packet one-way delay: 117.542 ms
    Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 23.47 Mbit/s)
- Flow 1 egress (mean 23.47 Mbit/s)
- Flow 2 ingress (mean 81.25 Mbit/s)
- Flow 2 egress (mean 81.21 Mbit/s)
- Flow 3 ingress (mean 33.65 Mbit/s)
- Flow 3 egress (mean 33.65 Mbit/s)

- Flow 1 (95th percentile 111.66 ms)
- Flow 2 (95th percentile 111.47 ms)
- Flow 3 (95th percentile 117.54 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-02-20 22:02:29
End at: 2018-02-20 22:02:59

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 139.58 Mbit/s
  95th percentile per-packet one-way delay: 119.375 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 102.84 Mbit/s
  95th percentile per-packet one-way delay: 119.404 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 40.78 Mbit/s
  95th percentile per-packet one-way delay: 119.109 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 28.99 Mbit/s
  95th percentile per-packet one-way delay: 119.517 ms
  Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

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

Flow 1 ingress (mean 102.87 Mbit/s) — Flow 1 egress (mean 102.84 Mbit/s)
Flow 2 ingress (mean 40.03 Mbit/s) — Flow 2 egress (mean 40.79 Mbit/s)
Flow 3 ingress (mean 29.02 Mbit/s) — Flow 3 egress (mean 28.99 Mbit/s)

Flow 1 (95th percentile 119.40 ms) — Flow 2 (95th percentile 119.11 ms) — Flow 3 (95th percentile 119.52 ms)
Run 7: Statistics of TCP Vegas


# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 70.44 Mbit/s
  95th percentile per-packet one-way delay: 120.994 ms
  Loss rate: 0.15%
  -- Flow 1:
  Average throughput: 26.22 Mbit/s
  95th percentile per-packet one-way delay: 119.504 ms
  Loss rate: 0.07%
  -- Flow 2:
  Average throughput: 21.36 Mbit/s
  95th percentile per-packet one-way delay: 120.017 ms
  Loss rate: 0.58%
  -- Flow 3:
  Average throughput: 90.60 Mbit/s
  95th percentile per-packet one-way delay: 121.769 ms
  Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 26.22 Mbit/s)
- Flow 1 egress (mean 26.22 Mbit/s)
- Flow 2 ingress (mean 21.49 Mbit/s)
- Flow 2 egress (mean 21.36 Mbit/s)
- Flow 3 ingress (mean 90.65 Mbit/s)
- Flow 3 egress (mean 90.60 Mbit/s)

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

- Flow 1 (95th percentile 119.50 ms)
- Flow 2 (95th percentile 120.02 ms)
- Flow 3 (95th percentile 121.77 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-02-20 22:41:36
End at: 2018-02-20 22:42:06

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 128.40 Mbit/s
  95th percentile per-packet one-way delay: 122.852 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 99.80 Mbit/s
  95th percentile per-packet one-way delay: 122.825 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 29.42 Mbit/s
  95th percentile per-packet one-way delay: 123.125 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 28.87 Mbit/s
  95th percentile per-packet one-way delay: 122.211 ms
  Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 99.80 Mbps)
- Flow 1 egress (mean 99.80 Mbps)
- Flow 2 ingress (mean 29.42 Mbps)
- Flow 2 egress (mean 29.42 Mbps)
- Flow 3 ingress (mean 28.87 Mbps)
- Flow 3 egress (mean 28.87 Mbps)

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

- Flow 1 (95th percentile 122.83 ms)
- Flow 2 (95th percentile 123.12 ms)
- Flow 3 (95th percentile 122.21 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-02-20 23:01:04
End at: 2018-02-20 23:01:34

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 87.50 Mbit/s
   95th percentile per-packet one-way delay: 116.282 ms
   Loss rate: 0.20%
-- Flow 1:
   Average throughput: 59.13 Mbit/s
   95th percentile per-packet one-way delay: 114.660 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 24.43 Mbit/s
   95th percentile per-packet one-way delay: 117.659 ms
   Loss rate: 0.25%
-- Flow 3:
   Average throughput: 36.53 Mbit/s
   95th percentile per-packet one-way delay: 126.458 ms
   Loss rate: 1.14%
Run 9: Report of TCP Vegas — Data Link

![Graph showing throughput and per-packet one-way delay for different flows over time.]
Run 10: Statistics of TCP Vegas

Start at: 2018-02-20 23:20:38
End at: 2018-02-20 23:21:08

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.62 Mbit/s
  95th percentile per-packet one-way delay: 114.648 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 56.48 Mbit/s
  95th percentile per-packet one-way delay: 113.992 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 56.77 Mbit/s
  95th percentile per-packet one-way delay: 115.678 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 1.24 Mbit/s
  95th percentile per-packet one-way delay: 111.916 ms
  Loss rate: 0.78%
Run 10: Report of TCP Vegas — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 56.48 Mbps)
  - Flow 1 egress (mean 56.48 Mbps)
  - Flow 2 ingress (mean 56.77 Mbps)
  - Flow 2 egress (mean 56.77 Mbps)
  - Flow 3 ingress (mean 1.25 Mbps)
  - Flow 3 egress (mean 1.24 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 113.99 ms)
  - Flow 2 (95th percentile 115.68 ms)
  - Flow 3 (95th percentile 111.92 ms)
Run 1: Statistics of Verus

Start at: 2018-02-20 20:19:28
End at: 2018-02-20 20:19:58

# Below is generated by plot.py at 2018-02-21 02:16:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 194.94 Mbit/s
  95th percentile per-packet one-way delay: 131.762 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 116.53 Mbit/s
  95th percentile per-packet one-way delay: 132.633 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 69.37 Mbit/s
  95th percentile per-packet one-way delay: 123.772 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 99.68 Mbit/s
  95th percentile per-packet one-way delay: 141.548 ms
  Loss rate: 0.00%
Run 1: Report of Verus — Data Link

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

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

Legend:
- **Flow 1 ingress** (mean 116.55 Mbit/s)
- **Flow 1 egress** (mean 116.53 Mbit/s)
- **Flow 2 ingress** (mean 69.37 Mbit/s)
- **Flow 2 egress** (mean 69.37 Mbit/s)
- **Flow 3 ingress** (mean 99.66 Mbit/s)
- **Flow 3 egress** (mean 99.68 Mbit/s)

Legend for Per-packet one-way delay:
- **Flow 1** (95th percentile 132.63 ms)
- **Flow 2** (95th percentile 123.77 ms)
- **Flow 3** (95th percentile 141.55 ms)
Run 2: Statistics of Verus

Start at: 2018-02-20 20:38:53
End at: 2018-02-20 20:39:23

# Below is generated by plot.py at 2018-02-21 02:16:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 248.57 Mbit/s
95th percentile per-packet one-way delay: 165.845 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 128.74 Mbit/s
95th percentile per-packet one-way delay: 152.301 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 148.38 Mbit/s
95th percentile per-packet one-way delay: 186.620 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.01 Mbit/s
95th percentile per-packet one-way delay: 152.378 ms
Loss rate: 0.00%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2018-02-20 20:58:26
End at: 2018-02-20 20:58:56

# Below is generated by plot.py at 2018-02-21 02:18:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 336.57 Mbit/s
  95th percentile per-packet one-way delay: 334.614 ms
  Loss rate: 6.01%
-- Flow 1:
  Average throughput: 181.52 Mbit/s
  95th percentile per-packet one-way delay: 233.090 ms
  Loss rate: 2.22%
-- Flow 2:
  Average throughput: 217.07 Mbit/s
  95th percentile per-packet one-way delay: 350.503 ms
  Loss rate: 10.39%
-- Flow 3:
  Average throughput: 34.85 Mbit/s
  95th percentile per-packet one-way delay: 246.192 ms
  Loss rate: 6.09%
Run 3: Report of Verus — Data Link

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

- **Throughput (Mb/s):**
  - **Flow 1 Ingress:** Mean 185.83 Mb/s
  - **Flow 1 Egress:** Mean 181.52 Mb/s
  - **Flow 2 Ingress:** Mean 242.32 Mb/s
  - **Flow 2 Egress:** Mean 217.07 Mb/s
  - **Flow 3 Ingress:** Mean 37.14 Mb/s
  - **Flow 3 Egress:** Mean 34.85 Mb/s

- **Per-packet one-way delay (ms):**
  - **Flow 1 95th percentile:** 233.09 ms
  - **Flow 2 95th percentile:** 350.50 ms
  - **Flow 3 95th percentile:** 246.19 ms
Run 4: Statistics of Verus

Start at: 2018-02-20 21:18:06
End at: 2018-02-20 21:18:36

# Below is generated by plot.py at 2018-02-21 02:18:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 248.09 Mbit/s
95th percentile per-packet one-way delay: 220.459 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 185.91 Mbit/s
95th percentile per-packet one-way delay: 220.821 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 66.94 Mbit/s
95th percentile per-packet one-way delay: 224.882 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 54.80 Mbit/s
95th percentile per-packet one-way delay: 198.433 ms
Loss rate: 1.35%
Run 4: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 185.99 Mbps)
- Flow 1 egress (mean 185.91 Mbps)
- Flow 2 ingress (mean 67.08 Mbps)
- Flow 2 egress (mean 66.94 Mbps)
- Flow 3 ingress (mean 55.62 Mbps)
- Flow 3 egress (mean 54.80 Mbps)

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

- Flow 1 (95th percentile 220.82 ms)
- Flow 2 (95th percentile 224.88 ms)
- Flow 3 (95th percentile 198.43 ms)
Run 5: Statistics of Verus

Start at: 2018-02-20 21:37:40
End at: 2018-02-20 21:38:10

# Below is generated by plot.py at 2018-02-21 02:18:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 246.80 Mbit/s
95th percentile per-packet one-way delay: 283.954 ms
Loss rate: 2.70%
-- Flow 1:
Average throughput: 194.03 Mbit/s
95th percentile per-packet one-way delay: 276.540 ms
Loss rate: 1.71%
-- Flow 2:
Average throughput: 71.43 Mbit/s
95th percentile per-packet one-way delay: 348.434 ms
Loss rate: 6.49%
-- Flow 3:
Average throughput: 20.72 Mbit/s
95th percentile per-packet one-way delay: 215.750 ms
Loss rate: 3.52%
Run 5: Report of Verus — Data Link
Run 6: Statistics of Verus

Start at: 2018-02-20 21:57:12
End at: 2018-02-20 21:57:42

# Below is generated by plot.py at 2018-02-21 02:18:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 188.04 Mbit/s
95th percentile per-packet one-way delay: 186.950 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 102.83 Mbit/s
95th percentile per-packet one-way delay: 232.035 ms
Loss rate: 2.32%
-- Flow 2:
Average throughput: 106.51 Mbit/s
95th percentile per-packet one-way delay: 178.062 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.56 Mbit/s
95th percentile per-packet one-way delay: 143.211 ms
Loss rate: 0.00%
Run 6: Report of Verus — Data Link

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

- Flow 1 ingress (mean 105.25 Mbit/s)
- Flow 1 egress (mean 102.83 Mbit/s)
- Flow 2 ingress (mean 106.52 Mbit/s)
- Flow 2 egress (mean 106.51 Mbit/s)
- Flow 3 ingress (mean 45.56 Mbit/s)
- Flow 3 egress (mean 45.56 Mbit/s)

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

- Flow 1 (95th percentile 232.03 ms)
- Flow 2 (95th percentile 178.06 ms)
- Flow 3 (95th percentile 143.21 ms)
Run 7: Statistics of Verus

Start at: 2018-02-20 22:16:45
End at: 2018-02-20 22:17:15

# Below is generated by plot.py at 2018-02-21 02:18:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 246.52 Mbit/s
95th percentile per-packet one-way delay: 173.727 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 156.11 Mbit/s
95th percentile per-packet one-way delay: 167.512 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 109.89 Mbit/s
95th percentile per-packet one-way delay: 192.955 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 55.90 Mbit/s
95th percentile per-packet one-way delay: 151.292 ms
Loss rate: 0.00%
Run 7: Report of Verus — Data Link
Run 8: Statistics of Verus

Start at: 2018-02-20 22:36:20
End at: 2018-02-20 22:36:50

# Below is generated by plot.py at 2018-02-21 02:20:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 281.95 Mbit/s
  95th percentile per-packet one-way delay: 193.546 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 194.14 Mbit/s
  95th percentile per-packet one-way delay: 193.376 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 101.85 Mbit/s
  95th percentile per-packet one-way delay: 192.392 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 70.75 Mbit/s
  95th percentile per-packet one-way delay: 203.633 ms
  Loss rate: 0.00%
Run 8: Report of Verus — Data Link
Run 9: Statistics of Verus

End at: 2018-02-20 22:56:12

# Below is generated by plot.py at 2018-02-21 02:20:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 242.91 Mbit/s
95th percentile per-packet one-way delay: 255.139 ms
Loss rate: 3.83%
-- Flow 1:
Average throughput: 187.81 Mbit/s
95th percentile per-packet one-way delay: 240.825 ms
Loss rate: 3.89%
-- Flow 2:
Average throughput: 45.61 Mbit/s
95th percentile per-packet one-way delay: 149.128 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 77.16 Mbit/s
95th percentile per-packet one-way delay: 365.631 ms
Loss rate: 7.13%
Run 9: Report of Verus — Data Link

[Graphs showing network data flow and delay over time]

Flow 1 ingress (mean 195.41 Mbit/s)  Flow 2 ingress (mean 45.96 Mbit/s)  Flow 3 ingress (mean 83.05 Mbit/s)
Flow 1 egress (mean 187.81 Mbit/s)  Flow 2 egress (mean 45.61 Mbit/s)  Flow 3 egress (mean 77.16 Mbit/s)

Flow 1 (95th percentile 240.82 ms)  Flow 2 (95th percentile 149.13 ms)  Flow 3 (95th percentile 365.63 ms)
Run 10: Statistics of Verus

Start at: 2018-02-20 23:15:07
End at: 2018-02-20 23:15:37

# Below is generated by plot.py at 2018-02-21 02:20:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 235.81 Mbit/s
95th percentile per-packet one-way delay: 183.237 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 147.15 Mbit/s
95th percentile per-packet one-way delay: 179.959 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 108.78 Mbit/s
95th percentile per-packet one-way delay: 160.026 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 52.46 Mbit/s
95th percentile per-packet one-way delay: 395.287 ms
Loss rate: 3.24%
Run 10: Report of Verus — Data Link
Run 1: Statistics of Copa

Start at: 2018-02-20 20:21:53
End at: 2018-02-20 20:22:23

# Below is generated by plot.py at 2018-02-21 02:20:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 118.22 Mbit/s
95th percentile per-packet one-way delay: 112.339 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.38 Mbit/s
95th percentile per-packet one-way delay: 112.349 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.89 Mbit/s
95th percentile per-packet one-way delay: 112.278 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 61.10 Mbit/s
95th percentile per-packet one-way delay: 112.406 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link

[Graph showing throughput and packet delay over time for different flows.]
Run 2: Statistics of Copa

Start at: 2018-02-20 20:41:22
End at: 2018-02-20 20:41:52

# Below is generated by plot.py at 2018-02-21 02:23:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 185.54 Mbit/s
95th percentile per-packet one-way delay: 283.705 ms
Loss rate: 10.06%
-- Flow 1:
Average throughput: 74.62 Mbit/s
95th percentile per-packet one-way delay: 110.024 ms
Loss rate: 2.29%
-- Flow 2:
Average throughput: 74.13 Mbit/s
95th percentile per-packet one-way delay: 244.022 ms
Loss rate: 10.47%
-- Flow 3:
Average throughput: 186.17 Mbit/s
95th percentile per-packet one-way delay: 296.902 ms
Loss rate: 17.69%
Run 2: Report of Copa — Data Link

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Run 3: Statistics of Copa

Start at: 2018-02-20 21:01:02
End at: 2018-02-20 21:01:32

# Below is generated by plot.py at 2018-02-21 02:23:48
# Datalink statistics
--- Total of 3 flows:
Average throughput: 117.75 Mbit/s
95th percentile per-packet one-way delay: 112.888 ms
Loss rate: 0.00%
--- Flow 1:
Average throughput: 64.53 Mbit/s
95th percentile per-packet one-way delay: 112.863 ms
Loss rate: 0.00%
--- Flow 2:
Average throughput: 52.02 Mbit/s
95th percentile per-packet one-way delay: 112.901 ms
Loss rate: 0.00%
--- Flow 3:
Average throughput: 56.04 Mbit/s
95th percentile per-packet one-way delay: 112.947 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

Start at: 2018-02-20 21:20:36
End at: 2018-02-20 21:21:06

# Below is generated by plot.py at 2018-02-21 02:23:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.03 Mbit/s
95th percentile per-packet one-way delay: 115.166 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 74.74 Mbit/s
95th percentile per-packet one-way delay: 112.931 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.31 Mbit/s
95th percentile per-packet one-way delay: 112.934 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.60 Mbit/s
95th percentile per-packet one-way delay: 166.217 ms
Loss rate: 1.05%
Run 4: Report of Copa — Data Link

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

Start at: 2018-02-20 21:40:06
End at: 2018-02-20 21:40:36

# Below is generated by plot.py at 2018-02-21 02:23:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 131.51 Mbit/s
  95th percentile per-packet one-way delay: 110.960 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 67.99 Mbit/s
  95th percentile per-packet one-way delay: 110.848 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 76.39 Mbit/s
  95th percentile per-packet one-way delay: 110.946 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 38.21 Mbit/s
  95th percentile per-packet one-way delay: 111.191 ms
  Loss rate: 0.01%
Run 5: Report of Copa — Data Link

![Throughput Graph]

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![Delay Graph]

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Run 6: Statistics of Copa

Start at: 2018-02-20 21:59:36
End at: 2018-02-20 22:00:06

# Below is generated by plot.py at 2018-02-21 02:24:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 119.27 Mbit/s
  95th percentile per-packet one-way delay: 112.454 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 70.61 Mbit/s
  95th percentile per-packet one-way delay: 112.478 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 63.15 Mbit/s
  95th percentile per-packet one-way delay: 112.420 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 19.90 Mbit/s
  95th percentile per-packet one-way delay: 111.585 ms
  Loss rate: 0.00%
Run 6: Report of Copa — Data Link

![Graph showing throughput and packet delay]

- Flow 1 ingress (mean 70.61 Mbit/s)
- Flow 1 egress (mean 70.61 Mbit/s)
- Flow 2 ingress (mean 63.15 Mbit/s)
- Flow 2 egress (mean 63.15 Mbit/s)
- Flow 3 ingress (mean 19.90 Mbit/s)
- Flow 3 egress (mean 19.90 Mbit/s)
Run 7: Statistics of Copa

Start at: 2018-02-20 22:19:22
End at: 2018-02-20 22:19:52

# Below is generated by plot.py at 2018-02-21 02:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.49 Mbit/s
95th percentile per-packet one-way delay: 112.422 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.80 Mbit/s
95th percentile per-packet one-way delay: 112.467 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 74.17 Mbit/s
95th percentile per-packet one-way delay: 112.386 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.10 Mbit/s
95th percentile per-packet one-way delay: 112.414 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link

![Graph showing network performance metrics over time.](image-url)
Run 8: Statistics of Copa

Start at: 2018-02-20 22:38:52
End at: 2018-02-20 22:39:22

# Below is generated by plot.py at 2018-02-21 02:24:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.54 Mbit/s
95th percentile per-packet one-way delay: 113.314 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.97 Mbit/s
95th percentile per-packet one-way delay: 113.250 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 58.42 Mbit/s
95th percentile per-packet one-way delay: 113.319 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.26 Mbit/s
95th percentile per-packet one-way delay: 113.539 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link

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

- Flow 1 ingress (mean 73.97 Mbit/s)
- Flow 1 egress (mean 73.97 Mbit/s)
- Flow 2 ingress (mean 58.42 Mbit/s)
- Flow 2 egress (mean 58.42 Mbit/s)
- Flow 3 ingress (mean 38.26 Mbit/s)
- Flow 3 egress (mean 30.26 Mbit/s)
Run 9: Statistics of Copa

Start at: 2018-02-20 22:58:11
End at: 2018-02-20 22:58:41

# Below is generated by plot.py at 2018-02-21 02:24:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 113.05 Mbit/s
  95th percentile per-packet one-way delay: 112.758 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 66.21 Mbit/s
  95th percentile per-packet one-way delay: 112.699 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 48.06 Mbit/s
  95th percentile per-packet one-way delay: 112.814 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 44.74 Mbit/s
  95th percentile per-packet one-way delay: 112.857 ms
  Loss rate: 0.00%
Run 9: Report of Copa — Data Link

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**Graph 1:**
- **Y-axis:** Throughput (Mbit/s)
- **X-axis:** Time (s)
- Legend:
  - Flow 1 ingress (mean 66.21 Mbit/s)
  - Flow 1 egress (mean 66.21 Mbit/s)
  - Flow 2 ingress (mean 48.06 Mbit/s)
  - Flow 2 egress (mean 48.06 Mbit/s)
  - Flow 3 ingress (mean 44.74 Mbit/s)
  - Flow 3 egress (mean 44.74 Mbit/s)

**Graph 2:**
- **Y-axis:** Per-packet one-way delay (ms)
- **X-axis:** Time (s)
- Legend:
  - Flow 1 (95th percentile 112.70 ms)
  - Flow 2 (95th percentile 112.81 ms)
  - Flow 3 (95th percentile 112.86 ms)

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Run 10: Statistics of Copa

Start at: 2018-02-20 23:17:39
End at: 2018-02-20 23:18:09

# Below is generated by plot.py at 2018-02-21 02:25:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 115.12 Mbit/s
  95th percentile per-packet one-way delay: 113.385 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 75.40 Mbit/s
  95th percentile per-packet one-way delay: 111.254 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 35.98 Mbit/s
  95th percentile per-packet one-way delay: 113.389 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 47.58 Mbit/s
  95th percentile per-packet one-way delay: 113.806 ms
  Loss rate: 0.00%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

Start at: 2018-02-20 20:25:33
End at: 2018-02-20 20:26:03

# Below is generated by plot.py at 2018-02-21 02:49:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1533.42 Mbit/s
95th percentile per-packet one-way delay: 306.573 ms
Loss rate: 7.36%
-- Flow 1:
Average throughput: 846.90 Mbit/s
95th percentile per-packet one-way delay: 199.271 ms
Loss rate: 4.24%
-- Flow 2:
Average throughput: 744.99 Mbit/s
95th percentile per-packet one-way delay: 325.106 ms
Loss rate: 9.28%
-- Flow 3:
Average throughput: 574.57 Mbit/s
95th percentile per-packet one-way delay: 351.951 ms
Loss rate: 14.98%
Run 1: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 884.35 Mb/s)
- Flow 1 Egress (mean 846.90 Mb/s)
- Flow 2 Ingress (mean 821.15 Mb/s)
- Flow 2 Egress (mean 744.99 Mb/s)
- Flow 3 Ingress (mean 675.84 Mb/s)
- Flow 3 Egress (mean 574.57 Mb/s)

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

- Flow 1 (95th percentile 199.27 ms)
- Flow 2 (95th percentile 325.11 ms)
- Flow 3 (95th percentile 351.95 ms)
Run 2: Statistics of FillP

Start at: 2018-02-20 20:45:15
End at: 2018-02-20 20:45:45

# Below is generated by plot.py at 2018-02-21 02:50:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1547.92 Mbit/s
95th percentile per-packet one-way delay: 225.123 ms
Loss rate: 8.36%
-- Flow 1:
Average throughput: 799.66 Mbit/s
95th percentile per-packet one-way delay: 219.708 ms
Loss rate: 7.76%
-- Flow 2:
Average throughput: 801.03 Mbit/s
95th percentile per-packet one-way delay: 225.149 ms
Loss rate: 7.02%
-- Flow 3:
Average throughput: 649.62 Mbit/s
95th percentile per-packet one-way delay: 233.129 ms
Loss rate: 13.55%
Run 2: Report of FillP — Data Link

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

Legend:
- Flow 1 Ingress (mean 866.68 Mbit/s)
- Flow 1 Egress (mean 799.66 Mbit/s)
- Flow 2 Ingress (mean 802.46 Mbit/s)
- Flow 2 Egress (mean 802.03 Mbit/s)
- Flow 3 Ingress (mean 751.31 Mbit/s)
- Flow 3 Egress (mean 649.62 Mbit/s)

Legend for delay:
- Flow 1 (95th percentile 219.71 ms)
- Flow 2 (95th percentile 225.15 ms)
- Flow 3 (95th percentile 233.13 ms)
Run 3: Statistics of FillP

Start at: 2018-02-20 21:04:53
End at: 2018-02-20 21:05:23

# Below is generated by plot.py at 2018-02-21 02:51:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1536.78 Mbit/s
  95th percentile per-packet one-way delay: 213.879 ms
  Loss rate: 8.01%
-- Flow 1:
  Average throughput: 753.28 Mbit/s
  95th percentile per-packet one-way delay: 214.891 ms
  Loss rate: 9.99%
-- Flow 2:
  Average throughput: 809.87 Mbit/s
  95th percentile per-packet one-way delay: 214.486 ms
  Loss rate: 5.70%
-- Flow 3:
  Average throughput: 738.12 Mbit/s
  95th percentile per-packet one-way delay: 211.837 ms
  Loss rate: 6.74%
Run 3: Report of FillP — Data Link
Run 4: Statistics of FillP

Start at: 2018-02-20 21:24:16
End at: 2018-02-20 21:24:46

# Below is generated by plot.py at 2018-02-21 02:51:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1455.22 Mbit/s
  95th percentile per-packet one-way delay: 225.721 ms
  Loss rate: 10.83%
-- Flow 1:
  Average throughput: 751.02 Mbit/s
  95th percentile per-packet one-way delay: 218.667 ms
  Loss rate: 10.05%
-- Flow 2:
  Average throughput: 718.15 Mbit/s
  95th percentile per-packet one-way delay: 232.232 ms
  Loss rate: 11.17%
-- Flow 3:
  Average throughput: 684.51 Mbit/s
  95th percentile per-packet one-way delay: 237.777 ms
  Loss rate: 12.59%
Run 4: Report of FillP — Data Link

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

Legend:
- Blue line with dots: Flow 1 ingress (mean 834.95 Mbps)
- Blue line with dashes: Flow 1 egress (mean 751.02 Mbps)
- Green line with dots: Flow 2 ingress (mean 808.46 Mbps)
- Green line with dashes: Flow 2 egress (mean 718.15 Mbps)
- Red line with dots: Flow 3 ingress (mean 783.06 Mbps)
- Red line with dashes: Flow 3 egress (mean 684.51 Mbps)
Run 5: Statistics of FillP

Start at: 2018-02-20 21:43:58
End at: 2018-02-20 21:44:28

# Below is generated by plot.py at 2018-02-21 02:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1564.77 Mbit/s
95th percentile per-packet one-way delay: 279.910 ms
Loss rate: 6.74%
-- Flow 1:
Average throughput: 791.45 Mbit/s
95th percentile per-packet one-way delay: 293.046 ms
Loss rate: 6.27%
-- Flow 2:
Average throughput: 787.45 Mbit/s
95th percentile per-packet one-way delay: 255.013 ms
Loss rate: 7.04%
-- Flow 3:
Average throughput: 754.49 Mbit/s
95th percentile per-packet one-way delay: 197.986 ms
Loss rate: 7.61%
Run 5: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 844.32 Mb/s) vs Flow 1 Egress (mean 791.45 Mb/s)
- Flow 2 Ingress (mean 847.10 Mb/s) vs Flow 2 Egress (mean 787.45 Mb/s)
- Flow 3 Ingress (mean 816.45 Mb/s) vs Flow 3 Egress (mean 754.49 Mb/s)

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

- Flow 1 (95th percentile 293.05 ms) vs Flow 2 (95th percentile 255.01 ms) vs Flow 3 (95th percentile 197.99 ms)
Run 6: Statistics of FillP

Start at: 2018-02-20 22:03:25
End at: 2018-02-20 22:03:55

# Below is generated by plot.py at 2018-02-21 02:51:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1550.07 Mbit/s
  95th percentile per-packet one-way delay: 217.925 ms
  Loss rate: 7.95%
-- Flow 1:
  Average throughput: 814.12 Mbit/s
  95th percentile per-packet one-way delay: 204.525 ms
  Loss rate: 6.74%
-- Flow 2:
  Average throughput: 752.45 Mbit/s
  95th percentile per-packet one-way delay: 225.661 ms
  Loss rate: 8.30%
-- Flow 3:
  Average throughput: 711.86 Mbit/s
  95th percentile per-packet one-way delay: 230.181 ms
  Loss rate: 11.21%
Run 6: Report of FillP — Data Link

![Graph showing data link performance](image1)

**Throughput (Mbps):**
- **Flow 1 Ingress (mean 873.68 Mbps)**
- **Flow 1 Egress (mean 814.12 Mbps)**
- **Flow 2 Ingress (mean 820.51 Mbps)**
- **Flow 2 Egress (mean 752.45 Mbps)**
- **Flow 3 Ingress (mean 801.76 Mbps)**
- **Flow 3 Egress (mean 711.86 Mbps)**

![Graph showing packet delay](image2)

**Per-packet one-way delay (ms):**
- **Flow 1 (95th percentile 204.53 ms)**
- **Flow 2 (95th percentile 225.66 ms)**
- **Flow 3 (95th percentile 230.18 ms)**
Run 7: Statistics of FillP

Start at: 2018-02-20 22:23:06
End at: 2018-02-20 22:23:36

# Below is generated by plot.py at 2018-02-21 02:51:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1425.07 Mbit/s
  95th percentile per-packet one-way delay: 337.358 ms
  Loss rate: 5.96%
-- Flow 1:
  Average throughput: 773.52 Mbit/s
  95th percentile per-packet one-way delay: 327.498 ms
  Loss rate: 3.82%
-- Flow 2:
  Average throughput: 674.62 Mbit/s
  95th percentile per-packet one-way delay: 349.148 ms
  Loss rate: 5.46%
-- Flow 3:
  Average throughput: 611.79 Mbit/s
  95th percentile per-packet one-way delay: 232.314 ms
  Loss rate: 14.24%
Run 7: Report of FillP — Data Link

[Graphs showing throughput and packet error rate over time for different flows with respective mean speeds and 95th percentile delays.]
Run 8: Statistics of FillP

Start at: 2018-02-20 22:42:30
End at: 2018-02-20 22:43:00

# Below is generated by plot.py at 2018-02-21 02:53:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1541.98 Mbit/s
  95th percentile per-packet one-way delay: 247.382 ms
  Loss rate: 7.25%
-- Flow 1:
  Average throughput: 791.83 Mbit/s
  95th percentile per-packet one-way delay: 262.873 ms
  Loss rate: 6.33%
-- Flow 2:
  Average throughput: 810.74 Mbit/s
  95th percentile per-packet one-way delay: 207.969 ms
  Loss rate: 6.33%
-- Flow 3:
  Average throughput: 635.35 Mbit/s
  95th percentile per-packet one-way delay: 230.372 ms
  Loss rate: 12.70%
Run 8: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 845.32 Mbps)
- Flow 1 Egress (mean 791.83 Mbps)
- Flow 2 Ingress (mean 865.63 Mbps)
- Flow 2 Egress (mean 810.74 Mbps)
- Flow 3 Ingress (mean 727.70 Mbps)
- Flow 3 Egress (mean 635.35 Mbps)

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

- Flow 1 (95th percentile 262.97 ms)
- Flow 2 (95th percentile 207.97 ms)
- Flow 3 (95th percentile 230.37 ms)
Run 9: Statistics of FillP

Start at: 2018-02-20 23:01:56
End at: 2018-02-20 23:02:26

# Below is generated by plot.py at 2018-02-21 03:10:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1128.93 Mbit/s
95th percentile per-packet one-way delay: 378.552 ms
Loss rate: 10.64%
-- Flow 1:
Average throughput: 667.40 Mbit/s
95th percentile per-packet one-way delay: 371.504 ms
Loss rate: 12.15%
-- Flow 2:
Average throughput: 593.50 Mbit/s
95th percentile per-packet one-way delay: 371.098 ms
Loss rate: 8.12%
-- Flow 3:
Average throughput: 204.82 Mbit/s
95th percentile per-packet one-way delay: 438.964 ms
Loss rate: 9.72%
Run 9: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 759.77 Mbit/s)
- Flow 1 Egress (mean 667.40 Mbit/s)
- Flow 2 Ingress (mean 645.76 Mbit/s)
- Flow 2 Egress (mean 593.50 Mbit/s)
- Flow 3 Ingress (mean 223.36 Mbit/s)
- Flow 3 Egress (mean 204.82 Mbit/s)

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

- Flow 1 (95th percentile 371.50 ms)
- Flow 2 (95th percentile 371.10 ms)
- Flow 3 (95th percentile 438.96 ms)
Run 10: Statistics of FillP

Start at: 2018-02-20 23:21:30
End at: 2018-02-20 23:22:00

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1600.11 Mbit/s
95th percentile per-packet one-way delay: 206.305 ms
Loss rate: 7.23%
-- Flow 1:
Average throughput: 798.97 Mbit/s
95th percentile per-packet one-way delay: 210.484 ms
Loss rate: 8.52%
-- Flow 2:
Average throughput: 832.22 Mbit/s
95th percentile per-packet one-way delay: 202.958 ms
Loss rate: 4.70%
-- Flow 3:
Average throughput: 746.19 Mbit/s
95th percentile per-packet one-way delay: 204.819 ms
Loss rate: 8.48%
Run 10: Report of FillIP — Data Link

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

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

Legend:
- Flow 1 ingress (mean 873.94 Mbps)  
- Flow 1 egress (mean 796.97 Mbps)  
- Flow 2 ingress (mean 873.40 Mbps)  
- Flow 2 egress (mean 832.22 Mbps)  
- Flow 3 ingress (mean 817.00 Mbps)  
- Flow 3 egress (mean 746.19 Mbps)  

Legend:
- Flow 1 (95th percentile 210.48 ms)  
- Flow 2 (95th percentile 202.96 ms)  
- Flow 3 (95th percentile 204.02 ms)
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-20 20:32:03
End at: 2018-02-20 20:32:33

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 290.71 Mbit/s
  95th percentile per-packet one-way delay: 113.736 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 147.39 Mbit/s
  95th percentile per-packet one-way delay: 112.862 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 139.45 Mbit/s
  95th percentile per-packet one-way delay: 114.689 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 158.75 Mbit/s
  95th percentile per-packet one-way delay: 116.825 ms
  Loss rate: 0.00%
Run 1: Report of Indigo-1-32 — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 147.40 Mbps)  Flow 1 egress (mean 147.39 Mbps)
Flow 2 ingress (mean 139.45 Mbps)  Flow 2 egress (mean 139.45 Mbps)
Flow 3 ingress (mean 158.71 Mbps)  Flow 3 egress (mean 158.75 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 112.96 ms)  Flow 2 (95th percentile 114.69 ms)  Flow 3 (95th percentile 116.83 ms)
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-20 20:51:44
End at: 2018-02-20 20:52:14

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 301.93 Mbit/s
  95th percentile per-packet one-way delay: 122.000 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 150.22 Mbit/s
  95th percentile per-packet one-way delay: 116.160 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 142.96 Mbit/s
  95th percentile per-packet one-way delay: 121.483 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 177.67 Mbit/s
  95th percentile per-packet one-way delay: 128.496 ms
  Loss rate: 0.02%
Run 2: Report of Indigo-1-32 — Data Link
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-20 21:11:16
End at: 2018-02-20 21:11:46

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 355.95 Mbit/s
  95th percentile per-packet one-way delay: 116.136 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 199.24 Mbit/s
  95th percentile per-packet one-way delay: 115.426 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 175.69 Mbit/s
  95th percentile per-packet one-way delay: 116.644 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 125.66 Mbit/s
  95th percentile per-packet one-way delay: 117.045 ms
  Loss rate: 0.00%

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Run 3: Report of Indigo-1-32 — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 199.24 Mbit/s) — Flow 1 egress (mean 199.24 Mbit/s)
Flow 2 ingress (mean 175.39 Mbit/s) — Flow 2 egress (mean 175.69 Mbit/s)
Flow 3 ingress (mean 125.64 Mbit/s) — Flow 3 egress (mean 125.66 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 115.43 ms) — Flow 2 (95th percentile 116.64 ms) — Flow 3 (95th percentile 117.05 ms)
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-20 21:30:43
End at: 2018-02-20 21:31:13

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 334.99 Mbit/s
  95th percentile per-packet one-way delay: 114.640 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 203.25 Mbit/s
  95th percentile per-packet one-way delay: 113.631 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 139.71 Mbit/s
  95th percentile per-packet one-way delay: 115.255 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 123.67 Mbit/s
  95th percentile per-packet one-way delay: 121.532 ms
  Loss rate: 0.04%
Run 4: Report of Indigo-1-32 — Data Link

![Graph showing throughput over time](image1)

![Graph showing per-packet one-way delay](image2)
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-20 21:50:24
End at: 2018-02-20 21:50:54

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 301.48 Mbit/s
95th percentile per-packet one-way delay: 125.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 151.36 Mbit/s
95th percentile per-packet one-way delay: 117.267 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 145.14 Mbit/s
95th percentile per-packet one-way delay: 126.867 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 169.51 Mbit/s
95th percentile per-packet one-way delay: 130.951 ms
Loss rate: 0.02%
Run 5: Report of Indigo-1-32 — Data Link
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-20 22:09:53
End at: 2018-02-20 22:10:23

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 278.59 Mbit/s
95th percentile per-packet one-way delay: 114.918 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 141.27 Mbit/s
95th percentile per-packet one-way delay: 114.433 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 143.70 Mbit/s
95th percentile per-packet one-way delay: 115.504 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 130.32 Mbit/s
95th percentile per-packet one-way delay: 115.269 ms
Loss rate: 0.03%
Run 6: Report of Indigo-1-32 — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows. The graphs display the throughput and delay trends for each flow, indicating performance metrics such as mean and 95th percentile values.]
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-20 22:29:37
End at: 2018-02-20 22:30:07

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 341.92 Mbit/s
  95th percentile per-packet one-way delay: 124.891 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 190.43 Mbit/s
  95th percentile per-packet one-way delay: 122.755 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 146.70 Mbit/s
  95th percentile per-packet one-way delay: 124.399 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 169.24 Mbit/s
  95th percentile per-packet one-way delay: 132.471 ms
  Loss rate: 0.00%
Run 7: Report of Indigo-1-32 — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 190.44 Mbit/s)
Flow 1 egress (mean 190.43 Mbit/s)
Flow 2 ingress (mean 146.74 Mbit/s)
Flow 2 egress (mean 146.70 Mbit/s)
Flow 3 ingress (mean 169.24 Mbit/s)
Flow 3 egress (mean 169.24 Mbit/s)
Run 8: Statistics of Indigo-1-32

End at: 2018-02-20 22:49:29

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 349.77 Mbit/s
  95th percentile per-packet one-way delay: 135.768 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 187.81 Mbit/s
  95th percentile per-packet one-way delay: 129.961 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 171.45 Mbit/s
  95th percentile per-packet one-way delay: 135.232 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 150.00 Mbit/s
  95th percentile per-packet one-way delay: 142.956 ms
  Loss rate: 0.01%
Run 8: Report of Indigo-1-32 — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 187.86 Mbit/s) — Flow 1 egress (mean 187.81 Mbit/s) — Flow 2 ingress (mean 171.49 Mbit/s) — Flow 2 egress (mean 171.45 Mbit/s) — Flow 3 ingress (mean 150.04 Mbit/s) — Flow 3 egress (mean 150.00 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 129.96 ms) — Flow 2 (95th percentile 135.23 ms) — Flow 3 (95th percentile 142.96 ms)
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-20 23:08:17
End at: 2018-02-20 23:08:47

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 356.52 Mbit/s
  95th percentile per-packet one-way delay: 122.624 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 183.71 Mbit/s
  95th percentile per-packet one-way delay: 119.611 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 178.52 Mbit/s
  95th percentile per-packet one-way delay: 123.197 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 171.21 Mbit/s
  95th percentile per-packet one-way delay: 126.049 ms
  Loss rate: 0.01%
Run 9: Report of Indigo-1-32 — Data Link

Graph 1: Throughput (Mbps)
- Blue dashed line: Flow 1 ingress (mean 183.73 Mbps)
- Blue solid line: Flow 1 egress (mean 183.71 Mbps)
- Green dashed line: Flow 2 ingress (mean 178.53 Mbps)
- Green solid line: Flow 2 egress (mean 178.52 Mbps)
- Red dashed line: Flow 3 ingress (mean 171.17 Mbps)
- Red solid line: Flow 3 egress (mean 171.21 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Blue circle: Flow 1 (95th percentile 119.61 ms)
- Green circle: Flow 2 (95th percentile 123.20 ms)
- Red circle: Flow 3 (95th percentile 126.05 ms)
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-20 23:27:58
End at: 2018-02-20 23:28:28

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 286.89 Mbit/s
  95th percentile per-packet one-way delay: 126.457 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 142.06 Mbit/s
  95th percentile per-packet one-way delay: 117.569 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 140.70 Mbit/s
  95th percentile per-packet one-way delay: 118.504 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 162.36 Mbit/s
  95th percentile per-packet one-way delay: 177.965 ms
  Loss rate: 0.02%
Run 1: Statistics of Vivace-latency

Start at: 2018-02-20 20:20:30
End at: 2018-02-20 20:21:00

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 459.35 Mbit/s
  95th percentile per-packet one-way delay: 124.132 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 309.96 Mbit/s
  95th percentile per-packet one-way delay: 130.848 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 187.00 Mbit/s
  95th percentile per-packet one-way delay: 114.218 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 75.68 Mbit/s
  95th percentile per-packet one-way delay: 113.307 ms
  Loss rate: 0.02%
Run 1: Report of Vivace-latency — Data Link

![Graph showing throughput and packet delay over time for different flows. The graphs illustrate the performance metrics for various network flows, including ingress and egress speeds, with indications of fluctuations and mean values.]
Run 2: Statistics of Vivace-latency

Start at: 2018-02-20 20:39:59
End at: 2018-02-20 20:40:29

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.66 Mbit/s
95th percentile per-packet one-way delay: 124.153 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 297.22 Mbit/s
95th percentile per-packet one-way delay: 131.257 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 188.25 Mbit/s
95th percentile per-packet one-way delay: 114.396 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 128.55 Mbit/s
95th percentile per-packet one-way delay: 115.968 ms
Loss rate: 0.00%
Run 2: Report of Vivace-latency — Data Link
Run 3: Statistics of Vivace-latency

Start at: 2018-02-20 20:59:39
End at: 2018-02-20 21:00:09

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 446.73 Mbit/s
95th percentile per-packet one-way delay: 194.382 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 269.99 Mbit/s
95th percentile per-packet one-way delay: 219.334 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 200.83 Mbit/s
95th percentile per-packet one-way delay: 114.925 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 131.78 Mbit/s
95th percentile per-packet one-way delay: 125.823 ms
Loss rate: 0.00%
Run 3: Report of Vivace-latency — Data Link
Run 4: Statistics of Vivace-latency

Start at: 2018-02-20 21:19:12
End at: 2018-02-20 21:19:42

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 469.27 Mbit/s
95th percentile per-packet one-way delay: 137.704 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 301.90 Mbit/s
95th percentile per-packet one-way delay: 143.671 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 185.86 Mbit/s
95th percentile per-packet one-way delay: 114.559 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 133.28 Mbit/s
95th percentile per-packet one-way delay: 115.683 ms
Loss rate: 0.00%
Run 4: Report of Vivace-latency — Data Link
Run 5: Statistics of Vivace-latency

Start at: 2018-02-20 21:38:46
End at: 2018-02-20 21:39:16

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 425.97 Mbit/s
95th percentile per-packet one-way delay: 123.990 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 224.64 Mbit/s
95th percentile per-packet one-way delay: 113.953 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 195.05 Mbit/s
95th percentile per-packet one-way delay: 131.950 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 217.86 Mbit/s
95th percentile per-packet one-way delay: 209.822 ms
Loss rate: 0.25%
Run 5: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 224.64 Mbit/s)
- Flow 1 egress (mean 224.64 Mbit/s)
- Flow 2 ingress (mean 195.05 Mbit/s)
- Flow 2 egress (mean 195.05 Mbit/s)
- Flow 3 ingress (mean 218.42 Mbit/s)
- Flow 3 egress (mean 217.66 Mbit/s)

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

- Flow 1 (95th percentile 113.95 ms)
- Flow 2 (95th percentile 131.95 ms)
- Flow 3 (95th percentile 209.02 ms)
Run 6: Statistics of Vivace-latency

Start at: 2018-02-20 21:58:14
End at: 2018-02-20 21:58:44

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 436.19 Mbit/s
  95th percentile per-packet one-way delay: 177.342 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 284.52 Mbit/s
  95th percentile per-packet one-way delay: 181.906 ms
  Loss rate: 0.25%
-- Flow 2:
  Average throughput: 121.93 Mbit/s
  95th percentile per-packet one-way delay: 112.914 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 214.56 Mbit/s
  95th percentile per-packet one-way delay: 164.316 ms
  Loss rate: 0.00%
Run 6: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 285.24 Mbit/s)
- Flow 1 egress (mean 284.52 Mbit/s)
- Flow 2 ingress (mean 121.93 Mbit/s)
- Flow 2 egress (mean 121.93 Mbit/s)
- Flow 3 ingress (mean 214.52 Mbit/s)
- Flow 3 egress (mean 214.56 Mbit/s)
Run 7: Statistics of Vivace-latency

Start at: 2018-02-20 22:17:51
End at: 2018-02-20 22:18:21

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 563.29 Mbit/s
  95th percentile per-packet one-way delay: 160.512 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 311.97 Mbit/s
  95th percentile per-packet one-way delay: 140.450 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 270.93 Mbit/s
  95th percentile per-packet one-way delay: 161.482 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 216.54 Mbit/s
  95th percentile per-packet one-way delay: 197.720 ms
  Loss rate: 0.12%
Run 7: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 311.99 Mbit/s)
- Flow 1 egress (mean 311.97 Mbit/s)
- Flow 2 ingress (mean 270.93 Mbit/s)
- Flow 2 egress (mean 270.93 Mbit/s)
- Flow 3 ingress (mean 216.76 Mbit/s)
- Flow 3 egress (mean 216.54 Mbit/s)
Run 8: Statistics of Vivace-latency

End at: 2018-02-20 22:37:58

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.88 Mbit/s
95th percentile per-packet one-way delay: 251.226 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 291.97 Mbit/s
95th percentile per-packet one-way delay: 268.015 ms
Loss rate: 3.83%
-- Flow 2:
Average throughput: 190.62 Mbit/s
95th percentile per-packet one-way delay: 117.480 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 152.66 Mbit/s
95th percentile per-packet one-way delay: 227.774 ms
Loss rate: 1.50%
Run 8: Report of Vivace-latency — Data Link

![Graph of throughput and packet delay over time]

- Flow 1 ingress (mean 303.59 Mbit/s)
- Flow 1 egress (mean 291.97 Mbit/s)
- Flow 2 ingress (mean 190.62 Mbit/s)
- Flow 2 egress (mean 190.62 Mbit/s)
- Flow 3 ingress (mean 154.98 Mbit/s)
- Flow 3 egress (mean 152.66 Mbit/s)
Run 9: Statistics of Vivace-latency

Start at: 2018-02-20 22:56:47
End at: 2018-02-20 22:57:17

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 469.63 Mbit/s
  95th percentile per-packet one-way delay: 157.505 ms
  Loss rate: 0.29%
-- Flow 1:
  Average throughput: 282.61 Mbit/s
  95th percentile per-packet one-way delay: 152.549 ms
  Loss rate: 0.21%
-- Flow 2:
  Average throughput: 175.53 Mbit/s
  95th percentile per-packet one-way delay: 113.111 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 214.00 Mbit/s
  95th percentile per-packet one-way delay: 242.464 ms
  Loss rate: 1.10%
Run 9: Report of Vivace-latency — Data Link

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

- Flow 1 ingress (mean 283.22 Mbps)
- Flow 1 egress (mean 282.61 Mbps)
- Flow 2 ingress (mean 175.53 Mbps)
- Flow 2 egress (mean 175.53 Mbps)
- Flow 3 ingress (mean 216.40 Mbps)
- Flow 3 egress (mean 214.00 Mbps)

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

- Flow 1 (95th percentile 152.55 ms)
- Flow 2 (95th percentile 113.11 ms)
- Flow 3 (95th percentile 242.46 ms)
Run 10: Statistics of Vivace-latency

Start at: 2018-02-20 23:16:12
End at: 2018-02-20 23:16:42

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 504.37 Mbit/s
95th percentile per-packet one-way delay: 181.570 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 305.07 Mbit/s
95th percentile per-packet one-way delay: 134.493 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 191.33 Mbit/s
95th percentile per-packet one-way delay: 240.323 ms
Loss rate: 2.52%
-- Flow 3:
Average throughput: 219.47 Mbit/s
95th percentile per-packet one-way delay: 291.525 ms
Loss rate: 1.31%
Run 10: Report of Vivace-latency — Data Link
Run 1: Statistics of Vivace-loss

Start at: 2018-02-20 20:35:30
End at: 2018-02-20 20:36:00

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 473.15 Mbit/s
95th percentile per-packet one-way delay: 255.409 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 263.59 Mbit/s
95th percentile per-packet one-way delay: 262.972 ms
Loss rate: 3.49%
-- Flow 2:
Average throughput: 229.41 Mbit/s
95th percentile per-packet one-way delay: 239.393 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 173.21 Mbit/s
95th percentile per-packet one-way delay: 225.189 ms
Loss rate: 3.00%
Run 1: Report of Vivace-loss — Data Link

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**Throughput (Mbps)**

- Flow 1 ingress (mean 273.13 Mbps)
- Flow 1 egress (mean 263.59 Mbps)
- Flow 2 ingress (mean 232.76 Mbps)
- Flow 2 egress (mean 229.41 Mbps)
- Flow 3 ingress (mean 178.51 Mbps)
- Flow 3 egress (mean 173.22 Mbps)

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

- Flow 1 (95th percentile 262.97 ms)
- Flow 2 (95th percentile 239.39 ms)
- Flow 3 (95th percentile 225.19 ms)
Run 2: Statistics of Vivace-loss

Start at: 2018-02-20 20:55:06
End at: 2018-02-20 20:55:36

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 429.19 Mbit/s
95th percentile per-packet one-way delay: 253.491 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 241.72 Mbit/s
95th percentile per-packet one-way delay: 273.011 ms
Loss rate: 2.41%
-- Flow 2:
Average throughput: 212.83 Mbit/s
95th percentile per-packet one-way delay: 225.965 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 140.32 Mbit/s
95th percentile per-packet one-way delay: 126.007 ms
Loss rate: 0.00%
Run 2: Report of Vivace-loss — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 247.68 Mbps)
  - Flow 1 egress (mean 241.72 Mbps)
  - Flow 2 ingress (mean 215.69 Mbps)
  - Flow 2 egress (mean 212.83 Mbps)
  - Flow 3 ingress (mean 140.23 Mbps)
  - Flow 3 egress (mean 140.32 Mbps)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 273.01 ms)
  - Flow 2 (95th percentile 225.97 ms)
  - Flow 3 (95th percentile 126.01 ms)
Run 3: Statistics of Vivace-loss

Start at: 2018-02-20 21:14:50
End at: 2018-02-20 21:15:20

# Below is generated by plot.py at 2018-02-21 03:19:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.13 Mbit/s
95th percentile per-packet one-way delay: 293.964 ms
Loss rate: 5.70%
-- Flow 1:
Average throughput: 177.14 Mbit/s
95th percentile per-packet one-way delay: 294.715 ms
Loss rate: 6.56%
-- Flow 2:
Average throughput: 204.05 Mbit/s
95th percentile per-packet one-way delay: 156.645 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 153.12 Mbit/s
95th percentile per-packet one-way delay: 323.077 ms
Loss rate: 15.89%
Run 3: Report of Vivace-loss — Data Link
Run 4: Statistics of Vivace-loss

Start at: 2018-02-20 21:34:14
End at: 2018-02-20 21:34:44

# Below is generated by plot.py at 2018-02-21 03:23:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 519.62 Mbit/s
95th percentile per-packet one-way delay: 273.625 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 330.29 Mbit/s
95th percentile per-packet one-way delay: 274.627 ms
Loss rate: 2.66%
-- Flow 2:
Average throughput: 209.46 Mbit/s
95th percentile per-packet one-way delay: 129.027 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 152.24 Mbit/s
95th percentile per-packet one-way delay: 290.023 ms
Loss rate: 2.89%
Run 4: Report of Vivace-loss — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.]
Run 5: Statistics of Vivace-loss

Start at: 2018-02-20 21:53:46
End at: 2018-02-20 21:54:16

# Below is generated by plot.py at 2018-02-21 03:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 502.37 Mbit/s
95th percentile per-packet one-way delay: 267.600 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 319.81 Mbit/s
95th percentile per-packet one-way delay: 271.744 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 200.39 Mbit/s
95th percentile per-packet one-way delay: 114.159 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 150.17 Mbit/s
95th percentile per-packet one-way delay: 261.026 ms
Loss rate: 1.34%
Run 5: Report of Vivace-loss — Data Link
Run 6: Statistics of Vivace-loss


# Below is generated by plot.py at 2018-02-21 03:24:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 517.24 Mbit/s
95th percentile per-packet one-way delay: 251.254 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 336.77 Mbit/s
95th percentile per-packet one-way delay: 250.528 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 214.47 Mbit/s
95th percentile per-packet one-way delay: 187.746 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 115.40 Mbit/s
95th percentile per-packet one-way delay: 303.714 ms
Loss rate: 17.24%
Run 6: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 339.17 Mbit/s)
- Flow 1 egress (mean 336.77 Mbit/s)
- Flow 2 ingress (mean 214.86 Mbit/s)
- Flow 2 egress (mean 214.47 Mbit/s)
- Flow 3 ingress (mean 139.41 Mbit/s)
- Flow 3 egress (mean 115.40 Mbit/s)
Run 7: Statistics of Vivace-loss

Start at: 2018-02-20 22:33:04
End at: 2018-02-20 22:33:34

# Below is generated by plot.py at 2018-02-21 03:24:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 353.71 Mbit/s
  95th percentile per-packet one-way delay: 252.198 ms
  Loss rate: 4.56%
-- Flow 1:
  Average throughput: 192.04 Mbit/s
  95th percentile per-packet one-way delay: 259.625 ms
  Loss rate: 5.17%
-- Flow 2:
  Average throughput: 133.46 Mbit/s
  95th percentile per-packet one-way delay: 233.078 ms
  Loss rate: 5.71%
-- Flow 3:
  Average throughput: 221.48 Mbit/s
  95th percentile per-packet one-way delay: 196.373 ms
  Loss rate: 1.40%
Run 7: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 202.54 Mbit/s)
- Flow 1 egress (mean 192.04 Mbit/s)
- Flow 2 ingress (mean 141.55 Mbit/s)
- Flow 2 egress (mean 133.46 Mbit/s)
- Flow 3 ingress (mean 224.75 Mbit/s)
- Flow 3 egress (mean 221.48 Mbit/s)
Run 8: Statistics of Vivace-loss

Start at: 2018-02-20 22:52:21
End at: 2018-02-20 22:52:51

# Below is generated by plot.py at 2018-02-21 03:24:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 442.44 Mbit/s
  95th percentile per-packet one-way delay: 220.859 ms
  Loss rate: 2.18%
-- Flow 1:
  Average throughput: 334.17 Mbit/s
  95th percentile per-packet one-way delay: 215.193 ms
  Loss rate: 0.70%
-- Flow 2:
  Average throughput: 113.80 Mbit/s
  95th percentile per-packet one-way delay: 111.973 ms
  Loss rate: 0.05%
-- Flow 3:
  Average throughput: 99.23 Mbit/s
  95th percentile per-packet one-way delay: 292.396 ms
  Loss rate: 18.58%
Run 8: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 336.54 Mbps)
- Flow 1 egress (mean 334.17 Mbps)
- Flow 2 ingress (mean 113.85 Mbps)
- Flow 2 egress (mean 113.85 Mbps)
- Flow 3 ingress (mean 121.84 Mbps)
- Flow 3 egress (mean 99.23 Mbps)

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

- Flow 1 (95th percentile 215.19 ms)
- Flow 2 (95th percentile 111.97 ms)
- Flow 3 (95th percentile 292.40 ms)
Run 9: Statistics of Vivace-loss

Start at: 2018-02-20 23:11:50
End at: 2018-02-20 23:12:20

# Below is generated by plot.py at 2018-02-21 03:24:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 379.94 Mbit/s
95th percentile per-packet one-way delay: 239.784 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 202.84 Mbit/s
95th percentile per-packet one-way delay: 242.614 ms
Loss rate: 2.30%
-- Flow 2:
Average throughput: 194.49 Mbit/s
95th percentile per-packet one-way delay: 233.948 ms
Loss rate: 2.07%
-- Flow 3:
Average throughput: 145.38 Mbit/s
95th percentile per-packet one-way delay: 247.369 ms
Loss rate: 2.27%
Run 9: Report of Vivace-loss — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 10: Statistics of Vivace-loss

Start at: 2018-02-20 23:31:19
End at: 2018-02-20 23:31:49

# Below is generated by plot.py at 2018-02-21 03:24:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 366.38 Mbit/s
95th percentile per-packet one-way delay: 277.786 ms
Loss rate: 5.54%
-- Flow 1:
Average throughput: 204.14 Mbit/s
95th percentile per-packet one-way delay: 261.793 ms
Loss rate: 4.71%
-- Flow 2:
Average throughput: 198.94 Mbit/s
95th percentile per-packet one-way delay: 277.533 ms
Loss rate: 2.66%
-- Flow 3:
Average throughput: 94.31 Mbit/s
95th percentile per-packet one-way delay: 299.307 ms
Loss rate: 20.18%
Run 10: Report of Vivace-loss — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows.]
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-20 20:33:12
End at: 2018-02-20 20:33:42

# Below is generated by plot.py at 2018-02-21 03:29:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.53 Mbit/s
95th percentile per-packet one-way delay: 306.340 ms
Loss rate: 2.71%
-- Flow 1:
Average throughput: 337.05 Mbit/s
95th percentile per-packet one-way delay: 294.160 ms
Loss rate: 1.97%
-- Flow 2:
Average throughput: 271.73 Mbit/s
95th percentile per-packet one-way delay: 318.424 ms
Loss rate: 4.74%
-- Flow 3:
Average throughput: 145.65 Mbit/s
95th percentile per-packet one-way delay: 129.015 ms
Loss rate: 0.00%
Run 1: Report of Vivace-LTE — Data Link

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

Legend:
- Flow 1 ingress (mean 343.85 Mbit/s)
- Flow 1 egress (mean 337.05 Mbit/s)
- Flow 2 ingress (mean 385.27 Mbit/s)
- Flow 2 egress (mean 271.73 Mbit/s)
- Flow 3 ingress (mean 145.68 Mbit/s)
- Flow 3 egress (mean 145.65 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 294.16 ms)
- Flow 2 (95th percentile 318.42 ms)
- Flow 3 (95th percentile 129.01 ms)
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-20 20:52:54
End at: 2018-02-20 20:53:24

# Below is generated by plot.py at 2018-02-21 03:31:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 499.97 Mbit/s
95th percentile per-packet one-way delay: 236.202 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 262.69 Mbit/s
95th percentile per-packet one-way delay: 264.843 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 293.88 Mbit/s
95th percentile per-packet one-way delay: 220.796 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 127.54 Mbit/s
95th percentile per-packet one-way delay: 114.378 ms
Loss rate: 0.00%
Run 2: Report of Vivace-LTE — Data Link

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

- **Flow 1**: Ingress (mean 265.94 Mbit/s), Egress (mean 262.69 Mbit/s)
- **Flow 2**: Ingress (mean 293.93 Mbit/s), Egress (mean 293.88 Mbit/s)
- **Flow 3**: Ingress (mean 127.53 Mbit/s), Egress (mean 127.54 Mbit/s)

- **Flow 1** (95th percentile 264.84 ms)
- **Flow 2** (95th percentile 220.80 ms)
- **Flow 3** (95th percentile 114.38 ms)
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-20 21:12:31
End at: 2018-02-20 21:13:01

# Below is generated by plot.py at 2018-02-21 03:33:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 586.29 Mbit/s
  95th percentile per-packet one-way delay: 316.971 ms
  Loss rate: 2.38%
  -- Flow 1:
  Average throughput: 307.23 Mbit/s
  95th percentile per-packet one-way delay: 340.975 ms
  Loss rate: 3.94%
  -- Flow 2:
  Average throughput: 315.84 Mbit/s
  95th percentile per-packet one-way delay: 178.137 ms
  Loss rate: 0.01%
  -- Flow 3:
  Average throughput: 210.02 Mbit/s
  95th percentile per-packet one-way delay: 315.718 ms
  Loss rate: 2.37%
Run 4: Statistics of Vivace-LTE

End at: 2018-02-20 21:32:25

# Below is generated by plot.py at 2018-02-21 03:33:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 587.71 Mbit/s
95th percentile per-packet one-way delay: 226.480 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 328.82 Mbit/s
95th percentile per-packet one-way delay: 171.000 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 275.38 Mbit/s
95th percentile per-packet one-way delay: 238.168 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 229.98 Mbit/s
95th percentile per-packet one-way delay: 250.498 ms
Loss rate: 1.06%
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-20 21:51:34
End at: 2018-02-20 21:52:04

# Below is generated by plot.py at 2018-02-21 03:33:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 492.14 Mbit/s
  95th percentile per-packet one-way delay: 186.264 ms
  Loss rate: 1.13%
-- Flow 1:
  Average throughput: 254.60 Mbit/s
  95th percentile per-packet one-way delay: 140.967 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 305.23 Mbit/s
  95th percentile per-packet one-way delay: 203.399 ms
  Loss rate: 0.76%
-- Flow 3:
  Average throughput: 105.44 Mbit/s
  95th percentile per-packet one-way delay: 304.624 ms
  Loss rate: 10.42%
Run 5: Report of Vivace-LTE — Data Link
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-20 22:11:02
End at: 2018-02-20 22:11:32

# Below is generated by plot.py at 2018-02-21 03:33:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 547.04 Mbit/s
95th percentile per-packet one-way delay: 138.501 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 340.50 Mbit/s
95th percentile per-packet one-way delay: 139.474 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 198.84 Mbit/s
95th percentile per-packet one-way delay: 114.464 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 226.26 Mbit/s
95th percentile per-packet one-way delay: 153.978 ms
Loss rate: 0.00%
Run 6: Report of Vivace-LTE — Data Link

![Graph of Throughput (Mbps) over Time (s)]
- Flow 1 ingress (mean 340.58 Mbps)
- Flow 1 egress (mean 340.50 Mbps)
- Flow 2 ingress (mean 198.84 Mbps)
- Flow 2 egress (mean 198.84 Mbps)
- Flow 3 ingress (mean 226.31 Mbps)
- Flow 3 egress (mean 226.26 Mbps)

![Graph of Per-packet one way delay (ms) over Time (s)]
- Flow 1 (95th percentile 139.47 ms)
- Flow 2 (95th percentile 114.46 ms)
- Flow 3 (95th percentile 153.98 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-20 22:30:50
End at: 2018-02-20 22:31:20

# Below is generated by plot.py at 2018-02-21 03:33:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 513.33 Mbit/s
95th percentile per-packet one-way delay: 296.813 ms
Loss rate: 2.06%
-- Flow 1:
Average throughput: 322.03 Mbit/s
95th percentile per-packet one-way delay: 291.478 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 220.28 Mbit/s
95th percentile per-packet one-way delay: 299.409 ms
Loss rate: 3.29%
-- Flow 3:
Average throughput: 136.45 Mbit/s
95th percentile per-packet one-way delay: 148.514 ms
Loss rate: 0.00%
Run 7: Report of Vivace-LTE — Data Link
Run 8: Statistics of Vivace-LTE

End at: 2018-02-20 22:50:43

# Below is generated by plot.py at 2018-02-21 03:33:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 445.88 Mbit/s
95th percentile per-packet one-way delay: 273.961 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 194.62 Mbit/s
95th percentile per-packet one-way delay: 153.645 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 311.34 Mbit/s
95th percentile per-packet one-way delay: 285.293 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 135.08 Mbit/s
95th percentile per-packet one-way delay: 150.602 ms
Loss rate: 0.00%
Run 8: Report of Vivace-LTE — Data Link

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

- **Flow 1 ingress** (mean 196.87 Mbit/s)
- **Flow 1 egress** (mean 194.62 Mbit/s)
- **Flow 2 ingress** (mean 314.50 Mbit/s)
- **Flow 2 egress** (mean 311.38 Mbit/s)
- **Flow 3 ingress** (mean 134.98 Mbit/s)
- **Flow 3 egress** (mean 135.08 Mbit/s)

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

- **Flow 1** (95th percentile: 153.65 ms)
- **Flow 2** (95th percentile: 285.29 ms)
- **Flow 3** (95th percentile: 150.60 ms)
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-20 23:09:31
End at: 2018-02-20 23:10:01

# Below is generated by plot.py at 2018-02-21 03:34:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 578.46 Mbit/s
95th percentile per-packet one-way delay: 180.646 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 327.48 Mbit/s
95th percentile per-packet one-way delay: 165.925 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 273.82 Mbit/s
95th percentile per-packet one-way delay: 166.440 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 209.69 Mbit/s
95th percentile per-packet one-way delay: 207.784 ms
Loss rate: 2.28%
Run 9: Report of Vivace-LTE — Data Link

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

Flow 1 egress (mean 327.48 Mbit/s)
Flow 1 ingress (mean 328.69 Mbit/s)
Flow 2 egress (mean 273.82 Mbit/s)
Flow 2 ingress (mean 273.90 Mbit/s)
Flow 3 egress (mean 209.69 Mbit/s)
Flow 3 ingress (mean 214.62 Mbit/s)

Flow 1 (95th percentile 165.93 ms)
Flow 2 (95th percentile 166.44 ms)
Flow 3 (95th percentile 207.78 ms)
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-20 23:29:06
End at: 2018-02-20 23:29:36

# Below is generated by plot.py at 2018-02-21 03:34:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 508.27 Mbit/s
95th percentile per-packet one-way delay: 277.085 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 258.56 Mbit/s
95th percentile per-packet one-way delay: 127.073 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 301.59 Mbit/s
95th percentile per-packet one-way delay: 296.862 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 149.68 Mbit/s
95th percentile per-packet one-way delay: 293.283 ms
Loss rate: 2.45%
Run 10: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 258.64 Mbps)
- Flow 1 egress (mean 258.56 Mbps)
- Flow 2 ingress (mean 305.99 Mbps)
- Flow 2 egress (mean 301.59 Mbps)
- Flow 3 ingress (mean 153.42 Mbps)
- Flow 3 egress (mean 149.68 Mbps)

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

- Flow 1 (95th percentile 127.07 ms)
- Flow 2 (95th percentile 296.86 ms)
- Flow 3 (95th percentile 293.28 ms)