

Pantheon Report

Generated at 2017-10-12 15:50:38 (UTC).

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

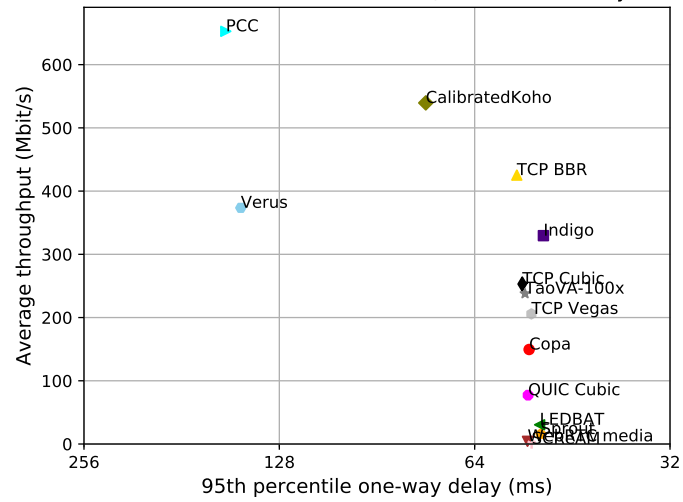
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

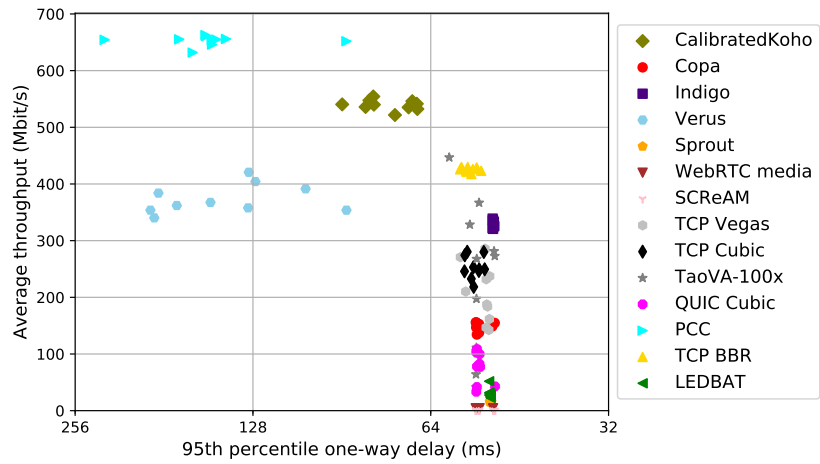
Git summary:

```
branch: indigos @ 45998d6404be7c5106956530acb9cfc43bd06e7d
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
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 @ 03455460fd1a8ffbdad86fabb936fdca204b80db
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-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
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 Sydney 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 Sydney 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	216.11	214.02	203.40	54.28	55.11	56.55	0.35	0.52	1.15
TCP Cubic	10	127.12	131.20	117.56	53.74	53.97	54.05	0.35	0.60	1.38
LEDBAT	9	17.45	15.42	8.36	50.82	50.87	50.62	0.61	0.97	1.83
PCC	10	606.08	61.84	17.20	155.63	144.54	127.07	2.33	1.92	1.84
QUIC Cubic	10	36.53	42.11	38.87	51.65	51.90	51.56	0.31	0.69	1.93
SCReAM	9	55.66	0.21	0.22	238.49	51.16	51.74	0.20	0.40	1.03
WebRTC media	10	2.25	1.43	0.60	51.91	51.33	52.10	0.45	0.56	1.45
Sprout	10	7.89	7.79	7.56	50.73	50.70	50.69	0.46	0.61	1.27
TaoVA-100x	10	154.56	96.64	130.30	52.70	53.82	55.60	0.24	0.68	2.00
TCP Vegas	10	113.42	90.23	98.65	51.85	51.92	53.22	0.37	0.55	1.02
Verus	10	241.07	144.45	111.98	140.29	153.71	129.38	0.96	1.28	1.02
Copa	10	83.20	71.92	72.04	51.36	51.45	51.62	0.30	0.47	1.48
CalibratedKoho	10	352.81	250.40	61.66	73.41	83.15	67.26	0.28	0.64	3.12
Indigo	10	178.58	164.26	129.61	50.01	50.48	50.14	0.31	0.44	1.15

Run 1: Statistics of TCP BBR

Start at: 2017-10-12 10:19:02

End at: 2017-10-12 10:19:32

Below is generated by plot.py at 2017-10-12 14:42:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 429.12 Mbit/s

95th percentile per-packet one-way delay: 53.517 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 214.12 Mbit/s

95th percentile per-packet one-way delay: 52.932 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 219.29 Mbit/s

95th percentile per-packet one-way delay: 53.679 ms

Loss rate: 0.56%

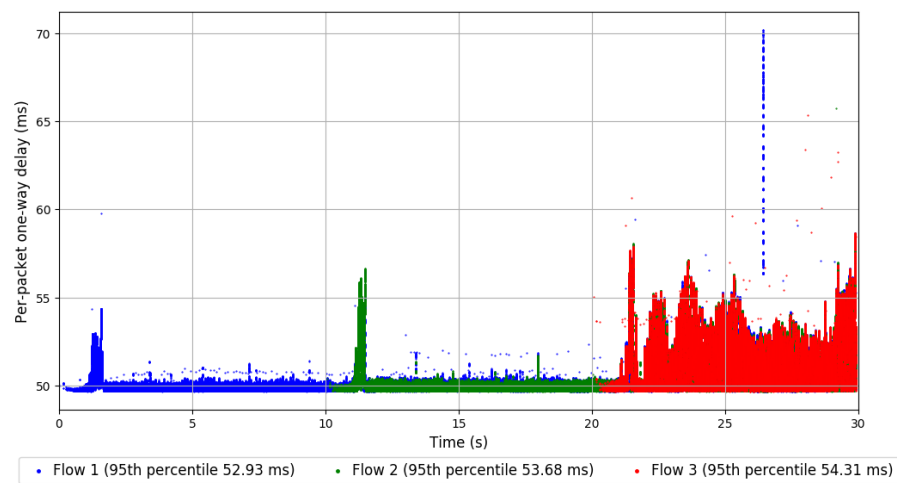
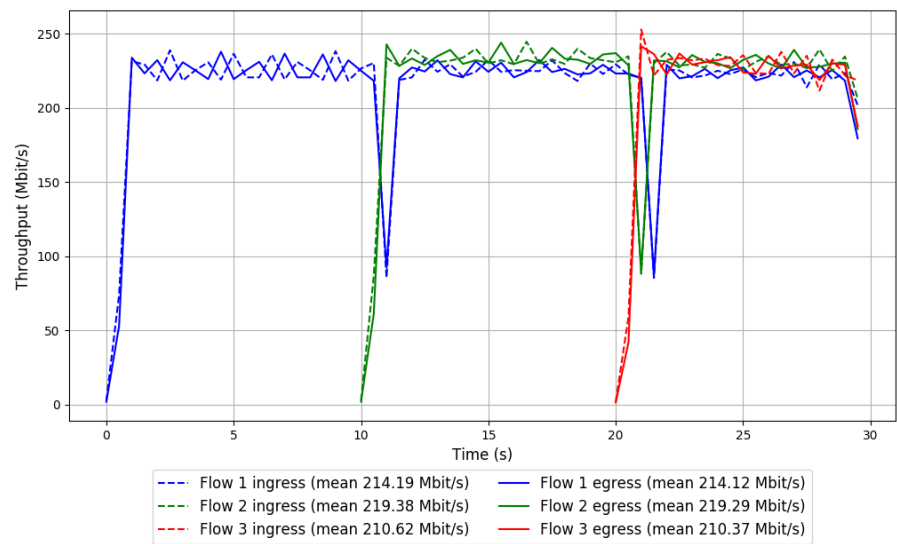
-- Flow 3:

Average throughput: 210.37 Mbit/s

95th percentile per-packet one-way delay: 54.314 ms

Loss rate: 1.16%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-10-12 10:31:49

End at: 2017-10-12 10:32:19

Below is generated by plot.py at 2017-10-12 14:42:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 426.25 Mbit/s

95th percentile per-packet one-way delay: 54.322 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 220.88 Mbit/s

95th percentile per-packet one-way delay: 53.711 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 208.13 Mbit/s

95th percentile per-packet one-way delay: 54.058 ms

Loss rate: 0.56%

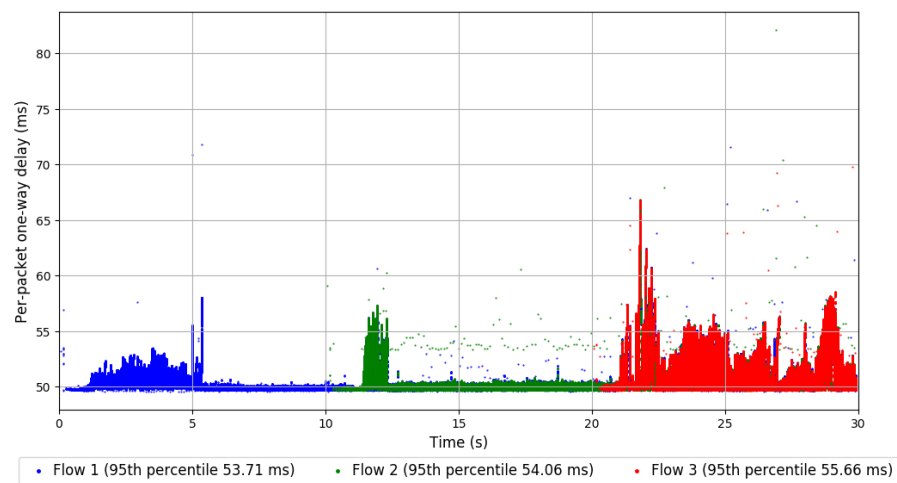
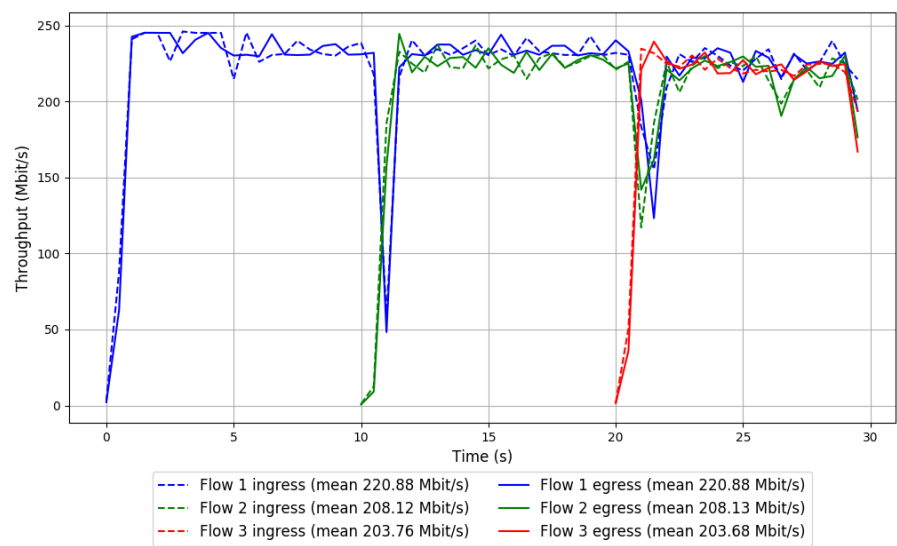
-- Flow 3:

Average throughput: 203.68 Mbit/s

95th percentile per-packet one-way delay: 55.662 ms

Loss rate: 1.12%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-10-12 10:44:43

End at: 2017-10-12 10:45:13

Below is generated by plot.py at 2017-10-12 14:42:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 417.59 Mbit/s

95th percentile per-packet one-way delay: 54.622 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 212.66 Mbit/s

95th percentile per-packet one-way delay: 53.795 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 211.87 Mbit/s

95th percentile per-packet one-way delay: 54.743 ms

Loss rate: 0.55%

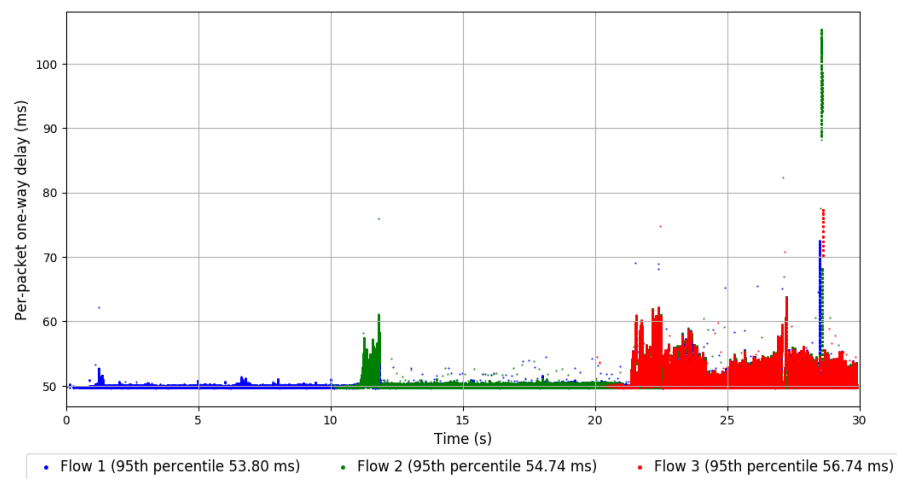
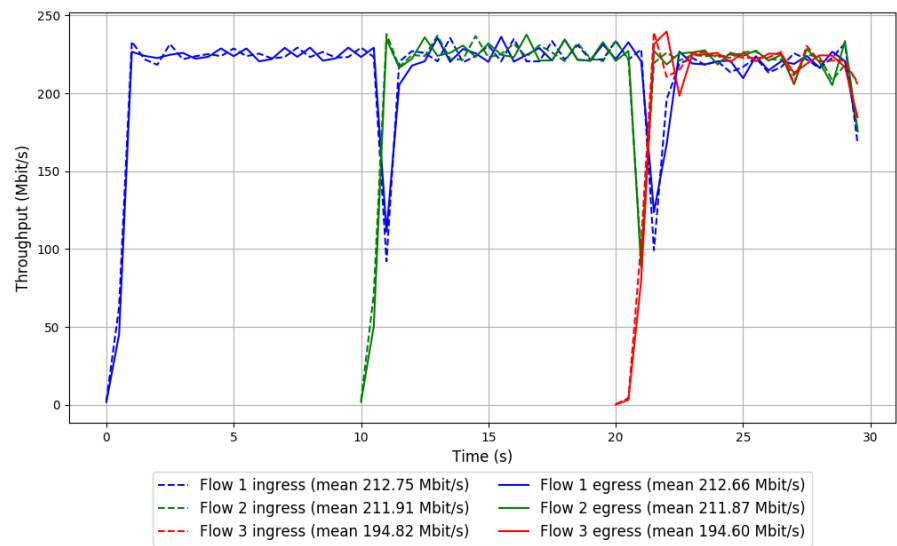
-- Flow 3:

Average throughput: 194.60 Mbit/s

95th percentile per-packet one-way delay: 56.739 ms

Loss rate: 1.21%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-10-12 10:57:25

End at: 2017-10-12 10:57:55

Below is generated by plot.py at 2017-10-12 14:42:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 425.85 Mbit/s

95th percentile per-packet one-way delay: 55.335 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 213.13 Mbit/s

95th percentile per-packet one-way delay: 54.650 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 216.98 Mbit/s

95th percentile per-packet one-way delay: 55.406 ms

Loss rate: 0.62%

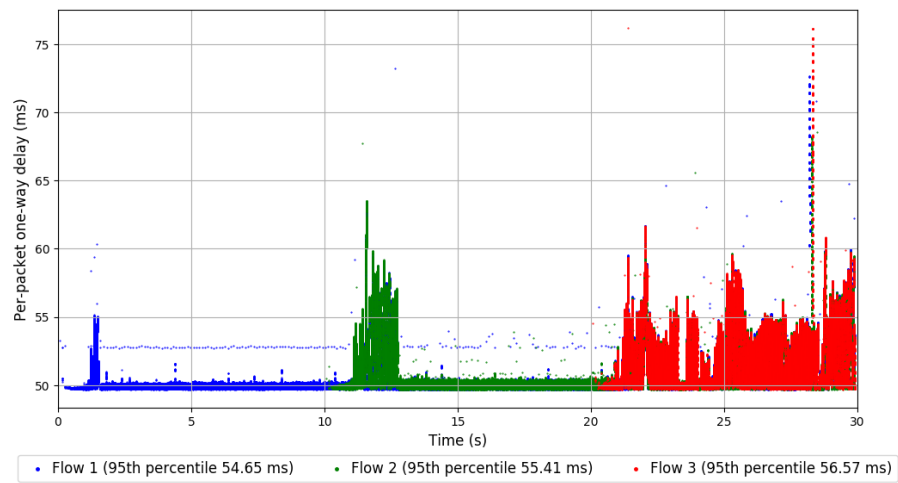
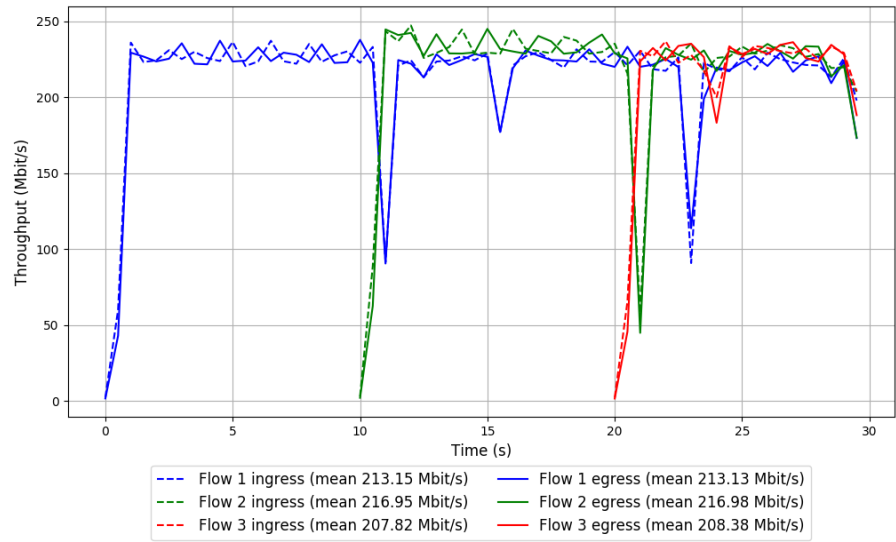
-- Flow 3:

Average throughput: 208.38 Mbit/s

95th percentile per-packet one-way delay: 56.572 ms

Loss rate: 0.97%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-10-12 11:10:14

End at: 2017-10-12 11:10:44

Below is generated by plot.py at 2017-10-12 14:42:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 421.75 Mbit/s

95th percentile per-packet one-way delay: 55.682 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 212.92 Mbit/s

95th percentile per-packet one-way delay: 54.743 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 212.25 Mbit/s

95th percentile per-packet one-way delay: 55.444 ms

Loss rate: 0.56%

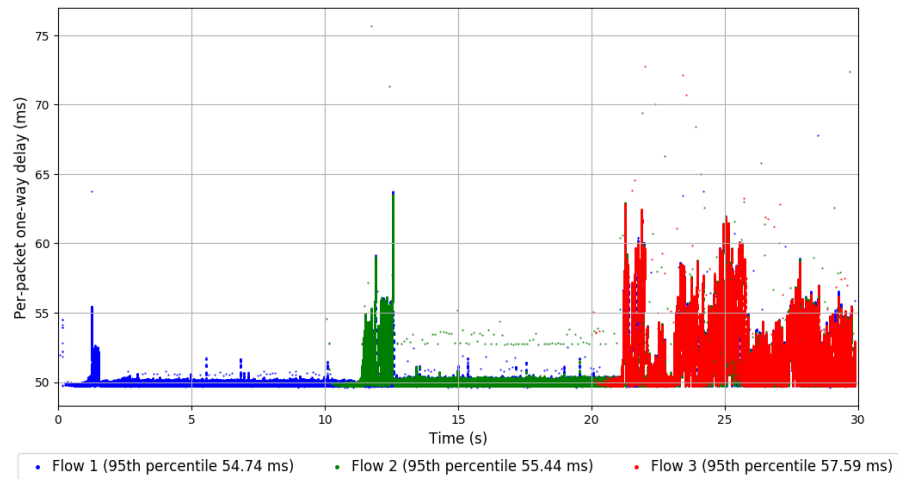
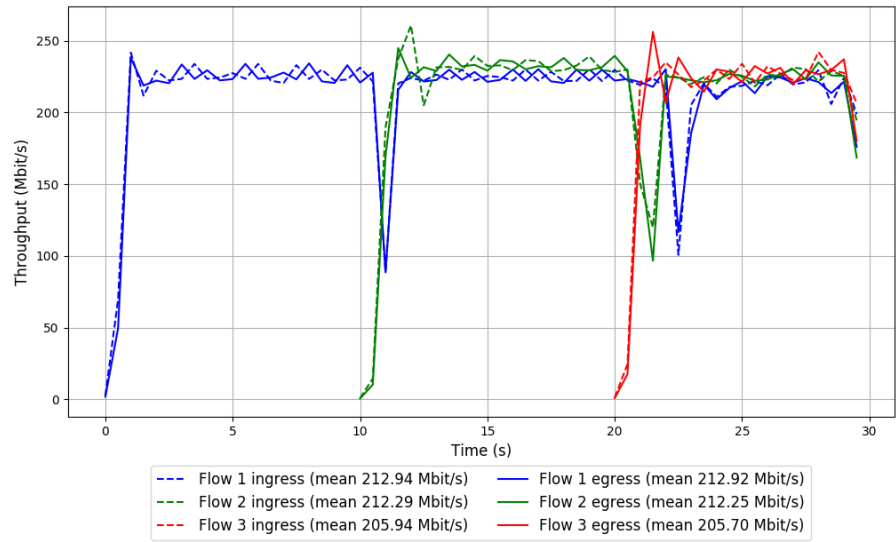
-- Flow 3:

Average throughput: 205.70 Mbit/s

95th percentile per-packet one-way delay: 57.590 ms

Loss rate: 1.20%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-10-12 11:23:01

End at: 2017-10-12 11:23:31

Below is generated by plot.py at 2017-10-12 14:42:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 423.24 Mbit/s

95th percentile per-packet one-way delay: 52.577 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 212.28 Mbit/s

95th percentile per-packet one-way delay: 51.880 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 217.32 Mbit/s

95th percentile per-packet one-way delay: 52.625 ms

Loss rate: 0.45%

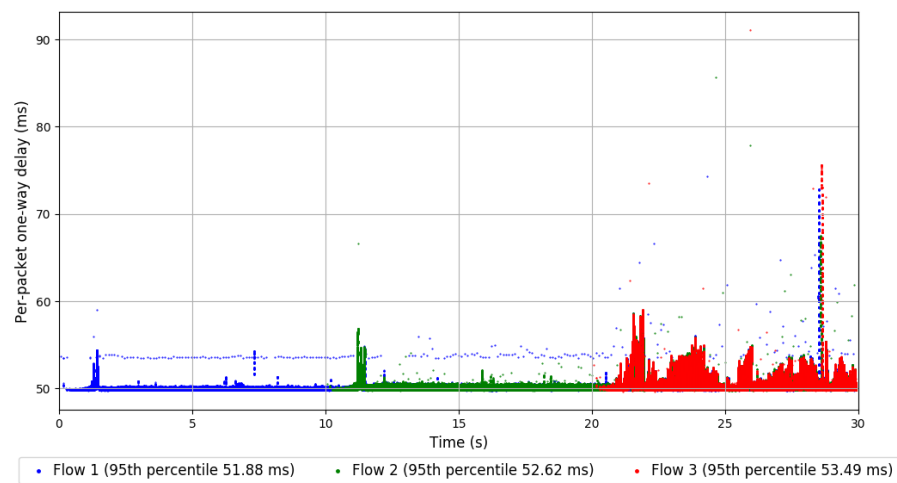
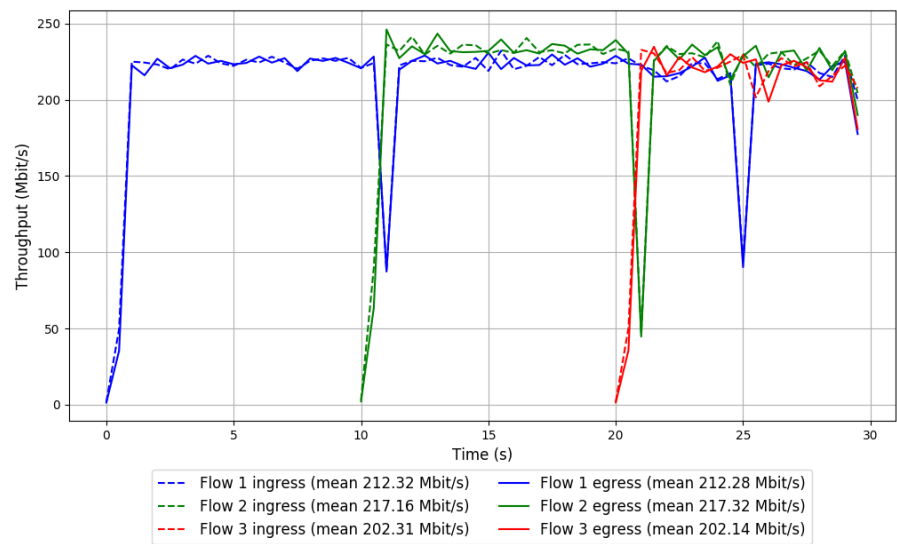
-- Flow 3:

Average throughput: 202.14 Mbit/s

95th percentile per-packet one-way delay: 53.494 ms

Loss rate: 1.14%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-10-12 11:35:46

End at: 2017-10-12 11:36:16

Below is generated by plot.py at 2017-10-12 14:42:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 423.82 Mbit/s

95th percentile per-packet one-way delay: 55.770 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 212.88 Mbit/s

95th percentile per-packet one-way delay: 55.322 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 217.19 Mbit/s

95th percentile per-packet one-way delay: 55.654 ms

Loss rate: 0.56%

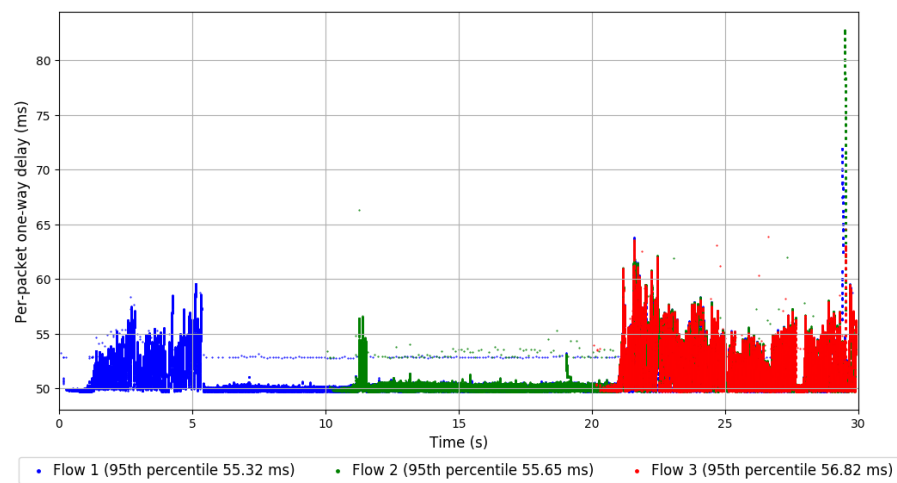
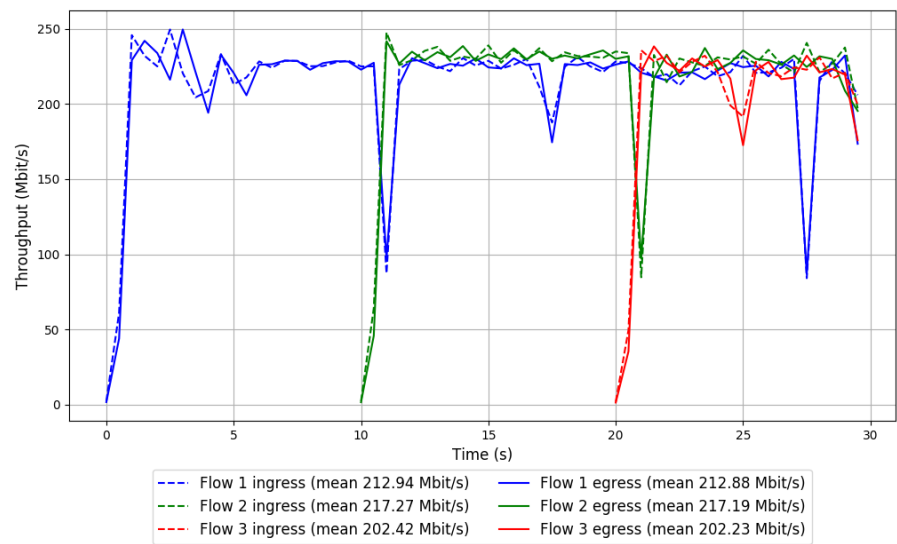
-- Flow 3:

Average throughput: 202.23 Mbit/s

95th percentile per-packet one-way delay: 56.816 ms

Loss rate: 1.17%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-10-12 11:48:05

End at: 2017-10-12 11:48:35

Below is generated by plot.py at 2017-10-12 14:42:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 429.90 Mbit/s

95th percentile per-packet one-way delay: 55.406 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 219.66 Mbit/s

95th percentile per-packet one-way delay: 54.660 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 218.18 Mbit/s

95th percentile per-packet one-way delay: 55.328 ms

Loss rate: 0.21%

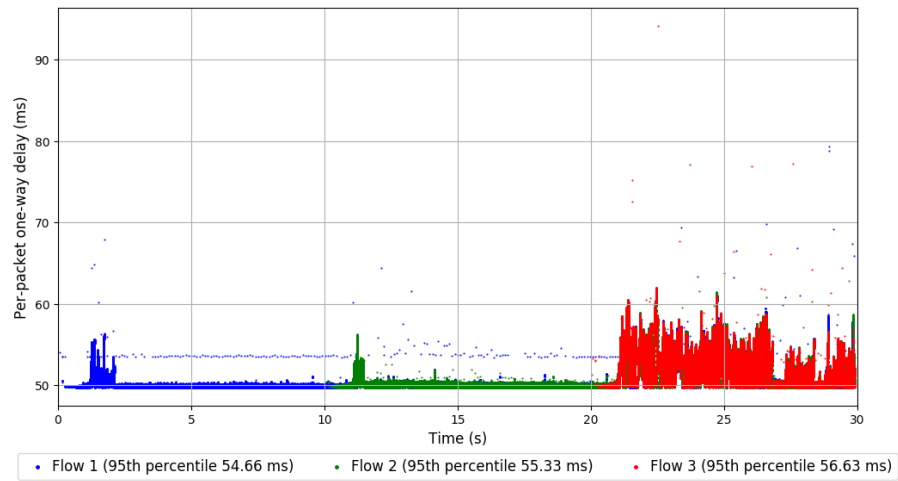
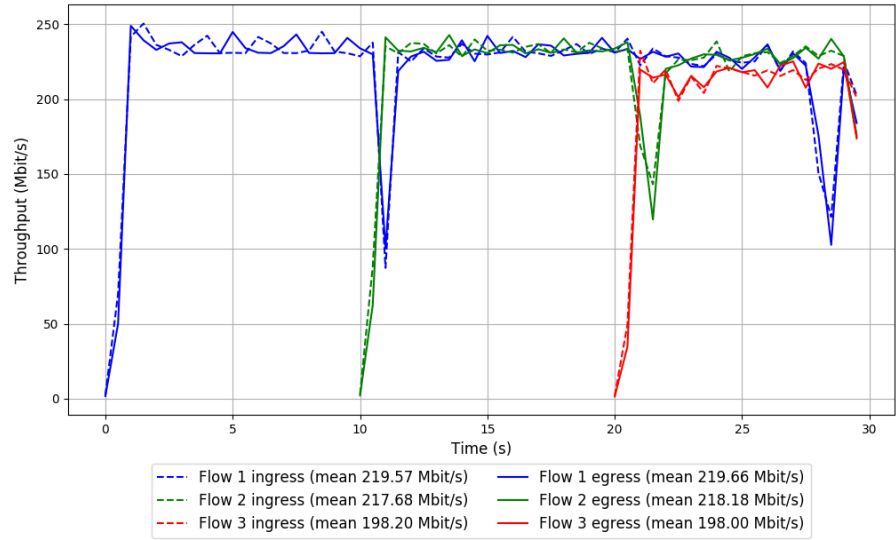
-- Flow 3:

Average throughput: 198.00 Mbit/s

95th percentile per-packet one-way delay: 56.632 ms

Loss rate: 1.18%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-10-12 12:00:35

End at: 2017-10-12 12:01:05

Below is generated by plot.py at 2017-10-12 14:49:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 429.99 Mbit/s

95th percentile per-packet one-way delay: 56.789 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 222.46 Mbit/s

95th percentile per-packet one-way delay: 55.369 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 209.40 Mbit/s

95th percentile per-packet one-way delay: 56.936 ms

Loss rate: 0.57%

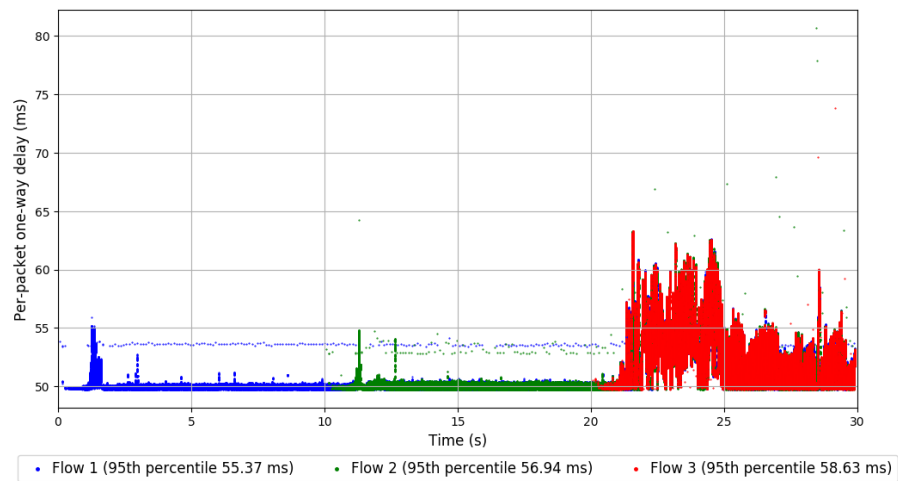
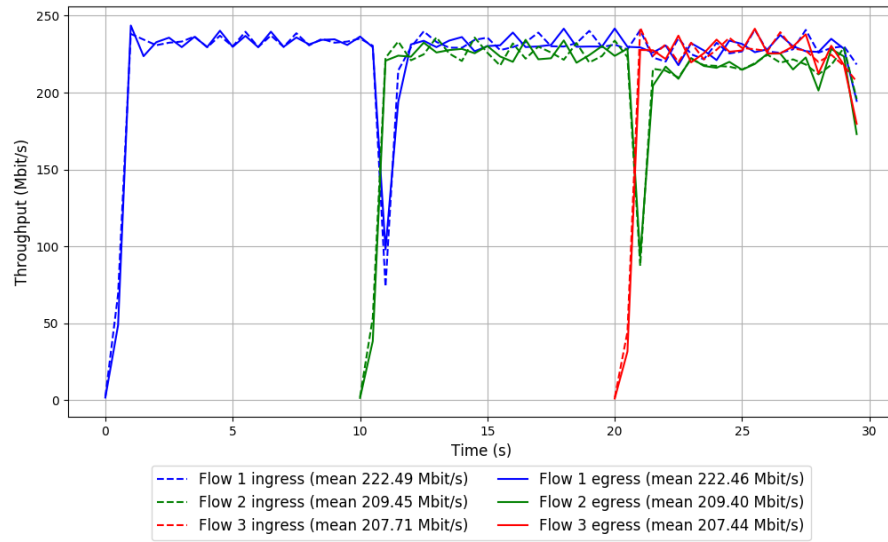
-- Flow 3:

Average throughput: 207.44 Mbit/s

95th percentile per-packet one-way delay: 58.635 ms

Loss rate: 1.17%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

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

End at: 2017-10-12 12:13:17

Below is generated by plot.py at 2017-10-12 14:49:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 425.89 Mbit/s

95th percentile per-packet one-way delay: 57.078 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 220.15 Mbit/s

95th percentile per-packet one-way delay: 55.762 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 209.62 Mbit/s

95th percentile per-packet one-way delay: 57.222 ms

Loss rate: 0.57%

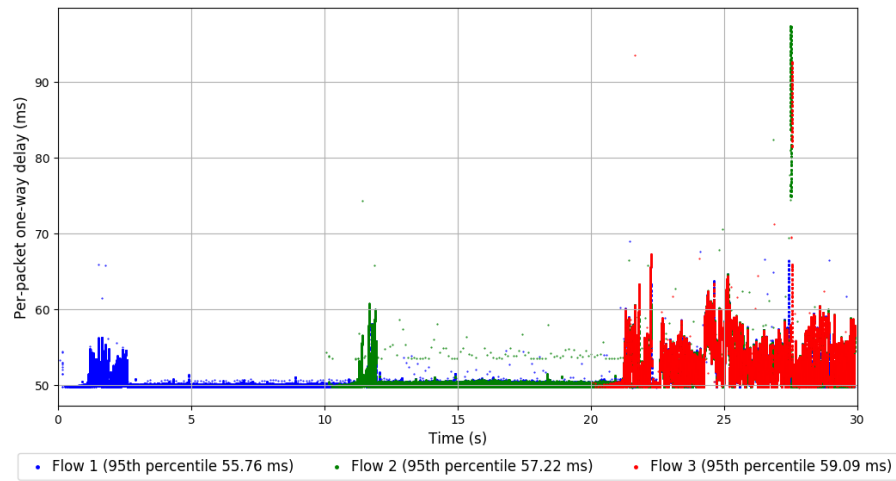
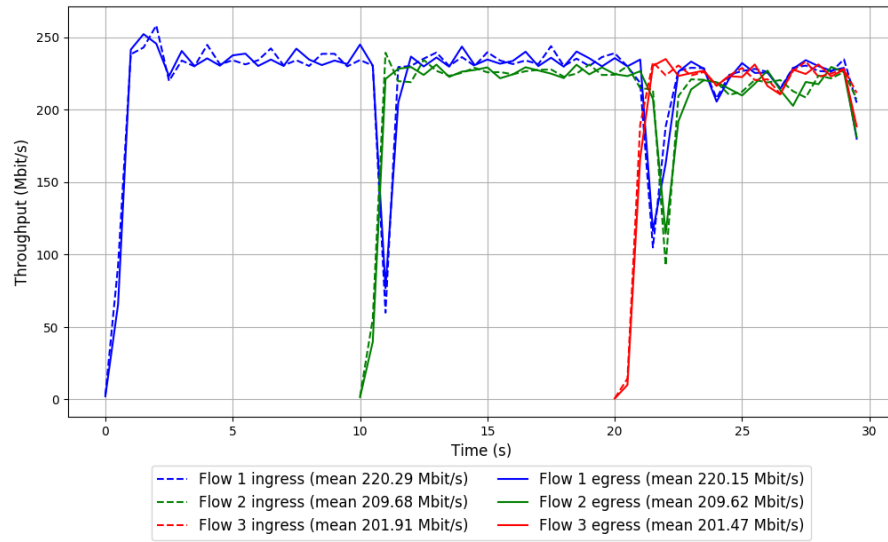
-- Flow 3:

Average throughput: 201.47 Mbit/s

95th percentile per-packet one-way delay: 59.094 ms

Loss rate: 1.23%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-10-12 10:24:22

End at: 2017-10-12 10:24:52

Below is generated by plot.py at 2017-10-12 14:49:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 279.97 Mbit/s

95th percentile per-packet one-way delay: 52.037 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 163.43 Mbit/s

95th percentile per-packet one-way delay: 52.024 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 118.61 Mbit/s

95th percentile per-packet one-way delay: 51.705 ms

Loss rate: 0.66%

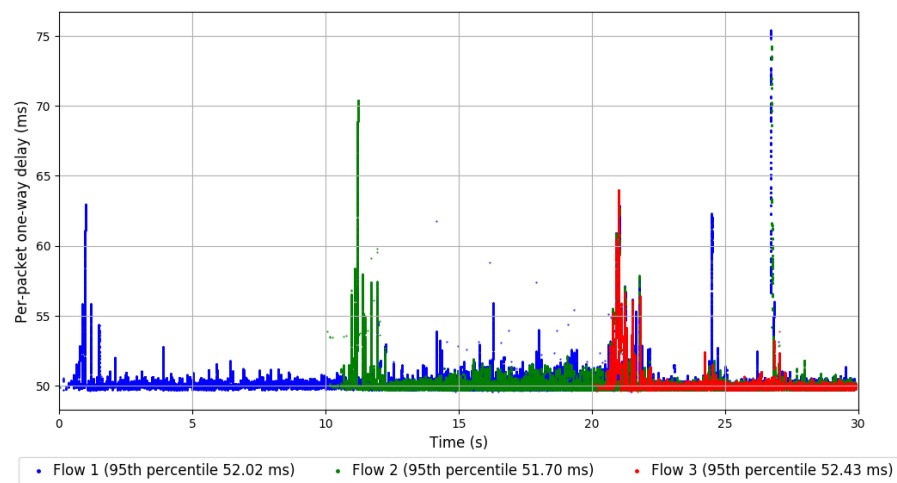
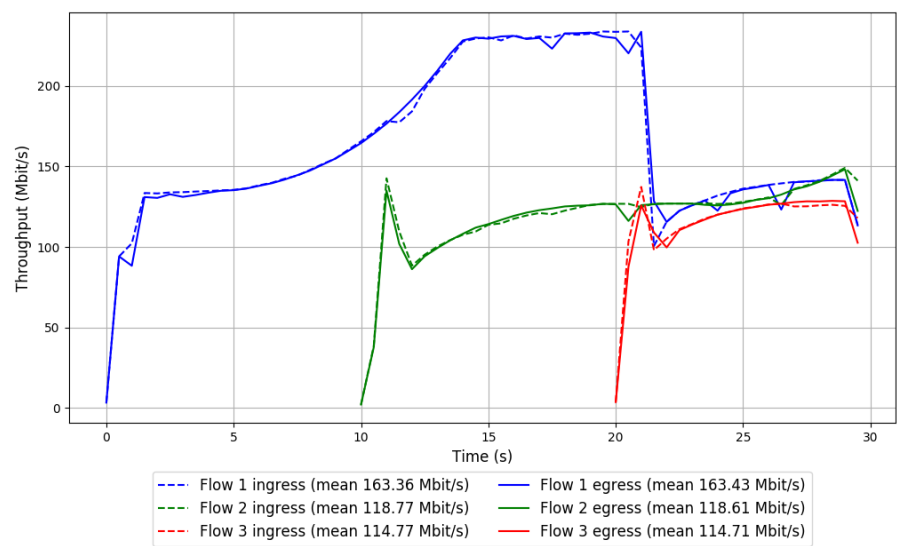
-- Flow 3:

Average throughput: 114.71 Mbit/s

95th percentile per-packet one-way delay: 52.432 ms

Loss rate: 1.12%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-10-12 10:37:09

End at: 2017-10-12 10:37:39

Below is generated by plot.py at 2017-10-12 14:49:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 249.48 Mbit/s

95th percentile per-packet one-way delay: 51.870 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 147.15 Mbit/s

95th percentile per-packet one-way delay: 51.729 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 151.65 Mbit/s

95th percentile per-packet one-way delay: 52.234 ms

Loss rate: 0.78%

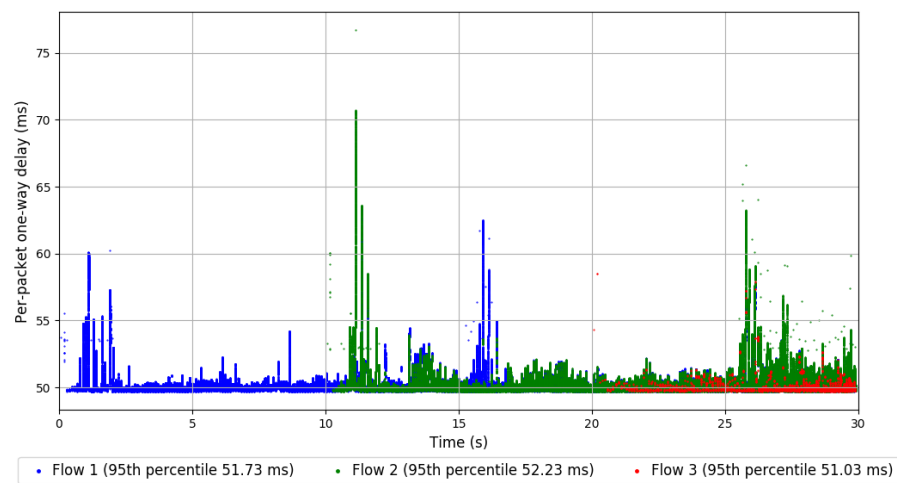
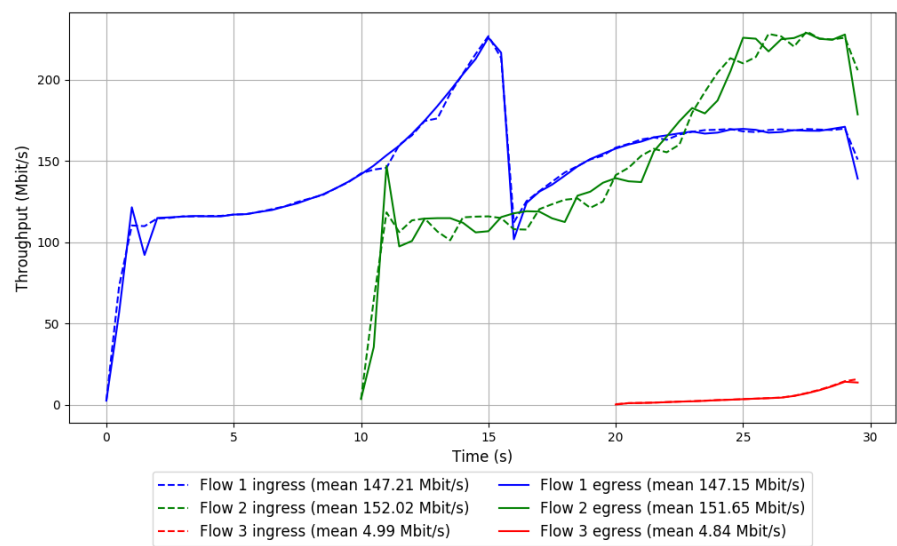
-- Flow 3:

Average throughput: 4.84 Mbit/s

95th percentile per-packet one-way delay: 51.026 ms

Loss rate: 4.05%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

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

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

Below is generated by plot.py at 2017-10-12 14:49:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 246.51 Mbit/s

95th percentile per-packet one-way delay: 53.053 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 114.75 Mbit/s

95th percentile per-packet one-way delay: 53.133 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 125.35 Mbit/s

95th percentile per-packet one-way delay: 52.756 ms

Loss rate: 0.65%

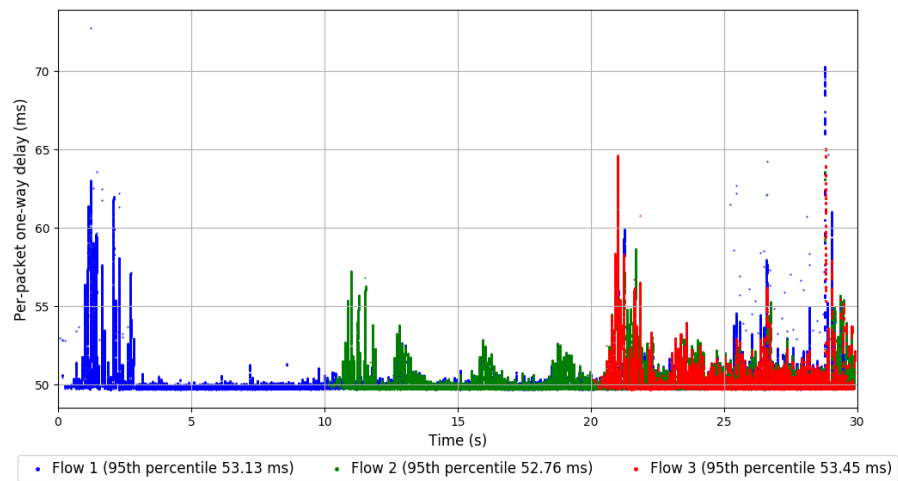
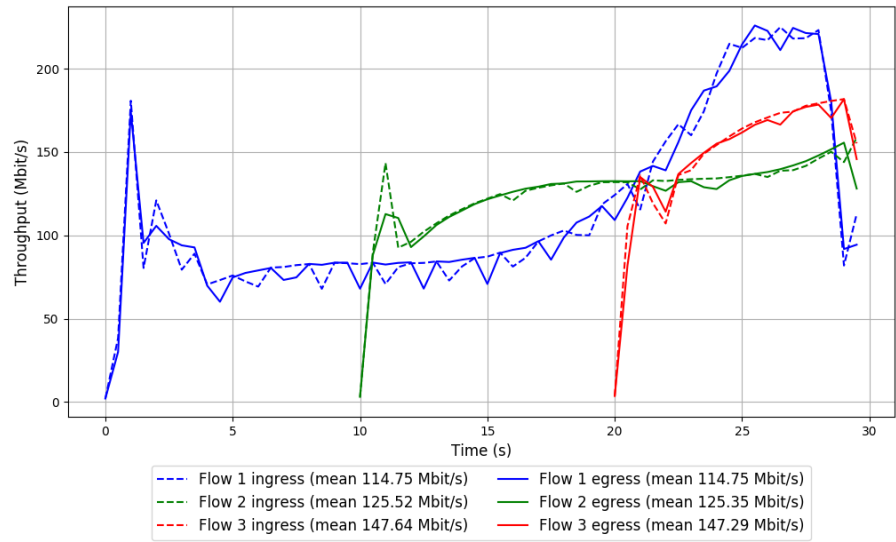
-- Flow 3:

Average throughput: 147.29 Mbit/s

95th percentile per-packet one-way delay: 53.452 ms

Loss rate: 1.25%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-10-12 11:02:47

End at: 2017-10-12 11:03:17

Below is generated by plot.py at 2017-10-12 14:49:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 280.34 Mbit/s

95th percentile per-packet one-way delay: 55.510 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 118.37 Mbit/s

95th percentile per-packet one-way delay: 55.067 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 198.54 Mbit/s

95th percentile per-packet one-way delay: 55.738 ms

Loss rate: 0.58%

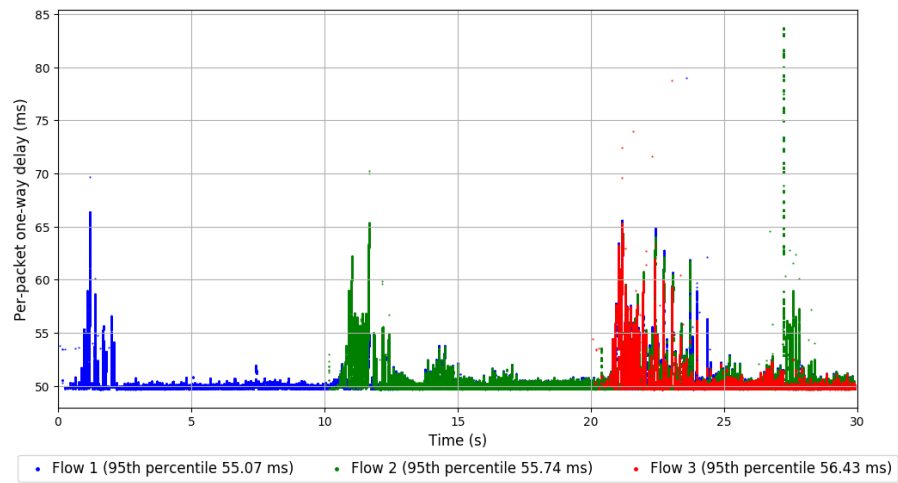
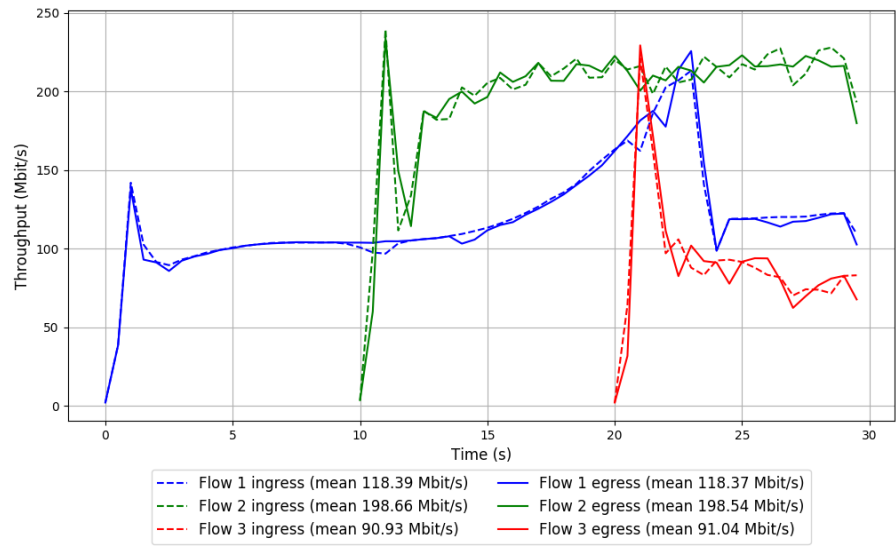
-- Flow 3:

Average throughput: 91.04 Mbit/s

95th percentile per-packet one-way delay: 56.430 ms

Loss rate: 0.97%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-10-12 11:15:36

End at: 2017-10-12 11:16:06

Below is generated by plot.py at 2017-10-12 14:49:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 245.88 Mbit/s

95th percentile per-packet one-way delay: 56.112 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 147.64 Mbit/s

95th percentile per-packet one-way delay: 55.559 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 96.00 Mbit/s

95th percentile per-packet one-way delay: 56.926 ms

Loss rate: 0.55%

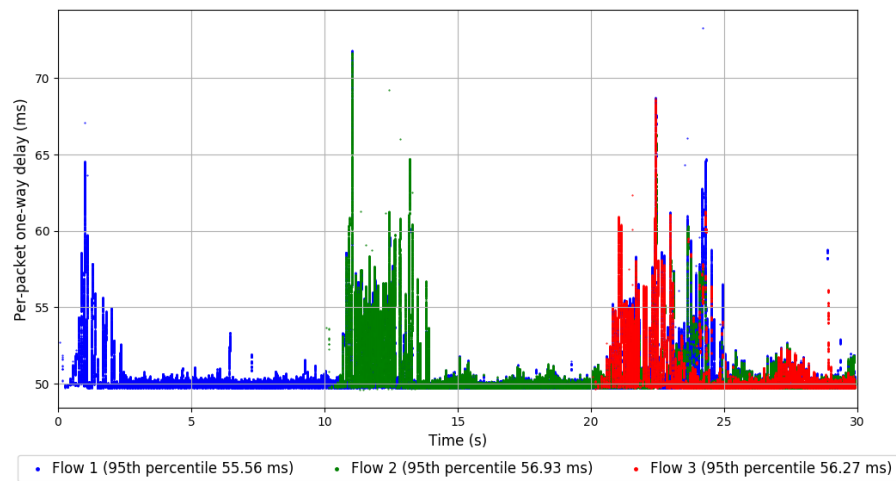
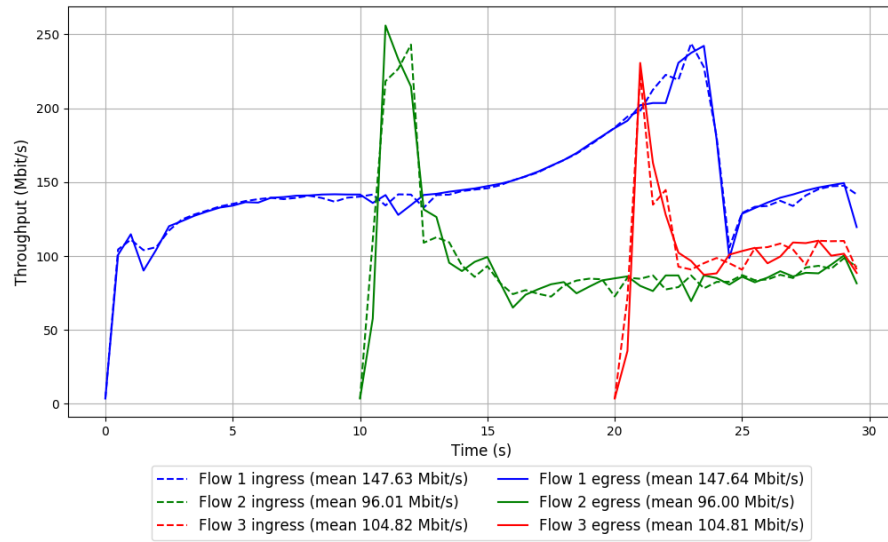
-- Flow 3:

Average throughput: 104.81 Mbit/s

95th percentile per-packet one-way delay: 56.269 ms

Loss rate: 1.07%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-10-12 11:28:23

End at: 2017-10-12 11:28:53

Below is generated by plot.py at 2017-10-12 14:49:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 253.01 Mbit/s

95th percentile per-packet one-way delay: 54.196 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 120.15 Mbit/s

95th percentile per-packet one-way delay: 52.774 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 148.82 Mbit/s

95th percentile per-packet one-way delay: 55.232 ms

Loss rate: 0.60%

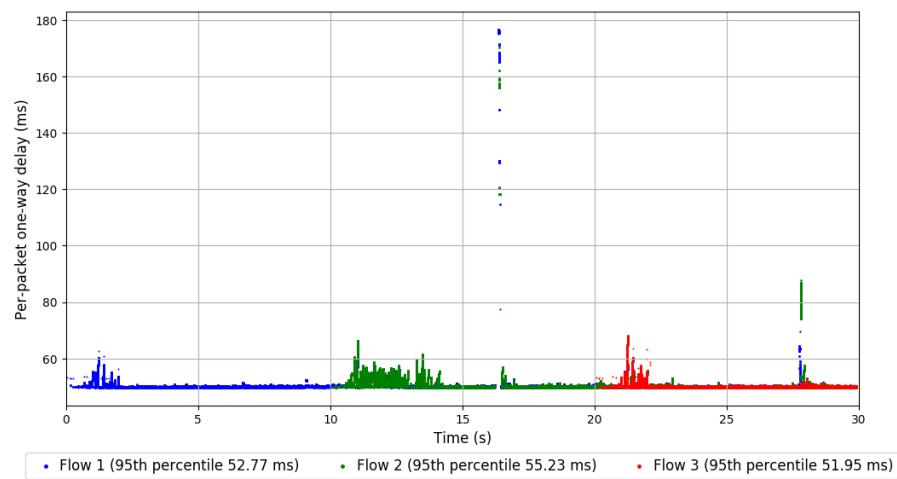
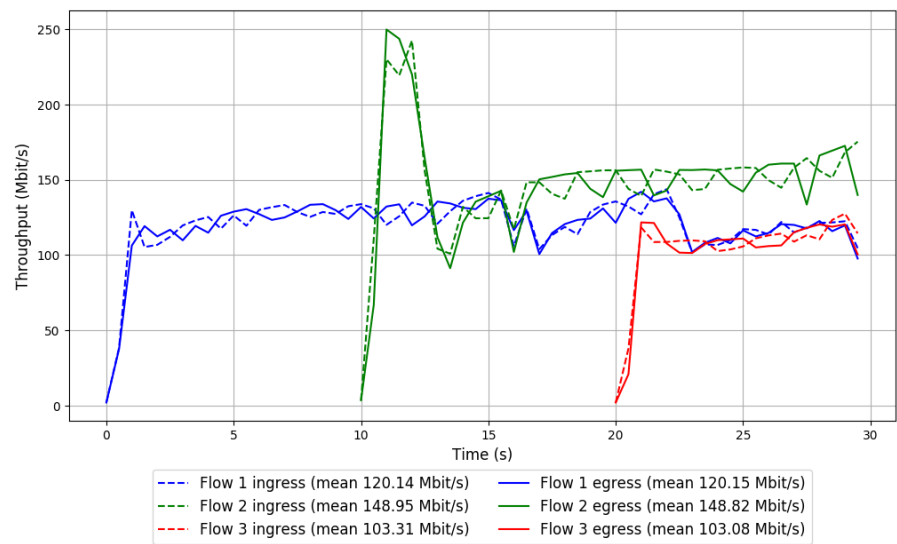
-- Flow 3:

Average throughput: 103.08 Mbit/s

95th percentile per-packet one-way delay: 51.945 ms

Loss rate: 1.29%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-10-12 11:41:01

End at: 2017-10-12 11:41:31

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 274.25 Mbit/s

95th percentile per-packet one-way delay: 56.049 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 132.11 Mbit/s

95th percentile per-packet one-way delay: 55.118 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 122.40 Mbit/s

95th percentile per-packet one-way delay: 56.739 ms

Loss rate: 0.44%

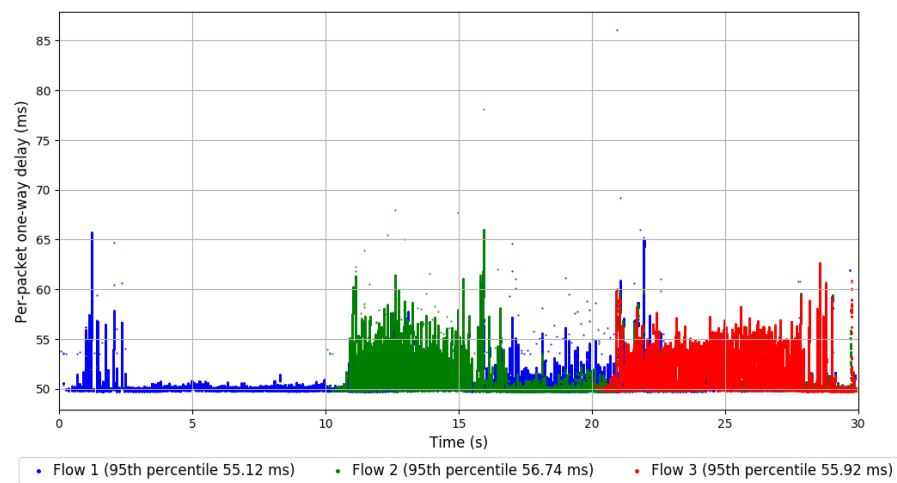
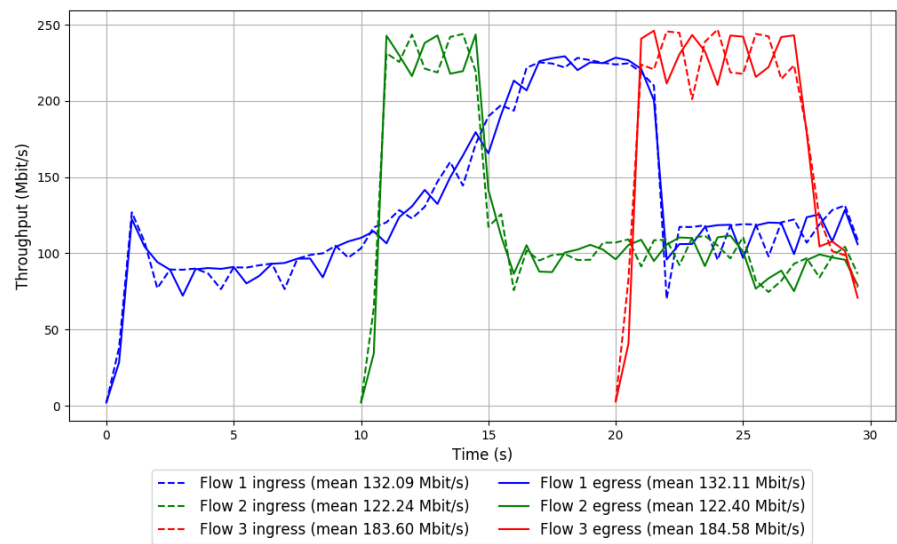
-- Flow 3:

Average throughput: 184.58 Mbit/s

95th percentile per-packet one-way delay: 55.923 ms

Loss rate: 0.52%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-10-12 11:53:24

End at: 2017-10-12 11:53:54

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 249.26 Mbit/s

95th percentile per-packet one-way delay: 52.981 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 106.95 Mbit/s

95th percentile per-packet one-way delay: 53.063 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 137.65 Mbit/s

95th percentile per-packet one-way delay: 52.855 ms

Loss rate: 0.68%

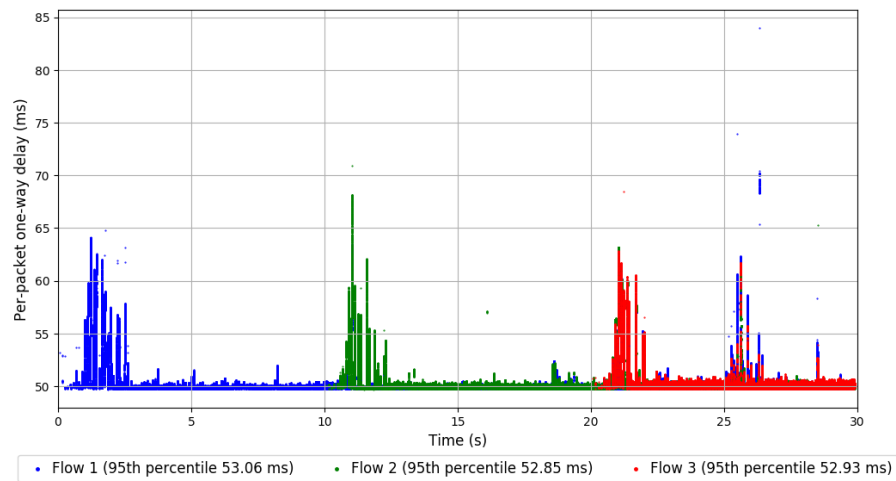
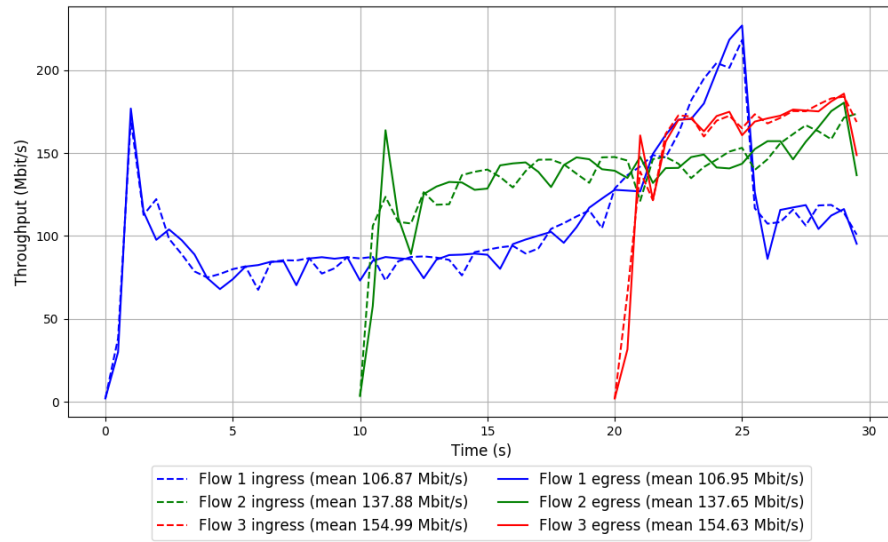
-- Flow 3:

Average throughput: 154.63 Mbit/s

95th percentile per-packet one-way delay: 52.930 ms

Loss rate: 1.27%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-10-12 12:05:51

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

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 232.72 Mbit/s

95th percentile per-packet one-way delay: 54.637 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 112.15 Mbit/s

95th percentile per-packet one-way delay: 54.902 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 113.72 Mbit/s

95th percentile per-packet one-way delay: 53.078 ms

Loss rate: 0.56%

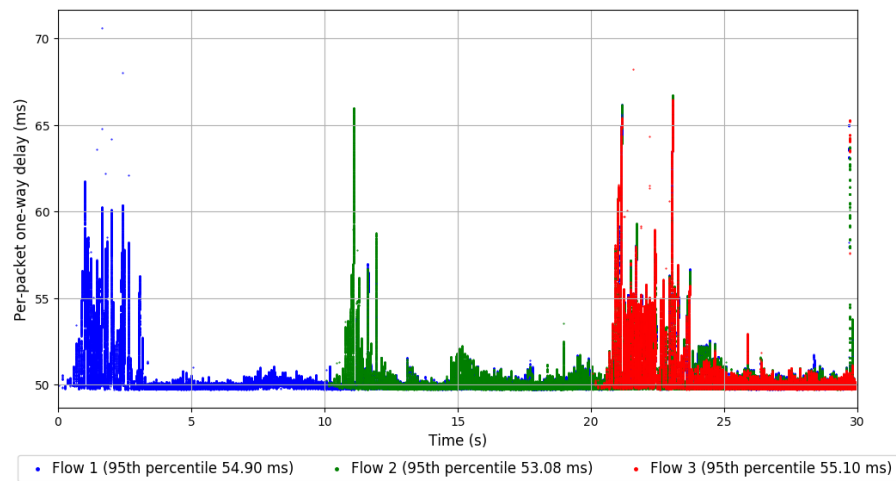
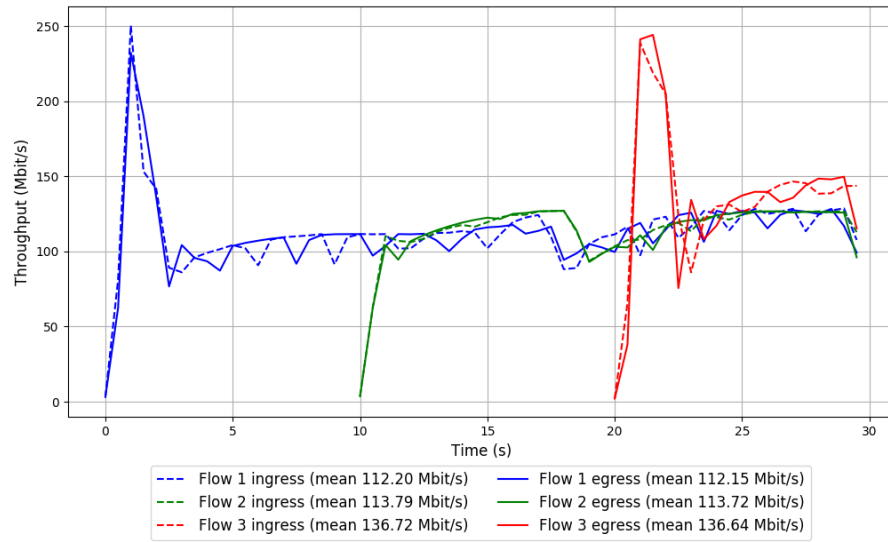
-- Flow 3:

Average throughput: 136.64 Mbit/s

95th percentile per-packet one-way delay: 55.097 ms

Loss rate: 1.10%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-10-12 12:18:08

End at: 2017-10-12 12:18:38

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 218.43 Mbit/s

95th percentile per-packet one-way delay: 54.133 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 108.48 Mbit/s

95th percentile per-packet one-way delay: 53.988 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 99.27 Mbit/s

95th percentile per-packet one-way delay: 52.461 ms

Loss rate: 0.49%

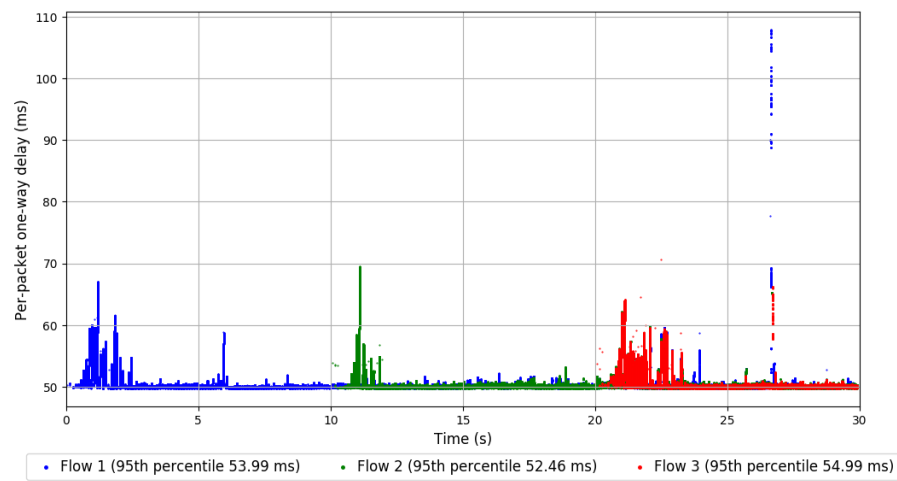
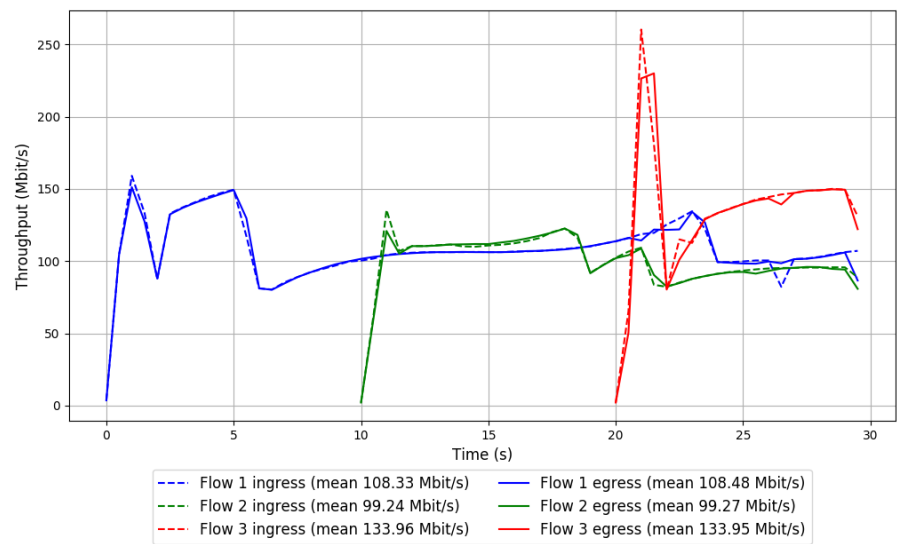
-- Flow 3:

Average throughput: 133.95 Mbit/s

95th percentile per-packet one-way delay: 54.990 ms

Loss rate: 1.14%

Run 10: Report of TCP Cubic — Data Link

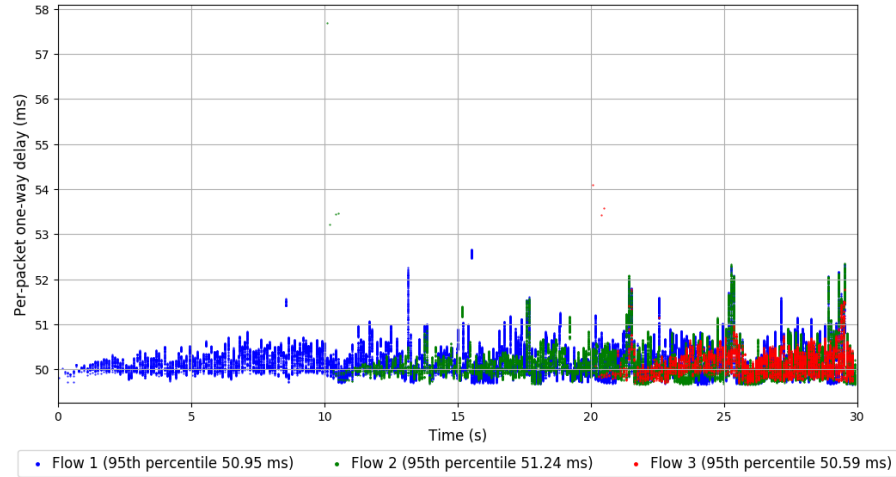
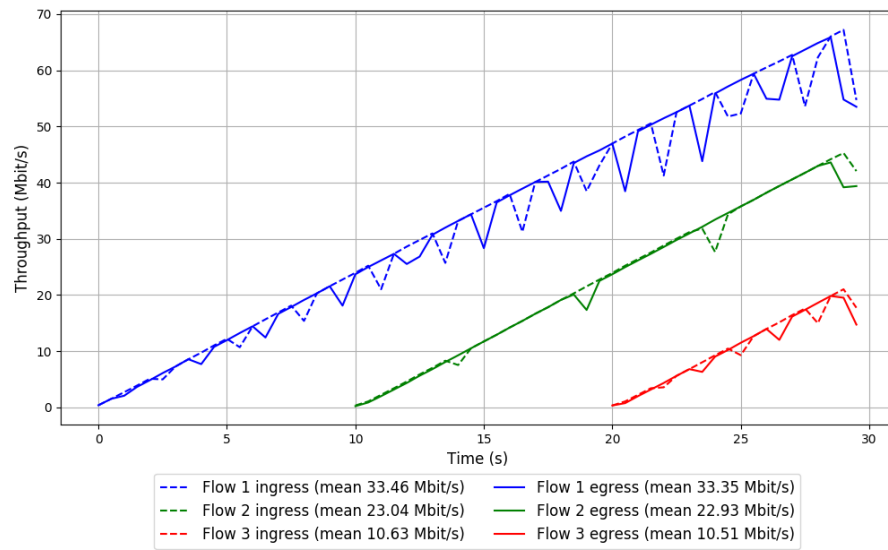


```
Run 1: Statistics of LEDBAT

Start at: 2017-10-12 10:22:55
End at: 2017-10-12 10:23:25

# Below is generated by plot.py at 2017-10-12 14:50:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.89 Mbit/s
95th percentile per-packet one-way delay: 50.976 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 33.35 Mbit/s
95th percentile per-packet one-way delay: 50.946 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 22.93 Mbit/s
95th percentile per-packet one-way delay: 51.240 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 10.51 Mbit/s
95th percentile per-packet one-way delay: 50.594 ms
Loss rate: 2.15%
```


Run 1: Report of LEDBAT — Data Link

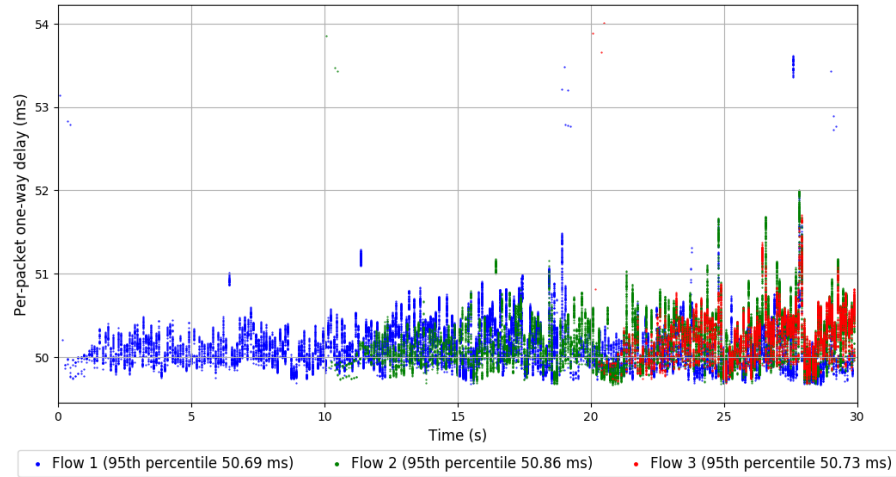
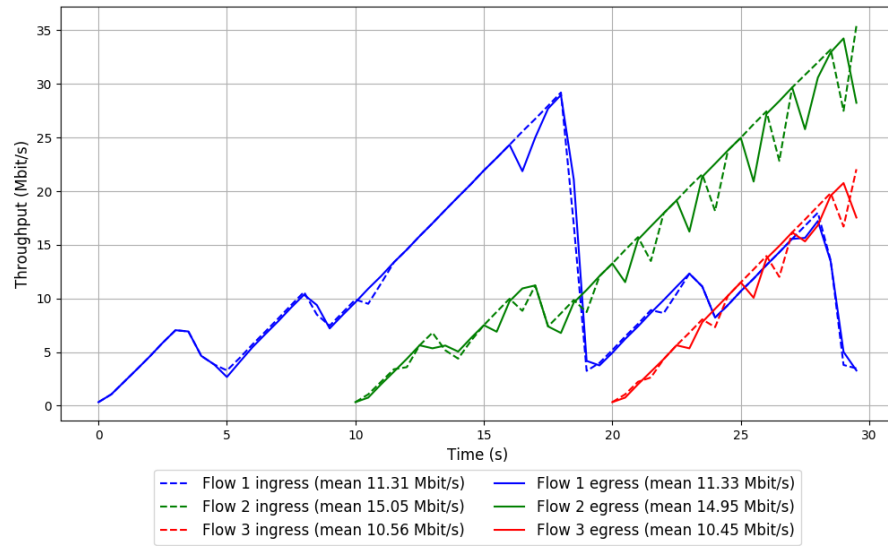


```
Run 2: Statistics of LEDBAT

Start at: 2017-10-12 10:35:42
End at: 2017-10-12 10:36:12

# Below is generated by plot.py at 2017-10-12 14:50:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 50.749 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 11.33 Mbit/s
95th percentile per-packet one-way delay: 50.685 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 14.95 Mbit/s
95th percentile per-packet one-way delay: 50.861 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 10.45 Mbit/s
95th percentile per-packet one-way delay: 50.732 ms
Loss rate: 2.15%
```

Run 2: Report of LEDBAT — Data Link

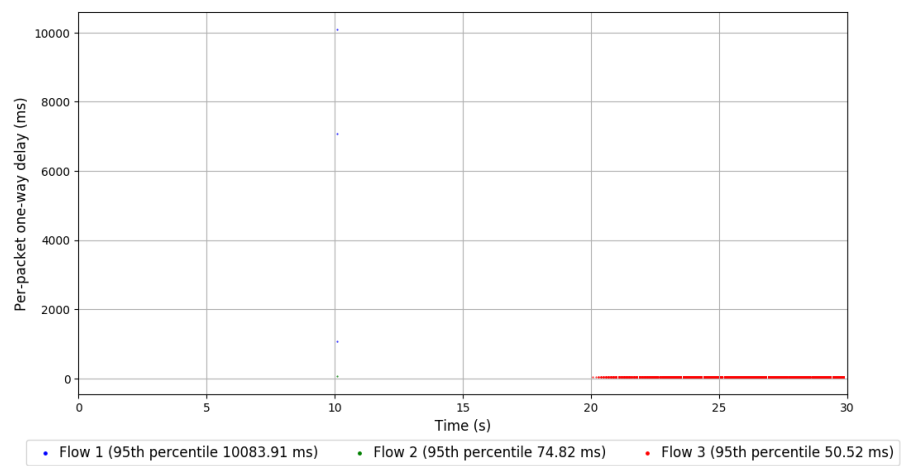
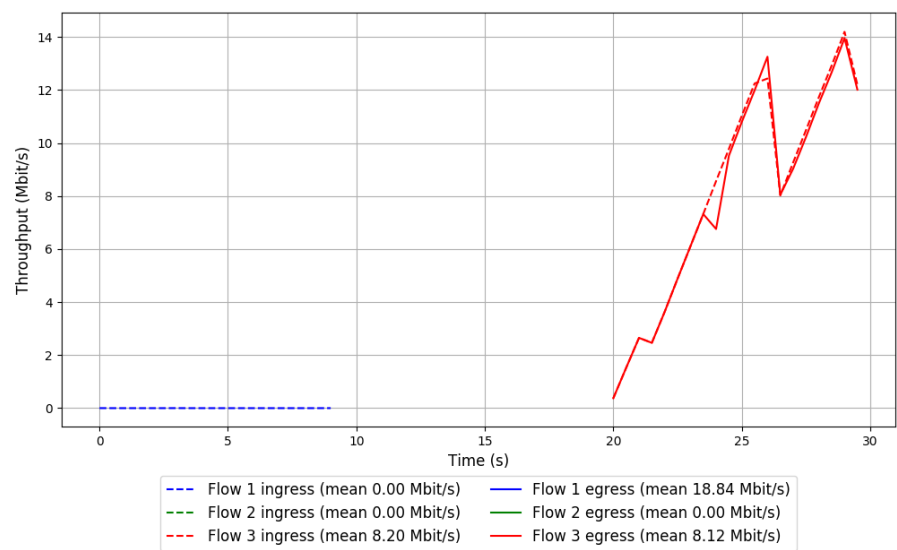


Run 3: Statistics of LEDBAT

Start at: 2017-10-12 10:48:36

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

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-10-12 11:01:20

End at: 2017-10-12 11:01:50

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.16 Mbit/s

95th percentile per-packet one-way delay: 50.670 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 16.99 Mbit/s

95th percentile per-packet one-way delay: 50.561 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 13.83 Mbit/s

95th percentile per-packet one-way delay: 50.797 ms

Loss rate: 0.75%

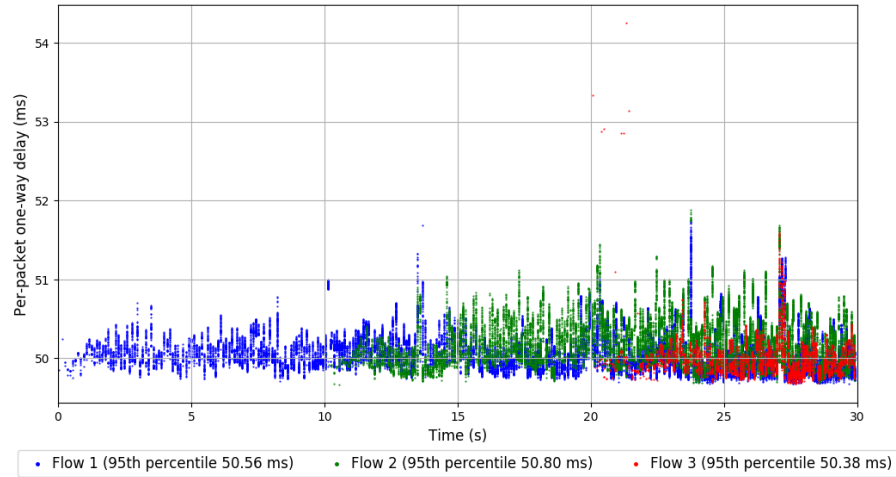
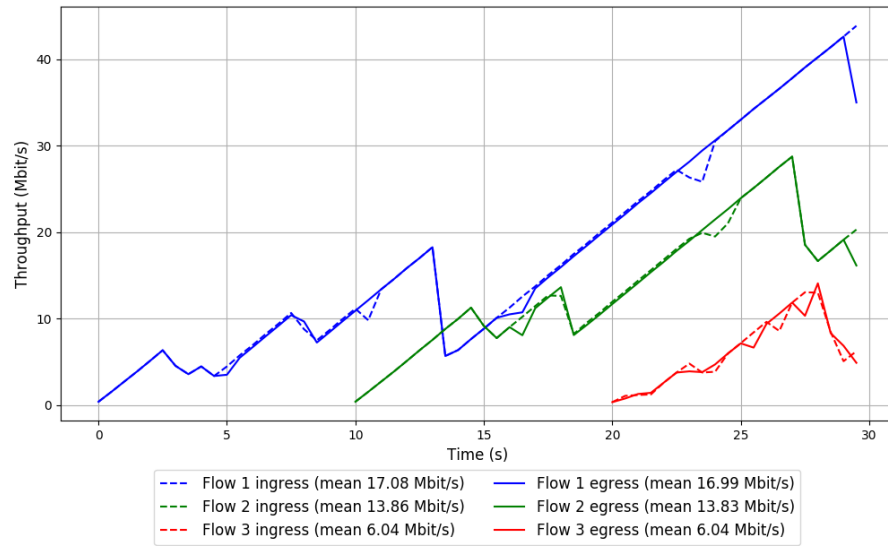
-- Flow 3:

Average throughput: 6.04 Mbit/s

95th percentile per-packet one-way delay: 50.379 ms

Loss rate: 1.12%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-10-12 11:14:10

End at: 2017-10-12 11:14:40

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 27.37 Mbit/s

95th percentile per-packet one-way delay: 50.721 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 16.96 Mbit/s

95th percentile per-packet one-way delay: 50.722 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 11.42 Mbit/s

95th percentile per-packet one-way delay: 50.739 ms

Loss rate: 1.34%

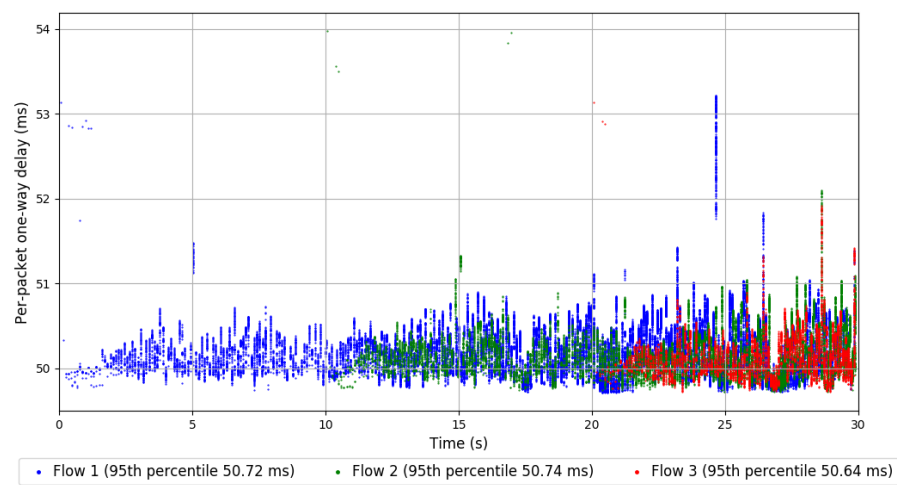
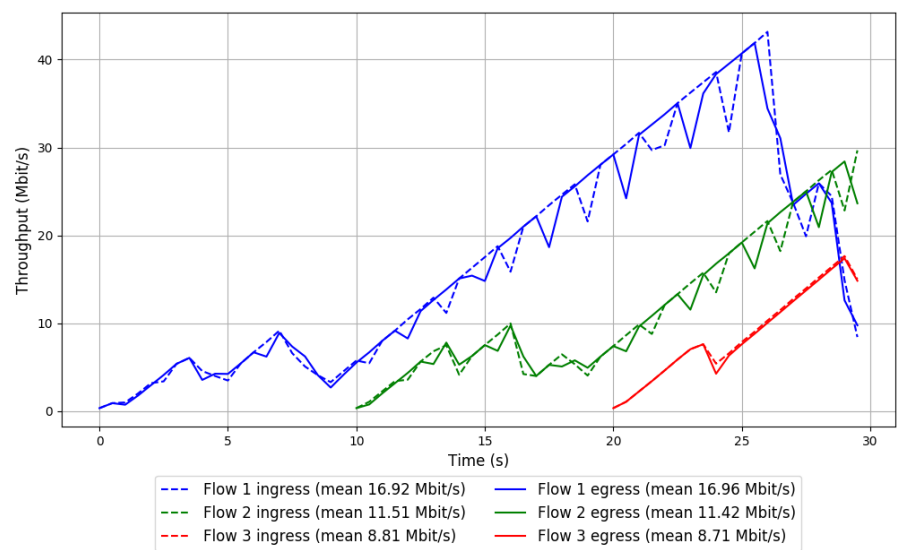
-- Flow 3:

Average throughput: 8.71 Mbit/s

95th percentile per-packet one-way delay: 50.643 ms

Loss rate: 2.20%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-10-12 11:26:56

End at: 2017-10-12 11:27:26

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.77 Mbit/s

95th percentile per-packet one-way delay: 50.693 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 13.02 Mbit/s

95th percentile per-packet one-way delay: 50.723 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 10.67 Mbit/s

95th percentile per-packet one-way delay: 50.673 ms

Loss rate: 0.52%

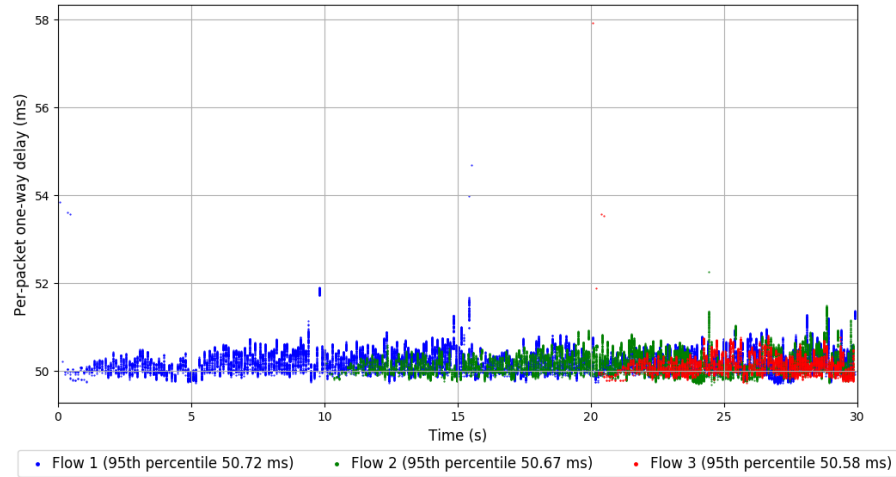
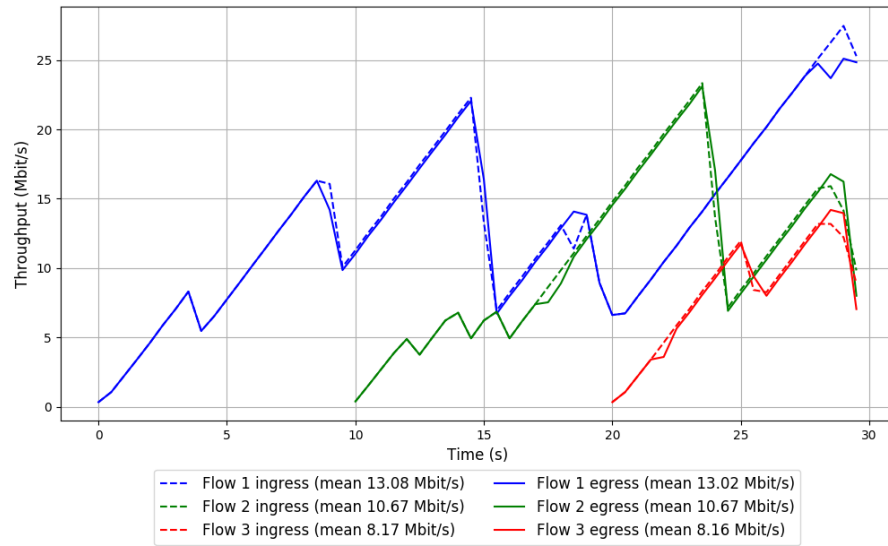
-- Flow 3:

Average throughput: 8.16 Mbit/s

95th percentile per-packet one-way delay: 50.581 ms

Loss rate: 1.16%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-10-12 11:39:37

End at: 2017-10-12 11:40:07

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 27.48 Mbit/s

95th percentile per-packet one-way delay: 50.942 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 20.22 Mbit/s

95th percentile per-packet one-way delay: 51.017 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 50.636 ms

Loss rate: 0.63%

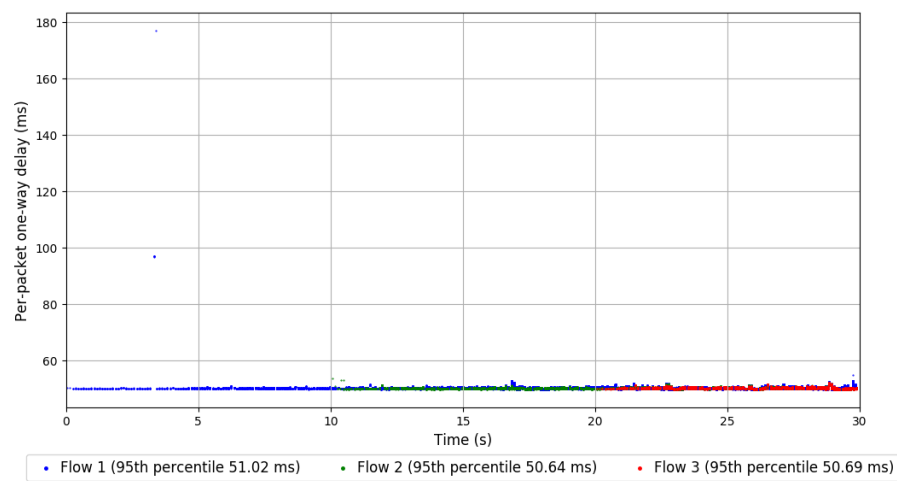
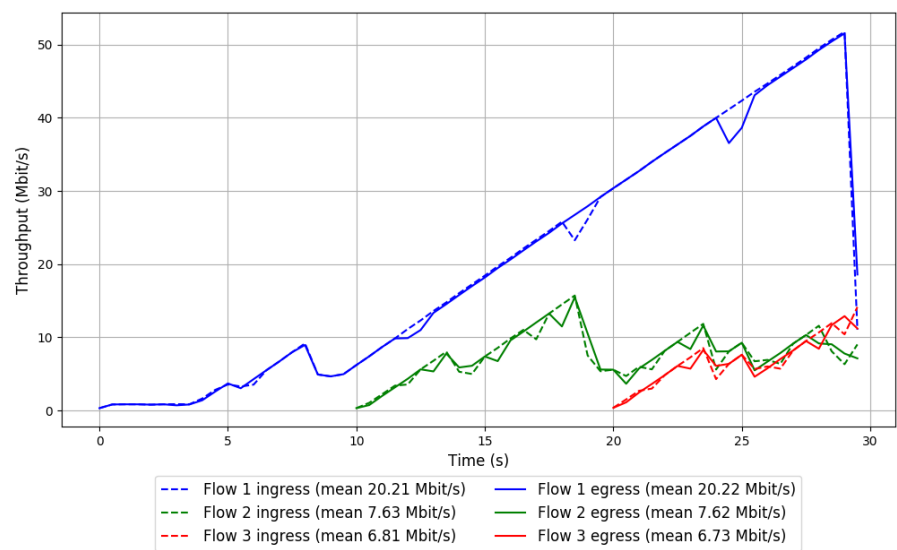
-- Flow 3:

Average throughput: 6.73 Mbit/s

95th percentile per-packet one-way delay: 50.689 ms

Loss rate: 2.17%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-10-12 11:51:58

End at: 2017-10-12 11:52:28

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 31.84 Mbit/s

95th percentile per-packet one-way delay: 50.917 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 13.10 Mbit/s

95th percentile per-packet one-way delay: 50.959 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 23.30 Mbit/s

95th percentile per-packet one-way delay: 50.910 ms

Loss rate: 1.01%

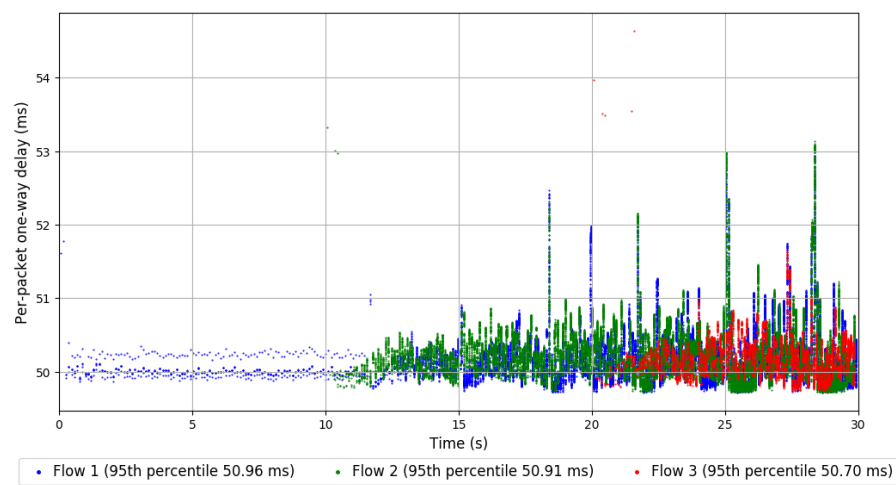
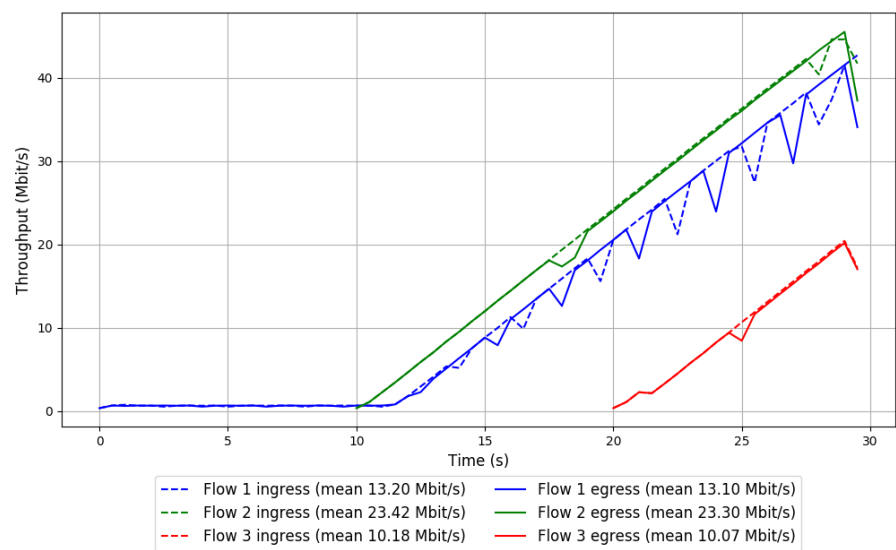
-- Flow 3:

Average throughput: 10.07 Mbit/s

95th percentile per-packet one-way delay: 50.699 ms

Loss rate: 2.18%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-10-12 12:04:28

End at: 2017-10-12 12:04:58

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 31.14 Mbit/s

95th percentile per-packet one-way delay: 50.954 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 18.37 Mbit/s

95th percentile per-packet one-way delay: 50.978 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 15.24 Mbit/s

95th percentile per-packet one-way delay: 50.949 ms

Loss rate: 1.14%

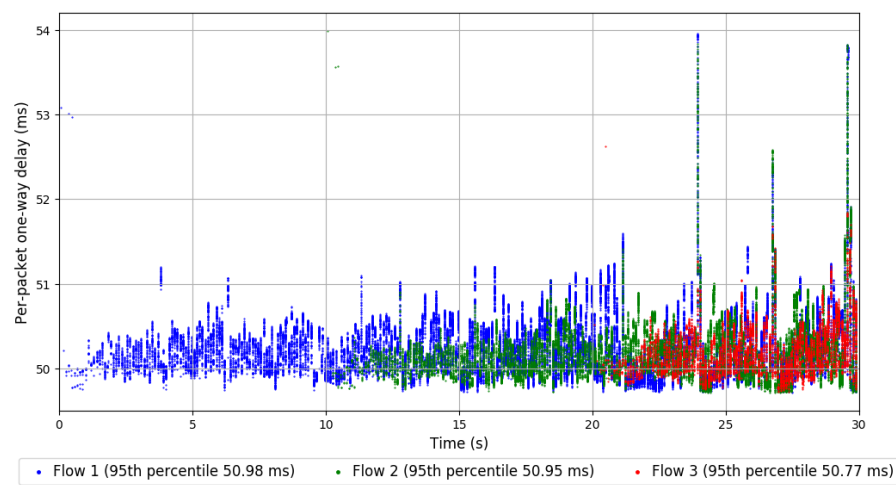
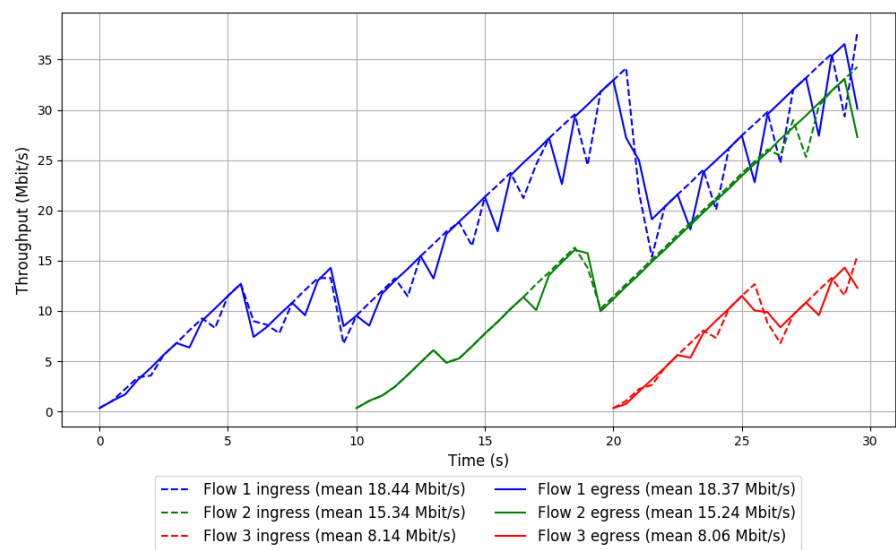
-- Flow 3:

Average throughput: 8.06 Mbit/s

95th percentile per-packet one-way delay: 50.765 ms

Loss rate: 1.98%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-10-12 12:16:41

End at: 2017-10-12 12:17:11

Below is generated by plot.py at 2017-10-12 14:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.31 Mbit/s

95th percentile per-packet one-way delay: 50.843 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 13.68 Mbit/s

95th percentile per-packet one-way delay: 50.755 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 18.84 Mbit/s

95th percentile per-packet one-way delay: 51.003 ms

Loss rate: 1.12%

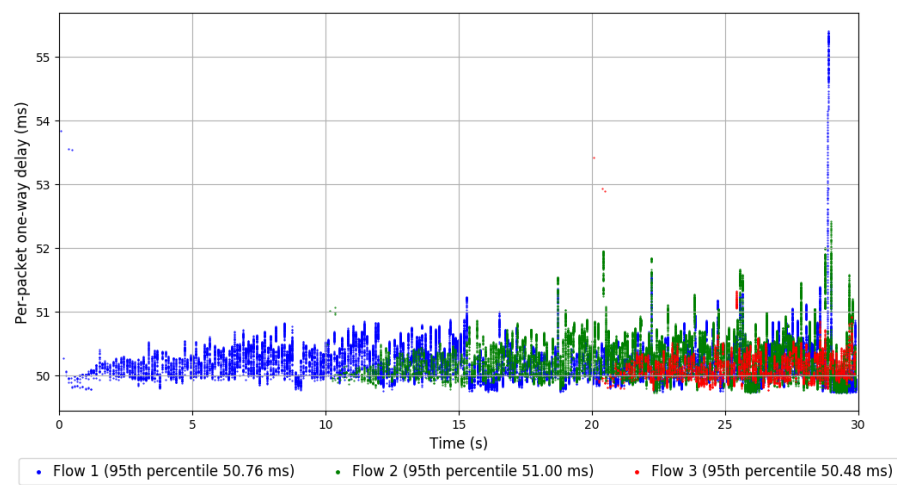
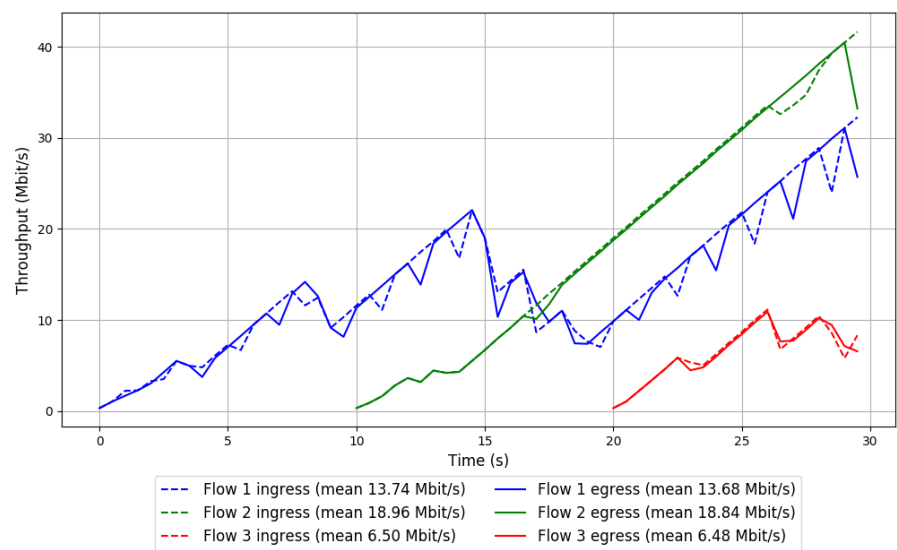
-- Flow 3:

Average throughput: 6.48 Mbit/s

95th percentile per-packet one-way delay: 50.478 ms

Loss rate: 1.37%

Run 10: Report of LEDBAT — Data Link

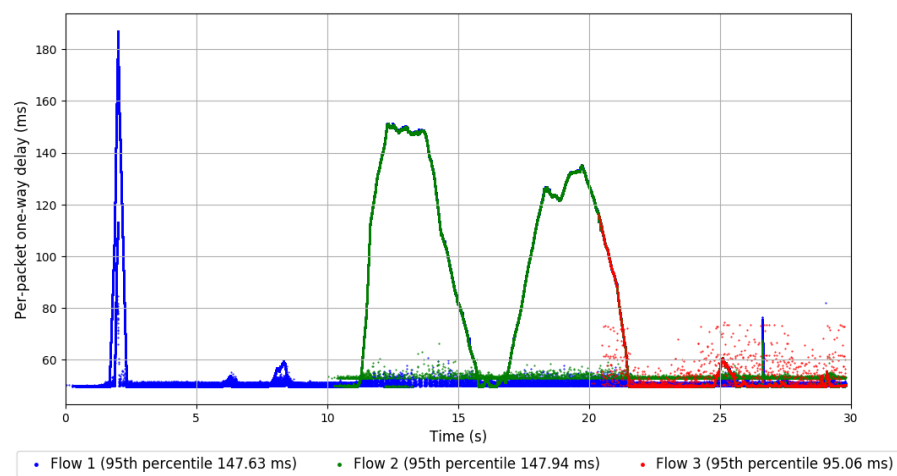
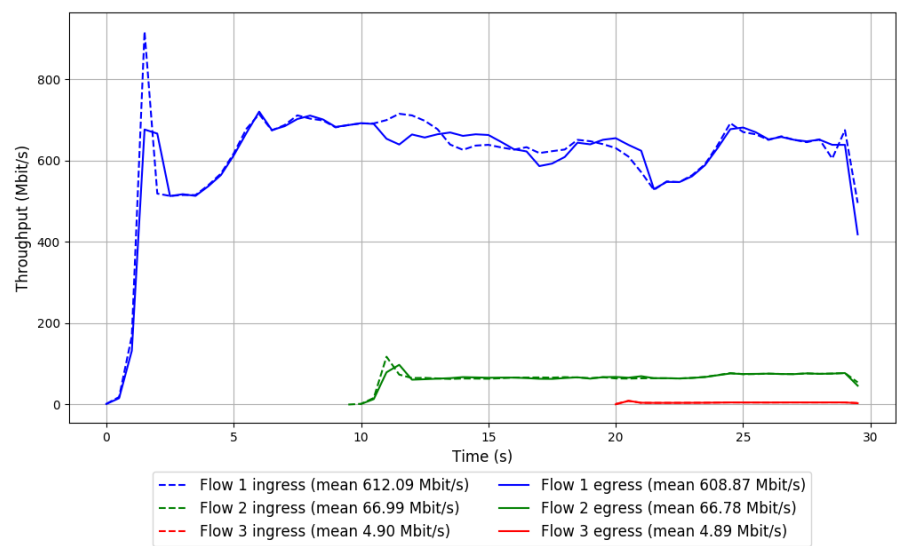


```
Run 1: Statistics of PCC

Start at: 2017-10-12 10:20:45
End at: 2017-10-12 10:21:15

# Below is generated by plot.py at 2017-10-12 15:00:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 654.80 Mbit/s
95th percentile per-packet one-way delay: 147.640 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 608.87 Mbit/s
95th percentile per-packet one-way delay: 147.627 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 66.78 Mbit/s
95th percentile per-packet one-way delay: 147.940 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 95.058 ms
Loss rate: 1.12%
```

Run 1: Report of PCC — Data Link

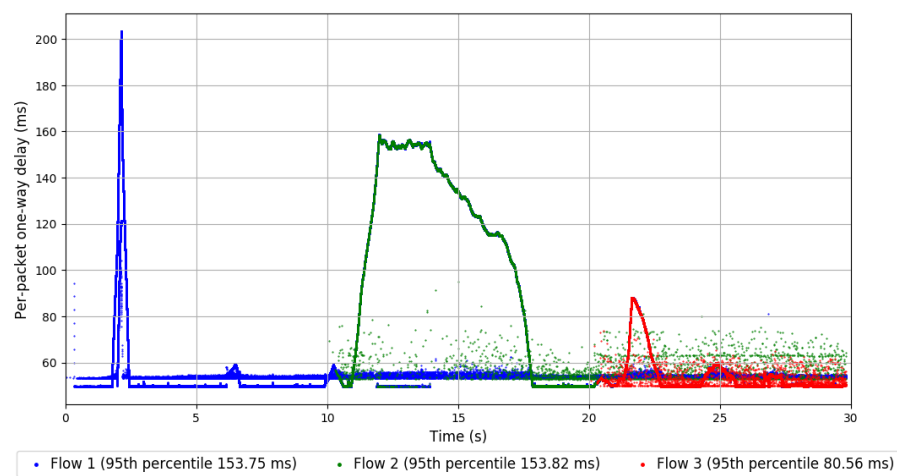
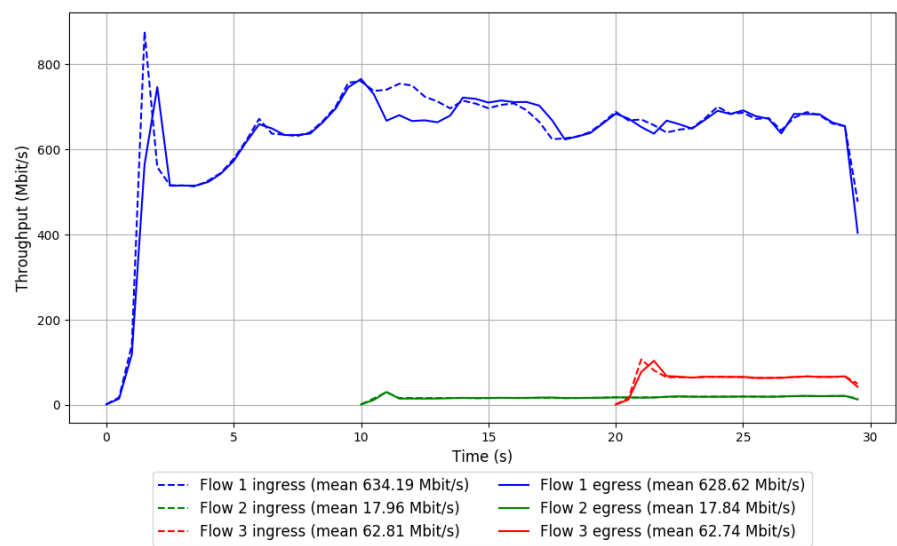


```
Run 2: Statistics of PCC

Start at: 2017-10-12 10:33:31
End at: 2017-10-12 10:34:01

# Below is generated by plot.py at 2017-10-12 15:00:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 660.94 Mbit/s
95th percentile per-packet one-way delay: 153.692 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 628.62 Mbit/s
95th percentile per-packet one-way delay: 153.748 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 17.84 Mbit/s
95th percentile per-packet one-way delay: 153.816 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 62.74 Mbit/s
95th percentile per-packet one-way delay: 80.557 ms
Loss rate: 1.17%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-10-12 10:46:25

End at: 2017-10-12 10:46:55

Below is generated by plot.py at 2017-10-12 15:00:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 654.41 Mbit/s

95th percentile per-packet one-way delay: 228.182 ms

Loss rate: 6.47%

-- Flow 1:

Average throughput: 556.97 Mbit/s

95th percentile per-packet one-way delay: 233.647 ms

Loss rate: 7.00%

-- Flow 2:

Average throughput: 117.07 Mbit/s

95th percentile per-packet one-way delay: 148.093 ms

Loss rate: 3.64%

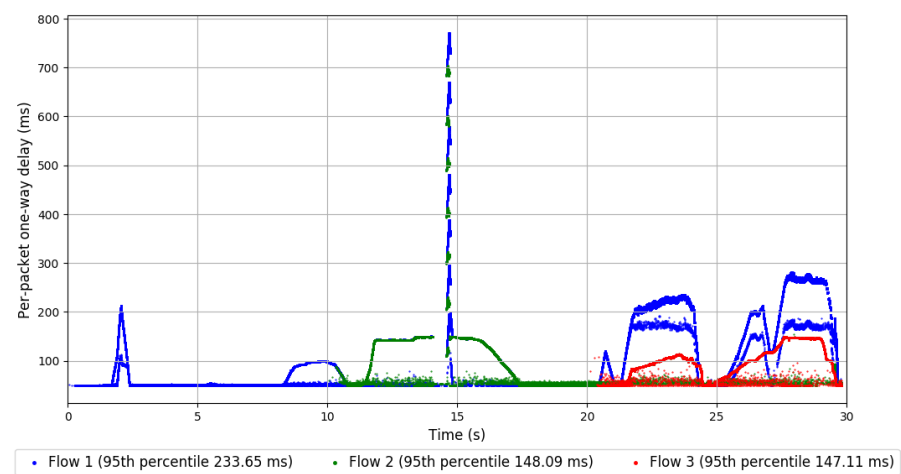
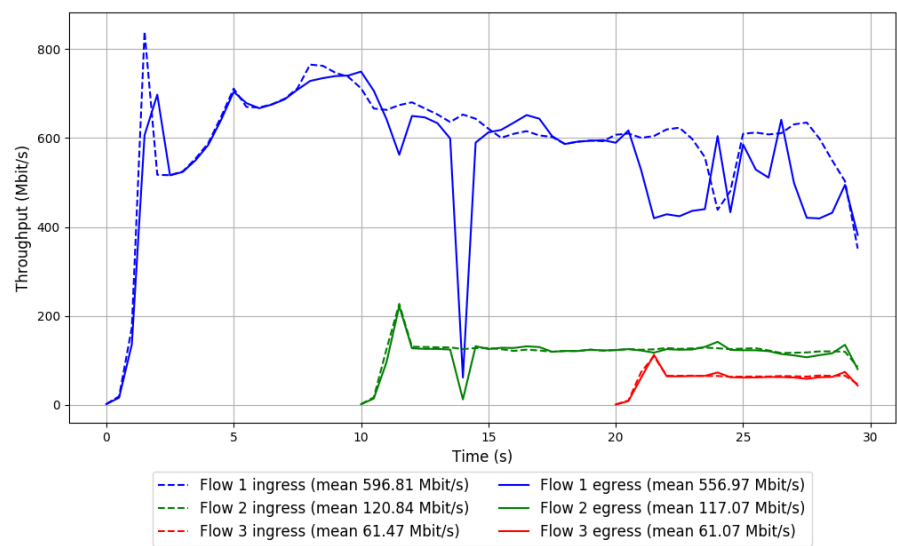
-- Flow 3:

Average throughput: 61.07 Mbit/s

95th percentile per-packet one-way delay: 147.112 ms

Loss rate: 2.00%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-10-12 10:59:08

End at: 2017-10-12 10:59:38

Below is generated by plot.py at 2017-10-12 15:00:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 645.84 Mbit/s

95th percentile per-packet one-way delay: 150.112 ms

Loss rate: 3.13%

-- Flow 1:

Average throughput: 555.88 Mbit/s

95th percentile per-packet one-way delay: 150.227 ms

Loss rate: 3.14%

-- Flow 2:

Average throughput: 132.84 Mbit/s

95th percentile per-packet one-way delay: 149.826 ms

Loss rate: 3.15%

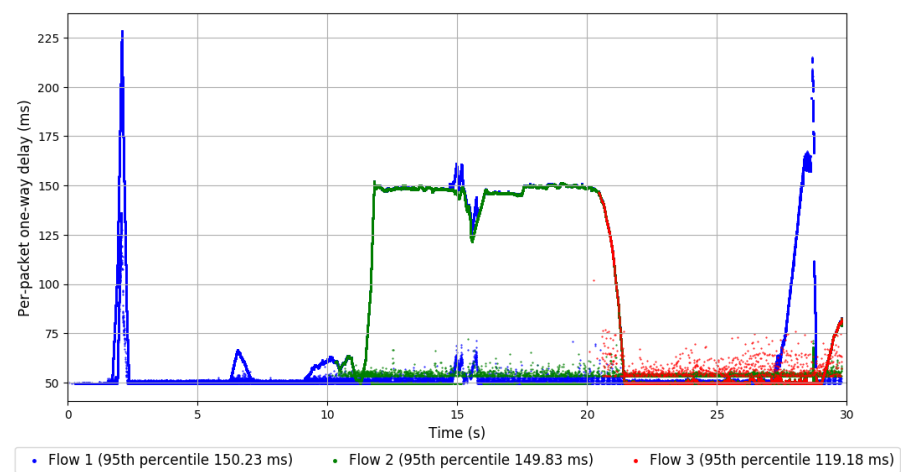
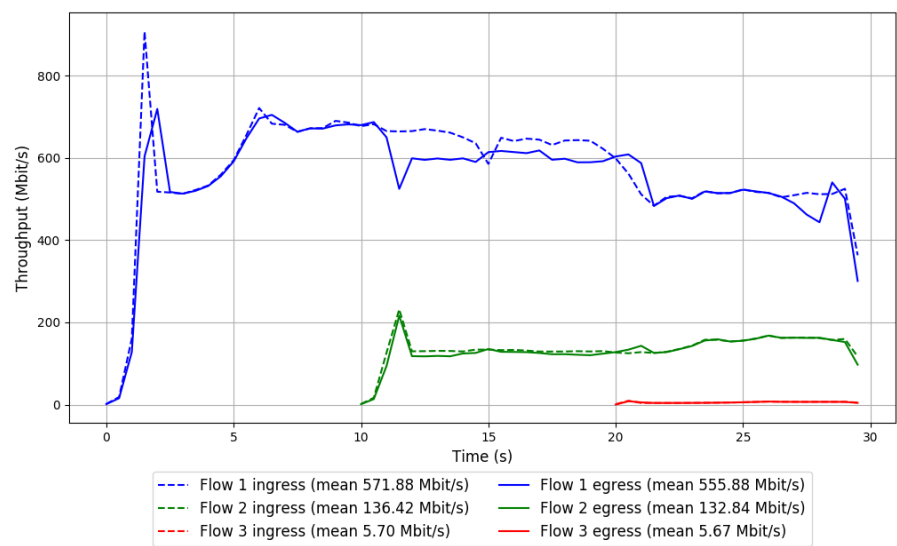
-- Flow 3:

Average throughput: 5.67 Mbit/s

95th percentile per-packet one-way delay: 119.183 ms

Loss rate: 1.63%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-10-12 11:11:56

End at: 2017-10-12 11:12:26

Below is generated by plot.py at 2017-10-12 15:01:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 662.73 Mbit/s

95th percentile per-packet one-way delay: 154.000 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 643.79 Mbit/s

95th percentile per-packet one-way delay: 153.983 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 26.43 Mbit/s

95th percentile per-packet one-way delay: 154.349 ms

Loss rate: 1.54%

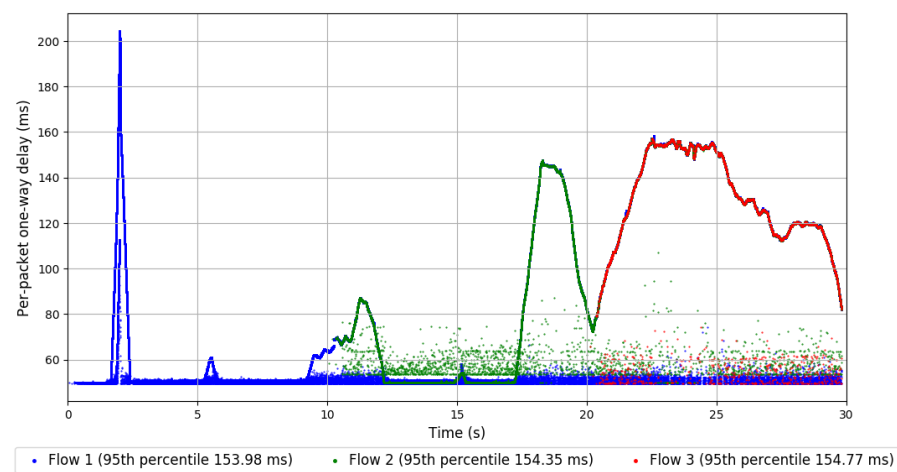
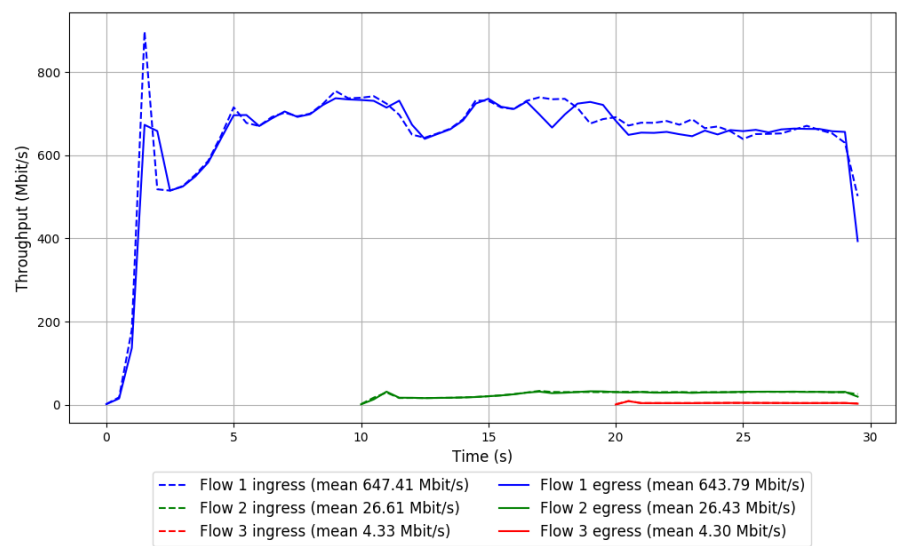
-- Flow 3:

Average throughput: 4.30 Mbit/s

95th percentile per-packet one-way delay: 154.773 ms

Loss rate: 2.55%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-10-12 11:24:44

End at: 2017-10-12 11:25:14

Below is generated by plot.py at 2017-10-12 15:01:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 631.88 Mbit/s

95th percentile per-packet one-way delay: 161.866 ms

Loss rate: 1.82%

-- Flow 1:

Average throughput: 604.20 Mbit/s

95th percentile per-packet one-way delay: 161.749 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 39.76 Mbit/s

95th percentile per-packet one-way delay: 162.452 ms

Loss rate: 1.74%

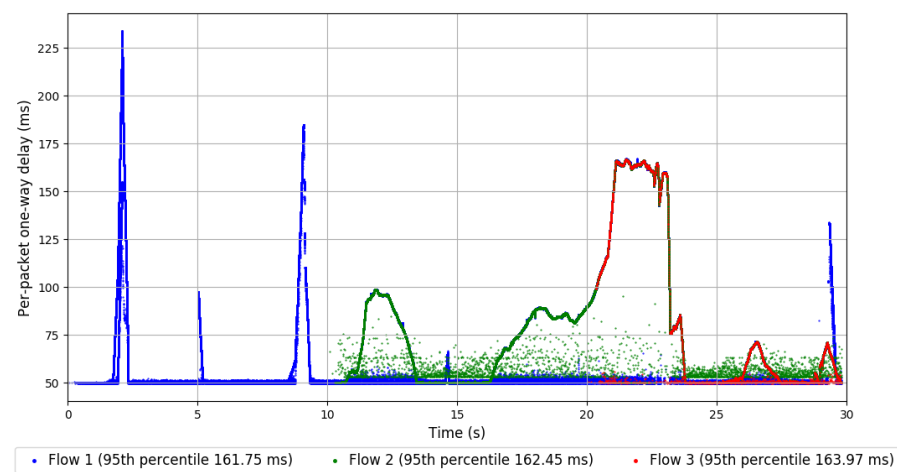
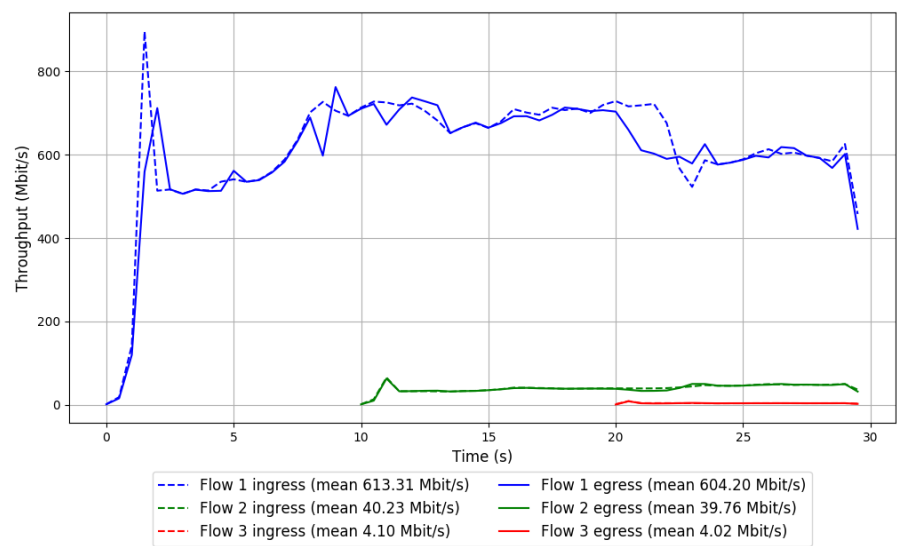
-- Flow 3:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 163.974 ms

Loss rate: 2.95%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-10-12 11:37:29

End at: 2017-10-12 11:37:59

Below is generated by plot.py at 2017-10-12 15:01:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 655.84 Mbit/s

95th percentile per-packet one-way delay: 142.184 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 651.57 Mbit/s

95th percentile per-packet one-way delay: 142.217 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 4.29 Mbit/s

95th percentile per-packet one-way delay: 142.919 ms

Loss rate: 0.53%

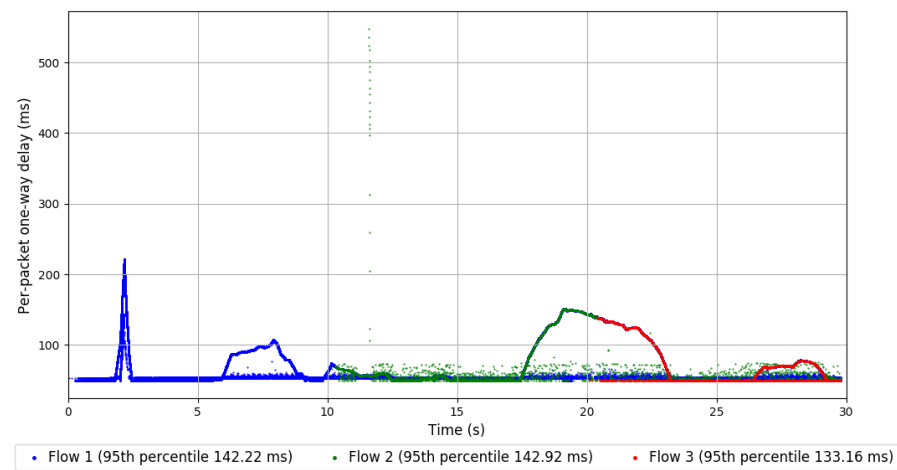
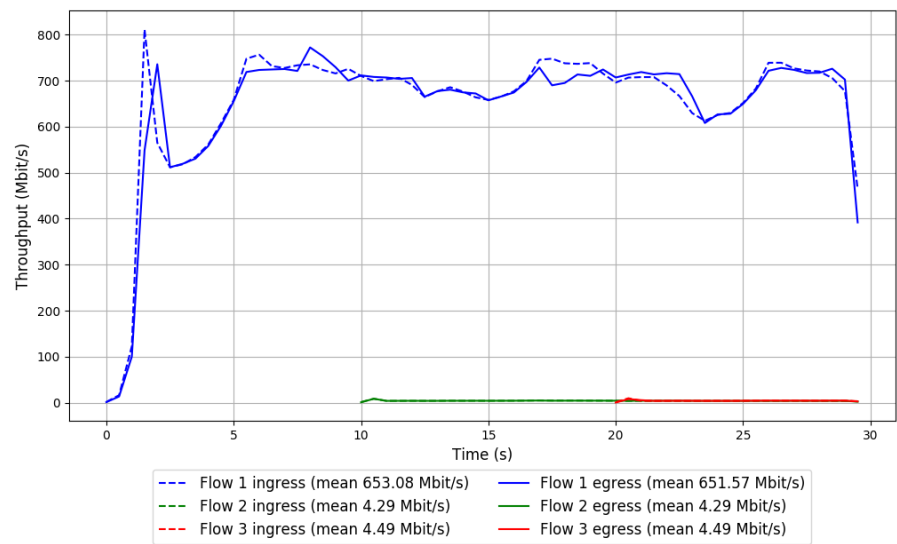
-- Flow 3:

Average throughput: 4.49 Mbit/s

95th percentile per-packet one-way delay: 133.155 ms

Loss rate: 1.06%

Run 7: Report of PCC — Data Link



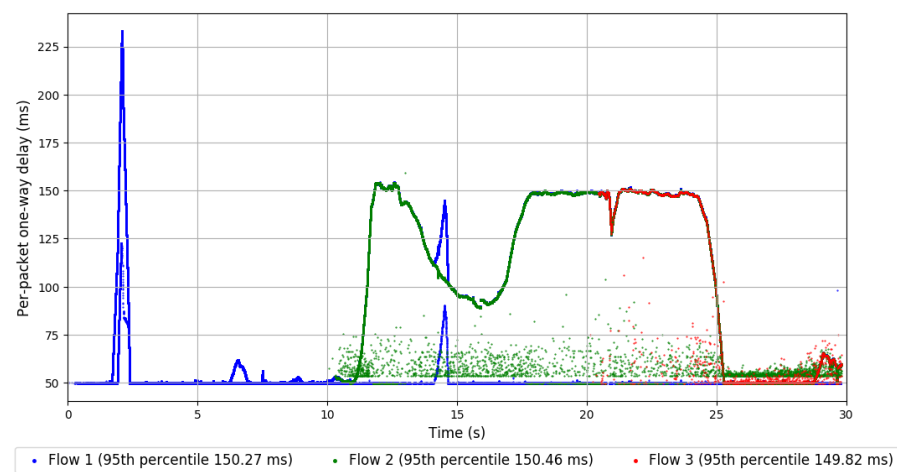
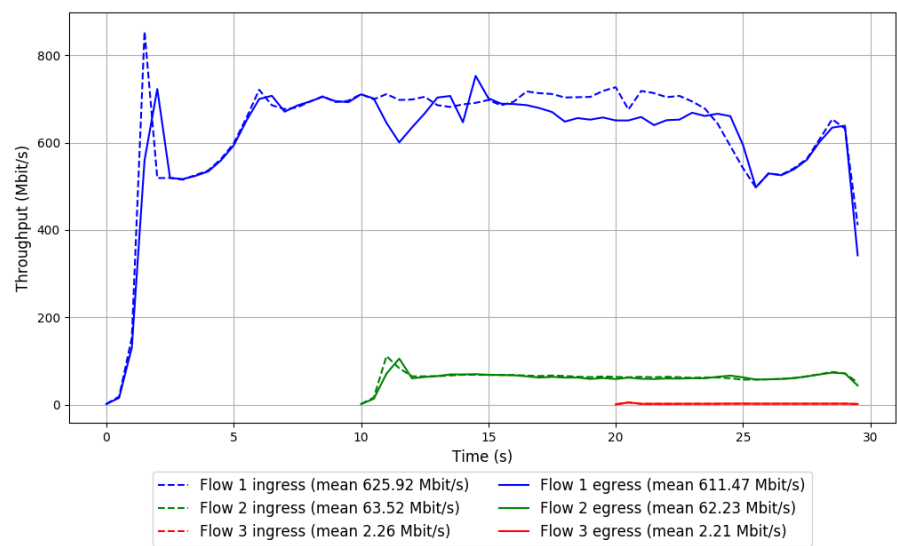
Run 8: Statistics of PCC

Start at: 2017-10-12 11:49:48

End at: 2017-10-12 11:50:18

```
# Below is generated by plot.py at 2017-10-12 15:02:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 653.47 Mbit/s
95th percentile per-packet one-way delay: 150.286 ms
Loss rate: 2.64%
-- Flow 1:
Average throughput: 611.47 Mbit/s
95th percentile per-packet one-way delay: 150.274 ms
Loss rate: 2.65%
-- Flow 2:
Average throughput: 62.23 Mbit/s
95th percentile per-packet one-way delay: 150.463 ms
Loss rate: 2.59%
-- Flow 3:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 149.816 ms
Loss rate: 3.33%
```

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-10-12 12:02:17

End at: 2017-10-12 12:02:47

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 655.24 Mbit/s

95th percentile per-packet one-way delay: 170.606 ms

Loss rate: 4.27%

-- Flow 1:

Average throughput: 576.83 Mbit/s

95th percentile per-packet one-way delay: 173.895 ms

Loss rate: 4.40%

-- Flow 2:

Average throughput: 116.21 Mbit/s

95th percentile per-packet one-way delay: 147.544 ms

Loss rate: 3.34%

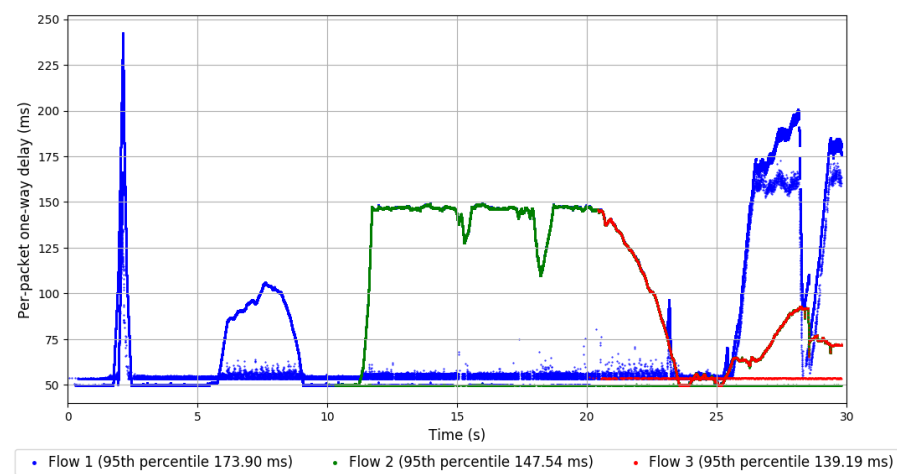
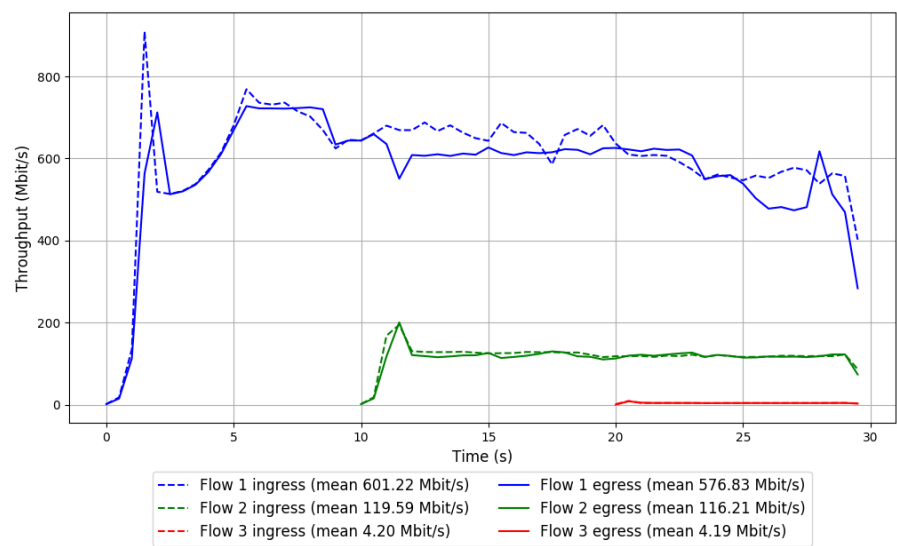
-- Flow 3:

Average throughput: 4.19 Mbit/s

95th percentile per-packet one-way delay: 139.187 ms

Loss rate: 1.33%

Run 9: Report of PCC — Data Link

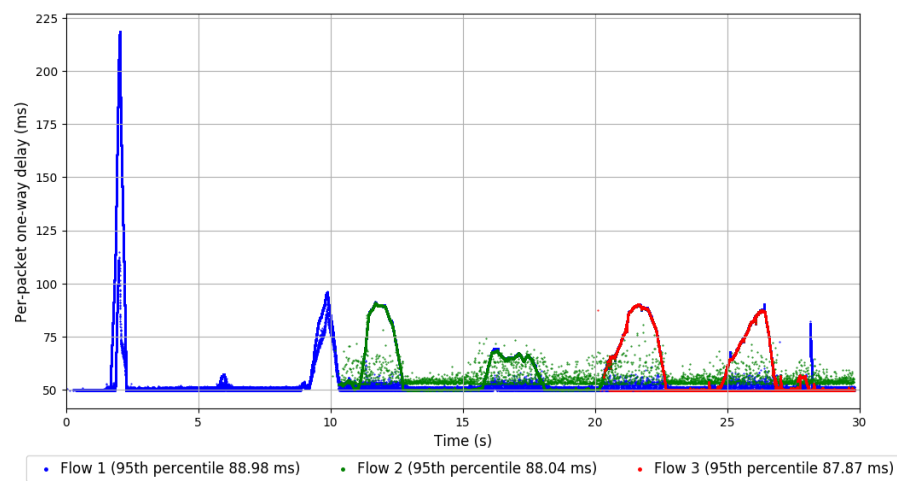
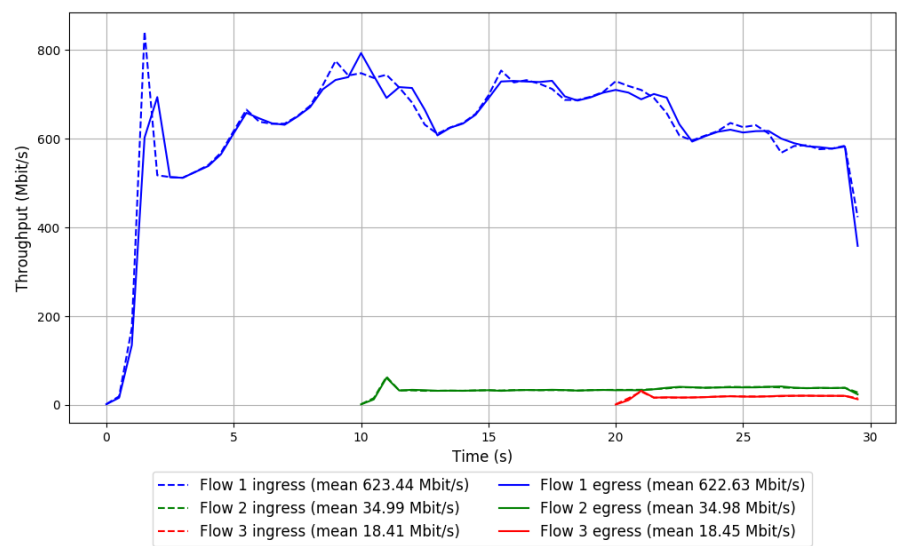


```
Run 10: Statistics of PCC

Start at: 2017-10-12 12:14:29
End at: 2017-10-12 12:14:59

# Below is generated by plot.py at 2017-10-12 15:11:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 651.85 Mbit/s
95th percentile per-packet one-way delay: 88.910 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 622.63 Mbit/s
95th percentile per-packet one-way delay: 88.977 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 34.98 Mbit/s
95th percentile per-packet one-way delay: 88.041 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 18.45 Mbit/s
95th percentile per-packet one-way delay: 87.873 ms
Loss rate: 1.22%
```

Run 10: Report of PCC — Data Link

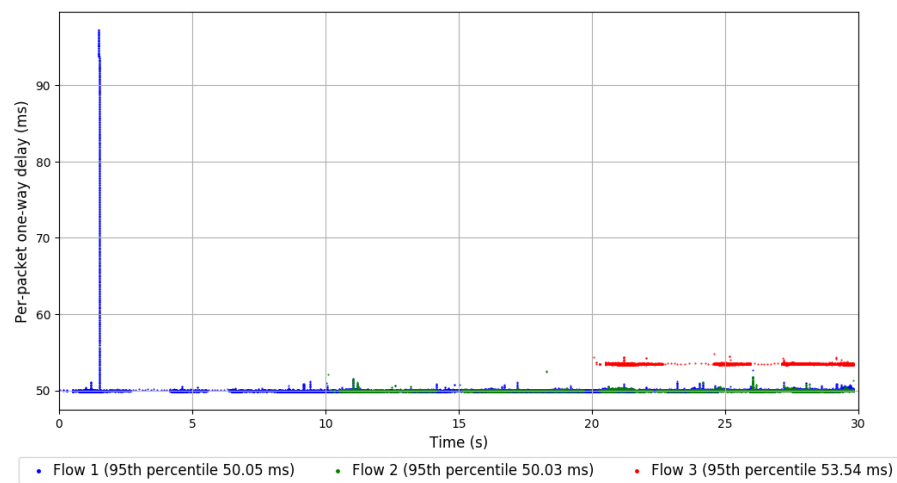
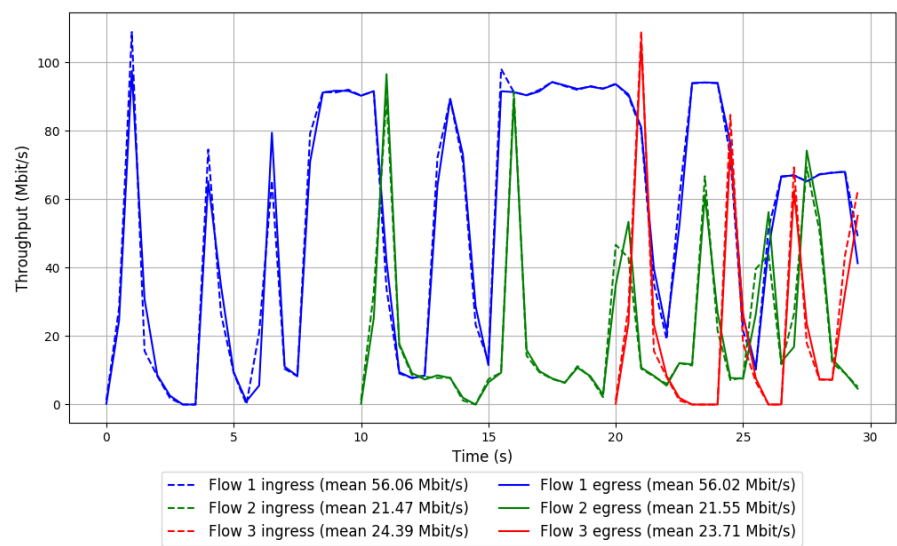


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-10-12 10:23:38
End at: 2017-10-12 10:24:08

# Below is generated by plot.py at 2017-10-12 15:11:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.05 Mbit/s
95th percentile per-packet one-way delay: 53.454 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 56.02 Mbit/s
95th percentile per-packet one-way delay: 50.045 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 21.55 Mbit/s
95th percentile per-packet one-way delay: 50.034 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 23.71 Mbit/s
95th percentile per-packet one-way delay: 53.536 ms
Loss rate: 3.91%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-10-12 10:36:23

End at: 2017-10-12 10:36:53

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.68 Mbit/s

95th percentile per-packet one-way delay: 53.460 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 50.24 Mbit/s

95th percentile per-packet one-way delay: 53.494 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 51.25 Mbit/s

95th percentile per-packet one-way delay: 52.905 ms

Loss rate: 0.66%

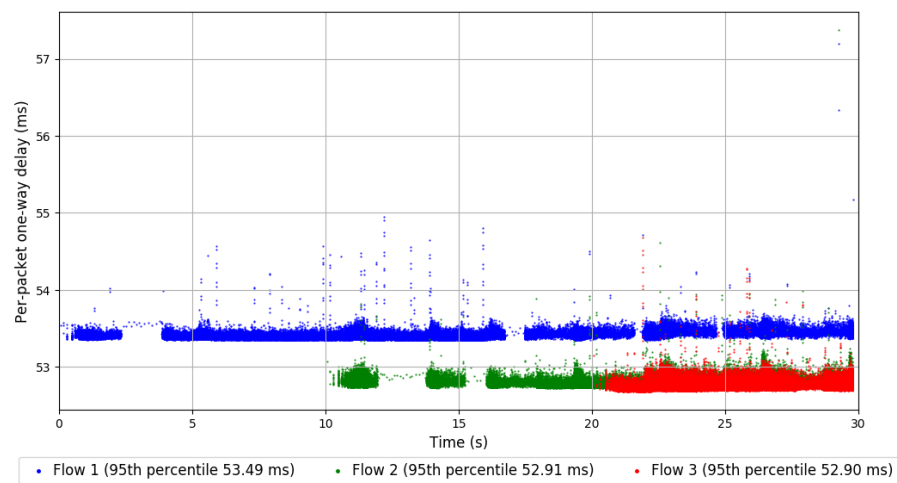
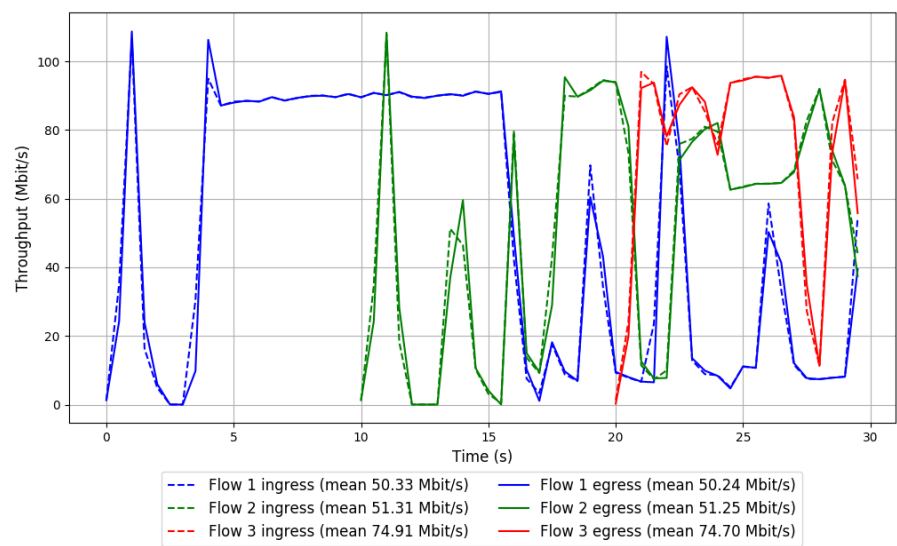
-- Flow 3:

Average throughput: 74.70 Mbit/s

95th percentile per-packet one-way delay: 52.895 ms

Loss rate: 1.36%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-10-12 10:49:15

End at: 2017-10-12 10:49:45

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 41.75 Mbit/s

95th percentile per-packet one-way delay: 53.464 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 53.051 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.67 Mbit/s

95th percentile per-packet one-way delay: 52.848 ms

Loss rate: 0.97%

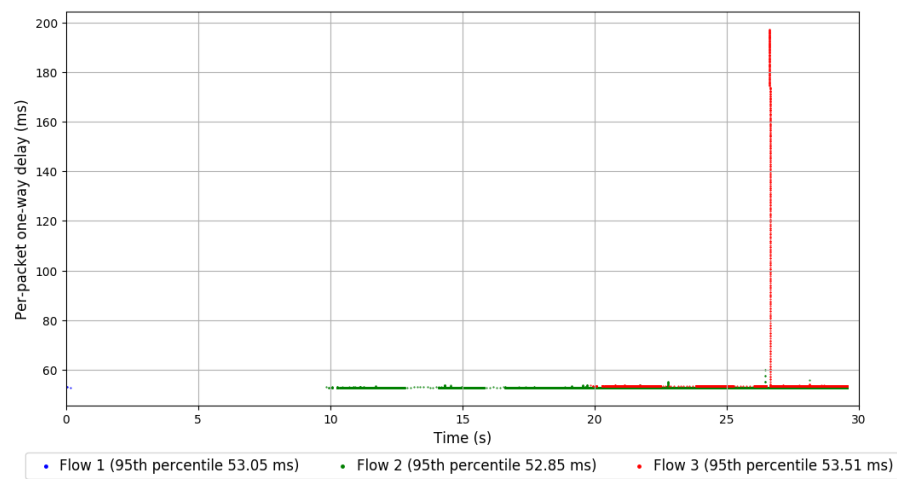
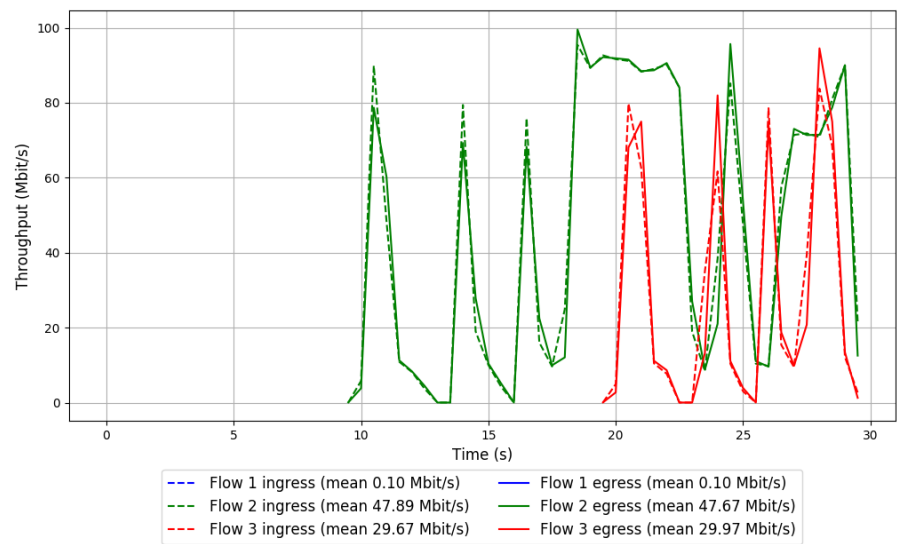
-- Flow 3:

Average throughput: 29.97 Mbit/s

95th percentile per-packet one-way delay: 53.512 ms

Loss rate: 0.41%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-10-12 11:02:01

End at: 2017-10-12 11:02:31

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.88 Mbit/s

95th percentile per-packet one-way delay: 52.904 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 61.11 Mbit/s

95th percentile per-packet one-way delay: 52.937 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 35.48 Mbit/s

95th percentile per-packet one-way delay: 49.784 ms

Loss rate: 0.86%

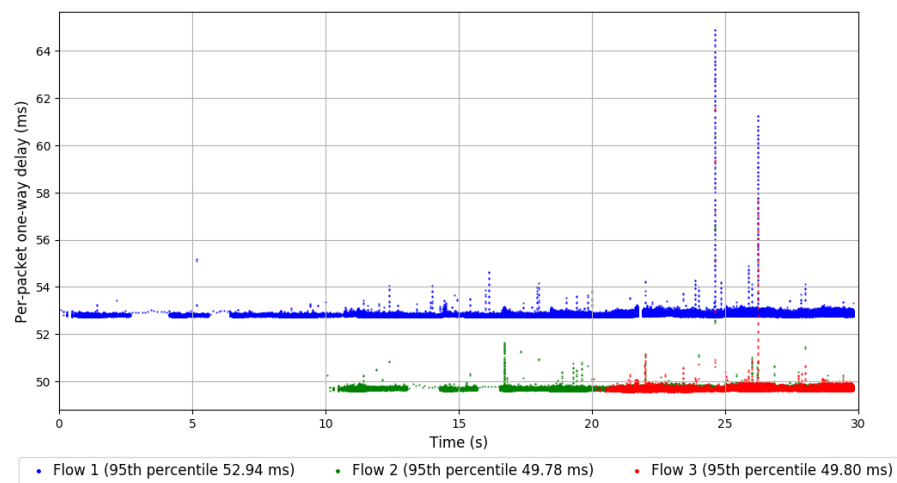
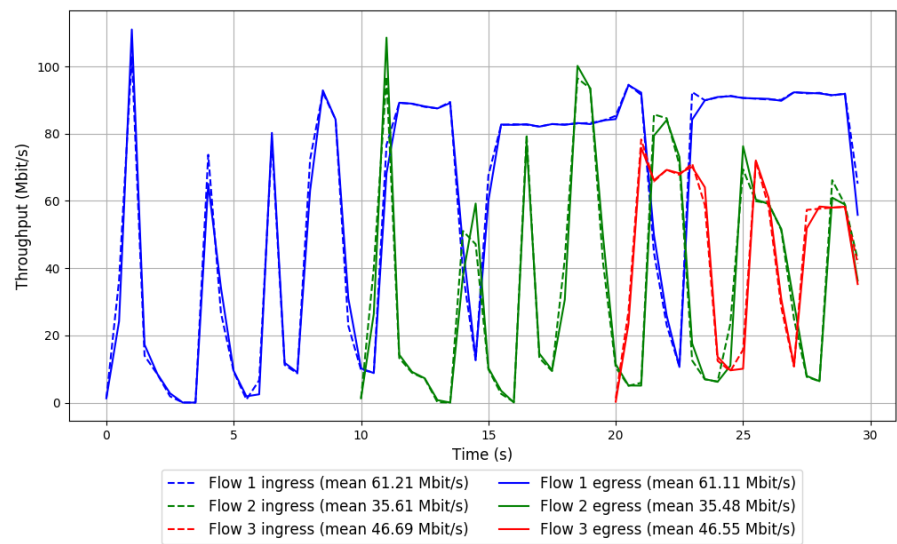
-- Flow 3:

Average throughput: 46.55 Mbit/s

95th percentile per-packet one-way delay: 49.805 ms

Loss rate: 1.30%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-10-12 11:14:52

End at: 2017-10-12 11:15:22

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.15 Mbit/s

95th percentile per-packet one-way delay: 52.793 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 52.28 Mbit/s

95th percentile per-packet one-way delay: 50.055 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 28.48 Mbit/s

95th percentile per-packet one-way delay: 49.873 ms

Loss rate: 1.11%

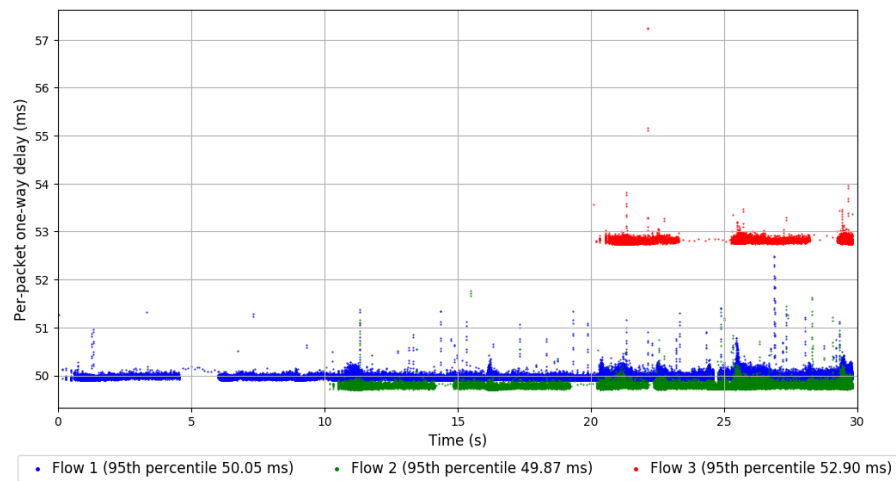
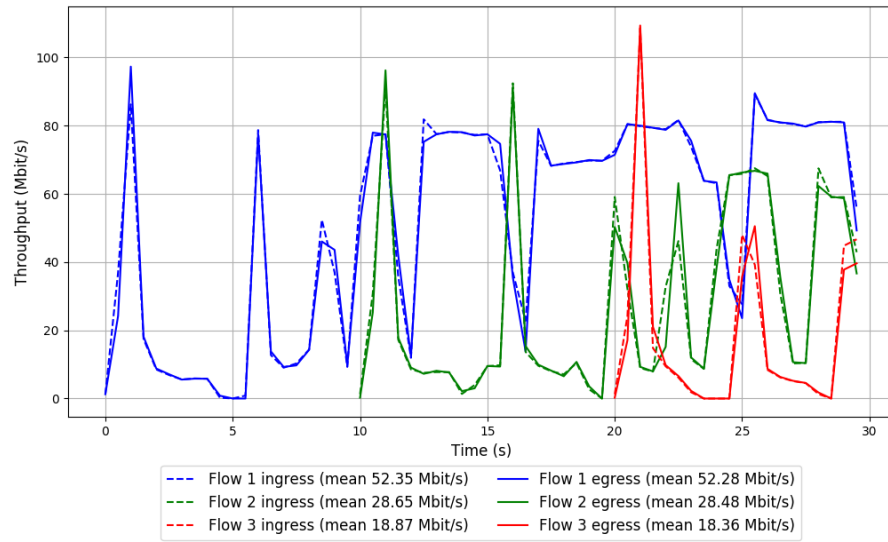
-- Flow 3:

Average throughput: 18.36 Mbit/s

95th percentile per-packet one-way delay: 52.897 ms

Loss rate: 3.80%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-10-12 11:27:37

End at: 2017-10-12 11:28:07

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.44 Mbit/s

95th percentile per-packet one-way delay: 53.549 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 57.90 Mbit/s

95th percentile per-packet one-way delay: 49.908 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 40.78 Mbit/s

95th percentile per-packet one-way delay: 53.592 ms

Loss rate: 0.78%

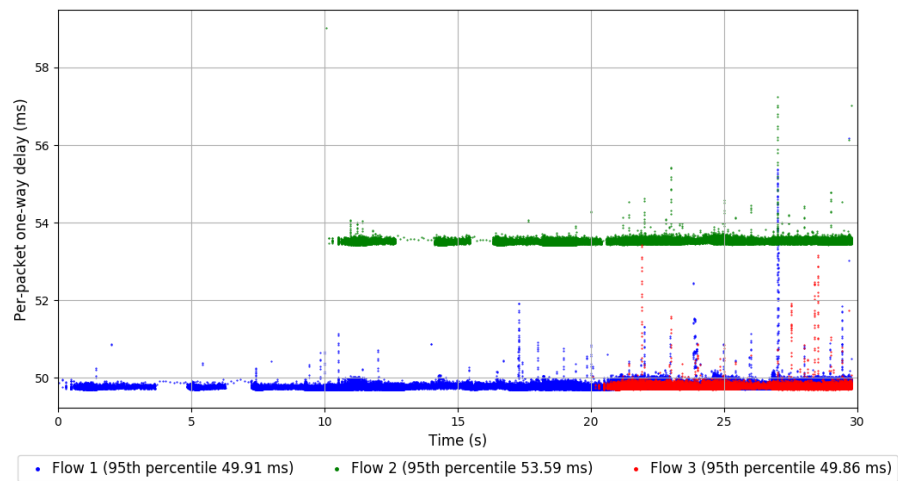
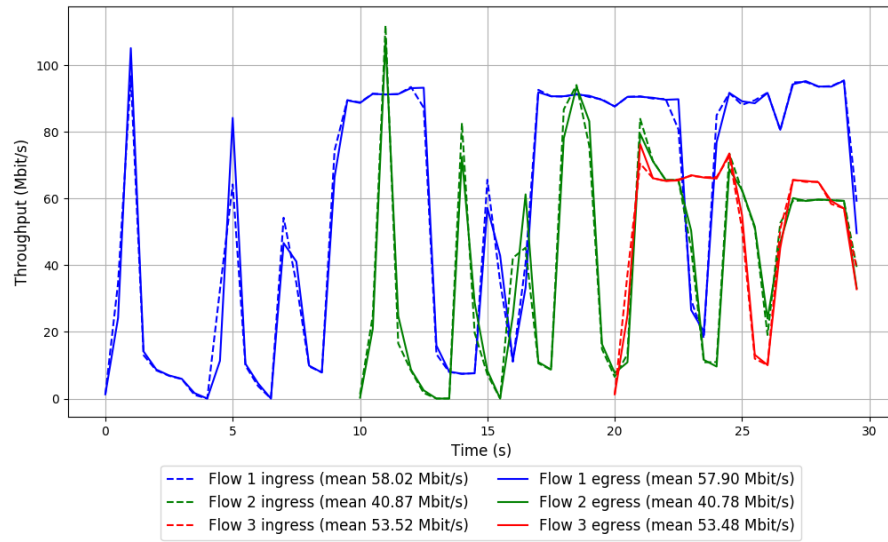
-- Flow 3:

Average throughput: 53.48 Mbit/s

95th percentile per-packet one-way delay: 49.858 ms

Loss rate: 1.13%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-10-12 11:40:19

End at: 2017-10-12 11:40:49

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 42.87 Mbit/s

95th percentile per-packet one-way delay: 49.813 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 53.840 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 52.25 Mbit/s

95th percentile per-packet one-way delay: 49.814 ms

Loss rate: 0.87%

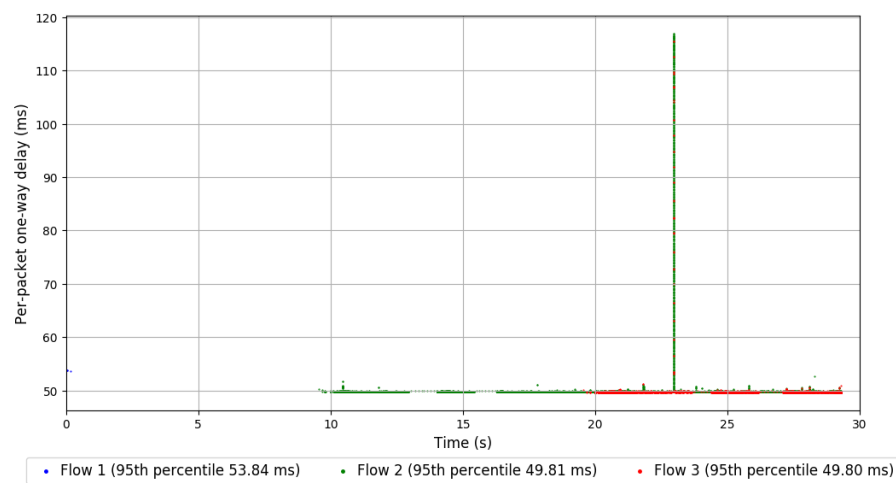
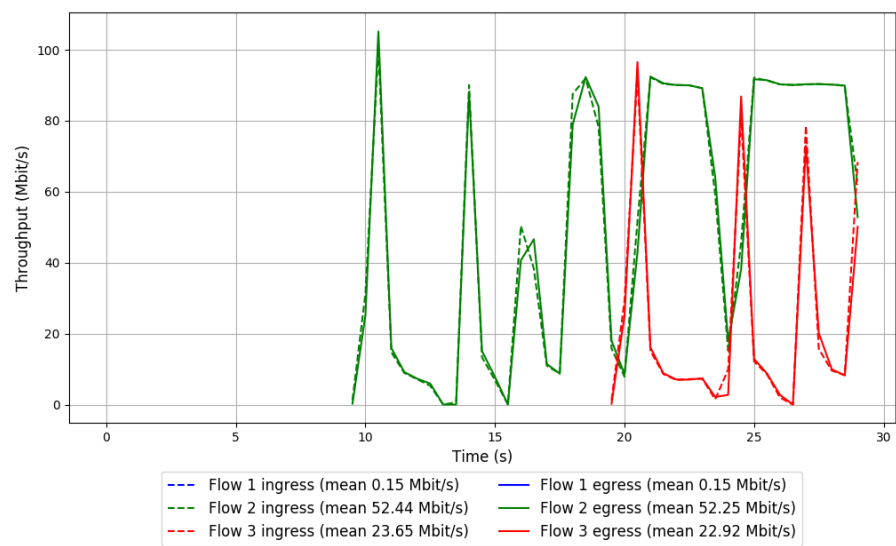
-- Flow 3:

Average throughput: 22.92 Mbit/s

95th percentile per-packet one-way delay: 49.804 ms

Loss rate: 4.11%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-10-12 11:52:40

End at: 2017-10-12 11:53:10

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.55 Mbit/s

95th percentile per-packet one-way delay: 52.924 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 38.04 Mbit/s

95th percentile per-packet one-way delay: 50.125 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 47.75 Mbit/s

95th percentile per-packet one-way delay: 52.962 ms

Loss rate: 0.74%

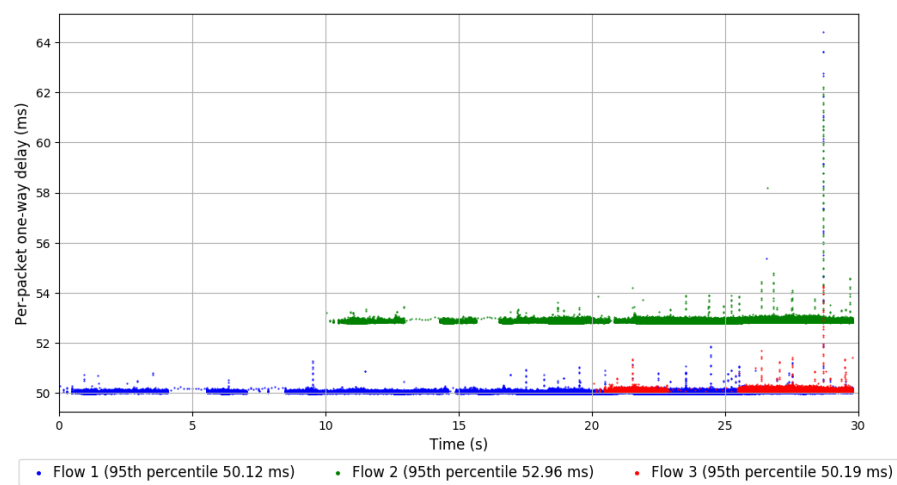
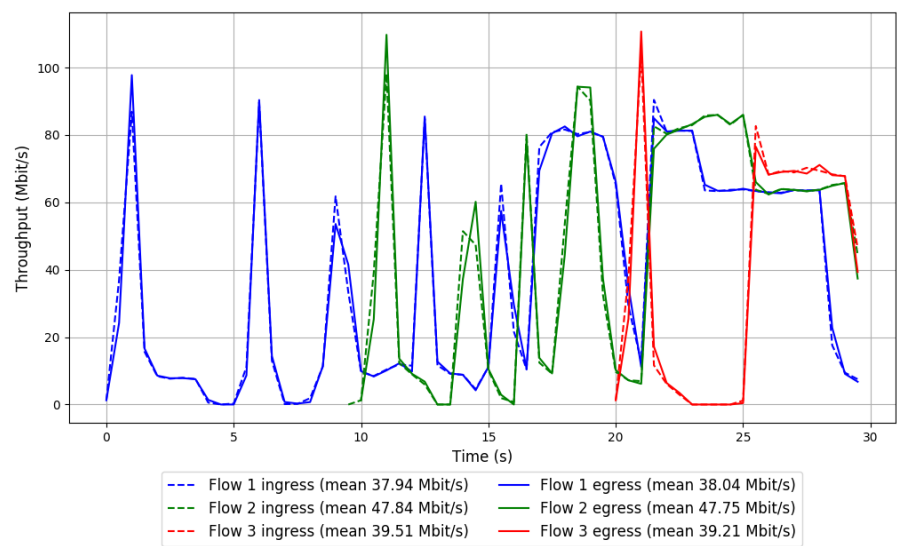
-- Flow 3:

Average throughput: 39.21 Mbit/s

95th percentile per-packet one-way delay: 50.186 ms

Loss rate: 1.81%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-10-12 12:05:09

End at: 2017-10-12 12:05:39

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 33.30 Mbit/s

95th percentile per-packet one-way delay: 53.592 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.156 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.33 Mbit/s

95th percentile per-packet one-way delay: 53.601 ms

Loss rate: 0.12%

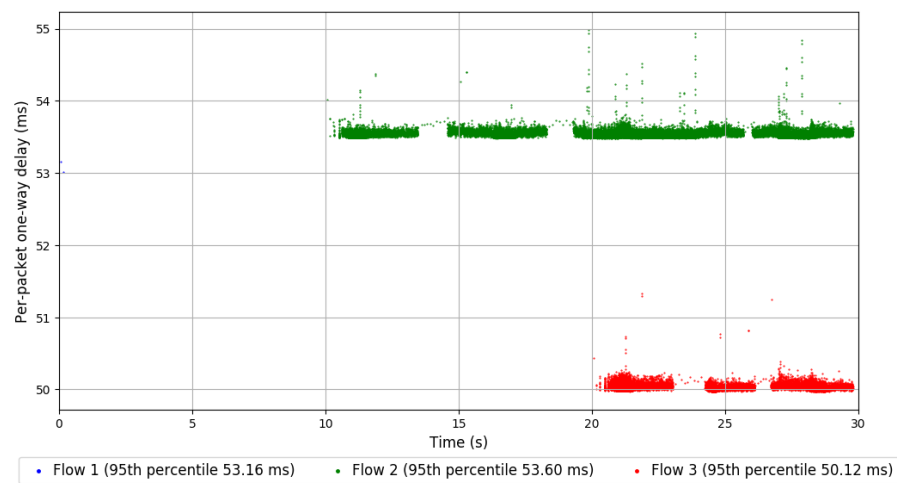
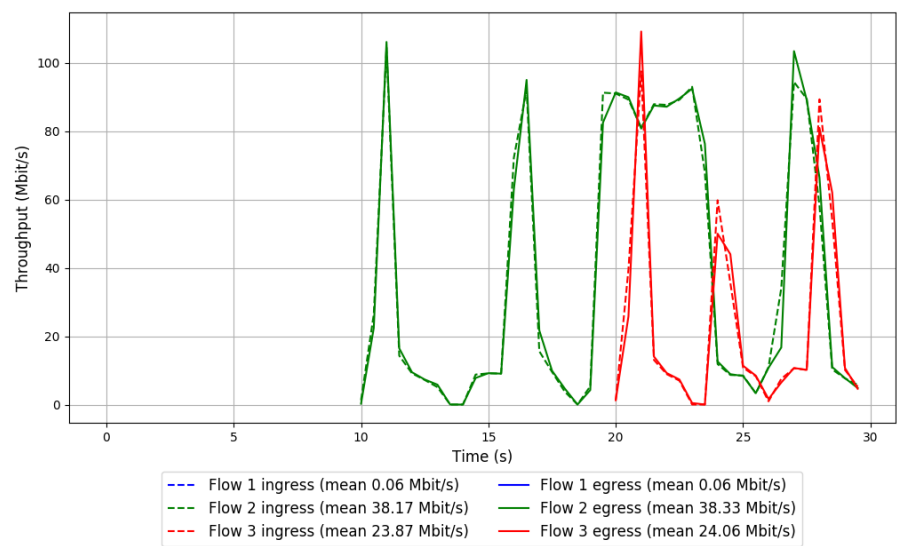
-- Flow 3:

Average throughput: 24.06 Mbit/s

95th percentile per-packet one-way delay: 50.123 ms

Loss rate: 0.31%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-10-12 12:17:22

End at: 2017-10-12 12:17:52

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.80 Mbit/s

95th percentile per-packet one-way delay: 53.571 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 49.37 Mbit/s

95th percentile per-packet one-way delay: 49.920 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 57.59 Mbit/s

95th percentile per-packet one-way delay: 53.614 ms

Loss rate: 0.62%

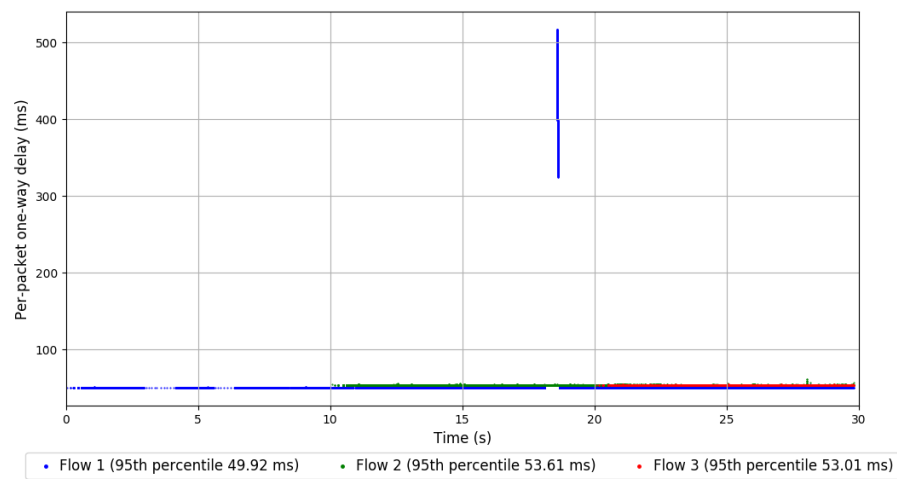
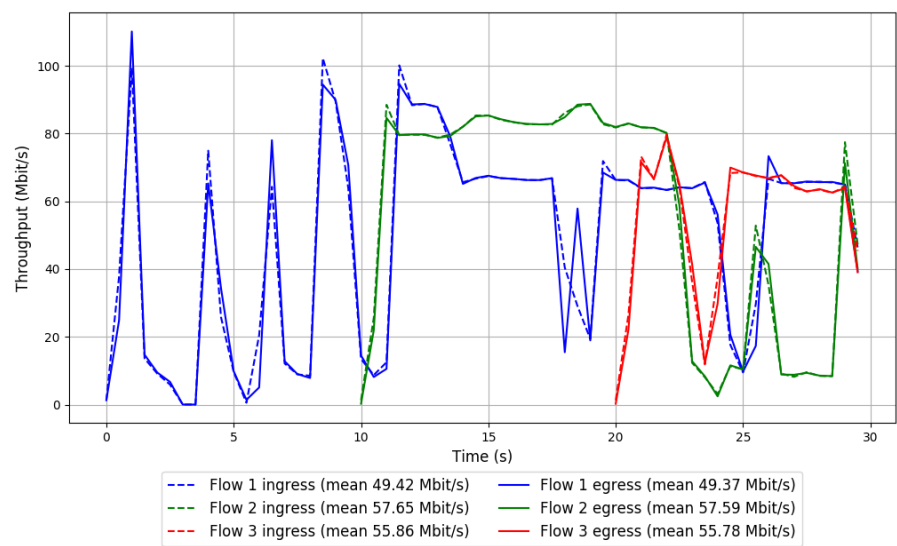
-- Flow 3:

Average throughput: 55.78 Mbit/s

95th percentile per-packet one-way delay: 53.007 ms

Loss rate: 1.21%

Run 10: Report of QUIC Cubic — Data Link

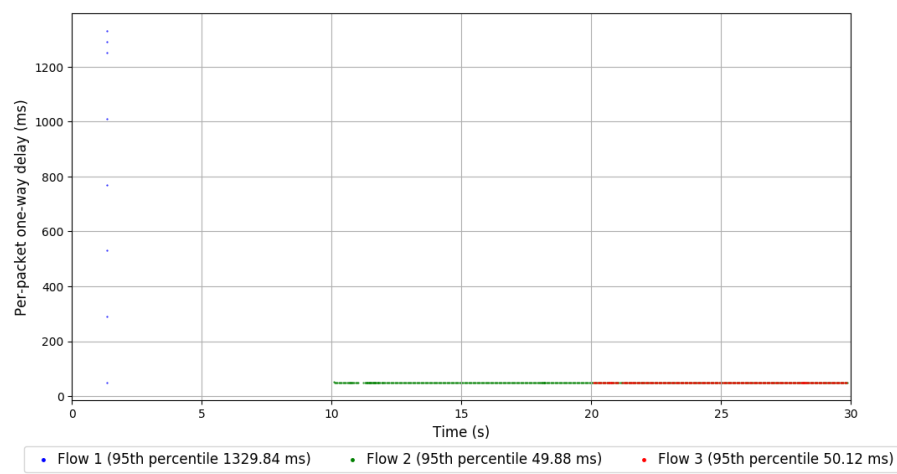
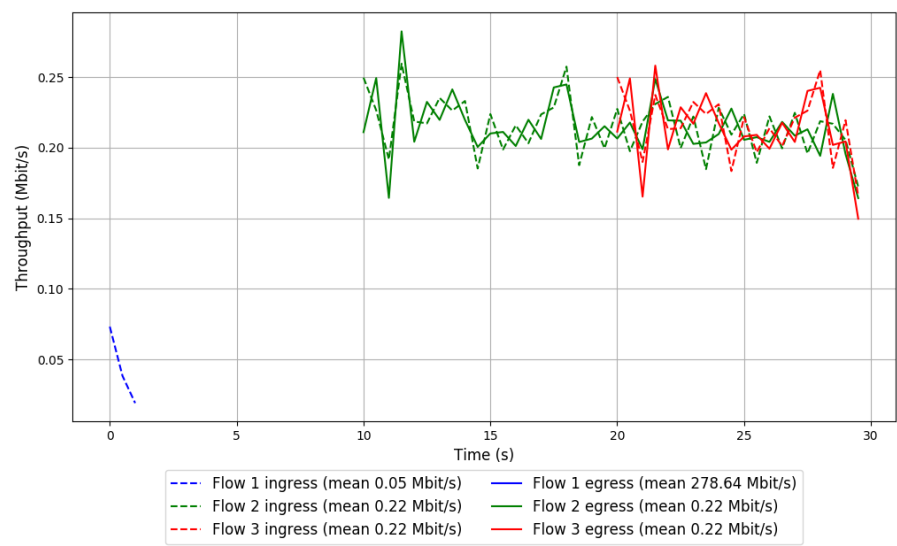


```
Run 1: Statistics of SReAM

Start at: 2017-10-12 10:28:48
End at: 2017-10-12 10:29:18

# Below is generated by plot.py at 2017-10-12 15:11:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 50.111 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 278.64 Mbit/s
95th percentile per-packet one-way delay: 1329.840 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.878 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.125 ms
Loss rate: 1.11%
```

Run 1: Report of SReAM — Data Link

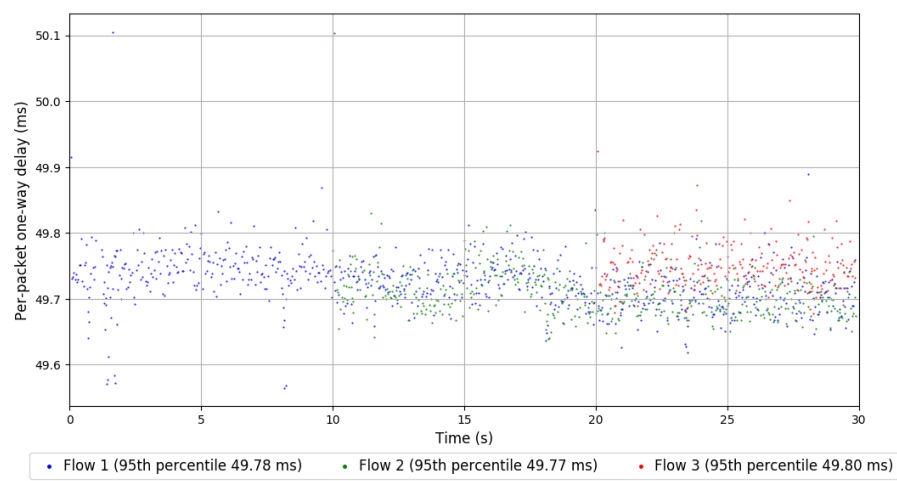
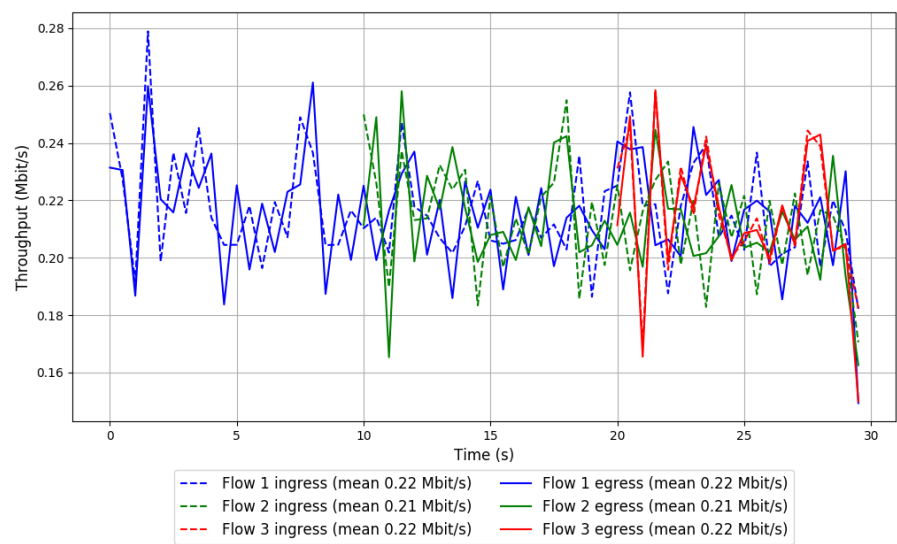


```
Run 2: Statistics of SCReAM

Start at: 2017-10-12 10:41:44
End at: 2017-10-12 10:42:14

# Below is generated by plot.py at 2017-10-12 15:11:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 49.786 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.783 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 49.767 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.805 ms
Loss rate: 1.11%
```

Run 2: Report of SReAM — Data Link

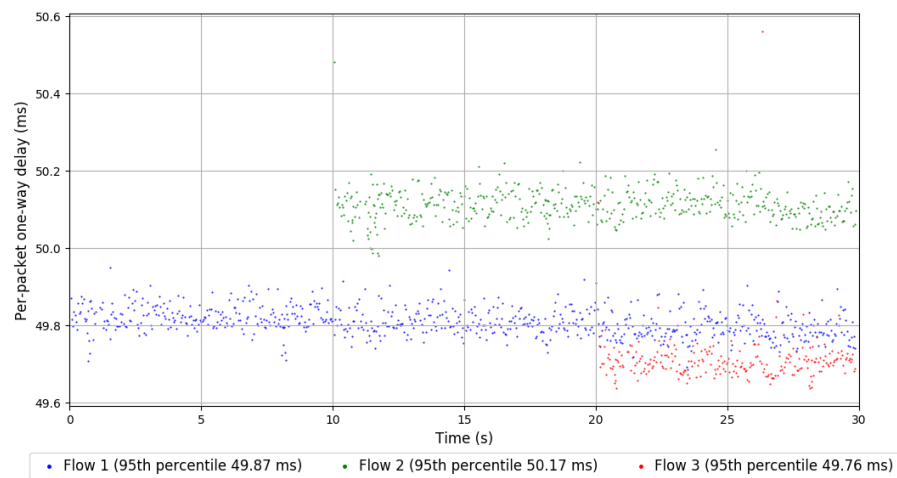
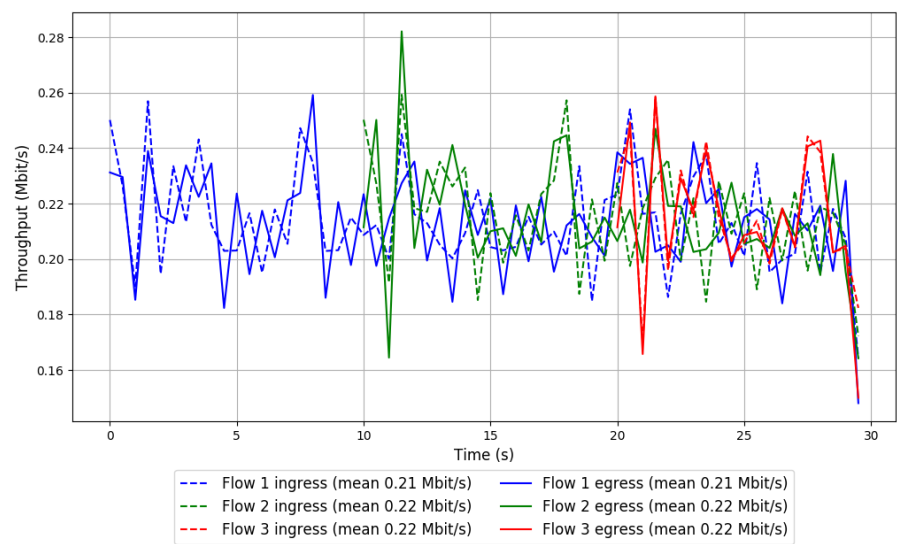


```
Run 3: Statistics of SCReAM

Start at: 2017-10-12 10:54:24
End at: 2017-10-12 10:54:54

# Below is generated by plot.py at 2017-10-12 15:11:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.149 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 49.871 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.172 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.761 ms
Loss rate: 1.11%
```


Run 3: Report of SReAM — Data Link

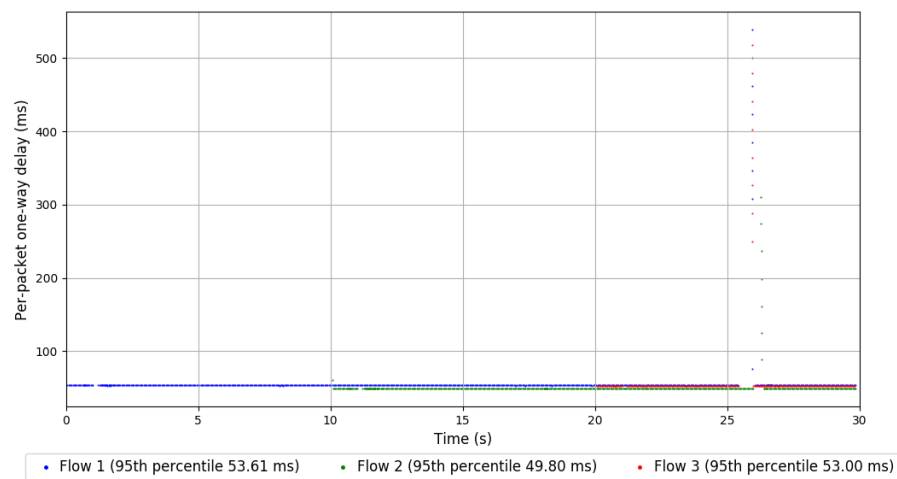
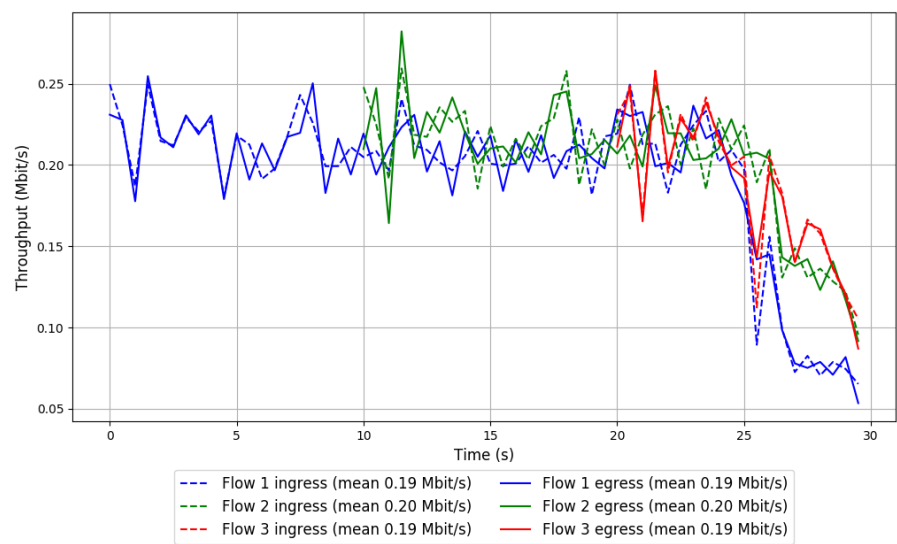


```
Run 4: Statistics of SCReAM

Start at: 2017-10-12 11:07:14
End at: 2017-10-12 11:07:44

# Below is generated by plot.py at 2017-10-12 15:11:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 53.593 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 53.609 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 49.799 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 53.001 ms
Loss rate: 0.74%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2017-10-12 11:20:01

End at: 2017-10-12 11:20:31

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 52.939 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.905 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.869 ms

Loss rate: 0.42%

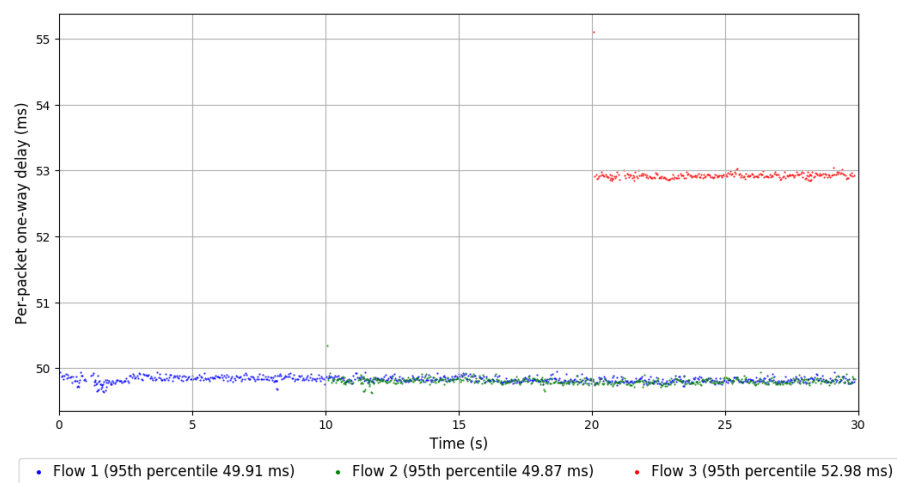
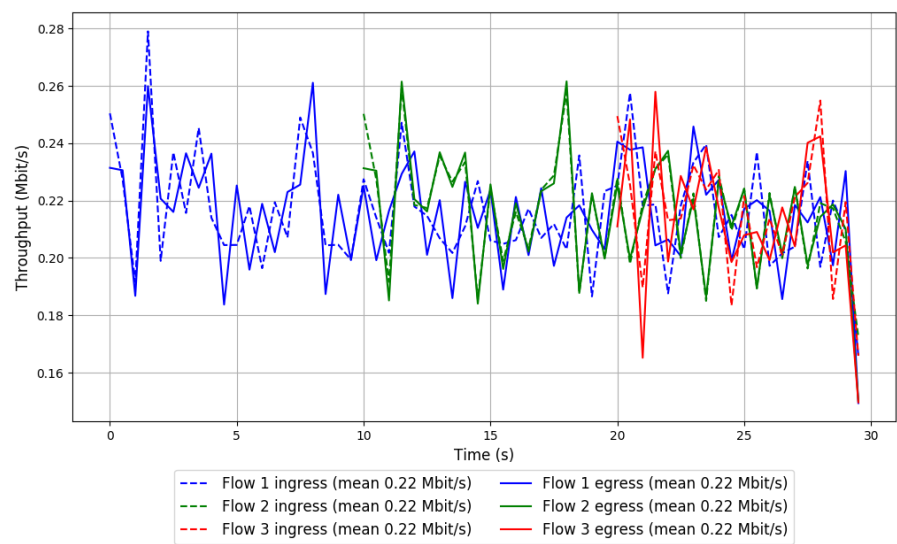
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 52.985 ms

Loss rate: 1.11%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2017-10-12 11:32:47

End at: 2017-10-12 11:33:17

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.701 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 220.82 Mbit/s

95th percentile per-packet one-way delay: 459.522 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.708 ms

Loss rate: 0.43%

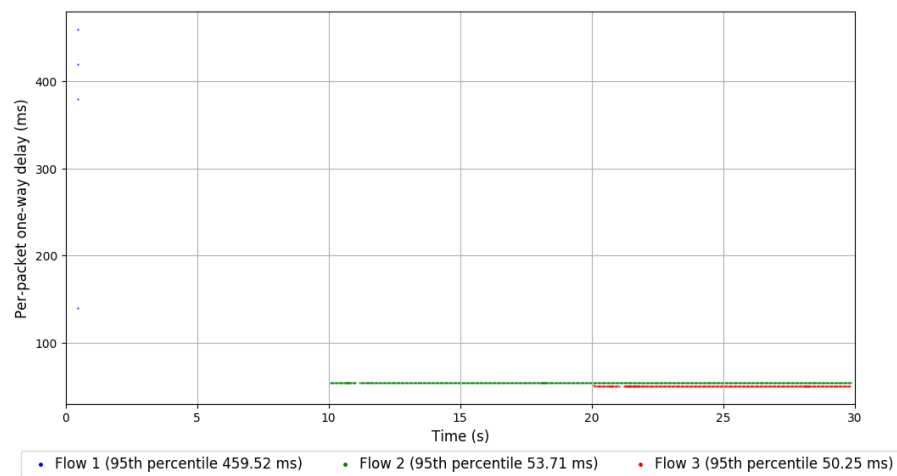
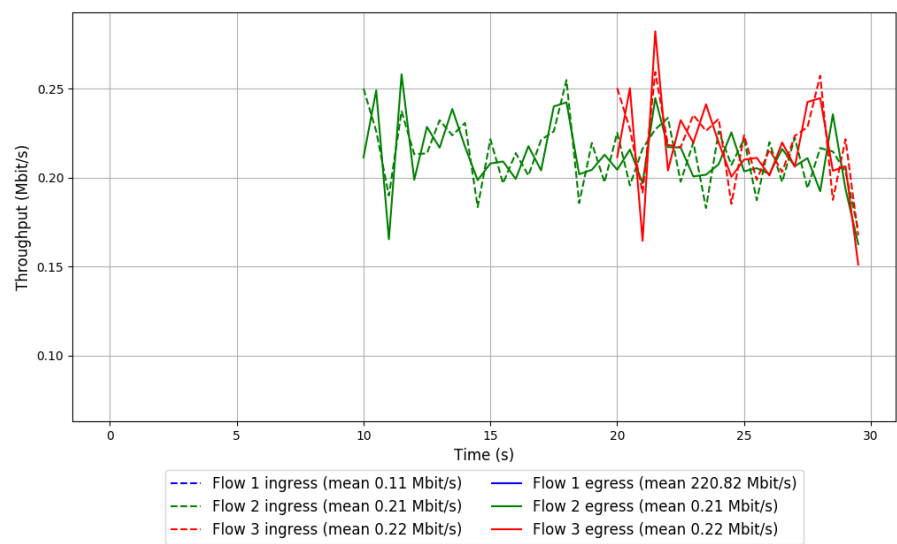
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.247 ms

Loss rate: 1.11%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-10-12 11:45:05

End at: 2017-10-12 11:45:35

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.614 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.266 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.630 ms

Loss rate: 0.43%

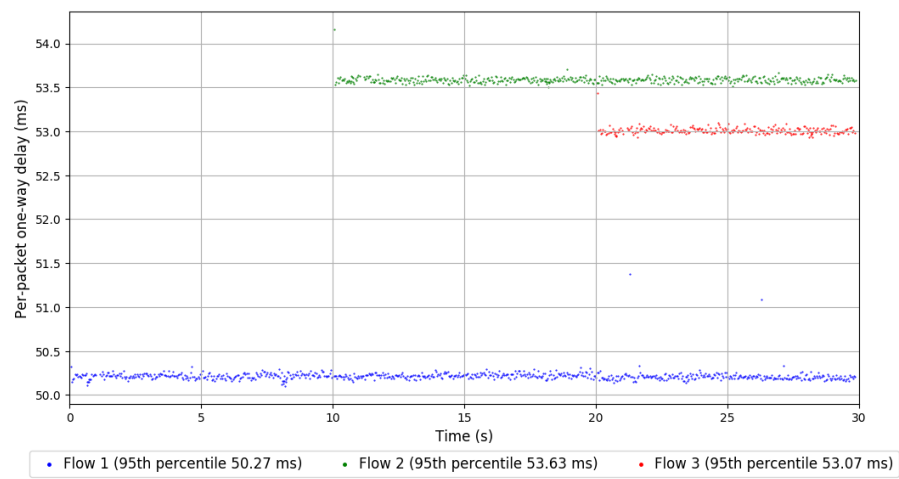
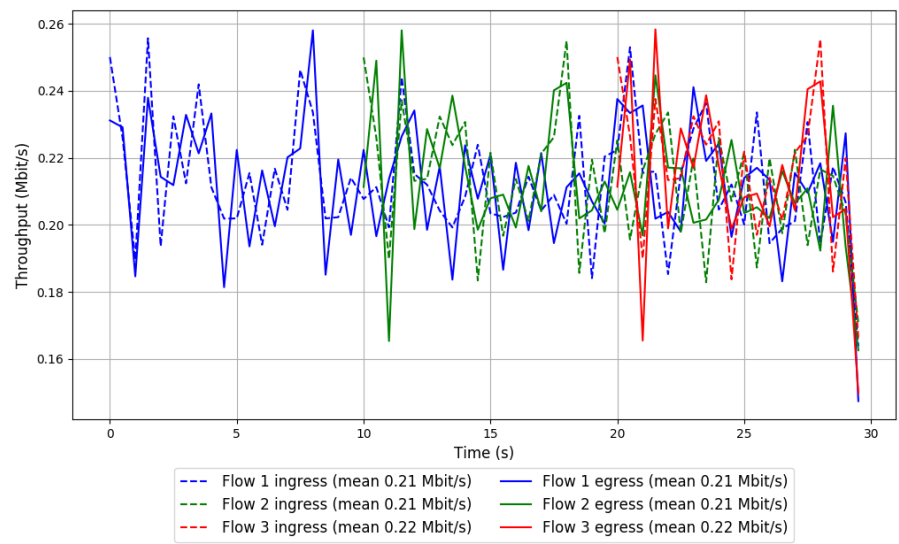
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.066 ms

Loss rate: 1.11%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-10-12 11:57:36

End at: 2017-10-12 11:58:06

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 53.695 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.694 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.705 ms

Loss rate: 0.42%

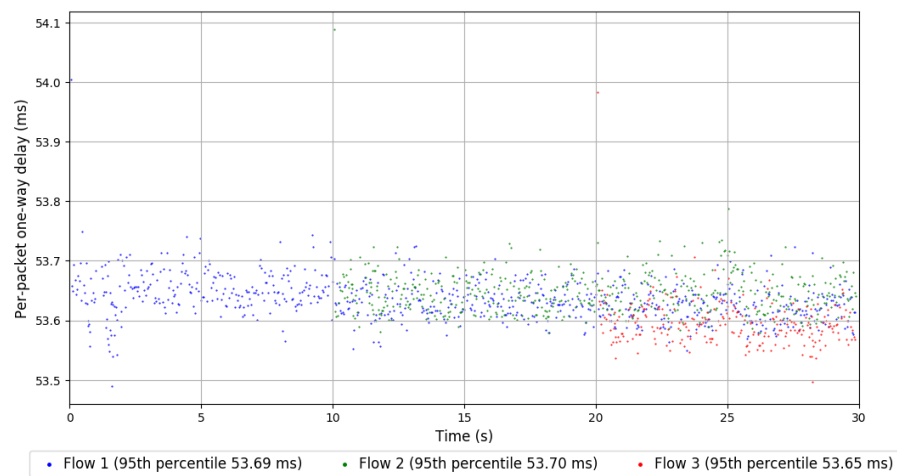
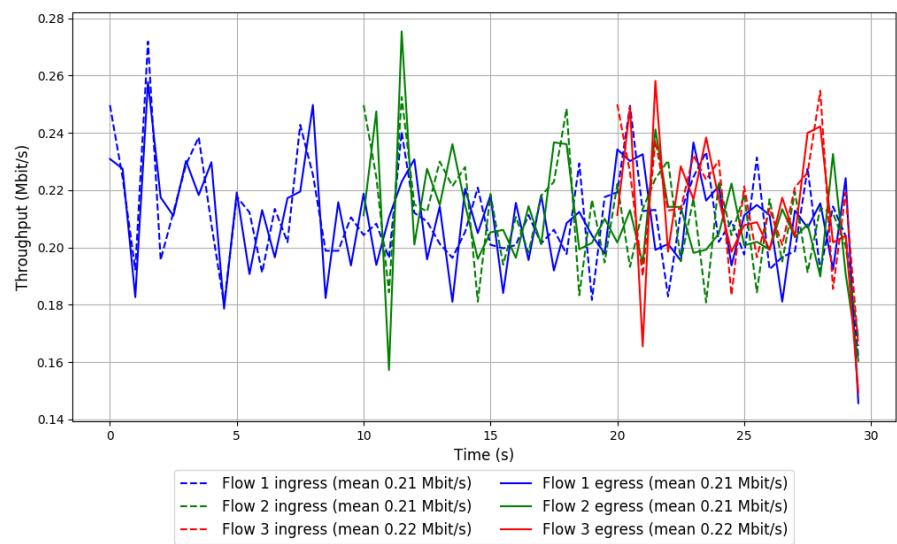
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.649 ms

Loss rate: 1.11%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-10-12 12:09:48

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

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 52.996 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 49.958 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.900 ms

Loss rate: 0.42%

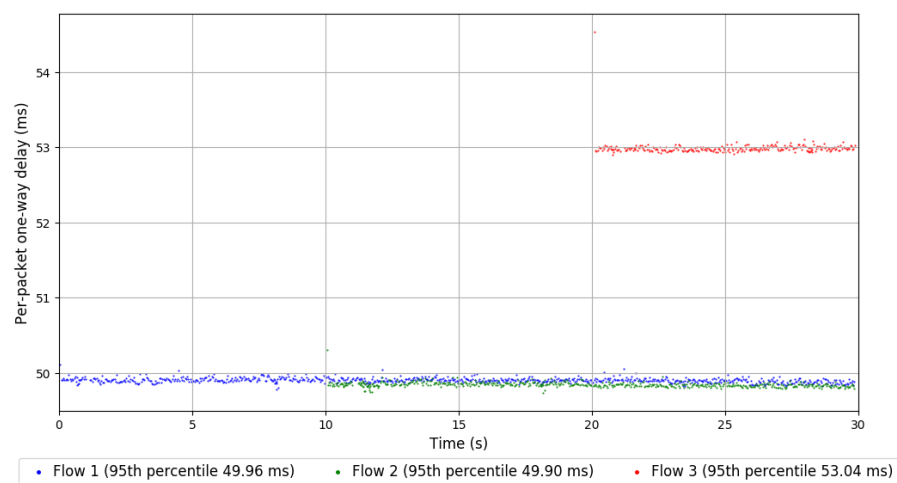
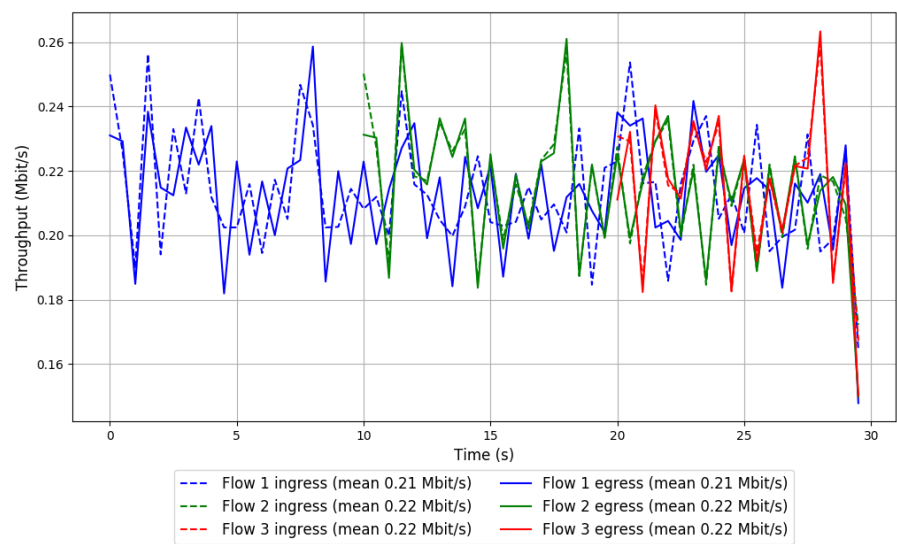
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.038 ms

Loss rate: 0.76%

Run 9: Report of SReAM — Data Link

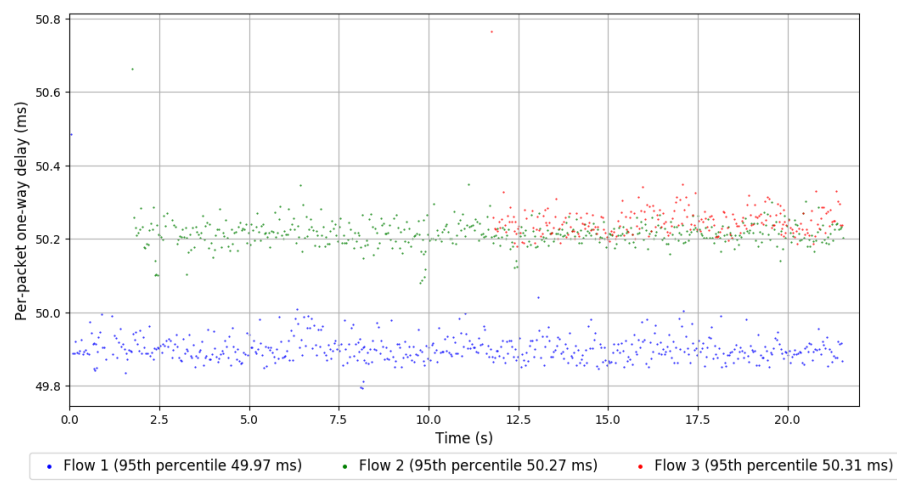
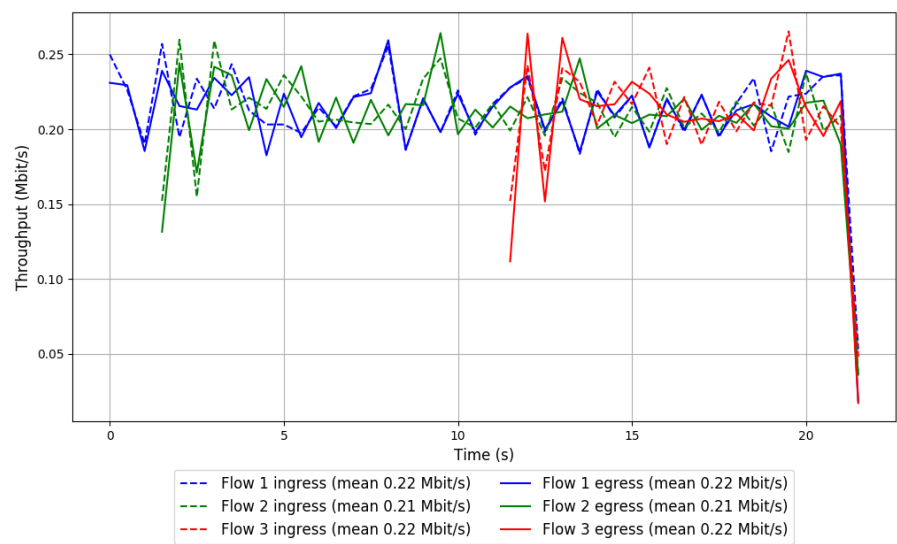


Run 10: Statistics of SCReAM

Start at: 2017-10-12 12:22:20

End at: 2017-10-12 12:22:51

Run 10: Report of SReAM — Data Link

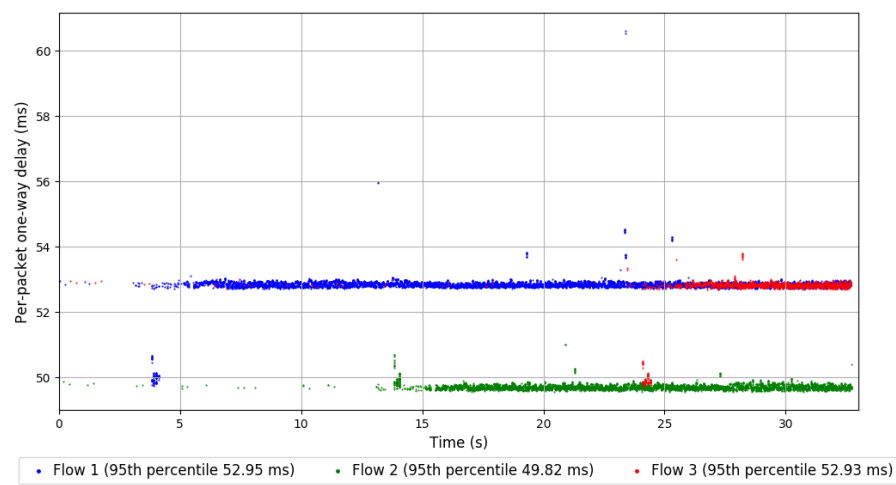
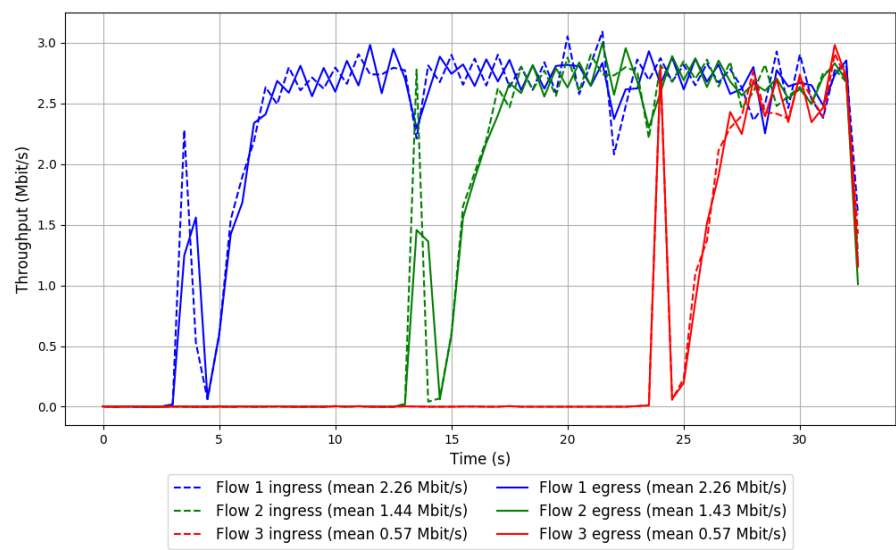


```
Run 1: Statistics of WebRTC media

Start at: 2017-10-12 10:20:05
End at: 2017-10-12 10:20:35

# Below is generated by plot.py at 2017-10-12 15:11:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 52.930 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 52.946 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 49.823 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 52.927 ms
Loss rate: 1.33%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-10-12 10:32:52

End at: 2017-10-12 10:33:22

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.25 Mbit/s

95th percentile per-packet one-way delay: 53.504 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 49.762 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 50.109 ms

Loss rate: 0.58%

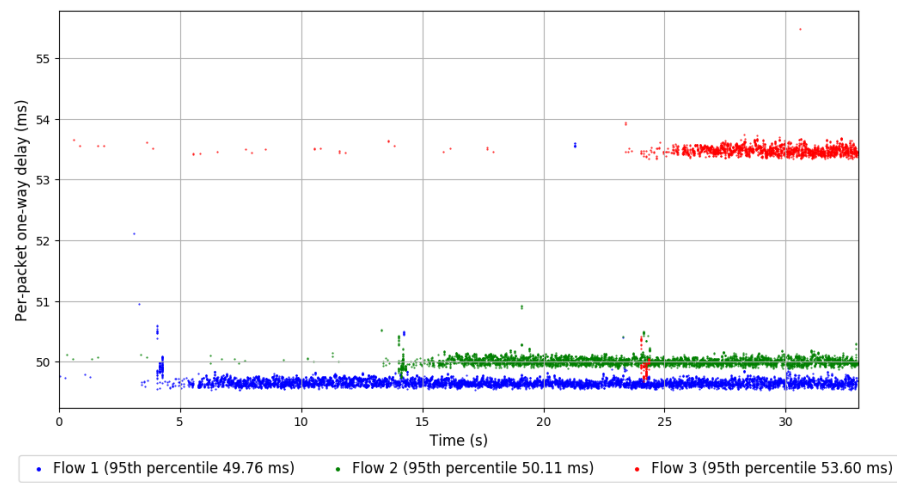
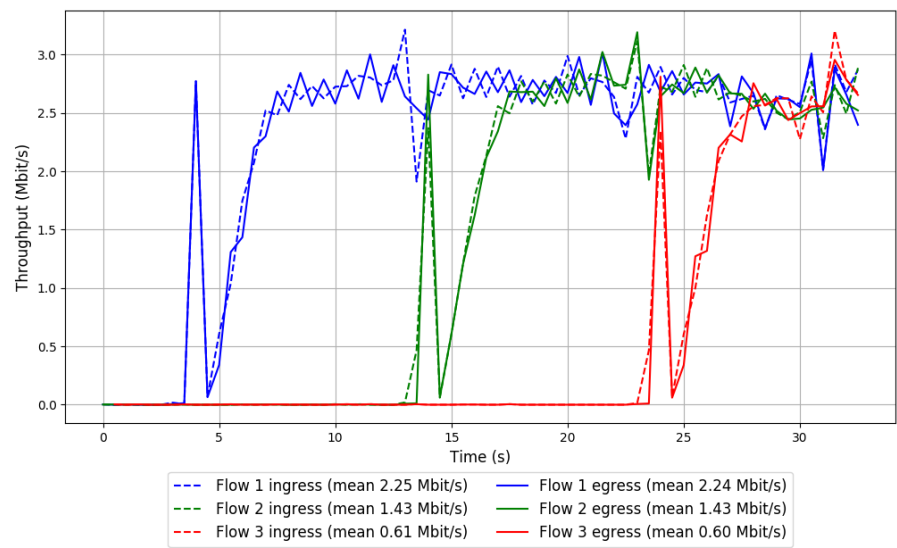
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 53.600 ms

Loss rate: 1.23%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-10-12 10:45:46

End at: 2017-10-12 10:46:16

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 53.556 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 53.577 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 49.771 ms

Loss rate: 0.49%

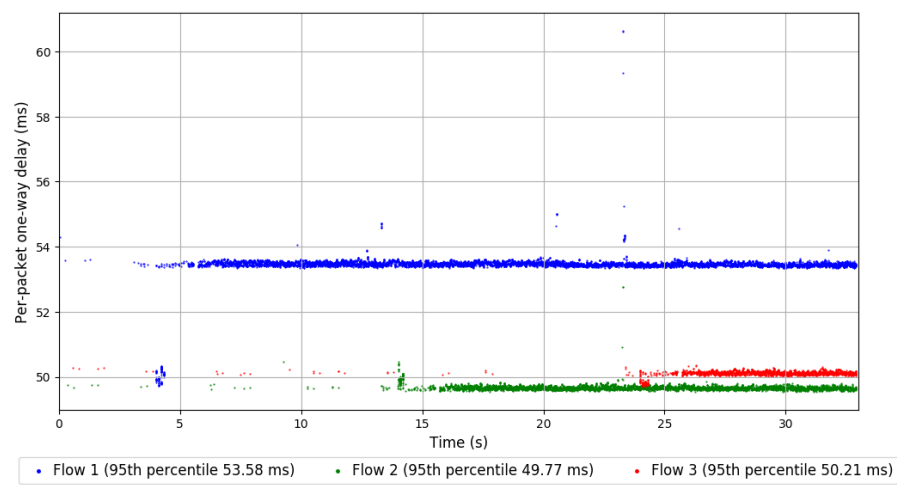
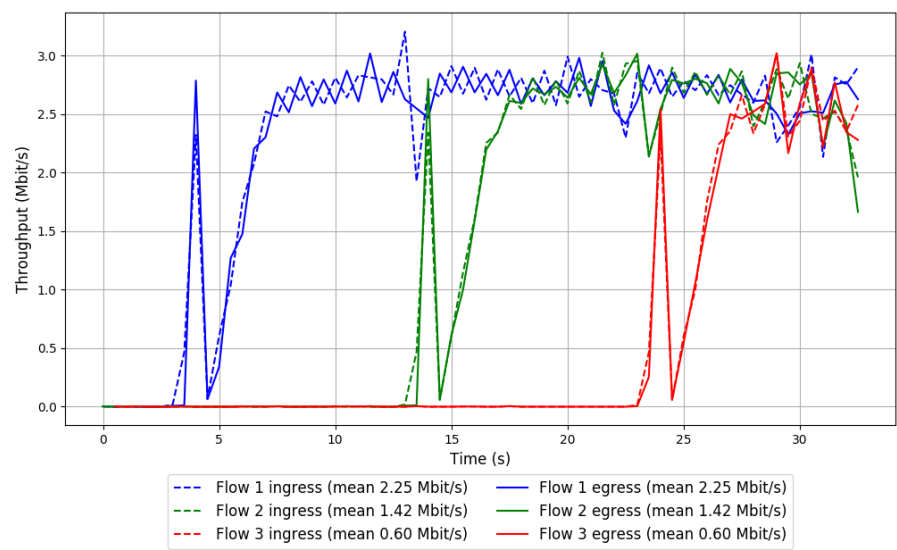
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 50.209 ms

Loss rate: 1.30%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-10-12 10:58:28

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

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 53.527 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 50.099 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 53.556 ms

Loss rate: 0.65%

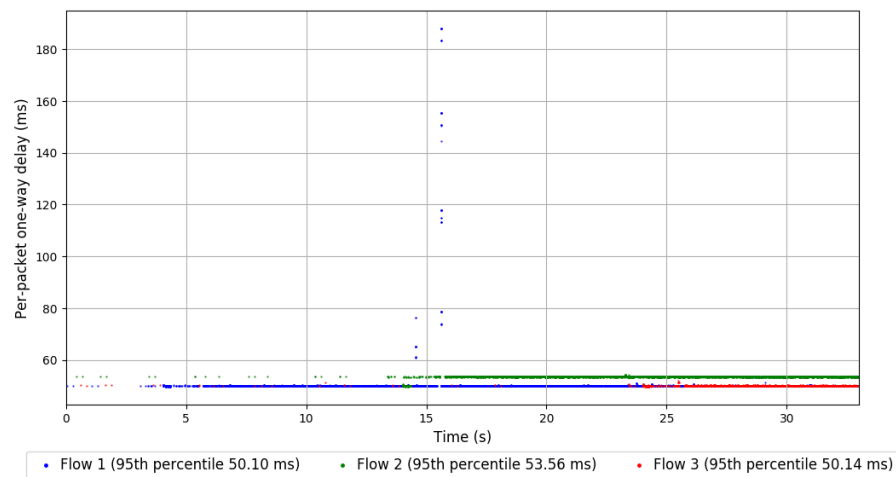
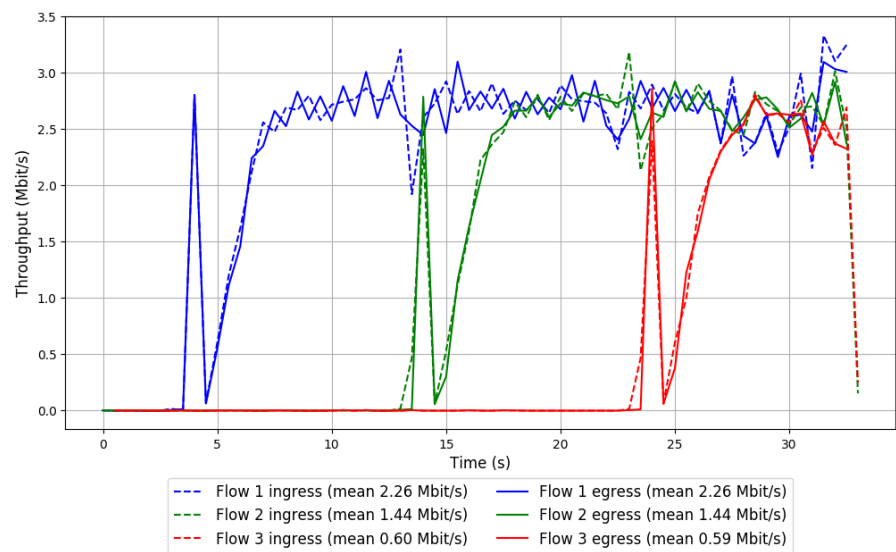
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 50.143 ms

Loss rate: 2.15%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-10-12 11:11:17

End at: 2017-10-12 11:11:47

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.27 Mbit/s

95th percentile per-packet one-way delay: 53.559 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 52.960 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 50.135 ms

Loss rate: 0.50%

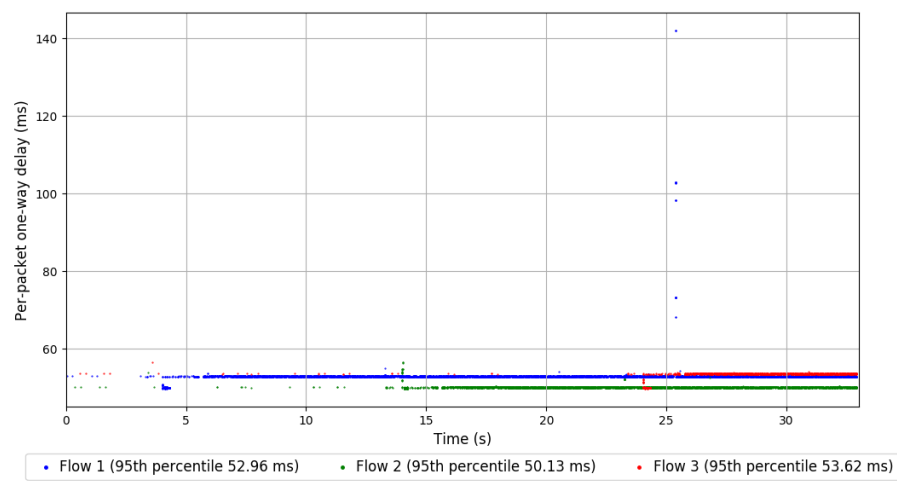
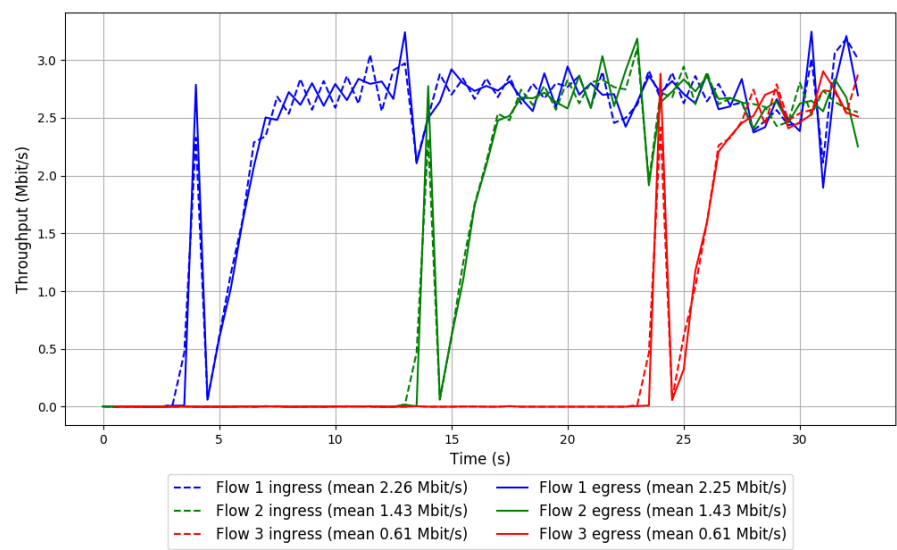
-- Flow 3:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 53.625 ms

Loss rate: 1.48%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-10-12 11:24:04

End at: 2017-10-12 11:24:34

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 52.986 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 49.948 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 53.014 ms

Loss rate: 0.49%

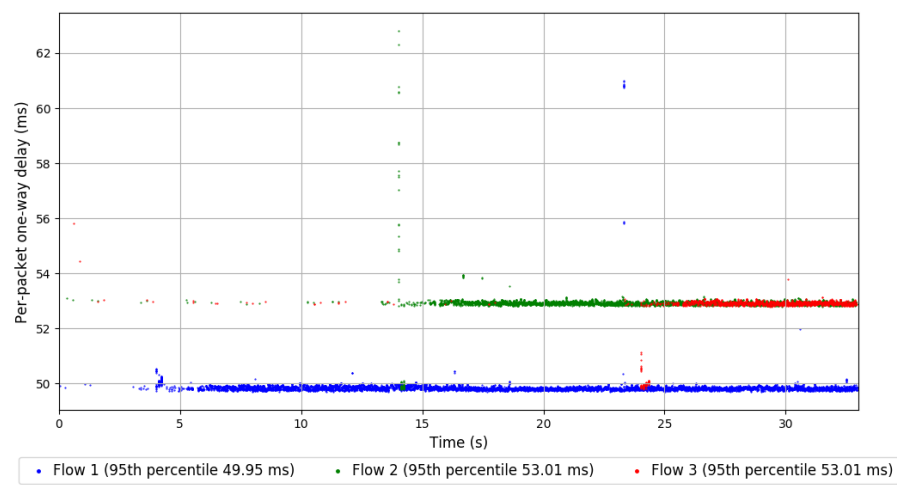
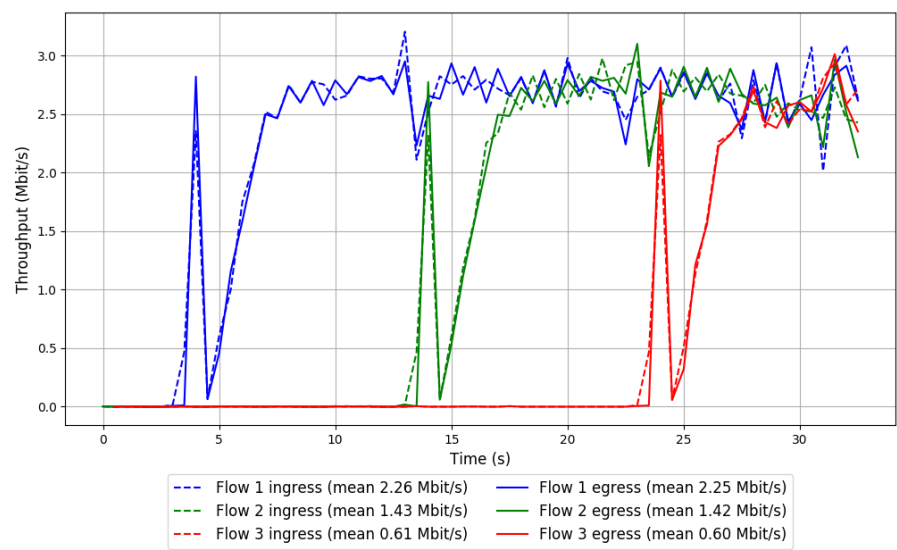
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 53.010 ms

Loss rate: 1.50%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-10-12 11:36:49

End at: 2017-10-12 11:37:19

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.25 Mbit/s

95th percentile per-packet one-way delay: 53.573 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 53.080 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 53.026 ms

Loss rate: 0.56%

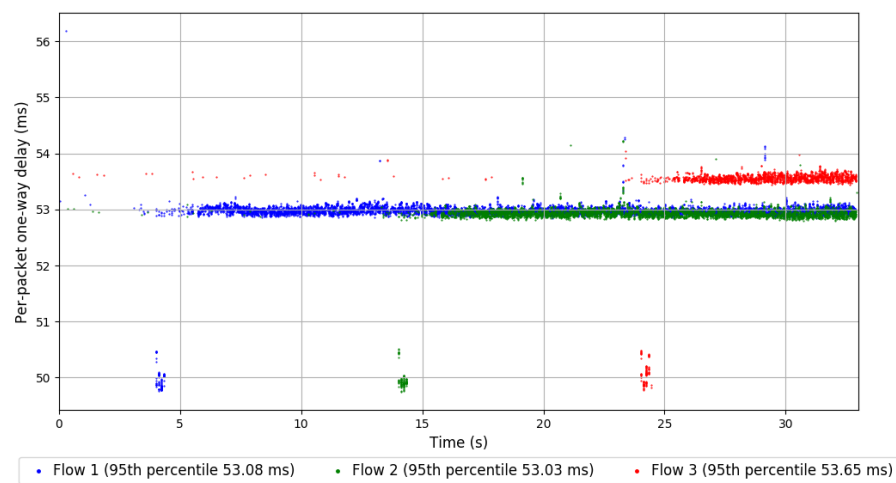
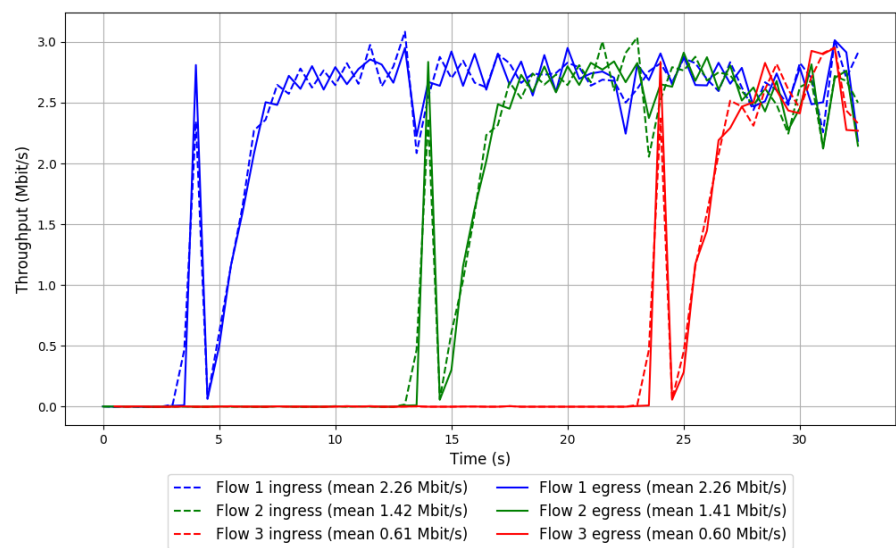
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 53.654 ms

Loss rate: 1.13%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-10-12 11:49:08

End at: 2017-10-12 11:49:38

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 53.691 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 53.706 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 53.665 ms

Loss rate: 0.54%

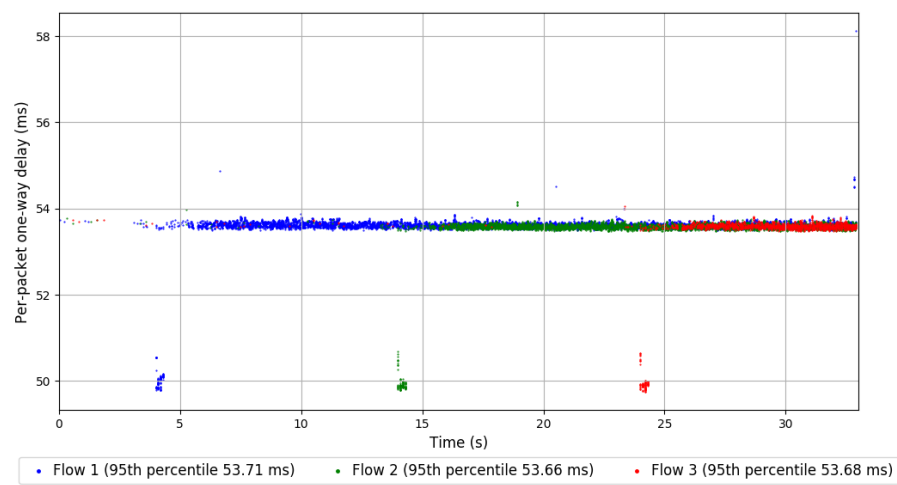
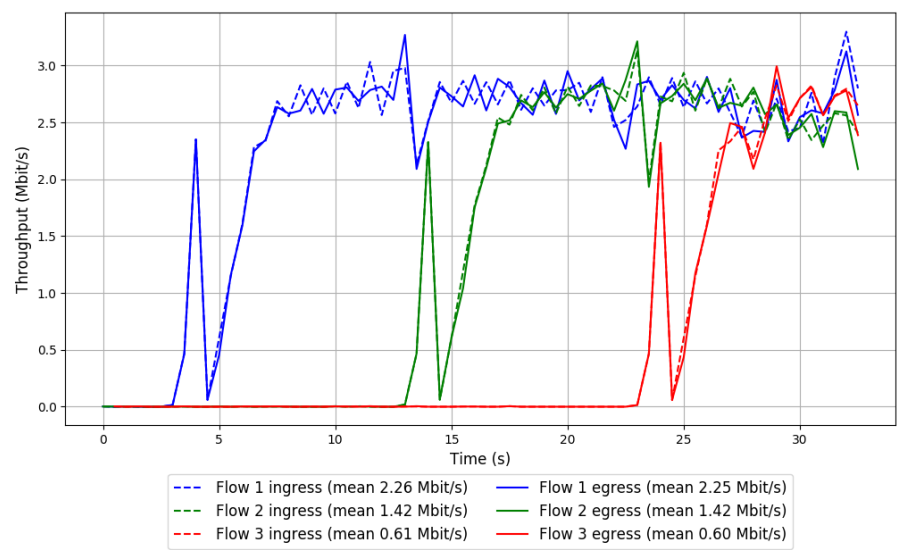
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 53.679 ms

Loss rate: 1.29%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-10-12 12:01:38

End at: 2017-10-12 12:02:08

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 53.072 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 53.094 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 49.945 ms

Loss rate: 0.73%

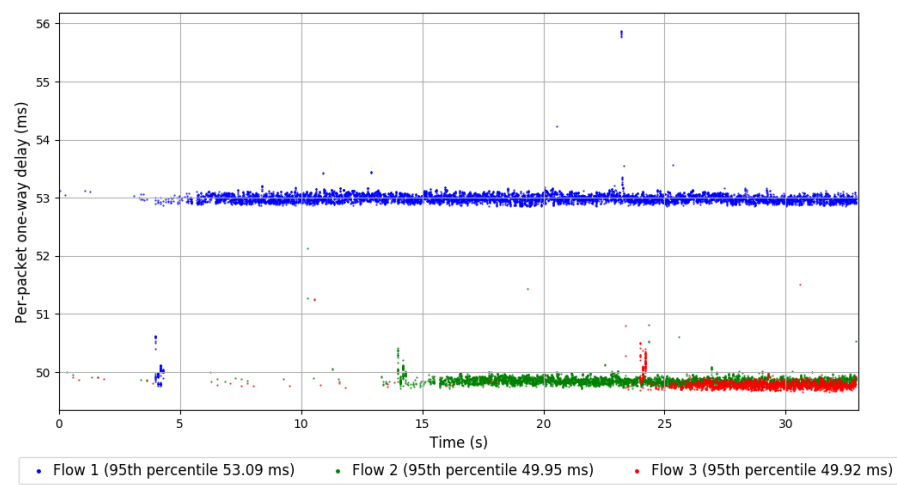
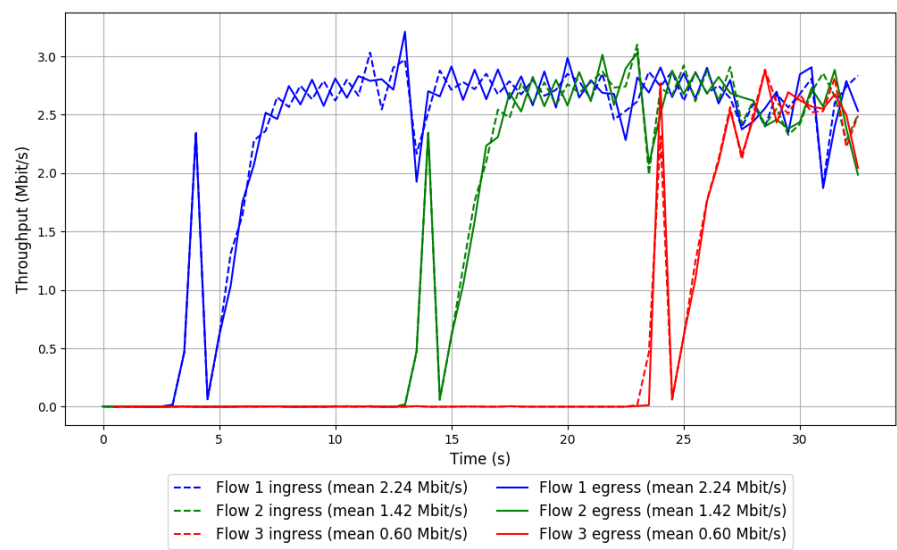
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 49.916 ms

Loss rate: 1.29%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-10-12 12:13:49

End at: 2017-10-12 12:14:19

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 50.203 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 49.955 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 50.206 ms

Loss rate: 0.57%

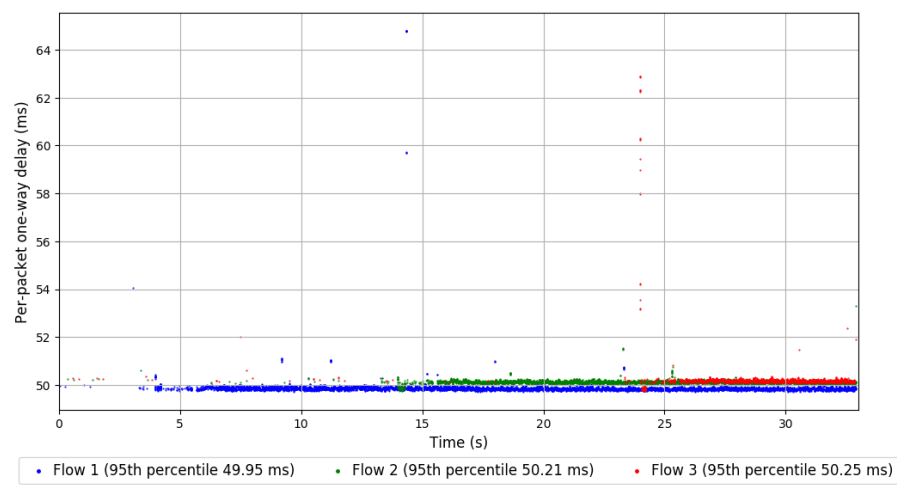
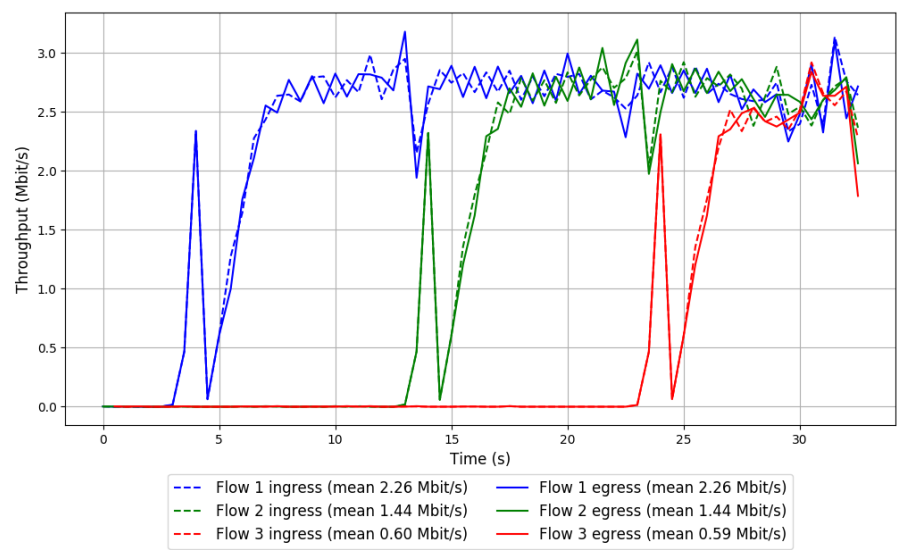
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 50.253 ms

Loss rate: 1.82%

Run 10: Report of WebRTC media — Data Link

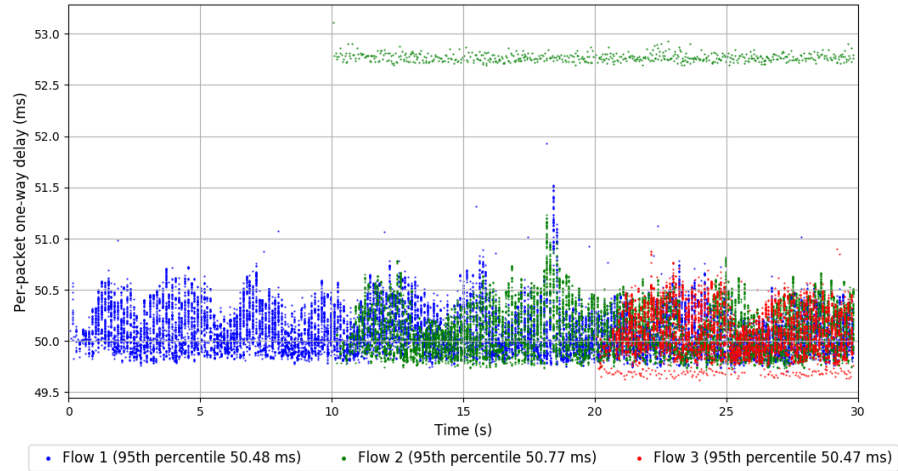
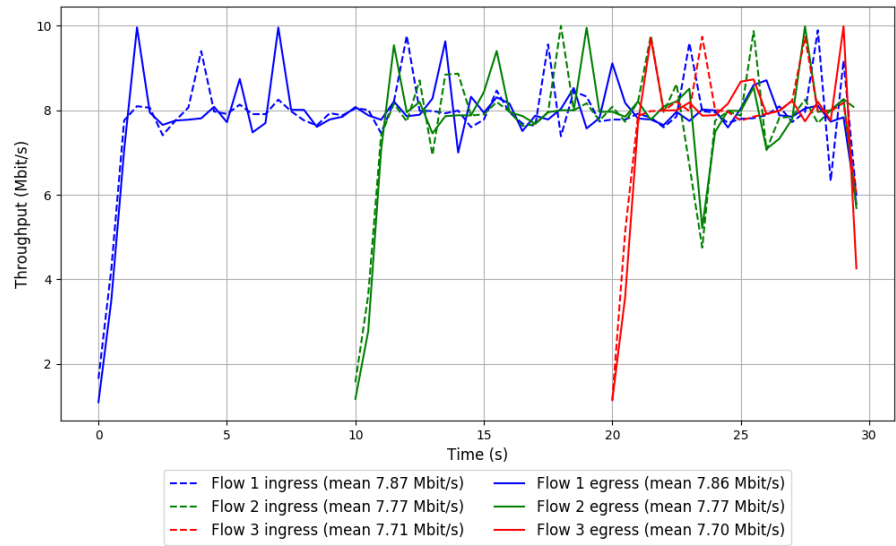


```
Run 1: Statistics of Sprout

Start at: 2017-10-12 10:28:08
End at: 2017-10-12 10:28:38

# Below is generated by plot.py at 2017-10-12 15:11:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.53 Mbit/s
95th percentile per-packet one-way delay: 50.525 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 7.86 Mbit/s
95th percentile per-packet one-way delay: 50.475 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 7.77 Mbit/s
95th percentile per-packet one-way delay: 50.772 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 7.70 Mbit/s
95th percentile per-packet one-way delay: 50.466 ms
Loss rate: 1.28%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-10-12 10:41:04

End at: 2017-10-12 10:41:34

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.67 Mbit/s

95th percentile per-packet one-way delay: 50.553 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 50.551 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 7.93 Mbit/s

95th percentile per-packet one-way delay: 50.570 ms

Loss rate: 0.17%

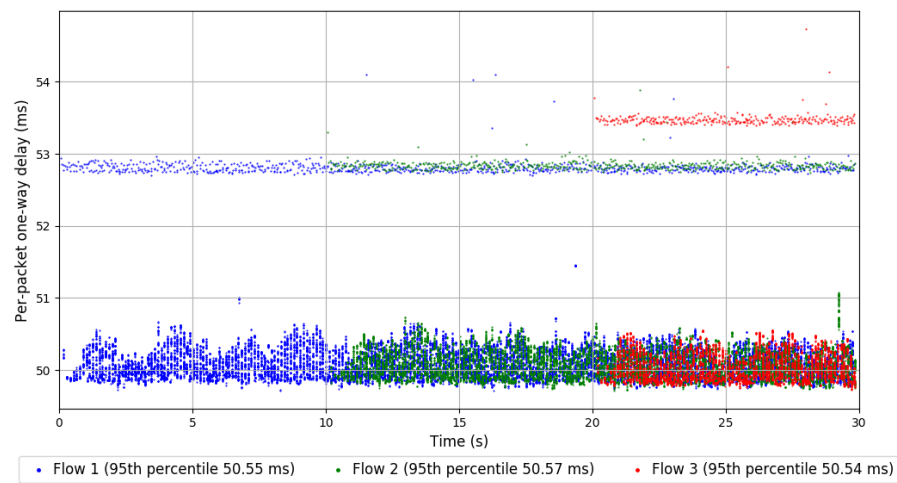
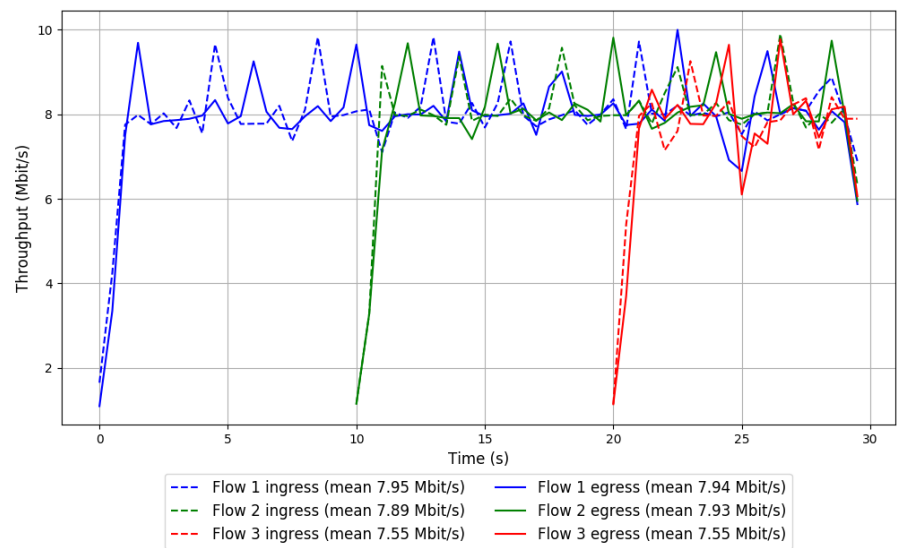
-- Flow 3:

Average throughput: 7.55 Mbit/s

95th percentile per-packet one-way delay: 50.539 ms

Loss rate: 1.23%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-10-12 10:53:44

End at: 2017-10-12 10:54:14

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.44 Mbit/s

95th percentile per-packet one-way delay: 50.575 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 7.77 Mbit/s

95th percentile per-packet one-way delay: 50.926 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 50.470 ms

Loss rate: 0.70%

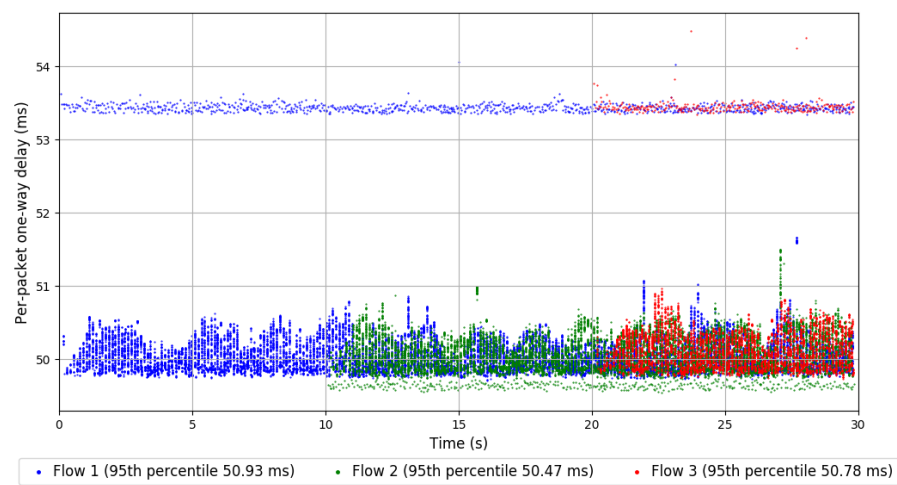
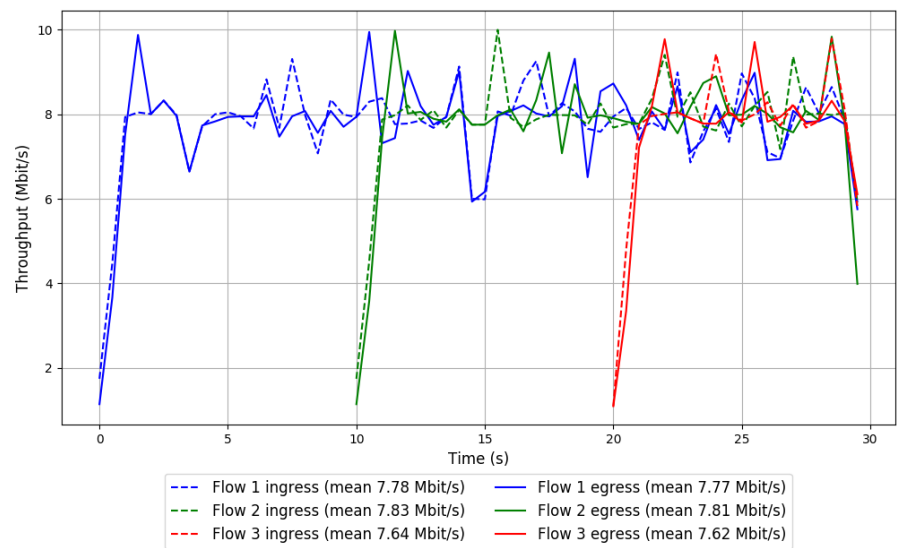
-- Flow 3:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 50.780 ms

Loss rate: 1.11%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-10-12 11:06:34

End at: 2017-10-12 11:07:04

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.49 Mbit/s

95th percentile per-packet one-way delay: 50.691 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 7.98 Mbit/s

95th percentile per-packet one-way delay: 50.599 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 7.56 Mbit/s

95th percentile per-packet one-way delay: 50.902 ms

Loss rate: 0.66%

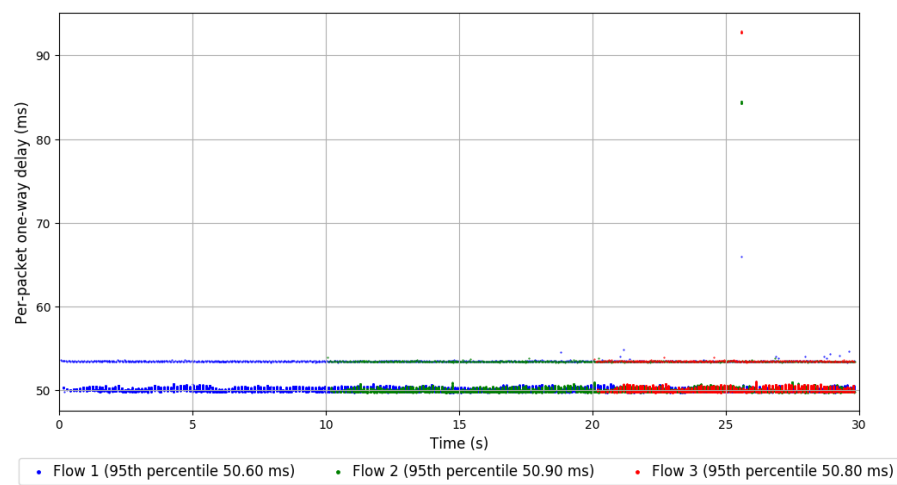
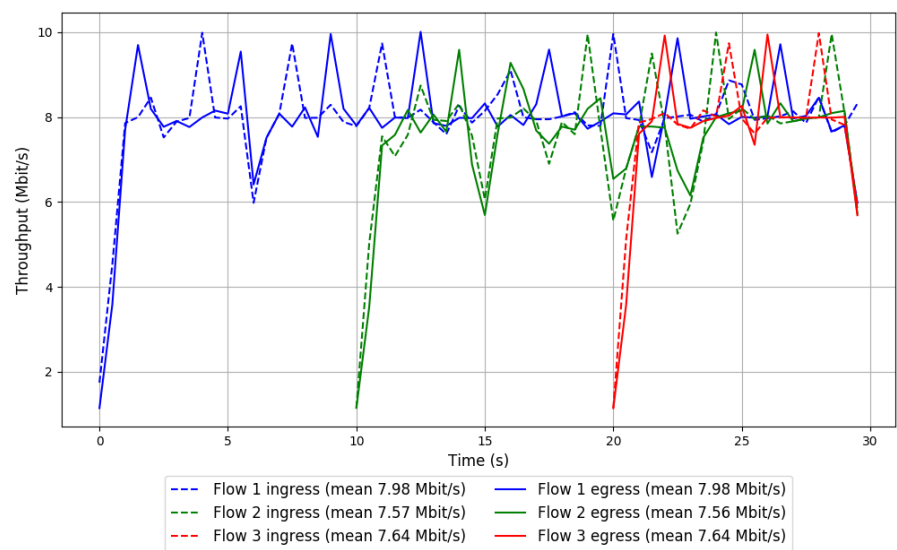
-- Flow 3:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 50.800 ms

Loss rate: 1.34%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-10-12 11:19:21

End at: 2017-10-12 11:19:51

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.58 Mbit/s

95th percentile per-packet one-way delay: 50.831 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 7.98 Mbit/s

95th percentile per-packet one-way delay: 50.903 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 7.70 Mbit/s

95th percentile per-packet one-way delay: 51.078 ms

Loss rate: 0.76%

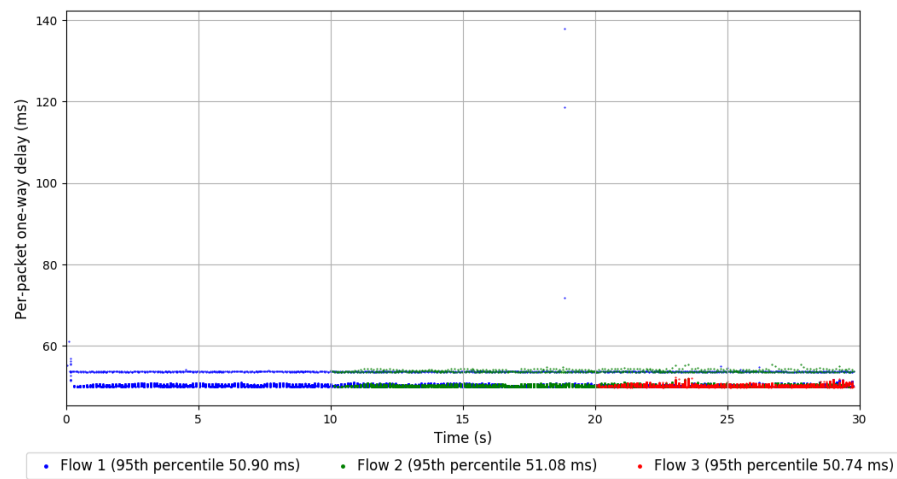
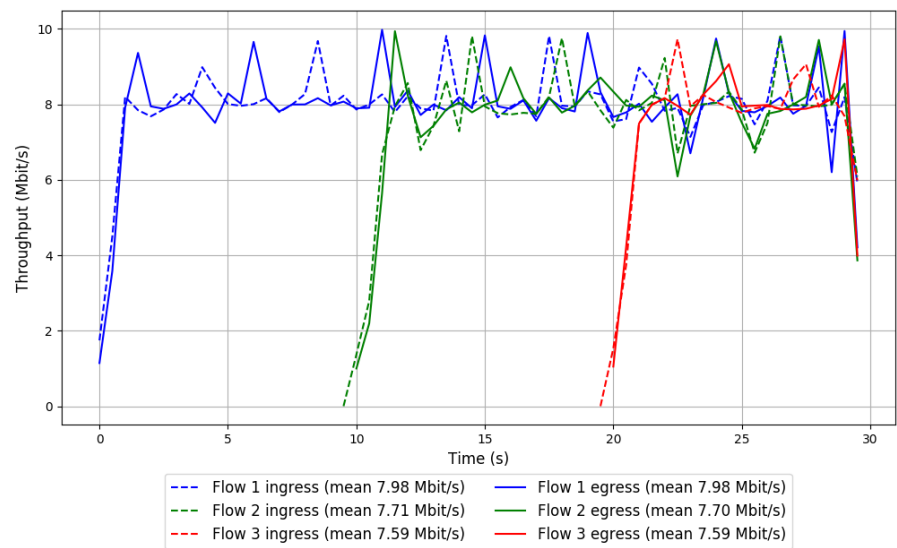
-- Flow 3:

Average throughput: 7.59 Mbit/s

95th percentile per-packet one-way delay: 50.738 ms

Loss rate: 1.33%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-10-12 11:32:06

End at: 2017-10-12 11:32:36

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.53 Mbit/s

95th percentile per-packet one-way delay: 50.561 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 50.661 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 50.463 ms

Loss rate: 0.70%

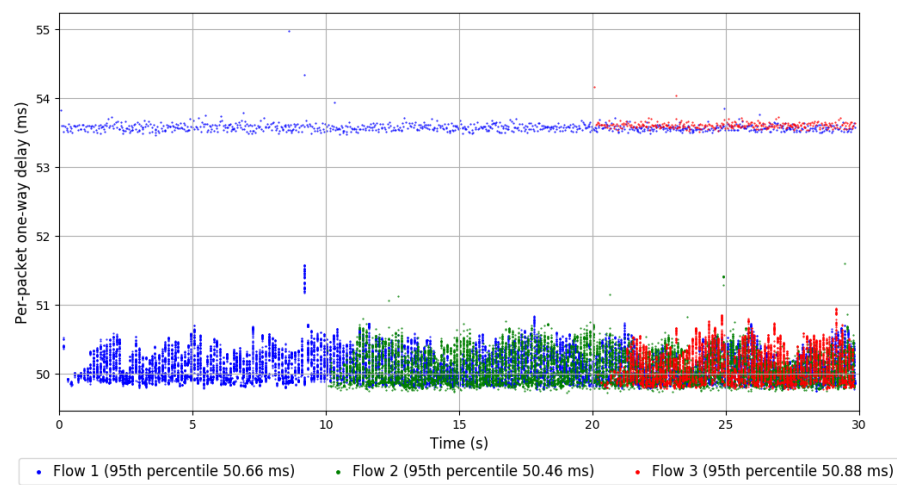
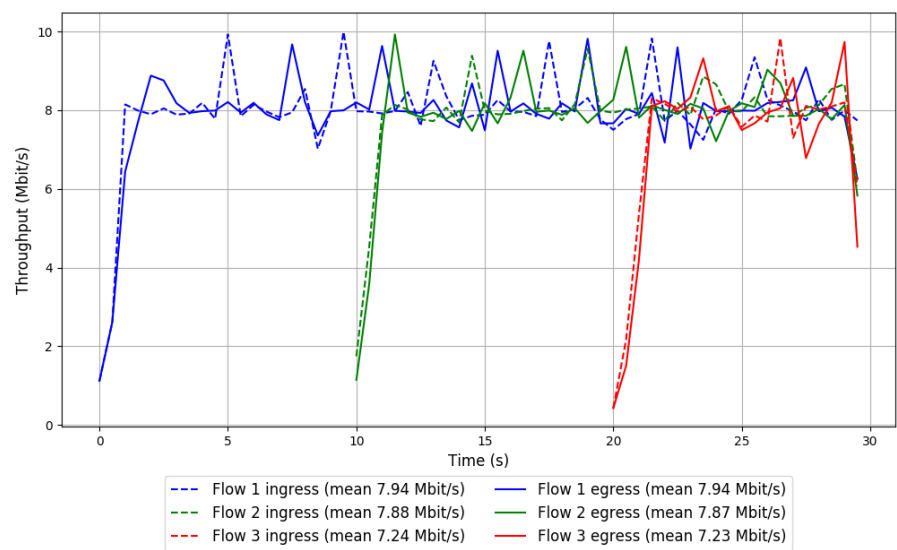
-- Flow 3:

Average throughput: 7.23 Mbit/s

95th percentile per-packet one-way delay: 50.875 ms

Loss rate: 1.33%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-10-12 11:44:24

End at: 2017-10-12 11:44:55

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.47 Mbit/s

95th percentile per-packet one-way delay: 50.866 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 7.80 Mbit/s

95th percentile per-packet one-way delay: 51.276 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 50.750 ms

Loss rate: 0.63%

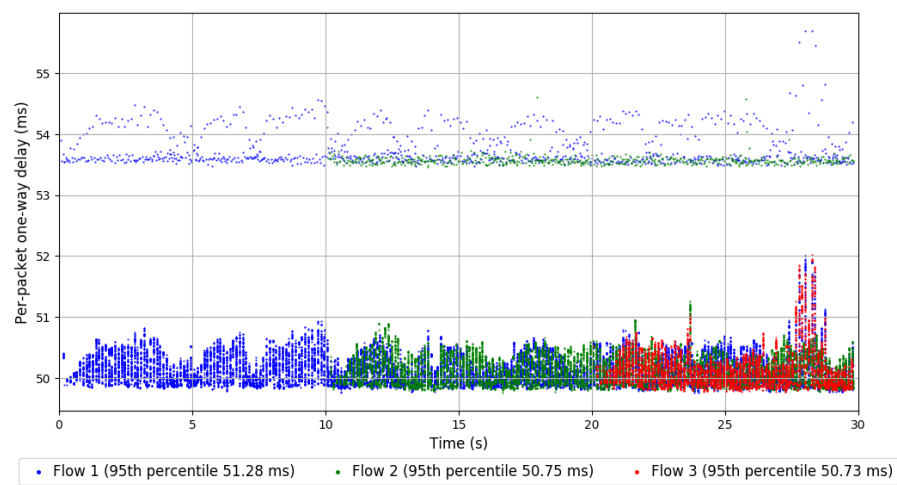
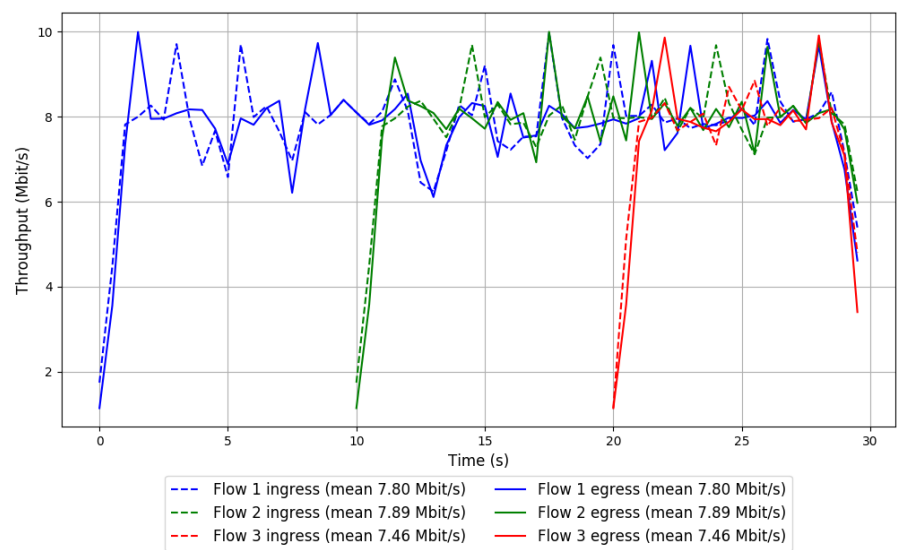
-- Flow 3:

Average throughput: 7.46 Mbit/s

95th percentile per-packet one-way delay: 50.726 ms

Loss rate: 1.21%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-10-12 11:56:56

End at: 2017-10-12 11:57:26

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.45 Mbit/s

95th percentile per-packet one-way delay: 50.762 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 7.76 Mbit/s

95th percentile per-packet one-way delay: 50.697 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 50.778 ms

Loss rate: 0.65%

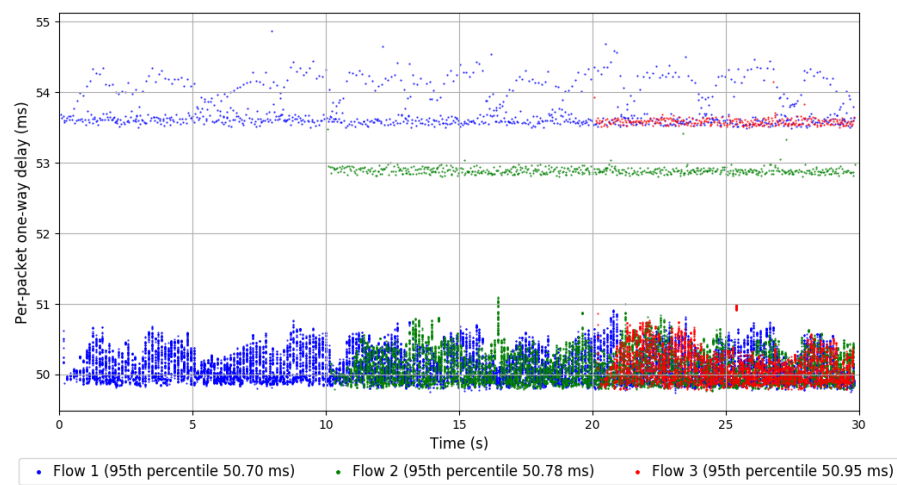
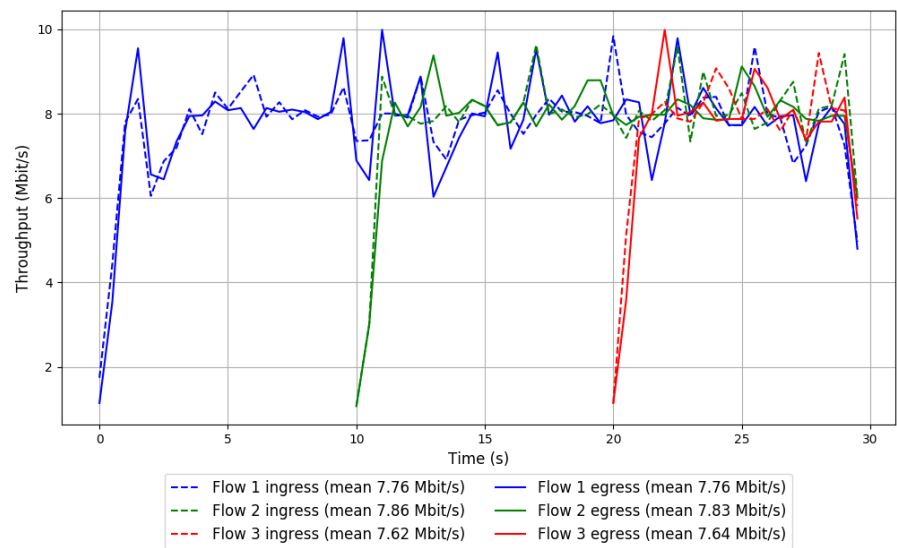
-- Flow 3:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 50.951 ms

Loss rate: 1.28%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-10-12 12:09:07

End at: 2017-10-12 12:09:37

Below is generated by plot.py at 2017-10-12 15:11:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 17.07 Mbit/s

95th percentile per-packet one-way delay: 50.594 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 50.647 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 50.617 ms

Loss rate: 0.35%

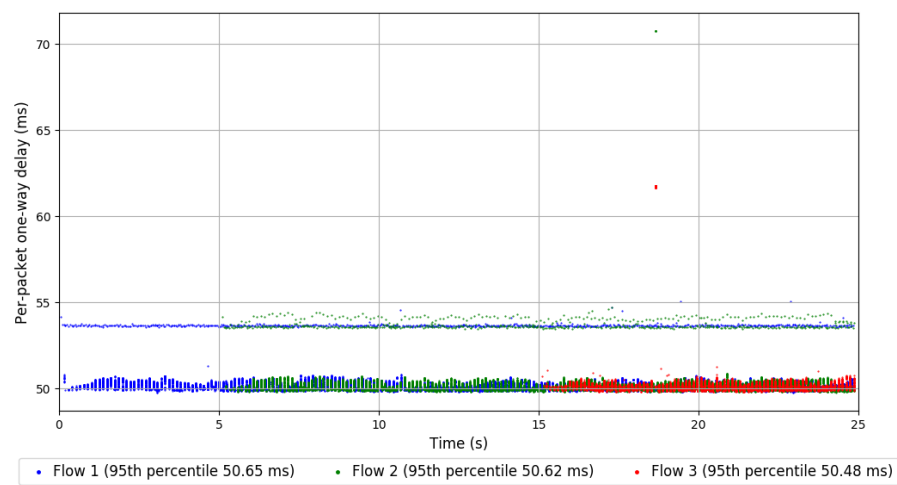
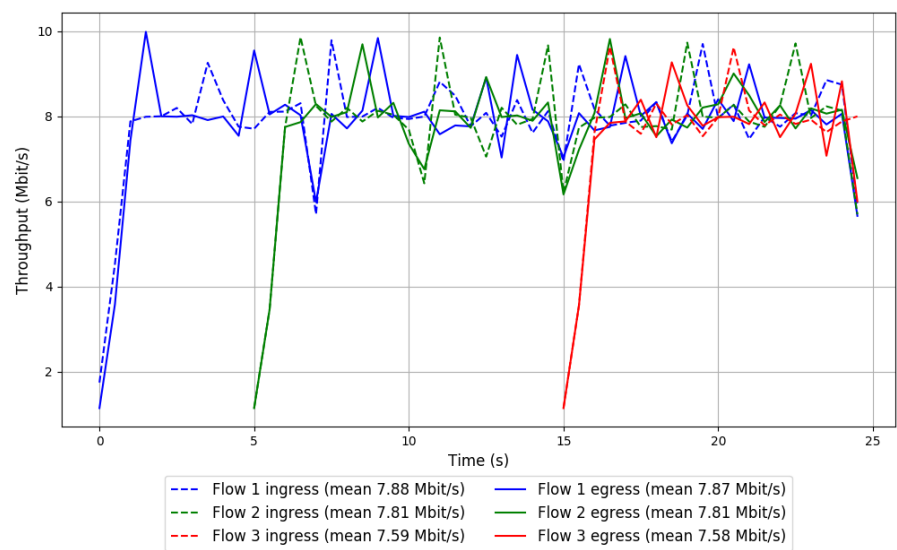
-- Flow 3:

Average throughput: 7.58 Mbit/s

95th percentile per-packet one-way delay: 50.478 ms

Loss rate: 1.33%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-10-12 12:21:40

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

Below is generated by plot.py at 2017-10-12 15:11:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.56 Mbit/s

95th percentile per-packet one-way delay: 50.609 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 50.606 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 7.71 Mbit/s

95th percentile per-packet one-way delay: 50.649 ms

Loss rate: 0.72%

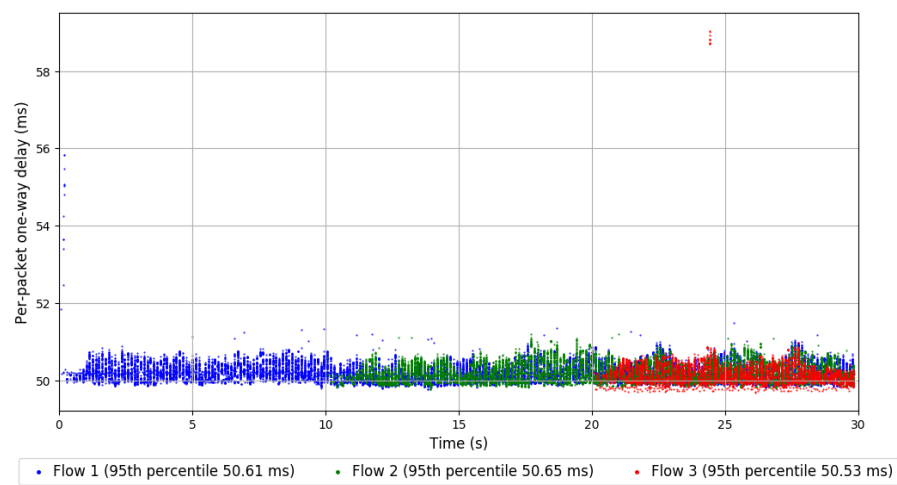
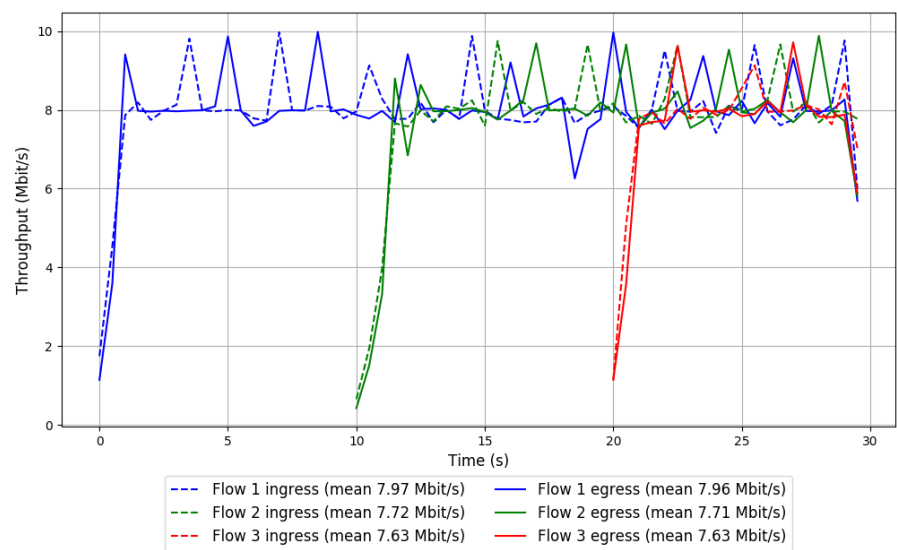
-- Flow 3:

Average throughput: 7.63 Mbit/s

95th percentile per-packet one-way delay: 50.527 ms

Loss rate: 1.31%

Run 10: Report of Sprout — Data Link

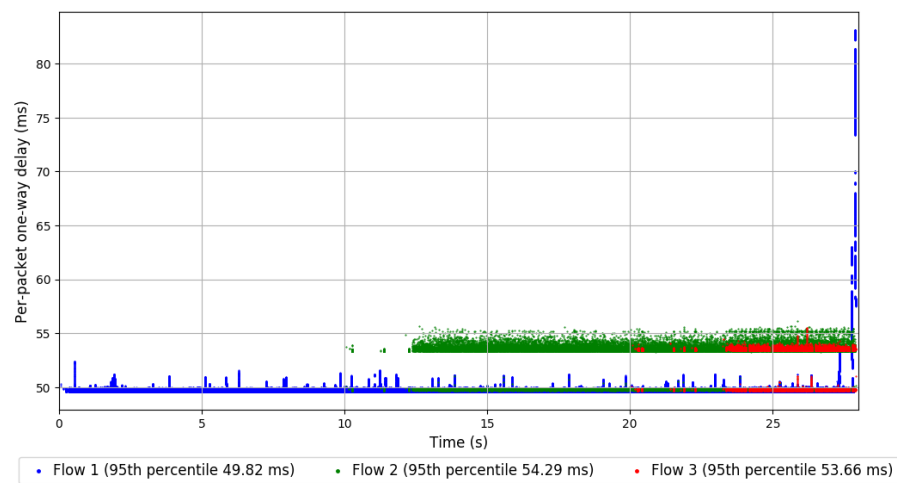
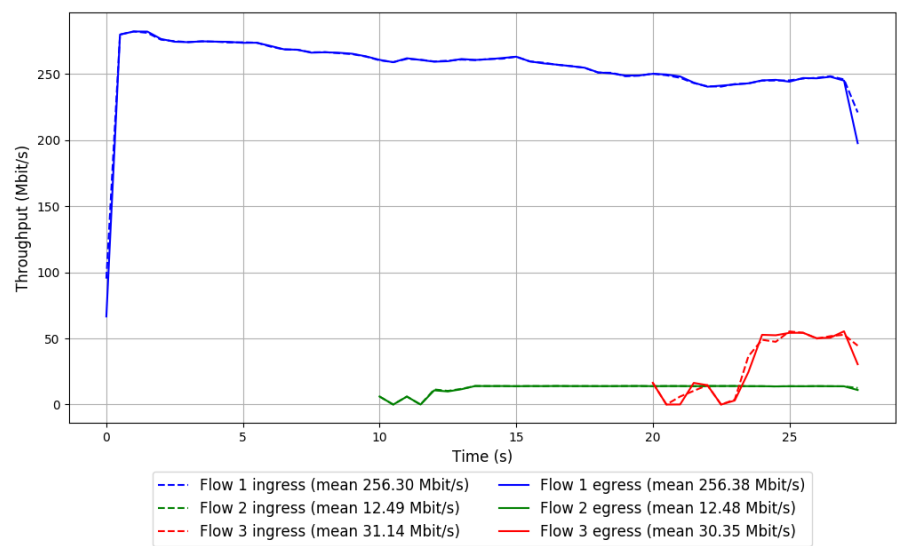


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-10-12 10:26:08
End at: 2017-10-12 10:26:38

# Below is generated by plot.py at 2017-10-12 15:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 272.90 Mbit/s
95th percentile per-packet one-way delay: 49.866 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 256.38 Mbit/s
95th percentile per-packet one-way delay: 49.824 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 12.48 Mbit/s
95th percentile per-packet one-way delay: 54.293 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 30.35 Mbit/s
95th percentile per-packet one-way delay: 53.656 ms
Loss rate: 3.52%
```


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

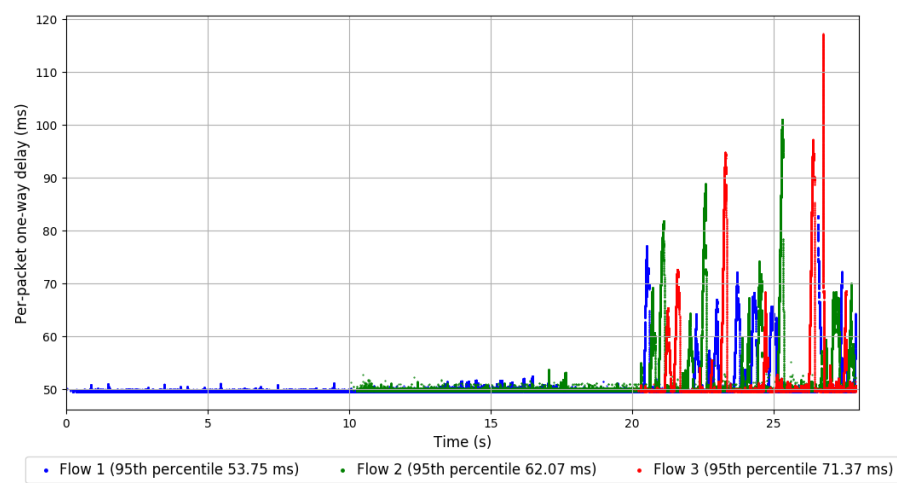
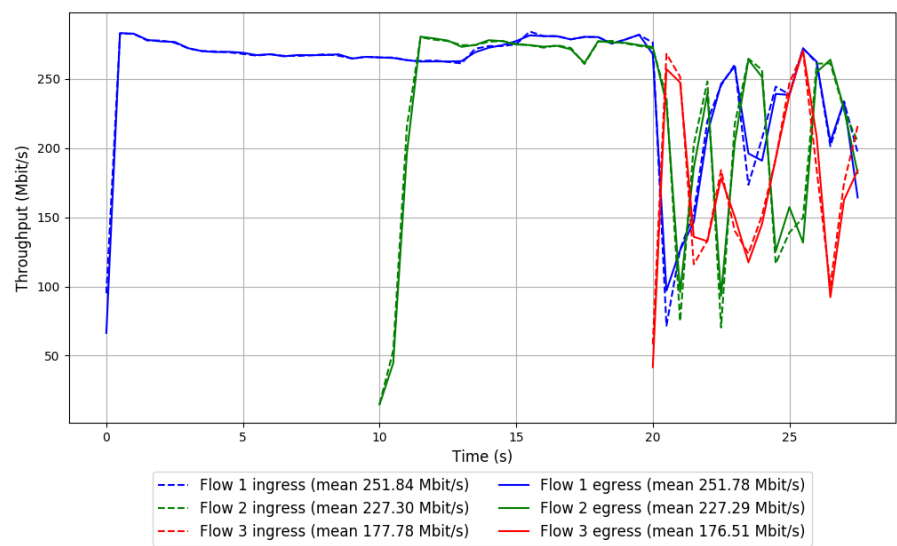


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-10-12 10:38:50
End at: 2017-10-12 10:39:20

# Below is generated by plot.py at 2017-10-12 15:17:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 446.81 Mbit/s
95th percentile per-packet one-way delay: 59.549 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 251.78 Mbit/s
95th percentile per-packet one-way delay: 53.749 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 227.29 Mbit/s
95th percentile per-packet one-way delay: 62.072 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 176.51 Mbit/s
95th percentile per-packet one-way delay: 71.374 ms
Loss rate: 2.01%
```

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

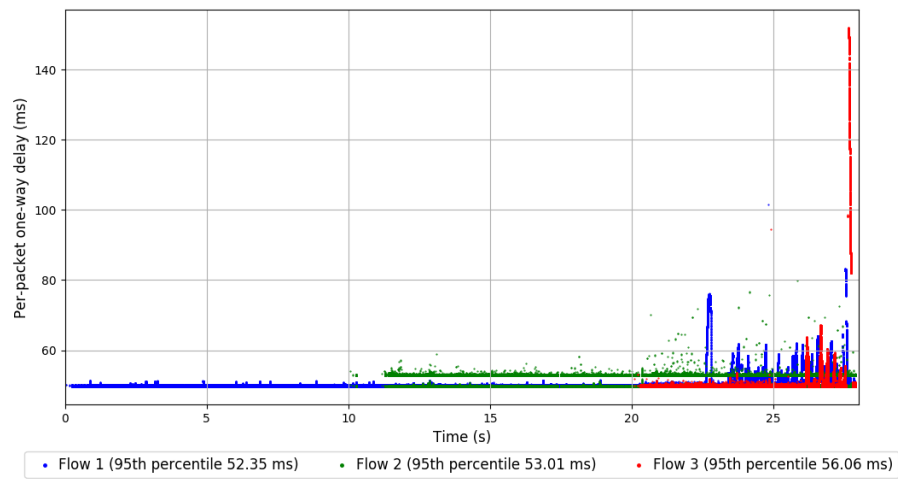
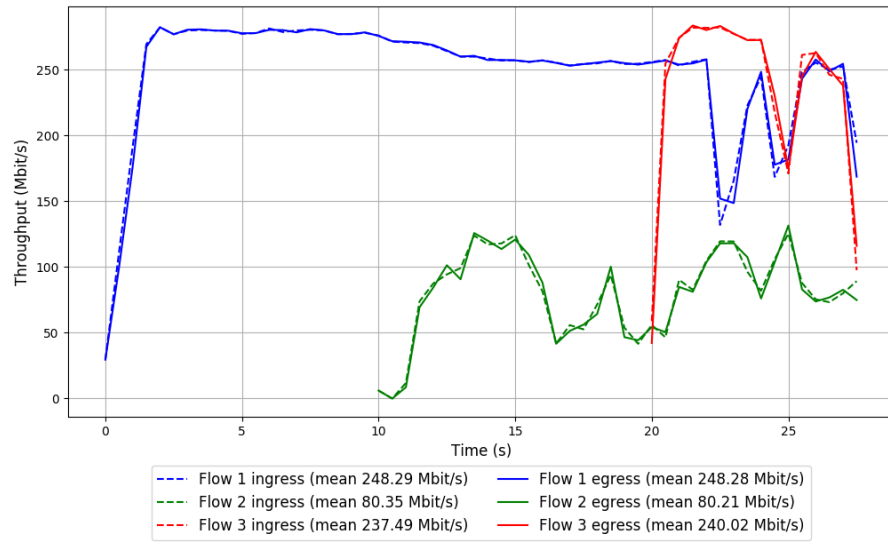


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-10-12 10:51:41
End at: 2017-10-12 10:52:11

# Below is generated by plot.py at 2017-10-12 15:17:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 366.90 Mbit/s
95th percentile per-packet one-way delay: 53.008 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 248.28 Mbit/s
95th percentile per-packet one-way delay: 52.350 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 80.21 Mbit/s
95th percentile per-packet one-way delay: 53.012 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 240.02 Mbit/s
95th percentile per-packet one-way delay: 56.057 ms
Loss rate: 0.26%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-10-12 11:04:35

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

Below is generated by plot.py at 2017-10-12 15:17:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 281.42 Mbit/s

95th percentile per-packet one-way delay: 50.002 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 263.35 Mbit/s

95th percentile per-packet one-way delay: 49.856 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 9.28 Mbit/s

95th percentile per-packet one-way delay: 54.312 ms

Loss rate: 0.91%

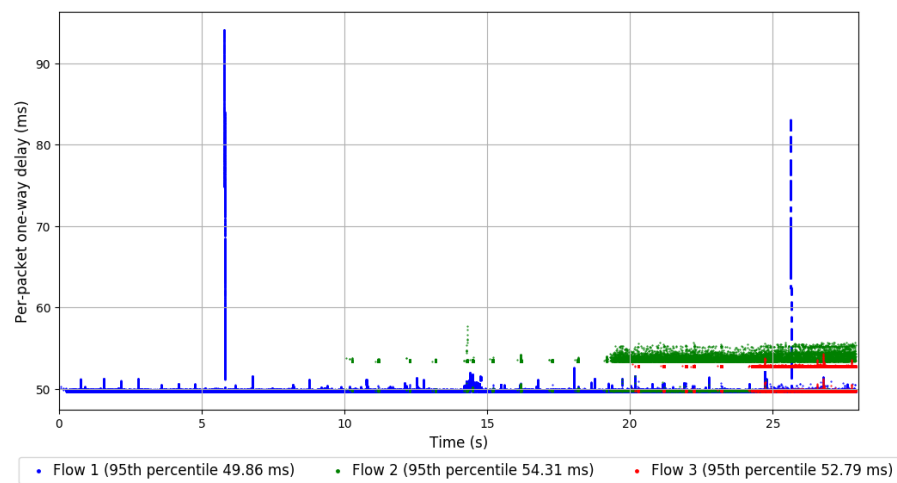
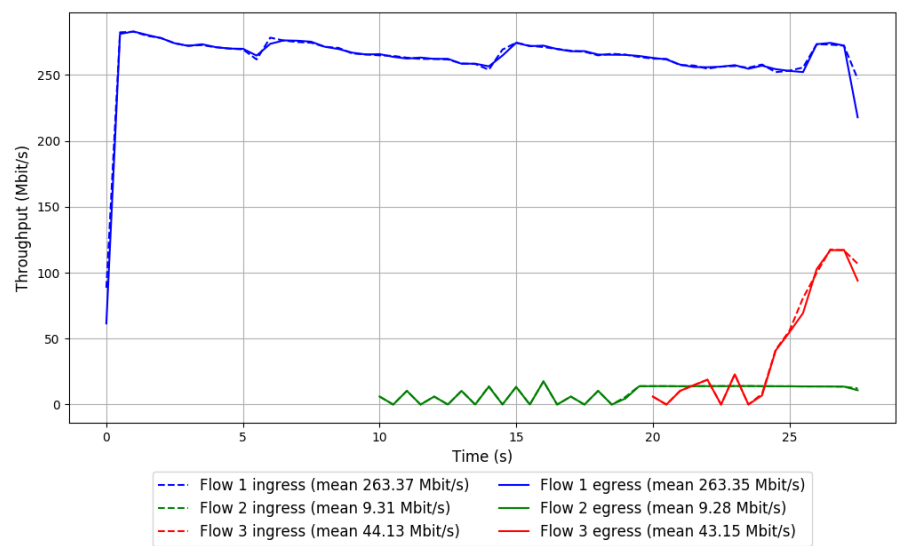
-- Flow 3:

Average throughput: 43.15 Mbit/s

95th percentile per-packet one-way delay: 52.793 ms

Loss rate: 3.50%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-10-12 11:17:18

End at: 2017-10-12 11:17:48

Below is generated by plot.py at 2017-10-12 15:17:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.29 Mbit/s

95th percentile per-packet one-way delay: 54.950 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 249.77 Mbit/s

95th percentile per-packet one-way delay: 53.009 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 34.77 Mbit/s

95th percentile per-packet one-way delay: 53.728 ms

Loss rate: 1.19%

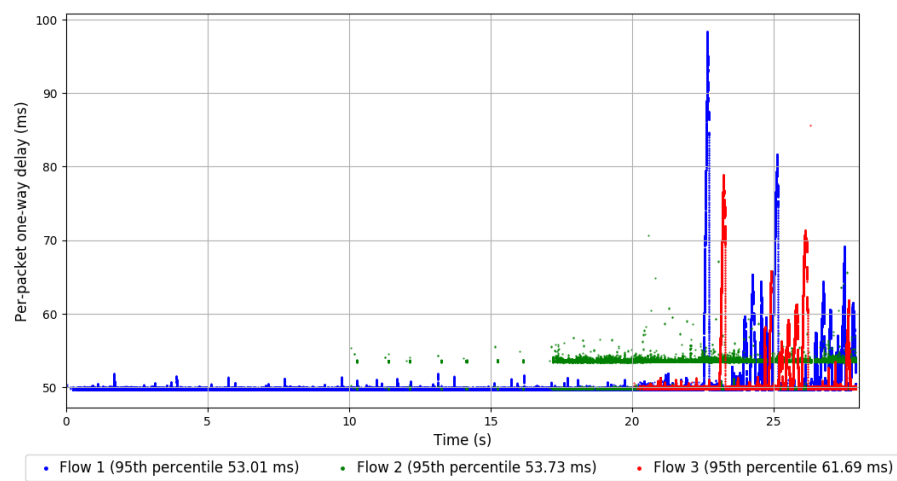
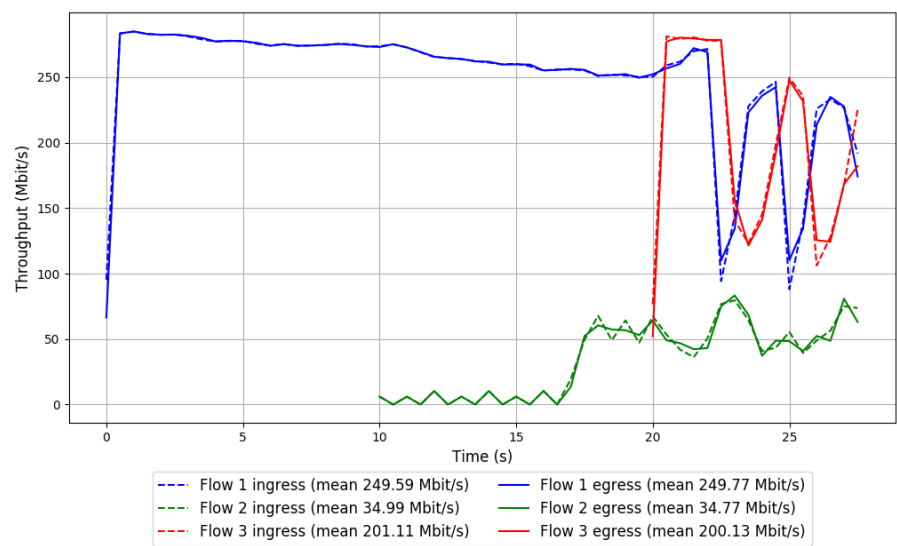
-- Flow 3:

Average throughput: 200.13 Mbit/s

95th percentile per-packet one-way delay: 61.689 ms

Loss rate: 1.79%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-10-12 11:30:11

End at: 2017-10-12 11:30:42

Below is generated by plot.py at 2017-10-12 15:17:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 267.77 Mbit/s

95th percentile per-packet one-way delay: 53.504 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 69.91 Mbit/s

95th percentile per-packet one-way delay: 53.615 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 259.91 Mbit/s

95th percentile per-packet one-way delay: 50.550 ms

Loss rate: 0.63%

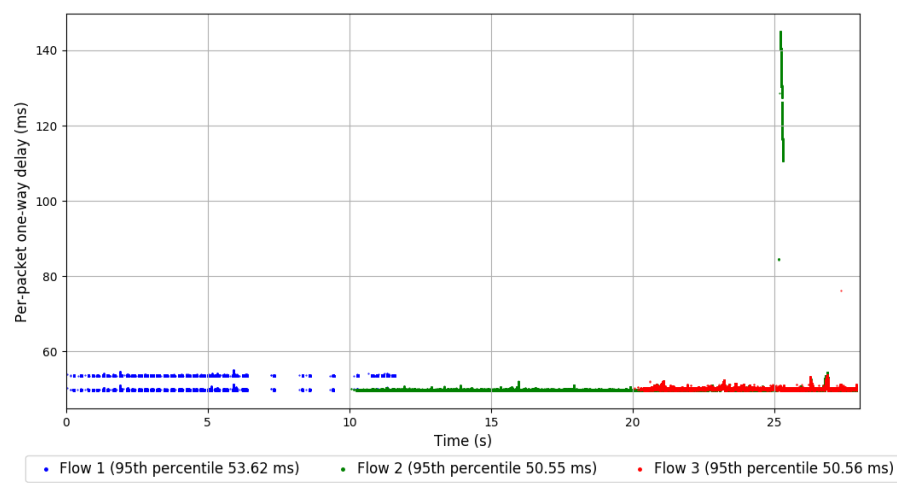
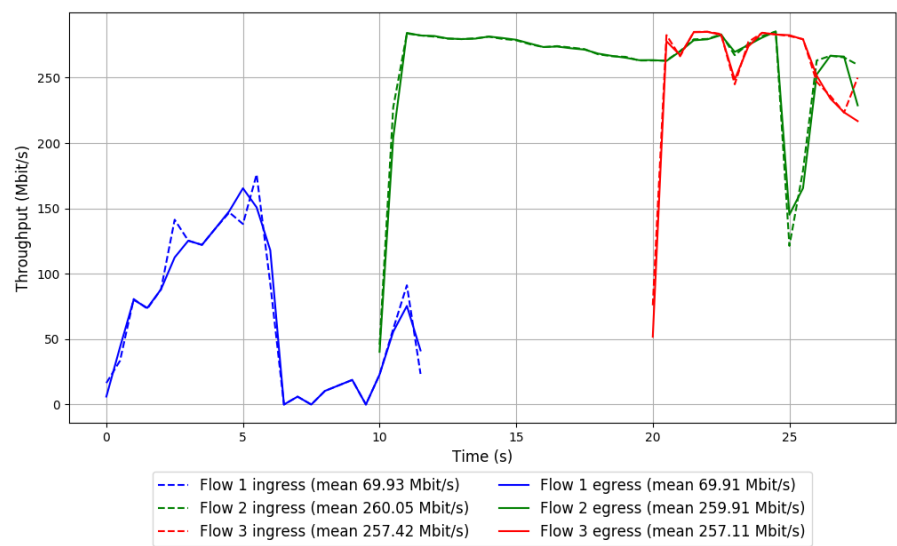
-- Flow 3:

Average throughput: 257.11 Mbit/s

95th percentile per-packet one-way delay: 50.564 ms

Loss rate: 1.43%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-10-12 11:42:48

End at: 2017-10-12 11:43:18

Below is generated by plot.py at 2017-10-12 15:17:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 64.15 Mbit/s

95th percentile per-packet one-way delay: 53.648 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 38.87 Mbit/s

95th percentile per-packet one-way delay: 53.678 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 23.27 Mbit/s

95th percentile per-packet one-way delay: 53.619 ms

Loss rate: 0.93%

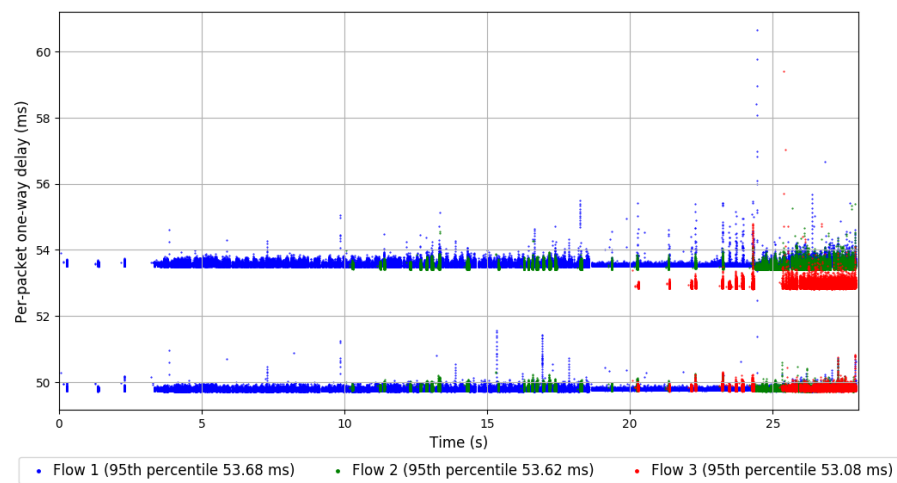
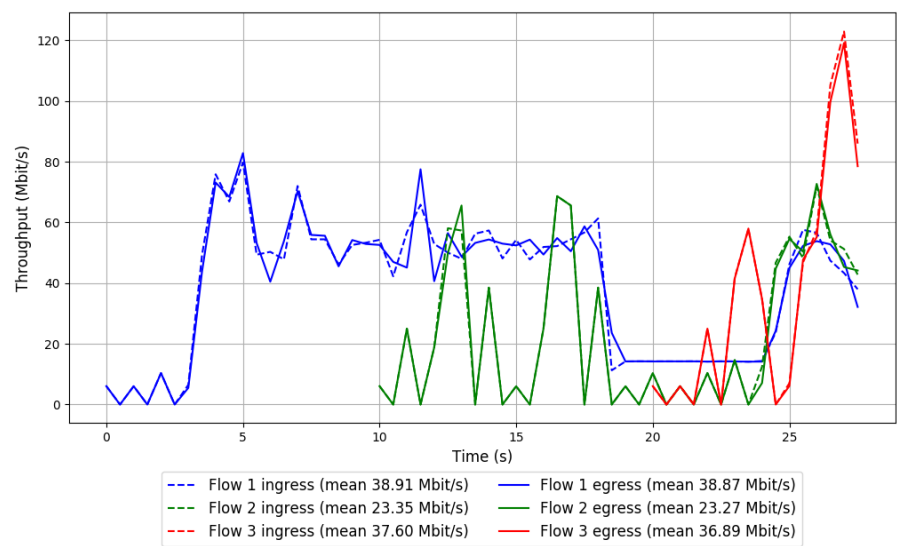
-- Flow 3:

Average throughput: 36.89 Mbit/s

95th percentile per-packet one-way delay: 53.075 ms

Loss rate: 3.18%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-10-12 11:55:13

End at: 2017-10-12 11:55:43

Below is generated by plot.py at 2017-10-12 15:17:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.15 Mbit/s

95th percentile per-packet one-way delay: 53.557 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 62.01 Mbit/s

95th percentile per-packet one-way delay: 53.613 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 14.03 Mbit/s

95th percentile per-packet one-way delay: 53.041 ms

Loss rate: 0.58%

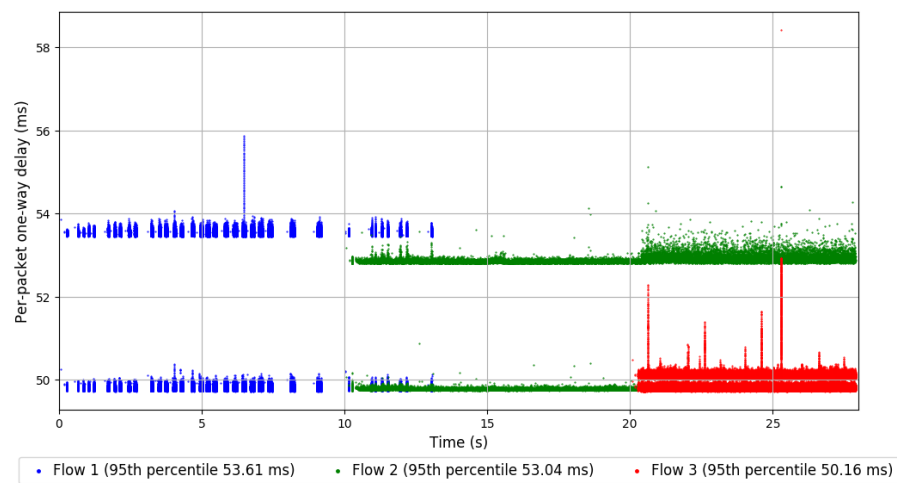
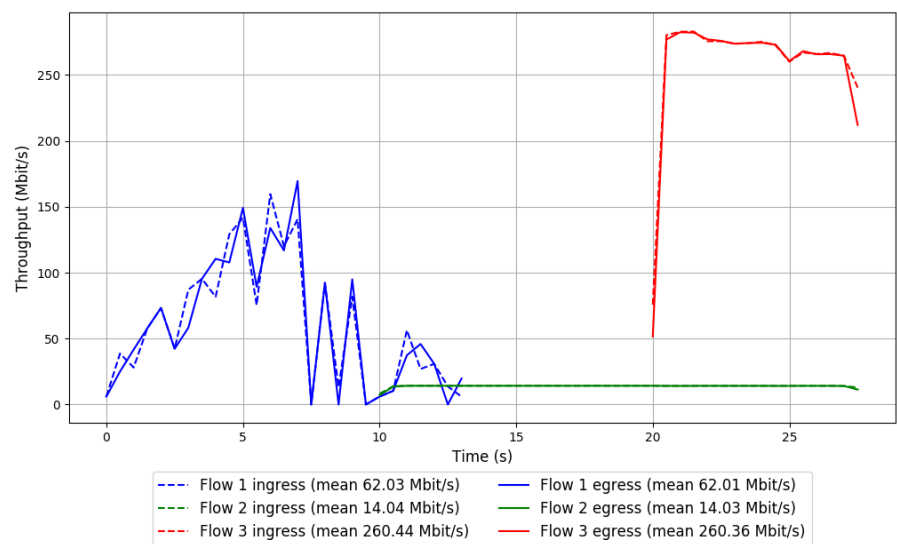
-- Flow 3:

Average throughput: 260.36 Mbit/s

95th percentile per-packet one-way delay: 50.165 ms

Loss rate: 1.33%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-10-12 12:07:34

End at: 2017-10-12 12:08:04

Below is generated by plot.py at 2017-10-12 15:17:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 41.48 Mbit/s

95th percentile per-packet one-way delay: 53.638 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 20.51 Mbit/s

95th percentile per-packet one-way delay: 53.651 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 45.00 Mbit/s

95th percentile per-packet one-way delay: 53.672 ms

Loss rate: 0.00%

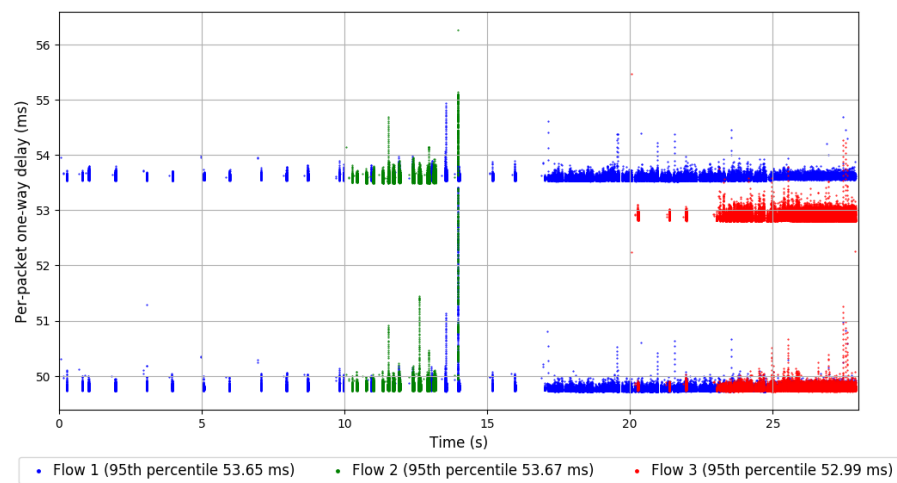
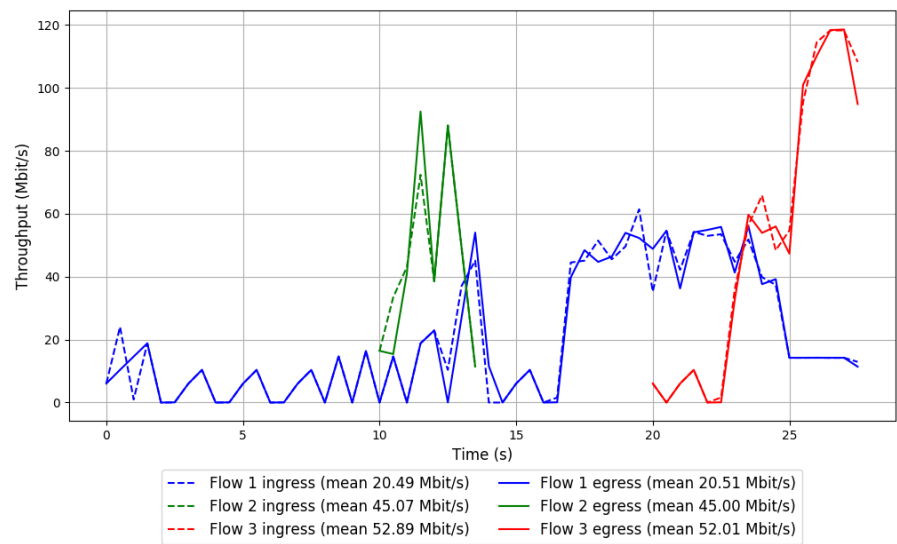
-- Flow 3:

Average throughput: 52.01 Mbit/s

95th percentile per-packet one-way delay: 52.995 ms

Loss rate: 2.98%

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

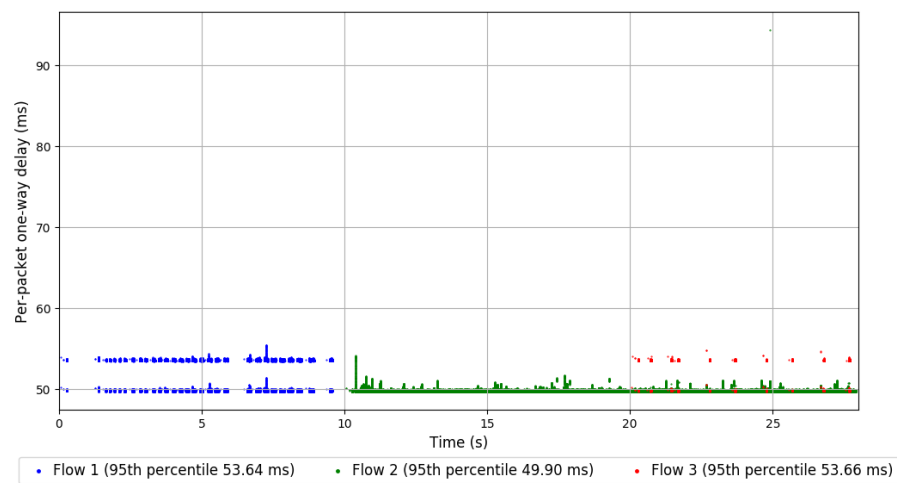
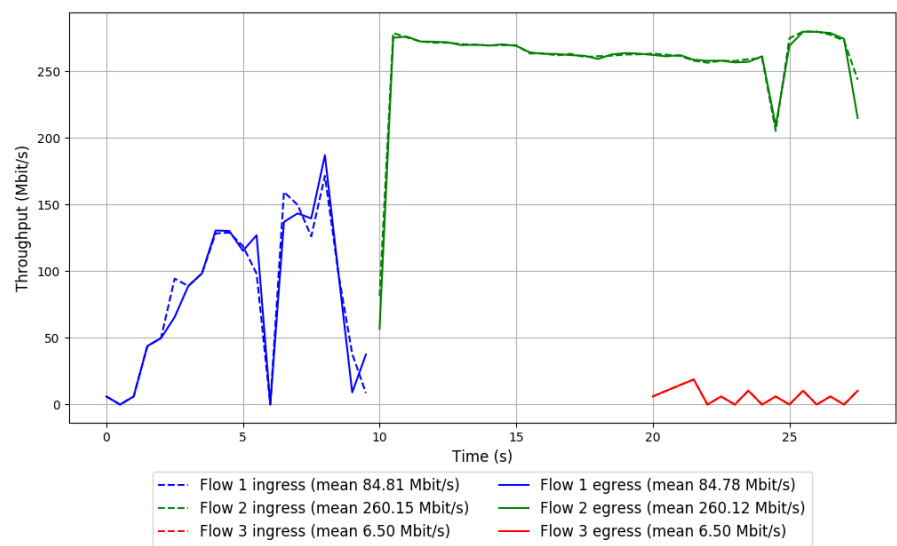


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-10-12 12:19:52
End at: 2017-10-12 12:20:22

# Below is generated by plot.py at 2017-10-12 15:18:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 197.38 Mbit/s
95th percentile per-packet one-way delay: 53.555 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 84.78 Mbit/s
95th percentile per-packet one-way delay: 53.642 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 260.12 Mbit/s
95th percentile per-packet one-way delay: 49.896 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 53.656 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-10-12 10:25:18

End at: 2017-10-12 10:25:48

Below is generated by plot.py at 2017-10-12 15:18:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 187.36 Mbit/s

95th percentile per-packet one-way delay: 51.439 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 59.12 Mbit/s

95th percentile per-packet one-way delay: 50.350 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 112.34 Mbit/s

95th percentile per-packet one-way delay: 51.766 ms

Loss rate: 0.32%

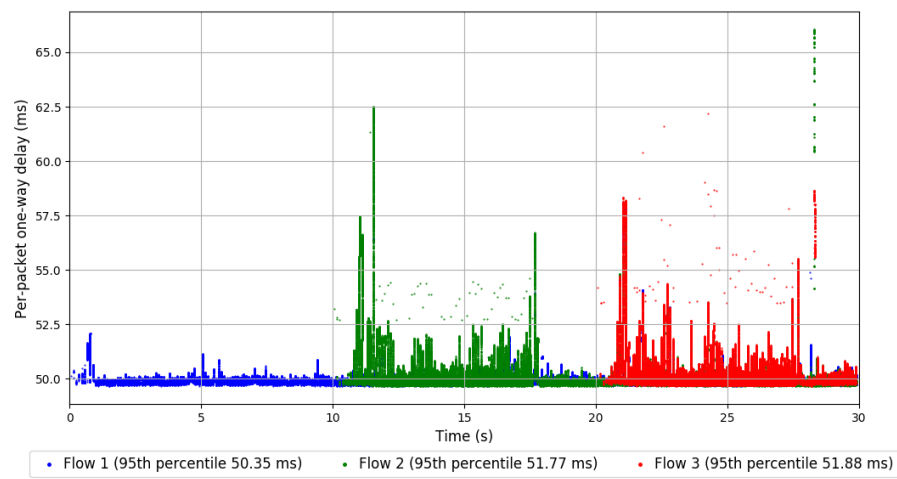
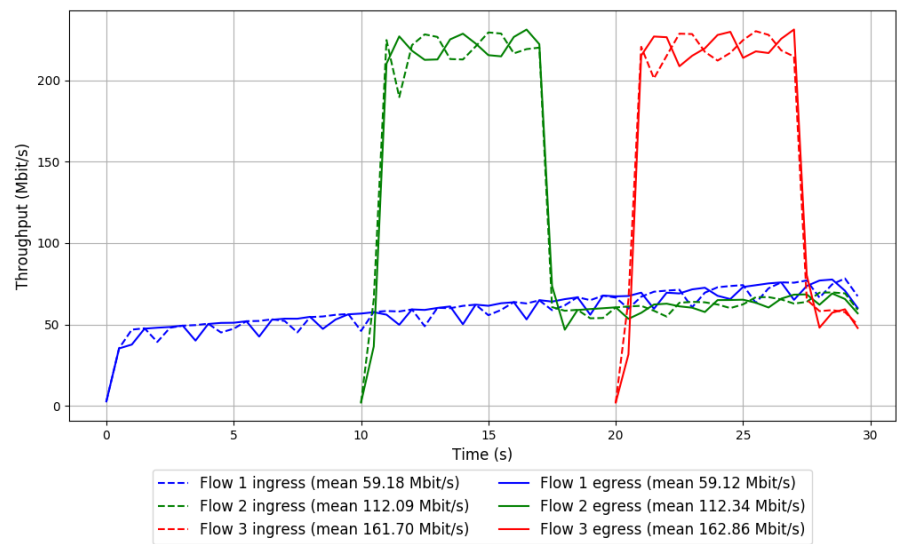
-- Flow 3:

Average throughput: 162.86 Mbit/s

95th percentile per-packet one-way delay: 51.885 ms

Loss rate: 0.38%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-10-12 10:38:02

End at: 2017-10-12 10:38:32

Below is generated by plot.py at 2017-10-12 15:18:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.28 Mbit/s

95th percentile per-packet one-way delay: 51.027 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 71.43 Mbit/s

95th percentile per-packet one-way delay: 50.858 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 69.66 Mbit/s

95th percentile per-packet one-way delay: 51.216 ms

Loss rate: 0.56%

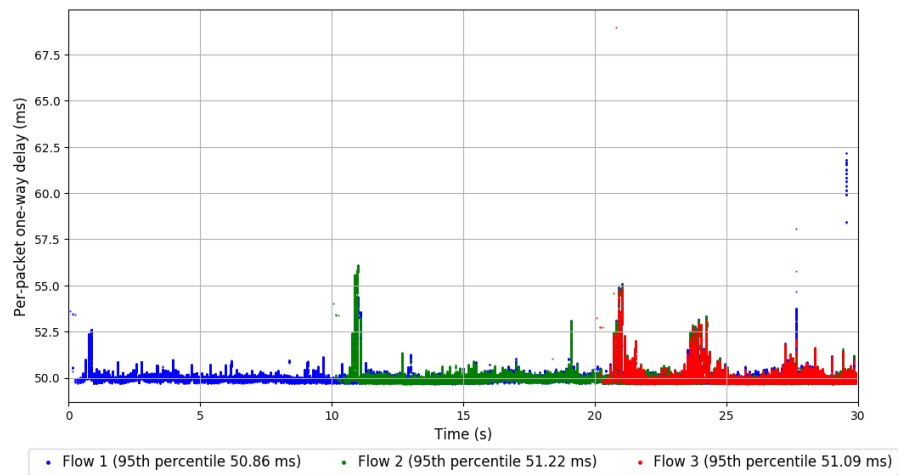
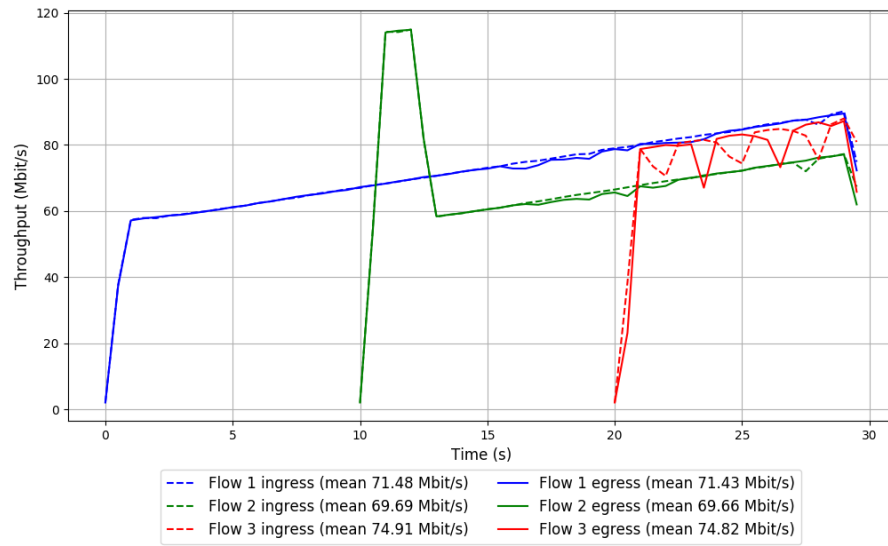
-- Flow 3:

Average throughput: 74.82 Mbit/s

95th percentile per-packet one-way delay: 51.089 ms

Loss rate: 1.19%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-10-12 10:50:52

End at: 2017-10-12 10:51:22

Below is generated by plot.py at 2017-10-12 15:18:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 161.71 Mbit/s

95th percentile per-packet one-way delay: 50.920 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 88.25 Mbit/s

95th percentile per-packet one-way delay: 50.364 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 80.20 Mbit/s

95th percentile per-packet one-way delay: 52.263 ms

Loss rate: 0.58%

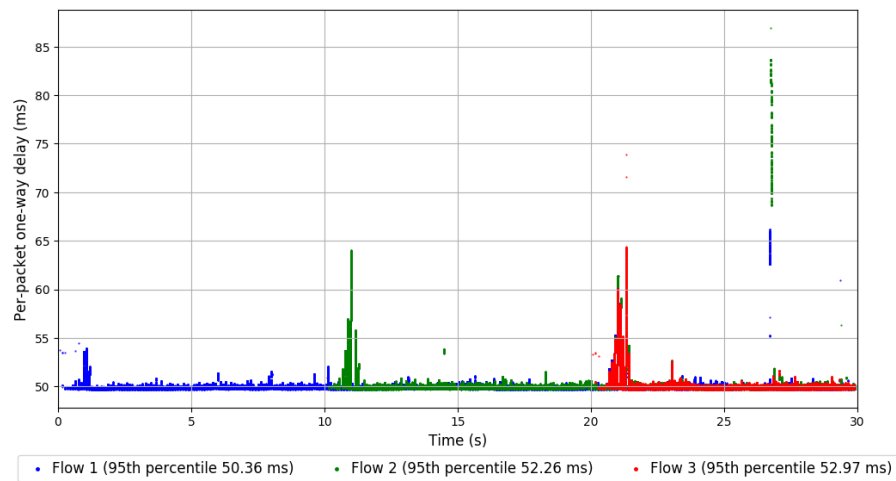
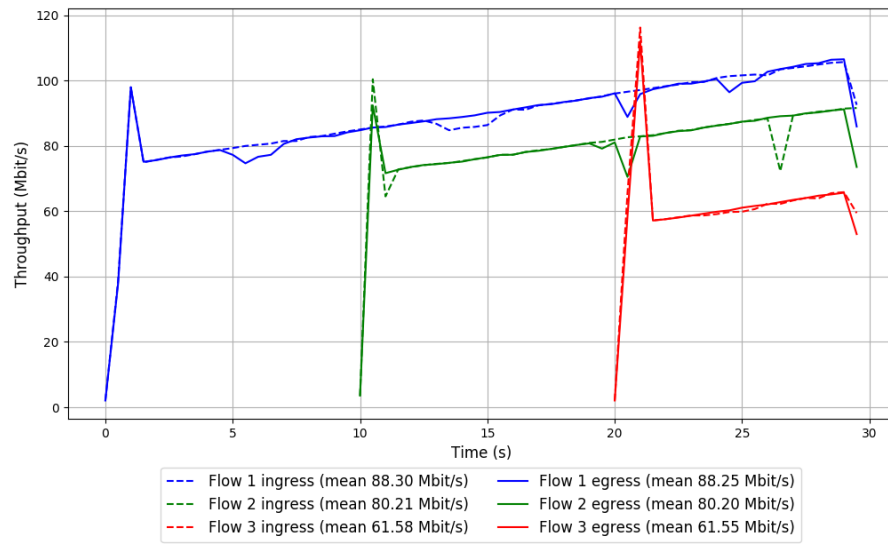
-- Flow 3:

Average throughput: 61.55 Mbit/s

95th percentile per-packet one-way delay: 52.965 ms

Loss rate: 1.10%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-10-12 11:03:42

End at: 2017-10-12 11:04:12

Below is generated by plot.py at 2017-10-12 15:18:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 231.80 Mbit/s

95th percentile per-packet one-way delay: 51.558 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 109.12 Mbit/s

95th percentile per-packet one-way delay: 51.169 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 145.22 Mbit/s

95th percentile per-packet one-way delay: 51.045 ms

Loss rate: 0.58%

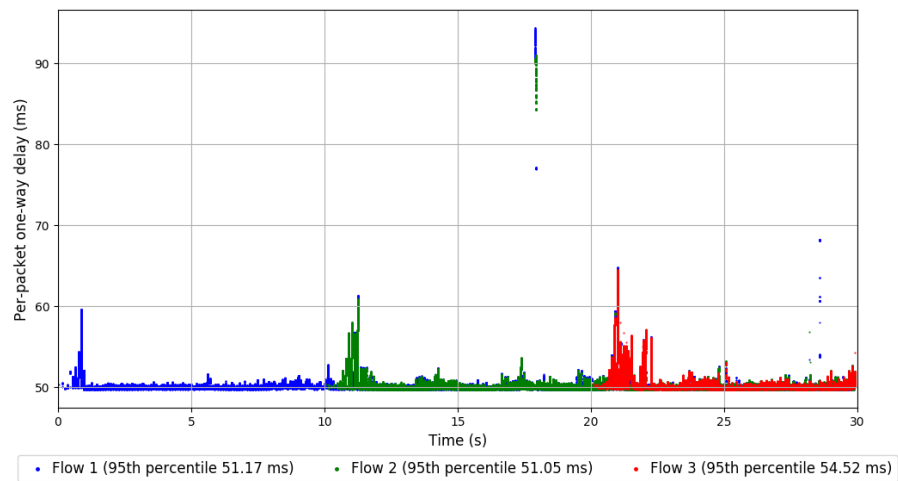
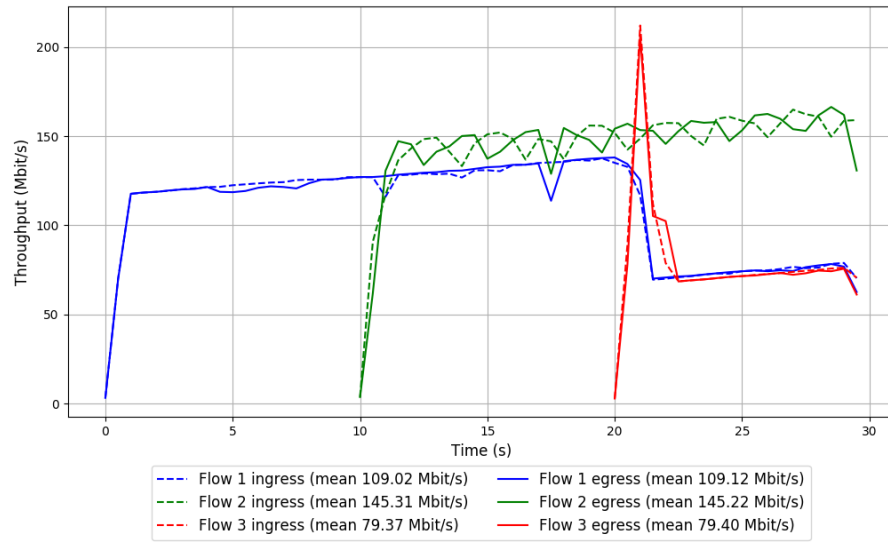
-- Flow 3:

Average throughput: 79.40 Mbit/s

95th percentile per-packet one-way delay: 54.517 ms

Loss rate: 0.98%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-10-12 11:16:30

End at: 2017-10-12 11:17:00

Below is generated by plot.py at 2017-10-12 15:18:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.67 Mbit/s

95th percentile per-packet one-way delay: 51.570 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 47.56 Mbit/s

95th percentile per-packet one-way delay: 51.048 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 119.56 Mbit/s

95th percentile per-packet one-way delay: 51.817 ms

Loss rate: 0.57%

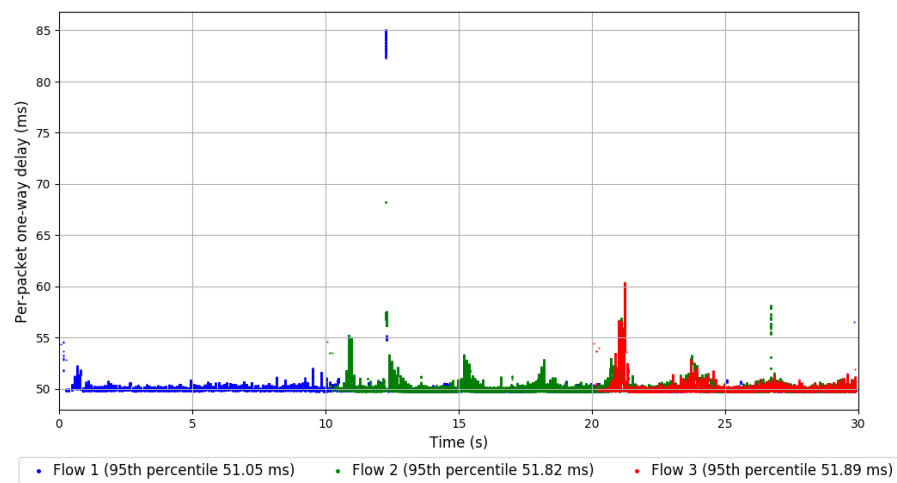
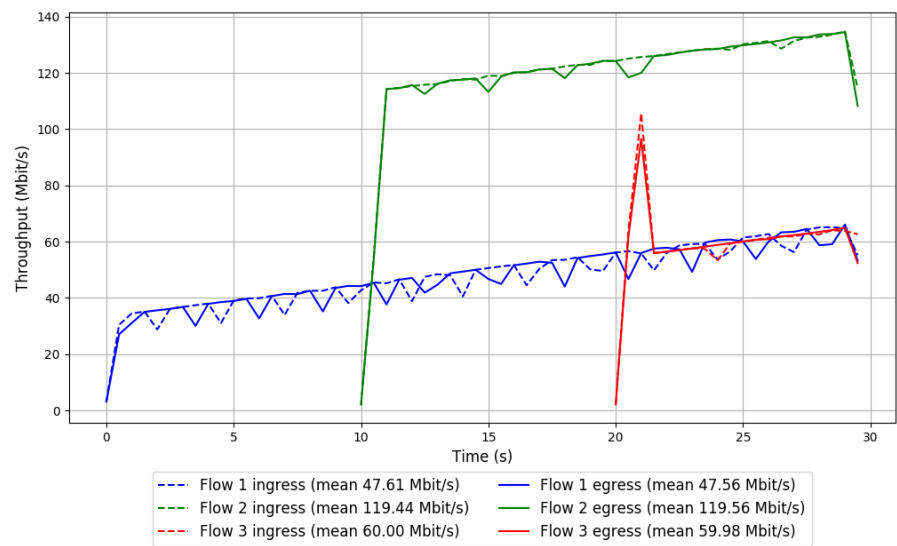
-- Flow 3:

Average throughput: 59.98 Mbit/s

95th percentile per-packet one-way delay: 51.894 ms

Loss rate: 1.10%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-10-12 11:29:17

End at: 2017-10-12 11:29:47

Below is generated by plot.py at 2017-10-12 15:19:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 270.82 Mbit/s

95th percentile per-packet one-way delay: 57.023 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 222.08 Mbit/s

95th percentile per-packet one-way delay: 57.149 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 23.30 Mbit/s

95th percentile per-packet one-way delay: 52.962 ms

Loss rate: 0.78%

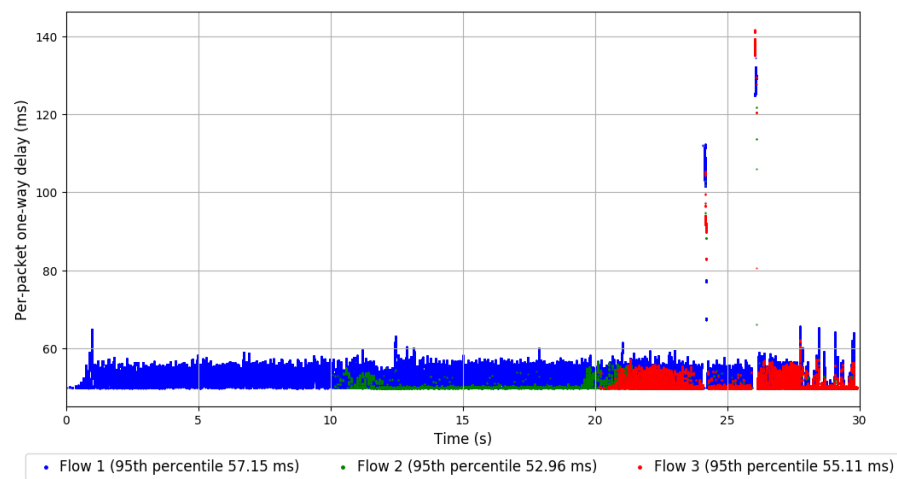
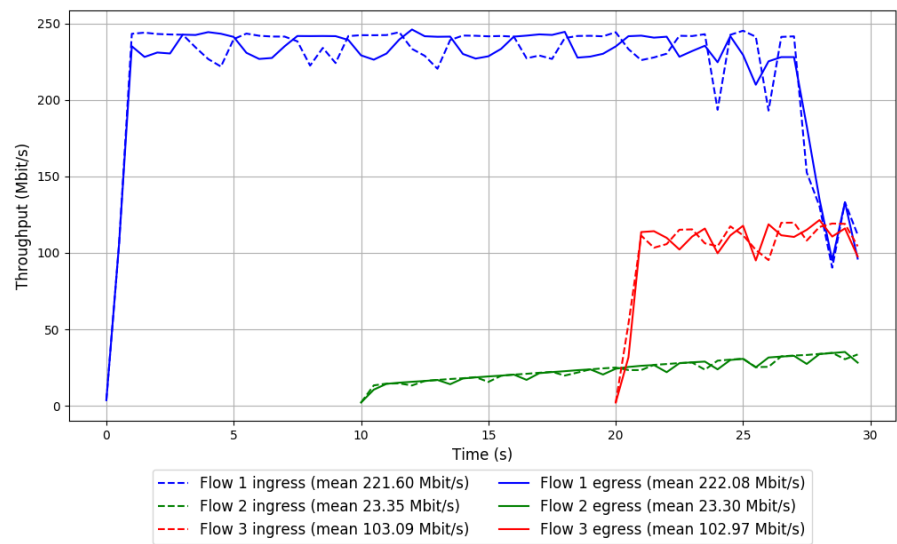
-- Flow 3:

Average throughput: 102.97 Mbit/s

95th percentile per-packet one-way delay: 55.106 ms

Loss rate: 1.20%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-10-12 11:41:56

End at: 2017-10-12 11:42:26

Below is generated by plot.py at 2017-10-12 15:19:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 210.21 Mbit/s

95th percentile per-packet one-way delay: 55.844 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 102.10 Mbit/s

95th percentile per-packet one-way delay: 54.271 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 81.68 Mbit/s

95th percentile per-packet one-way delay: 54.012 ms

Loss rate: 0.38%

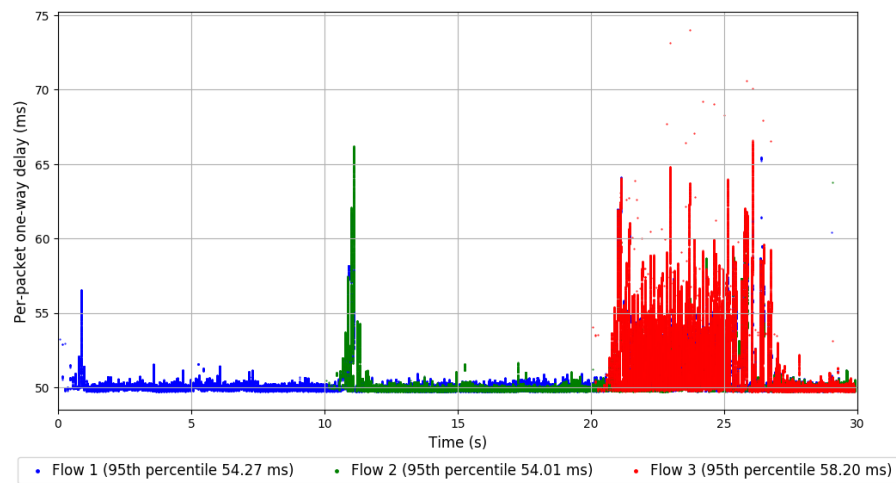
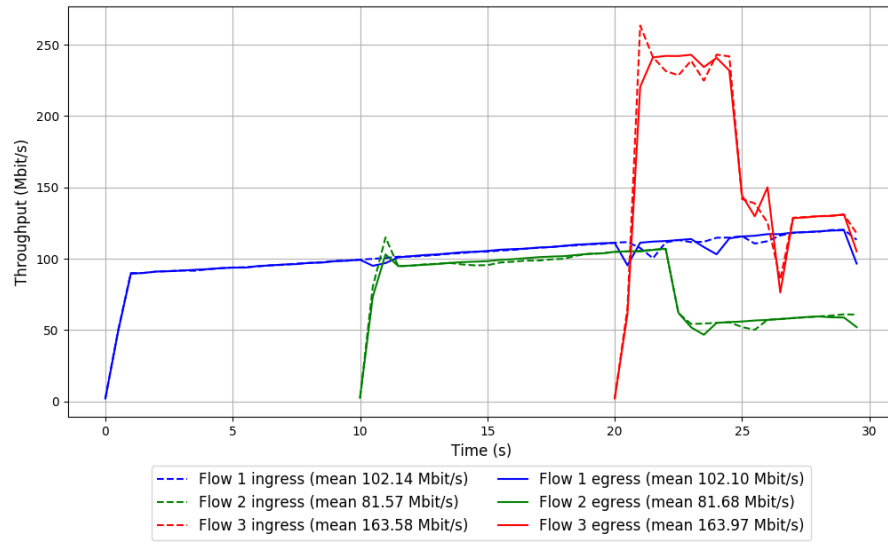
-- Flow 3:

Average throughput: 163.97 Mbit/s

95th percentile per-packet one-way delay: 58.196 ms

Loss rate: 0.81%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-10-12 11:54:18

End at: 2017-10-12 11:54:48

Below is generated by plot.py at 2017-10-12 15:20:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 285.75 Mbit/s

95th percentile per-packet one-way delay: 51.790 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 185.73 Mbit/s

95th percentile per-packet one-way delay: 51.794 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 87.04 Mbit/s

95th percentile per-packet one-way delay: 51.386 ms

Loss rate: 0.60%

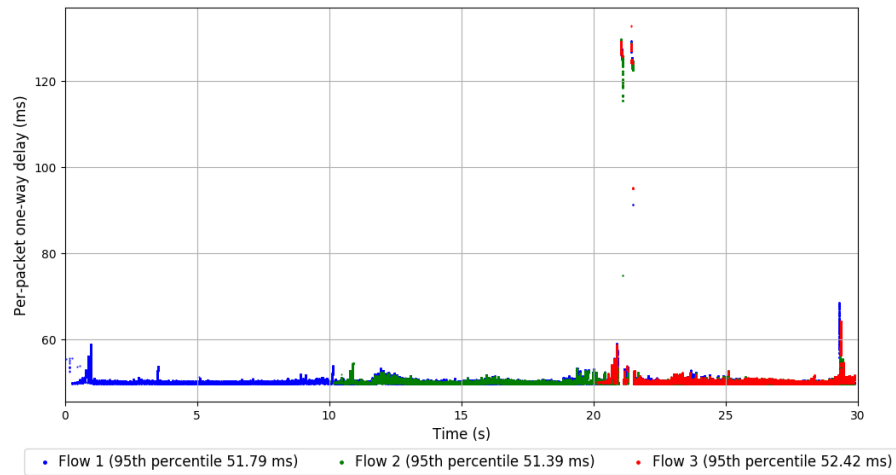
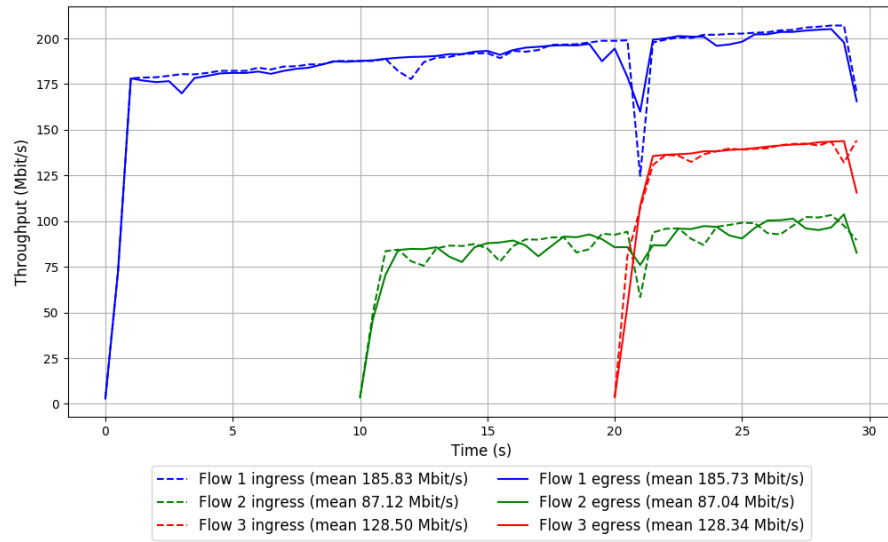
-- Flow 3:

Average throughput: 128.34 Mbit/s

95th percentile per-packet one-way delay: 52.420 ms

Loss rate: 1.14%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

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

End at: 2017-10-12 12:07:14

Below is generated by plot.py at 2017-10-12 15:20:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 183.66 Mbit/s

95th percentile per-packet one-way delay: 51.285 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 91.82 Mbit/s

95th percentile per-packet one-way delay: 50.762 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 100.49 Mbit/s

95th percentile per-packet one-way delay: 51.834 ms

Loss rate: 0.57%

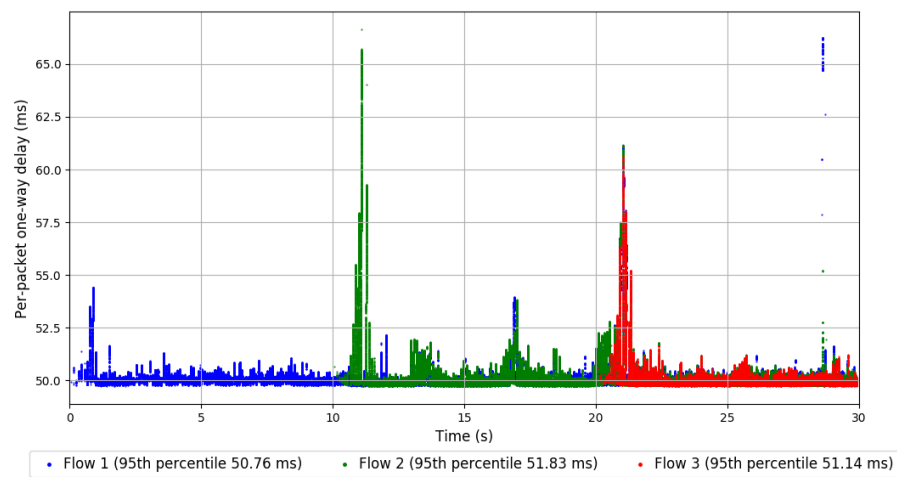
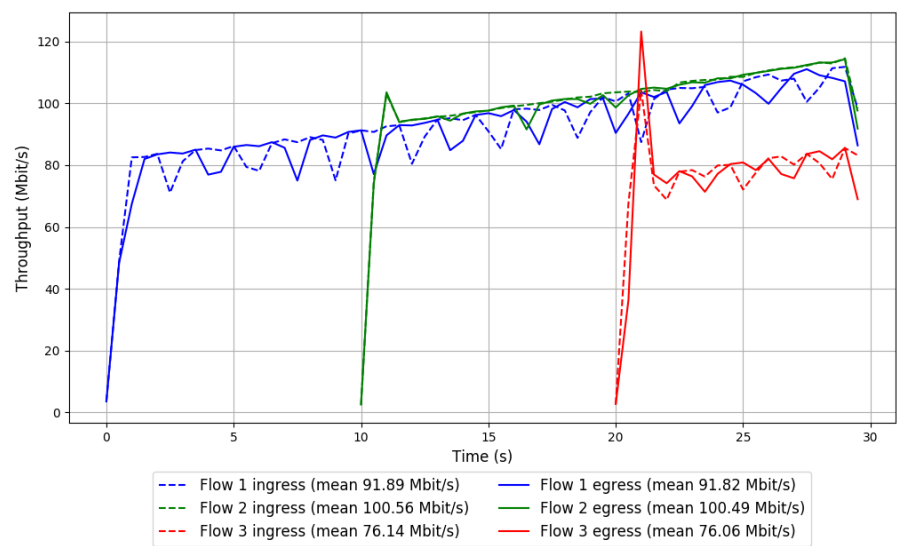
-- Flow 3:

Average throughput: 76.06 Mbit/s

95th percentile per-packet one-way delay: 51.143 ms

Loss rate: 1.15%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-10-12 12:19:00

End at: 2017-10-12 12:19:30

Below is generated by plot.py at 2017-10-12 15:21:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.17 Mbit/s

95th percentile per-packet one-way delay: 50.859 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 157.03 Mbit/s

95th percentile per-packet one-way delay: 50.785 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 82.83 Mbit/s

95th percentile per-packet one-way delay: 50.862 ms

Loss rate: 0.58%

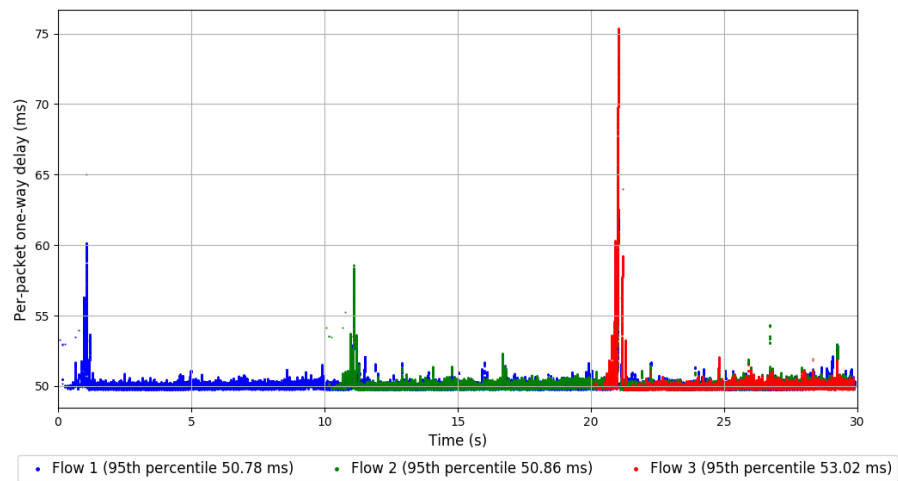
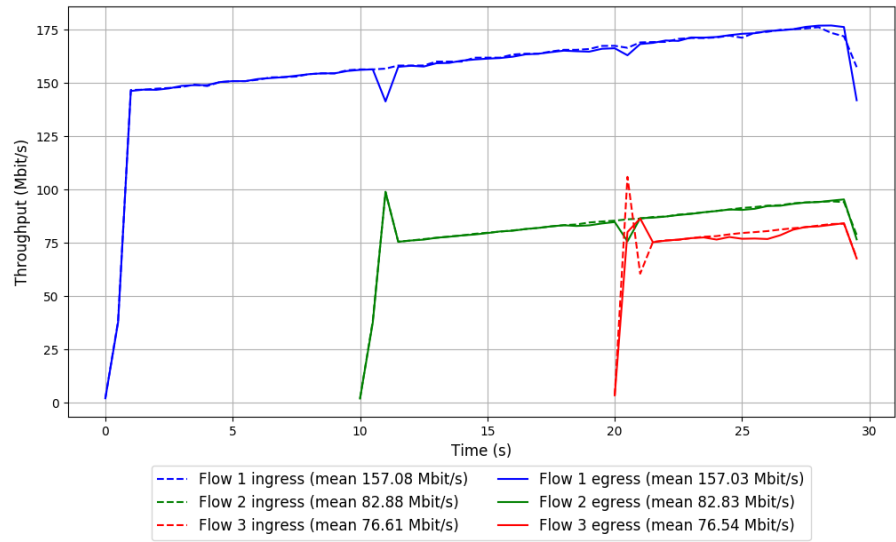
-- Flow 3:

Average throughput: 76.54 Mbit/s

95th percentile per-packet one-way delay: 53.025 ms

Loss rate: 1.12%

Run 10: Report of TCP Vegas — Data Link

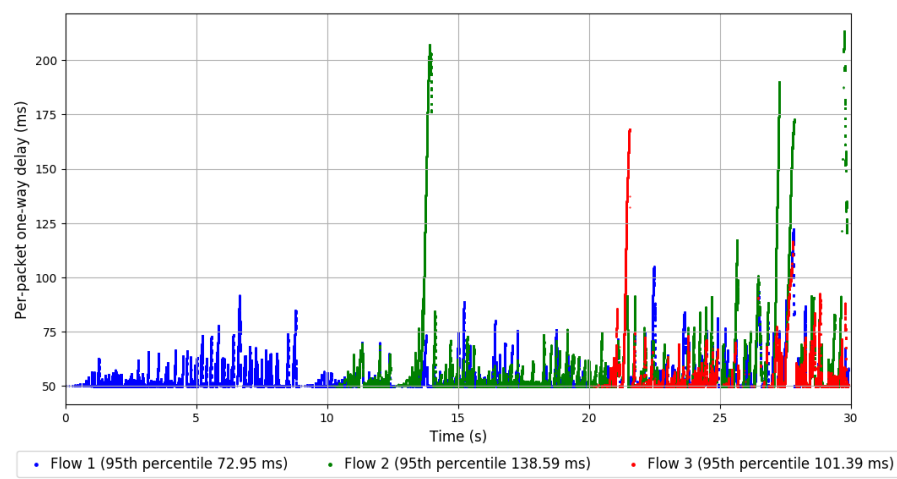
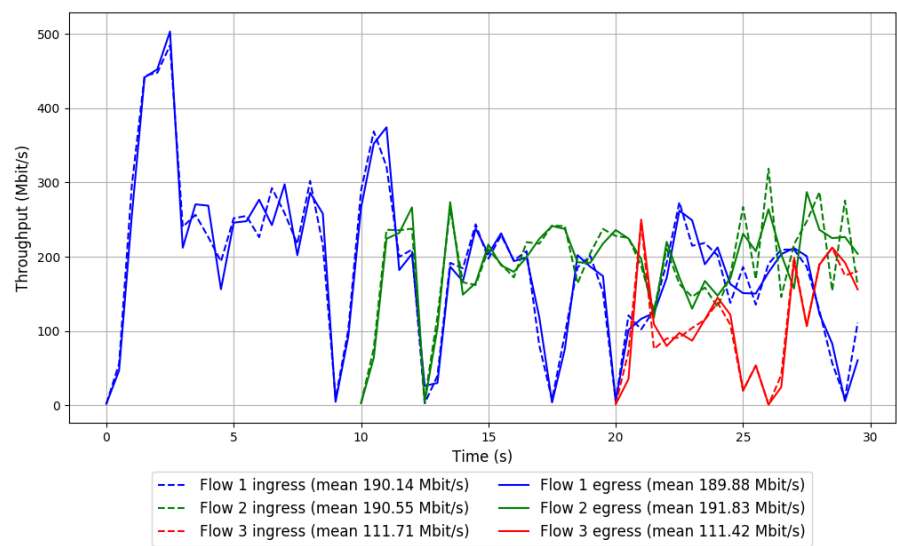


```
Run 1: Statistics of Verus

Start at: 2017-10-12 10:21:50
End at: 2017-10-12 10:22:20

# Below is generated by plot.py at 2017-10-12 15:23:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.78 Mbit/s
95th percentile per-packet one-way delay: 88.897 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 189.88 Mbit/s
95th percentile per-packet one-way delay: 72.946 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 191.83 Mbit/s
95th percentile per-packet one-way delay: 138.593 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 111.42 Mbit/s
95th percentile per-packet one-way delay: 101.392 ms
Loss rate: 1.29%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-10-12 10:34:37

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

Below is generated by plot.py at 2017-10-12 15:23:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 357.83 Mbit/s

95th percentile per-packet one-way delay: 130.425 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 202.49 Mbit/s

95th percentile per-packet one-way delay: 95.275 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 155.08 Mbit/s

95th percentile per-packet one-way delay: 108.529 ms

Loss rate: 0.85%

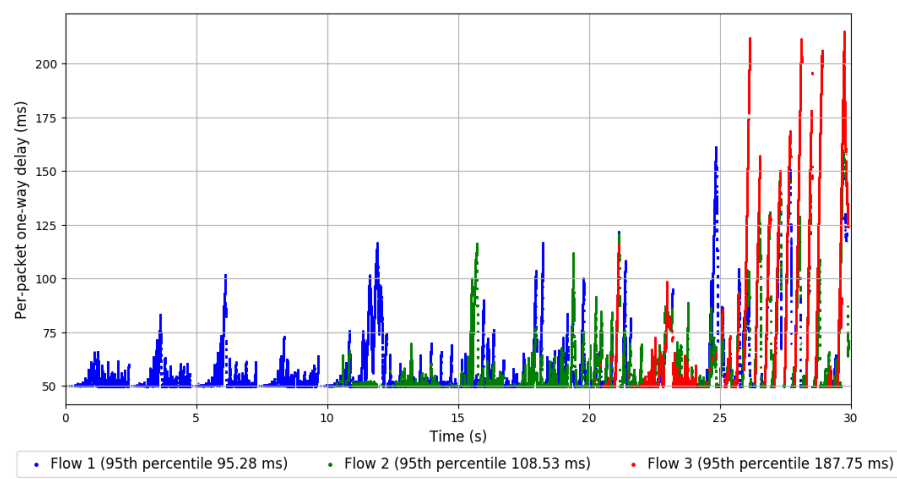
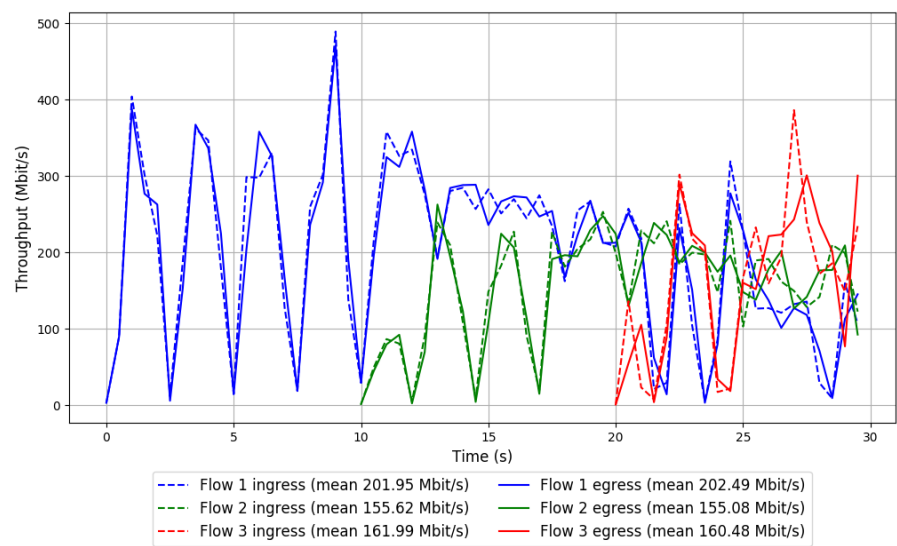
-- Flow 3:

Average throughput: 160.48 Mbit/s

95th percentile per-packet one-way delay: 187.753 ms

Loss rate: 0.18%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-10-12 10:47:31

End at: 2017-10-12 10:48:01

Below is generated by plot.py at 2017-10-12 15:24:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 353.77 Mbit/s

95th percentile per-packet one-way delay: 190.880 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 263.73 Mbit/s

95th percentile per-packet one-way delay: 198.309 ms

Loss rate: 1.27%

-- Flow 2:

Average throughput: 86.33 Mbit/s

95th percentile per-packet one-way delay: 121.663 ms

Loss rate: 0.22%

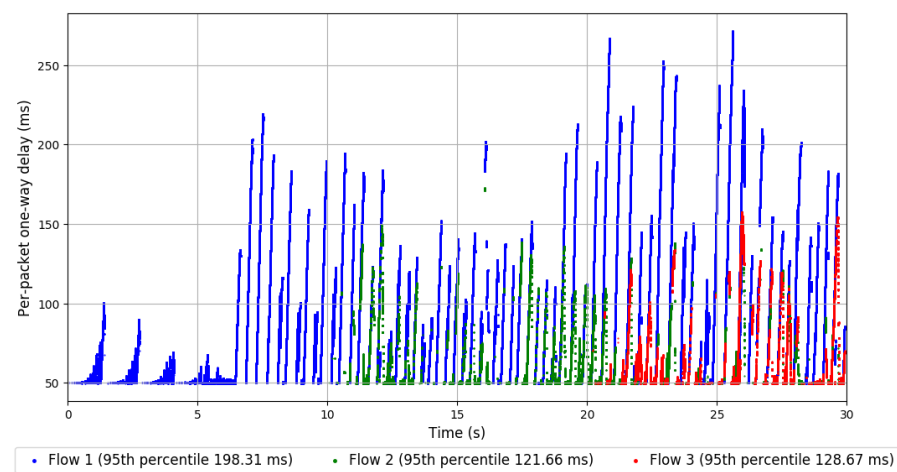
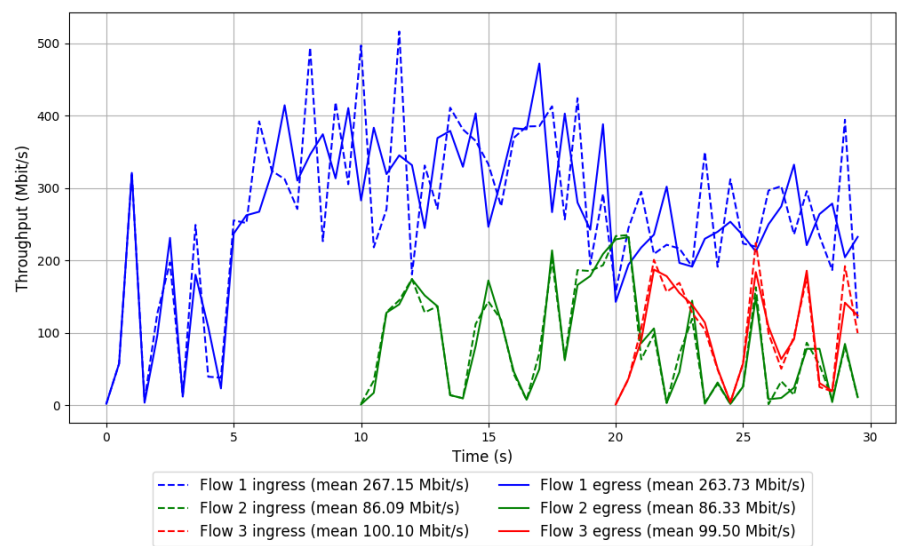
-- Flow 3:

Average throughput: 99.50 Mbit/s

95th percentile per-packet one-way delay: 128.667 ms

Loss rate: 1.63%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-10-12 11:00:12

End at: 2017-10-12 11:00:42

Below is generated by plot.py at 2017-10-12 15:25:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 391.48 Mbit/s

95th percentile per-packet one-way delay: 104.244 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 257.72 Mbit/s

95th percentile per-packet one-way delay: 98.399 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 156.87 Mbit/s

95th percentile per-packet one-way delay: 109.239 ms

Loss rate: 0.94%

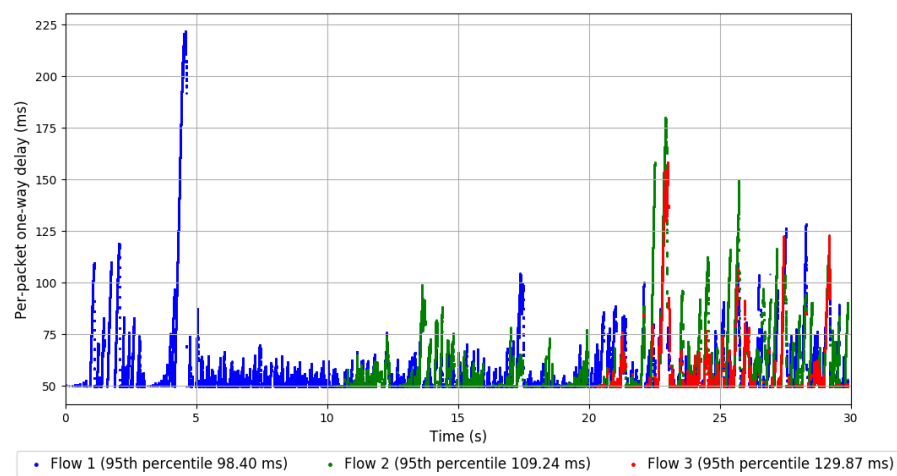
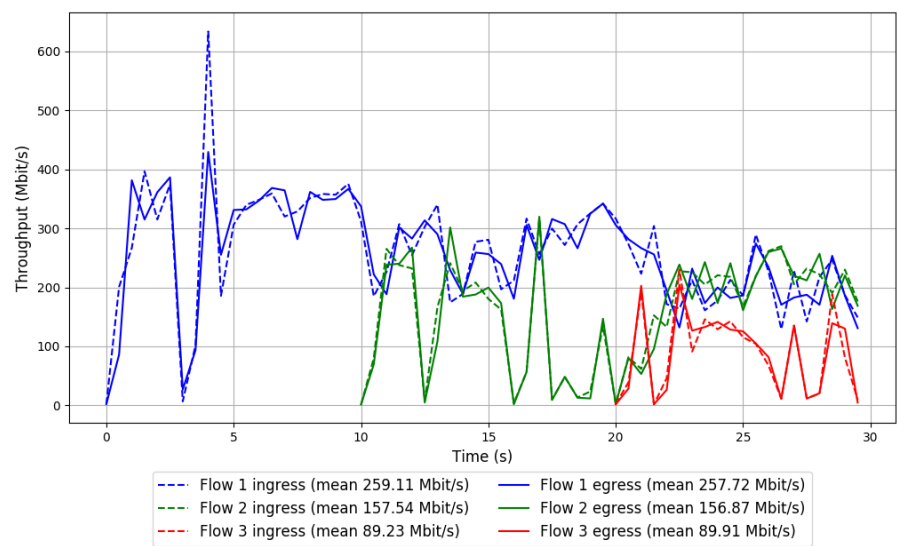
-- Flow 3:

Average throughput: 89.91 Mbit/s

95th percentile per-packet one-way delay: 129.872 ms

Loss rate: 0.28%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-10-12 11:13:01

End at: 2017-10-12 11:13:31

Below is generated by plot.py at 2017-10-12 15:26:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 420.67 Mbit/s

95th percentile per-packet one-way delay: 130.103 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 248.65 Mbit/s

95th percentile per-packet one-way delay: 128.614 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 190.15 Mbit/s

95th percentile per-packet one-way delay: 127.049 ms

Loss rate: 1.11%

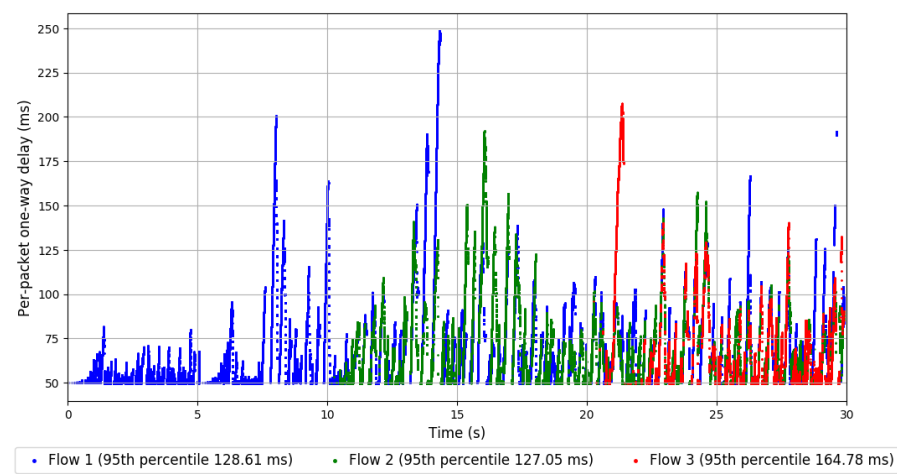
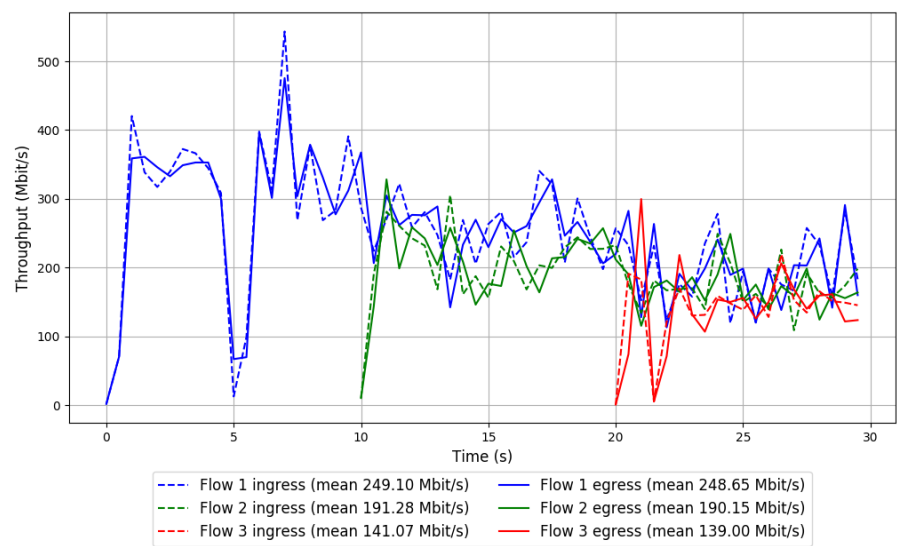
-- Flow 3:

Average throughput: 139.00 Mbit/s

95th percentile per-packet one-way delay: 164.782 ms

Loss rate: 2.14%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-10-12 11:25:48

End at: 2017-10-12 11:26:18

Below is generated by plot.py at 2017-10-12 15:26:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 404.24 Mbit/s

95th percentile per-packet one-way delay: 126.779 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 260.49 Mbit/s

95th percentile per-packet one-way delay: 126.309 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 167.57 Mbit/s

95th percentile per-packet one-way delay: 234.132 ms

Loss rate: 4.35%

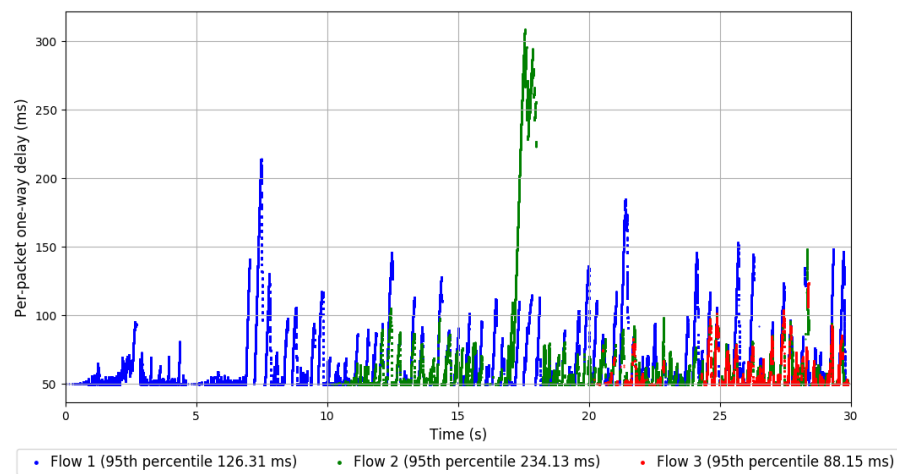
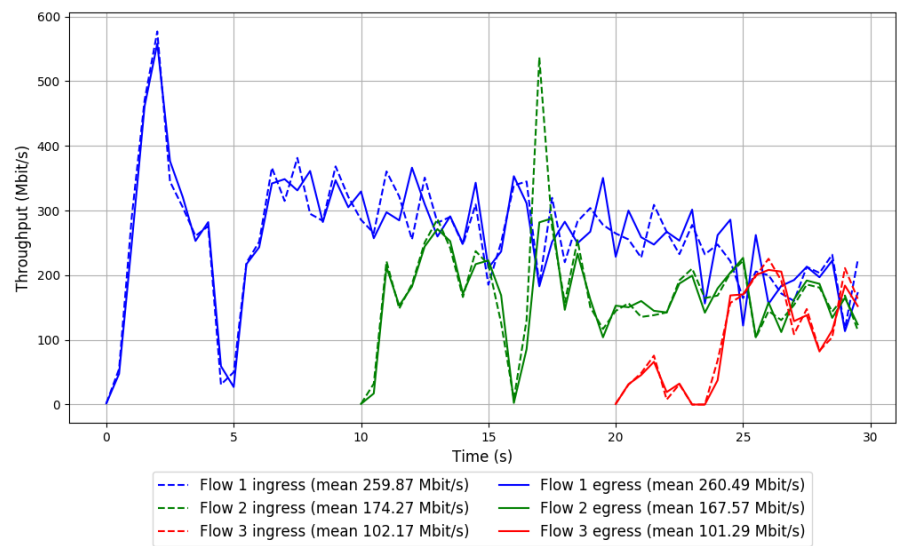
-- Flow 3:

Average throughput: 101.29 Mbit/s

95th percentile per-packet one-way delay: 88.147 ms

Loss rate: 1.89%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-10-12 11:38:34

End at: 2017-10-12 11:39:04

Below is generated by plot.py at 2017-10-12 15:26:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 340.22 Mbit/s

95th percentile per-packet one-way delay: 188.036 ms

Loss rate: 2.80%

-- Flow 1:

Average throughput: 204.16 Mbit/s

95th percentile per-packet one-way delay: 176.273 ms

Loss rate: 4.16%

-- Flow 2:

Average throughput: 162.20 Mbit/s

95th percentile per-packet one-way delay: 207.371 ms

Loss rate: 0.80%

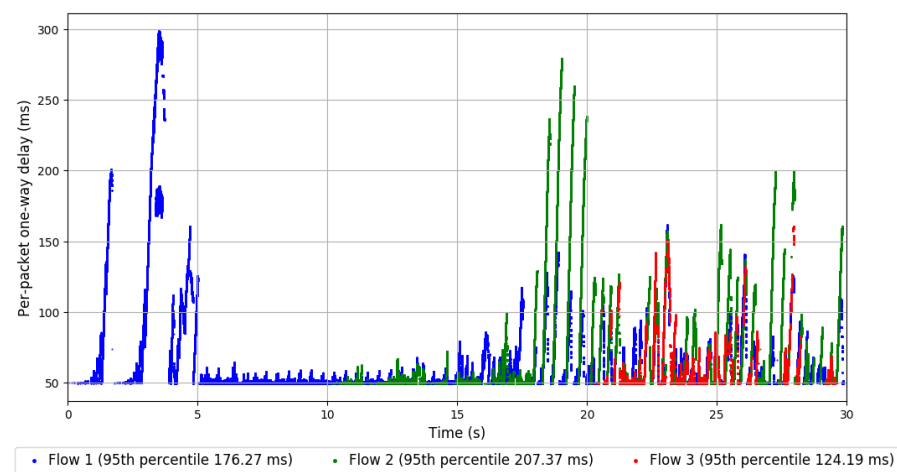
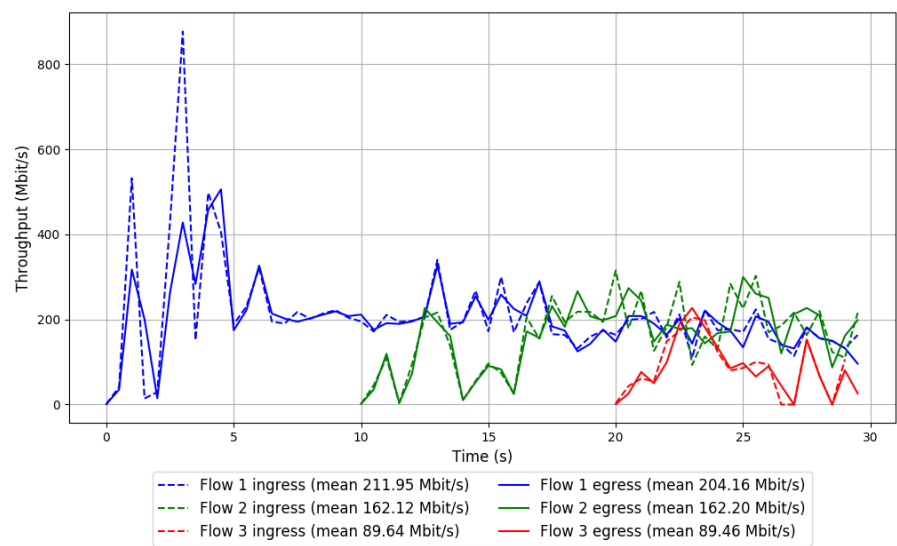
-- Flow 3:

Average throughput: 89.46 Mbit/s

95th percentile per-packet one-way delay: 124.193 ms

Loss rate: 0.17%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-10-12 11:50:53

End at: 2017-10-12 11:51:23

Below is generated by plot.py at 2017-10-12 15:27:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 367.42 Mbit/s

95th percentile per-packet one-way delay: 151.050 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 263.12 Mbit/s

95th percentile per-packet one-way delay: 162.012 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 73.92 Mbit/s

95th percentile per-packet one-way delay: 113.831 ms

Loss rate: 0.02%

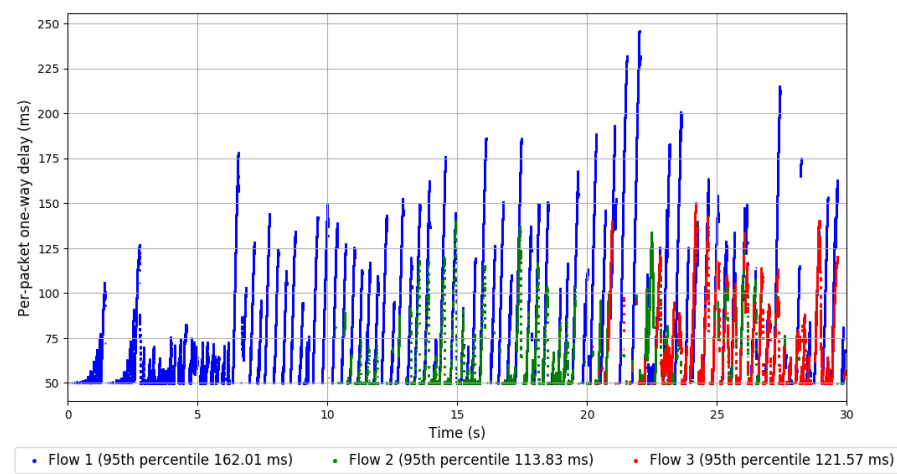
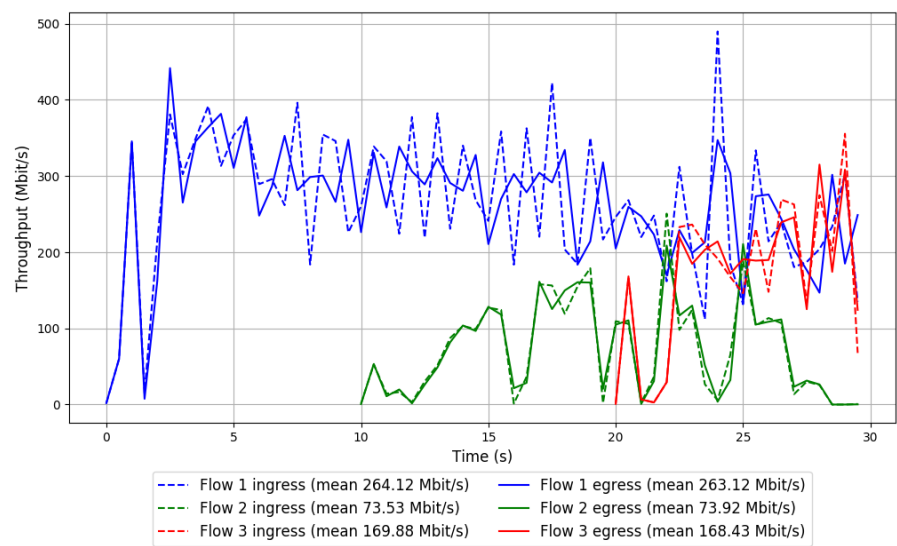
-- Flow 3:

Average throughput: 168.43 Mbit/s

95th percentile per-packet one-way delay: 121.572 ms

Loss rate: 0.99%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-10-12 12:03:22

End at: 2017-10-12 12:03:52

Below is generated by plot.py at 2017-10-12 15:29:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 362.01 Mbit/s

95th percentile per-packet one-way delay: 172.235 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 215.93 Mbit/s

95th percentile per-packet one-way delay: 154.980 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 175.24 Mbit/s

95th percentile per-packet one-way delay: 202.743 ms

Loss rate: 2.91%

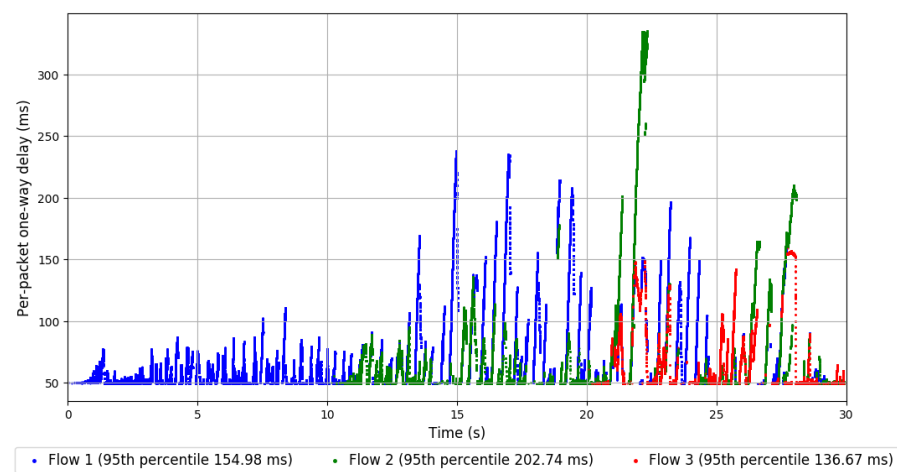
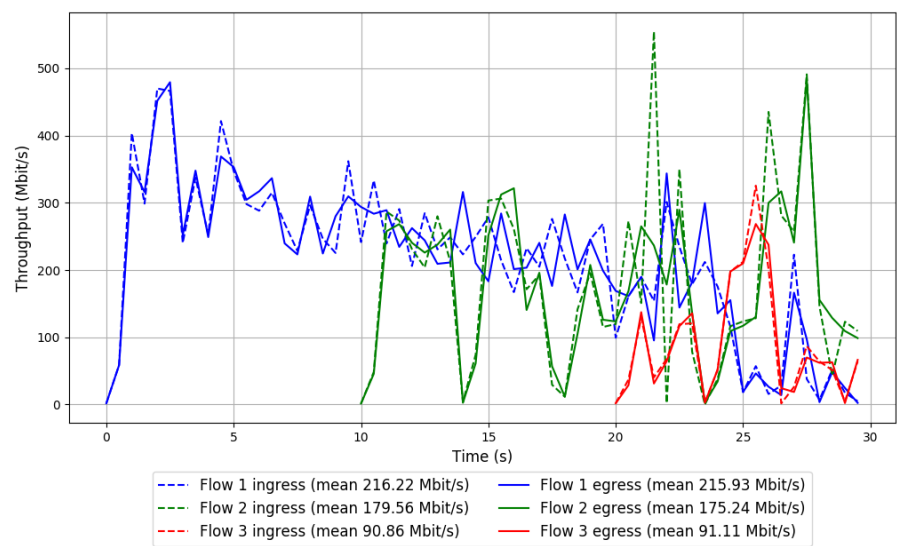
-- Flow 3:

Average throughput: 91.11 Mbit/s

95th percentile per-packet one-way delay: 136.668 ms

Loss rate: 0.88%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-10-12 12:15:33

End at: 2017-10-12 12:16:03

Below is generated by plot.py at 2017-10-12 15:30:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 383.88 Mbit/s

95th percentile per-packet one-way delay: 185.030 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 304.56 Mbit/s

95th percentile per-packet one-way delay: 189.799 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 85.33 Mbit/s

95th percentile per-packet one-way delay: 173.945 ms

Loss rate: 1.53%

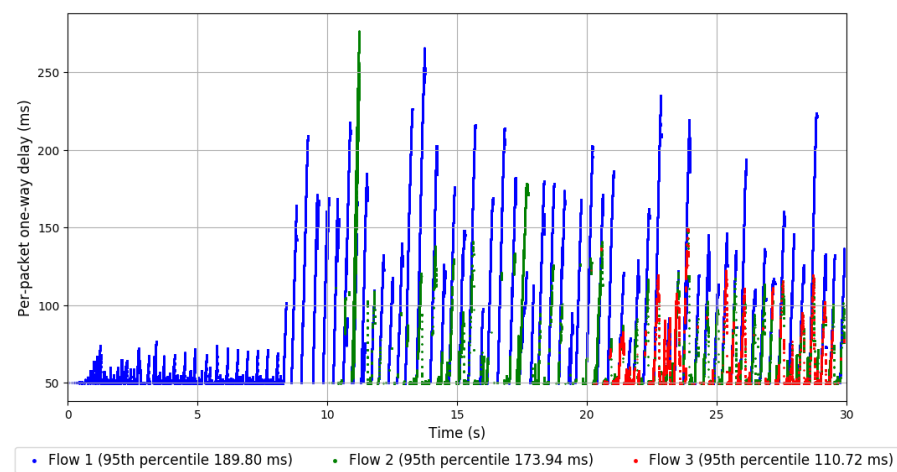
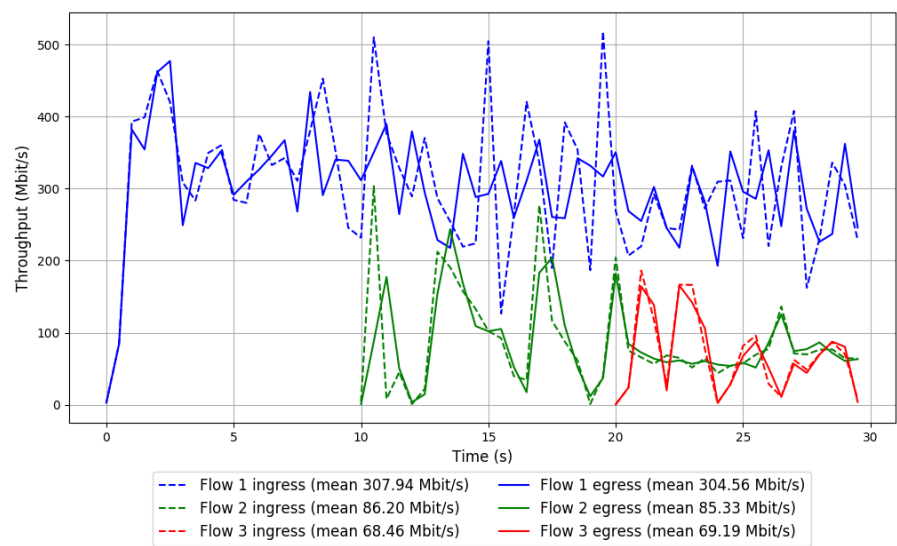
-- Flow 3:

Average throughput: 69.19 Mbit/s

95th percentile per-packet one-way delay: 110.718 ms

Loss rate: 0.74%

Run 10: Report of Verus — Data Link

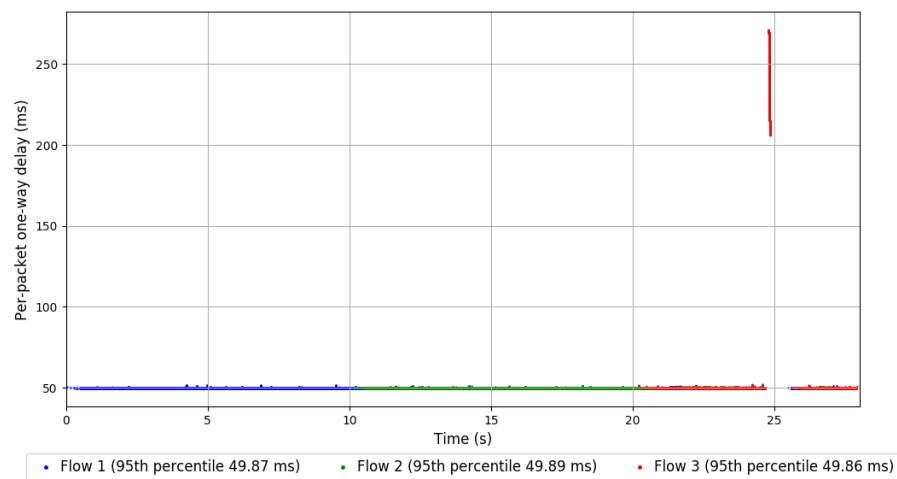
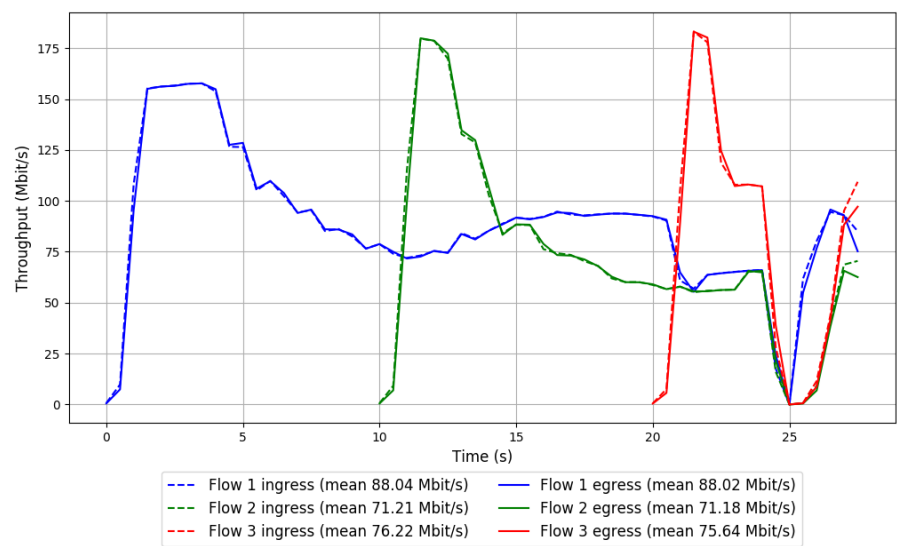


```
Run 1: Statistics of Copa

Start at: 2017-10-12 10:27:13
End at: 2017-10-12 10:27:43

# Below is generated by plot.py at 2017-10-12 15:30:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 154.82 Mbit/s
95th percentile per-packet one-way delay: 49.875 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 88.02 Mbit/s
95th percentile per-packet one-way delay: 49.871 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 71.18 Mbit/s
95th percentile per-packet one-way delay: 49.890 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 75.64 Mbit/s
95th percentile per-packet one-way delay: 49.860 ms
Loss rate: 2.01%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

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

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

Below is generated by plot.py at 2017-10-12 15:30:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 152.85 Mbit/s

95th percentile per-packet one-way delay: 53.388 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 83.69 Mbit/s

95th percentile per-packet one-way delay: 50.228 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 68.57 Mbit/s

95th percentile per-packet one-way delay: 50.296 ms

Loss rate: 0.41%

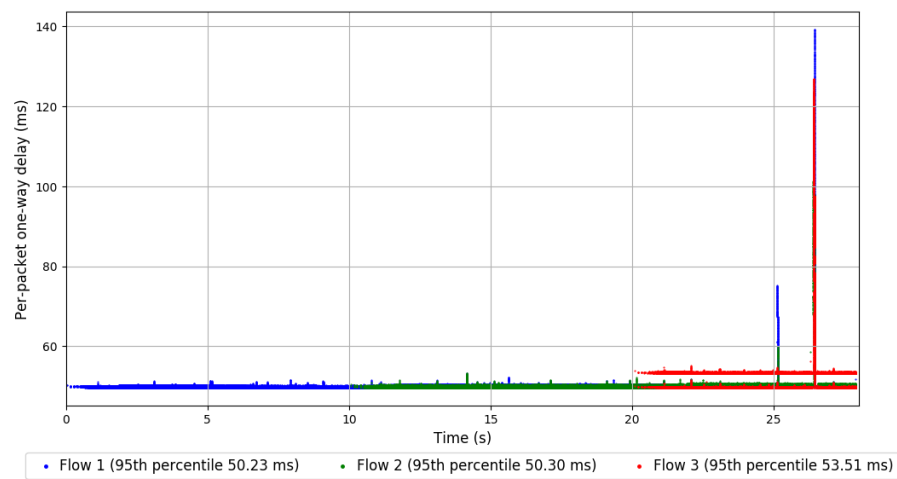
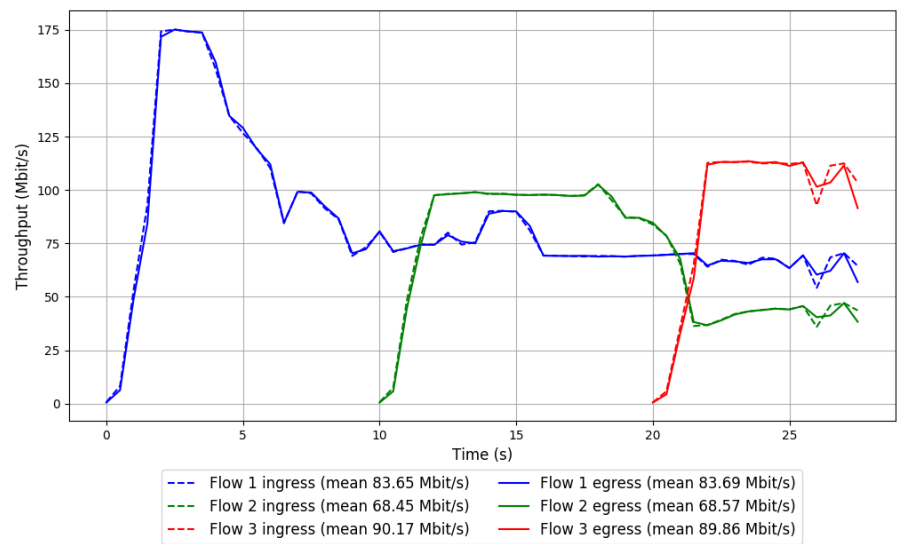
-- Flow 3:

Average throughput: 89.86 Mbit/s

95th percentile per-packet one-way delay: 53.513 ms

Loss rate: 1.65%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-10-12 10:52:53

End at: 2017-10-12 10:53:23

Below is generated by plot.py at 2017-10-12 15:30:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 134.35 Mbit/s

95th percentile per-packet one-way delay: 53.465 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 61.06 Mbit/s

95th percentile per-packet one-way delay: 53.492 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 75.54 Mbit/s

95th percentile per-packet one-way delay: 49.971 ms

Loss rate: 0.53%

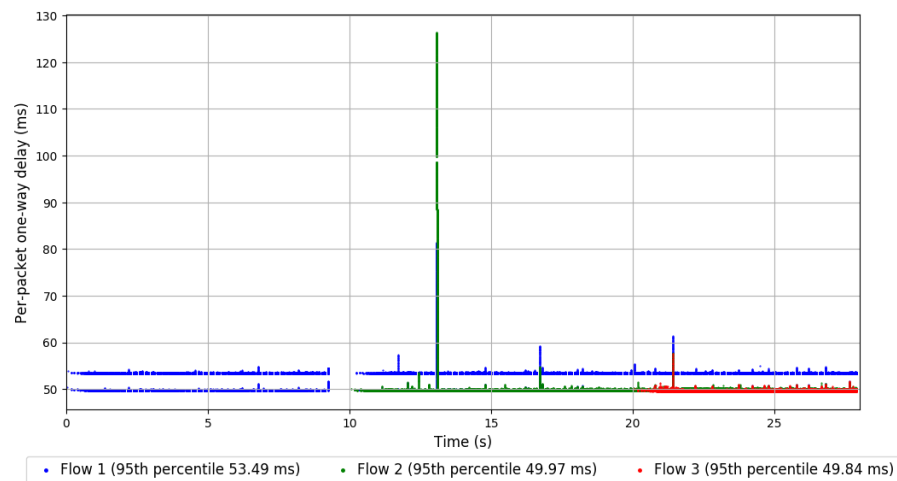
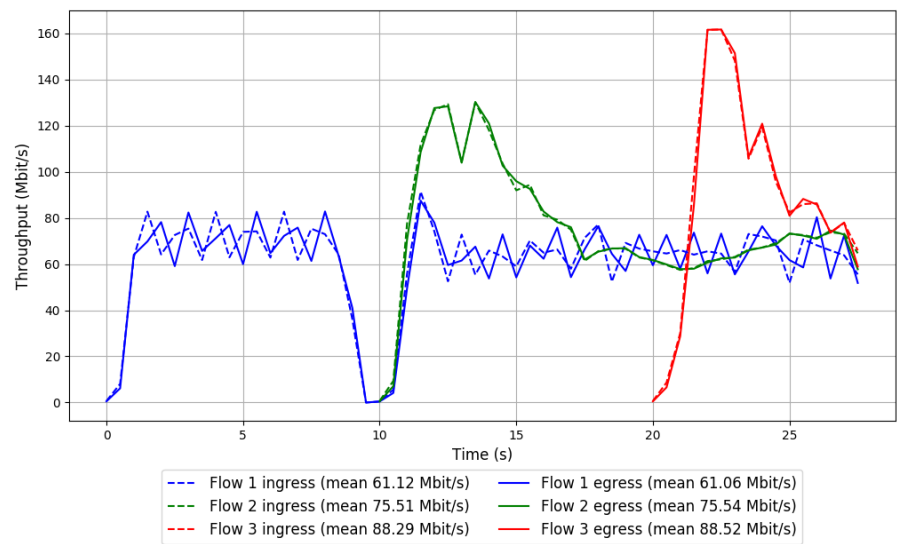
-- Flow 3:

Average throughput: 88.52 Mbit/s

95th percentile per-packet one-way delay: 49.843 ms

Loss rate: 1.04%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-10-12 11:05:39

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

Below is generated by plot.py at 2017-10-12 15:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 155.34 Mbit/s

95th percentile per-packet one-way delay: 53.554 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 94.31 Mbit/s

95th percentile per-packet one-way delay: 49.847 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 67.13 Mbit/s

95th percentile per-packet one-way delay: 53.728 ms

Loss rate: 0.46%

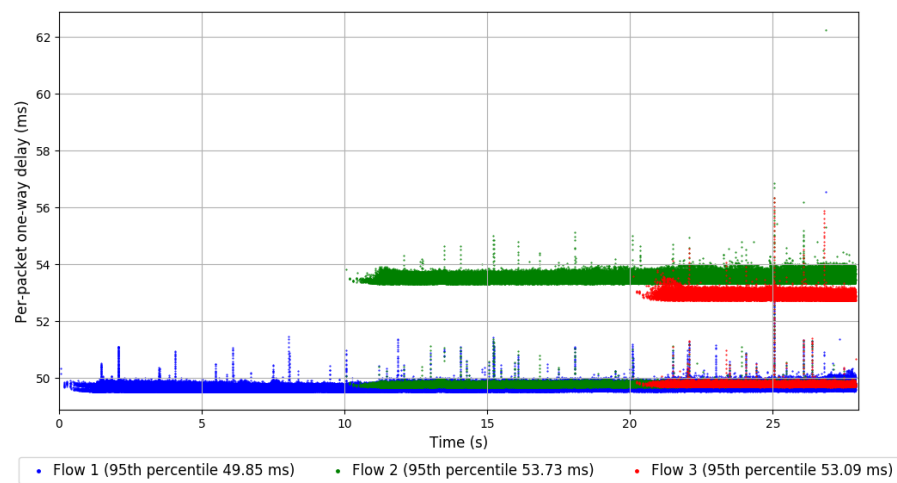
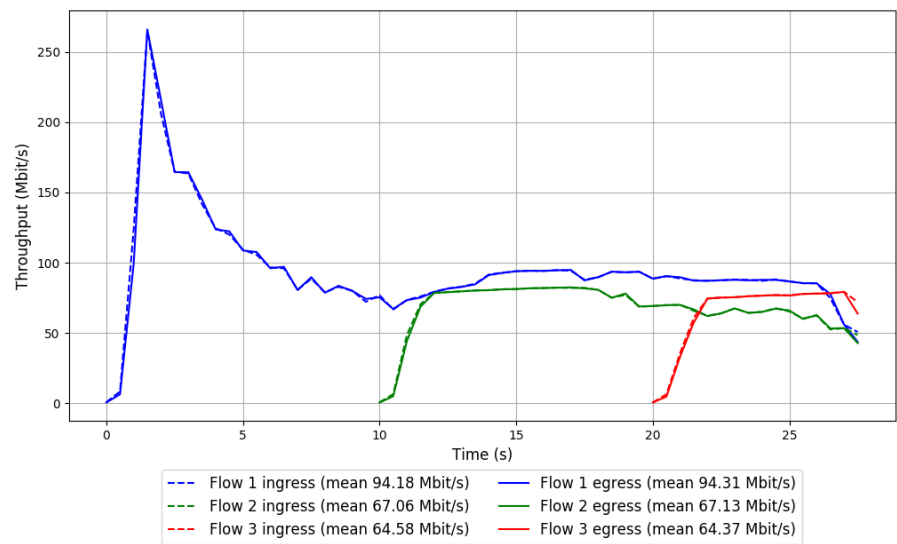
-- Flow 3:

Average throughput: 64.37 Mbit/s

95th percentile per-packet one-way delay: 53.090 ms

Loss rate: 1.58%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-10-12 11:18:27

End at: 2017-10-12 11:18:57

Below is generated by plot.py at 2017-10-12 15:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 148.70 Mbit/s

95th percentile per-packet one-way delay: 50.351 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 79.42 Mbit/s

95th percentile per-packet one-way delay: 50.223 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 90.39 Mbit/s

95th percentile per-packet one-way delay: 49.929 ms

Loss rate: 0.54%

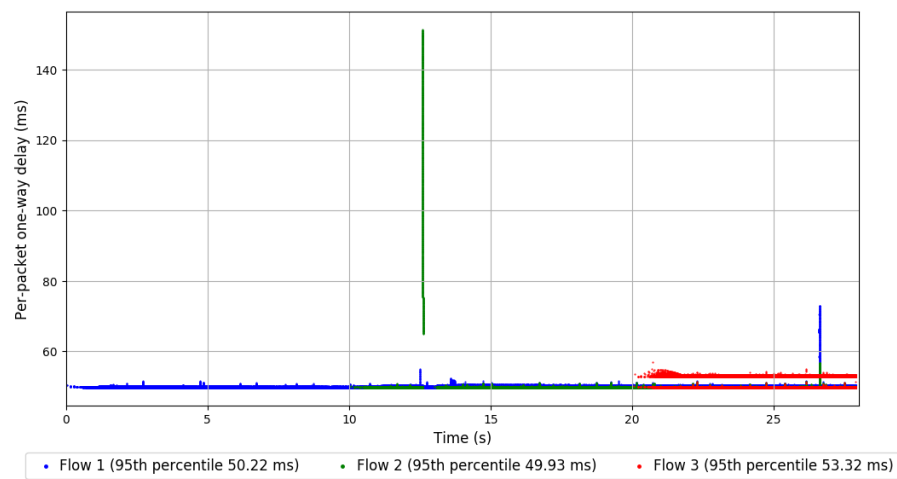
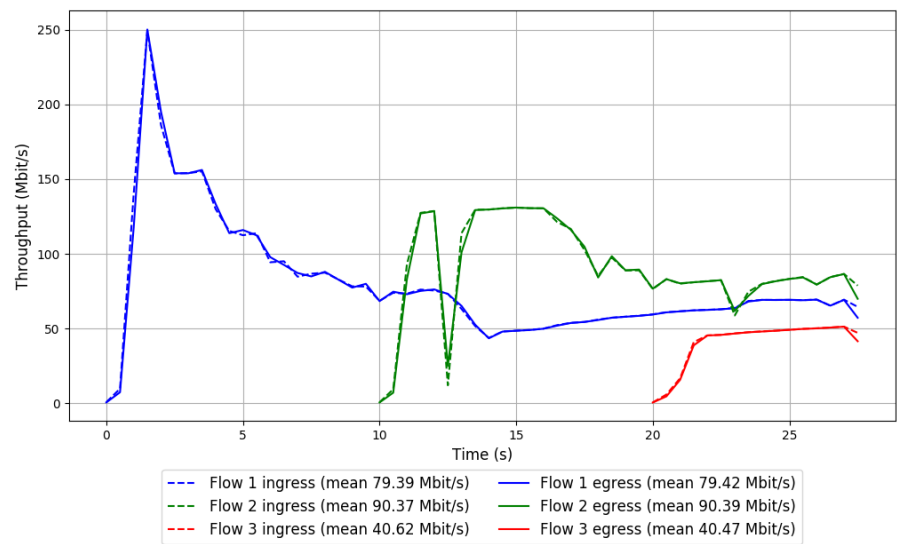
-- Flow 3:

Average throughput: 40.47 Mbit/s

95th percentile per-packet one-way delay: 53.323 ms

Loss rate: 1.67%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-10-12 11:31:14

End at: 2017-10-12 11:31:44

Below is generated by plot.py at 2017-10-12 15:32:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 155.82 Mbit/s

95th percentile per-packet one-way delay: 53.688 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 79.71 Mbit/s

95th percentile per-packet one-way delay: 53.718 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 78.01 Mbit/s

95th percentile per-packet one-way delay: 49.889 ms

Loss rate: 0.56%

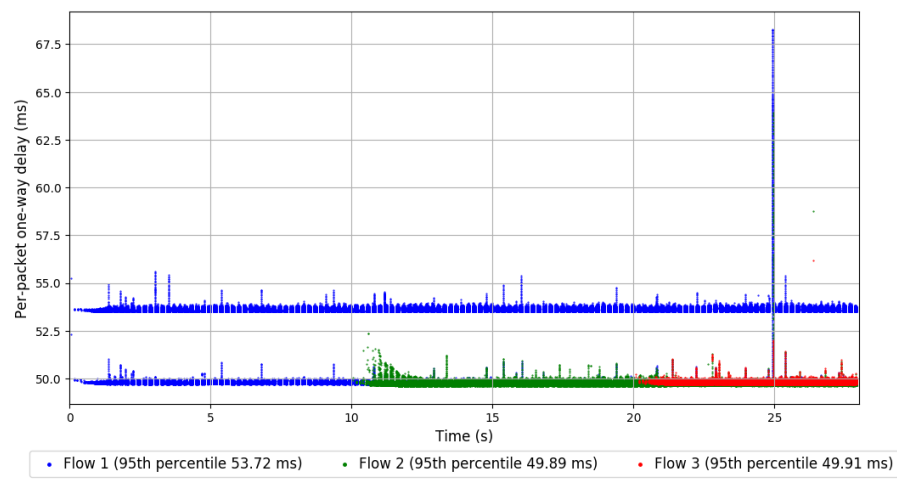
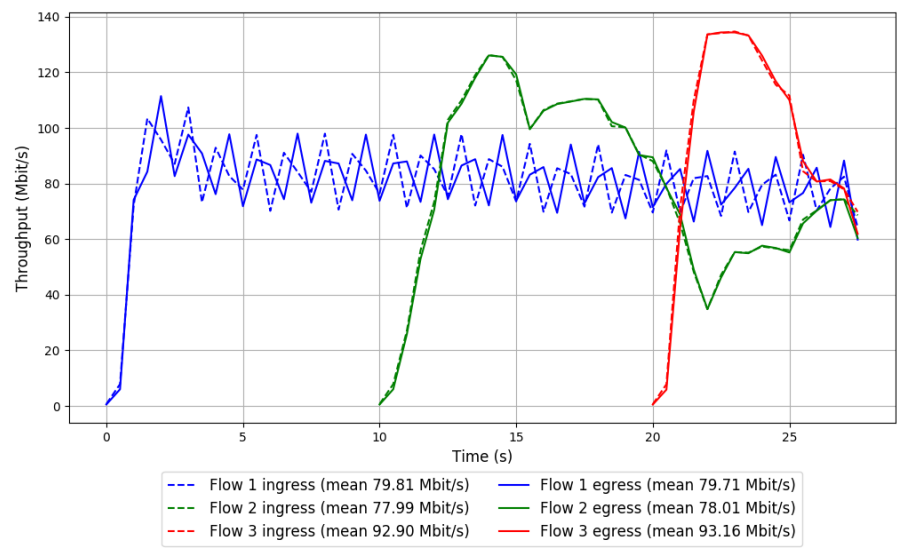
-- Flow 3:

Average throughput: 93.16 Mbit/s

95th percentile per-packet one-way delay: 49.913 ms

Loss rate: 1.04%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-10-12 11:43:32

End at: 2017-10-12 11:44:02

Below is generated by plot.py at 2017-10-12 15:33:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.84 Mbit/s

95th percentile per-packet one-way delay: 53.608 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 92.45 Mbit/s

95th percentile per-packet one-way delay: 50.207 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 68.56 Mbit/s

95th percentile per-packet one-way delay: 53.660 ms

Loss rate: 0.04%

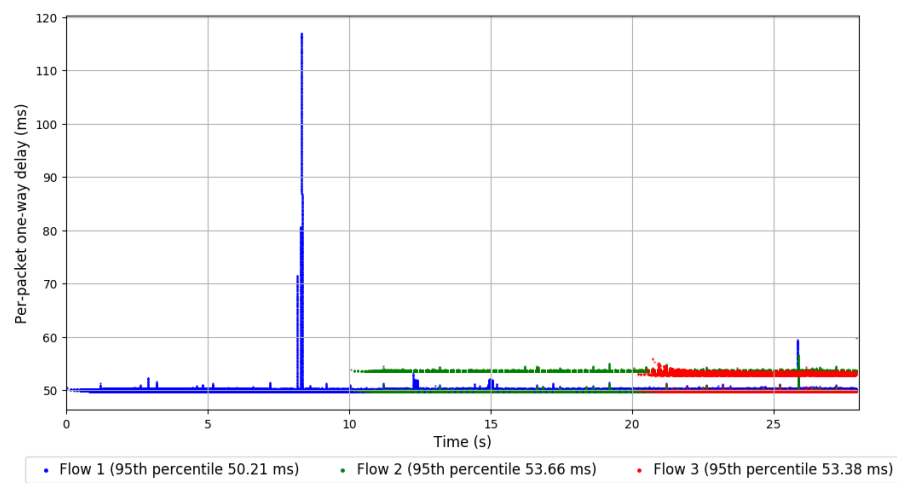
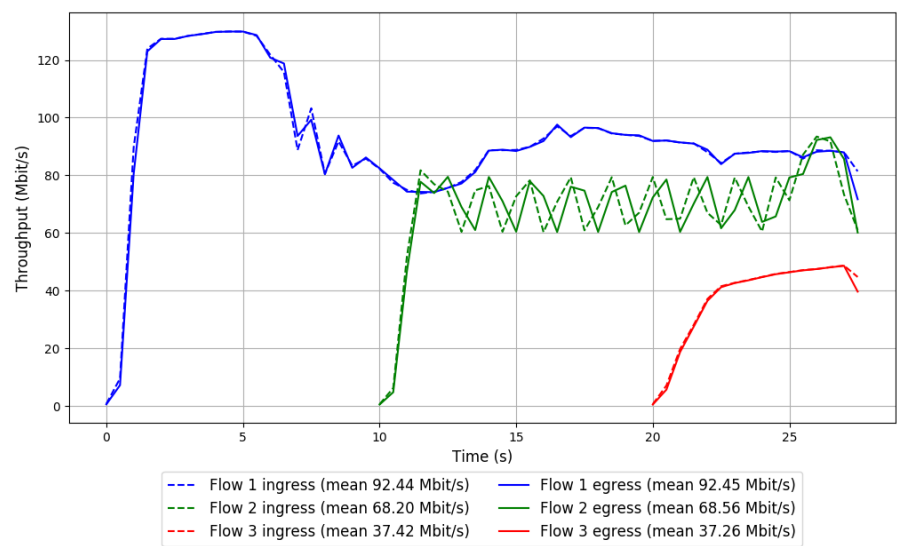
-- Flow 3:

Average throughput: 37.26 Mbit/s

95th percentile per-packet one-way delay: 53.377 ms

Loss rate: 1.68%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-10-12 11:56:02

End at: 2017-10-12 11:56:32

Below is generated by plot.py at 2017-10-12 15:34:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 155.46 Mbit/s

95th percentile per-packet one-way delay: 53.603 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 86.67 Mbit/s

95th percentile per-packet one-way delay: 49.956 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 70.33 Mbit/s

95th percentile per-packet one-way delay: 53.722 ms

Loss rate: 0.58%

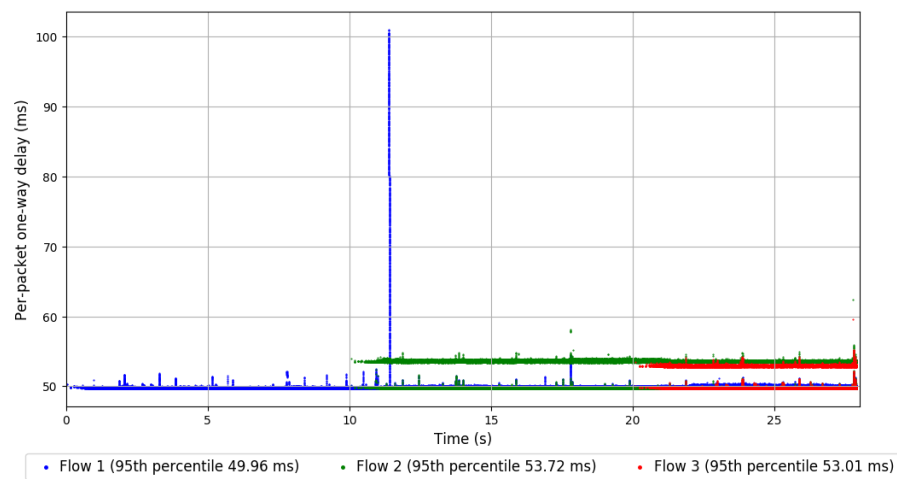
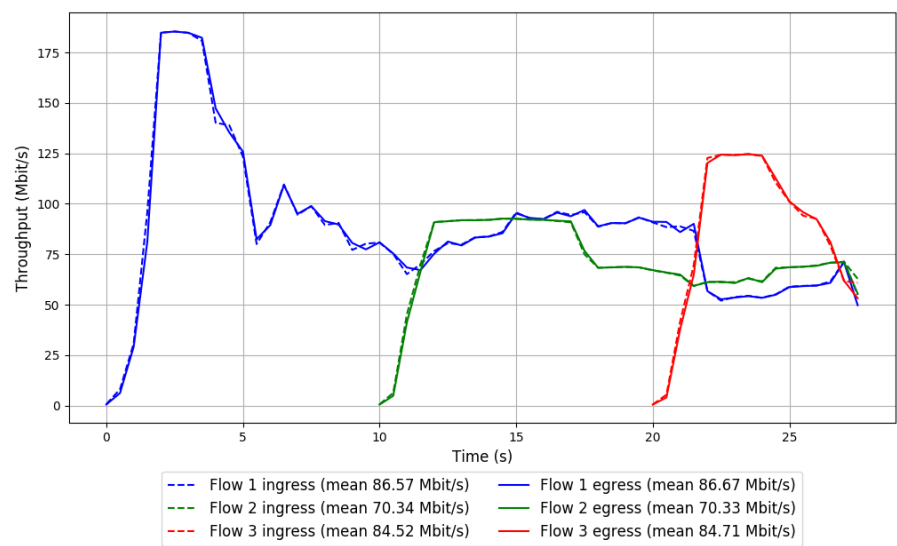
-- Flow 3:

Average throughput: 84.71 Mbit/s

95th percentile per-packet one-way delay: 53.010 ms

Loss rate: 1.06%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-10-12 12:08:17

End at: 2017-10-12 12:08:47

Below is generated by plot.py at 2017-10-12 15:34:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.72 Mbit/s

95th percentile per-packet one-way delay: 53.009 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 77.75 Mbit/s

95th percentile per-packet one-way delay: 52.974 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 55.99 Mbit/s

95th percentile per-packet one-way delay: 53.179 ms

Loss rate: 0.42%

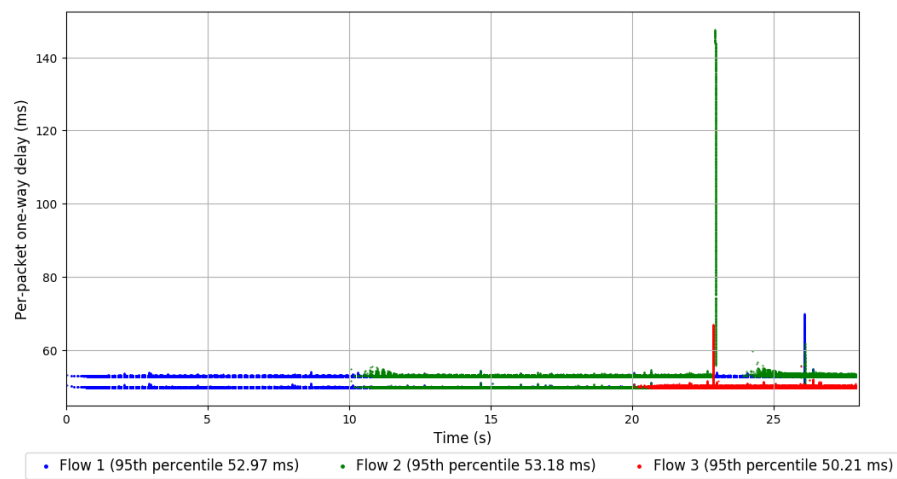
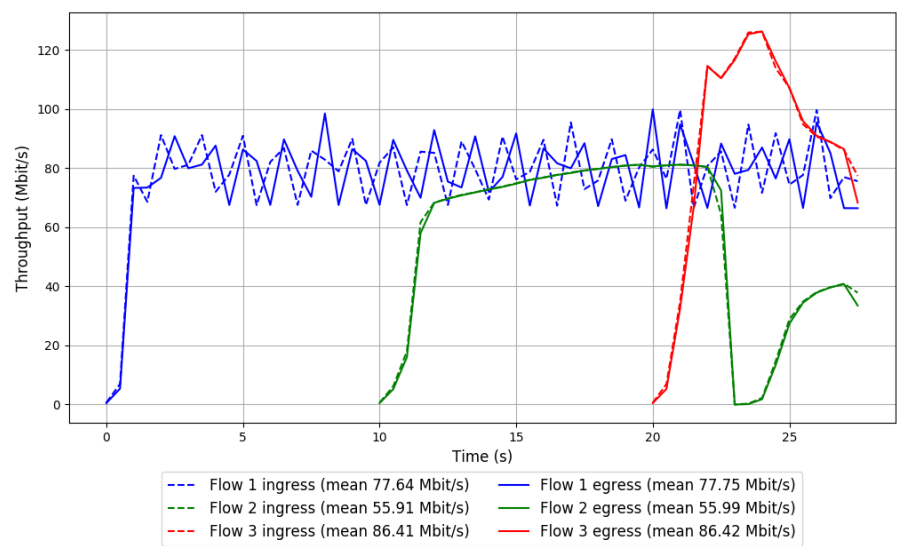
-- Flow 3:

Average throughput: 86.42 Mbit/s

95th percentile per-packet one-way delay: 50.212 ms

Loss rate: 1.28%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-10-12 12:20:48

End at: 2017-10-12 12:21:18

Below is generated by plot.py at 2017-10-12 15:34:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 152.82 Mbit/s

95th percentile per-packet one-way delay: 53.017 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 88.92 Mbit/s

95th percentile per-packet one-way delay: 53.040 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 73.52 Mbit/s

95th percentile per-packet one-way delay: 50.284 ms

Loss rate: 0.53%

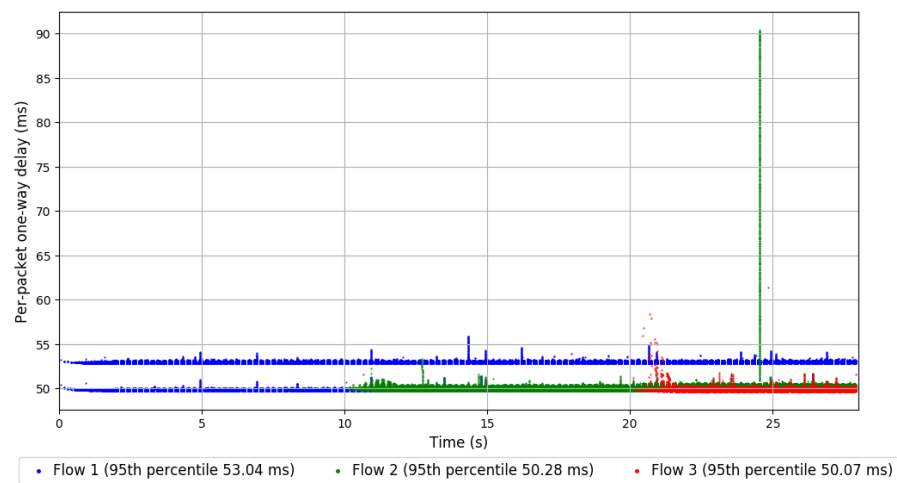
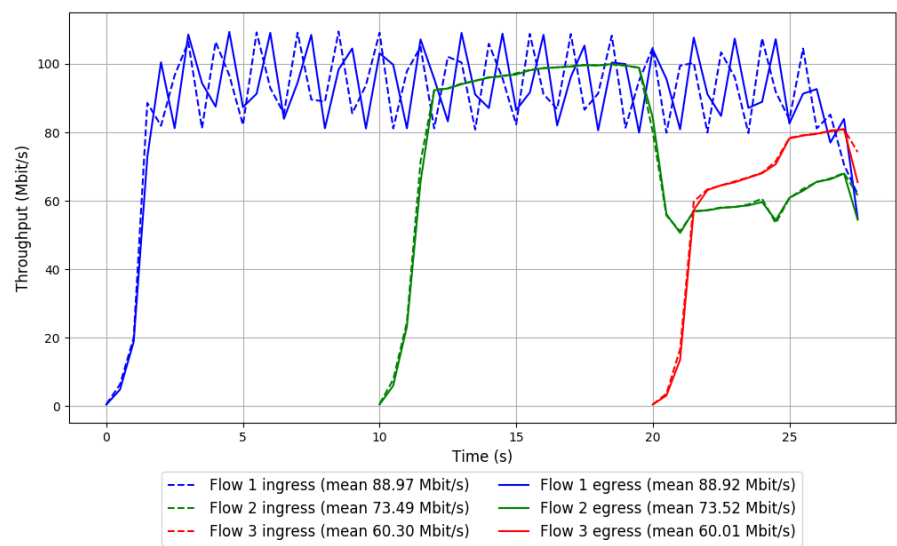
-- Flow 3:

Average throughput: 60.01 Mbit/s

95th percentile per-packet one-way delay: 50.066 ms

Loss rate: 1.77%

Run 10: Report of Copa — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-10-12 10:17:45

End at: 2017-10-12 10:18:15

Below is generated by plot.py at 2017-10-12 15:39:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 540.42 Mbit/s

95th percentile per-packet one-way delay: 90.388 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 357.99 Mbit/s

95th percentile per-packet one-way delay: 81.966 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 231.09 Mbit/s

95th percentile per-packet one-way delay: 101.805 ms

Loss rate: 0.67%

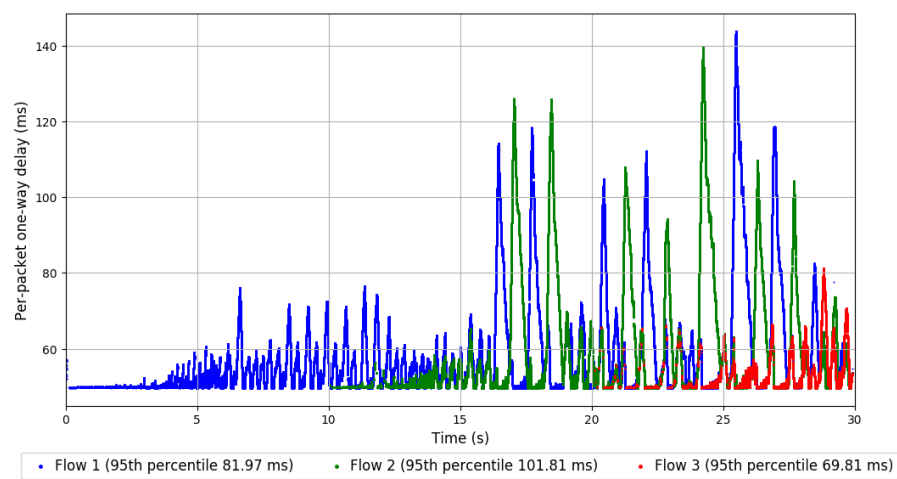
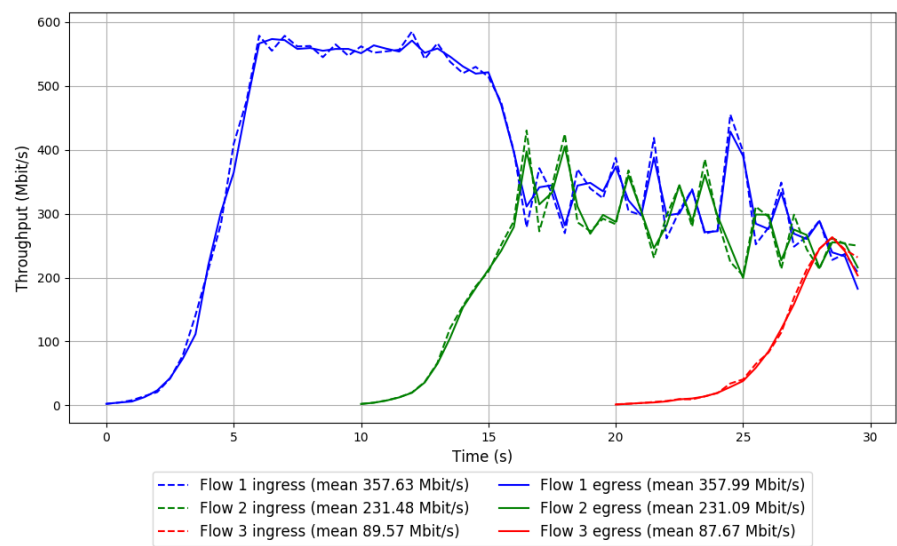
-- Flow 3:

Average throughput: 87.67 Mbit/s

95th percentile per-packet one-way delay: 69.808 ms

Loss rate: 3.15%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-10-12 10:30:32

End at: 2017-10-12 10:31:02

Below is generated by plot.py at 2017-10-12 15:39:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 539.94 Mbit/s

95th percentile per-packet one-way delay: 79.890 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 336.98 Mbit/s

95th percentile per-packet one-way delay: 73.796 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 259.52 Mbit/s

95th percentile per-packet one-way delay: 93.988 ms

Loss rate: 0.41%

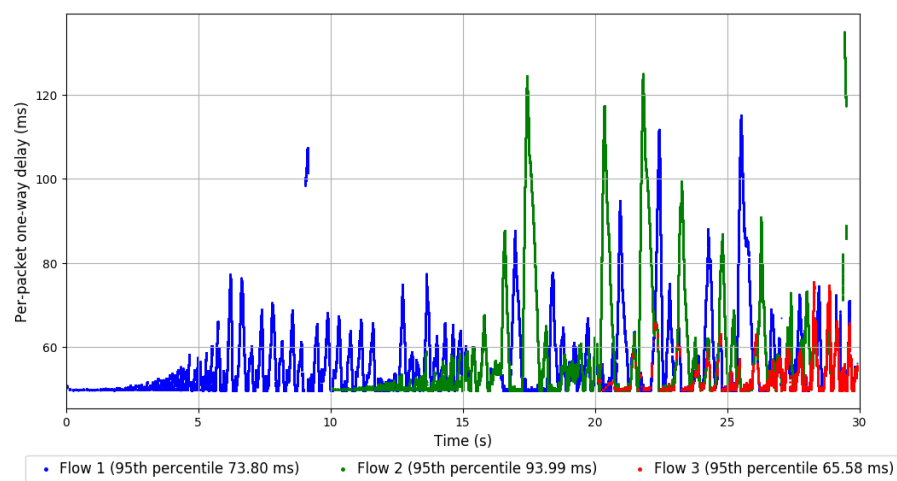
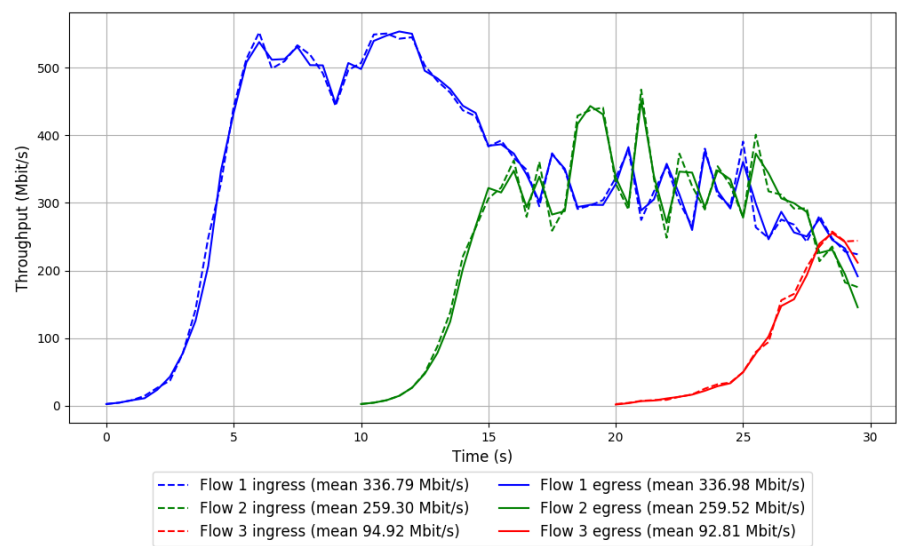
-- Flow 3:

Average throughput: 92.81 Mbit/s

95th percentile per-packet one-way delay: 65.581 ms

Loss rate: 3.23%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-10-12 10:43:27

End at: 2017-10-12 10:43:57

Below is generated by plot.py at 2017-10-12 15:39:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 535.18 Mbit/s

95th percentile per-packet one-way delay: 69.773 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 370.84 Mbit/s

95th percentile per-packet one-way delay: 69.772 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 243.92 Mbit/s

95th percentile per-packet one-way delay: 69.953 ms

Loss rate: 0.83%

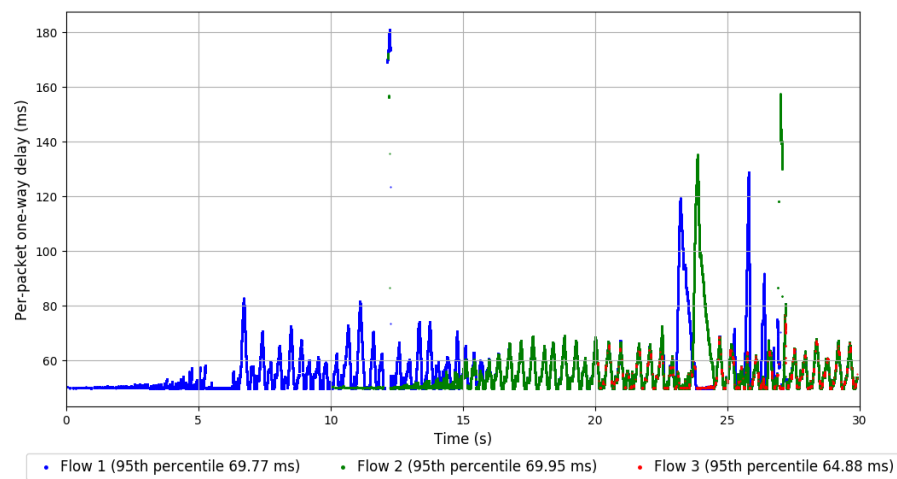
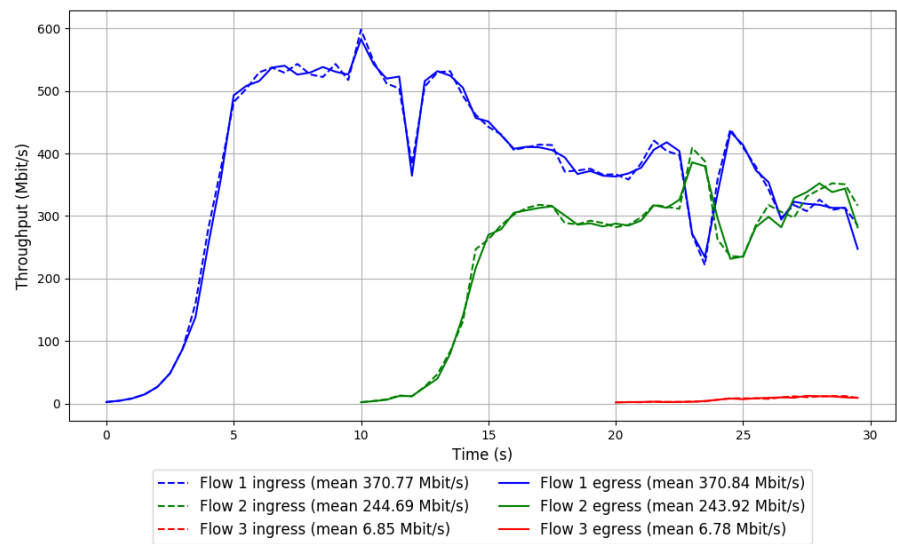
-- Flow 3:

Average throughput: 6.78 Mbit/s

95th percentile per-packet one-way delay: 64.880 ms

Loss rate: 1.96%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-10-12 10:56:07

End at: 2017-10-12 10:56:37

Below is generated by plot.py at 2017-10-12 15:41:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 554.40 Mbit/s

95th percentile per-packet one-way delay: 80.066 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 370.83 Mbit/s

95th percentile per-packet one-way delay: 76.900 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 222.27 Mbit/s

95th percentile per-packet one-way delay: 86.038 ms

Loss rate: 0.59%

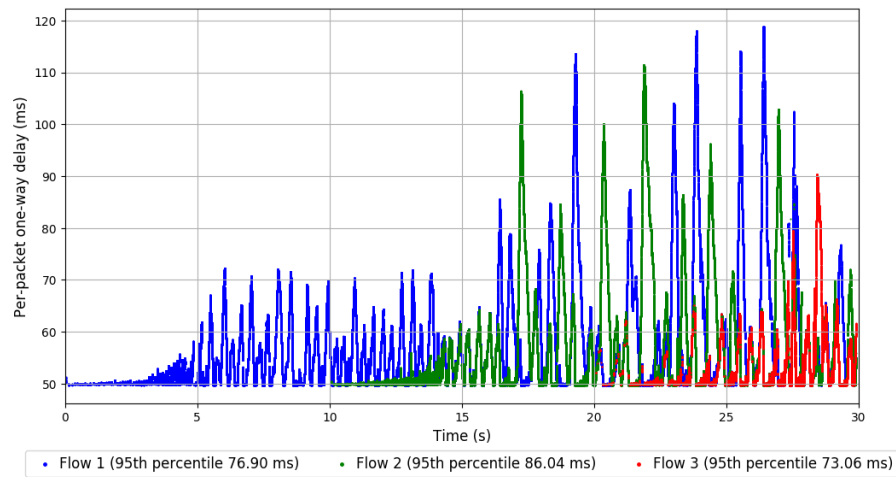
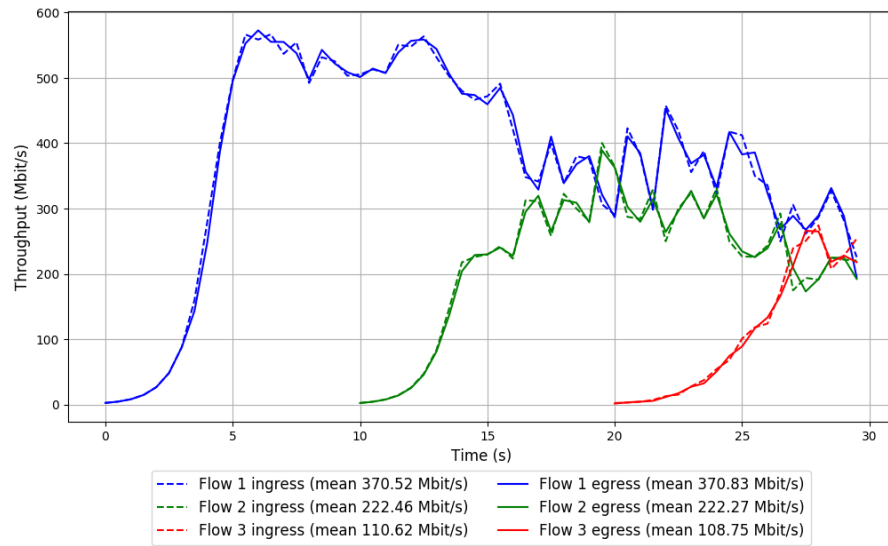
-- Flow 3:

Average throughput: 108.75 Mbit/s

95th percentile per-packet one-way delay: 73.064 ms

Loss rate: 2.73%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-10-12 11:08:57

End at: 2017-10-12 11:09:27

Below is generated by plot.py at 2017-10-12 15:41:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 541.51 Mbit/s

95th percentile per-packet one-way delay: 67.572 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 360.88 Mbit/s

95th percentile per-packet one-way delay: 67.298 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 268.43 Mbit/s

95th percentile per-packet one-way delay: 69.137 ms

Loss rate: 0.73%

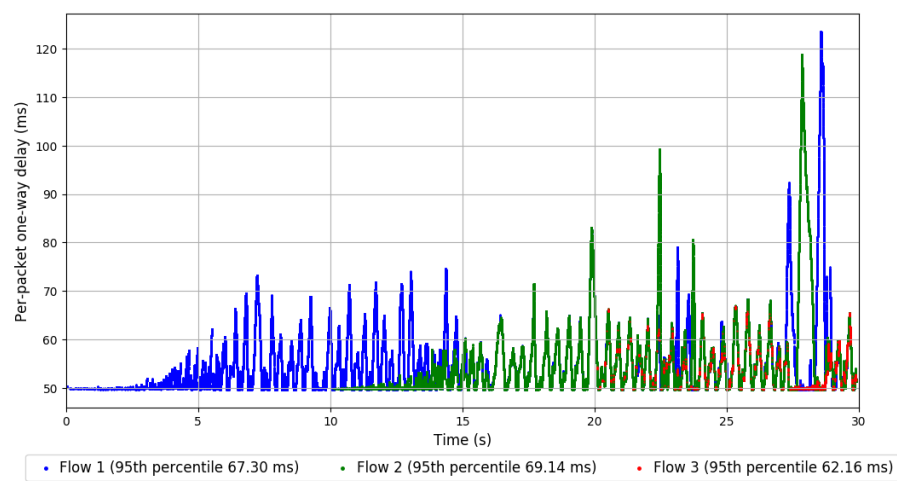
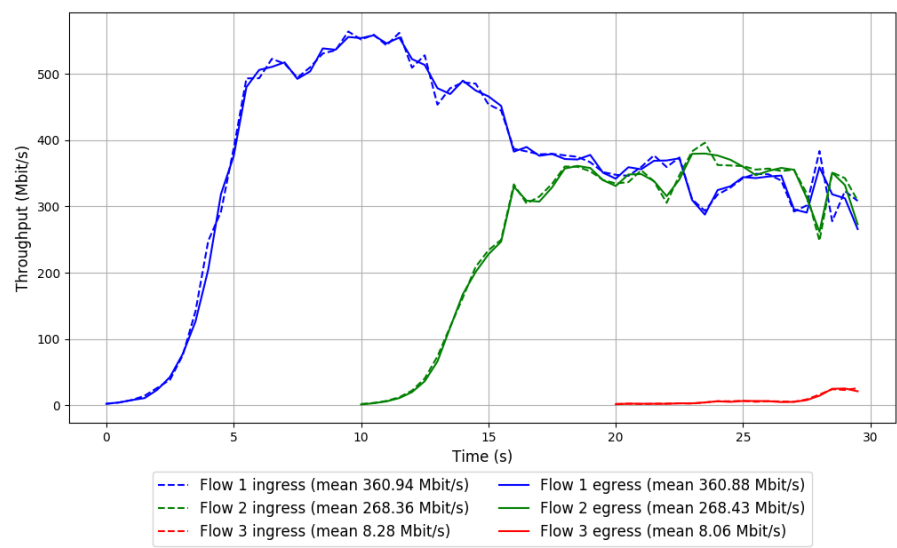
-- Flow 3:

Average throughput: 8.06 Mbit/s

95th percentile per-packet one-way delay: 62.162 ms

Loss rate: 3.70%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-10-12 11:21:44

End at: 2017-10-12 11:22:14

Below is generated by plot.py at 2017-10-12 15:43:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 546.11 Mbit/s

95th percentile per-packet one-way delay: 68.768 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 354.52 Mbit/s

95th percentile per-packet one-way delay: 68.121 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 284.38 Mbit/s

95th percentile per-packet one-way delay: 73.120 ms

Loss rate: 0.80%

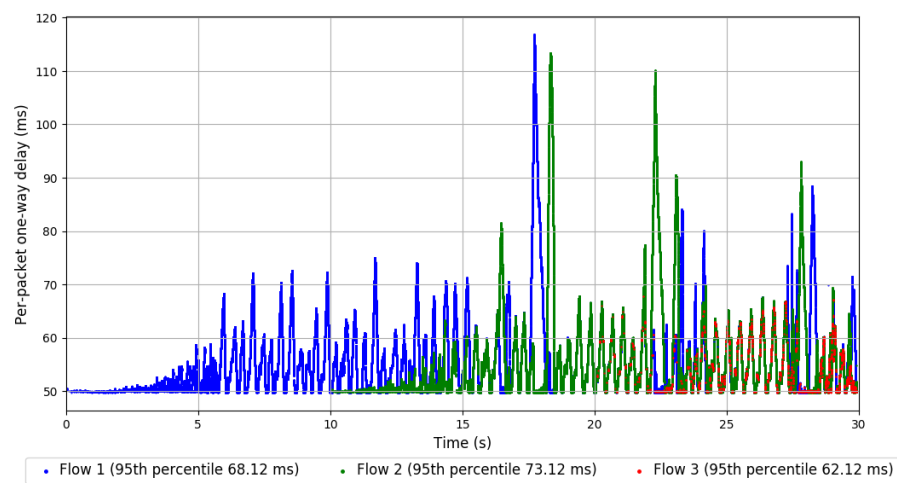
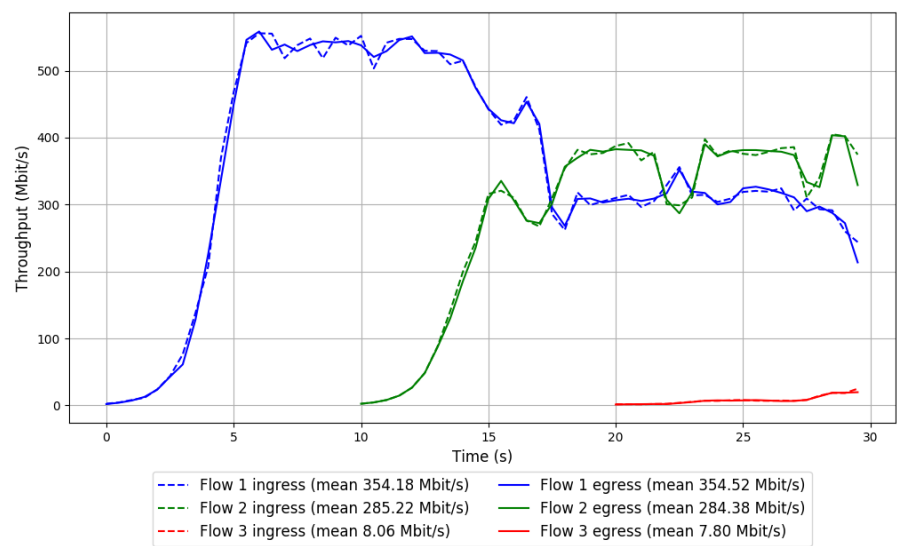
-- Flow 3:

Average throughput: 7.80 Mbit/s

95th percentile per-packet one-way delay: 62.119 ms

Loss rate: 4.19%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-10-12 11:34:29

End at: 2017-10-12 11:34:59

Below is generated by plot.py at 2017-10-12 15:43:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 535.91 Mbit/s

95th percentile per-packet one-way delay: 82.514 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 336.76 Mbit/s

95th percentile per-packet one-way delay: 79.482 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 266.11 Mbit/s

95th percentile per-packet one-way delay: 98.781 ms

Loss rate: 0.49%

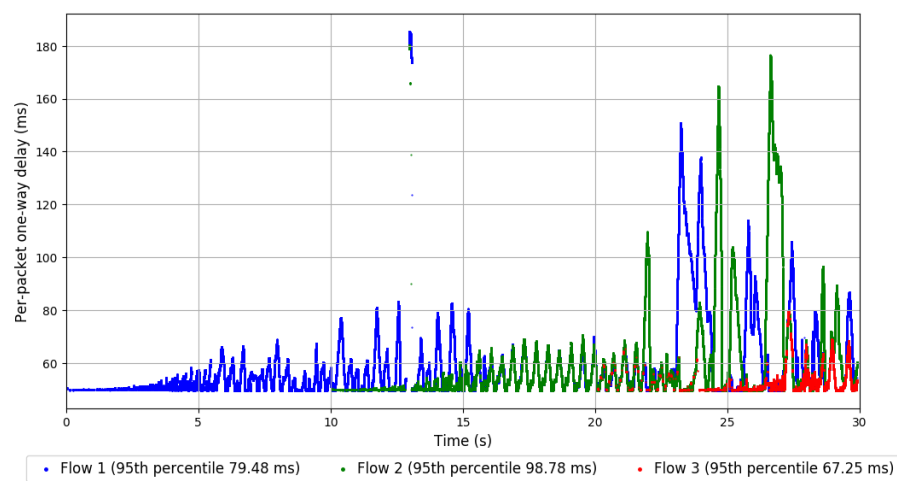
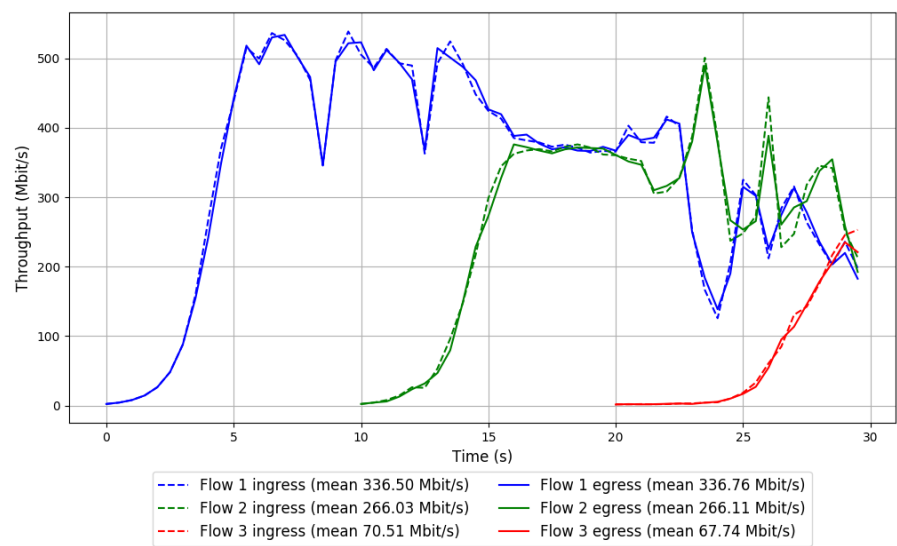
-- Flow 3:

Average throughput: 67.74 Mbit/s

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

Loss rate: 4.93%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-10-12 11:46:47

End at: 2017-10-12 11:47:17

Below is generated by plot.py at 2017-10-12 15:43:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 547.43 Mbit/s

95th percentile per-packet one-way delay: 81.314 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 336.19 Mbit/s

95th percentile per-packet one-way delay: 77.154 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 232.01 Mbit/s

95th percentile per-packet one-way delay: 90.413 ms

Loss rate: 0.56%

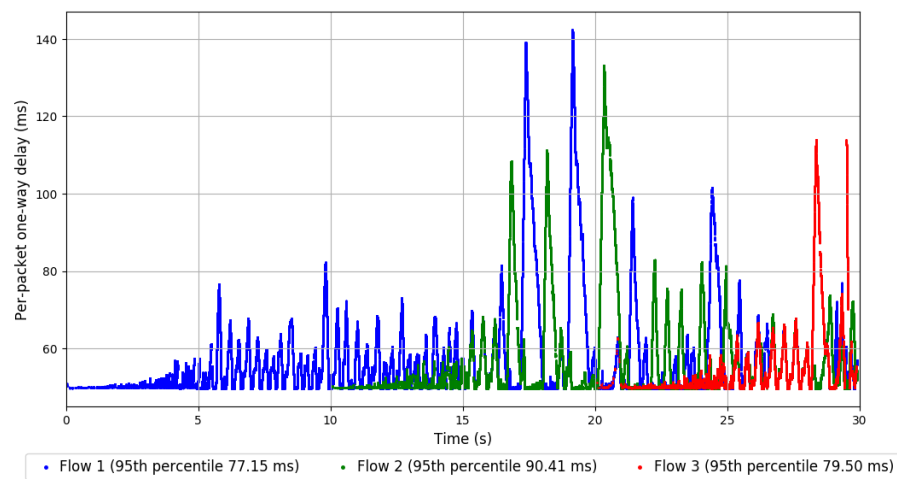
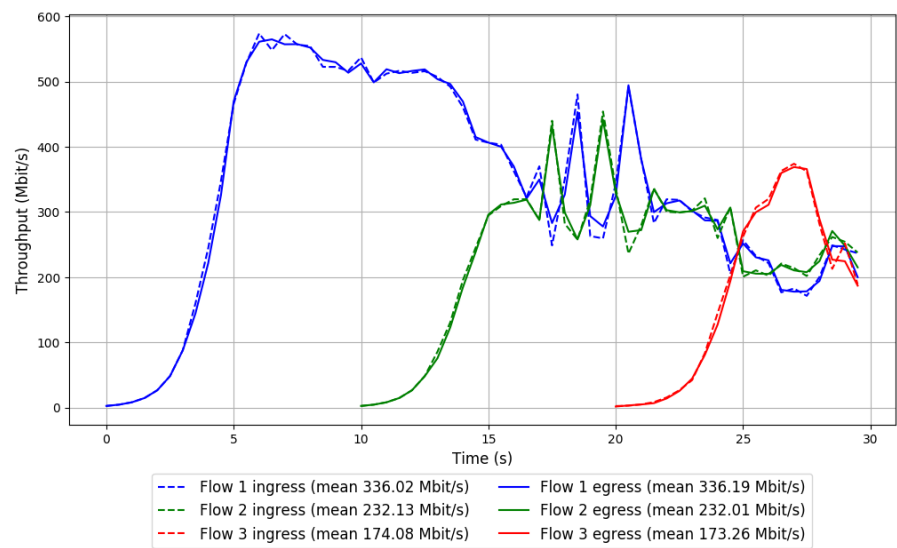
-- Flow 3:

Average throughput: 173.26 Mbit/s

95th percentile per-packet one-way delay: 79.503 ms

Loss rate: 1.52%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-10-12 11:59:19

End at: 2017-10-12 11:59:49

Below is generated by plot.py at 2017-10-12 15:48:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 532.29 Mbit/s

95th percentile per-packet one-way delay: 67.431 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 358.90 Mbit/s

95th percentile per-packet one-way delay: 66.752 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 259.66 Mbit/s

95th percentile per-packet one-way delay: 69.930 ms

Loss rate: 0.79%

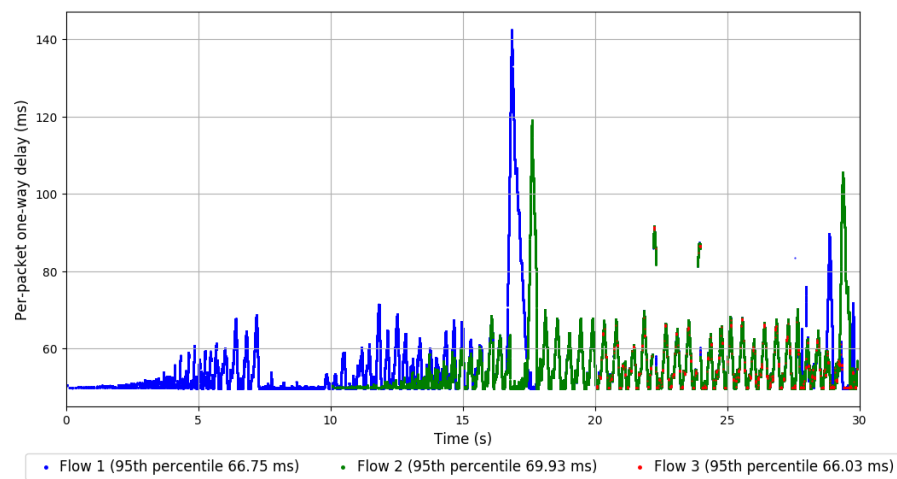
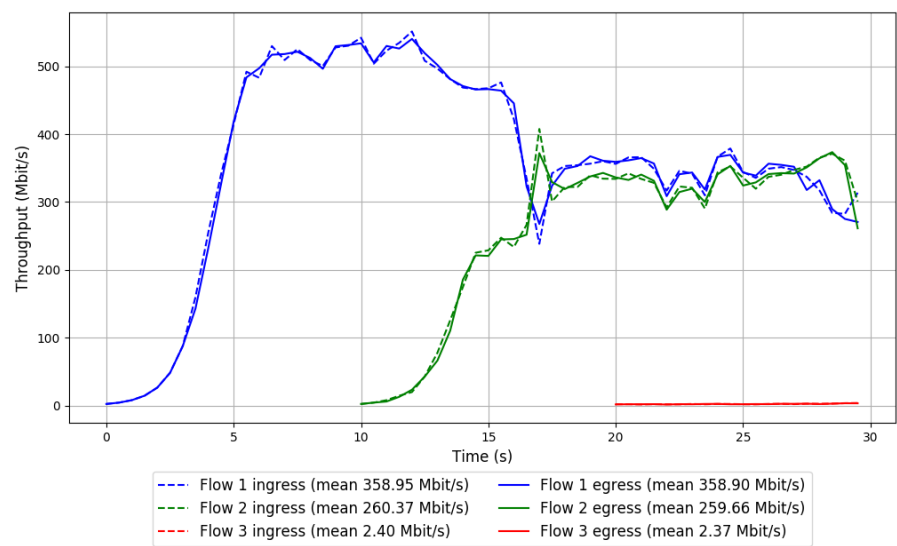
-- Flow 3:

Average throughput: 2.37 Mbit/s

95th percentile per-packet one-way delay: 66.025 ms

Loss rate: 2.32%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-10-12 12:11:31

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

Below is generated by plot.py at 2017-10-12 15:48:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 521.71 Mbit/s

95th percentile per-packet one-way delay: 73.583 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 344.24 Mbit/s

95th percentile per-packet one-way delay: 72.873 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 236.63 Mbit/s

95th percentile per-packet one-way delay: 78.312 ms

Loss rate: 0.53%

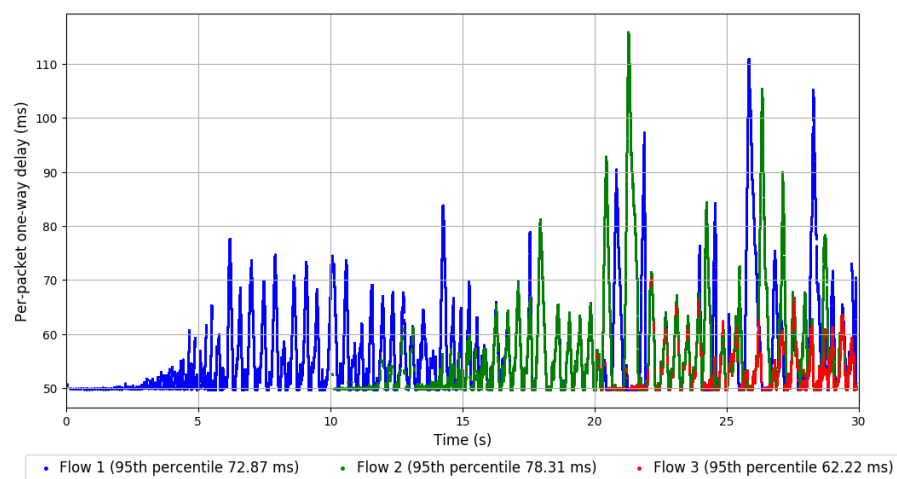
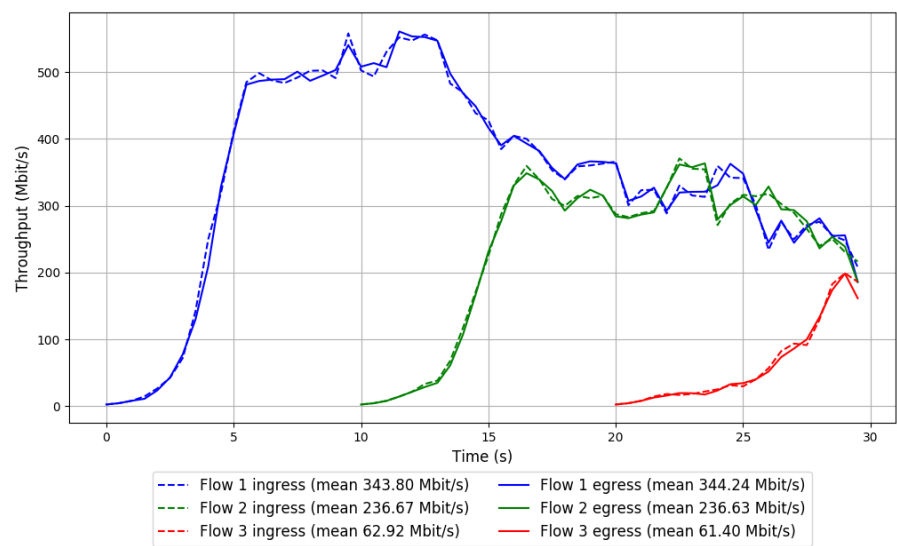
-- Flow 3:

Average throughput: 61.40 Mbit/s

95th percentile per-packet one-way delay: 62.224 ms

Loss rate: 3.44%

Run 10: Report of CalibratedKoho — Data Link

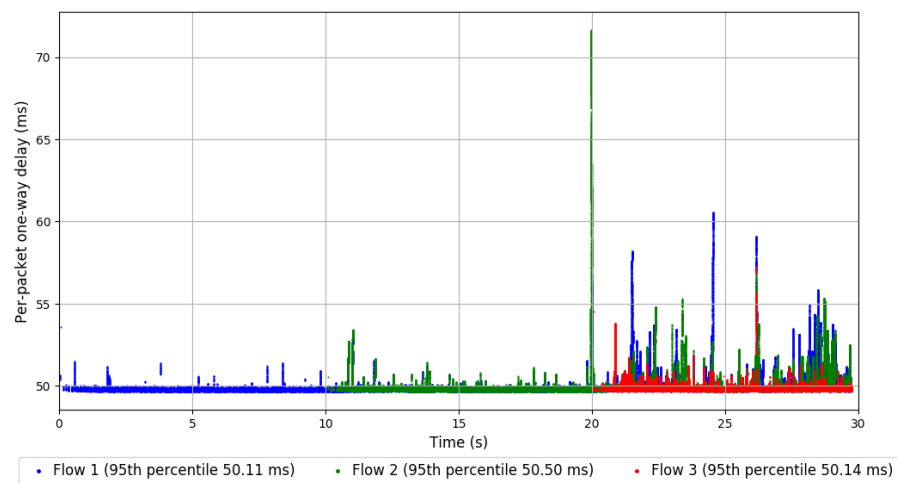
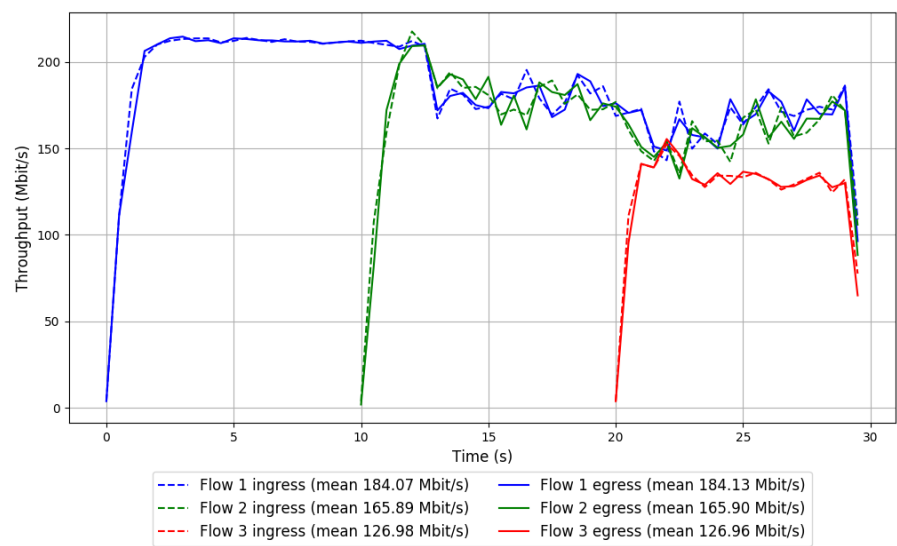


```
Run 1: Statistics of Indigo

Start at: 2017-10-12 10:16:41
End at: 2017-10-12 10:17:11

# Below is generated by plot.py at 2017-10-12 15:48:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 335.30 Mbit/s
95th percentile per-packet one-way delay: 50.228 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 184.13 Mbit/s
95th percentile per-packet one-way delay: 50.114 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 165.90 Mbit/s
95th percentile per-packet one-way delay: 50.504 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 126.96 Mbit/s
95th percentile per-packet one-way delay: 50.144 ms
Loss rate: 1.08%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-10-12 10:29:28

End at: 2017-10-12 10:29:58

Below is generated by plot.py at 2017-10-12 15:48:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 338.89 Mbit/s

95th percentile per-packet one-way delay: 50.281 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 181.33 Mbit/s

95th percentile per-packet one-way delay: 50.052 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 166.93 Mbit/s

95th percentile per-packet one-way delay: 50.777 ms

Loss rate: 0.54%

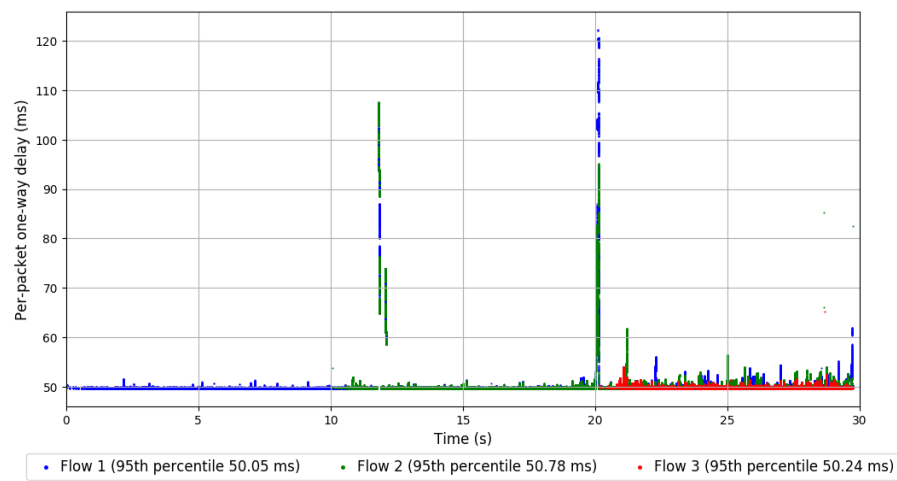
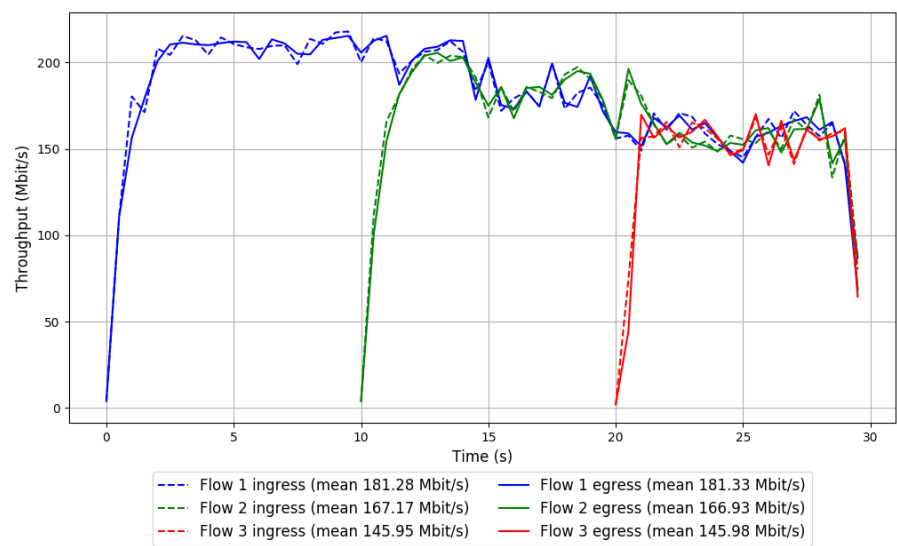
-- Flow 3:

Average throughput: 145.98 Mbit/s

95th percentile per-packet one-way delay: 50.244 ms

Loss rate: 1.06%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-10-12 10:42:24

End at: 2017-10-12 10:42:54

Below is generated by plot.py at 2017-10-12 15:48:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 320.81 Mbit/s

95th percentile per-packet one-way delay: 50.202 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 175.44 Mbit/s

95th percentile per-packet one-way delay: 49.970 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 163.80 Mbit/s

95th percentile per-packet one-way delay: 51.125 ms

Loss rate: 0.43%

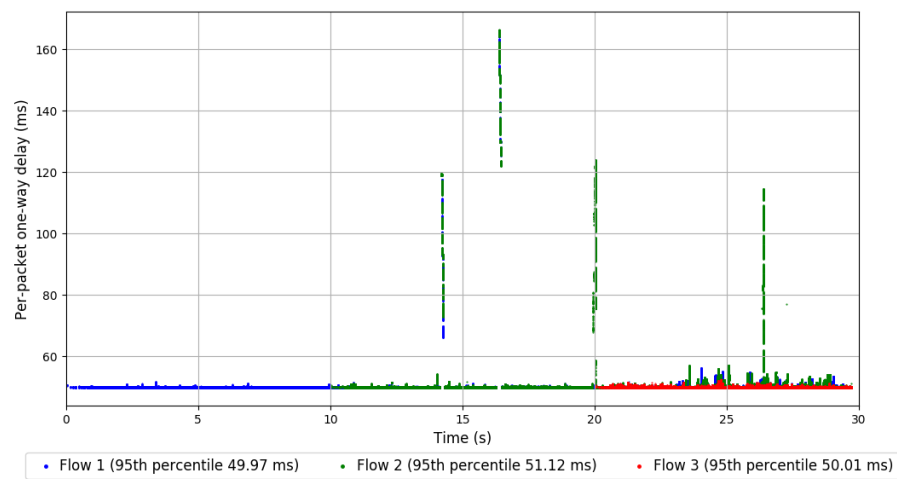
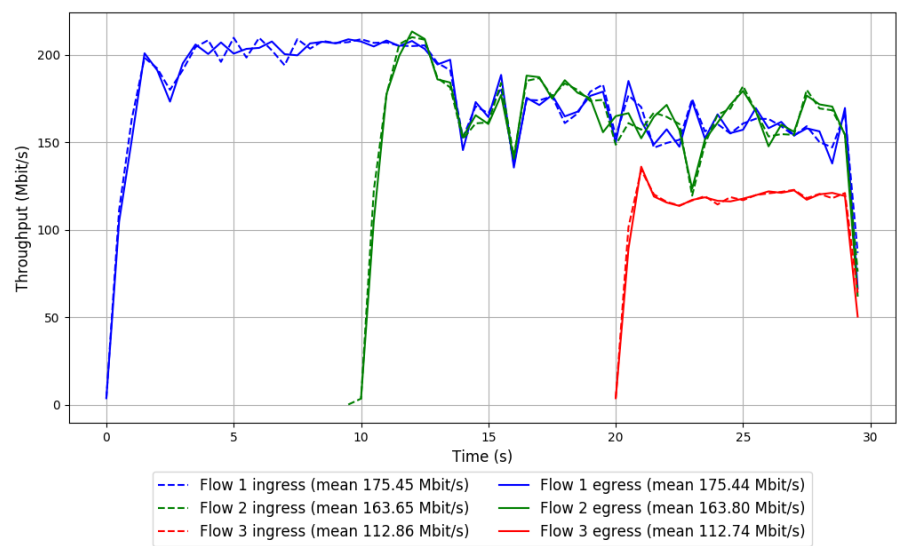
-- Flow 3:

Average throughput: 112.74 Mbit/s

95th percentile per-packet one-way delay: 50.005 ms

Loss rate: 1.16%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-10-12 10:55:04

End at: 2017-10-12 10:55:34

Below is generated by plot.py at 2017-10-12 15:48:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 330.23 Mbit/s

95th percentile per-packet one-way delay: 50.069 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 176.26 Mbit/s

95th percentile per-packet one-way delay: 49.940 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 163.67 Mbit/s

95th percentile per-packet one-way delay: 50.293 ms

Loss rate: 0.53%

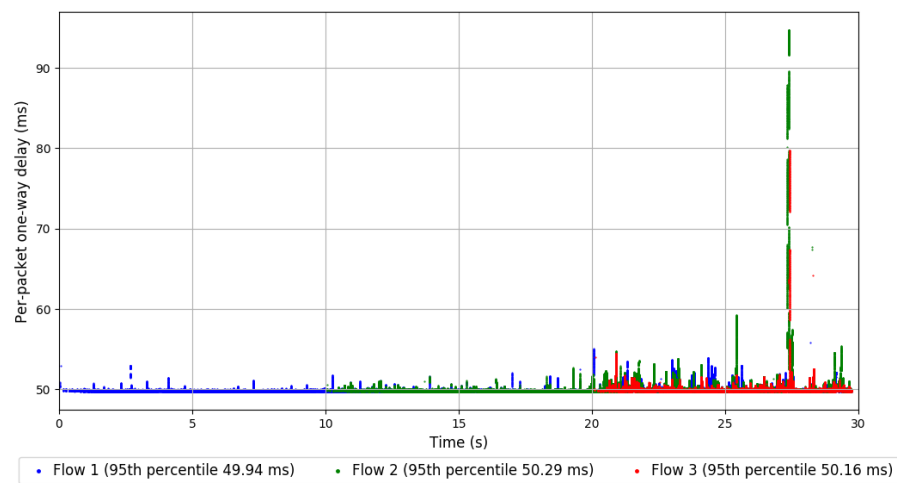
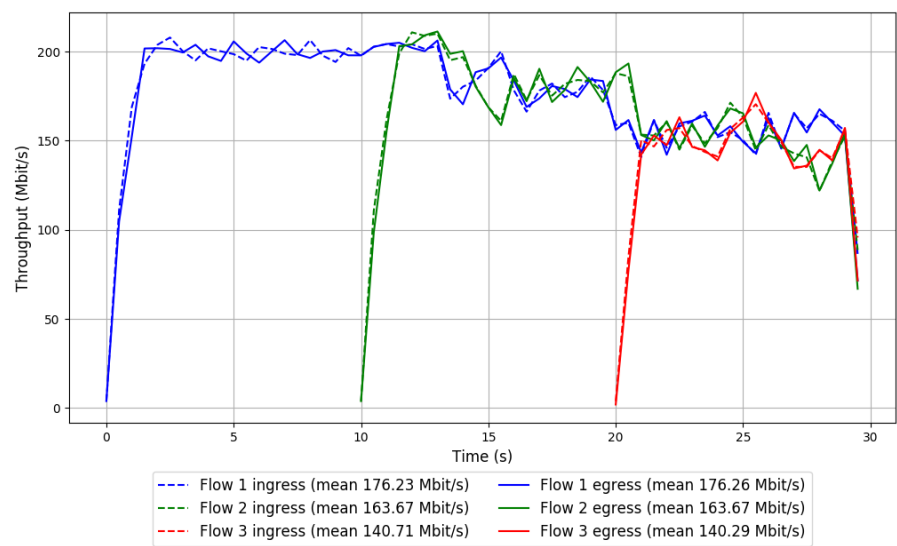
-- Flow 3:

Average throughput: 140.29 Mbit/s

95th percentile per-packet one-way delay: 50.162 ms

Loss rate: 1.36%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-10-12 11:07:54

End at: 2017-10-12 11:08:24

Below is generated by plot.py at 2017-10-12 15:48:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 327.44 Mbit/s

95th percentile per-packet one-way delay: 50.157 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 178.80 Mbit/s

95th percentile per-packet one-way delay: 50.016 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 163.11 Mbit/s

95th percentile per-packet one-way delay: 50.459 ms

Loss rate: 0.45%

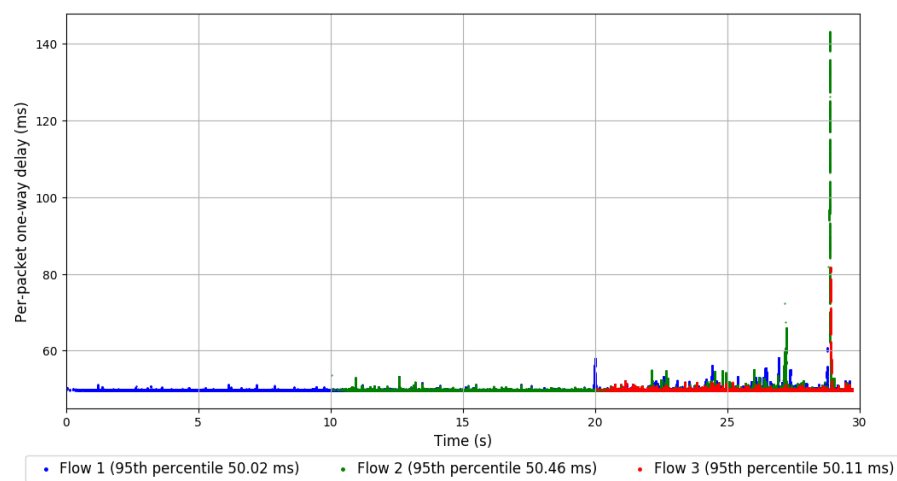
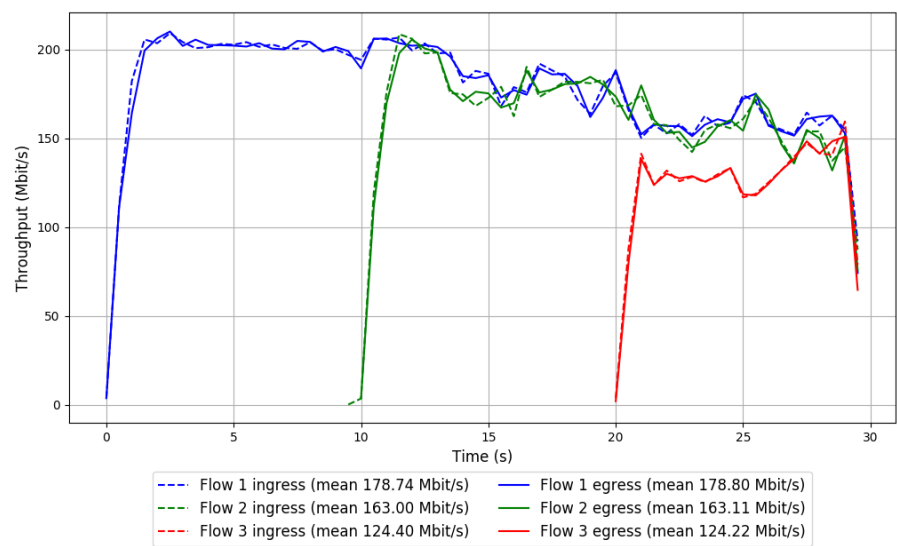
-- Flow 3:

Average throughput: 124.22 Mbit/s

95th percentile per-packet one-way delay: 50.110 ms

Loss rate: 1.19%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-10-12 11:20:41

End at: 2017-10-12 11:21:11

Below is generated by plot.py at 2017-10-12 15:49:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 333.03 Mbit/s

95th percentile per-packet one-way delay: 50.044 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 175.89 Mbit/s

95th percentile per-packet one-way delay: 49.960 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 168.30 Mbit/s

95th percentile per-packet one-way delay: 50.192 ms

Loss rate: 0.07%

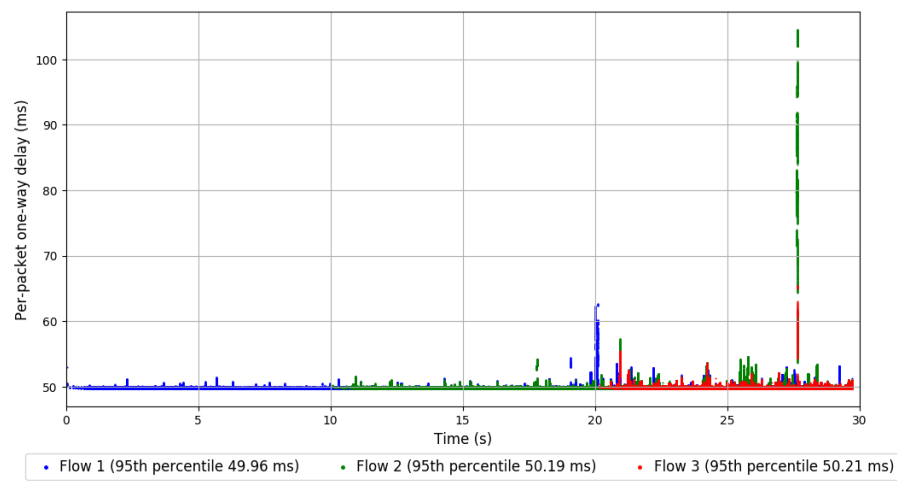
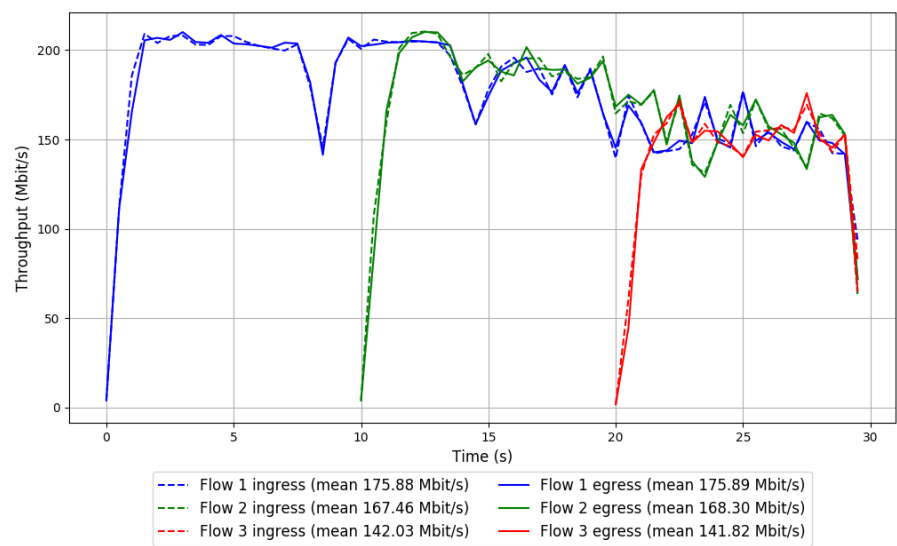
-- Flow 3:

Average throughput: 141.82 Mbit/s

95th percentile per-packet one-way delay: 50.212 ms

Loss rate: 1.19%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-10-12 11:33:27

End at: 2017-10-12 11:33:57

Below is generated by plot.py at 2017-10-12 15:50:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 326.16 Mbit/s

95th percentile per-packet one-way delay: 50.007 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 179.03 Mbit/s

95th percentile per-packet one-way delay: 49.961 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 159.02 Mbit/s

95th percentile per-packet one-way delay: 50.049 ms

Loss rate: 0.43%

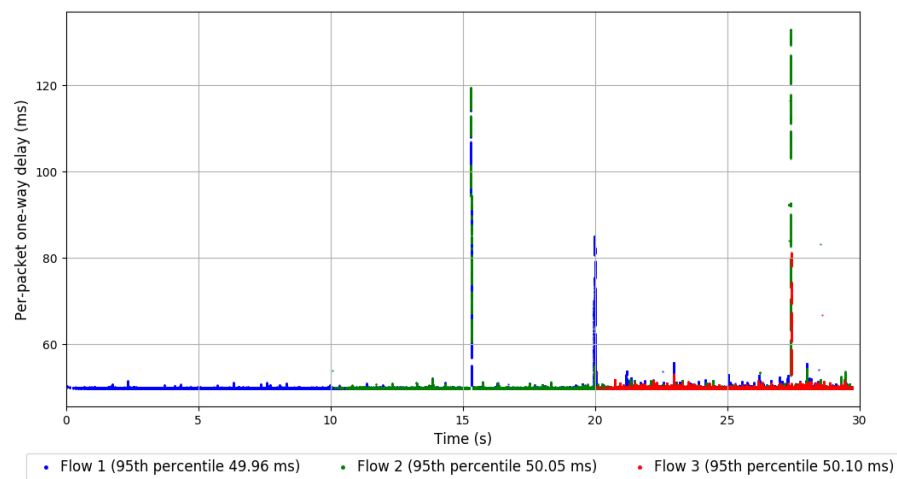
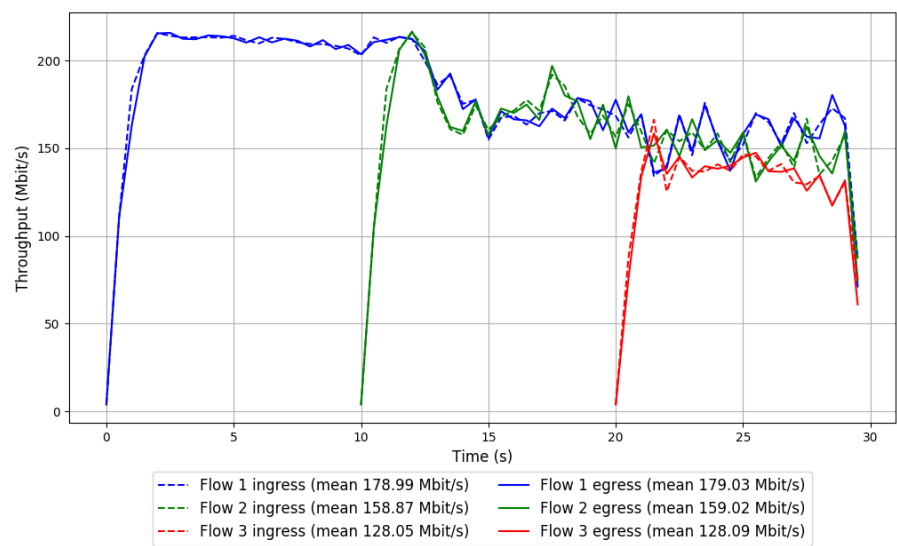
-- Flow 3:

Average throughput: 128.09 Mbit/s

95th percentile per-packet one-way delay: 50.096 ms

Loss rate: 1.03%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-10-12 11:45:45

End at: 2017-10-12 11:46:15

Below is generated by plot.py at 2017-10-12 15:50:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 321.97 Mbit/s

95th percentile per-packet one-way delay: 50.293 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 176.06 Mbit/s

95th percentile per-packet one-way delay: 50.088 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 166.92 Mbit/s

95th percentile per-packet one-way delay: 50.805 ms

Loss rate: 0.49%

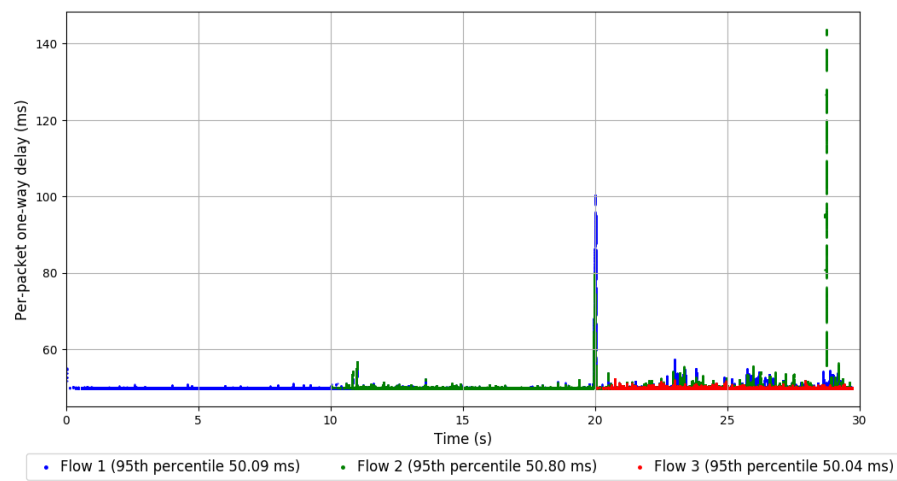
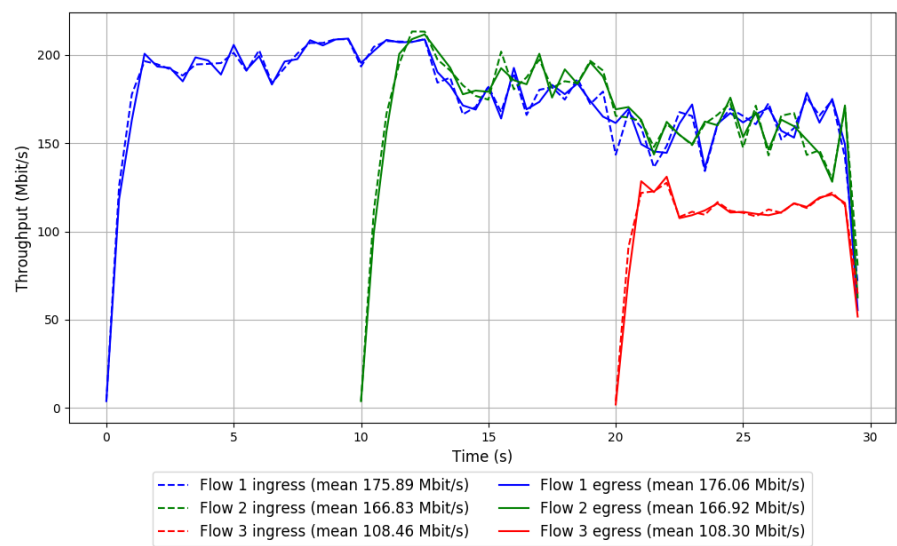
-- Flow 3:

Average throughput: 108.30 Mbit/s

95th percentile per-packet one-way delay: 50.040 ms

Loss rate: 1.16%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-10-12 11:58:16

End at: 2017-10-12 11:58:46

Below is generated by plot.py at 2017-10-12 15:50:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 325.30 Mbit/s

95th percentile per-packet one-way delay: 49.997 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 178.96 Mbit/s

95th percentile per-packet one-way delay: 49.931 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 159.16 Mbit/s

95th percentile per-packet one-way delay: 50.233 ms

Loss rate: 0.54%

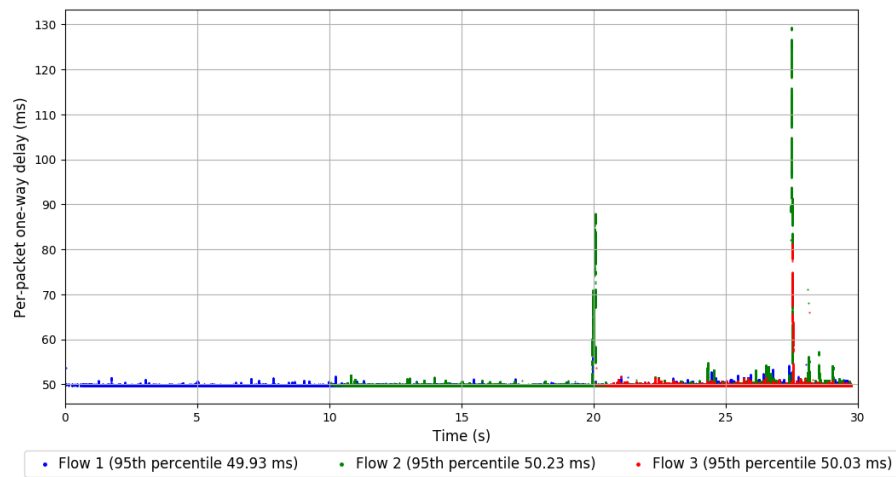
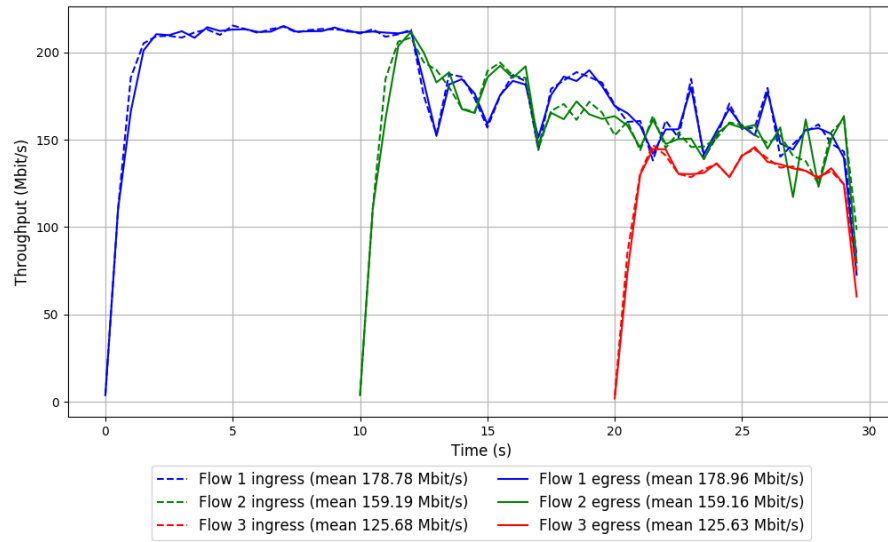
-- Flow 3:

Average throughput: 125.63 Mbit/s

95th percentile per-packet one-way delay: 50.031 ms

Loss rate: 1.11%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

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

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

Below is generated by plot.py at 2017-10-12 15:50:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 336.10 Mbit/s

95th percentile per-packet one-way delay: 50.197 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 179.93 Mbit/s

95th percentile per-packet one-way delay: 50.051 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 165.80 Mbit/s

95th percentile per-packet one-way delay: 50.319 ms

Loss rate: 0.43%

-- Flow 3:

Average throughput: 142.09 Mbit/s

95th percentile per-packet one-way delay: 50.373 ms

Loss rate: 1.13%

Run 10: Report of Indigo — Data Link

