Pantheon Report

Generated at 2018-03-06 19:53:58 (UTC).
Data path: AWS India 1 Ethernet (local) → India Ethernet (remote).

Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).
NTP offsets were measured against nets.org.sg and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ f12c42a263f74fda0e6fa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322c0fa46ea37a522e53227db50
M datagrum/sender.cc
third_party/fillp @ 828b9f5f4194149b5ce9f90f2b1d69e36a5c6
third_party/genericCC @ 9249eea323b8f54d8c8a143328df7b0f6c42
third_party/indigo @ a9b2060d39e4da2e8987e693e3eca2a66c0a0b9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef230d7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa958d38d4c7e06c890c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a77f5b77135ed5b540c0f3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e0a044d8306fa0b893ad84360c53d89
third_party/koho_cc @ f0f2e693303ae82ea808e6928eac4f1083a6681
M datagrum/sender.cc
third_party/libupnp @ b3465b942e2826f2b179eab4a406ce6bb7c3f3cf
third_party/pantheon-tunnel @ fb1053193c28616a59ba9013db2674ccf4993
third_party/pcc @ 1af0958f0a0d66d18b623c091a55f8c872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/proto-quic @ 7796f1a82733a86142f1bc81438c978f3c5f42
third_party/scream @ c3370fd7bd17265a9ae3a4e016ad23f5965885
third_party/sourdough @ f1a14bfe749737437f61b01e0ae0b32b267cd681
third_party/sprout @ 6f2e6e6e08d91066a9f023df3753ee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b4472e7a6c60a261149af2629562939f9a494
M src/verus.cpp
M tools/plott.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c458019212041784ce3
third_party/webRTC @ a488197dd041ace68a42849b22540ad834825f42
test from AWS India 1 Ethernet to India Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
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<td></td>
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<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
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<tr>
<td>TCP BBR</td>
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<td>54.85</td>
<td>41.54</td>
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<td>71.02</td>
<td>28.77</td>
<td>21.11</td>
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<td>36.66</td>
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<td>Vivace-LTE</td>
<td>10</td>
<td>56.62</td>
<td>30.53</td>
<td>27.43</td>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2018-03-06 15:29:50
End at: 2018-03-06 15:30:20
Local clock offset: 4.072 ms
Remote clock offset: 5.482 ms

# Below is generated by plot.py at 2018-03-06 19:25:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.30 Mbit/s
  95th percentile per-packet one-way delay: 39.276 ms
  Loss rate: 1.48%
-- Flow 1:
  Average throughput: 57.56 Mbit/s
  95th percentile per-packet one-way delay: 38.087 ms
  Loss rate: 1.18%
-- Flow 2:
  Average throughput: 34.16 Mbit/s
  95th percentile per-packet one-way delay: 39.521 ms
  Loss rate: 1.61%
-- Flow 3:
  Average throughput: 48.17 Mbit/s
  95th percentile per-packet one-way delay: 44.304 ms
  Loss rate: 2.34%
Run 1: Report of TCP BBR — Data Link

![Graph showing network performance metrics for three flows over time.](image-url)
Run 2: Statistics of TCP BBR

Start at: 2018-03-06 15:51:09  
End at: 2018-03-06 15:51:39  
Local clock offset: 2.658 ms  
Remote clock offset: 14.679 ms

# Below is generated by plot.py at 2018-03-06 19:25:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.71 Mbit/s
95th percentile per-packet one-way delay: 42.607 ms
Loss rate: 1.35%

-- Flow 1:
Average throughput: 59.44 Mbit/s
95th percentile per-packet one-way delay: 41.795 ms
Loss rate: 0.88%

-- Flow 2:
Average throughput: 32.97 Mbit/s
95th percentile per-packet one-way delay: 43.570 ms
Loss rate: 1.12%

-- Flow 3:
Average throughput: 46.11 Mbit/s
95th percentile per-packet one-way delay: 47.017 ms
Loss rate: 3.47%
Run 3: Statistics of TCP BBR

Start at: 2018-03-06 16:12:34
End at: 2018-03-06 16:13:04
Local clock offset: 4.883 ms
Remote clock offset: 20.147 ms

# Below is generated by plot.py at 2018-03-06 19:25:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.50 Mbit/s
  95th percentile per-packet one-way delay: 41.303 ms
  Loss rate: 1.81%
-- Flow 1:
  Average throughput: 54.70 Mbit/s
  95th percentile per-packet one-way delay: 39.862 ms
  Loss rate: 1.19%
-- Flow 2:
  Average throughput: 40.80 Mbit/s
  95th percentile per-packet one-way delay: 43.220 ms
  Loss rate: 1.87%
-- Flow 3:
  Average throughput: 44.14 Mbit/s
  95th percentile per-packet one-way delay: 40.926 ms
  Loss rate: 3.98%
Run 3: Report of TCP BBR — Data Link

![Data Link Throughput Graph](image1)

- Flow 1 ingress (mean 55.40 Mbit/s)
- Flow 1 egress (mean 54.70 Mbit/s)
- Flow 2 ingress (mean 41.62 Mbit/s)
- Flow 2 egress (mean 40.80 Mbit/s)
- Flow 3 ingress (mean 45.96 Mbit/s)
- Flow 3 egress (mean 44.14 Mbit/s)

![Data Link Latency Graph](image2)

- Flow 1 (95th percentile 39.86 ms)
- Flow 2 (95th percentile 43.22 ms)
- Flow 3 (95th percentile 49.93 ms)
Run 4: Statistics of TCP BBR

Start at: 2018-03-06 16:33:56
End at: 2018-03-06 16:34:26
Local clock offset: 1.608 ms
Remote clock offset: 23.659 ms

# Below is generated by plot.py at 2018-03-06 19:25:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.42 Mbit/s
95th percentile per-packet one-way delay: 42.159 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 54.99 Mbit/s
95th percentile per-packet one-way delay: 40.844 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 42.53 Mbit/s
95th percentile per-packet one-way delay: 43.079 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 39.48 Mbit/s
95th percentile per-packet one-way delay: 46.307 ms
Loss rate: 2.32%
Run 4: Report of TCP BBR — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 55.74 Mbps)
- Flow 1 egress (mean 54.99 Mbps)
- Flow 2 ingress (mean 43.38 Mbps)
- Flow 2 egress (mean 42.55 Mbps)
- Flow 3 ingress (mean 40.42 Mbps)
- Flow 3 egress (mean 39.48 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 40.84 ms)
- Flow 2 (95th percentile 43.08 ms)
- Flow 3 (95th percentile 46.31 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-03-06 16:55:05
End at: 2018-03-06 16:55:35
Local clock offset: 2.755 ms
Remote clock offset: 17.057 ms

# Below is generated by plot.py at 2018-03-06 19:25:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.07 Mbit/s
95th percentile per-packet one-way delay: 41.693 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 57.89 Mbit/s
95th percentile per-packet one-way delay: 40.800 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 38.44 Mbit/s
95th percentile per-packet one-way delay: 44.191 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 37.85 Mbit/s
95th percentile per-packet one-way delay: 42.474 ms
Loss rate: 2.92%
Run 5: Report of TCP BBR — Data Link

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

- Blue line: Flow 1 ingress (mean 58.58 Mbps)
- Red line: Flow 1 egress (mean 57.89 Mbps)
- Green line: Flow 2 ingress (mean 39.18 Mbps)
- Grey line: Flow 2 egress (mean 38.44 Mbps)
- Green dashed line: Flow 3 ingress (mean 39.03 Mbps)
- Red dashed line: Flow 3 egress (mean 37.85 Mbps)

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

- Blue dots: Flow 1 (95th percentile 40.80 ms)
- Green dots: Flow 2 (95th percentile 44.19 ms)
- Red dots: Flow 3 (95th percentile 42.47 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-03-06 17:16:18
End at: 2018-03-06 17:16:48
Local clock offset: 3.778 ms
Remote clock offset: -5.224 ms

# Below is generated by plot.py at 2018-03-06 19:25:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.12 Mbit/s
  95th percentile per-packet one-way delay: 41.010 ms
  Loss rate: 1.69%
-- Flow 1:
  Average throughput: 54.62 Mbit/s
  95th percentile per-packet one-way delay: 38.413 ms
  Loss rate: 1.23%
-- Flow 2:
  Average throughput: 37.63 Mbit/s
  95th percentile per-packet one-way delay: 42.447 ms
  Loss rate: 2.25%
-- Flow 3:
  Average throughput: 49.62 Mbit/s
  95th percentile per-packet one-way delay: 44.352 ms
  Loss rate: 2.37%
Run 6: Report of TCP BBR — Data Link

![Graph 1](image1.png)

- **Flow 1 ingress** (mean 55.34 Mbit/s)
- **Flow 1 egress** (mean 54.62 Mbit/s)
- **Flow 2 ingress** (mean 38.53 Mbit/s)
- **Flow 2 egress** (mean 37.63 Mbit/s)
- **Flow 3 ingress** (mean 50.81 Mbit/s)
- **Flow 3 egress** (mean 49.62 Mbit/s)

![Graph 2](image2.png)

- **Flow 1 (95th percentile 38.41 ms)**
- **Flow 2 (95th percentile 42.45 ms)**
- **Flow 3 (95th percentile 44.35 ms)**
Run 7: Statistics of TCP BBR

Start at: 2018-03-06 17:37:37
End at: 2018-03-06 17:38:07
Local clock offset: 0.389 ms
Remote clock offset: -12.737 ms

# Below is generated by plot.py at 2018-03-06 19:25:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.38 Mbit/s
  95th percentile per-packet one-way delay: 47.431 ms
  Loss rate: 1.76%
-- Flow 1:
  Average throughput: 51.91 Mbit/s
  95th percentile per-packet one-way delay: 43.153 ms
  Loss rate: 1.20%
-- Flow 2:
  Average throughput: 41.65 Mbit/s
  95th percentile per-packet one-way delay: 49.833 ms
  Loss rate: 2.40%
-- Flow 3:
  Average throughput: 50.42 Mbit/s
  95th percentile per-packet one-way delay: 48.804 ms
  Loss rate: 2.39%
Run 7: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 52.58 Mbps)
- Flow 1 egress (mean 51.91 Mbps)
- Flow 2 ingress (mean 42.72 Mbps)
- Flow 2 egress (mean 41.65 Mbps)
- Flow 3 ingress (mean 51.62 Mbps)
- Flow 3 egress (mean 50.42 Mbps)

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

- Flow 1 (95th percentile 43.15 ms)
- Flow 2 (95th percentile 49.83 ms)
- Flow 3 (95th percentile 48.80 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-03-06 17:59:01
End at: 2018-03-06 17:59:31
Local clock offset: 5.48 ms
Remote clock offset: -20.207 ms

# Below is generated by plot.py at 2018-03-06 19:25:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.56 Mbit/s
95th percentile per-packet one-way delay: 37.522 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 52.13 Mbit/s
95th percentile per-packet one-way delay: 36.605 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 47.46 Mbit/s
95th percentile per-packet one-way delay: 37.957 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 38.64 Mbit/s
95th percentile per-packet one-way delay: 43.437 ms
Loss rate: 1.51%
Run 8: Report of TCP BBR — Data Link
Run 9: Statistics of TCP BBR

Start at: 2018-03-06 18:20:21
End at: 2018-03-06 18:20:51
Local clock offset: 2.942 ms
Remote clock offset: -0.289 ms

# Below is generated by plot.py at 2018-03-06 19:27:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.43 Mbit/s
  95th percentile per-packet one-way delay: 41.956 ms
  Loss rate: 1.26%
-- Flow 1:
  Average throughput: 54.96 Mbit/s
  95th percentile per-packet one-way delay: 40.856 ms
  Loss rate: 1.12%
-- Flow 2:
  Average throughput: 46.28 Mbit/s
  95th percentile per-packet one-way delay: 43.172 ms
  Loss rate: 1.40%
-- Flow 3:
  Average throughput: 32.05 Mbit/s
  95th percentile per-packet one-way delay: 42.439 ms
  Loss rate: 1.54%
Run 9: Report of TCP BBR — Data Link

![Graph showing network performance metrics](image)

- **Throughput (Mbit/s)**
  - Flow 1 ingress (mean 55.62 Mbit/s)
  - Flow 1 egress (mean 54.96 Mbit/s)
  - Flow 2 ingress (mean 46.88 Mbit/s)
  - Flow 2 egress (mean 46.28 Mbit/s)
  - Flow 3 ingress (mean 32.55 Mbit/s)
  - Flow 3 egress (mean 32.05 Mbit/s)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 40.86 ms)
  - Flow 2 (95th percentile 43.17 ms)
  - Flow 3 (95th percentile 42.44 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-03-06 18:41:50
End at: 2018-03-06 18:42:20
Local clock offset: 8.1 ms
Remote clock offset: 11.113 ms

# Below is generated by plot.py at 2018-03-06 19:27:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.51 Mbit/s
95th percentile per-packet one-way delay: 36.872 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 50.34 Mbit/s
95th percentile per-packet one-way delay: 35.530 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 53.45 Mbit/s
95th percentile per-packet one-way delay: 37.348 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 37.826 ms
Loss rate: 1.61%
Run 10: Report of TCP BBR — Data Link

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

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 50.82 Mbit/s)  Flow 1 egress (mean 50.34 Mbit/s)
Flow 2 ingress (mean 54.38 Mbit/s)  Flow 2 egress (mean 53.45 Mbit/s)
Flow 3 ingress (mean 32.41 Mbit/s)  Flow 3 egress (mean 31.87 Mbit/s)

Packet per one way delay (ms)

Time (s)

Flow 1 (95th percentile 35.53 ms)  Flow 2 (95th percentile 37.35 ms)  Flow 3 (95th percentile 37.83 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-03-06 15:31:01
End at: 2018-03-06 15:31:31
Local clock offset: 4.614 ms
Remote clock offset: 6.68 ms

# Below is generated by plot.py at 2018-03-06 19:27:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.17 Mbit/s
  95th percentile per-packet one-way delay: 50.514 ms
  Loss rate: 0.96%
-- Flow 1:
  Average throughput: 74.39 Mbit/s
  95th percentile per-packet one-way delay: 50.474 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 29.70 Mbit/s
  95th percentile per-packet one-way delay: 50.550 ms
  Loss rate: 1.12%
-- Flow 3:
  Average throughput: 9.12 Mbit/s
  95th percentile per-packet one-way delay: 50.941 ms
  Loss rate: 1.16%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-03-06 15:52:21
End at: 2018-03-06 15:52:51
Local clock offset: 2.404 ms
Remote clock offset: 13.971 ms

# Below is generated by plot.py at 2018-03-06 19:27:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 52.355 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 74.34 Mbit/s
95th percentile per-packet one-way delay: 52.343 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 29.82 Mbit/s
95th percentile per-packet one-way delay: 52.376 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 9.01 Mbit/s
95th percentile per-packet one-way delay: 52.546 ms
Loss rate: 1.22%
Run 2: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 75.13 Mbit/s)
- Flow 1 egress (mean 74.34 Mbit/s)
- Flow 2 ingress (mean 30.07 Mbit/s)
- Flow 2 egress (mean 29.82 Mbit/s)
- Flow 3 ingress (mean 9.12 Mbit/s)
- Flow 3 egress (mean 9.01 Mbit/s)

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

- Flow 1 (95th percentile 52.34 ms)
- Flow 2 (95th percentile 52.38 ms)
- Flow 3 (95th percentile 52.55 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-03-06 16:13:45
End at: 2018-03-06 16:14:15
Local clock offset: 5.325 ms
Remote clock offset: 19.859 ms

# Below is generated by plot.py at 2018-03-06 19:27:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 48.064 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 68.27 Mbit/s
95th percentile per-packet one-way delay: 47.320 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 28.81 Mbit/s
95th percentile per-packet one-way delay: 48.599 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 29.28 Mbit/s
95th percentile per-packet one-way delay: 49.321 ms
Loss rate: 1.30%
Run 3: Report of TCP Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 68.90 Mbit/s)
- Flow 1 egress (mean 68.27 Mbit/s)
- Flow 2 ingress (mean 29.09 Mbit/s)
- Flow 2 egress (mean 28.81 Mbit/s)
- Flow 3 ingress (mean 29.66 Mbit/s)
- Flow 3 egress (mean 29.28 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 47.32 ms)
- Flow 2 (95th percentile 48.60 ms)
- Flow 3 (95th percentile 49.32 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-03-06 16:35:06
End at: 2018-03-06 16:35:36
Local clock offset: 3.324 ms
Remote clock offset: 23.868 ms

# Below is generated by plot.py at 2018-03-06 19:27:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.14 Mbit/s
  95th percentile per-packet one-way delay: 50.540 ms
  Loss rate: 0.91%
  -- Flow 1:
  Average throughput: 74.03 Mbit/s
  95th percentile per-packet one-way delay: 50.515 ms
  Loss rate: 0.94%
  -- Flow 2:
  Average throughput: 29.91 Mbit/s
  95th percentile per-packet one-way delay: 50.564 ms
  Loss rate: 0.84%
  -- Flow 3:
  Average throughput: 9.73 Mbit/s
  95th percentile per-packet one-way delay: 50.708 ms
  Loss rate: 0.93%
Run 4: Report of TCP Cubic — Data Link

The diagrams illustrate the throughput and per-packet one-way delay for three different flows over time. The throughput charts show the data rate (in Mbit/s) for each flow, while the per-packet delay charts indicate the latency (in ms) for packets transmitted. The graphs provide a visual representation of the performance and behavior of these flows under various conditions.
Run 5: Statistics of TCP Cubic

Start at: 2018-03-06 16:56:17
End at: 2018-03-06 16:56:47
Local clock offset: 1.707 ms
Remote clock offset: 15.194 ms

# Below is generated by plot.py at 2018-03-06 19:27:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.17 Mbit/s
95th percentile per-packet one-way delay: 54.378 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 70.38 Mbit/s
95th percentile per-packet one-way delay: 54.150 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 29.51 Mbit/s
95th percentile per-packet one-way delay: 54.657 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 21.54 Mbit/s
95th percentile per-packet one-way delay: 54.788 ms
Loss rate: 0.73%
Run 5: Report of TCP Cubic — Data Link

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

Start at: 2018-03-06 17:17:29
End at: 2018-03-06 17:17:59
Local clock offset: 5.098 ms
Remote clock offset: -6.423 ms

# Below is generated by plot.py at 2018-03-06 19:27:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.17 Mbit/s
  95th percentile per-packet one-way delay: 48.738 ms
  Loss rate: 0.99%
-- Flow 1:
  Average throughput: 67.14 Mbit/s
  95th percentile per-packet one-way delay: 48.695 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 24.02 Mbit/s
  95th percentile per-packet one-way delay: 48.808 ms
  Loss rate: 1.50%
-- Flow 3:
  Average throughput: 42.40 Mbit/s
  95th percentile per-packet one-way delay: 48.747 ms
  Loss rate: 0.48%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-03-06 17:38:50
End at: 2018-03-06 17:39:20
Local clock offset: 4.209 ms
Remote clock offset: -14.862 ms

# Below is generated by plot.py at 2018-03-06 19:28:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.15 Mbit/s
  95th percentile per-packet one-way delay: 49.068 ms
  Loss rate: 0.95%
-- Flow 1:
  Average throughput: 74.88 Mbit/s
  95th percentile per-packet one-way delay: 49.013 ms
  Loss rate: 0.87%
-- Flow 2:
  Average throughput: 28.78 Mbit/s
  95th percentile per-packet one-way delay: 49.146 ms
  Loss rate: 1.28%
-- Flow 3:
  Average throughput: 9.52 Mbit/s
  95th percentile per-packet one-way delay: 49.348 ms
  Loss rate: 0.87%
Run 7: Report of TCP Cubic — Data Link

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

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

Legend:
- Flow 1 ingress (mean 75.62 Mbit/s)
- Flow 1 egress (mean 74.88 Mbit/s)
- Flow 2 ingress (mean 29.16 Mbit/s)
- Flow 2 egress (mean 28.78 Mbit/s)
- Flow 3 ingress (mean 9.60 Mbit/s)
- Flow 3 egress (mean 9.52 Mbit/s)

Legend for delay:
- Flow 1 (95th percentile 49.01 ms)
- Flow 2 (95th percentile 49.15 ms)
- Flow 3 (95th percentile 49.35 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-03-06 18:00:12
End at: 2018-03-06 18:00:42
Local clock offset: 7.719 ms
Remote clock offset: -19.762 ms

# Below is generated by plot.py at 2018-03-06 19:28:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 45.142 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 70.18 Mbit/s
95th percentile per-packet one-way delay: 44.841 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 36.87 Mbit/s
95th percentile per-packet one-way delay: 45.538 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 45.611 ms
Loss rate: 1.65%
Run 8: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 70.89 Mbps)
  - Flow 1 egress (mean 70.18 Mbps)
  - Flow 2 ingress (mean 37.29 Mbps)
  - Flow 2 egress (mean 36.87 Mbps)
  - Flow 3 ingress (mean 7.43 Mbps)
  - Flow 3 egress (mean 7.31 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 44.84 ms)
  - Flow 2 (95th percentile 45.54 ms)
  - Flow 3 (95th percentile 45.61 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-03-06 18:21:32
End at: 2018-03-06 18:22:02
Local clock offset: 4.467 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-03-06 19:28:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.16 Mbit/s
  95th percentile per-packet one-way delay: 51.521 ms
  Loss rate: 1.09%
-- Flow 1:
  Average throughput: 67.00 Mbit/s
  95th percentile per-packet one-way delay: 51.483 ms
  Loss rate: 1.09%
-- Flow 2:
  Average throughput: 23.57 Mbit/s
  95th percentile per-packet one-way delay: 51.624 ms
  Loss rate: 1.68%
-- Flow 3:
  Average throughput: 43.63 Mbit/s
  95th percentile per-packet one-way delay: 51.710 ms
  Loss rate: 0.46%
Run 9: Report of TCP Cubic — Data Link

Throughput (Mbit/s) vs Time (s)

Flow 1 ingress (mean 67.82 Mbit/s)  Flow 1 egress (mean 67.00 Mbit/s)
Flow 2 ingress (mean 23.98 Mbit/s)  Flow 2 egress (mean 23.57 Mbit/s)
Flow 3 ingress (mean 43.82 Mbit/s)  Flow 3 egress (mean 43.63 Mbit/s)

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

Flow 1 (95th percentile 51.48 ms)  Flow 2 (95th percentile 51.02 ms)  Flow 3 (95th percentile 51.71 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-03-06 18:43:01
End at: 2018-03-06 18:43:31
Local clock offset: 7.016 ms
Remote clock offset: 12.982 ms

# Below is generated by plot.py at 2018-03-06 19:28:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.16 Mbit/s
  95th percentile per-packet one-way delay: 48.749 ms
  Loss rate: 0.87%
-- Flow 1:
  Average throughput: 69.60 Mbit/s
  95th percentile per-packet one-way delay: 48.817 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 26.66 Mbit/s
  95th percentile per-packet one-way delay: 48.254 ms
  Loss rate: 0.73%
-- Flow 3:
  Average throughput: 29.57 Mbit/s
  95th percentile per-packet one-way delay: 48.982 ms
  Loss rate: 1.04%
Run 10: Report of TCP Cubic — Data Link

**Throughput (Mb/s)**

- **Flow 1 ingress** (mean 70.30 Mb/s)
- **Flow 1 egress** (mean 69.60 Mb/s)
- **Flow 2 ingress** (mean 26.85 Mb/s)
- **Flow 2 egress** (mean 26.66 Mb/s)
- **Flow 3 ingress** (mean 29.90 Mb/s)
- **Flow 3 egress** (mean 29.57 Mb/s)

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

- **Flow 1** (95th percentile 48.82 ms)
- **Flow 2** (95th percentile 48.25 ms)
- **Flow 3** (95th percentile 48.98 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-03-06 15:21:31
End at: 2018-03-06 15:22:01
Local clock offset: 4.127 ms
Remote clock offset: 4.613 ms

# Below is generated by plot.py at 2018-03-06 19:28:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.14 Mbit/s
95th percentile per-packet one-way delay: 49.563 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 47.07 Mbit/s
95th percentile per-packet one-way delay: 49.199 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 34.64 Mbit/s
95th percentile per-packet one-way delay: 49.901 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 18.28 Mbit/s
95th percentile per-packet one-way delay: 49.885 ms
Loss rate: 1.46%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-03-06 15:42:54
End at: 2018-03-06 15:43:24
Local clock offset: 4.502 ms
Remote clock offset: 7.884 ms

# Below is generated by plot.py at 2018-03-06 19:28:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.92 Mbit/s
95th percentile per-packet one-way delay: 48.641 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 47.07 Mbit/s
95th percentile per-packet one-way delay: 48.528 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 31.04 Mbit/s
95th percentile per-packet one-way delay: 49.139 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 40.97 Mbit/s
95th percentile per-packet one-way delay: 47.833 ms
Loss rate: 0.37%
Run 3: Statistics of LEDBAT

Start at: 2018-03-06 16:04:07
End at: 2018-03-06 16:04:37
Local clock offset: 3.971 ms
Remote clock offset: 17.572 ms

# Below is generated by plot.py at 2018-03-06 19:28:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.22 Mbit/s
  95th percentile per-packet one-way delay: 48.336 ms
  Loss rate: 0.25%
-- Flow 1:
  Average throughput: 53.70 Mbit/s
  95th percentile per-packet one-way delay: 48.101 ms
  Loss rate: 0.14%
-- Flow 2:
  Average throughput: 36.73 Mbit/s
  95th percentile per-packet one-way delay: 48.764 ms
  Loss rate: 0.38%
-- Flow 3:
  Average throughput: 21.37 Mbit/s
  95th percentile per-packet one-way delay: 48.603 ms
  Loss rate: 0.72%
Run 3: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 53.81 Mbps)
  - Flow 1 egress (mean 53.70 Mbps)
  - Flow 2 ingress (mean 36.84 Mbps)
  - Flow 2 egress (mean 36.73 Mbps)
  - Flow 3 ingress (mean 21.57 Mbps)
  - Flow 3 egress (mean 21.37 Mbps)

- **Per packet one way delay (ms)**
  - Flow 1 (95th percentile 48.10 ms)
  - Flow 2 (95th percentile 48.76 ms)
  - Flow 3 (95th percentile 48.60 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-03-06 16:25:44
End at: 2018-03-06 16:26:14
Local clock offset: 5.496 ms
Remote clock offset: 22.247 ms

# Below is generated by plot.py at 2018-03-06 19:28:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 83.27 Mbit/s
  95th percentile per-packet one-way delay: 47.500 ms
  Loss rate: 0.53%
-- Flow 1:
  Average throughput: 45.53 Mbit/s
  95th percentile per-packet one-way delay: 47.094 ms
  Loss rate: 0.51%
-- Flow 2:
  Average throughput: 37.60 Mbit/s
  95th percentile per-packet one-way delay: 47.818 ms
  Loss rate: 0.57%
-- Flow 3:
  Average throughput: 39.90 Mbit/s
  95th percentile per-packet one-way delay: 47.763 ms
  Loss rate: 0.52%
Run 4: Report of LEDBAT — Data Link

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**Throughput (Mbps)**

![Graph showing the throughput over time for flows 1, 2, and 3.]

- **Flow 1** ingess (mean 45.77 Mbps)
- **Flow 1** egress (mean 45.53 Mbps)
- **Flow 2** ingess (mean 37.75 Mbps)
- **Flow 2** egress (mean 37.60 Mbps)
- **Flow 3** ingess (mean 40.06 Mbps)
- **Flow 3** egress (mean 39.90 Mbps)

---

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

![Graph showing the per-packet one-way delay for flows 1, 2, and 3.]

- **Flow 1** (95th percentile 47.09 ms)
- **Flow 2** (95th percentile 47.82 ms)
- **Flow 3** (95th percentile 47.76 ms)

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Run 5: Statistics of LEDBAT

Start at: 2018-03-06 16:46:55
End at: 2018-03-06 16:47:25
Local clock offset: 3.412 ms
Remote clock offset: 25.901 ms

# Below is generated by plot.py at 2018-03-06 19:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.54 Mbit/s
95th percentile per-packet one-way delay: 48.383 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 45.27 Mbit/s
95th percentile per-packet one-way delay: 48.182 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 39.69 Mbit/s
95th percentile per-packet one-way delay: 48.473 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 32.79 Mbit/s
95th percentile per-packet one-way delay: 48.579 ms
Loss rate: 0.70%
Run 5: Report of LEDBAT — Data Link

![Graph showing data link performance](image)

- **Throughput (Mbps)**
  - **Flow 1 ingress (mean 45.59 Mbps)**
  - **Flow 1 egress (mean 45.27 Mbps)**
  - **Flow 2 ingress (mean 39.92 Mbps)**
  - **Flow 2 egress (mean 39.69 Mbps)**
  - **Flow 3 ingress (mean 33.69 Mbps)**
  - **Flow 3 egress (mean 32.79 Mbps)**

- **Per packet one way delay (ms)**
  - **Flow 1 (95th percentile 48.18 ms)**
  - **Flow 2 (95th percentile 48.47 ms)**
  - **Flow 3 (95th percentile 48.58 ms)**
Run 6: Statistics of LEDBAT

Start at: 2018-03-06 17:08:02
End at: 2018-03-06 17:08:32
Local clock offset: 3.294 ms
Remote clock offset: -2.41 ms

# Below is generated by plot.py at 2018-03-06 19:29:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.84 Mbit/s
95th percentile per-packet one-way delay: 47.868 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 53.33 Mbit/s
95th percentile per-packet one-way delay: 47.243 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 26.74 Mbit/s
95th percentile per-packet one-way delay: 48.527 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 23.97 Mbit/s
95th percentile per-packet one-way delay: 48.337 ms
Loss rate: 0.61%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-03-06 17:29:24
End at: 2018-03-06 17:29:54
Local clock offset: 3.614 ms
Remote clock offset: -11.482 ms

# Below is generated by plot.py at 2018-03-06 19:29:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.83 Mbit/s
95th percentile per-packet one-way delay: 48.108 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 46.15 Mbit/s
95th percentile per-packet one-way delay: 47.969 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 40.16 Mbit/s
95th percentile per-packet one-way delay: 48.308 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 24.01 Mbit/s
95th percentile per-packet one-way delay: 48.254 ms
Loss rate: 0.44%
Run 7: Report of LEDBAT — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 8: Statistics of LEDBAT

Start at: 2018-03-06 17:50:40
End at: 2018-03-06 17:51:10
Local clock offset: 3.148 ms
Remote clock offset: -17.737 ms

# Below is generated by plot.py at 2018-03-06 19:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.83 Mbit/s
95th percentile per-packet one-way delay: 49.618 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 45.23 Mbit/s
95th percentile per-packet one-way delay: 49.533 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 42.35 Mbit/s
95th percentile per-packet one-way delay: 49.636 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 31.44 Mbit/s
95th percentile per-packet one-way delay: 50.117 ms
Loss rate: 0.90%
Run 9: Statistics of LEDBAT

Start at: 2018-03-06 18:12:09
End at: 2018-03-06 18:12:39
Local clock offset: 3.995 ms
Remote clock offset: -4.883 ms

# Below is generated by plot.py at 2018-03-06 19:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.43 Mbit/s
95th percentile per-packet one-way delay: 48.562 ms
Loss rate: 0.69%

-- Flow 1:
Average throughput: 48.89 Mbit/s
95th percentile per-packet one-way delay: 48.287 ms
Loss rate: 0.50%

-- Flow 2:
Average throughput: 28.01 Mbit/s
95th percentile per-packet one-way delay: 48.893 ms
Loss rate: 1.03%

-- Flow 3:
Average throughput: 17.92 Mbit/s
95th percentile per-packet one-way delay: 49.001 ms
Loss rate: 1.15%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-03-06 18:33:25
End at: 2018-03-06 18:33:55
Local clock offset: 4.643 ms
Remote clock offset: 1.111 ms

# Below is generated by plot.py at 2018-03-06 19:29:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.97 Mbit/s
95th percentile per-packet one-way delay: 49.138 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 59.39 Mbit/s
95th percentile per-packet one-way delay: 48.906 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 27.29 Mbit/s
95th percentile per-packet one-way delay: 49.151 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 29.73 Mbit/s
95th percentile per-packet one-way delay: 49.972 ms
Loss rate: 0.95%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC

Start at: 2018-03-06 15:36:49
End at: 2018-03-06 15:37:19
Local clock offset: 5.795 ms
Remote clock offset: 7.64 ms

# Below is generated by plot.py at 2018-03-06 19:30:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.78 Mbit/s
95th percentile per-packet one-way delay: 44.817 ms
Loss rate: 2.82%
-- Flow 1:
Average throughput: 78.86 Mbit/s
95th percentile per-packet one-way delay: 43.973 ms
Loss rate: 2.50%
-- Flow 2:
Average throughput: 7.76 Mbit/s
95th percentile per-packet one-way delay: 46.501 ms
Loss rate: 3.31%
-- Flow 3:
Average throughput: 17.45 Mbit/s
95th percentile per-packet one-way delay: 48.099 ms
Loss rate: 6.63%
Run 1: Report of PCC — Data Link

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**Throughput (Mbps)**

- Flow 1 ingress (mean 80.88 Mbps)
- Flow 1 egress (mean 78.86 Mbps)
- Flow 2 ingress (mean 8.02 Mbps)
- Flow 2 egress (mean 7.76 Mbps)
- Flow 3 ingress (mean 18.69 Mbps)
- Flow 3 egress (mean 17.45 Mbps)

---

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

- Flow 1 (95th percentile 43.97 ms)
- Flow 2 (95th percentile 46.50 ms)
- Flow 3 (95th percentile 48.10 ms)
Run 2: Statistics of PCC

Start at: 2018-03-06 15:58:12
End at: 2018-03-06 15:58:42
Local clock offset: 4.02 ms
Remote clock offset: 16.456 ms

# Below is generated by plot.py at 2018-03-06 19:30:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.66 Mbit/s
95th percentile per-packet one-way delay: 26.477 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 81.35 Mbit/s
95th percentile per-packet one-way delay: 24.128 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 31.296 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 40.705 ms
Loss rate: 0.79%
Run 2: Report of PCC — Data Link

Graph 1: Throughput (Mbps)

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

Legend:
- Flow 1 ingress (mean 81.57 Mbps)
- Flow 1 egress (mean 81.35 Mbps)
- Flow 2 ingress (mean 8.54 Mbps)
- Flow 2 egress (mean 8.50 Mbps)
- Flow 3 ingress (mean 8.13 Mbps)
- Flow 3 egress (mean 8.06 Mbps)
- Flow 1 (95th percentile 24.13 ms)
- Flow 2 (95th percentile 31.30 ms)
- Flow 3 (95th percentile 40.70 ms)
Run 3: Statistics of PCC

Start at: 2018-03-06 16:19:40
End at: 2018-03-06 16:20:10
Local clock offset: 4.663 ms
Remote clock offset: 20.203 ms

# Below is generated by plot.py at 2018-03-06 19:31:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.23 Mbit/s
  95th percentile per-packet one-way delay: 39.619 ms
  Loss rate: 0.89%
-- Flow 1:
  Average throughput: 75.58 Mbit/s
  95th percentile per-packet one-way delay: 39.027 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 14.84 Mbit/s
  95th percentile per-packet one-way delay: 41.834 ms
  Loss rate: 0.80%
-- Flow 3:
  Average throughput: 8.44 Mbit/s
  95th percentile per-packet one-way delay: 42.971 ms
  Loss rate: 1.21%
Run 3: Report of PCC — Data Link

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

![Graph 2: Per-packet End-to-End Delay](image2)
Run 4: Statistics of PCC

Start at: 2018-03-06 16:41:00  
End at: 2018-03-06 16:41:30  
Local clock offset: -3.375 ms  
Remote clock offset: 26.003 ms  

# Below is generated by plot.py at 2018-03-06 19:31:05  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 87.05 Mbit/s  
  95th percentile per-packet one-way delay: 39.595 ms  
  Loss rate: 0.26%  
  -- Flow 1:  
    Average throughput: 76.15 Mbit/s  
    95th percentile per-packet one-way delay: 38.723 ms  
    Loss rate: 0.30%  
  -- Flow 2:  
    Average throughput: 11.46 Mbit/s  
    95th percentile per-packet one-way delay: 41.746 ms  
    Loss rate: 0.00%  
  -- Flow 3:  
    Average throughput: 9.96 Mbit/s  
    95th percentile per-packet one-way delay: 50.163 ms  
    Loss rate: 0.00%
Run 4: Report of PCC — Data Link
Run 5: Statistics of PCC

Start at: 2018-03-06 17:02:06
End at: 2018-03-06 17:02:36
Local clock offset: 2.749 ms
Remote clock offset: 4.528 ms

# Below is generated by plot.py at 2018-03-06 19:31:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.05 Mbit/s
95th percentile per-packet one-way delay: 35.417 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 75.45 Mbit/s
95th percentile per-packet one-way delay: 34.790 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 15.19 Mbit/s
95th percentile per-packet one-way delay: 36.963 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 46.923 ms
Loss rate: 0.00%
Run 5: Report of PCC — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 75.70 Mbit/s)
Flow 1 egress (mean 75.45 Mbit/s)
Flow 2 ingress (mean 15.19 Mbit/s)
Flow 2 egress (mean 15.19 Mbit/s)
Flow 3 ingress (mean 7.59 Mbit/s)
Flow 3 egress (mean 7.59 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 34.79 ms)
Flow 2 (95th percentile 36.96 ms)
Flow 3 (95th percentile 46.92 ms)
Run 6: Statistics of PCC

Start at: 2018-03-06 17:23:21
End at: 2018-03-06 17:23:51
Local clock offset: 2.961 ms
Remote clock offset: -9.138 ms

# Below is generated by plot.py at 2018-03-06 19:31:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.03 Mbit/s
  95th percentile per-packet one-way delay: 49.212 ms
  Loss rate: 18.96%
-- Flow 1:
  Average throughput: 71.81 Mbit/s
  95th percentile per-packet one-way delay: 48.920 ms
  Loss rate: 17.20%
-- Flow 2:
  Average throughput: 26.75 Mbit/s
  95th percentile per-packet one-way delay: 49.918 ms
  Loss rate: 25.12%
-- Flow 3:
  Average throughput: 1.32 Mbit/s
  95th percentile per-packet one-way delay: 50.317 ms
  Loss rate: 28.06%
Run 6: Report of PCC — Data Link

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

- **Flow 1** (ingress mean 86.81 Mbit/s, egress mean 71.81 Mbit/s)
- **Flow 2** (ingress mean 35.75 Mbit/s, egress mean 26.75 Mbit/s)
- **Flow 3** (ingress mean 1.84 Mbit/s, egress mean 1.32 Mbit/s)

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

- **Flow 1** (95th percentile 48.92 ms)
- **Flow 2** (95th percentile 49.92 ms)
- **Flow 3** (95th percentile 50.32 ms)
Run 7: Statistics of PCC

Start at: 2018-03-06 17:44:44
End at: 2018-03-06 17:45:14
Local clock offset: 3.448 ms
Remote clock offset: -15.981 ms

# Below is generated by plot.py at 2018-03-06 19:31:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.88 Mbit/s
95th percentile per-packet one-way delay: 33.654 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 78.56 Mbit/s
95th percentile per-packet one-way delay: 32.583 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 11.58 Mbit/s
95th percentile per-packet one-way delay: 37.649 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.96 Mbit/s
95th percentile per-packet one-way delay: 43.993 ms
Loss rate: 0.00%
Run 7: Report of PCC — Data Link
Run 8: Statistics of PCC

Start at: 2018-03-06 18:06:04
End at: 2018-03-06 18:06:34
Local clock offset: 1.4 ms
Remote clock offset: -9.614 ms

# Below is generated by plot.py at 2018-03-06 19:31:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.53 Mbit/s
  95th percentile per-packet one-way delay: 24.260 ms
  Loss rate: 0.38%
-- Flow 1:
  Average throughput: 74.80 Mbit/s
  95th percentile per-packet one-way delay: 24.368 ms
  Loss rate: 0.41%
-- Flow 2:
  Average throughput: 15.80 Mbit/s
  95th percentile per-packet one-way delay: 23.781 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 9.78 Mbit/s
  95th percentile per-packet one-way delay: 23.930 ms
  Loss rate: 0.33%
Run 8: Report of PCC — Data Link

![Graph showing throughput over time for different flows with mean bandwidths and 95th percentile delays.]

Throughput (Mbps/s) vs Time (s)
- Flow 1 ingress (mean 75.11 Mbps/s)
- Flow 1 egress (mean 74.80 Mbps/s)
- Flow 2 ingress (mean 15.83 Mbps/s)
- Flow 2 egress (mean 15.80 Mbps/s)
- Flow 3 ingress (mean 9.82 Mbps/s)
- Flow 3 egress (mean 9.78 Mbps/s)

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

- Flow 1 (95th percentile 24.37 ms)
- Flow 2 (95th percentile 23.78 ms)
- Flow 3 (95th percentile 23.93 ms)
Run 9: Statistics of PCC

Start at: 2018-03-06 18:27:29
End at: 2018-03-06 18:27:59
Local clock offset: 4.411 ms
Remote clock offset: 1.494 ms

# Below is generated by plot.py at 2018-03-06 19:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.28 Mbit/s
95th percentile per-packet one-way delay: 20.200 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 83.41 Mbit/s
95th percentile per-packet one-way delay: 20.188 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 4.96 Mbit/s
95th percentile per-packet one-way delay: 20.473 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 19.675 ms
Loss rate: 0.00%
Run 10: Statistics of PCC

Start at: 2018-03-06 18:48:58
End at: 2018-03-06 18:49:28
Local clock offset: 6.723 ms
Remote clock offset: 17.599 ms

# Below is generated by plot.py at 2018-03-06 19:31:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.14 Mbit/s
  95th percentile per-packet one-way delay: 22.716 ms
  Loss rate: 0.41%
-- Flow 1:
  Average throughput: 78.61 Mbit/s
  95th percentile per-packet one-way delay: 22.114 ms
  Loss rate: 0.44%
-- Flow 2:
  Average throughput: 12.23 Mbit/s
  95th percentile per-packet one-way delay: 24.101 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 10.31 Mbit/s
  95th percentile per-packet one-way delay: 24.455 ms
  Loss rate: 0.32%
Run 10: Report of PCC — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 78.95 Mbps)
  - Flow 1 egress (mean 78.61 Mbps)
  - Flow 2 ingress (mean 12.25 Mbps)
  - Flow 2 egress (mean 12.23 Mbps)
  - Flow 3 ingress (mean 10.34 Mbps)
  - Flow 3 egress (mean 10.31 Mbps)

- **Per packet one-way delay (ms):**
  - Flow 1 (95th percentile 22.11 ms)
  - Flow 2 (95th percentile 24.10 ms)
  - Flow 3 (95th percentile 24.45 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-06 15:35:39
End at: 2018-03-06 15:36:09
Local clock offset: 6.914 ms
Remote clock offset: 7.695 ms

# Below is generated by plot.py at 2018-03-06 19:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.59 Mbit/s
95th percentile per-packet one-way delay: 47.116 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 66.83 Mbit/s
95th percentile per-packet one-way delay: 47.148 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 31.46 Mbit/s
95th percentile per-packet one-way delay: 47.051 ms
Loss rate: 2.14%
-- Flow 3:
Average throughput: 18.08 Mbit/s
95th percentile per-packet one-way delay: 46.909 ms
Loss rate: 2.30%
Run 1: Report of QUIC Cubic — Data Link

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

Flow 1 ingress (mean 68.34 Mbit/s)  Flow 2 ingress (mean 32.16 Mbit/s)  Flow 3 ingress (mean 18.51 Mbit/s)
Flow 1 egress (mean 66.83 Mbit/s)  Flow 2 egress (mean 31.46 Mbit/s)  Flow 3 egress (mean 18.08 Mbit/s)

Flow 1 (95th percentile 47.15 ms)  Flow 2 (95th percentile 47.05 ms)  Flow 3 (95th percentile 46.91 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-06 15:57:02
End at: 2018-03-06 15:57:32
Local clock offset: 5.009 ms
Remote clock offset: 16.101 ms

# Below is generated by plot.py at 2018-03-06 19:32:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.19 Mbit/s
95th percentile per-packet one-way delay: 48.634 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 68.15 Mbit/s
95th percentile per-packet one-way delay: 48.726 ms
Loss rate: 2.19%
-- Flow 2:
Average throughput: 27.43 Mbit/s
95th percentile per-packet one-way delay: 48.430 ms
Loss rate: 2.44%
-- Flow 3:
Average throughput: 21.07 Mbit/s
95th percentile per-packet one-way delay: 48.225 ms
Loss rate: 2.94%
Run 2: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 69.78 Mbit/s)
- Flow 1 egress (mean 68.15 Mbit/s)
- Flow 2 ingress (mean 28.15 Mbit/s)
- Flow 2 egress (mean 27.43 Mbit/s)
- Flow 3 ingress (mean 21.71 Mbit/s)
- Flow 3 egress (mean 21.07 Mbit/s)
Run 3: Statistics of QUIC Cubic

Start at: 2018-03-06 16:18:29
End at: 2018-03-06 16:18:59
Local clock offset: 4.31 ms
Remote clock offset: 20.602 ms

# Below is generated by plot.py at 2018-03-06 19:32:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.03 Mbit/s
  95th percentile per-packet one-way delay: 47.335 ms
  Loss rate: 2.10%
-- Flow 1:
  Average throughput: 56.23 Mbit/s
  95th percentile per-packet one-way delay: 47.056 ms
  Loss rate: 1.58%
-- Flow 2:
  Average throughput: 37.86 Mbit/s
  95th percentile per-packet one-way delay: 47.619 ms
  Loss rate: 2.81%
-- Flow 3:
  Average throughput: 26.96 Mbit/s
  95th percentile per-packet one-way delay: 47.692 ms
  Loss rate: 3.37%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-03-06 16:39:48
End at: 2018-03-06 16:40:18
Local clock offset: 3.101 ms
Remote clock offset: 21.421 ms

# Below is generated by plot.py at 2018-03-06 19:32:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.66 Mbit/s
95th percentile per-packet one-way delay: 45.372 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 59.09 Mbit/s
95th percentile per-packet one-way delay: 45.173 ms
Loss rate: 1.65%
-- Flow 2:
Average throughput: 40.75 Mbit/s
95th percentile per-packet one-way delay: 45.626 ms
Loss rate: 2.74%
-- Flow 3:
Average throughput: 13.75 Mbit/s
95th percentile per-packet one-way delay: 45.509 ms
Loss rate: 2.60%
Run 4: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 60.15 Mbit/s)
- Flow 1 egress (mean 59.09 Mbit/s)
- Flow 2 ingress (mean 41.97 Mbit/s)
- Flow 2 egress (mean 40.75 Mbit/s)
- Flow 3 ingress (mean 14.12 Mbit/s)
- Flow 3 egress (mean 13.75 Mbit/s)

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

- Flow 1 (95th percentile 45.17 ms)
- Flow 2 (95th percentile 45.63 ms)
- Flow 3 (95th percentile 45.51 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-03-06 17:00:56  
End at: 2018-03-06 17:01:26  
Local clock offset: 1.195 ms  
Remote clock offset: 5.859 ms

# Below is generated by plot.py at 2018-03-06 19:33:01  
# Datalink statistics

-- Total of 3 flows:
Average throughput: 94.04 Mbit/s  
95th percentile per-packet one-way delay: 50.941 ms  
Loss rate: 2.22%

-- Flow 1:
Average throughput: 62.45 Mbit/s  
95th percentile per-packet one-way delay: 50.550 ms  
Loss rate: 2.18%

-- Flow 2:
Average throughput: 35.37 Mbit/s  
95th percentile per-packet one-way delay: 51.183 ms  
Loss rate: 2.34%

-- Flow 3:
Average throughput: 24.84 Mbit/s  
95th percentile per-packet one-way delay: 51.692 ms  
Loss rate: 2.14%
Run 6: Statistics of QUIC Cubic

Start at: 2018-03-06 17:22:07
End at: 2018-03-06 17:22:37
Local clock offset: 4.139 ms
Remote clock offset: -7.625 ms

# Below is generated by plot.py at 2018-03-06 19:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.98 Mbit/s
95th percentile per-packet one-way delay: 48.526 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 56.13 Mbit/s
95th percentile per-packet one-way delay: 48.110 ms
Loss rate: 1.85%
-- Flow 2:
Average throughput: 38.42 Mbit/s
95th percentile per-packet one-way delay: 48.865 ms
Loss rate: 3.18%
-- Flow 3:
Average throughput: 25.51 Mbit/s
95th percentile per-packet one-way delay: 48.806 ms
Loss rate: 3.05%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-03-06 17:43:34
End at: 2018-03-06 17:44:04
Local clock offset: 2.117 ms
Remote clock offset: -15.616 ms

# Below is generated by plot.py at 2018-03-06 19:33:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.00 Mbit/s
95th percentile per-packet one-way delay: 50.295 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 60.01 Mbit/s
95th percentile per-packet one-way delay: 50.153 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 32.95 Mbit/s
95th percentile per-packet one-way delay: 50.533 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 24.89 Mbit/s
95th percentile per-packet one-way delay: 50.489 ms
Loss rate: 3.34%
Run 7: Report of QUIC Cubic — Data Link

![Throughput and Delay Graphs]

**Throughput Graph**: Shows the throughput over time for three flows (Flow 1, Flow 2, Flow 3) with their respective ingress and egress rates.

**Delay Graph**: Displays the per-packet one-way delay over time for the same flows, highlighting the variability in delay across different time periods.

Legend:
- Flow 1 ingress (mean 61.18 Mbit/s)
- Flow 1 egress (mean 60.01 Mbit/s)
- Flow 2 ingress (mean 33.94 Mbit/s)
- Flow 2 egress (mean 32.95 Mbit/s)
- Flow 3 ingress (mean 25.76 Mbit/s)
- Flow 3 egress (mean 24.89 Mbit/s)

Legend for delay:
- Flow 1 (95th percentile 50.15 ms)
- Flow 2 (95th percentile 50.53 ms)
- Flow 3 (95th percentile 50.49 ms)
Run 8: Statistics of QUIC Cubic

Start at: 2018-03-06 18:04:51
End at: 2018-03-06 18:05:21
Local clock offset: 6.403 ms
Remote clock offset: -11.433 ms

# Below is generated by plot.py at 2018-03-06 19:33:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.00 Mbit/s
  95th percentile per-packet one-way delay: 45.157 ms
  Loss rate: 1.76%
-- Flow 1:
  Average throughput: 66.95 Mbit/s
  95th percentile per-packet one-way delay: 45.055 ms
  Loss rate: 1.47%
-- Flow 2:
  Average throughput: 28.84 Mbit/s
  95th percentile per-packet one-way delay: 45.435 ms
  Loss rate: 2.44%
-- Flow 3:
  Average throughput: 18.24 Mbit/s
  95th percentile per-packet one-way delay: 45.155 ms
  Loss rate: 2.82%
Run 8: Report of QUIC Cubic — Data Link

![Throughput Graph](chart1)

![Per-packet round-trip time Graph](chart2)
Run 9: Statistics of QUIC Cubic

Start at: 2018-03-06 18:26:18
End at: 2018-03-06 18:26:48
Local clock offset: 4.884 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-03-06 19:34:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.99 Mbit/s
95th percentile per-packet one-way delay: 48.536 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 56.53 Mbit/s
95th percentile per-packet one-way delay: 48.298 ms
Loss rate: 1.91%
-- Flow 2:
Average throughput: 38.53 Mbit/s
95th percentile per-packet one-way delay: 48.739 ms
Loss rate: 3.21%
-- Flow 3:
Average throughput: 24.20 Mbit/s
95th percentile per-packet one-way delay: 49.017 ms
Loss rate: 3.04%
Run 9: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 57.64 Mbps)
- Flow 1 egress (mean 56.53 Mbps)
- Flow 2 ingress (mean 39.81 Mbps)
- Flow 2 egress (mean 38.53 Mbps)
- Flow 3 ingress (mean 24.94 Mbps)
- Flow 3 egress (mean 24.20 Mbps)

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

- Flow 1 (95th percentile 48.30 ms)
- Flow 2 (95th percentile 48.74 ms)
- Flow 3 (95th percentile 49.02 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-06 18:47:40
End at: 2018-03-06 18:48:10
Local clock offset: 5.666 ms
Remote clock offset: 16.842 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.69 Mbit/s
95th percentile per-packet one-way delay: 50.014 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 65.01 Mbit/s
95th percentile per-packet one-way delay: 50.030 ms
Loss rate: 2.09%
-- Flow 2:
Average throughput: 34.37 Mbit/s
95th percentile per-packet one-way delay: 49.993 ms
Loss rate: 2.65%
-- Flow 3:
Average throughput: 17.95 Mbit/s
95th percentile per-packet one-way delay: 49.955 ms
Loss rate: 3.33%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-03-06 15:34:33
End at: 2018-03-06 15:35:03
Local clock offset: 6.113 ms
Remote clock offset: 6.805 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 9.817 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 9.812 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 9.772 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 9.928 ms
  Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-03-06 15:55:57
End at: 2018-03-06 15:56:27
Local clock offset: 3.863 ms
Remote clock offset: 16.894 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 13.592 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 13.611 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 13.508 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 13.628 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-03-06 16:17:24
End at: 2018-03-06 16:17:54
Local clock offset: 4.574 ms
Remote clock offset: 21.221 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 11.404 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 11.401 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 11.444 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 11.388 ms
  Loss rate: 0.00%
Run 4: Statistics of SCReAM

Start at: 2018-03-06 16:38:43
End at: 2018-03-06 16:39:13
Local clock offset: 3.363 ms
Remote clock offset: 24.469 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 12.866 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 12.740 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 12.857 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 13.553 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

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

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

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Run 5: Statistics of SCReAM

Start at: 2018-03-06 16:59:50
End at: 2018-03-06 17:00:20
Local clock offset: 0.77 ms
Remote clock offset: 7.994 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 15.416 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 15.372 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 15.409 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 15.757 ms
Loss rate: 0.00%
Run 6: Statistics of SCReAM

Start at: 2018-03-06 17:21:02
End at: 2018-03-06 17:21:32
Local clock offset: 3.213 ms
Remote clock offset: -8.704 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 11.187 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 11.137 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 11.065 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 11.489 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link

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

- **Graph 1:**
  - Y-axis: Throughput (Mbps)
  - X-axis: Time (s)
  - Lines indicating different flows with their respective ingress and egress mean throughputs.

- **Graph 2:**
  - Y-axis: Per-packet one-way delay (ms)
  - X-axis: Time (s)
  - Symbols indicating 95th percentile delay for each flow.

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Run 7: Statistics of SCReAM

Start at: 2018-03-06 17:42:29
End at: 2018-03-06 17:42:59
Local clock offset: 4.569 ms
Remote clock offset: -15.571 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 10.597 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 10.519 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 10.462 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 10.919 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

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

Throughput graph:
- Flow 1 ingress (mean 0.21 Mb/s)
- Flow 1 egress (mean 0.21 Mb/s)
- Flow 2 ingress (mean 0.21 Mb/s)
- Flow 2 egress (mean 0.21 Mb/s)
- Flow 3 ingress (mean 0.22 Mb/s)
- Flow 3 egress (mean 0.22 Mb/s)

Packet loss graph:
- Flow 1 (95th percentile 10.52 ms)
- Flow 2 (95th percentile 10.46 ms)
- Flow 3 (95th percentile 10.92 ms)

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Run 8: Statistics of SCReAM

Start at: 2018-03-06 18:03:46
End at: 2018-03-06 18:04:16
Local clock offset: 4.399 ms
Remote clock offset: -12.655 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 10.857 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 10.835 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 10.808 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.020 ms
Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

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

1. Throughput (Mbps):
   - Flow 1 ingress: Mean 0.21 Mbps
   - Flow 1 egress: Mean 0.21 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

2. Per-packet one-way delay (ms):
   - Flow 1 (95th percentile): 10.84 ms
   - Flow 2 (95th percentile): 10.81 ms
   - Flow 3 (95th percentile): 11.02 ms
Run 9: Statistics of SCReAM

Start at: 2018-03-06 18:25:13
End at: 2018-03-06 18:25:43
Local clock offset: 3.243 ms
Remote clock offset: 1.334 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 14.900 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 14.793 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 14.788 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 15.151 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-03-06 18:46:35
End at: 2018-03-06 18:47:05
Local clock offset: 5.86 ms
Remote clock offset: 14.957 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 11.507 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 11.481 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 11.742 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 11.291 ms
  Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

![Graph of throughput and per-packet one-way delay over time for three flows: Flow 1, Flow 2, and Flow 3, showing mean throughput and 95th percentile delay.]
Run 1: Statistics of WebRTC media

Start at: 2018-03-06 15:27:35
End at: 2018-03-06 15:28:05
Local clock offset: 7.58 ms
Remote clock offset: 6.028 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.49 Mbit/s
  95th percentile per-packet one-way delay: 10.499 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 10.466 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.50 Mbit/s
  95th percentile per-packet one-way delay: 10.233 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.65 Mbit/s
  95th percentile per-packet one-way delay: 11.038 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

![Graph 1: Throughput vs Time]
Flow 1 ingress (mean 2.34 Mbit/s), Flow 1 egress (mean 2.34 Mbit/s), Flow 2 ingress (mean 1.50 Mbit/s), Flow 2 egress (mean 1.50 Mbit/s), Flow 3 ingress (mean 0.65 Mbit/s), Flow 3 egress (mean 0.65 Mbit/s)

![Graph 2: Per-packet one-way delay vs Time]
Flow 1 (95th percentile 10.47 ms), Flow 2 (95th percentile 10.23 ms), Flow 3 (95th percentile 11.04 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-03-06 15:48:53
End at: 2018-03-06 15:49:23
Local clock offset: 6.415 ms
Remote clock offset: 12.323 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.48 Mbit/s
  95th percentile per-packet one-way delay: 12.176 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: 12.150 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.51 Mbit/s
  95th percentile per-packet one-way delay: 12.448 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.63 Mbit/s
  95th percentile per-packet one-way delay: 12.082 ms
  Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.35 Mbps)  
Flow 1 egress (mean 2.35 Mbps)  
Flow 2 ingress (mean 1.51 Mbps)  
Flow 2 egress (mean 1.51 Mbps)  
Flow 3 ingress (mean 0.63 Mbps)  
Flow 3 egress (mean 0.63 Mbps)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 12.15 ms)  
Flow 2 (95th percentile 12.45 ms)  
Flow 3 (95th percentile 12.08 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-03-06 16:10:10
End at: 2018-03-06 16:10:40
Local clock offset: 7.058 ms
Remote clock offset: 19.746 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 11.674 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 11.315 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 11.074 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 13.562 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.36 Mbit/s)
- Flow 1 egress (mean 2.36 Mbit/s)
- Flow 2 ingress (mean 1.51 Mbit/s)
- Flow 2 egress (mean 1.51 Mbit/s)
- Flow 3 ingress (mean 0.64 Mbit/s)
- Flow 3 egress (mean 0.64 Mbit/s)

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

- Flow 1 (95th percentile 11.31 ms)
- Flow 2 (95th percentile 11.07 ms)
- Flow 3 (95th percentile 13.56 ms)
Run 4: Statistics of WebRTC media

Start at: 2018-03-06 16:31:41
End at: 2018-03-06 16:32:11
Local clock offset: 3.607 ms
Remote clock offset: 23.243 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.48 Mbit/s
  95th percentile per-packet one-way delay: 13.829 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.34 Mbit/s
  95th percentile per-packet one-way delay: 13.612 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.50 Mbit/s
  95th percentile per-packet one-way delay: 13.544 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.65 Mbit/s
  95th percentile per-packet one-way delay: 14.962 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-03-06 16:52:48
End at: 2018-03-06 16:53:18
Local clock offset: 5.732 ms
Remote clock offset: 22.237 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.49 Mbit/s
  95th percentile per-packet one-way delay: 12.493 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: 11.973 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.51 Mbit/s
  95th percentile per-packet one-way delay: 12.556 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.65 Mbit/s
  95th percentile per-packet one-way delay: 13.066 ms
  Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 2.35 Mbps)
- Flow 1 egress (mean 2.35 Mbps)
- Flow 2 ingress (mean 1.51 Mbps)
- Flow 2 egress (mean 1.51 Mbps)
- Flow 3 ingress (mean 0.65 Mbps)
- Flow 3 egress (mean 0.65 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 11.97 ms)
- Flow 2 (95th percentile 12.56 ms)
- Flow 3 (95th percentile 13.07 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-03-06 17:14:02
End at: 2018-03-06 17:14:32
Local clock offset: 4.212 ms
Remote clock offset: -5.201 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.49 Mbit/s
  95th percentile per-packet one-way delay: 13.110 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: 13.018 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.50 Mbit/s
  95th percentile per-packet one-way delay: 12.909 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.64 Mbit/s
  95th percentile per-packet one-way delay: 13.928 ms
  Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

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

<table>
<thead>
<tr>
<th>Throughput (Mb/s)</th>
<th>Time (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
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<td>2.5</td>
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<td>20</td>
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<tr>
<td>0.5</td>
<td>25</td>
</tr>
<tr>
<td>0.0</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Packet delay (ms)</th>
<th>Time (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>0</td>
</tr>
<tr>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>20</td>
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<td>18</td>
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<tr>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>14</td>
<td>25</td>
</tr>
<tr>
<td>12</td>
<td>30</td>
</tr>
</tbody>
</table>

Flow 1 (95th percentile 13.02 ms)  Flow 2 (95th percentile 12.91 ms)  Flow 3 (95th percentile 11.93 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-03-06 17:35:21
End at: 2018-03-06 17:35:51
Local clock offset: 2.921 ms
Remote clock offset: -13.268 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.48 Mbit/s
  95th percentile per-packet one-way delay: 14.442 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: 14.268 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.50 Mbit/s
  95th percentile per-packet one-way delay: 13.983 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.64 Mbit/s
  95th percentile per-packet one-way delay: 15.808 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

![Graph showing WebRTC media data](image1)

![Graph showing WebRTC media data](image2)
Run 8: Statistics of WebRTC media

Start at: 2018-03-06 17:56:44
End at: 2018-03-06 17:57:14
Local clock offset: 2.366 ms
Remote clock offset: -20.14 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.48 Mbit/s
  95th percentile per-packet one-way delay: 16.083 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.35 Mbit/s
  95th percentile per-packet one-way delay: 15.507 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.51 Mbit/s
  95th percentile per-packet one-way delay: 15.936 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.63 Mbit/s
  95th percentile per-packet one-way delay: 18.097 ms
  Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

The first graph shows the throughput over time for different flows, with labels indicating the mean throughput for each flow. The second graph depicts the per-packet one-way delay over time, with markers indicating the 95th percentile delay for each flow.
Run 9: Statistics of WebRTC media

Start at: 2018-03-06 18:18:07
End at: 2018-03-06 18:18:37
Local clock offset: 2.577 ms
Remote clock offset: -1.082 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 4.49 Mbit/s
  95th percentile per-packet one-way delay: 17.637 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.36 Mbit/s
  95th percentile per-packet one-way delay: 17.543 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.50 Mbit/s
  95th percentile per-packet one-way delay: 17.053 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.63 Mbit/s
  95th percentile per-packet one-way delay: 18.688 ms
  Loss rate: 0.00%
Run 9: Report of WebRTC media — Data Link

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 2.36 Mbit/s)
- Flow 1 egress (mean 2.36 Mbit/s)
- Flow 2 ingress (mean 1.50 Mbit/s)
- Flow 2 egress (mean 1.50 Mbit/s)
- Flow 3 ingress (mean 0.63 Mbit/s)
- Flow 3 egress (mean 0.63 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

- Flow 1 (95th percentile 17.54 ms)
- Flow 2 (95th percentile 17.05 ms)
- Flow 3 (95th percentile 18.69 ms)
Run 10: Statistics of WebRTC media

Start at: 2018-03-06 18:39:28
End at: 2018-03-06 18:39:58
Local clock offset: 5.497 ms
Remote clock offset: 8.034 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 12.373 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 12.141 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 12.945 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 12.388 ms
Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

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

(continued on next page)
Run 1: Statistics of Sprout

Start at: 2018-03-06 15:38:01
End at: 2018-03-06 15:38:31
Local clock offset: 7.054 ms
Remote clock offset: 7.514 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.87 Mbit/s
95th percentile per-packet one-way delay: 18.438 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.58 Mbit/s
95th percentile per-packet one-way delay: 17.738 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.49 Mbit/s
95th percentile per-packet one-way delay: 19.779 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.22 Mbit/s
95th percentile per-packet one-way delay: 17.189 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

![Graph 1: Throughput (Mbps)](image1)
- Flow 1 ingress (mean 24.59 Mbps)
- Flow 1 egress (mean 24.58 Mbps)
- Flow 2 ingress (mean 24.49 Mbps)
- Flow 2 egress (mean 24.47 Mbps)
- Flow 3 ingress (mean 24.24 Mbps)
- Flow 3 egress (mean 24.22 Mbps)

![Graph 2: Per-packet one-way delay (ms)](image2)
- Flow 1 (95th percentile 17.74 ms)
- Flow 2 (95th percentile 19.78 ms)
- Flow 3 (95th percentile 17.19 ms)
Run 2: Statistics of Sprout

Start at: 2018-03-06 15:59:21
End at: 2018-03-06 15:59:51
Local clock offset: 3.921 ms
Remote clock offset: 15.694 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.90 Mbit/s
95th percentile per-packet one-way delay: 19.481 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 24.62 Mbit/s
95th percentile per-packet one-way delay: 19.703 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 18.913 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.35 Mbit/s
95th percentile per-packet one-way delay: 19.733 ms
Loss rate: 0.22%
Run 2: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 24.63 Mbit/s) vs. Flow 1 egress (mean 24.62 Mbit/s)
- Flow 2 ingress (mean 24.41 Mbit/s) vs. Flow 2 egress (mean 24.40 Mbit/s)
- Flow 3 ingress (mean 24.42 Mbit/s) vs. Flow 3 egress (mean 24.35 Mbit/s)
Run 3: Statistics of Sprout

Start at: 2018-03-06 16:20:50
End at: 2018-03-06 16:21:20
Local clock offset: 1.692 ms
Remote clock offset: 21.641 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.67 Mbit/s
  95th percentile per-packet one-way delay: 23.131 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.51 Mbit/s
  95th percentile per-packet one-way delay: 22.731 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.43 Mbit/s
  95th percentile per-packet one-way delay: 23.952 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 23.91 Mbit/s
  95th percentile per-packet one-way delay: 22.004 ms
  Loss rate: 0.03%
Run 3: Report of Sprout — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 24.52 Mbps)
  - Flow 1 egress (mean 24.51 Mbps)
  - Flow 2 ingress (mean 24.44 Mbps)
  - Flow 2 egress (mean 24.43 Mbps)
  - Flow 3 ingress (mean 23.92 Mbps)
  - Flow 3 egress (mean 23.91 Mbps)

- **Per-packet round-trip delay (ms)**
  - Flow 1 (95th percentile 22.73 ms)
  - Flow 2 (95th percentile 23.95 ms)
  - Flow 3 (95th percentile 22.00 ms)
Run 4: Statistics of Sprout

Start at: 2018-03-06 16:42:09
End at: 2018-03-06 16:42:39
Local clock offset: 3.931 ms
Remote clock offset: 24.691 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.72 Mbit/s
  95th percentile per-packet one-way delay: 20.365 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.54 Mbit/s
  95th percentile per-packet one-way delay: 20.270 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.42 Mbit/s
  95th percentile per-packet one-way delay: 20.243 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.03 Mbit/s
  95th percentile per-packet one-way delay: 20.804 ms
  Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

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

*Flow 1 ingress (mean 24.54 Mbps)  Flow 1 egress (mean 24.54 Mbps)  Flow 2 ingress (mean 24.43 Mbps)  Flow 2 egress (mean 24.42 Mbps)  Flow 3 ingress (mean 24.04 Mbps)  Flow 3 egress (mean 24.03 Mbps)*

![Graph of Packet round-trip delay (ms)](image2)

*Flow 1 (95th percentile 20.27 ms)  Flow 2 (95th percentile 20.24 ms)  Flow 3 (95th percentile 20.80 ms)*

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Run 5: Statistics of Sprout

Start at: 2018-03-06 17:03:14
End at: 2018-03-06 17:03:44
Local clock offset: 2.89 ms
Remote clock offset: 4.095 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.76 Mbit/s
95th percentile per-packet one-way delay: 22.549 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.59 Mbit/s
95th percentile per-packet one-way delay: 22.756 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 22.954 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.06 Mbit/s
95th percentile per-packet one-way delay: 18.907 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

![Graph 1: Throughput (Mbps)](chart1)

- Flow 1 Ingress (mean 24.60 Mbps)
- Flow 1 Egress (mean 24.59 Mbps)
- Flow 2 Ingress (mean 24.41 Mbps)
- Flow 2 Egress (mean 24.40 Mbps)
- Flow 3 Ingress (mean 24.07 Mbps)
- Flow 3 Egress (mean 24.06 Mbps)

![Graph 2: Per-packet round trip delay (ms)](chart2)

- Flow 1 (95th percentile 22.76 ms)
- Flow 2 (95th percentile 22.95 ms)
- Flow 3 (95th percentile 18.91 ms)
Run 6: Statistics of Sprout

Start at: 2018-03-06 17:24:32
End at: 2018-03-06 17:25:02
Local clock offset: 2.218 ms
Remote clock offset: -9.007 ms

# Below is generated by plot.py at 2018-03-06 19:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.84 Mbit/s
95th percentile per-packet one-way delay: 22.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.62 Mbit/s
95th percentile per-packet one-way delay: 21.441 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.46 Mbit/s
95th percentile per-packet one-way delay: 23.099 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 23.124 ms
Loss rate: 0.00%
Run 6: Report of Sprout — Data Link

---

**Throughput (Mbit/s)**

- **Flow 1 ingress** (mean 24.63 Mbit/s)
- **Flow 1 egress** (mean 24.62 Mbit/s)
- **Flow 2 ingress** (mean 24.47 Mbit/s)
- **Flow 2 egress** (mean 24.46 Mbit/s)
- **Flow 3 ingress** (mean 24.06 Mbit/s)
- **Flow 3 egress** (mean 24.05 Mbit/s)

---

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

- **Flow 1 (95th percentile 21.44 ms)**
- **Flow 2 (95th percentile 23.10 ms)**
- **Flow 3 (95th percentile 23.12 ms)**
Run 7: Statistics of Sprout

Start at: 2018-03-06 17:45:53
End at: 2018-03-06 17:46:23
Local clock offset: 4.274 ms
Remote clock offset: -16.3 ms

# Below is generated by plot.py at 2018-03-06 19:34:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.68 Mbit/s
95th percentile per-packet one-way delay: 19.597 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 18.623 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 20.764 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.41 Mbit/s
95th percentile per-packet one-way delay: 19.509 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-03-06 18:07:15
End at: 2018-03-06 18:07:45
Local clock offset: 3.359 ms
Remote clock offset: -8.072 ms

# Below is generated by plot.py at 2018-03-06 19:34:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.82 Mbit/s
95th percentile per-packet one-way delay: 20.743 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.58 Mbit/s
95th percentile per-packet one-way delay: 20.067 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 21.590 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.25 Mbit/s
95th percentile per-packet one-way delay: 20.824 ms
Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

![Data Link Diagram]

- **Flow 1 Ingress** (mean 24.59 Mbit/s)
- **Flow 1 Egress** (mean 24.58 Mbit/s)
- **Flow 2 Ingress** (mean 24.40 Mbit/s)
- **Flow 2 Egress** (mean 24.40 Mbit/s)
- **Flow 3 Ingress** (mean 24.25 Mbit/s)
- **Flow 3 Egress** (mean 24.25 Mbit/s)

![Packet Delay Diagram]

- **Flow 1 95th percentile 20.07 ms**
- **Flow 2 95th percentile 21.59 ms**
- **Flow 3 95th percentile 20.82 ms**
Run 9: Statistics of Sprout

Start at: 2018-03-06 18:28:38
End at: 2018-03-06 18:29:08
Local clock offset: 4.944 ms
Remote clock offset: 1.048 ms

# Below is generated by plot.py at 2018-03-06 19:34:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 48.68 Mbit/s
  95th percentile per-packet one-way delay: 21.580 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.43 Mbit/s
  95th percentile per-packet one-way delay: 21.670 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.38 Mbit/s
  95th percentile per-packet one-way delay: 21.146 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.33 Mbit/s
  95th percentile per-packet one-way delay: 21.868 ms
  Loss rate: 0.00%
Run 10: Statistics of Sprout

Start at: 2018-03-06 18:50:07  
End at: 2018-03-06 18:50:37  
Local clock offset: 6.283 ms  
Remote clock offset: 16.813 ms

# Below is generated by plot.py at 2018-03-06 19:34:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.80 Mbit/s
95th percentile per-packet one-way delay: 19.700 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 18.973 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.45 Mbit/s
95th percentile per-packet one-way delay: 19.985 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.28 Mbit/s
95th percentile per-packet one-way delay: 20.706 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-06 15:19:03
End at: 2018-03-06 15:19:33
Local clock offset: 5.162 ms
Remote clock offset: 3.192 ms

# Below is generated by plot.py at 2018-03-06 19:36:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.27 Mbit/s
  95th percentile per-packet one-way delay: 42.795 ms
  Loss rate: 7.38%
-- Flow 1:
  Average throughput: 57.18 Mbit/s
  95th percentile per-packet one-way delay: 40.055 ms
  Loss rate: 4.20%
-- Flow 2:
  Average throughput: 39.85 Mbit/s
  95th percentile per-packet one-way delay: 43.553 ms
  Loss rate: 8.62%
-- Flow 3:
  Average throughput: 31.83 Mbit/s
  95th percentile per-packet one-way delay: 46.638 ms
  Loss rate: 19.17%
Run 1: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 59.70 Mbps/s)
- Flow 1 egress (mean 57.18 Mbps/s)
- Flow 2 ingress (mean 43.63 Mbps/s)
- Flow 2 egress (mean 39.85 Mbps/s)
- Flow 3 ingress (mean 39.34 Mbps/s)
- Flow 3 egress (mean 31.63 Mbps/s)

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

- Flow 1 (95th percentile 40.05 ms)
- Flow 2 (95th percentile 43.55 ms)
- Flow 3 (95th percentile 46.64 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-06 15:40:23
End at: 2018-03-06 15:40:53
Local clock offset: 3.735 ms
Remote clock offset: 8.267 ms

# Below is generated by plot.py at 2018-03-06 19:36:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.00 Mbit/s
95th percentile per-packet one-way delay: 37.345 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 47.17 Mbit/s
95th percentile per-packet one-way delay: 34.472 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 46.25 Mbit/s
95th percentile per-packet one-way delay: 38.880 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 45.27 Mbit/s
95th percentile per-packet one-way delay: 37.892 ms
Loss rate: 0.19%
Run 2: Report of TaoVA-100x — Data Link

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

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

Flow 1 ingress (mean 47.23 Mbit/s)  Flow 1 egress (mean 47.17 Mbit/s)
Flow 2 ingress (mean 46.34 Mbit/s)  Flow 2 egress (mean 46.25 Mbit/s)
Flow 3 ingress (mean 45.39 Mbit/s)  Flow 3 egress (mean 45.27 Mbit/s)

Per packet one way delay (ms)

Flow 1 (95th percentile 34.47 ms)  Flow 2 (95th percentile 38.88 ms)  Flow 3 (95th percentile 37.89 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-06 16:01:40
End at: 2018-03-06 16:02:10
Local clock offset: 7.008 ms
Remote clock offset: 17.788 ms

# Below is generated by plot.py at 2018-03-06 19:36:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.82 Mbit/s
95th percentile per-packet one-way delay: 41.438 ms
Loss rate: 7.56%
-- Flow 1:
Average throughput: 56.84 Mbit/s
95th percentile per-packet one-way delay: 38.102 ms
Loss rate: 4.31%
-- Flow 2:
Average throughput: 39.72 Mbit/s
95th percentile per-packet one-way delay: 42.356 ms
Loss rate: 8.88%
-- Flow 3:
Average throughput: 31.70 Mbit/s
95th percentile per-packet one-way delay: 45.243 ms
Loss rate: 19.40%
Run 3: Report of TaoVA-100x — Data Link

**Throughput (Mbps)**

- **Flow 1 ingress** (mean 59.43 Mbps)
- **Flow 1 egress** (mean 56.84 Mbps)
- **Flow 2 ingress** (mean 43.64 Mbps)
- **Flow 2 egress** (mean 39.72 Mbps)
- **Flow 3 ingress** (mean 39.38 Mbps)
- **Flow 3 egress** (mean 31.70 Mbps)

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

- **Flow 1** (95th percentile 38.10 ms)
- **Flow 2** (95th percentile 42.36 ms)
- **Flow 3** (95th percentile 45.24 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-03-06 16:23:11
End at: 2018-03-06 16:23:41
Local clock offset: 5.297 ms
Remote clock offset: 21.581 ms

# Below is generated by plot.py at 2018-03-06 19:36:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.32 Mbit/s
  95th percentile per-packet one-way delay: 42.165 ms
  Loss rate: 7.47%
-- Flow 1:
  Average throughput: 56.42 Mbit/s
  95th percentile per-packet one-way delay: 38.563 ms
  Loss rate: 4.26%
-- Flow 2:
  Average throughput: 39.63 Mbit/s
  95th percentile per-packet one-way delay: 42.968 ms
  Loss rate: 8.70%
-- Flow 3:
  Average throughput: 31.74 Mbit/s
  95th percentile per-packet one-way delay: 46.052 ms
  Loss rate: 19.29%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-03-06 16:44:28
End at: 2018-03-06 16:44:58
Local clock offset: 4.413 ms
Remote clock offset: 25.886 ms

# Below is generated by plot.py at 2018-03-06 19:37:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 42.839 ms
Loss rate: 7.32%
-- Flow 1:
Average throughput: 56.72 Mbit/s
95th percentile per-packet one-way delay: 40.165 ms
Loss rate: 4.17%
-- Flow 2:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 43.689 ms
Loss rate: 8.55%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 46.524 ms
Loss rate: 18.91%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Start at: 2018-03-06 17:05:32
End at: 2018-03-06 17:06:02
Local clock offset: 6.011 ms
Remote clock offset: 0.707 ms

# Below is generated by plot.py at 2018-03-06 19:37:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 41.490 ms
Loss rate: 7.61%
-- Flow 1:
Average throughput: 56.15 Mbit/s
95th percentile per-packet one-way delay: 37.899 ms
Loss rate: 4.35%
-- Flow 2:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 42.356 ms
Loss rate: 8.79%
-- Flow 3:
Average throughput: 31.64 Mbit/s
95th percentile per-packet one-way delay: 45.270 ms
Loss rate: 19.66%
Run 6: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 58.72 Mbit/s)
- Flow 1 egress (mean 56.15 Mbit/s)
- Flow 2 ingress (mean 43.70 Mbit/s)
- Flow 2 egress (mean 39.84 Mbit/s)
- Flow 3 ingress (mean 39.43 Mbit/s)
- Flow 3 egress (mean 31.64 Mbit/s)

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

- Flow 1 (95th percentile 37.90 ms)
- Flow 2 (95th percentile 42.36 ms)
- Flow 3 (95th percentile 45.27 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-06 17:26:53
End at: 2018-03-06 17:27:23
Local clock offset: 2.419 ms
Remote clock offset: -10.049 ms

# Below is generated by plot.py at 2018-03-06 19:37:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.30 Mbit/s
95th percentile per-packet one-way delay: 45.007 ms
Loss rate: 7.47%
-- Flow 1:
Average throughput: 56.10 Mbit/s
95th percentile per-packet one-way delay: 41.694 ms
Loss rate: 4.28%
-- Flow 2:
Average throughput: 39.98 Mbit/s
95th percentile per-packet one-way delay: 45.778 ms
Loss rate: 8.62%
-- Flow 3:
Average throughput: 31.83 Mbit/s
95th percentile per-packet one-way delay: 48.802 ms
Loss rate: 19.16%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-03-06 17:48:12
End at: 2018-03-06 17:48:42
Local clock offset: 2.605 ms
Remote clock offset: -17.888 ms

# Below is generated by plot.py at 2018-03-06 19:37:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.09 Mbit/s
95th percentile per-packet one-way delay: 36.586 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 47.29 Mbit/s
95th percentile per-packet one-way delay: 33.267 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 46.46 Mbit/s
95th percentile per-packet one-way delay: 37.867 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 44.78 Mbit/s
95th percentile per-packet one-way delay: 38.159 ms
Loss rate: 0.22%
Run 8: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress** (mean 47.35 Mbit/s)
- **Flow 1 egress** (mean 47.29 Mbit/s)
- **Flow 2 ingress** (mean 46.58 Mbit/s)
- **Flow 2 egress** (mean 46.46 Mbit/s)
- **Flow 3 ingress** (mean 44.89 Mbit/s)
- **Flow 3 egress** (mean 44.78 Mbit/s)

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

- **Flow 1** (95th percentile 33.27 ms)
- **Flow 2** (95th percentile 37.87 ms)
- **Flow 3** (95th percentile 38.16 ms)
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-06 18:09:39
End at: 2018-03-06 18:10:09
Local clock offset: 3.49 ms
Remote clock offset: -5.521 ms

# Below is generated by plot.py at 2018-03-06 19:39:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.80 Mbit/s
95th percentile per-packet one-way delay: 44.652 ms
Loss rate: 7.70%
-- Flow 1:
Average throughput: 54.64 Mbit/s
95th percentile per-packet one-way delay: 41.242 ms
Loss rate: 4.48%
-- Flow 2:
Average throughput: 39.98 Mbit/s
95th percentile per-packet one-way delay: 45.322 ms
Loss rate: 8.73%
-- Flow 3:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 48.395 ms
Loss rate: 19.49%
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-06 18:30:57
End at: 2018-03-06 18:31:27
Local clock offset: 4.882 ms
Remote clock offset: 1.116 ms

# Below is generated by plot.py at 2018-03-06 19:39:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.03 Mbit/s
95th percentile per-packet one-way delay: 44.690 ms
Loss rate: 7.40%
-- Flow 1:
Average throughput: 56.21 Mbit/s
95th percentile per-packet one-way delay: 41.366 ms
Loss rate: 4.22%
-- Flow 2:
Average throughput: 39.43 Mbit/s
95th percentile per-packet one-way delay: 45.533 ms
Loss rate: 8.64%
-- Flow 3:
Average throughput: 31.81 Mbit/s
95th percentile per-packet one-way delay: 48.394 ms
Loss rate: 18.98%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-03-06 15:26:24
End at: 2018-03-06 15:26:54
Local clock offset: 0.26 ms
Remote clock offset: 4.038 ms

# Below is generated by plot.py at 2018-03-06 19:39:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.99 Mbit/s
95th percentile per-packet one-way delay: 23.443 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.84 Mbit/s
95th percentile per-packet one-way delay: 24.945 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.45 Mbit/s
95th percentile per-packet one-way delay: 18.713 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.79 Mbit/s
95th percentile per-packet one-way delay: 17.577 ms
Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-03-06 15:47:43
End at: 2018-03-06 15:48:13
Local clock offset: 2.725 ms
Remote clock offset: 12.07 ms

# Below is generated by plot.py at 2018-03-06 19:39:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.84 Mbit/s
95th percentile per-packet one-way delay: 22.877 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.79 Mbit/s
95th percentile per-packet one-way delay: 24.724 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 17.093 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.54 Mbit/s
95th percentile per-packet one-way delay: 17.305 ms
Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-03-06 16:08:59
End at: 2018-03-06 16:09:29
Local clock offset: 3.176 ms
Remote clock offset: 18.571 ms

# Below is generated by plot.py at 2018-03-06 19:39:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.40 Mbit/s
95th percentile per-packet one-way delay: 22.208 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 56.90 Mbit/s
95th percentile per-packet one-way delay: 22.509 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 40.42 Mbit/s
95th percentile per-packet one-way delay: 19.945 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.91 Mbit/s
95th percentile per-packet one-way delay: 24.261 ms
Loss rate: 0.01%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-03-06 16:30:31
End at: 2018-03-06 16:31:01
Local clock offset: 1.929 ms
Remote clock offset: 23.647 ms

# Below is generated by plot.py at 2018-03-06 19:39:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.66 Mbit/s
  95th percentile per-packet one-way delay: 23.843 ms
  Loss rate: 0.16%
-- Flow 1:
  Average throughput: 53.67 Mbit/s
  95th percentile per-packet one-way delay: 24.629 ms
  Loss rate: 0.29%
-- Flow 2:
  Average throughput: 44.14 Mbit/s
  95th percentile per-packet one-way delay: 22.470 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 34.91 Mbit/s
  95th percentile per-packet one-way delay: 16.314 ms
  Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-03-06 16:51:38  
End at: 2018-03-06 16:52:08  
Local clock offset: 2.226 ms  
Remote clock offset: 26.298 ms  

# Below is generated by plot.py at 2018-03-06 19:39:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.55 Mbit/s  
95th percentile per-packet one-way delay: 21.712 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 60.98 Mbit/s  
95th percentile per-packet one-way delay: 23.008 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 36.38 Mbit/s  
95th percentile per-packet one-way delay: 17.616 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 34.19 Mbit/s  
95th percentile per-packet one-way delay: 18.382 ms  
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-03-06 17:12:52
End at: 2018-03-06 17:13:22
Local clock offset: 0.515 ms
Remote clock offset: -5.051 ms

# Below is generated by plot.py at 2018-03-06 19:39:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.71 Mbit/s
  95th percentile per-packet one-way delay: 22.130 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 59.37 Mbit/s
  95th percentile per-packet one-way delay: 23.363 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 35.50 Mbit/s
  95th percentile per-packet one-way delay: 18.357 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 41.31 Mbit/s
  95th percentile per-packet one-way delay: 17.264 ms
  Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 7: Statistics of TCP Vegas

Start at: 2018-03-06 17:34:11
End at: 2018-03-06 17:34:41
Local clock offset: 5.073 ms
Remote clock offset: -13.174 ms

# Below is generated by plot.py at 2018-03-06 19:39:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.88 Mbit/s
95th percentile per-packet one-way delay: 18.037 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 60.84 Mbit/s
95th percentile per-packet one-way delay: 19.604 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 36.36 Mbit/s
95th percentile per-packet one-way delay: 12.062 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.65 Mbit/s
95th percentile per-packet one-way delay: 12.231 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 61.03 Mbit/s)
- Flow 1 egress (mean 60.84 Mbit/s)
- Flow 2 ingress (mean 36.36 Mbit/s)
- Flow 2 egress (mean 36.36 Mbit/s)
- Flow 3 ingress (mean 35.65 Mbit/s)
- Flow 3 egress (mean 35.65 Mbit/s)

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

- Flow 1 (95th percentile 19.60 ms)
- Flow 2 (95th percentile 12.06 ms)
- Flow 3 (95th percentile 12.23 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-03-06 17:55:31
End at: 2018-03-06 17:56:01
Local clock offset: 5.67 ms
Remote clock offset: -18.421 ms

# Below is generated by plot.py at 2018-03-06 19:39:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.62 Mbit/s
  95th percentile per-packet one-way delay: 19.679 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 56.10 Mbit/s
  95th percentile per-packet one-way delay: 21.340 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 41.52 Mbit/s
  95th percentile per-packet one-way delay: 14.256 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 32.77 Mbit/s
  95th percentile per-packet one-way delay: 15.826 ms
  Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

**Throughput (Mbps):**
- Flow 1 ingress (mean 56.11 Mbps)
- Flow 1 egress (mean 56.10 Mbps)
- Flow 2 ingress (mean 41.52 Mbps)
- Flow 2 egress (mean 41.52 Mbps)
- Flow 3 ingress (mean 32.77 Mbps)
- Flow 3 egress (mean 32.77 Mbps)

**Per packet one way delay (ms):**
- Flow 1 (95th percentile 21.34 ms)
- Flow 2 (95th percentile 14.26 ms)
- Flow 3 (95th percentile 15.83 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-03-06 18:16:57
End at: 2018-03-06 18:17:27
Local clock offset: 6.345 ms
Remote clock offset: -2.009 ms

# Below is generated by plot.py at 2018-03-06 19:40:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.50 Mbit/s
  95th percentile per-packet one-way delay: 15.943 ms
  Loss rate: 0.40%
-- Flow 1:
  Average throughput: 55.97 Mbit/s
  95th percentile per-packet one-way delay: 16.529 ms
  Loss rate: 0.68%
-- Flow 2:
  Average throughput: 39.23 Mbit/s
  95th percentile per-packet one-way delay: 14.863 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 40.39 Mbit/s
  95th percentile per-packet one-way delay: 14.272 ms
  Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-03-06 18:38:16
End at: 2018-03-06 18:38:46
Local clock offset: 7.262 ms
Remote clock offset: 7.42 ms

# Below is generated by plot.py at 2018-03-06 19:40:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.34 Mbit/s
  95th percentile per-packet one-way delay: 17.908 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 54.13 Mbit/s
  95th percentile per-packet one-way delay: 19.765 ms
  Loss rate: 0.30%
-- Flow 2:
  Average throughput: 41.81 Mbit/s
  95th percentile per-packet one-way delay: 14.103 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 40.37 Mbit/s
  95th percentile per-packet one-way delay: 12.866 ms
  Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 54.29 Mbit/s)
- Flow 1 egress (mean 54.13 Mbit/s)
- Flow 2 ingress (mean 41.80 Mbit/s)
- Flow 2 egress (mean 41.81 Mbit/s)
- Flow 3 ingress (mean 40.28 Mbit/s)
- Flow 3 egress (mean 40.37 Mbit/s)
Run 1: Statistics of Verus

Start at: 2018-03-06 15:22:44
End at: 2018-03-06 15:23:14
Local clock offset: 8.285 ms
Remote clock offset: 4.93 ms

# Below is generated by plot.py at 2018-03-06 19:40:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.38 Mbit/s
  95th percentile per-packet one-way delay: 42.979 ms
  Loss rate: 23.19%
-- Flow 1:
  Average throughput: 65.22 Mbit/s
  95th percentile per-packet one-way delay: 41.367 ms
  Loss rate: 12.58%
-- Flow 2:
  Average throughput: 22.94 Mbit/s
  95th percentile per-packet one-way delay: 44.742 ms
  Loss rate: 34.64%
-- Flow 3:
  Average throughput: 24.18 Mbit/s
  95th percentile per-packet one-way delay: 46.383 ms
  Loss rate: 52.84%
Run 1: Report of Verus — Data Link

![Graph showing network performance metrics](image)

Legend:
- Flow 1 ingress (mean 74.16 Mbit/s)
- Flow 1 egress (mean 65.22 Mbit/s)
- Flow 2 ingress (mean 35.06 Mbit/s)
- Flow 2 egress (mean 22.94 Mbit/s)
- Flow 3 ingress (mean 51.34 Mbit/s)
- Flow 3 egress (mean 24.18 Mbit/s)

Legend for per-packet one-way delay (ms):
- Flow 1 (95th percentile 41.37 ms)
- Flow 2 (95th percentile 44.74 ms)
- Flow 3 (95th percentile 46.38 ms)
Run 2: Statistics of Verus

Start at: 2018-03-06 15:44:06
End at: 2018-03-06 15:44:36
Local clock offset: 7.433 ms
Remote clock offset: 9.638 ms

# Below is generated by plot.py at 2018-03-06 19:40:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.76 Mbit/s
95th percentile per-packet one-way delay: 46.172 ms
Loss rate: 53.15%
-- Flow 1:
Average throughput: 54.94 Mbit/s
95th percentile per-packet one-way delay: 45.387 ms
Loss rate: 47.31%
-- Flow 2:
Average throughput: 20.96 Mbit/s
95th percentile per-packet one-way delay: 48.634 ms
Loss rate: 70.31%
-- Flow 3:
Average throughput: 17.02 Mbit/s
95th percentile per-packet one-way delay: 43.120 ms
Loss rate: 27.80%
Run 2: Report of Verus — Data Link

![Graphs showing network performance metrics for different flows over time.](image-url)
Run 3: Statistics of Verus

Start at: 2018-03-06 16:05:20
End at: 2018-03-06 16:05:50
Local clock offset: 6.634 ms
Remote clock offset: 17.914 ms

# Below is generated by plot.py at 2018-03-06 19:40:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 81.62 Mbit/s
  95th percentile per-packet one-way delay: 44.410 ms
  Loss rate: 28.54%
-- Flow 1:
  Average throughput: 49.75 Mbit/s
  95th percentile per-packet one-way delay: 43.721 ms
  Loss rate: 24.24%
-- Flow 2:
  Average throughput: 40.70 Mbit/s
  95th percentile per-packet one-way delay: 45.050 ms
  Loss rate: 25.42%
-- Flow 3:
  Average throughput: 16.97 Mbit/s
  95th percentile per-packet one-way delay: 46.339 ms
  Loss rate: 59.32%
Run 3: Report of Verus — Data Link

![Graph showing network throughput and per-packet delay over time with labels for each flow's ingress and egress rates and statistical results.]

- Flow 1 ingress (mean 65.66 Mbit/s)
- Flow 1 egress (mean 49.75 Mbit/s)
- Flow 2 ingress (mean 54.42 Mbit/s)
- Flow 2 egress (mean 40.70 Mbit/s)
- Flow 3 ingress (mean 41.66 Mbit/s)
- Flow 3 egress (mean 16.97 Mbit/s)

- Flow 1 (95th percentile 43.72 ms)
- Flow 2 (95th percentile 45.05 ms)
- Flow 3 (95th percentile 46.34 ms)
Run 4: Statistics of Verus

Start at: 2018-03-06 16:26:56
End at: 2018-03-06 16:27:26
Local clock offset: 1.474 ms
Remote clock offset: 23.129 ms

# Below is generated by plot.py at 2018-03-06 19:40:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.07 Mbit/s
95th percentile per-packet one-way delay: 50.435 ms
Loss rate: 22.95%
-- Flow 1:
Average throughput: 45.68 Mbit/s
95th percentile per-packet one-way delay: 49.444 ms
Loss rate: 19.75%
-- Flow 2:
Average throughput: 48.71 Mbit/s
95th percentile per-packet one-way delay: 51.426 ms
Loss rate: 27.80%
-- Flow 3:
Average throughput: 50.27 Mbit/s
95th percentile per-packet one-way delay: 50.777 ms
Loss rate: 17.75%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-03-06 16:48:05
End at: 2018-03-06 16:48:35
Local clock offset: 3.714 ms
Remote clock offset: 27.486 ms

# Below is generated by plot.py at 2018-03-06 19:41:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 80.34 Mbit/s
  95th percentile per-packet one-way delay: 47.860 ms
  Loss rate: 25.71%
-- Flow 1:
  Average throughput: 43.24 Mbit/s
  95th percentile per-packet one-way delay: 47.308 ms
  Loss rate: 25.02%
-- Flow 2:
  Average throughput: 49.11 Mbit/s
  95th percentile per-packet one-way delay: 47.929 ms
  Loss rate: 20.46%
-- Flow 3:
  Average throughput: 19.92 Mbit/s
  95th percentile per-packet one-way delay: 49.897 ms
  Loss rate: 46.44%
Run 5: Report of Verus — Data Link

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

- Flow 1 ingress (mean 55.38 Mbit/s)
- Flow 1 egress (mean 43.24 Mbit/s)
- Flow 2 ingress (mean 61.72 Mbit/s)
- Flow 2 egress (mean 49.11 Mbit/s)
- Flow 3 ingress (mean 37.17 Mbit/s)
- Flow 3 egress (mean 19.92 Mbit/s)
Run 6: Statistics of Verus

Start at: 2018-03-06 17:09:13
End at: 2018-03-06 17:09:43
Local clock offset: 3.573 ms
Remote clock offset: -2.46 ms

# Below is generated by plot.py at 2018-03-06 19:41:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.46 Mbit/s
95th percentile per-packet one-way delay: 48.536 ms
Loss rate: 46.88%
-- Flow 1:
Average throughput: 48.58 Mbit/s
95th percentile per-packet one-way delay: 45.176 ms
Loss rate: 25.64%
-- Flow 2:
Average throughput: 33.65 Mbit/s
95th percentile per-packet one-way delay: 54.156 ms
Loss rate: 66.83%
-- Flow 3:
Average throughput: 16.94 Mbit/s
95th percentile per-packet one-way delay: 48.079 ms
Loss rate: 48.83%
Run 6: Report of Verus — Data Link

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

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

Legend:
- Flow 1 ingress (mean 64.53 Mbps)
- Flow 1 egress (mean 46.58 Mbps)
- Flow 2 ingress (mean 101.47 Mbps)
- Flow 2 egress (mean 33.65 Mbps)
- Flow 3 ingress (mean 29.46 Mbps)
- Flow 3 egress (mean 16.94 Mbps)
Run 7: Statistics of Verus

Start at: 2018-03-06 17:30:35
End at: 2018-03-06 17:31:05
Local clock offset: 6.215 ms
Remote clock offset: -12.47 ms

# Below is generated by plot.py at 2018-03-06 19:41:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.27 Mbit/s
95th percentile per-packet one-way delay: 43.178 ms
Loss rate: 34.23%
-- Flow 1:
Average throughput: 57.59 Mbit/s
95th percentile per-packet one-way delay: 42.935 ms
Loss rate: 34.90%
-- Flow 2:
Average throughput: 21.50 Mbit/s
95th percentile per-packet one-way delay: 42.596 ms
Loss rate: 27.13%
-- Flow 3:
Average throughput: 23.48 Mbit/s
95th percentile per-packet one-way delay: 44.639 ms
Loss rate: 40.42%
Run 7: Report of Verus — Data Link

![Throughput Graph](image)

![Delay Graph](image)

Legend:
- Flow 1 ingress (mean 88.51 Mbit/s)
- Flow 1 egress (mean 57.59 Mbit/s)
- Flow 2 ingress (mean 29.51 Mbit/s)
- Flow 2 egress (mean 21.50 Mbit/s)
- Flow 3 ingress (mean 39.36 Mbit/s)
- Flow 3 egress (mean 23.48 Mbit/s)

Legend for Delay Graph:
- Flow 1 (95th percentile 42.94 ms)
- Flow 2 (95th percentile 42.60 ms)
- Flow 3 (95th percentile 44.64 ms)
Run 8: Statistics of Verus

Start at: 2018-03-06 17:51:52
End at: 2018-03-06 17:52:22
Local clock offset: 3.628 ms
Remote clock offset: -18.011 ms

# Below is generated by plot.py at 2018-03-06 19:41:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 80.94 Mbit/s
  95th percentile per-packet one-way delay: 48.057 ms
  Loss rate: 33.44%
-- Flow 1:
  Average throughput: 45.95 Mbit/s
  95th percentile per-packet one-way delay: 46.480 ms
  Loss rate: 14.58%
-- Flow 2:
  Average throughput: 39.29 Mbit/s
  95th percentile per-packet one-way delay: 50.549 ms
  Loss rate: 53.89%
-- Flow 3:
  Average throughput: 26.72 Mbit/s
  95th percentile per-packet one-way delay: 46.663 ms
  Loss rate: 20.42%
Run 8: Report of Verus — Data Link

![Graph showing throughput and per-packet round-trip delay](image-url)
Run 9: Statistics of Verus

Start at: 2018-03-06 18:13:21
End at: 2018-03-06 18:13:51
Local clock offset: 3.424 ms
Remote clock offset: -2.411 ms

# Below is generated by plot.py at 2018-03-06 19:41:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.27 Mbit/s
95th percentile per-packet one-way delay: 50.154 ms
Loss rate: 34.32%
-- Flow 1:
Average throughput: 49.63 Mbit/s
95th percentile per-packet one-way delay: 48.872 ms
Loss rate: 18.79%
-- Flow 2:
Average throughput: 40.49 Mbit/s
95th percentile per-packet one-way delay: 51.509 ms
Loss rate: 39.11%
-- Flow 3:
Average throughput: 22.73 Mbit/s
95th percentile per-packet one-way delay: 52.571 ms
Loss rate: 67.52%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-03-06 18:34:36
End at: 2018-03-06 18:35:06
Local clock offset: 4.62 ms
Remote clock offset: 3.267 ms

# Below is generated by plot.py at 2018-03-06 19:41:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.49 Mbit/s
95th percentile per-packet one-way delay: 48.446 ms
Loss rate: 26.25%
-- Flow 1:
Average throughput: 49.07 Mbit/s
95th percentile per-packet one-way delay: 47.572 ms
Loss rate: 15.13%
-- Flow 2:
Average throughput: 37.54 Mbit/s
95th percentile per-packet one-way delay: 50.188 ms
Loss rate: 41.78%
-- Flow 3:
Average throughput: 30.96 Mbit/s
95th percentile per-packet one-way delay: 47.960 ms
Loss rate: 23.77%
Run 10: Report of Verus — Data Link
Run 1: Statistics of Copa

Start at: 2018-03-06 15:20:16
End at: 2018-03-06 15:20:46
Local clock offset: 6.563 ms
Remote clock offset: 3.161 ms

# Below is generated by plot.py at 2018-03-06 19:43:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.54 Mbit/s
95th percentile per-packet one-way delay: 15.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.69 Mbit/s
95th percentile per-packet one-way delay: 15.148 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.47 Mbit/s
95th percentile per-packet one-way delay: 15.756 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.88 Mbit/s
95th percentile per-packet one-way delay: 16.597 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 58.70 Mbps)
Flow 1 egress (mean 58.69 Mbps)
Flow 2 ingress (mean 37.47 Mbps)
Flow 2 egress (mean 37.47 Mbps)
Flow 3 ingress (mean 29.88 Mbps)
Flow 3 egress (mean 29.88 Mbps)

Per-packet one-way delay [ms]

Time (s)

Flow 1 (95th percentile 15.15 ms)
Flow 2 (95th percentile 15.76 ms)
Flow 3 (95th percentile 16.60 ms)
Run 2: Statistics of Copa

Start at: 2018-03-06 15:41:40
End at: 2018-03-06 15:42:10
Local clock offset: 3.492 ms
Remote clock offset: 7.886 ms

# Below is generated by plot.py at 2018-03-06 19:43:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.04 Mbit/s
95th percentile per-packet one-way delay: 19.524 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 18.916 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.27 Mbit/s
95th percentile per-packet one-way delay: 19.728 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.80 Mbit/s
95th percentile per-packet one-way delay: 20.319 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link

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

- Flow 1 ingress (mean 56.67 Mbps)
- Flow 1 egress (mean 56.67 Mbps)
- Flow 2 ingress (mean 40.27 Mbps)
- Flow 2 egress (mean 40.27 Mbps)
- Flow 3 ingress (mean 28.80 Mbps)
- Flow 3 egress (mean 20.60 Mbps)

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

- Flow 1 (95th percentile 18.92 ms)
- Flow 2 (95th percentile 19.73 ms)
- Flow 3 (95th percentile 20.32 ms)
Run 3: Statistics of Copa

Start at: 2018-03-06 16:02:54
End at: 2018-03-06 16:03:24
Local clock offset: 4.877 ms
Remote clock offset: 17.532 ms

# Below is generated by plot.py at 2018-03-06 19:43:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.24 Mbit/s
95th percentile per-packet one-way delay: 17.799 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.45 Mbit/s
95th percentile per-packet one-way delay: 16.988 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.64 Mbit/s
95th percentile per-packet one-way delay: 18.234 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 19.021 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link

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

- **Flow 1 ingo (mean 57.45 Mbit/s)**
- **Flow 1 egress (mean 57.45 Mbit/s)**
- **Flow 2 ingo (mean 37.64 Mbit/s)**
- **Flow 2 egress (mean 37.64 Mbit/s)**
- **Flow 3 ingo (mean 29.31 Mbit/s)**
- **Flow 3 egress (mean 29.33 Mbit/s)**
Run 4: Statistics of Copa

Start at: 2018-03-06 16:24:27
End at: 2018-03-06 16:24:57
Local clock offset: 5.076 ms
Remote clock offset: 22.793 ms

# Below is generated by plot.py at 2018-03-06 19:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.64 Mbit/s
95th percentile per-packet one-way delay: 17.806 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.65 Mbit/s
95th percentile per-packet one-way delay: 17.152 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.67 Mbit/s
95th percentile per-packet one-way delay: 18.062 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.88 Mbit/s
95th percentile per-packet one-way delay: 18.707 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

![Throughput and Delay Graphs](image-url)

- Throughput (Mbps):
  - Flow 1 ingress (mean 57.65 Mbps)
  - Flow 1 egress (mean 57.65 Mbps)
  - Flow 2 ingress (mean 37.67 Mbps)
  - Flow 2 egress (mean 37.67 Mbps)
  - Flow 3 ingress (mean 29.89 Mbps)
  - Flow 3 egress (mean 29.88 Mbps)

- Per packet one-way delay (ms):
  - Flow 1 (95th percentile 17.15 ms)
  - Flow 2 (95th percentile 18.06 ms)
  - Flow 3 (95th percentile 18.71 ms)
Run 5: Statistics of Copa

Start at: 2018-03-06 16:45:41
End at: 2018-03-06 16:46:11
Local clock offset: 6.323 ms
Remote clock offset: 25.786 ms

# Below is generated by plot.py at 2018-03-06 19:44:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.78 Mbit/s
95th percentile per-packet one-way delay: 15.069 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.22 Mbit/s
95th percentile per-packet one-way delay: 14.363 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.17 Mbit/s
95th percentile per-packet one-way delay: 15.370 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.52 Mbit/s
95th percentile per-packet one-way delay: 15.976 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link

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

- **Flow 1** ingress (mean 57.23 Mbit/s)
- **Flow 1** egress (mean 57.22 Mbit/s)
- **Flow 2** ingress (mean 39.19 Mbit/s)
- **Flow 2** egress (mean 39.17 Mbit/s)
- **Flow 3** ingress (mean 28.54 Mbit/s)
- **Flow 3** egress (mean 28.52 Mbit/s)

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

- **Flow 1** (95th percentile 14.36 ms)
- **Flow 2** (95th percentile 15.37 ms)
- **Flow 3** (95th percentile 15.98 ms)
Run 6: Statistics of Copa

Start at: 2018-03-06 17:06:46
End at: 2018-03-06 17:07:16
Local clock offset: 3.797 ms
Remote clock offset: -0.356 ms

# Below is generated by plot.py at 2018-03-06 19:44:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.44 Mbit/s
95th percentile per-packet one-way delay: 18.021 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.72 Mbit/s
95th percentile per-packet one-way delay: 17.455 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.24 Mbit/s
95th percentile per-packet one-way delay: 18.205 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.90 Mbit/s
95th percentile per-packet one-way delay: 18.916 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link

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

- Flow 1 ingress (mean 56.72 Mbps/s)
- Flow 1 egress (mean 56.72 Mbps/s)
- Flow 2 ingress (mean 36.25 Mbps/s)
- Flow 2 egress (mean 36.24 Mbps/s)
- Flow 3 ingress (mean 28.91 Mbps/s)
- Flow 3 egress (mean 20.90 Mbps/s)

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

- Flow 1 (95th percentile 17.45 ms)
- Flow 2 (95th percentile 18.20 ms)
- Flow 3 (95th percentile 18.92 ms)
Run 7: Statistics of Copa

Start at: 2018-03-06 17:28:11
End at: 2018-03-06 17:28:41
Local clock offset: 2.113 ms
Remote clock offset: -10.719 ms

# Below is generated by plot.py at 2018-03-06 19:44:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.64 Mbit/s
95th percentile per-packet one-way delay: 20.025 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.85 Mbit/s
95th percentile per-packet one-way delay: 19.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.86 Mbit/s
95th percentile per-packet one-way delay: 19.808 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.88 Mbit/s
95th percentile per-packet one-way delay: 20.441 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link

![Graph 1: Throughput vs. Time]

- Flow 1 ingress (mean 53.86 Mbit/s)
- Flow 1 egress (mean 53.85 Mbit/s)
- Flow 2 ingress (mean 36.87 Mbit/s)
- Flow 2 egress (mean 36.86 Mbit/s)
- Flow 3 ingress (mean 30.89 Mbit/s)
- Flow 3 egress (mean 30.88 Mbit/s)

![Graph 2: Per-packet One-way Delay vs. Time]

- Flow 1 (95th percentile 19.98 ms)
- Flow 2 (95th percentile 19.81 ms)
- Flow 3 (95th percentile 20.44 ms)
Run 8: Statistics of Copa

Start at: 2018-03-06 17:49:26
End at: 2018-03-06 17:49:56
Local clock offset: 1.349 ms
Remote clock offset: -17.287 ms

# Below is generated by plot.py at 2018-03-06 19:44:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.51 Mbit/s
95th percentile per-packet one-way delay: 21.408 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 52.02 Mbit/s
95th percentile per-packet one-way delay: 21.047 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.79 Mbit/s
95th percentile per-packet one-way delay: 21.440 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 28.15 Mbit/s
95th percentile per-packet one-way delay: 22.231 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link

**Throughput (Mbps):**
- Flow 1 ingress (mean 52.03 Mbps)
- Flow 1 egress (mean 52.02 Mbps)
- Flow 2 ingress (mean 37.80 Mbps)
- Flow 2 egress (mean 37.79 Mbps)
- Flow 3 ingress (mean 28.14 Mbps)
- Flow 3 egress (mean 26.15 Mbps)

**Per packet end-to-end delay (ms):**
- Flow 1 (95th percentile 21.05 ms)
- Flow 2 (95th percentile 21.44 ms)
- Flow 3 (95th percentile 22.23 ms)
Run 9: Statistics of Copa

Start at: 2018-03-06 18:10:55
End at: 2018-03-06 18:11:25
Local clock offset: 3.974 ms
Remote clock offset: -3.914 ms

# Below is generated by plot.py at 2018-03-06 19:45:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.86 Mbit/s
95th percentile per-packet one-way delay: 18.733 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.90 Mbit/s
95th percentile per-packet one-way delay: 18.226 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.64 Mbit/s
95th percentile per-packet one-way delay: 18.739 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.82 Mbit/s
95th percentile per-packet one-way delay: 19.687 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa

Start at: 2018-03-06 18:32:12
End at: 2018-03-06 18:32:42
Local clock offset: 7.893 ms
Remote clock offset: 1.815 ms

# Below is generated by plot.py at 2018-03-06 19:45:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.67 Mbit/s
95th percentile per-packet one-way delay: 16.824 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.33 Mbit/s
95th percentile per-packet one-way delay: 16.114 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.85 Mbit/s
95th percentile per-packet one-way delay: 16.993 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.56 Mbit/s
95th percentile per-packet one-way delay: 17.867 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link

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

- **Flow 1 ingress** (mean 55.33 Mbps)
- **Flow 1 egress** (mean 55.33 Mbps)
- **Flow 2 ingress** (mean 37.86 Mbps)
- **Flow 2 egress** (mean 37.85 Mbps)
- **Flow 3 ingress** (mean 30.55 Mbps)
- **Flow 3 egress** (mean 30.56 Mbps)

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

- **Flow 1** (95th percentile 16.11 ms)
- **Flow 2** (95th percentile 16.99 ms)
- **Flow 3** (95th percentile 17.87 ms)
Run 1: Statistics of FillP

Start at: 2018-03-06 15:28:40
End at: 2018-03-06 15:29:10
Local clock offset: 1.848 ms
Remote clock offset: 5.598 ms

# Below is generated by plot.py at 2018-03-06 19:45:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.73 Mbit/s
95th percentile per-packet one-way delay: 52.498 ms
Loss rate: 29.43%
-- Flow 1:
Average throughput: 52.07 Mbit/s
95th percentile per-packet one-way delay: 52.289 ms
Loss rate: 26.73%
-- Flow 2:
Average throughput: 41.38 Mbit/s
95th percentile per-packet one-way delay: 52.615 ms
Loss rate: 30.87%
-- Flow 3:
Average throughput: 53.35 Mbit/s
95th percentile per-packet one-way delay: 52.985 ms
Loss rate: 34.58%
Run 1: Report of FillP — Data Link

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

- Flow 1 ingress (mean 71.08 Mbps) vs. Flow 1 egress (mean 52.07 Mbps)
- Flow 2 ingress (mean 59.88 Mbps) vs. Flow 2 egress (mean 41.35 Mbps)
- Flow 3 ingress (mean 76.97 Mbps) vs. Flow 3 egress (mean 53.35 Mbps)

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

- Flow 1 (95th percentile 52.29 ms)
- Flow 2 (95th percentile 52.62 ms)
- Flow 3 (95th percentile 52.98 ms)
Run 2: Statistics of FillP

Start at: 2018-03-06 15:49:59
End at: 2018-03-06 15:50:29
Local clock offset: 4.341 ms
Remote clock offset: 13.207 ms

# Below is generated by plot.py at 2018-03-06 19:45:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.69 Mbit/s
  95th percentile per-packet one-way delay: 50.915 ms
  Loss rate: 28.90%
-- Flow 1:
  Average throughput: 47.53 Mbit/s
  95th percentile per-packet one-way delay: 50.808 ms
  Loss rate: 27.29%
-- Flow 2:
  Average throughput: 45.67 Mbit/s
  95th percentile per-packet one-way delay: 50.944 ms
  Loss rate: 29.20%
-- Flow 3:
  Average throughput: 56.84 Mbit/s
  95th percentile per-packet one-way delay: 51.163 ms
  Loss rate: 32.20%
Run 2: Report of FillP — Data Link

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

- **Flow 1 ingress** (mean 65.41 Mbit/s)
- **Flow 1 egress** (mean 47.53 Mbit/s)
- **Flow 2 ingress** (mean 64.50 Mbit/s)
- **Flow 2 egress** (mean 45.67 Mbit/s)
- **Flow 3 ingress** (mean 83.88 Mbit/s)
- **Flow 3 egress** (mean 56.84 Mbit/s)

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

- **Flow 1** (95th percentile 50.81 ms)
- **Flow 2** (95th percentile 50.94 ms)
- **Flow 3** (95th percentile 51.16 ms)
Run 3: Statistics of FillP

Start at: 2018-03-06 16:11:22
End at: 2018-03-06 16:11:52
Local clock offset: 3.728 ms
Remote clock offset: 20.094 ms

# Below is generated by plot.py at 2018-03-06 19:45:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.70 Mbit/s
  95th percentile per-packet one-way delay: 51.417 ms
  Loss rate: 28.67%
-- Flow 1:
  Average throughput: 56.44 Mbit/s
  95th percentile per-packet one-way delay: 51.233 ms
  Loss rate: 25.76%
-- Flow 2:
  Average throughput: 38.06 Mbit/s
  95th percentile per-packet one-way delay: 51.297 ms
  Loss rate: 30.61%
-- Flow 3:
  Average throughput: 44.97 Mbit/s
  95th percentile per-packet one-way delay: 52.314 ms
  Loss rate: 35.20%
Run 3: Report of FillP — Data Link

Throughput (Mbit/s) vs Time (s)

- Flow 1 ingress (mean 76.07 Mbit/s)
- Flow 1 egress (mean 56.44 Mbit/s)
- Flow 2 ingress (mean 54.83 Mbit/s)
- Flow 2 egress (mean 38.06 Mbit/s)
- Flow 3 ingress (mean 69.49 Mbit/s)
- Flow 3 egress (mean 44.97 Mbit/s)

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

- Flow 1 (95th percentile 51.23 ms)
- Flow 2 (95th percentile 51.30 ms)
- Flow 3 (95th percentile 52.31 ms)
Run 4: Statistics of FillP

Start at: 2018-03-06 16:32:47
End at: 2018-03-06 16:33:17
Local clock offset: 3.708 ms
Remote clock offset: 24.011 ms

# Below is generated by plot.py at 2018-03-06 19:46:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.76 Mbit/s
95th percentile per-packet one-way delay: 51.628 ms
Loss rate: 29.67%
-- Flow 1:
Average throughput: 54.42 Mbit/s
95th percentile per-packet one-way delay: 51.006 ms
Loss rate: 26.86%
-- Flow 2:
Average throughput: 38.54 Mbit/s
95th percentile per-packet one-way delay: 51.773 ms
Loss rate: 31.74%
-- Flow 3:
Average throughput: 50.35 Mbit/s
95th percentile per-packet one-way delay: 57.262 ms
Loss rate: 34.79%
Run 4: Report of FillP — Data Link

![Graph 1: Throughput vs Time]
- Flow 1 ingress (mean 74.45 Mbit/s)
- Flow 1 egress (mean 54.42 Mbit/s)
- Flow 2 ingress (mean 56.47 Mbit/s)
- Flow 2 egress (mean 38.54 Mbit/s)
- Flow 3 ingress (mean 77.33 Mbit/s)
- Flow 3 egress (mean 50.35 Mbit/s)

![Graph 2: Per-packet one-way delay vs Time]
- Flow 1 (95th percentile 51.01 ms)
- Flow 2 (95th percentile 51.77 ms)
- Flow 3 (95th percentile 57.26 ms)
Run 5: Statistics of FillP

Start at: 2018-03-06 16:53:54
End at: 2018-03-06 16:54:24
Local clock offset: 2.981 ms
Remote clock offset: 19.773 ms

# Below is generated by plot.py at 2018-03-06 19:46:00
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 96.76 Mbit/s
   95th percentile per-packet one-way delay: 51.855 ms
   Loss rate: 28.41%
-- Flow 1:
   Average throughput: 53.86 Mbit/s
   95th percentile per-packet one-way delay: 51.395 ms
   Loss rate: 25.82%
-- Flow 2:
   Average throughput: 35.29 Mbit/s
   95th percentile per-packet one-way delay: 52.409 ms
   Loss rate: 31.48%
-- Flow 3:
   Average throughput: 59.62 Mbit/s
   95th percentile per-packet one-way delay: 52.497 ms
   Loss rate: 31.33%
Run 5: Report of FillP — Data Link
Run 6: Statistics of FillP

Start at: 2018-03-06 17:15:08
End at: 2018-03-06 17:15:38
Local clock offset: 2.62 ms
Remote clock offset: -5.94 ms

# Below is generated by plot.py at 2018-03-06 19:46:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.72 Mbit/s
95th percentile per-packet one-way delay: 50.643 ms
Loss rate: 29.45%
-- Flow 1:
Average throughput: 50.67 Mbit/s
95th percentile per-packet one-way delay: 50.487 ms
Loss rate: 27.18%
-- Flow 2:
Average throughput: 42.98 Mbit/s
95th percentile per-packet one-way delay: 50.652 ms
Loss rate: 30.68%
-- Flow 3:
Average throughput: 52.43 Mbit/s
95th percentile per-packet one-way delay: 51.057 ms
Loss rate: 33.56%
Run 6: Report of FillP — Data Link
Run 7: Statistics of FillP

Start at: 2018-03-06 17:36:27
End at: 2018-03-06 17:36:57
Local clock offset: 4.681 ms
Remote clock offset: -14.948 ms

# Below is generated by plot.py at 2018-03-06 19:47:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.62 Mbit/s
95th percentile per-packet one-way delay: 47.664 ms
Loss rate: 29.57%
-- Flow 1:
Average throughput: 48.31 Mbit/s
95th percentile per-packet one-way delay: 47.496 ms
Loss rate: 27.51%
-- Flow 2:
Average throughput: 40.09 Mbit/s
95th percentile per-packet one-way delay: 47.677 ms
Loss rate: 30.69%
-- Flow 3:
Average throughput: 65.29 Mbit/s
95th percentile per-packet one-way delay: 48.020 ms
Loss rate: 32.51%
Run 7: Report of FillP — Data Link
Run 8: Statistics of FillP

Start at: 2018-03-06 17:57:50
End at: 2018-03-06 17:58:20
Local clock offset: 3.789 ms
Remote clock offset: -20.424 ms

# Below is generated by plot.py at 2018-03-06 19:47:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.65 Mbit/s
95th percentile per-packet one-way delay: 50.488 ms
Loss rate: 29.64%
-- Flow 1:
Average throughput: 50.43 Mbit/s
95th percentile per-packet one-way delay: 50.203 ms
Loss rate: 27.52%
-- Flow 2:
Average throughput: 39.23 Mbit/s
95th percentile per-packet one-way delay: 50.933 ms
Loss rate: 31.67%
-- Flow 3:
Average throughput: 60.71 Mbit/s
95th percentile per-packet one-way delay: 50.625 ms
Loss rate: 32.02%
Run 8: Report of FillP — Data Link

![Graph of throughput and per-packet round trip delay over time for different flows. The graphs show fluctuations in throughput and delay, with specific metrics for each flow at various time intervals.]
Run 9: Statistics of FillP

Start at: 2018-03-06 18:19:12
End at: 2018-03-06 18:19:42
Local clock offset: 4.934 ms
Remote clock offset: -0.305 ms

# Below is generated by plot.py at 2018-03-06 19:47:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.72 Mbit/s
95th percentile per-packet one-way delay: 51.450 ms
Loss rate: 28.72%
-- Flow 1:
Average throughput: 50.97 Mbit/s
95th percentile per-packet one-way delay: 51.271 ms
Loss rate: 26.58%
-- Flow 2:
Average throughput: 42.26 Mbit/s
95th percentile per-packet one-way delay: 51.724 ms
Loss rate: 30.54%
-- Flow 3:
Average throughput: 53.79 Mbit/s
95th percentile per-packet one-way delay: 51.542 ms
Loss rate: 31.63%
Run 9: Report of FillP — Data Link
Run 10: Statistics of FillP

Start at: 2018-03-06 18:40:34
End at: 2018-03-06 18:41:04
Local clock offset: 3.802 ms
Remote clock offset: 11.238 ms

# Below is generated by plot.py at 2018-03-06 19:47:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.69 Mbit/s
95th percentile per-packet one-way delay: 53.065 ms
Loss rate: 29.42%
-- Flow 1:
Average throughput: 49.84 Mbit/s
95th percentile per-packet one-way delay: 52.976 ms
Loss rate: 26.72%
-- Flow 2:
Average throughput: 40.54 Mbit/s
95th percentile per-packet one-way delay: 53.290 ms
Loss rate: 31.79%
-- Flow 3:
Average throughput: 59.93 Mbit/s
95th percentile per-packet one-way delay: 52.993 ms
Loss rate: 32.50%
Run 10: Report of FillIP — Data Link
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-06 15:23:58
End at: 2018-03-06 15:24:28
Local clock offset: 3.379 ms
Remote clock offset: 4.818 ms

# Below is generated by plot.py at 2018-03-06 19:47:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.03 Mbit/s
95th percentile per-packet one-way delay: 20.759 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.61 Mbit/s
95th percentile per-packet one-way delay: 20.675 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.58 Mbit/s
95th percentile per-packet one-way delay: 21.758 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.52 Mbit/s
95th percentile per-packet one-way delay: 21.976 ms
Loss rate: 0.00%
Run 1: Report of Indigo-1-32 — Data Link
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-06 15:45:20
End at: 2018-03-06 15:45:50
Local clock offset: 2.775 ms
Remote clock offset: 9.294 ms

# Below is generated by plot.py at 2018-03-06 19:47:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.04 Mbit/s
95th percentile per-packet one-way delay: 20.756 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.36 Mbit/s
95th percentile per-packet one-way delay: 20.693 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.46 Mbit/s
95th percentile per-packet one-way delay: 20.779 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.30 Mbit/s
95th percentile per-packet one-way delay: 21.009 ms
Loss rate: 0.00%
Run 2: Report of Indigo-1-32 — Data Link

![Graph of throughput and per-packet one-way delay]
Run 3: Statistics of Indigo-1-32

Start at: 2018-03-06 16:06:32
End at: 2018-03-06 16:07:02
Local clock offset: 2.847 ms
Remote clock offset: 18.301 ms

# Below is generated by plot.py at 2018-03-06 19:47:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.96 Mbit/s
95th percentile per-packet one-way delay: 20.912 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.12 Mbit/s
95th percentile per-packet one-way delay: 20.847 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.42 Mbit/s
95th percentile per-packet one-way delay: 20.927 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.95 Mbit/s
95th percentile per-packet one-way delay: 22.553 ms
Loss rate: 0.00%
Run 3: Report of Indigo-1-32 — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 57.14 Mbps)
- Flow 1 egress (mean 57.12 Mbps)
- Flow 2 ingress (mean 36.43 Mbps)
- Flow 2 egress (mean 36.42 Mbps)
- Flow 3 ingress (mean 47.96 Mbps)
- Flow 3 egress (mean 47.95 Mbps)

Packet one-way delay (ms):
- Flow 1 (95th percentile 20.85 ms)
- Flow 2 (95th percentile 20.93 ms)
- Flow 3 (95th percentile 22.55 ms)
Run 4: Statistics of Indigo-1-32

Start at: 2018-03-06 16:28:07
End at: 2018-03-06 16:28:37
Local clock offset: 3.193 ms
Remote clock offset: 22.587 ms

# Below is generated by plot.py at 2018-03-06 19:47:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.98 Mbit/s
95th percentile per-packet one-way delay: 21.403 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.82 Mbit/s
95th percentile per-packet one-way delay: 20.346 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.04 Mbit/s
95th percentile per-packet one-way delay: 21.474 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.63 Mbit/s
95th percentile per-packet one-way delay: 22.045 ms
Loss rate: 0.00%
Run 4: Report of Indigo-1-32 — Data Link

![Graph of throughput and packet delay over time for three flows, showing mean rates and 95th percentile delays.](image-url)
Run 5: Statistics of Indigo-1-32

Start at: 2018-03-06 16:49:16
End at: 2018-03-06 16:49:46
Local clock offset: 2.614 ms
Remote clock offset: 26.052 ms

# Below is generated by plot.py at 2018-03-06 19:48:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.99 Mbit/s
95th percentile per-packet one-way delay: 19.980 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.05 Mbit/s
95th percentile per-packet one-way delay: 19.906 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.31 Mbit/s
95th percentile per-packet one-way delay: 20.326 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.43 Mbit/s
95th percentile per-packet one-way delay: 21.008 ms
Loss rate: 0.00%
Run 5: Report of Indigo-1-32 — Data Link

![Data Link Graphs]

- Flow 1 ingress (mean 57.07 Mbit/s)
- Flow 1 egress (mean 57.05 Mbit/s)
- Flow 2 ingress (mean 38.34 Mbit/s)
- Flow 2 egress (mean 38.31 Mbit/s)
- Flow 3 ingress (mean 44.45 Mbit/s)
- Flow 3 egress (mean 44.43 Mbit/s)

![Per-packet one way delay graphs]

- Flow 1 (95th percentile 19.91 ms)
- Flow 2 (95th percentile 20.33 ms)
- Flow 3 (95th percentile 21.01 ms)
Run 6: Statistics of Indigo-1-32

Start at: 2018-03-06 17:10:25
End at: 2018-03-06 17:10:55
Local clock offset: 3.085 ms
Remote clock offset: -3.87 ms

# Below is generated by plot.py at 2018-03-06 19:48:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.93 Mbit/s
95th percentile per-packet one-way delay: 19.232 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.84 Mbit/s
95th percentile per-packet one-way delay: 19.114 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.60 Mbit/s
95th percentile per-packet one-way delay: 20.016 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.36 Mbit/s
95th percentile per-packet one-way delay: 21.319 ms
Loss rate: 0.00%
Run 6: Report of Indigo-1-32 — Data Link
Run 7: Statistics of Indigo-1-32

Start at: 2018-03-06 17:31:45
End at: 2018-03-06 17:32:15
Local clock offset: 2.811 ms
Remote clock offset: -11.094 ms

# Below is generated by plot.py at 2018-03-06 19:48:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.04 Mbit/s
95th percentile per-packet one-way delay: 21.685 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.42 Mbit/s
95th percentile per-packet one-way delay: 21.444 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.18 Mbit/s
95th percentile per-packet one-way delay: 22.060 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.76 Mbit/s
95th percentile per-packet one-way delay: 22.695 ms
Loss rate: 0.00%
Run 7: Report of Indigo-1-32 — Data Link
Run 8: Statistics of Indigo-1-32

Start at: 2018-03-06 17:53:05
End at: 2018-03-06 17:53:35
Local clock offset: 2.704 ms
Remote clock offset: -18.874 ms

# Below is generated by plot.py at 2018-03-06 19:48:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.93 Mbit/s
  95th percentile per-packet one-way delay: 22.347 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 47.74 Mbit/s
  95th percentile per-packet one-way delay: 20.957 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 42.92 Mbit/s
  95th percentile per-packet one-way delay: 22.668 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 63.42 Mbit/s
  95th percentile per-packet one-way delay: 22.725 ms
  Loss rate: 0.00%
Run 8: Report of Indigo-1-32 — Data Link
Run 9: Statistics of Indigo-1-32

Start at: 2018-03-06 18:14:32
End at: 2018-03-06 18:15:02
Local clock offset: 3.815 ms
Remote clock offset: -2.872 ms

# Below is generated by plot.py at 2018-03-06 19:48:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.66 Mbit/s
95th percentile per-packet one-way delay: 19.799 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.87 Mbit/s
95th percentile per-packet one-way delay: 19.347 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.63 Mbit/s
95th percentile per-packet one-way delay: 20.346 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.23 Mbit/s
95th percentile per-packet one-way delay: 22.312 ms
Loss rate: 0.00%
Run 9: Report of Indigo-1-32 — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 10: Statistics of Indigo-1-32

Start at: 2018-03-06 18:35:48
End at: 2018-03-06 18:36:18
Local clock offset: 3.418 ms
Remote clock offset: 3.964 ms

# Below is generated by plot.py at 2018-03-06 19:49:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.91 Mbit/s
  95th percentile per-packet one-way delay: 20.895 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 56.66 Mbit/s
  95th percentile per-packet one-way delay: 20.660 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 39.95 Mbit/s
  95th percentile per-packet one-way delay: 20.933 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 41.94 Mbit/s
  95th percentile per-packet one-way delay: 20.994 ms
  Loss rate: 0.00%
Run 10: Report of Indigo-1-32 — Data Link

![Graph of throughput and delay over time with different flow data points and statistics]

*Flow 1 ingress (mean 56.67 Mbit/s)*
*Flow 1 egress (mean 56.66 Mbit/s)*
*Flow 2 ingress (mean 39.96 Mbit/s)*
*Flow 2 egress (mean 39.95 Mbit/s)*
*Flow 3 ingress (mean 41.95 Mbit/s)*
*Flow 3 egress (mean 41.94 Mbit/s)*
Run 1: Statistics of Vivace-latency

Start at: 2018-03-06 15:32:10
End at: 2018-03-06 15:32:41
Local clock offset: 3.895 ms
Remote clock offset: 7.836 ms

# Below is generated by plot.py at 2018-03-06 19:49:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.15 Mbit/s
95th percentile per-packet one-way delay: 16.182 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.18 Mbit/s
95th percentile per-packet one-way delay: 15.867 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.13 Mbit/s
95th percentile per-packet one-way delay: 16.413 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.00 Mbit/s
95th percentile per-packet one-way delay: 21.029 ms
Loss rate: 0.00%
Run 1: Report of Vivace-latency — Data Link
Run 2: Statistics of Vivace-latency

Start at: 2018-03-06 15:53:32
End at: 2018-03-06 15:54:02
Local clock offset: 7.176 ms
Remote clock offset: 14.793 ms

# Below is generated by plot.py at 2018-03-06 19:49:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.35 Mbit/s
95th percentile per-packet one-way delay: 11.457 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.60 Mbit/s
95th percentile per-packet one-way delay: 11.039 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.22 Mbit/s
95th percentile per-packet one-way delay: 11.994 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.23 Mbit/s
95th percentile per-packet one-way delay: 12.690 ms
Loss rate: 0.00%
Run 2: Report of Vivace-latency — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 62.60 Mbit/s)
- Flow 1 egress (mean 62.60 Mbit/s)
- Flow 2 ingress (mean 27.22 Mbit/s)
- Flow 2 egress (mean 27.22 Mbit/s)
- Flow 3 ingress (mean 20.23 Mbit/s)
- Flow 3 egress (mean 20.23 Mbit/s)

![Delay Graph](image2)

- Flow 1 (95th percentile 11.04 ms)
- Flow 2 (95th percentile 11.99 ms)
- Flow 3 (95th percentile 12.69 ms)
Run 3: Statistics of Vivace-latency

Start at: 2018-03-06 16:14:58
End at: 2018-03-06 16:15:28
Local clock offset: 3.994 ms
Remote clock offset: 20.373 ms

# Below is generated by plot.py at 2018-03-06 19:50:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.67 Mbit/s
  95th percentile per-packet one-way delay: 14.340 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 58.71 Mbit/s
  95th percentile per-packet one-way delay: 14.499 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 31.44 Mbit/s
  95th percentile per-packet one-way delay: 14.268 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 21.34 Mbit/s
  95th percentile per-packet one-way delay: 13.624 ms
  Loss rate: 0.00%
Run 4: Statistics of Vivace-latency

Start at: 2018-03-06 16:36:17
End at: 2018-03-06 16:36:47
Local clock offset: 6.71 ms
Remote clock offset: 24.168 ms

# Below is generated by plot.py at 2018-03-06 19:50:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.35 Mbit/s
95th percentile per-packet one-way delay: 12.596 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.66 Mbit/s
95th percentile per-packet one-way delay: 13.589 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.44 Mbit/s
95th percentile per-packet one-way delay: 11.662 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 12.508 ms
Loss rate: 0.00%
Run 4: Report of Vivace-latency — Data Link

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

Legend:
- Flow 1 ingress (mean 54.66 Mbit/s)
- Flow 1 egress (mean 54.66 Mbit/s)
- Flow 2 ingress (mean 32.43 Mbit/s)
- Flow 2 egress (mean 32.44 Mbit/s)
- Flow 3 ingress (mean 9.54 Mbit/s)
- Flow 3 egress (mean 9.53 Mbit/s)
Run 5: Statistics of Vivace-latency

Start at: 2018-03-06 16:57:28
End at: 2018-03-06 16:57:58
Local clock offset: 1.968 ms
Remote clock offset: 12.129 ms

# Below is generated by plot.py at 2018-03-06 19:50:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.61 Mbit/s
95th percentile per-packet one-way delay: 19.215 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.80 Mbit/s
95th percentile per-packet one-way delay: 18.297 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.28 Mbit/s
95th percentile per-packet one-way delay: 19.791 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.34 Mbit/s
95th percentile per-packet one-way delay: 20.293 ms
Loss rate: 0.00%
Run 5: Report of Vivace-latency — Data Link

![Graph 1: Throughput (Mbps/s) over time for different flows]

- **Flow 1 (mean 56.81 Mbps/s)**
- **Flow 1 egress (mean 56.80 Mbps/s)**
- **Flow 2 (mean 28.29 Mbps/s)**
- **Flow 2 egress (mean 28.28 Mbps/s)**
- **Flow 3 (mean 27.34 Mbps/s)**
- **Flow 3 egress (mean 27.34 Mbps/s)**

![Graph 2: Per packet round-trip delay (ms) over time for different flows]

- **Flow 1 (95th percentile 18.30 ms)**
- **Flow 2 (95th percentile 19.79 ms)**
- **Flow 3 (95th percentile 20.29 ms)**
Run 6: Statistics of Vivace-latency

Start at: 2018-03-06 17:18:39
End at: 2018-03-06 17:19:09
Local clock offset: 4.313 ms
Remote clock offset: -6.82 ms

# Below is generated by plot.py at 2018-03-06 19:50:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.77 Mbit/s
  95th percentile per-packet one-way delay: 20.926 ms
  Loss rate: 0.35%
-- Flow 1:
  Average throughput: 56.42 Mbit/s
  95th percentile per-packet one-way delay: 21.298 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 36.70 Mbit/s
  95th percentile per-packet one-way delay: 22.197 ms
  Loss rate: 0.45%
-- Flow 3:
  Average throughput: 18.13 Mbit/s
  95th percentile per-packet one-way delay: 17.674 ms
  Loss rate: 0.00%
Run 6: Report of Vivace-latency — Data Link
Run 7: Statistics of Vivace-latency

Start at: 2018-03-06 17:40:04
End at: 2018-03-06 17:40:34
Local clock offset: 3.965 ms
Remote clock offset: -14.441 ms

# Below is generated by plot.py at 2018-03-06 19:50:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.81 Mbit/s
95th percentile per-packet one-way delay: 15.668 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.27 Mbit/s
95th percentile per-packet one-way delay: 14.065 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.38 Mbit/s
95th percentile per-packet one-way delay: 17.501 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.24 Mbit/s
95th percentile per-packet one-way delay: 19.594 ms
Loss rate: 0.00%
Run 7: Report of Vivace-latency — Data Link
Run 8: Statistics of Vivace-latency

Start at: 2018-03-06 18:01:23
End at: 2018-03-06 18:01:53
Local clock offset: 1.65 ms
Remote clock offset: -16.622 ms

# Below is generated by plot.py at 2018-03-06 19:50:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.43 Mbit/s
95th percentile per-packet one-way delay: 18.022 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 54.81 Mbit/s
95th percentile per-packet one-way delay: 17.262 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 31.72 Mbit/s
95th percentile per-packet one-way delay: 21.655 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 16.77 Mbit/s
95th percentile per-packet one-way delay: 23.607 ms
Loss rate: 0.89%
Run 8: Report of Vivace-latency — Data Link

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

- **Throughput (Mbps/s):**
  - Flow 1 ingress (mean 54.91 Mbps/s)
  - Flow 1 egress (mean 54.81 Mbps/s)
  - Flow 2 ingress (mean 31.90 Mbps/s)
  - Flow 2 egress (mean 31.72 Mbps/s)
  - Flow 3 ingress (mean 16.91 Mbps/s)
  - Flow 3 egress (mean 16.77 Mbps/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 17.26 ms)
  - Flow 2 (95th percentile 21.66 ms)
  - Flow 3 (95th percentile 23.61 ms)
Run 9: Statistics of Vivace-latency

Start at: 2018-03-06 18:22:44
End at: 2018-03-06 18:23:14
Local clock offset: 3.073 ms
Remote clock offset: -0.411 ms

# Below is generated by plot.py at 2018-03-06 19:50:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.69 Mbit/s
  95th percentile per-packet one-way delay: 19.288 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 62.95 Mbit/s
  95th percentile per-packet one-way delay: 18.874 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 27.21 Mbit/s
  95th percentile per-packet one-way delay: 19.888 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 14.11 Mbit/s
  95th percentile per-packet one-way delay: 23.522 ms
  Loss rate: 0.00%
Run 9: Report of Vivace-latency — Data Link
Run 10: Statistics of Vivace-latency

Start at: 2018-03-06 18:44:12
End at: 2018-03-06 18:44:42
Local clock offset: 2.942 ms
Remote clock offset: 13.544 ms

# Below is generated by plot.py at 2018-03-06 19:50:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.11 Mbit/s
95th percentile per-packet one-way delay: 19.874 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.69 Mbit/s
95th percentile per-packet one-way delay: 18.943 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 30.93 Mbit/s
95th percentile per-packet one-way delay: 20.372 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.76 Mbit/s
95th percentile per-packet one-way delay: 20.223 ms
Loss rate: 0.00%
Run 10: Report of Vivace-latency — Data Link

[Graph showing throughput over time for different flows with latency data]

[Graph showing per-packet one-way delay over time for different flows with 95th percentile delay data]
Run 1: Statistics of Vivace-loss

Start at: 2018-03-06 15:17:52
End at: 2018-03-06 15:18:22
Local clock offset: 3.689 ms
Remote clock offset: 3.549 ms

# Below is generated by plot.py at 2018-03-06 19:51:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.11 Mbit/s
  95th percentile per-packet one-way delay: 47.684 ms
  Loss rate: 14.17%
-- Flow 1:
  Average throughput: 55.54 Mbit/s
  95th percentile per-packet one-way delay: 47.286 ms
  Loss rate: 13.15%
-- Flow 2:
  Average throughput: 40.73 Mbit/s
  95th percentile per-packet one-way delay: 48.209 ms
  Loss rate: 16.09%
-- Flow 3:
  Average throughput: 13.73 Mbit/s
  95th percentile per-packet one-way delay: 47.855 ms
  Loss rate: 14.73%
Run 1: Report of Vivace-loss — Data Link

![Graph of throughput and packet loss](image-url)

- Flow 1 ingress (mean 63.95 Mbit/s)
- Flow 1 egress (mean 55.54 Mbit/s)
- Flow 2 ingress (mean 48.55 Mbit/s)
- Flow 2 egress (mean 40.73 Mbit/s)
- Flow 3 ingress (mean 16.10 Mbit/s)
- Flow 3 egress (mean 13.73 Mbit/s)
Run 2: Statistics of Vivace-loss

Start at: 2018-03-06 15:39:09
End at: 2018-03-06 15:39:39
Local clock offset: 5.728 ms
Remote clock offset: 6.701 ms

# Below is generated by plot.py at 2018-03-06 19:51:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.40 Mbit/s
95th percentile per-packet one-way delay: 44.110 ms
Loss rate: 12.64%
-- Flow 1:
Average throughput: 55.98 Mbit/s
95th percentile per-packet one-way delay: 44.281 ms
Loss rate: 12.38%
-- Flow 2:
Average throughput: 38.65 Mbit/s
95th percentile per-packet one-way delay: 43.875 ms
Loss rate: 13.43%
-- Flow 3:
Average throughput: 17.45 Mbit/s
95th percentile per-packet one-way delay: 43.020 ms
Loss rate: 11.58%
Run 2: Report of Vivace-loss — Data Link
Run 3: Statistics of Vivace-loss

Start at: 2018-03-06 16:00:28
End at: 2018-03-06 16:00:58
Local clock offset: 4.632 ms
Remote clock offset: 16.768 ms

# Below is generated by plot.py at 2018-03-06 19:51:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.63 Mbit/s
95th percentile per-packet one-way delay: 44.630 ms
Loss rate: 12.09%
-- Flow 1:
Average throughput: 60.44 Mbit/s
95th percentile per-packet one-way delay: 44.341 ms
Loss rate: 11.02%
-- Flow 2:
Average throughput: 28.05 Mbit/s
95th percentile per-packet one-way delay: 44.459 ms
Loss rate: 13.38%
-- Flow 3:
Average throughput: 19.88 Mbit/s
95th percentile per-packet one-way delay: 46.892 ms
Loss rate: 17.74%
Run 3: Report of Vivace-loss — Data Link

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

- **Flow 1 ingress (mean 67.93 Mbit/s)**
- **Flow 1 egress (mean 60.44 Mbit/s)**
- **Flow 2 ingress (mean 32.39 Mbit/s)**
- **Flow 2 egress (mean 28.05 Mbit/s)**
- **Flow 3 ingress (mean 24.14 Mbit/s)**
- **Flow 3 egress (mean 19.88 Mbit/s)**
Run 4: Statistics of Vivace-loss

Start at: 2018-03-06 16:21:58
End at: 2018-03-06 16:22:28
Local clock offset: 3.291 ms
Remote clock offset: 20.616 ms

# Below is generated by plot.py at 2018-03-06 19:51:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.67 Mbit/s
95th percentile per-packet one-way delay: 45.412 ms
Loss rate: 13.54%
-- Flow 1:
Average throughput: 44.72 Mbit/s
95th percentile per-packet one-way delay: 44.103 ms
Loss rate: 9.41%
-- Flow 2:
Average throughput: 43.74 Mbit/s
95th percentile per-packet one-way delay: 46.472 ms
Loss rate: 17.47%
-- Flow 3:
Average throughput: 42.09 Mbit/s
95th percentile per-packet one-way delay: 45.935 ms
Loss rate: 17.41%
Run 4: Report of Vivace-loss — Data Link

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

- **Throughput Graph**
  - Flow 1 ingress (mean 49.39 Mbit/s)
  - Flow 1 egress (mean 44.72 Mbit/s)
  - Flow 2 ingress (mean 52.99 Mbit/s)
  - Flow 2 egress (mean 43.74 Mbit/s)
  - Flow 3 ingress (mean 50.99 Mbit/s)
  - Flow 3 egress (mean 42.09 Mbit/s)

- **Packet Delay Graph**
  - Flow 1 (95th percentile 44.10 ms)
  - Flow 2 (95th percentile 46.47 ms)
  - Flow 3 (95th percentile 45.94 ms)
Run 5: Statistics of Vivace-loss

Start at: 2018-03-06 16:43:16
End at: 2018-03-06 16:43:46
Local clock offset: 2.531 ms
Remote clock offset: 24.728 ms

# Below is generated by plot.py at 2018-03-06 19:51:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.29 Mbit/s
95th percentile per-packet one-way delay: 46.701 ms
Loss rate: 11.23%
-- Flow 1:
Average throughput: 42.92 Mbit/s
95th percentile per-packet one-way delay: 45.254 ms
Loss rate: 9.10%
-- Flow 2:
Average throughput: 47.50 Mbit/s
95th percentile per-packet one-way delay: 47.408 ms
Loss rate: 13.17%
-- Flow 3:
Average throughput: 32.72 Mbit/s
95th percentile per-packet one-way delay: 47.288 ms
Loss rate: 13.64%
Run 5: Report of Vivace-loss — Data Link
Run 6: Statistics of Vivace-loss

Start at: 2018-03-06 17:04:21
End at: 2018-03-06 17:04:51
Local clock offset: 0.731 ms
Remote clock offset: 1.959 ms

# Below is generated by plot.py at 2018-03-06 19:51:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.57 Mbit/s
95th percentile per-packet one-way delay: 48.545 ms
Loss rate: 14.15%
-- Flow 1:
Average throughput: 52.67 Mbit/s
95th percentile per-packet one-way delay: 48.094 ms
Loss rate: 12.35%
-- Flow 2:
Average throughput: 39.48 Mbit/s
95th percentile per-packet one-way delay: 48.709 ms
Loss rate: 15.22%
-- Flow 3:
Average throughput: 26.32 Mbit/s
95th percentile per-packet one-way delay: 50.255 ms
Loss rate: 21.02%
Run 6: Report of Vivace-loss — Data Link

![Graph of throughput and per packet one way delay](image-url)
Run 7: Statistics of Vivace-loss

Start at: 2018-03-06 17:25:40
End at: 2018-03-06 17:26:10
Local clock offset: 5.426 ms
Remote clock offset: -9.474 ms

# Below is generated by plot.py at 2018-03-06 19:51:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.64 Mbit/s
95th percentile per-packet one-way delay: 44.134 ms
Loss rate: 11.91%
-- Flow 1:
Average throughput: 47.83 Mbit/s
95th percentile per-packet one-way delay: 44.139 ms
Loss rate: 10.57%
-- Flow 2:
Average throughput: 35.92 Mbit/s
95th percentile per-packet one-way delay: 44.616 ms
Loss rate: 13.92%
-- Flow 3:
Average throughput: 45.32 Mbit/s
95th percentile per-packet one-way delay: 43.090 ms
Loss rate: 12.87%
Run 7: Report of Vivace-loss — Data Link

![Graph of throughput and per-packet one-way delay with legends for different flows and their mean throughputs and egresses.]

Flow 1 ingress (mean 53.52 Mbit/s)  Flow 1 egress (mean 47.83 Mbit/s)
Flow 2 ingress (mean 41.74 Mbit/s)  Flow 2 egress (mean 35.92 Mbit/s)
Flow 3 ingress (mean 52.08 Mbit/s)  Flow 3 egress (mean 45.32 Mbit/s)
Run 8: Statistics of Vivace-loss

Start at: 2018-03-06 17:47:00
End at: 2018-03-06 17:47:30
Local clock offset: 4.464 ms
Remote clock offset: -16.372 ms

# Below is generated by plot.py at 2018-03-06 19:52:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 45.002 ms
Loss rate: 10.49%
-- Flow 1:
Average throughput: 55.43 Mbit/s
95th percentile per-packet one-way delay: 44.537 ms
Loss rate: 9.79%
-- Flow 2:
Average throughput: 38.32 Mbit/s
95th percentile per-packet one-way delay: 45.734 ms
Loss rate: 11.54%
-- Flow 3:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 45.238 ms
Loss rate: 13.23%
Run 8: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 61.48 Mbit/s)
- Flow 1 egress (mean 55.43 Mbit/s)
- Flow 2 ingress (mean 43.33 Mbit/s)
- Flow 2 egress (mean 38.32 Mbit/s)
- Flow 3 ingress (mean 14.54 Mbit/s)
- Flow 3 egress (mean 12.59 Mbit/s)
Run 9: Statistics of Vivace-loss

Start at: 2018-03-06 18:08:23
End at: 2018-03-06 18:08:53
Local clock offset: 5.995 ms
Remote clock offset: -7.029 ms

# Below is generated by plot.py at 2018-03-06 19:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.74 Mbit/s
95th percentile per-packet one-way delay: 43.941 ms
Loss rate: 15.01%
-- Flow 1:
Average throughput: 66.79 Mbit/s
95th percentile per-packet one-way delay: 44.074 ms
Loss rate: 15.24%
-- Flow 2:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 43.652 ms
Loss rate: 14.45%
-- Flow 3:
Average throughput: 18.02 Mbit/s
95th percentile per-packet one-way delay: 43.037 ms
Loss rate: 13.66%
Run 9: Report of Vivace-loss — Data Link

Graphs showing throughput and per-packet one-way delay for different flows:

- Flow 1 ingress (mean 78.80 Mbit/s)
- Flow 1 egress (mean 66.79 Mbit/s)
- Flow 2 ingress (mean 24.91 Mbit/s)
- Flow 2 egress (mean 21.31 Mbit/s)
- Flow 3 ingress (mean 20.34 Mbit/s)
- Flow 3 egress (mean 18.02 Mbit/s)

Throughput in Mbps and time in seconds.
Run 10: Statistics of Vivace-loss

Start at: 2018-03-06 18:29:45
End at: 2018-03-06 18:30:15
Local clock offset: 4.881 ms
Remote clock offset: 0.483 ms

# Below is generated by plot.py at 2018-03-06 19:53:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.62 Mbit/s
  95th percentile per-packet one-way delay: 46.413 ms
  Loss rate: 15.12%
-- Flow 1:
  Average throughput: 54.62 Mbit/s
  95th percentile per-packet one-way delay: 46.832 ms
  Loss rate: 15.81%
-- Flow 2:
  Average throughput: 32.90 Mbit/s
  95th percentile per-packet one-way delay: 45.472 ms
  Loss rate: 13.99%
-- Flow 3:
  Average throughput: 33.83 Mbit/s
  95th percentile per-packet one-way delay: 45.499 ms
  Loss rate: 13.86%
Run 10: Report of Vivace-loss — Data Link
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-06 15:33:22
End at: 2018-03-06 15:33:52
Local clock offset: 7.201 ms
Remote clock offset: 7.444 ms

# Below is generated by plot.py at 2018-03-06 19:53:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.02 Mbit/s
95th percentile per-packet one-way delay: 40.046 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 56.72 Mbit/s
95th percentile per-packet one-way delay: 39.209 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 28.27 Mbit/s
95th percentile per-packet one-way delay: 40.922 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 42.551 ms
Loss rate: 2.23%
Run 1: Report of Vivace-LTE — Data Link
Run 2: Statistics of Vivace-LTE

Start at: 2018-03-06 15:54:45
End at: 2018-03-06 15:55:15
Local clock offset: 3.813 ms
Remote clock offset: 14.831 ms

# Below is generated by plot.py at 2018-03-06 19:53:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.00 Mbit/s
95th percentile per-packet one-way delay: 45.313 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 60.67 Mbit/s
95th percentile per-packet one-way delay: 41.464 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 26.05 Mbit/s
95th percentile per-packet one-way delay: 48.602 ms
Loss rate: 2.37%
-- Flow 3:
Average throughput: 24.32 Mbit/s
95th percentile per-packet one-way delay: 48.624 ms
Loss rate: 2.82%
Run 2: Report of Vivace-LTE — Data Link
Run 3: Statistics of Vivace-LTE

Start at: 2018-03-06 16:16:12
End at: 2018-03-06 16:16:42
Local clock offset: 4.014 ms
Remote clock offset: 19.895 ms

# Below is generated by plot.py at 2018-03-06 19:53:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.56 Mbit/s
  95th percentile per-packet one-way delay: 38.498 ms
  Loss rate: 1.93%
-- Flow 1:
  Average throughput: 49.73 Mbit/s
  95th percentile per-packet one-way delay: 34.128 ms
  Loss rate: 1.70%
-- Flow 2:
  Average throughput: 40.70 Mbit/s
  95th percentile per-packet one-way delay: 39.679 ms
  Loss rate: 1.91%
-- Flow 3:
  Average throughput: 29.70 Mbit/s
  95th percentile per-packet one-way delay: 44.623 ms
  Loss rate: 3.17%
Run 3: Report of Vivace-LTE — Data Link

![Image of throughput and per packet one-way delay graphs]

- Flow 1 ingress (mean 50.58 Mbit/s)
- Flow 1 egress (mean 49.73 Mbit/s)
- Flow 2 ingress (mean 41.50 Mbit/s)
- Flow 2 egress (mean 40.70 Mbit/s)
- Flow 3 ingress (mean 30.67 Mbit/s)
- Flow 3 egress (mean 29.70 Mbit/s)

- Flow 1 (95th percentile 34.13 ms)
- Flow 2 (95th percentile 39.68 ms)
- Flow 3 (95th percentile 44.62 ms)
Run 4: Statistics of Vivace-LTE

Start at: 2018-03-06 16:37:28
End at: 2018-03-06 16:37:58
Local clock offset: 1.499 ms
Remote clock offset: 24.478 ms

# Below is generated by plot.py at 2018-03-06 19:53:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.39 Mbit/s
95th percentile per-packet one-way delay: 46.342 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 58.79 Mbit/s
95th percentile per-packet one-way delay: 45.264 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 31.24 Mbit/s
95th percentile per-packet one-way delay: 47.930 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 20.75 Mbit/s
95th percentile per-packet one-way delay: 49.985 ms
Loss rate: 2.70%
Run 4: Report of Vivace-LTE — Data Link
Run 5: Statistics of Vivace-LTE

Start at: 2018-03-06 16:58:39
End at: 2018-03-06 16:59:09
Local clock offset: 3.702 ms
Remote clock offset: 9.027 ms

# Below is generated by plot.py at 2018-03-06 19:53:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.15 Mbit/s
95th percentile per-packet one-way delay: 40.862 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 56.39 Mbit/s
95th percentile per-packet one-way delay: 38.501 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 31.11 Mbit/s
95th percentile per-packet one-way delay: 44.160 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 33.76 Mbit/s
95th percentile per-packet one-way delay: 43.425 ms
Loss rate: 2.69%
Run 5: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 56.76 Mbit/s)
- Flow 1 egress (mean 56.39 Mbit/s)
- Flow 2 ingress (mean 31.60 Mbit/s)
- Flow 2 egress (mean 31.11 Mbit/s)
- Flow 3 ingress (mean 34.59 Mbit/s)
- Flow 3 egress (mean 33.76 Mbit/s)

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

- Flow 1 (95th percentile 38.50 ms)
- Flow 2 (95th percentile 44.16 ms)
- Flow 3 (95th percentile 43.42 ms)
Run 6: Statistics of Vivace-LTE

Start at: 2018-03-06 17:19:51
End at: 2018-03-06 17:20:21
Local clock offset: 3.008 ms
Remote clock offset: -7.552 ms

# Below is generated by plot.py at 2018-03-06 19:53:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.59 Mbit/s
95th percentile per-packet one-way delay: 43.398 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 50.83 Mbit/s
95th percentile per-packet one-way delay: 40.724 ms
Loss rate: 1.75%
-- Flow 2:
Average throughput: 34.66 Mbit/s
95th percentile per-packet one-way delay: 44.514 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 29.47 Mbit/s
95th percentile per-packet one-way delay: 45.000 ms
Loss rate: 2.70%
Run 6: Report of Vivace-LTE — Data Link

Throughput (Mbit/s)

- Flow 1 ingress (mean 51.74 Mbit/s)
- Flow 1 egress (mean 50.83 Mbit/s)
- Flow 2 ingress (mean 35.38 Mbit/s)
- Flow 2 egress (mean 34.66 Mbit/s)
- Flow 3 ingress (mean 30.29 Mbit/s)
- Flow 3 egress (mean 29.47 Mbit/s)

Per packet one way delay (ms)

- Flow 1 (95th percentile 40.72 ms)
- Flow 2 (95th percentile 44.51 ms)
- Flow 3 (95th percentile 45.00 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-03-06 17:41:17
End at: 2018-03-06 17:41:47
Local clock offset: 1.264 ms
Remote clock offset: -15.053 ms

# Below is generated by plot.py at 2018-03-06 19:53:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.27 Mbit/s
  95th percentile per-packet one-way delay: 41.252 ms
  Loss rate: 1.39%
-- Flow 1:
  Average throughput: 59.90 Mbit/s
  95th percentile per-packet one-way delay: 38.428 ms
  Loss rate: 1.37%
-- Flow 2:
  Average throughput: 29.00 Mbit/s
  95th percentile per-packet one-way delay: 44.613 ms
  Loss rate: 1.49%
-- Flow 3:
  Average throughput: 24.53 Mbit/s
  95th percentile per-packet one-way delay: 46.189 ms
  Loss rate: 1.31%
Run 7: Report of Vivace-LTE — Data Link
Run 8: Statistics of Vivace-LTE

Start at: 2018-03-06 18:02:35  
End at: 2018-03-06 18:03:05  
Local clock offset: 2.368 ms  
Remote clock offset: -15.163 ms

# Below is generated by plot.py at 2018-03-06 19:53:55  
# Datalink statistics

-- Total of 3 flows:  
Average throughput: 82.39 Mbit/s  
95th percentile per-packet one-way delay: 43.983 ms  
Loss rate: 1.80%  

-- Flow 1:  
Average throughput: 55.37 Mbit/s  
95th percentile per-packet one-way delay: 40.313 ms  
Loss rate: 1.55%  

-- Flow 2:  
Average throughput: 29.89 Mbit/s  
95th percentile per-packet one-way delay: 46.055 ms  
Loss rate: 2.04%  

-- Flow 3:  
Average throughput: 21.60 Mbit/s  
95th percentile per-packet one-way delay: 47.351 ms  
Loss rate: 3.10%
Run 8: Report of Vivace-LTE — Data Link

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

- **Flow 1 ingress (mean 56.30 Mbit/s)**
- **Flow 1 egress (mean 55.37 Mbit/s)**
- **Flow 2 ingress (mean 30.56 Mbit/s)**
- **Flow 2 egress (mean 29.89 Mbit/s)**
- **Flow 3 ingress (mean 22.36 Mbit/s)**
- **Flow 3 egress (mean 21.60 Mbit/s)**

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Run 9: Statistics of Vivace-LTE

Start at: 2018-03-06 18:23:58
End at: 2018-03-06 18:24:28
Local clock offset: 4.181 ms
Remote clock offset: -0.575 ms

# Below is generated by plot.py at 2018-03-06 19:53:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.92 Mbit/s
95th percentile per-packet one-way delay: 45.254 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 53.53 Mbit/s
95th percentile per-packet one-way delay: 43.048 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 31.49 Mbit/s
95th percentile per-packet one-way delay: 46.880 ms
Loss rate: 2.71%
-- Flow 3:
Average throughput: 28.73 Mbit/s
95th percentile per-packet one-way delay: 47.377 ms
Loss rate: 3.87%
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-06 18:45:24
End at: 2018-03-06 18:45:54
Local clock offset: 5.939 ms
Remote clock offset: 14.636 ms

# Below is generated by plot.py at 2018-03-06 19:53:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.27 Mbit/s
  95th percentile per-packet one-way delay: 39.538 ms
  Loss rate: 1.12%
-- Flow 1:
  Average throughput: 64.28 Mbit/s
  95th percentile per-packet one-way delay: 37.083 ms
  Loss rate: 0.96%
-- Flow 2:
  Average throughput: 22.92 Mbit/s
  95th percentile per-packet one-way delay: 41.645 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 29.59 Mbit/s
  95th percentile per-packet one-way delay: 45.002 ms
  Loss rate: 1.67%
Run 10: Report of Vivace-LTE — Data Link

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Throughput vs Time

- Flow 1 ingress (mean 64.91 Mbit/s)
- Flow 1 egress (mean 64.28 Mbit/s)
- Flow 2 ingress (mean 23.25 Mbit/s)
- Flow 2 egress (mean 22.92 Mbit/s)
- Flow 3 ingress (mean 30.09 Mbit/s)
- Flow 3 egress (mean 29.59 Mbit/s)

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Per-packet round-trip delay vs Time

- Flow 1 (95th percentile 37.08 ms)
- Flow 2 (95th percentile 41.65 ms)
- Flow 3 (95th percentile 45.00 ms)