

Pantheon Report

Generated at 2017-12-20 12:09:05 (UTC).

Data path: Mexico Ethernet (*remote*) → AWS California 2 Ethernet (*local*).

Repeated the test of 14 congestion control schemes 10 times.

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

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

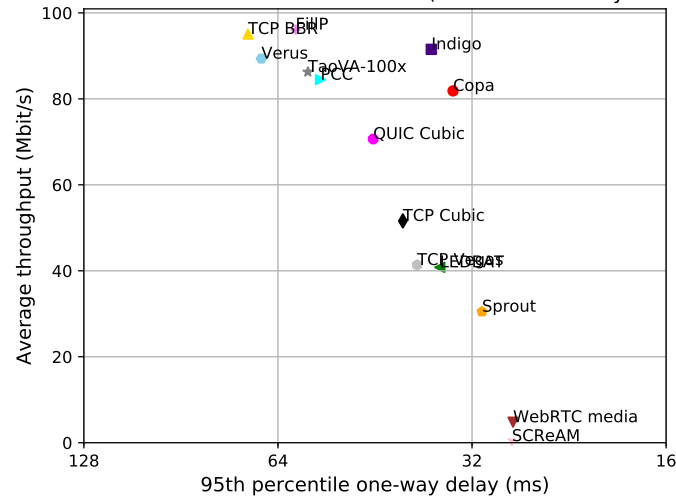
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

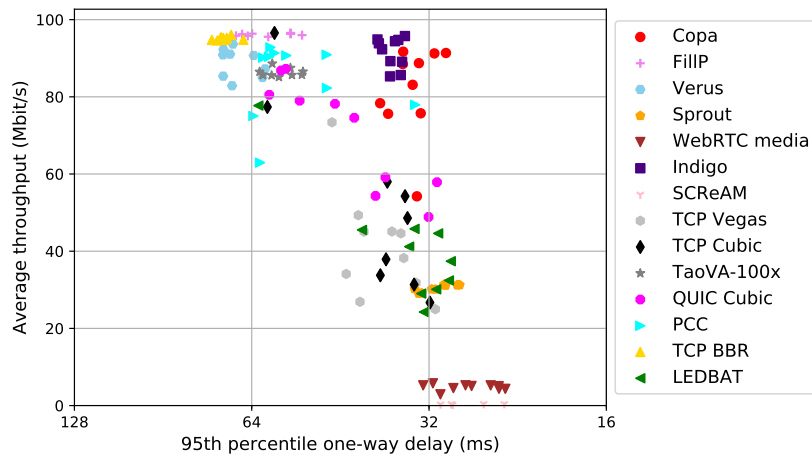
Git summary:

```
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 Mexico Ethernet to AWS California 2 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from Mexico Ethernet to AWS California 2 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	57.96	39.86	32.00	64.88	67.82	69.12	0.67	0.82	1.37
TCP Cubic	9	24.68	28.67	25.97	34.73	40.74	42.69	0.37	0.48	0.99
LEDBAT	10	22.29	19.73	16.29	36.45	33.14	36.05	0.43	0.54	1.08
PCC	10	57.37	28.69	24.28	53.62	53.01	56.83	0.67	0.75	1.59
QUIC Cubic	10	38.91	32.26	31.39	42.23	44.81	49.12	0.53	0.62	1.00
SCReAM	5	65.08	0.20	0.22	758.90	27.34	27.48	0.26	0.45	0.43
WebRTC media	10	2.38	1.76	0.65	27.76	27.57	27.92	0.52	0.63	1.03
Sprout	10	15.44	15.27	14.80	30.47	30.99	31.61	0.41	0.55	0.85
TaoVA-100x	10	51.46	39.97	32.27	56.48	55.31	57.20	0.62	0.68	1.40
TCP Vegas	10	20.68	19.46	23.28	36.67	37.26	38.71	0.42	0.44	0.81
Verus	10	52.73	39.88	30.69	63.73	63.68	67.91	0.72	0.89	1.43
Copa	10	52.85	33.11	27.32	32.62	36.29	39.90	0.48	0.54	1.01
FillP	9	60.80	38.85	32.10	53.56	62.16	61.24	0.71	2.45	5.29
Indigo	10	57.75	38.05	26.21	37.76	36.73	39.88	0.54	0.69	1.04

Run 1: Statistics of TCP BBR

Start at: 2017-12-20 05:11:10

End at: 2017-12-20 05:11:40

Local clock offset: 0.477 ms

Remote clock offset: 0.133 ms

Below is generated by plot.py at 2017-12-20 11:51:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.19 Mbit/s

95th percentile per-packet one-way delay: 72.298 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 55.34 Mbit/s

95th percentile per-packet one-way delay: 71.497 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 47.42 Mbit/s

95th percentile per-packet one-way delay: 54.862 ms

Loss rate: 0.82%

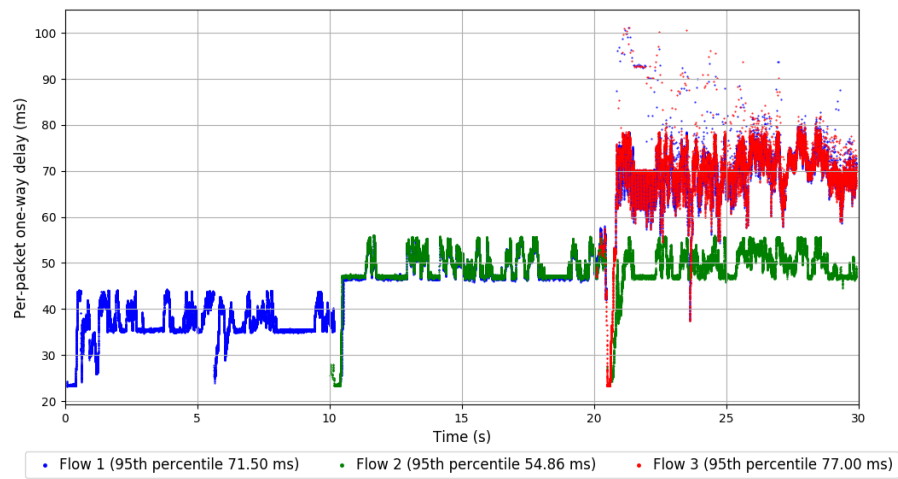
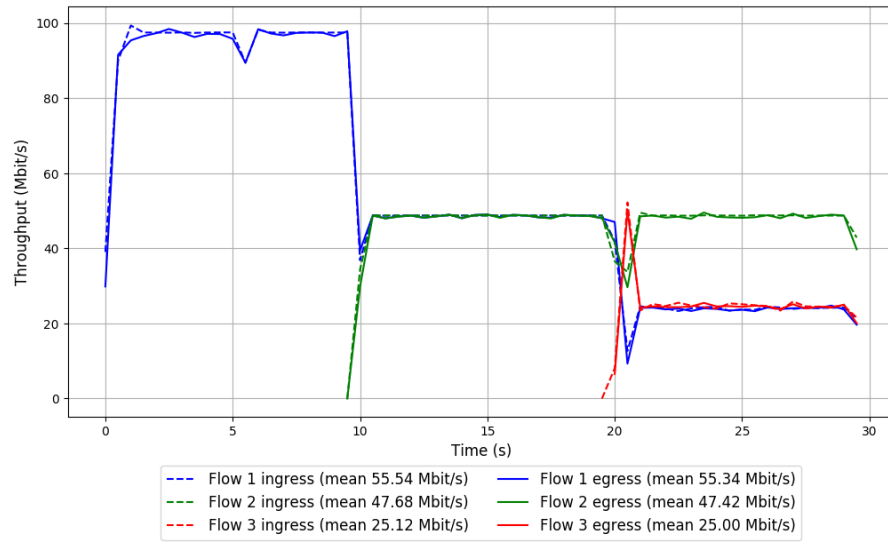
-- Flow 3:

Average throughput: 25.00 Mbit/s

95th percentile per-packet one-way delay: 76.996 ms

Loss rate: 1.51%

Run 1: Report of TCP BBR — Data Link

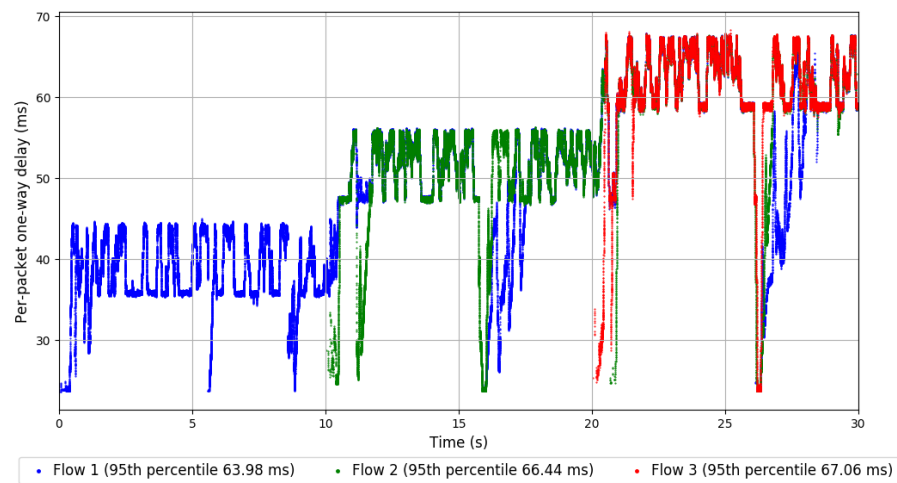
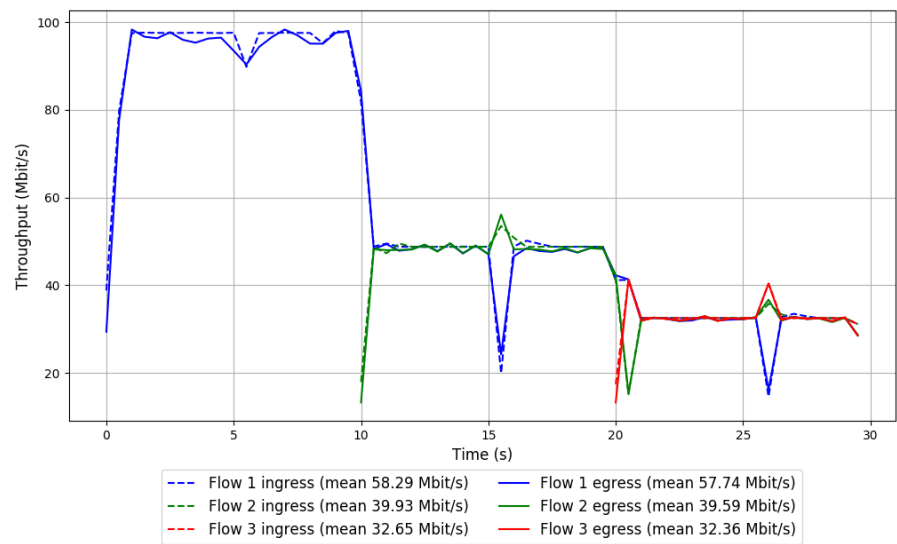


Run 2: Statistics of TCP BBR

Start at: 2017-12-20 05:32:12
End at: 2017-12-20 05:32:42
Local clock offset: 0.689 ms
Remote clock offset: -0.216 ms

Below is generated by plot.py at 2017-12-20 11:51:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.77 Mbit/s
95th percentile per-packet one-way delay: 66.134 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 57.74 Mbit/s
95th percentile per-packet one-way delay: 63.976 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 39.59 Mbit/s
95th percentile per-packet one-way delay: 66.441 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: 67.060 ms
Loss rate: 1.46%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-20 05:53:40

End at: 2017-12-20 05:54:10

Local clock offset: 0.851 ms

Remote clock offset: 0.219 ms

Below is generated by plot.py at 2017-12-20 11:51:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.26 Mbit/s

95th percentile per-packet one-way delay: 70.558 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 55.60 Mbit/s

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

Loss rate: 0.65%

-- Flow 2:

Average throughput: 47.39 Mbit/s

95th percentile per-packet one-way delay: 55.070 ms

Loss rate: 0.84%

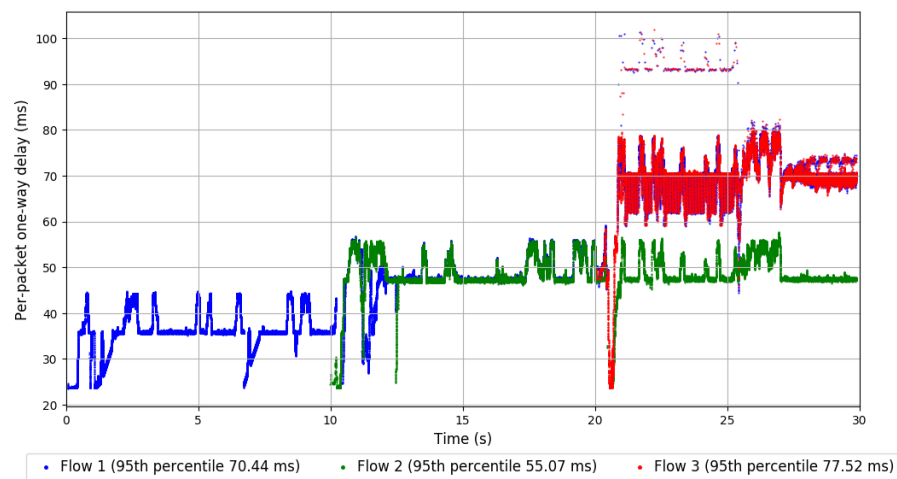
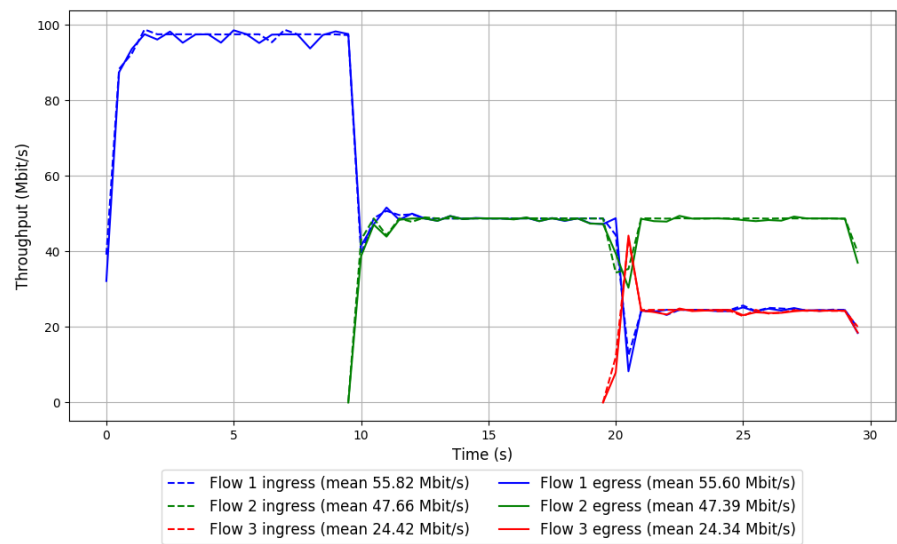
-- Flow 3:

Average throughput: 24.34 Mbit/s

95th percentile per-packet one-way delay: 77.523 ms

Loss rate: 1.39%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-12-20 06:14:35

End at: 2017-12-20 06:15:05

Local clock offset: 0.889 ms

Remote clock offset: 1.256 ms

Below is generated by plot.py at 2017-12-20 11:51:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.27 Mbit/s

95th percentile per-packet one-way delay: 71.583 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 63.32 Mbit/s

95th percentile per-packet one-way delay: 54.154 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 36.02 Mbit/s

95th percentile per-packet one-way delay: 75.146 ms

Loss rate: 0.72%

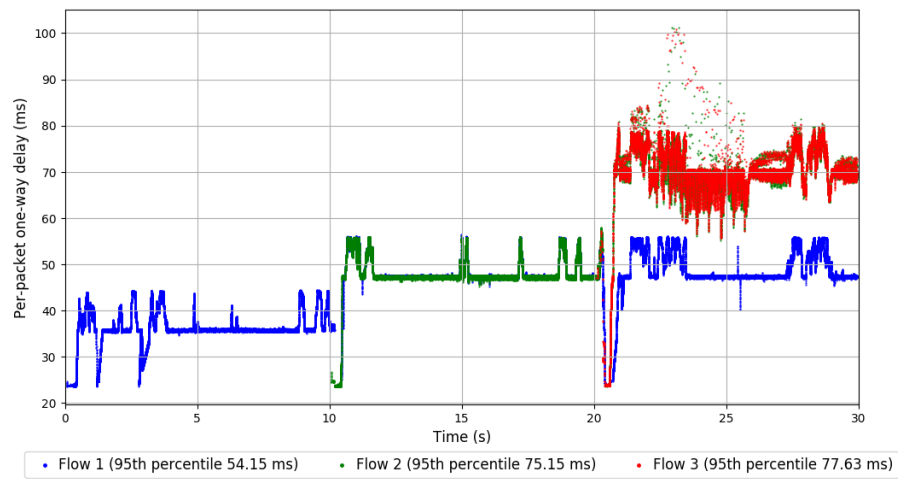
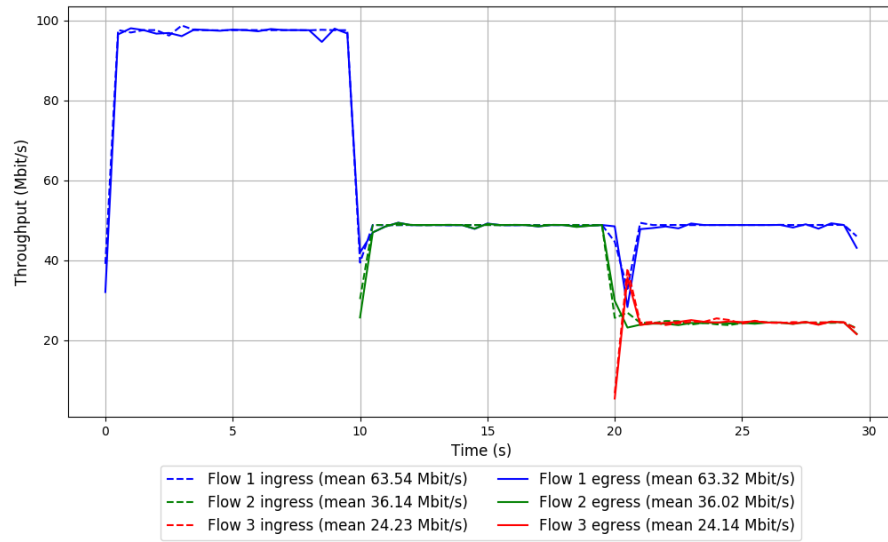
-- Flow 3:

Average throughput: 24.14 Mbit/s

95th percentile per-packet one-way delay: 77.632 ms

Loss rate: 1.30%

Run 4: Report of TCP BBR — Data Link

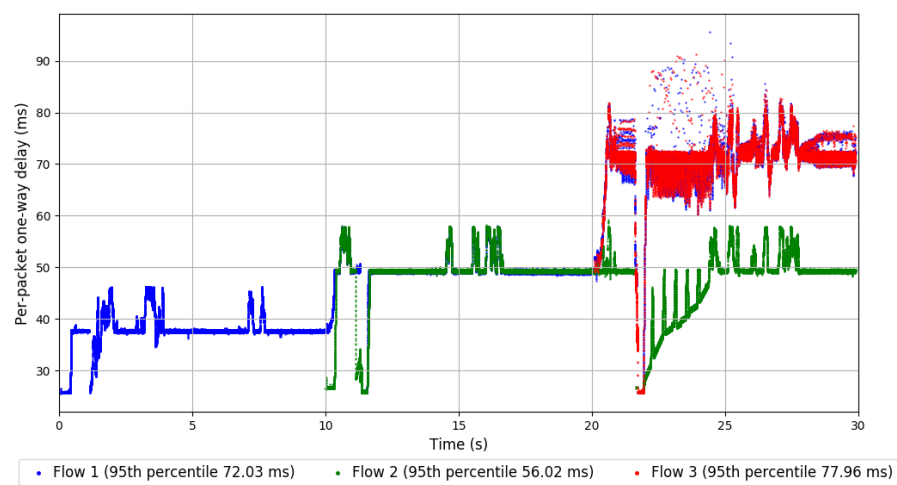
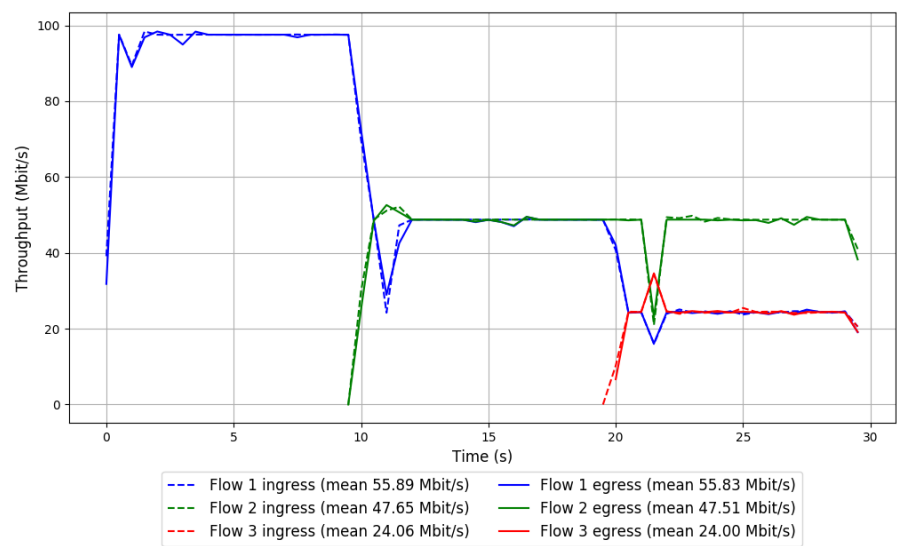


Run 5: Statistics of TCP BBR

Start at: 2017-12-20 06:35:15
End at: 2017-12-20 06:35:45
Local clock offset: 0.762 ms
Remote clock offset: -0.143 ms

Below is generated by plot.py at 2017-12-20 11:51:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.45 Mbit/s
95th percentile per-packet one-way delay: 72.158 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 55.83 Mbit/s
95th percentile per-packet one-way delay: 72.026 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 47.51 Mbit/s
95th percentile per-packet one-way delay: 56.017 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 24.00 Mbit/s
95th percentile per-packet one-way delay: 77.960 ms
Loss rate: 1.21%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-12-20 06:56:12

End at: 2017-12-20 06:56:42

Local clock offset: 0.816 ms

Remote clock offset: 2.096 ms

Below is generated by plot.py at 2017-12-20 11:51:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.75 Mbit/s

95th percentile per-packet one-way delay: 71.519 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 62.92 Mbit/s

95th percentile per-packet one-way delay: 53.502 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 36.19 Mbit/s

95th percentile per-packet one-way delay: 74.574 ms

Loss rate: 0.75%

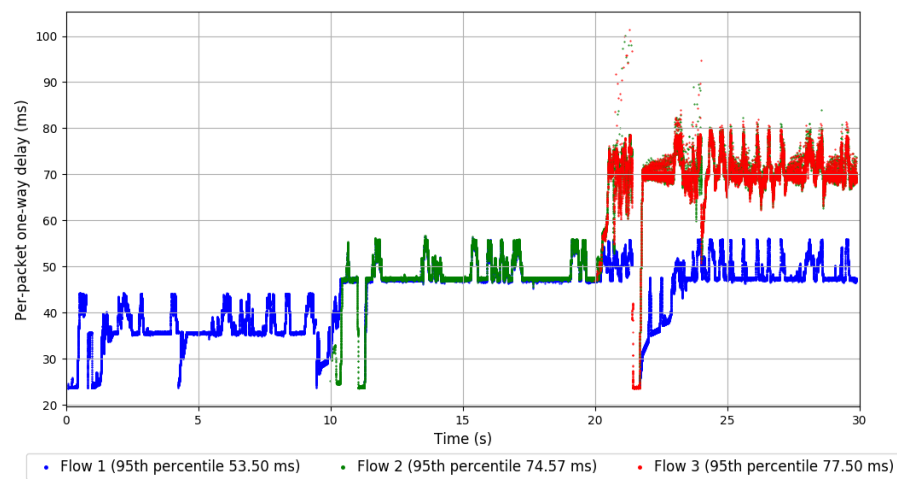
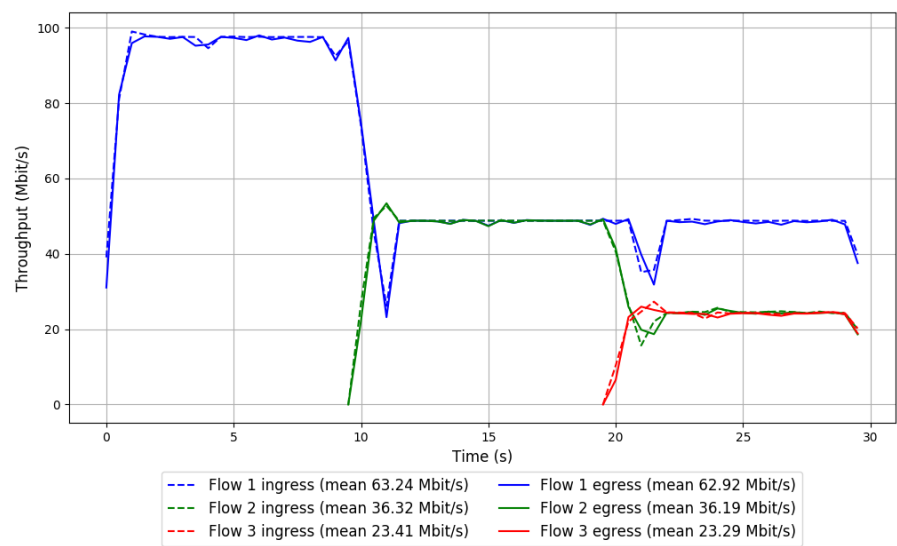
-- Flow 3:

Average throughput: 23.29 Mbit/s

95th percentile per-packet one-way delay: 77.503 ms

Loss rate: 1.52%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-12-20 07:17:06

End at: 2017-12-20 07:17:36

Local clock offset: 1.176 ms

Remote clock offset: 0.135 ms

Below is generated by plot.py at 2017-12-20 11:51:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.75 Mbit/s

95th percentile per-packet one-way delay: 74.791 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 55.08 Mbit/s

95th percentile per-packet one-way delay: 74.024 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 36.31 Mbit/s

95th percentile per-packet one-way delay: 77.343 ms

Loss rate: 1.25%

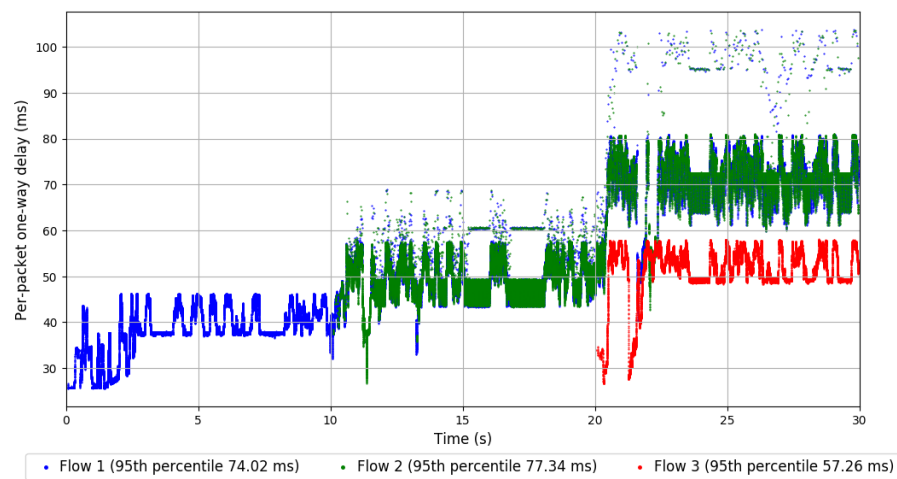
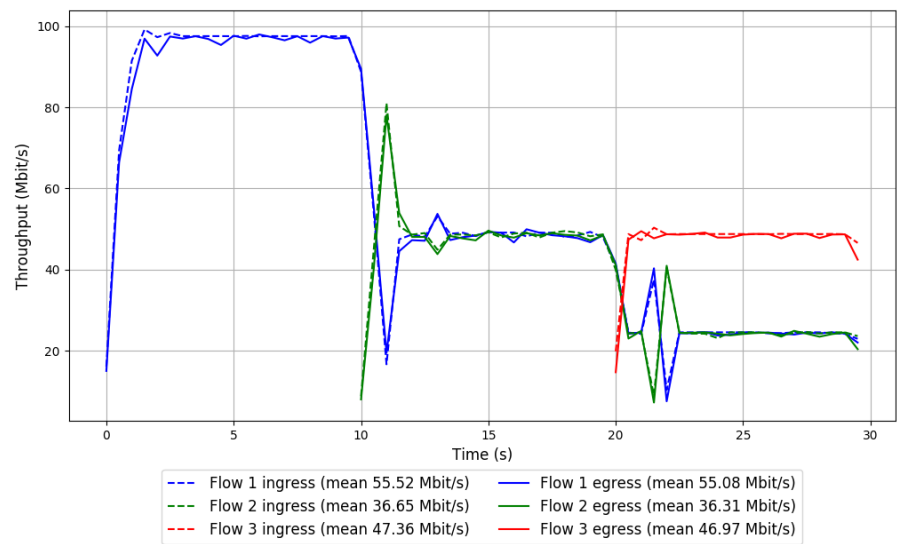
-- Flow 3:

Average throughput: 46.97 Mbit/s

95th percentile per-packet one-way delay: 57.256 ms

Loss rate: 1.55%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-20 07:38:17

End at: 2017-12-20 07:38:47

Local clock offset: 1.404 ms

Remote clock offset: 2.319 ms

Below is generated by plot.py at 2017-12-20 11:51:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.60 Mbit/s

95th percentile per-packet one-way delay: 73.208 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 54.97 Mbit/s

95th percentile per-packet one-way delay: 72.638 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 36.00 Mbit/s

95th percentile per-packet one-way delay: 75.445 ms

Loss rate: 0.96%

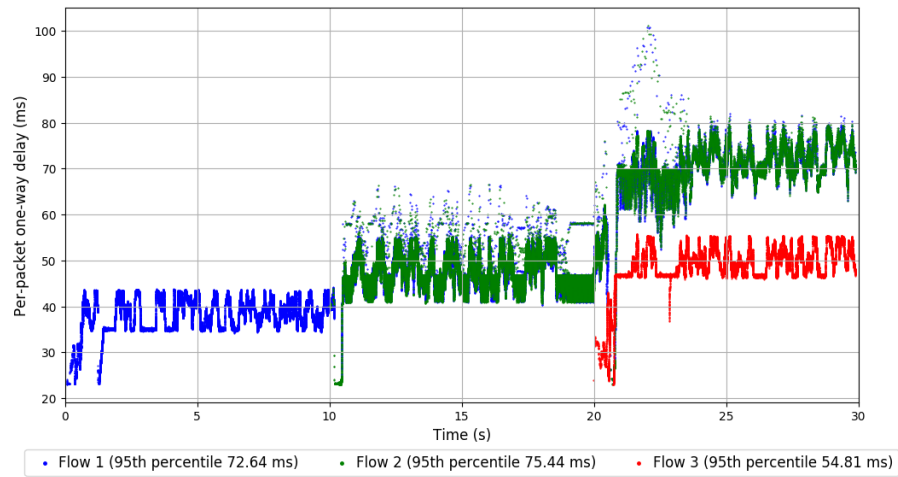
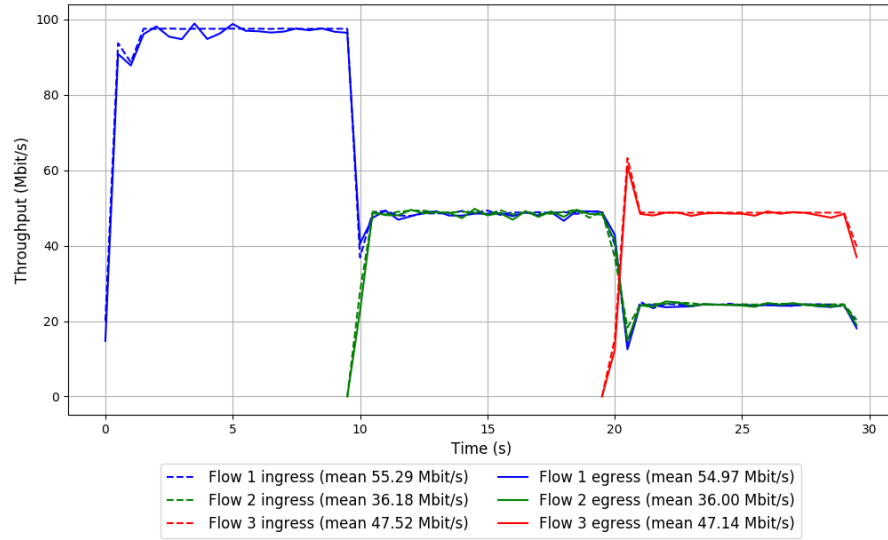
-- Flow 3:

Average throughput: 47.14 Mbit/s

95th percentile per-packet one-way delay: 54.810 ms

Loss rate: 1.46%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-12-20 07:58:59

End at: 2017-12-20 07:59:29

Local clock offset: 1.315 ms

Remote clock offset: 1.656 ms

Below is generated by plot.py at 2017-12-20 11:53:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.88 Mbit/s

95th percentile per-packet one-way delay: 70.755 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 55.34 Mbit/s

95th percentile per-packet one-way delay: 69.844 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 35.78 Mbit/s

95th percentile per-packet one-way delay: 73.742 ms

Loss rate: 0.71%

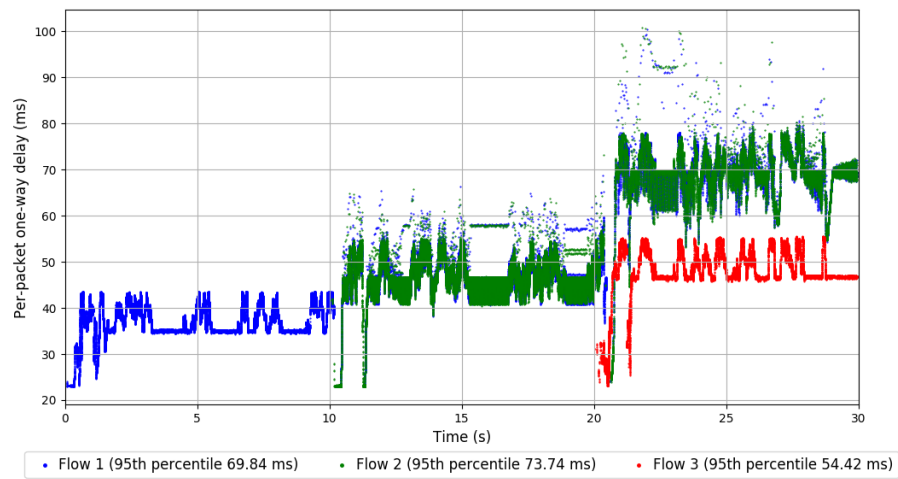
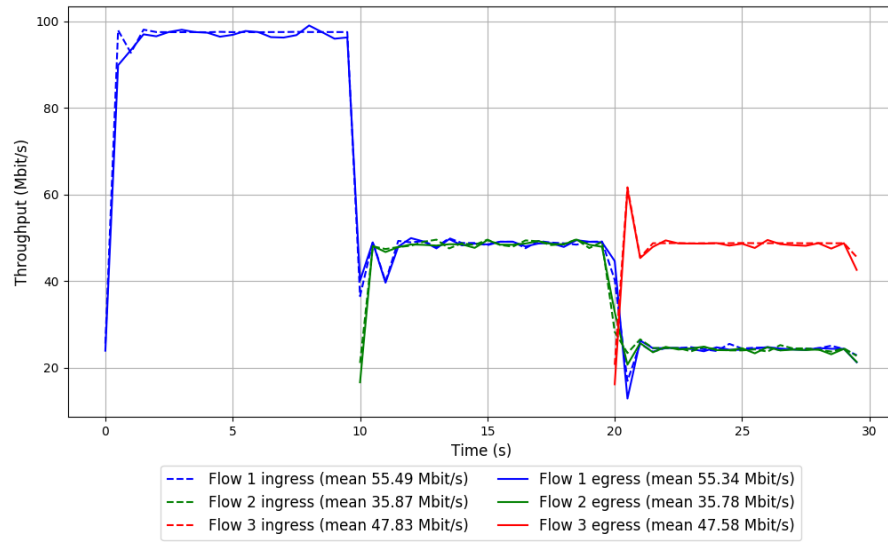
-- Flow 3:

Average throughput: 47.58 Mbit/s

95th percentile per-packet one-way delay: 54.418 ms

Loss rate: 1.26%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-12-20 08:19:39

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

Local clock offset: 1.244 ms

Remote clock offset: 0.268 ms

Below is generated by plot.py at 2017-12-20 11:53:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.03 Mbit/s

95th percentile per-packet one-way delay: 69.351 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 63.46 Mbit/s

95th percentile per-packet one-way delay: 46.725 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 36.35 Mbit/s

95th percentile per-packet one-way delay: 69.562 ms

Loss rate: 0.37%

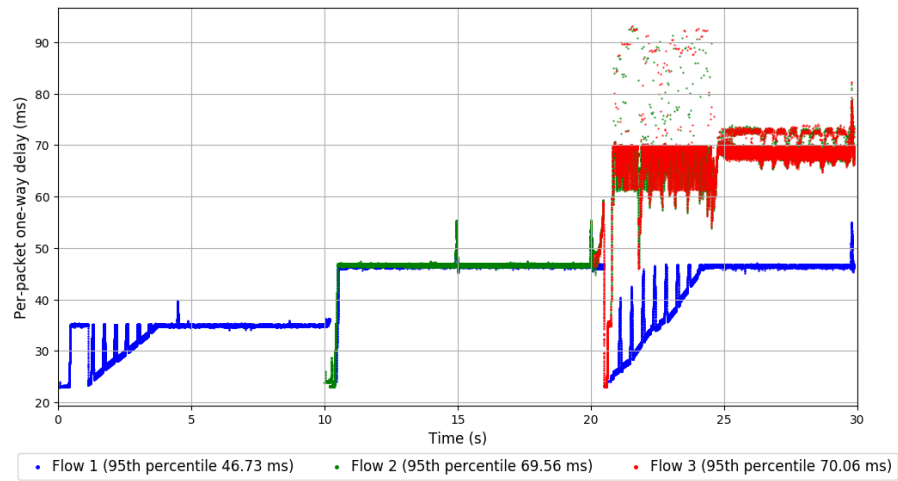
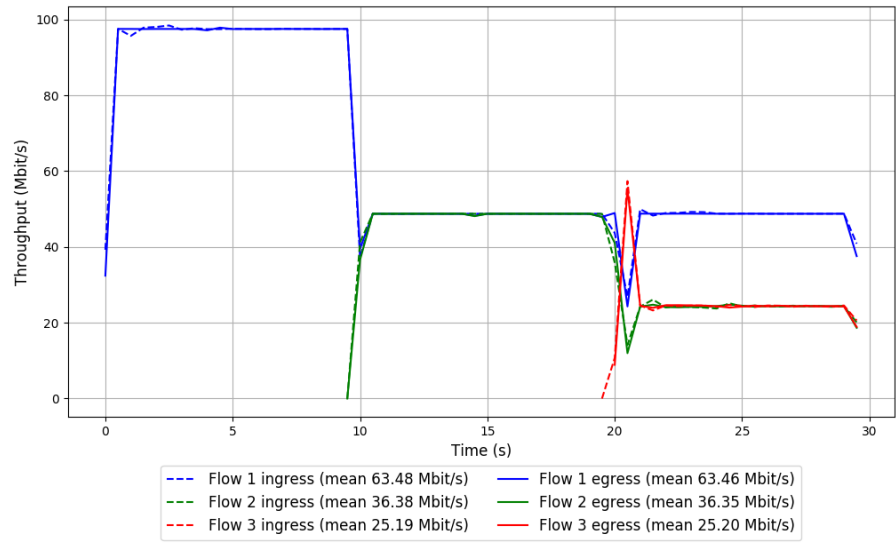
-- Flow 3:

Average throughput: 25.20 Mbit/s

95th percentile per-packet one-way delay: 70.059 ms

Loss rate: 1.02%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-20 05:14:02

End at: 2017-12-20 05:14:32

Local clock offset: 0.549 ms

Remote clock offset: 0.074 ms

Below is generated by plot.py at 2017-12-20 11:53:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.59 Mbit/s

95th percentile per-packet one-way delay: 34.808 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 21.96 Mbit/s

95th percentile per-packet one-way delay: 31.421 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 25.51 Mbit/s

95th percentile per-packet one-way delay: 38.634 ms

Loss rate: 0.27%

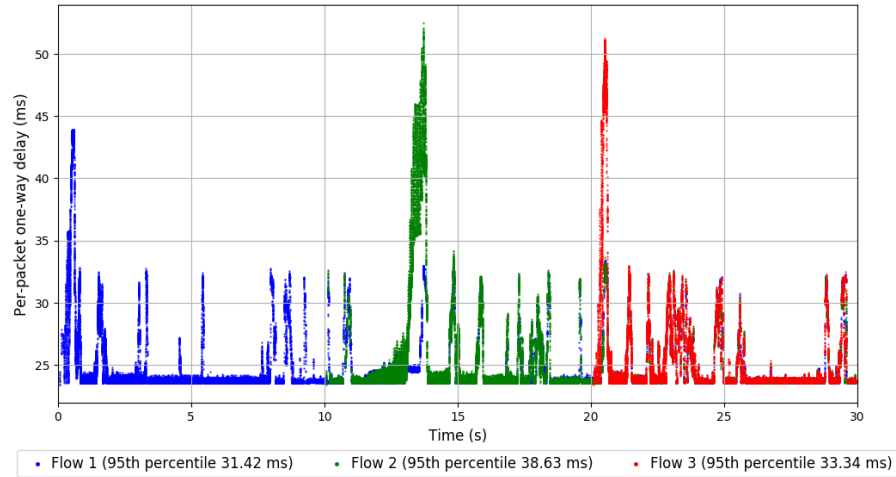
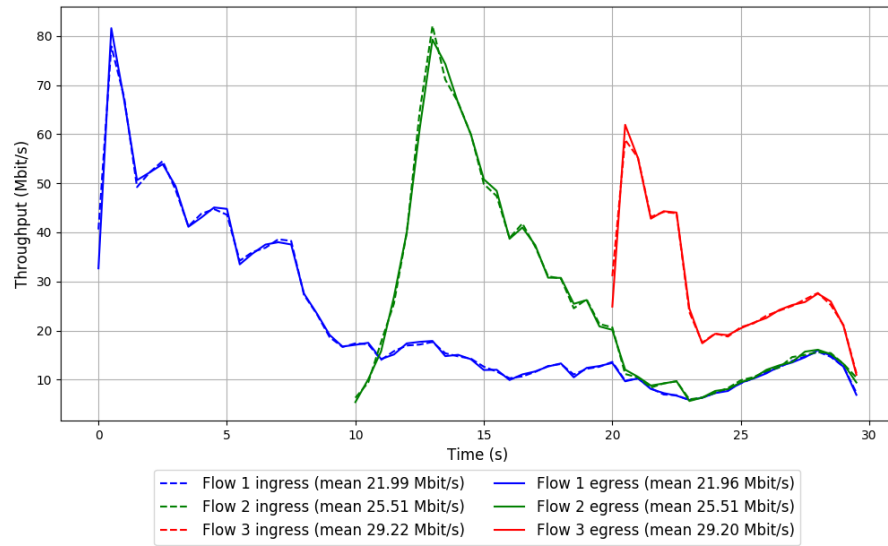
-- Flow 3:

Average throughput: 29.20 Mbit/s

95th percentile per-packet one-way delay: 33.335 ms

Loss rate: 0.55%

Run 1: Report of TCP Cubic — Data Link

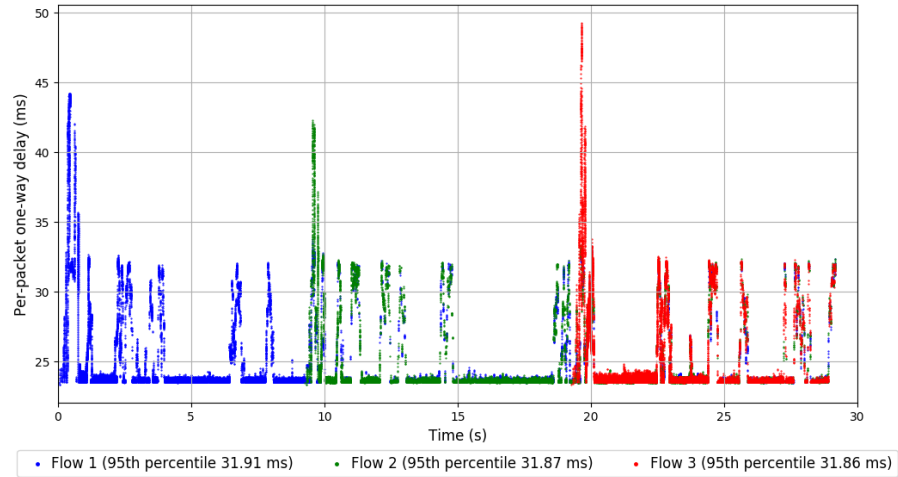
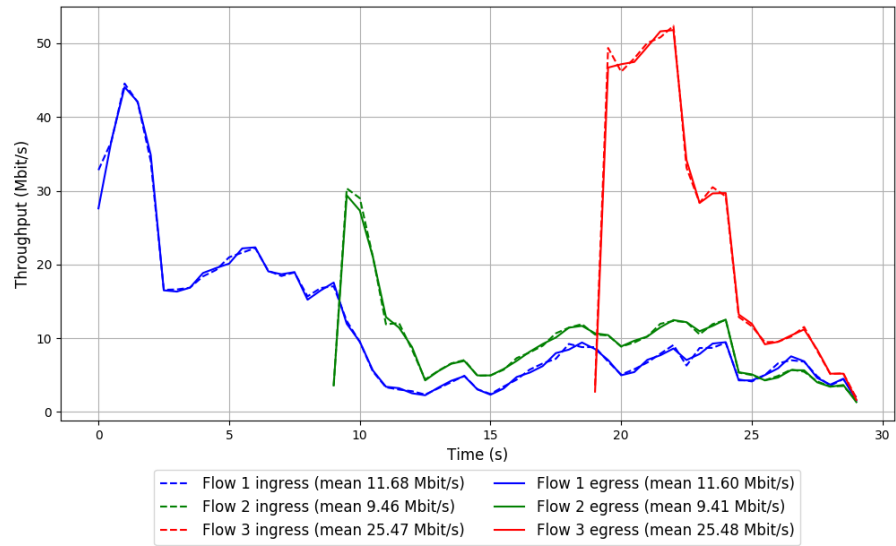


Run 2: Statistics of TCP Cubic

Start at: 2017-12-20 05:35:23
End at: 2017-12-20 05:35:53
Local clock offset: 0.714 ms
Remote clock offset: -0.055 ms

Below is generated by plot.py at 2017-12-20 11:53:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 26.68 Mbit/s
95th percentile per-packet one-way delay: 31.885 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 11.60 Mbit/s
95th percentile per-packet one-way delay: 31.907 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 9.41 Mbit/s
95th percentile per-packet one-way delay: 31.869 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 25.48 Mbit/s
95th percentile per-packet one-way delay: 31.859 ms
Loss rate: 0.49%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-12-20 05:56:36

End at: 2017-12-20 05:57:06

Local clock offset: 0.877 ms

Remote clock offset: 0.497 ms

Below is generated by plot.py at 2017-12-20 11:53:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.00 Mbit/s

95th percentile per-packet one-way delay: 37.665 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 27.39 Mbit/s

95th percentile per-packet one-way delay: 38.009 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 35.26 Mbit/s

95th percentile per-packet one-way delay: 37.145 ms

Loss rate: 0.32%

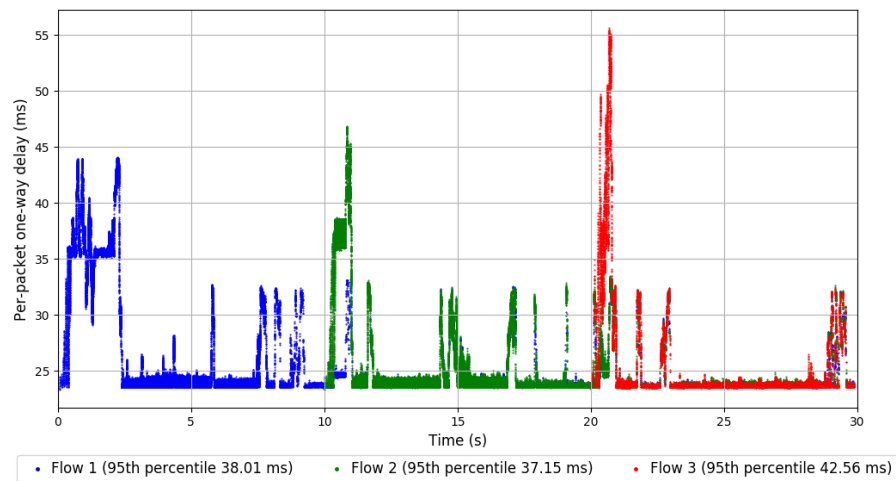
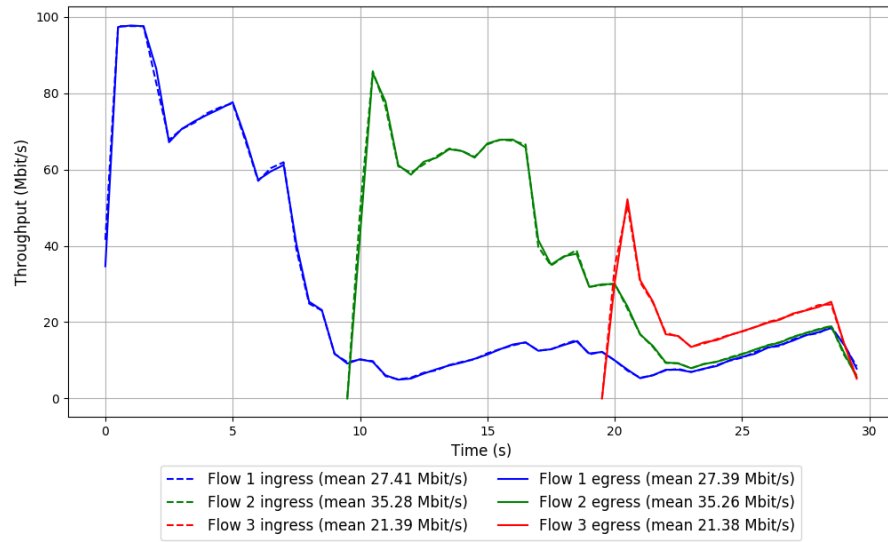
-- Flow 3:

Average throughput: 21.38 Mbit/s

95th percentile per-packet one-way delay: 42.562 ms

Loss rate: 0.57%

Run 3: Report of TCP Cubic — Data Link

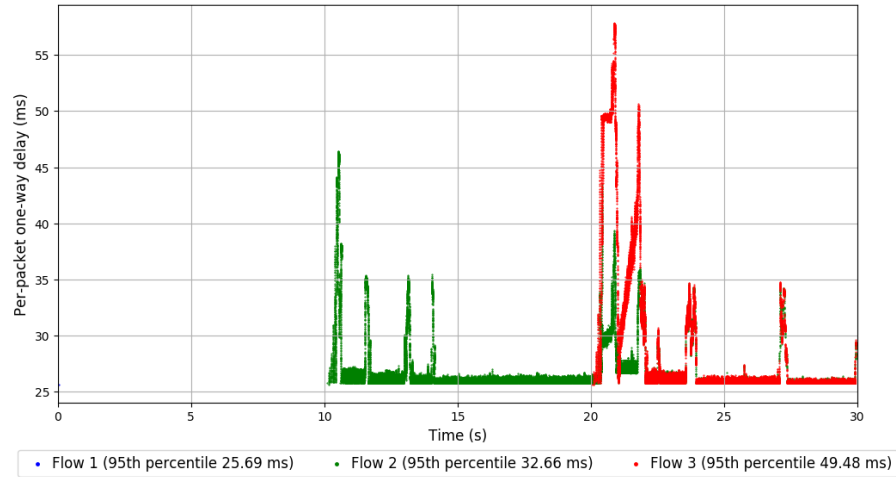
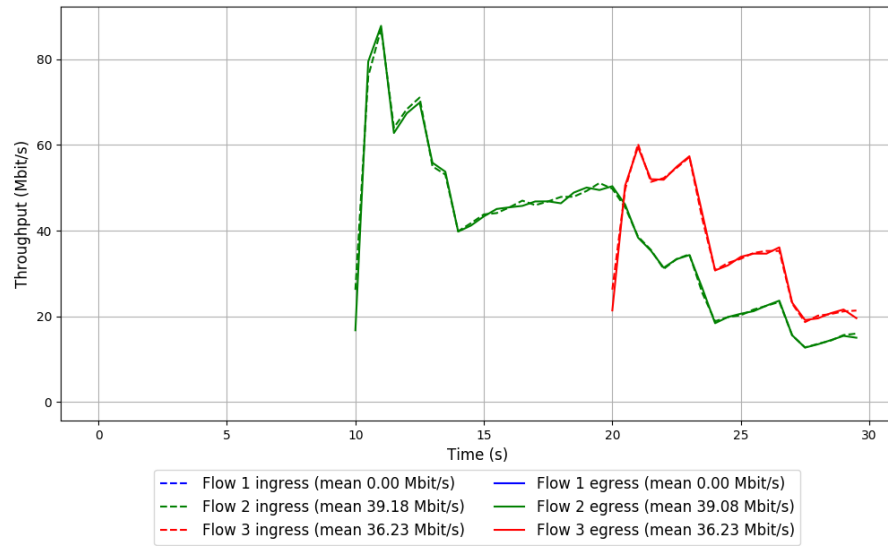


Run 4: Statistics of TCP Cubic

Start at: 2017-12-20 06:17:32
End at: 2017-12-20 06:18:02
Local clock offset: 0.914 ms
Remote clock offset: -0.782 ms

Below is generated by plot.py at 2017-12-20 11:53:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 37.90 Mbit/s
95th percentile per-packet one-way delay: 37.857 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 25.687 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.08 Mbit/s
95th percentile per-packet one-way delay: 32.664 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 36.23 Mbit/s
95th percentile per-packet one-way delay: 49.478 ms
Loss rate: 0.54%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-12-20 06:38:13

End at: 2017-12-20 06:38:43

Local clock offset: 0.71 ms

Remote clock offset: 1.851 ms

Below is generated by plot.py at 2017-12-20 11:53:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 54.26 Mbit/s

95th percentile per-packet one-way delay: 35.143 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 28.39 Mbit/s

95th percentile per-packet one-way delay: 37.034 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 26.24 Mbit/s

95th percentile per-packet one-way delay: 30.999 ms

Loss rate: 0.64%

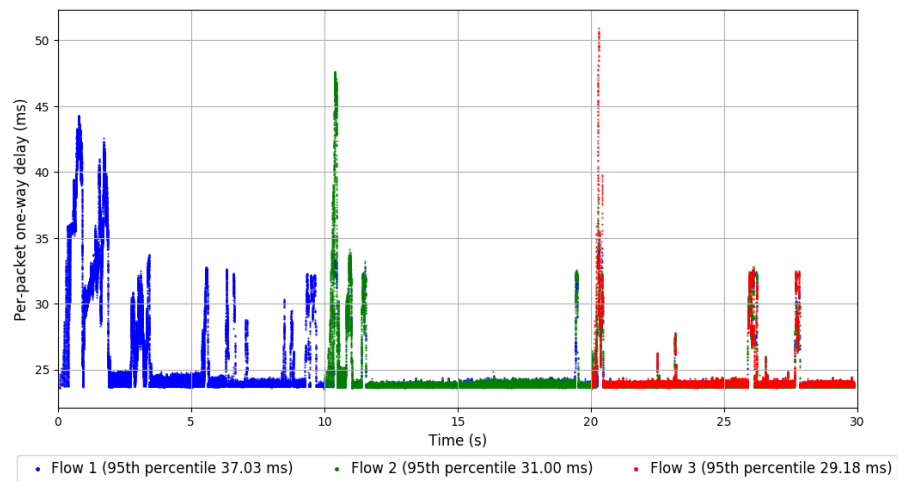
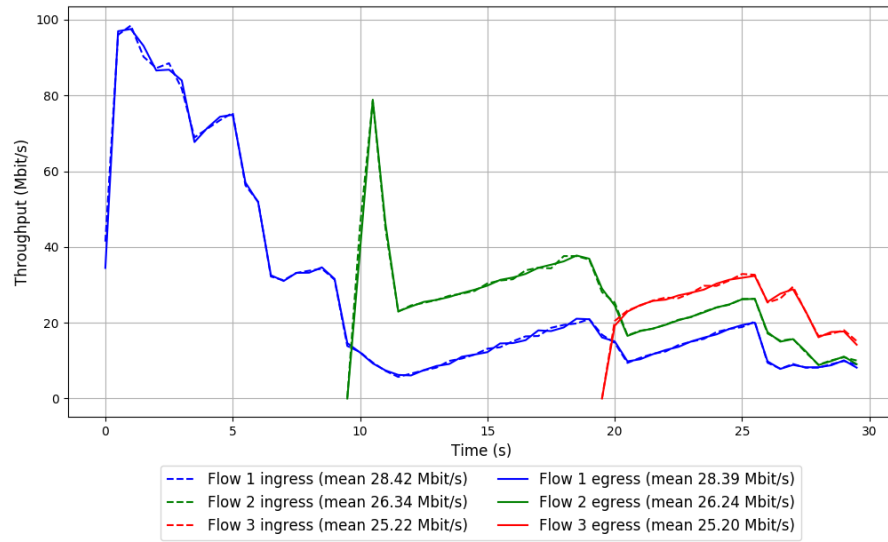
-- Flow 3:

Average throughput: 25.20 Mbit/s

95th percentile per-packet one-way delay: 29.180 ms

Loss rate: 0.58%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-20 06:59:02

End at: 2017-12-20 06:59:32

Local clock offset: 0.954 ms

Remote clock offset: 2.245 ms

Below is generated by plot.py at 2017-12-20 11:53:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 33.76 Mbit/s

95th percentile per-packet one-way delay: 38.706 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 16.34 Mbit/s

95th percentile per-packet one-way delay: 33.615 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 20.26 Mbit/s

95th percentile per-packet one-way delay: 41.544 ms

Loss rate: 0.61%

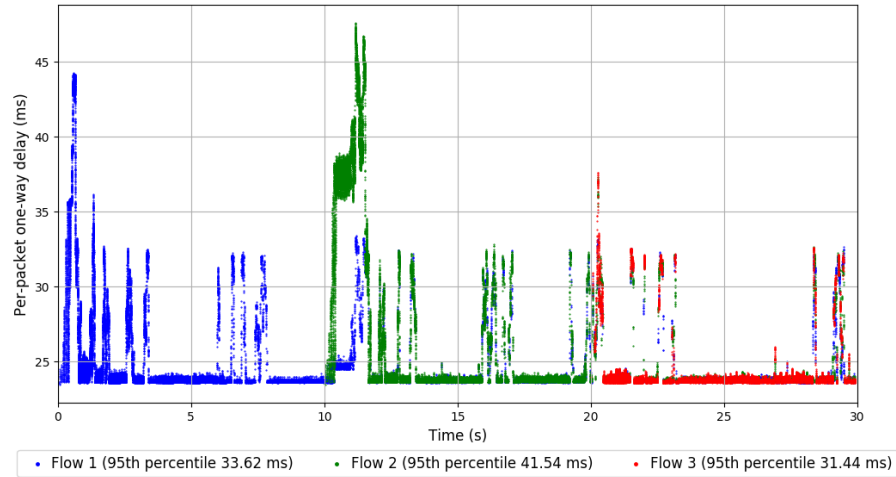
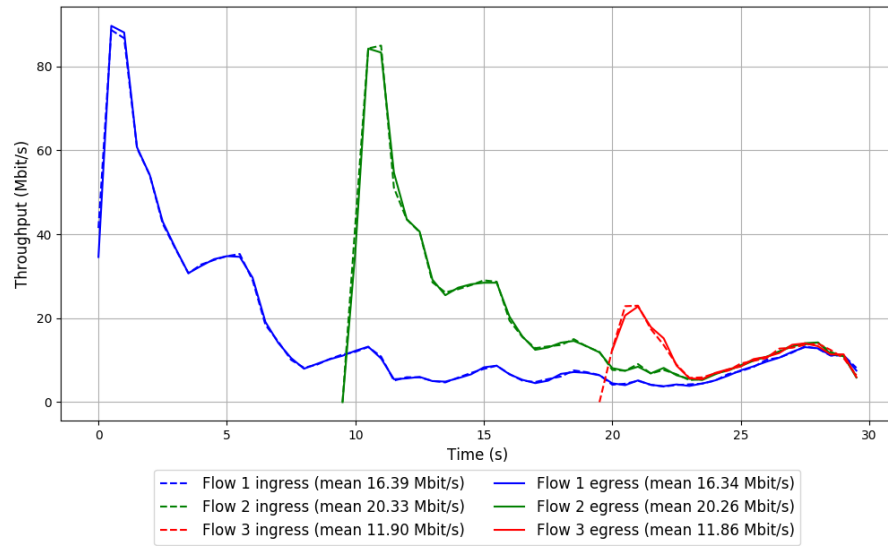
-- Flow 3:

Average throughput: 11.86 Mbit/s

95th percentile per-packet one-way delay: 31.440 ms

Loss rate: 0.87%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

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

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

Local clock offset: 1.111 ms

Remote clock offset: 0.02 ms

Below is generated by plot.py at 2017-12-20 11:53:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 31.35 Mbit/s

95th percentile per-packet one-way delay: 33.916 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 9.82 Mbit/s

95th percentile per-packet one-way delay: 32.934 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 22.35 Mbit/s

95th percentile per-packet one-way delay: 33.827 ms

Loss rate: 0.44%

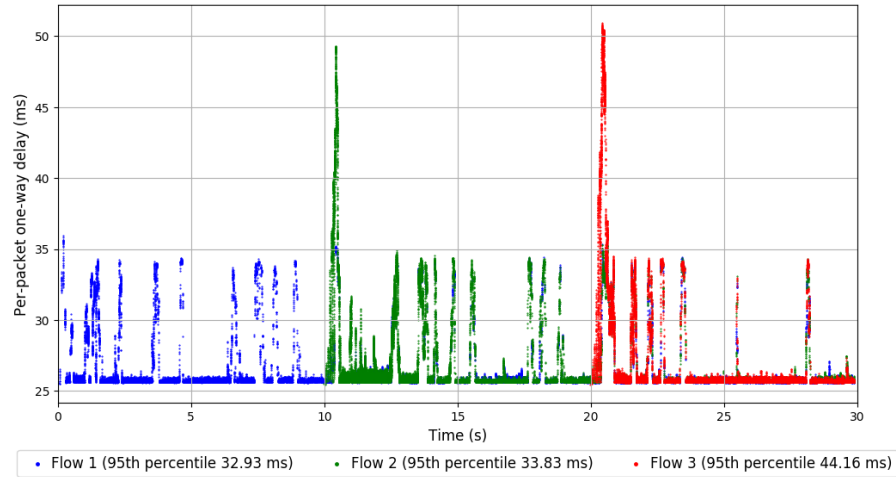
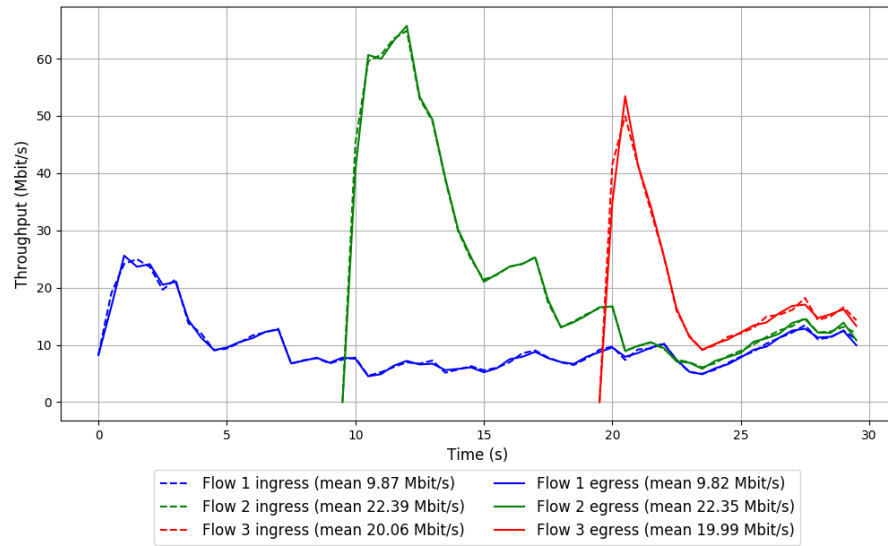
-- Flow 3:

Average throughput: 19.99 Mbit/s

95th percentile per-packet one-way delay: 44.158 ms

Loss rate: 0.88%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

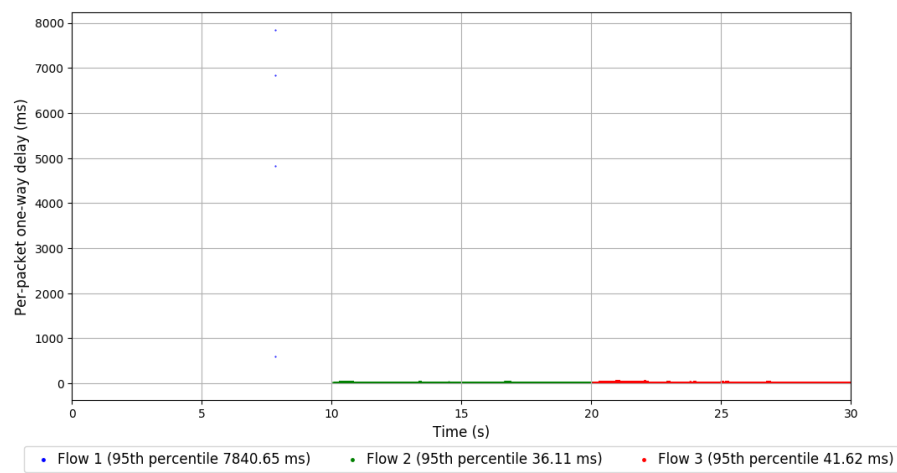
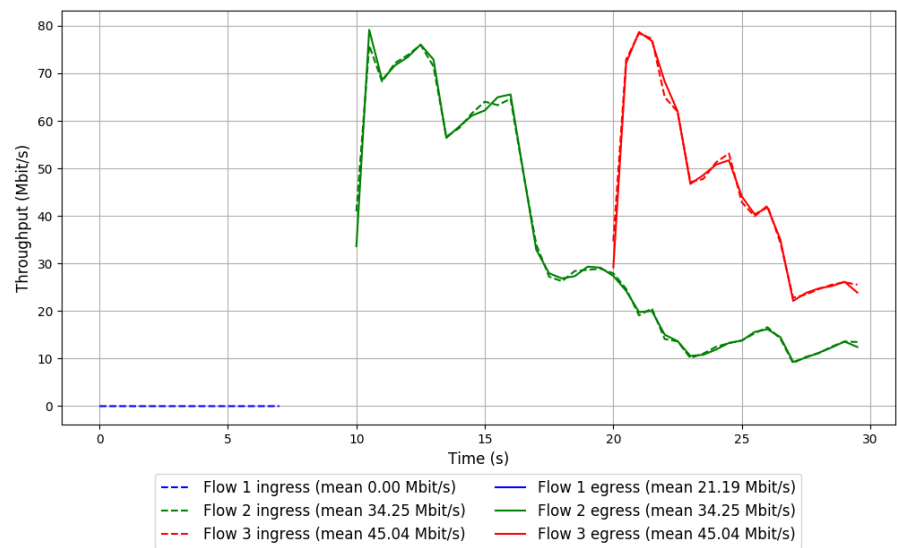
Start at: 2017-12-20 07:41:13

End at: 2017-12-20 07:41:43

Local clock offset: 1.464 ms

Remote clock offset: 1.785 ms

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-20 08:01:49

End at: 2017-12-20 08:02:19

Local clock offset: 1.303 ms

Remote clock offset: 0.87 ms

Below is generated by plot.py at 2017-12-20 11:53:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.37 Mbit/s

95th percentile per-packet one-way delay: 60.198 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 43.42 Mbit/s

95th percentile per-packet one-way delay: 34.485 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 33.69 Mbit/s

95th percentile per-packet one-way delay: 61.356 ms

Loss rate: 0.39%

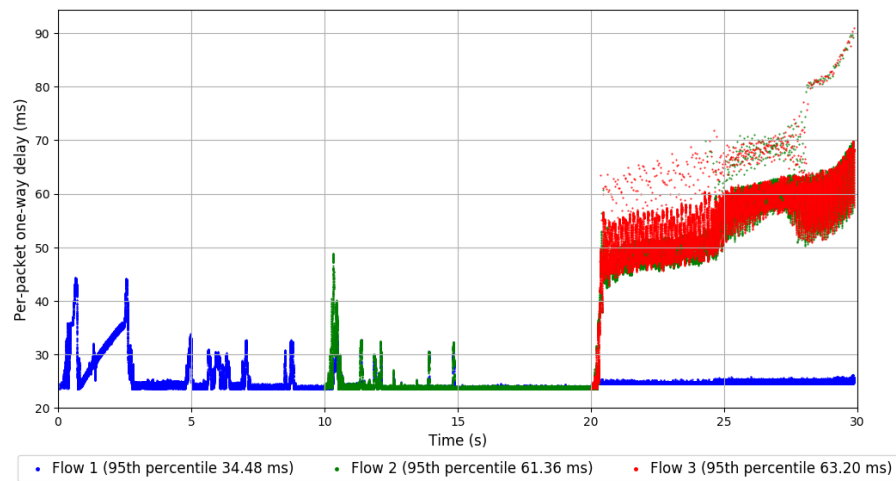
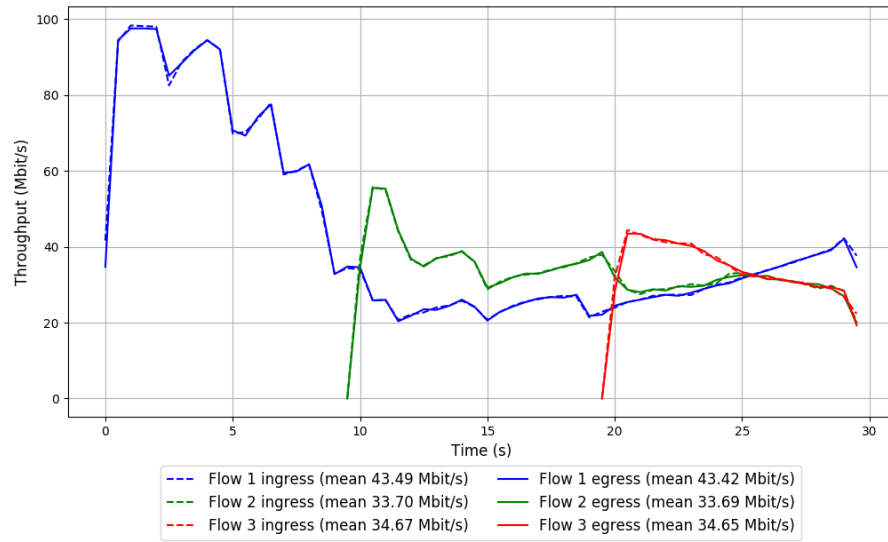
-- Flow 3:

Average throughput: 34.65 Mbit/s

95th percentile per-packet one-way delay: 63.199 ms

Loss rate: 0.77%

Run 9: Report of TCP Cubic — Data Link

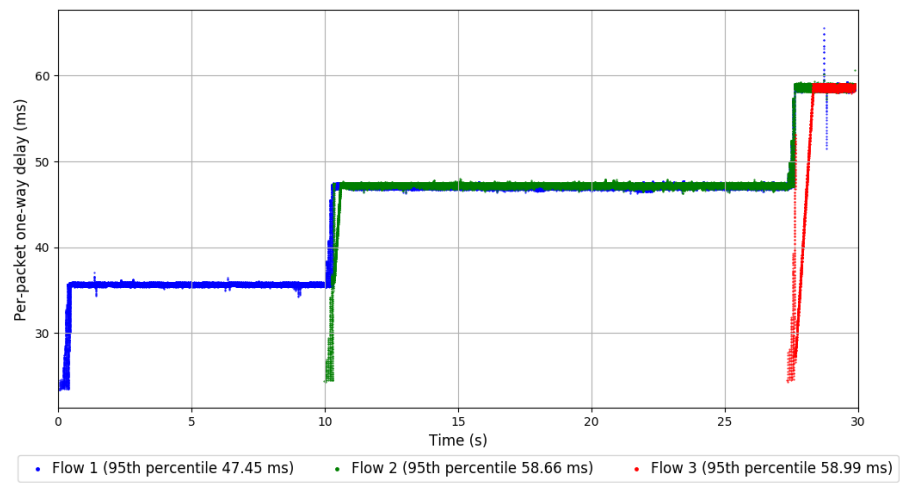
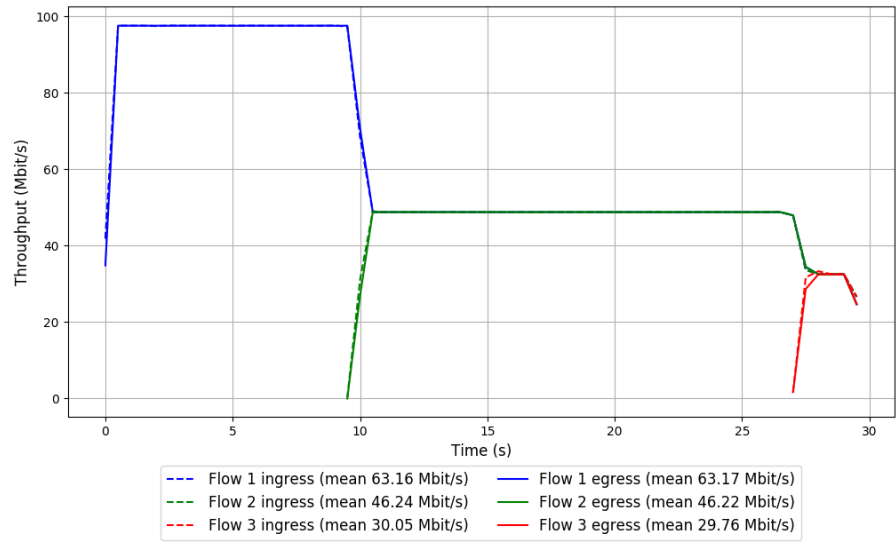


Run 10: Statistics of TCP Cubic

Start at: 2017-12-20 08:22:25
End at: 2017-12-20 08:22:55
Local clock offset: 1.222 ms
Remote clock offset: -0.338 ms

Below is generated by plot.py at 2017-12-20 11:53:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.55 Mbit/s
95th percentile per-packet one-way delay: 58.549 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 63.17 Mbit/s
95th percentile per-packet one-way delay: 47.447 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 46.22 Mbit/s
95th percentile per-packet one-way delay: 58.659 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 29.76 Mbit/s
95th percentile per-packet one-way delay: 58.988 ms
Loss rate: 3.62%

Run 10: Report of TCP Cubic — Data Link

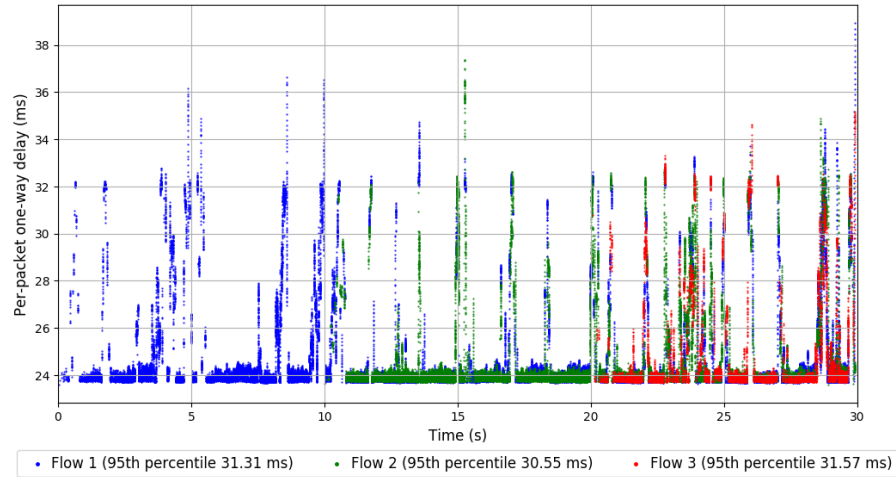
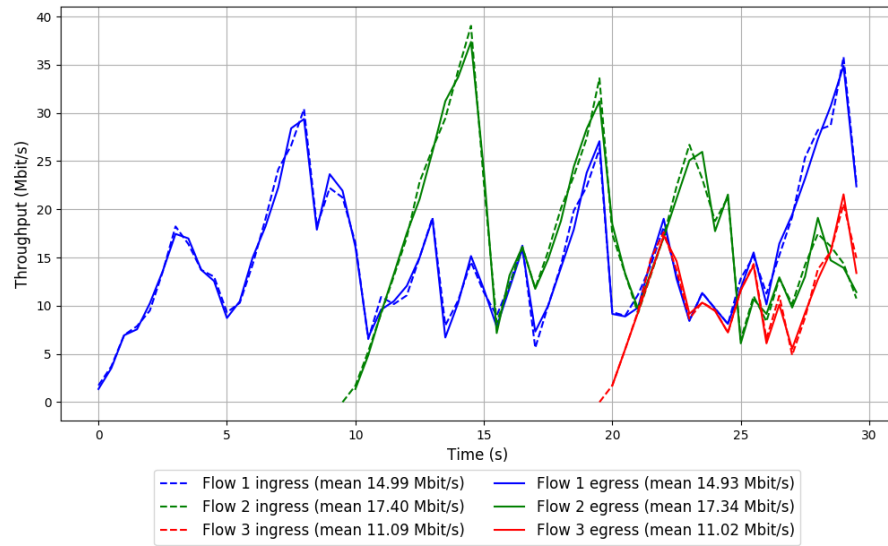


Run 1: Statistics of LEDBAT

Start at: 2017-12-20 05:04:23
End at: 2017-12-20 05:04:53
Local clock offset: 0.459 ms
Remote clock offset: -0.199 ms

Below is generated by plot.py at 2017-12-20 11:53:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 30.12 Mbit/s
95th percentile per-packet one-way delay: 31.117 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 14.93 Mbit/s
95th percentile per-packet one-way delay: 31.310 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 17.34 Mbit/s
95th percentile per-packet one-way delay: 30.555 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 31.568 ms
Loss rate: 1.24%

Run 1: Report of LEDBAT — Data Link

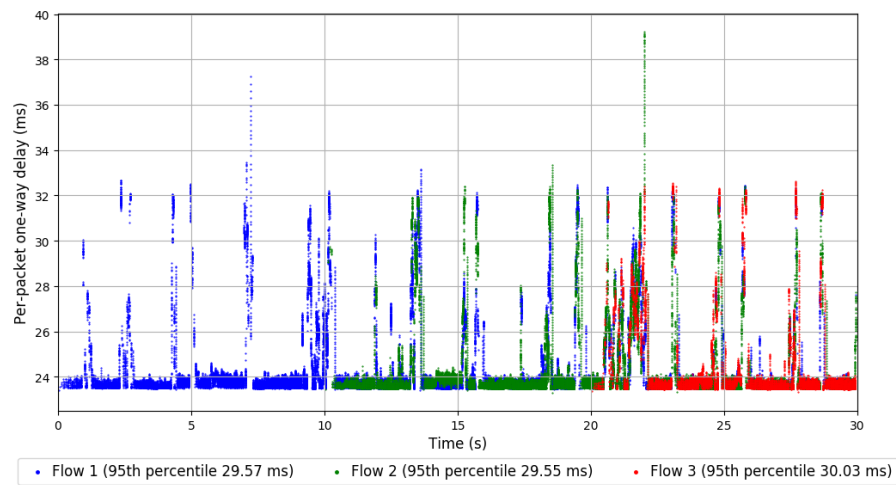
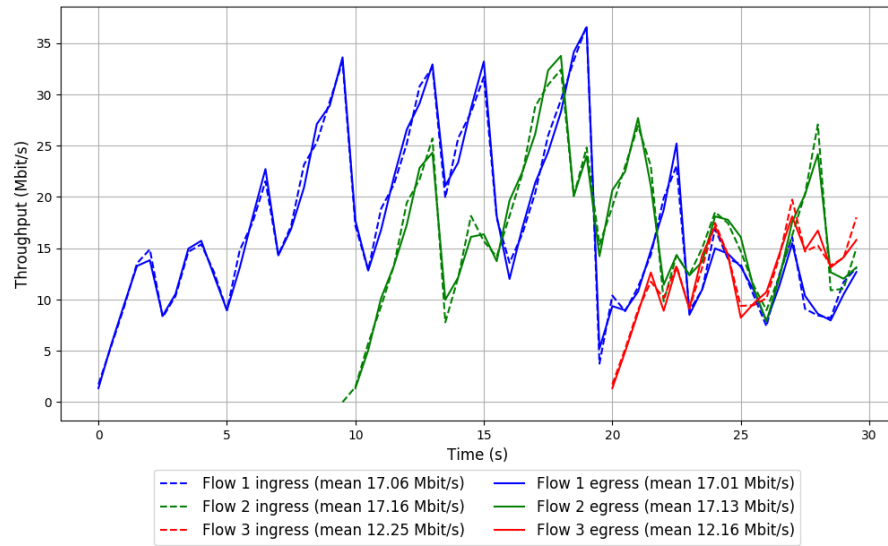


```
Run 2: Statistics of LEDBAT

Start at: 2017-12-20 05:25:16
End at: 2017-12-20 05:25:46
Local clock offset: 0.636 ms
Remote clock offset: 0.083 ms

# Below is generated by plot.py at 2017-12-20 11:53:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 29.609 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 17.01 Mbit/s
95th percentile per-packet one-way delay: 29.574 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 17.13 Mbit/s
95th percentile per-packet one-way delay: 29.551 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 12.16 Mbit/s
95th percentile per-packet one-way delay: 30.030 ms
Loss rate: 1.24%
```

Run 2: Report of LEDBAT — Data Link

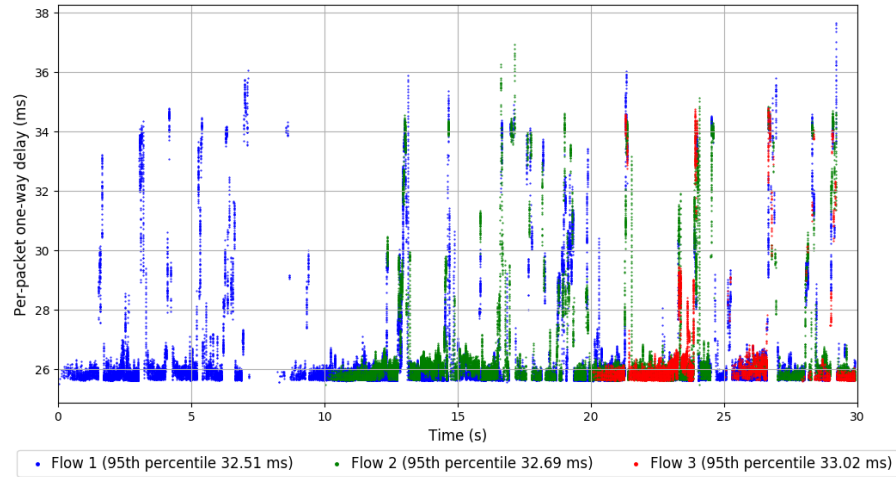
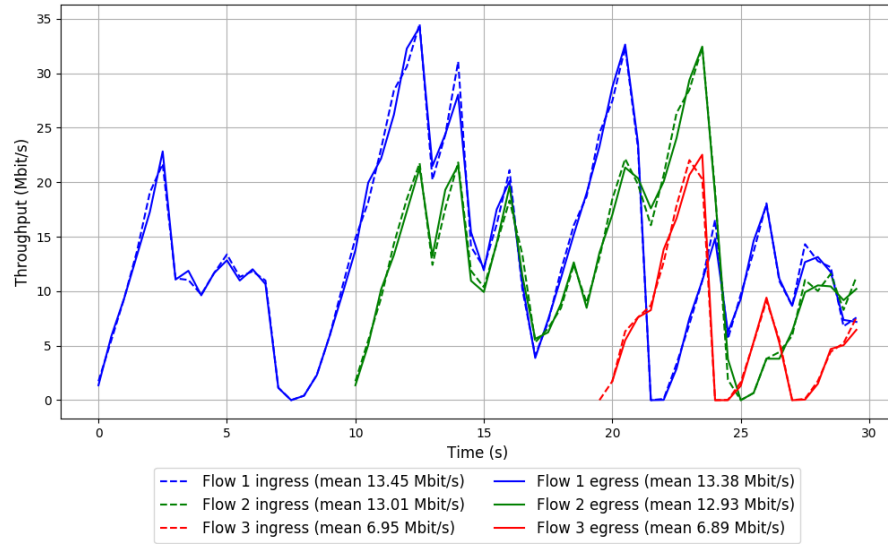


Run 3: Statistics of LEDBAT

Start at: 2017-12-20 05:46:49
End at: 2017-12-20 05:47:20
Local clock offset: 0.729 ms
Remote clock offset: -2.085 ms

Below is generated by plot.py at 2017-12-20 11:53:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 24.24 Mbit/s
95th percentile per-packet one-way delay: 32.647 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 32.511 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 32.689 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 6.89 Mbit/s
95th percentile per-packet one-way delay: 33.015 ms
Loss rate: 1.50%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-12-20 06:07:45

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

Local clock offset: 0.876 ms

Remote clock offset: 0.873 ms

Below is generated by plot.py at 2017-12-20 11:53:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.51 Mbit/s

95th percentile per-packet one-way delay: 41.592 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 23.84 Mbit/s

95th percentile per-packet one-way delay: 45.429 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 23.68 Mbit/s

95th percentile per-packet one-way delay: 34.814 ms

Loss rate: 0.29%

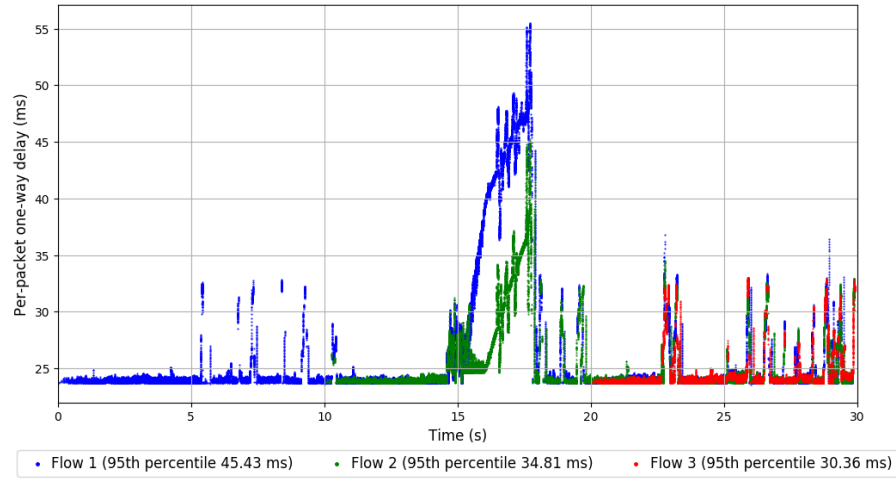
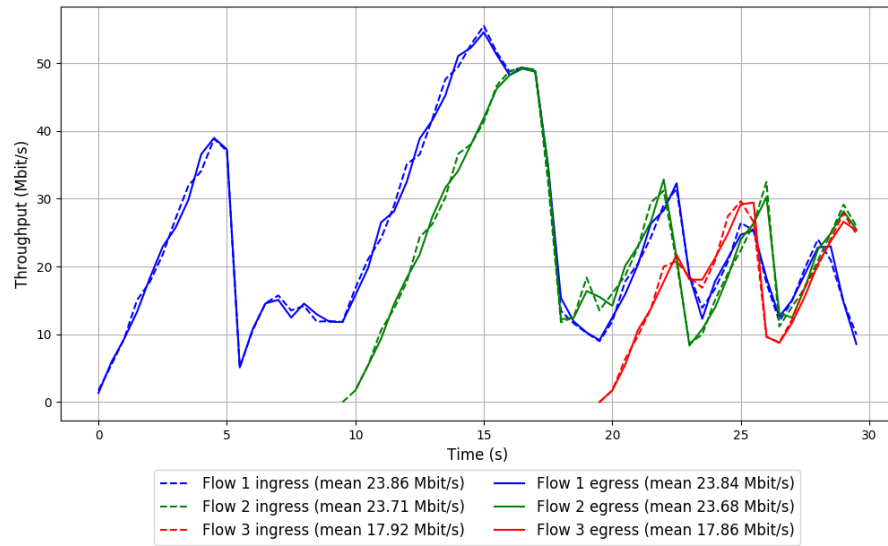
-- Flow 3:

Average throughput: 17.86 Mbit/s

95th percentile per-packet one-way delay: 30.355 ms

Loss rate: 0.85%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-20 06:28:20

End at: 2017-12-20 06:28:50

Local clock offset: 0.875 ms

Remote clock offset: 1.645 ms

Below is generated by plot.py at 2017-12-20 11:53:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 41.18 Mbit/s

95th percentile per-packet one-way delay: 34.590 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 20.55 Mbit/s

95th percentile per-packet one-way delay: 32.279 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 19.77 Mbit/s

95th percentile per-packet one-way delay: 31.906 ms

Loss rate: 0.47%

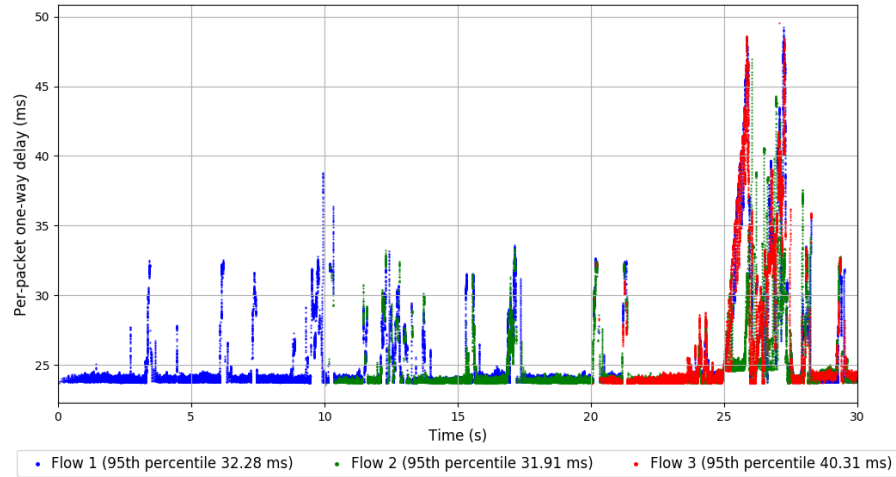
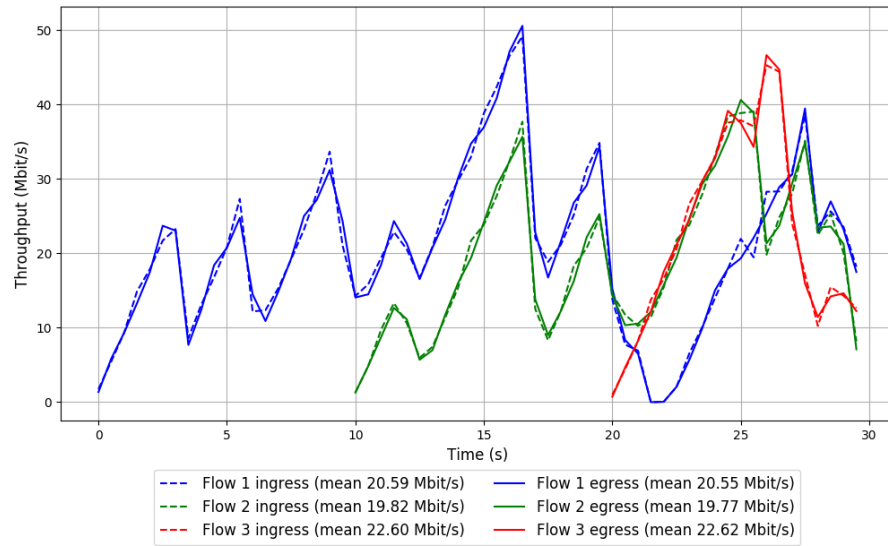
-- Flow 3:

Average throughput: 22.62 Mbit/s

95th percentile per-packet one-way delay: 40.310 ms

Loss rate: 0.46%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-12-20 06:49:26

End at: 2017-12-20 06:49:56

Local clock offset: 0.827 ms

Remote clock offset: 2.557 ms

Below is generated by plot.py at 2017-12-20 11:53:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 44.61 Mbit/s

95th percentile per-packet one-way delay: 30.882 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 24.09 Mbit/s

95th percentile per-packet one-way delay: 30.727 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 19.82 Mbit/s

95th percentile per-packet one-way delay: 28.606 ms

Loss rate: 0.47%

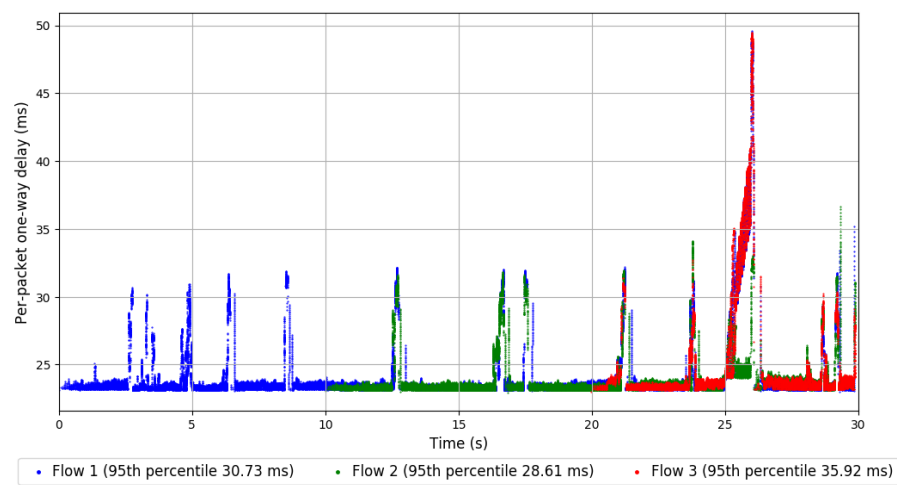
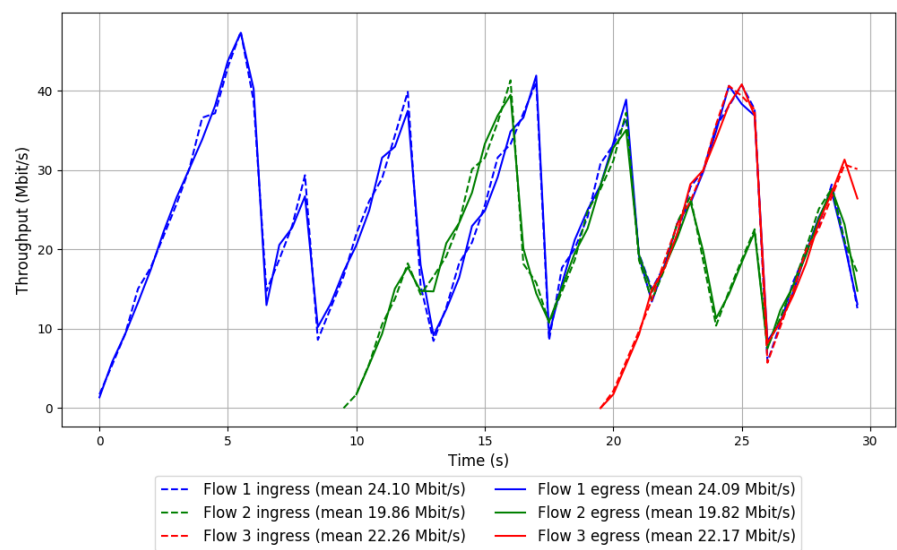
-- Flow 3:

Average throughput: 22.17 Mbit/s

95th percentile per-packet one-way delay: 35.921 ms

Loss rate: 0.97%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-20 07:10:13

End at: 2017-12-20 07:10:43

Local clock offset: 1.101 ms

Remote clock offset: 0.302 ms

Below is generated by plot.py at 2017-12-20 11:53:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 29.02 Mbit/s

95th percentile per-packet one-way delay: 32.996 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 16.44 Mbit/s

95th percentile per-packet one-way delay: 32.964 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 11.84 Mbit/s

95th percentile per-packet one-way delay: 33.083 ms

Loss rate: 0.98%

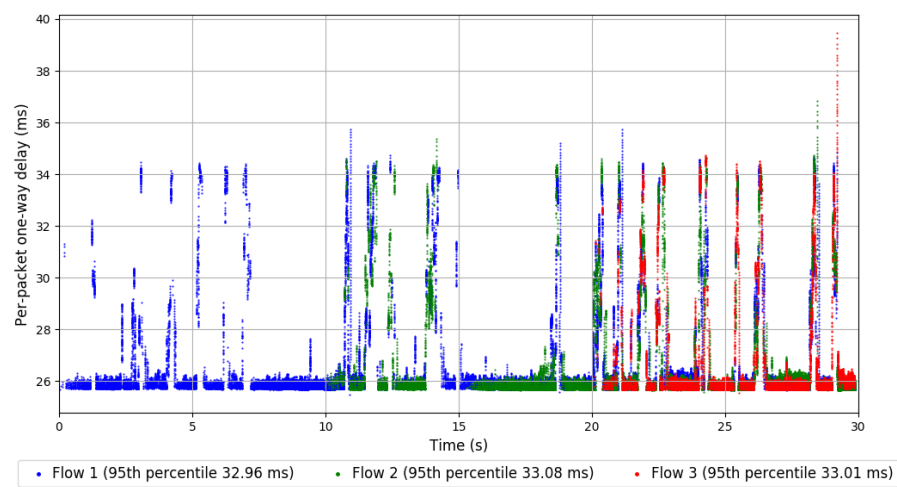
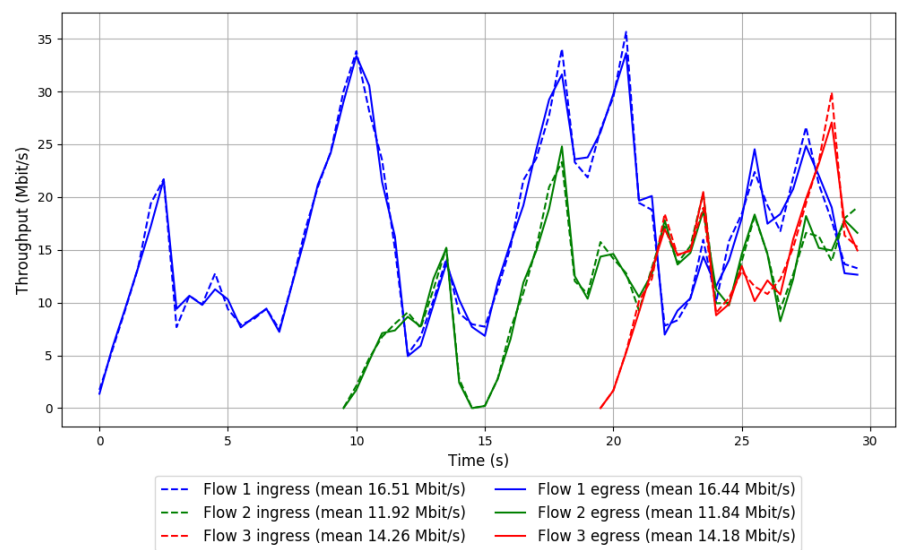
-- Flow 3:

Average throughput: 14.18 Mbit/s

95th percentile per-packet one-way delay: 33.010 ms

Loss rate: 1.07%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-20 07:31:17

End at: 2017-12-20 07:31:47

Local clock offset: 1.287 ms

Remote clock offset: 2.354 ms

Below is generated by plot.py at 2017-12-20 11:53:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.41 Mbit/s

95th percentile per-packet one-way delay: 29.394 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 21.35 Mbit/s

95th percentile per-packet one-way delay: 28.970 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 16.72 Mbit/s

95th percentile per-packet one-way delay: 29.790 ms

Loss rate: 0.68%

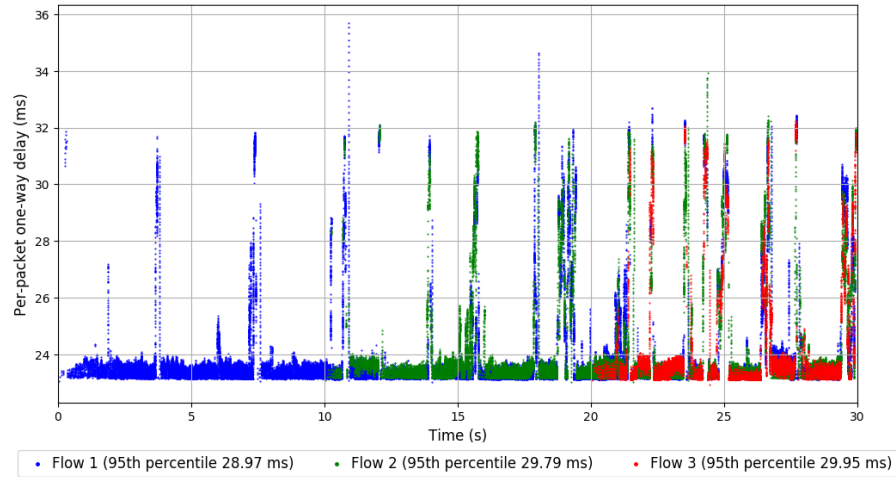
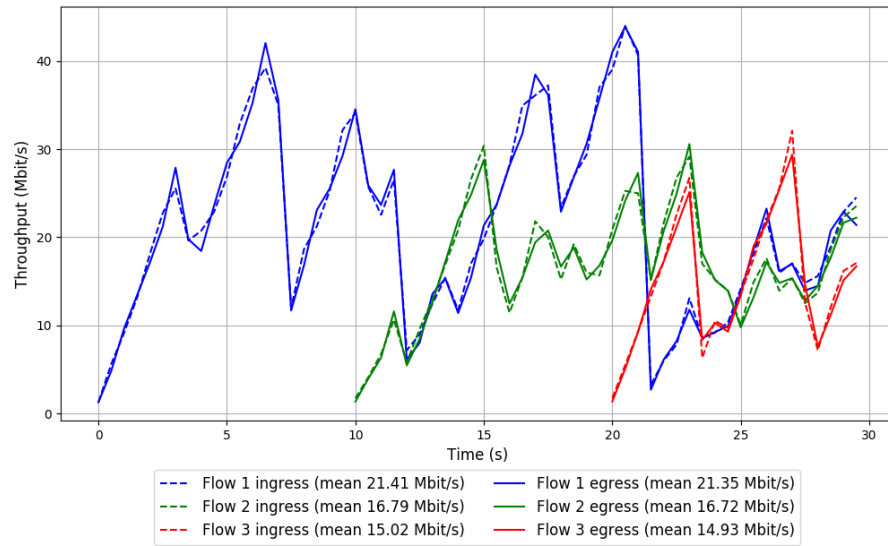
-- Flow 3:

Average throughput: 14.93 Mbit/s

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

Loss rate: 1.16%

Run 8: Report of LEDBAT — Data Link

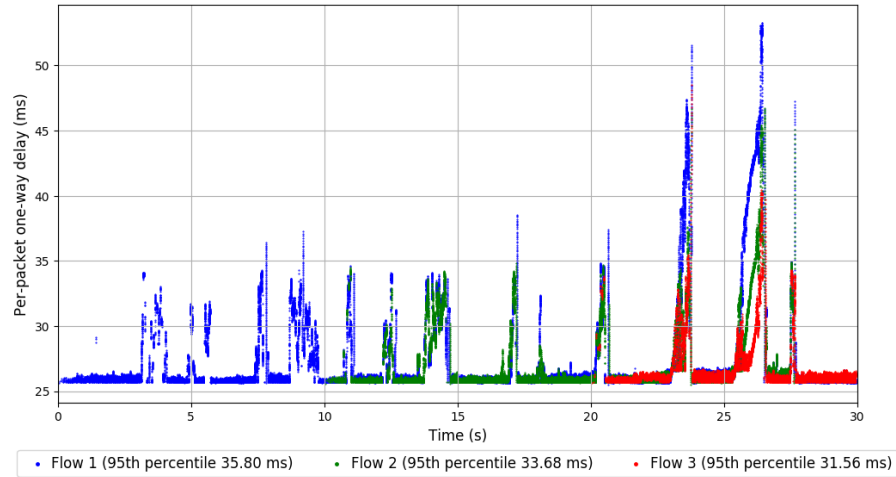
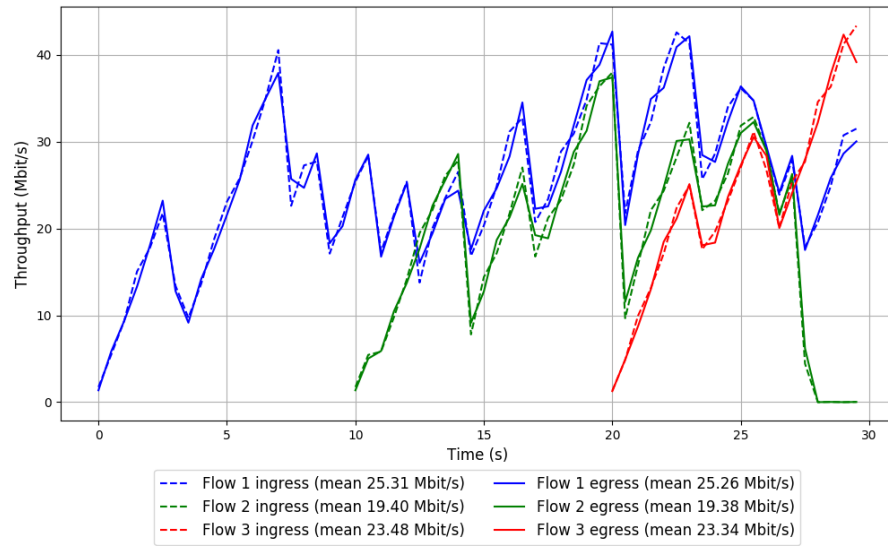


Run 9: Statistics of LEDBAT

Start at: 2017-12-20 07:52:11
End at: 2017-12-20 07:52:41
Local clock offset: 1.357 ms
Remote clock offset: -0.768 ms

Below is generated by plot.py at 2017-12-20 11:53:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 45.79 Mbit/s
95th percentile per-packet one-way delay: 33.871 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 25.26 Mbit/s
95th percentile per-packet one-way delay: 35.795 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 19.38 Mbit/s
95th percentile per-packet one-way delay: 33.683 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 23.34 Mbit/s
95th percentile per-packet one-way delay: 31.556 ms
Loss rate: 1.12%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

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

End at: 2017-12-20 08:13:21

Local clock offset: 1.338 ms

Remote clock offset: 0.19 ms

Below is generated by plot.py at 2017-12-20 11:54:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.73 Mbit/s

95th percentile per-packet one-way delay: 62.365 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 46.08 Mbit/s

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

Loss rate: 0.21%

-- Flow 2:

Average throughput: 38.64 Mbit/s

95th percentile per-packet one-way delay: 46.697 ms

Loss rate: 0.51%

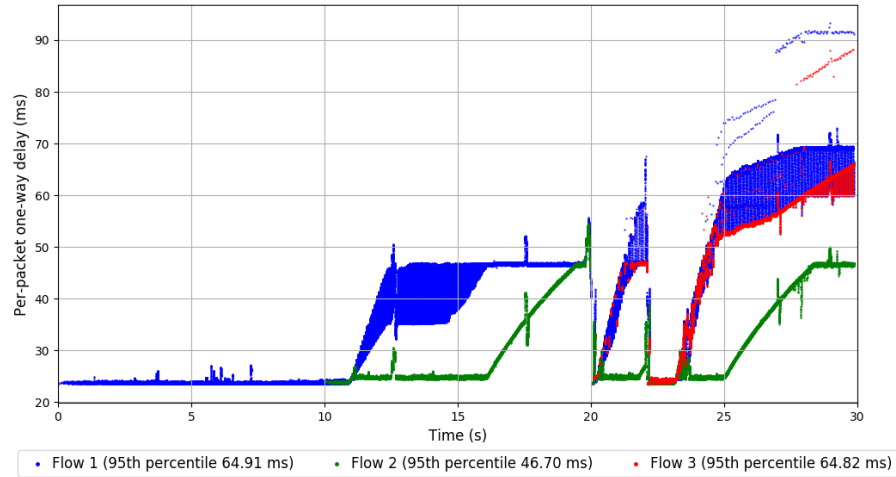
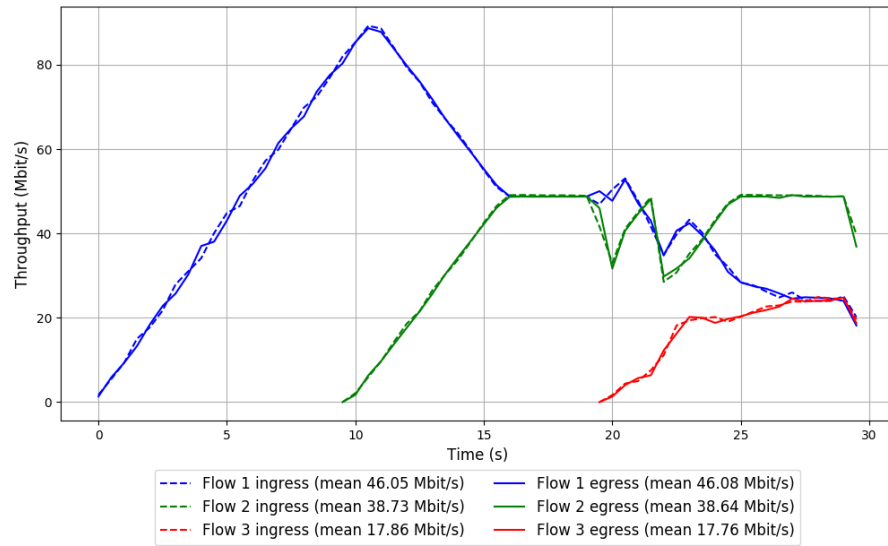
-- Flow 3:

Average throughput: 17.76 Mbit/s

95th percentile per-packet one-way delay: 64.817 ms

Loss rate: 1.23%

Run 10: Report of LEDBAT — Data Link

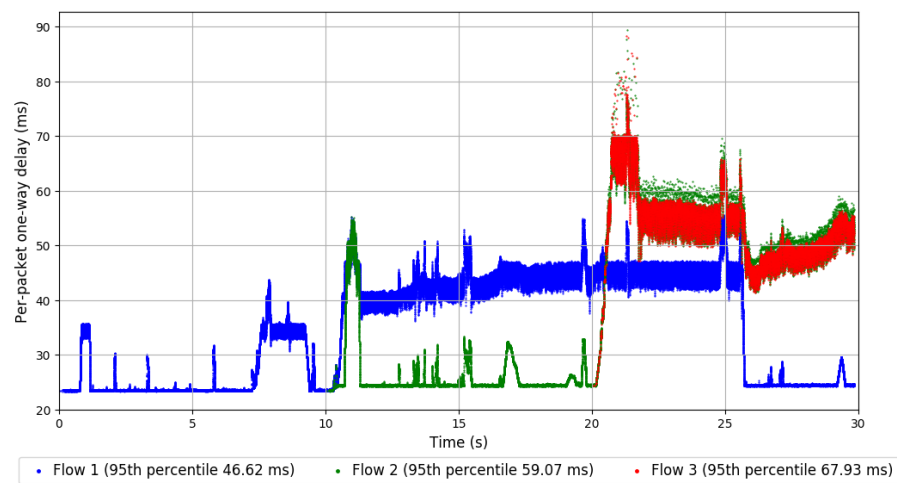
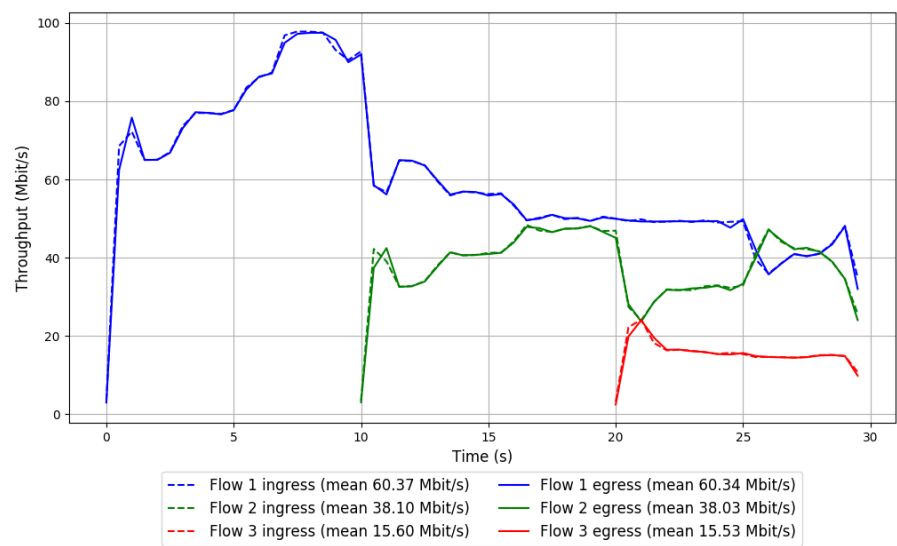


```
Run 1: Statistics of PCC

Start at: 2017-12-20 04:58:50
End at: 2017-12-20 04:59:20
Local clock offset: 0.289 ms
Remote clock offset: -0.206 ms

# Below is generated by plot.py at 2017-12-20 11:54:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.71 Mbit/s
95th percentile per-packet one-way delay: 55.904 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 60.34 Mbit/s
95th percentile per-packet one-way delay: 46.616 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 38.03 Mbit/s
95th percentile per-packet one-way delay: 59.068 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 15.53 Mbit/s
95th percentile per-packet one-way delay: 67.930 ms
Loss rate: 0.97%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-12-20 05:19:28

End at: 2017-12-20 05:19:58

Local clock offset: 0.514 ms

Remote clock offset: 0.499 ms

Below is generated by plot.py at 2017-12-20 11:54:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 62.95 Mbit/s

95th percentile per-packet one-way delay: 61.962 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 29.99 Mbit/s

95th percentile per-packet one-way delay: 62.124 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 34.29 Mbit/s

95th percentile per-packet one-way delay: 63.199 ms

Loss rate: 1.11%

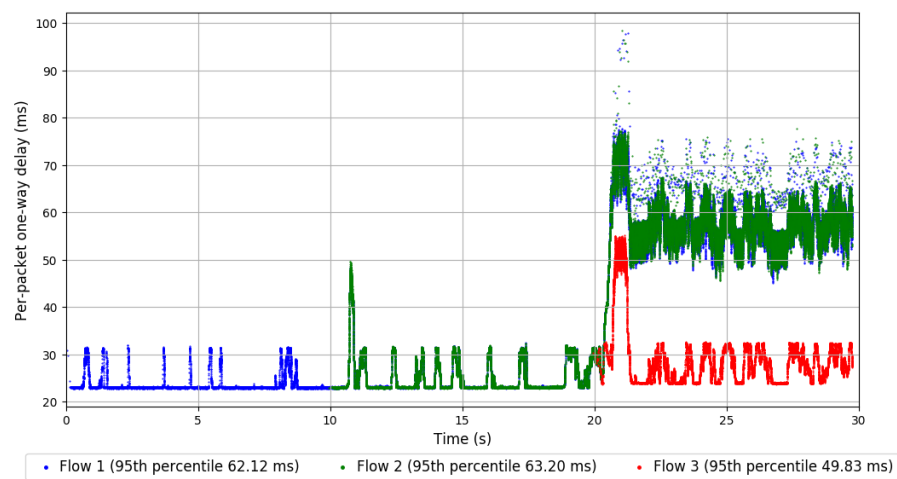
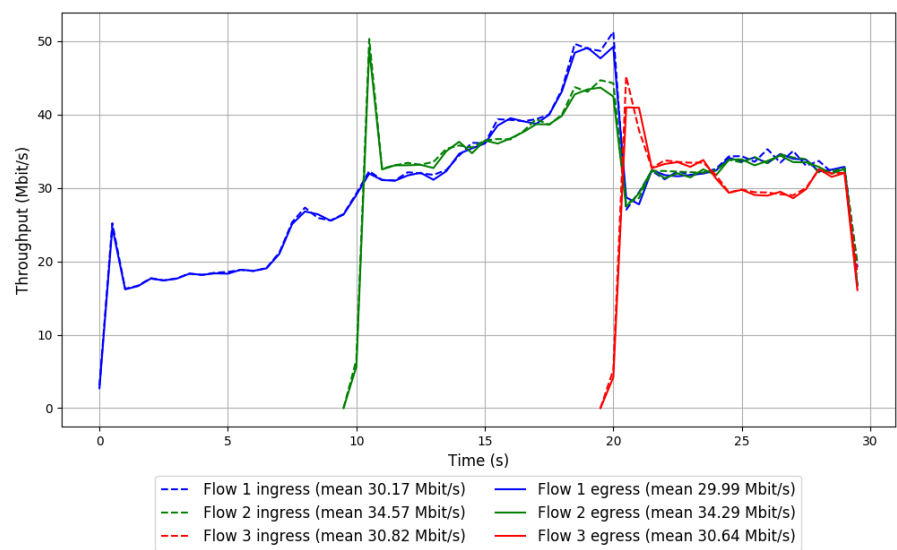
-- Flow 3:

Average throughput: 30.64 Mbit/s

95th percentile per-packet one-way delay: 49.831 ms

Loss rate: 1.19%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-20 05:40:50

End at: 2017-12-20 05:41:20

Local clock offset: 0.683 ms

Remote clock offset: 0.239 ms

Below is generated by plot.py at 2017-12-20 11:54:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.04 Mbit/s

95th percentile per-packet one-way delay: 63.580 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 42.49 Mbit/s

95th percentile per-packet one-way delay: 62.230 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 33.92 Mbit/s

95th percentile per-packet one-way delay: 63.886 ms

Loss rate: 1.38%

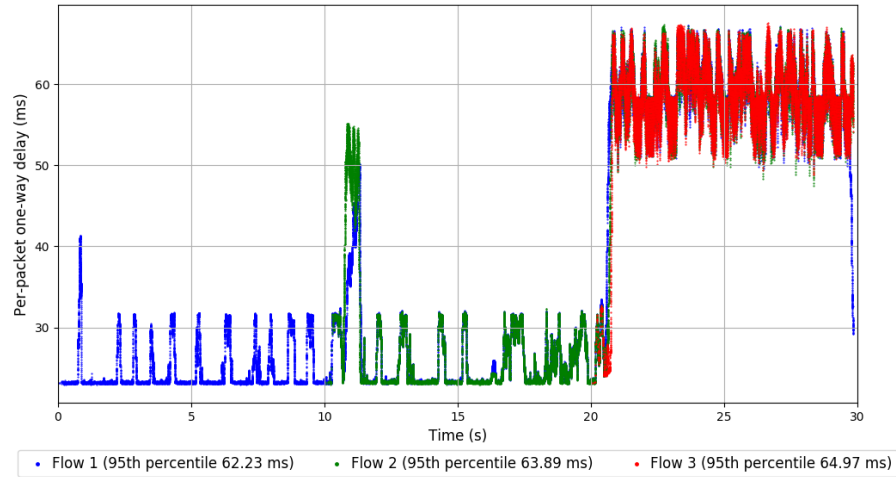
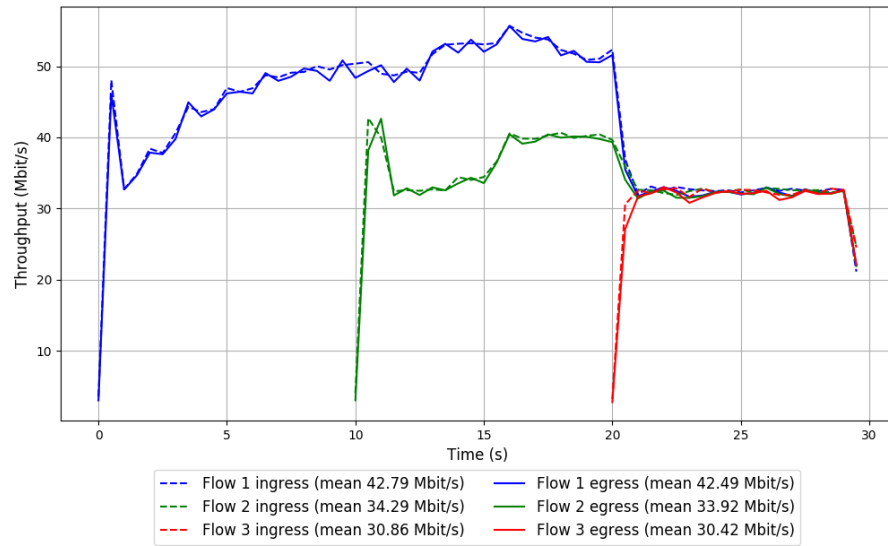
-- Flow 3:

Average throughput: 30.42 Mbit/s

95th percentile per-packet one-way delay: 64.974 ms

Loss rate: 2.05%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-12-20 06:02:12

End at: 2017-12-20 06:02:42

Local clock offset: 0.87 ms

Remote clock offset: 0.559 ms

Below is generated by plot.py at 2017-12-20 11:55:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.34 Mbit/s

95th percentile per-packet one-way delay: 58.582 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 60.38 Mbit/s

95th percentile per-packet one-way delay: 57.671 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 31.09 Mbit/s

95th percentile per-packet one-way delay: 57.608 ms

Loss rate: 0.65%

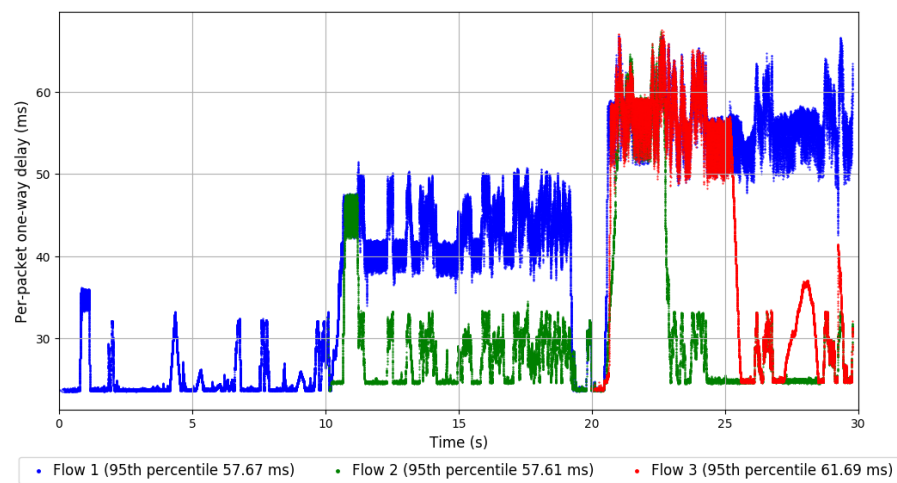
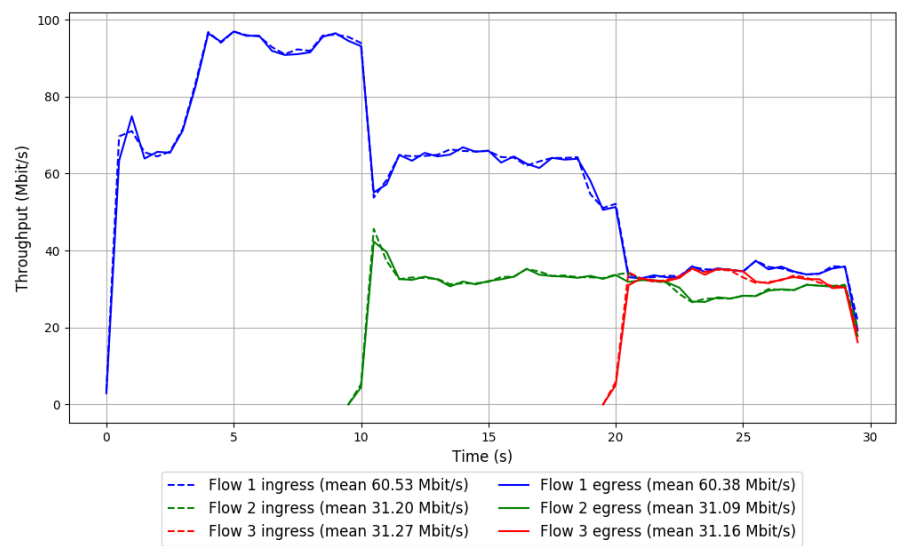
-- Flow 3:

Average throughput: 31.16 Mbit/s

95th percentile per-packet one-way delay: 61.694 ms

Loss rate: 0.89%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-20 06:22:52

End at: 2017-12-20 06:23:22

Local clock offset: 0.807 ms

Remote clock offset: 2.145 ms

Below is generated by plot.py at 2017-12-20 11:55:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.91 Mbit/s

95th percentile per-packet one-way delay: 47.755 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 64.27 Mbit/s

95th percentile per-packet one-way delay: 48.348 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 37.82 Mbit/s

95th percentile per-packet one-way delay: 32.221 ms

Loss rate: 0.70%

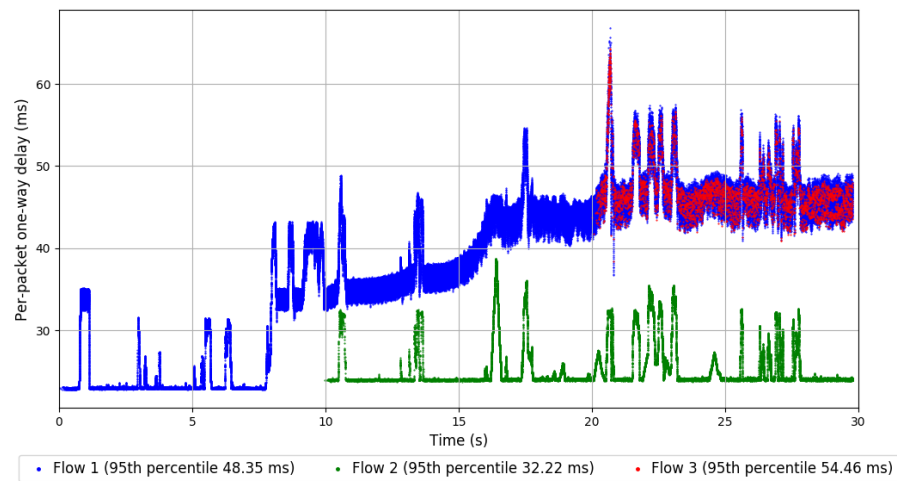
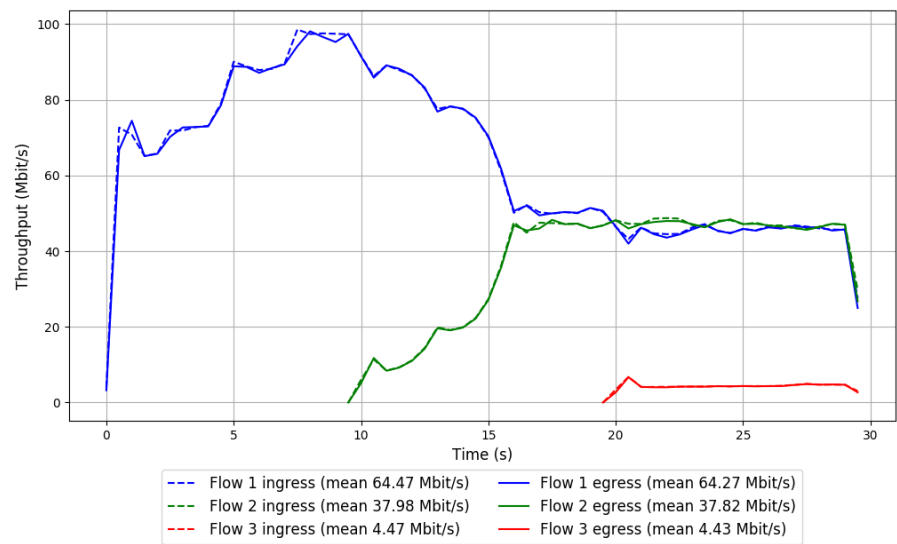
-- Flow 3:

Average throughput: 4.43 Mbit/s

95th percentile per-packet one-way delay: 54.456 ms

Loss rate: 1.76%

Run 5: Report of PCC — Data Link

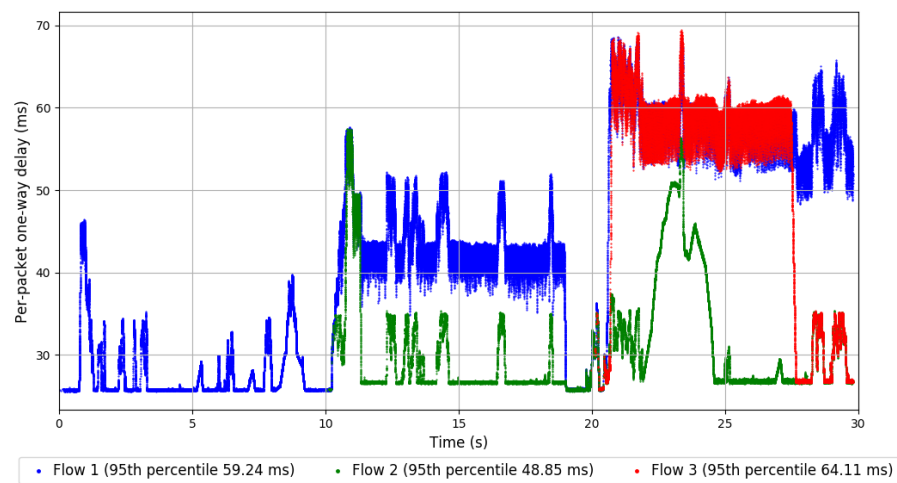
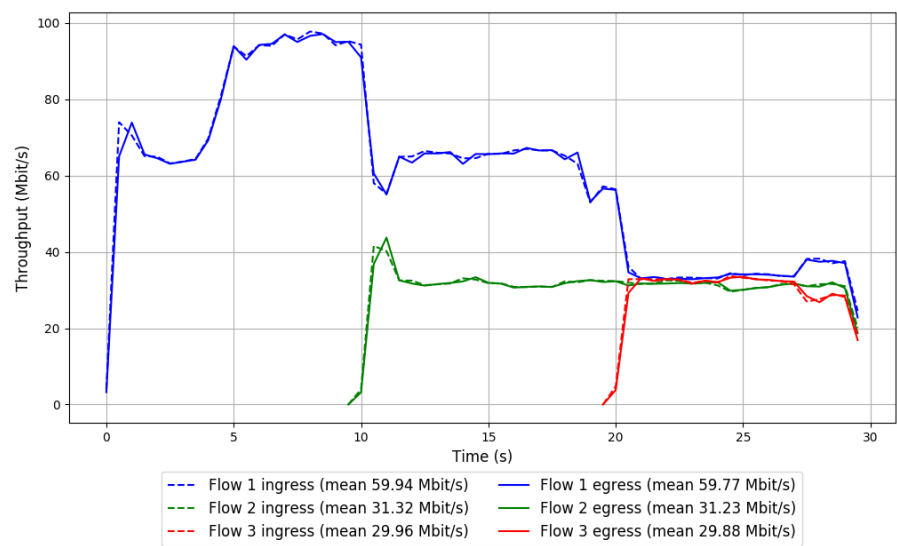


Run 6: Statistics of PCC

Start at: 2017-12-20 06:43:43
End at: 2017-12-20 06:44:13
Local clock offset: 0.789 ms
Remote clock offset: -0.075 ms

Below is generated by plot.py at 2017-12-20 11:55:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.40 Mbit/s
95th percentile per-packet one-way delay: 59.809 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 59.77 Mbit/s
95th percentile per-packet one-way delay: 59.241 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 31.23 Mbit/s
95th percentile per-packet one-way delay: 48.850 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 29.88 Mbit/s
95th percentile per-packet one-way delay: 64.112 ms
Loss rate: 0.85%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-12-20 07:04:31

End at: 2017-12-20 07:05:01

Local clock offset: 1.042 ms

Remote clock offset: 2.426 ms

Below is generated by plot.py at 2017-12-20 11:55:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.27 Mbit/s

95th percentile per-packet one-way delay: 47.698 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 66.36 Mbit/s

95th percentile per-packet one-way delay: 47.485 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 8.55 Mbit/s

95th percentile per-packet one-way delay: 49.579 ms

Loss rate: 0.84%

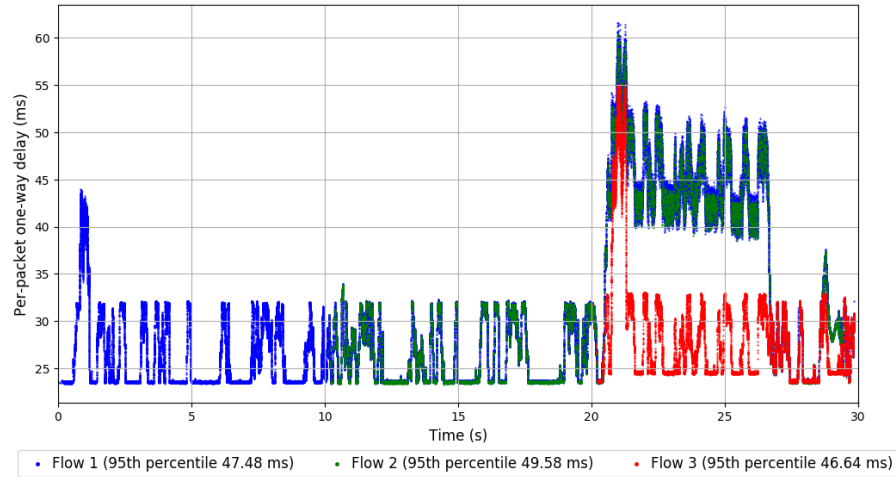
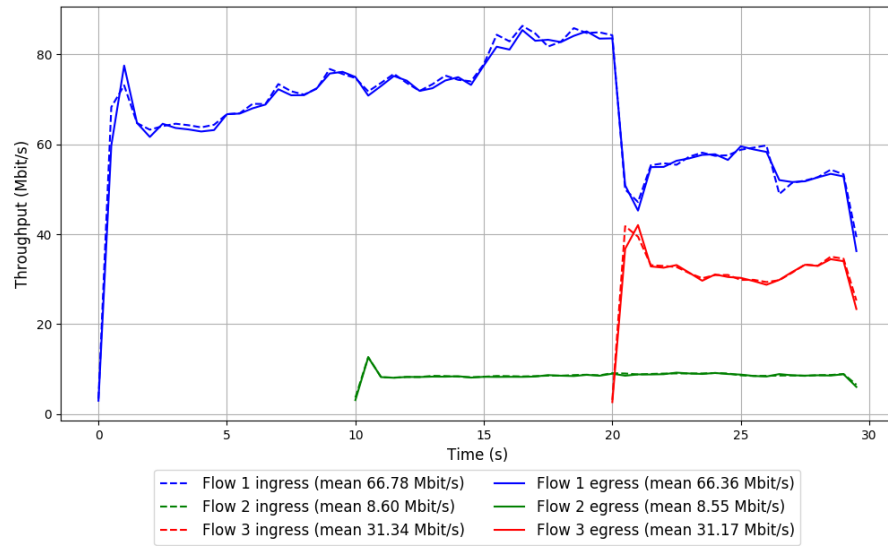
-- Flow 3:

Average throughput: 31.17 Mbit/s

95th percentile per-packet one-way delay: 46.642 ms

Loss rate: 1.18%

Run 7: Report of PCC — Data Link

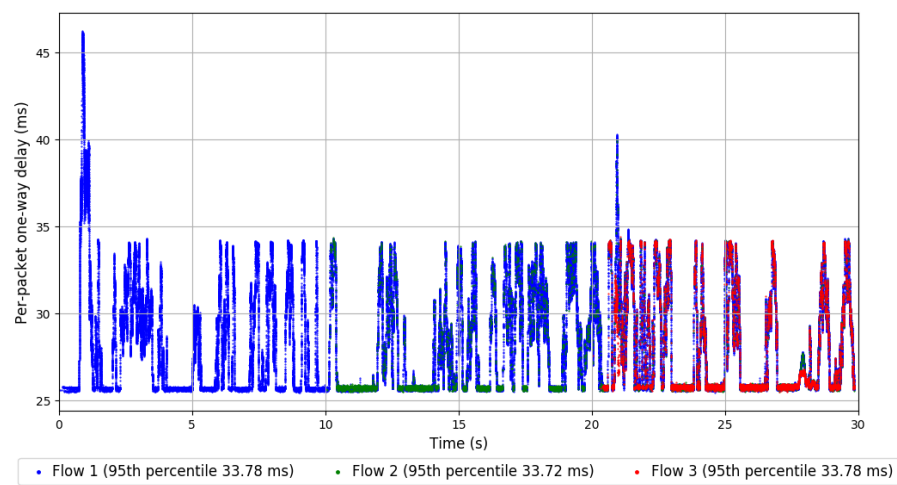
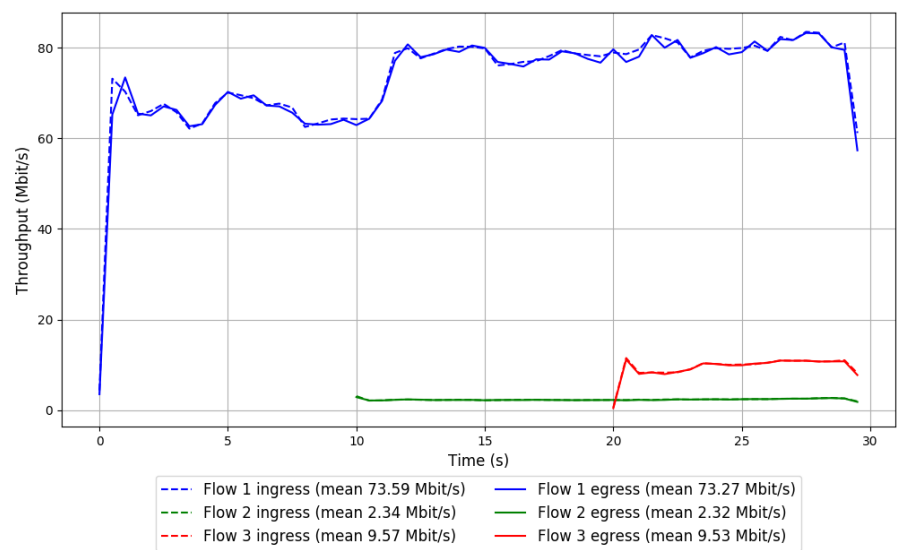


Run 8: Statistics of PCC

Start at: 2017-12-20 07:25:43
End at: 2017-12-20 07:26:13
Local clock offset: 1.278 ms
Remote clock offset: -0.082 ms

Below is generated by plot.py at 2017-12-20 11:55:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.94 Mbit/s
95th percentile per-packet one-way delay: 33.778 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 73.27 Mbit/s
95th percentile per-packet one-way delay: 33.780 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 33.717 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 33.781 ms
Loss rate: 1.04%

Run 8: Report of PCC — Data Link

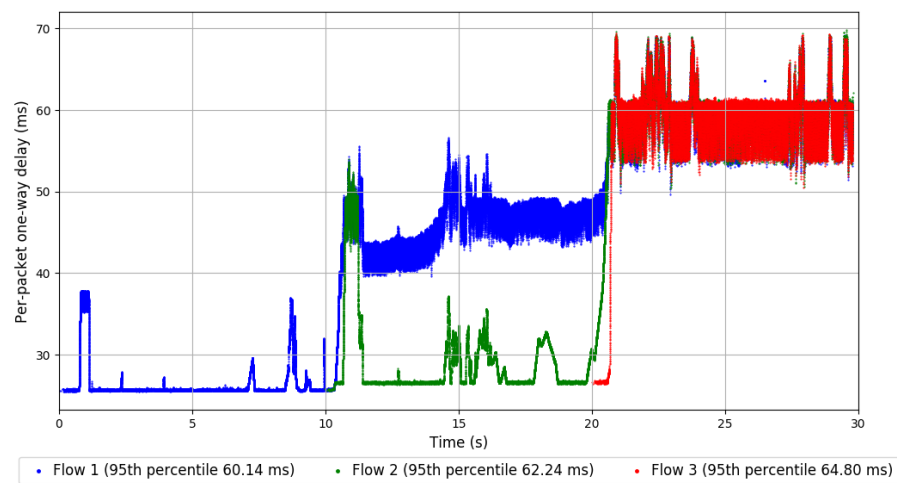
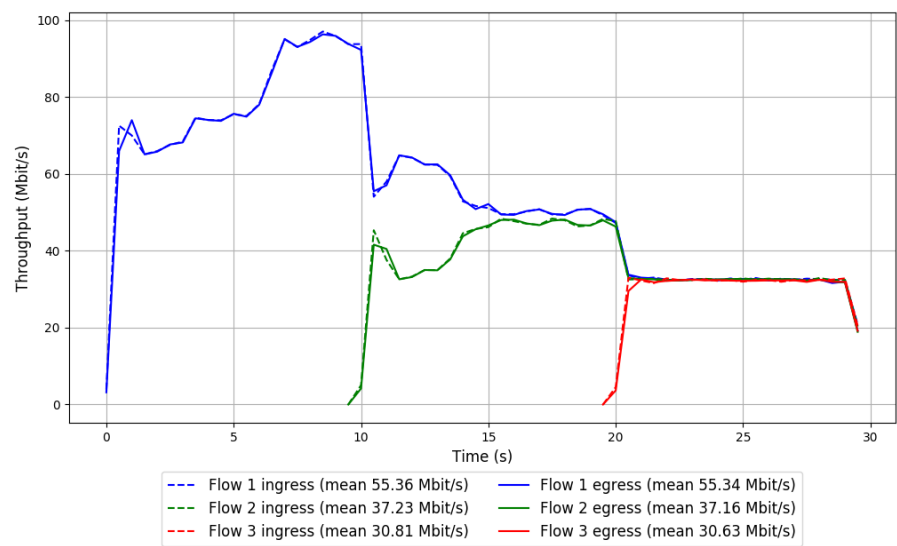


Run 9: Statistics of PCC

Start at: 2017-12-20 07:46:42
End at: 2017-12-20 07:47:12
Local clock offset: 1.416 ms
Remote clock offset: -0.451 ms

Below is generated by plot.py at 2017-12-20 11:55:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.15 Mbit/s
95th percentile per-packet one-way delay: 61.206 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 55.34 Mbit/s
95th percentile per-packet one-way delay: 60.143 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 37.16 Mbit/s
95th percentile per-packet one-way delay: 62.241 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 30.63 Mbit/s
95th percentile per-packet one-way delay: 64.799 ms
Loss rate: 1.22%

Run 9: Report of PCC — Data Link

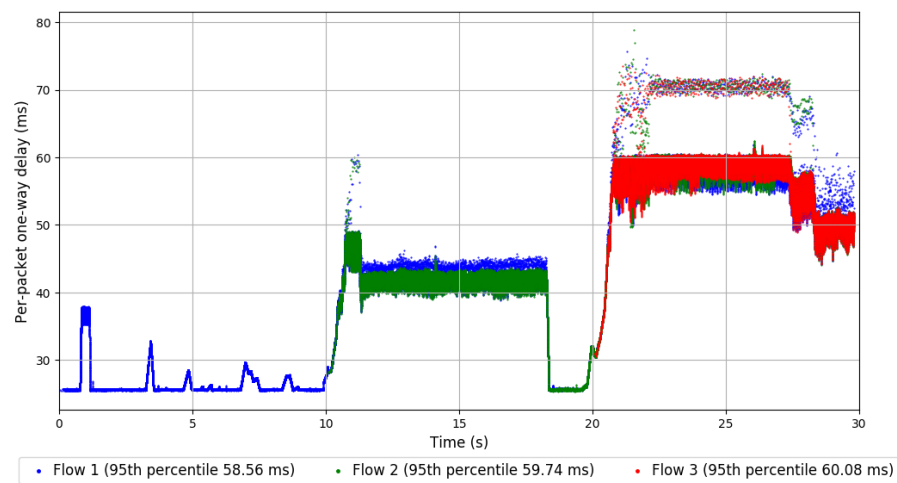
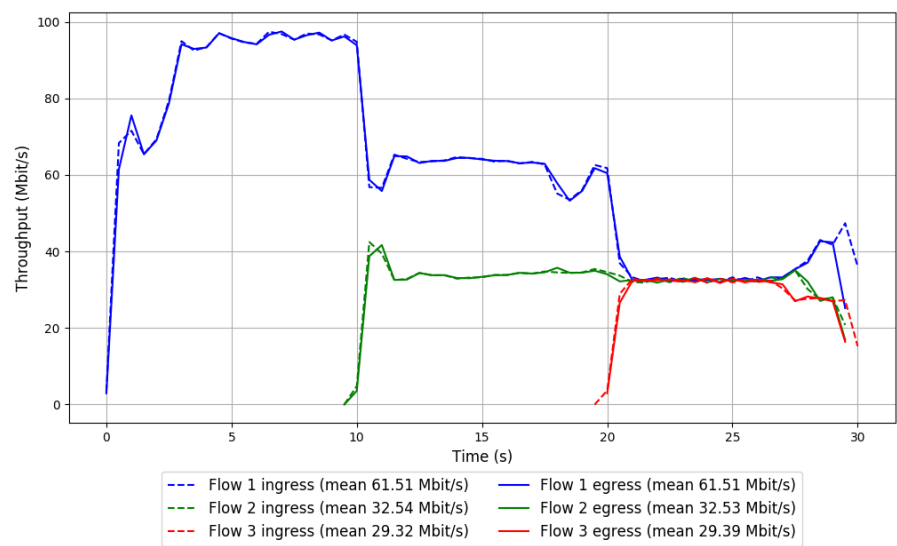


Run 10: Statistics of PCC

Start at: 2017-12-20 08:07:18
End at: 2017-12-20 08:07:48
Local clock offset: 1.265 ms
Remote clock offset: -1.531 ms

Below is generated by plot.py at 2017-12-20 11:56:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.82 Mbit/s
95th percentile per-packet one-way delay: 59.482 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 61.51 Mbit/s
95th percentile per-packet one-way delay: 58.556 ms
Loss rate: 1.66%
-- Flow 2:
Average throughput: 32.53 Mbit/s
95th percentile per-packet one-way delay: 59.736 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 29.39 Mbit/s
95th percentile per-packet one-way delay: 60.076 ms
Loss rate: 4.76%

Run 10: Report of PCC — Data Link

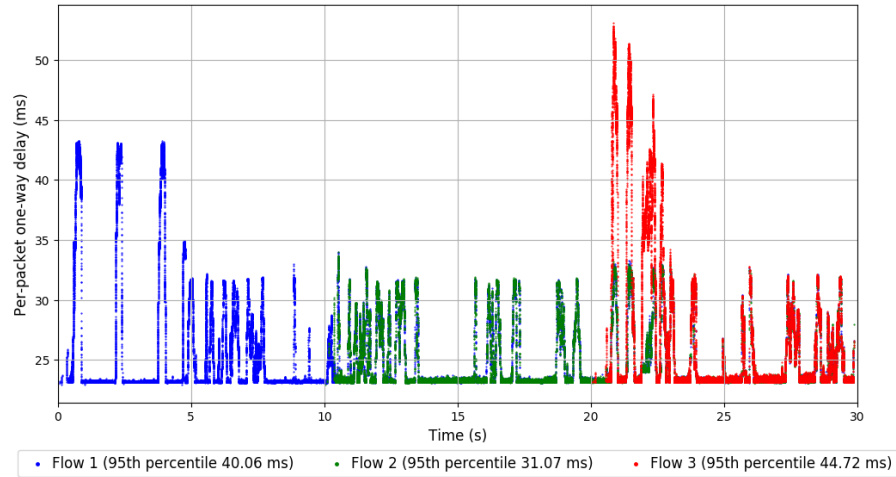
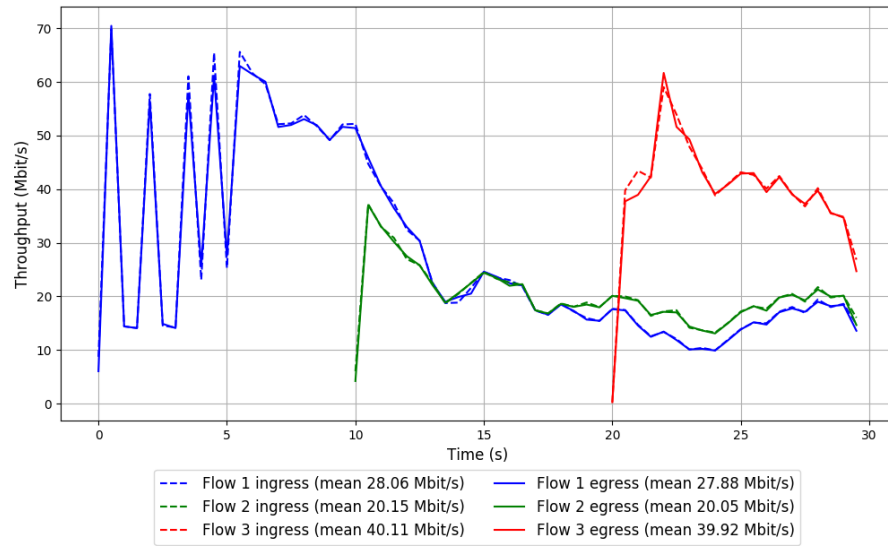


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-20 05:05:42
End at: 2017-12-20 05:06:12
Local clock offset: 0.487 ms
Remote clock offset: 0.414 ms

# Below is generated by plot.py at 2017-12-20 11:56:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 39.444 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 27.88 Mbit/s
95th percentile per-packet one-way delay: 40.059 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 20.05 Mbit/s
95th percentile per-packet one-way delay: 31.066 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 39.92 Mbit/s
95th percentile per-packet one-way delay: 44.715 ms
Loss rate: 1.02%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-20 05:26:36

End at: 2017-12-20 05:27:06

Local clock offset: 0.522 ms

Remote clock offset: 0.028 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.88 Mbit/s

95th percentile per-packet one-way delay: 31.019 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 32.03 Mbit/s

95th percentile per-packet one-way delay: 31.173 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 29.02 Mbit/s

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

Loss rate: 0.59%

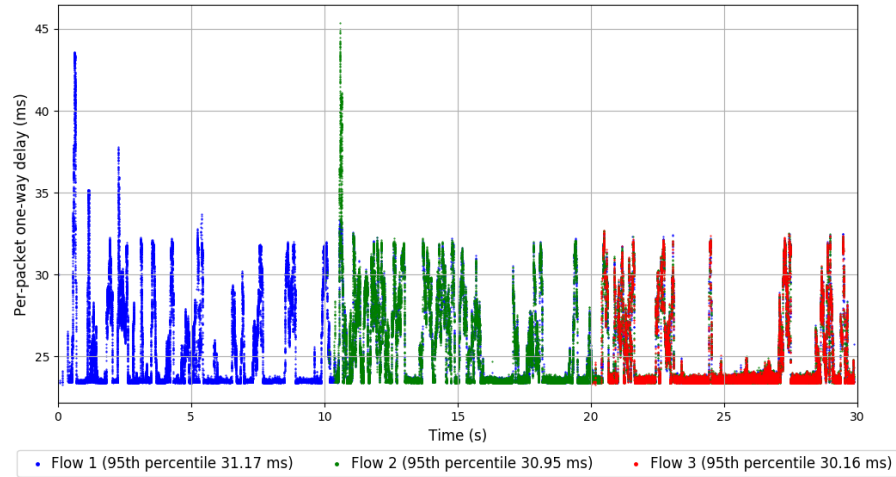
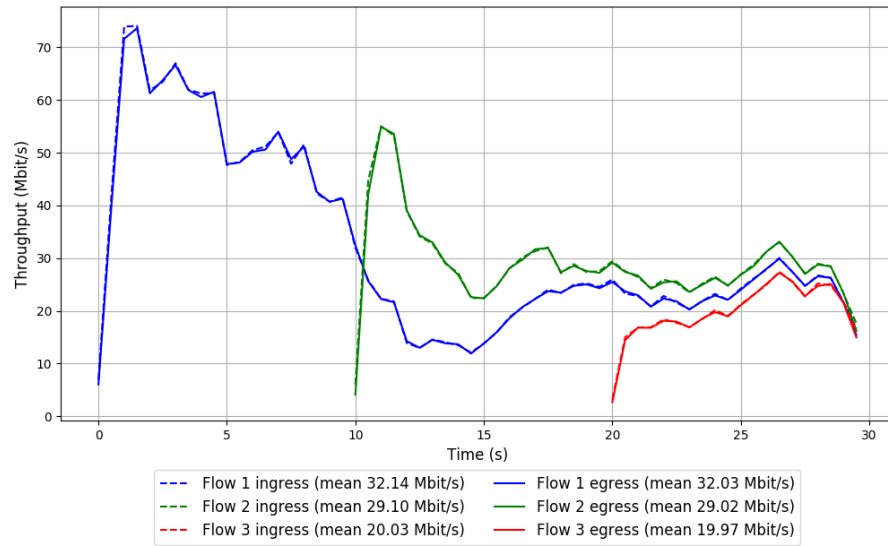
-- Flow 3:

Average throughput: 19.97 Mbit/s

95th percentile per-packet one-way delay: 30.156 ms

Loss rate: 0.84%

Run 2: Report of QUIC Cubic — Data Link

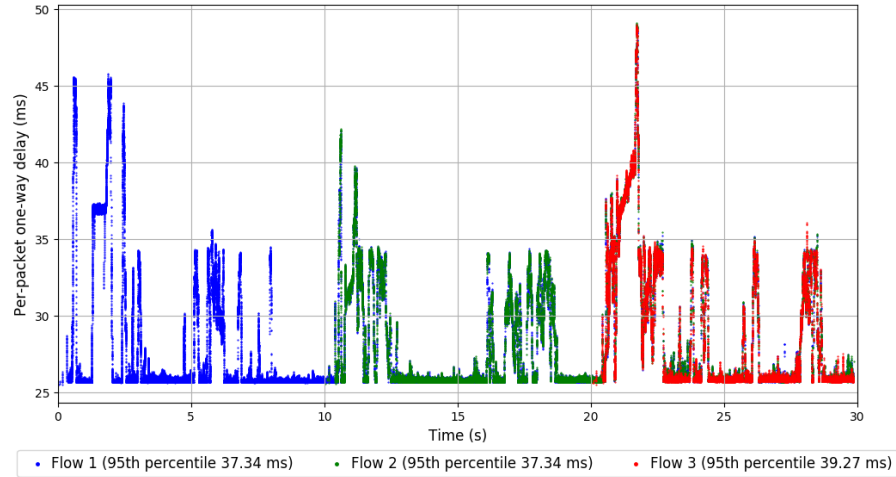
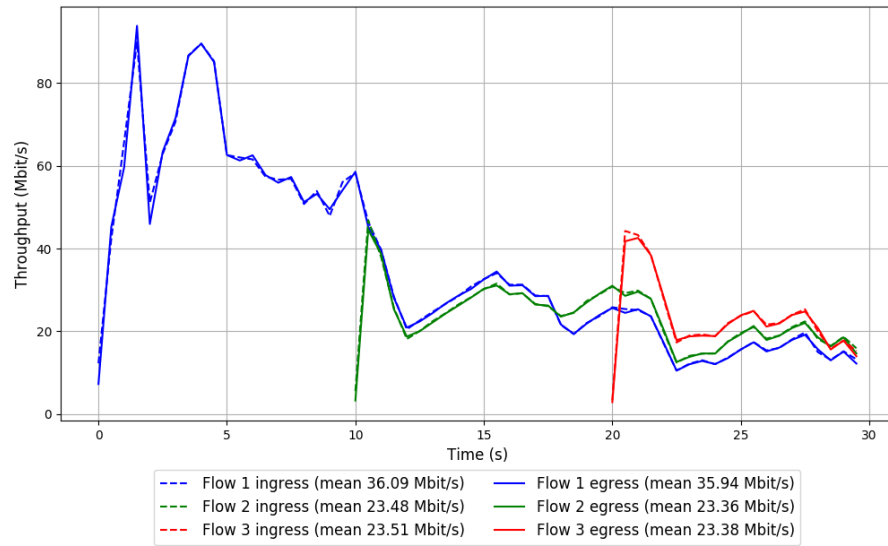


Run 3: Statistics of QUIC Cubic

Start at: 2017-12-20 05:48:10
End at: 2017-12-20 05:48:40
Local clock offset: 0.733 ms
Remote clock offset: -2.084 ms

Below is generated by plot.py at 2017-12-20 11:56:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 59.14 Mbit/s
95th percentile per-packet one-way delay: 37.952 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 35.94 Mbit/s
95th percentile per-packet one-way delay: 37.339 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 23.36 Mbit/s
95th percentile per-packet one-way delay: 37.339 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 23.38 Mbit/s
95th percentile per-packet one-way delay: 39.269 ms
Loss rate: 1.09%

Run 3: Report of QUIC Cubic — Data Link

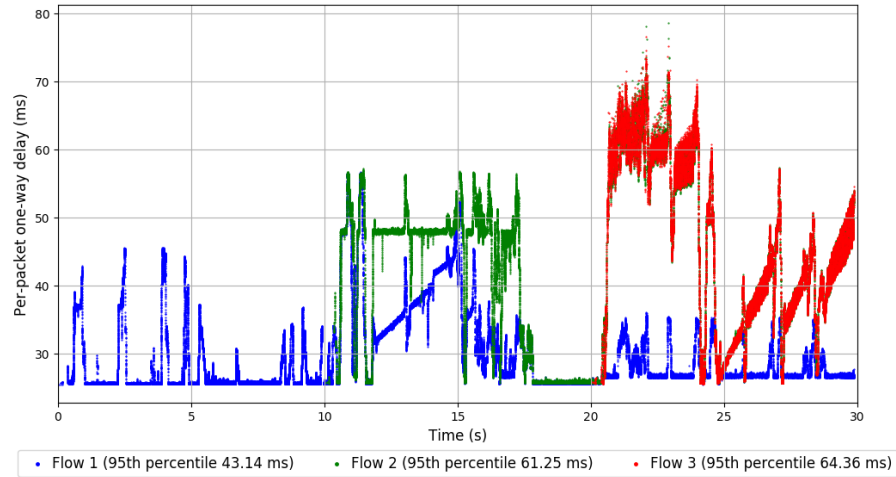
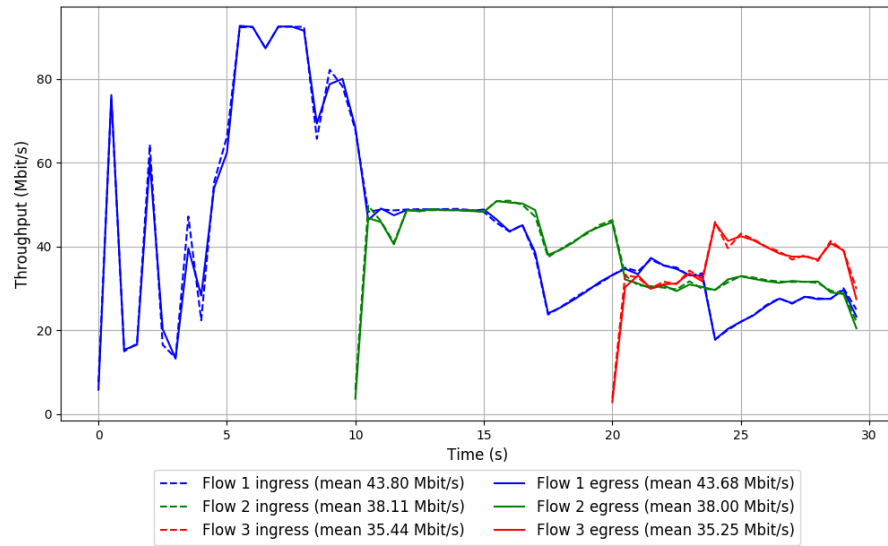


Run 4: Statistics of QUIC Cubic

Start at: 2017-12-20 06:09:06
End at: 2017-12-20 06:09:36
Local clock offset: 0.79 ms
Remote clock offset: -1.057 ms

Below is generated by plot.py at 2017-12-20 11:56:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 80.53 Mbit/s
95th percentile per-packet one-way delay: 59.760 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 43.68 Mbit/s
95th percentile per-packet one-way delay: 43.144 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 38.00 Mbit/s
95th percentile per-packet one-way delay: 61.248 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 35.25 Mbit/s
95th percentile per-packet one-way delay: 64.355 ms
Loss rate: 1.06%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-20 06:29:42

End at: 2017-12-20 06:30:12

Local clock offset: 0.872 ms

Remote clock offset: 1.705 ms

Below is generated by plot.py at 2017-12-20 11:56:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.19 Mbit/s

95th percentile per-packet one-way delay: 46.223 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 42.58 Mbit/s

95th percentile per-packet one-way delay: 45.972 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 37.09 Mbit/s

95th percentile per-packet one-way delay: 50.837 ms

Loss rate: 0.62%

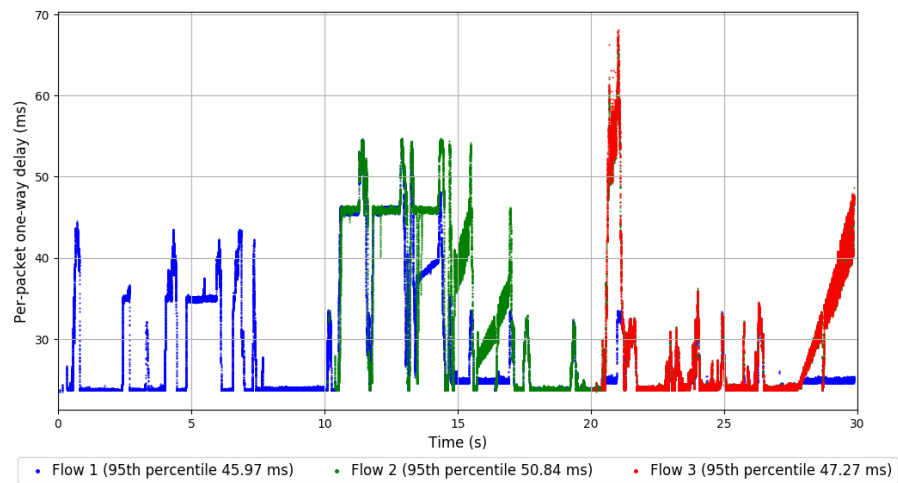
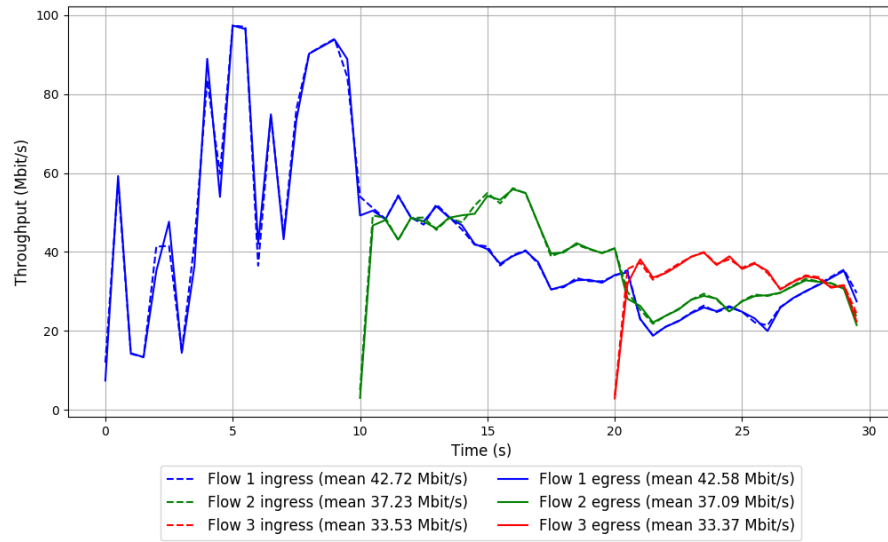
-- Flow 3:

Average throughput: 33.37 Mbit/s

95th percentile per-packet one-way delay: 47.272 ms

Loss rate: 1.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-12-20 06:50:47

End at: 2017-12-20 06:51:17

Local clock offset: 0.867 ms

Remote clock offset: 2.563 ms

Below is generated by plot.py at 2017-12-20 11:57:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.00 Mbit/s

95th percentile per-packet one-way delay: 53.067 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 41.10 Mbit/s

95th percentile per-packet one-way delay: 45.660 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 37.42 Mbit/s

95th percentile per-packet one-way delay: 48.639 ms

Loss rate: 0.73%

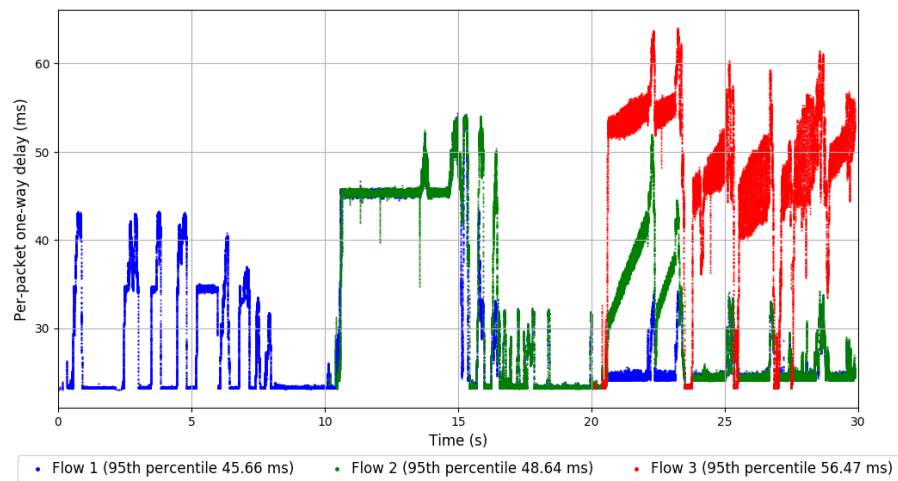
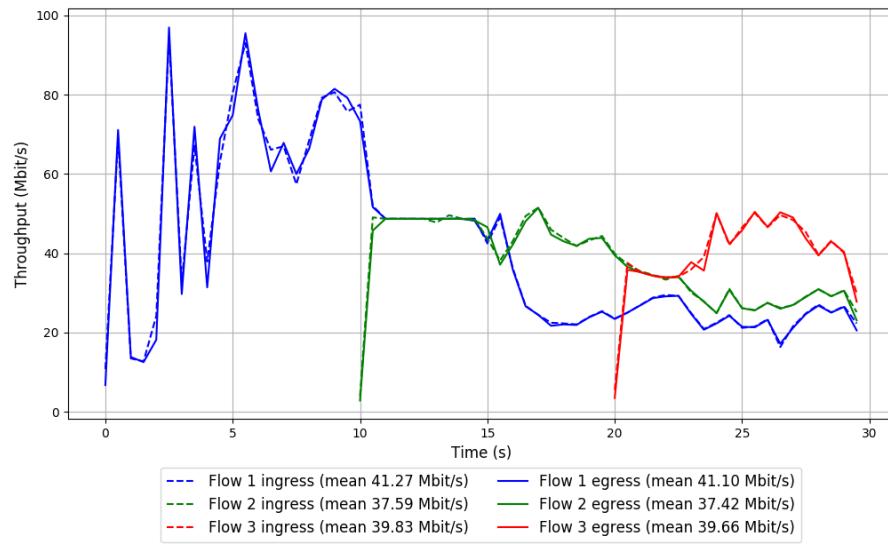
-- Flow 3:

Average throughput: 39.66 Mbit/s

95th percentile per-packet one-way delay: 56.474 ms

Loss rate: 1.01%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-20 07:11:36

End at: 2017-12-20 07:12:06

Local clock offset: 1.113 ms

Remote clock offset: 2.235 ms

Below is generated by plot.py at 2017-12-20 11:57:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.87 Mbit/s

95th percentile per-packet one-way delay: 32.059 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 29.02 Mbit/s

95th percentile per-packet one-way delay: 32.223 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 20.67 Mbit/s

95th percentile per-packet one-way delay: 31.946 ms

Loss rate: 0.90%

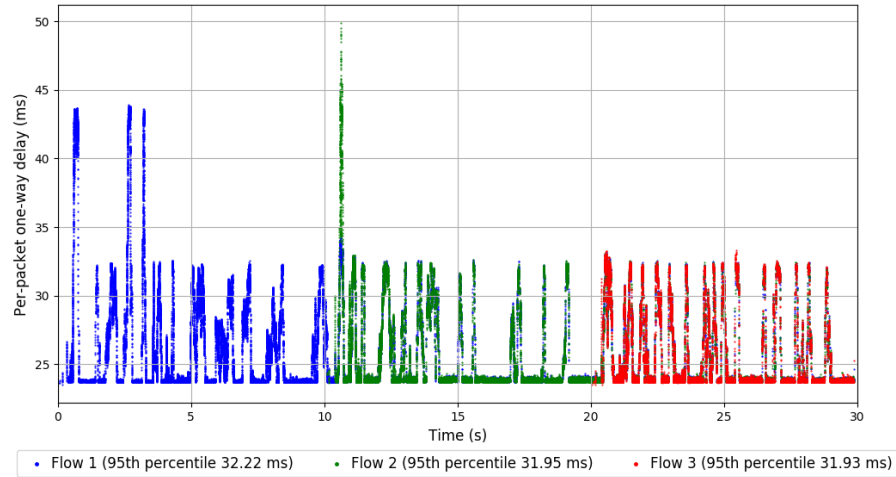
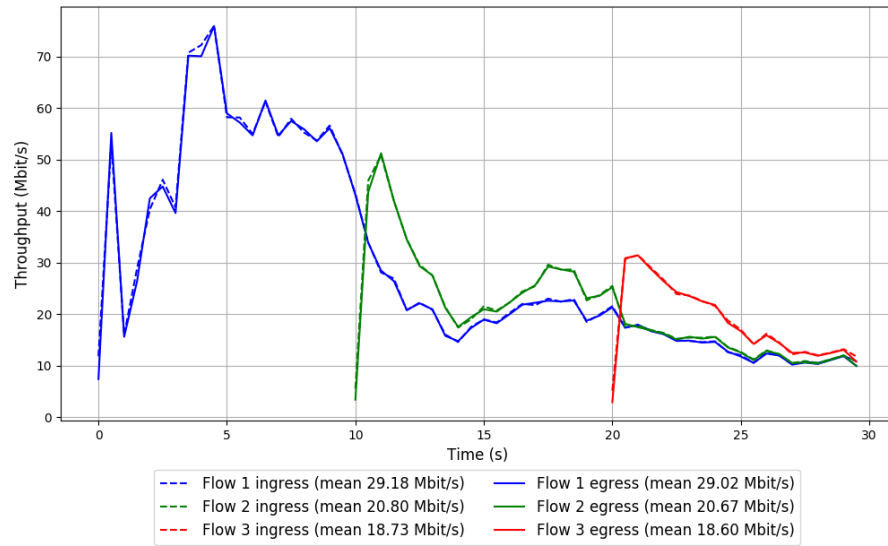
-- Flow 3:

Average throughput: 18.60 Mbit/s

95th percentile per-packet one-way delay: 31.932 ms

Loss rate: 1.19%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-12-20 07:32:37

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

Local clock offset: 1.292 ms

Remote clock offset: 2.307 ms

Below is generated by plot.py at 2017-12-20 11:57:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.57 Mbit/s

95th percentile per-packet one-way delay: 42.867 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 36.57 Mbit/s

95th percentile per-packet one-way delay: 34.474 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 36.22 Mbit/s

95th percentile per-packet one-way delay: 45.486 ms

Loss rate: 0.41%

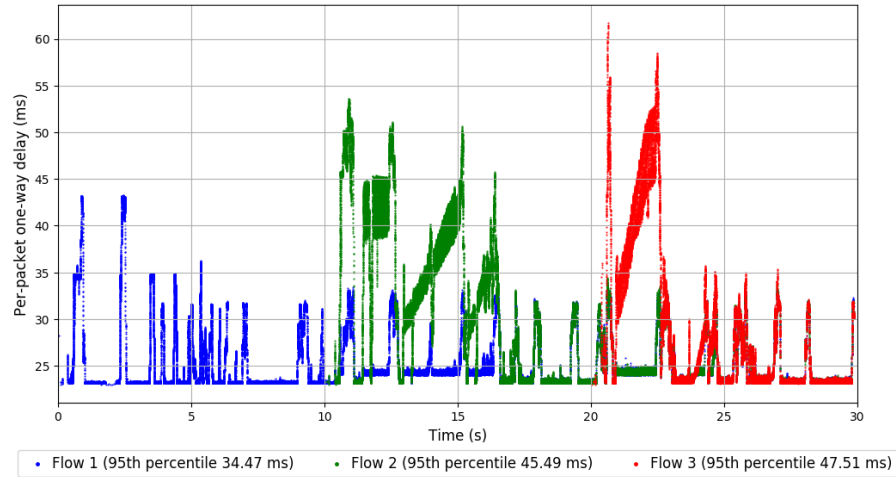
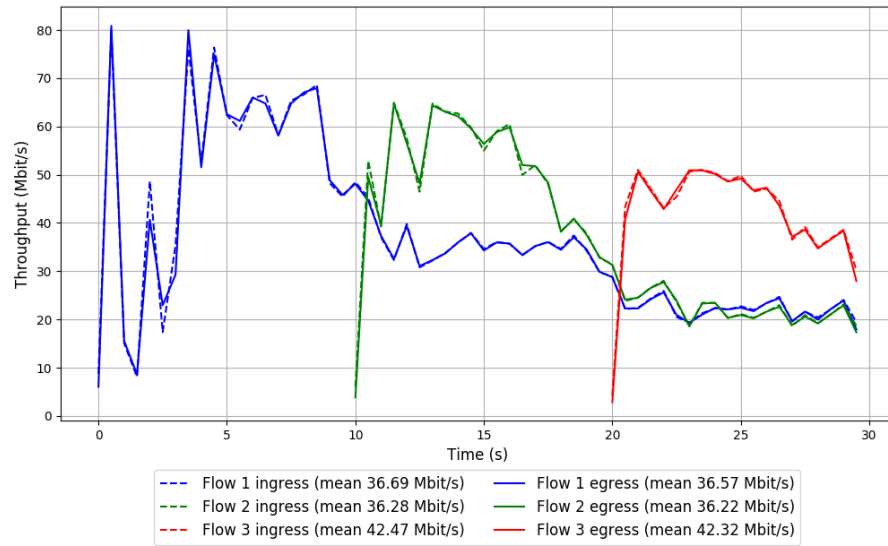
-- Flow 3:

Average throughput: 42.32 Mbit/s

95th percentile per-packet one-way delay: 47.508 ms

Loss rate: 0.88%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-12-20 07:53:32

End at: 2017-12-20 07:54:02

Local clock offset: 1.459 ms

Remote clock offset: -0.63 ms

Below is generated by plot.py at 2017-12-20 11:57:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.25 Mbit/s

95th percentile per-packet one-way delay: 56.016 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 50.18 Mbit/s

95th percentile per-packet one-way delay: 55.240 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 40.80 Mbit/s

95th percentile per-packet one-way delay: 53.496 ms

Loss rate: 0.34%

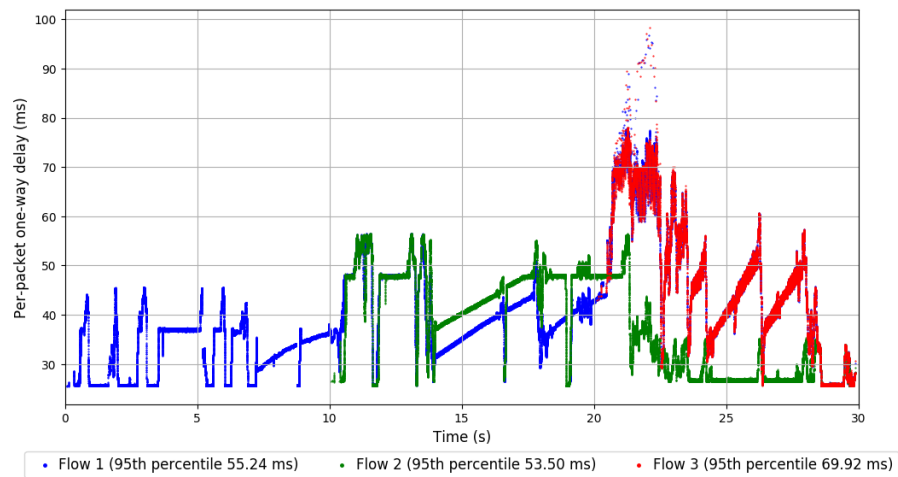
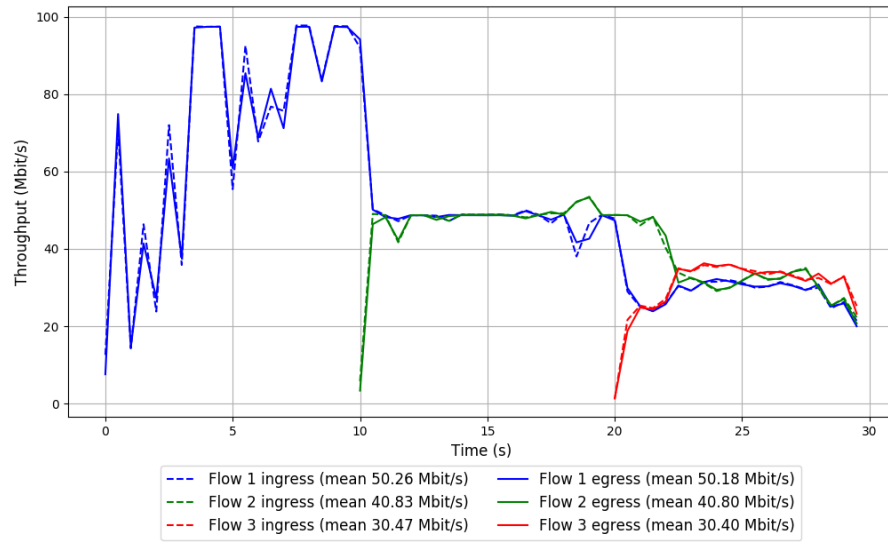
-- Flow 3:

Average throughput: 30.40 Mbit/s

95th percentile per-packet one-way delay: 69.924 ms

Loss rate: 0.90%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-12-20 08:14:14

End at: 2017-12-20 08:14:44

Local clock offset: 1.236 ms

Remote clock offset: 0.054 ms

Below is generated by plot.py at 2017-12-20 11:57:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.84 Mbit/s

95th percentile per-packet one-way delay: 57.061 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 50.09 Mbit/s

95th percentile per-packet one-way delay: 57.022 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 39.96 Mbit/s

95th percentile per-packet one-way delay: 57.076 ms

Loss rate: 0.53%

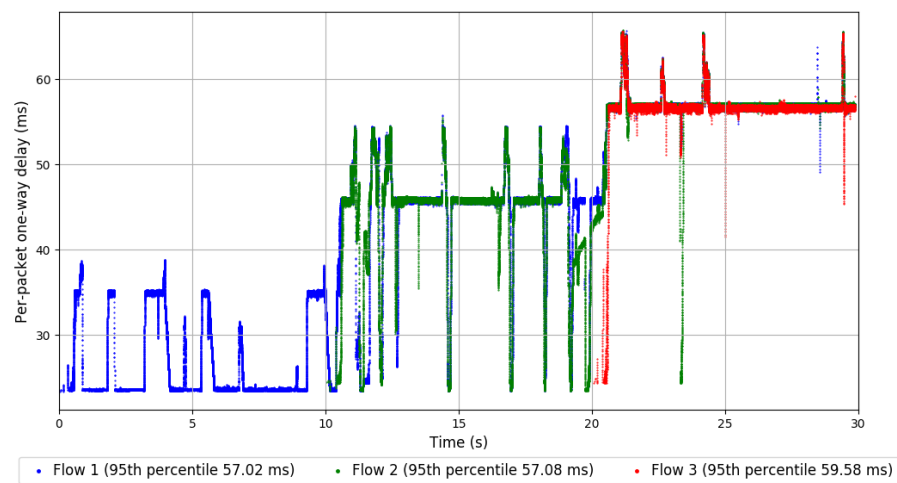
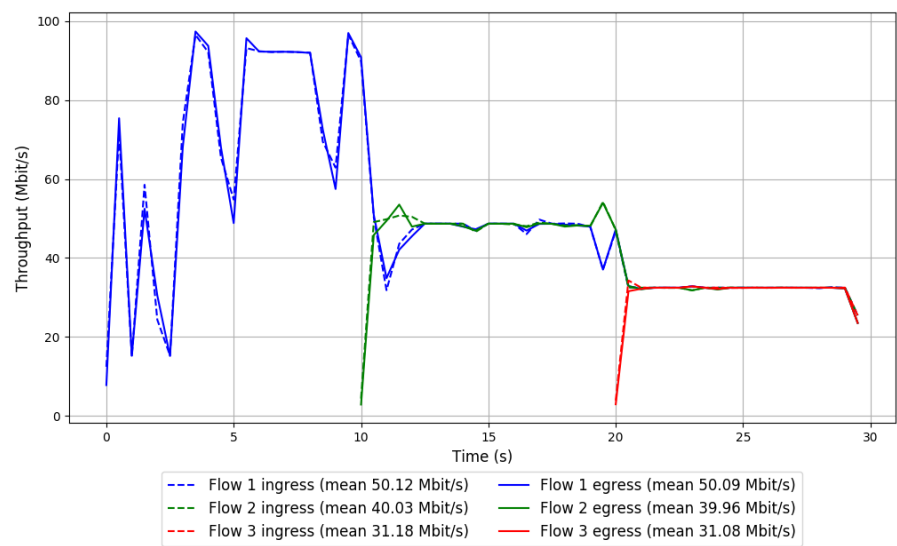
-- Flow 3:

Average throughput: 31.08 Mbit/s

95th percentile per-packet one-way delay: 59.577 ms

Loss rate: 1.03%

Run 10: Report of QUIC Cubic — Data Link

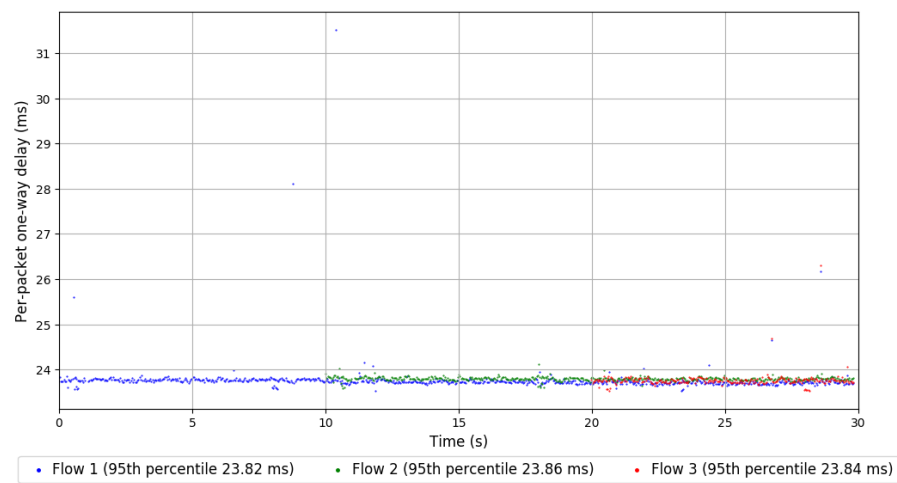
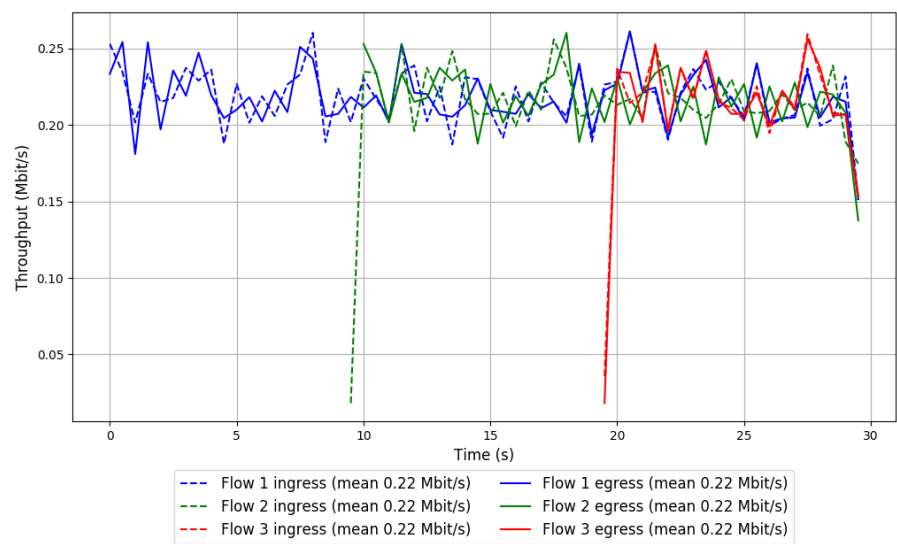


```
Run 1: Statistics of SReAM

Start at: 2017-12-20 04:56:14
End at: 2017-12-20 04:56:44
Local clock offset: 0.339 ms
Remote clock offset: -0.355 ms

# Below is generated by plot.py at 2017-12-20 11:57:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 23.842 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.820 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.855 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.838 ms
Loss rate: 0.35%
```

Run 1: Report of SReAM — Data Link

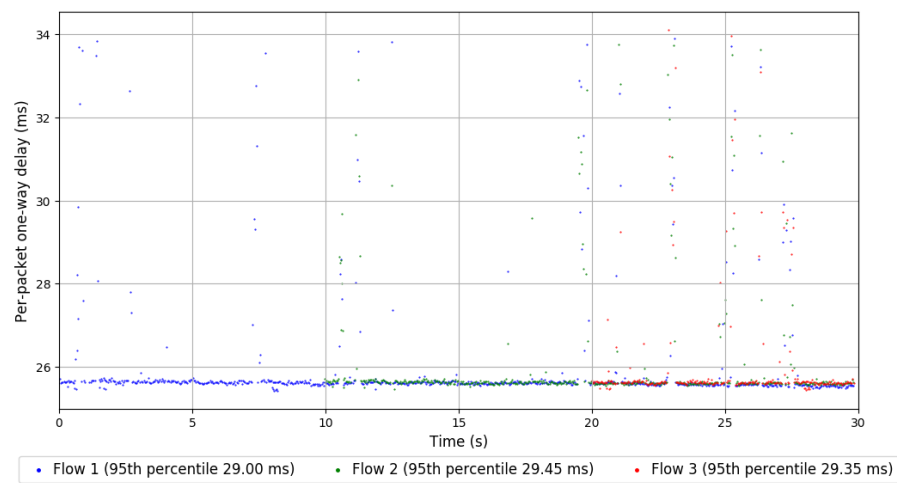
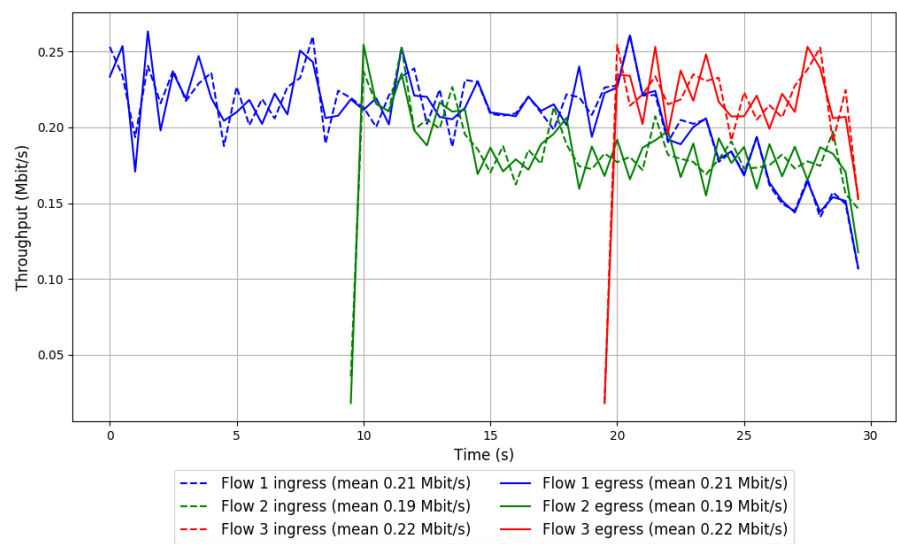


Run 2: Statistics of SCReAM

Start at: 2017-12-20 05:16:50
End at: 2017-12-20 05:17:20
Local clock offset: 0.512 ms
Remote clock offset: -2.048 ms

Below is generated by plot.py at 2017-12-20 11:57:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 29.333 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 28.996 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 29.447 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.346 ms
Loss rate: 0.35%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-12-20 05:38:11

End at: 2017-12-20 05:38:41

Local clock offset: 0.652 ms

Remote clock offset: 0.364 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 30.590 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 30.674 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 30.449 ms

Loss rate: 0.64%

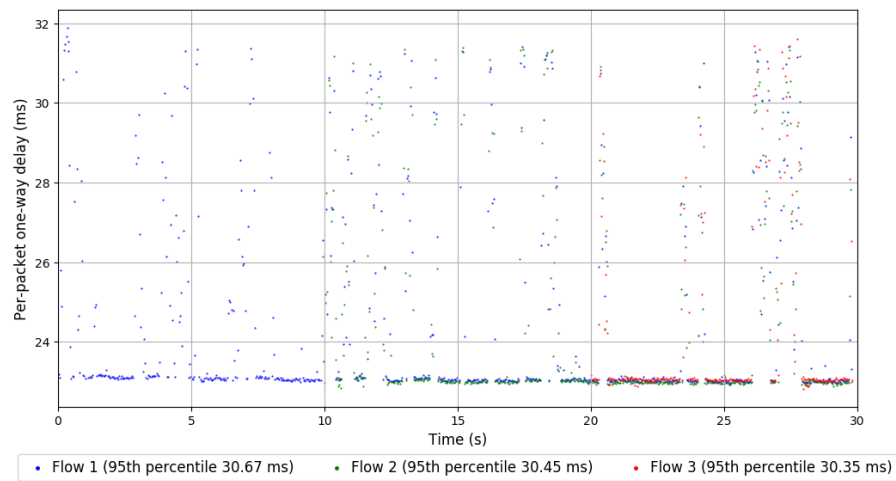
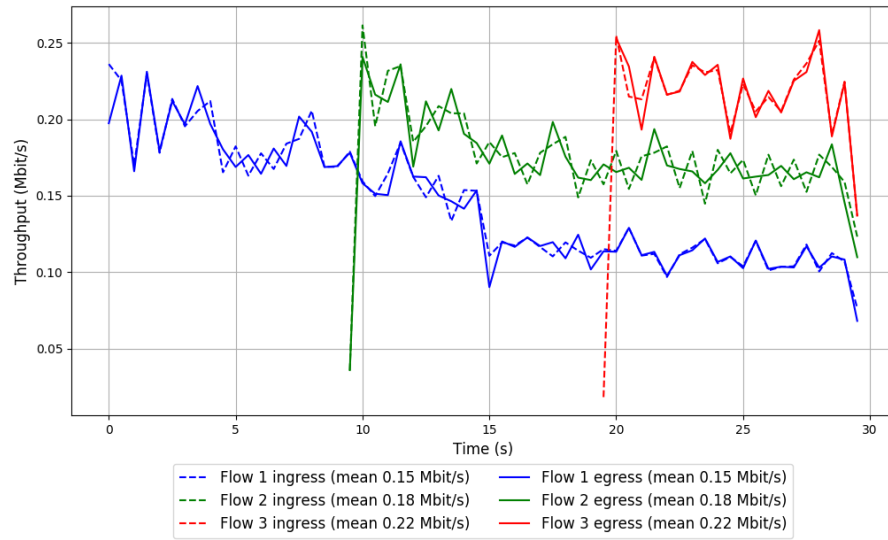
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 30.352 ms

Loss rate: 0.39%

Run 3: Report of SCRaM — Data Link



Run 4: Statistics of SReAM

Start at: 2017-12-20 05:59:35

End at: 2017-12-20 06:00:05

Local clock offset: 0.779 ms

Remote clock offset: 0.988 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 29.174 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 324.58 Mbit/s

95th percentile per-packet one-way delay: 3685.159 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 27.127 ms

Loss rate: 0.38%

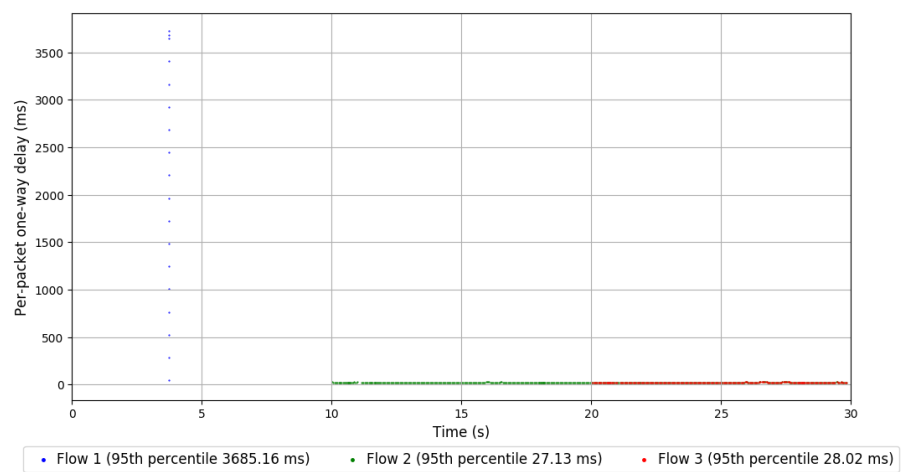
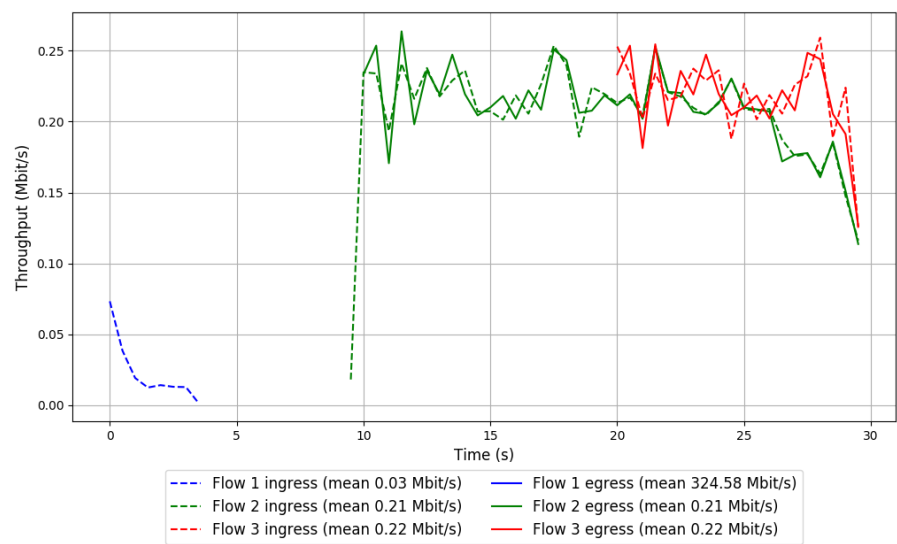
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 28.023 ms

Loss rate: 0.72%

Run 4: Report of SReAM — Data Link

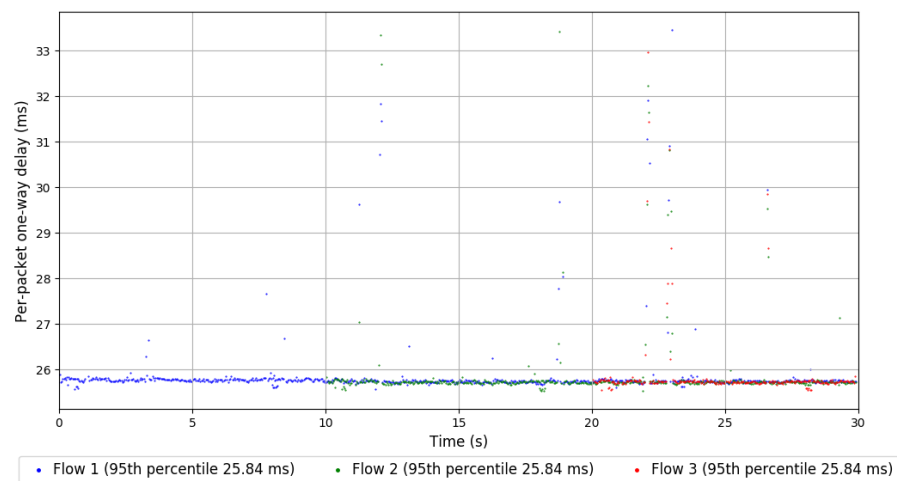
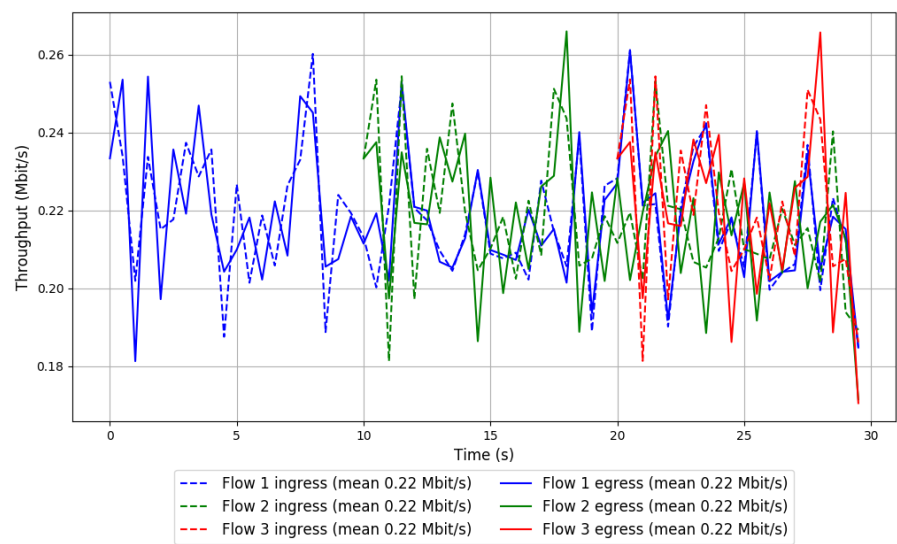


Run 5: Statistics of SReAM

Start at: 2017-12-20 06:20:16
End at: 2017-12-20 06:20:46
Local clock offset: 0.828 ms
Remote clock offset: -0.691 ms

Below is generated by plot.py at 2017-12-20 11:57:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 25.842 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.840 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.838 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.844 ms
Loss rate: 0.35%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

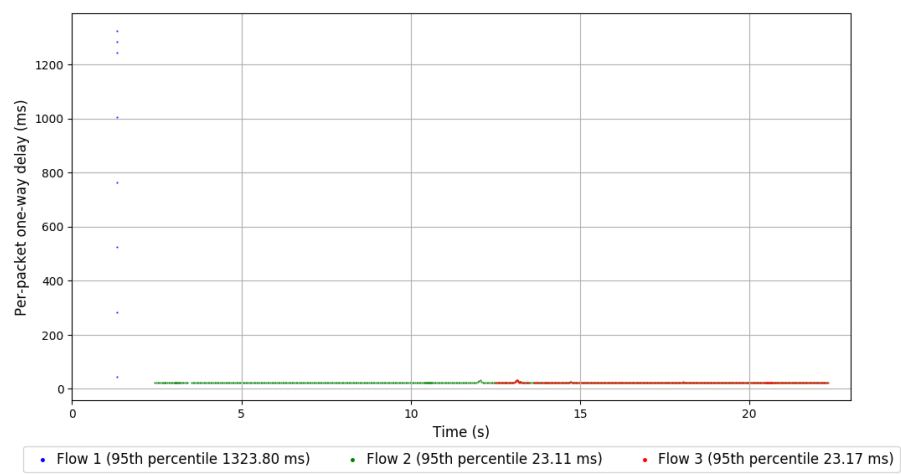
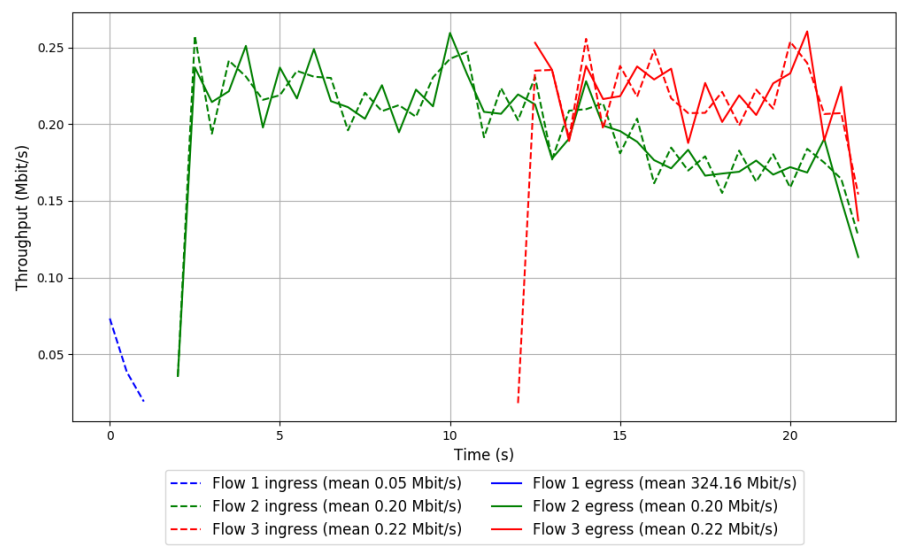
Start at: 2017-12-20 06:41:07

End at: 2017-12-20 06:41:37

Local clock offset: 0.694 ms

Remote clock offset: 2.55 ms

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

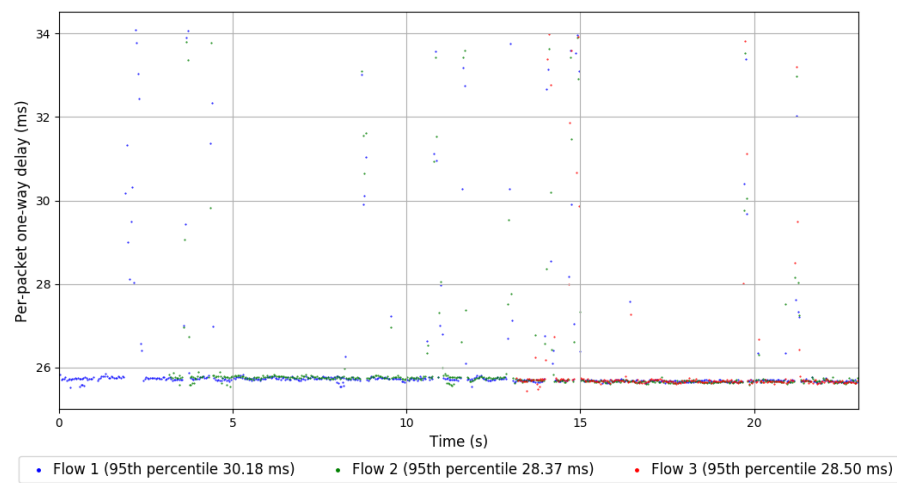
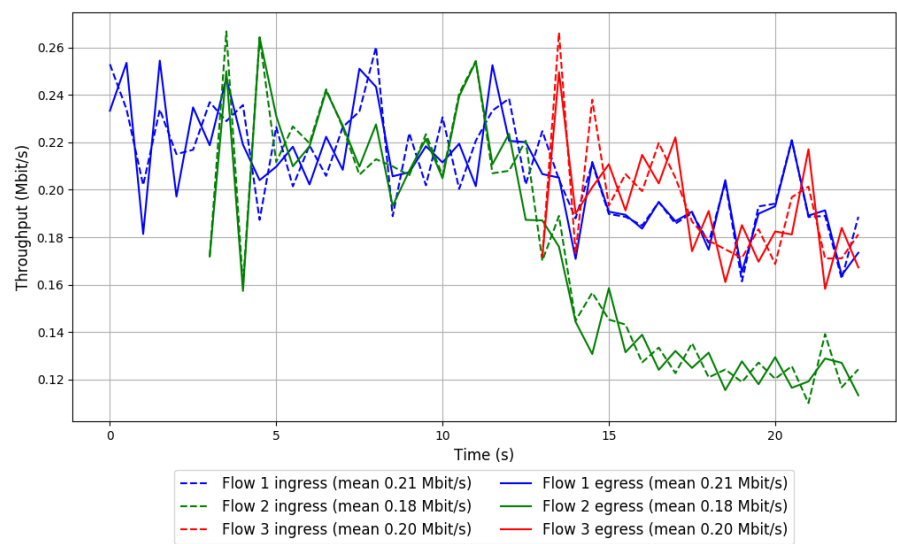
Start at: 2017-12-20 07:01:55

End at: 2017-12-20 07:02:25

Local clock offset: 1.015 ms

Remote clock offset: 0.231 ms

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

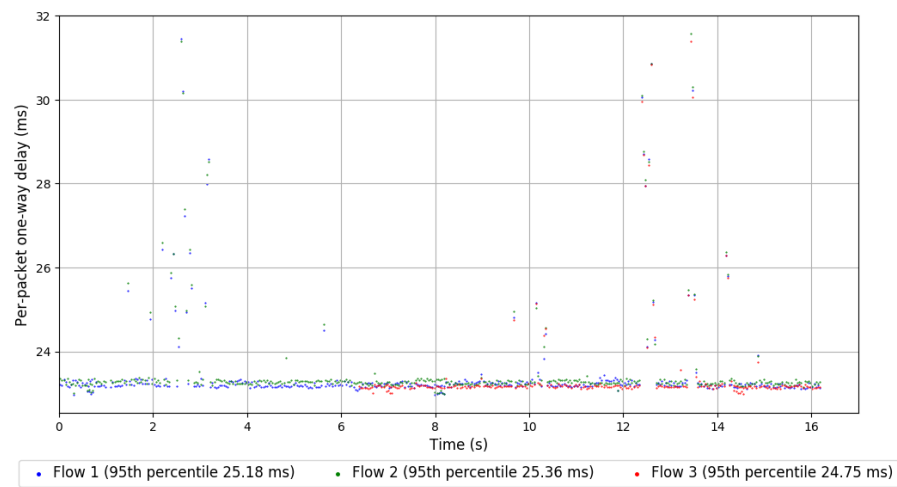
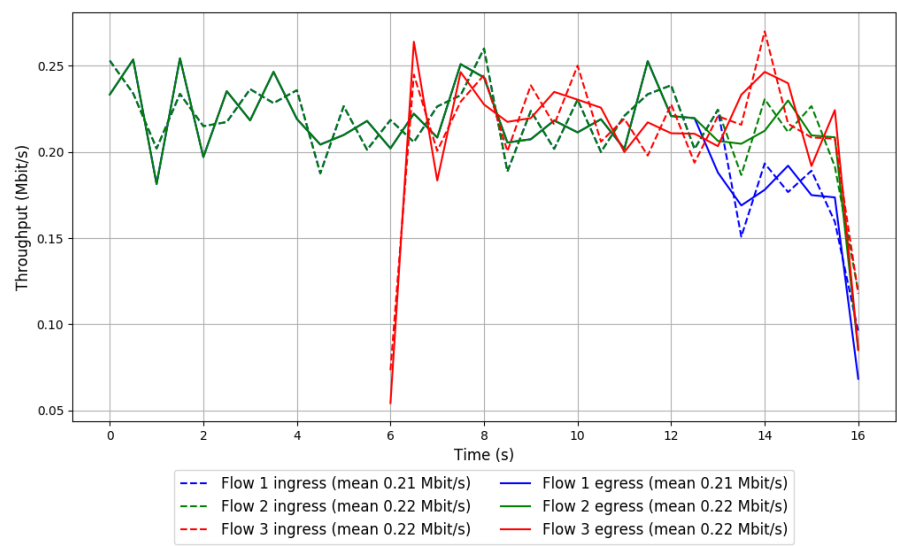
Start at: 2017-12-20 07:23:07

End at: 2017-12-20 07:23:37

Local clock offset: 1.163 ms

Remote clock offset: 2.442 ms

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

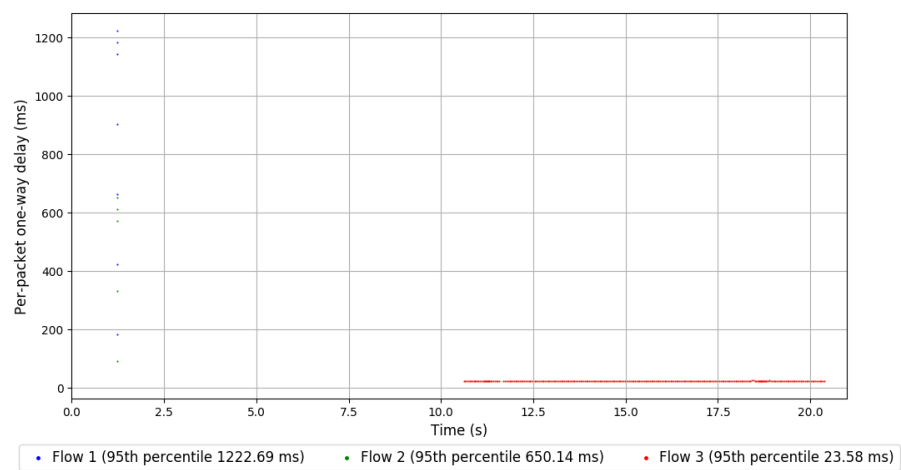
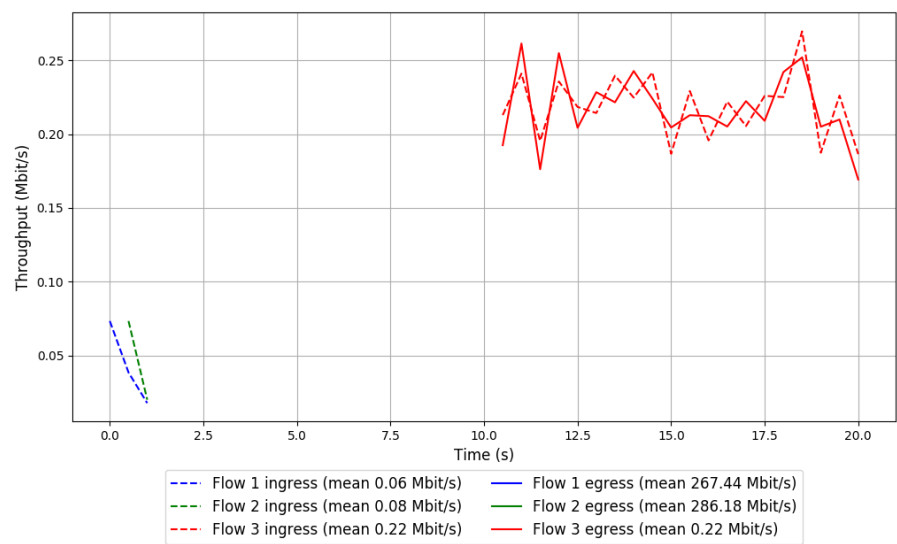
Start at: 2017-12-20 07:44:06

End at: 2017-12-20 07:44:36

Local clock offset: 1.472 ms

Remote clock offset: 1.863 ms

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

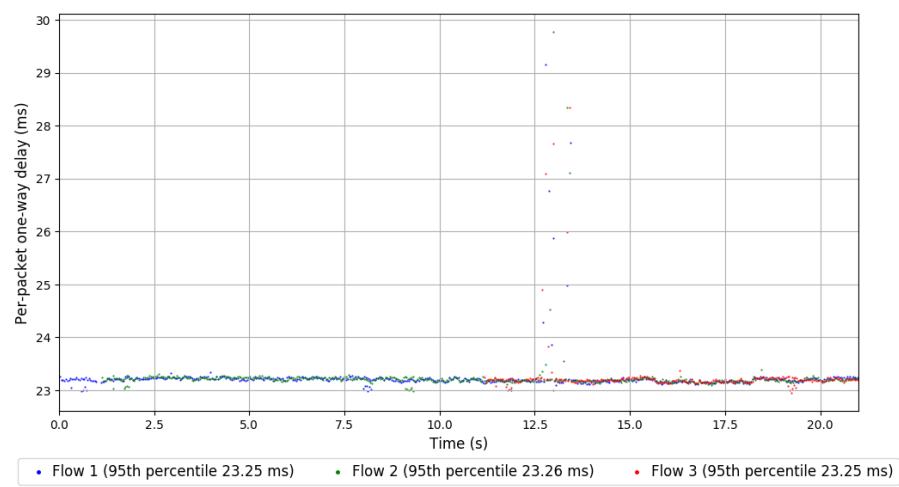
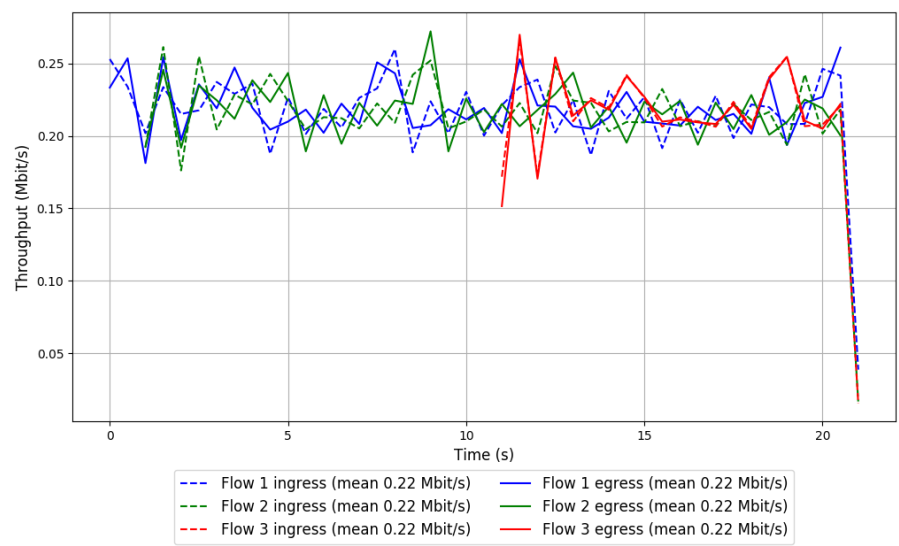
Start at: 2017-12-20 08:04:43

End at: 2017-12-20 08:05:13

Local clock offset: 1.354 ms

Remote clock offset: 1.231 ms

Run 10: Report of SReAM — Data Link



Run 1: Statistics of WebRTC media

Start at: 2017-12-20 05:08:27

End at: 2017-12-20 05:08:57

Local clock offset: 0.429 ms

Remote clock offset: -0.03 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.91 Mbit/s

95th percentile per-packet one-way delay: 30.607 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.563 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 30.610 ms

Loss rate: 0.44%

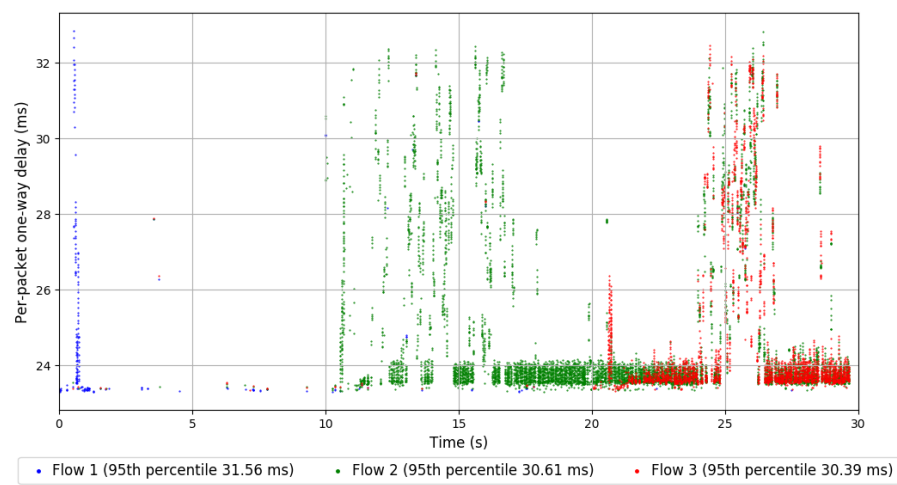
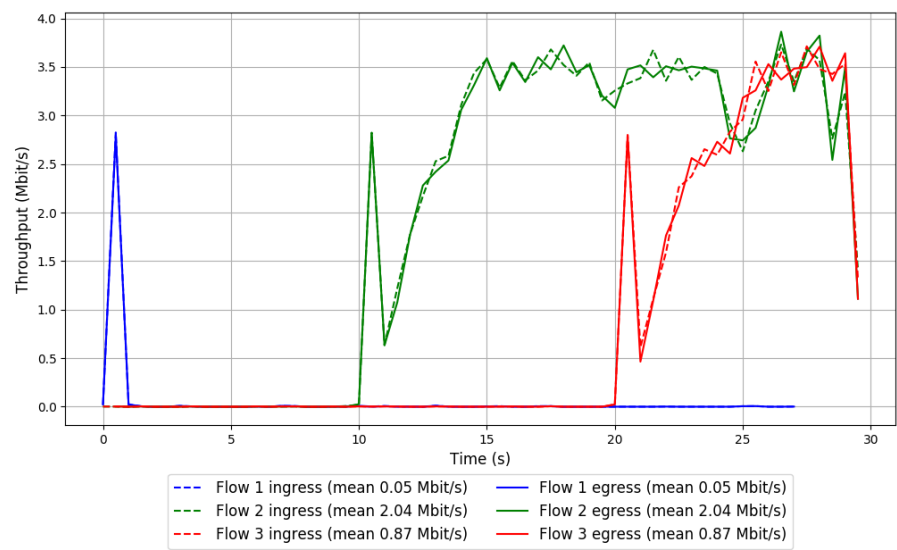
-- Flow 3:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 30.388 ms

Loss rate: 0.62%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-12-20 05:29:27

End at: 2017-12-20 05:29:57

Local clock offset: 0.656 ms

Remote clock offset: -0.11 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.77 Mbit/s

95th percentile per-packet one-way delay: 31.523 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 2.92 Mbit/s

95th percentile per-packet one-way delay: 31.501 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 31.615 ms

Loss rate: 1.25%

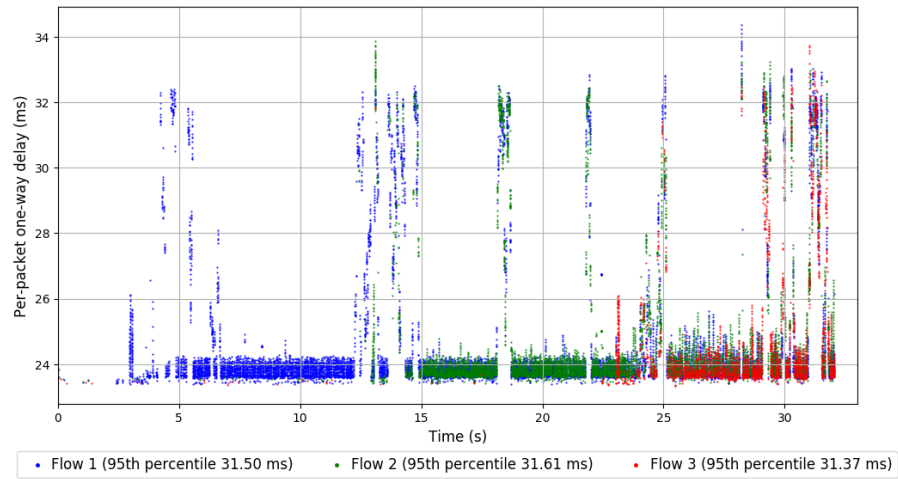
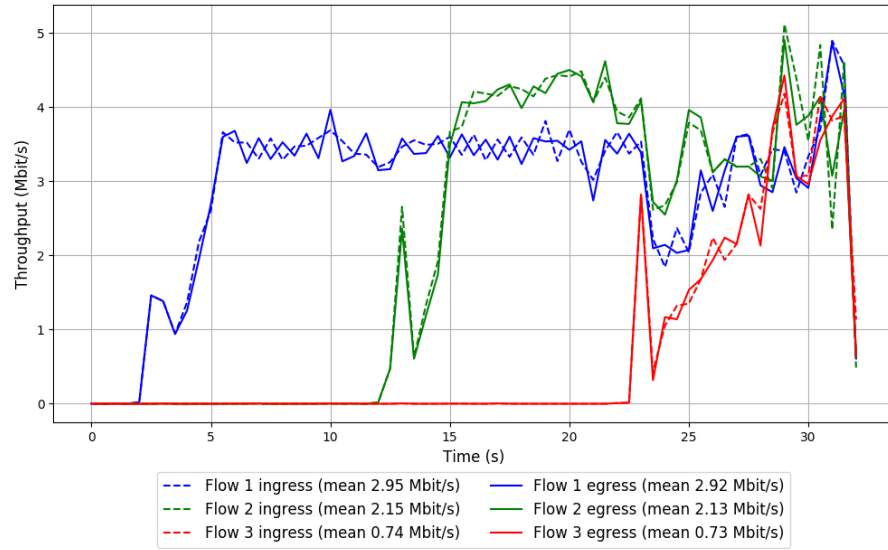
-- Flow 3:

Average throughput: 0.73 Mbit/s

95th percentile per-packet one-way delay: 31.373 ms

Loss rate: 2.35%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-20 05:50:57

End at: 2017-12-20 05:51:27

Local clock offset: 0.83 ms

Remote clock offset: 0.035 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.25 Mbit/s

95th percentile per-packet one-way delay: 27.751 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 2.73 Mbit/s

95th percentile per-packet one-way delay: 26.839 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 27.717 ms

Loss rate: 0.92%

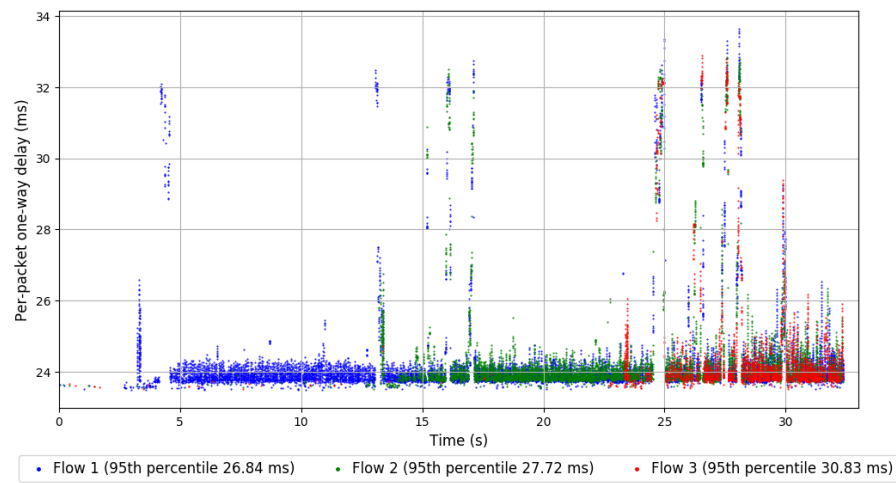
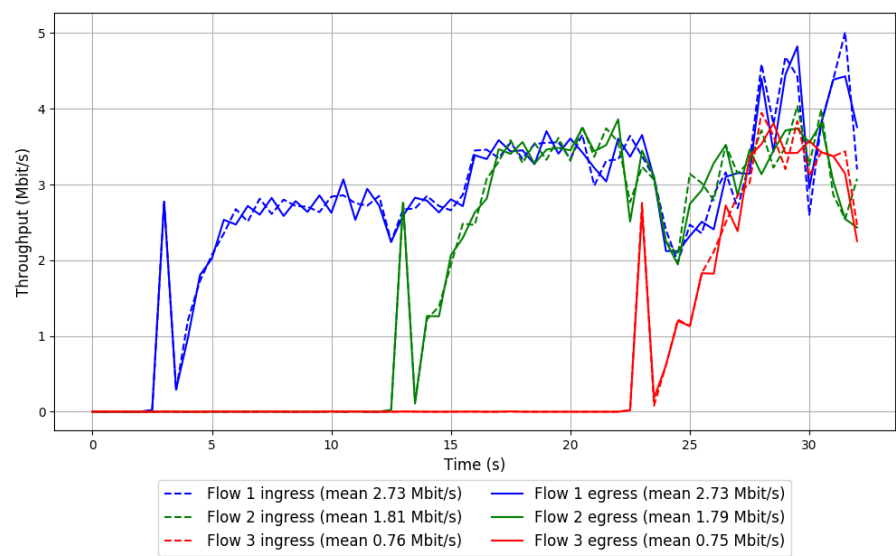
-- Flow 3:

Average throughput: 0.75 Mbit/s

95th percentile per-packet one-way delay: 30.827 ms

Loss rate: 1.45%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-12-20 06:11:50

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

Local clock offset: 0.81 ms

Remote clock offset: 1.498 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.03 Mbit/s

95th percentile per-packet one-way delay: 24.368 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 24.395 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 24.300 ms

Loss rate: 0.43%

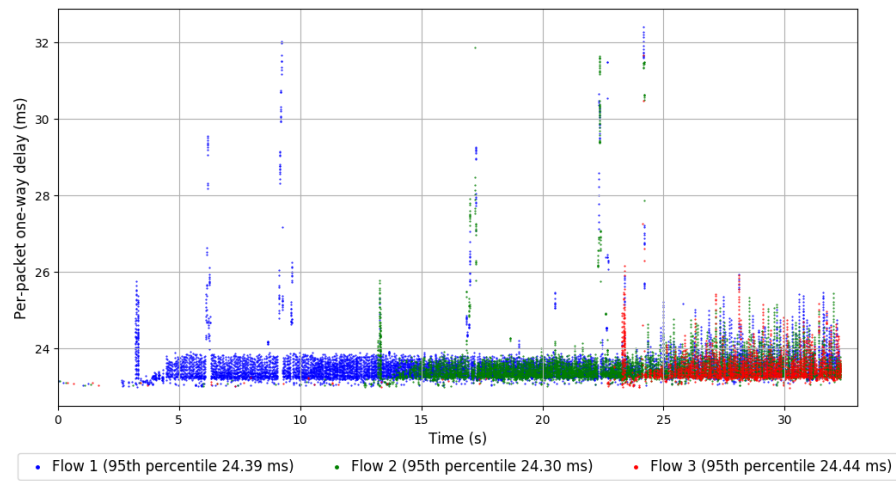
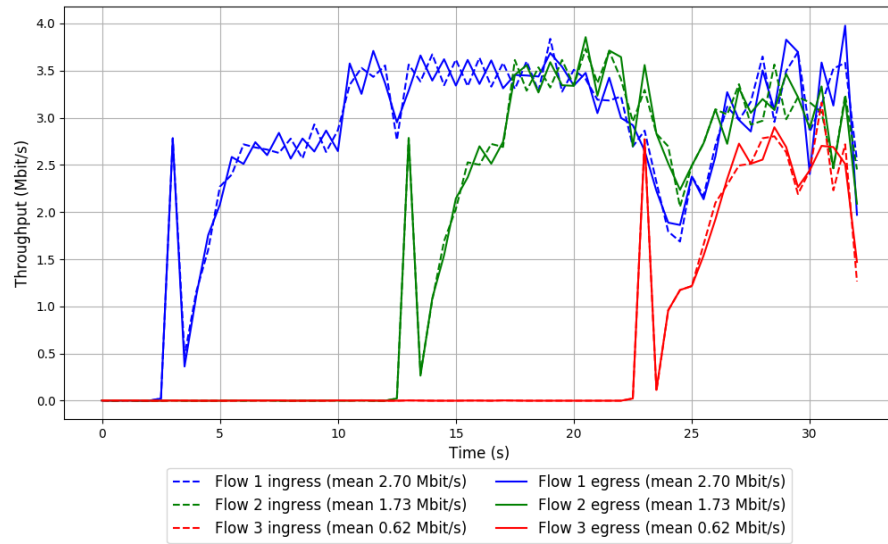
-- Flow 3:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 24.443 ms

Loss rate: 0.01%

Run 4: Report of WebRTC media — Data Link

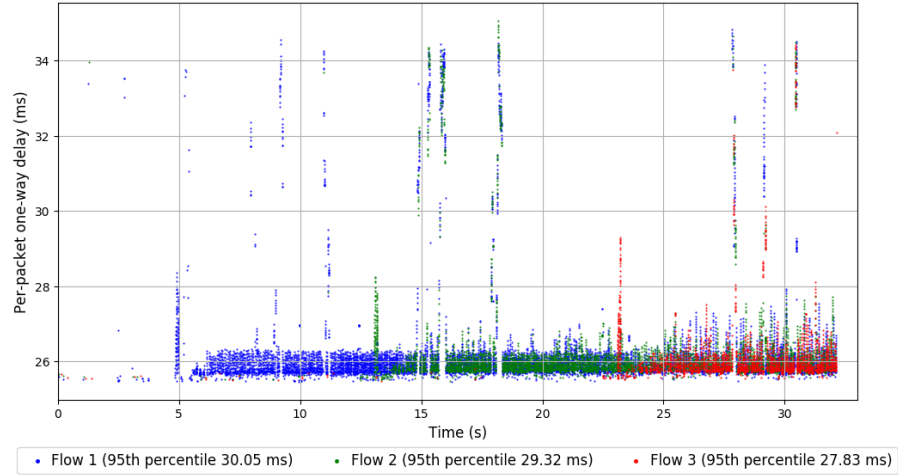
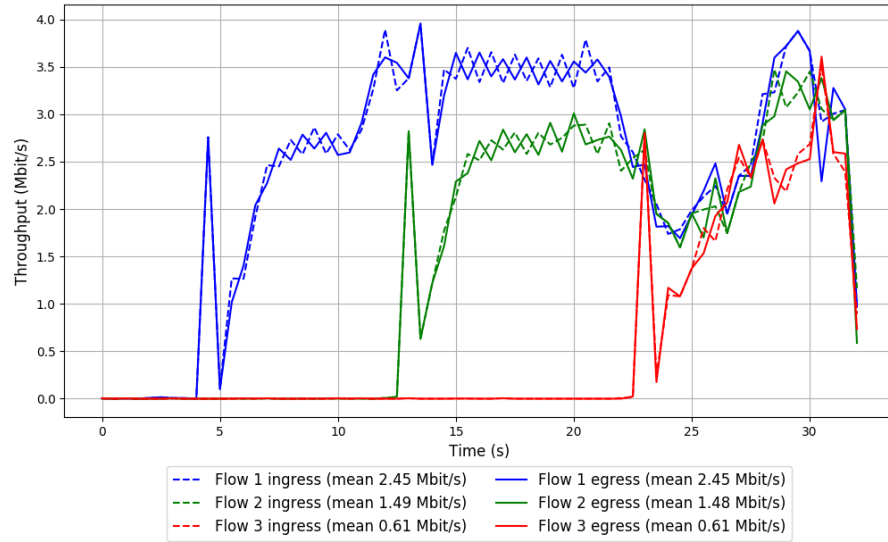


Run 5: Statistics of WebRTC media

Start at: 2017-12-20 06:32:32
End at: 2017-12-20 06:33:02
Local clock offset: 0.785 ms
Remote clock offset: -0.253 ms

Below is generated by plot.py at 2017-12-20 11:57:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.53 Mbit/s
95th percentile per-packet one-way delay: 29.093 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 30.051 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 29.324 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 27.831 ms
Loss rate: 0.40%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-20 06:53:30

End at: 2017-12-20 06:54:00

Local clock offset: 0.876 ms

Remote clock offset: 2.17 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.08 Mbit/s

95th percentile per-packet one-way delay: 27.099 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 2.72 Mbit/s

95th percentile per-packet one-way delay: 27.879 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 26.578 ms

Loss rate: 0.52%

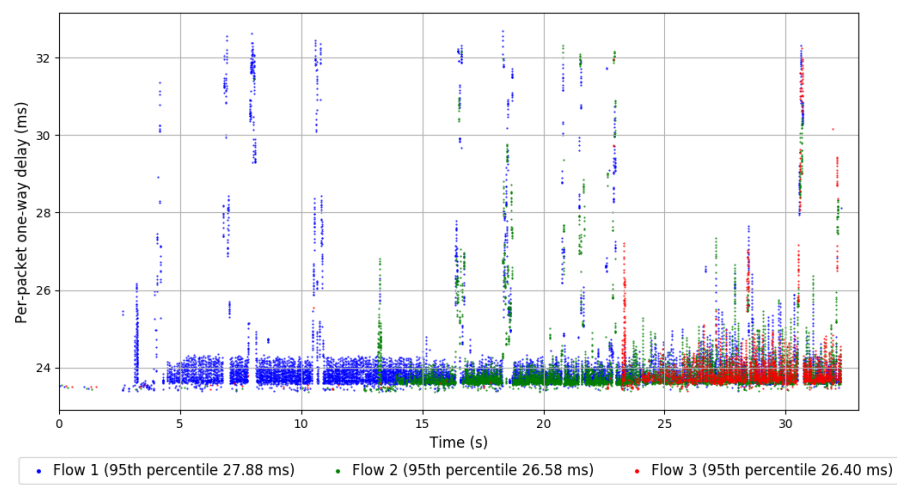
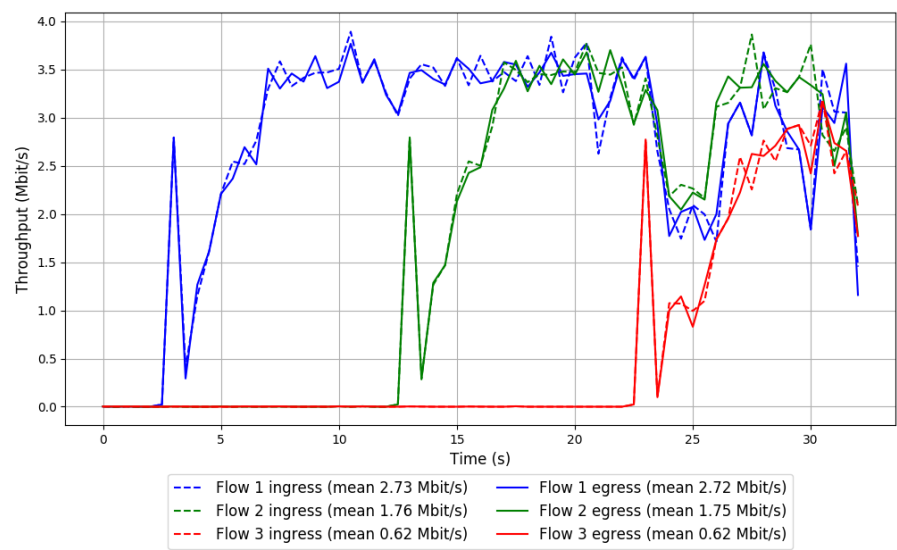
-- Flow 3:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 26.400 ms

Loss rate: 0.78%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-12-20 07:14:21

End at: 2017-12-20 07:14:51

Local clock offset: 1.042 ms

Remote clock offset: 0.185 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.24 Mbit/s

95th percentile per-packet one-way delay: 32.740 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 2.80 Mbit/s

95th percentile per-packet one-way delay: 32.677 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 32.078 ms

Loss rate: 0.98%

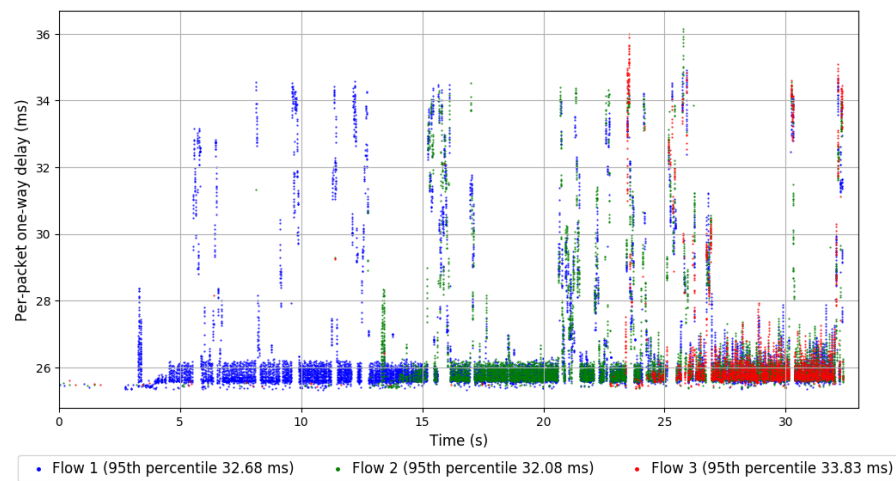
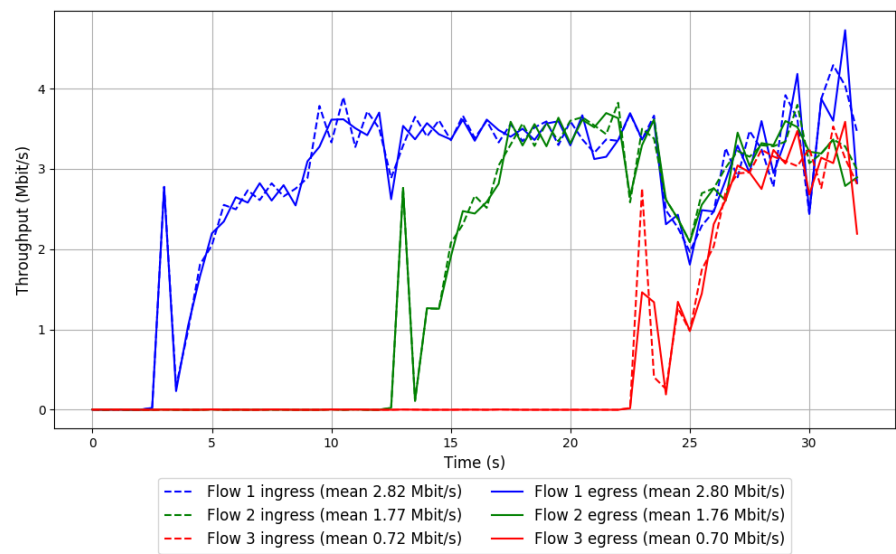
-- Flow 3:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 33.826 ms

Loss rate: 2.58%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-12-20 07:35:25

End at: 2017-12-20 07:35:55

Local clock offset: 1.323 ms

Remote clock offset: 2.371 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.24 Mbit/s

95th percentile per-packet one-way delay: 25.148 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 2.63 Mbit/s

95th percentile per-packet one-way delay: 24.828 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 25.329 ms

Loss rate: 0.28%

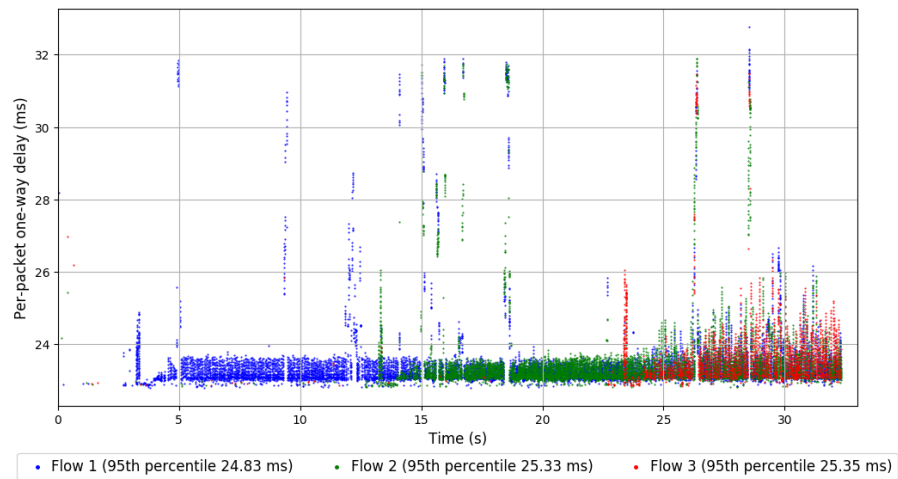
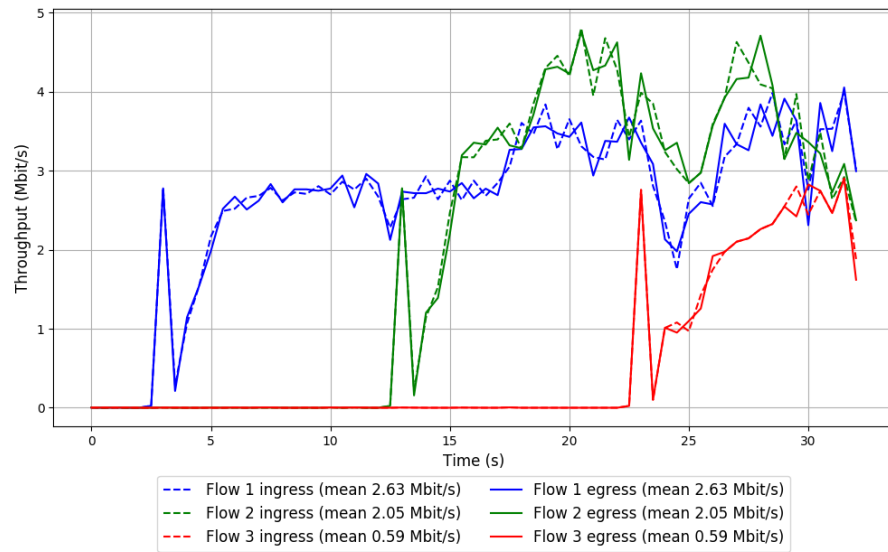
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 25.352 ms

Loss rate: 0.69%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-20 07:56:16

End at: 2017-12-20 07:56:46

Local clock offset: 1.323 ms

Remote clock offset: 1.791 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.34 Mbit/s

95th percentile per-packet one-way delay: 23.748 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 23.685 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 23.802 ms

Loss rate: 0.23%

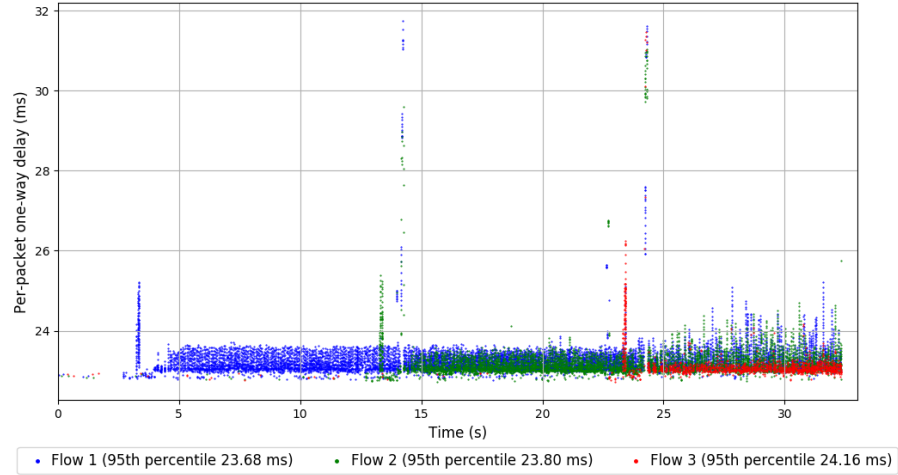
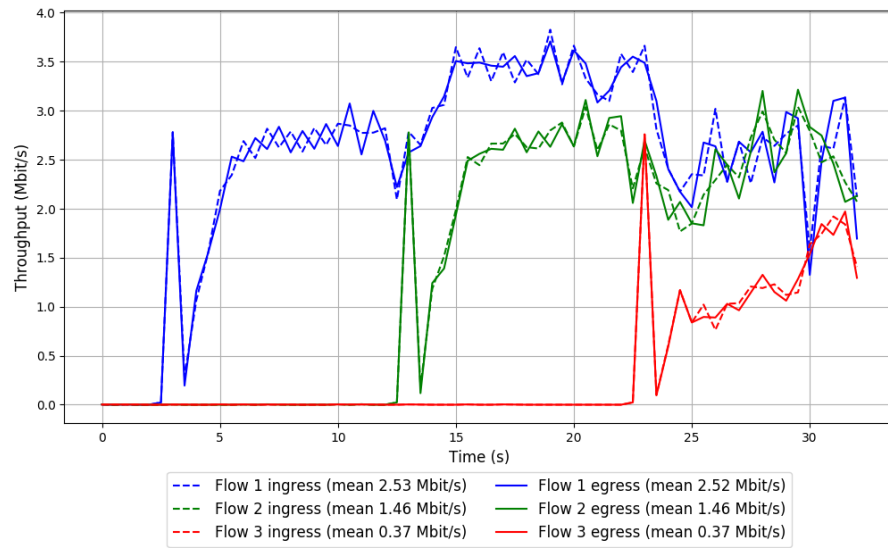
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 24.163 ms

Loss rate: 0.79%

Run 9: Report of WebRTC media — Data Link

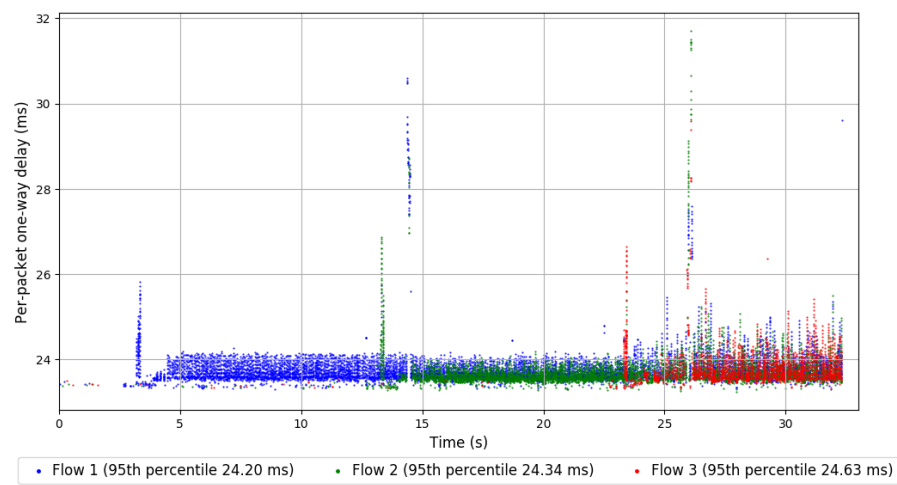
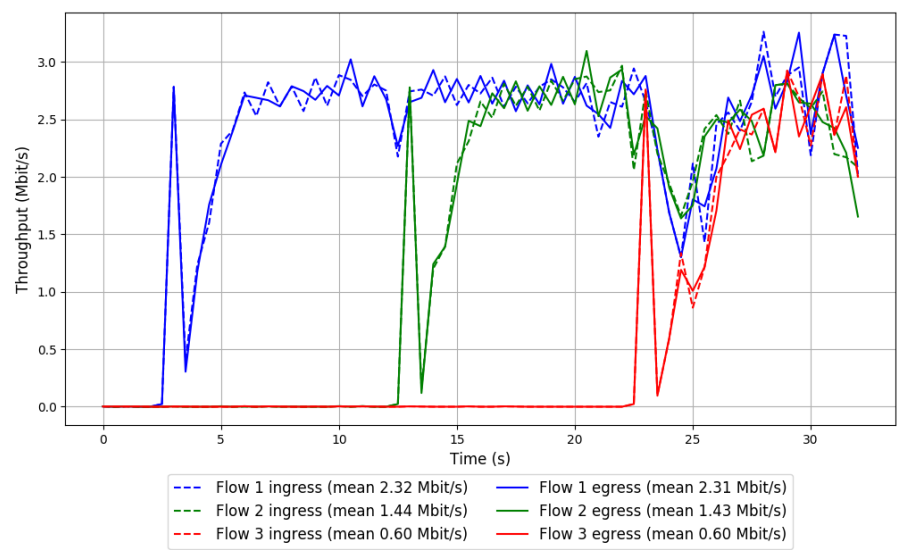


Run 10: Statistics of WebRTC media

Start at: 2017-12-20 08:16:58
End at: 2017-12-20 08:17:28
Local clock offset: 1.247 ms
Remote clock offset: -0.064 ms

Below is generated by plot.py at 2017-12-20 11:57:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 24.344 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 24.205 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 24.339 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 24.631 ms
Loss rate: 0.68%

Run 10: Report of WebRTC media — Data Link

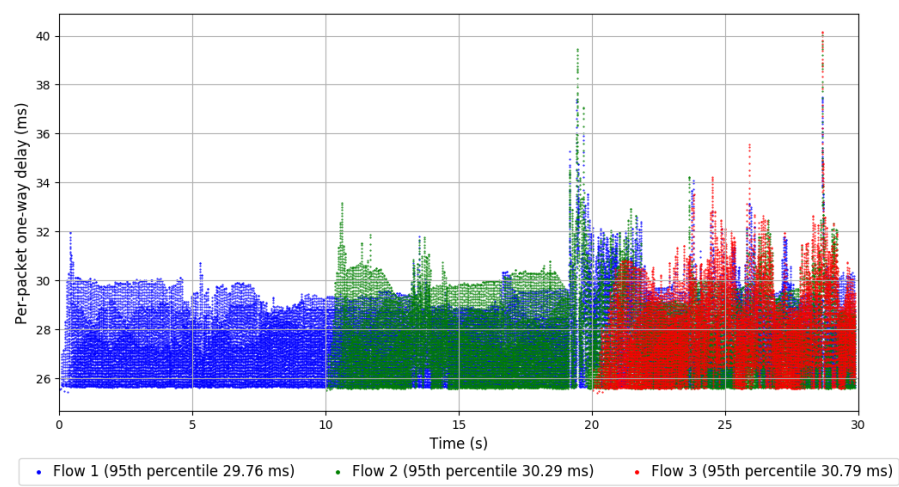
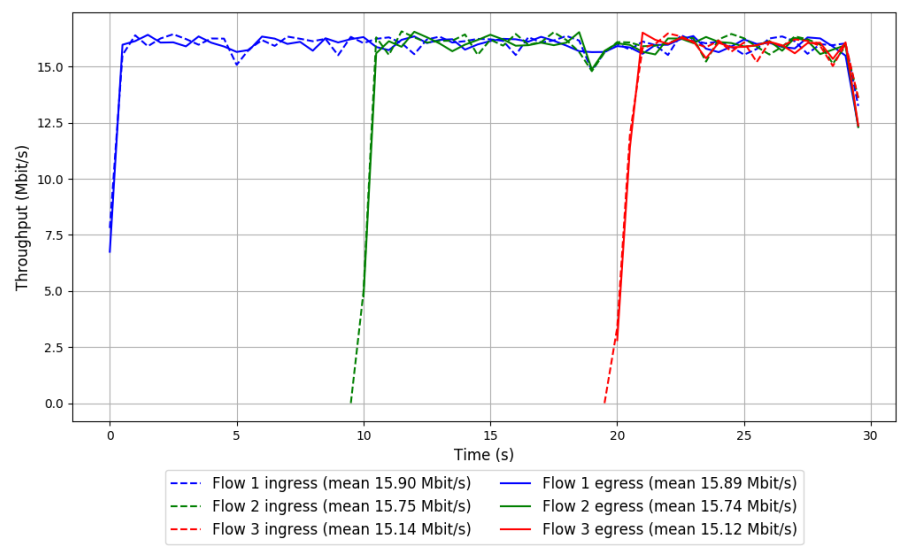


Run 1: Statistics of Sprout

Start at: 2017-12-20 04:57:31
End at: 2017-12-20 04:58:01
Local clock offset: 0.278 ms
Remote clock offset: -2.288 ms

Below is generated by plot.py at 2017-12-20 11:57:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 31.35 Mbit/s
95th percentile per-packet one-way delay: 30.181 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 15.89 Mbit/s
95th percentile per-packet one-way delay: 29.759 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 15.74 Mbit/s
95th percentile per-packet one-way delay: 30.286 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 15.12 Mbit/s
95th percentile per-packet one-way delay: 30.793 ms
Loss rate: 0.66%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-12-20 05:18:07

End at: 2017-12-20 05:18:37

Local clock offset: 0.607 ms

Remote clock offset: 0.577 ms

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 30.12 Mbit/s

95th percentile per-packet one-way delay: 31.205 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 15.26 Mbit/s

95th percentile per-packet one-way delay: 30.993 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 15.01 Mbit/s

95th percentile per-packet one-way delay: 31.204 ms

Loss rate: 0.66%

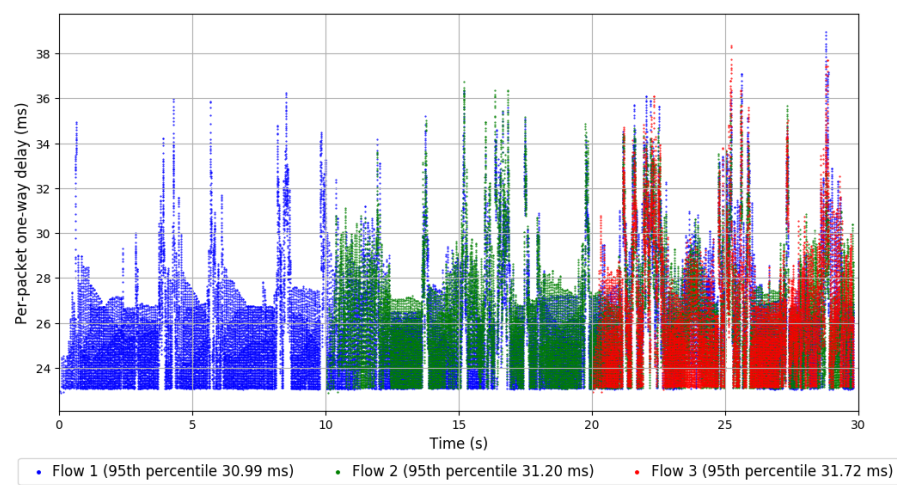
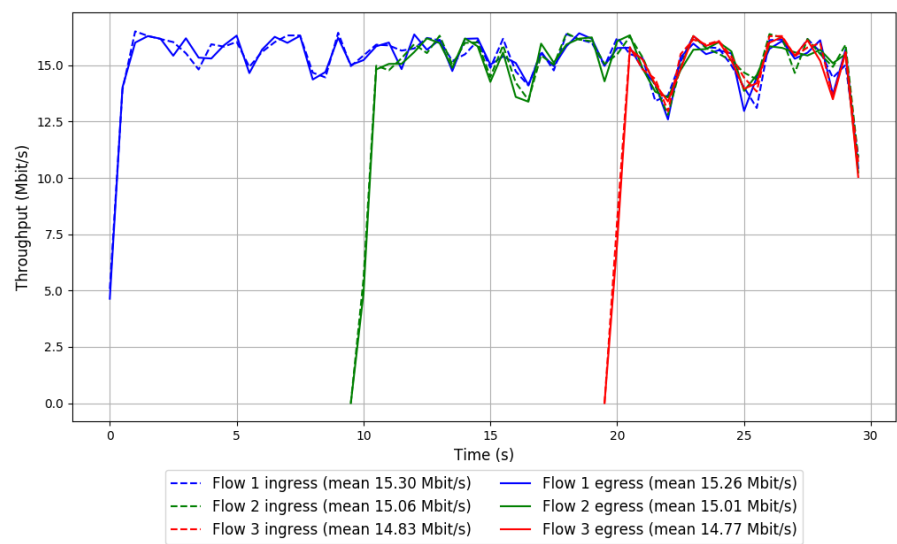
-- Flow 3:

Average throughput: 14.77 Mbit/s

95th percentile per-packet one-way delay: 31.720 ms

Loss rate: 1.00%

Run 2: Report of Sprout — Data Link

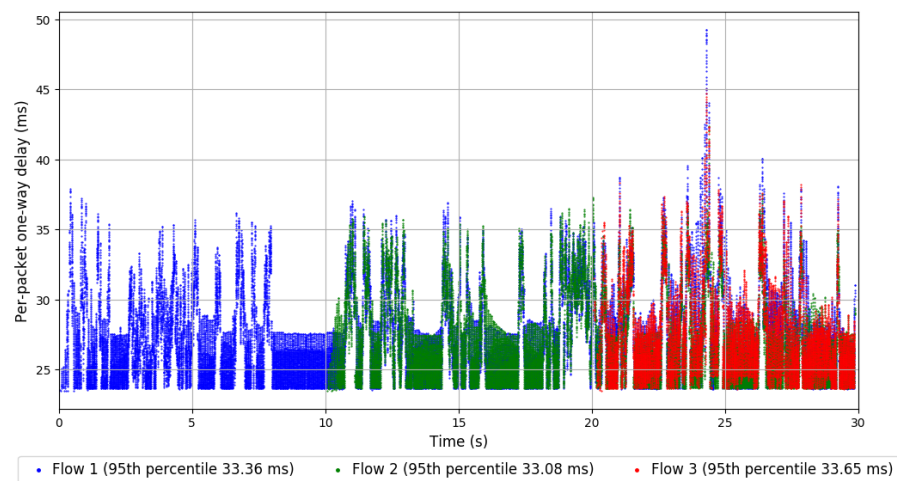
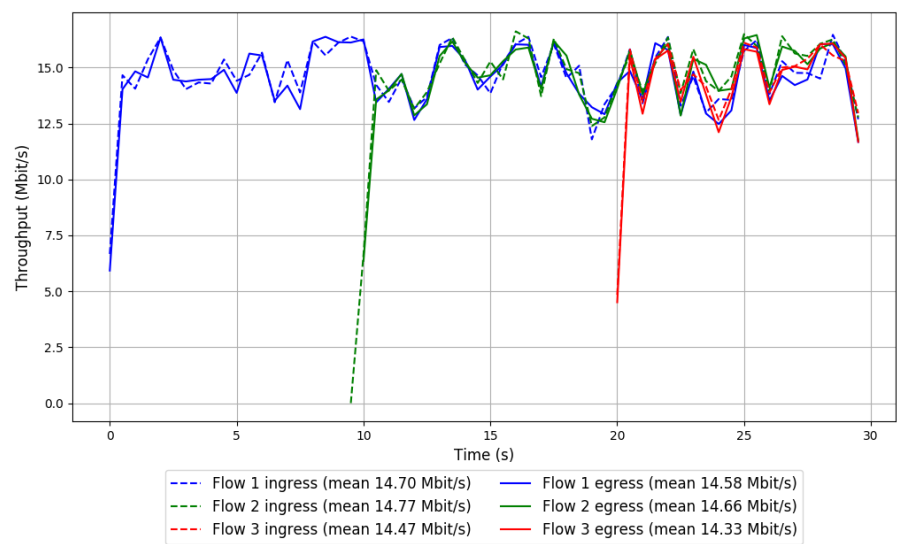


Run 3: Statistics of Sprout

Start at: 2017-12-20 05:39:29
End at: 2017-12-20 05:39:59
Local clock offset: 0.767 ms
Remote clock offset: -0.119 ms

```
# Below is generated by plot.py at 2017-12-20 11:57:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.04 Mbit/s
95th percentile per-packet one-way delay: 33.308 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 14.58 Mbit/s
95th percentile per-packet one-way delay: 33.356 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 14.66 Mbit/s
95th percentile per-packet one-way delay: 33.083 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 14.33 Mbit/s
95th percentile per-packet one-way delay: 33.650 ms
Loss rate: 1.63%
```


Run 3: Report of Sprout — Data Link

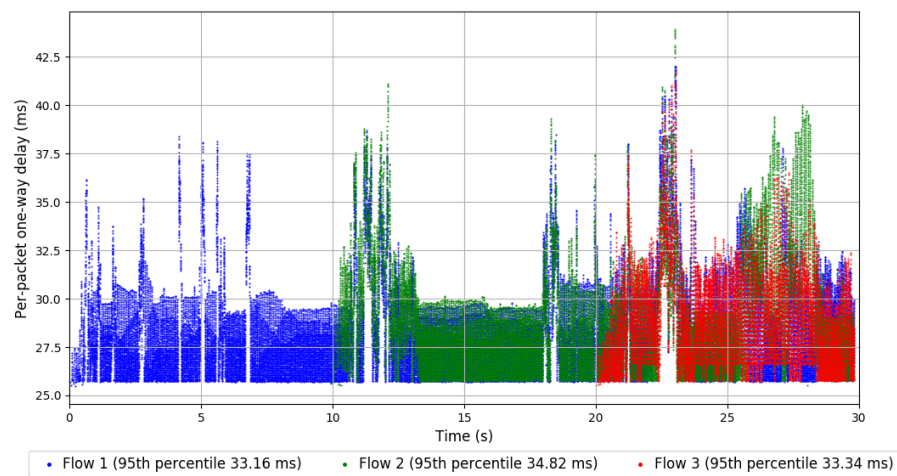
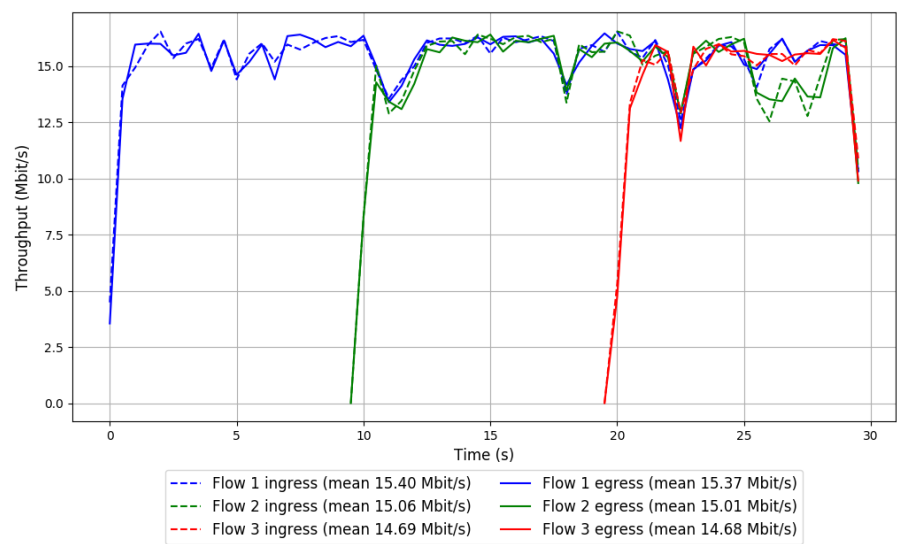


Run 4: Statistics of Sprout

Start at: 2017-12-20 06:00:52
End at: 2017-12-20 06:01:22
Local clock offset: 0.778 ms
Remote clock offset: -1.572 ms

```
# Below is generated by plot.py at 2017-12-20 11:57:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.23 Mbit/s
95th percentile per-packet one-way delay: 33.855 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 15.37 Mbit/s
95th percentile per-packet one-way delay: 33.163 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 15.01 Mbit/s
95th percentile per-packet one-way delay: 34.820 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 14.68 Mbit/s
95th percentile per-packet one-way delay: 33.341 ms
Loss rate: 0.73%
```

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-12-20 06:21:34

End at: 2017-12-20 06:22:04

Local clock offset: 0.92 ms

Remote clock offset: 1.398 ms

Below is generated by plot.py at 2017-12-20 11:57:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 31.10 Mbit/s

95th percentile per-packet one-way delay: 29.999 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 15.79 Mbit/s

95th percentile per-packet one-way delay: 29.058 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 15.62 Mbit/s

95th percentile per-packet one-way delay: 30.103 ms

Loss rate: 0.44%

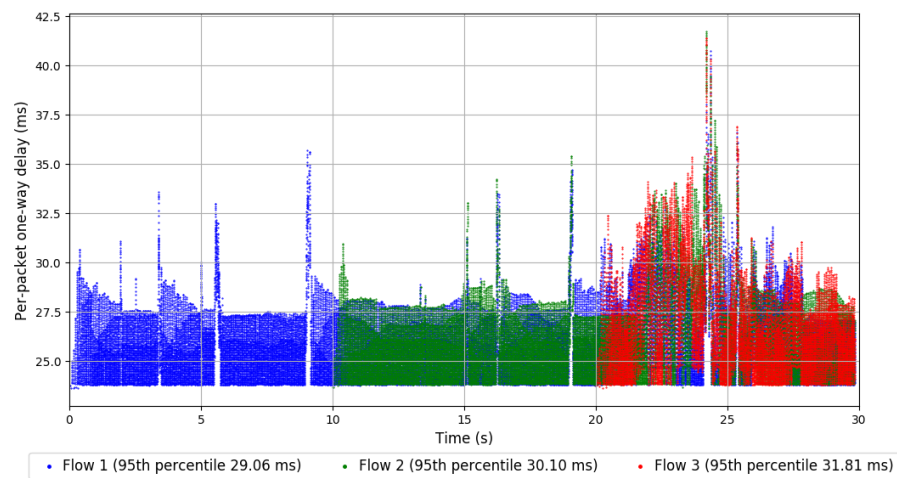
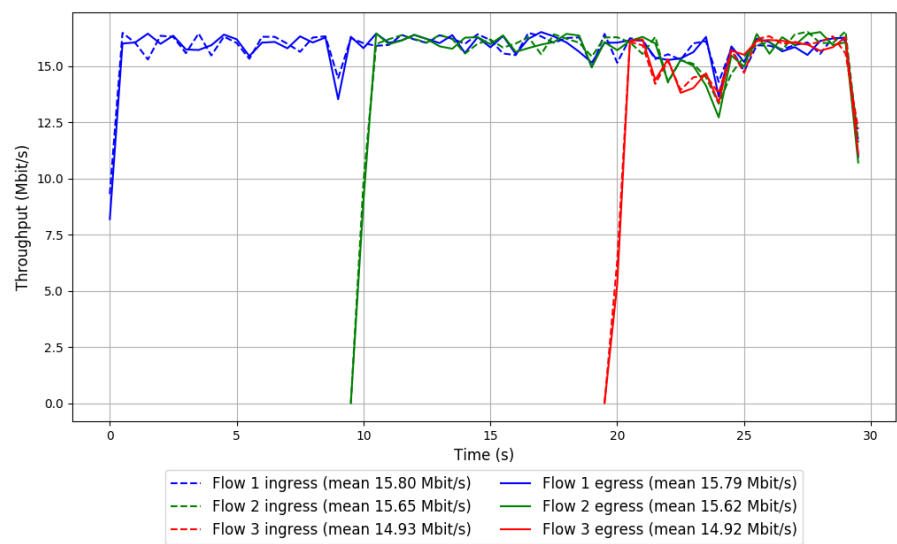
-- Flow 3:

Average throughput: 14.92 Mbit/s

95th percentile per-packet one-way delay: 31.809 ms

Loss rate: 0.69%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-12-20 06:42:24

End at: 2017-12-20 06:42:54

Local clock offset: 0.684 ms

Remote clock offset: 1.963 ms

Below is generated by plot.py at 2017-12-20 11:57:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 31.26 Mbit/s

95th percentile per-packet one-way delay: 28.388 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 15.71 Mbit/s

95th percentile per-packet one-way delay: 28.369 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 15.69 Mbit/s

95th percentile per-packet one-way delay: 28.339 ms

Loss rate: 0.28%

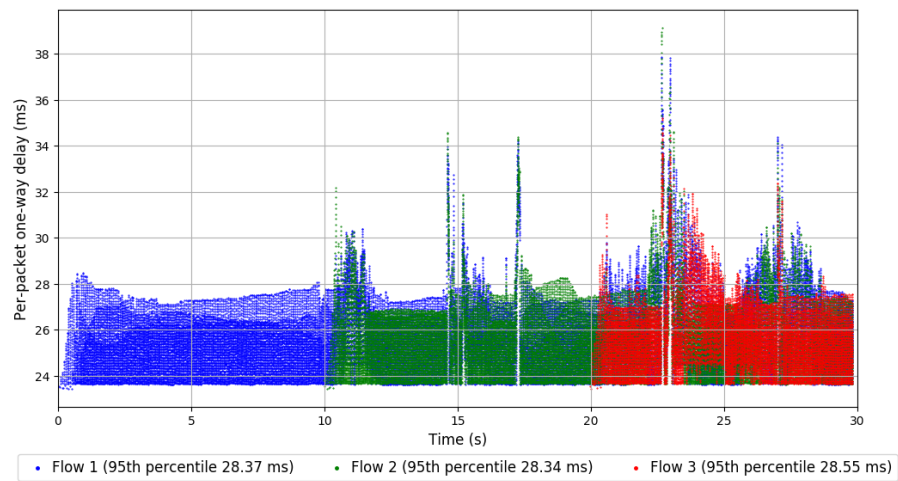
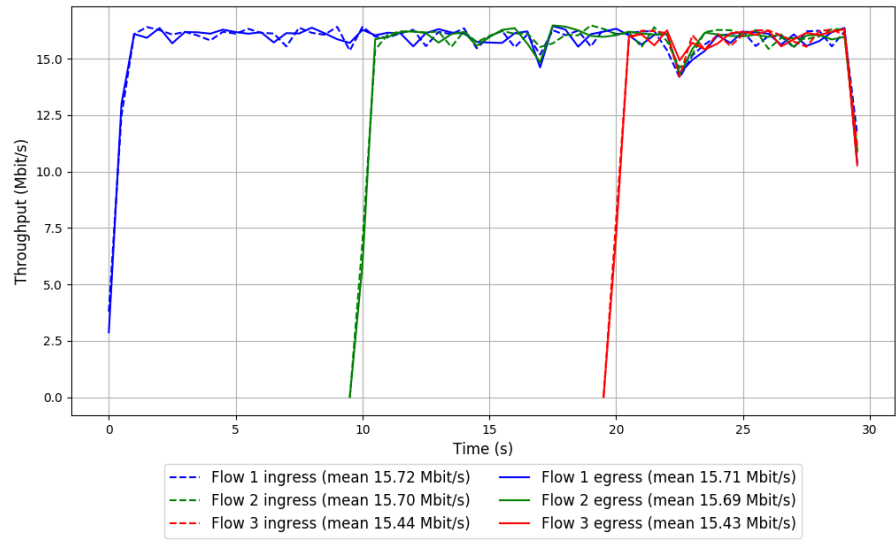
-- Flow 3:

Average throughput: 15.43 Mbit/s

95th percentile per-packet one-way delay: 28.555 ms

Loss rate: 0.48%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-12-20 07:03:12

End at: 2017-12-20 07:03:42

Local clock offset: 0.906 ms

Remote clock offset: 2.475 ms

Below is generated by plot.py at 2017-12-20 11:57:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 29.16 Mbit/s

95th percentile per-packet one-way delay: 32.923 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 14.90 Mbit/s

95th percentile per-packet one-way delay: 32.363 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 14.49 Mbit/s

95th percentile per-packet one-way delay: 33.069 ms

Loss rate: 0.90%

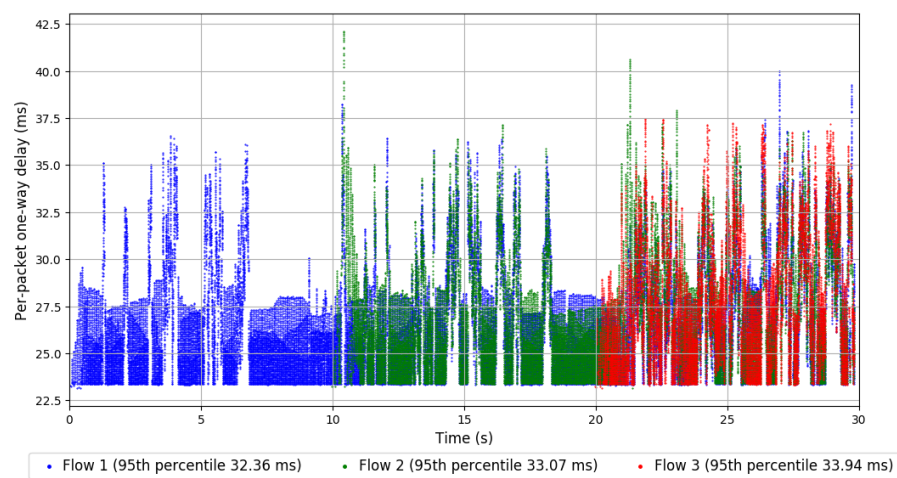
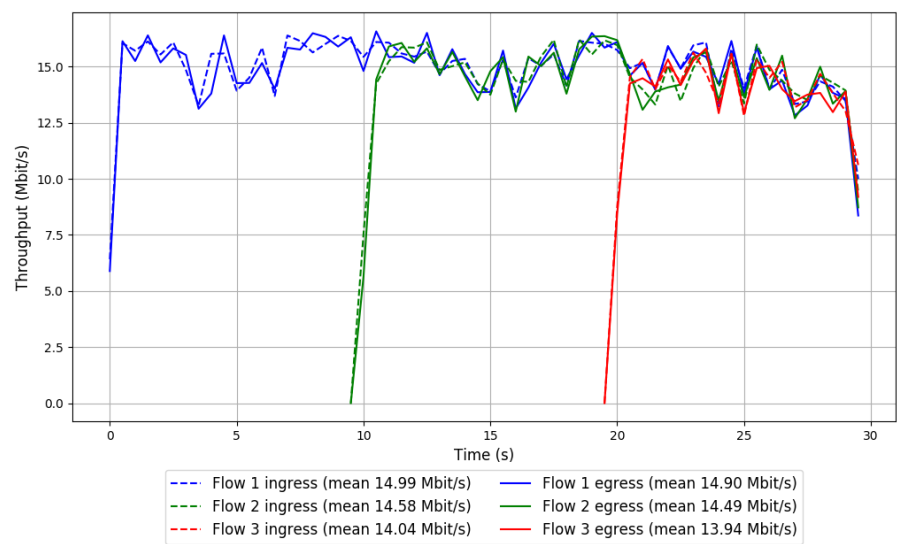
-- Flow 3:

Average throughput: 13.94 Mbit/s

95th percentile per-packet one-way delay: 33.937 ms

Loss rate: 1.30%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

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

End at: 2017-12-20 07:24:54

Local clock offset: 1.181 ms

Remote clock offset: 2.593 ms

Below is generated by plot.py at 2017-12-20 11:57:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 30.16 Mbit/s

95th percentile per-packet one-way delay: 31.665 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 15.34 Mbit/s

95th percentile per-packet one-way delay: 31.173 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 15.12 Mbit/s

95th percentile per-packet one-way delay: 31.920 ms

Loss rate: 0.79%

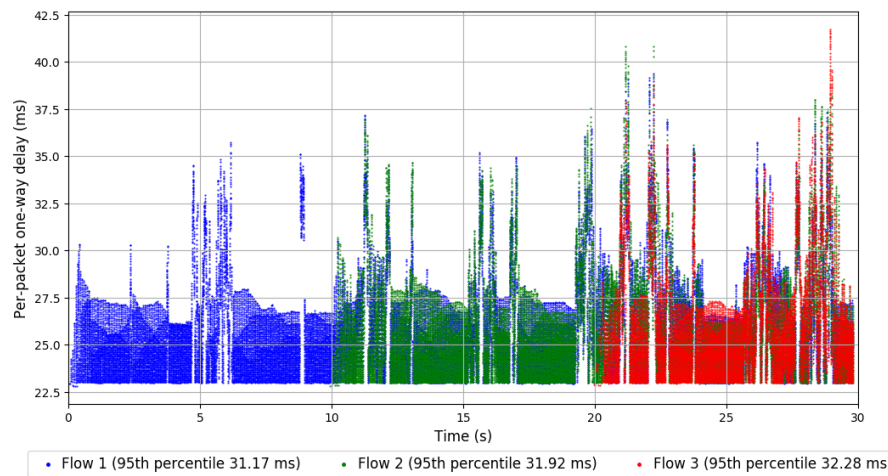
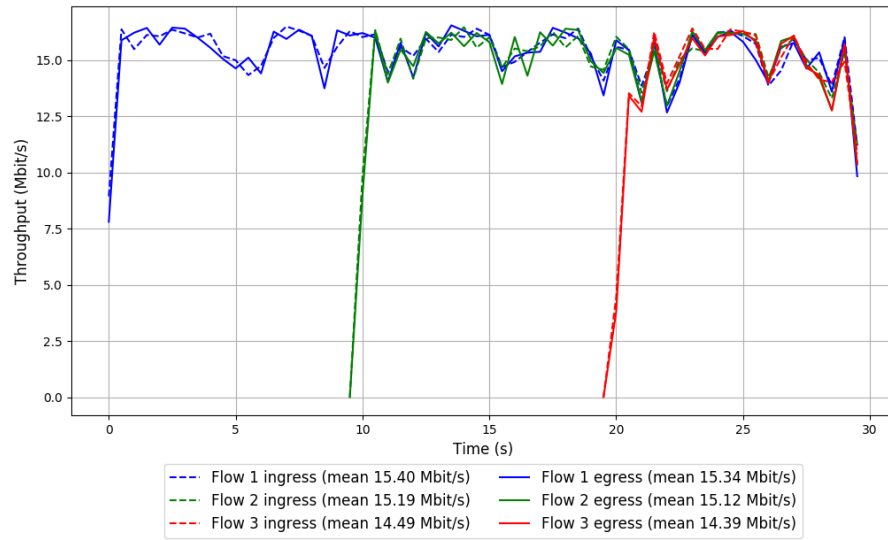
-- Flow 3:

Average throughput: 14.39 Mbit/s

95th percentile per-packet one-way delay: 32.285 ms

Loss rate: 1.03%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-12-20 07:45:23

End at: 2017-12-20 07:45:53

Local clock offset: 1.444 ms

Remote clock offset: 1.791 ms

Below is generated by plot.py at 2017-12-20 11:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 31.25 Mbit/s

95th percentile per-packet one-way delay: 28.627 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 15.89 Mbit/s

95th percentile per-packet one-way delay: 27.863 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 15.69 Mbit/s

95th percentile per-packet one-way delay: 28.350 ms

Loss rate: 0.29%

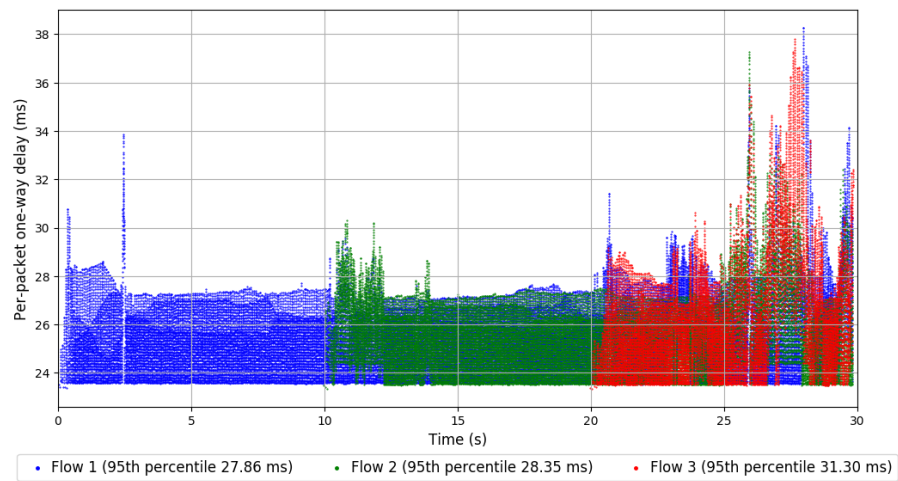
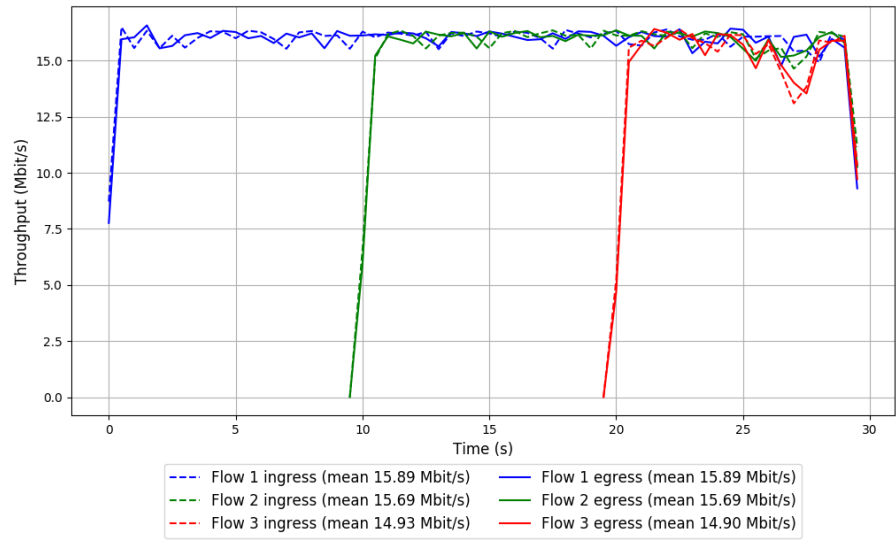
-- Flow 3:

Average throughput: 14.90 Mbit/s

95th percentile per-packet one-way delay: 31.297 ms

Loss rate: 0.52%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-12-20 08:06:00

End at: 2017-12-20 08:06:30

Local clock offset: 1.273 ms

Remote clock offset: 0.714 ms

Below is generated by plot.py at 2017-12-20 11:58:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 31.23 Mbit/s

95th percentile per-packet one-way delay: 28.647 ms

Loss rate: 0.28%

-- Flow 1:

Average throughput: 15.64 Mbit/s

95th percentile per-packet one-way delay: 28.564 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 15.71 Mbit/s

95th percentile per-packet one-way delay: 28.711 ms

Loss rate: 0.30%

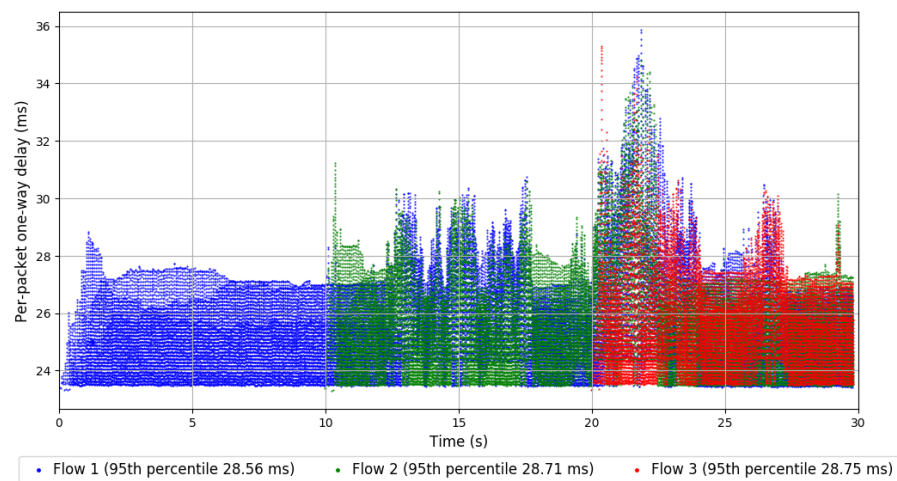
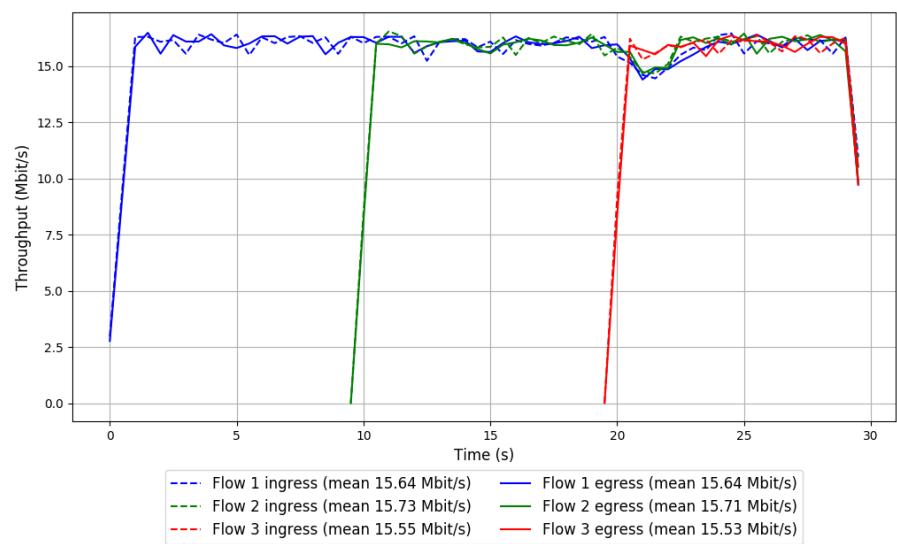
-- Flow 3:

Average throughput: 15.53 Mbit/s

95th percentile per-packet one-way delay: 28.745 ms

Loss rate: 0.48%

Run 10: Report of Sprout — Data Link

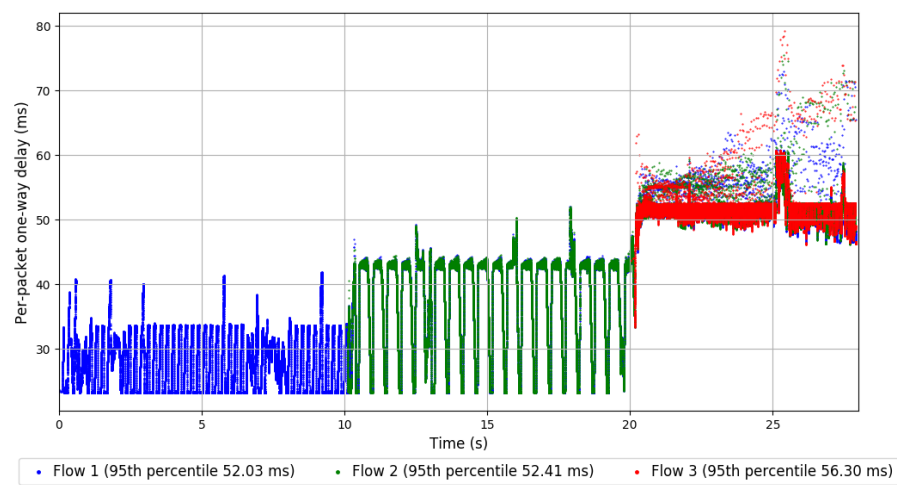
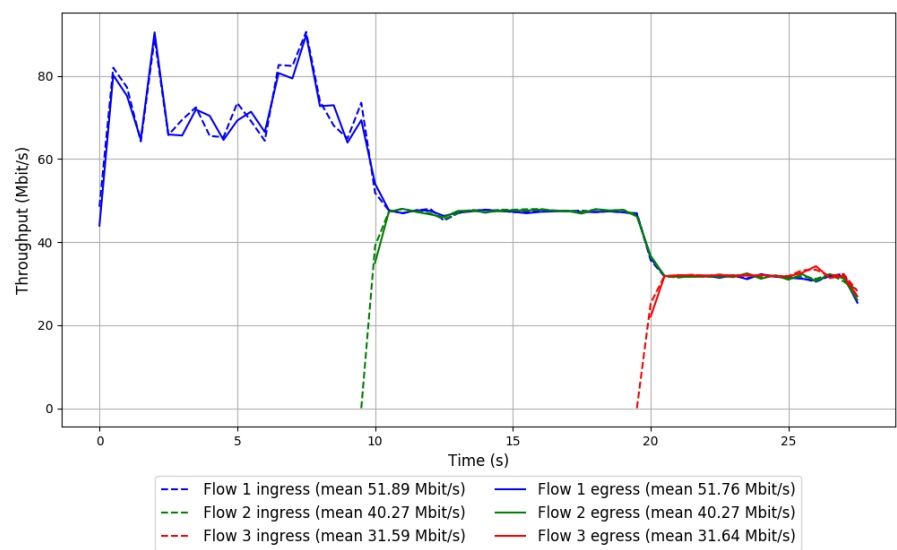


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-20 05:00:12
End at: 2017-12-20 05:00:42
Local clock offset: 0.393 ms
Remote clock offset: 0.137 ms

# Below is generated by plot.py at 2017-12-20 11:59:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.53 Mbit/s
95th percentile per-packet one-way delay: 52.386 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 51.76 Mbit/s
95th percentile per-packet one-way delay: 52.034 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 40.27 Mbit/s
95th percentile per-packet one-way delay: 52.412 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 31.64 Mbit/s
95th percentile per-packet one-way delay: 56.299 ms
Loss rate: 1.05%
```


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



Run 2: Statistics of TaoVA-100x

Start at: 2017-12-20 05:20:56

End at: 2017-12-20 05:21:26

Local clock offset: 0.501 ms

Remote clock offset: 0.356 ms

Below is generated by plot.py at 2017-12-20 11:59:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.14 Mbit/s

95th percentile per-packet one-way delay: 57.545 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 51.97 Mbit/s

95th percentile per-packet one-way delay: 52.703 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 31.83 Mbit/s

95th percentile per-packet one-way delay: 61.713 ms

Loss rate: 0.85%

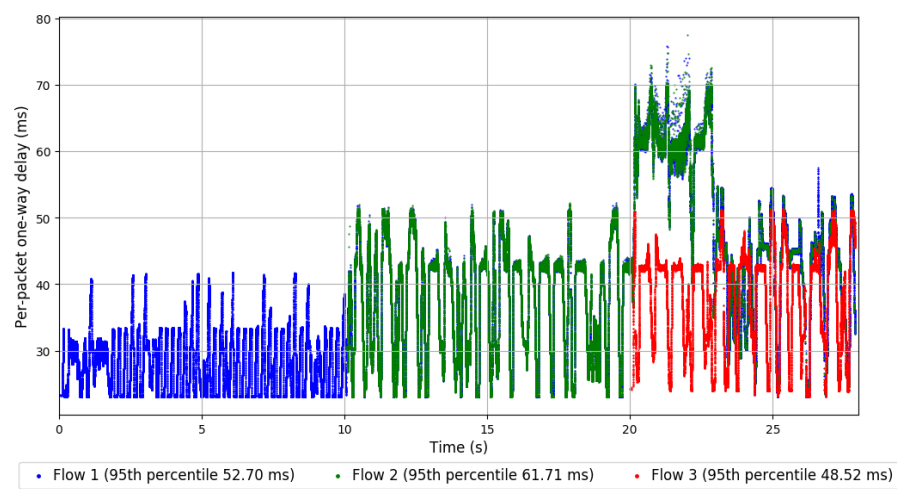
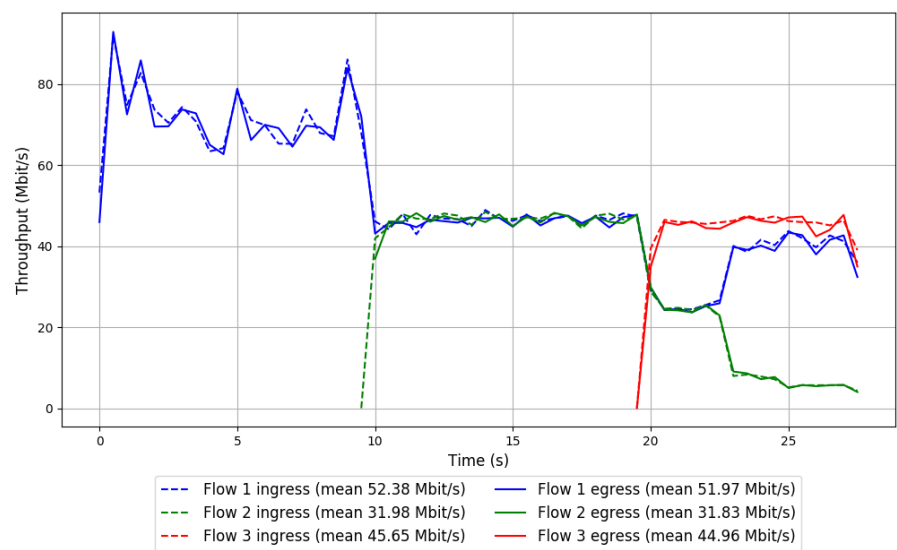
-- Flow 3:

Average throughput: 44.96 Mbit/s

95th percentile per-packet one-way delay: 48.516 ms

Loss rate: 2.17%

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-12-20 05:42:14

End at: 2017-12-20 05:42:44

Local clock offset: 0.776 ms

Remote clock offset: 0.37 ms

Below is generated by plot.py at 2017-12-20 11:59:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.61 Mbit/s

95th percentile per-packet one-way delay: 59.055 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 54.16 Mbit/s

95th percentile per-packet one-way delay: 57.036 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 39.95 Mbit/s

95th percentile per-packet one-way delay: 59.165 ms

Loss rate: 1.07%

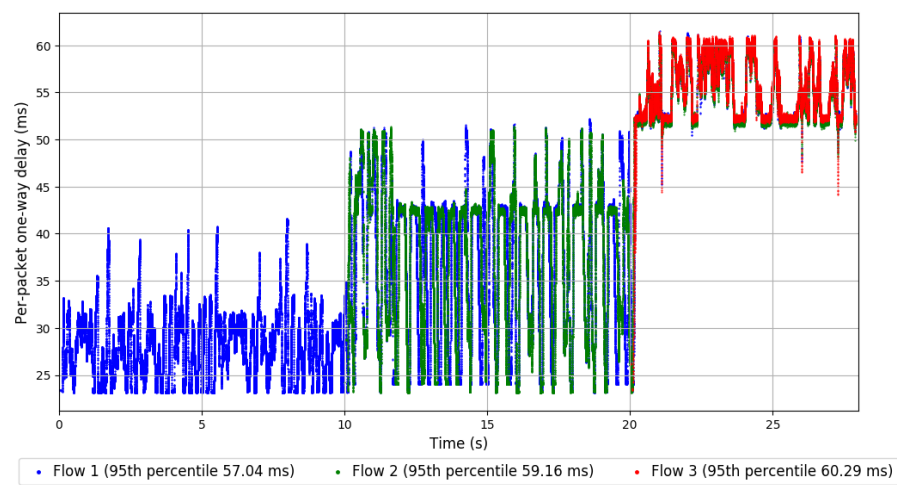
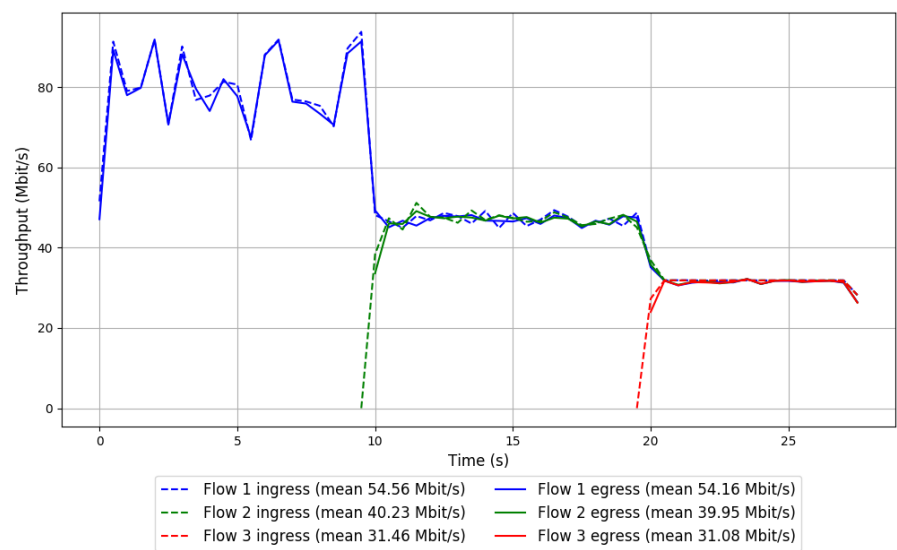
-- Flow 3:

Average throughput: 31.08 Mbit/s

95th percentile per-packet one-way delay: 60.286 ms

Loss rate: 2.07%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-20 06:03:37

End at: 2017-12-20 06:04:07

Local clock offset: 0.846 ms

Remote clock offset: -1.45 ms

Below is generated by plot.py at 2017-12-20 12:00:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.50 Mbit/s

95th percentile per-packet one-way delay: 55.011 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 52.92 Mbit/s

95th percentile per-packet one-way delay: 54.871 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 40.01 Mbit/s

95th percentile per-packet one-way delay: 55.062 ms

Loss rate: 0.78%

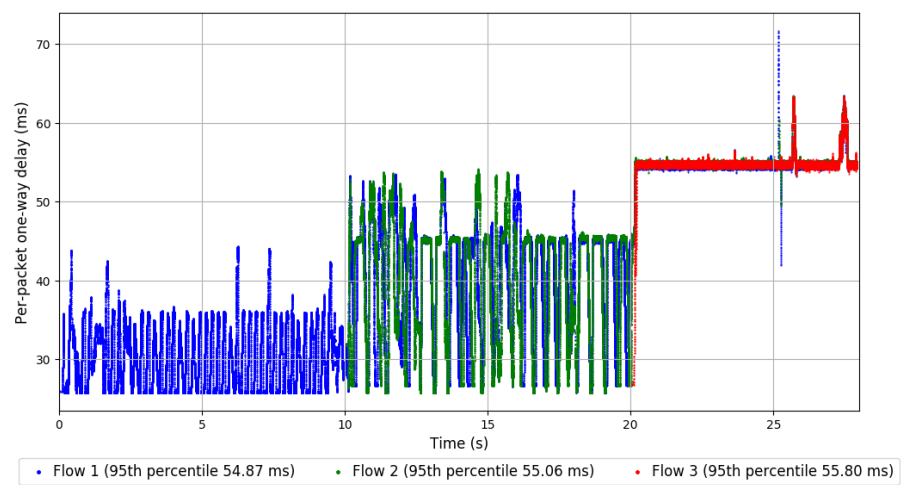
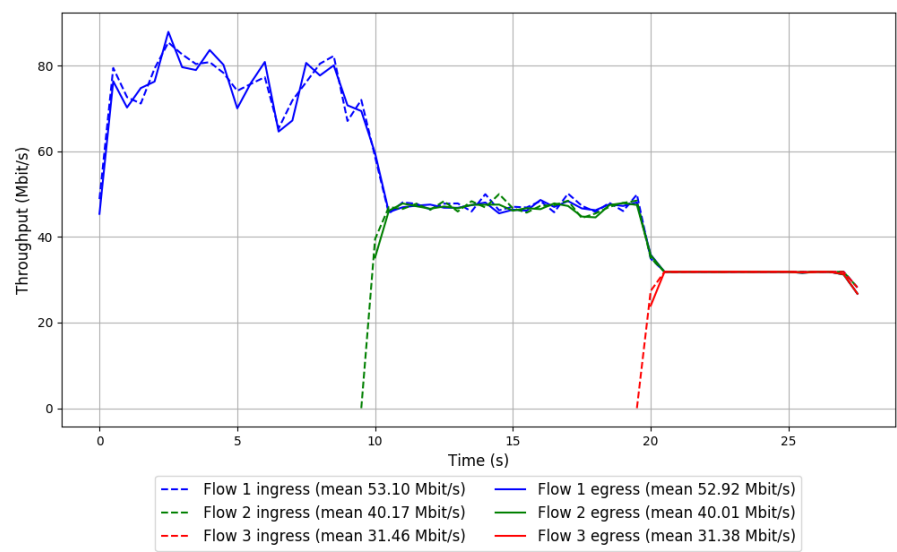
-- Flow 3:

Average throughput: 31.38 Mbit/s

95th percentile per-packet one-way delay: 55.796 ms

Loss rate: 1.12%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-12-20 06:24:12

End at: 2017-12-20 06:24:42

Local clock offset: 0.84 ms

Remote clock offset: 1.998 ms

Below is generated by plot.py at 2017-12-20 12:00:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.61 Mbit/s

95th percentile per-packet one-way delay: 61.269 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 50.96 Mbit/s

95th percentile per-packet one-way delay: 60.583 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 33.60 Mbit/s

95th percentile per-packet one-way delay: 62.662 ms

Loss rate: 0.45%

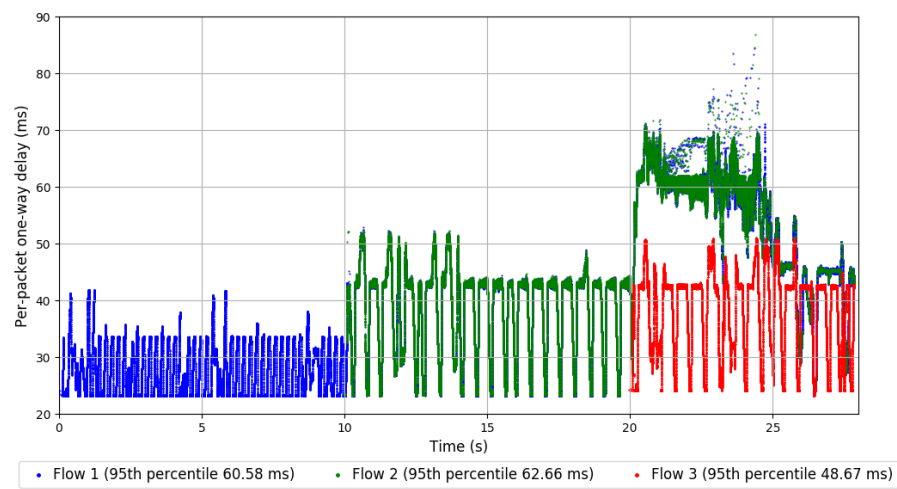
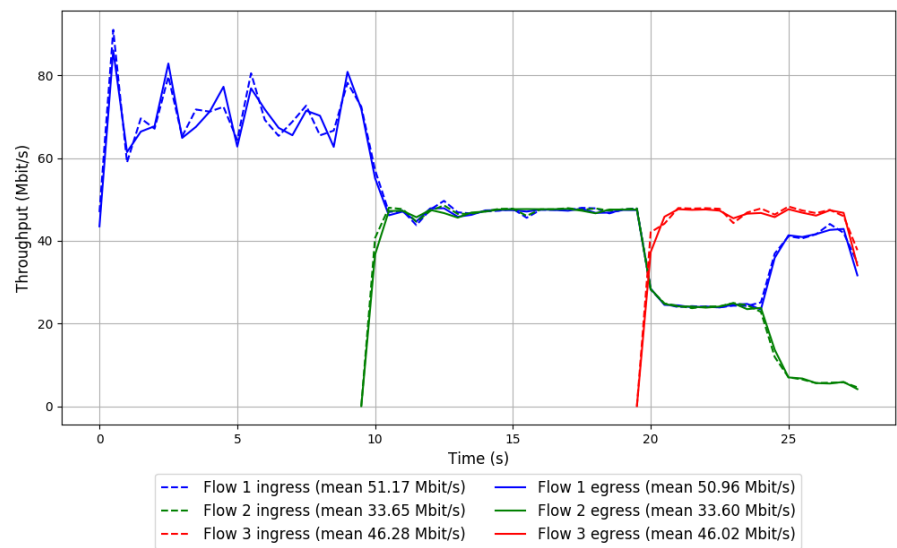
-- Flow 3:

Average throughput: 46.02 Mbit/s

95th percentile per-packet one-way delay: 48.673 ms

Loss rate: 1.37%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-12-20 06:45:04

End at: 2017-12-20 06:45:34

Local clock offset: 0.706 ms

Remote clock offset: 2.448 ms

Below is generated by plot.py at 2017-12-20 12:00:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.77 Mbit/s

95th percentile per-packet one-way delay: 61.346 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 48.98 Mbit/s

95th percentile per-packet one-way delay: 61.170 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 46.91 Mbit/s

95th percentile per-packet one-way delay: 45.186 ms

Loss rate: 0.55%

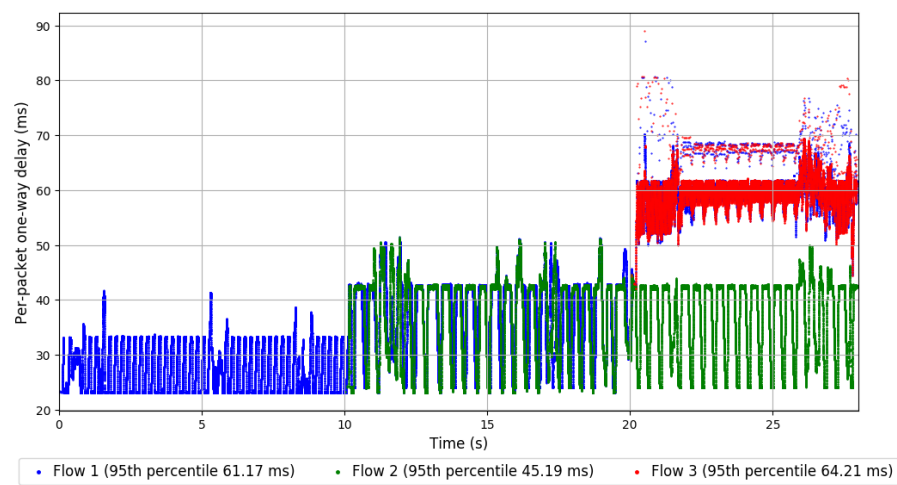
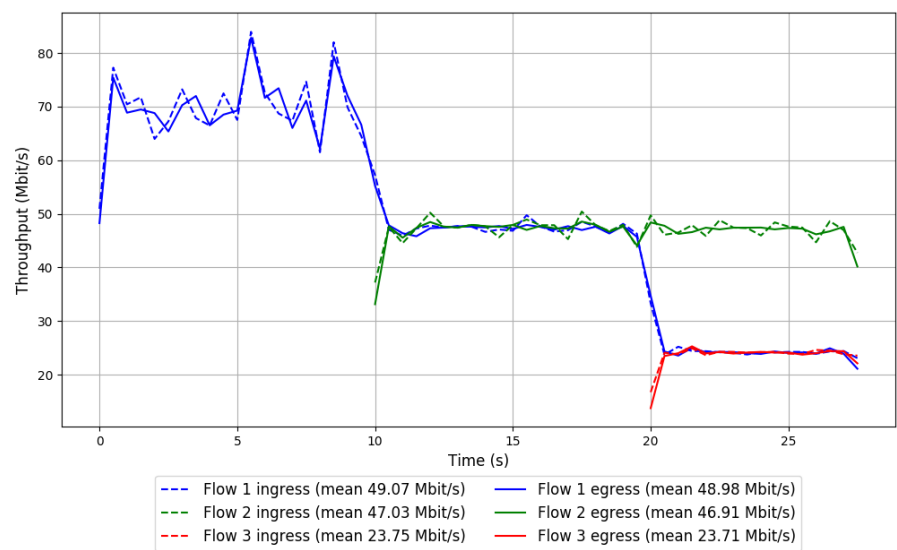
-- Flow 3:

Average throughput: 23.71 Mbit/s

95th percentile per-packet one-way delay: 64.214 ms

Loss rate: 1.21%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-12-20 07:05:55

End at: 2017-12-20 07:06:25

Local clock offset: 0.948 ms

Remote clock offset: 2.287 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.49 Mbit/s

95th percentile per-packet one-way delay: 62.068 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 51.17 Mbit/s

95th percentile per-packet one-way delay: 61.772 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 46.24 Mbit/s

95th percentile per-packet one-way delay: 50.029 ms

Loss rate: 1.04%

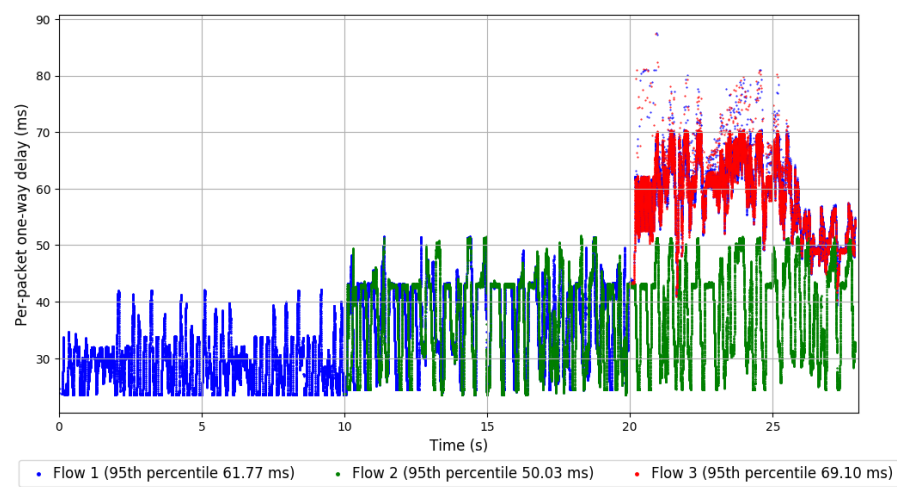
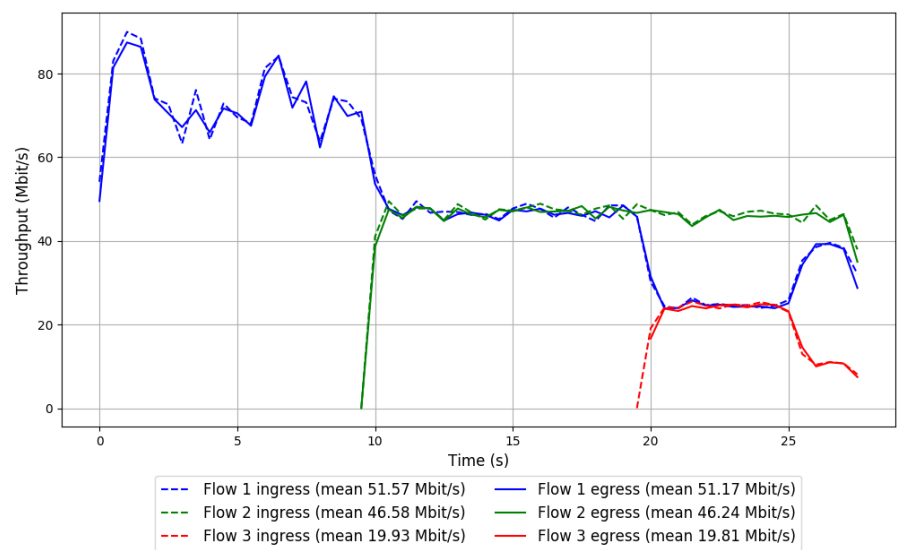
-- Flow 3:

Average throughput: 19.81 Mbit/s

95th percentile per-packet one-way delay: 69.098 ms

Loss rate: 1.50%

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

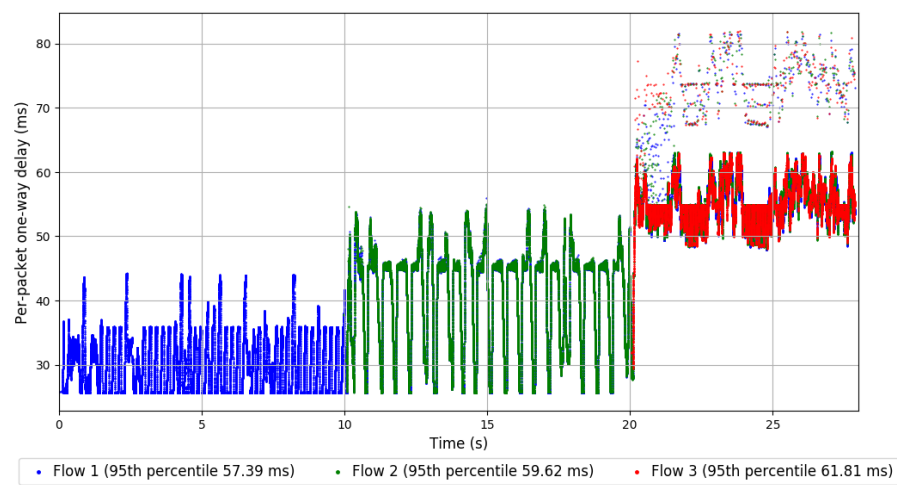
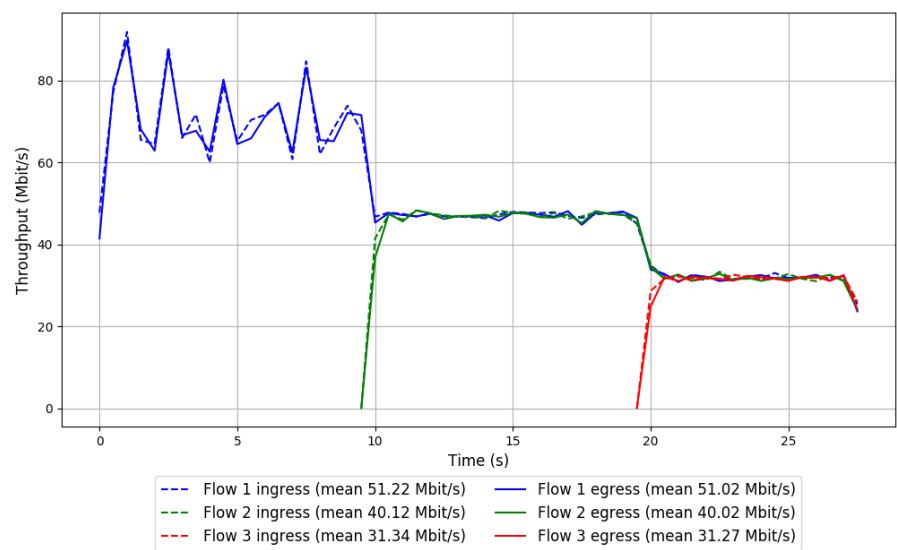


Run 8: Statistics of TaoVA-100x

Start at: 2017-12-20 07:27:05
End at: 2017-12-20 07:27:35
Local clock offset: 1.216 ms
Remote clock offset: -0.188 ms

Below is generated by plot.py at 2017-12-20 12:00:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 85.58 Mbit/s
95th percentile per-packet one-way delay: 59.219 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 51.02 Mbit/s
95th percentile per-packet one-way delay: 57.394 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 40.02 Mbit/s
95th percentile per-packet one-way delay: 59.618 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 31.27 Mbit/s
95th percentile per-packet one-way delay: 61.813 ms
Loss rate: 1.34%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-12-20 07:48:03

End at: 2017-12-20 07:48:33

Local clock offset: 1.416 ms

Remote clock offset: 1.638 ms

Below is generated by plot.py at 2017-12-20 12:02:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.72 Mbit/s

95th percentile per-packet one-way delay: 52.603 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 50.96 Mbit/s

95th percentile per-packet one-way delay: 52.615 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 40.35 Mbit/s

95th percentile per-packet one-way delay: 52.561 ms

Loss rate: 0.50%

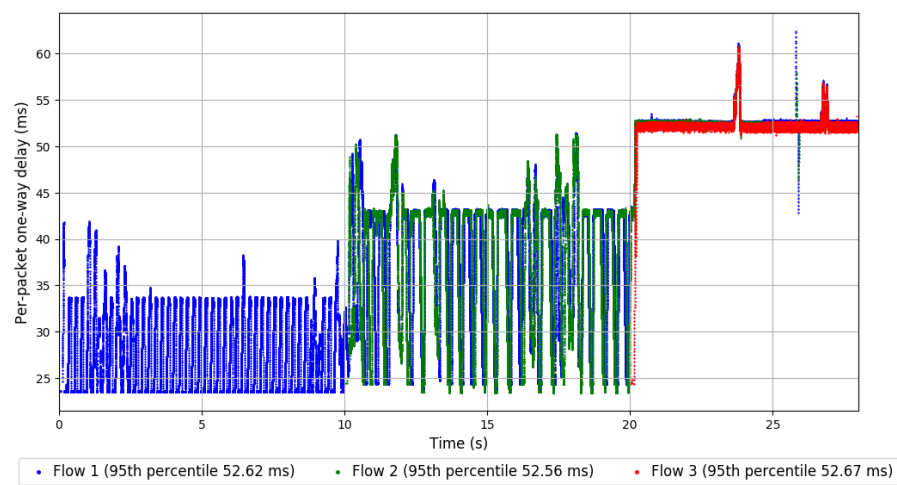
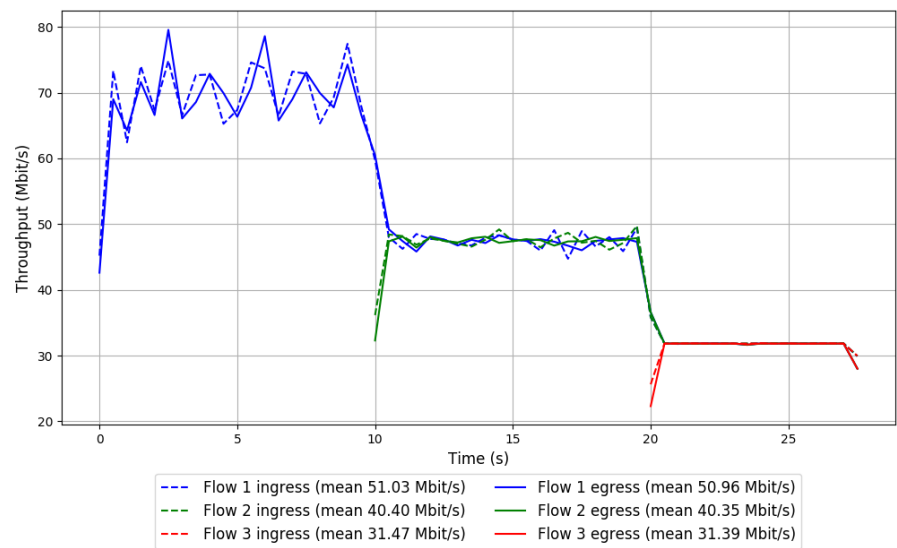
-- Flow 3:

Average throughput: 31.39 Mbit/s

95th percentile per-packet one-way delay: 52.674 ms

Loss rate: 1.08%

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

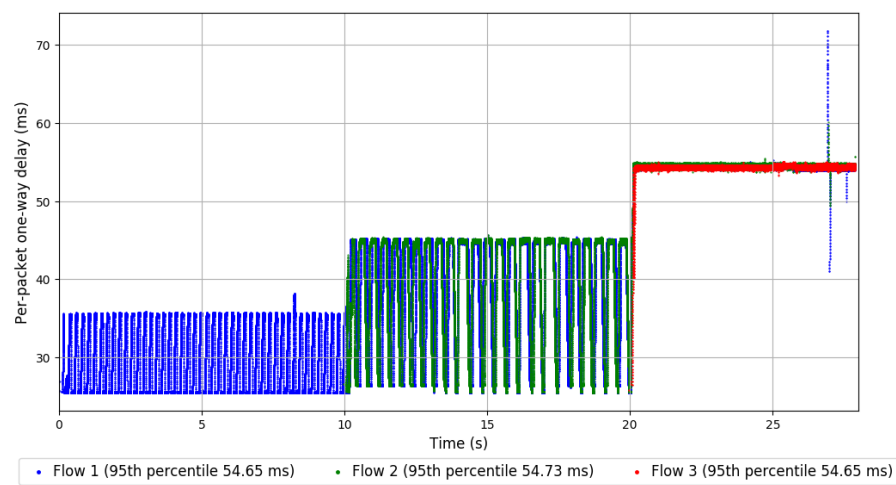
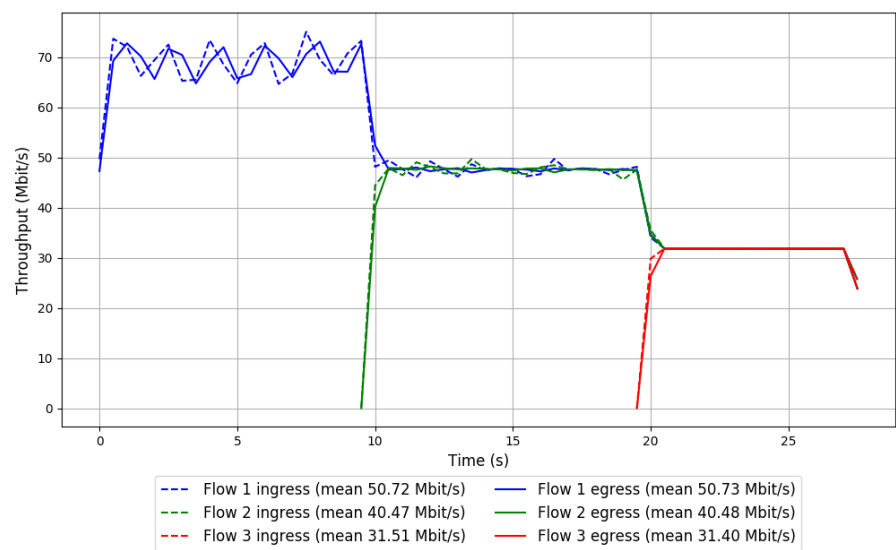


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-20 08:08:40
End at: 2017-12-20 08:09:10
Local clock offset: 1.268 ms
Remote clock offset: -1.537 ms

# Below is generated by plot.py at 2017-12-20 12:02:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.67 Mbit/s
95th percentile per-packet one-way delay: 54.685 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 50.73 Mbit/s
95th percentile per-packet one-way delay: 54.651 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 40.48 Mbit/s
95th percentile per-packet one-way delay: 54.735 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 31.40 Mbit/s
95th percentile per-packet one-way delay: 54.650 ms
Loss rate: 1.04%
```

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

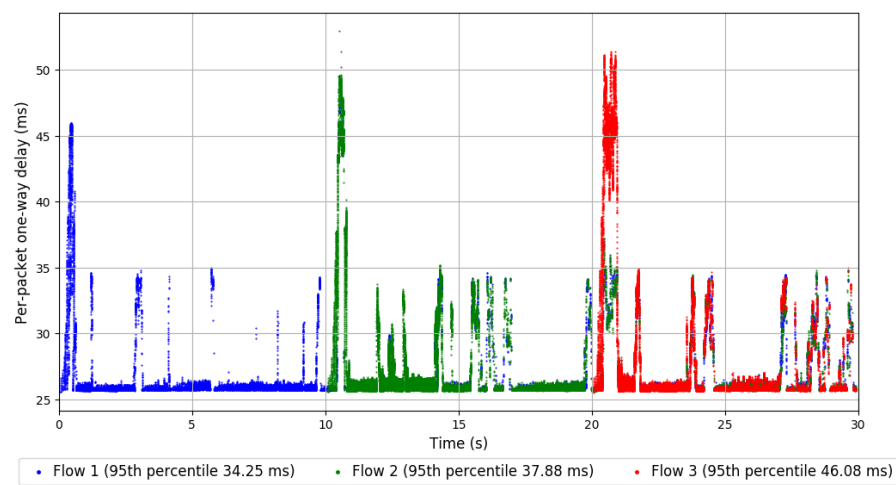
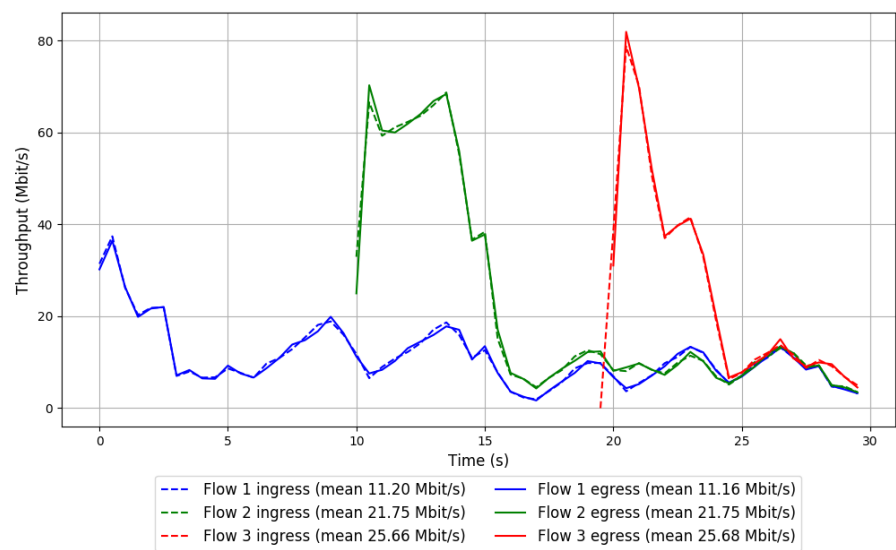


Run 1: Statistics of TCP Vegas

Start at: 2017-12-20 05:03:03
End at: 2017-12-20 05:03:33
Local clock offset: 0.373 ms
Remote clock offset: -2.277 ms

Below is generated by plot.py at 2017-12-20 12:02:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 34.10 Mbit/s
95th percentile per-packet one-way delay: 44.238 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 11.16 Mbit/s
95th percentile per-packet one-way delay: 34.254 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 21.75 Mbit/s
95th percentile per-packet one-way delay: 37.881 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 25.68 Mbit/s
95th percentile per-packet one-way delay: 46.077 ms
Loss rate: 0.47%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-20 05:23:54

End at: 2017-12-20 05:24:25

Local clock offset: 0.619 ms

Remote clock offset: 0.432 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 38.22 Mbit/s

95th percentile per-packet one-way delay: 35.323 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 19.30 Mbit/s

95th percentile per-packet one-way delay: 37.864 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 16.89 Mbit/s

95th percentile per-packet one-way delay: 35.599 ms

Loss rate: 0.43%

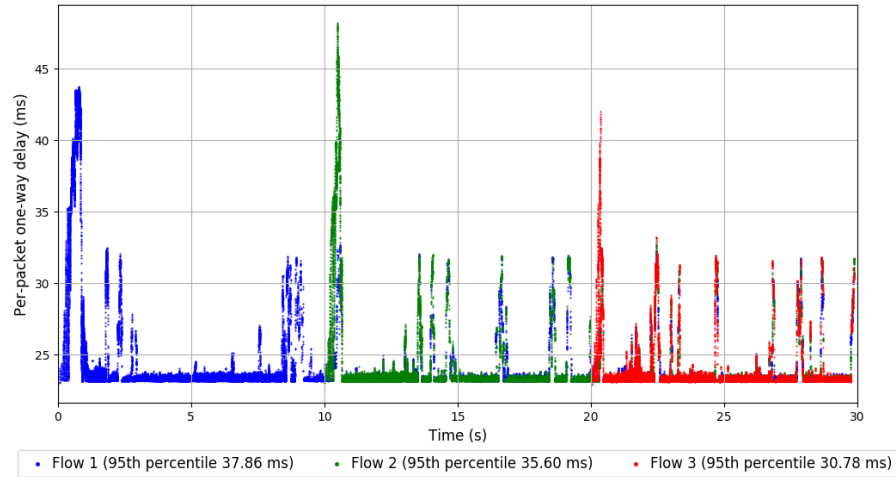
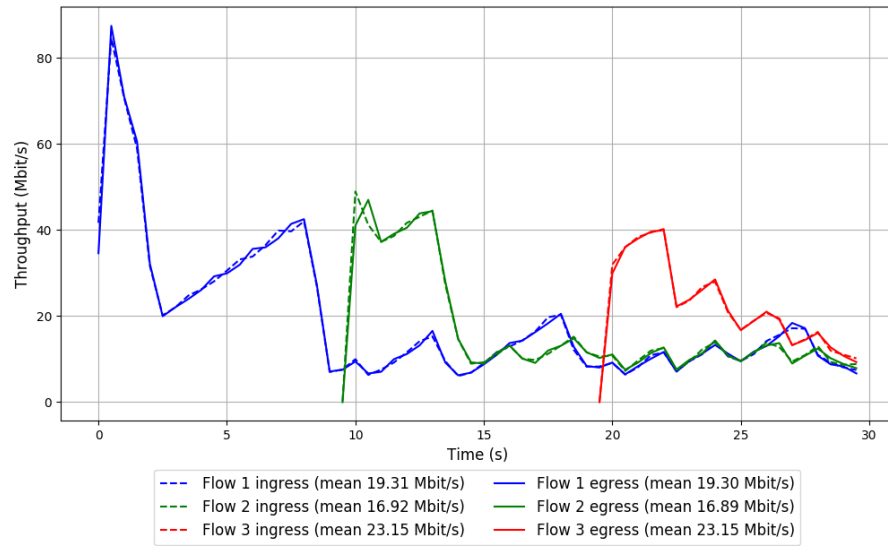
-- Flow 3:

Average throughput: 23.15 Mbit/s

95th percentile per-packet one-way delay: 30.782 ms

Loss rate: 0.59%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-12-20 05:45:29

End at: 2017-12-20 05:45:59

Local clock offset: 0.815 ms

Remote clock offset: 0.409 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.88 Mbit/s

95th percentile per-packet one-way delay: 41.917 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 15.24 Mbit/s

95th percentile per-packet one-way delay: 41.512 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 13.72 Mbit/s

95th percentile per-packet one-way delay: 42.856 ms

Loss rate: 0.73%

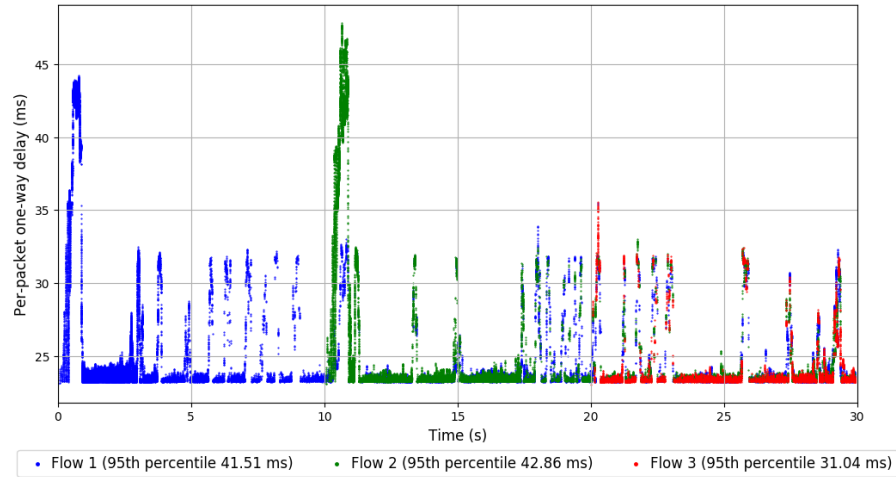
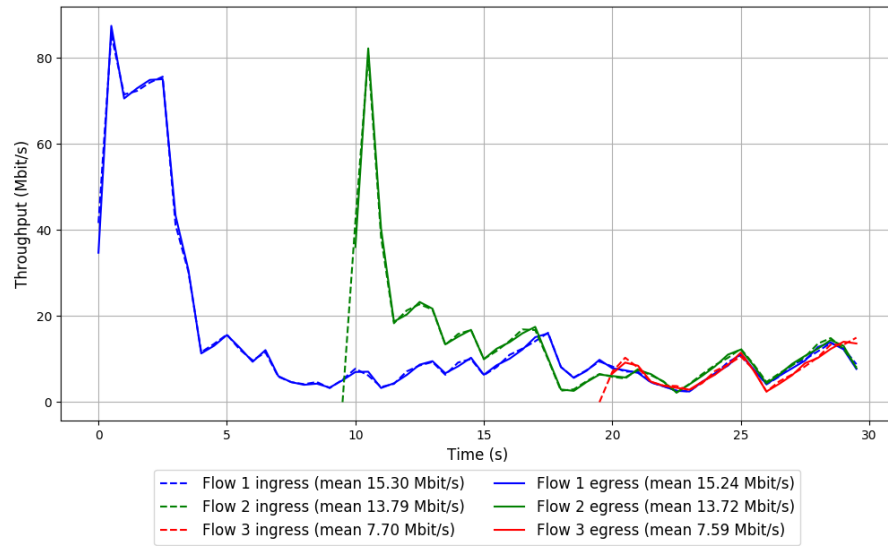
-- Flow 3:

Average throughput: 7.59 Mbit/s

95th percentile per-packet one-way delay: 31.035 ms

Loss rate: 1.99%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-20 06:06:25

End at: 2017-12-20 06:06:55

Local clock offset: 0.766 ms

Remote clock offset: 1.31 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.32 Mbit/s

95th percentile per-packet one-way delay: 42.192 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 24.16 Mbit/s

95th percentile per-packet one-way delay: 35.062 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 24.56 Mbit/s

95th percentile per-packet one-way delay: 43.791 ms

Loss rate: 0.31%

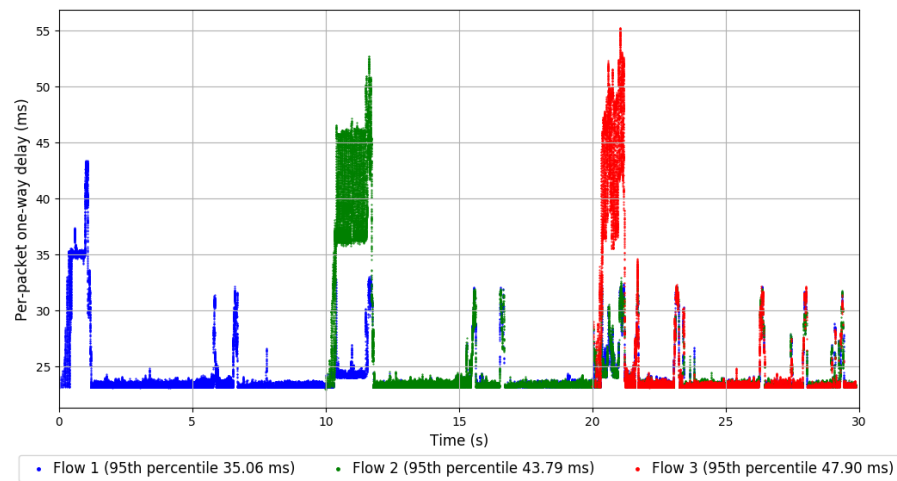
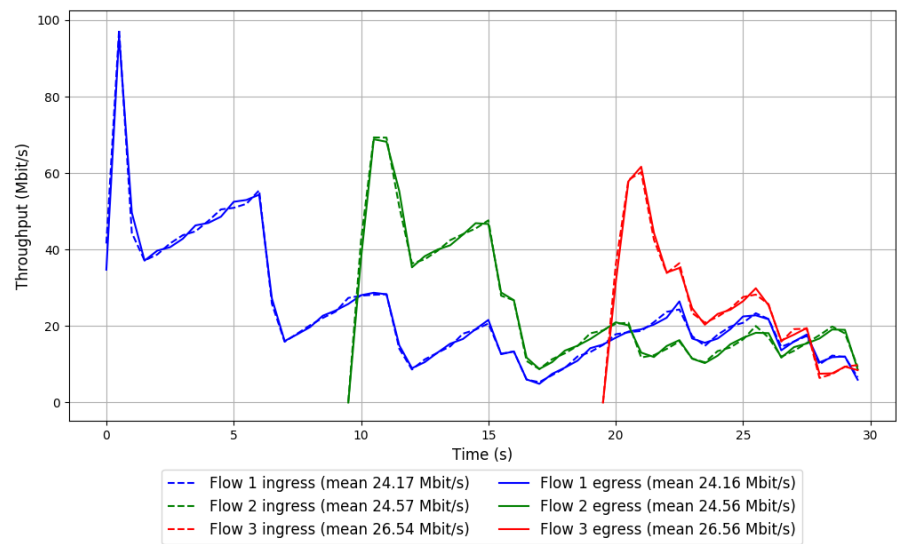
-- Flow 3:

Average throughput: 26.56 Mbit/s

95th percentile per-packet one-way delay: 47.900 ms

Loss rate: 0.47%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-20 06:27:00

End at: 2017-12-20 06:27:30

Local clock offset: 0.883 ms

Remote clock offset: 1.607 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 44.62 Mbit/s

95th percentile per-packet one-way delay: 35.725 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 27.79 Mbit/s

95th percentile per-packet one-way delay: 35.821 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 18.25 Mbit/s

95th percentile per-packet one-way delay: 29.942 ms

Loss rate: 0.47%

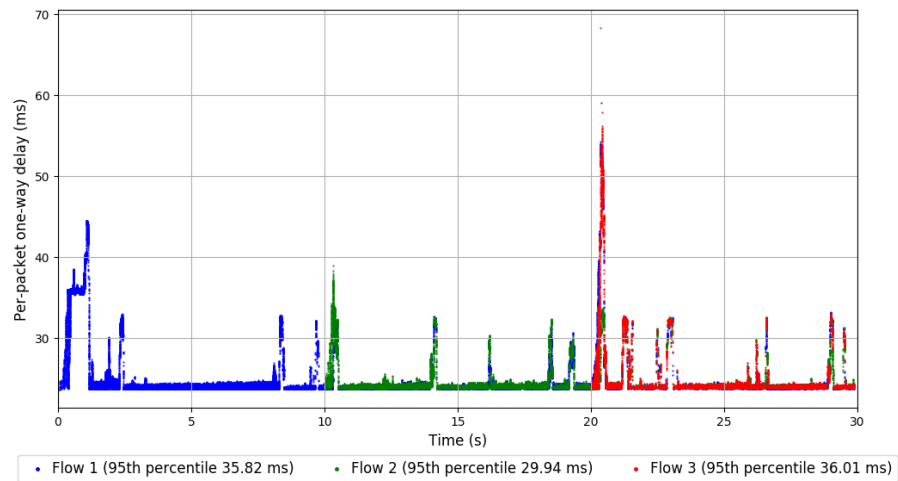
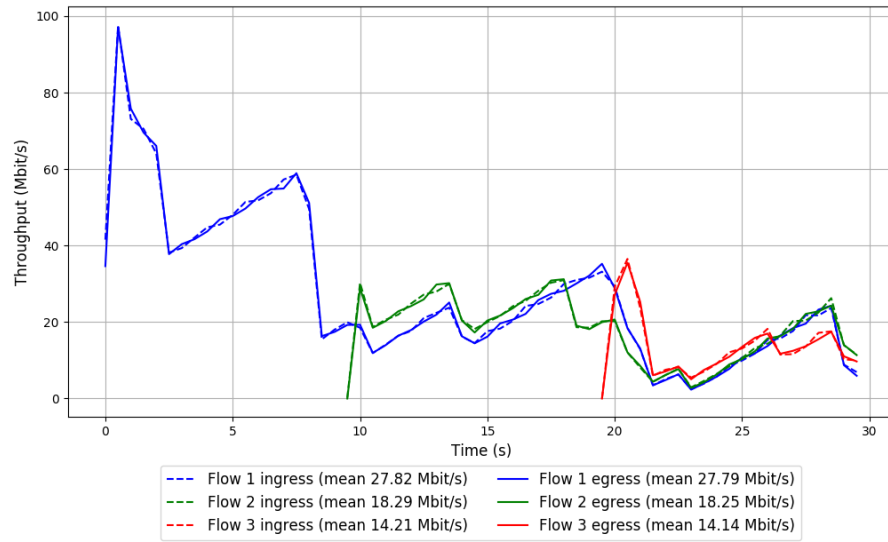
-- Flow 3:

Average throughput: 14.14 Mbit/s

95th percentile per-packet one-way delay: 36.007 ms

Loss rate: 1.01%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-12-20 06:48:05

End at: 2017-12-20 06:48:35

Local clock offset: 0.836 ms

Remote clock offset: 0.073 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.11 Mbit/s

95th percentile per-packet one-way delay: 36.995 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 21.40 Mbit/s

95th percentile per-packet one-way delay: 36.959 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 20.80 Mbit/s

95th percentile per-packet one-way delay: 34.202 ms

Loss rate: 0.34%

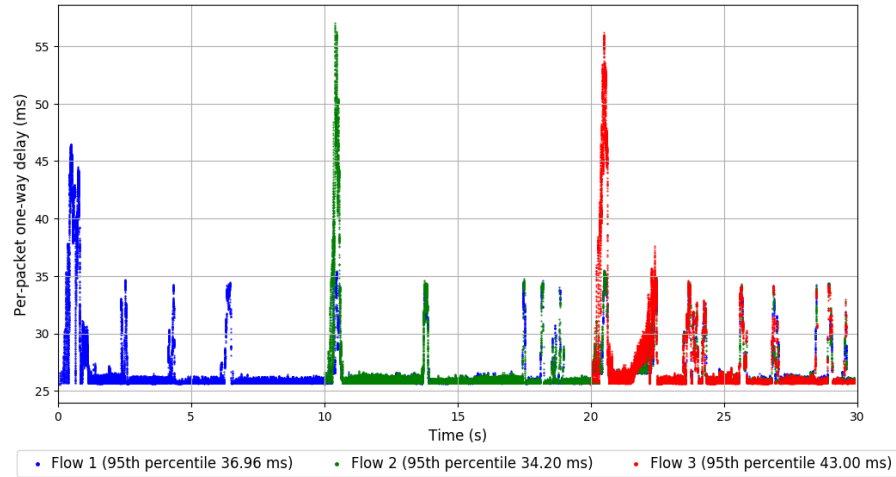
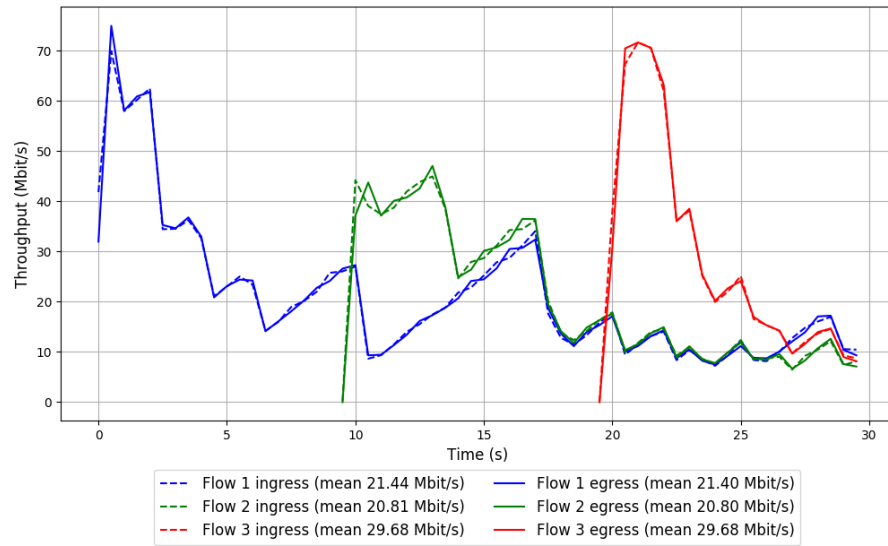
-- Flow 3:

Average throughput: 29.68 Mbit/s

95th percentile per-packet one-way delay: 43.000 ms

Loss rate: 0.53%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-20 07:08:52

End at: 2017-12-20 07:09:22

Local clock offset: 1.088 ms

Remote clock offset: 2.428 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 24.98 Mbit/s

95th percentile per-packet one-way delay: 31.223 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 11.31 Mbit/s

95th percentile per-packet one-way delay: 30.780 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 11.21 Mbit/s

95th percentile per-packet one-way delay: 31.433 ms

Loss rate: 0.56%

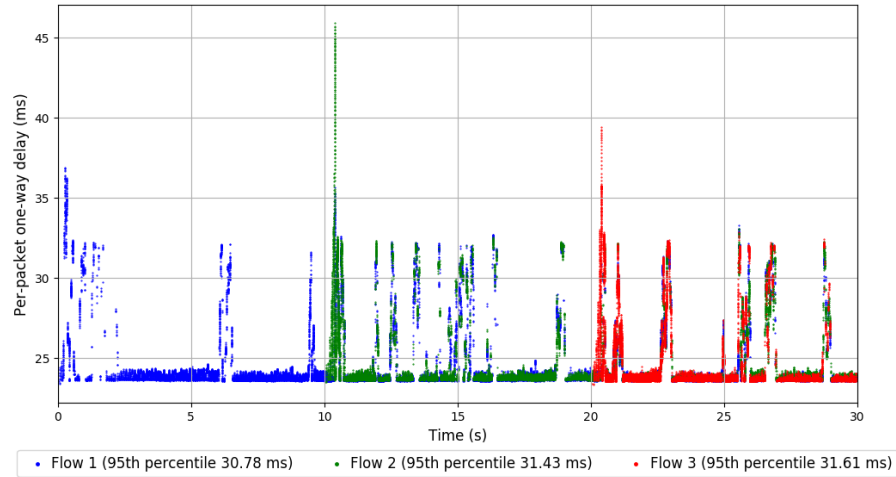
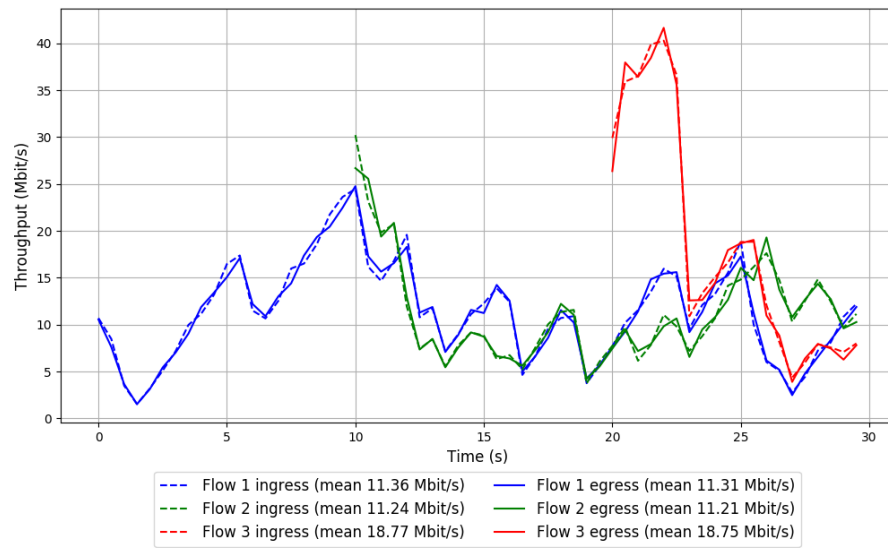
-- Flow 3:

Average throughput: 18.75 Mbit/s

95th percentile per-packet one-way delay: 31.608 ms

Loss rate: 0.66%

Run 7: Report of TCP Vegas — Data Link

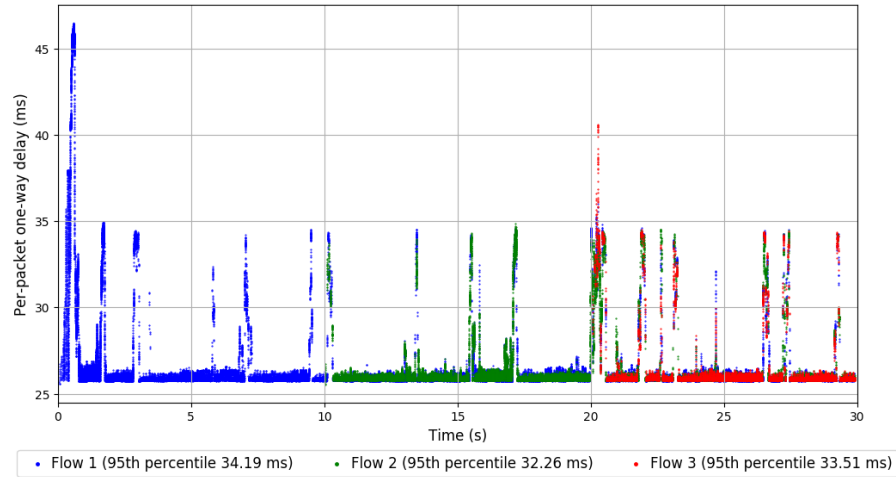
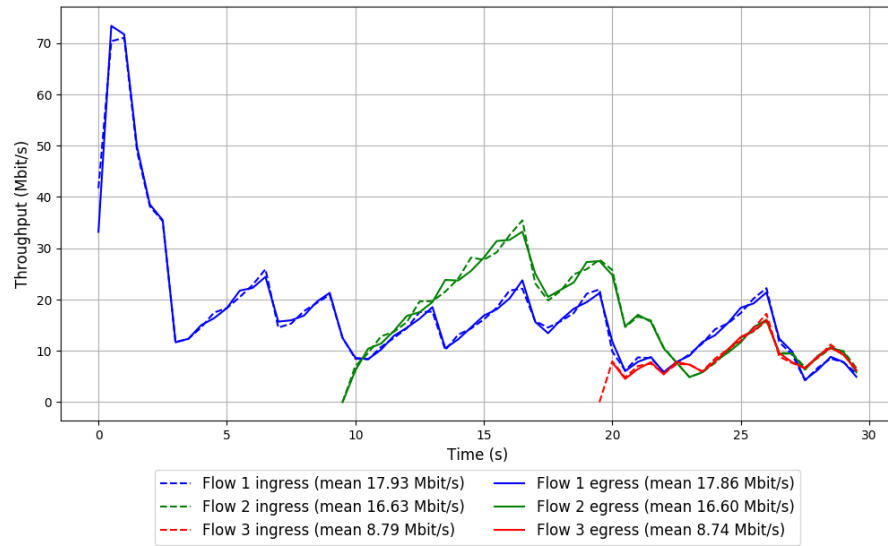


Run 8: Statistics of TCP Vegas

Start at: 2017-12-20 07:29:57
End at: 2017-12-20 07:30:27
Local clock offset: 1.341 ms
Remote clock offset: -0.213 ms

Below is generated by plot.py at 2017-12-20 12:02:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 31.81 Mbit/s
95th percentile per-packet one-way delay: 33.668 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 17.86 Mbit/s
95th percentile per-packet one-way delay: 34.192 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 16.60 Mbit/s
95th percentile per-packet one-way delay: 32.264 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 8.74 Mbit/s
95th percentile per-packet one-way delay: 33.505 ms
Loss rate: 1.14%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-20 07:50:52

End at: 2017-12-20 07:51:22

Local clock offset: 1.503 ms

Remote clock offset: 1.886 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.05 Mbit/s

95th percentile per-packet one-way delay: 41.266 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 21.96 Mbit/s

95th percentile per-packet one-way delay: 40.634 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 22.36 Mbit/s

95th percentile per-packet one-way delay: 41.685 ms

Loss rate: 0.48%

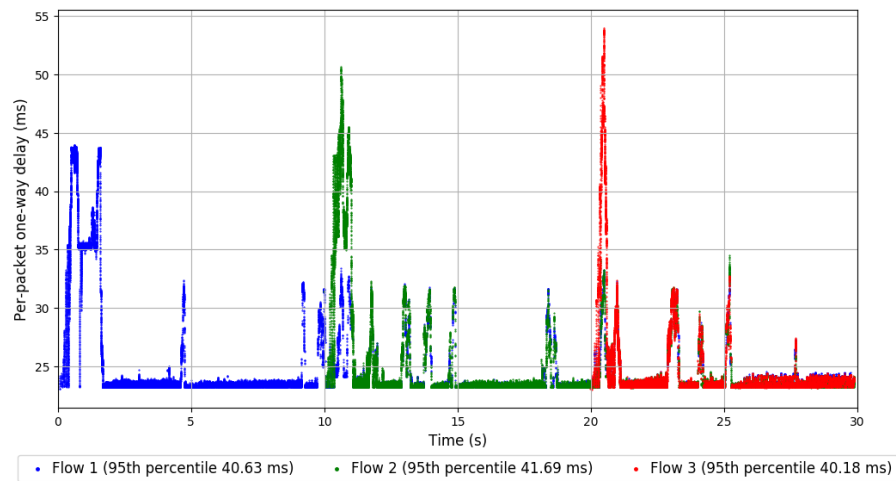
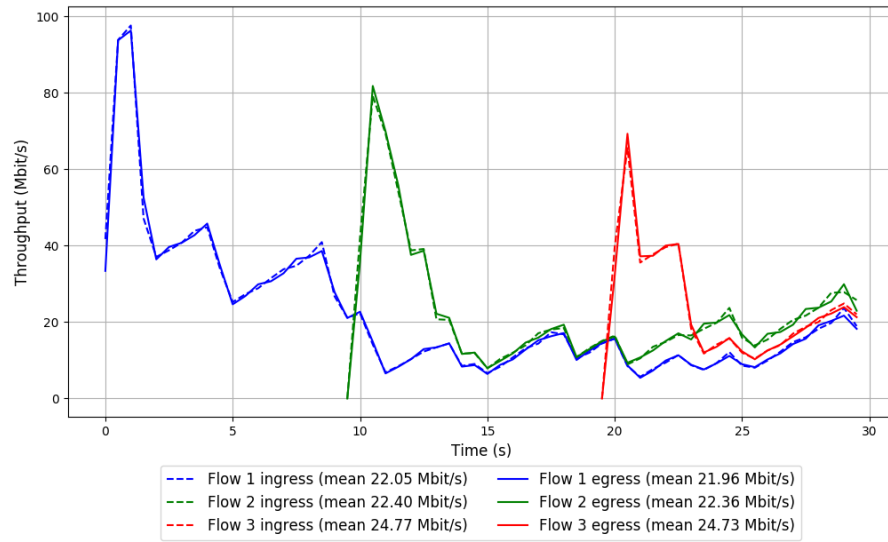
-- Flow 3:

Average throughput: 24.73 Mbit/s

95th percentile per-packet one-way delay: 40.183 ms

Loss rate: 0.70%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-20 08:11:30

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

Local clock offset: 1.346 ms

Remote clock offset: 0.721 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.40 Mbit/s

95th percentile per-packet one-way delay: 46.763 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 36.59 Mbit/s

95th percentile per-packet one-way delay: 39.610 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 28.48 Mbit/s

95th percentile per-packet one-way delay: 42.937 ms

Loss rate: 0.37%

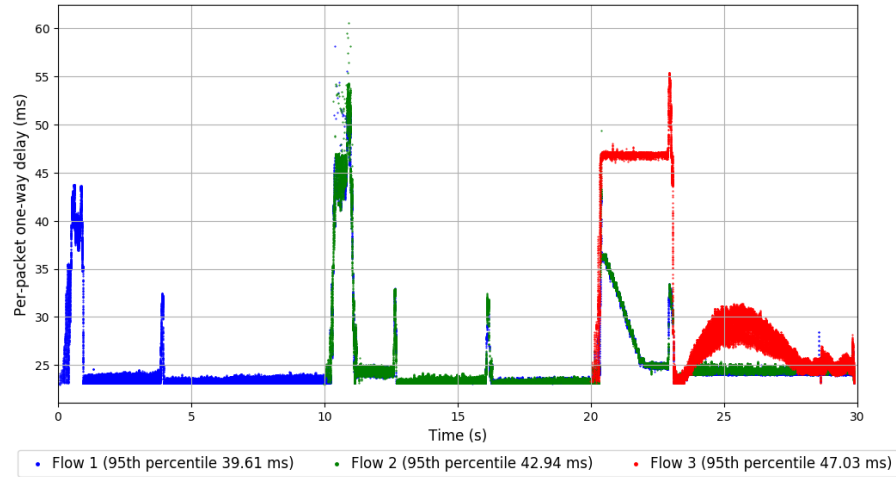
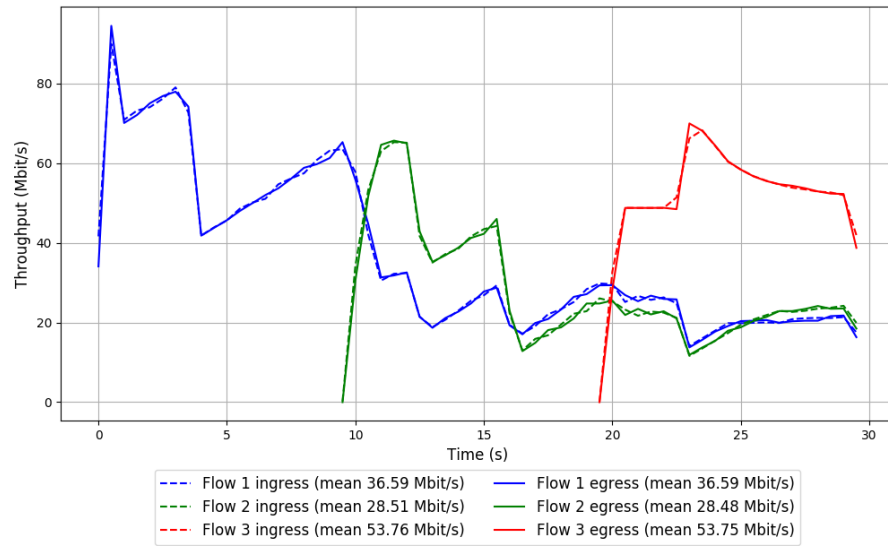
-- Flow 3:

Average throughput: 53.75 Mbit/s

95th percentile per-packet one-way delay: 47.033 ms

Loss rate: 0.57%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-12-20 05:09:44

End at: 2017-12-20 05:10:14

Local clock offset: 0.475 ms

Remote clock offset: 0.118 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.36 Mbit/s

95th percentile per-packet one-way delay: 71.556 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 50.89 Mbit/s

95th percentile per-packet one-way delay: 54.214 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 38.40 Mbit/s

95th percentile per-packet one-way delay: 74.171 ms

Loss rate: 1.10%

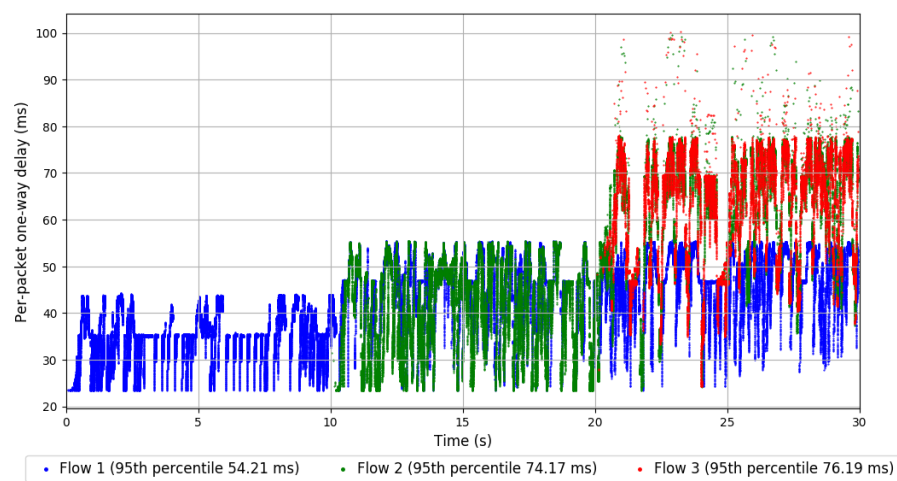
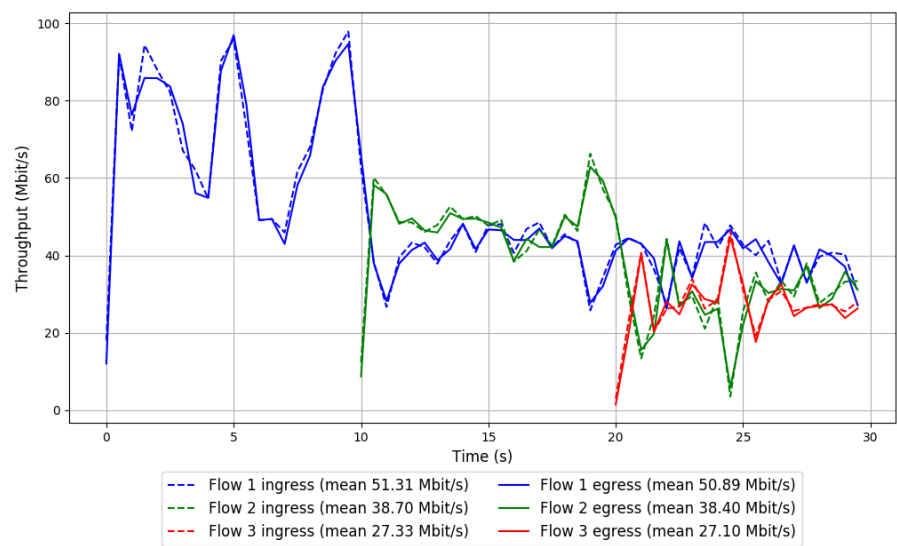
-- Flow 3:

Average throughput: 27.10 Mbit/s

95th percentile per-packet one-way delay: 76.194 ms

Loss rate: 1.79%

Run 1: Report of Verus — Data Link

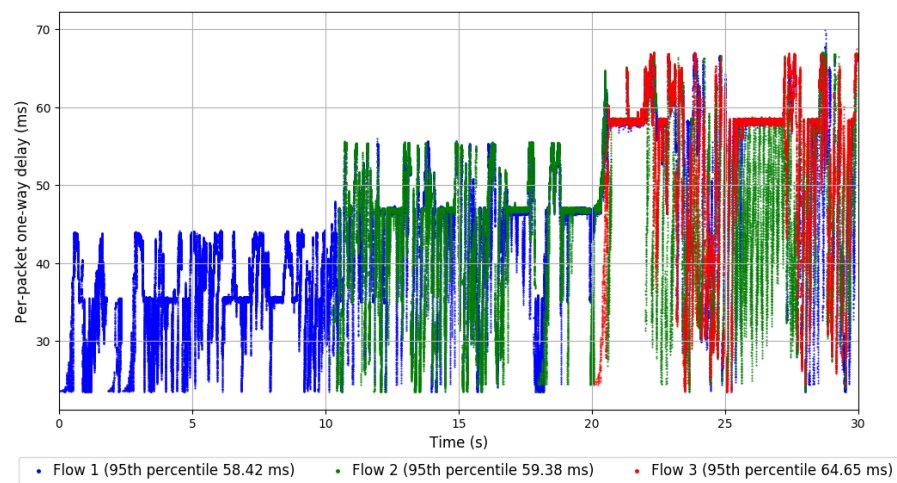
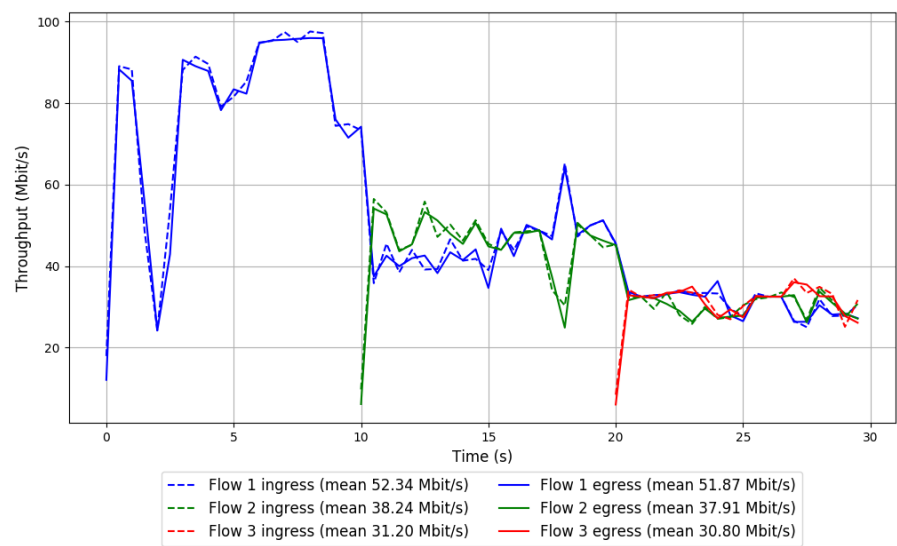


Run 2: Statistics of Verus

Start at: 2017-12-20 05:30:44
End at: 2017-12-20 05:31:14
Local clock offset: 0.59 ms
Remote clock offset: -0.129 ms

Below is generated by plot.py at 2017-12-20 12:02:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 87.24 Mbit/s
95th percentile per-packet one-way delay: 60.731 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 51.87 Mbit/s
95th percentile per-packet one-way delay: 58.416 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 37.91 Mbit/s
95th percentile per-packet one-way delay: 59.377 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 30.80 Mbit/s
95th percentile per-packet one-way delay: 64.646 ms
Loss rate: 1.78%

Run 2: Report of Verus — Data Link

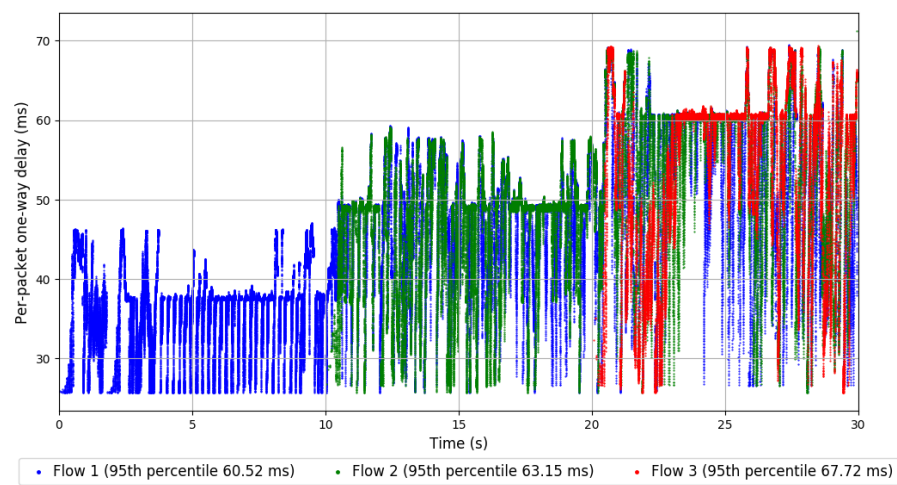
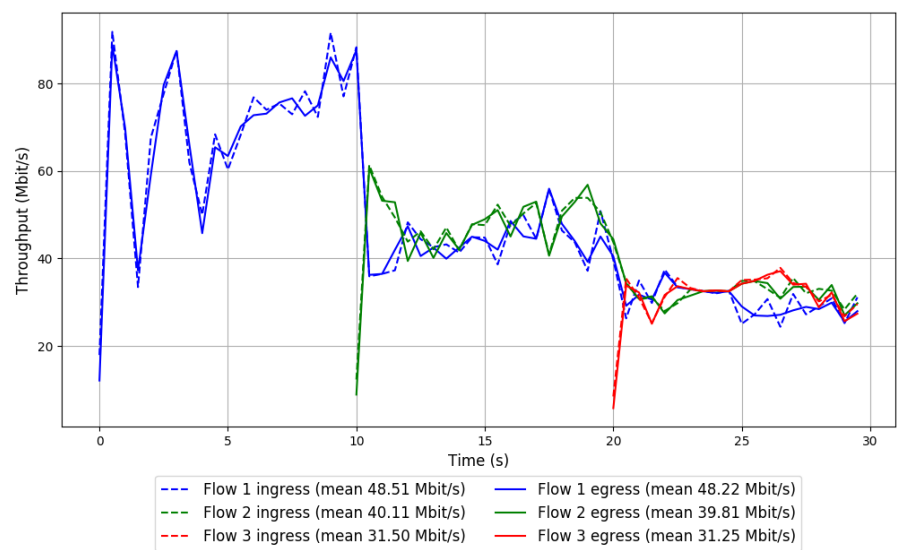


Run 3: Statistics of Verus

Start at: 2017-12-20 05:52:14
End at: 2017-12-20 05:52:44
Local clock offset: 0.84 ms
Remote clock offset: -1.865 ms

Below is generated by plot.py at 2017-12-20 12:02:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 85.01 Mbit/s
95th percentile per-packet one-way delay: 61.345 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 48.22 Mbit/s
95th percentile per-packet one-way delay: 60.517 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 39.81 Mbit/s
95th percentile per-packet one-way delay: 63.150 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 31.25 Mbit/s
95th percentile per-packet one-way delay: 67.721 ms
Loss rate: 1.56%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-20 06:13:07

End at: 2017-12-20 06:13:37

Local clock offset: 0.794 ms

Remote clock offset: 1.286 ms

Below is generated by plot.py at 2017-12-20 12:02:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.88 Mbit/s

95th percentile per-packet one-way delay: 69.105 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 41.53 Mbit/s

95th percentile per-packet one-way delay: 69.093 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 41.69 Mbit/s

95th percentile per-packet one-way delay: 69.259 ms

Loss rate: 0.56%

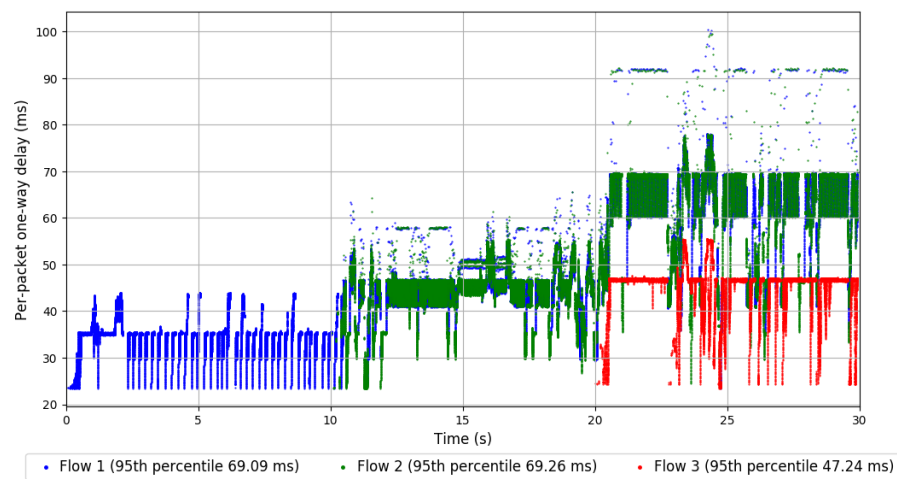
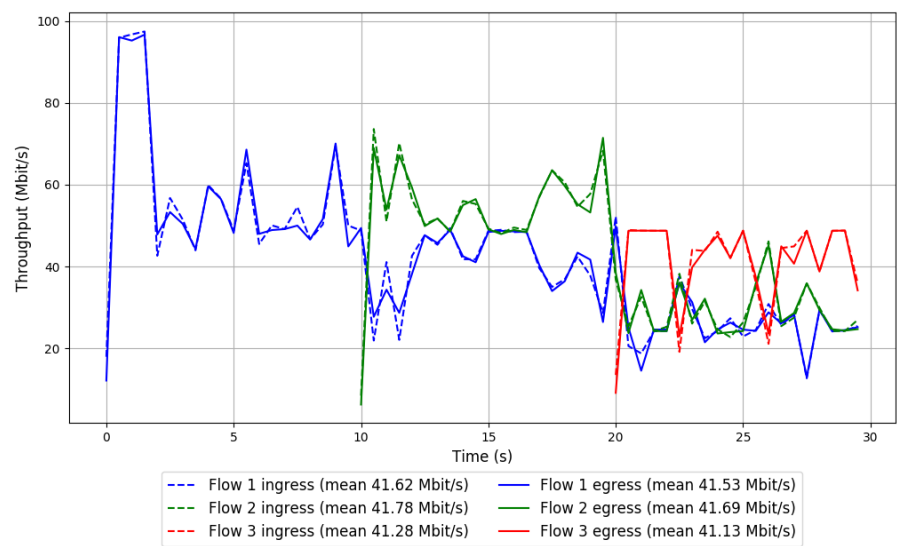
-- Flow 3:

Average throughput: 41.13 Mbit/s

95th percentile per-packet one-way delay: 47.239 ms

Loss rate: 0.90%

Run 4: Report of Verus — Data Link

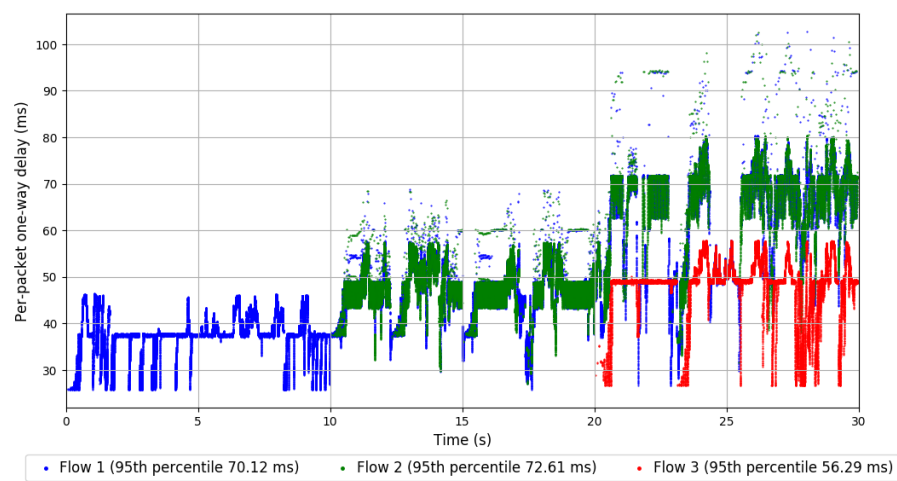
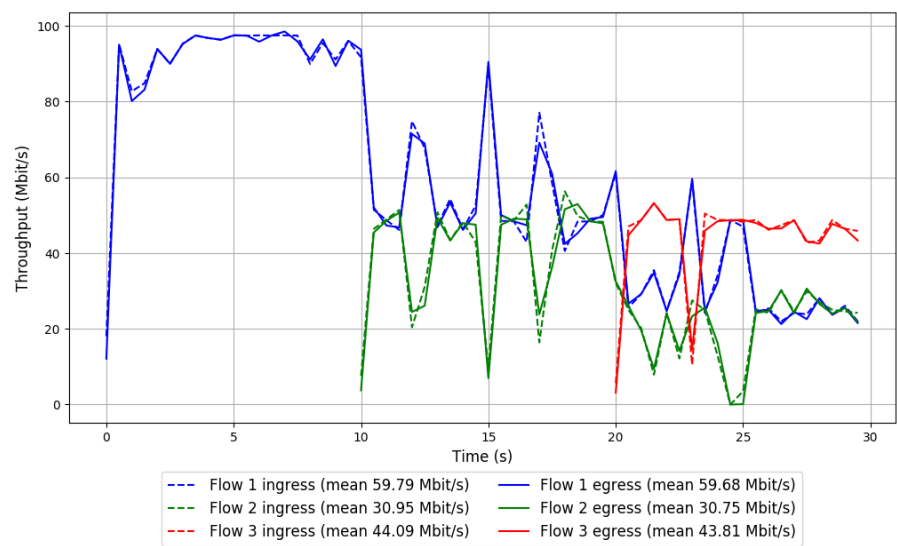


Run 5: Statistics of Verus

Start at: 2017-12-20 06:33:49
End at: 2017-12-20 06:34:19
Local clock offset: 0.853 ms
Remote clock offset: -0.162 ms

Below is generated by plot.py at 2017-12-20 12:02:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 71.246 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 59.68 Mbit/s
95th percentile per-packet one-way delay: 70.116 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 30.75 Mbit/s
95th percentile per-packet one-way delay: 72.610 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 43.81 Mbit/s
95th percentile per-packet one-way delay: 56.291 ms
Loss rate: 1.21%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-20 06:54:48

End at: 2017-12-20 06:55:18

Local clock offset: 0.893 ms

Remote clock offset: 2.059 ms

Below is generated by plot.py at 2017-12-20 12:03:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.06 Mbit/s

95th percentile per-packet one-way delay: 69.646 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 54.55 Mbit/s

95th percentile per-packet one-way delay: 69.478 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 45.30 Mbit/s

95th percentile per-packet one-way delay: 54.350 ms

Loss rate: 0.80%

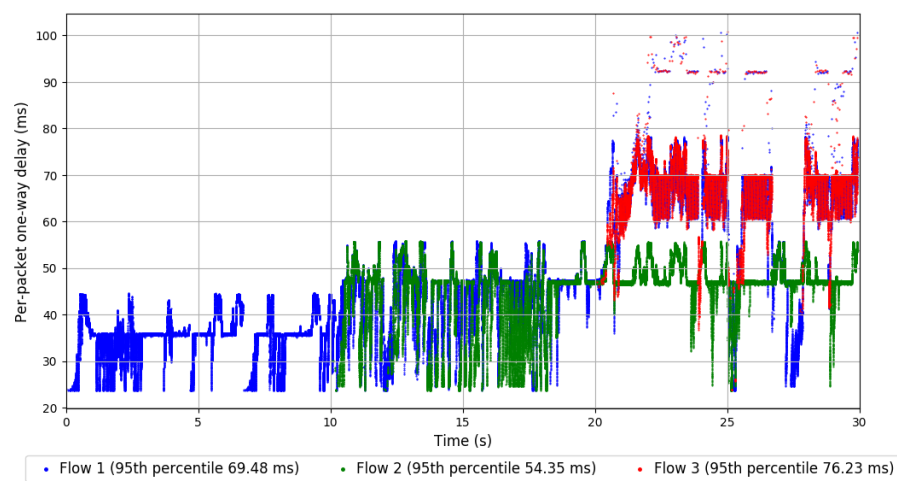
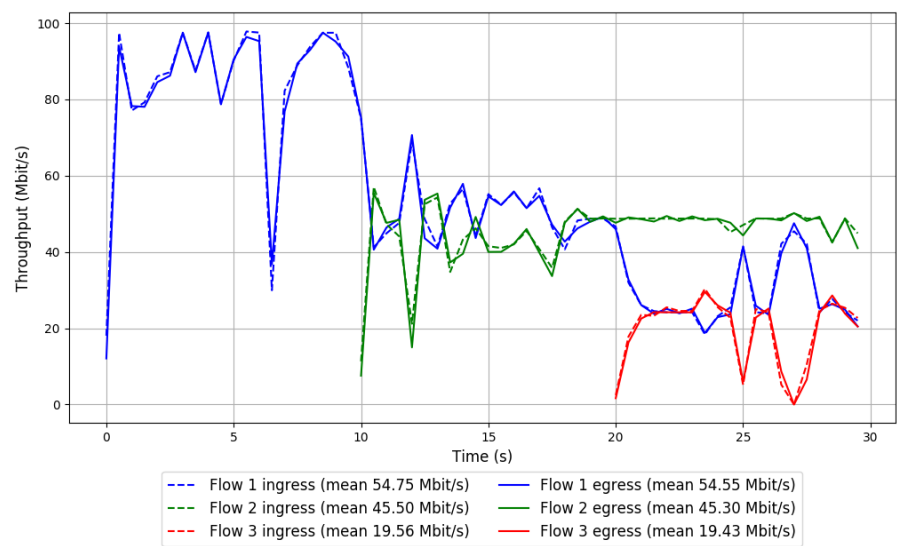
-- Flow 3:

Average throughput: 19.43 Mbit/s

95th percentile per-packet one-way delay: 76.234 ms

Loss rate: 1.70%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-20 07:15:39

End at: 2017-12-20 07:16:09

Local clock offset: 1.136 ms

Remote clock offset: 0.103 ms

Below is generated by plot.py at 2017-12-20 12:03:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.72 Mbit/s

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

Loss rate: 1.29%

-- Flow 1:

Average throughput: 57.16 Mbit/s

95th percentile per-packet one-way delay: 60.939 ms

Loss rate: 1.21%

-- Flow 2:

Average throughput: 36.25 Mbit/s

95th percentile per-packet one-way delay: 64.203 ms

Loss rate: 1.30%

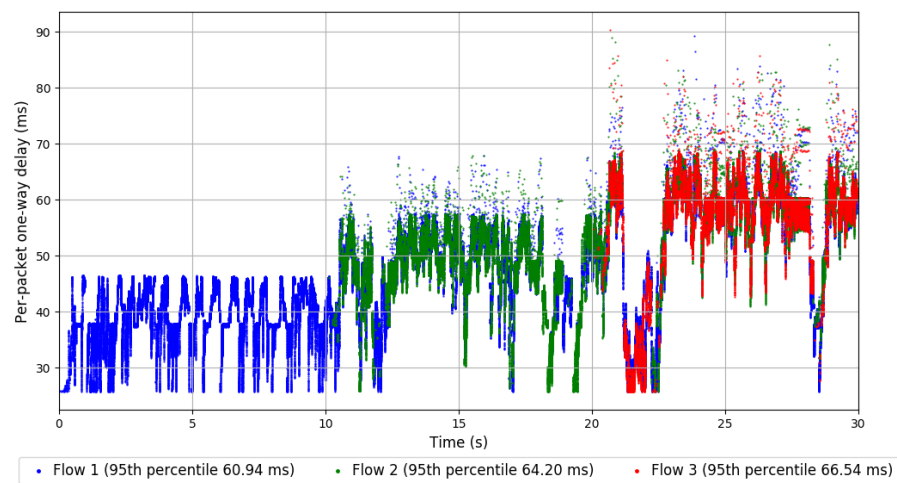
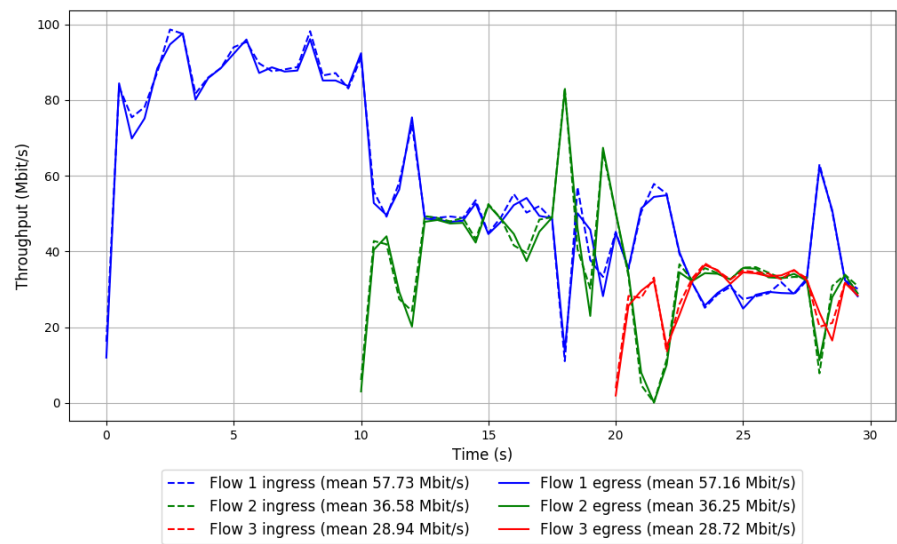
-- Flow 3:

Average throughput: 28.72 Mbit/s

95th percentile per-packet one-way delay: 66.538 ms

Loss rate: 1.72%

Run 7: Report of Verus — Data Link

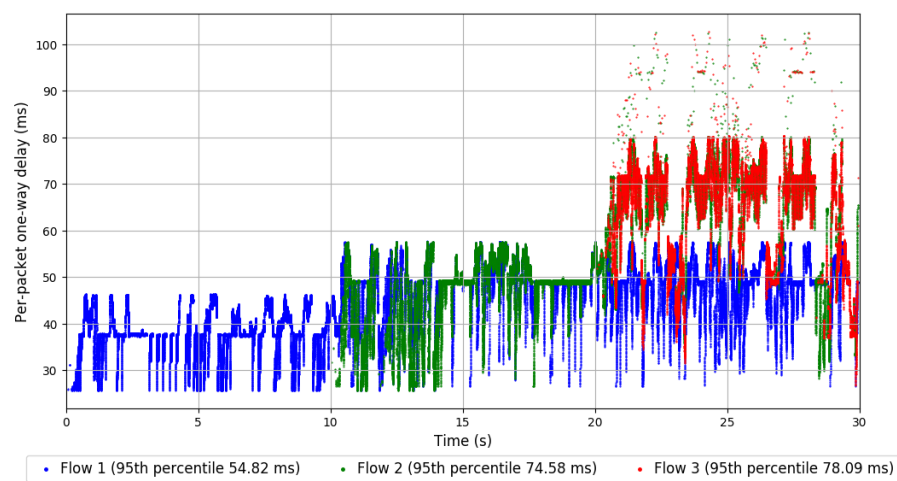
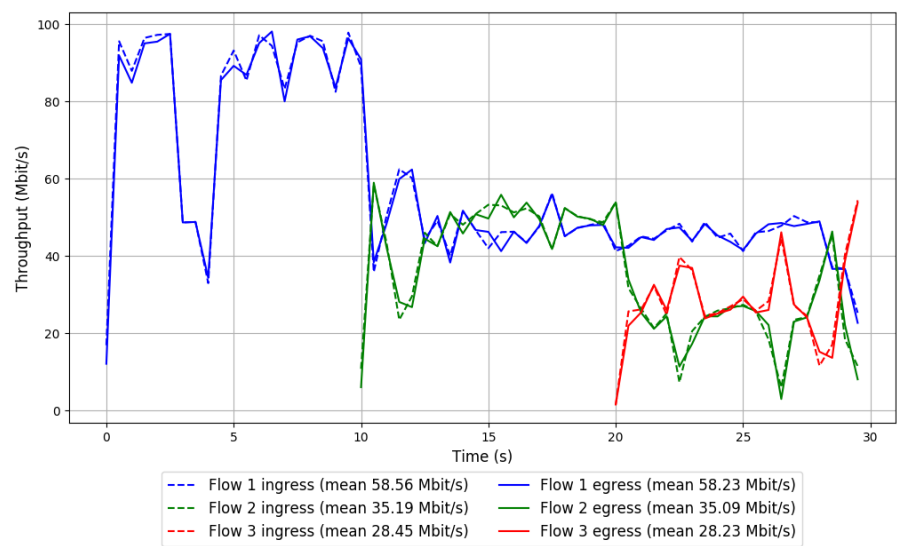


Run 8: Statistics of Verus

Start at: 2017-12-20 07:36:44
End at: 2017-12-20 07:37:14
Local clock offset: 1.469 ms
Remote clock offset: -0.159 ms

Below is generated by plot.py at 2017-12-20 12:03:24
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.87 Mbit/s
95th percentile per-packet one-way delay: 71.618 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 58.23 Mbit/s
95th percentile per-packet one-way delay: 54.818 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 35.09 Mbit/s
95th percentile per-packet one-way delay: 74.585 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 28.23 Mbit/s
95th percentile per-packet one-way delay: 78.090 ms
Loss rate: 1.59%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-12-20 07:57:34

End at: 2017-12-20 07:58:04

Local clock offset: 1.321 ms

Remote clock offset: 1.65 ms

Below is generated by plot.py at 2017-12-20 12:03:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.67 Mbit/s

95th percentile per-packet one-way delay: 68.879 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 55.82 Mbit/s

95th percentile per-packet one-way delay: 68.365 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 43.89 Mbit/s

95th percentile per-packet one-way delay: 53.551 ms

Loss rate: 0.67%

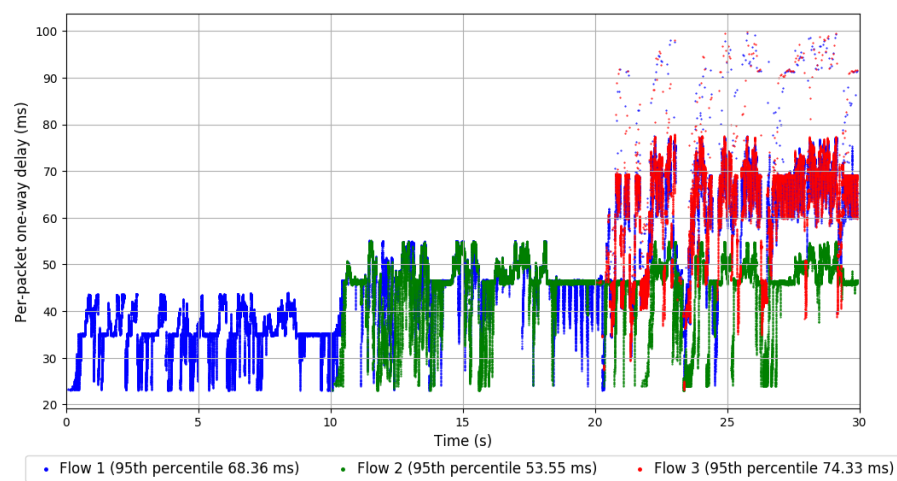
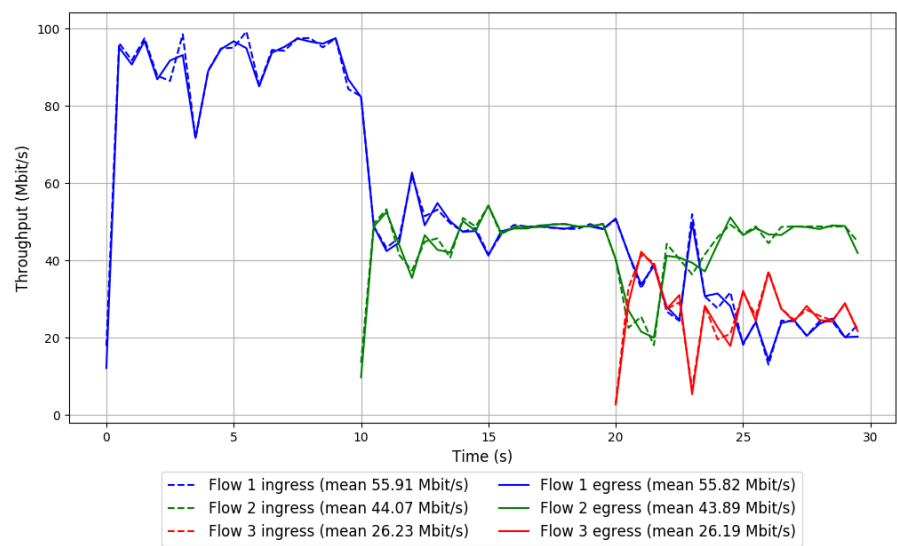
-- Flow 3:

Average throughput: 26.19 Mbit/s

95th percentile per-packet one-way delay: 74.330 ms

Loss rate: 1.14%

Run 9: Report of Verus — Data Link

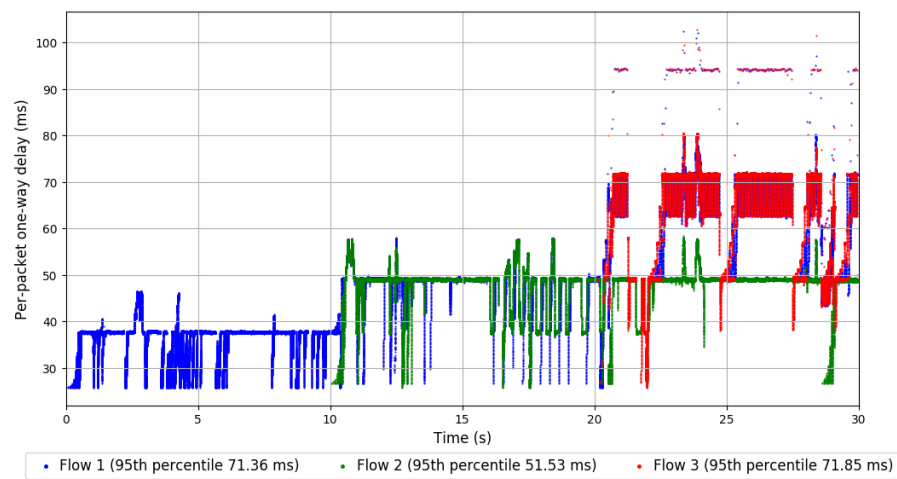
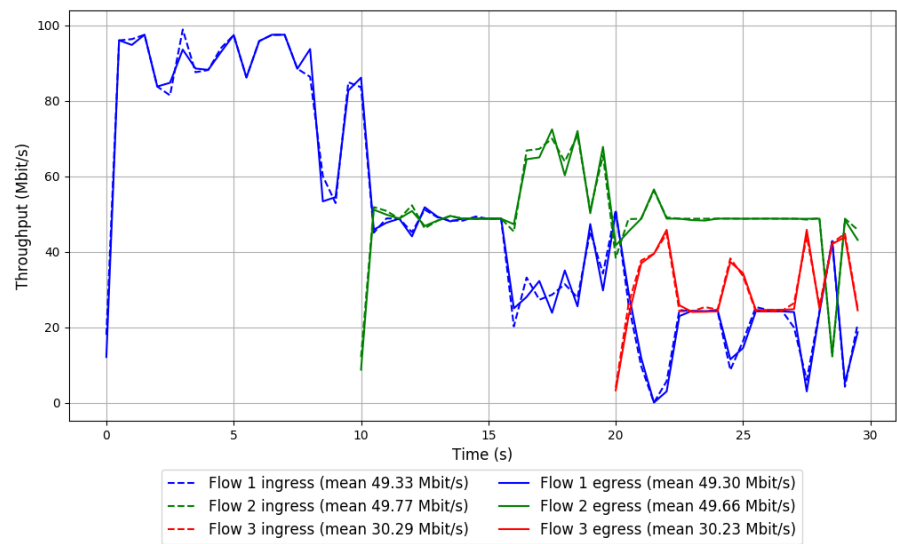


Run 10: Statistics of Verus

Start at: 2017-12-20 08:18:15
End at: 2017-12-20 08:18:45
Local clock offset: 1.365 ms
Remote clock offset: -2.255 ms

Below is generated by plot.py at 2017-12-20 12:03:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.30 Mbit/s
95th percentile per-packet one-way delay: 71.477 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 49.30 Mbit/s
95th percentile per-packet one-way delay: 71.356 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 49.66 Mbit/s
95th percentile per-packet one-way delay: 51.532 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 30.23 Mbit/s
95th percentile per-packet one-way delay: 71.853 ms
Loss rate: 0.92%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-12-20 04:54:48

End at: 2017-12-20 04:55:18

Local clock offset: 0.305 ms

Remote clock offset: 0.267 ms

Below is generated by plot.py at 2017-12-20 12:04:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.36 Mbit/s

95th percentile per-packet one-way delay: 29.951 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 63.42 Mbit/s

95th percentile per-packet one-way delay: 28.891 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 34.42 Mbit/s

95th percentile per-packet one-way delay: 30.249 ms

Loss rate: 0.27%

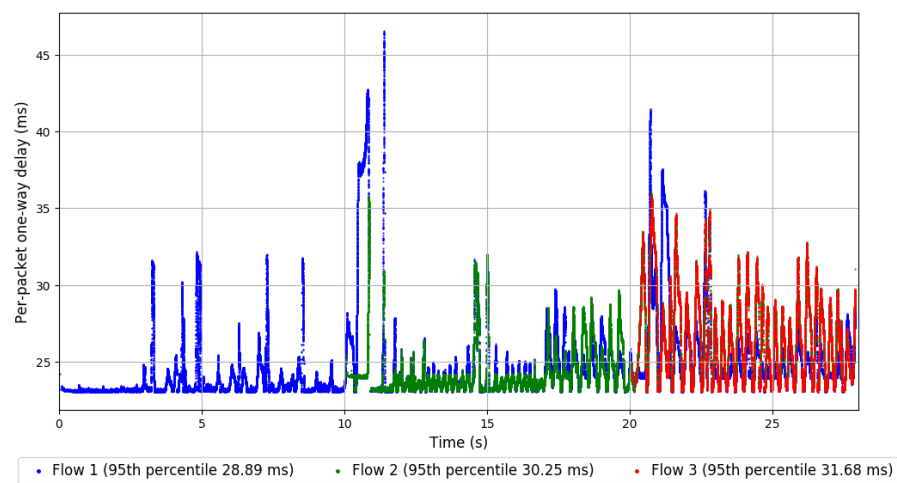
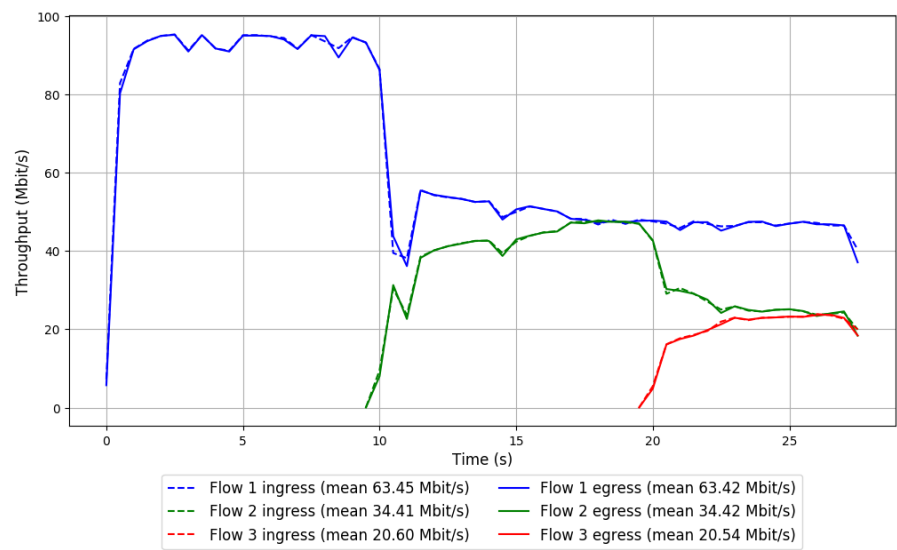
-- Flow 3:

Average throughput: 20.54 Mbit/s

95th percentile per-packet one-way delay: 31.676 ms

Loss rate: 0.92%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-20 05:15:23

End at: 2017-12-20 05:15:53

Local clock offset: 0.49 ms

Remote clock offset: 0.09 ms

Below is generated by plot.py at 2017-12-20 12:04:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.60 Mbit/s

95th percentile per-packet one-way delay: 37.550 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 46.59 Mbit/s

95th percentile per-packet one-way delay: 34.178 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 33.88 Mbit/s

95th percentile per-packet one-way delay: 43.343 ms

Loss rate: 0.65%

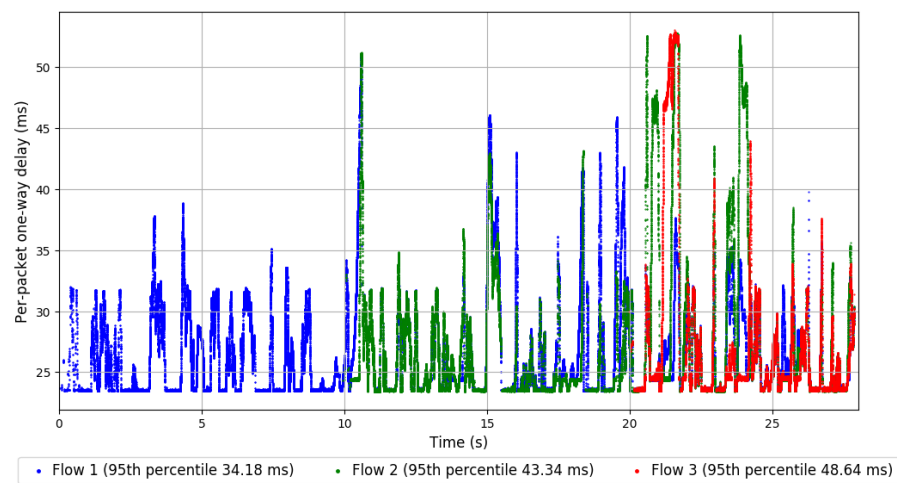
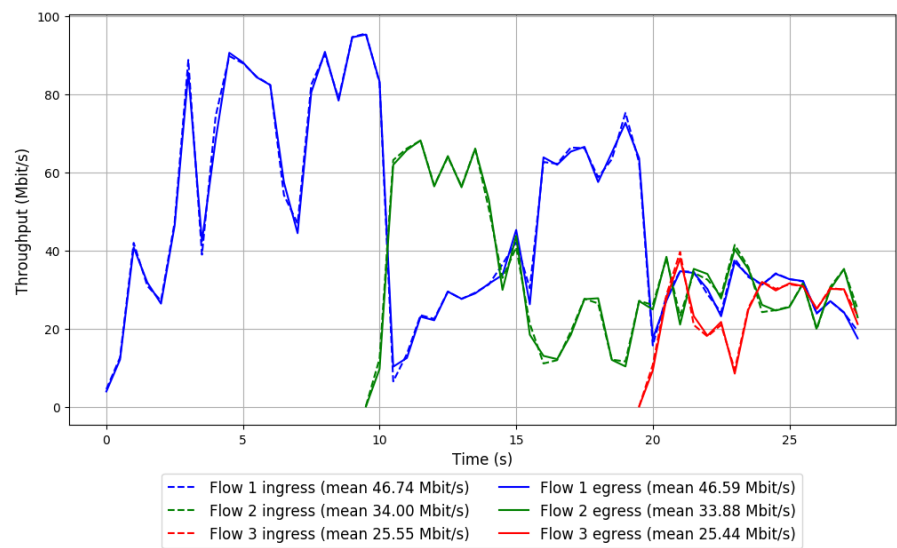
-- Flow 3:

Average throughput: 25.44 Mbit/s

95th percentile per-packet one-way delay: 48.640 ms

Loss rate: 1.14%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-12-20 05:36:43

End at: 2017-12-20 05:37:13

Local clock offset: 0.641 ms

Remote clock offset: -0.24 ms

Below is generated by plot.py at 2017-12-20 12:04:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 54.22 Mbit/s

95th percentile per-packet one-way delay: 33.556 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 33.83 Mbit/s

95th percentile per-packet one-way delay: 32.264 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 25.78 Mbit/s

95th percentile per-packet one-way delay: 35.502 ms

Loss rate: 0.89%

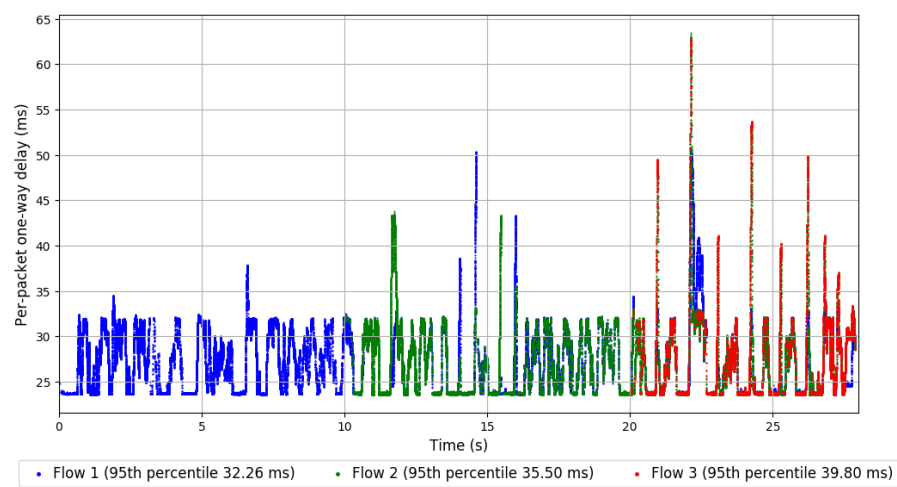
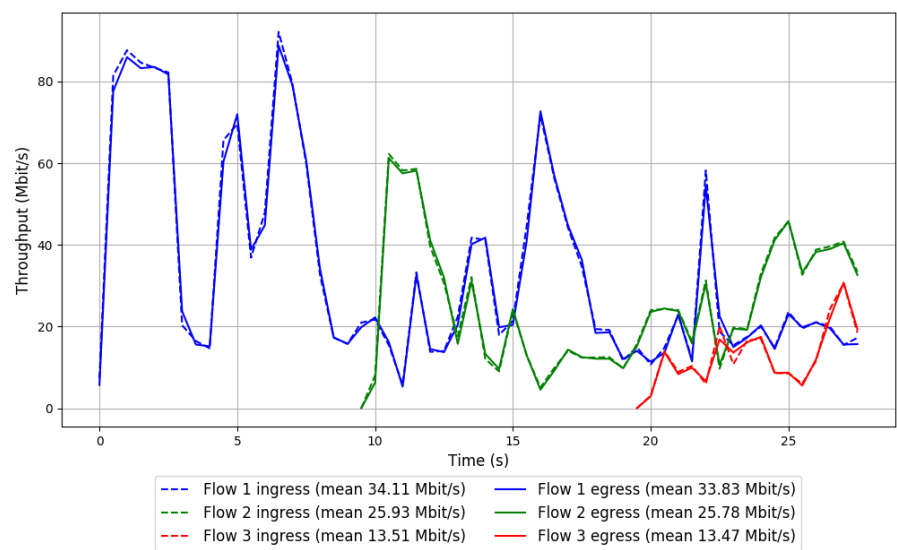
-- Flow 3:

Average throughput: 13.47 Mbit/s

95th percentile per-packet one-way delay: 39.798 ms

Loss rate: 1.01%

Run 3: Report of Copa — Data Link

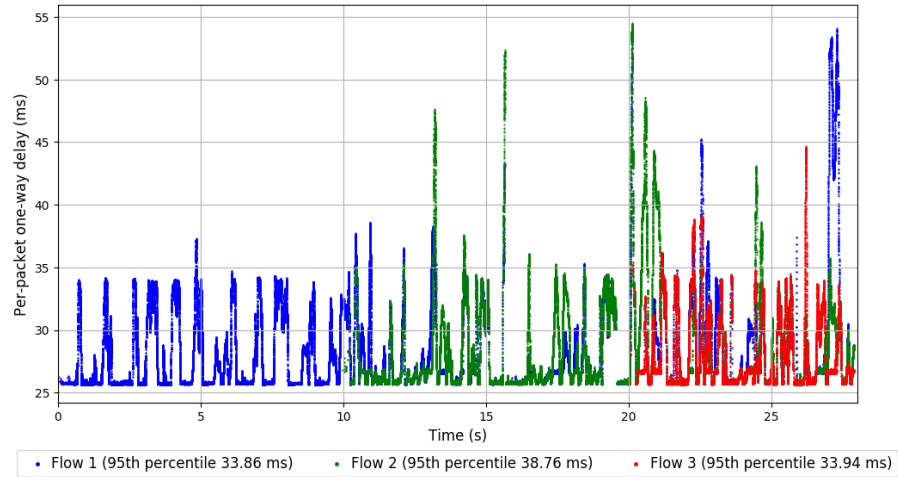
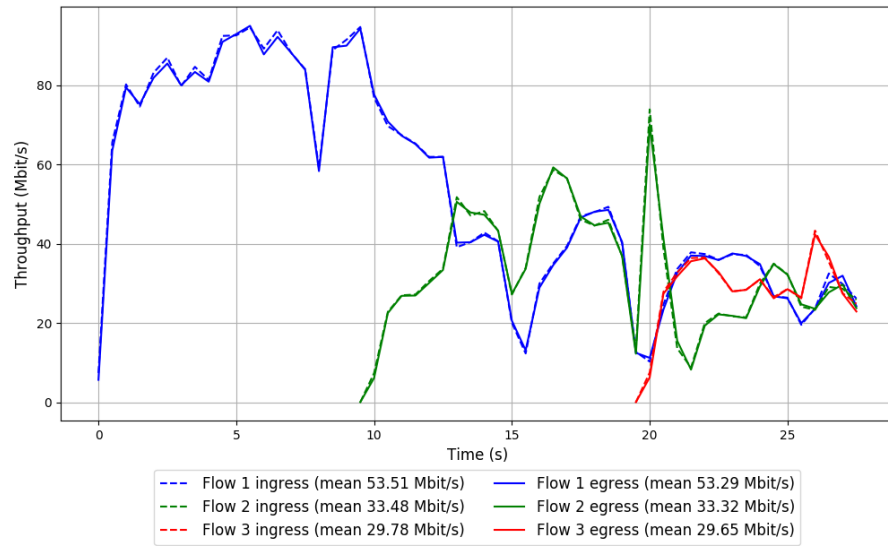


Run 4: Statistics of Copa

Start at: 2017-12-20 05:57:58
End at: 2017-12-20 05:58:28
Local clock offset: 0.869 ms
Remote clock offset: -1.596 ms

Below is generated by plot.py at 2017-12-20 12:05:16
Datalink statistics
-- Total of 3 flows:
Average throughput: 83.12 Mbit/s
95th percentile per-packet one-way delay: 34.116 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 53.29 Mbit/s
95th percentile per-packet one-way delay: 33.858 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 33.32 Mbit/s
95th percentile per-packet one-way delay: 38.760 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 29.65 Mbit/s
95th percentile per-packet one-way delay: 33.943 ms
Loss rate: 1.11%

Run 4: Report of Copa — Data Link

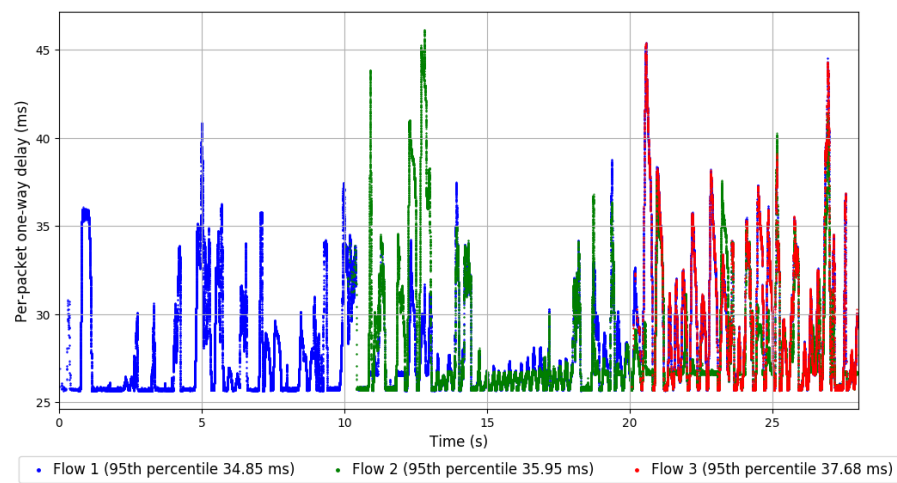
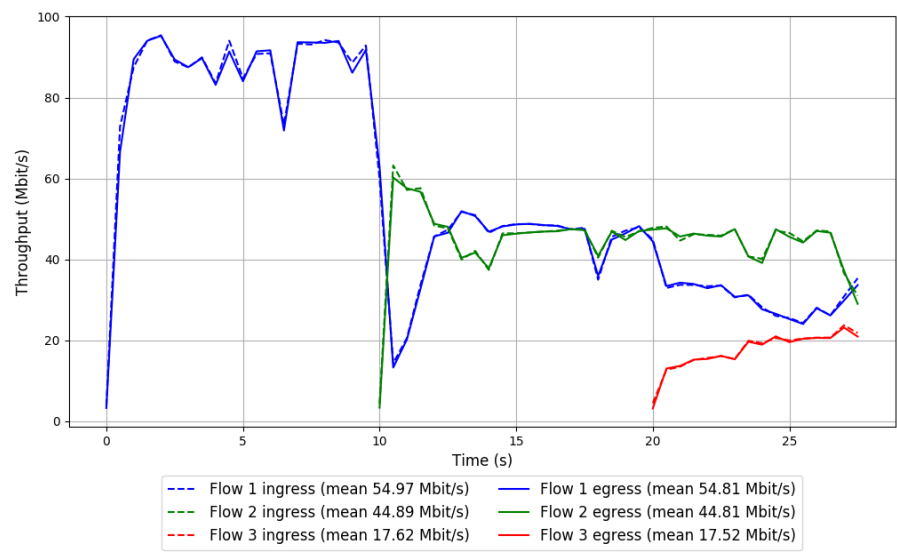


Run 5: Statistics of Copa

Start at: 2017-12-20 06:18:51
End at: 2017-12-20 06:19:21
Local clock offset: 0.813 ms
Remote clock offset: -0.723 ms

Below is generated by plot.py at 2017-12-20 12:05:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 88.49 Mbit/s
95th percentile per-packet one-way delay: 35.458 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 54.81 Mbit/s
95th percentile per-packet one-way delay: 34.851 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 44.81 Mbit/s
95th percentile per-packet one-way delay: 35.953 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 17.52 Mbit/s
95th percentile per-packet one-way delay: 37.676 ms
Loss rate: 1.18%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-12-20 06:39:35

End at: 2017-12-20 06:40:05

Local clock offset: 0.7 ms

Remote clock offset: 2.487 ms

Below is generated by plot.py at 2017-12-20 12:05:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.73 Mbit/s

95th percentile per-packet one-way delay: 33.292 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 58.15 Mbit/s

95th percentile per-packet one-way delay: 31.417 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 30.79 Mbit/s

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

Loss rate: 0.47%

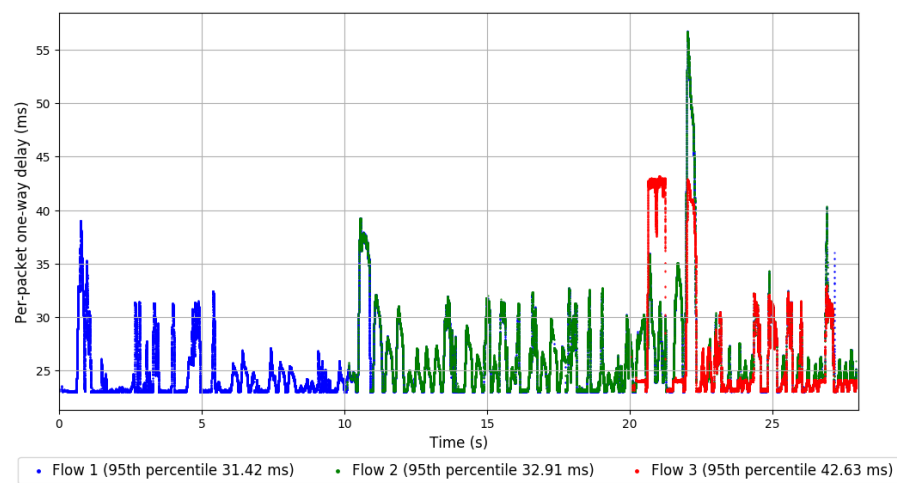
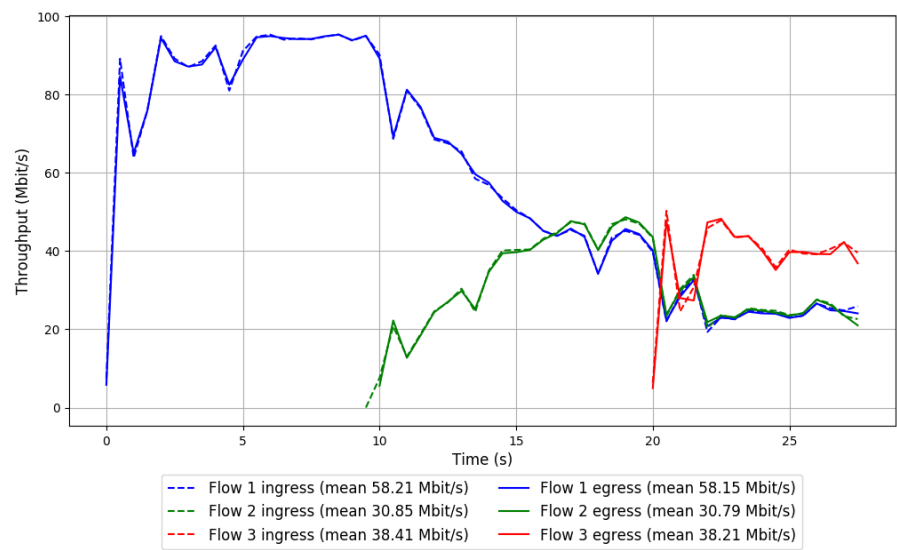
-- Flow 3:

Average throughput: 38.21 Mbit/s

95th percentile per-packet one-way delay: 42.632 ms

Loss rate: 1.21%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-20 07:00:22

End at: 2017-12-20 07:00:52

Local clock offset: 0.98 ms

Remote clock offset: 2.608 ms

Below is generated by plot.py at 2017-12-20 12:05:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.73 Mbit/s

95th percentile per-packet one-way delay: 33.056 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 48.87 Mbit/s

95th percentile per-packet one-way delay: 32.016 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 27.00 Mbit/s

95th percentile per-packet one-way delay: 37.543 ms

Loss rate: 0.68%

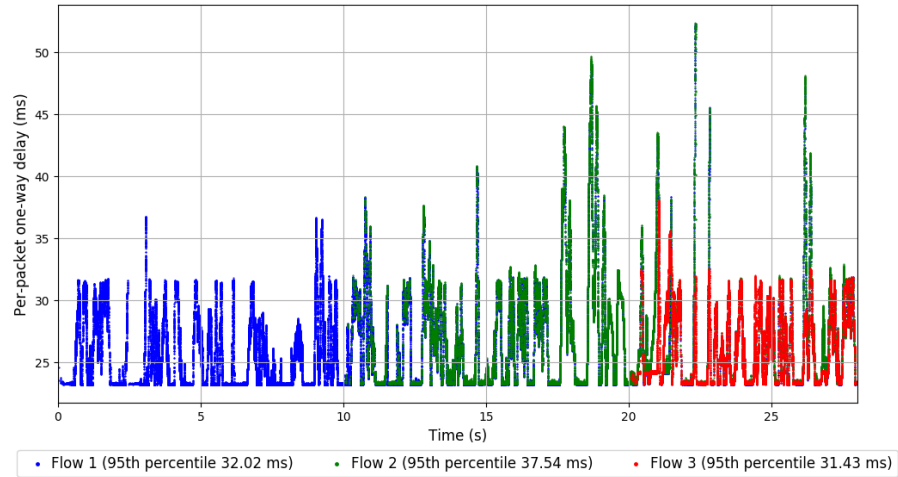
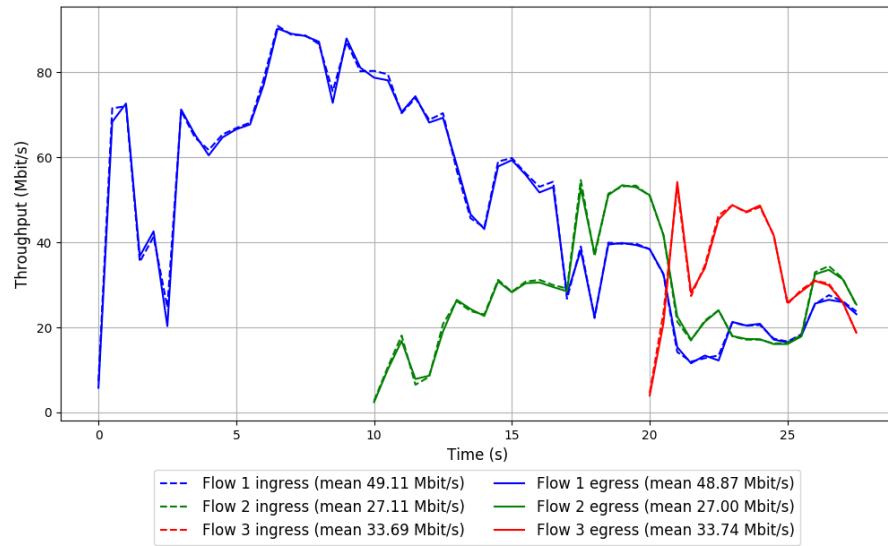
-- Flow 3:

Average throughput: 33.74 Mbit/s

95th percentile per-packet one-way delay: 31.435 ms

Loss rate: 0.52%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-12-20 07:21:36

End at: 2017-12-20 07:22:06

Local clock offset: 1.214 ms

Remote clock offset: 2.115 ms

Below is generated by plot.py at 2017-12-20 12:05:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.35 Mbit/s

95th percentile per-packet one-way delay: 38.740 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 50.88 Mbit/s

95th percentile per-packet one-way delay: 34.134 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 30.05 Mbit/s

95th percentile per-packet one-way delay: 41.589 ms

Loss rate: 0.62%

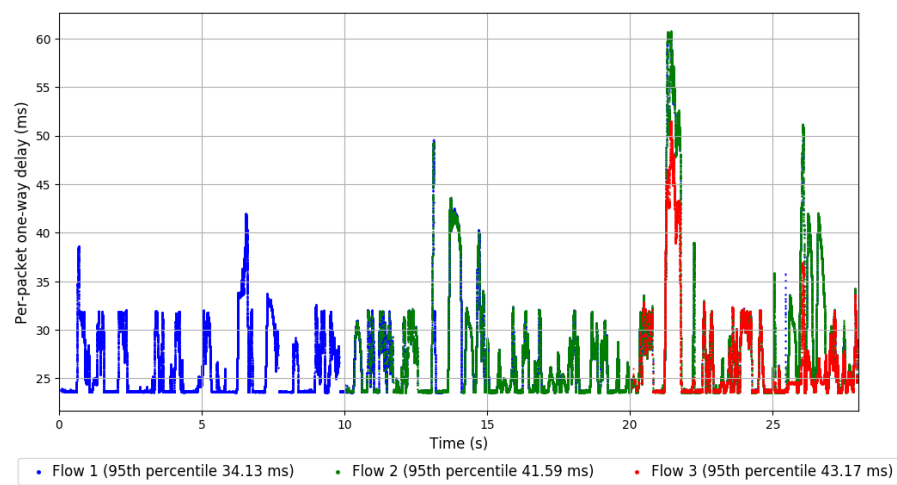
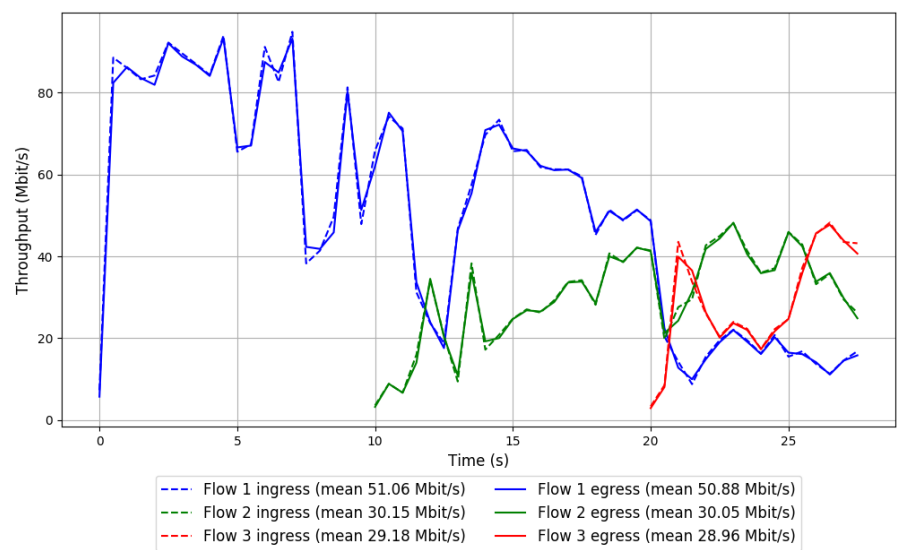
-- Flow 3:

Average throughput: 28.96 Mbit/s

95th percentile per-packet one-way delay: 43.172 ms

Loss rate: 1.42%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-12-20 07:42:33

End at: 2017-12-20 07:43:03

Local clock offset: 1.557 ms

Remote clock offset: 2.331 ms

Below is generated by plot.py at 2017-12-20 12:06:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.25 Mbit/s

95th percentile per-packet one-way delay: 31.340 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 57.25 Mbit/s

95th percentile per-packet one-way delay: 31.104 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 39.46 Mbit/s

95th percentile per-packet one-way delay: 30.163 ms

Loss rate: 0.26%

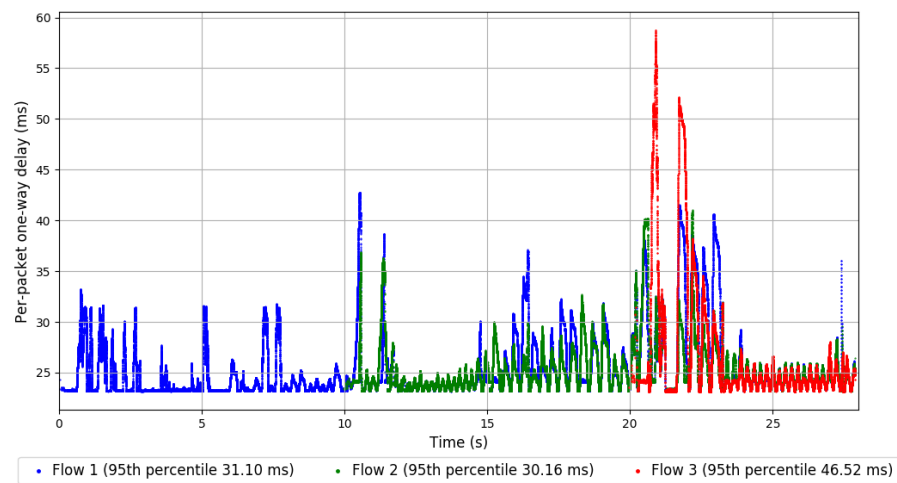
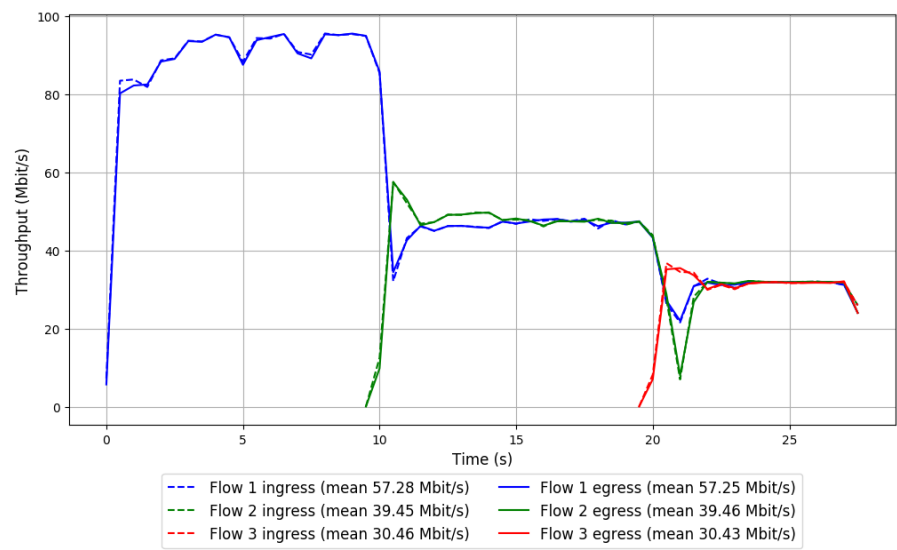
-- Flow 3:

Average throughput: 30.43 Mbit/s

95th percentile per-packet one-way delay: 46.519 ms

Loss rate: 0.77%

Run 9: Report of Copa — Data Link

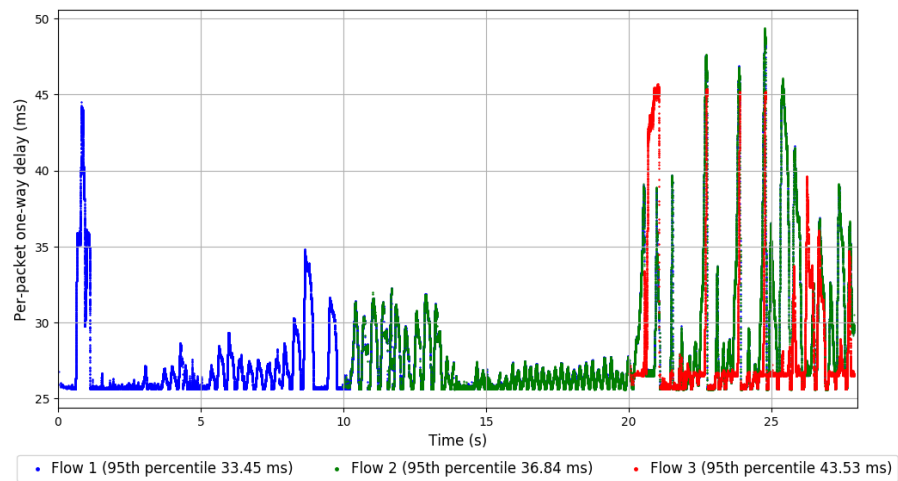
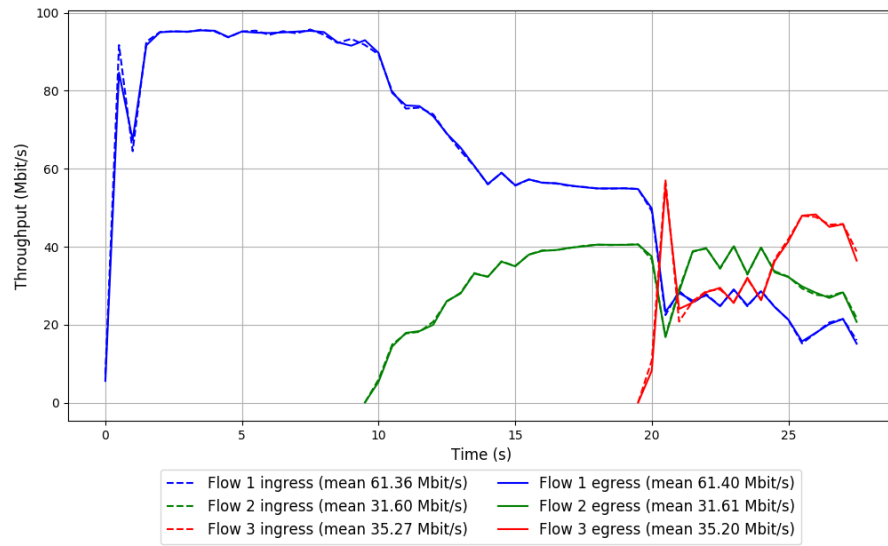


Run 10: Statistics of Copa

Start at: 2017-12-20 08:03:16
End at: 2017-12-20 08:03:46
Local clock offset: 1.352 ms
Remote clock offset: -1.212 ms

Below is generated by plot.py at 2017-12-20 12:06:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.71 Mbit/s
95th percentile per-packet one-way delay: 35.404 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 61.40 Mbit/s
95th percentile per-packet one-way delay: 33.452 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 31.61 Mbit/s
95th percentile per-packet one-way delay: 36.842 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 35.20 Mbit/s
95th percentile per-packet one-way delay: 43.535 ms
Loss rate: 0.86%

Run 10: Report of Copa — Data Link



Run 1: Statistics of FillP

Start at: 2017-12-20 05:07:04

End at: 2017-12-20 05:07:34

Local clock offset: 0.523 ms

Remote clock offset: 0.511 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.78 Mbit/s

95th percentile per-packet one-way delay: 65.006 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 64.14 Mbit/s

95th percentile per-packet one-way delay: 49.518 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 35.75 Mbit/s

95th percentile per-packet one-way delay: 67.878 ms

Loss rate: 1.09%

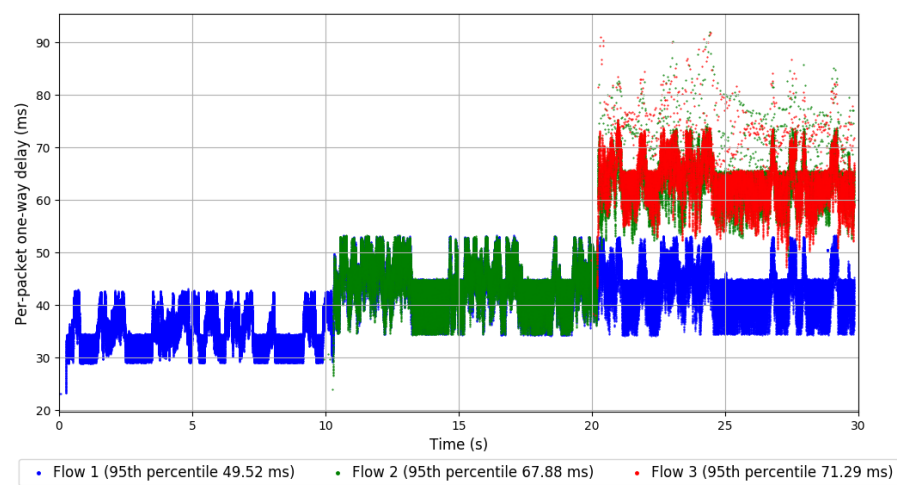
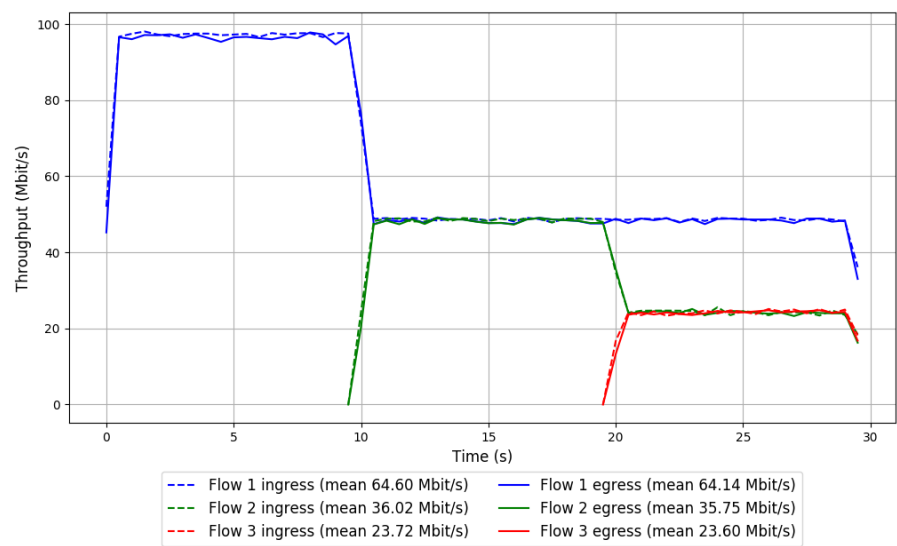
-- Flow 3:

Average throughput: 23.60 Mbit/s

95th percentile per-packet one-way delay: 71.289 ms

Loss rate: 1.43%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2017-12-20 05:28:02

End at: 2017-12-20 05:28:32

Local clock offset: 0.65 ms

Remote clock offset: 0.356 ms

Below is generated by plot.py at 2017-12-20 12:06:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.55 Mbit/s

95th percentile per-packet one-way delay: 59.995 ms

Loss rate: 4.44%

-- Flow 1:

Average throughput: 58.64 Mbit/s

95th percentile per-packet one-way delay: 57.667 ms

Loss rate: 1.12%

-- Flow 2:

Average throughput: 39.89 Mbit/s

95th percentile per-packet one-way delay: 60.425 ms

Loss rate: 7.21%

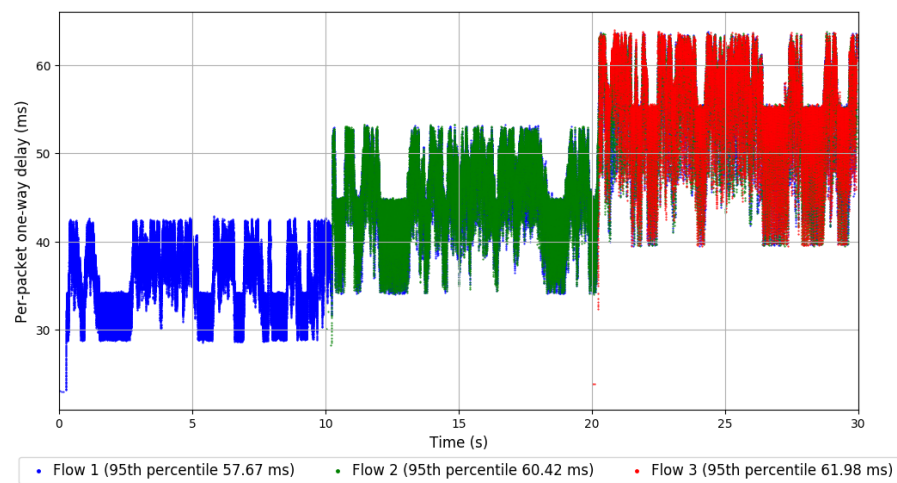
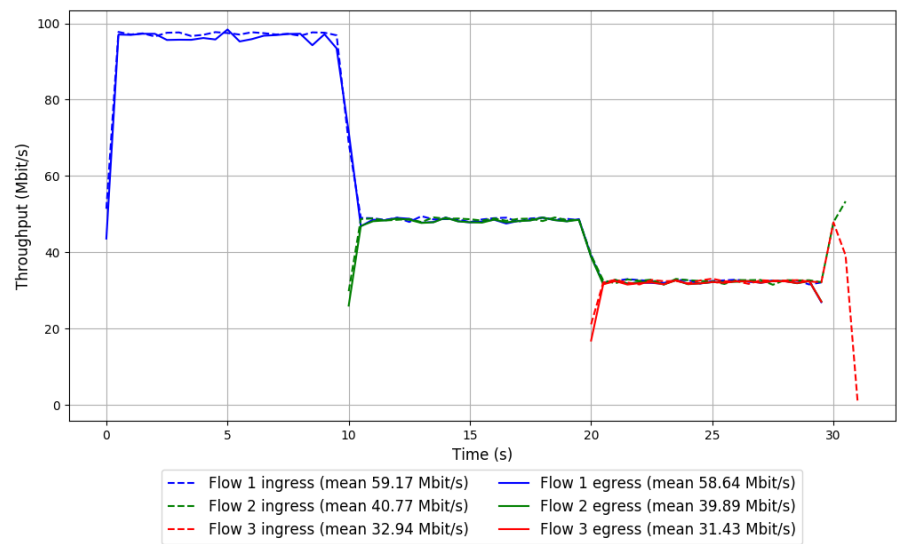
-- Flow 3:

Average throughput: 31.43 Mbit/s

95th percentile per-packet one-way delay: 61.982 ms

Loss rate: 14.14%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2017-12-20 05:49:34

End at: 2017-12-20 05:50:04

Local clock offset: 0.734 ms

Remote clock offset: 0.126 ms

Below is generated by plot.py at 2017-12-20 12:06:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.98 Mbit/s

95th percentile per-packet one-way delay: 52.568 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 62.18 Mbit/s

95th percentile per-packet one-way delay: 51.563 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 44.80 Mbit/s

95th percentile per-packet one-way delay: 61.726 ms

Loss rate: 1.05%

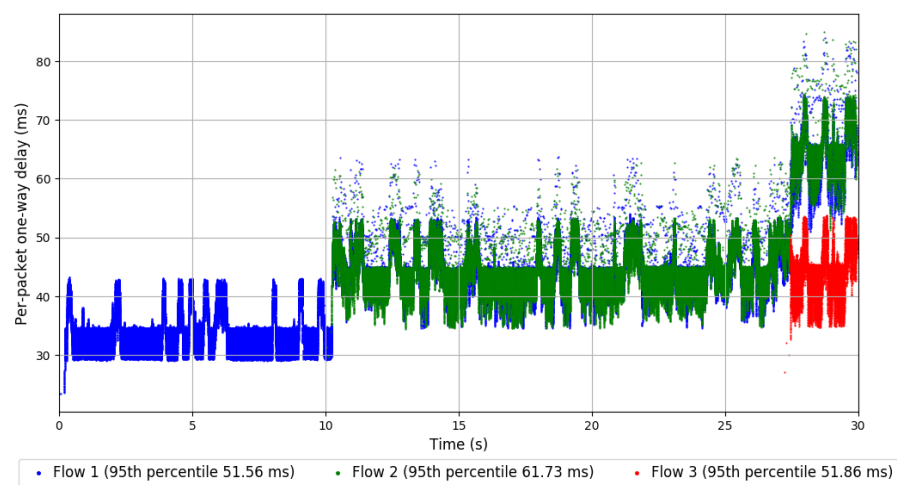
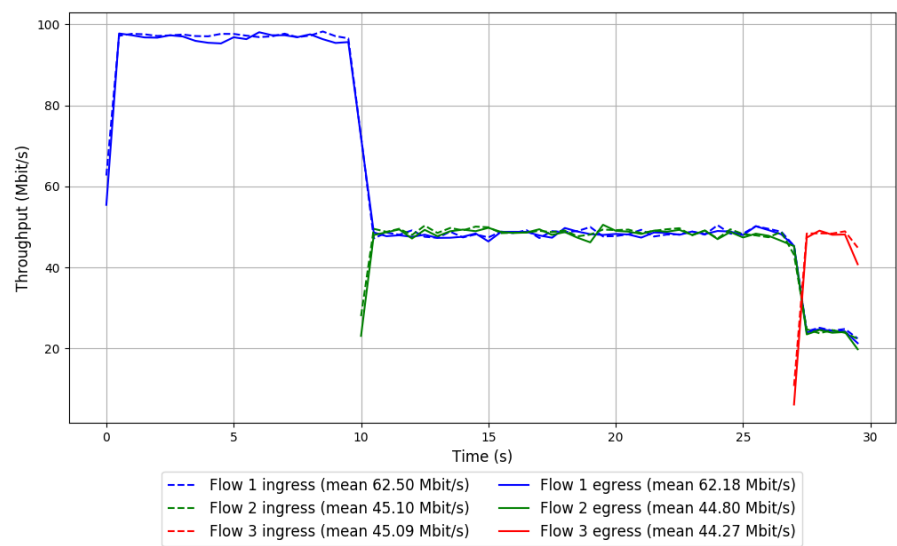
-- Flow 3:

Average throughput: 44.27 Mbit/s

95th percentile per-packet one-way delay: 51.858 ms

Loss rate: 4.05%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

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

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

Local clock offset: 0.893 ms

Remote clock offset: 1.533 ms

Below is generated by plot.py at 2017-12-20 12:07:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.42 Mbit/s

95th percentile per-packet one-way delay: 54.918 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 59.31 Mbit/s

95th percentile per-packet one-way delay: 53.950 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 40.29 Mbit/s

95th percentile per-packet one-way delay: 55.921 ms

Loss rate: 0.60%

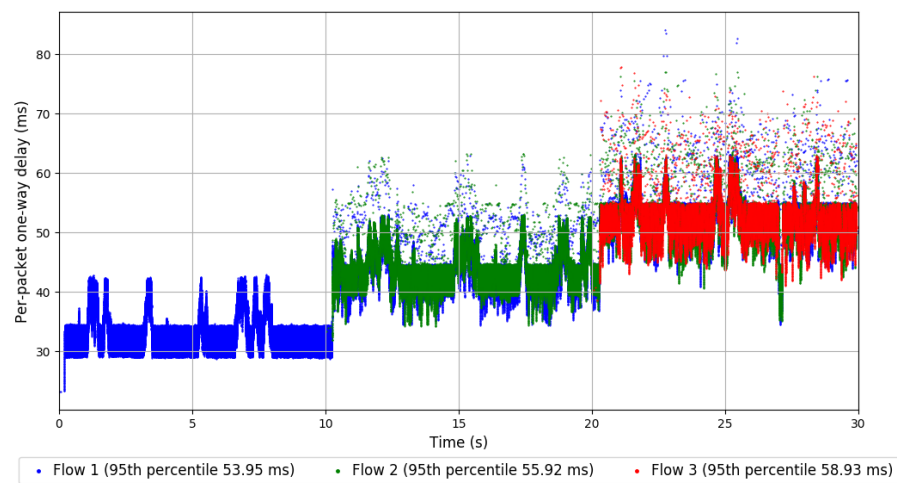
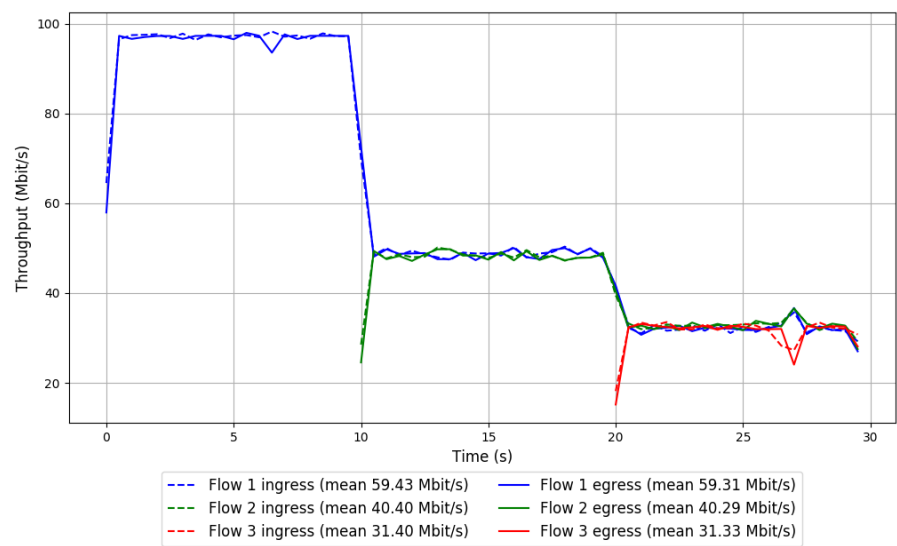
-- Flow 3:

Average throughput: 31.33 Mbit/s

95th percentile per-packet one-way delay: 58.932 ms

Loss rate: 1.14%

Run 4: Report of FillP — Data Link

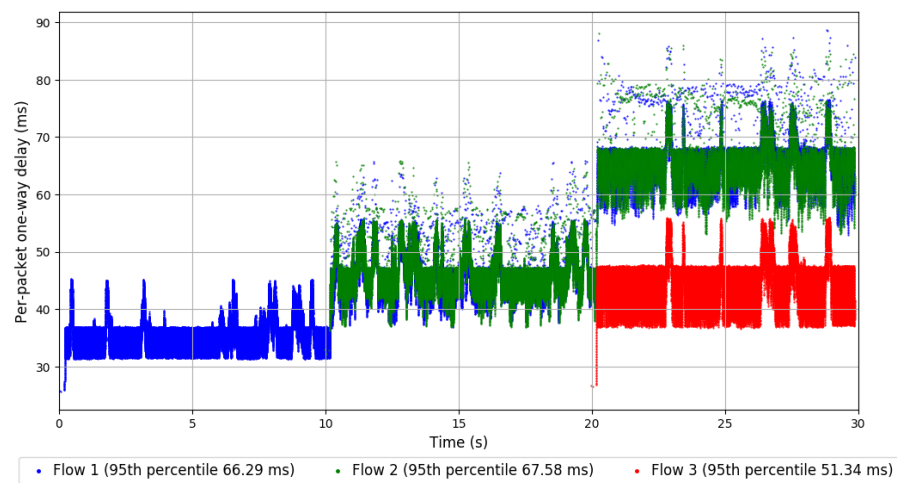
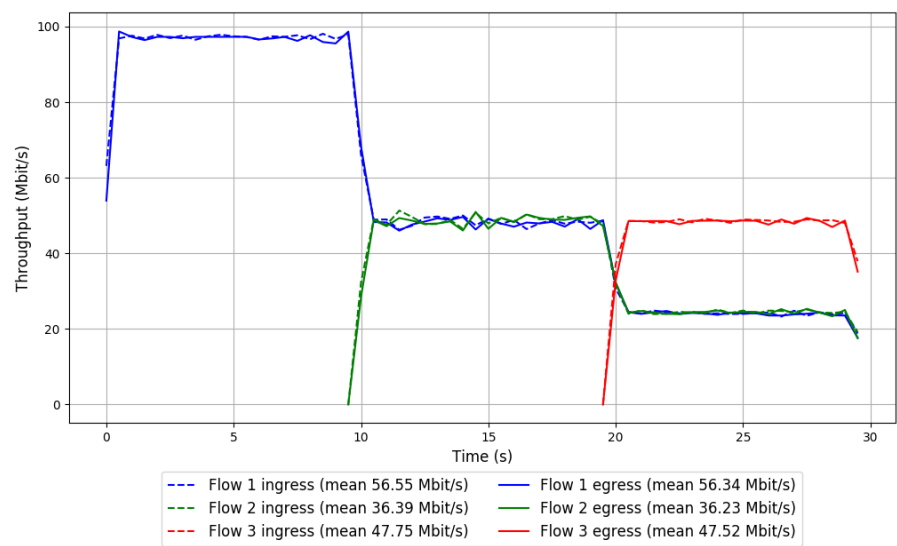


Run 5: Statistics of FillP

Start at: 2017-12-20 06:31:08
End at: 2017-12-20 06:31:38
Local clock offset: 0.796 ms
Remote clock offset: -0.394 ms

Below is generated by plot.py at 2017-12-20 12:07:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.23 Mbit/s
95th percentile per-packet one-way delay: 66.442 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 56.34 Mbit/s
95th percentile per-packet one-way delay: 66.292 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 36.23 Mbit/s
95th percentile per-packet one-way delay: 67.576 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 47.52 Mbit/s
95th percentile per-packet one-way delay: 51.339 ms
Loss rate: 1.04%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2017-12-20 06:52:10

End at: 2017-12-20 06:52:40

Local clock offset: 0.774 ms

Remote clock offset: 2.612 ms

Run 6: Report of FillP — Data Link

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Figure is missing

Run 7: Statistics of FillP

Start at: 2017-12-20 07:12:58

End at: 2017-12-20 07:13:28

Local clock offset: 1.131 ms

Remote clock offset: 2.287 ms

Below is generated by plot.py at 2017-12-20 12:07:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.82 Mbit/s

95th percentile per-packet one-way delay: 68.068 ms

Loss rate: 2.32%

-- Flow 1:

Average throughput: 64.06 Mbit/s

95th percentile per-packet one-way delay: 50.376 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 36.11 Mbit/s

95th percentile per-packet one-way delay: 70.344 ms

Loss rate: 3.26%

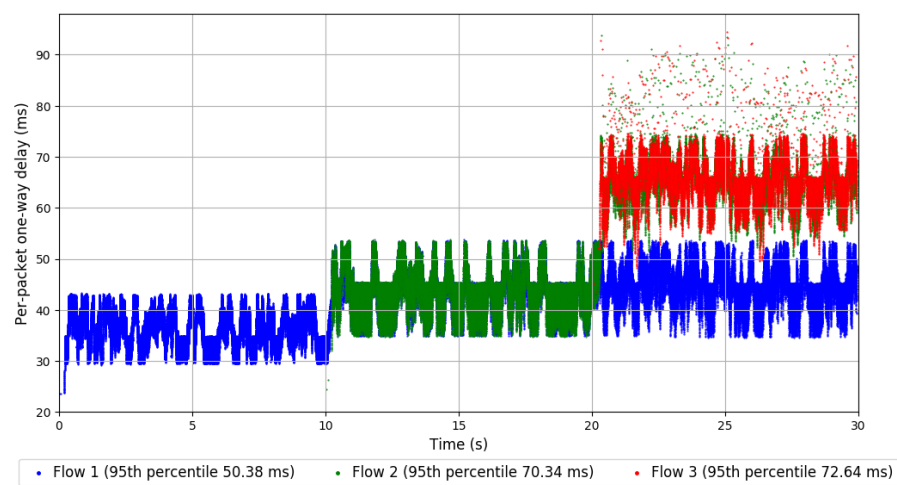
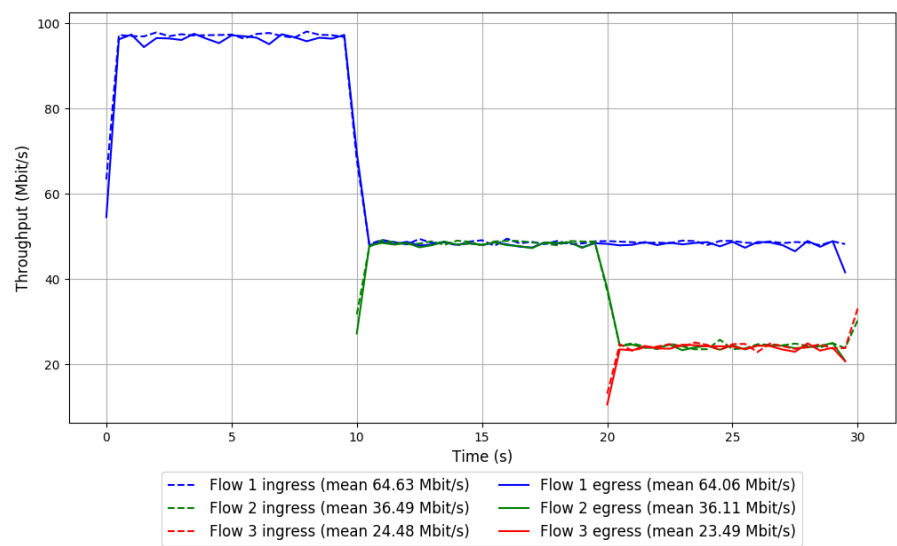
-- Flow 3:

Average throughput: 23.49 Mbit/s

95th percentile per-packet one-way delay: 72.639 ms

Loss rate: 8.57%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2017-12-20 07:34:01

End at: 2017-12-20 07:34:31

Local clock offset: 1.421 ms

Remote clock offset: 2.315 ms

Below is generated by plot.py at 2017-12-20 12:07:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.30 Mbit/s

95th percentile per-packet one-way delay: 55.007 ms

Loss rate: 2.71%

-- Flow 1:

Average throughput: 59.05 Mbit/s

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

Loss rate: 0.59%

-- Flow 2:

Average throughput: 40.10 Mbit/s

95th percentile per-packet one-way delay: 55.129 ms

Loss rate: 4.29%

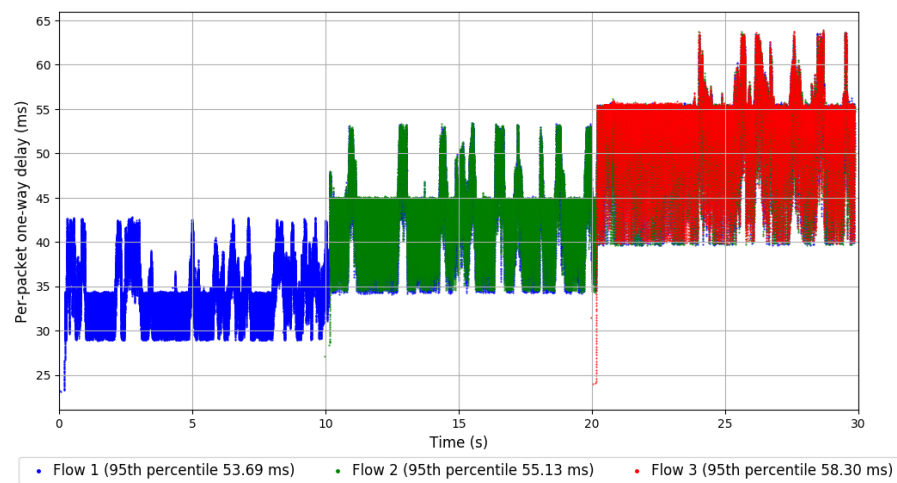
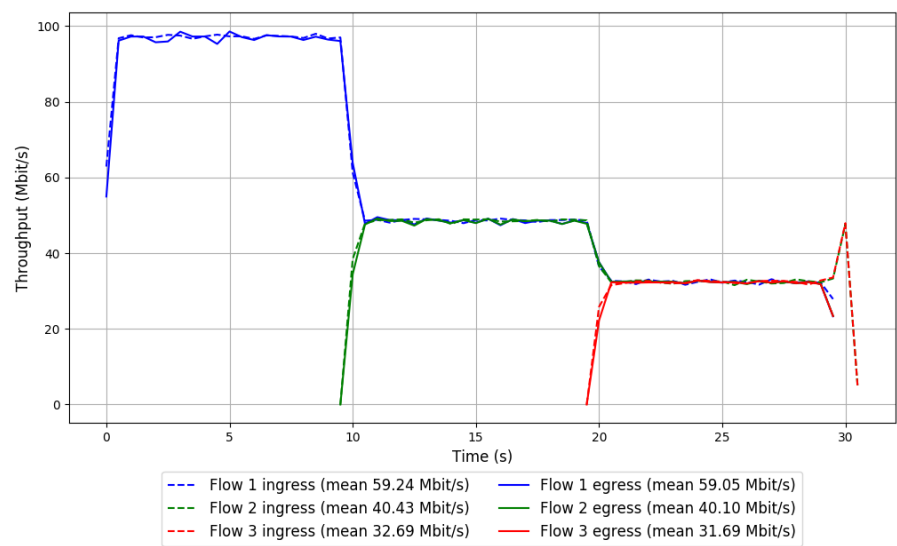
-- Flow 3:

Average throughput: 31.69 Mbit/s

95th percentile per-packet one-way delay: 58.300 ms

Loss rate: 9.71%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2017-12-20 07:54:55

End at: 2017-12-20 07:55:25

Local clock offset: 1.33 ms

Remote clock offset: 1.721 ms

Below is generated by plot.py at 2017-12-20 12:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.36 Mbit/s

95th percentile per-packet one-way delay: 63.897 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 64.32 Mbit/s

95th percentile per-packet one-way delay: 45.225 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 36.23 Mbit/s

95th percentile per-packet one-way delay: 65.289 ms

Loss rate: 0.54%

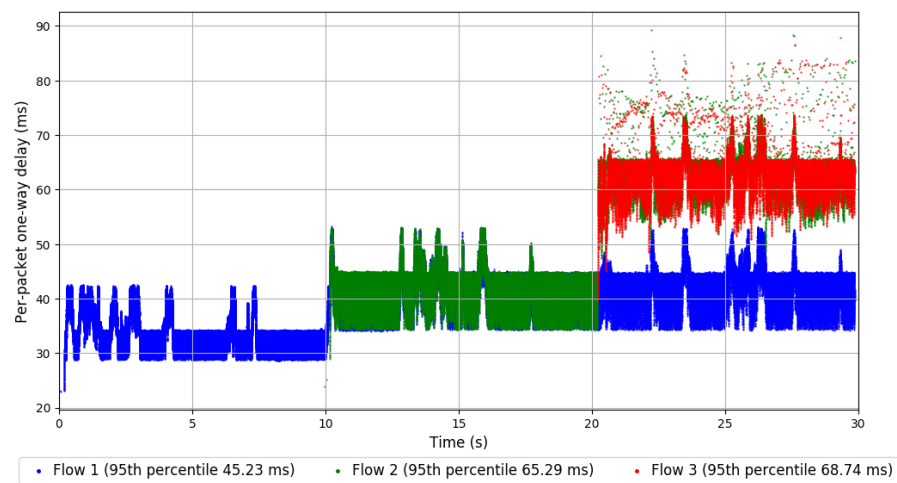
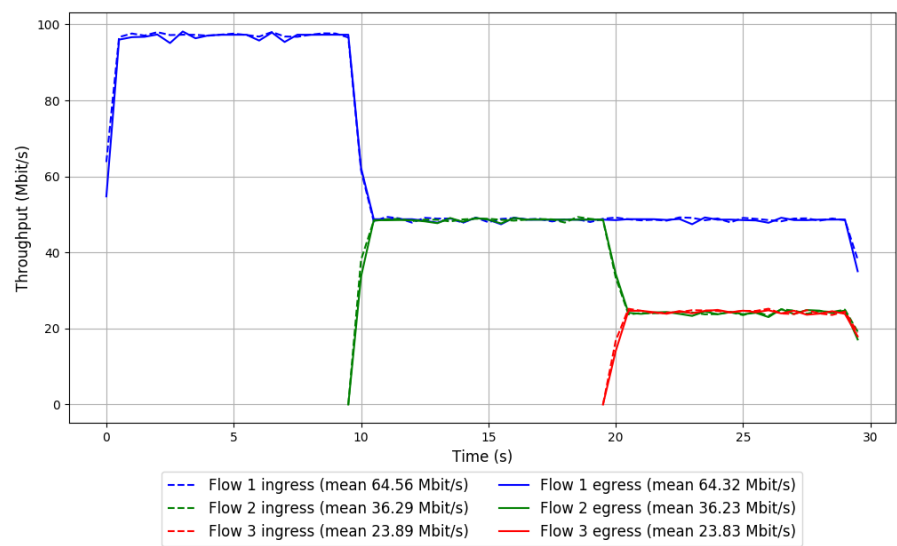
-- Flow 3:

Average throughput: 23.83 Mbit/s

95th percentile per-packet one-way delay: 68.743 ms

Loss rate: 1.13%

Run 9: Report of FillP — Data Link

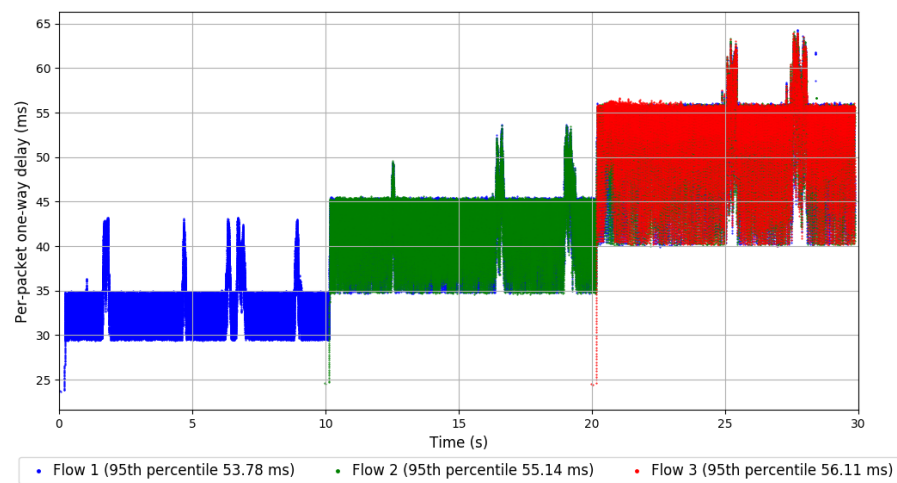
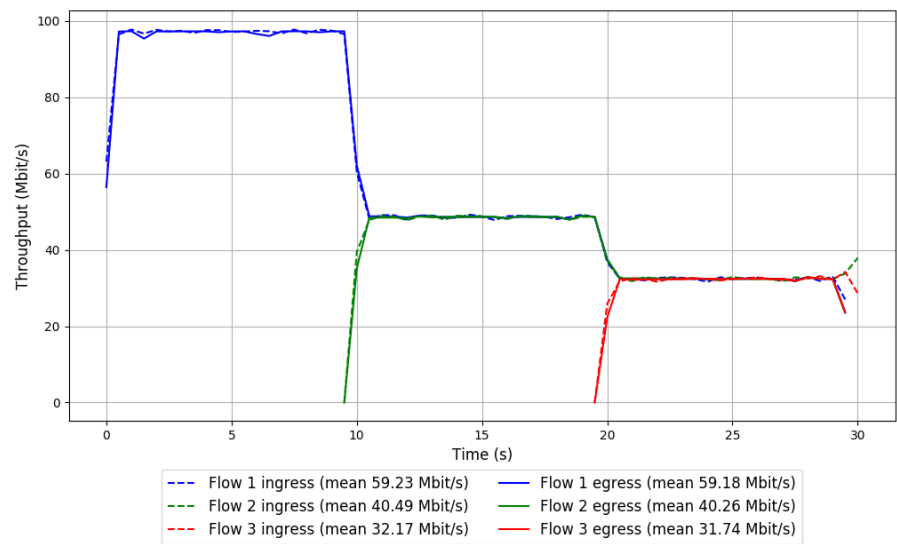


Run 10: Statistics of FillP

Start at: 2017-12-20 08:15:36
End at: 2017-12-20 08:16:06
Local clock offset: 1.352 ms
Remote clock offset: -0.044 ms

Below is generated by plot.py at 2017-12-20 12:07:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.55 Mbit/s
95th percentile per-packet one-way delay: 54.997 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 59.18 Mbit/s
95th percentile per-packet one-way delay: 53.783 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 40.26 Mbit/s
95th percentile per-packet one-way delay: 55.143 ms
Loss rate: 3.15%
-- Flow 3:
Average throughput: 31.74 Mbit/s
95th percentile per-packet one-way delay: 56.110 ms
Loss rate: 6.38%

Run 10: Report of FillP — Data Link

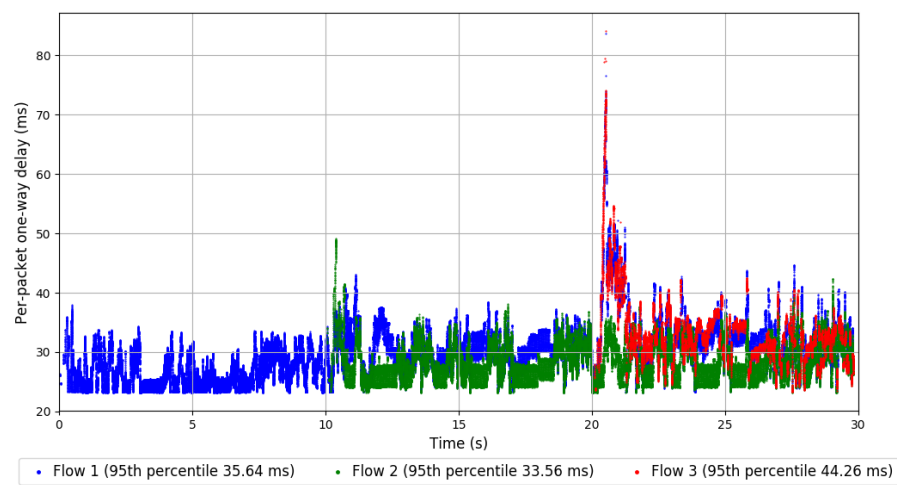
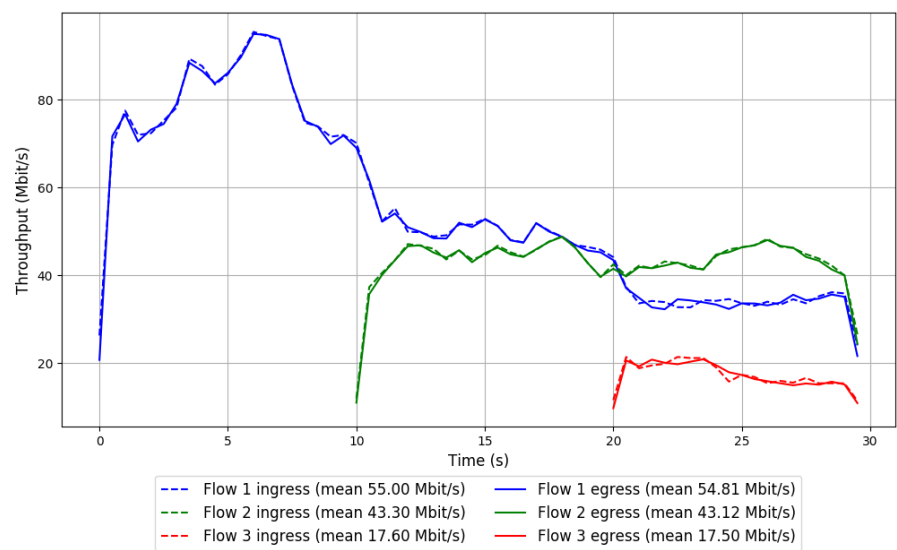


```
Run 1: Statistics of Indigo

Start at: 2017-12-20 05:01:38
End at: 2017-12-20 05:02:08
Local clock offset: 0.319 ms
Remote clock offset: 0.172 ms

# Below is generated by plot.py at 2017-12-20 12:08:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.08 Mbit/s
95th percentile per-packet one-way delay: 35.554 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 54.81 Mbit/s
95th percentile per-packet one-way delay: 35.639 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 43.12 Mbit/s
95th percentile per-packet one-way delay: 33.562 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 17.50 Mbit/s
95th percentile per-packet one-way delay: 44.261 ms
Loss rate: 1.15%
```

Run 1: Report of Indigo — Data Link

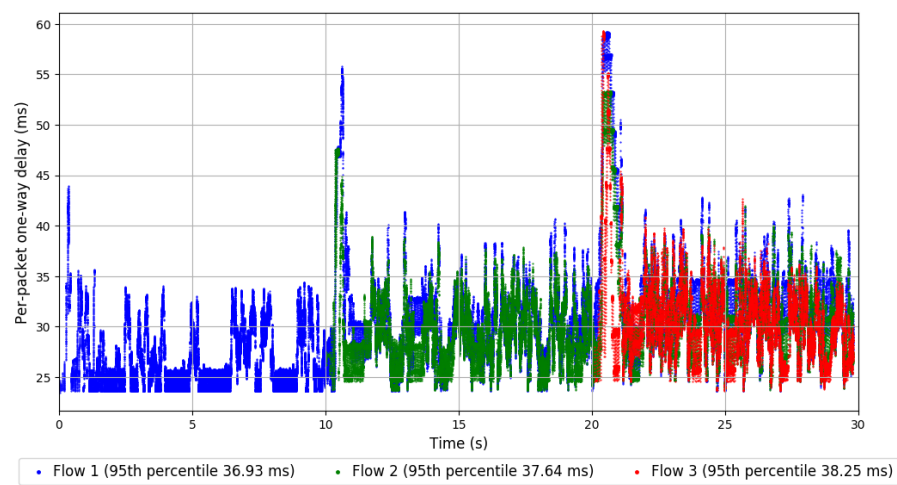
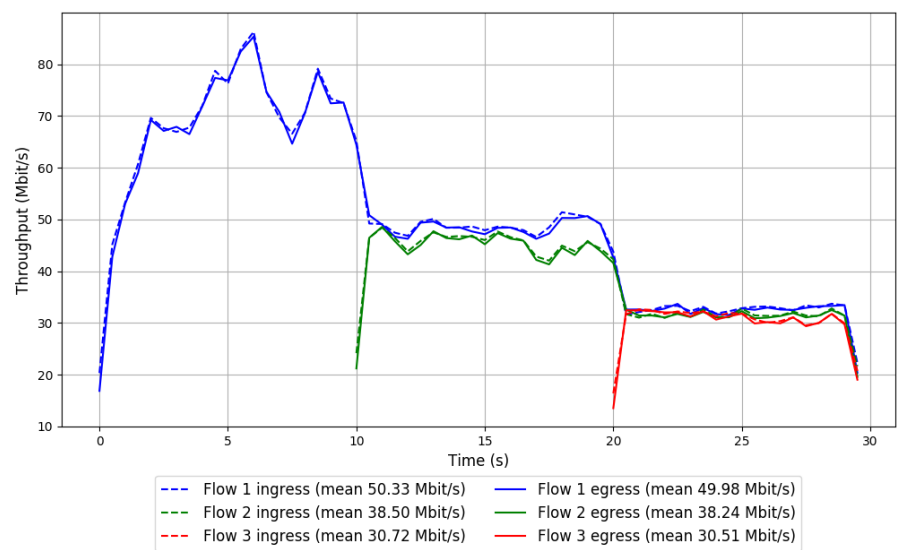


Run 2: Statistics of Indigo

Start at: 2017-12-20 05:22:24
End at: 2017-12-20 05:22:54
Local clock offset: 0.623 ms
Remote clock offset: -0.029 ms

Below is generated by plot.py at 2017-12-20 12:08:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 85.30 Mbit/s
95th percentile per-packet one-way delay: 37.270 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 49.98 Mbit/s
95th percentile per-packet one-way delay: 36.931 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 38.24 Mbit/s
95th percentile per-packet one-way delay: 37.637 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 30.51 Mbit/s
95th percentile per-packet one-way delay: 38.252 ms
Loss rate: 1.24%

Run 2: Report of Indigo — Data Link

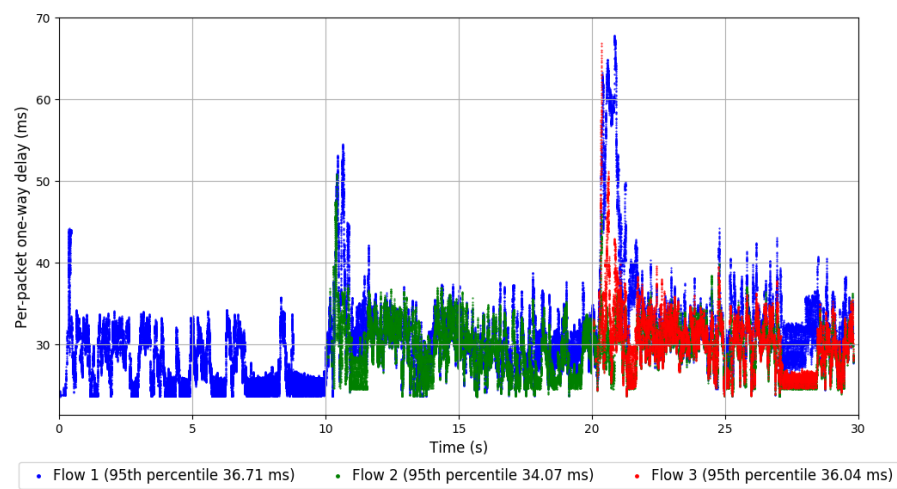
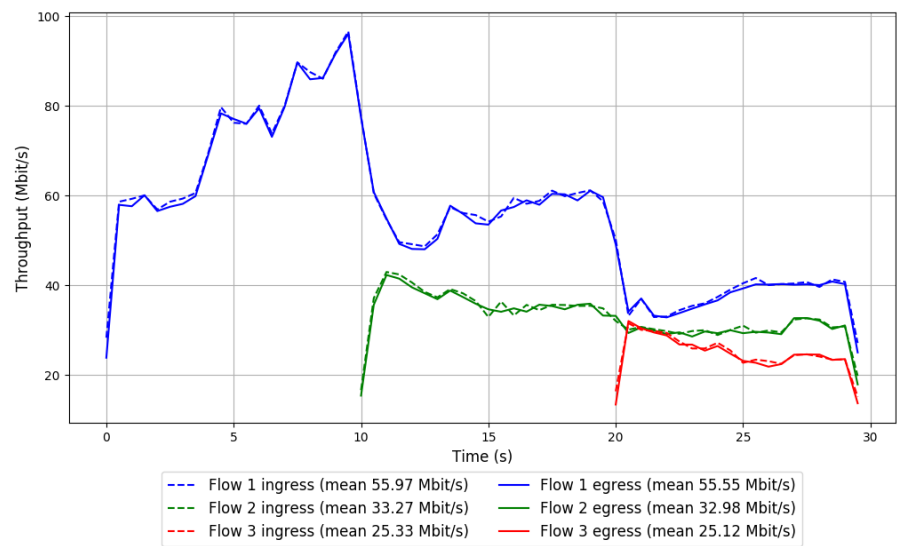


Run 3: Statistics of Indigo

Start at: 2017-12-20 05:43:56
End at: 2017-12-20 05:44:26
Local clock offset: 0.782 ms
Remote clock offset: -0.134 ms

Below is generated by plot.py at 2017-12-20 12:08:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 85.65 Mbit/s
95th percentile per-packet one-way delay: 35.739 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 55.55 Mbit/s
95th percentile per-packet one-way delay: 36.711 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 32.98 Mbit/s
95th percentile per-packet one-way delay: 34.066 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 25.12 Mbit/s
95th percentile per-packet one-way delay: 36.037 ms
Loss rate: 1.44%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-20 06:05:02

End at: 2017-12-20 06:05:32

Local clock offset: 0.898 ms

Remote clock offset: 1.171 ms

Below is generated by plot.py at 2017-12-20 12:08:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.87 Mbit/s

95th percentile per-packet one-way delay: 38.932 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 59.76 Mbit/s

95th percentile per-packet one-way delay: 38.354 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 28.67 Mbit/s

95th percentile per-packet one-way delay: 48.516 ms

Loss rate: 0.57%

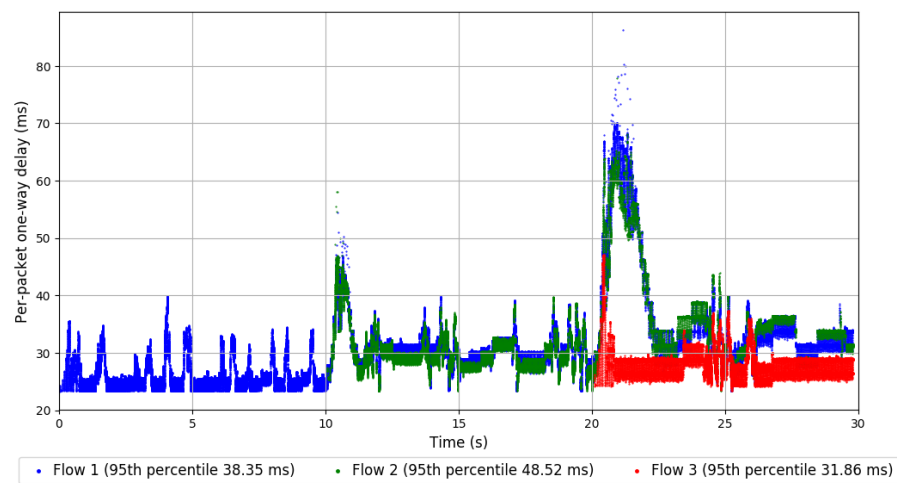
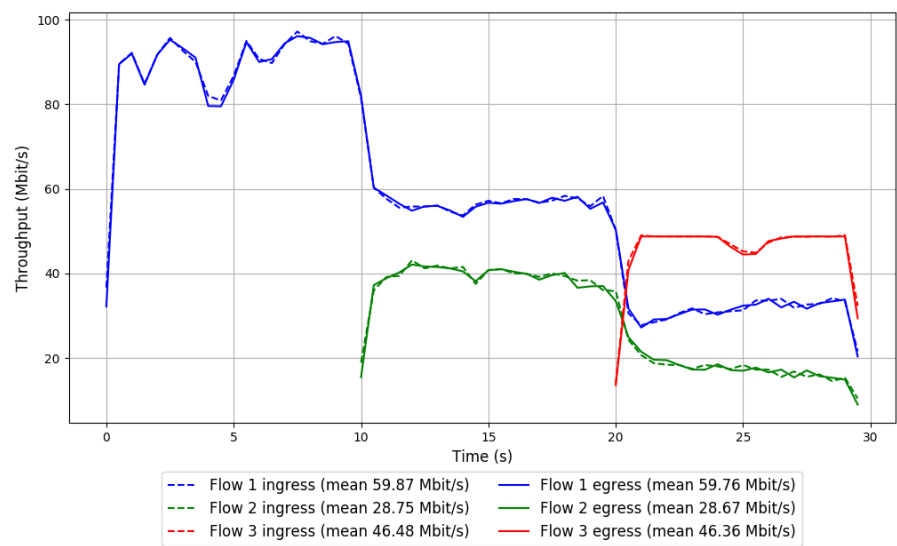
-- Flow 3:

Average throughput: 46.36 Mbit/s

95th percentile per-packet one-way delay: 31.865 ms

Loss rate: 0.82%

Run 4: Report of Indigo — Data Link

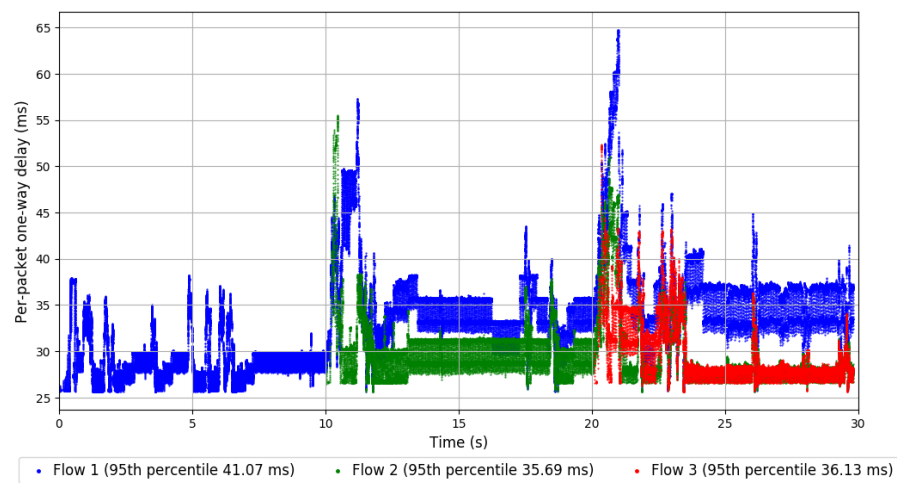
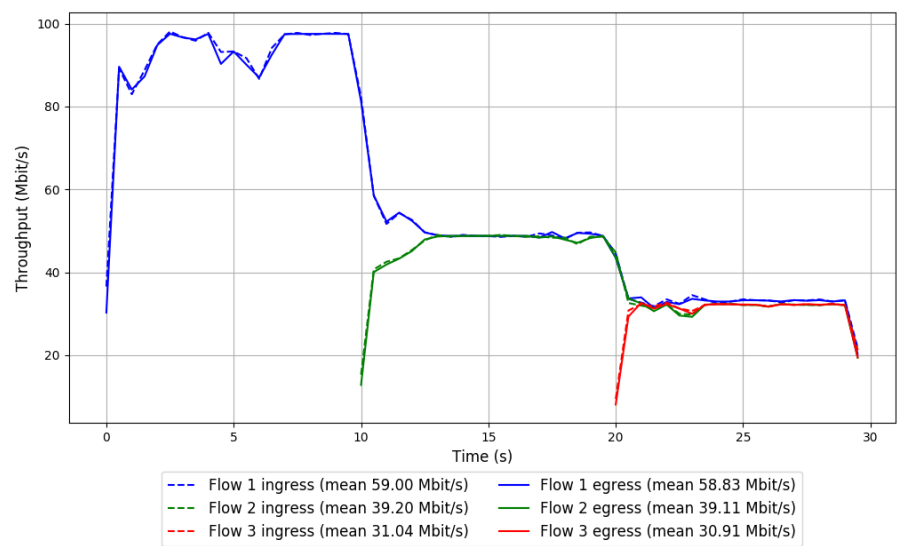


Run 5: Statistics of Indigo

Start at: 2017-12-20 06:25:37
End at: 2017-12-20 06:26:07
Local clock offset: 0.788 ms
Remote clock offset: -0.464 ms

Below is generated by plot.py at 2017-12-20 12:08:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.86 Mbit/s
95th percentile per-packet one-way delay: 39.144 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 58.83 Mbit/s
95th percentile per-packet one-way delay: 41.066 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 39.11 Mbit/s
95th percentile per-packet one-way delay: 35.692 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 30.91 Mbit/s
95th percentile per-packet one-way delay: 36.132 ms
Loss rate: 0.95%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-20 06:46:33

End at: 2017-12-20 06:47:03

Local clock offset: 0.729 ms

Remote clock offset: 2.539 ms

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.75 Mbit/s

95th percentile per-packet one-way delay: 36.089 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 58.38 Mbit/s

95th percentile per-packet one-way delay: 37.929 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 47.09 Mbit/s

95th percentile per-packet one-way delay: 32.161 ms

Loss rate: 0.58%

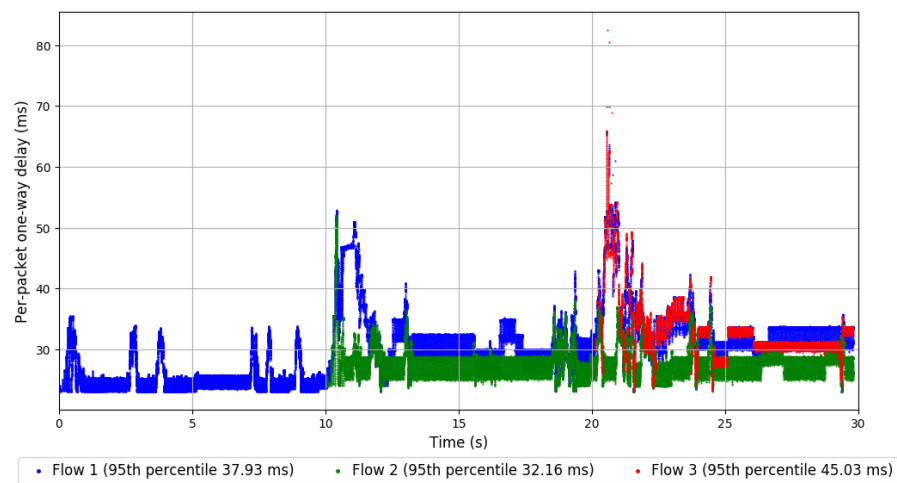
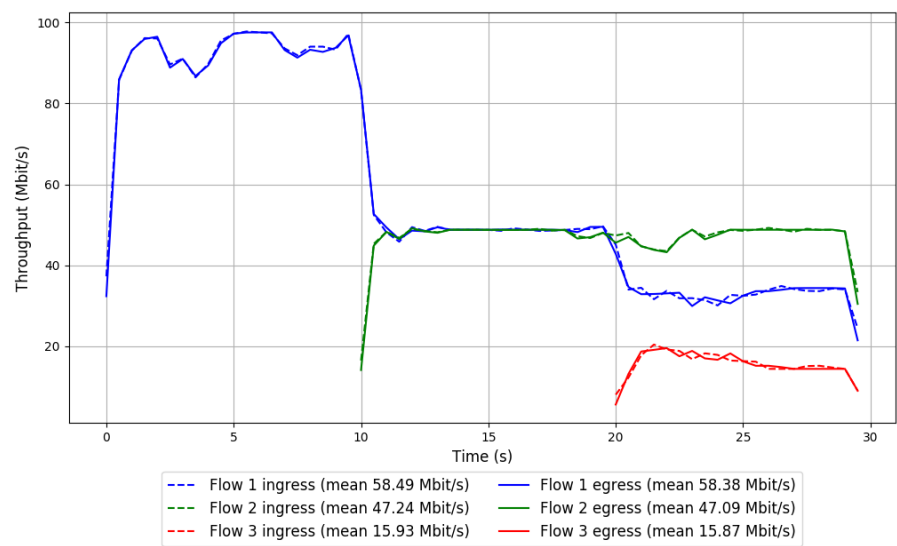
-- Flow 3:

Average throughput: 15.87 Mbit/s

95th percentile per-packet one-way delay: 45.027 ms

Loss rate: 1.02%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

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

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

Local clock offset: 1.073 ms

Remote clock offset: 2.448 ms

Below is generated by plot.py at 2017-12-20 12:08:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.25 Mbit/s

95th percentile per-packet one-way delay: 37.219 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 61.51 Mbit/s

95th percentile per-packet one-way delay: 36.162 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 28.62 Mbit/s

95th percentile per-packet one-way delay: 38.426 ms

Loss rate: 1.12%

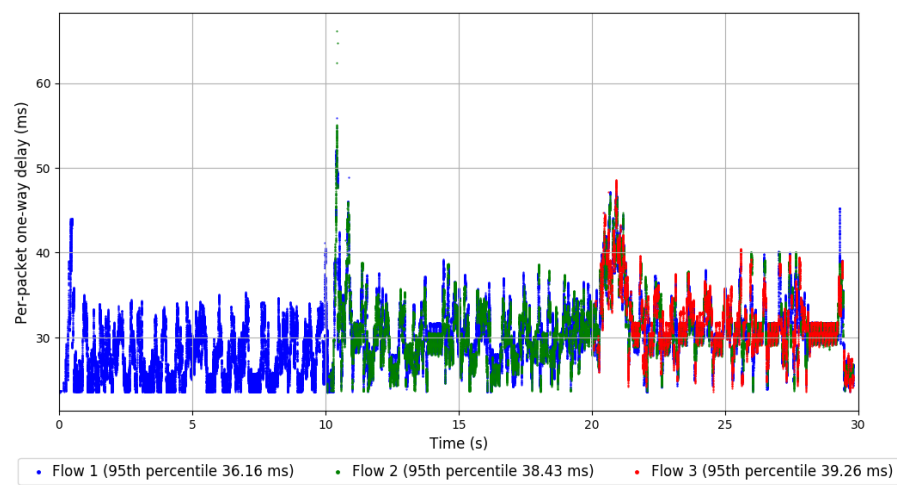
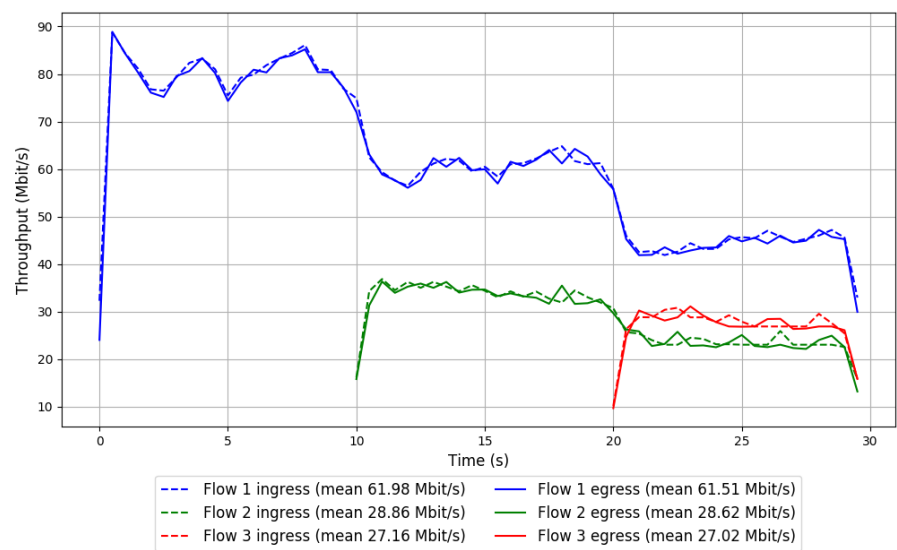
-- Flow 3:

Average throughput: 27.02 Mbit/s

95th percentile per-packet one-way delay: 39.261 ms

Loss rate: 1.11%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-20 07:28:32

End at: 2017-12-20 07:29:02

Local clock offset: 1.342 ms

Remote clock offset: 2.002 ms

Below is generated by plot.py at 2017-12-20 12:08:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.32 Mbit/s

95th percentile per-packet one-way delay: 38.447 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 56.96 Mbit/s

95th percentile per-packet one-way delay: 40.653 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 46.12 Mbit/s

95th percentile per-packet one-way delay: 34.379 ms

Loss rate: 0.74%

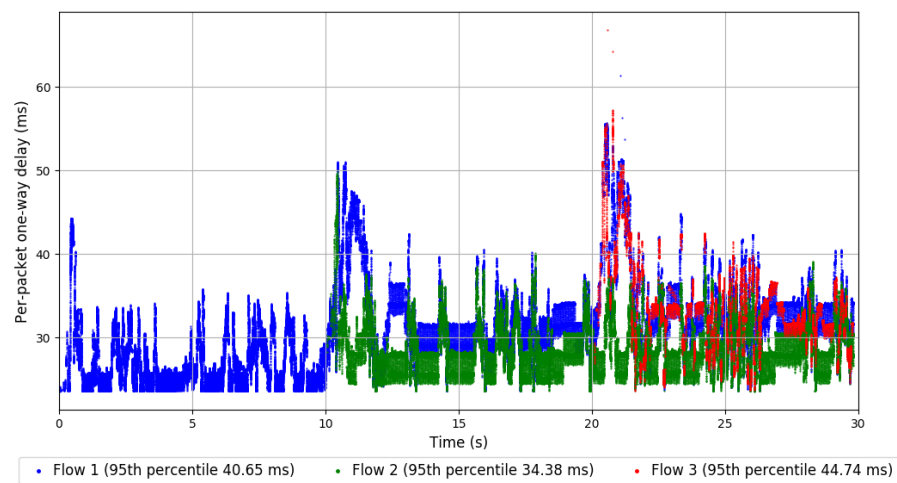
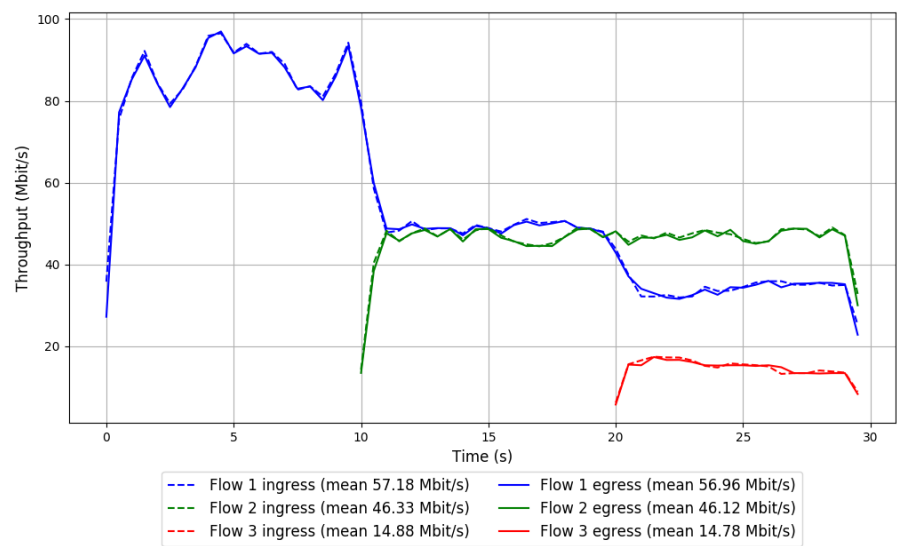
-- Flow 3:

Average throughput: 14.78 Mbit/s

95th percentile per-packet one-way delay: 44.737 ms

Loss rate: 1.23%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-20 07:49:28

End at: 2017-12-20 07:49:58

Local clock offset: 1.48 ms

Remote clock offset: 1.609 ms

Below is generated by plot.py at 2017-12-20 12:09:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.41 Mbit/s

95th percentile per-packet one-way delay: 36.557 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 57.85 Mbit/s

95th percentile per-packet one-way delay: 39.056 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 39.43 Mbit/s

95th percentile per-packet one-way delay: 33.936 ms

Loss rate: 0.41%

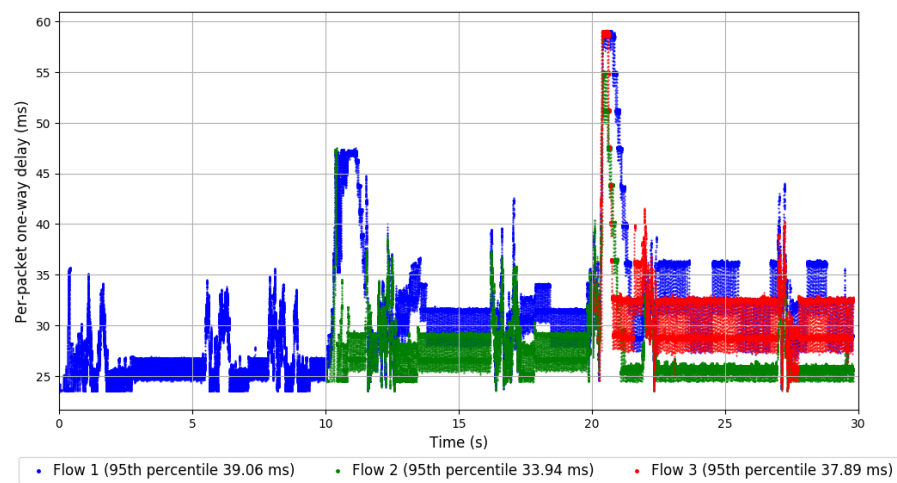
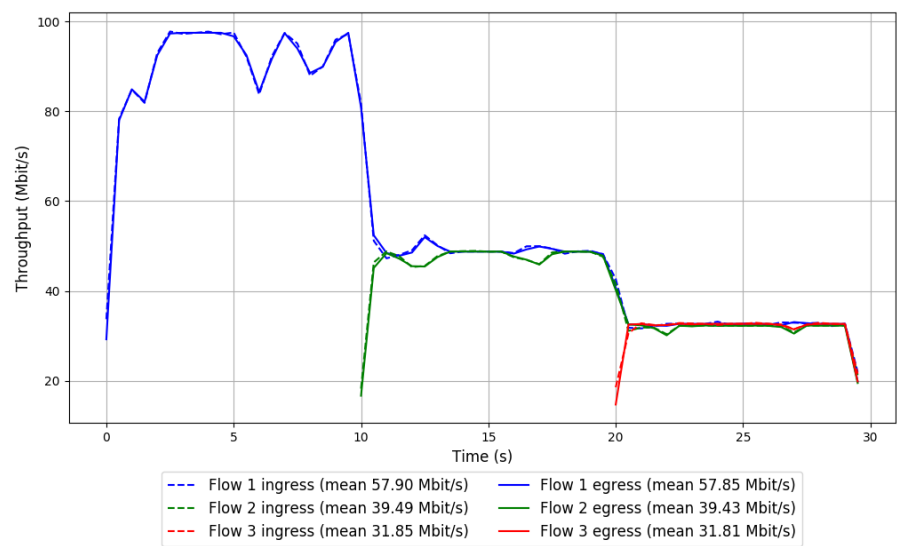
-- Flow 3:

Average throughput: 31.81 Mbit/s

95th percentile per-packet one-way delay: 37.886 ms

Loss rate: 0.74%

Run 9: Report of Indigo — Data Link



```
Run 10: Statistics of Indigo

Start at: 2017-12-20 08:10:06
End at: 2017-12-20 08:10:36
Local clock offset: 1.239 ms
Remote clock offset: 0.403 ms

# Below is generated by plot.py at 2017-12-20 12:09:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 35.162 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 63.83 Mbit/s
95th percentile per-packet one-way delay: 35.082 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 37.16 Mbit/s
95th percentile per-packet one-way delay: 38.891 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 22.22 Mbit/s
95th percentile per-packet one-way delay: 45.336 ms
Loss rate: 0.66%
```

Run 10: Report of Indigo — Data Link

