

Pantheon Report

Generated at 2017-09-08 04:09:24 (UTC).

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

Repeated the test of 15 congestion control schemes 10 times.

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

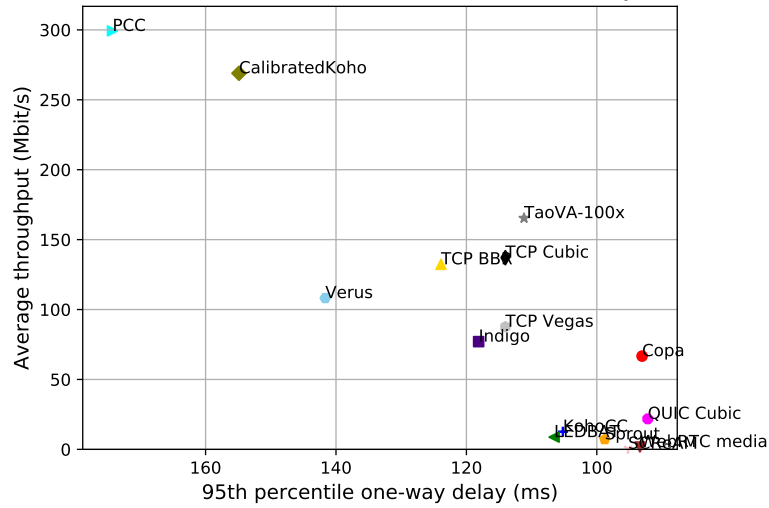
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

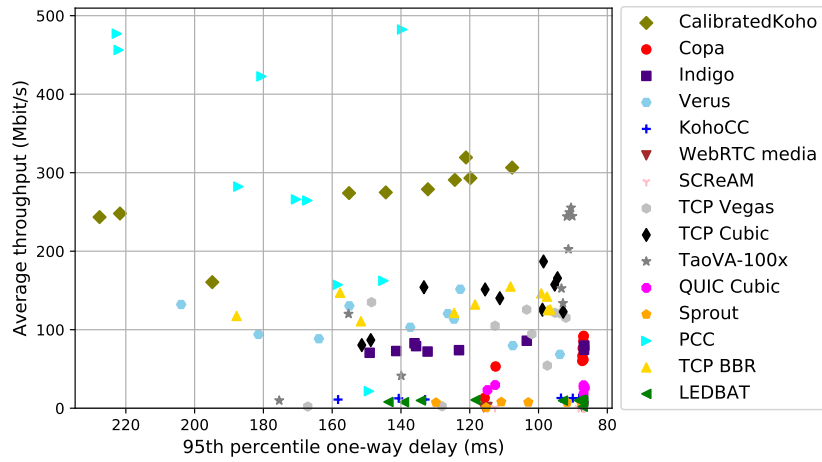
Git summary:

```
branch: master @ 2a98508c2457474d84cd2966a42b80b0bc62ecaf
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ 10192113fb6902d25c86e0e3e4c85d7a05e43d7e
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



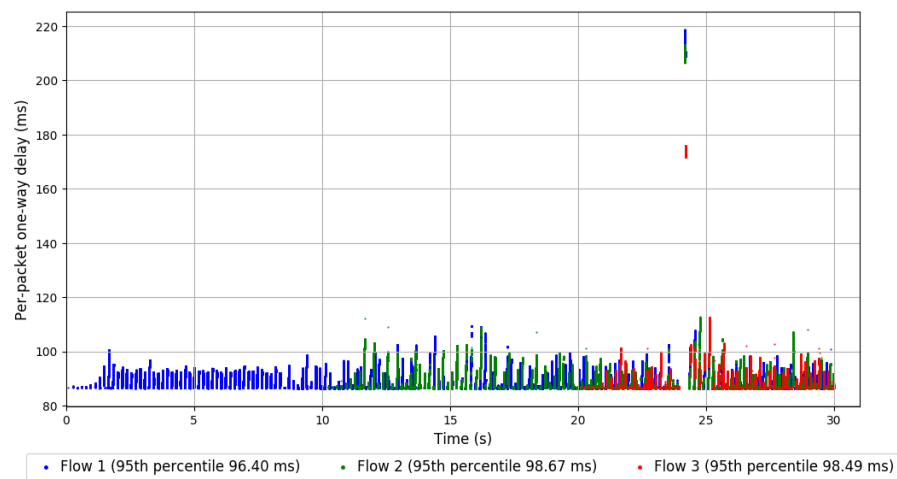
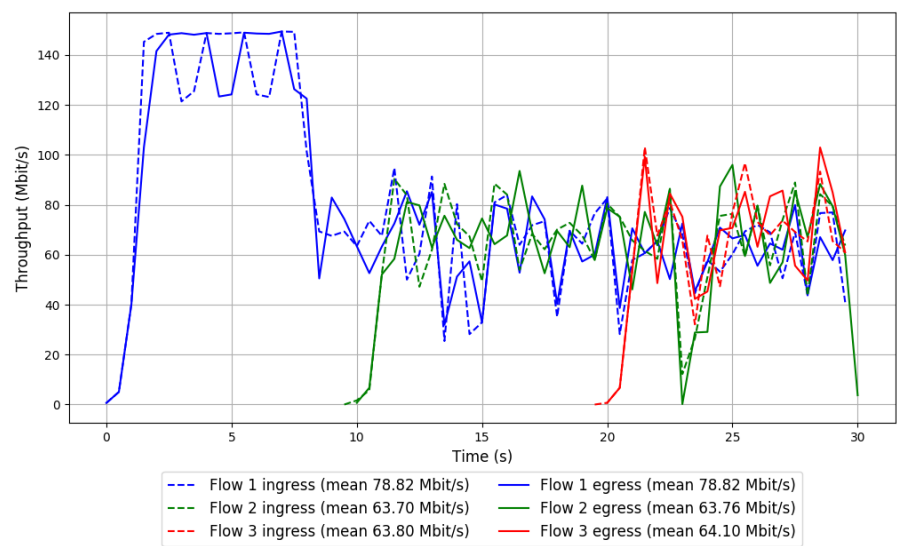
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	64.01	68.15	69.31	121.37	128.96	127.58	0.14	0.12	0.31
CalibratedKoho	10	175.49	118.64	38.11	539.46	150.54	137.09	0.10	0.22	0.26
Copa	9	39.80	37.91	26.77	93.07	94.64	100.04	0.00	0.00	0.01
TCP Cubic	10	66.08	71.37	71.07	111.32	118.98	118.25	0.07	0.03	0.10
Indigo	10	18.11	69.20	40.17	113.38	118.04	121.88	0.10	0.12	0.06
KohoCC	10	6.40	6.32	5.99	102.58	105.52	111.11	0.01	0.03	0.01
LEDBAT	10	4.79	4.71	2.49	111.58	100.93	105.60	0.02	0.01	0.00
PCC	10	193.59	108.60	102.07	175.44	150.87	142.63	0.51	0.12	0.18
QUIC Cubic	10	0.06	20.32	25.78	92.33	90.03	93.06	0.00	0.02	0.03
SCReAM	10	0.21	0.22	0.22	86.94	95.23	93.53	0.00	0.00	0.00
Sprout	10	3.82	3.49	2.99	101.20	100.32	95.04	0.02	0.01	0.00
TaoVA-100x	10	116.58	78.65	63.82	116.89	111.61	107.12	0.08	0.06	0.00
TCP Vegas	10	44.22	44.09	45.13	111.91	368.11	109.45	0.08	0.14	0.20
Verus	10	61.93	49.89	41.72	138.53	161.83	126.14	0.16	0.21	0.27
WebRTC media	9	0.21	1.63	0.34	111.79	90.27	96.65	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2017-09-08 00:10:33
End at: 2017-09-08 00:11:03

# Below is generated by plot.py at 2017-09-08 03:43:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.23 Mbit/s
95th percentile per-packet one-way delay: 97.556 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.82 Mbit/s
95th percentile per-packet one-way delay: 96.402 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.76 Mbit/s
95th percentile per-packet one-way delay: 98.667 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.10 Mbit/s
95th percentile per-packet one-way delay: 98.490 ms
Loss rate: 0.00%
```


Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-09-08 00:23:32

End at: 2017-09-08 00:24:02

Below is generated by plot.py at 2017-09-08 03:43:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.33 Mbit/s

95th percentile per-packet one-way delay: 99.222 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 59.15 Mbit/s

95th percentile per-packet one-way delay: 96.922 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.99 Mbit/s

95th percentile per-packet one-way delay: 99.390 ms

Loss rate: 0.00%

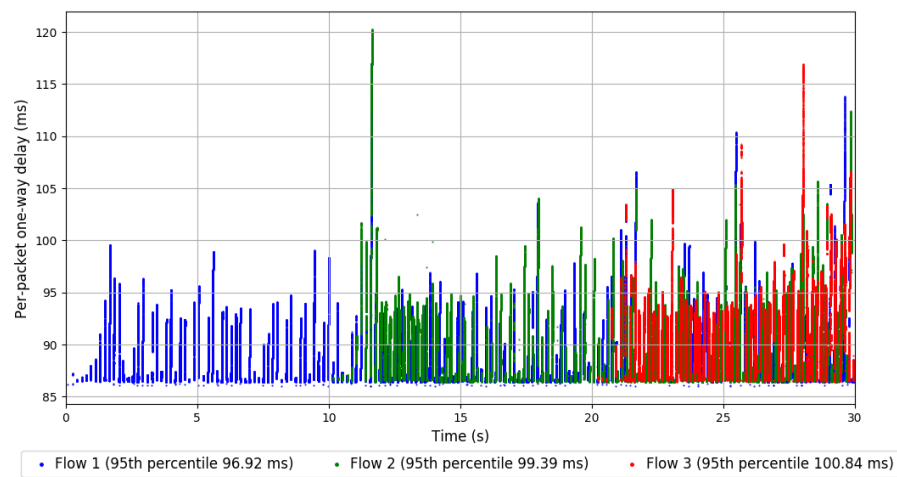
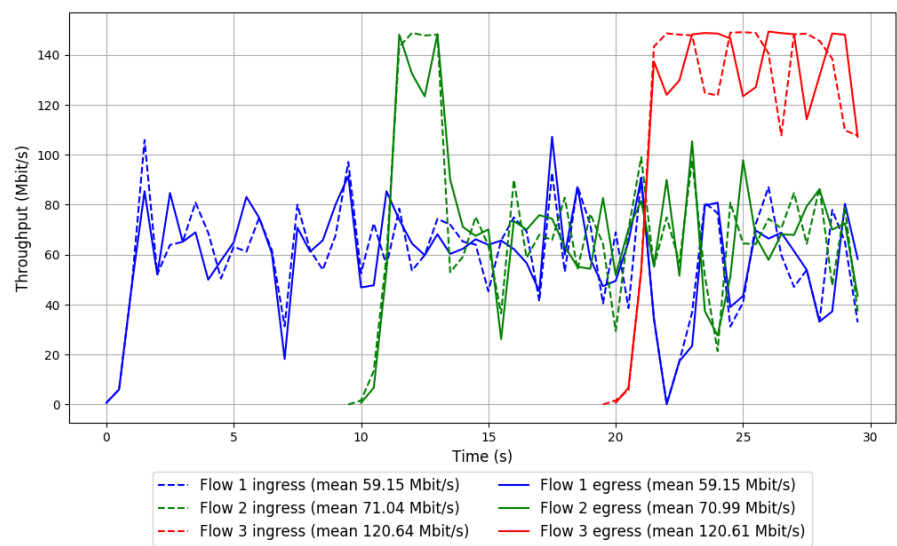
-- Flow 3:

Average throughput: 120.61 Mbit/s

95th percentile per-packet one-way delay: 100.842 ms

Loss rate: 0.02%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-09-08 00:36:20

End at: 2017-09-08 00:36:50

Below is generated by plot.py at 2017-09-08 03:43:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.37 Mbit/s

95th percentile per-packet one-way delay: 124.542 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 61.24 Mbit/s

95th percentile per-packet one-way delay: 115.987 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 59.79 Mbit/s

95th percentile per-packet one-way delay: 170.239 ms

Loss rate: 0.05%

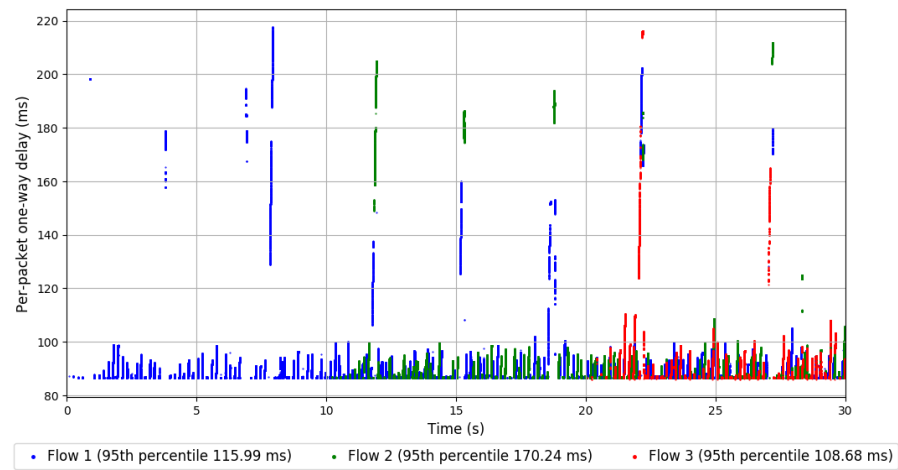
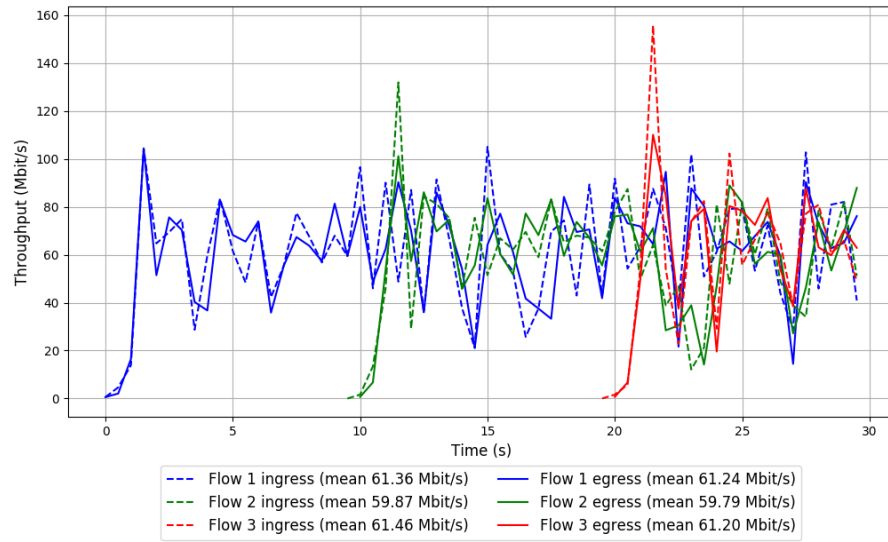
-- Flow 3:

Average throughput: 61.20 Mbit/s

95th percentile per-packet one-way delay: 108.683 ms

Loss rate: 0.34%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-09-08 00:48:51

End at: 2017-09-08 00:49:21

Below is generated by plot.py at 2017-09-08 03:43:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.53 Mbit/s

95th percentile per-packet one-way delay: 187.798 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 53.17 Mbit/s

95th percentile per-packet one-way delay: 193.351 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 66.30 Mbit/s

95th percentile per-packet one-way delay: 175.725 ms

Loss rate: 0.14%

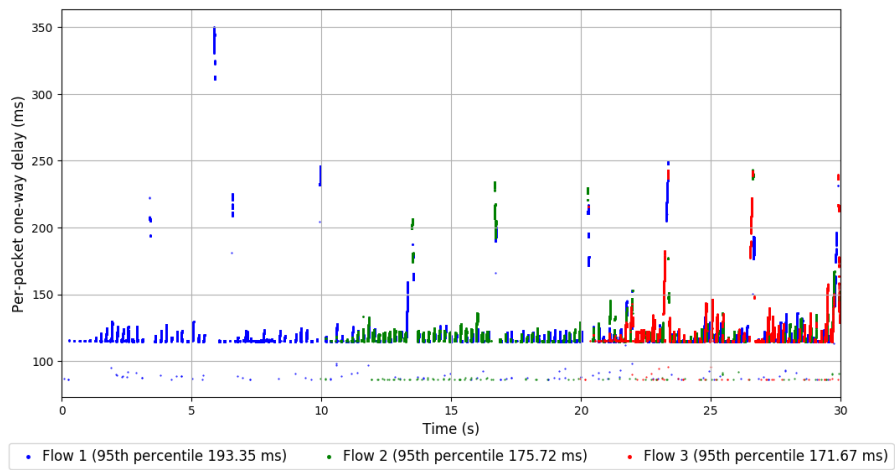
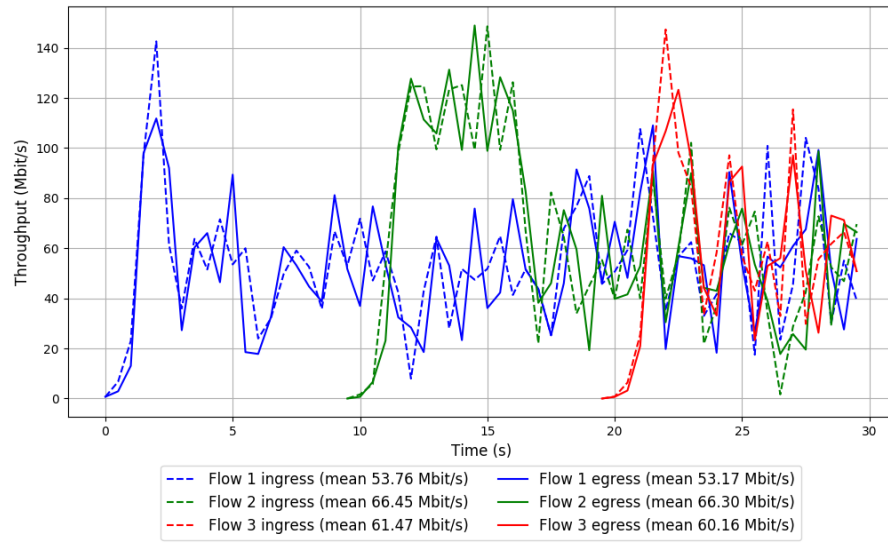
-- Flow 3:

Average throughput: 60.16 Mbit/s

95th percentile per-packet one-way delay: 171.670 ms

Loss rate: 1.56%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-09-08 01:01:15

End at: 2017-09-08 01:01:45

Below is generated by plot.py at 2017-09-08 03:44:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.74 Mbit/s

95th percentile per-packet one-way delay: 151.658 ms

Loss rate: 0.14%

-- Flow 1:

Average throughput: 51.71 Mbit/s

95th percentile per-packet one-way delay: 155.416 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 60.13 Mbit/s

95th percentile per-packet one-way delay: 151.072 ms

Loss rate: 0.08%

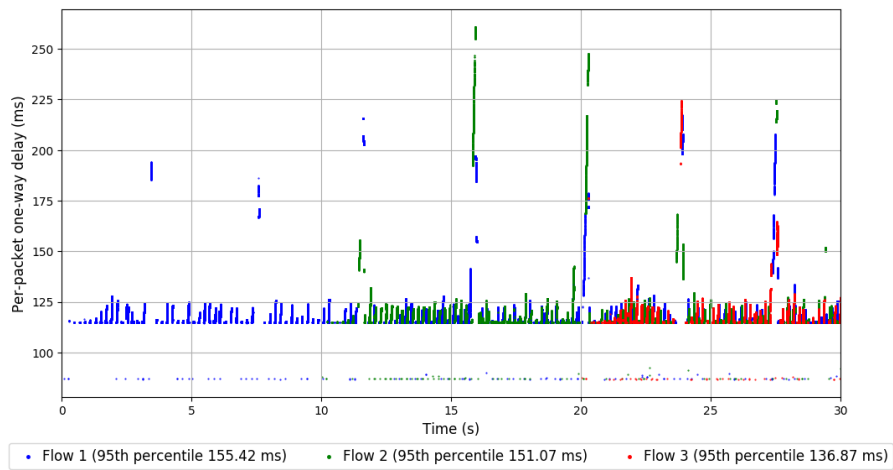
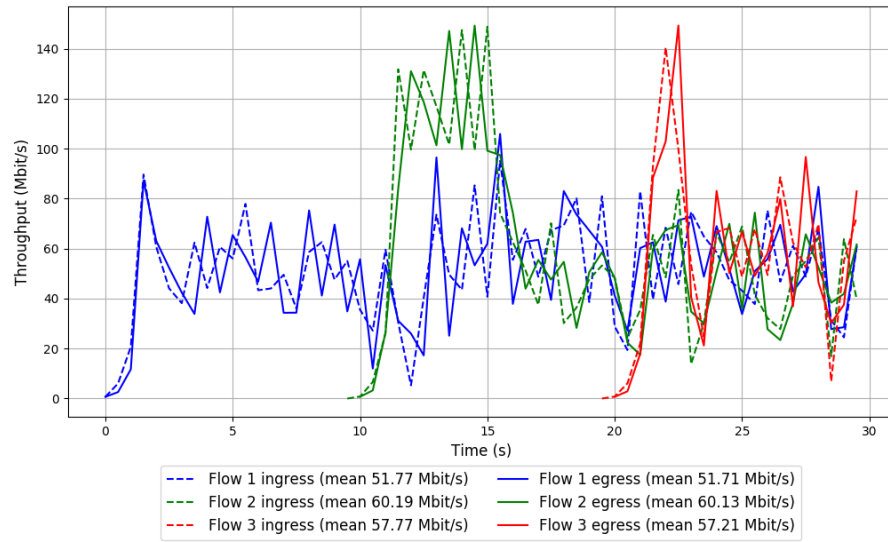
-- Flow 3:

Average throughput: 57.21 Mbit/s

95th percentile per-packet one-way delay: 136.873 ms

Loss rate: 0.63%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-09-08 01:13:30

End at: 2017-09-08 01:14:00

Below is generated by plot.py at 2017-09-08 03:44:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 155.03 Mbit/s

95th percentile per-packet one-way delay: 108.149 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 64.22 Mbit/s

95th percentile per-packet one-way delay: 101.396 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 107.67 Mbit/s

95th percentile per-packet one-way delay: 111.808 ms

Loss rate: 0.15%

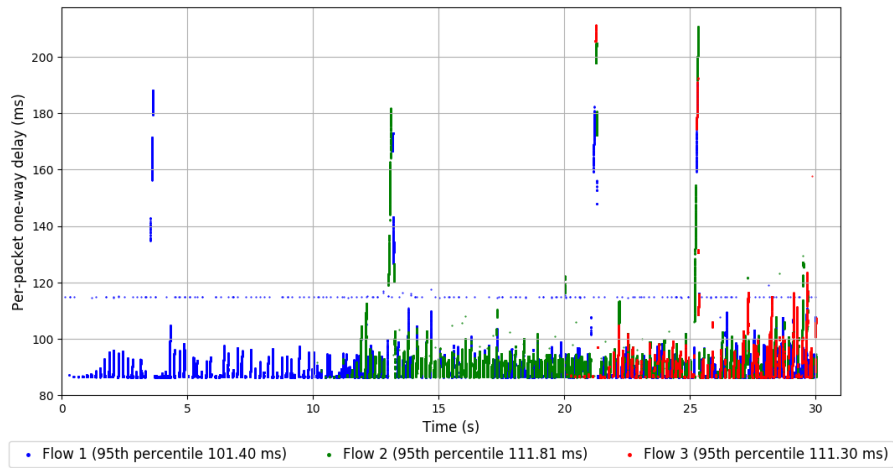
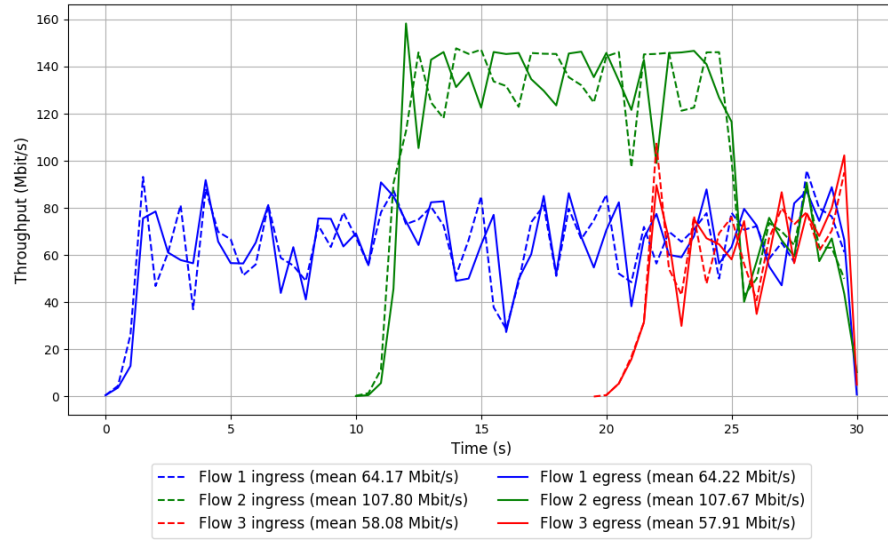
-- Flow 3:

Average throughput: 57.91 Mbit/s

95th percentile per-packet one-way delay: 111.296 ms

Loss rate: 0.10%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-09-08 01:26:14

End at: 2017-09-08 01:26:44

Below is generated by plot.py at 2017-09-08 03:44:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 147.19 Mbit/s

95th percentile per-packet one-way delay: 157.706 ms

Loss rate: 0.28%

-- Flow 1:

Average throughput: 80.30 Mbit/s

95th percentile per-packet one-way delay: 145.590 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 60.80 Mbit/s

95th percentile per-packet one-way delay: 172.851 ms

Loss rate: 0.75%

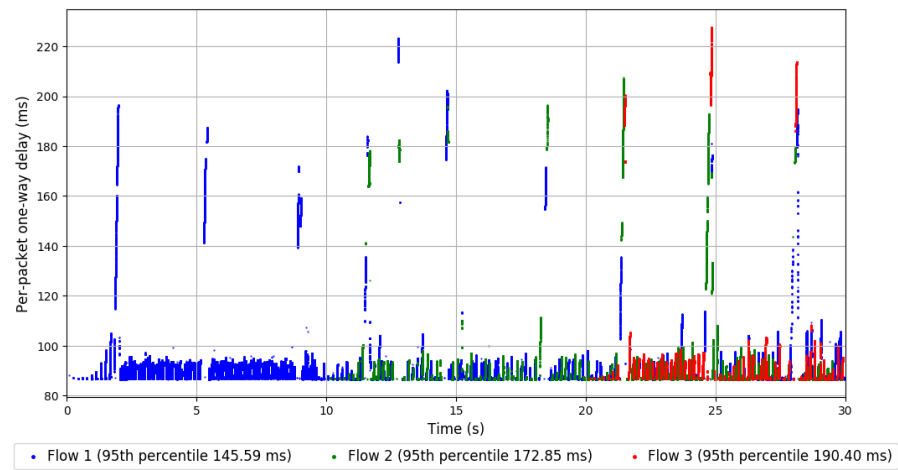
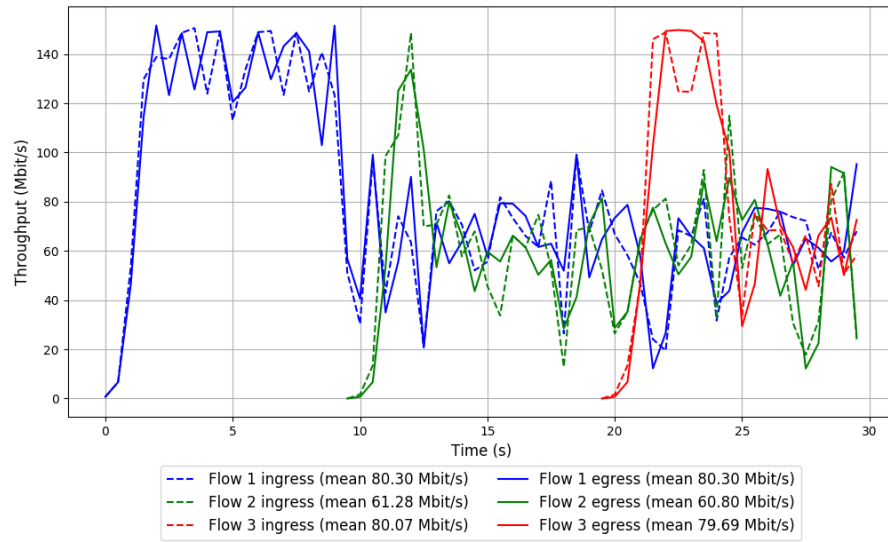
-- Flow 3:

Average throughput: 79.69 Mbit/s

95th percentile per-packet one-way delay: 190.403 ms

Loss rate: 0.39%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-09-08 01:38:49

End at: 2017-09-08 01:39:19

Below is generated by plot.py at 2017-09-08 03:44:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.08 Mbit/s

95th percentile per-packet one-way delay: 118.455 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 62.82 Mbit/s

95th percentile per-packet one-way delay: 115.985 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.94 Mbit/s

95th percentile per-packet one-way delay: 116.009 ms

Loss rate: 0.01%

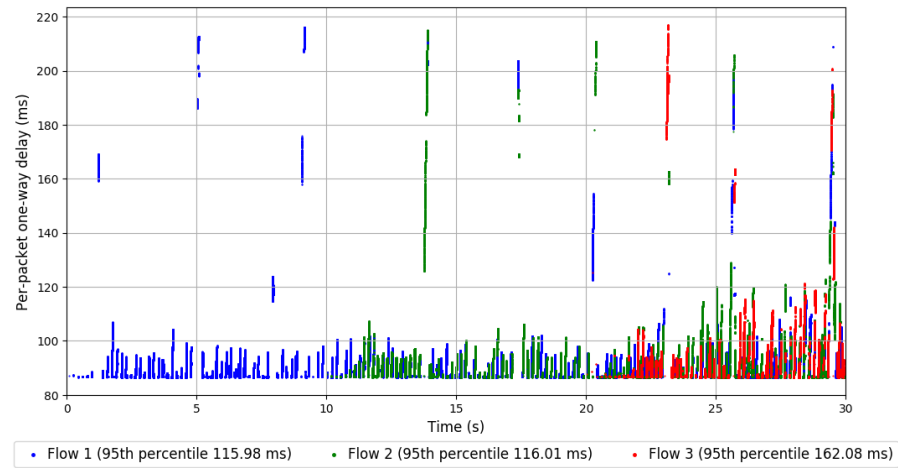
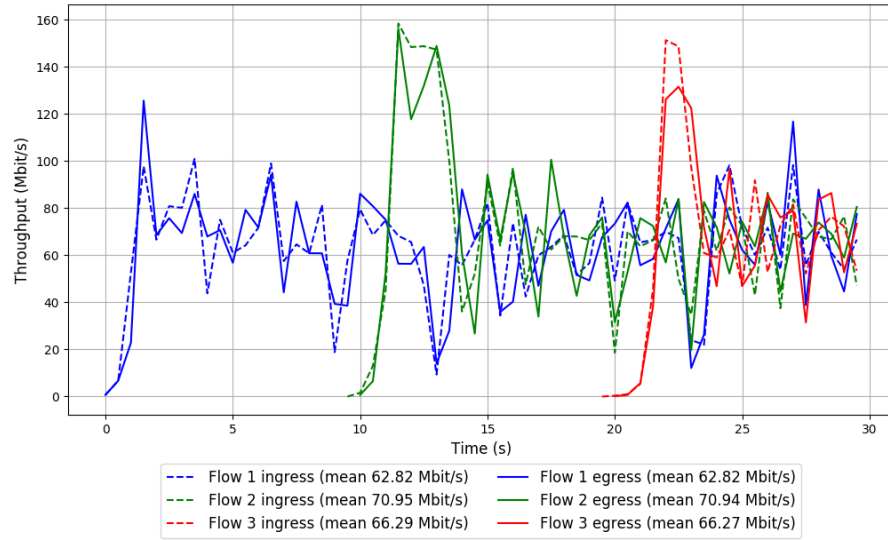
-- Flow 3:

Average throughput: 66.27 Mbit/s

95th percentile per-packet one-way delay: 162.082 ms

Loss rate: 0.02%

Run 8: Report of TCP BBR — Data Link

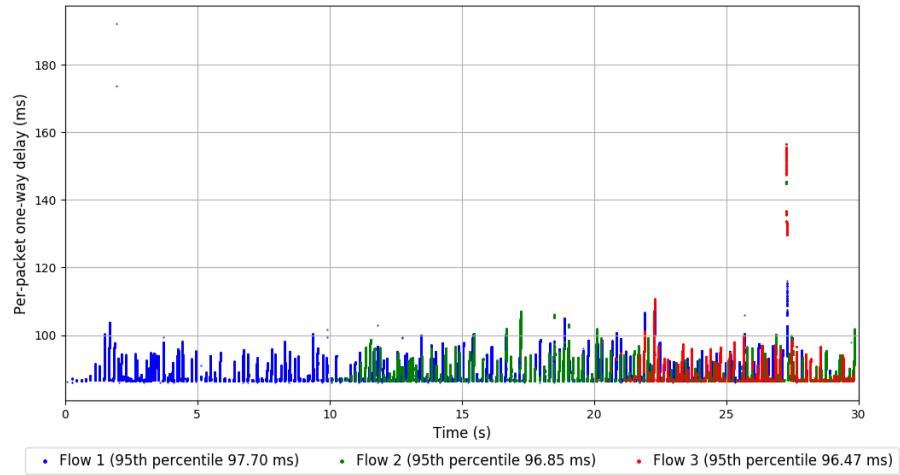
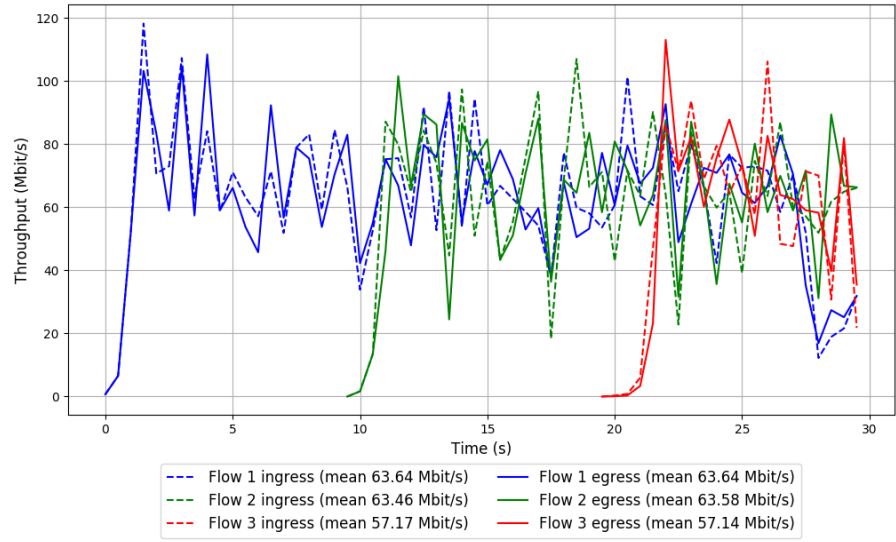


```
Run 9: Statistics of TCP BBR

Start at: 2017-09-08 01:51:30
End at: 2017-09-08 01:52:00

# Below is generated by plot.py at 2017-09-08 03:45:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.93 Mbit/s
95th percentile per-packet one-way delay: 97.288 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.64 Mbit/s
95th percentile per-packet one-way delay: 97.696 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.58 Mbit/s
95th percentile per-packet one-way delay: 96.851 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.14 Mbit/s
95th percentile per-packet one-way delay: 96.465 ms
Loss rate: 0.03%
```


Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-09-08 02:04:34

End at: 2017-09-08 02:05:04

Below is generated by plot.py at 2017-09-08 03:45:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.84 Mbit/s

95th percentile per-packet one-way delay: 96.581 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.00 Mbit/s

95th percentile per-packet one-way delay: 94.957 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 57.51 Mbit/s

95th percentile per-packet one-way delay: 96.986 ms

Loss rate: 0.00%

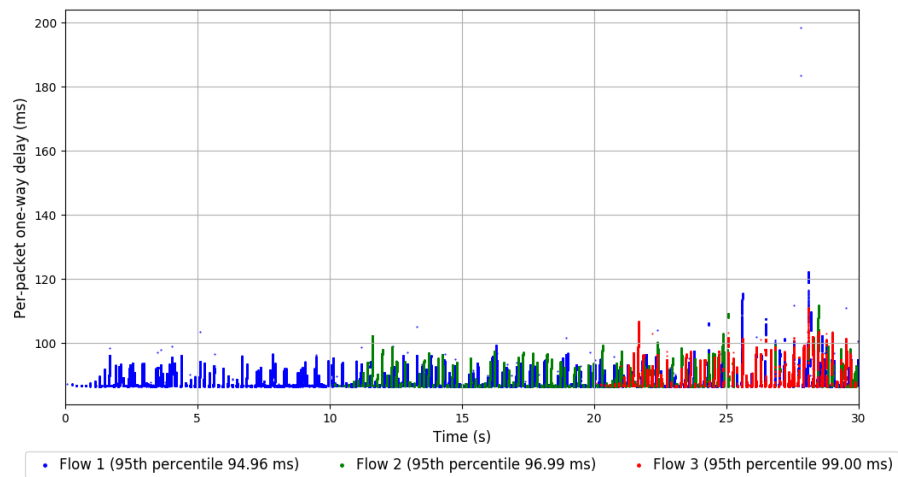
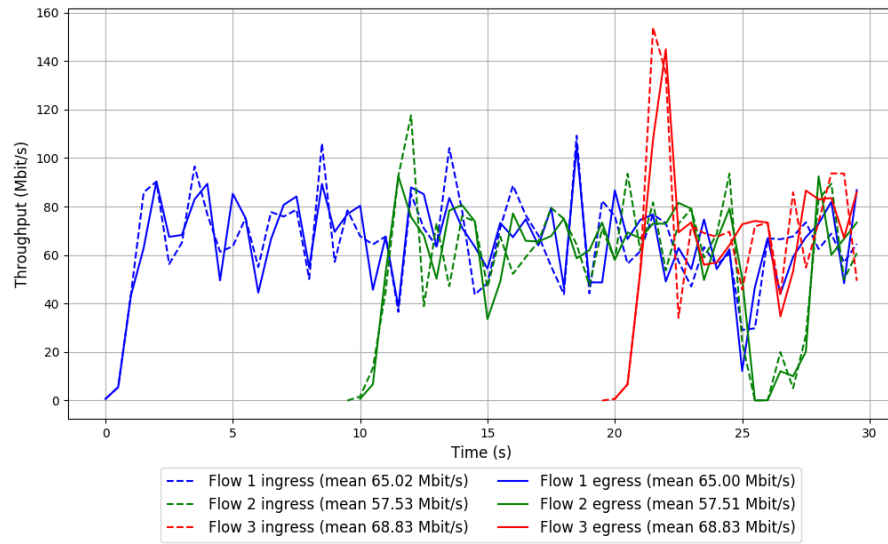
-- Flow 3:

Average throughput: 68.83 Mbit/s

95th percentile per-packet one-way delay: 98.997 ms

Loss rate: 0.00%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-09-08 00:02:53

End at: 2017-09-08 00:03:23

Below is generated by plot.py at 2017-09-08 03:46:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 306.48 Mbit/s

95th percentile per-packet one-way delay: 107.672 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 207.27 Mbit/s

95th percentile per-packet one-way delay: 105.511 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 123.75 Mbit/s

95th percentile per-packet one-way delay: 113.666 ms

Loss rate: 0.05%

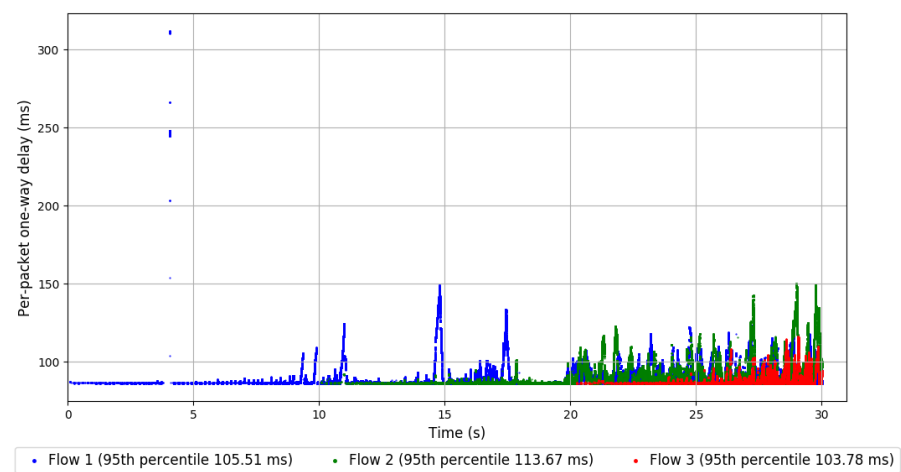
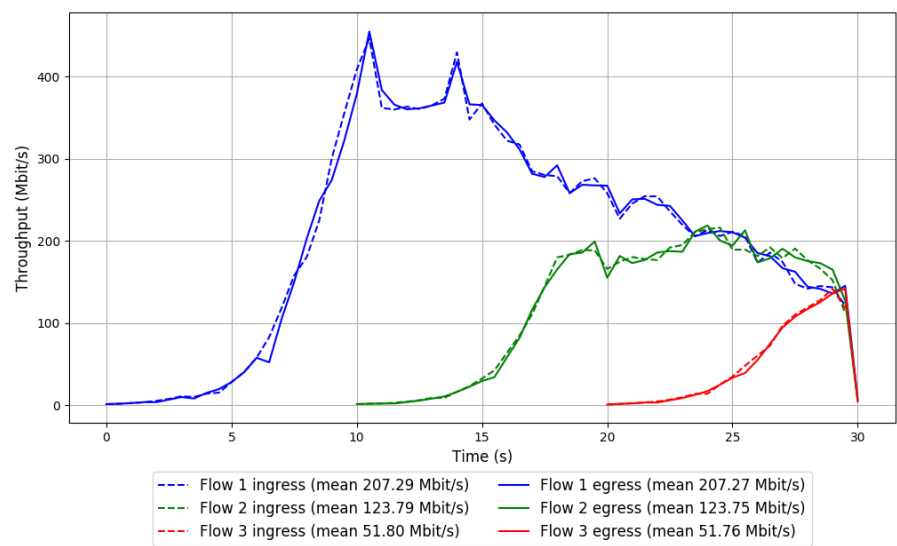
-- Flow 3:

Average throughput: 51.76 Mbit/s

95th percentile per-packet one-way delay: 103.779 ms

Loss rate: 0.10%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-09-08 00:15:56

End at: 2017-09-08 00:16:26

Below is generated by plot.py at 2017-09-08 03:46:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 290.80 Mbit/s

95th percentile per-packet one-way delay: 124.326 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 193.63 Mbit/s

95th percentile per-packet one-way delay: 130.644 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 119.57 Mbit/s

95th percentile per-packet one-way delay: 114.268 ms

Loss rate: 0.01%

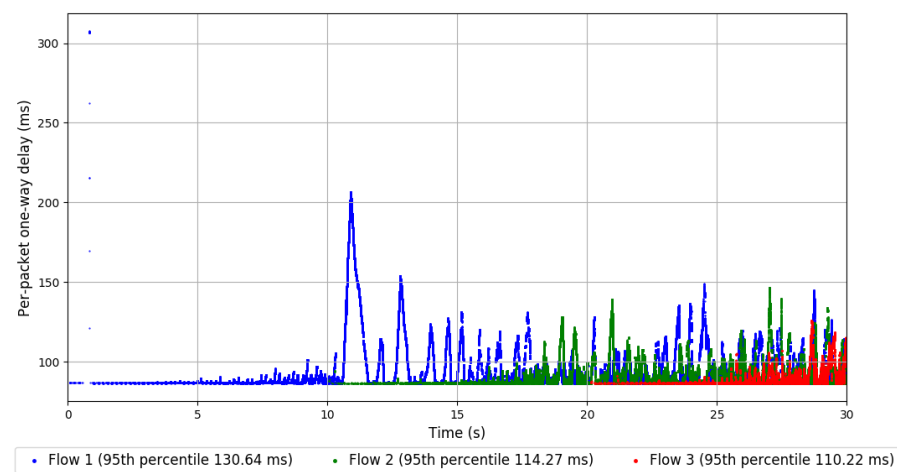
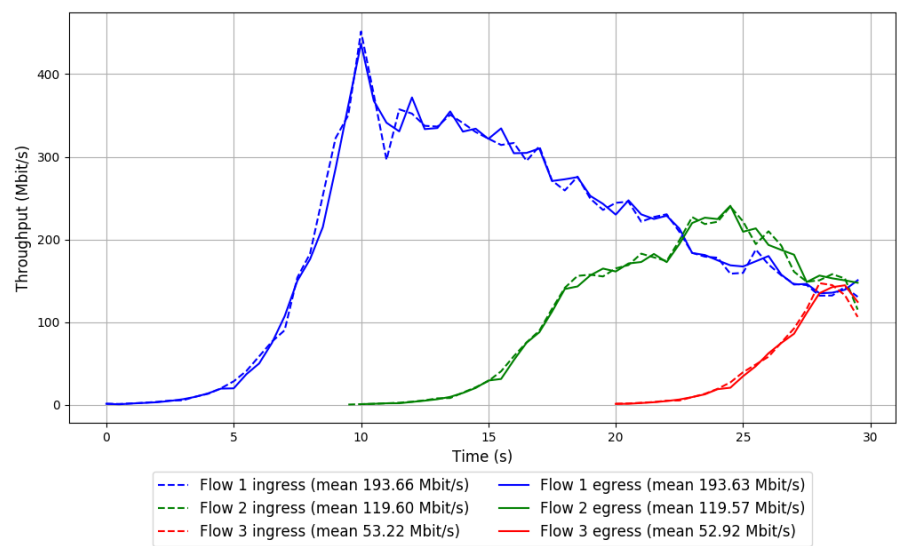
-- Flow 3:

Average throughput: 52.92 Mbit/s

95th percentile per-packet one-way delay: 110.225 ms

Loss rate: 0.63%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-09-08 00:28:49

End at: 2017-09-08 00:29:19

Below is generated by plot.py at 2017-09-08 03:46:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 274.88 Mbit/s

95th percentile per-packet one-way delay: 144.413 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 192.84 Mbit/s

95th percentile per-packet one-way delay: 139.420 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 107.57 Mbit/s

95th percentile per-packet one-way delay: 149.063 ms

Loss rate: 0.00%

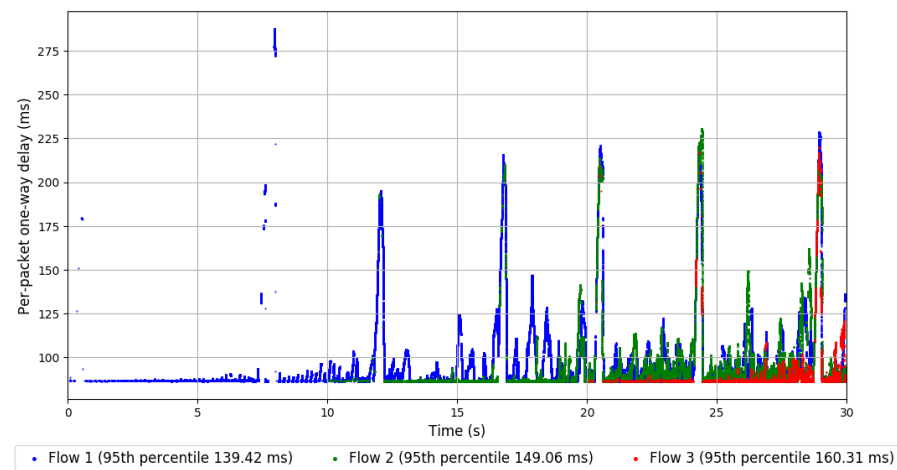
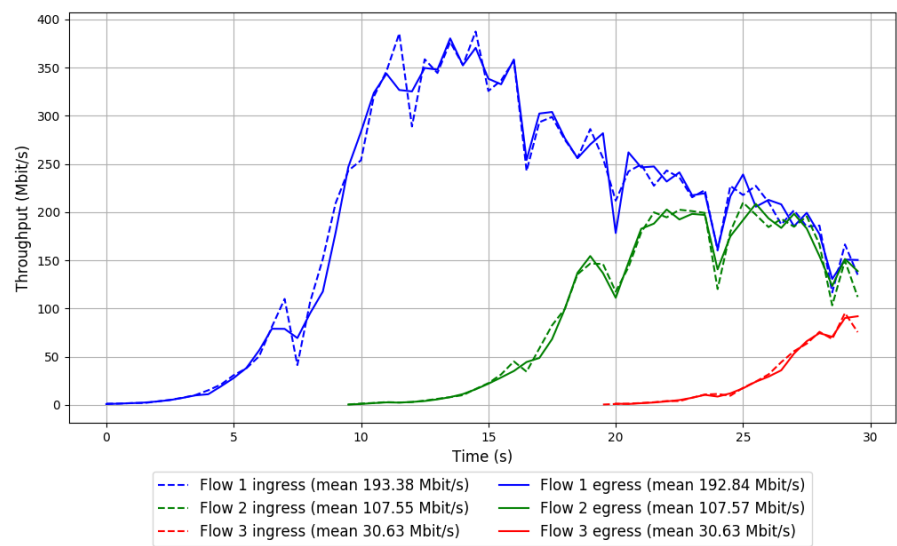
-- Flow 3:

Average throughput: 30.63 Mbit/s

95th percentile per-packet one-way delay: 160.305 ms

Loss rate: 0.00%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-09-08 00:41:26

End at: 2017-09-08 00:41:56

Below is generated by plot.py at 2017-09-08 03:46:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 274.02 Mbit/s

95th percentile per-packet one-way delay: 155.096 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 184.34 Mbit/s

95th percentile per-packet one-way delay: 156.254 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 117.28 Mbit/s

95th percentile per-packet one-way delay: 159.128 ms

Loss rate: 0.47%

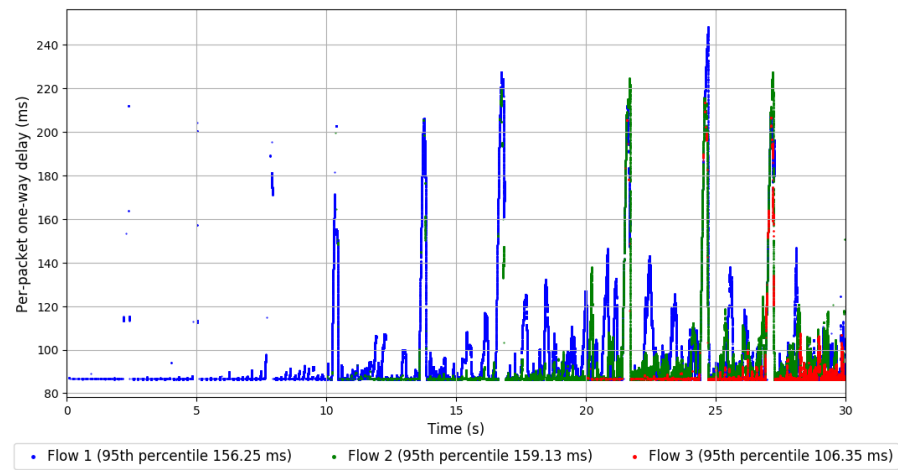
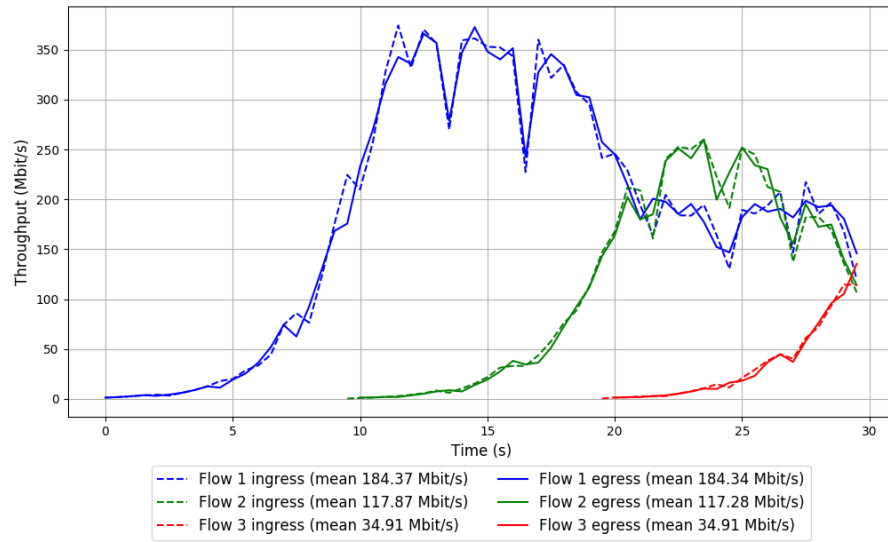
-- Flow 3:

Average throughput: 34.91 Mbit/s

95th percentile per-packet one-way delay: 106.350 ms

Loss rate: 0.00%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-09-08 00:53:47

End at: 2017-09-08 00:54:17

Below is generated by plot.py at 2017-09-08 03:47:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 247.98 Mbit/s

95th percentile per-packet one-way delay: 221.699 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 181.18 Mbit/s

95th percentile per-packet one-way delay: 222.044 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 90.13 Mbit/s

95th percentile per-packet one-way delay: 219.072 ms

Loss rate: 0.02%

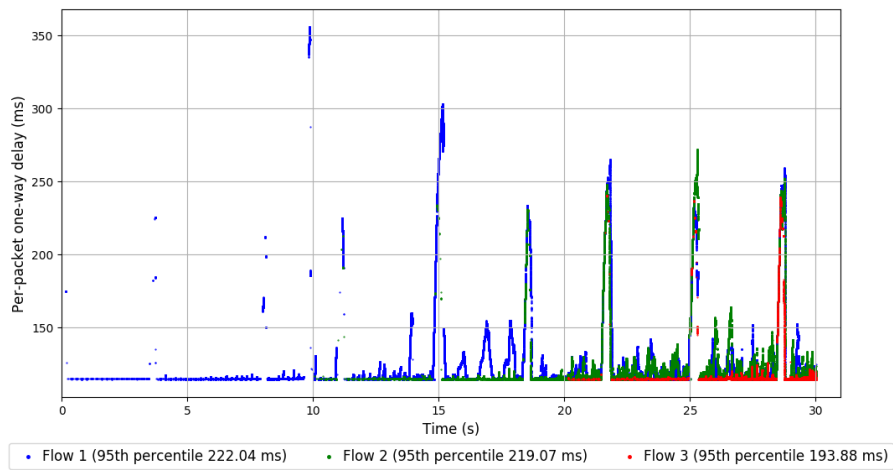
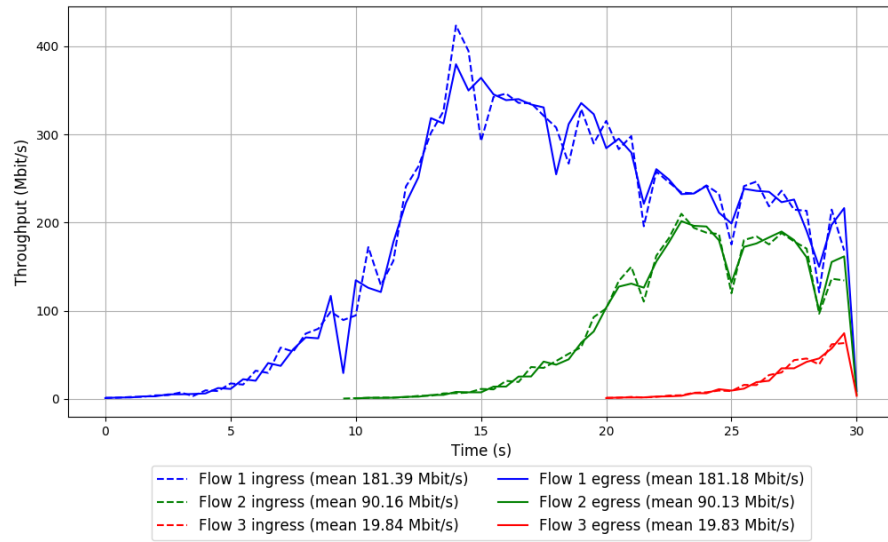
-- Flow 3:

Average throughput: 19.83 Mbit/s

95th percentile per-packet one-way delay: 193.882 ms

Loss rate: 0.06%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-09-08 01:06:05

End at: 2017-09-08 01:06:35

Below is generated by plot.py at 2017-09-08 03:47:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 243.44 Mbit/s

95th percentile per-packet one-way delay: 227.637 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 173.88 Mbit/s

95th percentile per-packet one-way delay: 233.985 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 94.36 Mbit/s

95th percentile per-packet one-way delay: 188.412 ms

Loss rate: 1.49%

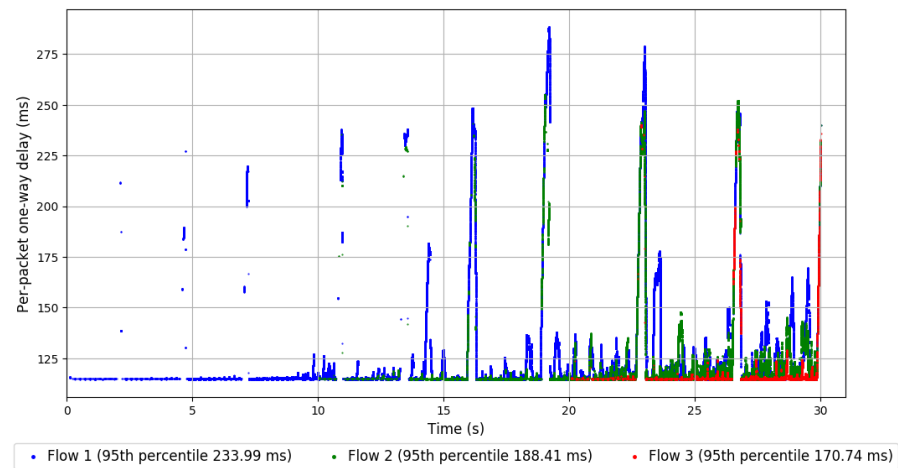
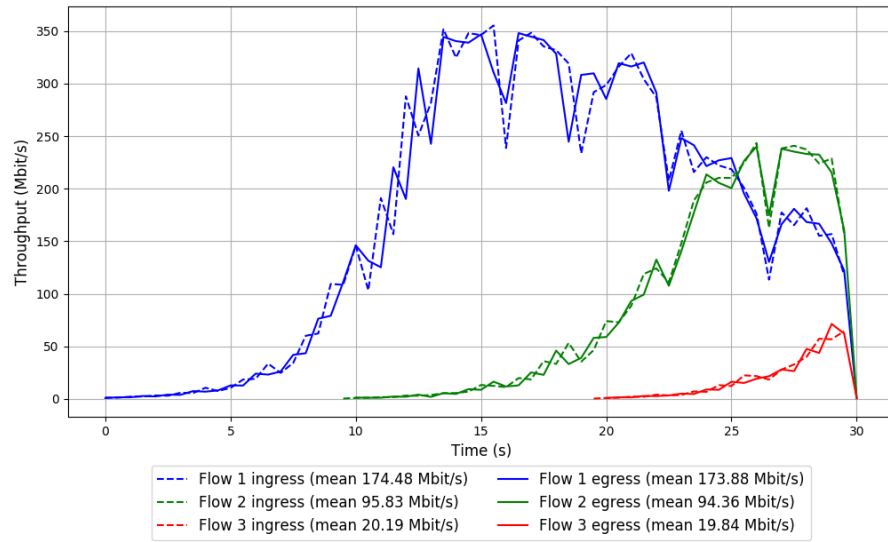
-- Flow 3:

Average throughput: 19.84 Mbit/s

95th percentile per-packet one-way delay: 170.742 ms

Loss rate: 1.60%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-09-08 01:18:40

End at: 2017-09-08 01:19:10

Below is generated by plot.py at 2017-09-08 03:48:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 293.16 Mbit/s

95th percentile per-packet one-way delay: 119.813 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 205.89 Mbit/s

95th percentile per-packet one-way delay: 119.157 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 109.71 Mbit/s

95th percentile per-packet one-way delay: 126.009 ms

Loss rate: 0.02%

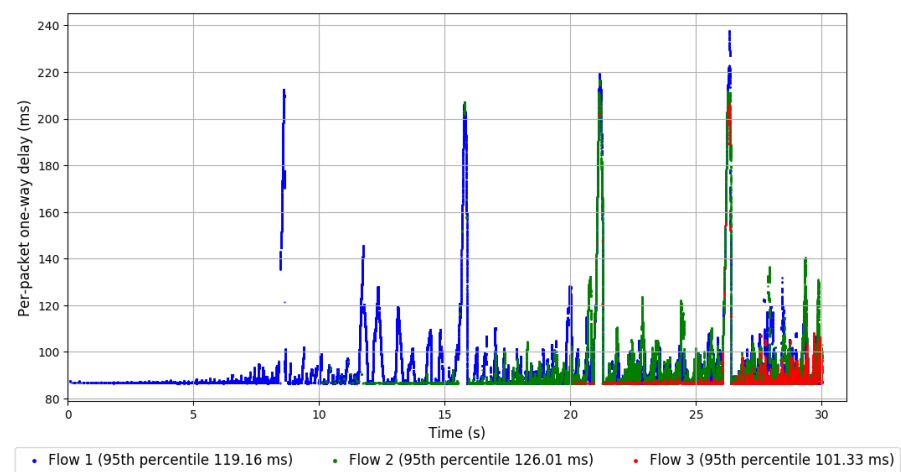
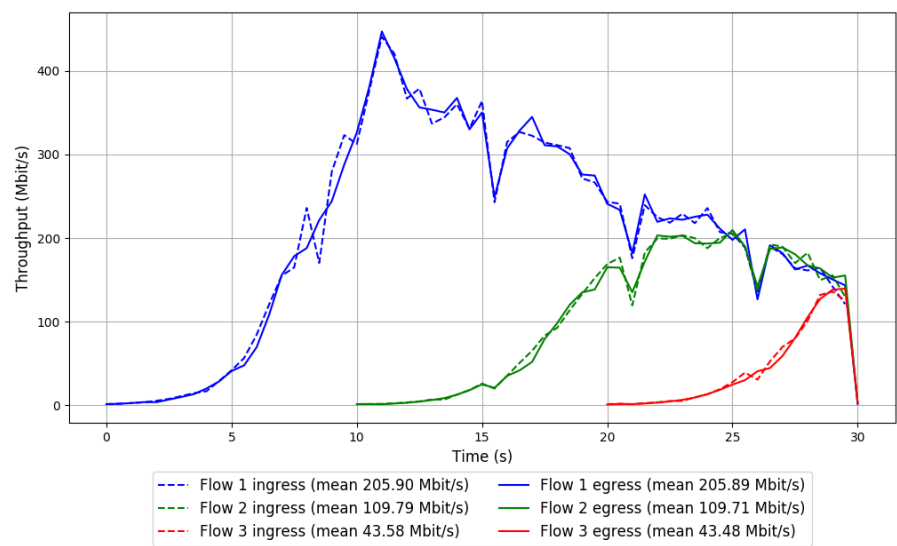
-- Flow 3:

Average throughput: 43.48 Mbit/s

95th percentile per-packet one-way delay: 101.331 ms

Loss rate: 0.16%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-09-08 01:31:23

End at: 2017-09-08 01:31:53

Below is generated by plot.py at 2017-09-08 03:48:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 278.88 Mbit/s

95th percentile per-packet one-way delay: 132.162 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 190.75 Mbit/s

95th percentile per-packet one-way delay: 134.598 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 112.59 Mbit/s

95th percentile per-packet one-way delay: 121.168 ms

Loss rate: 0.12%

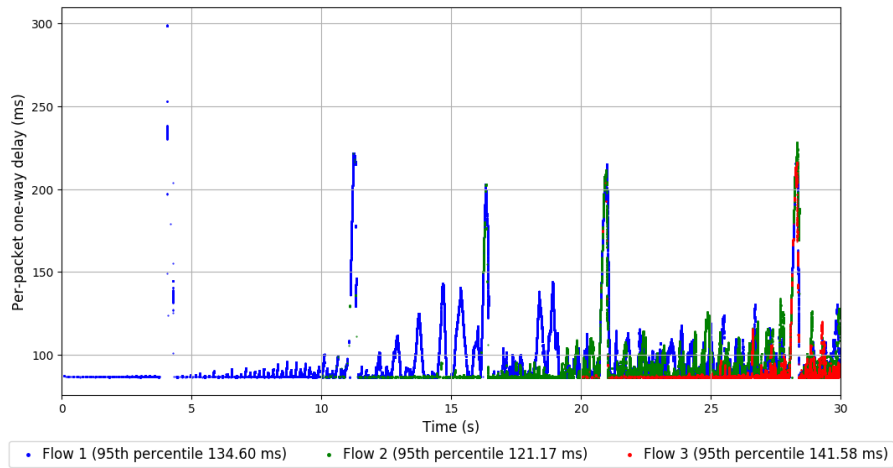
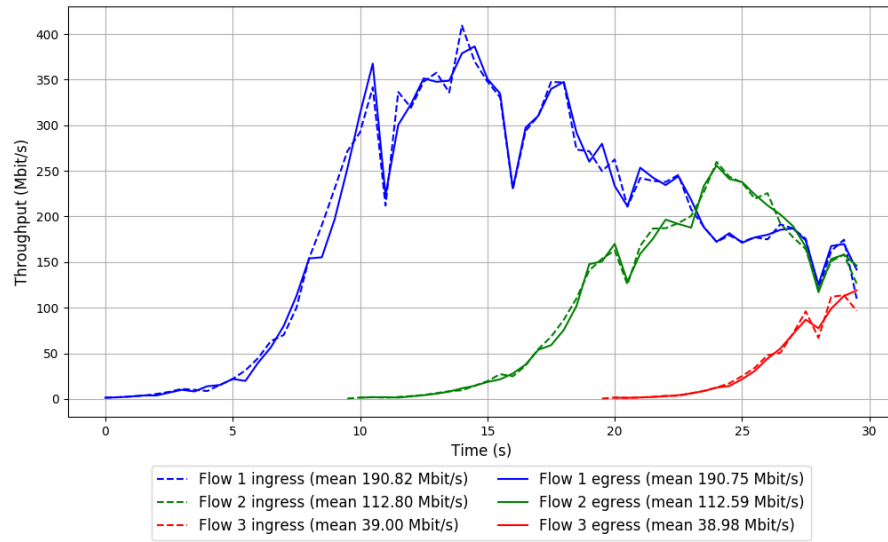
-- Flow 3:

Average throughput: 38.98 Mbit/s

95th percentile per-packet one-way delay: 141.583 ms

Loss rate: 0.00%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-09-08 01:44:04

End at: 2017-09-08 01:44:34

Below is generated by plot.py at 2017-09-08 03:49:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 160.57 Mbit/s

95th percentile per-packet one-way delay: 194.861 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 4022.195 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 190.51 Mbit/s

95th percentile per-packet one-way delay: 202.717 ms

Loss rate: 0.00%

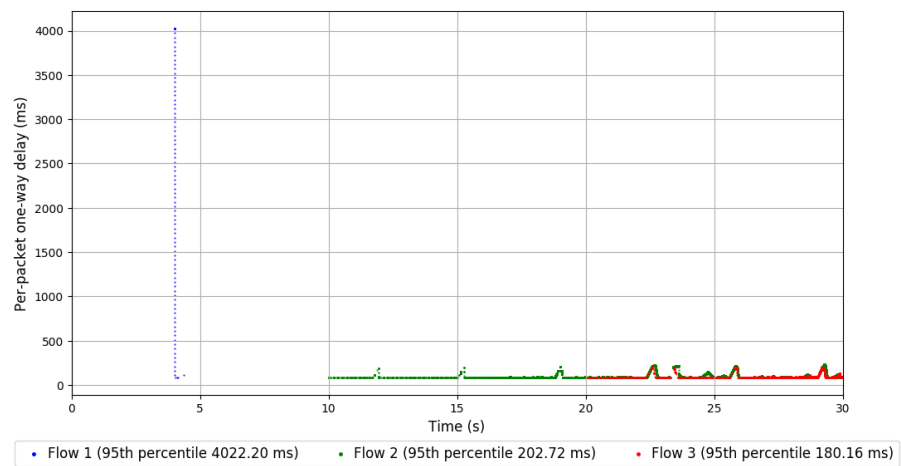
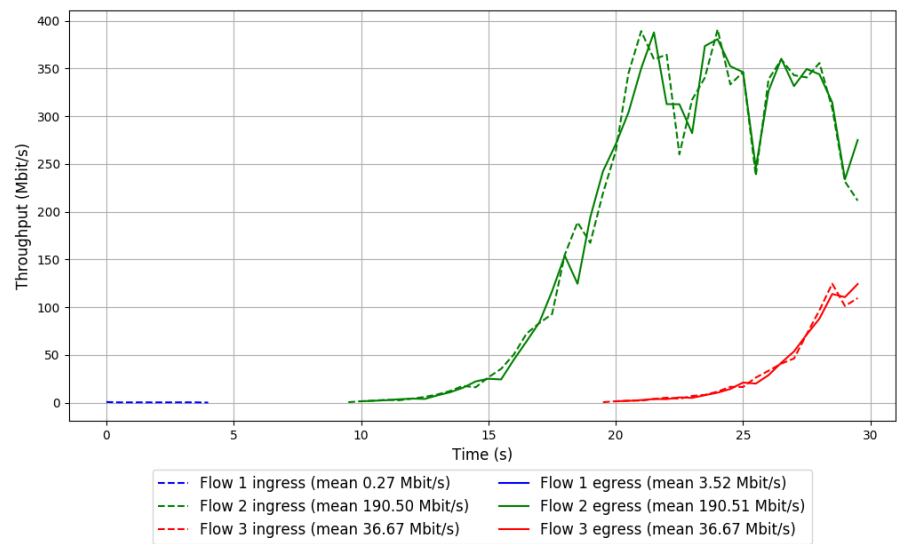
-- Flow 3:

Average throughput: 36.67 Mbit/s

95th percentile per-packet one-way delay: 180.163 ms

Loss rate: 0.00%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-09-08 01:56:51

End at: 2017-09-08 01:57:21

Below is generated by plot.py at 2017-09-08 03:49:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 319.39 Mbit/s

95th percentile per-packet one-way delay: 121.102 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 221.57 Mbit/s

95th percentile per-packet one-way delay: 130.800 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 120.96 Mbit/s

95th percentile per-packet one-way delay: 111.884 ms

Loss rate: 0.00%

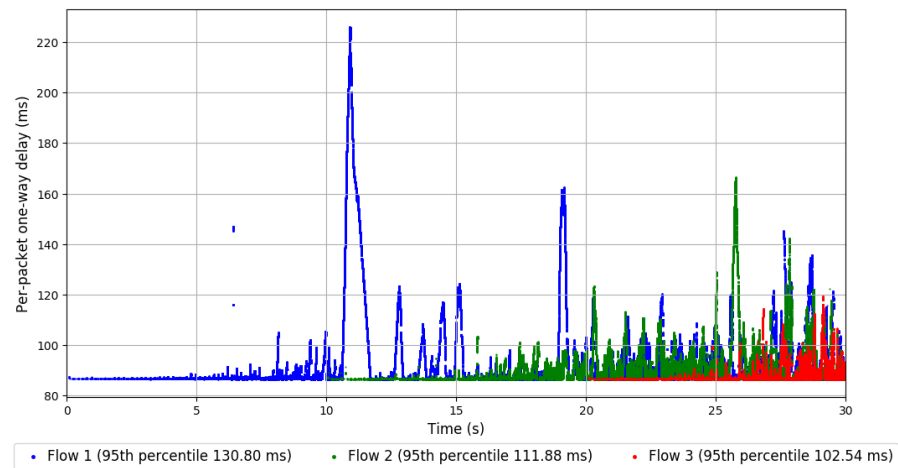
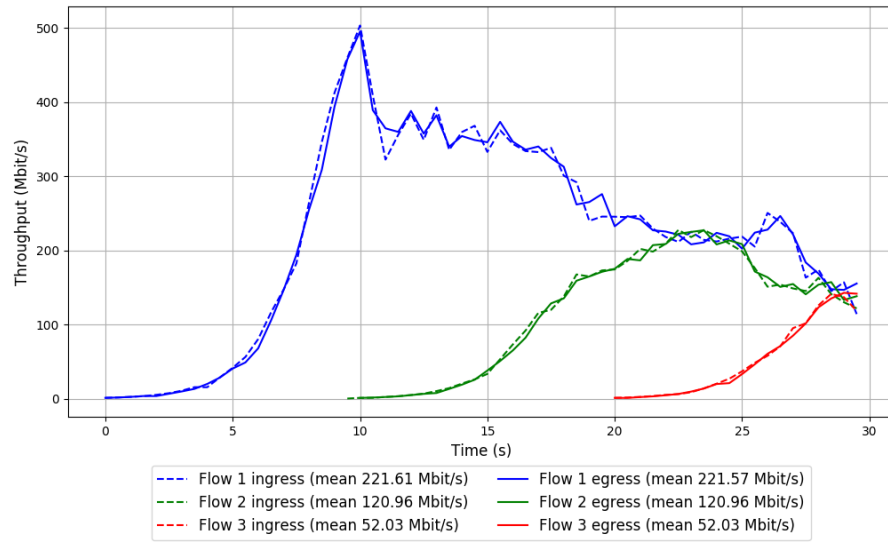
-- Flow 3:

Average throughput: 52.03 Mbit/s

95th percentile per-packet one-way delay: 102.540 ms

Loss rate: 0.00%

Run 10: Report of CalibratedKoho — Data Link

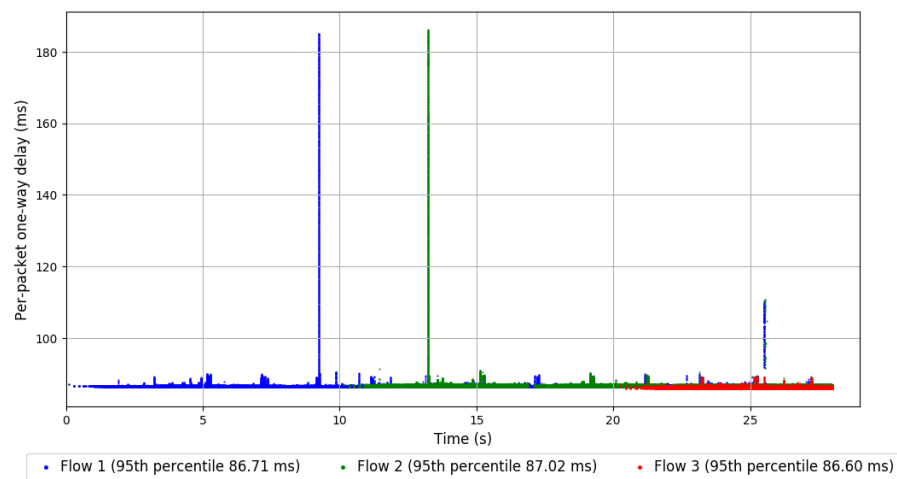
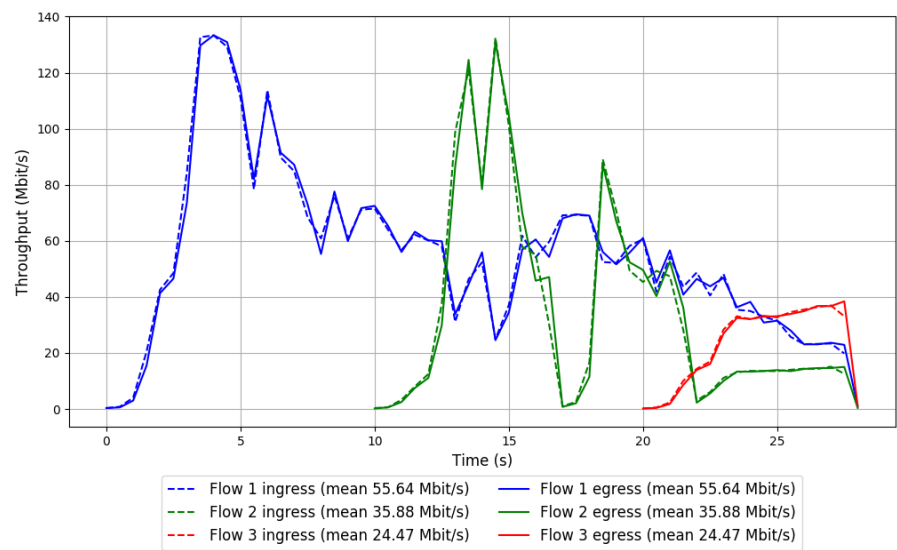


```
Run 1: Statistics of Copa

Start at: 2017-09-08 00:02:00
End at: 2017-09-08 00:02:30

# Below is generated by plot.py at 2017-09-08 03:49:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.40 Mbit/s
95th percentile per-packet one-way delay: 86.955 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.64 Mbit/s
95th percentile per-packet one-way delay: 86.709 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.88 Mbit/s
95th percentile per-packet one-way delay: 87.016 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.47 Mbit/s
95th percentile per-packet one-way delay: 86.601 ms
Loss rate: 0.00%
```


Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-09-08 00:15:03

End at: 2017-09-08 00:15:33

Below is generated by plot.py at 2017-09-08 03:50:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.18 Mbit/s

95th percentile per-packet one-way delay: 86.871 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 56.75 Mbit/s

95th percentile per-packet one-way delay: 86.539 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 51.89 Mbit/s

95th percentile per-packet one-way delay: 86.565 ms

Loss rate: 0.01%

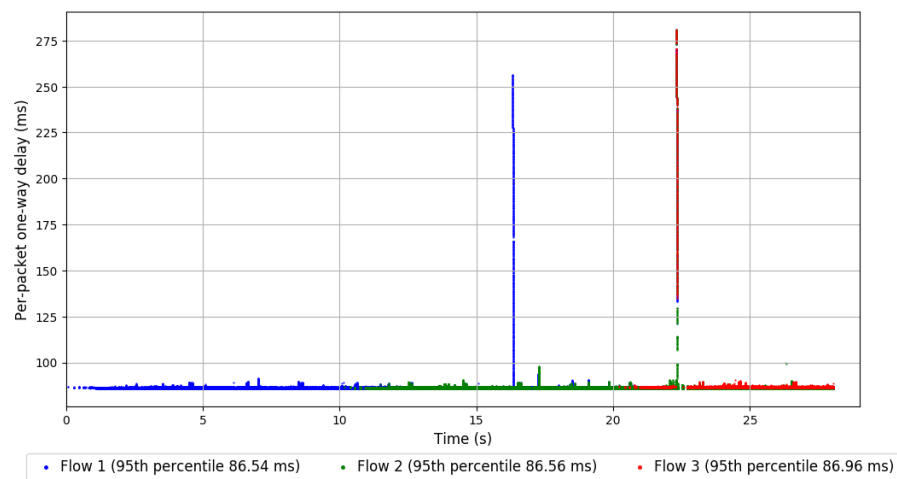
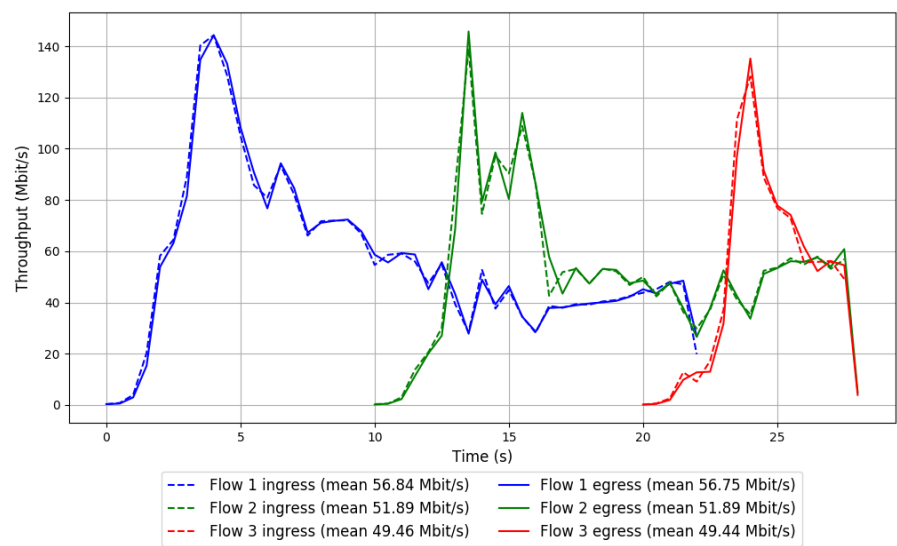
-- Flow 3:

Average throughput: 49.44 Mbit/s

95th percentile per-packet one-way delay: 86.959 ms

Loss rate: 0.04%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-09-08 00:27:58

End at: 2017-09-08 00:28:28

Below is generated by plot.py at 2017-09-08 03:50:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.32 Mbit/s

95th percentile per-packet one-way delay: 87.135 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.42 Mbit/s

95th percentile per-packet one-way delay: 87.547 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 49.28 Mbit/s

95th percentile per-packet one-way delay: 86.938 ms

Loss rate: 0.00%

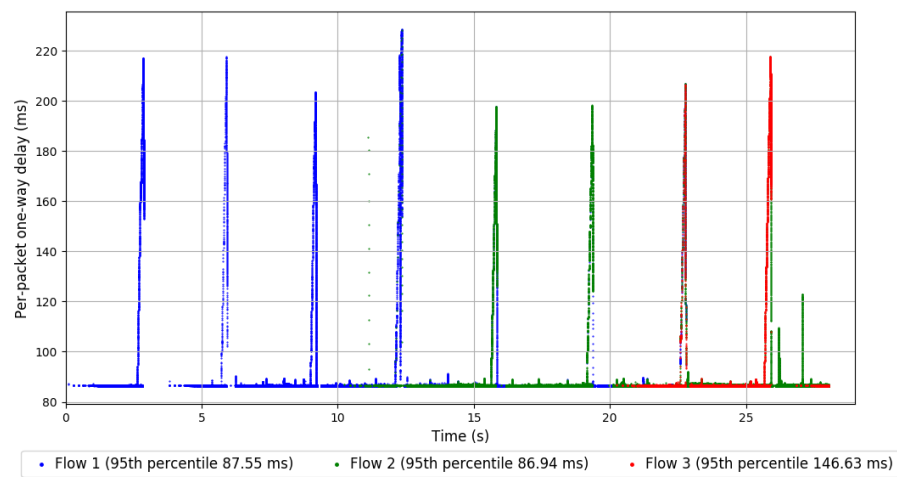
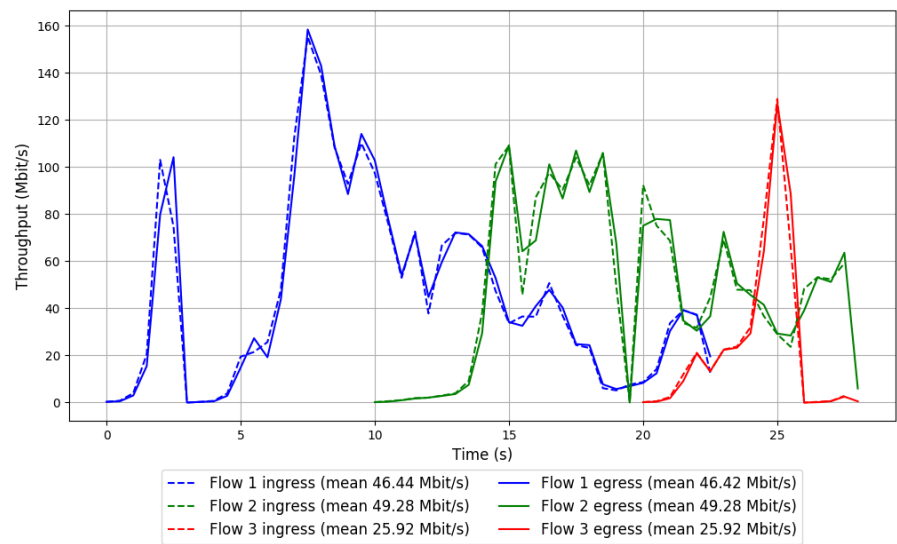
-- Flow 3:

Average throughput: 25.92 Mbit/s

95th percentile per-packet one-way delay: 146.630 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-09-08 00:40:36

End at: 2017-09-08 00:41:06

Below is generated by plot.py at 2017-09-08 03:50:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.24 Mbit/s

95th percentile per-packet one-way delay: 87.276 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 44.53 Mbit/s

95th percentile per-packet one-way delay: 87.015 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.62 Mbit/s

95th percentile per-packet one-way delay: 91.205 ms

Loss rate: 0.02%

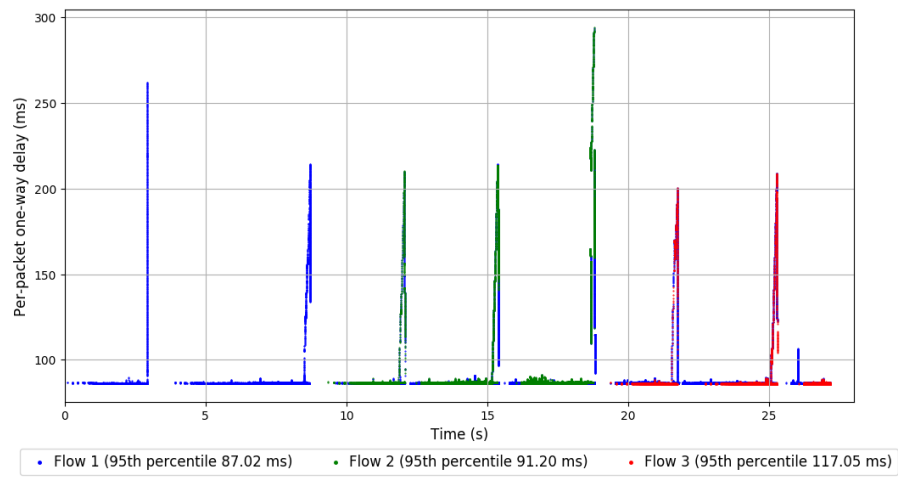
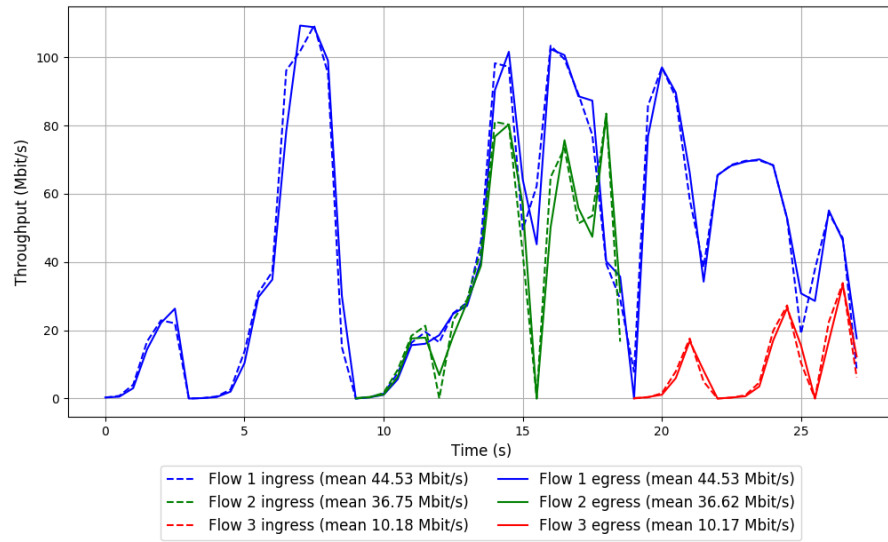
-- Flow 3:

Average throughput: 10.17 Mbit/s

95th percentile per-packet one-way delay: 117.047 ms

Loss rate: 0.05%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-09-08 00:53:01

End at: 2017-09-08 00:53:31

Below is generated by plot.py at 2017-09-08 03:50:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.21 Mbit/s

95th percentile per-packet one-way delay: 115.670 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 8.54 Mbit/s

95th percentile per-packet one-way delay: 115.047 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 6.62 Mbit/s

95th percentile per-packet one-way delay: 123.766 ms

Loss rate: 0.00%

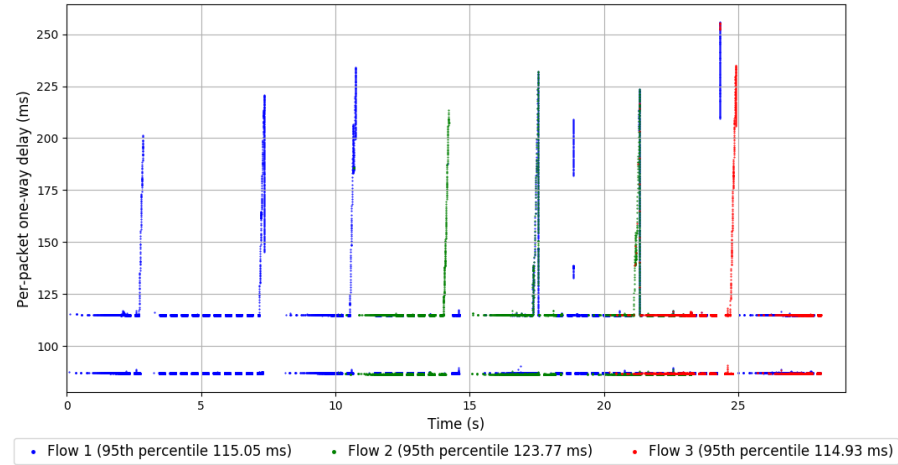
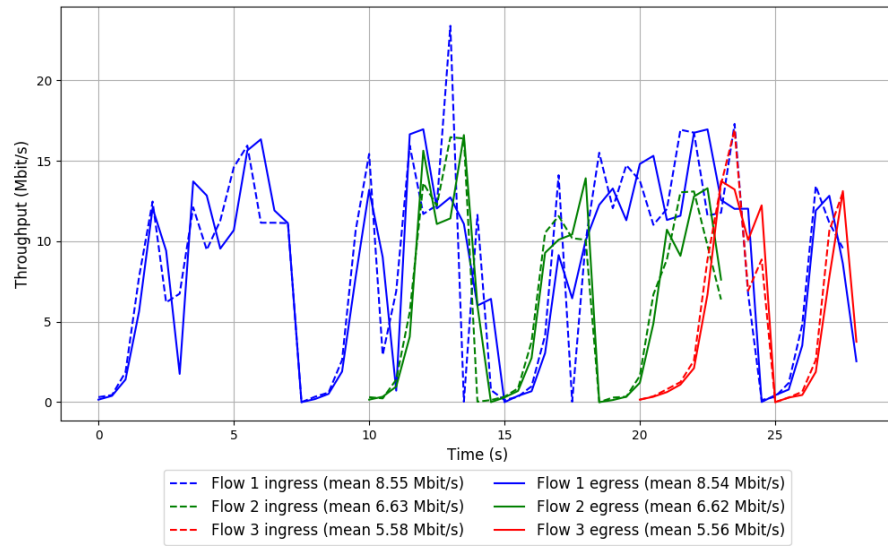
-- Flow 3:

Average throughput: 5.56 Mbit/s

95th percentile per-packet one-way delay: 114.926 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link

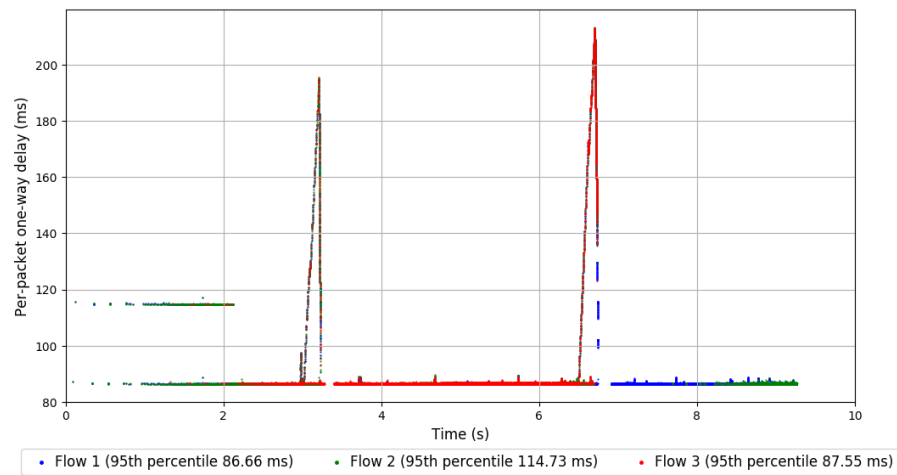
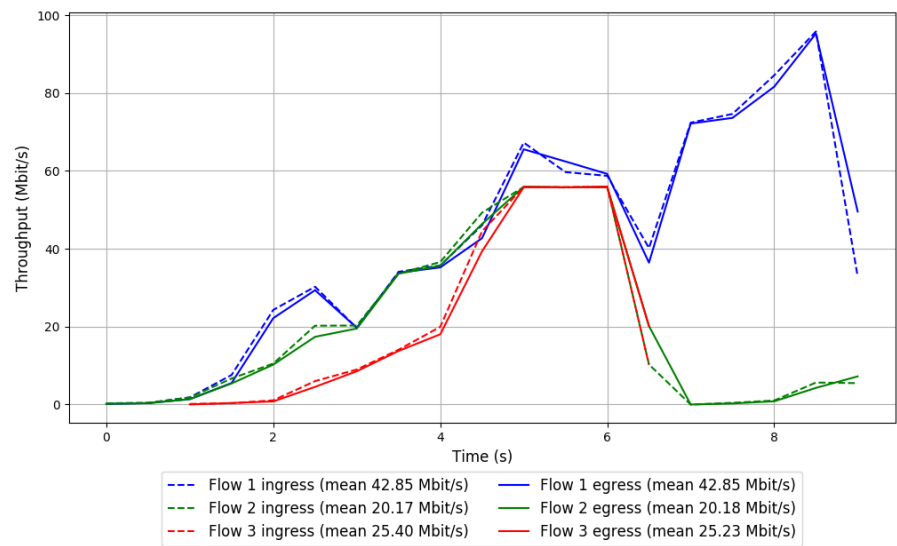


Run 6: Statistics of Copa

Start at: 2017-09-08 01:05:17

End at: 2017-09-08 01:05:47

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-09-08 01:17:49

End at: 2017-09-08 01:18:19

Below is generated by plot.py at 2017-09-08 03:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 61.82 Mbit/s

95th percentile per-packet one-way delay: 86.932 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.51 Mbit/s

95th percentile per-packet one-way delay: 86.690 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 9.55 Mbit/s

95th percentile per-packet one-way delay: 115.298 ms

Loss rate: 0.00%

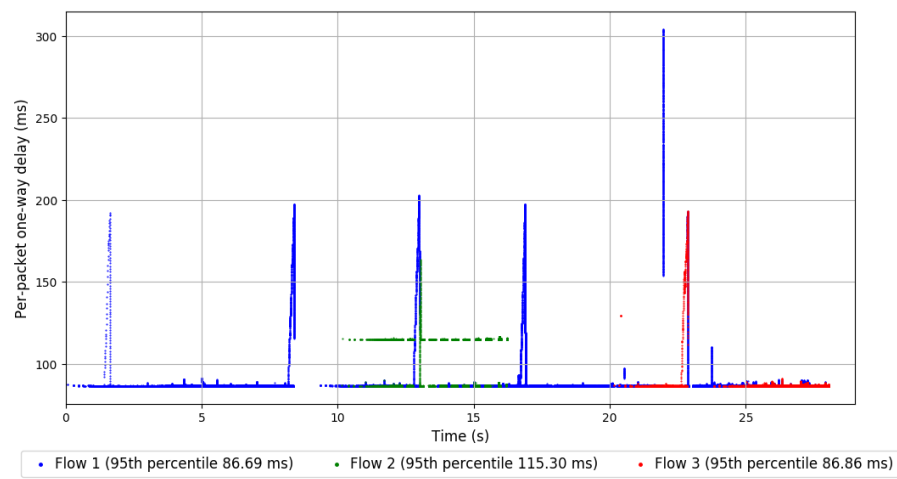
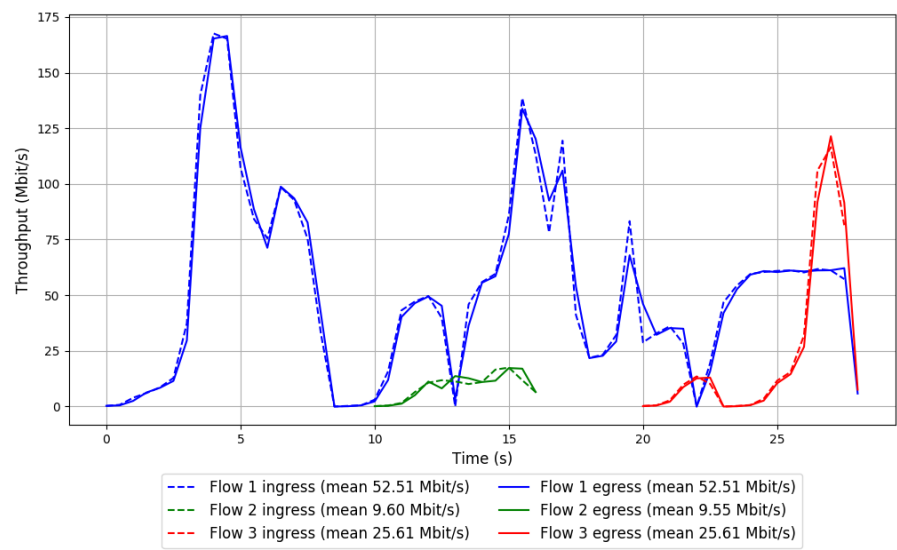
-- Flow 3:

Average throughput: 25.61 Mbit/s

95th percentile per-packet one-way delay: 86.859 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-09-08 01:30:33

End at: 2017-09-08 01:31:03

Below is generated by plot.py at 2017-09-08 03:50:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.61 Mbit/s

95th percentile per-packet one-way delay: 87.244 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 32.64 Mbit/s

95th percentile per-packet one-way delay: 88.451 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 47.35 Mbit/s

95th percentile per-packet one-way delay: 87.218 ms

Loss rate: 0.01%

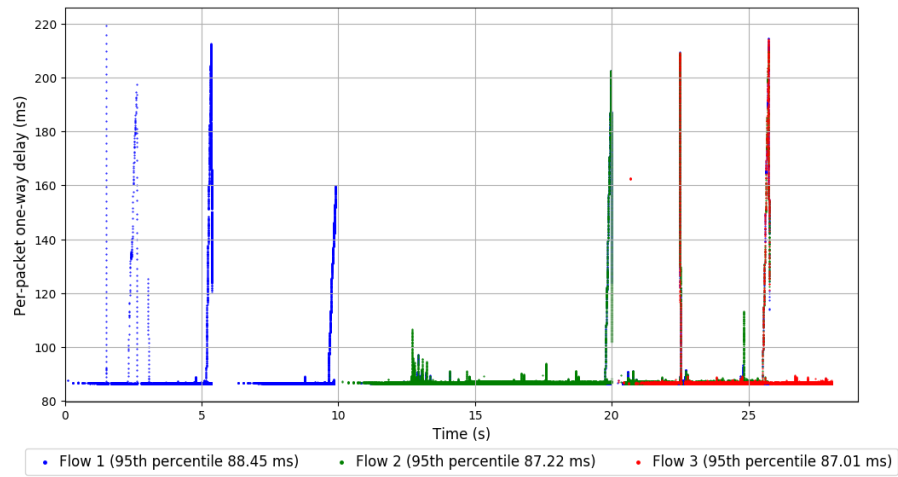
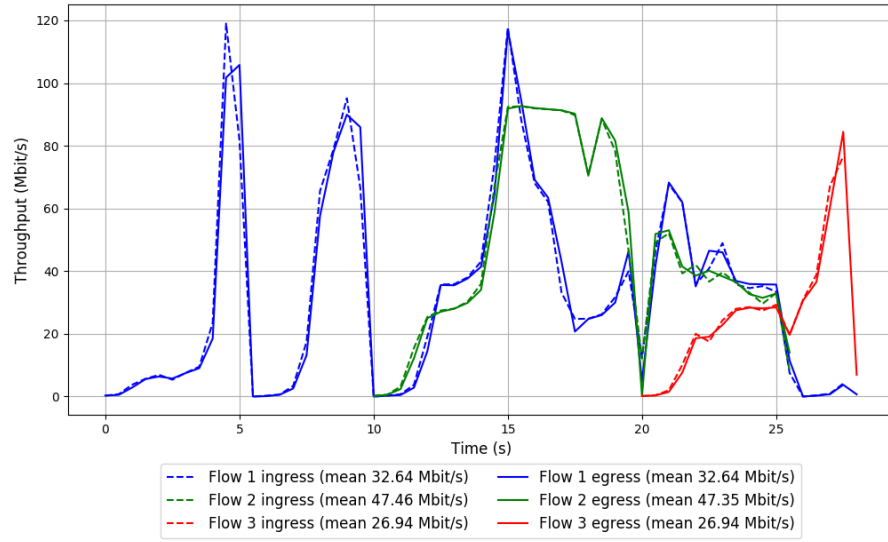
-- Flow 3:

Average throughput: 26.94 Mbit/s

95th percentile per-packet one-way delay: 87.012 ms

Loss rate: 0.01%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-09-08 01:43:15

End at: 2017-09-08 01:43:45

Below is generated by plot.py at 2017-09-08 03:51:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.15 Mbit/s

95th percentile per-packet one-way delay: 112.489 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 112.706 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 58.93 Mbit/s

95th percentile per-packet one-way delay: 86.960 ms

Loss rate: 0.00%

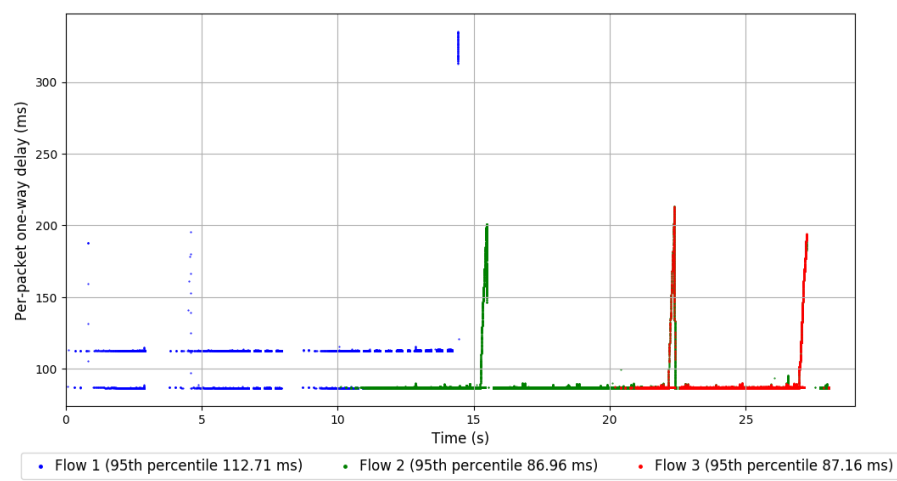
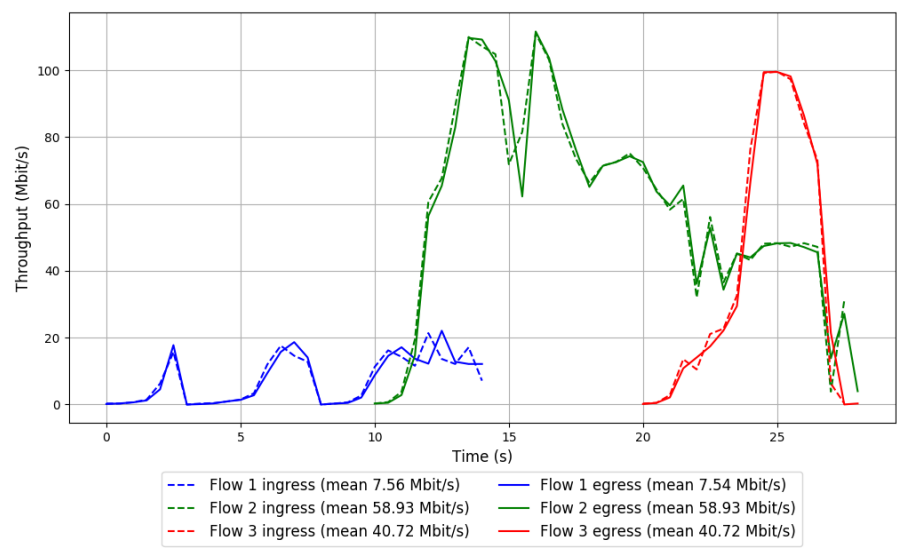
-- Flow 3:

Average throughput: 40.72 Mbit/s

95th percentile per-packet one-way delay: 87.163 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-09-08 01:55:57

End at: 2017-09-08 01:56:27

Below is generated by plot.py at 2017-09-08 03:51:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.23 Mbit/s

95th percentile per-packet one-way delay: 86.959 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 53.63 Mbit/s

95th percentile per-packet one-way delay: 86.962 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.07 Mbit/s

95th percentile per-packet one-way delay: 86.822 ms

Loss rate: 0.00%

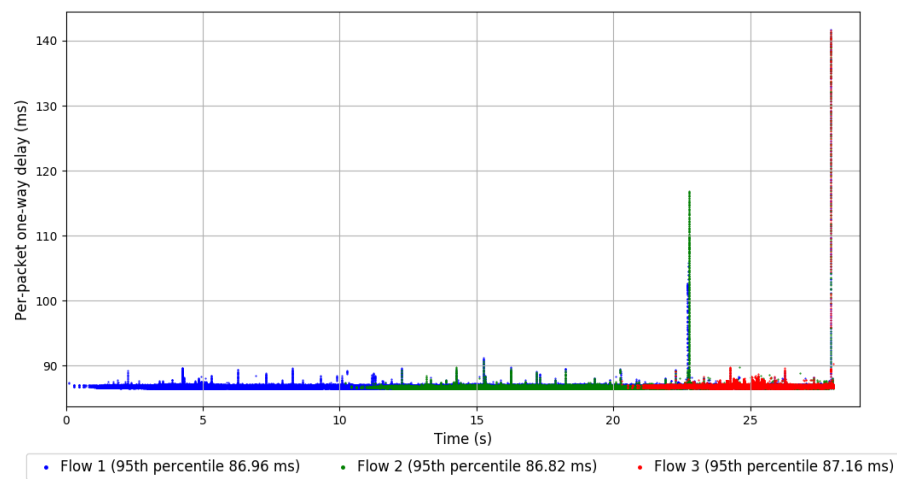
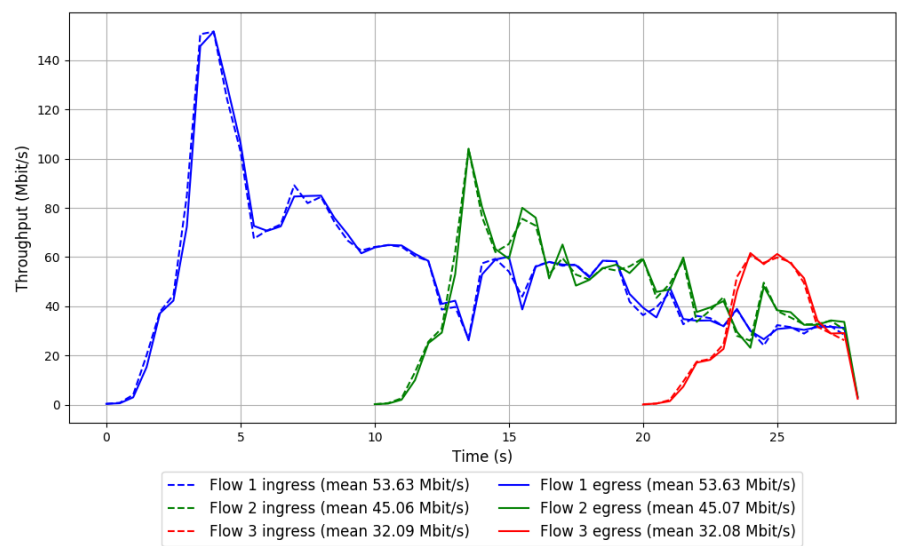
-- Flow 3:

Average throughput: 32.08 Mbit/s

95th percentile per-packet one-way delay: 87.157 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-09-08 00:07:47

End at: 2017-09-08 00:08:17

Below is generated by plot.py at 2017-09-08 03:51:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 165.62 Mbit/s

95th percentile per-packet one-way delay: 94.487 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 72.14 Mbit/s

95th percentile per-packet one-way delay: 92.677 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 81.75 Mbit/s

95th percentile per-packet one-way delay: 94.149 ms

Loss rate: 0.00%

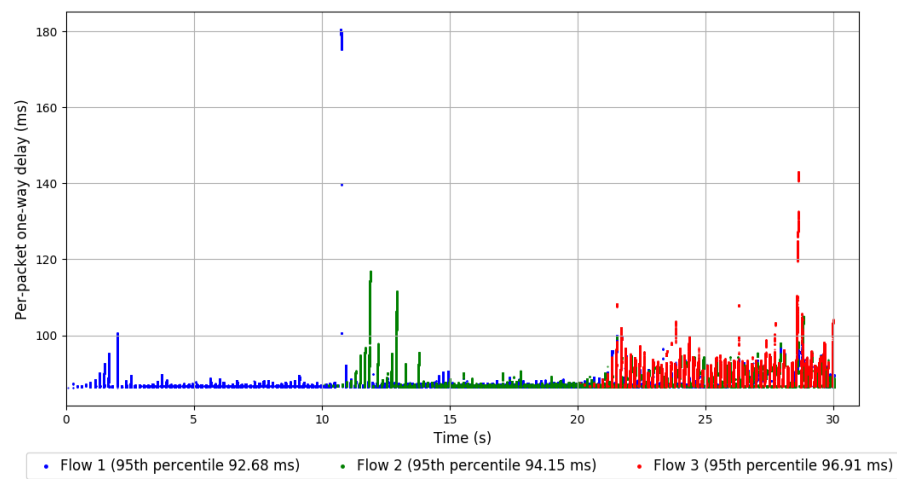
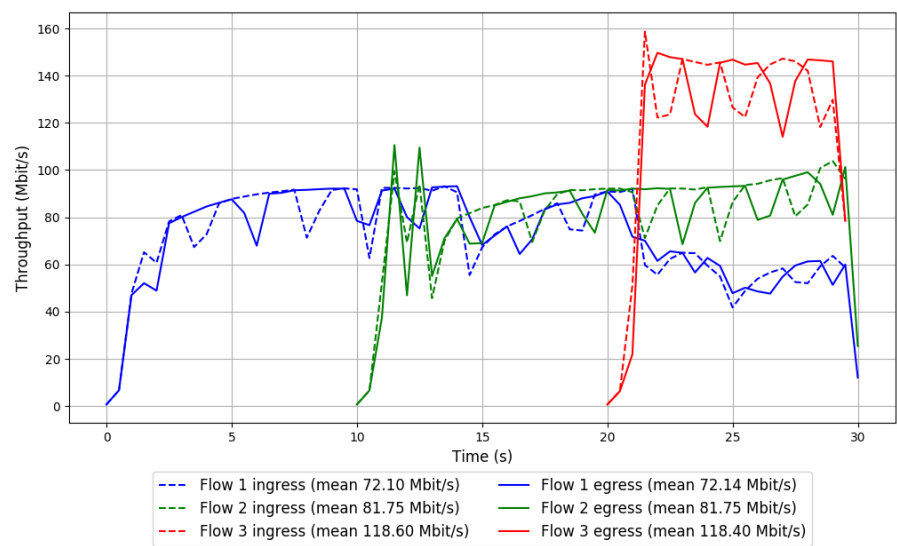
-- Flow 3:

Average throughput: 118.40 Mbit/s

95th percentile per-packet one-way delay: 96.909 ms

Loss rate: 0.00%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-09-08 00:20:46

End at: 2017-09-08 00:21:16

Below is generated by plot.py at 2017-09-08 03:52:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 186.89 Mbit/s

95th percentile per-packet one-way delay: 98.552 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 97.40 Mbit/s

95th percentile per-packet one-way delay: 97.983 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 75.56 Mbit/s

95th percentile per-packet one-way delay: 96.839 ms

Loss rate: 0.00%

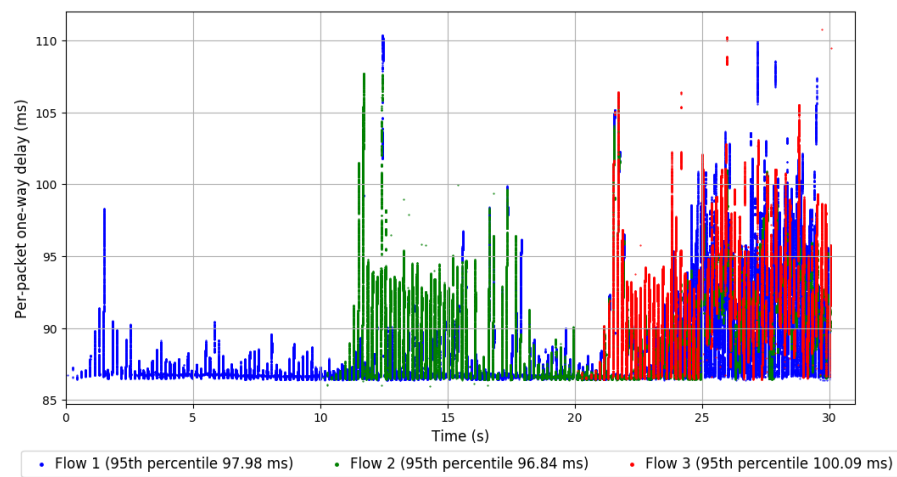
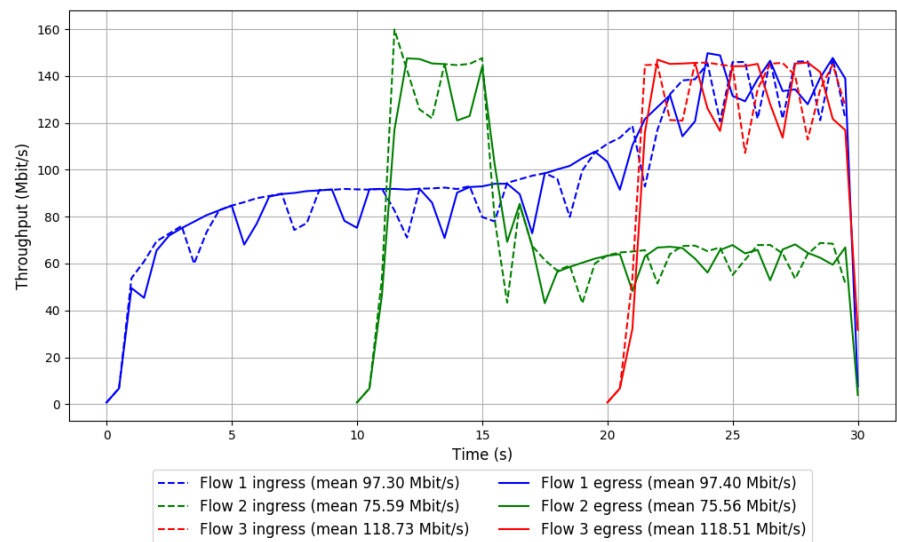
-- Flow 3:

Average throughput: 118.51 Mbit/s

95th percentile per-packet one-way delay: 100.094 ms

Loss rate: 0.24%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-09-08 00:33:44

End at: 2017-09-08 00:34:14

Below is generated by plot.py at 2017-09-08 03:52:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.26 Mbit/s

95th percentile per-packet one-way delay: 115.524 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 77.59 Mbit/s

95th percentile per-packet one-way delay: 105.111 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 87.44 Mbit/s

95th percentile per-packet one-way delay: 120.879 ms

Loss rate: 0.04%

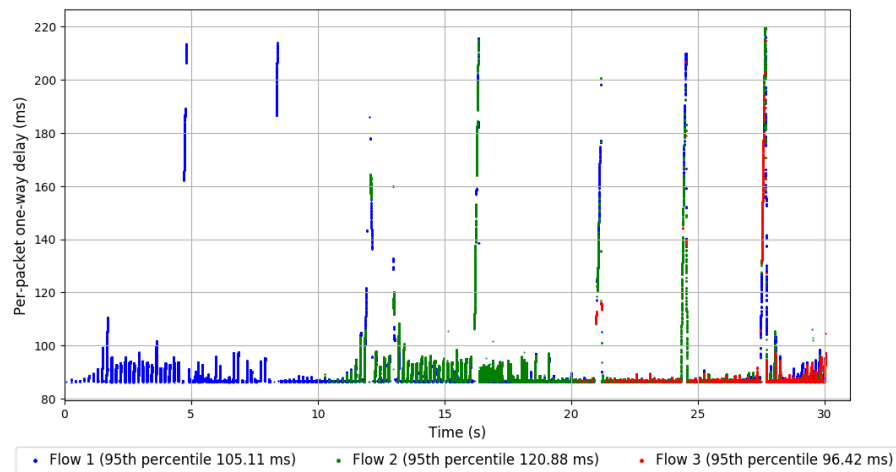
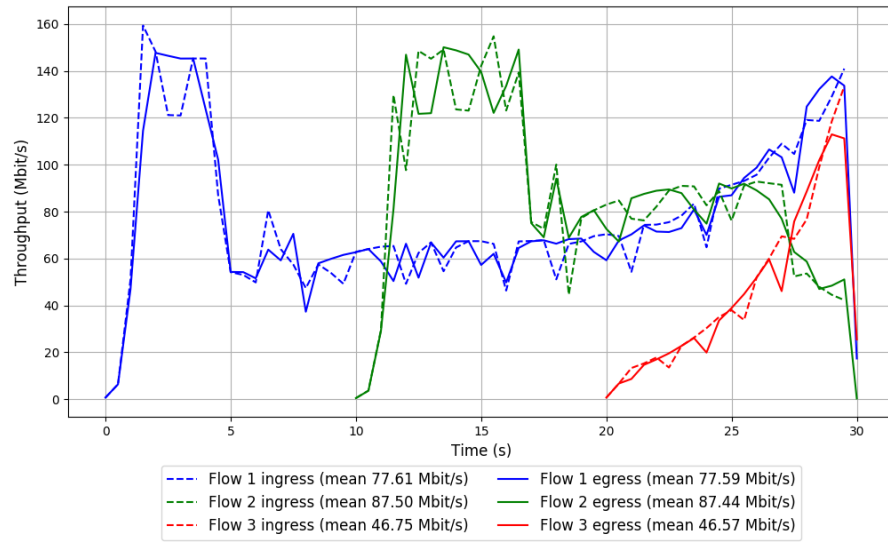
-- Flow 3:

Average throughput: 46.57 Mbit/s

95th percentile per-packet one-way delay: 96.416 ms

Loss rate: 0.43%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-09-08 00:46:18

End at: 2017-09-08 00:46:48

Below is generated by plot.py at 2017-09-08 03:52:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 154.10 Mbit/s

95th percentile per-packet one-way delay: 133.316 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 69.80 Mbit/s

95th percentile per-packet one-way delay: 130.079 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 80.30 Mbit/s

95th percentile per-packet one-way delay: 139.882 ms

Loss rate: 0.00%

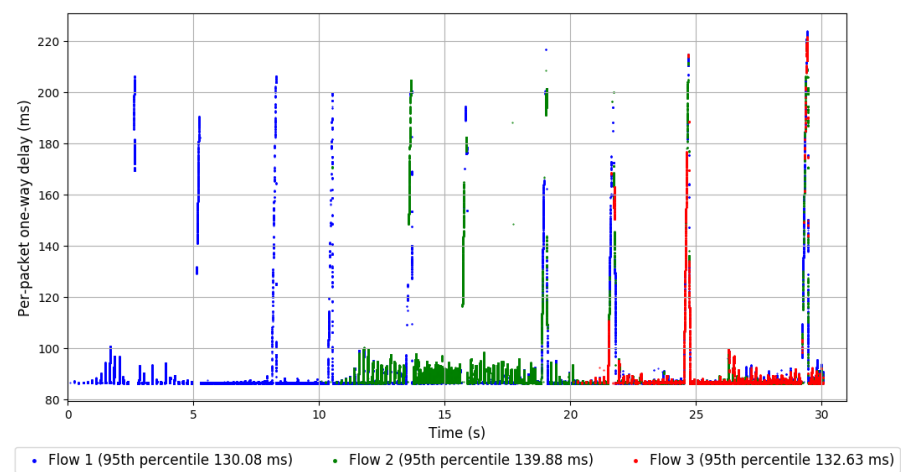
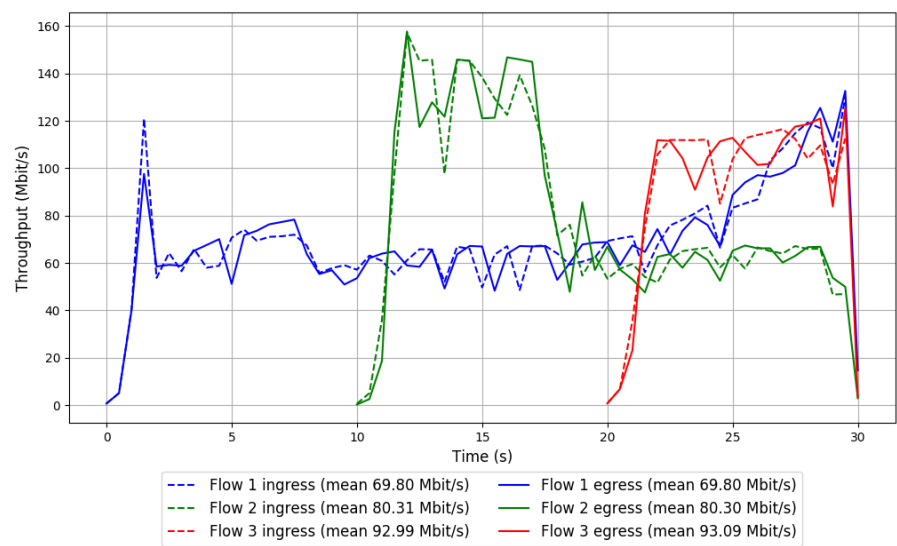
-- Flow 3:

Average throughput: 93.09 Mbit/s

95th percentile per-packet one-way delay: 132.626 ms

Loss rate: 0.00%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-09-08 00:58:50

End at: 2017-09-08 00:59:20

Below is generated by plot.py at 2017-09-08 03:52:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.77 Mbit/s

95th percentile per-packet one-way delay: 148.771 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 48.66 Mbit/s

95th percentile per-packet one-way delay: 162.169 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.90 Mbit/s

95th percentile per-packet one-way delay: 136.030 ms

Loss rate: 0.16%

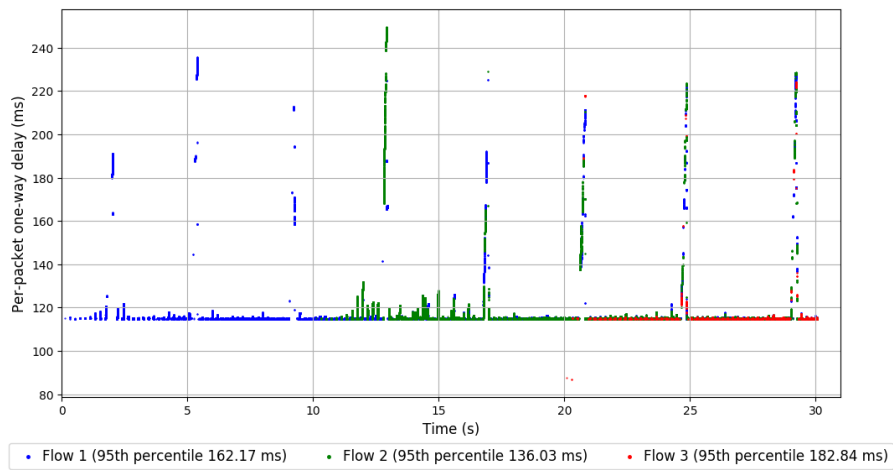
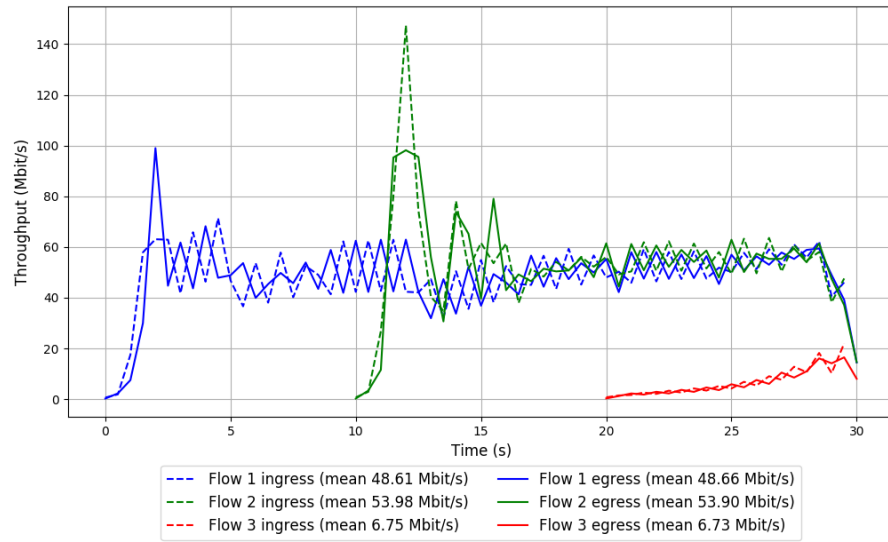
-- Flow 3:

Average throughput: 6.73 Mbit/s

95th percentile per-packet one-way delay: 182.844 ms

Loss rate: 0.00%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-09-08 01:10:58

End at: 2017-09-08 01:11:28

Below is generated by plot.py at 2017-09-08 03:52:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.41 Mbit/s

95th percentile per-packet one-way delay: 151.390 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 42.96 Mbit/s

95th percentile per-packet one-way delay: 122.932 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 27.90 Mbit/s

95th percentile per-packet one-way delay: 207.208 ms

Loss rate: 0.02%

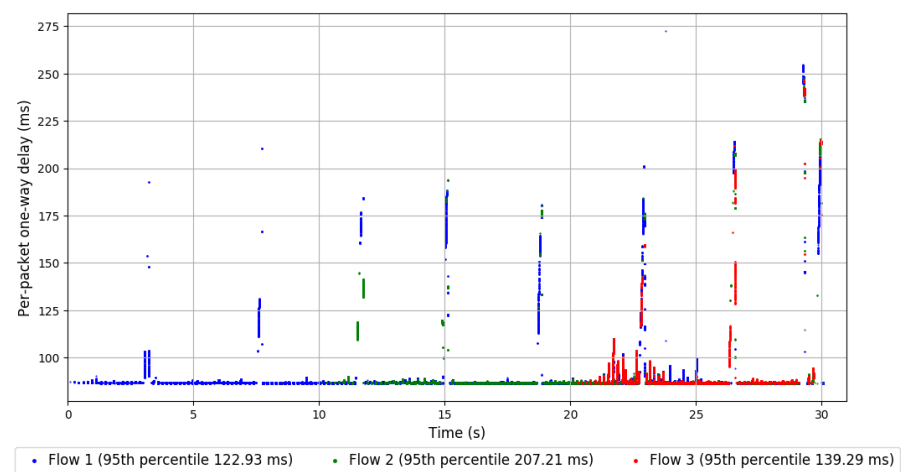
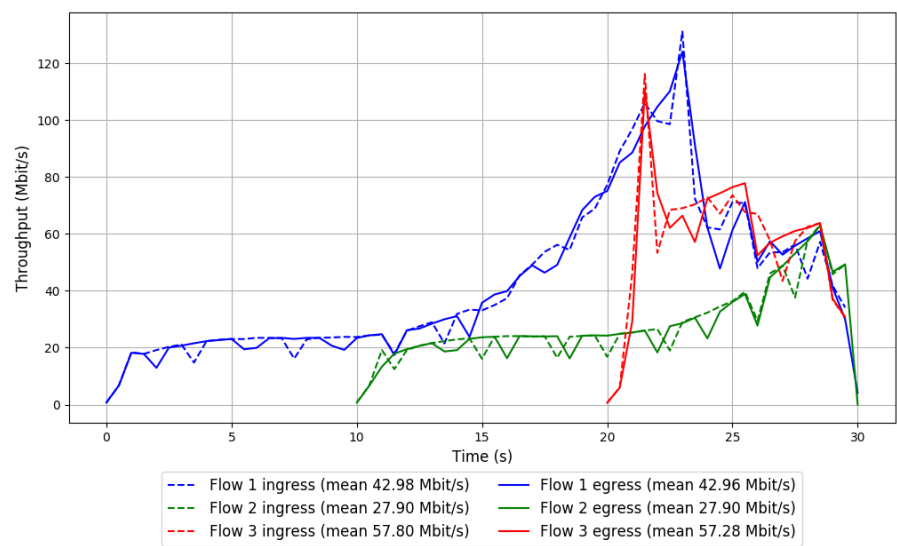
-- Flow 3:

Average throughput: 57.28 Mbit/s

95th percentile per-packet one-way delay: 139.291 ms

Loss rate: 0.01%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-09-08 01:23:38

End at: 2017-09-08 01:24:08

Below is generated by plot.py at 2017-09-08 03:52:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.45 Mbit/s

95th percentile per-packet one-way delay: 98.855 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 60.28 Mbit/s

95th percentile per-packet one-way delay: 106.606 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 59.33 Mbit/s

95th percentile per-packet one-way delay: 98.286 ms

Loss rate: 0.05%

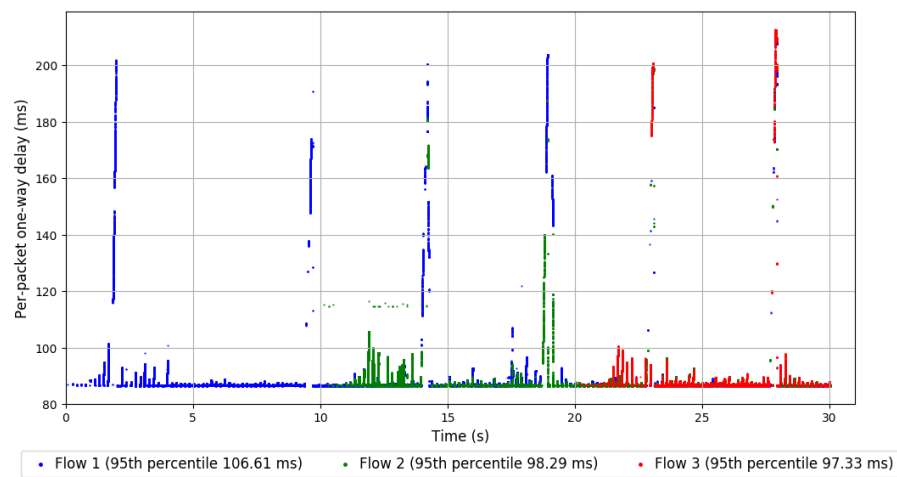
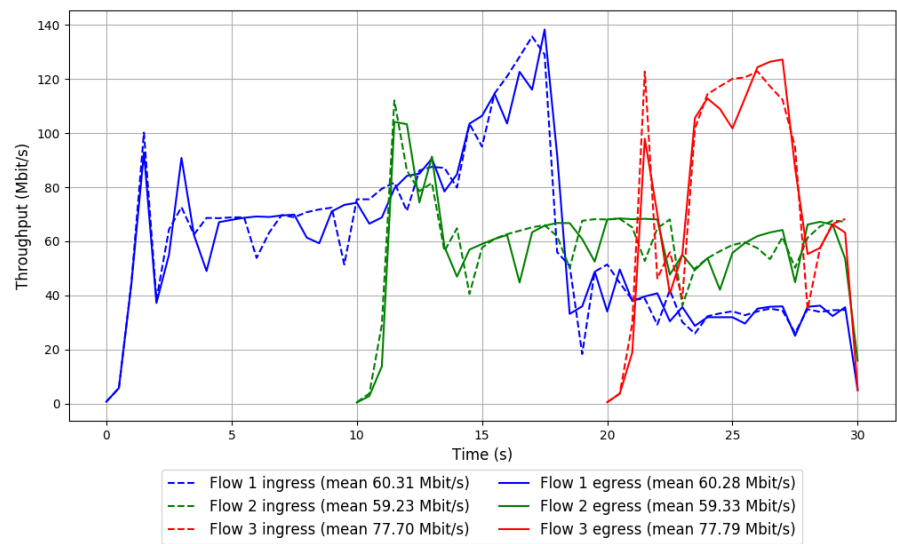
-- Flow 3:

Average throughput: 77.79 Mbit/s

95th percentile per-packet one-way delay: 97.325 ms

Loss rate: 0.28%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-09-08 01:36:18

End at: 2017-09-08 01:36:48

Below is generated by plot.py at 2017-09-08 03:53:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.12 Mbit/s

95th percentile per-packet one-way delay: 111.265 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 57.63 Mbit/s

95th percentile per-packet one-way delay: 112.380 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 102.83 Mbit/s

95th percentile per-packet one-way delay: 109.772 ms

Loss rate: 0.01%

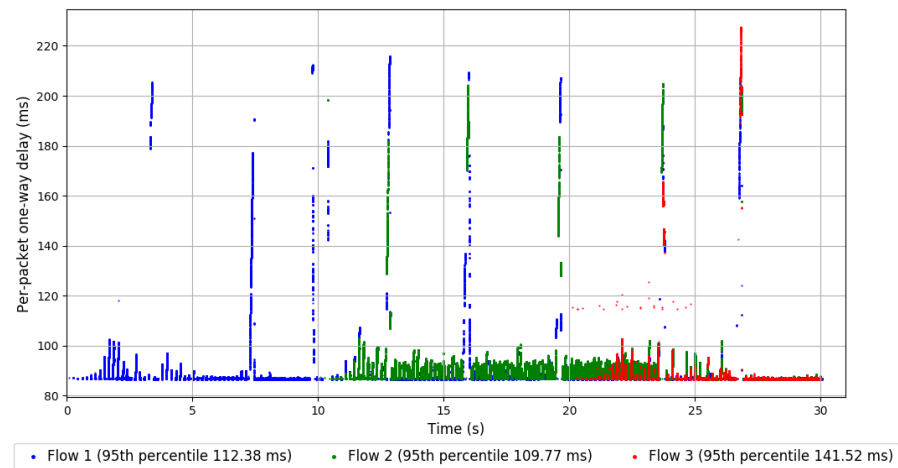
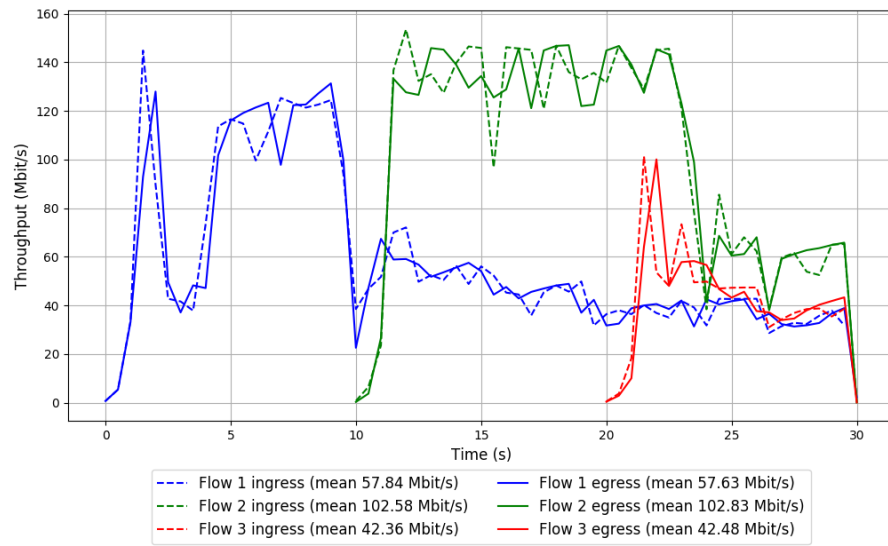
-- Flow 3:

Average throughput: 42.48 Mbit/s

95th percentile per-packet one-way delay: 141.520 ms

Loss rate: 0.01%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-09-08 01:48:49

End at: 2017-09-08 01:49:19

Below is generated by plot.py at 2017-09-08 03:53:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 122.90 Mbit/s

95th percentile per-packet one-way delay: 92.827 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 53.53 Mbit/s

95th percentile per-packet one-way delay: 90.207 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 72.89 Mbit/s

95th percentile per-packet one-way delay: 93.597 ms

Loss rate: 0.01%

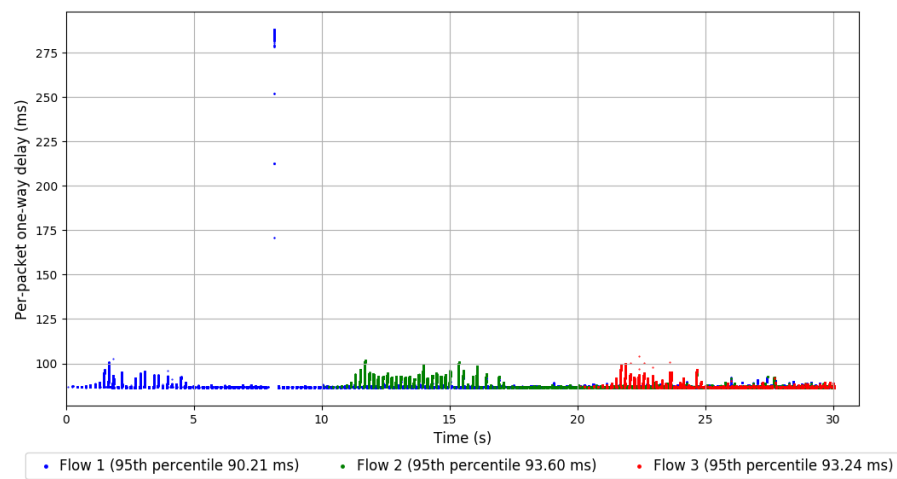
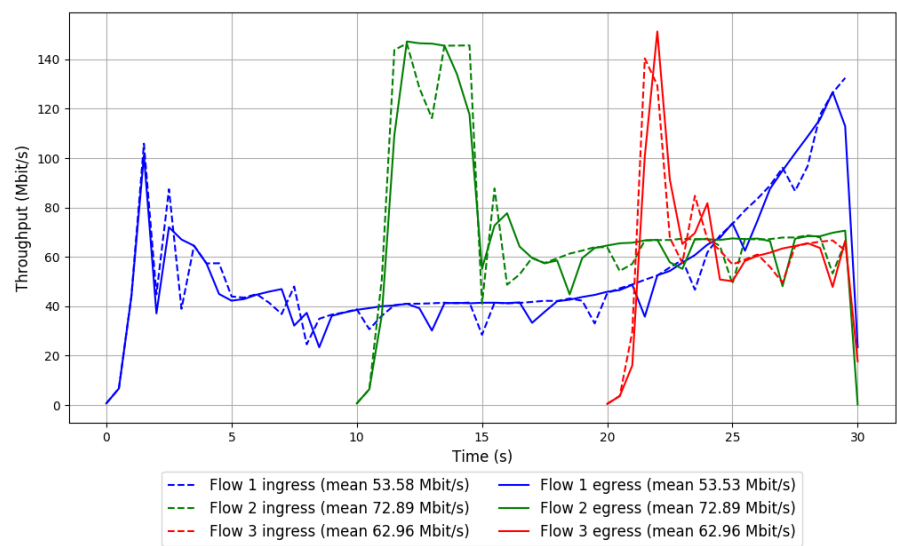
-- Flow 3:

Average throughput: 62.96 Mbit/s

95th percentile per-packet one-way delay: 93.242 ms

Loss rate: 0.00%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-09-08 02:01:50

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

Below is generated by plot.py at 2017-09-08 03:53:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 157.44 Mbit/s

95th percentile per-packet one-way delay: 95.290 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 80.80 Mbit/s

95th percentile per-packet one-way delay: 93.087 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.84 Mbit/s

95th percentile per-packet one-way delay: 93.118 ms

Loss rate: 0.01%

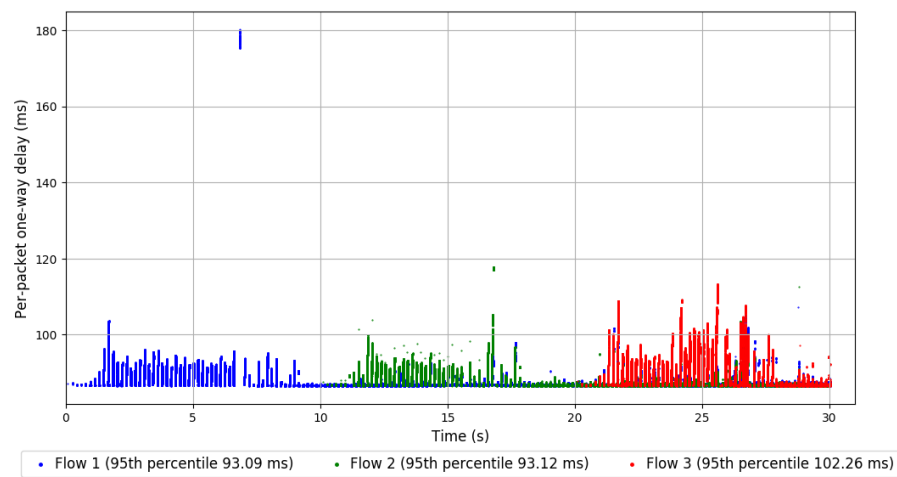
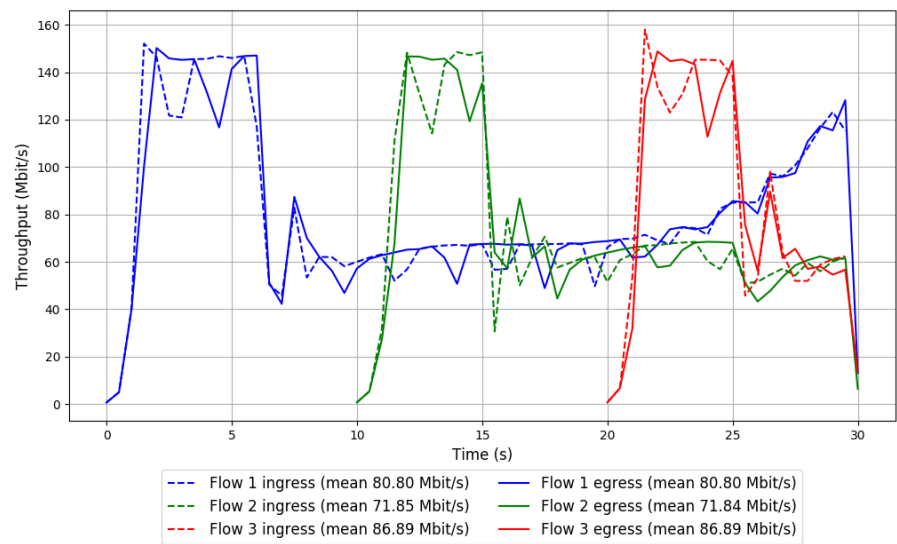
-- Flow 3:

Average throughput: 86.89 Mbit/s

95th percentile per-packet one-way delay: 102.262 ms

Loss rate: 0.01%

Run 10: Report of TCP Cubic — Data Link

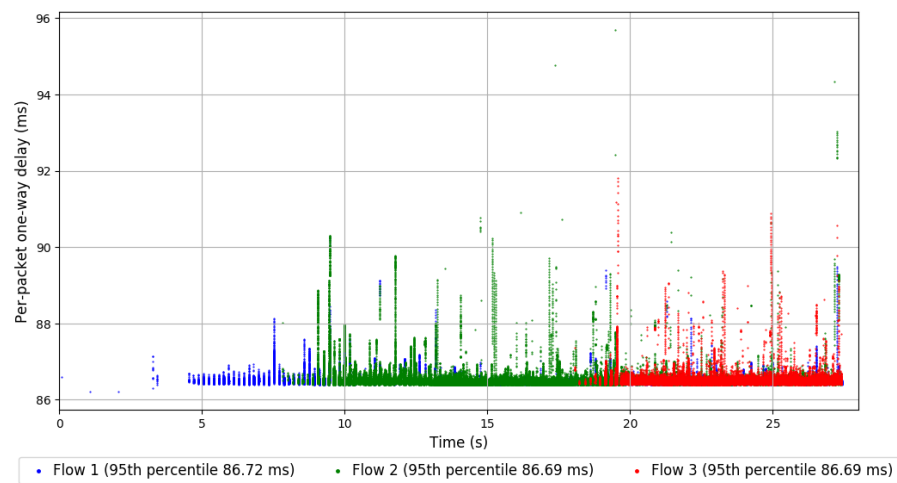
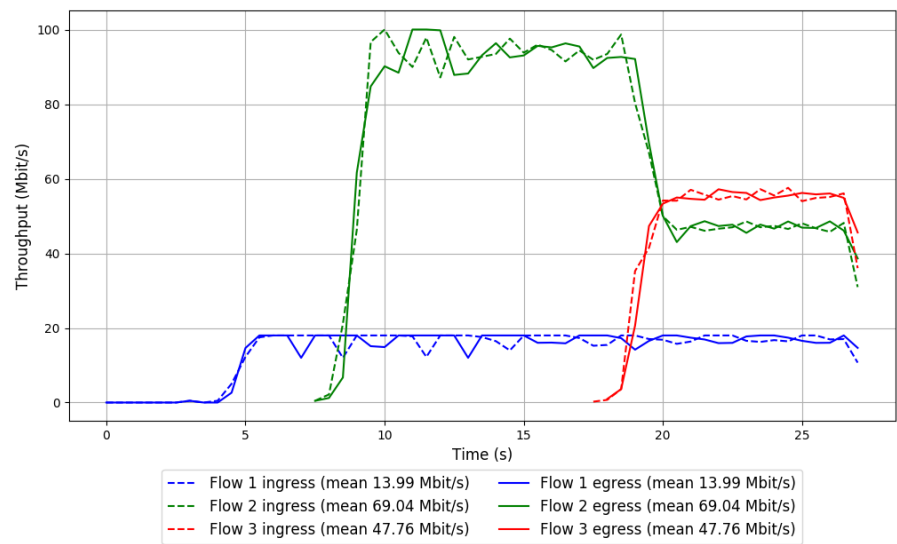


```
Run 1: Statistics of Indigo

Start at: 2017-09-08 00:00:26
End at: 2017-09-08 00:00:56

# Below is generated by plot.py at 2017-09-08 03:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.81 Mbit/s
95th percentile per-packet one-way delay: 86.696 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.99 Mbit/s
95th percentile per-packet one-way delay: 86.715 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.04 Mbit/s
95th percentile per-packet one-way delay: 86.692 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.76 Mbit/s
95th percentile per-packet one-way delay: 86.693 ms
Loss rate: 0.00%
```


Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-09-08 00:13:28

End at: 2017-09-08 00:13:58

Below is generated by plot.py at 2017-09-08 03:53:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.50 Mbit/s

95th percentile per-packet one-way delay: 86.780 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 11.77 Mbit/s

95th percentile per-packet one-way delay: 86.688 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 74.13 Mbit/s

95th percentile per-packet one-way delay: 86.738 ms

Loss rate: 0.11%

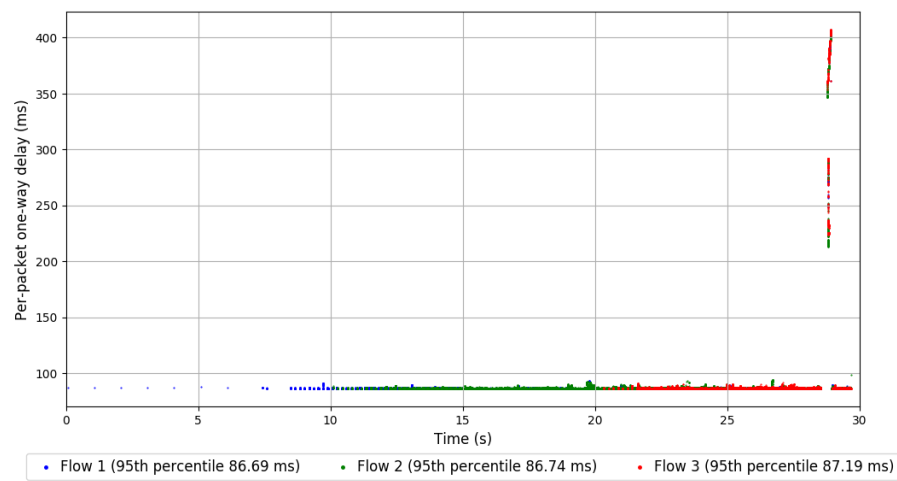
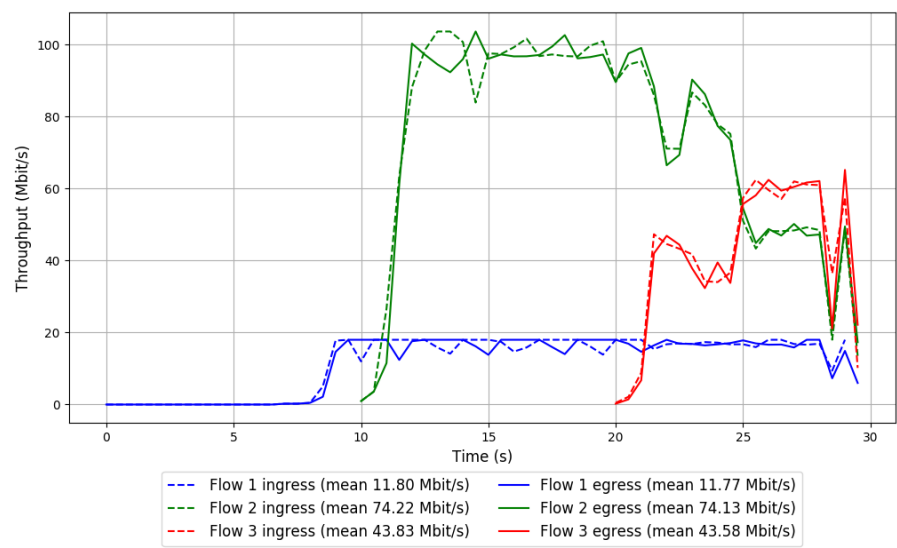
-- Flow 3:

Average throughput: 43.58 Mbit/s

95th percentile per-packet one-way delay: 87.192 ms

Loss rate: 0.57%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-09-08 00:26:24

End at: 2017-09-08 00:26:54

Below is generated by plot.py at 2017-09-08 03:53:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.93 Mbit/s

95th percentile per-packet one-way delay: 123.125 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.35 Mbit/s

95th percentile per-packet one-way delay: 114.557 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.07 Mbit/s

95th percentile per-packet one-way delay: 122.554 ms

Loss rate: 0.00%

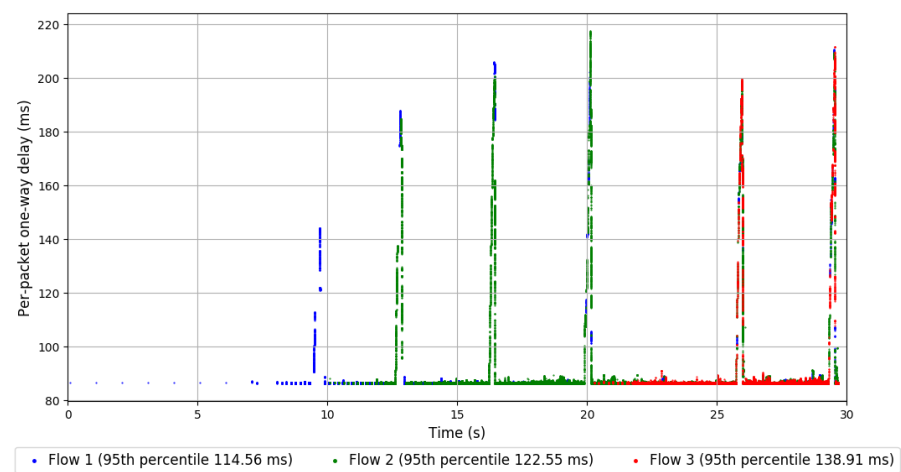
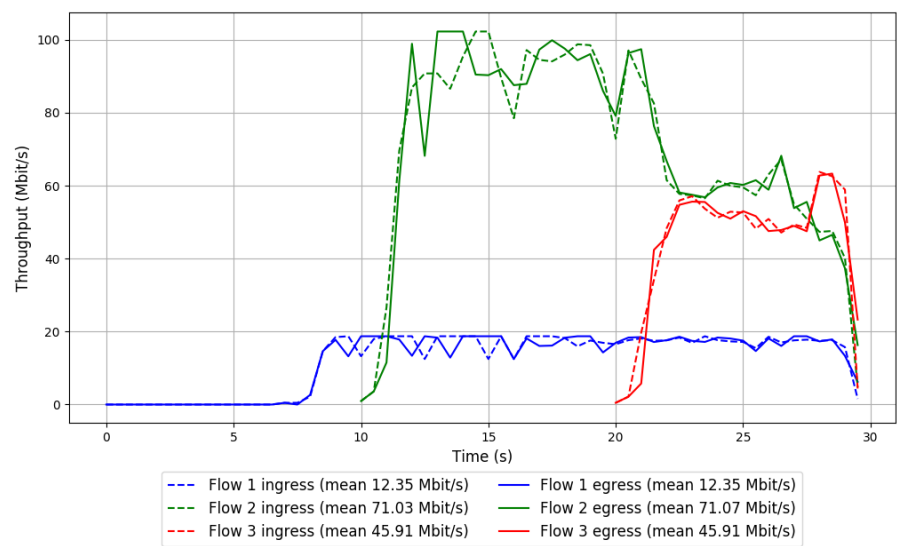
-- Flow 3:

Average throughput: 45.91 Mbit/s

95th percentile per-packet one-way delay: 138.911 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-09-08 00:39:02

End at: 2017-09-08 00:39:32

Below is generated by plot.py at 2017-09-08 03:54:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.85 Mbit/s

95th percentile per-packet one-way delay: 141.383 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.24 Mbit/s

95th percentile per-packet one-way delay: 112.726 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 72.29 Mbit/s

95th percentile per-packet one-way delay: 152.454 ms

Loss rate: 0.00%

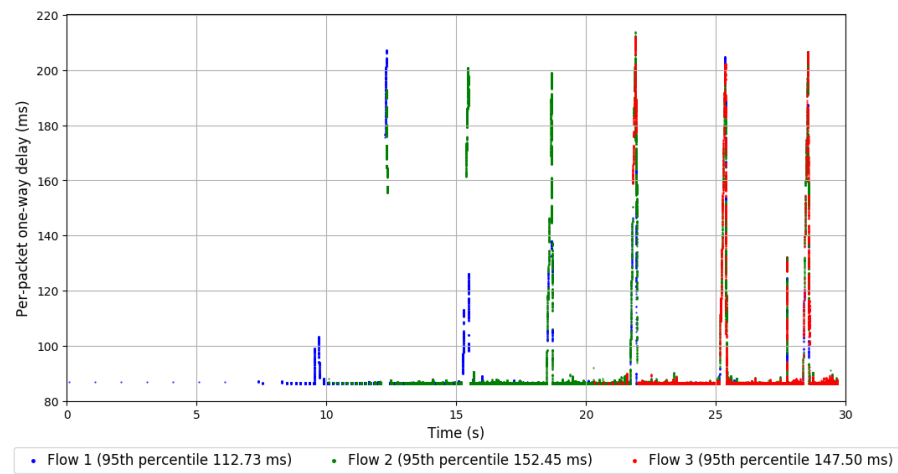
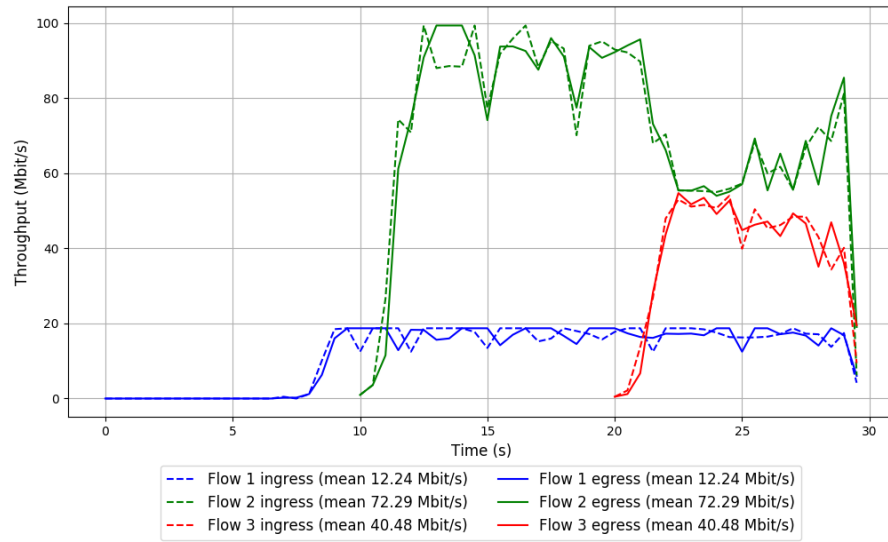
-- Flow 3:

Average throughput: 40.48 Mbit/s

95th percentile per-packet one-way delay: 147.498 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-09-08 00:51:21

End at: 2017-09-08 00:51:51

Below is generated by plot.py at 2017-09-08 03:54:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 70.60 Mbit/s

95th percentile per-packet one-way delay: 149.103 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.37 Mbit/s

95th percentile per-packet one-way delay: 157.046 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.97 Mbit/s

95th percentile per-packet one-way delay: 138.270 ms

Loss rate: 0.00%

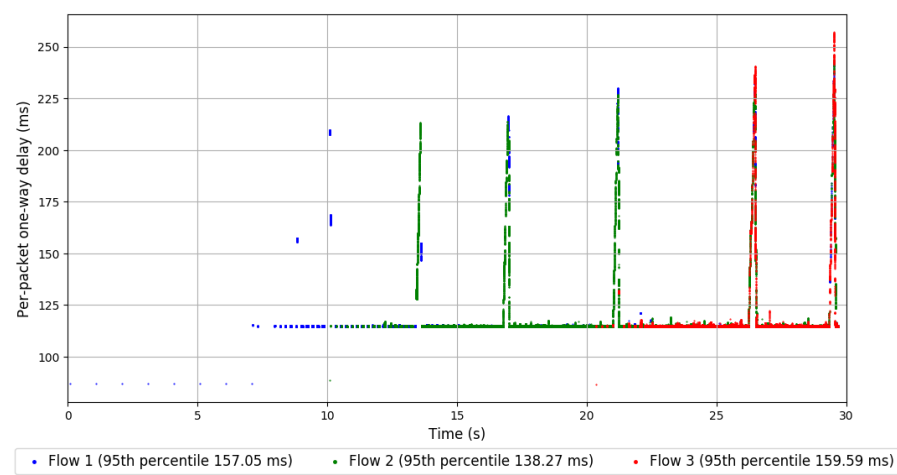
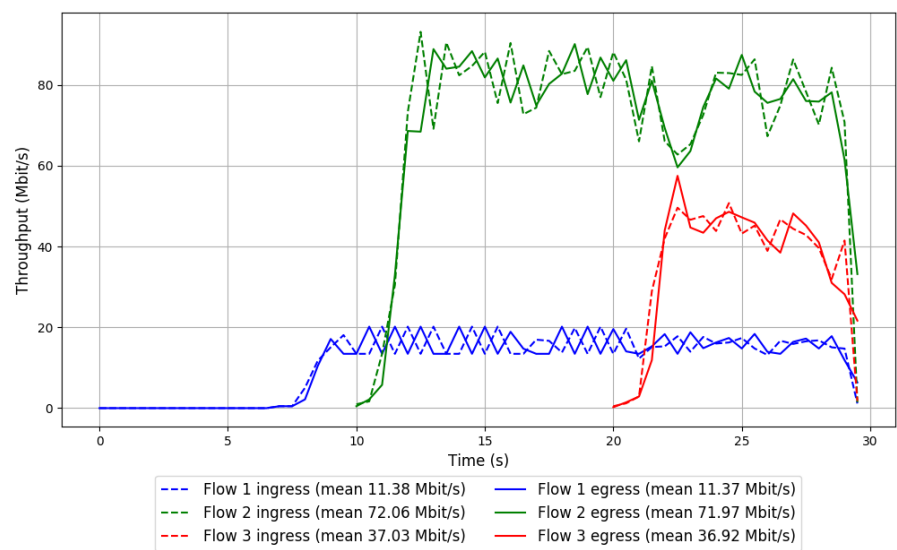
-- Flow 3:

Average throughput: 36.92 Mbit/s

95th percentile per-packet one-way delay: 159.585 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-09-08 01:03:40

End at: 2017-09-08 01:04:10

Below is generated by plot.py at 2017-09-08 03:54:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.18 Mbit/s

95th percentile per-packet one-way delay: 132.260 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 22.92 Mbit/s

95th percentile per-packet one-way delay: 125.169 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 57.19 Mbit/s

95th percentile per-packet one-way delay: 130.495 ms

Loss rate: 0.46%

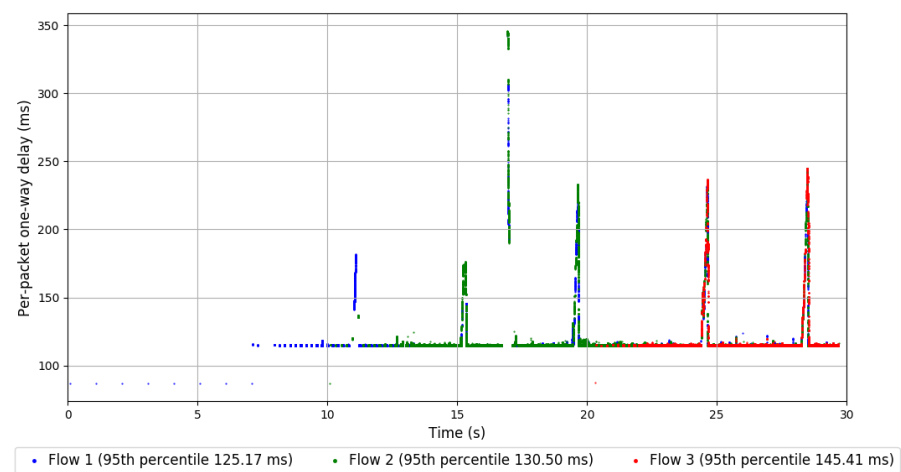
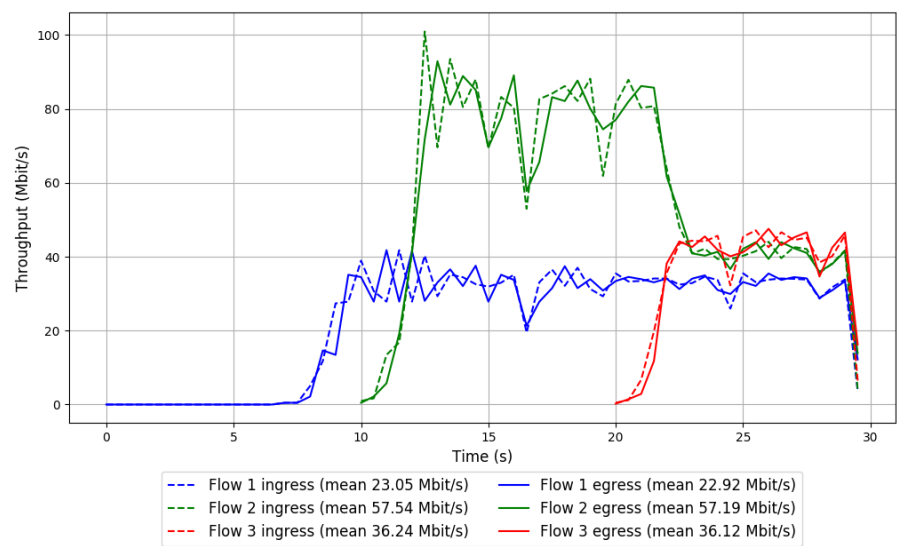
-- Flow 3:

Average throughput: 36.12 Mbit/s

95th percentile per-packet one-way delay: 145.409 ms

Loss rate: 0.00%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-09-08 01:16:13

End at: 2017-09-08 01:16:43

Below is generated by plot.py at 2017-09-08 03:54:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.94 Mbit/s

95th percentile per-packet one-way delay: 103.418 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 33.42 Mbit/s

95th percentile per-packet one-way delay: 109.857 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.51 Mbit/s

95th percentile per-packet one-way delay: 92.832 ms

Loss rate: 0.00%

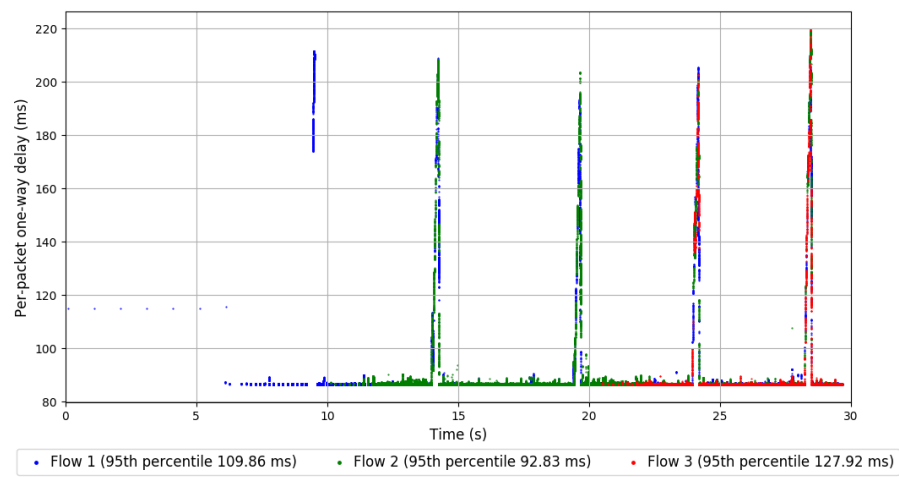
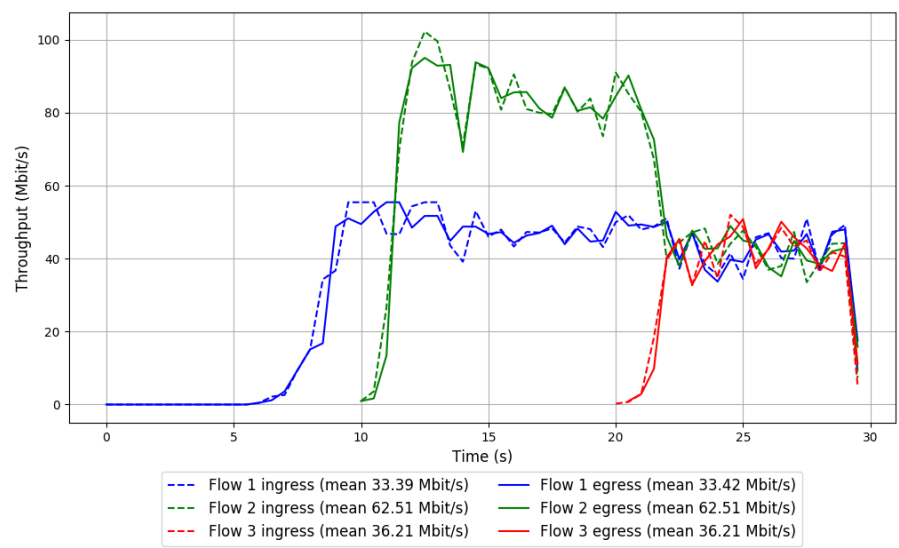
-- Flow 3:

Average throughput: 36.21 Mbit/s

95th percentile per-packet one-way delay: 127.920 ms

Loss rate: 0.00%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-09-08 01:28:58

End at: 2017-09-08 01:29:28

Below is generated by plot.py at 2017-09-08 03:54:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.08 Mbit/s

95th percentile per-packet one-way delay: 135.608 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 23.45 Mbit/s

95th percentile per-packet one-way delay: 123.841 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 64.88 Mbit/s

95th percentile per-packet one-way delay: 141.373 ms

Loss rate: 0.00%

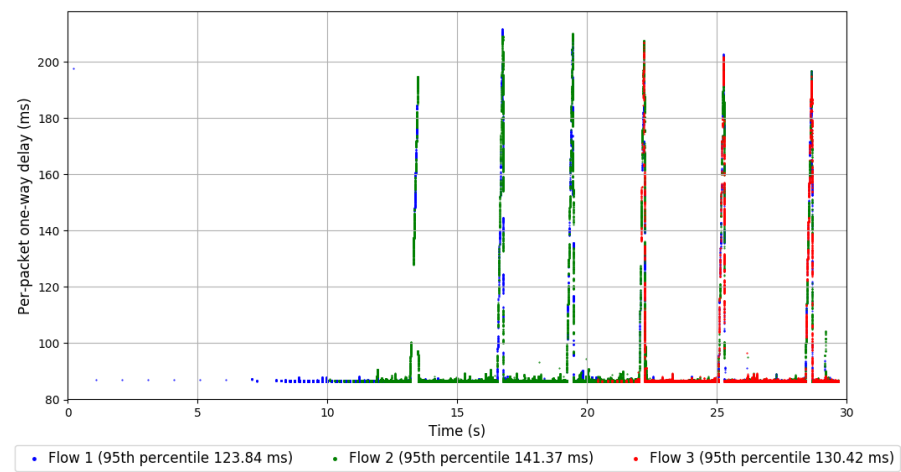
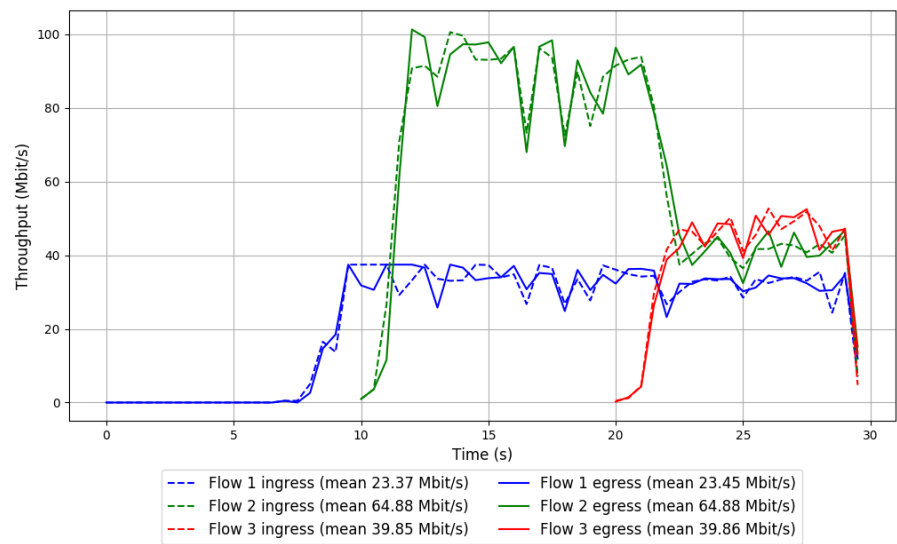
-- Flow 3:

Average throughput: 39.86 Mbit/s

95th percentile per-packet one-way delay: 130.422 ms

Loss rate: 0.00%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-09-08 01:41:40

End at: 2017-09-08 01:42:10

Below is generated by plot.py at 2017-09-08 03:54:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.75 Mbit/s

95th percentile per-packet one-way delay: 136.066 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 27.43 Mbit/s

95th percentile per-packet one-way delay: 130.372 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 66.88 Mbit/s

95th percentile per-packet one-way delay: 142.175 ms

Loss rate: 0.64%

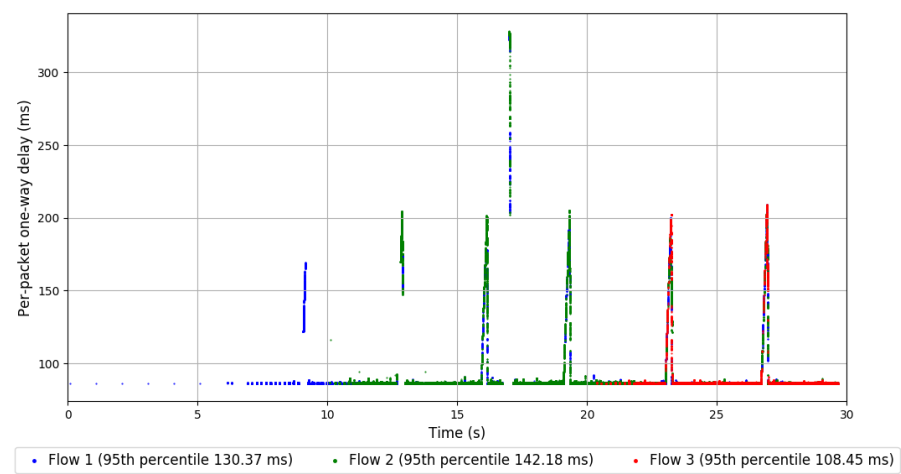
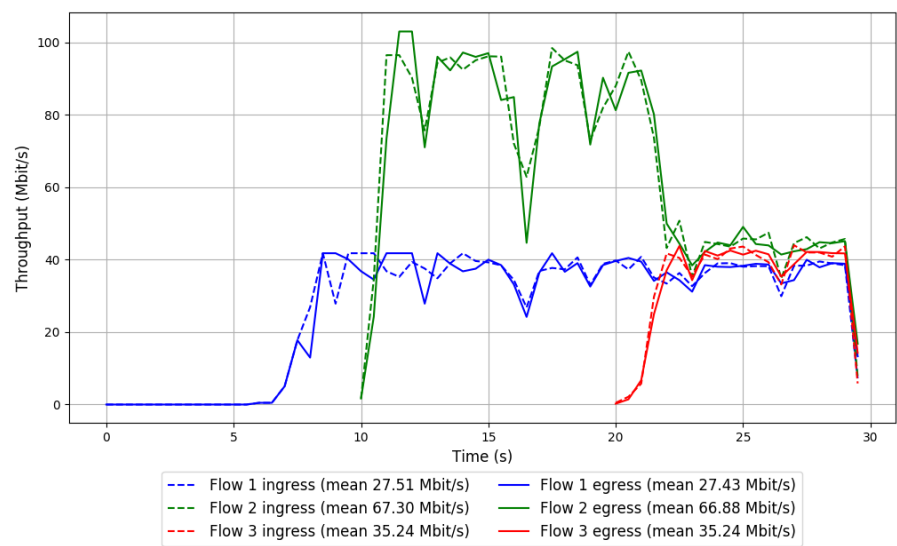
-- Flow 3:

Average throughput: 35.24 Mbit/s

95th percentile per-packet one-way delay: 108.450 ms

Loss rate: 0.00%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-09-08 01:54:23

End at: 2017-09-08 01:54:53

Below is generated by plot.py at 2017-09-08 03:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.85 Mbit/s

95th percentile per-packet one-way delay: 86.809 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.11 Mbit/s

95th percentile per-packet one-way delay: 86.848 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 82.03 Mbit/s

95th percentile per-packet one-way delay: 86.813 ms

Loss rate: 0.00%

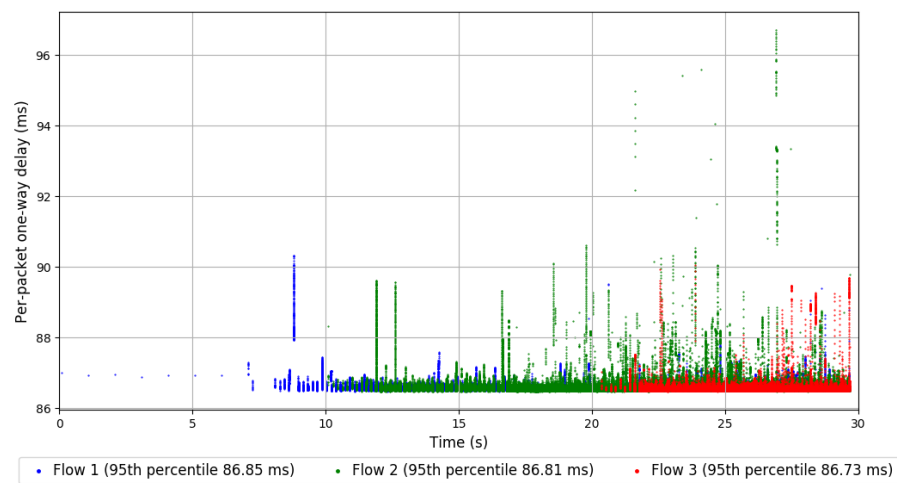
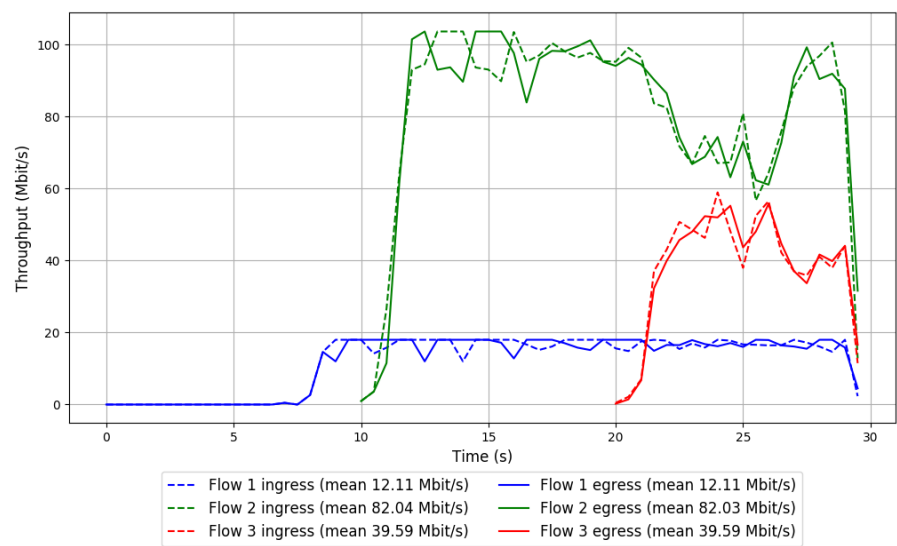
-- Flow 3:

Average throughput: 39.59 Mbit/s

95th percentile per-packet one-way delay: 86.734 ms

Loss rate: 0.00%

Run 10: Report of Indigo — Data Link

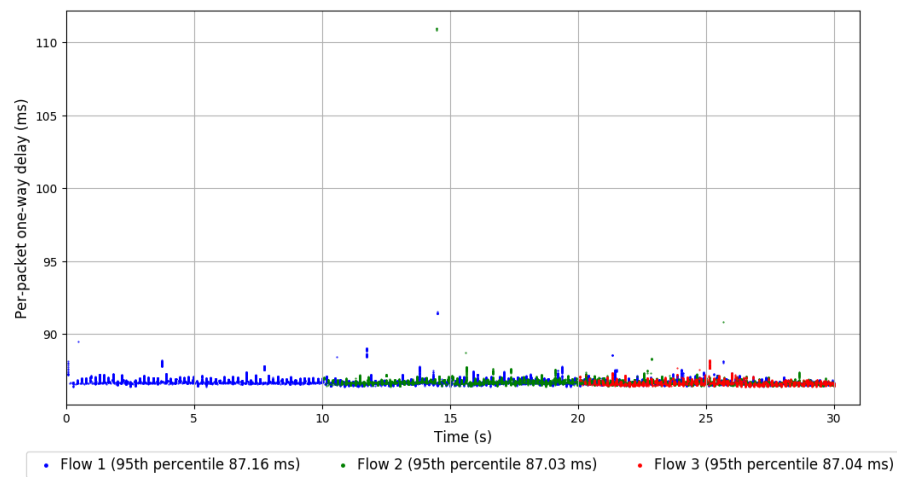
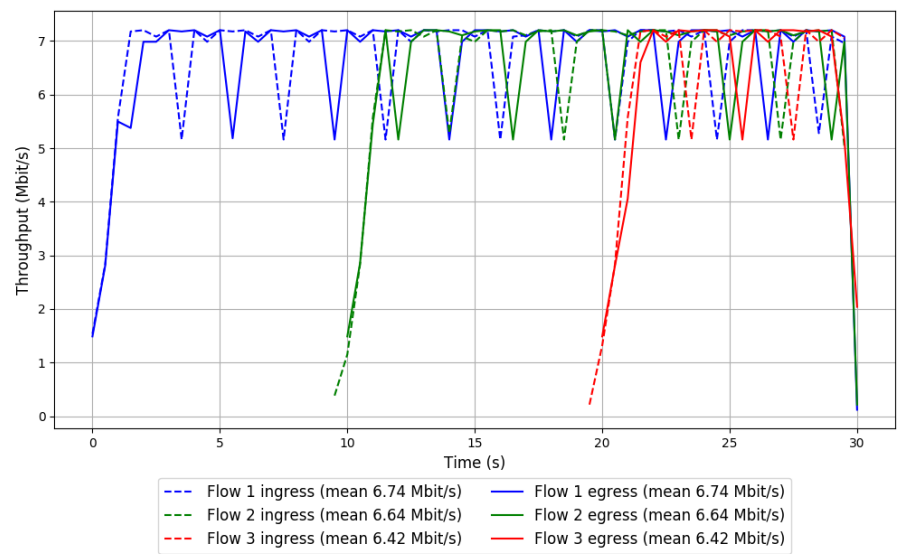


```
Run 1: Statistics of KohoCC

Start at: 2017-09-08 00:01:16
End at: 2017-09-08 00:01:46

# Below is generated by plot.py at 2017-09-08 03:55:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 87.098 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 87.157 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.64 Mbit/s
95th percentile per-packet one-way delay: 87.025 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 87.037 ms
Loss rate: 0.00%
```

Run 1: Report of KohoCC — Data Link

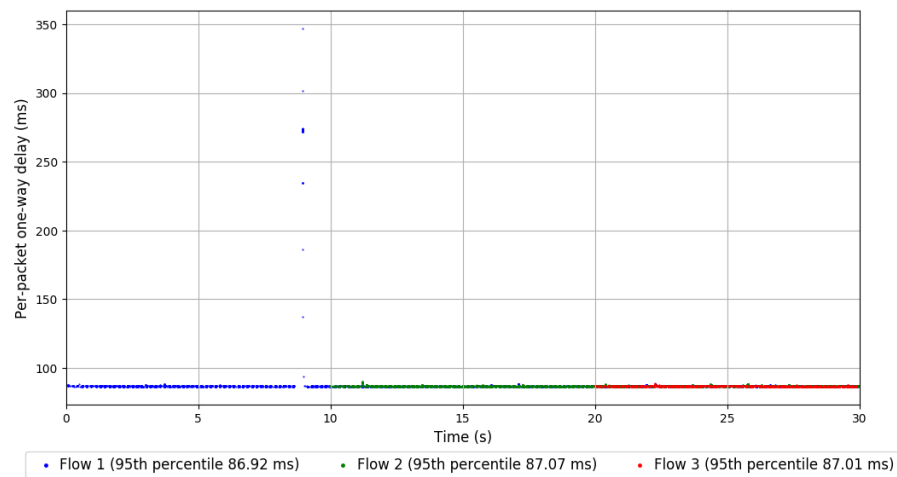
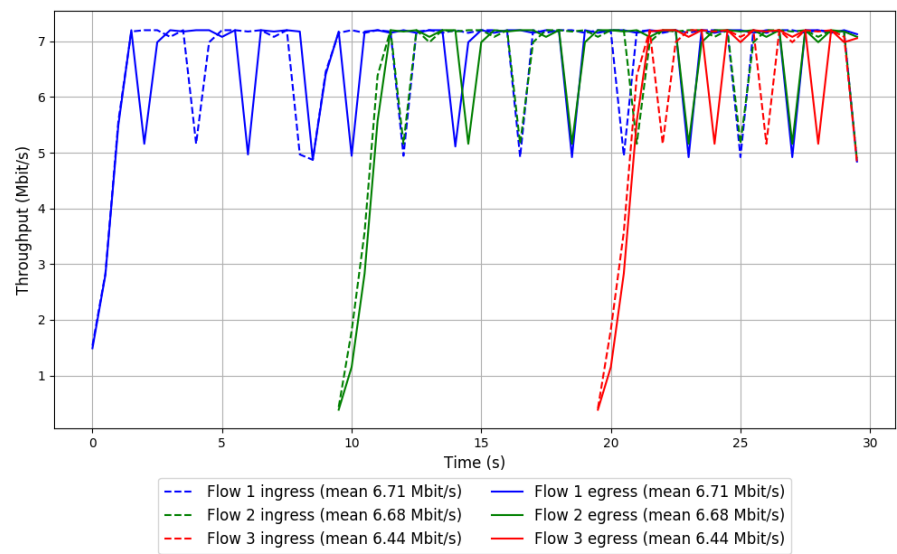


```
Run 2: Statistics of KohoCC

Start at: 2017-09-08 00:14:18
End at: 2017-09-08 00:14:48

# Below is generated by plot.py at 2017-09-08 03:55:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.31 Mbit/s
95th percentile per-packet one-way delay: 87.003 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 86.925 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.68 Mbit/s
95th percentile per-packet one-way delay: 87.070 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 87.014 ms
Loss rate: 0.00%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-09-08 00:27:14

End at: 2017-09-08 00:27:44

Below is generated by plot.py at 2017-09-08 03:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.70 Mbit/s

95th percentile per-packet one-way delay: 88.192 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 6.45 Mbit/s

95th percentile per-packet one-way delay: 88.098 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 89.986 ms

Loss rate: 0.15%

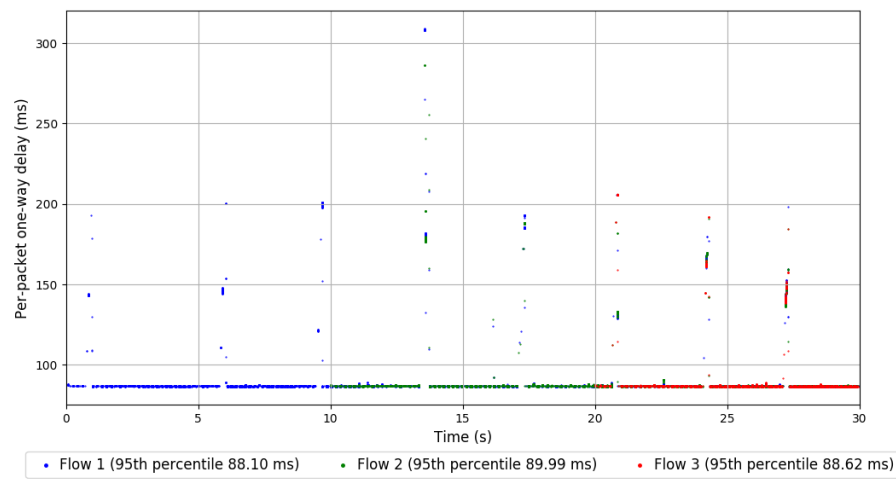
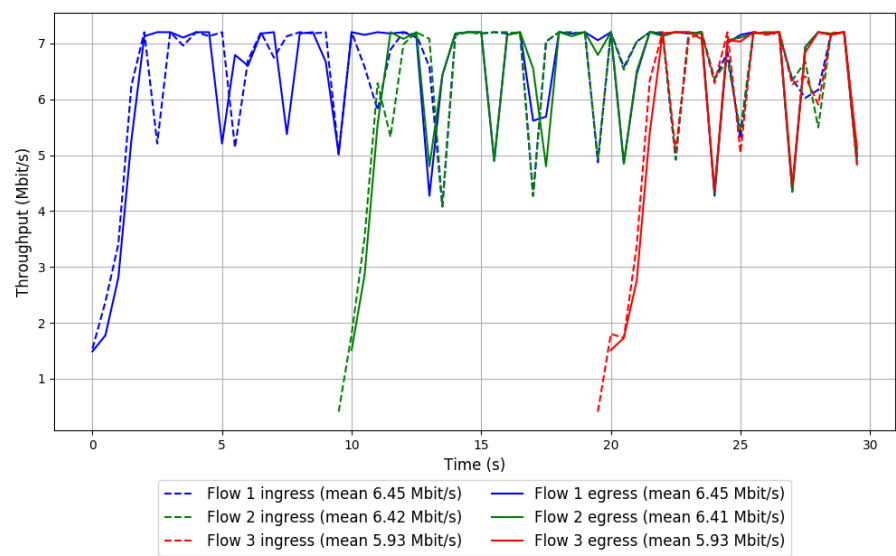
-- Flow 3:

Average throughput: 5.93 Mbit/s

95th percentile per-packet one-way delay: 88.617 ms

Loss rate: 0.00%

Run 3: Report of KohoCC — Data Link

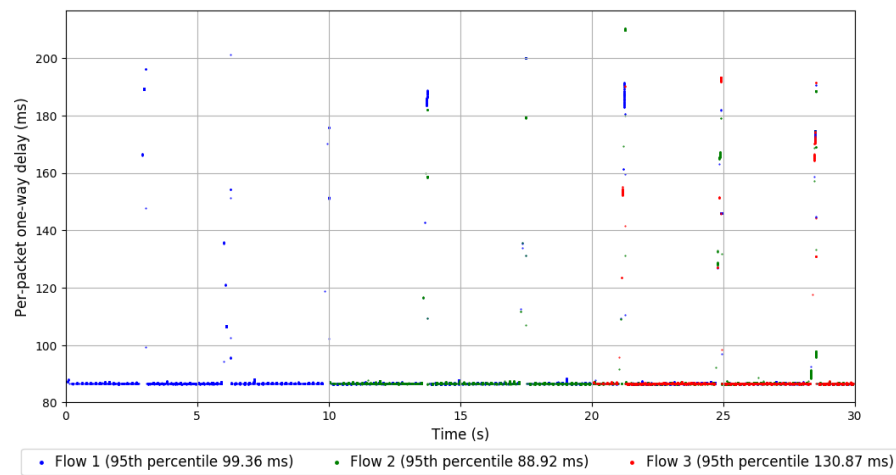
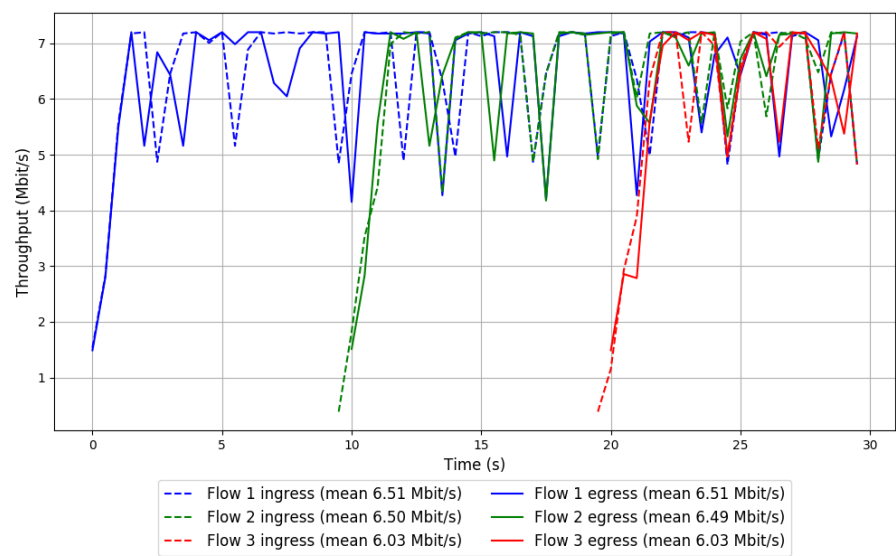


```
Run 4: Statistics of KohoCC

Start at: 2017-09-08 00:39:51
End at: 2017-09-08 00:40:21

# Below is generated by plot.py at 2017-09-08 03:55:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.83 Mbit/s
95th percentile per-packet one-way delay: 90.043 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 99.358 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.49 Mbit/s
95th percentile per-packet one-way delay: 88.916 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 6.03 Mbit/s
95th percentile per-packet one-way delay: 130.869 ms
Loss rate: 0.00%
```

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-09-08 00:52:15

End at: 2017-09-08 00:52:45

Below is generated by plot.py at 2017-09-08 03:55:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.10 Mbit/s

95th percentile per-packet one-way delay: 132.990 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 5.68 Mbit/s

95th percentile per-packet one-way delay: 132.992 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 5.49 Mbit/s

95th percentile per-packet one-way delay: 134.844 ms

Loss rate: 0.00%

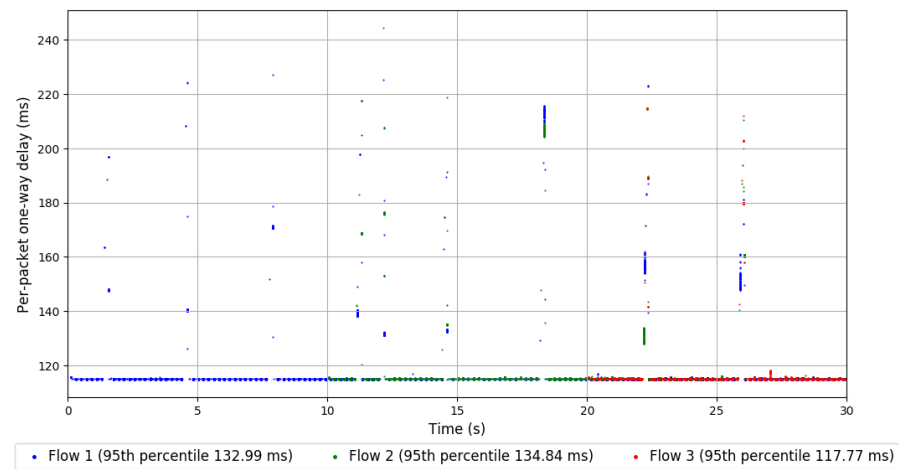
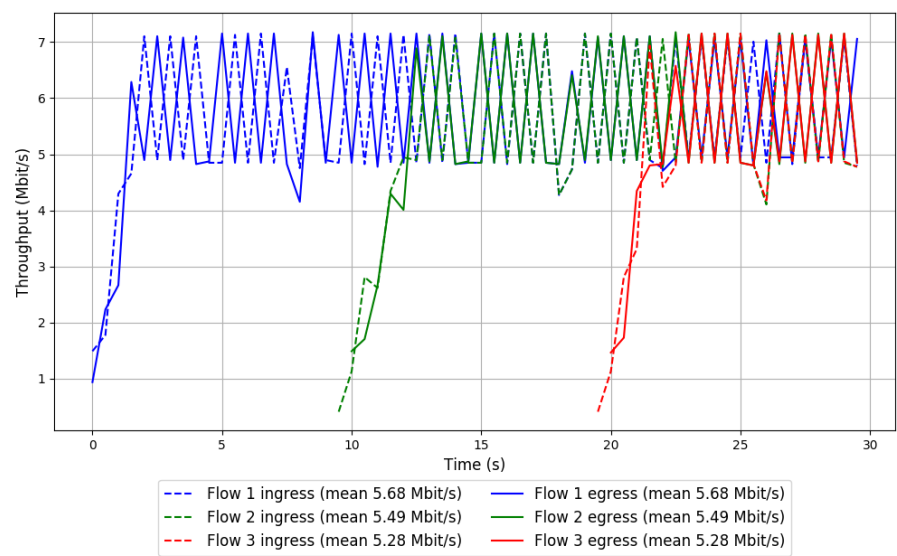
-- Flow 3:

Average throughput: 5.28 Mbit/s

95th percentile per-packet one-way delay: 117.774 ms

Loss rate: 0.00%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-09-08 01:04:31

End at: 2017-09-08 01:05:01

Below is generated by plot.py at 2017-09-08 03:55:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.03 Mbit/s

95th percentile per-packet one-way delay: 158.287 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 5.60 Mbit/s

95th percentile per-packet one-way delay: 150.649 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 5.52 Mbit/s

95th percentile per-packet one-way delay: 159.862 ms

Loss rate: 0.00%

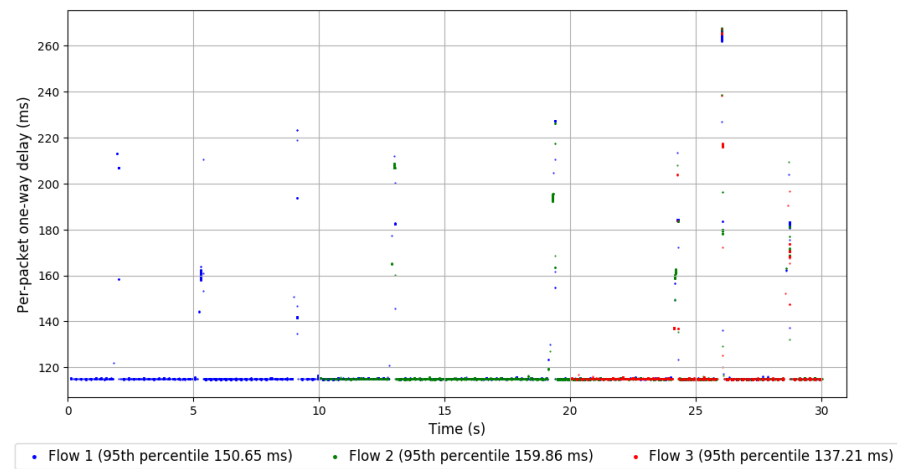
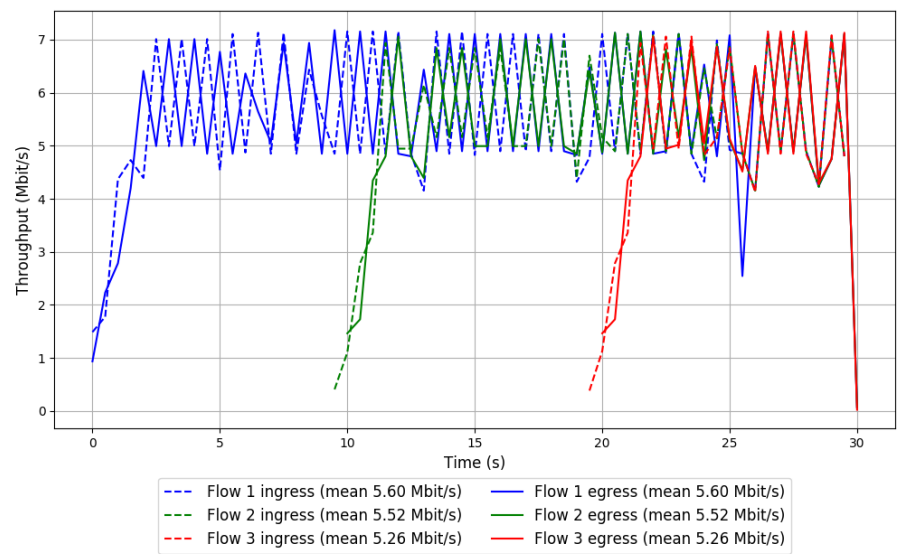
-- Flow 3:

Average throughput: 5.26 Mbit/s

95th percentile per-packet one-way delay: 137.214 ms

Loss rate: 0.00%

Run 6: Report of KohoCC — Data Link

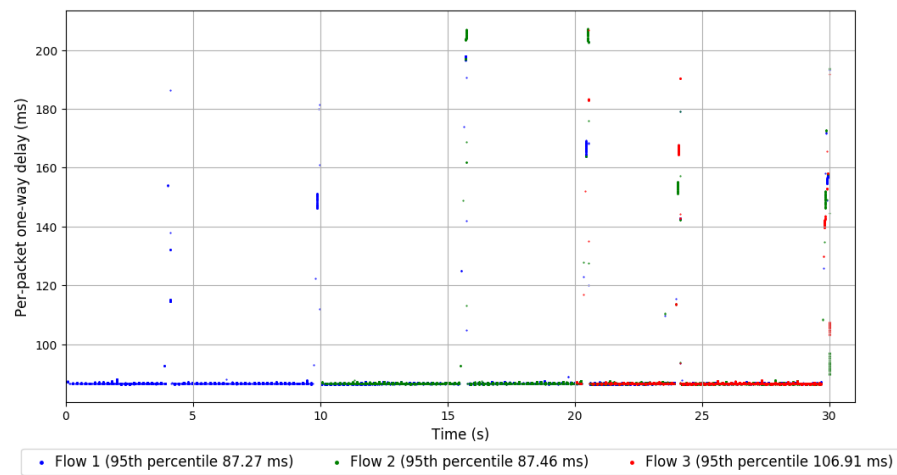
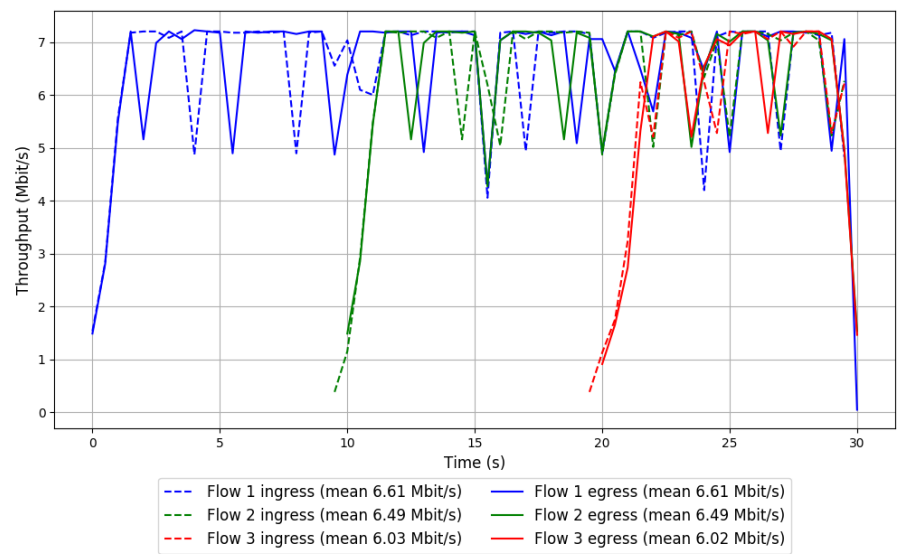


```
Run 7: Statistics of KohoCC

Start at: 2017-09-08 01:17:04
End at: 2017-09-08 01:17:34

# Below is generated by plot.py at 2017-09-08 03:55:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.94 Mbit/s
95th percentile per-packet one-way delay: 87.435 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.61 Mbit/s
95th percentile per-packet one-way delay: 87.274 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.49 Mbit/s
95th percentile per-packet one-way delay: 87.460 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.02 Mbit/s
95th percentile per-packet one-way delay: 106.909 ms
Loss rate: 0.00%
```


Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-09-08 01:29:48

End at: 2017-09-08 01:30:18

Below is generated by plot.py at 2017-09-08 03:55:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.98 Mbit/s

95th percentile per-packet one-way delay: 93.471 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 6.57 Mbit/s

95th percentile per-packet one-way delay: 87.551 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 6.51 Mbit/s

95th percentile per-packet one-way delay: 92.795 ms

Loss rate: 0.00%

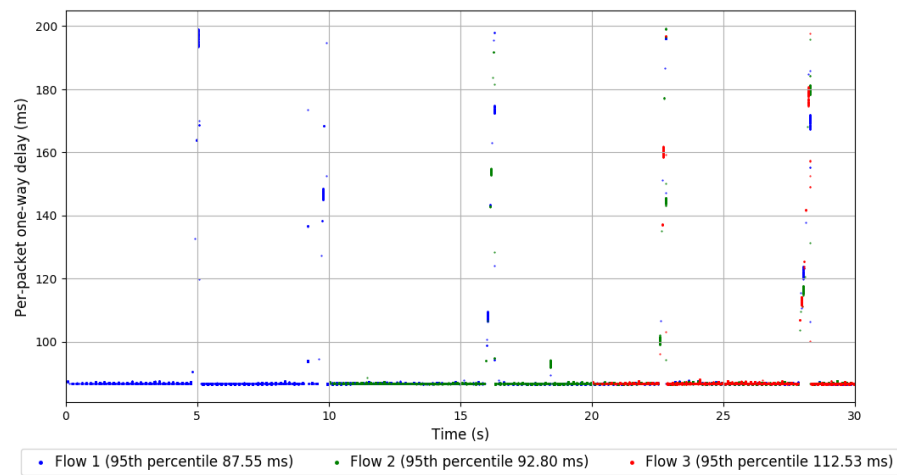
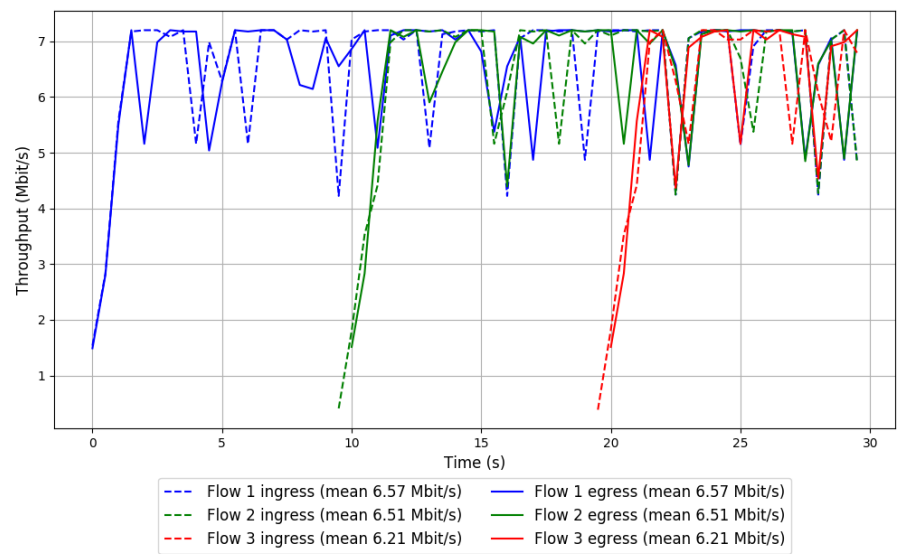
-- Flow 3:

Average throughput: 6.21 Mbit/s

95th percentile per-packet one-way delay: 112.527 ms

Loss rate: 0.10%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-09-08 01:42:30

End at: 2017-09-08 01:43:00

Below is generated by plot.py at 2017-09-08 03:55:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.58 Mbit/s

95th percentile per-packet one-way delay: 140.650 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 118.895 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 6.29 Mbit/s

95th percentile per-packet one-way delay: 140.354 ms

Loss rate: 0.12%

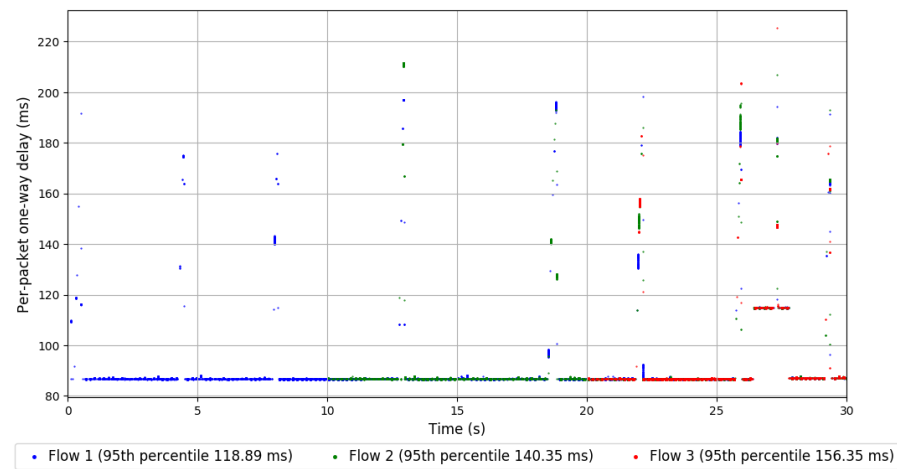
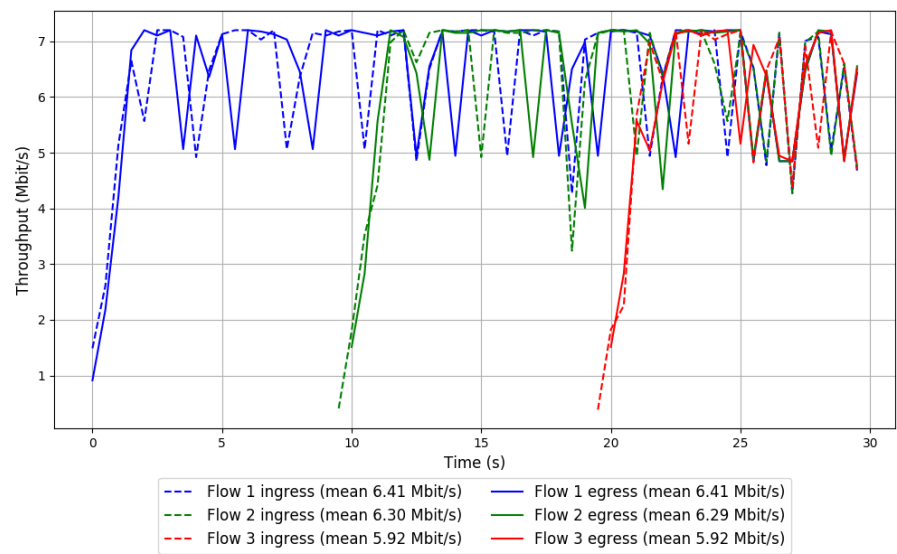
-- Flow 3:

Average throughput: 5.92 Mbit/s

95th percentile per-packet one-way delay: 156.348 ms

Loss rate: 0.00%

Run 9: Report of KohoCC — Data Link

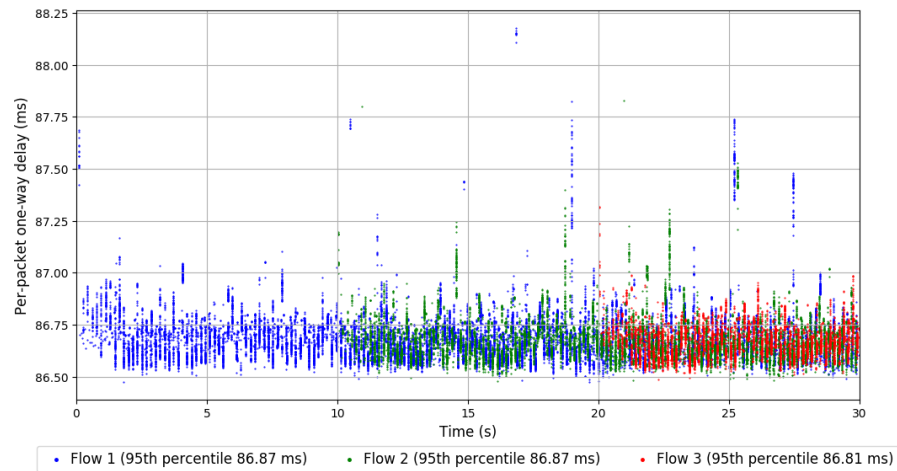
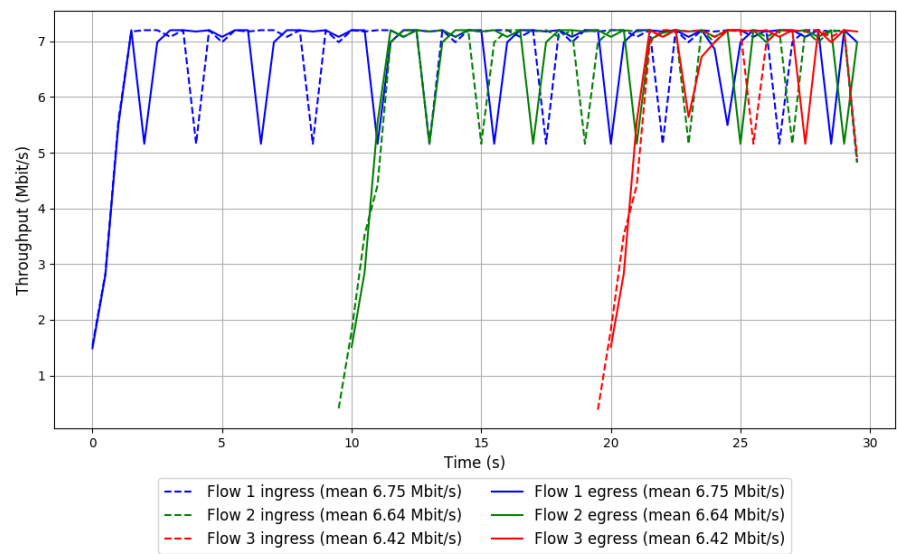


```
Run 10: Statistics of KohoCC

Start at: 2017-09-08 01:55:13
End at: 2017-09-08 01:55:43

# Below is generated by plot.py at 2017-09-08 03:55:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.31 Mbit/s
95th percentile per-packet one-way delay: 86.861 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.75 Mbit/s
95th percentile per-packet one-way delay: 86.872 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.64 Mbit/s
95th percentile per-packet one-way delay: 86.874 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 86.811 ms
Loss rate: 0.00%
```

Run 10: Report of KohoCC — Data Link

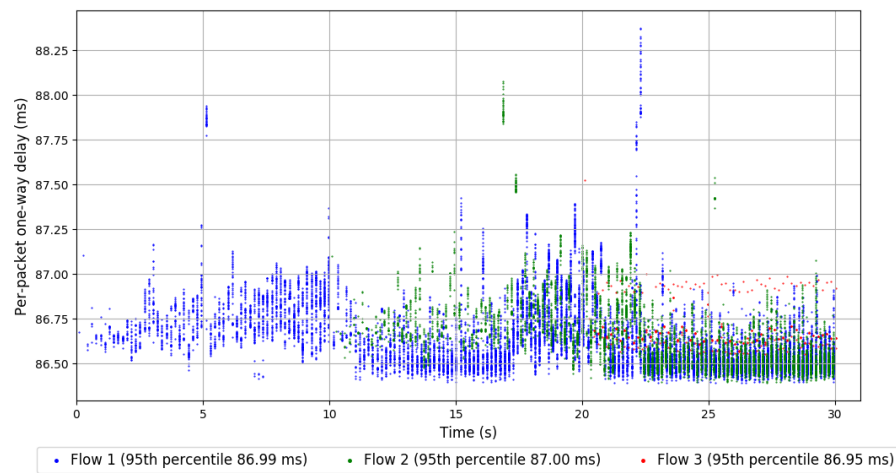
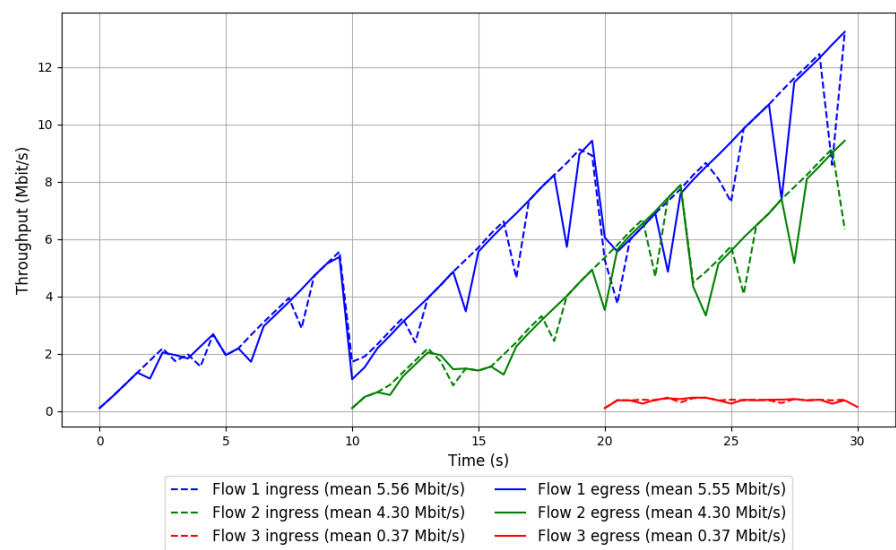


```
Run 1: Statistics of LEDBAT

Start at: 2017-09-08 00:04:01
End at: 2017-09-08 00:04:31

# Below is generated by plot.py at 2017-09-08 03:55:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 86.993 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 5.55 Mbit/s
95th percentile per-packet one-way delay: 86.991 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 87.000 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 86.951 ms
Loss rate: 0.00%
```


Run 1: Report of LEDBAT — Data Link

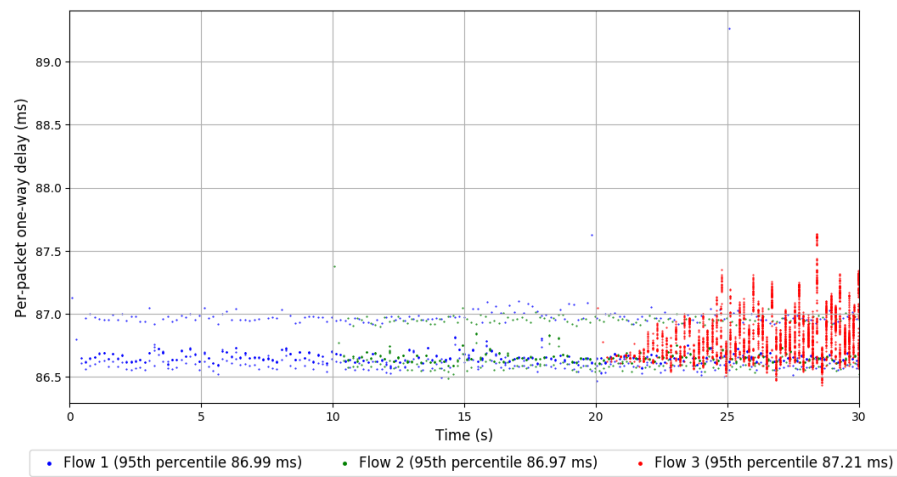
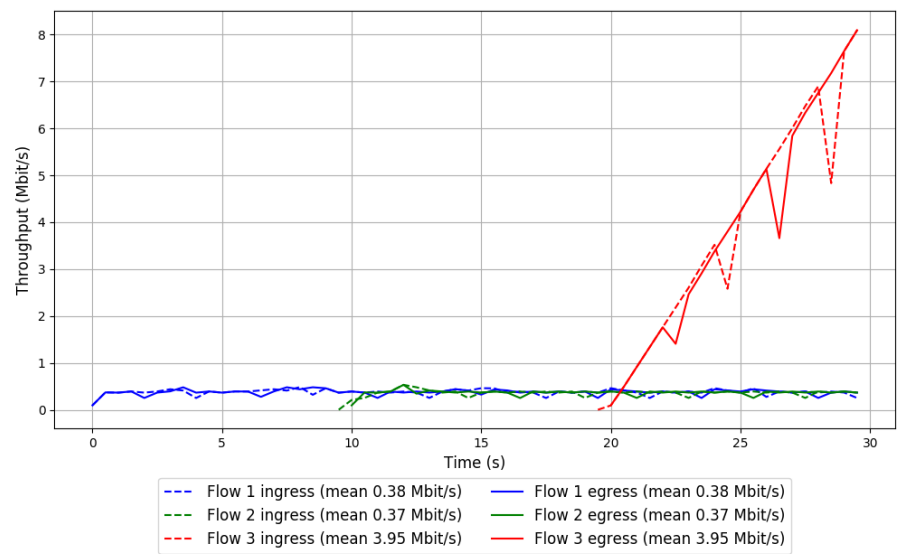


```
Run 2: Statistics of LEDBAT

Start at: 2017-09-08 00:17:02
End at: 2017-09-08 00:17:32

# Below is generated by plot.py at 2017-09-08 03:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 87.161 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 86.988 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 86.966 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.95 Mbit/s
95th percentile per-packet one-way delay: 87.207 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-09-08 00:29:55

End at: 2017-09-08 00:30:25

Below is generated by plot.py at 2017-09-08 03:55:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.71 Mbit/s

95th percentile per-packet one-way delay: 92.905 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 5.12 Mbit/s

95th percentile per-packet one-way delay: 92.907 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 5.23 Mbit/s

95th percentile per-packet one-way delay: 91.163 ms

Loss rate: 0.05%

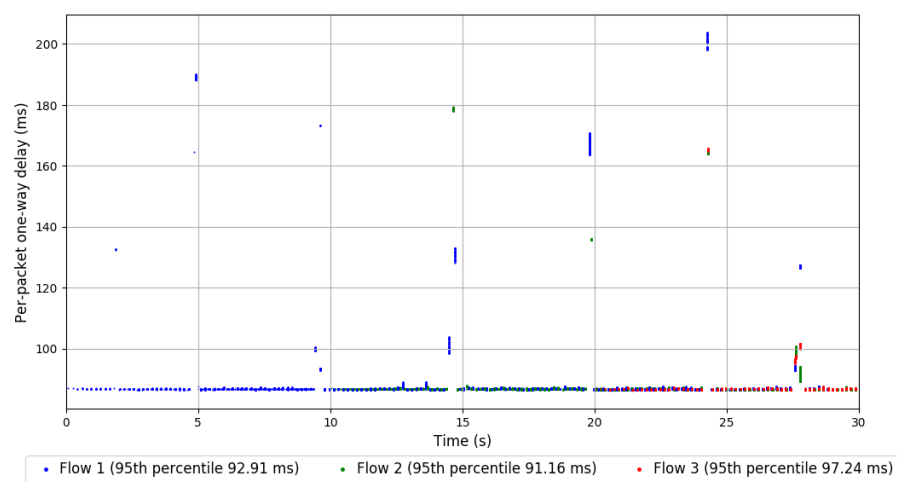
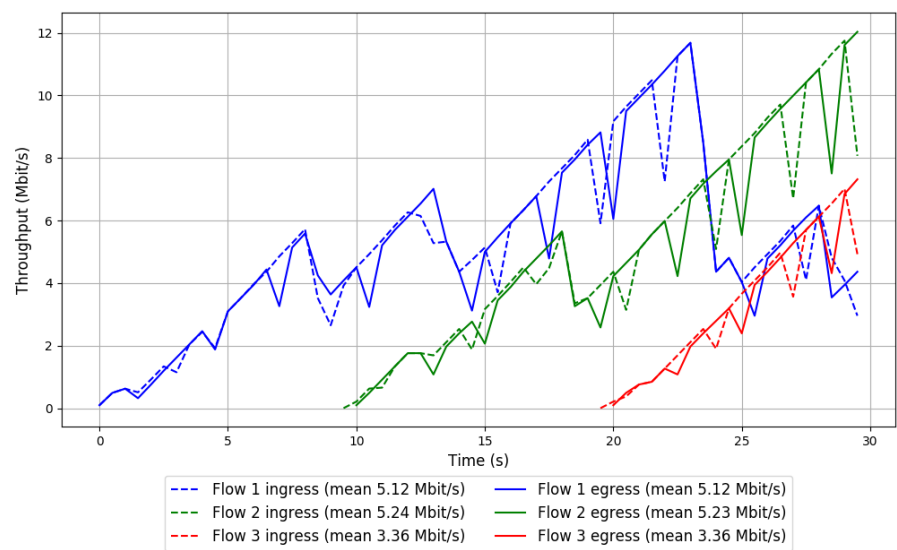
-- Flow 3:

Average throughput: 3.36 Mbit/s

95th percentile per-packet one-way delay: 97.244 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-09-08 00:42:31

End at: 2017-09-08 00:43:01

Below is generated by plot.py at 2017-09-08 03:55:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.85 Mbit/s

95th percentile per-packet one-way delay: 134.211 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 5.44 Mbit/s

95th percentile per-packet one-way delay: 150.451 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 5.28 Mbit/s

95th percentile per-packet one-way delay: 109.077 ms

Loss rate: 0.00%

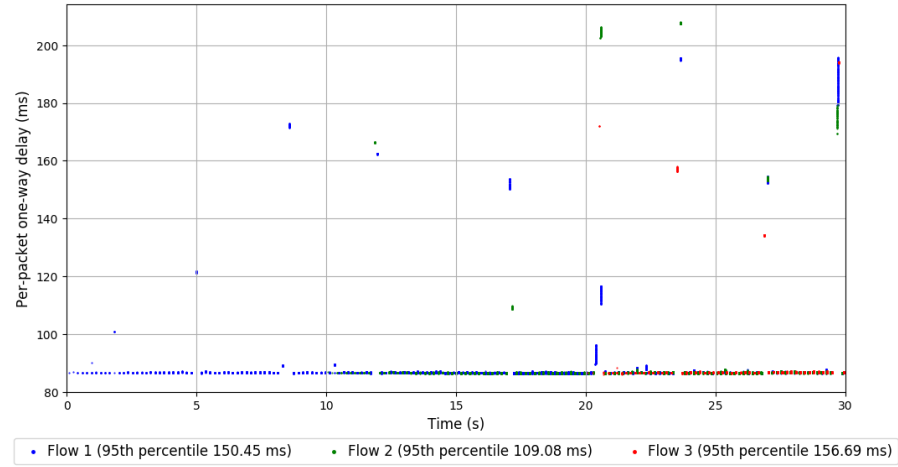
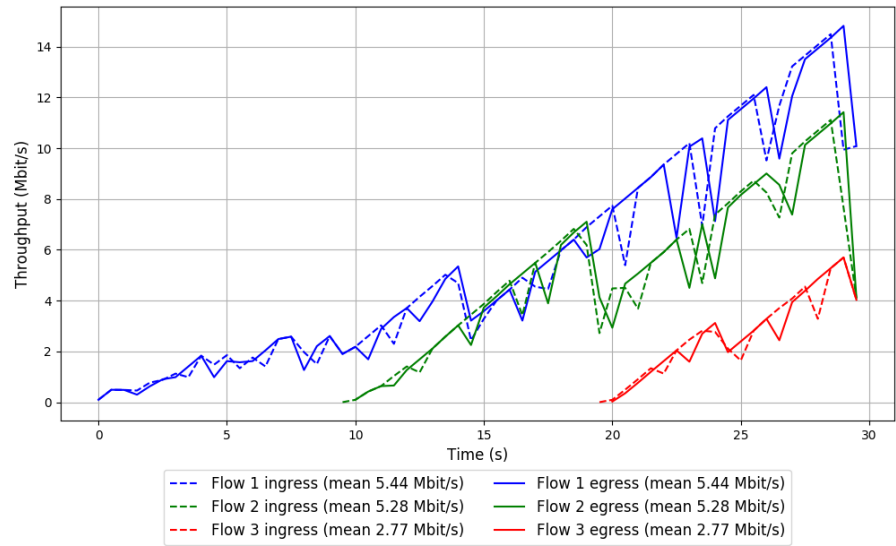
-- Flow 3:

Average throughput: 2.77 Mbit/s

95th percentile per-packet one-way delay: 156.693 ms

Loss rate: 0.04%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-09-08 00:54:53

End at: 2017-09-08 00:55:23

Below is generated by plot.py at 2017-09-08 03:55:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 143.646 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.58 Mbit/s

95th percentile per-packet one-way delay: 178.496 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.07 Mbit/s

95th percentile per-packet one-way delay: 123.698 ms

Loss rate: 0.00%

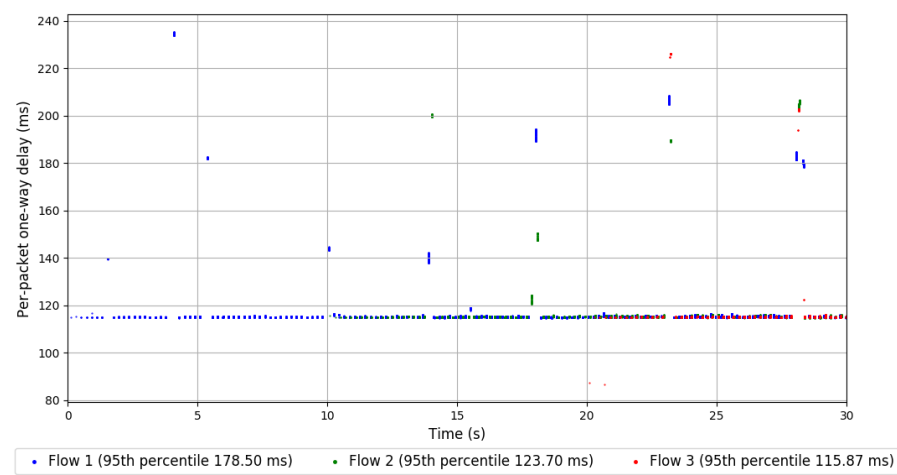
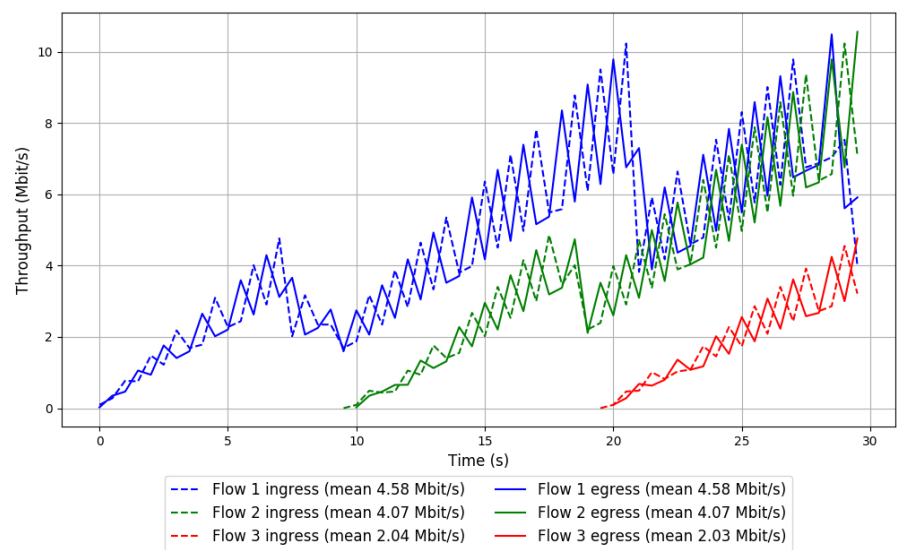
-- Flow 3:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 115.867 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-09-08 01:07:11

End at: 2017-09-08 01:07:41

Below is generated by plot.py at 2017-09-08 03:55:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.66 Mbit/s

95th percentile per-packet one-way delay: 139.126 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 4.43 Mbit/s

95th percentile per-packet one-way delay: 139.381 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 130.803 ms

Loss rate: 0.00%

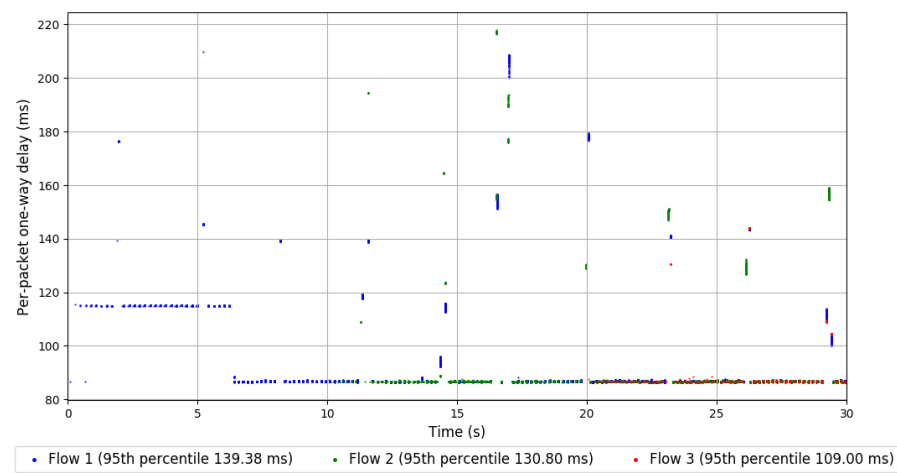
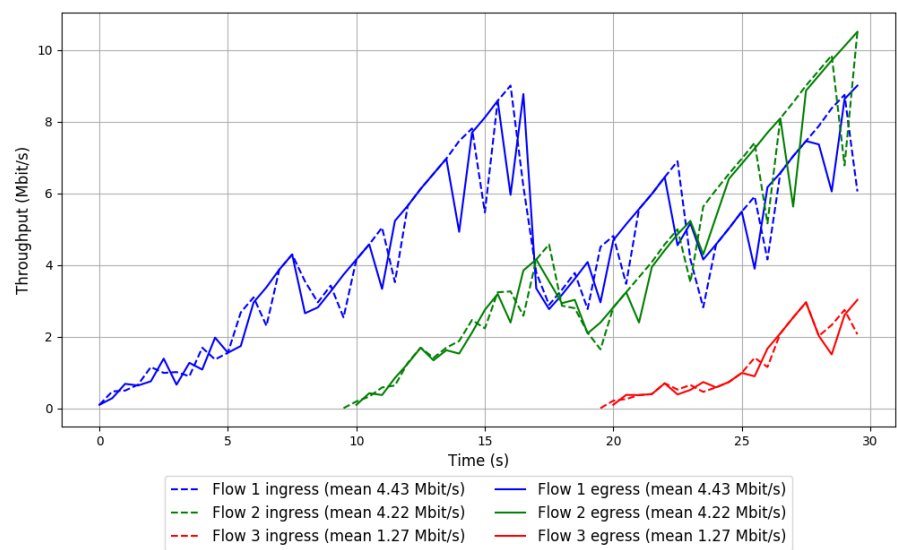
-- Flow 3:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 108.995 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-09-08 01:19:48

End at: 2017-09-08 01:20:18

Below is generated by plot.py at 2017-09-08 03:55:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.90 Mbit/s

95th percentile per-packet one-way delay: 88.296 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 6.03 Mbit/s

95th percentile per-packet one-way delay: 89.598 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 5.31 Mbit/s

95th percentile per-packet one-way delay: 88.045 ms

Loss rate: 0.02%

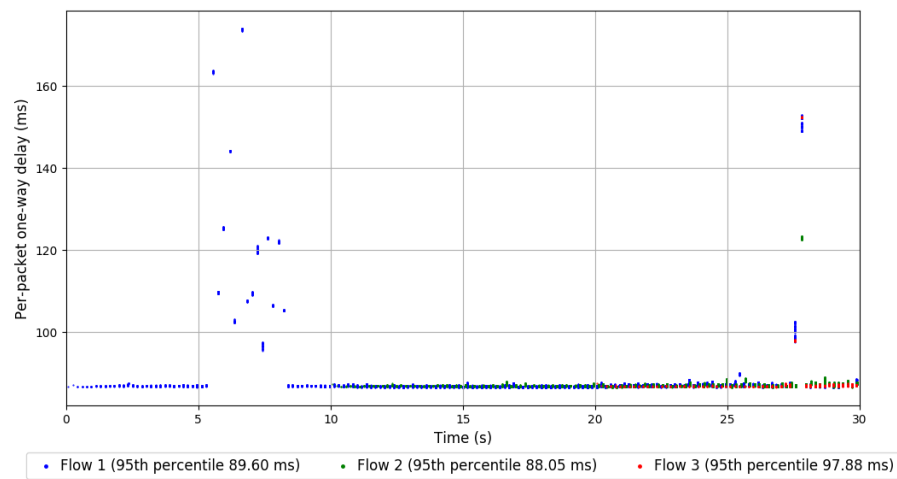
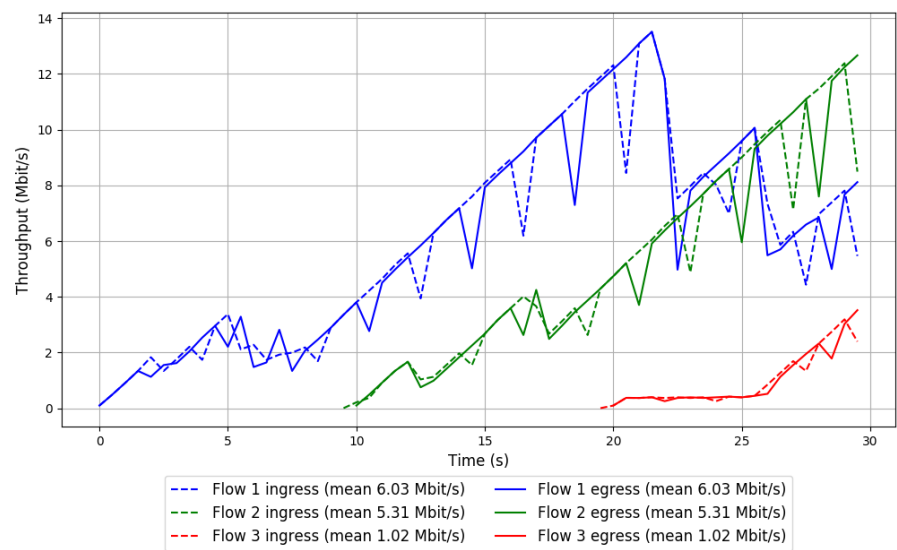
-- Flow 3:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 97.878 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-09-08 01:32:30

End at: 2017-09-08 01:33:00

Below is generated by plot.py at 2017-09-08 03:55:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.51 Mbit/s

95th percentile per-packet one-way delay: 118.377 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.73 Mbit/s

95th percentile per-packet one-way delay: 116.140 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.19 Mbit/s

95th percentile per-packet one-way delay: 117.645 ms

Loss rate: 0.00%

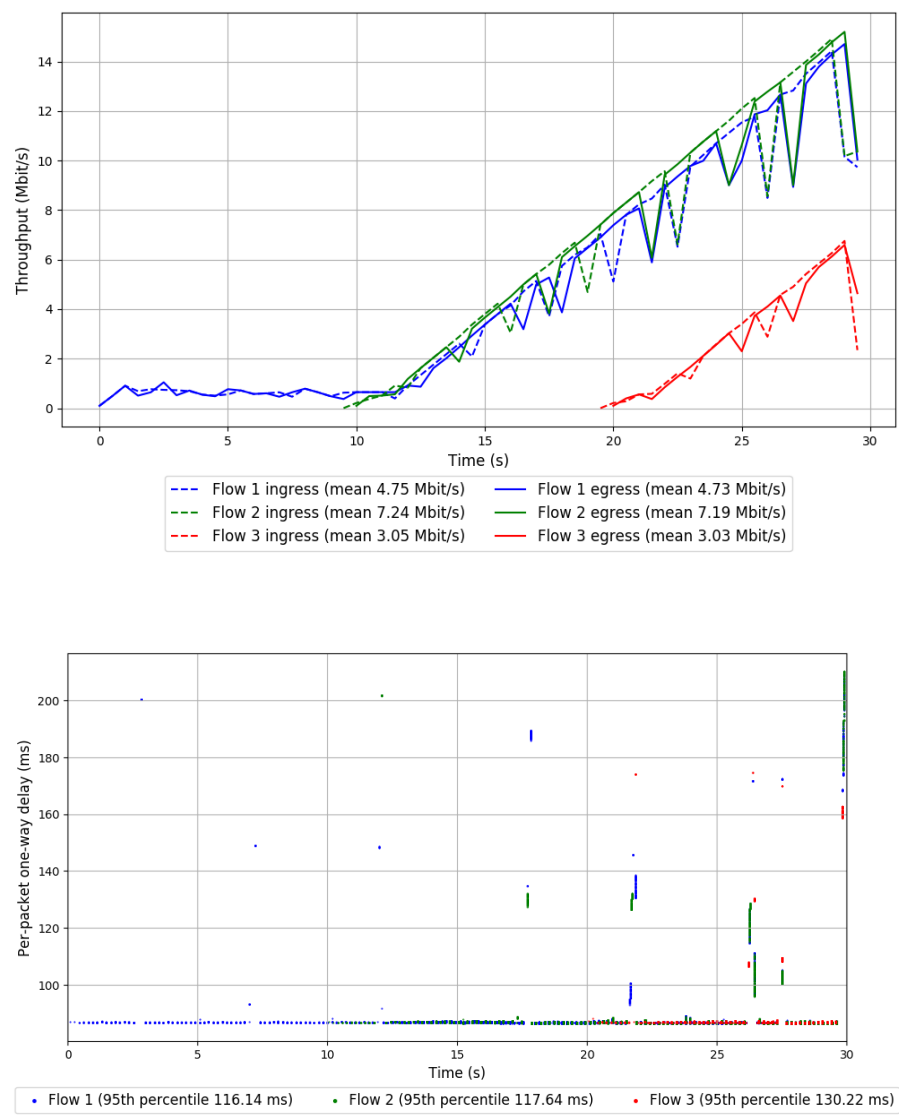
-- Flow 3:

Average throughput: 3.03 Mbit/s

95th percentile per-packet one-way delay: 130.222 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-09-08 01:44:59

End at: 2017-09-08 01:45:29

Below is generated by plot.py at 2017-09-08 03:55:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.60 Mbit/s

95th percentile per-packet one-way delay: 87.730 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 5.30 Mbit/s

95th percentile per-packet one-way delay: 87.722 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 6.39 Mbit/s

95th percentile per-packet one-way delay: 87.735 ms

Loss rate: 0.00%

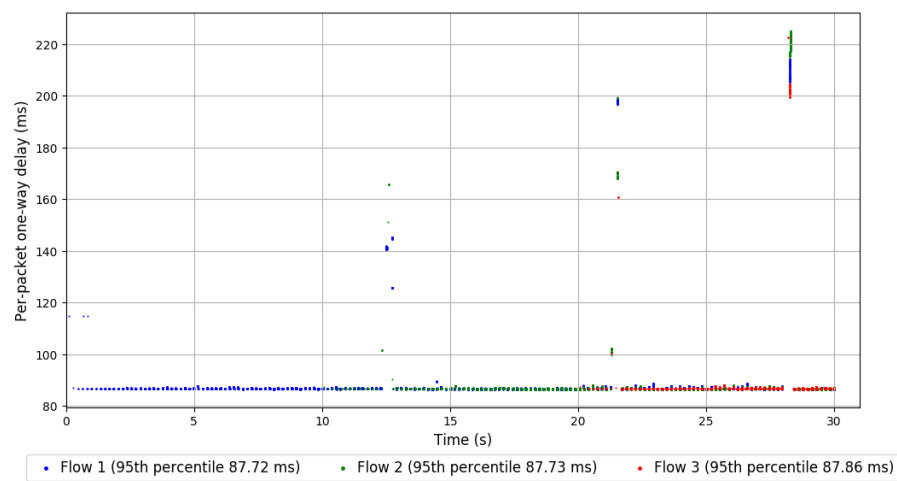
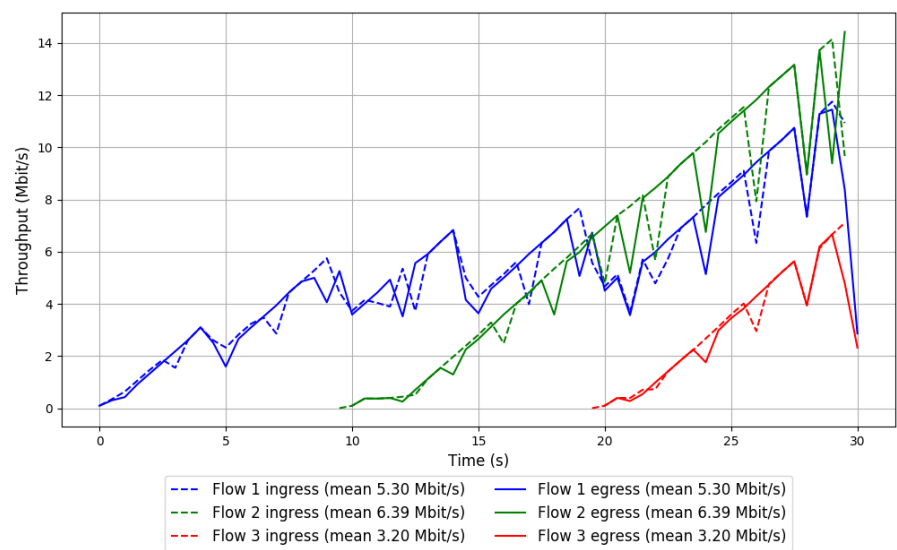
-- Flow 3:

Average throughput: 3.20 Mbit/s

95th percentile per-packet one-way delay: 87.857 ms

Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-09-08 01:57:59

End at: 2017-09-08 01:58:29

Below is generated by plot.py at 2017-09-08 03:55:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.79 Mbit/s

95th percentile per-packet one-way delay: 87.123 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 6.31 Mbit/s

95th percentile per-packet one-way delay: 87.109 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 4.79 Mbit/s

95th percentile per-packet one-way delay: 87.159 ms

Loss rate: 0.00%

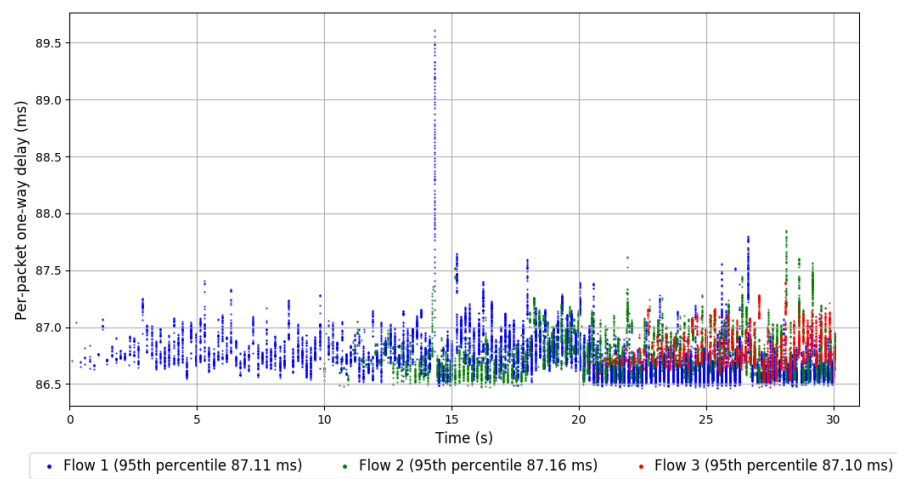
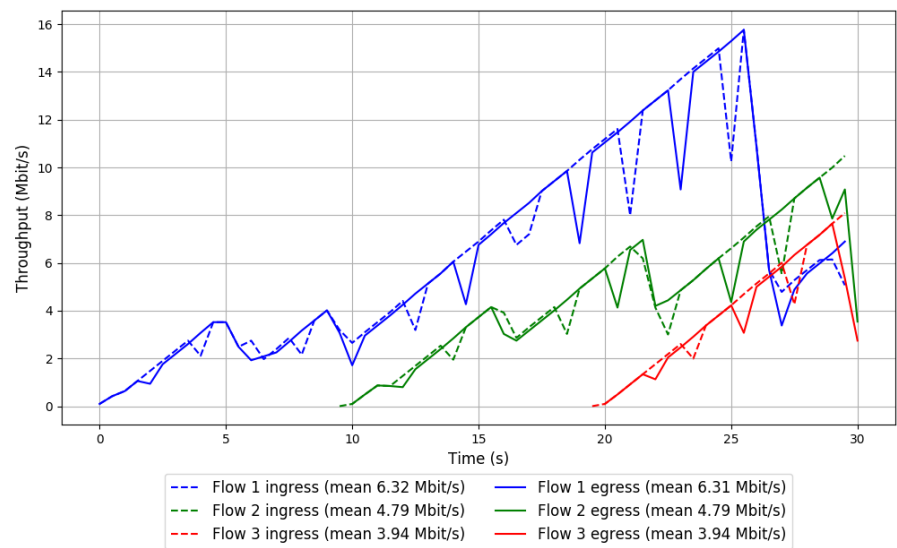
-- Flow 3:

Average throughput: 3.94 Mbit/s

95th percentile per-packet one-way delay: 87.097 ms

Loss rate: 0.00%

Run 10: Report of LEDBAT — Data Link

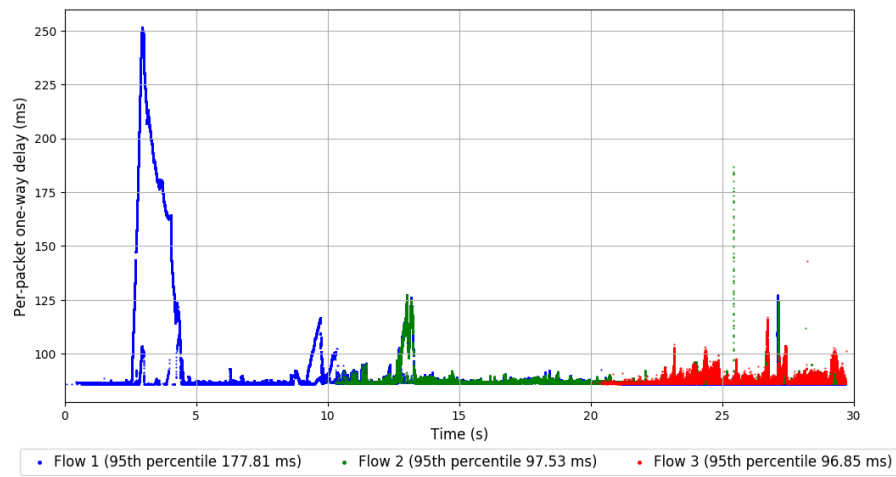
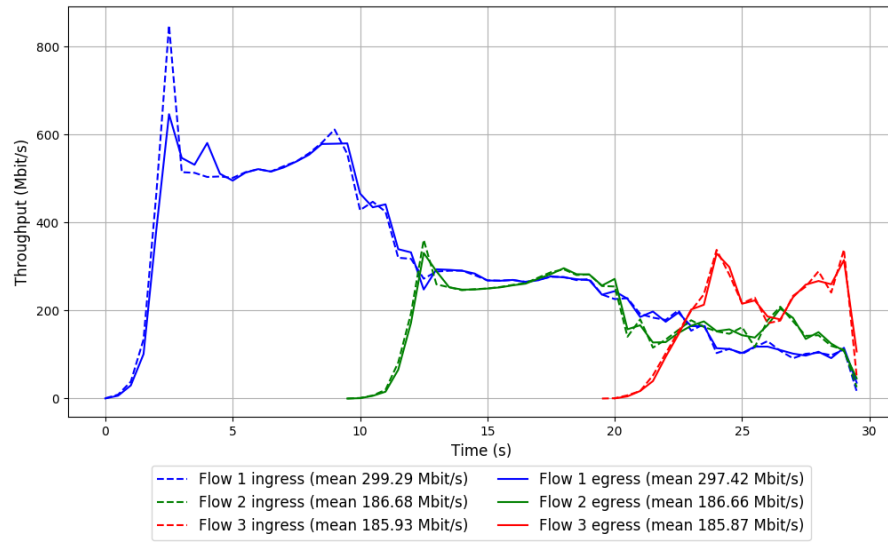


```
Run 1: Statistics of PCC

Start at: 2017-09-08 00:09:27
End at: 2017-09-08 00:09:57

# Below is generated by plot.py at 2017-09-08 03:56:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 482.36 Mbit/s
95th percentile per-packet one-way delay: 139.664 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 297.42 Mbit/s
95th percentile per-packet one-way delay: 177.805 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 186.66 Mbit/s
95th percentile per-packet one-way delay: 97.530 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 185.87 Mbit/s
95th percentile per-packet one-way delay: 96.846 ms
Loss rate: 0.00%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-09-08 00:22:27

End at: 2017-09-08 00:22:57

Below is generated by plot.py at 2017-09-08 03:57:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 456.27 Mbit/s

95th percentile per-packet one-way delay: 222.077 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 300.51 Mbit/s

95th percentile per-packet one-way delay: 227.790 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 167.52 Mbit/s

95th percentile per-packet one-way delay: 171.385 ms

Loss rate: 0.13%

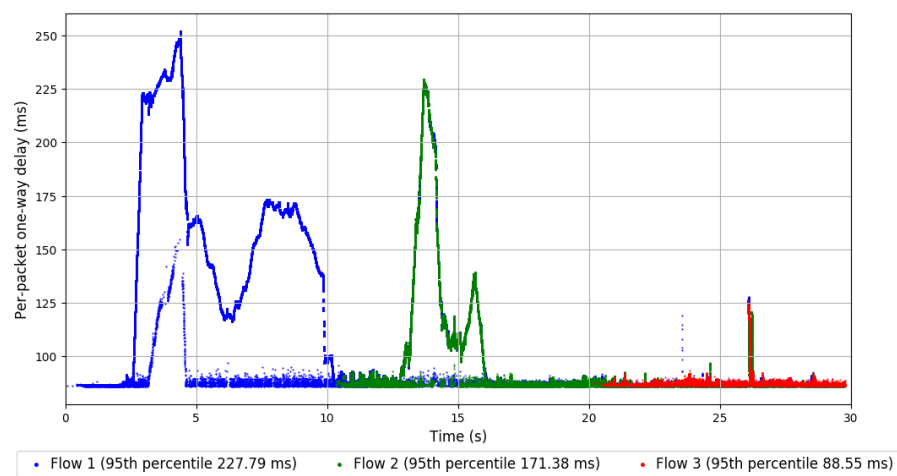
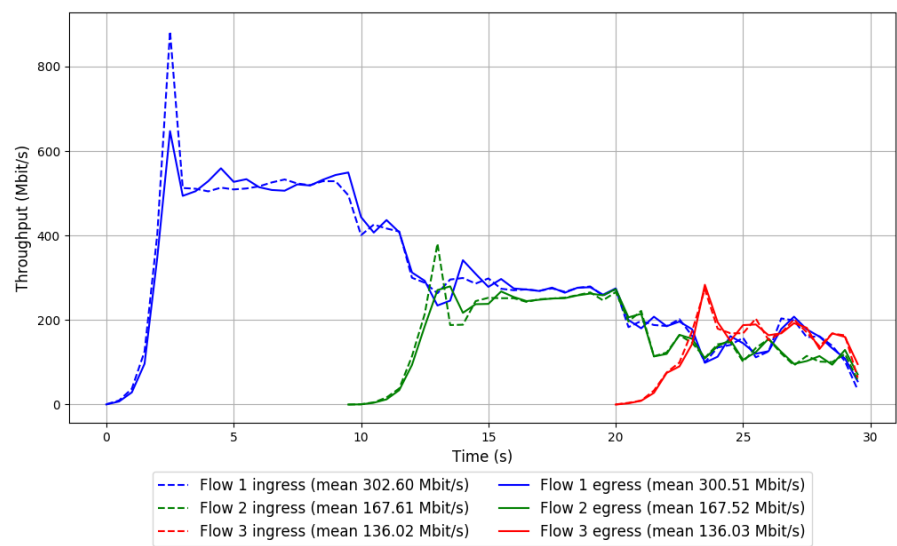
-- Flow 3:

Average throughput: 136.03 Mbit/s

95th percentile per-packet one-way delay: 88.545 ms

Loss rate: 0.00%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-09-08 00:35:24

End at: 2017-09-08 00:35:54

Below is generated by plot.py at 2017-09-08 03:57:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 264.56 Mbit/s

95th percentile per-packet one-way delay: 167.228 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 234.50 Mbit/s

95th percentile per-packet one-way delay: 165.520 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 8.18 Mbit/s

95th percentile per-packet one-way delay: 144.173 ms

Loss rate: 0.00%

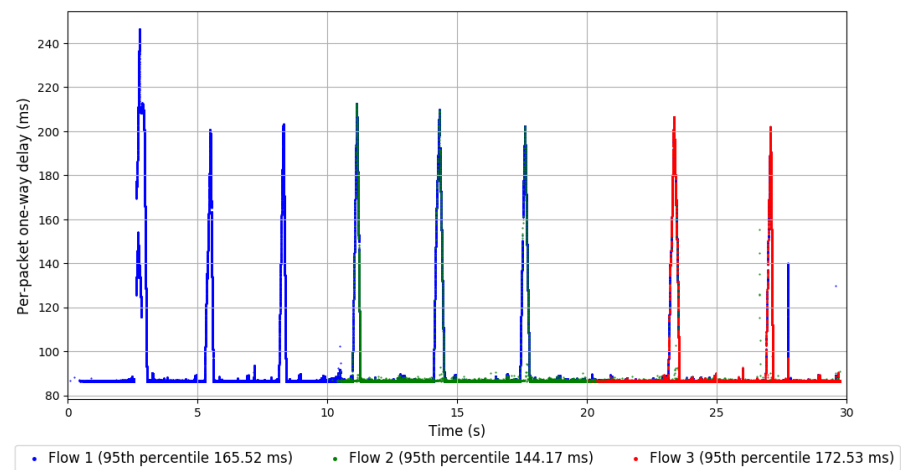
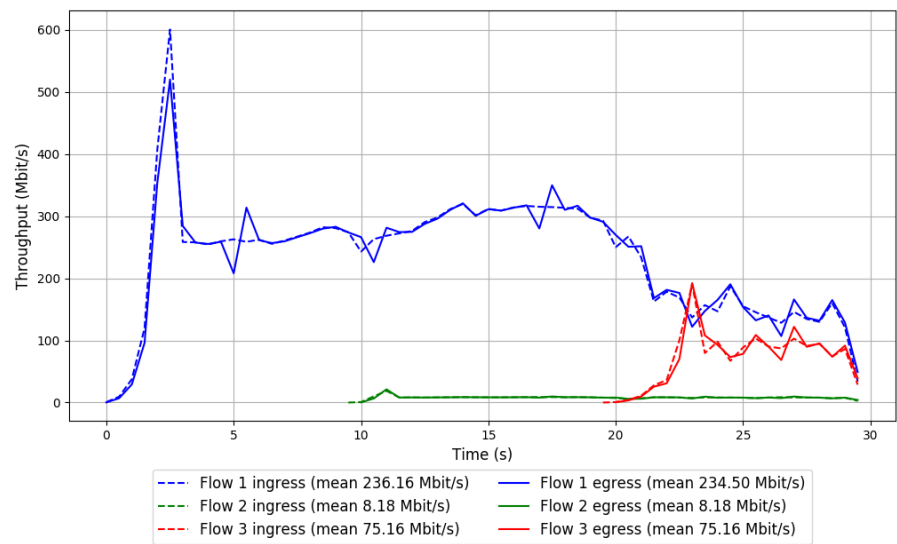
-- Flow 3:

Average throughput: 75.16 Mbit/s

95th percentile per-packet one-way delay: 172.529 ms

Loss rate: 0.00%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-09-08 00:47:58

End at: 2017-09-08 00:48:28

Below is generated by plot.py at 2017-09-08 03:57:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 162.29 Mbit/s

95th percentile per-packet one-way delay: 145.108 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 131.40 Mbit/s

95th percentile per-packet one-way delay: 146.459 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 4.54 Mbit/s

95th percentile per-packet one-way delay: 133.765 ms

Loss rate: 0.05%

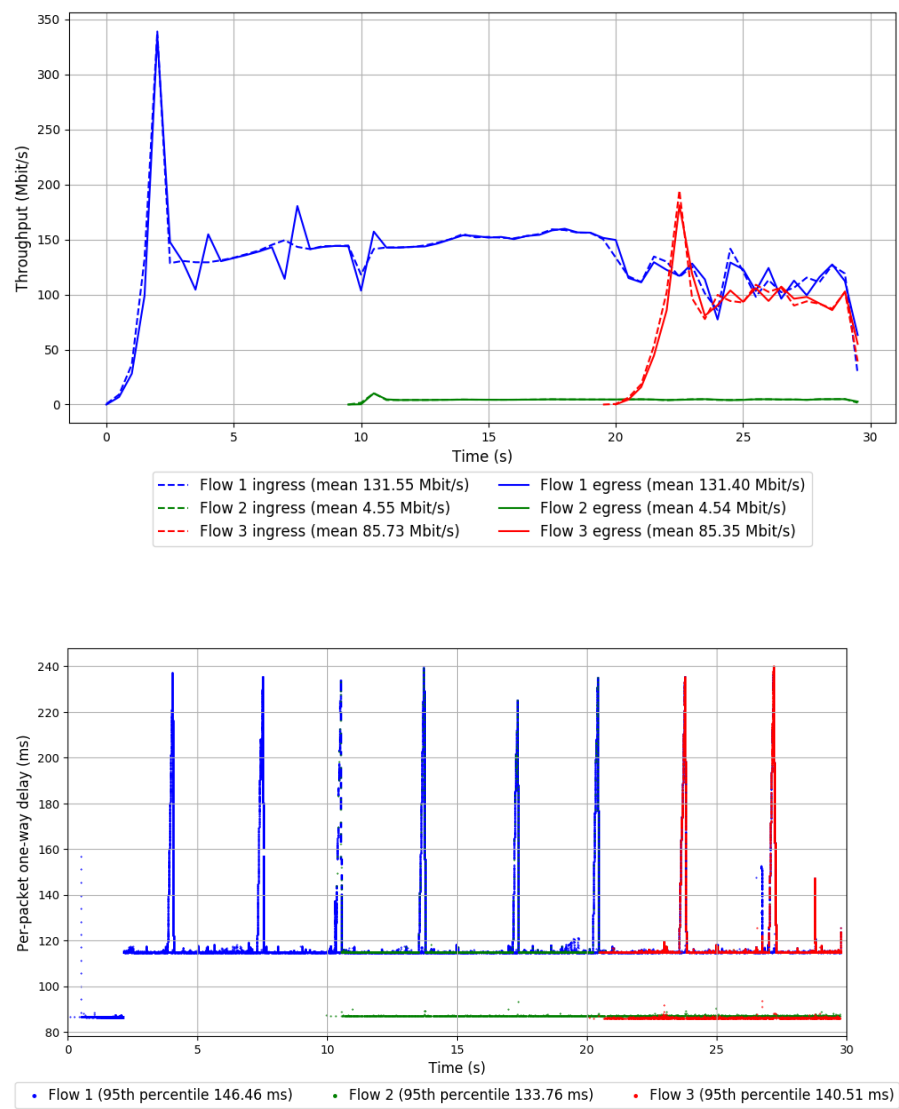
-- Flow 3:

Average throughput: 85.35 Mbit/s

95th percentile per-packet one-way delay: 140.514 ms

Loss rate: 0.13%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-09-08 01:00:28

End at: 2017-09-08 01:00:58

Below is generated by plot.py at 2017-09-08 03:57:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 21.72 Mbit/s

95th percentile per-packet one-way delay: 149.324 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 4.86 Mbit/s

95th percentile per-packet one-way delay: 115.017 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 114.947 ms

Loss rate: 0.01%

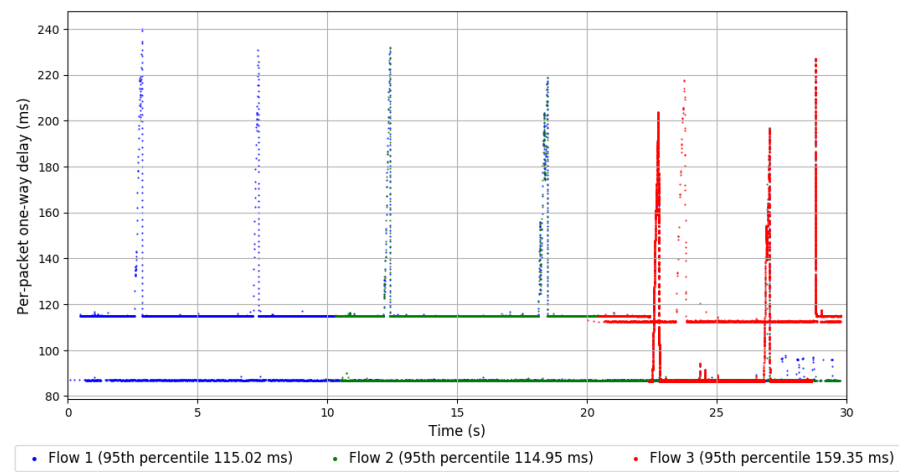
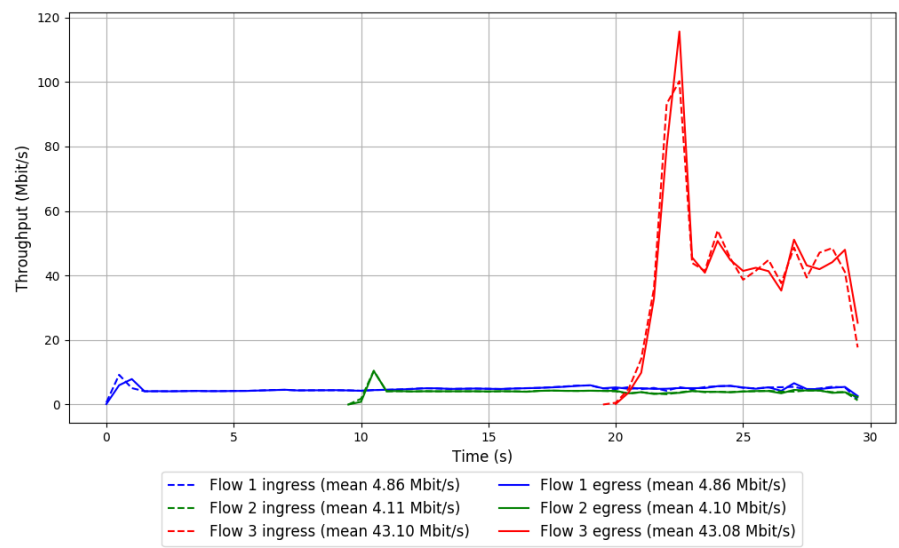
-- Flow 3:

Average throughput: 43.08 Mbit/s

95th percentile per-packet one-way delay: 159.351 ms

Loss rate: 0.03%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-09-08 01:12:33

End at: 2017-09-08 01:13:03

Below is generated by plot.py at 2017-09-08 03:58:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 265.99 Mbit/s

95th percentile per-packet one-way delay: 170.527 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 75.27 Mbit/s

95th percentile per-packet one-way delay: 160.121 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 265.70 Mbit/s

95th percentile per-packet one-way delay: 173.183 ms

Loss rate: 0.13%

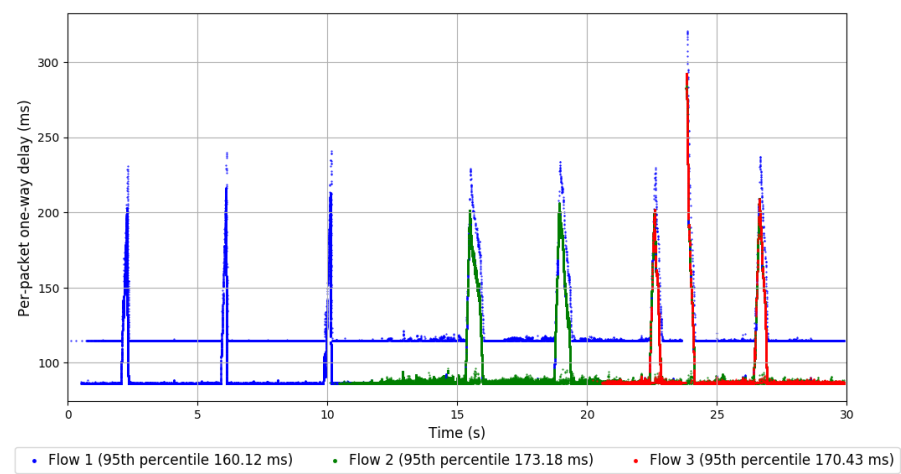
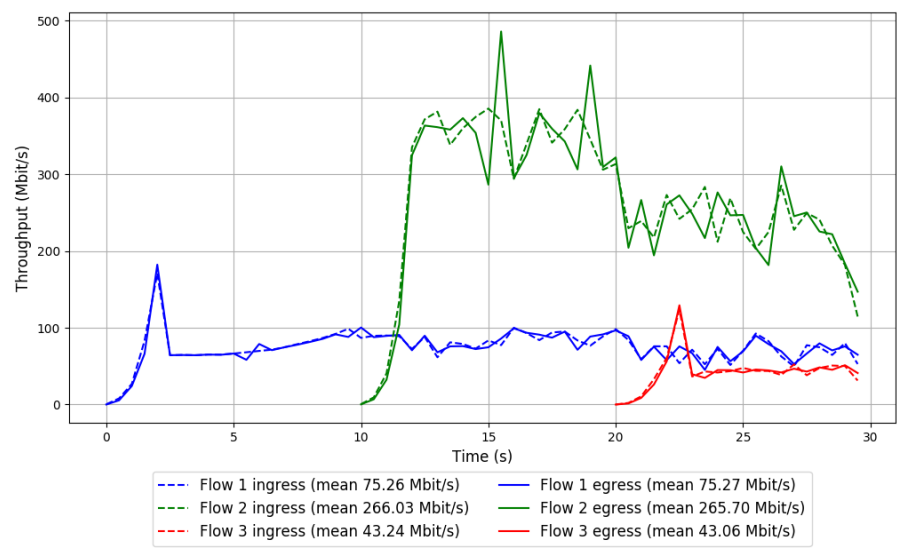
-- Flow 3:

Average throughput: 43.06 Mbit/s

95th percentile per-packet one-way delay: 170.433 ms

Loss rate: 0.52%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-09-08 01:25:17

End at: 2017-09-08 01:25:47

Below is generated by plot.py at 2017-09-08 03:58:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 282.27 Mbit/s

95th percentile per-packet one-way delay: 187.272 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 130.50 Mbit/s

95th percentile per-packet one-way delay: 178.220 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 164.56 Mbit/s

95th percentile per-packet one-way delay: 189.870 ms

Loss rate: 0.05%

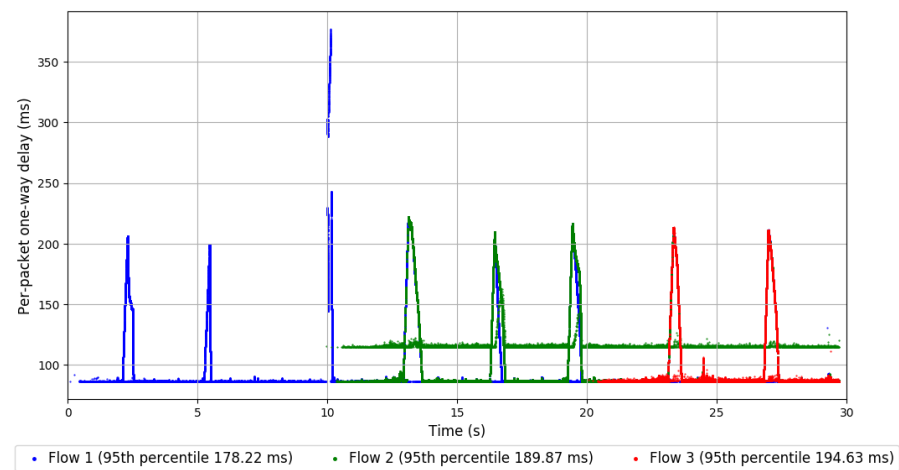
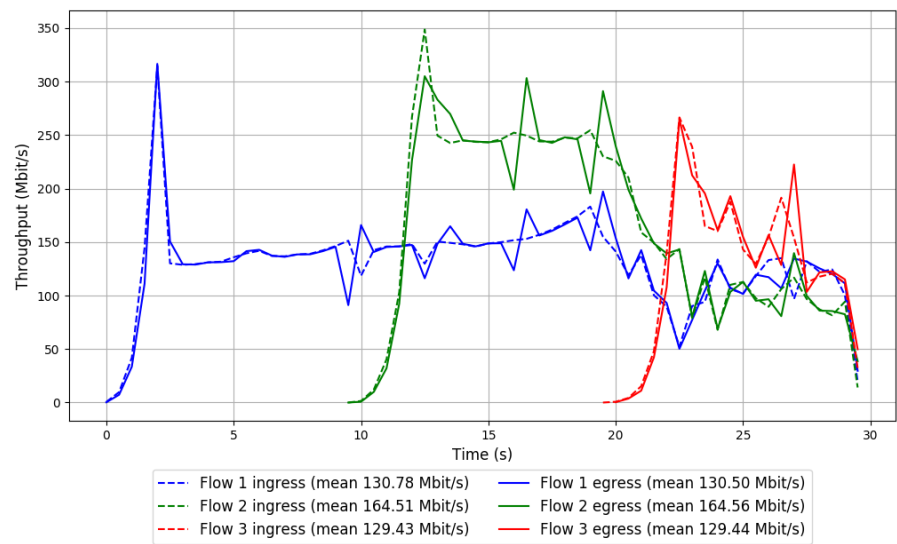
-- Flow 3:

Average throughput: 129.44 Mbit/s

95th percentile per-packet one-way delay: 194.632 ms

Loss rate: 0.00%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-09-08 01:37:58

End at: 2017-09-08 01:38:28

Below is generated by plot.py at 2017-09-08 03:59:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 157.14 Mbit/s

95th percentile per-packet one-way delay: 158.388 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 134.61 Mbit/s

95th percentile per-packet one-way delay: 159.340 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 31.87 Mbit/s

95th percentile per-packet one-way delay: 153.856 ms

Loss rate: 0.51%

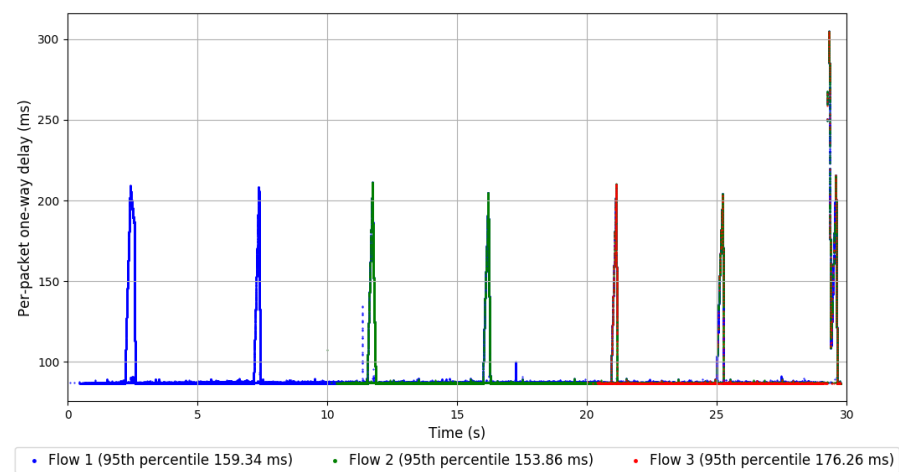
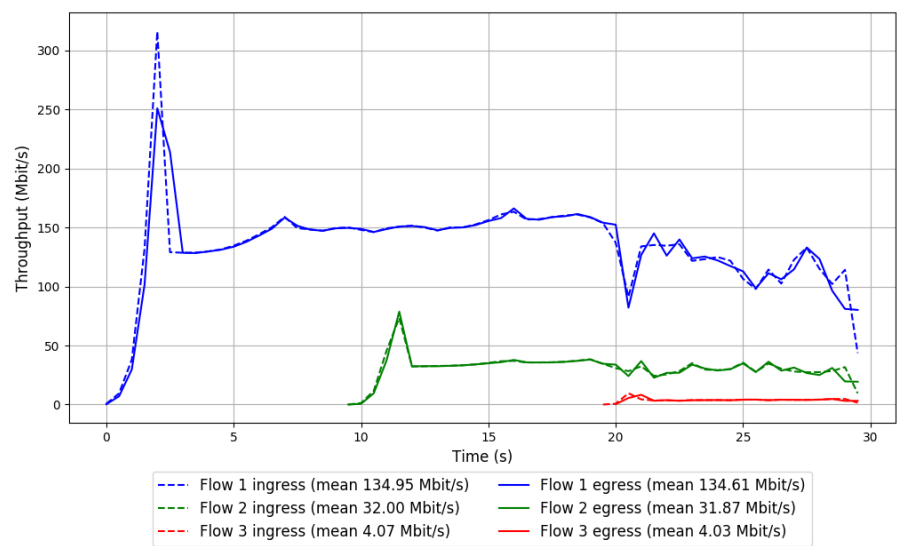
-- Flow 3:

Average throughput: 4.03 Mbit/s

95th percentile per-packet one-way delay: 176.257 ms

Loss rate: 1.00%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-09-08 01:50:27

End at: 2017-09-08 01:50:57

Below is generated by plot.py at 2017-09-08 03:59:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 422.66 Mbit/s

95th percentile per-packet one-way delay: 180.559 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 313.03 Mbit/s

95th percentile per-packet one-way delay: 183.332 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 98.68 Mbit/s

95th percentile per-packet one-way delay: 123.869 ms

Loss rate: 0.00%

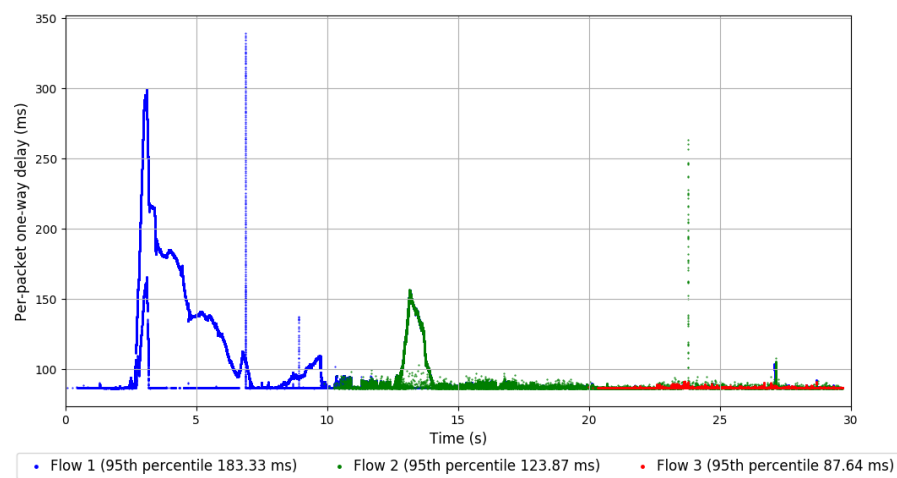
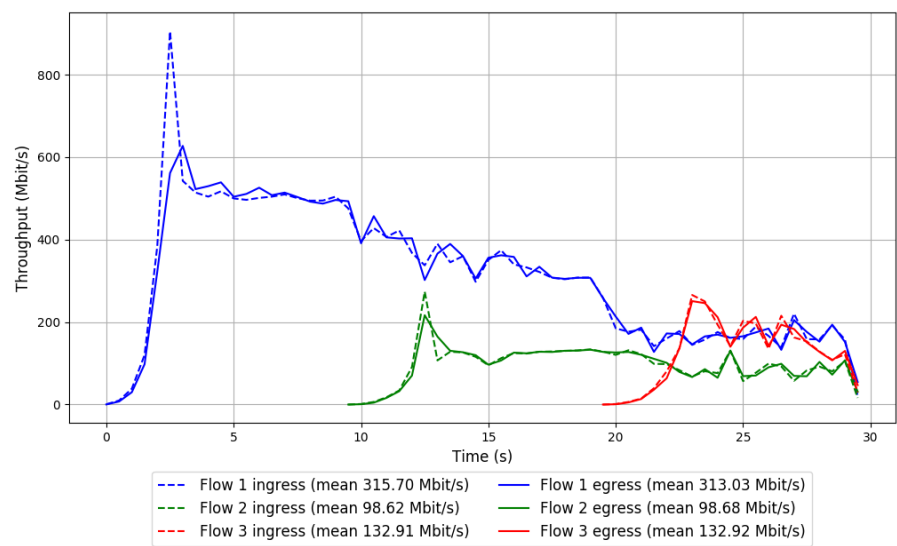
-- Flow 3:

Average throughput: 132.92 Mbit/s

95th percentile per-packet one-way delay: 87.639 ms

Loss rate: 0.00%

Run 9: Report of PCC — Data Link

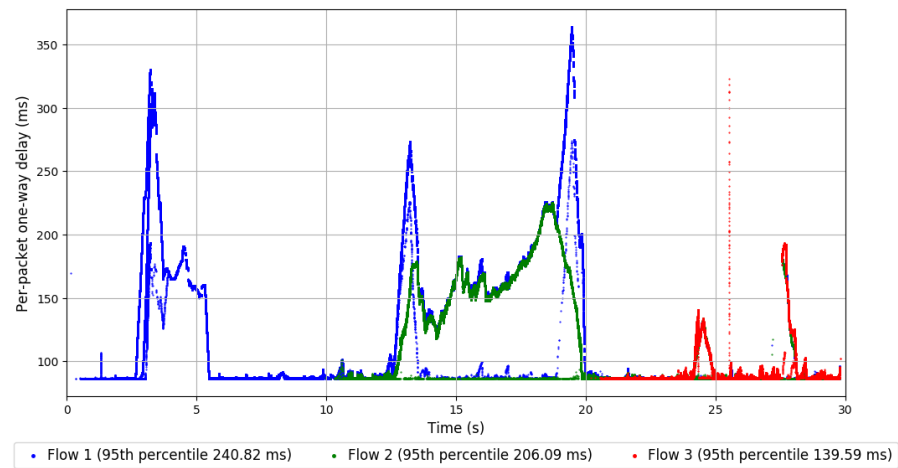
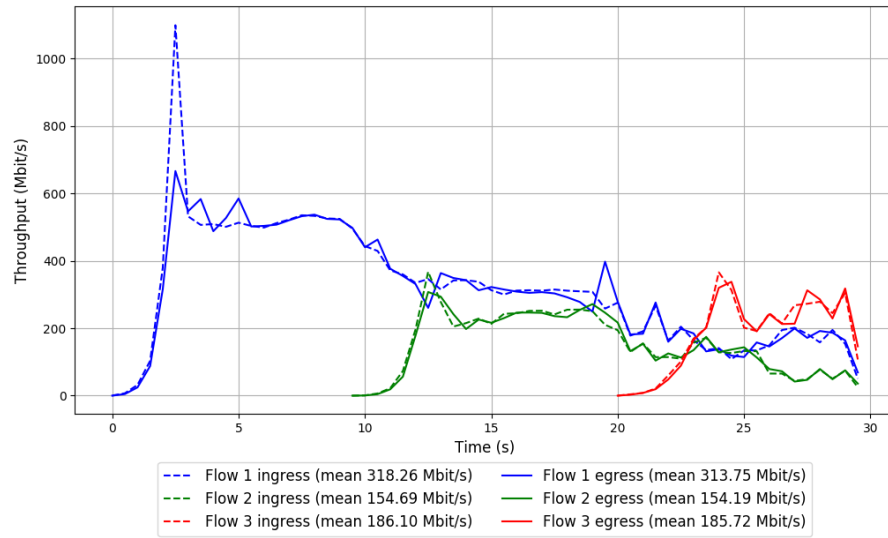


```
Run 10: Statistics of PCC

Start at: 2017-09-08 02:03:29
End at: 2017-09-08 02:03:59

# Below is generated by plot.py at 2017-09-08 04:00:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.08 Mbit/s
95th percentile per-packet one-way delay: 222.623 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 313.75 Mbit/s
95th percentile per-packet one-way delay: 240.821 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 154.19 Mbit/s
95th percentile per-packet one-way delay: 206.086 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 185.72 Mbit/s
95th percentile per-packet one-way delay: 139.586 ms
Loss rate: 0.14%
```

Run 10: Report of PCC — Data Link

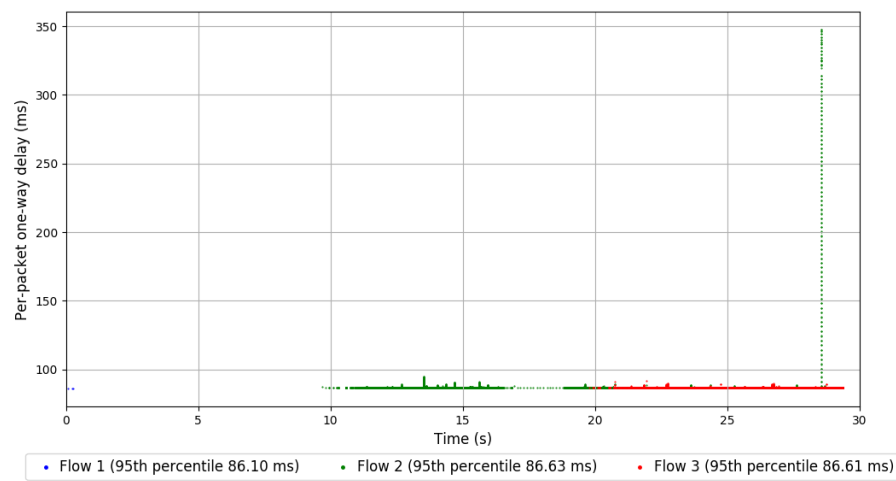
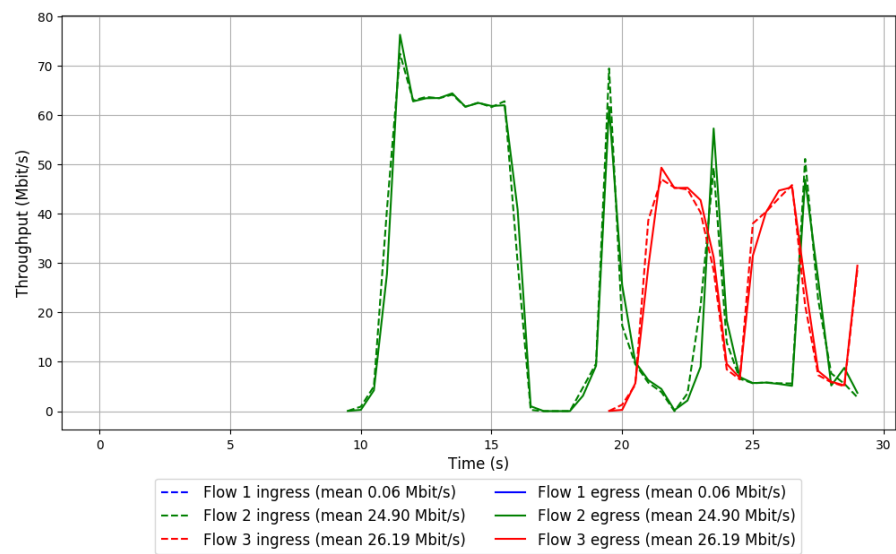


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-08 00:08:40
End at: 2017-09-08 00:09:10

# Below is generated by plot.py at 2017-09-08 04:00:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.32 Mbit/s
95th percentile per-packet one-way delay: 86.624 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 86.104 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.90 Mbit/s
95th percentile per-packet one-way delay: 86.631 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.19 Mbit/s
95th percentile per-packet one-way delay: 86.606 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-09-08 00:21:41

End at: 2017-09-08 00:22:11

Below is generated by plot.py at 2017-09-08 04:00:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.60 Mbit/s

95th percentile per-packet one-way delay: 86.971 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.579 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 91.133 ms

Loss rate: 0.00%

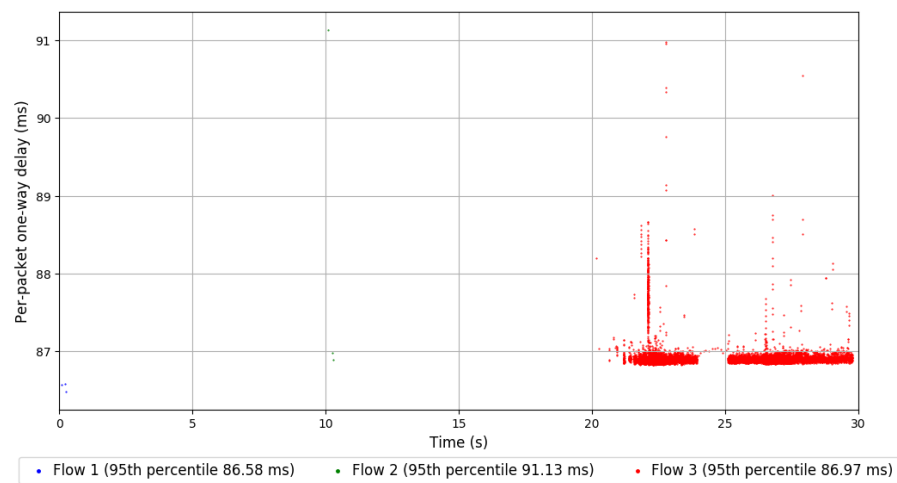
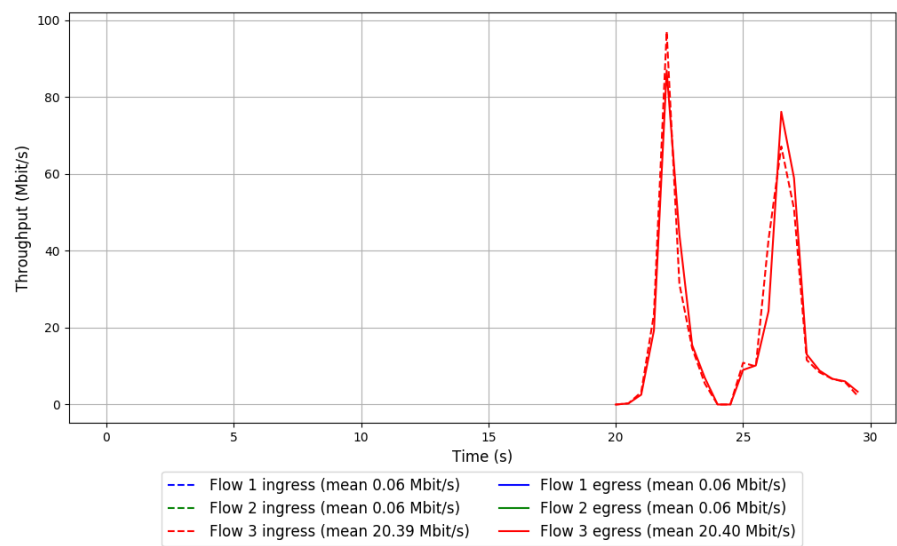
-- Flow 3:

Average throughput: 20.40 Mbit/s

95th percentile per-packet one-way delay: 86.970 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-09-08 00:34:37

End at: 2017-09-08 00:35:07

Below is generated by plot.py at 2017-09-08 04:00:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.52 Mbit/s

95th percentile per-packet one-way delay: 86.678 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.616 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.60 Mbit/s

95th percentile per-packet one-way delay: 86.644 ms

Loss rate: 0.16%

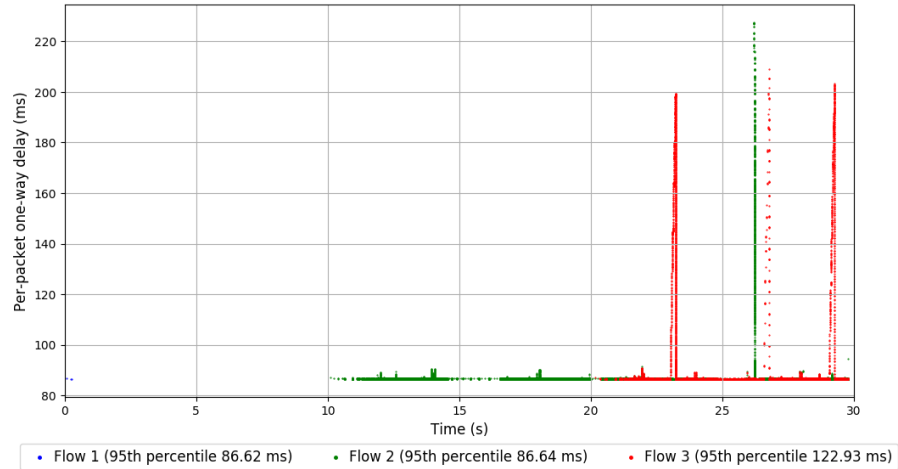
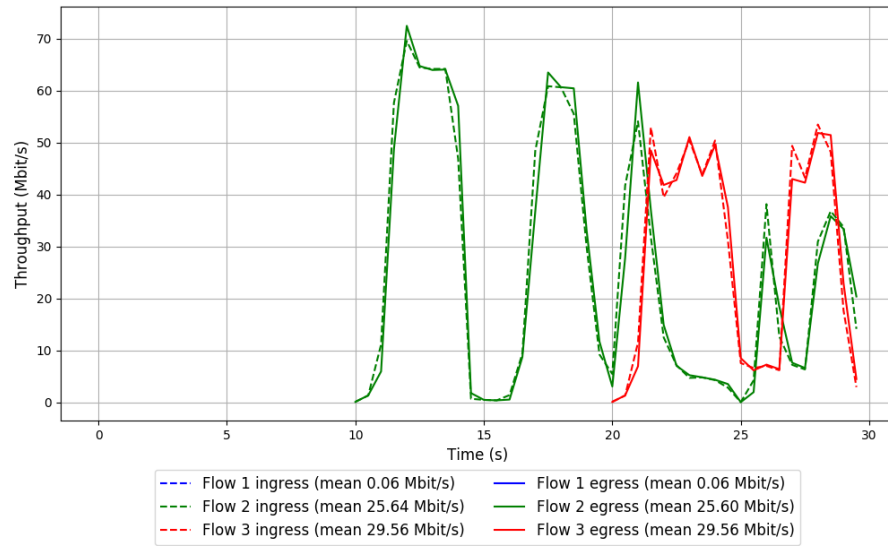
-- Flow 3:

Average throughput: 29.56 Mbit/s

95th percentile per-packet one-way delay: 122.933 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-09-08 00:47:11

End at: 2017-09-08 00:47:41

Below is generated by plot.py at 2017-09-08 04:00:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.18 Mbit/s

95th percentile per-packet one-way delay: 86.593 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.585 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 29.33 Mbit/s

95th percentile per-packet one-way delay: 86.575 ms

Loss rate: 0.00%

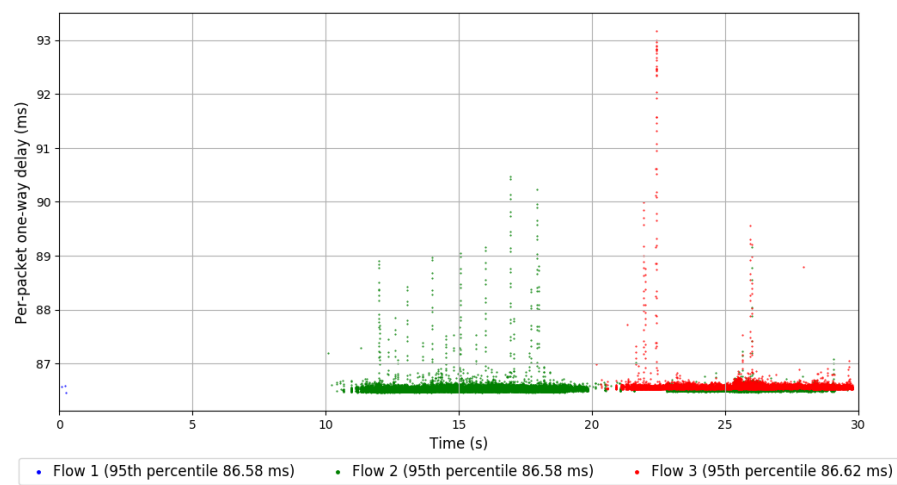
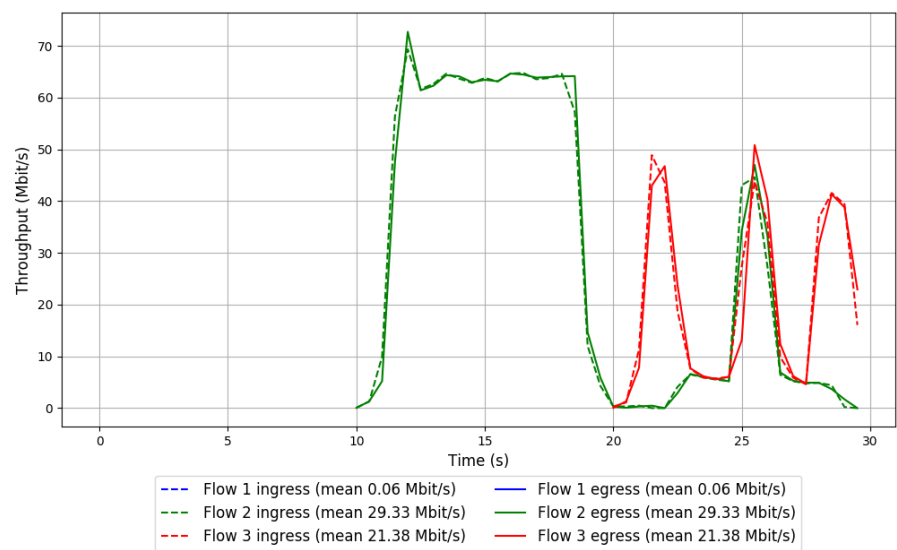
-- Flow 3:

Average throughput: 21.38 Mbit/s

95th percentile per-packet one-way delay: 86.619 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-09-08 00:59:40

End at: 2017-09-08 01:00:10

Below is generated by plot.py at 2017-09-08 04:00:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.15 Mbit/s

95th percentile per-packet one-way delay: 114.835 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 114.921 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 23.69 Mbit/s

95th percentile per-packet one-way delay: 114.854 ms

Loss rate: 0.00%

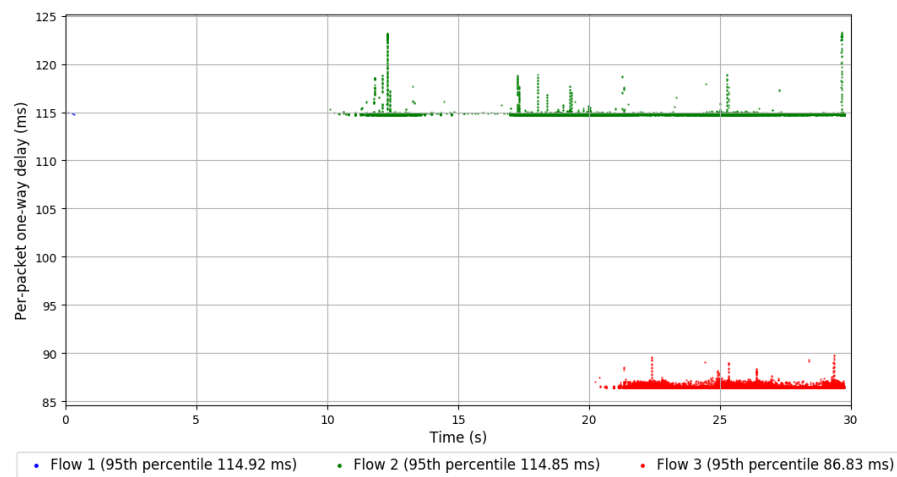
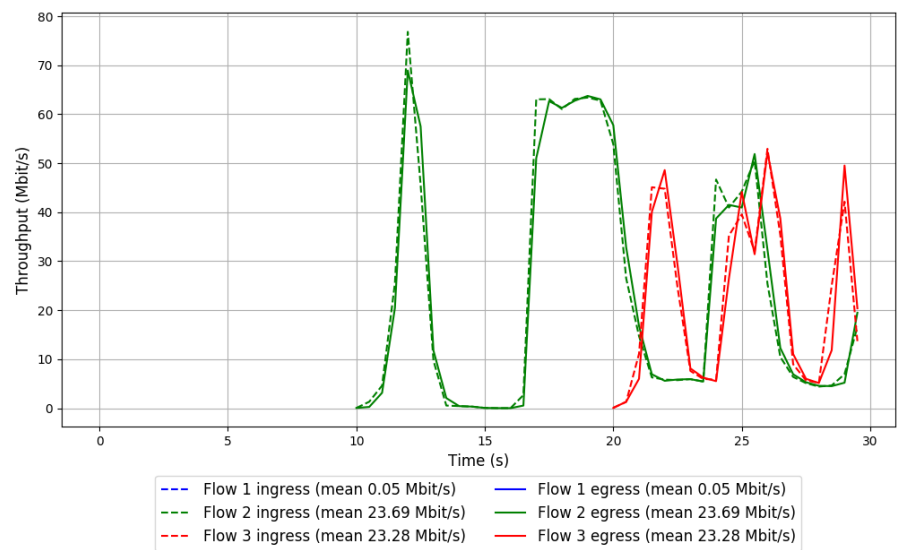
-- Flow 3:

Average throughput: 23.28 Mbit/s

95th percentile per-packet one-way delay: 86.827 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-09-08 01:11:47

End at: 2017-09-08 01:12:17

Below is generated by plot.py at 2017-09-08 04:00:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 29.57 Mbit/s

95th percentile per-packet one-way delay: 112.608 ms

Loss rate: 0.14%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.048 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.39 Mbit/s

95th percentile per-packet one-way delay: 86.931 ms

Loss rate: 0.00%

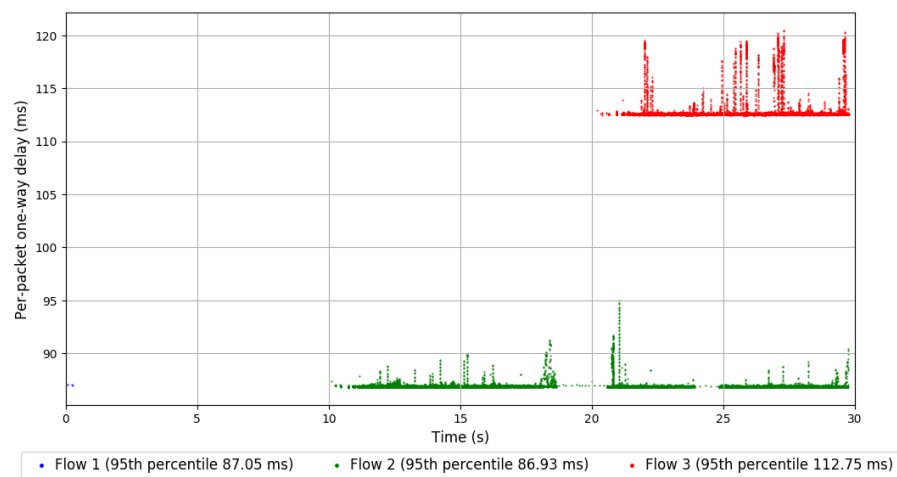
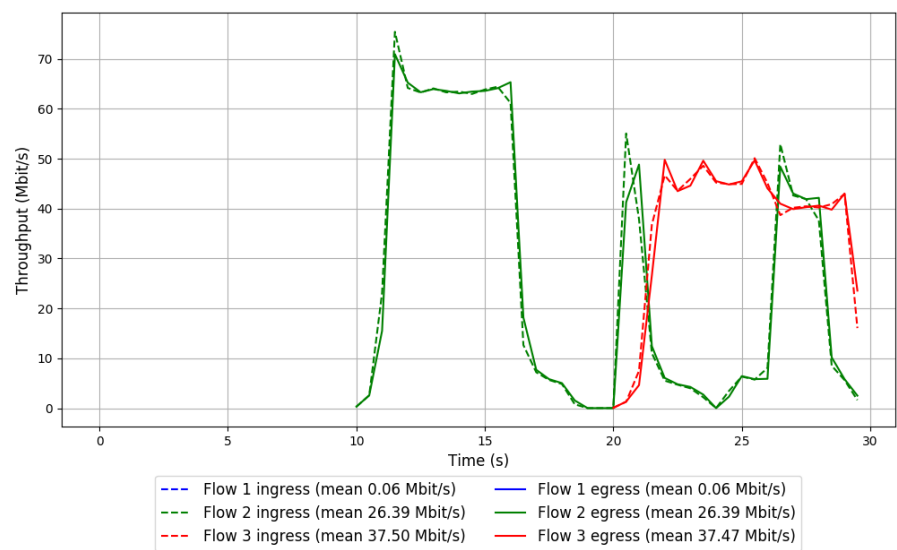
-- Flow 3:

Average throughput: 37.47 Mbit/s

95th percentile per-packet one-way delay: 112.749 ms

Loss rate: 0.33%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-09-08 01:24:30

End at: 2017-09-08 01:25:00

Below is generated by plot.py at 2017-09-08 04:00:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 29.32 Mbit/s

95th percentile per-packet one-way delay: 86.885 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.797 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 29.07 Mbit/s

95th percentile per-packet one-way delay: 86.649 ms

Loss rate: 0.00%

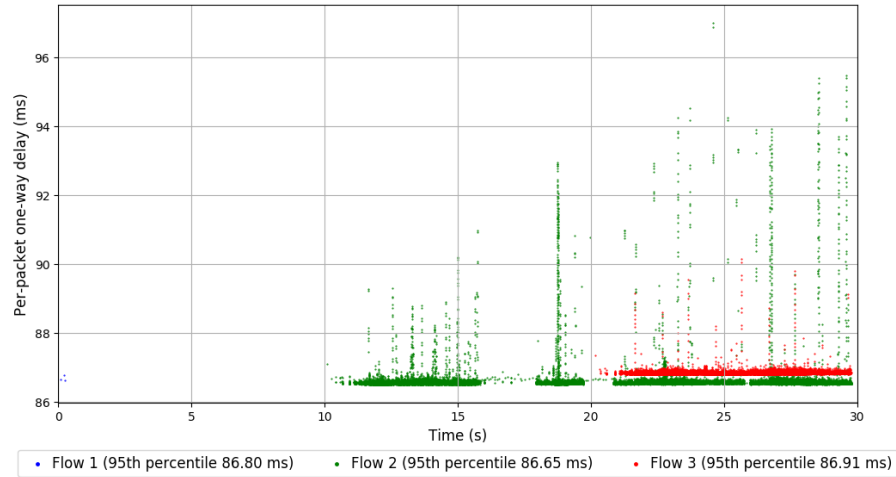
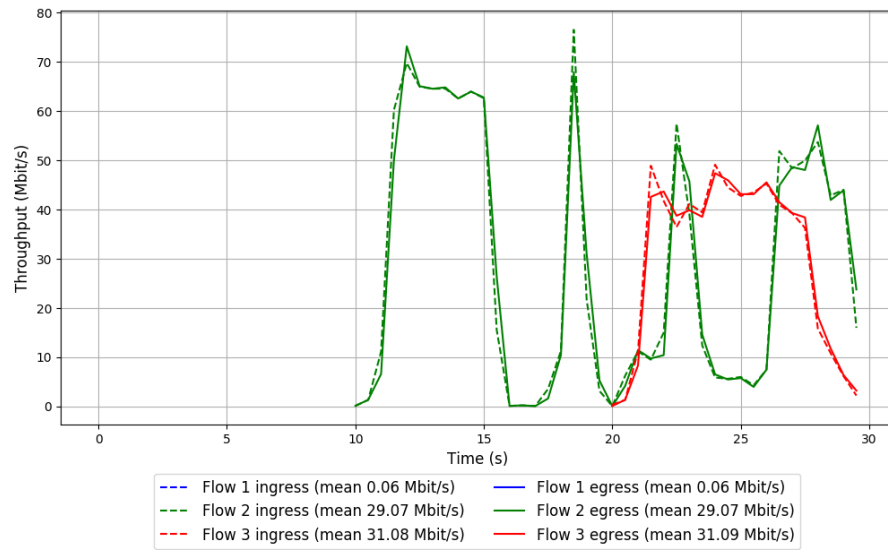
-- Flow 3:

Average throughput: 31.09 Mbit/s

95th percentile per-packet one-way delay: 86.913 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-09-08 01:37:10

End at: 2017-09-08 01:37:40

Below is generated by plot.py at 2017-09-08 04:00:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.86 Mbit/s

95th percentile per-packet one-way delay: 86.911 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 114.942 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 30.34 Mbit/s

95th percentile per-packet one-way delay: 86.883 ms

Loss rate: 0.00%

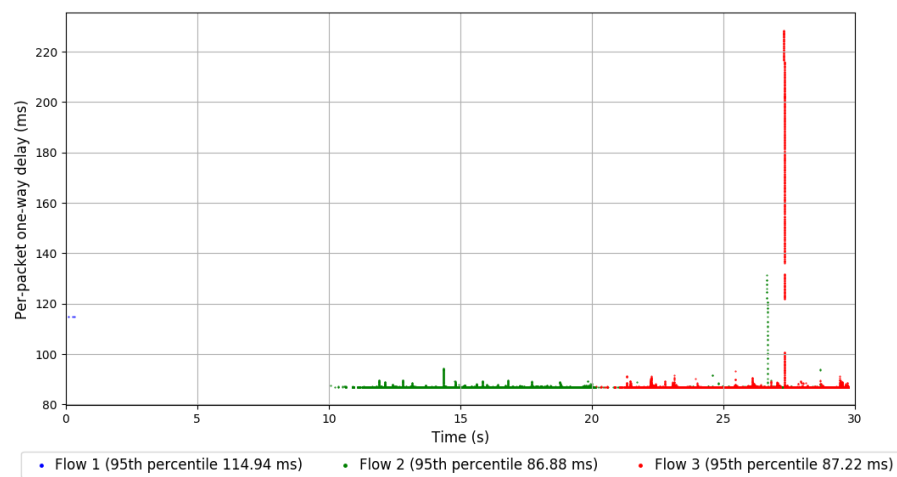
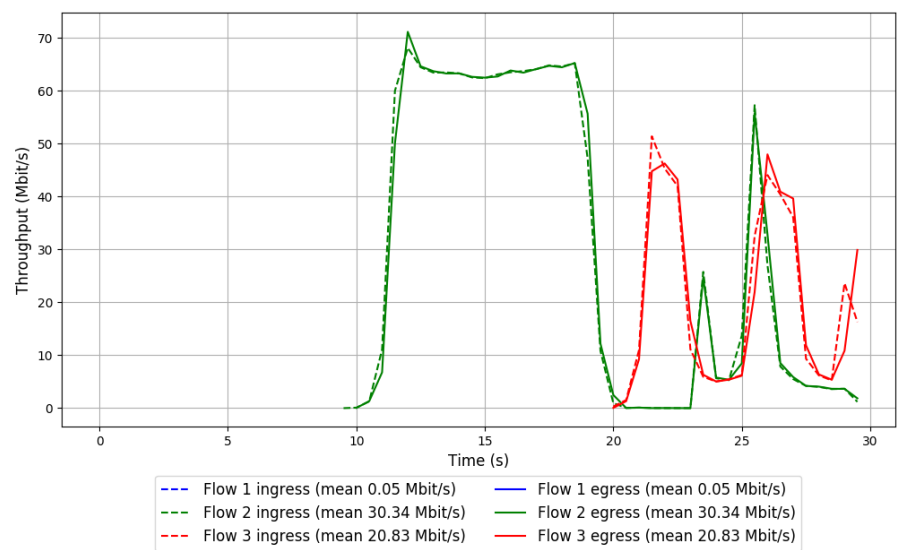
-- Flow 3:

Average throughput: 20.83 Mbit/s

95th percentile per-packet one-way delay: 87.215 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-09-08 01:49:40

End at: 2017-09-08 01:50:10

Below is generated by plot.py at 2017-09-08 04:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.29 Mbit/s

95th percentile per-packet one-way delay: 86.892 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.703 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.71 Mbit/s

95th percentile per-packet one-way delay: 86.505 ms

Loss rate: 0.00%

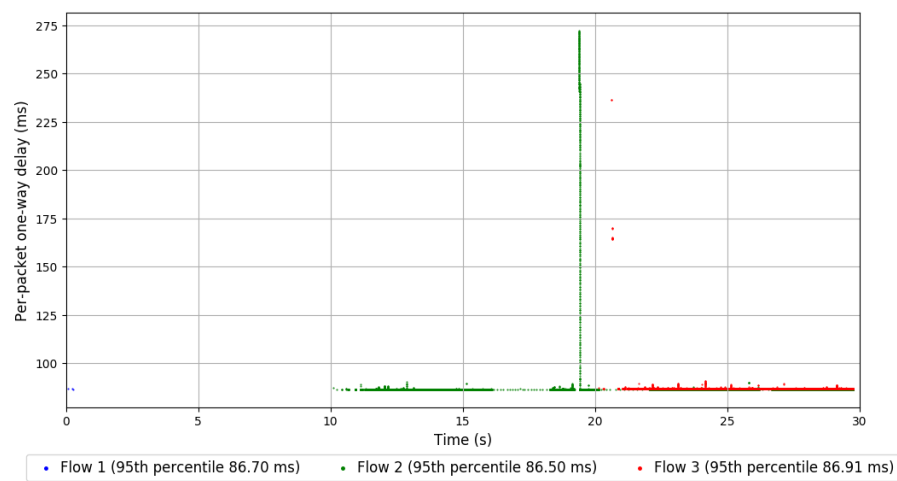
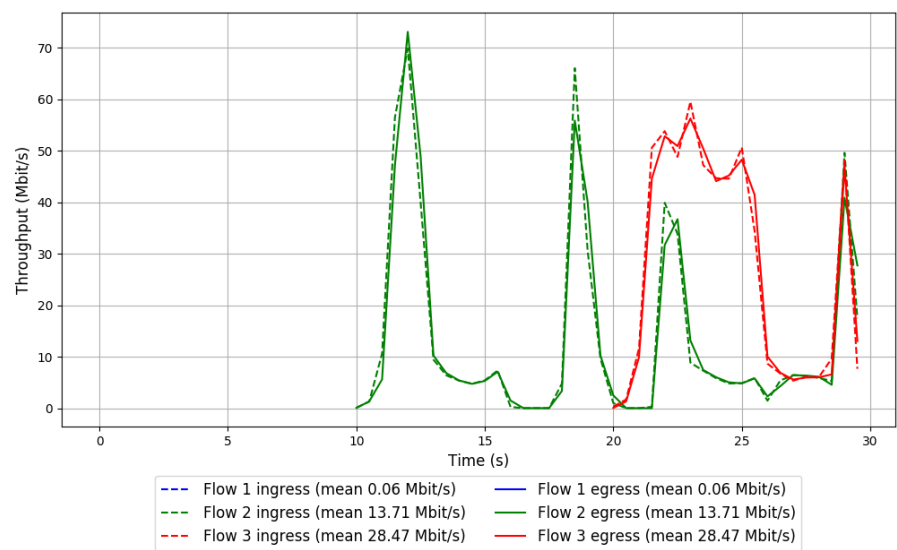
-- Flow 3:

Average throughput: 28.47 Mbit/s

95th percentile per-packet one-way delay: 86.907 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link

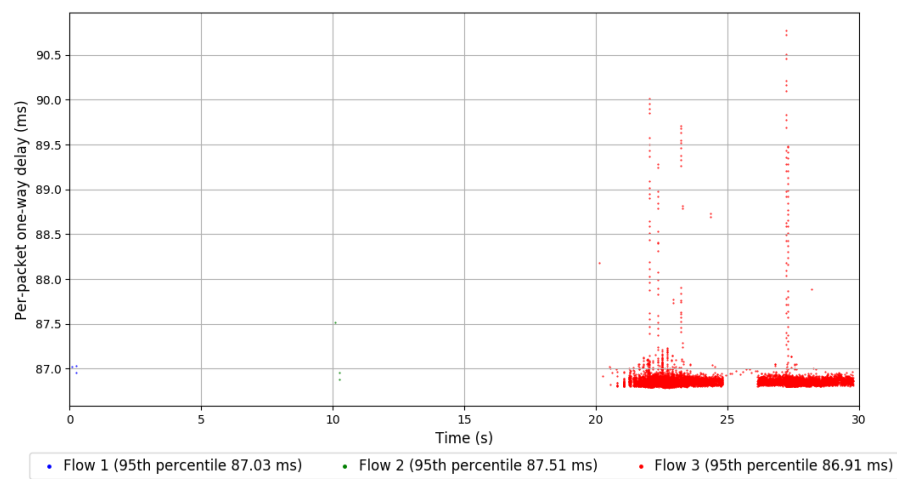
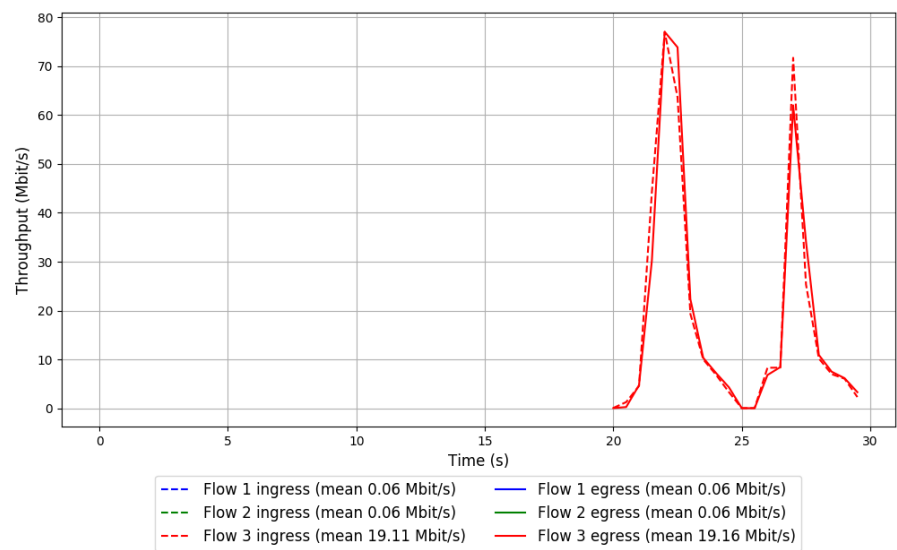


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-08 02:02:44
End at: 2017-09-08 02:03:14

# Below is generated by plot.py at 2017-09-08 04:00:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.22 Mbit/s
95th percentile per-packet one-way delay: 86.908 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 87.027 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 87.514 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.16 Mbit/s
95th percentile per-packet one-way delay: 86.908 ms
Loss rate: 0.01%
```

Run 10: Report of QUIC Cubic — Data Link

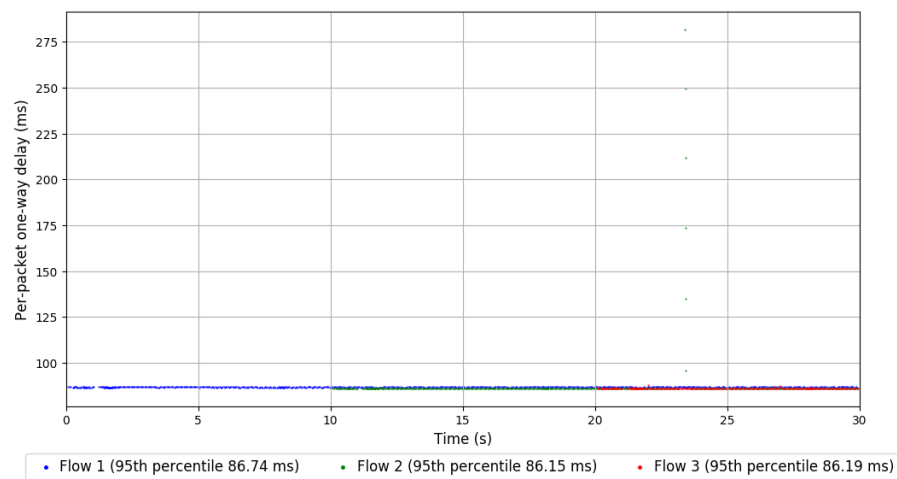
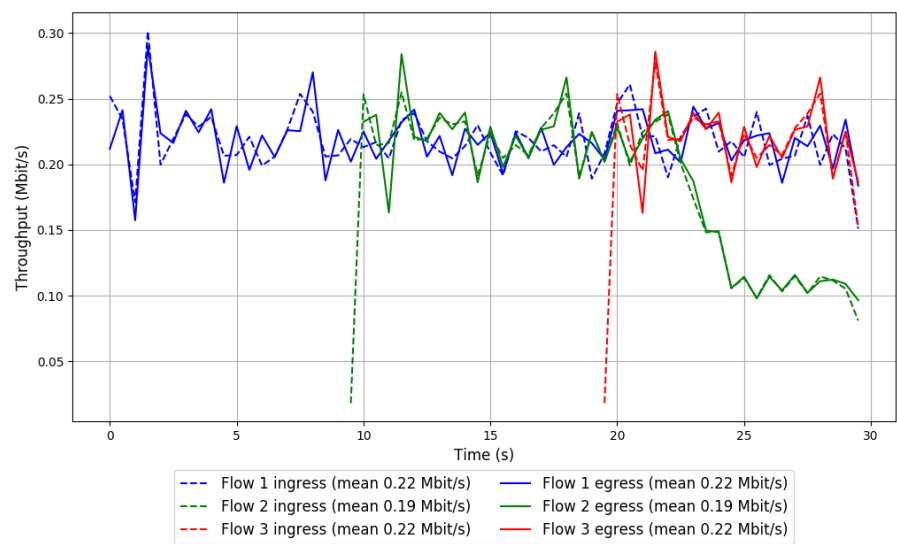


```
Run 1: Statistics of SCReAM

Start at: 2017-09-08 00:05:29
End at: 2017-09-08 00:05:59

# Below is generated by plot.py at 2017-09-08 04:00:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 86.726 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.743 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 86.154 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.189 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

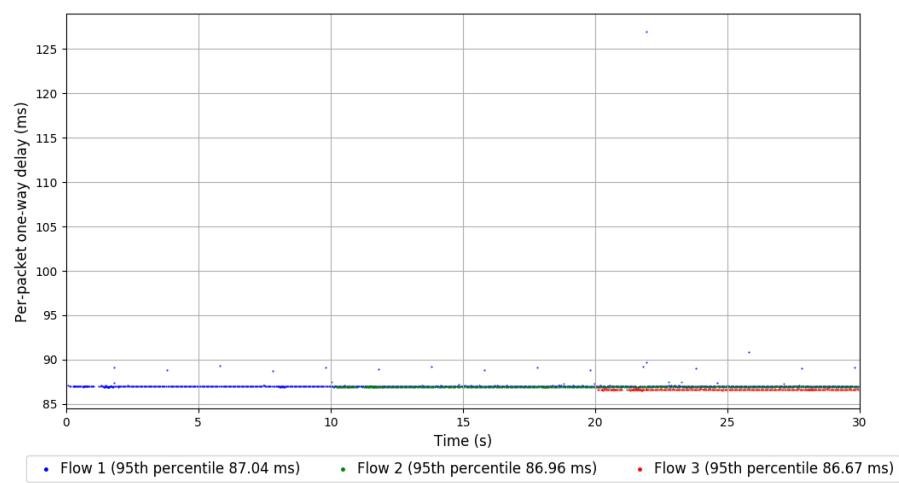
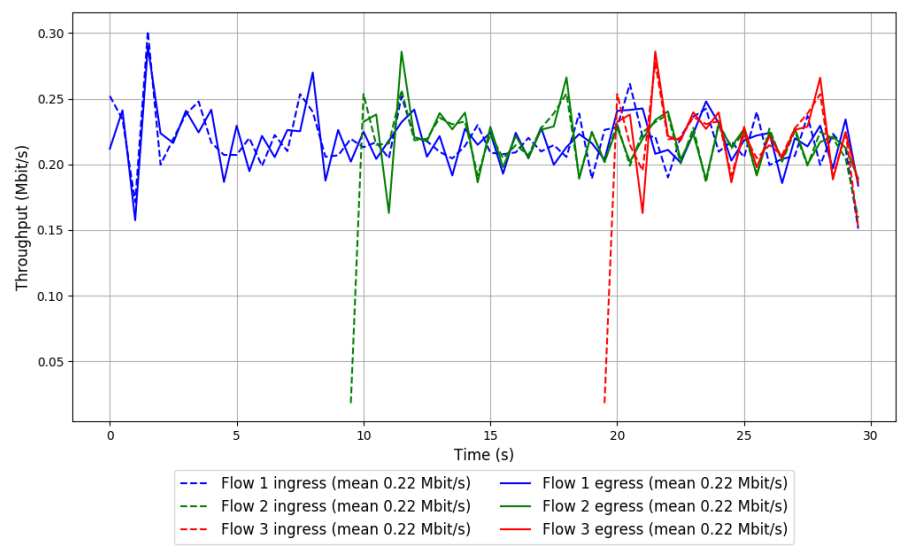


```
Run 2: Statistics of SReAM

Start at: 2017-09-08 00:18:30
End at: 2017-09-08 00:19:00

# Below is generated by plot.py at 2017-09-08 04:00:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.018 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.036 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.956 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.671 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-09-08 00:31:23

End at: 2017-09-08 00:31:53

Below is generated by plot.py at 2017-09-08 04:00:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 88.326 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 87.012 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 89.158 ms

Loss rate: 0.00%

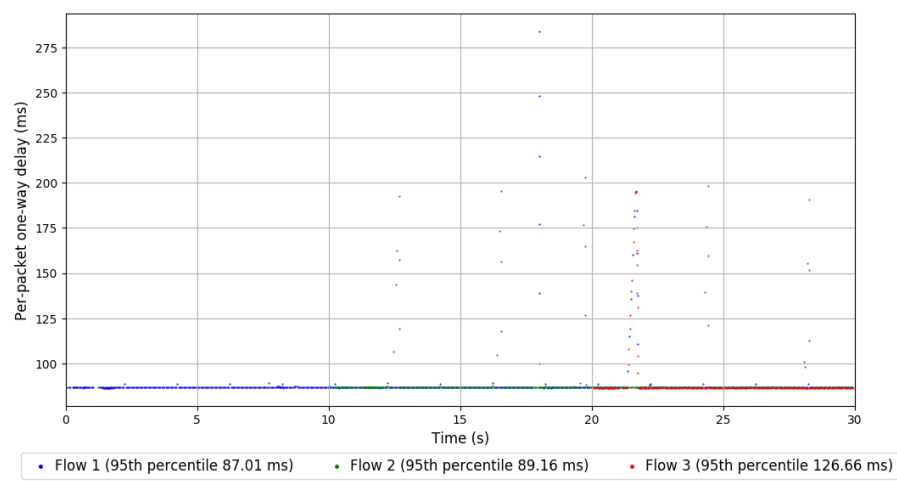
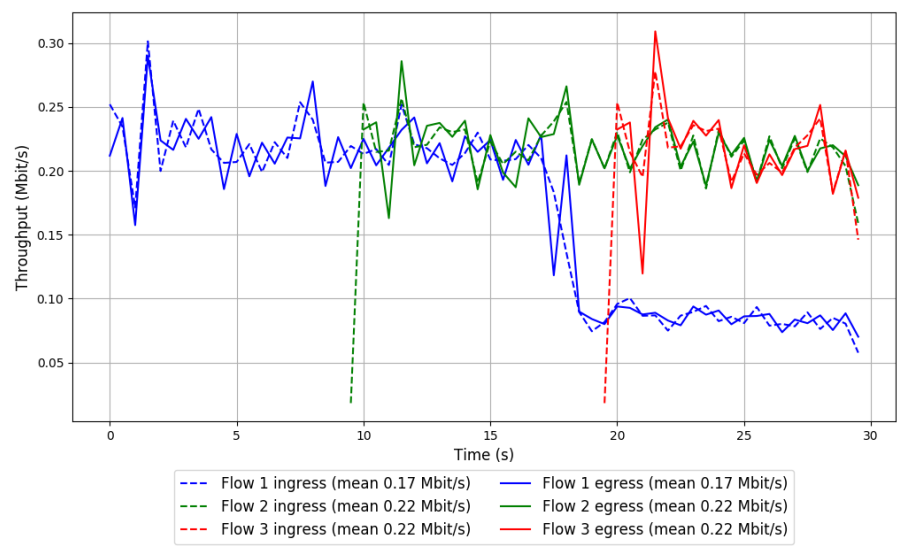
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 126.662 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2017-09-08 00:43:59

End at: 2017-09-08 00:44:29

Below is generated by plot.py at 2017-09-08 04:00:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 86.719 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 86.735 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.217 ms

Loss rate: 0.00%

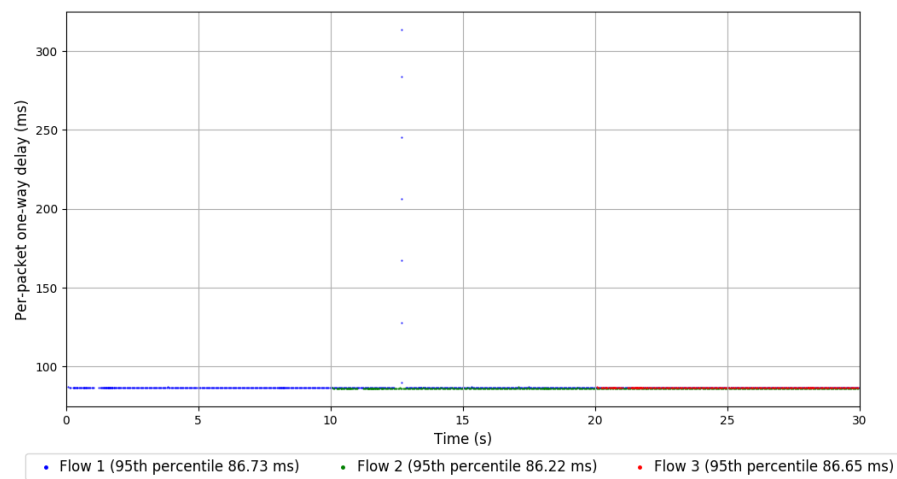
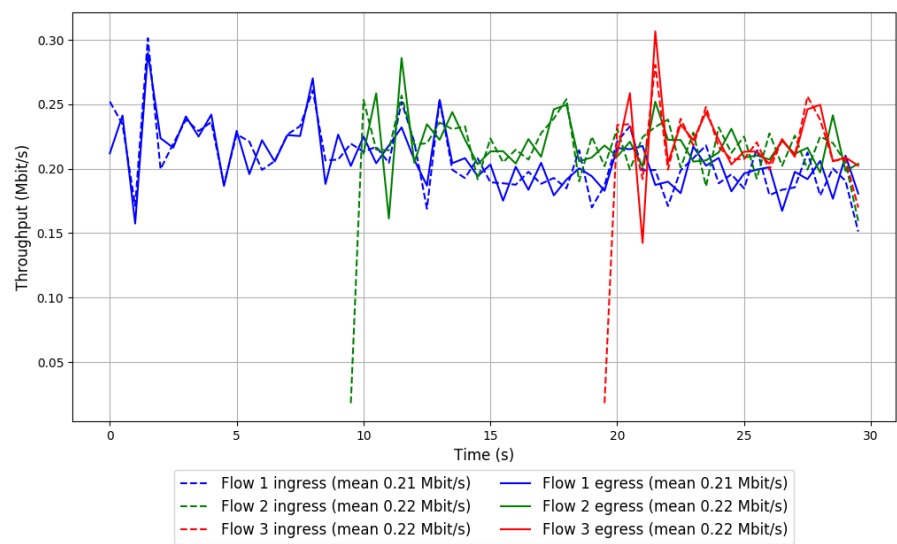
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.648 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-09-08 00:56:23

End at: 2017-09-08 00:56:54

Below is generated by plot.py at 2017-09-08 04:00:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 87.022 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.008 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.712 ms

Loss rate: 0.00%

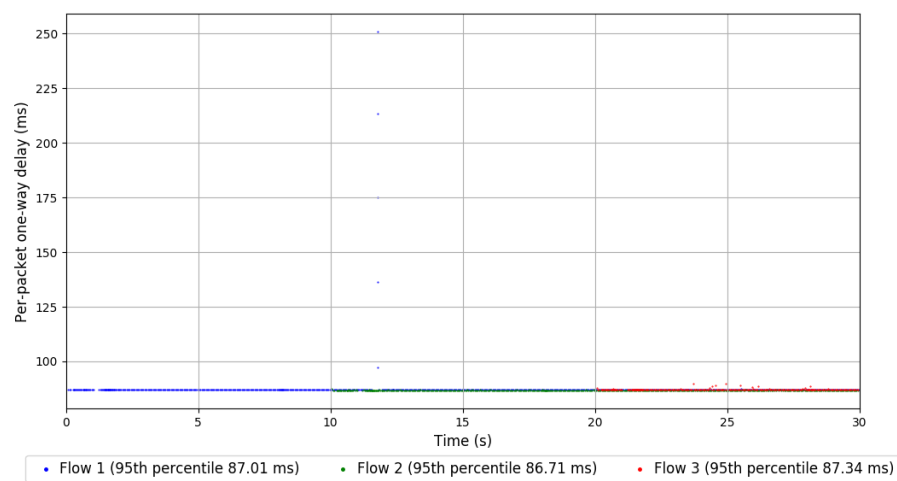
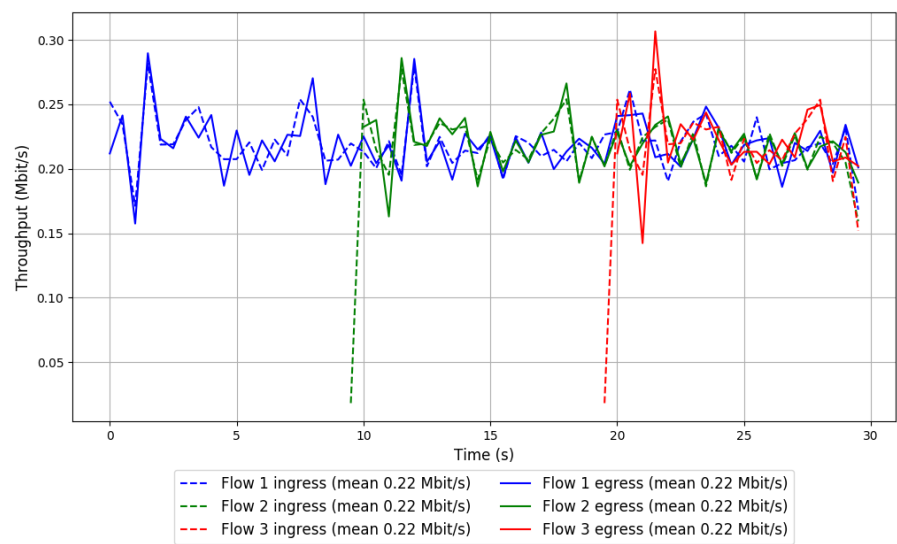
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.338 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-09-08 01:08:39

End at: 2017-09-08 01:09:09

Below is generated by plot.py at 2017-09-08 04:00:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 87.145 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 87.133 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.831 ms

Loss rate: 0.00%

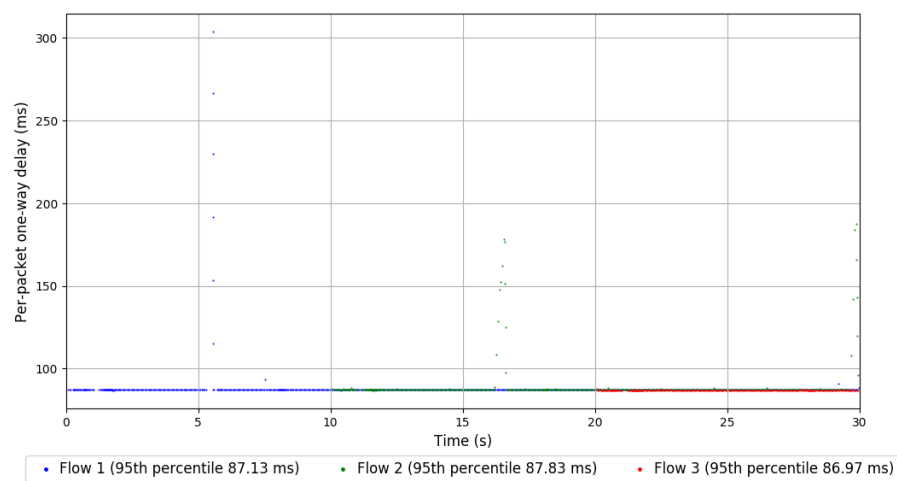
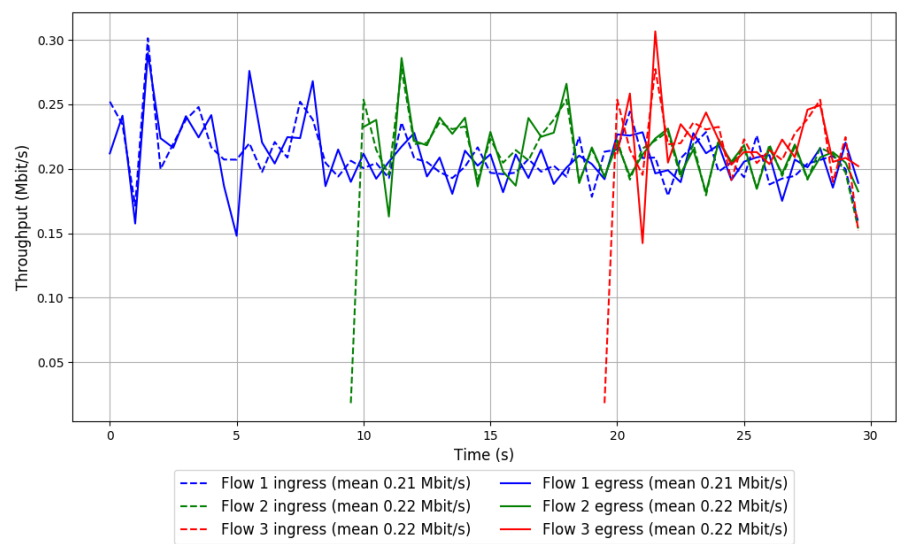
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.969 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link

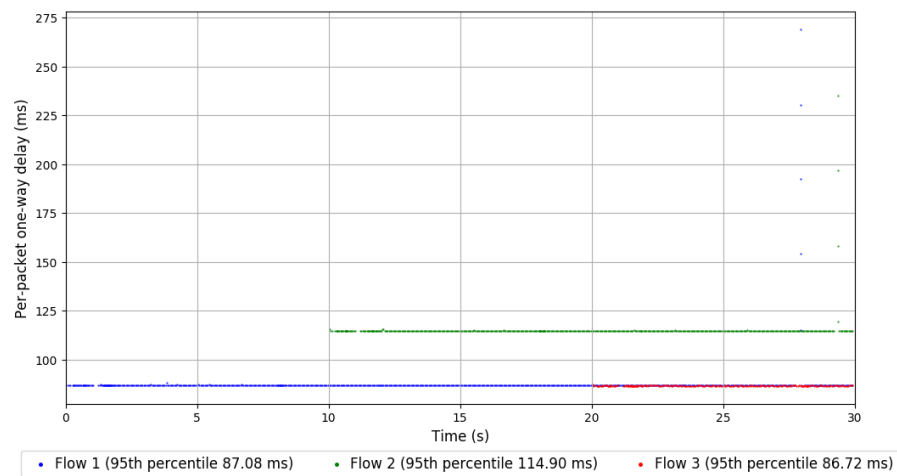
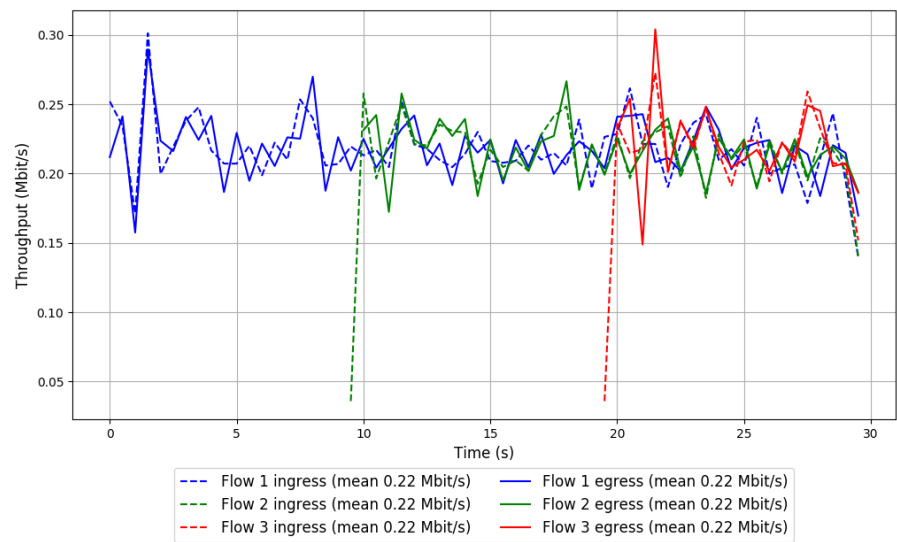


```
Run 7: Statistics of SReAM

Start at: 2017-09-08 01:21:16
End at: 2017-09-08 01:21:46

# Below is generated by plot.py at 2017-09-08 04:01:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 114.853 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.085 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 114.903 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.724 ms
Loss rate: 0.00%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2017-09-08 01:33:58

End at: 2017-09-08 01:34:28

Below is generated by plot.py at 2017-09-08 04:01:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 112.672 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.120 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.746 ms

Loss rate: 0.00%

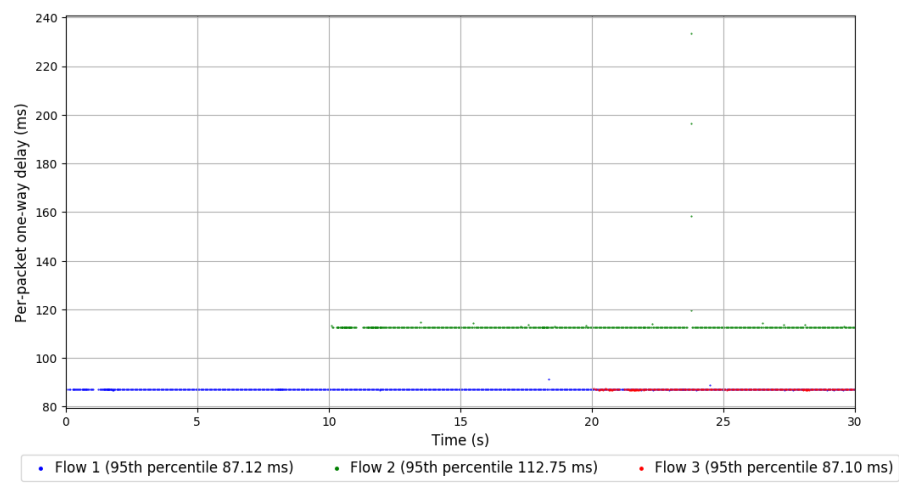
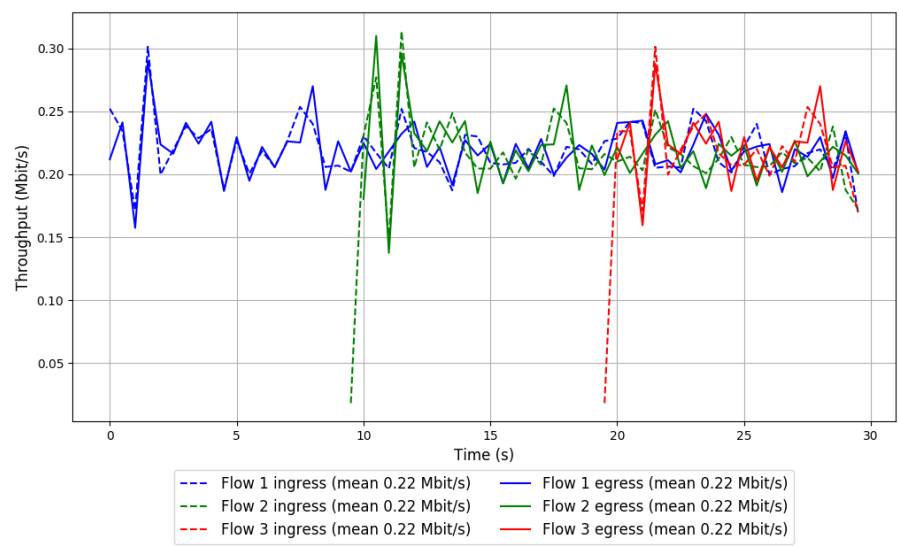
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.103 ms

Loss rate: 0.00%

Run 8: Report of SCRaM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-09-08 01:46:27

End at: 2017-09-08 01:46:57

Below is generated by plot.py at 2017-09-08 04:01:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 114.935 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 87.035 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 114.964 ms

Loss rate: 0.00%

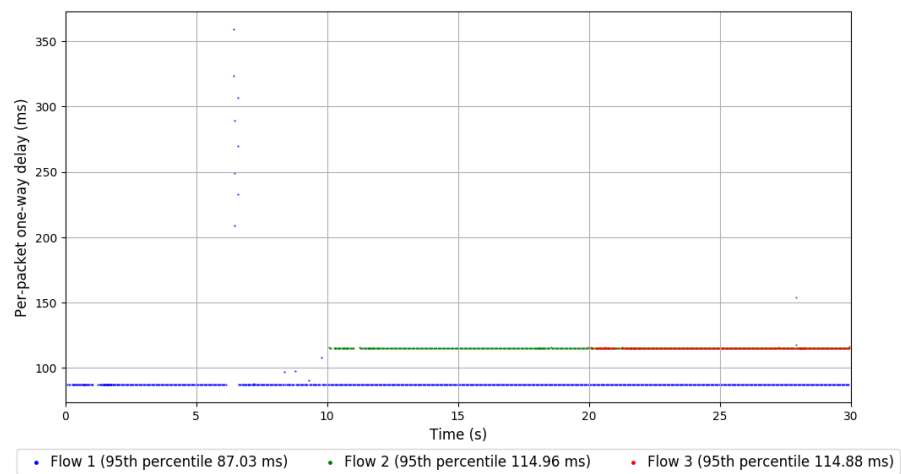
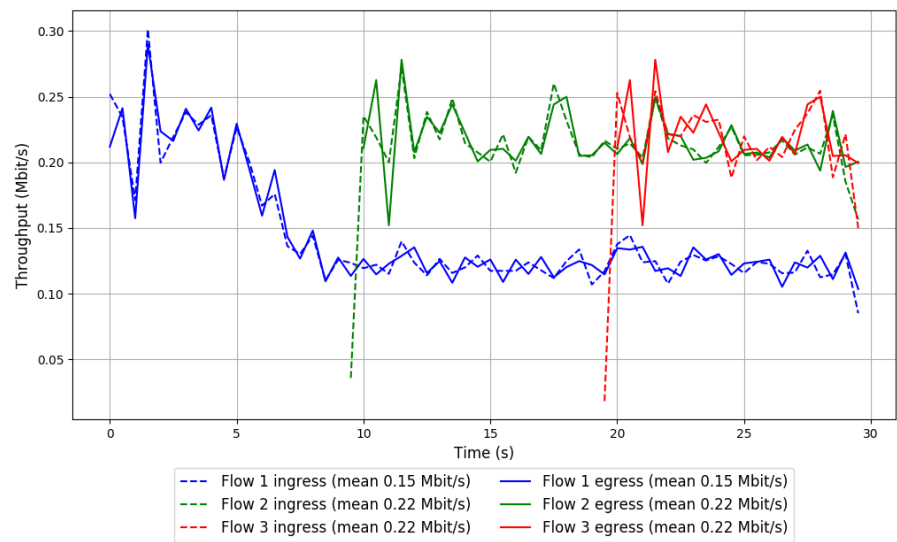
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 114.875 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link

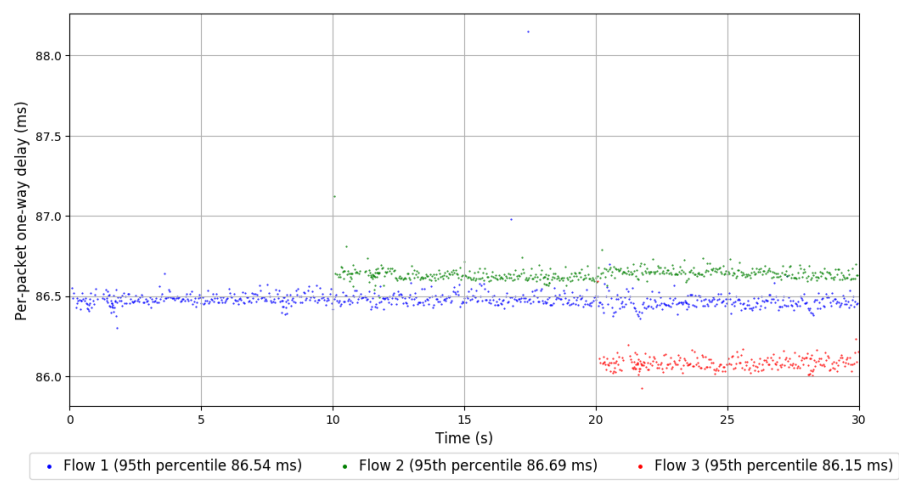
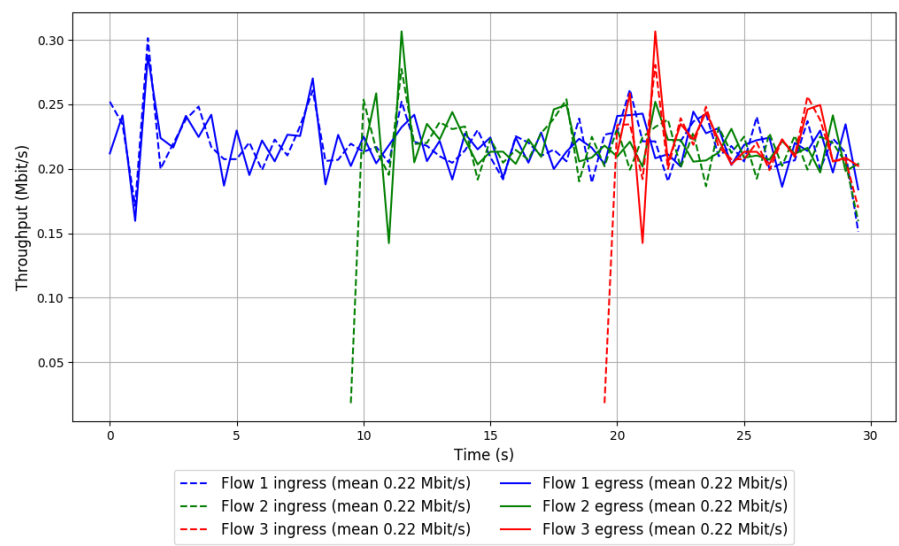


```
Run 10: Statistics of SReAM

Start at: 2017-09-08 01:59:27
End at: 2017-09-08 01:59:57

# Below is generated by plot.py at 2017-09-08 04:01:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.667 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.539 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.688 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.148 ms
Loss rate: 0.00%
```

Run 10: Report of SCReAM — Data Link

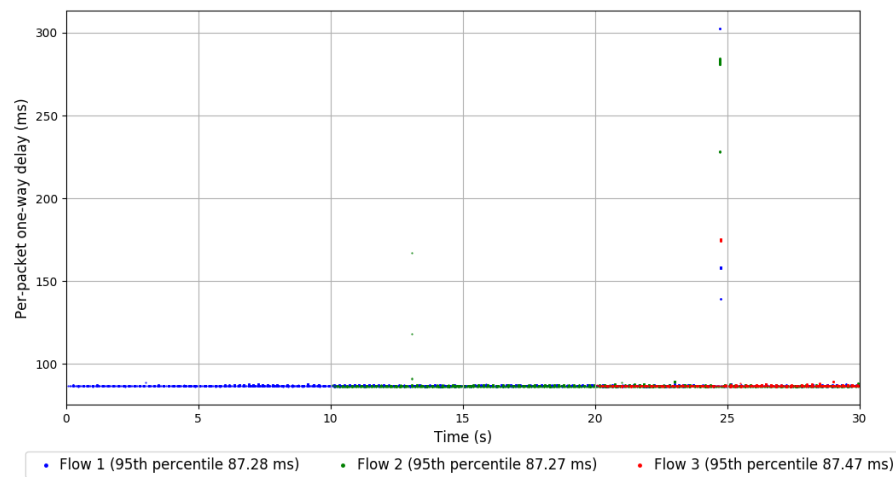
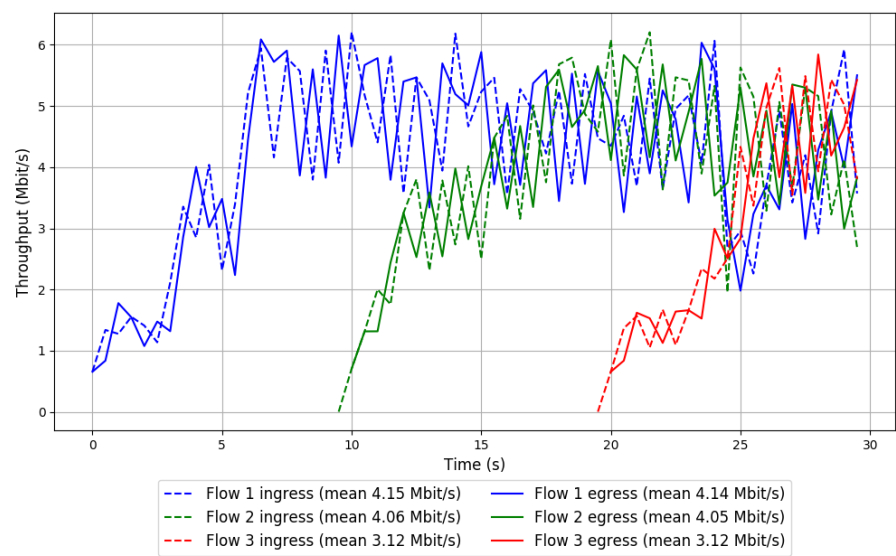


```
Run 1: Statistics of Sprout

Start at: 2017-09-08 00:07:02
End at: 2017-09-08 00:07:32

# Below is generated by plot.py at 2017-09-08 04:01:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 87.295 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 4.14 Mbit/s
95th percentile per-packet one-way delay: 87.281 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 87.270 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 87.467 ms
Loss rate: 0.00%
```


Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-09-08 00:20:02

End at: 2017-09-08 00:20:32

Below is generated by plot.py at 2017-09-08 04:01:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.24 Mbit/s

95th percentile per-packet one-way delay: 87.389 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 4.45 Mbit/s

95th percentile per-packet one-way delay: 87.417 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 87.370 ms

Loss rate: 0.00%

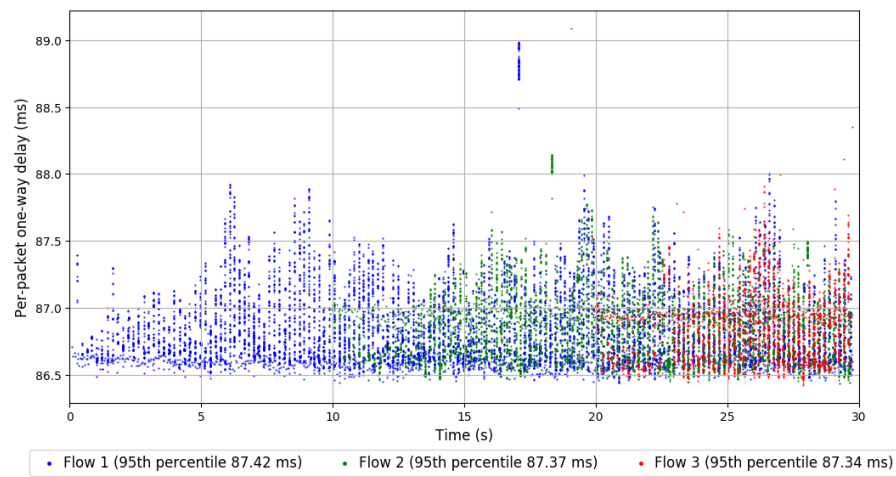
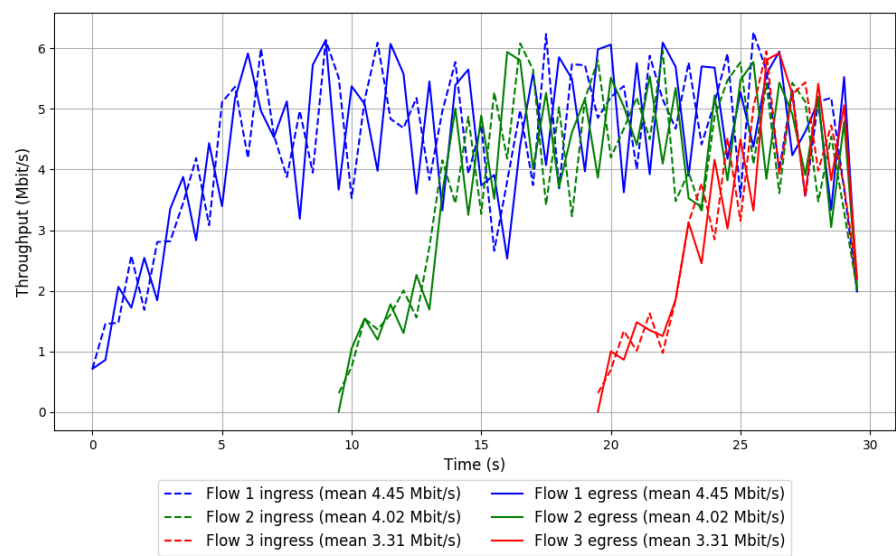
-- Flow 3:

Average throughput: 3.31 Mbit/s

95th percentile per-packet one-way delay: 87.341 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-09-08 00:33:00

End at: 2017-09-08 00:33:30

Below is generated by plot.py at 2017-09-08 04:01:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.48 Mbit/s

95th percentile per-packet one-way delay: 102.972 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.83 Mbit/s

95th percentile per-packet one-way delay: 102.817 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.73 Mbit/s

95th percentile per-packet one-way delay: 116.255 ms

Loss rate: 0.00%

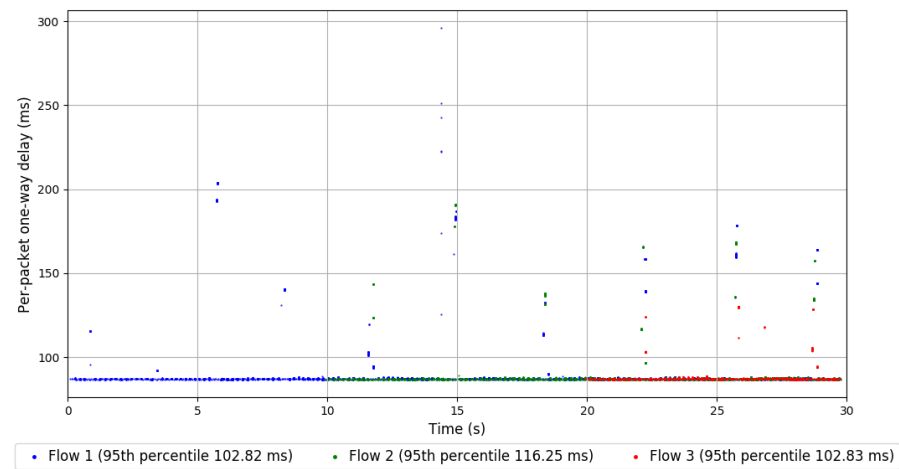
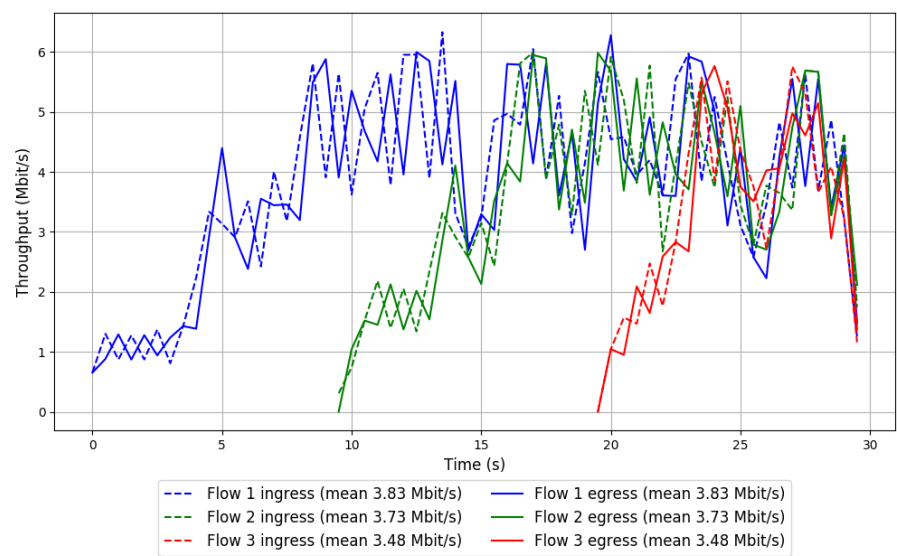
-- Flow 3:

Average throughput: 3.48 Mbit/s

95th percentile per-packet one-way delay: 102.827 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-09-08 00:45:34

End at: 2017-09-08 00:46:04

Below is generated by plot.py at 2017-09-08 04:01:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 110.834 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 134.734 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 110.768 ms

Loss rate: 0.00%

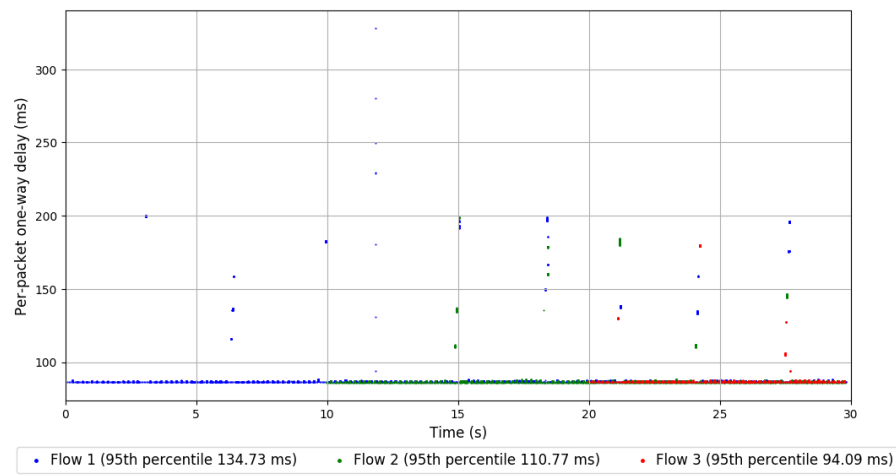
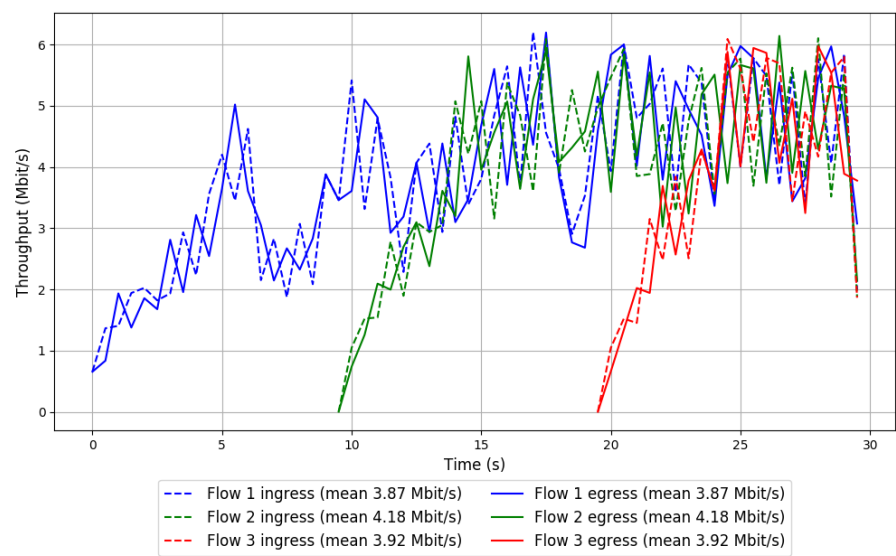
-- Flow 3:

Average throughput: 3.92 Mbit/s

95th percentile per-packet one-way delay: 94.092 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-09-08 00:58:05

End at: 2017-09-08 00:58:35

Below is generated by plot.py at 2017-09-08 04:01:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 115.240 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 115.375 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 115.205 ms

Loss rate: 0.00%

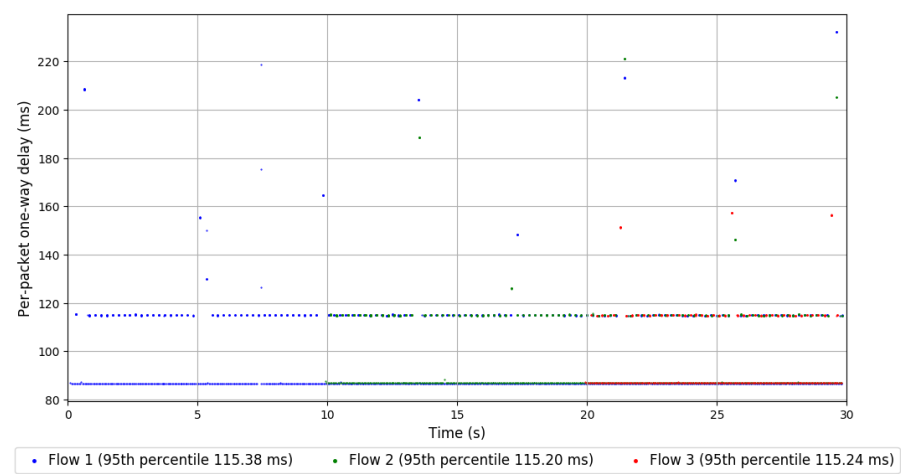
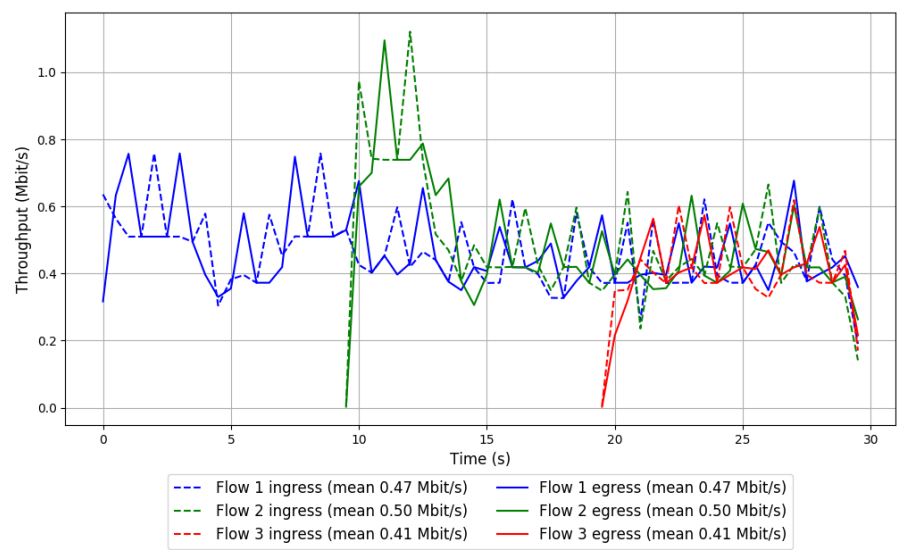
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 115.237 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-09-08 01:10:14

End at: 2017-09-08 01:10:44

Below is generated by plot.py at 2017-09-08 04:01:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.33 Mbit/s

95th percentile per-packet one-way delay: 129.821 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.07 Mbit/s

95th percentile per-packet one-way delay: 134.011 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.64 Mbit/s

95th percentile per-packet one-way delay: 135.785 ms

Loss rate: 0.00%

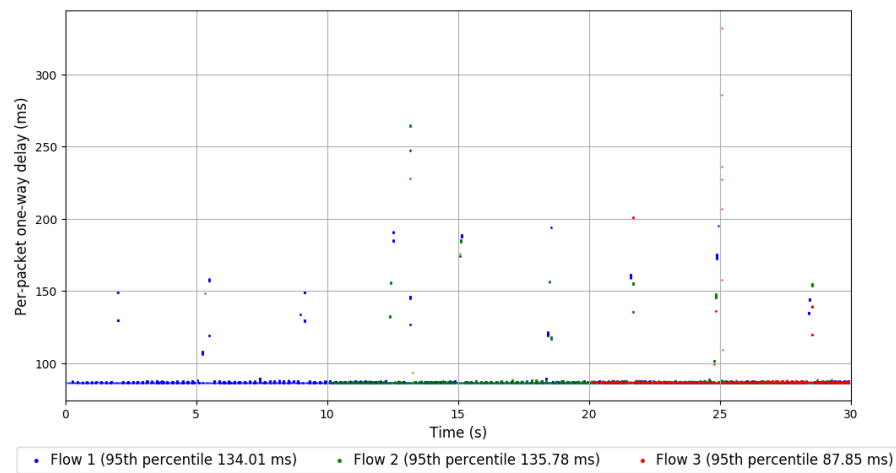
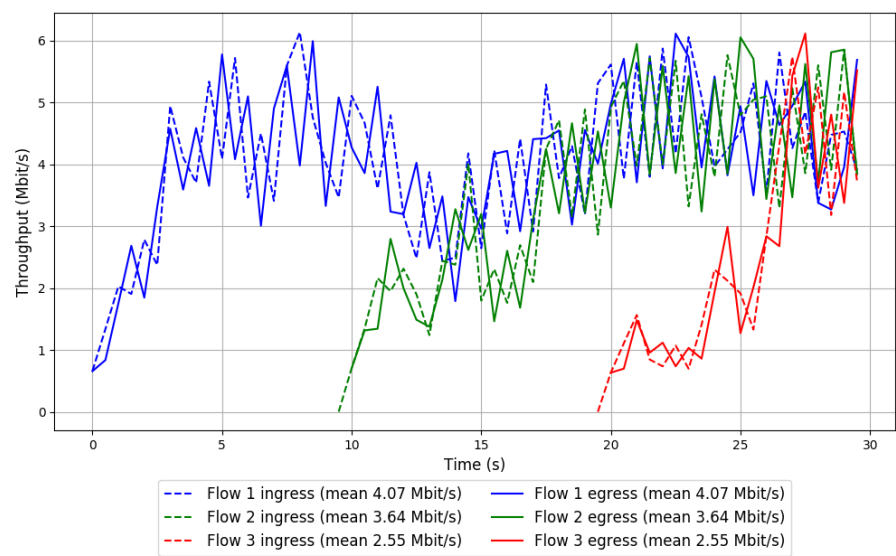
-- Flow 3:

Average throughput: 2.55 Mbit/s

95th percentile per-packet one-way delay: 87.848 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-09-08 01:22:54

End at: 2017-09-08 01:23:24

Below is generated by plot.py at 2017-09-08 04:01:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 87.696 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.43 Mbit/s

95th percentile per-packet one-way delay: 87.723 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.35 Mbit/s

95th percentile per-packet one-way delay: 87.608 ms

Loss rate: 0.00%

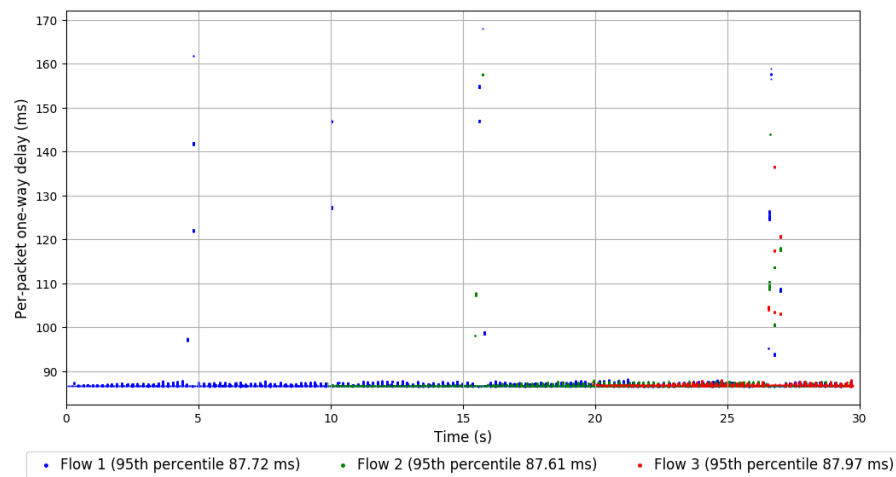
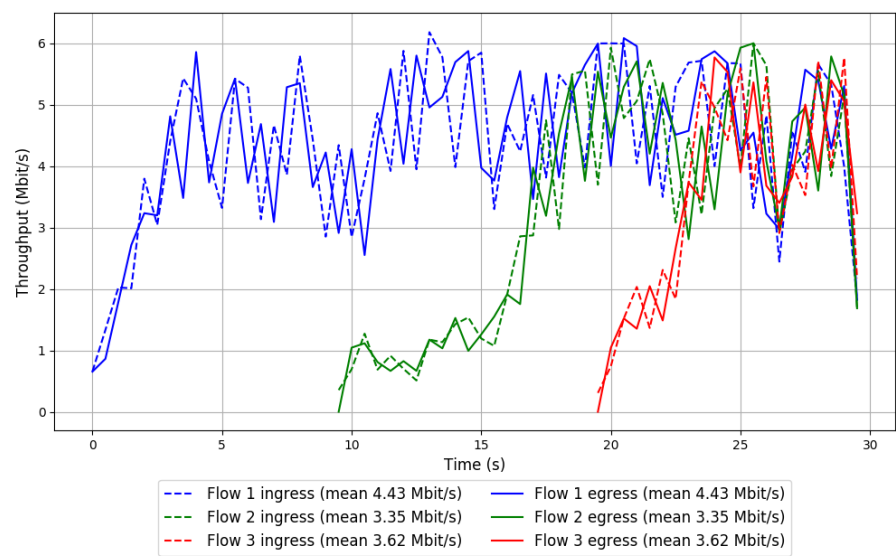
-- Flow 3:

Average throughput: 3.62 Mbit/s

95th percentile per-packet one-way delay: 87.972 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-09-08 01:35:33

End at: 2017-09-08 01:36:03

Below is generated by plot.py at 2017-09-08 04:01:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.30 Mbit/s

95th percentile per-packet one-way delay: 91.692 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 3.94 Mbit/s

95th percentile per-packet one-way delay: 87.695 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 3.68 Mbit/s

95th percentile per-packet one-way delay: 88.113 ms

Loss rate: 0.00%

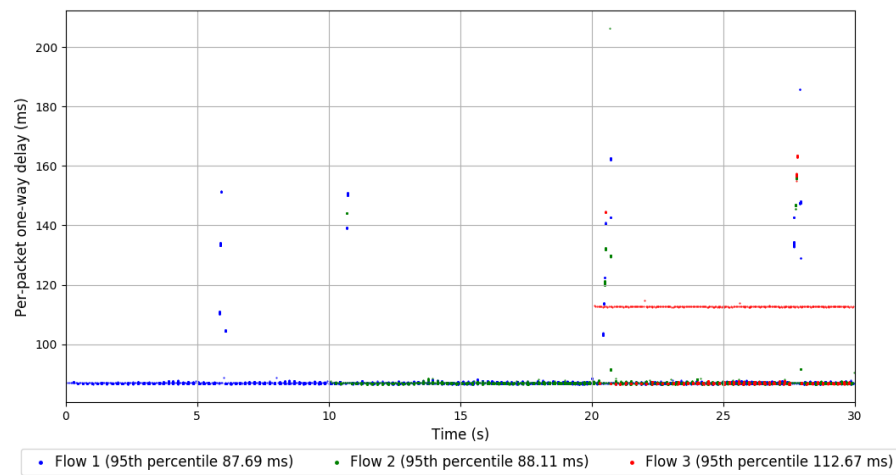
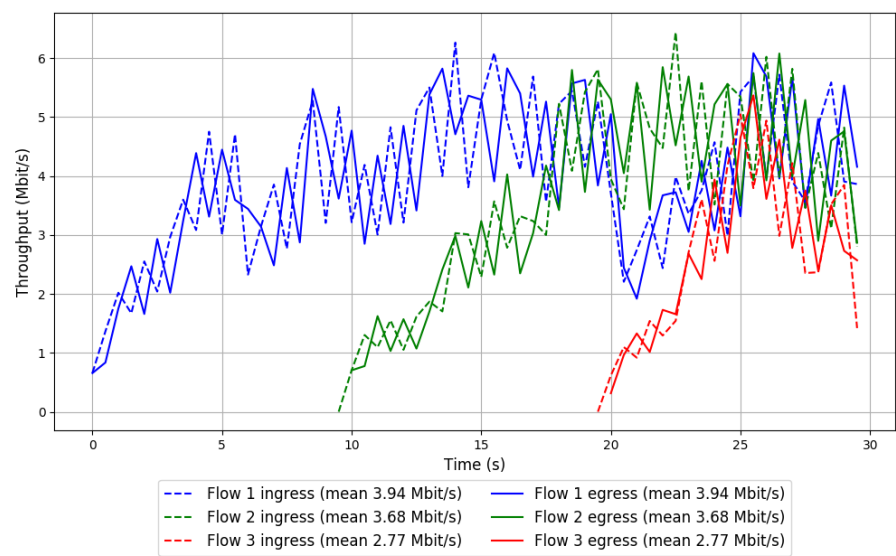
-- Flow 3:

Average throughput: 2.77 Mbit/s

95th percentile per-packet one-way delay: 112.671 ms

Loss rate: 0.00%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-09-08 01:48:05

End at: 2017-09-08 01:48:35

Below is generated by plot.py at 2017-09-08 04:01:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.93 Mbit/s

95th percentile per-packet one-way delay: 87.499 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 4.44 Mbit/s

95th percentile per-packet one-way delay: 87.498 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 3.61 Mbit/s

95th percentile per-packet one-way delay: 87.479 ms

Loss rate: 0.00%

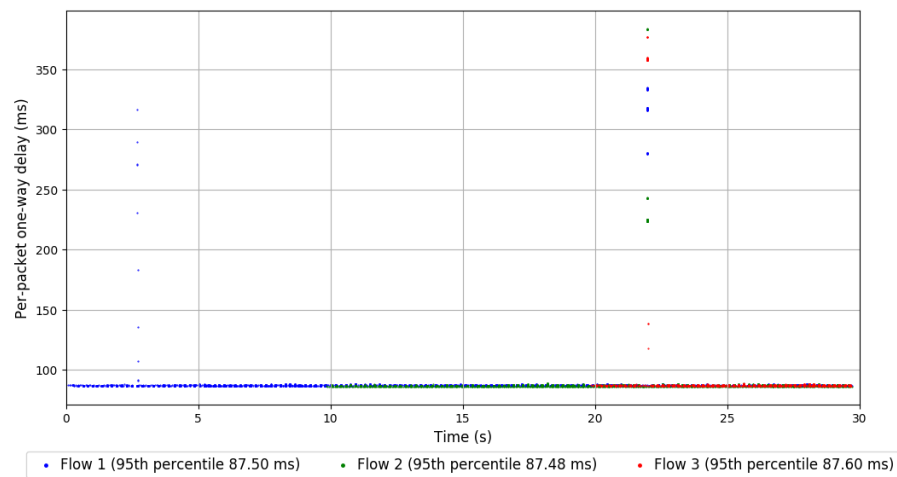
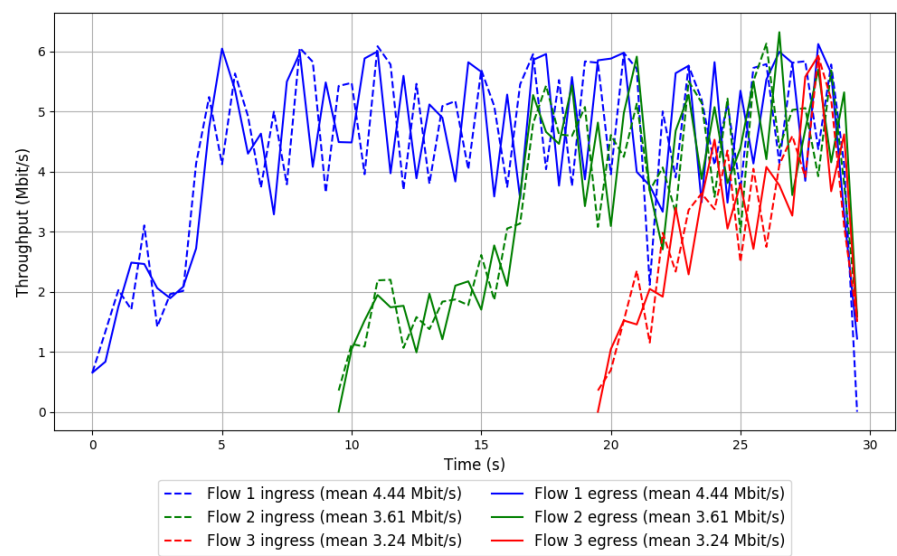
-- Flow 3:

Average throughput: 3.24 Mbit/s

95th percentile per-packet one-way delay: 87.600 ms

Loss rate: 0.00%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-09-08 02:01:06

End at: 2017-09-08 02:01:36

Below is generated by plot.py at 2017-09-08 04:01:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.49 Mbit/s

95th percentile per-packet one-way delay: 87.436 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 4.59 Mbit/s

95th percentile per-packet one-way delay: 87.483 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 87.390 ms

Loss rate: 0.00%

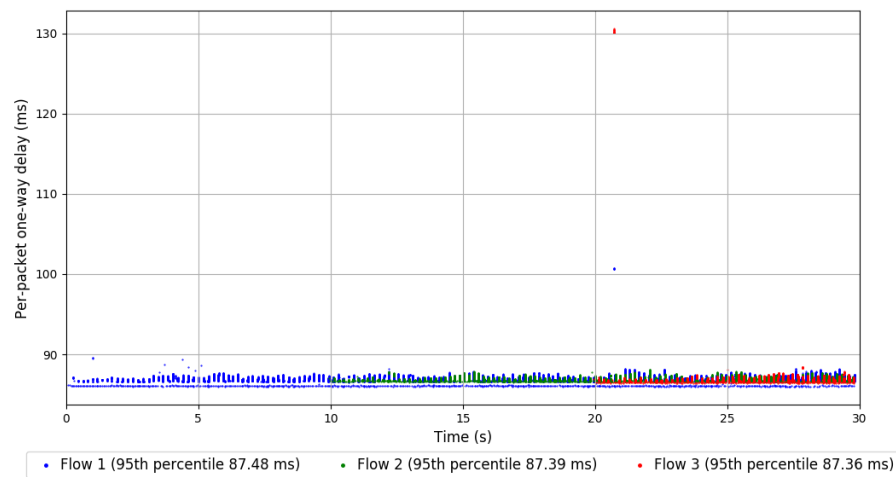
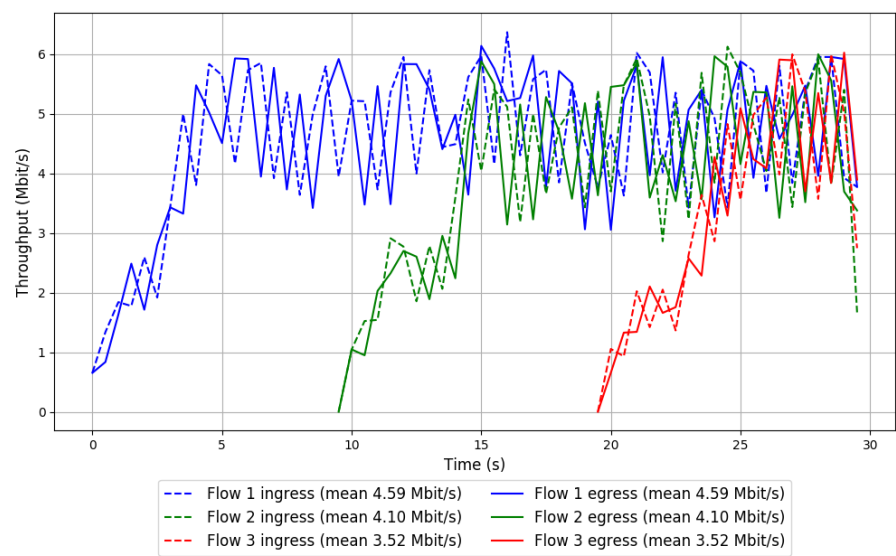
-- Flow 3:

Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 87.365 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

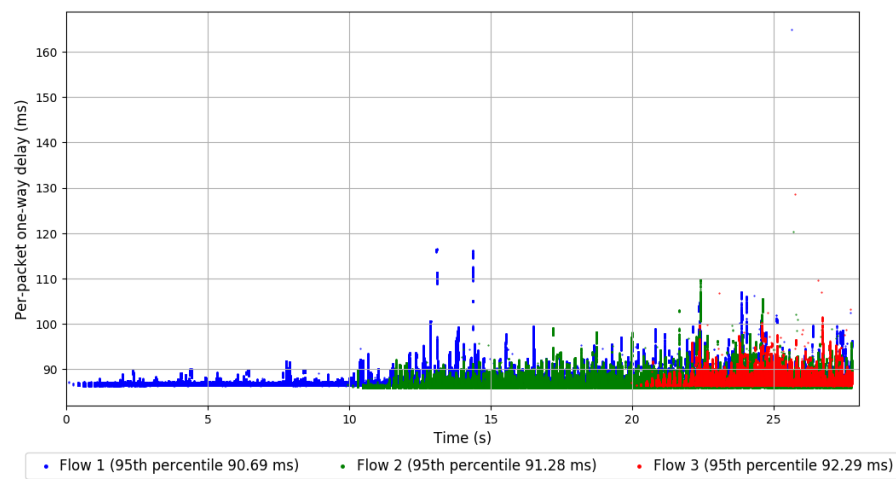
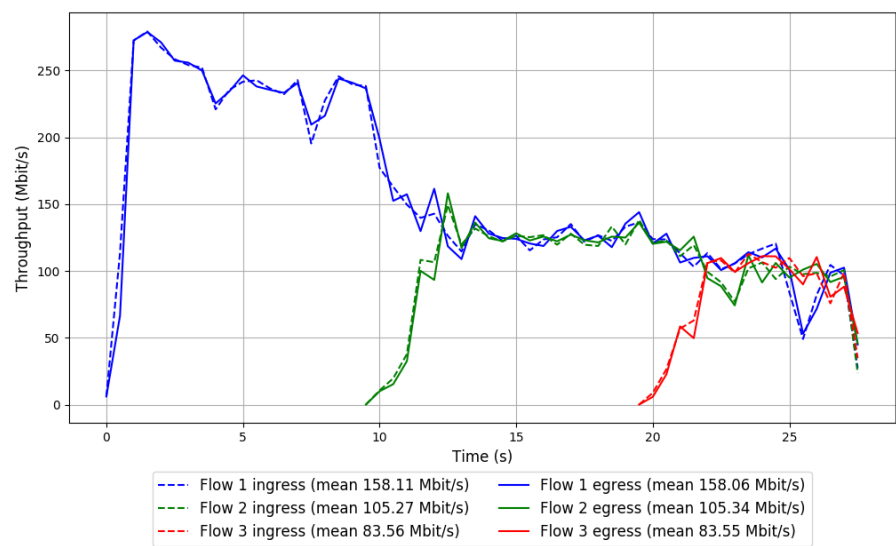


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-08 00:11:27
End at: 2017-09-08 00:11:57

# Below is generated by plot.py at 2017-09-08 04:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.39 Mbit/s
95th percentile per-packet one-way delay: 91.034 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 158.06 Mbit/s
95th percentile per-packet one-way delay: 90.693 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 105.34 Mbit/s
95th percentile per-packet one-way delay: 91.278 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 83.55 Mbit/s
95th percentile per-packet one-way delay: 92.293 ms
Loss rate: 0.01%
```

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

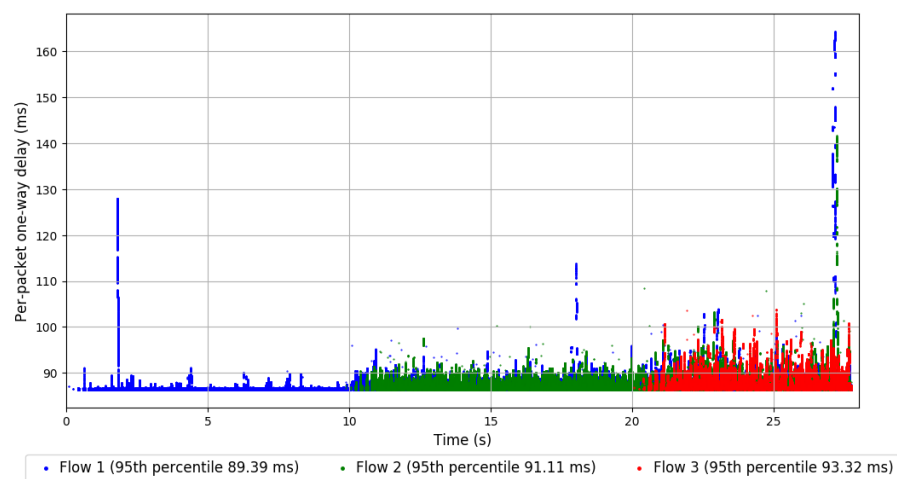
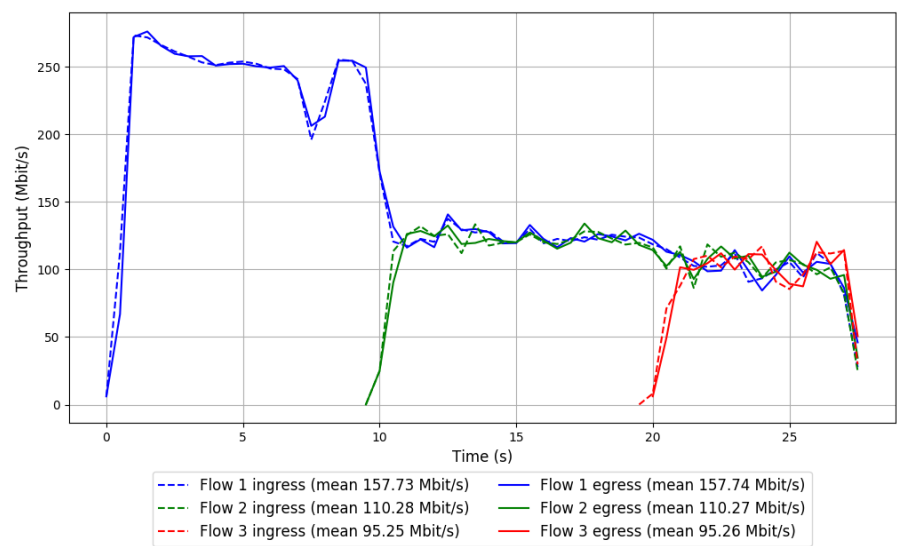


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-08 00:24:27
End at: 2017-09-08 00:24:57

# Below is generated by plot.py at 2017-09-08 04:02:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 255.39 Mbit/s
95th percentile per-packet one-way delay: 90.565 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 157.74 Mbit/s
95th percentile per-packet one-way delay: 89.394 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 110.27 Mbit/s
95th percentile per-packet one-way delay: 91.112 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 95.26 Mbit/s
95th percentile per-packet one-way delay: 93.321 ms
Loss rate: 0.00%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-09-08 00:37:13

End at: 2017-09-08 00:37:43

Below is generated by plot.py at 2017-09-08 04:03:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.13 Mbit/s

95th percentile per-packet one-way delay: 155.247 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 84.48 Mbit/s

95th percentile per-packet one-way delay: 151.598 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 66.44 Mbit/s

95th percentile per-packet one-way delay: 169.640 ms

Loss rate: 0.00%

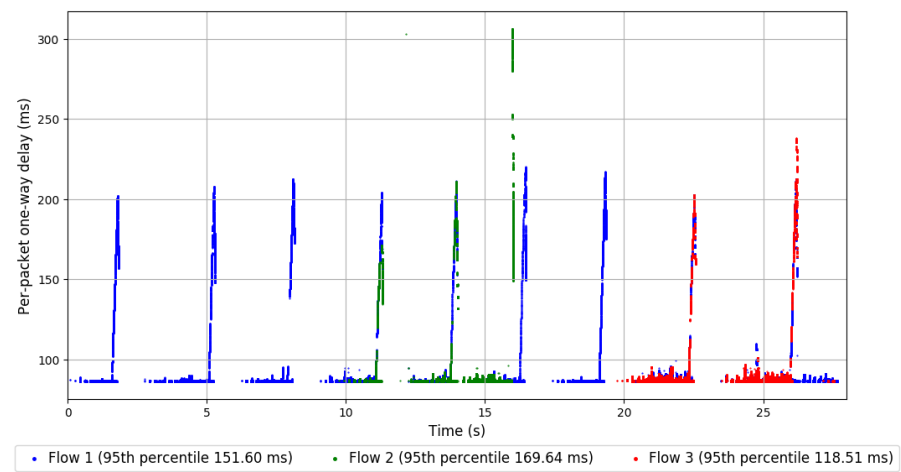
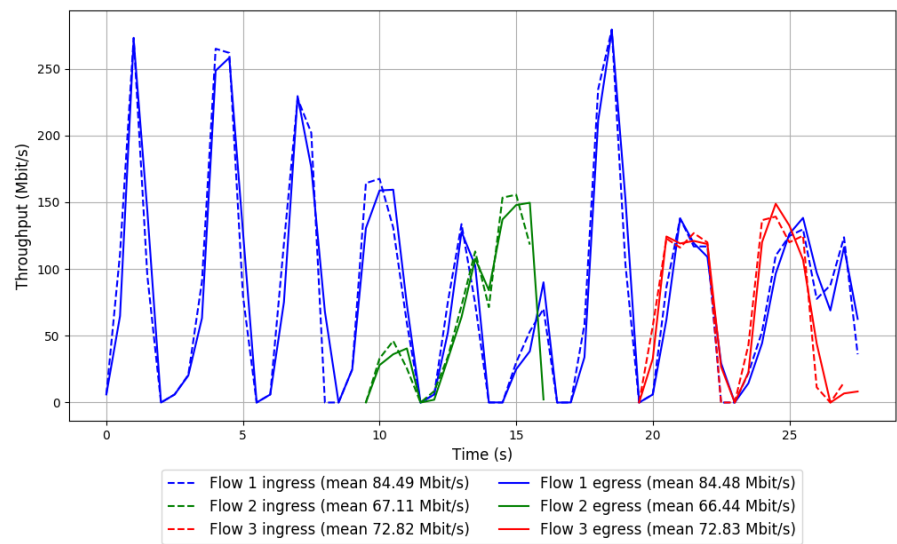
-- Flow 3:

Average throughput: 72.83 Mbit/s

95th percentile per-packet one-way delay: 118.508 ms

Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-09-08 00:49:45

End at: 2017-09-08 00:50:15

Below is generated by plot.py at 2017-09-08 04:03:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 41.28 Mbit/s

95th percentile per-packet one-way delay: 139.904 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 37.75 Mbit/s

95th percentile per-packet one-way delay: 149.307 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 9.80 Mbit/s

95th percentile per-packet one-way delay: 114.902 ms

Loss rate: 0.00%

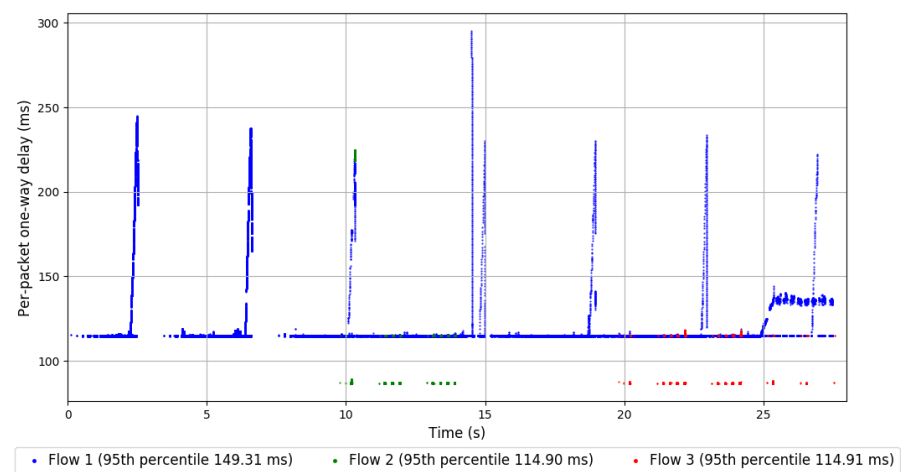
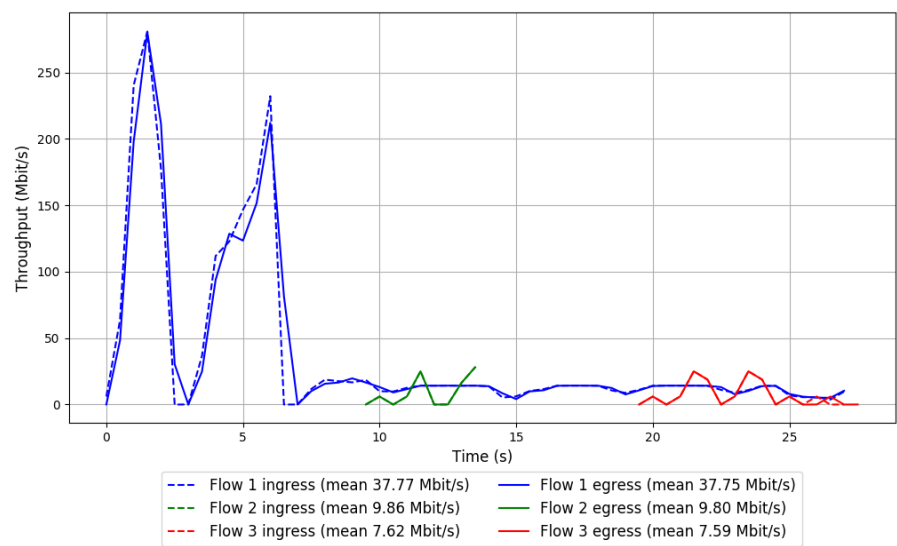
-- Flow 3:

Average throughput: 7.59 Mbit/s

95th percentile per-packet one-way delay: 114.913 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-09-08 01:02:08

End at: 2017-09-08 01:02:38

Below is generated by plot.py at 2017-09-08 04:03:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.84 Mbit/s

95th percentile per-packet one-way delay: 175.391 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 14.29 Mbit/s

95th percentile per-packet one-way delay: 233.013 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.59 Mbit/s

95th percentile per-packet one-way delay: 114.939 ms

Loss rate: 0.00%

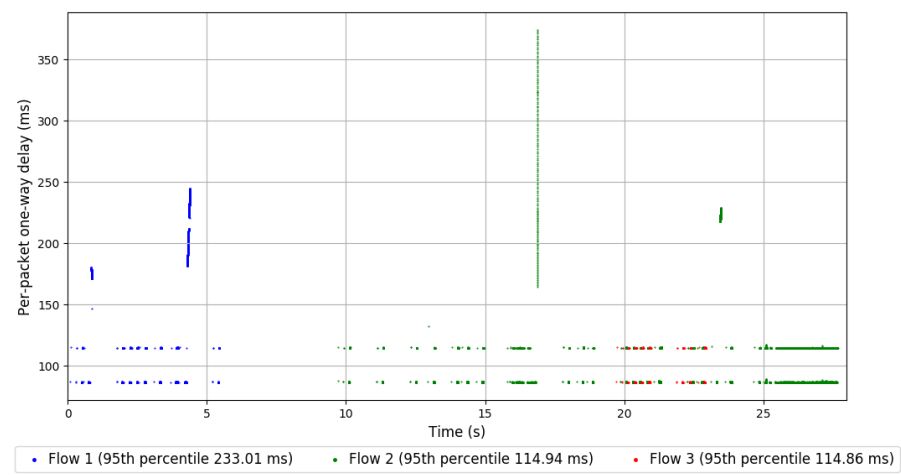
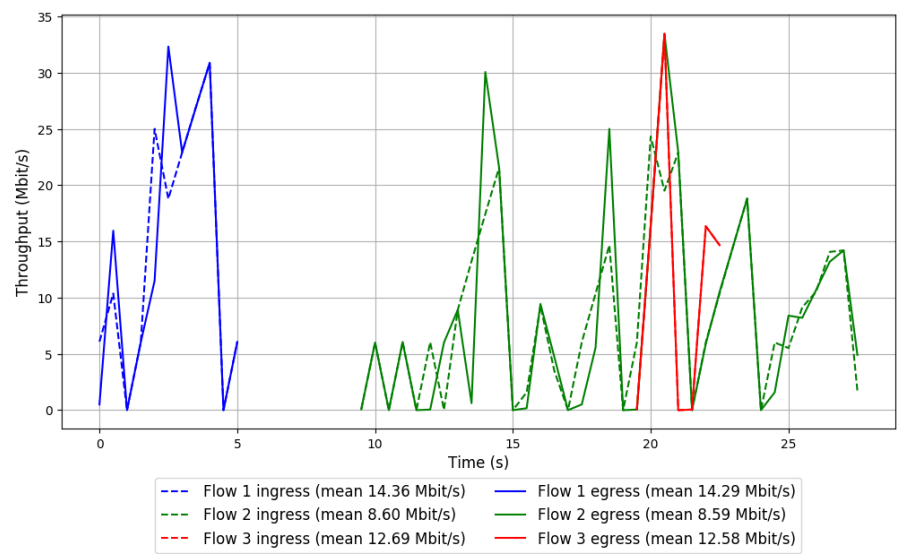
-- Flow 3:

Average throughput: 12.58 Mbit/s

95th percentile per-packet one-way delay: 114.865 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-09-08 01:14:25

End at: 2017-09-08 01:14:55

Below is generated by plot.py at 2017-09-08 04:03:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 133.79 Mbit/s

95th percentile per-packet one-way delay: 92.903 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 107.47 Mbit/s

95th percentile per-packet one-way delay: 92.534 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 66.87 Mbit/s

95th percentile per-packet one-way delay: 157.111 ms

Loss rate: 0.00%

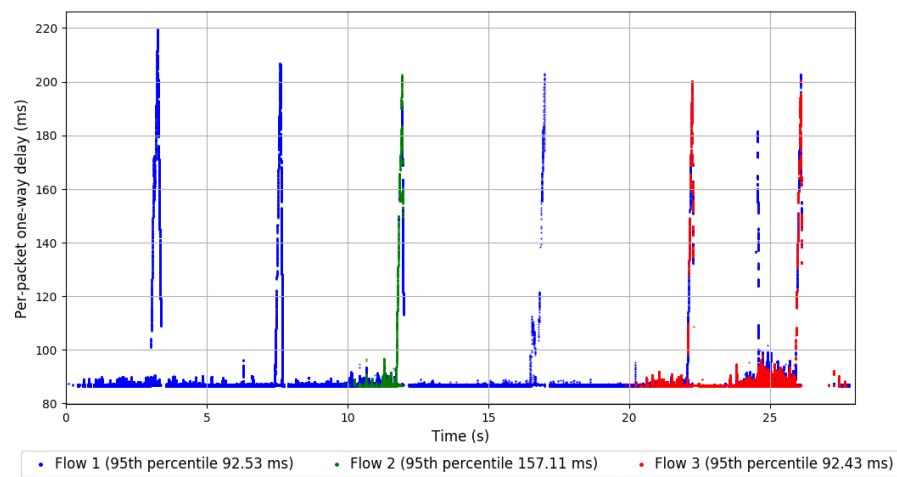
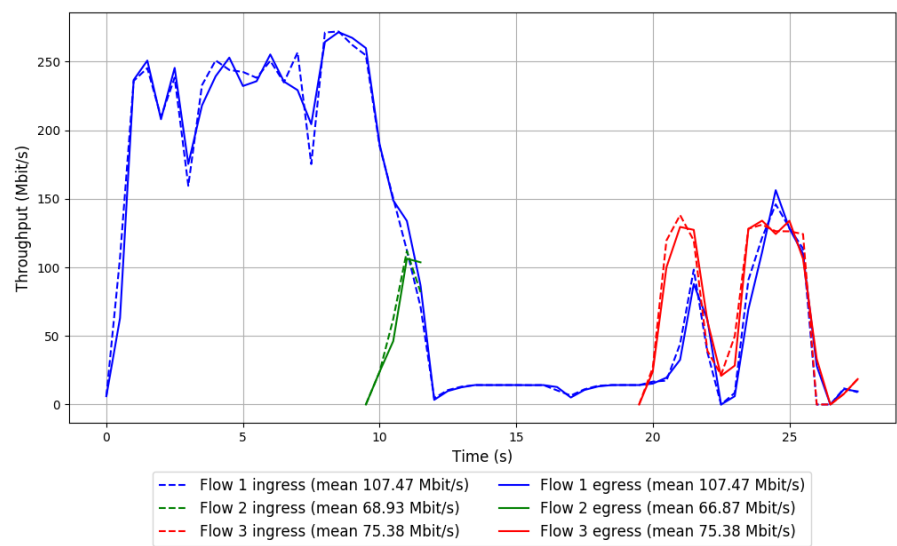
-- Flow 3:

Average throughput: 75.38 Mbit/s

95th percentile per-packet one-way delay: 92.427 ms

Loss rate: 0.00%

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

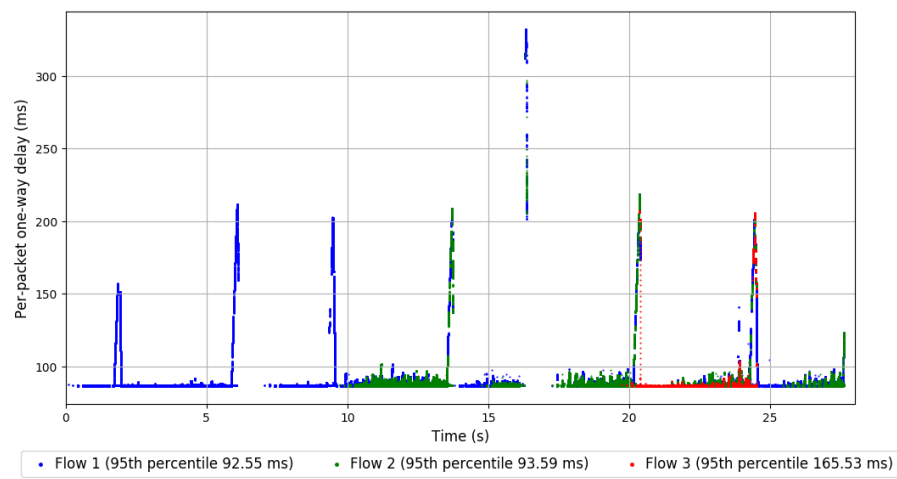
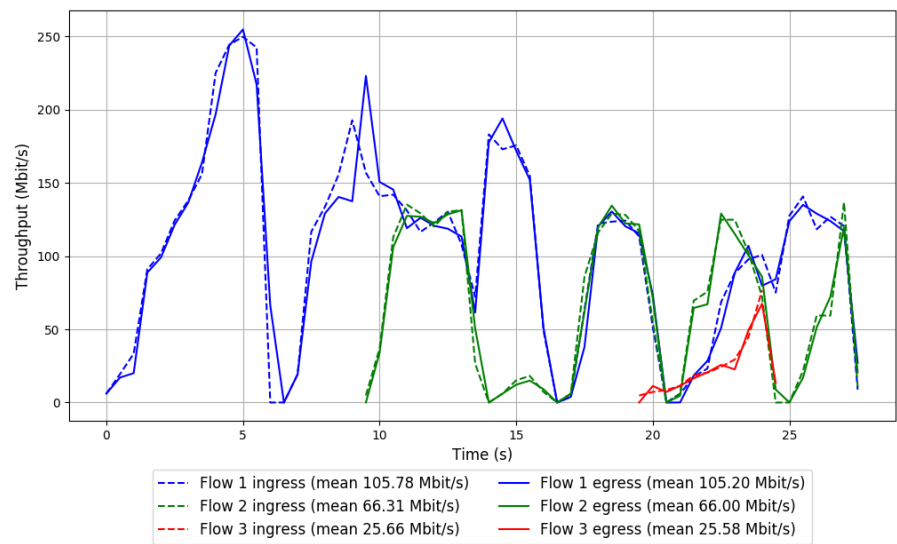


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-09-08 01:27:09
End at: 2017-09-08 01:27:39

# Below is generated by plot.py at 2017-09-08 04:04:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 152.58 Mbit/s
95th percentile per-packet one-way delay: 93.333 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 105.20 Mbit/s
95th percentile per-packet one-way delay: 92.553 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 66.00 Mbit/s
95th percentile per-packet one-way delay: 93.592 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 25.58 Mbit/s
95th percentile per-packet one-way delay: 165.527 ms
Loss rate: 0.00%
```


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



Run 8: Statistics of TaoVA-100x

Start at: 2017-09-08 01:39:43

End at: 2017-09-08 01:40:13

Below is generated by plot.py at 2017-09-08 04:04:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 202.49 Mbit/s

95th percentile per-packet one-way delay: 91.316 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 198.25 Mbit/s

95th percentile per-packet one-way delay: 88.970 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 137.28 Mbit/s

95th percentile per-packet one-way delay: 100.877 ms

Loss rate: 0.12%

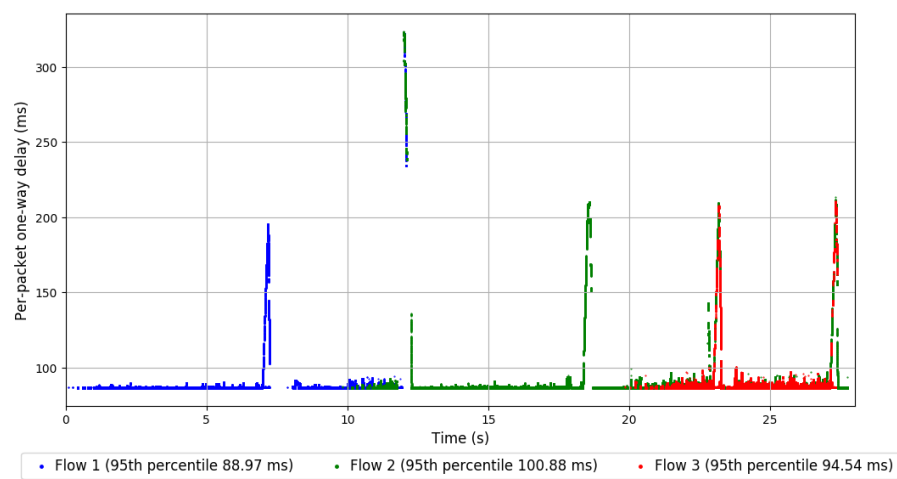
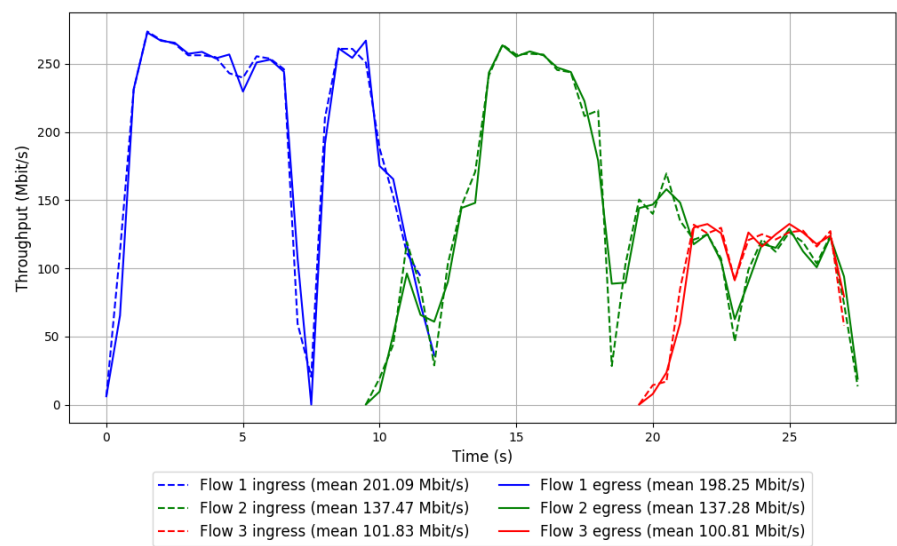
-- Flow 3:

Average throughput: 100.81 Mbit/s

95th percentile per-packet one-way delay: 94.539 ms

Loss rate: 0.00%

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

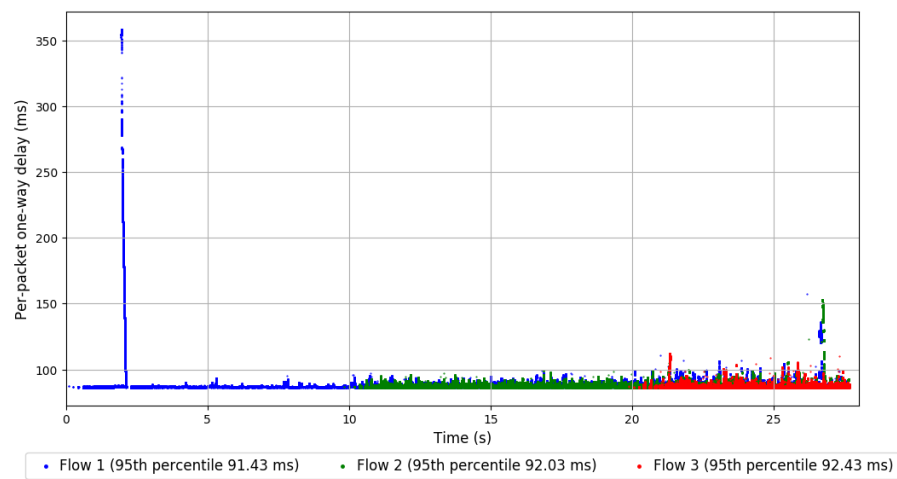
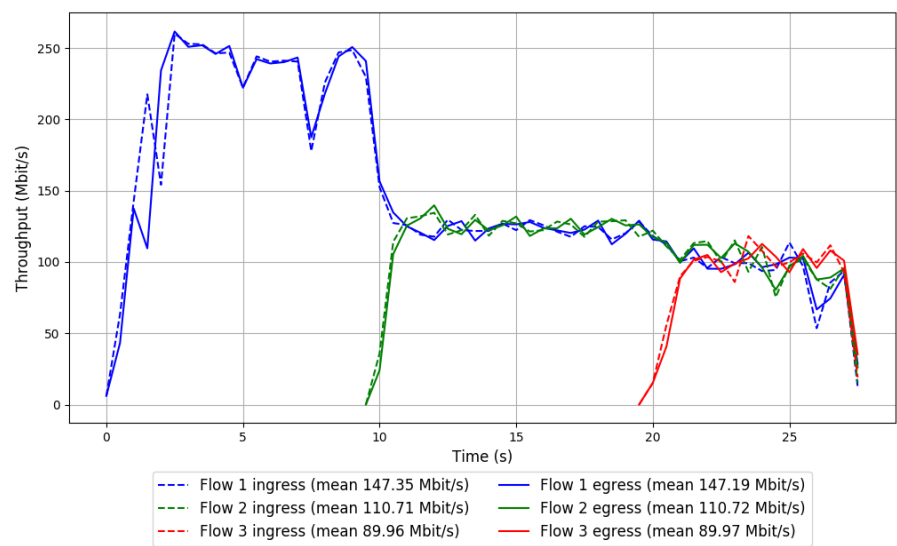


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-09-08 01:52:23
End at: 2017-09-08 01:52:53

# Below is generated by plot.py at 2017-09-08 04:05:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.18 Mbit/s
95th percentile per-packet one-way delay: 91.746 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 147.19 Mbit/s
95th percentile per-packet one-way delay: 91.431 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 110.72 Mbit/s
95th percentile per-packet one-way delay: 92.030 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.97 Mbit/s
95th percentile per-packet one-way delay: 92.433 ms
Loss rate: 0.00%
```

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

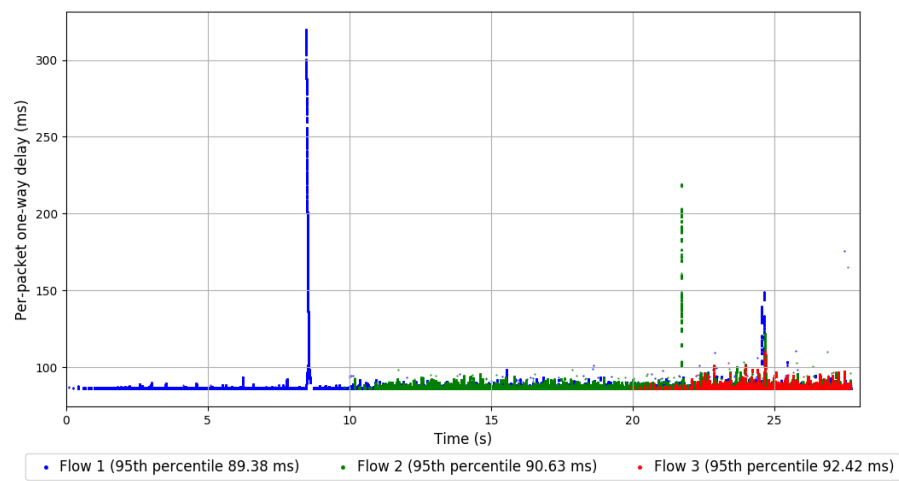
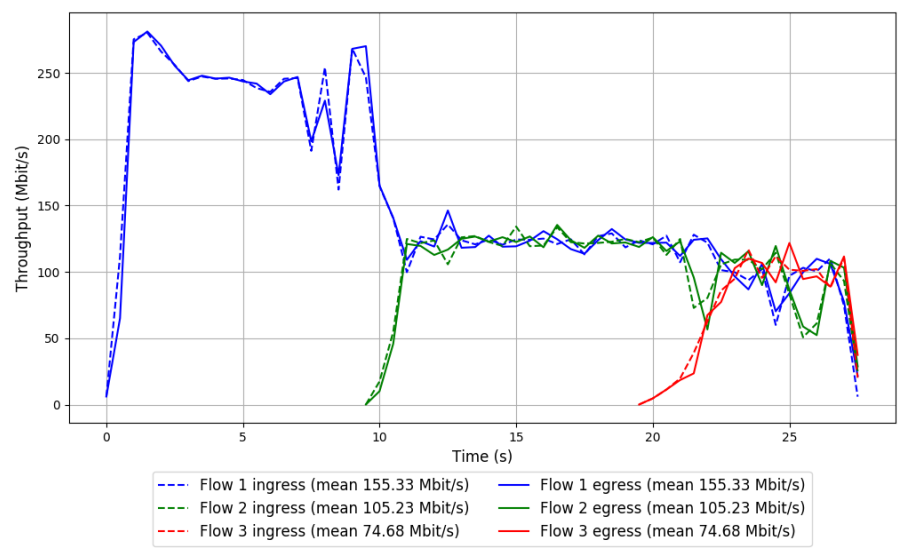


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-09-08 02:05:27
End at: 2017-09-08 02:05:57

# Below is generated by plot.py at 2017-09-08 04:06:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.61 Mbit/s
95th percentile per-packet one-way delay: 90.194 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 155.33 Mbit/s
95th percentile per-packet one-way delay: 89.375 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 105.23 Mbit/s
95th percentile per-packet one-way delay: 90.627 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 74.68 Mbit/s
95th percentile per-packet one-way delay: 92.415 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-09-07 23:59:34

End at: 2017-09-08 00:00:04

Below is generated by plot.py at 2017-09-08 04:06:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.90 Mbit/s

95th percentile per-packet one-way delay: 93.779 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 39.92 Mbit/s

95th percentile per-packet one-way delay: 92.151 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 110.14 Mbit/s

95th percentile per-packet one-way delay: 94.563 ms

Loss rate: 0.01%

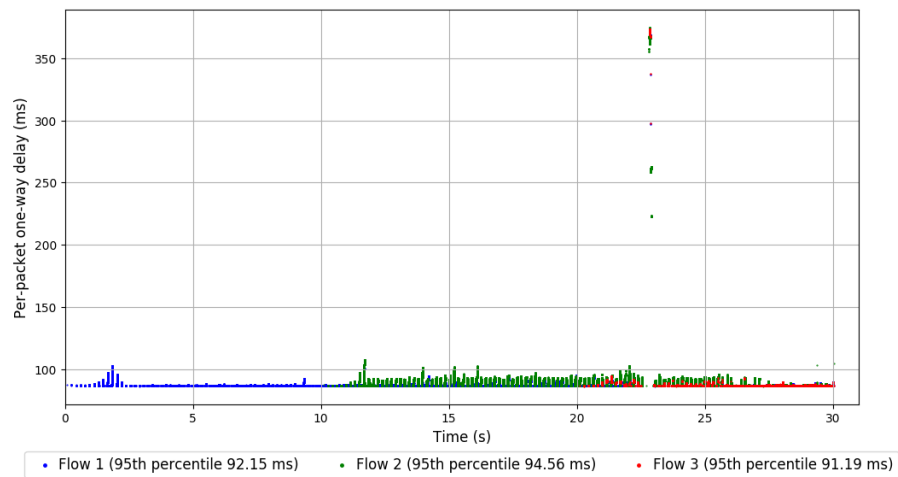
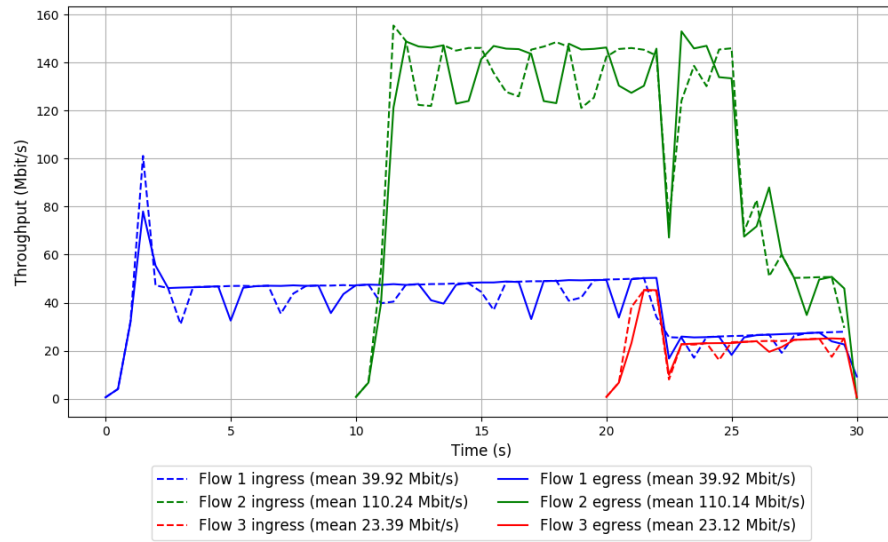
-- Flow 3:

Average throughput: 23.12 Mbit/s

95th percentile per-packet one-way delay: 91.188 ms

Loss rate: 1.13%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-09-08 00:12:37

End at: 2017-09-08 00:13:07

Below is generated by plot.py at 2017-09-08 04:06:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.52 Mbit/s

95th percentile per-packet one-way delay: 95.189 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 64.83 Mbit/s

95th percentile per-packet one-way delay: 95.053 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 60.41 Mbit/s

95th percentile per-packet one-way delay: 96.621 ms

Loss rate: 0.01%

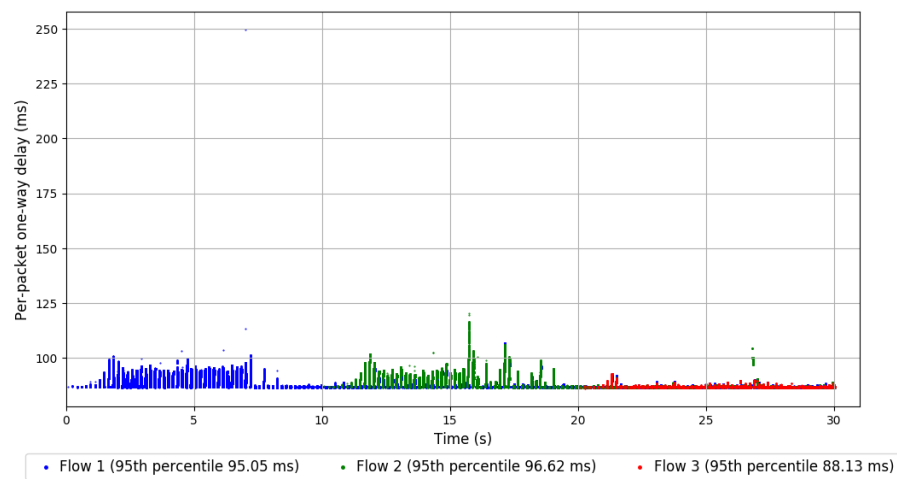
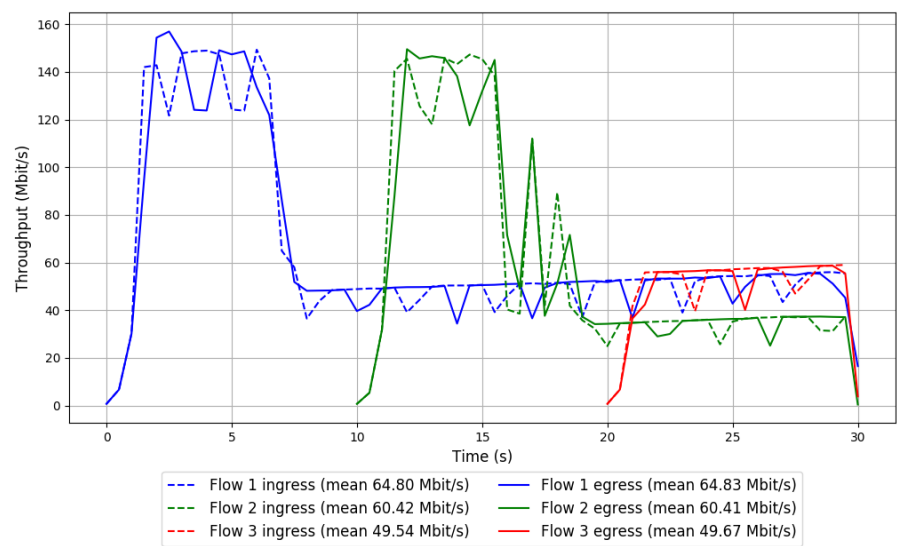
-- Flow 3:

Average throughput: 49.67 Mbit/s

95th percentile per-packet one-way delay: 88.128 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-09-08 00:25:37

End at: 2017-09-08 00:26:07

Below is generated by plot.py at 2017-09-08 04:06:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 54.29 Mbit/s

95th percentile per-packet one-way delay: 97.454 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 45.85 Mbit/s

95th percentile per-packet one-way delay: 99.786 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 12.80 Mbit/s

95th percentile per-packet one-way delay: 2634.475 ms

Loss rate: 0.00%

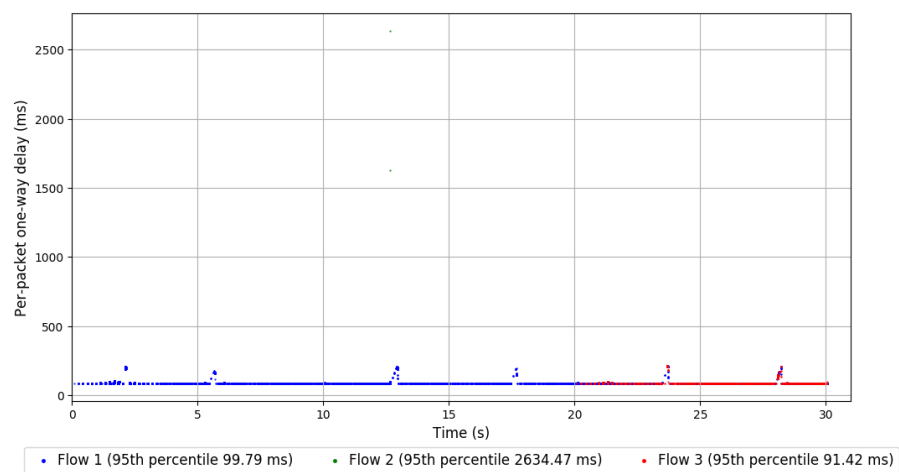
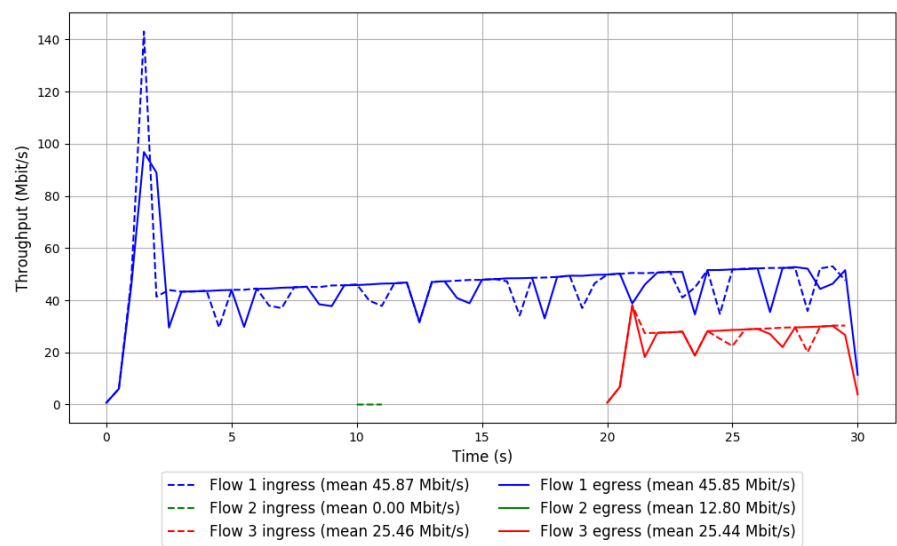
-- Flow 3:

Average throughput: 25.44 Mbit/s

95th percentile per-packet one-way delay: 91.419 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-09-08 00:38:09

End at: 2017-09-08 00:38:39

Below is generated by plot.py at 2017-09-08 04:06:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.01 Mbit/s

95th percentile per-packet one-way delay: 148.563 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 69.56 Mbit/s

95th percentile per-packet one-way delay: 158.511 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 52.63 Mbit/s

95th percentile per-packet one-way delay: 163.544 ms

Loss rate: 1.34%

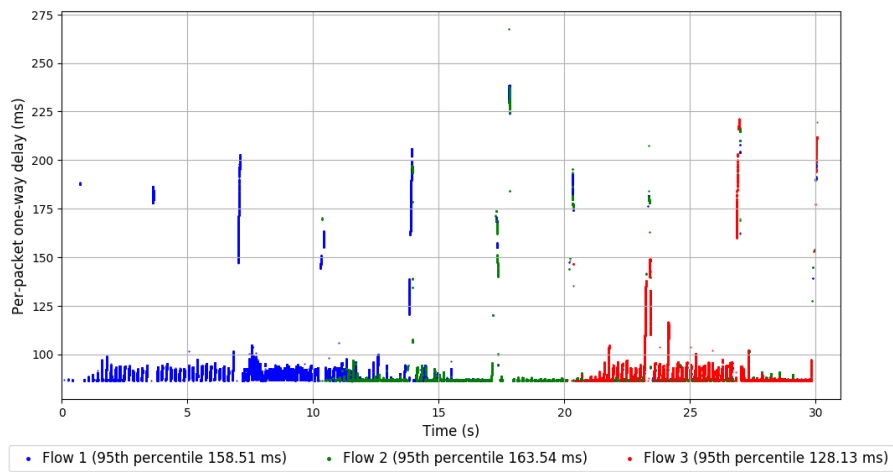
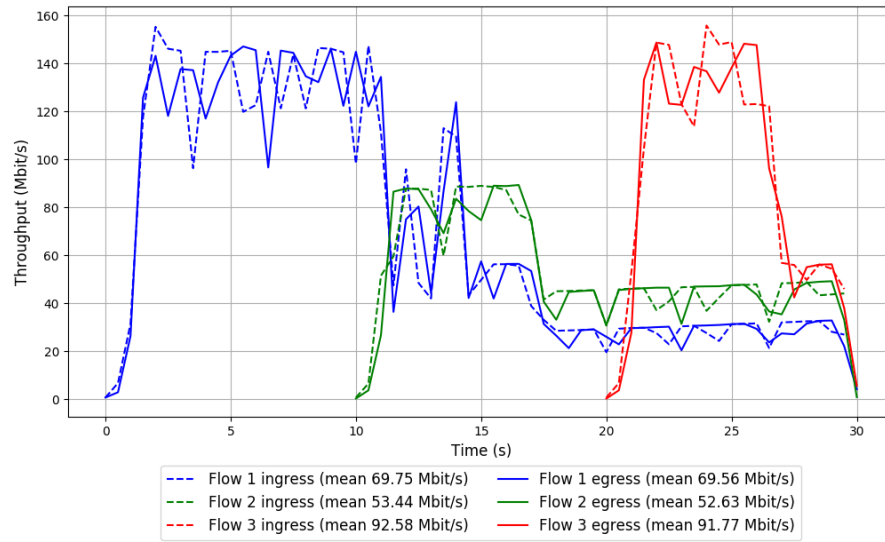
-- Flow 3:

Average throughput: 91.77 Mbit/s

95th percentile per-packet one-way delay: 128.132 ms

Loss rate: 0.84%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-09-08 00:50:35

End at: 2017-09-08 00:51:05

Below is generated by plot.py at 2017-09-08 04:06:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 167.106 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.05 Mbit/s

95th percentile per-packet one-way delay: 136.008 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.04 Mbit/s

95th percentile per-packet one-way delay: 176.745 ms

Loss rate: 0.00%

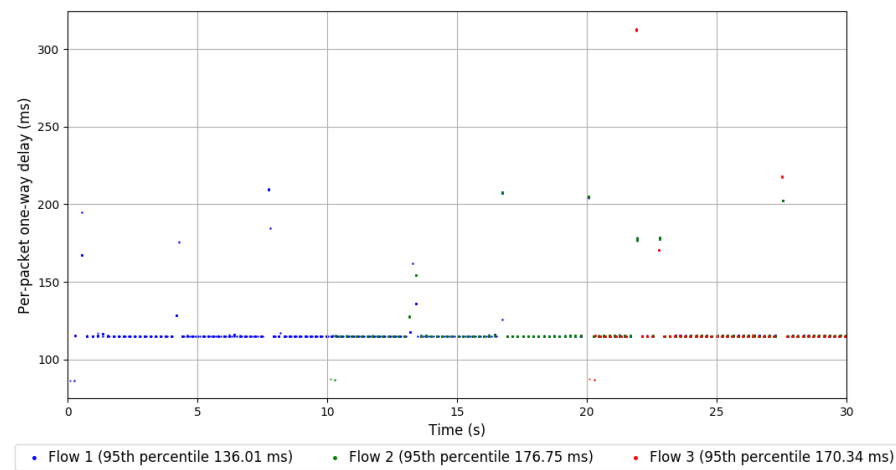
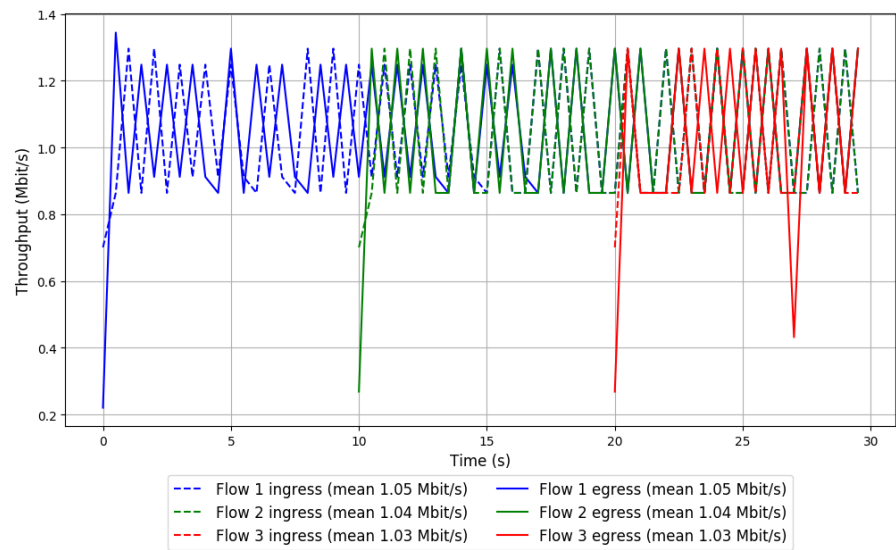
-- Flow 3:

Average throughput: 1.03 Mbit/s

95th percentile per-packet one-way delay: 170.341 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-09-08 01:02:55

End at: 2017-09-08 01:03:25

Below is generated by plot.py at 2017-09-08 04:06:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.49 Mbit/s

95th percentile per-packet one-way delay: 128.038 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 129.342 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.04 Mbit/s

95th percentile per-packet one-way delay: 115.170 ms

Loss rate: 0.00%

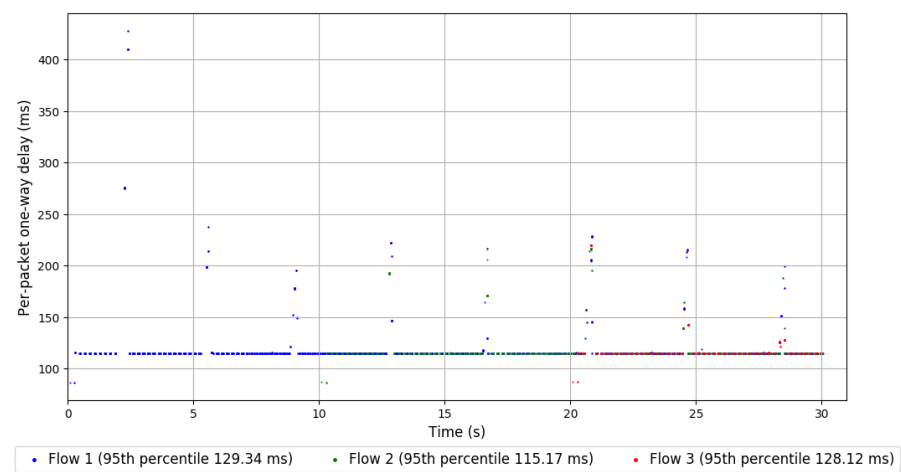
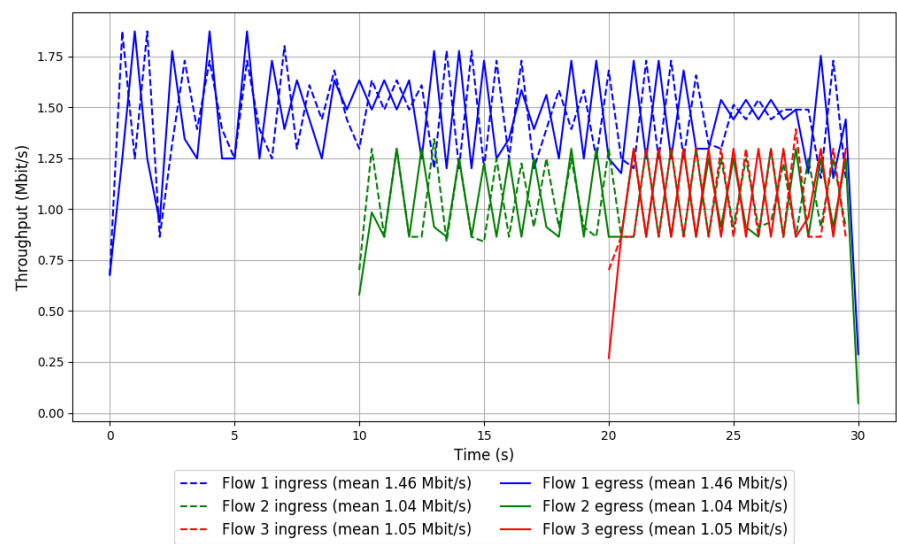
-- Flow 3:

Average throughput: 1.05 Mbit/s

95th percentile per-packet one-way delay: 128.116 ms

Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-09-08 01:15:23

End at: 2017-09-08 01:15:53

Below is generated by plot.py at 2017-09-08 04:06:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.05 Mbit/s

95th percentile per-packet one-way delay: 112.629 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 60.64 Mbit/s

95th percentile per-packet one-way delay: 114.370 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 6.91 Mbit/s

95th percentile per-packet one-way delay: 105.568 ms

Loss rate: 0.00%

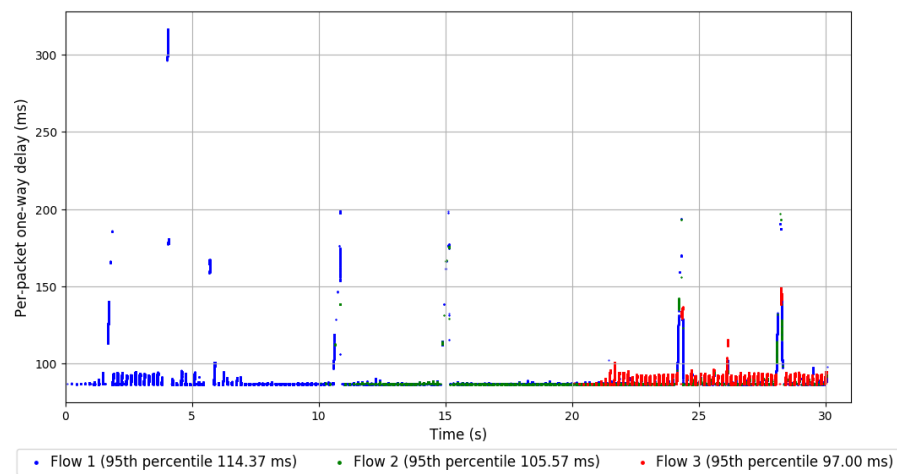
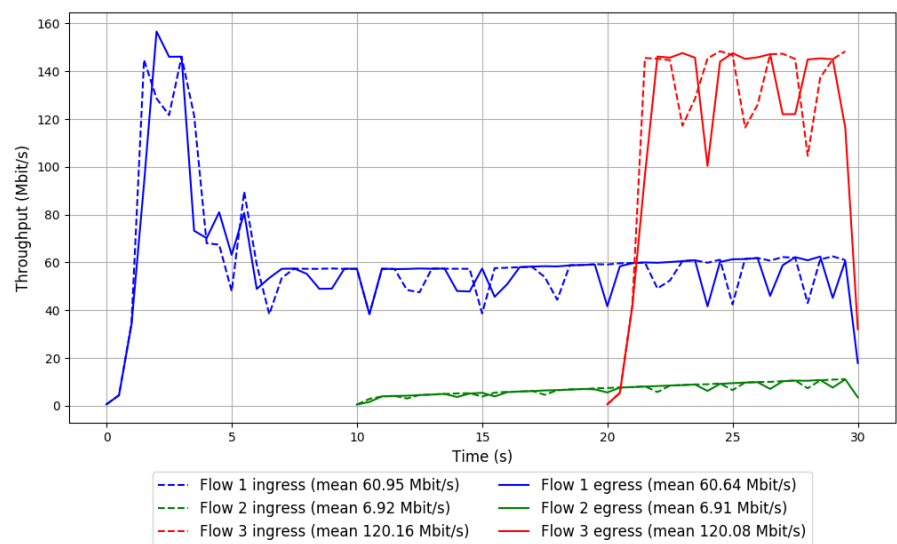
-- Flow 3:

Average throughput: 120.08 Mbit/s

95th percentile per-packet one-way delay: 97.005 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-09-08 01:28:08

End at: 2017-09-08 01:28:38

Below is generated by plot.py at 2017-09-08 04:07:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.43 Mbit/s

95th percentile per-packet one-way delay: 101.944 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 41.99 Mbit/s

95th percentile per-packet one-way delay: 99.376 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 57.46 Mbit/s

95th percentile per-packet one-way delay: 100.856 ms

Loss rate: 0.07%

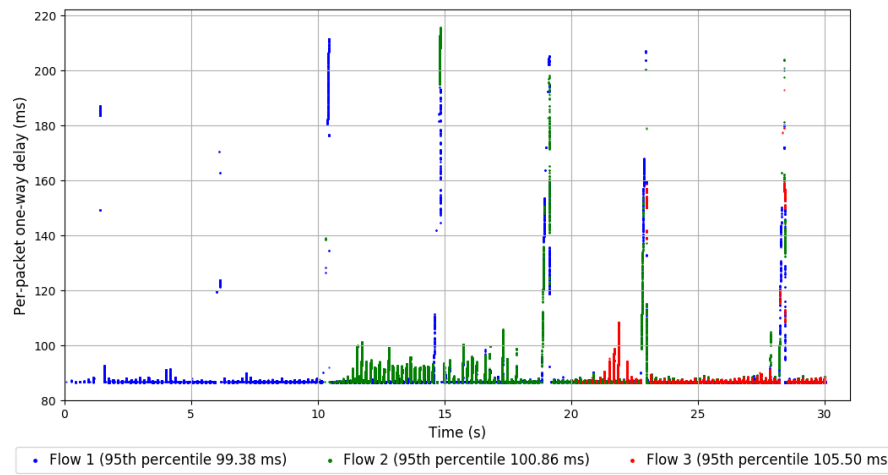
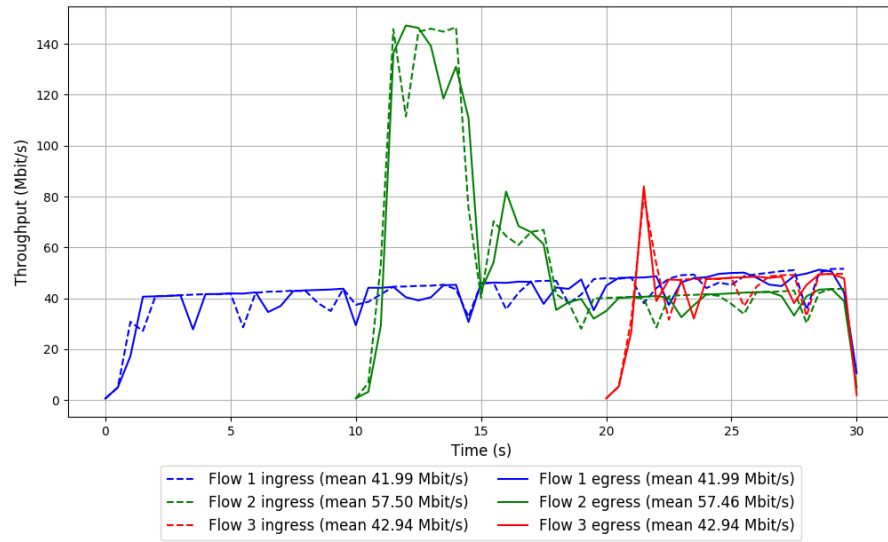
-- Flow 3:

Average throughput: 42.94 Mbit/s

95th percentile per-packet one-way delay: 105.496 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-09-08 01:40:48

End at: 2017-09-08 01:41:18

Below is generated by plot.py at 2017-09-08 04:07:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.57 Mbit/s

95th percentile per-packet one-way delay: 103.448 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 76.58 Mbit/s

95th percentile per-packet one-way delay: 106.114 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 53.44 Mbit/s

95th percentile per-packet one-way delay: 101.766 ms

Loss rate: 0.01%

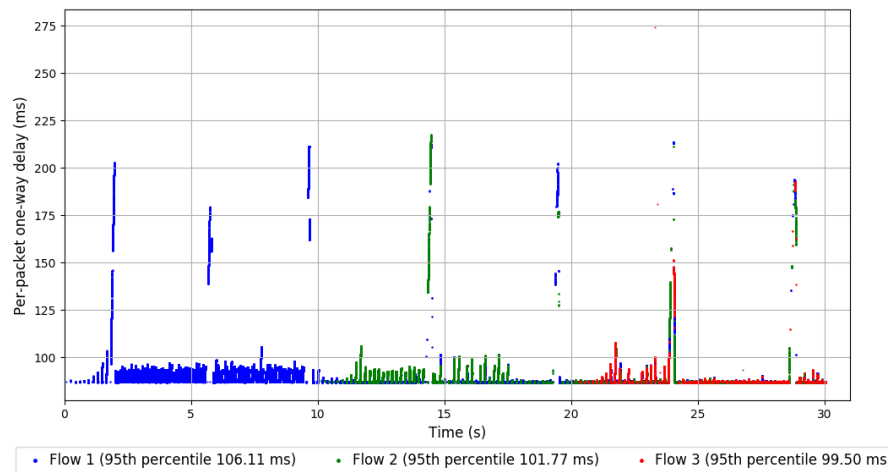
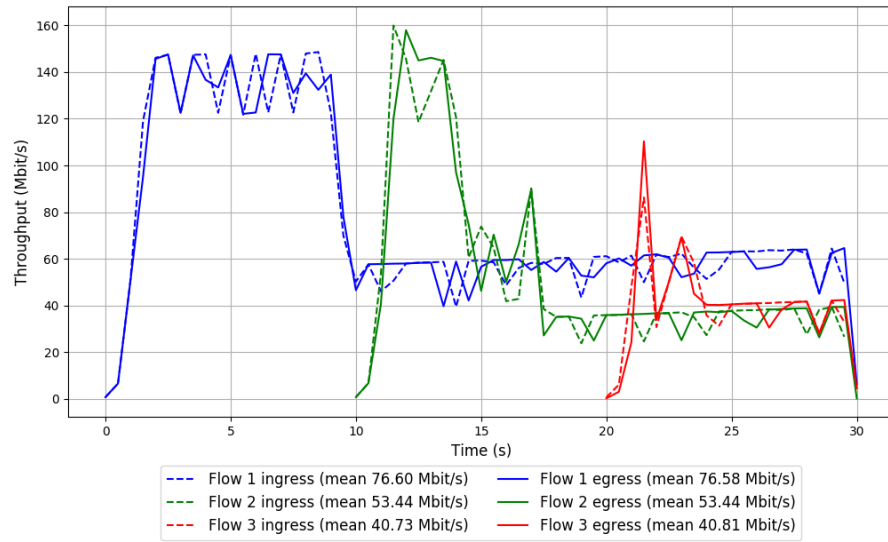
-- Flow 3:

Average throughput: 40.81 Mbit/s

95th percentile per-packet one-way delay: 99.495 ms

Loss rate: 0.00%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-09-08 01:53:32

End at: 2017-09-08 01:54:02

Below is generated by plot.py at 2017-09-08 04:07:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.28 Mbit/s

95th percentile per-packet one-way delay: 92.023 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 40.34 Mbit/s

95th percentile per-packet one-way delay: 88.375 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 85.00 Mbit/s

95th percentile per-packet one-way delay: 91.781 ms

Loss rate: 0.00%

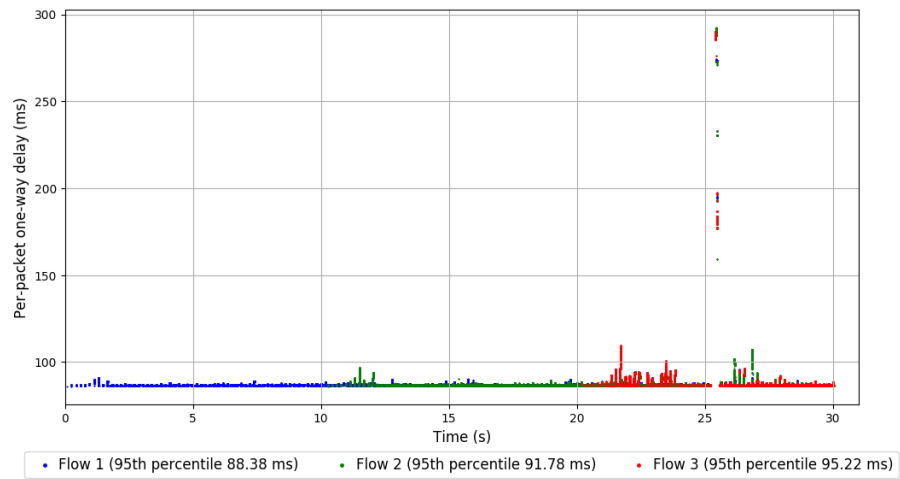
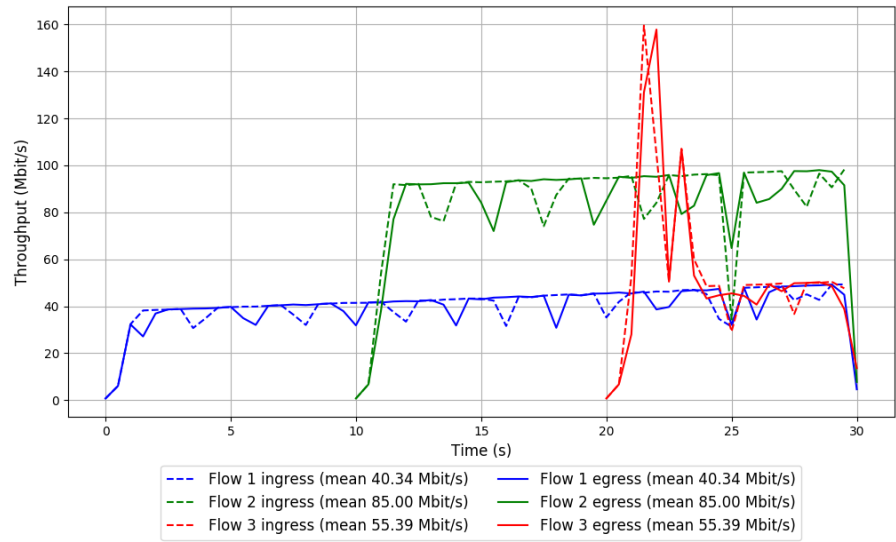
-- Flow 3:

Average throughput: 55.39 Mbit/s

95th percentile per-packet one-way delay: 95.216 ms

Loss rate: 0.00%

Run 10: Report of TCP Vegas — Data Link

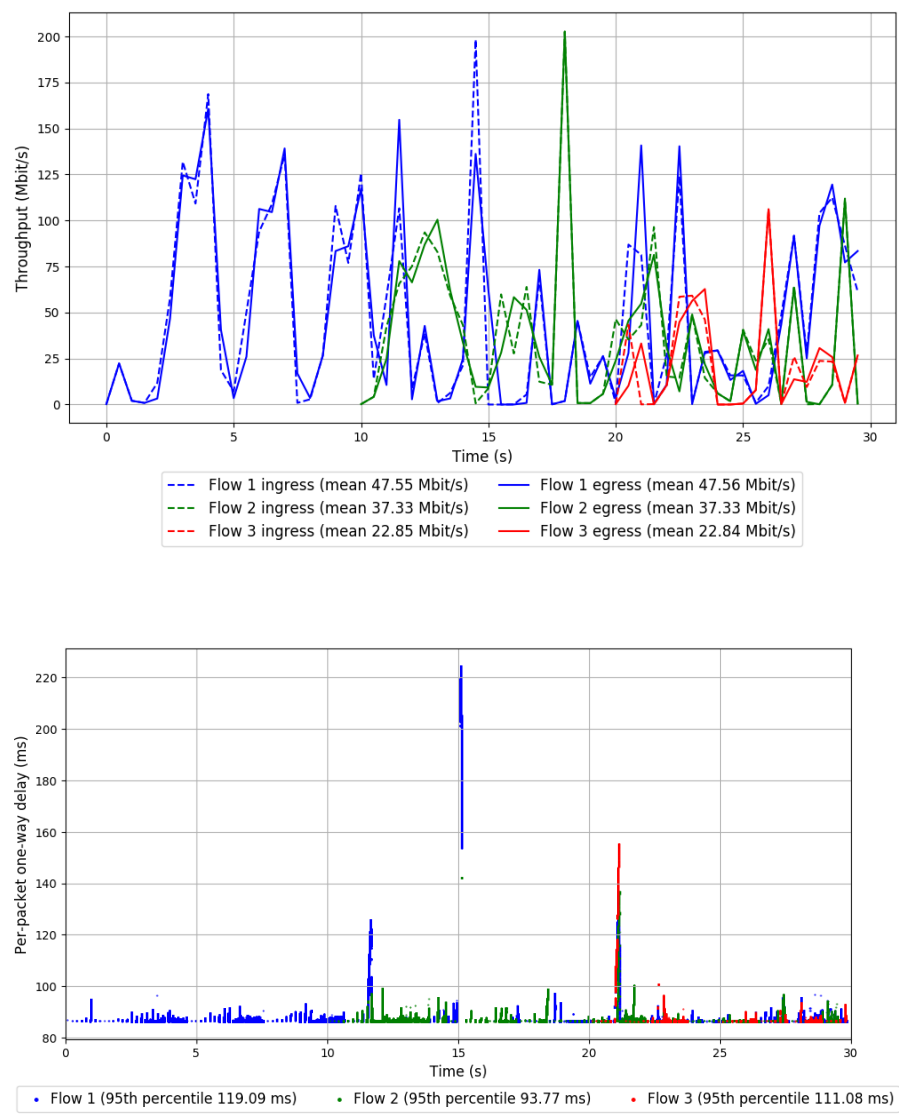


```
Run 1: Statistics of Verus

Start at: 2017-09-08 00:06:12
End at: 2017-09-08 00:06:42

# Below is generated by plot.py at 2017-09-08 04:07:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.72 Mbit/s
95th percentile per-packet one-way delay: 107.485 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.56 Mbit/s
95th percentile per-packet one-way delay: 119.092 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.33 Mbit/s
95th percentile per-packet one-way delay: 93.767 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.84 Mbit/s
95th percentile per-packet one-way delay: 111.075 ms
Loss rate: 0.00%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-09-08 00:19:13

End at: 2017-09-08 00:19:43

Below is generated by plot.py at 2017-09-08 04:07:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.59 Mbit/s

95th percentile per-packet one-way delay: 93.783 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 32.82 Mbit/s

95th percentile per-packet one-way delay: 92.220 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 40.46 Mbit/s

95th percentile per-packet one-way delay: 223.758 ms

Loss rate: 0.26%

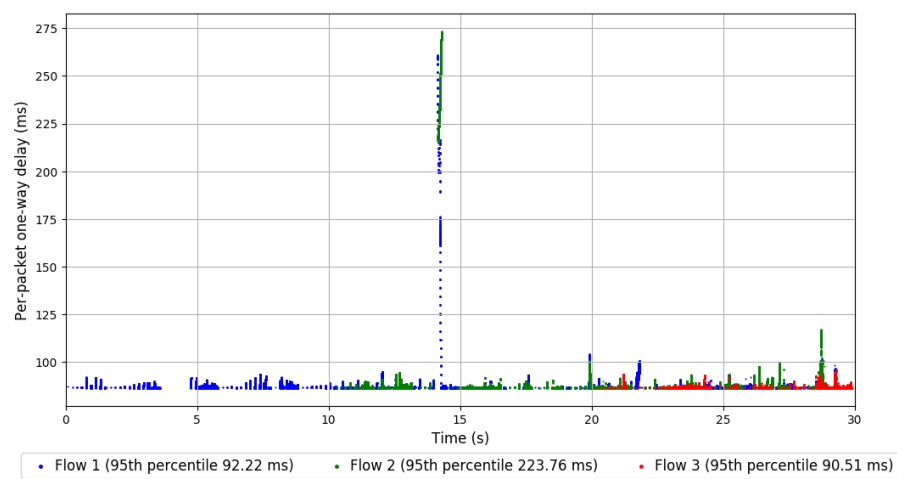
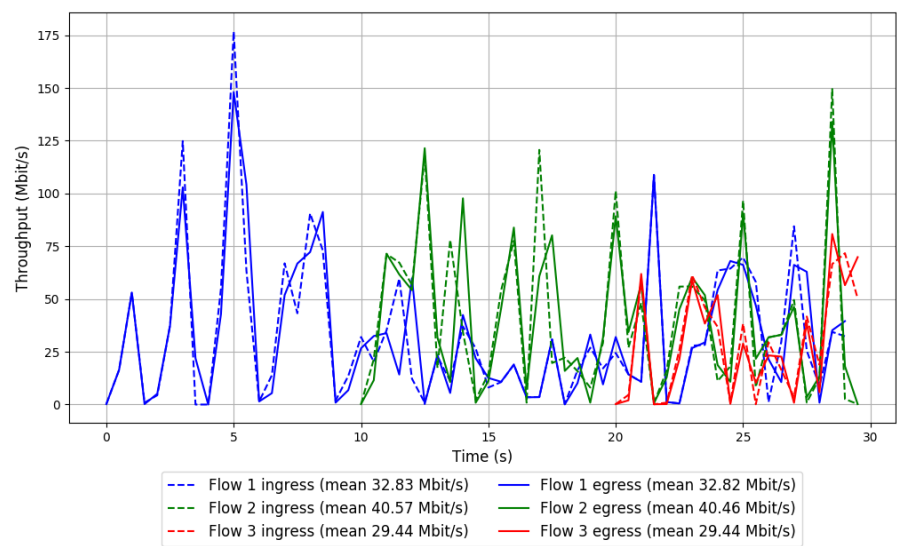
-- Flow 3:

Average throughput: 29.44 Mbit/s

95th percentile per-packet one-way delay: 90.510 ms

Loss rate: 0.00%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-09-08 00:32:07

End at: 2017-09-08 00:32:37

Below is generated by plot.py at 2017-09-08 04:07:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.46 Mbit/s

95th percentile per-packet one-way delay: 124.583 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 77.20 Mbit/s

95th percentile per-packet one-way delay: 119.285 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 35.82 Mbit/s

95th percentile per-packet one-way delay: 137.850 ms

Loss rate: 0.00%

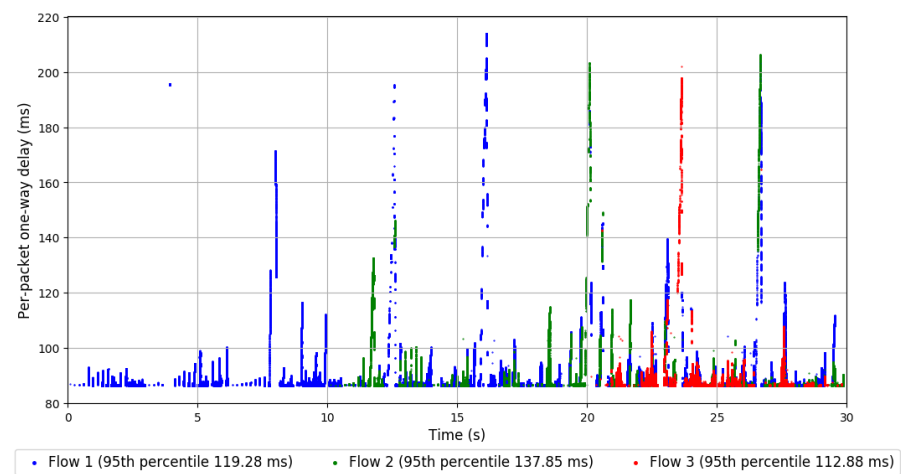
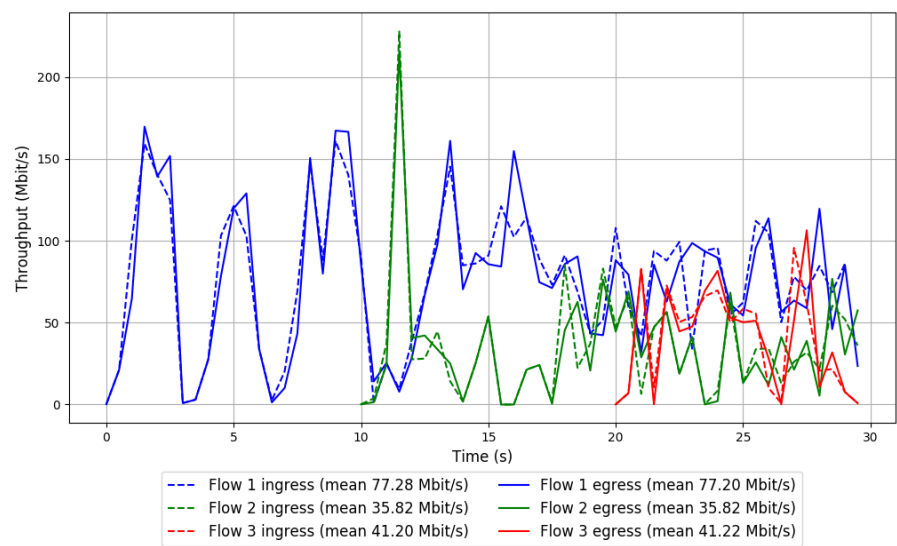
-- Flow 3:

Average throughput: 41.22 Mbit/s

95th percentile per-packet one-way delay: 112.882 ms

Loss rate: 0.00%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-09-08 00:44:42

End at: 2017-09-08 00:45:12

Below is generated by plot.py at 2017-09-08 04:07:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.02 Mbit/s

95th percentile per-packet one-way delay: 181.442 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 44.82 Mbit/s

95th percentile per-packet one-way delay: 178.080 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 57.14 Mbit/s

95th percentile per-packet one-way delay: 206.722 ms

Loss rate: 0.27%

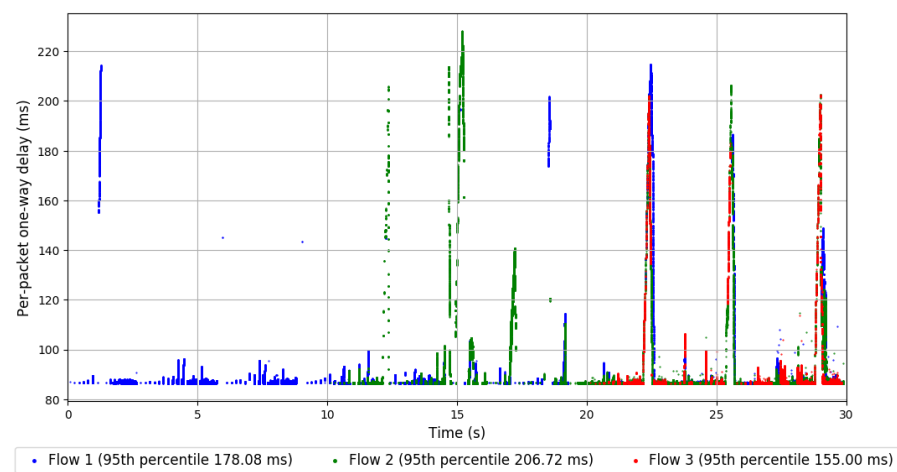
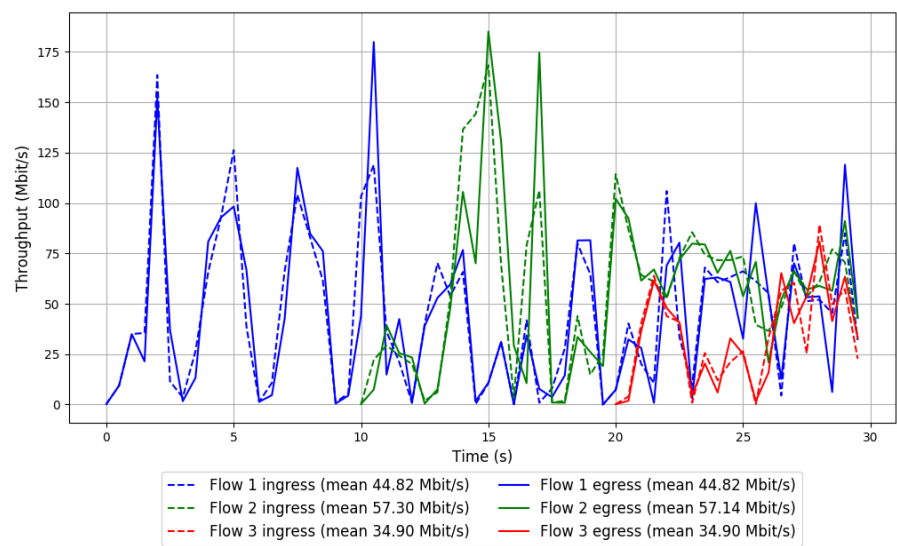
-- Flow 3:

Average throughput: 34.90 Mbit/s

95th percentile per-packet one-way delay: 154.996 ms

Loss rate: 0.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-09-08 00:57:08

End at: 2017-09-08 00:57:38

Below is generated by plot.py at 2017-09-08 04:08:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.14 Mbit/s

95th percentile per-packet one-way delay: 203.908 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 81.55 Mbit/s

95th percentile per-packet one-way delay: 208.875 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 52.63 Mbit/s

95th percentile per-packet one-way delay: 196.852 ms

Loss rate: 0.10%

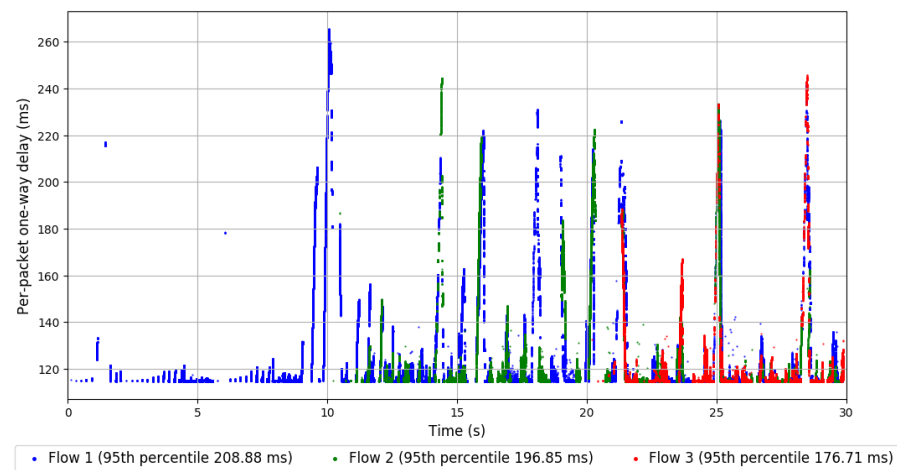
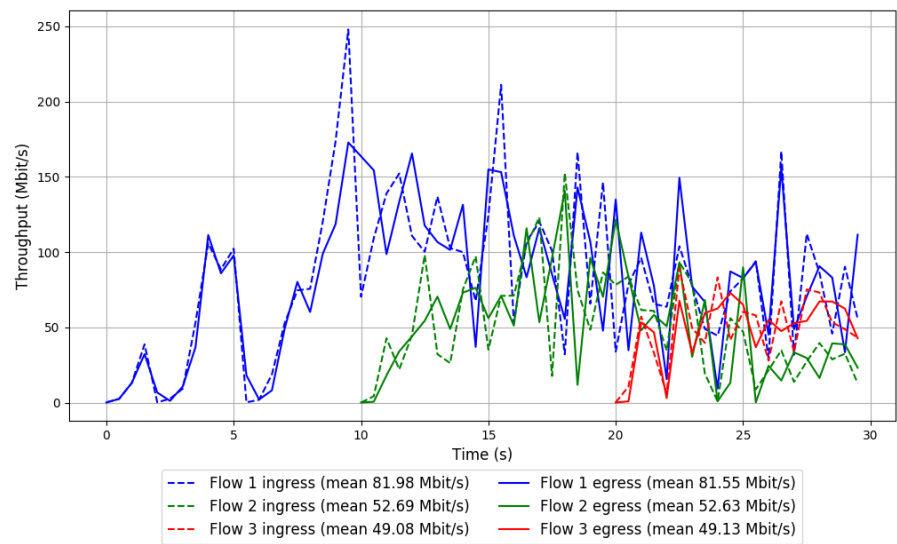
-- Flow 3:

Average throughput: 49.13 Mbit/s

95th percentile per-packet one-way delay: 176.706 ms

Loss rate: 0.04%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-09-08 01:09:22

End at: 2017-09-08 01:09:52

Below is generated by plot.py at 2017-09-08 04:08:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.49 Mbit/s

95th percentile per-packet one-way delay: 163.867 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 43.39 Mbit/s

95th percentile per-packet one-way delay: 157.209 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 53.32 Mbit/s

95th percentile per-packet one-way delay: 173.418 ms

Loss rate: 0.00%

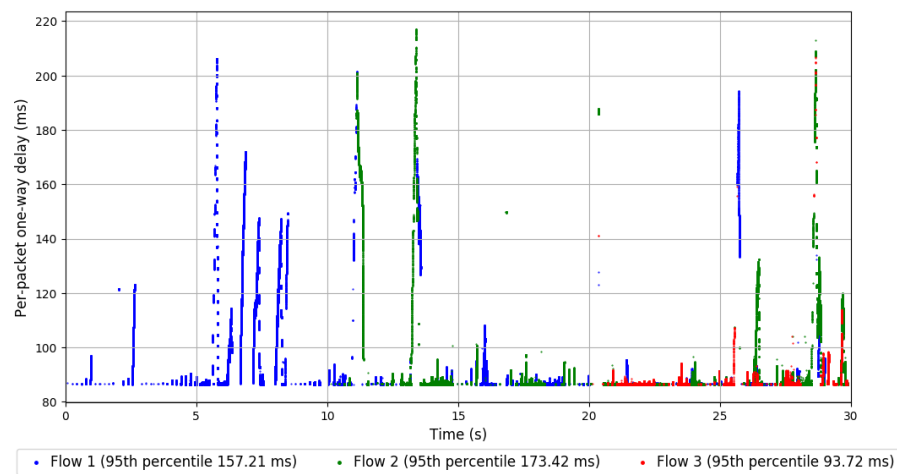
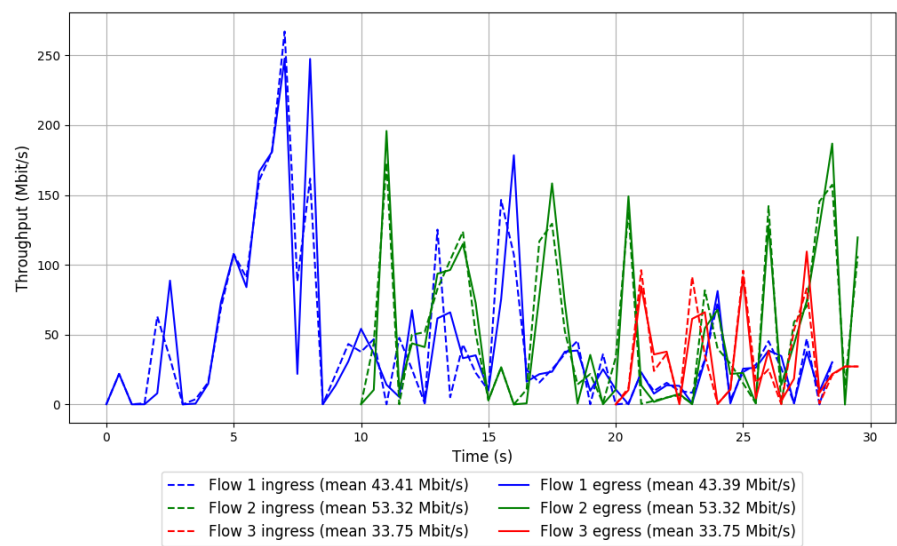
-- Flow 3:

Average throughput: 33.75 Mbit/s

95th percentile per-packet one-way delay: 93.717 ms

Loss rate: 0.00%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-09-08 01:22:00

End at: 2017-09-08 01:22:30

Below is generated by plot.py at 2017-09-08 04:08:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.50 Mbit/s

95th percentile per-packet one-way delay: 126.360 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 57.68 Mbit/s

95th percentile per-packet one-way delay: 120.916 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 70.98 Mbit/s

95th percentile per-packet one-way delay: 125.756 ms

Loss rate: 0.67%

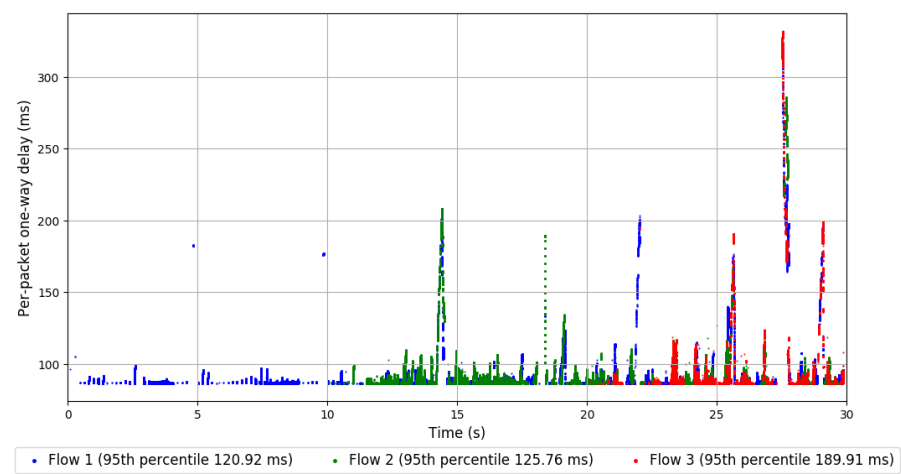
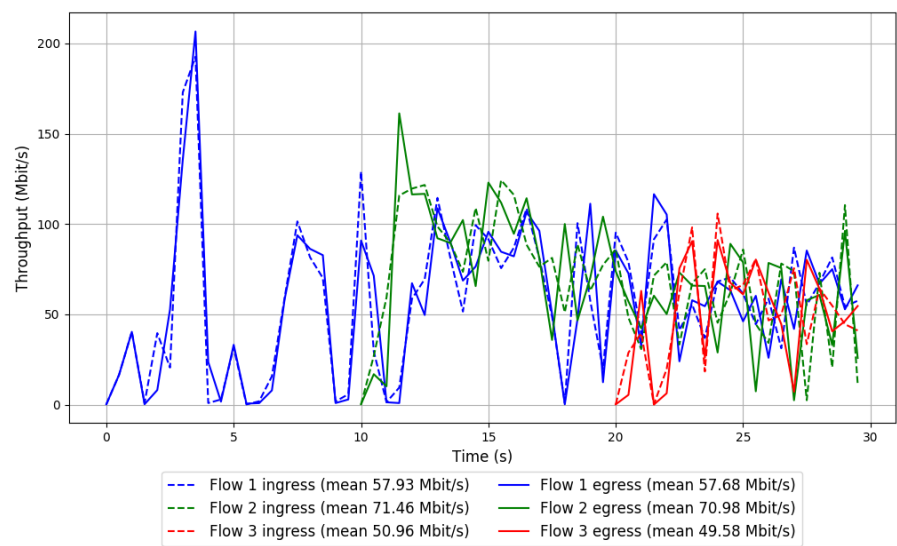
-- Flow 3:

Average throughput: 49.58 Mbit/s

95th percentile per-packet one-way delay: 189.910 ms

Loss rate: 2.66%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-09-08 01:34:41

End at: 2017-09-08 01:35:11

Below is generated by plot.py at 2017-09-08 04:08:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.09 Mbit/s

95th percentile per-packet one-way delay: 137.296 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 57.53 Mbit/s

95th percentile per-packet one-way delay: 108.514 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 46.50 Mbit/s

95th percentile per-packet one-way delay: 177.890 ms

Loss rate: 0.64%

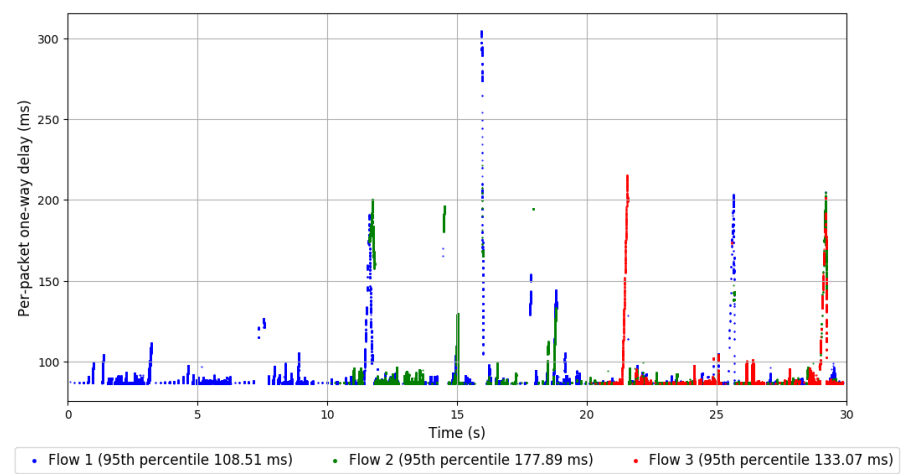
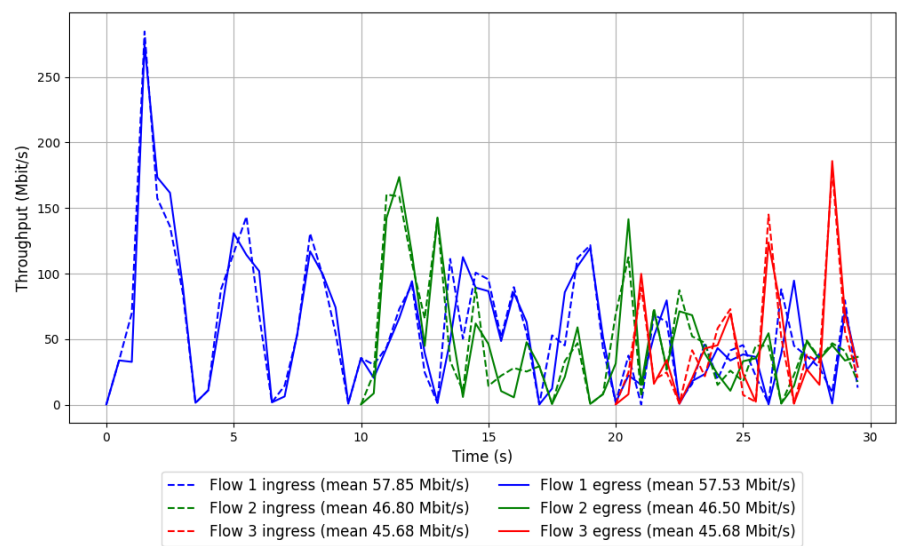
-- Flow 3:

Average throughput: 45.68 Mbit/s

95th percentile per-packet one-way delay: 133.071 ms

Loss rate: 0.00%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-09-08 01:47:11

End at: 2017-09-08 01:47:41

Below is generated by plot.py at 2017-09-08 04:09:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 130.44 Mbit/s

95th percentile per-packet one-way delay: 155.003 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 79.81 Mbit/s

95th percentile per-packet one-way delay: 151.607 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.87 Mbit/s

95th percentile per-packet one-way delay: 177.421 ms

Loss rate: 0.00%

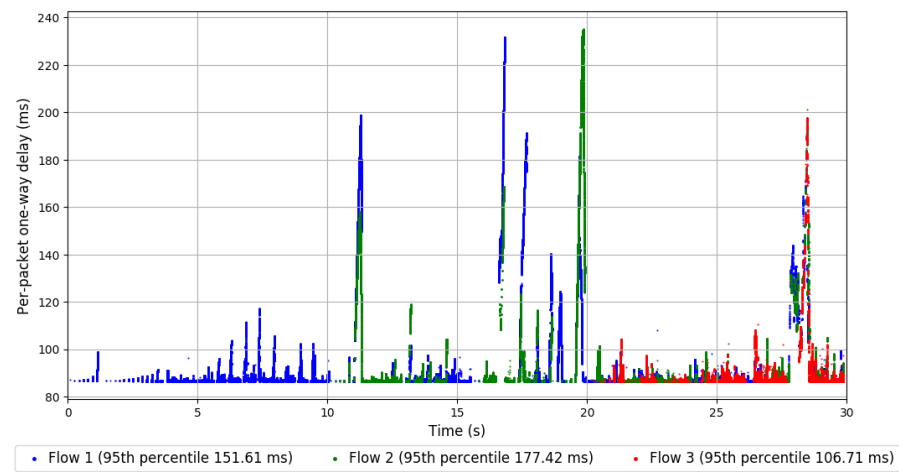
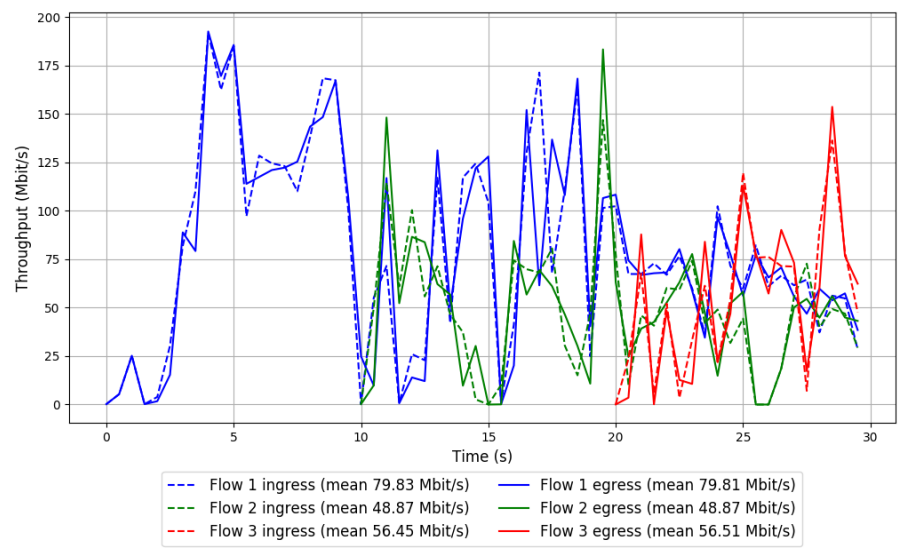
-- Flow 3:

Average throughput: 56.51 Mbit/s

95th percentile per-packet one-way delay: 106.707 ms

Loss rate: 0.00%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-09-08 02:00:10

End at: 2017-09-08 02:00:40

Below is generated by plot.py at 2017-09-08 04:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.56 Mbit/s

95th percentile per-packet one-way delay: 122.763 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 96.94 Mbit/s

95th percentile per-packet one-way delay: 129.457 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 55.81 Mbit/s

95th percentile per-packet one-way delay: 104.834 ms

Loss rate: 0.16%

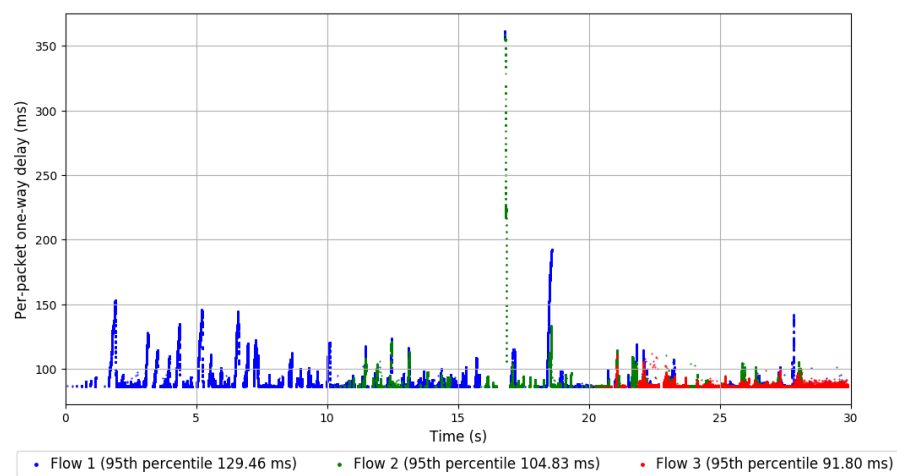
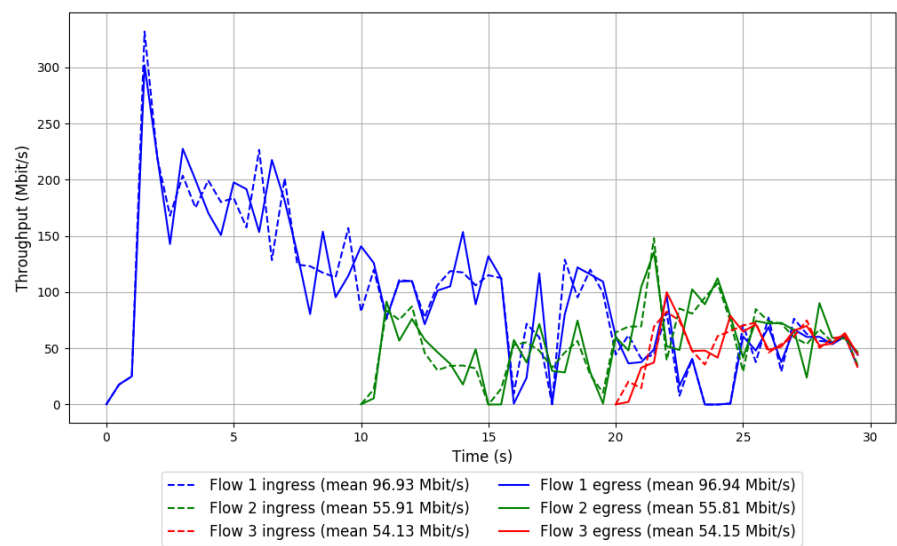
-- Flow 3:

Average throughput: 54.15 Mbit/s

95th percentile per-packet one-way delay: 91.803 ms

Loss rate: 0.00%

Run 10: Report of Verus — Data Link

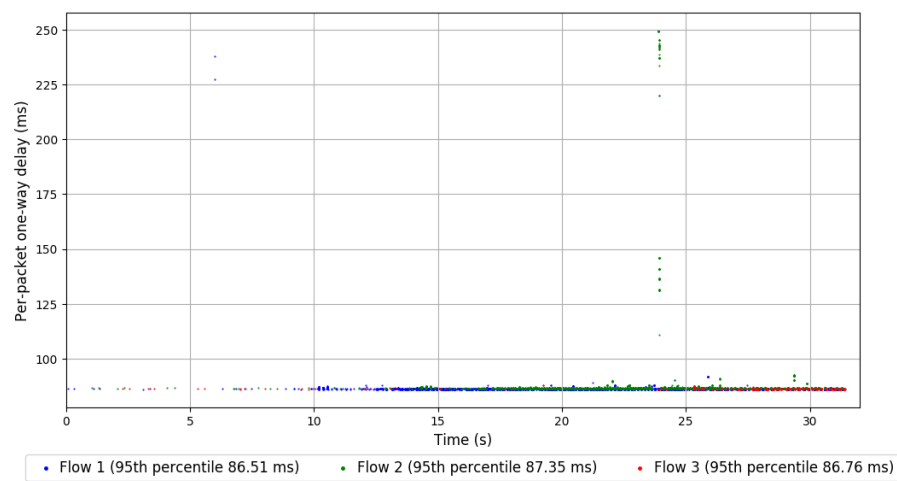
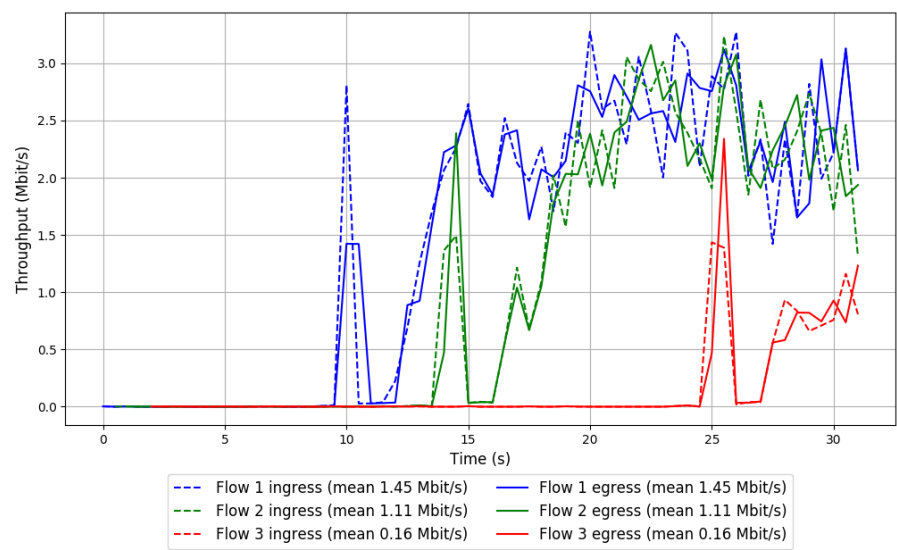


```
Run 1: Statistics of WebRTC media

Start at: 2017-09-08 00:04:45
End at: 2017-09-08 00:05:15

# Below is generated by plot.py at 2017-09-08 04:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.67 Mbit/s
95th percentile per-packet one-way delay: 86.816 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 86.512 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 87.346 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 86.760 ms
Loss rate: 0.00%
```


Run 1: Report of WebRTC media — Data Link

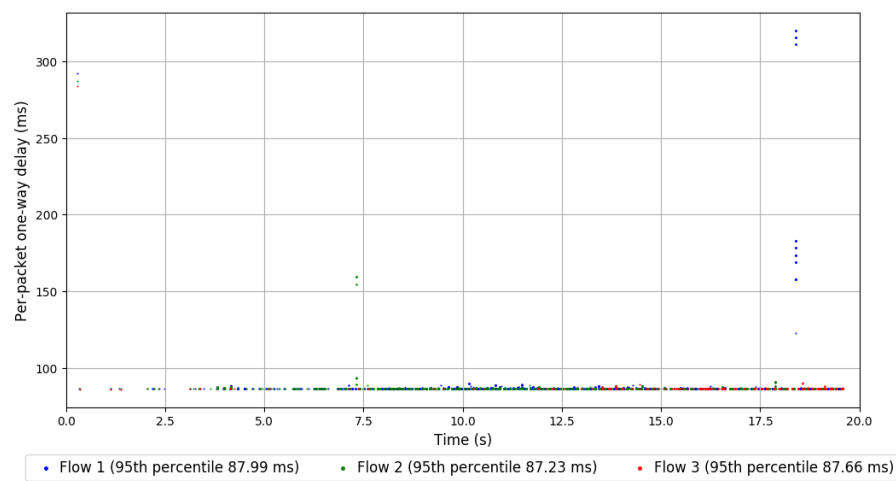
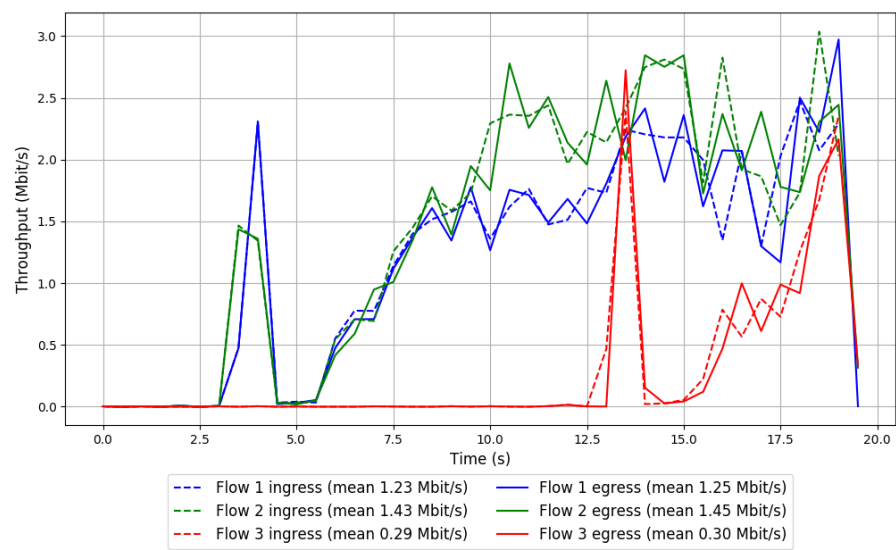


Run 2: Statistics of WebRTC media

Start at: 2017-09-08 00:17:46

End at: 2017-09-08 00:18:16

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-09-08 00:30:40

End at: 2017-09-08 00:31:10

Below is generated by plot.py at 2017-09-08 04:09:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.59 Mbit/s

95th percentile per-packet one-way delay: 87.072 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 161.213 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.97 Mbit/s

95th percentile per-packet one-way delay: 86.880 ms

Loss rate: 0.00%

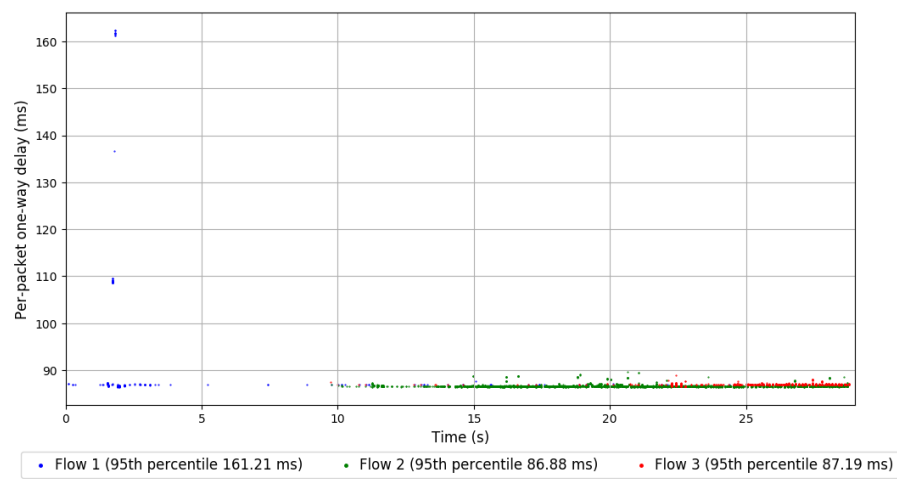
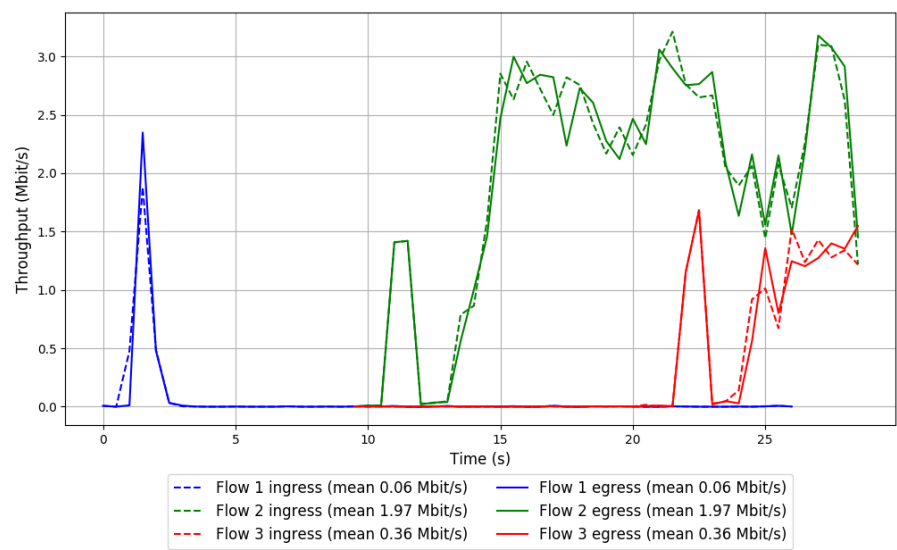
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 87.193 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-09-08 00:43:16

End at: 2017-09-08 00:43:46

Below is generated by plot.py at 2017-09-08 04:09:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 87.149 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.093 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 87.041 ms

Loss rate: 0.00%

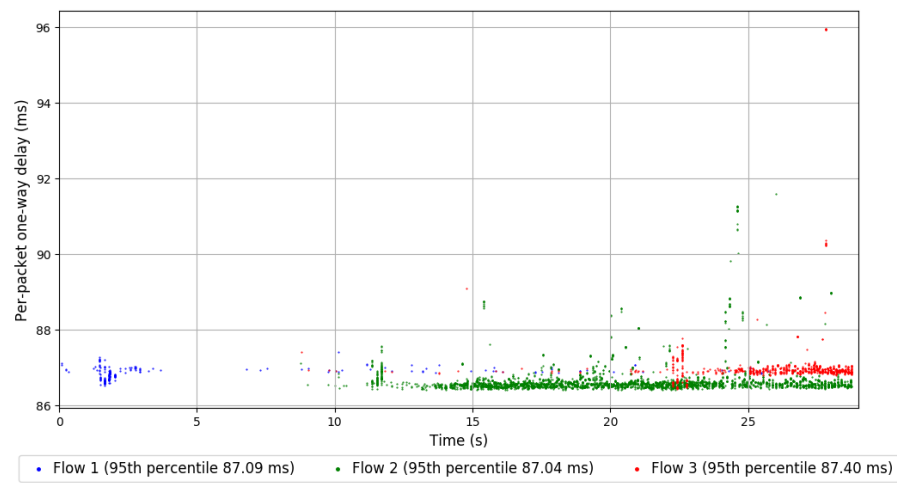
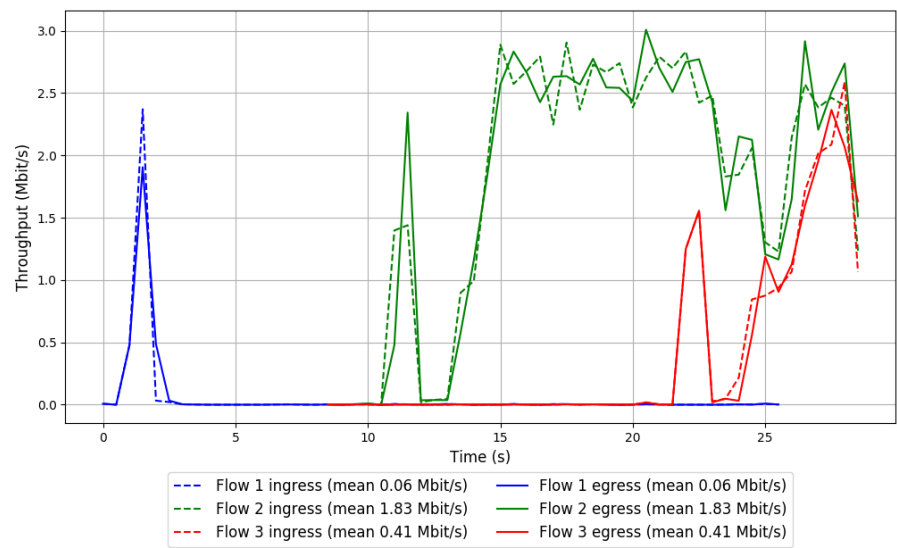
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 87.403 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-09-08 00:55:39

End at: 2017-09-08 00:56:09

Below is generated by plot.py at 2017-09-08 04:09:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.05 Mbit/s

95th percentile per-packet one-way delay: 115.911 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 122.671 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 115.530 ms

Loss rate: 0.00%

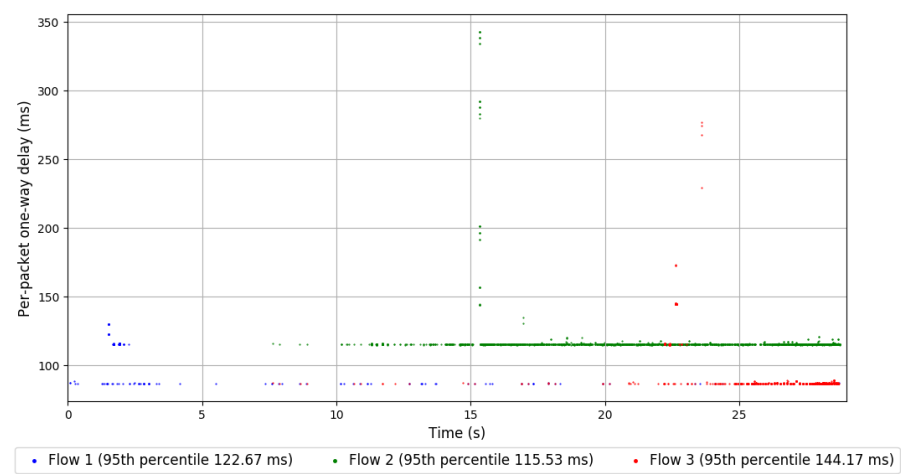
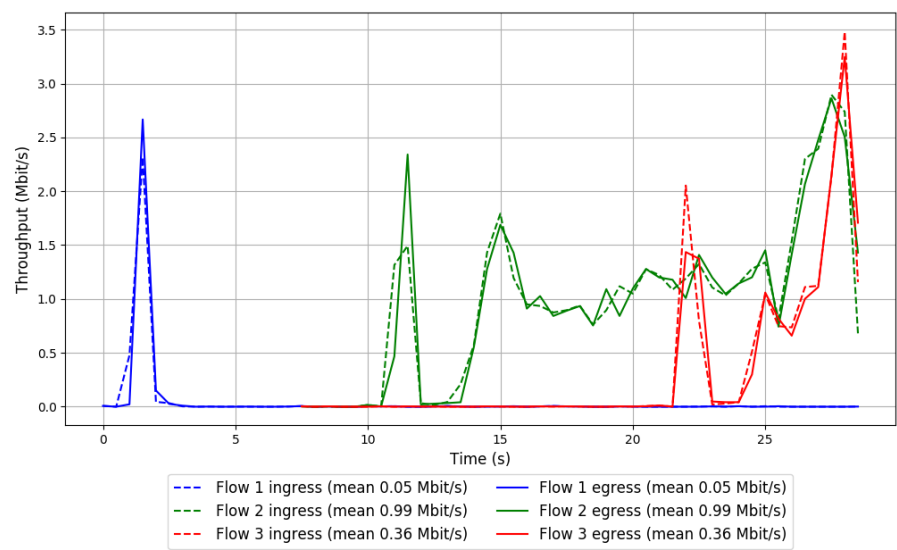
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 144.169 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-09-08 01:07:55

End at: 2017-09-08 01:08:25

Below is generated by plot.py at 2017-09-08 04:09:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 87.139 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 86.982 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.59 Mbit/s

95th percentile per-packet one-way delay: 87.116 ms

Loss rate: 0.00%

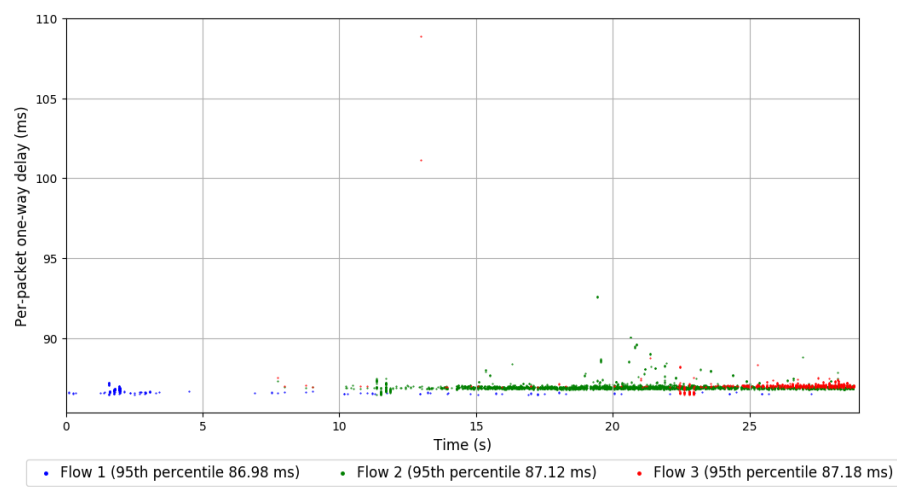
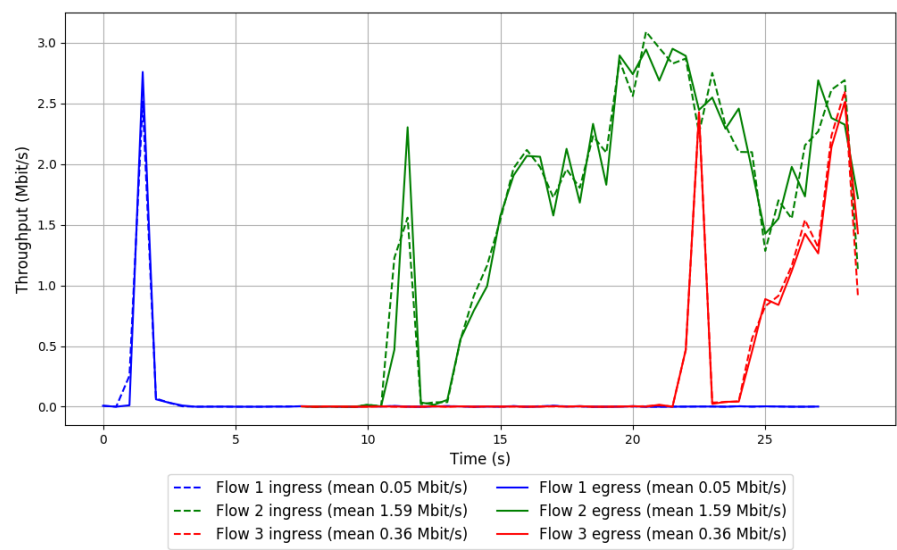
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 87.183 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-09-08 01:20:32

End at: 2017-09-08 01:21:02

Below is generated by plot.py at 2017-09-08 04:09:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.59 Mbit/s

95th percentile per-packet one-way delay: 114.869 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 133.679 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 87.285 ms

Loss rate: 0.00%

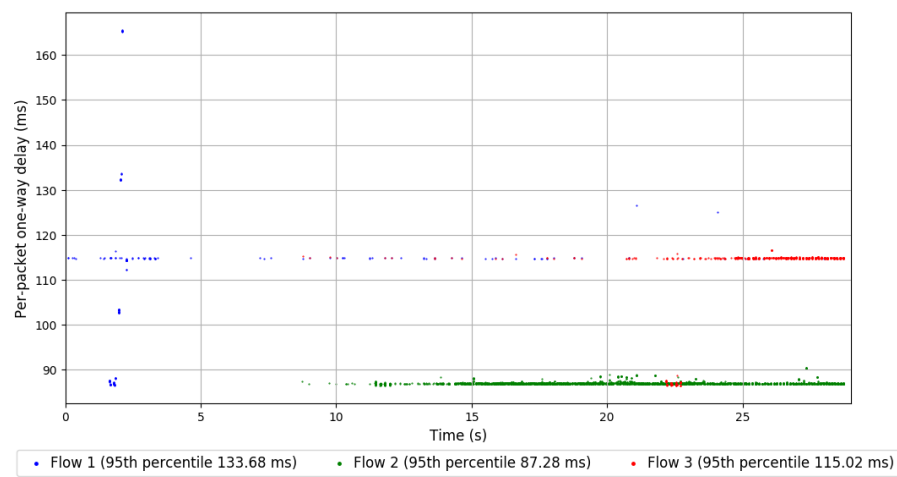
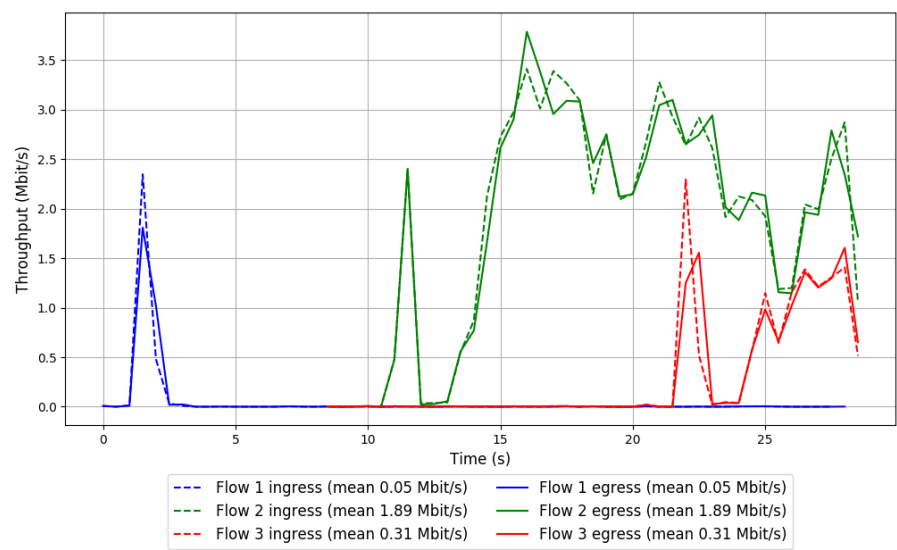
-- Flow 3:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 115.017 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-09-08 01:33:14

End at: 2017-09-08 01:33:44

Below is generated by plot.py at 2017-09-08 04:09:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 87.226 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 153.647 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 87.186 ms

Loss rate: 0.00%

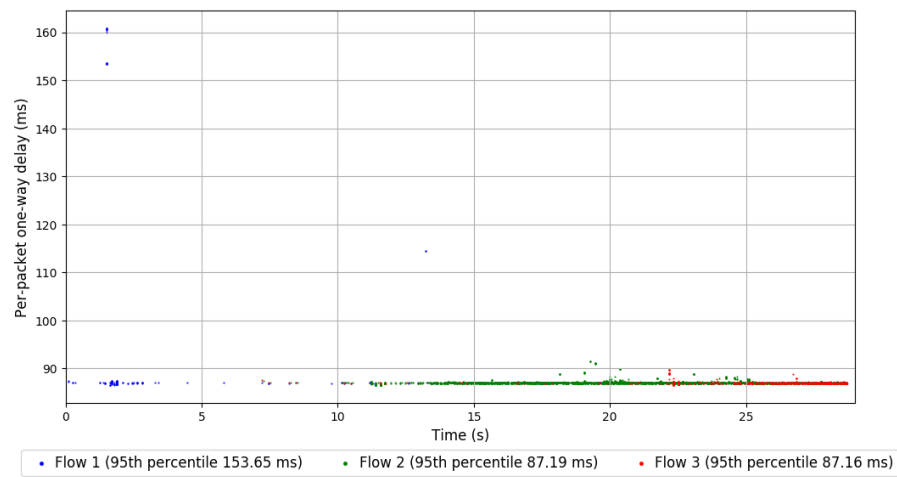
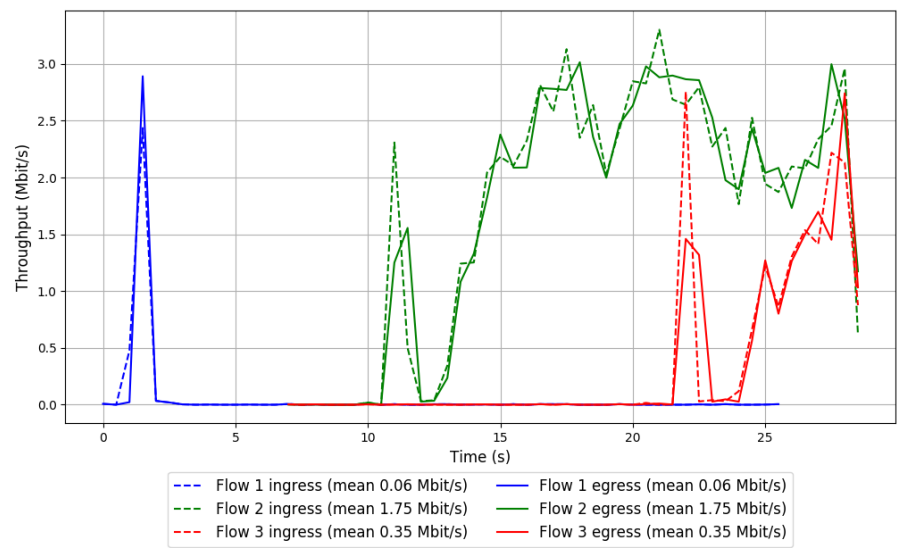
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 87.156 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-09-08 01:45:44

End at: 2017-09-08 01:46:14

Below is generated by plot.py at 2017-09-08 04:09:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.67 Mbit/s

95th percentile per-packet one-way delay: 87.181 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.128 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 87.202 ms

Loss rate: 0.00%

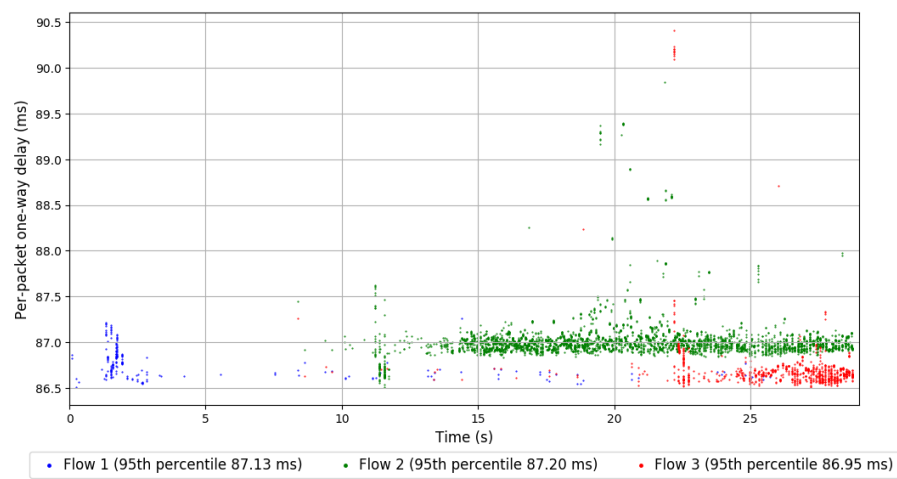
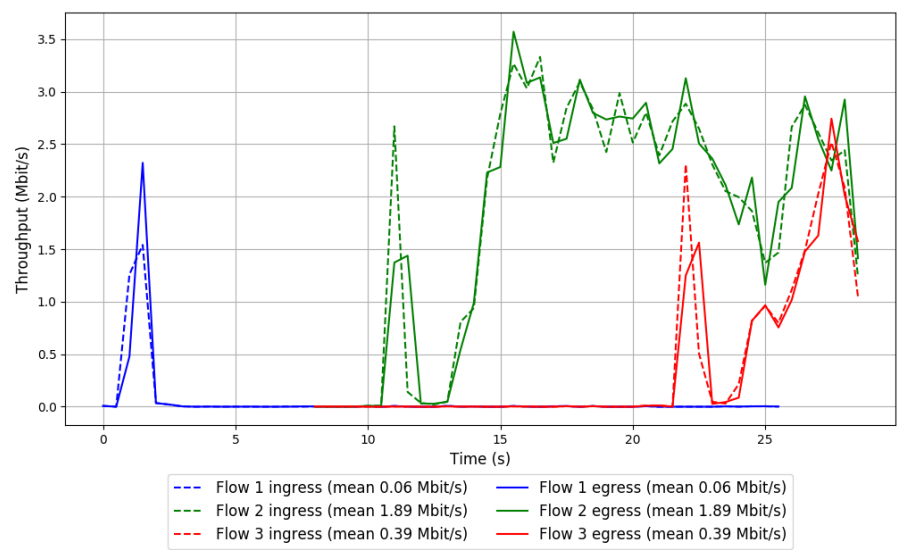
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 86.953 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-09-08 01:58:43

End at: 2017-09-08 01:59:13

Below is generated by plot.py at 2017-09-08 04:09:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 87.081 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.158 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 86.883 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 87.992 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

