Pantheon Report

Generated at 2018-04-19 03:11:55 (UTC).
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).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).

Git summary:
branch: master @ b3d6e7098641364fd3a292656a51aa81e316d0b4
third_party/calibrated_koho @ 3cb73c0d1c0322cdf4e446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ 11f8c46a2b0f1dc7972536b7e8a04076272b2a44
third_party/genericCC @ d22398828276fa83a807da0e0341dc0c7b889aec
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4e4230db7484501f82ce8b377695f266d
third_party/indigo-1-layer-32-unit @ 6b01c92e4a9d58d38dc4dfe0e8cbf90cc77e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed580c9d3505939528e2a5f
third_party/pantheon-tunnel @ fb1053193c2861da65ba9013d2b6744ccfc993
third_party/pcc @ 1afcc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd088e92b42e24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3c84f2
third_party/scream @ c370f0f7bd1726sab179aeb34e4016add43f599588s
third_party/sourdough @ 3a14b8f7e74973437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2eef6e6088d91066a9f023df375eee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74cc6c60a261149af2629562939f9a49
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webRTC @ f271183af822ee5d0031620f4bebf38aedc5581
test from GCE London Ethernet to GCE Sydney Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
</tr>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>73.14</td>
<td>70.61</td>
<td>64.09</td>
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<td>57.81</td>
<td>48.30</td>
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<td>108.13</td>
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<td>114.93</td>
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<td>PCC-Expr</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</table>
Run 1: Statistics of TCP BBR

End at: 2018-04-18 19:54:09

# Below is generated by plot.py at 2018-04-19 01:51:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.79 Mbit/s
95th percentile per-packet one-way delay: 135.311 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 72.31 Mbit/s
95th percentile per-packet one-way delay: 135.302 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 70.54 Mbit/s
95th percentile per-packet one-way delay: 135.314 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 64.06 Mbit/s
95th percentile per-packet one-way delay: 135.328 ms
Loss rate: 3.31%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-04-18 20:11:46
End at: 2018-04-18 20:12:16

# Below is generated by plot.py at 2018-04-19 01:51:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.05 Mbit/s
95th percentile per-packet one-way delay: 136.172 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 72.42 Mbit/s
95th percentile per-packet one-way delay: 136.148 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 70.74 Mbit/s
95th percentile per-packet one-way delay: 136.152 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 64.01 Mbit/s
95th percentile per-packet one-way delay: 136.250 ms
Loss rate: 3.34%
Run 2: Report of TCP BBR — Data Link

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

![Graph 2: Per-packet one-way delay (ms) vs. Time (s)]
Run 3: Statistics of TCP BBR

Start at: 2018-04-18 20:29:36  
End at: 2018-04-18 20:30:06

# Below is generated by plot.py at 2018-04-19 01:51:41  
# Datalink statistics

-- Total of 3 flows:  
Average throughput: 141.76 Mbit/s  
95th percentile per-packet one-way delay: 135.312 ms  
Loss rate: 1.55%  
-- Flow 1:  
Average throughput: 73.91 Mbit/s  
95th percentile per-packet one-way delay: 135.294 ms  
Loss rate: 1.06%  
-- Flow 2:  
Average throughput: 70.88 Mbit/s  
95th percentile per-packet one-way delay: 135.317 ms  
Loss rate: 1.52%  
-- Flow 3:  
Average throughput: 64.35 Mbit/s  
95th percentile per-packet one-way delay: 135.356 ms  
Loss rate: 3.32%
Run 3: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 73.98 Mbit/s)**
- **Flow 1 egress (mean 73.91 Mbit/s)**
- **Flow 2 ingress (mean 70.99 Mbit/s)**
- **Flow 2 egress (mean 70.85 Mbit/s)**
- **Flow 3 ingress (mean 64.73 Mbit/s)**
- **Flow 3 egress (mean 64.35 Mbit/s)**
Run 4: Statistics of TCP BBR


# Below is generated by plot.py at 2018-04-19 01:51:43
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 141.56 Mbit/s
  95th percentile per-packet one-way delay: 135.285 ms
  Loss rate: 1.50%
-- Flow 1:
  Average throughput: 74.15 Mbit/s
  95th percentile per-packet one-way delay: 135.288 ms
  Loss rate: 0.96%
-- Flow 2:
  Average throughput: 70.27 Mbit/s
  95th percentile per-packet one-way delay: 135.273 ms
  Loss rate: 1.53%
-- Flow 3:
  Average throughput: 64.07 Mbit/s
  95th percentile per-packet one-way delay: 135.302 ms
  Loss rate: 3.34%
Run 4: Report of TCP BBR — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 74.18 Mbps)
  - Flow 1 egress (mean 74.15 Mbps)
  - Flow 2 ingress (mean 70.38 Mbps)
  - Flow 2 egress (mean 70.27 Mbps)
  - Flow 3 ingress (mean 64.46 Mbps)
  - Flow 3 egress (mean 64.07 Mbps)

- **Delay (ms):**
  - Flow 1 (95th percentile 135.29 ms)
  - Flow 2 (95th percentile 135.27 ms)
  - Flow 3 (95th percentile 135.30 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-04-18 21:06:00
End at: 2018-04-18 21:06:30

# Below is generated by plot.py at 2018-04-19 01:51:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.66 Mbit/s
95th percentile per-packet one-way delay: 136.088 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 72.59 Mbit/s
95th percentile per-packet one-way delay: 136.064 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 72.63 Mbit/s
95th percentile per-packet one-way delay: 136.089 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 64.35 Mbit/s
95th percentile per-packet one-way delay: 136.162 ms
Loss rate: 3.29%
Run 5: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 72.65 Mbit/s) and Flow 1 egress (mean 72.59 Mbit/s)
- Flow 2 ingress (mean 72.70 Mbit/s) and Flow 2 egress (mean 72.65 Mbit/s)
- Flow 3 ingress (mean 64.71 Mbit/s) and Flow 3 egress (mean 64.35 Mbit/s)
Run 6: Statistics of TCP BBR


# Below is generated by plot.py at 2018-04-19 01:51:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.22 Mbit/s
95th percentile per-packet one-way delay: 136.144 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 75.69 Mbit/s
95th percentile per-packet one-way delay: 136.148 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 70.50 Mbit/s
95th percentile per-packet one-way delay: 136.119 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 64.02 Mbit/s
95th percentile per-packet one-way delay: 136.180 ms
Loss rate: 3.35%
Run 7: Statistics of TCP BBR


# Below is generated by plot.py at 2018-04-19 01:51:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 139.64 Mbit/s
  95th percentile per-packet one-way delay: 136.201 ms
  Loss rate: 1.53%
-- Flow 1:
  Average throughput: 72.41 Mbit/s
  95th percentile per-packet one-way delay: 136.195 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 70.10 Mbit/s
  95th percentile per-packet one-way delay: 136.189 ms
  Loss rate: 1.55%
-- Flow 3:
  Average throughput: 63.89 Mbit/s
  95th percentile per-packet one-way delay: 136.243 ms
  Loss rate: 3.36%
Run 7: Report of TCP BBR — Data Link

![Graph 1](image1)

- Flow 1 ingress (mean 72.46 Mbit/s)
- Flow 1 egress (mean 72.41 Mbit/s)
- Flow 2 ingress (mean 70.27 Mbit/s)
- Flow 2 egress (mean 70.10 Mbit/s)
- Flow 3 ingress (mean 64.30 Mbit/s)
- Flow 3 egress (mean 63.89 Mbit/s)

![Graph 2](image2)

- Flow 1 (95th percentile 136.19 ms)
- Flow 2 (95th percentile 136.19 ms)
- Flow 3 (95th percentile 136.24 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-04-18 22:00:08
End at: 2018-04-18 22:00:38

# Below is generated by plot.py at 2018-04-19 01:51:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.04 Mbit/s
95th percentile per-packet one-way delay: 136.077 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 72.91 Mbit/s
95th percentile per-packet one-way delay: 136.072 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 70.18 Mbit/s
95th percentile per-packet one-way delay: 136.074 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 63.67 Mbit/s
95th percentile per-packet one-way delay: 136.100 ms
Loss rate: 3.32%
Run 8: Report of TCP BBR — Data Link

![Diagram showing network performance metrics over time for different flows.]

- **Throughput (Mbps)**
  - **Flow 1 ingress (mean 72.96 Mbps)**
  - **Flow 1 egress (mean 72.91 Mbps)**
  - **Flow 2 ingress (mean 70.33 Mbps)**
  - **Flow 2 egress (mean 70.18 Mbps)**
  - **Flow 3 ingress (mean 64.04 Mbps)**
  - **Flow 3 egress (mean 63.67 Mbps)**

- **Per packet one way delay (ms)**
  - **Flow 1 (95th percentile 136.07 ms)**
  - **Flow 2 (95th percentile 136.07 ms)**
  - **Flow 3 (95th percentile 136.10 ms)**

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Run 9: Statistics of TCP BBR

End at: 2018-04-18 22:18:34

# Below is generated by plot.py at 2018-04-19 01:54:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.14 Mbit/s
95th percentile per-packet one-way delay: 135.273 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 72.44 Mbit/s
95th percentile per-packet one-way delay: 135.256 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 70.65 Mbit/s
95th percentile per-packet one-way delay: 135.267 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 64.12 Mbit/s
95th percentile per-packet one-way delay: 135.326 ms
Loss rate: 3.34%
Run 9: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 72.50 Mbps)
- Flow 1 egress (mean 72.44 Mbps)
- Flow 2 ingress (mean 70.76 Mbps)
- Flow 2 egress (mean 70.65 Mbps)
- Flow 3 ingress (mean 64.52 Mbps)
- Flow 3 egress (mean 64.12 Mbps)

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

- Flow 1 (95th percentile 135.26 ms)
- Flow 2 (95th percentile 135.27 ms)
- Flow 3 (95th percentile 135.33 ms)
Run 10: Statistics of TCP BBR

End at: 2018-04-18 22:36:18

# Below is generated by plot.py at 2018-04-19 01:54:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.65 Mbit/s
95th percentile per-packet one-way delay: 136.691 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 72.56 Mbit/s
95th percentile per-packet one-way delay: 136.684 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 69.66 Mbit/s
95th percentile per-packet one-way delay: 136.678 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 64.38 Mbit/s
95th percentile per-packet one-way delay: 136.739 ms
Loss rate: 3.40%
Run 10: Report of TCP BBR — Data Link

![Graph showing throughput and one-way delay over time for different flows.]
Run 1: Statistics of TCP Cubic

Start at: 2018-04-18 19:44:11
End at: 2018-04-18 19:44:41

# Below is generated by plot.py at 2018-04-19 01:54:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.55 Mbit/s
95th percentile per-packet one-way delay: 139.737 ms
Loss rate: 1.64%

-- Flow 1:
Average throughput: 48.09 Mbit/s
95th percentile per-packet one-way delay: 139.667 ms
Loss rate: 1.04%

-- Flow 2:
Average throughput: 54.01 Mbit/s
95th percentile per-packet one-way delay: 138.117 ms
Loss rate: 1.73%

-- Flow 3:
Average throughput: 39.09 Mbit/s
95th percentile per-packet one-way delay: 141.677 ms
Loss rate: 3.59%
Run 2: Statistics of TCP Cubic

Start at: 2018-04-18 20:02:26
End at: 2018-04-18 20:02:56

# Below is generated by plot.py at 2018-04-19 01:54:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.95 Mbit/s
95th percentile per-packet one-way delay: 143.385 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 77.94 Mbit/s
95th percentile per-packet one-way delay: 143.648 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 38.83 Mbit/s
95th percentile per-packet one-way delay: 139.658 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 141.579 ms
Loss rate: 3.35%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

End at: 2018-04-18 20:20:43

# Below is generated by plot.py at 2018-04-19 01:54:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.94 Mbit/s
95th percentile per-packet one-way delay: 139.222 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 137.243 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 38.53 Mbit/s
95th percentile per-packet one-way delay: 141.790 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 35.28 Mbit/s
95th percentile per-packet one-way delay: 141.730 ms
Loss rate: 3.58%
Run 3: Report of TCP Cubic — Data Link

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

- **Flow 1 Ingress** (mean 57.21 Mbit/s)
- **Flow 1 Egress** (mean 56.96 Mbit/s)
- **Flow 2 Ingress** (mean 38.64 Mbit/s)
- **Flow 2 Egress** (mean 38.53 Mbit/s)
- **Flow 3 Ingress** (mean 35.74 Mbit/s)
- **Flow 3 Egress** (mean 35.28 Mbit/s)

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

- **Flow 1 (95th percentile 137.24 ms)**
- **Flow 2 (95th percentile 141.79 ms)**
- **Flow 3 (95th percentile 141.73 ms)**
Run 4: Statistics of TCP Cubic

Start at: 2018-04-18 20:38:05
End at: 2018-04-18 20:38:35

# Below is generated by plot.py at 2018-04-19 01:54:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 90.93 Mbit/s
  95th percentile per-packet one-way delay: 139.786 ms
  Loss rate: 1.50%
  -- Flow 1:
    Average throughput: 51.14 Mbit/s
    95th percentile per-packet one-way delay: 139.453 ms
    Loss rate: 0.77%
  -- Flow 2:
    Average throughput: 39.17 Mbit/s
    95th percentile per-packet one-way delay: 139.738 ms
    Loss rate: 1.78%
  -- Flow 3:
    Average throughput: 42.55 Mbit/s
    95th percentile per-packet one-way delay: 140.864 ms
    Loss rate: 3.62%
Run 4: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 51.08 Mbps)
  - Flow 2 ingress (mean 39.34 Mbps)
  - Flow 3 ingress (mean 42.93 Mbps)
  - Flow 1 egress (mean 51.14 Mbps)
  - Flow 2 egress (mean 39.17 Mbps)
  - Flow 3 egress (mean 42.55 Mbps)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 139.45 ms)
  - Flow 2 (95th percentile 139.74 ms)
  - Flow 3 (95th percentile 140.86 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-04-18 20:56:21
End at: 2018-04-18 20:56:51

# Below is generated by plot.py at 2018-04-19 01:54:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 113.39 Mbit/s
  95th percentile per-packet one-way delay: 141.260 ms
  Loss rate: 1.62%
-- Flow 1:
  Average throughput: 66.68 Mbit/s
  95th percentile per-packet one-way delay: 140.971 ms
  Loss rate: 1.19%
-- Flow 2:
  Average throughput: 52.17 Mbit/s
  95th percentile per-packet one-way delay: 139.413 ms
  Loss rate: 1.76%
-- Flow 3:
  Average throughput: 37.53 Mbit/s
  95th percentile per-packet one-way delay: 143.563 ms
  Loss rate: 3.52%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-04-18 21:14:42
End at: 2018-04-18 21:15:12

# Below is generated by plot.py at 2018-04-19 01:54:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.23 Mbit/s
  95th percentile per-packet one-way delay: 142.552 ms
  Loss rate: 1.34%
-- Flow 1:
  Average throughput: 58.77 Mbit/s
  95th percentile per-packet one-way delay: 143.557 ms
  Loss rate: 0.70%
-- Flow 2:
  Average throughput: 39.77 Mbit/s
  95th percentile per-packet one-way delay: 139.910 ms
  Loss rate: 1.77%
-- Flow 3:
  Average throughput: 34.53 Mbit/s
  95th percentile per-packet one-way delay: 139.578 ms
  Loss rate: 3.62%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic


# Below is generated by plot.py at 2018-04-19 01:55:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 109.86 Mbit/s
  95th percentile per-packet one-way delay: 141.639 ms
  Loss rate: 1.58%
-- Flow 1:
  Average throughput: 63.00 Mbit/s
  95th percentile per-packet one-way delay: 142.234 ms
  Loss rate: 0.91%
-- Flow 2:
  Average throughput: 43.17 Mbit/s
  95th percentile per-packet one-way delay: 140.594 ms
  Loss rate: 1.68%
-- Flow 3:
  Average throughput: 56.38 Mbit/s
  95th percentile per-packet one-way delay: 139.748 ms
  Loss rate: 3.68%
Run 7: Report of TCP Cubic — Data Link

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

![Graph 2: Per-packet one-way delay (ms)](image2)
Run 8: Statistics of TCP Cubic

Start at: 2018-04-18 21:50:46
End at: 2018-04-18 21:51:16

# Below is generated by plot.py at 2018-04-19 01:55:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.61 Mbit/s
95th percentile per-packet one-way delay: 142.455 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 52.52 Mbit/s
95th percentile per-packet one-way delay: 142.415 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 141.427 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 35.75 Mbit/s
95th percentile per-packet one-way delay: 146.315 ms
Loss rate: 3.37%
Run 9: Statistics of TCP Cubic

Start at: 2018-04-18 22:08:36
End at: 2018-04-18 22:09:06

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.69 Mbit/s
95th percentile per-packet one-way delay: 138.637 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 61.23 Mbit/s
95th percentile per-packet one-way delay: 137.897 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 59.32 Mbit/s
95th percentile per-packet one-way delay: 138.700 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 34.43 Mbit/s
95th percentile per-packet one-way delay: 141.784 ms
Loss rate: 3.44%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

End at: 2018-04-18 22:26:43

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.34 Mbit/s
95th percentile per-packet one-way delay: 142.932 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 41.78 Mbit/s
95th percentile per-packet one-way delay: 142.707 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 67.40 Mbit/s
95th percentile per-packet one-way delay: 143.482 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 58.51 Mbit/s
95th percentile per-packet one-way delay: 137.005 ms
Loss rate: 3.66%
Run 10: Report of TCP Cubic — Data Link
Run 1: Statistics of LEDBAT

Start at: 2018-04-18 19:38:16
End at: 2018-04-18 19:38:46

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.52 Mbit/s
  95th percentile per-packet one-way delay: 135.873 ms
  Loss rate: 1.40%
-- Flow 1:
  Average throughput: 0.25 Mbit/s
  95th percentile per-packet one-way delay: 135.588 ms
  Loss rate: 0.91%
-- Flow 2:
  Average throughput: 0.25 Mbit/s
  95th percentile per-packet one-way delay: 135.913 ms
  Loss rate: 1.64%
-- Flow 3:
  Average throughput: 0.31 Mbit/s
  95th percentile per-packet one-way delay: 136.458 ms
  Loss rate: 2.24%
Run 1: Report of LEDBAT — Data Link

---

![Graph showing throughput data](image1.png)

![Graph showing round-trip time data](image2.png)

---

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Run 2: Statistics of LEDBAT

Start at: 2018-04-18 19:56:24
End at: 2018-04-18 19:56:54

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.92 Mbit/s
  95th percentile per-packet one-way delay: 136.021 ms
  Loss rate: 2.27%
-- Flow 1:
  Average throughput: 4.65 Mbit/s
  95th percentile per-packet one-way delay: 135.935 ms
  Loss rate: 1.86%
-- Flow 2:
  Average throughput: 3.19 Mbit/s
  95th percentile per-packet one-way delay: 136.098 ms
  Loss rate: 2.74%
-- Flow 3:
  Average throughput: 0.51 Mbit/s
  95th percentile per-packet one-way delay: 135.612 ms
  Loss rate: 7.62%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

End at: 2018-04-18 20:14:59

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.55 Mbit/s
  95th percentile per-packet one-way delay: 136.079 ms
  Loss rate: 2.20%
-- Flow 1:
  Average throughput: 4.40 Mbit/s
  95th percentile per-packet one-way delay: 136.022 ms
  Loss rate: 1.91%
-- Flow 2:
  Average throughput: 3.15 Mbit/s
  95th percentile per-packet one-way delay: 136.137 ms
  Loss rate: 2.76%
-- Flow 3:
  Average throughput: 0.25 Mbit/s
  95th percentile per-packet one-way delay: 135.777 ms
  Loss rate: 3.32%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-04-18 20:32:16
End at: 2018-04-18 20:32:46

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.62 Mbit/s
  95th percentile per-packet one-way delay: 135.986 ms
  Loss rate: 3.75%
-- Flow 1:
  Average throughput: 1.28 Mbit/s
  95th percentile per-packet one-way delay: 136.033 ms
  Loss rate: 3.31%
-- Flow 2:
  Average throughput: 1.73 Mbit/s
  95th percentile per-packet one-way delay: 135.954 ms
  Loss rate: 3.61%
-- Flow 3:
  Average throughput: 0.61 Mbit/s
  95th percentile per-packet one-way delay: 135.937 ms
  Loss rate: 7.30%
Run 5: Statistics of LEDBAT

Start at: 2018-04-18 20:50:23
End at: 2018-04-18 20:50:53

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.53 Mbit/s
  95th percentile per-packet one-way delay: 136.218 ms
  Loss rate: 2.36%
-- Flow 1:
  Average throughput: 4.87 Mbit/s
  95th percentile per-packet one-way delay: 136.236 ms
  Loss rate: 1.82%
-- Flow 2:
  Average throughput: 2.11 Mbit/s
  95th percentile per-packet one-way delay: 136.108 ms
  Loss rate: 3.29%
-- Flow 3:
  Average throughput: 0.87 Mbit/s
  95th percentile per-packet one-way delay: 135.710 ms
  Loss rate: 6.87%
Run 5: Report of LEDBAT — Data Link

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

- **Flow 1 ingress** (mean 4.91 Mbit/s)
- **Flow 1 egress** (mean 4.87 Mbit/s)
- **Flow 2 ingress** (mean 2.15 Mbit/s)
- **Flow 2 egress** (mean 2.11 Mbit/s)
- **Flow 3 ingress** (mean 0.91 Mbit/s)
- **Flow 3 egress** (mean 0.87 Mbit/s)

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

- **Flow 1** (95th percentile 136.24 ms)
- **Flow 2** (95th percentile 136.11 ms)
- **Flow 3** (95th percentile 135.71 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-04-18 21:08:44
End at: 2018-04-18 21:09:14

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.51 Mbit/s
  95th percentile per-packet one-way delay: 136.705 ms
  Loss rate: 1.59%
-- Flow 1:
  Average throughput: 0.26 Mbit/s
  95th percentile per-packet one-way delay: 136.295 ms
  Loss rate: 1.03%
-- Flow 2:
  Average throughput: 0.25 Mbit/s
  95th percentile per-packet one-way delay: 136.728 ms
  Loss rate: 1.40%
-- Flow 3:
  Average throughput: 0.26 Mbit/s
  95th percentile per-packet one-way delay: 136.816 ms
  Loss rate: 3.58%
Run 6: Report of LEDBAT — Data Link
Run 7: Statistics of LEDBAT

Start at: 2018-04-18 21:26:57

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.38 Mbit/s
  95th percentile per-packet one-way delay: 136.899 ms
  Loss rate: 2.45%
-- Flow 1:
  Average throughput: 4.80 Mbit/s
  95th percentile per-packet one-way delay: 136.978 ms
  Loss rate: 1.83%
-- Flow 2:
  Average throughput: 1.69 Mbit/s
  95th percentile per-packet one-way delay: 136.321 ms
  Loss rate: 3.65%
-- Flow 3:
  Average throughput: 1.53 Mbit/s
  95th percentile per-packet one-way delay: 136.425 ms
  Loss rate: 5.55%
Run 7: Report of LEDBAT — Data Link

![Graph of throughput over time for different flows]

- Flow 1 ingress (mean 4.85 Mbit/s)
- Flow 1 egress (mean 4.80 Mbit/s)
- Flow 2 ingress (mean 1.75 Mbit/s)
- Flow 2 egress (mean 1.69 Mbit/s)
- Flow 3 ingress (mean 1.57 Mbit/s)
- Flow 3 egress (mean 1.53 Mbit/s)

![Graph of per-packet end-to-end delay over time for different flows]

- Flow 1 (95th percentile 136.98 ms)
- Flow 2 (95th percentile 136.32 ms)
- Flow 3 (95th percentile 136.43 ms)
Run 8: Statistics of LEDBAT

Start at: 2018-04-18 21:45:01
End at: 2018-04-18 21:45:31

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.13 Mbit/s
  95th percentile per-packet one-way delay: 137.052 ms
  Loss rate: 2.39%
-- Flow 1:
  Average throughput: 4.59 Mbit/s
  95th percentile per-packet one-way delay: 137.077 ms
  Loss rate: 1.87%
-- Flow 2:
  Average throughput: 3.19 Mbit/s
  95th percentile per-packet one-way delay: 137.015 ms
  Loss rate: 2.74%
-- Flow 3:
  Average throughput: 1.41 Mbit/s
  95th percentile per-packet one-way delay: 136.653 ms
  Loss rate: 5.78%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-04-18 22:02:49
End at: 2018-04-18 22:03:19

# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.59 Mbit/s
  95th percentile per-packet one-way delay: 136.731 ms
  Loss rate: 2.33%
-- Flow 1:
  Average throughput: 4.86 Mbit/s
  95th percentile per-packet one-way delay: 136.645 ms
  Loss rate: 1.82%
-- Flow 2:
  Average throughput: 2.26 Mbit/s
  95th percentile per-packet one-way delay: 136.818 ms
  Loss rate: 3.20%
-- Flow 3:
  Average throughput: 0.71 Mbit/s
  95th percentile per-packet one-way delay: 136.718 ms
  Loss rate: 7.27%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT


# Below is generated by plot.py at 2018-04-19 01:55:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.64 Mbit/s
  95th percentile per-packet one-way delay: 136.120 ms
  Loss rate: 2.56%
-- Flow 1:
  Average throughput: 3.18 Mbit/s
  95th percentile per-packet one-way delay: 136.125 ms
  Loss rate: 2.22%
-- Flow 2:
  Average throughput: 0.55 Mbit/s
  95th percentile per-packet one-way delay: 136.009 ms
  Loss rate: 5.33%
-- Flow 3:
  Average throughput: 0.30 Mbit/s
  95th percentile per-packet one-way delay: 136.489 ms
  Loss rate: 3.05%
Run 10: Report of LEDBAT — Data Link

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**Throughput (Mbps)**

![Graph showing throughput over time with different flows indicated by various lines and markers.]

**Time (s)**

- Flow 1 ingress (mean 3.22 Mbps)
- Flow 1 egress (mean 3.18 Mbps)
- Flow 2 ingress (mean 0.58 Mbps)
- Flow 2 egress (mean 0.55 Mbps)
- Flow 3 ingress (mean 0.30 Mbps)
- Flow 3 egress (mean 0.30 Mbps)

---

**Round trip packet delay (ms)**

![Graph showing round trip packet delay over time with different flows indicated by various lines and markers.]

**Time (s)**

- Flow 1 (95th percentile 136.12 ms)
- Flow 2 (95th percentile 136.01 ms)
- Flow 3 (95th percentile 136.49 ms)

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Run 1: Statistics of PCC-Allegro

Start at: 2018-04-18 19:50:15
End at: 2018-04-18 19:50:45

# Below is generated by plot.py at 2018-04-19 02:03:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 594.93 Mbit/s
  95th percentile per-packet one-way delay: 236.551 ms
  Loss rate: 2.26%
-- Flow 1:
  Average throughput: 508.19 Mbit/s
  95th percentile per-packet one-way delay: 236.457 ms
  Loss rate: 2.13%
-- Flow 2:
  Average throughput: 127.00 Mbit/s
  95th percentile per-packet one-way delay: 236.831 ms
  Loss rate: 2.99%
-- Flow 3:
  Average throughput: 8.38 Mbit/s
  95th percentile per-packet one-way delay: 236.065 ms
  Loss rate: 3.14%
Run 1: Report of PCC-Allegro — Data Link
Run 2: Statistics of PCC-Allegro

Start at: 2018-04-18 20:08:24
End at: 2018-04-18 20:08:54

# Below is generated by plot.py at 2018-04-19 02:03:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 554.04 Mbit/s
  95th percentile per-packet one-way delay: 265.864 ms
  Loss rate: 4.97%
-- Flow 1:
  Average throughput: 434.27 Mbit/s
  95th percentile per-packet one-way delay: 271.634 ms
  Loss rate: 4.61%
-- Flow 2:
  Average throughput: 124.90 Mbit/s
  95th percentile per-packet one-way delay: 256.191 ms
  Loss rate: 4.97%
-- Flow 3:
  Average throughput: 115.20 Mbit/s
  95th percentile per-packet one-way delay: 250.991 ms
  Loss rate: 8.99%
Run 2: Report of PCC-Allegro — Data Link

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

- Flow 1 Ingress (mean 451.11 Mbit/s)
- Flow 1 Egress (mean 434.27 Mbit/s)
- Flow 2 Ingress (mean 129.63 Mbit/s)
- Flow 2 Egress (mean 124.90 Mbit/s)
- Flow 3 Ingress (mean 123.08 Mbit/s)
- Flow 3 Egress (mean 115.20 Mbit/s)

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

- Flow 1 (95th percentile 271.63 ms)
- Flow 2 (95th percentile 256.19 ms)
- Flow 3 (95th percentile 250.99 ms)
Run 3: Statistics of PCC-Allegro

Start at: 2018-04-18 20:26:15
End at: 2018-04-18 20:26:45

# Below is generated by plot.py at 2018-04-19 02:03:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 490.71 Mbit/s
  95th percentile per-packet one-way delay: 261.874 ms
  Loss rate: 7.40%
-- Flow 1:
  Average throughput: 315.29 Mbit/s
  95th percentile per-packet one-way delay: 272.891 ms
  Loss rate: 5.36%
-- Flow 2:
  Average throughput: 132.97 Mbit/s
  95th percentile per-packet one-way delay: 251.554 ms
  Loss rate: 5.76%
-- Flow 3:
  Average throughput: 270.72 Mbit/s
  95th percentile per-packet one-way delay: 255.403 ms
  Loss rate: 15.43%
Run 3: Report of PCC-Allegro — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 330.11 Mbps)
  - Flow 1 egress (mean 315.29 Mbps)
  - Flow 2 ingress (mean 139.15 Mbps)
  - Flow 2 egress (mean 132.97 Mbps)
  - Flow 3 ingress (mean 311.27 Mbps)
  - Flow 3 egress (mean 270.72 Mbps)

- **Per packet delay (ms)**
  - Flow 1 (95th percentile 272.89 ms)
  - Flow 2 (95th percentile 251.55 ms)
  - Flow 3 (95th percentile 255.40 ms)
Run 4: Statistics of PCC-Allegro

Start at: 2018-04-18 20:44:18
End at: 2018-04-18 20:44:48

# Below is generated by plot.py at 2018-04-19 02:03:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 578.59 Mbit/s
  95th percentile per-packet one-way delay: 309.721 ms
  Loss rate: 3.34%
-- Flow 1:
  Average throughput: 515.65 Mbit/s
  95th percentile per-packet one-way delay: 315.573 ms
  Loss rate: 3.25%
-- Flow 2:
  Average throughput: 64.74 Mbit/s
  95th percentile per-packet one-way delay: 247.167 ms
  Loss rate: 3.25%
-- Flow 3:
  Average throughput: 62.33 Mbit/s
  95th percentile per-packet one-way delay: 242.984 ms
  Loss rate: 5.71%
Run 4: Report of PCC-Allegro — Data Link

![Graph showing throughput and delay](image)

Legend:
- Flow 1 Ingress (mean 528.13 Mbit/s)
- Flow 1 Egress (mean 515.65 Mbit/s)
- Flow 2 Ingress (mean 65.99 Mbit/s)
- Flow 2 Egress (mean 64.74 Mbit/s)
- Flow 3 Ingress (mean 64.28 Mbit/s)
- Flow 3 Egress (mean 62.33 Mbit/s)

Legend for delay:
- Flow 1 (95th percentile 315.57 ms)
- Flow 2 (95th percentile 247.17 ms)
- Flow 3 (95th percentile 242.98 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2018-04-18 21:02:38
End at: 2018-04-18 21:03:08

# Below is generated by plot.py at 2018-04-19 02:04:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 575.49 Mbit/s
95th percentile per-packet one-way delay: 321.192 ms
Loss rate: 4.62%
-- Flow 1:
Average throughput: 474.39 Mbit/s
95th percentile per-packet one-way delay: 339.949 ms
Loss rate: 4.81%
-- Flow 2:
Average throughput: 123.27 Mbit/s
95th percentile per-packet one-way delay: 241.718 ms
Loss rate: 3.40%
-- Flow 3:
Average throughput: 60.97 Mbit/s
95th percentile per-packet one-way delay: 242.435 ms
Loss rate: 4.90%
Run 5: Report of PCC-Allegro — Data Link

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

- Flow 1 Ingress (mean 493.62 Mbit/s)
- Flow 1 Egress (mean 474.59 Mbit/s)
- Flow 2 Ingress (mean 125.84 Mbit/s)
- Flow 2 Egress (mean 123.27 Mbit/s)
- Flow 3 Ingress (mean 62.34 Mbit/s)
- Flow 3 Egress (mean 65.97 Mbit/s)

![Graph showing packet delay for different flows.]

- Flow 1 (95th percentile 339.95 ms)
- Flow 2 (95th percentile 241.72 ms)
- Flow 3 (95th percentile 242.44 ms)
Run 6: Statistics of PCC-Allegro

Start at: 2018-04-18 21:20:54

# Below is generated by plot.py at 2018-04-19 02:04:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 567.63 Mbit/s
  95th percentile per-packet one-way delay: 301.443 ms
  Loss rate: 4.56%
-- Flow 1:
  Average throughput: 520.64 Mbit/s
  95th percentile per-packet one-way delay: 302.861 ms
  Loss rate: 4.70%
-- Flow 2:
  Average throughput: 62.88 Mbit/s
  95th percentile per-packet one-way delay: 248.981 ms
  Loss rate: 2.78%
-- Flow 3:
  Average throughput: 16.88 Mbit/s
  95th percentile per-packet one-way delay: 249.992 ms
  Loss rate: 4.59%
Run 6: Report of PCC-Allegro — Data Link

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

Throughput (Mbps):
- Flow 1 Ingress (mean 541.34 Mbps)
- Flow 1 Egress (mean 520.64 Mbps)
- Flow 2 Ingress (mean 63.79 Mbps)
- Flow 2 Egress (mean 62.88 Mbps)
- Flow 3 Ingress (mean 17.20 Mbps)
- Flow 3 Egress (mean 16.88 Mbps)

Packet Delay (ms):
- Flow 1 (95th percentile 302.96 ms)
- Flow 2 (95th percentile 248.98 ms)
- Flow 3 (95th percentile 249.99 ms)
Run 7: Statistics of PCC-Allegro


# Below is generated by plot.py at 2018-04-19 02:04:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 553.12 Mbit/s
95th percentile per-packet one-way delay: 224.306 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 469.39 Mbit/s
95th percentile per-packet one-way delay: 224.024 ms
Loss rate: 2.32%
-- Flow 2:
Average throughput: 124.37 Mbit/s
95th percentile per-packet one-way delay: 225.538 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 4.65 Mbit/s
95th percentile per-packet one-way delay: 167.595 ms
Loss rate: 2.64%
Run 7: Report of PCC-Allegro — Data Link

Throughput (Mbps):
- Flow 1 Ingress (mean 476.14 Mbps)
- Flow 1 Egress (mean 469.99 Mbps)
- Flow 2 Ingress (mean 125.65 Mbps)
- Flow 2 Egress (mean 124.37 Mbps)
- Flow 3 Ingress (mean 4.65 Mbps)
- Flow 3 Egress (mean 4.65 Mbps)

Packet one-way delay (ms):
- Flow 1 (95th percentile 224.02 ms)
- Flow 2 (95th percentile 225.54 ms)
- Flow 3 (95th percentile 167.59 ms)
Run 8: Statistics of PCC-Allegro

End at: 2018-04-18 21:57:18

# Below is generated by plot.py at 2018-04-19 02:04:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 547.19 Mbit/s
95th percentile per-packet one-way delay: 257.498 ms
Loss rate: 2.43%
-- Flow 1:
Average throughput: 503.51 Mbit/s
95th percentile per-packet one-way delay: 261.830 ms
Loss rate: 2.43%
-- Flow 2:
Average throughput: 63.89 Mbit/s
95th percentile per-packet one-way delay: 248.922 ms
Loss rate: 2.33%
-- Flow 3:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 202.045 ms
Loss rate: 2.62%
Run 9: Statistics of PCC-Allegro

End at: 2018-04-18 22:15:11

# Below is generated by plot.py at 2018-04-19 02:11:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 566.55 Mbit/s
  95th percentile per-packet one-way delay: 249.339 ms
  Loss rate: 3.07%
-- Flow 1:
  Average throughput: 481.54 Mbit/s
  95th percentile per-packet one-way delay: 249.247 ms
  Loss rate: 2.93%
-- Flow 2:
  Average throughput: 126.52 Mbit/s
  95th percentile per-packet one-way delay: 249.603 ms
  Loss rate: 3.87%
-- Flow 3:
  Average throughput: 4.29 Mbit/s
  95th percentile per-packet one-way delay: 249.010 ms
  Loss rate: 3.53%
Run 9: Report of PCC-Allegro — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 491.55 Mbps)
- Flow 1 egress (mean 481.54 Mbps)
- Flow 2 ingress (mean 129.80 Mbps)
- Flow 2 egress (mean 126.52 Mbps)
- Flow 3 ingress (mean 4.32 Mbps)
- Flow 3 egress (mean 4.29 Mbps)

![Graph 2: One way delay (ms)]

- Flow 1 (95th percentile 249.25 ms)
- Flow 2 (95th percentile 249.60 ms)
- Flow 3 (95th percentile 249.01 ms)
Run 10: Statistics of PCC-Allegro


# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 565.53 Mbit/s
  95th percentile per-packet one-way delay: 314.139 ms
  Loss rate: 3.51%
-- Flow 1:
  Average throughput: 458.42 Mbit/s
  95th percentile per-packet one-way delay: 322.500 ms
  Loss rate: 3.62%
-- Flow 2:
  Average throughput: 130.74 Mbit/s
  95th percentile per-packet one-way delay: 240.982 ms
  Loss rate: 2.76%
-- Flow 3:
  Average throughput: 63.89 Mbit/s
  95th percentile per-packet one-way delay: 241.982 ms
  Loss rate: 4.13%
Run 10: Report of PCC-Allegro — Data Link

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

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 471.33 Mbps)
- Blue solid line: Flow 1 egress (mean 458.42 Mbps)
- Green dashed line: Flow 2 ingress (mean 132.60 Mbps)
- Green solid line: Flow 2 egress (mean 138.74 Mbps)
- Red dashed line: Flow 3 ingress (mean 64.80 Mbps)
- Red solid line: Flow 3 egress (mean 63.89 Mbps)
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-18 19:51:30
End at: 2018-04-18 19:52:00

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 102.31 Mbit/s
  95th percentile per-packet one-way delay: 136.642 ms
  Loss rate: 1.95%
-- Flow 1:
  Average throughput: 55.64 Mbit/s
  95th percentile per-packet one-way delay: 136.672 ms
  Loss rate: 1.07%
-- Flow 2:
  Average throughput: 56.91 Mbit/s
  95th percentile per-packet one-way delay: 136.464 ms
  Loss rate: 1.83%
-- Flow 3:
  Average throughput: 23.80 Mbit/s
  95th percentile per-packet one-way delay: 136.427 ms
  Loss rate: 8.16%
Run 1: Report of QUIC Cubic — Data Link

![Graph of throughput and delay over time for flow 1, flow 2, and flow 3.]
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-18 20:09:38
End at: 2018-04-18 20:10:08

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 94.00 Mbit/s
  95th percentile per-packet one-way delay: 136.758 ms
  Loss rate: 0.95%
-- Flow 1:
  Average throughput: 42.00 Mbit/s
  95th percentile per-packet one-way delay: 136.674 ms
  Loss rate: 1.60%
-- Flow 2:
  Average throughput: 61.25 Mbit/s
  95th percentile per-packet one-way delay: 135.885 ms
  Loss rate: 0.40%
-- Flow 3:
  Average throughput: 36.76 Mbit/s
  95th percentile per-packet one-way delay: 136.870 ms
  Loss rate: 0.47%
Run 2: Report of QUIC Cubic — Data Link

![Graph showing throughput and round-trip delay over time for different flows.](image)
Run 3: Statistics of QUIC Cubic

End at: 2018-04-18 20:27:57

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.00 Mbit/s
95th percentile per-packet one-way delay: 135.965 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 60.00 Mbit/s
95th percentile per-packet one-way delay: 135.982 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 57.50 Mbit/s
95th percentile per-packet one-way delay: 135.160 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 33.96 Mbit/s
95th percentile per-packet one-way delay: 135.991 ms
Loss rate: 6.03%
Run 3: Report of QUIC Cubic — Data Link

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

- **Run 3**: Report of QUIC Cubic — Data Link

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

  - **Flow 1** ingress (mean 60.16 Mbit/s)
  - **Flow 1** egress (mean 60.00 Mbit/s)
  - **Flow 2** ingress (mean 57.57 Mbit/s)
  - **Flow 2** egress (mean 57.50 Mbit/s)
  - **Flow 3** ingress (mean 35.14 Mbit/s)
  - **Flow 3** egress (mean 33.96 Mbit/s)
Run 4: Statistics of QUIC Cubic

Start at: 2018-04-18 20:45:33
End at: 2018-04-18 20:46:03

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.54 Mbit/s
95th percentile per-packet one-way delay: 136.284 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 52.38 Mbit/s
95th percentile per-packet one-way delay: 136.287 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 136.288 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 136.193 ms
Loss rate: 5.64%
Run 4: Report of QUIC Cubic — Data Link

[Graph 1: Throughput vs Time for different flows]

[Graph 2: Per packet one-way delay vs Time for different flows]

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Run 5: Statistics of QUIC Cubic

Start at: 2018-04-18 21:03:52
End at: 2018-04-18 21:04:22

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.12 Mbit/s
95th percentile per-packet one-way delay: 135.517 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 54.69 Mbit/s
95th percentile per-packet one-way delay: 135.540 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 41.80 Mbit/s
95th percentile per-packet one-way delay: 134.741 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 58.19 Mbit/s
95th percentile per-packet one-way delay: 135.494 ms
Loss rate: 3.71%
Run 5: Report of QUIC Cubic — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows]
Run 6: Statistics of QUIC Cubic


# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.49 Mbit/s
95th percentile per-packet one-way delay: 135.964 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 56.84 Mbit/s
95th percentile per-packet one-way delay: 135.520 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 43.04 Mbit/s
95th percentile per-packet one-way delay: 136.014 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 59.37 Mbit/s
95th percentile per-packet one-way delay: 135.909 ms
Loss rate: 3.58%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-18 21:40:10
End at: 2018-04-18 21:40:40

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 99.89 Mbit/s
  95th percentile per-packet one-way delay: 136.072 ms
  Loss rate: 1.84%
-- Flow 1:
  Average throughput: 56.34 Mbit/s
  95th percentile per-packet one-way delay: 136.063 ms
  Loss rate: 1.04%
-- Flow 2:
  Average throughput: 36.66 Mbit/s
  95th percentile per-packet one-way delay: 134.853 ms
  Loss rate: 2.44%
-- Flow 3:
  Average throughput: 59.77 Mbit/s
  95th percentile per-packet one-way delay: 136.135 ms
  Loss rate: 3.37%
Run 7: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet inter-arrivals over time for different flows.]

- Flow 1 ingress (mean 56.42 Mbit/s)
- Flow 2 ingress (mean 37.07 Mbit/s)
- Flow 3 ingress (mean 60.16 Mbit/s)
- Flow 1 egress (mean 56.34 Mbit/s)
- Flow 2 egress (mean 36.66 Mbit/s)
- Flow 3 egress (mean 59.77 Mbit/s)
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-18 21:58:01
End at: 2018-04-18 21:58:31

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.09 Mbit/s
  95th percentile per-packet one-way delay: 135.908 ms
  Loss rate: 2.36%
-- Flow 1:
  Average throughput: 45.38 Mbit/s
  95th percentile per-packet one-way delay: 135.533 ms
  Loss rate: 1.30%
-- Flow 2:
  Average throughput: 46.98 Mbit/s
  95th percentile per-packet one-way delay: 135.950 ms
  Loss rate: 2.44%
-- Flow 3:
  Average throughput: 32.85 Mbit/s
  95th percentile per-packet one-way delay: 135.505 ms
  Loss rate: 6.45%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic


# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.54 Mbit/s
95th percentile per-packet one-way delay: 135.808 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 58.01 Mbit/s
95th percentile per-packet one-way delay: 135.563 ms
Loss rate: 1.29%
-- Flow 2:
Average throughput: 60.19 Mbit/s
95th percentile per-packet one-way delay: 134.761 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 36.10 Mbit/s
95th percentile per-packet one-way delay: 135.916 ms
Loss rate: 0.41%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

End at: 2018-04-18 22:34:09

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.11 Mbit/s
95th percentile per-packet one-way delay: 136.642 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 57.36 Mbit/s
95th percentile per-packet one-way delay: 136.667 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 57.04 Mbit/s
95th percentile per-packet one-way delay: 135.090 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 34.02 Mbit/s
95th percentile per-packet one-way delay: 136.520 ms
Loss rate: 5.07%
Run 10: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2018-04-18 19:46:30
End at: 2018-04-18 19:47:00

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 136.415 ms
  Loss rate: 1.30%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.015 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.278 ms
  Loss rate: 1.22%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.467 ms
  Loss rate: 2.63%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2018-04-18 20:04:45
End at: 2018-04-18 20:05:15

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 136.640 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.303 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.791 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.695 ms
  Loss rate: 2.63%
Run 2: Report of SCReAM — Data Link

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

- **Throughput (Mbps)**: The throughput is measured over time, showing fluctuations and peaks. The mean throughput is indicated for each flow (1 ingress, 2 ingress, 3 ingress, 1 egress, 2 egress, 3 egress).
- **Packet Delay (ms)**: The graph also shows the packet delay for each flow, with 95th percentile values provided for each flow.
Run 3: Statistics of SCReAM


# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 136.942 ms
  Loss rate: 1.37%
  -- Flow 1:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 135.707 ms
    Loss rate: 0.90%
  -- Flow 2:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 136.981 ms
    Loss rate: 1.42%
  -- Flow 3:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 135.770 ms
    Loss rate: 2.63%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2018-04-18 20:40:26
End at: 2018-04-18 20:40:56

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.430 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.264 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.640 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.489 ms
Loss rate: 2.63%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2018-04-18 20:58:43

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 136.100 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.109 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.692 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.114 ms
  Loss rate: 2.63%
Run 5: Report of SCReAM — Data Link

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

- **Throughput**: Graphs showing data throughput across different flows (Flow 1 ingress, Flow 1 egress, Flow 2 ingress, Flow 2 egress, Flow 3 ingress, Flow 3 egress) over time.
- **Per-packet one-way delay**: Graphs showing the delay for each packet across different flows (Flow 1, Flow 2, Flow 3) over time.

Graphs illustrate real-time network performance, with data points indicating fluctuations and trends in throughput and delay.
Run 6: Statistics of SCReAM

Start at: 2018-04-18 21:17:02
End at: 2018-04-18 21:17:32

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.840 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.235 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.522 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.905 ms
Loss rate: 2.63%
Run 7: Statistics of SCReAM

Start at: 2018-04-18 21:35:15
End at: 2018-04-18 21:35:45

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.526 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.075 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.179 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.581 ms
Loss rate: 2.63%
Run 7: 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)

Perceived one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.07 ms)
Flow 2 (95th percentile 136.18 ms)
Flow 3 (95th percentile 136.58 ms)
Run 8: Statistics of SCReAM


# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.651 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.674 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.674 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.767 ms
  Loss rate: 2.63%
Run 9: Statistics of SCReAM

Start at: 2018-04-18 22:10:56
End at: 2018-04-18 22:11:26

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.780 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.256 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.814 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.431 ms
Loss rate: 2.63%
Run 9: Report of SCReAM — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows with specified mean speeds.](image-url)
Run 10: Statistics of SCReAM


# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 136.676 ms
  Loss rate: 1.37%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.700 ms
  Loss rate: 0.90%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.267 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.040 ms
  Loss rate: 2.63%
Run 10: Report of SCReAM — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 1: Statistics of WebRTC media

End at: 2018-04-18 19:49:56

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.796 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 136.135 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 136.825 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 136.670 ms
Loss rate: 0.40%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-04-18 20:07:35
End at: 2018-04-18 20:08:05

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.678 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 135.829 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 135.481 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.758 ms
  Loss rate: 0.40%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

End at: 2018-04-18 20:25:57

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.621 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.634 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.615 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.551 ms
  Loss rate: 0.40%
Run 3: Report of WebRTC media — Data Link

![Graph showing throughput (Mbps) over time](image)

![Graph showing per-packet one-way delay (ms) over time](image)
Run 4: Statistics of WebRTC media

Start at: 2018-04-18 20:43:30
End at: 2018-04-18 20:44:00

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 135.298 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 135.342 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 135.276 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 135.324 ms
  Loss rate: 0.49%
Run 4: Report of WebRTC media — Data Link
Run 5: Statistics of WebRTC media

Start at: 2018-04-18 21:01:49
End at: 2018-04-18 21:02:19

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.472 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.476 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 135.226 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 153.364 ms
  Loss rate: 0.49%
Run 5: Report of WebRTC media — Data Link

![Graph showing data link throughput and per-packet round-trip delay for different flows.](image-url)
Run 6: Statistics of WebRTC media

Start at: 2018-04-18 21:20:06
End at: 2018-04-18 21:20:36

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.662 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.559 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.052 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.708 ms
  Loss rate: 0.48%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-04-18 21:38:09
End at: 2018-04-18 21:38:39

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.201 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 136.142 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 136.205 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 136.260 ms
Loss rate: 0.41%
Run 7: Report of WebRTC media — Data Link

[Graph showing throughput and per-packet round-trip delay for three flows over time.]
Run 8: Statistics of WebRTC media

Start at: 2018-04-18 21:56:00
End at: 2018-04-18 21:56:30

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.627 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.650 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.533 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.605 ms
  Loss rate: 0.49%
Run 8: Report of WebRTC media — Data Link

**Graph 1:** Throughput (Mbps) over time for different flows.

- **Flow 1 ingress** (mean 0.06 Mbps)
- **Flow 1 egress** (mean 0.06 Mbps)
- **Flow 2 ingress** (mean 0.06 Mbps)
- **Flow 2 egress** (mean 0.06 Mbps)
- **Flow 3 ingress** (mean 0.05 Mbps)
- **Flow 3 egress** (mean 0.05 Mbps)

**Graph 2:** Per-packet one-way delay (ms) over time for different flows.

- **Flow 1** (95th percentile 136.65 ms)
- **Flow 2** (95th percentile 136.53 ms)
- **Flow 3** (95th percentile 136.60 ms)
Run 9: Statistics of WebRTC media


# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.16 Mbit/s
  95th percentile per-packet one-way delay: 136.579 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.585 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.06 Mbit/s
  95th percentile per-packet one-way delay: 136.057 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.05 Mbit/s
  95th percentile per-packet one-way delay: 136.675 ms
  Loss rate: 0.49%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

End at: 2018-04-18 22:32:07

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.749 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 136.808 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 136.212 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 136.284 ms
Loss rate: 0.48%
Run 10: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 0.06 Mbit/s)
- Flow 1 egress (mean 0.06 Mbit/s)
- Flow 2 ingress (mean 0.06 Mbit/s)
- Flow 2 egress (mean 0.06 Mbit/s)
- Flow 3 ingress (mean 0.05 Mbit/s)
- Flow 3 egress (mean 0.05 Mbit/s)

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

- Flow 1 (95th percentile 136.81 ms)
- Flow 2 (95th percentile 136.21 ms)
- Flow 3 (95th percentile 136.28 ms)
Run 1: Statistics of Sprout

Start at: 2018-04-18 19:54:37

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.77 Mbit/s
  95th percentile per-packet one-way delay: 136.008 ms
  Loss rate: 1.40%
-- Flow 1:
  Average throughput: 0.36 Mbit/s
  95th percentile per-packet one-way delay: 135.766 ms
  Loss rate: 0.88%
-- Flow 2:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 136.042 ms
  Loss rate: 1.26%
-- Flow 3:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 135.665 ms
  Loss rate: 2.99%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-04-18 20:12:44

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.77 Mbit/s
  95th percentile per-packet one-way delay: 136.379 ms
  Loss rate: 1.44%
-- Flow 1:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 135.350 ms
  Loss rate: 1.01%
-- Flow 2:
  Average throughput: 0.35 Mbit/s
  95th percentile per-packet one-way delay: 136.081 ms
  Loss rate: 1.32%
-- Flow 3:
  Average throughput: 0.48 Mbit/s
  95th percentile per-packet one-way delay: 136.473 ms
  Loss rate: 2.69%
Run 2: Report of Sprout — Data Link

![Graph showing data link throughput and delay for different flows.](image)

- Throughput (Mbps):
  - Flow 1 ingress (mean 0.38 Mbps)
  - Flow 1 egress (mean 0.38 Mbps)
  - Flow 2 ingress (mean 0.35 Mbps)
  - Flow 2 egress (mean 0.35 Mbps)
  - Flow 3 ingress (mean 0.48 Mbps)
  - Flow 3 egress (mean 0.48 Mbps)

- Per-packet round-trip delay (ms):
  - Flow 1 (95th percentile 135.35 ms)
  - Flow 2 (95th percentile 136.08 ms)
  - Flow 3 (95th percentile 136.47 ms)
Run 3: Statistics of Sprout

Start at: 2018-04-18 20:30:34
End at: 2018-04-18 20:31:04

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 136.608 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 136.629 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 136.600 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 136.370 ms
Loss rate: 1.92%
Run 3: Report of Sprout — Data Link

[Graph showing throughput and per-packet one-way delay over time for different flows (Flow 1, Flow 2, Flow 3) with specified mean throughputs for ingress and egress.]
Run 4: Statistics of Sprout

End at: 2018-04-18 20:49:08

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.91 Mbit/s
  95th percentile per-packet one-way delay: 136.379 ms
  Loss rate: 1.55%
-- Flow 1:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 136.412 ms
  Loss rate: 0.96%
-- Flow 2:
  Average throughput: 0.50 Mbit/s
  95th percentile per-packet one-way delay: 135.557 ms
  Loss rate: 1.85%
-- Flow 3:
  Average throughput: 0.55 Mbit/s
  95th percentile per-packet one-way delay: 136.102 ms
  Loss rate: 2.31%
Run 4: Report of Sprout — Data Link

\begin{center}
\includegraphics[width=\textwidth]{run_data.png}
\end{center}

\begin{center}
\includegraphics[width=\textwidth]{delay_data.png}
\end{center}

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Run 5: Statistics of Sprout

Start at: 2018-04-18 21:06:58
End at: 2018-04-18 21:07:28

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 0.81 Mbit/s
 95th percentile per-packet one-way delay: 136.719 ms
 Loss rate: 0.92%
-- Flow 1:
 Average throughput: 0.37 Mbit/s
 95th percentile per-packet one-way delay: 136.750 ms
 Loss rate: 1.02%
-- Flow 2:
 Average throughput: 0.41 Mbit/s
 95th percentile per-packet one-way delay: 136.502 ms
 Loss rate: 1.28%
-- Flow 3:
 Average throughput: 0.51 Mbit/s
 95th percentile per-packet one-way delay: 136.096 ms
 Loss rate: 0.08%
Run 5: Report of Sprout — Data Link

![Graph showing throughput and delay over time]

Throughput (Mbit/s)

Time (s)

- Flow 1 ingress (mean 0.37 Mbit/s)
- Flow 1 egress (mean 0.37 Mbit/s)
- Flow 2 ingress (mean 0.41 Mbit/s)
- Flow 2 egress (mean 0.41 Mbit/s)
- Flow 3 ingress (mean 0.50 Mbit/s)
- Flow 3 egress (mean 0.51 Mbit/s)

Delay (ms)

Time (s)

- Flow 1 (95th percentile 136.75 ms)
- Flow 2 (95th percentile 136.50 ms)
- Flow 3 (95th percentile 136.10 ms)
Run 6: Statistics of Sprout

End at: 2018-04-18 21:25:44

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.87 Mbit/s
  95th percentile per-packet one-way delay: 136.460 ms
  Loss rate: 1.20%
-- Flow 1:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 136.164 ms
  Loss rate: 0.93%
-- Flow 2:
  Average throughput: 0.53 Mbit/s
  95th percentile per-packet one-way delay: 136.125 ms
  Loss rate: 1.24%
-- Flow 3:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.564 ms
  Loss rate: 1.84%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

End at: 2018-04-18 21:43:46

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.80 Mbit/s
  95th percentile per-packet one-way delay: 136.605 ms
  Loss rate: 1.30%
-- Flow 1:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 136.639 ms
  Loss rate: 0.93%
-- Flow 2:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 136.441 ms
  Loss rate: 1.53%
-- Flow 3:
  Average throughput: 0.53 Mbit/s
  95th percentile per-packet one-way delay: 136.239 ms
  Loss rate: 1.79%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-04-18 22:01:06
End at: 2018-04-18 22:01:36

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.80 Mbit/s
  95th percentile per-packet one-way delay: 136.475 ms
  Loss rate: 1.35%
-- Flow 1:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 136.469 ms
  Loss rate: 1.13%
-- Flow 2:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 136.172 ms
  Loss rate: 1.24%
-- Flow 3:
  Average throughput: 0.45 Mbit/s
  95th percentile per-packet one-way delay: 136.529 ms
  Loss rate: 2.11%
Run 9: Statistics of Sprout

Start at: 2018-04-18 22:19:01

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 136.465 ms
Loss rate: 0.49%
-- Flow 1:
95th percentile per-packet one-way delay: 136.156 ms
Loss rate: 0.03%
-- Flow 2:
95th percentile per-packet one-way delay: 136.513 ms
Loss rate: 1.28%
-- Flow 3:
95th percentile per-packet one-way delay: 136.409 ms
Loss rate: 0.22%
Run 9: Report of Sprout — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 0.39 Mbit/s)
Flow 1 egress (mean 0.39 Mbit/s)
Flow 2 ingress (mean 0.41 Mbit/s)
Flow 2 egress (mean 0.41 Mbit/s)
Flow 3 ingress (mean 0.43 Mbit/s)
Flow 3 egress (mean 0.45 Mbit/s)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.16 ms)
Flow 2 (95th percentile 136.51 ms)
Flow 3 (95th percentile 136.41 ms)
Run 10: Statistics of Sprout

Start at: 2018-04-18 22:36:45
End at: 2018-04-18 22:37:15

# Below is generated by plot.py at 2018-04-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.80 Mbit/s
  95th percentile per-packet one-way delay: 136.702 ms
  Loss rate: 1.26%
-- Flow 1:
  Average throughput: 0.34 Mbit/s
  95th percentile per-packet one-way delay: 136.650 ms
  Loss rate: 1.26%
-- Flow 2:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 136.714 ms
  Loss rate: 1.65%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 136.744 ms
  Loss rate: 0.46%
Run 10: Report of Sprout — Data Link
Run 1: Statistics of TaoVA-100x

End at: 2018-04-18 19:43:19

# Below is generated by plot.py at 2018-04-19 02:15:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 300.10 Mbit/s
95th percentile per-packet one-way delay: 143.355 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 169.15 Mbit/s
95th percentile per-packet one-way delay: 137.148 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 146.19 Mbit/s
95th percentile per-packet one-way delay: 147.401 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 107.64 Mbit/s
95th percentile per-packet one-way delay: 154.139 ms
Loss rate: 4.39%
Run 1: Report of TaoVA-100x — Data Link

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

Flow 1 ingress (mean 167.61 Mbit/s)  Flow 1 egress (mean 169.15 Mbit/s)
Flow 2 ingress (mean 145.35 Mbit/s)  Flow 2 egress (mean 146.19 Mbit/s)
Flow 3 ingress (mean 109.47 Mbit/s)  Flow 3 egress (mean 107.64 Mbit/s)

Flow 1 (95th percentile 137.15 ms)  Flow 2 (95th percentile 147.40 ms)  Flow 3 (95th percentile 154.14 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-18 20:00:59
End at: 2018-04-18 20:01:29

# Below is generated by plot.py at 2018-04-19 02:17:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 347.83 Mbit/s
  95th percentile per-packet one-way delay: 138.816 ms
  Loss rate: 1.19%
-- Flow 1:
  Average throughput: 188.16 Mbit/s
  95th percentile per-packet one-way delay: 138.030 ms
  Loss rate: 0.83%
-- Flow 2:
  Average throughput: 179.07 Mbit/s
  95th percentile per-packet one-way delay: 140.729 ms
  Loss rate: 1.00%
-- Flow 3:
  Average throughput: 126.48 Mbit/s
  95th percentile per-packet one-way delay: 137.978 ms
  Loss rate: 3.36%
Run 2: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress (mean 188.02 Mbit/s)**
- **Flow 1 egress (mean 188.16 Mbit/s)**
- **Flow 2 ingress (mean 178.41 Mbit/s)**
- **Flow 2 egress (mean 179.07 Mbit/s)**
- **Flow 3 ingress (mean 127.25 Mbit/s)**
- **Flow 3 egress (mean 126.48 Mbit/s)**

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

- **Flow 1 (95th percentile 138.03 ms)**
- **Flow 2 (95th percentile 140.73 ms)**
- **Flow 3 (95th percentile 137.98 ms)**
Run 3: Statistics of TaoVA-100x

Start at: 2018-04-18 20:19:03
End at: 2018-04-18 20:19:33

# Below is generated by plot.py at 2018-04-19 02:17:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 190.08 Mbit/s
95th percentile per-packet one-way delay: 136.389 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 177.43 Mbit/s
95th percentile per-packet one-way delay: 136.393 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 12.82 Mbit/s
95th percentile per-packet one-way delay: 135.918 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 136.401 ms
Loss rate: 2.87%
Run 3: Report of TaoVA-100x — Data Link

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

- **Flow 1 ingress (mean 177.95 Mbit/s)**
- **Flow 1 egress (mean 177.43 Mbit/s)**
- **Flow 2 ingress (mean 12.83 Mbit/s)**
- **Flow 2 egress (mean 12.82 Mbit/s)**
- **Flow 3 ingress (mean 12.82 Mbit/s)**
- **Flow 3 egress (mean 12.80 Mbit/s)**

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

- **Flow 1 (95th percentile 136.39 ms)**
- **Flow 2 (95th percentile 135.92 ms)**
- **Flow 3 (95th percentile 136.40 ms)**

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Run 4: Statistics of TaoVA-100x

Start at: 2018-04-18 20:36:48
End at: 2018-04-18 20:37:18

# Below is generated by plot.py at 2018-04-19 02:17:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 261.63 Mbit/s
95th percentile per-packet one-way delay: 136.444 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 202.19 Mbit/s
95th percentile per-packet one-way delay: 136.329 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 13.20 Mbit/s
95th percentile per-packet one-way delay: 136.560 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 156.45 Mbit/s
95th percentile per-packet one-way delay: 137.022 ms
Loss rate: 2.90%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-04-18 20:54:56

# Below is generated by plot.py at 2018-04-19 02:18:28
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 330.23 Mbit/s
   95th percentile per-packet one-way delay: 136.541 ms
   Loss rate: 1.33%
-- Flow 1:
   Average throughput: 205.83 Mbit/s
   95th percentile per-packet one-way delay: 136.802 ms
   Loss rate: 1.10%
-- Flow 2:
   Average throughput: 181.68 Mbit/s
   95th percentile per-packet one-way delay: 135.953 ms
   Loss rate: 1.66%
-- Flow 3:
   Average throughput: 12.49 Mbit/s
   95th percentile per-packet one-way delay: 136.164 ms
   Loss rate: 3.01%
Run 5: Report of TaoVA-100x — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image2)
Run 6: Statistics of TaoVA-100x


# Below is generated by plot.py at 2018-04-19 02:18:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 322.76 Mbit/s
  95th percentile per-packet one-way delay: 140.452 ms
  Loss rate: 1.17%
-- Flow 1:
  Average throughput: 172.79 Mbit/s
  95th percentile per-packet one-way delay: 139.026 ms
  Loss rate: 0.51%
-- Flow 2:
  Average throughput: 162.26 Mbit/s
  95th percentile per-packet one-way delay: 142.884 ms
  Loss rate: 0.76%
-- Flow 3:
  Average throughput: 132.83 Mbit/s
  95th percentile per-packet one-way delay: 141.066 ms
  Loss rate: 4.64%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

End at: 2018-04-18 21:32:01

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.17 Mbit/s
95th percentile per-packet one-way delay: 136.838 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 194.61 Mbit/s
95th percentile per-packet one-way delay: 136.798 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 195.58 Mbit/s
95th percentile per-packet one-way delay: 136.920 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 12.74 Mbit/s
95th percentile per-packet one-way delay: 137.404 ms
Loss rate: 2.82%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

End at: 2018-04-18 21:50:05

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 196.89 Mbit/s
  95th percentile per-packet one-way delay: 136.594 ms
  Loss rate: 2.04%
-- Flow 1:
  Average throughput: 13.22 Mbit/s
  95th percentile per-packet one-way delay: 136.035 ms
  Loss rate: 0.93%
-- Flow 2:
  Average throughput: 193.02 Mbit/s
  95th percentile per-packet one-way delay: 136.535 ms
  Loss rate: 1.33%
-- Flow 3:
  Average throughput: 171.81 Mbit/s
  95th percentile per-packet one-way delay: 136.977 ms
  Loss rate: 3.89%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x


# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.70 Mbit/s
95th percentile per-packet one-way delay: 136.049 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 203.88 Mbit/s
95th percentile per-packet one-way delay: 136.032 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 13.10 Mbit/s
95th percentile per-packet one-way delay: 136.680 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 136.058 ms
Loss rate: 2.92%
Run 9: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 294.11 Mbit/s)  Flow 1 egress (mean 203.88 Mbit/s)
Flow 2 ingress (mean 13.11 Mbit/s)  Flow 2 egress (mean 13.10 Mbit/s)
Flow 3 ingress (mean 12.76 Mbit/s)  Flow 3 egress (mean 12.73 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.03 ms)  Flow 2 (95th percentile 136.68 ms)  Flow 3 (95th percentile 136.06 ms)
Run 10: Statistics of TaoVA-100x


# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.39 Mbit/s
95th percentile per-packet one-way delay: 135.996 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 13.35 Mbit/s
95th percentile per-packet one-way delay: 135.688 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 14.93 Mbit/s
95th percentile per-packet one-way delay: 136.029 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 12.79 Mbit/s
95th percentile per-packet one-way delay: 136.029 ms
Loss rate: 2.92%
Run 10: Report of TaoVA-100x — Data Link

Throughput (Mbps) vs. Time (s)

- Flow 1 ingress (mean 13.35 Mbps)
- Flow 1 egress (mean 13.35 Mbps)
- Flow 2 ingress (mean 14.92 Mbps)
- Flow 2 egress (mean 14.93 Mbps)
- Flow 3 ingress (mean 12.81 Mbps)
- Flow 3 egress (mean 12.79 Mbps)

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

- Flow 1 (95th percentile 135.69 ms)
- Flow 2 (95th percentile 136.03 ms)
- Flow 3 (95th percentile 136.03 ms)
Run 1: Statistics of TCP Vegas

End at: 2018-04-18 19:37:50

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.22 Mbit/s
  95th percentile per-packet one-way delay: 144.297 ms
  Loss rate: 1.05%
-- Flow 1:
  Average throughput: 82.49 Mbit/s
  95th percentile per-packet one-way delay: 144.283 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 20.65 Mbit/s
  95th percentile per-packet one-way delay: 144.812 ms
  Loss rate: 1.35%
-- Flow 3:
  Average throughput: 0.65 Mbit/s
  95th percentile per-packet one-way delay: 138.825 ms
  Loss rate: 7.41%
Run 1: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 82.55 Mbit/s)
- Flow 1 egress (mean 82.49 Mbit/s)
- Flow 2 ingress (mean 20.64 Mbit/s)
- Flow 2 egress (mean 20.65 Mbit/s)
- Flow 3 ingress (mean 0.69 Mbit/s)
- Flow 3 egress (mean 0.65 Mbit/s)
Run 2: Statistics of TCP Vegas


# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 140.60 Mbit/s
  95th percentile per-packet one-way delay: 143.655 ms
  Loss rate: 1.16%
-- Flow 1:
  Average throughput: 84.07 Mbit/s
  95th percentile per-packet one-way delay: 143.891 ms
  Loss rate: 0.99%
-- Flow 2:
  Average throughput: 70.74 Mbit/s
  95th percentile per-packet one-way delay: 143.229 ms
  Loss rate: 1.02%
-- Flow 3:
  Average throughput: 31.26 Mbit/s
  95th percentile per-packet one-way delay: 140.256 ms
  Loss rate: 3.09%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

End at: 2018-04-18 20:14:03

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.13 Mbit/s
95th percentile per-packet one-way delay: 145.423 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 31.58 Mbit/s
95th percentile per-packet one-way delay: 142.142 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 79.85 Mbit/s
95th percentile per-packet one-way delay: 145.068 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 60.33 Mbit/s
95th percentile per-packet one-way delay: 151.261 ms
Loss rate: 1.24%
Run 3: Report of TCP Vegas — Data Link

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

*Legend for Graphs:*
- Flow 1 ingress (mean 31.60 Mbit/s)
- Flow 1 egress (mean 31.58 Mbit/s)
- Flow 2 ingress (mean 80.15 Mbit/s)
- Flow 2 egress (mean 79.85 Mbit/s)
- Flow 3 ingress (mean 59.37 Mbit/s)
- Flow 3 egress (mean 60.33 Mbit/s)

*Legend for Per-packet one-way delay:*
- Flow 1 (95th percentile 142.14 ms)
- Flow 2 (95th percentile 145.07 ms)
- Flow 3 (95th percentile 151.26 ms)
Run 4: Statistics of TCP Vegas


# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.10 Mbit/s
95th percentile per-packet one-way delay: 139.415 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 33.76 Mbit/s
95th percentile per-packet one-way delay: 138.890 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 27.67 Mbit/s
95th percentile per-packet one-way delay: 143.724 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 27.70 Mbit/s
95th percentile per-packet one-way delay: 138.240 ms
Loss rate: 3.17%
Run 4: Report of TCP Vegas — Data Link

![Graph showing TCP Vegas data link performance over time with throughput and packet delay metrics for different flows.](image-url)
Run 5: Statistics of TCP Vegas

End at: 2018-04-18 20:49:58

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 102.08 Mbit/s
  95th percentile per-packet one-way delay: 142.596 ms
  Loss rate: 1.07%
-- Flow 1:
  Average throughput: 62.24 Mbit/s
  95th percentile per-packet one-way delay: 142.849 ms
  Loss rate: 0.54%
-- Flow 2:
  Average throughput: 46.84 Mbit/s
  95th percentile per-packet one-way delay: 141.885 ms
  Loss rate: 1.52%
-- Flow 3:
  Average throughput: 27.31 Mbit/s
  95th percentile per-packet one-way delay: 139.570 ms
  Loss rate: 3.14%
Run 5: Report of TCP Vegas — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 62.01 Mbit/s)
- Flow 1 egress (mean 62.24 Mbit/s)
- Flow 2 ingress (mean 46.88 Mbit/s)
- Flow 2 egress (mean 46.84 Mbit/s)
- Flow 3 ingress (mean 27.42 Mbit/s)
- Flow 3 egress (mean 27.31 Mbit/s)

![Delay Graph](image2)

- Flow 1 (95th percentile 142.95 ms)
- Flow 2 (95th percentile 141.88 ms)
- Flow 3 (95th percentile 139.57 ms)
Run 6: Statistics of TCP Vegas

End at: 2018-04-18 21:08:18

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 124.71 Mbit/s
  95th percentile per-packet one-way delay: 143.988 ms
  Loss rate: 1.09%
-- Flow 1:
  Average throughput: 84.68 Mbit/s
  95th percentile per-packet one-way delay: 143.951 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 31.23 Mbit/s
  95th percentile per-packet one-way delay: 141.037 ms
  Loss rate: 1.52%
-- Flow 3:
  Average throughput: 60.72 Mbit/s
  95th percentile per-packet one-way delay: 147.581 ms
  Loss rate: 1.11%
Run 6: Report of TCP Vegas — Data Link
Run 7: Statistics of TCP Vegas

Start at: 2018-04-18 21:26:04
End at: 2018-04-18 21:26:34

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 65.18 Mbit/s
  95th percentile per-packet one-way delay: 138.171 ms
  Loss rate: 1.59%
  -- Flow 1:
  Average throughput: 24.94 Mbit/s
  95th percentile per-packet one-way delay: 137.497 ms
  Loss rate: 1.00%
  -- Flow 2:
  Average throughput: 45.11 Mbit/s
  95th percentile per-packet one-way delay: 136.856 ms
  Loss rate: 1.53%
  -- Flow 3:
  Average throughput: 31.87 Mbit/s
  95th percentile per-packet one-way delay: 142.566 ms
  Loss rate: 3.18%
Run 8: Statistics of TCP Vegas

Start at: 2018-04-18 21:44:06
End at: 2018-04-18 21:44:36

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 96.08 Mbit/s
  95th percentile per-packet one-way delay: 143.570 ms
  Loss rate: 1.63%
-- Flow 1:
  Average throughput: 28.20 Mbit/s
  95th percentile per-packet one-way delay: 141.985 ms
  Loss rate: 0.97%
-- Flow 2:
  Average throughput: 81.19 Mbit/s
  95th percentile per-packet one-way delay: 144.225 ms
  Loss rate: 1.51%
-- Flow 3:
  Average throughput: 44.22 Mbit/s
  95th percentile per-packet one-way delay: 138.448 ms
  Loss rate: 3.35%
Run 8: Report of TCP Vegas — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 28.21 Mbps)
- Flow 1 egress (mean 28.20 Mbps)
- Flow 2 ingress (mean 81.31 Mbps)
- Flow 2 egress (mean 81.19 Mbps)
- Flow 3 ingress (mean 44.49 Mbps)
- Flow 3 egress (mean 44.22 Mbps)

Latency (ms):

- Flow 1 (95th percentile 141.99 ms)
- Flow 2 (95th percentile 144.22 ms)
- Flow 3 (95th percentile 138.45 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-04-18 22:01:56
End at: 2018-04-18 22:02:26

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.56 Mbit/s
95th percentile per-packet one-way delay: 144.555 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 25.44 Mbit/s
95th percentile per-packet one-way delay: 143.592 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 37.32 Mbit/s
95th percentile per-packet one-way delay: 140.299 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 70.01 Mbit/s
95th percentile per-packet one-way delay: 146.193 ms
Loss rate: 3.72%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

End at: 2018-04-18 22:20:21

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 64.36 Mbit/s
  95th percentile per-packet one-way delay: 138.121 ms
  Loss rate: 1.59%
-- Flow 1:
  Average throughput: 28.13 Mbit/s
  95th percentile per-packet one-way delay: 138.531 ms
  Loss rate: 0.98%
-- Flow 2:
  Average throughput: 37.98 Mbit/s
  95th percentile per-packet one-way delay: 137.347 ms
  Loss rate: 1.49%
-- Flow 3:
  Average throughput: 34.04 Mbit/s
  95th percentile per-packet one-way delay: 138.515 ms
  Loss rate: 3.32%
Run 10: Report of TCP Vegas — Data Link

- Throughput (Mbps):
  - Flow 1 ingress (mean 28.15 Mbps)
  - Flow 1 egress (mean 28.13 Mbps)
  - Flow 2 ingress (mean 38.03 Mbps)
  - Flow 2 egress (mean 37.98 Mbps)
  - Flow 3 ingress (mean 34.25 Mbps)
  - Flow 3 egress (mean 34.04 Mbps)

- Per packet one-way delay (ms):
  - Flow 1 (95th percentile 138.53 ms)
  - Flow 2 (95th percentile 137.35 ms)
  - Flow 3 (95th percentile 138.51 ms)
Run 1: Statistics of Verus


# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 169.33 Mbit/s
95th percentile per-packet one-way delay: 217.969 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 69.77 Mbit/s
95th percentile per-packet one-way delay: 210.161 ms
Loss rate: 1.94%
-- Flow 2:
Average throughput: 121.41 Mbit/s
95th percentile per-packet one-way delay: 195.750 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 60.78 Mbit/s
95th percentile per-packet one-way delay: 293.595 ms
Loss rate: 0.15%
Run 1: Report of Verus — Data Link

![Graph showing throughput and packet one-way delay](image-url)
Run 2: Statistics of Verus

Start at: 2018-04-18 20:06:38
End at: 2018-04-18 20:07:08

# Below is generated by plot.py at 2018-04-19 02:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.41 Mbit/s
95th percentile per-packet one-way delay: 153.381 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 56.17 Mbit/s
95th percentile per-packet one-way delay: 159.360 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 62.46 Mbit/s
95th percentile per-packet one-way delay: 144.253 ms
Loss rate: 2.37%
-- Flow 3:
Average throughput: 27.75 Mbit/s
95th percentile per-packet one-way delay: 145.756 ms
Loss rate: 7.87%
Run 2: Report of Verus — Data Link

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

**Throughput (Mb/s):**
- Flow 1 ingress (mean 56.28 Mb/s)
- Flow 1 egress (mean 56.17 Mb/s)
- Flow 2 ingress (mean 65.11 Mb/s)
- Flow 2 egress (mean 62.46 Mb/s)
- Flow 3 ingress (mean 26.22 Mb/s)
- Flow 3 egress (mean 27.75 Mb/s)

**Packet round trip delay (ms):**
- Flow 1 (95th percentile 159.36 ms)
- Flow 2 (95th percentile 144.25 ms)
- Flow 3 (95th percentile 145.76 ms)
Run 3: Statistics of Verus

End at: 2018-04-18 20:24:52

# Below is generated by plot.py at 2018-04-19 02:23:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 190.27 Mbit/s
  95th percentile per-packet one-way delay: 163.755 ms
  Loss rate: 1.67%
-- Flow 1:
  Average throughput: 132.54 Mbit/s
  95th percentile per-packet one-way delay: 166.346 ms
  Loss rate: 1.30%
-- Flow 2:
  Average throughput: 76.17 Mbit/s
  95th percentile per-packet one-way delay: 158.982 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 30.98 Mbit/s
  95th percentile per-packet one-way delay: 148.550 ms
  Loss rate: 12.79%
Run 3: Report of Verus — Data Link
Run 4: Statistics of Verus

End at: 2018-04-18 20:42:49

# Below is generated by plot.py at 2018-04-19 02:25:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 265.88 Mbit/s
  95th percentile per-packet one-way delay: 316.374 ms
  Loss rate: 7.60%
  -- Flow 1:
  Average throughput: 160.96 Mbit/s
  95th percentile per-packet one-way delay: 338.370 ms
  Loss rate: 7.46%
  -- Flow 2:
  Average throughput: 135.23 Mbit/s
  95th percentile per-packet one-way delay: 275.271 ms
  Loss rate: 5.17%
  -- Flow 3:
  Average throughput: 52.46 Mbit/s
  95th percentile per-packet one-way delay: 342.978 ms
  Loss rate: 20.75%
Run 4: Report of Verus — Data Link

![Graph showing network performance metrics](image)

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Run 5: Statistics of Verus

Start at: 2018-04-18 21:00:35
End at: 2018-04-18 21:01:05

# Below is generated by plot.py at 2018-04-19 02:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 291.00 Mbit/s
95th percentile per-packet one-way delay: 320.566 ms
Loss rate: 5.04%
-- Flow 1:
Average throughput: 151.67 Mbit/s
95th percentile per-packet one-way delay: 251.392 ms
Loss rate: 2.07%
-- Flow 2:
Average throughput: 176.74 Mbit/s
95th percentile per-packet one-way delay: 378.884 ms
Loss rate: 8.77%
-- Flow 3:
Average throughput: 73.42 Mbit/s
95th percentile per-packet one-way delay: 239.286 ms
Loss rate: 4.60%
Run 5: Report of Verus — Data Link
Run 6: Statistics of Verus

Start at: 2018-04-18 21:18:54

# Below is generated by plot.py at 2018-04-19 02:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 271.22 Mbit/s
95th percentile per-packet one-way delay: 310.433 ms
Loss rate: 4.02%
-- Flow 1:
Average throughput: 146.97 Mbit/s
95th percentile per-packet one-way delay: 217.846 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 157.20 Mbit/s
95th percentile per-packet one-way delay: 368.228 ms
Loss rate: 7.22%
-- Flow 3:
Average throughput: 67.13 Mbit/s
95th percentile per-packet one-way delay: 199.572 ms
Loss rate: 6.39%
Run 6: Report of Verus — Data Link

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

Start at: 2018-04-18 21:37:08
End at: 2018-04-18 21:37:38

# Below is generated by plot.py at 2018-04-19 02:25:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 146.33 Mbit/s
  95th percentile per-packet one-way delay: 239.539 ms
  Loss rate: 3.47%
-- Flow 1:
  Average throughput: 66.75 Mbit/s
  95th percentile per-packet one-way delay: 148.513 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 71.27 Mbit/s
  95th percentile per-packet one-way delay: 264.456 ms
  Loss rate: 2.41%
-- Flow 3:
  Average throughput: 102.87 Mbit/s
  95th percentile per-packet one-way delay: 312.852 ms
  Loss rate: 11.03%
Run 7: Report of Verus — Data Link

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

- **Flow 1 Ingress** (mean 66.18 Mbit/s)
- **Flow 1 Egress** (mean 66.75 Mbit/s)
- **Flow 2 Ingress** (mean 72.02 Mbit/s)
- **Flow 2 Egress** (mean 71.27 Mbit/s)
- **Flow 3 Ingress** (mean 100.72 Mbit/s)
- **Flow 3 Egress** (mean 102.67 Mbit/s)

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

- **Flow 1** (95th percentile 148.51 ms)
- **Flow 2** (95th percentile 264.46 ms)
- **Flow 3** (95th percentile 312.85 ms)
Run 8: Statistics of Verus

Start at: 2018-04-18 21:54:57

# Below is generated by plot.py at 2018-04-19 02:25:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 158.38 Mbit/s
  95th percentile per-packet one-way delay: 246.920 ms
  Loss rate: 2.27%
-- Flow 1:
  Average throughput: 102.86 Mbit/s
  95th percentile per-packet one-way delay: 182.269 ms
  Loss rate: 1.69%
-- Flow 2:
  Average throughput: 56.38 Mbit/s
  95th percentile per-packet one-way delay: 156.298 ms
  Loss rate: 1.15%
-- Flow 3:
  Average throughput: 57.34 Mbit/s
  95th percentile per-packet one-way delay: 325.206 ms
  Loss rate: 7.53%
Run 8: Report of Verus — Data Link

![Throughput vs Time](image1)

- Flow 1 ingress (mean 104.26 Mbit/s)
- Flow 1 egress (mean 102.86 Mbit/s)
- Flow 2 ingress (mean 56.25 Mbit/s)
- Flow 2 egress (mean 56.35 Mbit/s)
- Flow 3 ingress (mean 60.24 Mbit/s)
- Flow 3 egress (mean 57.34 Mbit/s)

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

- Flow 1 (95th percentile 182.27 ms)
- Flow 2 (95th percentile 156.30 ms)
- Flow 3 (95th percentile 323.21 ms)
Run 9: Statistics of Verus


# Below is generated by plot.py at 2018-04-19 02:26:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 190.08 Mbit/s
95th percentile per-packet one-way delay: 170.067 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 148.38 Mbit/s
95th percentile per-packet one-way delay: 166.363 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 49.20 Mbit/s
95th percentile per-packet one-way delay: 163.287 ms
Loss rate: 6.62%
-- Flow 3:
Average throughput: 31.67 Mbit/s
95th percentile per-packet one-way delay: 200.681 ms
Loss rate: 8.64%
Run 9: Report of Verus — Data Link
Run 10: Statistics of Verus

Start at: 2018-04-18 22:30:27
End at: 2018-04-18 22:30:58

# Below is generated by plot.py at 2018-04-19 02:27:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 255.54 Mbit/s
95th percentile per-packet one-way delay: 185.709 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 193.21 Mbit/s
95th percentile per-packet one-way delay: 191.982 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 77.98 Mbit/s
95th percentile per-packet one-way delay: 167.627 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 33.26 Mbit/s
95th percentile per-packet one-way delay: 166.760 ms
Loss rate: 0.40%
Run 10: Report of Verus — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 194.55 Mbps)
  - Flow 1 egress (mean 193.21 Mbps)
  - Flow 2 ingress (mean 77.06 Mbps)
  - Flow 2 egress (mean 77.98 Mbps)
  - Flow 3 ingress (mean 32.47 Mbps)
  - Flow 3 egress (mean 33.26 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 191.98 ms)
  - Flow 2 (95th percentile 167.63 ms)
  - Flow 3 (95th percentile 166.76 ms)
Run 1: Statistics of Copa

Start at: 2018-04-18 19:47:19
End at: 2018-04-18 19:47:49

# Below is generated by plot.py at 2018-04-19 02:27:33
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 132.03 Mbit/s
  95th percentile per-packet one-way delay: 136.382 ms
  Loss rate: 1.57%
-- Flow 1:
  Average throughput: 73.17 Mbit/s
  95th percentile per-packet one-way delay: 136.324 ms
  Loss rate: 0.95%
-- Flow 2:
  Average throughput: 68.66 Mbit/s
  95th percentile per-packet one-way delay: 136.383 ms
  Loss rate: 1.76%
-- Flow 3:
  Average throughput: 41.24 Mbit/s
  95th percentile per-packet one-way delay: 136.614 ms
  Loss rate: 4.24%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-04-18 20:05:33
End at: 2018-04-18 20:06:03

# Below is generated by plot.py at 2018-04-19 02:27:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.63 Mbit/s
95th percentile per-packet one-way delay: 136.432 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 63.21 Mbit/s
95th percentile per-packet one-way delay: 136.114 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 72.08 Mbit/s
95th percentile per-packet one-way delay: 136.458 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 54.30 Mbit/s
95th percentile per-packet one-way delay: 136.473 ms
Loss rate: 1.66%
Run 2: Report of Copa — Data Link
Run 3: Statistics of Copa


# Below is generated by plot.py at 2018-04-19 02:28:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 135.88 Mbit/s
  95th percentile per-packet one-way delay: 136.504 ms
  Loss rate: 1.71%
-- Flow 1:
  Average throughput: 72.91 Mbit/s
  95th percentile per-packet one-way delay: 136.511 ms
  Loss rate: 1.03%
-- Flow 2:
  Average throughput: 64.10 Mbit/s
  95th percentile per-packet one-way delay: 135.994 ms
  Loss rate: 1.51%
-- Flow 3:
  Average throughput: 63.01 Mbit/s
  95th percentile per-packet one-way delay: 136.695 ms
  Loss rate: 4.47%
Run 3: Report of Copa — Data Link

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

Legend:
- Flow 1 ingress (mean 73.01 Mbit/s)
- Flow 1 egress (mean 72.91 Mbit/s)
- Flow 2 ingress (mean 64.20 Mbit/s)
- Flow 2 egress (mean 64.10 Mbit/s)
- Flow 3 ingress (mean 64.36 Mbit/s)
- Flow 3 egress (mean 63.01 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 136.51 ms)
- Flow 2 (95th percentile 135.99 ms)
- Flow 3 (95th percentile 136.69 ms)
Run 4: Statistics of Copa

Start at: 2018-04-18 20:41:15
End at: 2018-04-18 20:41:45

# Below is generated by plot.py at 2018-04-19 02:29:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.55 Mbit/s
95th percentile per-packet one-way delay: 136.028 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 58.64 Mbit/s
95th percentile per-packet one-way delay: 135.099 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 74.95 Mbit/s
95th percentile per-packet one-way delay: 136.104 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 65.46 Mbit/s
95th percentile per-packet one-way delay: 135.108 ms
Loss rate: 1.38%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-04-18 20:59:31
End at: 2018-04-18 21:00:01

# Below is generated by plot.py at 2018-04-19 02:29:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 134.60 Mbit/s
  95th percentile per-packet one-way delay: 136.404 ms
  Loss rate: 1.40%
-- Flow 1:
  Average throughput: 70.99 Mbit/s
  95th percentile per-packet one-way delay: 135.985 ms
  Loss rate: 0.61%
-- Flow 2:
  Average throughput: 68.30 Mbit/s
  95th percentile per-packet one-way delay: 136.485 ms
  Loss rate: 1.41%
-- Flow 3:
  Average throughput: 56.42 Mbit/s
  95th percentile per-packet one-way delay: 135.191 ms
  Loss rate: 4.33%
Run 5: Report of Copa — Data Link

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

Start at: 2018-04-18 21:17:50
End at: 2018-04-18 21:18:20

# Below is generated by plot.py at 2018-04-19 02:29:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.67 Mbit/s
95th percentile per-packet one-way delay: 136.614 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 73.84 Mbit/s
95th percentile per-packet one-way delay: 136.636 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 65.44 Mbit/s
95th percentile per-packet one-way delay: 135.909 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 38.48 Mbit/s
95th percentile per-packet one-way delay: 136.285 ms
Loss rate: 4.21%
Run 6: Report of Copa — Data Link
Run 7: Statistics of Copa

Start at: 2018-04-18 21:36:03
End at: 2018-04-18 21:36:33

# Below is generated by plot.py at 2018-04-19 02:30:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.31 Mbit/s
95th percentile per-packet one-way delay: 136.017 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 75.70 Mbit/s
95th percentile per-packet one-way delay: 135.942 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 67.40 Mbit/s
95th percentile per-packet one-way delay: 136.085 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 52.12 Mbit/s
95th percentile per-packet one-way delay: 136.033 ms
Loss rate: 4.24%
Run 7: Report of Copa — Data Link

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

Legend:
- Flow 1 ingress (mean 75.75 Mbit/s)
- Flow 1 egress (mean 75.70 Mbit/s)
- Flow 2 ingress (mean 67.45 Mbit/s)
- Flow 2 egress (mean 67.40 Mbit/s)
- Flow 3 ingress (mean 52.93 Mbit/s)
- Flow 3 egress (mean 52.12 Mbit/s)
Run 8: Statistics of Copa

Start at: 2018-04-18 21:53:54
End at: 2018-04-18 21:54:24

# Below is generated by plot.py at 2018-04-19 02:31:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 124.47 Mbit/s
  95th percentile per-packet one-way delay: 136.283 ms
  Loss rate: 1.61%
-- Flow 1:
  Average throughput: 65.69 Mbit/s
  95th percentile per-packet one-way delay: 135.897 ms
  Loss rate: 1.12%
-- Flow 2:
  Average throughput: 66.53 Mbit/s
  95th percentile per-packet one-way delay: 135.905 ms
  Loss rate: 1.44%
-- Flow 3:
  Average throughput: 45.40 Mbit/s
  95th percentile per-packet one-way delay: 136.576 ms
  Loss rate: 4.25%
Run 9: Statistics of Copa

Start at: 2018-04-18 22:11:45
End at: 2018-04-18 22:12:15

# Below is generated by plot.py at 2018-04-19 02:31:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.59 Mbit/s
95th percentile per-packet one-way delay: 136.360 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 69.72 Mbit/s
95th percentile per-packet one-way delay: 136.353 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 65.30 Mbit/s
95th percentile per-packet one-way delay: 135.261 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 32.64 Mbit/s
95th percentile per-packet one-way delay: 136.744 ms
Loss rate: 3.95%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa


# Below is generated by plot.py at 2018-04-19 02:31:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 132.05 Mbit/s
  95th percentile per-packet one-way delay: 135.107 ms
  Loss rate: 1.35%
-- Flow 1:
  Average throughput: 76.61 Mbit/s
  95th percentile per-packet one-way delay: 135.100 ms
  Loss rate: 0.87%
-- Flow 2:
  Average throughput: 70.56 Mbit/s
  95th percentile per-packet one-way delay: 135.113 ms
  Loss rate: 1.42%
-- Flow 3:
  Average throughput: 26.70 Mbit/s
  95th percentile per-packet one-way delay: 135.126 ms
  Loss rate: 5.07%
Run 10: Report of Copa — Data Link

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

- **Flow 1 ingress** (mean 76.58 Mbit/s)
- **Flow 1 egress** (mean 76.61 Mbit/s)
- **Flow 2 ingress** (mean 70.61 Mbit/s)
- **Flow 2 egress** (mean 70.56 Mbit/s)
- **Flow 3 ingress** (mean 27.36 Mbit/s)
- **Flow 3 egress** (mean 26.70 Mbit/s)
Run 1: Statistics of FillP

End at: 2018-04-18 19:39:34

# Below is generated by plot.py at 2018-04-19 02:49:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1172.79 Mbit/s
95th percentile per-packet one-way delay: 259.548 ms
Loss rate: 7.16%
-- Flow 1:
Average throughput: 635.71 Mbit/s
95th percentile per-packet one-way delay: 258.085 ms
Loss rate: 6.29%
-- Flow 2:
Average throughput: 569.69 Mbit/s
95th percentile per-packet one-way delay: 274.253 ms
Loss rate: 7.44%
-- Flow 3:
Average throughput: 491.95 Mbit/s
95th percentile per-packet one-way delay: 238.603 ms
Loss rate: 9.83%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

End at: 2018-04-18 19:57:44

# Below is generated by plot.py at 2018-04-19 02:49:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1201.62 Mbit/s
95th percentile per-packet one-way delay: 294.911 ms
Loss rate: 4.88%
-- Flow 1:
Average throughput: 628.88 Mbit/s
95th percentile per-packet one-way delay: 288.868 ms
Loss rate: 4.96%
-- Flow 2:
Average throughput: 635.19 Mbit/s
95th percentile per-packet one-way delay: 242.169 ms
Loss rate: 4.13%
-- Flow 3:
Average throughput: 469.79 Mbit/s
95th percentile per-packet one-way delay: 328.233 ms
Loss rate: 6.58%
Run 2: Report of FillP — Data Link

Throughput (Mbps)

- Flow 1 ingress (mean 655.65 Mbps)
- Flow 1 egress (mean 628.88 Mbps)
- Flow 2 ingress (mean 653.43 Mbps)
- Flow 2 egress (mean 635.19 Mbps)
- Flow 3 ingress (mean 489.03 Mbps)
- Flow 3 egress (mean 469.79 Mbps)

Per-packet delay (ms)

- Flow 1 (95th percentile 288.87 ms)
- Flow 2 (95th percentile 242.17 ms)
- Flow 3 (95th percentile 328.23 ms)
Run 3: Statistics of FillP

Start at: 2018-04-18 20:15:18
End at: 2018-04-18 20:15:48

# Below is generated by plot.py at 2018-04-19 02:49:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1128.72 Mbit/s
95th percentile per-packet one-way delay: 340.737 ms
Loss rate: 5.96%
-- Flow 1:
Average throughput: 605.04 Mbit/s
95th percentile per-packet one-way delay: 337.911 ms
Loss rate: 5.50%
-- Flow 2:
Average throughput: 559.72 Mbit/s
95th percentile per-packet one-way delay: 349.986 ms
Loss rate: 6.40%
-- Flow 3:
Average throughput: 472.07 Mbit/s
95th percentile per-packet one-way delay: 250.587 ms
Loss rate: 6.72%
Run 3: Report of FillP — Data Link

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

- **Flow 1 Ingress (mean 634.47 Mbps/s)**
- **Flow 1 Egress (mean 605.04 Mbps/s)**
- **Flow 2 Ingress (mean 589.77 Mbps/s)**
- **Flow 2 Egress (mean 559.72 Mbps/s)**
- **Flow 3 Ingress (mean 492.02 Mbps/s)**
- **Flow 3 Egress (mean 472.07 Mbps/s)**

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

- **Flow 1 (95th percentile 337.91 ms)**
- **Flow 2 (95th percentile 349.99 ms)**
- **Flow 3 (95th percentile 250.59 ms)**
Run 4: Statistics of FillP

Start at: 2018-04-18 20:33:05
End at: 2018-04-18 20:33:35

# Below is generated by plot.py at 2018-04-19 02:49:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1105.32 Mbit/s
95th percentile per-packet one-way delay: 342.787 ms
Loss rate: 7.60%
-- Flow 1:
Average throughput: 587.35 Mbit/s
95th percentile per-packet one-way delay: 355.823 ms
Loss rate: 7.77%
-- Flow 2:
Average throughput: 567.94 Mbit/s
95th percentile per-packet one-way delay: 335.115 ms
Loss rate: 4.88%
-- Flow 3:
Average throughput: 438.24 Mbit/s
95th percentile per-packet one-way delay: 281.792 ms
Loss rate: 13.48%
Run 4: Report of FillP — Data Link

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

Flow 1 Ingress (mean 631.06 Mbps)  Flow 1 Egress (mean 587.35 Mbps)
Flow 2 Ingress (mean 588.97 Mbps)  Flow 2 Egress (mean 567.94 Mbps)
Flow 3 Ingress (mean 492.53 Mbps)  Flow 3 Egress (mean 438.24 Mbps)

Flow 1 (95th percentile 355.92 ms)  Flow 2 (95th percentile 335.12 ms)  Flow 3 (95th percentile 281.79 ms)
Run 5: Statistics of FillP

End at: 2018-04-18 20:51:43

# Below is generated by plot.py at 2018-04-19 02:51:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1173.95 Mbit/s
95th percentile per-packet one-way delay: 246.570 ms
Loss rate: 7.18%
-- Flow 1:
Average throughput: 643.85 Mbit/s
95th percentile per-packet one-way delay: 243.203 ms
Loss rate: 6.60%
-- Flow 2:
Average throughput: 588.63 Mbit/s
95th percentile per-packet one-way delay: 246.691 ms
Loss rate: 6.07%
-- Flow 3:
Average throughput: 434.30 Mbit/s
95th percentile per-packet one-way delay: 257.858 ms
Loss rate: 12.53%
Run 5: Report of FillP — Data Link

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

![Graph 2: Per packet time (ms) vs. Time (s)]

Legend:
- Flow 1 Ingress (mean 683.14 Mbps/s)
- Flow 1 Egress (mean 643.85 Mbps/s)
- Flow 2 Ingress (mean 618.30 Mbps/s)
- Flow 2 Egress (mean 588.63 Mbps/s)
- Flow 3 Ingress (mean 482.80 Mbps/s)
- Flow 3 Egress (mean 434.30 Mbps/s)
Run 6: Statistics of FillP

Start at: 2018-04-18 21:09:33
End at: 2018-04-18 21:10:03

# Below is generated by plot.py at 2018-04-19 02:52:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1201.87 Mbit/s
95th percentile per-packet one-way delay: 241.883 ms
Loss rate: 6.42%
-- Flow 1:
Average throughput: 648.40 Mbit/s
95th percentile per-packet one-way delay: 232.240 ms
Loss rate: 5.33%
-- Flow 2:
Average throughput: 598.08 Mbit/s
95th percentile per-packet one-way delay: 246.286 ms
Loss rate: 7.23%
-- Flow 3:
Average throughput: 487.89 Mbit/s
95th percentile per-packet one-way delay: 250.319 ms
Loss rate: 8.71%
Run 6: Report of FillP — Data Link

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

Throughput (Mbps):
- Flow 1 ingress (mean 678.32 Mbps)
- Flow 1 egress (mean 648.40 Mbps)
- Flow 2 ingress (mean 635.82 Mbps)
- Flow 2 egress (mean 598.08 Mbps)
- Flow 3 ingress (mean 519.67 Mbps)
- Flow 3 egress (mean 487.89 Mbps)

Latency (ms):
- Flow 1 (95th percentile 232.24 ms)
- Flow 2 (95th percentile 246.29 ms)
- Flow 3 (95th percentile 250.32 ms)
Run 7: Statistics of FillP


# Below is generated by plot.py at 2018-04-19 02:52:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1130.78 Mbit/s
95th percentile per-packet one-way delay: 281.807 ms
Loss rate: 6.38%
-- Flow 1:
Average throughput: 617.73 Mbit/s
95th percentile per-packet one-way delay: 239.280 ms
Loss rate: 4.97%
-- Flow 2:
Average throughput: 569.82 Mbit/s
95th percentile per-packet one-way delay: 286.395 ms
Loss rate: 6.79%
-- Flow 3:
Average throughput: 418.90 Mbit/s
95th percentile per-packet one-way delay: 339.166 ms
Loss rate: 11.33%
Run 7: Report of FillP — Data Link

Throughput (Mbps):

Flow 1 ingress (mean 644.11 Mbps)
Flow 1 egress (mean 617.73 Mbps)
Flow 2 ingress (mean 602.89 Mbps)
Flow 2 egress (mean 569.82 Mbps)
Flow 3 ingress (mean 459.32 Mbps)
Flow 3 egress (mean 418.90 Mbps)

Packet one-way delay (ms):

Flow 1 (95th percentile 239.28 ms)
Flow 2 (95th percentile 286.39 ms)
Flow 3 (95th percentile 339.17 ms)
Run 8: Statistics of FillP

Start at: 2018-04-18 21:45:50

# Below is generated by plot.py at 2018-04-19 02:53:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1190.09 Mbit/s
  95th percentile per-packet one-way delay: 247.383 ms
  Loss rate: 8.04%
-- Flow 1:
  Average throughput: 674.58 Mbit/s
  95th percentile per-packet one-way delay: 235.675 ms
  Loss rate: 5.79%
-- Flow 2:
  Average throughput: 549.30 Mbit/s
  95th percentile per-packet one-way delay: 264.430 ms
  Loss rate: 10.60%
-- Flow 3:
  Average throughput: 466.07 Mbit/s
  95th percentile per-packet one-way delay: 249.780 ms
  Loss rate: 11.40%
Run 8: Report of FillP — Data Link

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

Legend for Graph 1:
- Flow 1 ingress (mean 709.50 Mbps)
- Flow 1 egress (mean 674.58 Mbps)
- Flow 2 ingress (mean 606.01 Mbps)
- Flow 2 egress (mean 549.30 Mbps)
- Flow 3 ingress (mean 511.53 Mbps)
- Flow 3 egress (mean 466.07 Mbps)

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

Legend for Graph 2:
- Flow 1 (95th percentile: 235.68 ms)
- Flow 2 (95th percentile: 264.43 ms)
- Flow 3 (95th percentile: 249.78 ms)

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Run 9: Statistics of FillP

Start at: 2018-04-18 22:03:39
End at: 2018-04-18 22:04:09

# Below is generated by plot.py at 2018-04-19 03:10:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1203.70 Mbit/s
  95th percentile per-packet one-way delay: 250.045 ms
  Loss rate: 6.77%
-- Flow 1:
  Average throughput: 644.17 Mbit/s
  95th percentile per-packet one-way delay: 245.655 ms
  Loss rate: 5.43%
-- Flow 2:
  Average throughput: 604.10 Mbit/s
  95th percentile per-packet one-way delay: 258.201 ms
  Loss rate: 8.43%
-- Flow 3:
  Average throughput: 491.17 Mbit/s
  95th percentile per-packet one-way delay: 230.738 ms
  Loss rate: 7.88%
Run 9: Report of FillP — Data Link

![Graphs showing data link performance metrics](image-url)
Run 10: Statistics of FillP


# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1215.44 Mbit/s
  95th percentile per-packet one-way delay: 239.235 ms
  Loss rate: 6.35%
-- Flow 1:
  Average throughput: 662.17 Mbit/s
  95th percentile per-packet one-way delay: 233.829 ms
  Loss rate: 5.69%
-- Flow 2:
  Average throughput: 625.27 Mbit/s
  95th percentile per-packet one-way delay: 237.231 ms
  Loss rate: 5.69%
-- Flow 3:
  Average throughput: 429.51 Mbit/s
  95th percentile per-packet one-way delay: 251.531 ms
  Loss rate: 11.15%
Run 10: Report of FillP — Data Link

![Graph 1: Throughput vs Time]

![Graph 2: Packet Delay vs Time]
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-18 19:41:34
End at: 2018-04-18 19:42:04

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.66 Mbit/s
95th percentile per-packet one-way delay: 137.267 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 159.00 Mbit/s
95th percentile per-packet one-way delay: 136.793 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 158.99 Mbit/s
95th percentile per-packet one-way delay: 137.628 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 146.51 Mbit/s
95th percentile per-packet one-way delay: 138.174 ms
Loss rate: 3.34%
Run 1: Report of Indigo-1-32 — Data Link

![Graph showing throughput and per-packet delay for flows 1, 2, and 3 over time.]

- Flow 1 ingress (mean 158.89 Mbit/s)
- Flow 1 egress (mean 159.00 Mbit/s)
- Flow 2 ingress (mean 158.86 Mbit/s)
- Flow 2 egress (mean 158.99 Mbit/s)
- Flow 3 ingress (mean 147.34 Mbit/s)
- Flow 3 egress (mean 146.51 Mbit/s)
Run 2: Statistics of Indigo-1-32

Start at: 2018-04-18 19:59:45
End at: 2018-04-18 20:00:15

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 311.33 Mbit/s
95th percentile per-packet one-way delay: 136.261 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 160.82 Mbit/s
95th percentile per-packet one-way delay: 135.858 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 157.86 Mbit/s
95th percentile per-packet one-way delay: 136.639 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 144.18 Mbit/s
95th percentile per-packet one-way delay: 136.808 ms
Loss rate: 3.28%
Run 2: Report of Indigo-1-32 — Data Link

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

- **Flow 1 ingress (mean 160.71 Mbit/s)**
- **Flow 1 egress (mean 160.82 Mbit/s)**
- **Flow 2 ingress (mean 157.75 Mbit/s)**
- **Flow 2 egress (mean 157.86 Mbit/s)**
- **Flow 3 ingress (mean 145.69 Mbit/s)**
- **Flow 3 egress (mean 144.18 Mbit/s)**

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

- **Flow 1 (95th percentile 135.86 ms)**
- **Flow 2 (95th percentile 136.64 ms)**
- **Flow 3 (95th percentile 136.81 ms)**

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Run 3: Statistics of Indigo-1-32

Start at: 2018-04-18 20:17:48
End at: 2018-04-18 20:18:18

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.02 Mbit/s
95th percentile per-packet one-way delay: 136.827 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 165.06 Mbit/s
95th percentile per-packet one-way delay: 136.239 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 156.08 Mbit/s
95th percentile per-packet one-way delay: 137.747 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 142.38 Mbit/s
95th percentile per-packet one-way delay: 138.794 ms
Loss rate: 3.05%
Run 3: Report of Indigo-1-32 — Data Link
Run 4: Statistics of Indigo-1-32

Start at: 2018-04-18 20:35:34
End at: 2018-04-18 20:36:04

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 310.15 Mbit/s
95th percentile per-packet one-way delay: 136.665 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 159.52 Mbit/s
95th percentile per-packet one-way delay: 135.965 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 155.96 Mbit/s
95th percentile per-packet one-way delay: 137.703 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 147.75 Mbit/s
95th percentile per-packet one-way delay: 138.120 ms
Loss rate: 3.25%
Run 4: Report of Indigo-1-32 — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 159.40 Mbps)  
Flow 1 egress (mean 159.52 Mbps)
Flow 2 ingress (mean 135.80 Mbps)  
Flow 2 egress (mean 135.96 Mbps)
Flow 3 ingress (mean 148.51 Mbps)  
Flow 3 egress (mean 147.75 Mbps)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 135.97 ms)  
Flow 2 (95th percentile 137.70 ms)  
Flow 3 (95th percentile 138.12 ms)
Run 5: Statistics of Indigo-1-32

Start at: 2018-04-18 20:53:42
End at: 2018-04-18 20:54:12

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 310.73 Mbit/s
  95th percentile per-packet one-way delay: 136.014 ms
  Loss rate: 1.31%
-- Flow 1:
  Average throughput: 162.82 Mbit/s
  95th percentile per-packet one-way delay: 135.690 ms
  Loss rate: 0.80%
-- Flow 2:
  Average throughput: 157.97 Mbit/s
  95th percentile per-packet one-way delay: 136.542 ms
  Loss rate: 1.32%
-- Flow 3:
  Average throughput: 135.29 Mbit/s
  95th percentile per-packet one-way delay: 136.362 ms
  Loss rate: 3.14%
Run 5: Report of Indigo-1-32 — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 162.63 Mbps)
- Flow 1 egress (mean 162.82 Mbps)
- Flow 2 ingress (mean 157.87 Mbps)
- Flow 2 egress (mean 157.97 Mbps)
- Flow 3 ingress (mean 135.80 Mbps)
- Flow 3 egress (mean 135.29 Mbps)

Per-packet one-way delay (ms):

- Flow 1 (95th percentile 135.69 ms)
- Flow 2 (95th percentile 136.54 ms)
- Flow 3 (95th percentile 136.36 ms)
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-18 21:12:04
End at: 2018-04-18 21:12:34

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 306.78 Mbit/s
95th percentile per-packet one-way delay: 137.236 ms
Loss rate: 1.41%

-- Flow 1:
Average throughput: 157.64 Mbit/s
95th percentile per-packet one-way delay: 136.742 ms
Loss rate: 0.85%

-- Flow 2:
Average throughput: 151.95 Mbit/s
95th percentile per-packet one-way delay: 137.874 ms
Loss rate: 1.30%

-- Flow 3:
Average throughput: 151.20 Mbit/s
95th percentile per-packet one-way delay: 138.468 ms
Loss rate: 3.37%
Run 6: Report of Indigo-1-32 — Data Link

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

- **Flow 1 ingress** (mean 157.55 Mbit/s)
- **Flow 1 egress** (mean 157.64 Mbit/s)
- **Flow 2 ingress** (mean 151.84 Mbit/s)
- **Flow 2 egress** (mean 151.95 Mbit/s)
- **Flow 3 ingress** (mean 152.13 Mbit/s)
- **Flow 3 egress** (mean 151.20 Mbit/s)

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

- **Flow 1** (95th percentile 136.74 ms)
- **Flow 2** (95th percentile 137.87 ms)
- **Flow 3** (95th percentile 138.47 ms)
Run 7: Statistics of Indigo-1-32

Start at: 2018-04-18 21:30:15
End at: 2018-04-18 21:30:45

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 327.81 Mbit/s
  95th percentile per-packet one-way delay: 138.331 ms
  Loss rate: 1.17%
-- Flow 1:
  Average throughput: 172.40 Mbit/s
  95th percentile per-packet one-way delay: 137.810 ms
  Loss rate: 0.81%
-- Flow 2:
  Average throughput: 165.16 Mbit/s
  95th percentile per-packet one-way delay: 138.589 ms
  Loss rate: 0.90%
-- Flow 3:
  Average throughput: 143.80 Mbit/s
  95th percentile per-packet one-way delay: 141.101 ms
  Loss rate: 3.14%
Run 7: Report of Indigo-1-32 — Data Link

![Graph of throughput and packet delay]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 172.23 Mbps)
  - Flow 1 egress (mean 172.40 Mbps)
  - Flow 2 ingress (mean 164.36 Mbps)
  - Flow 2 egress (mean 165.16 Mbps)
  - Flow 3 ingress (mean 144.15 Mbps)
  - Flow 3 egress (mean 143.60 Mbps)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 137.91 ms)
  - Flow 2 (95th percentile 138.59 ms)
  - Flow 3 (95th percentile 141.10 ms)
Run 8: Statistics of Indigo-1-32


# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 315.43 Mbit/s
95th percentile per-packet one-way delay: 137.243 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 170.26 Mbit/s
95th percentile per-packet one-way delay: 136.807 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 152.99 Mbit/s
95th percentile per-packet one-way delay: 138.403 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 136.95 Mbit/s
95th percentile per-packet one-way delay: 137.252 ms
Loss rate: 3.17%
Run 8: Report of Indigo-1-32 — Data Link

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

Throughput (Mbit/s)

- Flow 1 ingress (mean 170.10 Mbit/s)
- Flow 1 egress (mean 170.26 Mbit/s)
- Flow 2 ingress (mean 152.88 Mbit/s)
- Flow 2 egress (mean 152.99 Mbit/s)
- Flow 3 ingress (mean 137.49 Mbit/s)
- Flow 3 egress (mean 136.95 Mbit/s)

Delay (ms)

- Flow 1 (95th percentile 136.81 ms)
- Flow 2 (95th percentile 138.40 ms)
- Flow 3 (95th percentile 137.25 ms)
Run 9: Statistics of Indigo-1-32

Start at: 2018-04-18 22:06:10
End at: 2018-04-18 22:06:40

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 290.66 Mbit/s
  95th percentile per-packet one-way delay: 136.575 ms
  Loss rate: 1.48%
-- Flow 1:
  Average throughput: 154.74 Mbit/s
  95th percentile per-packet one-way delay: 136.008 ms
  Loss rate: 0.86%
-- Flow 2:
  Average throughput: 144.48 Mbit/s
  95th percentile per-packet one-way delay: 137.247 ms
  Loss rate: 1.43%
-- Flow 3:
  Average throughput: 126.93 Mbit/s
  95th percentile per-packet one-way delay: 137.219 ms
  Loss rate: 3.89%
Run 9: Report of Indigo-1-32 — Data Link

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

Start at: 2018-04-18 22:24:05

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 316.91 Mbit/s
  95th percentile per-packet one-way delay: 136.961 ms
  Loss rate: 1.33%
-- Flow 1:
  Average throughput: 168.02 Mbit/s
  95th percentile per-packet one-way delay: 136.437 ms
  Loss rate: 0.81%
-- Flow 2:
  Average throughput: 152.96 Mbit/s
  95th percentile per-packet one-way delay: 137.544 ms
  Loss rate: 1.29%
-- Flow 3:
  Average throughput: 148.52 Mbit/s
  95th percentile per-packet one-way delay: 137.885 ms
  Loss rate: 3.20%
Run 10: Report of Indigo-1-32 — Data Link

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

Legend:
- Flow 1 ingress (mean 167.85 Mbit/s)
- Flow 1 egress (mean 168.02 Mbit/s)
- Flow 2 ingress (mean 152.83 Mbit/s)
- Flow 2 egress (mean 152.96 Mbit/s)
- Flow 3 ingress (mean 149.06 Mbit/s)
- Flow 3 egress (mean 148.52 Mbit/s)
Run 1: Statistics of PCC-Vivace

Start at: 2018-04-18 19:45:06
End at: 2018-04-18 19:45:36

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 406.86 Mbit/s
  95th percentile per-packet one-way delay: 246.081 ms
  Loss rate: 3.62%
-- Flow 1:
  Average throughput: 258.79 Mbit/s
  95th percentile per-packet one-way delay: 298.281 ms
  Loss rate: 4.33%
-- Flow 2:
  Average throughput: 178.45 Mbit/s
  95th percentile per-packet one-way delay: 137.032 ms
  Loss rate: 2.18%
-- Flow 3:
  Average throughput: 92.87 Mbit/s
  95th percentile per-packet one-way delay: 159.017 ms
  Loss rate: 3.05%
Run 1: Report of PCC-Vivace — Data Link

![Graph 1: Throughput (Mbps)]

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

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Run 2: Statistics of PCC-Vivace

Start at: 2018-04-18 20:03:22
End at: 2018-04-18 20:03:52

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 402.46 Mbit/s
95th percentile per-packet one-way delay: 144.761 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 233.09 Mbit/s
95th percentile per-packet one-way delay: 142.019 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 210.11 Mbit/s
95th percentile per-packet one-way delay: 146.486 ms
Loss rate: 2.61%
-- Flow 3:
Average throughput: 93.81 Mbit/s
95th percentile per-packet one-way delay: 156.011 ms
Loss rate: 3.09%
Run 2: Report of PCC-Vivace — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress (mean 233.77 Mbps)**
- **Flow 1 egress (mean 233.09 Mbps)**
- **Flow 2 ingress (mean 212.76 Mbps)**
- **Flow 2 egress (mean 210.11 Mbps)**
- **Flow 3 ingress (mean 94.04 Mbps)**
- **Flow 3 egress (mean 93.81 Mbps)**

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

- **Flow 1 (95th percentile 142.02 ms)**
- **Flow 2 (95th percentile 146.49 ms)**
- **Flow 3 (95th percentile 156.01 ms)**

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Run 3: Statistics of PCC-Vivace

Start at: 2018-04-18 20:21:08
End at: 2018-04-18 20:21:38

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.71 Mbit/s
95th percentile per-packet one-way delay: 140.544 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 232.69 Mbit/s
95th percentile per-packet one-way delay: 140.569 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 186.71 Mbit/s
95th percentile per-packet one-way delay: 142.973 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 66.67 Mbit/s
95th percentile per-packet one-way delay: 137.271 ms
Loss rate: 4.34%
Run 3: Report of PCC-Vivace — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 232.58 Mbps)
  - Flow 1 egress (mean 232.69 Mbps)
  - Flow 2 ingress (mean 187.49 Mbps)
  - Flow 2 egress (mean 186.71 Mbps)
  - Flow 3 ingress (mean 67.76 Mbps)
  - Flow 3 egress (mean 66.67 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 140.57 ms)
  - Flow 2 (95th percentile 142.97 ms)
  - Flow 3 (95th percentile 137.27 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2018-04-18 20:39:00
End at: 2018-04-18 20:39:30

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 447.17 Mbit/s
  95th percentile per-packet one-way delay: 140.279 ms
  Loss rate: 1.21%
-- Flow 1:
  Average throughput: 277.17 Mbit/s
  95th percentile per-packet one-way delay: 138.443 ms
  Loss rate: 0.81%
-- Flow 2:
  Average throughput: 199.24 Mbit/s
  95th percentile per-packet one-way delay: 171.794 ms
  Loss rate: 0.98%
-- Flow 3:
  Average throughput: 118.65 Mbit/s
  95th percentile per-packet one-way delay: 138.262 ms
  Loss rate: 4.79%
Run 4: Report of PCC-Vivace — Data Link

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

Legend:
- Flow 1 ingress (mean 276.88 Mbit/s)
- Flow 1 egress (mean 277.17 Mbit/s)
- Flow 2 ingress (mean 198.50 Mbit/s)
- Flow 2 egress (mean 199.24 Mbit/s)
- Flow 3 ingress (mean 121.16 Mbit/s)
- Flow 3 egress (mean 118.65 Mbit/s)

Legend:
- Flow 1 (95th percentile 138.44 ms)
- Flow 2 (95th percentile 171.79 ms)
- Flow 3 (95th percentile 138.26 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2018-04-18 20:57:17
End at: 2018-04-18 20:57:47

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 429.40 Mbit/s
95th percentile per-packet one-way delay: 256.809 ms
Loss rate: 2.91%
-- Flow 1:
Average throughput: 273.08 Mbit/s
95th percentile per-packet one-way delay: 332.476 ms
Loss rate: 3.42%
-- Flow 2:
Average throughput: 179.47 Mbit/s
95th percentile per-packet one-way delay: 136.147 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 117.31 Mbit/s
95th percentile per-packet one-way delay: 146.683 ms
Loss rate: 4.34%
Run 5: Report of PCC-Vivace — Data Link
Run 6: Statistics of PCC-Vivace

End at: 2018-04-18 21:16:08

# Below is generated by plot.py at 2018-04-19 03:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 419.92 Mbit/s
95th percentile per-packet one-way delay: 212.058 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 239.00 Mbit/s
95th percentile per-packet one-way delay: 151.980 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 192.27 Mbit/s
95th percentile per-packet one-way delay: 137.560 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 167.63 Mbit/s
95th percentile per-packet one-way delay: 294.883 ms
Loss rate: 5.65%
Run 6: Report of PCC-Vivace — Data Link

![Graph 1: Throughput (Mbps)]
- **Flow 1 ingress** (mean 239.74 Mbps)
- **Flow 1 egress** (mean 239.00 Mbps)
- **Flow 2 ingress** (mean 193.55 Mbps)
- **Flow 2 egress** (mean 192.77 Mbps)
- **Flow 3 ingress** (mean 172.72 Mbps)
- **Flow 3 egress** (mean 167.63 Mbps)

![Graph 2: Per packet one way delay (ms)]
- **Flow 1** (95th percentile 151.98 ms)
- **Flow 2** (95th percentile 137.56 ms)
- **Flow 3** (95th percentile 294.88 ms)
Run 7: Statistics of PCC-Vivace

End at: 2018-04-18 21:34:21

# Below is generated by plot.py at 2018-04-19 03:11:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 408.23 Mbit/s
95th percentile per-packet one-way delay: 142.169 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 209.68 Mbit/s
95th percentile per-packet one-way delay: 136.244 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 244.93 Mbit/s
95th percentile per-packet one-way delay: 151.902 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 113.48 Mbit/s
95th percentile per-packet one-way delay: 136.270 ms
Loss rate: 4.63%
Run 7: Report of PCC-Vivace — Data Link
Run 8: Statistics of PCC-Vivace

End at: 2018-04-18 21:52:11

# Below is generated by plot.py at 2018-04-19 03:11:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 418.83 Mbit/s
  95th percentile per-packet one-way delay: 297.450 ms
  Loss rate: 2.85%
-- Flow 1:
  Average throughput: 245.62 Mbit/s
  95th percentile per-packet one-way delay: 299.493 ms
  Loss rate: 2.87%
-- Flow 2:
  Average throughput: 183.44 Mbit/s
  95th percentile per-packet one-way delay: 140.476 ms
  Loss rate: 1.74%
-- Flow 3:
  Average throughput: 161.81 Mbit/s
  95th percentile per-packet one-way delay: 322.264 ms
  Loss rate: 5.23%
Run 9: Statistics of PCC-Vivace

End at: 2018-04-18 22:10:01

# Below is generated by plot.py at 2018-04-19 03:11:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 430.09 Mbit/s
  95th percentile per-packet one-way delay: 266.033 ms
  Loss rate: 1.66%
-- Flow 1:
  Average throughput: 281.43 Mbit/s
  95th percentile per-packet one-way delay: 279.835 ms
  Loss rate: 1.39%
-- Flow 2:
  Average throughput: 175.54 Mbit/s
  95th percentile per-packet one-way delay: 138.408 ms
  Loss rate: 1.97%
-- Flow 3:
  Average throughput: 101.13 Mbit/s
  95th percentile per-packet one-way delay: 197.048 ms
  Loss rate: 2.87%
Run 9: Report of PCC-Vivace — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 282.79 Mbit/s)
Flow 1 egress (mean 281.43 Mbit/s)
Flow 2 ingress (mean 176.39 Mbit/s)
Flow 2 egress (mean 175.54 Mbit/s)
Flow 3 ingress (mean 101.30 Mbit/s)
Flow 3 egress (mean 101.13 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 279.83 ms)
Flow 2 (95th percentile 138.41 ms)
Flow 3 (95th percentile 197.05 ms)
Run 10: Statistics of PCC-Vivace


# Below is generated by plot.py at 2018-04-19 03:11:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 443.06 Mbit/s
  95th percentile per-packet one-way delay: 139.036 ms
  Loss rate: 1.33%
-- Flow 1:
  Average throughput: 290.65 Mbit/s
  95th percentile per-packet one-way delay: 139.604 ms
  Loss rate: 0.76%
-- Flow 2:
  Average throughput: 173.96 Mbit/s
  95th percentile per-packet one-way delay: 136.424 ms
  Loss rate: 1.77%
-- Flow 3:
  Average throughput: 115.91 Mbit/s
  95th percentile per-packet one-way delay: 176.899 ms
  Loss rate: 4.37%
Run 10: Report of PCC-Vivace — Data Link
Run 1: Statistics of PCC-Expr

Start at: 2018-04-18 19:40:46
End at: 2018-04-18 19:41:16
Run 1: Report of PCC-Expr — Data Link

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Run 2: Statistics of PCC-Expr

Start at: 2018-04-18 19:58:57
End at: 2018-04-18 19:59:27
Run 2: Report of PCC-Expr — Data Link

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Run 3: Statistics of PCC-Expr

Start at: 2018-04-18 20:17:00
End at: 2018-04-18 20:17:30
Run 3: Report of PCC-Expr — Data Link

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Run 4: Statistics of PCC-Expr

Start at: 2018-04-18 20:34:45
End at: 2018-04-18 20:35:15
Run 4: Report of PCC-Expr — Data Link

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Run 5: Statistics of PCC-Expr

Start at: 2018-04-18 20:52:54
End at: 2018-04-18 20:53:24
Run 5: Report of PCC-Expr — Data Link

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Run 6: Statistics of PCC-Expr

Start at: 2018-04-18 21:11:16
End at: 2018-04-18 21:11:46
Run 6: Report of PCC-Expr — Data Link

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Run 7: Statistics of PCC-Expr

End at: 2018-04-18 21:29:56
Run 7: Report of PCC-Expr — Data Link

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Run 8: Statistics of PCC-Expr

End at: 2018-04-18 21:48:02
Run 8: Report of PCC-Expr — Data Link

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Run 9: Statistics of PCC-Expr

End at: 2018-04-18 22:05:52
Run 9: Report of PCC-Expr — Data Link

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Run 10: Statistics of PCC-Expr

Run 10: Report of PCC-Expr — Data Link

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