Pantheon Report

Data path: GCE London Ethernet (remote) → GCE Sydney Ethernet (local).
Repeated the test of 16 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 @ 9141c5f9450c85ea5ea2ea755a8e946998d3abf3
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464db39
third_party/pcc @ 1afc958fa0d66d8b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb2d4f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cfc42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bfb2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9ddde4735770d143a1fa2851
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)
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<th>mean avg tput (Mbit/s)</th>
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<td>270.61</td>
<td>174.05</td>
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<td>144.68</td>
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<td>PCC-Vivace</td>
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<td>WebRTC media</td>
<td>10</td>
<td>1.79</td>
<td>1.09</td>
<td>0.37</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-06-19 22:33:00
End at: 2018-06-19 22:33:30
Local clock offset: -0.008 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2018-06-20 02:36:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 147.09 Mbit/s
  95th percentile per-packet one-way delay: 136.182 ms
  Loss rate: 1.53%
-- Flow 1:
  Average throughput: 74.95 Mbit/s
  95th percentile per-packet one-way delay: 136.131 ms
  Loss rate: 0.95%
-- Flow 2:
  Average throughput: 77.22 Mbit/s
  95th percentile per-packet one-way delay: 136.254 ms
  Loss rate: 1.60%
-- Flow 3:
  Average throughput: 65.20 Mbit/s
  95th percentile per-packet one-way delay: 136.042 ms
  Loss rate: 3.37%
Run 1: Report of TCP BBR — Data Link

![Graph 1: Throughput vs. Time]

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

Legend:
- **Flow 1 ingress (mean 74.98 Mbit/s)**
- **Flow 1 egress (mean 74.95 Mbit/s)**
- **Flow 2 ingress (mean 77.37 Mbit/s)**
- **Flow 2 egress (mean 77.22 Mbit/s)**
- **Flow 3 ingress (mean 65.84 Mbit/s)**
- **Flow 3 egress (mean 65.20 Mbit/s)**

Legend for delay graph:
- **Flow 1 (95th percentile 136.13 ms)**
- **Flow 2 (95th percentile 136.25 ms)**
- **Flow 3 (95th percentile 136.04 ms)**
Run 2: Statistics of TCP BBR

Start at: 2018-06-19 22:58:09
Local clock offset: -0.001 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2018-06-20 02:36:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 148.94 Mbit/s
95th percentile per-packet one-way delay: 136.179 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 76.96 Mbit/s
95th percentile per-packet one-way delay: 136.198 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 77.15 Mbit/s
95th percentile per-packet one-way delay: 136.191 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 64.56 Mbit/s
95th percentile per-packet one-way delay: 136.056 ms
Loss rate: 3.32%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Local clock offset: -0.047 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-06-20 02:36:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 145.47 Mbit/s
95th percentile per-packet one-way delay: 136.018 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 74.99 Mbit/s
95th percentile per-packet one-way delay: 135.996 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 72.38 Mbit/s
95th percentile per-packet one-way delay: 135.978 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 69.30 Mbit/s
95th percentile per-packet one-way delay: 136.104 ms
Loss rate: 3.54%
Run 3: Report of TCP BBR — Data Link
Run 4: Statistics of TCP BBR

End at: 2018-06-19 23:48:01
Local clock offset: -0.145 ms
Remote clock offset: 0.409 ms

# Below is generated by plot.py at 2018-06-20 02:36:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 145.39 Mbit/s
  95th percentile per-packet one-way delay: 135.581 ms
  Loss rate: 1.43%
-- Flow 1:
  Average throughput: 73.74 Mbit/s
  95th percentile per-packet one-way delay: 135.503 ms
  Loss rate: 0.94%
-- Flow 2:
  Average throughput: 76.53 Mbit/s
  95th percentile per-packet one-way delay: 135.651 ms
  Loss rate: 1.38%
-- Flow 3:
  Average throughput: 64.13 Mbit/s
  95th percentile per-packet one-way delay: 135.547 ms
  Loss rate: 3.27%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

Start at: 2018-06-20 00:12:31
End at: 2018-06-20 00:13:01
Local clock offset: -0.038 ms
Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2018-06-20 02:36:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.83 Mbit/s
95th percentile per-packet one-way delay: 136.132 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 81.08 Mbit/s
95th percentile per-packet one-way delay: 136.142 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 71.39 Mbit/s
95th percentile per-packet one-way delay: 136.024 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 69.28 Mbit/s
95th percentile per-packet one-way delay: 136.218 ms
Loss rate: 3.54%
Run 5: Report of TCP BBR — Data Link

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

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

Start at: 2018-06-20 00:37:22
End at: 2018-06-20 00:37:52
Local clock offset: 0.129 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-06-20 02:36:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 147.07 Mbit/s
  95th percentile per-packet one-way delay: 136.222 ms
  Loss rate: 1.45%
 -- Flow 1:
  Average throughput: 76.38 Mbit/s
  95th percentile per-packet one-way delay: 136.255 ms
  Loss rate: 0.94%
 -- Flow 2:
  Average throughput: 74.67 Mbit/s
  95th percentile per-packet one-way delay: 136.145 ms
  Loss rate: 1.47%
 -- Flow 3:
  Average throughput: 64.89 Mbit/s
  95th percentile per-packet one-way delay: 136.143 ms
  Loss rate: 3.21%
Run 6: Report of TCP BBR — Data Link
Run 7: Statistics of TCP BBR

Start at: 2018-06-20 01:02:26
End at: 2018-06-20 01:02:56
Local clock offset: 0.072 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2018-06-20 02:36:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.16 Mbit/s
95th percentile per-packet one-way delay: 136.282 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 76.91 Mbit/s
95th percentile per-packet one-way delay: 136.334 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 72.91 Mbit/s
95th percentile per-packet one-way delay: 136.192 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 64.65 Mbit/s
95th percentile per-packet one-way delay: 135.325 ms
Loss rate: 3.27%
Run 7: Report of TCP BBR — Data Link

![Graph of Throughput and Delay](image)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 76.23 Mbps)
  - Flow 1 egress (mean 76.91 Mbps)
  - Flow 2 ingress (mean 73.02 Mbps)
  - Flow 2 egress (mean 72.91 Mbps)
  - Flow 3 ingress (mean 65.00 Mbps)
  - Flow 3 egress (mean 64.65 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 136.33 ms)
  - Flow 2 (95th percentile 136.19 ms)
  - Flow 3 (95th percentile 135.32 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-06-20 01:27:35
End at: 2018-06-20 01:28:05
Local clock offset: 0.1 ms
Remote clock offset: -0.345 ms

# Below is generated by plot.py at 2018-06-20 02:36:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 153.46 Mbit/s
95th percentile per-packet one-way delay: 135.913 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 79.72 Mbit/s
95th percentile per-packet one-way delay: 135.916 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 79.38 Mbit/s
95th percentile per-packet one-way delay: 135.939 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 65.04 Mbit/s
95th percentile per-packet one-way delay: 135.795 ms
Loss rate: 3.59%
Run 8: Report of TCP BBR — Data Link

[Graph 1: Throughput vs. Time]

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

Flow 1 ingress (mean 79.70 Mbit/s)  Flow 1 egress (mean 79.72 Mbit/s)
Flow 2 ingress (mean 79.51 Mbit/s)  Flow 2 egress (mean 79.38 Mbit/s)
Flow 3 ingress (mean 65.49 Mbit/s)  Flow 3 egress (mean 65.04 Mbit/s)
Run 9: Statistics of TCP BBR

Start at: 2018-06-20 01:52:17
End at: 2018-06-20 01:52:47
Local clock offset: 0.117 ms
Remote clock offset: 0.422 ms

# Below is generated by plot.py at 2018-06-20 02:38:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.08 Mbit/s
95th percentile per-packet one-way delay: 136.000 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 74.48 Mbit/s
95th percentile per-packet one-way delay: 135.789 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 78.85 Mbit/s
95th percentile per-packet one-way delay: 136.056 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 69.29 Mbit/s
95th percentile per-packet one-way delay: 136.175 ms
Loss rate: 3.54%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-06-20 02:17:43
End at: 2018-06-20 02:18:13
Local clock offset: -0.011 ms
Remote clock offset: 0.121 ms

# Below is generated by plot.py at 2018-06-20 02:38:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 145.56 Mbit/s
  95th percentile per-packet one-way delay: 136.118 ms
  Loss rate: 1.41%
-- Flow 1:
  Average throughput: 72.36 Mbit/s
  95th percentile per-packet one-way delay: 136.032 ms
  Loss rate: 1.01%
-- Flow 2:
  Average throughput: 78.97 Mbit/s
  95th percentile per-packet one-way delay: 136.172 ms
  Loss rate: 1.19%
-- Flow 3:
  Average throughput: 64.52 Mbit/s
  95th percentile per-packet one-way delay: 136.123 ms
  Loss rate: 3.30%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of Copa

Start at: 2018-06-19 22:26:45
Local clock offset: -0.031 ms
Remote clock offset: 0.445 ms

# Below is generated by plot.py at 2018-06-20 02:44:49
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 291.05 Mbit/s
  95th percentile per-packet one-way delay: 150.048 ms
  Loss rate: 1.31%
-- Flow 1:
  Average throughput: 169.18 Mbit/s
  95th percentile per-packet one-way delay: 146.141 ms
  Loss rate: 0.73%
-- Flow 2:
  Average throughput: 123.74 Mbit/s
  95th percentile per-packet one-way delay: 153.762 ms
  Loss rate: 1.37%
-- Flow 3:
  Average throughput: 122.24 Mbit/s
  95th percentile per-packet one-way delay: 164.563 ms
  Loss rate: 3.57%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Local clock offset: 0.077 ms
Remote clock offset: 0.089 ms

# Below is generated by plot.py at 2018-06-20 02:46:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.94 Mbit/s
95th percentile per-packet one-way delay: 162.891 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 212.84 Mbit/s
95th percentile per-packet one-way delay: 163.107 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 130.31 Mbit/s
95th percentile per-packet one-way delay: 168.749 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 91.74 Mbit/s
95th percentile per-packet one-way delay: 147.327 ms
Loss rate: 2.04%
Run 2: Report of Copa — Data Link

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

- Flow 1 ingress (mean 212.17 Mbit/s)
- Flow 1 egress (mean 212.84 Mbit/s)
- Flow 2 ingress (mean 130.11 Mbit/s)
- Flow 2 egress (mean 130.31 Mbit/s)
- Flow 3 ingress (mean 91.09 Mbit/s)
- Flow 3 egress (mean 91.74 Mbit/s)
Run 3: Statistics of Copa

End at: 2018-06-19 23:17:25
Local clock offset: 0.031 ms
Remote clock offset: 0.032 ms

# Below is generated by plot.py at 2018-06-20 02:46:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 296.50 Mbit/s
  95th percentile per-packet one-way delay: 153.631 ms
  Loss rate: 1.53%
-- Flow 1:
  Average throughput: 201.59 Mbit/s
  95th percentile per-packet one-way delay: 156.460 ms
  Loss rate: 1.47%
-- Flow 2:
  Average throughput: 96.91 Mbit/s
  95th percentile per-packet one-way delay: 140.096 ms
  Loss rate: 2.31%
-- Flow 3:
  Average throughput: 94.06 Mbit/s
  95th percentile per-packet one-way delay: 152.345 ms
  Loss rate: 0.24%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

End at: 2018-06-19 23:41:57
Local clock offset: -0.125 ms
Remote clock offset: -0.335 ms

# Below is generated by plot.py at 2018-06-20 02:46:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 305.32 Mbit/s
  95th percentile per-packet one-way delay: 164.782 ms
  Loss rate: 1.12%
-- Flow 1:
  Average throughput: 165.82 Mbit/s
  95th percentile per-packet one-way delay: 162.465 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 155.17 Mbit/s
  95th percentile per-packet one-way delay: 164.209 ms
  Loss rate: 1.01%
-- Flow 3:
  Average throughput: 112.07 Mbit/s
  95th percentile per-packet one-way delay: 172.045 ms
  Loss rate: 6.10%
Run 4: Report of Copa — Data Link

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

- **Flow 1 ingress (mean 164.35 Mbps)**
- **Flow 1 egress (mean 165.82 Mbps)**
- **Flow 2 ingress (mean 154.62 Mbps)**
- **Flow 2 egress (mean 155.17 Mbps)**
- **Flow 3 ingress (mean 116.10 Mbps)**
- **Flow 3 egress (mean 112.07 Mbps)**

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

- **Flow 1 (95th percentile 162.47 ms)**
- **Flow 2 (95th percentile 164.21 ms)**
- **Flow 3 (95th percentile 172.04 ms)**
Run 5: Statistics of Copa

Start at: 2018-06-20 00:06:15
End at: 2018-06-20 00:06:45
Local clock offset: -0.033 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-06-20 02:46:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 329.25 Mbit/s
95th percentile per-packet one-way delay: 151.824 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 191.55 Mbit/s
95th percentile per-packet one-way delay: 153.128 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 155.36 Mbit/s
95th percentile per-packet one-way delay: 152.700 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 106.89 Mbit/s
95th percentile per-packet one-way delay: 142.697 ms
Loss rate: 1.99%
Run 5: Report of Copa — Data Link
Run 6: Statistics of Copa

Start at: 2018-06-20 00:31:06
End at: 2018-06-20 00:31:36
Local clock offset: 0.215 ms
Remote clock offset: 0.36 ms

# Below is generated by plot.py at 2018-06-20 02:46:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 302.34 Mbit/s
95th percentile per-packet one-way delay: 187.119 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 152.46 Mbit/s
95th percentile per-packet one-way delay: 152.725 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 111.45 Mbit/s
95th percentile per-packet one-way delay: 153.115 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 233.24 Mbit/s
95th percentile per-packet one-way delay: 190.246 ms
Loss rate: 4.00%
Run 6: Report of Copa — Data Link

![Graph of data link performance](image_url)
Run 7: Statistics of Copa

Start at: 2018-06-20 00:56:11
End at: 2018-06-20 00:56:41
Local clock offset: 0.08 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2018-06-20 02:47:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.21 Mbit/s
95th percentile per-packet one-way delay: 154.090 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 135.34 Mbit/s
95th percentile per-packet one-way delay: 147.091 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 165.29 Mbit/s
95th percentile per-packet one-way delay: 160.795 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 89.74 Mbit/s
95th percentile per-packet one-way delay: 141.489 ms
Loss rate: 4.46%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-06-20 01:21:13
End at: 2018-06-20 01:21:43
Local clock offset: -0.016 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-06-20 02:49:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 331.98 Mbit/s
  95th percentile per-packet one-way delay: 163.051 ms
  Loss rate: 1.12%
-- Flow 1:
  Average throughput: 138.65 Mbit/s
  95th percentile per-packet one-way delay: 151.130 ms
  Loss rate: 0.40%
-- Flow 2:
  Average throughput: 271.95 Mbit/s
  95th percentile per-packet one-way delay: 168.740 ms
  Loss rate: 1.75%
-- Flow 3:
  Average throughput: 40.11 Mbit/s
  95th percentile per-packet one-way delay: 146.825 ms
  Loss rate: 0.01%
Run 9: Statistics of Copa

Start at: 2018-06-20 01:46:08
End at: 2018-06-20 01:46:38
Local clock offset: -0.011 ms
Remote clock offset: -0.3 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 337.24 Mbit/s
  95th percentile per-packet one-way delay: 146.312 ms
  Loss rate: 1.10%
-- Flow 1:
  Average throughput: 219.30 Mbit/s
  95th percentile per-packet one-way delay: 148.817 ms
  Loss rate: 0.60%
-- Flow 2:
  Average throughput: 141.71 Mbit/s
  95th percentile per-packet one-way delay: 145.098 ms
  Loss rate: 1.51%
-- Flow 3:
  Average throughput: 73.90 Mbit/s
  95th percentile per-packet one-way delay: 137.209 ms
  Loss rate: 3.86%
Run 9: Report of Copa — Data Link

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

- Flow 1 ingress (mean 218.63 Mbit/s)
- Flow 1 egress (mean 219.30 Mbit/s)
- Flow 2 ingress (mean 141.89 Mbit/s)
- Flow 2 egress (mean 141.71 Mbit/s)
- Flow 3 ingress (mean 74.75 Mbit/s)
- Flow 3 egress (mean 73.90 Mbit/s)

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

- Flow 1 (95th percentile 148.82 ms)
- Flow 2 (95th percentile 145.10 ms)
- Flow 3 (95th percentile 137.21 ms)
Run 10: Statistics of Copa

Start at: 2018-06-20 02:11:05
End at: 2018-06-20 02:11:35
Local clock offset: -0.164 ms
Remote clock offset: -0.288 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 329.76 Mbit/s
  95th percentile per-packet one-way delay: 163.828 ms
  Loss rate: 1.54%
-- Flow 1:
  Average throughput: 206.44 Mbit/s
  95th percentile per-packet one-way delay: 164.615 ms
  Loss rate: 0.38%
-- Flow 2:
  Average throughput: 111.69 Mbit/s
  95th percentile per-packet one-way delay: 157.904 ms
  Loss rate: 3.20%
-- Flow 3:
  Average throughput: 151.05 Mbit/s
  95th percentile per-packet one-way delay: 157.854 ms
  Loss rate: 3.74%
Run 1: Statistics of TCP Cubic

Local clock offset: 0.004 ms
Remote clock offset: -0.355 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.69 Mbit/s
95th percentile per-packet one-way delay: 145.625 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 48.50 Mbit/s
95th percentile per-packet one-way delay: 143.584 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 81.03 Mbit/s
95th percentile per-packet one-way delay: 146.909 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 70.17 Mbit/s
95th percentile per-packet one-way delay: 144.525 ms
Loss rate: 1.09%
Run 1: Report of TCP Cubic — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 48.87 Mbps)**
- **Flow 1 egress (mean 48.50 Mbps)**
- **Flow 2 ingress (mean 81.19 Mbps)**
- **Flow 2 egress (mean 81.03 Mbps)**
- **Flow 3 ingress (mean 68.94 Mbps)**
- **Flow 3 egress (mean 70.17 Mbps)**

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

- **Flow 1 (95th percentile 143.58 ms)**
- **Flow 2 (95th percentile 146.91 ms)**
- **Flow 3 (95th percentile 144.53 ms)**
Run 2: Statistics of TCP Cubic

Local clock offset: -0.079 ms
Remote clock offset: 0.437 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.07 Mbit/s
95th percentile per-packet one-way delay: 145.590 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 84.02 Mbit/s
95th percentile per-packet one-way delay: 145.833 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 13.51 Mbit/s
95th percentile per-packet one-way delay: 143.549 ms
Loss rate: 6.66%
-- Flow 3:
Average throughput: 40.22 Mbit/s
95th percentile per-packet one-way delay: 144.637 ms
Loss rate: 3.81%
Run 2: Report of TCP Cubic — Data Link

**Throughput (Mbps)**

- Flow 1 ingress (mean 84.09 Mbit/s)
- Flow 1 egress (mean 84.02 Mbit/s)
- Flow 2 ingress (mean 14.28 Mbit/s)
- Flow 2 egress (mean 13.51 Mbit/s)
- Flow 3 ingress (mean 40.67 Mbit/s)
- Flow 3 egress (mean 40.22 Mbit/s)

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

- Flow 1 (95th percentile 145.83 ms)
- Flow 2 (95th percentile 143.55 ms)
- Flow 3 (95th percentile 144.64 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-06-19 23:02:37
End at: 2018-06-19 23:03:07
Local clock offset: 0.155 ms
Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.96 Mbit/s
95th percentile per-packet one-way delay: 146.642 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 83.93 Mbit/s
95th percentile per-packet one-way delay: 146.168 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 53.19 Mbit/s
95th percentile per-packet one-way delay: 148.913 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 34.09 Mbit/s
95th percentile per-packet one-way delay: 138.460 ms
Loss rate: 3.40%
Run 3: Report of TCP Cubic — Data Link

![Throughput Graph](image1)

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

End at: 2018-06-19 23:27:45
Local clock offset: 0.02 ms
Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.97 Mbit/s
95th percentile per-packet one-way delay: 141.349 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 48.77 Mbit/s
95th percentile per-packet one-way delay: 141.827 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 44.63 Mbit/s
95th percentile per-packet one-way delay: 141.051 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 36.69 Mbit/s
95th percentile per-packet one-way delay: 140.149 ms
Loss rate: 3.69%
Run 4: Report of TCP Cubic — Data Link
Run 5: Statistics of TCP Cubic

Start at: 2018-06-19 23:52:01
End at: 2018-06-19 23:52:31
Local clock offset: 0.015 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.37 Mbit/s
95th percentile per-packet one-way delay: 141.996 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 53.37 Mbit/s
95th percentile per-packet one-way delay: 142.201 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 47.30 Mbit/s
95th percentile per-packet one-way delay: 142.629 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 42.60 Mbit/s
95th percentile per-packet one-way delay: 139.977 ms
Loss rate: 3.63%
Run 6: Statistics of TCP Cubic

Start at: 2018-06-20 00:16:56
End at: 2018-06-20 00:17:26
Local clock offset: 0.182 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.33 Mbit/s
95th percentile per-packet one-way delay: 147.169 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 83.84 Mbit/s
95th percentile per-packet one-way delay: 146.679 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 49.69 Mbit/s
95th percentile per-packet one-way delay: 150.620 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 54.11 Mbit/s
95th percentile per-packet one-way delay: 145.533 ms
Loss rate: 4.00%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-06-20 00:41:47
End at: 2018-06-20 00:42:17
Local clock offset: -0.07 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.32 Mbit/s
95th percentile per-packet one-way delay: 145.283 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 62.77 Mbit/s
95th percentile per-packet one-way delay: 145.859 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 16.23 Mbit/s
95th percentile per-packet one-way delay: 137.930 ms
Loss rate: 6.30%
-- Flow 3:
Average throughput: 36.21 Mbit/s
95th percentile per-packet one-way delay: 142.585 ms
Loss rate: 3.55%
Run 7: Report of TCP Cubic — Data Link

Throughput vs. Time (s)

- Flow 1 ingress (mean 62.75 Mbit/s)
- Flow 1 egress (mean 62.77 Mbit/s)
- Flow 2 ingress (mean 17.08 Mbit/s)
- Flow 2 egress (mean 16.23 Mbit/s)
- Flow 3 ingress (mean 36.52 Mbit/s)
- Flow 3 egress (mean 36.21 Mbit/s)

Packet delay vs. Time (s)

- Flow 1 (95th percentile 145.86 ms)
- Flow 2 (95th percentile 137.93 ms)
- Flow 3 (95th percentile 142.59 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-06-20 01:06:54
End at: 2018-06-20 01:07:24
Local clock offset: 0.139 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.67 Mbit/s
95th percentile per-packet one-way delay: 143.352 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 82.80 Mbit/s
95th percentile per-packet one-way delay: 143.214 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 81.65 Mbit/s
95th percentile per-packet one-way delay: 143.694 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 140.557 ms
Loss rate: 12.68%
Run 8: Report of TCP Cubic — Data Link

![Graph 1: Throughput (Mbps)]

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

Flow 1 ingress (mean 82.87 Mbps)  Flow 1 egress (mean 82.80 Mbps)
Flow 2 ingress (mean 81.79 Mbps)  Flow 2 egress (mean 81.65 Mbps)
Flow 3 ingress (mean 0.93 Mbps)  Flow 3 egress (mean 0.84 Mbps)
Run 9: Statistics of TCP Cubic

Start at: 2018-06-20 01:32:05
End at: 2018-06-20 01:32:35
Local clock offset: -0.096 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.57 Mbit/s
95th percentile per-packet one-way delay: 139.932 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 47.29 Mbit/s
95th percentile per-packet one-way delay: 139.375 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 72.79 Mbit/s
95th percentile per-packet one-way delay: 141.321 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 52.36 Mbit/s
95th percentile per-packet one-way delay: 137.920 ms
Loss rate: 3.94%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-06-20 01:56:48
End at: 2018-06-20 01:57:18
Local clock offset: -0.084 ms
Remote clock offset: -0.318 ms

# Below is generated by plot.py at 2018-06-20 02:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.98 Mbit/s
95th percentile per-packet one-way delay: 147.423 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 83.58 Mbit/s
95th percentile per-packet one-way delay: 146.762 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 46.54 Mbit/s
95th percentile per-packet one-way delay: 155.060 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 35.83 Mbit/s
95th percentile per-packet one-way delay: 160.035 ms
Loss rate: 3.71%
Run 10: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 83.08 Mbps)
  - Flow 1 egress (mean 83.58 Mbps)
  - Flow 2 ingress (mean 66.68 Mbps)
  - Flow 2 egress (mean 65.54 Mbps)
  - Flow 3 ingress (mean 46.19 Mbps)
  - Flow 3 egress (mean 35.83 Mbps)

- **Per-packet delay (ms):**
  - Flow 1 (95th percentile 146.76 ms)
  - Flow 2 (95th percentile 155.06 ms)
  - Flow 3 (95th percentile 160.03 ms)
Run 1: Statistics of FillP

Local clock offset: 0.105 ms
Remote clock offset: 0.047 ms

# Below is generated by plot.py at 2018-06-20 03:12:04
# Datalink statistics
-- Total of 3 flows:
    Average throughput: 1180.12 Mbit/s
    95th percentile per-packet one-way delay: 214.903 ms
    Loss rate: 4.77%
-- Flow 1:
    Average throughput: 657.29 Mbit/s
    95th percentile per-packet one-way delay: 212.177 ms
    Loss rate: 4.55%
-- Flow 2:
    Average throughput: 568.03 Mbit/s
    95th percentile per-packet one-way delay: 222.600 ms
    Loss rate: 5.00%
-- Flow 3:
    Average throughput: 449.79 Mbit/s
    95th percentile per-packet one-way delay: 210.712 ms
    Loss rate: 5.12%
Run 1: Report of FillP — Data Link

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

Flow 1 Ingress (mean 682.38 Mbit/s) — Flow 1 Egress (mean 657.29 Mbit/s)
Flow 2 Ingress (mean 589.74 Mbit/s) — Flow 2 Egress (mean 568.03 Mbit/s)
Flow 3 Ingress (mean 460.93 Mbit/s) — Flow 3 Egress (mean 449.79 Mbit/s)

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

Flow 1 (95th percentile 212.18 ms) — Flow 2 (95th percentile 222.60 ms) — Flow 3 (95th percentile 210.71 ms)
Run 2: Statistics of FillP

Local clock offset: 0.026 ms
Remote clock offset: 0.072 ms

# Below is generated by plot.py at 2018-06-20 03:13:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1221.34 Mbit/s
95th percentile per-packet one-way delay: 239.985 ms
Loss rate: 3.26%
-- Flow 1:
Average throughput: 687.07 Mbit/s
95th percentile per-packet one-way delay: 237.834 ms
Loss rate: 2.69%
-- Flow 2:
Average throughput: 580.75 Mbit/s
95th percentile per-packet one-way delay: 234.130 ms
Loss rate: 3.55%
-- Flow 3:
Average throughput: 460.17 Mbit/s
95th percentile per-packet one-way delay: 254.832 ms
Loss rate: 5.07%
Run 2: Report of FillP — Data Link
Run 3: Statistics of FillP

End at: 2018-06-19 23:13:45
Local clock offset: -0.036 ms
Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2018-06-20 03:15:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1298.44 Mbit/s
95th percentile per-packet one-way delay: 209.033 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 714.16 Mbit/s
95th percentile per-packet one-way delay: 204.923 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 648.54 Mbit/s
95th percentile per-packet one-way delay: 217.817 ms
Loss rate: 2.51%
-- Flow 3:
Average throughput: 476.29 Mbit/s
95th percentile per-packet one-way delay: 161.420 ms
Loss rate: 3.37%
Run 3: Report of FillP — Data Link

![Graph of data link performance metrics](image)

- Flow 1 ingress (mean 716.11 Mbps)
- Flow 1 egress (mean 714.16 Mbps)
- Flow 2 ingress (mean 656.22 Mbps)
- Flow 2 egress (mean 648.54 Mbps)
- Flow 3 ingress (mean 479.35 Mbps)
- Flow 3 egress (mean 476.29 Mbps)

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

- Flow 1 (95th percentile 204.92 ms)
- Flow 2 (95th percentile 217.82 ms)
- Flow 3 (95th percentile 161.42 ms)
Run 4: Statistics of FillP

End at: 2018-06-19 23:38:27
Local clock offset: 0.142 ms
Remote clock offset: 0.438 ms

# Below is generated by plot.py at 2018-06-20 03:15:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1048.77 Mbit/s
95th percentile per-packet one-way delay: 327.628 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 631.15 Mbit/s
95th percentile per-packet one-way delay: 349.160 ms
Loss rate: 3.02%
-- Flow 2:
Average throughput: 383.48 Mbit/s
95th percentile per-packet one-way delay: 287.697 ms
Loss rate: 2.16%
-- Flow 3:
Average throughput: 501.94 Mbit/s
95th percentile per-packet one-way delay: 207.456 ms
Loss rate: 4.39%
Run 4: Report of FillP — Data Link

Time (s)
0 5 10 15 20 25 30
Throughput (Mbps/s)
0 200 400 600 800 1000
Flow 1 ingress (mean 644.85 Mbps/s) — Flow 1 egress (mean 631.15 Mbps/s)
Flow 2 ingress (mean 386.60 Mbps/s) — Flow 2 egress (mean 383.48 Mbps/s)
Flow 3 ingress (mean 510.54 Mbps/s) — Flow 3 egress (mean 501.94 Mbps/s)

Time (s)
0 5 10 15 20 25 30
Per-packet one-way delay (ms)
150 200 250 300 350 400
Flow 1 (95th percentile 349.16 ms) — Flow 2 (95th percentile 287.70 ms) — Flow 3 (95th percentile 207.46 ms)
Run 5: Statistics of FillP

Start at: 2018-06-20 00:02:35
End at: 2018-06-20 00:03:05
Local clock offset: 0.056 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2018-06-20 03:15:45
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 1246.03 Mbit/s
   95th percentile per-packet one-way delay: 227.806 ms
   Loss rate: 3.96%
-- Flow 1:
   Average throughput: 706.89 Mbit/s
   95th percentile per-packet one-way delay: 228.227 ms
   Loss rate: 4.11%
-- Flow 2:
   Average throughput: 578.98 Mbit/s
   95th percentile per-packet one-way delay: 234.393 ms
   Loss rate: 4.25%
-- Flow 3:
   Average throughput: 478.57 Mbit/s
   95th percentile per-packet one-way delay: 159.764 ms
   Loss rate: 2.59%
Run 5: Report of FillP — Data Link

![Graphs showing throughput and per-packet mean delay](image-url)

- Flow 1 Ingress (mean 730.45 Mb/s), Flow 1 Egress (mean 706.89 Mb/s)
- Flow 2 Ingress (mean 596.37 Mb/s), Flow 2 Egress (mean 578.98 Mb/s)
- Flow 3 Ingress (mean 477.82 Mb/s), Flow 3 Egress (mean 478.57 Mb/s)

![Graph showing per-packet mean delay](image-url)

- Flow 1 (95th percentile 228.23 ms), Flow 2 (95th percentile 234.39 ms), Flow 3 (95th percentile 159.76 ms)
Run 6: Statistics of FillP

Start at: 2018-06-20 00:27:38
End at: 2018-06-20 00:28:08
Local clock offset: 0.058 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2018-06-20 03:15:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1027.05 Mbit/s
95th percentile per-packet one-way delay: 305.581 ms
Loss rate: 4.07%
-- Flow 1:
Average throughput: 546.19 Mbit/s
95th percentile per-packet one-way delay: 298.737 ms
Loss rate: 4.12%
-- Flow 2:
Average throughput: 520.33 Mbit/s
95th percentile per-packet one-way delay: 320.625 ms
Loss rate: 4.18%
-- Flow 3:
Average throughput: 422.56 Mbit/s
95th percentile per-packet one-way delay: 293.614 ms
Loss rate: 3.60%
Run 6: Report of FillP — Data Link

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

- **Flow 1 Ingress** (mean 564.48 Mb/s)
- **Flow 2 Ingress** (mean 535.69 Mb/s)
- **Flow 3 Ingress** (mean 421.86 Mb/s)
- **Flow 1 Egress** (mean 546.19 Mb/s)
- **Flow 2 Egress** (mean 520.33 Mb/s)
- **Flow 3 Egress** (mean 422.56 Mb/s)

![Graph 2: Packet Delivery Delay vs. Time](image)

- **Flow 1 95th percentile**: 298.74 ms
- **Flow 2 95th percentile**: 320.62 ms
- **Flow 3 95th percentile**: 293.61 ms
Run 7: Statistics of FillP

Start at: 2018-06-20 00:52:35
End at: 2018-06-20 00:53:05
Local clock offset: -0.007 ms
Remote clock offset: -0.376 ms

# Below is generated by plot.py at 2018-06-20 03:20:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1201.69 Mbit/s
95th percentile per-packet one-way delay: 226.222 ms
Loss rate: 4.78%
-- Flow 1:
Average throughput: 636.80 Mbit/s
95th percentile per-packet one-way delay: 224.220 ms
Loss rate: 5.38%
-- Flow 2:
Average throughput: 594.39 Mbit/s
95th percentile per-packet one-way delay: 233.158 ms
Loss rate: 4.49%
-- Flow 3:
Average throughput: 526.31 Mbit/s
95th percentile per-packet one-way delay: 190.904 ms
Loss rate: 3.22%
Run 7: Report of FillP — Data Link
Run 8: Statistics of FillP

Start at: 2018-06-20 01:17:32
End at: 2018-06-20 01:18:02
Local clock offset: -0.12 ms
Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2018-06-20 03:22:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1313.35 Mbit/s
95th percentile per-packet one-way delay: 203.086 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 711.58 Mbit/s
95th percentile per-packet one-way delay: 205.448 ms
Loss rate: 2.93%
-- Flow 2:
Average throughput: 661.68 Mbit/s
95th percentile per-packet one-way delay: 197.813 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 503.66 Mbit/s
95th percentile per-packet one-way delay: 172.787 ms
Loss rate: 3.41%
Run 8: Report of FillP — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 726.37 Mbps)
- Flow 1 egress (mean 711.38 Mbps)
- Flow 2 ingress (mean 659.64 Mbps)
- Flow 2 egress (mean 663.68 Mbps)
- Flow 3 ingress (mean 507.06 Mbps)
- Flow 3 egress (mean 503.66 Mbps)

Per-packet error rate (delay ms):

- Flow 1 (95th percentile 205.45 ms)
- Flow 2 (95th percentile 197.81 ms)
- Flow 3 (95th percentile 172.79 ms)
Run 9: Statistics of FillP

Start at: 2018-06-20 01:42:30  
End at: 2018-06-20 01:43:00  
Local clock offset: 0.015 ms  
Remote clock offset: 0.428 ms

# Below is generated by plot.py at 2018-06-20 03:38:12  
# Datalink statistics

-- Total of 3 flows:  
Average throughput: 1266.34 Mbit/s  
95th percentile per-packet one-way delay: 209.551 ms  
Loss rate: 2.63%

-- Flow 1:  
Average throughput: 677.84 Mbit/s  
95th percentile per-packet one-way delay: 210.404 ms  
Loss rate: 3.09%

-- Flow 2:  
Average throughput: 636.28 Mbit/s  
95th percentile per-packet one-way delay: 214.378 ms  
Loss rate: 2.04%

-- Flow 3:  
Average throughput: 514.00 Mbit/s  
95th percentile per-packet one-way delay: 141.655 ms  
Loss rate: 2.18%
Run 9: Report of FillP — Data Link

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

Start at: 2018-06-20 02:07:29
End at: 2018-06-20 02:07:59
Local clock offset: -0.262 ms
Remote clock offset: -0.294 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1196.26 Mbit/s
  95th percentile per-packet one-way delay: 238.533 ms
  Loss rate: 4.71%
-- Flow 1:
  Average throughput: 639.38 Mbit/s
  95th percentile per-packet one-way delay: 221.407 ms
  Loss rate: 5.78%
-- Flow 2:
  Average throughput: 613.98 Mbit/s
  95th percentile per-packet one-way delay: 246.467 ms
  Loss rate: 3.00%
-- Flow 3:
  Average throughput: 461.22 Mbit/s
  95th percentile per-packet one-way delay: 271.025 ms
  Loss rate: 4.67%
Run 10: Report of FillIP — Data Link

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

- **Flow 1 ingress (mean 672.39 Mbps/s)**
- **Flow 1 egress (mean 639.38 Mbps/s)**
- **Flow 2 ingress (mean 624.33 Mbps/s)**
- **Flow 2 egress (mean 613.98 Mbps/s)**
- **Flow 3 ingress (mean 470.59 Mbps/s)**
- **Flow 3 egress (mean 461.22 Mbps/s)**

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

- **Flow 1 (95th percentile 221.41 ms)**
- **Flow 2 (95th percentile 246.47 ms)**
- **Flow 3 (95th percentile 271.02 ms)**
Run 1: Statistics of Indigo

Start at: 2018-06-19 22:19:30
End at: 2018-06-19 22:20:00
Local clock offset: 0.154 ms
Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 306.15 Mbit/s
95th percentile per-packet one-way delay: 136.415 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 178.29 Mbit/s
95th percentile per-packet one-way delay: 136.269 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 134.27 Mbit/s
95th percentile per-packet one-way delay: 136.587 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 108.64 Mbit/s
95th percentile per-packet one-way delay: 136.478 ms
Loss rate: 3.64%
Run 1: Report of Indigo — Data Link

Graphs showing throughput and packet delay over time for different flows.
Run 2: Statistics of Indigo

Local clock offset: 0.268 ms
Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 311.86 Mbit/s
95th percentile per-packet one-way delay: 138.936 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 177.48 Mbit/s
95th percentile per-packet one-way delay: 137.685 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 128.58 Mbit/s
95th percentile per-packet one-way delay: 139.877 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 153.94 Mbit/s
95th percentile per-packet one-way delay: 141.076 ms
Loss rate: 3.32%
Run 2: Report of Indigo — Data Link

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

End at: 2018-06-19 23:10:11
Local clock offset: -0.113 ms
Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 254.50 Mbit/s
95th percentile per-packet one-way delay: 137.067 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 132.66 Mbit/s
95th percentile per-packet one-way delay: 136.722 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 130.69 Mbit/s
95th percentile per-packet one-way delay: 137.067 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 109.87 Mbit/s
95th percentile per-packet one-way delay: 137.823 ms
Loss rate: 3.66%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Start at: 2018-06-19 23:34:15
End at: 2018-06-19 23:34:45
Local clock offset: -0.019 ms
Remote clock offset: -0.351 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 338.05 Mbit/s
  95th percentile per-packet one-way delay: 140.785 ms
  Loss rate: 1.35%
-- Flow 1:
  Average throughput: 176.28 Mbit/s
  95th percentile per-packet one-way delay: 139.478 ms
  Loss rate: 0.83%
-- Flow 2:
  Average throughput: 170.15 Mbit/s
  95th percentile per-packet one-way delay: 142.071 ms
  Loss rate: 1.27%
-- Flow 3:
  Average throughput: 152.24 Mbit/s
  95th percentile per-packet one-way delay: 143.433 ms
  Loss rate: 3.35%
Run 4: Report of Indigo — Data Link

**Throughput (Mbps)**

- **Flow 1 ingress** (mean 176.13 Mbps)
- **Flow 1 egress** (mean 176.28 Mbps)
- **Flow 2 ingress** (mean 169.95 Mbps)
- **Flow 2 egress** (mean 170.15 Mbps)
- **Flow 3 ingress** (mean 153.14 Mbps)
- **Flow 3 egress** (mean 152.24 Mbps)

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

- **Flow 1** (95th percentile 139.48 ms)
- **Flow 2** (95th percentile 142.07 ms)
- **Flow 3** (95th percentile 143.43 ms)
Run 5: Statistics of Indigo

Start at: 2018-06-19 23:58:56
End at: 2018-06-19 23:59:26
Local clock offset: ~0.014 ms
Remote clock offset: 0.422 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 265.19 Mbit/s
  95th percentile per-packet one-way delay: 136.755 ms
  Loss rate: 1.59%
-- Flow 1:
  Average throughput: 131.71 Mbit/s
  95th percentile per-packet one-way delay: 136.329 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 126.46 Mbit/s
  95th percentile per-packet one-way delay: 136.695 ms
  Loss rate: 1.56%
-- Flow 3:
  Average throughput: 155.68 Mbit/s
  95th percentile per-packet one-way delay: 138.758 ms
  Loss rate: 3.22%
Run 5: Report of Indigo — Data Link
Run 6: Statistics of Indigo

Start at: 2018-06-20 00:23:58
End at: 2018-06-20 00:24:28
Local clock offset: -0.104 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.24 Mbit/s
95th percentile per-packet one-way delay: 137.843 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 179.66 Mbit/s
95th percentile per-packet one-way delay: 137.355 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 126.84 Mbit/s
95th percentile per-packet one-way delay: 137.782 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 155.28 Mbit/s
95th percentile per-packet one-way delay: 142.663 ms
Loss rate: 3.32%
Run 6: Report of Indigo — Data Link

**Throughput (Mbps)**

**Time (s)**

- Flow 1 ingress (mean 179.62 Mbps)
- Flow 1 egress (mean 179.66 Mbps)
- Flow 2 ingress (mean 127.64 Mbps)
- Flow 2 egress (mean 126.84 Mbps)
- Flow 3 ingress (mean 156.13 Mbps)
- Flow 3 egress (mean 155.28 Mbps)

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

**Time (s)**

- Flow 1 (95th percentile 137.35 ms)
- Flow 2 (95th percentile 137.78 ms)
- Flow 3 (95th percentile 142.66 ms)
Run 7: Statistics of Indigo

Start at: 2018-06-20 00:48:55
End at: 2018-06-20 00:49:25
Local clock offset: 0.017 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 315.23 Mbit/s
95th percentile per-packet one-way delay: 137.443 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 180.36 Mbit/s
95th percentile per-packet one-way delay: 137.029 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 126.08 Mbit/s
95th percentile per-packet one-way delay: 138.389 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 152.41 Mbit/s
95th percentile per-packet one-way delay: 137.687 ms
Loss rate: 3.49%
Run 7: Report of Indigo — Data Link
Run 8: Statistics of Indigo

Start at: 2018-06-20 01:14:03
End at: 2018-06-20 01:14:33
Local clock offset: 0.005 ms
Remote clock offset: -0.324 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 256.77 Mbit/s
95th percentile per-packet one-way delay: 136.585 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 135.47 Mbit/s
95th percentile per-packet one-way delay: 136.475 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 129.79 Mbit/s
95th percentile per-packet one-way delay: 136.622 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 110.62 Mbit/s
95th percentile per-packet one-way delay: 136.714 ms
Loss rate: 3.63%
Run 8: Report of Indigo — Data Link
Run 9: Statistics of Indigo

Start at: 2018-06-20 01:39:10
End at: 2018-06-20 01:39:40
Local clock offset: -0.015 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.24 Mbit/s
95th percentile per-packet one-way delay: 137.048 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 133.13 Mbit/s
95th percentile per-packet one-way delay: 136.733 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 127.13 Mbit/s
95th percentile per-packet one-way delay: 136.918 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 109.72 Mbit/s
95th percentile per-packet one-way delay: 137.879 ms
Loss rate: 3.61%
Run 9: Report of Indigo — Data Link
Run 10: Statistics of Indigo

Start at: 2018-06-20 02:03:53
End at: 2018-06-20 02:04:23
Local clock offset: 0.154 ms
Remote clock offset: -0.291 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.63 Mbit/s
95th percentile per-packet one-way delay: 137.416 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 132.67 Mbit/s
95th percentile per-packet one-way delay: 137.094 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 129.88 Mbit/s
95th percentile per-packet one-way delay: 137.591 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 109.17 Mbit/s
95th percentile per-packet one-way delay: 138.328 ms
Loss rate: 3.70%
Run 10: Report of Indigo — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 132.75 Mbps)
Flow 1 egress (mean 132.67 Mbps)
Flow 2 ingress (mean 130.10 Mbps)
Flow 2 egress (mean 129.88 Mbps)
Flow 3 ingress (mean 110.20 Mbps)
Flow 3 egress (mean 109.17 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 137.09 ms)
Flow 2 (95th percentile 137.59 ms)
Flow 3 (95th percentile 138.33 ms)
Run 1: Statistics of LEDBAT

Local clock offset: 0.023 ms
Remote clock offset: 0.042 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 136.870 ms
Loss rate: 4.58%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 136.468 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 136.601 ms
Loss rate: 5.53%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 137.012 ms
Loss rate: 5.56%
Run 1: Report of LEDBAT — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 0.26 Mbps)
- Flow 1 egress (mean 0.26 Mbps)
- Flow 2 ingress (mean 0.34 Mbps)
- Flow 2 egress (mean 0.33 Mbps)
- Flow 3 ingress (mean 1.57 Mbps)
- Flow 3 egress (mean 1.52 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 136.47 ms)
- Flow 2 (95th percentile 136.60 ms)
- Flow 3 (95th percentile 137.01 ms)
Run 2: Statistics of LEDBAT

Local clock offset: -0.143 ms
Remote clock offset: 0.076 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.88 Mbit/s
95th percentile per-packet one-way delay: 136.832 ms
Loss rate: 2.43%
-- Flow 1:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 136.886 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 136.380 ms
Loss rate: 4.87%
-- Flow 3:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 136.283 ms
Loss rate: 5.56%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Local clock offset: 0.062 ms
Remote clock offset: 0.034 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.02 Mbit/s
  95th percentile per-packet one-way delay: 137.003 ms
  Loss rate: 2.10%
-- Flow 1:
  Average throughput: 4.85 Mbit/s
  95th percentile per-packet one-way delay: 137.043 ms
  Loss rate: 1.82%
-- Flow 2:
  Average throughput: 3.18 Mbit/s
  95th percentile per-packet one-way delay: 136.839 ms
  Loss rate: 2.74%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.489 ms
  Loss rate: 2.63%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

End at: 2018-06-19 23:46:45
Local clock offset: 0.02 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.20 Mbit/s
95th percentile per-packet one-way delay: 136.874 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 136.896 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 136.712 ms
Loss rate: 3.43%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 136.359 ms
Loss rate: 3.48%
Run 4: Report of LEDBAT — Data Link

![Graph showing throughput over time](image1)

Legend:
- Flow 1 ingress (mean 4.90 Mbit/s)
- Flow 1 egress (mean 4.85 Mbit/s)
- Flow 2 ingress (mean 1.96 Mbit/s)
- Flow 2 egress (mean 1.92 Mbit/s)
- Flow 3 ingress (mean 0.24 Mbit/s)
- Flow 3 egress (mean 0.23 Mbit/s)

![Graph showing end-to-end delay over time](image2)

Legend:
- Flow 1 (95th percentile 136.90 ms)
- Flow 2 (95th percentile 136.71 ms)
- Flow 3 (95th percentile 136.36 ms)
Run 5: Statistics of LEDBAT

Start at: 2018-06-20 00:11:15
End at: 2018-06-20 00:11:45
Local clock offset: 0.028 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 136.711 ms
Loss rate: 2.52%
-- Flow 1:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 136.694 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 3.17 Mbit/s
95th percentile per-packet one-way delay: 136.773 ms
Loss rate: 2.75%
-- Flow 3:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 136.371 ms
Loss rate: 5.89%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Start at: 2018-06-20 00:36:06
End at: 2018-06-20 00:36:36
Local clock offset: -0.122 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.40 Mbit/s
95th percentile per-packet one-way delay: 136.608 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 2.95 Mbit/s
95th percentile per-packet one-way delay: 136.666 ms
Loss rate: 2.31%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 136.402 ms
Loss rate: 3.87%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 136.443 ms
Loss rate: 5.55%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-06-20 01:01:10
End at: 2018-06-20 01:01:40
Local clock offset: -0.145 ms
Remote clock offset: -0.377 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.73 Mbit/s
  95th percentile per-packet one-way delay: 136.908 ms
  Loss rate: 2.87%
-- Flow 1:
  Average throughput: 2.07 Mbit/s
  95th percentile per-packet one-way delay: 136.913 ms
  Loss rate: 2.68%
-- Flow 2:
  Average throughput: 2.41 Mbit/s
  95th percentile per-packet one-way delay: 136.907 ms
  Loss rate: 3.12%
-- Flow 3:
  Average throughput: 0.23 Mbit/s
  95th percentile per-packet one-way delay: 136.592 ms
  Loss rate: 3.10%
Run 7: Report of LEDBAT — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.10 Mbps) — Flow 1 egress (mean 2.07 Mbps)
Flow 2 ingress (mean 2.46 Mbps) — Flow 2 egress (mean 2.41 Mbps)
Flow 3 ingress (mean 0.23 Mbps) — Flow 3 egress (mean 0.23 Mbps)
Run 8: Statistics of LEDBAT

Start at: 2018-06-20 01:26:19
End at: 2018-06-20 01:26:49
Local clock offset: 0.021 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.81 Mbit/s
95th percentile per-packet one-way delay: 135.994 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 136.001 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 135.935 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 135.598 ms
Loss rate: 8.25%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-06-20 01:51:03
End at: 2018-06-20 01:51:33
Local clock offset: 0.049 ms
Remote clock offset: -0.329 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.73 Mbit/s
  95th percentile per-packet one-way delay: 136.827 ms
  Loss rate: 4.54%
-- Flow 1:
  Average throughput: 0.25 Mbit/s
  95th percentile per-packet one-way delay: 136.632 ms
  Loss rate: 1.07%
-- Flow 2:
  Average throughput: 0.52 Mbit/s
  95th percentile per-packet one-way delay: 136.896 ms
  Loss rate: 5.49%
-- Flow 3:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 136.861 ms
  Loss rate: 8.18%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-06-20 02:16:28
End at: 2018-06-20 02:16:58
Local clock offset: -0.015 ms
Remote clock offset: 0.112 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.81 Mbit/s
  95th percentile per-packet one-way delay: 136.596 ms
  Loss rate: 3.10%
-- Flow 1:
  Average throughput: 0.24 Mbit/s
  95th percentile per-packet one-way delay: 136.301 ms
  Loss rate: 0.82%
-- Flow 2:
  Average throughput: 3.15 Mbit/s
  95th percentile per-packet one-way delay: 136.652 ms
  Loss rate: 2.75%
-- Flow 3:
  Average throughput: 1.52 Mbit/s
  95th percentile per-packet one-way delay: 136.504 ms
  Loss rate: 5.57%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-19 22:34:24
End at: 2018-06-19 22:34:54
Local clock offset: -0.078 ms
Remote clock offset: 0.071 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 557.38 Mbit/s
95th percentile per-packet one-way delay: 255.579 ms
Loss rate: 3.29%
-- Flow 1:
Average throughput: 496.27 Mbit/s
95th percentile per-packet one-way delay: 257.571 ms
Loss rate: 3.19%
-- Flow 2:
Average throughput: 62.72 Mbit/s
95th percentile per-packet one-way delay: 247.714 ms
Loss rate: 3.12%
-- Flow 3:
Average throughput: 61.03 Mbit/s
95th percentile per-packet one-way delay: 248.118 ms
Loss rate: 6.10%
Run 1: Report of PCC-Allegro — Data Link

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

![Graph 2: Packet Delay vs Time](image2)
Run 2: Statistics of PCC-Allegro

End at: 2018-06-19 23:00:03
Local clock offset: 0.271 ms
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 581.32 Mbit/s
95th percentile per-packet one-way delay: 241.096 ms
Loss rate: 2.99%
-- Flow 1:
Average throughput: 494.38 Mbit/s
95th percentile per-packet one-way delay: 241.206 ms
Loss rate: 3.03%
-- Flow 2:
Average throughput: 127.52 Mbit/s
95th percentile per-packet one-way delay: 240.801 ms
Loss rate: 2.79%
-- Flow 3:
Average throughput: 8.25 Mbit/s
95th percentile per-packet one-way delay: 241.035 ms
Loss rate: 3.86%
Run 2: Report of PCC-Allegro — Data Link
Run 3: Statistics of PCC-Allegro

Local clock offset: 0.157 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 548.24 Mbit/s
95th percentile per-packet one-way delay: 282.175 ms
Loss rate: 5.58%
-- Flow 1:
Average throughput: 465.82 Mbit/s
95th percentile per-packet one-way delay: 281.919 ms
Loss rate: 5.52%
-- Flow 2:
Average throughput: 123.63 Mbit/s
95th percentile per-packet one-way delay: 282.637 ms
Loss rate: 5.89%
-- Flow 3:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 283.985 ms
Loss rate: 12.09%
Run 3: Report of PCC-Allegro — Data Link

![Throughput Graph](image1)

![Packet Delay Graph](image2)

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Run 4: Statistics of PCC-Allegro

Local clock offset: -0.135 ms
Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2018-06-20 03:38:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 588.33 Mbit/s
95th percentile per-packet one-way delay: 246.783 ms
Loss rate: 4.36%
-- Flow 1:
Average throughput: 466.83 Mbit/s
95th percentile per-packet one-way delay: 248.894 ms
Loss rate: 4.03%
-- Flow 2:
Average throughput: 128.51 Mbit/s
95th percentile per-packet one-way delay: 235.497 ms
Loss rate: 4.14%
-- Flow 3:
Average throughput: 113.06 Mbit/s
95th percentile per-packet one-way delay: 241.704 ms
Loss rate: 8.92%
Run 4: Report of PCC-Allegro — Data Link

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

- Flow 1 Ingress (mean 481.96 Mbit/s)
- Flow 1 Egress (mean 466.83 Mbit/s)
- Flow 2 Ingress (mean 323.23 Mbit/s)
- Flow 2 Egress (mean 128.51 Mbit/s)
- Flow 3 Ingress (mean 120.68 Mbit/s)
- Flow 3 Egress (mean 113.06 Mbit/s)

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

- Flow 1 (95th percentile 248.89 ms)
- Flow 2 (95th percentile 235.50 ms)
- Flow 3 (95th percentile 241.70 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2018-06-20 00:13:56
End at: 2018-06-20 00:14:26
Local clock offset: 0.103 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-06-20 03:38:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 522.05 Mbit/s
95th percentile per-packet one-way delay: 282.453 ms
Loss rate: 9.16%
-- Flow 1:
Average throughput: 443.65 Mbit/s
95th percentile per-packet one-way delay: 282.315 ms
Loss rate: 9.01%
-- Flow 2:
Average throughput: 117.55 Mbit/s
95th percentile per-packet one-way delay: 283.120 ms
Loss rate: 9.95%
-- Flow 3:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 286.283 ms
Loss rate: 16.74%
Run 5: Report of PCC-Allegro — Data Link

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

- Flow 1 Ingress (mean 483.12 Mbps)
- Flow 1 Egress (mean 443.65 Mbps)
- Flow 2 Ingress (mean 128.74 Mbps)
- Flow 2 Egress (mean 117.55 Mbps)
- Flow 3 Ingress (mean 2.30 Mbps)
- Flow 3 Egress (mean 1.97 Mbps)

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

- Flow 1 (95th percentile 282.31 ms)
- Flow 2 (95th percentile 283.12 ms)
- Flow 3 (95th percentile 286.28 ms)
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-20 00:38:46
End at: 2018-06-20 00:39:16
Local clock offset: -0.112 ms
Remote clock offset: -0.372 ms

# Below is generated by plot.py at 2018-06-20 03:38:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 580.86 Mbit/s
95th percentile per-packet one-way delay: 252.993 ms
Loss rate: 4.37%
-- Flow 1:
Average throughput: 477.21 Mbit/s
95th percentile per-packet one-way delay: 253.367 ms
Loss rate: 4.20%
-- Flow 2:
Average throughput: 126.63 Mbit/s
95th percentile per-packet one-way delay: 252.007 ms
Loss rate: 4.58%
-- Flow 3:
Average throughput: 61.48 Mbit/s
95th percentile per-packet one-way delay: 252.753 ms
Loss rate: 7.27%
Run 6: Report of PCC-Allegro — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 493.57 Mb/s)  Flow 1 egress (mean 477.21 Mb/s)
Flow 2 ingress (mean 130.88 Mb/s)  Flow 2 egress (mean 126.63 Mb/s)
Flow 3 ingress (mean 64.46 Mb/s)   Flow 3 egress (mean 61.48 Mb/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 253.37 ms) Flow 2 (95th percentile 252.01 ms) Flow 3 (95th percentile 252.75 ms)
Run 7: Statistics of PCC-Allegro

Start at: 2018-06-20 01:03:50
End at: 2018-06-20 01:04:20
Local clock offset: 0.001 ms
Remote clock offset: -0.327 ms

# Below is generated by plot.py at 2018-06-20 03:44:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 587.77 Mbit/s
95th percentile per-packet one-way delay: 244.187 ms
Loss rate: 3.39%
-- Flow 1:
Average throughput: 544.07 Mbit/s
95th percentile per-packet one-way delay: 244.254 ms
Loss rate: 3.42%
-- Flow 2:
Average throughput: 64.95 Mbit/s
95th percentile per-packet one-way delay: 243.736 ms
Loss rate: 3.03%
-- Flow 3:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 243.289 ms
Loss rate: 4.21%
Run 7: Report of PCC-Allegro — Data Link

Throughput (Mbps/s)

Time (s)

Flow 1 ingress (mean 558.17 Mbps/s)
Flow 1 egress (mean 544.07 Mbps/s)
Flow 2 ingress (mean 66.07 Mbps/s)
Flow 2 egress (mean 64.95 Mbps/s)
Flow 3 ingress (mean 2.40 Mbps/s)
Flow 3 egress (mean 2.36 Mbps/s)

Packet delay (ms)

Time (s)

Flow 1 (95th percentile 244.25 ms)
Flow 2 (95th percentile 243.74 ms)
Flow 3 (95th percentile 243.29 ms)
Run 8: Statistics of PCC-Allegro

Start at: 2018-06-20 01:29:00
End at: 2018-06-20 01:29:30
Local clock offset: -0.235 ms
Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2018-06-20 03:44:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 580.85 Mbit/s
95th percentile per-packet one-way delay: 313.555 ms
Loss rate: 3.33%
-- Flow 1:
Average throughput: 493.22 Mbit/s
95th percentile per-packet one-way delay: 318.634 ms
Loss rate: 3.34%
-- Flow 2:
Average throughput: 131.29 Mbit/s
95th percentile per-packet one-way delay: 240.582 ms
Loss rate: 3.29%
-- Flow 3:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 238.851 ms
Loss rate: 3.18%
Run 8: Report of PCC-Allegro — Data Link

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

- **Throughput (Mb/s):**
  - Flow 1 ingress (mean 505.62 Mb/s)
  - Flow 1 egress (mean 493.22 Mb/s)
  - Flow 2 ingress (mean 143.87 Mb/s)
  - Flow 2 egress (mean 131.29 Mb/s)
  - Flow 3 ingress (mean 24.6 Mb/s)
  - Flow 3 egress (mean 2.45 Mb/s)

- **Delay (ms):**
  - Flow 1 (95th percentile 318.63 ms)
  - Flow 2 (95th percentile 240.58 ms)
  - Flow 3 (95th percentile 238.85 ms)
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-20 01:53:42
End at: 2018-06-20 01:54:12
Local clock offset: -0.046 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2018-06-20 03:44:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 573.09 Mbit/s
95th percentile per-packet one-way delay: 278.206 ms
Loss rate: 5.02%
-- Flow 1:
Average throughput: 459.93 Mbit/s
95th percentile per-packet one-way delay: 284.761 ms
Loss rate: 4.84%
-- Flow 2:
Average throughput: 141.40 Mbit/s
95th percentile per-packet one-way delay: 251.253 ms
Loss rate: 5.04%
-- Flow 3:
Average throughput: 60.66 Mbit/s
95th percentile per-packet one-way delay: 253.810 ms
Loss rate: 9.02%
Run 9: Report of PCC-Allegro — Data Link

[Graphs showing throughput and packet delay over time]
Run 10: Statistics of PCC-Allegro

Start at: 2018-06-20 02:19:07
End at: 2018-06-20 02:19:37
Local clock offset: 0.061 ms
Remote clock offset: 0.541 ms

# Below is generated by plot.py at 2018-06-20 03:44:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 489.37 Mbit/s
  95th percentile per-packet one-way delay: 277.533 ms
  Loss rate: 6.19%
-- Flow 1:
  Average throughput: 341.98 Mbit/s
  95th percentile per-packet one-way delay: 277.950 ms
  Loss rate: 5.97%
-- Flow 2:
  Average throughput: 113.56 Mbit/s
  95th percentile per-packet one-way delay: 277.566 ms
  Loss rate: 6.26%
-- Flow 3:
  Average throughput: 224.41 Mbit/s
  95th percentile per-packet one-way delay: 245.900 ms
  Loss rate: 7.15%
Run 10: Report of PCC-Allegro — Data Link

![Graph showing throughput and per-packet delay over time for different flows]
Run 1: Statistics of PCC-Expr

Local clock offset: 0.165 ms
Remote clock offset: -0.336 ms

# Below is generated by plot.py at 2018-06-20 03:49:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 432.57 Mbit/s
  95th percentile per-packet one-way delay: 235.907 ms
  Loss rate: 2.15%
-- Flow 1:
  Average throughput: 273.43 Mbit/s
  95th percentile per-packet one-way delay: 236.233 ms
  Loss rate: 1.56%
-- Flow 2:
  Average throughput: 170.78 Mbit/s
  95th percentile per-packet one-way delay: 224.241 ms
  Loss rate: 2.55%
-- Flow 3:
  Average throughput: 142.64 Mbit/s
  95th percentile per-packet one-way delay: 234.174 ms
  Loss rate: 4.57%
Run 1: Report of PCC-Expr — Data Link

**Throughput (Mbit/s)**

- **Flow 1 ingress**: mean 275.23 Mbit/s
- **Flow 1 egress**: mean 273.43 Mbit/s
- **Flow 2 ingress**: mean 172.84 Mbit/s
- **Flow 2 egress**: mean 170.78 Mbit/s
- **Flow 3 ingress**: mean 145.32 Mbit/s
- **Flow 3 egress**: mean 142.64 Mbit/s

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

- **Flow 1 (95th percentile)**: 236.23 ms
- **Flow 2 (95th percentile)**: 224.24 ms
- **Flow 3 (95th percentile)**: 234.17 ms
Run 2: Statistics of PCC-Expr

End at: 2018-06-19 22:46:34  
Local clock offset: 0.067 ms  
Remote clock offset: 0.416 ms

# Below is generated by plot.py at 2018-06-20 03:51:51  
# Datalink statistics

-- Total of 3 flows:  
  Average throughput: 463.85 Mbit/s  
  95th percentile per-packet one-way delay: 267.463 ms  
  Loss rate: 4.09%  
  -- Flow 1:  
    Average throughput: 306.56 Mbit/s  
    95th percentile per-packet one-way delay: 278.088 ms  
    Loss rate: 4.12%  
  -- Flow 2:  
    Average throughput: 166.66 Mbit/s  
    95th percentile per-packet one-way delay: 236.757 ms  
    Loss rate: 2.60%  
  -- Flow 3:  
    Average throughput: 144.89 Mbit/s  
    95th percentile per-packet one-way delay: 242.668 ms  
    Loss rate: 7.25%
Run 2: Report of PCC-Expr — Data Link
Run 3: Statistics of PCC-Expr

Start at: 2018-06-19 23:11:16
End at: 2018-06-19 23:11:46
Local clock offset: 0.032 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2018-06-20 03:51:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 420.26 Mbit/s
  95th percentile per-packet one-way delay: 192.746 ms
  Loss rate: 2.07%
-- Flow 1:
  Average throughput: 282.01 Mbit/s
  95th percentile per-packet one-way delay: 206.634 ms
  Loss rate: 2.15%
-- Flow 2:
  Average throughput: 168.77 Mbit/s
  95th percentile per-packet one-way delay: 161.972 ms
  Loss rate: 1.57%
-- Flow 3:
  Average throughput: 81.90 Mbit/s
  95th percentile per-packet one-way delay: 148.963 ms
  Loss rate: 3.30%
Run 4: Statistics of PCC-Expr

Start at: 2018-06-19 23:35:57
End at: 2018-06-19 23:36:27
Local clock offset: -0.108 ms
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-06-20 03:51:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 424.09 Mbit/s
95th percentile per-packet one-way delay: 258.476 ms
Loss rate: 2.28%
-- Flow 1:
Average throughput: 287.04 Mbit/s
95th percentile per-packet one-way delay: 270.573 ms
Loss rate: 2.46%
-- Flow 2:
Average throughput: 167.00 Mbit/s
95th percentile per-packet one-way delay: 137.230 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 81.75 Mbit/s
95th percentile per-packet one-way delay: 136.869 ms
Loss rate: 3.23%
Run 4: Report of PCC-Expr — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 291.62 Mbps)
- Flow 1 egress (mean 287.04 Mbps)
- Flow 2 ingress (mean 167.36 Mbps)
- Flow 2 egress (mean 167.00 Mbps)
- Flow 3 ingress (mean 82.12 Mbps)
- Flow 3 egress (mean 81.75 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 270.57 ms)
- Flow 2 (95th percentile 137.23 ms)
- Flow 3 (95th percentile 136.87 ms)
Run 5: Statistics of PCC-Expr

Start at: 2018-06-20 00:00:33
End at: 2018-06-20 00:01:03
Local clock offset: -0.068 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-06-20 03:58:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 444.18 Mbit/s
  95th percentile per-packet one-way delay: 212.442 ms
  Loss rate: 1.83%
-- Flow 1:
  Average throughput: 305.16 Mbit/s
  95th percentile per-packet one-way delay: 220.995 ms
  Loss rate: 1.82%
-- Flow 2:
  Average throughput: 170.31 Mbit/s
  95th percentile per-packet one-way delay: 137.940 ms
  Loss rate: 1.49%
-- Flow 3:
  Average throughput: 81.20 Mbit/s
  95th percentile per-packet one-way delay: 137.234 ms
  Loss rate: 3.40%
Run 5: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 317.07 Mbit/s)
- Flow 1 egress (mean 305.16 Mbit/s)
- Flow 2 ingress (mean 170.51 Mbit/s)
- Flow 2 egress (mean 170.31 Mbit/s)
- Flow 3 ingress (mean 81.75 Mbit/s)
- Flow 3 egress (mean 81.20 Mbit/s)

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

- Flow 1 (95th percentile 211.00 ms)
- Flow 2 (95th percentile 137.94 ms)
- Flow 3 (95th percentile 137.23 ms)
Run 6: Statistics of PCC-Expr

Start at: 2018-06-20 00:25:38
End at: 2018-06-20 00:26:08
Local clock offset: 0.041 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2018-06-20 04:01:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 485.85 Mbit/s
95th percentile per-packet one-way delay: 258.000 ms
Loss rate: 3.19%
-- Flow 1:
Average throughput: 285.08 Mbit/s
95th percentile per-packet one-way delay: 248.609 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 299.51 Mbit/s
95th percentile per-packet one-way delay: 293.856 ms
Loss rate: 5.04%
-- Flow 3:
Average throughput: 7.50 Mbit/s
95th percentile per-packet one-way delay: 247.212 ms
Loss rate: 4.10%
Run 6: Report of PCC-Expr — Data Link
Run 7: Statistics of PCC-Expr

Start at: 2018-06-20 00:50:35
End at: 2018-06-20 00:51:05
Local clock offset: -0.076 ms
Remote clock offset: 0.048 ms

# Below is generated by plot.py at 2018-06-20 04:01:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 425.71 Mbit/s
95th percentile per-packet one-way delay: 227.361 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 285.36 Mbit/s
95th percentile per-packet one-way delay: 228.794 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 174.43 Mbit/s
95th percentile per-packet one-way delay: 215.588 ms
Loss rate: 2.91%
-- Flow 3:
Average throughput: 76.92 Mbit/s
95th percentile per-packet one-way delay: 141.382 ms
Loss rate: 2.53%
Run 7: Report of PCC-Expr — Data Link

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

Legend:
- Flow 1 ingress (mean 288.05 Mbit/s)
- Flow 1 egress (mean 285.36 Mbit/s)
- Flow 2 ingress (mean 177.21 Mbit/s)
- Flow 2 egress (mean 174.43 Mbit/s)
- Flow 3 ingress (mean 76.74 Mbit/s)
- Flow 3 egress (mean 76.92 Mbit/s)

Legend for packet delay:
- Flow 1 (95th percentile 228.79 ms)
- Flow 2 (95th percentile 215.59 ms)
- Flow 3 (95th percentile 141.38 ms)
Run 8: Statistics of PCC-Expr

Start at: 2018-06-20 01:15:39
End at: 2018-06-20 01:16:09
Local clock offset: -0.033 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-06-20 04:01:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 364.28 Mbit/s
  95th percentile per-packet one-way delay: 148.863 ms
  Loss rate: 1.54%
-- Flow 1:
  Average throughput: 192.13 Mbit/s
  95th percentile per-packet one-way delay: 137.242 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 185.12 Mbit/s
  95th percentile per-packet one-way delay: 164.287 ms
  Loss rate: 1.82%
-- Flow 3:
  Average throughput: 153.15 Mbit/s
  95th percentile per-packet one-way delay: 156.525 ms
  Loss rate: 3.31%
Run 8: Report of PCC-Expr — Data Link
Run 9: Statistics of PCC-Expr

Start at: 2018-06-20 01:40:45
End at: 2018-06-20 01:41:15
Local clock offset: 0.026 ms
Remote clock offset: 0.472 ms

# Below is generated by plot.py at 2018-06-20 04:01:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 265.14 Mbit/s
95th percentile per-packet one-way delay: 136.114 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 179.35 Mbit/s
95th percentile per-packet one-way delay: 136.131 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 89.40 Mbit/s
95th percentile per-packet one-way delay: 136.075 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 82.13 Mbit/s
95th percentile per-packet one-way delay: 135.592 ms
Loss rate: 3.32%
Run 9: Report of PCC-Expr — Data Link

![Graph of data link performance metrics](image)

- **Flow 1** ingress (mean 179.43 Mbit/s)
- **Flow 1** egress (mean 179.35 Mbit/s)
- **Flow 2** ingress (mean 89.35 Mbit/s)
- **Flow 2** egress (mean 89.40 Mbit/s)
- **Flow 3** ingress (mean 82.59 Mbit/s)
- **Flow 3** egress (mean 82.13 Mbit/s)

![Graph of packet delay performance metrics](image)

- **Flow 1** (95th percentile 136.13 ms)
- **Flow 2** (95th percentile 136.07 ms)
- **Flow 3** (95th percentile 135.59 ms)
Run 10: Statistics of PCC-Expr

Start at: 2018-06-20 02:05:29
End at: 2018-06-20 02:05:59
Local clock offset: -0.019 ms
Remote clock offset: 0.105 ms

# Below is generated by plot.py at 2018-06-20 04:06:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 433.16 Mbit/s
95th percentile per-packet one-way delay: 337.619 ms
Loss rate: 7.12%
-- Flow 1:
Average throughput: 309.95 Mbit/s
95th percentile per-packet one-way delay: 367.693 ms
Loss rate: 8.14%
-- Flow 2:
Average throughput: 148.50 Mbit/s
95th percentile per-packet one-way delay: 250.112 ms
Loss rate: 3.65%
-- Flow 3:
Average throughput: 76.87 Mbit/s
95th percentile per-packet one-way delay: 249.133 ms
Loss rate: 7.53%
Run 10: Report of PCC-Expr — Data Link
Run 1: Statistics of QUIC Cubic

Local clock offset: -0.008 ms
Remote clock offset: -0.337 ms

# Below is generated by plot.py at 2018-06-20 04:06:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.62 Mbit/s
95th percentile per-packet one-way delay: 136.274 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 61.59 Mbit/s
95th percentile per-packet one-way delay: 136.121 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 61.27 Mbit/s
95th percentile per-packet one-way delay: 136.318 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 35.04 Mbit/s
95th percentile per-packet one-way delay: 136.216 ms
Loss rate: 4.72%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

End at: 2018-06-19 22:50:51
Local clock offset: 0.155 ms
Remote clock offset: 0.059 ms

# Below is generated by plot.py at 2018-06-20 04:06:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 113.04 Mbit/s
95th percentile per-packet one-way delay: 136.452 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 61.86 Mbit/s
95th percentile per-packet one-way delay: 136.418 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 60.55 Mbit/s
95th percentile per-packet one-way delay: 136.487 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 34.27 Mbit/s
95th percentile per-packet one-way delay: 136.427 ms
Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

End at: 2018-06-19 23:16:03
Local clock offset: -0.038 ms
Remote clock offset: 0.035 ms

# Below is generated by plot.py at 2018-06-20 04:06:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.61 Mbit/s
95th percentile per-packet one-way delay: 136.518 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 60.03 Mbit/s
95th percentile per-packet one-way delay: 136.528 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 61.77 Mbit/s
95th percentile per-packet one-way delay: 136.514 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 35.96 Mbit/s
95th percentile per-packet one-way delay: 136.335 ms
Loss rate: 0.87%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-06-19 23:40:06
End at: 2018-06-19 23:40:36
Local clock offset: 0.097 ms
Remote clock offset: 0.406 ms

# Below is generated by plot.py at 2018-06-20 04:06:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.44 Mbit/s
95th percentile per-packet one-way delay: 136.176 ms
Loss rate: 1.29%

-- Flow 1:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 136.196 ms
Loss rate: 1.03%

-- Flow 2:
Average throughput: 45.00 Mbit/s
95th percentile per-packet one-way delay: 135.891 ms
Loss rate: 2.27%

-- Flow 3:
Average throughput: 34.15 Mbit/s
95th percentile per-packet one-way delay: 135.209 ms
Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link

![Graph of data link performance](image)

- **Flow 1 ingress** (mean 59.69 Mbit/s)
- **Flow 1 egress** (mean 59.62 Mbit/s)
- **Flow 2 ingress** (mean 45.42 Mbit/s)
- **Flow 2 egress** (mean 45.00 Mbit/s)
- **Flow 3 ingress** (mean 33.52 Mbit/s)
- **Flow 3 egress** (mean 34.15 Mbit/s)

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

- **Flow 1** (95th percentile 136.20 ms)
- **Flow 2** (95th percentile 135.89 ms)
- **Flow 3** (95th percentile 135.21 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-06-20 00:04:52
End at: 2018-06-20 00:05:22
Local clock offset: 0.025 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2018-06-20 04:06:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.51 Mbit/s
95th percentile per-packet one-way delay: 136.356 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 65.30 Mbit/s
95th percentile per-packet one-way delay: 136.360 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 51.09 Mbit/s
95th percentile per-packet one-way delay: 136.361 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 38.05 Mbit/s
95th percentile per-packet one-way delay: 135.989 ms
Loss rate: 5.32%
Run 5: Report of QUIC Cubic — Data Link
Run 6: Statistics of QUIC Cubic

Start at: 2018-06-20 00:29:45
End at: 2018-06-20 00:30:15
Local clock offset: -0.098 ms
Remote clock offset: -0.36 ms

# Below is generated by plot.py at 2018-06-20 04:06:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.58 Mbit/s
  95th percentile per-packet one-way delay: 136.639 ms
  Loss rate: 1.45%
-- Flow 1:
  Average throughput: 53.09 Mbit/s
  95th percentile per-packet one-way delay: 136.642 ms
  Loss rate: 0.77%
-- Flow 2:
  Average throughput: 49.24 Mbit/s
  95th percentile per-packet one-way delay: 136.209 ms
  Loss rate: 1.72%
-- Flow 3:
  Average throughput: 30.45 Mbit/s
  95th percentile per-packet one-way delay: 136.654 ms
  Loss rate: 4.11%
Run 6: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet delay over time for three flows.](image_url)
Run 7: Statistics of QUIC Cubic

Start at: 2018-06-20 00:54:48
End at: 2018-06-20 00:55:18
Local clock offset: -0.149 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-06-20 04:06:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.69 Mbit/s
95th percentile per-packet one-way delay: 136.026 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 63.27 Mbit/s
95th percentile per-packet one-way delay: 135.856 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 54.31 Mbit/s
95th percentile per-packet one-way delay: 135.280 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 41.41 Mbit/s
95th percentile per-packet one-way delay: 136.108 ms
Loss rate: 4.98%
Run 7: Report of QUIC Cubic — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows.]
Run 8: Statistics of QUIC Cubic

Start at: 2018-06-20 01:19:51
End at: 2018-06-20 01:20:21
Local clock offset: -0.182 ms
Remote clock offset: -0.357 ms

# Below is generated by plot.py at 2018-06-20 04:06:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 113.78 Mbit/s
  95th percentile per-packet one-way delay: 136.164 ms
  Loss rate: 1.51%
-- Flow 1:
  Average throughput: 60.98 Mbit/s
  95th percentile per-packet one-way delay: 136.002 ms
  Loss rate: 1.18%
-- Flow 2:
  Average throughput: 60.56 Mbit/s
  95th percentile per-packet one-way delay: 136.227 ms
  Loss rate: 0.81%
-- Flow 3:
  Average throughput: 39.12 Mbit/s
  95th percentile per-packet one-way delay: 135.940 ms
  Loss rate: 5.16%
Run 8: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 61.15 Mbit/s)
- Flow 1 egress (mean 60.98 Mbit/s)
- Flow 2 ingress (mean 60.23 Mbit/s)
- Flow 2 egress (mean 60.56 Mbit/s)
- Flow 3 ingress (mean 40.12 Mbit/s)
- Flow 3 egress (mean 39.12 Mbit/s)

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

- Flow 1 (95th percentile 136.00 ms)
- Flow 2 (95th percentile 136.23 ms)
- Flow 3 (95th percentile 135.94 ms)
Run 9: Statistics of QUIC Cubic

Start at: 2018-06-20 01:44:46
End at: 2018-06-20 01:45:16
Local clock offset: 0.164 ms
Remote clock offset: 0.047 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.99 Mbit/s
95th percentile per-packet one-way delay: 136.602 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 62.05 Mbit/s
95th percentile per-packet one-way delay: 136.306 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 53.62 Mbit/s
95th percentile per-packet one-way delay: 136.642 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 19.88 Mbit/s
95th percentile per-packet one-way delay: 134.838 ms
Loss rate: 0.61%
Run 9: Report of QUIC Cubic — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 62.21 Mbps/s)
  - Flow 1 egress (mean 62.65 Mbps/s)
  - Flow 2 ingress (mean 53.90 Mbps/s)
  - Flow 2 egress (mean 53.62 Mbps/s)
  - Flow 3 ingress (mean 19.46 Mbps/s)
  - Flow 3 egress (mean 19.88 Mbps/s)

- **Packet round-trip delay (ms)**
  - Flow 1 (95th percentile 136.31 ms)
  - Flow 2 (95th percentile 136.64 ms)
  - Flow 3 (95th percentile 134.84 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-20 02:09:43  
End at: 2018-06-20 02:10:13  
Local clock offset: -0.132 ms  
Remote clock offset: 0.142 ms

# Below is generated by plot.py at 2018-06-20 04:06:08  
# Datalink statistics

-- Total of 3 flows:  
Average throughput: 114.80 Mbit/s  
95th percentile per-packet one-way delay: 136.223 ms  
Loss rate: 1.52%

-- Flow 1:  
Average throughput: 58.42 Mbit/s  
95th percentile per-packet one-way delay: 136.142 ms  
Loss rate: 1.14%

-- Flow 2:  
Average throughput: 54.28 Mbit/s  
95th percentile per-packet one-way delay: 136.284 ms  
Loss rate: 1.94%

-- Flow 3:  
Average throughput: 62.99 Mbit/s  
95th percentile per-packet one-way delay: 136.188 ms  
Loss rate: 1.84%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

End at: 2018-06-19 22:18:45
Local clock offset: 0.008 ms
Remote clock offset: -0.291 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.378 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.281 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.407 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.460 ms
Loss rate: 2.25%
Run 1: Report of SCReAM — Data Link

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

Flow 1 ingress (mean 0.22 Mbit/s) — Flow 1 egress (mean 0.22 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s) — Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s) — Flow 3 egress (mean 0.22 Mbit/s)
Run 2: Statistics of SCReAM

Local clock offset: -0.034 ms
Remote clock offset: 0.089 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 135.988 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.893 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.020 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.691 ms
Loss rate: 2.59%
Run 2: Report of SCReAM — Data Link

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

Start at: 2018-06-19 23:08:26
End at: 2018-06-19 23:08:56
Local clock offset: 0.248 ms
Remote clock offset: 0.063 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.811 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.564 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.626 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.859 ms
  Loss rate: 2.59%
Run 3: Report of SCReAM — Data Link

![Graph showing data link performance over time with throughput and packet delay metrics.](image-url)
Run 4: Statistics of SCReAM

Start at: 2018-06-19 23:33:00
End at: 2018-06-19 23:33:30
Local clock offset: -0.001 ms
Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.087 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.100 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.060 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.085 ms
Loss rate: 2.59%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

End at: 2018-06-19 23:58:11
Local clock offset: -0.12 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.590 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.984 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.621 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.001 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 135.98 ms)  
Flow 2 (95th percentile 136.62 ms)  
Flow 3 (95th percentile 136.00 ms)
Run 6: Statistics of SCReAM

Start at: 2018-06-20 00:22:43
End at: 2018-06-20 00:23:13
Local clock offset: 0.168 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 135.988 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.884 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.735 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.503 ms
  Loss rate: 2.59%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-06-20 00:47:40
End at: 2018-06-20 00:48:10
Local clock offset: -0.161 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
  95th percentile per-packet one-way delay: 135.379 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.390 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.029 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.371 ms
  Loss rate: 2.59%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-06-20 01:12:48
End at: 2018-06-20 01:13:18
Local clock offset: -0.169 ms
Remote clock offset: -0.375 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.859 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.885 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.730 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.290 ms
  Loss rate: 2.59%
Run 8: Report of SCReAM — Data Link
Run 9: Statistics of SCReAM

Start at: 2018-06-20 01:37:55
End at: 2018-06-20 01:38:25
Local clock offset: 0.168 ms
Remote clock offset: 0.072 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.876 ms
  Loss rate: 1.36%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.894 ms
  Loss rate: 0.89%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.101 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.184 ms
  Loss rate: 2.59%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-06-20 02:02:38
End at: 2018-06-20 02:03:08
Local clock offset: 0.221 ms
Remote clock offset: 0.079 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.812 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.834 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.152 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.701 ms
Loss rate: 2.59%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of Sprout

Start at: 2018-06-19 22:17:00
End at: 2018-06-19 22:17:30
Local clock offset: 0.024 ms
Remote clock offset: 0.417 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 136.076 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 135.982 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.112 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 135.692 ms
Loss rate: 2.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Local clock offset: 0.137 ms
Remote clock offset: 0.055 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 136.567 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.456 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.610 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 136.594 ms
Loss rate: 0.79%
Run 2: Report of Sprout — Data Link
Run 3: Statistics of Sprout

Start at: 2018-06-19 23:07:11
End at: 2018-06-19 23:07:41
Local clock offset: 0.205 ms
Remote clock offset: 0.422 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 136.545 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.477 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 136.593 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.174 ms
Loss rate: 2.92%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2018-06-19 23:31:45
End at: 2018-06-19 23:32:15
Local clock offset: 0.099 ms
Remote clock offset: 0.04 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 136.134 ms
  Loss rate: 2.09%
-- Flow 1:
  Average throughput: 0.19 Mbit/s
  95th percentile per-packet one-way delay: 136.113 ms
  Loss rate: 1.66%
-- Flow 2:
  Average throughput: 0.19 Mbit/s
  95th percentile per-packet one-way delay: 136.110 ms
  Loss rate: 1.25%
-- Flow 3:
  Average throughput: 0.30 Mbit/s
  95th percentile per-packet one-way delay: 136.159 ms
  Loss rate: 3.94%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

End at: 2018-06-19 23:56:56
Local clock offset: 0.059 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 136.335 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.437 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.137 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.383 ms
Loss rate: 2.20%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-06-20 00:21:28
End at: 2018-06-20 00:21:58
Local clock offset: 0.035 ms
Remote clock offset: -0.359 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 137.047 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 136.359 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 137.060 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.106 ms
Loss rate: 1.12%
Run 6: Report of Sprout — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 0.19 Mbps)
- Flow 1 egress (mean 0.19 Mbps)
- Flow 2 ingress (mean 0.17 Mbps)
- Flow 2 egress (mean 0.18 Mbps)
- Flow 3 ingress (mean 0.21 Mbps)
- Flow 3 egress (mean 0.22 Mbps)

Per-packet round-trip delay (ms):
- Flow 1 (95th percentile 136.36 ms)
- Flow 2 (95th percentile 137.06 ms)
- Flow 3 (95th percentile 137.11 ms)
Run 7: Statistics of Sprout

Start at: 2018-06-20 00:46:25
End at: 2018-06-20 00:46:55
Local clock offset: -0.144 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 136.605 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 136.638 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 135.958 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 135.972 ms
Loss rate: 1.10%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-06-20 01:11:33
End at: 2018-06-20 01:12:03
Local clock offset: 0.191 ms
Remote clock offset: -0.301 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.32 Mbit/s
  95th percentile per-packet one-way delay: 136.530 ms
  Loss rate: 1.25%
-- Flow 1:
  Average throughput: 0.15 Mbit/s
  95th percentile per-packet one-way delay: 136.052 ms
  Loss rate: 0.50%
-- Flow 2:
  Average throughput: 0.17 Mbit/s
  95th percentile per-packet one-way delay: 135.794 ms
  Loss rate: 1.72%
-- Flow 3:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.592 ms
  Loss rate: 2.46%
Run 8: Report of Sprout — Data Link
Run 9: Statistics of Sprout

Start at: 2018-06-20 01:36:39  
End at: 2018-06-20 01:37:09  
Local clock offset: 0.008 ms  
Remote clock offset: 0.439 ms

# Below is generated by plot.py at 2018-06-20 04:06:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.36 Mbit/s  
95th percentile per-packet one-way delay: 136.313 ms  
Loss rate: 1.13%  
-- Flow 1:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 134.675 ms  
Loss rate: 0.52%  
-- Flow 2:  
Average throughput: 0.20 Mbit/s  
95th percentile per-packet one-way delay: 136.336 ms  
Loss rate: 1.23%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 135.621 ms  
Loss rate: 2.25%
Run 9: Report of Sprout — Data Link

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

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

Flow 1 ingress (mean 0.15 Mbit/s)  Flow 1 egress (mean 0.16 Mbit/s)
Flow 2 ingress (mean 0.20 Mbit/s)  Flow 2 egress (mean 0.20 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s)  Flow 3 egress (mean 0.22 Mbit/s)
Run 10: Statistics of Sprout

Start at: 2018-06-20 02:01:23
End at: 2018-06-20 02:01:53
Local clock offset: 0.034 ms
Remote clock offset: 0.074 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 136.452 ms
Loss rate: 0.86%

-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.019 ms
Loss rate: 0.57%

-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 137.051 ms
Loss rate: 1.00%

-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 137.631 ms
Loss rate: 1.31%
Run 10: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

End at: 2018-06-19 22:29:02
Local clock offset: 0.044 ms
Remote clock offset: -0.331 ms

# Below is generated by plot.py at 2018-06-20 04:06:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 151.23 Mbit/s
95th percentile per-packet one-way delay: 136.365 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 13.37 Mbit/s
95th percentile per-packet one-way delay: 136.373 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 201.64 Mbit/s
95th percentile per-packet one-way delay: 136.324 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 12.83 Mbit/s
95th percentile per-packet one-way delay: 136.632 ms
Loss rate: 2.84%
Run 1: Report of TaoVA-100x — Data Link

![Graph of throughput and delay over time.]

The graphs show the throughput and delay for three flows: Flow 1, Flow 2, and Flow 3. The throughput values are as follows:
- Flow 1 ingress (mean 13.38 Mbit/s)
- Flow 1 egress (mean 13.37 Mbit/s)
- Flow 2 ingress (mean 201.94 Mbit/s)
- Flow 2 egress (mean 201.64 Mbit/s)
- Flow 3 ingress (mean 12.84 Mbit/s)
- Flow 3 egress (mean 12.83 Mbit/s)

The delay values are consistent across the three flows, with the 95th percentile delay being close to 136 ms for all flows.
Run 2: Statistics of TaoVA-100x

End at: 2018-06-19 22:54:04
Local clock offset: 0.078 ms
Remote clock offset: 0.42 ms

# Below is generated by plot.py at 2018-06-20 04:10:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 325.82 Mbit/s
  95th percentile per-packet one-way delay: 143.681 ms
  Loss rate: 1.11%
-- Flow 1:
  Average throughput: 178.60 Mbit/s
  95th percentile per-packet one-way delay: 143.926 ms
  Loss rate: 0.60%
-- Flow 2:
  Average throughput: 153.78 Mbit/s
  95th percentile per-packet one-way delay: 140.656 ms
  Loss rate: 0.97%
-- Flow 3:
  Average throughput: 141.97 Mbit/s
  95th percentile per-packet one-way delay: 148.488 ms
  Loss rate: 3.33%
Run 2: Report of TaoVA-100x — Data Link

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

Legend:
- Flow 1 ingress (mean 177.63 Mbit/s)
- Flow 1 egress (mean 178.60 Mbit/s)
- Flow 2 ingress (mean 152.96 Mbit/s)
- Flow 2 egress (mean 153.78 Mbit/s)
- Flow 3 ingress (mean 142.82 Mbit/s)
- Flow 3 egress (mean 141.97 Mbit/s)
Run 3: Statistics of TaoVA-100x

Start at: 2018-06-19 23:18:42
End at: 2018-06-19 23:19:12
Local clock offset: 0.025 ms
Remote clock offset: 0.068 ms

# Below is generated by plot.py at 2018-06-20 04:10:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.93 Mbit/s
95th percentile per-packet one-way delay: 136.322 ms
Loss rate: 2.82%
-- Flow 1:
Average throughput: 8.81 Mbit/s
95th percentile per-packet one-way delay: 136.226 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 13.24 Mbit/s
95th percentile per-packet one-way delay: 136.286 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 184.96 Mbit/s
95th percentile per-packet one-way delay: 136.335 ms
Loss rate: 3.31%
Run 3: Report of TaoVA-100x — Data Link

![Graph of Throughput vs Time](image1)

- **Flow 1 ingress (mean 8.80 Mbit/s)**
- **Flow 1 egress (mean 8.81 Mbit/s)**
- **Flow 2 ingress (mean 13.25 Mbit/s)**
- **Flow 2 egress (mean 13.24 Mbit/s)**
- **Flow 3 ingress (mean 186.05 Mbit/s)**
- **Flow 3 egress (mean 184.96 Mbit/s)**

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

- **Flow 1 (95th percentile 136.23 ms)**
- **Flow 2 (95th percentile 136.29 ms)**
- **Flow 3 (95th percentile 136.34 ms)**
Run 4: Statistics of TaoVA-100x

End at: 2018-06-19 23:43:45
Local clock offset: -0.131 ms
Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2018-06-20 04:10:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.85 Mbit/s
95th percentile per-packet one-way delay: 135.789 ms
Loss rate: 2.25%
-- Flow 1:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 135.889 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 13.19 Mbit/s
95th percentile per-packet one-way delay: 135.684 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 201.49 Mbit/s
95th percentile per-packet one-way delay: 135.786 ms
Loss rate: 2.62%
Run 4: Report of TaoVA-100x — Data Link

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

Flow 1 ingress (mean 13.38 Mbit/s)  
Flow 1 egress (mean 13.38 Mbit/s)  
Flow 2 ingress (mean 13.19 Mbit/s)  
Flow 2 egress (mean 13.19 Mbit/s)  
Flow 3 ingress (mean 201.26 Mbit/s)  
Flow 3 egress (mean 201.49 Mbit/s)

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

Flow 1 (95th percentile 135.89 ms)  
Flow 2 (95th percentile 135.68 ms)  
Flow 3 (95th percentile 135.79 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-06-20 00:08:05
End at: 2018-06-20 00:08:35
Local clock offset: 0.03 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2018-06-20 04:10:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 149.14 Mbit/s
  95th percentile per-packet one-way delay: 136.121 ms
  Loss rate: 1.60%
-- Flow 1:
  Average throughput: 13.35 Mbit/s
  95th percentile per-packet one-way delay: 136.526 ms
  Loss rate: 0.92%
-- Flow 2:
  Average throughput: 198.34 Mbit/s
  95th percentile per-packet one-way delay: 136.084 ms
  Loss rate: 1.62%
-- Flow 3:
  Average throughput: 12.96 Mbit/s
  95th percentile per-packet one-way delay: 136.078 ms
  Loss rate: 2.86%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Start at: 2018-06-20 00:32:53
End at: 2018-06-20 00:33:23
Local clock offset: 0.17 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-06-20 04:10:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 188.32 Mbit/s
  95th percentile per-packet one-way delay: 136.652 ms
  Loss rate: 2.23%
-- Flow 1:
  Average throughput: 13.35 Mbit/s
  95th percentile per-packet one-way delay: 136.268 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 182.35 Mbit/s
  95th percentile per-packet one-way delay: 136.698 ms
  Loss rate: 1.72%
-- Flow 3:
  Average throughput: 165.60 Mbit/s
  95th percentile per-packet one-way delay: 136.491 ms
  Loss rate: 3.69%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

Start at: 2018-06-20 00:57:55
End at: 2018-06-20 00:58:25
Local clock offset: 0.079 ms
Remote clock offset: -0.364 ms

# Below is generated by plot.py at 2018-06-20 04:10:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 213.56 Mbit/s
  95th percentile per-packet one-way delay: 136.507 ms
  Loss rate: 1.75%
-- Flow 1:
  Average throughput: 12.46 Mbit/s
  95th percentile per-packet one-way delay: 136.581 ms
  Loss rate: 1.00%
-- Flow 2:
  Average throughput: 205.40 Mbit/s
  95th percentile per-packet one-way delay: 136.534 ms
  Loss rate: 1.38%
-- Flow 3:
  Average throughput: 199.10 Mbit/s
  95th percentile per-packet one-way delay: 135.666 ms
  Loss rate: 2.66%
Run 7: Report of TaoVA-100x — Data Link

[Graph showing throughput and latency over time]
Run 8: Statistics of TaoVA-100x

Start at: 2018-06-20 01:23:05
End at: 2018-06-20 01:23:35
Local clock offset: 0.047 ms
Remote clock offset: 0.028 ms

# Below is generated by plot.py at 2018-06-20 04:10:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 210.69 Mbit/s
  95th percentile per-packet one-way delay: 136.075 ms
  Loss rate: 2.05%
-- Flow 1:
  Average throughput: 13.20 Mbit/s
  95th percentile per-packet one-way delay: 136.330 ms
  Loss rate: 0.88%
-- Flow 2:
  Average throughput: 208.16 Mbit/s
  95th percentile per-packet one-way delay: 136.067 ms
  Loss rate: 1.54%
-- Flow 3:
  Average throughput: 182.09 Mbit/s
  95th percentile per-packet one-way delay: 135.695 ms
  Loss rate: 3.47%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-06-20 01:47:59
End at: 2018-06-20 01:48:29
Local clock offset: 0.005 ms
Remote clock offset: 0.036 ms

# Below is generated by plot.py at 2018-06-20 04:10:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 194.45 Mbit/s
95th percentile per-packet one-way delay: 136.390 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 13.39 Mbit/s
95th percentile per-packet one-way delay: 136.455 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 210.78 Mbit/s
95th percentile per-packet one-way delay: 136.047 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 126.64 Mbit/s
95th percentile per-packet one-way delay: 136.517 ms
Loss rate: 3.72%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-06-20 02:12:56
End at: 2018-06-20 02:13:26
Local clock offset: 0.208 ms
Remote clock offset: 0.124 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 379.12 Mbit/s
95th percentile per-packet one-way delay: 137.315 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 200.33 Mbit/s
95th percentile per-packet one-way delay: 136.871 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 196.41 Mbit/s
95th percentile per-packet one-way delay: 137.458 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 148.80 Mbit/s
95th percentile per-packet one-way delay: 138.870 ms
Loss rate: 4.34%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-06-19 22:11:00
End at: 2018-06-19 22:11:30
Local clock offset: -0.203 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.85 Mbit/s
95th percentile per-packet one-way delay: 143.779 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 84.33 Mbit/s
95th percentile per-packet one-way delay: 143.912 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 79.98 Mbit/s
95th percentile per-packet one-way delay: 143.849 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 25.05 Mbit/s
95th percentile per-packet one-way delay: 139.810 ms
Loss rate: 2.95%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-06-19 22:36:05
End at: 2018-06-19 22:36:35
Local clock offset: -0.079 ms
Remote clock offset: 0.098 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.12 Mbit/s
95th percentile per-packet one-way delay: 145.956 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 37.78 Mbit/s
95th percentile per-packet one-way delay: 145.621 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 80.45 Mbit/s
95th percentile per-packet one-way delay: 145.972 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 28.26 Mbit/s
95th percentile per-packet one-way delay: 156.634 ms
Loss rate: 3.04%
Run 2: Report of TCP Vegas — Data Link

![Graph of throughput and per-packet one-way delay over time for three flows.]
Run 3: Statistics of TCP Vegas

Start at: 2018-06-19 23:01:14
End at: 2018-06-19 23:01:44
Local clock offset: 0.062 ms
Remote clock offset: 0.083 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 113.02 Mbit/s
95th percentile per-packet one-way delay: 148.681 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 77.59 Mbit/s
95th percentile per-packet one-way delay: 148.720 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 40.15 Mbit/s
95th percentile per-packet one-way delay: 150.621 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 27.11 Mbit/s
95th percentile per-packet one-way delay: 142.180 ms
Loss rate: 2.46%
Run 3: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 77.14 Mbit/s)
- Flow 1 egress (mean 77.59 Mbit/s)
- Flow 2 ingress (mean 40.22 Mbit/s)
- Flow 2 egress (mean 40.15 Mbit/s)
- Flow 3 ingress (mean 27.03 Mbit/s)
- Flow 3 egress (mean 27.11 Mbit/s)

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

- Flow 1 (95th percentile 148.72 ms)
- Flow 2 (95th percentile 150.62 ms)
- Flow 3 (95th percentile 142.18 ms)
Run 4: Statistics of TCP Vegas

End at: 2018-06-19 23:26:26
Local clock offset: -0.039 ms
Remote clock offset: 0.035 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.09 Mbit/s
95th percentile per-packet one-way delay: 143.947 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 25.36 Mbit/s
95th percentile per-packet one-way delay: 142.113 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 23.58 Mbit/s
95th percentile per-packet one-way delay: 144.181 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 24.98 Mbit/s
95th percentile per-packet one-way delay: 150.540 ms
Loss rate: 2.48%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

End at: 2018-06-19 23:51:07
Local clock offset: -0.018 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.83 Mbit/s
95th percentile per-packet one-way delay: 144.597 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 83.24 Mbit/s
95th percentile per-packet one-way delay: 145.004 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 81.43 Mbit/s
95th percentile per-packet one-way delay: 143.237 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 22.95 Mbit/s
95th percentile per-packet one-way delay: 140.154 ms
Loss rate: 3.00%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-06-20 00:15:35
End at: 2018-06-20 00:16:05
Local clock offset: 0.076 ms
Remote clock offset: 0.027 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.42 Mbit/s
95th percentile per-packet one-way delay: 145.819 ms
Loss rate: 1.46%

-- Flow 1:
Average throughput: 25.67 Mbit/s
95th percentile per-packet one-way delay: 145.711 ms
Loss rate: 0.88%

-- Flow 2:
Average throughput: 79.88 Mbit/s
95th percentile per-packet one-way delay: 145.907 ms
Loss rate: 1.52%

-- Flow 3:
Average throughput: 24.78 Mbit/s
95th percentile per-packet one-way delay: 144.083 ms
Loss rate: 2.83%
Run 6: Report of TCP Vegas — Data Link

Throughput (Mb/s)

Flow 1 ingress (mean 25.67 Mb/s)
Flow 1 egress (mean 25.67 Mb/s)
Flow 2 ingress (mean 80.02 Mb/s)
Flow 2 egress (mean 79.85 Mb/s)
Flow 3 ingress (mean 24.80 Mb/s)
Flow 3 egress (mean 24.76 Mb/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 145.71 ms)
Flow 2 (95th percentile 145.91 ms)
Flow 3 (95th percentile 144.08 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-06-20 00:40:27
End at: 2018-06-20 00:40:57
Local clock offset: -0.118 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.82 Mbit/s
95th percentile per-packet one-way delay: 140.105 ms
Loss rate: 1.46%

-- Flow 1:
Average throughput: 37.68 Mbit/s
95th percentile per-packet one-way delay: 140.038 ms
Loss rate: 0.91%

-- Flow 2:
Average throughput: 38.87 Mbit/s
95th percentile per-packet one-way delay: 139.901 ms
Loss rate: 1.51%

-- Flow 3:
Average throughput: 35.08 Mbit/s
95th percentile per-packet one-way delay: 140.398 ms
Loss rate: 3.12%
Run 7: Report of TCP Vegas — Data Link

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

- **Flow 1 ingress (mean 37.68 Mbps)**
- **Flow 1 egress (mean 37.68 Mbps)**
- **Flow 2 ingress (mean 38.92 Mbps)**
- **Flow 2 egress (mean 38.87 Mbps)**
- **Flow 3 ingress (mean 35.21 Mbps)**
- **Flow 3 egress (mean 35.08 Mbps)**

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

- **Flow 1 (95th percentile 140.04 ms)**
- **Flow 2 (95th percentile 139.90 ms)**
- **Flow 3 (95th percentile 140.40 ms)**
Run 8: Statistics of TCP Vegas

Start at: 2018-06-20 01:05:31
End at: 2018-06-20 01:06:01
Local clock offset: 0.022 ms
Remote clock offset: 0.026 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.73 Mbit/s
95th percentile per-packet one-way delay: 144.290 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 83.66 Mbit/s
95th percentile per-packet one-way delay: 144.780 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 32.47 Mbit/s
95th percentile per-packet one-way delay: 139.556 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 33.89 Mbit/s
95th percentile per-packet one-way delay: 141.006 ms
Loss rate: 3.19%
Run 8: Report of TCP Vegas — Data Link

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

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

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Run 9: Statistics of TCP Vegas

Start at: 2018-06-20 01:30:40
End at: 2018-06-20 01:31:10
Local clock offset: -0.017 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.02 Mbit/s
95th percentile per-packet one-way delay: 144.104 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 83.16 Mbit/s
95th percentile per-packet one-way delay: 144.419 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 80.94 Mbit/s
95th percentile per-packet one-way delay: 143.473 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 14.73 Mbit/s
95th percentile per-packet one-way delay: 139.532 ms
Loss rate: 3.28%
Run 9: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 83.24 Mbps)
- Flow 1 egress (mean 83.16 Mbps)
- Flow 2 ingress (mean 81.68 Mbps)
- Flow 2 egress (mean 80.94 Mbps)
- Flow 3 ingress (mean 14.81 Mbps)
- Flow 3 egress (mean 14.73 Mbps)

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

- Flow 1 (95th percentile 144.42 ms)
- Flow 2 (95th percentile 143.47 ms)
- Flow 3 (95th percentile 139.53 ms)

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Run 10: Statistics of TCP Vegas

Start at: 2018-06-20 01:55:24
End at: 2018-06-20 01:55:54
Local clock offset: -0.213 ms
Remote clock offset: 0.059 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 149.14 Mbit/s
  95th percentile per-packet one-way delay: 143.819 ms
  Loss rate: 1.41%
-- Flow 1:
  Average throughput: 83.30 Mbit/s
  95th percentile per-packet one-way delay: 144.121 ms
  Loss rate: 1.00%
-- Flow 2:
  Average throughput: 80.87 Mbit/s
  95th percentile per-packet one-way delay: 143.446 ms
  Loss rate: 1.53%
-- Flow 3:
  Average throughput: 40.54 Mbit/s
  95th percentile per-packet one-way delay: 137.559 ms
  Loss rate: 3.39%
Run 10: Report of TCP Vegas — Data Link
Run 1: Statistics of Verus

Start at: 2018-06-19 22:30:04
End at: 2018-06-19 22:30:34
Local clock offset: -0.013 ms
Remote clock offset: 0.101 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 308.05 Mbit/s
95th percentile per-packet one-way delay: 289.482 ms
Loss rate: 3.53%
-- Flow 1:
Average throughput: 213.39 Mbit/s
95th percentile per-packet one-way delay: 245.314 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 70.47 Mbit/s
95th percentile per-packet one-way delay: 360.595 ms
Loss rate: 11.24%
-- Flow 3:
Average throughput: 146.70 Mbit/s
95th percentile per-packet one-way delay: 308.032 ms
Loss rate: 3.32%
Run 1: Report of Verus — Data Link

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

- **Flow 1 ingress (mean 216.83 Mbit/s)**
- **Flow 1 egress (mean 213.39 Mbit/s)**
- **Flow 2 ingress (mean 79.23 Mbit/s)**
- **Flow 2 egress (mean 70.47 Mbit/s)**
- **Flow 3 ingress (mean 147.54 Mbit/s)**
- **Flow 3 egress (mean 146.70 Mbit/s)**

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

- **Flow 1 (95th percentile 245.31 ms)**
- **Flow 2 (95th percentile 360.60 ms)**
- **Flow 3 (95th percentile 308.03 ms)**
Run 2: Statistics of Verus

Local clock offset: -0.036 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 148.32 Mbit/s
95th percentile per-packet one-way delay: 164.931 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 71.51 Mbit/s
95th percentile per-packet one-way delay: 174.212 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 106.25 Mbit/s
95th percentile per-packet one-way delay: 159.346 ms
Loss rate: 2.17%
-- Flow 3:
Average throughput: 19.64 Mbit/s
95th percentile per-packet one-way delay: 155.074 ms
Loss rate: 20.10%
Run 2: Report of Verus — Data Link

[Graph showing throughput over time with legends for different flows and their ingress and egress speeds.]

[Graph showing packet delay over time with legends for different flows and their 95th percentile delays.]
Run 3: Statistics of Verus

Start at: 2018-06-19 23:20:06
End at: 2018-06-19 23:20:36
Local clock offset: -0.118 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 181.67 Mbit/s
95th percentile per-packet one-way delay: 182.567 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 94.10 Mbit/s
95th percentile per-packet one-way delay: 158.113 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 111.36 Mbit/s
95th percentile per-packet one-way delay: 170.420 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 44.36 Mbit/s
95th percentile per-packet one-way delay: 304.814 ms
Loss rate: 0.06%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

End at: 2018-06-19 23:45:09
Local clock offset: 0.011 ms
Remote clock offset: -0.353 ms

# Below is generated by plot.py at 2018-06-20 04:17:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 245.20 Mbit/s
  95th percentile per-packet one-way delay: 250.629 ms
  Loss rate: 2.93%
-- Flow 1:
  Average throughput: 93.56 Mbit/s
  95th percentile per-packet one-way delay: 262.670 ms
  Loss rate: 2.34%
-- Flow 2:
  Average throughput: 192.93 Mbit/s
  95th percentile per-packet one-way delay: 240.340 ms
  Loss rate: 3.43%
-- Flow 3:
  Average throughput: 75.26 Mbit/s
  95th percentile per-packet one-way delay: 236.521 ms
  Loss rate: 2.46%
Run 4: Report of Verus — Data Link

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

- Flow 1 ingress (mean 94.93 Mbit/s) vs. egress (mean 93.56 Mbit/s)
- Flow 2 ingress (mean 196.75 Mbit/s) vs. egress (mean 192.93 Mbit/s)
- Flow 3 ingress (mean 75.03 Mbit/s) vs. egress (mean 75.26 Mbit/s)

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

- Flow 1 (95th percentile 262.67 ms) vs. Flow 2 (95th percentile 240.34 ms) vs. Flow 3 (95th percentile 236.52 ms)
Run 5: Statistics of Verus

Start at: 2018-06-20 00:09:37  
End at: 2018-06-20 00:10:07  
Local clock offset: -0.018 ms  
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2018-06-20 04:17:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 268.63 Mbit/s  
95th percentile per-packet one-way delay: 302.964 ms  
Loss rate: 5.55%  
-- Flow 1:  
Average throughput: 188.96 Mbit/s  
95th percentile per-packet one-way delay: 231.827 ms  
Loss rate: 1.66%  
-- Flow 2:  
Average throughput: 114.23 Mbit/s  
95th percentile per-packet one-way delay: 338.723 ms  
Loss rate: 13.96%  
-- Flow 3:  
Average throughput: 12.37 Mbit/s  
95th percentile per-packet one-way delay: 243.280 ms  
Loss rate: 6.88%
Run 5: Report of Verus — Data Link

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

Start at: 2018-06-20 00:34:29
End at: 2018-06-20 00:34:59
Local clock offset: 0.009 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-06-20 04:18:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 271.43 Mbit/s
95th percentile per-packet one-way delay: 189.026 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 180.27 Mbit/s
95th percentile per-packet one-way delay: 178.520 ms
Loss rate: 1.39%
-- Flow 2:
Average throughput: 54.60 Mbit/s
95th percentile per-packet one-way delay: 299.522 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 170.06 Mbit/s
95th percentile per-packet one-way delay: 177.562 ms
Loss rate: 3.19%
Run 6: Report of Verus — Data Link
Run 7: Statistics of Verus

Start at: 2018-06-20 00:59:33
End at: 2018-06-20 01:00:03
Local clock offset: 0.065 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-06-20 04:18:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 261.13 Mbit/s
  95th percentile per-packet one-way delay: 294.246 ms
  Loss rate: 7.14%
-- Flow 1:
  Average throughput: 154.70 Mbit/s
  95th percentile per-packet one-way delay: 251.068 ms
  Loss rate: 4.89%
-- Flow 2:
  Average throughput: 52.83 Mbit/s
  95th percentile per-packet one-way delay: 233.860 ms
  Loss rate: 1.66%
-- Flow 3:
  Average throughput: 222.17 Mbit/s
  95th percentile per-packet one-way delay: 327.058 ms
  Loss rate: 13.86%
Run 7: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

**Legend for Graph 1:**
- Flow 1 ingress (mean 160.64 Mbps)
- Flow 1 egress (mean 154.70 Mbps)
- Flow 2 ingress (mean 52.98 Mbps)
- Flow 2 egress (mean 52.83 Mbps)
- Flow 3 ingress (mean 249.42 Mbps)
- Flow 3 egress (mean 222.17 Mbps)

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

**Legend for Graph 2:**
- Flow 1 (95th percentile 251.07 ms)
- Flow 2 (95th percentile 233.86 ms)
- Flow 3 (95th percentile 327.06 ms)
Run 8: Statistics of Verus

Start at: 2018-06-20 01:24:43
End at: 2018-06-20 01:25:13
Local clock offset: 0.037 ms
Remote clock offset: -0.342 ms

# Below is generated by plot.py at 2018-06-20 04:18:33
# Datalink statistics

-- Total of 3 flows:
Average throughput: 256.52 Mbit/s
95th percentile per-packet one-way delay: 185.469 ms
Loss rate: 0.64%

-- Flow 1:
Average throughput: 192.45 Mbit/s
95th percentile per-packet one-way delay: 192.424 ms
Loss rate: 0.74%

-- Flow 2:
Average throughput: 84.47 Mbit/s
95th percentile per-packet one-way delay: 164.922 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 26.83 Mbit/s
95th percentile per-packet one-way delay: 168.523 ms
Loss rate: 2.60%
Run 8: Report of Verus — Data Link

![Graph: Throughput and Per-Packet Round Trip Time](image)

- **Flow 1 Ingress (mean 191.68 Mbit/s)**
- **Flow 1 Egress (mean 192.45 Mbit/s)**
- **Flow 2 Ingress (mean 83.31 Mbit/s)**
- **Flow 2 Egress (mean 84.47 Mbit/s)**
- **Flow 3 Ingress (mean 26.79 Mbit/s)**
- **Flow 3 Egress (mean 26.83 Mbit/s)**

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Run 9: Statistics of Verus

Start at: 2018-06-20 01:49:36
End at: 2018-06-20 01:50:06
Local clock offset: 0.015 ms
Remote clock offset: -0.337 ms

# Below is generated by plot.py at 2018-06-20 04:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.28 Mbit/s
95th percentile per-packet one-way delay: 158.691 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 86.40 Mbit/s
95th percentile per-packet one-way delay: 158.393 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 56.53 Mbit/s
95th percentile per-packet one-way delay: 161.006 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 39.74 Mbit/s
95th percentile per-packet one-way delay: 145.130 ms
Loss rate: 1.00%
Run 9: Report of Verus — Data Link

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

- Flow 1 ingress (mean 85.73 Mbps)
- Flow 1 egress (mean 86.40 Mbps)
- Flow 2 ingress (mean 55.75 Mbps)
- Flow 2 egress (mean 56.53 Mbps)
- Flow 3 ingress (mean 39.01 Mbps)
- Flow 3 egress (mean 39.74 Mbps)

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

- Flow 1 (95th percentile 158.39 ms)
- Flow 2 (95th percentile 161.01 ms)
- Flow 3 (95th percentile 145.13 ms)

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Run 10: Statistics of Verus

Start at: 2018-06-20 02:14:52
End at: 2018-06-20 02:15:22
Local clock offset: ~0.054 ms
Remote clock offset: 0.108 ms

# Below is generated by plot.py at 2018-06-20 04:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.41 Mbit/s
95th percentile per-packet one-way delay: 200.146 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 171.48 Mbit/s
95th percentile per-packet one-way delay: 212.270 ms
Loss rate: 2.22%
-- Flow 2:
Average throughput: 90.73 Mbit/s
95th percentile per-packet one-way delay: 163.311 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 45.17 Mbit/s
95th percentile per-packet one-way delay: 151.703 ms
Loss rate: 0.15%
Run 10: Report of Verus — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 173.94 Mbit/s)
- Flow 1 egress (mean 171.48 Mbit/s)
- Flow 2 ingress (mean 91.06 Mbit/s)
- Flow 2 egress (mean 90.73 Mbit/s)
- Flow 3 ingress (mean 43.97 Mbit/s)
- Flow 3 egress (mean 45.17 Mbit/s)

![Latency Graph](image2)

- Flow 1 (95th percentile 212.27 ms)
- Flow 2 (95th percentile 163.31 ms)
- Flow 3 (95th percentile 151.70 ms)
Run 1: Statistics of PCC-Vivace

End at: 2018-06-19 22:14:18
Local clock offset: -0.166 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2018-06-20 04:25:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.38 Mbit/s
95th percentile per-packet one-way delay: 137.520 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 320.26 Mbit/s
95th percentile per-packet one-way delay: 138.879 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 182.67 Mbit/s
95th percentile per-packet one-way delay: 136.236 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 112.30 Mbit/s
95th percentile per-packet one-way delay: 139.524 ms
Loss rate: 5.31%
Run 1: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 320.33 Mbps)
Flow 1 egress (mean 320.26 Mbps)
Flow 2 ingress (mean 183.41 Mbps)
Flow 2 egress (mean 182.67 Mbps)
Flow 3 ingress (mean 115.33 Mbps)
Flow 3 egress (mean 112.39 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 138.88 ms)
Flow 2 (95th percentile 136.24 ms)
Flow 3 (95th percentile 139.52 ms)
Run 2: Statistics of PCC-Vivace

Local clock offset: 0.191 ms
Remote clock offset: 0.381 ms

# Below is generated by plot.py at 2018-06-20 04:25:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.22 Mbit/s
95th percentile per-packet one-way delay: 143.466 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 246.31 Mbit/s
95th percentile per-packet one-way delay: 153.291 ms
Loss rate: 1.97%
-- Flow 2:
Average throughput: 179.82 Mbit/s
95th percentile per-packet one-way delay: 139.655 ms
Loss rate: 2.14%
-- Flow 3:
Average throughput: 64.51 Mbit/s
95th percentile per-packet one-way delay: 136.308 ms
Loss rate: 4.41%
Run 2: Report of PCC-Vivace — Data Link

![Graph showing network traffic and latency]
Run 3: Statistics of PCC-Vivace

Start at: 2018-06-19 23:04:00
End at: 2018-06-19 23:04:30
Local clock offset: 0.15 ms
Remote clock offset: 0.079 ms

# Below is generated by plot.py at 2018-06-20 04:26:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 473.00 Mbit/s
  95th percentile per-packet one-way delay: 139.412 ms
  Loss rate: 1.40%
-- Flow 1:
  Average throughput: 317.40 Mbit/s
  95th percentile per-packet one-way delay: 141.084 ms
  Loss rate: 0.75%
-- Flow 2:
  Average throughput: 181.77 Mbit/s
  95th percentile per-packet one-way delay: 137.339 ms
  Loss rate: 1.90%
-- Flow 3:
  Average throughput: 108.97 Mbit/s
  95th percentile per-packet one-way delay: 138.606 ms
  Loss rate: 5.34%
Run 3: Report of PCC-Vivace — Data Link

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

- Flow 1 ingress (mean 316.88 Mbit/s)
- Flow 1 egress (mean 317.40 Mbit/s)
- Flow 2 ingress (mean 182.75 Mbit/s)
- Flow 2 egress (mean 181.77 Mbit/s)
- Flow 3 ingress (mean 111.03 Mbit/s)
- Flow 3 egress (mean 106.97 Mbit/s)

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

- Flow 1 (95th percentile 141.08 ms)
- Flow 2 (95th percentile 137.34 ms)
- Flow 3 (95th percentile 138.61 ms)
Run 4: Statistics of PCC-Vivace

End at: 2018-06-19 23:29:06
Local clock offset: 0.13 ms
Remote clock offset: 0.032 ms

# Below is generated by plot.py at 2018-06-20 04:27:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 452.68 Mbit/s
  95th percentile per-packet one-way delay: 144.587 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 295.79 Mbit/s
  95th percentile per-packet one-way delay: 149.485 ms
  Loss rate: 0.87%
-- Flow 2:
  Average throughput: 177.20 Mbit/s
  95th percentile per-packet one-way delay: 138.911 ms
  Loss rate: 1.02%
-- Flow 3:
  Average throughput: 122.09 Mbit/s
  95th percentile per-packet one-way delay: 138.904 ms
  Loss rate: 5.89%
Run 4: Report of PCC-Vivace — Data Link
Run 5: Statistics of PCC-Vivace

End at: 2018-06-19 23:53:52
Local clock offset: -0.03 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-06-20 04:27:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 390.09 Mbit/s
95th percentile per-packet one-way delay: 139.572 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 243.73 Mbit/s
95th percentile per-packet one-way delay: 139.564 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 173.47 Mbit/s
95th percentile per-packet one-way delay: 136.525 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 189.425 ms
Loss rate: 3.02%
Run 5: Report of PCC-Vivace — Data Link

![Graph showing throughput and per-packet one-way delay](image-url)
Run 6: Statistics of PCC-Vivace

Start at: 2018-06-20 00:18:20
End at: 2018-06-20 00:18:50
Local clock offset: -0.083 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-06-20 04:27:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 448.34 Mbit/s
95th percentile per-packet one-way delay: 137.065 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 293.88 Mbit/s
95th percentile per-packet one-way delay: 140.508 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 174.08 Mbit/s
95th percentile per-packet one-way delay: 136.316 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 121.75 Mbit/s
95th percentile per-packet one-way delay: 137.228 ms
Loss rate: 4.01%
Run 6: Report of PCC-Vivace — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 294.60 Mbps)
Flow 1 egress (mean 293.88 Mbps)
Flow 2 ingress (mean 174.10 Mbps)
Flow 2 egress (mean 174.08 Mbps)
Flow 3 ingress (mean 123.31 Mbps)
Flow 3 egress (mean 121.75 Mbps)

Packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 140.51 ms)
Flow 2 (95th percentile 136.32 ms)
Flow 3 (95th percentile 137.23 ms)
Run 7: Statistics of PCC-Vivace

Start at: 2018-06-20 00:43:08
End at: 2018-06-20 00:43:38
Local clock offset: 0.035 ms
Remote clock offset: 0.059 ms

# Below is generated by plot.py at 2018-06-20 04:28:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.16 Mbit/s
95th percentile per-packet one-way delay: 140.578 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 335.43 Mbit/s
95th percentile per-packet one-way delay: 143.818 ms
Loss rate: 1.39%
-- Flow 2:
Average throughput: 287.44 Mbit/s
95th percentile per-packet one-way delay: 138.238 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 121.97 Mbit/s
95th percentile per-packet one-way delay: 137.876 ms
Loss rate: 4.17%
Run 7: Report of PCC-Vivace — Data Link

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Throughput (Mbps):

- **Flow 1 ingress** (mean 337.06 Mbps)
- **Flow 2 ingress** (mean 287.79 Mbps)
- **Flow 3 ingress** (mean 123.73 Mbps)
- **Flow 1 egress** (mean 335.43 Mbps)
- **Flow 2 egress** (mean 287.44 Mbps)
- **Flow 3 egress** (mean 121.97 Mbps)

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Per-packet one-way delay (ms):

- **Flow 1** (95th percentile 143.82 ms)
- **Flow 2** (95th percentile 138.24 ms)
- **Flow 3** (95th percentile 137.88 ms)
Run 8: Statistics of PCC-Vivace

Start at: 2018-06-20 01:08:17
End at: 2018-06-20 01:08:47
Local clock offset: -0.095 ms
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2018-06-20 04:29:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 548.87 Mbit/s
95th percentile per-packet one-way delay: 150.668 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 326.87 Mbit/s
95th percentile per-packet one-way delay: 166.848 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 277.60 Mbit/s
95th percentile per-packet one-way delay: 139.276 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 118.59 Mbit/s
95th percentile per-packet one-way delay: 135.712 ms
Loss rate: 4.03%
Run 8: Report of PCC-Vivace — Data Link

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

- **Flow 1 ingress (mean 327.39 Mbit/s)**
- **Flow 1 egress (mean 326.87 Mbit/s)**
- **Flow 2 ingress (mean 278.01 Mbit/s)**
- **Flow 2 egress (mean 277.60 Mbit/s)**
- **Flow 3 ingress (mean 119.70 Mbit/s)**
- **Flow 3 egress (mean 118.59 Mbit/s)**

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

- **Flow 1 (95th percentile 166.85 ms)**
- **Flow 2 (95th percentile 139.28 ms)**
- **Flow 3 (95th percentile 135.71 ms)**
Run 9: Statistics of PCC-Vivace

Start at: 2018-06-20 01:33:27
End at: 2018-06-20 01:33:57
Local clock offset: -0.037 ms
Remote clock offset: -0.291 ms

# Below is generated by plot.py at 2018-06-20 04:29:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 508.65 Mbit/s
  95th percentile per-packet one-way delay: 155.622 ms
  Loss rate: 1.44%
-- Flow 1:
  Average throughput: 294.49 Mbit/s
  95th percentile per-packet one-way delay: 150.130 ms
  Loss rate: 0.83%
-- Flow 2:
  Average throughput: 240.06 Mbit/s
  95th percentile per-packet one-way delay: 173.147 ms
  Loss rate: 1.83%
-- Flow 3:
  Average throughput: 170.64 Mbit/s
  95th percentile per-packet one-way delay: 177.811 ms
  Loss rate: 3.47%
Run 9: Report of PCC-Vivace — Data Link

![Graphs showing throughput and per-packet one-way delay for different flows.](image-url)
Run 10: Statistics of PCC-Vivace

Start at: 2018-06-20 01:58:12
End at: 2018-06-20 01:58:42
Local clock offset: 0.053 ms
Remote clock offset: -0.29 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 489.49 Mbit/s
95th percentile per-packet one-way delay: 141.984 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 314.64 Mbit/s
95th percentile per-packet one-way delay: 136.754 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 174.95 Mbit/s
95th percentile per-packet one-way delay: 137.589 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 182.49 Mbit/s
95th percentile per-packet one-way delay: 211.995 ms
Loss rate: 5.16%
Run 10: Report of PCC-Vivace — Data Link

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

- **Flow 1 ing.**: Mean 314.80 Mbit/s
- **Flow 1 egress**: Mean 314.64 Mbit/s
- **Flow 2 ing.**: Mean 174.40 Mbit/s
- **Flow 2 egress**: Mean 174.95 Mbit/s
- **Flow 3 ing.**: Mean 187.11 Mbit/s
- **Flow 3 egress**: Mean 182.49 Mbit/s

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

- **Flow 1 (95th percentile)**: 136.75 ms
- **Flow 2 (95th percentile)**: 137.59 ms
- **Flow 3 (95th percentile)**: 212.00 ms
Run 1: Statistics of WebRTC media

Local clock offset: 0.146 ms
Remote clock offset: 0.037 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.96 Mbit/s
  95th percentile per-packet one-way delay: 136.264 ms
  Loss rate: 2.06%
-- Flow 1:
  Average throughput: 1.52 Mbit/s
  95th percentile per-packet one-way delay: 136.235 ms
  Loss rate: 1.20%
-- Flow 2:
  Average throughput: 1.10 Mbit/s
  95th percentile per-packet one-way delay: 136.223 ms
  Loss rate: 2.00%
-- Flow 3:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 136.321 ms
  Loss rate: 5.68%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

End at: 2018-06-19 22:41:07
Local clock offset: -0.007 ms
Remote clock offset: 0.053 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 136.539 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 135.890 ms
Loss rate: 1.53%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 136.596 ms
Loss rate: 1.91%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 136.461 ms
Loss rate: 5.05%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

End at: 2018-06-19 23:06:25
Local clock offset: -0.01 ms
Remote clock offset: 0.462 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 135.975 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 135.986 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 135.418 ms
Loss rate: 2.20%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 136.038 ms
Loss rate: 4.93%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-06-19 23:30:29
End at: 2018-06-19 23:30:59
Local clock offset: -0.054 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.26 Mbit/s
95th percentile per-packet one-way delay: 136.063 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 136.090 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 135.831 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 135.913 ms
Loss rate: 5.31%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Local clock offset: 0.116 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 136.619 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 136.640 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 136.122 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 136.175 ms
Loss rate: 5.32%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-06-20 00:20:12
End at: 2018-06-20 00:20:42
Local clock offset: 0.135 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 136.596 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 136.614 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 136.507 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.229 ms
Loss rate: 4.75%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-06-20 00:45:09
End at: 2018-06-20 00:45:39
Local clock offset: -0.08 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 136.338 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 136.007 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 136.111 ms
Loss rate: 2.22%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 136.437 ms
Loss rate: 4.78%
Run 7: Report of WebRTC media — Data Link

![Graph showing throughput over time for different flows](image1)

- Flow 1 ingress (mean 1.82 Mbit/s)
- Flow 1 egress (mean 1.80 Mbit/s)
- Flow 2 ingress (mean 1.10 Mbit/s)
- Flow 2 egress (mean 1.09 Mbit/s)
- Flow 3 ingress (mean 0.40 Mbit/s)
- Flow 3 egress (mean 0.38 Mbit/s)

![Graph showing per-packet one-way delay over time for different flows](image2)

- Flow 1 (95th percentile 136.01 ms)
- Flow 2 (95th percentile 136.11 ms)
- Flow 3 (95th percentile 136.44 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-06-20 01:10:17
End at: 2018-06-20 01:10:47
Local clock offset: 0.128 ms
Remote clock offset: 0.399 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.26 Mbit/s
95th percentile per-packet one-way delay: 135.854 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 135.874 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 134.881 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 135.330 ms
Loss rate: 4.49%
Run 8: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 1.85 Mbit/s) vs egress (mean 1.83 Mbit/s)
- Flow 2 ingress (mean 1.10 Mbit/s) vs egress (mean 1.09 Mbit/s)
- Flow 3 ingress (mean 0.38 Mbit/s) vs egress (mean 0.37 Mbit/s)

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

- Flow 1 (95th percentile 135.87 ms)
- Flow 2 (95th percentile 134.88 ms)
- Flow 3 (95th percentile 135.33 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-06-20 01:35:24
End at: 2018-06-20 01:35:54
Local clock offset: 0.006 ms
Remote clock offset: 0.077 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.29 Mbit/s
  95th percentile per-packet one-way delay: 136.667 ms
  Loss rate: 2.17%
-- Flow 1:
  Average throughput: 1.85 Mbit/s
  95th percentile per-packet one-way delay: 136.694 ms
  Loss rate: 1.77%
-- Flow 2:
  Average throughput: 1.09 Mbit/s
  95th percentile per-packet one-way delay: 136.008 ms
  Loss rate: 2.17%
-- Flow 3:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 135.999 ms
  Loss rate: 4.06%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-06-20 02:00:07
End at: 2018-06-20 02:00:37
Local clock offset: 0.261 ms
Remote clock offset: -0.312 ms

# Below is generated by plot.py at 2018-06-20 04:29:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.25 Mbit/s
  95th percentile per-packet one-way delay: 137.196 ms
  Loss rate: 1.94%
-- Flow 1:
  Average throughput: 1.82 Mbit/s
  95th percentile per-packet one-way delay: 136.357 ms
  Loss rate: 1.28%
-- Flow 2:
  Average throughput: 1.09 Mbit/s
  95th percentile per-packet one-way delay: 137.227 ms
  Loss rate: 1.93%
-- Flow 3:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 137.248 ms
  Loss rate: 5.22%
Run 10: Report of WebRTC media — Data Link

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

- **Flow 1 ingress** (mean 1.83 Mbit/s)
- **Flow 1 egress** (mean 1.82 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)

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

- **Flow 1 (95th percentile 136.36 ms)**
- **Flow 2 (95th percentile 137.23 ms)**
- **Flow 3 (95th percentile 137.25 ms)**