

Pantheon Report

Generated at 2017-12-20 11:19:51 (UTC).

Data path: AWS Brazil 1 Ethernet (*local*) → Brazil Ethernet (*remote*).

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).

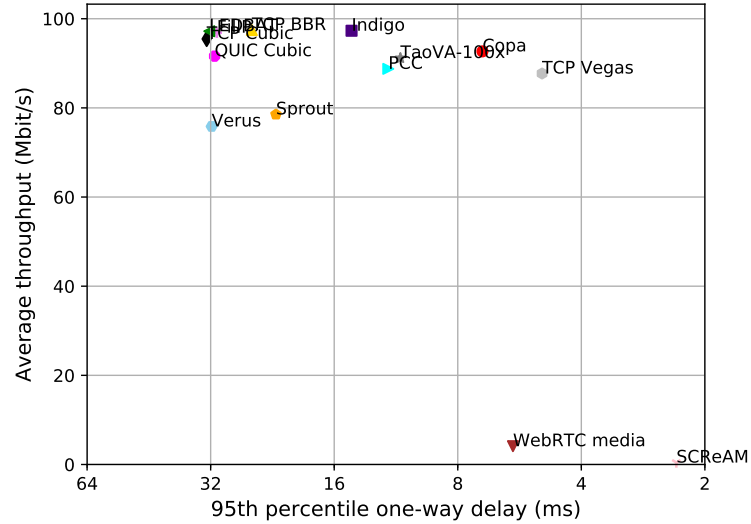
Tested BBR with qdisc of Fair Queuing (*fq*), and other schemes with the default Linux qdisc (*pfifo_fast*).

NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

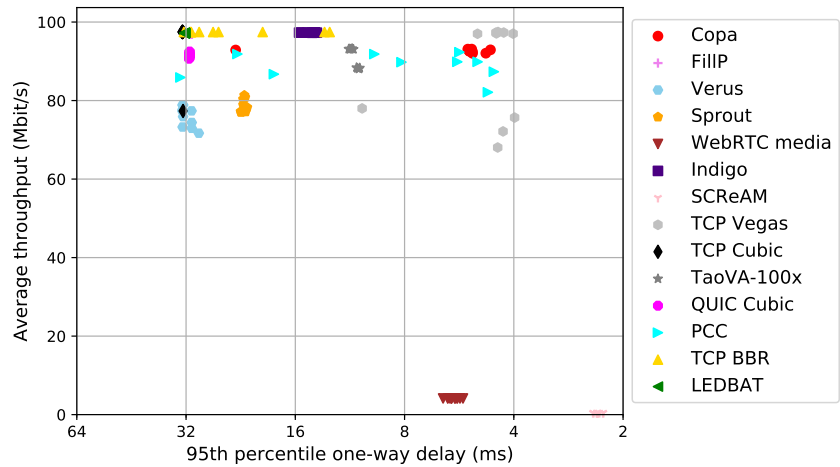
Git summary:

```
branch: master @ 904a5750834816b1e46a2c86405d707788d27c16
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ dcaef6b00654e660f73f7ed679d2eab61ce08639
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
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 @ f1a14bffe749737437f61b1eaeab30b267cde681
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 AWS Brazil 1 Ethernet to Brazil Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS Brazil 1 Ethernet to Brazil 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	59.42	41.54	31.32	25.45	23.13	27.46	0.19	0.01	0.03
TCP Cubic	10	57.72	40.63	31.29	511.34	32.74	32.87	0.02	0.07	0.10
LEDBAT	10	62.82	36.92	29.65	32.22	32.41	32.44	0.03	0.06	0.09
PCC	10	71.34	19.53	13.45	9.42	15.82	16.92	0.06	0.17	0.47
QUIC Cubic	10	58.15	36.36	28.35	31.22	31.37	31.38	0.13	0.22	0.23
SCReAM	10	0.22	0.22	0.22	2.35	2.34	2.36	0.00	0.02	0.00
WebRTC media	10	2.32	1.44	0.35	5.44	5.90	7.91	0.00	0.01	0.02
Sprout	10	42.49	38.30	32.03	21.04	22.03	24.01	0.00	0.00	0.00
TaoVA-100x	10	56.45	35.05	43.14	10.52	11.70	12.12	0.01	0.06	0.24
TCP Vegas	10	34.74	51.75	56.04	1416.77	5.75	4.28	0.00	0.00	0.00
Verus	10	45.79	31.53	27.49	29.26	32.22	32.81	10.24	17.85	24.56
Copa	10	59.23	41.18	26.31	4.94	7.36	8.06	0.00	0.00	0.00
FillP	10	58.51	40.84	34.04	30.90	30.92	30.94	16.98	23.65	30.73
Indigo	10	56.62	39.79	43.75	13.44	14.54	17.08	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2017-12-20 07:50:15

End at: 2017-12-20 07:50:45

Local clock offset: -0.056 ms

Remote clock offset: 0.399 ms

Below is generated by plot.py at 2017-12-20 10:57:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 26.046 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.84 Mbit/s

95th percentile per-packet one-way delay: 26.070 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.14 Mbit/s

95th percentile per-packet one-way delay: 25.263 ms

Loss rate: 0.00%

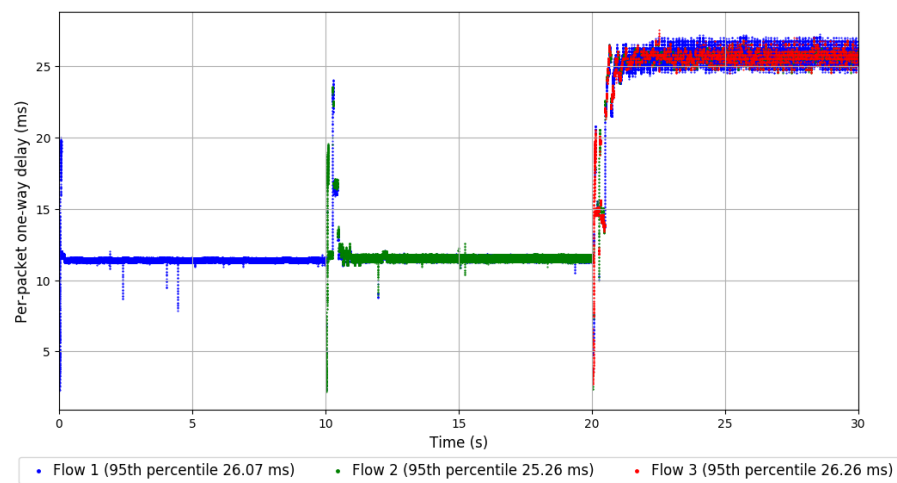
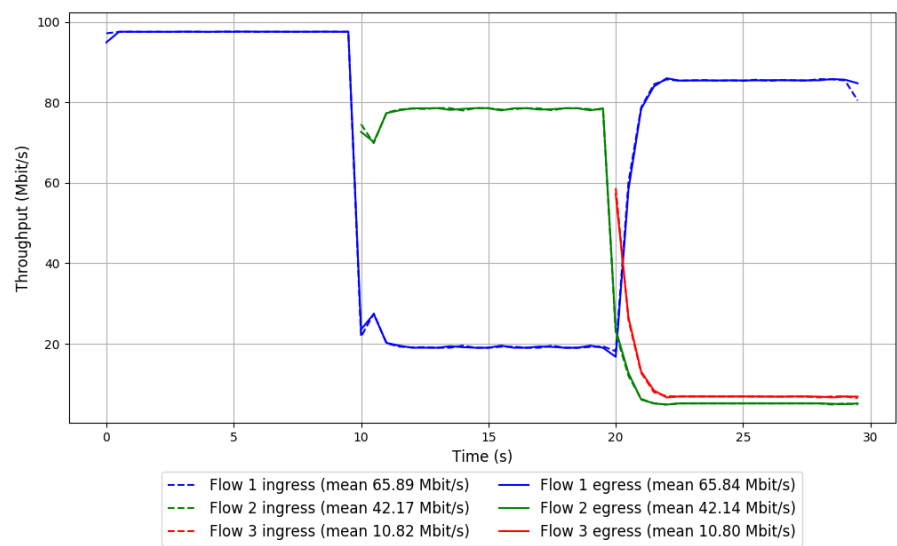
-- Flow 3:

Average throughput: 10.80 Mbit/s

95th percentile per-packet one-way delay: 26.260 ms

Loss rate: 0.00%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-12-20 08:07:24

End at: 2017-12-20 08:07:54

Local clock offset: -0.02 ms

Remote clock offset: 0.23 ms

Below is generated by plot.py at 2017-12-20 10:57:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 30.963 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.95 Mbit/s

95th percentile per-packet one-way delay: 30.984 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.13 Mbit/s

95th percentile per-packet one-way delay: 26.976 ms

Loss rate: 0.00%

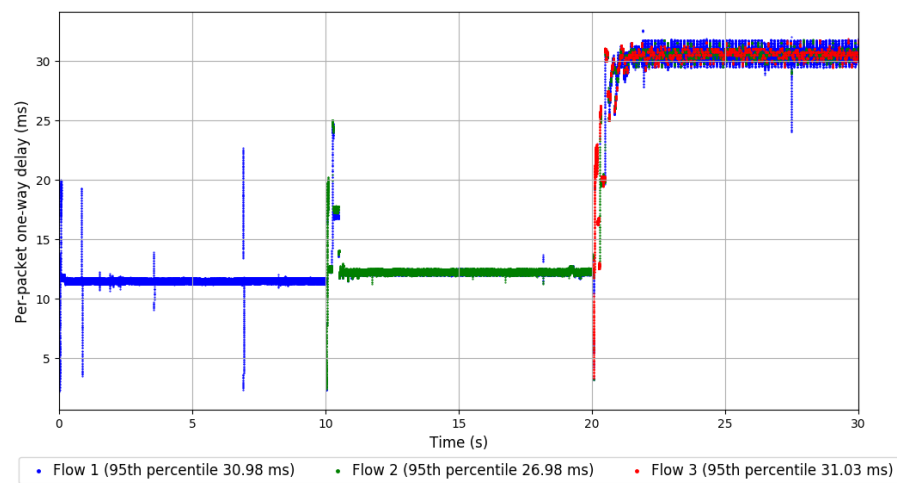
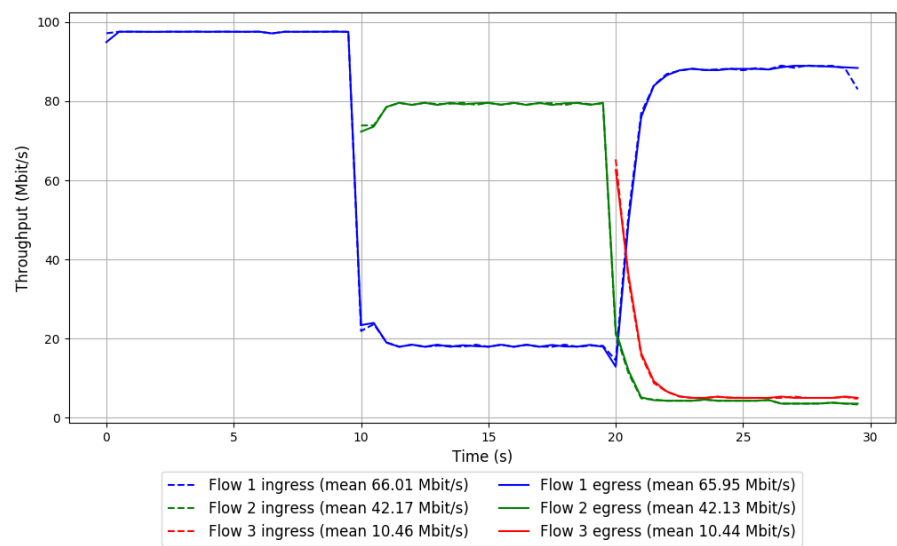
-- Flow 3:

Average throughput: 10.44 Mbit/s

95th percentile per-packet one-way delay: 31.027 ms

Loss rate: 0.00%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-20 08:24:30

End at: 2017-12-20 08:25:00

Local clock offset: -0.025 ms

Remote clock offset: 0.071 ms

Below is generated by plot.py at 2017-12-20 10:57:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 13.292 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.16 Mbit/s

95th percentile per-packet one-way delay: 13.257 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.41 Mbit/s

95th percentile per-packet one-way delay: 13.267 ms

Loss rate: 0.00%

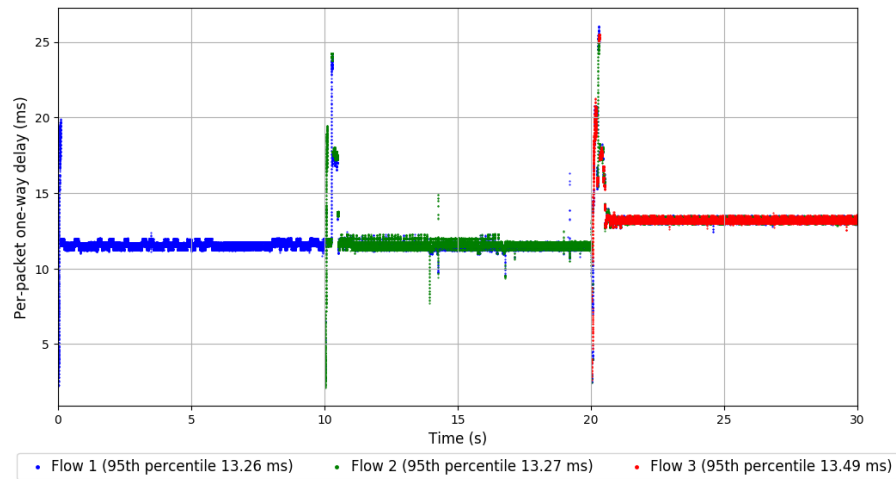
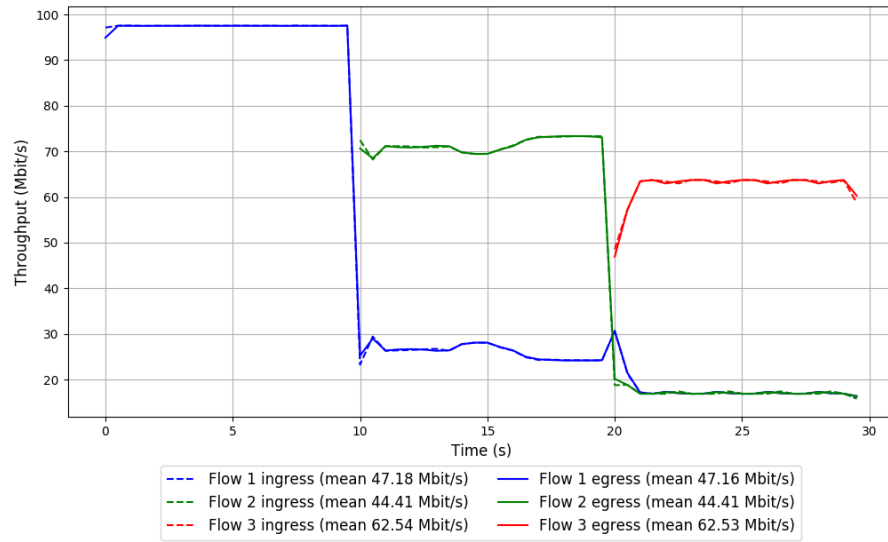
-- Flow 3:

Average throughput: 62.53 Mbit/s

95th percentile per-packet one-way delay: 13.490 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-12-20 08:41:37

End at: 2017-12-20 08:42:07

Local clock offset: -0.059 ms

Remote clock offset: 1.317 ms

Below is generated by plot.py at 2017-12-20 10:57:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 19.684 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 63.59 Mbit/s

95th percentile per-packet one-way delay: 19.456 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 39.96 Mbit/s

95th percentile per-packet one-way delay: 18.480 ms

Loss rate: 0.02%

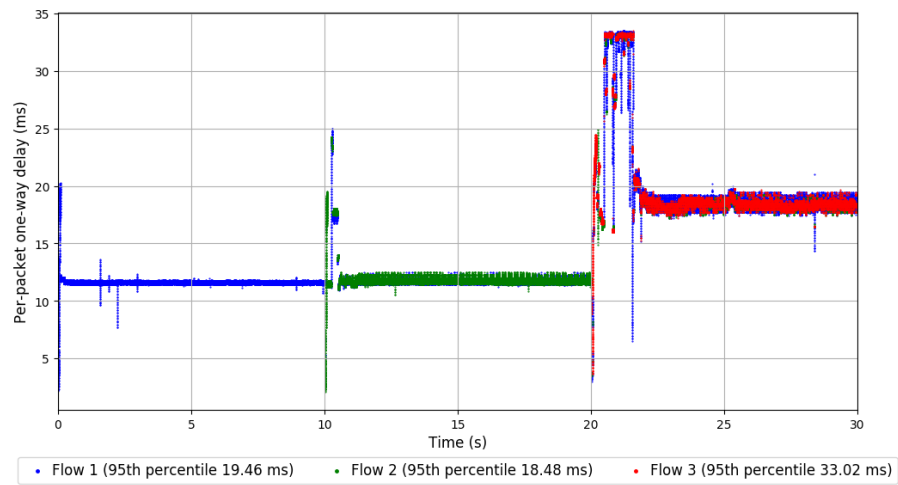
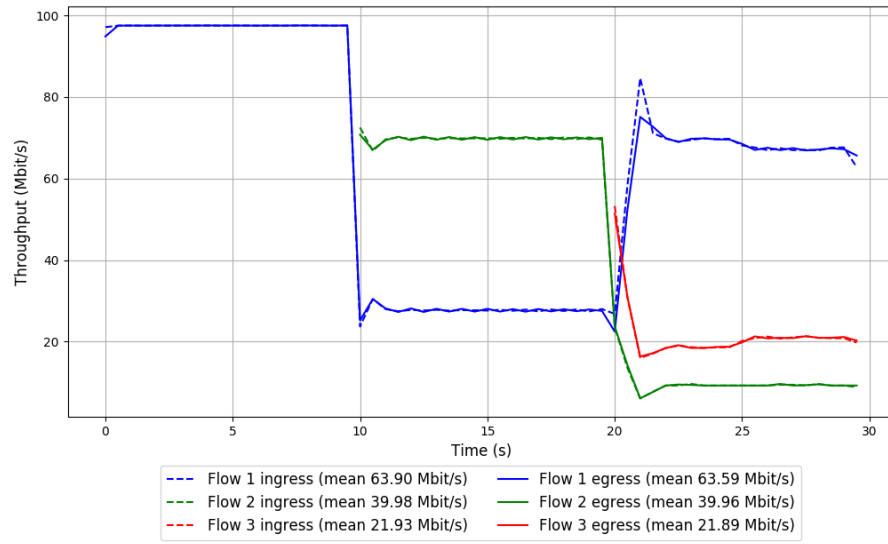
-- Flow 3:

Average throughput: 21.89 Mbit/s

95th percentile per-packet one-way delay: 33.018 ms

Loss rate: 0.15%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-12-20 08:58:44

End at: 2017-12-20 08:59:14

Local clock offset: -0.148 ms

Remote clock offset: 1.783 ms

Below is generated by plot.py at 2017-12-20 10:57:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 12.867 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 44.02 Mbit/s

95th percentile per-packet one-way delay: 12.832 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.00 Mbit/s

95th percentile per-packet one-way delay: 12.843 ms

Loss rate: 0.00%

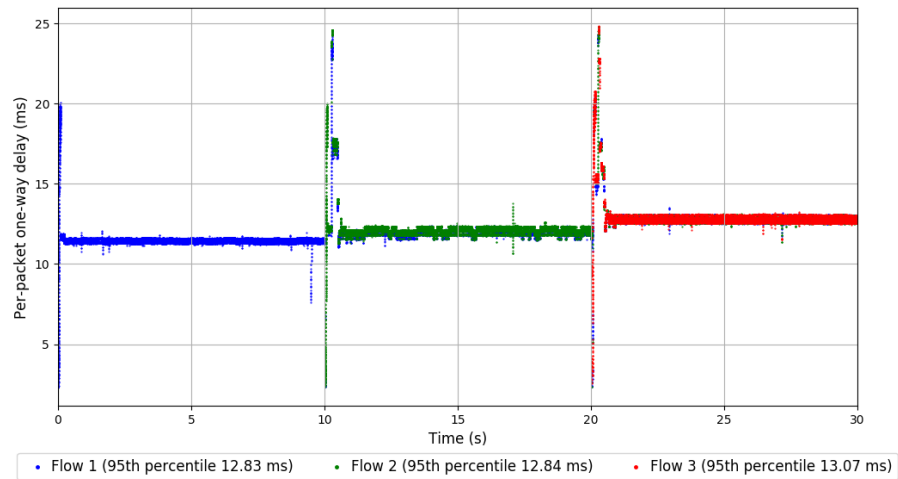
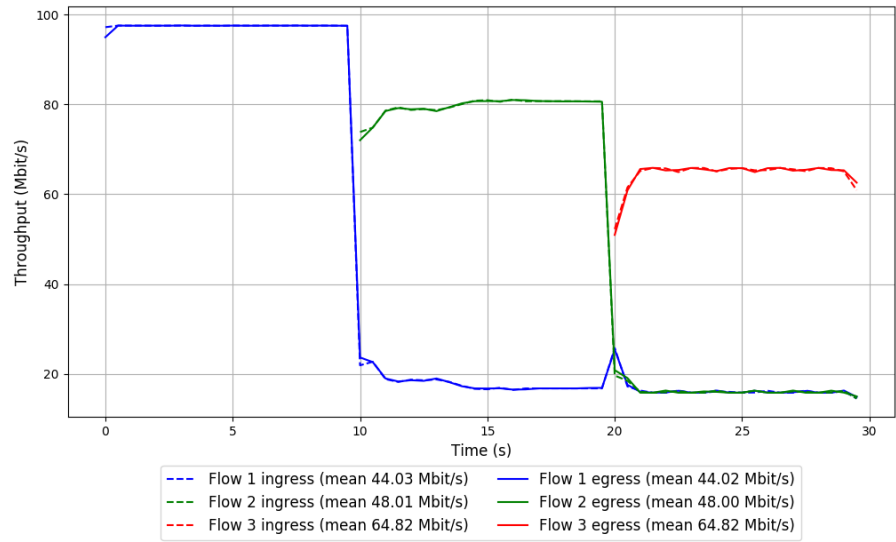
-- Flow 3:

Average throughput: 64.82 Mbit/s

95th percentile per-packet one-way delay: 13.071 ms

Loss rate: 0.00%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-12-20 09:15:51

End at: 2017-12-20 09:16:21

Local clock offset: -0.078 ms

Remote clock offset: 2.0 ms

Below is generated by plot.py at 2017-12-20 10:57:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 31.215 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 48.21 Mbit/s

95th percentile per-packet one-way delay: 32.369 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 43.33 Mbit/s

95th percentile per-packet one-way delay: 23.675 ms

Loss rate: 0.09%

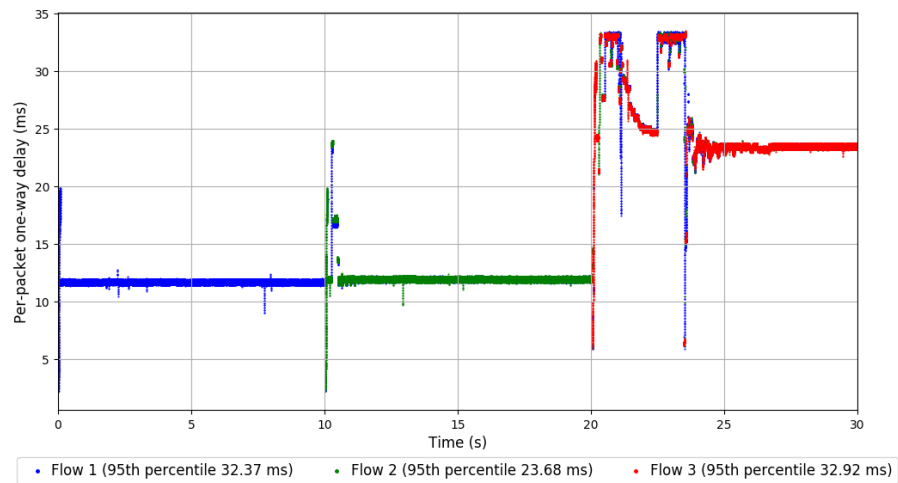
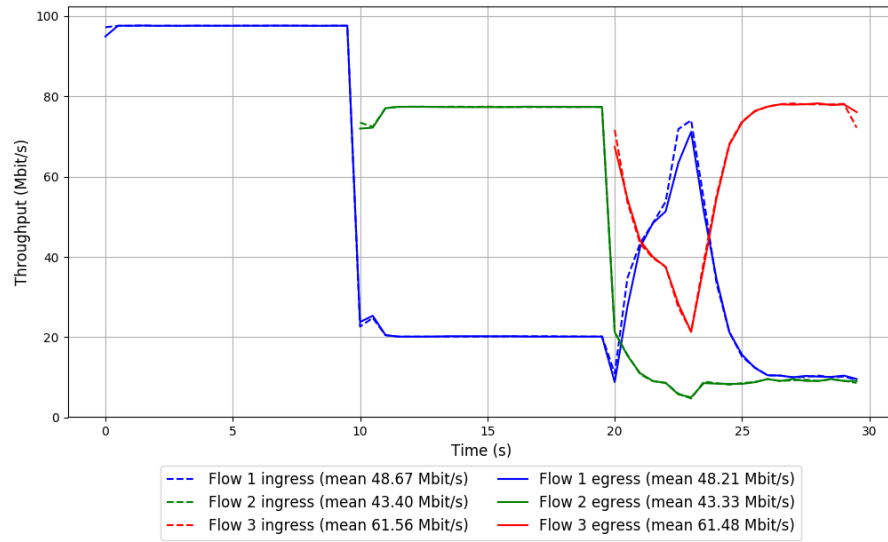
-- Flow 3:

Average throughput: 61.48 Mbit/s

95th percentile per-packet one-way delay: 32.924 ms

Loss rate: 0.02%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-12-20 09:32:57

End at: 2017-12-20 09:33:27

Local clock offset: -0.082 ms

Remote clock offset: 2.103 ms

Below is generated by plot.py at 2017-12-20 10:57:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 29.446 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.80 Mbit/s

95th percentile per-packet one-way delay: 29.464 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.30 Mbit/s

95th percentile per-packet one-way delay: 28.240 ms

Loss rate: 0.00%

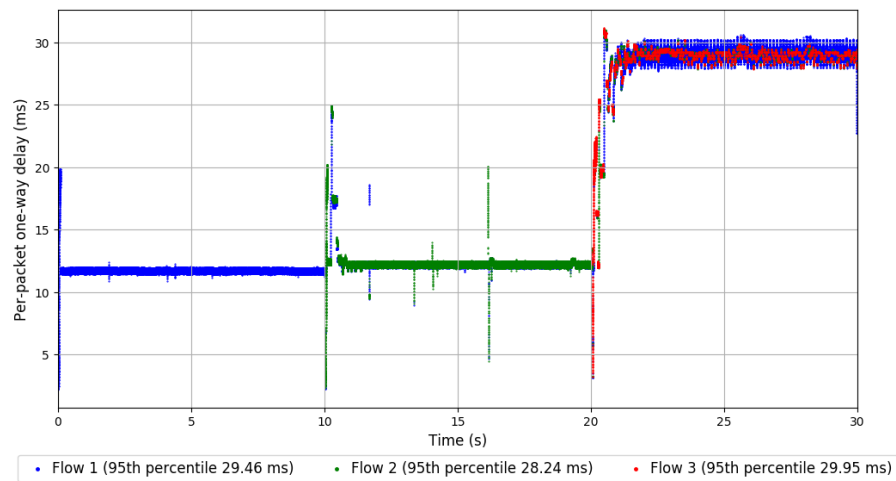
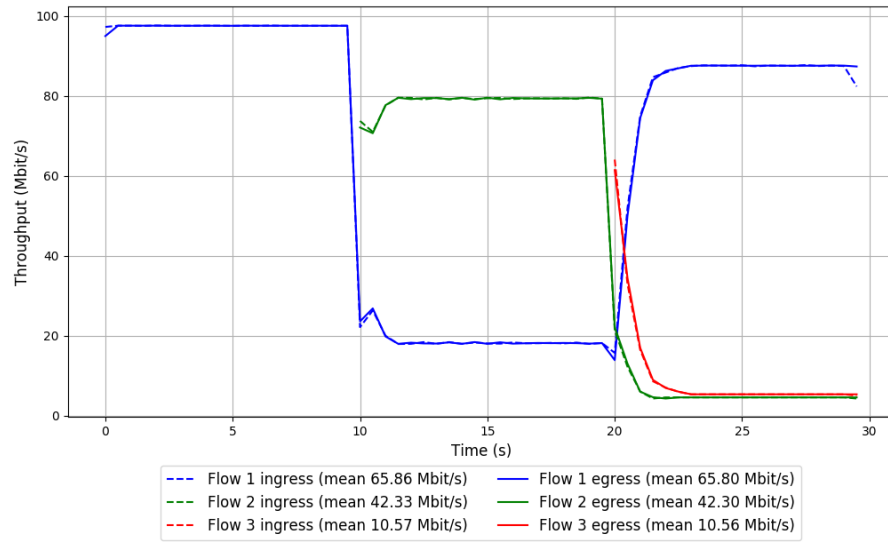
-- Flow 3:

Average throughput: 10.56 Mbit/s

95th percentile per-packet one-way delay: 29.952 ms

Loss rate: 0.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-20 09:50:06

End at: 2017-12-20 09:50:36

Local clock offset: -0.163 ms

Remote clock offset: 2.132 ms

Below is generated by plot.py at 2017-12-20 10:57:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 31.044 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.89 Mbit/s

95th percentile per-packet one-way delay: 31.066 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.10 Mbit/s

95th percentile per-packet one-way delay: 29.585 ms

Loss rate: 0.00%

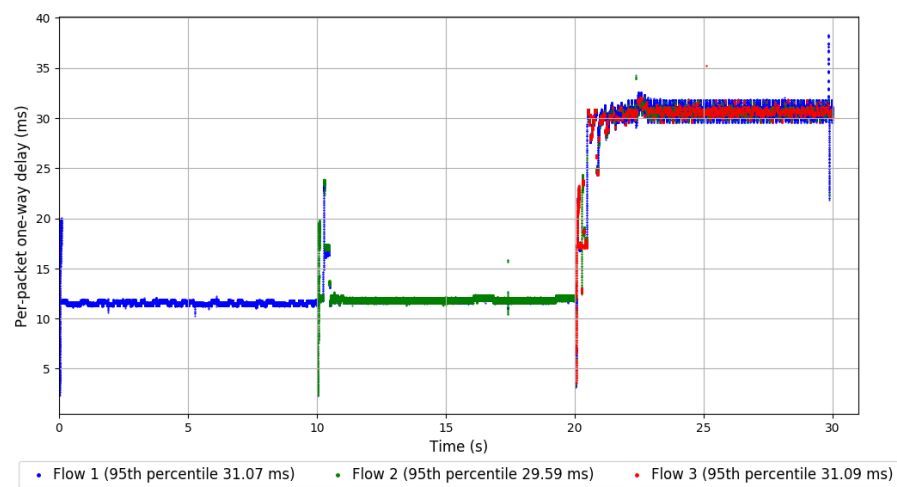
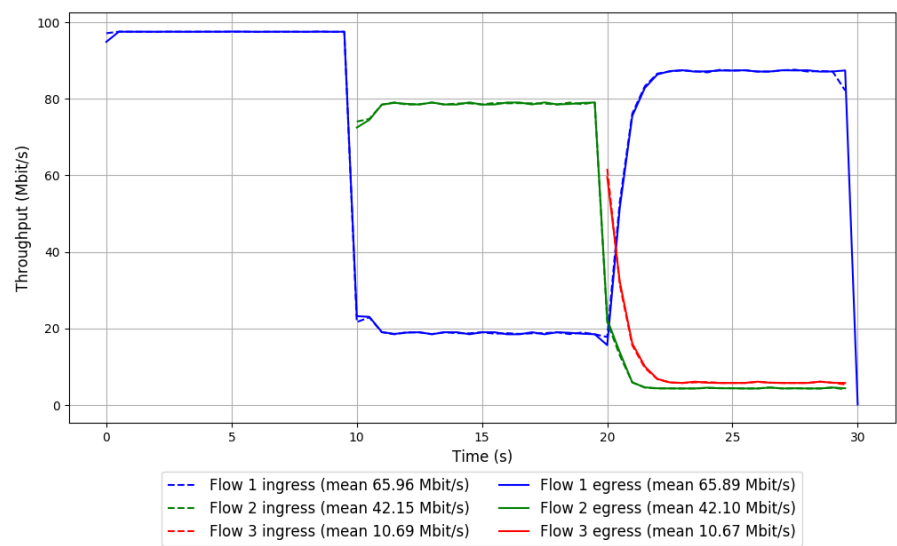
-- Flow 3:

Average throughput: 10.67 Mbit/s

95th percentile per-packet one-way delay: 31.085 ms

Loss rate: 0.00%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-12-20 10:07:14

End at: 2017-12-20 10:07:44

Local clock offset: -0.122 ms

Remote clock offset: 2.115 ms

Below is generated by plot.py at 2017-12-20 10:59:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 32.447 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 69.17 Mbit/s

95th percentile per-packet one-way delay: 32.468 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 37.90 Mbit/s

95th percentile per-packet one-way delay: 31.461 ms

Loss rate: 0.00%

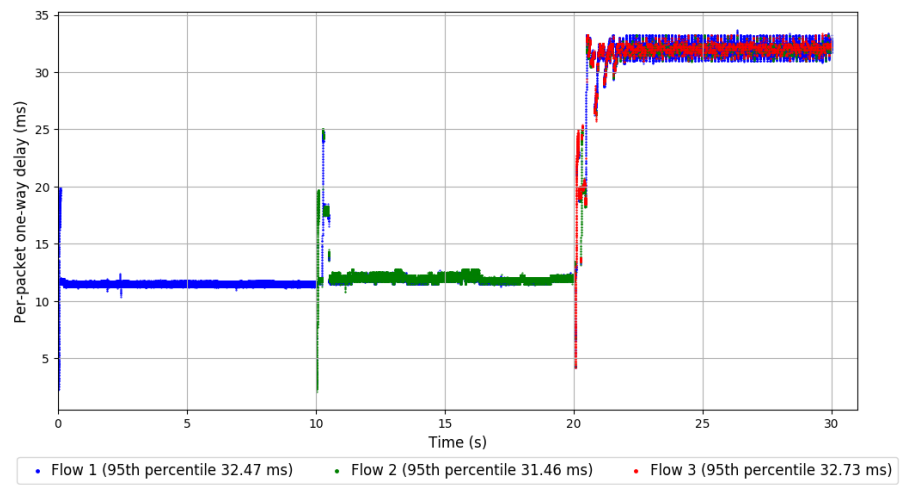
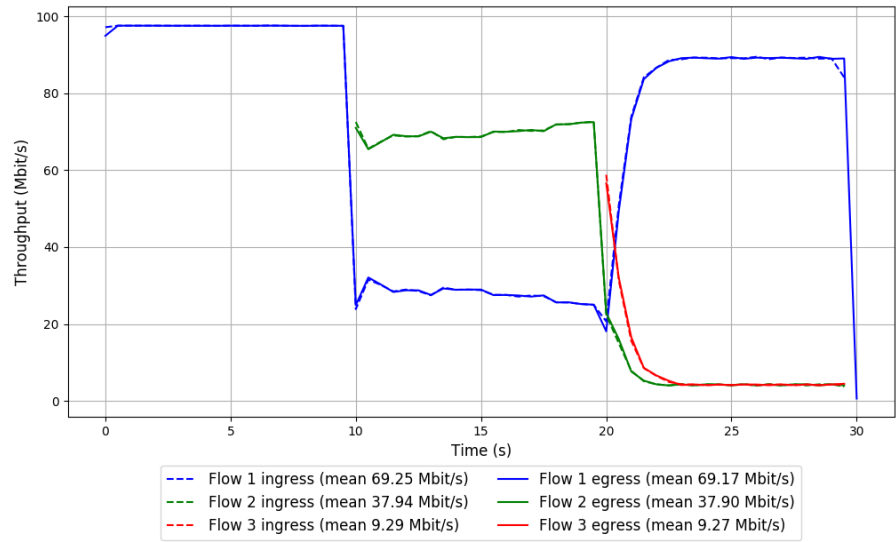
-- Flow 3:

Average throughput: 9.27 Mbit/s

95th percentile per-packet one-way delay: 32.732 ms

Loss rate: 0.04%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-12-20 10:24:23

End at: 2017-12-20 10:24:53

Local clock offset: -0.082 ms

Remote clock offset: 2.248 ms

Below is generated by plot.py at 2017-12-20 10:59:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 26.952 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 58.60 Mbit/s

95th percentile per-packet one-way delay: 26.512 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 33.09 Mbit/s

95th percentile per-packet one-way delay: 21.519 ms

Loss rate: 0.00%

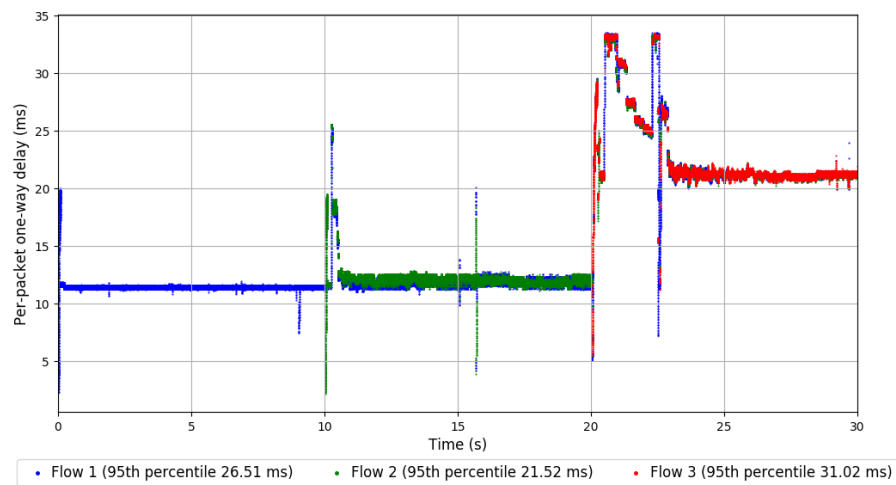
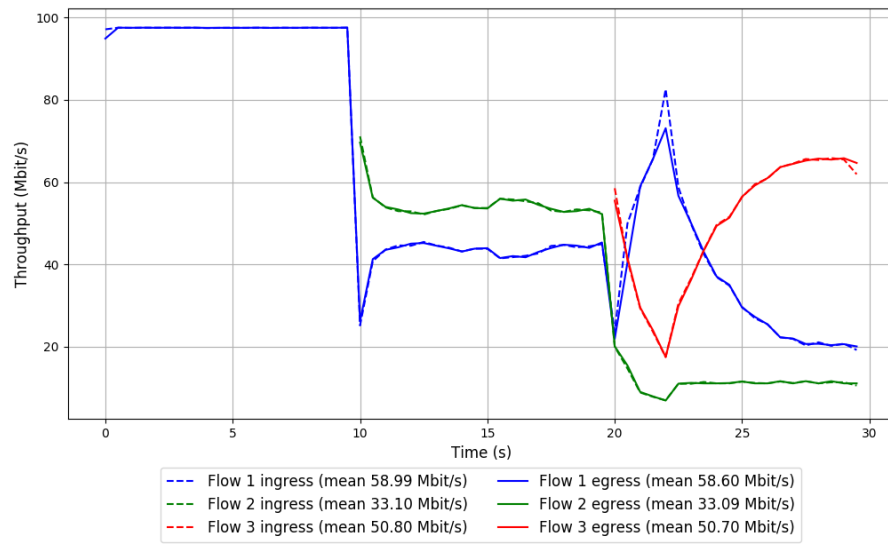
-- Flow 3:

Average throughput: 50.70 Mbit/s

95th percentile per-packet one-way delay: 31.025 ms

Loss rate: 0.09%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-20 07:44:31

End at: 2017-12-20 07:45:01

Local clock offset: -0.056 ms

Remote clock offset: 0.456 ms

Below is generated by plot.py at 2017-12-20 10:59:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.35 Mbit/s

95th percentile per-packet one-way delay: 32.615 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 9.04 Mbit/s

95th percentile per-packet one-way delay: 4819.878 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 76.11 Mbit/s

95th percentile per-packet one-way delay: 32.599 ms

Loss rate: 0.03%

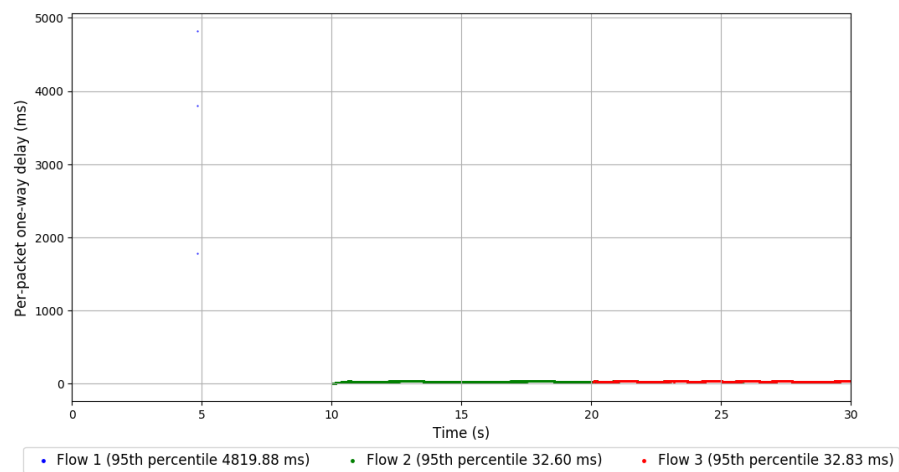
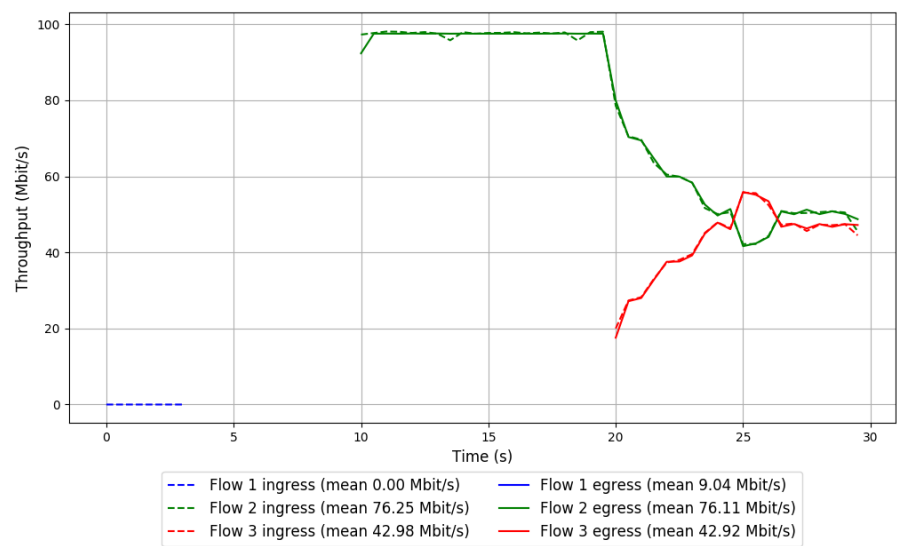
-- Flow 3:

Average throughput: 42.92 Mbit/s

95th percentile per-packet one-way delay: 32.828 ms

Loss rate: 0.11%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-12-20 08:01:38

End at: 2017-12-20 08:02:08

Local clock offset: -0.057 ms

Remote clock offset: 0.294 ms

Below is generated by plot.py at 2017-12-20 10:59:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 32.784 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 63.12 Mbit/s

95th percentile per-packet one-way delay: 32.602 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 35.65 Mbit/s

95th percentile per-packet one-way delay: 32.810 ms

Loss rate: 0.08%

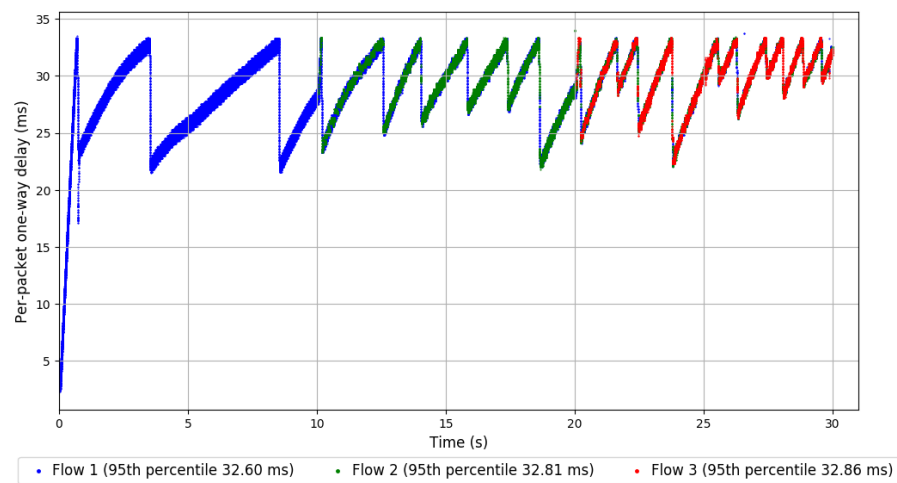
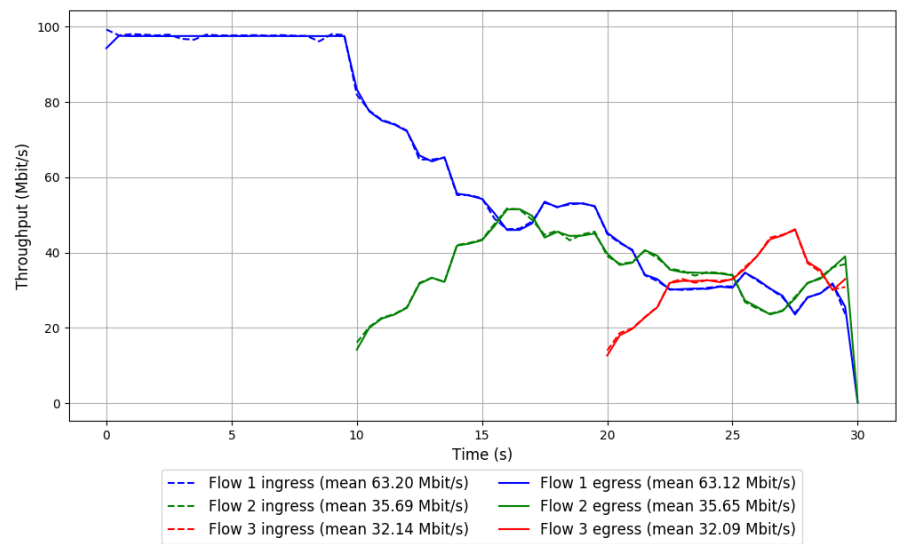
-- Flow 3:

Average throughput: 32.09 Mbit/s

95th percentile per-packet one-way delay: 32.856 ms

Loss rate: 0.12%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-12-20 08:18:46

End at: 2017-12-20 08:19:16

Local clock offset: -0.079 ms

Remote clock offset: 0.153 ms

Below is generated by plot.py at 2017-12-20 10:59:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 32.821 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 62.04 Mbit/s

95th percentile per-packet one-way delay: 32.628 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 36.26 Mbit/s

95th percentile per-packet one-way delay: 32.846 ms

Loss rate: 0.08%

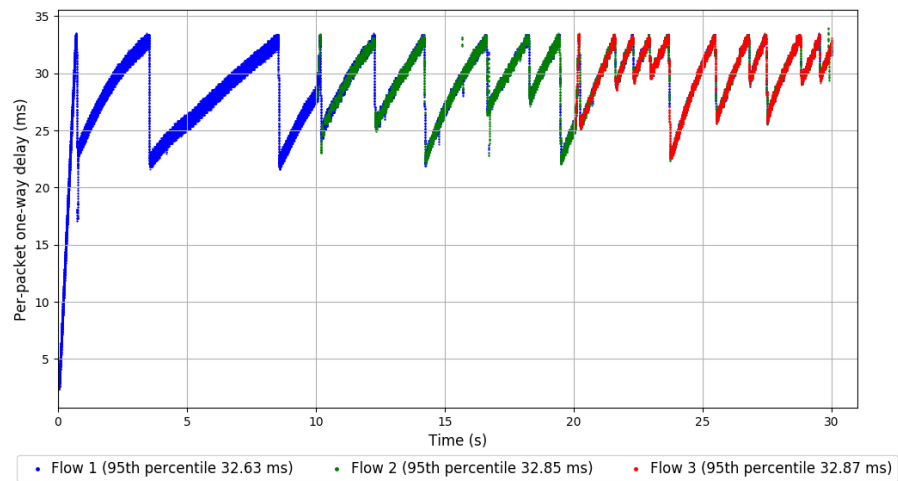
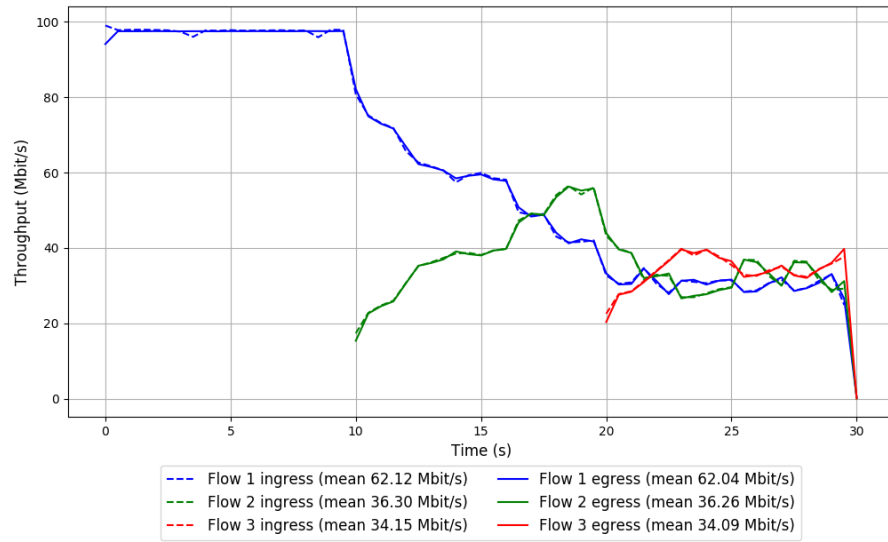
-- Flow 3:

Average throughput: 34.09 Mbit/s

95th percentile per-packet one-way delay: 32.873 ms

Loss rate: 0.09%

Run 3: Report of TCP Cubic — Data Link

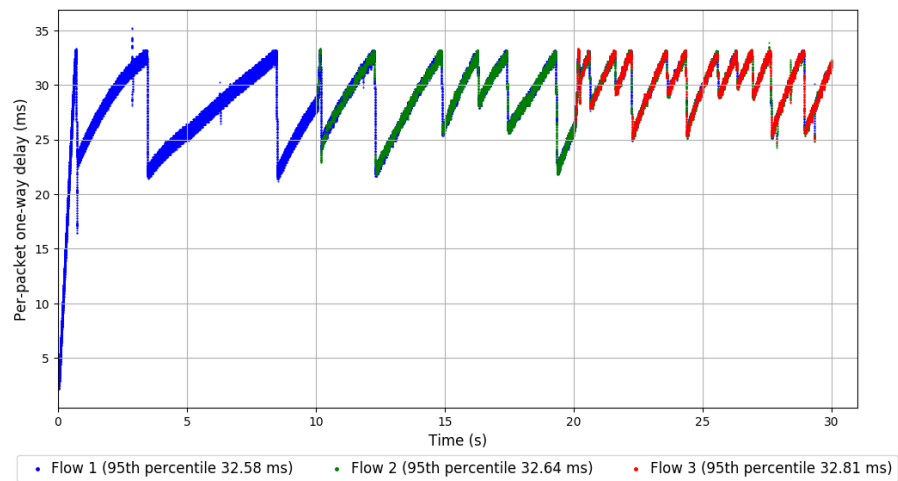
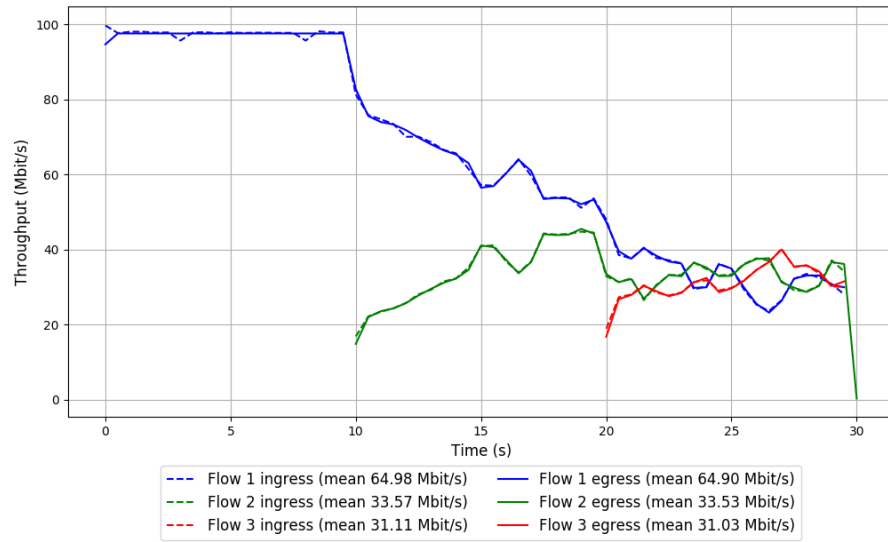


Run 4: Statistics of TCP Cubic

Start at: 2017-12-20 08:35:53
End at: 2017-12-20 08:36:23
Local clock offset: -0.049 ms
Remote clock offset: 0.782 ms

Below is generated by plot.py at 2017-12-20 10:59:06
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 32.626 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 64.90 Mbit/s
95th percentile per-packet one-way delay: 32.576 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 33.53 Mbit/s
95th percentile per-packet one-way delay: 32.644 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 32.810 ms
Loss rate: 0.17%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-12-20 08:52:59

End at: 2017-12-20 08:53:29

Local clock offset: -0.048 ms

Remote clock offset: 1.683 ms

Below is generated by plot.py at 2017-12-20 10:59:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 32.706 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 63.35 Mbit/s

95th percentile per-packet one-way delay: 32.635 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 38.37 Mbit/s

95th percentile per-packet one-way delay: 32.736 ms

Loss rate: 0.07%

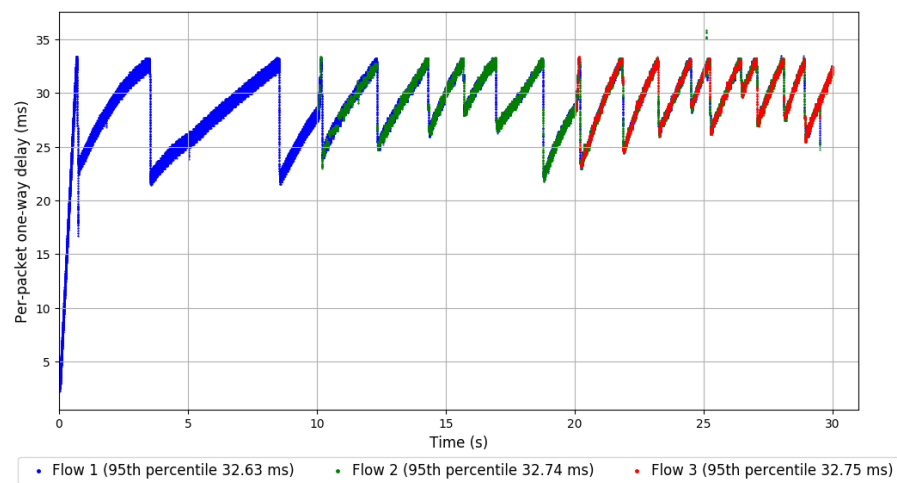
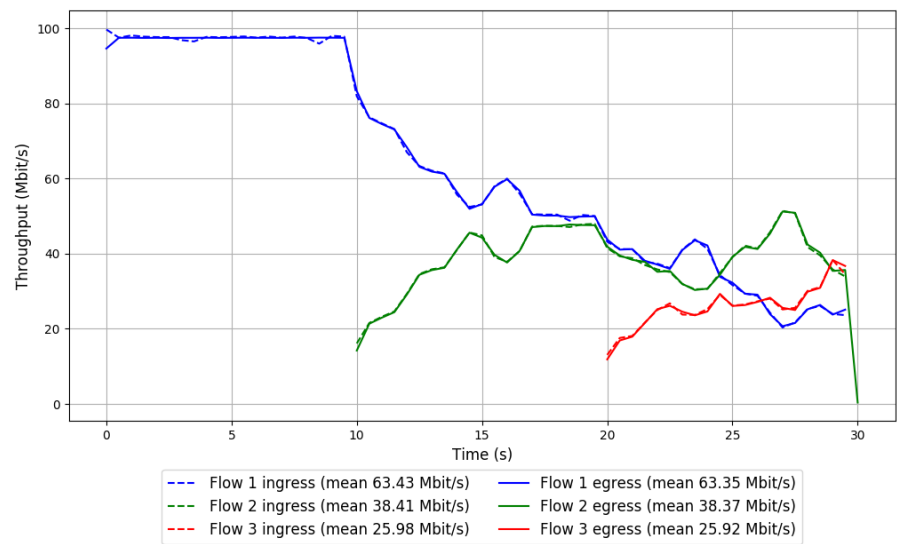
-- Flow 3:

Average throughput: 25.92 Mbit/s

95th percentile per-packet one-way delay: 32.751 ms

Loss rate: 0.17%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-20 09:10:07

End at: 2017-12-20 09:10:37

Local clock offset: -0.082 ms

Remote clock offset: 1.895 ms

Below is generated by plot.py at 2017-12-20 10:59:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 32.676 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 61.78 Mbit/s

95th percentile per-packet one-way delay: 32.624 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 40.64 Mbit/s

95th percentile per-packet one-way delay: 32.697 ms

Loss rate: 0.06%

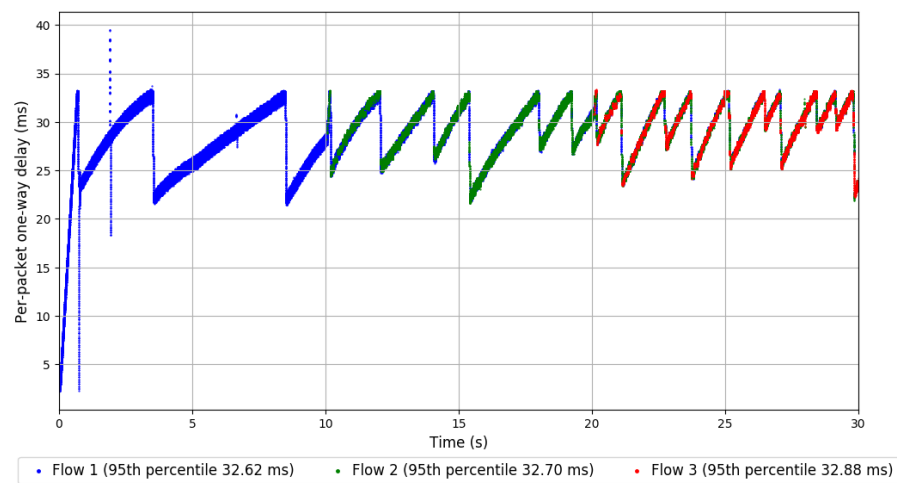
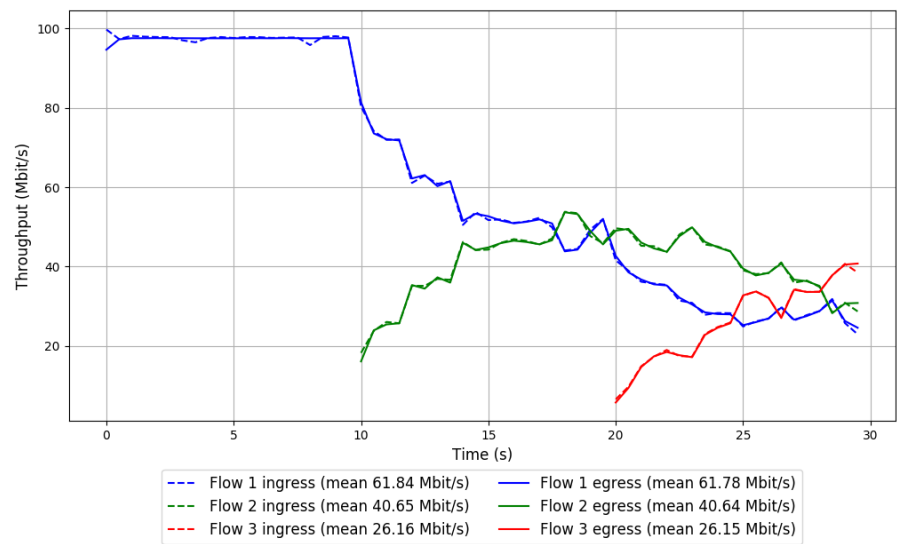
-- Flow 3:

Average throughput: 26.15 Mbit/s

95th percentile per-packet one-way delay: 32.881 ms

Loss rate: 0.09%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-20 09:27:13

End at: 2017-12-20 09:27:43

Local clock offset: -0.085 ms

Remote clock offset: 2.111 ms

Below is generated by plot.py at 2017-12-20 10:59:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 32.737 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 66.21 Mbit/s

95th percentile per-packet one-way delay: 32.679 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 32.53 Mbit/s

95th percentile per-packet one-way delay: 32.764 ms

Loss rate: 0.10%

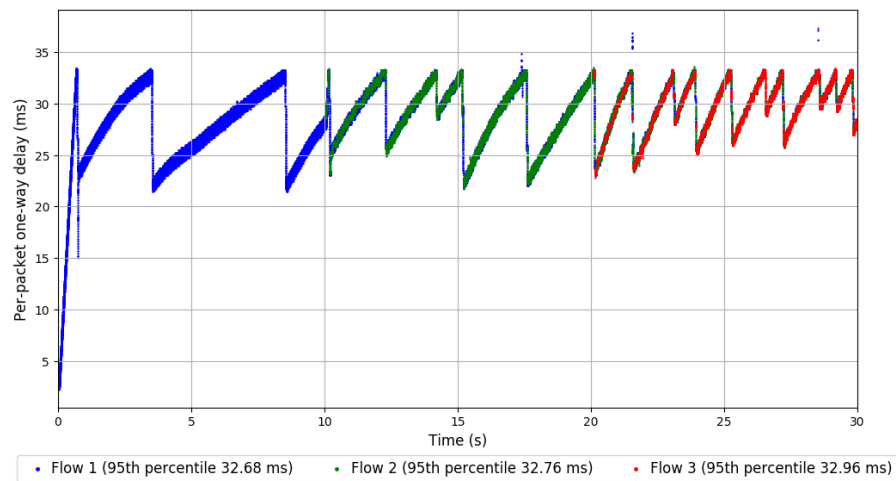
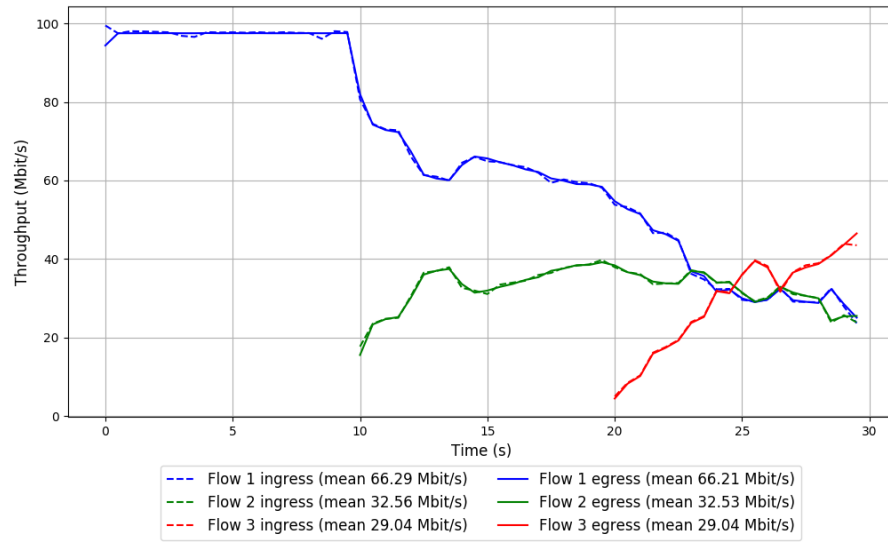
-- Flow 3:

Average throughput: 29.04 Mbit/s

95th percentile per-packet one-way delay: 32.960 ms

Loss rate: 0.03%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-12-20 09:44:20

End at: 2017-12-20 09:44:50

Local clock offset: -0.16 ms

Remote clock offset: 2.119 ms

Below is generated by plot.py at 2017-12-20 11:00:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 32.805 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 61.23 Mbit/s

95th percentile per-packet one-way delay: 32.707 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 38.81 Mbit/s

95th percentile per-packet one-way delay: 32.830 ms

Loss rate: 0.06%

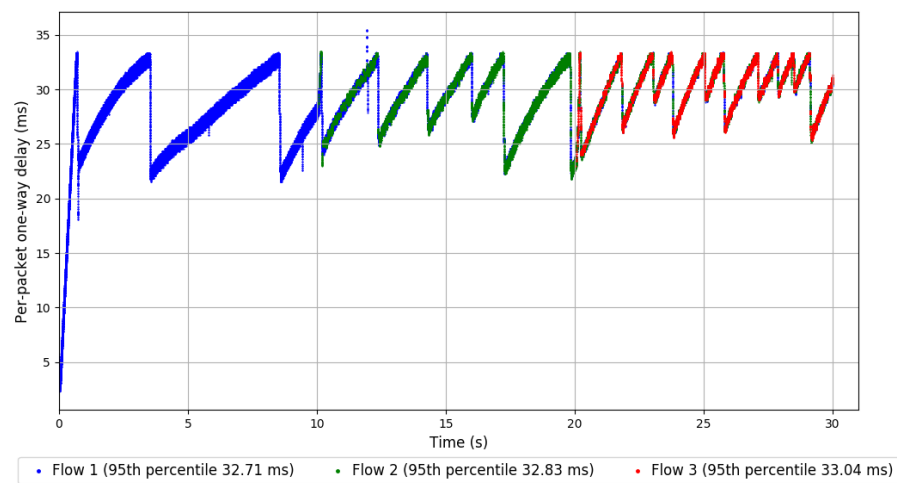
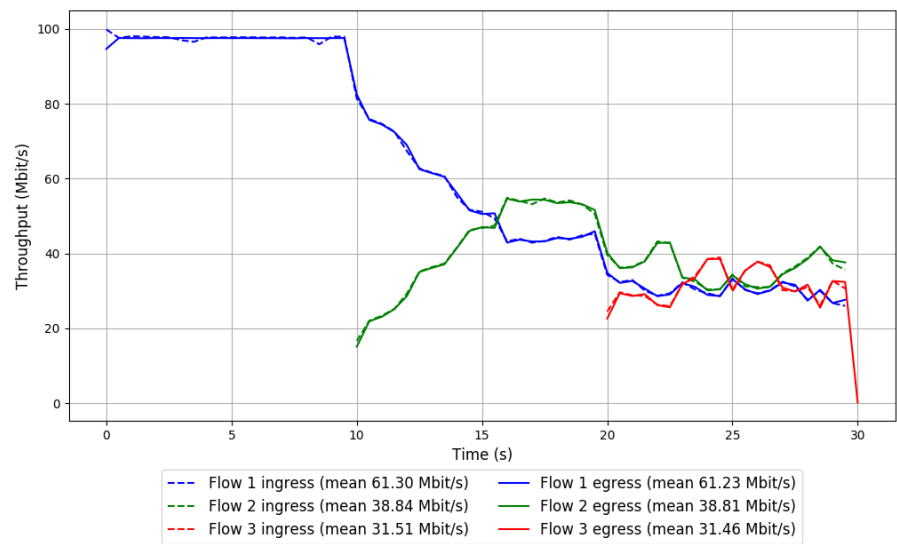
-- Flow 3:

Average throughput: 31.46 Mbit/s

95th percentile per-packet one-way delay: 33.041 ms

Loss rate: 0.08%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-20 10:01:29

End at: 2017-12-20 10:01:59

Local clock offset: -0.083 ms

Remote clock offset: 2.133 ms

Below is generated by plot.py at 2017-12-20 11:00:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 32.716 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 60.54 Mbit/s

95th percentile per-packet one-way delay: 32.534 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 41.24 Mbit/s

95th percentile per-packet one-way delay: 32.734 ms

Loss rate: 0.07%

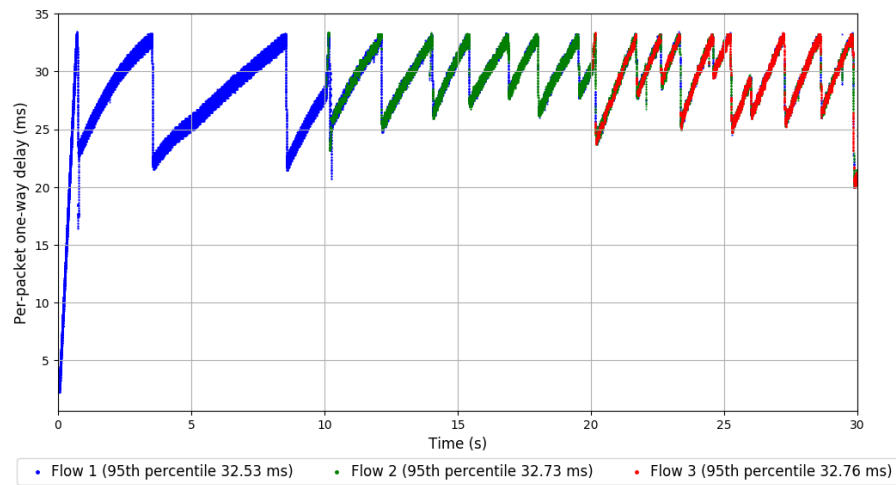
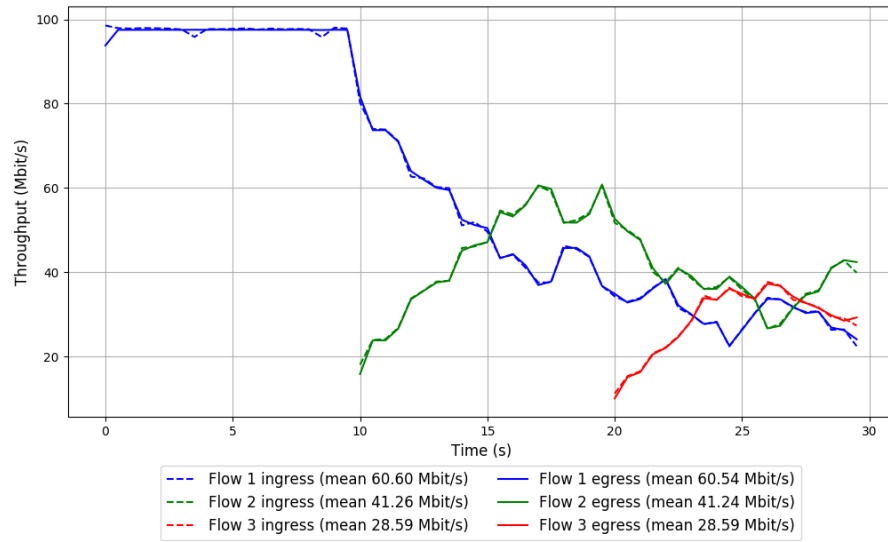
-- Flow 3:

Average throughput: 28.59 Mbit/s

95th percentile per-packet one-way delay: 32.758 ms

Loss rate: 0.10%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-20 10:18:37

End at: 2017-12-20 10:19:07

Local clock offset: -0.089 ms

Remote clock offset: 2.205 ms

Below is generated by plot.py at 2017-12-20 11:00:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 32.722 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 64.96 Mbit/s

95th percentile per-packet one-way delay: 32.527 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 33.12 Mbit/s

95th percentile per-packet one-way delay: 32.756 ms

Loss rate: 0.09%

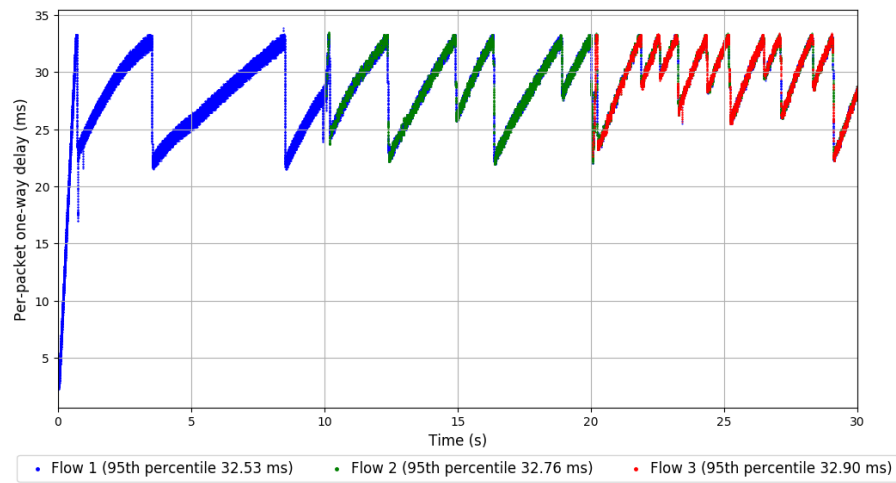
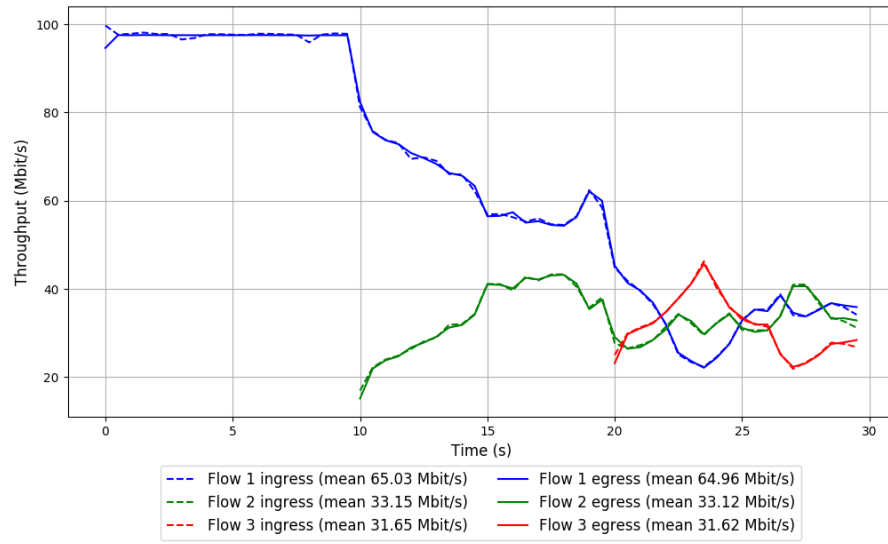
-- Flow 3:

Average throughput: 31.62 Mbit/s

95th percentile per-packet one-way delay: 32.901 ms

Loss rate: 0.06%

Run 10: Report of TCP Cubic — Data Link

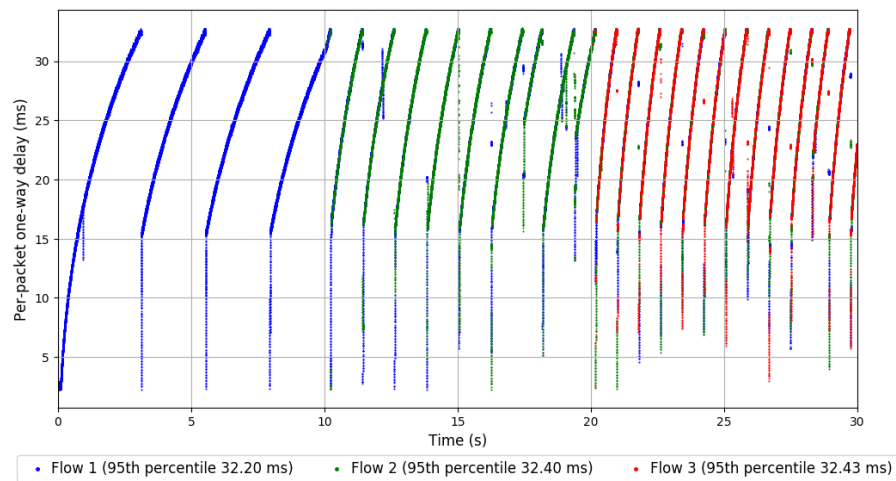
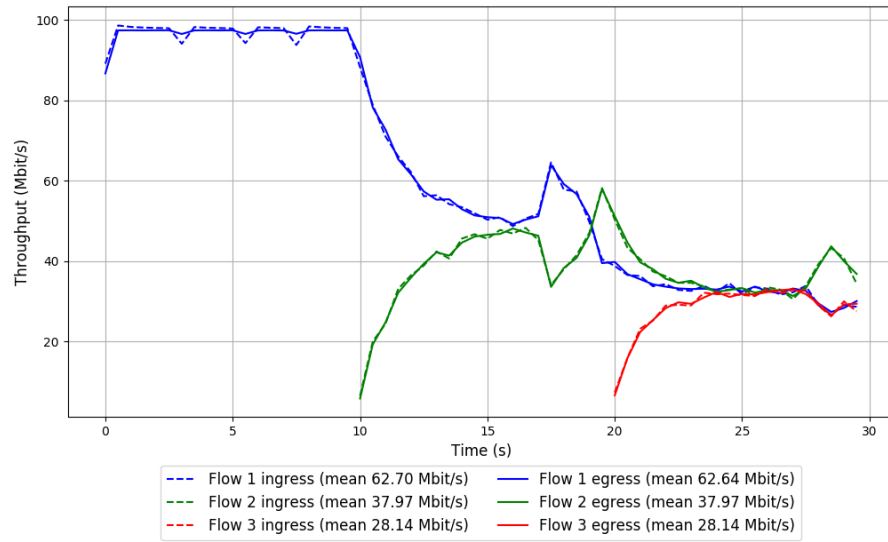


```
Run 1: Statistics of LEDBAT

Start at: 2017-12-20 07:45:38
End at: 2017-12-20 07:46:08
Local clock offset: 0.01 ms
Remote clock offset: 0.428 ms

# Below is generated by plot.py at 2017-12-20 11:00:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.20 Mbit/s
95th percentile per-packet one-way delay: 32.247 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 62.64 Mbit/s
95th percentile per-packet one-way delay: 32.205 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 37.97 Mbit/s
95th percentile per-packet one-way delay: 32.402 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 28.14 Mbit/s
95th percentile per-packet one-way delay: 32.432 ms
Loss rate: 0.10%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-12-20 08:02:47

End at: 2017-12-20 08:03:17

Local clock offset: -0.086 ms

Remote clock offset: 0.271 ms

Below is generated by plot.py at 2017-12-20 11:00:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.19 Mbit/s

95th percentile per-packet one-way delay: 32.322 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 64.39 Mbit/s

95th percentile per-packet one-way delay: 32.295 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 34.44 Mbit/s

95th percentile per-packet one-way delay: 32.513 ms

Loss rate: 0.08%

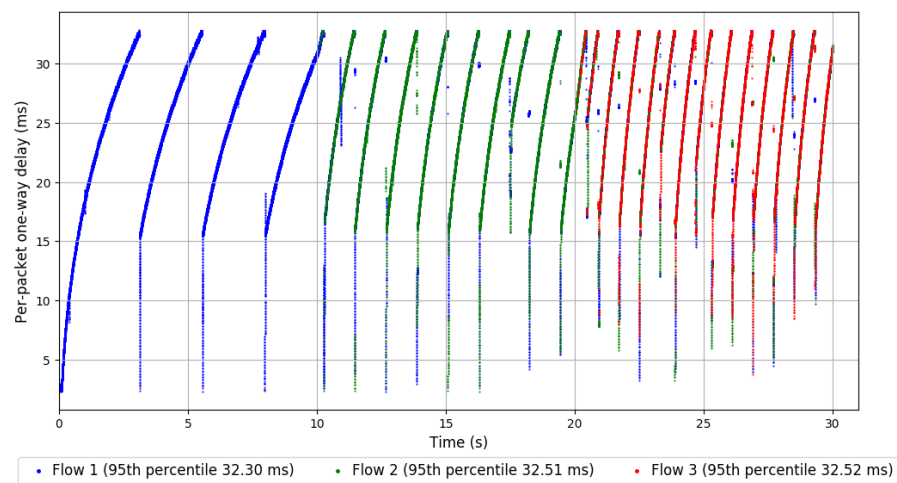
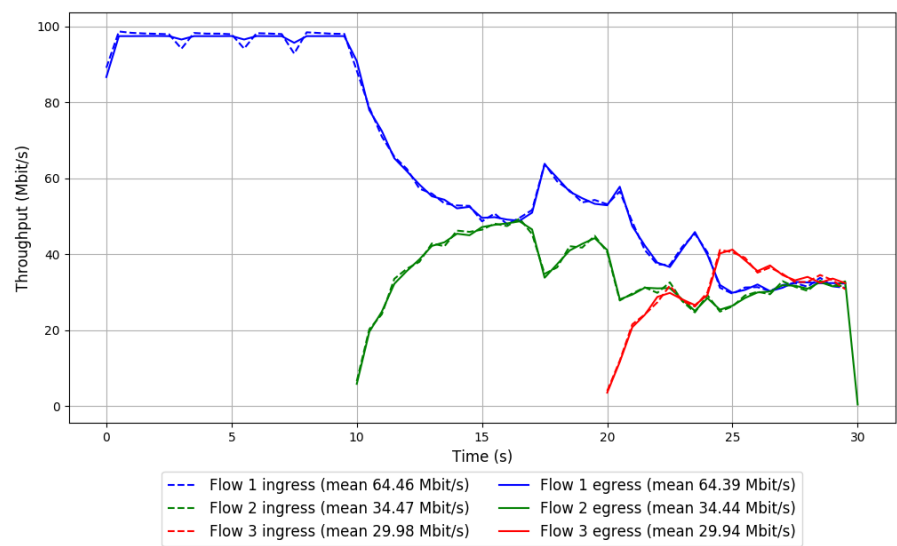
-- Flow 3:

Average throughput: 29.94 Mbit/s

95th percentile per-packet one-way delay: 32.524 ms

Loss rate: 0.09%

Run 2: Report of LEDBAT — Data Link

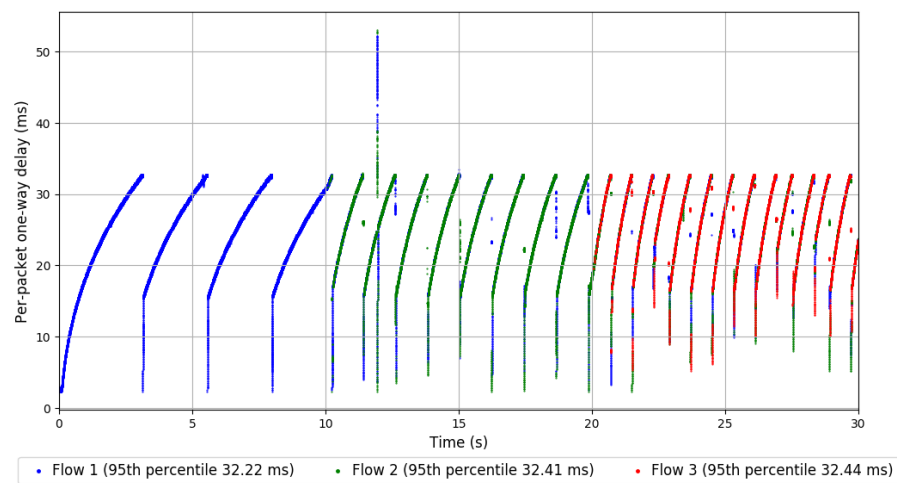
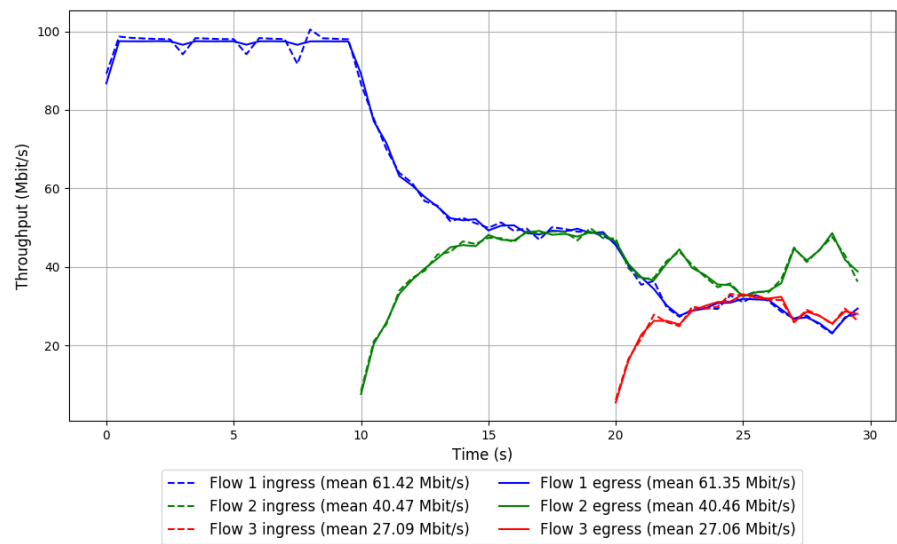


Run 3: Statistics of LEDBAT

Start at: 2017-12-20 08:19:55
End at: 2017-12-20 08:20:25
Local clock offset: -0.026 ms
Remote clock offset: 0.109 ms

Below is generated by plot.py at 2017-12-20 11:00:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.21 Mbit/s
95th percentile per-packet one-way delay: 32.241 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 61.35 Mbit/s
95th percentile per-packet one-way delay: 32.215 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.46 Mbit/s
95th percentile per-packet one-way delay: 32.414 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 27.06 Mbit/s
95th percentile per-packet one-way delay: 32.441 ms
Loss rate: 0.07%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-12-20 08:37:01

End at: 2017-12-20 08:37:31

Local clock offset: -0.098 ms

Remote clock offset: 0.953 ms

Below is generated by plot.py at 2017-12-20 11:00:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.20 Mbit/s

95th percentile per-packet one-way delay: 32.275 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 61.44 Mbit/s

95th percentile per-packet one-way delay: 32.243 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 36.74 Mbit/s

95th percentile per-packet one-way delay: 32.422 ms

Loss rate: 0.06%

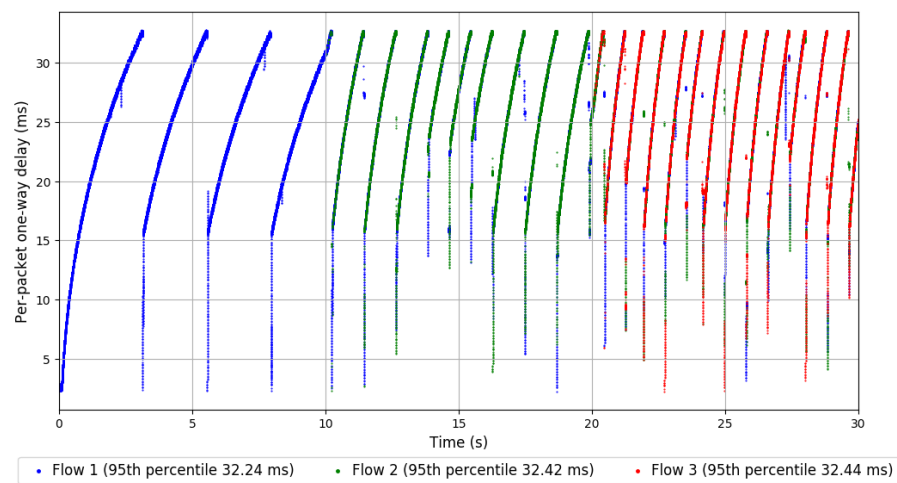
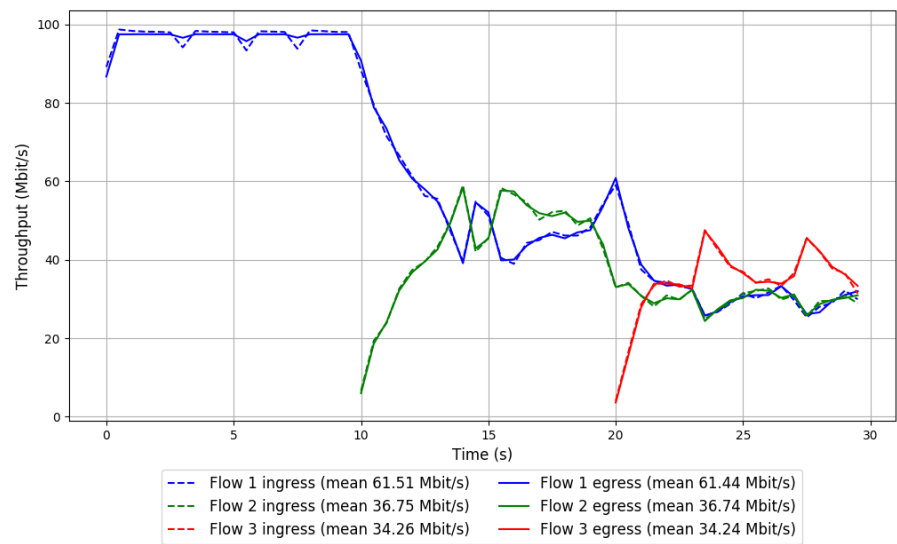
-- Flow 3:

Average throughput: 34.24 Mbit/s

95th percentile per-packet one-way delay: 32.440 ms

Loss rate: 0.07%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-20 08:54:08

End at: 2017-12-20 08:54:38

Local clock offset: -0.07 ms

Remote clock offset: 1.703 ms

Below is generated by plot.py at 2017-12-20 11:01:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.20 Mbit/s

95th percentile per-packet one-way delay: 32.236 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 63.07 Mbit/s

95th percentile per-packet one-way delay: 32.210 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 36.75 Mbit/s

95th percentile per-packet one-way delay: 32.391 ms

Loss rate: 0.05%

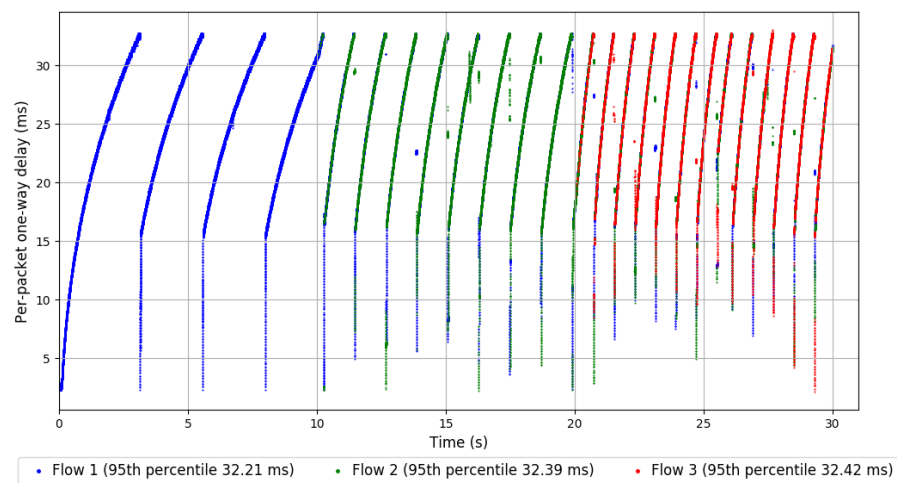
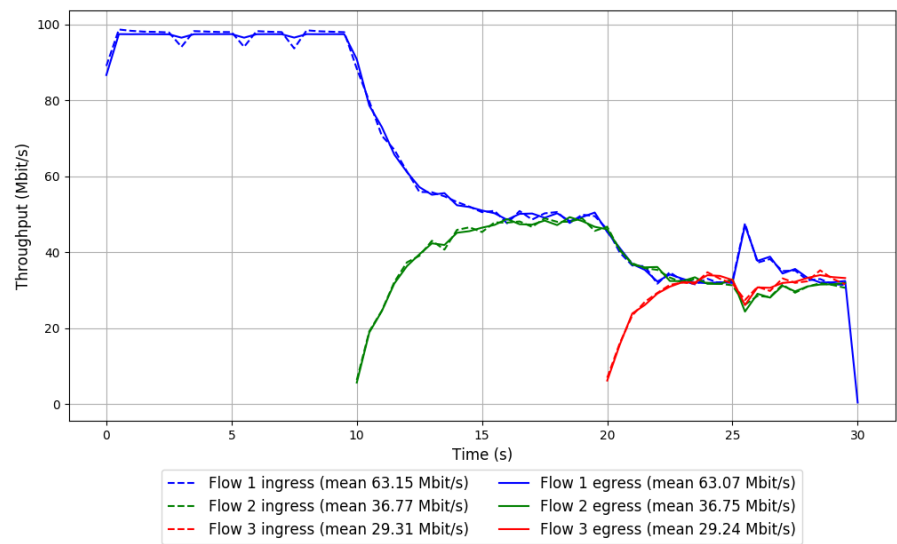
-- Flow 3:

Average throughput: 29.24 Mbit/s

95th percentile per-packet one-way delay: 32.425 ms

Loss rate: 0.10%

Run 5: Report of LEDBAT — Data Link

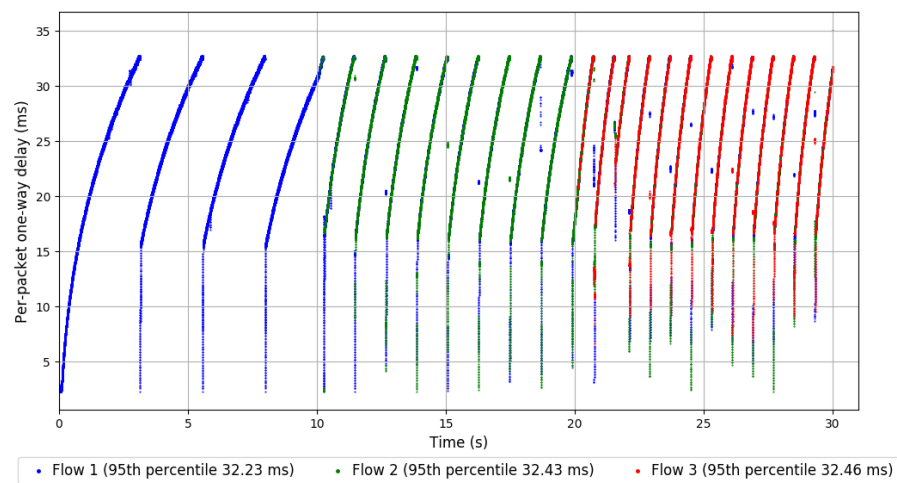
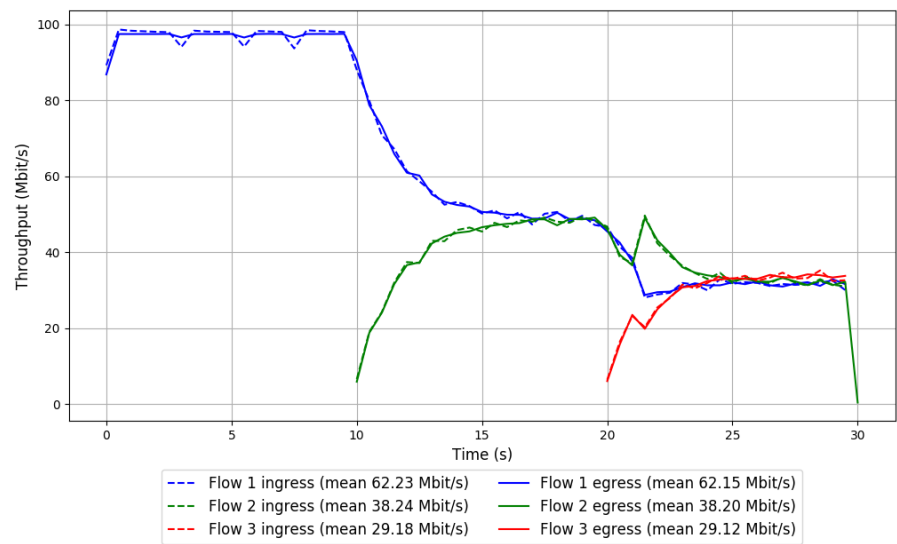


Run 6: Statistics of LEDBAT

Start at: 2017-12-20 09:11:15
End at: 2017-12-20 09:11:45
Local clock offset: -0.073 ms
Remote clock offset: 1.983 ms

Below is generated by plot.py at 2017-12-20 11:01:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.20 Mbit/s
95th percentile per-packet one-way delay: 32.264 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 62.15 Mbit/s
95th percentile per-packet one-way delay: 32.225 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.20 Mbit/s
95th percentile per-packet one-way delay: 32.428 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 29.12 Mbit/s
95th percentile per-packet one-way delay: 32.458 ms
Loss rate: 0.08%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-20 09:28:22

End at: 2017-12-20 09:28:52

Local clock offset: -0.086 ms

Remote clock offset: 2.097 ms

Below is generated by plot.py at 2017-12-20 11:02:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.18 Mbit/s

95th percentile per-packet one-way delay: 32.246 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 65.44 Mbit/s

95th percentile per-packet one-way delay: 32.216 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 34.60 Mbit/s

95th percentile per-packet one-way delay: 32.399 ms

Loss rate: 0.07%

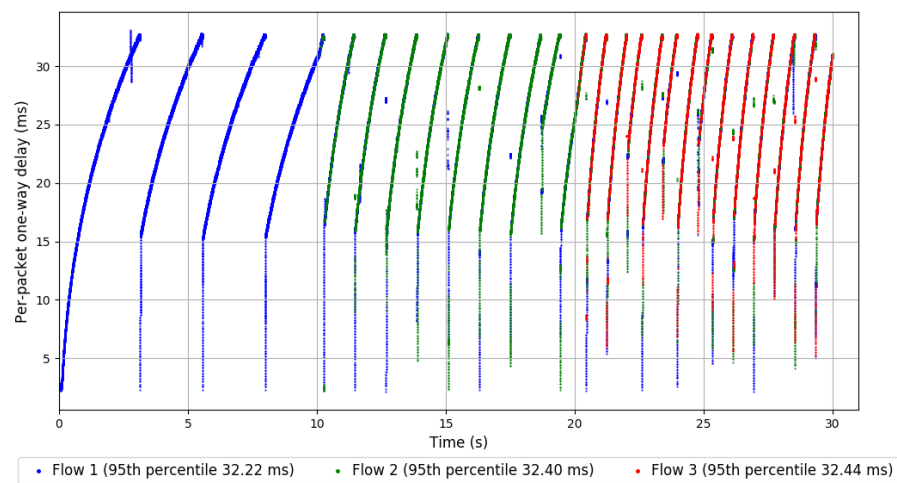
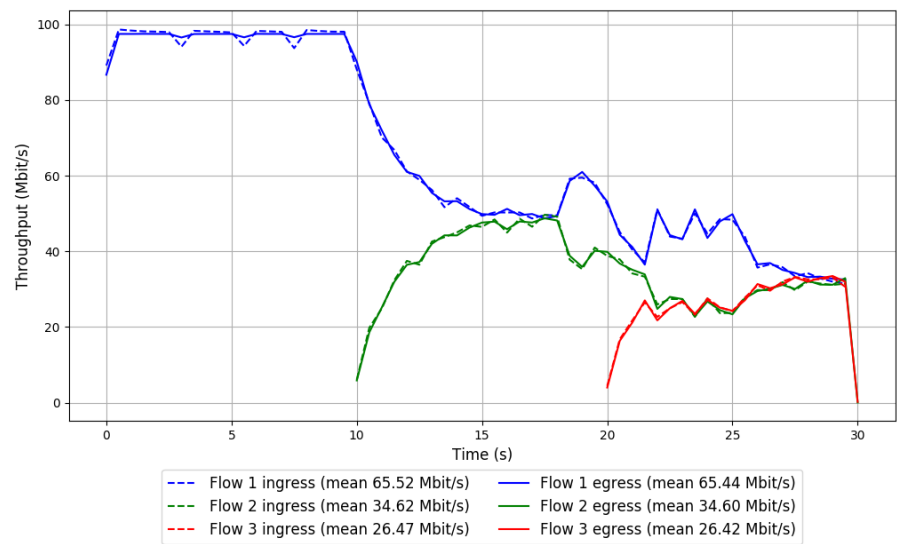
-- Flow 3:

Average throughput: 26.42 Mbit/s

95th percentile per-packet one-way delay: 32.439 ms

Loss rate: 0.12%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-20 09:45:29

End at: 2017-12-20 09:45:59

Local clock offset: -0.092 ms

Remote clock offset: 2.11 ms

Below is generated by plot.py at 2017-12-20 11:02:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.18 Mbit/s

95th percentile per-packet one-way delay: 32.245 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 63.09 Mbit/s

95th percentile per-packet one-way delay: 32.196 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 35.64 Mbit/s

95th percentile per-packet one-way delay: 32.419 ms

Loss rate: 0.07%

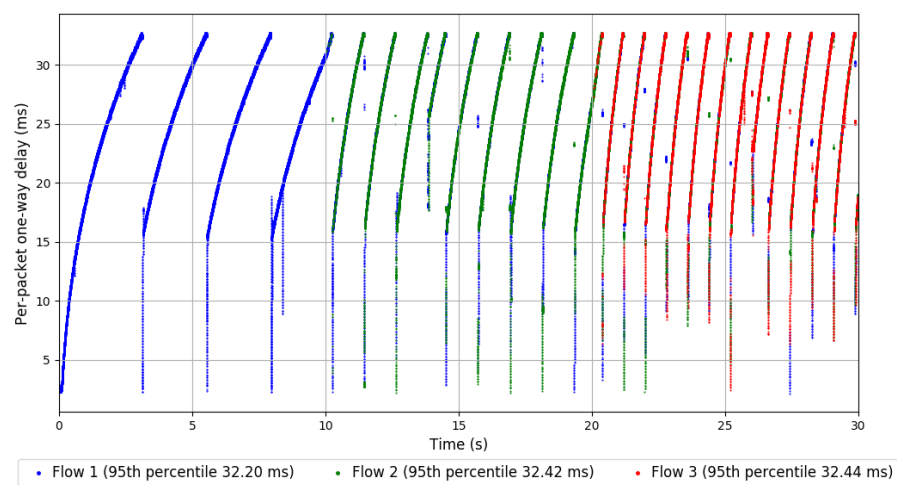
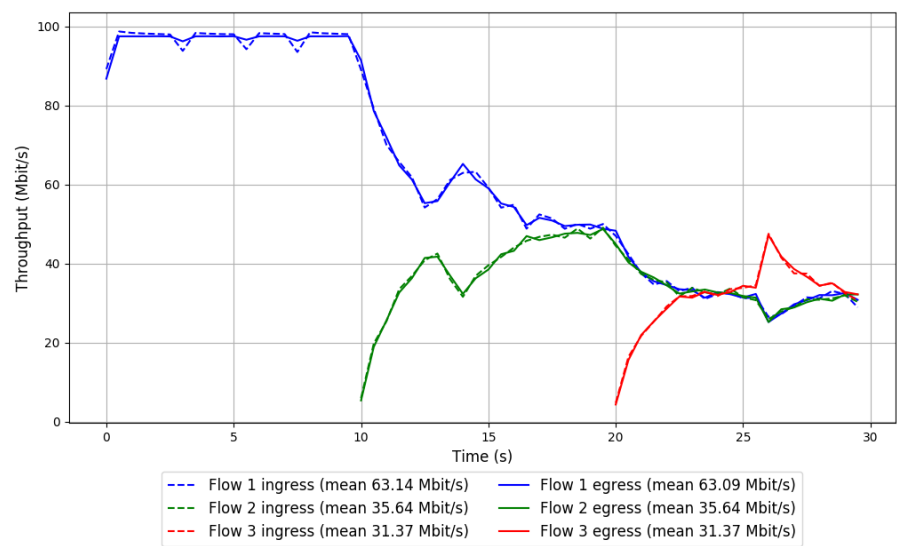
-- Flow 3:

Average throughput: 31.37 Mbit/s

95th percentile per-packet one-way delay: 32.441 ms

Loss rate: 0.09%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-12-20 10:02:37

End at: 2017-12-20 10:03:07

Local clock offset: -0.067 ms

Remote clock offset: 2.15 ms

Below is generated by plot.py at 2017-12-20 11:02:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.17 Mbit/s

95th percentile per-packet one-way delay: 32.236 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 63.34 Mbit/s

95th percentile per-packet one-way delay: 32.202 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 36.36 Mbit/s

95th percentile per-packet one-way delay: 32.411 ms

Loss rate: 0.06%

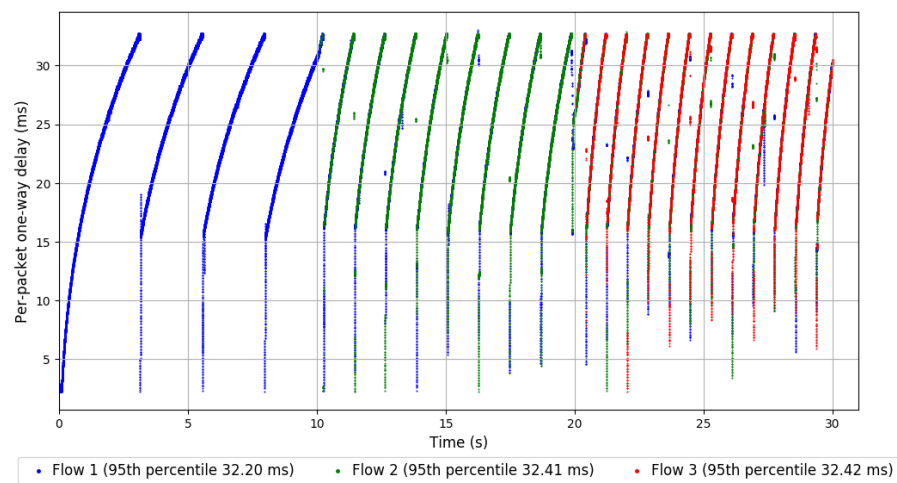
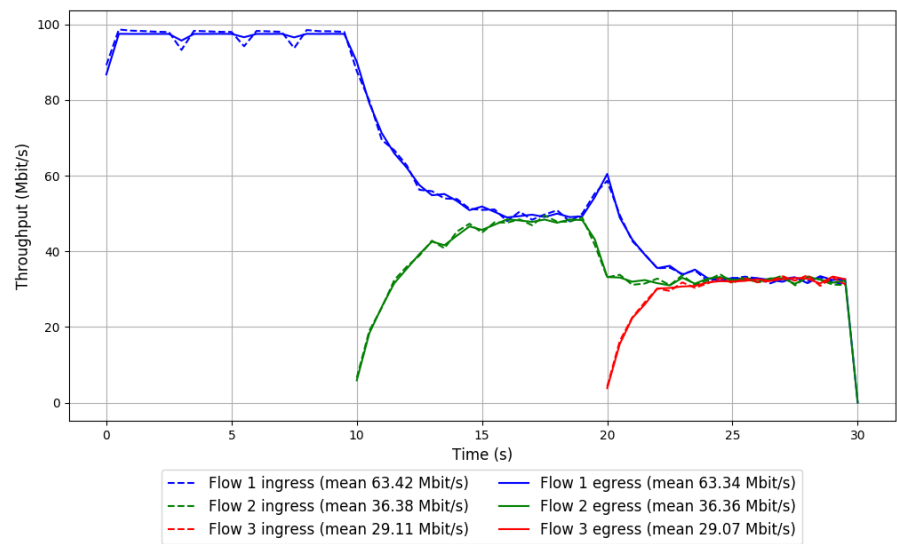
-- Flow 3:

Average throughput: 29.07 Mbit/s

95th percentile per-packet one-way delay: 32.419 ms

Loss rate: 0.08%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-12-20 10:19:46

End at: 2017-12-20 10:20:16

Local clock offset: -0.094 ms

Remote clock offset: 2.165 ms

Below is generated by plot.py at 2017-12-20 11:02:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.21 Mbit/s

95th percentile per-packet one-way delay: 32.208 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 61.30 Mbit/s

95th percentile per-packet one-way delay: 32.182 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 38.06 Mbit/s

95th percentile per-packet one-way delay: 32.282 ms

Loss rate: 0.06%

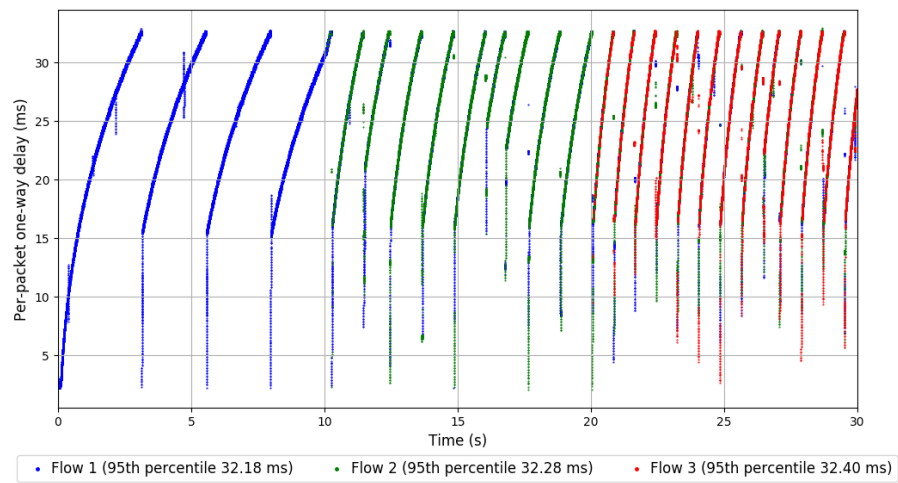
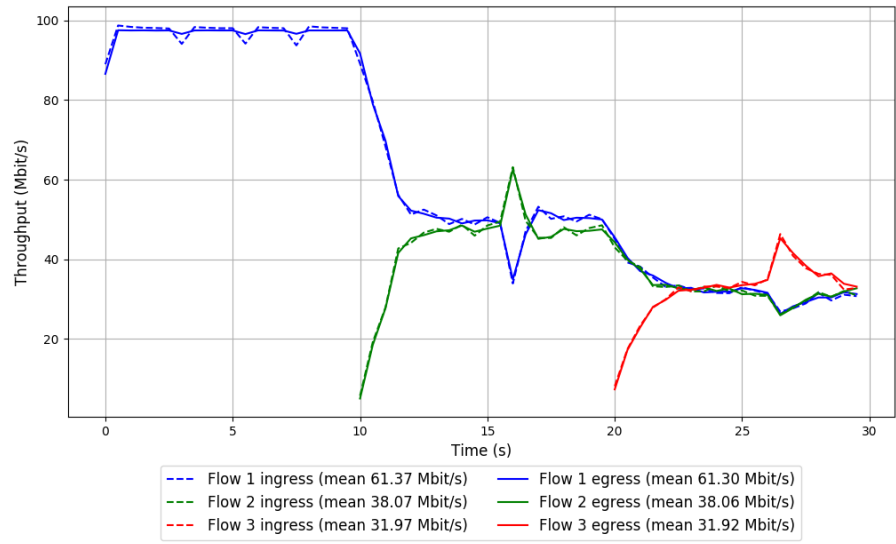
-- Flow 3:

Average throughput: 31.92 Mbit/s

95th percentile per-packet one-way delay: 32.396 ms

Loss rate: 0.07%

Run 10: Report of LEDBAT — Data Link

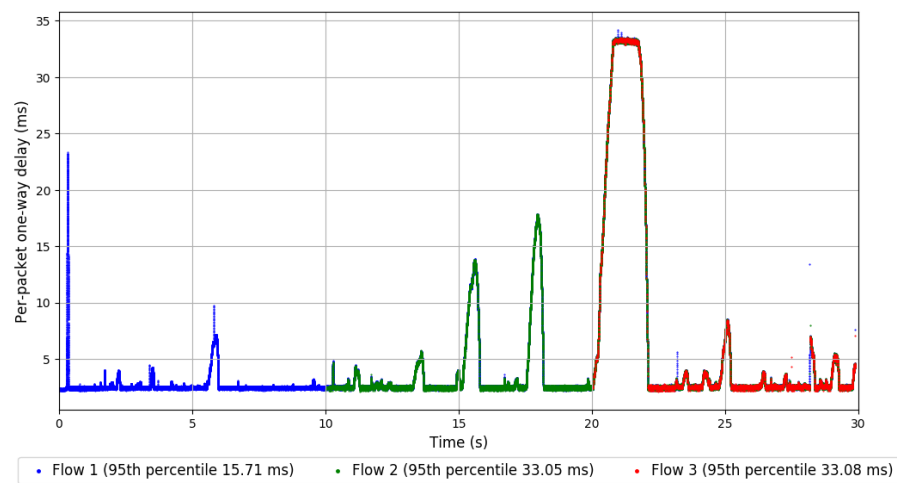
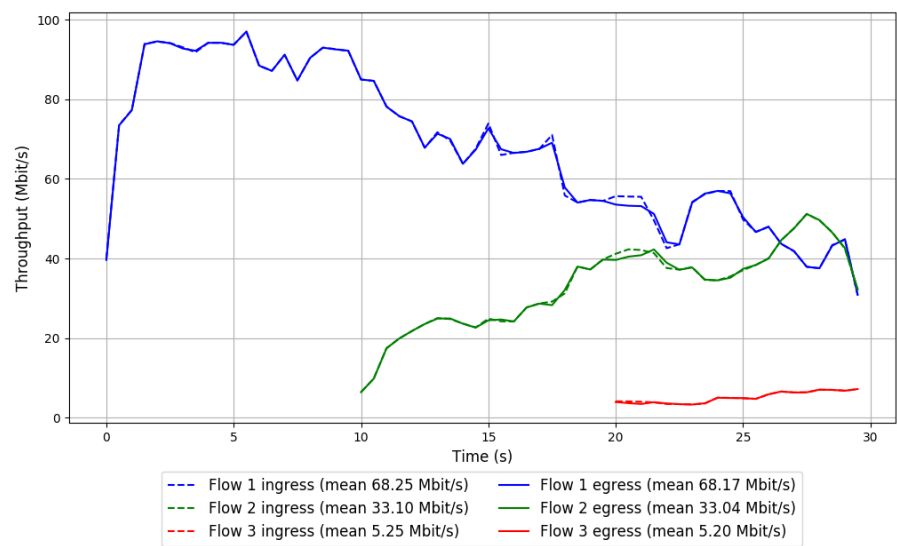


```
Run 1: Statistics of PCC

Start at: 2017-12-20 07:59:26
End at: 2017-12-20 07:59:56
Local clock offset: -0.013 ms
Remote clock offset: 0.308 ms

# Below is generated by plot.py at 2017-12-20 11:02:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.85 Mbit/s
95th percentile per-packet one-way delay: 23.100 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 68.17 Mbit/s
95th percentile per-packet one-way delay: 15.706 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 33.04 Mbit/s
95th percentile per-packet one-way delay: 33.049 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 5.20 Mbit/s
95th percentile per-packet one-way delay: 33.082 ms
Loss rate: 0.93%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-12-20 08:16:35

End at: 2017-12-20 08:17:05

Local clock offset: -0.021 ms

Remote clock offset: 0.09 ms

Below is generated by plot.py at 2017-12-20 11:02:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.88 Mbit/s

95th percentile per-packet one-way delay: 33.171 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 66.41 Mbit/s

95th percentile per-packet one-way delay: 33.134 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 25.09 Mbit/s

95th percentile per-packet one-way delay: 33.226 ms

Loss rate: 1.40%

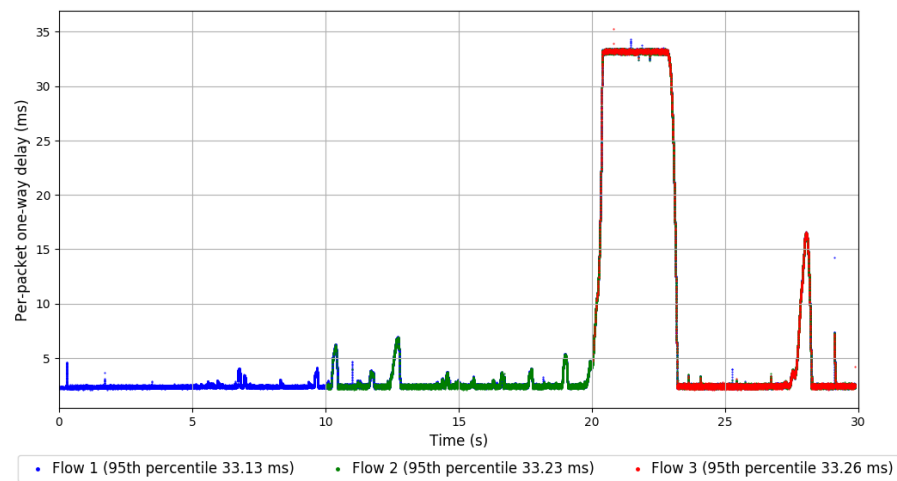
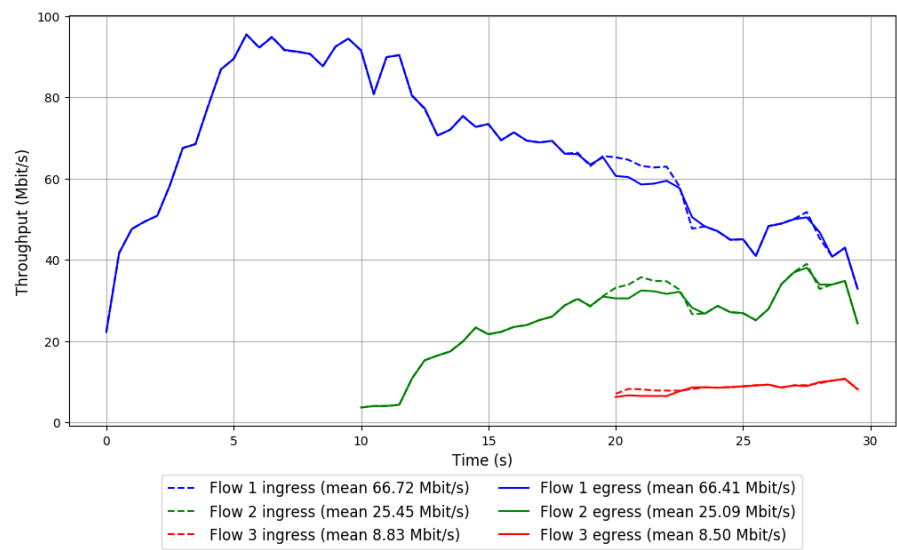
-- Flow 3:

Average throughput: 8.50 Mbit/s

95th percentile per-packet one-way delay: 33.264 ms

Loss rate: 3.70%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-20 08:33:41

End at: 2017-12-20 08:34:11

Local clock offset: -0.04 ms

Remote clock offset: 0.679 ms

Below is generated by plot.py at 2017-12-20 11:02:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.72 Mbit/s

95th percentile per-packet one-way delay: 18.330 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 66.51 Mbit/s

95th percentile per-packet one-way delay: 6.620 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 19.09 Mbit/s

95th percentile per-packet one-way delay: 31.695 ms

Loss rate: 0.07%

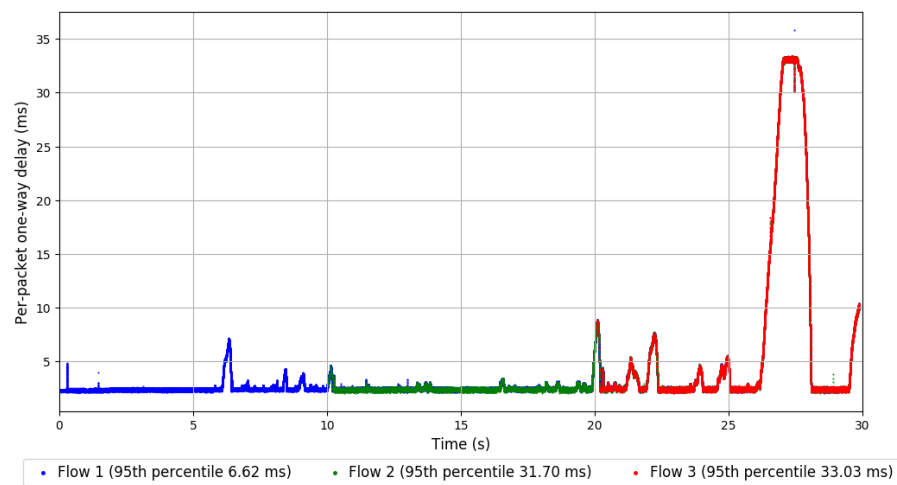
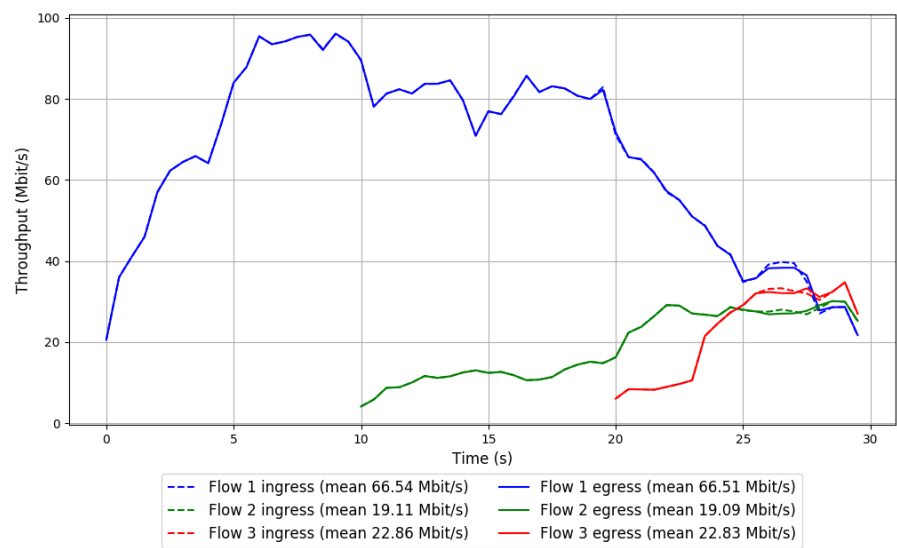
-- Flow 3:

Average throughput: 22.83 Mbit/s

95th percentile per-packet one-way delay: 33.034 ms

Loss rate: 0.11%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-12-20 08:50:48

End at: 2017-12-20 08:51:18

Local clock offset: -0.071 ms

Remote clock offset: 1.644 ms

Below is generated by plot.py at 2017-12-20 11:03:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.11 Mbit/s

95th percentile per-packet one-way delay: 4.715 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 71.50 Mbit/s

95th percentile per-packet one-way delay: 4.260 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 6.87 Mbit/s

95th percentile per-packet one-way delay: 6.927 ms

Loss rate: 0.00%

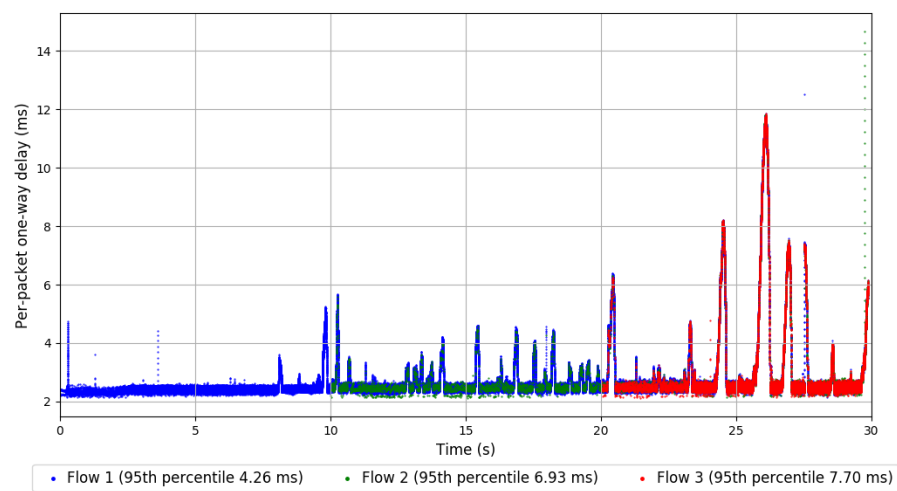
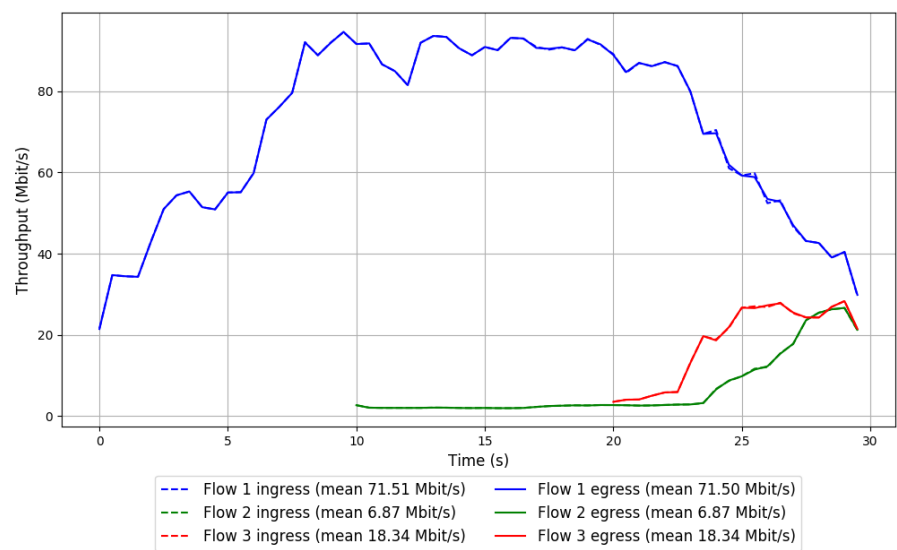
-- Flow 3:

Average throughput: 18.34 Mbit/s

95th percentile per-packet one-way delay: 7.702 ms

Loss rate: 0.00%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-20 09:07:55

End at: 2017-12-20 09:08:25

Local clock offset: -0.075 ms

Remote clock offset: 1.914 ms

Below is generated by plot.py at 2017-12-20 11:03:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.32 Mbit/s

95th percentile per-packet one-way delay: 5.650 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 70.29 Mbit/s

95th percentile per-packet one-way delay: 5.392 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 32.10 Mbit/s

95th percentile per-packet one-way delay: 6.082 ms

Loss rate: 0.00%

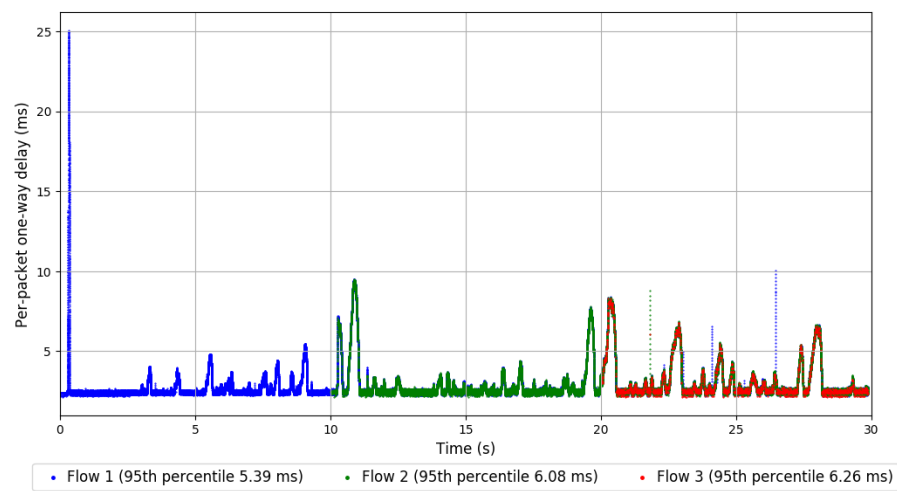
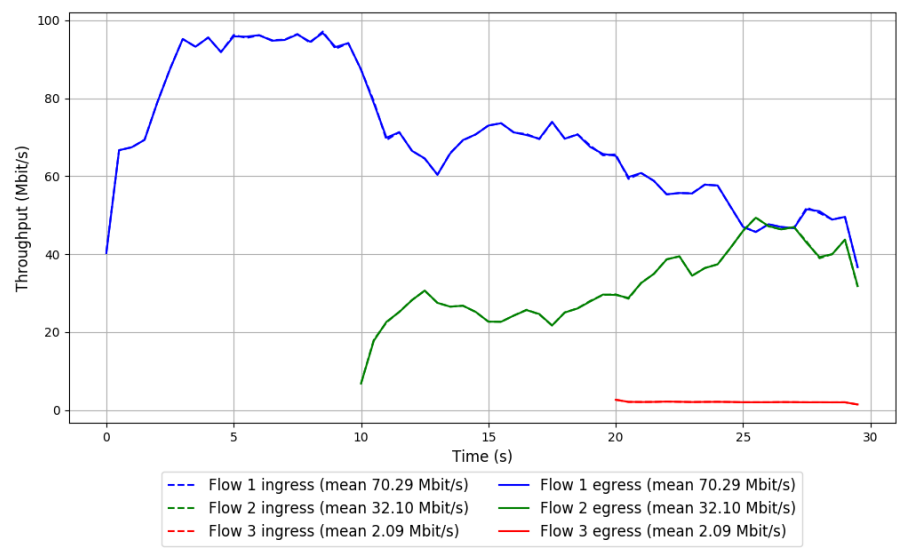
-- Flow 3:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 6.262 ms

Loss rate: 0.00%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-12-20 09:25:02

End at: 2017-12-20 09:25:32

Local clock offset: -0.158 ms

Remote clock offset: 2.112 ms

Below is generated by plot.py at 2017-12-20 11:03:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.83 Mbit/s

95th percentile per-packet one-way delay: 9.692 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 73.88 Mbit/s

95th percentile per-packet one-way delay: 7.991 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.01 Mbit/s

95th percentile per-packet one-way delay: 11.292 ms

Loss rate: 0.00%

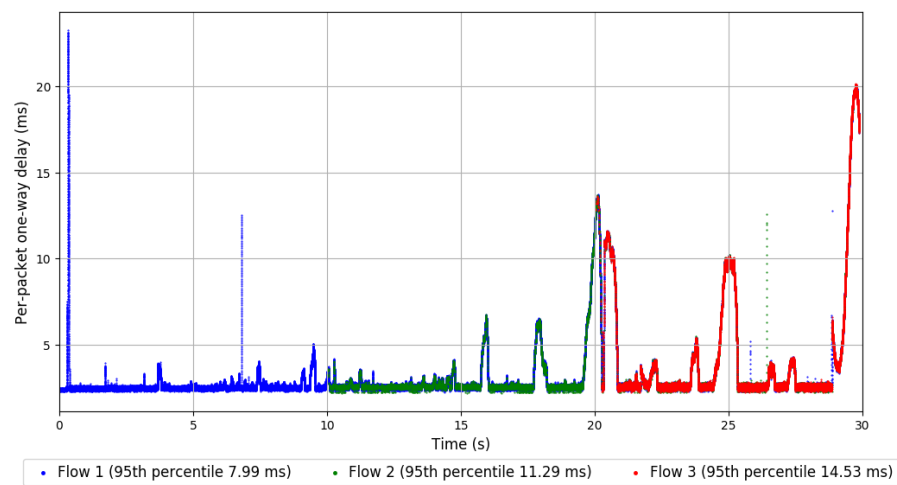
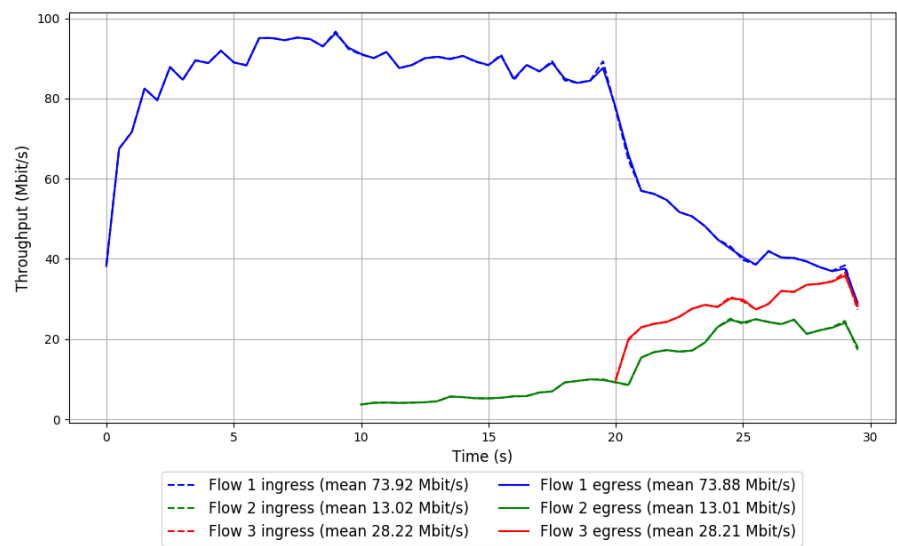
-- Flow 3:

Average throughput: 28.21 Mbit/s

95th percentile per-packet one-way delay: 14.534 ms

Loss rate: 0.00%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-12-20 09:42:09

End at: 2017-12-20 09:42:39

Local clock offset: -0.1 ms

Remote clock offset: 2.123 ms

Below is generated by plot.py at 2017-12-20 11:03:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.78 Mbit/s

95th percentile per-packet one-way delay: 8.158 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 75.41 Mbit/s

95th percentile per-packet one-way delay: 7.482 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 15.99 Mbit/s

95th percentile per-packet one-way delay: 10.052 ms

Loss rate: 0.00%

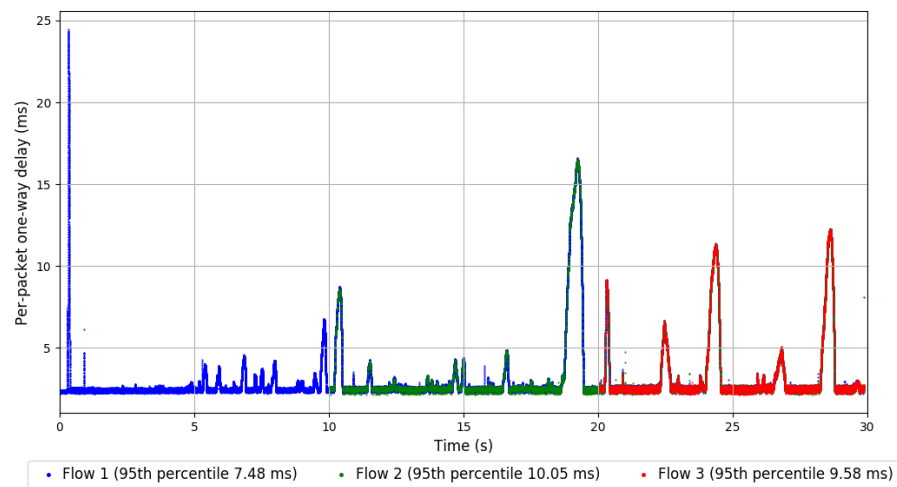
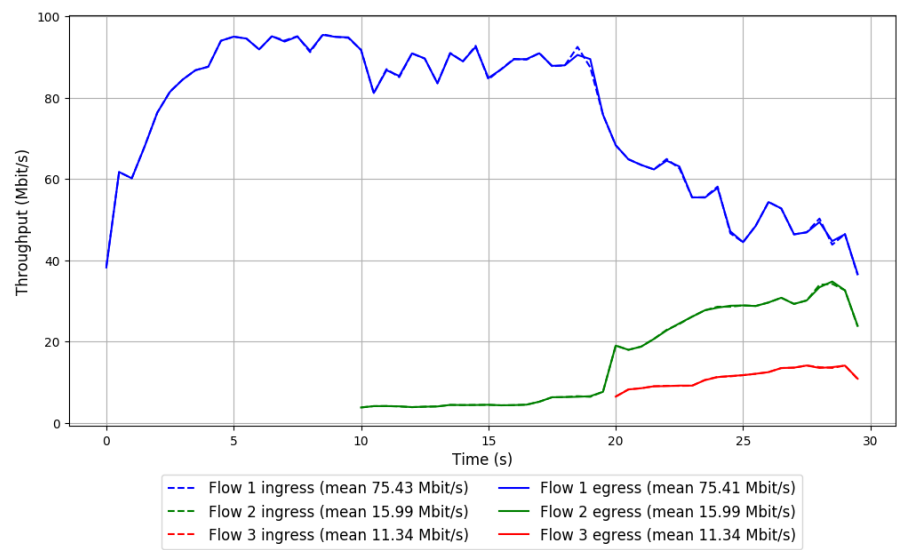
-- Flow 3:

Average throughput: 11.34 Mbit/s

95th percentile per-packet one-way delay: 9.579 ms

Loss rate: 0.00%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-20 09:59:17

End at: 2017-12-20 09:59:47

Local clock offset: -0.085 ms

Remote clock offset: 2.056 ms

Below is generated by plot.py at 2017-12-20 11:03:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.87 Mbit/s

95th percentile per-packet one-way delay: 5.724 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 73.95 Mbit/s

95th percentile per-packet one-way delay: 4.776 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 18.35 Mbit/s

95th percentile per-packet one-way delay: 11.977 ms

Loss rate: 0.00%

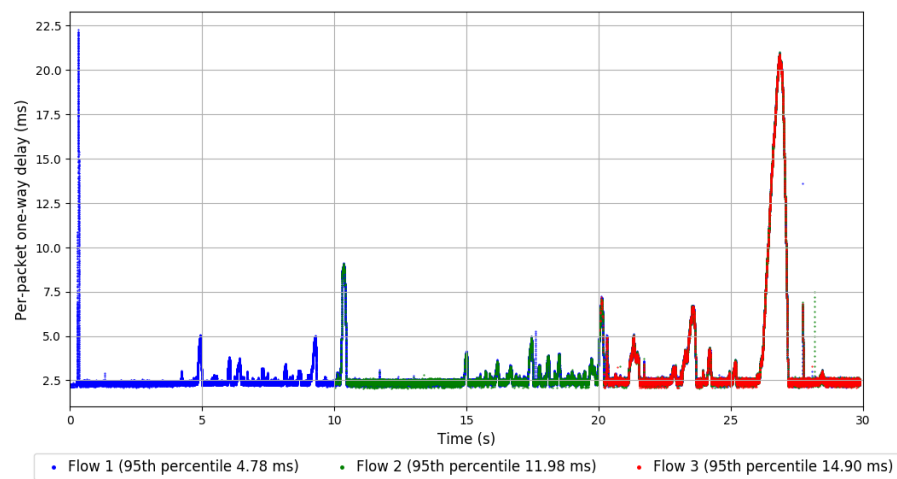
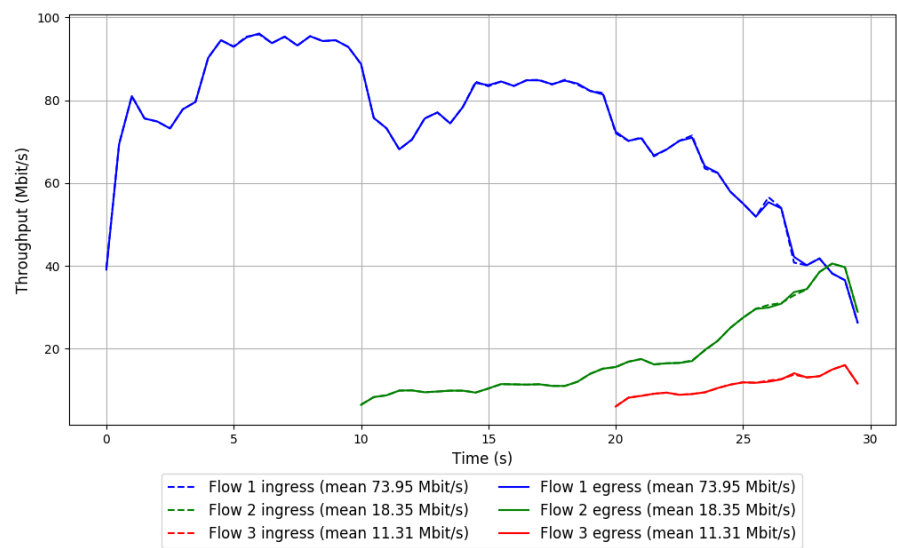
-- Flow 3:

Average throughput: 11.31 Mbit/s

95th percentile per-packet one-way delay: 14.902 ms

Loss rate: 0.00%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-12-20 10:16:26

End at: 2017-12-20 10:16:56

Local clock offset: -0.084 ms

Remote clock offset: 2.16 ms

Below is generated by plot.py at 2017-12-20 11:03:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.34 Mbit/s

95th percentile per-packet one-way delay: 4.540 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 77.73 Mbit/s

95th percentile per-packet one-way delay: 4.125 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 5.26 Mbit/s

95th percentile per-packet one-way delay: 7.212 ms

Loss rate: 0.00%

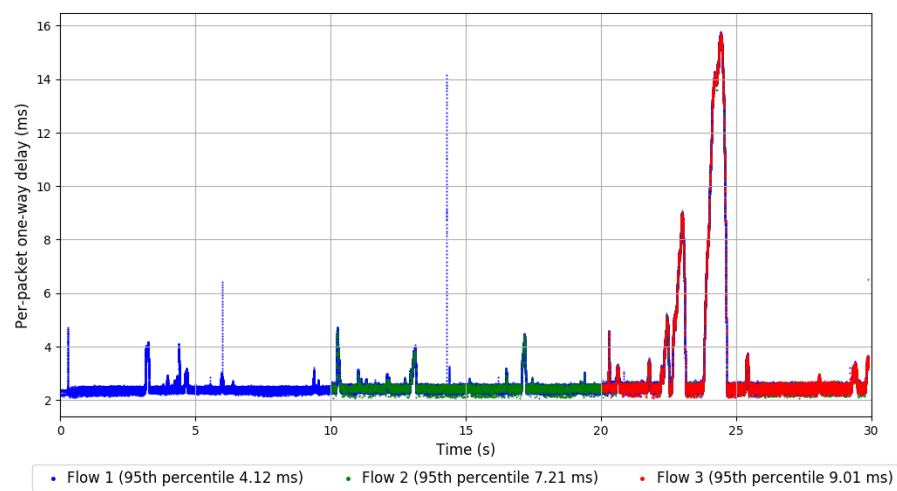
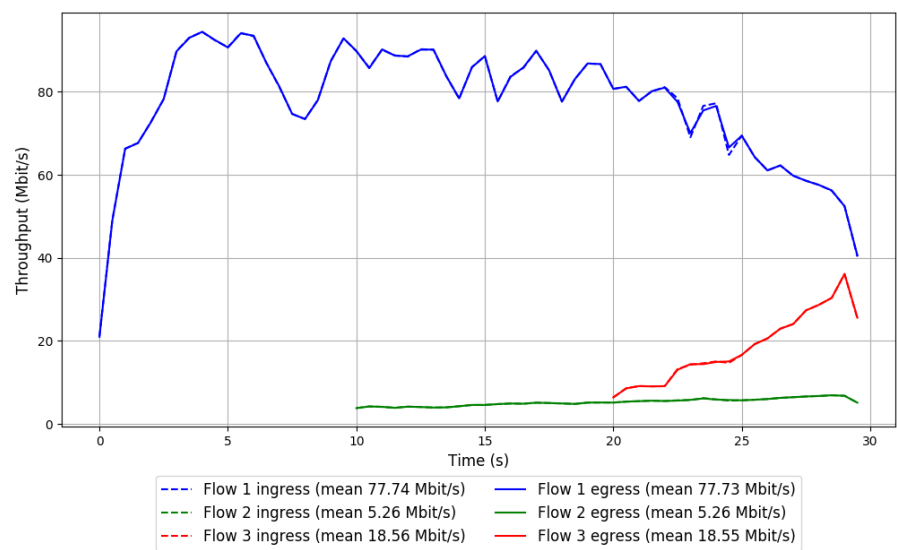
-- Flow 3:

Average throughput: 18.55 Mbit/s

95th percentile per-packet one-way delay: 9.011 ms

Loss rate: 0.00%

Run 9: Report of PCC — Data Link

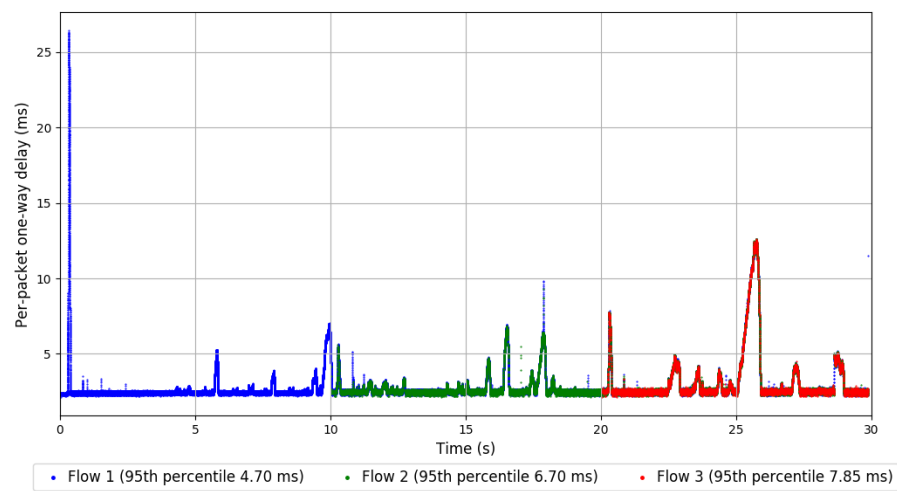
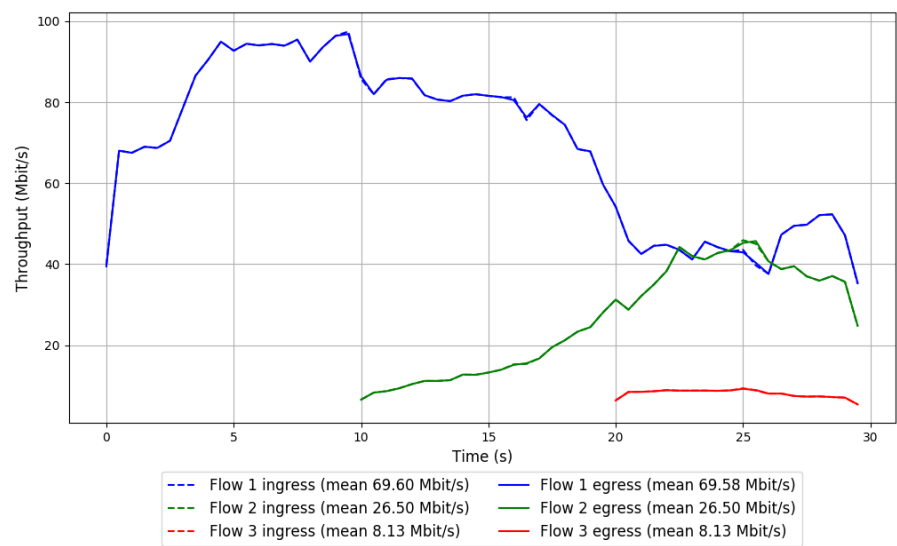


Run 10: Statistics of PCC

Start at: 2017-12-20 10:33:34
End at: 2017-12-20 10:34:04
Local clock offset: -0.092 ms
Remote clock offset: 2.237 ms

Below is generated by plot.py at 2017-12-20 11:03:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.86 Mbit/s
95th percentile per-packet one-way delay: 5.033 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.58 Mbit/s
95th percentile per-packet one-way delay: 4.699 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.50 Mbit/s
95th percentile per-packet one-way delay: 6.698 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 7.851 ms
Loss rate: 0.00%

Run 10: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2017-12-20 07:56:04

End at: 2017-12-20 07:56:34

Local clock offset: -0.003 ms

Remote clock offset: 0.291 ms

Below is generated by plot.py at 2017-12-20 11:04:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.48 Mbit/s

95th percentile per-packet one-way delay: 31.272 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 61.36 Mbit/s

95th percentile per-packet one-way delay: 31.209 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 34.78 Mbit/s

95th percentile per-packet one-way delay: 31.323 ms

Loss rate: 0.22%

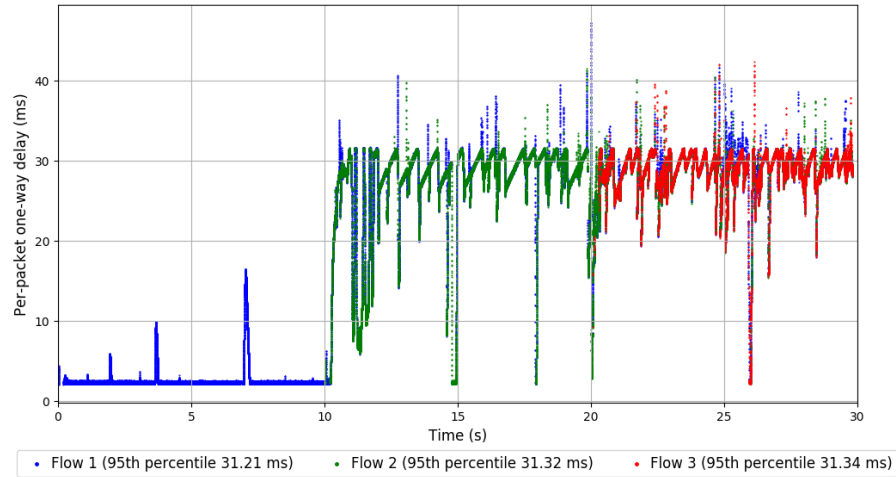
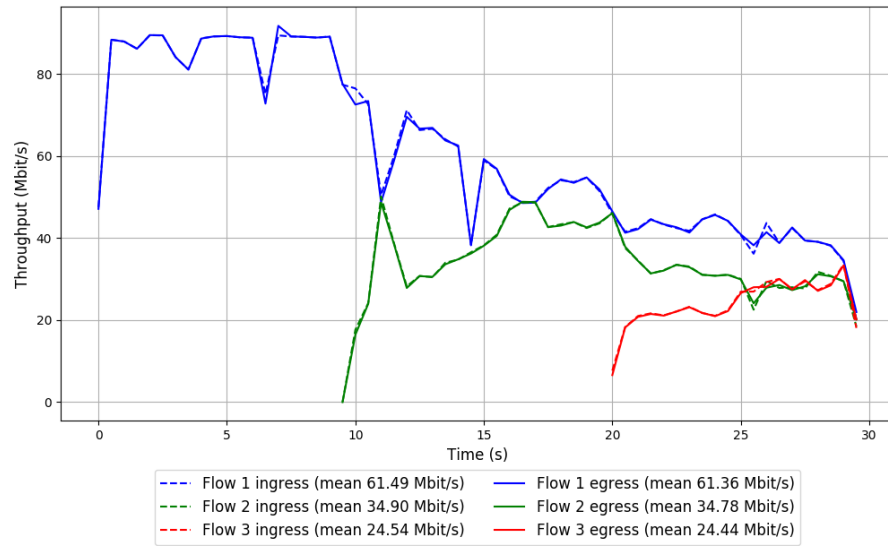
-- Flow 3:

Average throughput: 24.44 Mbit/s

95th percentile per-packet one-way delay: 31.339 ms

Loss rate: 0.18%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-20 08:13:12

End at: 2017-12-20 08:13:42

Local clock offset: -0.017 ms

Remote clock offset: 0.178 ms

Below is generated by plot.py at 2017-12-20 11:04:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.22 Mbit/s

95th percentile per-packet one-way delay: 31.309 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 58.72 Mbit/s

95th percentile per-packet one-way delay: 31.227 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 35.12 Mbit/s

95th percentile per-packet one-way delay: 31.372 ms

Loss rate: 0.24%

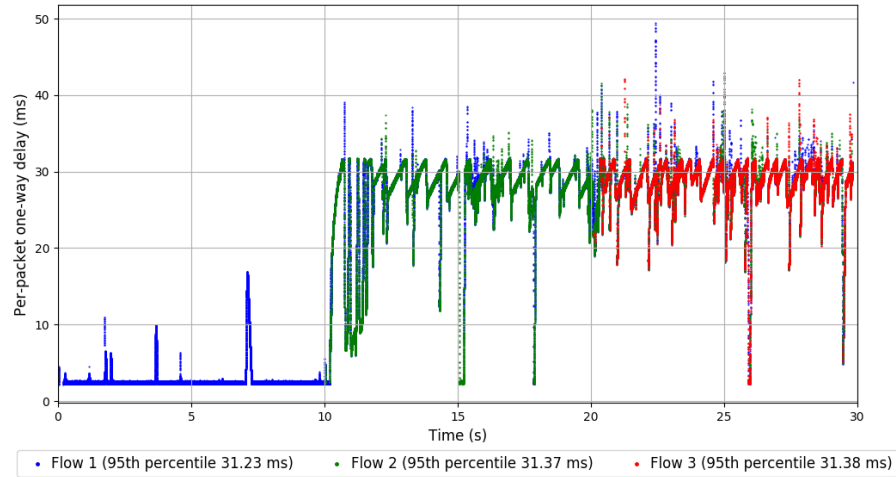
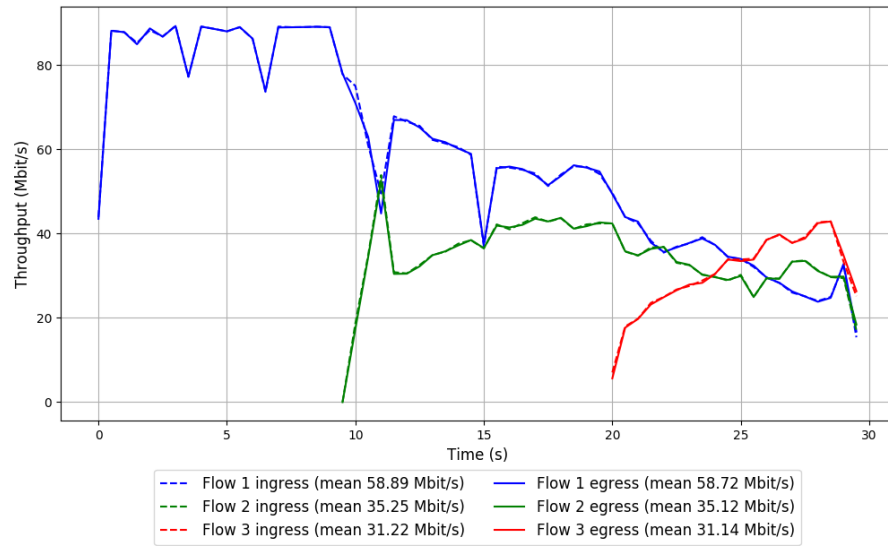
-- Flow 3:

Average throughput: 31.14 Mbit/s

95th percentile per-packet one-way delay: 31.376 ms

Loss rate: 0.17%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-12-20 08:30:19

End at: 2017-12-20 08:30:49

Local clock offset: -0.041 ms

Remote clock offset: 0.337 ms

Below is generated by plot.py at 2017-12-20 11:04:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.49 Mbit/s

95th percentile per-packet one-way delay: 31.210 ms

Loss rate: 0.14%

-- Flow 1:

Average throughput: 55.03 Mbit/s

95th percentile per-packet one-way delay: 31.105 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 40.54 Mbit/s

95th percentile per-packet one-way delay: 31.276 ms

Loss rate: 0.16%

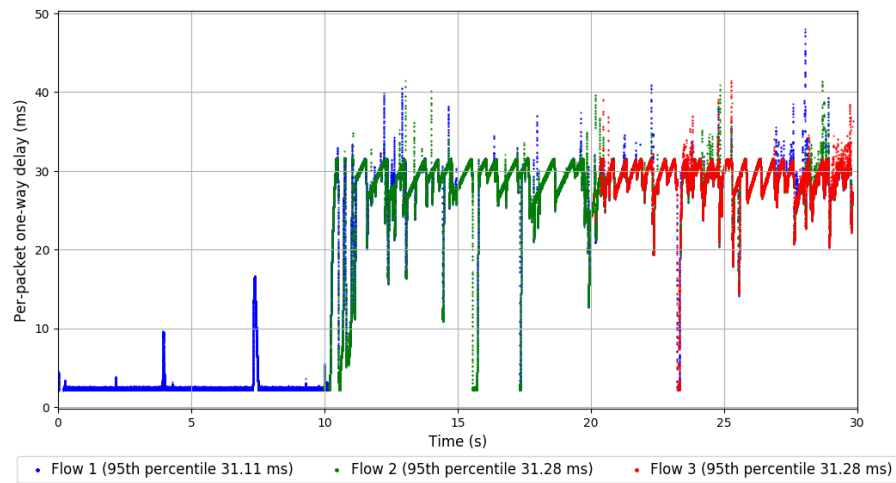
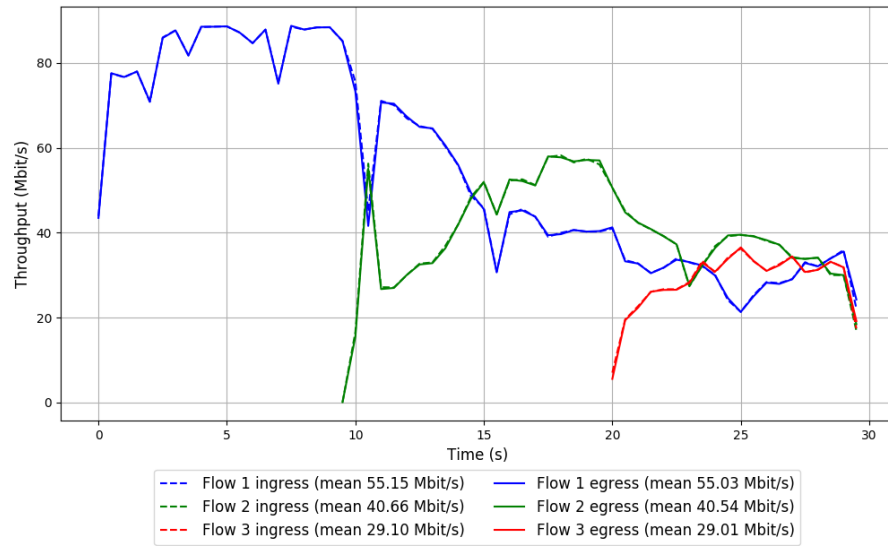
-- Flow 3:

Average throughput: 29.01 Mbit/s

95th percentile per-packet one-way delay: 31.282 ms

Loss rate: 0.21%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-12-20 08:47:25

End at: 2017-12-20 08:47:55

Local clock offset: -0.053 ms

Remote clock offset: 1.597 ms

Below is generated by plot.py at 2017-12-20 11:04:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.03 Mbit/s

95th percentile per-packet one-way delay: 31.314 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 58.26 Mbit/s

95th percentile per-packet one-way delay: 31.233 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 34.94 Mbit/s

95th percentile per-packet one-way delay: 31.395 ms

Loss rate: 0.27%

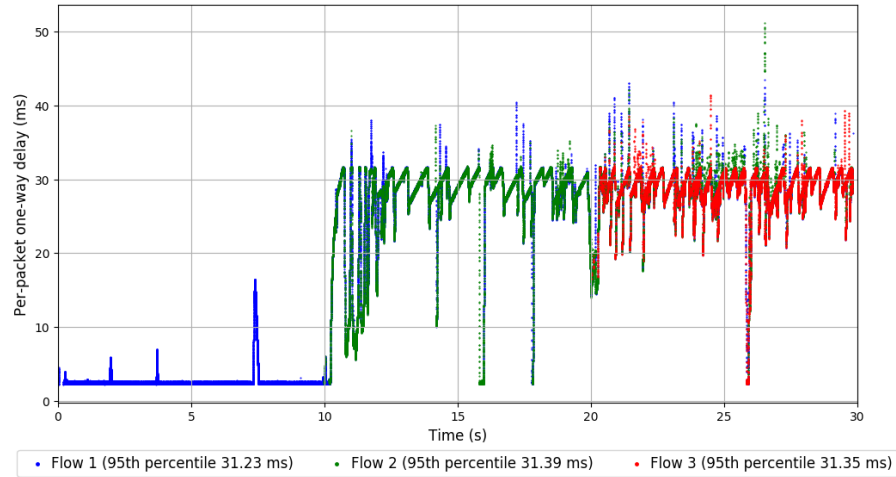
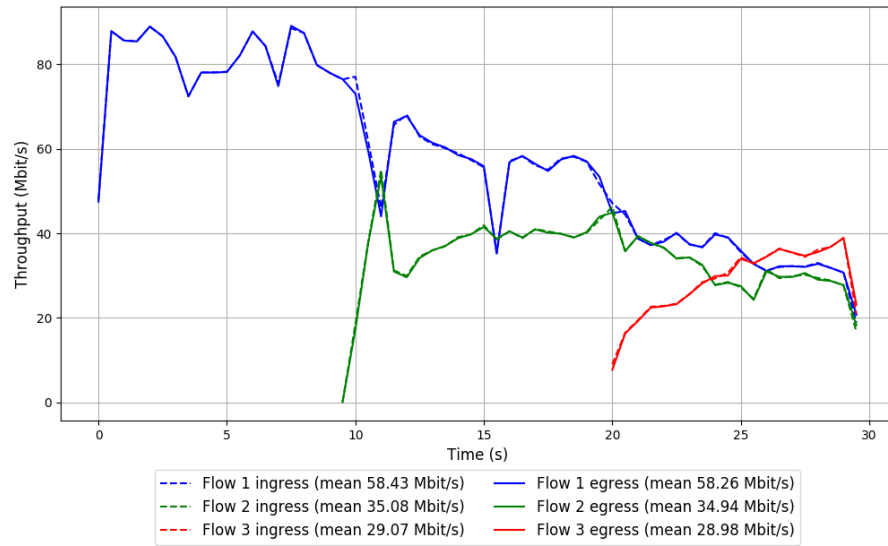
-- Flow 3:

Average throughput: 28.98 Mbit/s

95th percentile per-packet one-way delay: 31.354 ms

Loss rate: 0.19%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-20 09:04:32

End at: 2017-12-20 09:05:02

Local clock offset: -0.159 ms

Remote clock offset: 1.799 ms

Below is generated by plot.py at 2017-12-20 11:04:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.25 Mbit/s

95th percentile per-packet one-way delay: 31.316 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 58.90 Mbit/s

95th percentile per-packet one-way delay: 31.240 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 35.86 Mbit/s

95th percentile per-packet one-way delay: 31.379 ms

Loss rate: 0.26%

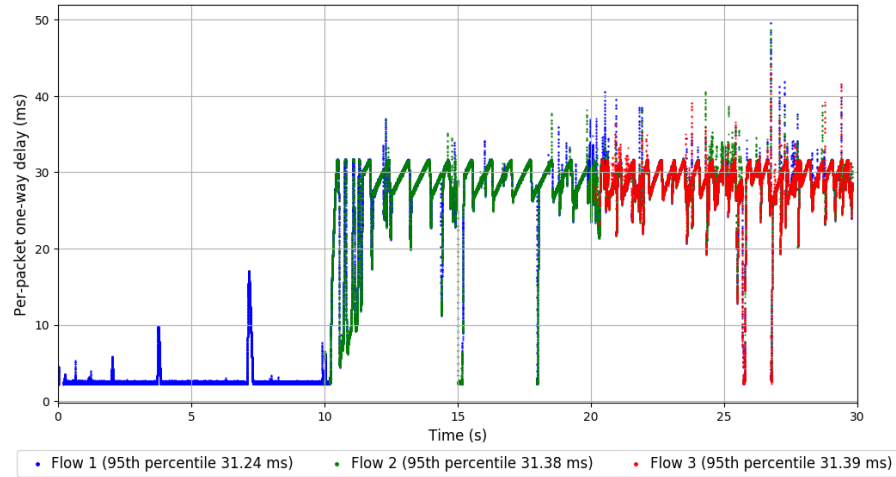
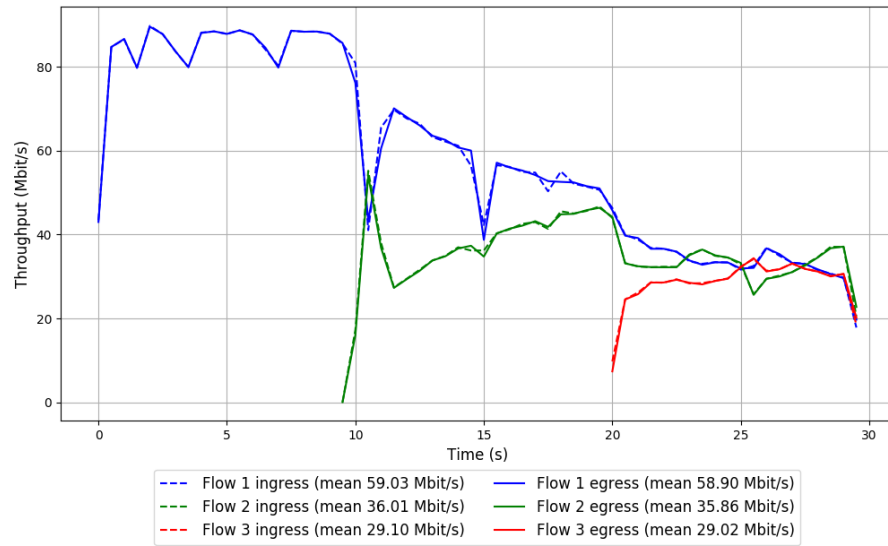
-- Flow 3:

Average throughput: 29.02 Mbit/s

95th percentile per-packet one-way delay: 31.385 ms

Loss rate: 0.28%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-12-20 09:21:39

End at: 2017-12-20 09:22:09

Local clock offset: -0.082 ms

Remote clock offset: 2.087 ms

Below is generated by plot.py at 2017-12-20 11:04:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.88 Mbit/s

95th percentile per-packet one-way delay: 31.312 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 57.52 Mbit/s

95th percentile per-packet one-way delay: 31.230 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 35.94 Mbit/s

95th percentile per-packet one-way delay: 31.361 ms

Loss rate: 0.20%

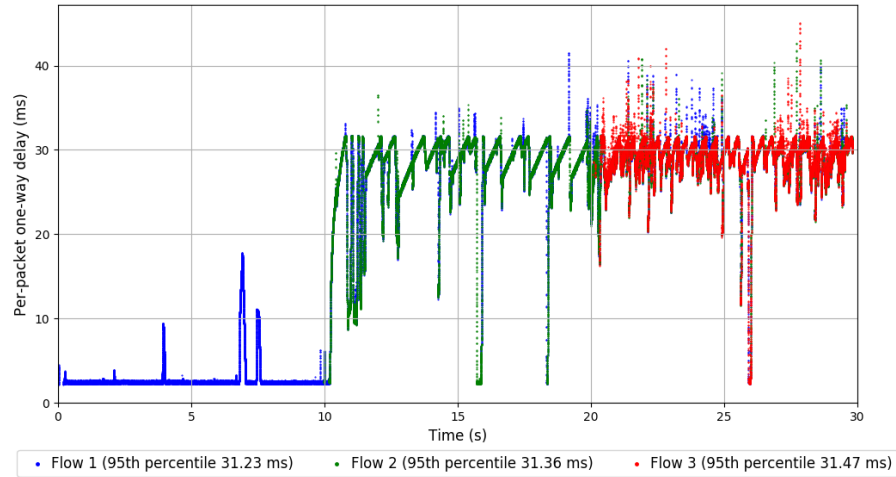
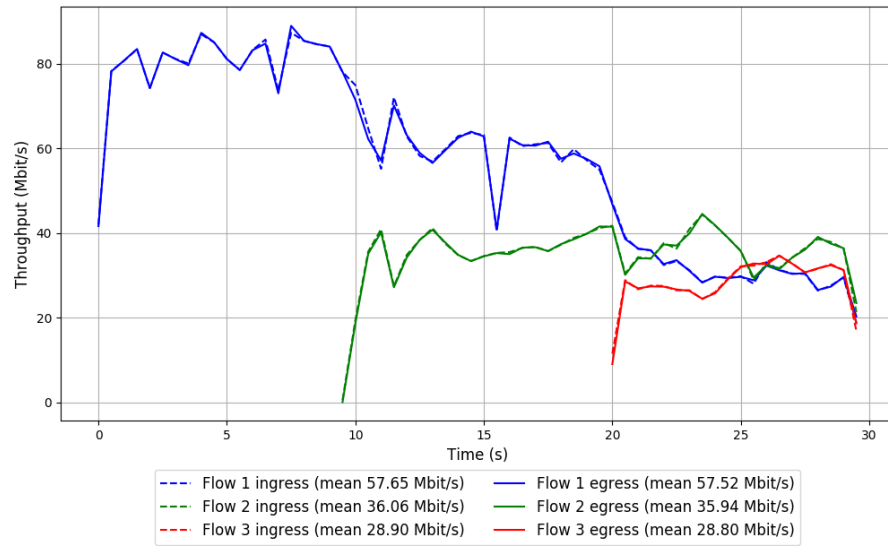
-- Flow 3:

Average throughput: 28.80 Mbit/s

95th percentile per-packet one-way delay: 31.468 ms

Loss rate: 0.32%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-20 09:38:46

End at: 2017-12-20 09:39:16

Local clock offset: -0.095 ms

Remote clock offset: 2.159 ms

Below is generated by plot.py at 2017-12-20 11:04:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.80 Mbit/s

95th percentile per-packet one-way delay: 31.341 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 58.81 Mbit/s

95th percentile per-packet one-way delay: 31.274 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 36.73 Mbit/s

95th percentile per-packet one-way delay: 31.407 ms

Loss rate: 0.19%

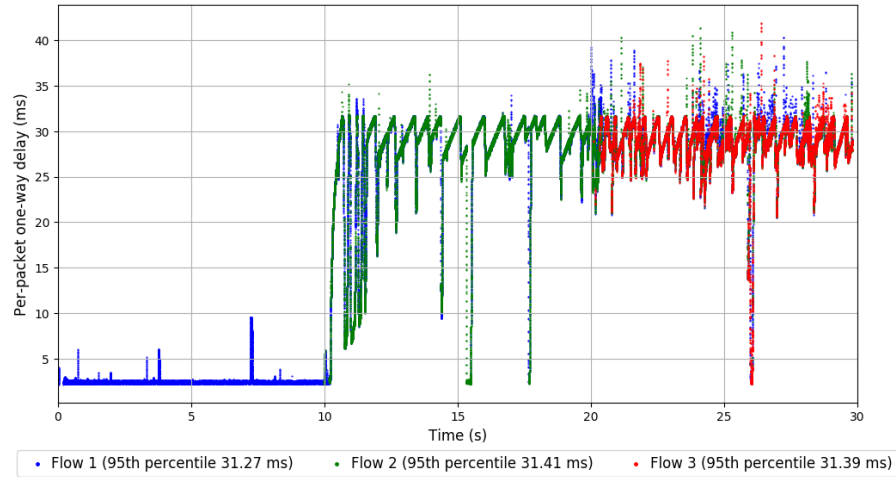
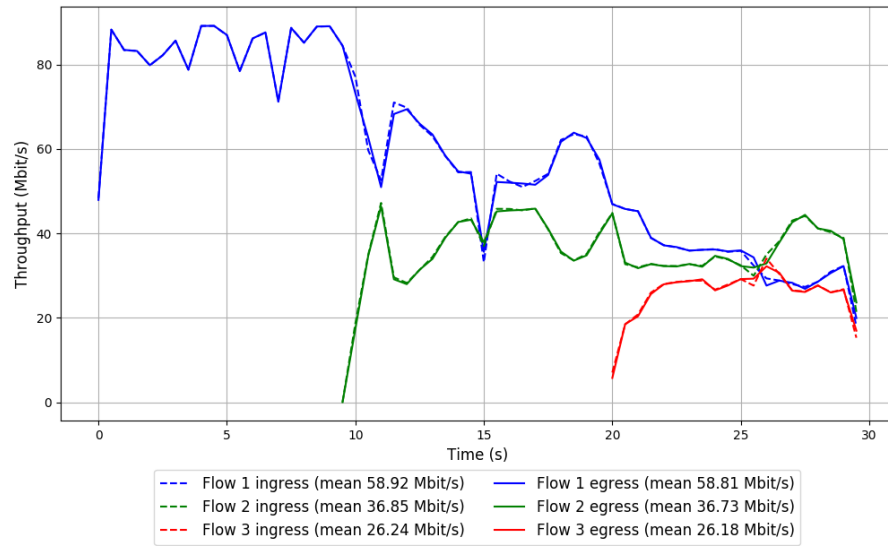
-- Flow 3:

Average throughput: 26.18 Mbit/s

95th percentile per-packet one-way delay: 31.395 ms

Loss rate: 0.19%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-12-20 09:55:55

End at: 2017-12-20 09:56:25

Local clock offset: -0.149 ms

Remote clock offset: 2.112 ms

Below is generated by plot.py at 2017-12-20 11:05:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.66 Mbit/s

95th percentile per-packet one-way delay: 31.387 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 57.91 Mbit/s

95th percentile per-packet one-way delay: 31.308 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 36.61 Mbit/s

95th percentile per-packet one-way delay: 31.446 ms

Loss rate: 0.14%

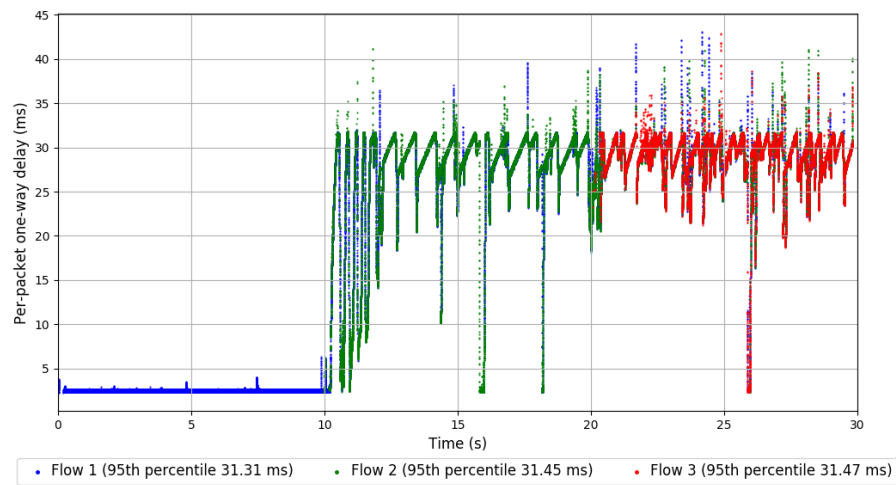
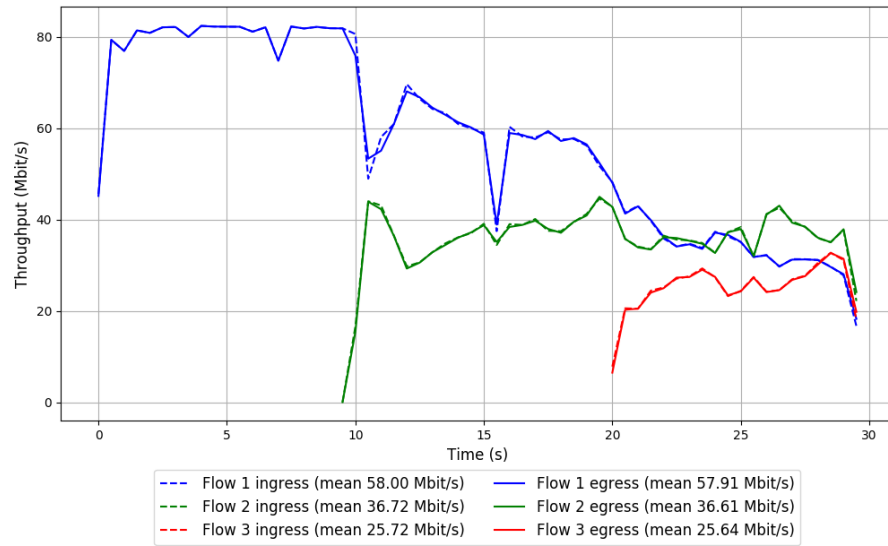
-- Flow 3:

Average throughput: 25.64 Mbit/s

95th percentile per-packet one-way delay: 31.469 ms

Loss rate: 0.23%

Run 8: Report of QUIC Cubic — Data Link

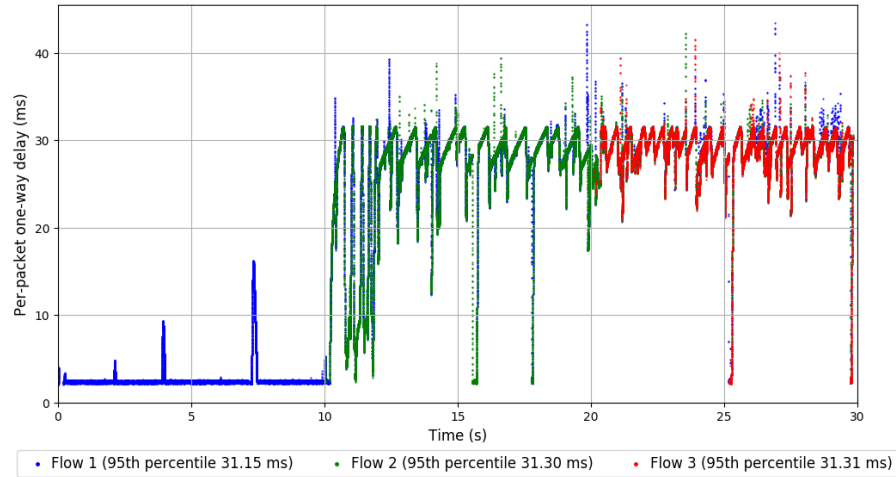
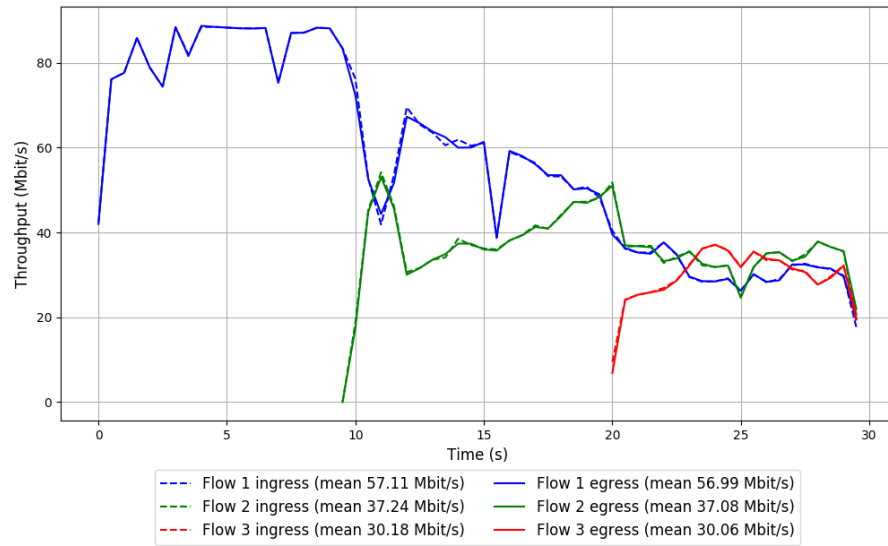


Run 9: Statistics of QUIC Cubic

Start at: 2017-12-20 10:13:03
End at: 2017-12-20 10:13:33
Local clock offset: -0.081 ms
Remote clock offset: 2.143 ms

Below is generated by plot.py at 2017-12-20 11:05:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.45 Mbit/s
95th percentile per-packet one-way delay: 31.237 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 31.154 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 37.08 Mbit/s
95th percentile per-packet one-way delay: 31.296 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 30.06 Mbit/s
95th percentile per-packet one-way delay: 31.312 ms
Loss rate: 0.34%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-12-20 10:30:11

End at: 2017-12-20 10:30:41

Local clock offset: -0.095 ms

Remote clock offset: 2.25 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.78 Mbit/s

95th percentile per-packet one-way delay: 31.330 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 57.99 Mbit/s

95th percentile per-packet one-way delay: 31.251 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 35.96 Mbit/s

95th percentile per-packet one-way delay: 31.400 ms

Loss rate: 0.24%

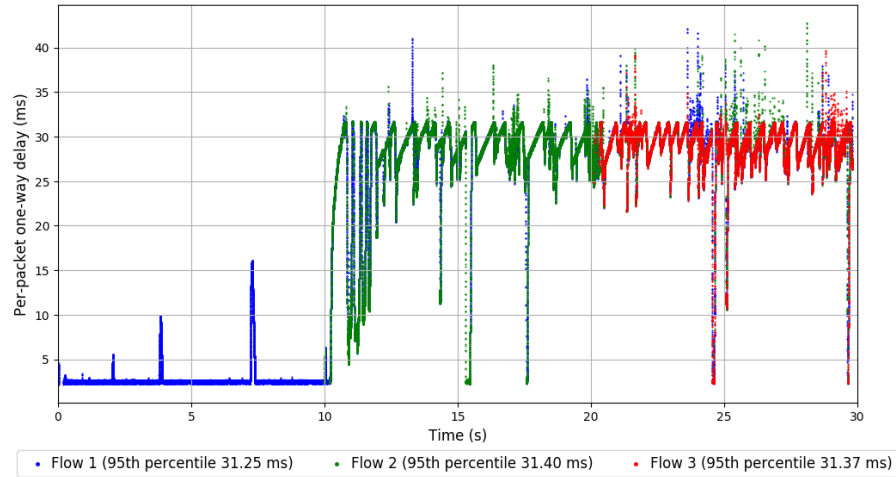
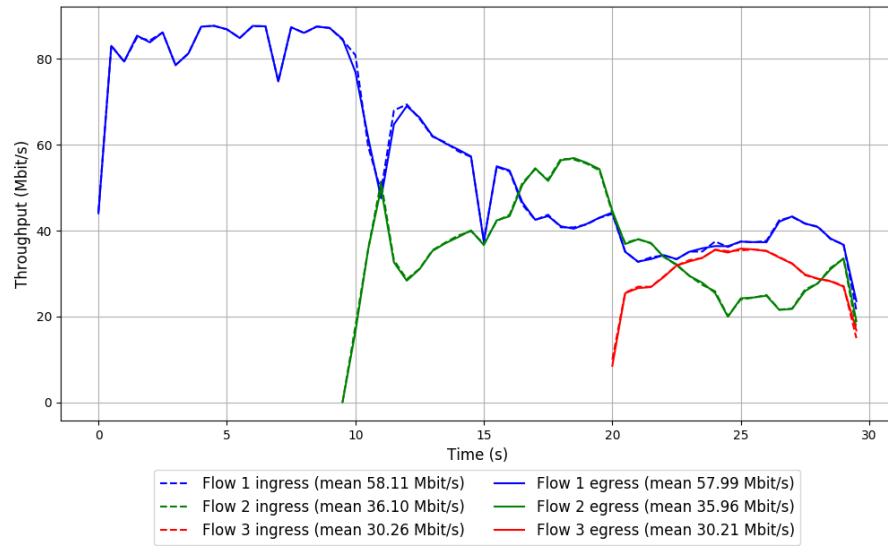
-- Flow 3:

Average throughput: 30.21 Mbit/s

95th percentile per-packet one-way delay: 31.370 ms

Loss rate: 0.15%

Run 10: Report of QUIC Cubic — Data Link

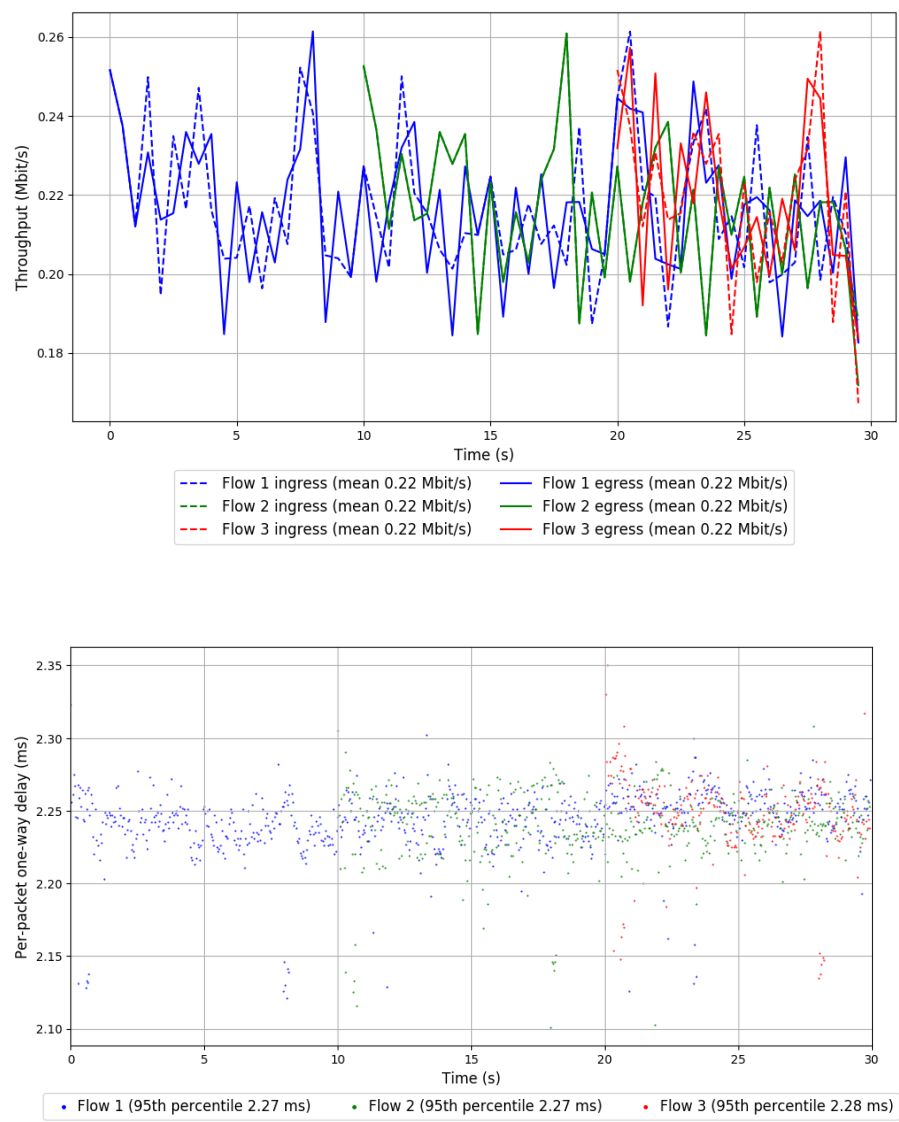


```
Run 1: Statistics of SReAM

Start at: 2017-12-20 07:58:22
End at: 2017-12-20 07:58:52
Local clock offset: -0.011 ms
Remote clock offset: 0.244 ms

# Below is generated by plot.py at 2017-12-20 11:06:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.272 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.269 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.271 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.284 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

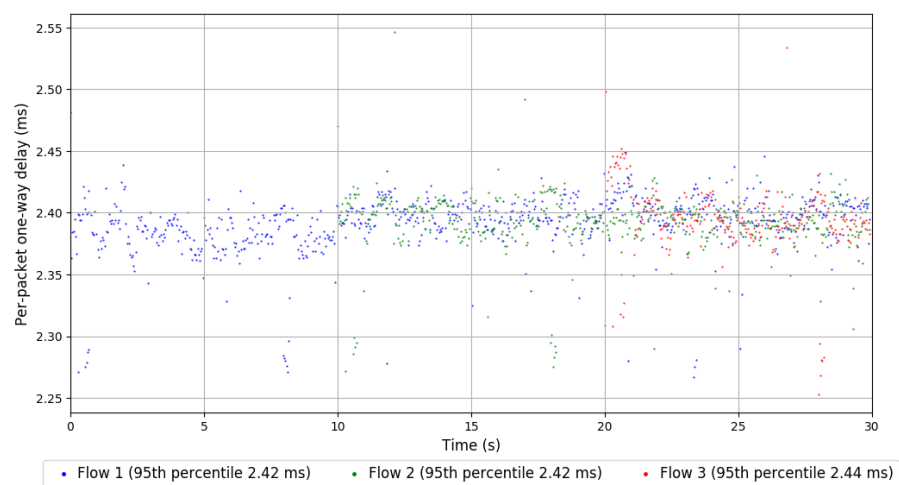
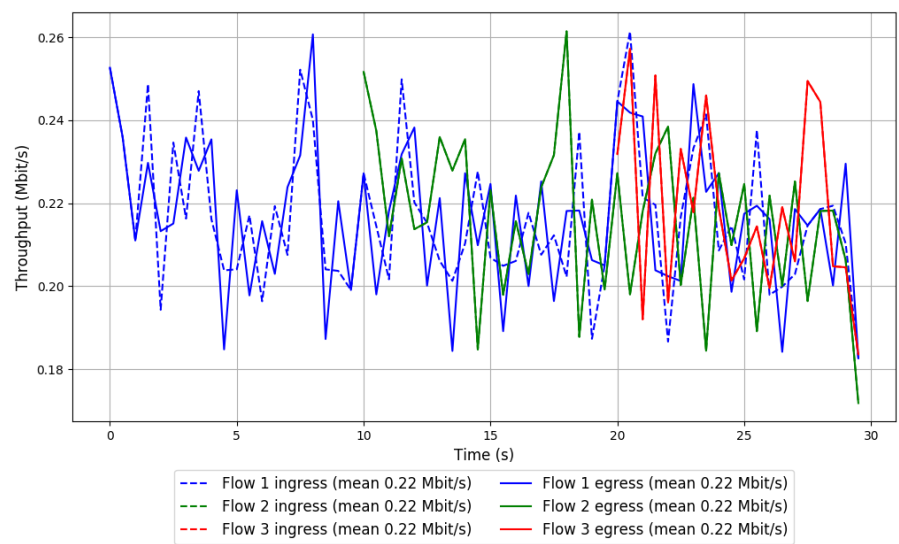


```
Run 2: Statistics of SReAM

Start at: 2017-12-20 08:15:31
End at: 2017-12-20 08:16:01
Local clock offset: -0.091 ms
Remote clock offset: 0.152 ms

# Below is generated by plot.py at 2017-12-20 11:06:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.420 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.418 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.418 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.438 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2017-12-20 08:32:37

End at: 2017-12-20 08:33:07

Local clock offset: -0.04 ms

Remote clock offset: 0.62 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 2.343 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.347 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.338 ms

Loss rate: 0.00%

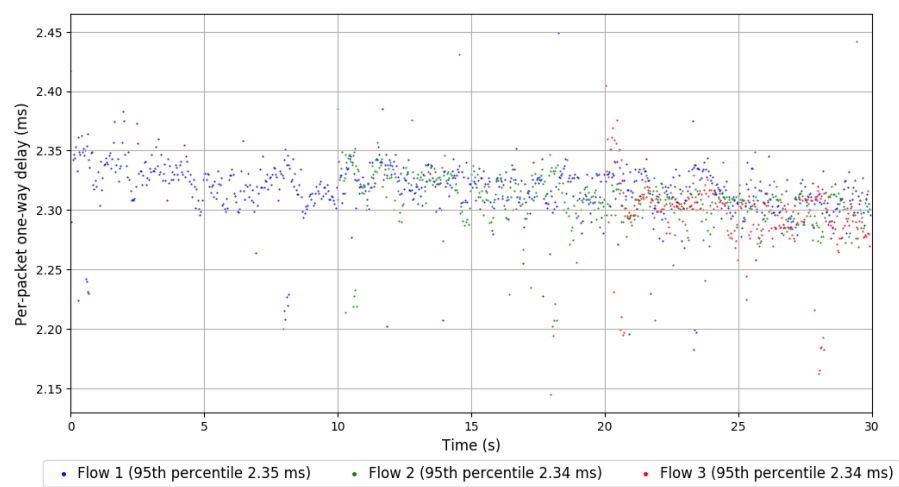
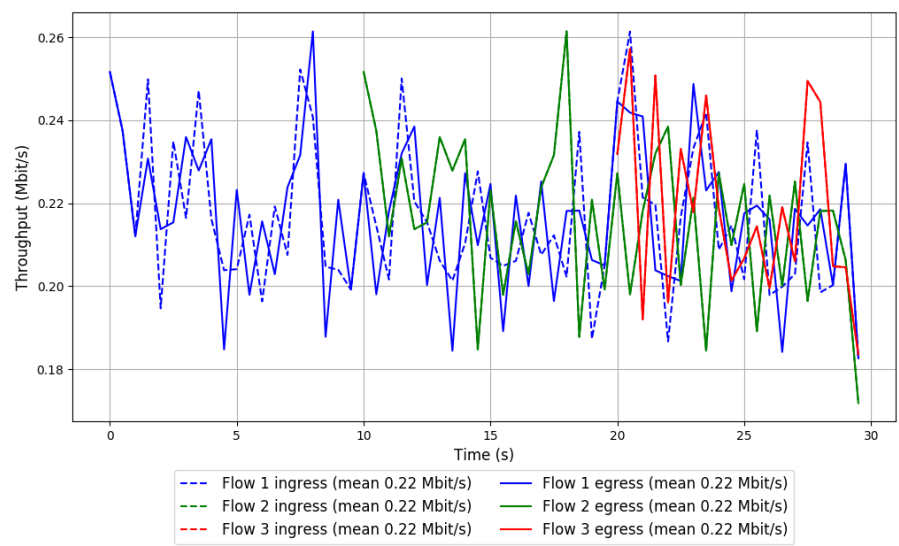
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.340 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2017-12-20 08:49:44

End at: 2017-12-20 08:50:14

Local clock offset: -0.057 ms

Remote clock offset: 1.612 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 2.324 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.320 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.321 ms

Loss rate: 0.00%

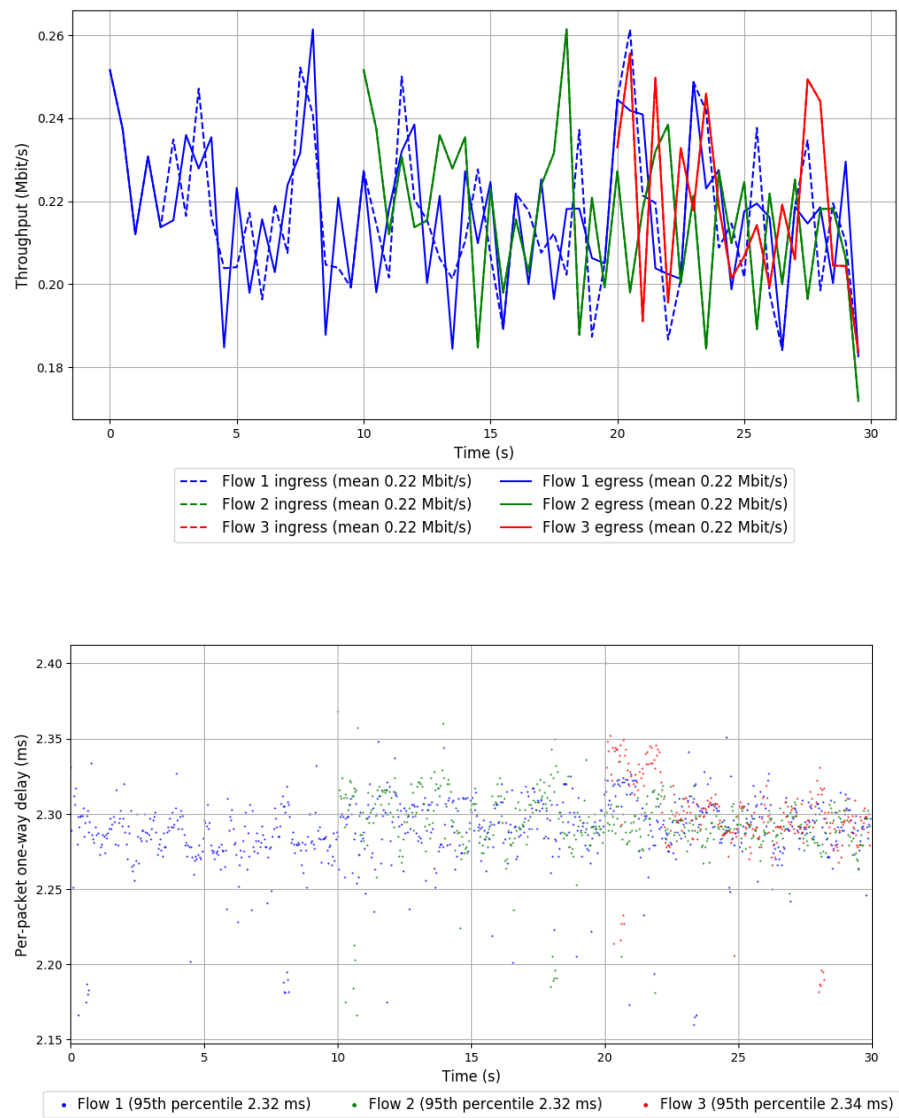
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.343 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2017-12-20 09:06:51

End at: 2017-12-20 09:07:21

Local clock offset: -0.069 ms

Remote clock offset: 1.836 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 2.268 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.261 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.258 ms

Loss rate: 0.00%

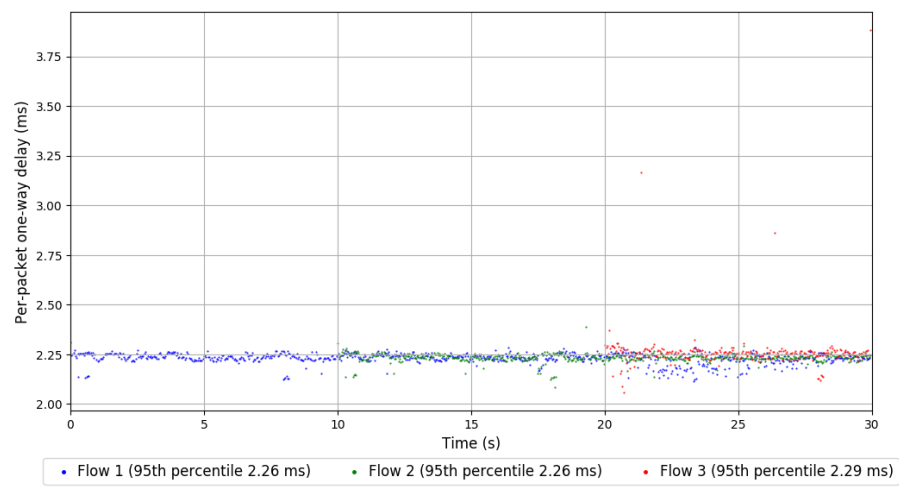
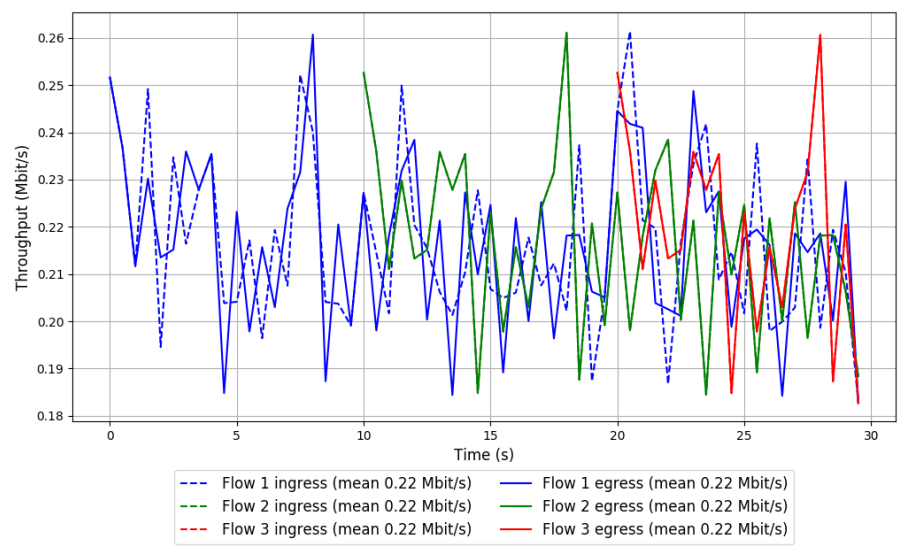
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.291 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2017-12-20 09:23:58

End at: 2017-12-20 09:24:28

Local clock offset: -0.153 ms

Remote clock offset: 2.088 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 2.414 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.416 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.410 ms

Loss rate: 0.00%

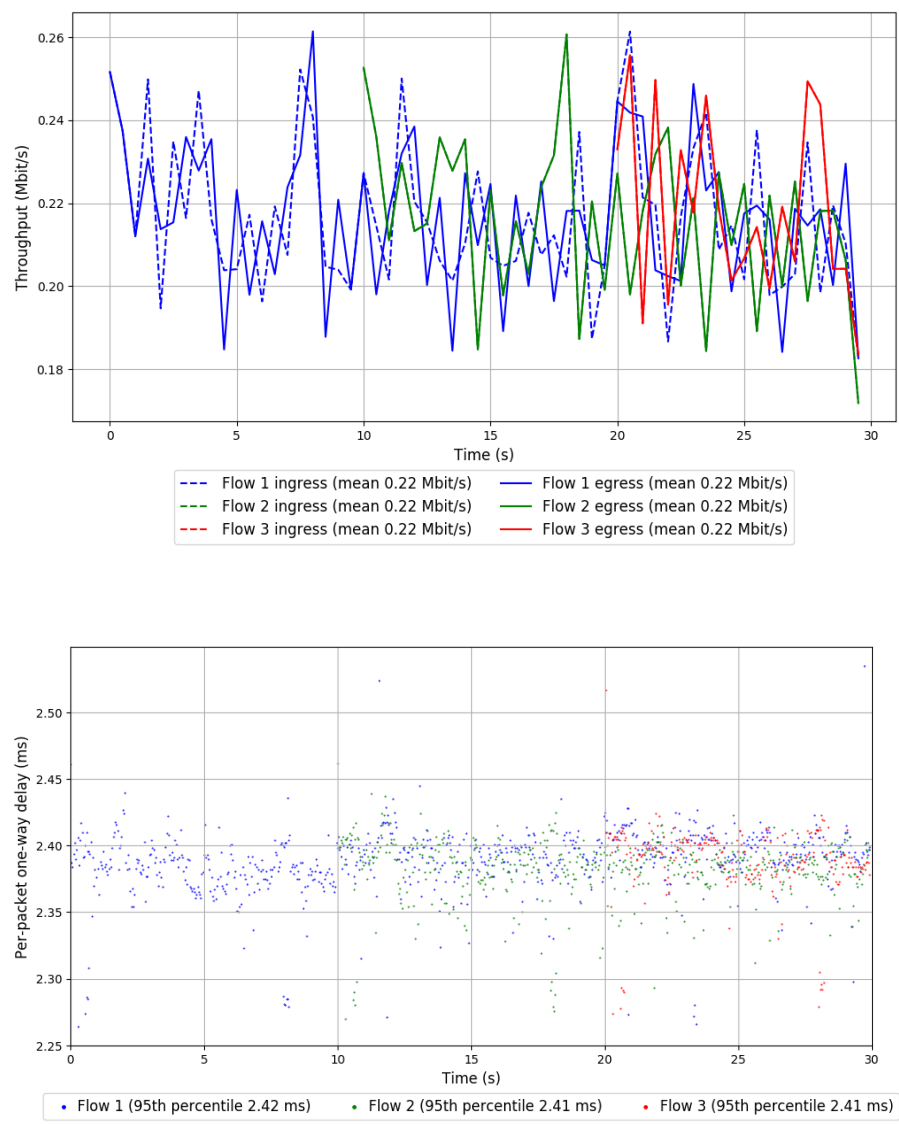
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.412 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link

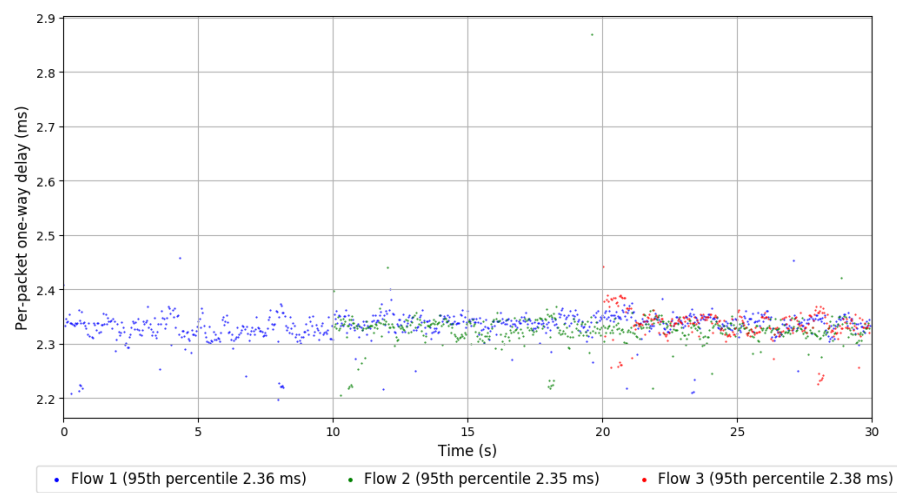
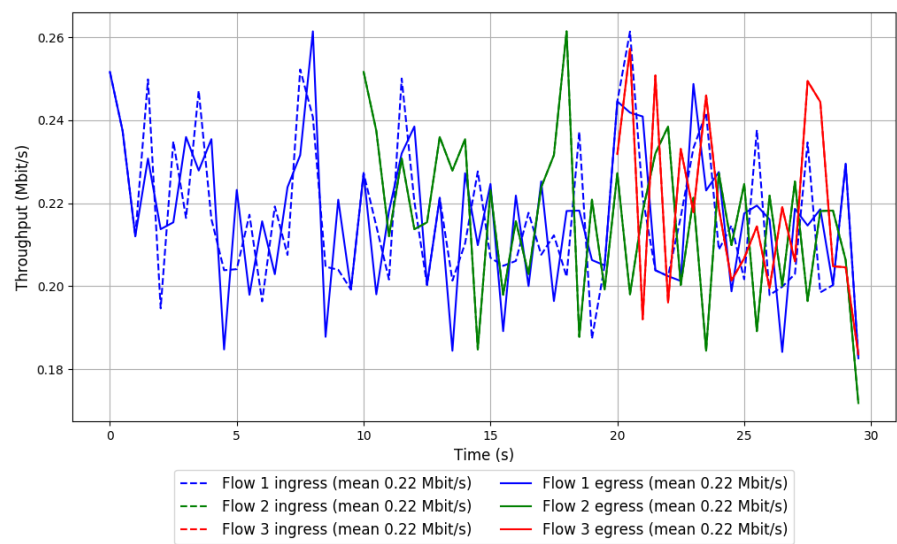


Run 7: Statistics of SReAM

Start at: 2017-12-20 09:41:05
End at: 2017-12-20 09:41:35
Local clock offset: -0.1 ms
Remote clock offset: 2.127 ms

Below is generated by plot.py at 2017-12-20 11:06:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.360 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.360 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.351 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.379 ms
Loss rate: 0.00%

Run 7: Report of SReAM — Data Link

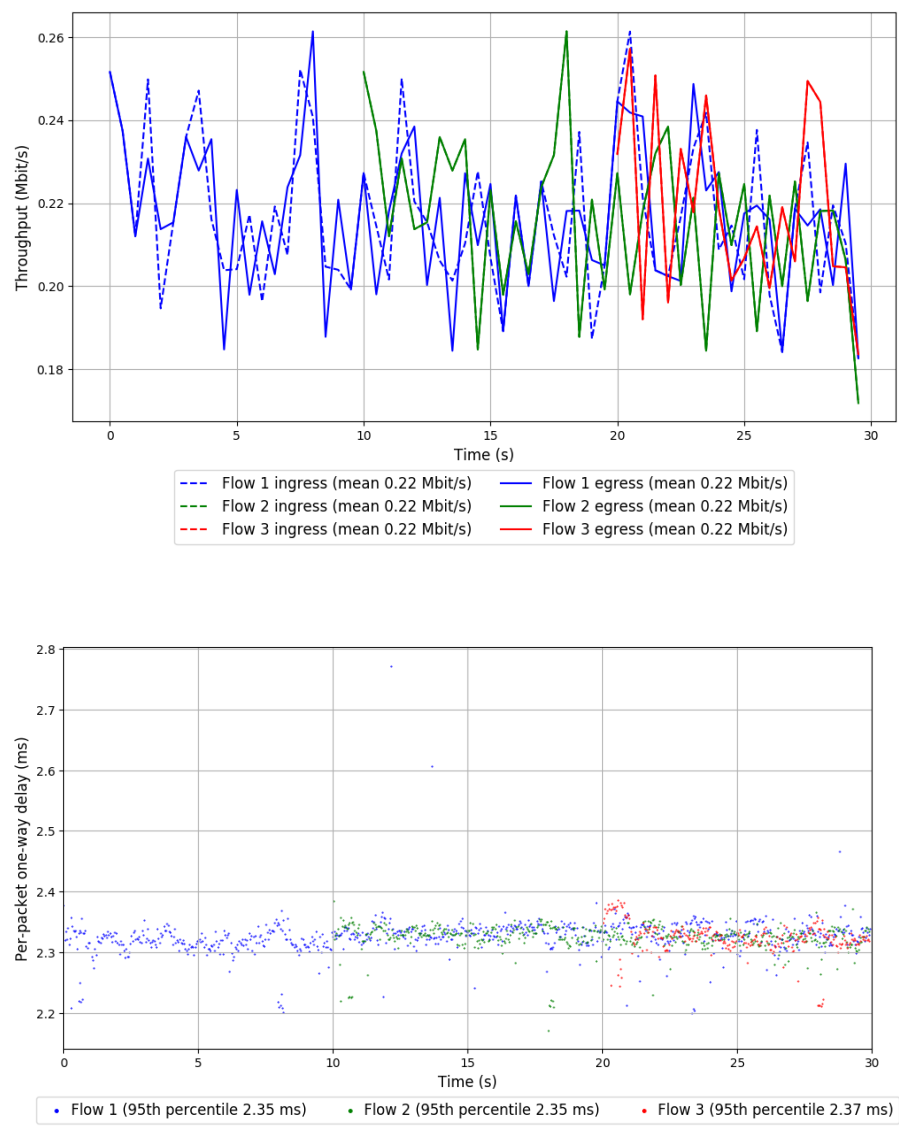


Run 8: Statistics of SReAM

Start at: 2017-12-20 09:58:13
End at: 2017-12-20 09:58:43
Local clock offset: -0.089 ms
Remote clock offset: 2.125 ms

Below is generated by plot.py at 2017-12-20 11:06:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.354 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.349 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.370 ms
Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-12-20 10:15:22

End at: 2017-12-20 10:15:52

Local clock offset: -0.089 ms

Remote clock offset: 2.212 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 2.355 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.356 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.340 ms

Loss rate: 0.00%

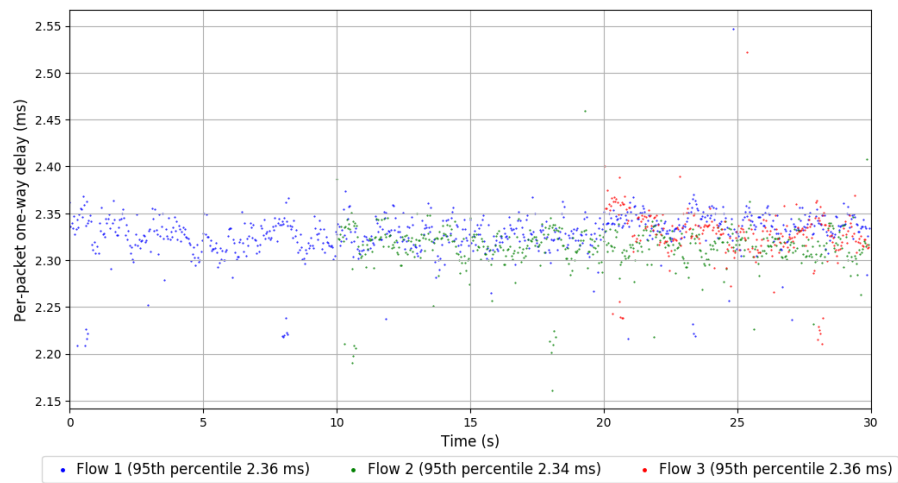
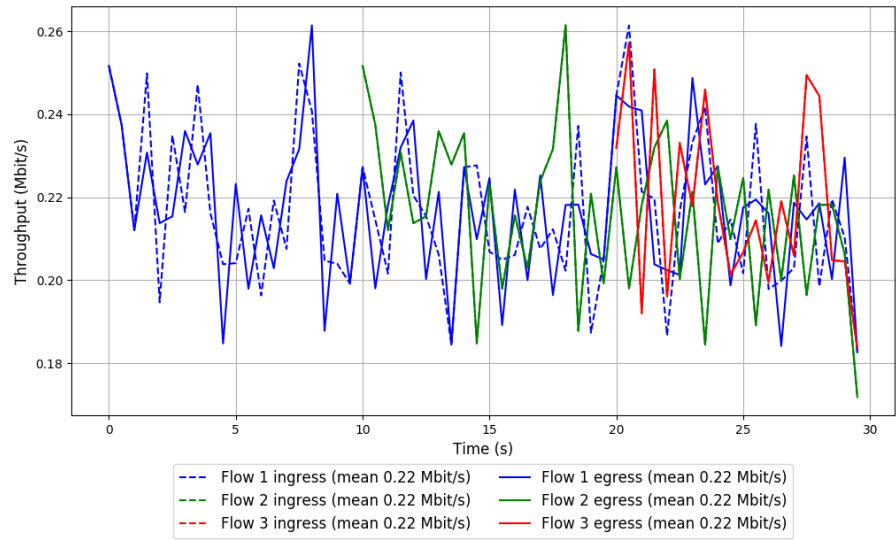
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.362 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link

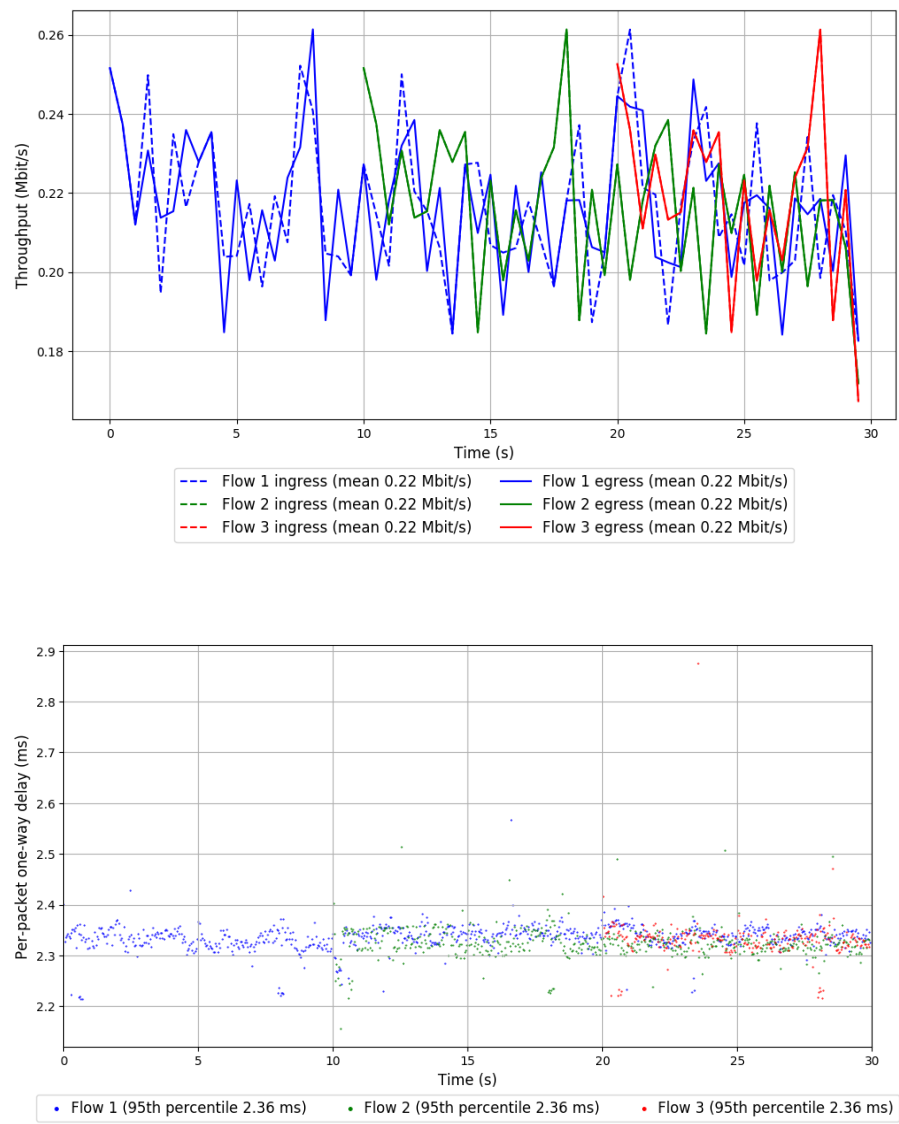


```
Run 10: Statistics of SCReAM

Start at: 2017-12-20 10:32:30
End at: 2017-12-20 10:33:00
Local clock offset: -0.098 ms
Remote clock offset: 2.233 ms

# Below is generated by plot.py at 2017-12-20 11:06:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.363 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.364 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.359 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.361 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link



Run 1: Statistics of WebRTC media

Start at: 2017-12-20 08:00:34

End at: 2017-12-20 08:01:04

Local clock offset: -0.011 ms

Remote clock offset: 0.297 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 5.629 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 4.736 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 5.413 ms

Loss rate: 0.06%

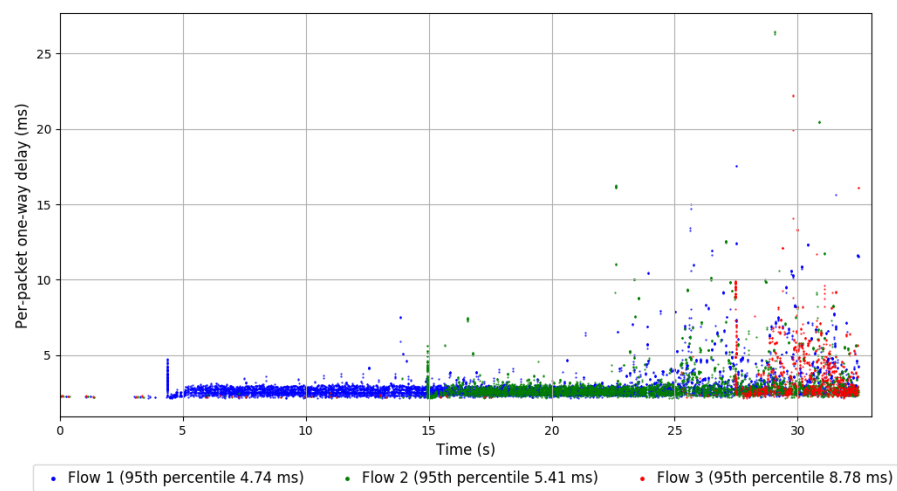
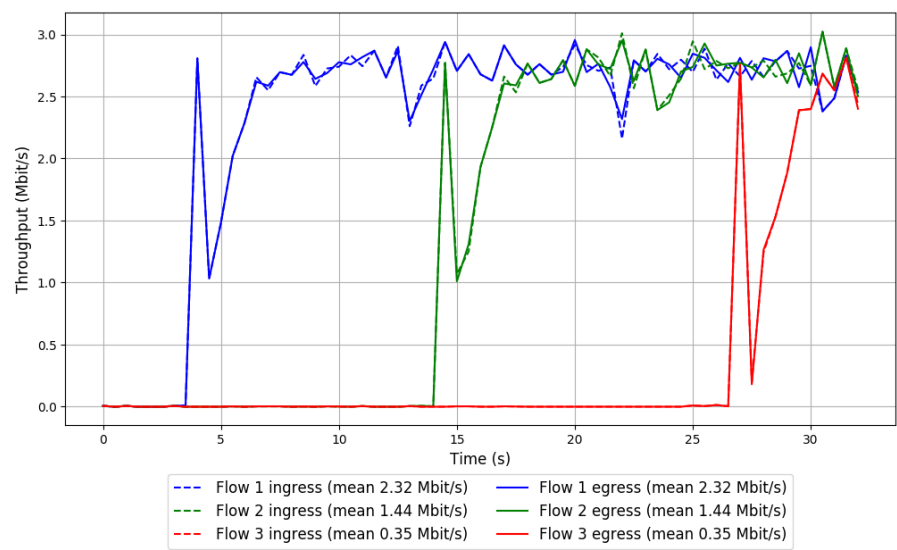
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 8.775 ms

Loss rate: 0.17%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-12-20 08:17:42

End at: 2017-12-20 08:18:12

Local clock offset: -0.032 ms

Remote clock offset: 0.122 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 5.779 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 5.413 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 5.758 ms

Loss rate: 0.02%

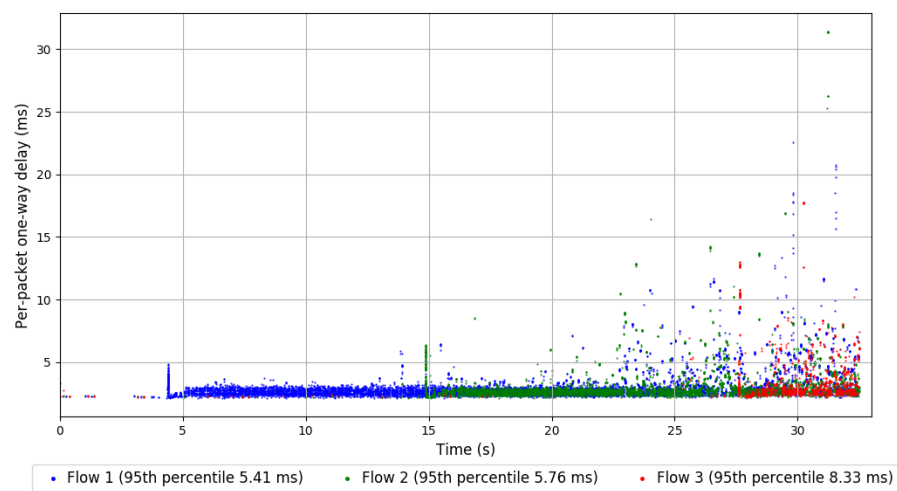
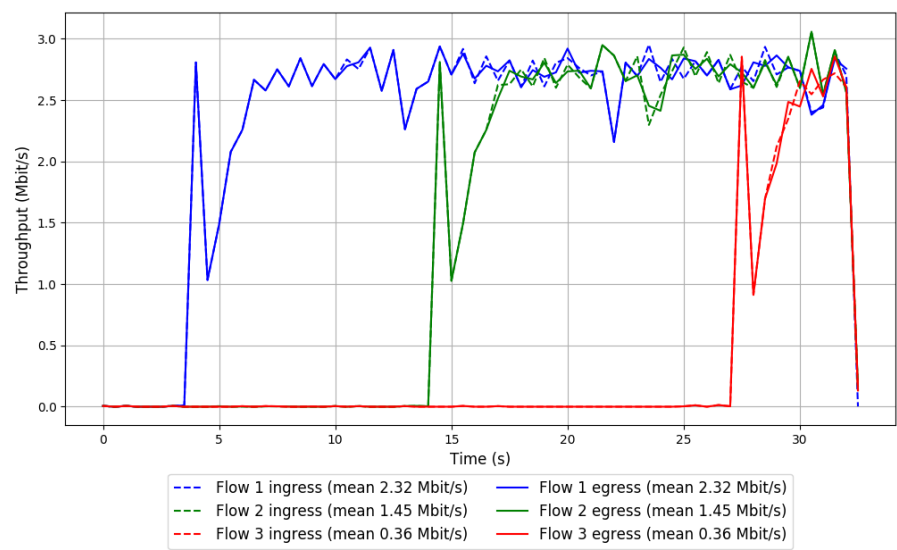
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 8.328 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-20 08:34:48

End at: 2017-12-20 08:35:18

Local clock offset: -0.126 ms

Remote clock offset: 0.773 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 6.082 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 6.026 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 5.714 ms

Loss rate: 0.00%

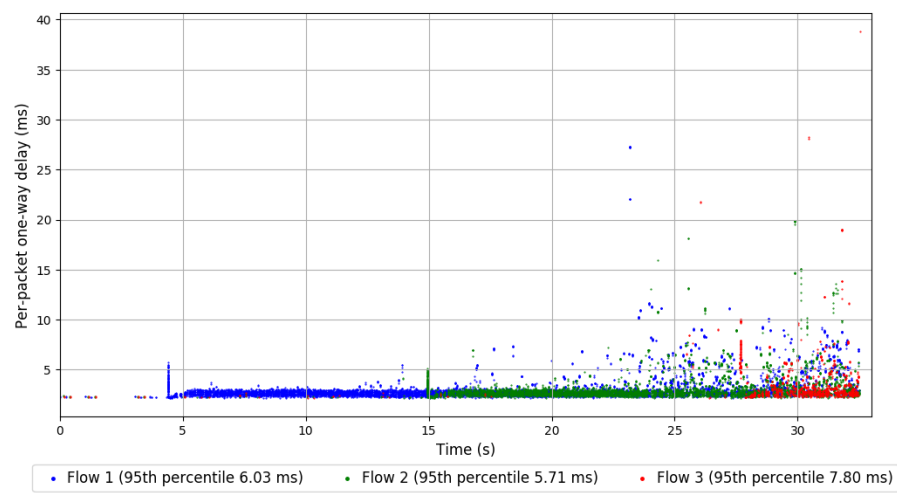
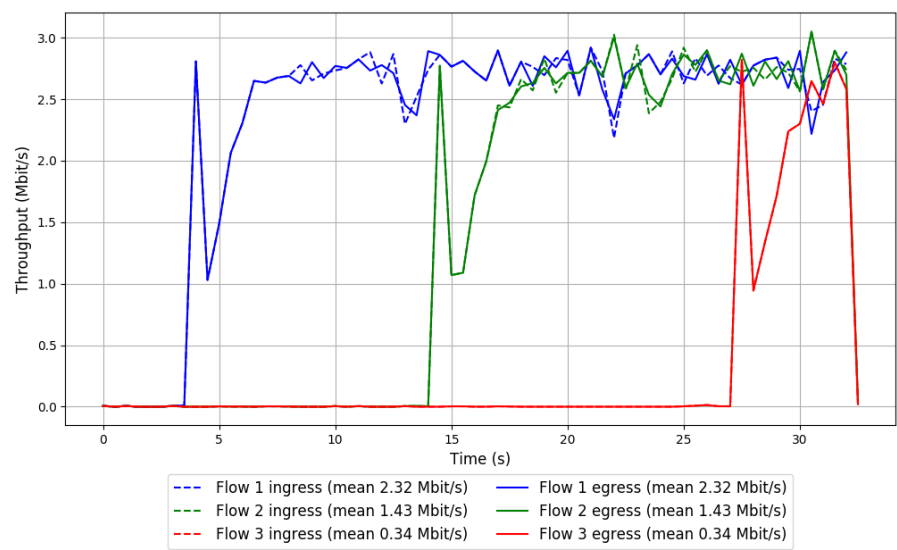
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 7.796 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-12-20 08:51:55

End at: 2017-12-20 08:52:25

Local clock offset: -0.062 ms

Remote clock offset: 1.657 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 6.265 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 5.901 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 6.461 ms

Loss rate: 0.02%

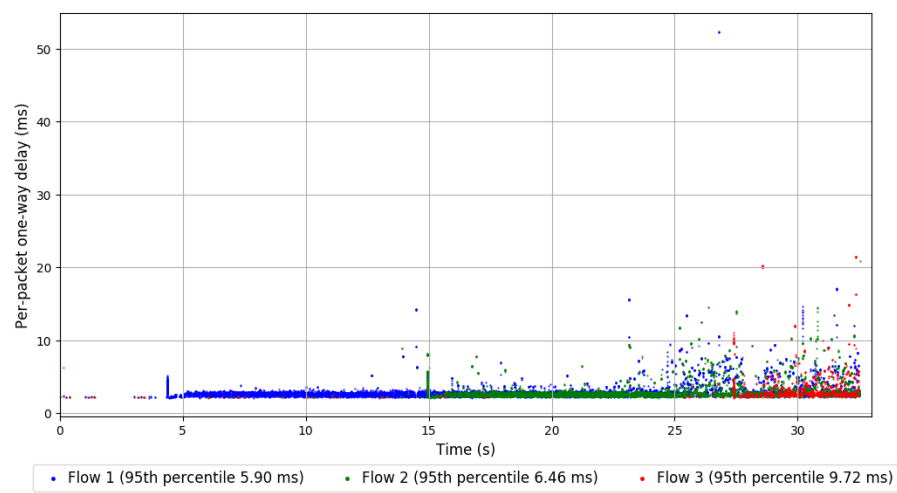
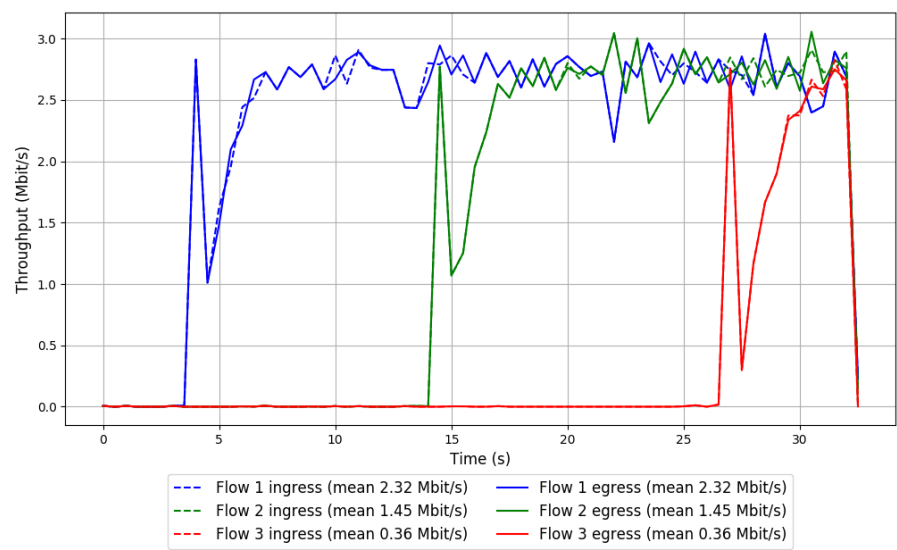
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 9.720 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-20 09:09:02

End at: 2017-12-20 09:09:32

Local clock offset: -0.076 ms

Remote clock offset: 1.948 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 5.818 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 5.215 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 5.790 ms

Loss rate: 0.00%

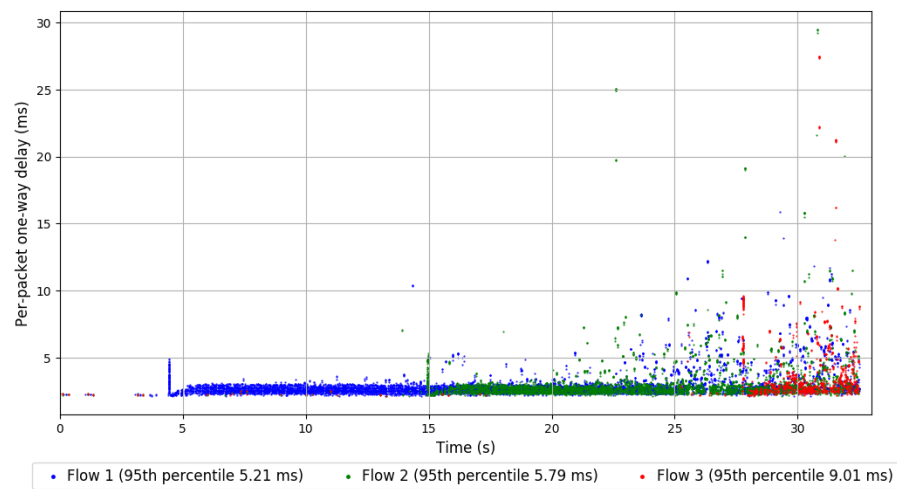
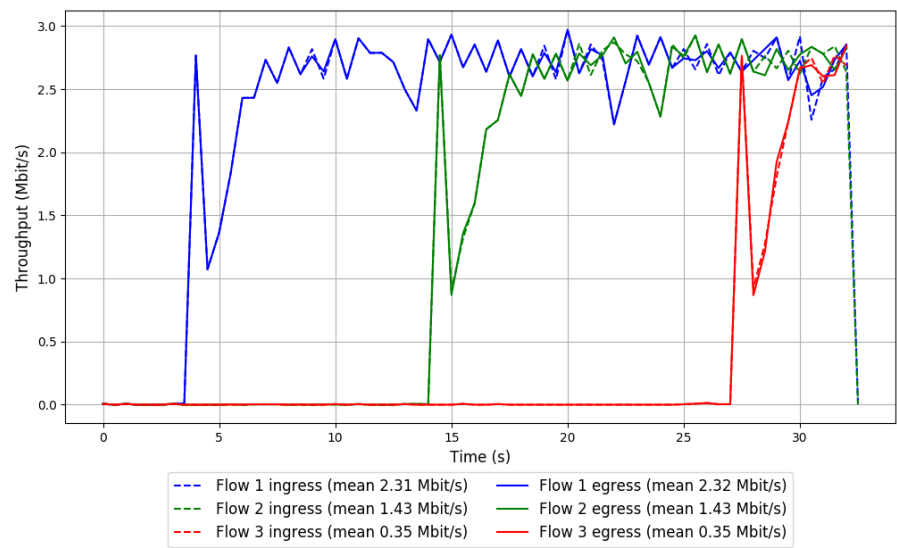
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 9.008 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-20 09:26:09

End at: 2017-12-20 09:26:39

Local clock offset: -0.094 ms

Remote clock offset: 2.099 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 5.943 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 6.062 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 5.807 ms

Loss rate: 0.00%

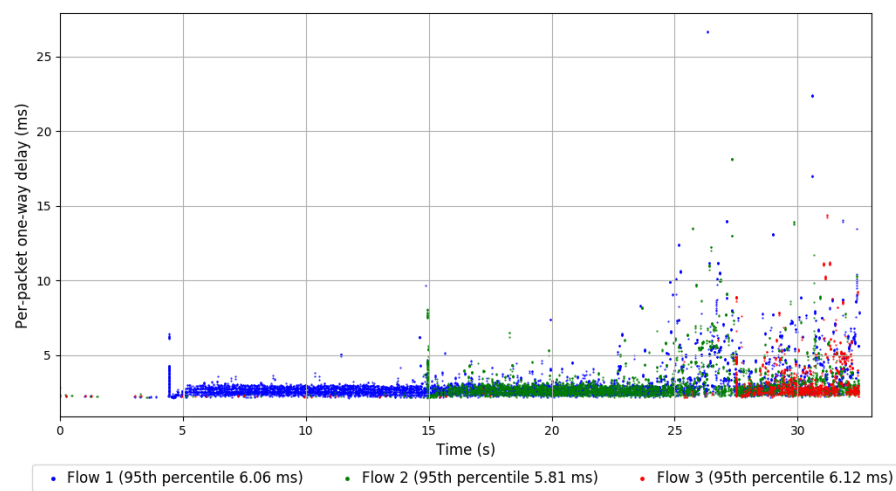
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 6.118 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-12-20 09:43:16

End at: 2017-12-20 09:43:46

Local clock offset: -0.095 ms

Remote clock offset: 2.126 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 5.998 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 5.233 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 6.107 ms

Loss rate: 0.00%

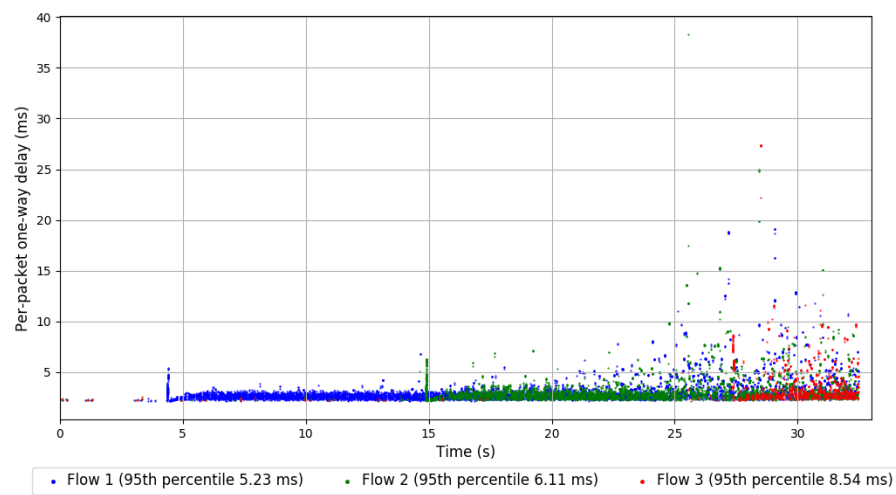
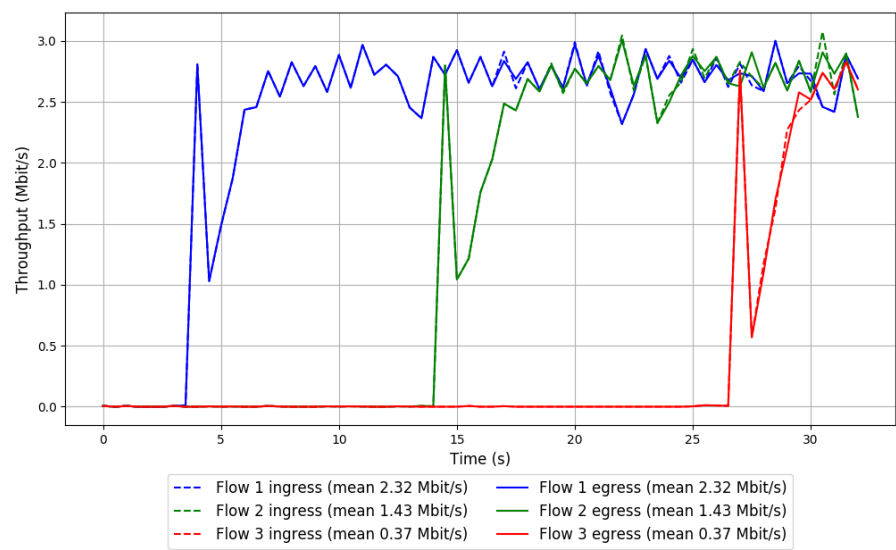
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 8.544 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-12-20 10:00:24

End at: 2017-12-20 10:00:54

Local clock offset: -0.077 ms

Remote clock offset: 2.132 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.09 Mbit/s

95th percentile per-packet one-way delay: 5.725 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 5.374 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 6.081 ms

Loss rate: 0.00%

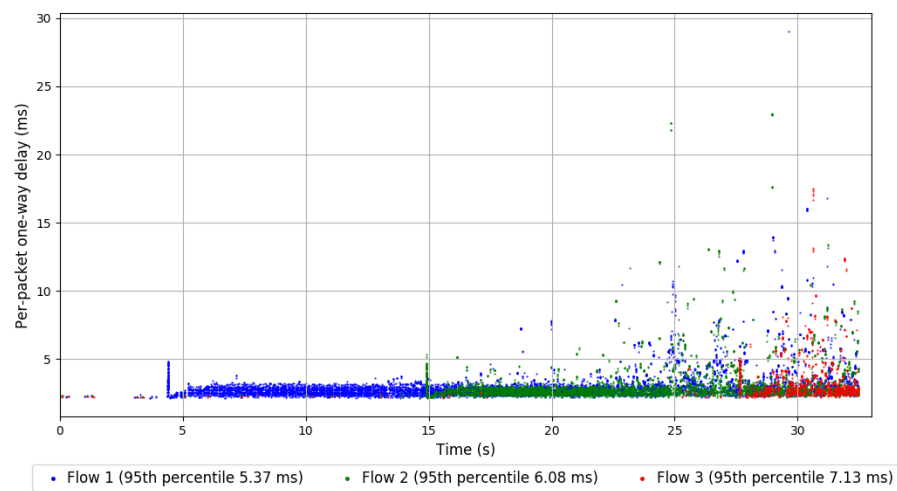
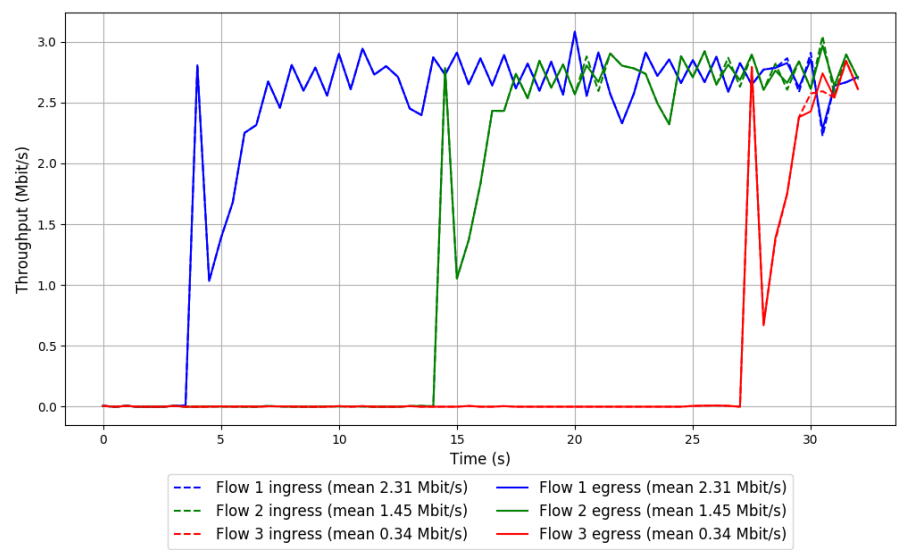
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 7.128 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-20 10:17:33

End at: 2017-12-20 10:18:03

Local clock offset: -0.082 ms

Remote clock offset: 2.212 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 5.939 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 5.395 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 6.216 ms

Loss rate: 0.00%

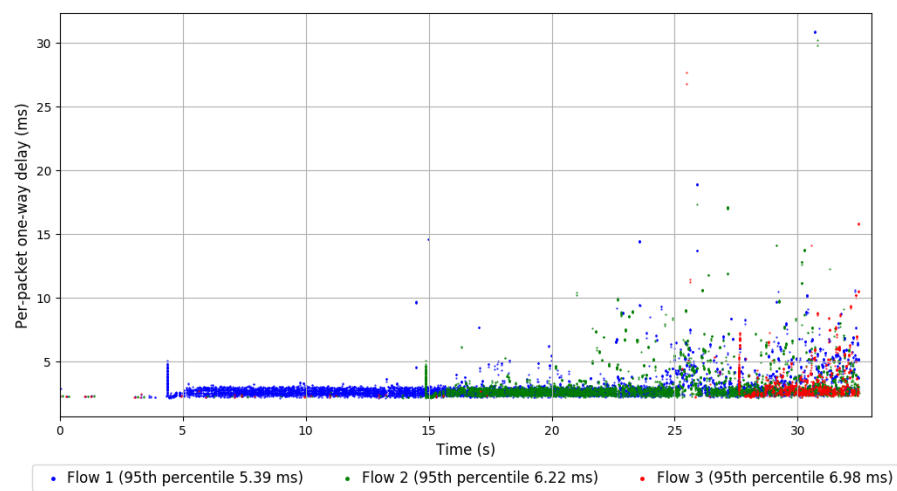
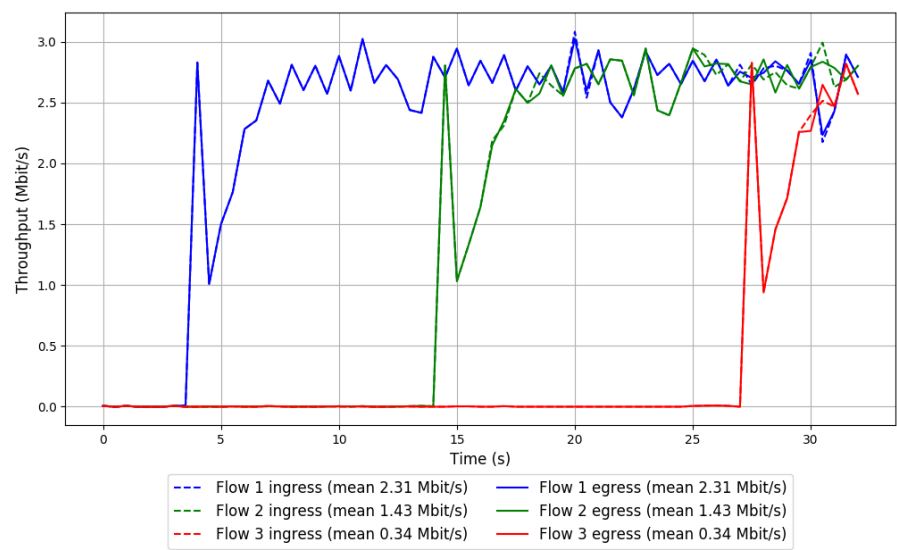
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 6.978 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-20 10:34:41

End at: 2017-12-20 10:35:11

Local clock offset: -0.083 ms

Remote clock offset: 2.252 ms

Below is generated by plot.py at 2017-12-20 11:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 5.523 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 5.060 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 5.653 ms

Loss rate: 0.00%

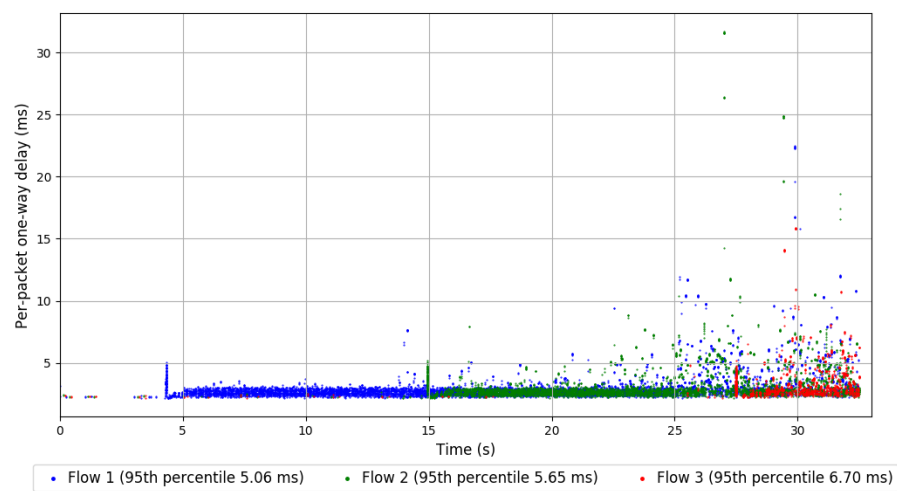
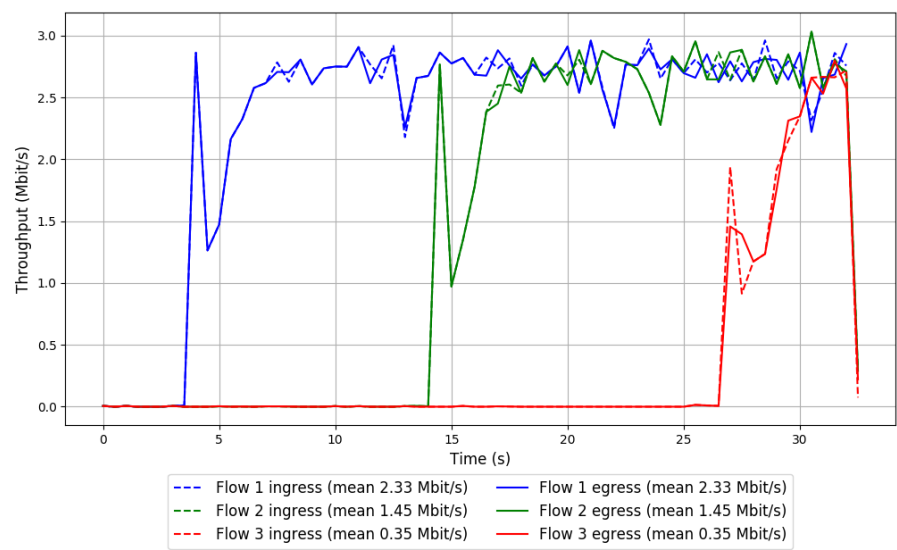
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 6.696 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-12-20 07:48:00

End at: 2017-12-20 07:48:30

Local clock offset: -0.059 ms

Remote clock offset: 0.421 ms

Below is generated by plot.py at 2017-12-20 11:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.14 Mbit/s

95th percentile per-packet one-way delay: 21.940 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 42.56 Mbit/s

95th percentile per-packet one-way delay: 20.853 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 37.31 Mbit/s

95th percentile per-packet one-way delay: 21.455 ms

Loss rate: 0.00%

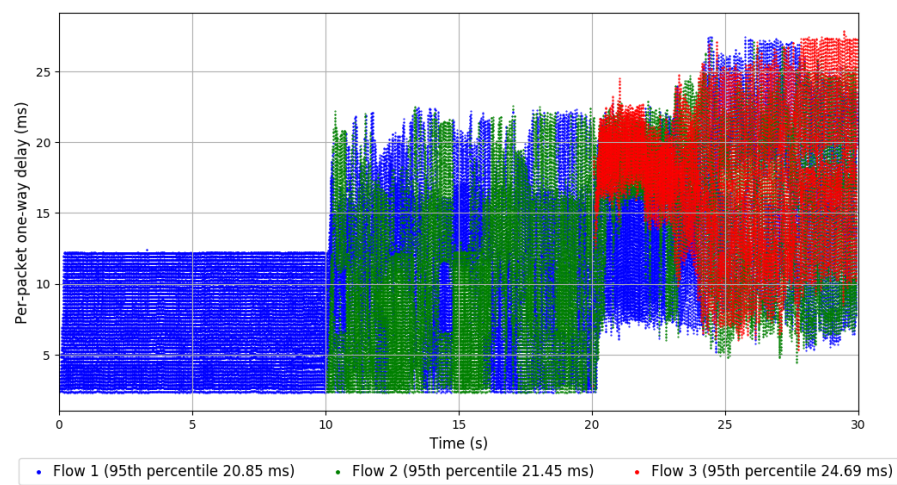
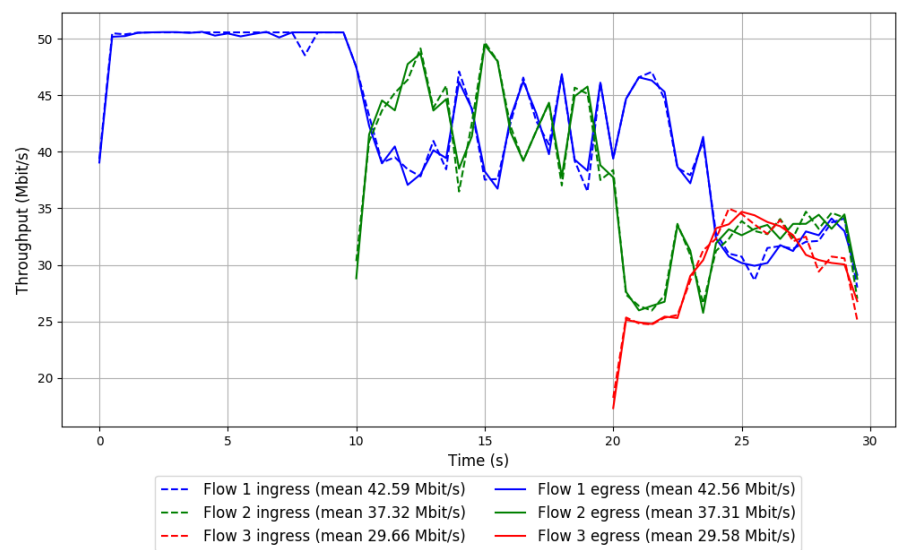
-- Flow 3:

Average throughput: 29.58 Mbit/s

95th percentile per-packet one-way delay: 24.694 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

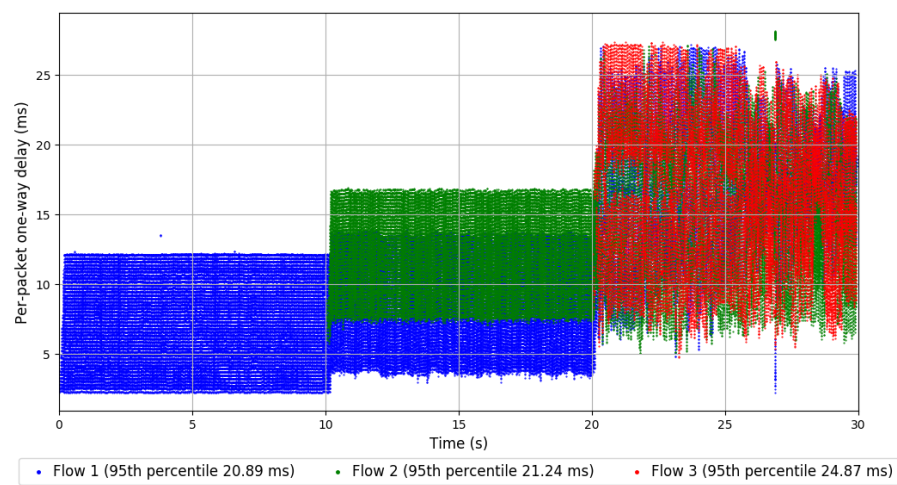
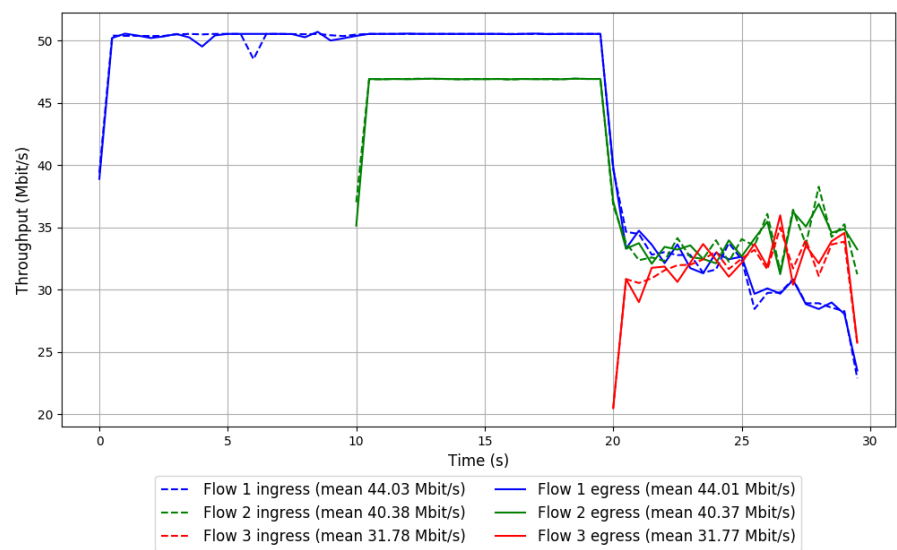


Run 2: Statistics of Sprout

Start at: 2017-12-20 08:05:08
End at: 2017-12-20 08:05:38
Local clock offset: -0.011 ms
Remote clock offset: 0.189 ms

```
# Below is generated by plot.py at 2017-12-20 11:06:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.34 Mbit/s
95th percentile per-packet one-way delay: 22.110 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.01 Mbit/s
95th percentile per-packet one-way delay: 20.885 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.37 Mbit/s
95th percentile per-packet one-way delay: 21.241 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.77 Mbit/s
95th percentile per-packet one-way delay: 24.872 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

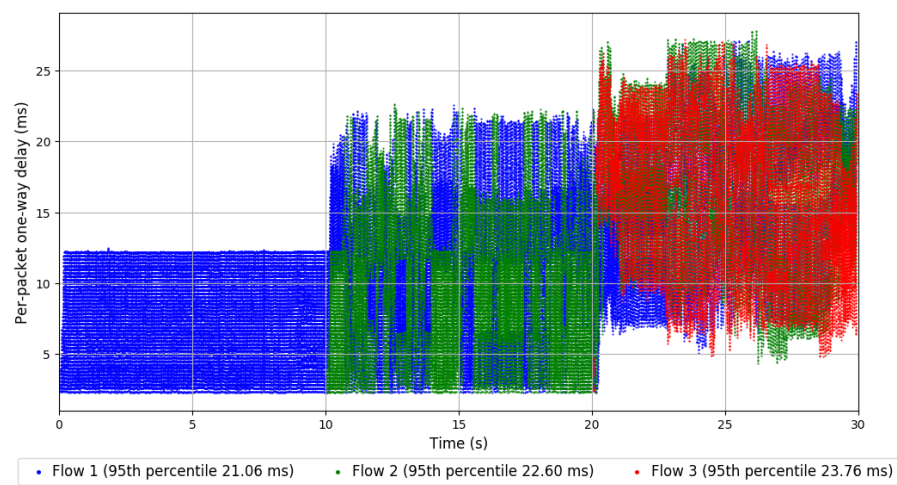
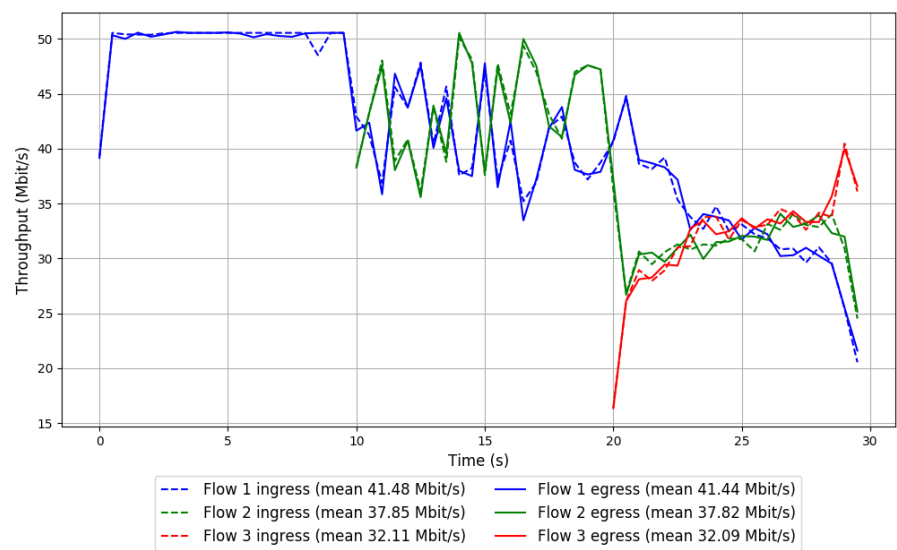


Run 3: Statistics of Sprout

Start at: 2017-12-20 08:22:17
End at: 2017-12-20 08:22:47
Local clock offset: -0.037 ms
Remote clock offset: 0.102 ms

```
# Below is generated by plot.py at 2017-12-20 11:06:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.18 Mbit/s
95th percentile per-packet one-way delay: 22.326 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.44 Mbit/s
95th percentile per-packet one-way delay: 21.060 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.82 Mbit/s
95th percentile per-packet one-way delay: 22.603 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.09 Mbit/s
95th percentile per-packet one-way delay: 23.758 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

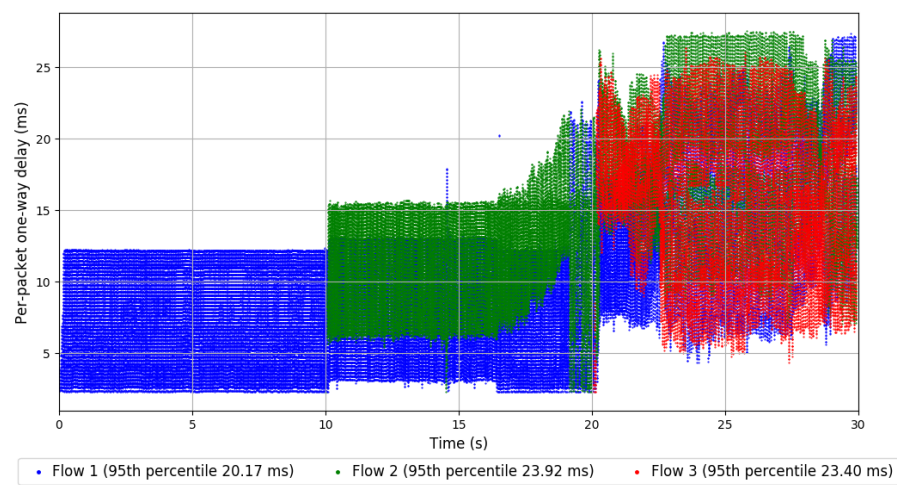
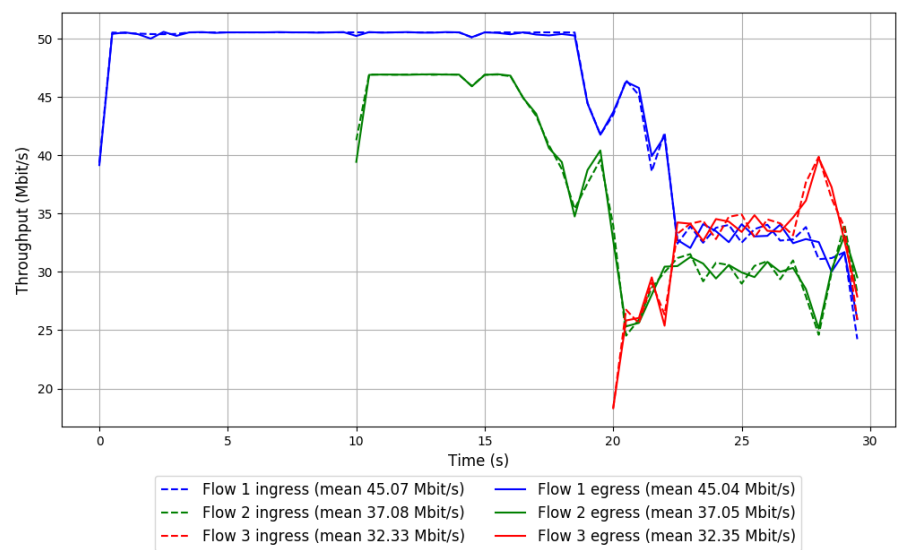


Run 4: Statistics of Sprout

Start at: 2017-12-20 08:39:23
End at: 2017-12-20 08:39:53
Local clock offset: -0.056 ms
Remote clock offset: 1.151 ms

```
# Below is generated by plot.py at 2017-12-20 11:06:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.36 Mbit/s
95th percentile per-packet one-way delay: 22.271 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.04 Mbit/s
95th percentile per-packet one-way delay: 20.167 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.05 Mbit/s
95th percentile per-packet one-way delay: 23.918 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.35 Mbit/s
95th percentile per-packet one-way delay: 23.400 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

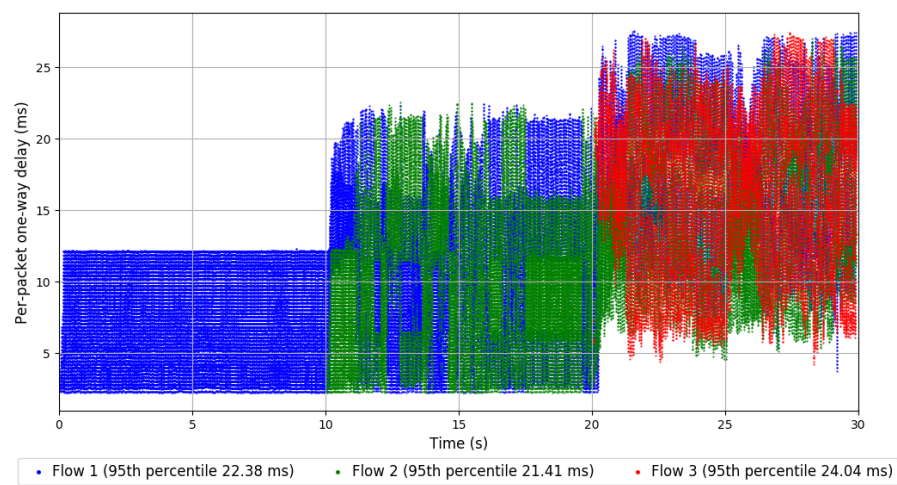
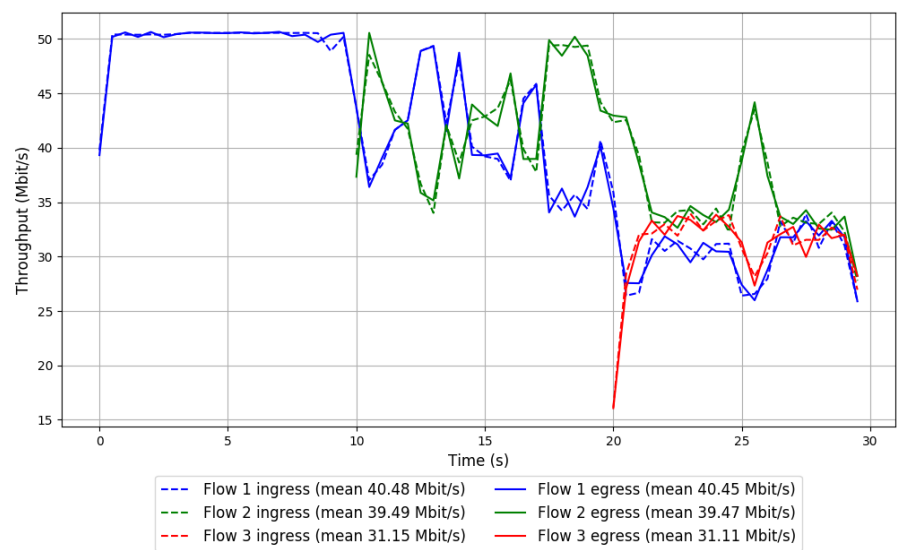


Run 5: Statistics of Sprout

Start at: 2017-12-20 08:56:29
End at: 2017-12-20 08:56:59
Local clock offset: -0.08 ms
Remote clock offset: 1.747 ms

Below is generated by plot.py at 2017-12-20 11:06:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.00 Mbit/s
95th percentile per-packet one-way delay: 22.576 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 22.376 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.47 Mbit/s
95th percentile per-packet one-way delay: 21.408 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 31.11 Mbit/s
95th percentile per-packet one-way delay: 24.044 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

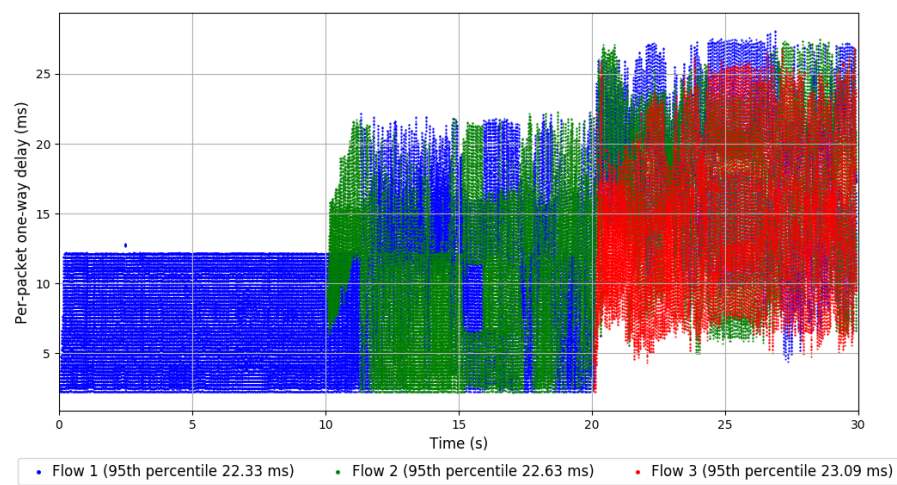
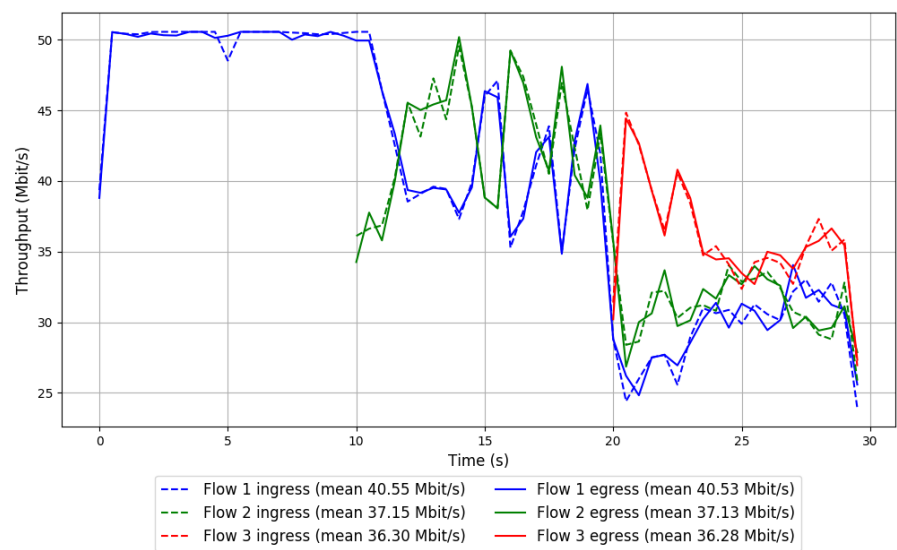


Run 6: Statistics of Sprout

Start at: 2017-12-20 09:13:37
End at: 2017-12-20 09:14:07
Local clock offset: -0.075 ms
Remote clock offset: 1.953 ms

Below is generated by plot.py at 2017-12-20 11:06:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.20 Mbit/s
95th percentile per-packet one-way delay: 22.617 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.53 Mbit/s
95th percentile per-packet one-way delay: 22.331 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.13 Mbit/s
95th percentile per-packet one-way delay: 22.633 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.28 Mbit/s
95th percentile per-packet one-way delay: 23.087 ms
Loss rate: 0.00%

Run 6: Report of Sprout — Data Link

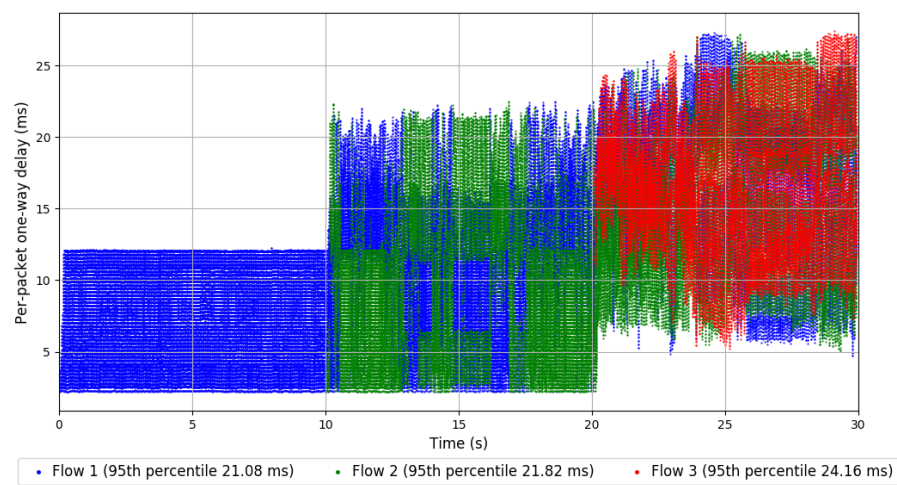
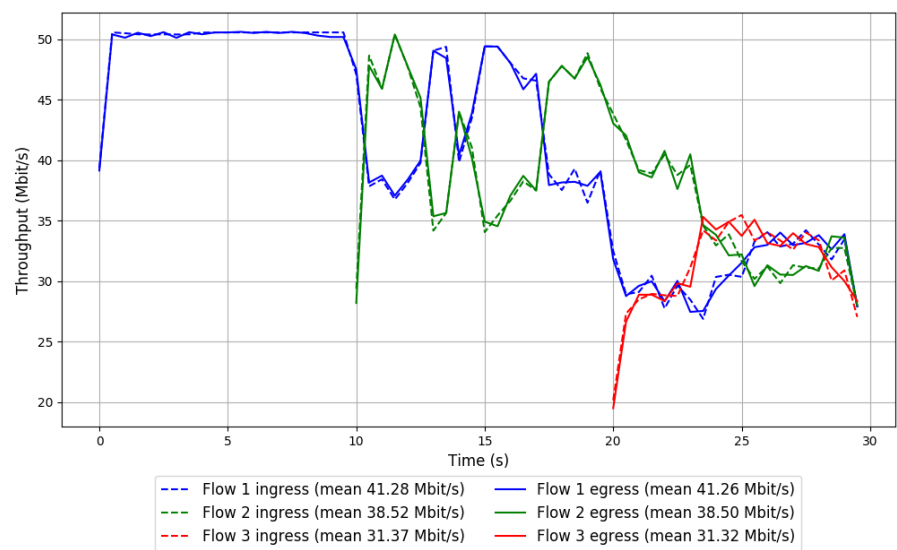


Run 7: Statistics of Sprout

Start at: 2017-12-20 09:30:44
End at: 2017-12-20 09:31:14
Local clock offset: -0.102 ms
Remote clock offset: 2.045 ms

```
# Below is generated by plot.py at 2017-12-20 11:06:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.21 Mbit/s
95th percentile per-packet one-way delay: 22.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.26 Mbit/s
95th percentile per-packet one-way delay: 21.079 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.50 Mbit/s
95th percentile per-packet one-way delay: 21.817 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.32 Mbit/s
95th percentile per-packet one-way delay: 24.165 ms
Loss rate: 0.00%
```

Run 7: Report of Sprout — Data Link

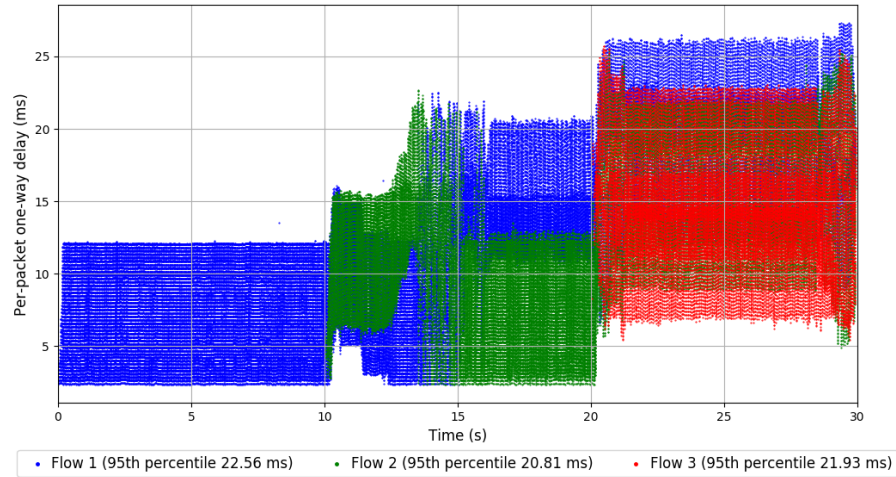
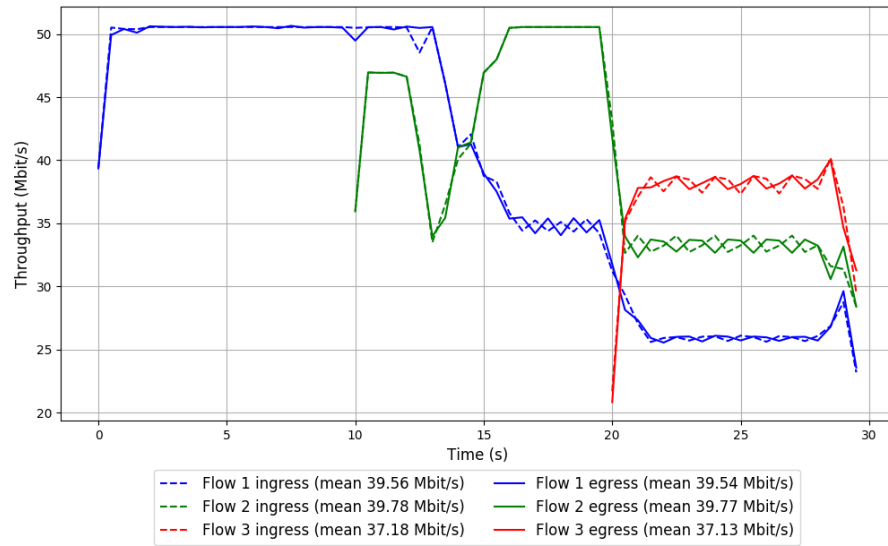


Run 8: Statistics of Sprout

Start at: 2017-12-20 09:47:51
End at: 2017-12-20 09:48:21
Local clock offset: -0.165 ms
Remote clock offset: 2.113 ms

Below is generated by plot.py at 2017-12-20 11:07:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 78.25 Mbit/s
95th percentile per-packet one-way delay: 21.720 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 39.54 Mbit/s
95th percentile per-packet one-way delay: 22.563 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.77 Mbit/s
95th percentile per-packet one-way delay: 20.811 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.13 Mbit/s
95th percentile per-packet one-way delay: 21.935 ms
Loss rate: 0.00%

Run 8: Report of Sprout — Data Link

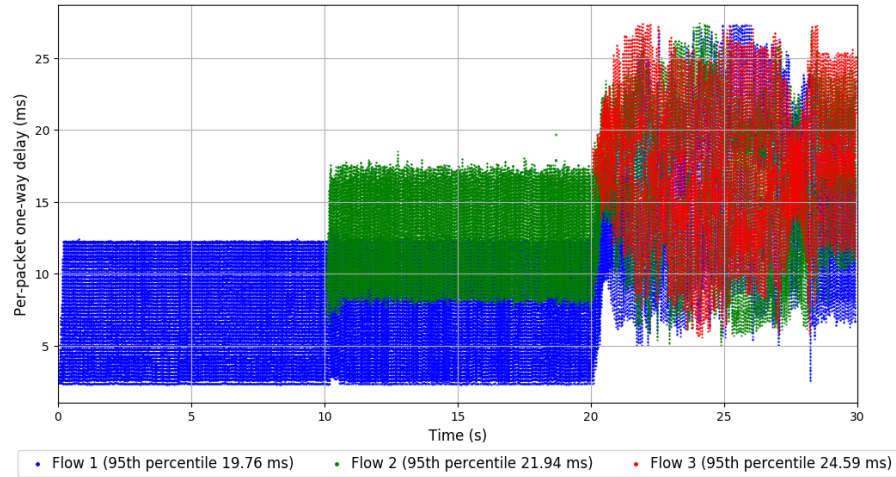
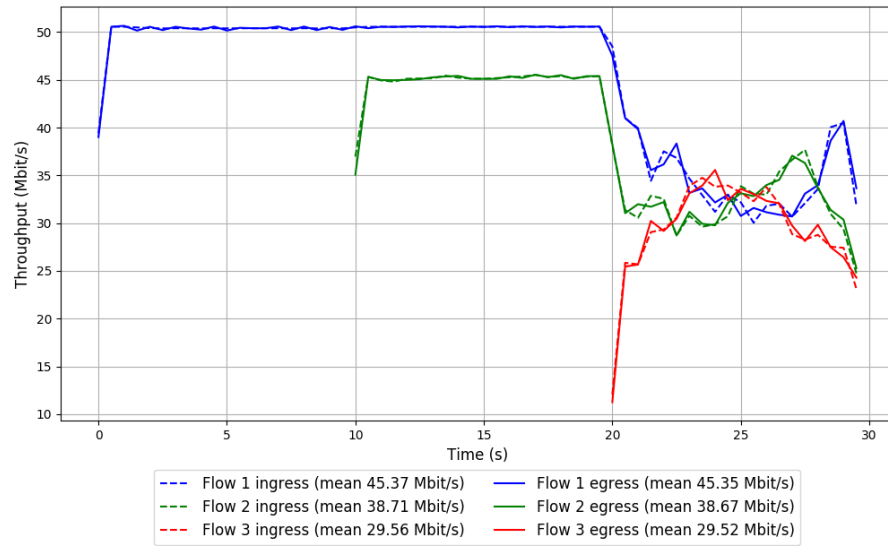


Run 9: Statistics of Sprout

Start at: 2017-12-20 10:04:59
End at: 2017-12-20 10:05:29
Local clock offset: -0.133 ms
Remote clock offset: 2.169 ms

Below is generated by plot.py at 2017-12-20 11:07:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 80.81 Mbit/s
95th percentile per-packet one-way delay: 22.003 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.35 Mbit/s
95th percentile per-packet one-way delay: 19.758 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.67 Mbit/s
95th percentile per-packet one-way delay: 21.940 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 24.595 ms
Loss rate: 0.00%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-12-20 10:22:07

End at: 2017-12-20 10:22:37

Local clock offset: -0.08 ms

Remote clock offset: 2.224 ms

Below is generated by plot.py at 2017-12-20 11:07:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.90 Mbit/s

95th percentile per-packet one-way delay: 22.264 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 44.76 Mbit/s

95th percentile per-packet one-way delay: 19.374 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.87 Mbit/s

95th percentile per-packet one-way delay: 22.487 ms

Loss rate: 0.00%

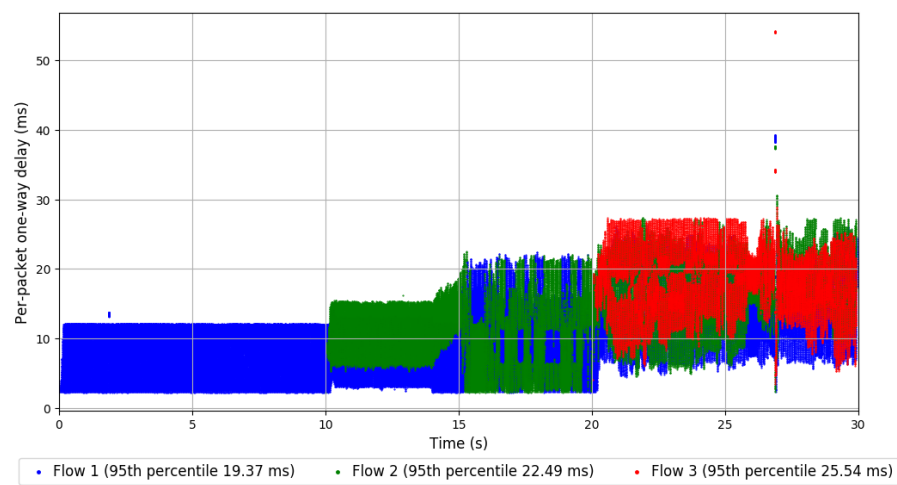
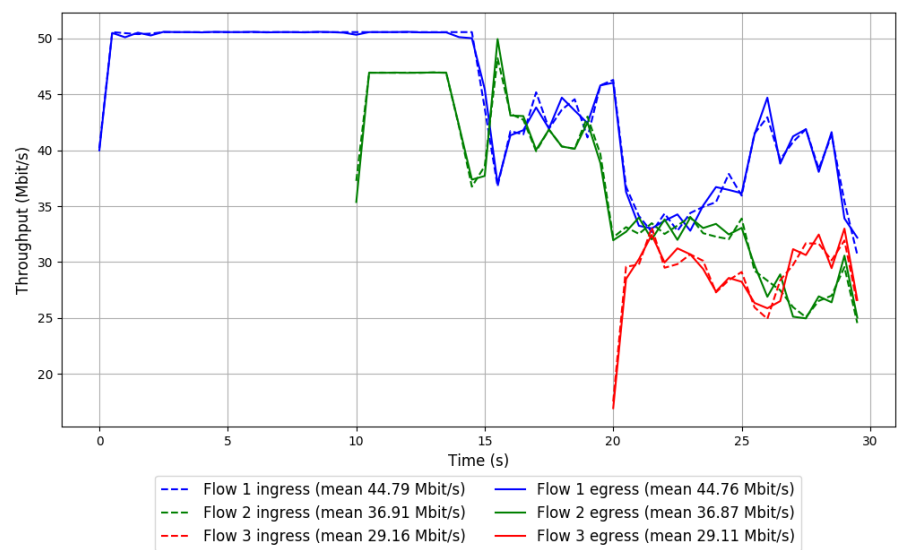
-- Flow 3:

Average throughput: 29.11 Mbit/s

95th percentile per-packet one-way delay: 25.535 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

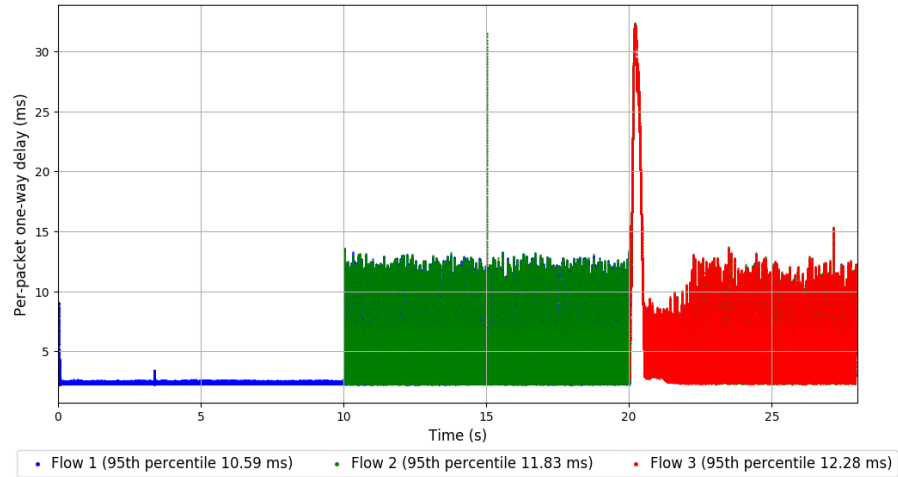
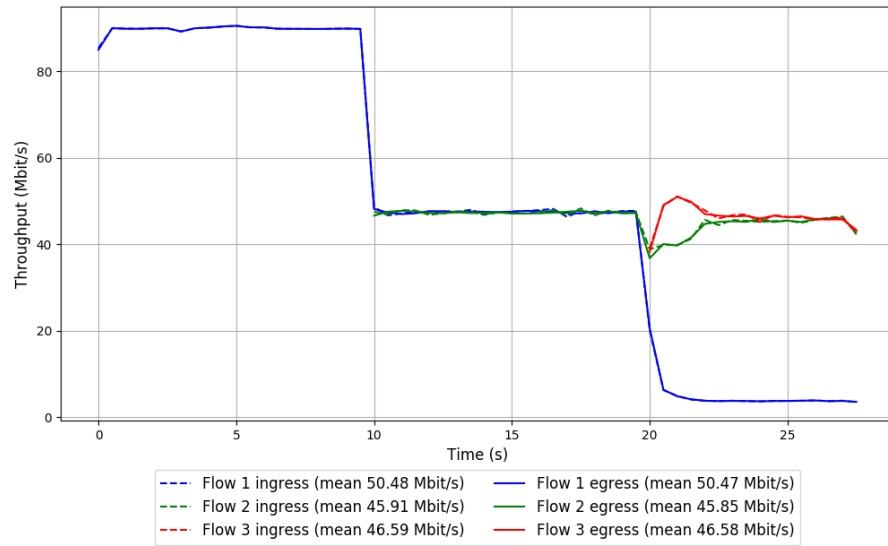


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-20 07:52:33
End at: 2017-12-20 07:53:03
Local clock offset: -0.003 ms
Remote clock offset: 0.383 ms

# Below is generated by plot.py at 2017-12-20 11:08:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.14 Mbit/s
95th percentile per-packet one-way delay: 11.398 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 50.47 Mbit/s
95th percentile per-packet one-way delay: 10.593 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 45.85 Mbit/s
95th percentile per-packet one-way delay: 11.830 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 46.58 Mbit/s
95th percentile per-packet one-way delay: 12.278 ms
Loss rate: 0.02%
```

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

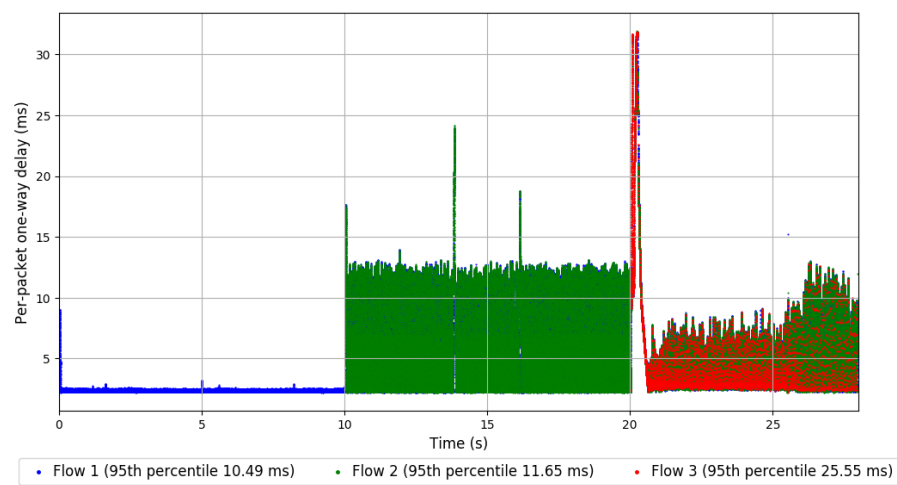
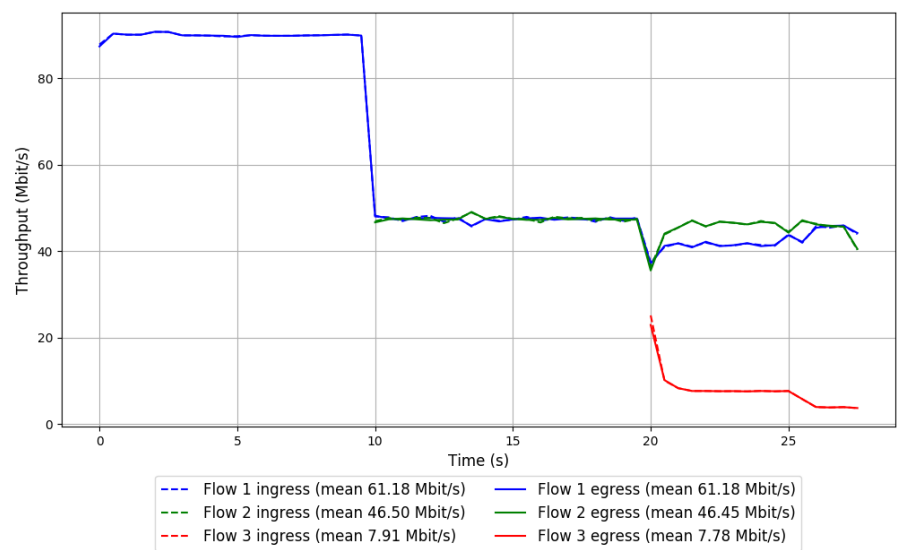


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-20 08:09:42
End at: 2017-12-20 08:10:12
Local clock offset: -0.019 ms
Remote clock offset: 0.152 ms

# Below is generated by plot.py at 2017-12-20 11:08:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 11.148 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 61.18 Mbit/s
95th percentile per-packet one-way delay: 10.494 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.45 Mbit/s
95th percentile per-packet one-way delay: 11.655 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 7.78 Mbit/s
95th percentile per-packet one-way delay: 25.545 ms
Loss rate: 1.63%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-12-20 08:26:48

End at: 2017-12-20 08:27:18

Local clock offset: -0.032 ms

Remote clock offset: 0.046 ms

Below is generated by plot.py at 2017-12-20 11:08:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.41 Mbit/s

95th percentile per-packet one-way delay: 10.849 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 51.68 Mbit/s

95th percentile per-packet one-way delay: 10.314 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 53.06 Mbit/s

95th percentile per-packet one-way delay: 11.247 ms

Loss rate: 0.00%

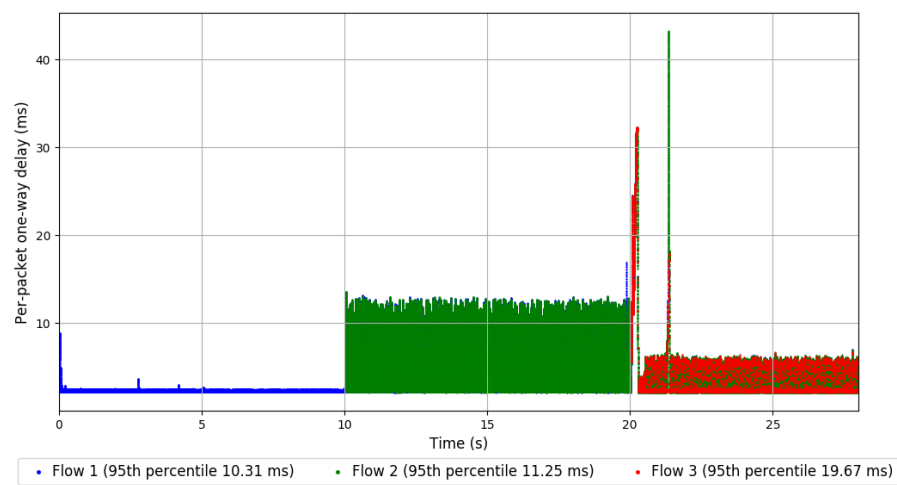
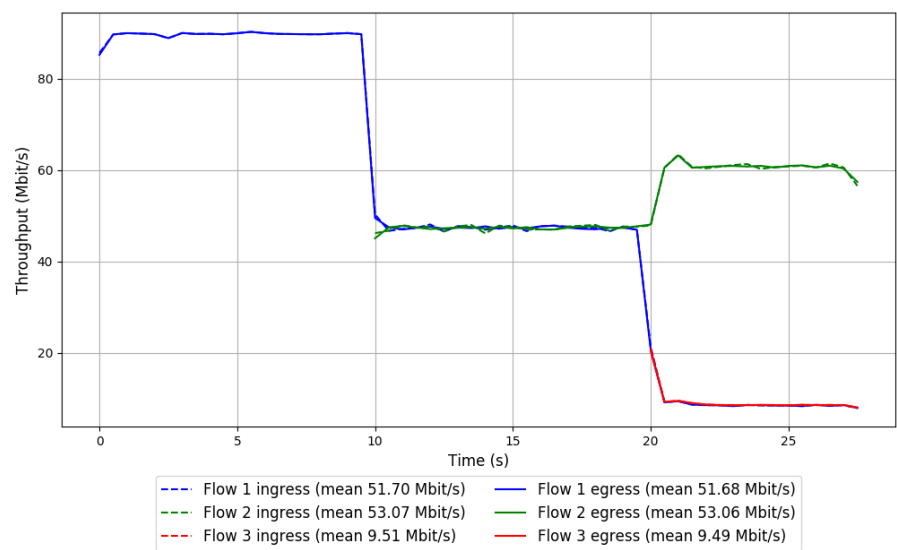
-- Flow 3:

Average throughput: 9.49 Mbit/s

95th percentile per-packet one-way delay: 19.666 ms

Loss rate: 0.33%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-20 08:43:55

End at: 2017-12-20 08:44:25

Local clock offset: -0.045 ms

Remote clock offset: 1.471 ms

Below is generated by plot.py at 2017-12-20 11:08:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.31 Mbit/s

95th percentile per-packet one-way delay: 10.634 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 51.57 Mbit/s

95th percentile per-packet one-way delay: 10.262 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 30.35 Mbit/s

95th percentile per-packet one-way delay: 11.623 ms

Loss rate: 0.01%

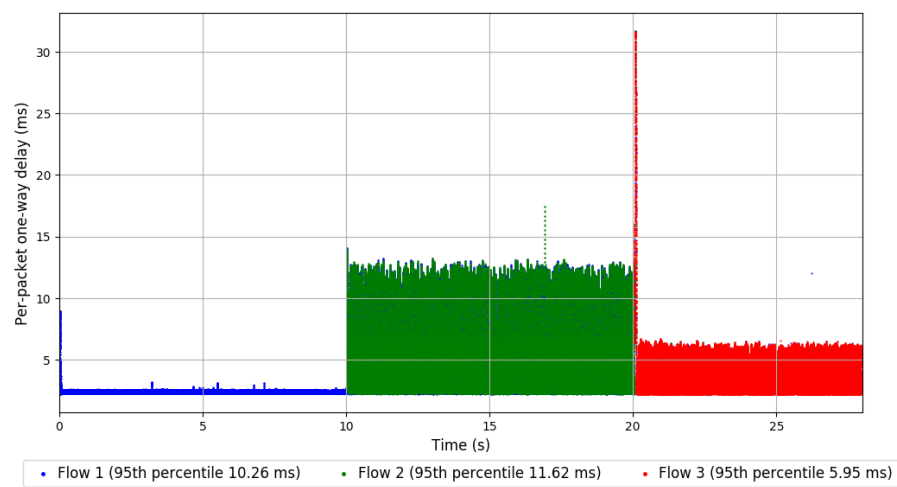
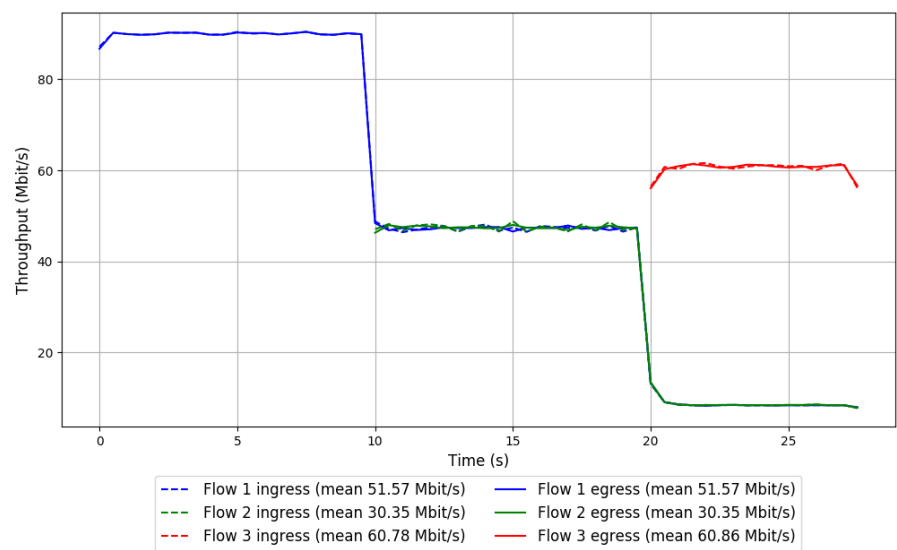
-- Flow 3:

Average throughput: 60.86 Mbit/s

95th percentile per-packet one-way delay: 5.949 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-12-20 09:01:02

End at: 2017-12-20 09:01:32

Local clock offset: -0.085 ms

Remote clock offset: 1.758 ms

Below is generated by plot.py at 2017-12-20 11:09:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.07 Mbit/s

95th percentile per-packet one-way delay: 11.069 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 61.71 Mbit/s

95th percentile per-packet one-way delay: 10.605 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 28.51 Mbit/s

95th percentile per-packet one-way delay: 11.758 ms

Loss rate: 0.12%

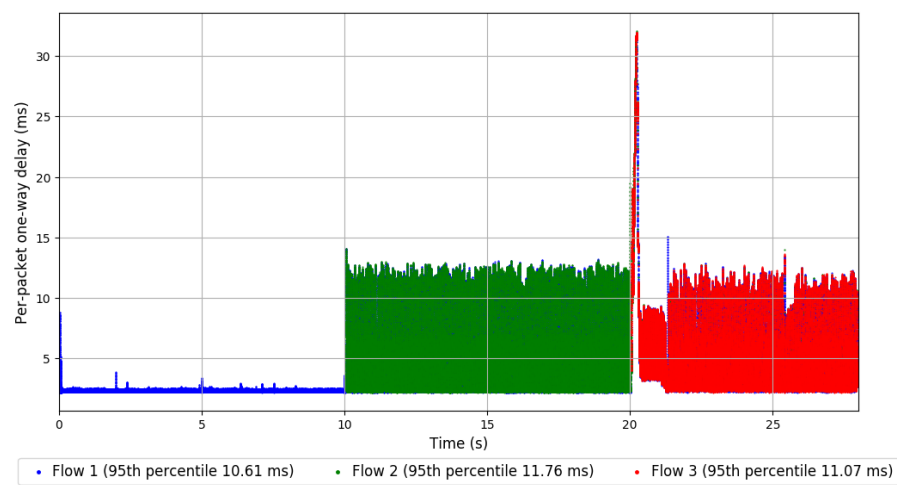
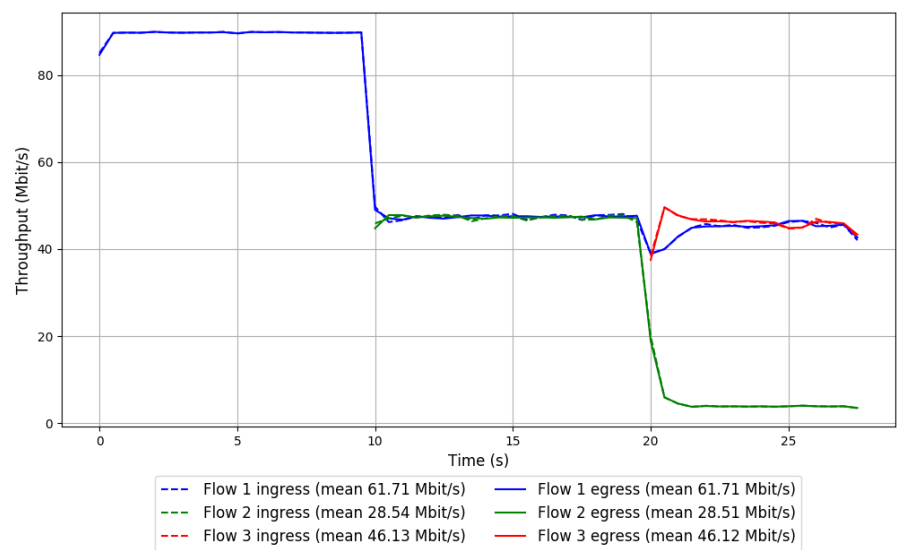
-- Flow 3:

Average throughput: 46.12 Mbit/s

95th percentile per-packet one-way delay: 11.073 ms

Loss rate: 0.08%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-12-20 09:18:09

End at: 2017-12-20 09:18:39

Local clock offset: -0.083 ms

Remote clock offset: 2.005 ms

Below is generated by plot.py at 2017-12-20 11:09:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.07 Mbit/s

95th percentile per-packet one-way delay: 10.683 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 51.51 Mbit/s

95th percentile per-packet one-way delay: 10.259 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 30.22 Mbit/s

95th percentile per-packet one-way delay: 11.624 ms

Loss rate: 0.01%

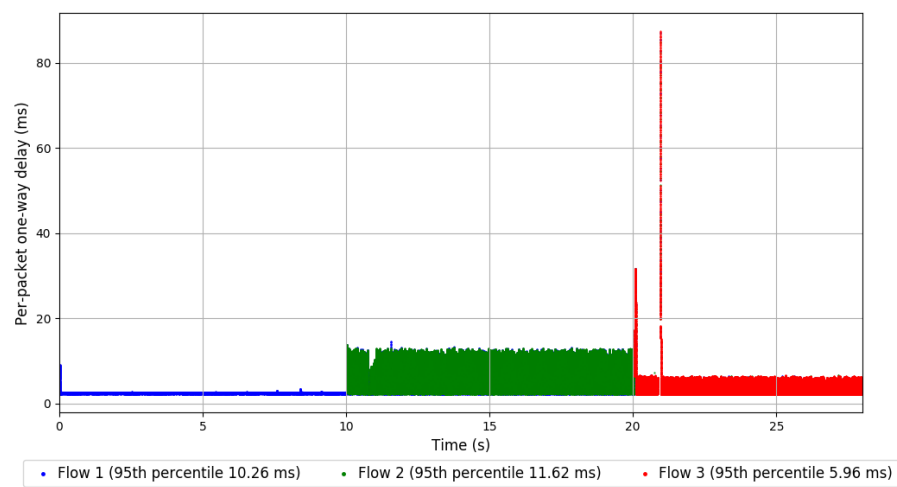
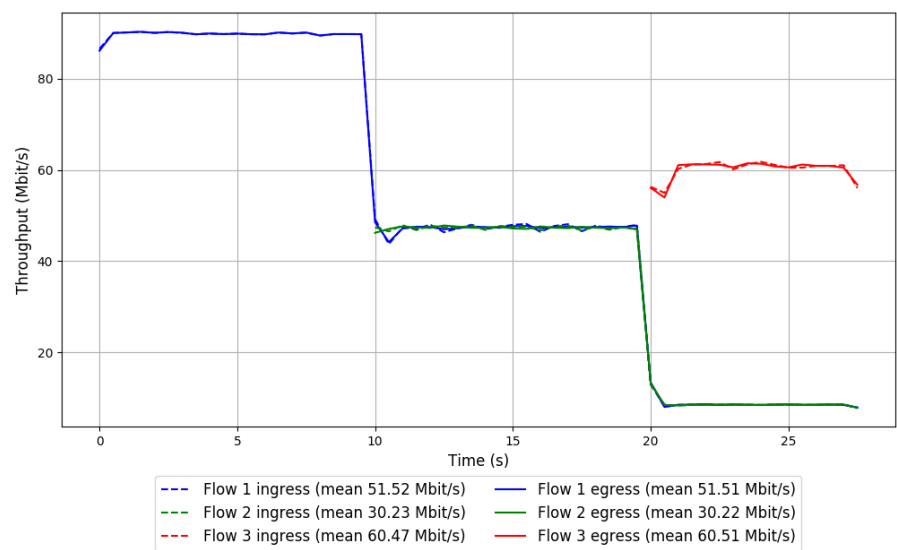
-- Flow 3:

Average throughput: 60.51 Mbit/s

95th percentile per-packet one-way delay: 5.965 ms

Loss rate: 0.02%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-12-20 09:35:15

End at: 2017-12-20 09:35:45

Local clock offset: -0.086 ms

Remote clock offset: 2.131 ms

Below is generated by plot.py at 2017-12-20 11:09:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.19 Mbit/s

95th percentile per-packet one-way delay: 11.169 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 61.54 Mbit/s

95th percentile per-packet one-way delay: 10.658 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 28.57 Mbit/s

95th percentile per-packet one-way delay: 11.851 ms

Loss rate: 0.08%

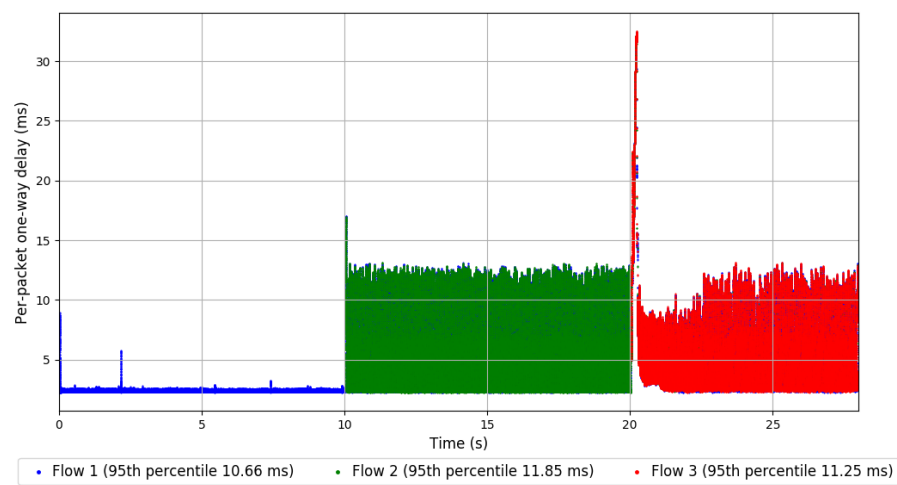
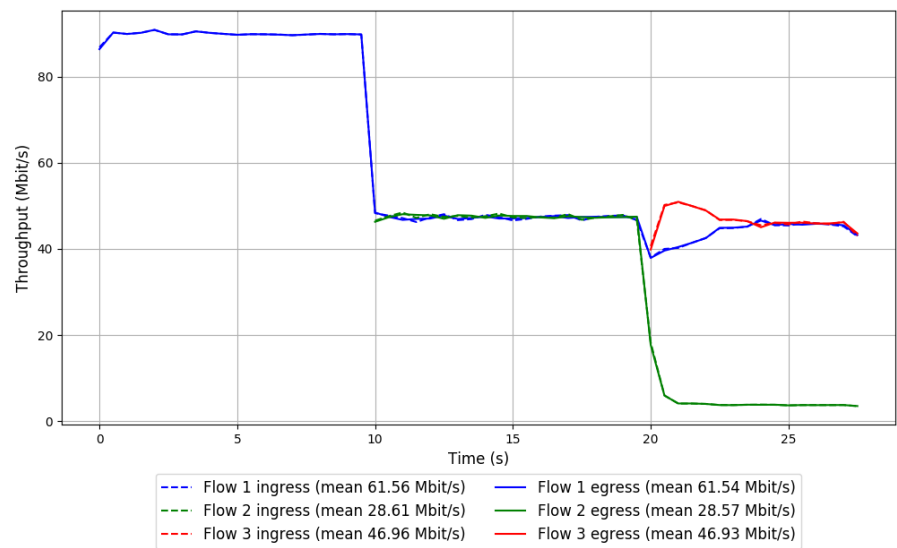
-- Flow 3:

Average throughput: 46.93 Mbit/s

95th percentile per-packet one-way delay: 11.252 ms

Loss rate: 0.07%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-12-20 09:52:24

End at: 2017-12-20 09:52:54

Local clock offset: -0.092 ms

Remote clock offset: 2.113 ms

Below is generated by plot.py at 2017-12-20 11:09:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.15 Mbit/s

95th percentile per-packet one-way delay: 11.332 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 61.60 Mbit/s

95th percentile per-packet one-way delay: 10.824 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 28.50 Mbit/s

95th percentile per-packet one-way delay: 11.881 ms

Loss rate: 0.03%

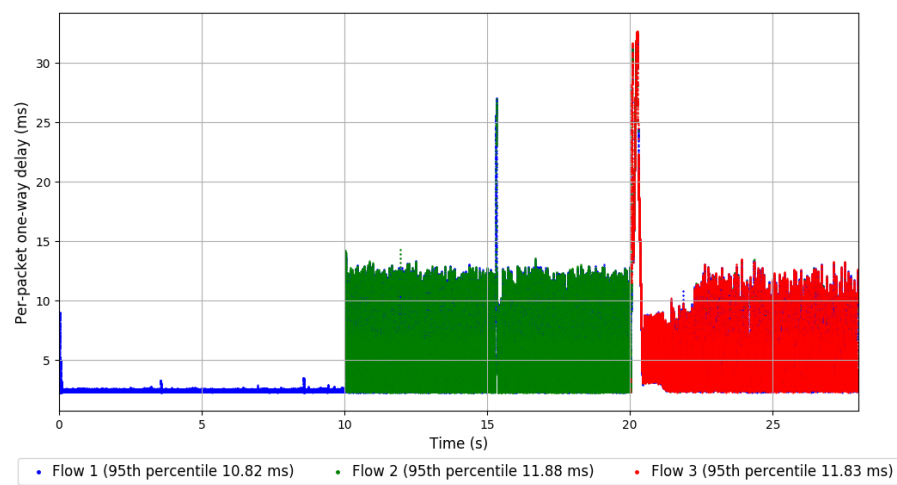
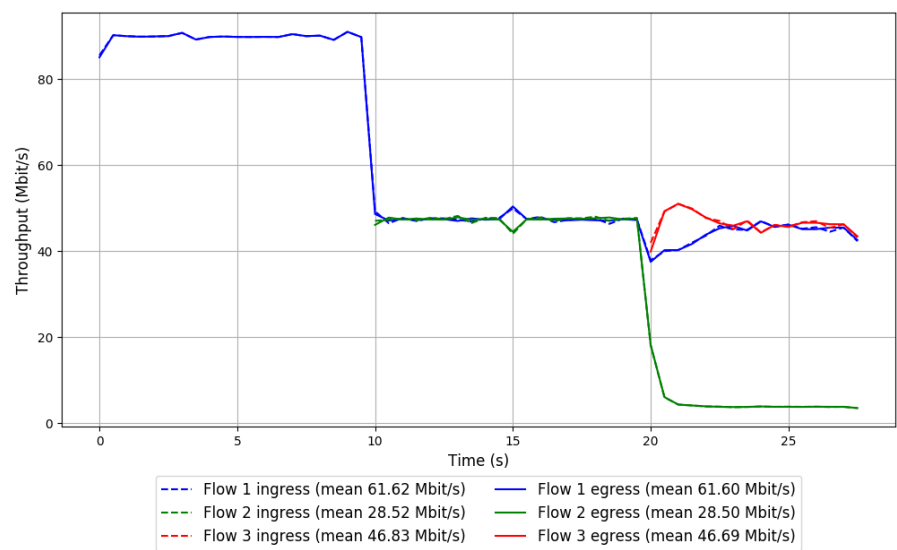
-- Flow 3:

Average throughput: 46.69 Mbit/s

95th percentile per-packet one-way delay: 11.832 ms

Loss rate: 0.20%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-12-20 10:09:33

End at: 2017-12-20 10:10:03

Local clock offset: -0.084 ms

Remote clock offset: 2.172 ms

Below is generated by plot.py at 2017-12-20 11:11:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.09 Mbit/s

95th percentile per-packet one-way delay: 11.291 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 61.69 Mbit/s

95th percentile per-packet one-way delay: 10.808 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 28.43 Mbit/s

95th percentile per-packet one-way delay: 11.803 ms

Loss rate: 0.15%

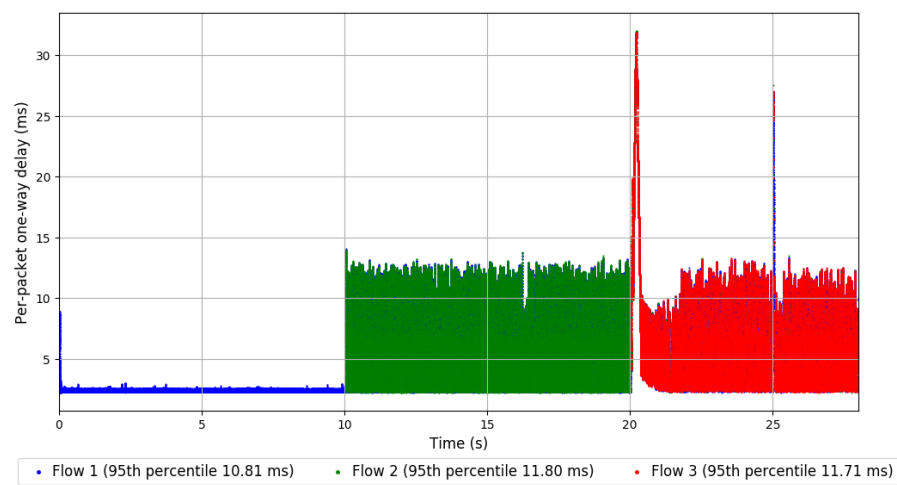
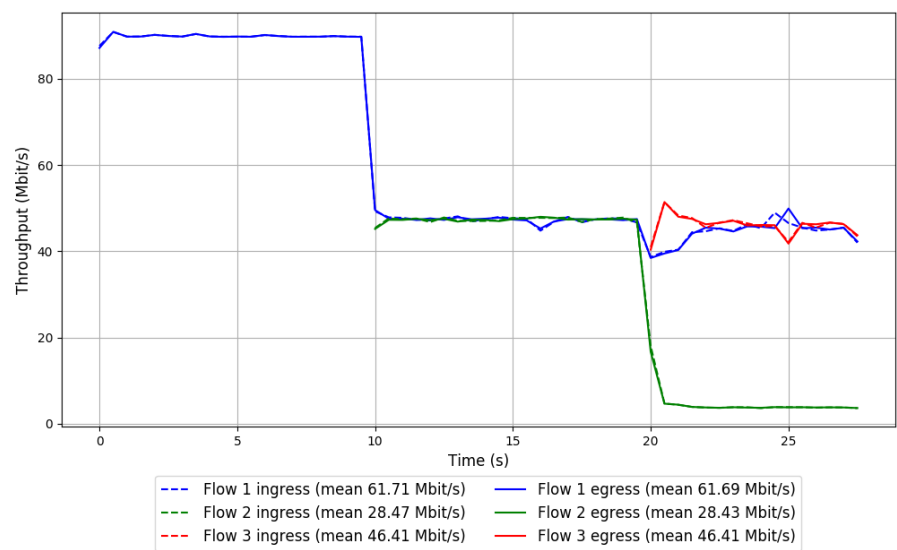
-- Flow 3:

Average throughput: 46.41 Mbit/s

95th percentile per-packet one-way delay: 11.708 ms

Loss rate: 0.00%

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



Run 10: Statistics of TaoVA-100x

Start at: 2017-12-20 10:26:41

End at: 2017-12-20 10:27:11

Local clock offset: -0.078 ms

Remote clock offset: 2.177 ms

Below is generated by plot.py at 2017-12-20 11:11:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.22 Mbit/s

95th percentile per-packet one-way delay: 10.794 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 51.58 Mbit/s

95th percentile per-packet one-way delay: 10.348 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 30.53 Mbit/s

95th percentile per-packet one-way delay: 11.702 ms

Loss rate: 0.03%

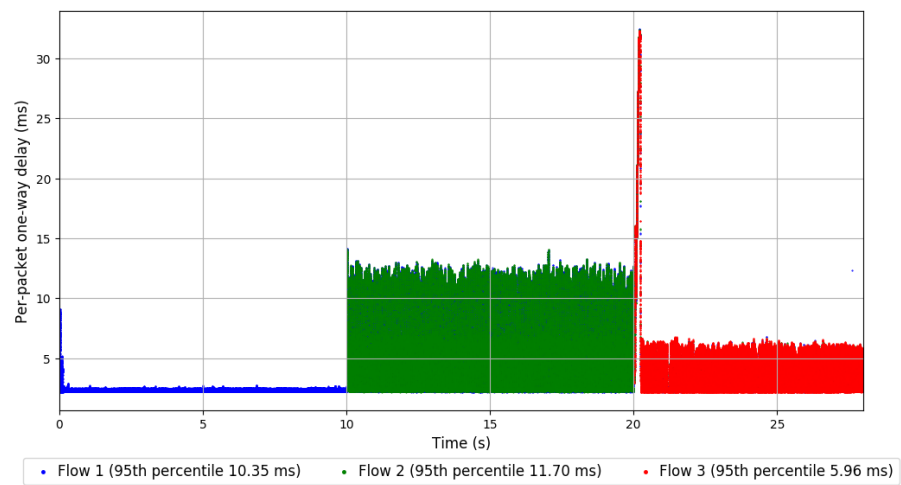
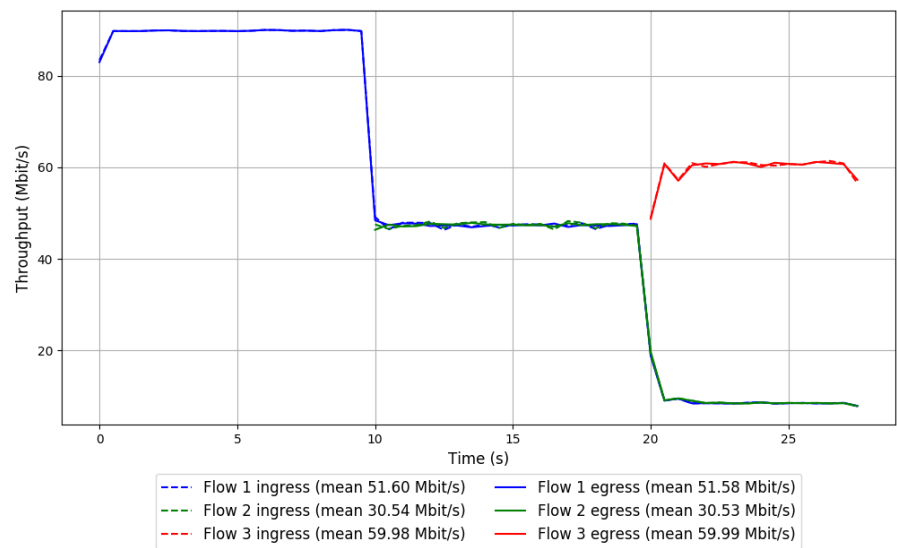
-- Flow 3:

Average throughput: 59.99 Mbit/s

95th percentile per-packet one-way delay: 5.963 ms

Loss rate: 0.01%

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



Run 1: Statistics of TCP Vegas

Start at: 2017-12-20 07:49:06

End at: 2017-12-20 07:49:36

Local clock offset: 0.0 ms

Remote clock offset: 0.413 ms

Below is generated by plot.py at 2017-12-20 11:11:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.04 Mbit/s

95th percentile per-packet one-way delay: 4.018 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 55.52 Mbit/s

95th percentile per-packet one-way delay: 4.266 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.09 Mbit/s

95th percentile per-packet one-way delay: 3.919 ms

Loss rate: 0.00%

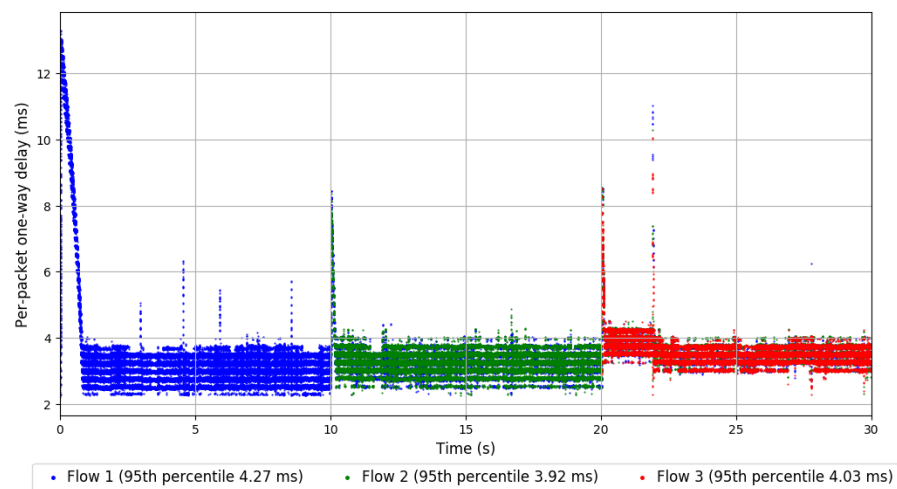
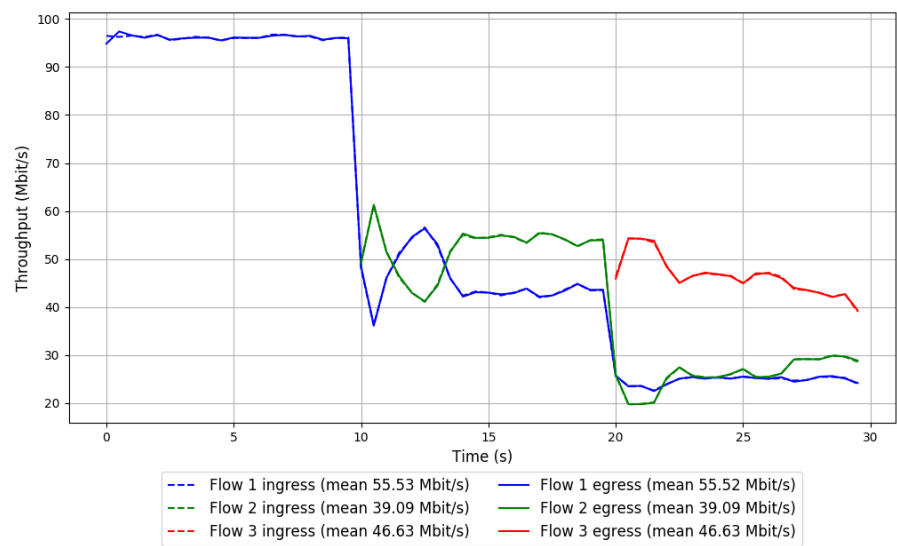
-- Flow 3:

Average throughput: 46.63 Mbit/s

95th percentile per-packet one-way delay: 4.025 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-20 08:06:15

End at: 2017-12-20 08:06:45

Local clock offset: -0.013 ms

Remote clock offset: 0.242 ms

Below is generated by plot.py at 2017-12-20 11:11:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.31 Mbit/s

95th percentile per-packet one-way delay: 4.480 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.78 Mbit/s

95th percentile per-packet one-way delay: 4.277 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.94 Mbit/s

95th percentile per-packet one-way delay: 4.501 ms

Loss rate: 0.00%

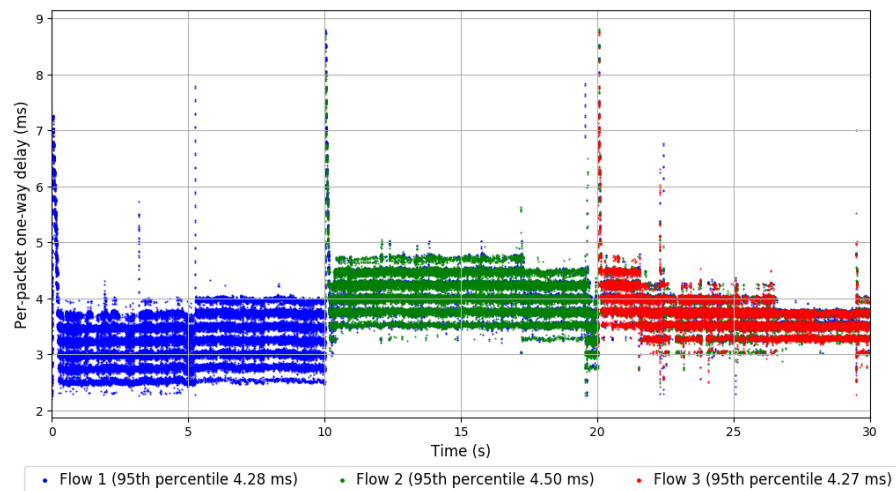
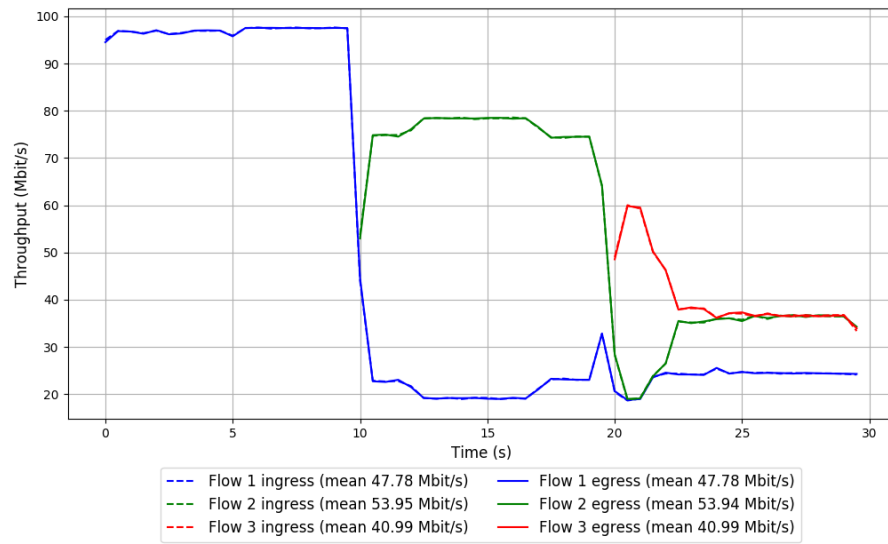
-- Flow 3:

Average throughput: 40.99 Mbit/s

95th percentile per-packet one-way delay: 4.266 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link

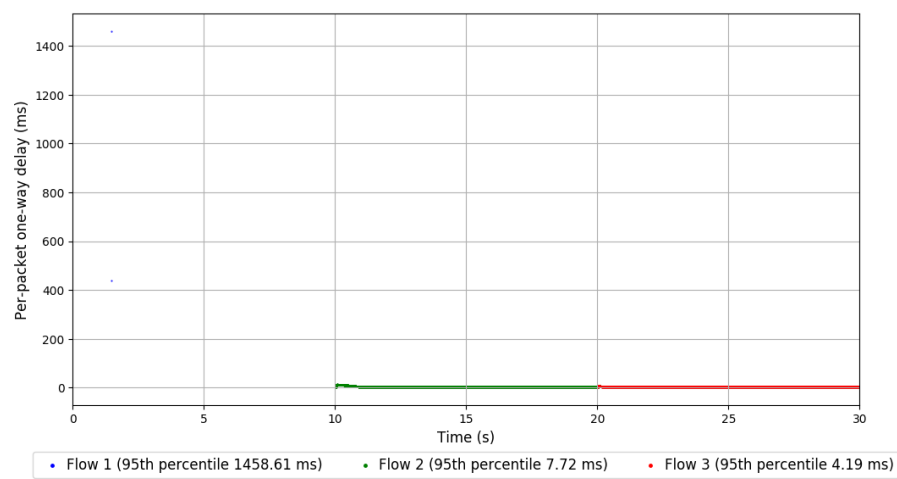
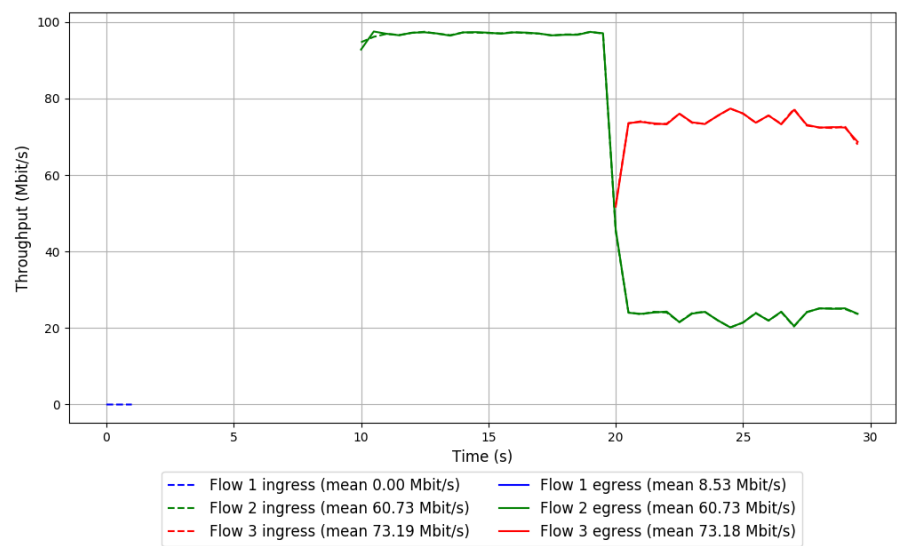


Run 3: Statistics of TCP Vegas

Start at: 2017-12-20 08:23:23
End at: 2017-12-20 08:23:53
Local clock offset: -0.027 ms
Remote clock offset: 0.08 ms

Below is generated by plot.py at 2017-12-20 11:11:06
Datalink statistics
-- Total of 3 flows:
Average throughput: 68.04 Mbit/s
95th percentile per-packet one-way delay: 4.431 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.53 Mbit/s
95th percentile per-packet one-way delay: 1458.605 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.73 Mbit/s
95th percentile per-packet one-way delay: 7.723 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.18 Mbit/s
95th percentile per-packet one-way delay: 4.194 ms
Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-20 08:40:30

End at: 2017-12-20 08:41:00

Local clock offset: -0.053 ms

Remote clock offset: 1.22 ms

Below is generated by plot.py at 2017-12-20 11:11:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.00 Mbit/s

95th percentile per-packet one-way delay: 10.472 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 9.11 Mbit/s

95th percentile per-packet one-way delay: 5133.789 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.18 Mbit/s

95th percentile per-packet one-way delay: 12.932 ms

Loss rate: 0.00%

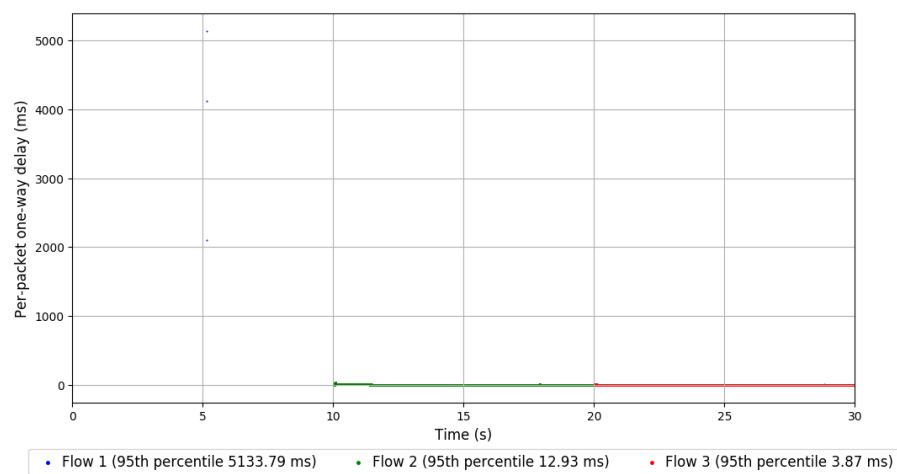
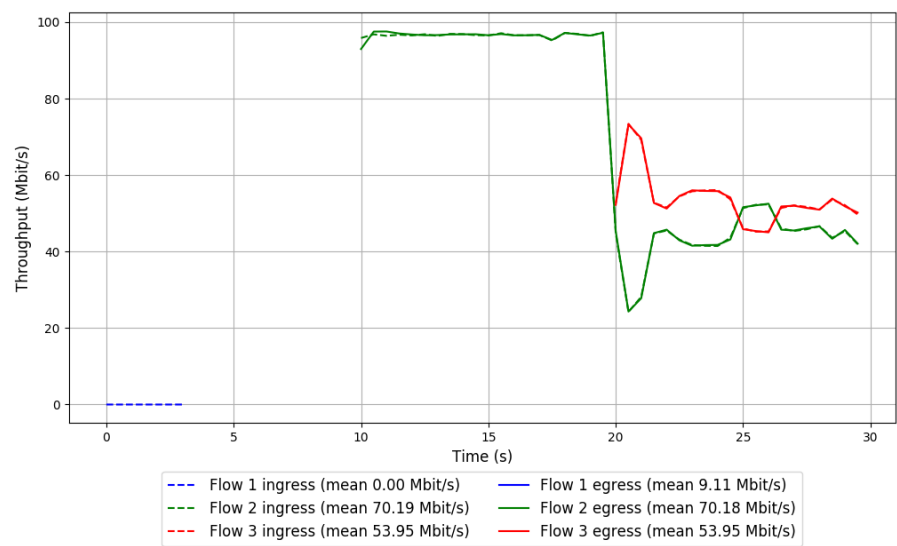
-- Flow 3:

Average throughput: 53.95 Mbit/s

95th percentile per-packet one-way delay: 3.869 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-20 08:57:36

End at: 2017-12-20 08:58:06

Local clock offset: -0.138 ms

Remote clock offset: 1.698 ms

Below is generated by plot.py at 2017-12-20 11:11:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.01 Mbit/s

95th percentile per-packet one-way delay: 5.036 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 53.44 Mbit/s

95th percentile per-packet one-way delay: 4.734 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 34.01 Mbit/s

95th percentile per-packet one-way delay: 4.980 ms

Loss rate: 0.00%

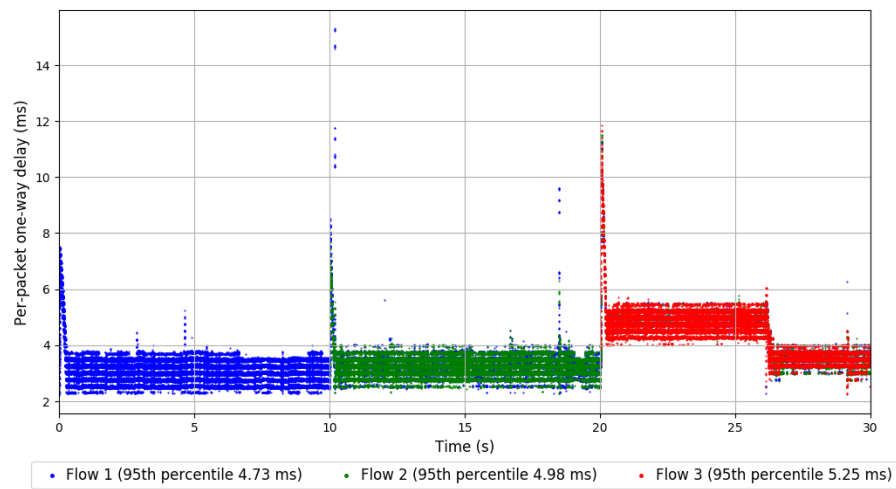
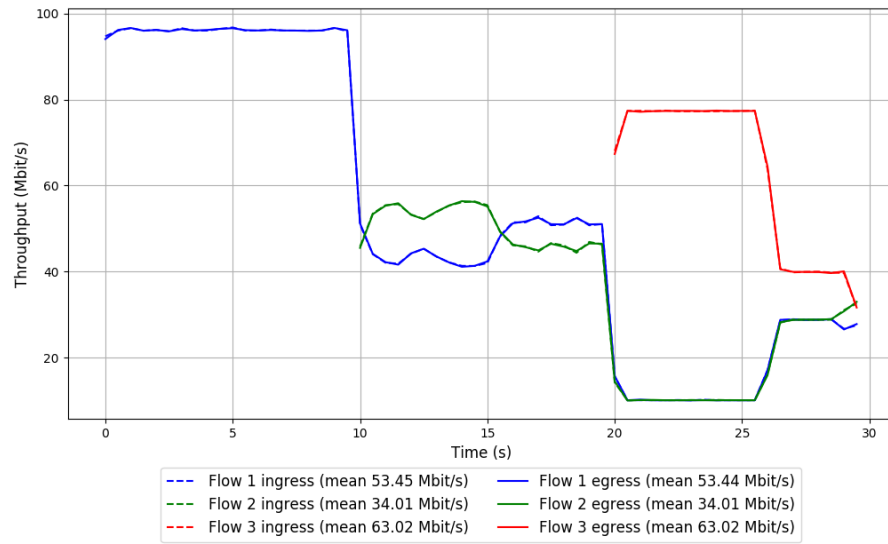
-- Flow 3:

Average throughput: 63.02 Mbit/s

95th percentile per-packet one-way delay: 5.250 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link

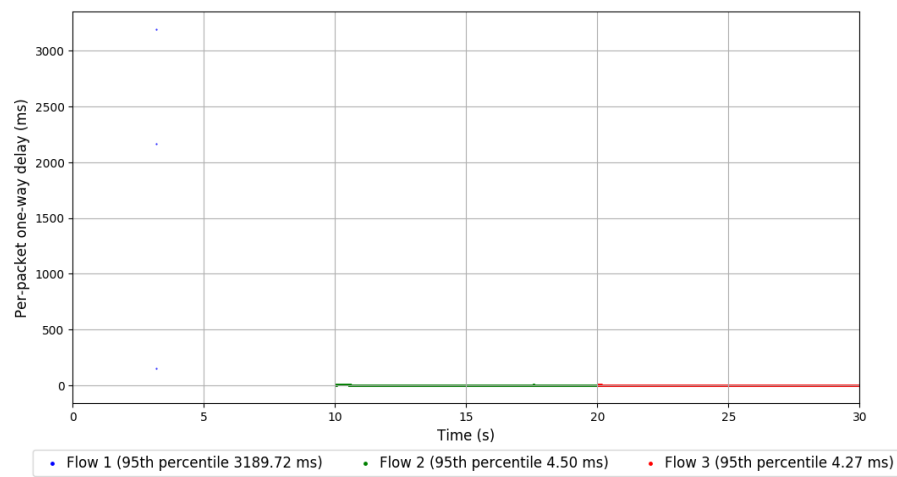
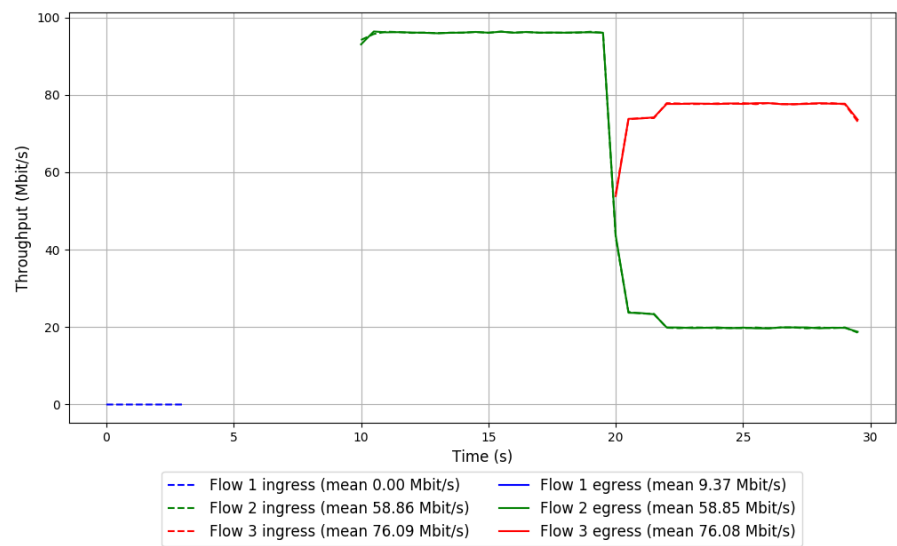


Run 6: Statistics of TCP Vegas

Start at: 2017-12-20 09:14:44
End at: 2017-12-20 09:15:14
Local clock offset: -0.084 ms
Remote clock offset: 2.029 ms

```
# Below is generated by plot.py at 2017-12-20 11:11:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.14 Mbit/s
95th percentile per-packet one-way delay: 4.283 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.37 Mbit/s
95th percentile per-packet one-way delay: 3189.721 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 58.85 Mbit/s
95th percentile per-packet one-way delay: 4.502 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 76.08 Mbit/s
95th percentile per-packet one-way delay: 4.274 ms
Loss rate: 0.00%
```

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-20 09:31:50

End at: 2017-12-20 09:32:20

Local clock offset: -0.085 ms

Remote clock offset: 2.115 ms

Below is generated by plot.py at 2017-12-20 11:11:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.67 Mbit/s

95th percentile per-packet one-way delay: 3.980 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 9.29 Mbit/s

95th percentile per-packet one-way delay: 4353.418 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.38 Mbit/s

95th percentile per-packet one-way delay: 6.483 ms

Loss rate: 0.00%

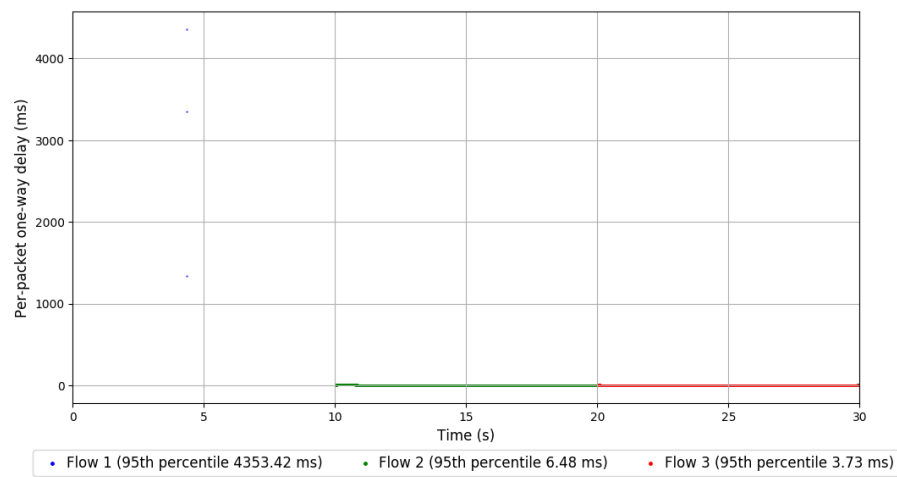
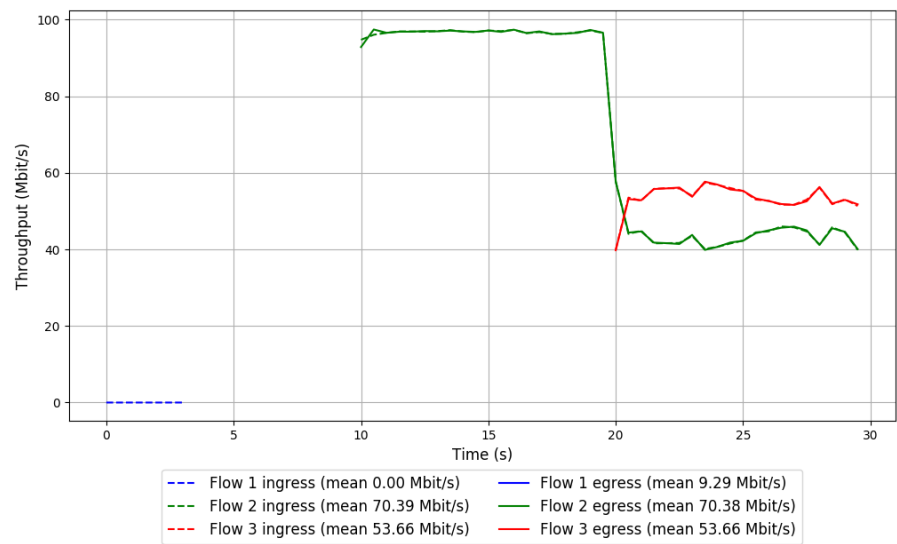
-- Flow 3:

Average throughput: 53.66 Mbit/s

95th percentile per-packet one-way delay: 3.731 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-20 09:48:57

End at: 2017-12-20 09:49:27

Local clock offset: -0.092 ms

Remote clock offset: 2.061 ms

Below is generated by plot.py at 2017-12-20 11:11:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 4.421 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 53.17 Mbit/s

95th percentile per-packet one-way delay: 4.202 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.30 Mbit/s

95th percentile per-packet one-way delay: 3.981 ms

Loss rate: 0.00%

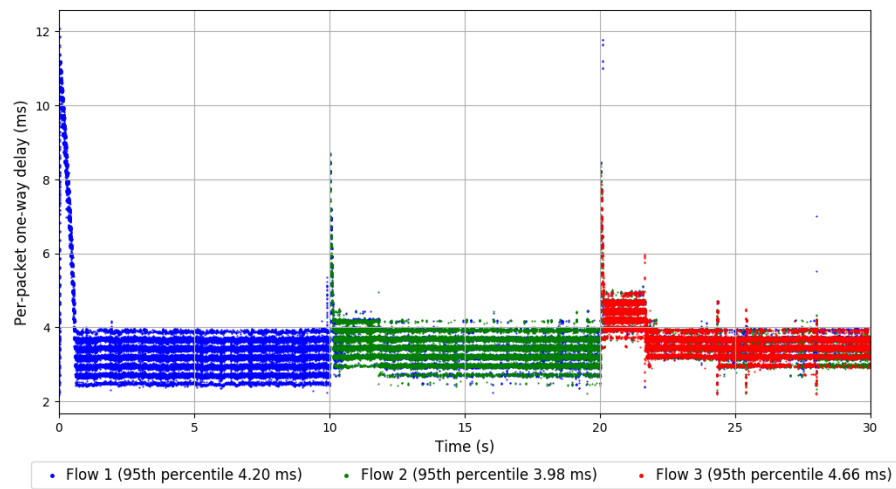
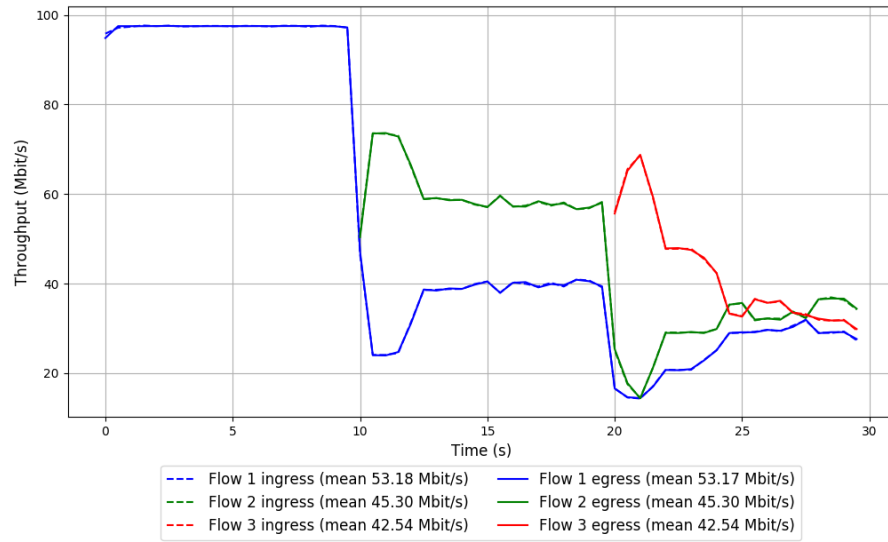
-- Flow 3:

Average throughput: 42.54 Mbit/s

95th percentile per-packet one-way delay: 4.660 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-20 10:06:06

End at: 2017-12-20 10:06:36

Local clock offset: -0.077 ms

Remote clock offset: 2.164 ms

Below is generated by plot.py at 2017-12-20 11:11:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.11 Mbit/s

95th percentile per-packet one-way delay: 4.468 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 48.95 Mbit/s

95th percentile per-packet one-way delay: 6.463 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.41 Mbit/s

95th percentile per-packet one-way delay: 4.258 ms

Loss rate: 0.00%

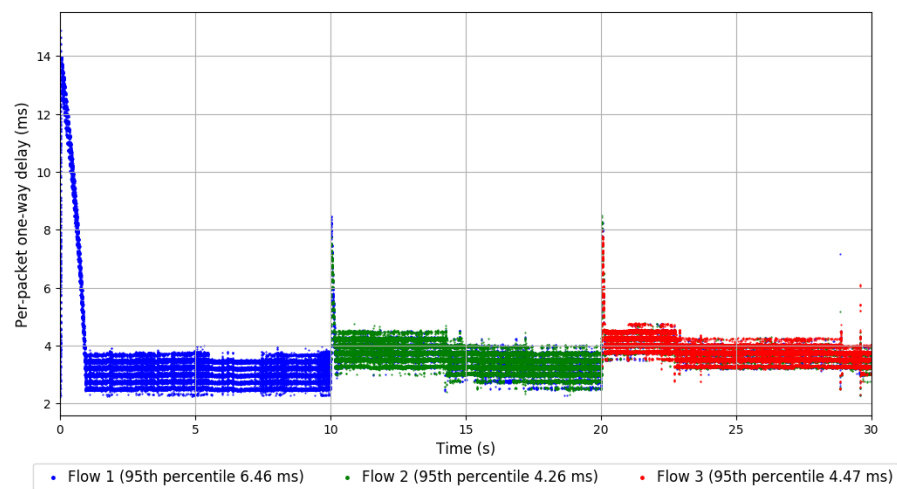
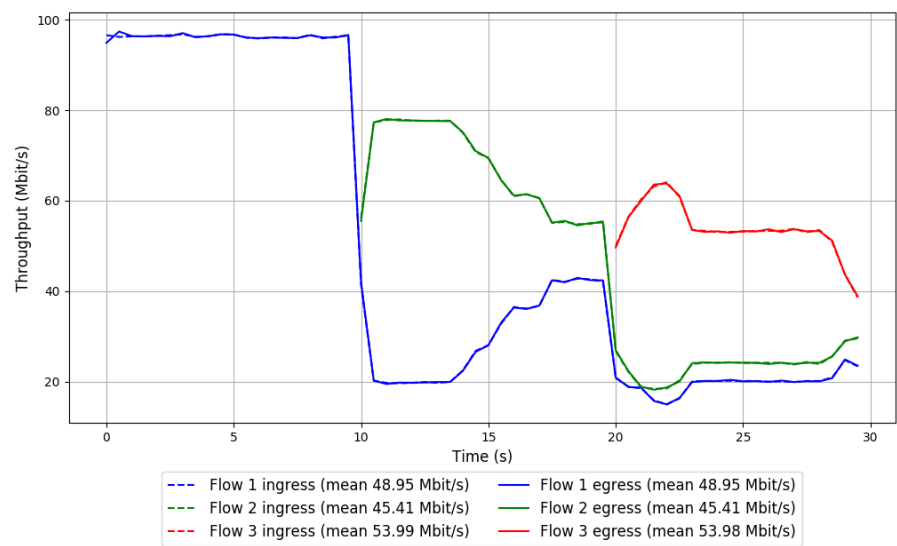
-- Flow 3:

Average throughput: 53.98 Mbit/s

95th percentile per-packet one-way delay: 4.474 ms

Loss rate: 0.00%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-20 10:23:14

End at: 2017-12-20 10:23:44

Local clock offset: -0.079 ms

Remote clock offset: 2.236 ms

Below is generated by plot.py at 2017-12-20 11:12:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 4.265 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.25 Mbit/s

95th percentile per-packet one-way delay: 8.219 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.58 Mbit/s

95th percentile per-packet one-way delay: 4.216 ms

Loss rate: 0.00%

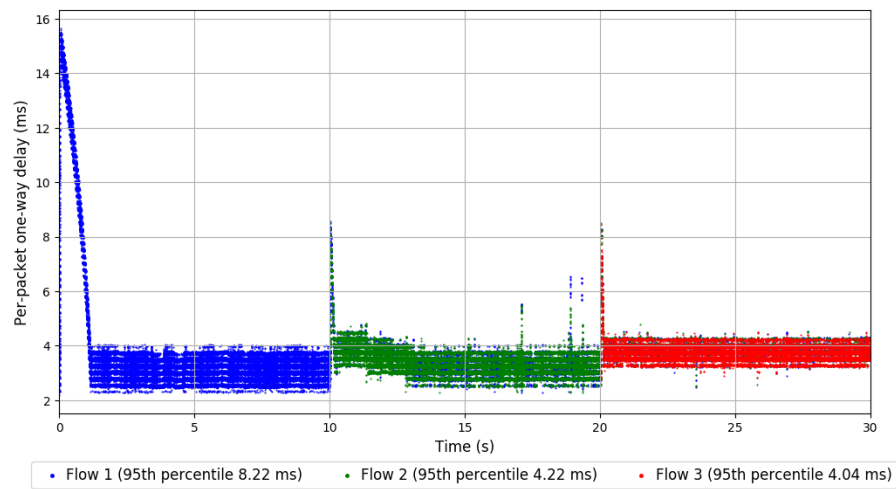
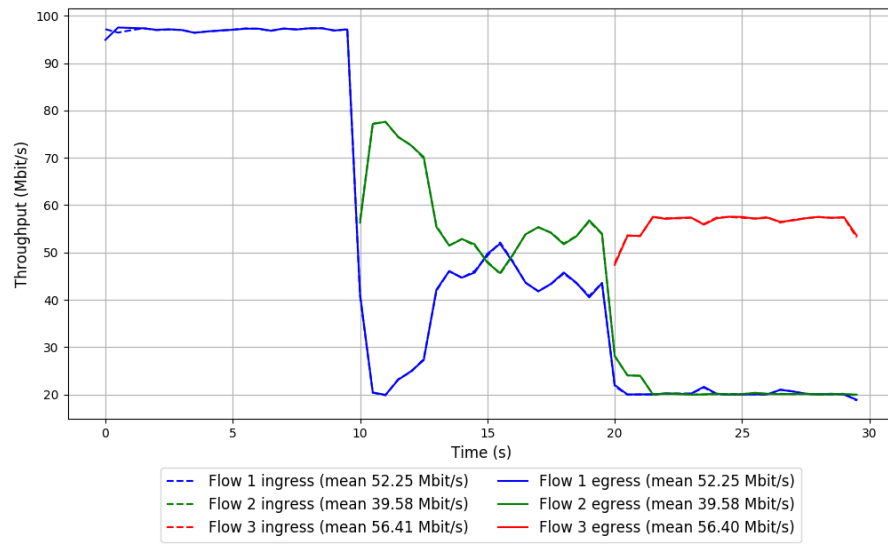
-- Flow 3:

Average throughput: 56.40 Mbit/s

95th percentile per-packet one-way delay: 4.039 ms

Loss rate: 0.00%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-12-20 07:53:44

End at: 2017-12-20 07:54:14

Local clock offset: -0.01 ms

Remote clock offset: 0.376 ms

Below is generated by plot.py at 2017-12-20 11:12:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.70 Mbit/s

95th percentile per-packet one-way delay: 32.721 ms

Loss rate: 19.20%

-- Flow 1:

Average throughput: 46.00 Mbit/s

95th percentile per-packet one-way delay: 32.389 ms

Loss rate: 9.51%

-- Flow 2:

Average throughput: 33.79 Mbit/s

95th percentile per-packet one-way delay: 32.717 ms

Loss rate: 22.54%

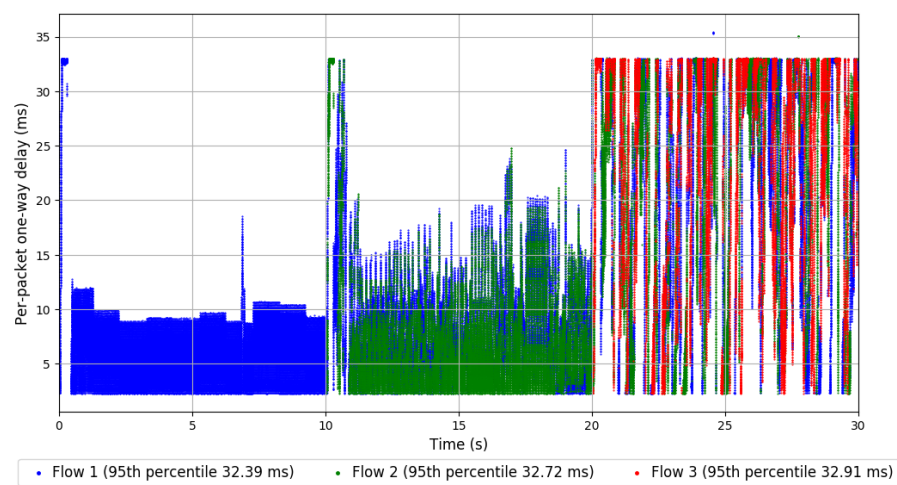
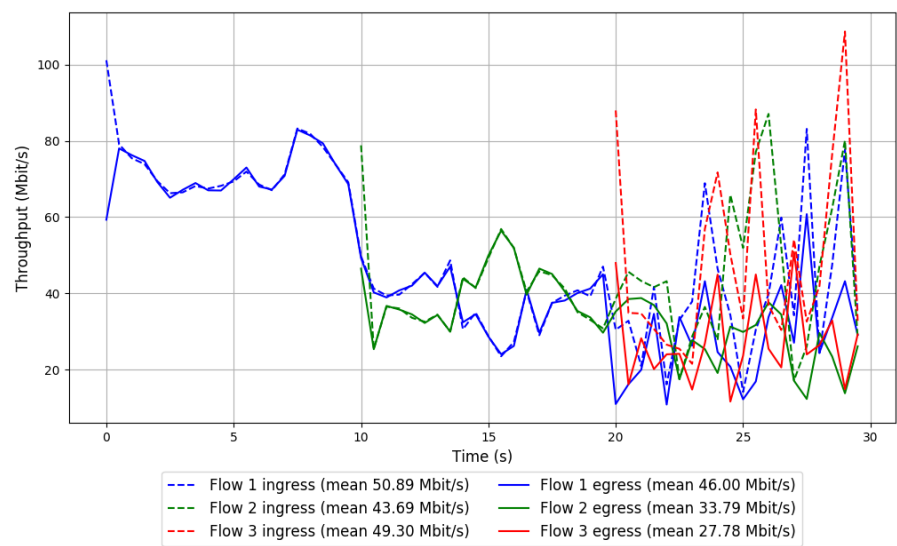
-- Flow 3:

Average throughput: 27.78 Mbit/s

95th percentile per-packet one-way delay: 32.911 ms

Loss rate: 43.50%

Run 1: Report of Verus — Data Link

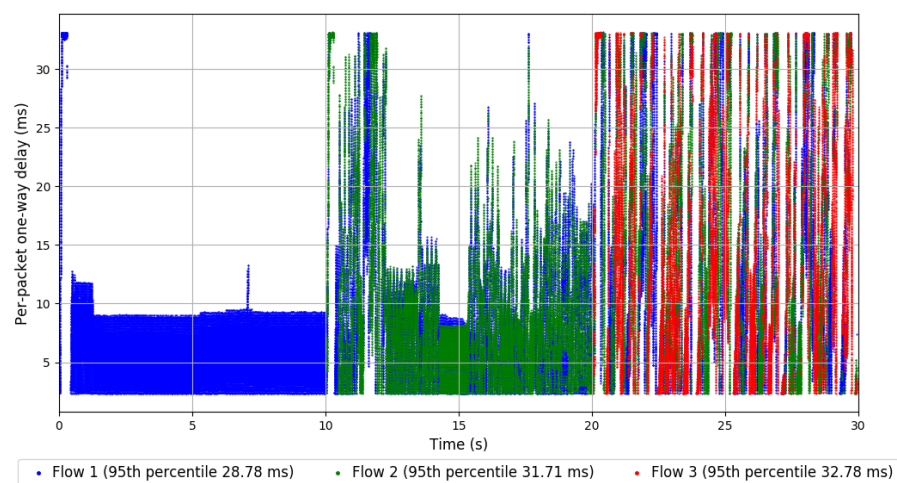
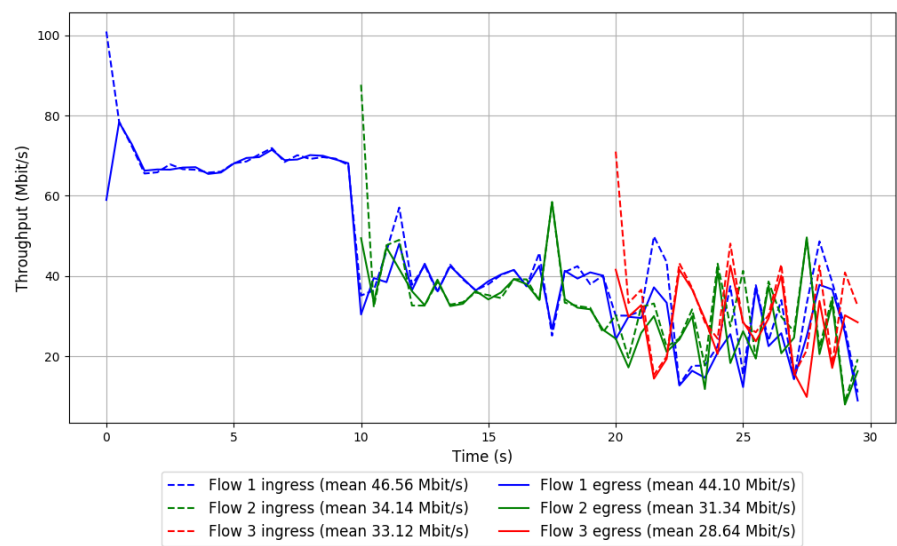


Run 2: Statistics of Verus

Start at: 2017-12-20 08:10:53
End at: 2017-12-20 08:11:23
Local clock offset: -0.084 ms
Remote clock offset: 0.209 ms

Below is generated by plot.py at 2017-12-20 11:12:16
Datalink statistics
-- Total of 3 flows:
Average throughput: 74.41 Mbit/s
95th percentile per-packet one-way delay: 30.864 ms
Loss rate: 7.24%
-- Flow 1:
Average throughput: 44.10 Mbit/s
95th percentile per-packet one-way delay: 28.782 ms
Loss rate: 5.26%
-- Flow 2:
Average throughput: 31.34 Mbit/s
95th percentile per-packet one-way delay: 31.713 ms
Loss rate: 8.21%
-- Flow 3:
Average throughput: 28.64 Mbit/s
95th percentile per-packet one-way delay: 32.782 ms
Loss rate: 13.65%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-12-20 08:27:59

End at: 2017-12-20 08:28:29

Local clock offset: -0.041 ms

Remote clock offset: 0.122 ms

Below is generated by plot.py at 2017-12-20 11:12:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.90 Mbit/s

95th percentile per-packet one-way delay: 32.595 ms

Loss rate: 19.07%

-- Flow 1:

Average throughput: 49.47 Mbit/s

95th percentile per-packet one-way delay: 31.509 ms

Loss rate: 16.69%

-- Flow 2:

Average throughput: 32.84 Mbit/s

95th percentile per-packet one-way delay: 32.606 ms

Loss rate: 18.10%

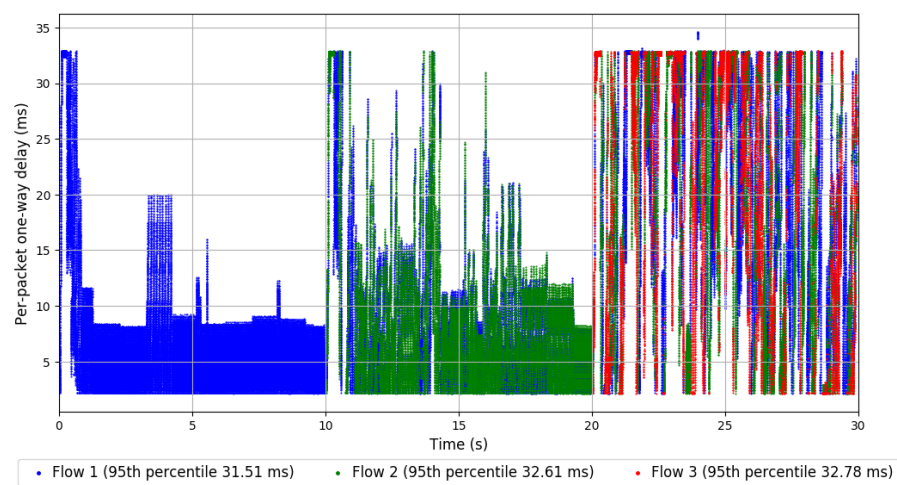
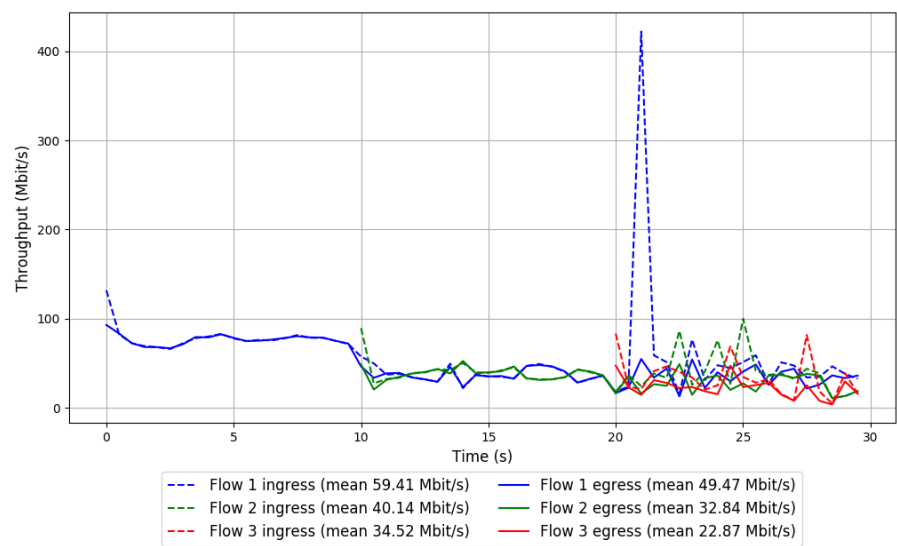
-- Flow 3:

Average throughput: 22.87 Mbit/s

95th percentile per-packet one-way delay: 32.779 ms

Loss rate: 33.68%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-20 08:45:06

End at: 2017-12-20 08:45:36

Local clock offset: -0.055 ms

Remote clock offset: 1.508 ms

Below is generated by plot.py at 2017-12-20 11:12:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.91 Mbit/s

95th percentile per-packet one-way delay: 32.613 ms

Loss rate: 17.34%

-- Flow 1:

Average throughput: 47.93 Mbit/s

95th percentile per-packet one-way delay: 30.953 ms

Loss rate: 15.86%

-- Flow 2:

Average throughput: 29.87 Mbit/s

95th percentile per-packet one-way delay: 32.683 ms

Loss rate: 13.85%

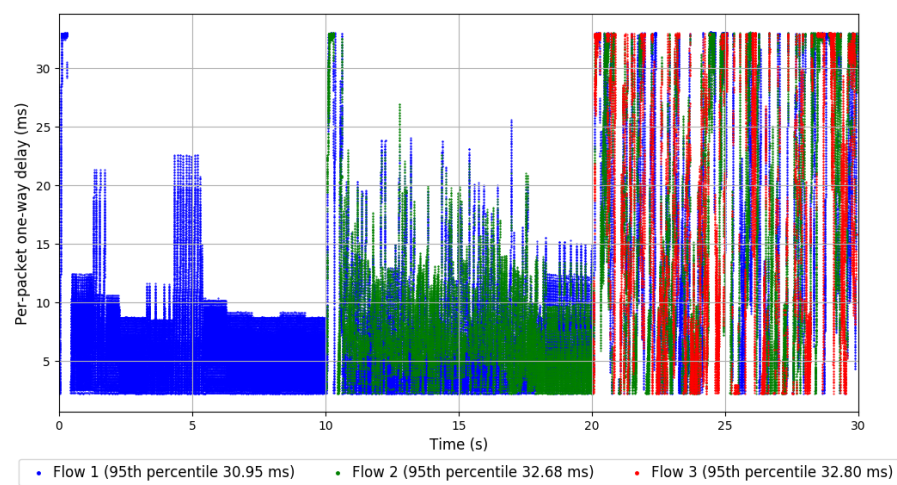
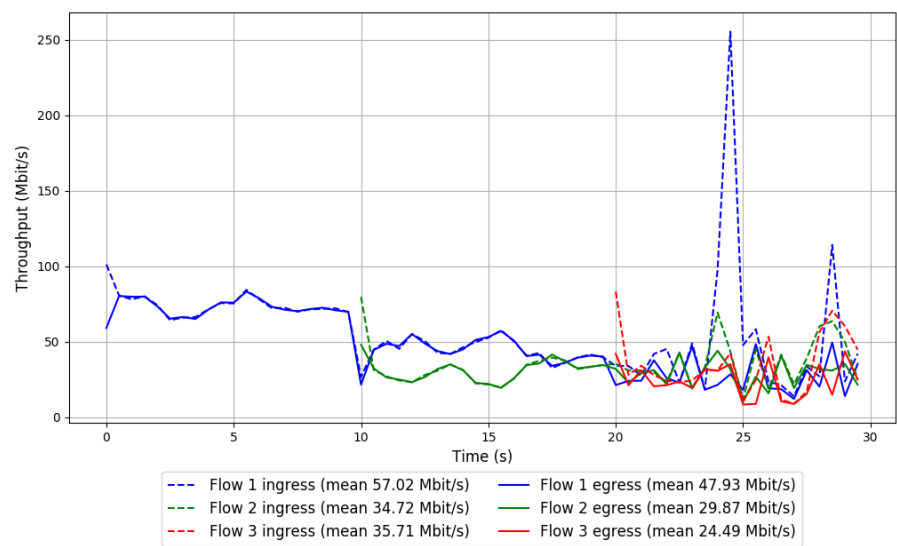
-- Flow 3:

Average throughput: 24.49 Mbit/s

95th percentile per-packet one-way delay: 32.799 ms

Loss rate: 31.33%

Run 4: Report of Verus — Data Link

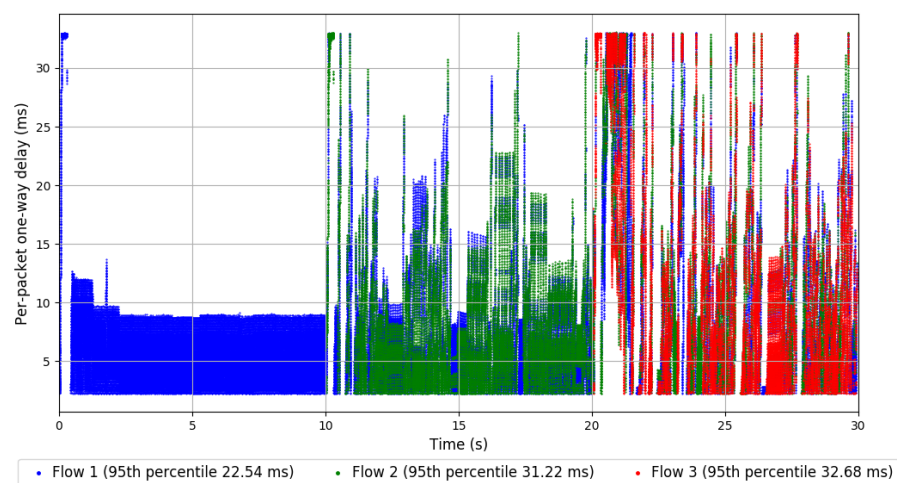
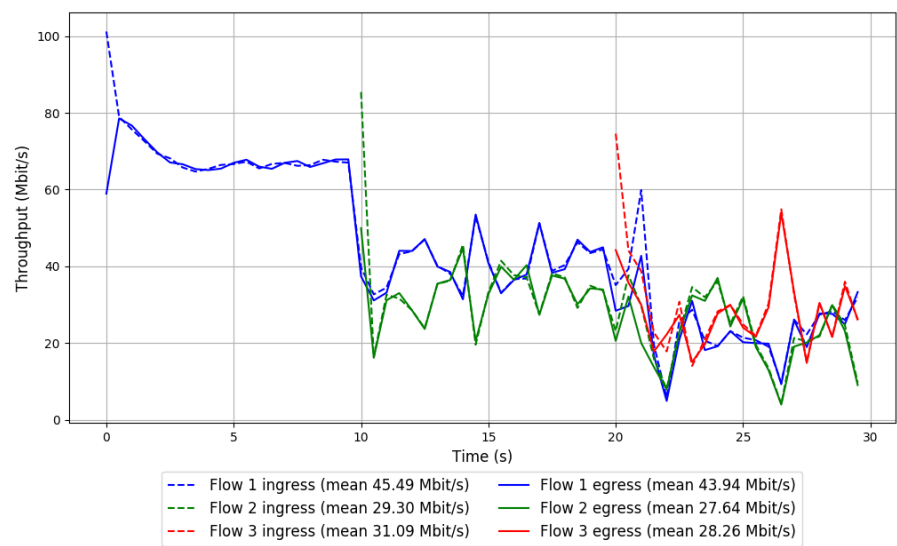


Run 5: Statistics of Verus

Start at: 2017-12-20 09:02:14
End at: 2017-12-20 09:02:44
Local clock offset: -0.064 ms
Remote clock offset: 1.828 ms

Below is generated by plot.py at 2017-12-20 11:12:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 71.69 Mbit/s
95th percentile per-packet one-way delay: 29.508 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 43.94 Mbit/s
95th percentile per-packet one-way delay: 22.544 ms
Loss rate: 3.37%
-- Flow 2:
Average throughput: 27.64 Mbit/s
95th percentile per-packet one-way delay: 31.217 ms
Loss rate: 5.62%
-- Flow 3:
Average throughput: 28.26 Mbit/s
95th percentile per-packet one-way delay: 32.679 ms
Loss rate: 9.07%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-20 09:19:20

End at: 2017-12-20 09:19:50

Local clock offset: -0.079 ms

Remote clock offset: 2.012 ms

Below is generated by plot.py at 2017-12-20 11:13:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.32 Mbit/s

95th percentile per-packet one-way delay: 32.759 ms

Loss rate: 26.48%

-- Flow 1:

Average throughput: 46.67 Mbit/s

95th percentile per-packet one-way delay: 32.099 ms

Loss rate: 20.97%

-- Flow 2:

Average throughput: 32.08 Mbit/s

95th percentile per-packet one-way delay: 32.796 ms

Loss rate: 33.45%

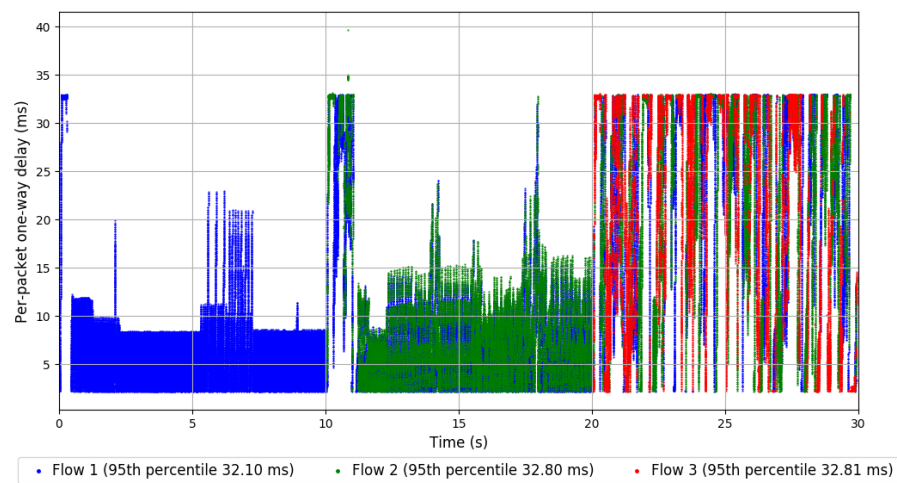
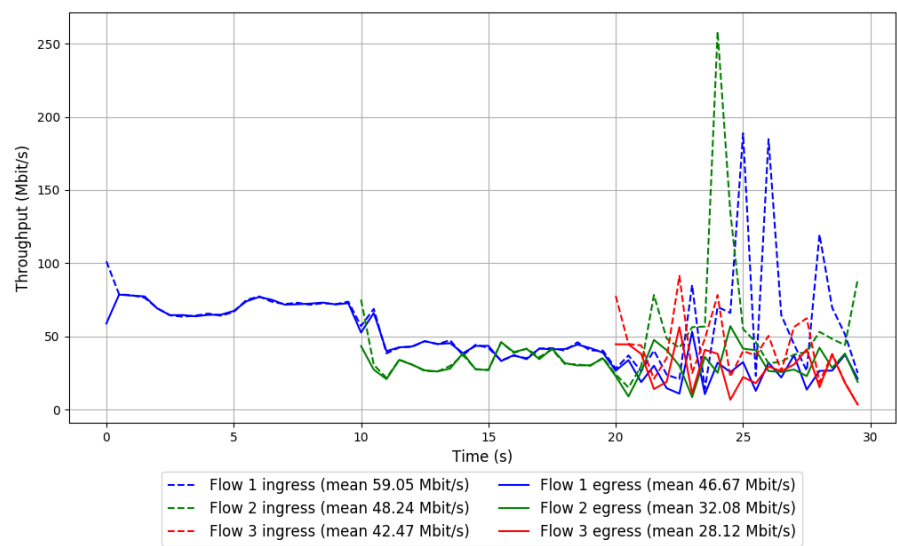
-- Flow 3:

Average throughput: 28.12 Mbit/s

95th percentile per-packet one-way delay: 32.812 ms

Loss rate: 33.70%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-20 09:36:27

End at: 2017-12-20 09:36:57

Local clock offset: -0.171 ms

Remote clock offset: 2.136 ms

Below is generated by plot.py at 2017-12-20 11:13:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.86 Mbit/s

95th percentile per-packet one-way delay: 32.735 ms

Loss rate: 20.50%

-- Flow 1:

Average throughput: 46.07 Mbit/s

95th percentile per-packet one-way delay: 29.993 ms

Loss rate: 7.55%

-- Flow 2:

Average throughput: 33.25 Mbit/s

95th percentile per-packet one-way delay: 32.906 ms

Loss rate: 37.23%

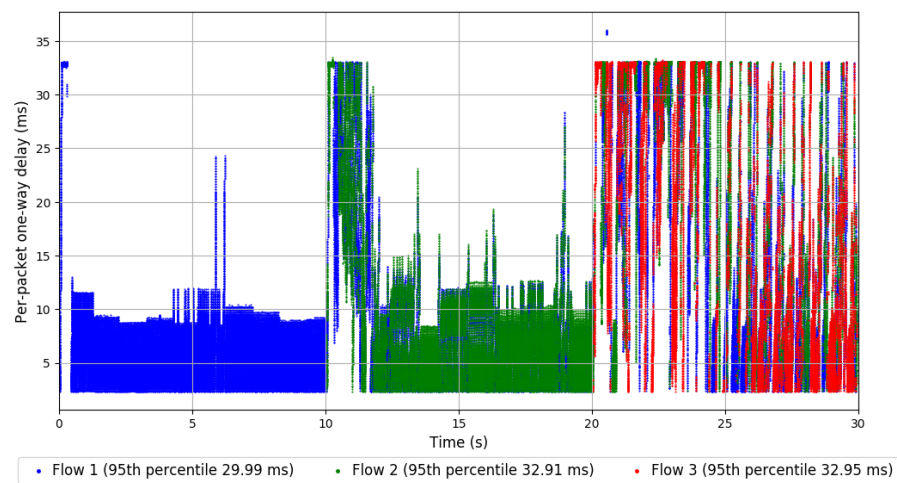
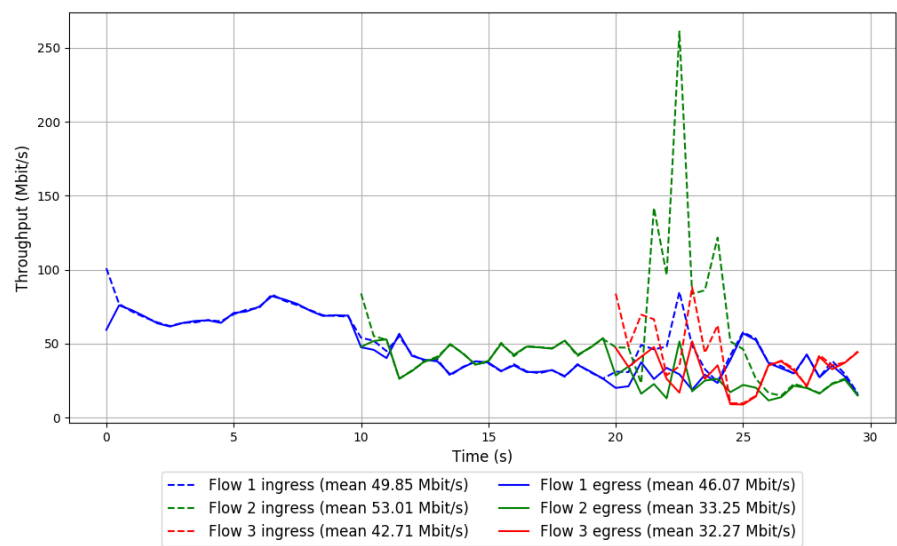
-- Flow 3:

Average throughput: 32.27 Mbit/s

95th percentile per-packet one-way delay: 32.951 ms

Loss rate: 24.43%

Run 7: Report of Verus — Data Link

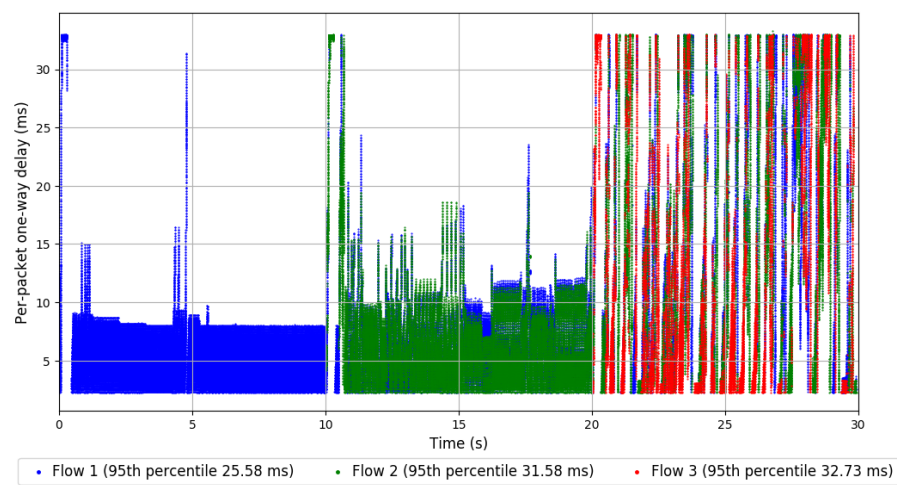
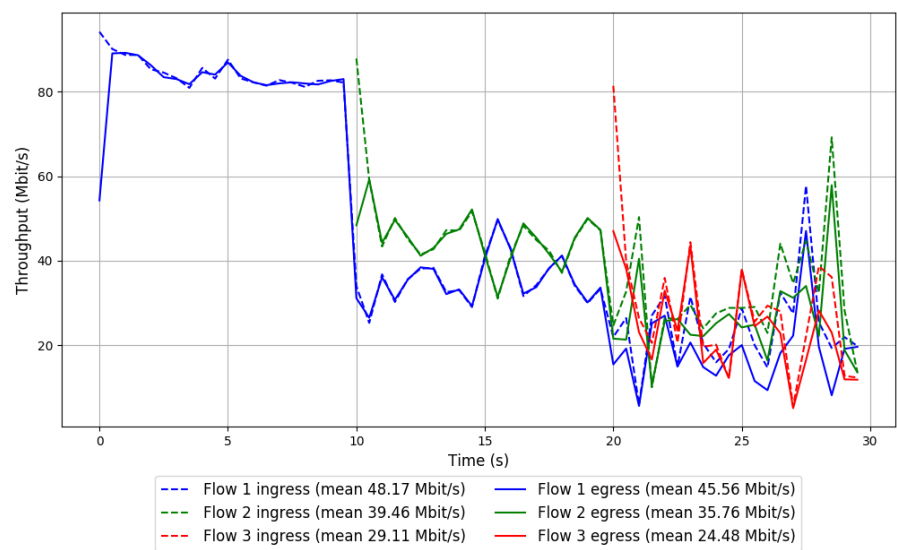


Run 8: Statistics of Verus

Start at: 2017-12-20 09:53:35
End at: 2017-12-20 09:54:05
Local clock offset: -0.084 ms
Remote clock offset: 2.125 ms

```
# Below is generated by plot.py at 2017-12-20 11:13:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.37 Mbit/s
95th percentile per-packet one-way delay: 30.900 ms
Loss rate: 7.83%
-- Flow 1:
Average throughput: 45.56 Mbit/s
95th percentile per-packet one-way delay: 25.580 ms
Loss rate: 5.42%
-- Flow 2:
Average throughput: 35.76 Mbit/s
95th percentile per-packet one-way delay: 31.582 ms
Loss rate: 9.39%
-- Flow 3:
Average throughput: 24.48 Mbit/s
95th percentile per-packet one-way delay: 32.725 ms
Loss rate: 15.68%
```

Run 8: Report of Verus — Data Link

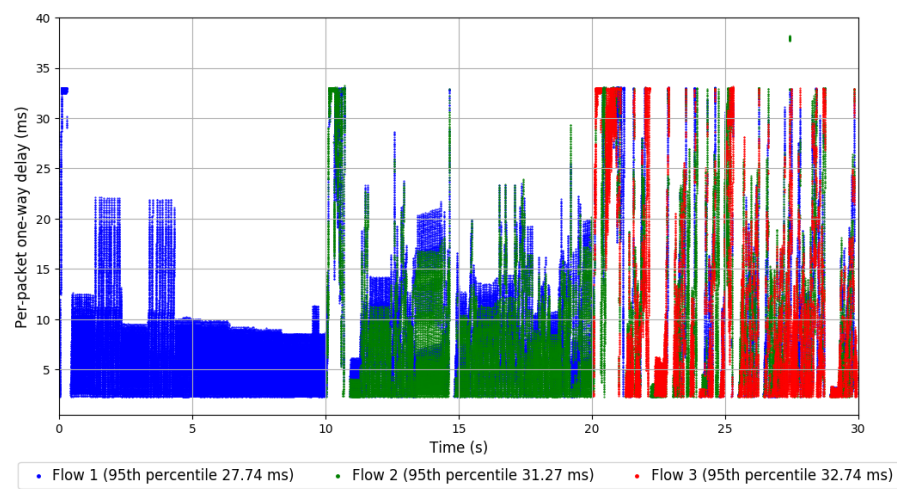
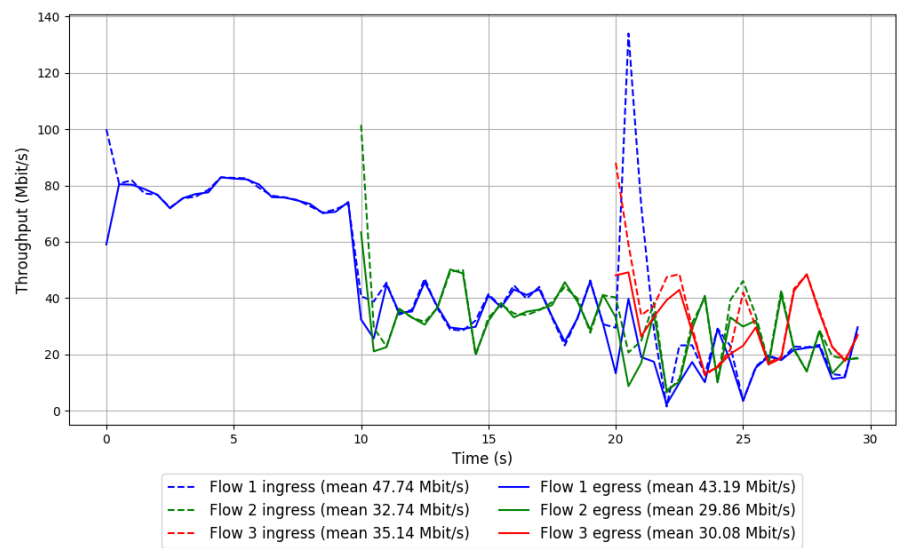


Run 9: Statistics of Verus

Start at: 2017-12-20 10:10:44
End at: 2017-12-20 10:11:14
Local clock offset: -0.126 ms
Remote clock offset: 2.193 ms

Below is generated by plot.py at 2017-12-20 11:13:18
Datalink statistics
-- Total of 3 flows:
Average throughput: 72.94 Mbit/s
95th percentile per-packet one-way delay: 30.853 ms
Loss rate: 9.99%
-- Flow 1:
Average throughput: 43.19 Mbit/s
95th percentile per-packet one-way delay: 27.738 ms
Loss rate: 9.53%
-- Flow 2:
Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 31.275 ms
Loss rate: 8.66%
-- Flow 3:
Average throughput: 30.08 Mbit/s
95th percentile per-packet one-way delay: 32.742 ms
Loss rate: 14.37%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-12-20 10:27:52

End at: 2017-12-20 10:28:22

Local clock offset: -0.151 ms

Remote clock offset: 2.233 ms

Below is generated by plot.py at 2017-12-20 11:13:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.26 Mbit/s

95th percentile per-packet one-way delay: 32.709 ms

Loss rate: 14.60%

-- Flow 1:

Average throughput: 44.94 Mbit/s

95th percentile per-packet one-way delay: 30.988 ms

Loss rate: 8.23%

-- Flow 2:

Average throughput: 28.87 Mbit/s

95th percentile per-packet one-way delay: 32.739 ms

Loss rate: 21.47%

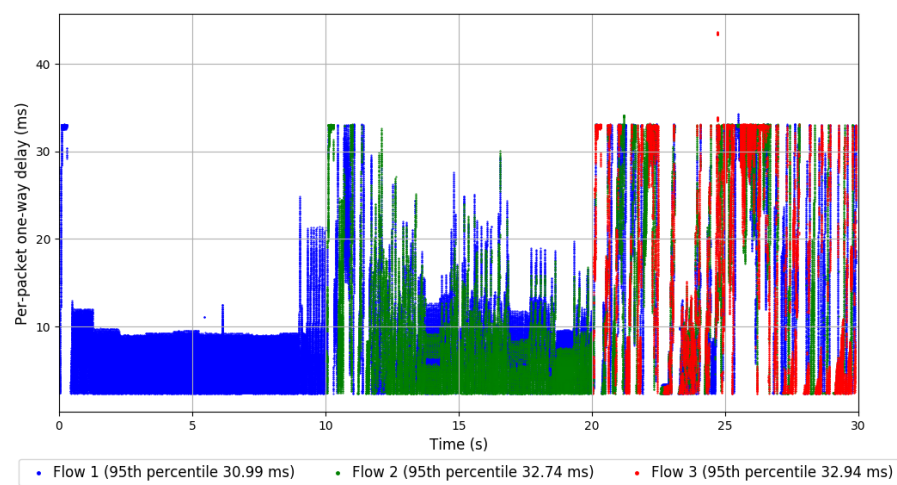
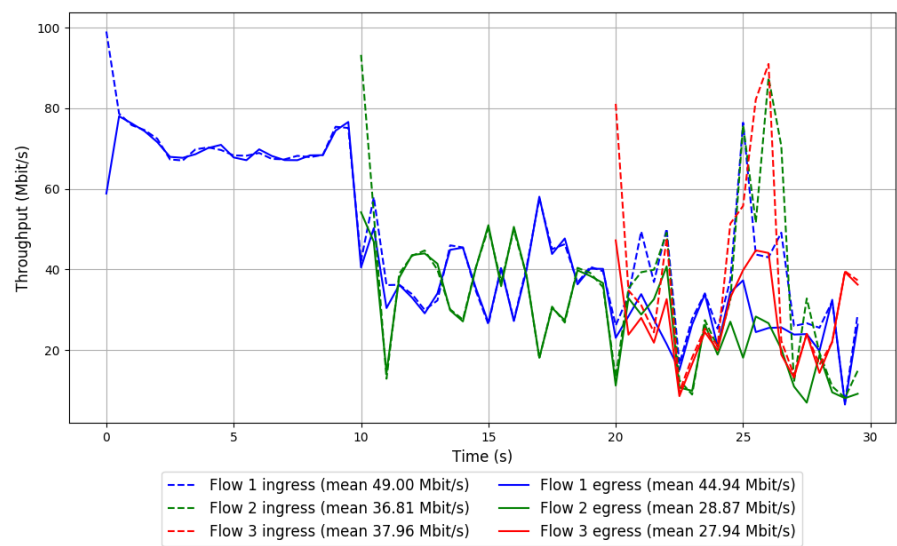
-- Flow 3:

Average throughput: 27.94 Mbit/s

95th percentile per-packet one-way delay: 32.937 ms

Loss rate: 26.17%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-12-20 07:46:48

End at: 2017-12-20 07:47:18

Local clock offset: 0.007 ms

Remote clock offset: 0.409 ms

Below is generated by plot.py at 2017-12-20 11:14:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.92 Mbit/s

95th percentile per-packet one-way delay: 4.639 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 62.95 Mbit/s

95th percentile per-packet one-way delay: 4.531 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.67 Mbit/s

95th percentile per-packet one-way delay: 4.767 ms

Loss rate: 0.00%

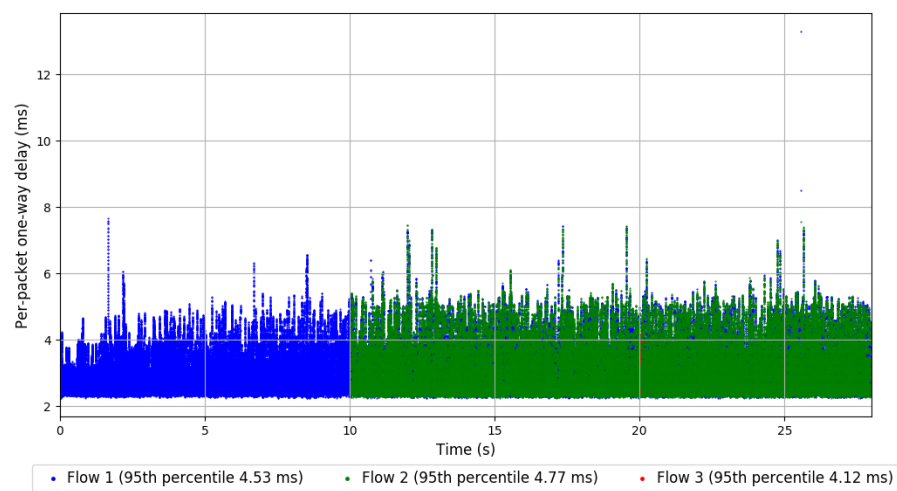
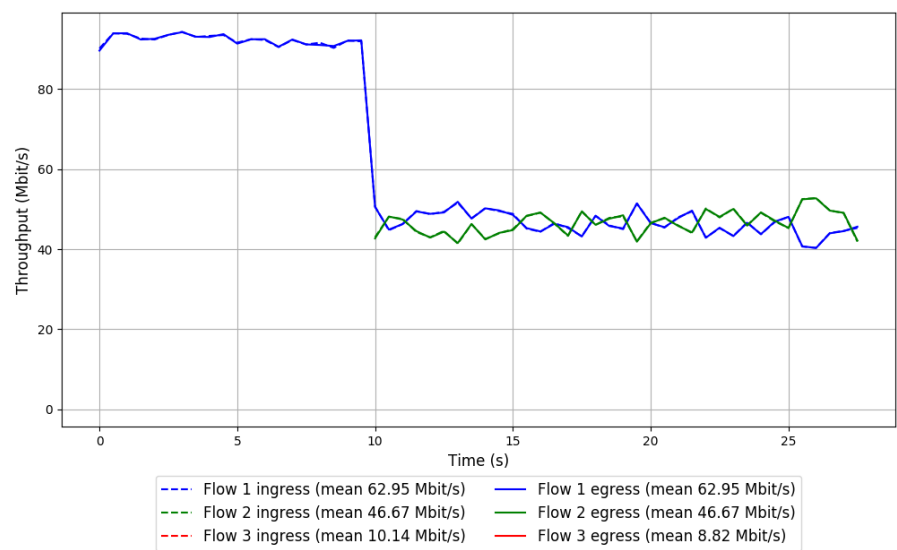
-- Flow 3:

Average throughput: 8.82 Mbit/s

95th percentile per-packet one-way delay: 4.125 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-20 08:03:57

End at: 2017-12-20 08:04:27

Local clock offset: -0.011 ms

Remote clock offset: 0.259 ms

Below is generated by plot.py at 2017-12-20 11:14:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.65 Mbit/s

95th percentile per-packet one-way delay: 5.311 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.12 Mbit/s

95th percentile per-packet one-way delay: 4.894 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.15 Mbit/s

95th percentile per-packet one-way delay: 5.464 ms

Loss rate: 0.00%

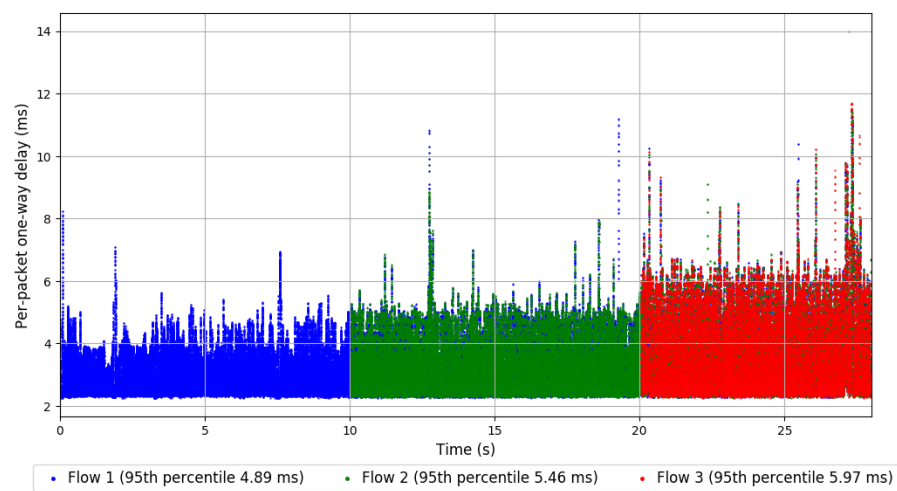
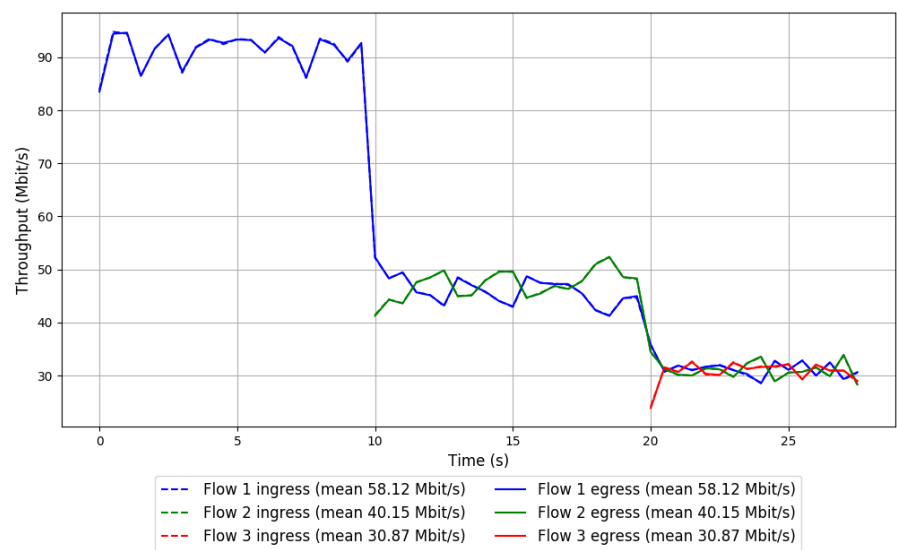
-- Flow 3:

Average throughput: 30.87 Mbit/s

95th percentile per-packet one-way delay: 5.975 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-12-20 08:21:05

End at: 2017-12-20 08:21:35

Local clock offset: -0.041 ms

Remote clock offset: 0.098 ms

Below is generated by plot.py at 2017-12-20 11:14:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.10 Mbit/s

95th percentile per-packet one-way delay: 5.356 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.93 Mbit/s

95th percentile per-packet one-way delay: 4.947 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.35 Mbit/s

95th percentile per-packet one-way delay: 5.487 ms

Loss rate: 0.00%

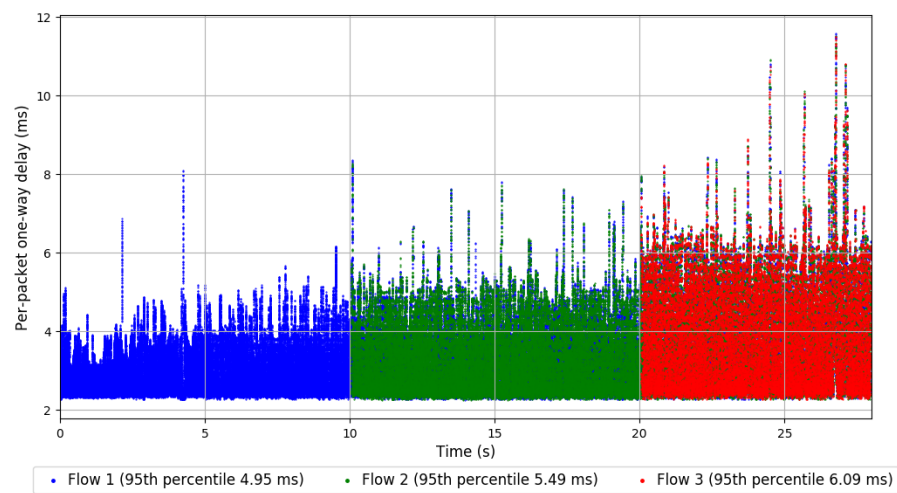
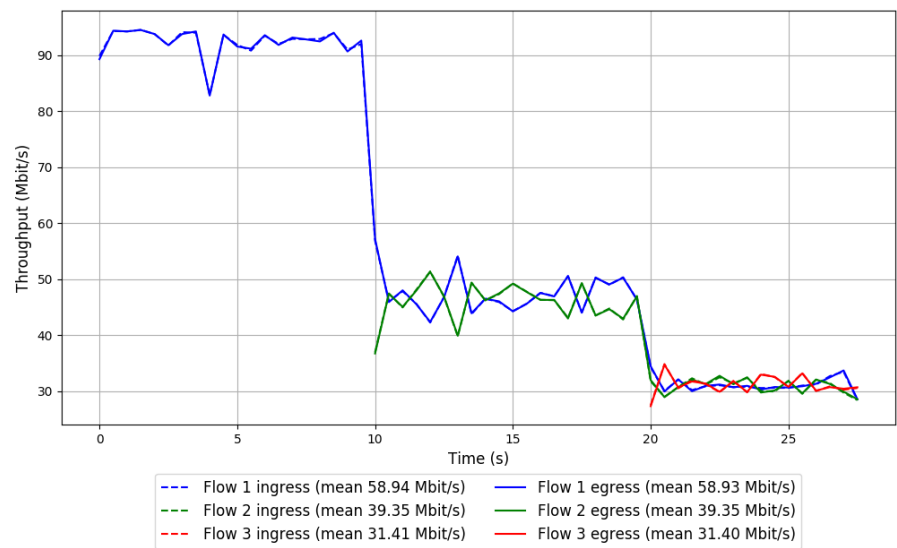
-- Flow 3:

Average throughput: 31.40 Mbit/s

95th percentile per-packet one-way delay: 6.089 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-12-20 08:38:11

End at: 2017-12-20 08:38:41

Local clock offset: -0.054 ms

Remote clock offset: 0.993 ms

Below is generated by plot.py at 2017-12-20 11:15:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.04 Mbit/s

95th percentile per-packet one-way delay: 5.198 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.15 Mbit/s

95th percentile per-packet one-way delay: 4.818 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.17 Mbit/s

95th percentile per-packet one-way delay: 5.323 ms

Loss rate: 0.00%

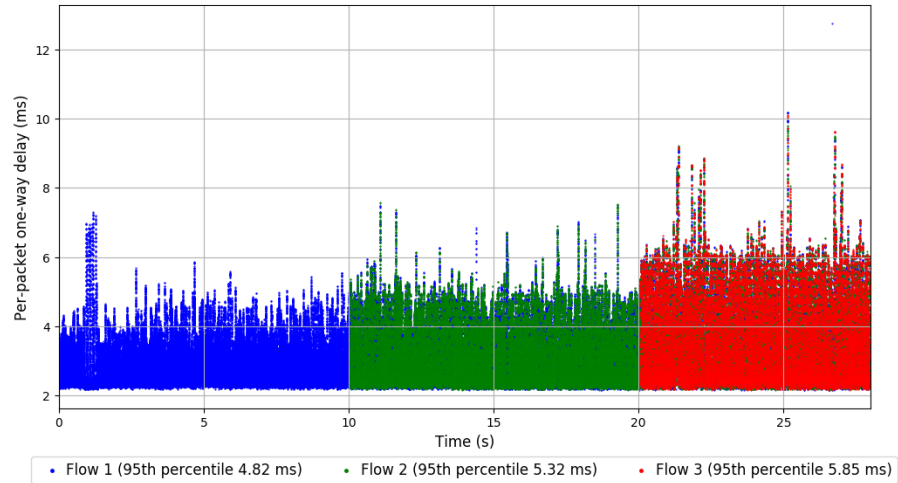
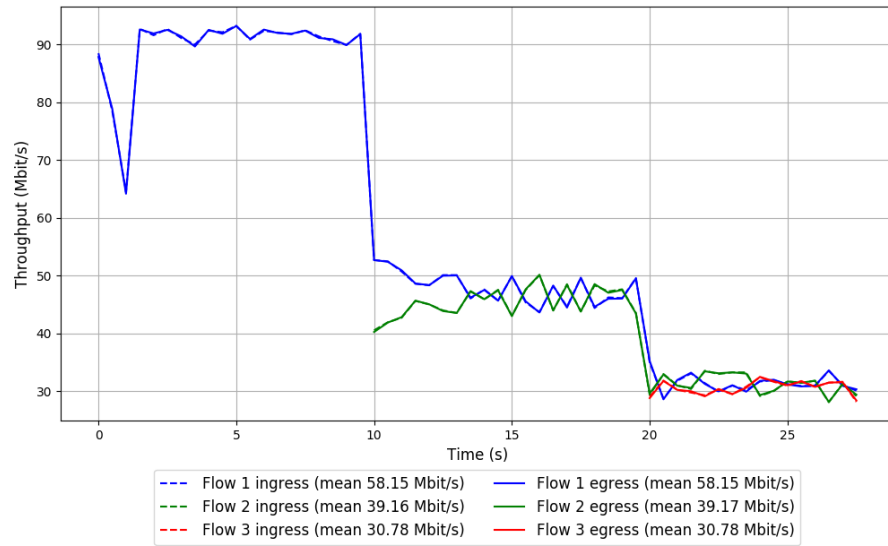
-- Flow 3:

Average throughput: 30.78 Mbit/s

95th percentile per-packet one-way delay: 5.852 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-12-20 08:55:18

End at: 2017-12-20 08:55:48

Local clock offset: -0.066 ms

Remote clock offset: 1.723 ms

Below is generated by plot.py at 2017-12-20 11:15:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.98 Mbit/s

95th percentile per-packet one-way delay: 5.285 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.88 Mbit/s

95th percentile per-packet one-way delay: 4.877 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.12 Mbit/s

95th percentile per-packet one-way delay: 5.429 ms

Loss rate: 0.00%

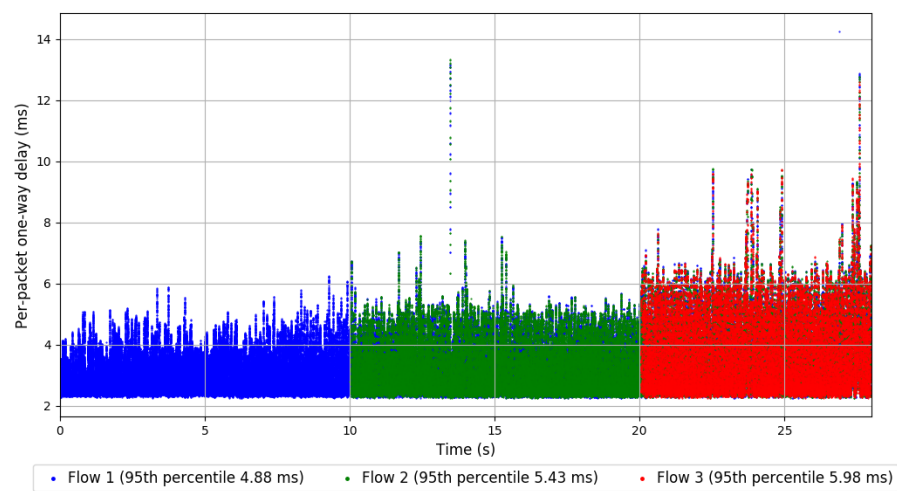
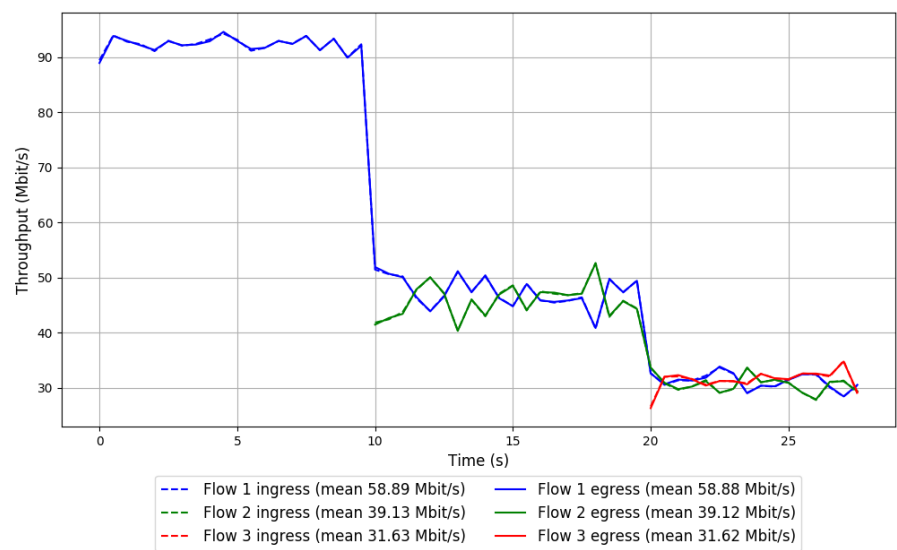
-- Flow 3:

Average throughput: 31.62 Mbit/s

95th percentile per-packet one-way delay: 5.982 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-12-20 09:12:26

End at: 2017-12-20 09:12:56

Local clock offset: -0.156 ms

Remote clock offset: 1.994 ms

Below is generated by plot.py at 2017-12-20 11:15:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.88 Mbit/s

95th percentile per-packet one-way delay: 23.366 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.33 Mbit/s

95th percentile per-packet one-way delay: 6.003 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.34 Mbit/s

95th percentile per-packet one-way delay: 26.110 ms

Loss rate: 0.00%

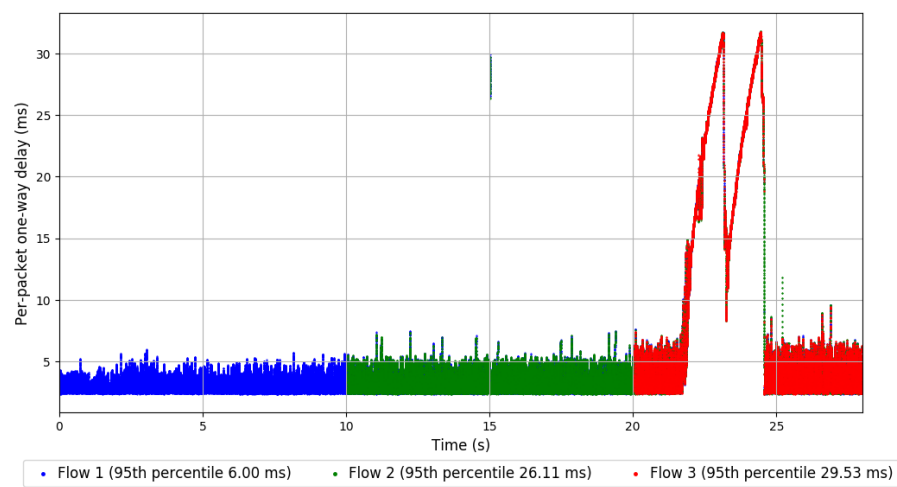
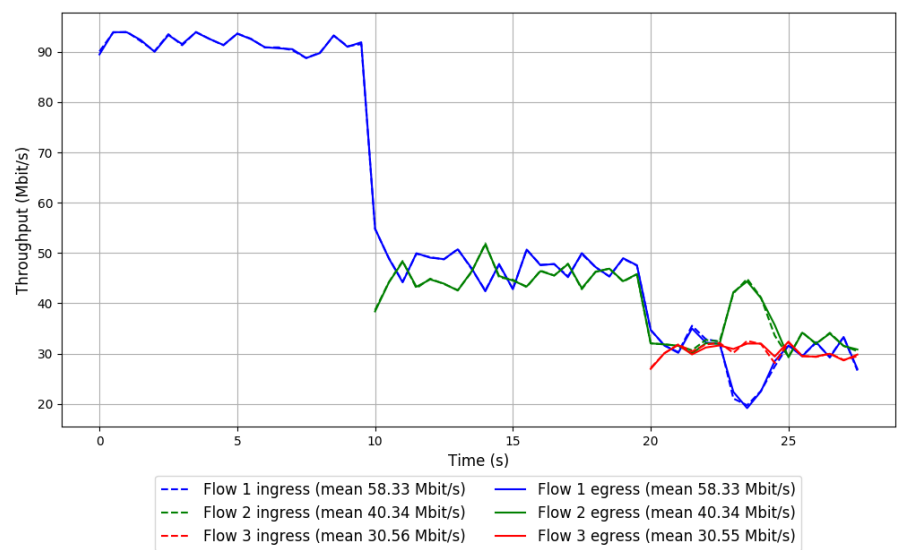
-- Flow 3:

Average throughput: 30.55 Mbit/s

95th percentile per-packet one-way delay: 29.532 ms

Loss rate: 0.01%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-20 09:29:32

End at: 2017-12-20 09:30:02

Local clock offset: -0.103 ms

Remote clock offset: 2.108 ms

Below is generated by plot.py at 2017-12-20 11:15:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.51 Mbit/s

95th percentile per-packet one-way delay: 5.201 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.14 Mbit/s

95th percentile per-packet one-way delay: 4.866 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.21 Mbit/s

95th percentile per-packet one-way delay: 5.368 ms

Loss rate: 0.00%

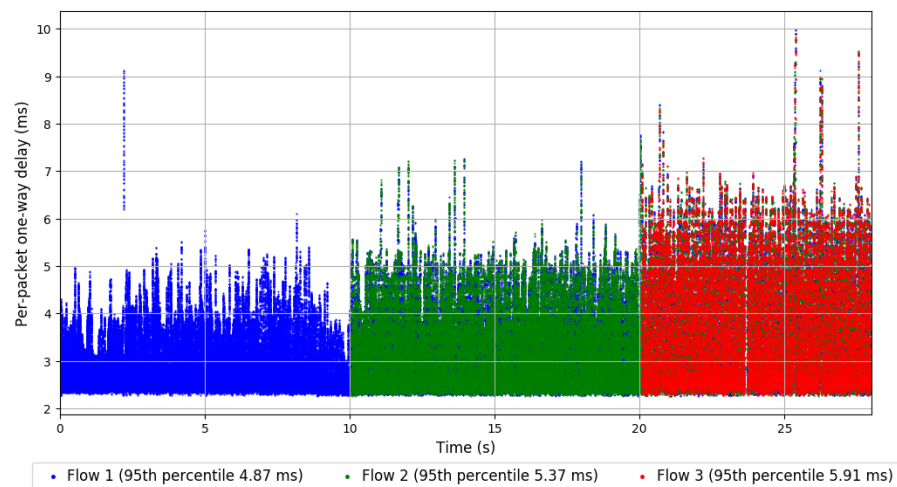
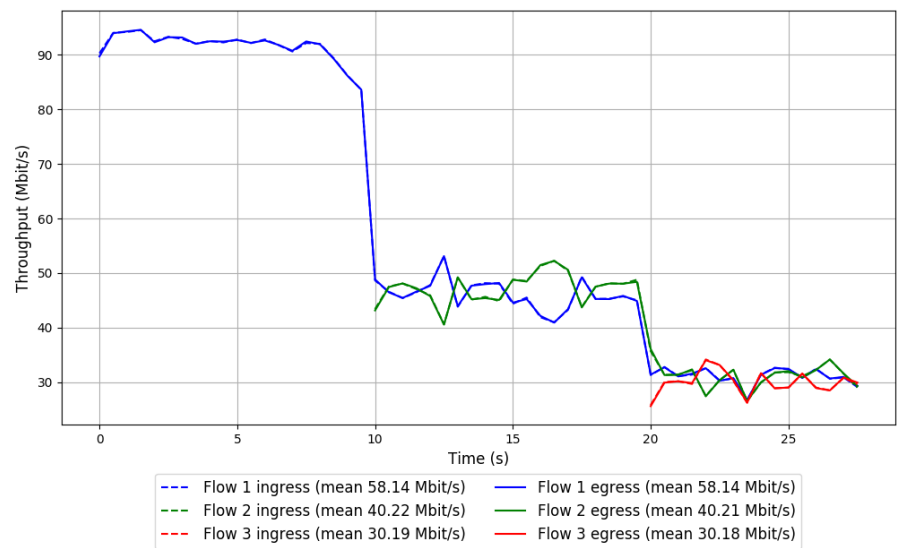
-- Flow 3:

Average throughput: 30.18 Mbit/s

95th percentile per-packet one-way delay: 5.908 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-12-20 09:46:39

End at: 2017-12-20 09:47:09

Local clock offset: -0.09 ms

Remote clock offset: 2.13 ms

Below is generated by plot.py at 2017-12-20 11:15:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.54 Mbit/s

95th percentile per-packet one-way delay: 5.298 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.61 Mbit/s

95th percentile per-packet one-way delay: 4.915 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.49 Mbit/s

95th percentile per-packet one-way delay: 5.420 ms

Loss rate: 0.00%

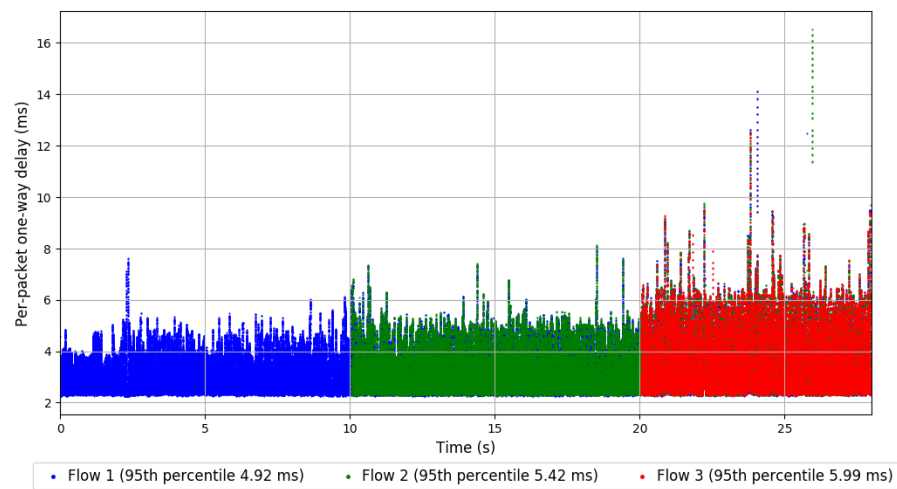
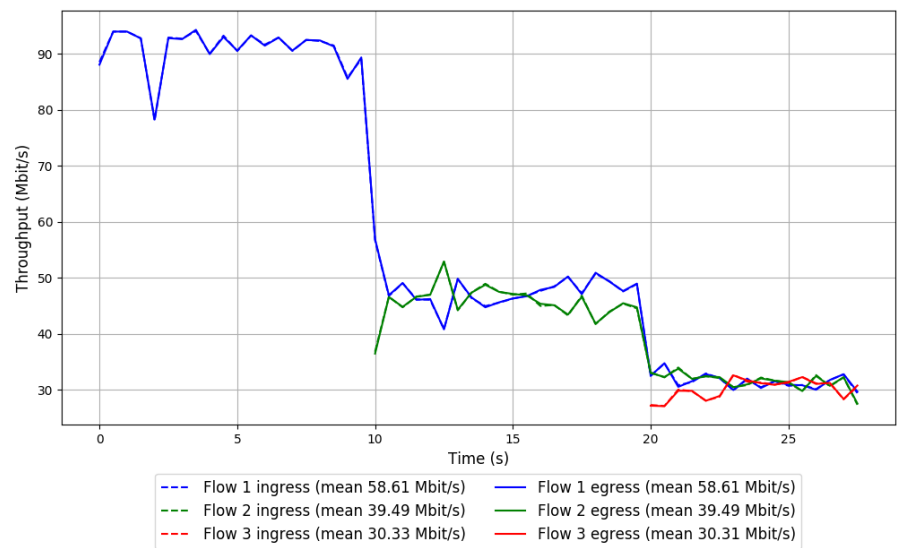
-- Flow 3:

Average throughput: 30.31 Mbit/s

95th percentile per-packet one-way delay: 5.993 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-12-20 10:03:47

End at: 2017-12-20 10:04:17

Local clock offset: -0.126 ms

Remote clock offset: 2.168 ms

Below is generated by plot.py at 2017-12-20 11:17:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.06 Mbit/s

95th percentile per-packet one-way delay: 4.778 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 61.79 Mbit/s

95th percentile per-packet one-way delay: 4.655 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.14 Mbit/s

95th percentile per-packet one-way delay: 4.890 ms

Loss rate: 0.00%

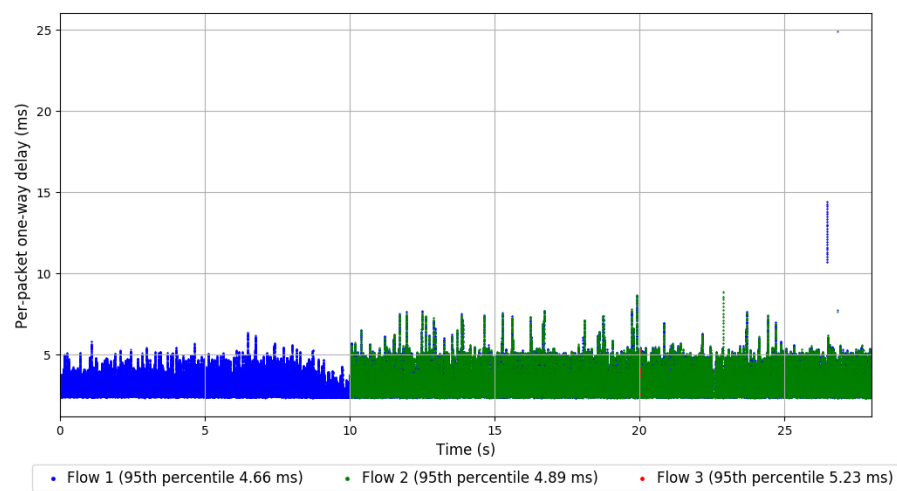
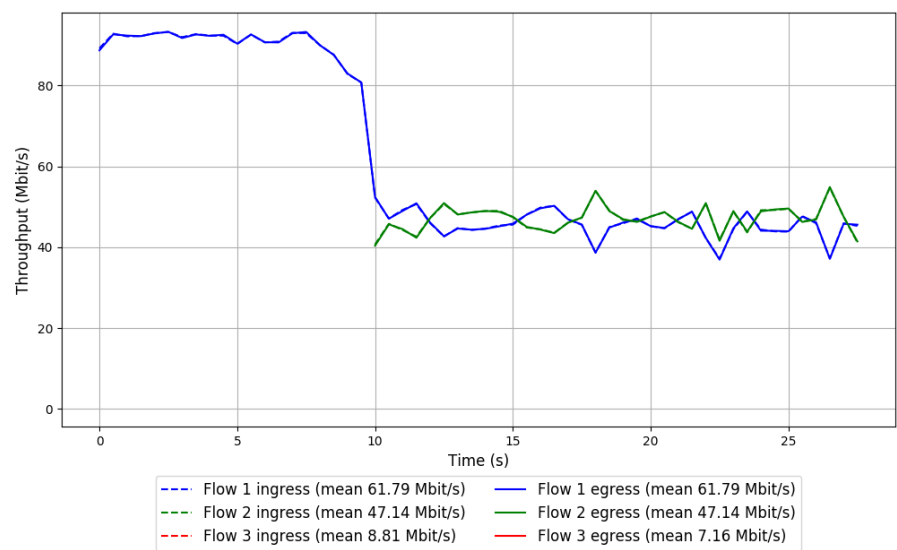
-- Flow 3:

Average throughput: 7.16 Mbit/s

95th percentile per-packet one-way delay: 5.232 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-12-20 10:20:56

End at: 2017-12-20 10:21:26

Local clock offset: -0.073 ms

Remote clock offset: 2.227 ms

Below is generated by plot.py at 2017-12-20 11:17:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.10 Mbit/s

95th percentile per-packet one-way delay: 5.226 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.42 Mbit/s

95th percentile per-packet one-way delay: 4.855 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.14 Mbit/s

95th percentile per-packet one-way delay: 5.369 ms

Loss rate: 0.00%

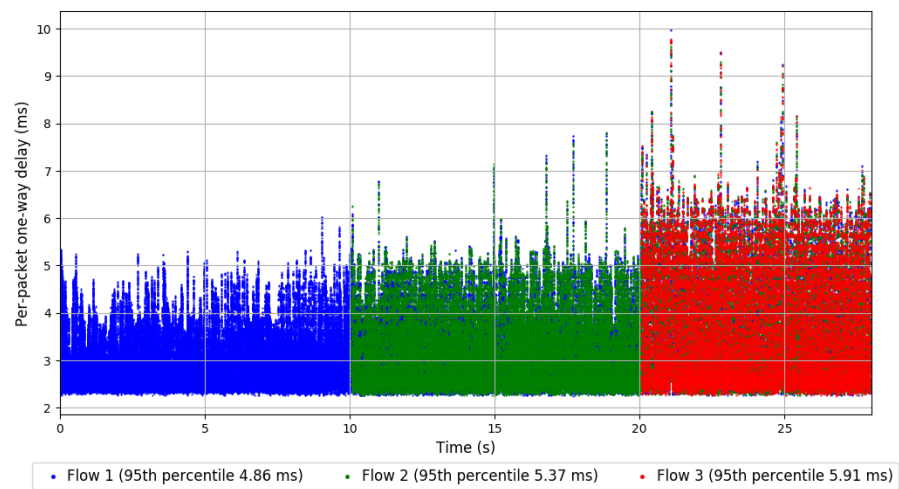
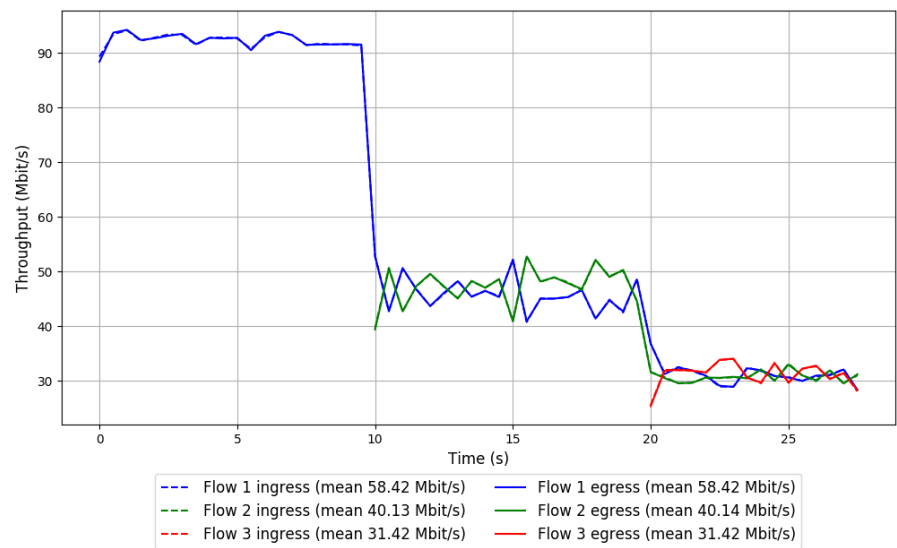
-- Flow 3:

Average throughput: 31.42 Mbit/s

95th percentile per-packet one-way delay: 5.907 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

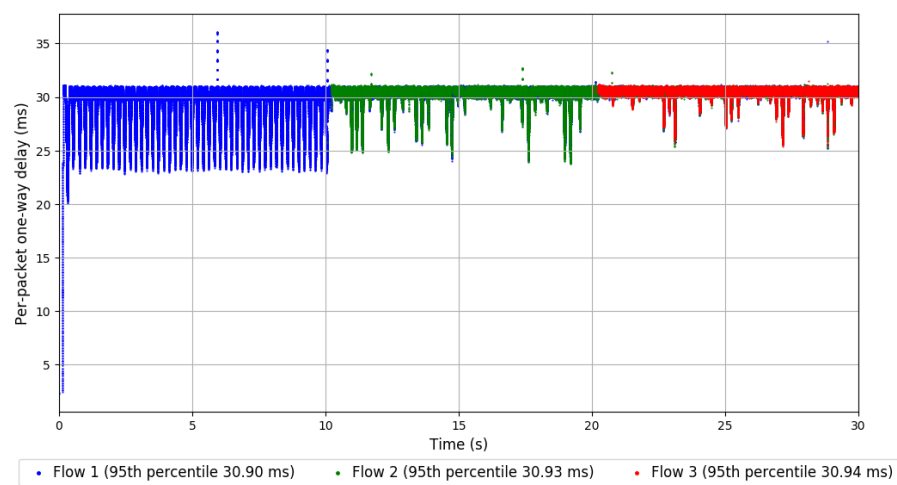
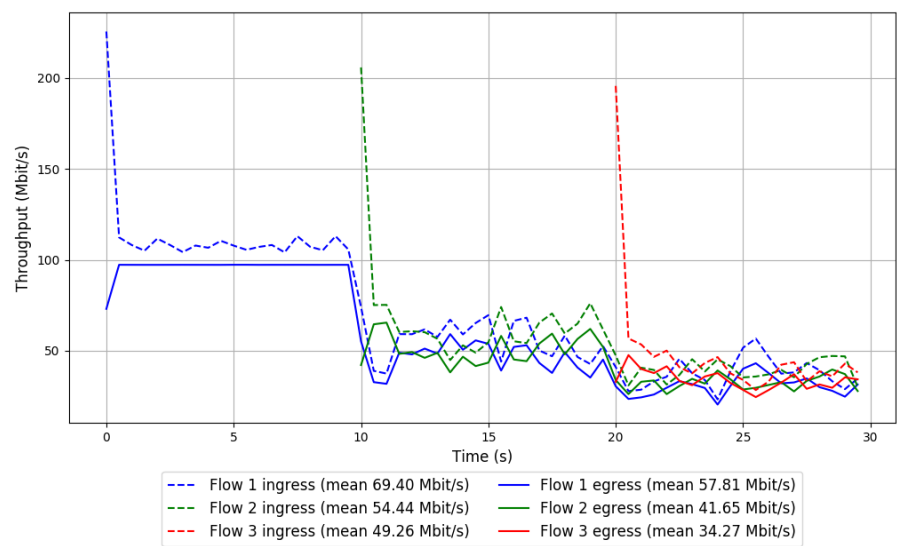


```
Run 1: Statistics of FillP

Start at: 2017-12-20 07:51:24
End at: 2017-12-20 07:51:54
Local clock offset: -0.062 ms
Remote clock offset: 0.347 ms

# Below is generated by plot.py at 2017-12-20 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.87 Mbit/s
95th percentile per-packet one-way delay: 30.913 ms
Loss rate: 20.51%
-- Flow 1:
Average throughput: 57.81 Mbit/s
95th percentile per-packet one-way delay: 30.898 ms
Loss rate: 16.63%
-- Flow 2:
Average throughput: 41.65 Mbit/s
95th percentile per-packet one-way delay: 30.926 ms
Loss rate: 23.48%
-- Flow 3:
Average throughput: 34.27 Mbit/s
95th percentile per-packet one-way delay: 30.936 ms
Loss rate: 30.44%
```

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2017-12-20 08:08:32

End at: 2017-12-20 08:09:02

Local clock offset: -0.083 ms

Remote clock offset: 0.216 ms

Below is generated by plot.py at 2017-12-20 11:17:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.86 Mbit/s

95th percentile per-packet one-way delay: 30.969 ms

Loss rate: 20.19%

-- Flow 1:

Average throughput: 58.23 Mbit/s

95th percentile per-packet one-way delay: 30.953 ms

Loss rate: 16.73%

-- Flow 2:

Average throughput: 39.60 Mbit/s

95th percentile per-packet one-way delay: 30.980 ms

Loss rate: 22.24%

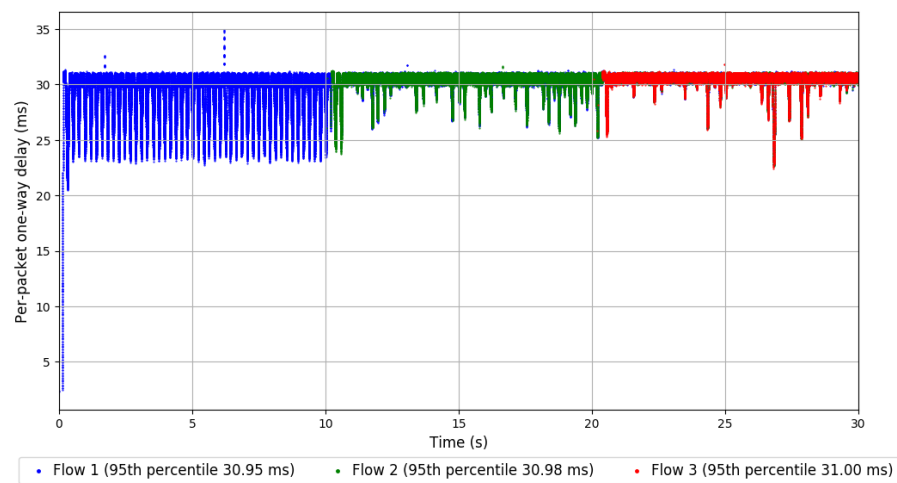
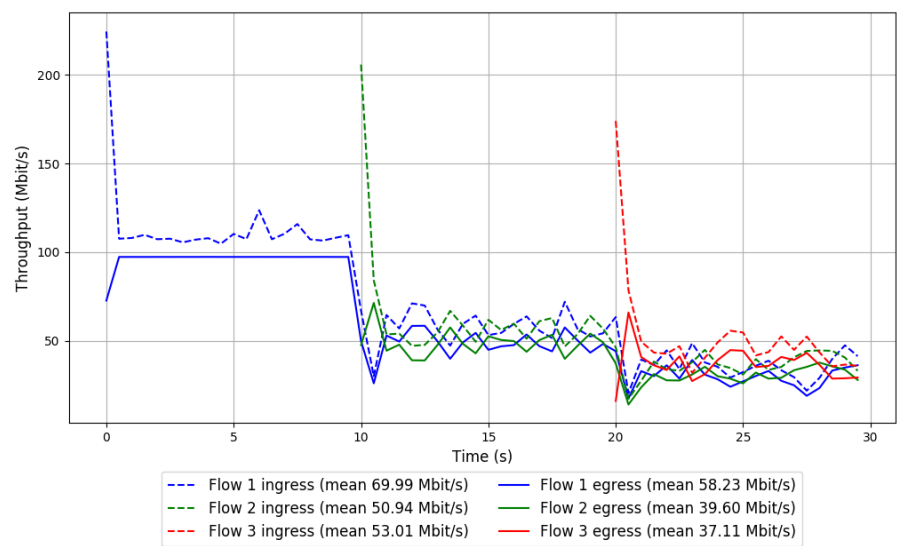
-- Flow 3:

Average throughput: 37.11 Mbit/s

95th percentile per-packet one-way delay: 30.995 ms

Loss rate: 29.99%

Run 2: Report of FillP — Data Link

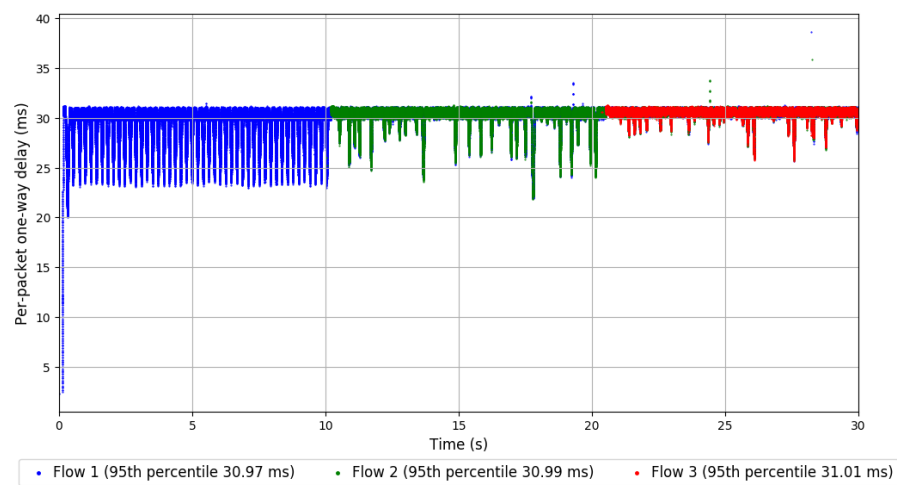
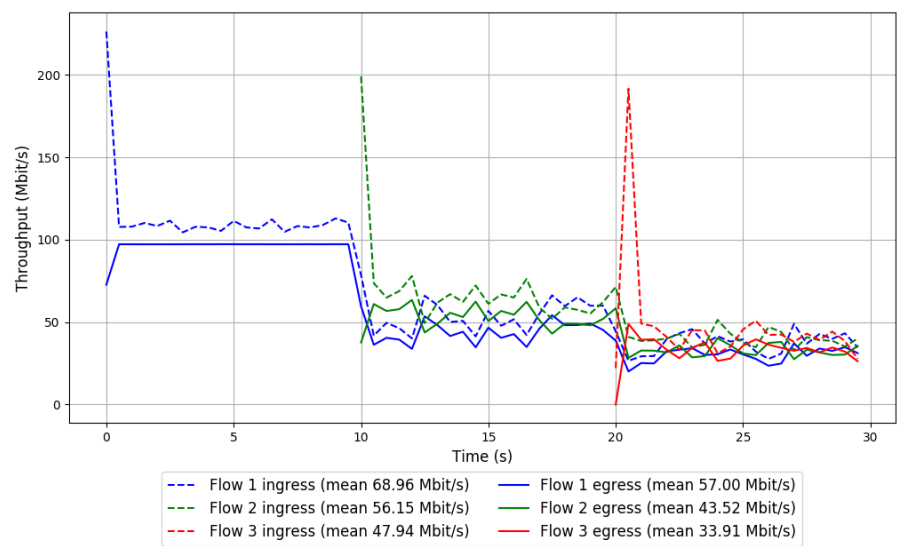


Run 3: Statistics of FillP

Start at: 2017-12-20 08:25:39
End at: 2017-12-20 08:26:09
Local clock offset: -0.102 ms
Remote clock offset: 0.063 ms

Below is generated by plot.py at 2017-12-20 11:17:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.86 Mbit/s
95th percentile per-packet one-way delay: 30.983 ms
Loss rate: 20.70%
-- Flow 1:
Average throughput: 57.00 Mbit/s
95th percentile per-packet one-way delay: 30.970 ms
Loss rate: 17.27%
-- Flow 2:
Average throughput: 43.52 Mbit/s
95th percentile per-packet one-way delay: 30.989 ms
Loss rate: 22.47%
-- Flow 3:
Average throughput: 33.91 Mbit/s
95th percentile per-packet one-way delay: 31.011 ms
Loss rate: 31.42%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2017-12-20 08:42:45

End at: 2017-12-20 08:43:15

Local clock offset: -0.056 ms

Remote clock offset: 1.403 ms

Below is generated by plot.py at 2017-12-20 11:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.86 Mbit/s

95th percentile per-packet one-way delay: 30.886 ms

Loss rate: 21.18%

-- Flow 1:

Average throughput: 58.69 Mbit/s

95th percentile per-packet one-way delay: 30.875 ms

Loss rate: 16.79%

-- Flow 2:

Average throughput: 41.77 Mbit/s

95th percentile per-packet one-way delay: 30.895 ms

Loss rate: 24.71%

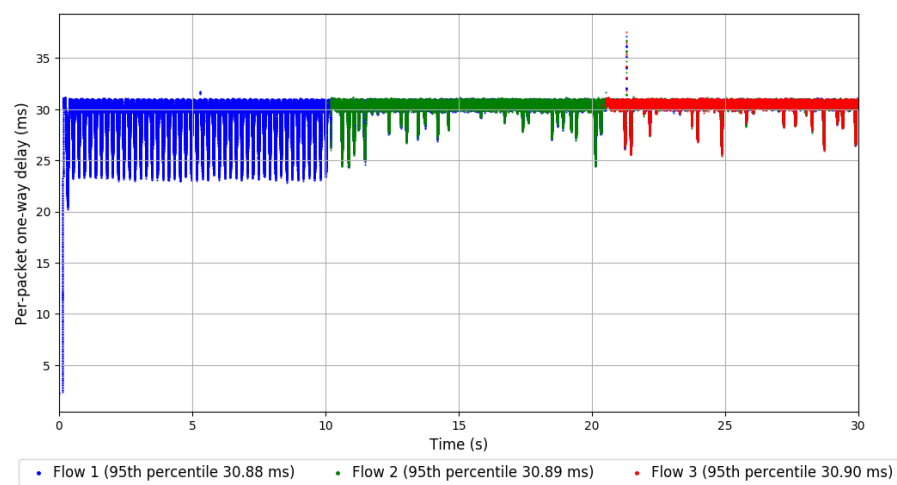
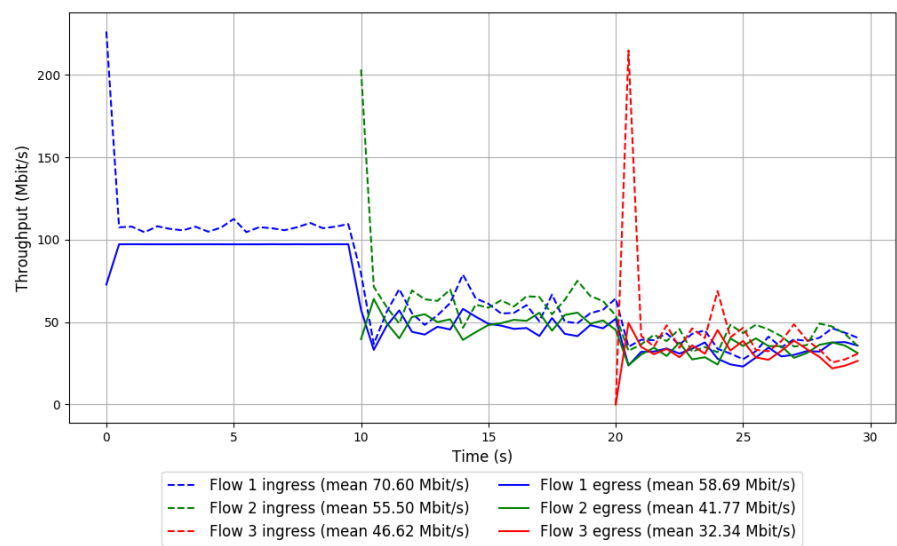
-- Flow 3:

Average throughput: 32.34 Mbit/s

95th percentile per-packet one-way delay: 30.904 ms

Loss rate: 32.75%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2017-12-20 08:59:53

End at: 2017-12-20 09:00:23

Local clock offset: -0.077 ms

Remote clock offset: 1.735 ms

Below is generated by plot.py at 2017-12-20 11:17:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.87 Mbit/s

95th percentile per-packet one-way delay: 30.834 ms

Loss rate: 20.60%

-- Flow 1:

Average throughput: 58.37 Mbit/s

95th percentile per-packet one-way delay: 30.820 ms

Loss rate: 16.77%

-- Flow 2:

Average throughput: 40.59 Mbit/s

95th percentile per-packet one-way delay: 30.844 ms

Loss rate: 23.18%

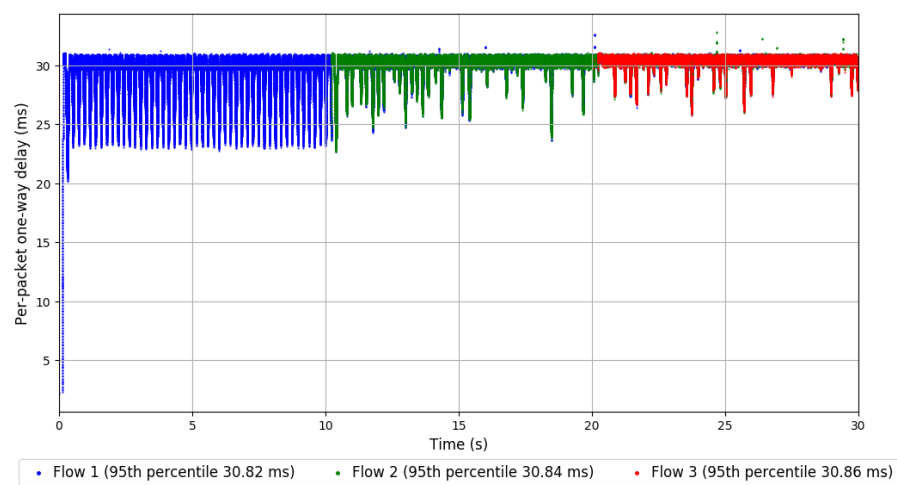
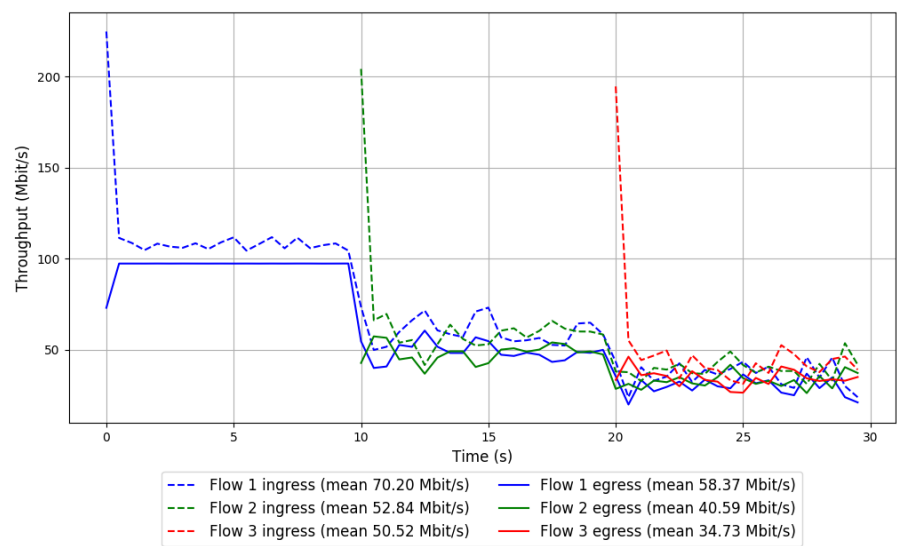
-- Flow 3:

Average throughput: 34.73 Mbit/s

95th percentile per-packet one-way delay: 30.861 ms

Loss rate: 31.25%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2017-12-20 09:16:59

End at: 2017-12-20 09:17:29

Local clock offset: -0.084 ms

Remote clock offset: 2.082 ms

Below is generated by plot.py at 2017-12-20 11:17:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.87 Mbit/s

95th percentile per-packet one-way delay: 30.930 ms

Loss rate: 20.76%

-- Flow 1:

Average throughput: 60.06 Mbit/s

95th percentile per-packet one-way delay: 30.914 ms

Loss rate: 17.07%

-- Flow 2:

Average throughput: 39.51 Mbit/s

95th percentile per-packet one-way delay: 30.941 ms

Loss rate: 24.54%

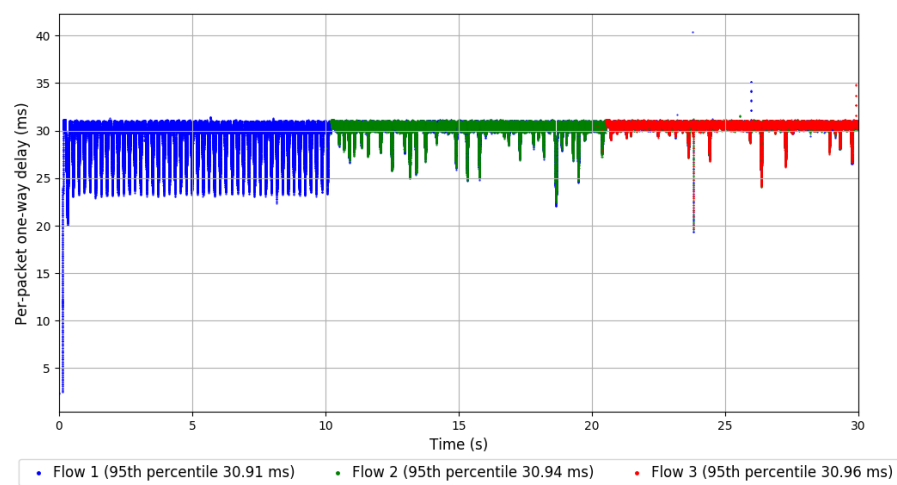
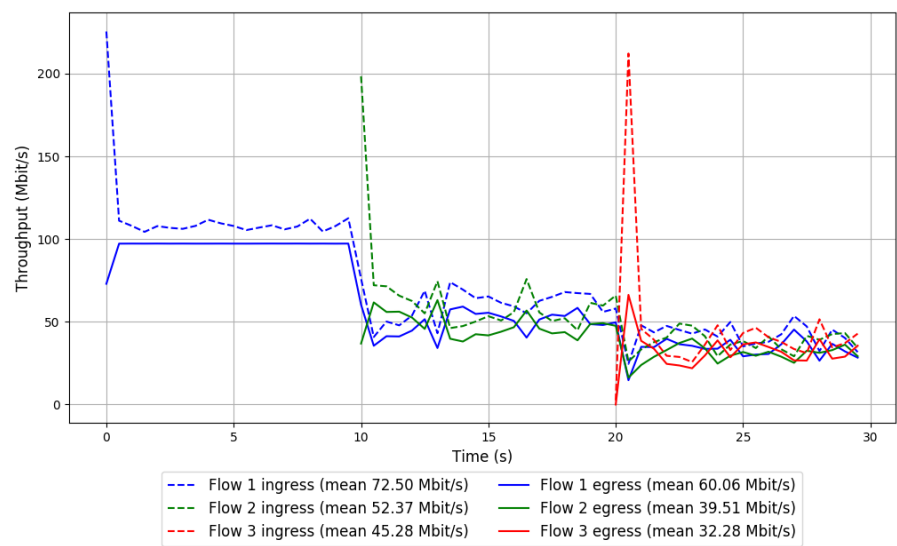
-- Flow 3:

Average throughput: 32.28 Mbit/s

95th percentile per-packet one-way delay: 30.964 ms

Loss rate: 29.82%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2017-12-20 09:34:06

End at: 2017-12-20 09:34:36

Local clock offset: -0.107 ms

Remote clock offset: 2.128 ms

Below is generated by plot.py at 2017-12-20 11:18:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.86 Mbit/s

95th percentile per-packet one-way delay: 30.919 ms

Loss rate: 20.73%

-- Flow 1:

Average throughput: 58.89 Mbit/s

95th percentile per-packet one-way delay: 30.907 ms

Loss rate: 16.78%

-- Flow 2:

Average throughput: 40.04 Mbit/s

95th percentile per-packet one-way delay: 30.930 ms

Loss rate: 24.20%

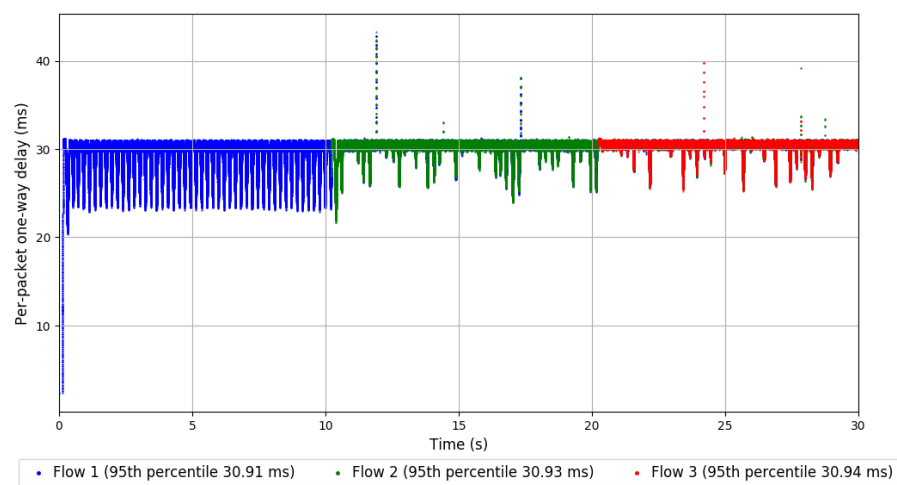
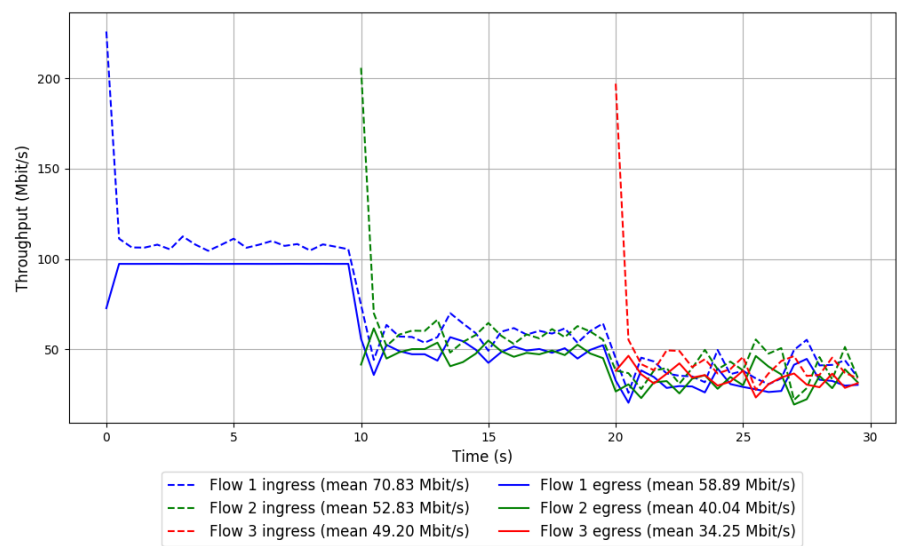
-- Flow 3:

Average throughput: 34.25 Mbit/s

95th percentile per-packet one-way delay: 30.940 ms

Loss rate: 30.39%

Run 7: Report of FillP — Data Link

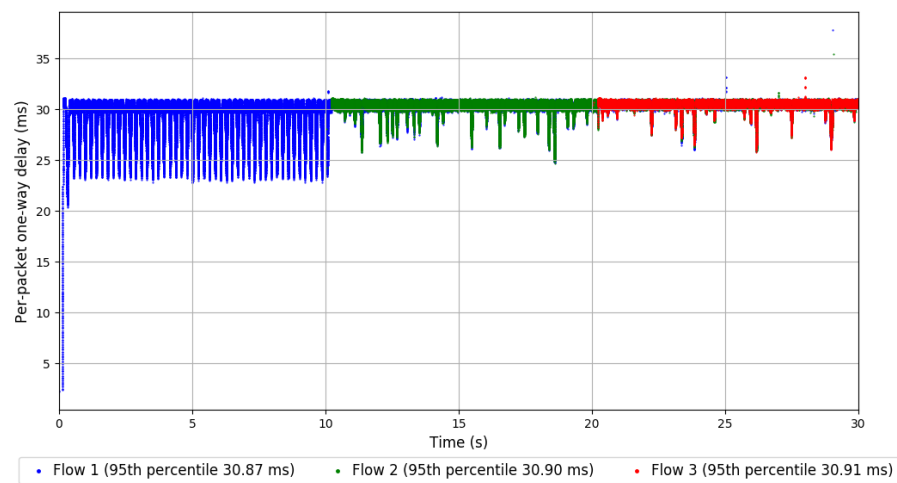
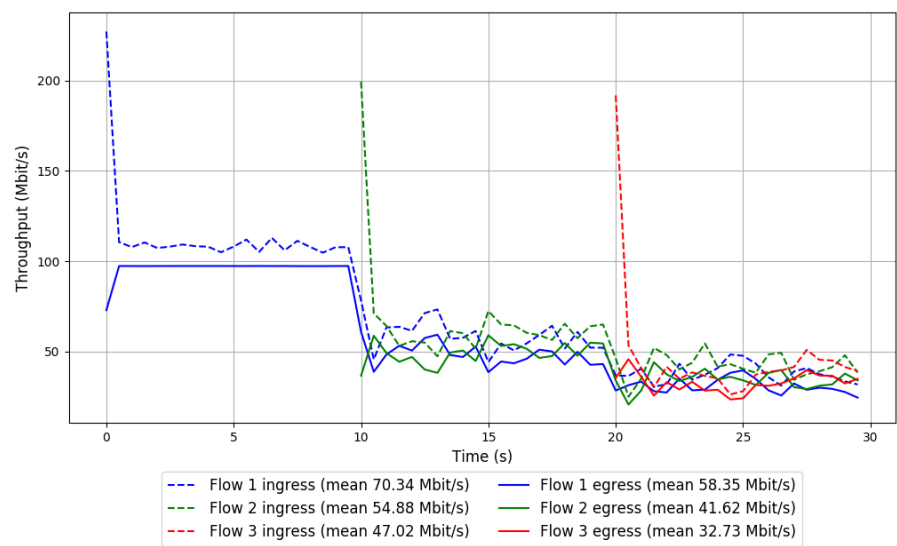


Run 8: Statistics of FillP

Start at: 2017-12-20 09:51:14
End at: 2017-12-20 09:51:44
Local clock offset: -0.087 ms
Remote clock offset: 2.112 ms

Below is generated by plot.py at 2017-12-20 11:18:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.86 Mbit/s
95th percentile per-packet one-way delay: 30.889 ms
Loss rate: 20.82%
-- Flow 1:
Average throughput: 58.35 Mbit/s
95th percentile per-packet one-way delay: 30.872 ms
Loss rate: 16.97%
-- Flow 2:
Average throughput: 41.62 Mbit/s
95th percentile per-packet one-way delay: 30.904 ms
Loss rate: 24.15%
-- Flow 3:
Average throughput: 32.73 Mbit/s
95th percentile per-packet one-way delay: 30.915 ms
Loss rate: 30.38%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2017-12-20 10:08:23

End at: 2017-12-20 10:08:53

Local clock offset: -0.077 ms

Remote clock offset: 2.116 ms

Below is generated by plot.py at 2017-12-20 11:18:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.86 Mbit/s

95th percentile per-packet one-way delay: 30.839 ms

Loss rate: 20.92%

-- Flow 1:

Average throughput: 58.19 Mbit/s

95th percentile per-packet one-way delay: 30.826 ms

Loss rate: 17.53%

-- Flow 2:

Average throughput: 40.65 Mbit/s

95th percentile per-packet one-way delay: 30.853 ms

Loss rate: 23.75%

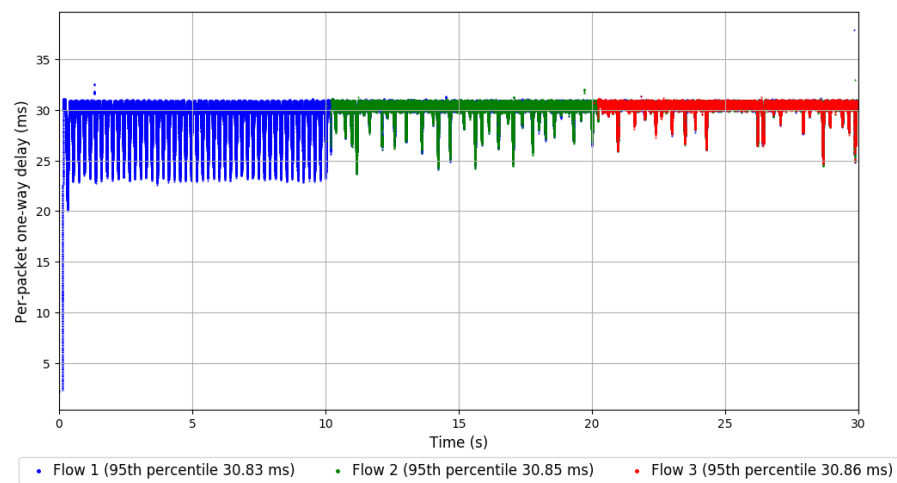
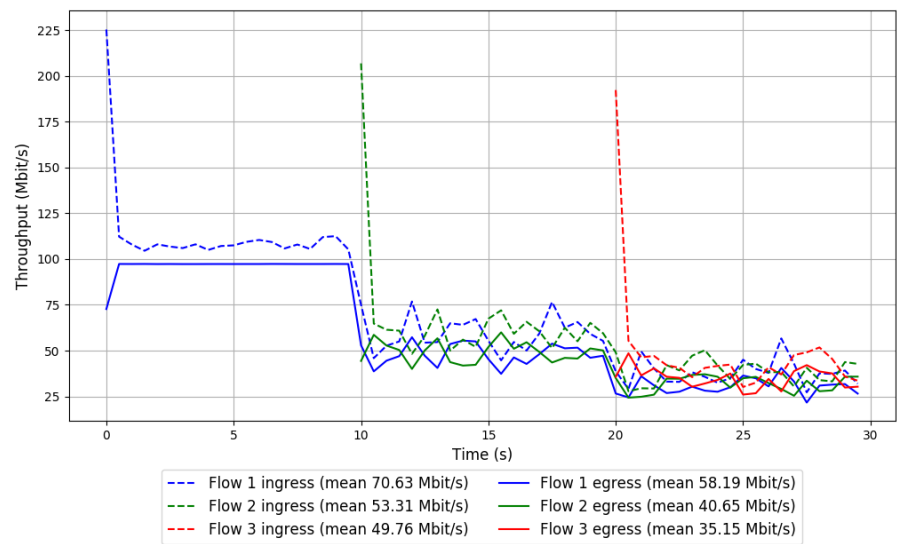
-- Flow 3:

Average throughput: 35.15 Mbit/s

95th percentile per-packet one-way delay: 30.861 ms

Loss rate: 29.35%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2017-12-20 10:25:31

End at: 2017-12-20 10:26:01

Local clock offset: -0.13 ms

Remote clock offset: 2.244 ms

Below is generated by plot.py at 2017-12-20 11:18:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.86 Mbit/s

95th percentile per-packet one-way delay: 30.968 ms

Loss rate: 20.98%

-- Flow 1:

Average throughput: 59.47 Mbit/s

95th percentile per-packet one-way delay: 30.955 ms

Loss rate: 17.29%

-- Flow 2:

Average throughput: 39.45 Mbit/s

95th percentile per-packet one-way delay: 30.976 ms

Loss rate: 23.74%

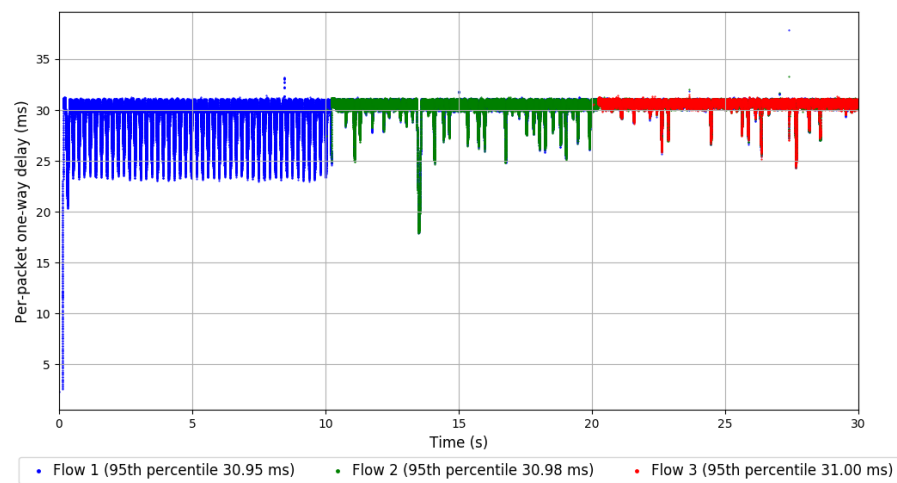
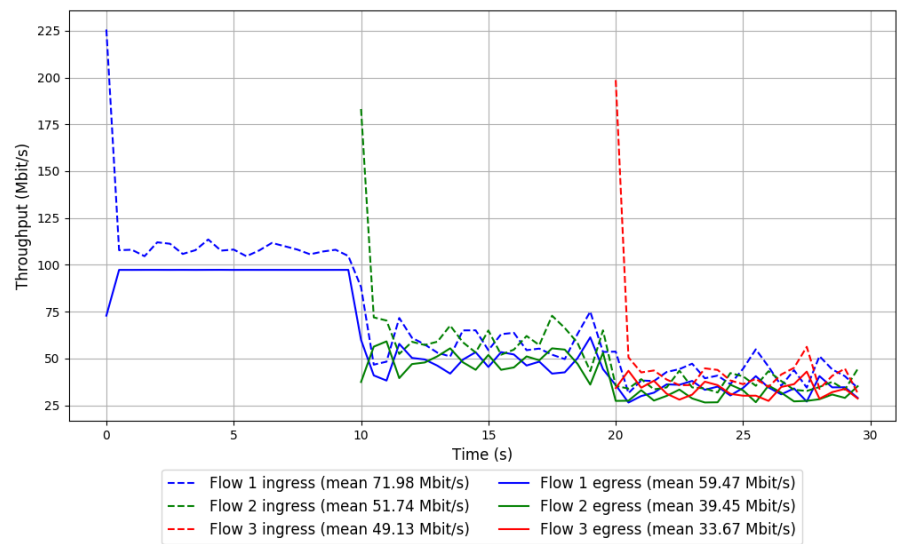
-- Flow 3:

Average throughput: 33.67 Mbit/s

95th percentile per-packet one-way delay: 31.000 ms

Loss rate: 31.47%

Run 10: Report of FillP — Data Link

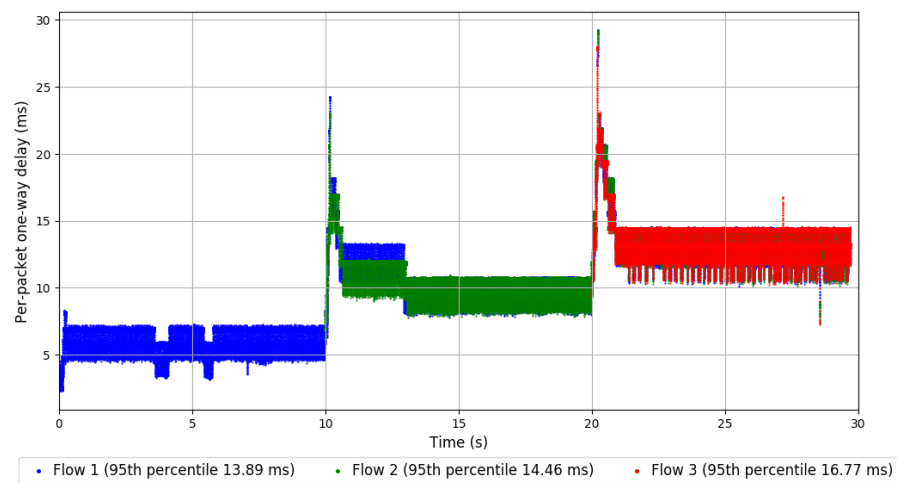
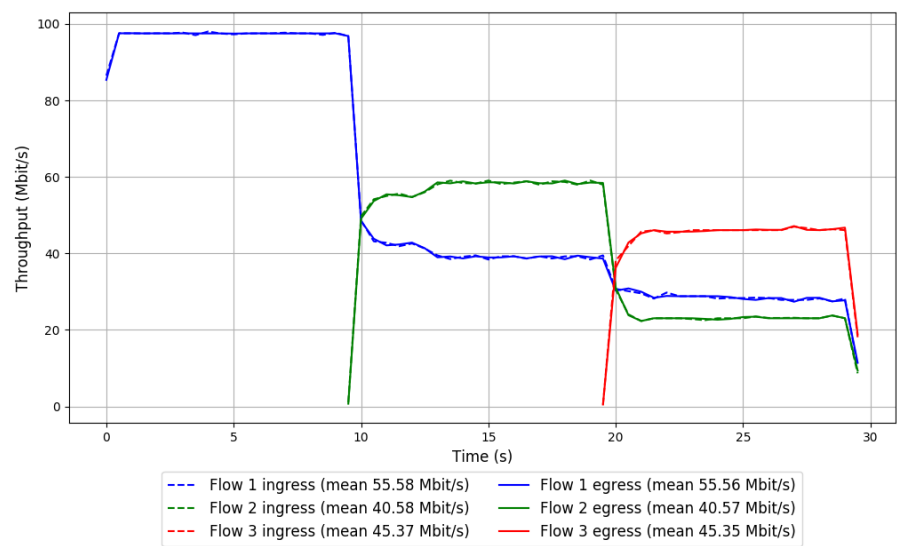


```
Run 1: Statistics of Indigo

Start at: 2017-12-20 07:54:54
End at: 2017-12-20 07:55:24
Local clock offset: -0.063 ms
Remote clock offset: 0.375 ms

# Below is generated by plot.py at 2017-12-20 11:18:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.33 Mbit/s
95th percentile per-packet one-way delay: 14.440 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.56 Mbit/s
95th percentile per-packet one-way delay: 13.890 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.57 Mbit/s
95th percentile per-packet one-way delay: 14.463 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.35 Mbit/s
95th percentile per-packet one-way delay: 16.775 ms
Loss rate: 0.01%
```

Run 1: Report of Indigo — Data Link

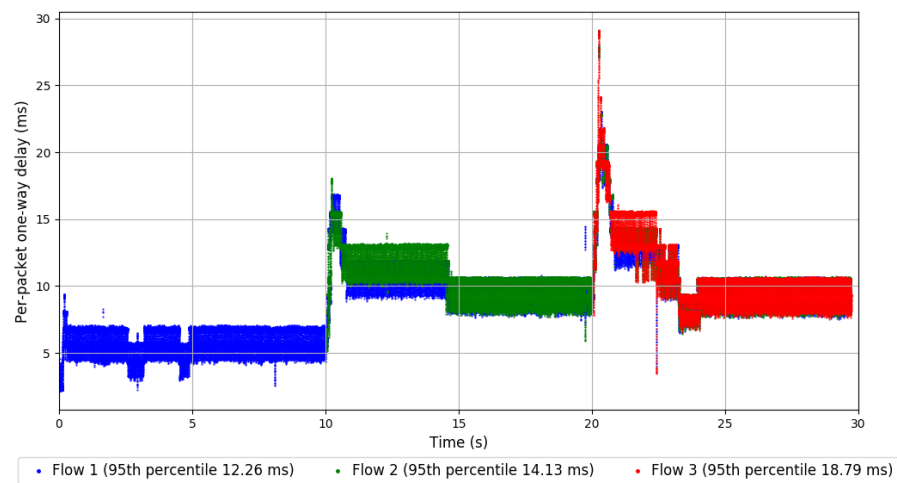
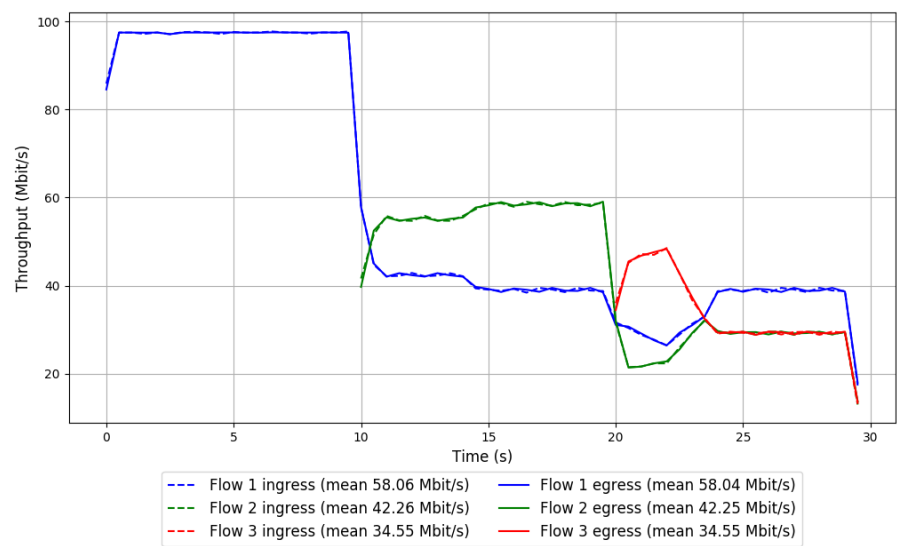


```
Run 2: Statistics of Indigo

Start at: 2017-12-20 08:12:02
End at: 2017-12-20 08:12:32
Local clock offset: -0.023 ms
Remote clock offset: 0.109 ms

# Below is generated by plot.py at 2017-12-20 11:18:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.30 Mbit/s
95th percentile per-packet one-way delay: 14.119 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.04 Mbit/s
95th percentile per-packet one-way delay: 12.259 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.25 Mbit/s
95th percentile per-packet one-way delay: 14.131 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.55 Mbit/s
95th percentile per-packet one-way delay: 18.793 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-12-20 08:29:09

End at: 2017-12-20 08:29:39

Local clock offset: -0.096 ms

Remote clock offset: 0.226 ms

Below is generated by plot.py at 2017-12-20 11:18:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.31 Mbit/s

95th percentile per-packet one-way delay: 14.131 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.32 Mbit/s

95th percentile per-packet one-way delay: 13.019 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 32.78 Mbit/s

95th percentile per-packet one-way delay: 13.034 ms

Loss rate: 0.00%

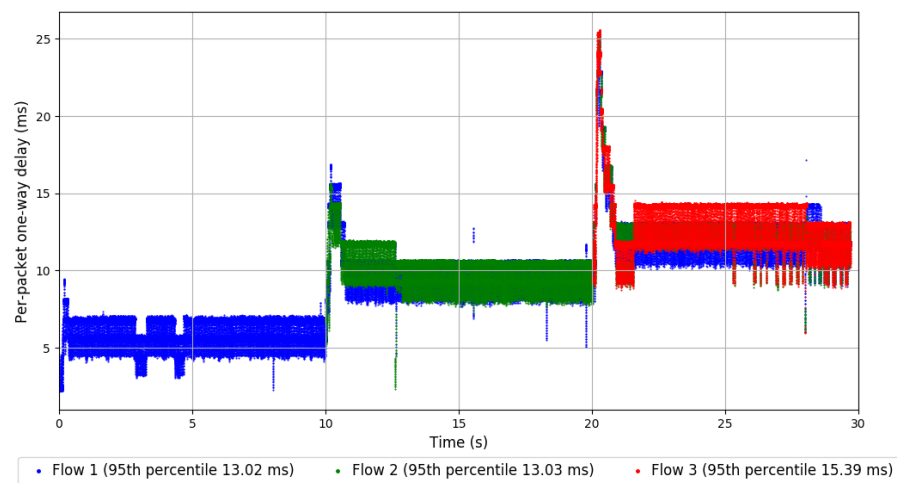
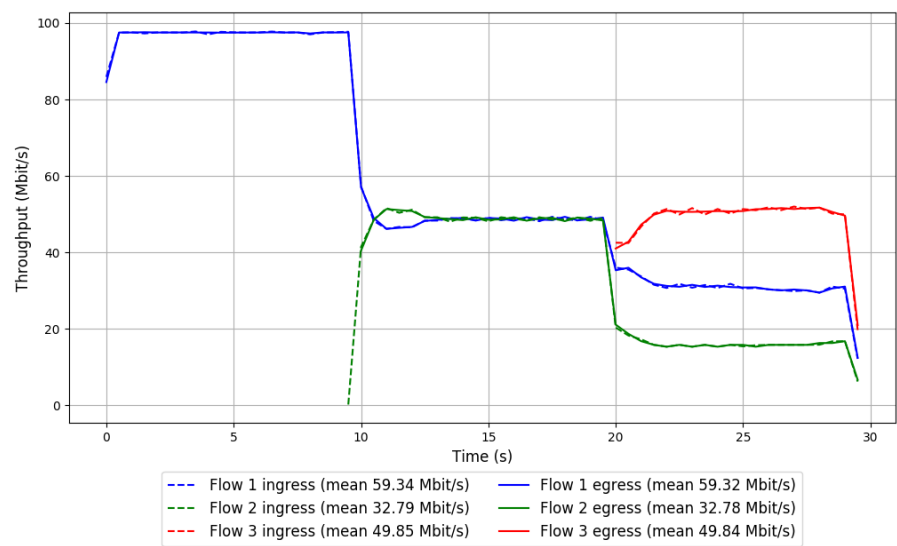
-- Flow 3:

Average throughput: 49.84 Mbit/s

95th percentile per-packet one-way delay: 15.389 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-20 08:46:15

End at: 2017-12-20 08:46:45

Local clock offset: -0.049 ms

Remote clock offset: 1.545 ms

Below is generated by plot.py at 2017-12-20 11:18:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 15.384 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.62 Mbit/s

95th percentile per-packet one-way delay: 14.264 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.27 Mbit/s

95th percentile per-packet one-way delay: 15.406 ms

Loss rate: 0.00%

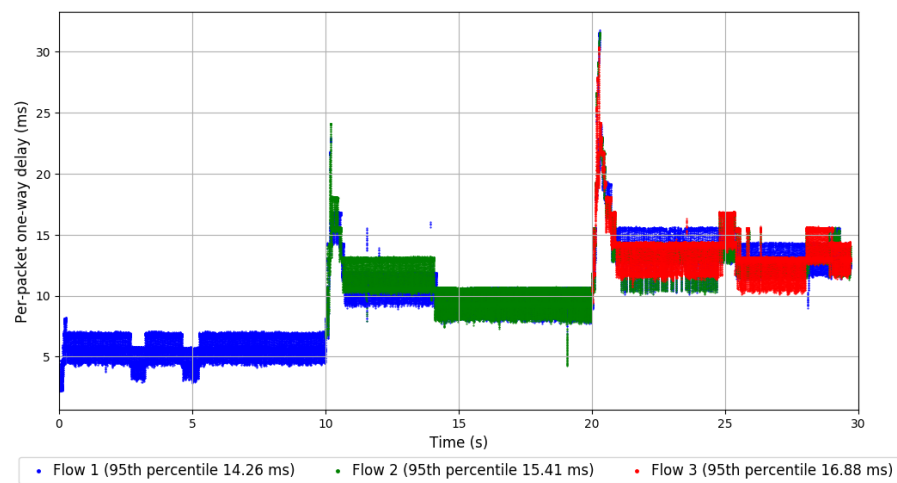
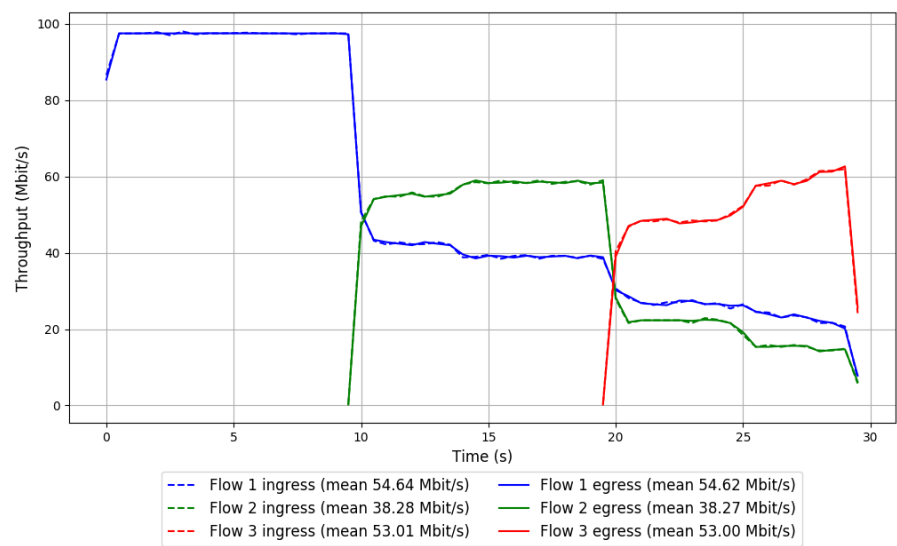
-- Flow 3:

Average throughput: 53.00 Mbit/s

95th percentile per-packet one-way delay: 16.882 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-12-20 09:03:22

End at: 2017-12-20 09:03:52

Local clock offset: -0.137 ms

Remote clock offset: 1.858 ms

Below is generated by plot.py at 2017-12-20 11:19:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.30 Mbit/s

95th percentile per-packet one-way delay: 15.620 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 51.19 Mbit/s

95th percentile per-packet one-way delay: 14.252 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.84 Mbit/s

95th percentile per-packet one-way delay: 15.685 ms

Loss rate: 0.00%

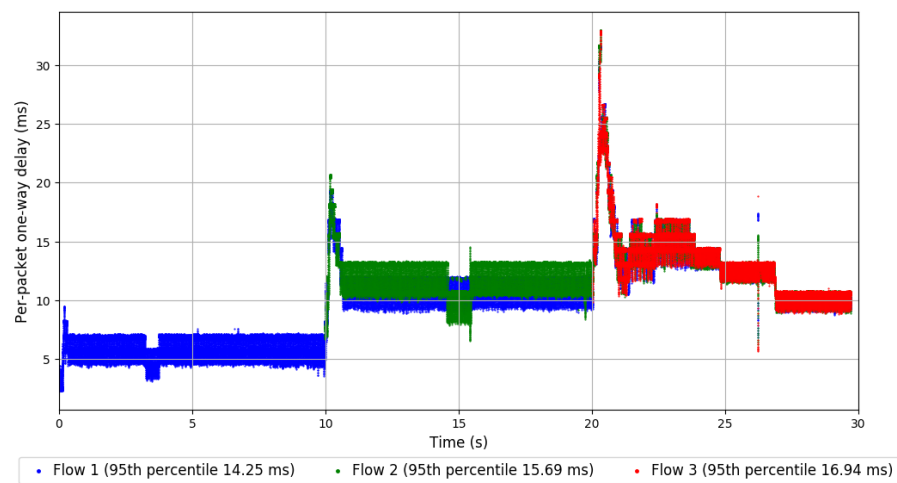
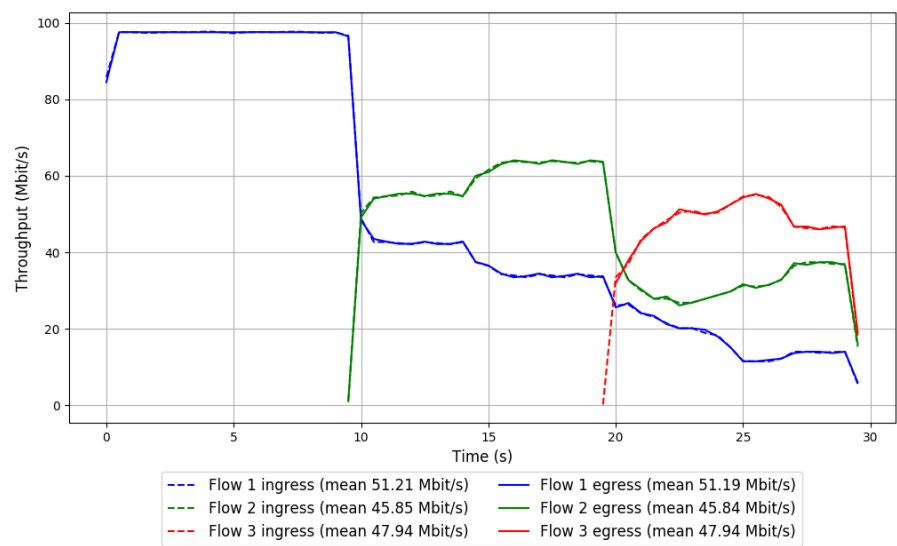
-- Flow 3:

Average throughput: 47.94 Mbit/s

95th percentile per-packet one-way delay: 16.937 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-20 09:20:29

End at: 2017-12-20 09:20:59

Local clock offset: -0.078 ms

Remote clock offset: 2.082 ms

Below is generated by plot.py at 2017-12-20 11:19:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.29 Mbit/s

95th percentile per-packet one-way delay: 13.954 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.12 Mbit/s

95th percentile per-packet one-way delay: 12.840 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.65 Mbit/s

95th percentile per-packet one-way delay: 14.068 ms

Loss rate: 0.00%

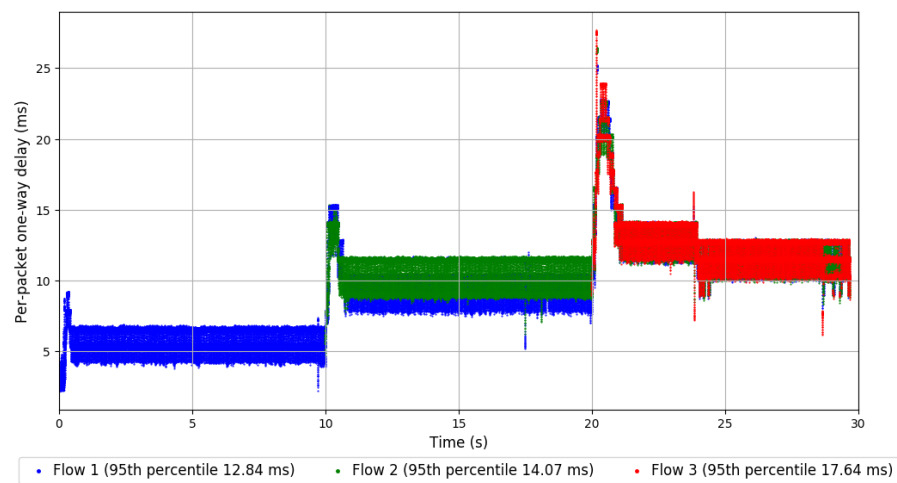
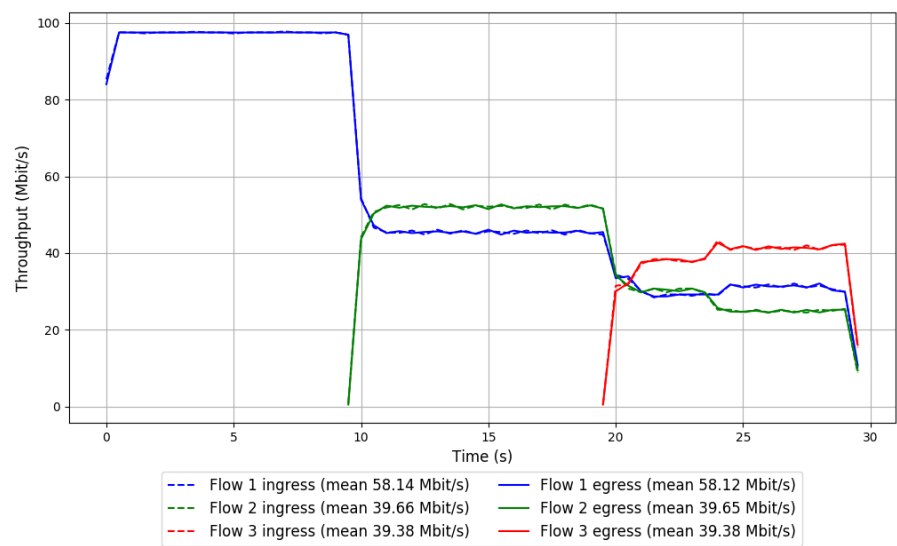
-- Flow 3:

Average throughput: 39.38 Mbit/s

95th percentile per-packet one-way delay: 17.636 ms

Loss rate: 0.00%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-12-20 09:37:36

End at: 2017-12-20 09:38:06

Local clock offset: -0.081 ms

Remote clock offset: 2.142 ms

Below is generated by plot.py at 2017-12-20 11:19:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.31 Mbit/s

95th percentile per-packet one-way delay: 14.128 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.25 Mbit/s

95th percentile per-packet one-way delay: 13.035 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.56 Mbit/s

95th percentile per-packet one-way delay: 14.197 ms

Loss rate: 0.00%

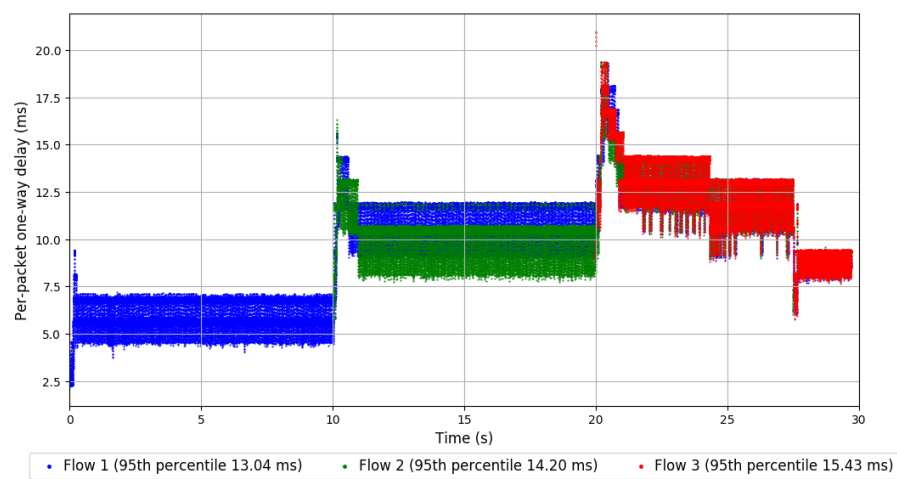
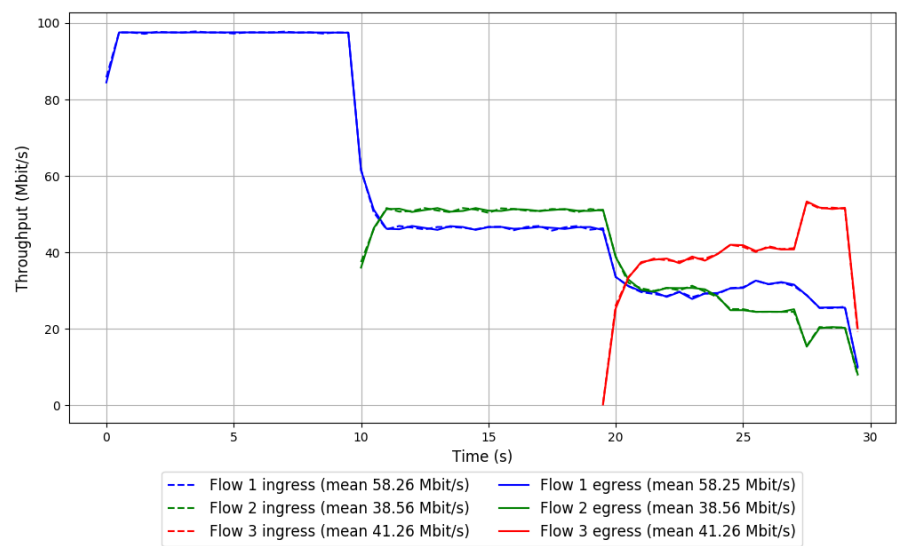
-- Flow 3:

Average throughput: 41.26 Mbit/s

95th percentile per-packet one-way delay: 15.430 ms

Loss rate: 0.00%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-20 09:54:44

End at: 2017-12-20 09:55:14

Local clock offset: -0.159 ms

Remote clock offset: 2.103 ms

Below is generated by plot.py at 2017-12-20 11:19:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.31 Mbit/s

95th percentile per-packet one-way delay: 14.198 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.66 Mbit/s

95th percentile per-packet one-way delay: 13.075 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.09 Mbit/s

95th percentile per-packet one-way delay: 14.412 ms

Loss rate: 0.00%

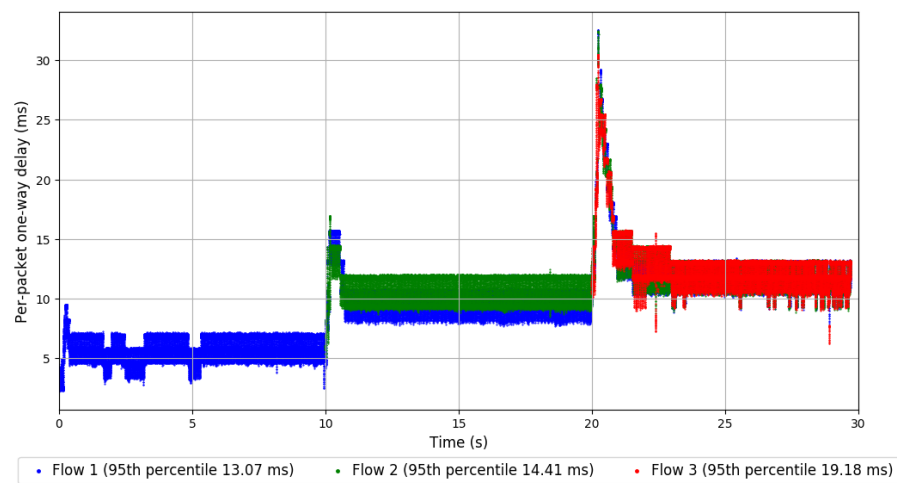
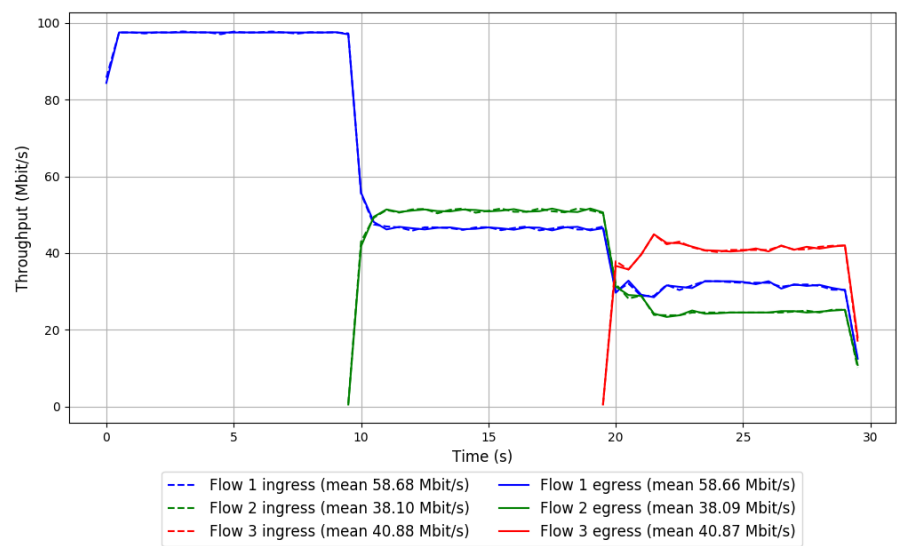
-- Flow 3:

Average throughput: 40.87 Mbit/s

95th percentile per-packet one-way delay: 19.176 ms

Loss rate: 0.00%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-20 10:11:53

End at: 2017-12-20 10:12:23

Local clock offset: -0.149 ms

Remote clock offset: 2.175 ms

Below is generated by plot.py at 2017-12-20 11:19:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.31 Mbit/s

95th percentile per-packet one-way delay: 14.819 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.60 Mbit/s

95th percentile per-packet one-way delay: 13.650 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.06 Mbit/s

95th percentile per-packet one-way delay: 14.620 ms

Loss rate: 0.00%

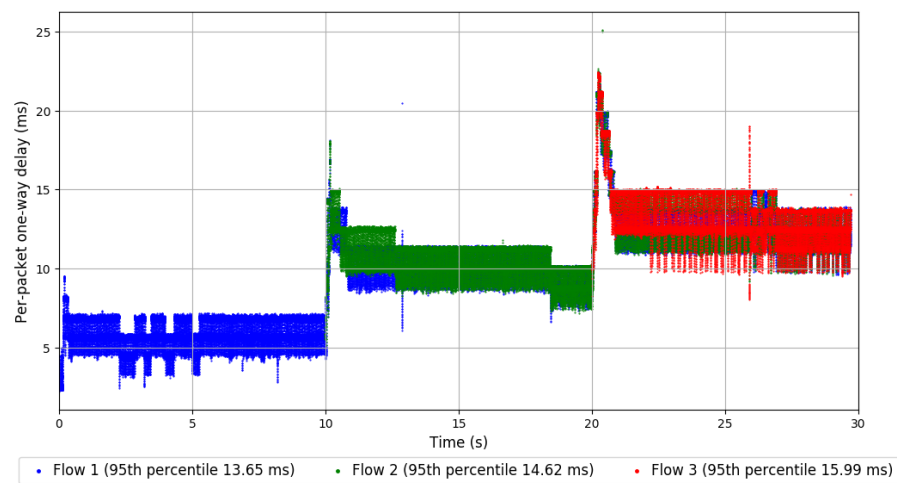
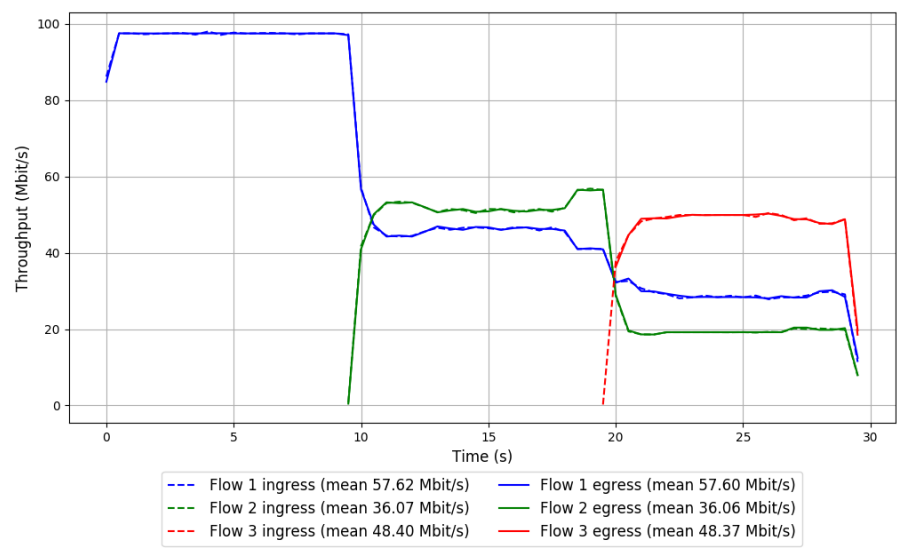
-- Flow 3:

Average throughput: 48.37 Mbit/s

95th percentile per-packet one-way delay: 15.995 ms

Loss rate: 0.00%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-12-20 10:29:01

End at: 2017-12-20 10:29:31

Local clock offset: -0.09 ms

Remote clock offset: 2.181 ms

Below is generated by plot.py at 2017-12-20 11:19:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.27 Mbit/s

95th percentile per-packet one-way delay: 14.375 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.81 Mbit/s

95th percentile per-packet one-way delay: 14.159 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.78 Mbit/s

95th percentile per-packet one-way delay: 15.377 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 36.96 Mbit/s

95th percentile per-packet one-way delay: 17.759 ms

Loss rate: 0.00%

Run 10: Report of Indigo — Data Link

