

Pantheon Report

Generated at 2017-12-06 15:20:19 (UTC).

Data path: GCE Tokyo Ethernet (*remote*) → GCE Iowa Ethernet (*local*).

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

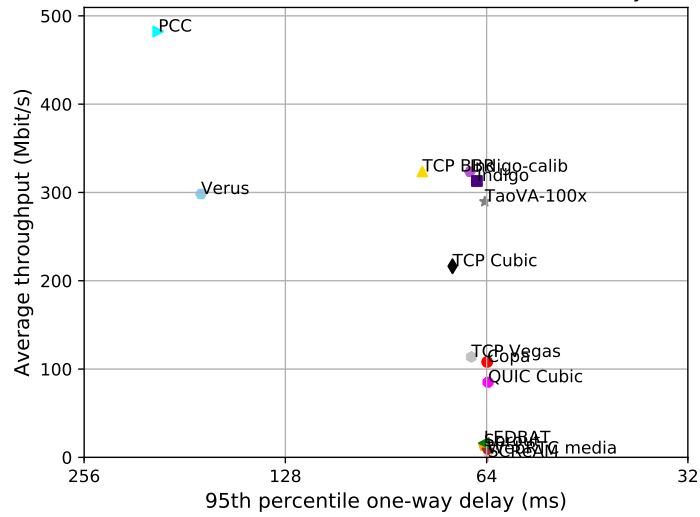
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

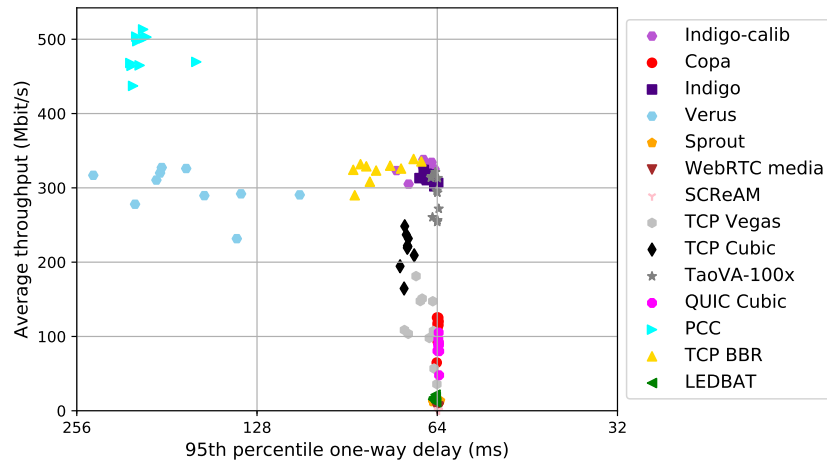
Git summary:

```
branch: indigos @ e3a57ad5ac5cfcaca0e3f983c8dd4cc3509e0262
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ b5b7c38e8391001927dc41c6cfa2627d03dde737
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fab936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eae30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webRTC @ a488197ddd041ace68a42849b2540ad834825f42
```

test from GCE Tokyo Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from GCE Tokyo Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	167.95	161.31	150.38	77.20	79.69	83.54	0.51	0.85	1.70
TCP Cubic	9	106.62	105.96	120.21	72.16	71.69	71.40	0.58	0.65	1.13
LEDBAT	10	8.02	9.19	6.29	64.60	64.65	64.34	1.13	1.27	2.40
PCC	10	444.31	34.66	45.87	198.35	193.51	167.04	1.99	1.94	2.67
QUIC Cubic	10	50.74	39.44	25.08	63.41	63.46	63.84	0.61	1.00	2.68
SCReAM	8	0.21	0.22	0.22	63.67	63.49	63.41	0.39	0.74	1.10
WebRTC media	10	2.30	1.47	0.56	63.53	63.75	63.74	0.59	0.73	1.86
Sprout	10	6.42	6.37	6.11	64.63	64.46	64.38	0.58	0.89	1.63
TaoVA-100x	10	159.13	156.65	108.02	64.28	64.51	65.15	0.44	0.71	2.98
TCP Vegas	10	49.94	60.16	72.60	67.18	65.66	65.91	0.44	0.66	1.47
Verus	10	183.42	130.88	88.03	161.73	177.94	158.38	1.07	2.06	2.58
Copa	10	54.42	60.88	52.62	130.86	63.75	63.88	0.25	0.56	2.53
Indigo	10	168.80	153.76	130.43	65.47	66.42	67.80	0.49	0.64	1.35
Indigo-calib	10	180.20	155.33	124.34	66.64	68.21	69.90	0.39	0.53	1.34

Run 1: Statistics of TCP BBR

Start at: 2017-12-06 10:02:45

End at: 2017-12-06 10:03:15

Below is generated by plot.py at 2017-12-06 14:22:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 308.33 Mbit/s

95th percentile per-packet one-way delay: 82.933 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 159.95 Mbit/s

95th percentile per-packet one-way delay: 78.508 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 154.72 Mbit/s

95th percentile per-packet one-way delay: 83.025 ms

Loss rate: 1.02%

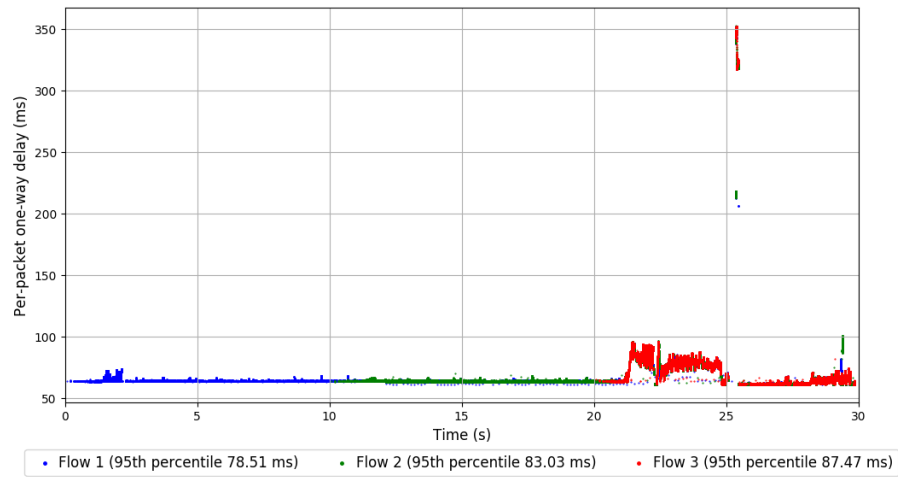
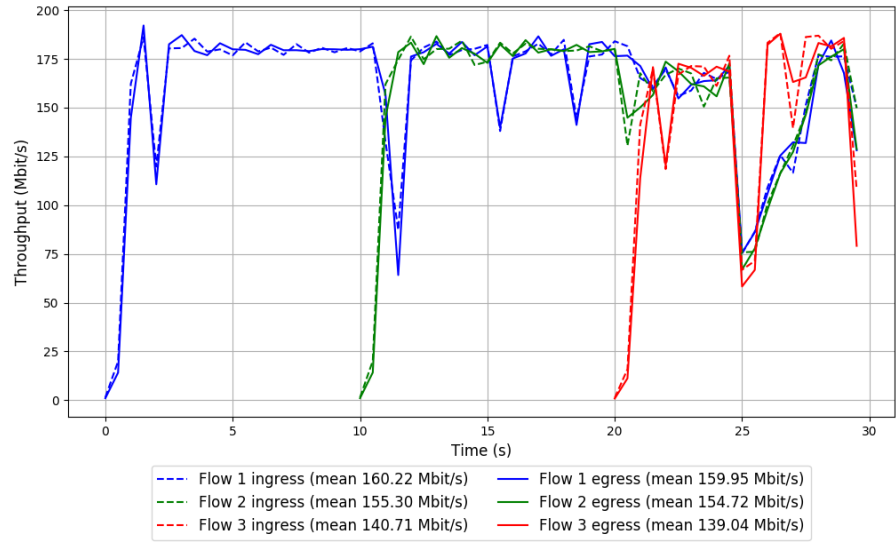
-- Flow 3:

Average throughput: 139.04 Mbit/s

95th percentile per-packet one-way delay: 87.471 ms

Loss rate: 2.49%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-12-06 10:15:08

End at: 2017-12-06 10:15:38

Below is generated by plot.py at 2017-12-06 14:22:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 326.00 Mbit/s

95th percentile per-packet one-way delay: 73.560 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 168.38 Mbit/s

95th percentile per-packet one-way delay: 72.190 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 162.35 Mbit/s

95th percentile per-packet one-way delay: 73.414 ms

Loss rate: 0.61%

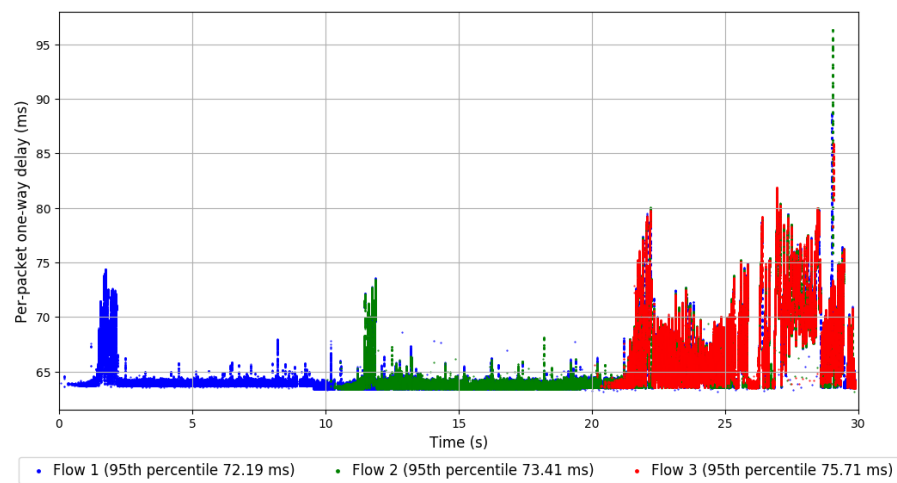
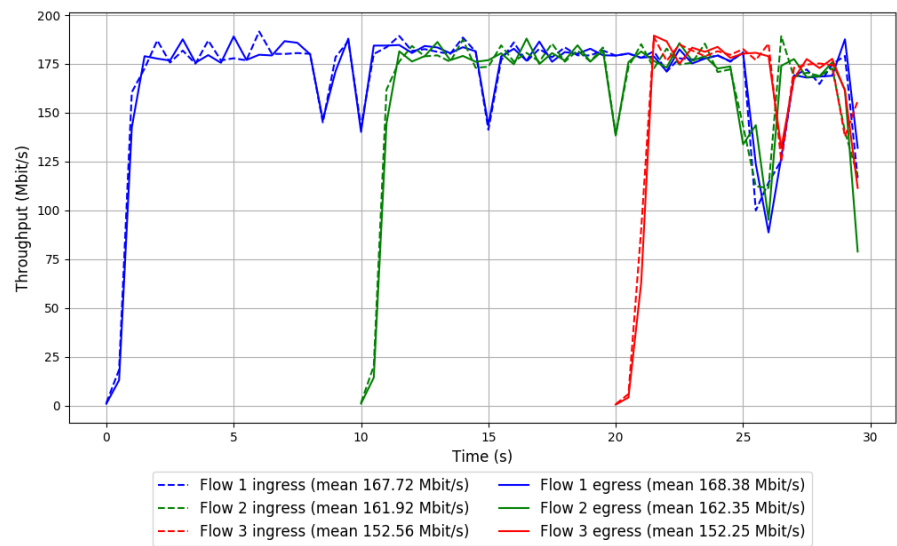
-- Flow 3:

Average throughput: 152.25 Mbit/s

95th percentile per-packet one-way delay: 75.712 ms

Loss rate: 1.49%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-06 10:27:52

End at: 2017-12-06 10:28:22

Below is generated by plot.py at 2017-12-06 14:22:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 329.89 Mbit/s

95th percentile per-packet one-way delay: 76.699 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 168.52 Mbit/s

95th percentile per-packet one-way delay: 74.907 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 166.55 Mbit/s

95th percentile per-packet one-way delay: 75.684 ms

Loss rate: 0.72%

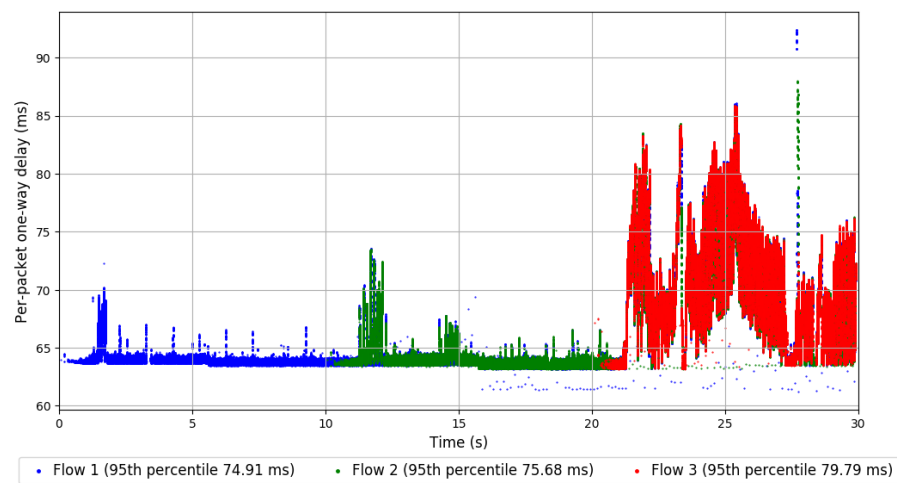
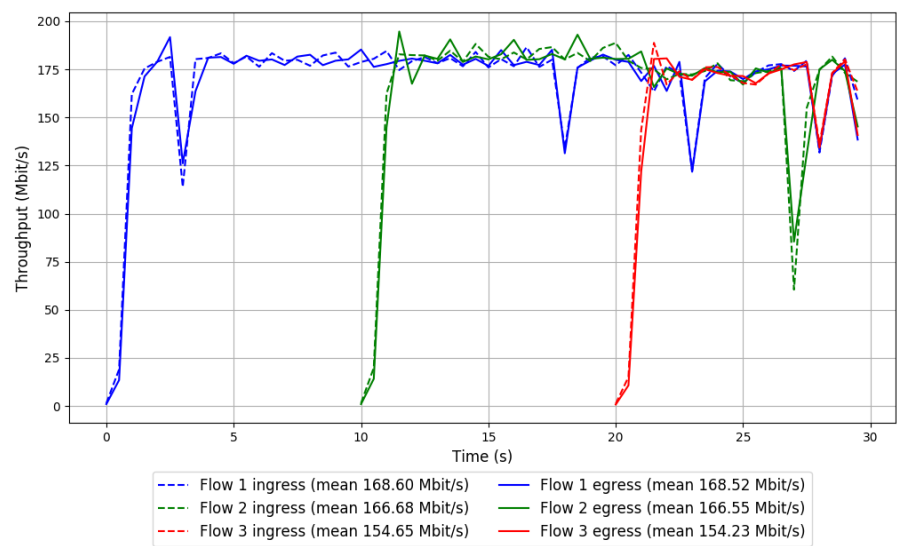
-- Flow 3:

Average throughput: 154.23 Mbit/s

95th percentile per-packet one-way delay: 79.789 ms

Loss rate: 1.57%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-12-06 10:40:16

End at: 2017-12-06 10:40:47

Below is generated by plot.py at 2017-12-06 14:22:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 335.56 Mbit/s

95th percentile per-packet one-way delay: 68.027 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 171.45 Mbit/s

95th percentile per-packet one-way delay: 66.580 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 166.47 Mbit/s

95th percentile per-packet one-way delay: 69.568 ms

Loss rate: 0.84%

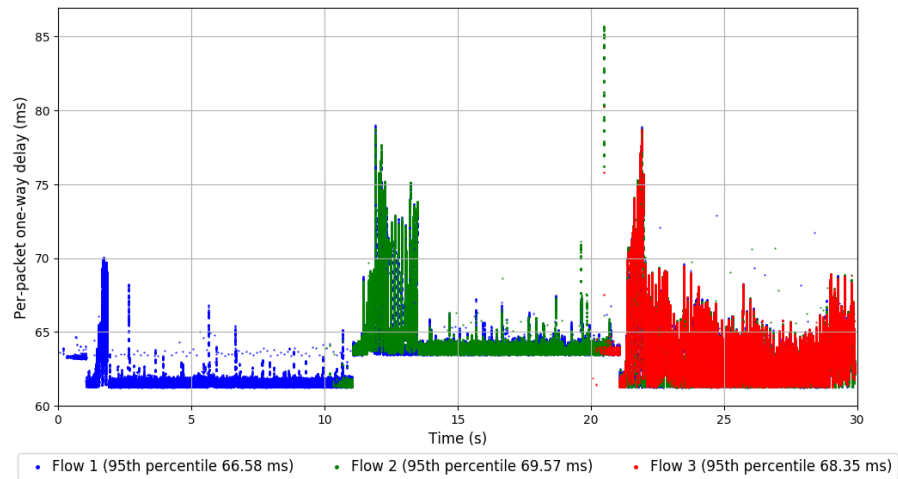
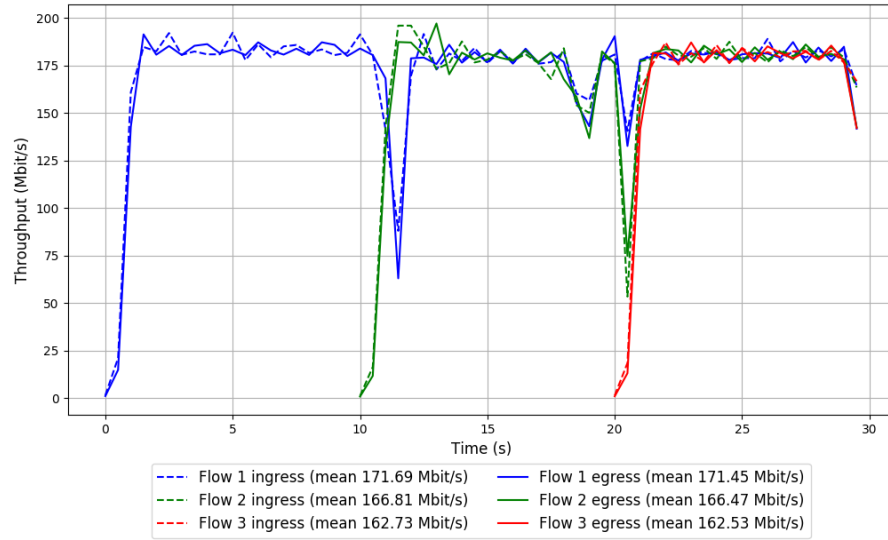
-- Flow 3:

Average throughput: 162.53 Mbit/s

95th percentile per-packet one-way delay: 68.349 ms

Loss rate: 1.40%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-12-06 10:52:51

End at: 2017-12-06 10:53:21

Below is generated by plot.py at 2017-12-06 14:22:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 324.34 Mbit/s

95th percentile per-packet one-way delay: 88.400 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 167.69 Mbit/s

95th percentile per-packet one-way delay: 84.205 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 159.55 Mbit/s

95th percentile per-packet one-way delay: 87.920 ms

Loss rate: 0.73%

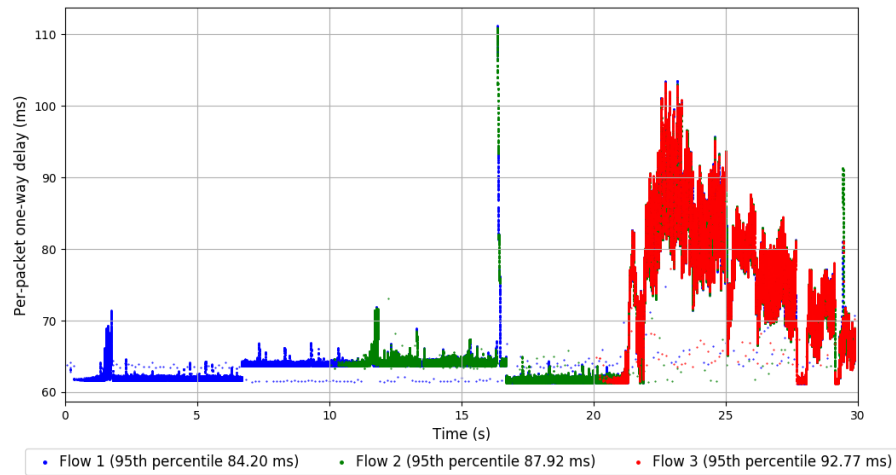
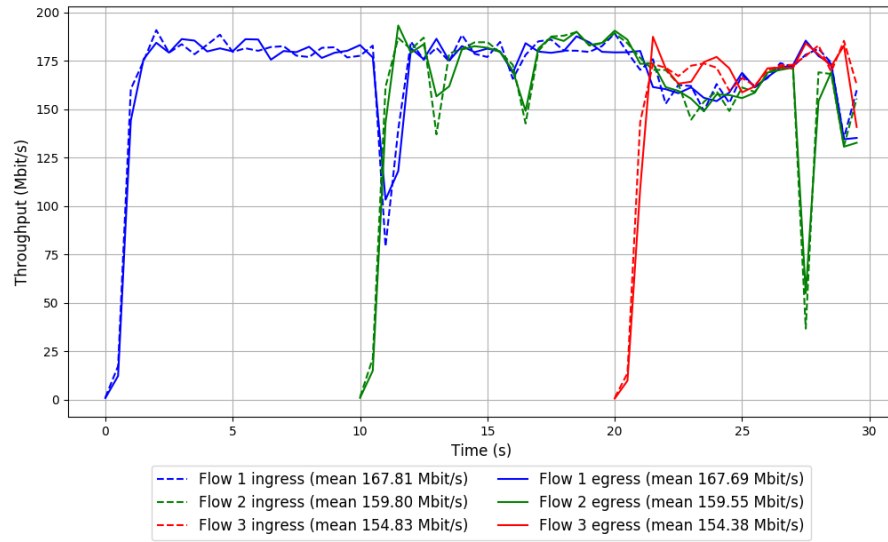
-- Flow 3:

Average throughput: 154.38 Mbit/s

95th percentile per-packet one-way delay: 92.774 ms

Loss rate: 1.57%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-12-06 11:05:17

End at: 2017-12-06 11:05:47

Below is generated by plot.py at 2017-12-06 14:22:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 338.88 Mbit/s

95th percentile per-packet one-way delay: 70.093 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 172.24 Mbit/s

95th percentile per-packet one-way delay: 69.193 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 170.77 Mbit/s

95th percentile per-packet one-way delay: 70.492 ms

Loss rate: 0.69%

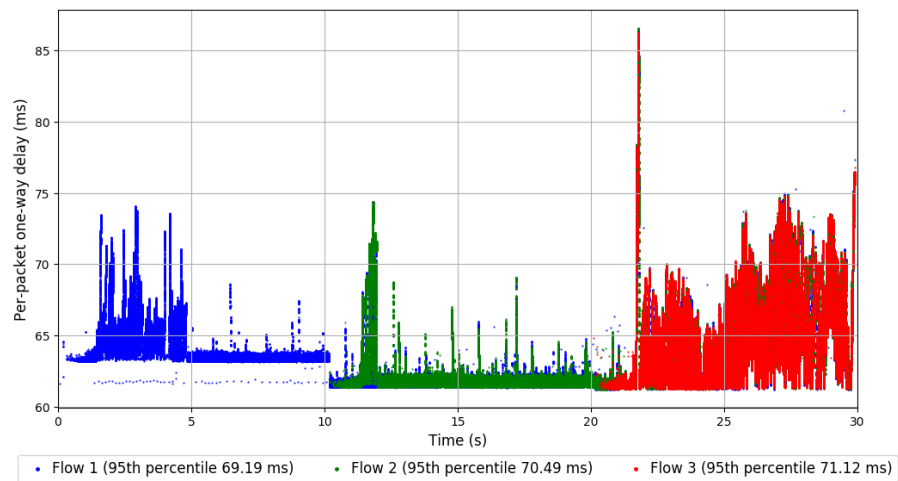
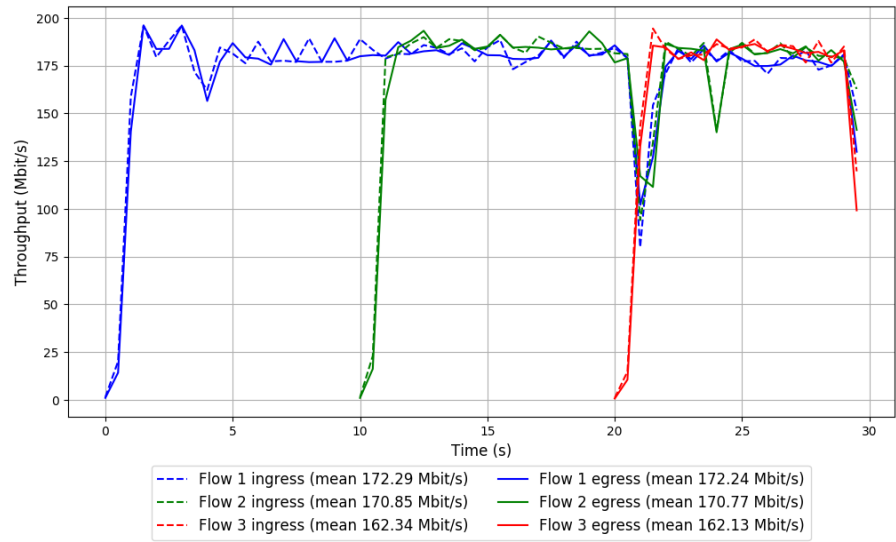
-- Flow 3:

Average throughput: 162.13 Mbit/s

95th percentile per-packet one-way delay: 71.119 ms

Loss rate: 1.43%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-12-06 11:17:44

End at: 2017-12-06 11:18:14

Below is generated by plot.py at 2017-12-06 14:22:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 290.08 Mbit/s

95th percentile per-packet one-way delay: 87.900 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 161.74 Mbit/s

95th percentile per-packet one-way delay: 83.534 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 146.48 Mbit/s

95th percentile per-packet one-way delay: 86.566 ms

Loss rate: 1.42%

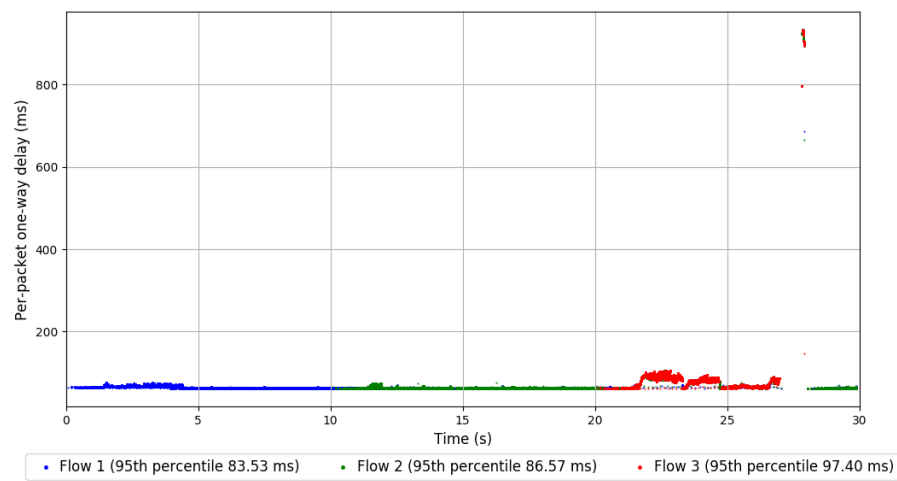
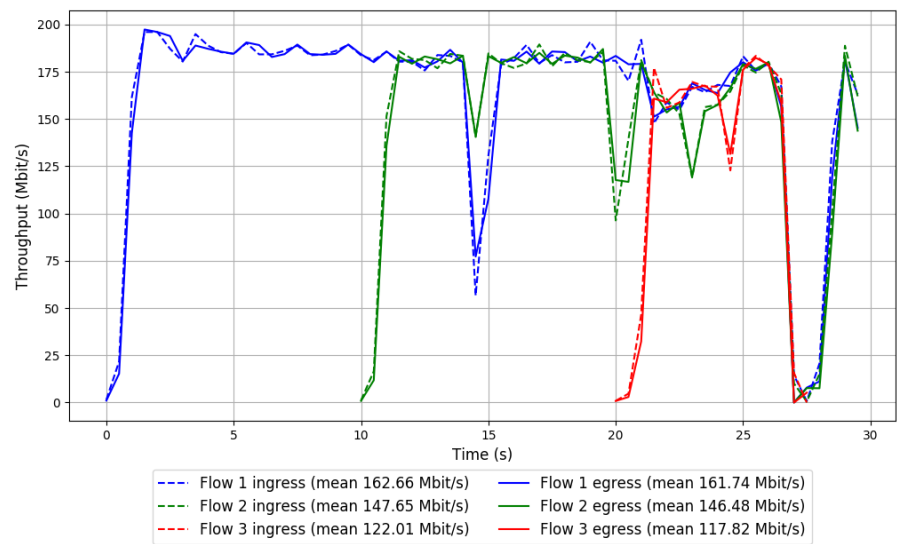
-- Flow 3:

Average throughput: 117.82 Mbit/s

95th percentile per-packet one-way delay: 97.396 ms

Loss rate: 2.40%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-06 11:30:07

End at: 2017-12-06 11:30:37

Below is generated by plot.py at 2017-12-06 14:22:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 331.88 Mbit/s

95th percentile per-packet one-way delay: 85.970 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 171.74 Mbit/s

95th percentile per-packet one-way delay: 82.273 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 160.50 Mbit/s

95th percentile per-packet one-way delay: 85.970 ms

Loss rate: 0.83%

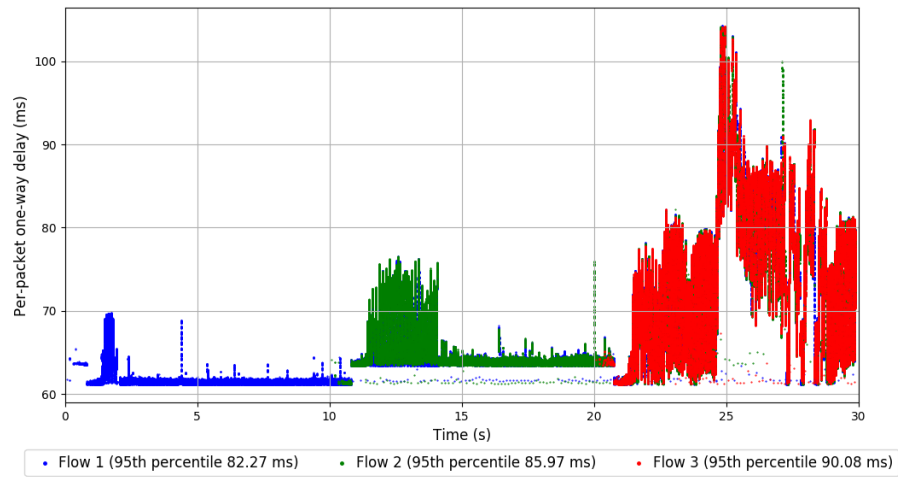
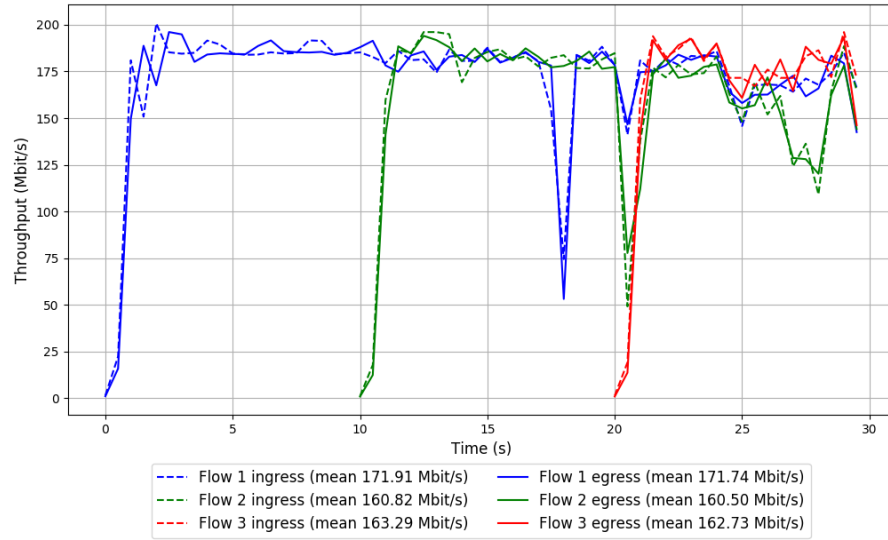
-- Flow 3:

Average throughput: 162.73 Mbit/s

95th percentile per-packet one-way delay: 90.078 ms

Loss rate: 1.61%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-12-06 11:42:36

End at: 2017-12-06 11:43:06

Below is generated by plot.py at 2017-12-06 14:27:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 329.02 Mbit/s

95th percentile per-packet one-way delay: 84.073 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 169.51 Mbit/s

95th percentile per-packet one-way delay: 81.973 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 162.62 Mbit/s

95th percentile per-packet one-way delay: 84.634 ms

Loss rate: 0.75%

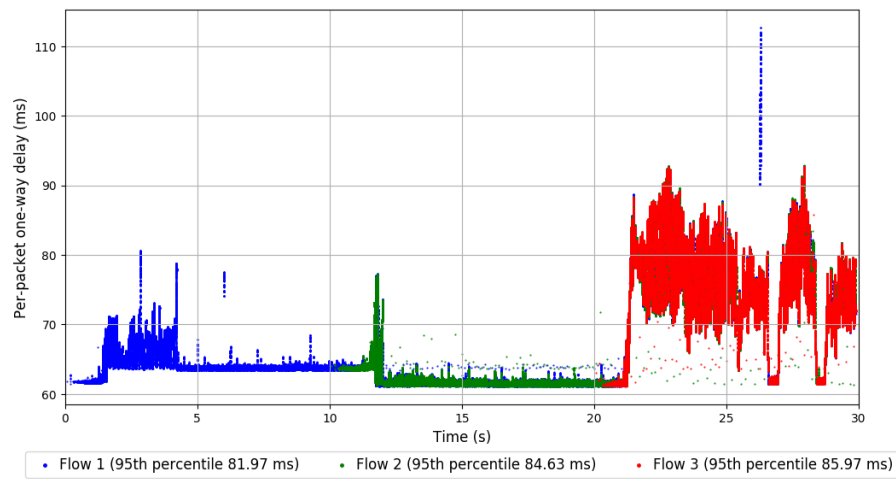
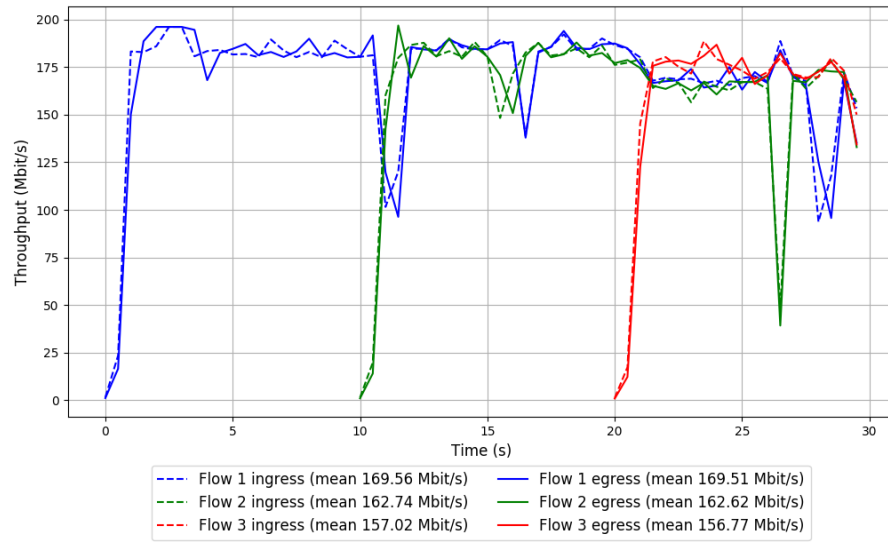
-- Flow 3:

Average throughput: 156.77 Mbit/s

95th percentile per-packet one-way delay: 85.975 ms

Loss rate: 1.41%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-12-06 11:54:57

End at: 2017-12-06 11:55:27

Below is generated by plot.py at 2017-12-06 14:28:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.32 Mbit/s

95th percentile per-packet one-way delay: 80.961 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 168.26 Mbit/s

95th percentile per-packet one-way delay: 78.663 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 163.12 Mbit/s

95th percentile per-packet one-way delay: 79.589 ms

Loss rate: 0.90%

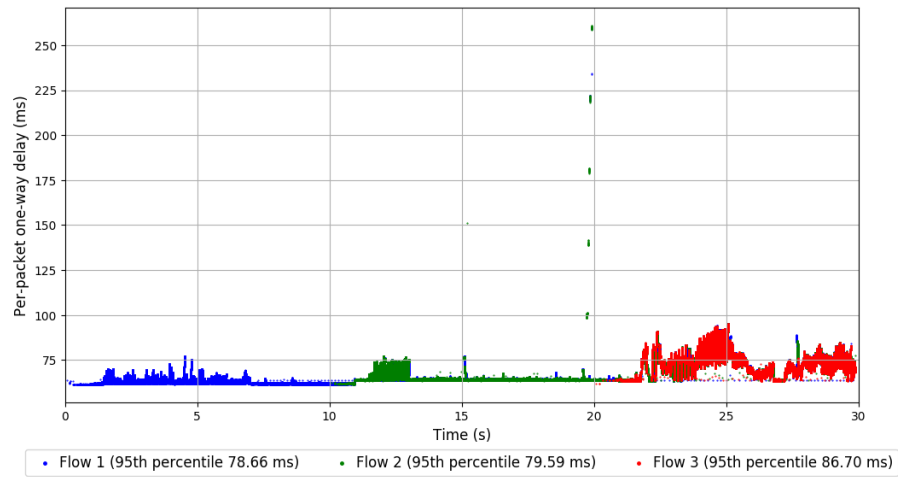
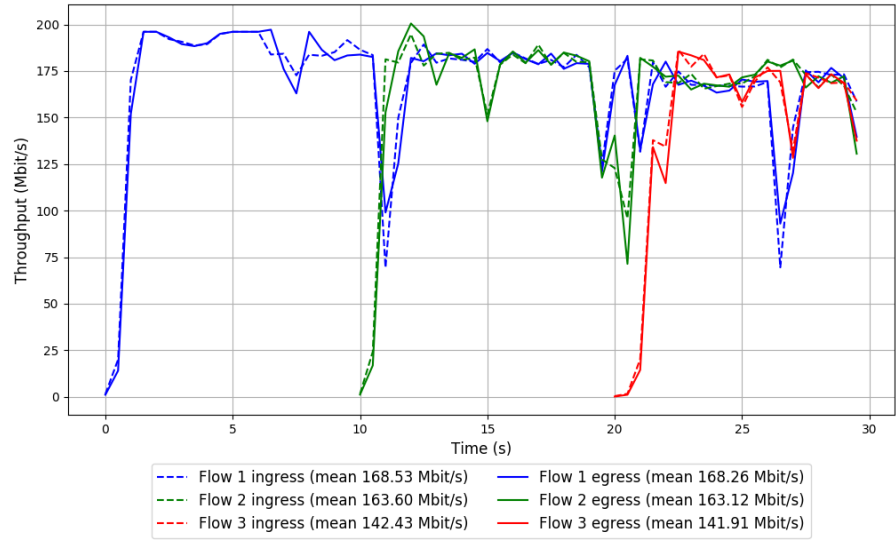
-- Flow 3:

Average throughput: 141.91 Mbit/s

95th percentile per-packet one-way delay: 86.701 ms

Loss rate: 1.62%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-06 10:08:54

End at: 2017-12-06 10:09:24

Below is generated by plot.py at 2017-12-06 14:28:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 194.47 Mbit/s

95th percentile per-packet one-way delay: 73.833 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 91.57 Mbit/s

95th percentile per-packet one-way delay: 73.927 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 98.22 Mbit/s

95th percentile per-packet one-way delay: 74.684 ms

Loss rate: 0.74%

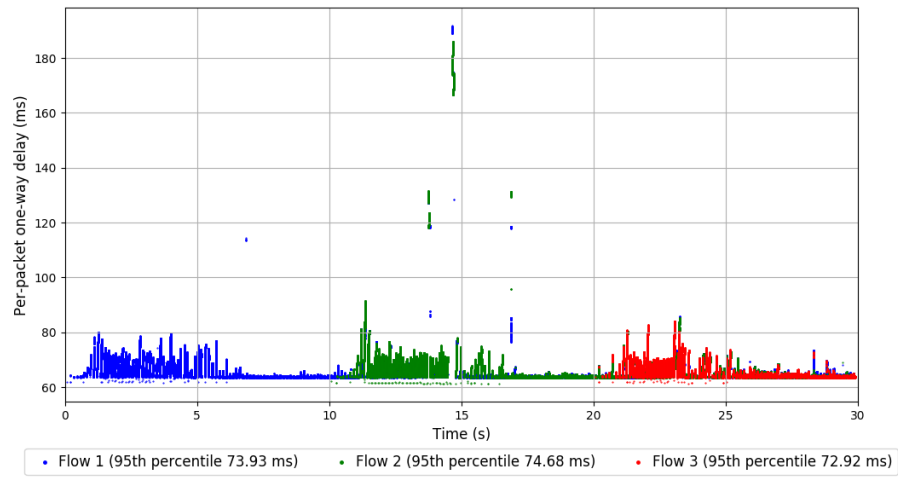
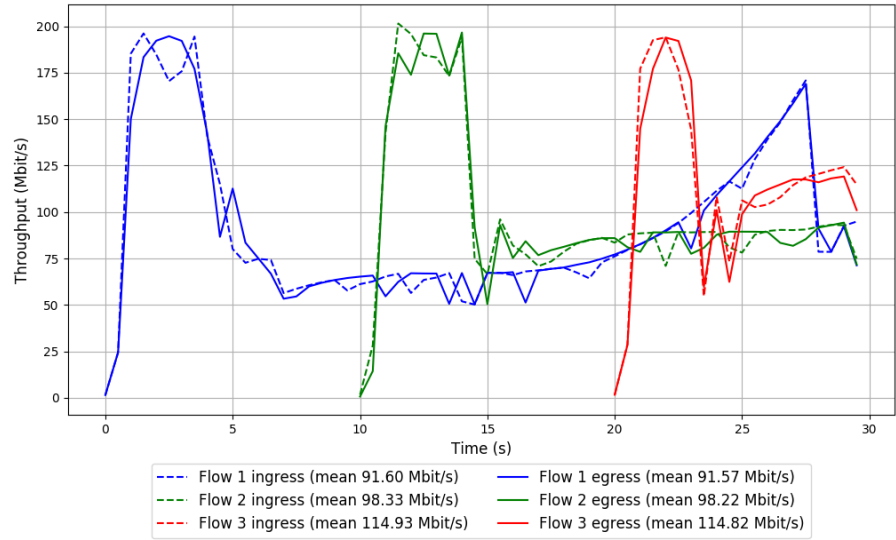
-- Flow 3:

Average throughput: 114.82 Mbit/s

95th percentile per-packet one-way delay: 72.922 ms

Loss rate: 1.37%

Run 1: Report of TCP Cubic — Data Link

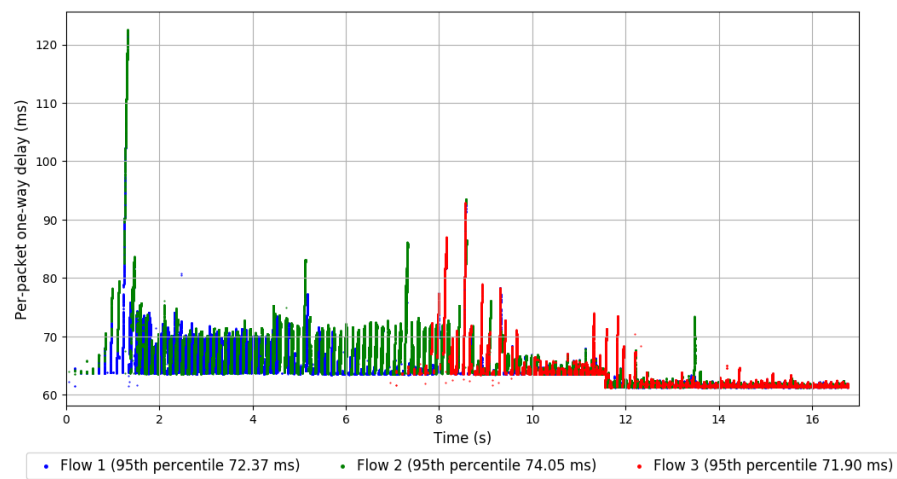
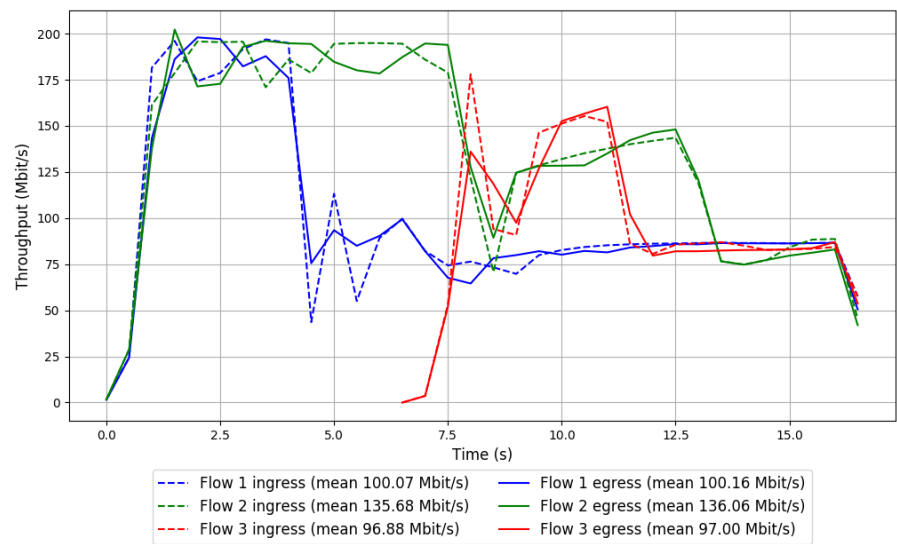


Run 2: Statistics of TCP Cubic

Start at: 2017-12-06 10:21:43

End at: 2017-12-06 10:22:13

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-12-06 10:34:03

End at: 2017-12-06 10:34:33

Below is generated by plot.py at 2017-12-06 14:28:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 236.96 Mbit/s

95th percentile per-packet one-way delay: 72.104 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 114.90 Mbit/s

95th percentile per-packet one-way delay: 72.098 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 104.55 Mbit/s

95th percentile per-packet one-way delay: 72.531 ms

Loss rate: 0.47%

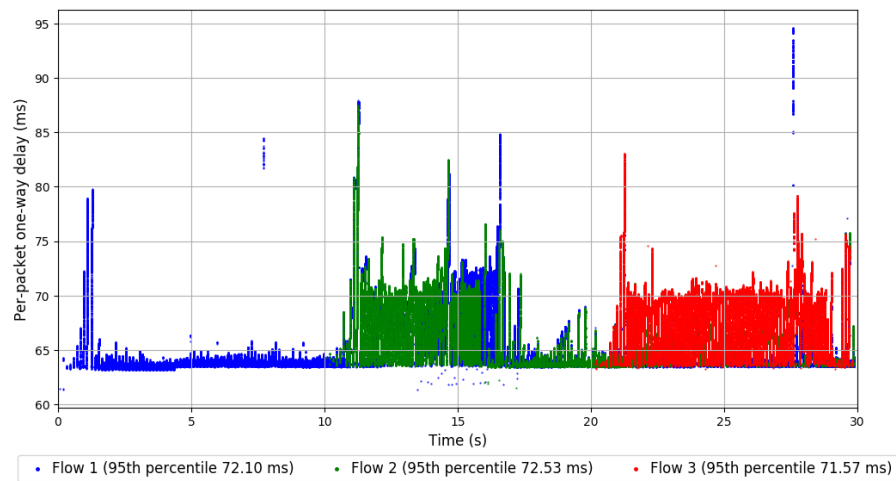
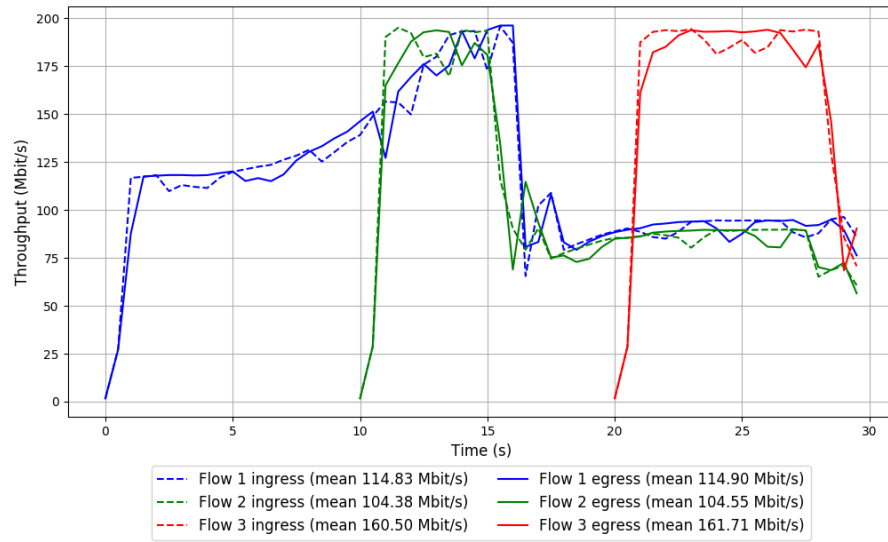
-- Flow 3:

Average throughput: 161.71 Mbit/s

95th percentile per-packet one-way delay: 71.568 ms

Loss rate: 0.58%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-12-06 10:46:33

End at: 2017-12-06 10:47:03

Below is generated by plot.py at 2017-12-06 14:28:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 209.22 Mbit/s

95th percentile per-packet one-way delay: 69.925 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 99.90 Mbit/s

95th percentile per-packet one-way delay: 70.123 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 110.75 Mbit/s

95th percentile per-packet one-way delay: 70.007 ms

Loss rate: 0.70%

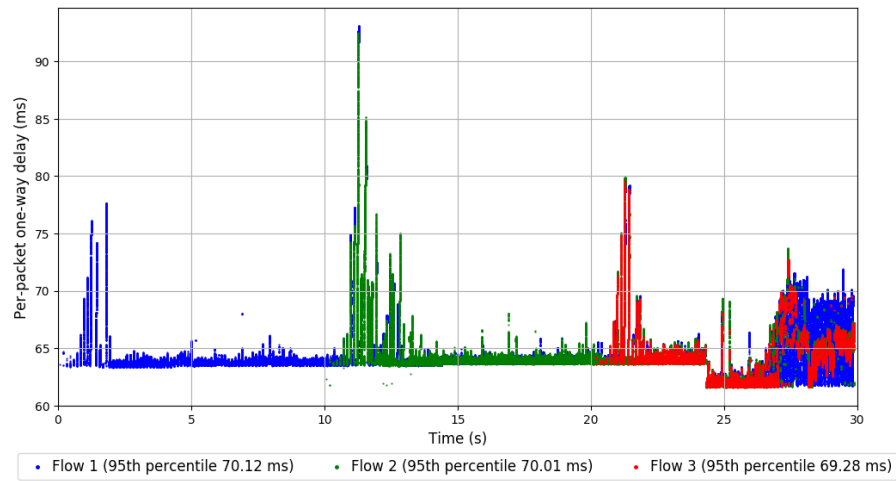
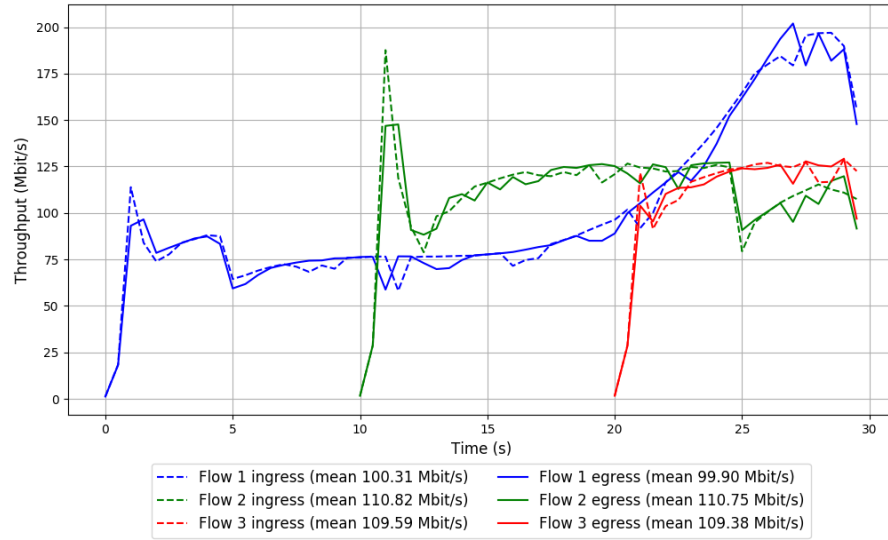
-- Flow 3:

Average throughput: 109.38 Mbit/s

95th percentile per-packet one-way delay: 69.283 ms

Loss rate: 1.48%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-12-06 10:59:05

End at: 2017-12-06 10:59:35

Below is generated by plot.py at 2017-12-06 14:28:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 219.33 Mbit/s

95th percentile per-packet one-way delay: 71.821 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 118.98 Mbit/s

95th percentile per-packet one-way delay: 71.565 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 91.53 Mbit/s

95th percentile per-packet one-way delay: 72.805 ms

Loss rate: 0.64%

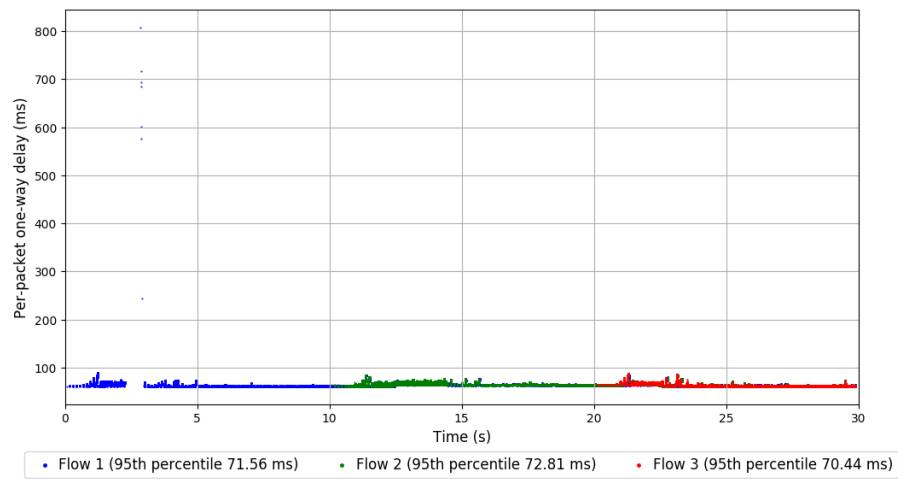
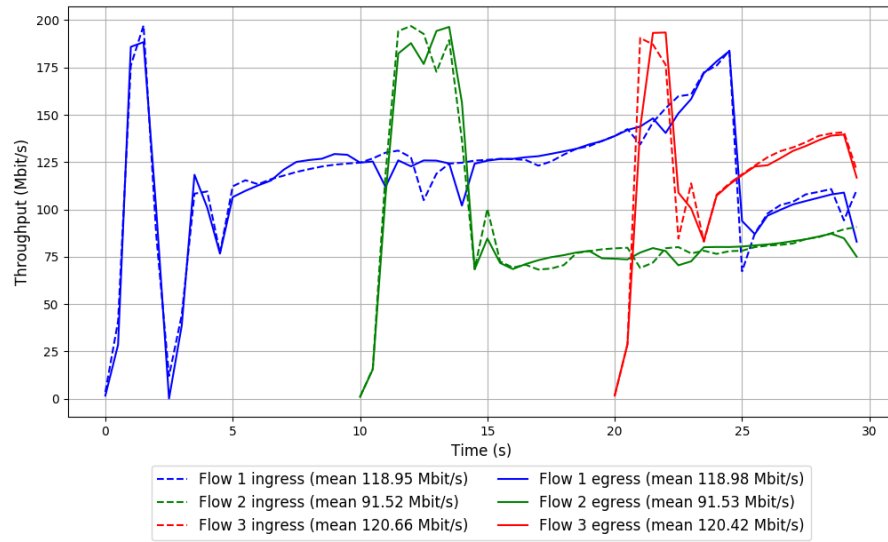
-- Flow 3:

Average throughput: 120.42 Mbit/s

95th percentile per-packet one-way delay: 70.436 ms

Loss rate: 1.48%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-06 11:11:32

End at: 2017-12-06 11:12:02

Below is generated by plot.py at 2017-12-06 14:28:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 248.33 Mbit/s

95th percentile per-packet one-way delay: 72.526 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 115.85 Mbit/s

95th percentile per-packet one-way delay: 71.969 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 159.25 Mbit/s

95th percentile per-packet one-way delay: 72.502 ms

Loss rate: 0.33%

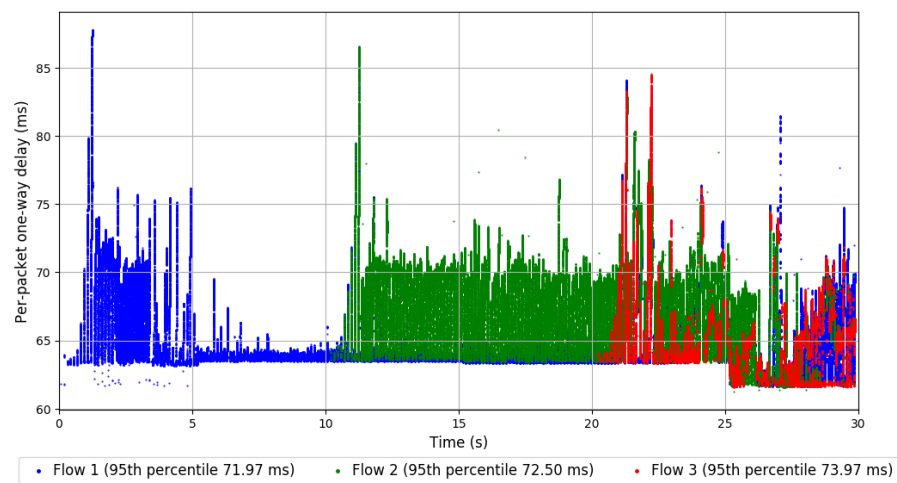
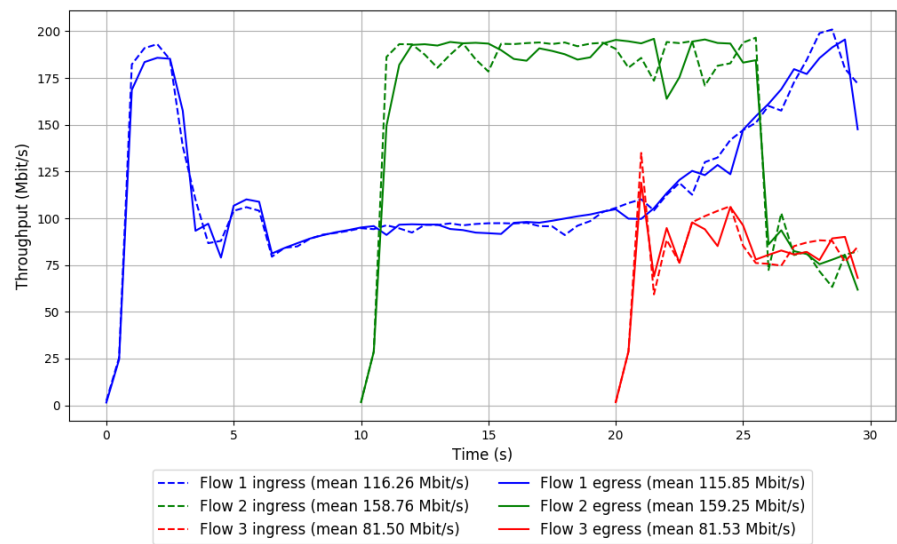
-- Flow 3:

Average throughput: 81.53 Mbit/s

95th percentile per-packet one-way delay: 73.965 ms

Loss rate: 1.40%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-06 11:23:55

End at: 2017-12-06 11:24:25

Below is generated by plot.py at 2017-12-06 14:29:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 221.04 Mbit/s

95th percentile per-packet one-way delay: 71.625 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 115.63 Mbit/s

95th percentile per-packet one-way delay: 71.559 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 107.85 Mbit/s

95th percentile per-packet one-way delay: 71.881 ms

Loss rate: 0.48%

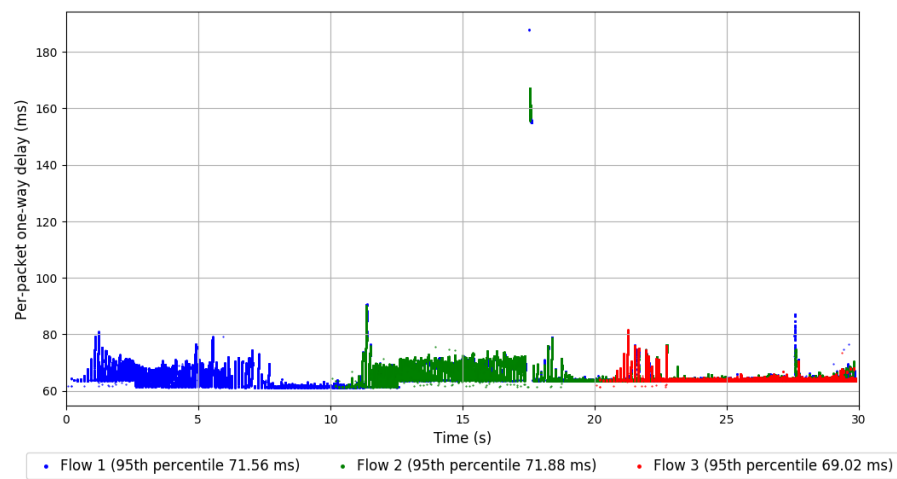
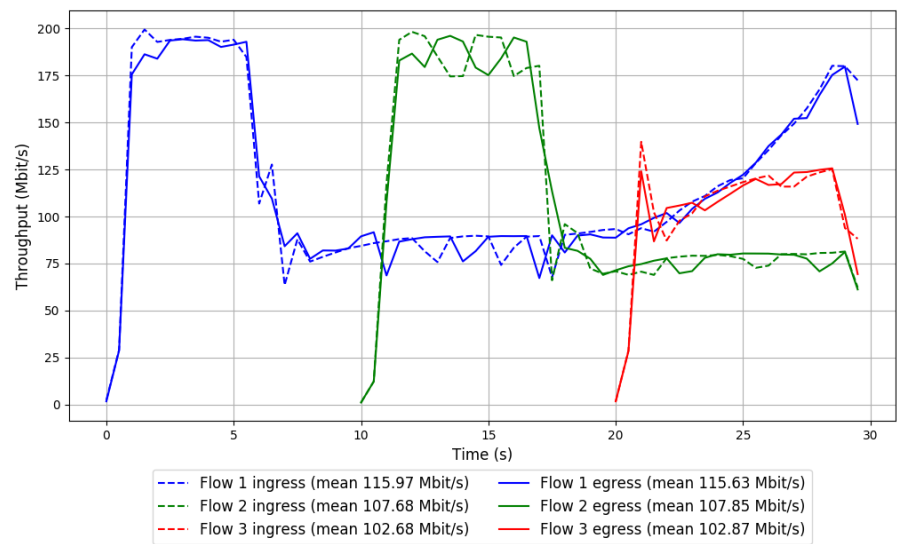
-- Flow 3:

Average throughput: 102.87 Mbit/s

95th percentile per-packet one-way delay: 69.019 ms

Loss rate: 1.14%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-12-06 11:36:24

End at: 2017-12-06 11:36:54

Below is generated by plot.py at 2017-12-06 14:29:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 164.54 Mbit/s

95th percentile per-packet one-way delay: 72.700 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 70.82 Mbit/s

95th percentile per-packet one-way delay: 73.464 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 89.46 Mbit/s

95th percentile per-packet one-way delay: 70.695 ms

Loss rate: 0.79%

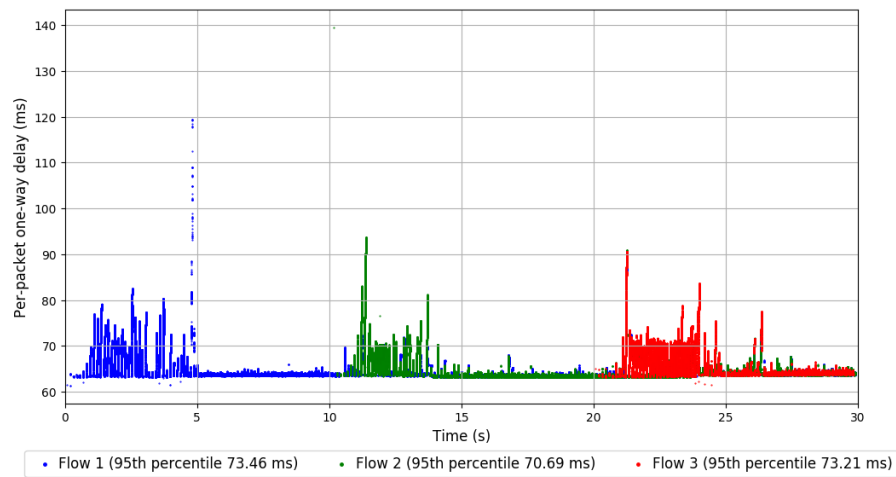
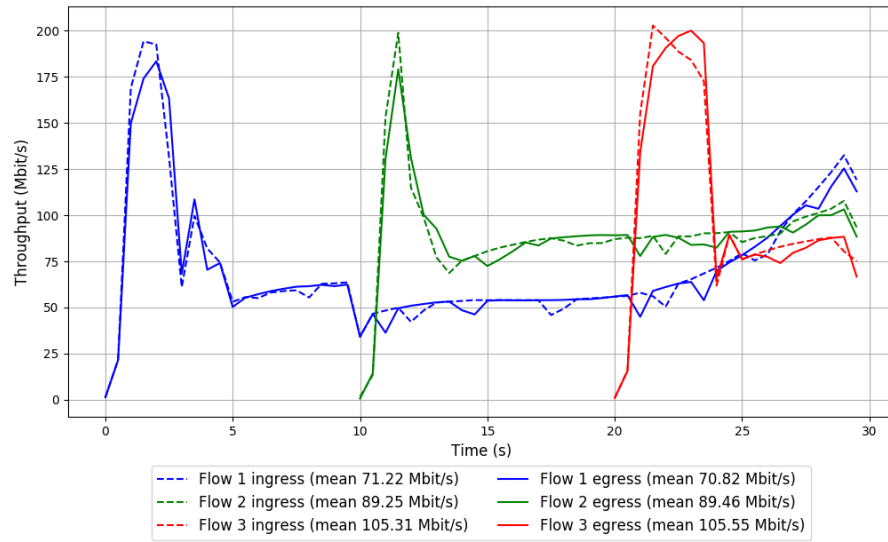
-- Flow 3:

Average throughput: 105.55 Mbit/s

95th percentile per-packet one-way delay: 73.210 ms

Loss rate: 1.07%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-06 11:48:48

End at: 2017-12-06 11:49:18

Below is generated by plot.py at 2017-12-06 14:30:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 222.14 Mbit/s

95th percentile per-packet one-way delay: 71.798 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 127.44 Mbit/s

95th percentile per-packet one-way delay: 71.725 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 85.73 Mbit/s

95th percentile per-packet one-way delay: 72.152 ms

Loss rate: 0.84%

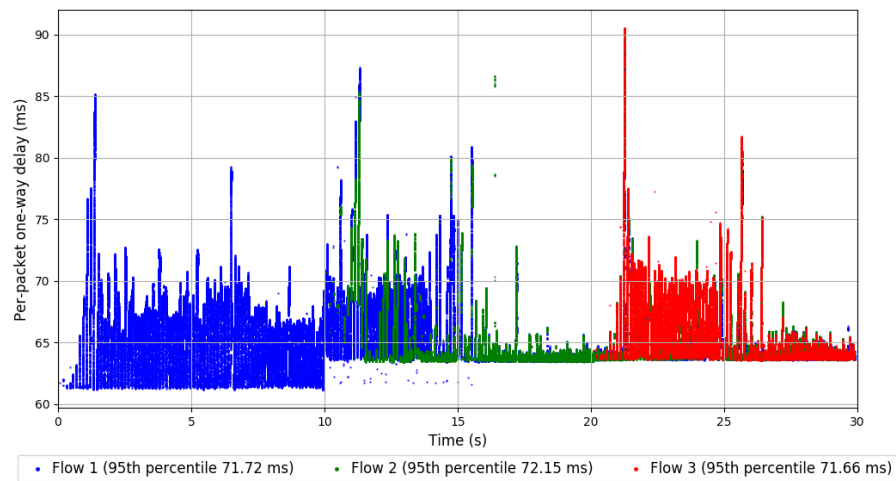
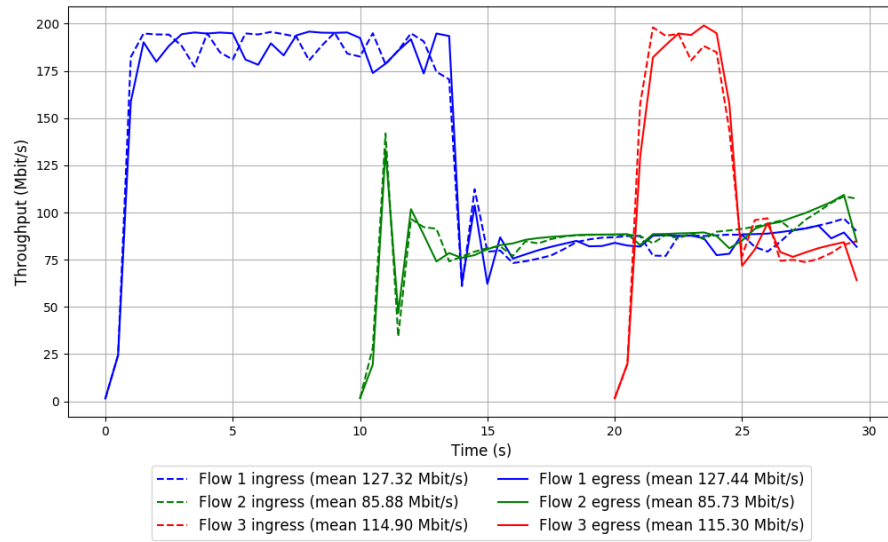
-- Flow 3:

Average throughput: 115.30 Mbit/s

95th percentile per-packet one-way delay: 71.655 ms

Loss rate: 0.95%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-06 12:01:10

End at: 2017-12-06 12:01:40

Below is generated by plot.py at 2017-12-06 14:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 231.85 Mbit/s

95th percentile per-packet one-way delay: 71.528 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 104.53 Mbit/s

95th percentile per-packet one-way delay: 73.051 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 106.26 Mbit/s

95th percentile per-packet one-way delay: 67.968 ms

Loss rate: 0.83%

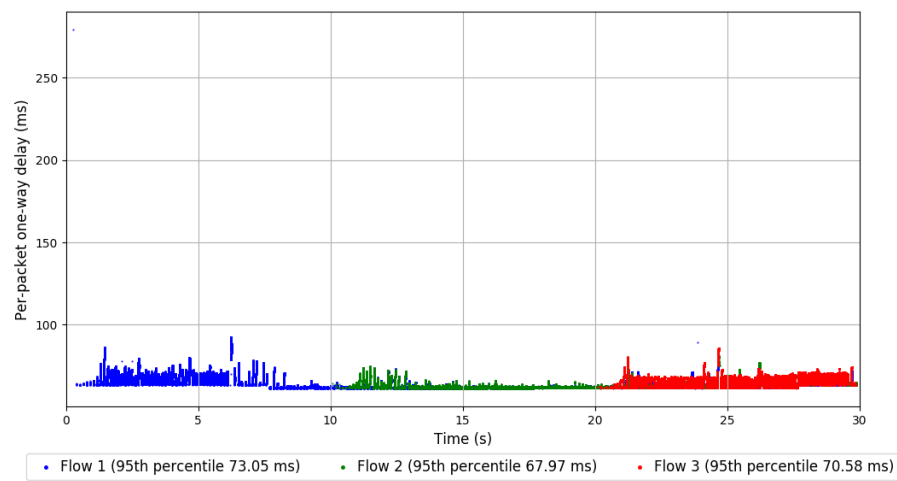
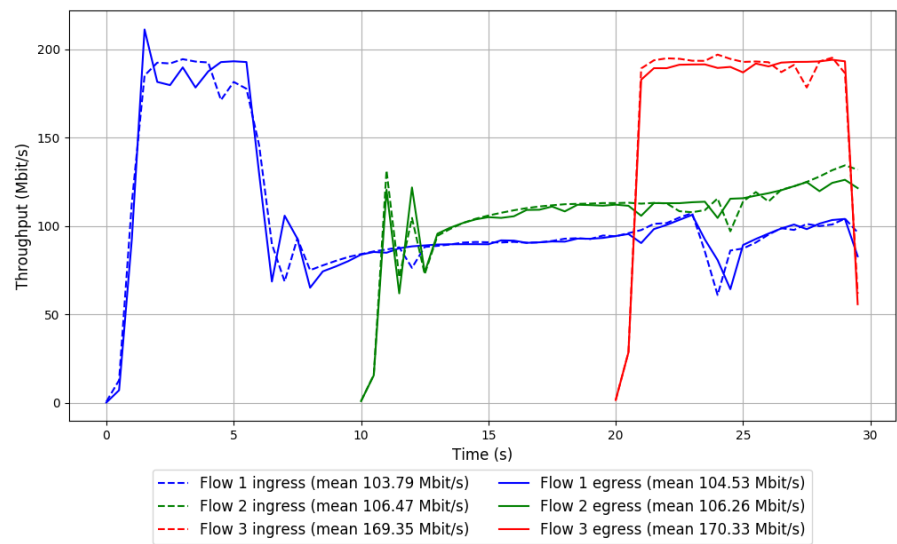
-- Flow 3:

Average throughput: 170.33 Mbit/s

95th percentile per-packet one-way delay: 70.582 ms

Loss rate: 0.73%

Run 10: Report of TCP Cubic — Data Link

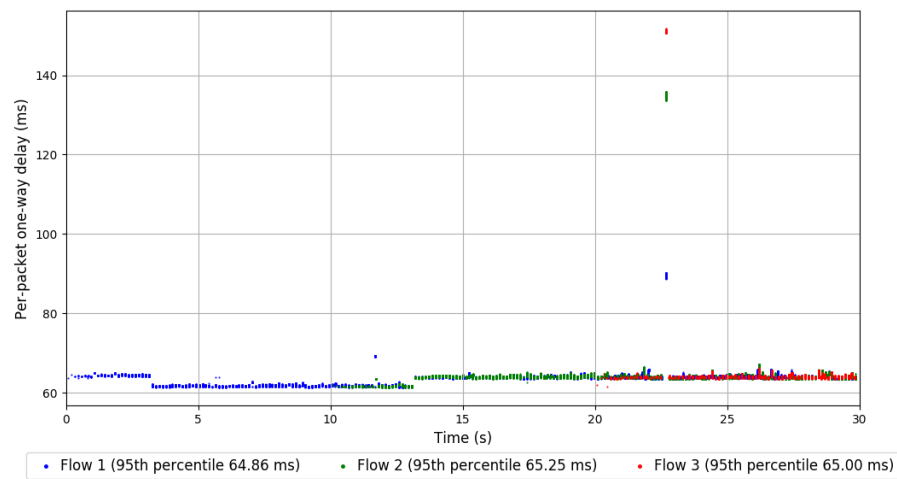
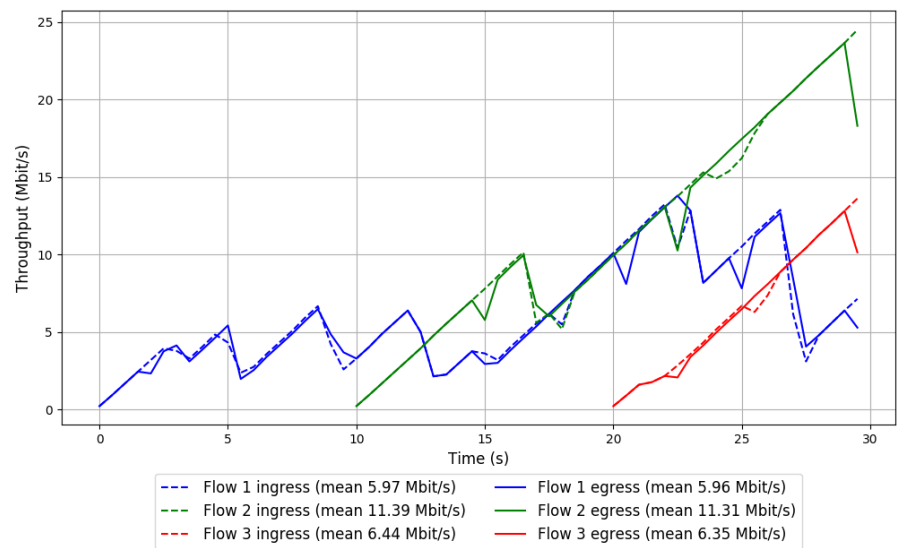


```
Run 1: Statistics of LEDBAT

Start at: 2017-12-06 10:03:44
End at: 2017-12-06 10:04:14

# Below is generated by plot.py at 2017-12-06 14:30:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.54 Mbit/s
95th percentile per-packet one-way delay: 65.041 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 5.96 Mbit/s
95th percentile per-packet one-way delay: 64.863 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 11.31 Mbit/s
95th percentile per-packet one-way delay: 65.248 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 6.35 Mbit/s
95th percentile per-packet one-way delay: 64.998 ms
Loss rate: 2.73%
```


Run 1: Report of LEDBAT — Data Link

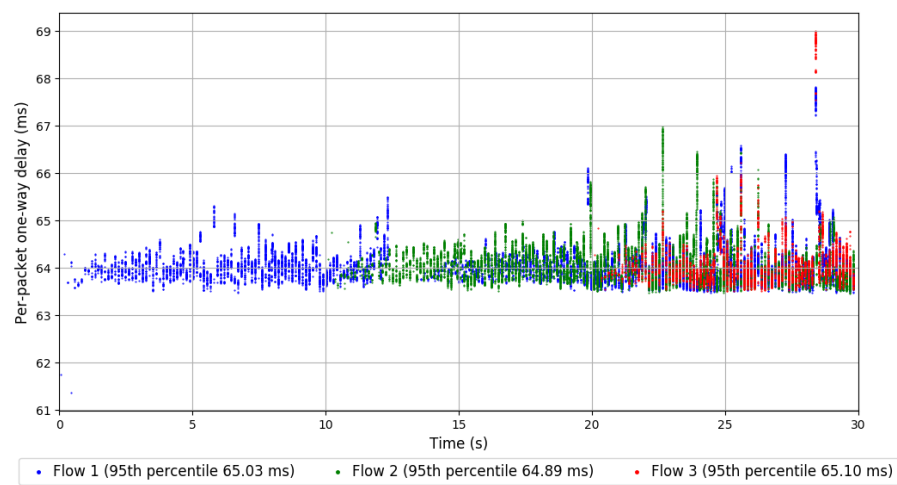
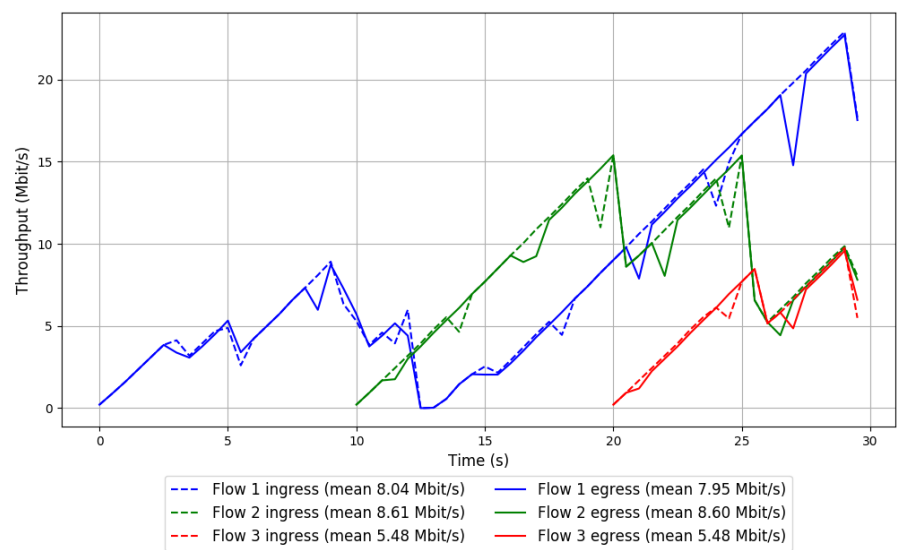


```
Run 2: Statistics of LEDBAT

Start at: 2017-12-06 10:16:08
End at: 2017-12-06 10:16:38

# Below is generated by plot.py at 2017-12-06 14:30:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.44 Mbit/s
95th percentile per-packet one-way delay: 64.984 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 65.026 ms
Loss rate: 1.57%
-- Flow 2:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 64.891 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 5.48 Mbit/s
95th percentile per-packet one-way delay: 65.096 ms
Loss rate: 1.31%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-12-06 10:28:52

End at: 2017-12-06 10:29:22

Below is generated by plot.py at 2017-12-06 14:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.63 Mbit/s

95th percentile per-packet one-way delay: 64.570 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 6.00 Mbit/s

95th percentile per-packet one-way delay: 64.463 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 8.48 Mbit/s

95th percentile per-packet one-way delay: 64.687 ms

Loss rate: 1.81%

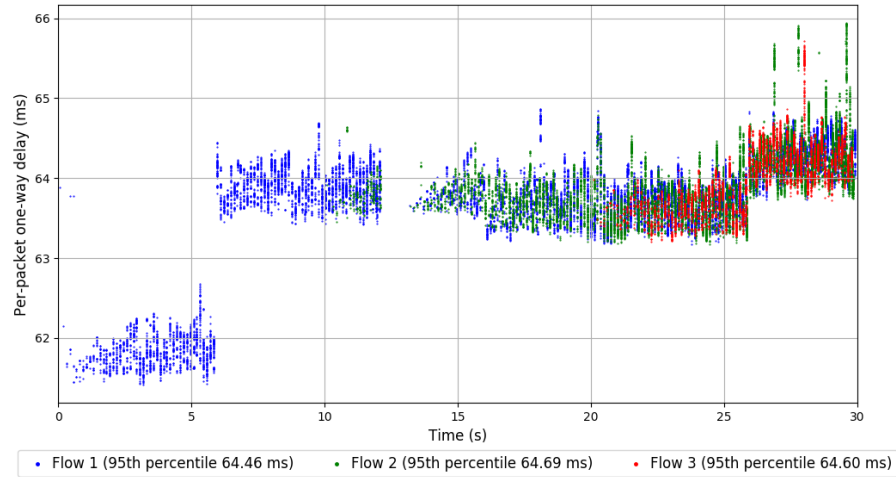
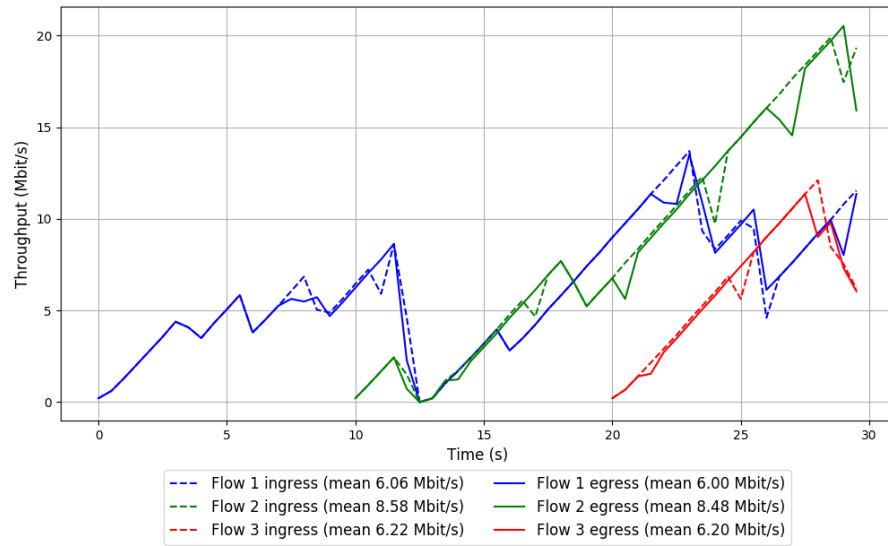
-- Flow 3:

Average throughput: 6.20 Mbit/s

95th percentile per-packet one-way delay: 64.601 ms

Loss rate: 1.72%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-12-06 10:41:17

End at: 2017-12-06 10:41:47

Below is generated by plot.py at 2017-12-06 14:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.95 Mbit/s

95th percentile per-packet one-way delay: 64.592 ms

Loss rate: 1.70%

-- Flow 1:

Average throughput: 9.65 Mbit/s

95th percentile per-packet one-way delay: 64.639 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 64.553 ms

Loss rate: 1.25%

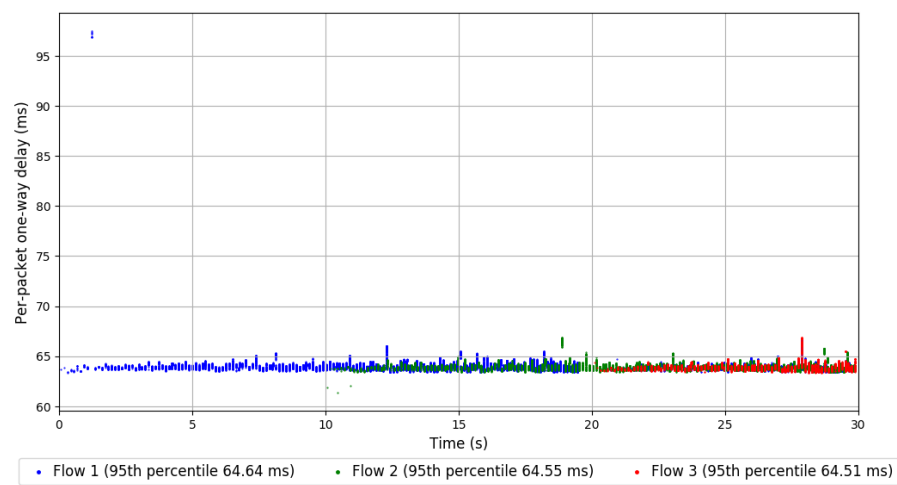
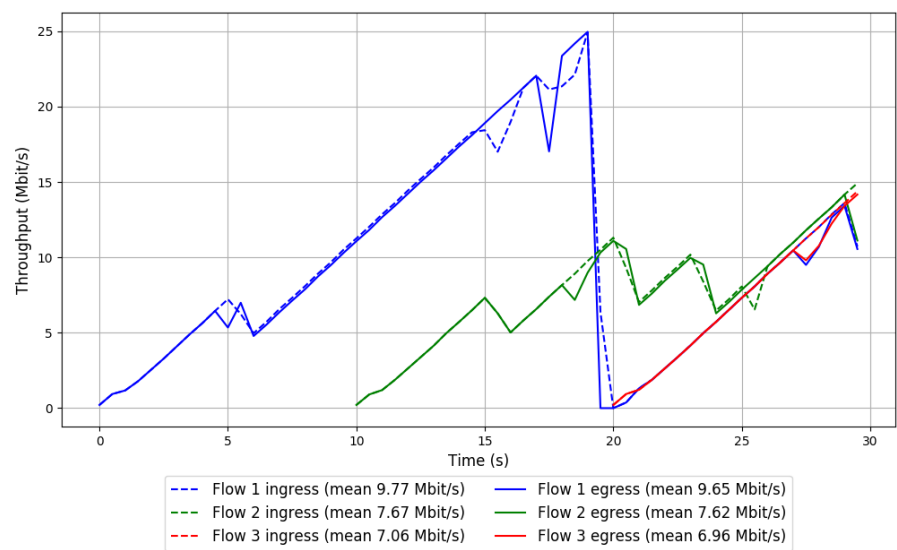
-- Flow 3:

Average throughput: 6.96 Mbit/s

95th percentile per-packet one-way delay: 64.506 ms

Loss rate: 2.63%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-06 10:53:51

End at: 2017-12-06 10:54:21

Below is generated by plot.py at 2017-12-06 14:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.31 Mbit/s

95th percentile per-packet one-way delay: 64.372 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 7.15 Mbit/s

95th percentile per-packet one-way delay: 64.142 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 5.71 Mbit/s

95th percentile per-packet one-way delay: 64.379 ms

Loss rate: 1.01%

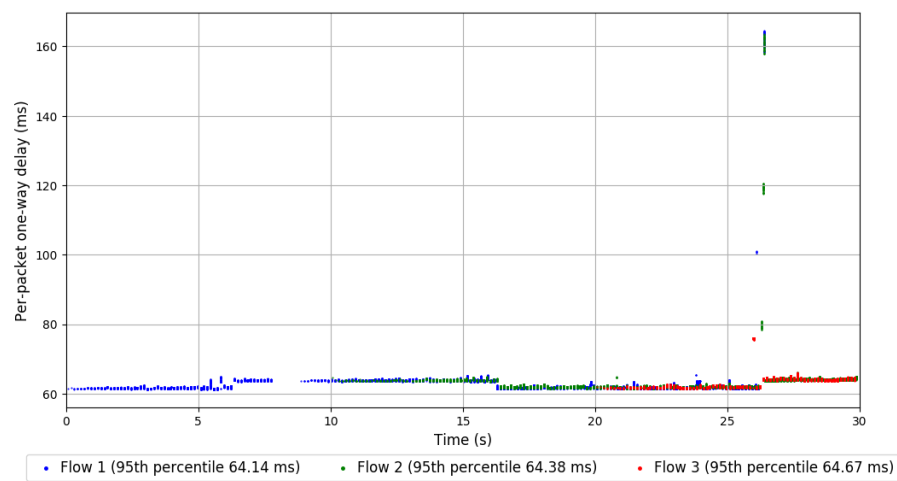
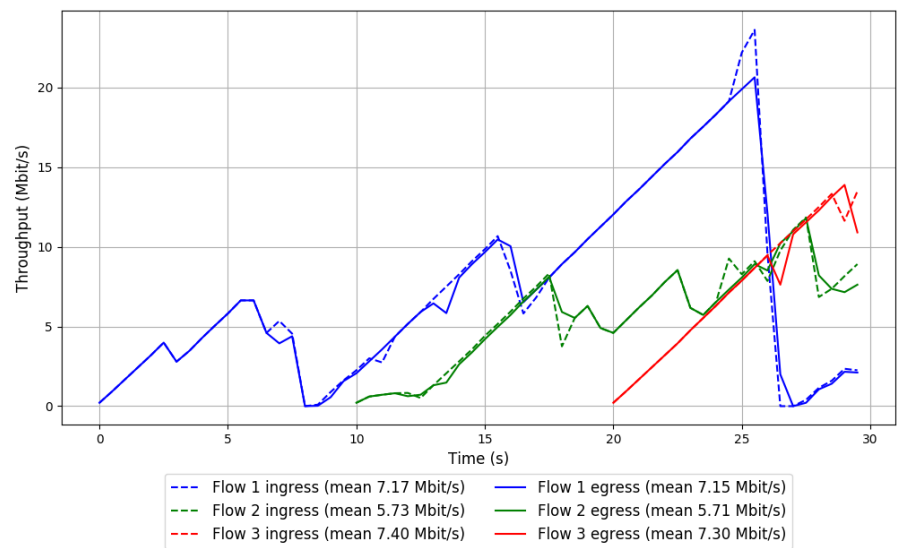
-- Flow 3:

Average throughput: 7.30 Mbit/s

95th percentile per-packet one-way delay: 64.669 ms

Loss rate: 2.55%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-12-06 11:06:18

End at: 2017-12-06 11:06:48

Below is generated by plot.py at 2017-12-06 14:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.13 Mbit/s

95th percentile per-packet one-way delay: 64.884 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 8.88 Mbit/s

95th percentile per-packet one-way delay: 64.969 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 11.19 Mbit/s

95th percentile per-packet one-way delay: 64.887 ms

Loss rate: 0.41%

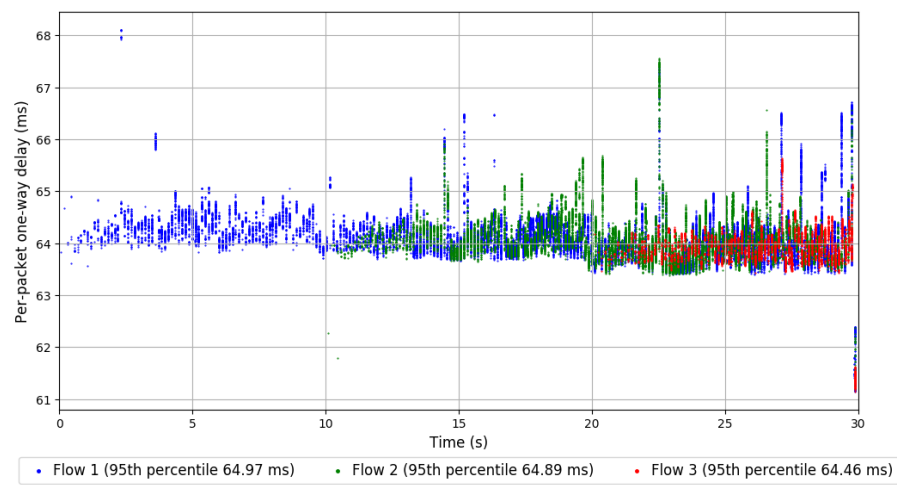
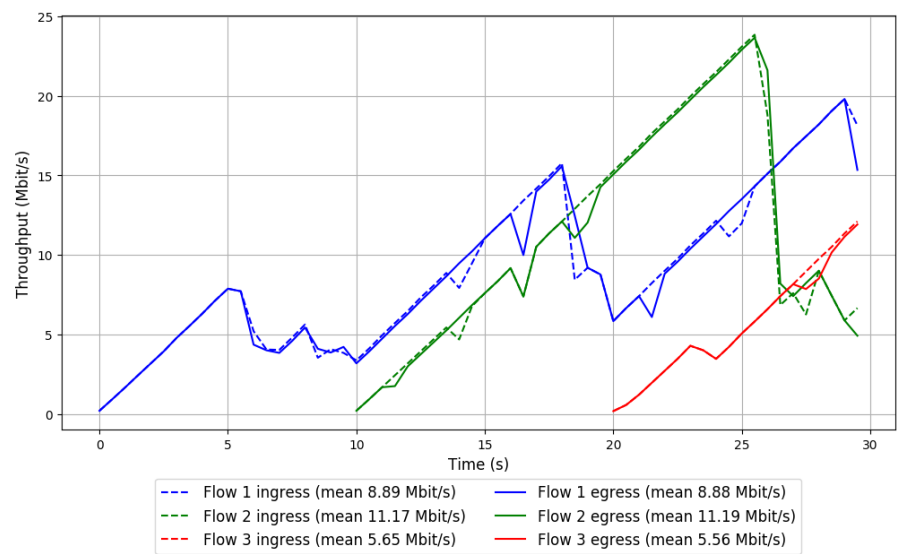
-- Flow 3:

Average throughput: 5.56 Mbit/s

95th percentile per-packet one-way delay: 64.456 ms

Loss rate: 2.77%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-06 11:18:42

End at: 2017-12-06 11:19:12

Below is generated by plot.py at 2017-12-06 14:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.63 Mbit/s

95th percentile per-packet one-way delay: 64.365 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 8.15 Mbit/s

95th percentile per-packet one-way delay: 64.287 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 12.69 Mbit/s

95th percentile per-packet one-way delay: 64.466 ms

Loss rate: 0.90%

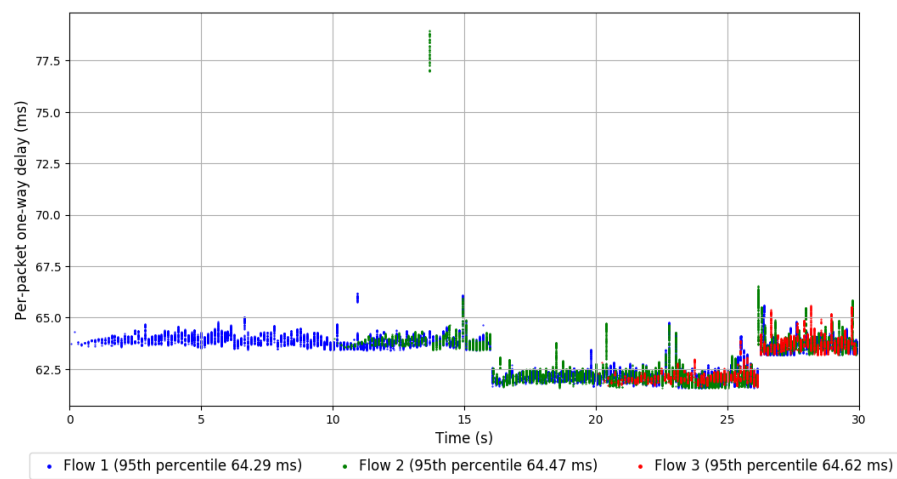
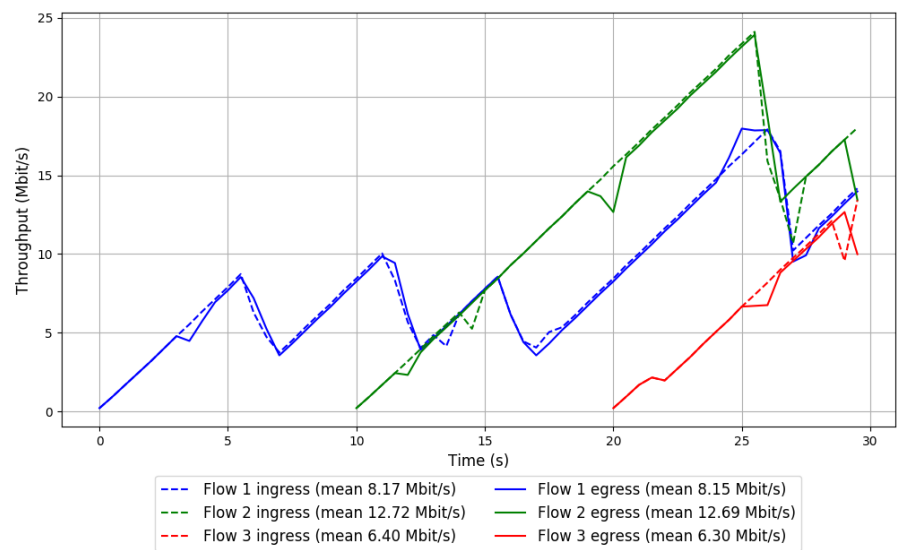
-- Flow 3:

Average throughput: 6.30 Mbit/s

95th percentile per-packet one-way delay: 64.624 ms

Loss rate: 2.71%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-06 11:31:07

End at: 2017-12-06 11:31:37

Below is generated by plot.py at 2017-12-06 14:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.40 Mbit/s

95th percentile per-packet one-way delay: 64.266 ms

Loss rate: 2.08%

-- Flow 1:

Average throughput: 5.36 Mbit/s

95th percentile per-packet one-way delay: 64.209 ms

Loss rate: 1.55%

-- Flow 2:

Average throughput: 6.78 Mbit/s

95th percentile per-packet one-way delay: 64.390 ms

Loss rate: 2.62%

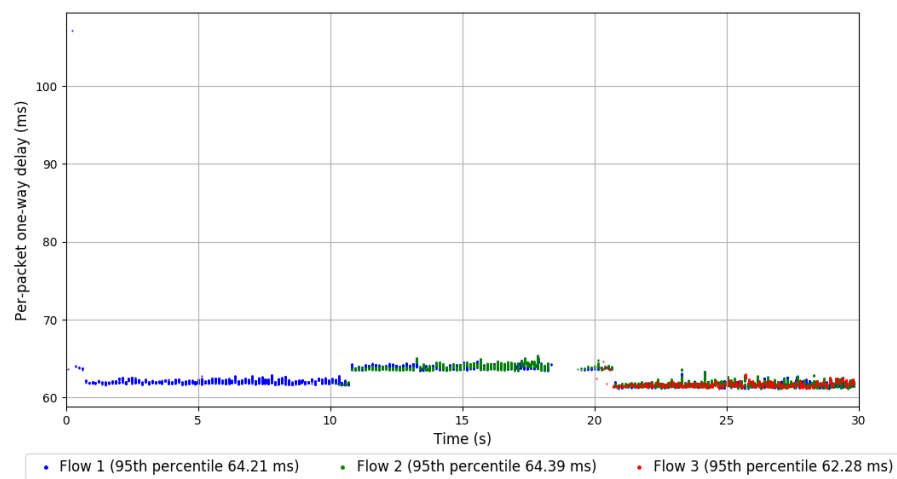
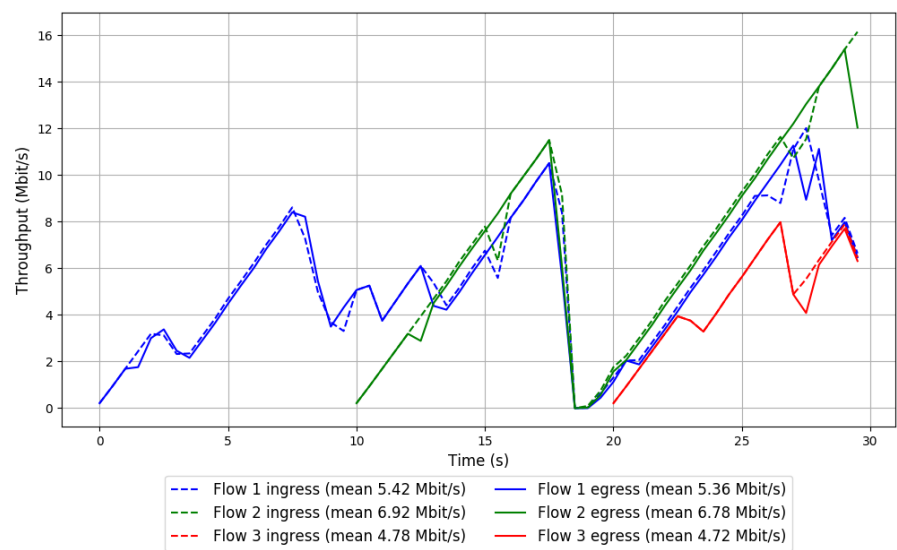
-- Flow 3:

Average throughput: 4.72 Mbit/s

95th percentile per-packet one-way delay: 62.284 ms

Loss rate: 2.35%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-12-06 11:43:36

End at: 2017-12-06 11:44:06

Below is generated by plot.py at 2017-12-06 14:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.90 Mbit/s

95th percentile per-packet one-way delay: 64.776 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 8.74 Mbit/s

95th percentile per-packet one-way delay: 64.896 ms

Loss rate: 1.84%

-- Flow 2:

Average throughput: 9.10 Mbit/s

95th percentile per-packet one-way delay: 64.655 ms

Loss rate: 1.07%

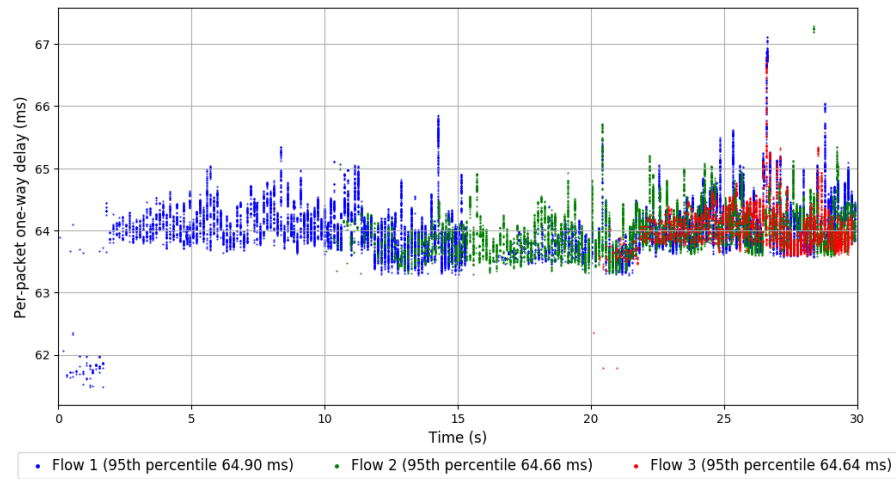
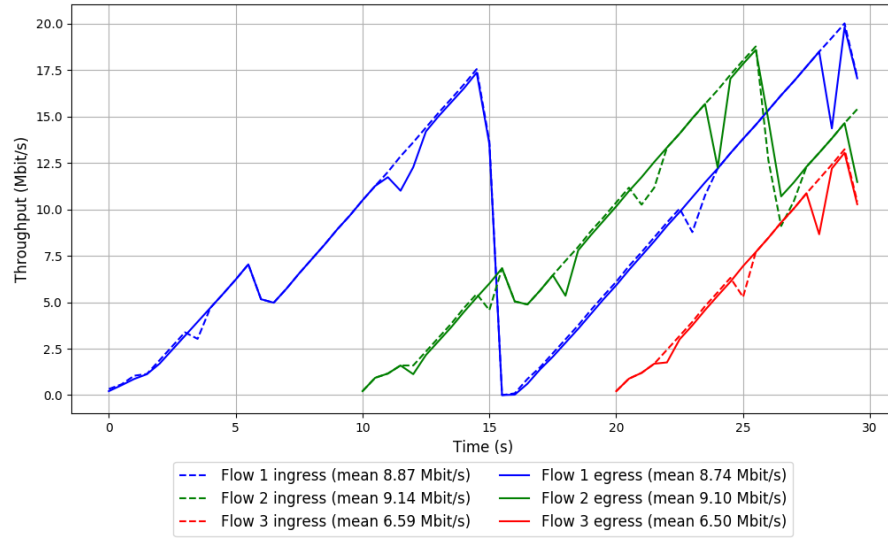
-- Flow 3:

Average throughput: 6.50 Mbit/s

95th percentile per-packet one-way delay: 64.636 ms

Loss rate: 2.72%

Run 9: Report of LEDBAT — Data Link

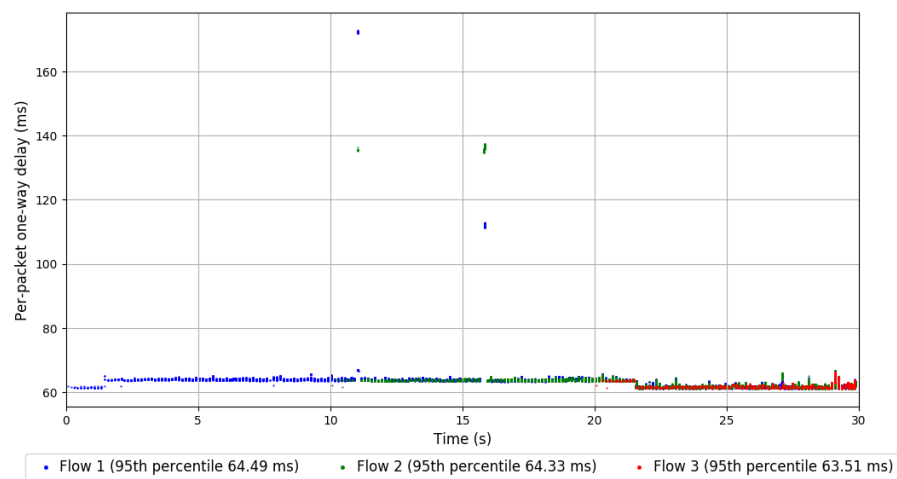
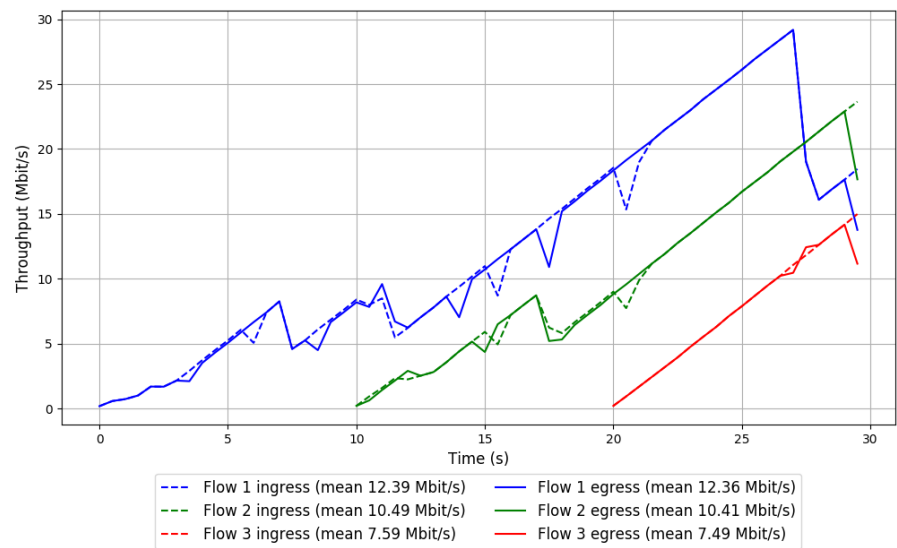


```
Run 10: Statistics of LEDBAT

Start at: 2017-12-06 11:55:56
End at: 2017-12-06 11:56:26

# Below is generated by plot.py at 2017-12-06 14:30:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.73 Mbit/s
95th percentile per-packet one-way delay: 64.427 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 12.36 Mbit/s
95th percentile per-packet one-way delay: 64.487 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 10.41 Mbit/s
95th percentile per-packet one-way delay: 64.331 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 7.49 Mbit/s
95th percentile per-packet one-way delay: 63.511 ms
Loss rate: 2.54%
```

Run 10: Report of LEDBAT — Data Link

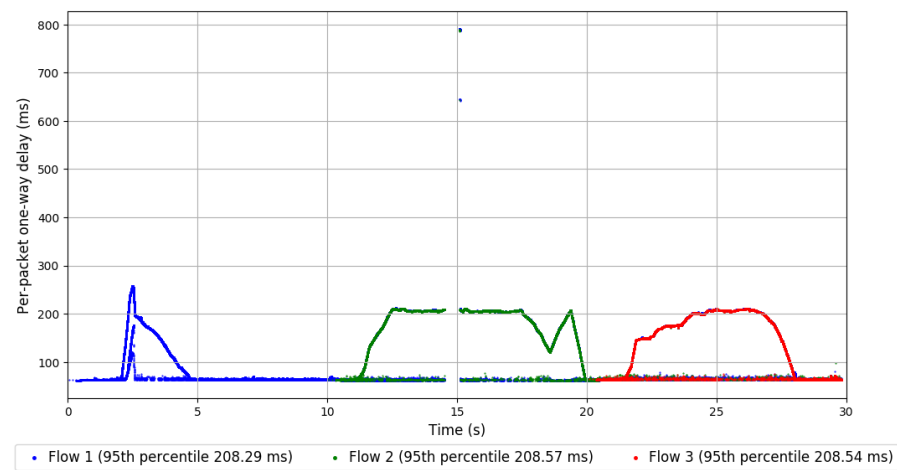
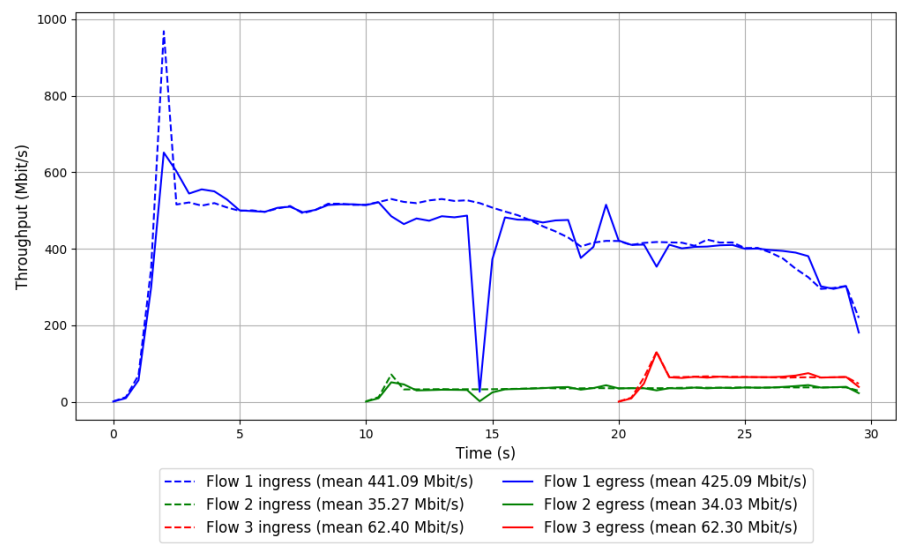


```
Run 1: Statistics of PCC

Start at: 2017-12-06 10:14:07
End at: 2017-12-06 10:14:37

# Below is generated by plot.py at 2017-12-06 14:36:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.02 Mbit/s
95th percentile per-packet one-way delay: 208.329 ms
Loss rate: 3.93%
-- Flow 1:
Average throughput: 425.09 Mbit/s
95th percentile per-packet one-way delay: 208.295 ms
Loss rate: 4.03%
-- Flow 2:
Average throughput: 34.03 Mbit/s
95th percentile per-packet one-way delay: 208.571 ms
Loss rate: 4.13%
-- Flow 3:
Average throughput: 62.30 Mbit/s
95th percentile per-packet one-way delay: 208.542 ms
Loss rate: 1.46%
```

Run 1: Report of PCC — Data Link

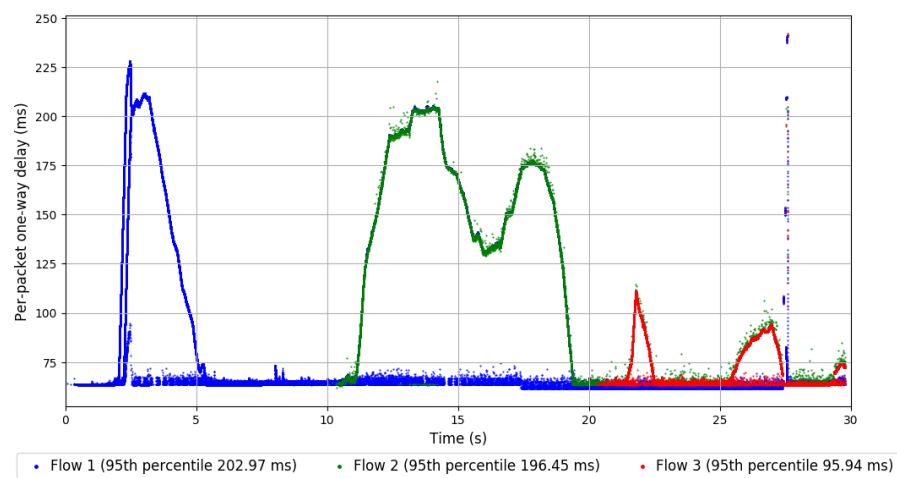
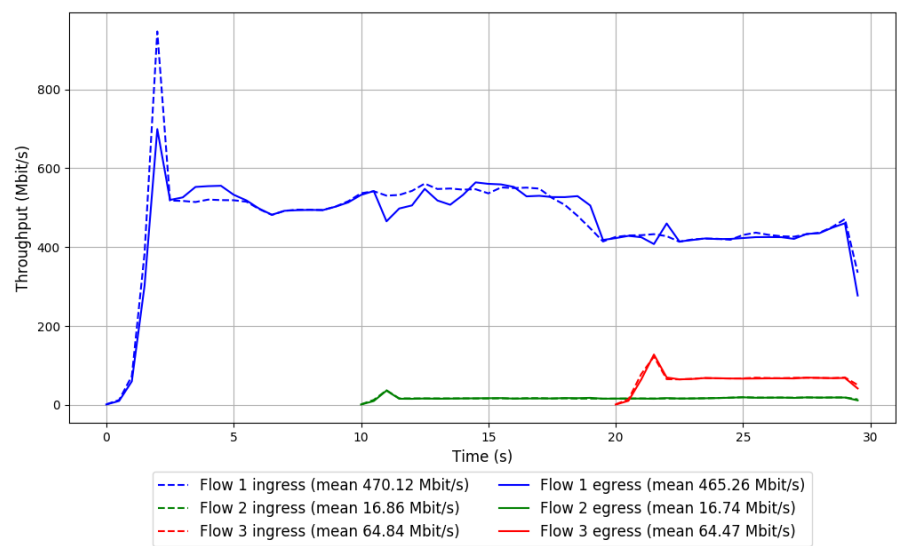


```
Run 2: Statistics of PCC

Start at: 2017-12-06 10:26:50
End at: 2017-12-06 10:27:20

# Below is generated by plot.py at 2017-12-06 14:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 497.34 Mbit/s
95th percentile per-packet one-way delay: 202.848 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 465.26 Mbit/s
95th percentile per-packet one-way delay: 202.970 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 16.74 Mbit/s
95th percentile per-packet one-way delay: 196.450 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 64.47 Mbit/s
95th percentile per-packet one-way delay: 95.938 ms
Loss rate: 1.89%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-06 10:39:16

End at: 2017-12-06 10:39:46

Below is generated by plot.py at 2017-12-06 14:36:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 469.52 Mbit/s

95th percentile per-packet one-way delay: 161.670 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 443.45 Mbit/s

95th percentile per-packet one-way delay: 161.721 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 31.23 Mbit/s

95th percentile per-packet one-way delay: 162.178 ms

Loss rate: 0.72%

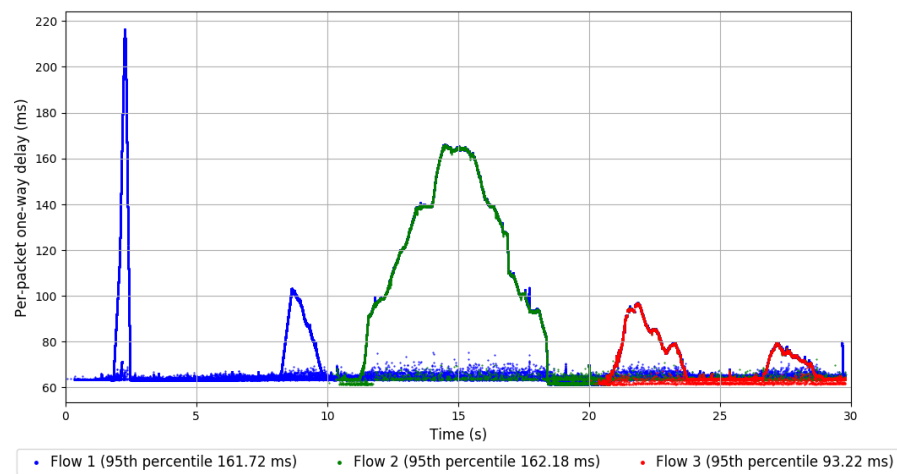
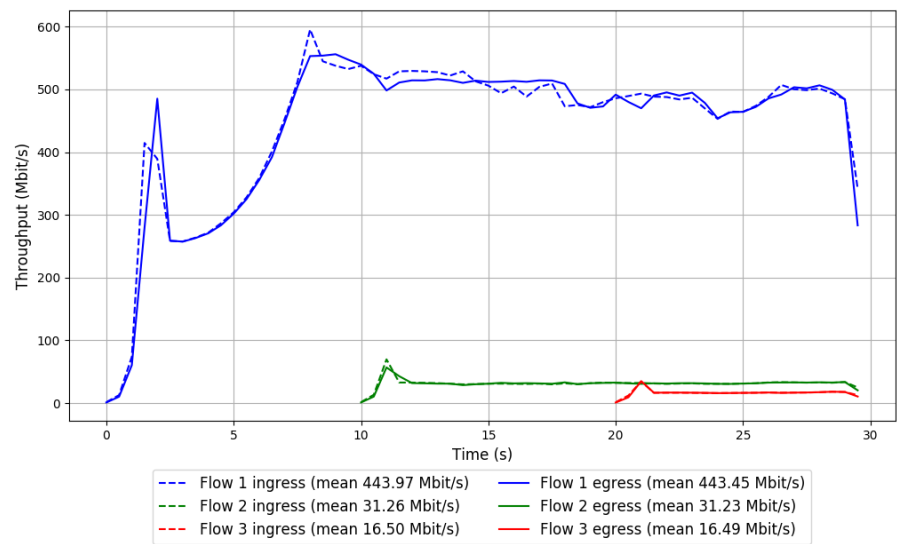
-- Flow 3:

Average throughput: 16.49 Mbit/s

95th percentile per-packet one-way delay: 93.215 ms

Loss rate: 1.36%

Run 3: Report of PCC — Data Link

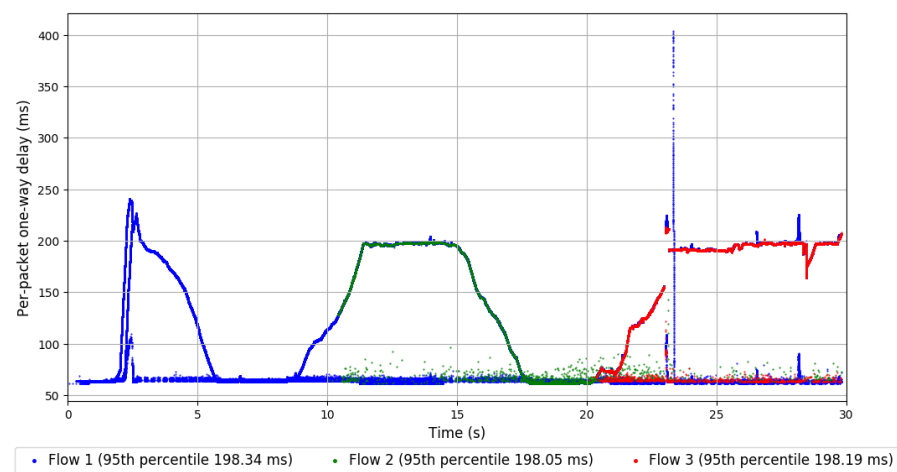
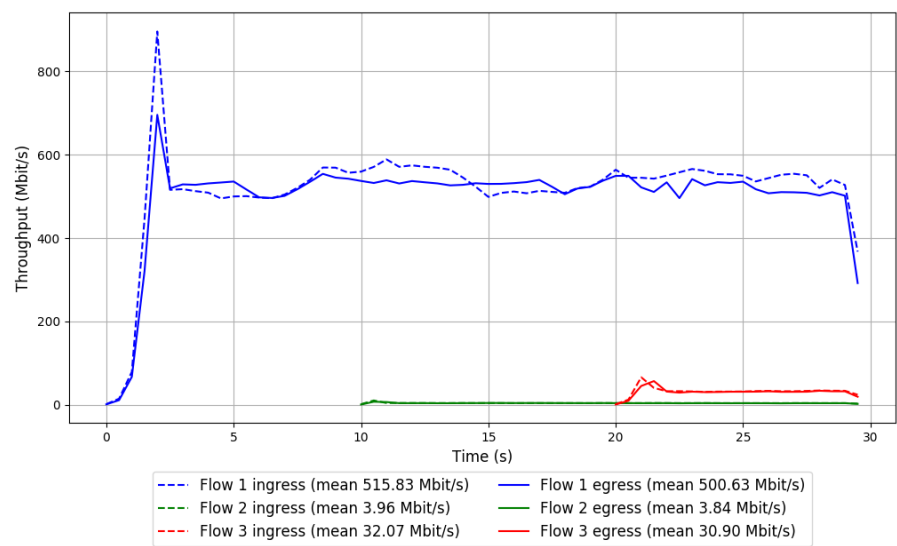


```
Run 4: Statistics of PCC

Start at: 2017-12-06 10:51:47
End at: 2017-12-06 10:52:17

# Below is generated by plot.py at 2017-12-06 14:37:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 513.25 Mbit/s
95th percentile per-packet one-way delay: 198.336 ms
Loss rate: 3.38%
-- Flow 1:
Average throughput: 500.63 Mbit/s
95th percentile per-packet one-way delay: 198.342 ms
Loss rate: 3.35%
-- Flow 2:
Average throughput: 3.84 Mbit/s
95th percentile per-packet one-way delay: 198.048 ms
Loss rate: 3.50%
-- Flow 3:
Average throughput: 30.90 Mbit/s
95th percentile per-packet one-way delay: 198.193 ms
Loss rate: 4.89%
```

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-06 11:04:14

End at: 2017-12-06 11:04:44

Below is generated by plot.py at 2017-12-06 14:37:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 503.56 Mbit/s

95th percentile per-packet one-way delay: 203.656 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 461.32 Mbit/s

95th percentile per-packet one-way delay: 203.731 ms

Loss rate: 1.94%

-- Flow 2:

Average throughput: 31.97 Mbit/s

95th percentile per-packet one-way delay: 203.900 ms

Loss rate: 1.66%

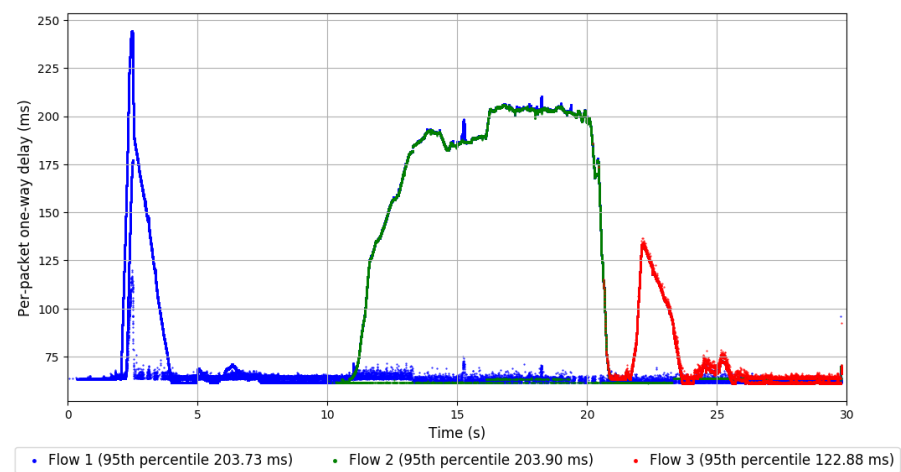
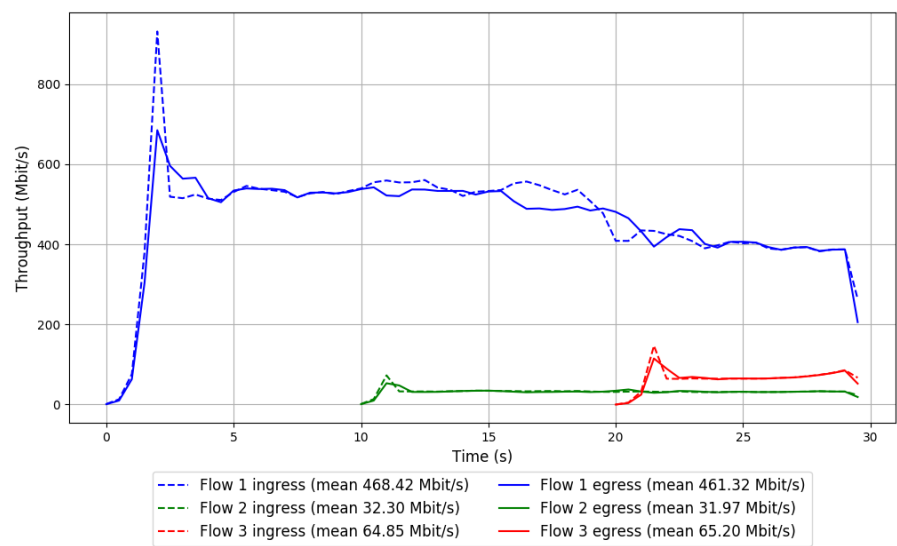
-- Flow 3:

Average throughput: 65.20 Mbit/s

95th percentile per-packet one-way delay: 122.881 ms

Loss rate: 2.01%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-12-06 11:16:43

End at: 2017-12-06 11:17:13

Below is generated by plot.py at 2017-12-06 14:37:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 464.17 Mbit/s

95th percentile per-packet one-way delay: 207.370 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 420.83 Mbit/s

95th percentile per-packet one-way delay: 207.495 ms

Loss rate: 1.30%

-- Flow 2:

Average throughput: 35.10 Mbit/s

95th percentile per-packet one-way delay: 169.794 ms

Loss rate: 0.81%

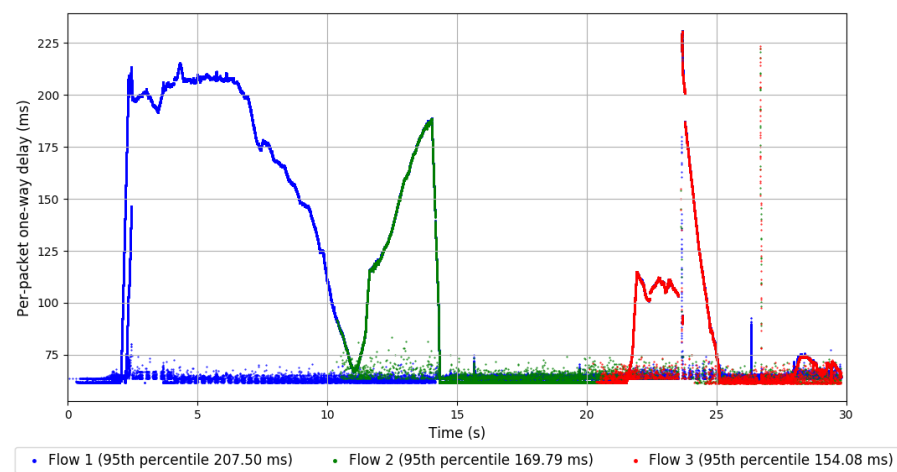
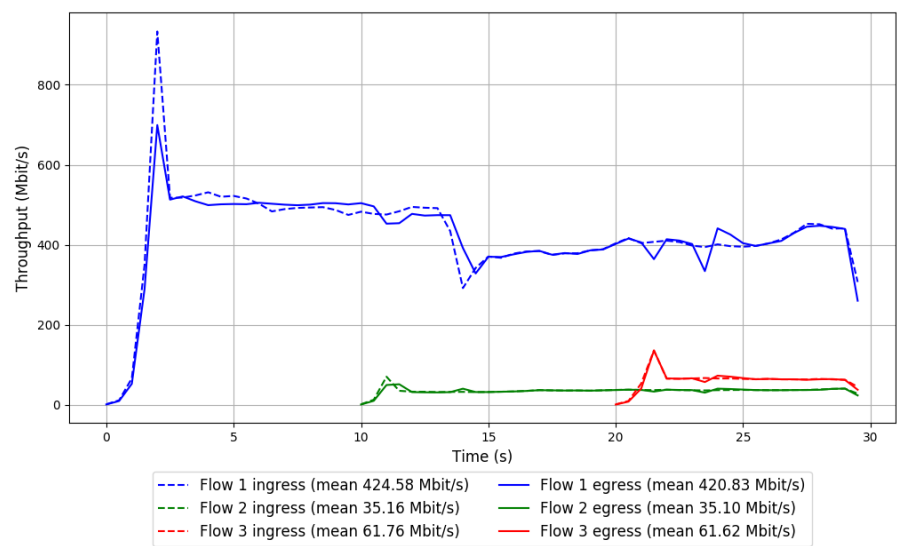
-- Flow 3:

Average throughput: 61.62 Mbit/s

95th percentile per-packet one-way delay: 154.082 ms

Loss rate: 1.53%

Run 6: Report of PCC — Data Link

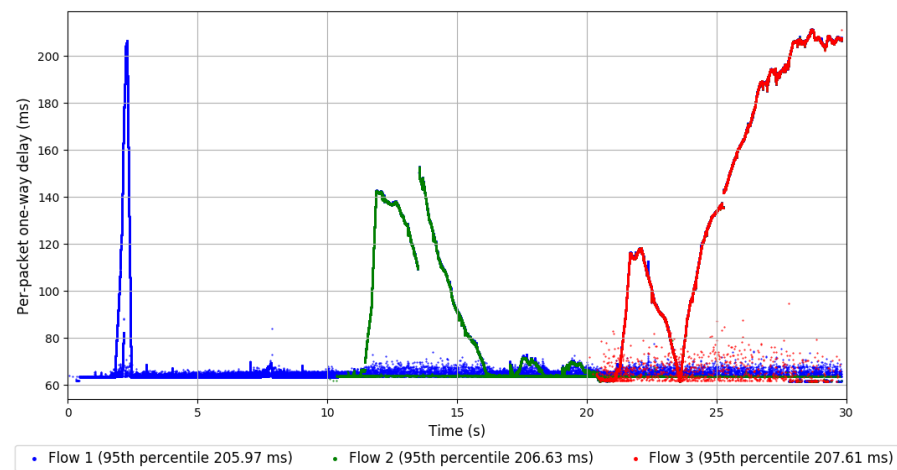
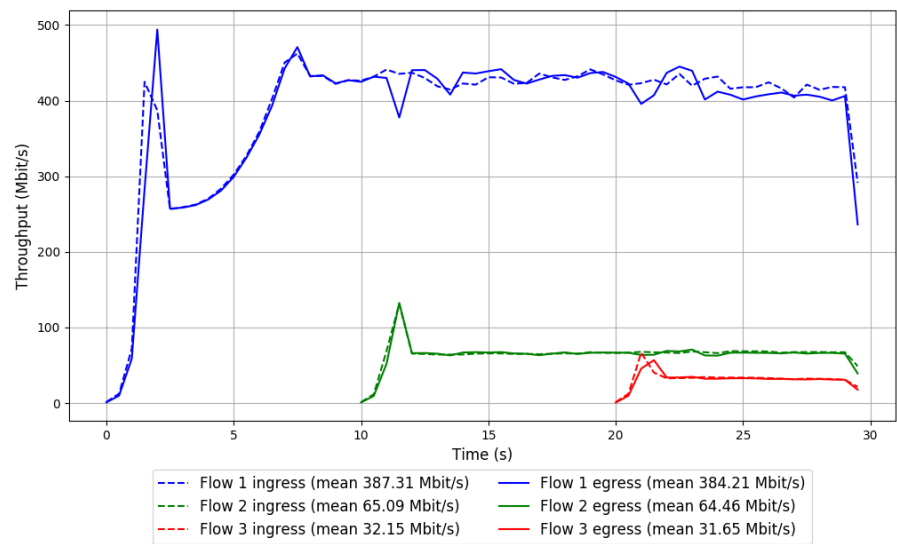


```
Run 7: Statistics of PCC

Start at: 2017-12-06 11:29:07
End at: 2017-12-06 11:29:37

# Below is generated by plot.py at 2017-12-06 14:38:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 437.23 Mbit/s
95th percentile per-packet one-way delay: 206.159 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 384.21 Mbit/s
95th percentile per-packet one-way delay: 205.965 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 64.46 Mbit/s
95th percentile per-packet one-way delay: 206.626 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 31.65 Mbit/s
95th percentile per-packet one-way delay: 207.612 ms
Loss rate: 2.85%
```


Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-06 11:41:34

End at: 2017-12-06 11:42:04

Below is generated by plot.py at 2017-12-06 14:40:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 502.84 Mbit/s

95th percentile per-packet one-way delay: 195.827 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 443.13 Mbit/s

95th percentile per-packet one-way delay: 195.906 ms

Loss rate: 1.79%

-- Flow 2:

Average throughput: 59.17 Mbit/s

95th percentile per-packet one-way delay: 195.353 ms

Loss rate: 1.78%

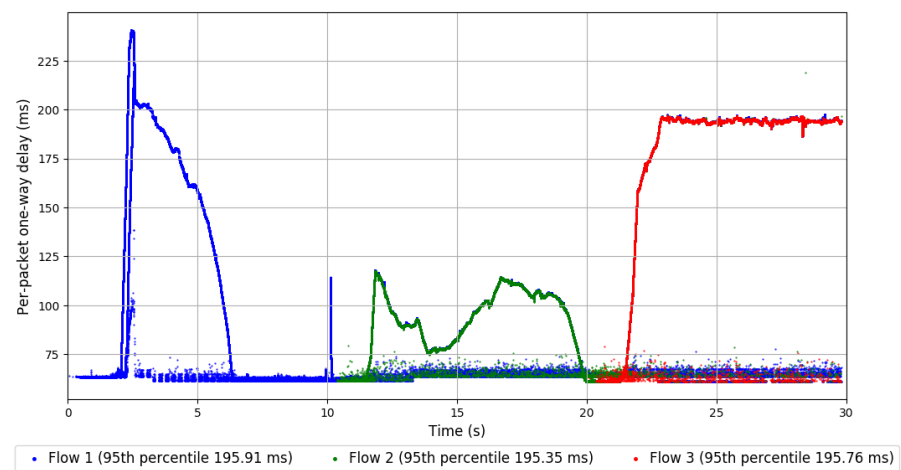
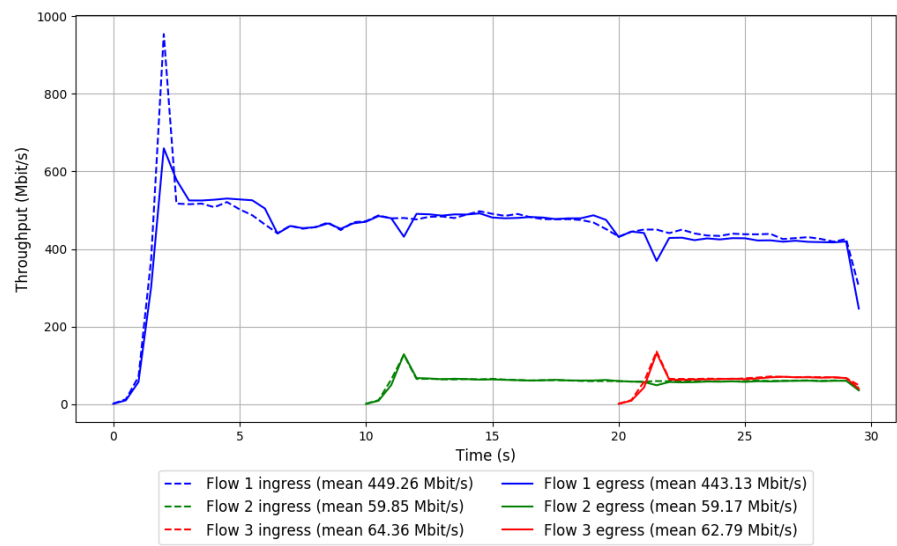
-- Flow 3:

Average throughput: 62.79 Mbit/s

95th percentile per-packet one-way delay: 195.757 ms

Loss rate: 3.69%

Run 8: Report of PCC — Data Link

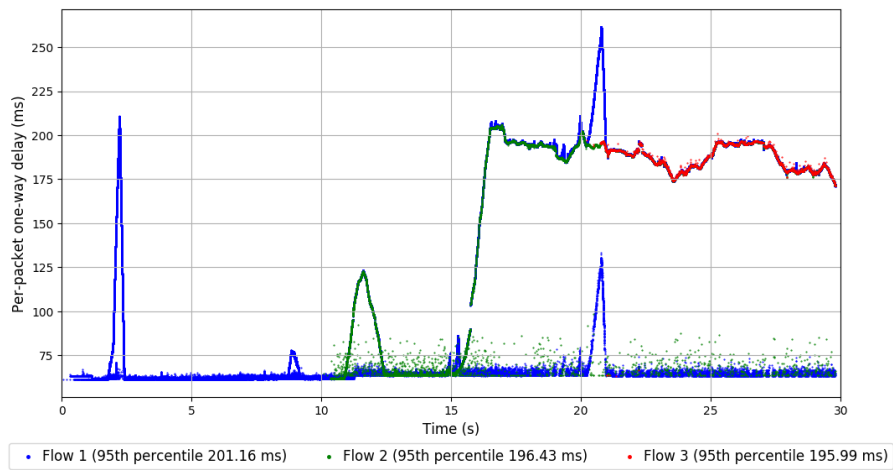
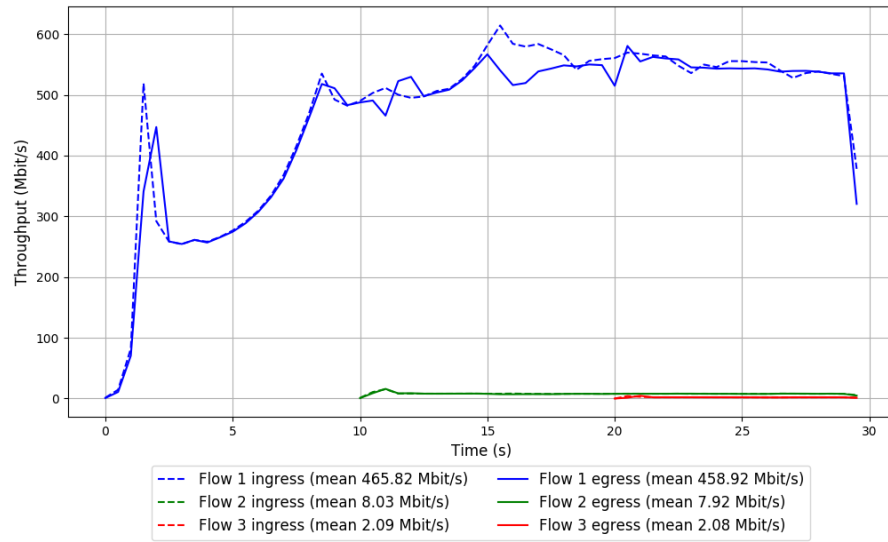


```
Run 9: Statistics of PCC

Start at: 2017-12-06 11:53:56
End at: 2017-12-06 11:54:26

# Below is generated by plot.py at 2017-12-06 14:44:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.83 Mbit/s
95th percentile per-packet one-way delay: 201.018 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 458.92 Mbit/s
95th percentile per-packet one-way delay: 201.158 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 7.92 Mbit/s
95th percentile per-packet one-way delay: 196.426 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 195.986 ms
Loss rate: 2.95%
```

Run 9: Report of PCC — Data Link

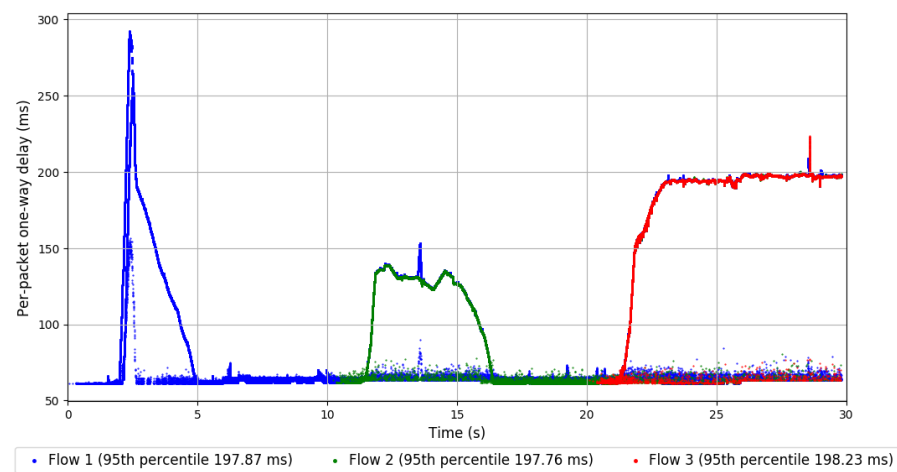
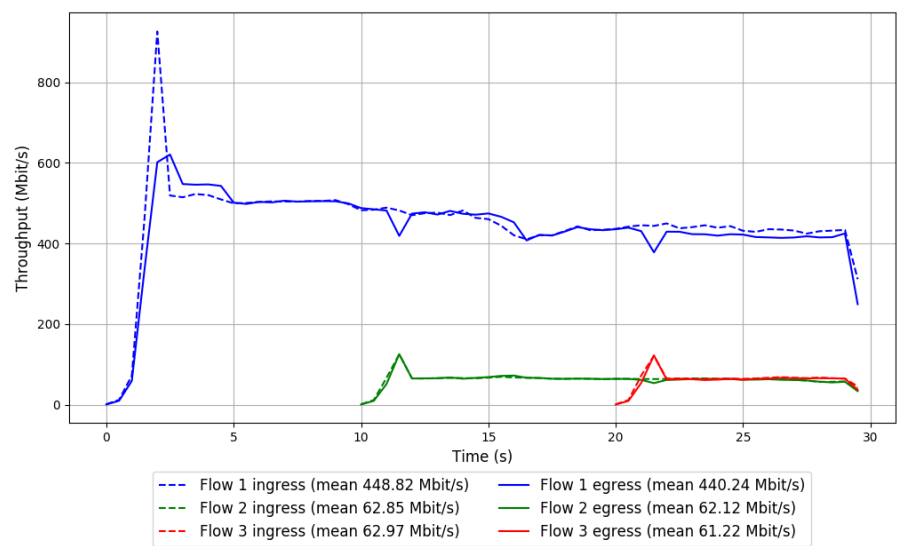


```
Run 10: Statistics of PCC

Start at: 2017-12-06 12:06:22
End at: 2017-12-06 12:06:52

# Below is generated by plot.py at 2017-12-06 14:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 501.36 Mbit/s
95th percentile per-packet one-way delay: 197.896 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 440.24 Mbit/s
95th percentile per-packet one-way delay: 197.870 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 62.12 Mbit/s
95th percentile per-packet one-way delay: 197.762 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 61.22 Mbit/s
95th percentile per-packet one-way delay: 198.232 ms
Loss rate: 4.04%
```

Run 10: Report of PCC — Data Link

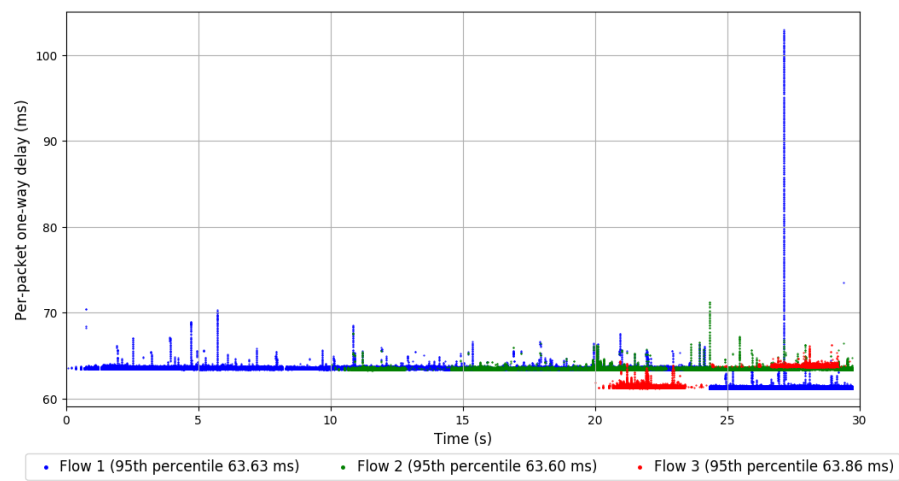
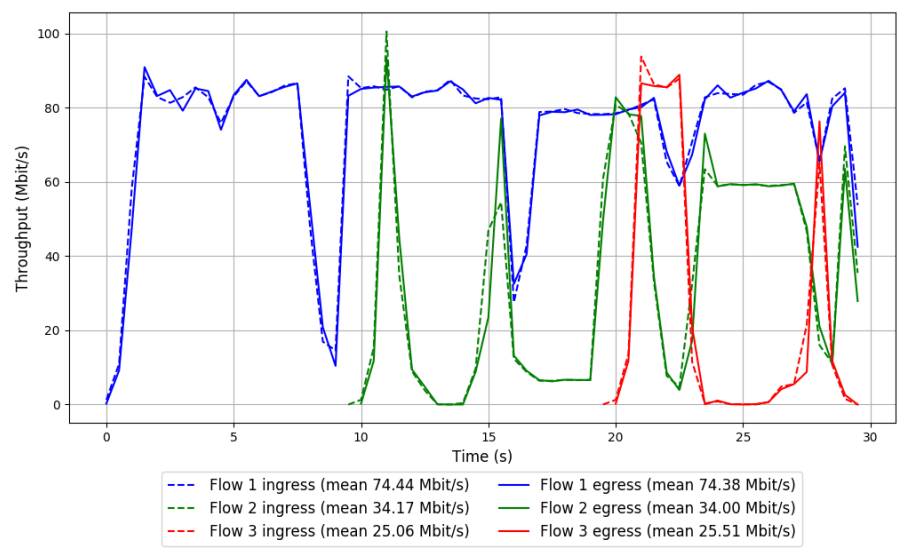


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-06 10:11:33
End at: 2017-12-06 10:12:03

# Below is generated by plot.py at 2017-12-06 14:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.23 Mbit/s
95th percentile per-packet one-way delay: 63.653 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 74.38 Mbit/s
95th percentile per-packet one-way delay: 63.631 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 34.00 Mbit/s
95th percentile per-packet one-way delay: 63.599 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 25.51 Mbit/s
95th percentile per-packet one-way delay: 63.860 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-06 10:24:21

End at: 2017-12-06 10:24:51

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 47.85 Mbit/s

95th percentile per-packet one-way delay: 63.541 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 15.55 Mbit/s

95th percentile per-packet one-way delay: 63.285 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 38.08 Mbit/s

95th percentile per-packet one-way delay: 63.576 ms

Loss rate: 1.33%

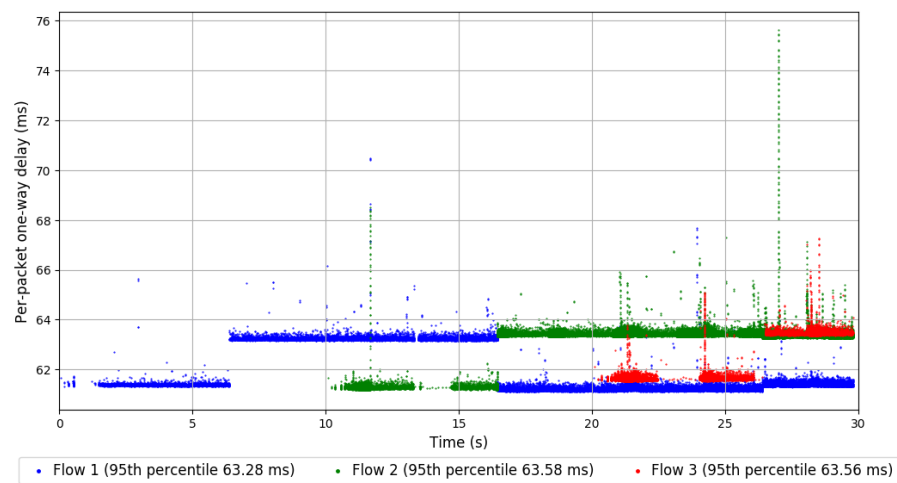
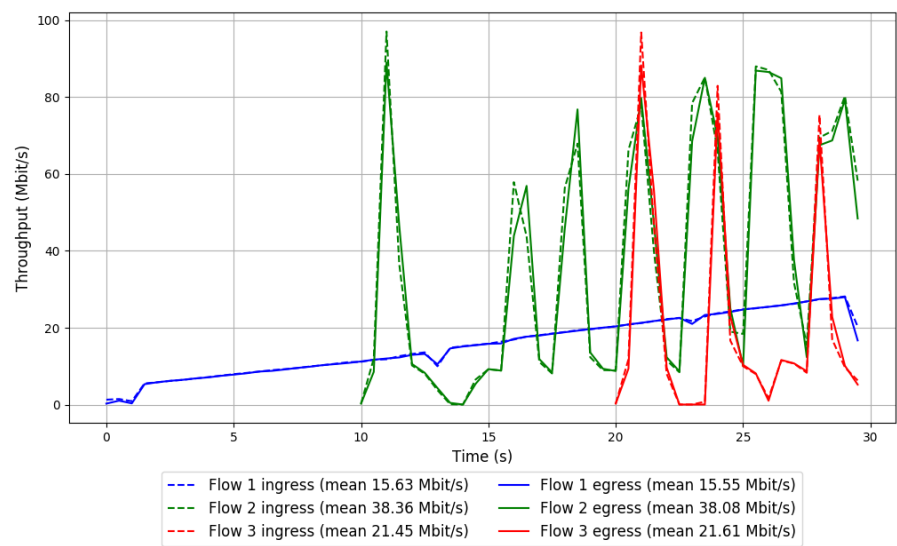
-- Flow 3:

Average throughput: 21.61 Mbit/s

95th percentile per-packet one-way delay: 63.557 ms

Loss rate: 0.51%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-12-06 10:36:43

End at: 2017-12-06 10:37:13

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.04 Mbit/s

95th percentile per-packet one-way delay: 63.764 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 42.80 Mbit/s

95th percentile per-packet one-way delay: 63.745 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 41.79 Mbit/s

95th percentile per-packet one-way delay: 63.707 ms

Loss rate: 0.92%

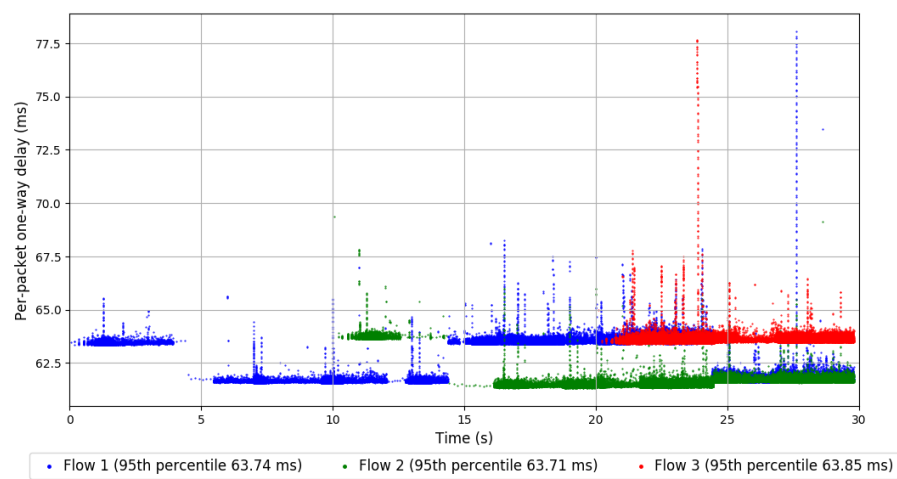
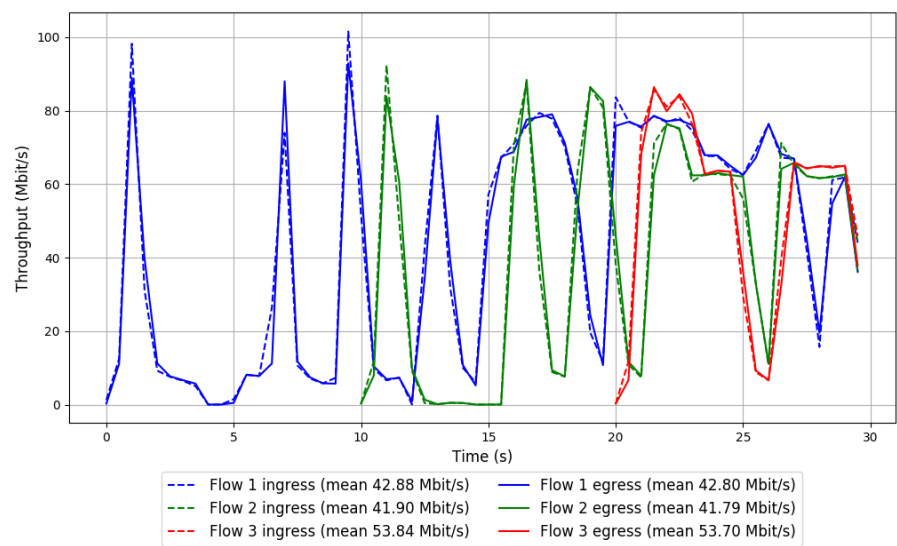
-- Flow 3:

Average throughput: 53.70 Mbit/s

95th percentile per-packet one-way delay: 63.854 ms

Loss rate: 1.55%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-12-06 10:49:12

End at: 2017-12-06 10:49:42

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.70 Mbit/s

95th percentile per-packet one-way delay: 63.603 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 53.93 Mbit/s

95th percentile per-packet one-way delay: 63.645 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 44.78 Mbit/s

95th percentile per-packet one-way delay: 63.365 ms

Loss rate: 1.13%

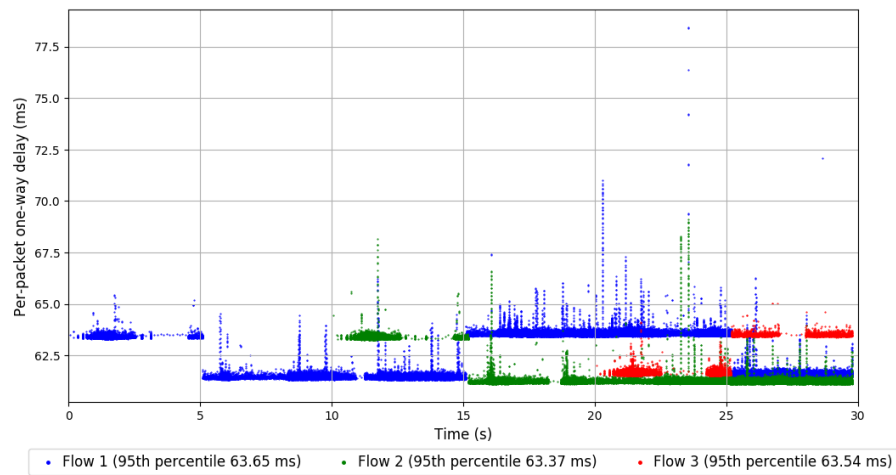
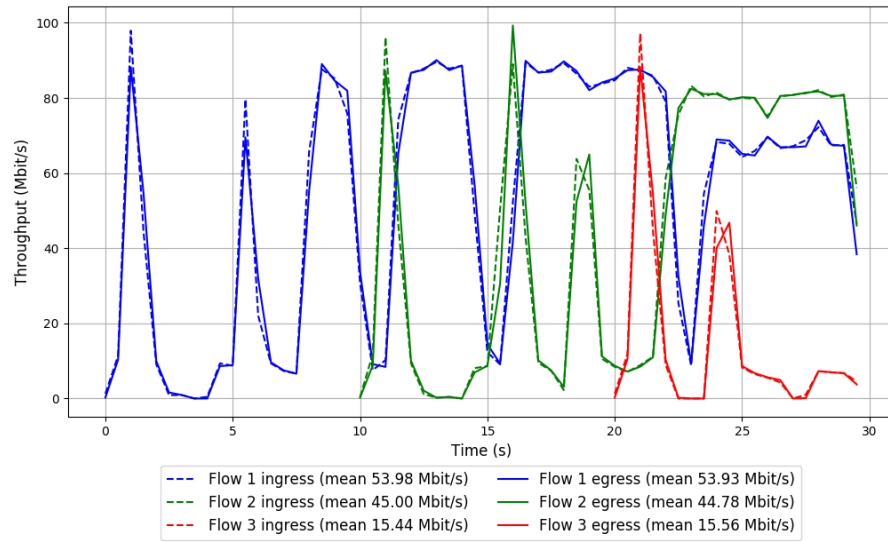
-- Flow 3:

Average throughput: 15.56 Mbit/s

95th percentile per-packet one-way delay: 63.542 ms

Loss rate: 0.56%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-06 11:01:44

End at: 2017-12-06 11:02:14

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.57 Mbit/s

95th percentile per-packet one-way delay: 63.949 ms

Loss rate: 2.01%

-- Flow 1:

Average throughput: 50.52 Mbit/s

95th percentile per-packet one-way delay: 61.814 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 33.38 Mbit/s

95th percentile per-packet one-way delay: 64.080 ms

Loss rate: 2.10%

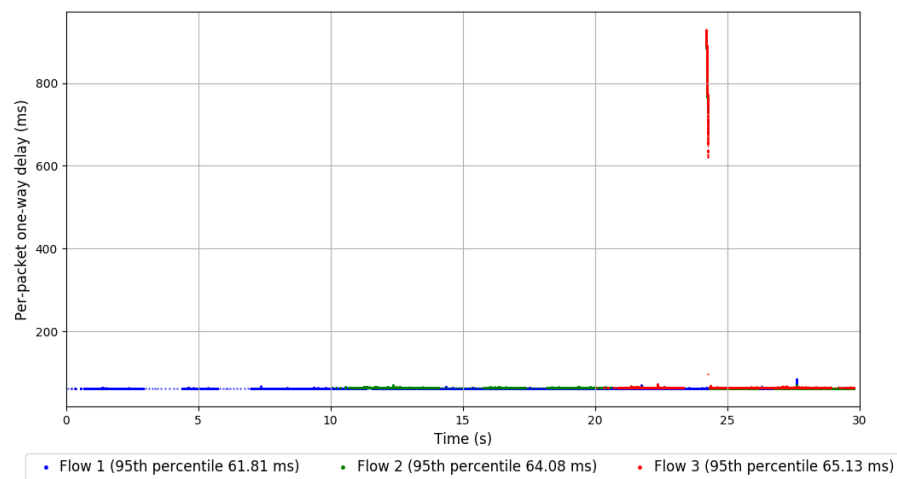
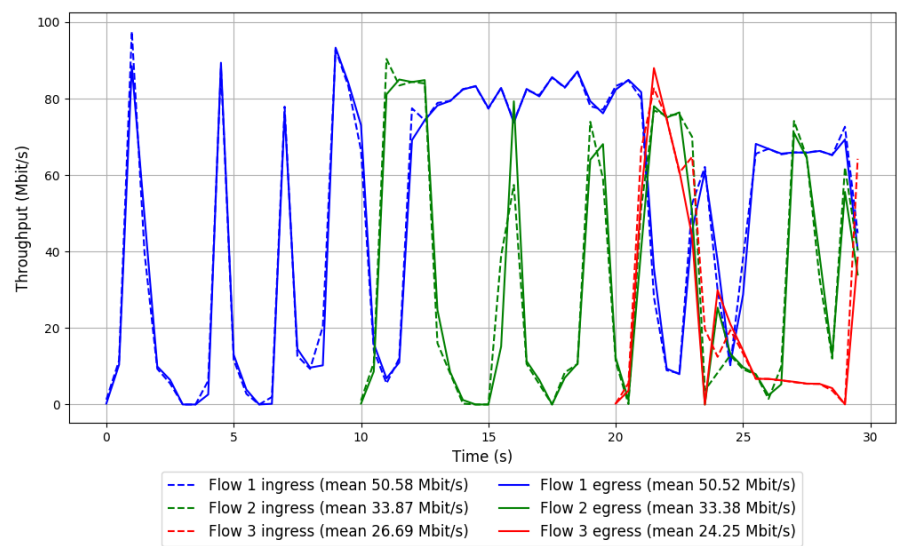
-- Flow 3:

Average throughput: 24.25 Mbit/s

95th percentile per-packet one-way delay: 65.134 ms

Loss rate: 10.33%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-12-06 11:14:13

End at: 2017-12-06 11:14:43

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.02 Mbit/s

95th percentile per-packet one-way delay: 63.807 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 47.63 Mbit/s

95th percentile per-packet one-way delay: 63.849 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 42.73 Mbit/s

95th percentile per-packet one-way delay: 63.640 ms

Loss rate: 0.98%

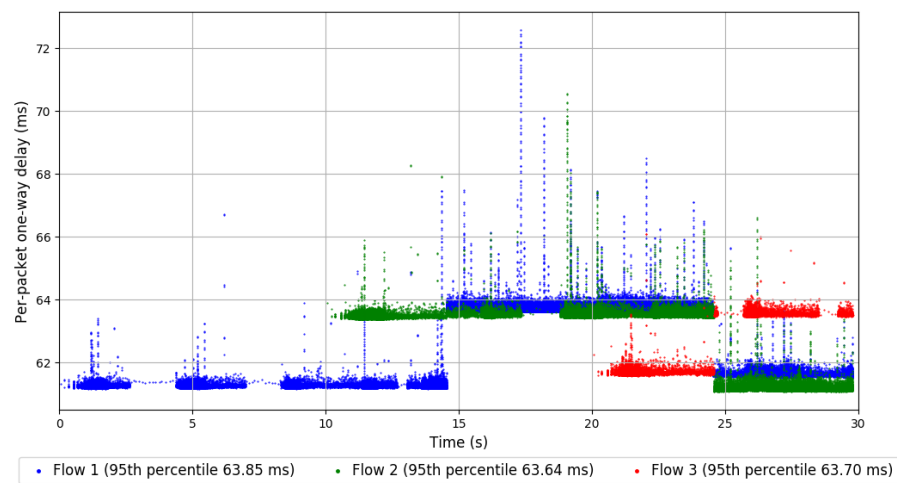
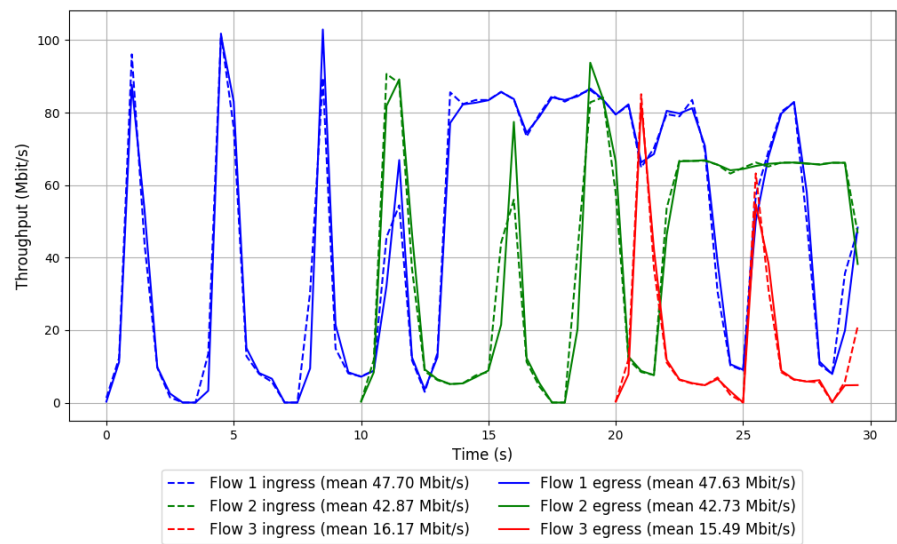
-- Flow 3:

Average throughput: 15.49 Mbit/s

95th percentile per-packet one-way delay: 63.705 ms

Loss rate: 5.43%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-06 11:26:35

End at: 2017-12-06 11:27:05

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.82 Mbit/s

95th percentile per-packet one-way delay: 63.672 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 56.25 Mbit/s

95th percentile per-packet one-way delay: 63.538 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 40.93 Mbit/s

95th percentile per-packet one-way delay: 63.754 ms

Loss rate: 1.00%

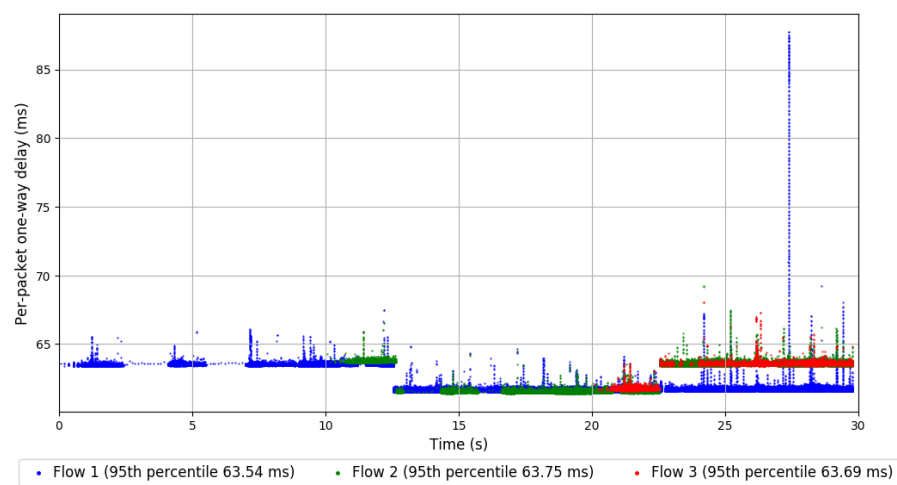
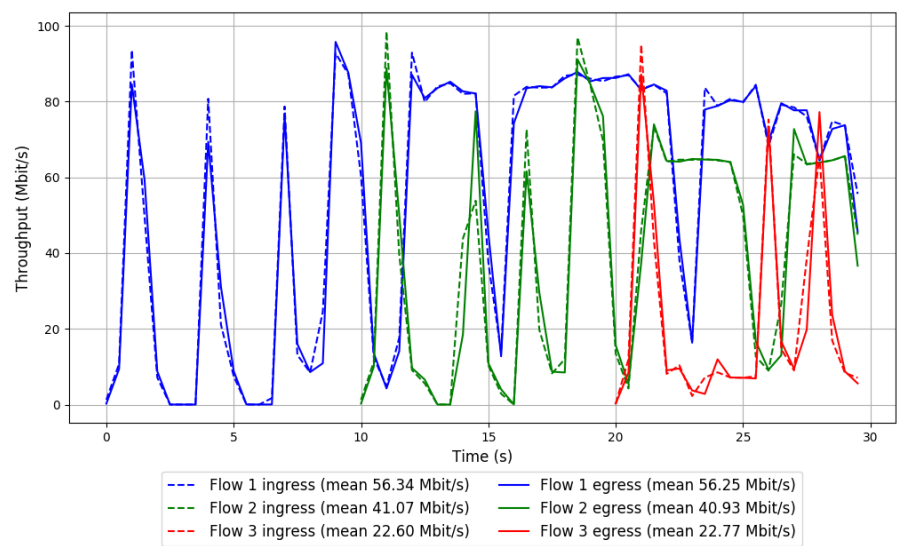
-- Flow 3:

Average throughput: 22.77 Mbit/s

95th percentile per-packet one-way delay: 63.686 ms

Loss rate: 0.54%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-12-06 11:39:01

End at: 2017-12-06 11:39:31

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.60 Mbit/s

95th percentile per-packet one-way delay: 63.738 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 57.30 Mbit/s

95th percentile per-packet one-way delay: 63.796 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 49.16 Mbit/s

95th percentile per-packet one-way delay: 63.576 ms

Loss rate: 0.80%

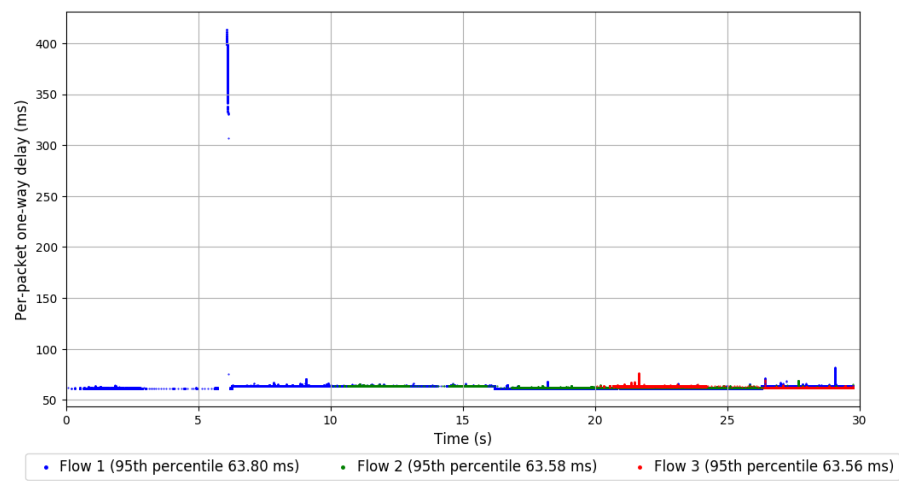
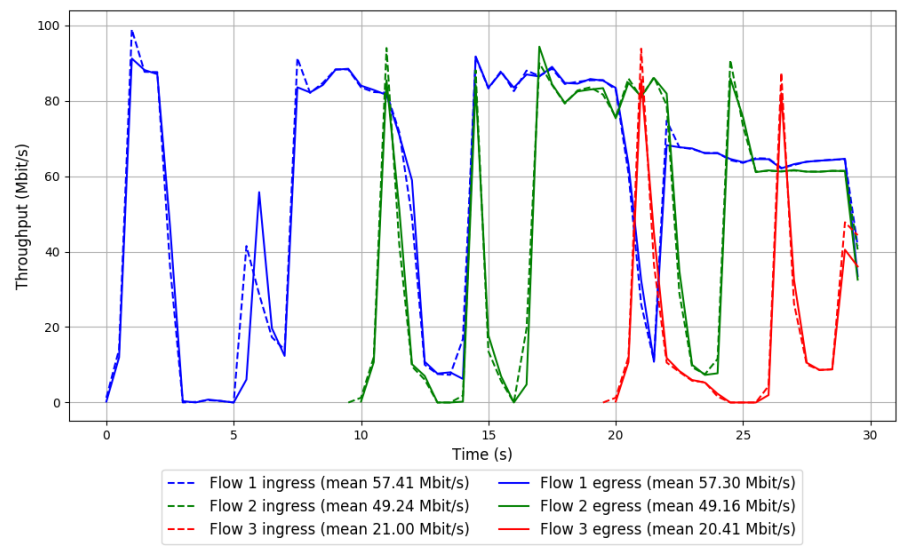
-- Flow 3:

Average throughput: 20.41 Mbit/s

95th percentile per-packet one-way delay: 63.563 ms

Loss rate: 4.03%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-12-06 11:51:27

End at: 2017-12-06 11:51:57

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.17 Mbit/s

95th percentile per-packet one-way delay: 63.520 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 51.44 Mbit/s

95th percentile per-packet one-way delay: 63.208 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 31.53 Mbit/s

95th percentile per-packet one-way delay: 63.589 ms

Loss rate: 0.19%

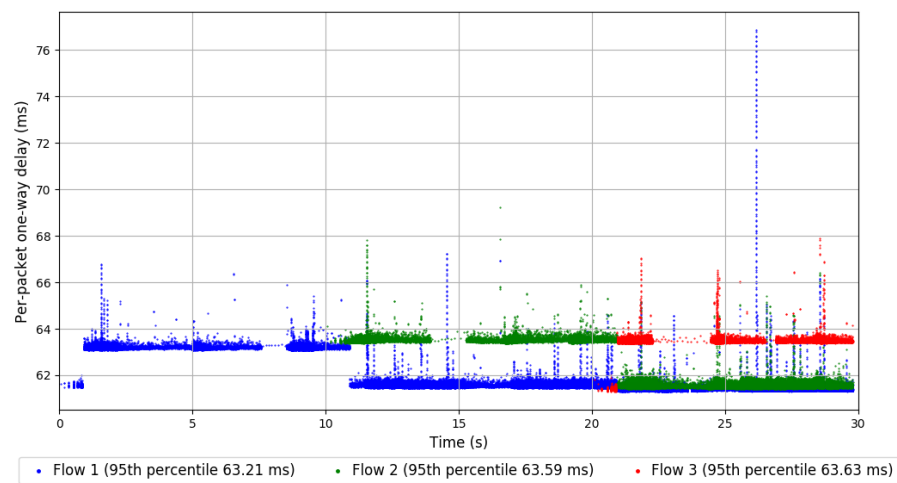
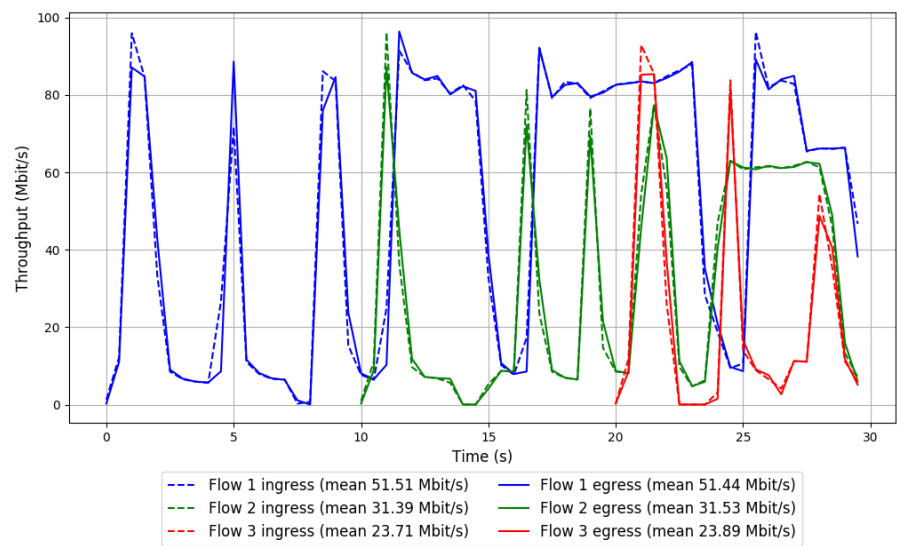
-- Flow 3:

Average throughput: 23.89 Mbit/s

95th percentile per-packet one-way delay: 63.627 ms

Loss rate: 0.49%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-12-06 12:03:49

End at: 2017-12-06 12:04:19

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.88 Mbit/s

95th percentile per-packet one-way delay: 63.657 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 57.63 Mbit/s

95th percentile per-packet one-way delay: 63.604 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 38.04 Mbit/s

95th percentile per-packet one-way delay: 61.708 ms

Loss rate: 0.45%

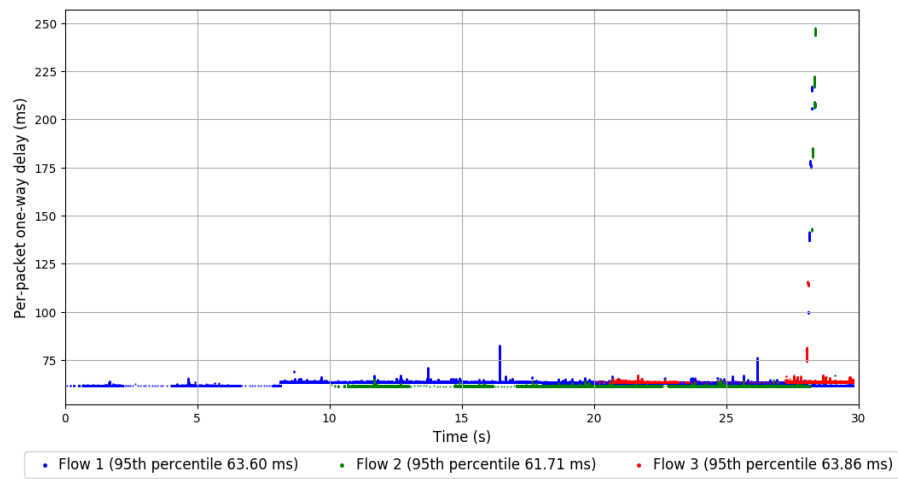
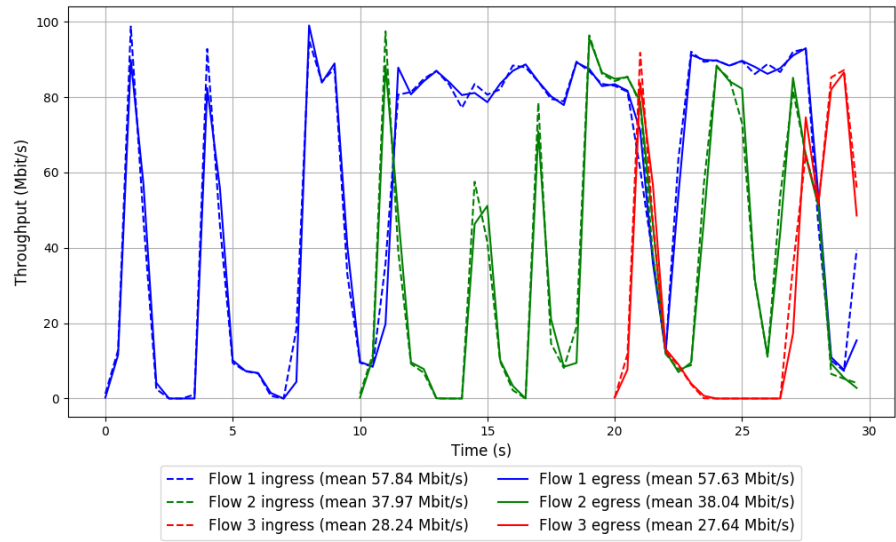
-- Flow 3:

Average throughput: 27.64 Mbit/s

95th percentile per-packet one-way delay: 63.861 ms

Loss rate: 3.39%

Run 10: Report of QUIC Cubic — Data Link

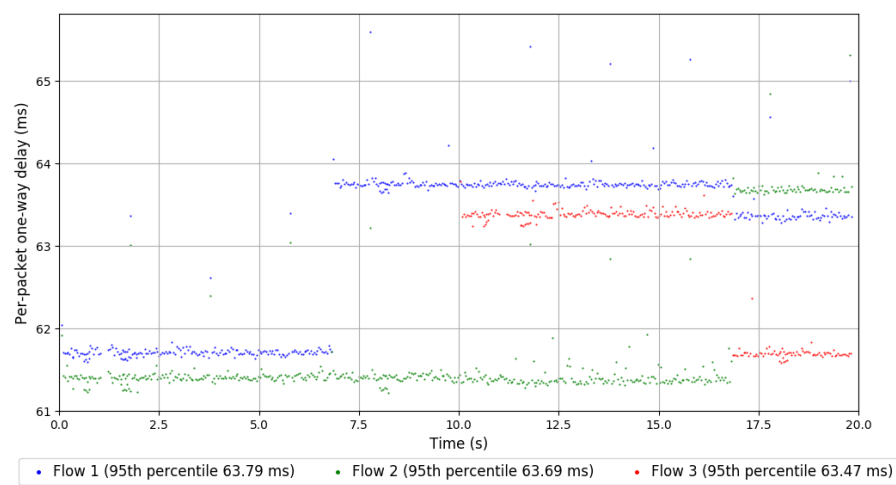
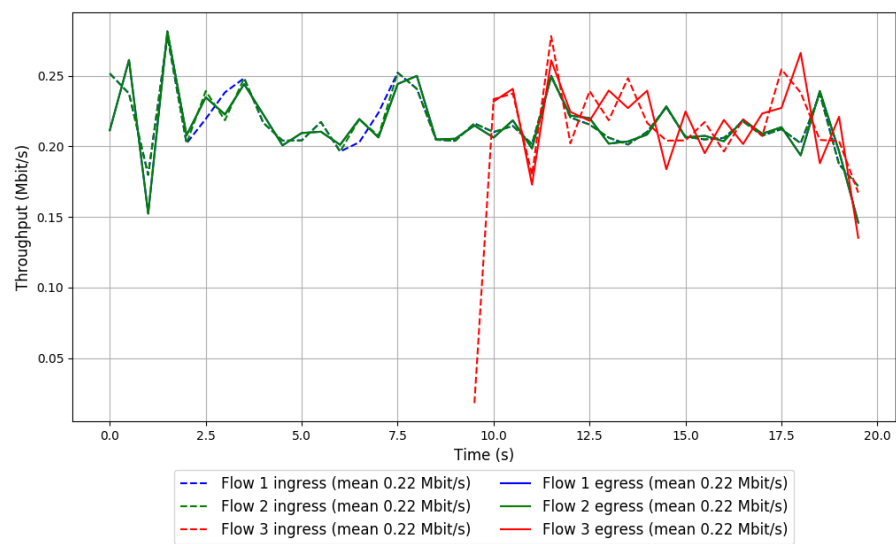


Run 1: Statistics of SReAM

Start at: 2017-12-06 10:12:21

End at: 2017-12-06 10:12:51

Run 1: Report of SReAM — Data Link

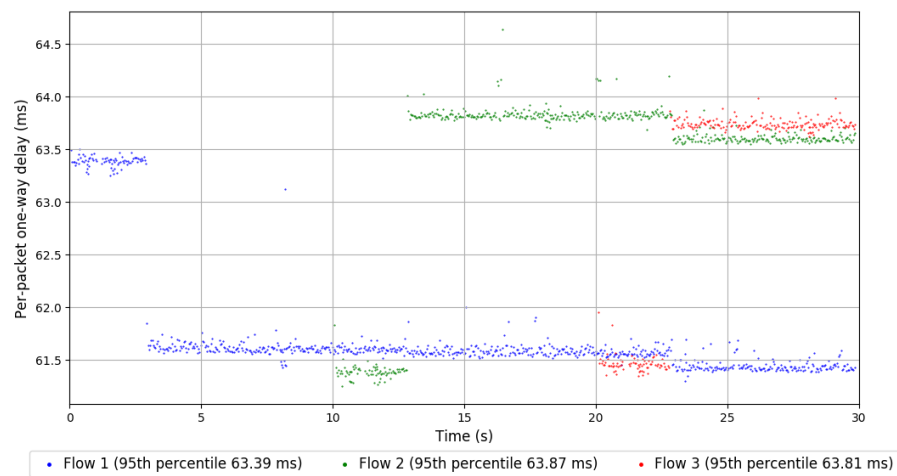
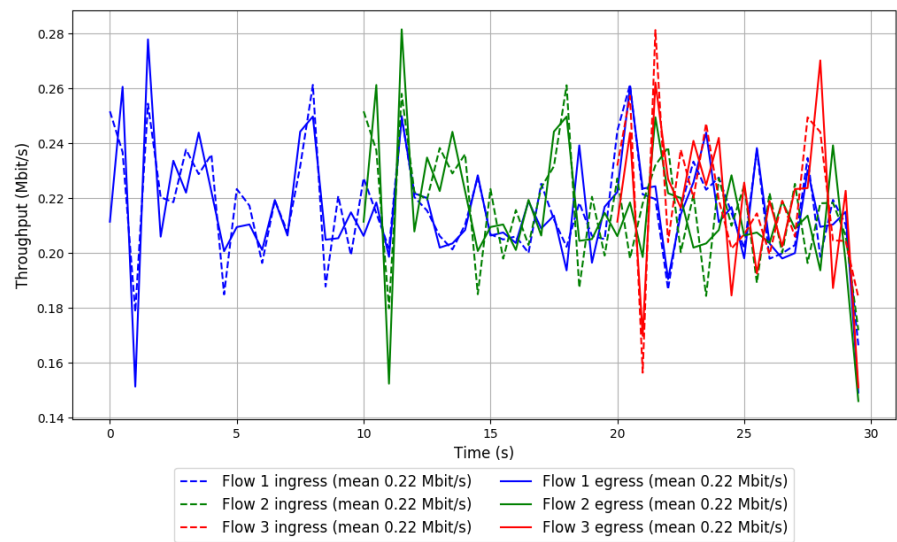


```
Run 2: Statistics of SReAM

Start at: 2017-12-06 10:25:05
End at: 2017-12-06 10:25:35

# Below is generated by plot.py at 2017-12-06 14:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 63.842 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.393 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.871 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.815 ms
Loss rate: 1.11%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2017-12-06 10:37:29

End at: 2017-12-06 10:37:59

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 63.785 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.733 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.679 ms

Loss rate: 1.11%

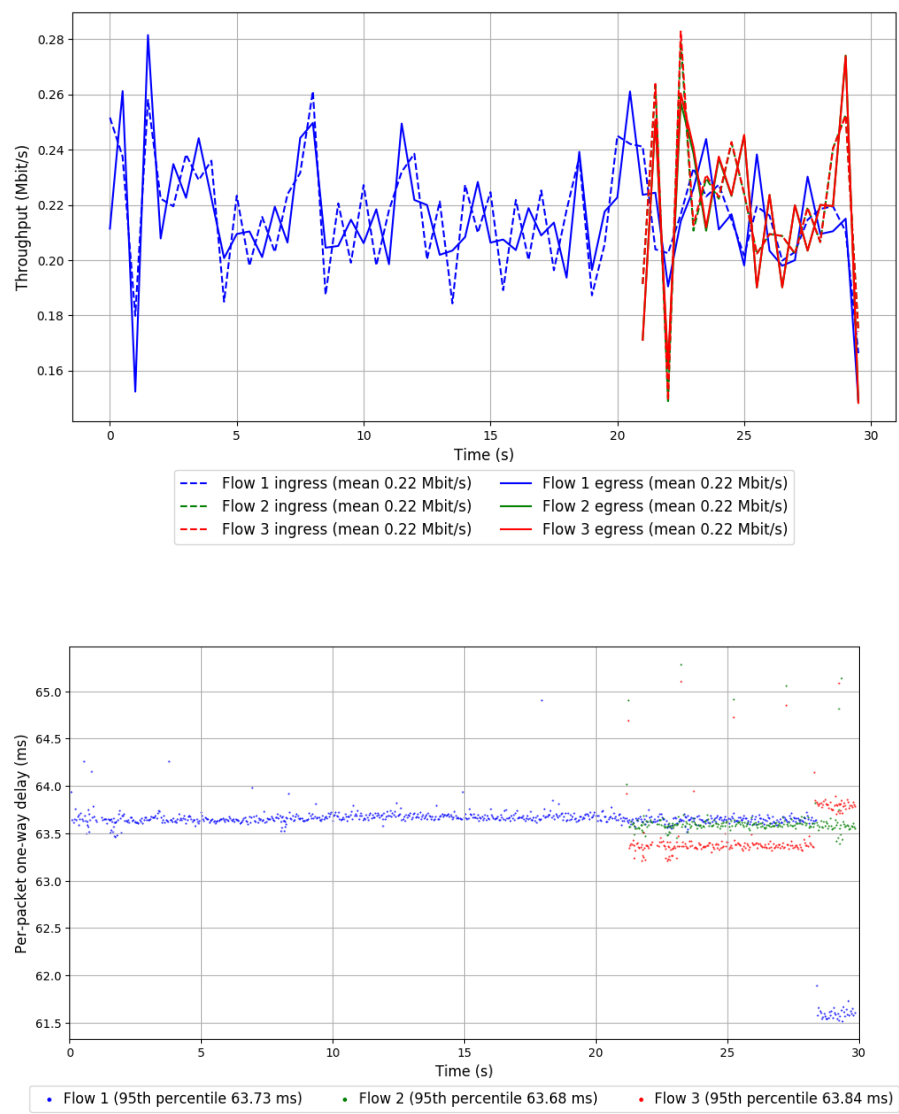
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.845 ms

Loss rate: 1.10%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-12-06 10:49:58

End at: 2017-12-06 10:50:28

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 63.556 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 63.575 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.495 ms

Loss rate: 0.63%

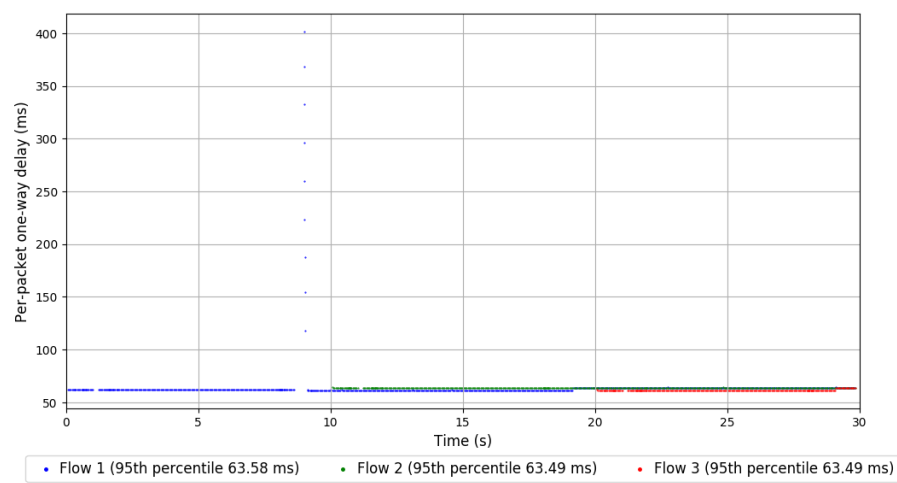
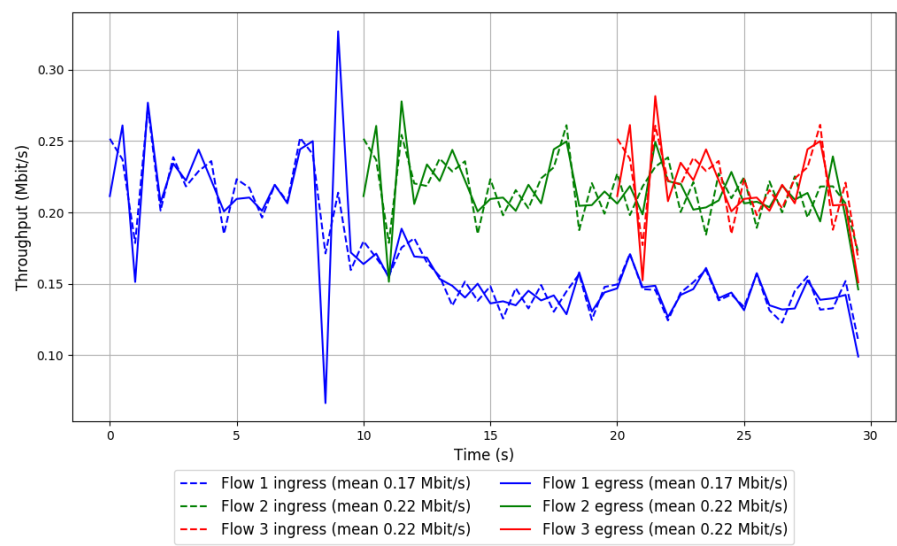
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.490 ms

Loss rate: 1.10%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-12-06 11:02:30

End at: 2017-12-06 11:03:00

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 63.825 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.655 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.849 ms

Loss rate: 0.63%

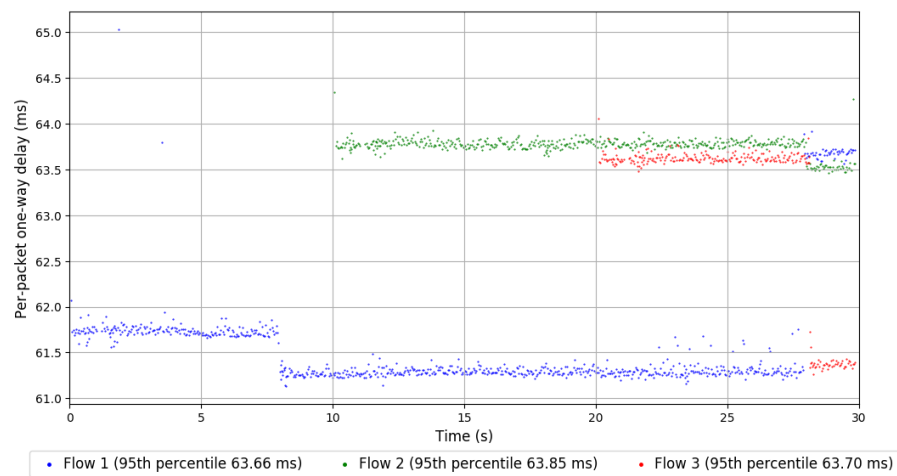
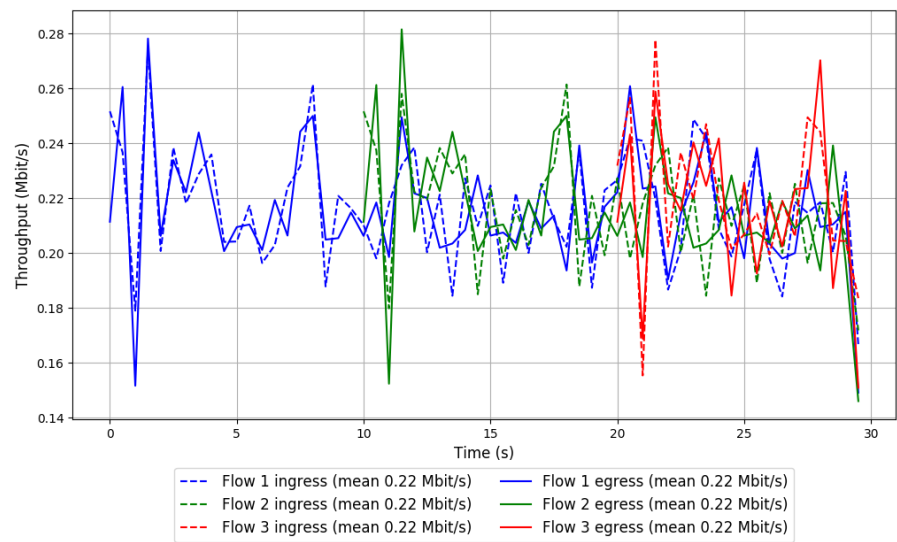
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.704 ms

Loss rate: 1.10%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2017-12-06 11:14:59

End at: 2017-12-06 11:15:29

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 63.840 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.851 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.836 ms

Loss rate: 0.63%

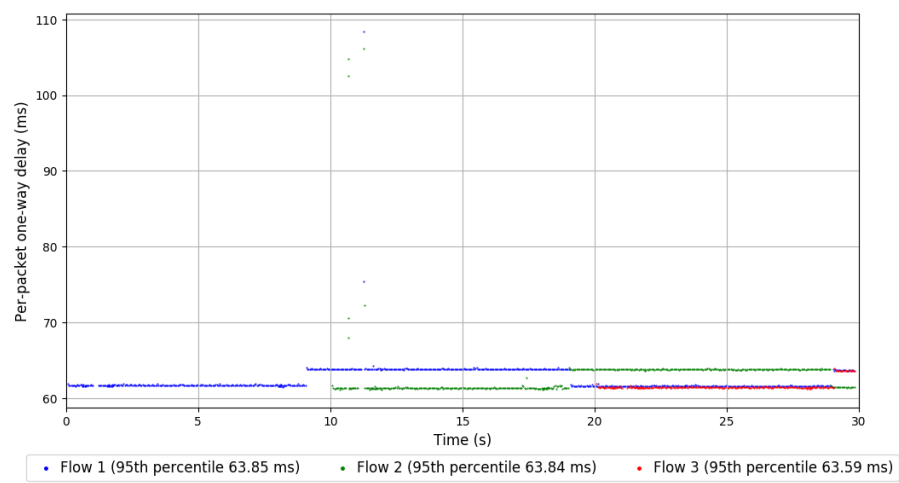
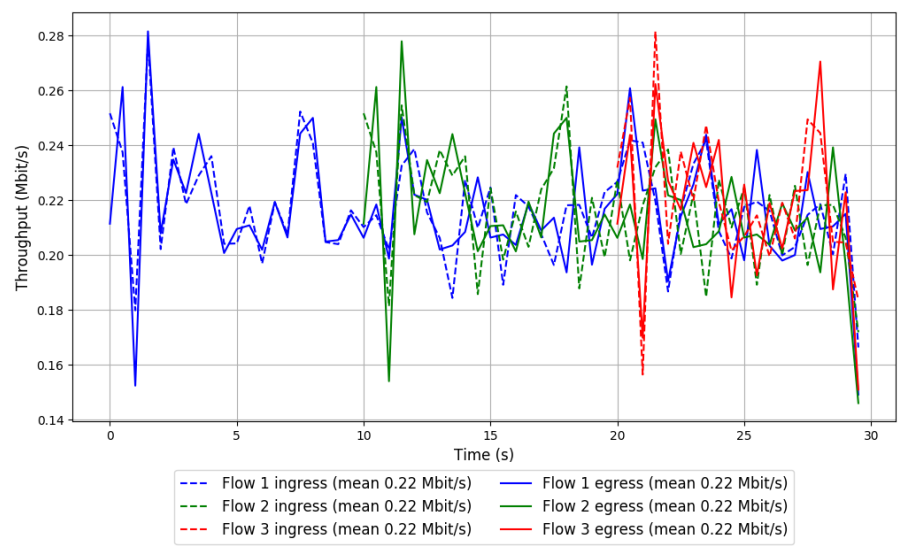
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.594 ms

Loss rate: 1.10%

Run 6: Report of SReAM — Data Link

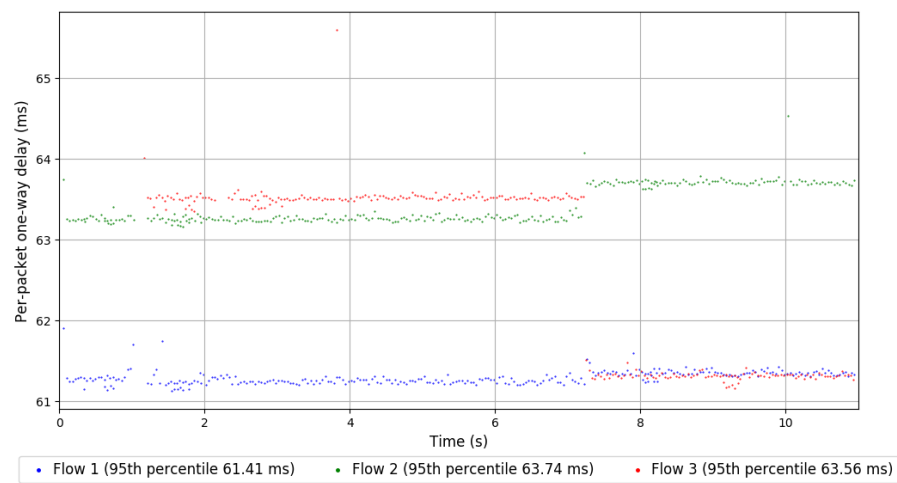
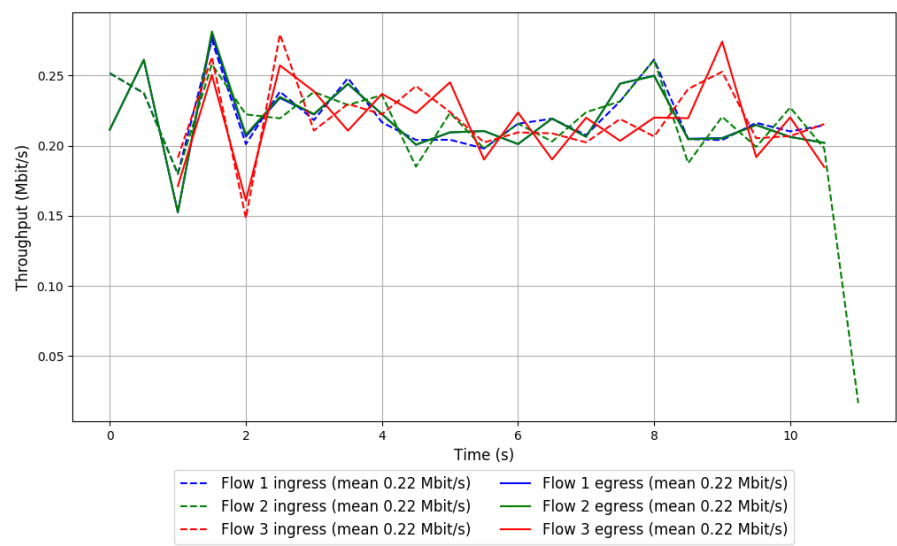


Run 7: Statistics of SReAM

Start at: 2017-12-06 11:27:21

End at: 2017-12-06 11:27:51

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-12-06 11:39:48

End at: 2017-12-06 11:40:18

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 63.657 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.677 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.550 ms

Loss rate: 0.84%

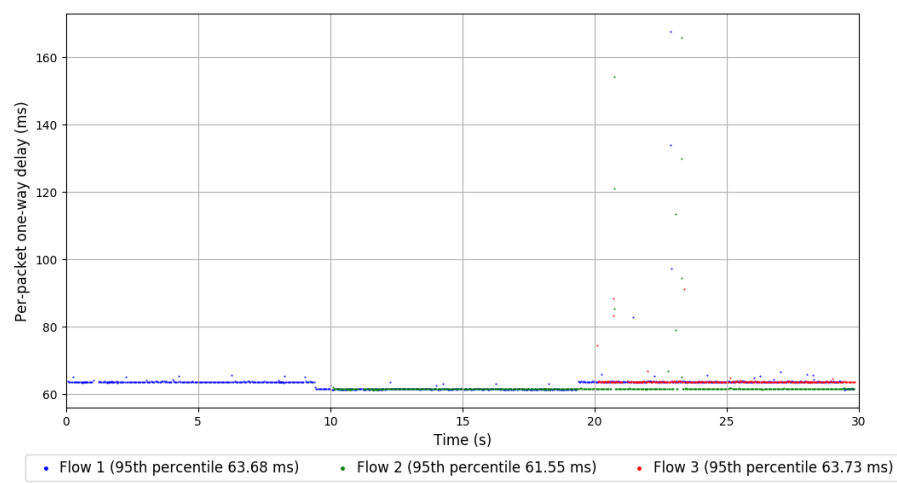
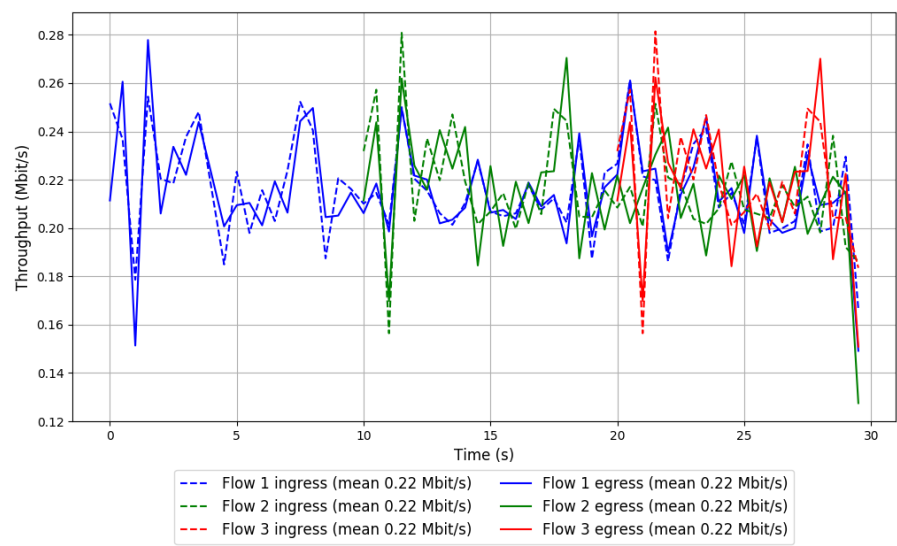
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.727 ms

Loss rate: 1.10%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-12-06 11:52:12

End at: 2017-12-06 11:52:42

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 63.670 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.692 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.612 ms

Loss rate: 0.84%

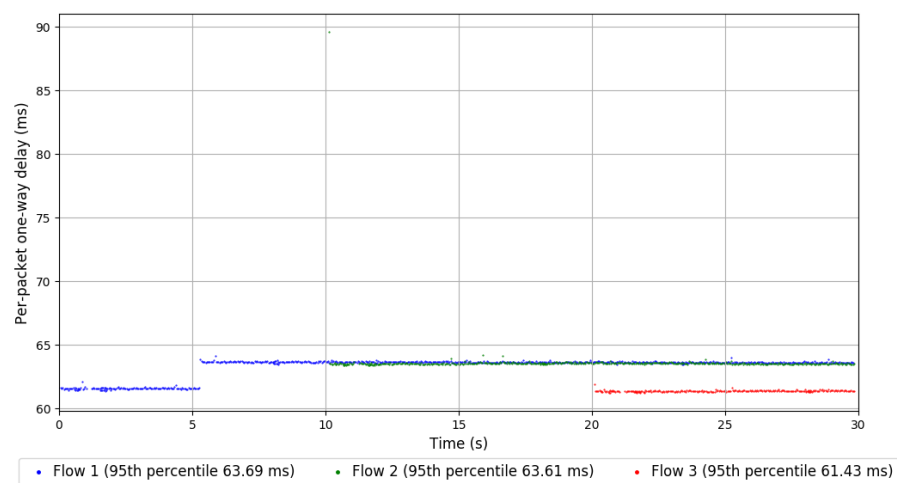
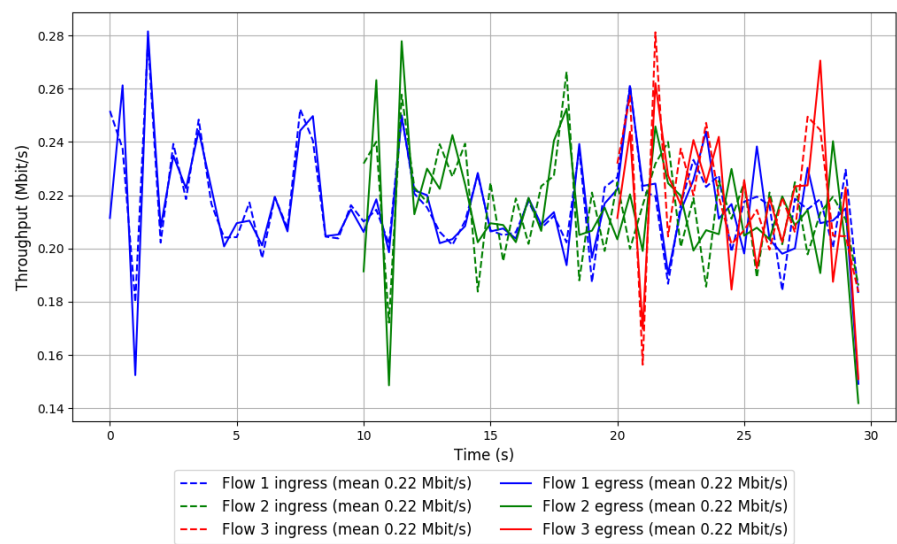
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.429 ms

Loss rate: 1.10%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-12-06 12:04:36

End at: 2017-12-06 12:05:06

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 63.835 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.806 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 64.012 ms

Loss rate: 0.63%

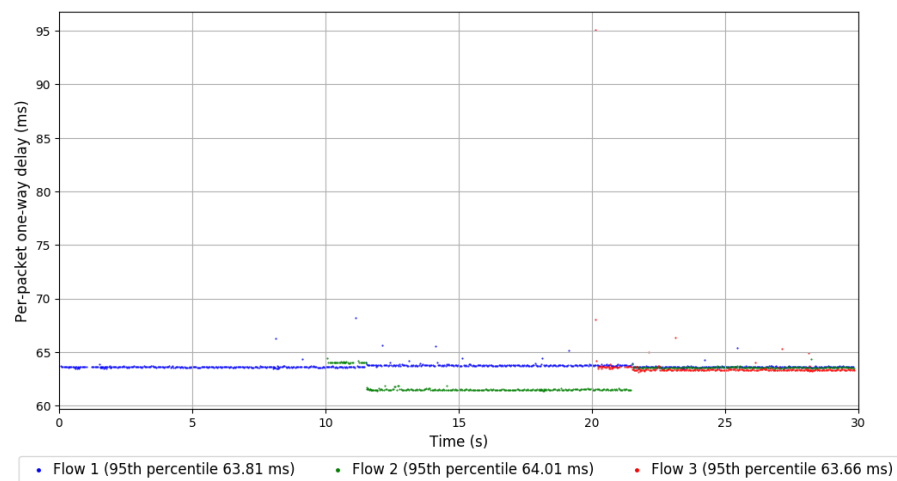
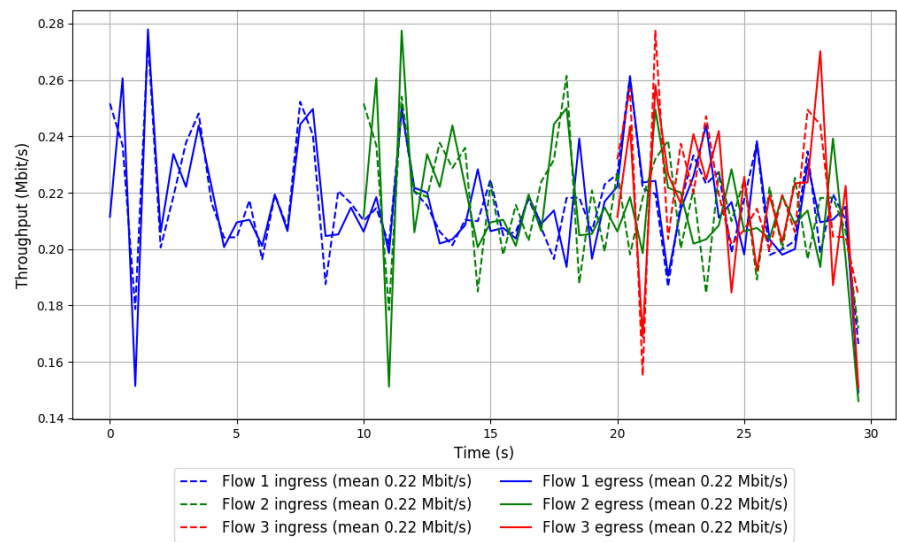
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.662 ms

Loss rate: 1.10%

Run 10: Report of SCReAM — Data Link

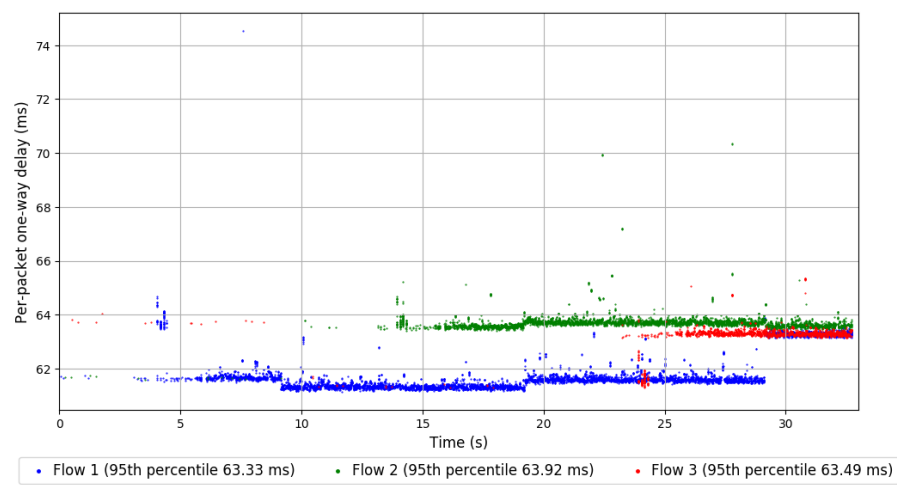
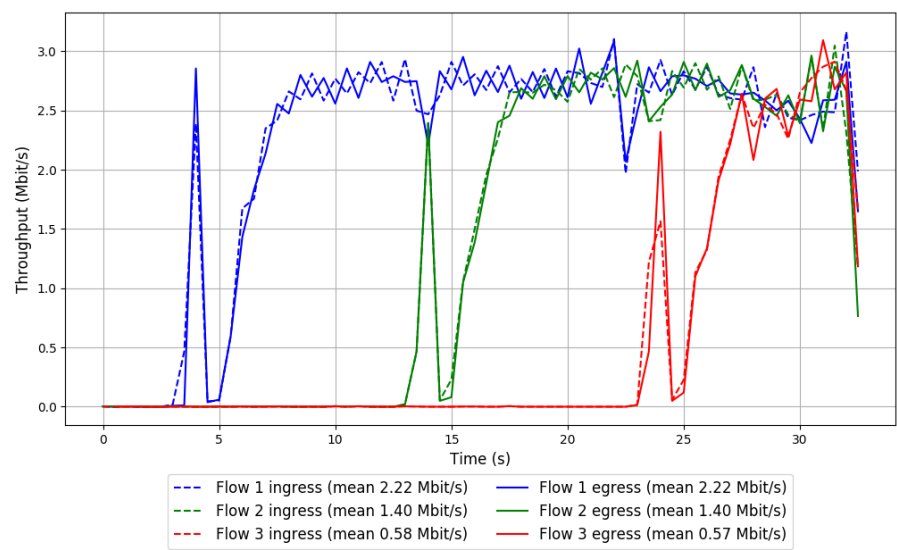


```
Run 1: Statistics of WebRTC media

Start at: 2017-12-06 10:05:31
End at: 2017-12-06 10:06:01

# Below is generated by plot.py at 2017-12-06 14:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 63.801 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 63.329 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 63.923 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 63.493 ms
Loss rate: 2.08%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-12-06 10:17:56

End at: 2017-12-06 10:18:26

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 63.789 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 63.801 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 63.710 ms

Loss rate: 0.68%

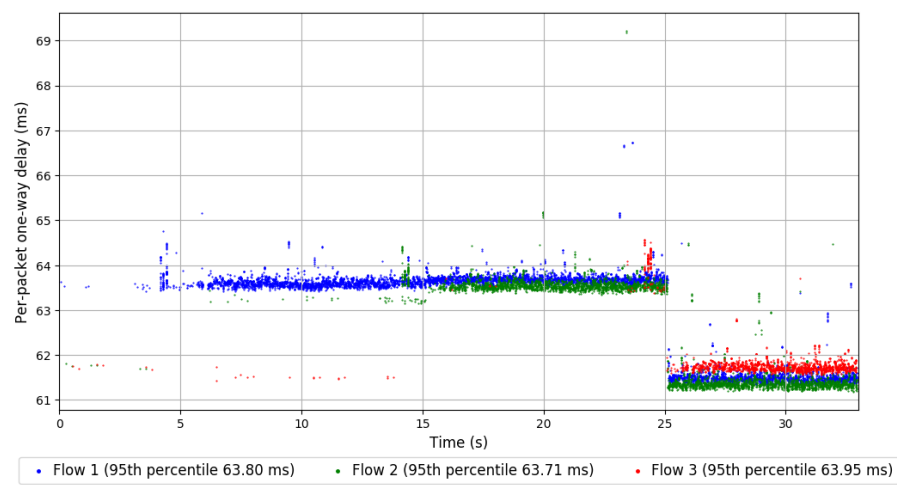
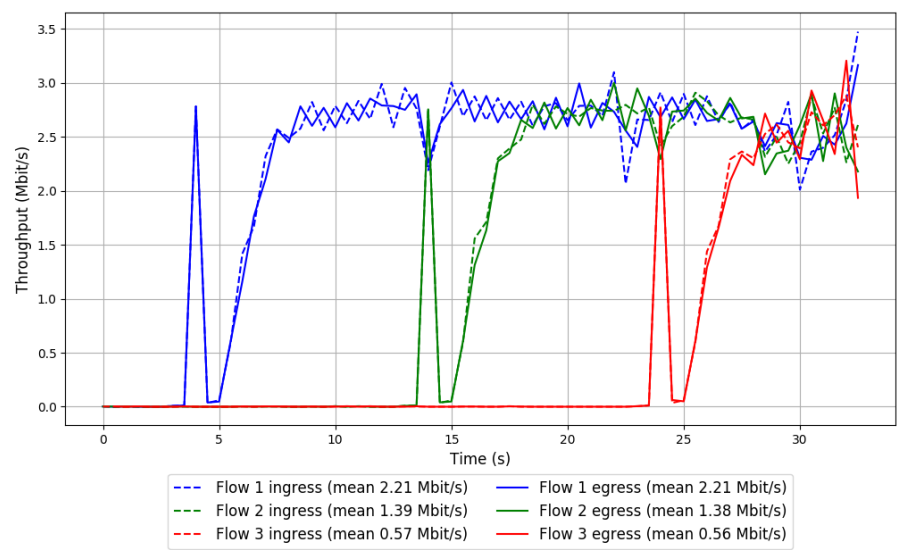
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 63.947 ms

Loss rate: 1.88%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-06 10:30:37

End at: 2017-12-06 10:31:07

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.15 Mbit/s

95th percentile per-packet one-way delay: 63.835 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 63.862 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 63.665 ms

Loss rate: 0.69%

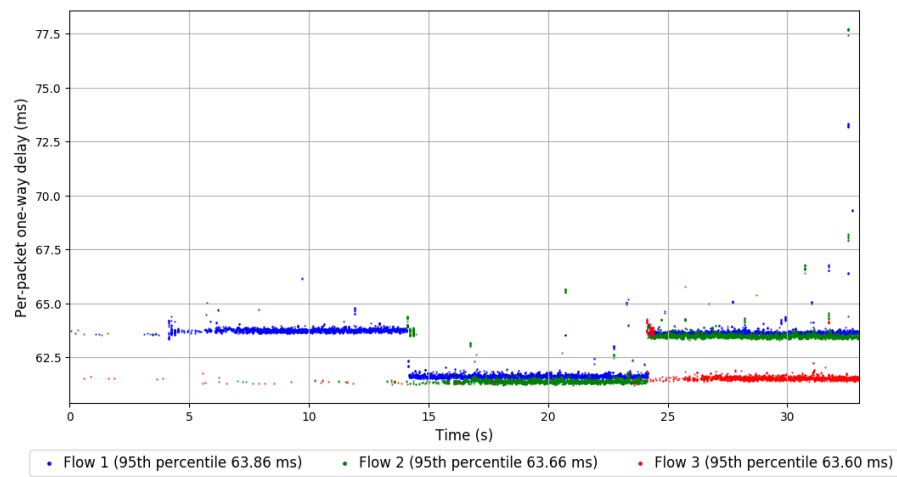
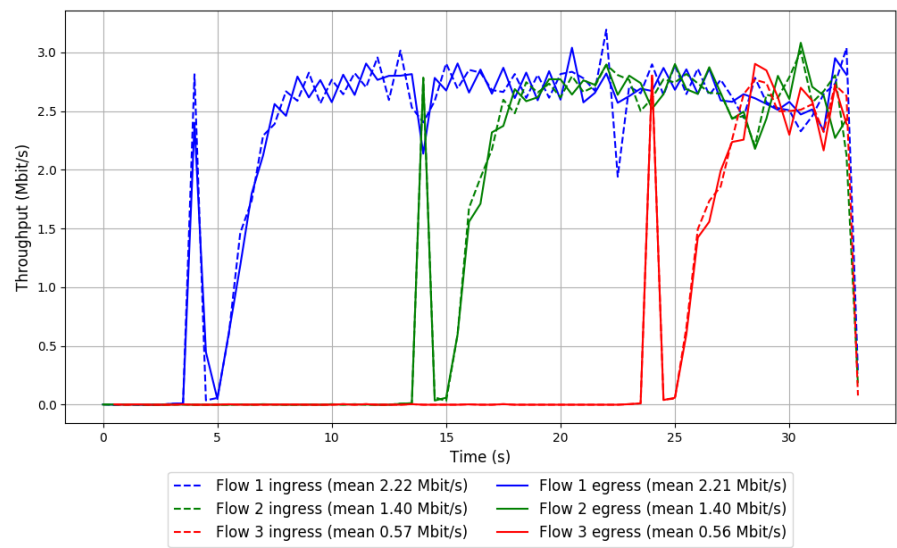
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 63.603 ms

Loss rate: 1.87%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-12-06 10:43:04

End at: 2017-12-06 10:43:34

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.78 Mbit/s

95th percentile per-packet one-way delay: 63.734 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 3.06 Mbit/s

95th percentile per-packet one-way delay: 63.731 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 63.532 ms

Loss rate: 1.03%

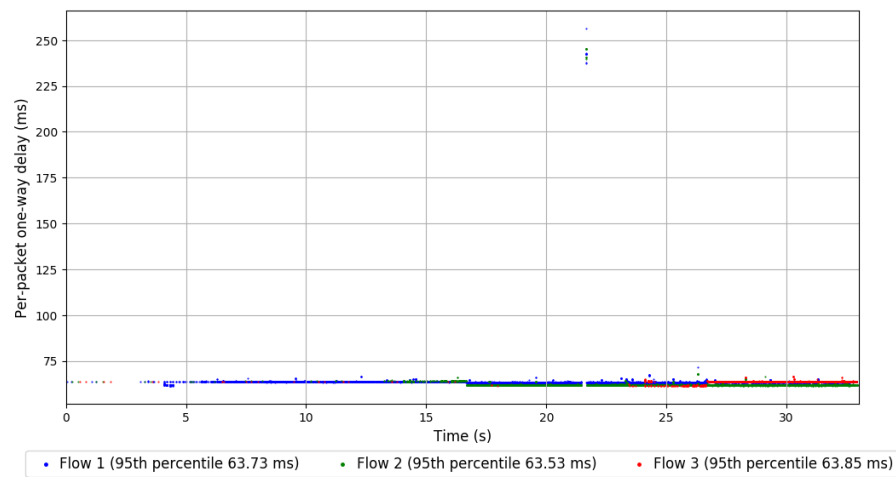
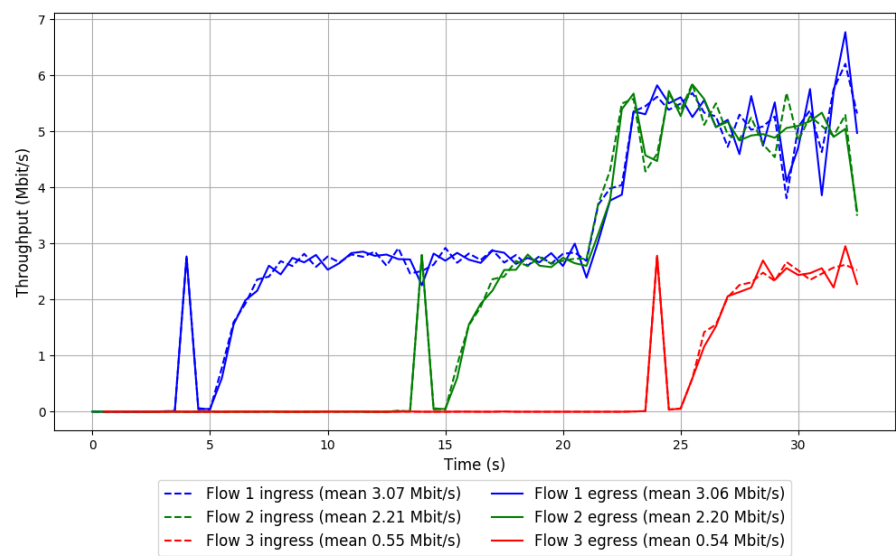
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 63.854 ms

Loss rate: 1.40%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-06 10:55:40

End at: 2017-12-06 10:56:10

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 63.650 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 63.678 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 63.377 ms

Loss rate: 0.65%

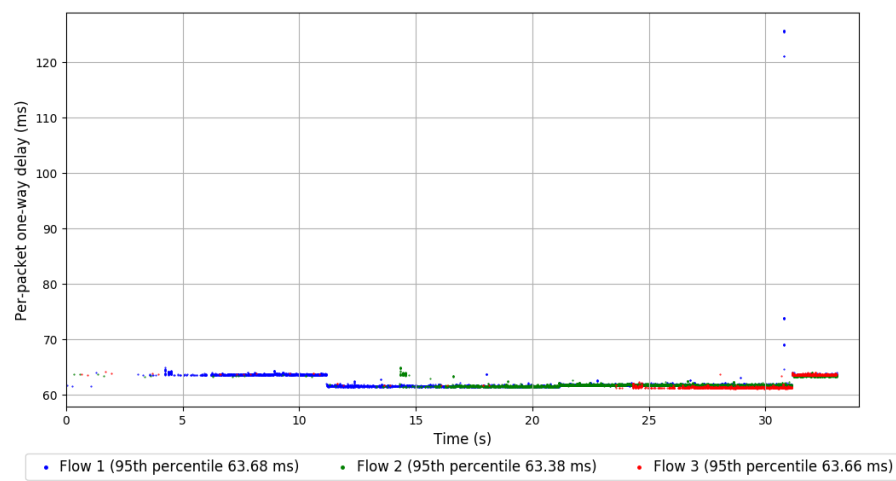
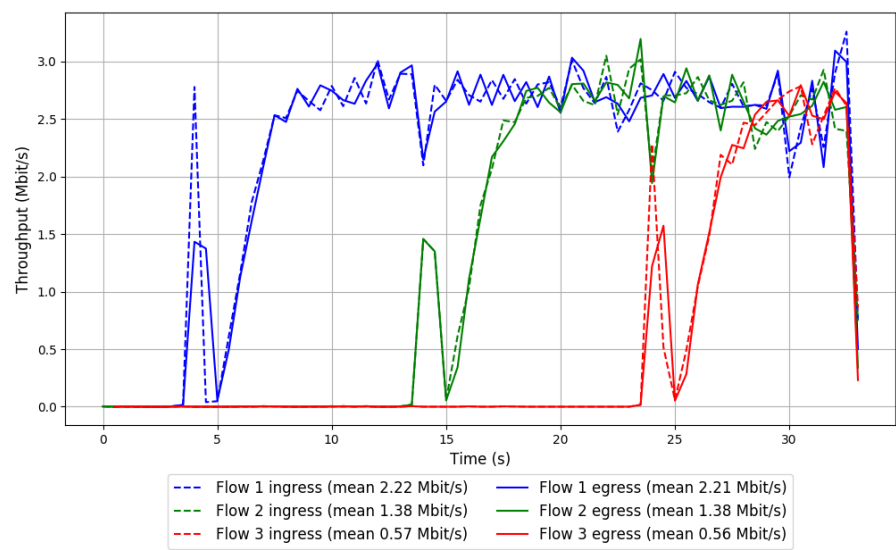
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 63.655 ms

Loss rate: 2.33%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-06 11:07:59

End at: 2017-12-06 11:08:29

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 64.035 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 63.588 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 64.133 ms

Loss rate: 0.75%

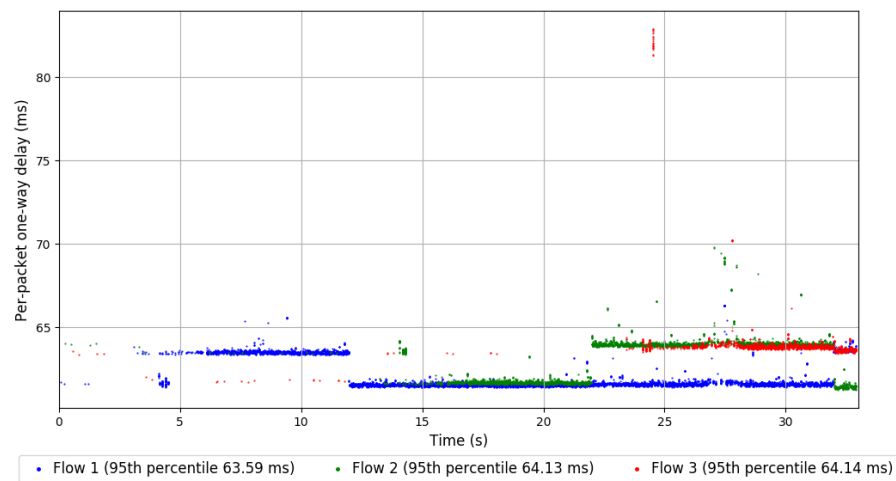
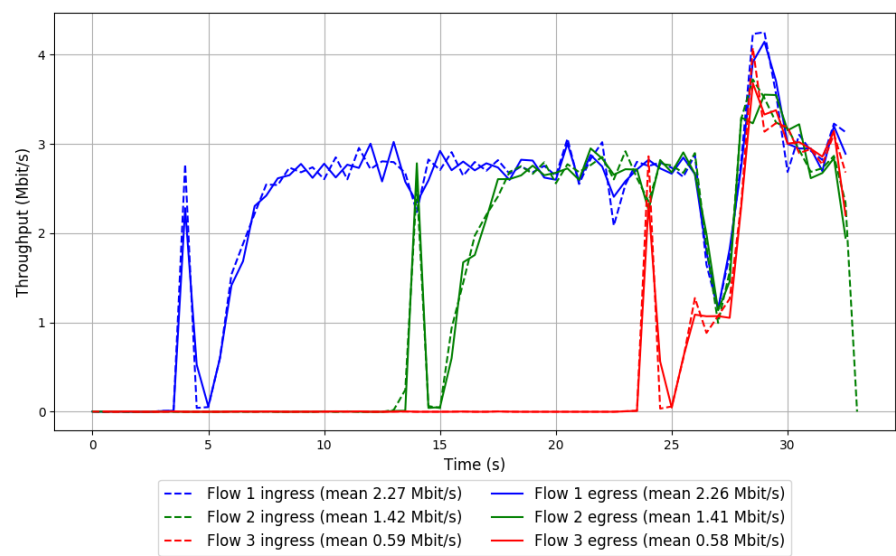
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 64.140 ms

Loss rate: 1.87%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-12-06 11:20:27

End at: 2017-12-06 11:20:57

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 63.794 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 63.841 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 63.588 ms

Loss rate: 0.72%

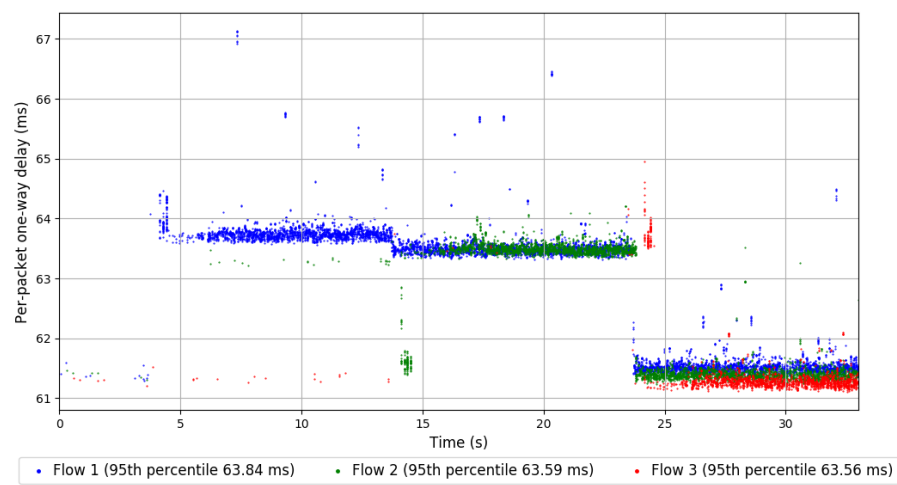
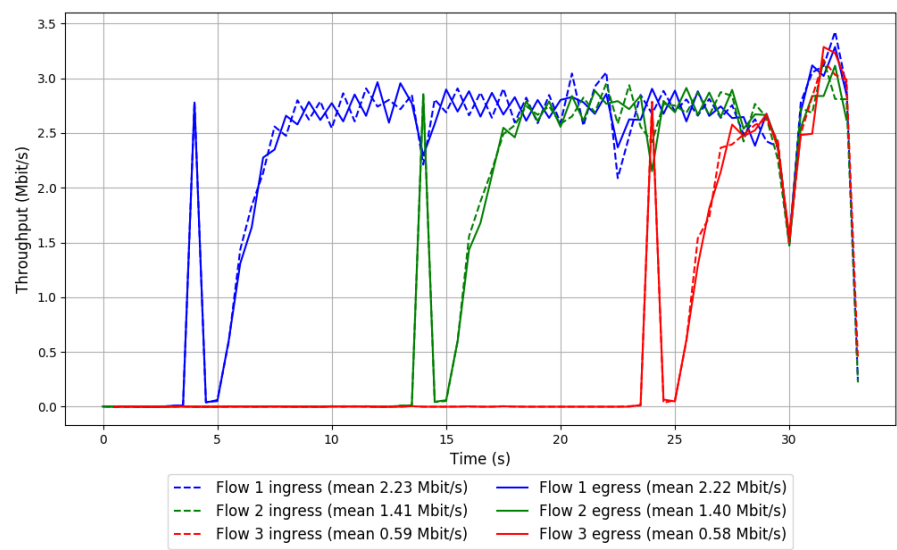
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 63.564 ms

Loss rate: 1.84%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-12-06 11:32:51

End at: 2017-12-06 11:33:21

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.15 Mbit/s

95th percentile per-packet one-way delay: 63.787 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 63.696 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 63.819 ms

Loss rate: 0.66%

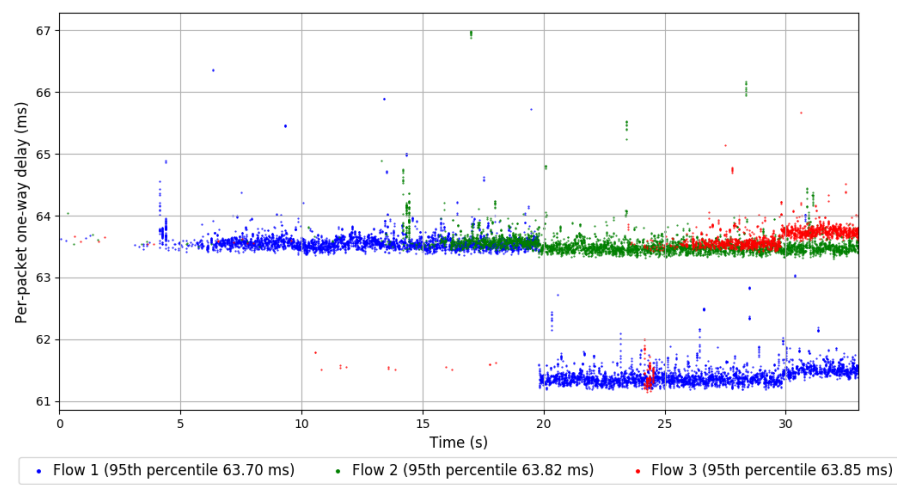
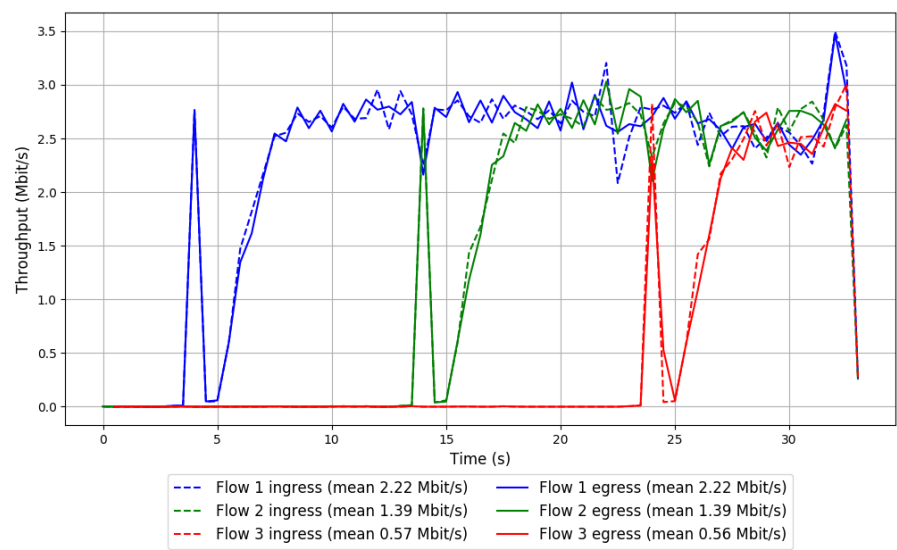
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 63.848 ms

Loss rate: 1.96%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-06 11:45:21

End at: 2017-12-06 11:45:51

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 63.787 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 61.656 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 63.876 ms

Loss rate: 0.80%

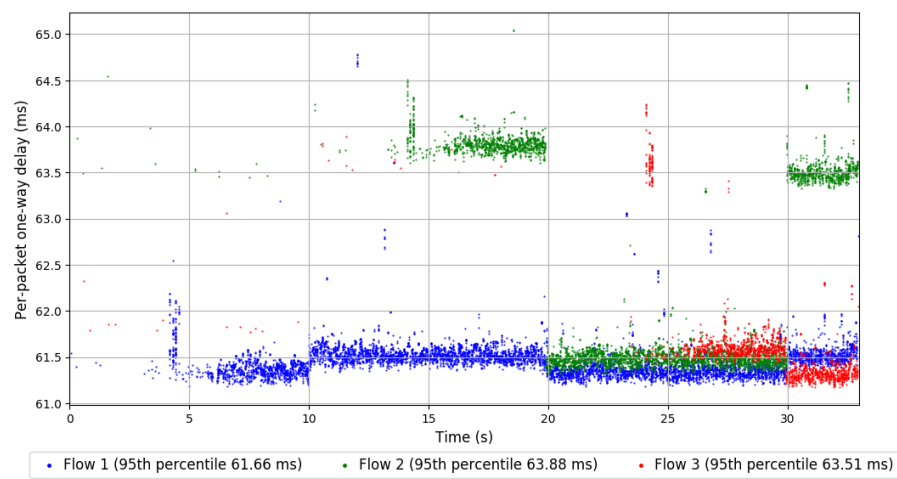
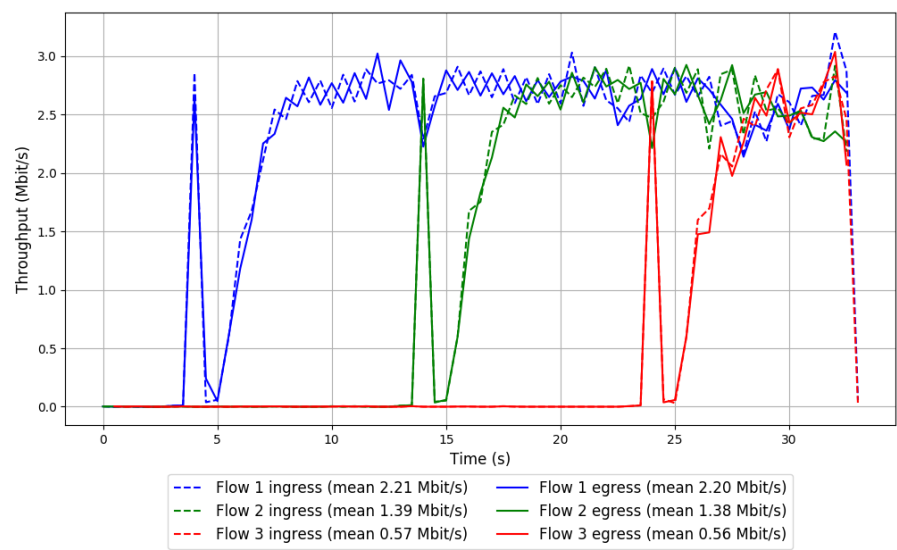
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 63.505 ms

Loss rate: 1.77%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-06 11:57:42

End at: 2017-12-06 11:58:12

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.14 Mbit/s

95th percentile per-packet one-way delay: 64.058 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 64.096 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 63.901 ms

Loss rate: 0.69%

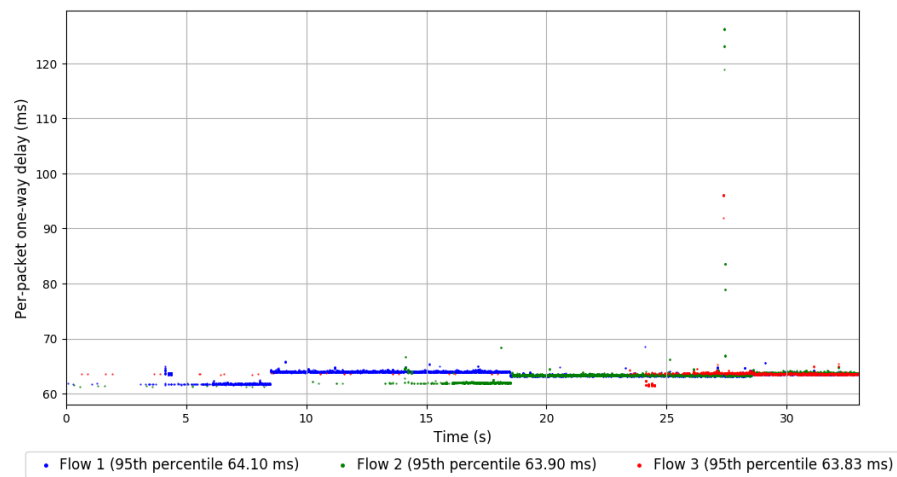
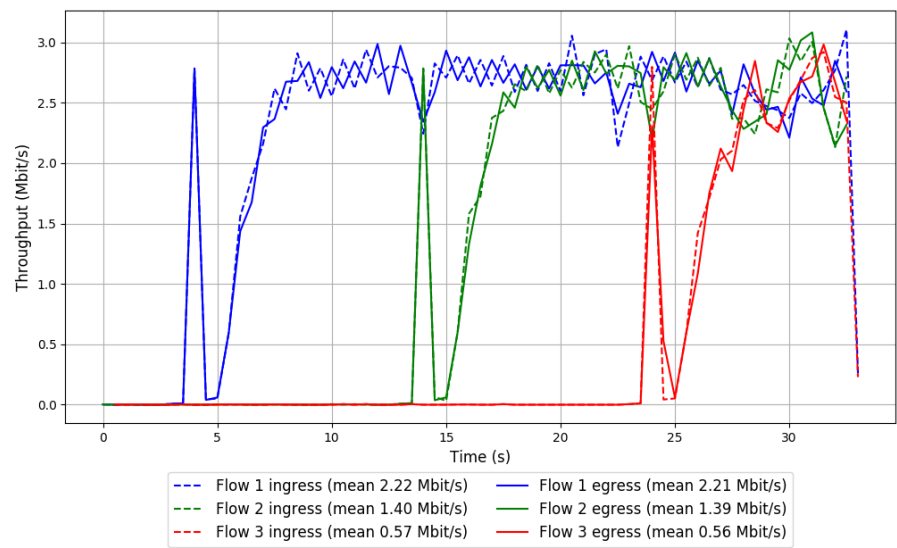
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 63.825 ms

Loss rate: 1.59%

Run 10: Report of WebRTC media — Data Link

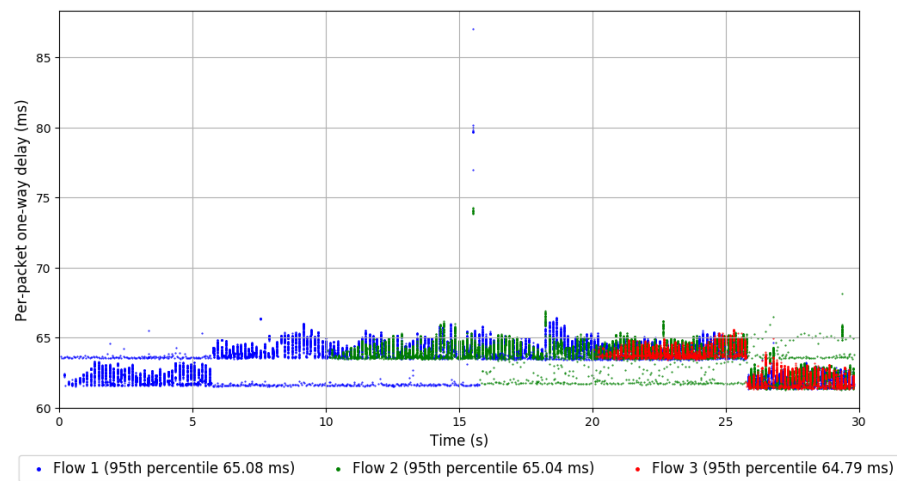
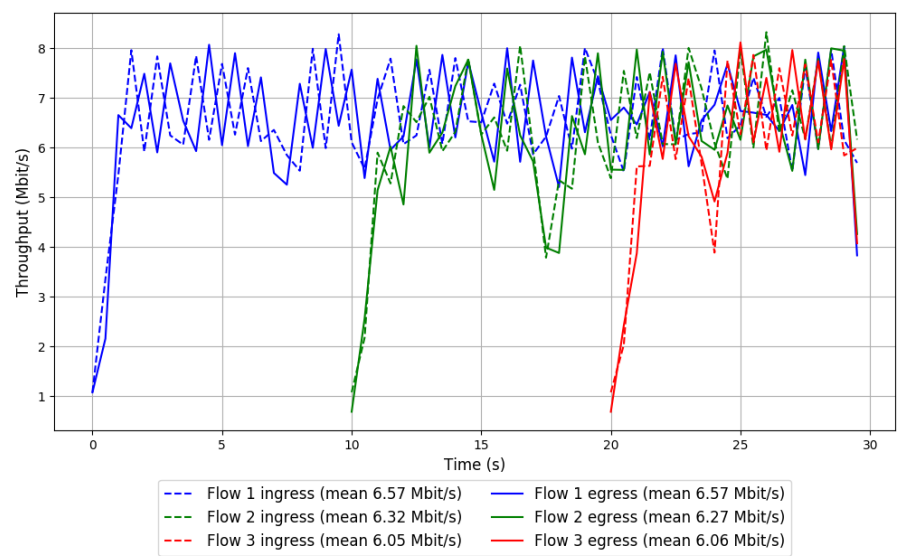


```
Run 1: Statistics of Sprout

Start at: 2017-12-06 10:10:52
End at: 2017-12-06 10:11:22

# Below is generated by plot.py at 2017-12-06 14:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 65.025 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 6.57 Mbit/s
95th percentile per-packet one-way delay: 65.085 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 6.27 Mbit/s
95th percentile per-packet one-way delay: 65.038 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 64.791 ms
Loss rate: 1.60%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-12-06 10:23:40

End at: 2017-12-06 10:24:10

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.42 Mbit/s

95th percentile per-packet one-way delay: 64.964 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 6.24 Mbit/s

95th percentile per-packet one-way delay: 64.994 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 6.26 Mbit/s

95th percentile per-packet one-way delay: 64.900 ms

Loss rate: 0.12%

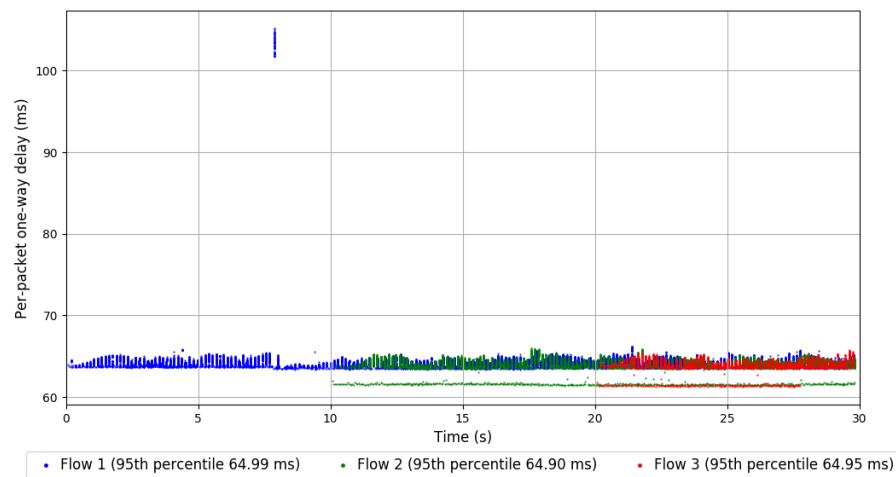
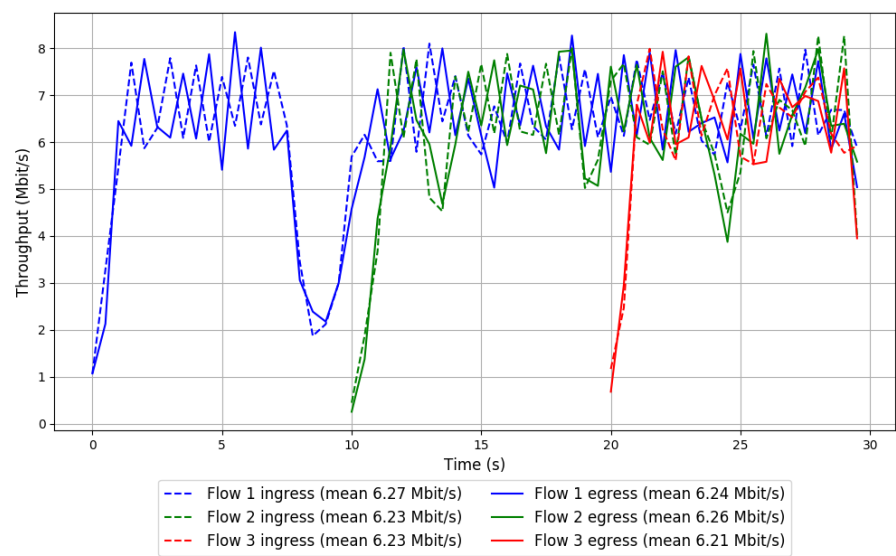
-- Flow 3:

Average throughput: 6.21 Mbit/s

95th percentile per-packet one-way delay: 64.953 ms

Loss rate: 1.63%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-12-06 10:36:02

End at: 2017-12-06 10:36:32

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.76 Mbit/s

95th percentile per-packet one-way delay: 65.045 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 6.55 Mbit/s

95th percentile per-packet one-way delay: 65.120 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 6.24 Mbit/s

95th percentile per-packet one-way delay: 64.867 ms

Loss rate: 1.46%

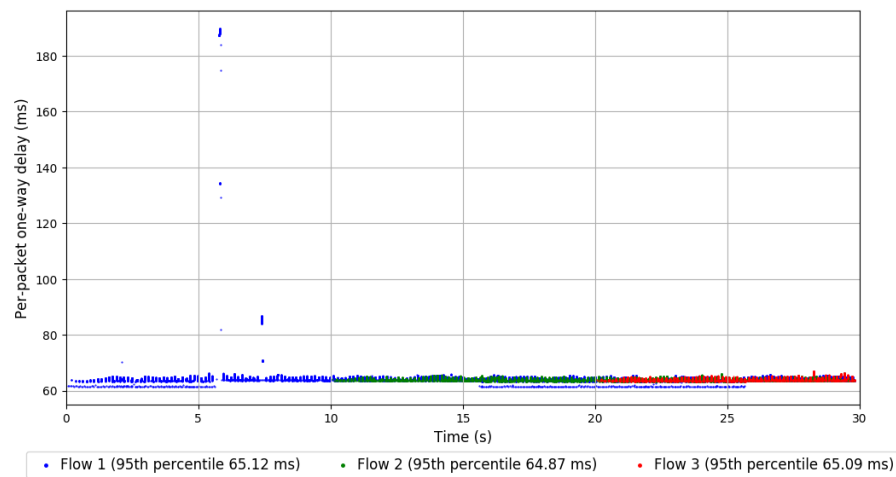
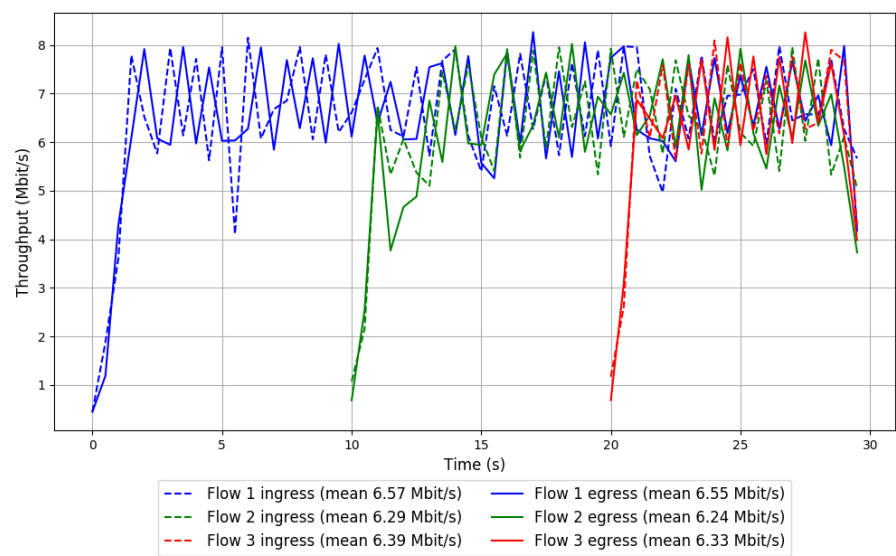
-- Flow 3:

Average throughput: 6.33 Mbit/s

95th percentile per-packet one-way delay: 65.087 ms

Loss rate: 1.68%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-12-06 10:48:31

End at: 2017-12-06 10:49:01

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.71 Mbit/s

95th percentile per-packet one-way delay: 65.008 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 6.43 Mbit/s

95th percentile per-packet one-way delay: 64.913 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 6.49 Mbit/s

95th percentile per-packet one-way delay: 65.050 ms

Loss rate: 0.87%

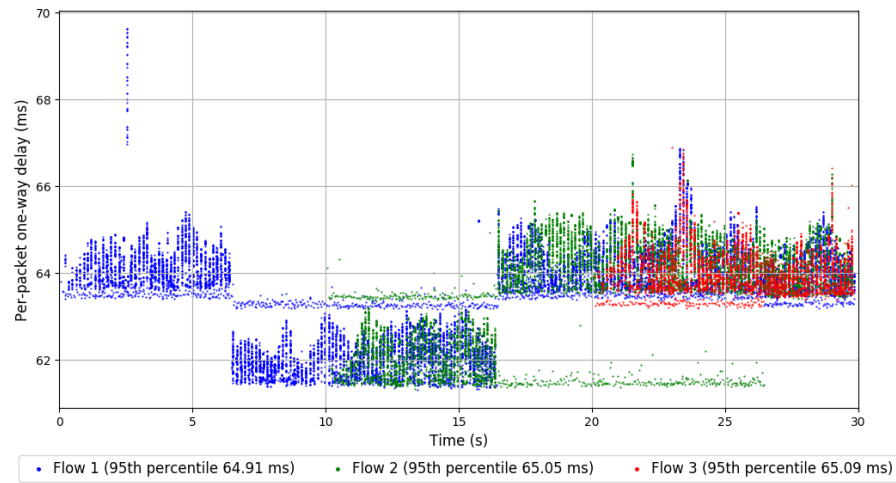
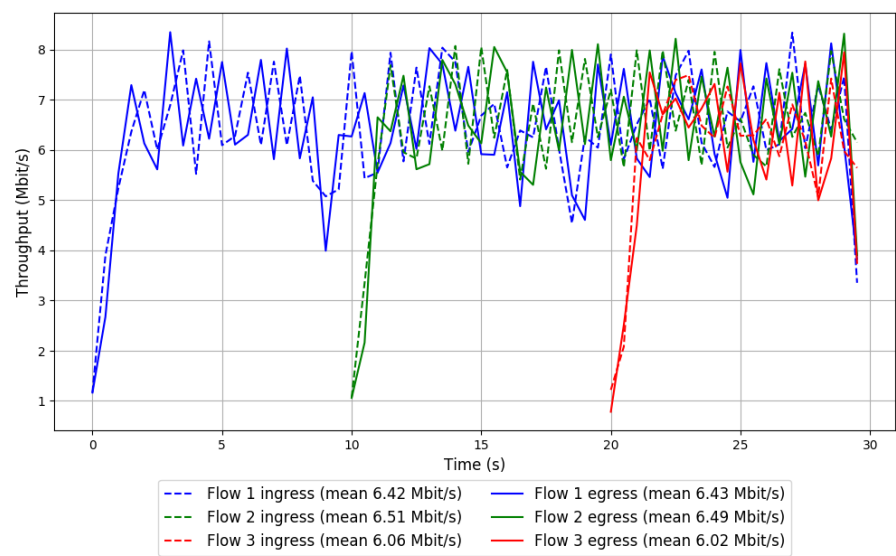
-- Flow 3:

Average throughput: 6.02 Mbit/s

95th percentile per-packet one-way delay: 65.094 ms

Loss rate: 1.59%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-12-06 11:01:02

End at: 2017-12-06 11:01:32

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.74 Mbit/s

95th percentile per-packet one-way delay: 64.986 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 6.54 Mbit/s

95th percentile per-packet one-way delay: 65.033 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 6.33 Mbit/s

95th percentile per-packet one-way delay: 64.925 ms

Loss rate: 1.17%

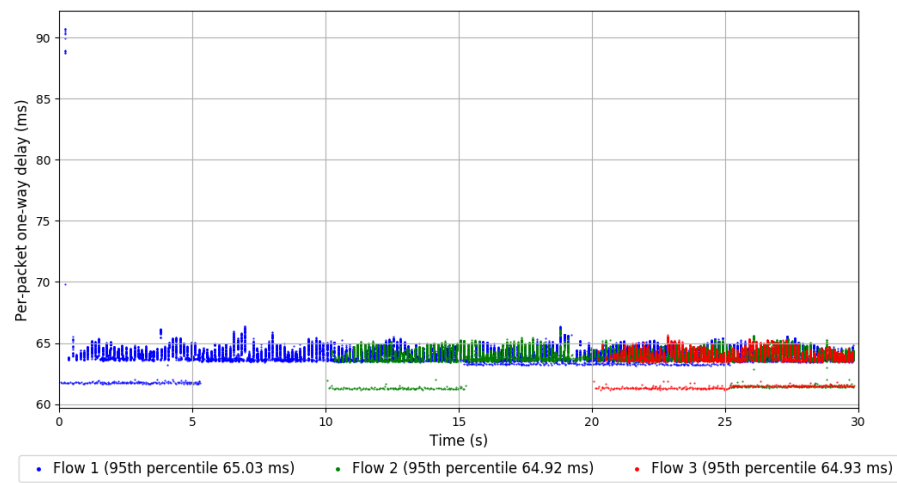
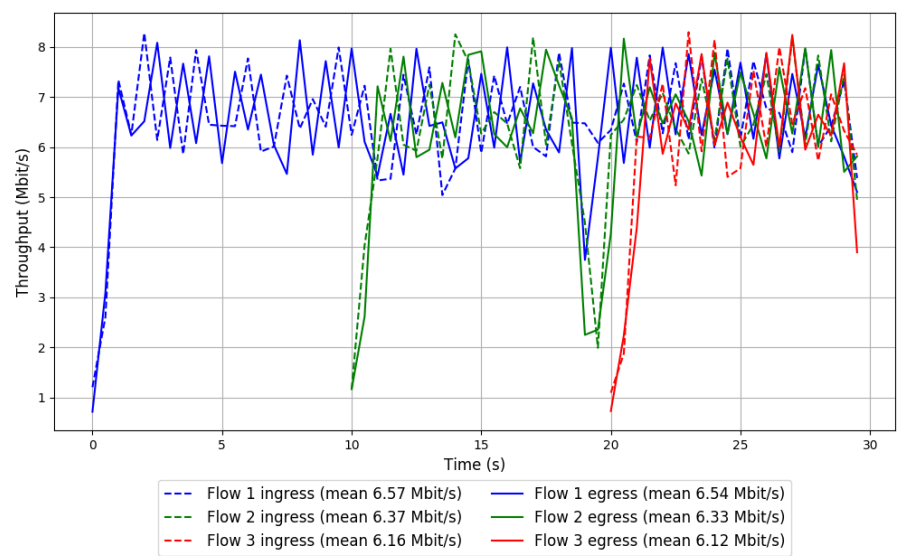
-- Flow 3:

Average throughput: 6.12 Mbit/s

95th percentile per-packet one-way delay: 64.929 ms

Loss rate: 1.61%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-12-06 11:13:31

End at: 2017-12-06 11:14:01

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.62 Mbit/s

95th percentile per-packet one-way delay: 64.958 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 6.45 Mbit/s

95th percentile per-packet one-way delay: 64.975 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 6.58 Mbit/s

95th percentile per-packet one-way delay: 64.969 ms

Loss rate: 0.72%

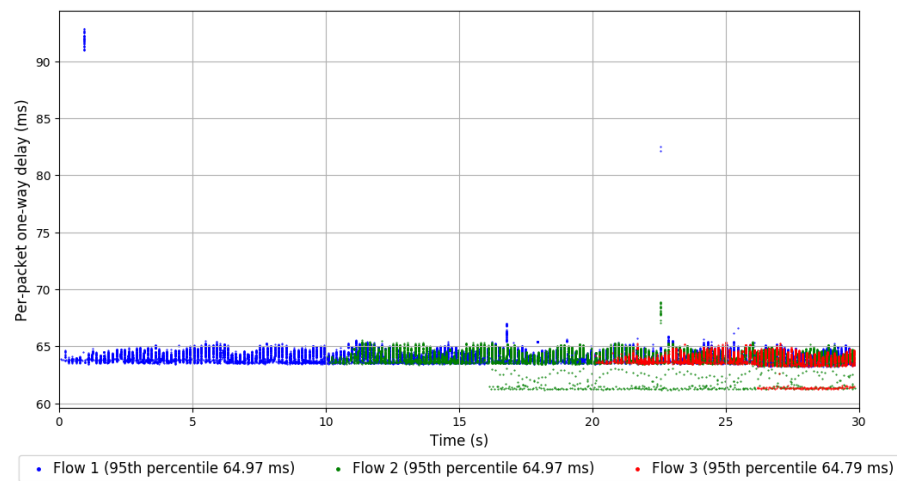
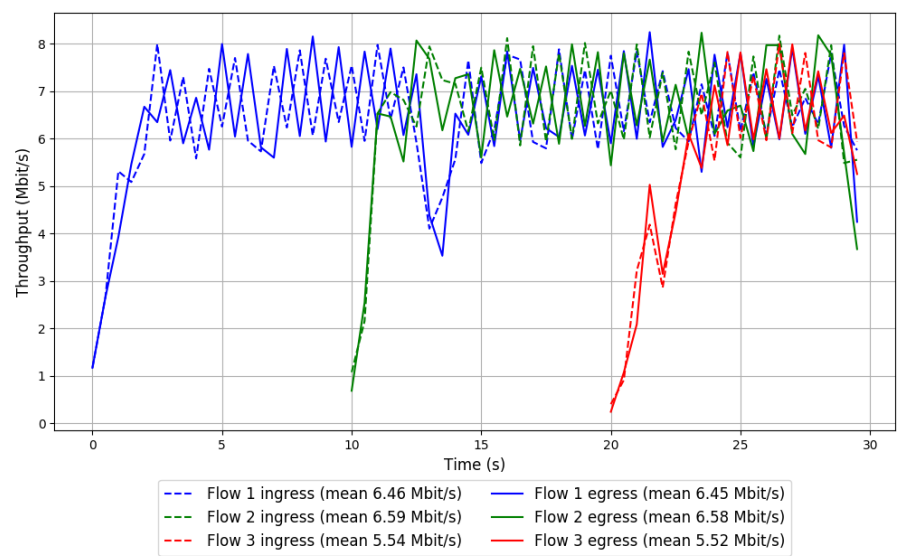
-- Flow 3:

Average throughput: 5.52 Mbit/s

95th percentile per-packet one-way delay: 64.788 ms

Loss rate: 1.83%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-12-06 11:25:53

End at: 2017-12-06 11:26:23

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.93 Mbit/s

95th percentile per-packet one-way delay: 64.979 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 6.04 Mbit/s

95th percentile per-packet one-way delay: 64.909 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 5.87 Mbit/s

95th percentile per-packet one-way delay: 65.029 ms

Loss rate: 0.92%

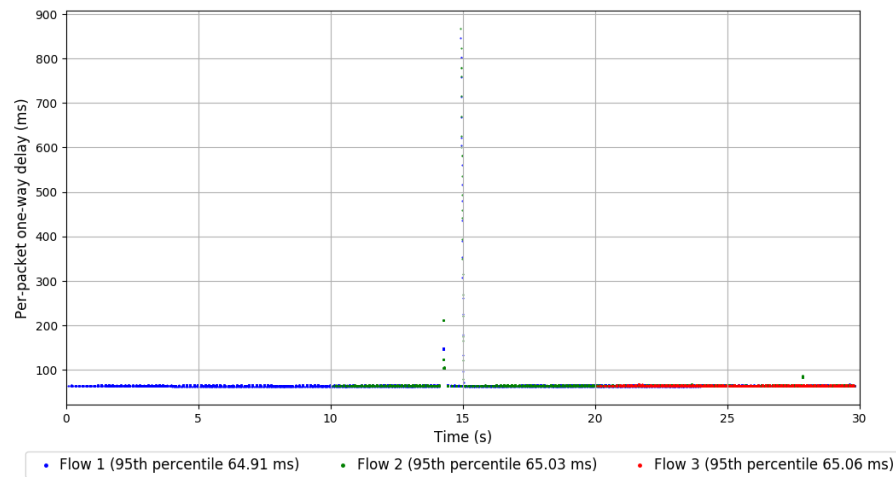
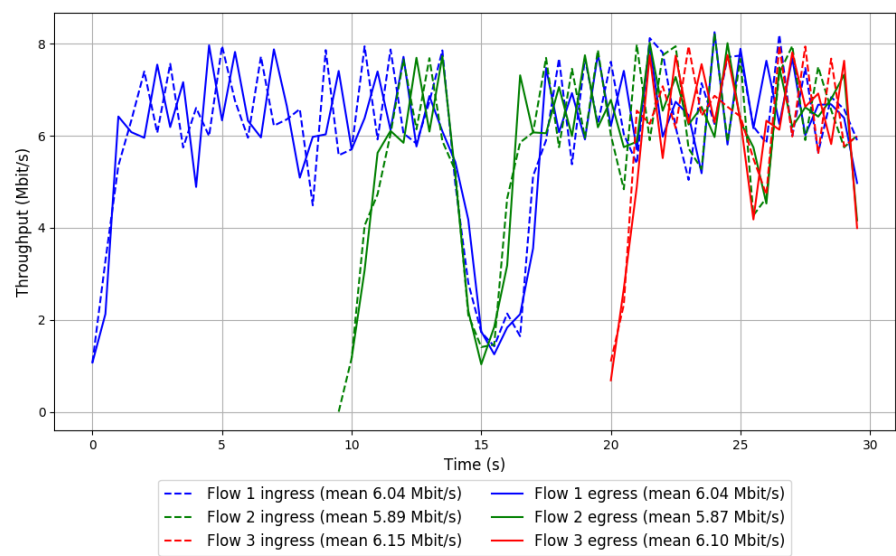
-- Flow 3:

Average throughput: 6.10 Mbit/s

95th percentile per-packet one-way delay: 65.065 ms

Loss rate: 1.65%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-12-06 11:38:20

End at: 2017-12-06 11:38:50

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.29 Mbit/s

95th percentile per-packet one-way delay: 64.051 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 6.40 Mbit/s

95th percentile per-packet one-way delay: 64.376 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 6.70 Mbit/s

95th percentile per-packet one-way delay: 63.046 ms

Loss rate: 0.75%

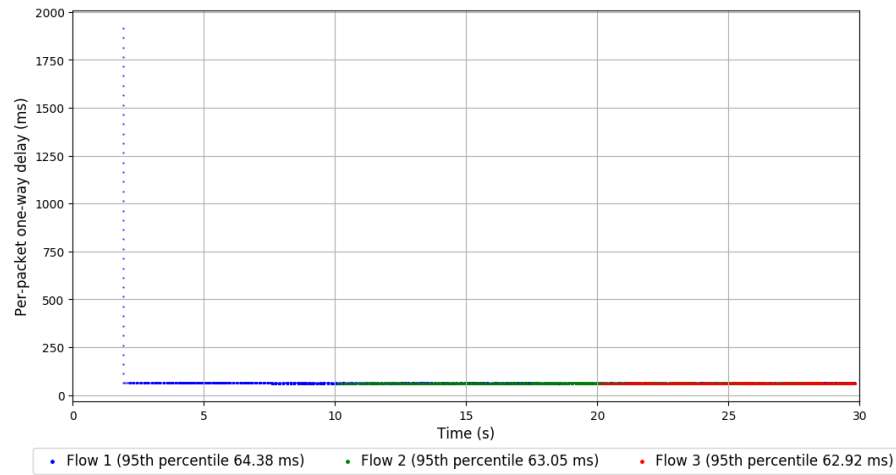
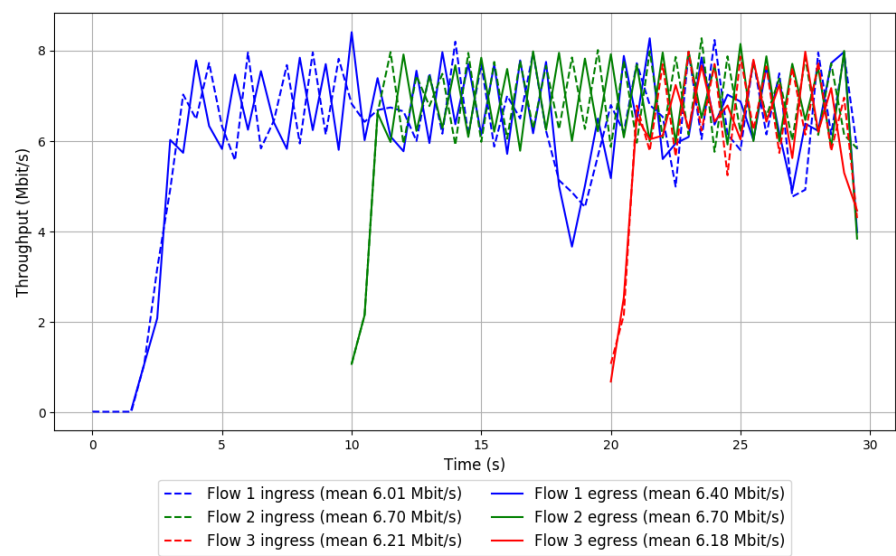
-- Flow 3:

Average throughput: 6.18 Mbit/s

95th percentile per-packet one-way delay: 62.921 ms

Loss rate: 1.48%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-12-06 11:50:45

End at: 2017-12-06 11:51:15

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.38 Mbit/s

95th percentile per-packet one-way delay: 63.273 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 6.43 Mbit/s

95th percentile per-packet one-way delay: 63.434 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 6.57 Mbit/s

95th percentile per-packet one-way delay: 63.251 ms

Loss rate: 0.75%

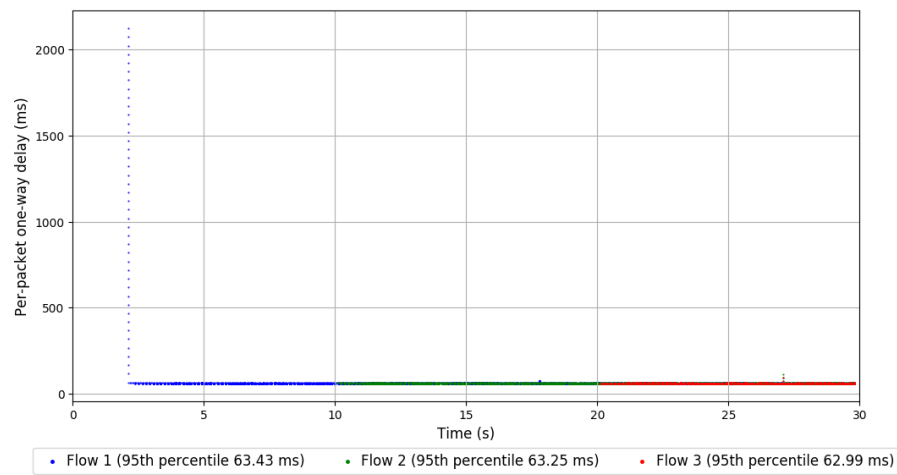
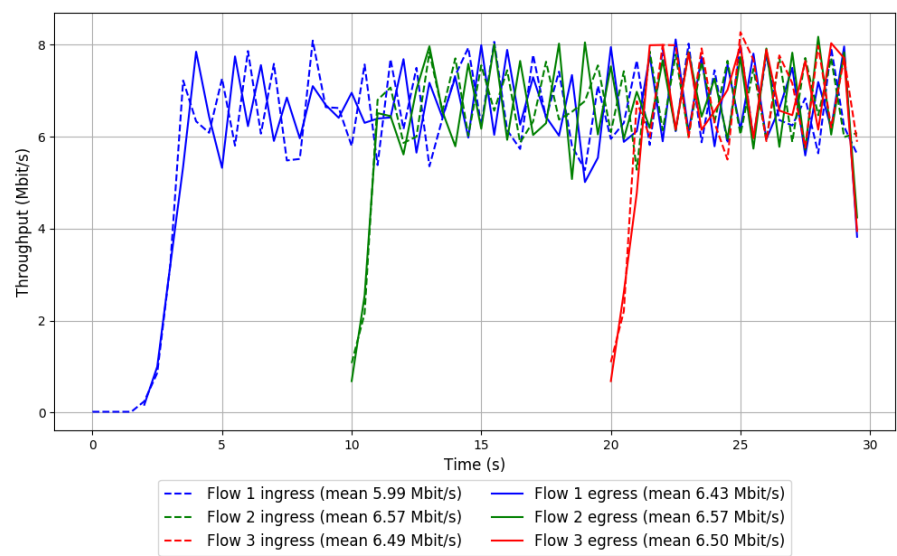
-- Flow 3:

Average throughput: 6.50 Mbit/s

95th percentile per-packet one-way delay: 62.991 ms

Loss rate: 1.52%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-12-06 12:03:08

End at: 2017-12-06 12:03:38

Below is generated by plot.py at 2017-12-06 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.97 Mbit/s

95th percentile per-packet one-way delay: 63.512 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 6.56 Mbit/s

95th percentile per-packet one-way delay: 63.493 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 6.42 Mbit/s

95th percentile per-packet one-way delay: 63.543 ms

Loss rate: 0.52%

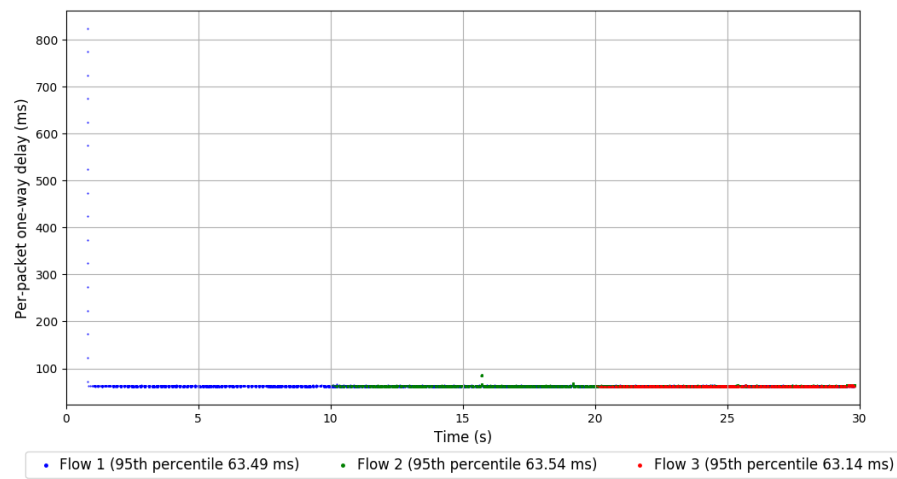
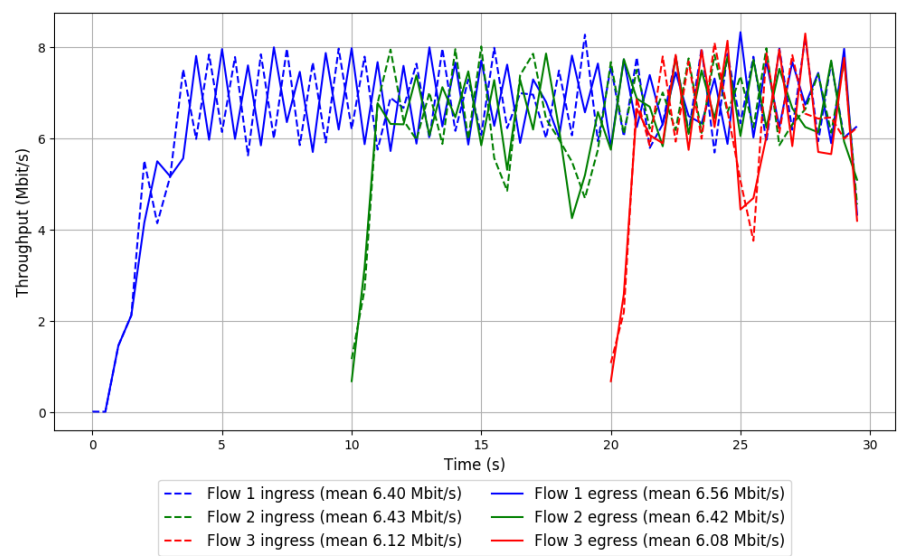
-- Flow 3:

Average throughput: 6.08 Mbit/s

95th percentile per-packet one-way delay: 63.140 ms

Loss rate: 1.70%

Run 10: Report of Sprout — Data Link

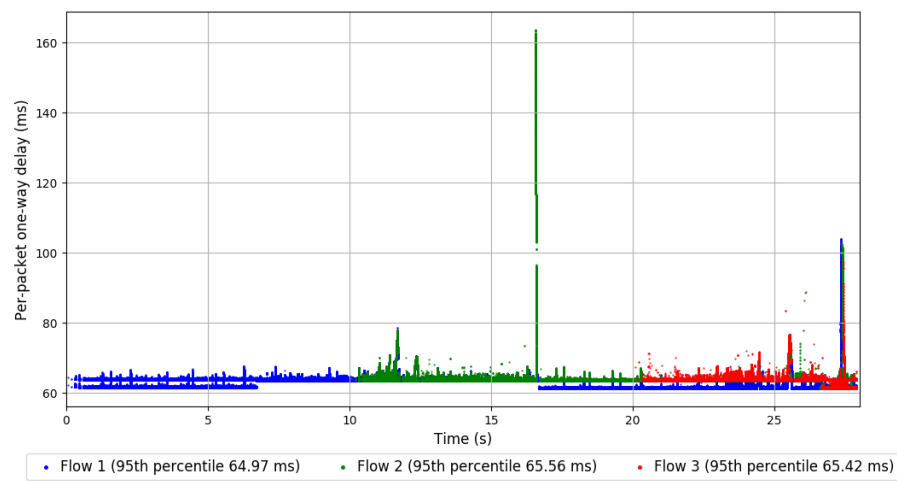
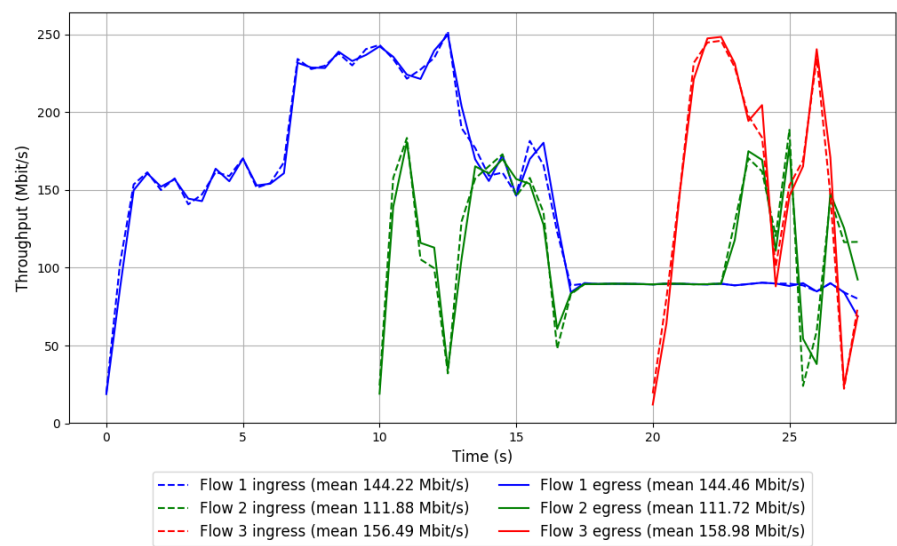


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-06 10:07:49
End at: 2017-12-06 10:08:19

# Below is generated by plot.py at 2017-12-06 14:48:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 260.46 Mbit/s
95th percentile per-packet one-way delay: 65.178 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 144.46 Mbit/s
95th percentile per-packet one-way delay: 64.972 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 111.72 Mbit/s
95th percentile per-packet one-way delay: 65.561 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 158.98 Mbit/s
95th percentile per-packet one-way delay: 65.419 ms
Loss rate: 0.26%
```


Run 1: Report of TaoVA-100x — Data Link

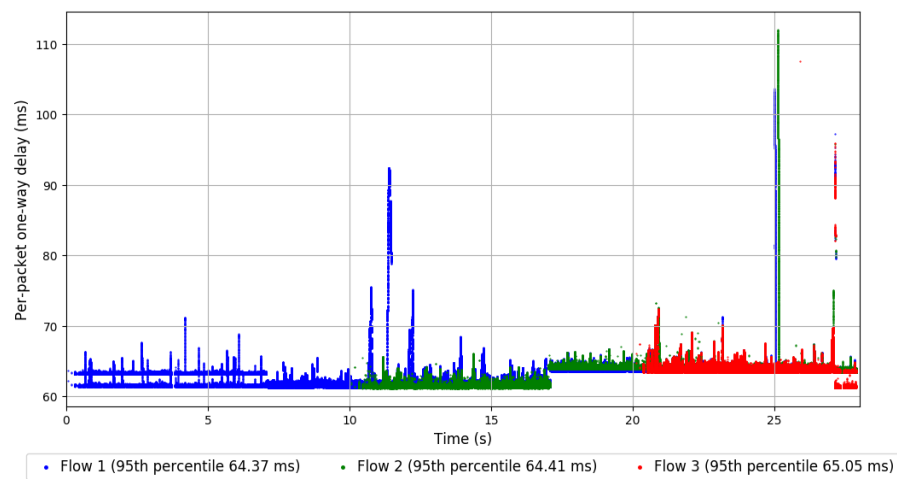
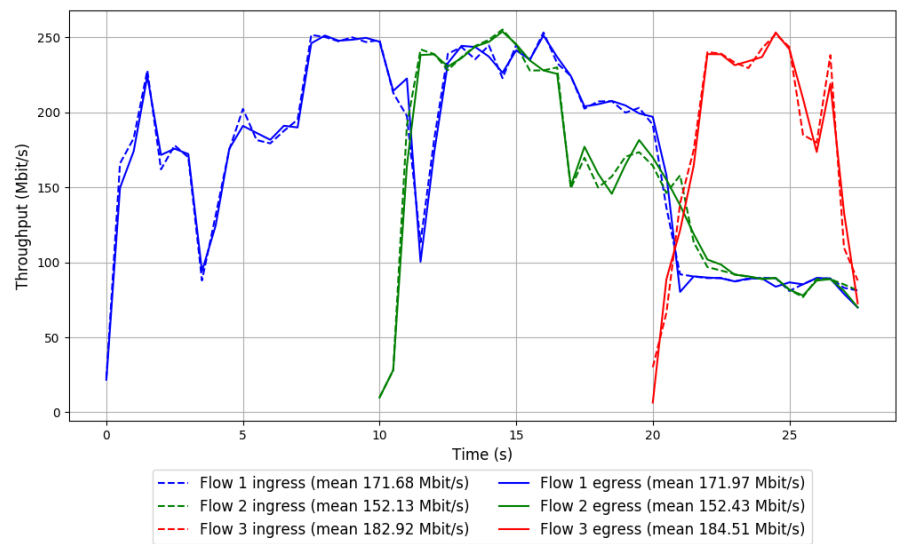


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-06 10:20:28
End at: 2017-12-06 10:20:58

# Below is generated by plot.py at 2017-12-06 14:50:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 321.04 Mbit/s
95th percentile per-packet one-way delay: 64.475 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 171.97 Mbit/s
95th percentile per-packet one-way delay: 64.369 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 152.43 Mbit/s
95th percentile per-packet one-way delay: 64.409 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 184.51 Mbit/s
95th percentile per-packet one-way delay: 65.045 ms
Loss rate: 0.96%
```

Run 2: Report of TaoVA-100x — Data Link

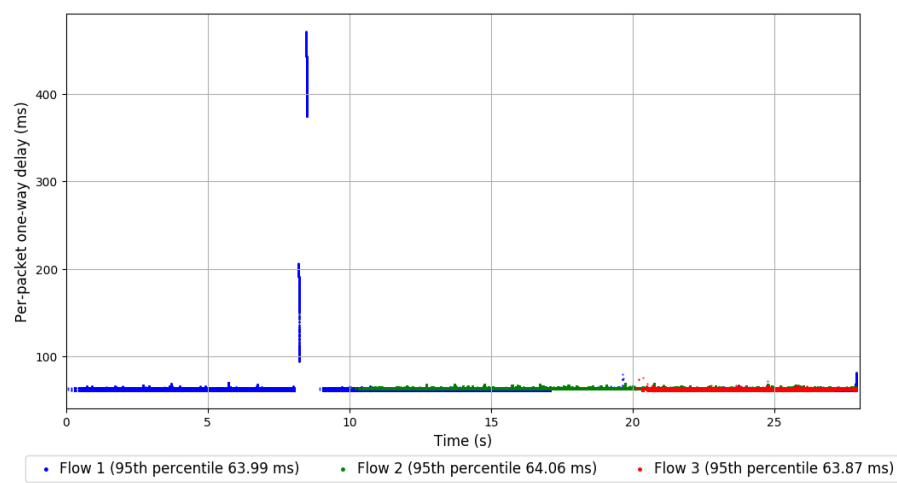
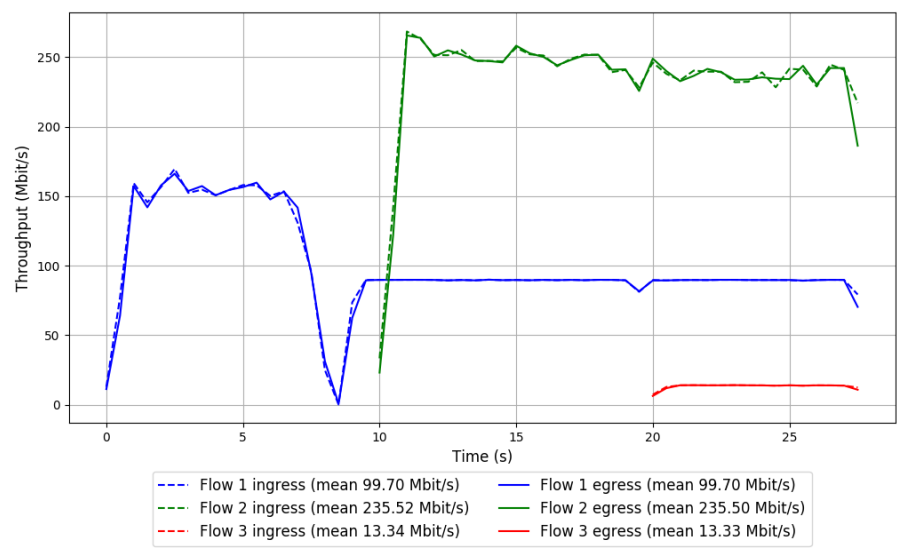


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-12-06 10:32:58
End at: 2017-12-06 10:33:28

# Below is generated by plot.py at 2017-12-06 14:50:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 254.20 Mbit/s
95th percentile per-packet one-way delay: 64.018 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 99.70 Mbit/s
95th percentile per-packet one-way delay: 63.994 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 235.50 Mbit/s
95th percentile per-packet one-way delay: 64.062 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 13.33 Mbit/s
95th percentile per-packet one-way delay: 63.867 ms
Loss rate: 1.59%
```

Run 3: Report of TaoVA-100x — Data Link



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-06 10:45:27

End at: 2017-12-06 10:45:57

Below is generated by plot.py at 2017-12-06 14:50:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 271.91 Mbit/s

95th percentile per-packet one-way delay: 63.633 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 126.31 Mbit/s

95th percentile per-packet one-way delay: 63.622 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 162.49 Mbit/s

95th percentile per-packet one-way delay: 63.651 ms

Loss rate: 0.80%

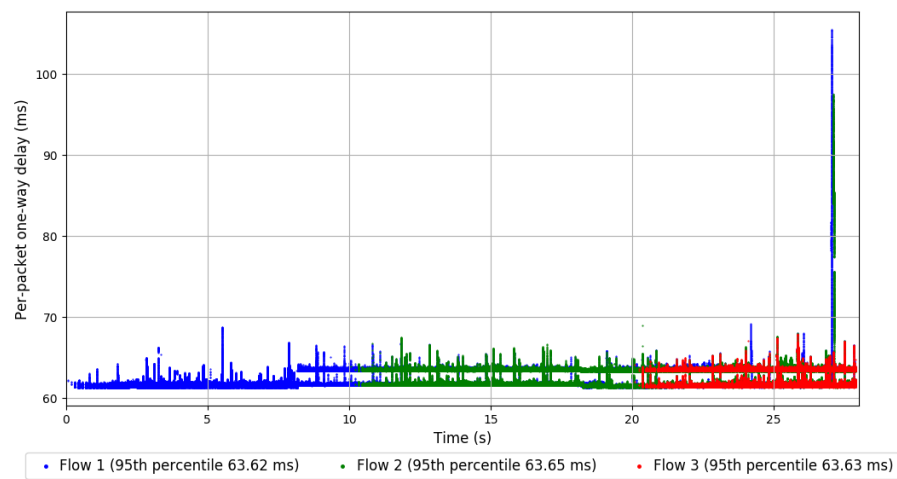
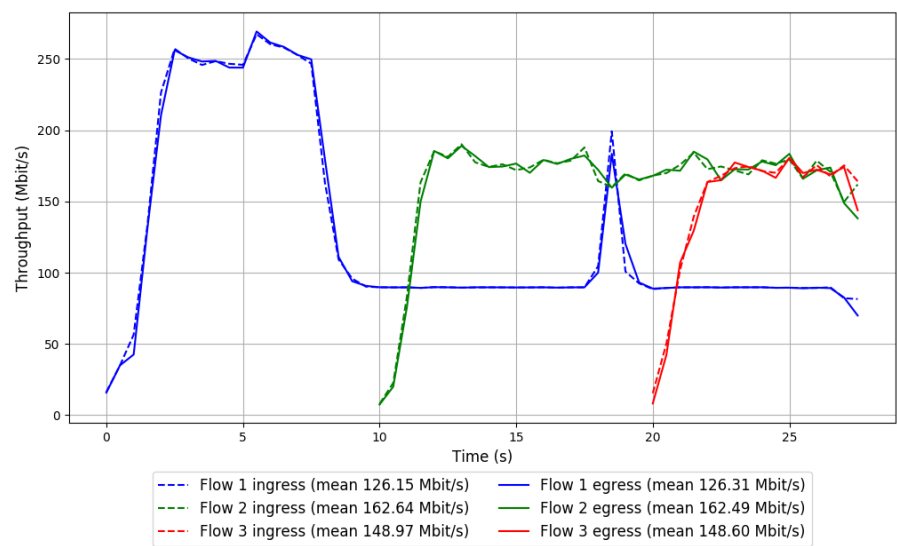
-- Flow 3:

Average throughput: 148.60 Mbit/s

95th percentile per-packet one-way delay: 63.633 ms

Loss rate: 1.83%

Run 4: Report of TaoVA-100x — Data Link

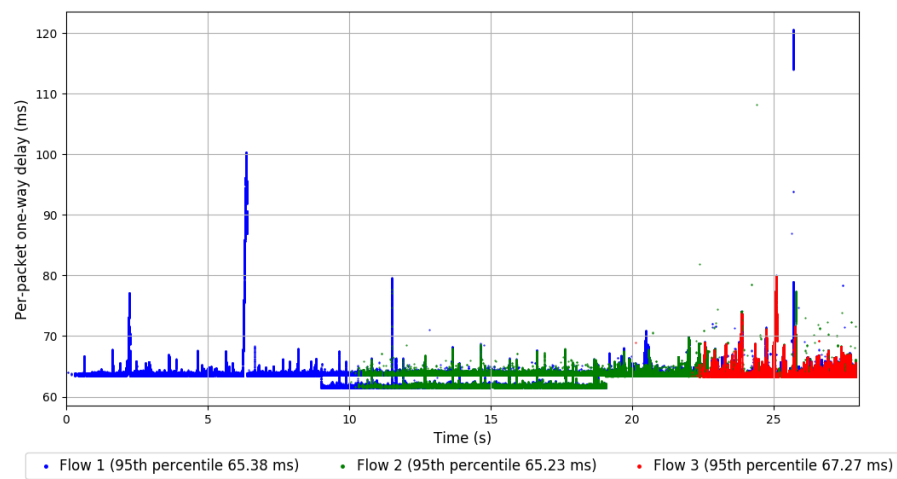
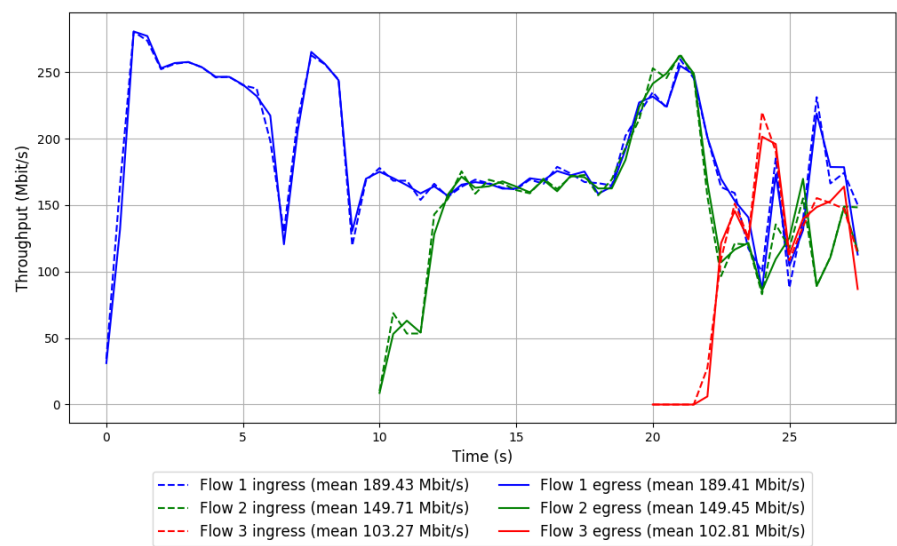


```
Run 5: Statistics of TaoVA-100x

Start at: 2017-12-06 10:57:57
End at: 2017-12-06 10:58:27

# Below is generated by plot.py at 2017-12-06 14:50:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.73 Mbit/s
95th percentile per-packet one-way delay: 65.589 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 189.41 Mbit/s
95th percentile per-packet one-way delay: 65.382 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 149.45 Mbit/s
95th percentile per-packet one-way delay: 65.226 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 102.81 Mbit/s
95th percentile per-packet one-way delay: 67.274 ms
Loss rate: 2.12%
```


Run 5: Report of TaoVA-100x — Data Link

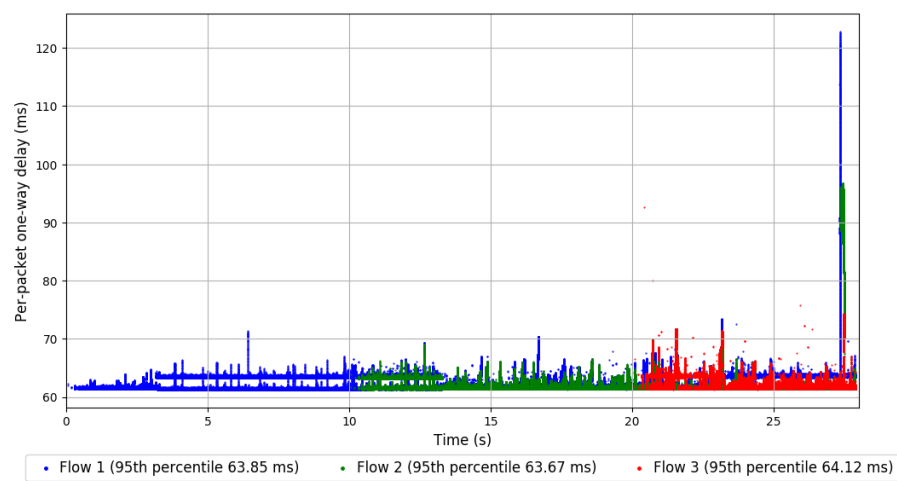
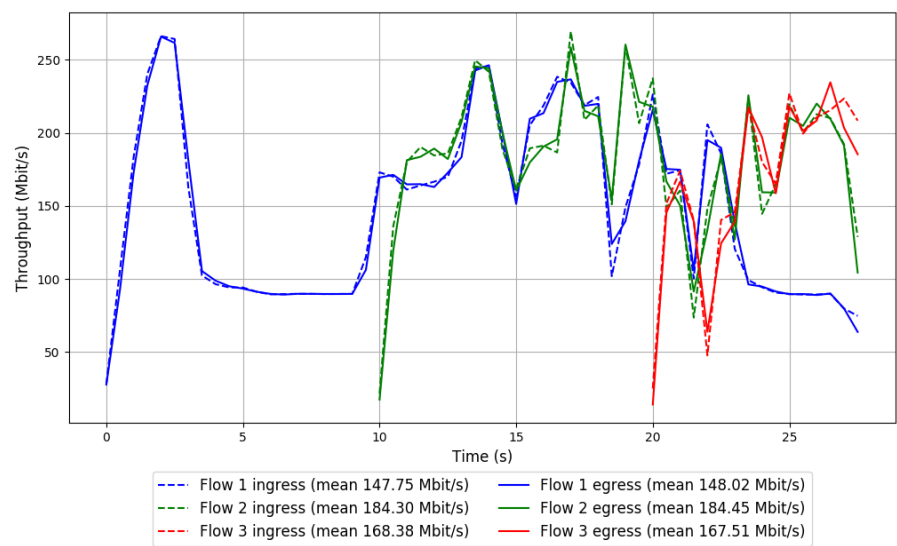


```
Run 6: Statistics of TaoVA-100x

Start at: 2017-12-06 11:10:22
End at: 2017-12-06 11:10:52

# Below is generated by plot.py at 2017-12-06 14:50:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.15 Mbit/s
95th percentile per-packet one-way delay: 63.857 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 148.02 Mbit/s
95th percentile per-packet one-way delay: 63.848 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 184.45 Mbit/s
95th percentile per-packet one-way delay: 63.670 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 167.51 Mbit/s
95th percentile per-packet one-way delay: 64.121 ms
Loss rate: 2.09%
```

Run 6: Report of TaoVA-100x — Data Link

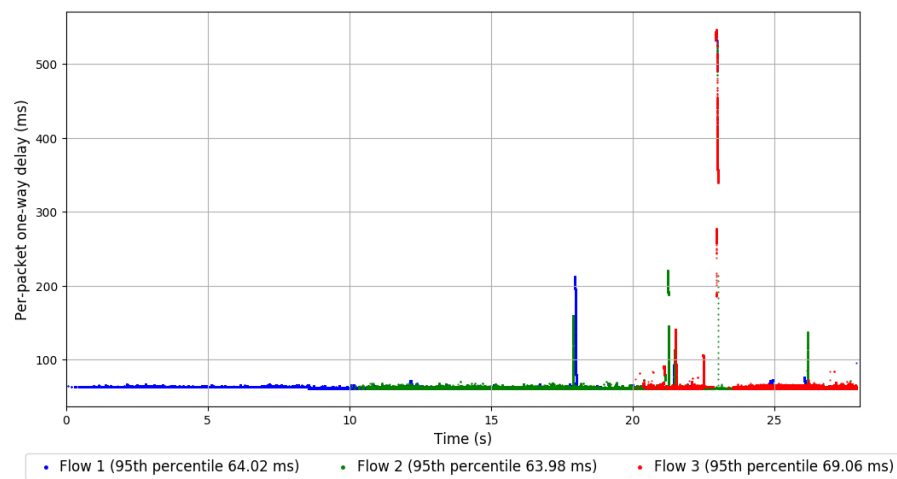
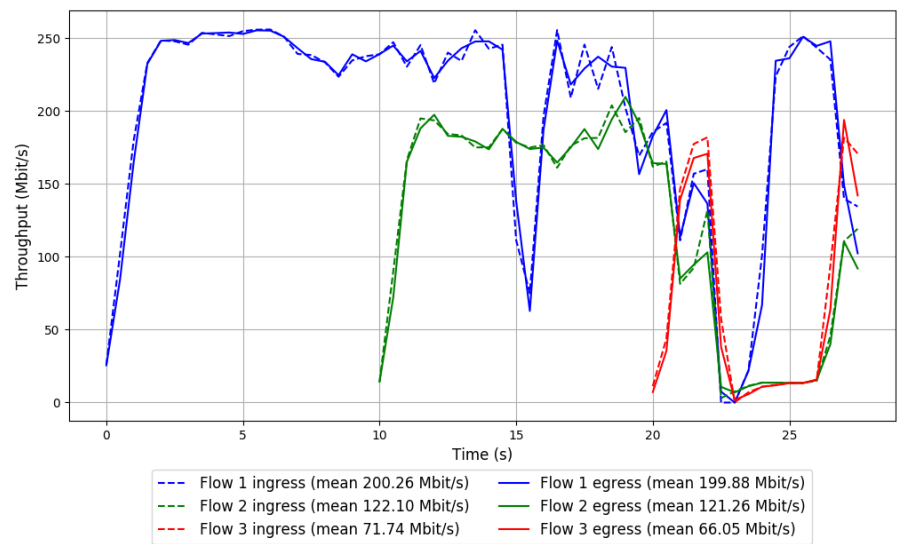


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-12-06 11:22:47
End at: 2017-12-06 11:23:17

# Below is generated by plot.py at 2017-12-06 14:54:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 296.08 Mbit/s
95th percentile per-packet one-way delay: 64.147 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 199.88 Mbit/s
95th percentile per-packet one-way delay: 64.015 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 121.26 Mbit/s
95th percentile per-packet one-way delay: 63.977 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 66.05 Mbit/s
95th percentile per-packet one-way delay: 69.055 ms
Loss rate: 9.39%
```

Run 7: Report of TaoVA-100x — Data Link



Run 8: Statistics of TaoVA-100x

Start at: 2017-12-06 11:35:14

End at: 2017-12-06 11:35:44

Below is generated by plot.py at 2017-12-06 14:56:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 315.60 Mbit/s

95th percentile per-packet one-way delay: 65.396 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 163.90 Mbit/s

95th percentile per-packet one-way delay: 64.507 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 159.00 Mbit/s

95th percentile per-packet one-way delay: 66.905 ms

Loss rate: 0.20%

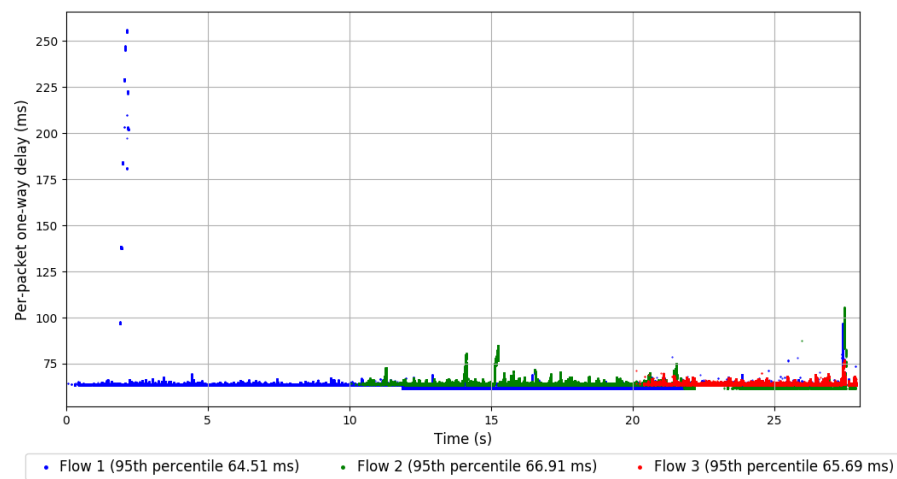
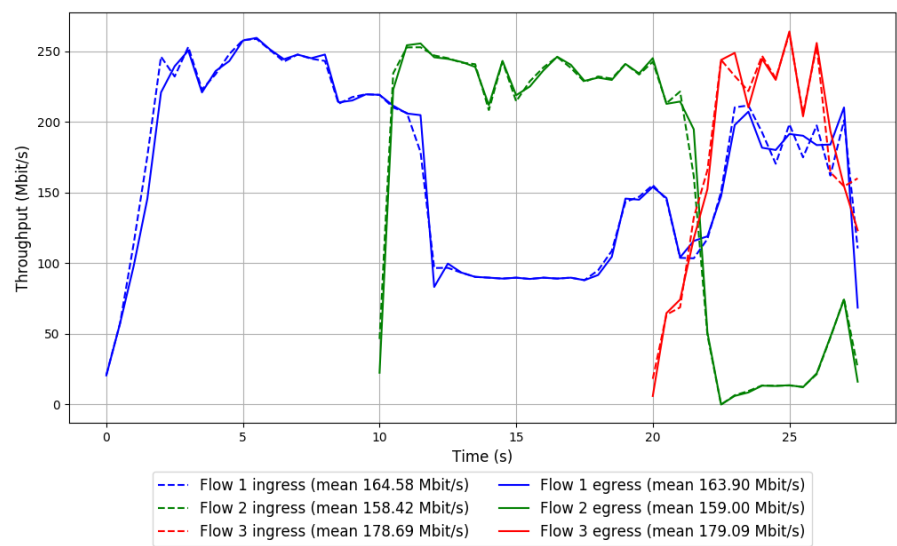
-- Flow 3:

Average throughput: 179.09 Mbit/s

95th percentile per-packet one-way delay: 65.689 ms

Loss rate: 1.35%

Run 8: Report of TaoVA-100x — Data Link

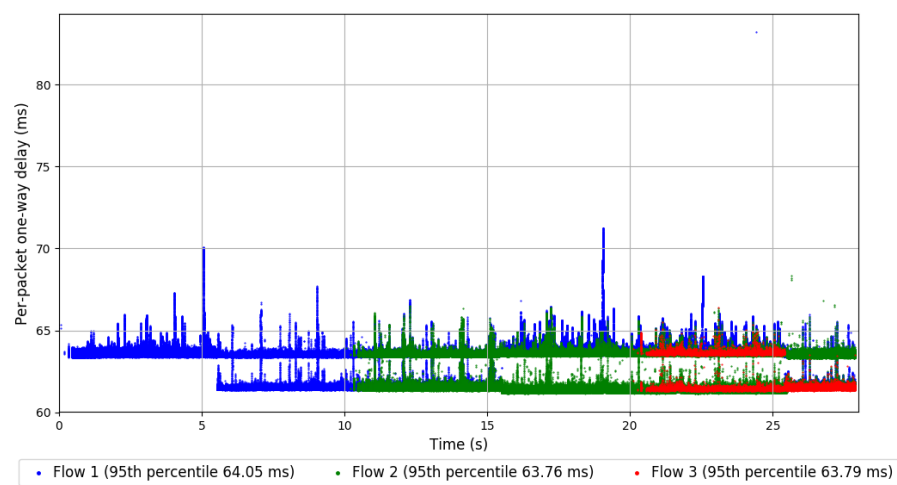
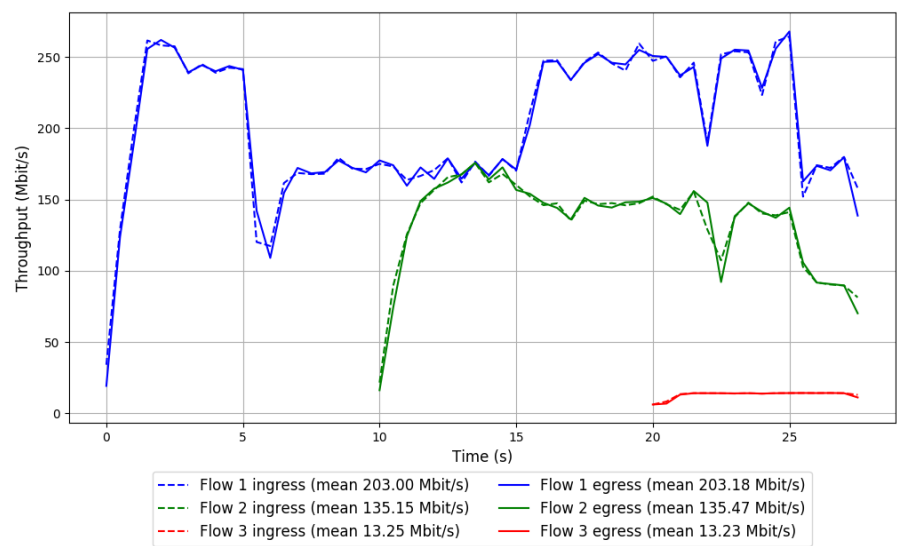


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-12-06 11:47:40
End at: 2017-12-06 11:48:10

# Below is generated by plot.py at 2017-12-06 14:58:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 293.60 Mbit/s
95th percentile per-packet one-way delay: 63.959 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 203.18 Mbit/s
95th percentile per-packet one-way delay: 64.050 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 135.47 Mbit/s
95th percentile per-packet one-way delay: 63.756 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 63.788 ms
Loss rate: 1.68%
```


Run 9: Report of TaoVA-100x — Data Link

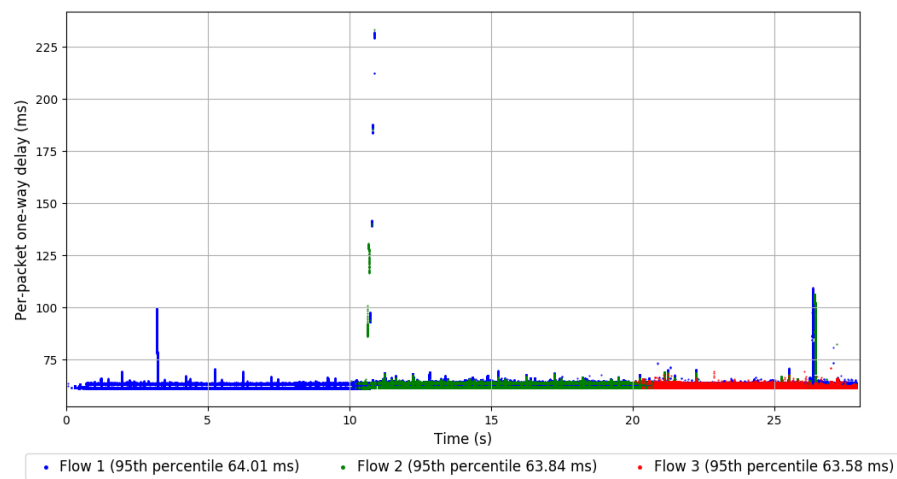
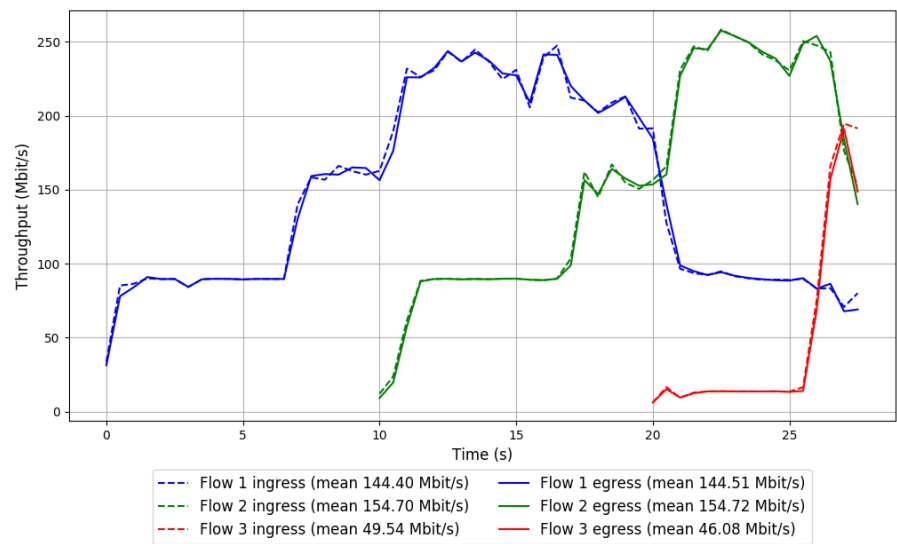


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-06 12:00:05
End at: 2017-12-06 12:00:35

# Below is generated by plot.py at 2017-12-06 14:58:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 256.46 Mbit/s
95th percentile per-packet one-way delay: 63.936 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 144.51 Mbit/s
95th percentile per-packet one-way delay: 64.009 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 154.72 Mbit/s
95th percentile per-packet one-way delay: 63.841 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 46.08 Mbit/s
95th percentile per-packet one-way delay: 63.579 ms
Loss rate: 8.48%
```

Run 10: Report of TaoVA-100x — Data Link



Run 1: Statistics of TCP Vegas

Start at: 2017-12-06 10:07:05

End at: 2017-12-06 10:07:35

Below is generated by plot.py at 2017-12-06 14:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 56.84 Mbit/s

95th percentile per-packet one-way delay: 64.792 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 42.33 Mbit/s

95th percentile per-packet one-way delay: 64.843 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 14.79 Mbit/s

95th percentile per-packet one-way delay: 64.647 ms

Loss rate: 0.65%

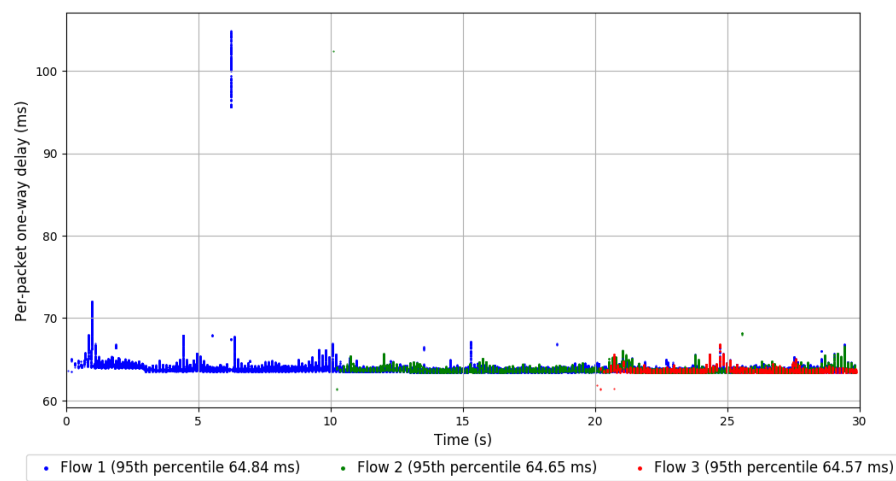
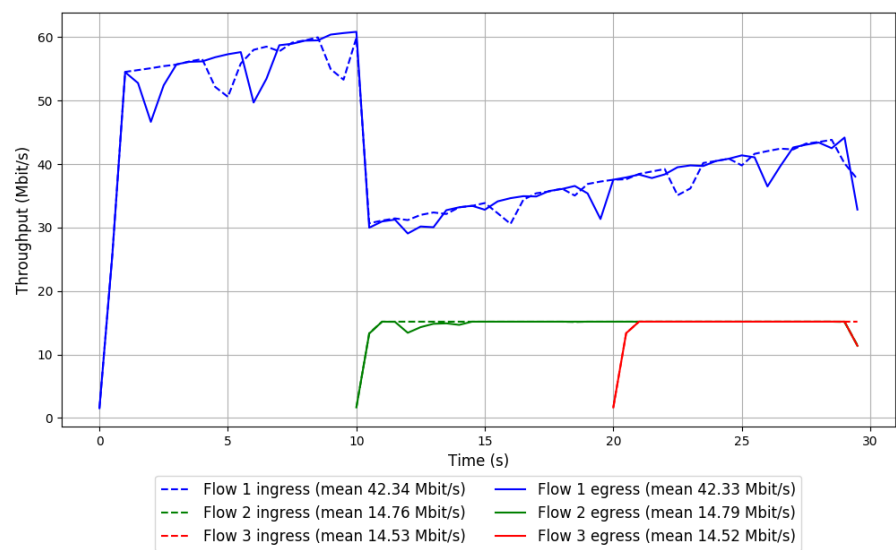
-- Flow 3:

Average throughput: 14.52 Mbit/s

95th percentile per-packet one-way delay: 64.567 ms

Loss rate: 1.32%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-06 10:19:28

End at: 2017-12-06 10:19:58

Below is generated by plot.py at 2017-12-06 14:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.95 Mbit/s

95th percentile per-packet one-way delay: 65.979 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 11.49 Mbit/s

95th percentile per-packet one-way delay: 65.360 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 75.76 Mbit/s

95th percentile per-packet one-way delay: 66.245 ms

Loss rate: 0.21%

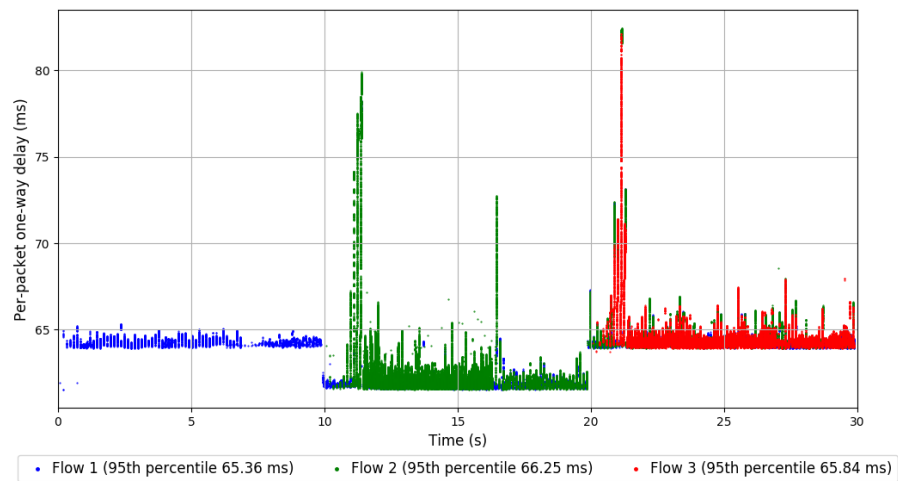
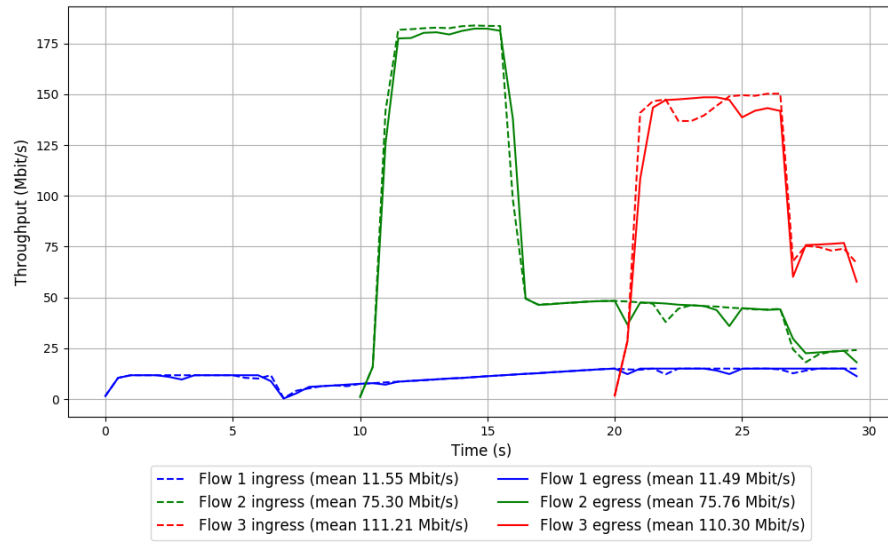
-- Flow 3:

Average throughput: 110.30 Mbit/s

95th percentile per-packet one-way delay: 65.839 ms

Loss rate: 2.08%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-12-06 10:32:12

End at: 2017-12-06 10:32:42

Below is generated by plot.py at 2017-12-06 14:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.49 Mbit/s

95th percentile per-packet one-way delay: 71.546 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 52.60 Mbit/s

95th percentile per-packet one-way delay: 73.798 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 32.01 Mbit/s

95th percentile per-packet one-way delay: 63.060 ms

Loss rate: 0.50%

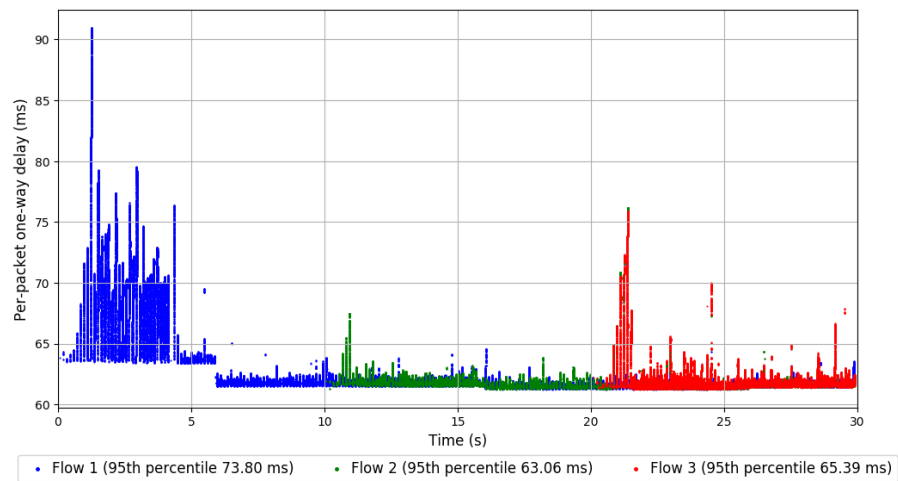
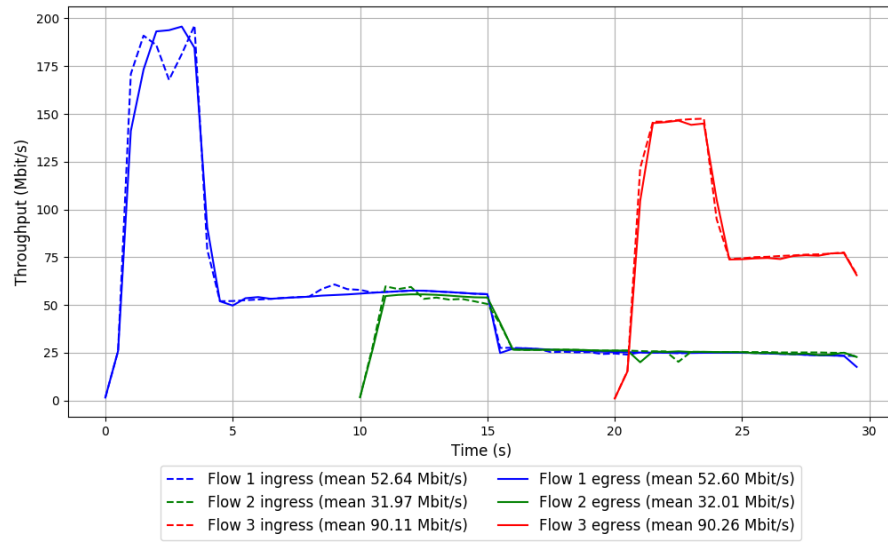
-- Flow 3:

Average throughput: 90.26 Mbit/s

95th percentile per-packet one-way delay: 65.395 ms

Loss rate: 1.10%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-06 10:44:38

End at: 2017-12-06 10:45:08

Below is generated by plot.py at 2017-12-06 14:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 147.37 Mbit/s

95th percentile per-packet one-way delay: 65.118 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 41.02 Mbit/s

95th percentile per-packet one-way delay: 65.224 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 104.99 Mbit/s

95th percentile per-packet one-way delay: 64.902 ms

Loss rate: 0.42%

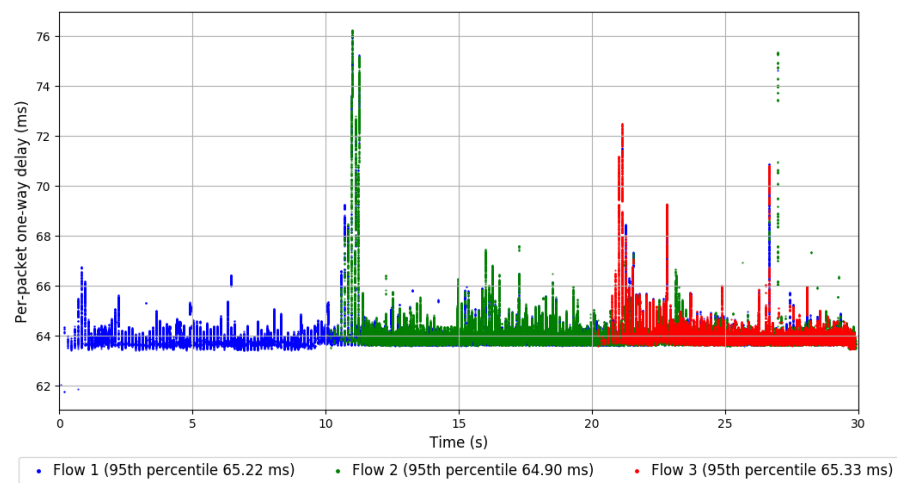
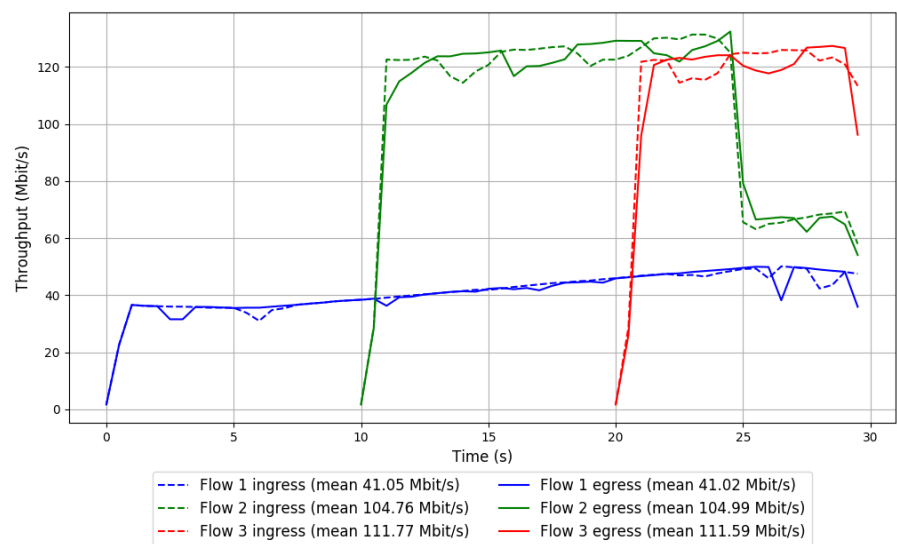
-- Flow 3:

Average throughput: 111.59 Mbit/s

95th percentile per-packet one-way delay: 65.327 ms

Loss rate: 1.44%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-06 10:57:14

End at: 2017-12-06 10:57:44

Below is generated by plot.py at 2017-12-06 14:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 35.86 Mbit/s

95th percentile per-packet one-way delay: 64.092 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 14.92 Mbit/s

95th percentile per-packet one-way delay: 64.176 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 10.29 Mbit/s

95th percentile per-packet one-way delay: 64.023 ms

Loss rate: 0.71%

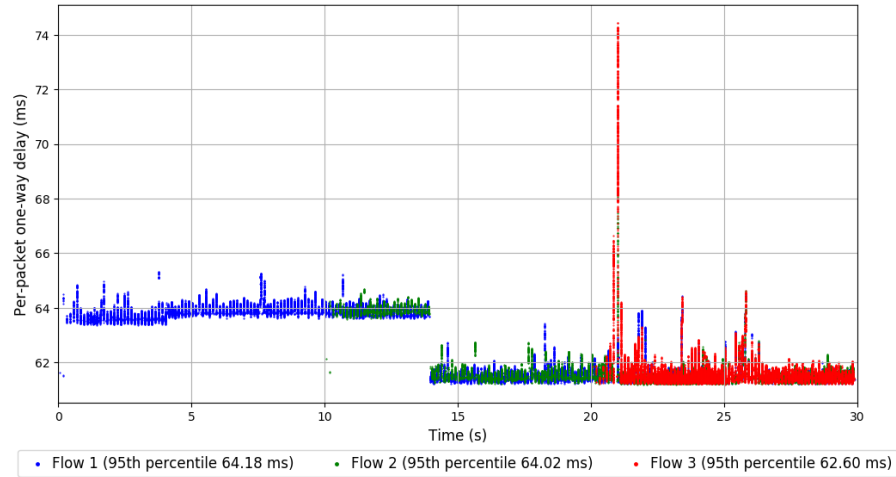
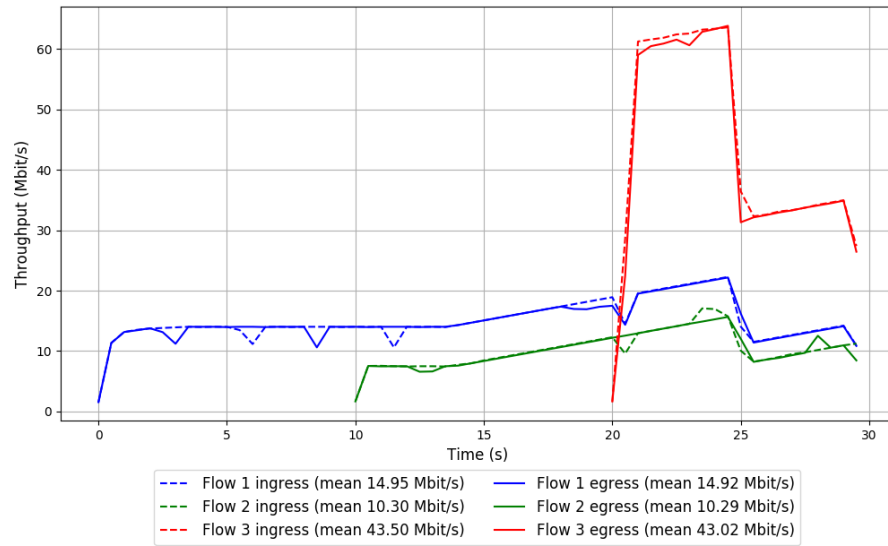
-- Flow 3:

Average throughput: 43.02 Mbit/s

95th percentile per-packet one-way delay: 62.597 ms

Loss rate: 2.34%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-12-06 11:09:35

End at: 2017-12-06 11:10:05

Below is generated by plot.py at 2017-12-06 14:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.35 Mbit/s

95th percentile per-packet one-way delay: 64.941 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 50.71 Mbit/s

95th percentile per-packet one-way delay: 64.368 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 57.67 Mbit/s

95th percentile per-packet one-way delay: 65.152 ms

Loss rate: 0.39%

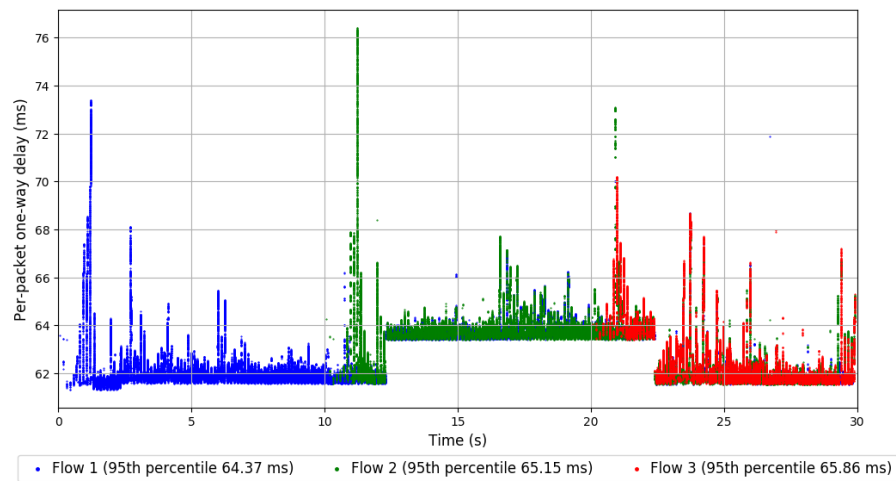
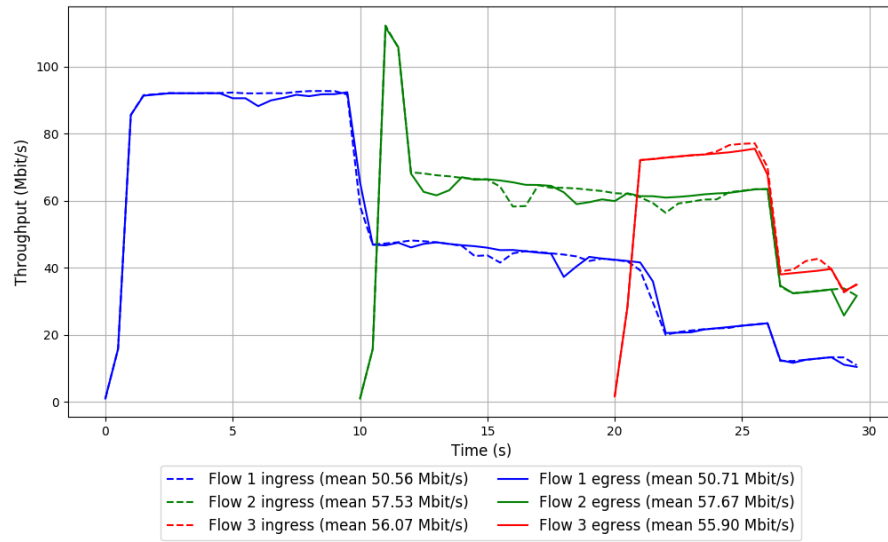
-- Flow 3:

Average throughput: 55.90 Mbit/s

95th percentile per-packet one-way delay: 65.858 ms

Loss rate: 1.57%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-06 11:21:55

End at: 2017-12-06 11:22:25

Below is generated by plot.py at 2017-12-06 14:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 181.17 Mbit/s

95th percentile per-packet one-way delay: 69.436 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 76.82 Mbit/s

95th percentile per-packet one-way delay: 69.819 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 116.80 Mbit/s

95th percentile per-packet one-way delay: 70.362 ms

Loss rate: 1.14%

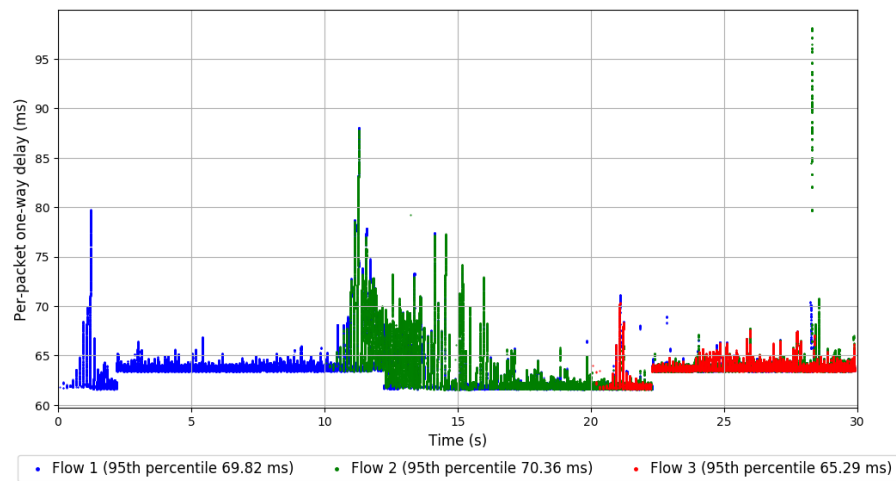
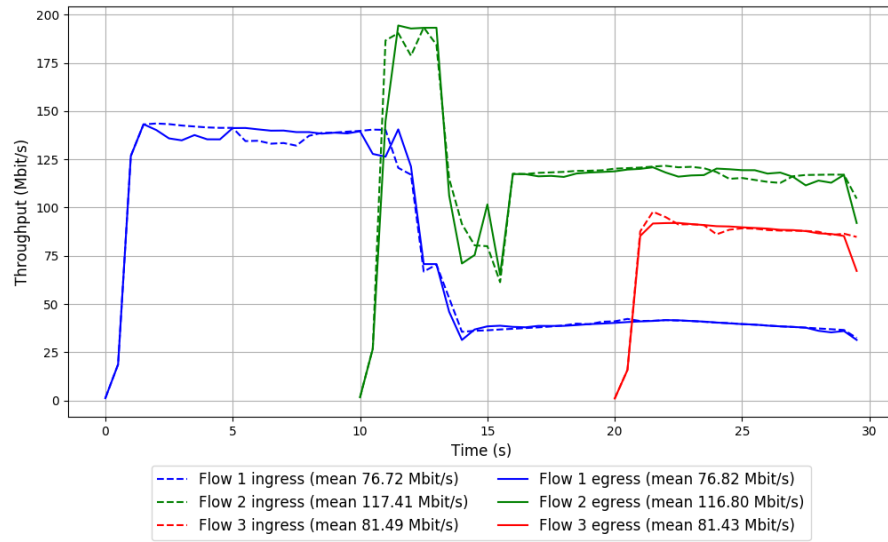
-- Flow 3:

Average throughput: 81.43 Mbit/s

95th percentile per-packet one-way delay: 65.287 ms

Loss rate: 1.33%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-06 11:34:24

End at: 2017-12-06 11:34:54

Below is generated by plot.py at 2017-12-06 14:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 150.95 Mbit/s

95th percentile per-packet one-way delay: 67.822 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 20.72 Mbit/s

95th percentile per-packet one-way delay: 65.678 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 148.71 Mbit/s

95th percentile per-packet one-way delay: 66.592 ms

Loss rate: 0.65%

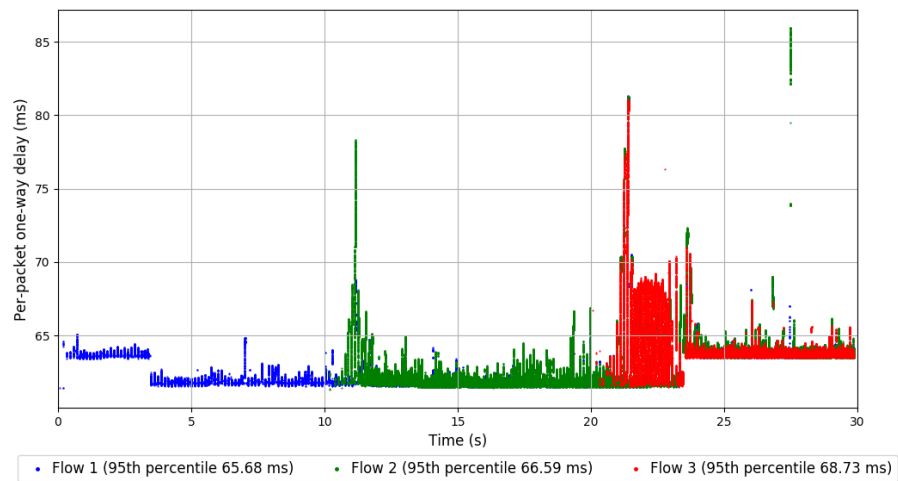
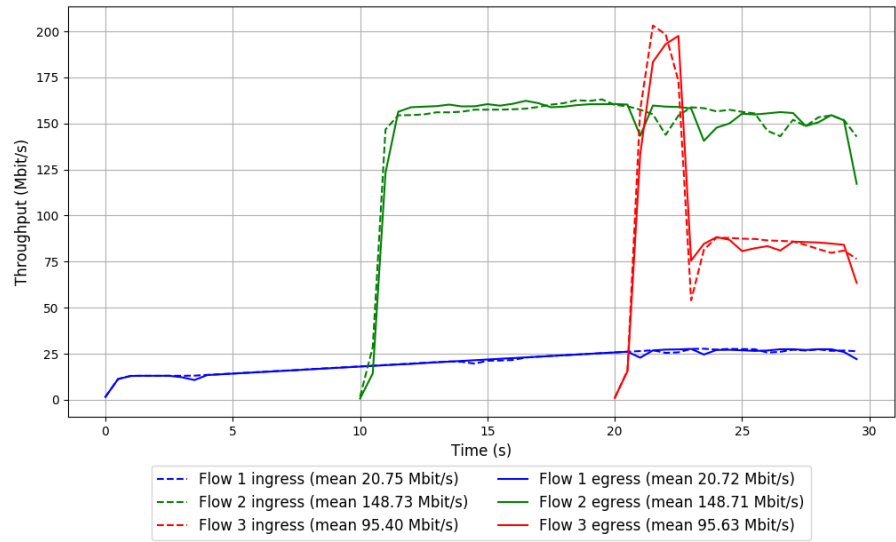
-- Flow 3:

Average throughput: 95.63 Mbit/s

95th percentile per-packet one-way delay: 68.726 ms

Loss rate: 1.10%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-06 11:46:52

End at: 2017-12-06 11:47:22

Below is generated by plot.py at 2017-12-06 14:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.63 Mbit/s

95th percentile per-packet one-way delay: 72.612 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 86.99 Mbit/s

95th percentile per-packet one-way delay: 73.289 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 7.16 Mbit/s

95th percentile per-packet one-way delay: 64.325 ms

Loss rate: 1.36%

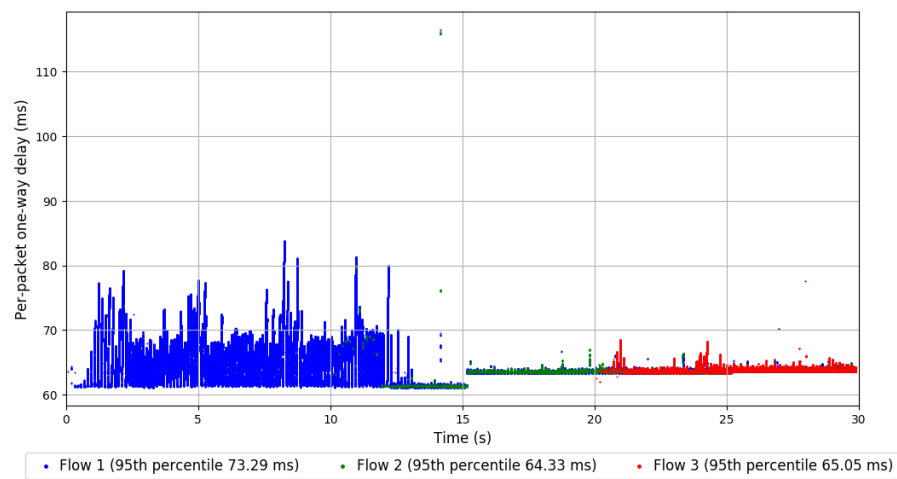
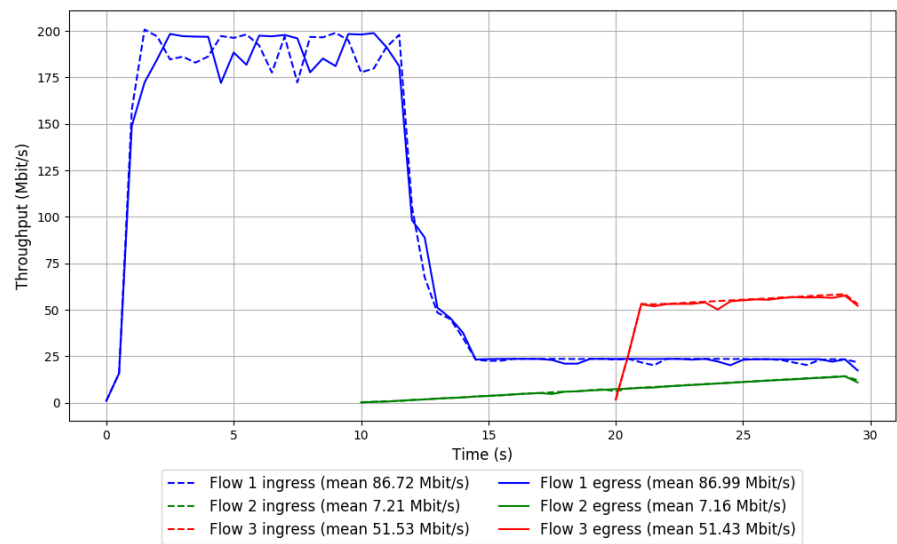
-- Flow 3:

Average throughput: 51.43 Mbit/s

95th percentile per-packet one-way delay: 65.053 ms

Loss rate: 1.44%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-06 11:59:15

End at: 2017-12-06 11:59:45

Below is generated by plot.py at 2017-12-06 14:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 147.65 Mbit/s

95th percentile per-packet one-way delay: 68.310 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 101.82 Mbit/s

95th percentile per-packet one-way delay: 65.278 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 33.38 Mbit/s

95th percentile per-packet one-way delay: 67.317 ms

Loss rate: 0.54%

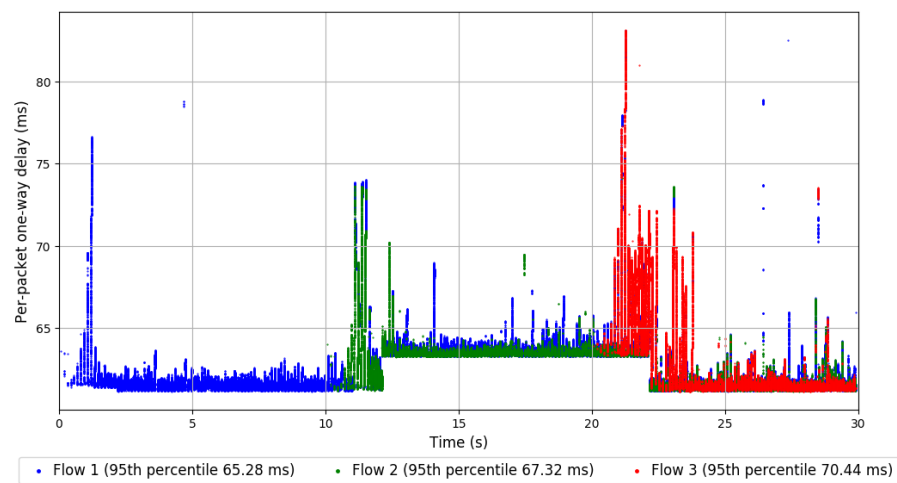
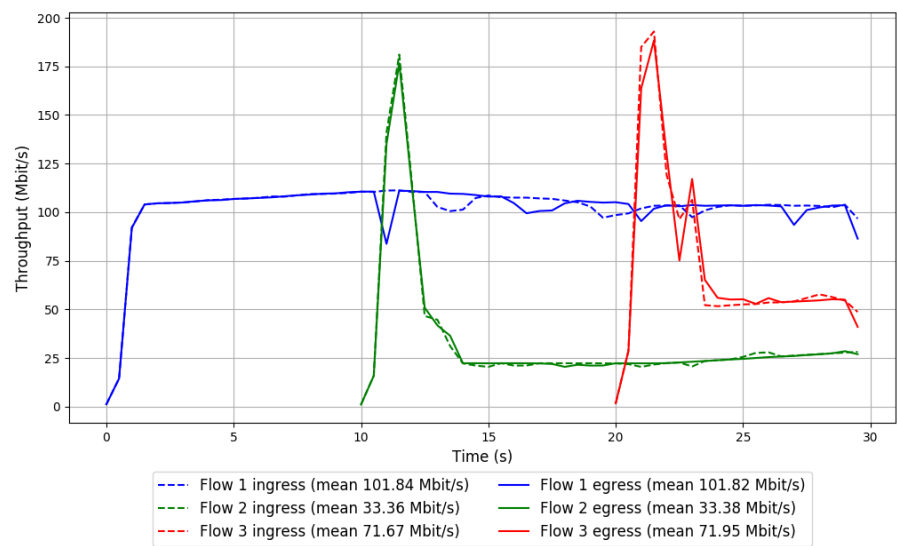
-- Flow 3:

Average throughput: 71.95 Mbit/s

95th percentile per-packet one-way delay: 70.436 ms

Loss rate: 0.95%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-12-06 10:04:26

End at: 2017-12-06 10:04:56

Below is generated by plot.py at 2017-12-06 15:00:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 316.89 Mbit/s

95th percentile per-packet one-way delay: 240.248 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 215.64 Mbit/s

95th percentile per-packet one-way delay: 239.229 ms

Loss rate: 1.56%

-- Flow 2:

Average throughput: 143.93 Mbit/s

95th percentile per-packet one-way delay: 244.565 ms

Loss rate: 2.84%

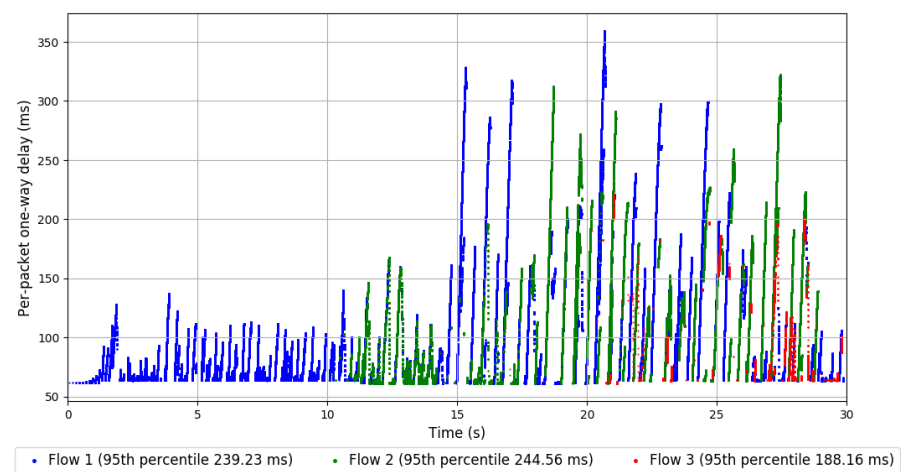
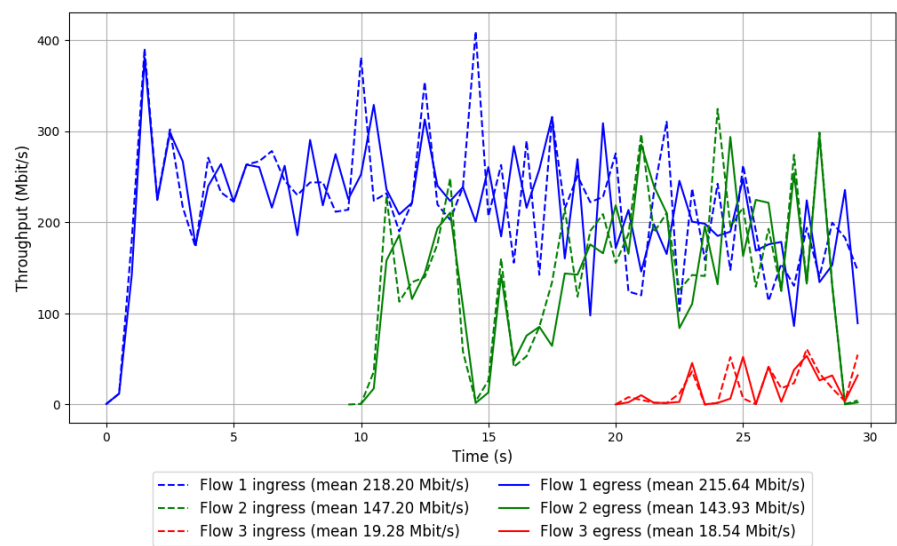
-- Flow 3:

Average throughput: 18.54 Mbit/s

95th percentile per-packet one-way delay: 188.159 ms

Loss rate: 6.46%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-12-06 10:16:50

End at: 2017-12-06 10:17:20

Below is generated by plot.py at 2017-12-06 15:00:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 319.94 Mbit/s

95th percentile per-packet one-way delay: 185.846 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 164.54 Mbit/s

95th percentile per-packet one-way delay: 150.359 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 196.62 Mbit/s

95th percentile per-packet one-way delay: 205.293 ms

Loss rate: 1.88%

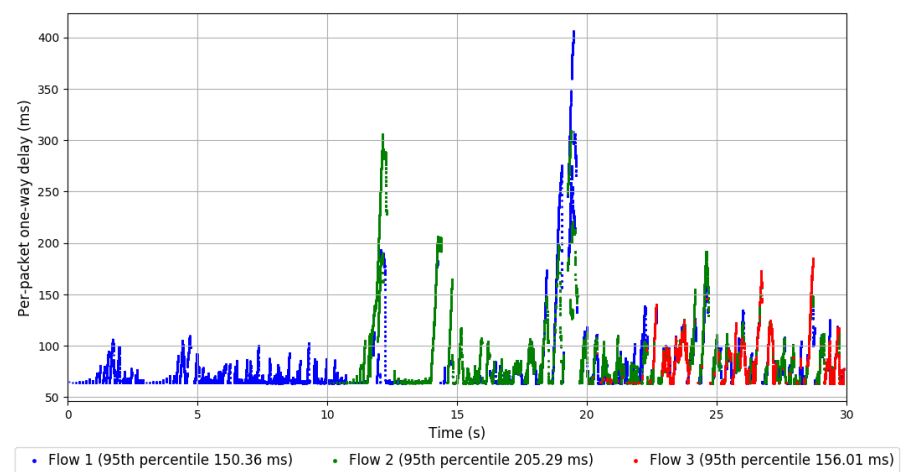
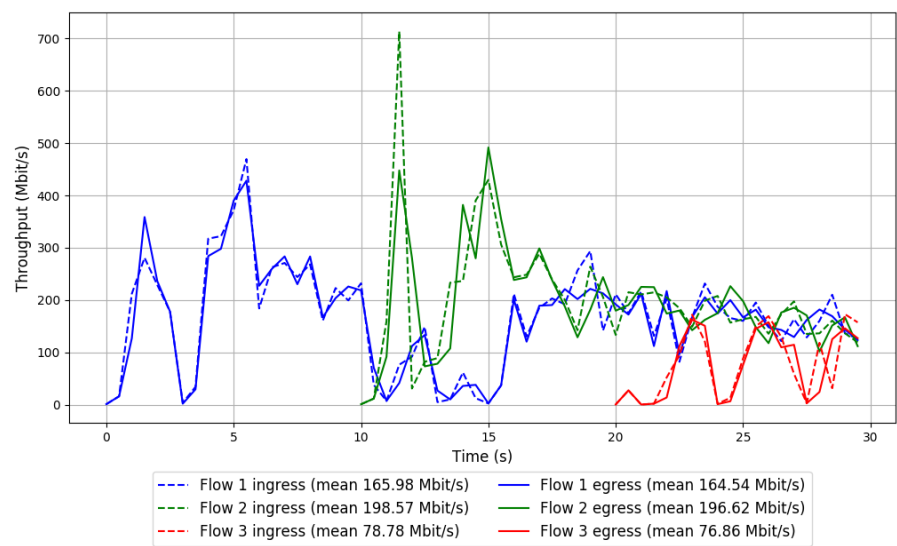
-- Flow 3:

Average throughput: 76.86 Mbit/s

95th percentile per-packet one-way delay: 156.012 ms

Loss rate: 3.68%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-12-06 10:29:33

End at: 2017-12-06 10:30:03

Below is generated by plot.py at 2017-12-06 15:00:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 291.96 Mbit/s

95th percentile per-packet one-way delay: 136.109 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 176.22 Mbit/s

95th percentile per-packet one-way delay: 141.110 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 120.64 Mbit/s

95th percentile per-packet one-way delay: 115.068 ms

Loss rate: 1.16%

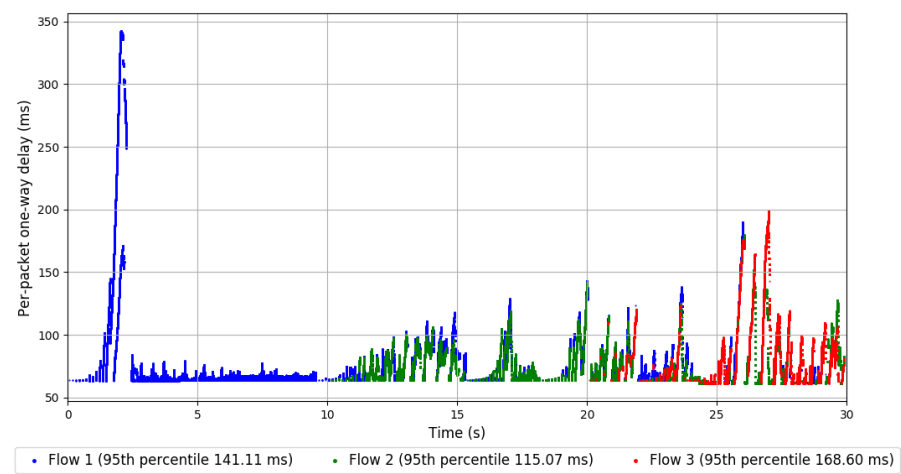
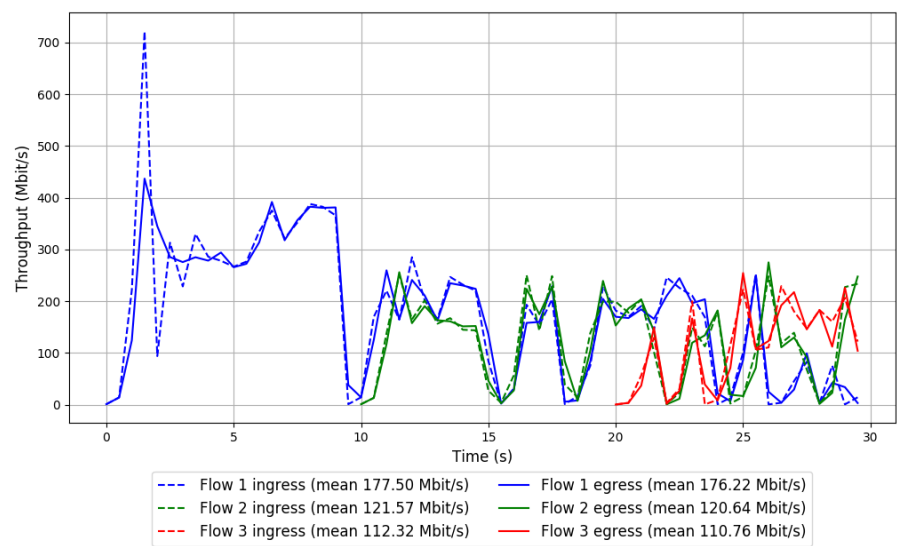
-- Flow 3:

Average throughput: 110.76 Mbit/s

95th percentile per-packet one-way delay: 168.598 ms

Loss rate: 2.19%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-06 10:41:59

End at: 2017-12-06 10:42:29

Below is generated by plot.py at 2017-12-06 15:01:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 327.34 Mbit/s

95th percentile per-packet one-way delay: 184.628 ms

Loss rate: 2.02%

-- Flow 1:

Average throughput: 215.33 Mbit/s

95th percentile per-packet one-way delay: 172.471 ms

Loss rate: 1.39%

-- Flow 2:

Average throughput: 99.34 Mbit/s

95th percentile per-packet one-way delay: 280.625 ms

Loss rate: 3.37%

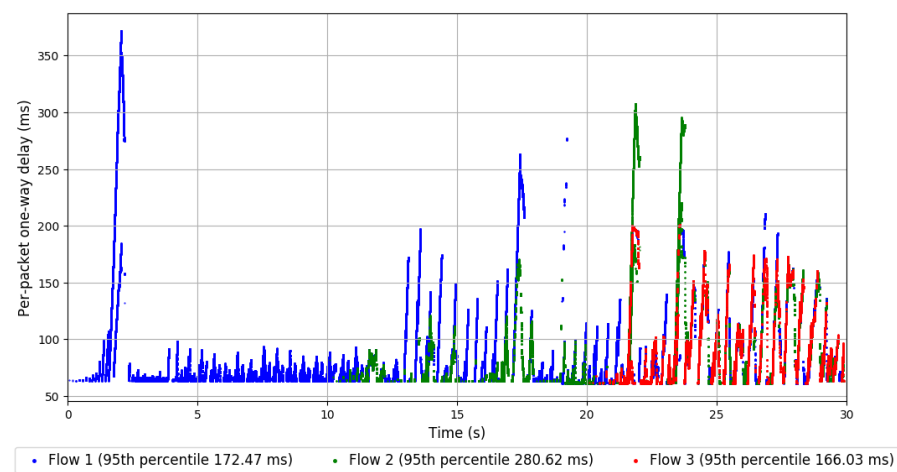
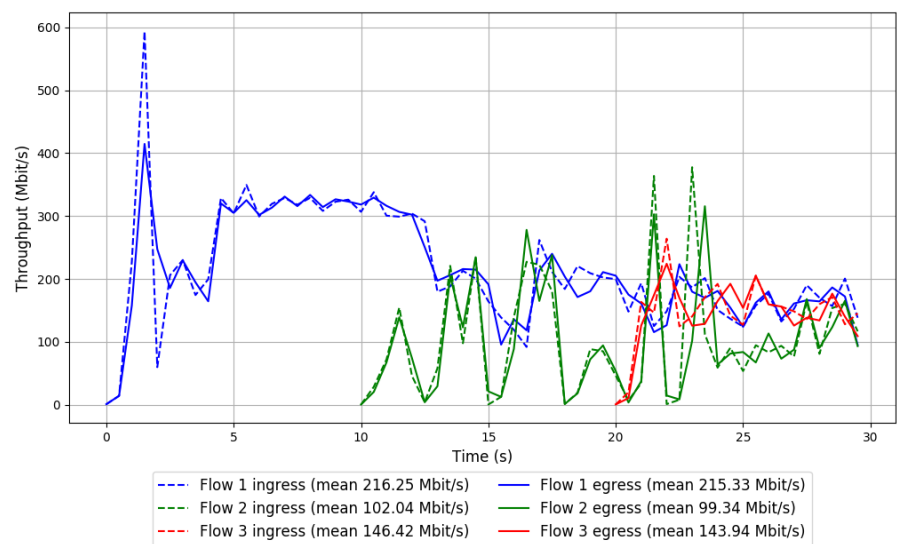
-- Flow 3:

Average throughput: 143.94 Mbit/s

95th percentile per-packet one-way delay: 166.028 ms

Loss rate: 2.95%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-12-06 10:54:33

End at: 2017-12-06 10:55:03

Below is generated by plot.py at 2017-12-06 15:01:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 326.03 Mbit/s

95th percentile per-packet one-way delay: 168.077 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 172.05 Mbit/s

95th percentile per-packet one-way delay: 135.134 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 166.92 Mbit/s

95th percentile per-packet one-way delay: 176.650 ms

Loss rate: 2.63%

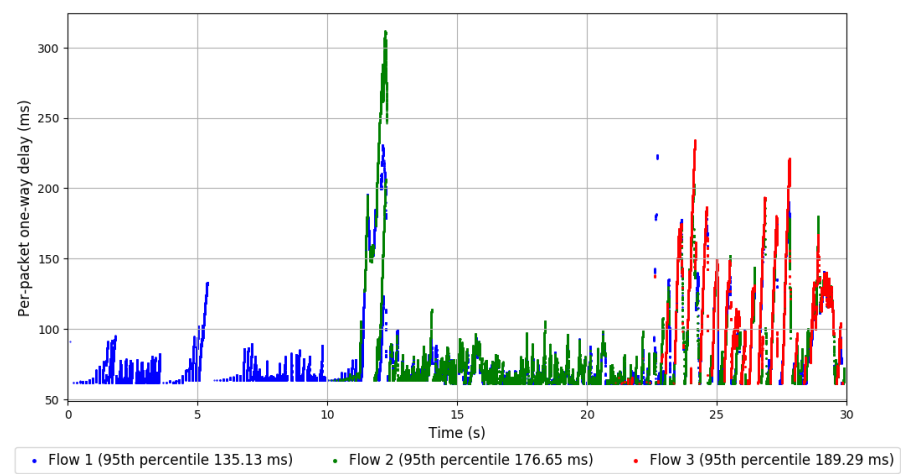
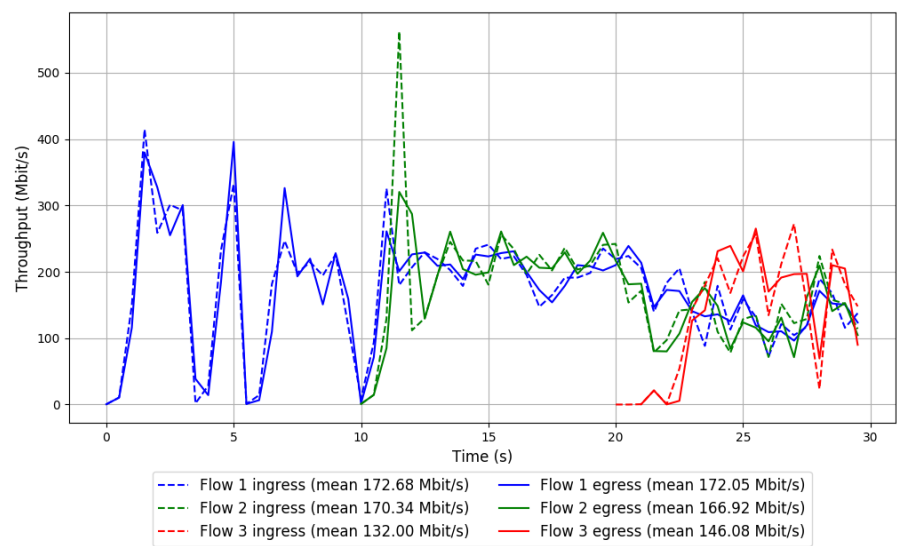
-- Flow 3:

Average throughput: 146.08 Mbit/s

95th percentile per-packet one-way delay: 189.290 ms

Loss rate: 2.42%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-06 11:07:00

End at: 2017-12-06 11:07:30

Below is generated by plot.py at 2017-12-06 15:01:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 231.63 Mbit/s

95th percentile per-packet one-way delay: 138.343 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 158.70 Mbit/s

95th percentile per-packet one-way delay: 141.165 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 81.44 Mbit/s

95th percentile per-packet one-way delay: 96.768 ms

Loss rate: 2.29%

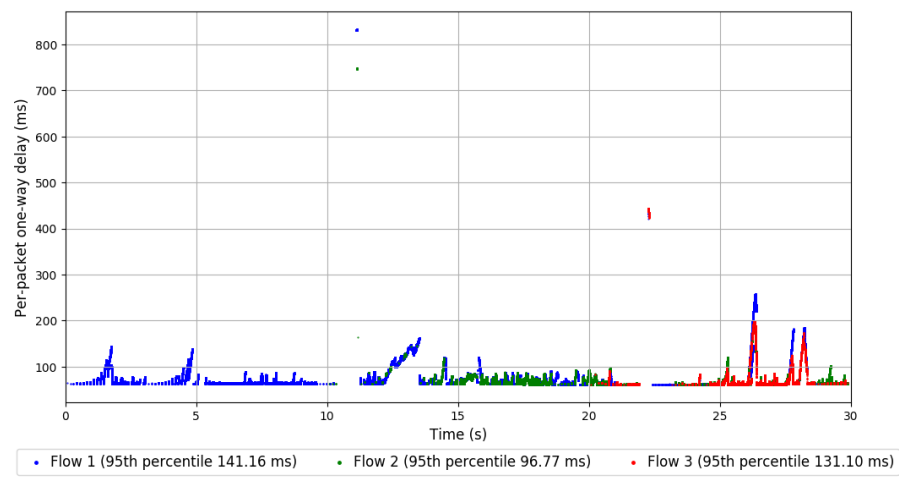
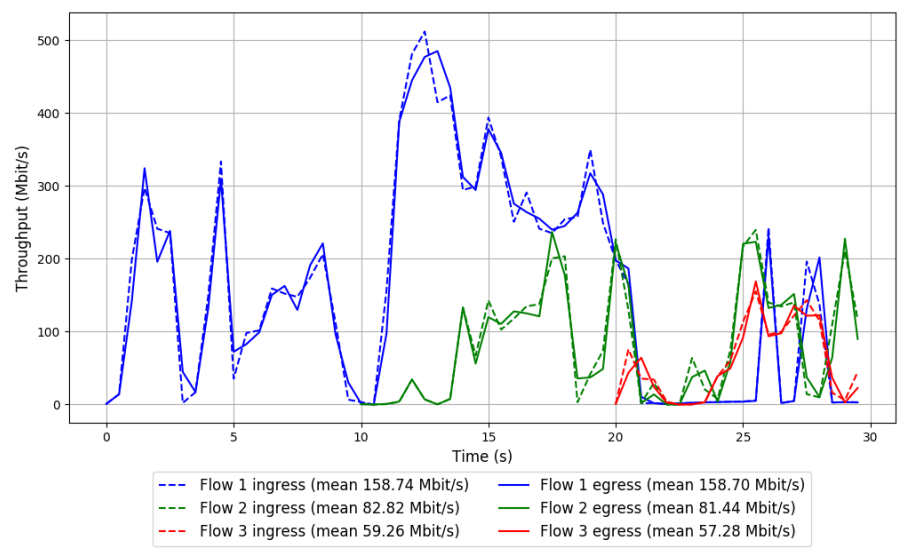
-- Flow 3:

Average throughput: 57.28 Mbit/s

95th percentile per-packet one-way delay: 131.104 ms

Loss rate: 3.69%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-06 11:19:24

End at: 2017-12-06 11:19:54

Below is generated by plot.py at 2017-12-06 15:01:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 289.53 Mbit/s

95th percentile per-packet one-way delay: 156.736 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 170.18 Mbit/s

95th percentile per-packet one-way delay: 117.427 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 150.52 Mbit/s

95th percentile per-packet one-way delay: 174.677 ms

Loss rate: 0.71%

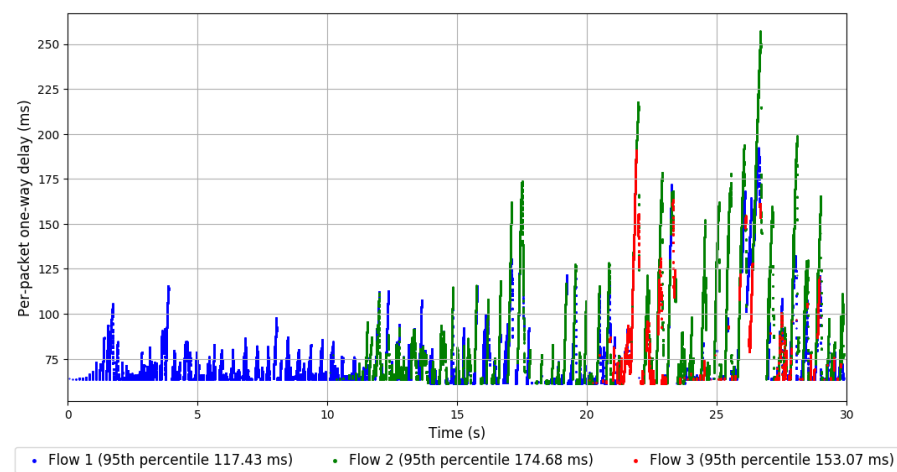
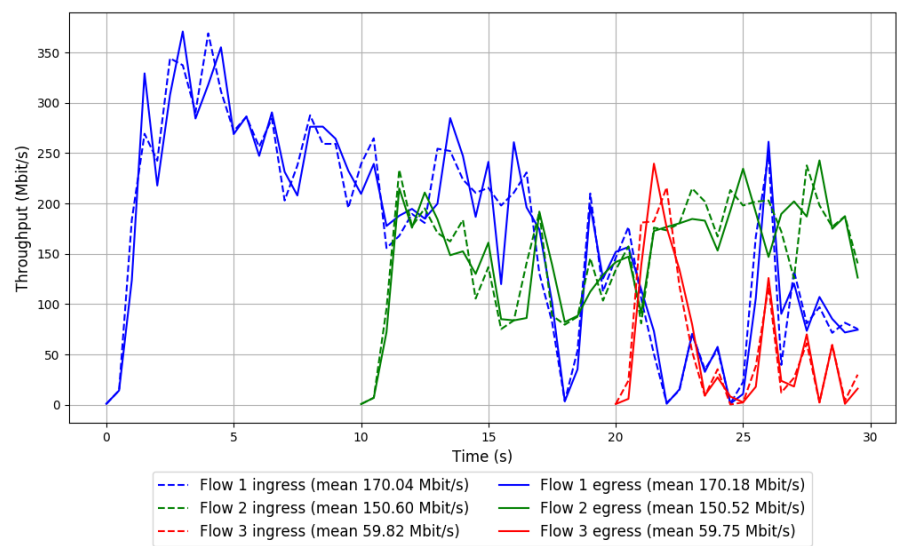
-- Flow 3:

Average throughput: 59.75 Mbit/s

95th percentile per-packet one-way delay: 153.069 ms

Loss rate: 1.45%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-12-06 11:31:49

End at: 2017-12-06 11:32:19

Below is generated by plot.py at 2017-12-06 15:03:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 277.96 Mbit/s

95th percentile per-packet one-way delay: 204.598 ms

Loss rate: 3.03%

-- Flow 1:

Average throughput: 158.40 Mbit/s

95th percentile per-packet one-way delay: 205.569 ms

Loss rate: 2.11%

-- Flow 2:

Average throughput: 151.48 Mbit/s

95th percentile per-packet one-way delay: 213.813 ms

Loss rate: 4.84%

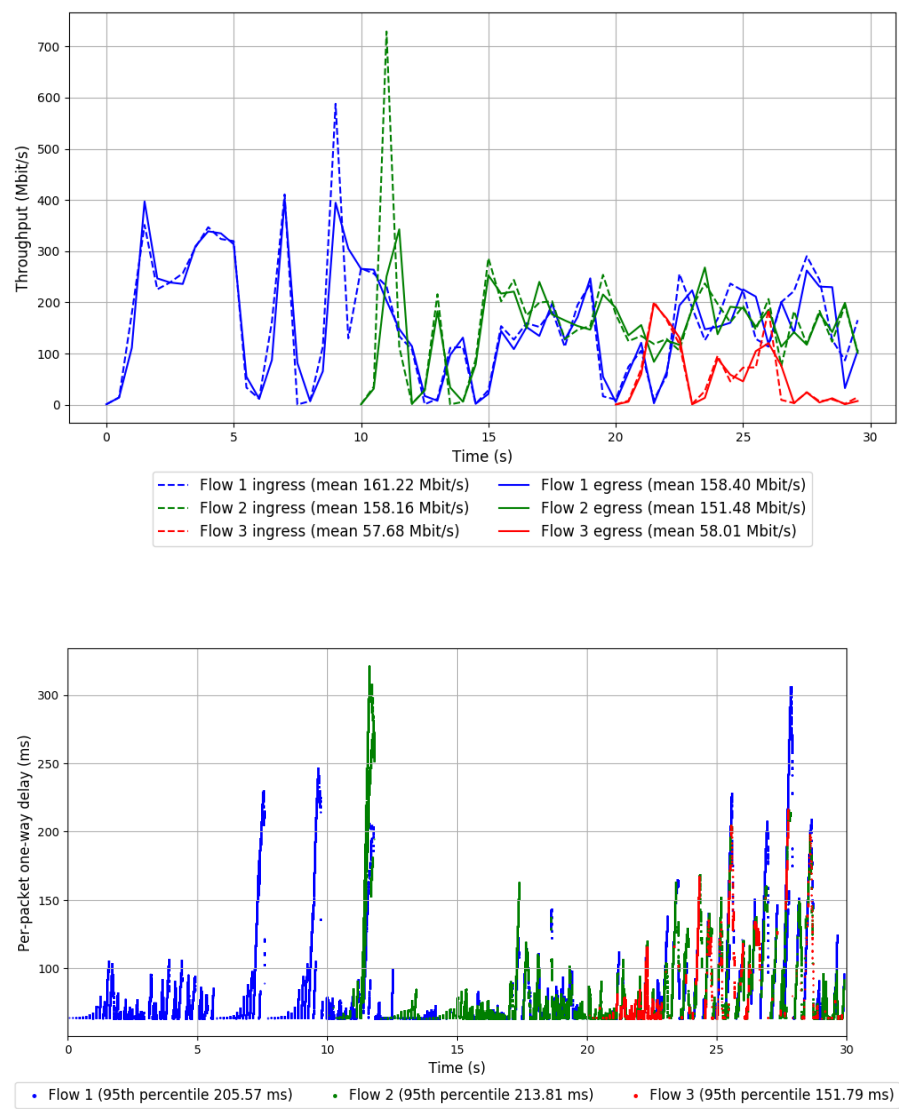
-- Flow 3:

Average throughput: 58.01 Mbit/s

95th percentile per-packet one-way delay: 151.788 ms

Loss rate: 0.77%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-12-06 11:44:18

End at: 2017-12-06 11:44:48

Below is generated by plot.py at 2017-12-06 15:05:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 290.54 Mbit/s

95th percentile per-packet one-way delay: 108.601 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 182.09 Mbit/s

95th percentile per-packet one-way delay: 115.441 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 88.90 Mbit/s

95th percentile per-packet one-way delay: 102.654 ms

Loss rate: 0.77%

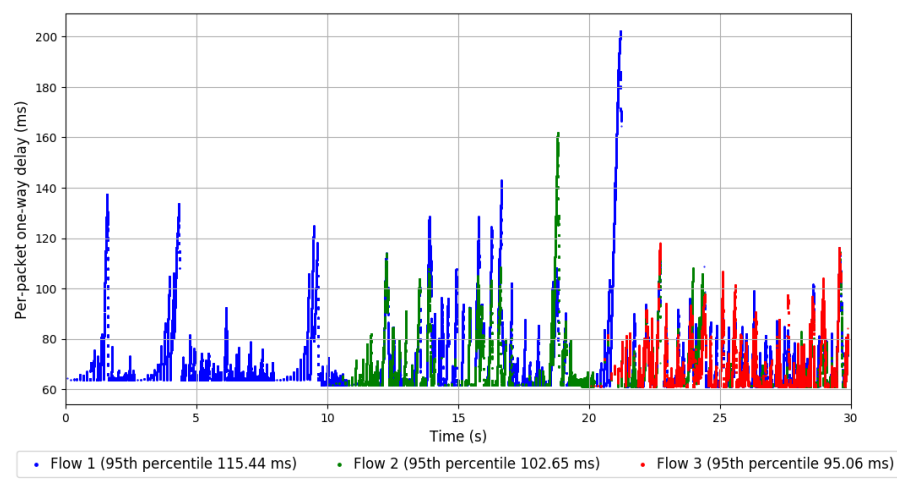
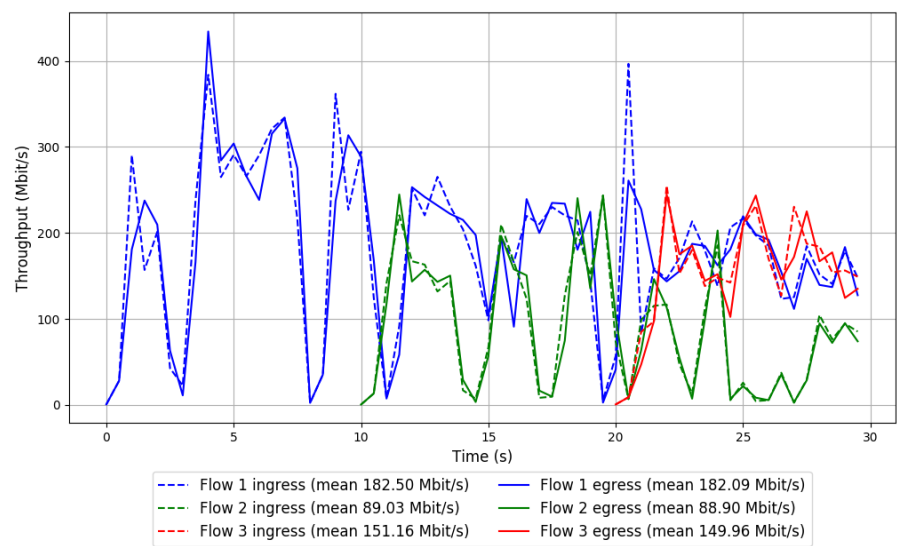
-- Flow 3:

Average throughput: 149.96 Mbit/s

95th percentile per-packet one-way delay: 95.057 ms

Loss rate: 2.02%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-12-06 11:56:38

End at: 2017-12-06 11:57:08

Below is generated by plot.py at 2017-12-06 15:05:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 310.45 Mbit/s

95th percentile per-packet one-way delay: 188.480 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 221.09 Mbit/s

95th percentile per-packet one-way delay: 199.370 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 108.98 Mbit/s

95th percentile per-packet one-way delay: 169.301 ms

Loss rate: 0.10%

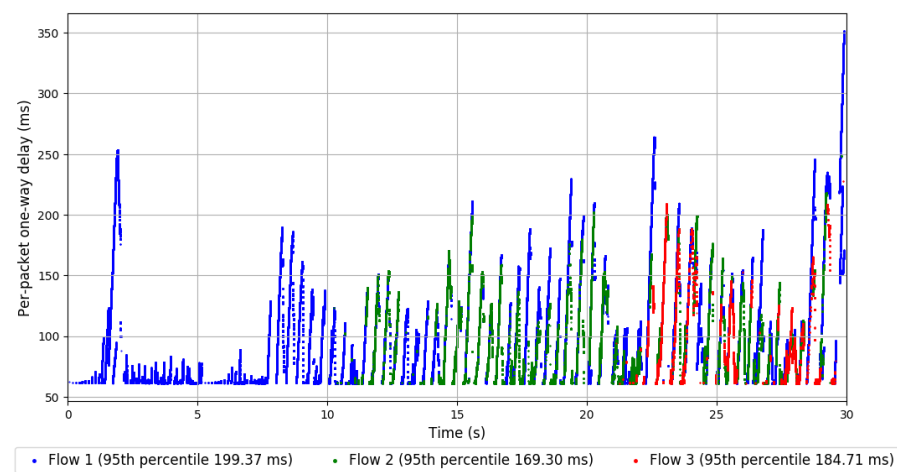
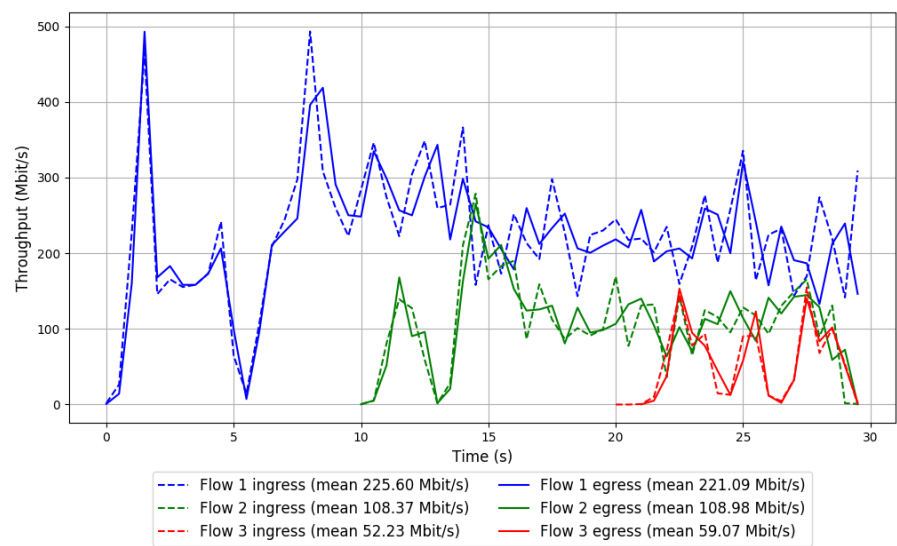
-- Flow 3:

Average throughput: 59.07 Mbit/s

95th percentile per-packet one-way delay: 184.707 ms

Loss rate: 0.12%

Run 10: Report of Verus — Data Link

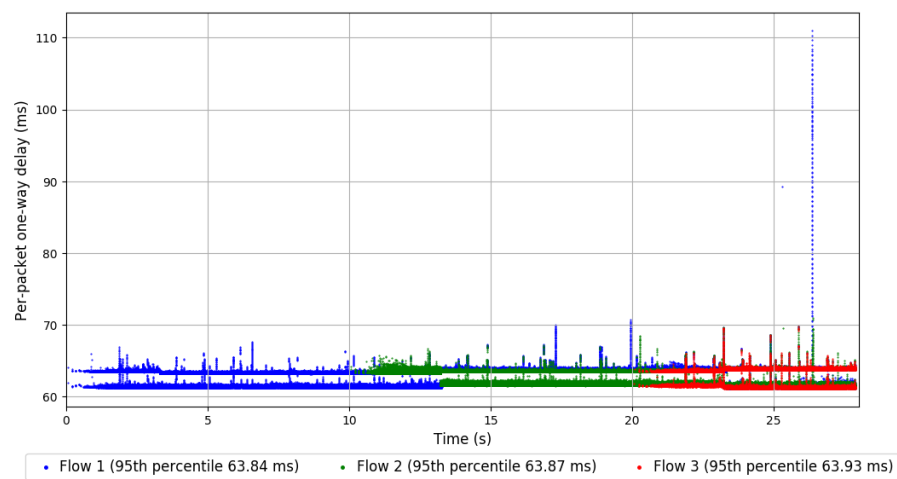
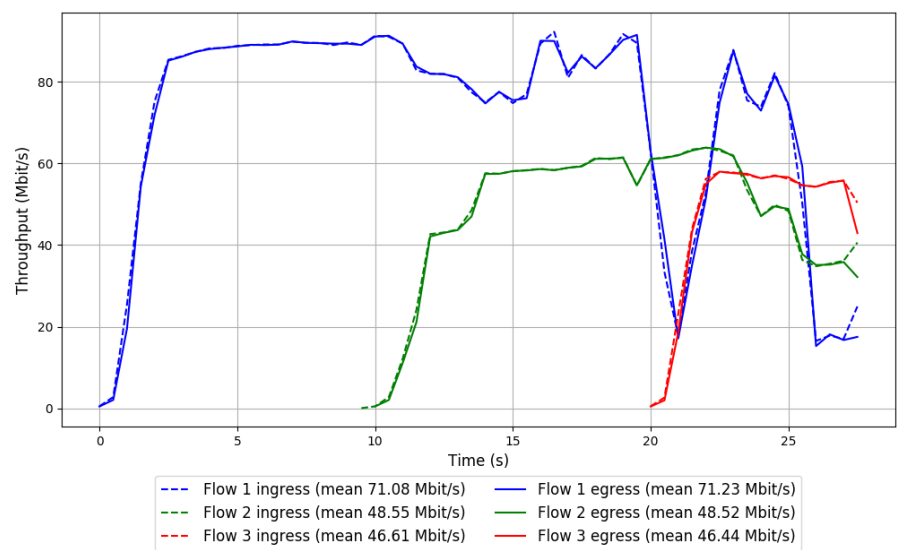


```
Run 1: Statistics of Copa

Start at: 2017-12-06 10:06:12
End at: 2017-12-06 10:06:42

# Below is generated by plot.py at 2017-12-06 15:05:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.34 Mbit/s
95th percentile per-packet one-way delay: 63.866 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 71.23 Mbit/s
95th percentile per-packet one-way delay: 63.840 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 48.52 Mbit/s
95th percentile per-packet one-way delay: 63.866 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 46.44 Mbit/s
95th percentile per-packet one-way delay: 63.933 ms
Loss rate: 1.96%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-06 10:18:36

End at: 2017-12-06 10:19:06

Below is generated by plot.py at 2017-12-06 15:05:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.22 Mbit/s

95th percentile per-packet one-way delay: 63.838 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 49.39 Mbit/s

95th percentile per-packet one-way delay: 63.769 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 50.78 Mbit/s

95th percentile per-packet one-way delay: 63.903 ms

Loss rate: 0.74%

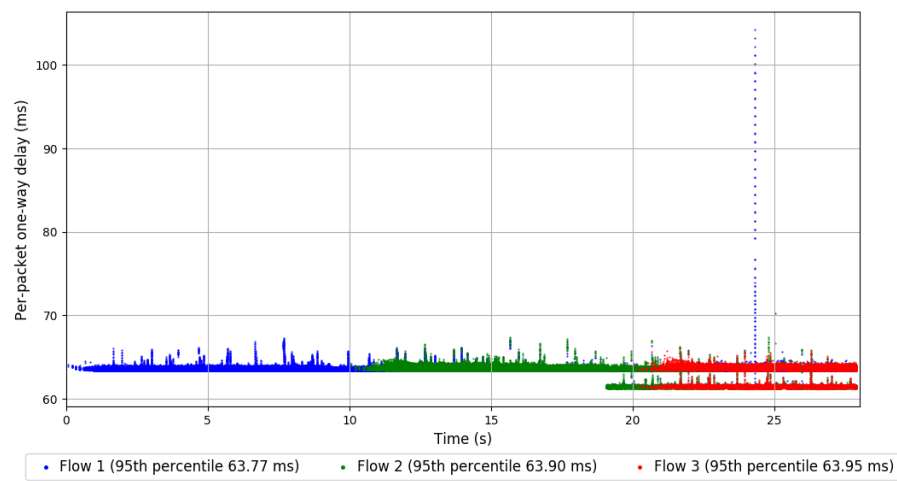
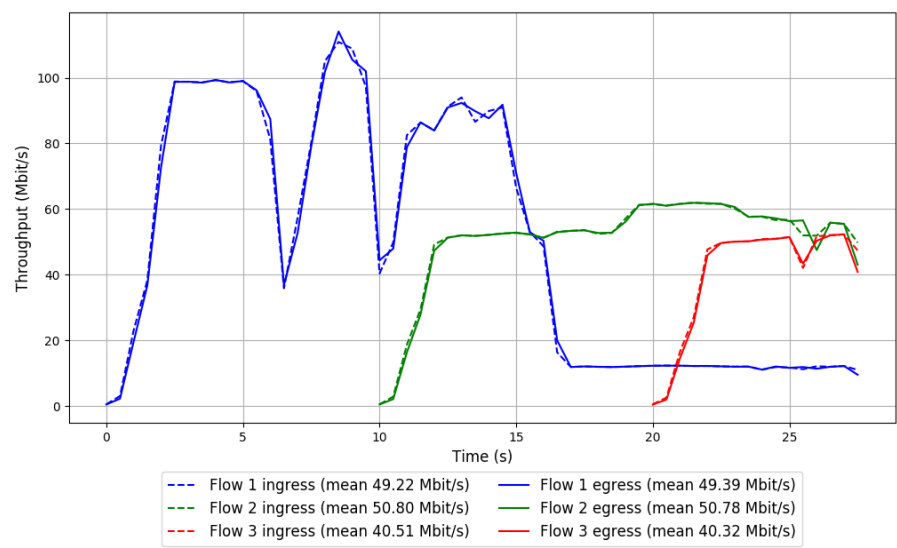
-- Flow 3:

Average throughput: 40.32 Mbit/s

95th percentile per-packet one-way delay: 63.951 ms

Loss rate: 2.02%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-12-06 10:31:18

End at: 2017-12-06 10:31:48

Below is generated by plot.py at 2017-12-06 15:05:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.31 Mbit/s

95th percentile per-packet one-way delay: 63.757 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 66.90 Mbit/s

95th percentile per-packet one-way delay: 63.650 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 65.82 Mbit/s

95th percentile per-packet one-way delay: 63.430 ms

Loss rate: 0.64%

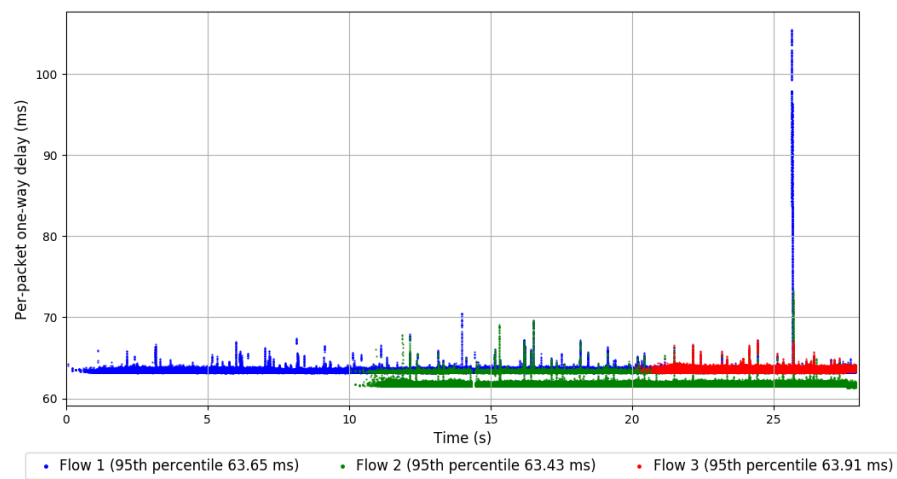
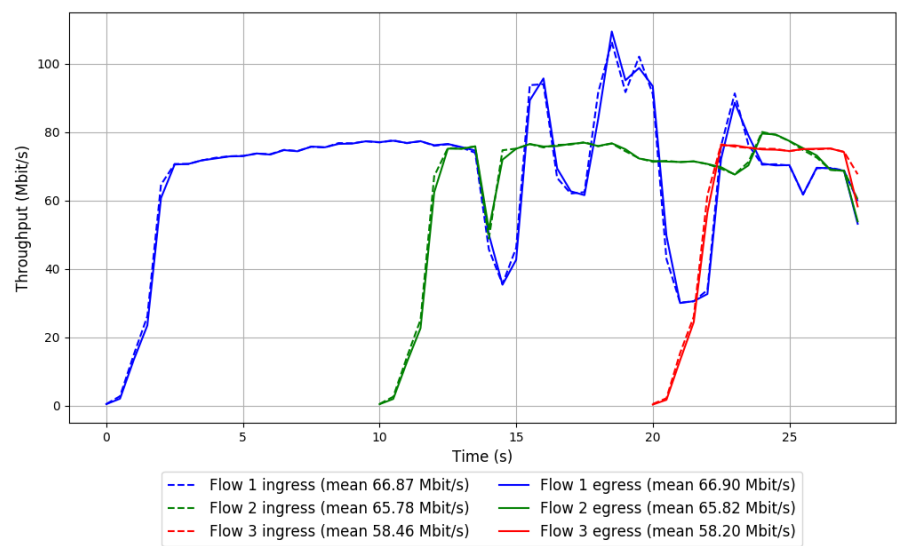
-- Flow 3:

Average throughput: 58.20 Mbit/s

95th percentile per-packet one-way delay: 63.910 ms

Loss rate: 2.05%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-12-06 10:43:45

End at: 2017-12-06 10:44:15

Below is generated by plot.py at 2017-12-06 15:05:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.24 Mbit/s

95th percentile per-packet one-way delay: 63.682 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 67.42 Mbit/s

95th percentile per-packet one-way delay: 63.662 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 59.72 Mbit/s

95th percentile per-packet one-way delay: 63.684 ms

Loss rate: 0.41%

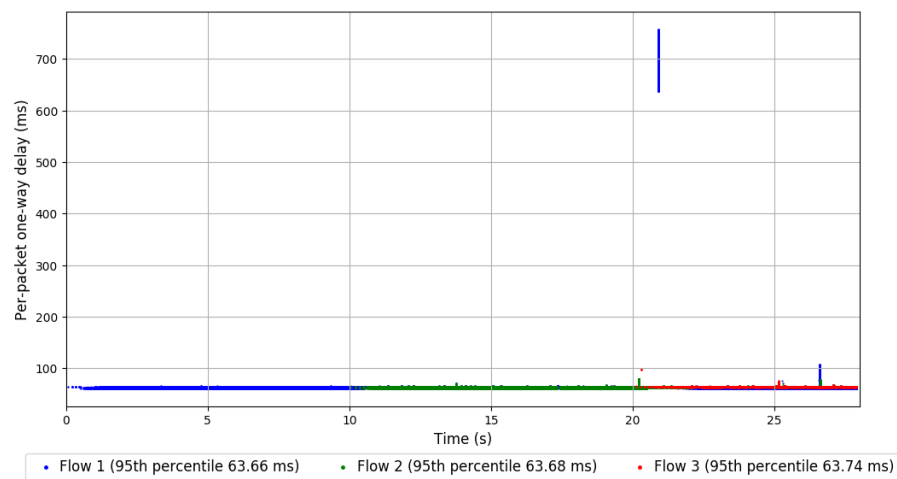
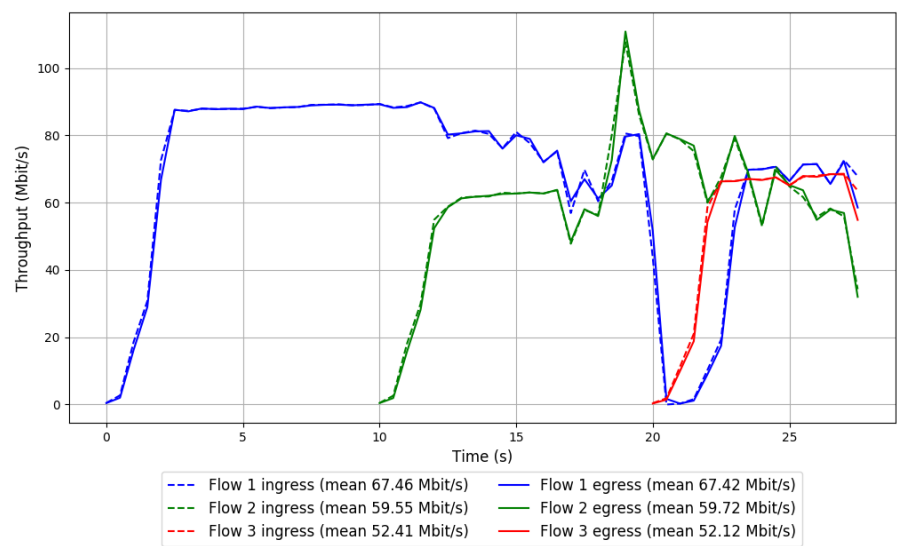
-- Flow 3:

Average throughput: 52.12 Mbit/s

95th percentile per-packet one-way delay: 63.736 ms

Loss rate: 2.13%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-12-06 10:56:21

End at: 2017-12-06 10:56:51

Below is generated by plot.py at 2017-12-06 15:05:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.05 Mbit/s

95th percentile per-packet one-way delay: 63.906 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 66.87 Mbit/s

95th percentile per-packet one-way delay: 63.985 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 66.54 Mbit/s

95th percentile per-packet one-way delay: 63.538 ms

Loss rate: 0.49%

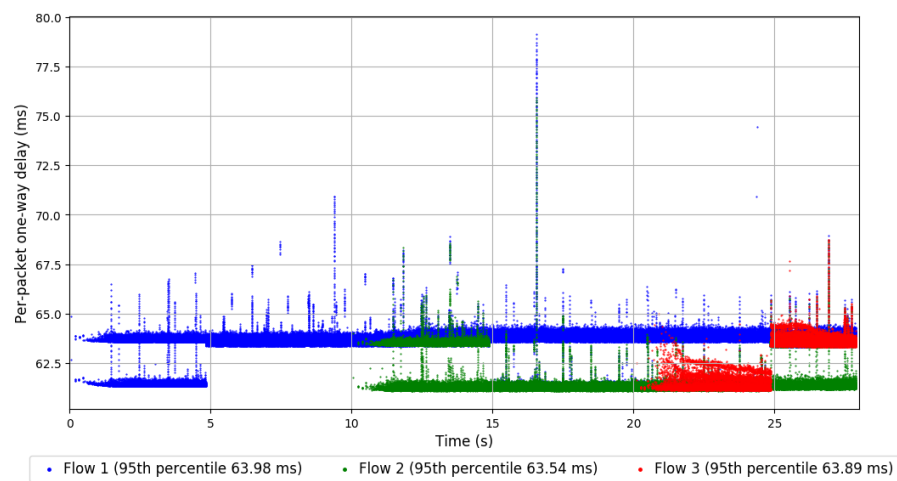
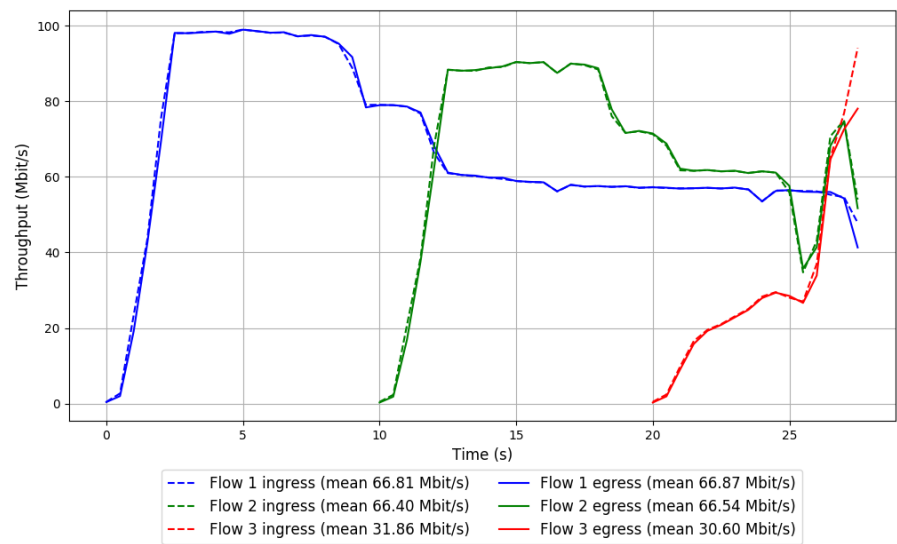
-- Flow 3:

Average throughput: 30.60 Mbit/s

95th percentile per-packet one-way delay: 63.892 ms

Loss rate: 5.45%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-12-06 11:08:40

End at: 2017-12-06 11:09:10

Below is generated by plot.py at 2017-12-06 15:07:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.46 Mbit/s

95th percentile per-packet one-way delay: 64.049 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 69.61 Mbit/s

95th percentile per-packet one-way delay: 64.079 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 58.50 Mbit/s

95th percentile per-packet one-way delay: 63.695 ms

Loss rate: 0.15%

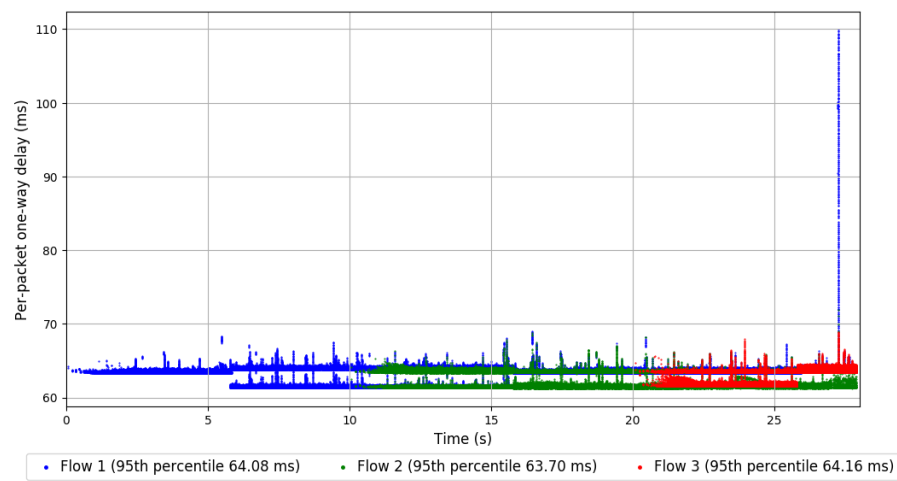
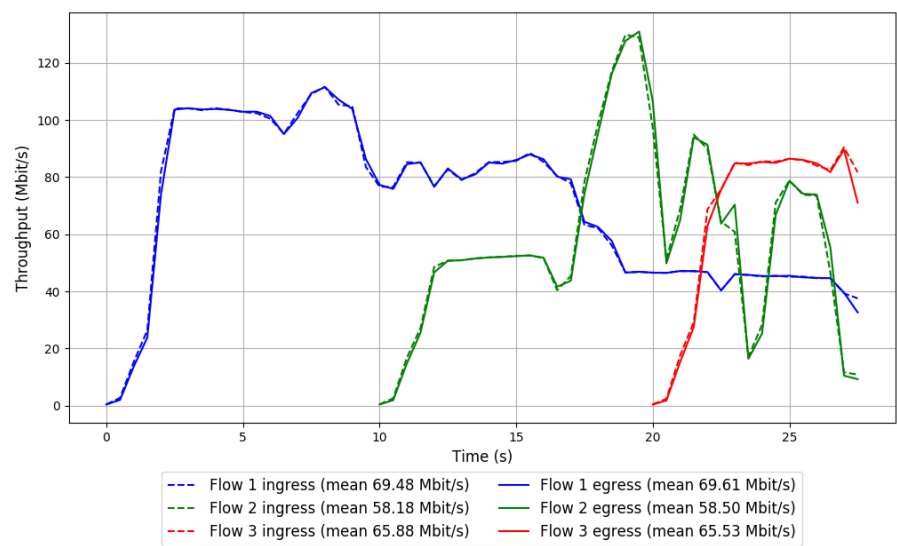
-- Flow 3:

Average throughput: 65.53 Mbit/s

95th percentile per-packet one-way delay: 64.156 ms

Loss rate: 2.12%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-06 11:21:08

End at: 2017-12-06 11:21:38

Below is generated by plot.py at 2017-12-06 15:07:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 64.86 Mbit/s

95th percentile per-packet one-way delay: 64.133 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 734.101 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 75.71 Mbit/s

95th percentile per-packet one-way delay: 64.147 ms

Loss rate: 0.03%

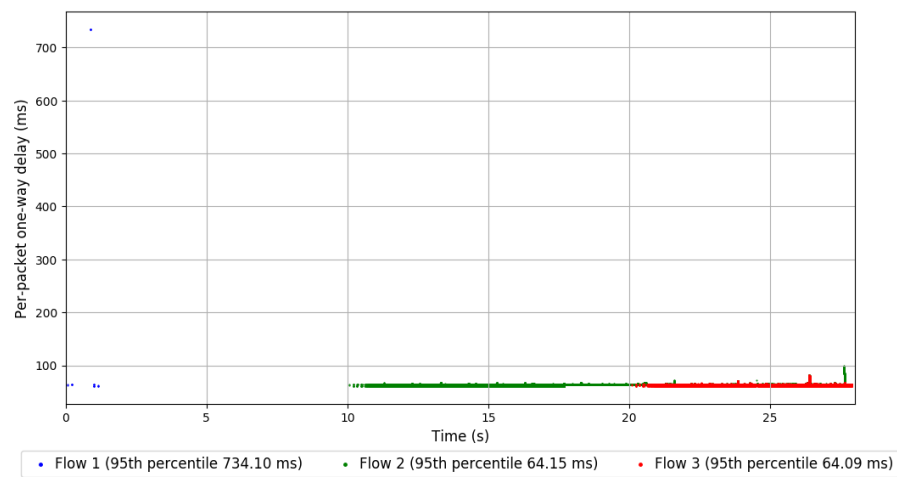
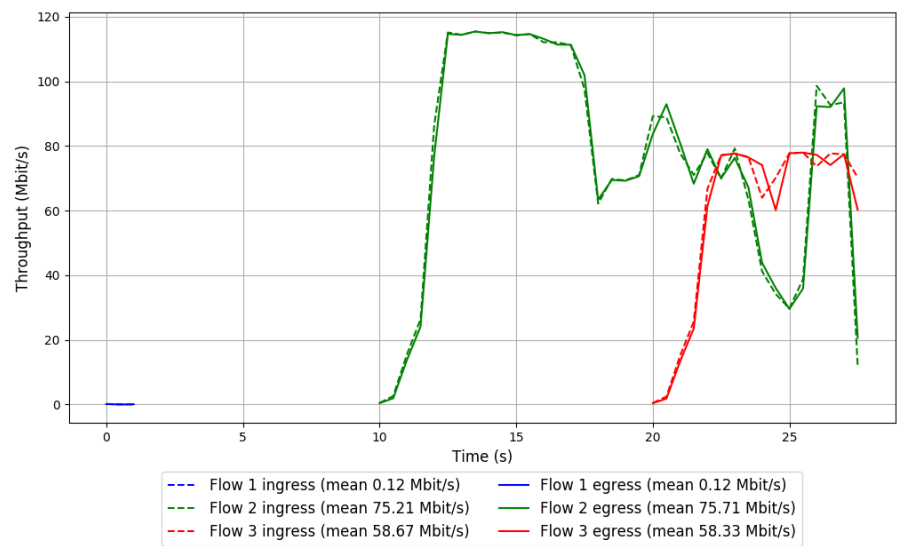
-- Flow 3:

Average throughput: 58.33 Mbit/s

95th percentile per-packet one-way delay: 64.095 ms

Loss rate: 2.14%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-12-06 11:33:32

End at: 2017-12-06 11:34:02

Below is generated by plot.py at 2017-12-06 15:07:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.41 Mbit/s

95th percentile per-packet one-way delay: 63.988 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 46.97 Mbit/s

95th percentile per-packet one-way delay: 64.083 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 72.32 Mbit/s

95th percentile per-packet one-way delay: 63.574 ms

Loss rate: 0.20%

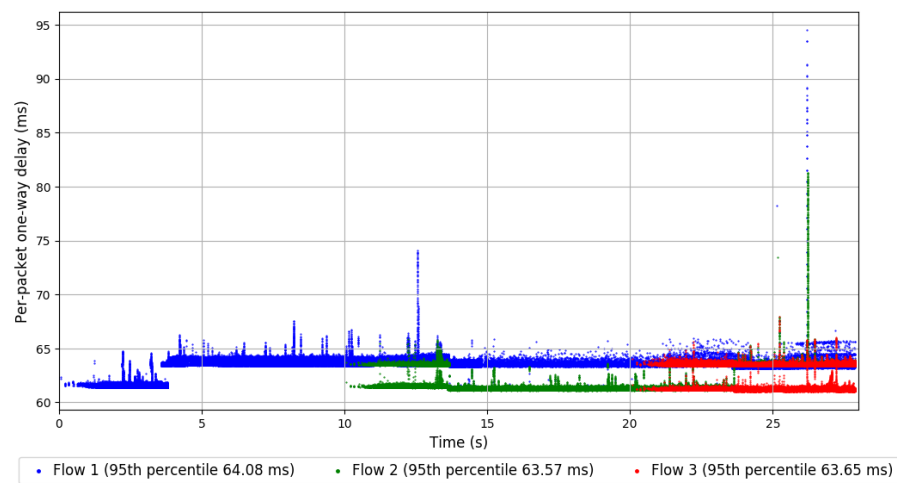
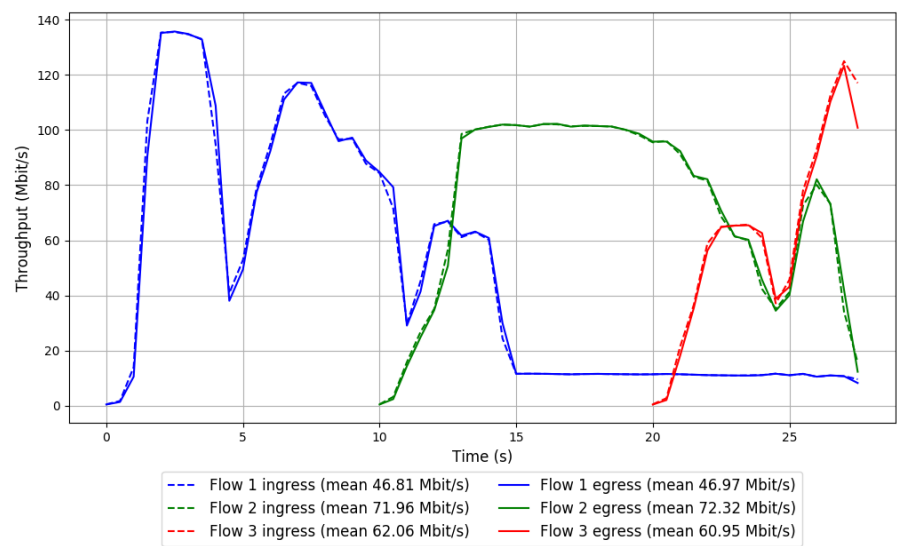
-- Flow 3:

Average throughput: 60.95 Mbit/s

95th percentile per-packet one-way delay: 63.654 ms

Loss rate: 3.33%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-12-06 11:46:02

End at: 2017-12-06 11:46:32

Below is generated by plot.py at 2017-12-06 15:07:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.36 Mbit/s

95th percentile per-packet one-way delay: 63.825 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 41.82 Mbit/s

95th percentile per-packet one-way delay: 63.840 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 61.03 Mbit/s

95th percentile per-packet one-way delay: 63.778 ms

Loss rate: 1.45%

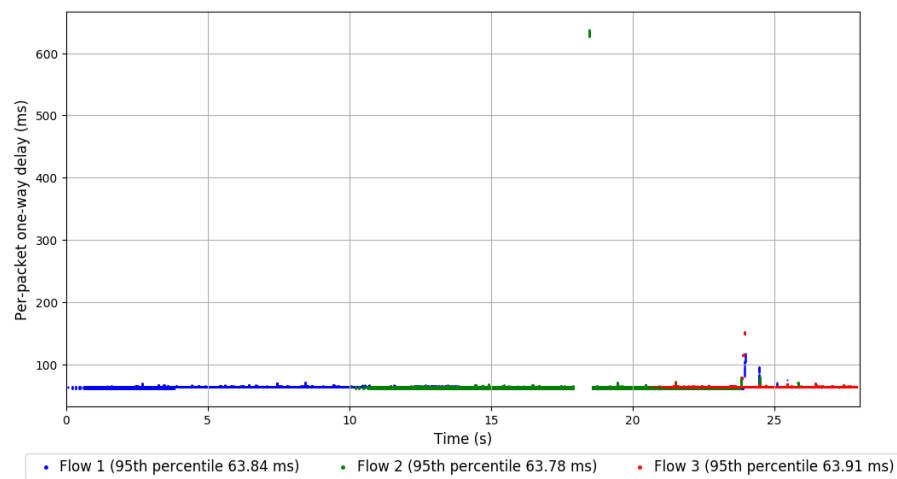
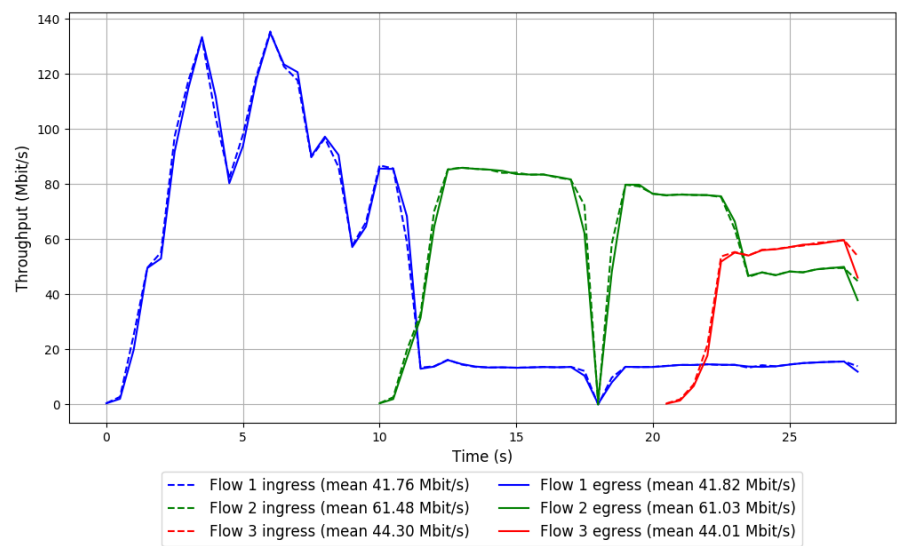
-- Flow 3:

Average throughput: 44.01 Mbit/s

95th percentile per-packet one-way delay: 63.906 ms

Loss rate: 2.39%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-12-06 11:58:23

End at: 2017-12-06 11:58:53

Below is generated by plot.py at 2017-12-06 15:08:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.22 Mbit/s

95th percentile per-packet one-way delay: 63.728 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 63.83 Mbit/s

95th percentile per-packet one-way delay: 63.624 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 49.84 Mbit/s

95th percentile per-packet one-way delay: 63.912 ms

Loss rate: 0.74%

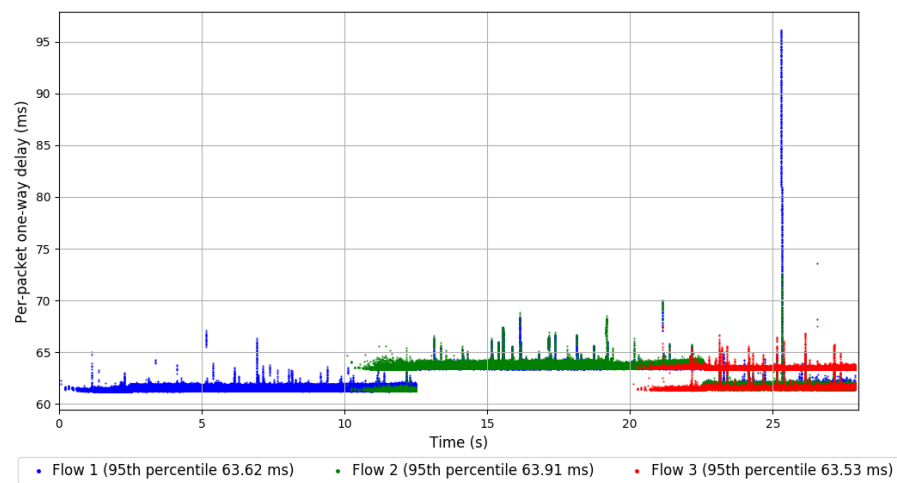
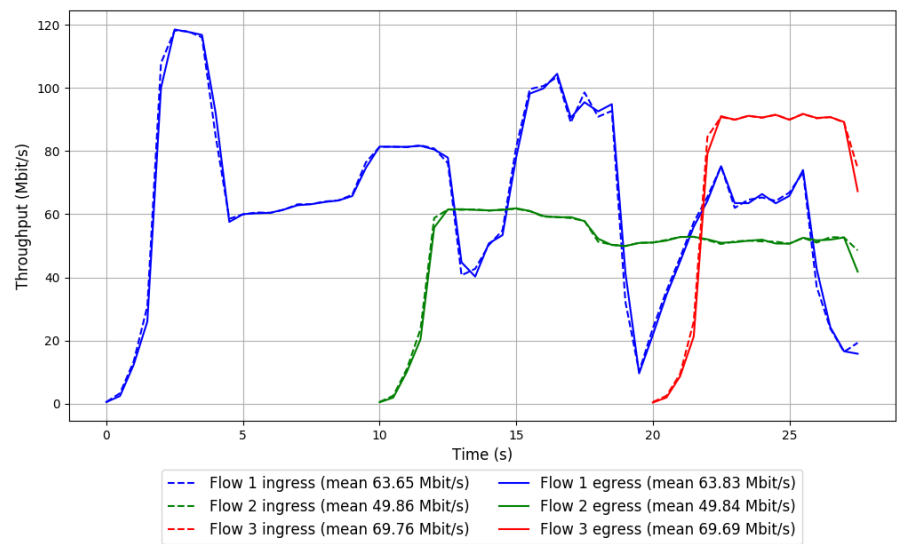
-- Flow 3:

Average throughput: 69.69 Mbit/s

95th percentile per-packet one-way delay: 63.534 ms

Loss rate: 1.67%

Run 10: Report of Copa — Data Link

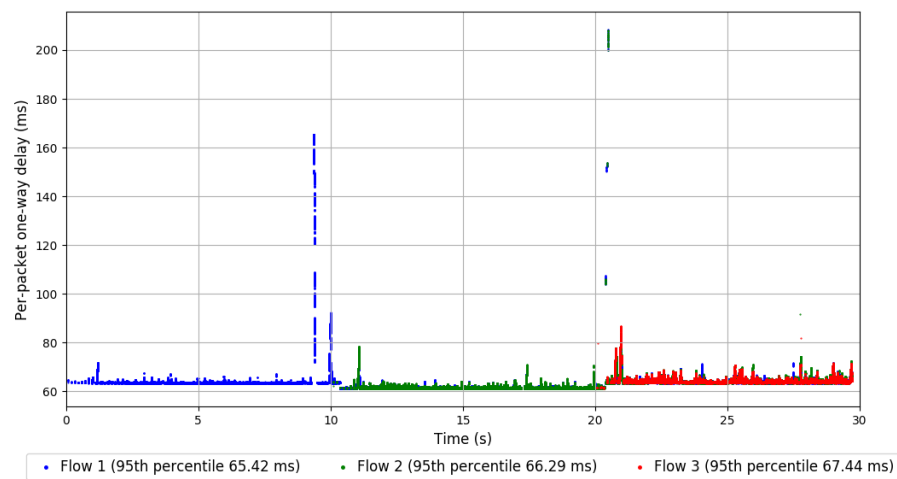
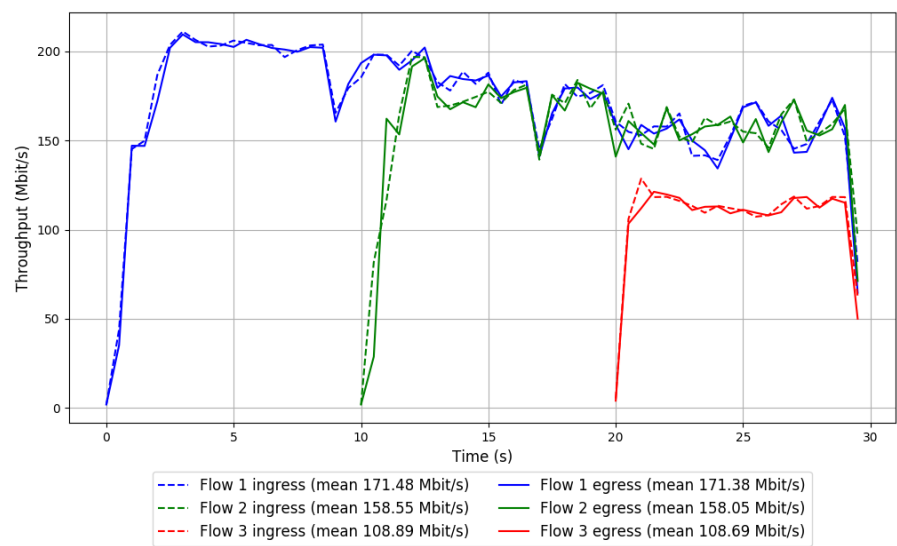


```
Run 1: Statistics of Indigo

Start at: 2017-12-06 10:09:47
End at: 2017-12-06 10:10:17

# Below is generated by plot.py at 2017-12-06 15:10:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 311.25 Mbit/s
95th percentile per-packet one-way delay: 66.026 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 171.38 Mbit/s
95th percentile per-packet one-way delay: 65.422 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 158.05 Mbit/s
95th percentile per-packet one-way delay: 66.287 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 108.69 Mbit/s
95th percentile per-packet one-way delay: 67.437 ms
Loss rate: 1.45%
```


Run 1: Report of Indigo — Data Link

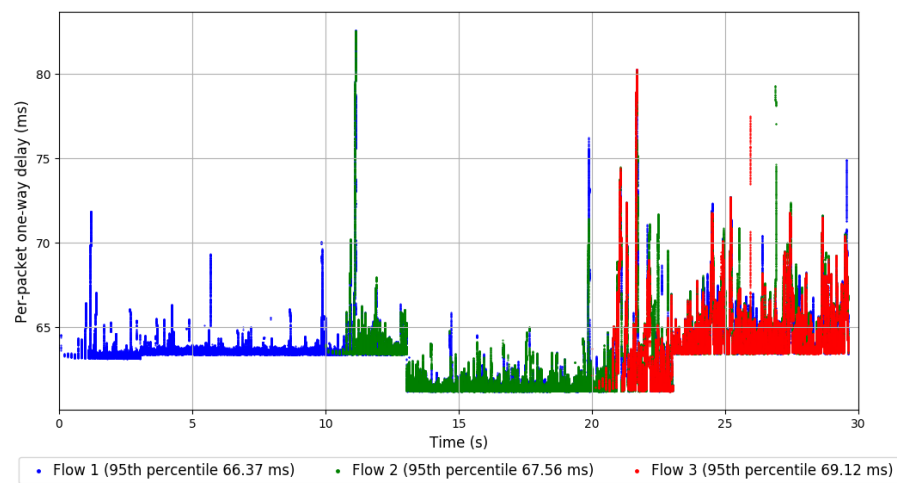
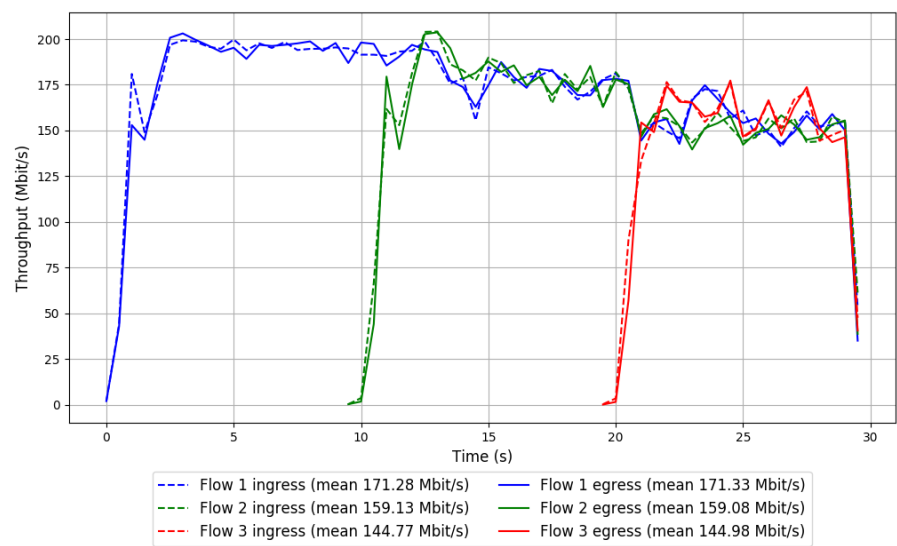


```
Run 2: Statistics of Indigo

Start at: 2017-12-06 10:22:34
End at: 2017-12-06 10:23:04

# Below is generated by plot.py at 2017-12-06 15:11:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 324.21 Mbit/s
95th percentile per-packet one-way delay: 67.411 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 171.33 Mbit/s
95th percentile per-packet one-way delay: 66.371 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 159.08 Mbit/s
95th percentile per-packet one-way delay: 67.561 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 144.98 Mbit/s
95th percentile per-packet one-way delay: 69.117 ms
Loss rate: 1.14%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-12-06 10:34:58

End at: 2017-12-06 10:35:28

Below is generated by plot.py at 2017-12-06 15:11:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 313.12 Mbit/s

95th percentile per-packet one-way delay: 68.519 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 170.44 Mbit/s

95th percentile per-packet one-way delay: 67.300 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 160.26 Mbit/s

95th percentile per-packet one-way delay: 68.733 ms

Loss rate: 0.72%

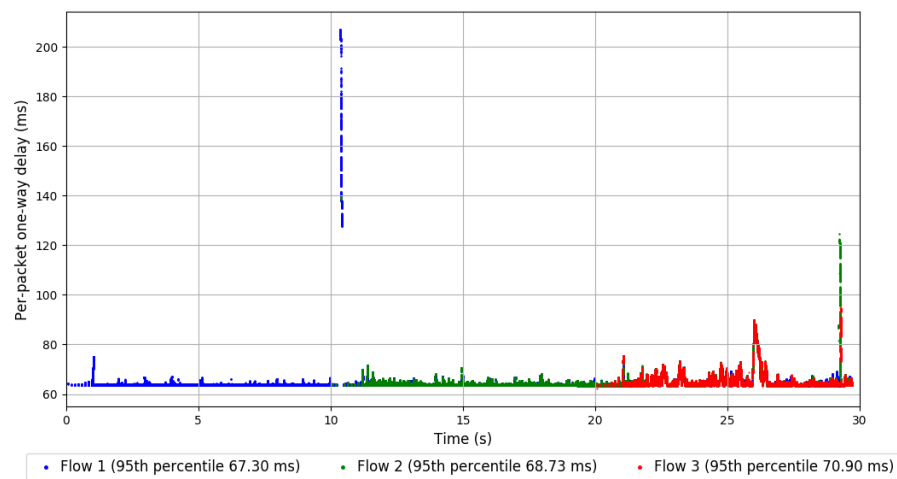
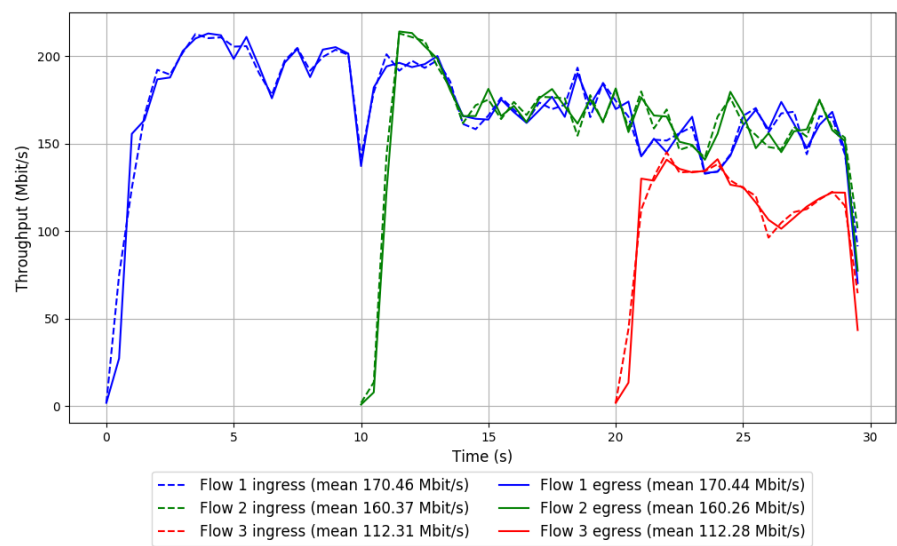
-- Flow 3:

Average throughput: 112.28 Mbit/s

95th percentile per-packet one-way delay: 70.902 ms

Loss rate: 1.32%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-06 10:47:27

End at: 2017-12-06 10:47:57

Below is generated by plot.py at 2017-12-06 15:11:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 318.94 Mbit/s

95th percentile per-packet one-way delay: 66.645 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 169.78 Mbit/s

95th percentile per-packet one-way delay: 65.795 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 157.25 Mbit/s

95th percentile per-packet one-way delay: 66.946 ms

Loss rate: 0.67%

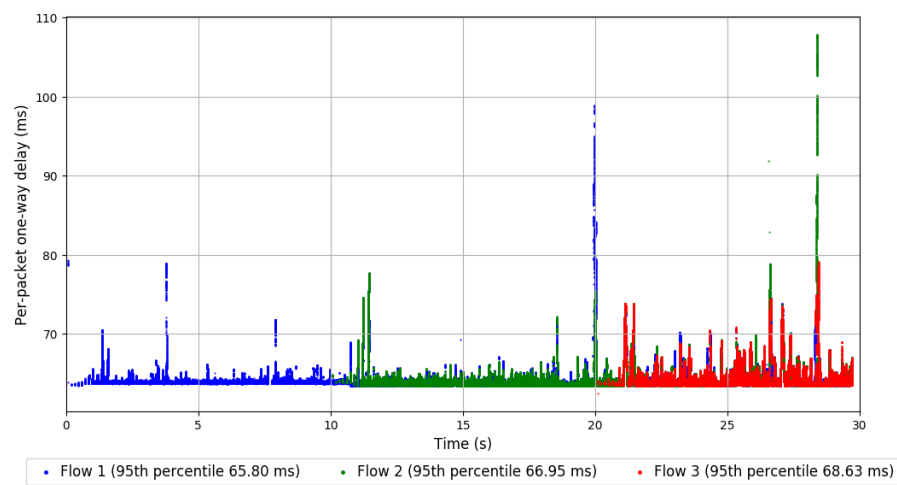
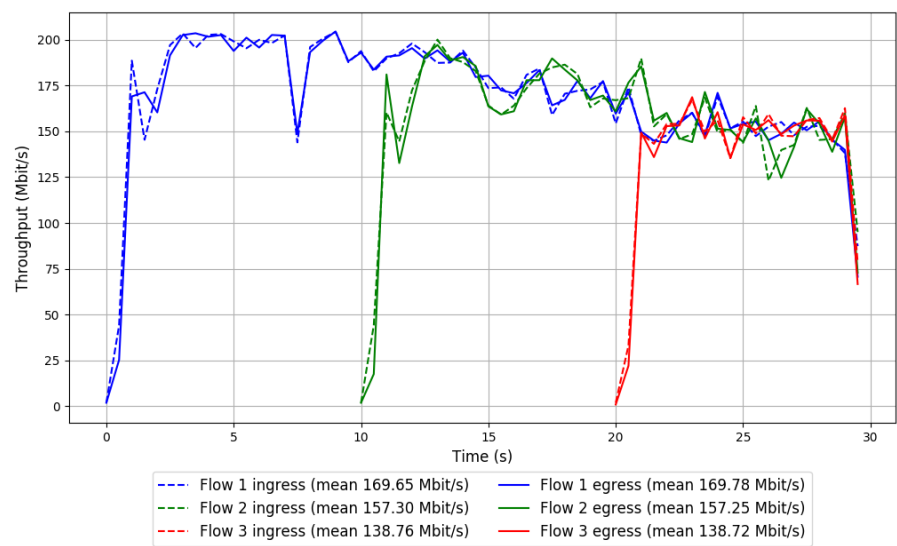
-- Flow 3:

Average throughput: 138.72 Mbit/s

95th percentile per-packet one-way delay: 68.632 ms

Loss rate: 1.30%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-12-06 10:59:59

End at: 2017-12-06 11:00:29

Below is generated by plot.py at 2017-12-06 15:12:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 306.68 Mbit/s

95th percentile per-packet one-way delay: 63.771 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 168.53 Mbit/s

95th percentile per-packet one-way delay: 63.695 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 153.24 Mbit/s

95th percentile per-packet one-way delay: 63.813 ms

Loss rate: 0.62%

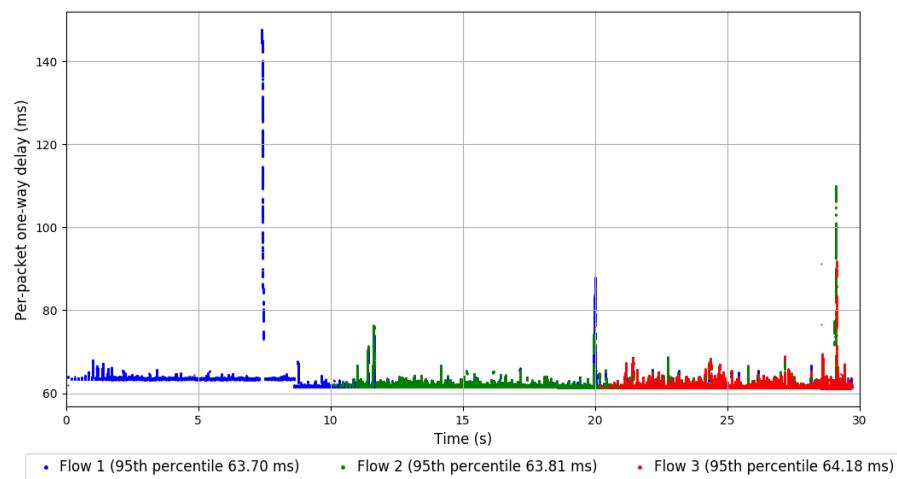
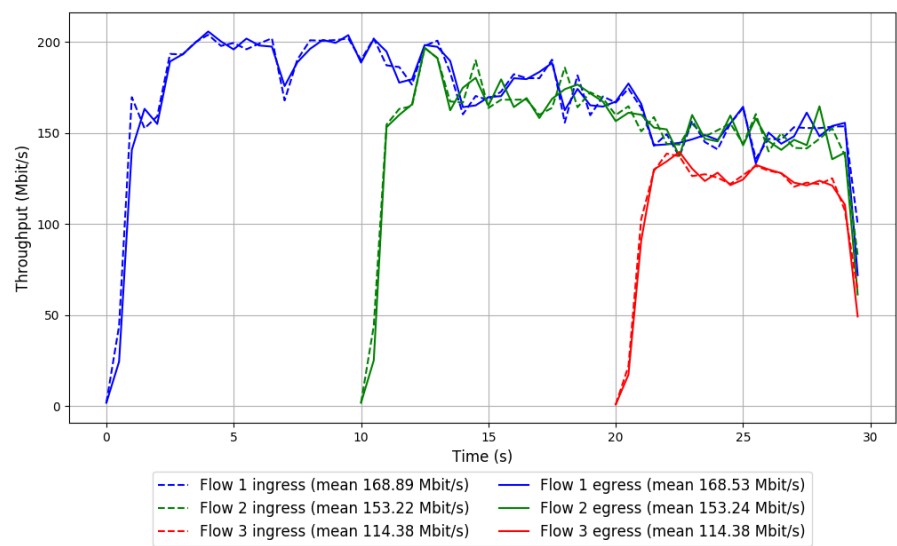
-- Flow 3:

Average throughput: 114.38 Mbit/s

95th percentile per-packet one-way delay: 64.176 ms

Loss rate: 1.28%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-06 11:12:28

End at: 2017-12-06 11:12:58

Below is generated by plot.py at 2017-12-06 15:12:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 302.10 Mbit/s

95th percentile per-packet one-way delay: 64.733 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 169.42 Mbit/s

95th percentile per-packet one-way delay: 64.489 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 132.24 Mbit/s

95th percentile per-packet one-way delay: 64.901 ms

Loss rate: 0.49%

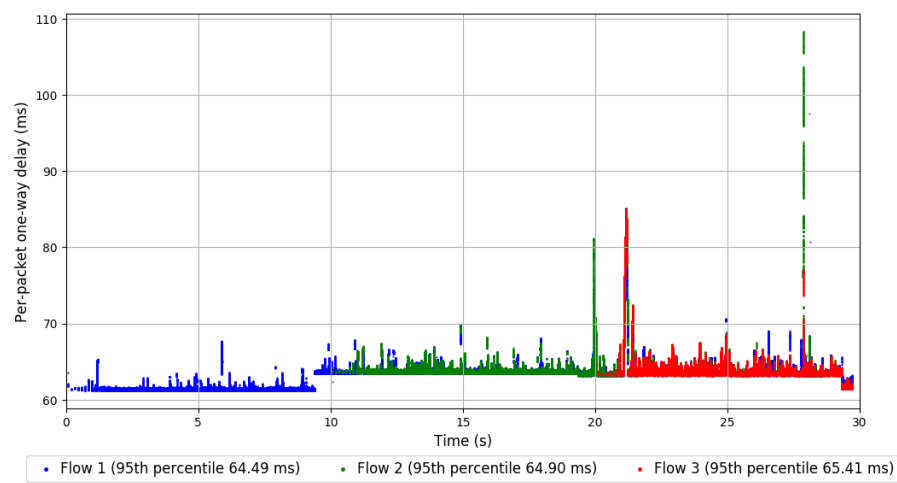
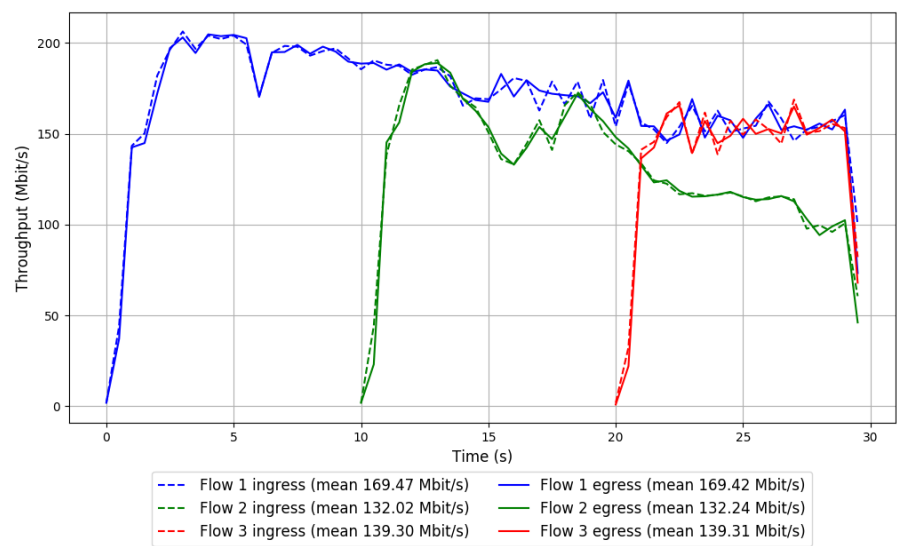
-- Flow 3:

Average throughput: 139.31 Mbit/s

95th percentile per-packet one-way delay: 65.409 ms

Loss rate: 1.30%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-12-06 11:24:49

End at: 2017-12-06 11:25:19

Below is generated by plot.py at 2017-12-06 15:13:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 317.97 Mbit/s

95th percentile per-packet one-way delay: 65.412 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 170.48 Mbit/s

95th percentile per-packet one-way delay: 65.017 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 157.19 Mbit/s

95th percentile per-packet one-way delay: 65.521 ms

Loss rate: 0.55%

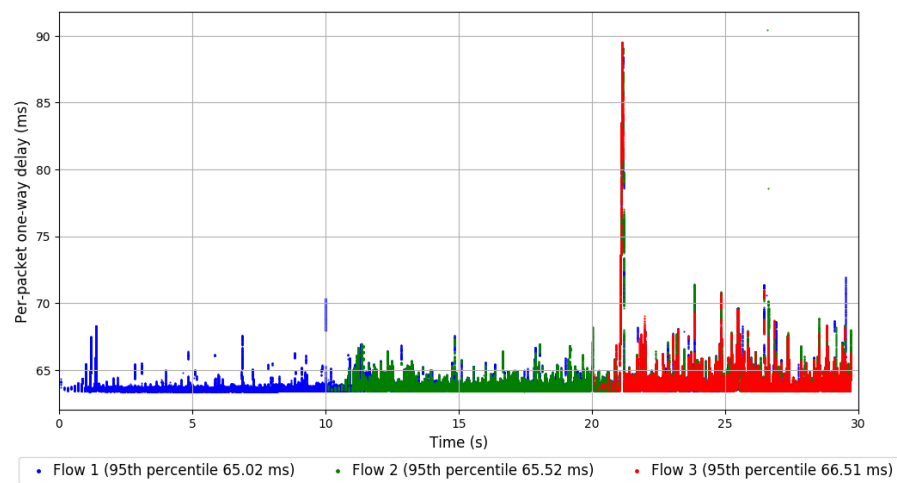
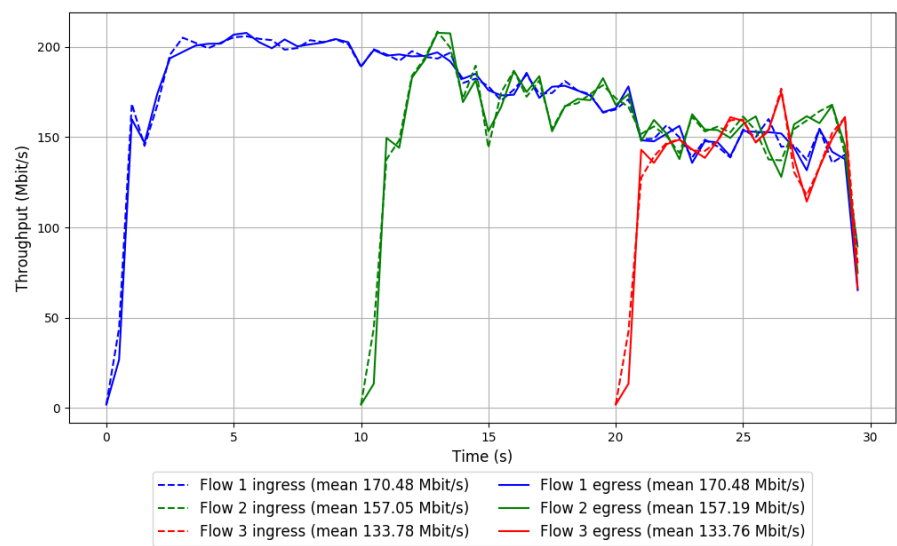
-- Flow 3:

Average throughput: 133.76 Mbit/s

95th percentile per-packet one-way delay: 66.512 ms

Loss rate: 1.31%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-06 11:37:15

End at: 2017-12-06 11:37:45

Below is generated by plot.py at 2017-12-06 15:14:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 312.76 Mbit/s

95th percentile per-packet one-way delay: 66.892 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 163.20 Mbit/s

95th percentile per-packet one-way delay: 65.951 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 156.70 Mbit/s

95th percentile per-packet one-way delay: 67.248 ms

Loss rate: 0.55%

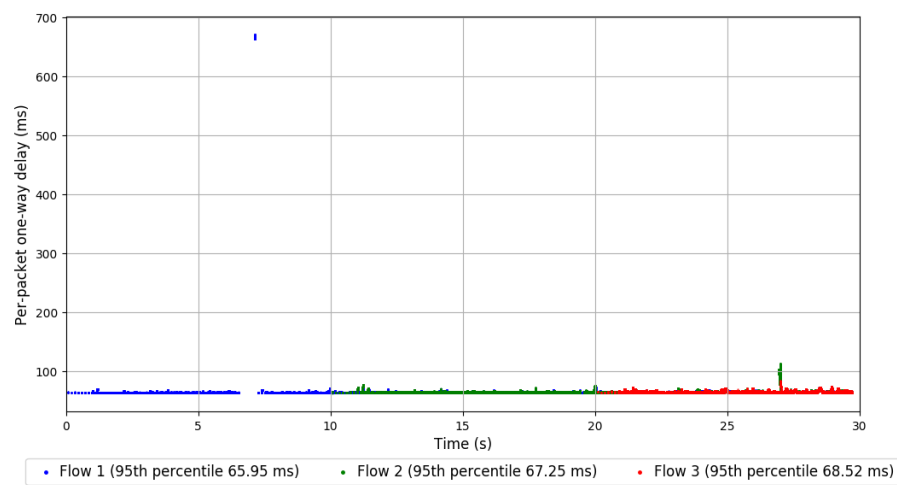
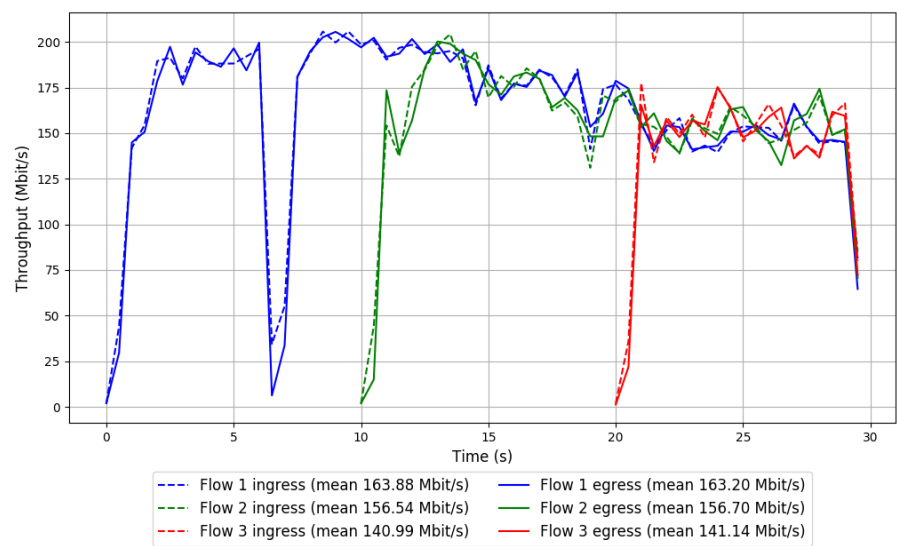
-- Flow 3:

Average throughput: 141.14 Mbit/s

95th percentile per-packet one-way delay: 68.516 ms

Loss rate: 1.19%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-06 11:49:41

End at: 2017-12-06 11:50:11

Below is generated by plot.py at 2017-12-06 15:15:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 310.43 Mbit/s

95th percentile per-packet one-way delay: 66.622 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 166.15 Mbit/s

95th percentile per-packet one-way delay: 65.292 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 153.06 Mbit/s

95th percentile per-packet one-way delay: 67.323 ms

Loss rate: 0.63%

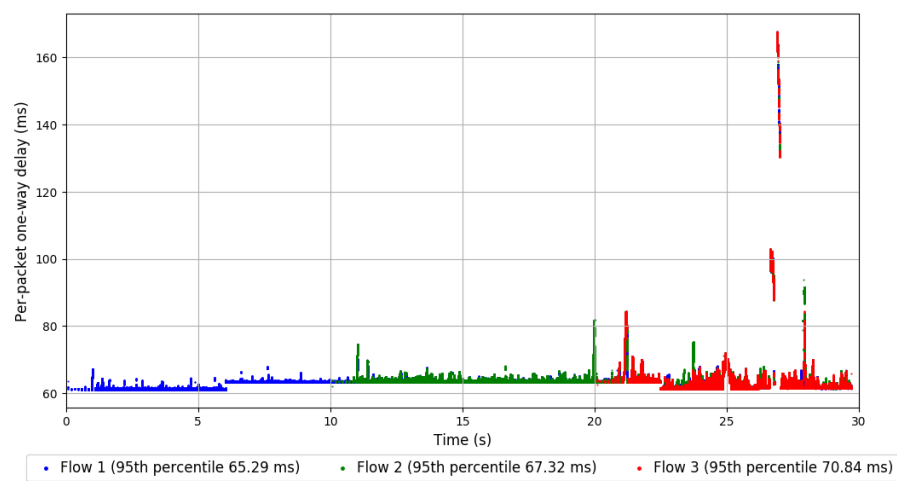
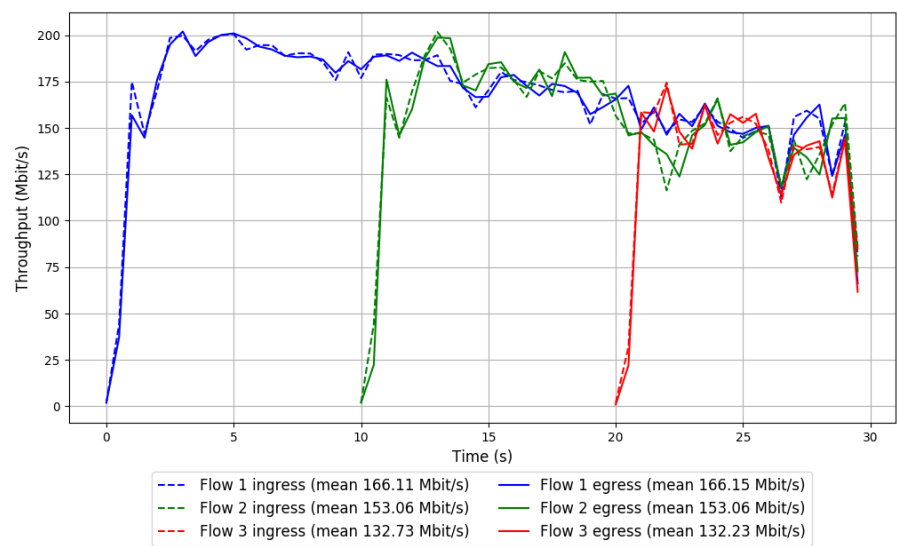
-- Flow 3:

Average throughput: 132.23 Mbit/s

95th percentile per-packet one-way delay: 70.844 ms

Loss rate: 1.62%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-12-06 12:02:04

End at: 2017-12-06 12:02:34

Below is generated by plot.py at 2017-12-06 15:16:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 312.13 Mbit/s

95th percentile per-packet one-way delay: 65.743 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 167.28 Mbit/s

95th percentile per-packet one-way delay: 65.387 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 150.58 Mbit/s

95th percentile per-packet one-way delay: 65.898 ms

Loss rate: 0.56%

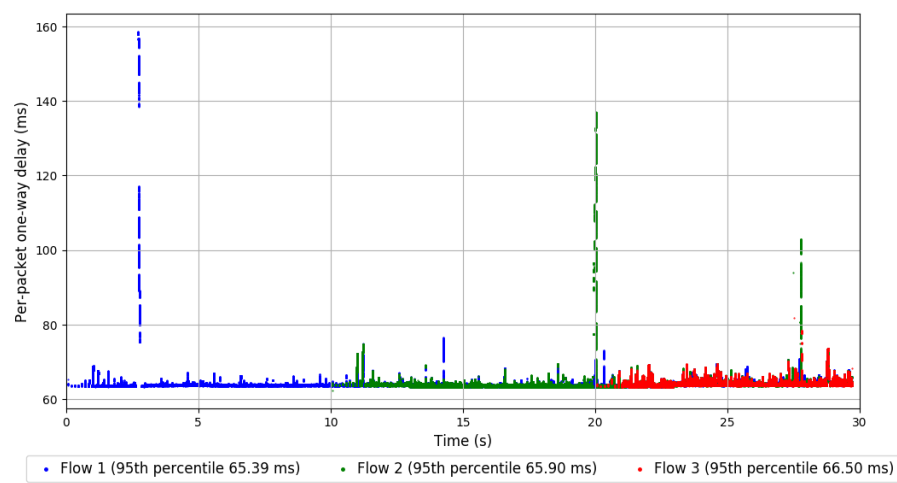
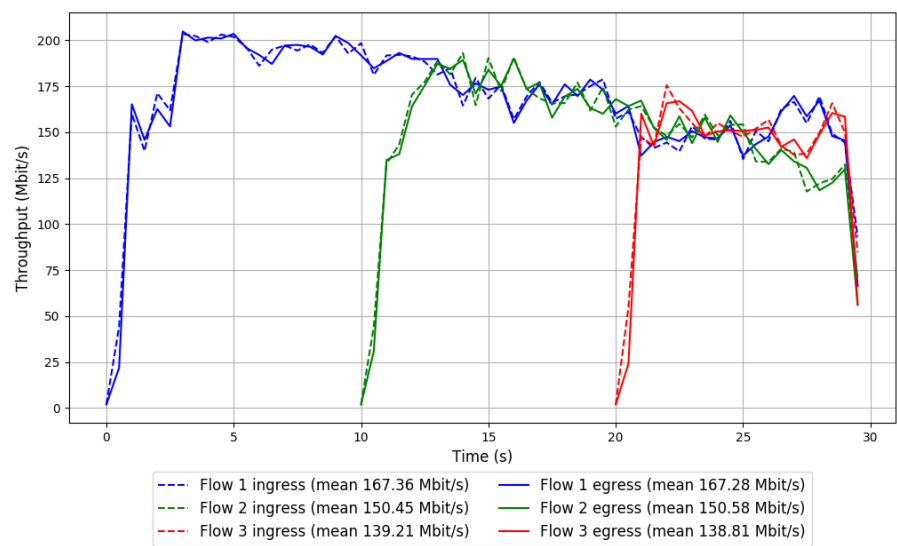
-- Flow 3:

Average throughput: 138.81 Mbit/s

95th percentile per-packet one-way delay: 66.497 ms

Loss rate: 1.58%

Run 10: Report of Indigo — Data Link

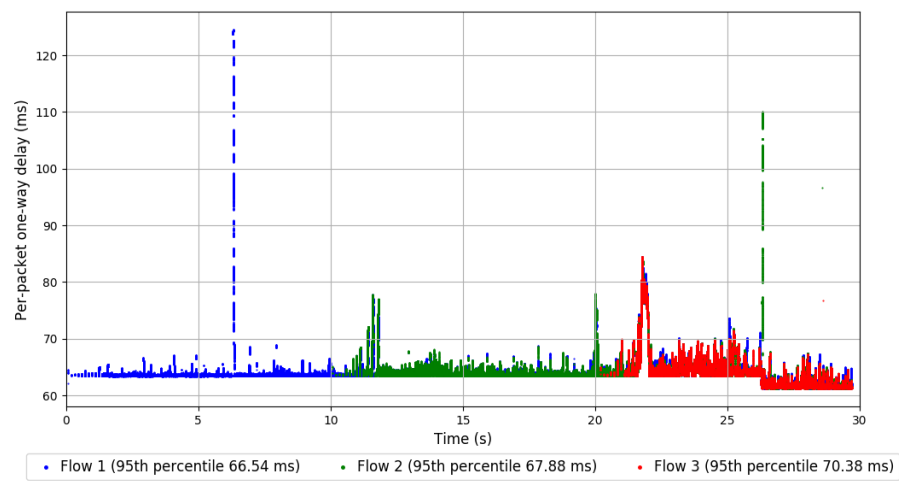
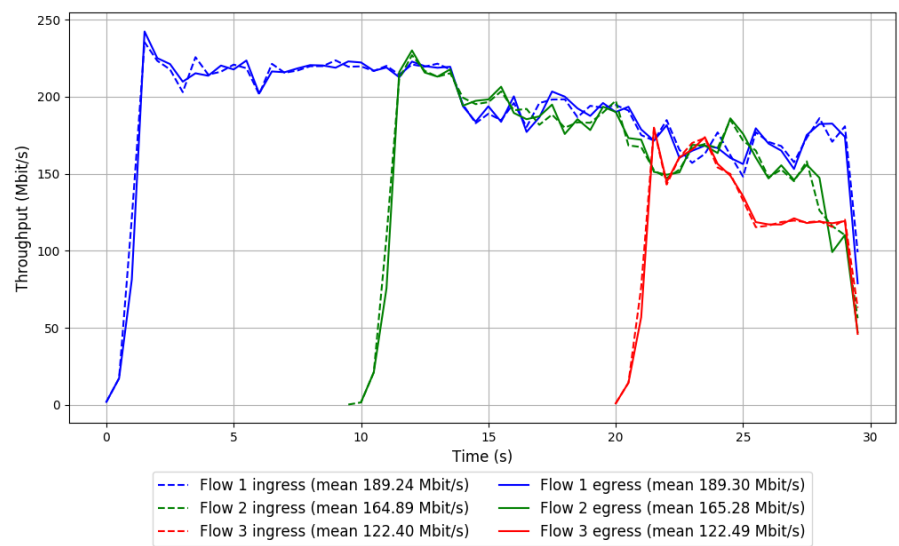


```
Run 1: Statistics of Indigo-calib

Start at: 2017-12-06 10:13:01
End at: 2017-12-06 10:13:31

# Below is generated by plot.py at 2017-12-06 15:16:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 338.14 Mbit/s
95th percentile per-packet one-way delay: 67.503 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 189.30 Mbit/s
95th percentile per-packet one-way delay: 66.544 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 165.28 Mbit/s
95th percentile per-packet one-way delay: 67.884 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 122.49 Mbit/s
95th percentile per-packet one-way delay: 70.375 ms
Loss rate: 1.24%
```

Run 1: Report of Indigo-calib — Data Link

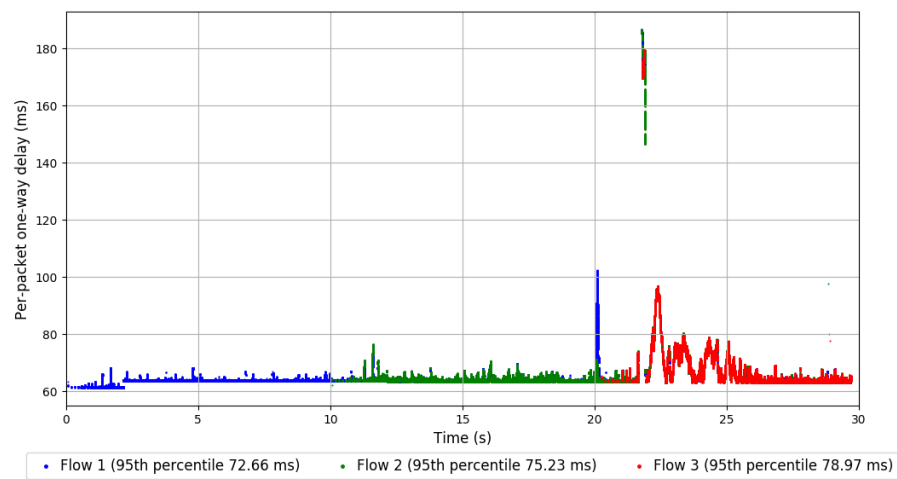
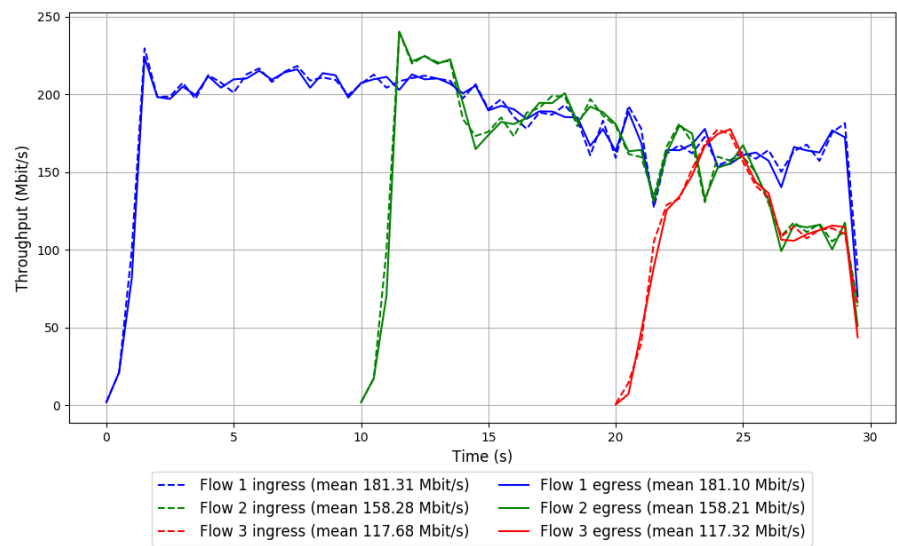


```
Run 2: Statistics of Indigo-calib

Start at: 2017-12-06 10:25:45
End at: 2017-12-06 10:26:15

# Below is generated by plot.py at 2017-12-06 15:16:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 323.26 Mbit/s
95th percentile per-packet one-way delay: 74.847 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 181.10 Mbit/s
95th percentile per-packet one-way delay: 72.664 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 158.21 Mbit/s
95th percentile per-packet one-way delay: 75.226 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 117.32 Mbit/s
95th percentile per-packet one-way delay: 78.966 ms
Loss rate: 1.66%
```

Run 2: Report of Indigo-calib — Data Link

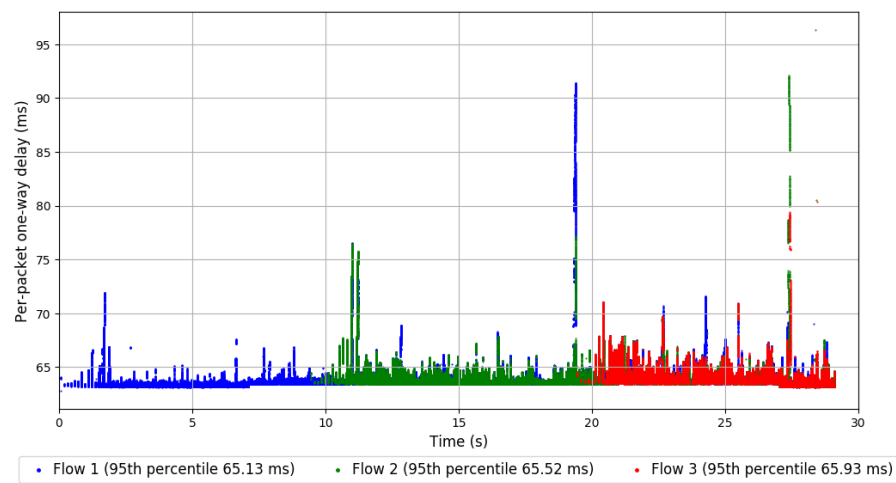
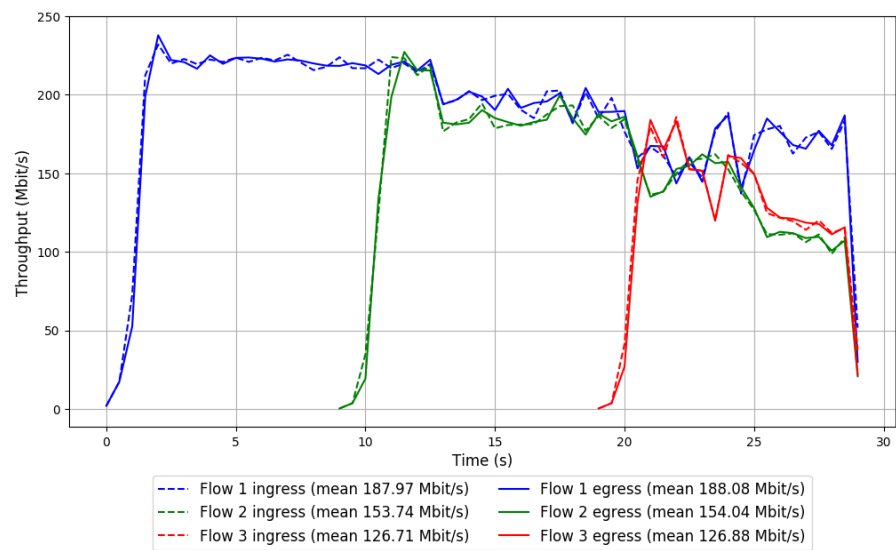


```
Run 3: Statistics of Indigo-calib

Start at: 2017-12-06 10:38:10
End at: 2017-12-06 10:38:40

# Below is generated by plot.py at 2017-12-06 15:18:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 334.33 Mbit/s
95th percentile per-packet one-way delay: 65.402 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 188.08 Mbit/s
95th percentile per-packet one-way delay: 65.129 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 154.04 Mbit/s
95th percentile per-packet one-way delay: 65.515 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 126.88 Mbit/s
95th percentile per-packet one-way delay: 65.928 ms
Loss rate: 1.17%
```


Run 3: Report of Indigo-calib — Data Link

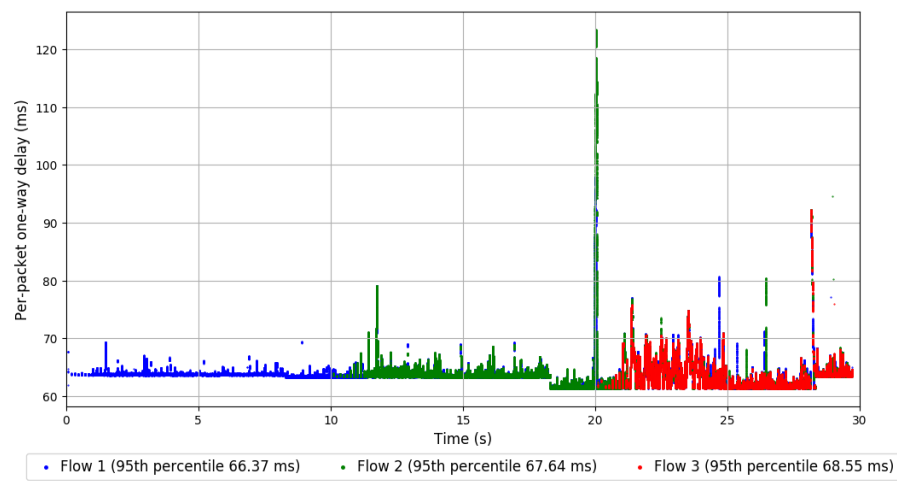
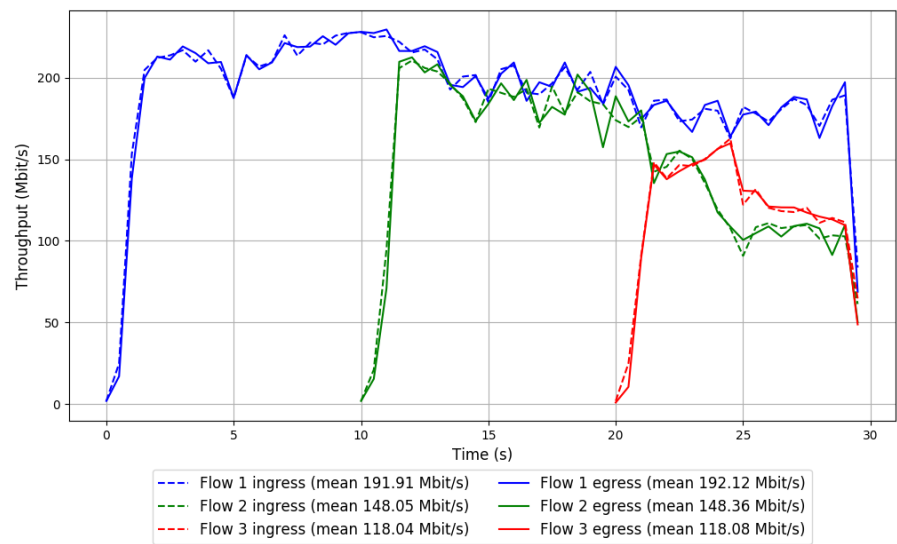


```
Run 4: Statistics of Indigo-calib

Start at: 2017-12-06 10:50:39
End at: 2017-12-06 10:51:09

# Below is generated by plot.py at 2017-12-06 15:18:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.53 Mbit/s
95th percentile per-packet one-way delay: 67.209 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 192.12 Mbit/s
95th percentile per-packet one-way delay: 66.368 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 148.36 Mbit/s
95th percentile per-packet one-way delay: 67.638 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 118.08 Mbit/s
95th percentile per-packet one-way delay: 68.551 ms
Loss rate: 1.27%
```

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

Start at: 2017-12-06 11:03:10

End at: 2017-12-06 11:03:40

Below is generated by plot.py at 2017-12-06 15:18:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 310.83 Mbit/s

95th percentile per-packet one-way delay: 66.576 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 170.66 Mbit/s

95th percentile per-packet one-way delay: 65.604 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 145.43 Mbit/s

95th percentile per-packet one-way delay: 67.743 ms

Loss rate: 0.78%

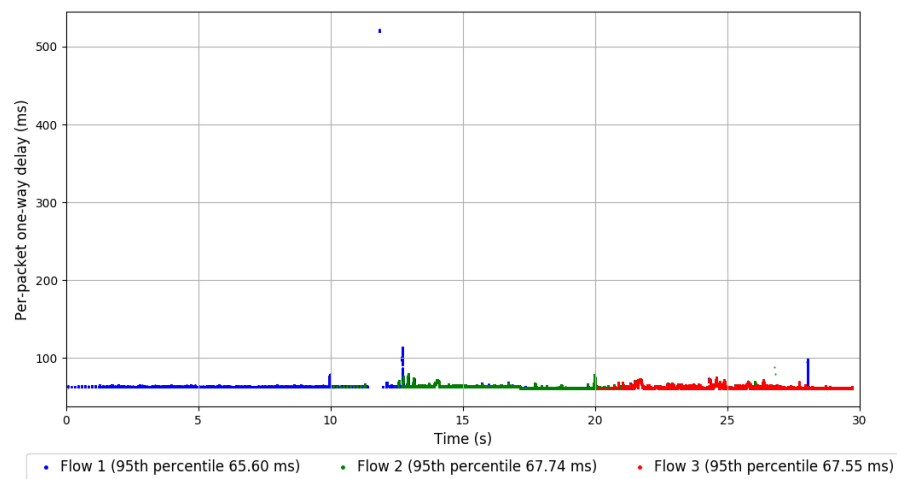
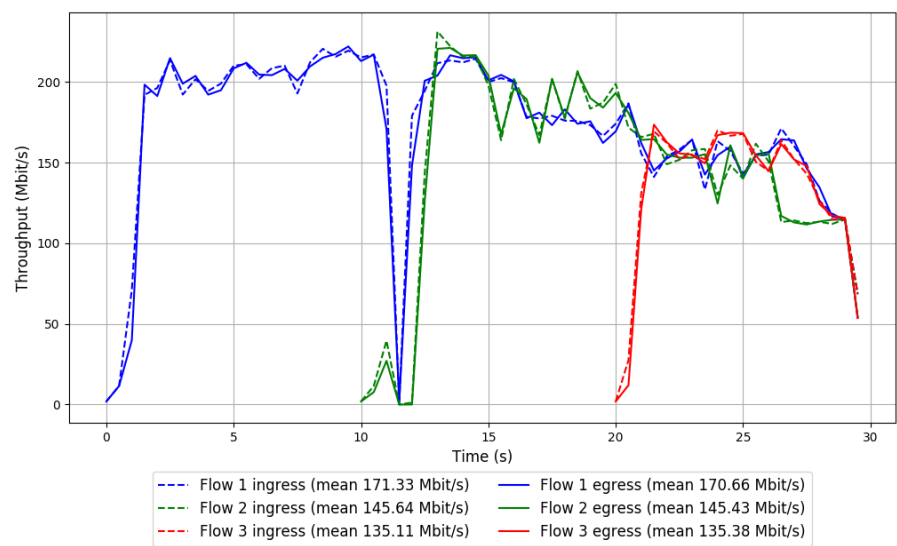
-- Flow 3:

Average throughput: 135.38 Mbit/s

95th percentile per-packet one-way delay: 67.553 ms

Loss rate: 1.09%

Run 5: Report of Indigo-calib — Data Link



Run 6: Statistics of Indigo-calib

Start at: 2017-12-06 11:15:39

End at: 2017-12-06 11:16:09

Below is generated by plot.py at 2017-12-06 15:19:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 314.33 Mbit/s

95th percentile per-packet one-way delay: 66.983 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 171.61 Mbit/s

95th percentile per-packet one-way delay: 65.973 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 145.13 Mbit/s

95th percentile per-packet one-way delay: 67.095 ms

Loss rate: 0.50%

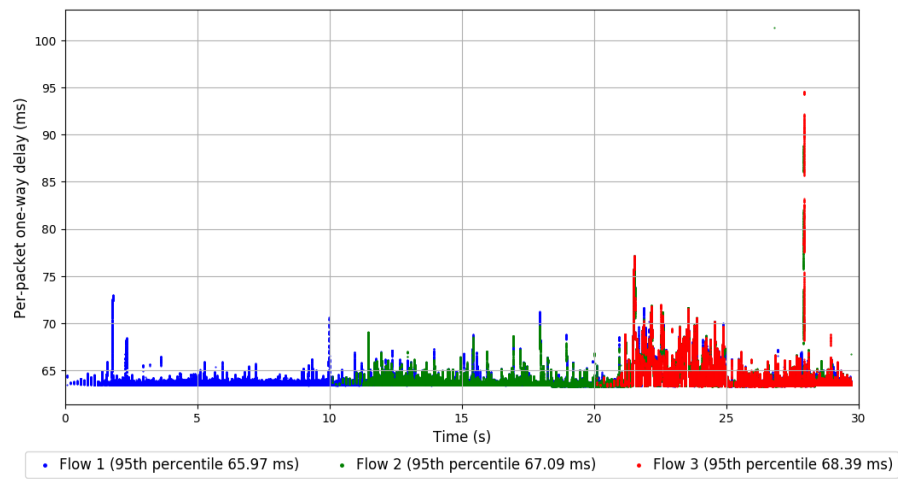
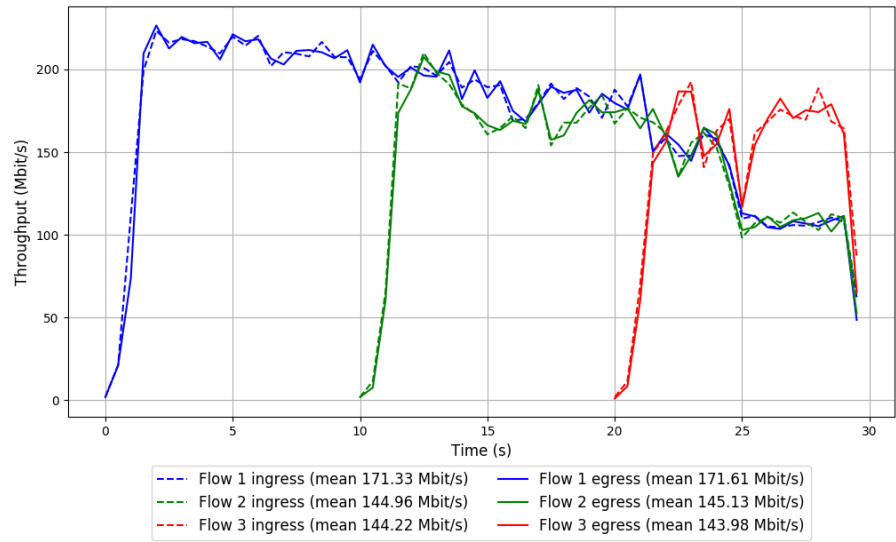
-- Flow 3:

Average throughput: 143.98 Mbit/s

95th percentile per-packet one-way delay: 68.389 ms

Loss rate: 1.47%

Run 6: Report of Indigo-calib — Data Link

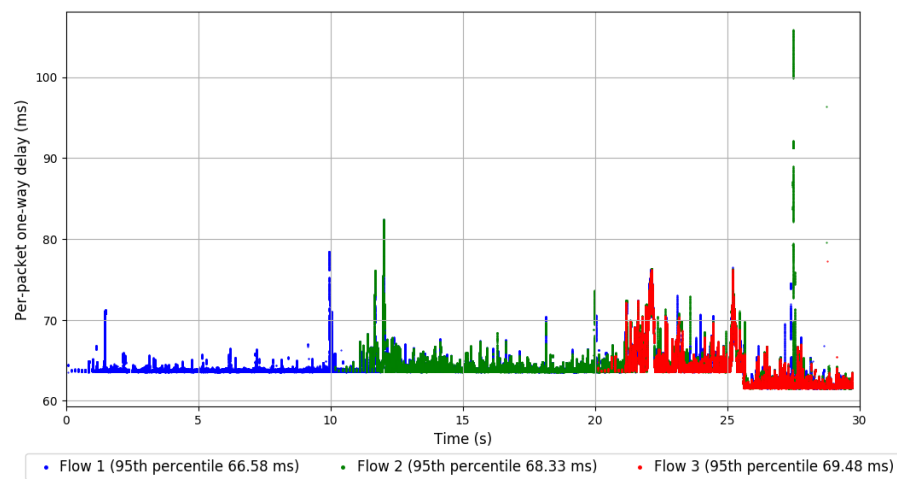
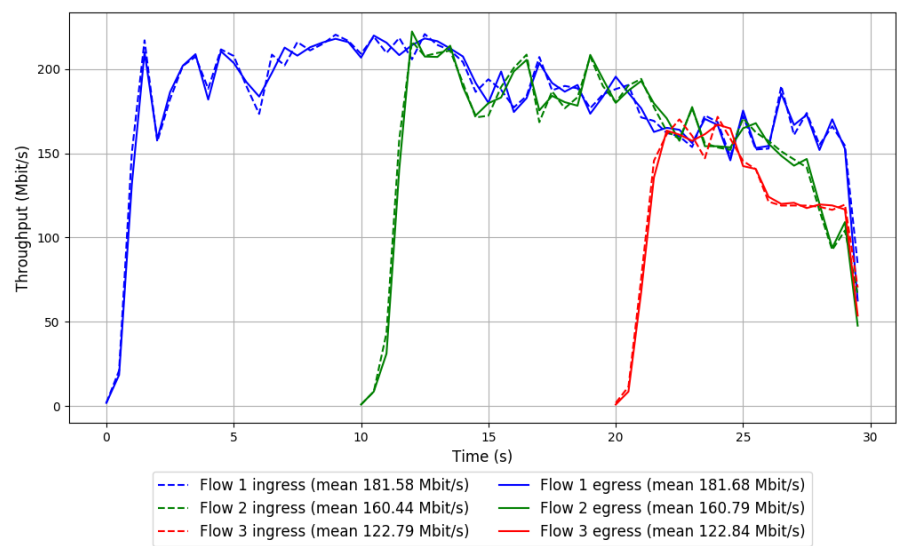


```
Run 7: Statistics of Indigo-calib

Start at: 2017-12-06 11:28:02
End at: 2017-12-06 11:28:32

# Below is generated by plot.py at 2017-12-06 15:20:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 327.42 Mbit/s
95th percentile per-packet one-way delay: 67.625 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 181.68 Mbit/s
95th percentile per-packet one-way delay: 66.575 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 160.79 Mbit/s
95th percentile per-packet one-way delay: 68.332 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 122.84 Mbit/s
95th percentile per-packet one-way delay: 69.482 ms
Loss rate: 1.26%
```


Run 7: Report of Indigo-calib — Data Link



Run 8: Statistics of Indigo-calib

Start at: 2017-12-06 11:40:29

End at: 2017-12-06 11:40:59

Below is generated by plot.py at 2017-12-06 15:20:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 325.29 Mbit/s

95th percentile per-packet one-way delay: 64.673 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 170.77 Mbit/s

95th percentile per-packet one-way delay: 64.529 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 177.22 Mbit/s

95th percentile per-packet one-way delay: 64.862 ms

Loss rate: 0.62%

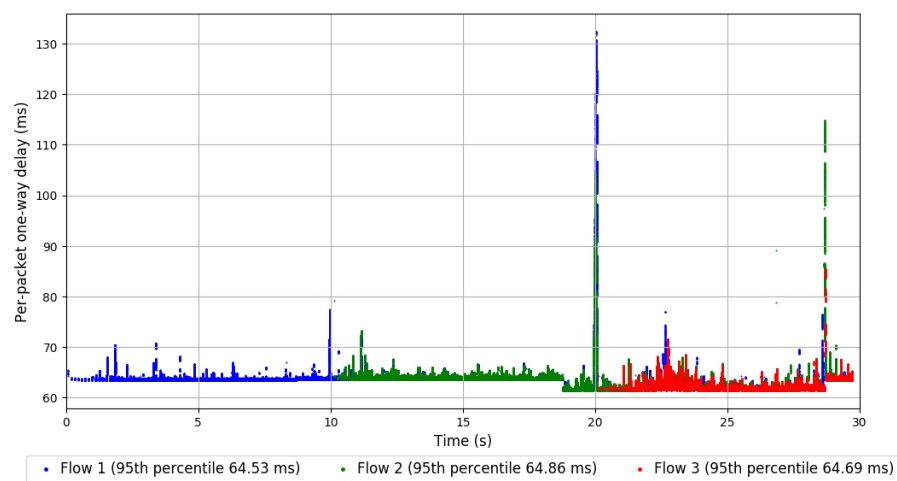
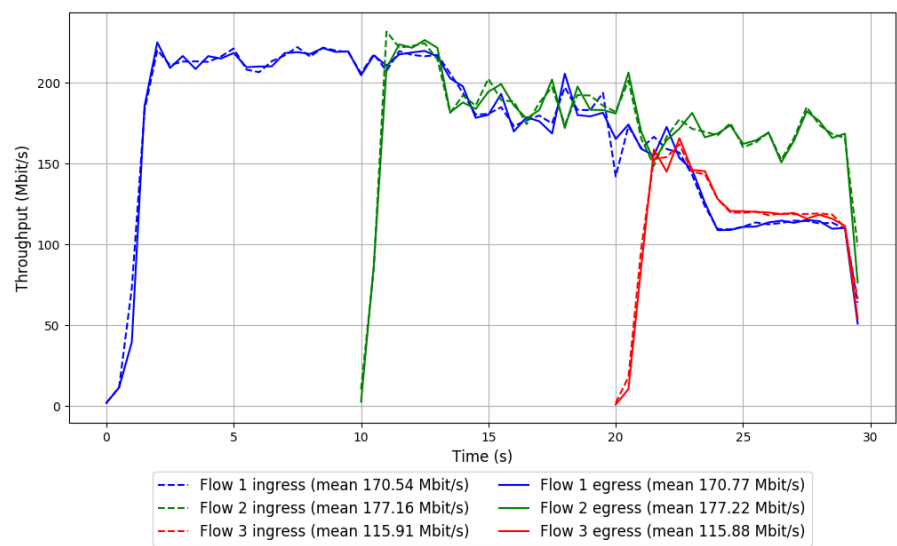
-- Flow 3:

Average throughput: 115.88 Mbit/s

95th percentile per-packet one-way delay: 64.694 ms

Loss rate: 1.30%

Run 8: Report of Indigo-calib — Data Link

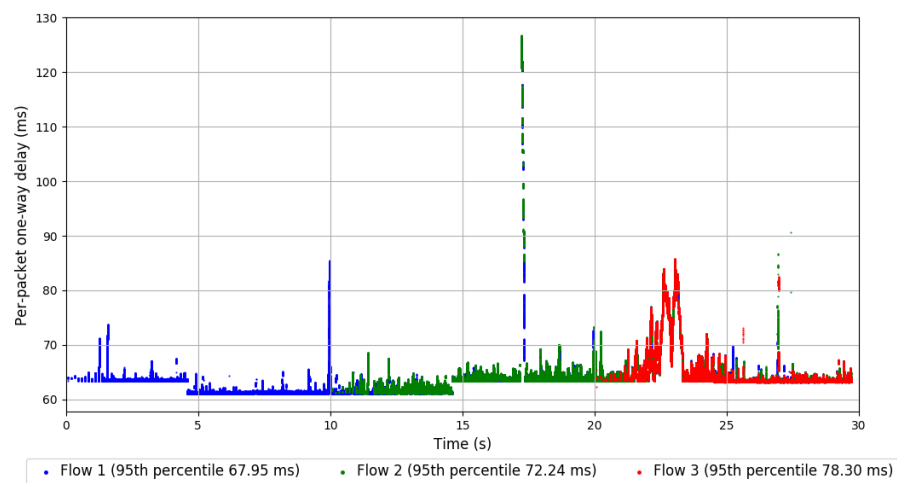
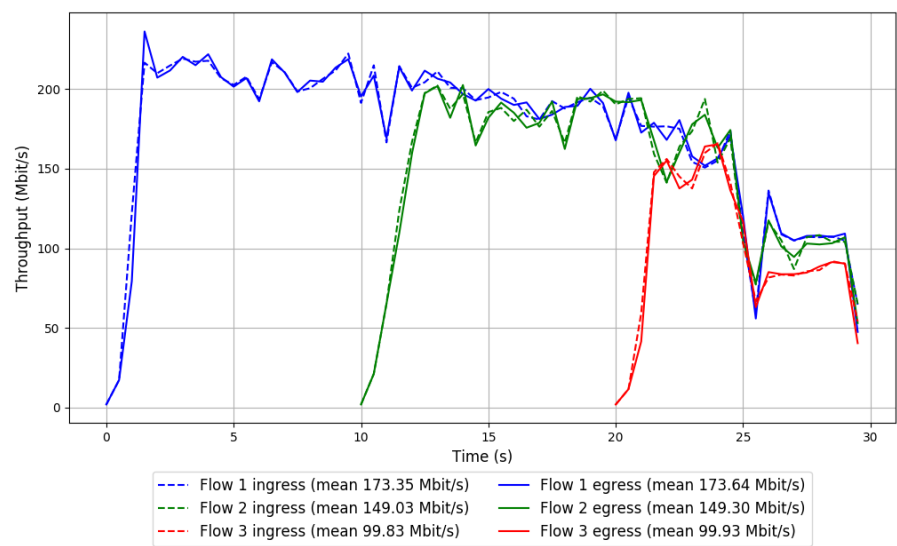


```
Run 9: Statistics of Indigo-calib

Start at: 2017-12-06 11:52:53
End at: 2017-12-06 11:53:23

# Below is generated by plot.py at 2017-12-06 15:20:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 305.05 Mbit/s
95th percentile per-packet one-way delay: 71.450 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 173.64 Mbit/s
95th percentile per-packet one-way delay: 67.949 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 149.30 Mbit/s
95th percentile per-packet one-way delay: 72.238 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 99.93 Mbit/s
95th percentile per-packet one-way delay: 78.301 ms
Loss rate: 1.19%
```

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-12-06 12:05:17

End at: 2017-12-06 12:05:47

Below is generated by plot.py at 2017-12-06 15:20:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 327.52 Mbit/s

95th percentile per-packet one-way delay: 65.588 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 183.08 Mbit/s

95th percentile per-packet one-way delay: 65.088 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 149.52 Mbit/s

95th percentile per-packet one-way delay: 65.576 ms

Loss rate: 0.47%

-- Flow 3:

Average throughput: 140.63 Mbit/s

95th percentile per-packet one-way delay: 66.755 ms

Loss rate: 1.74%

Run 10: Report of Indigo-calib — Data Link

