Pantheon Report

Generated at 2018-07-11 21:34:00 (UTC).
Data path: GCE London Ethernet (remote) → GCE Sydney Ethernet (local).
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).
NTP offsets were measured against time.google.com and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ 9250dbeec7fb57193cdff1ba8c440b4e16ab30f0
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 37162fe9af85249aeccac061c93e75640ef710b5
third_party/genericCC @ d0153f8e594a89e93b032143ceddfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38d4c4dfe0edcbf90c077e64d
third_party/libutp @ b3465b942e2826f2b1b79eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/core.h
M receiver/src/core.cpp
M sender/src/core.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cfc4f2
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3dbb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af262956253ff9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9d2e4735770d1431afa2851
test from GCE London to GCE Sydney, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
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<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
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<td>TCP Vegas</td>
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<td>277.99</td>
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<td>WebRTC media</td>
<td>10</td>
<td>1.80</td>
<td>1.11</td>
<td>0.38</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-07-11 14:37:14
End at: 2018-07-11 14:37:44
Local clock offset: -0.084 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-07-11 19:20:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.55 Mbit/s
95th percentile per-packet one-way delay: 136.470 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 73.35 Mbit/s
95th percentile per-packet one-way delay: 136.416 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 75.83 Mbit/s
95th percentile per-packet one-way delay: 136.510 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 64.36 Mbit/s
95th percentile per-packet one-way delay: 136.519 ms
Loss rate: 3.27%
Run 1: Report of TCP BBR — Data Link

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

Start at: 2018-07-11 15:04:19
End at: 2018-07-11 15:04:49
Local clock offset: -0.08 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-11 19:20:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.62 Mbit/s
95th percentile per-packet one-way delay: 138.036 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 80.85 Mbit/s
95th percentile per-packet one-way delay: 137.639 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 74.19 Mbit/s
95th percentile per-packet one-way delay: 139.160 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 64.01 Mbit/s
95th percentile per-packet one-way delay: 137.378 ms
Loss rate: 3.32%
Run 2: Report of TCP BBR — Data Link

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

![Graph 2: Latency vs Time](image2)
Run 3: Statistics of TCP BBR

Start at: 2018-07-11 15:31:01
End at: 2018-07-11 15:31:31
Local clock offset: 0.183 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-07-11 19:20:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.74 Mbit/s
95th percentile per-packet one-way delay: 136.708 ms
Loss rate: 1.50%

-- Flow 1:
Average throughput: 72.93 Mbit/s
95th percentile per-packet one-way delay: 136.750 ms
Loss rate: 0.98%

-- Flow 2:
Average throughput: 72.28 Mbit/s
95th percentile per-packet one-way delay: 136.488 ms
Loss rate: 1.48%

-- Flow 3:
Average throughput: 64.04 Mbit/s
95th percentile per-packet one-way delay: 136.319 ms
Loss rate: 3.32%
Run 4: Statistics of TCP BBR

End at: 2018-07-11 15:58:17
Local clock offset: -0.112 ms
Remote clock offset: 0.291 ms

# Below is generated by plot.py at 2018-07-11 19:20:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.32 Mbit/s
95th percentile per-packet one-way delay: 135.178 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 72.26 Mbit/s
95th percentile per-packet one-way delay: 135.175 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 70.55 Mbit/s
95th percentile per-packet one-way delay: 135.181 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 65.31 Mbit/s
95th percentile per-packet one-way delay: 135.181 ms
Loss rate: 3.32%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-07-11 16:24:14
End at: 2018-07-11 16:24:44
Local clock offset: -0.223 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2018-07-11 19:20:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 145.68 Mbit/s
  95th percentile per-packet one-way delay: 138.216 ms
  Loss rate: 1.62%
-- Flow 1:
  Average throughput: 72.11 Mbit/s
  95th percentile per-packet one-way delay: 136.347 ms
  Loss rate: 1.08%
-- Flow 2:
  Average throughput: 77.21 Mbit/s
  95th percentile per-packet one-way delay: 139.239 ms
  Loss rate: 1.52%
-- Flow 3:
  Average throughput: 69.51 Mbit/s
  95th percentile per-packet one-way delay: 140.061 ms
  Loss rate: 3.54%
Run 5: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 72.19 Mbit/s) — Flow 1 egress (mean 72.11 Mbit/s)
- Flow 2 ingress (mean 77.33 Mbit/s) — Flow 2 egress (mean 77.21 Mbit/s)
- Flow 3 ingress (mean 70.05 Mbit/s) — Flow 3 egress (mean 69.51 Mbit/s)

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

- Flow 1 (95th percentile 136.35 ms)
- Flow 2 (95th percentile 139.24 ms)
- Flow 3 (95th percentile 140.06 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-07-11 16:51:33
End at: 2018-07-11 16:52:03
Local clock offset: -0.074 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-07-11 19:20:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 149.88 Mbit/s
  95th percentile per-packet one-way delay: 136.499 ms
  Loss rate: 1.51%
-- Flow 1:
  Average throughput: 77.94 Mbit/s
  95th percentile per-packet one-way delay: 136.110 ms
  Loss rate: 1.01%
-- Flow 2:
  Average throughput: 76.65 Mbit/s
  95th percentile per-packet one-way delay: 136.883 ms
  Loss rate: 1.51%
-- Flow 3:
  Average throughput: 64.78 Mbit/s
  95th percentile per-packet one-way delay: 137.414 ms
  Loss rate: 3.30%
Run 6: Report of TCP BBR — Data Link

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

Start at: 2018-07-11 17:18:11
End at: 2018-07-11 17:18:41
Local clock offset: -0.085 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2018-07-11 19:20:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 142.32 Mbit/s
  95th percentile per-packet one-way delay: 136.512 ms
  Loss rate: 1.72%
-- Flow 1:
  Average throughput: 73.42 Mbit/s
  95th percentile per-packet one-way delay: 136.527 ms
  Loss rate: 1.06%
-- Flow 2:
  Average throughput: 70.16 Mbit/s
  95th percentile per-packet one-way delay: 136.520 ms
  Loss rate: 1.84%
-- Flow 3:
  Average throughput: 69.10 Mbit/s
  95th percentile per-packet one-way delay: 136.321 ms
  Loss rate: 3.56%
Run 7: Report of TCP BBR — Data Link

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

- **Throughput**:
  - **Flow 1 ingress**: mean 73.48 Mbit/s
  - **Flow 1 egress**: mean 73.42 Mbit/s
  - **Flow 2 ingress**: mean 70.35 Mbit/s
  - **Flow 2 egress**: mean 70.16 Mbit/s
  - **Flow 3 ingress**: mean 68.99 Mbit/s
  - **Flow 3 egress**: mean 69.10 Mbit/s

- **Per-packet one-way delay**:
  - **Flow 1 (95th percentile)**: 136.53 ms
  - **Flow 2 (95th percentile)**: 136.52 ms
  - **Flow 3 (95th percentile)**: 136.32 ms
Run 8: Statistics of TCP BBR

Start at: 2018-07-11 17:44:56
End at: 2018-07-11 17:45:26
Local clock offset: -0.015 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-07-11 19:20:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 148.34 Mbit/s
95th percentile per-packet one-way delay: 136.760 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 78.19 Mbit/s
95th percentile per-packet one-way delay: 136.796 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 74.01 Mbit/s
95th percentile per-packet one-way delay: 136.674 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 64.56 Mbit/s
95th percentile per-packet one-way delay: 136.627 ms
Loss rate: 3.29%
Run 8: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 78.20 Mbps)  Flow 1 egress (mean 78.19 Mbps)
Flow 2 ingress (mean 74.09 Mbps)  Flow 2 egress (mean 74.01 Mbps)
Flow 3 ingress (mean 64.93 Mbps)  Flow 3 egress (mean 64.56 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.80 ms)  Flow 2 (95th percentile 136.67 ms)  Flow 3 (95th percentile 136.63 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-07-11 18:11:44
End at: 2018-07-11 18:12:14
Local clock offset: 0.134 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-07-11 19:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.41 Mbit/s
95th percentile per-packet one-way delay: 136.784 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 73.54 Mbit/s
95th percentile per-packet one-way delay: 136.751 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 72.09 Mbit/s
95th percentile per-packet one-way delay: 136.791 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 64.74 Mbit/s
95th percentile per-packet one-way delay: 136.856 ms
Loss rate: 3.56%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-07-11 18:38:33
End at: 2018-07-11 18:39:03
Local clock offset: -0.163 ms
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2018-07-11 19:22:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.59 Mbit/s
95th percentile per-packet one-way delay: 136.771 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 73.47 Mbit/s
95th percentile per-packet one-way delay: 136.494 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 78.77 Mbit/s
95th percentile per-packet one-way delay: 137.263 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 64.26 Mbit/s
95th percentile per-packet one-way delay: 140.618 ms
Loss rate: 3.33%
Run 10: Report of TCP BBR — Data Link

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**Throughput (Mb/s)**

- **Flow 1 ingress (mean 73.52 Mb/s)**
- **Flow 1 egress (mean 73.47 Mb/s)**
- **Flow 2 ingress (mean 78.63 Mb/s)**
- **Flow 2 egress (mean 78.77 Mb/s)**
- **Flow 3 ingress (mean 64.64 Mb/s)**
- **Flow 3 egress (mean 64.26 Mb/s)**

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

- **Flow 1 (95th percentile 136.49 ms)**
- **Flow 2 (95th percentile 137.26 ms)**
- **Flow 3 (95th percentile 140.62 ms)**

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Run 1: Statistics of Copa

Start at: 2018-07-11 14:47:09
End at: 2018-07-11 14:47:39
Local clock offset: -0.179 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-07-11 19:29:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 287.70 Mbit/s
95th percentile per-packet one-way delay: 169.600 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 90.92 Mbit/s
95th percentile per-packet one-way delay: 154.380 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 267.83 Mbit/s
95th percentile per-packet one-way delay: 171.666 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 58.58 Mbit/s
95th percentile per-packet one-way delay: 149.001 ms
Loss rate: 4.37%
Run 1: Report of Copa — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 90.68 Mbps)
- Flow 1 egress (mean 90.92 Mbps)
- Flow 2 ingress (mean 268.05 Mbps)
- Flow 2 egress (mean 267.83 Mbps)
- Flow 3 ingress (mean 59.99 Mbps)
- Flow 3 egress (mean 58.58 Mbps)

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

- Flow 1 (95th percentile 154.38 ms)
- Flow 2 (95th percentile 171.67 ms)
- Flow 3 (95th percentile 149.00 ms)
Run 2: Statistics of Copa

Start at: 2018-07-11 15:14:21
End at: 2018-07-11 15:14:51
Local clock offset: 0.071 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2018-07-11 19:29:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 279.01 Mbit/s
95th percentile per-packet one-way delay: 161.630 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 180.24 Mbit/s
95th percentile per-packet one-way delay: 164.389 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 90.29 Mbit/s
95th percentile per-packet one-way delay: 140.893 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 119.94 Mbit/s
95th percentile per-packet one-way delay: 141.305 ms
Loss rate: 3.81%
Run 2: Report of Copa — Data Link

![Data Link Throughput Graph](image1)

![Data Link Delay Graph](image2)
Run 3: Statistics of Copa

Start at: 2018-07-11 15:41:09
End at: 2018-07-11 15:41:40
Local clock offset: -0.031 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2018-07-11 19:29:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 261.79 Mbit/s
95th percentile per-packet one-way delay: 149.952 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 169.21 Mbit/s
95th percentile per-packet one-way delay: 149.283 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 116.22 Mbit/s
95th percentile per-packet one-way delay: 148.558 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 47.52 Mbit/s
95th percentile per-packet one-way delay: 157.812 ms
Loss rate: 6.52%
Run 3: Report of Copa — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 168.66 Mbps)
  - Flow 1 egress (mean 169.21 Mbps)
  - Flow 2 ingress (mean 115.64 Mbps)
  - Flow 2 egress (mean 116.22 Mbps)
  - Flow 3 ingress (mean 49.63 Mbps)
  - Flow 3 egress (mean 47.52 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 149.28 ms)
  - Flow 2 (95th percentile 148.56 ms)
  - Flow 3 (95th percentile 157.81 ms)
Run 4: Statistics of Copa

Start at: 2018-07-11 16:07:43
End at: 2018-07-11 16:08:13
Local clock offset: -0.048 ms
Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2018-07-11 19:29:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 233.39 Mbit/s
95th percentile per-packet one-way delay: 161.224 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 146.58 Mbit/s
95th percentile per-packet one-way delay: 157.133 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 81.00 Mbit/s
95th percentile per-packet one-way delay: 165.656 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 103.06 Mbit/s
95th percentile per-packet one-way delay: 164.781 ms
Loss rate: 2.25%
Run 4: Report of Copa — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 145.97 Mb/s) - blue dashed
Flow 1 egress (mean 146.58 Mb/s) - blue solid
Flow 2 ingress (mean 81.01 Mb/s) - green dashed
Flow 2 egress (mean 81.00 Mb/s) - green solid
Flow 3 ingress (mean 102.53 Mb/s) - red dashed
Flow 3 egress (mean 103.06 Mb/s) - red solid

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 157.13 ms) - blue
Flow 2 (95th percentile 165.66 ms) - green
Flow 3 (95th percentile 164.78 ms) - red

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Run 5: Statistics of Copa

Start at: 2018-07-11 16:34:25
End at: 2018-07-11 16:34:55
Local clock offset: 0.071 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2018-07-11 19:29:07
# Datalink statistics

-- Total of 3 flows:
Average throughput: 246.29 Mbit/s
95th percentile per-packet one-way delay: 153.290 ms
Loss rate: 1.17%

-- Flow 1:
Average throughput: 170.55 Mbit/s
95th percentile per-packet one-way delay: 146.833 ms
Loss rate: 0.31%

-- Flow 2:
Average throughput: 56.32 Mbit/s
95th percentile per-packet one-way delay: 159.551 ms
Loss rate: 4.27%

-- Flow 3:
Average throughput: 119.87 Mbit/s
95th percentile per-packet one-way delay: 175.957 ms
Loss rate: 1.82%
Run 5: Report of Copa — Data Link

![Graph showing throughput over time for different flows]

- **Flow 1 ingress (mean 168.96 Mbit/s)**
- **Flow 1 egress (mean 170.55 Mbit/s)**
- **Flow 2 ingress (mean 57.58 Mbit/s)**
- **Flow 2 egress (mean 56.32 Mbit/s)**
- **Flow 3 ingress (mean 118.75 Mbit/s)**
- **Flow 3 egress (mean 119.87 Mbit/s)**

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

- **Flow 1 (95th percentile 146.83 ms)**
- **Flow 2 (95th percentile 159.55 ms)**
- **Flow 3 (95th percentile 175.96 ms)**
Run 6: Statistics of Copa

Start at: 2018-07-11 17:01:46
End at: 2018-07-11 17:02:16
Local clock offset: 0.018 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2018-07-11 19:29:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 234.11 Mbit/s
  95th percentile per-packet one-way delay: 170.020 ms
  Loss rate: 0.84%
-- Flow 1:
  Average throughput: 118.33 Mbit/s
  95th percentile per-packet one-way delay: 165.283 ms
  Loss rate: 0.32%
-- Flow 2:
  Average throughput: 122.48 Mbit/s
  95th percentile per-packet one-way delay: 179.741 ms
  Loss rate: 1.10%
-- Flow 3:
  Average throughput: 106.05 Mbit/s
  95th percentile per-packet one-way delay: 163.397 ms
  Loss rate: 2.02%
Run 7: Statistics of Copa

Start at: 2018-07-11 17:28:12
End at: 2018-07-11 17:28:42
Local clock offset: 0.052 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-07-11 19:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.31 Mbit/s
95th percentile per-packet one-way delay: 242.715 ms
Loss rate: 2.41%
-- Flow 1:
Average throughput: 184.10 Mbit/s
95th percentile per-packet one-way delay: 272.117 ms
Loss rate: 1.97%
-- Flow 2:
Average throughput: 132.10 Mbit/s
95th percentile per-packet one-way delay: 182.731 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 42.05 Mbit/s
95th percentile per-packet one-way delay: 161.614 ms
Loss rate: 12.82%
Run 7: Report of Copa — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 186.04 Mbps)
  - Flow 1 egress (mean 184.10 Mbps)
  - Flow 2 ingress (mean 132.40 Mbps)
  - Flow 2 egress (mean 132.10 Mbps)
  - Flow 3 ingress (mean 46.87 Mbps)
  - Flow 3 egress (mean 42.65 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 272.12 ms)
  - Flow 2 (95th percentile 182.73 ms)
  - Flow 3 (95th percentile 161.61 ms)
Run 8: Statistics of Copa

Start at: 2018-07-11 17:55:08
Local clock offset: -0.032 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-07-11 19:31:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 244.20 Mbit/s
  95th percentile per-packet one-way delay: 159.764 ms
  Loss rate: 0.88%
-- Flow 1:
  Average throughput: 149.67 Mbit/s
  95th percentile per-packet one-way delay: 163.818 ms
  Loss rate: 0.50%
-- Flow 2:
  Average throughput: 100.27 Mbit/s
  95th percentile per-packet one-way delay: 157.685 ms
  Loss rate: 1.28%
-- Flow 3:
  Average throughput: 86.26 Mbit/s
  95th percentile per-packet one-way delay: 139.657 ms
  Loss rate: 1.91%
Run 8: Report of Copa — Data Link

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

- Flow 1 ingress (mean 149.06 Mbps)
- Flow 1 egress (mean 149.67 Mbps)
- Flow 2 ingress (mean 100.11 Mbps)
- Flow 2 egress (mean 100.27 Mbps)
- Flow 3 ingress (mean 85.53 Mbps)
- Flow 3 egress (mean 86.26 Mbps)

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

- Flow 1 (95th percentile 163.82 ms)
- Flow 2 (95th percentile 157.69 ms)
- Flow 3 (95th percentile 139.66 ms)
Run 9: Statistics of Copa

Local clock offset: -0.076 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-07-11 19:34:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.78 Mbit/s
95th percentile per-packet one-way delay: 157.294 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 117.89 Mbit/s
95th percentile per-packet one-way delay: 158.480 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 112.48 Mbit/s
95th percentile per-packet one-way delay: 158.337 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 65.27 Mbit/s
95th percentile per-packet one-way delay: 149.503 ms
Loss rate: 3.39%
Run 9: Report of Copa — Data Link

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

Legend:
- Flow 1 ingress (mean 117.64 Mbit/s)
- Flow 1 egress (mean 117.89 Mbit/s)
- Flow 2 ingress (mean 113.66 Mbit/s)
- Flow 2 egress (mean 112.48 Mbit/s)
- Flow 3 ingress (mean 65.70 Mbit/s)
- Flow 3 egress (mean 65.27 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 158.48 ms)
- Flow 2 (95th percentile 158.34 ms)
- Flow 3 (95th percentile 149.50 ms)
Run 10: Statistics of Copa

End at: 2018-07-11 18:49:12
Local clock offset: 0.186 ms
Remote clock offset: -0.478 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 229.73 Mbit/s
95th percentile per-packet one-way delay: 176.372 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 144.74 Mbit/s
95th percentile per-packet one-way delay: 178.079 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 85.69 Mbit/s
95th percentile per-packet one-way delay: 185.094 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 86.71 Mbit/s
95th percentile per-packet one-way delay: 151.444 ms
Loss rate: 2.39%
Run 10: Report of Copa — Data Link

---

**Graph 1:**
- *X-axis:* Time (s)
- *Y-axis:* Throughput (Mbit/s)
- Legend:
  - Blue dashed line: Flow 1 ingress (mean 145.50 Mbit/s)
  - Blue solid line: Flow 1 egress (mean 144.74 Mbit/s)
  - Green dashed line: Flow 2 ingress (mean 84.90 Mbit/s)
  - Green solid line: Flow 2 egress (mean 85.69 Mbit/s)
  - Red dashed line: Flow 3 ingress (mean 86.41 Mbit/s)
  - Red solid line: Flow 3 egress (mean 86.71 Mbit/s)

**Graph 2:**
- *X-axis:* Time (s)
- *Y-axis:* Per-packet one-way delay (ms)
- Legend:
  - Blue circle: Flow 1 (95th percentile 178.08 ms)
  - Green circle: Flow 2 (95th percentile 185.99 ms)
  - Red circle: Flow 3 (95th percentile 151.44 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-07-11 14:44:14
End at: 2018-07-11 14:44:44
Local clock offset: -0.082 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.56 Mbit/s
95th percentile per-packet one-way delay: 147.779 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 83.12 Mbit/s
95th percentile per-packet one-way delay: 148.450 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 80.12 Mbit/s
95th percentile per-packet one-way delay: 146.780 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 142.929 ms
Loss rate: 11.72%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-07-11 15:11:26
End at: 2018-07-11 15:11:56
Local clock offset: 0.064 ms
Remote clock offset: 0.259 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.24 Mbit/s
95th percentile per-packet one-way delay: 148.645 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 83.05 Mbit/s
95th percentile per-packet one-way delay: 150.173 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 81.31 Mbit/s
95th percentile per-packet one-way delay: 145.207 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 143.665 ms
Loss rate: 13.04%
Run 2: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 83.11 Mbit/s)
  - Flow 1 egress (mean 83.05 Mbit/s)
  - Flow 2 ingress (mean 81.46 Mbit/s)
  - Flow 2 egress (mean 81.31 Mbit/s)
  - Flow 3 ingress (mean 0.98 Mbit/s)
  - Flow 3 egress (mean 0.88 Mbit/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 150.17 ms)
  - Flow 2 (95th percentile 145.21 ms)
  - Flow 3 (95th percentile 143.66 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-07-11 15:38:14
End at: 2018-07-11 15:38:44
Local clock offset: 0.046 ms
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 115.13 Mbit/s
  95th percentile per-packet one-way delay: 149.238 ms
  Loss rate: 1.97%
-- Flow 1:
  Average throughput: 82.97 Mbit/s
  95th percentile per-packet one-way delay: 149.908 ms
  Loss rate: 1.00%
-- Flow 2:
  Average throughput: 13.46 Mbit/s
  95th percentile per-packet one-way delay: 144.822 ms
  Loss rate: 6.67%
-- Flow 3:
  Average throughput: 72.66 Mbit/s
  95th percentile per-packet one-way delay: 144.831 ms
  Loss rate: 3.43%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-07-11 16:04:50
End at: 2018-07-11 16:05:20
Local clock offset: -0.019 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 153.41 Mbit/s
  95th percentile per-packet one-way delay: 147.030 ms
  Loss rate: 1.50%
-- Flow 1:
  Average throughput: 84.28 Mbit/s
  95th percentile per-packet one-way delay: 147.747 ms
  Loss rate: 0.99%
-- Flow 2:
  Average throughput: 81.14 Mbit/s
  95th percentile per-packet one-way delay: 144.895 ms
  Loss rate: 1.54%
-- Flow 3:
  Average throughput: 49.18 Mbit/s
  95th percentile per-packet one-way delay: 146.775 ms
  Loss rate: 3.95%
Run 4: Report of TCP Cubic — Data Link

![Throughput graph](image1)

- **Flow 1 ingress (mean 84.35 Mbit/s)**
- **Flow 1 egress (mean 84.28 Mbit/s)**
- **Flow 2 ingress (mean 81.30 Mbit/s)**
- **Flow 2 egress (mean 81.14 Mbit/s)**
- **Flow 3 ingress (mean 49.80 Mbit/s)**
- **Flow 3 egress (mean 49.18 Mbit/s)**

![Delay graph](image2)

- **Flow 1 (95th percentile 147.75 ms)**
- **Flow 2 (95th percentile 144.90 ms)**
- **Flow 3 (95th percentile 146.78 ms)**

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Run 5: Statistics of TCP Cubic

End at: 2018-07-11 16:31:58
Local clock offset: -0.222 ms
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.37 Mbit/s
95th percentile per-packet one-way delay: 150.312 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 83.18 Mbit/s
95th percentile per-packet one-way delay: 149.811 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 43.64 Mbit/s
95th percentile per-packet one-way delay: 153.886 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 143.767 ms
Loss rate: 12.92%
Run 5: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 83.24 Mbit/s)
- Flow 1 egress (mean 83.18 Mbit/s)
- Flow 2 ingress (mean 43.86 Mbit/s)
- Flow 2 egress (mean 43.64 Mbit/s)
- Flow 3 ingress (mean 0.90 Mbit/s)
- Flow 3 egress (mean 0.80 Mbit/s)

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

- Flow 1 (95th percentile 149.91 ms)
- Flow 2 (95th percentile 153.89 ms)
- Flow 3 (95th percentile 143.77 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-07-11 16:58:50
End at: 2018-07-11 16:59:20
Local clock offset: -0.041 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 126.27 Mbit/s
  95th percentile per-packet one-way delay: 147.940 ms
  Loss rate: 1.48%
-- Flow 1:
  Average throughput: 83.64 Mbit/s
  95th percentile per-packet one-way delay: 148.284 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 40.50 Mbit/s
  95th percentile per-packet one-way delay: 146.682 ms
  Loss rate: 1.75%
-- Flow 3:
  Average throughput: 48.39 Mbit/s
  95th percentile per-packet one-way delay: 143.994 ms
  Loss rate: 3.58%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

End at: 2018-07-11 17:25:52
Local clock offset: -0.149 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.80 Mbit/s
95th percentile per-packet one-way delay: 149.998 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 82.95 Mbit/s
95th percentile per-packet one-way delay: 149.287 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 44.33 Mbit/s
95th percentile per-packet one-way delay: 152.443 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 140.968 ms
Loss rate: 10.69%
Run 7: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 83.08 Mbit/s)
- Flow 1 egress (mean 82.95 Mbit/s)
- Flow 2 ingress (mean 44.53 Mbit/s)
- Flow 2 egress (mean 44.33 Mbit/s)
- Flow 3 ingress (mean 1.54 Mbit/s)
- Flow 3 egress (mean 1.41 Mbit/s)
Run 8: Statistics of TCP Cubic

Start at: 2018-07-11 17:52:10
End at: 2018-07-11 17:52:40
Local clock offset: 0.122 ms
Remote clock offset: 0.226 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.16 Mbit/s
95th percentile per-packet one-way delay: 151.015 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 82.98 Mbit/s
95th percentile per-packet one-way delay: 151.661 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 16.55 Mbit/s
95th percentile per-packet one-way delay: 145.551 ms
Loss rate: 6.32%
-- Flow 3:
Average throughput: 39.10 Mbit/s
95th percentile per-packet one-way delay: 146.133 ms
Loss rate: 3.69%
Run 8: Report of TCP Cubic — Data Link

[Graphs showing throughput and per-packet delay over time for different flows, with various lines and markers indicating different characteristics and mean values.]
Run 9: Statistics of TCP Cubic

Start at: 2018-07-11 18:18:51
End at: 2018-07-11 18:19:21
Local clock offset: -0.108 ms
Remote clock offset: -0.468 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 116.40 Mbit/s
95th percentile per-packet one-way delay: 149.747 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 82.98 Mbit/s
95th percentile per-packet one-way delay: 150.152 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 16.42 Mbit/s
95th percentile per-packet one-way delay: 146.560 ms
Loss rate: 6.32%
-- Flow 3:
Average throughput: 71.73 Mbit/s
95th percentile per-packet one-way delay: 148.319 ms
Loss rate: 3.52%
Run 9: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 83.07 Mbps/s)
- Flow 1 egress (mean 82.98 Mbps/s)
- Flow 2 ingress (mean 17.29 Mbps/s)
- Flow 2 egress (mean 16.42 Mbps/s)
- Flow 3 ingress (mean 72.28 Mbps/s)
- Flow 3 egress (mean 71.73 Mbps/s)

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

- Flow 1 (95th percentile 150.15 ms)
- Flow 2 (95th percentile 146.56 ms)
- Flow 3 (95th percentile 148.32 ms)
Run 10: Statistics of TCP Cubic

Start at: 2018-07-11 18:45:47
End at: 2018-07-11 18:46:17
Local clock offset: -0.145 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-07-11 19:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.68 Mbit/s
95th percentile per-packet one-way delay: 149.222 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 83.29 Mbit/s
95th percentile per-packet one-way delay: 149.514 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 48.43 Mbit/s
95th percentile per-packet one-way delay: 149.016 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 143.353 ms
Loss rate: 3.60%
Run 10: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 83.41 Mbit/s)
- Flow 1 egress (mean 83.29 Mbit/s)
- Flow 2 ingress (mean 48.64 Mbit/s)
- Flow 2 egress (mean 48.45 Mbit/s)
- Flow 3 ingress (mean 41.06 Mbit/s)
- Flow 3 egress (mean 40.87 Mbit/s)

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

- Flow 1 (95th percentile 149.51 ms)
- Flow 2 (95th percentile 149.02 ms)
- Flow 3 (95th percentile 143.35 ms)
Run 1: Statistics of FillP

End at: 2018-07-11 14:49:27
Local clock offset: 0.154 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-07-11 19:57:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1218.53 Mbit/s
95th percentile per-packet one-way delay: 229.394 ms
Loss rate: 4.38%
-- Flow 1:
Average throughput: 637.36 Mbit/s
95th percentile per-packet one-way delay: 226.543 ms
Loss rate: 5.17%
-- Flow 2:
Average throughput: 628.48 Mbit/s
95th percentile per-packet one-way delay: 235.943 ms
Loss rate: 3.66%
-- Flow 3:
Average throughput: 507.14 Mbit/s
95th percentile per-packet one-way delay: 183.110 ms
Loss rate: 3.05%
Run 1: Report of FillP — Data Link

![Throughput Graph](chart1.png)

- Flow 1 Ingress (mean 666.01 Mbit/s)
- Flow 1 Egress (mean 637.36 Mbit/s)
- Flow 2 Ingress (mean 643.37 Mbit/s)
- Flow 2 Egress (mean 628.45 Mbit/s)
- Flow 3 Ingress (mean 507.91 Mbit/s)
- Flow 3 Egress (mean 507.14 Mbit/s)

![Delay Graph](chart2.png)

- Flow 1 (95th percentile 226.54 ms)
- Flow 2 (95th percentile 235.94 ms)
- Flow 3 (95th percentile 183.11 ms)
Run 2: Statistics of FillP

Start at: 2018-07-11 15:16:06
End at: 2018-07-11 15:16:36
Local clock offset: -0.01 ms
Remote clock offset: 0.253 ms

# Below is generated by plot.py at 2018-07-11 19:59:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1281.34 Mbit/s
  95th percentile per-packet one-way delay: 257.316 ms
  Loss rate: 3.53%
-- Flow 1:
  Average throughput: 718.61 Mbit/s
  95th percentile per-packet one-way delay: 256.208 ms
  Loss rate: 2.26%
-- Flow 2:
  Average throughput: 629.95 Mbit/s
  95th percentile per-packet one-way delay: 306.926 ms
  Loss rate: 4.21%
-- Flow 3:
  Average throughput: 446.84 Mbit/s
  95th percentile per-packet one-way delay: 224.132 ms
  Loss rate: 7.62%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FILLP

Local clock offset: -0.143 ms
Remote clock offset: 0.258 ms

# Below is generated by plot.py at 2018-07-11 19:59:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1189.50 Mbit/s
95th percentile per-packet one-way delay: 240.342 ms
Loss rate: 5.16%
-- Flow 1:
Average throughput: 637.93 Mbit/s
95th percentile per-packet one-way delay: 239.325 ms
Loss rate: 5.53%
-- Flow 2:
Average throughput: 581.17 Mbit/s
95th percentile per-packet one-way delay: 245.905 ms
Loss rate: 5.07%
-- Flow 3:
Average throughput: 513.18 Mbit/s
95th percentile per-packet one-way delay: 167.943 ms
Loss rate: 3.92%
Run 3: Report of FillP — Data Link

![Graph showing throughput and per-packet end-to-end delay over time]

Legend:
- Flow 1 ingress (mean 669.01 Mbit/s)
- Flow 1 egress (mean 637.93 Mbit/s)
- Flow 2 ingress (mean 603.78 Mbit/s)
- Flow 2 egress (mean 581.17 Mbit/s)
- Flow 3 ingress (mean 519.34 Mbit/s)
- Flow 3 egress (mean 513.18 Mbit/s)

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Run 4: Statistics of FillP

Start at: 2018-07-11 16:09:23
End at: 2018-07-11 16:09:53
Local clock offset: -0.01 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-07-11 19:59:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1221.40 Mbit/s
95th percentile per-packet one-way delay: 257.859 ms
Loss rate: 6.06%
-- Flow 1:
Average throughput: 709.15 Mbit/s
95th percentile per-packet one-way delay: 294.038 ms
Loss rate: 5.11%
-- Flow 2:
Average throughput: 526.58 Mbit/s
95th percentile per-packet one-way delay: 237.288 ms
Loss rate: 6.24%
-- Flow 3:
Average throughput: 500.98 Mbit/s
95th percentile per-packet one-way delay: 231.849 ms
Loss rate: 9.67%
Run 4: Report of FillP — Data Link

![Graph of throughput and packet one-way delay](image-url)
Run 5: Statistics of FillP

Start at: 2018-07-11 16:36:06
End at: 2018-07-11 16:36:36
Local clock offset: -0.005 ms
Remote clock offset: 0.231 ms

# Below is generated by plot.py at 2018-07-11 19:59:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1135.57 Mbit/s
95th percentile per-packet one-way delay: 289.350 ms
Loss rate: 7.22%
-- Flow 1:
Average throughput: 629.60 Mbit/s
95th percentile per-packet one-way delay: 298.594 ms
Loss rate: 7.11%
-- Flow 2:
Average throughput: 582.74 Mbit/s
95th percentile per-packet one-way delay: 233.370 ms
Loss rate: 7.63%
-- Flow 3:
Average throughput: 366.39 Mbit/s
95th percentile per-packet one-way delay: 321.532 ms
Loss rate: 6.40%
Run 5: Report of FillP — Data Link

![Graph of Throughput (Mbps/s)]

![Graph of Packet Delay (ms)]
Run 6: Statistics of FillP

Start at: 2018-07-11 17:03:27
End at: 2018-07-11 17:03:57
Local clock offset: -0.204 ms
Remote clock offset: 0.272 ms

# Below is generated by plot.py at 2018-07-11 19:59:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1069.79 Mbit/s
95th percentile per-packet one-way delay: 285.931 ms
Loss rate: 7.89%
-- Flow 1:
Average throughput: 588.56 Mbit/s
95th percentile per-packet one-way delay: 248.853 ms
Loss rate: 8.68%
-- Flow 2:
Average throughput: 483.10 Mbit/s
95th percentile per-packet one-way delay: 291.064 ms
Loss rate: 6.44%
-- Flow 3:
Average throughput: 496.02 Mbit/s
95th percentile per-packet one-way delay: 340.161 ms
Loss rate: 7.80%
Run 6: Report of FillP — Data Link

Throughput (MBits/s)

Time (s)

Flow 1 Ingress (mean 658.69 MBits/s)  Flow 1 Egress (mean 588.56 MBits/s)
Flow 2 Ingress (mean 509.27 MBits/s)  Flow 2 Egress (mean 483.10 MBits/s)
Flow 3 Ingress (mean 523.13 MBits/s)  Flow 3 Egress (mean 496.02 MBits/s)

Ping packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 248.85 ms)  Flow 2 (95th percentile 291.06 ms)  Flow 3 (95th percentile 340.16 ms)
Run 7: Statistics of FillP

Start at: 2018-07-11 17:29:58
End at: 2018-07-11 17:30:28
Local clock offset: -0.06 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2018-07-11 20:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1223.33 Mbit/s
95th percentile per-packet one-way delay: 266.559 ms
Loss rate: 5.50%

-- Flow 1:
Average throughput: 674.82 Mbit/s
95th percentile per-packet one-way delay: 246.930 ms
Loss rate: 4.71%

-- Flow 2:
Average throughput: 567.60 Mbit/s
95th percentile per-packet one-way delay: 301.379 ms
Loss rate: 7.27%

-- Flow 3:
Average throughput: 528.77 Mbit/s
95th percentile per-packet one-way delay: 207.202 ms
Loss rate: 4.64%
Run 7: Report of FillP — Data Link
Run 8: Statistics of FillP

Start at: 2018-07-11 17:56:50
End at: 2018-07-11 17:57:20
Local clock offset: -0.099 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2018-07-11 20:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1118.60 Mbit/s
95th percentile per-packet one-way delay: 291.210 ms
Loss rate: 7.55%
-- Flow 1:
Average throughput: 626.46 Mbit/s
95th percentile per-packet one-way delay: 236.932 ms
Loss rate: 7.32%
-- Flow 2:
Average throughput: 521.62 Mbit/s
95th percentile per-packet one-way delay: 293.002 ms
Loss rate: 8.14%
-- Flow 3:
Average throughput: 450.59 Mbit/s
95th percentile per-packet one-way delay: 359.175 ms
Loss rate: 7.13%
Run 8: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 669.82 Mbits/s)
- Flow 1 Egress (mean 626.46 Mbits/s)
- Flow 2 Ingress (mean 560.04 Mbits/s)
- Flow 2 Egress (mean 521.62 Mbits/s)
- Flow 3 Ingress (mean 471.34 Mbits/s)
- Flow 3 Egress (mean 450.59 Mbits/s)

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

- Flow 1 (95th percentile 236.93 ms)
- Flow 2 (95th percentile 293.00 ms)
- Flow 3 (95th percentile 359.18 ms)
Run 9: Statistics of FillP

Local clock offset: -0.179 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-07-11 20:22:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1156.73 Mbit/s
  95th percentile per-packet one-way delay: 258.063 ms
  Loss rate: 8.15%
-- Flow 1:
  Average throughput: 609.09 Mbit/s
  95th percentile per-packet one-way delay: 250.548 ms
  Loss rate: 7.26%
-- Flow 2:
  Average throughput: 568.32 Mbit/s
  95th percentile per-packet one-way delay: 270.506 ms
  Loss rate: 9.00%
-- Flow 3:
  Average throughput: 525.03 Mbit/s
  95th percentile per-packet one-way delay: 227.215 ms
  Loss rate: 9.41%
Run 9: Report of FillP — Data Link

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

- **Flow 1 Ingress (mean 650.76 Mbps/s)**
- **Flow 1 Egress (mean 609.09 Mbps/s)**
- **Flow 2 Ingress (mean 616.13 Mbps/s)**
- **Flow 2 Egress (mean 568.32 Mbps/s)**
- **Flow 3 Ingress (mean 563.49 Mbps/s)**
- **Flow 3 Egress (mean 525.03 Mbps/s)**

![Graph 2: Percentile Delay (ms) vs Time (s)]

- **Flow 1 (95th percentile 250.55 ms)**
- **Flow 2 (95th percentile 270.51 ms)**
- **Flow 3 (95th percentile 227.22 ms)**
Run 10: Statistics of FillIP

Start at: 2018-07-11 18:50:22
End at: 2018-07-11 18:50:52
Local clock offset: 0.048 ms
Remote clock offset: -0.444 ms

# Below is generated by plot.py at 2018-07-11 20:22:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1102.55 Mbit/s
95th percentile per-packet one-way delay: 249.883 ms
Loss rate: 6.12%
-- Flow 1:
Average throughput: 544.33 Mbit/s
95th percentile per-packet one-way delay: 266.929 ms
Loss rate: 5.59%
-- Flow 2:
Average throughput: 623.18 Mbit/s
95th percentile per-packet one-way delay: 228.060 ms
Loss rate: 6.05%
-- Flow 3:
Average throughput: 447.56 Mbit/s
95th percentile per-packet one-way delay: 231.590 ms
Loss rate: 8.25%
Run 10: Report of FillP — Data Link
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-11 14:53:51
End at: 2018-07-11 14:54:21
Local clock offset: 0.047 ms
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2018-07-11 20:22:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1090.87 Mbit/s
95th percentile per-packet one-way delay: 243.871 ms
Loss rate: 6.06%
-- Flow 1:
Average throughput: 599.40 Mbit/s
95th percentile per-packet one-way delay: 232.780 ms
Loss rate: 5.49%
-- Flow 2:
Average throughput: 539.68 Mbit/s
95th percentile per-packet one-way delay: 256.124 ms
Loss rate: 7.28%
-- Flow 3:
Average throughput: 411.13 Mbit/s
95th percentile per-packet one-way delay: 189.629 ms
Loss rate: 5.26%
Run 1: Report of FillP-Sheep — Data Link

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

Legend:
- **Flow 1 Ingress (mean 628.46 Mb/s)**
- **Flow 1 Egress (mean 599.40 Mb/s)**
- **Flow 2 Ingress (mean 574.09 Mb/s)**
- **Flow 2 Egress (mean 539.68 Mb/s)**
- **Flow 3 Ingress (mean 422.03 Mb/s)**
- **Flow 3 Egress (mean 411.13 Mb/s)**

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

Legend:
- **Flow 1 (95th percentile 232.78 ms)**
- **Flow 2 (95th percentile 256.12 ms)**
- **Flow 3 (95th percentile 189.63 ms)**

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Run 2: Statistics of FillP-Sheep

Local clock offset: -0.047 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-07-11 20:22:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1075.42 Mbit/s
95th percentile per-packet one-way delay: 267.616 ms
Loss rate: 7.05%
-- Flow 1:
Average throughput: 607.79 Mbit/s
95th percentile per-packet one-way delay: 277.172 ms
Loss rate: 6.28%
-- Flow 2:
Average throughput: 503.04 Mbit/s
95th percentile per-packet one-way delay: 255.766 ms
Loss rate: 8.62%
-- Flow 3:
Average throughput: 413.68 Mbit/s
95th percentile per-packet one-way delay: 208.394 ms
Loss rate: 6.58%
Run 2: Report of FillP-Sheep — Data Link

![Graph showing network performance data over time]

- Flow 1 ingress (mean 642.54 Mbit/s)
- Flow 1 egress (mean 607.79 Mbit/s)
- Flow 2 ingress (mean 542.89 Mbit/s)
- Flow 2 egress (mean 503.04 Mbit/s)
- Flow 3 ingress (mean 430.58 Mbit/s)
- Flow 3 egress (mean 413.68 Mbit/s)

![Graph showing packet delay over time]

- Flow 1 (95th percentile 277.17 ms)
- Flow 2 (95th percentile 255.77 ms)
- Flow 3 (95th percentile 208.39 ms)
Run 3: Statistics of FillP-Sheep

Local clock offset: -0.072 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-07-11 20:22:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1131.20 Mbit/s
95th percentile per-packet one-way delay: 257.840 ms
Loss rate: 6.05%
-- Flow 1:
Average throughput: 603.82 Mbit/s
95th percentile per-packet one-way delay: 282.843 ms
Loss rate: 7.88%
-- Flow 2:
Average throughput: 579.09 Mbit/s
95th percentile per-packet one-way delay: 227.623 ms
Loss rate: 4.27%
-- Flow 3:
Average throughput: 443.64 Mbit/s
95th percentile per-packet one-way delay: 206.226 ms
Loss rate: 2.73%
Run 3: Report of FillP-Sheep — Data Link

![Throughput vs. Time Graph]

- **Flow 1 Ingress (mean 649.47 Mbit/s)**
- **Flow 1 Egress (mean 603.82 Mbit/s)**
- **Flow 2 Ingress (mean 596.65 Mbit/s)**
- **Flow 2 Egress (mean 579.09 Mbit/s)**
- **Flow 3 Ingress (mean 443.83 Mbit/s)**
- **Flow 3 Egress (mean 443.64 Mbit/s)**

![Packet Latency vs. Time Graph]

- **Flow 1 (95th percentile 282.94 ms)**
- **Flow 2 (95th percentile 227.62 ms)**
- **Flow 3 (95th percentile 206.23 ms)**

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Run 4: Statistics of FillP-Sheep

Start at: 2018-07-11 16:14:19
End at: 2018-07-11 16:14:49
Local clock offset: 0.083 ms
Remote clock offset: 0.287 ms

# Below is generated by plot.py at 2018-07-11 20:22:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 654.80 Mbit/s
95th percentile per-packet one-way delay: 349.430 ms
Loss rate: 12.65%
-- Flow 1:
Average throughput: 113.47 Mbit/s
95th percentile per-packet one-way delay: 424.478 ms
Loss rate: 15.24%
-- Flow 2:
Average throughput: 589.38 Mbit/s
95th percentile per-packet one-way delay: 251.094 ms
Loss rate: 10.41%
-- Flow 3:
Average throughput: 464.31 Mbit/s
95th percentile per-packet one-way delay: 328.759 ms
Loss rate: 16.16%
Run 4: Report of FillP-Sheep — Data Link

![Diagram of network throughput and packet delay](image-url)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 132.51 Mbps)
  - Flow 1 egress (mean 113.47 Mbps)
  - Flow 2 ingress (mean 648.85 Mbps)
  - Flow 2 egress (mean 589.38 Mbps)
  - Flow 3 ingress (mean 538.51 Mbps)
  - Flow 3 egress (mean 464.31 Mbps)

- **Packet Delay (ms)**
  - Flow 1 (95th percentile 424.48 ms)
  - Flow 2 (95th percentile 251.09 ms)
  - Flow 3 (95th percentile 328.76 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-11 16:40:59
End at: 2018-07-11 16:41:29
Local clock offset: 0.014 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-07-11 20:24:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1165.05 Mbit/s
95th percentile per-packet one-way delay: 302.552 ms
Loss rate: 6.81%
-- Flow 1:
Average throughput: 670.23 Mbit/s
95th percentile per-packet one-way delay: 281.984 ms
Loss rate: 5.07%
-- Flow 2:
Average throughput: 523.53 Mbit/s
95th percentile per-packet one-way delay: 329.978 ms
Loss rate: 11.65%
-- Flow 3:
Average throughput: 455.07 Mbit/s
95th percentile per-packet one-way delay: 158.145 ms
Loss rate: 2.40%
Run 5: Report of FillP-Sheep — Data Link

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

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

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Run 6: Statistics of FillP-Sheep

Start at: 2018-07-11 17:08:19
End at: 2018-07-11 17:08:49
Local clock offset: 0.179 ms
Remote clock offset: 0.254 ms

# Below is generated by plot.py at 2018-07-11 20:24:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1070.15 Mbit/s
  95th percentile per-packet one-way delay: 294.619 ms
  Loss rate: 8.76%
-- Flow 1:
  Average throughput: 599.38 Mbit/s
  95th percentile per-packet one-way delay: 249.317 ms
  Loss rate: 8.17%
-- Flow 2:
  Average throughput: 497.99 Mbit/s
  95th percentile per-packet one-way delay: 311.254 ms
  Loss rate: 10.47%
-- Flow 3:
  Average throughput: 434.30 Mbit/s
  95th percentile per-packet one-way delay: 329.579 ms
  Loss rate: 7.12%
Run 6: Report of FillP-Sheep — Data Link

![Plot of Throughput (Mbps)]

- Flow 1 ingress (mean 646.76 Mbps)
- Flow 1 egress (mean 599.38 Mbps)
- Flow 2 ingress (mean 548.57 Mbps)
- Flow 2 egress (mean 497.99 Mbps)
- Flow 3 ingress (mean 454.74 Mbps)
- Flow 3 egress (mean 434.30 Mbps)

![Plot of Per-packet error rate - delay (ms)]

- Flow 1 (95th percentile 249.32 ms)
- Flow 2 (95th percentile 311.25 ms)
- Flow 3 (95th percentile 329.58 ms)
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-11 17:34:53
End at: 2018-07-11 17:35:23
Local clock offset: -0.125 ms
Remote clock offset: 0.294 ms

# Below is generated by plot.py at 2018-07-11 20:37:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1093.15 Mbit/s
95th percentile per-packet one-way delay: 307.943 ms
Loss rate: 7.30%
-- Flow 1:
Average throughput: 599.64 Mbit/s
95th percentile per-packet one-way delay: 305.165 ms
Loss rate: 8.37%
-- Flow 2:
Average throughput: 518.52 Mbit/s
95th percentile per-packet one-way delay: 335.332 ms
Loss rate: 6.92%
-- Flow 3:
Average throughput: 461.75 Mbit/s
95th percentile per-packet one-way delay: 182.449 ms
Loss rate: 3.73%
Run 7: Report of FillP-Sheep — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 Ingress (mean 647.90 Mbps)
  - Flow 1 Egress (mean 599.64 Mbps)
  - Flow 2 Ingress (mean 548.72 Mbps)
  - Flow 2 Egress (mean 518.52 Mbps)
  - Flow 3 Ingress (mean 465.20 Mbps)
  - Flow 3 Egress (mean 461.75 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 305.17 ms)
  - Flow 2 (95th percentile 335.33 ms)
  - Flow 3 (95th percentile 182.45 ms)
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-11 18:01:40
End at: 2018-07-11 18:02:10
Local clock offset: -0.016 ms
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2018-07-11 20:42:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 993.66 Mbit/s
95th percentile per-packet one-way delay: 356.686 ms
Loss rate: 8.72%
-- Flow 1:
Average throughput: 551.92 Mbit/s
95th percentile per-packet one-way delay: 314.477 ms
Loss rate: 5.41%
-- Flow 2:
Average throughput: 492.77 Mbit/s
95th percentile per-packet one-way delay: 367.235 ms
Loss rate: 8.39%
-- Flow 3:
Average throughput: 360.52 Mbit/s
95th percentile per-packet one-way delay: 411.118 ms
Loss rate: 22.37%
Run 8: Report of FillP-Sheep — Data Link
Run 9: Statistics of FillP-Sheep

Local clock offset: 0.102 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2018-07-11 20:45:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1107.33 Mbit/s
95th percentile per-packet one-way delay: 288.881 ms
Loss rate: 6.65%
-- Flow 1:
Average throughput: 597.98 Mbit/s
95th percentile per-packet one-way delay: 284.371 ms
Loss rate: 7.52%
-- Flow 2:
Average throughput: 547.82 Mbit/s
95th percentile per-packet one-way delay: 347.985 ms
Loss rate: 6.58%
-- Flow 3:
Average throughput: 449.57 Mbit/s
95th percentile per-packet one-way delay: 190.833 ms
Loss rate: 3.14%
Run 9: Report of FillP-Sheep — Data Link
Run 10: Statistics of FillP-Sheep

Local clock offset: -0.0 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-07-11 20:45:02
# Datalink statistics

-- Total of 3 flows:
Average throughput: 1057.07 Mbit/s
95th percentile per-packet one-way delay: 289.398 ms
Loss rate: 7.73%
-- Flow 1:
Average throughput: 591.02 Mbit/s
95th percentile per-packet one-way delay: 309.196 ms
Loss rate: 7.42%
-- Flow 2:
Average throughput: 496.39 Mbit/s
95th percentile per-packet one-way delay: 245.007 ms
Loss rate: 9.17%
-- Flow 3:
Average throughput: 421.45 Mbit/s
95th percentile per-packet one-way delay: 256.556 ms
Loss rate: 5.49%
Run 10: Report of FillIP-Sheep — Data Link

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

Legend:
- Flow 1 Ingress (mean 652.56 Mbit/s)
- Flow 1 Egress (mean 591.02 Mbit/s)
- Flow 2 Ingress (mean 539.16 Mbit/s)
- Flow 2 Egress (mean 496.39 Mbit/s)
- Flow 3 Ingress (mean 433.60 Mbit/s)
- Flow 3 Egress (mean 421.45 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 309.20 ms)
- Flow 2 (95th percentile 245.01 ms)
- Flow 3 (95th percentile 256.56 ms)
Run 1: Statistics of Indigo

Start at: 2018-07-11 14:59:46
End at: 2018-07-11 15:00:16
Local clock offset: 0.023 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2018-07-11 20:45:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 306.52 Mbit/s
  95th percentile per-packet one-way delay: 148.454 ms
  Loss rate: 1.34%
-- Flow 1:
  Average throughput: 160.86 Mbit/s
  95th percentile per-packet one-way delay: 146.745 ms
  Loss rate: 0.86%
-- Flow 2:
  Average throughput: 162.02 Mbit/s
  95th percentile per-packet one-way delay: 149.282 ms
  Loss rate: 1.28%
-- Flow 3:
  Average throughput: 104.58 Mbit/s
  95th percentile per-packet one-way delay: 151.549 ms
  Loss rate: 3.66%
Run 1: Report of Indigo — Data Link
Run 2: Statistics of Indigo

Start at: 2018-07-11 15:26:27
End at: 2018-07-11 15:26:57
Local clock offset: -0.14 ms
Remote clock offset: 0.272 ms

# Below is generated by plot.py at 2018-07-11 20:45:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 324.92 Mbit/s
95th percentile per-packet one-way delay: 142.704 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 170.03 Mbit/s
95th percentile per-packet one-way delay: 141.165 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 161.60 Mbit/s
95th percentile per-packet one-way delay: 142.114 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 149.65 Mbit/s
95th percentile per-packet one-way delay: 148.413 ms
Loss rate: 3.38%
Run 2: Report of Indigo — Data Link
Run 3: Statistics of Indigo

Start at: 2018-07-11 15:53:18
Local clock offset: -0.185 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2018-07-11 20:45:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 292.26 Mbit/s
95th percentile per-packet one-way delay: 146.424 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 131.44 Mbit/s
95th percentile per-packet one-way delay: 141.490 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 172.04 Mbit/s
95th percentile per-packet one-way delay: 146.154 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 146.10 Mbit/s
95th percentile per-packet one-way delay: 150.415 ms
Loss rate: 3.26%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Start at: 2018-07-11 16:19:42  
End at: 2018-07-11 16:20:12  
Local clock offset: 0.039 ms  
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2018-07-11 20:45:02  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 293.32 Mbit/s  
  95th percentile per-packet one-way delay: 140.131 ms  
  Loss rate: 1.52%  
-- Flow 1:  
  Average throughput: 133.39 Mbit/s  
  95th percentile per-packet one-way delay: 139.129 ms  
  Loss rate: 0.97%  
-- Flow 2:  
  Average throughput: 167.51 Mbit/s  
  95th percentile per-packet one-way delay: 143.267 ms  
  Loss rate: 1.31%  
-- Flow 3:  
  Average throughput: 151.95 Mbit/s  
  95th percentile per-packet one-way delay: 140.284 ms  
  Loss rate: 3.43%
Run 4: Report of Indigo — Data Link
Run 5: Statistics of Indigo

Start at: 2018-07-11 16:47:01
End at: 2018-07-11 16:47:31
Local clock offset: -0.17 ms
Remote clock offset: -0.515 ms

# Below is generated by plot.py at 2018-07-11 20:45:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 291.45 Mbit/s
  95th percentile per-packet one-way delay: 142.248 ms
  Loss rate: 1.52%
-- Flow 1:
  Average throughput: 131.63 Mbit/s
  95th percentile per-packet one-way delay: 140.051 ms
  Loss rate: 0.97%
-- Flow 2:
  Average throughput: 167.67 Mbit/s
  95th percentile per-packet one-way delay: 142.386 ms
  Loss rate: 1.32%
-- Flow 3:
  Average throughput: 152.71 Mbit/s
  95th percentile per-packet one-way delay: 149.520 ms
  Loss rate: 3.38%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Start at: 2018-07-11 17:13:42
End at: 2018-07-11 17:14:12
Local clock offset: 0.079 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-11 20:45:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 305.04 Mbit/s
  95th percentile per-packet one-way delay: 140.500 ms
  Loss rate: 1.31%
-- Flow 1:
  Average throughput: 162.73 Mbit/s
  95th percentile per-packet one-way delay: 139.963 ms
  Loss rate: 0.86%
-- Flow 2:
  Average throughput: 163.62 Mbit/s
  95th percentile per-packet one-way delay: 141.581 ms
  Loss rate: 1.22%
-- Flow 3:
  Average throughput: 105.42 Mbit/s
  95th percentile per-packet one-way delay: 140.332 ms
  Loss rate: 3.64%
Run 6: Report of Indigo — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 162.66 Mbit/s)
- Flow 1 egress (mean 162.73 Mbit/s)
- Flow 2 ingress (mean 163.33 Mbit/s)
- Flow 2 egress (mean 163.62 Mbit/s)
- Flow 3 ingress (mean 166.39 Mbit/s)
- Flow 3 egress (mean 165.42 Mbit/s)

![Per-packet one-way delay Graph]

- Flow 1 (95th percentile 139.96 ms)
- Flow 2 (95th percentile 141.58 ms)
- Flow 3 (95th percentile 140.33 ms)
Run 7: Statistics of Indigo

Start at: 2018-07-11 17:40:24
End at: 2018-07-11 17:40:54
Local clock offset: -0.089 ms
Remote clock offset: 0.296 ms

# Below is generated by plot.py at 2018-07-11 20:45:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 288.47 Mbit/s
95th percentile per-packet one-way delay: 139.250 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 174.03 Mbit/s
95th percentile per-packet one-way delay: 139.075 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 128.00 Mbit/s
95th percentile per-packet one-way delay: 139.474 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 93.44 Mbit/s
95th percentile per-packet one-way delay: 139.846 ms
Loss rate: 4.26%
Run 7: Report of Indigo — Data Link

![Graph of data link performance](image)

**Throughput (Mbps)**

- Flow 1 ingress (mean 173.95 Mbps)
- Flow 1 egress (mean 174.03 Mbps)
- Flow 2 ingress (mean 128.21 Mbps)
- Flow 2 egress (mean 128.00 Mbps)
- Flow 3 ingress (mean 94.98 Mbps)
- Flow 3 egress (mean 93.44 Mbps)

![Graph of packet delay](image)

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

- Flow 1 (95th percentile 139.07 ms)
- Flow 2 (95th percentile 139.47 ms)
- Flow 3 (95th percentile 139.85 ms)
Run 8: Statistics of Indigo

Start at: 2018-07-11 18:07:14
End at: 2018-07-11 18:07:44
Local clock offset: -0.029 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2018-07-11 20:45:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.20 Mbit/s
95th percentile per-packet one-way delay: 140.319 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 131.41 Mbit/s
95th percentile per-packet one-way delay: 139.872 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 130.10 Mbit/s
95th percentile per-packet one-way delay: 139.901 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 109.26 Mbit/s
95th percentile per-packet one-way delay: 141.965 ms
Loss rate: 3.68%
Run 8: Report of Indigo — Data Link
Run 9: Statistics of Indigo

Start at: 2018-07-11 18:34:02
End at: 2018-07-11 18:34:32
Local clock offset: 0.164 ms
Remote clock offset: 0.222 ms

# Below is generated by plot.py at 2018-07-11 20:45:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 293.43 Mbit/s
95th percentile per-packet one-way delay: 138.453 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 131.19 Mbit/s
95th percentile per-packet one-way delay: 138.192 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 171.54 Mbit/s
95th percentile per-packet one-way delay: 138.320 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 153.03 Mbit/s
95th percentile per-packet one-way delay: 139.602 ms
Loss rate: 3.48%
Run 9: Report of Indigo — Data Link

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

Flow 1 ingress (mean 131.17 Mbit/s)  
Flow 1 egress (mean 131.19 Mbit/s)  
Flow 2 ingress (mean 171.43 Mbit/s)  
Flow 2 egress (mean 171.54 Mbit/s)  
Flow 3 ingress (mean 154.09 Mbit/s)  
Flow 3 egress (mean 153.03 Mbit/s)
Run 10: Statistics of Indigo

Start at: 2018-07-11 19:00:47
End at: 2018-07-11 19:01:17
Local clock offset: -0.071 ms
Remote clock offset: 0.037 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 292.27 Mbit/s
95th percentile per-packet one-way delay: 140.028 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 176.28 Mbit/s
95th percentile per-packet one-way delay: 139.930 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 129.51 Mbit/s
95th percentile per-packet one-way delay: 139.752 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 95.20 Mbit/s
95th percentile per-packet one-way delay: 140.554 ms
Loss rate: 4.33%
Run 10: Report of Indigo — Data Link
Run 1: Statistics of LEDBAT

Start at: 2018-07-11 14:51:12
End at: 2018-07-11 14:51:42
Local clock offset: 0.048 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 137.604 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 137.699 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 137.444 ms
Loss rate: 2.75%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 137.243 ms
Loss rate: 5.56%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Local clock offset: -0.051 ms  
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-07-11 20:45:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 5.51 Mbit/s  
95th percentile per-packet one-way delay: 196.319 ms  
Loss rate: 2.53%  
-- Flow 1:  
Average throughput: 3.23 Mbit/s  
95th percentile per-packet one-way delay: 196.237 ms  
Loss rate: 1.92%  
-- Flow 2:  
Average throughput: 2.77 Mbit/s  
95th percentile per-packet one-way delay: 248.099 ms  
Loss rate: 2.80%  
-- Flow 3:  
Average throughput: 1.41 Mbit/s  
95th percentile per-packet one-way delay: 194.878 ms  
Loss rate: 5.65%
Run 2: Report of LEDBAT — Data Link

[Graph showing throughput and per-packet one way delay over time for Flow 1, Flow 2, and Flow 3, with respective mean speeds and 95th percentile delays.]
Run 3: Statistics of LEDBAT

Start at: 2018-07-11 15:45:07
End at: 2018-07-11 15:45:37
Local clock offset: 0.137 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.67 Mbit/s
95th percentile per-packet one-way delay: 136.893 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 136.930 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 136.701 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.074 ms
Loss rate: 2.63%
Run 4: Statistics of LEDBAT

Start at: 2018-07-11 16:11:40
End at: 2018-07-11 16:12:10
Local clock offset: 0.038 ms
Remote clock offset: 0.25 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.55 Mbit/s
95th percentile per-packet one-way delay: 136.615 ms
Loss rate: 2.49%

-- Flow 1:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 136.658 ms
Loss rate: 1.99%

-- Flow 2:
Average throughput: 3.20 Mbit/s
95th percentile per-packet one-way delay: 136.485 ms
Loss rate: 2.74%

-- Flow 3:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 136.168 ms
Loss rate: 5.85%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-07-11 16:38:20
End at: 2018-07-11 16:38:50
Local clock offset: -0.268 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.36 Mbit/s
95th percentile per-packet one-way delay: 136.514 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 136.591 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 136.327 ms
Loss rate: 2.74%
-- Flow 3:
Average throughput: 1.53 Mbit/s
95th percentile per-packet one-way delay: 135.963 ms
Loss rate: 5.57%
Run 5: Report of LEDBAT — Data Link

![Graph 1: Throughput (Mbps/s) over time for different flows](image1)

- **Flow 1 ingress** (mean 4.83 Mbps/s)
- **Flow 1 egress** (mean 4.78 Mbps/s)
- **Flow 2 ingress** (mean 3.23 Mbps/s)
- **Flow 2 egress** (mean 3.19 Mbps/s)
- **Flow 3 ingress** (mean 1.57 Mbps/s)
- **Flow 3 egress** (mean 1.33 Mbps/s)

![Graph 2: Per-packet one-way delay (ms) over time for different flows](image2)

- **Flow 1 (95th percentile 136.59 ms)**
- **Flow 2 (95th percentile 136.33 ms)**
- **Flow 3 (95th percentile 135.96 ms)**
Run 6: Statistics of LEDBAT

Start at: 2018-07-11 17:05:38
End at: 2018-07-11 17:06:08
Local clock offset: 0.113 ms
Remote clock offset: -0.129 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.22 Mbit/s
  95th percentile per-packet one-way delay: 137.652 ms
  Loss rate: 2.33%
-- Flow 1:
  Average throughput: 4.77 Mbit/s
  95th percentile per-packet one-way delay: 137.651 ms
  Loss rate: 1.83%
-- Flow 2:
  Average throughput: 3.18 Mbit/s
  95th percentile per-packet one-way delay: 137.703 ms
  Loss rate: 2.74%
-- Flow 3:
  Average throughput: 1.17 Mbit/s
  95th percentile per-packet one-way delay: 136.958 ms
  Loss rate: 6.10%
Run 6: Report of LEDBAT — Data Link

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

- **Flow 1 ingress** (mean 4.81 Mbps)
- **Flow 1 egress** (mean 4.77 Mbps)
- **Flow 2 ingress** (mean 3.22 Mbps)
- **Flow 2 egress** (mean 3.18 Mbps)
- **Flow 3 ingress** (mean 1.22 Mbps)
- **Flow 3 egress** (mean 1.17 Mbps)

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

- **Flow 1** (95th percentile 137.65 ms)
- **Flow 2** (95th percentile 137.70 ms)
- **Flow 3** (95th percentile 136.96 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-07-11 17:32:14
End at: 2018-07-11 17:32:45
Local clock offset: 0.069 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.13 Mbit/s
  95th percentile per-packet one-way delay: 137.853 ms
  Loss rate: 2.39%
-- Flow 1:
  Average throughput: 4.62 Mbit/s
  95th percentile per-packet one-way delay: 137.755 ms
  Loss rate: 1.87%
-- Flow 2:
  Average throughput: 3.11 Mbit/s
  95th percentile per-packet one-way delay: 137.997 ms
  Loss rate: 2.77%
-- Flow 3:
  Average throughput: 1.52 Mbit/s
  95th percentile per-packet one-way delay: 137.108 ms
  Loss rate: 5.57%
Run 7: Report of LEDBAT — Data Link

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

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

Flow 1 ingress (mean 4.67 Mbit/s), Flow 1 egress (mean 4.62 Mbit/s), Flow 2 ingress (mean 3.16 Mbit/s), Flow 2 egress (mean 3.11 Mbit/s), Flow 3 ingress (mean 1.56 Mbit/s), Flow 3 egress (mean 1.32 Mbit/s)
Run 8: Statistics of LEDBAT

Start at: 2018-07-11 17:59:03
End at: 2018-07-11 17:59:33
Local clock offset: -0.008 ms
Remote clock offset: 0.287 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.28 Mbit/s
95th percentile per-packet one-way delay: 137.286 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 137.376 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 137.129 ms
Loss rate: 2.74%
-- Flow 3:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 136.794 ms
Loss rate: 5.85%
Run 8: Report of LEDBAT — Data Link

![Graph of data link throughput and packet delay](image-url)
Run 9: Statistics of LEDBAT

Start at: 2018-07-11 18:25:42
End at: 2018-07-11 18:26:12
Local clock offset: -0.125 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.38 Mbit/s
95th percentile per-packet one-way delay: 137.353 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 137.388 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 137.336 ms
Loss rate: 2.75%
-- Flow 3:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 137.007 ms
Loss rate: 5.71%
Run 9: Report of LEDBAT — Data Link

**Throughput (Mbps)**

- **Flow 1 ingress**: (mean 4.88 Mbps)
- **Flow 1 egress**: (mean 4.84 Mbps)
- **Flow 2 ingress**: (mean 3.20 Mbps)
- **Flow 2 egress**: (mean 3.16 Mbps)
- **Flow 3 ingress**: (mean 1.44 Mbps)
- **Flow 3 egress**: (mean 1.40 Mbps)

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

- **Flow 1 (95th percentile) 137.39 ms**
- **Flow 2 (95th percentile) 137.34 ms**
- **Flow 3 (95th percentile) 137.01 ms**
Run 10: Statistics of LEDBAT

Start at: 2018-07-11 18:52:33  
End at: 2018-07-11 18:53:03  
Local clock offset: -0.057 ms  
Remote clock offset: 0.331 ms  

# Below is generated by plot.py at 2018-07-11 20:45:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 6.12 Mbit/s  
95th percentile per-packet one-way delay: 136.889 ms  
Loss rate: 2.61%  
-- Flow 1:  
Average throughput: 3.56 Mbit/s  
95th percentile per-packet one-way delay: 136.945 ms  
Loss rate: 2.11%  
-- Flow 2:  
Average throughput: 3.17 Mbit/s  
95th percentile per-packet one-way delay: 136.841 ms  
Loss rate: 2.75%  
-- Flow 3:  
Average throughput: 1.52 Mbit/s  
95th percentile per-packet one-way delay: 136.691 ms  
Loss rate: 5.51%
Run 10: Report of LEDBAT — Data Link

![Graph showing throughput over time for different flows.

Flow 1 ingress (mean 3.60 Mbit/s) and egress (mean 3.56 Mbit/s)
Flow 2 ingress (mean 3.21 Mbit/s) and egress (mean 3.17 Mbit/s)
Flow 3 ingress (mean 1.56 Mbit/s) and egress (mean 1.52 Mbit/s)]

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

Flow 1 (95th percentile 136.94 ms)
Flow 2 (95th percentile 136.84 ms)
Flow 3 (95th percentile 136.69 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-07-11 15:01:26
End at: 2018-07-11 15:01:56
Local clock offset: -0.028 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 501.05 Mbit/s
95th percentile per-packet one-way delay: 262.823 ms
Loss rate: 2.47%

-- Flow 1:
Average throughput: 478.55 Mbit/s
95th percentile per-packet one-way delay: 262.849 ms
Loss rate: 2.49%

-- Flow 2:
Average throughput: 32.80 Mbit/s
95th percentile per-packet one-way delay: 262.564 ms
Loss rate: 2.09%

-- Flow 3:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 247.232 ms
Loss rate: 2.59%
Run 1: Report of PCC-Allegro — Data Link

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

- **Throughput (Mb/s):**
  - Flow 1 ingress (mean 486.29 Mb/s)
  - Flow 1 egress (mean 478.55 Mb/s)
  - Flow 2 ingress (mean 33.04 Mb/s)
  - Flow 2 egress (mean 32.80 Mb/s)
  - Flow 3 ingress (mean 2.44 Mb/s)
  - Flow 3 egress (mean 2.45 Mb/s)

- **Per-packet delay (ms):**
  - Flow 1 (95th percentile 262.65 ms)
  - Flow 2 (95th percentile 262.56 ms)
  - Flow 3 (95th percentile 247.23 ms)
Run 2: Statistics of PCC-Allegro

Local clock offset: -0.001 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-07-11 20:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 488.64 Mbit/s
95th percentile per-packet one-way delay: 275.274 ms
Loss rate: 4.84%
-- Flow 1:
Average throughput: 448.40 Mbit/s
95th percentile per-packet one-way delay: 275.411 ms
Loss rate: 4.75%
-- Flow 2:
Average throughput: 31.17 Mbit/s
95th percentile per-packet one-way delay: 273.555 ms
Loss rate: 5.46%
-- Flow 3:
Average throughput: 60.65 Mbit/s
95th percentile per-packet one-way delay: 275.370 ms
Loss rate: 6.34%
Run 2: Report of PCC-Allegro — Data Link
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-11 15:54:57
Local clock offset: -0.206 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2018-07-11 20:46:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 411.43 Mbit/s
  95th percentile per-packet one-way delay: 307.369 ms
  Loss rate: 5.33%
-- Flow 1:
  Average throughput: 232.25 Mbit/s
  95th percentile per-packet one-way delay: 308.701 ms
  Loss rate: 6.84%
-- Flow 2:
  Average throughput: 254.64 Mbit/s
  95th percentile per-packet one-way delay: 250.025 ms
  Loss rate: 3.32%
-- Flow 3:
  Average throughput: 33.07 Mbit/s
  95th percentile per-packet one-way delay: 249.665 ms
  Loss rate: 2.77%
Run 3: Report of PCC-Allegro — Data Link

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

- Flow 1 Ingress (mean 247.06 Mbit/s)  
- Flow 1 Egress (mean 232.25 Mbit/s)  
- Flow 2 Ingress (mean 259.76 Mbit/s)  
- Flow 2 Egress (mean 254.64 Mbit/s)  
- Flow 3 Ingress (mean 33.07 Mbit/s)  
- Flow 3 Egress (mean 33.07 Mbit/s)  

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

- Flow 1 (95th percentile 308.70 ms)  
- Flow 2 (95th percentile 250.03 ms)  
- Flow 3 (95th percentile 249.66 ms)
Run 4: Statistics of PCC-Allegro

End at: 2018-07-11 16:21:52
Local clock offset: -0.12 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at 2018-07-11 20:48:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 511.25 Mbit/s
  95th percentile per-packet one-way delay: 265.790 ms
  Loss rate: 5.29%
-- Flow 1:
  Average throughput: 489.50 Mbit/s
  95th percentile per-packet one-way delay: 265.682 ms
  Loss rate: 5.02%
-- Flow 2:
  Average throughput: 4.28 Mbit/s
  95th percentile per-packet one-way delay: 262.646 ms
  Loss rate: 4.67%
-- Flow 3:
  Average throughput: 58.62 Mbit/s
  95th percentile per-packet one-way delay: 267.903 ms
  Loss rate: 11.72%
Run 4: Report of PCC-Allegro — Data Link
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-11 16:48:40  
End at: 2018-07-11 16:49:10  
Local clock offset: -0.045 ms  
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2018-07-11 20:48:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 507.11 Mbit/s  
95th percentile per-packet one-way delay: 275.260 ms  
Loss rate: 5.46%  
-- Flow 1:  
Average throughput: 466.83 Mbit/s  
95th percentile per-packet one-way delay: 276.186 ms  
Loss rate: 5.44%  
-- Flow 2:  
Average throughput: 59.71 Mbit/s  
95th percentile per-packet one-way delay: 272.202 ms  
Loss rate: 5.72%  
-- Flow 3:  
Average throughput: 2.39 Mbit/s  
95th percentile per-packet one-way delay: 270.651 ms  
Loss rate: 7.03%
Run 5: Report of PCC-Allegro — Data Link

![Graph showing throughput and delay for different flows]

Legend:
- Flow 1 Ingress (mean 489.15 Mbps)
- Flow 1 Egress (mean 466.83 Mbps)
- Flow 2 Ingress (mean 62.46 Mbps)
- Flow 2 Egress (mean 59.71 Mbps)
- Flow 3 Ingress (mean 2.50 Mbps)
- Flow 3 Egress (mean 2.39 Mbps)
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-11 17:15:22
End at: 2018-07-11 17:15:52
Local clock offset: -0.2 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-07-11 20:49:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 362.58 Mbit/s
95th percentile per-packet one-way delay: 309.437 ms
Loss rate: 6.98%
-- Flow 1:
Average throughput: 321.94 Mbit/s
95th percentile per-packet one-way delay: 309.715 ms
Loss rate: 7.14%
-- Flow 2:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 300.791 ms
Loss rate: 4.30%
-- Flow 3:
Average throughput: 120.58 Mbit/s
95th percentile per-packet one-way delay: 258.319 ms
Loss rate: 5.81%
Run 6: Report of PCC-Allegro — Data Link

Throughput (Mb/s):

- Flow 1 ingress (mean 343.50 Mb/s)
- Flow 1 egress (mean 321.94 Mb/s)
- Flow 2 ingress (mean 2.57 Mb/s)
- Flow 2 egress (mean 2.49 Mb/s)
- Flow 3 ingress (mean 124.47 Mb/s)
- Flow 3 egress (mean 120.58 Mb/s)

Packet one-way delay (ms):

- Flow 1 (95th percentile 309.71 ms)
- Flow 2 (95th percentile 300.79 ms)
- Flow 3 (95th percentile 250.32 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-11 17:42:03
End at: 2018-07-11 17:42:33
Local clock offset: 0.108 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2018-07-11 20:52:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 516.61 Mbit/s
95th percentile per-packet one-way delay: 266.923 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 500.13 Mbit/s
95th percentile per-packet one-way delay: 266.983 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 16.74 Mbit/s
95th percentile per-packet one-way delay: 266.405 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 16.80 Mbit/s
95th percentile per-packet one-way delay: 183.042 ms
Loss rate: 3.10%
Run 7: Report of PCC-Allegro — Data Link
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-11 18:08:50
End at: 2018-07-11 18:09:20
Local clock offset: 0.194 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-07-11 20:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 502.68 Mbit/s
95th percentile per-packet one-way delay: 281.220 ms
Loss rate: 5.33%
-- Flow 1:
Average throughput: 461.33 Mbit/s
95th percentile per-packet one-way delay: 282.307 ms
Loss rate: 5.24%
-- Flow 2:
Average throughput: 32.90 Mbit/s
95th percentile per-packet one-way delay: 268.360 ms
Loss rate: 4.41%
-- Flow 3:
Average throughput: 60.60 Mbit/s
95th percentile per-packet one-way delay: 278.076 ms
Loss rate: 8.49%
Run 8: Report of PCC-Allegro — Data Link

![Graph of throughput and packet delay]

- **Flow 1 Ingress** (mean 482.37 Mbit/s)
- **Flow 1 Egress** (mean 481.33 Mbit/s)
- **Flow 2 Ingress** (mean 33.94 Mbit/s)
- **Flow 2 Egress** (mean 32.90 Mbit/s)
- **Flow 3 Ingress** (mean 64.40 Mbit/s)
- **Flow 3 Egress** (mean 65.60 Mbit/s)

![Graph of packet delay]

- **Flow 1** (95th percentile 282.31 ms)
- **Flow 2** (95th percentile 268.36 ms)
- **Flow 3** (95th percentile 278.08 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-11 18:35:41
End at: 2018-07-11 18:36:11
Local clock offset: -0.058 ms
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2018-07-11 20:53:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 495.04 Mbit/s
  95th percentile per-packet one-way delay: 267.459 ms
  Loss rate: 3.50%
-- Flow 1:
  Average throughput: 492.80 Mbit/s
  95th percentile per-packet one-way delay: 267.454 ms
  Loss rate: 3.50%
-- Flow 2:
  Average throughput: 2.30 Mbit/s
  95th percentile per-packet one-way delay: 266.549 ms
  Loss rate: 2.26%
-- Flow 3:
  Average throughput: 2.27 Mbit/s
  95th percentile per-packet one-way delay: 269.348 ms
  Loss rate: 4.82%
Run 9: Report of PCC-Allegro — Data Link

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

- **Throughput Graph**:
  - Flow 1 Ingress: Mean 506.02 Mbps
  - Flow 1 Egress: Mean 492.80 Mbps
  - Flow 2 Ingress: Mean 2.32 Mbps
  - Flow 2 Egress: Mean 2.30 Mbps
  - Flow 3 Ingress: Mean 2.32 Mbps
  - Flow 3 Egress: Mean 2.27 Mbps

- **Delay Graph**:
  - Flow 1 95th percentile: 267.45 ms
  - Flow 2 95th percentile: 266.55 ms
  - Flow 3 95th percentile: 269.35 ms

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Run 10: Statistics of PCC-Allegro

Start at: 2018-07-11 19:02:26
End at: 2018-07-11 19:02:56
Local clock offset: -0.105 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-07-11 20:54:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 513.87 Mbit/s
  95th percentile per-packet one-way delay: 268.118 ms
  Loss rate: 4.06%
-- Flow 1:
  Average throughput: 482.75 Mbit/s
  95th percentile per-packet one-way delay: 268.111 ms
  Loss rate: 4.02%
-- Flow 2:
  Average throughput: 31.03 Mbit/s
  95th percentile per-packet one-way delay: 267.506 ms
  Loss rate: 4.13%
-- Flow 3:
  Average throughput: 32.78 Mbit/s
  95th percentile per-packet one-way delay: 268.820 ms
  Loss rate: 5.44%
Run 10: Report of PCC-Allegro — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 496.36 Mbps/s)
- Blue solid line: Flow 1 egress (mean 482.75 Mbps/s)
- Green dashed line: Flow 2 ingress (mean 31.92 Mbps/s)
- Green solid line: Flow 2 egress (mean 31.03 Mbps/s)
- Red dashed line: Flow 3 ingress (mean 33.70 Mbps/s)
- Red solid line: Flow 3 egress (mean 32.78 Mbps/s)

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

- Blue line: Flow 1 (95th percentile 268.11 ms)
- Green line: Flow 2 (95th percentile 267.51 ms)
- Red line: Flow 3 (95th percentile 268.02 ms)
Run 1: Statistics of PCC-Expr

Start at: 2018-07-11 14:42:30
End at: 2018-07-11 14:43:00
Local clock offset: 0.035 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-07-11 20:55:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 276.08 Mbit/s
  95th percentile per-packet one-way delay: 308.695 ms
  Loss rate: 5.21%
-- Flow 1:
  Average throughput: 180.89 Mbit/s
  95th percentile per-packet one-way delay: 308.988 ms
  Loss rate: 4.09%
-- Flow 2:
  Average throughput: 140.69 Mbit/s
  95th percentile per-packet one-way delay: 308.063 ms
  Loss rate: 7.32%
-- Flow 3:
  Average throughput: 6.44 Mbit/s
  95th percentile per-packet one-way delay: 304.639 ms
  Loss rate: 5.44%
Run 1: Report of PCC-Expr — Data Link

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

Legend:
- Flow 1 ingress (mean 186.88 Mbit/s)
- Flow 1 egress (mean 180.89 Mbit/s)
- Flow 2 ingress (mean 149.71 Mbit/s)
- Flow 2 egress (mean 140.69 Mbit/s)
- Flow 3 ingress (mean 6.62 Mbit/s)
- Flow 3 egress (mean 6.44 Mbit/s)
Run 2: Statistics of PCC-Expr

Start at: 2018-07-11 15:09:35
End at: 2018-07-11 15:10:05
Local clock offset: -0.14 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2018-07-11 21:00:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.39 Mbit/s
95th percentile per-packet one-way delay: 319.661 ms
Loss rate: 6.93%
-- Flow 1:
Average throughput: 312.22 Mbit/s
95th percentile per-packet one-way delay: 325.189 ms
Loss rate: 6.67%
-- Flow 2:
Average throughput: 126.18 Mbit/s
95th percentile per-packet one-way delay: 307.027 ms
Loss rate: 7.85%
-- Flow 3:
Average throughput: 5.12 Mbit/s
95th percentile per-packet one-way delay: 304.174 ms
Loss rate: 8.61%
Run 2: Report of PCC-Expr — Data Link
Run 3: Statistics of PCC-Expr

Start at: 2018-07-11 15:36:18
End at: 2018-07-11 15:36:48
Local clock offset: -0.266 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-07-11 21:00:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 400.64 Mbit/s
95th percentile per-packet one-way delay: 265.241 ms
Loss rate: 3.61%
-- Flow 1:
Average throughput: 261.10 Mbit/s
95th percentile per-packet one-way delay: 266.328 ms
Loss rate: 4.34%
-- Flow 2:
Average throughput: 172.22 Mbit/s
95th percentile per-packet one-way delay: 223.395 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 78.76 Mbit/s
95th percentile per-packet one-way delay: 238.020 ms
Loss rate: 2.85%
Run 3: Report of PCC-Expr — Data Link

[Graphs showing data link performance metrics over time, including throughput and per-packet one-way delay for different flow types.]
Run 4: Statistics of PCC-Expr

Start at: 2018-07-11 16:03:02
End at: 2018-07-11 16:03:32
Local clock offset: -0.054 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2018-07-11 21:00:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 320.19 Mbit/s
  95th percentile per-packet one-way delay: 165.183 ms
  Loss rate: 1.34%
-- Flow 1:
  Average throughput: 180.66 Mbit/s
  95th percentile per-packet one-way delay: 161.156 ms
  Loss rate: 0.95%
-- Flow 2:
  Average throughput: 171.62 Mbit/s
  95th percentile per-packet one-way delay: 170.071 ms
  Loss rate: 1.51%
-- Flow 3:
  Average throughput: 80.07 Mbit/s
  95th percentile per-packet one-way delay: 168.343 ms
  Loss rate: 3.31%
Run 4: Report of PCC-Expr — Data Link
Run 5: Statistics of PCC-Expr

Start at: 2018-07-11 16:29:31
End at: 2018-07-11 16:30:01
Local clock offset: -0.057 ms
Remote clock offset: 0.251 ms

# Below is generated by plot.py at 2018-07-11 21:06:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 399.56 Mbit/s
  95th percentile per-packet one-way delay: 260.683 ms
  Loss rate: 3.14%
-- Flow 1:
  Average throughput: 258.75 Mbit/s
  95th percentile per-packet one-way delay: 261.506 ms
  Loss rate: 3.75%
-- Flow 2:
  Average throughput: 172.55 Mbit/s
  95th percentile per-packet one-way delay: 181.738 ms
  Loss rate: 1.66%
-- Flow 3:
  Average throughput: 82.36 Mbit/s
  95th percentile per-packet one-way delay: 149.899 ms
  Loss rate: 3.41%
Run 5: Report of PCC-Expr — Data Link
Run 6: Statistics of PCC-Expr

Start at: 2018-07-11 16:56:50
End at: 2018-07-11 16:57:20
Local clock offset: -0.186 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-07-11 21:06:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 416.93 Mbit/s
95th percentile per-packet one-way delay: 255.367 ms
Loss rate: 2.61%
-- Flow 1:
Average throughput: 279.21 Mbit/s
95th percentile per-packet one-way delay: 257.307 ms
Loss rate: 2.98%
-- Flow 2:
Average throughput: 186.19 Mbit/s
95th percentile per-packet one-way delay: 189.597 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 44.85 Mbit/s
95th percentile per-packet one-way delay: 136.295 ms
Loss rate: 3.43%
Run 6: Report of PCC-Expr — Data Link

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

- **Flow 1 ingress** (mean 285.16 Mbit/s)
- **Flow 1 egress** (mean 279.21 Mbit/s)
- **Flow 2 ingress** (mean 186.74 Mbit/s)
- **Flow 2 egress** (mean 186.19 Mbit/s)
- **Flow 3 ingress** (mean 45.15 Mbit/s)
- **Flow 3 egress** (mean 44.85 Mbit/s)

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

- **Flow 1 (95th percentile 257.31 ms)**
- **Flow 2 (95th percentile 189.60 ms)**
- **Flow 3 (95th percentile 136.29 ms)**

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Run 7: Statistics of PCC-Expr

End at: 2018-07-11 17:23:57
Local clock offset: -0.164 ms
Remote clock offset: -0.463 ms

# Below is generated by plot.py at 2018-07-11 21:06:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.01 Mbit/s
95th percentile per-packet one-way delay: 282.624 ms
Loss rate: 5.85%
-- Flow 1:
Average throughput: 291.68 Mbit/s
95th percentile per-packet one-way delay: 283.333 ms
Loss rate: 6.84%
-- Flow 2:
Average throughput: 93.25 Mbit/s
95th percentile per-packet one-way delay: 137.309 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 45.08 Mbit/s
95th percentile per-packet one-way delay: 137.248 ms
Loss rate: 3.26%
Run 7: Report of PCC-Expr — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 8: Statistics of PCC-Expr

End at: 2018-07-11 17:50:43
Local clock offset: -0.005 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-07-11 21:08:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 393.11 Mbit/s
95th percentile per-packet one-way delay: 259.655 ms
Loss rate: 3.90%
-- Flow 1:
Average throughput: 253.19 Mbit/s
95th percentile per-packet one-way delay: 261.232 ms
Loss rate: 4.31%
-- Flow 2:
Average throughput: 169.61 Mbit/s
95th percentile per-packet one-way delay: 209.790 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 85.30 Mbit/s
95th percentile per-packet one-way delay: 210.106 ms
Loss rate: 3.44%
Run 8: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 262.16 Mbit/s)
- Flow 1 egress (mean 253.19 Mbit/s)
- Flow 2 ingress (mean 172.61 Mbit/s)
- Flow 2 egress (mean 169.61 Mbit/s)
- Flow 3 ingress (mean 85.88 Mbit/s)
- Flow 3 egress (mean 85.30 Mbit/s)

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

- Flow 1 (95th percentile 261.23 ms)
- Flow 2 (95th percentile 209.79 ms)
- Flow 3 (95th percentile 210.11 ms)
Run 9: Statistics of PCC-Expr

Start at: 2018-07-11 18:17:00
End at: 2018-07-11 18:17:30
Local clock offset: -0.079 ms
Remote clock offset: -0.444 ms

# Below is generated by plot.py at 2018-07-11 21:08:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.87 Mbit/s
95th percentile per-packet one-way delay: 167.477 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 189.10 Mbit/s
95th percentile per-packet one-way delay: 186.767 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 169.62 Mbit/s
95th percentile per-packet one-way delay: 138.698 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 84.87 Mbit/s
95th percentile per-packet one-way delay: 144.280 ms
Loss rate: 3.58%
Run 9: Report of PCC-Expr — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 189.12 Mbit/s)
- Flow 1 egress (mean 189.10 Mbit/s)
- Flow 2 ingress (mean 169.89 Mbit/s)
- Flow 2 egress (mean 169.62 Mbit/s)
- Flow 3 ingress (mean 85.60 Mbit/s)
- Flow 3 egress (mean 94.87 Mbit/s)

![Delay Graph]

- Flow 1 (95th percentile 186.77 ms)
- Flow 2 (95th percentile 138.70 ms)
- Flow 3 (95th percentile 144.28 ms)
Run 10: Statistics of PCC-Expr

Start at: 2018-07-11 18:43:49
End at: 2018-07-11 18:44:19
Local clock offset: 0.024 ms
Remote clock offset: 0.26 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 411.93 Mbit/s
   95th percentile per-packet one-way delay: 250.031 ms
   Loss rate: 2.28%
-- Flow 1:
   Average throughput: 282.83 Mbit/s
   95th percentile per-packet one-way delay: 266.227 ms
   Loss rate: 2.56%
-- Flow 2:
   Average throughput: 173.08 Mbit/s
   95th percentile per-packet one-way delay: 179.790 ms
   Loss rate: 1.43%
-- Flow 3:
   Average throughput: 44.85 Mbit/s
   95th percentile per-packet one-way delay: 138.011 ms
   Loss rate: 3.28%
Run 10: Report of PCC-Expr — Data Link

![Graph of Throughput vs Time](image1)

- Flow 1 ingress (mean 287.62 Mb/s)
- Flow 1 egress (mean 282.83 Mb/s)
- Flow 2 ingress (mean 175.19 Mb/s)
- Flow 2 egress (mean 173.08 Mb/s)
- Flow 3 ingress (mean 45.08 Mb/s)
- Flow 3 egress (mean 44.85 Mb/s)

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

- Flow 1 (95th percentile 266.23 ms)
- Flow 2 (95th percentile 179.79 ms)
- Flow 3 (95th percentile 138.01 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-07-11 14:38:38
End at: 2018-07-11 14:39:08
Local clock offset: 0.016 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.02 Mbit/s
95th percentile per-packet one-way delay: 136.253 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 41.95 Mbit/s
95th percentile per-packet one-way delay: 136.300 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 134.780 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 35.16 Mbit/s
95th percentile per-packet one-way delay: 135.904 ms
Loss rate: 0.77%
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-11 15:05:43
End at: 2018-07-11 15:06:13
Local clock offset: 0.117 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.04 Mbit/s
95th percentile per-packet one-way delay: 136.532 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 41.19 Mbit/s
95th percentile per-packet one-way delay: 136.466 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 40.27 Mbit/s
95th percentile per-packet one-way delay: 134.944 ms
Loss rate: 2.50%
-- Flow 3:
Average throughput: 52.85 Mbit/s
95th percentile per-packet one-way delay: 136.595 ms
Loss rate: 3.73%
Run 2: Report of QUIC Cubic — Data Link

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

![Graph showing round-trip time metrics over time.](image2)
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-11 15:32:26
End at: 2018-07-11 15:32:56
Local clock offset: 0.1 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 105.12 Mbit/s
  95th percentile per-packet one-way delay: 136.428 ms
  Loss rate: 1.53%
-- Flow 1:
  Average throughput: 47.28 Mbit/s
  95th percentile per-packet one-way delay: 136.450 ms
  Loss rate: 1.46%
-- Flow 2:
  Average throughput: 59.52 Mbit/s
  95th percentile per-packet one-way delay: 136.000 ms
  Loss rate: 0.78%
-- Flow 3:
  Average throughput: 56.68 Mbit/s
  95th percentile per-packet one-way delay: 136.392 ms
  Loss rate: 3.25%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

End at: 2018-07-11 15:59:41
Local clock offset: 0.039 ms
Remote clock offset: -0.483 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.49 Mbit/s
95th percentile per-packet one-way delay: 136.401 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 53.25 Mbit/s
95th percentile per-packet one-way delay: 136.203 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 32.05 Mbit/s
95th percentile per-packet one-way delay: 136.458 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 33.97 Mbit/s
95th percentile per-packet one-way delay: 135.933 ms
Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link

[Graphs showing throughput and packet one-way delay for Flow 1, Flow 2, and Flow 3 with mean throughput and 95th percentile delay values.]
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-11 16:25:38
End at: 2018-07-11 16:26:08
Local clock offset: 0.029 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.67 Mbit/s
  95th percentile per-packet one-way delay: 136.370 ms
  Loss rate: 1.65%
-- Flow 1:
  Average throughput: 56.06 Mbit/s
  95th percentile per-packet one-way delay: 136.389 ms
  Loss rate: 1.06%
-- Flow 2:
  Average throughput: 44.14 Mbit/s
  95th percentile per-packet one-way delay: 135.920 ms
  Loss rate: 2.24%
-- Flow 3:
  Average throughput: 31.97 Mbit/s
  95th percentile per-packet one-way delay: 136.306 ms
  Loss rate: 3.12%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-11 16:52:58
End at: 2018-07-11 16:53:28
Local clock offset: 0.035 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.52 Mbit/s
  95th percentile per-packet one-way delay: 136.012 ms
  Loss rate: 1.54%
-- Flow 1:
  Average throughput: 51.61 Mbit/s
  95th percentile per-packet one-way delay: 135.808 ms
  Loss rate: 1.12%
-- Flow 2:
  Average throughput: 33.86 Mbit/s
  95th percentile per-packet one-way delay: 136.058 ms
  Loss rate: 2.80%
-- Flow 3:
  Average throughput: 35.46 Mbit/s
  95th percentile per-packet one-way delay: 135.950 ms
  Loss rate: 0.92%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-11 17:19:35
End at: 2018-07-11 17:20:05
Local clock offset: -0.228 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.58 Mbit/s
95th percentile per-packet one-way delay: 135.829 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 50.07 Mbit/s
95th percentile per-packet one-way delay: 135.679 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 40.83 Mbit/s
95th percentile per-packet one-way delay: 135.875 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 30.73 Mbit/s
95th percentile per-packet one-way delay: 135.870 ms
Loss rate: 4.51%
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-11 17:46:21
End at: 2018-07-11 17:46:51
Local clock offset: -0.14 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.47 Mbit/s
  95th percentile per-packet one-way delay: 136.561 ms
  Loss rate: 2.13%
-- Flow 1:
  Average throughput: 52.99 Mbit/s
  95th percentile per-packet one-way delay: 135.025 ms
  Loss rate: 1.24%
-- Flow 2:
  Average throughput: 39.99 Mbit/s
  95th percentile per-packet one-way delay: 136.218 ms
  Loss rate: 2.49%
-- Flow 3:
  Average throughput: 27.70 Mbit/s
  95th percentile per-packet one-way delay: 136.745 ms
  Loss rate: 6.08%
Run 8: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet round trip times for different flows. The legend indicates the mean throughput for each flow: Flow 1 ingress (mean 53.17 Mbit/s), Flow 1 egress (mean 52.99 Mbit/s), Flow 2 ingress (mean 40.45 Mbit/s), Flow 2 egress (mean 39.99 Mbit/s), Flow 3 ingress (mean 28.68 Mbit/s), and Flow 3 egress (mean 27.70 Mbit/s).]
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-11 18:13:08
End at: 2018-07-11 18:13:38
Local clock offset: -0.047 ms
Remote clock offset: -0.439 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 136.749 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 50.05 Mbit/s
95th percentile per-packet one-way delay: 136.673 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 136.655 ms
Loss rate: 2.27%
-- Flow 3:
Average throughput: 57.60 Mbit/s
95th percentile per-packet one-way delay: 136.839 ms
Loss rate: 3.75%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

End at: 2018-07-11 18:40:27
Local clock offset: -0.057 ms
Remote clock offset: -0.441 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.38 Mbit/s
95th percentile per-packet one-way delay: 136.780 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 41.26 Mbit/s
95th percentile per-packet one-way delay: 136.786 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 40.49 Mbit/s
95th percentile per-packet one-way delay: 136.243 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 34.83 Mbit/s
95th percentile per-packet one-way delay: 136.826 ms
Loss rate: 4.99%
Run 10: Report of QUIC Cubic — Data Link

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

Start at: 2018-07-11 14:35:59
End at: 2018-07-11 14:36:29
Local clock offset: -0.111 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.098 ms
  Loss rate: 1.30%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 134.727 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.065 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.181 ms
  Loss rate: 2.25%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-07-11 15:03:04
End at: 2018-07-11 15:03:34
Local clock offset: -0.021 ms
Remote clock offset: 0.303 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 135.963 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.537 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.554 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.057 ms
  Loss rate: 2.59%
Run 2: Report of SCReAM — Data Link

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

![Graph 2: Per-Flux One-Way Delay (ms)]
Run 3: Statistics of SCReAM

Start at: 2018-07-11 15:29:46
End at: 2018-07-11 15:30:16
Local clock offset: -0.018 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.070 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.090 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.034 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.006 ms
  Loss rate: 2.59%
Run 3: Report of SCReAM — Data Link

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

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Run 4: Statistics of SCReAM

Start at: 2018-07-11 15:56:32
End at: 2018-07-11 15:57:02
Local clock offset: -0.024 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.636 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.667 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.527 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.166 ms
Loss rate: 2.60%
Run 4: Report of SCReAM — Data Link

![Throughput graph](image1)

![Average包Delay graph](image2)

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Run 5: Statistics of SCReAM

End at: 2018-07-11 16:23:29
Local clock offset: -0.192 ms
Remote clock offset: -0.469 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.645 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.629 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.788 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.683 ms
Loss rate: 2.59%
Run 5: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.63 ms)  Flow 2 (95th percentile 135.79 ms)  Flow 3 (95th percentile 136.68 ms)
Run 6: Statistics of SCReAM

Start at: 2018-07-11 16:50:18
End at: 2018-07-11 16:50:48
Local clock offset: 0.031 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.389 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.214 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.234 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.441 ms
Loss rate: 2.59%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-07-11 17:16:56
End at: 2018-07-11 17:17:26
Local clock offset: -0.029 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 136.497 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.501 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.510 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.227 ms
  Loss rate: 2.59%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-07-11 17:43:41
End at: 2018-07-11 17:44:11
Local clock offset: 0.068 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.553 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.205 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.551 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.582 ms
Loss rate: 2.59%
Run 8: Report of SCReAM — Data Link

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

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

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Run 9: Statistics of SCReAM

Start at: 2018-07-11 18:10:29
End at: 2018-07-11 18:10:59
Local clock offset: 0.144 ms
Remote clock offset: -0.138 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.872 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.577 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.945 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.152 ms
  Loss rate: 2.59%
Run 10: Statistics of SCReAM

Start at: 2018-07-11 18:37:18
End at: 2018-07-11 18:37:48
Local clock offset: 0.107 ms
Remote clock offset: 0.269 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.317 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.343 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.266 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.220 ms
Loss rate: 2.25%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of Sprout

Start at: 2018-07-11 14:41:15
End at: 2018-07-11 14:41:45
Local clock offset: 0.01 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.33 Mbit/s
  95th percentile per-packet one-way delay: 136.437 ms
  Loss rate: 0.95%
-- Flow 1:
  Average throughput: 0.14 Mbit/s
  95th percentile per-packet one-way delay: 136.430 ms
  Loss rate: 0.82%
-- Flow 2:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 136.438 ms
  Loss rate: 0.37%
-- Flow 3:
  Average throughput: 0.24 Mbit/s
  95th percentile per-packet one-way delay: 136.455 ms
  Loss rate: 1.99%
Run 1: Report of Sprout — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 0.14 Mbps)
- Flow 1 egress (mean 0.14 Mbps)
- Flow 2 ingress (mean 0.17 Mbps)
- Flow 2 egress (mean 0.17 Mbps)
- Flow 3 ingress (mean 0.24 Mbps)
- Flow 3 egress (mean 0.24 Mbps)

**Packet round-trip delay (ms):**
- Flow 1 (95th percentile 136.43 ms)
- Flow 2 (95th percentile 136.44 ms)
- Flow 3 (95th percentile 136.46 ms)
Run 2: Statistics of Sprout

Start at: 2018-07-11 15:08:20
End at: 2018-07-11 15:08:50
Local clock offset: 0.132 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.35 Mbit/s
  95th percentile per-packet one-way delay: 136.646 ms
  Loss rate: 1.02%
-- Flow 1:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 136.641 ms
  Loss rate: 0.78%
-- Flow 2:
  Average throughput: 0.19 Mbit/s
  95th percentile per-packet one-way delay: 136.625 ms
  Loss rate: 0.94%
-- Flow 3:
  Average throughput: 0.23 Mbit/s
  95th percentile per-packet one-way delay: 136.678 ms
  Loss rate: 1.60%
Run 2: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 0.15 Mbit/s)
- Flow 1 egress (mean 0.15 Mbit/s)
- Flow 2 ingress (mean 0.18 Mbit/s)
- Flow 2 egress (mean 0.19 Mbit/s)
- Flow 3 ingress (mean 0.23 Mbit/s)
- Flow 3 egress (mean 0.23 Mbit/s)

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

- Flow 1 (95th percentile 136.64 ms)
- Flow 2 (95th percentile 136.62 ms)
- Flow 3 (95th percentile 136.68 ms)
Run 3: Statistics of Sprout

Start at: 2018-07-11 15:35:03
End at: 2018-07-11 15:35:33
Local clock offset: 0.021 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 136.463 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.475 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.416 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 135.960 ms
Loss rate: 1.47%
Run 3: Report of Sprout — Data Link

Time (s) vs. Throughput (Mbps)

- Flow 1 ingress (mean 0.15 Mbit/s)
- Flow 1 egress (mean 0.15 Mbit/s)
- Flow 2 ingress (mean 0.16 Mbit/s)
- Flow 2 egress (mean 0.16 Mbit/s)
- Flow 3 ingress (mean 0.16 Mbit/s)
- Flow 3 egress (mean 0.17 Mbit/s)

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

- Flow 1 (95th percentile 136.47 ms)
- Flow 2 (95th percentile 136.42 ms)
- Flow 3 (95th percentile 135.96 ms)
Run 4: Statistics of Sprout

Start at: 2018-07-11 16:01:47
End at: 2018-07-11 16:02:17
Local clock offset: 0.119 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.29 Mbit/s
  95th percentile per-packet one-way delay: 136.284 ms
  Loss rate: 1.21%
-- Flow 1:
  Average throughput: 0.14 Mbit/s
  95th percentile per-packet one-way delay: 136.267 ms
  Loss rate: 0.56%
-- Flow 2:
  Average throughput: 0.14 Mbit/s
  95th percentile per-packet one-way delay: 136.269 ms
  Loss rate: 1.66%
-- Flow 3:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 136.454 ms
  Loss rate: 2.09%
Run 4: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.14 Mbps)  
Flow 1 egress (mean 0.14 Mbps)  
Flow 2 ingress (mean 0.14 Mbps)  
Flow 2 egress (mean 0.14 Mbps)  
Flow 3 ingress (mean 0.17 Mbps)  
Flow 3 egress (mean 0.17 Mbps)

Ping-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.27 ms)  
Flow 2 (95th percentile 136.27 ms)  
Flow 3 (95th percentile 136.45 ms)
Run 5: Statistics of Sprout

Start at: 2018-07-11 16:28:16
End at: 2018-07-11 16:28:46
Local clock offset: -0.052 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 136.344 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.069 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.385 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.320 ms
Loss rate: 2.73%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

End at: 2018-07-11 16:56:05
Local clock offset: -0.05 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 136.431 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 135.752 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 136.015 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 136.492 ms
Loss rate: 1.58%
Run 6: Report of Sprout — Data Link

[Graph showing throughput and packet delay over time for different flows.]
Run 7: Statistics of Sprout

End at: 2018-07-11 17:22:42
Local clock offset: 0.098 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 136.759 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.701 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.813 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 136.599 ms
Loss rate: 2.88%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Local clock offset: -0.175 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 136.471 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.504 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.310 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 136.397 ms
Loss rate: 1.96%
Run 8: Report of Sprout — Data Link

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

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

Start at: 2018-07-11 18:15:45
End at: 2018-07-11 18:16:15
Local clock offset: -0.079 ms
Remote clock offset: -0.443 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.34 Mbit/s
  95th percentile per-packet one-way delay: 136.763 ms
  Loss rate: 0.76%
-- Flow 1:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 136.656 ms
  Loss rate: 0.28%
-- Flow 2:
  Average throughput: 0.19 Mbit/s
  95th percentile per-packet one-way delay: 136.789 ms
  Loss rate: 0.65%
-- Flow 3:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 136.780 ms
  Loss rate: 2.05%
Run 9: Report of Sprout — Data Link

[Graph showing throughput and per-packet round-trip delay over time for different flows, with annotations for each flow’s ingress and egress rates.]
Run 10: Statistics of Sprout

Start at: 2018-07-11 18:42:34
End at: 2018-07-11 18:43:04
Local clock offset: -0.311 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2018-07-11 21:14:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 136.419 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.435 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.288 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 136.262 ms
Loss rate: 0.79%
Run 10: Report of Sprout — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 0.16 Mbit/s)
- Flow 1 egress (mean 0.16 Mbit/s)
- Flow 2 ingress (mean 0.15 Mbit/s)
- Flow 2 egress (mean 0.15 Mbit/s)
- Flow 3 ingress (mean 0.20 Mbit/s)
- Flow 3 egress (mean 0.21 Mbit/s)

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

- Flow 1 (95th percentile 136.44 ms)
- Flow 2 (95th percentile 136.29 ms)
- Flow 3 (95th percentile 136.26 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-07-11 14:56:02
End at: 2018-07-11 14:56:32
Local clock offset: 0.117 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-07-11 21:17:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 297.84 Mbit/s
  95th percentile per-packet one-way delay: 140.136 ms
  Loss rate: 0.72%
-- Flow 1:
  Average throughput: 178.01 Mbit/s
  95th percentile per-packet one-way delay: 138.458 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 177.57 Mbit/s
  95th percentile per-packet one-way delay: 143.431 ms
  Loss rate: 1.70%
-- Flow 3:
  Average throughput: 20.57 Mbit/s
  95th percentile per-packet one-way delay: 164.446 ms
  Loss rate: 1.81%
Run 1: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 178.07 Mbit/s) — Flow 1 egress (mean 178.01 Mbit/s)
Flow 2 ingress (mean 178.18 Mbit/s) — Flow 2 egress (mean 177.57 Mbit/s)
Flow 3 ingress (mean 20.37 Mbit/s) — Flow 3 egress (mean 20.57 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 138.46 ms) — Flow 2 (95th percentile 143.43 ms) — Flow 3 (95th percentile 164.45 ms)
Run 2: Statistics of TaoVA-100x

Local clock offset: -0.073 ms
Remote clock offset: 0.239 ms

# Below is generated by plot.py at 2018-07-11 21:17:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.19 Mbit/s
95th percentile per-packet one-way delay: 135.797 ms
Loss rate: 2.98%
-- Flow 1:
Average throughput: 9.45 Mbit/s
95th percentile per-packet one-way delay: 135.872 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 13.27 Mbit/s
95th percentile per-packet one-way delay: 135.756 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 168.56 Mbit/s
95th percentile per-packet one-way delay: 135.740 ms
Loss rate: 3.59%
Run 2: Report of TaoVA-100x — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 9.43 Mbit/s)
- Flow 1 egress (mean 9.45 Mbit/s)
- Flow 2 ingress (mean 13.27 Mbit/s)
- Flow 2 egress (mean 13.27 Mbit/s)
- Flow 3 ingress (mean 170.03 Mbit/s)
- Flow 3 egress (mean 166.56 Mbit/s)

![Delay Graph]

- Flow 1 (95th percentile 135.87 ms)
- Flow 2 (95th percentile 135.76 ms)
- Flow 3 (95th percentile 135.74 ms)
Run 3: Statistics of TaoVA-100x

End at: 2018-07-11 15:50:29
Local clock offset: -0.093 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-07-11 21:17:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.18 Mbit/s
95th percentile per-packet one-way delay: 136.238 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 11.43 Mbit/s
95th percentile per-packet one-way delay: 136.278 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 136.846 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 174.88 Mbit/s
95th percentile per-packet one-way delay: 135.935 ms
Loss rate: 3.31%
Run 3: Report of TaoVA-100x — Data Link

Throughput (Mbps) vs. Time (s)

- Flow 1 ingress (mean 11.87 Mbps)
- Flow 1 ingress (mean 11.43 Mbps)
- Flow 2 ingress (mean 13.12 Mbps)
- Flow 2 ingress (mean 13.12 Mbps)
- Flow 3 ingress (mean 175.91 Mbps)
- Flow 3 ingress (mean 174.88 Mbps)

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

- Flow 1 (95th percentile 136.28 ms)
- Flow 2 (95th percentile 136.85 ms)
- Flow 3 (95th percentile 135.94 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-07-11 16:16:10
End at: 2018-07-11 16:16:40
Local clock offset: -0.063 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-07-11 21:17:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 156.83 Mbit/s
  95th percentile per-packet one-way delay: 136.418 ms
  Loss rate: 1.45%
-- Flow 1:
  Average throughput: 13.36 Mbit/s
  95th percentile per-packet one-way delay: 136.828 ms
  Loss rate: 0.92%
-- Flow 2:
  Average throughput: 210.04 Mbit/s
  95th percentile per-packet one-way delay: 136.410 ms
  Loss rate: 1.46%
-- Flow 3:
  Average throughput: 12.83 Mbit/s
  95th percentile per-packet one-way delay: 136.347 ms
  Loss rate: 2.84%
Run 4: Report of TaoVA-100x — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 13.37 Mbit/s) — Flow 2 egress (mean 13.36 Mbit/s)
Flow 1 egress (mean 210.23 Mbit/s) — Flow 2 ingress (mean 210.04 Mbit/s)
Flow 3 ingress (mean 12.85 Mbit/s) — Flow 3 egress (mean 12.83 Mbit/s)

Delay (ms)

Time (s)

Flow 1 (95th percentile 136.83 ms) — Flow 2 (95th percentile 136.41 ms)
Flow 3 (95th percentile 136.35 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-07-11 16:43:14
End at: 2018-07-11 16:43:44
Local clock offset: 0.13 ms
Remote clock offset: 0.31 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 339.56 Mbit/s
95th percentile per-packet one-way delay: 136.899 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 211.50 Mbit/s
95th percentile per-packet one-way delay: 136.449 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 187.49 Mbit/s
95th percentile per-packet one-way delay: 138.416 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 136.101 ms
Loss rate: 3.16%
Run 5: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 211.03 Mbps)
- Flow 1 egress (mean 211.50 Mbps)
- Flow 2 ingress (mean 187.57 Mbps)
- Flow 2 egress (mean 187.49 Mbps)
- Flow 3 ingress (mean 11.62 Mbps)
- Flow 3 egress (mean 11.77 Mbps)

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

- Flow 1 (95th percentile 136.45 ms)
- Flow 2 (95th percentile 138.42 ms)
- Flow 3 (95th percentile 136.10 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-11 17:10:30
End at: 2018-07-11 17:11:00
Local clock offset: -0.035 ms
Remote clock offset: 0.267 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.26 Mbit/s
95th percentile per-packet one-way delay: 136.019 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 13.31 Mbit/s
95th percentile per-packet one-way delay: 136.021 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 13.21 Mbit/s
95th percentile per-packet one-way delay: 136.016 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 12.86 Mbit/s
95th percentile per-packet one-way delay: 136.016 ms
Loss rate: 2.90%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

Start at: 2018-07-11 17:37:05
End at: 2018-07-11 17:37:35
Local clock offset: -0.159 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.99 Mbit/s
95th percentile per-packet one-way delay: 136.586 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 136.218 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 13.20 Mbit/s
95th percentile per-packet one-way delay: 136.645 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 201.57 Mbit/s
95th percentile per-packet one-way delay: 136.599 ms
Loss rate: 2.97%
Run 7: Report of TaoVA-100x — Data Link

![Graph showing throughput and packet delay over time for different flows.](image1)

- **Throughput (Mbps)**: The graph displays the throughput (Mbps) for different flows over time. Each line represents a different flow, with distinct colors for ingress and egress data.

- **Packet Delay (ms)**: The second graph shows the packet delay (ms) for each flow, indicating variability and performance over time.

- **Flow Details**:
  - Flow 1 ingress (mean 12.46 Mbps)
  - Flow 1 egress (mean 12.55 Mbps)
  - Flow 2 ingress (mean 13.20 Mbps)
  - Flow 2 egress (mean 13.20 Mbps)
  - Flow 3 ingress (mean 202.01 Mbps)
  - Flow 3 egress (mean 201.57 Mbps)

- **Legend**:
  - Flow 1 (95th percentile 136.22 ms)
  - Flow 2 (95th percentile 136.65 ms)
  - Flow 3 (95th percentile 136.60 ms)
Run 8: Statistics of TaoVA-100x

Start at: 2018-07-11 18:03:48
End at: 2018-07-11 18:04:18
Local clock offset: 0.073 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 166.89 Mbit/s
  95th percentile per-packet one-way delay: 136.671 ms
  Loss rate: 1.33%
-- Flow 1:
  Average throughput: 153.98 Mbit/s
  95th percentile per-packet one-way delay: 136.671 ms
  Loss rate: 1.28%
-- Flow 2:
  Average throughput: 13.25 Mbit/s
  95th percentile per-packet one-way delay: 136.605 ms
  Loss rate: 1.38%
-- Flow 3:
  Average throughput: 12.64 Mbit/s
  95th percentile per-packet one-way delay: 136.790 ms
  Loss rate: 2.95%
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-11 18:30:34
End at: 2018-07-11 18:31:04
Local clock offset: -0.063 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 198.14 Mbit/s
  95th percentile per-packet one-way delay: 140.536 ms
  Loss rate: 0.58%
-- Flow 1:
  Average throughput: 13.34 Mbit/s
  95th percentile per-packet one-way delay: 136.981 ms
  Loss rate: 0.49%
-- Flow 2:
  Average throughput: 192.99 Mbit/s
  95th percentile per-packet one-way delay: 138.586 ms
  Loss rate: 0.53%
-- Flow 3:
  Average throughput: 175.13 Mbit/s
  95th percentile per-packet one-way delay: 148.669 ms
  Loss rate: 0.71%
Run 9: Report of TaoVA-100x — Data Link

Throughput in Mbps:

Time (s)

0 5 10 15 20 25 30

Flow 1 ingress (mean 13.28 Mbps)  Flow 1 egress (mean 13.34 Mbps)
Flow 2 ingress (mean 196.94 Mbps)  Flow 2 egress (mean 192.99 Mbps)
Flow 3 ingress (mean 171.43 Mbps)  Flow 3 egress (mean 175.13 Mbps)

Per-packet one-way delay (ms):

Time (s)

0 5 10 15 20 25 30

Flow 1 (95th percentile 136.98 ms)  Flow 2 (95th percentile 138.59 ms)  Flow 3 (95th percentile 148.67 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-11 18:57:18
End at: 2018-07-11 18:57:48
Local clock offset: 0.053 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.05 Mbit/s
95th percentile per-packet one-way delay: 138.945 ms
Loss rate: 2.60%
-- Flow 1:
Average throughput: 9.05 Mbit/s
95th percentile per-packet one-way delay: 137.200 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 133.72 Mbit/s
95th percentile per-packet one-way delay: 138.437 ms
Loss rate: 1.62%
-- Flow 3:
Average throughput: 74.64 Mbit/s
95th percentile per-packet one-way delay: 140.574 ms
Loss rate: 6.75%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-07-11 14:52:29
End at: 2018-07-11 14:52:59
Local clock offset: -0.276 ms
Remote clock offset: 0.235 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.24 Mbit/s
95th percentile per-packet one-way delay: 149.764 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 82.83 Mbit/s
95th percentile per-packet one-way delay: 150.377 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 150.353 ms
Loss rate: 2.93%
-- Flow 3:
Average throughput: 69.52 Mbit/s
95th percentile per-packet one-way delay: 146.864 ms
Loss rate: 3.52%
Run 1: Report of TCP Vegas — Data Link

![Throughput Chart](chart1.png)

![Packet Delay Chart](chart2.png)
Run 2: Statistics of TCP Vegas

End at: 2018-07-11 15:20:09
Local clock offset: -0.154 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.40 Mbit/s
95th percentile per-packet one-way delay: 238.586 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 33.33 Mbit/s
95th percentile per-packet one-way delay: 236.353 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 33.58 Mbit/s
95th percentile per-packet one-way delay: 245.103 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 36.49 Mbit/s
95th percentile per-packet one-way delay: 211.453 ms
Loss rate: 2.81%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Local clock offset: -0.027 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 147.16 Mbit/s
  95th percentile per-packet one-way delay: 145.990 ms
  Loss rate: 1.53%
-- Flow 1:
  Average throughput: 82.52 Mbit/s
  95th percentile per-packet one-way delay: 146.562 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 62.56 Mbit/s
  95th percentile per-packet one-way delay: 141.445 ms
  Loss rate: 1.54%
-- Flow 3:
  Average throughput: 71.31 Mbit/s
  95th percentile per-packet one-way delay: 144.622 ms
  Loss rate: 3.40%
Run 3: Report of TCP Vegas — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 82.59 Mbps)
Flow 1 egress (mean 82.52 Mbps)
Flow 2 ingress (mean 62.67 Mbps)
Flow 2 egress (mean 62.56 Mbps)
Flow 3 ingress (mean 71.82 Mbps)
Flow 3 egress (mean 71.31 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 146.56 ms)
Flow 2 (95th percentile 141.44 ms)
Flow 3 (95th percentile 144.62 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-07-11 16:12:56
End at: 2018-07-11 16:13:26
Local clock offset: -0.036 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.14 Mbit/s
95th percentile per-packet one-way delay: 146.766 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 76.89 Mbit/s
95th percentile per-packet one-way delay: 146.830 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 63.95 Mbit/s
95th percentile per-packet one-way delay: 147.749 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 19.66 Mbit/s
95th percentile per-packet one-way delay: 140.605 ms
Loss rate: 3.05%
Run 4: Report of TCP Vegas — Data Link

![Graph of Throughput and Delay]

- Throughput (Mbps) graph with time (s) on the x-axis and throughput (Mbps) on the y-axis, showing different lines for Flow 1 ingress and egress, Flow 2 ingress and egress, Flow 3 ingress and egress.
- Delay graph with time (s) on the x-axis and per-packet one-way delay (ms) on the y-axis, showing different markers for Flow 1, Flow 2, and Flow 3.
Run 5: Statistics of TCP Vegas

End at: 2018-07-11 16:40:06
Local clock offset: -0.026 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.19 Mbit/s
95th percentile per-packet one-way delay: 144.491 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 62.21 Mbit/s
95th percentile per-packet one-way delay: 142.407 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 80.22 Mbit/s
95th percentile per-packet one-way delay: 145.875 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 71.07 Mbit/s
95th percentile per-packet one-way delay: 145.222 ms
Loss rate: 3.47%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-07-11 17:06:54
End at: 2018-07-11 17:07:24
Local clock offset: 0.033 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.48 Mbit/s
95th percentile per-packet one-way delay: 146.272 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 81.94 Mbit/s
95th percentile per-packet one-way delay: 147.065 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 79.85 Mbit/s
95th percentile per-packet one-way delay: 144.559 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 71.08 Mbit/s
95th percentile per-packet one-way delay: 145.955 ms
Loss rate: 3.41%
Run 6: Report of TCP Vegas — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 7: Statistics of TCP Vegas

Start at: 2018-07-11 17:33:31
End at: 2018-07-11 17:34:01
Local clock offset: 0.073 ms
Remote clock offset: -0.124 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 126.42 Mbit/s
95th percentile per-packet one-way delay: 144.215 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 65.36 Mbit/s
95th percentile per-packet one-way delay: 140.785 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 80.06 Mbit/s
95th percentile per-packet one-way delay: 145.082 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 25.68 Mbit/s
95th percentile per-packet one-way delay: 140.634 ms
Loss rate: 2.78%
Run 7: Report of TCP Vegas — Data Link

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 65.42 Mbit/s)
- Blue line: Flow 1 egress (mean 65.36 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 80.19 Mbit/s)
- Green line: Flow 2 egress (mean 80.06 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 25.69 Mbit/s)
- Red line: Flow 3 egress (mean 25.68 Mbit/s)

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

Legend:
- Blue circle: Flow 1 (95th percentile 140.78 ms)
- Green circle: Flow 2 (95th percentile 145.08 ms)
- Red circle: Flow 3 (95th percentile 140.63 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-07-11 18:00:20
End at: 2018-07-11 18:00:50
Local clock offset: -0.092 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.04 Mbit/s
95th percentile per-packet one-way delay: 151.680 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 33.49 Mbit/s
95th percentile per-packet one-way delay: 145.979 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 79.13 Mbit/s
95th percentile per-packet one-way delay: 155.720 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 147.028 ms
Loss rate: 6.41%
Run 9: Statistics of TCP Vegas

Start at: 2018-07-11 18:26:58
Local clock offset: 0.178 ms
Remote clock offset: 0.242 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 153.64 Mbit/s
95th percentile per-packet one-way delay: 144.548 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 78.19 Mbit/s
95th percentile per-packet one-way delay: 142.009 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 79.41 Mbit/s
95th percentile per-packet one-way delay: 144.998 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 71.50 Mbit/s
95th percentile per-packet one-way delay: 145.998 ms
Loss rate: 3.44%
Run 9: Report of TCP Vegas — Data Link

![Graph of Throughput and Delay](image_url)
Run 10: Statistics of TCP Vegas

Start at: 2018-07-11 18:53:49
End at: 2018-07-11 18:54:19
Local clock offset: 0.012 ms
Remote clock offset: 0.289 ms

# Below is generated by plot.py at 2018-07-11 21:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.63 Mbit/s
95th percentile per-packet one-way delay: 154.110 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 25.95 Mbit/s
95th percentile per-packet one-way delay: 155.283 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 78.15 Mbit/s
95th percentile per-packet one-way delay: 153.599 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 141.792 ms
Loss rate: 6.27%
Run 10: Report of TCP Vegas — Data Link

![Graph showing throughput and per-packet delay over time for different flows. The legend indicates mean throughput and delay for each flow.]
Run 1: Statistics of Verus

Start at: 2018-07-11 14:45:38
End at: 2018-07-11 14:46:08
Local clock offset: 0.182 ms
Remote clock offset: 0.252 ms

# Below is generated by plot.py at 2018-07-11 21:20:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 189.72 Mbit/s
95th percentile per-packet one-way delay: 263.685 ms
Loss rate: 6.00%
-- Flow 1:
Average throughput: 77.78 Mbit/s
95th percentile per-packet one-way delay: 181.515 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 92.18 Mbit/s
95th percentile per-packet one-way delay: 206.971 ms
Loss rate: 4.39%
-- Flow 3:
Average throughput: 159.24 Mbit/s
95th percentile per-packet one-way delay: 399.918 ms
Loss rate: 15.34%
Run 1: Report of Verus — Data Link

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

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

Legend:
- **Flow 1 ingress** (mean 77.07 Mbit/s)
- **Flow 1 egress** (mean 77.78 Mbit/s)
- **Flow 2 ingress** (mean 94.16 Mbit/s)
- **Flow 2 egress** (mean 92.18 Mbit/s)
- **Flow 3 ingress** (mean 179.99 Mbit/s)
- **Flow 3 egress** (mean 159.24 Mbit/s)

Legend for delay:
- **Flow 1** (95th percentile 181.51 ms)
- **Flow 2** (95th percentile 206.97 ms)
- **Flow 3** (95th percentile 399.92 ms)
Run 2: Statistics of Verus

Start at: 2018-07-11 15:12:50
Local clock offset: -0.059 ms
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2018-07-11 21:21:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 184.45 Mbit/s
95th percentile per-packet one-way delay: 369.986 ms
Loss rate: 8.03%
-- Flow 1:
Average throughput: 79.07 Mbit/s
95th percentile per-packet one-way delay: 187.768 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 138.09 Mbit/s
95th percentile per-packet one-way delay: 418.579 ms
Loss rate: 13.25%
-- Flow 3:
Average throughput: 45.20 Mbit/s
95th percentile per-packet one-way delay: 267.946 ms
Loss rate: 11.25%
Run 2: Report of Verus — Data Link

![Throughput Graph](image)

- Flow 1 ingress (mean 78.60 Mbit/s)
- Flow 1 egress (mean 79.07 Mbit/s)
- Flow 2 ingress (mean 157.83 Mbit/s)
- Flow 2 egress (mean 138.09 Mbit/s)
- Flow 3 ingress (mean 59.36 Mbit/s)
- Flow 3 egress (mean 45.20 Mbit/s)

![Delay Graph](image)

- Flow 1 (95th percentile 187.77 ms)
- Flow 2 (95th percentile 418.58 ms)
- Flow 3 (95th percentile 267.95 ms)
Run 3: Statistics of Verus

End at: 2018-07-11 15:40:06
Local clock offset: 0.046 ms
Remote clock offset: 0.255 ms

# Below is generated by plot.py at 2018-07-11 21:22:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.29 Mbit/s
95th percentile per-packet one-way delay: 264.952 ms
Loss rate: 2.87%
-- Flow 1:
Average throughput: 151.06 Mbit/s
95th percentile per-packet one-way delay: 242.668 ms
Loss rate: 2.13%
-- Flow 2:
Average throughput: 57.96 Mbit/s
95th percentile per-packet one-way delay: 287.107 ms
Loss rate: 3.11%
-- Flow 3:
Average throughput: 73.46 Mbit/s
95th percentile per-packet one-way delay: 273.335 ms
Loss rate: 6.96%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

Start at: 2018-07-11 16:06:15
End at: 2018-07-11 16:06:45
Local clock offset: -0.034 ms
Remote clock offset: 0.271 ms

# Below is generated by plot.py at 2018-07-11 21:22:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.88 Mbit/s
95th percentile per-packet one-way delay: 225.396 ms
Loss rate: 3.36%
-- Flow 1:
Average throughput: 79.14 Mbit/s
95th percentile per-packet one-way delay: 178.888 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 89.01 Mbit/s
95th percentile per-packet one-way delay: 320.462 ms
Loss rate: 5.99%
-- Flow 3:
Average throughput: 72.16 Mbit/s
95th percentile per-packet one-way delay: 270.160 ms
Loss rate: 7.34%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-07-11 16:32:50
End at: 2018-07-11 16:33:20
Local clock offset: 0.074 ms
Remote clock offset: 0.321 ms

# Below is generated by plot.py at 2018-07-11 21:22:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.25 Mbit/s
95th percentile per-packet one-way delay: 244.433 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 140.28 Mbit/s
95th percentile per-packet one-way delay: 220.652 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 84.91 Mbit/s
95th percentile per-packet one-way delay: 240.035 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 125.33 Mbit/s
95th percentile per-packet one-way delay: 301.866 ms
Loss rate: 2.48%
Run 5: Report of Verus — Data Link

![Graph of Throughput and Per-packet one-way delay](image)

**Throughput (Mbps)**
- **Flow 1 ingress** (mean 140.82 Mbps)
- **Flow 1 egress** (mean 140.28 Mbps)
- **Flow 2 ingress** (mean 86.31 Mbps)
- **Flow 2 egress** (mean 84.91 Mbps)
- **Flow 3 ingress** (mean 121.48 Mbps)
- **Flow 3 egress** (mean 125.33 Mbps)

**Per-packet one-way delay (ms)**
- **Flow 1** (95th percentile 220.65 ms)
- **Flow 2** (95th percentile 240.03 ms)
- **Flow 3** (95th percentile 301.87 ms)
Run 6: Statistics of Verus

Start at: 2018-07-11 17:00:13
End at: 2018-07-11 17:00:43
Local clock offset: -0.095 ms
Remote clock offset: -0.122 ms

# Below is generated by plot.py at 2018-07-11 21:22:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.84 Mbit/s
95th percentile per-packet one-way delay: 230.054 ms
Loss rate: 1.77%

-- Flow 1:
Average throughput: 143.60 Mbit/s
95th percentile per-packet one-way delay: 231.941 ms
Loss rate: 1.80%

-- Flow 2:
Average throughput: 64.81 Mbit/s
95th percentile per-packet one-way delay: 226.156 ms
Loss rate: 2.75%

-- Flow 3:
Average throughput: 84.92 Mbit/s
95th percentile per-packet one-way delay: 227.217 ms
Loss rate: 0.05%
Run 6: Report of Verus — Data Link

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

Legend:
- Flow 1 ingress (mean 144.92 Mbit/s)
- Flow 1 egress (mean 143.60 Mbit/s)
- Flow 2 ingress (mean 64.97 Mbit/s)
- Flow 2 egress (mean 64.81 Mbit/s)
- Flow 3 ingress (mean 82.50 Mbit/s)
- Flow 3 egress (mean 94.92 Mbit/s)
Run 7: Statistics of Verus

Start at: 2018-07-11 17:26:45
End at: 2018-07-11 17:27:15
Local clock offset: -0.125 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2018-07-11 21:22:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.60 Mbit/s
95th percentile per-packet one-way delay: 213.562 ms
Loss rate: 2.41%

-- Flow 1:
Average throughput: 71.76 Mbit/s
95th percentile per-packet one-way delay: 182.467 ms
Loss rate: 0.90%

-- Flow 2:
Average throughput: 81.28 Mbit/s
95th percentile per-packet one-way delay: 206.374 ms
Loss rate: 5.02%

-- Flow 3:
Average throughput: 49.57 Mbit/s
95th percentile per-packet one-way delay: 219.936 ms
Loss rate: 0.00%
Run 7: Report of Verus — Data Link

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

- Flow 1 ingress (mean 72.05 Mbps)
- Flow 1 egress (mean 71.76 Mbps)
- Flow 2 ingress (mean 84.41 Mbps)
- Flow 2 egress (mean 61.28 Mbps)
- Flow 3 ingress (mean 49.87 Mbps)
- Flow 3 egress (mean 49.57 Mbps)

---

![Graph 2: Ping delay (ms)](image2)

- Flow 1 (95th percentile 182.47 ms)
- Flow 2 (95th percentile 206.37 ms)
- Flow 3 (95th percentile 219.94 ms)
Run 8: Statistics of Verus

End at: 2018-07-11 17:54:02
Local clock offset: -0.159 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-07-11 21:24:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.98 Mbit/s
95th percentile per-packet one-way delay: 340.062 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 169.22 Mbit/s
95th percentile per-packet one-way delay: 348.861 ms
Loss rate: 2.95%
-- Flow 2:
Average throughput: 97.37 Mbit/s
95th percentile per-packet one-way delay: 234.980 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 39.76 Mbit/s
95th percentile per-packet one-way delay: 211.149 ms
Loss rate: 2.96%
Run 8: Report of Verus — Data Link
Run 9: Statistics of Verus

Start at: 2018-07-11 18:20:14
End at: 2018-07-11 18:20:44
Local clock offset: -0.119 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-11 21:25:05
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 246.64 Mbit/s
 95th percentile per-packet one-way delay: 237.241 ms
 Loss rate: 1.38%
-- Flow 1:
 Average throughput: 188.54 Mbit/s
 95th percentile per-packet one-way delay: 250.248 ms
 Loss rate: 1.36%
-- Flow 2:
 Average throughput: 62.24 Mbit/s
 95th percentile per-packet one-way delay: 204.552 ms
 Loss rate: 0.02%
-- Flow 3:
 Average throughput: 53.70 Mbit/s
 95th percentile per-packet one-way delay: 176.513 ms
 Loss rate: 4.62%
Run 9: Report of Verus — Data Link

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

Throughput in Mbit/s:
- Flow 1 ingress (mean 189.41 Mbit/s)
- Flow 1 egress (mean 188.54 Mbit/s)
- Flow 2 ingress (mean 61.39 Mbit/s)
- Flow 2 egress (mean 62.24 Mbit/s)
- Flow 3 ingress (mean 54.22 Mbit/s)
- Flow 3 egress (mean 53.70 Mbit/s)

Packet delay in ms:
- Flow 1 (95th percentile 250.25 ms)
- Flow 2 (95th percentile 204.55 ms)
- Flow 3 (95th percentile 176.51 ms)
Run 10: Statistics of Verus

Start at: 2018-07-11 18:47:10
End at: 2018-07-11 18:47:40
Local clock offset: -0.092 ms
Remote clock offset: 0.238 ms

# Below is generated by plot.py at 2018-07-11 21:25:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 197.64 Mbit/s
95th percentile per-packet one-way delay: 174.629 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 66.03 Mbit/s
95th percentile per-packet one-way delay: 161.881 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 165.55 Mbit/s
95th percentile per-packet one-way delay: 186.464 ms
Loss rate: 3.71%
-- Flow 3:
Average throughput: 71.50 Mbit/s
95th percentile per-packet one-way delay: 168.133 ms
Loss rate: 0.01%
Run 10: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)](image1)
- Flow 1 ingress (mean 65.43 Mbps)
- Flow 1 egress (mean 66.03 Mbps)
- Flow 2 ingress (mean 168.63 Mbps)
- Flow 2 egress (mean 165.55 Mbps)
- Flow 3 ingress (mean 69.53 Mbps)
- Flow 3 egress (mean 71.50 Mbps)

![Graph 2: Per-packet one-way delay (ms)](image2)
- Flow 1 (95th percentile 161.98 ms)
- Flow 2 (95th percentile 186.46 ms)
- Flow 3 (95th percentile 160.13 ms)
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-11 14:57:50
End at: 2018-07-11 14:58:20
Local clock offset: -0.033 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-07-11 21:30:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 501.53 Mbit/s
95th percentile per-packet one-way delay: 190.919 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 325.17 Mbit/s
95th percentile per-packet one-way delay: 169.746 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 186.87 Mbit/s
95th percentile per-packet one-way delay: 235.786 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 163.75 Mbit/s
95th percentile per-packet one-way delay: 230.457 ms
Loss rate: 3.50%
Run 1: Report of PCC-Vivace — Data Link
Run 2: Statistics of PCC-Vivace

End at: 2018-07-11 15:25:02
Local clock offset: 0.037 ms
Remote clock offset: -0.155 ms

# Below is generated by plot.py at 2018-07-11 21:30:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.82 Mbit/s
95th percentile per-packet one-way delay: 146.229 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 246.67 Mbit/s
95th percentile per-packet one-way delay: 140.085 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 270.17 Mbit/s
95th percentile per-packet one-way delay: 167.535 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 121.53 Mbit/s
95th percentile per-packet one-way delay: 168.983 ms
Loss rate: 4.94%
Run 2: Report of PCC-Vivace — Data Link
Run 3: Statistics of PCC-Vivace

End at: 2018-07-11 15:51:53
Local clock offset: 0.03 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2018-07-11 21:30:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 476.37 Mbit/s
  95th percentile per-packet one-way delay: 139.513 ms
  Loss rate: 1.64%
-- Flow 1:
  Average throughput: 319.80 Mbit/s
  95th percentile per-packet one-way delay: 139.651 ms
  Loss rate: 1.24%
-- Flow 2:
  Average throughput: 180.06 Mbit/s
  95th percentile per-packet one-way delay: 137.741 ms
  Loss rate: 1.65%
-- Flow 3:
  Average throughput: 115.54 Mbit/s
  95th percentile per-packet one-way delay: 190.907 ms
  Loss rate: 4.88%
Run 3: Report of PCC-Vivace — Data Link
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-11 16:17:43
End at: 2018-07-11 16:18:13
Local clock offset: -0.29 ms
Remote clock offset: 0.281 ms

# Below is generated by plot.py at 2018-07-11 21:32:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 525.47 Mbit/s
  95th percentile per-packet one-way delay: 143.598 ms
  Loss rate: 1.46%
-- Flow 1:
  Average throughput: 306.20 Mbit/s
  95th percentile per-packet one-way delay: 143.893 ms
  Loss rate: 1.01%
-- Flow 2:
  Average throughput: 267.34 Mbit/s
  95th percentile per-packet one-way delay: 164.454 ms
  Loss rate: 1.54%
-- Flow 3:
  Average throughput: 130.70 Mbit/s
  95th percentile per-packet one-way delay: 139.385 ms
  Loss rate: 4.31%
Run 4: Report of PCC-Vivace — Data Link

Throughput (Mbit/s)

Flow 1 ingress (mean 306.51 Mbit/s)
Flow 1 egress (mean 306.29 Mbit/s)
Flow 2 ingress (mean 267.72 Mbit/s)
Flow 2 egress (mean 267.34 Mbit/s)
Flow 3 ingress (mean 132.79 Mbit/s)
Flow 3 egress (mean 130.79 Mbit/s)

Per-packet one way delay (ms)

Flow 1 (95th percentile 143.89 ms)
Flow 2 (95th percentile 164.45 ms)
Flow 3 (95th percentile 139.38 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-11 16:45:06
End at: 2018-07-11 16:45:36
Local clock offset: -0.041 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-07-11 21:32:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 471.78 Mbit/s
95th percentile per-packet one-way delay: 224.570 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 306.95 Mbit/s
95th percentile per-packet one-way delay: 245.075 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 190.60 Mbit/s
95th percentile per-packet one-way delay: 186.775 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 119.62 Mbit/s
95th percentile per-packet one-way delay: 160.040 ms
Loss rate: 5.27%
Run 5: Report of PCC-Vivace — Data Link
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-11 17:11:49
End at: 2018-07-11 17:12:19
Local clock offset: -0.272 ms
Remote clock offset: -0.463 ms

# Below is generated by plot.py at 2018-07-11 21:32:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 462.82 Mbit/s
95th percentile per-packet one-way delay: 230.691 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 282.89 Mbit/s
95th percentile per-packet one-way delay: 215.882 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 236.50 Mbit/s
95th percentile per-packet one-way delay: 308.680 ms
Loss rate: 3.12%
-- Flow 3:
Average throughput: 72.50 Mbit/s
95th percentile per-packet one-way delay: 136.650 ms
Loss rate: 4.00%
Run 6: Report of PCC-Vivace — Data Link

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 282.95 Mbps)
  - Flow 1 egress (mean 282.99 Mbps)
  - Flow 2 ingress (mean 240.76 Mbps)
  - Flow 2 egress (mean 236.59 Mbps)
  - Flow 3 ingress (mean 73.43 Mbps)
  - Flow 3 egress (mean 72.50 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 215.88 ms)
  - Flow 2 (95th percentile 308.68 ms)
  - Flow 3 (95th percentile 136.65 ms)
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-11 17:38:30
End at: 2018-07-11 17:39:00
Local clock offset: 0.057 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2018-07-11 21:32:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.73 Mbit/s
95th percentile per-packet one-way delay: 317.025 ms
Loss rate: 4.16%
-- Flow 1:
Average throughput: 239.48 Mbit/s
95th percentile per-packet one-way delay: 170.898 ms
Loss rate: 1.99%
-- Flow 2:
Average throughput: 255.83 Mbit/s
95th percentile per-packet one-way delay: 323.783 ms
Loss rate: 7.14%
-- Flow 3:
Average throughput: 132.42 Mbit/s
95th percentile per-packet one-way delay: 180.146 ms
Loss rate: 3.88%
Run 7: Report of PCC-Vivace — Data Link
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-11 18:05:23
End at: 2018-07-11 18:05:53
Local clock offset: -0.039 ms
Remote clock offset: 0.262 ms

# Below is generated by plot.py at 2018-07-11 21:32:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 427.31 Mbit/s
95th percentile per-packet one-way delay: 139.552 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 228.28 Mbit/s
95th percentile per-packet one-way delay: 138.541 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 270.39 Mbit/s
95th percentile per-packet one-way delay: 140.505 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 62.62 Mbit/s
95th percentile per-packet one-way delay: 136.517 ms
Loss rate: 4.34%
Run 8: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 229.14 Mbps)
- Flow 1 egress (mean 228.28 Mbps)
- Flow 2 ingress (mean 270.98 Mbps)
- Flow 2 egress (mean 270.39 Mbps)
- Flow 3 ingress (mean 63.65 Mbps)
- Flow 3 egress (mean 62.62 Mbps)
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-11 18:32:11
End at: 2018-07-11 18:32:41
Local clock offset: 0.056 ms
Remote clock offset: -0.475 ms

# Below is generated by plot.py at 2018-07-11 21:33:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 415.89 Mbit/s
95th percentile per-packet one-way delay: 176.026 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 219.38 Mbit/s
95th percentile per-packet one-way delay: 140.007 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 237.81 Mbit/s
95th percentile per-packet one-way delay: 240.447 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 120.75 Mbit/s
95th percentile per-packet one-way delay: 149.397 ms
Loss rate: 4.52%
Run 9: Report of PCC-Vivace — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 219.71 Mbps)
- Flow 1 egress (mean 219.38 Mbps)
- Flow 2 ingress (mean 237.83 Mbps)
- Flow 2 egress (mean 237.81 Mbps)
- Flow 3 ingress (mean 122.92 Mbps)
- Flow 3 egress (mean 120.75 Mbps)

Per-packet one-way delay (ms):

- Flow 1 (95th percentile 140.01 ms)
- Flow 2 (95th percentile 240.45 ms)
- Flow 3 (95th percentile 149.40 ms)
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-11 18:58:48
End at: 2018-07-11 18:59:18
Local clock offset: -0.008 ms
Remote clock offset: 0.376 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 532.36 Mbit/s
95th percentile per-packet one-way delay: 158.762 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 305.11 Mbit/s
95th percentile per-packet one-way delay: 148.734 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 285.64 Mbit/s
95th percentile per-packet one-way delay: 180.205 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 117.80 Mbit/s
95th percentile per-packet one-way delay: 139.539 ms
Loss rate: 4.54%
Run 10: Report of PCC-Vivace — Data Link

![Data Link Throughput Graph](image1)

- Flow 1 ingress (mean 304.94 Mbit/s)
- Flow 1 egress (mean 305.11 Mbit/s)
- Flow 2 ingress (mean 286.44 Mbit/s)
- Flow 2 egress (mean 285.66 Mbit/s)
- Flow 3 ingress (mean 119.97 Mbit/s)
- Flow 3 egress (mean 117.80 Mbit/s)

![Data Link Latency Graph](image2)

- Flow 1 (95th percentile 148.73 ms)
- Flow 2 (95th percentile 180.21 ms)
- Flow 3 (95th percentile 139.54 ms)
Run 1: Statistics of WebRTC media

End at: 2018-07-11 14:40:29
Local clock offset: 0.017 ms
Remote clock offset: -0.117 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 136.500 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 136.494 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 136.390 ms
Loss rate: 1.97%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 136.828 ms
Loss rate: 7.24%
Run 1: Report of WebRTC media — Data Link

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

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

Start at: 2018-07-11 15:07:04
End at: 2018-07-11 15:07:34
Local clock offset: -0.022 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.31 Mbit/s
95th percentile per-packet one-way delay: 136.291 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 136.293 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 136.298 ms
Loss rate: 2.32%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 136.201 ms
Loss rate: 5.10%
Run 2: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 1.87 Mbit/s)
- Flow 1 egress (mean 1.86 Mbit/s)
- Flow 2 ingress (mean 1.12 Mbit/s)
- Flow 2 egress (mean 1.10 Mbit/s)
- Flow 3 ingress (mean 0.39 Mbit/s)
- Flow 3 egress (mean 0.38 Mbit/s)

![Packet Delay Graph](image-url)

- Flow 1 (95th percentile 136.29 ms)
- Flow 2 (95th percentile 136.30 ms)
- Flow 3 (95th percentile 136.20 ms)
Run 3: Statistics of WebRTC media

End at: 2018-07-11 15:34:18
Local clock offset: -0.098 ms
Remote clock offset: 0.363 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.31 Mbit/s
95th percentile per-packet one-way delay: 135.904 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 135.651 ms
Loss rate: 1.97%
-- Flow 2:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 136.192 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 135.956 ms
Loss rate: 2.34%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-07-11 16:00:31
End at: 2018-07-11 16:01:01
Local clock offset: -0.069 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 136.405 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 136.420 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 136.130 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 136.095 ms
Loss rate: 3.58%
Run 4: Report of WebRTC media — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 1.85 Mbit/s)
Flow 1 egress (mean 1.84 Mbit/s)
Flow 2 ingress (mean 1.13 Mbit/s)
Flow 2 egress (mean 1.12 Mbit/s)
Flow 3 ingress (mean 0.38 Mbit/s)
Flow 3 egress (mean 0.37 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.42 ms)
Flow 2 (95th percentile 136.13 ms)
Flow 3 (95th percentile 136.09 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-07-11 16:27:00
End at: 2018-07-11 16:27:30
Local clock offset: 0.076 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 136.549 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 136.567 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 136.207 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 136.642 ms
Loss rate: 3.76%
Run 5: Report of WebRTC media — Data Link

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

- **Throughput** (Mbps):
  - Flow 1 ingress (mean 1.83 Mbps)
  - Flow 1 egress (mean 1.83 Mbps)
  - Flow 2 ingress (mean 1.13 Mbps)
  - Flow 2 egress (mean 1.11 Mbps)
  - Flow 3 ingress (mean 0.40 Mbps)
  - Flow 3 egress (mean 0.39 Mbps)

- **Delay** (ms):
  - Flow 1 (95th percentile 136.57 ms)
  - Flow 2 (95th percentile 136.21 ms)
  - Flow 3 (95th percentile 136.64 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-07-11 16:54:19
End at: 2018-07-11 16:54:49
Local clock offset: -0.034 ms
Remote clock offset: 0.286 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.33 Mbit/s
95th percentile per-packet one-way delay: 135.758 ms
Loss rate: 1.98%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 135.781 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 135.498 ms
Loss rate: 2.42%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 135.509 ms
Loss rate: 3.74%
Run 6: Report of WebRTC media — Data Link

![Graph showing throughput and round-trip delays for flows 1, 2, and 3.]

- Flow 1 ingress (mean 1.06 Mbit/s)
- Flow 1 egress (mean 1.85 Mbit/s)
- Flow 2 ingress (mean 1.14 Mbit/s)
- Flow 2 egress (mean 1.12 Mbit/s)
- Flow 3 ingress (mean 0.40 Mbit/s)
- Flow 3 egress (mean 0.38 Mbit/s)

![Graph showing packet round-trip delays for flows 1, 2, and 3.]

- Flow 1 (95th percentile 135.78 ms)
- Flow 2 (95th percentile 135.50 ms)
- Flow 3 (95th percentile 135.51 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-07-11 17:20:56
End at: 2018-07-11 17:21:26
Local clock offset: 0.029 ms
Remote clock offset: -0.435 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.23 Mbit/s
95th percentile per-packet one-way delay: 136.343 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 136.381 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 136.036 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 135.987 ms
Loss rate: 2.72%
Run 7: Report of WebRTC media — Data Link

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 1.79 Mbit/s)
- Blue solid line: Flow 1 egress (mean 1.77 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 1.12 Mbit/s)
- Green solid line: Flow 2 egress (mean 1.11 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 0.39 Mbit/s)
- Red solid line: Flow 3 egress (mean 0.38 Mbit/s)
Run 8: Statistics of WebRTC media

Start at: 2018-07-11 17:47:42
End at: 2018-07-11 17:48:12
Local clock offset: -0.022 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.29 Mbit/s
95th percentile per-packet one-way delay: 136.470 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 136.156 ms
Loss rate: 1.77%
-- Flow 2:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 136.492 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 136.535 ms
Loss rate: 1.70%
Run 8: Report of WebRTC media — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 1.84 Mbit/s)
  - Flow 1 egress (mean 1.82 Mbit/s)
  - Flow 2 ingress (mean 1.12 Mbit/s)
  - Flow 2 egress (mean 1.11 Mbit/s)
  - Flow 3 ingress (mean 0.39 Mbit/s)
  - Flow 3 egress (mean 0.39 Mbit/s)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 136.16 ms)
  - Flow 2 (95th percentile 136.49 ms)
  - Flow 3 (95th percentile 136.53 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-07-11 18:14:30
End at: 2018-07-11 18:15:00
Local clock offset: -0.041 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.32 Mbit/s
  95th percentile per-packet one-way delay: 136.671 ms
  Loss rate: 1.93%
-- Flow 1:
  Average throughput: 1.85 Mbit/s
  95th percentile per-packet one-way delay: 136.694 ms
  Loss rate: 1.56%
-- Flow 2:
  Average throughput: 1.12 Mbit/s
  95th percentile per-packet one-way delay: 136.464 ms
  Loss rate: 1.92%
-- Flow 3:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 136.372 ms
  Loss rate: 3.80%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-07-11 18:41:18
Local clock offset: -0.202 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-07-11 21:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.26 Mbit/s
95th percentile per-packet one-way delay: 136.515 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 136.446 ms
Loss rate: 1.96%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 136.565 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 136.331 ms
Loss rate: 5.03%
Run 10: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 1.85 Mbit/s)
- Flow 1 egress (mean 1.83 Mbit/s)
- Flow 2 ingress (mean 1.10 Mbit/s)
- Flow 2 egress (mean 1.09 Mbit/s)
- Flow 3 ingress (mean 0.39 Mbit/s)
- Flow 3 egress (mean 0.37 Mbit/s)