

## Pantheon Report

Generated at 2017-08-21 04:55:12 (UTC).

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

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.

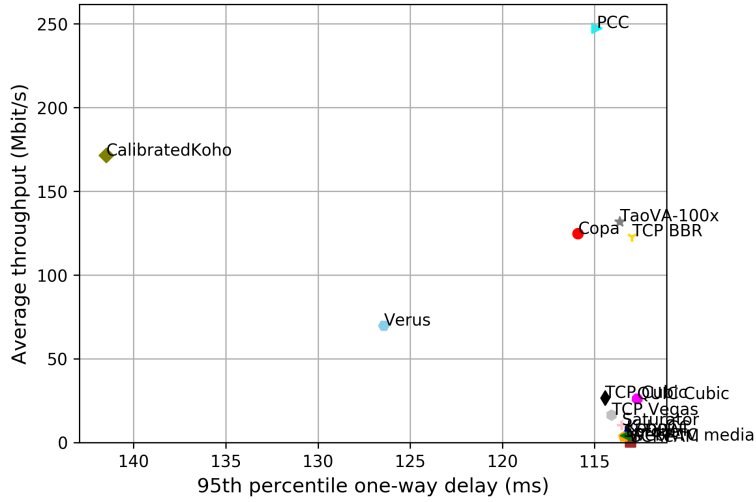
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

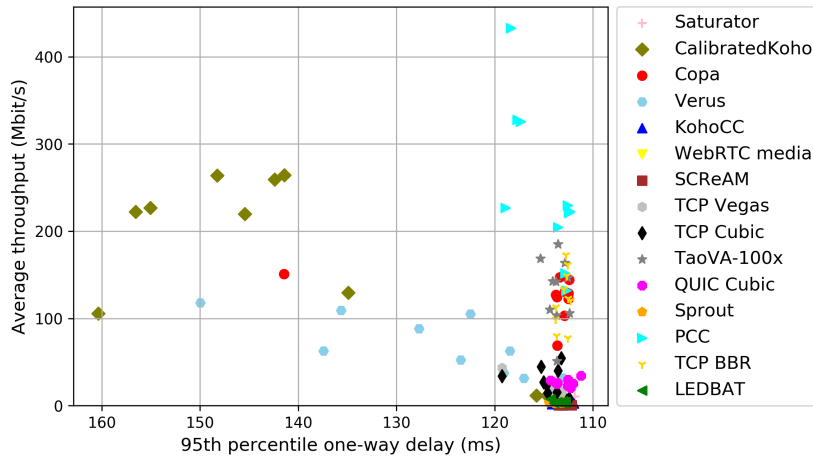
Git summary:

```
branch: master @ e43be7582298d552838afcf6382342bf187fbbd6
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ dae96123232f1bcb37725348fa2378691ce26725
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-stimuli @ fc73a85ca16c34366d1888dc8a0d0d88d4ebf2a7
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eae30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from GCE Tokyo Ethernet to GCE London 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	63.91	62.45	55.40	112.66	112.92	113.08	6.25	10.37	12.61
CalibratedKoho	10	125.56	63.04	12.69	135.07	128.72	115.88	26.89	33.28	39.54
Copa	10	83.69	60.54	26.44	116.22	112.79	113.05	9.24	5.68	23.55
TCP Cubic	10	10.61	15.45	18.21	113.18	113.96	114.53	2.84	4.24	8.83
KohoCC	10	2.90	3.02	3.82	113.16	113.19	113.26	43.25	40.10	21.77
LEDBAT	10	2.29	2.06	1.62	113.22	113.20	113.26	2.86	2.94	4.42
PCC	10	166.93	89.45	67.72	114.00	113.74	115.41	25.92	27.45	21.97
QUIC Cubic	10	0.05	25.14	29.47	111.79	111.65	112.26	0.00	0.68	2.89
Saturator	10	58.73	6.59	63.85	300.15	113.56	113.30	23.71	26.04	30.12
SCReAM	10	0.21	0.19	0.22	112.15	112.37	112.60	0.72	1.05	2.13
Sprout	10	1.90	1.58	1.60	113.37	113.21	113.18	1.97	3.63	4.52
TaoVA-100x	10	116.80	68.13	38.37	113.31	113.68	113.22	12.16	4.65	7.50
TCP Vegas	10	4.73	12.41	11.31	113.69	113.80	113.53	3.59	2.35	6.75
Verus	10	37.91	35.53	29.81	123.09	123.61	118.20	52.47	34.37	23.44
WebRTC media	8	0.36	1.11	0.34	113.19	112.84	113.36	0.46	1.26	7.43

Run 1: Statistics of TCP BBR

Start at: 2017-08-20 23:49:01

End at: 2017-08-20 23:49:31

# Below is generated by plot.py at 2017-08-21 04:34:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 120.45 Mbit/s

95th percentile per-packet one-way delay: 112.262 ms

Loss rate: 2.19%

-- Flow 1:

Average throughput: 91.66 Mbit/s

95th percentile per-packet one-way delay: 111.354 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 43.23 Mbit/s

95th percentile per-packet one-way delay: 112.368 ms

Loss rate: 6.26%

-- Flow 3:

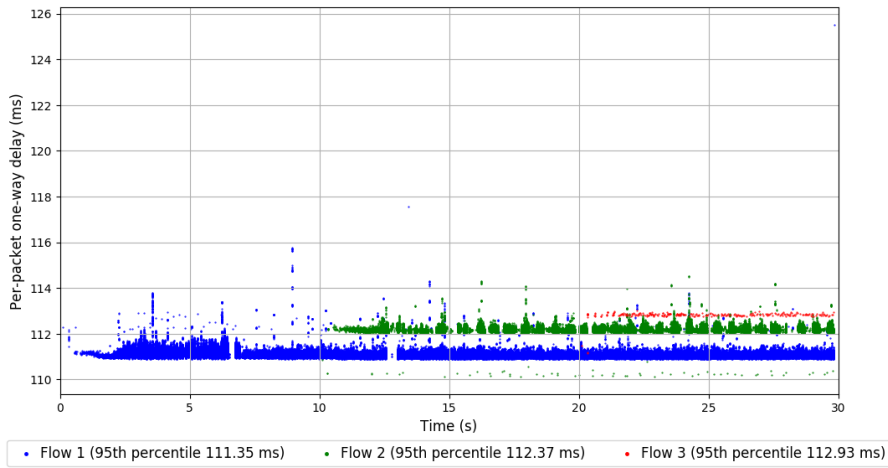
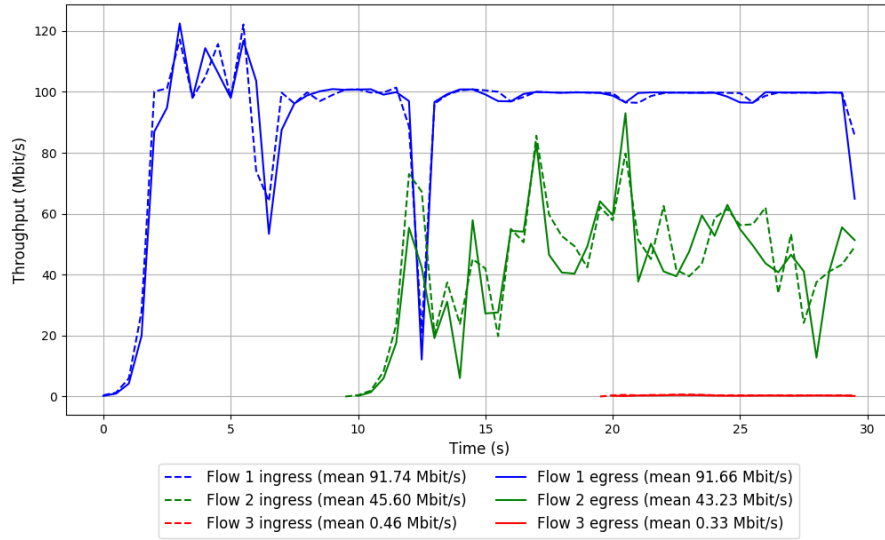
Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 112.931 ms

Loss rate: 30.45%



# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-21 00:01:38

End at: 2017-08-21 00:02:08

# Below is generated by plot.py at 2017-08-21 04:34:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.68 Mbit/s

95th percentile per-packet one-way delay: 112.566 ms

Loss rate: 9.90%

-- Flow 1:

Average throughput: 45.01 Mbit/s

95th percentile per-packet one-way delay: 112.392 ms

Loss rate: 12.27%

-- Flow 2:

Average throughput: 7.25 Mbit/s

95th percentile per-packet one-way delay: 112.365 ms

Loss rate: 24.43%

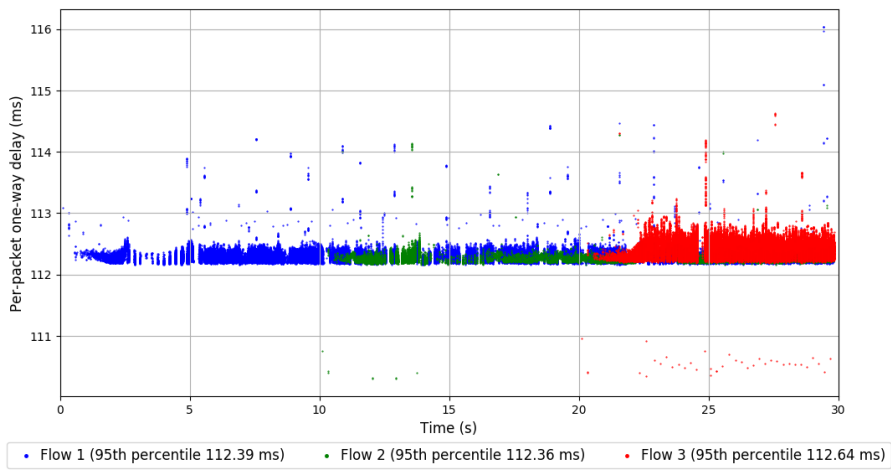
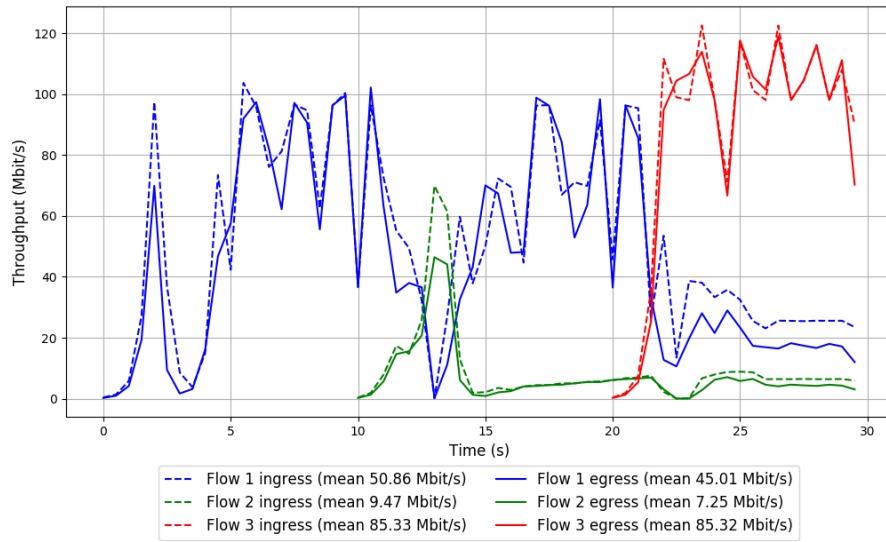
-- Flow 3:

Average throughput: 85.32 Mbit/s

95th percentile per-packet one-way delay: 112.639 ms

Loss rate: 2.42%

## Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-08-21 00:14:40

End at: 2017-08-21 00:15:10

# Below is generated by plot.py at 2017-08-21 04:34:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 133.75 Mbit/s

95th percentile per-packet one-way delay: 112.968 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 75.87 Mbit/s

95th percentile per-packet one-way delay: 112.453 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 87.22 Mbit/s

95th percentile per-packet one-way delay: 113.031 ms

Loss rate: 1.49%

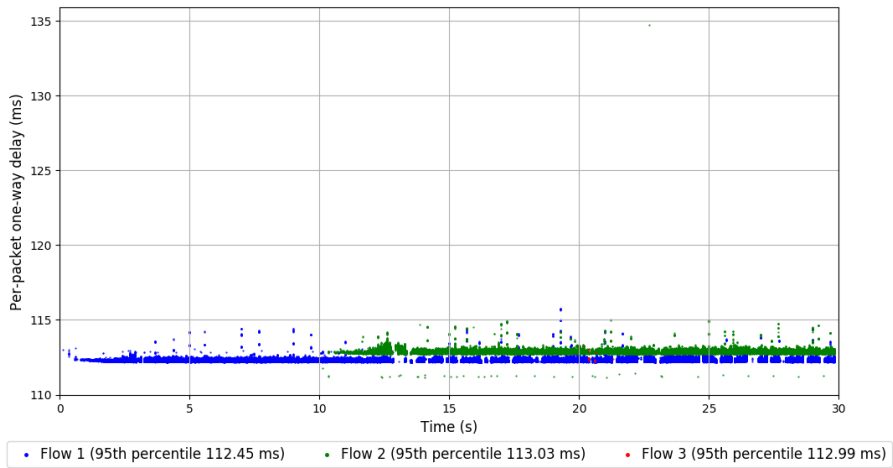
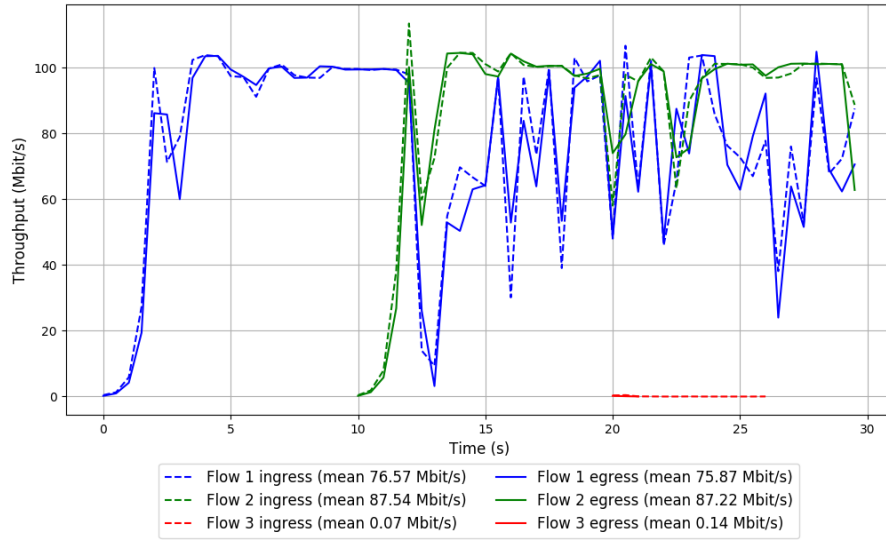
-- Flow 3:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 112.988 ms

Loss rate: 60.63%

### Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-08-21 00:27:45

End at: 2017-08-21 00:28:15

# Below is generated by plot.py at 2017-08-21 04:34:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 112.83 Mbit/s

95th percentile per-packet one-way delay: 113.768 ms

Loss rate: 4.24%

-- Flow 1:

Average throughput: 28.36 Mbit/s

95th percentile per-packet one-way delay: 113.670 ms

Loss rate: 11.43%

-- Flow 2:

Average throughput: 89.39 Mbit/s

95th percentile per-packet one-way delay: 113.759 ms

Loss rate: 1.22%

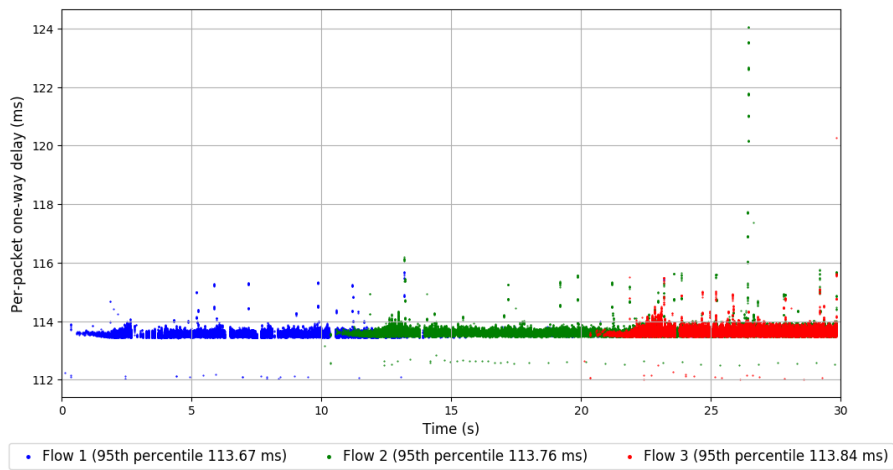
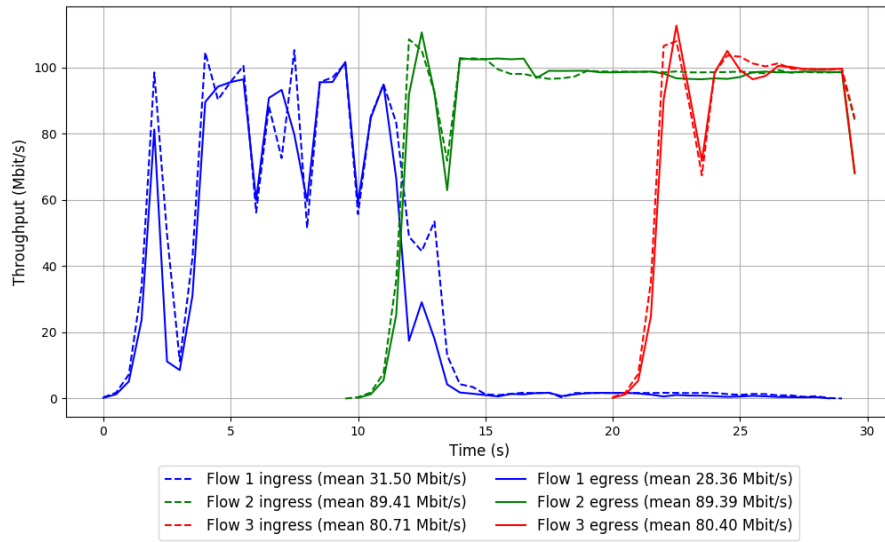
-- Flow 3:

Average throughput: 80.40 Mbit/s

95th percentile per-packet one-way delay: 113.839 ms

Loss rate: 2.73%

### Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-21 00:40:51

End at: 2017-08-21 00:41:21

# Below is generated by plot.py at 2017-08-21 04:34:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 79.95 Mbit/s

95th percentile per-packet one-way delay: 113.715 ms

Loss rate: 9.79%

-- Flow 1:

Average throughput: 21.82 Mbit/s

95th percentile per-packet one-way delay: 113.648 ms

Loss rate: 21.19%

-- Flow 2:

Average throughput: 66.05 Mbit/s

95th percentile per-packet one-way delay: 113.717 ms

Loss rate: 2.79%

-- Flow 3:

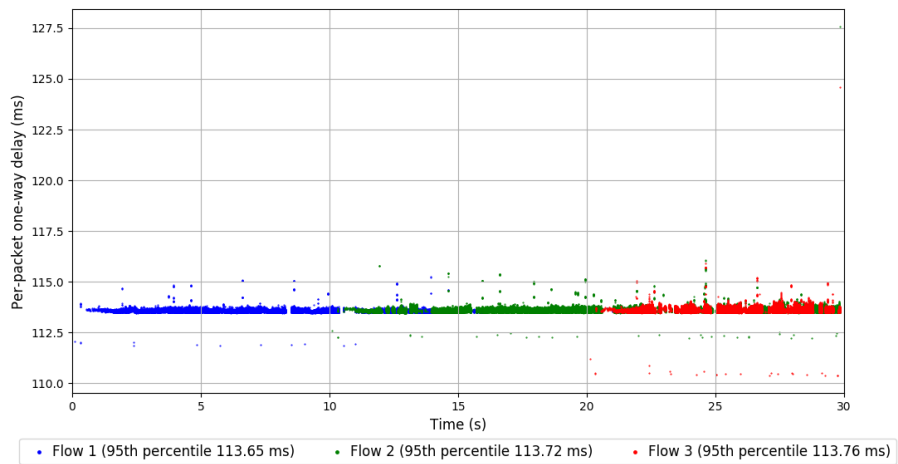
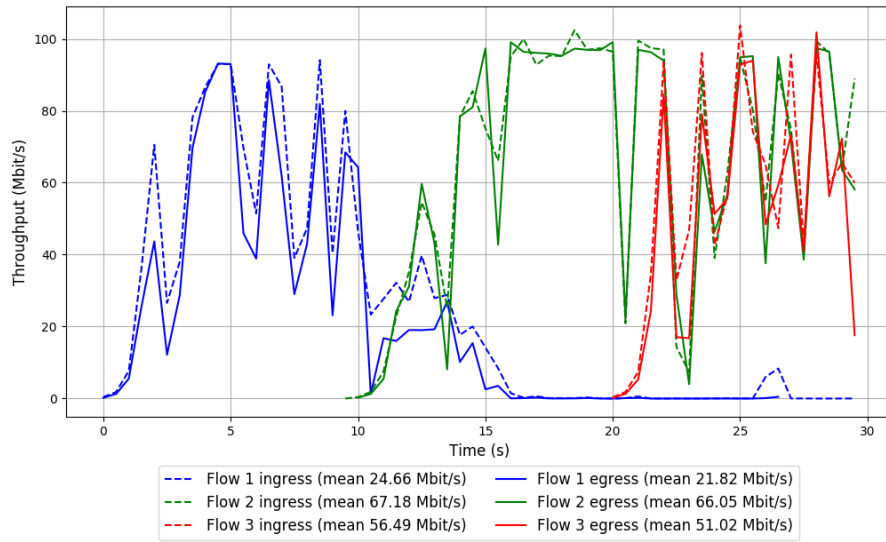
Average throughput: 51.02 Mbit/s

95th percentile per-packet one-way delay: 113.763 ms

Loss rate: 11.64%



### Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-08-21 00:53:44

End at: 2017-08-21 00:54:14

# Below is generated by plot.py at 2017-08-21 04:34:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.10 Mbit/s

95th percentile per-packet one-way delay: 113.824 ms

Loss rate: 2.93%

-- Flow 1:

Average throughput: 72.35 Mbit/s

95th percentile per-packet one-way delay: 113.789 ms

Loss rate: 2.95%

-- Flow 2:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 113.755 ms

Loss rate: 63.60%

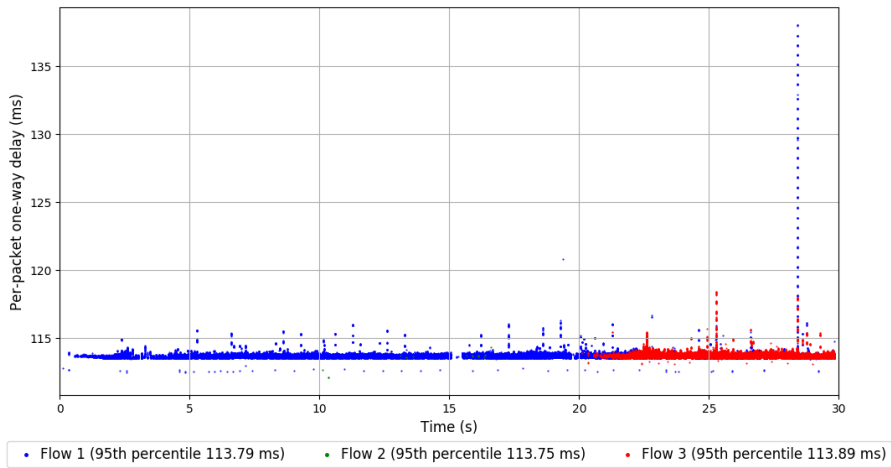
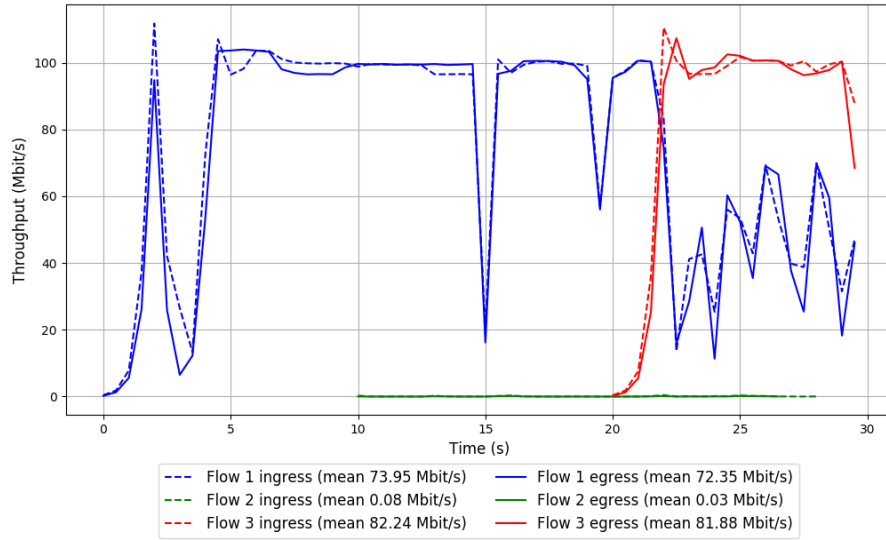
-- Flow 3:

Average throughput: 81.88 Mbit/s

95th percentile per-packet one-way delay: 113.888 ms

Loss rate: 2.78%

### Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-21 01:06:54

End at: 2017-08-21 01:07:24

# Below is generated by plot.py at 2017-08-21 04:35:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 148.93 Mbit/s

95th percentile per-packet one-way delay: 112.678 ms

Loss rate: 1.70%

-- Flow 1:

Average throughput: 86.28 Mbit/s

95th percentile per-packet one-way delay: 112.670 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 79.47 Mbit/s

95th percentile per-packet one-way delay: 112.703 ms

Loss rate: 1.58%

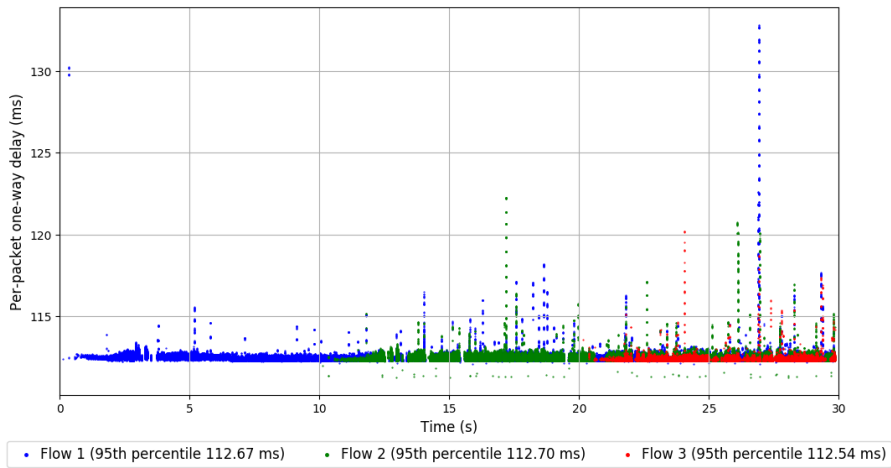
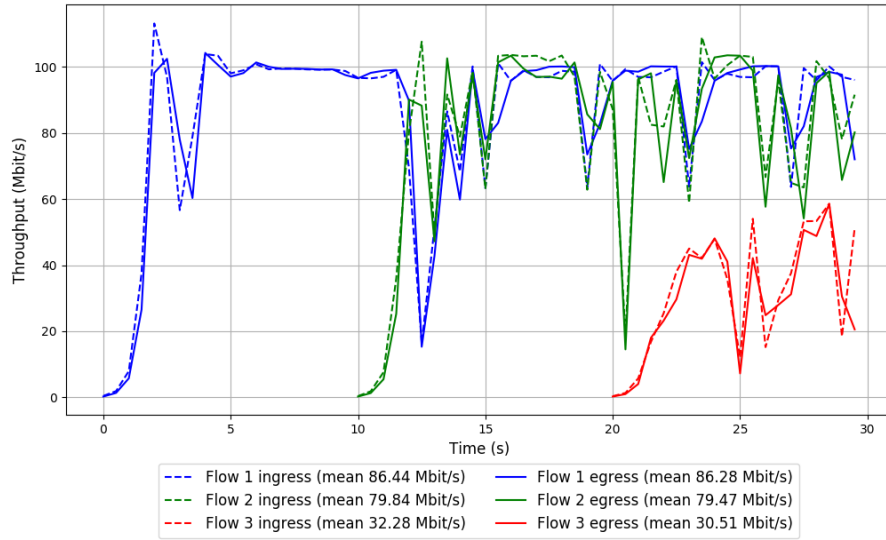
-- Flow 3:

Average throughput: 30.51 Mbit/s

95th percentile per-packet one-way delay: 112.536 ms

Loss rate: 7.61%

### Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-08-21 01:20:01

End at: 2017-08-21 01:20:31

# Below is generated by plot.py at 2017-08-21 04:35:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 172.81 Mbit/s

95th percentile per-packet one-way delay: 112.766 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 86.47 Mbit/s

95th percentile per-packet one-way delay: 112.685 ms

Loss rate: 1.32%

-- Flow 2:

Average throughput: 89.98 Mbit/s

95th percentile per-packet one-way delay: 112.787 ms

Loss rate: 0.01%

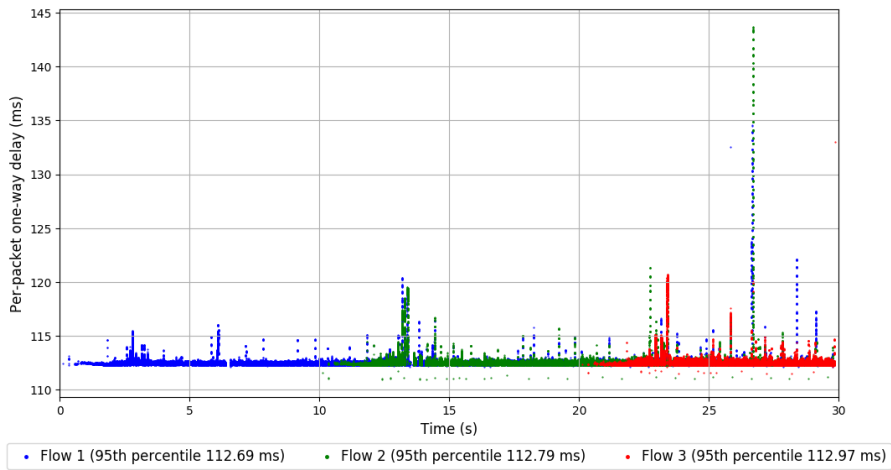
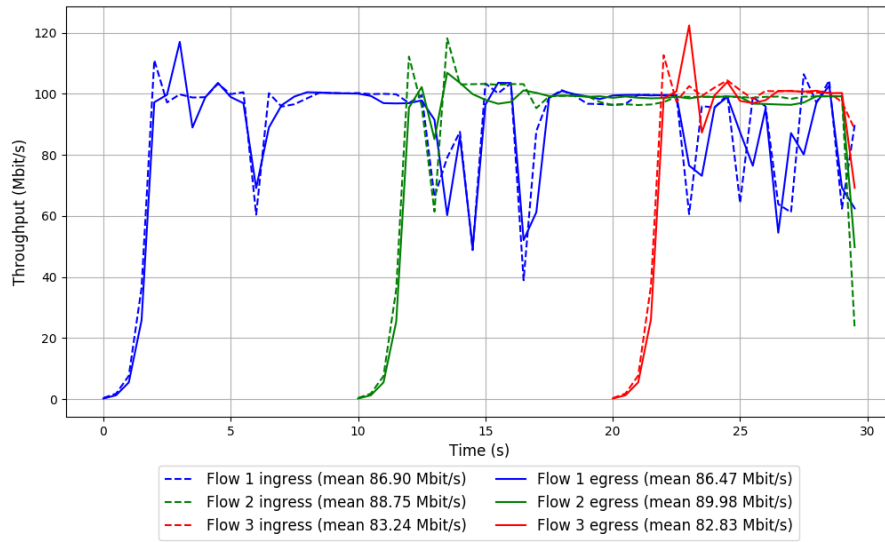
-- Flow 3:

Average throughput: 82.83 Mbit/s

95th percentile per-packet one-way delay: 112.972 ms

Loss rate: 2.62%

### Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-08-21 01:32:56

End at: 2017-08-21 01:33:26

# Below is generated by plot.py at 2017-08-21 04:35:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 161.69 Mbit/s

95th percentile per-packet one-way delay: 112.575 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 86.74 Mbit/s

95th percentile per-packet one-way delay: 111.997 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 72.93 Mbit/s

95th percentile per-packet one-way delay: 112.691 ms

Loss rate: 1.25%

-- Flow 3:

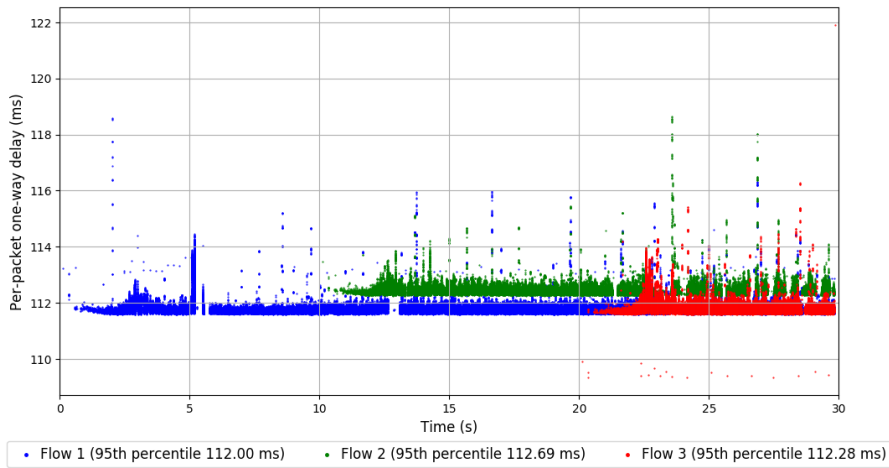
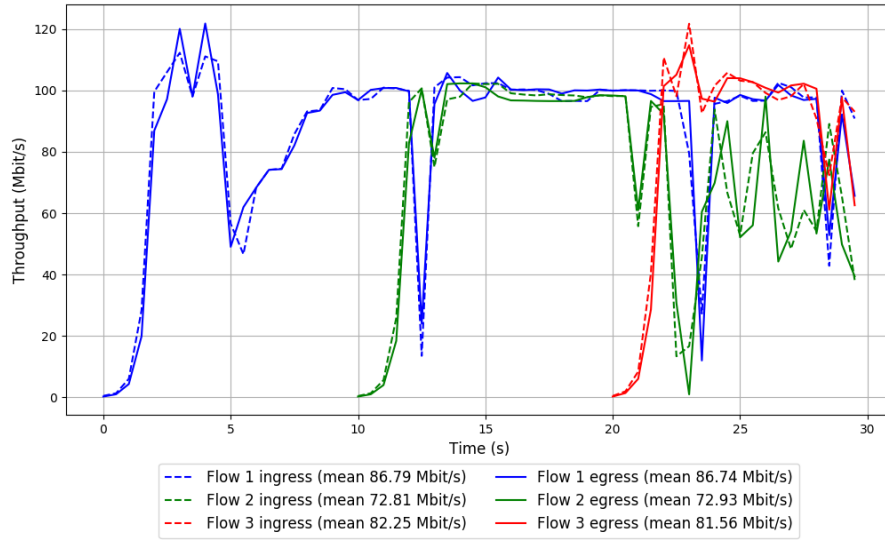
Average throughput: 81.56 Mbit/s

95th percentile per-packet one-way delay: 112.285 ms

Loss rate: 3.08%



Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-08-21 01:45:51

End at: 2017-08-21 01:46:21

# Below is generated by plot.py at 2017-08-21 04:35:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 123.05 Mbit/s

95th percentile per-packet one-way delay: 112.547 ms

Loss rate: 4.18%

-- Flow 1:

Average throughput: 44.53 Mbit/s

95th percentile per-packet one-way delay: 111.905 ms

Loss rate: 8.84%

-- Flow 2:

Average throughput: 88.99 Mbit/s

95th percentile per-packet one-way delay: 112.006 ms

Loss rate: 1.04%

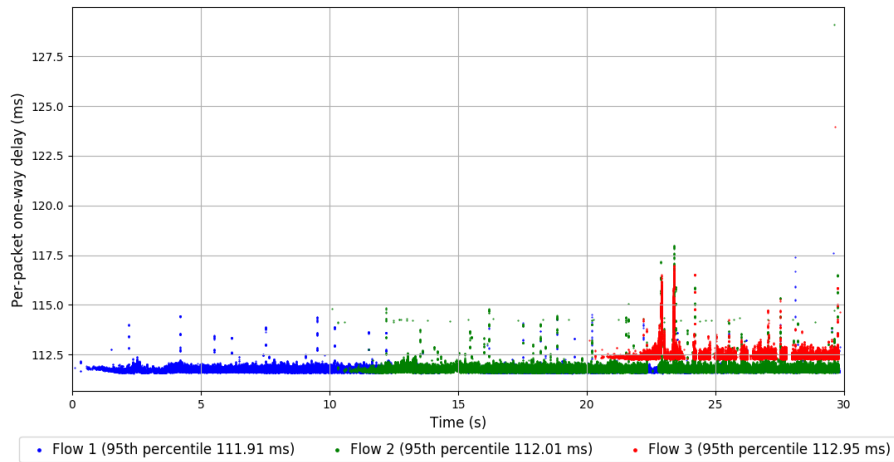
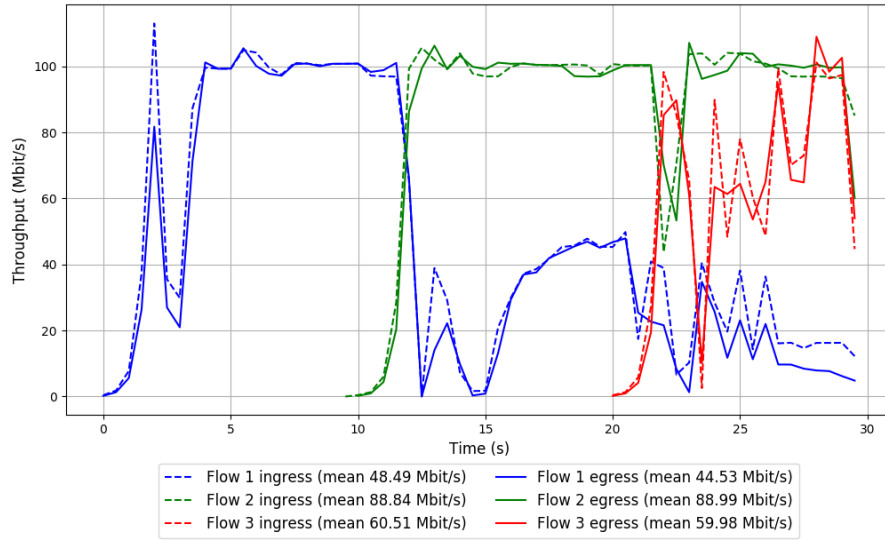
-- Flow 3:

Average throughput: 59.98 Mbit/s

95th percentile per-packet one-way delay: 112.952 ms

Loss rate: 2.16%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-20 23:43:50

End at: 2017-08-20 23:44:20

# Below is generated by plot.py at 2017-08-21 04:36:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 259.29 Mbit/s

95th percentile per-packet one-way delay: 142.419 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 203.29 Mbit/s

95th percentile per-packet one-way delay: 138.808 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 84.48 Mbit/s

95th percentile per-packet one-way delay: 153.068 ms

Loss rate: 1.94%

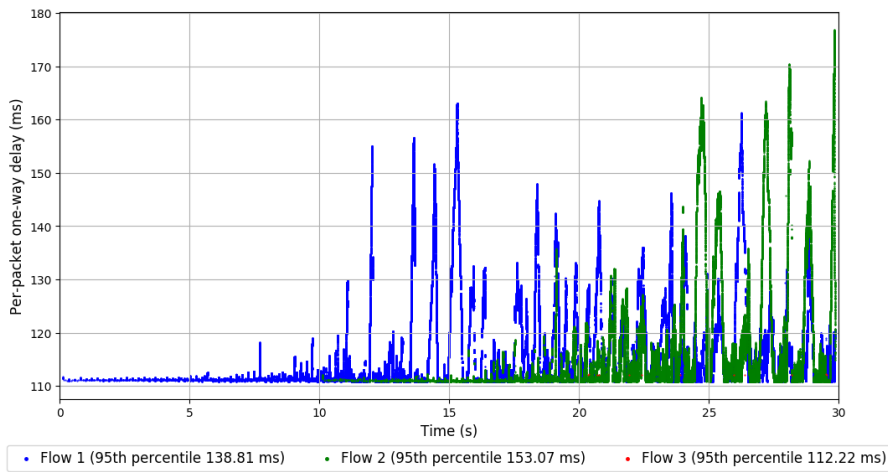
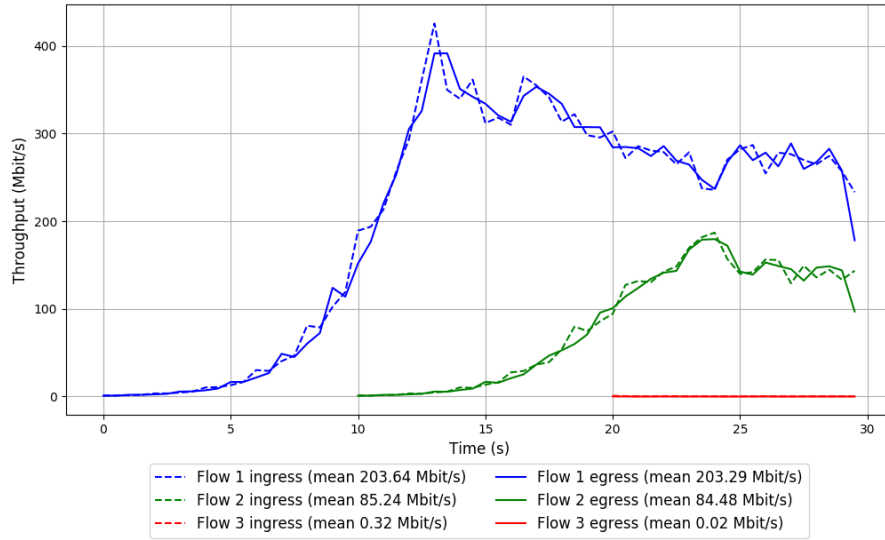
-- Flow 3:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 112.218 ms

Loss rate: 95.44%

# Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-08-20 23:56:42

End at: 2017-08-20 23:57:12

# Below is generated by plot.py at 2017-08-21 04:36:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.63 Mbit/s

95th percentile per-packet one-way delay: 114.649 ms

Loss rate: 32.59%

-- Flow 1:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 112.927 ms

Loss rate: 67.50%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 112.892 ms

Loss rate: 65.25%

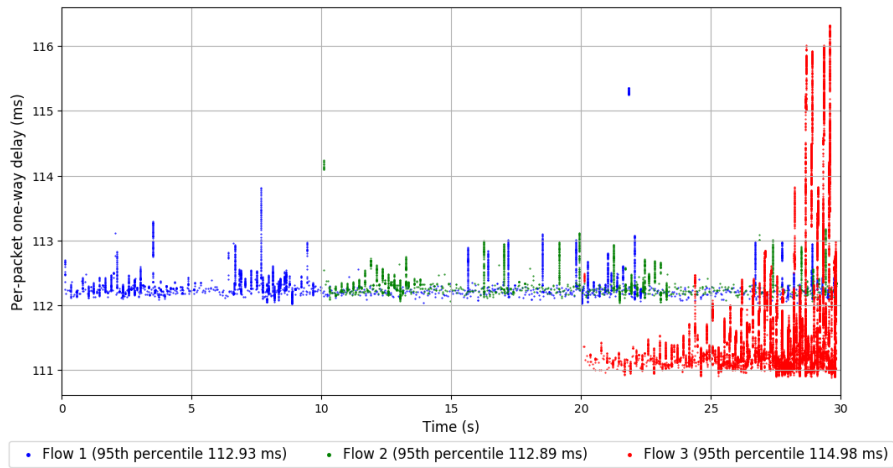
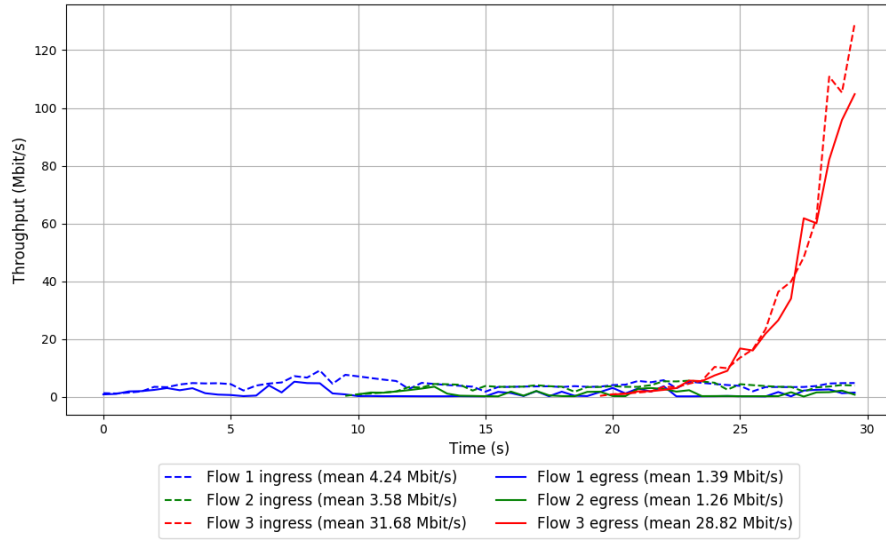
-- Flow 3:

Average throughput: 28.82 Mbit/s

95th percentile per-packet one-way delay: 114.983 ms

Loss rate: 11.08%

## Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-08-21 00:09:35

End at: 2017-08-21 00:10:05

# Below is generated by plot.py at 2017-08-21 04:36:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 129.51 Mbit/s

95th percentile per-packet one-way delay: 134.929 ms

Loss rate: 11.64%

-- Flow 1:

Average throughput: 10.61 Mbit/s

95th percentile per-packet one-way delay: 114.576 ms

Loss rate: 55.48%

-- Flow 2:

Average throughput: 167.56 Mbit/s

95th percentile per-packet one-way delay: 139.175 ms

Loss rate: 2.70%

-- Flow 3:

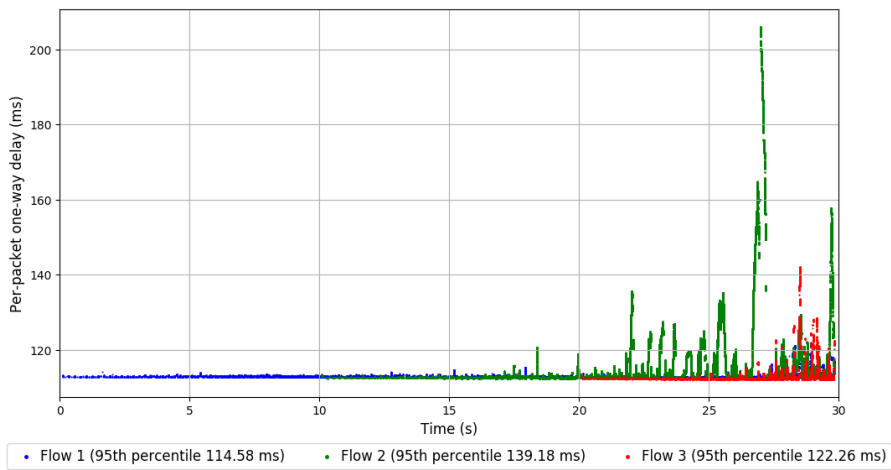
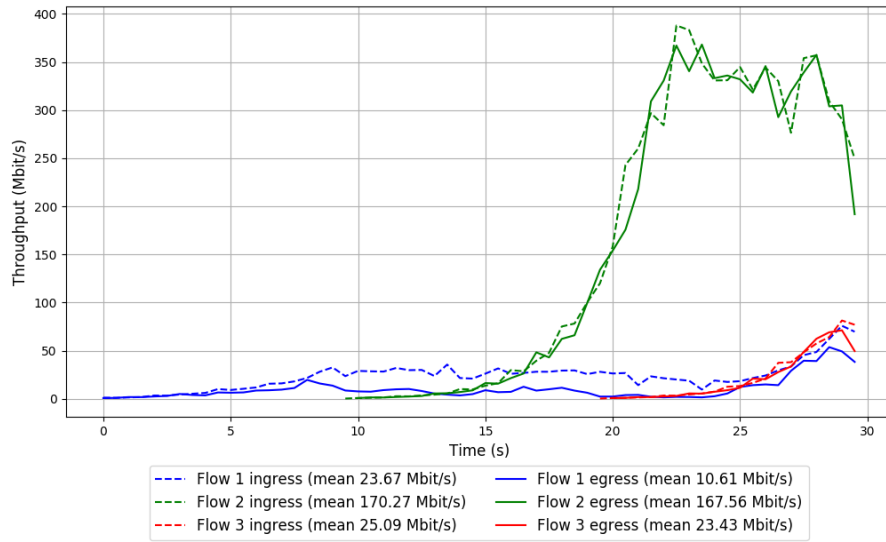
Average throughput: 23.43 Mbit/s

95th percentile per-packet one-way delay: 122.260 ms

Loss rate: 8.75%



### Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-08-21 00:22:33

End at: 2017-08-21 00:23:03

# Below is generated by plot.py at 2017-08-21 04:37:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 263.72 Mbit/s

95th percentile per-packet one-way delay: 148.240 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 187.08 Mbit/s

95th percentile per-packet one-way delay: 150.689 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 115.45 Mbit/s

95th percentile per-packet one-way delay: 140.425 ms

Loss rate: 2.16%

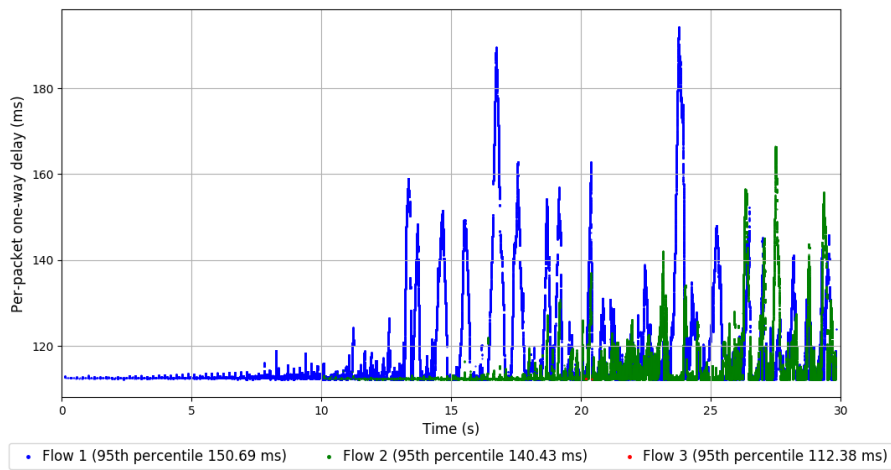
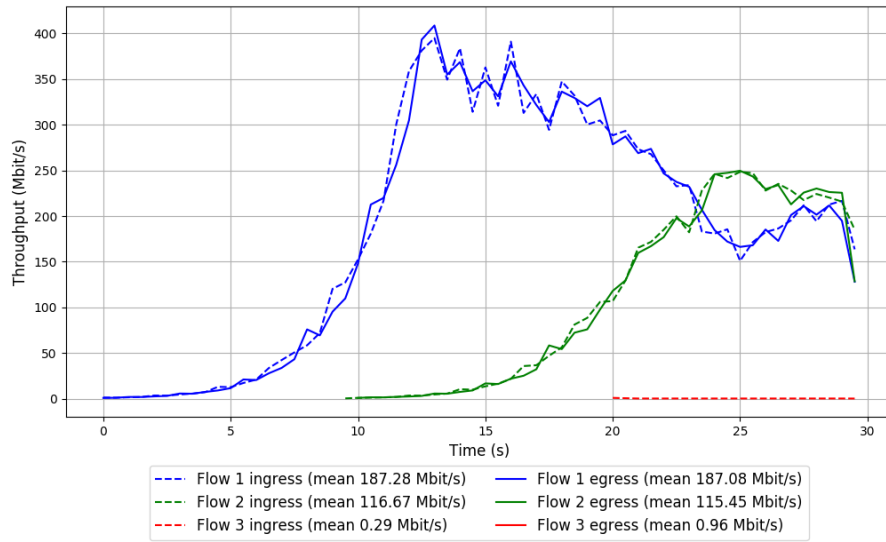
-- Flow 3:

Average throughput: 0.96 Mbit/s

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

Loss rate: 92.47%

### Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-08-21 00:35:37

End at: 2017-08-21 00:36:07

# Below is generated by plot.py at 2017-08-21 04:37:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 222.45 Mbit/s

95th percentile per-packet one-way delay: 156.574 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 221.86 Mbit/s

95th percentile per-packet one-way delay: 156.682 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 113.985 ms

Loss rate: 67.06%

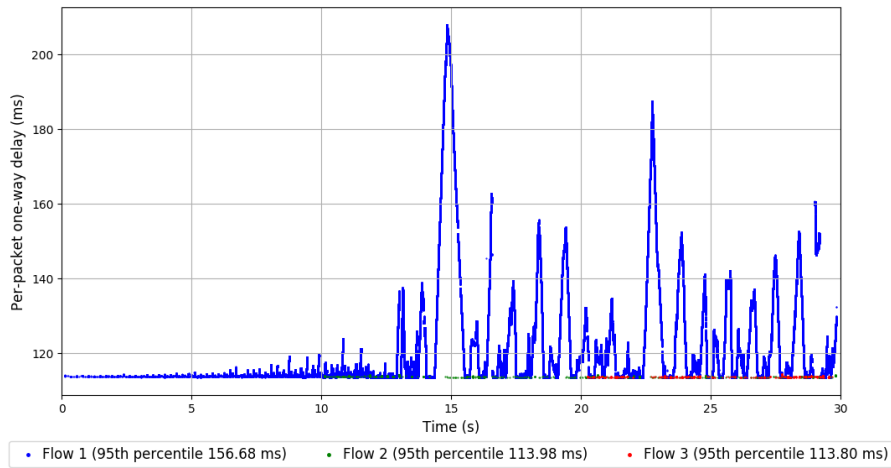
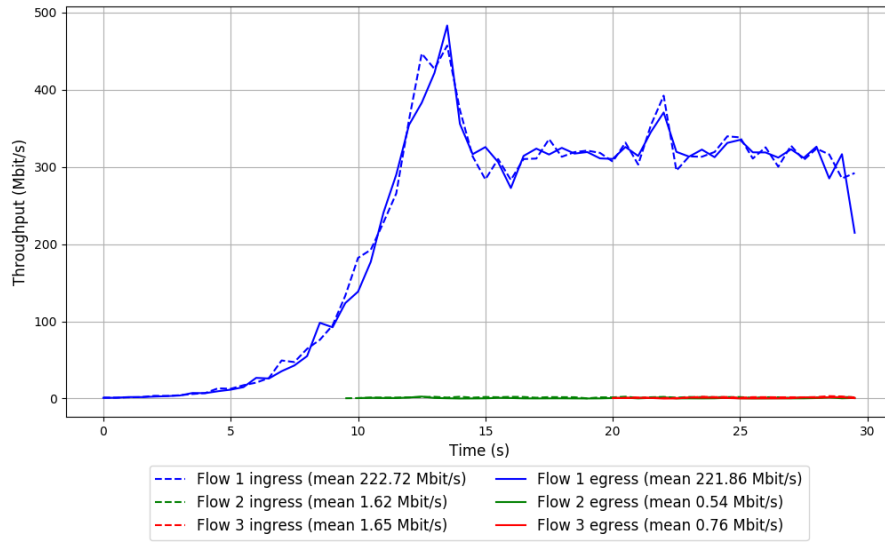
-- Flow 3:

Average throughput: 0.76 Mbit/s

95th percentile per-packet one-way delay: 113.795 ms

Loss rate: 55.50%

### Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-21 00:48:29

End at: 2017-08-21 00:48:59

# Below is generated by plot.py at 2017-08-21 04:38:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 264.41 Mbit/s

95th percentile per-packet one-way delay: 141.430 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 189.69 Mbit/s

95th percentile per-packet one-way delay: 150.994 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 101.51 Mbit/s

95th percentile per-packet one-way delay: 127.534 ms

Loss rate: 2.23%

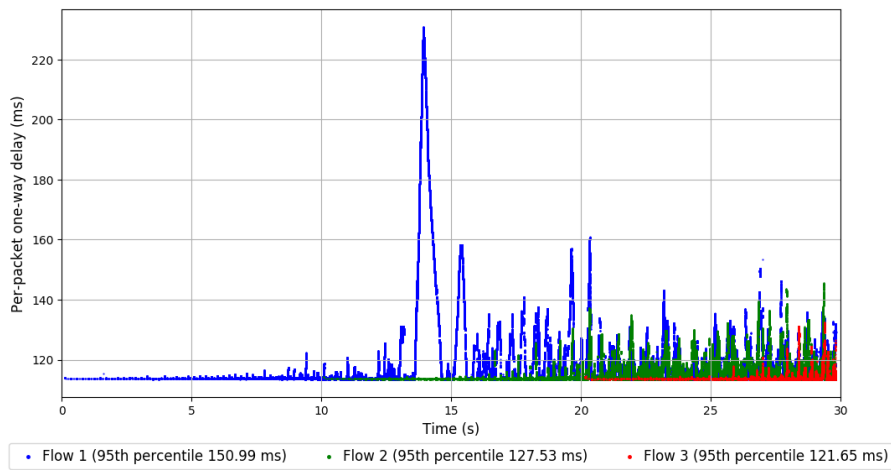
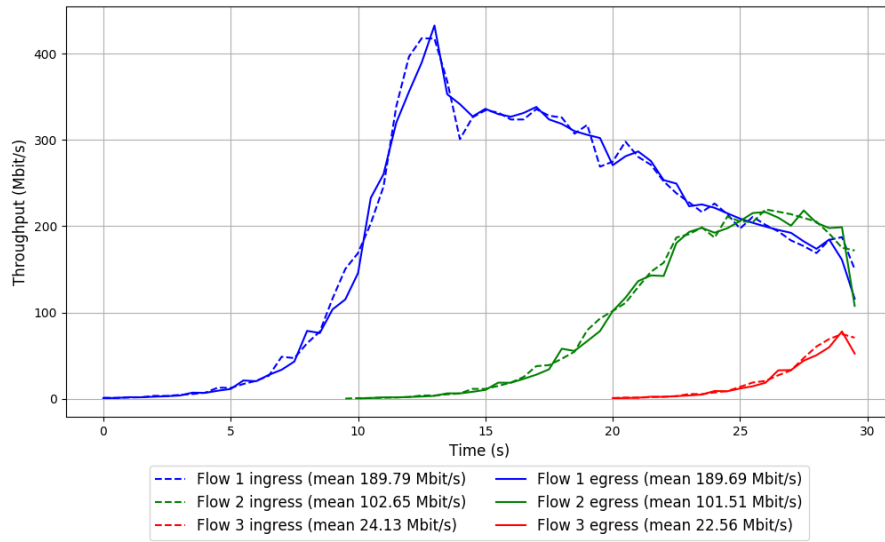
-- Flow 3:

Average throughput: 22.56 Mbit/s

95th percentile per-packet one-way delay: 121.647 ms

Loss rate: 8.64%

### Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-08-21 01:01:36

End at: 2017-08-21 01:02:06

# Below is generated by plot.py at 2017-08-21 04:38:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 226.98 Mbit/s

95th percentile per-packet one-way delay: 155.054 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 220.15 Mbit/s

95th percentile per-packet one-way delay: 155.478 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 112.752 ms

Loss rate: 65.51%

-- Flow 3:

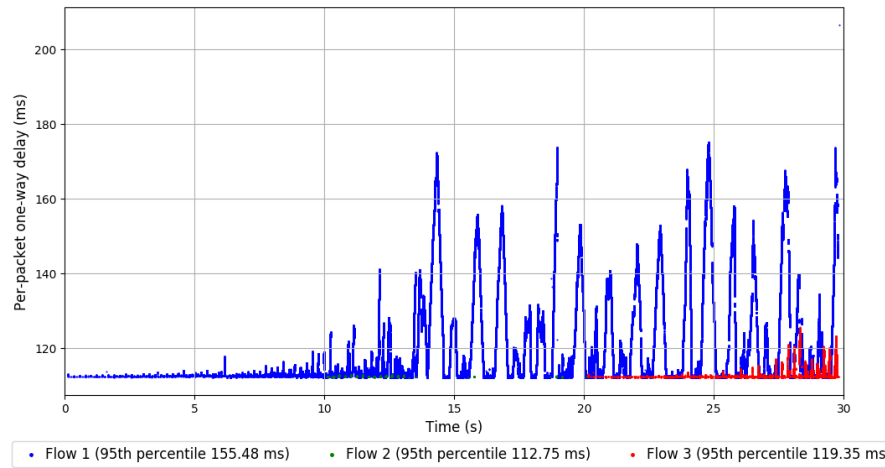
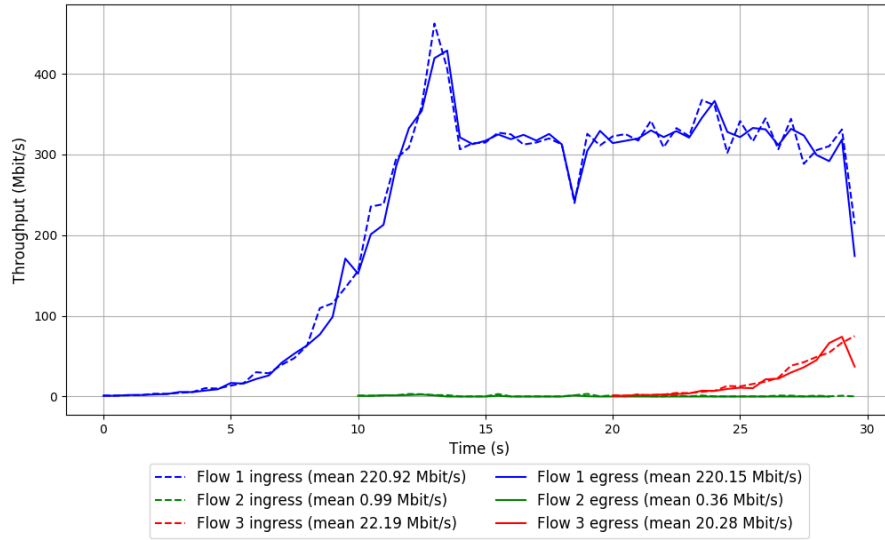
Average throughput: 20.28 Mbit/s

95th percentile per-packet one-way delay: 119.353 ms

Loss rate: 10.69%



Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-08-21 01:14:52

End at: 2017-08-21 01:15:22

# Below is generated by plot.py at 2017-08-21 04:38:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 219.79 Mbit/s

95th percentile per-packet one-way delay: 145.447 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 218.75 Mbit/s

95th percentile per-packet one-way delay: 145.493 ms

Loss rate: 1.33%

-- Flow 2:

Average throughput: 1.21 Mbit/s

95th percentile per-packet one-way delay: 112.872 ms

Loss rate: 57.60%

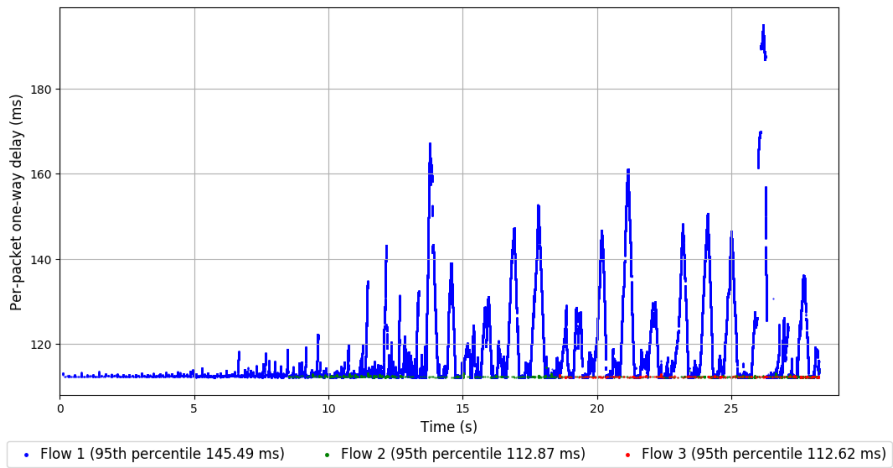
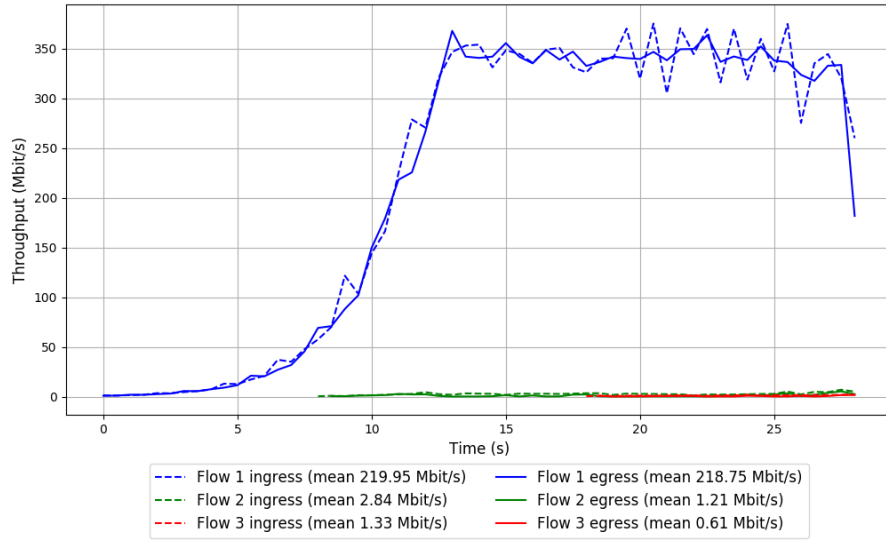
-- Flow 3:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 112.618 ms

Loss rate: 55.53%

### Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-08-21 01:27:54

End at: 2017-08-21 01:28:24

# Below is generated by plot.py at 2017-08-21 04:38:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 105.74 Mbit/s

95th percentile per-packet one-way delay: 160.371 ms

Loss rate: 4.92%

-- Flow 1:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 112.791 ms

Loss rate: 70.42%

-- Flow 2:

Average throughput: 156.81 Mbit/s

95th percentile per-packet one-way delay: 160.541 ms

Loss rate: 2.33%

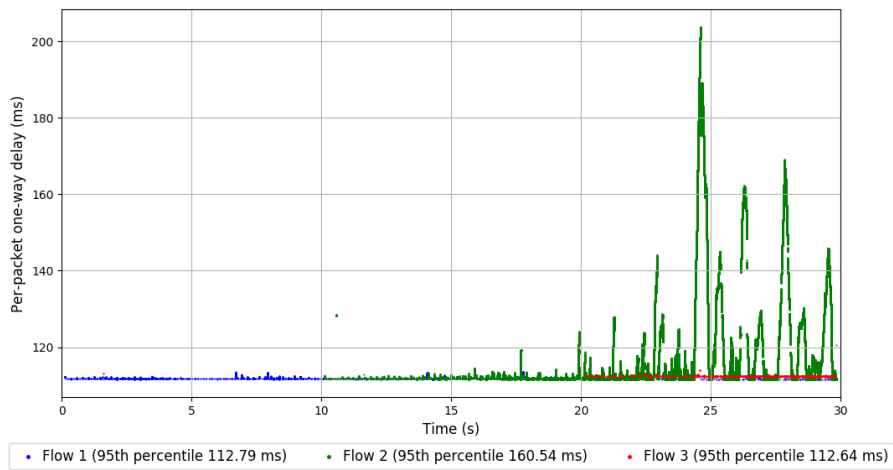
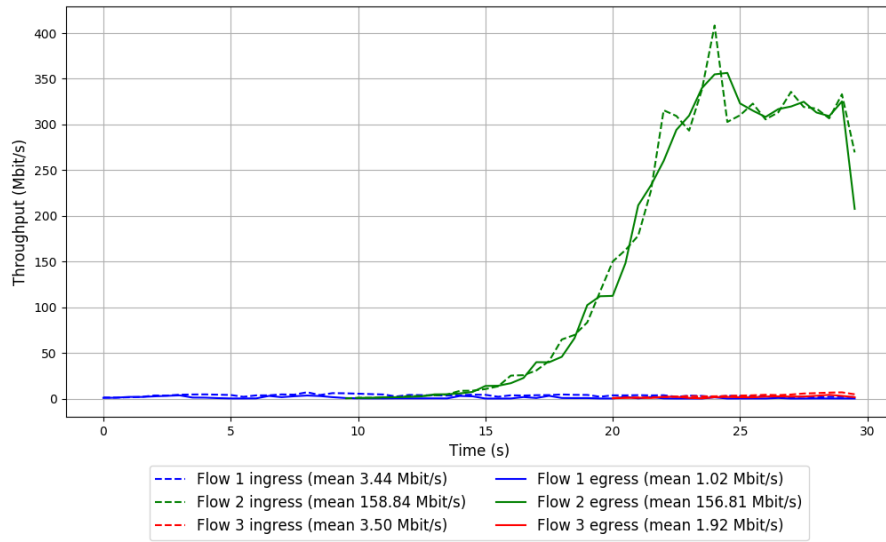
-- Flow 3:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 112.639 ms

Loss rate: 47.06%

### Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-08-21 01:41:00

End at: 2017-08-21 01:41:30

# Below is generated by plot.py at 2017-08-21 04:38:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.54 Mbit/s

95th percentile per-packet one-way delay: 115.736 ms

Loss rate: 36.10%

-- Flow 1:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 112.310 ms

Loss rate: 69.46%

-- Flow 2:

Average throughput: 1.21 Mbit/s

95th percentile per-packet one-way delay: 113.910 ms

Loss rate: 66.03%

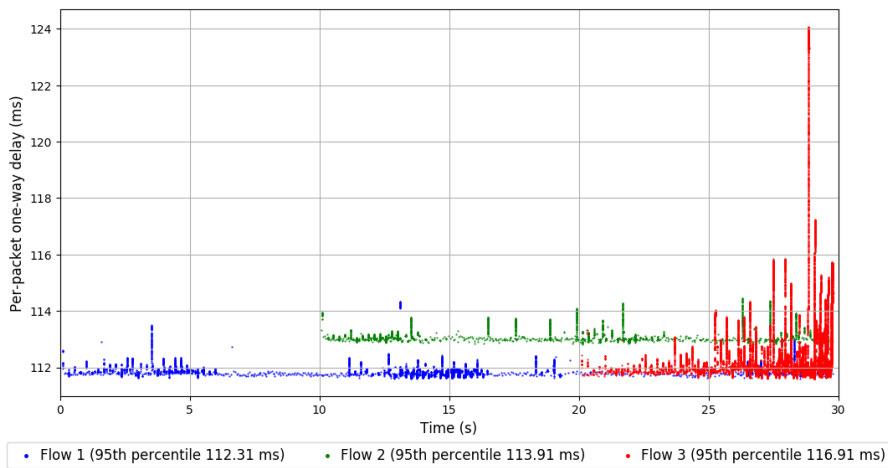
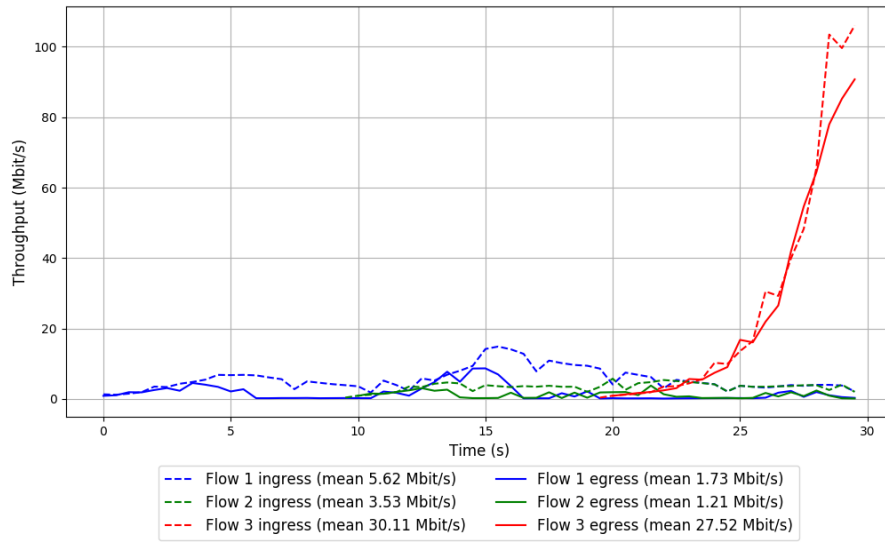
-- Flow 3:

Average throughput: 27.52 Mbit/s

95th percentile per-packet one-way delay: 116.906 ms

Loss rate: 10.22%

Run 10: Report of CalibratedKoho — Data Link



Run 1: Statistics of Copa

Start at: 2017-08-20 23:42:46

End at: 2017-08-20 23:43:16

# Below is generated by plot.py at 2017-08-21 04:39:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 130.64 Mbit/s

95th percentile per-packet one-way delay: 112.851 ms

Loss rate: 19.18%

-- Flow 1:

Average throughput: 94.31 Mbit/s

95th percentile per-packet one-way delay: 112.117 ms

Loss rate: 4.41%

-- Flow 2:

Average throughput: 44.37 Mbit/s

95th percentile per-packet one-way delay: 113.053 ms

Loss rate: 47.47%

-- Flow 3:

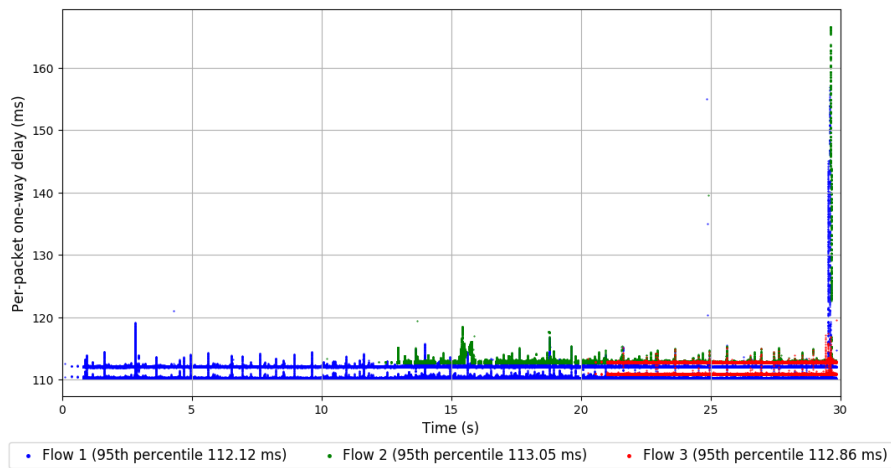
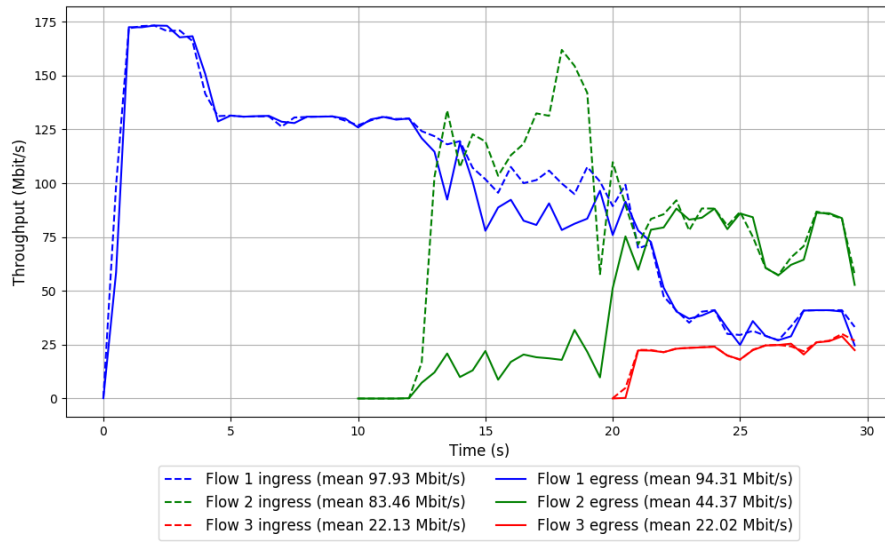
Average throughput: 22.02 Mbit/s

95th percentile per-packet one-way delay: 112.861 ms

Loss rate: 2.72%



### Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-08-20 23:55:44

End at: 2017-08-20 23:56:14

# Below is generated by plot.py at 2017-08-21 04:39:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 102.93 Mbit/s

95th percentile per-packet one-way delay: 112.894 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 81.14 Mbit/s

95th percentile per-packet one-way delay: 112.195 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 8.21 Mbit/s

95th percentile per-packet one-way delay: 112.074 ms

Loss rate: 0.00%

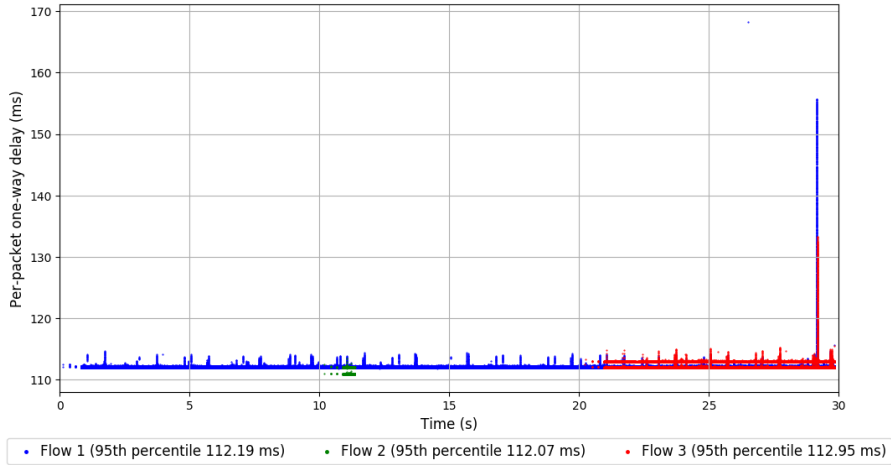
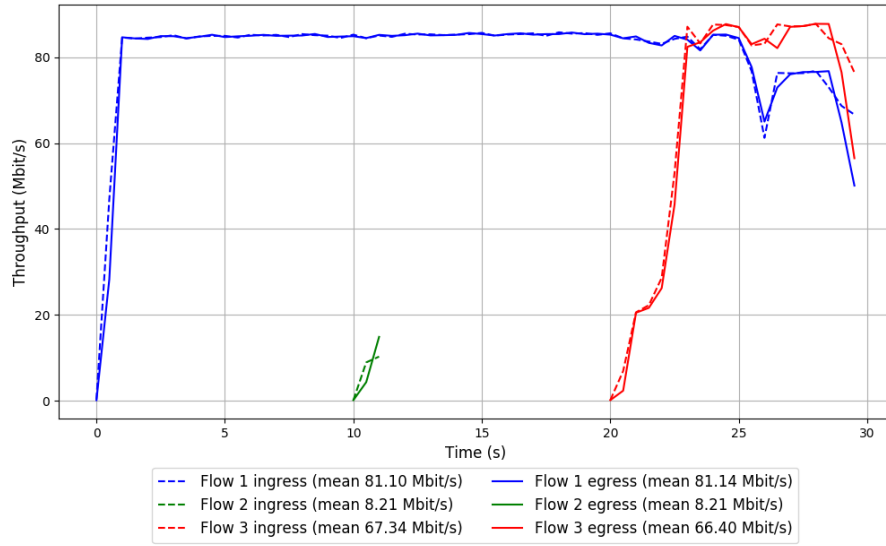
-- Flow 3:

Average throughput: 66.40 Mbit/s

95th percentile per-packet one-way delay: 112.955 ms

Loss rate: 3.63%

## Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-21 00:08:30

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

# Below is generated by plot.py at 2017-08-21 04:40:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 147.12 Mbit/s

95th percentile per-packet one-way delay: 113.358 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 90.45 Mbit/s

95th percentile per-packet one-way delay: 113.373 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 75.90 Mbit/s

95th percentile per-packet one-way delay: 112.378 ms

Loss rate: 0.92%

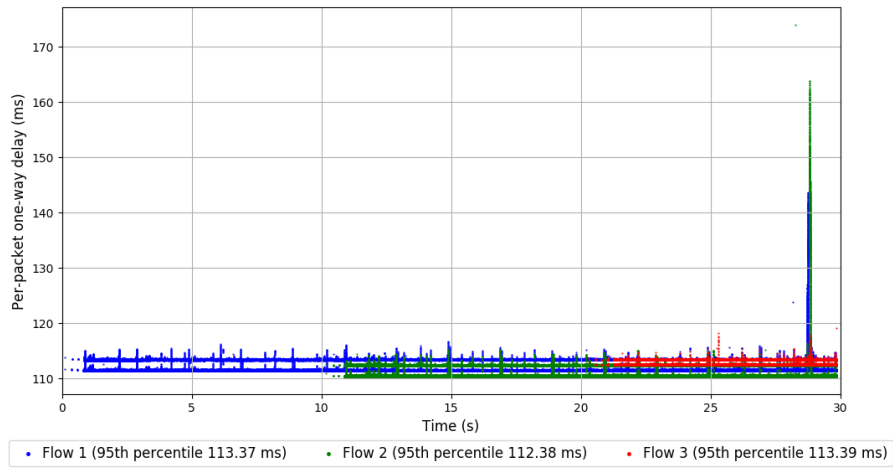
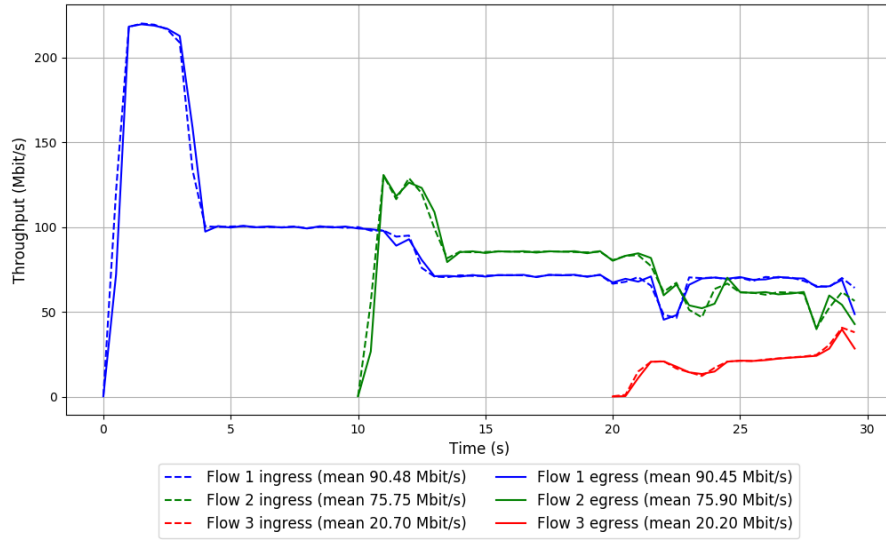
-- Flow 3:

Average throughput: 20.20 Mbit/s

95th percentile per-packet one-way delay: 113.388 ms

Loss rate: 4.64%

### Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-21 00:21:33

End at: 2017-08-21 00:22:03

# Below is generated by plot.py at 2017-08-21 04:40:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 128.78 Mbit/s

95th percentile per-packet one-way delay: 112.481 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 112.23 Mbit/s

95th percentile per-packet one-way delay: 112.382 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 104.55 Mbit/s

95th percentile per-packet one-way delay: 112.472 ms

Loss rate: 1.27%

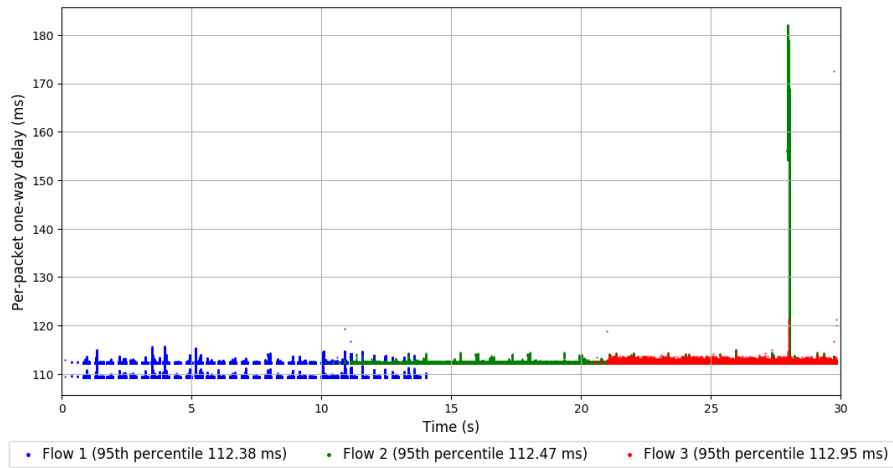
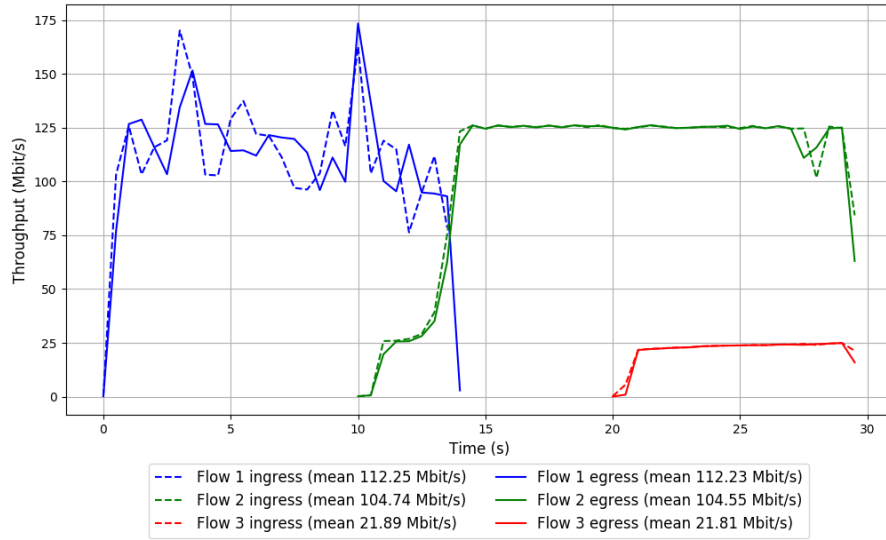
-- Flow 3:

Average throughput: 21.81 Mbit/s

95th percentile per-packet one-way delay: 112.955 ms

Loss rate: 2.57%

### Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-08-21 00:34:35

End at: 2017-08-21 00:35:05

# Below is generated by plot.py at 2017-08-21 04:41:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 126.94 Mbit/s

95th percentile per-packet one-way delay: 113.760 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 52.44 Mbit/s

95th percentile per-packet one-way delay: 115.448 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 86.92 Mbit/s

95th percentile per-packet one-way delay: 113.602 ms

Loss rate: 1.02%

-- Flow 3:

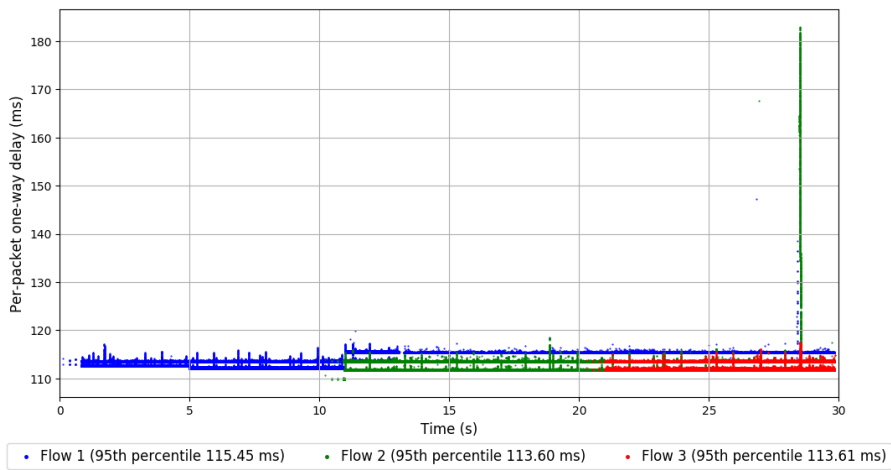
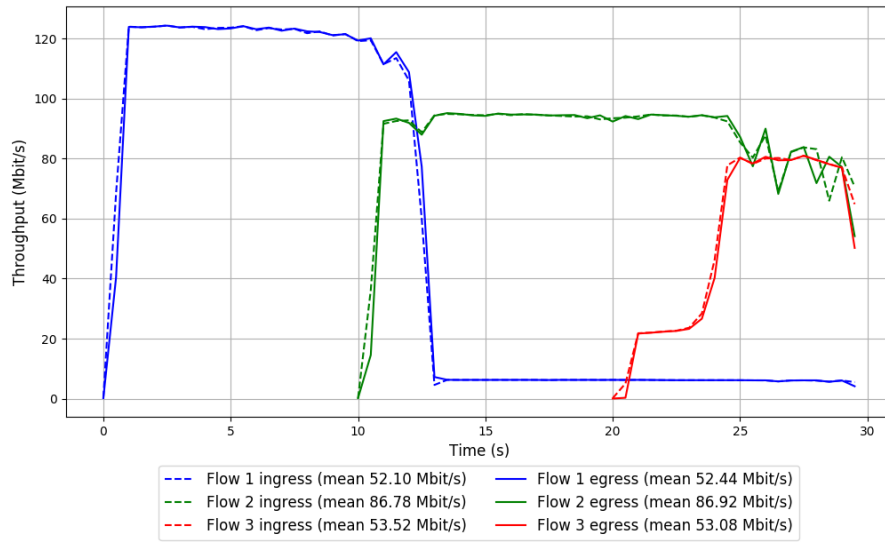
Average throughput: 53.08 Mbit/s

95th percentile per-packet one-way delay: 113.612 ms

Loss rate: 3.14%



### Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-08-21 00:47:33

End at: 2017-08-21 00:48:03

# Below is generated by plot.py at 2017-08-21 04:41:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 69.05 Mbit/s

95th percentile per-packet one-way delay: 113.637 ms

Loss rate: 32.64%

-- Flow 1:

Average throughput: 16.13 Mbit/s

95th percentile per-packet one-way delay: 113.517 ms

Loss rate: 82.43%

-- Flow 2:

Average throughput: 93.75 Mbit/s

95th percentile per-packet one-way delay: 113.646 ms

Loss rate: 1.34%

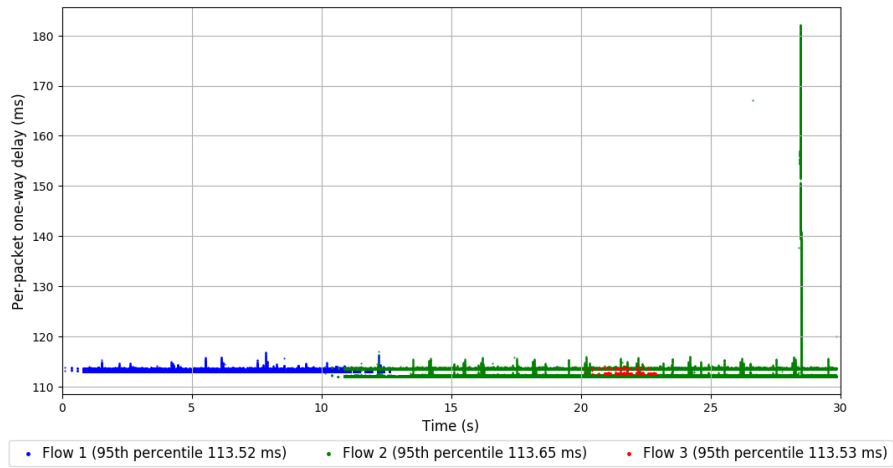
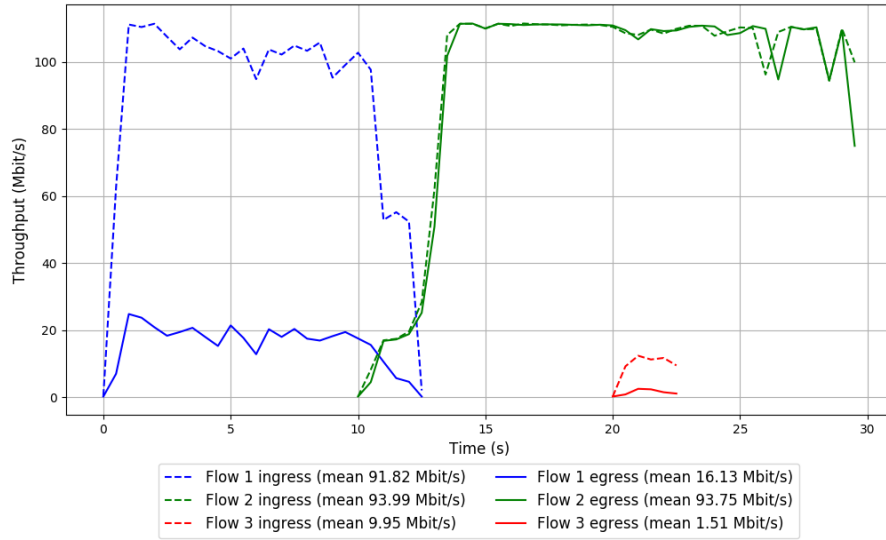
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 113.525 ms

Loss rate: 84.85%

### Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-08-21 01:00:32

End at: 2017-08-21 01:01:02

# Below is generated by plot.py at 2017-08-21 04:41:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 144.48 Mbit/s

95th percentile per-packet one-way delay: 112.442 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 101.25 Mbit/s

95th percentile per-packet one-way delay: 112.414 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 57.05 Mbit/s

95th percentile per-packet one-way delay: 112.361 ms

Loss rate: 1.34%

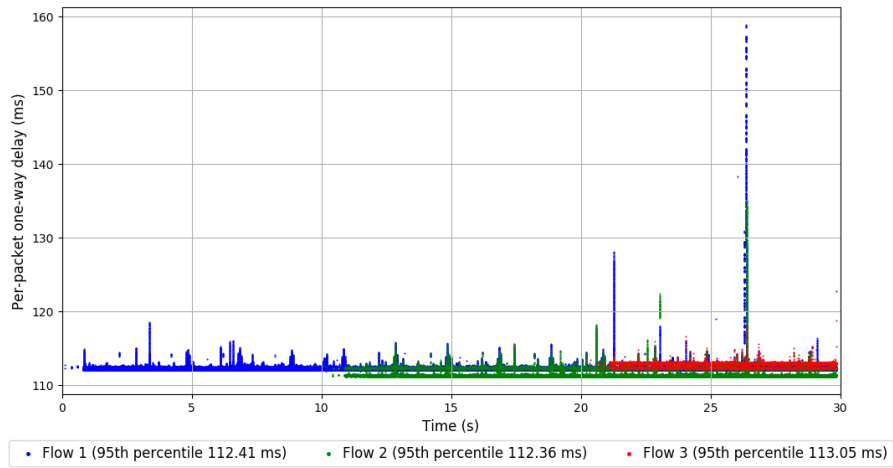
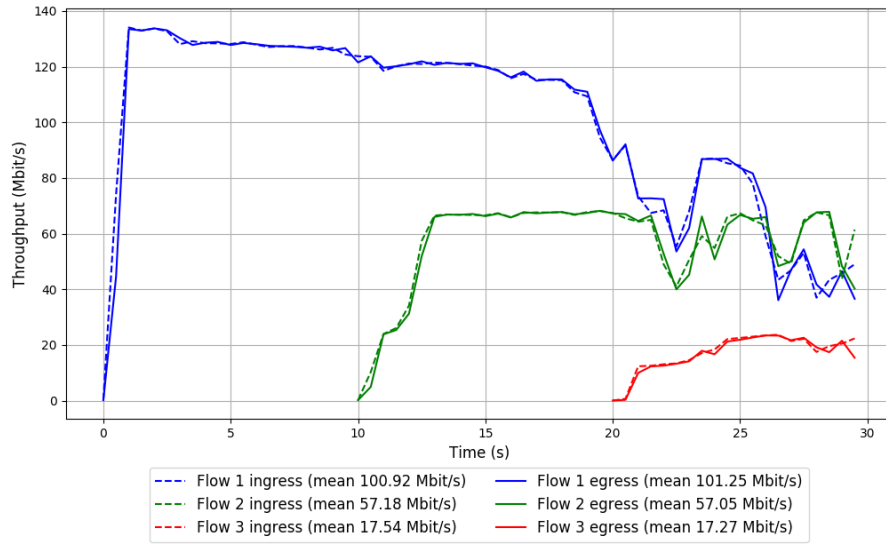
-- Flow 3:

Average throughput: 17.27 Mbit/s

95th percentile per-packet one-way delay: 113.046 ms

Loss rate: 3.77%

### Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-21 01:13:49

End at: 2017-08-21 01:14:19

# Below is generated by plot.py at 2017-08-21 04:41:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 124.44 Mbit/s

95th percentile per-packet one-way delay: 113.662 ms

Loss rate: 8.91%

-- Flow 1:

Average throughput: 77.91 Mbit/s

95th percentile per-packet one-way delay: 113.691 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 49.45 Mbit/s

95th percentile per-packet one-way delay: 112.435 ms

Loss rate: 0.84%

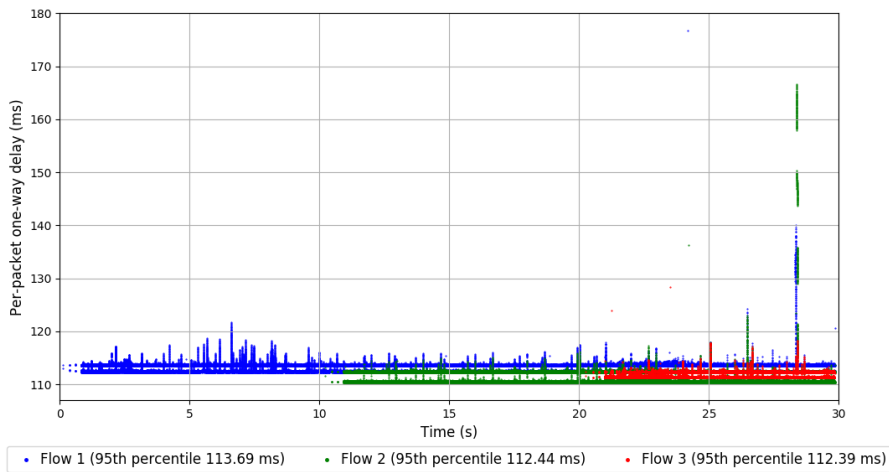
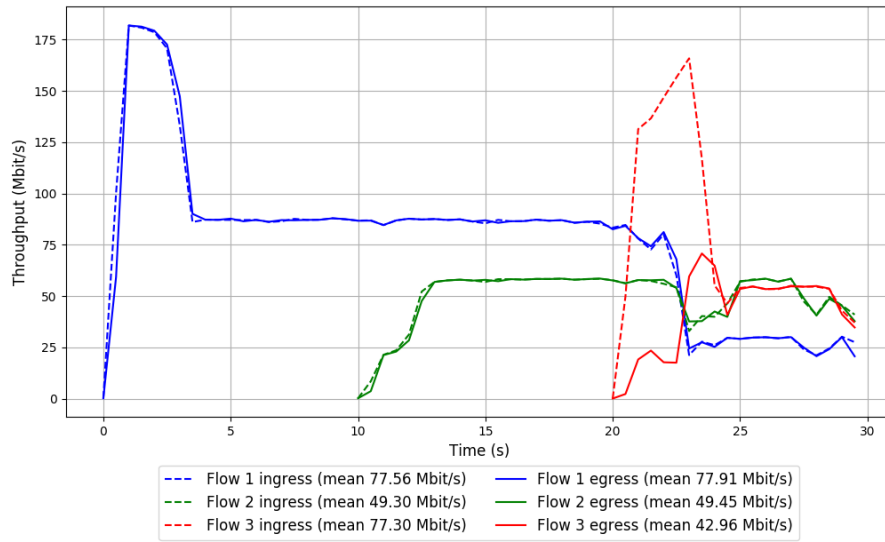
-- Flow 3:

Average throughput: 42.96 Mbit/s

95th percentile per-packet one-way delay: 112.393 ms

Loss rate: 45.71%

### Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-08-21 01:26:52

End at: 2017-08-21 01:27:22

# Below is generated by plot.py at 2017-08-21 04:42:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 122.36 Mbit/s

95th percentile per-packet one-way delay: 112.513 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 98.69 Mbit/s

95th percentile per-packet one-way delay: 112.373 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 26.74 Mbit/s

95th percentile per-packet one-way delay: 112.895 ms

Loss rate: 1.23%

-- Flow 3:

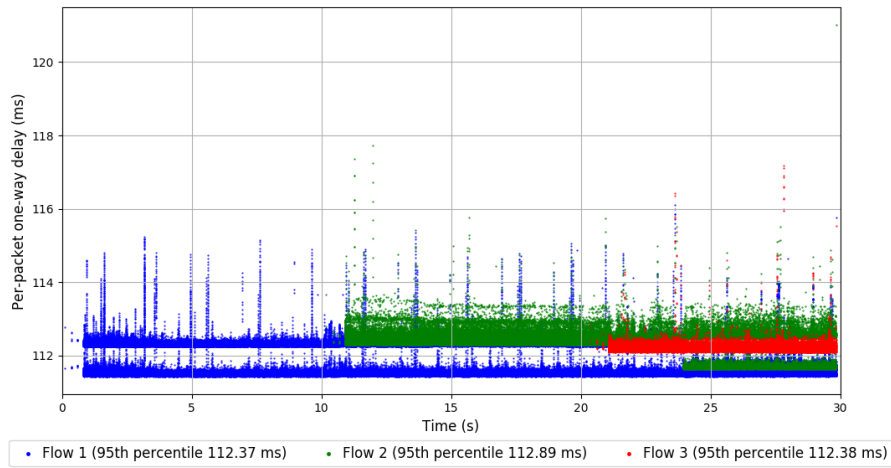
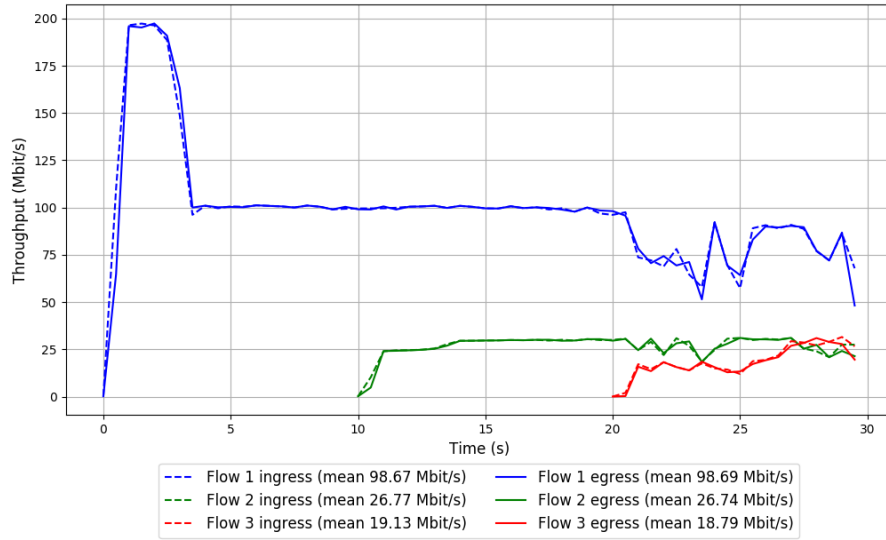
Average throughput: 18.79 Mbit/s

95th percentile per-packet one-way delay: 112.383 ms

Loss rate: 4.03%



### Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-08-21 01:39:56

End at: 2017-08-21 01:40:26

# Below is generated by plot.py at 2017-08-21 04:42:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 151.02 Mbit/s

95th percentile per-packet one-way delay: 141.459 ms

Loss rate: 2.25%

-- Flow 1:

Average throughput: 112.32 Mbit/s

95th percentile per-packet one-way delay: 144.704 ms

Loss rate: 2.52%

-- Flow 2:

Average throughput: 58.50 Mbit/s

95th percentile per-packet one-way delay: 112.999 ms

Loss rate: 1.39%

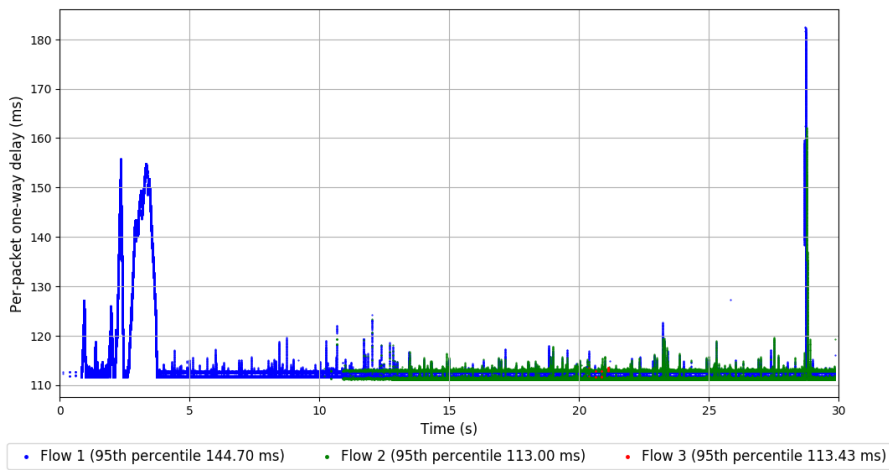
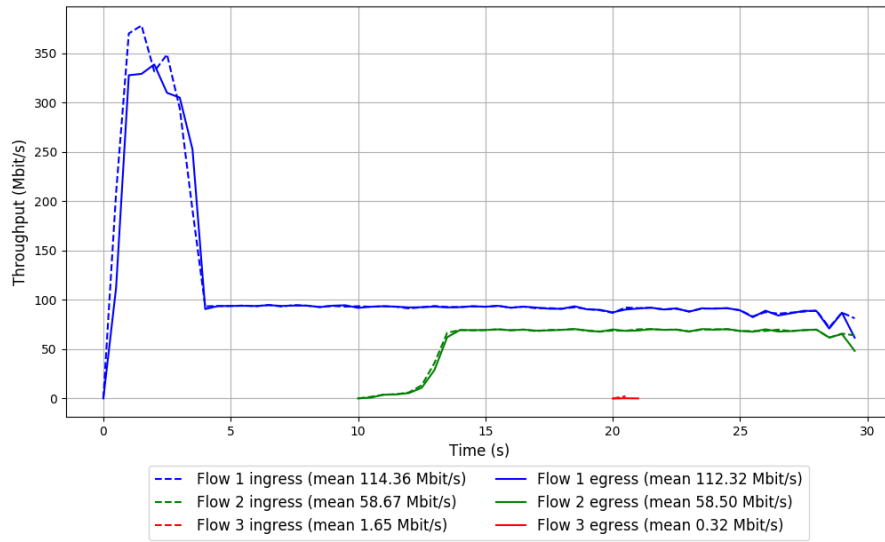
-- Flow 3:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 113.431 ms

Loss rate: 80.43%

### Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-08-20 23:47:26

End at: 2017-08-20 23:47:56

# Below is generated by plot.py at 2017-08-21 04:42:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.31 Mbit/s

95th percentile per-packet one-way delay: 112.437 ms

Loss rate: 3.88%

-- Flow 1:

Average throughput: 5.35 Mbit/s

95th percentile per-packet one-way delay: 112.465 ms

Loss rate: 2.32%

-- Flow 2:

Average throughput: 3.36 Mbit/s

95th percentile per-packet one-way delay: 112.375 ms

Loss rate: 4.88%

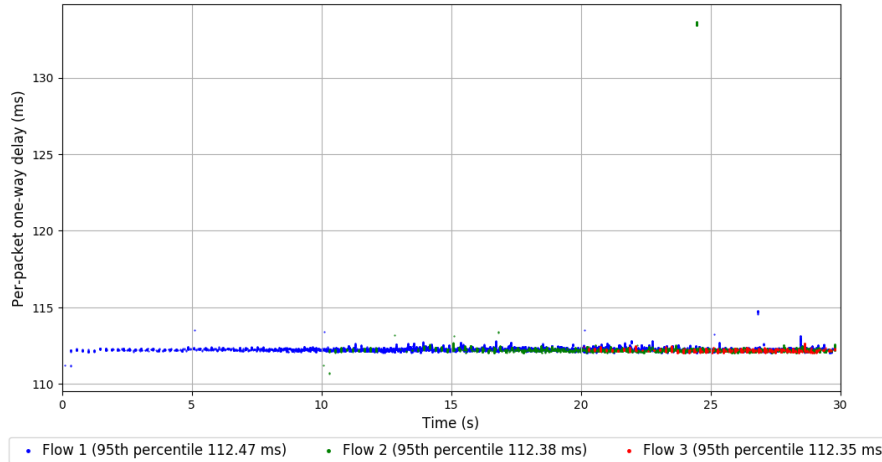
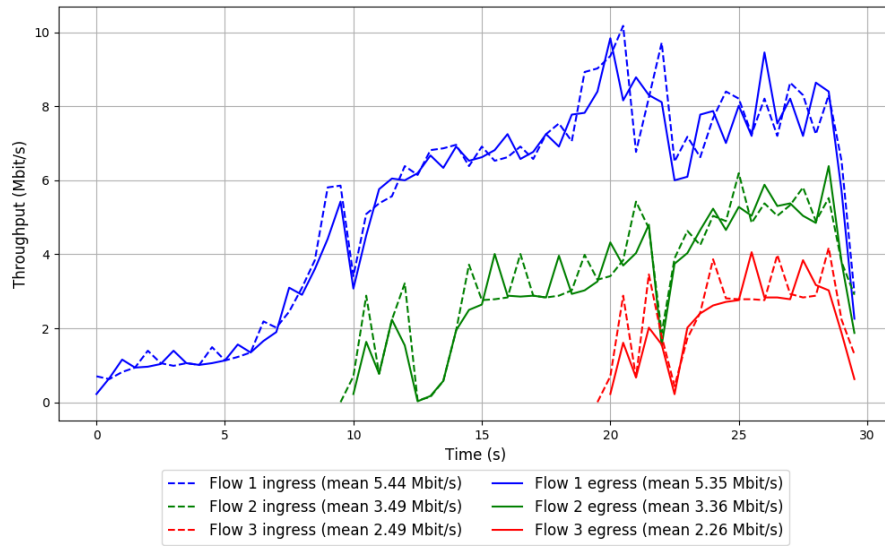
-- Flow 3:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 112.348 ms

Loss rate: 11.27%

### Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-21 00:00:03

End at: 2017-08-21 00:00:33

# Below is generated by plot.py at 2017-08-21 04:42:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.93 Mbit/s

95th percentile per-packet one-way delay: 112.646 ms

Loss rate: 5.24%

-- Flow 1:

Average throughput: 3.49 Mbit/s

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

Loss rate: 2.83%

-- Flow 2:

Average throughput: 3.06 Mbit/s

95th percentile per-packet one-way delay: 112.676 ms

Loss rate: 6.64%

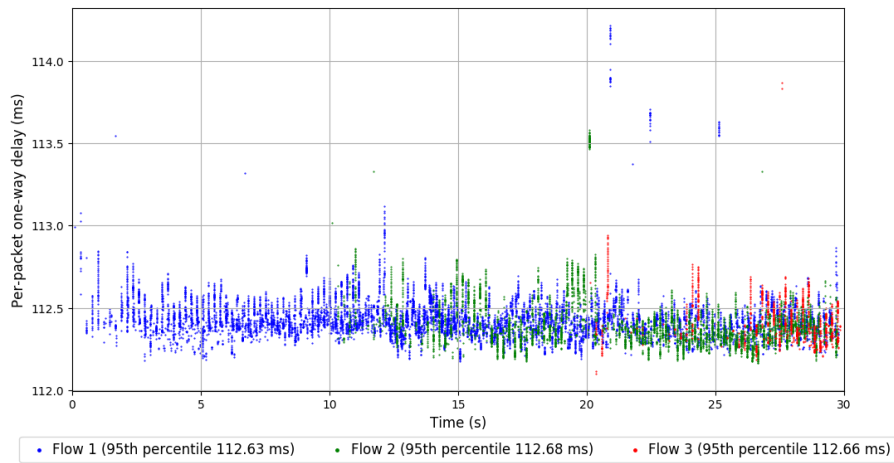
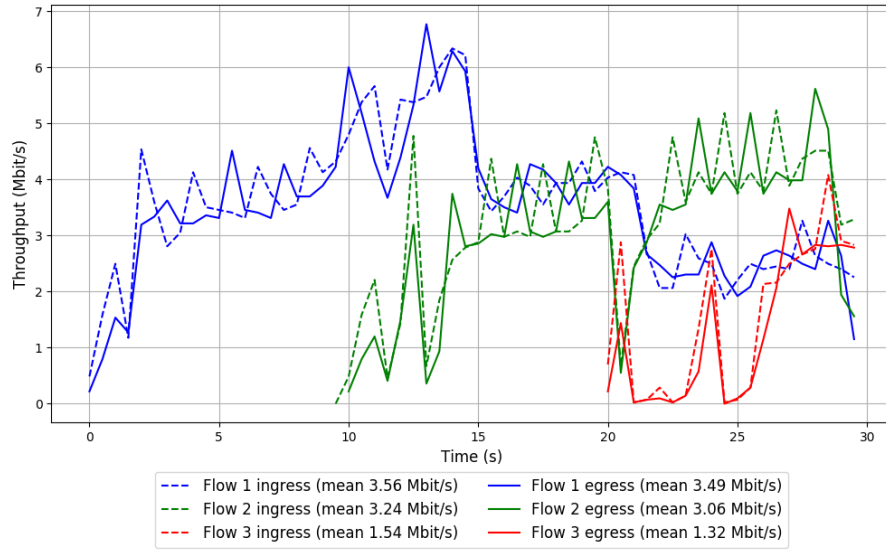
-- Flow 3:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 112.658 ms

Loss rate: 16.13%

## Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-08-21 00:13:03

End at: 2017-08-21 00:13:33

# Below is generated by plot.py at 2017-08-21 04:42:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 33.98 Mbit/s

95th percentile per-packet one-way delay: 119.271 ms

Loss rate: 3.35%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 112.545 ms

Loss rate: 3.70%

-- Flow 2:

Average throughput: 28.47 Mbit/s

95th percentile per-packet one-way delay: 120.242 ms

Loss rate: 3.10%

-- Flow 3:

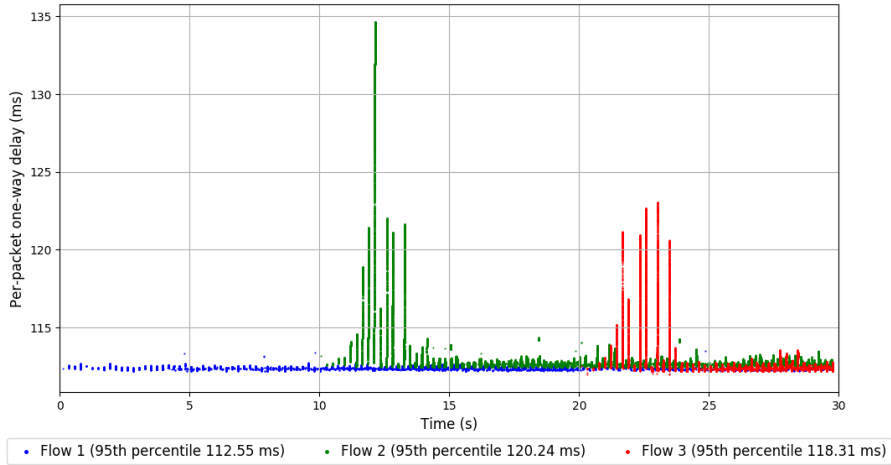
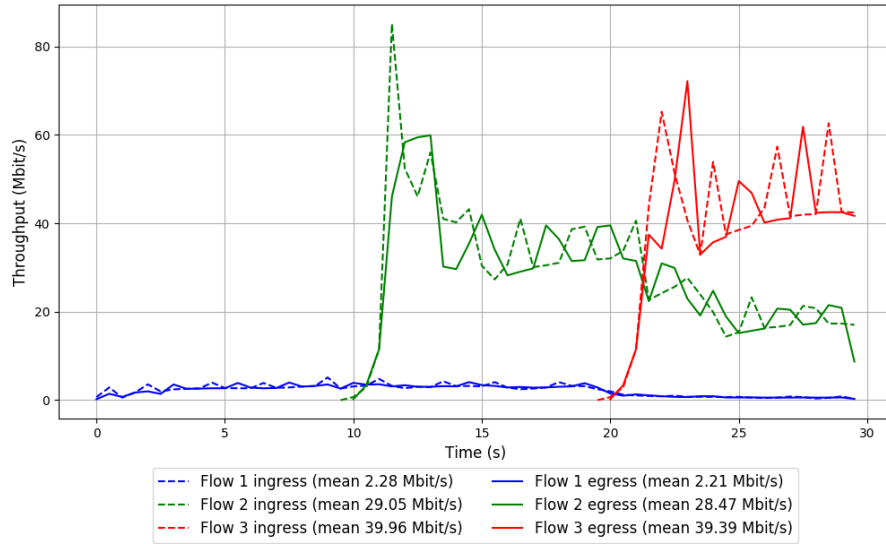
Average throughput: 39.39 Mbit/s

95th percentile per-packet one-way delay: 118.309 ms

Loss rate: 3.67%



### Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-08-21 00:26:08

End at: 2017-08-21 00:26:38

# Below is generated by plot.py at 2017-08-21 04:42:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 54.30 Mbit/s

95th percentile per-packet one-way delay: 113.233 ms

Loss rate: 2.37%

-- Flow 1:

Average throughput: 17.20 Mbit/s

95th percentile per-packet one-way delay: 113.058 ms

Loss rate: 1.21%

-- Flow 2:

Average throughput: 55.06 Mbit/s

95th percentile per-packet one-way delay: 113.335 ms

Loss rate: 2.60%

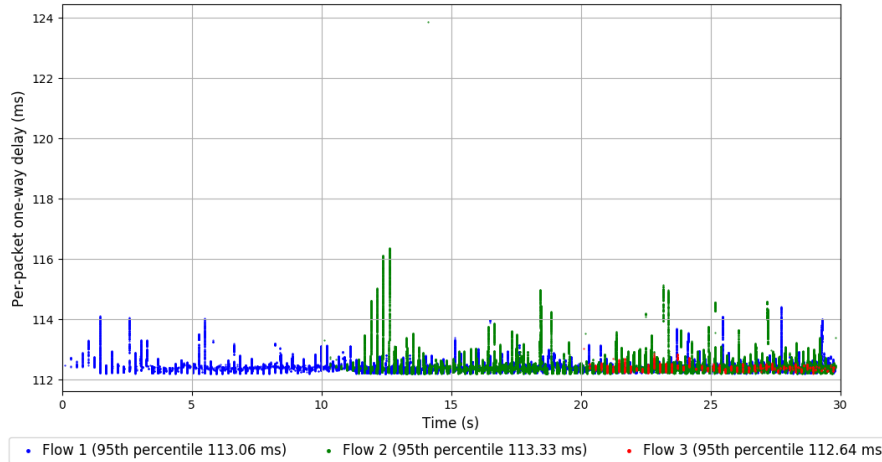
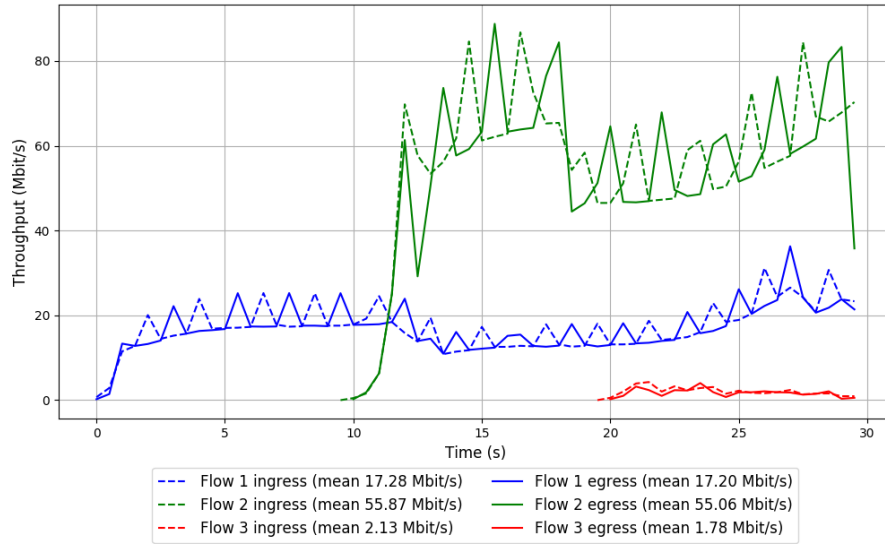
-- Flow 3:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 112.640 ms

Loss rate: 18.36%

### Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-21 00:39:15

End at: 2017-08-21 00:39:45

# Below is generated by plot.py at 2017-08-21 04:42:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.74 Mbit/s

95th percentile per-packet one-way delay: 114.719 ms

Loss rate: 2.80%

-- Flow 1:

Average throughput: 3.99 Mbit/s

95th percentile per-packet one-way delay: 113.902 ms

Loss rate: 3.93%

-- Flow 2:

Average throughput: 28.97 Mbit/s

95th percentile per-packet one-way delay: 114.931 ms

Loss rate: 2.21%

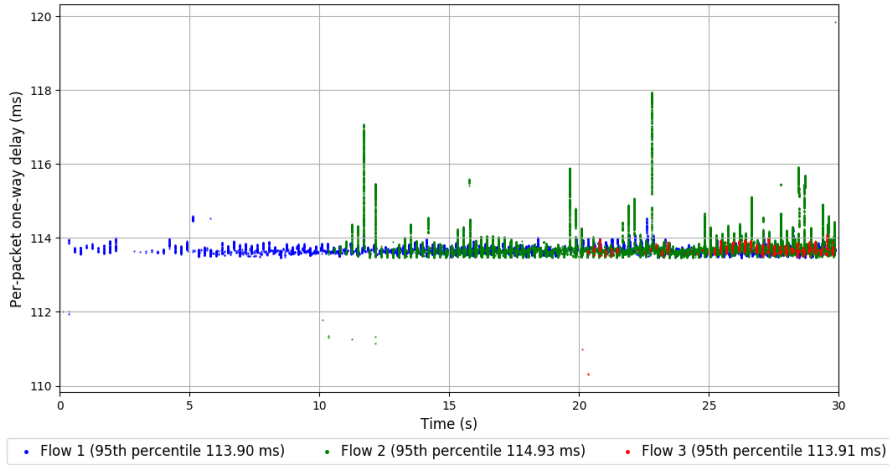
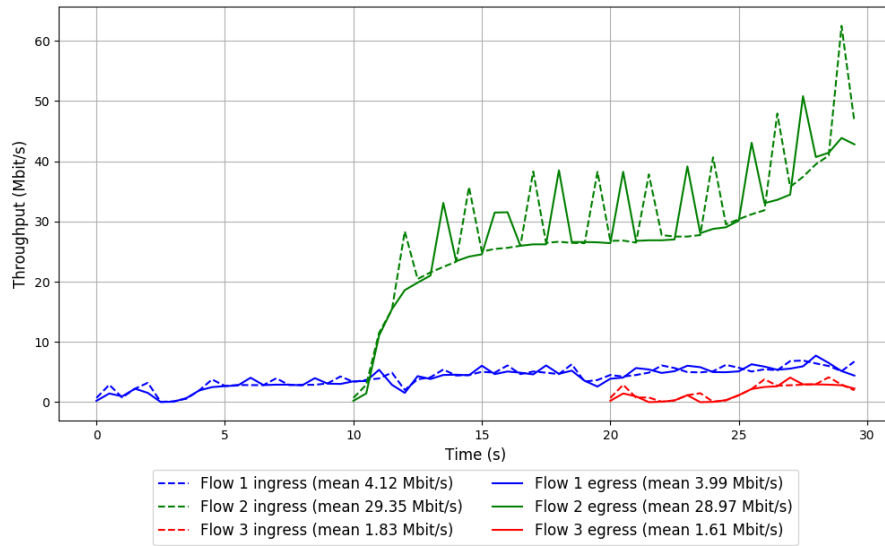
-- Flow 3:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 113.907 ms

Loss rate: 14.11%

### Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-08-21 00:52:09

End at: 2017-08-21 00:52:39

# Below is generated by plot.py at 2017-08-21 04:42:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 14.63 Mbit/s

95th percentile per-packet one-way delay: 114.625 ms

Loss rate: 4.60%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 113.992 ms

Loss rate: 6.09%

-- Flow 2:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 113.904 ms

Loss rate: 5.57%

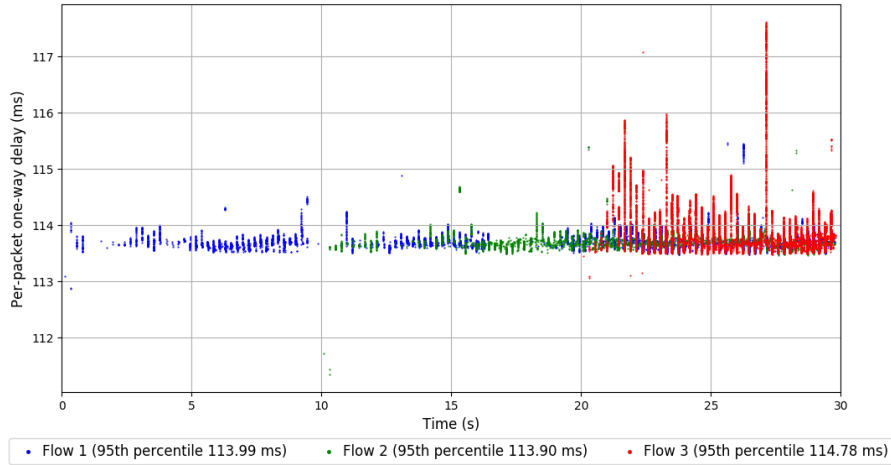
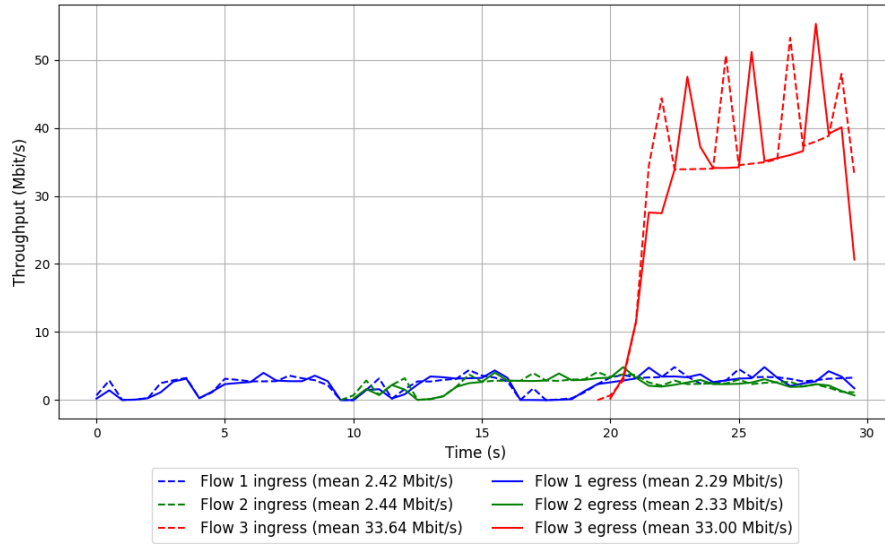
-- Flow 3:

Average throughput: 33.00 Mbit/s

95th percentile per-packet one-way delay: 114.775 ms

Loss rate: 4.14%

### Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-08-21 01:05:16

End at: 2017-08-21 01:05:46

# Below is generated by plot.py at 2017-08-21 04:43:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 44.62 Mbit/s

95th percentile per-packet one-way delay: 115.265 ms

Loss rate: 2.35%

-- Flow 1:

Average throughput: 26.65 Mbit/s

95th percentile per-packet one-way delay: 114.139 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 112.755 ms

Loss rate: 7.17%

-- Flow 3:

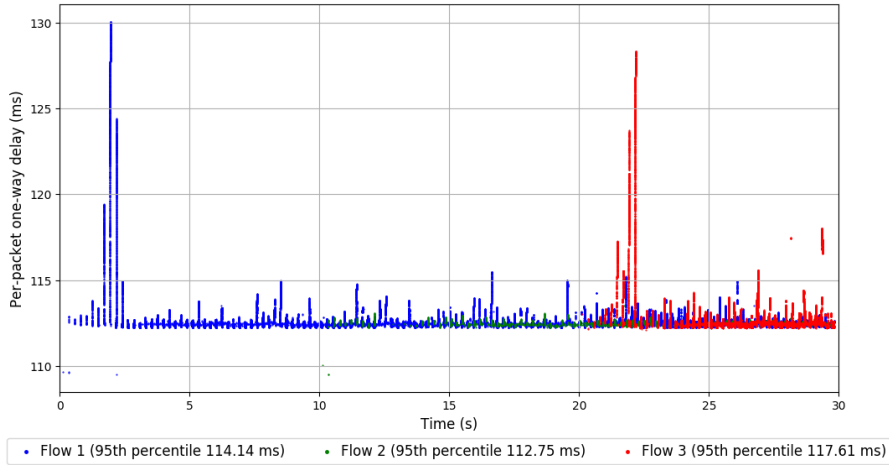
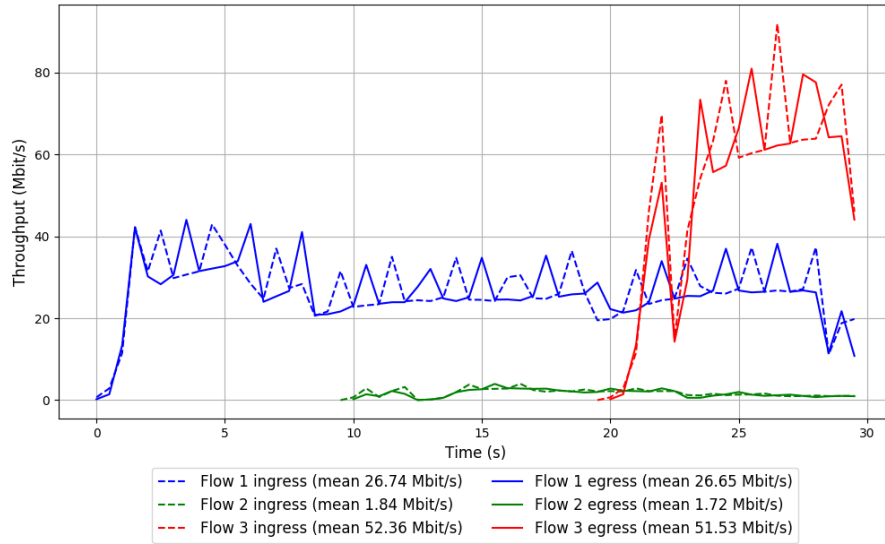
Average throughput: 51.53 Mbit/s

95th percentile per-packet one-way delay: 117.612 ms

Loss rate: 3.82%



Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-08-21 01:18:24

End at: 2017-08-21 01:18:54

# Below is generated by plot.py at 2017-08-21 04:43:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 40.06 Mbit/s

95th percentile per-packet one-way delay: 113.543 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 38.49 Mbit/s

95th percentile per-packet one-way delay: 113.585 ms

Loss rate: 1.13%

-- Flow 2:

Average throughput: 1.56 Mbit/s

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

Loss rate: 2.49%

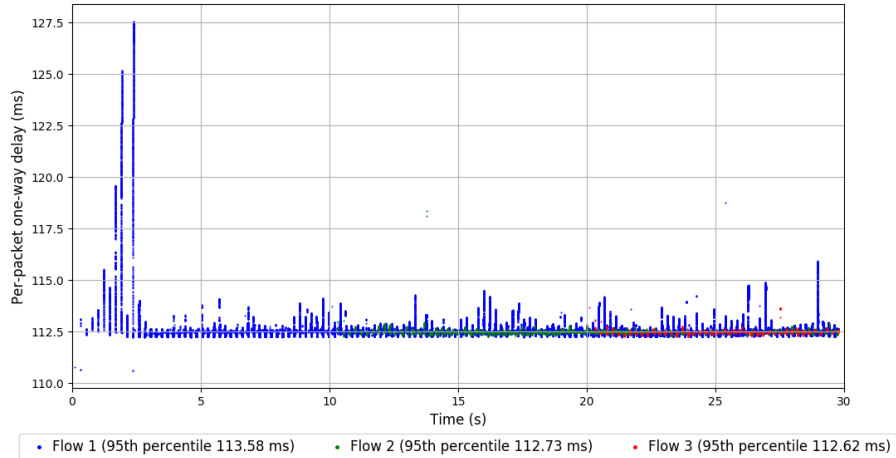
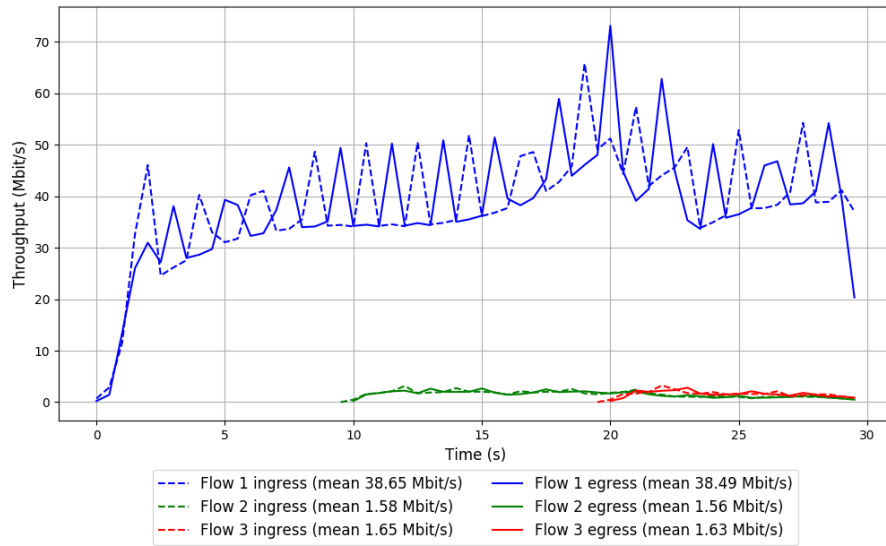
-- Flow 3:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 112.622 ms

Loss rate: 3.73%

### Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-08-21 01:31:20

End at: 2017-08-21 01:31:50

# Below is generated by plot.py at 2017-08-21 04:43:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 27.06 Mbit/s

95th percentile per-packet one-way delay: 115.012 ms

Loss rate: 4.17%

-- Flow 1:

Average throughput: 3.07 Mbit/s

95th percentile per-packet one-way delay: 112.558 ms

Loss rate: 2.84%

-- Flow 2:

Average throughput: 27.30 Mbit/s

95th percentile per-packet one-way delay: 114.630 ms

Loss rate: 2.45%

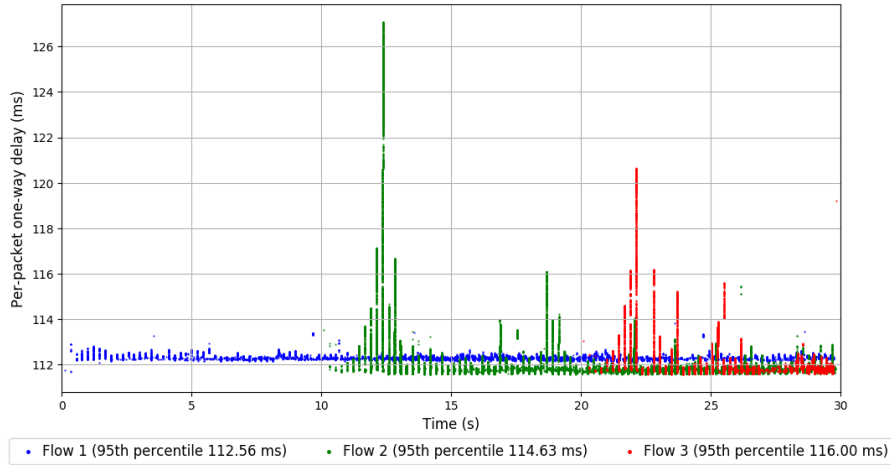
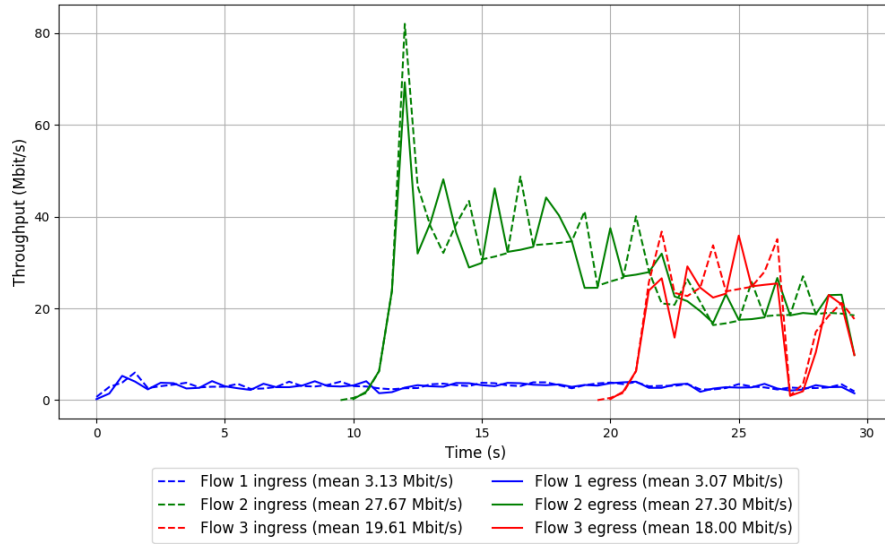
-- Flow 3:

Average throughput: 18.00 Mbit/s

95th percentile per-packet one-way delay: 116.000 ms

Loss rate: 9.69%

### Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-08-21 01:44:16

End at: 2017-08-21 01:44:46

# Below is generated by plot.py at 2017-08-21 04:43:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.42 Mbit/s

95th percentile per-packet one-way delay: 113.677 ms

Loss rate: 3.59%

-- Flow 1:

Average throughput: 3.31 Mbit/s

95th percentile per-packet one-way delay: 112.885 ms

Loss rate: 3.17%

-- Flow 2:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 111.976 ms

Loss rate: 5.32%

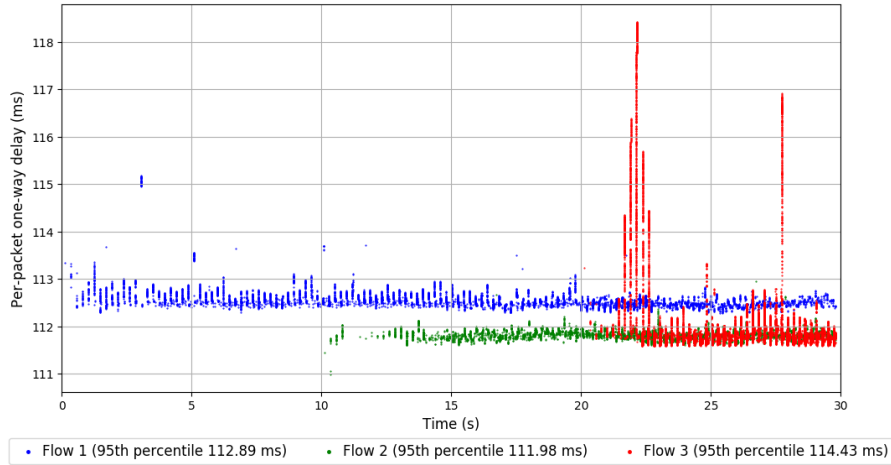
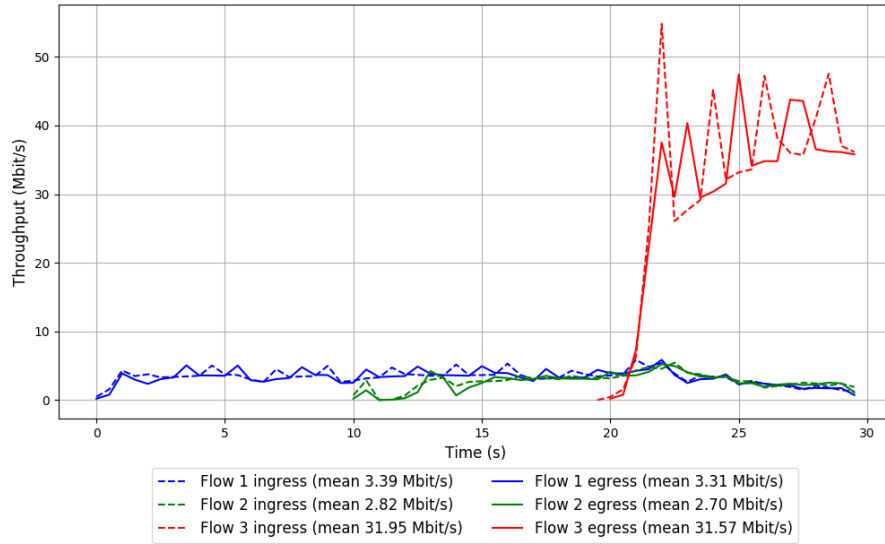
-- Flow 3:

Average throughput: 31.57 Mbit/s

95th percentile per-packet one-way delay: 114.429 ms

Loss rate: 3.42%

Run 10: Report of TCP Cubic — Data Link



Run 1: Statistics of KohoCC

Start at: 2017-08-20 23:48:14

End at: 2017-08-20 23:48:44

# Below is generated by plot.py at 2017-08-21 04:43:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.60 Mbit/s

95th percentile per-packet one-way delay: 111.962 ms

Loss rate: 70.98%

-- Flow 1:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 111.452 ms

Loss rate: 86.49%

-- Flow 2:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 111.334 ms

Loss rate: 85.66%

-- Flow 3:

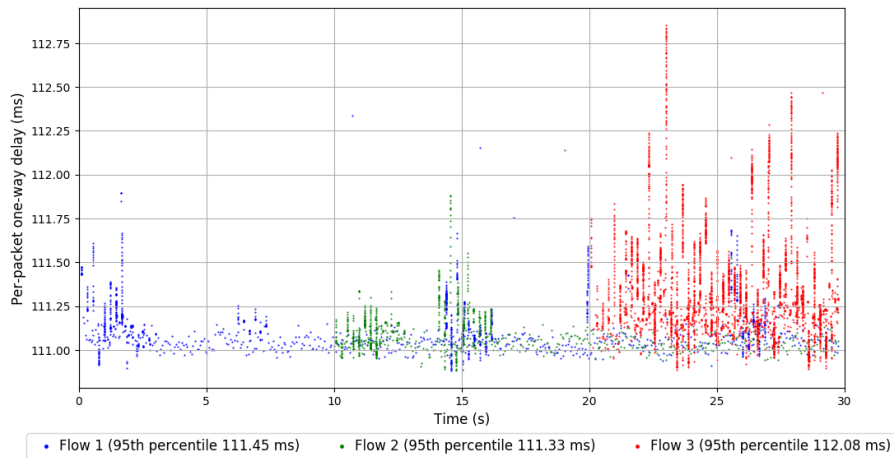
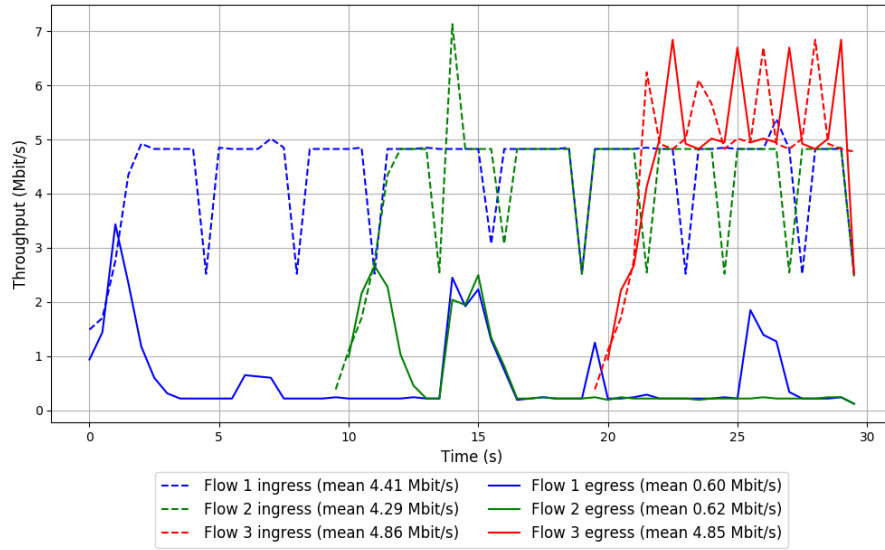
Average throughput: 4.85 Mbit/s

95th percentile per-packet one-way delay: 112.075 ms

Loss rate: 2.49%



### Run 1: Report of KohoCC — Data Link



Run 2: Statistics of KohoCC

Start at: 2017-08-21 00:00:50

End at: 2017-08-21 00:01:20

# Below is generated by plot.py at 2017-08-21 04:43:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.15 Mbit/s

95th percentile per-packet one-way delay: 112.842 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 5.18 Mbit/s

95th percentile per-packet one-way delay: 112.901 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 5.12 Mbit/s

95th percentile per-packet one-way delay: 112.790 ms

Loss rate: 1.17%

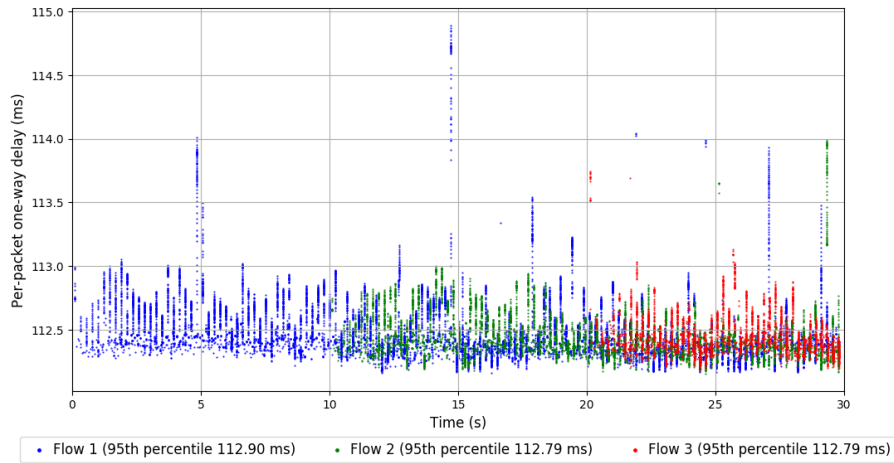
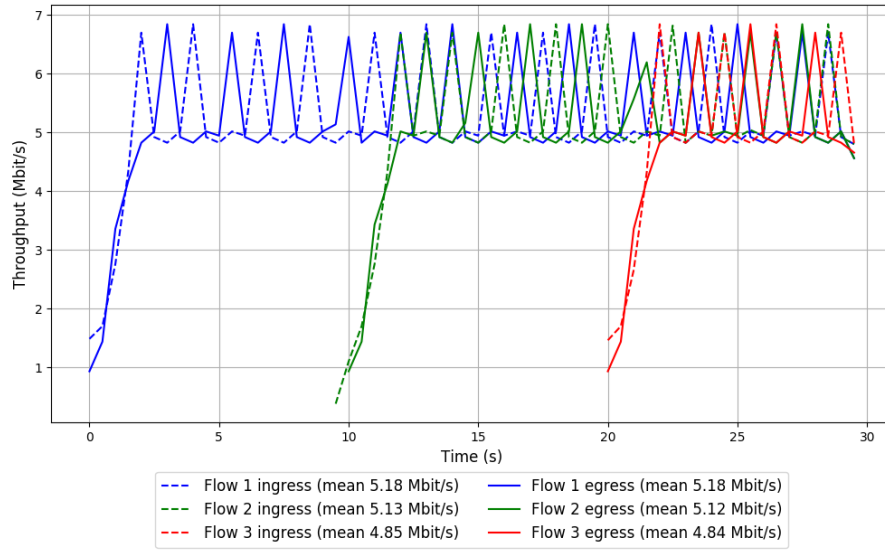
-- Flow 3:

Average throughput: 4.84 Mbit/s

95th percentile per-packet one-way delay: 112.789 ms

Loss rate: 2.50%

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-08-21 00:13:52

End at: 2017-08-21 00:14:22

# Below is generated by plot.py at 2017-08-21 04:43:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.12 Mbit/s

95th percentile per-packet one-way delay: 113.382 ms

Loss rate: 45.41%

-- Flow 1:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 113.056 ms

Loss rate: 89.34%

-- Flow 2:

Average throughput: 4.73 Mbit/s

95th percentile per-packet one-way delay: 113.394 ms

Loss rate: 8.58%

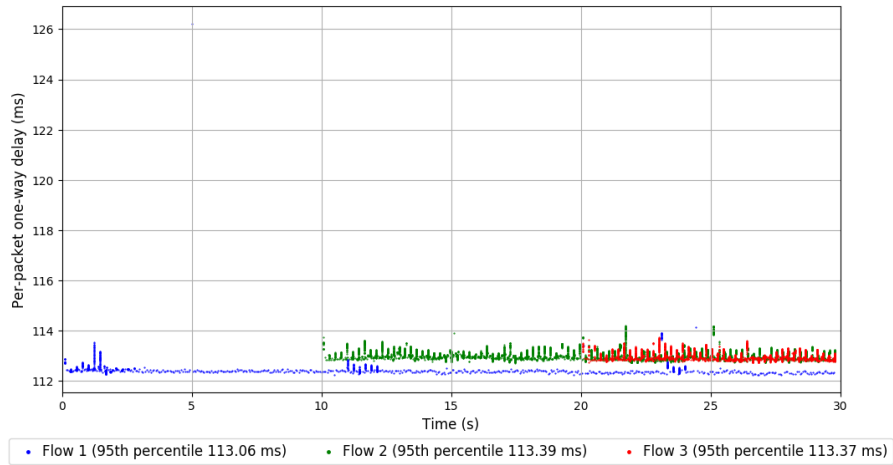
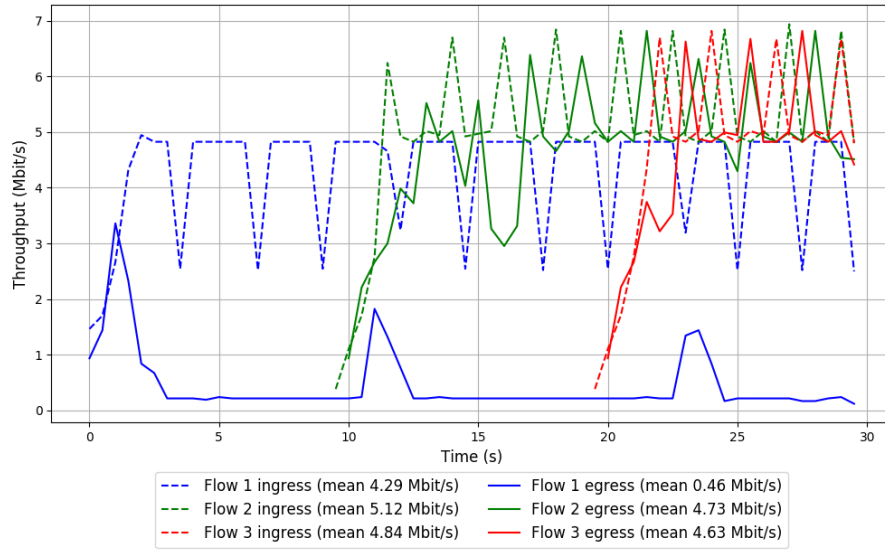
-- Flow 3:

Average throughput: 4.63 Mbit/s

95th percentile per-packet one-way delay: 113.374 ms

Loss rate: 6.51%

### Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-21 00:26:58

End at: 2017-08-21 00:27:28

# Below is generated by plot.py at 2017-08-21 04:43:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 114.037 ms

Loss rate: 52.69%

-- Flow 1:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 113.596 ms

Loss rate: 82.35%

-- Flow 2:

Average throughput: 5.07 Mbit/s

95th percentile per-packet one-way delay: 114.052 ms

Loss rate: 1.19%

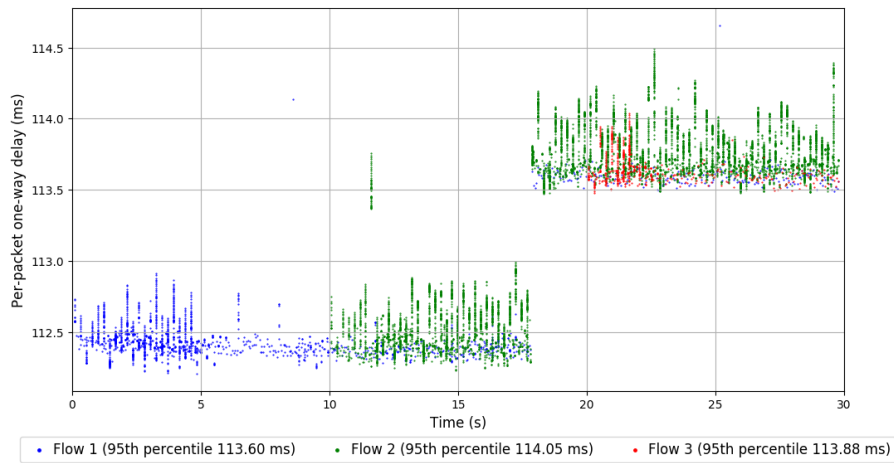
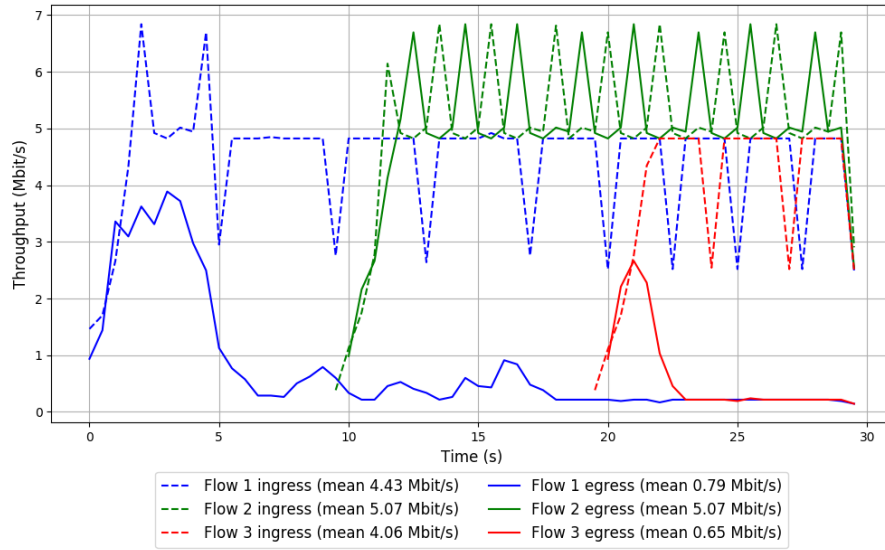
-- Flow 3:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 113.883 ms

Loss rate: 84.45%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-08-21 00:40:03

End at: 2017-08-21 00:40:33

# Below is generated by plot.py at 2017-08-21 04:43:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.94 Mbit/s

95th percentile per-packet one-way delay: 114.244 ms

Loss rate: 27.86%

-- Flow 1:

Average throughput: 5.08 Mbit/s

95th percentile per-packet one-way delay: 114.233 ms

Loss rate: 2.00%

-- Flow 2:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 113.969 ms

Loss rate: 89.76%

-- Flow 3:

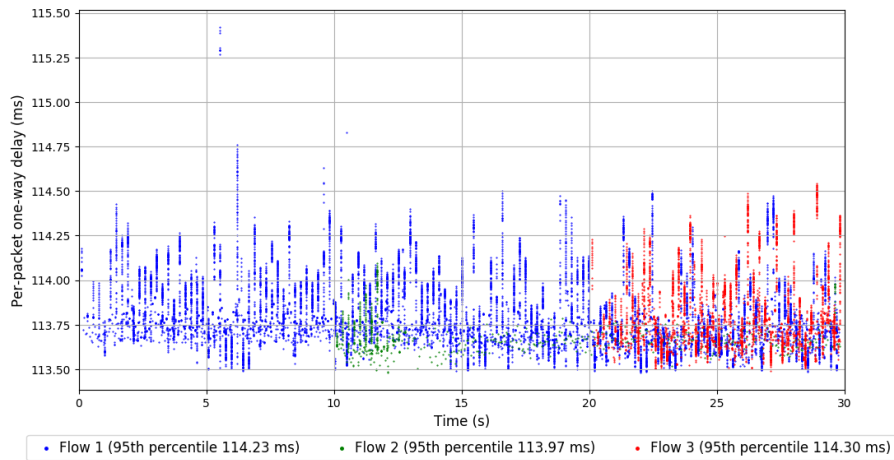
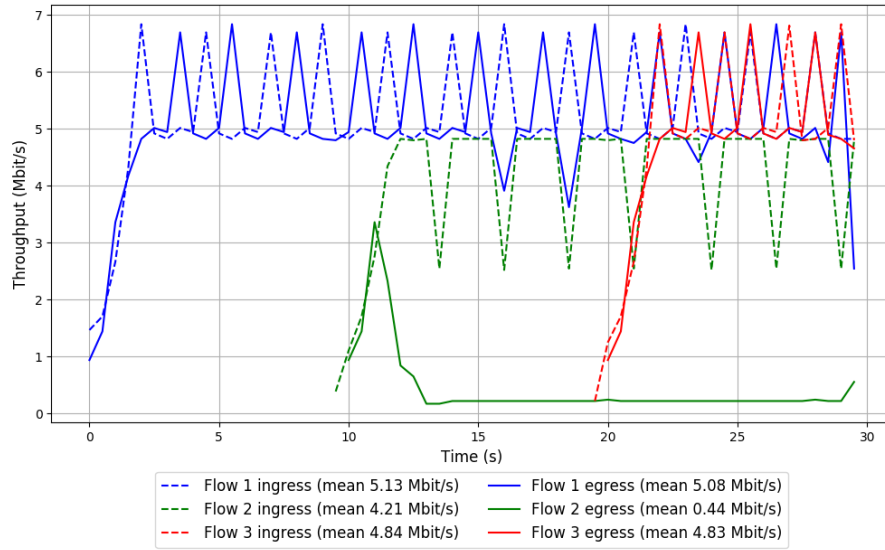
Average throughput: 4.83 Mbit/s

95th percentile per-packet one-way delay: 114.295 ms

Loss rate: 2.52%



Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-08-21 00:52:57

End at: 2017-08-21 00:53:27

# Below is generated by plot.py at 2017-08-21 04:43:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 114.171 ms

Loss rate: 81.75%

-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 114.192 ms

Loss rate: 90.61%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 113.968 ms

Loss rate: 90.45%

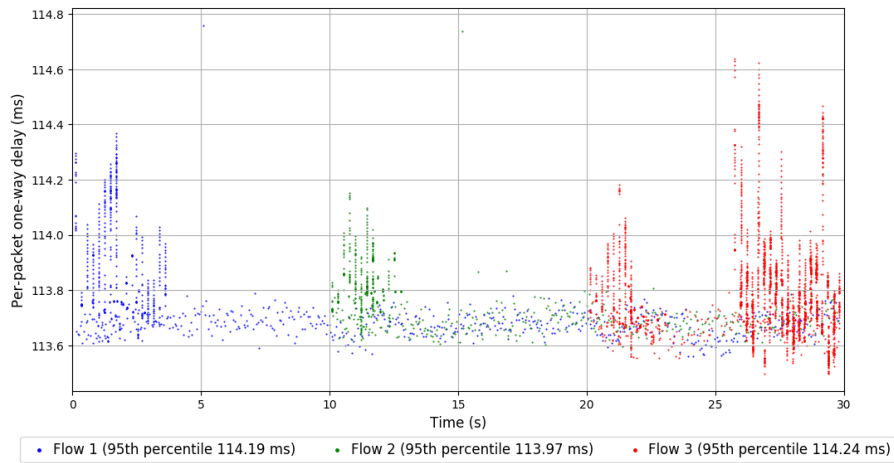
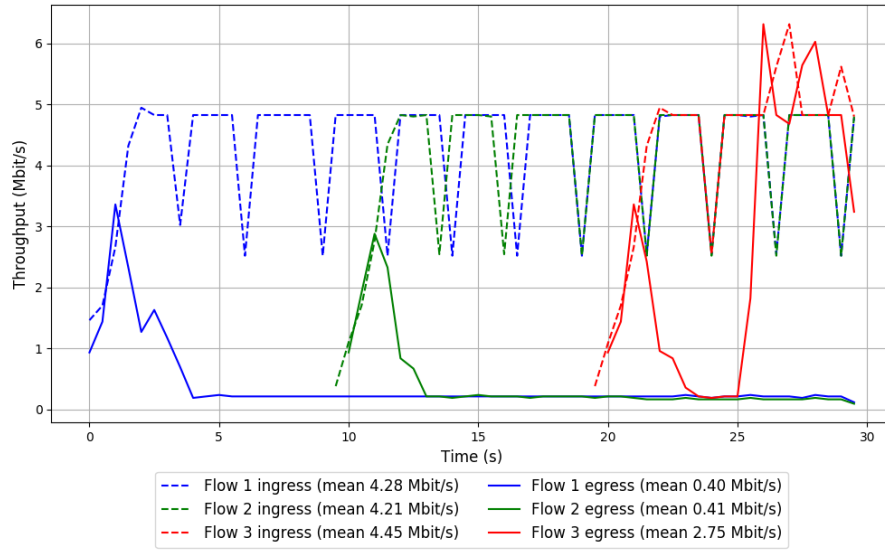
-- Flow 3:

Average throughput: 2.75 Mbit/s

95th percentile per-packet one-way delay: 114.237 ms

Loss rate: 39.53%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-08-21 01:06:05

End at: 2017-08-21 01:06:35

# Below is generated by plot.py at 2017-08-21 04:43:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.13 Mbit/s

95th percentile per-packet one-way delay: 113.256 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 5.21 Mbit/s

95th percentile per-packet one-way delay: 113.367 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 5.05 Mbit/s

95th percentile per-packet one-way delay: 113.144 ms

Loss rate: 1.64%

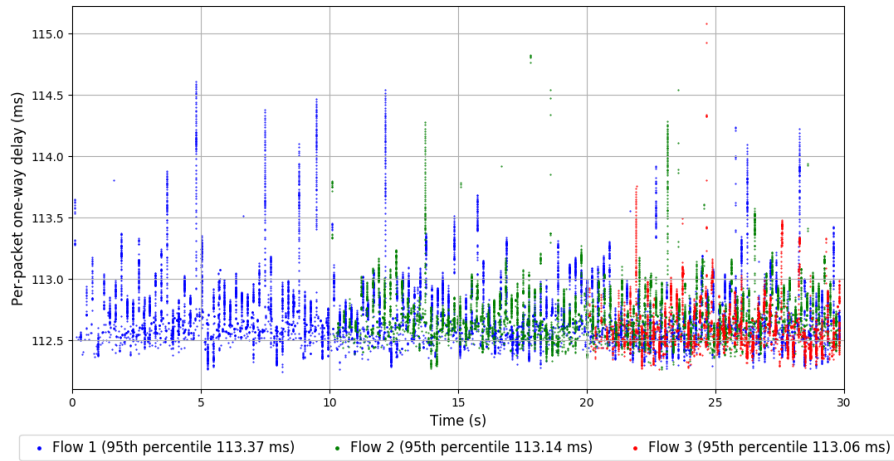
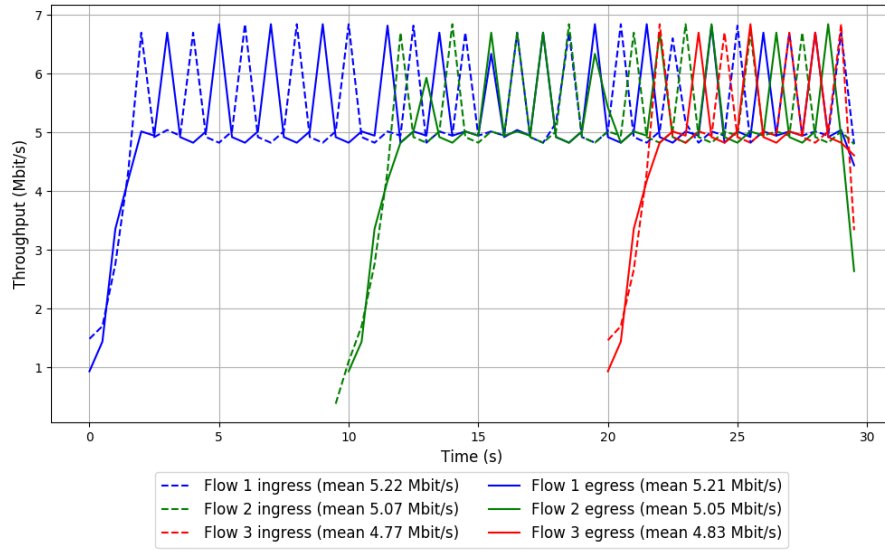
-- Flow 3:

Average throughput: 4.83 Mbit/s

95th percentile per-packet one-way delay: 113.055 ms

Loss rate: 1.04%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-21 01:19:14

End at: 2017-08-21 01:19:44

# Below is generated by plot.py at 2017-08-21 04:43:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.89 Mbit/s

95th percentile per-packet one-way delay: 113.143 ms

Loss rate: 11.47%

-- Flow 1:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 113.196 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 3.26 Mbit/s

95th percentile per-packet one-way delay: 113.027 ms

Loss rate: 33.05%

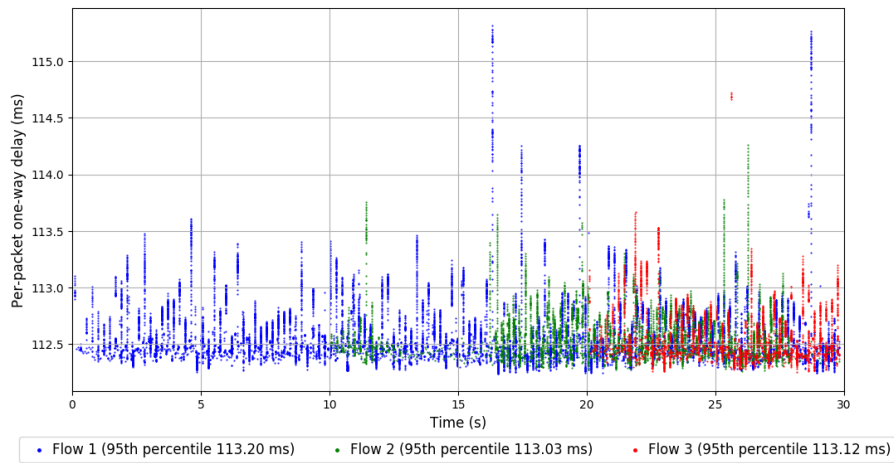
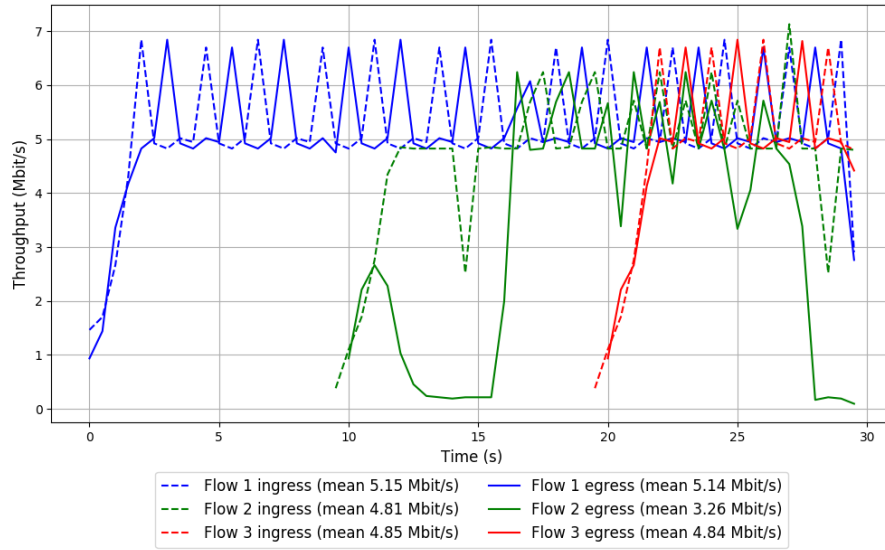
-- Flow 3:

Average throughput: 4.84 Mbit/s

95th percentile per-packet one-way delay: 113.124 ms

Loss rate: 2.49%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-08-21 01:32:08

End at: 2017-08-21 01:32:38

# Below is generated by plot.py at 2017-08-21 04:43:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.40 Mbit/s

95th percentile per-packet one-way delay: 112.762 ms

Loss rate: 33.28%

-- Flow 1:

Average throughput: 1.59 Mbit/s

95th percentile per-packet one-way delay: 112.822 ms

Loss rate: 65.22%

-- Flow 2:

Average throughput: 5.06 Mbit/s

95th percentile per-packet one-way delay: 112.453 ms

Loss rate: 1.22%

-- Flow 3:

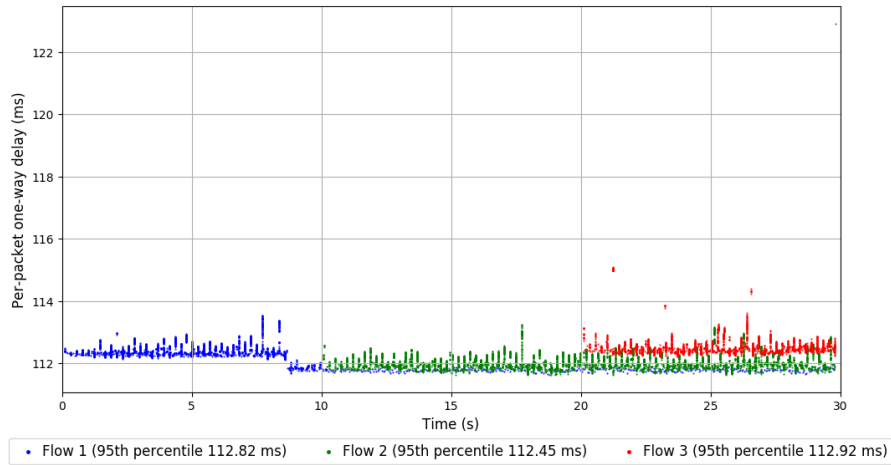
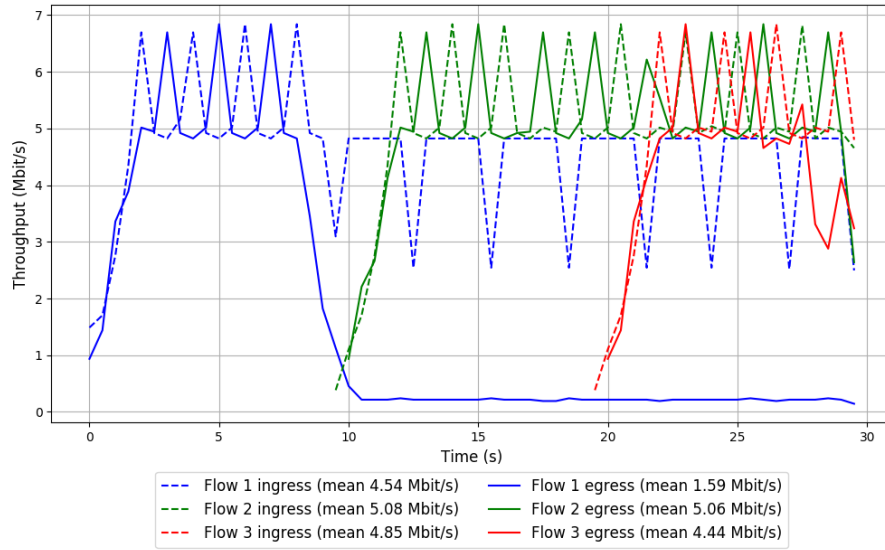
Average throughput: 4.44 Mbit/s

95th percentile per-packet one-way delay: 112.921 ms

Loss rate: 10.45%



Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-08-21 01:45:04

End at: 2017-08-21 01:45:34

# Below is generated by plot.py at 2017-08-21 04:43:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.31 Mbit/s

95th percentile per-packet one-way delay: 113.050 ms

Loss rate: 43.79%

-- Flow 1:

Average throughput: 4.50 Mbit/s

95th percentile per-packet one-way delay: 112.832 ms

Loss rate: 14.02%

-- Flow 2:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 113.787 ms

Loss rate: 88.30%

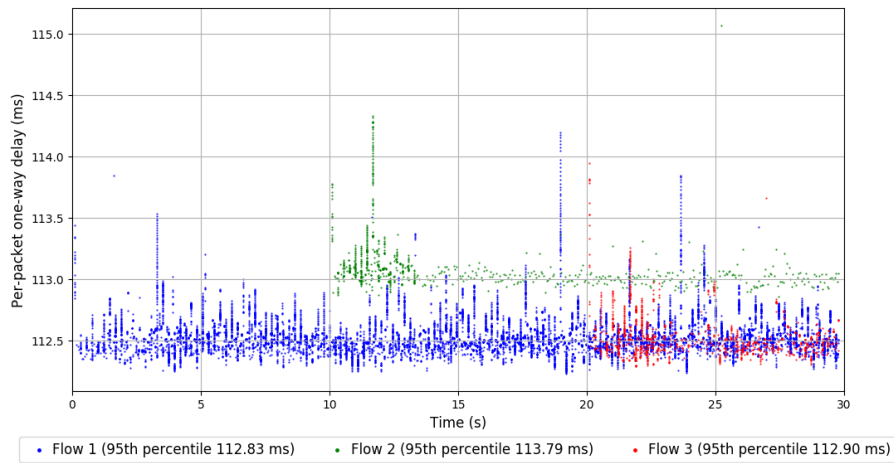
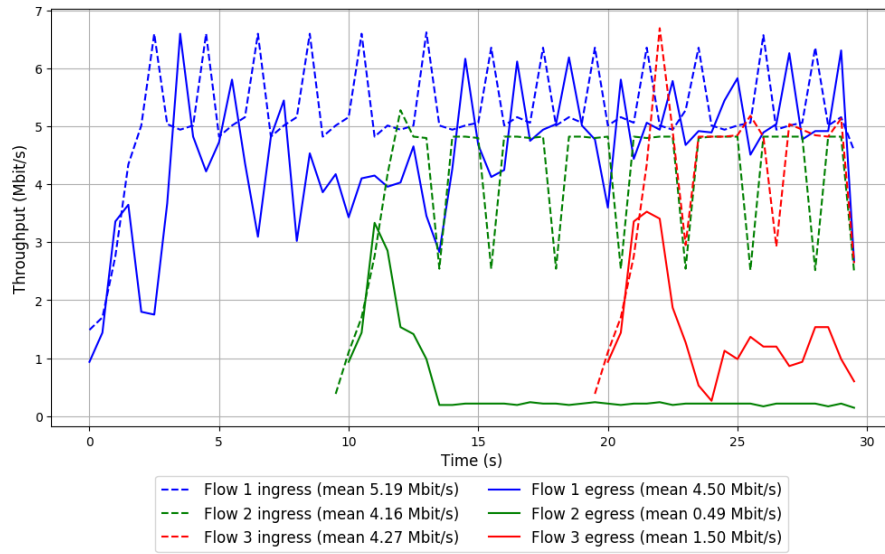
-- Flow 3:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 112.896 ms

Loss rate: 65.77%

Run 10: Report of KohoCC — Data Link



Run 1: Statistics of LEDBAT

Start at: 2017-08-20 23:45:47

End at: 2017-08-20 23:46:17

# Below is generated by plot.py at 2017-08-21 04:43:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 113.086 ms

Loss rate: 3.89%

-- Flow 1:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 112.626 ms

Loss rate: 3.27%

-- Flow 2:

Average throughput: 1.08 Mbit/s

95th percentile per-packet one-way delay: 113.266 ms

Loss rate: 4.90%

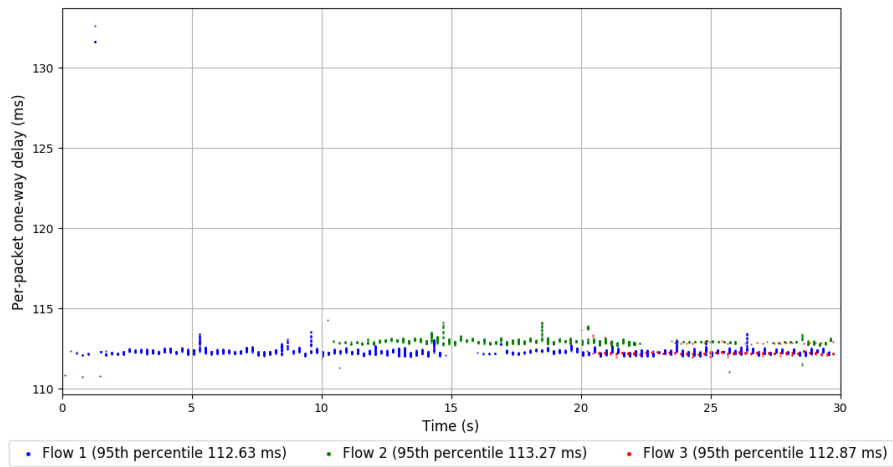
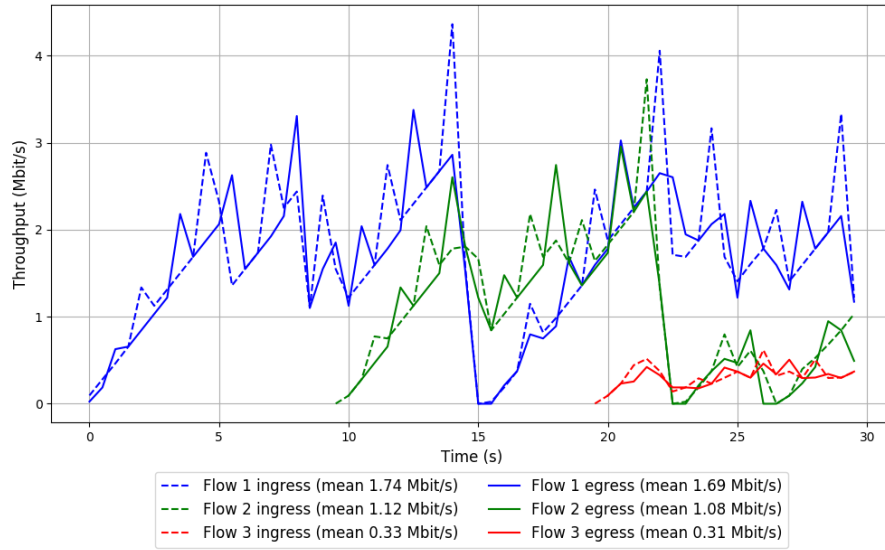
-- Flow 3:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 112.868 ms

Loss rate: 6.73%

### Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-08-20 23:58:19

End at: 2017-08-20 23:58:49

# Below is generated by plot.py at 2017-08-21 04:43:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.03 Mbit/s

95th percentile per-packet one-way delay: 113.087 ms

Loss rate: 3.69%

-- Flow 1:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 112.561 ms

Loss rate: 6.39%

-- Flow 2:

Average throughput: 4.58 Mbit/s

95th percentile per-packet one-way delay: 113.059 ms

Loss rate: 2.28%

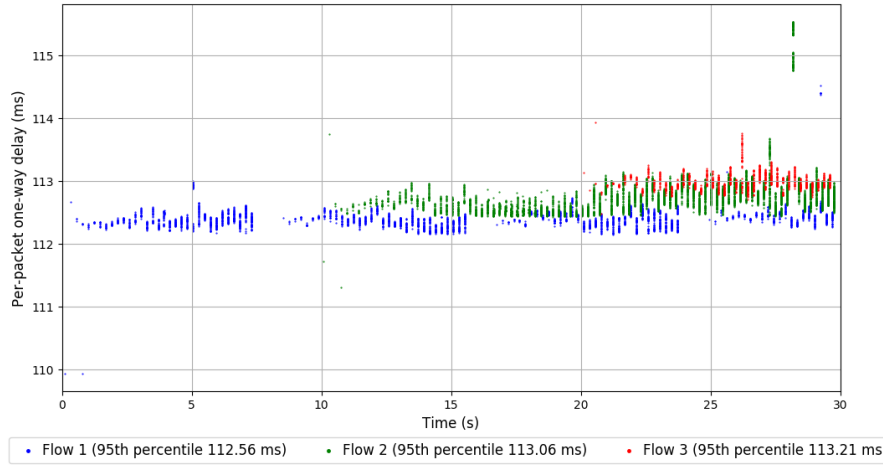
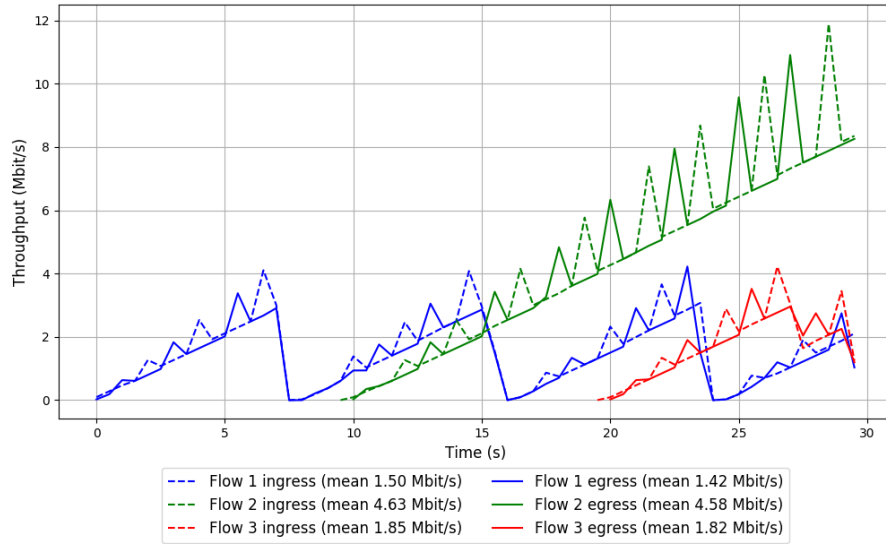
-- Flow 3:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 113.207 ms

Loss rate: 4.23%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-21 00:11:22

End at: 2017-08-21 00:11:52

# Below is generated by plot.py at 2017-08-21 04:43:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.98 Mbit/s

95th percentile per-packet one-way delay: 112.959 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 3.10 Mbit/s

95th percentile per-packet one-way delay: 112.971 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 112.978 ms

Loss rate: 0.99%

-- Flow 3:

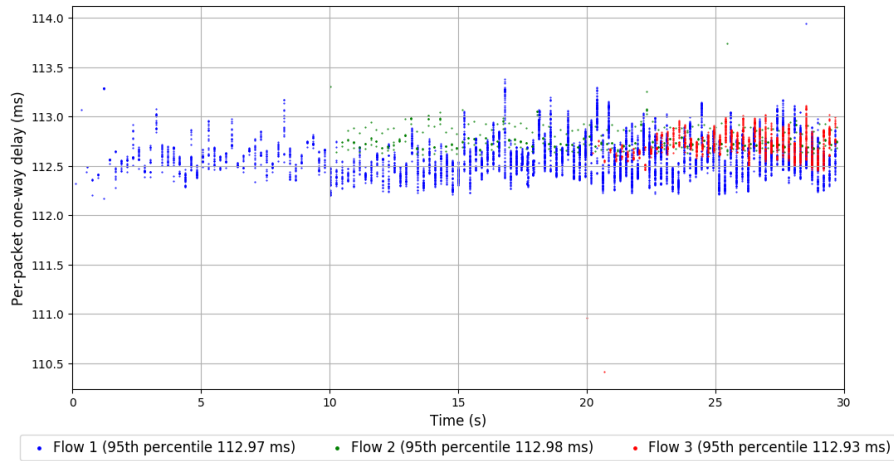
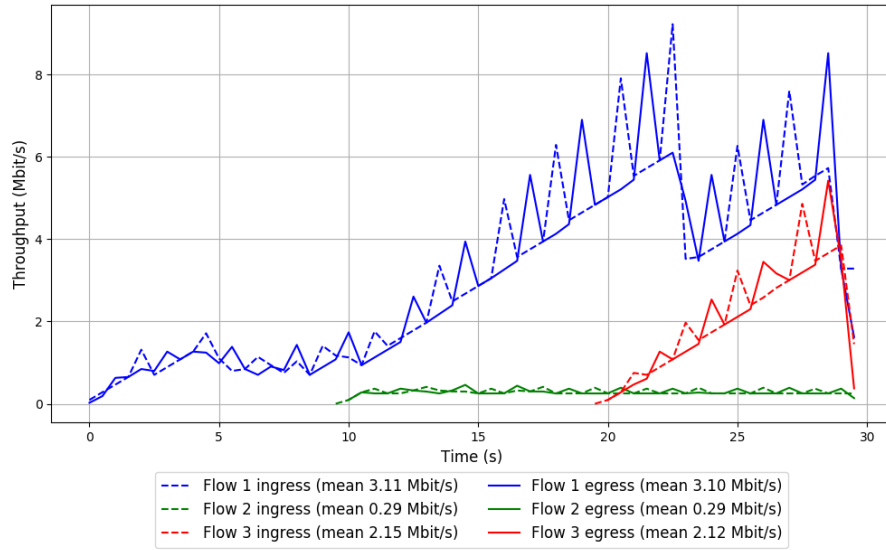
Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 112.926 ms

Loss rate: 3.32%



### Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-08-21 00:24:31

End at: 2017-08-21 00:25:01

# Below is generated by plot.py at 2017-08-21 04:43:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.59 Mbit/s

95th percentile per-packet one-way delay: 113.188 ms

Loss rate: 2.61%

-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 113.200 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 112.742 ms

Loss rate: 5.36%

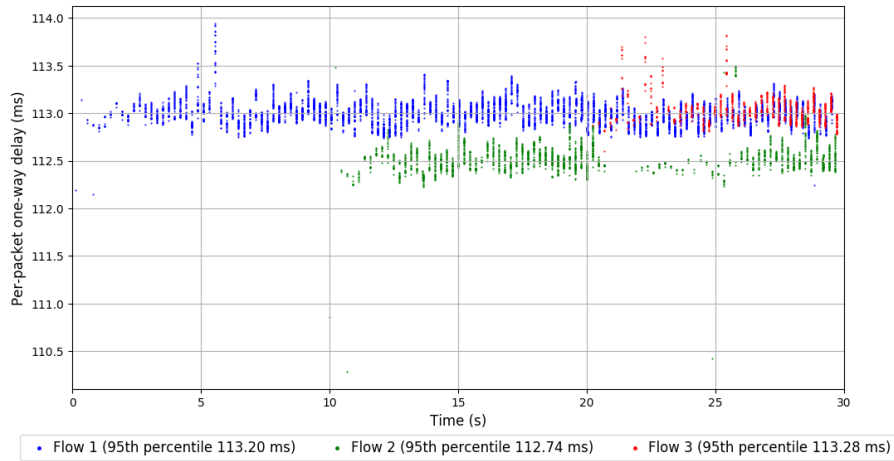
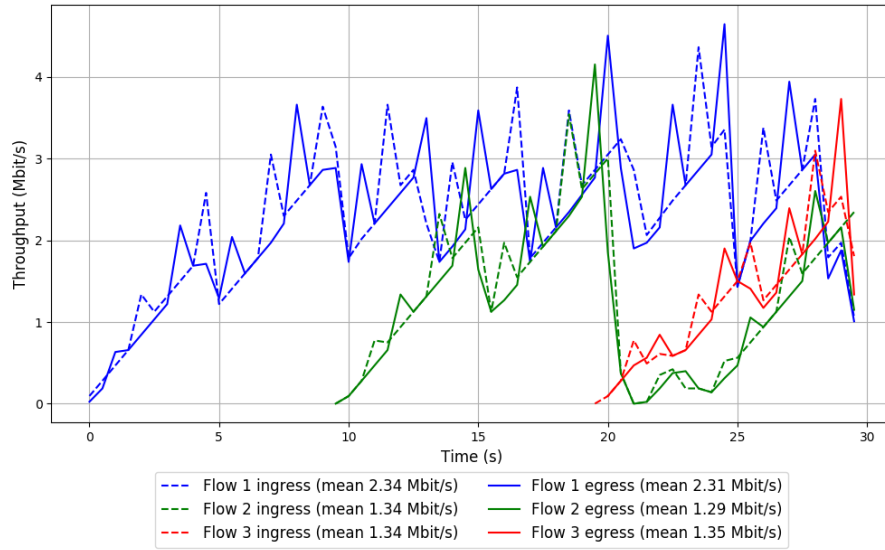
-- Flow 3:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 113.282 ms

Loss rate: 1.76%

### Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-08-21 00:37:31

End at: 2017-08-21 00:38:01

# Below is generated by plot.py at 2017-08-21 04:43:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.08 Mbit/s

95th percentile per-packet one-way delay: 113.975 ms

Loss rate: 5.05%

-- Flow 1:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 113.999 ms

Loss rate: 4.98%

-- Flow 2:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 113.892 ms

Loss rate: 4.41%

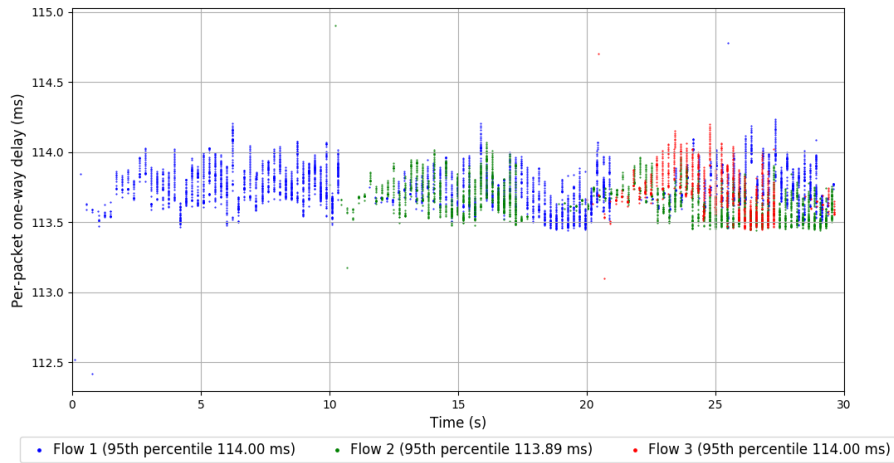
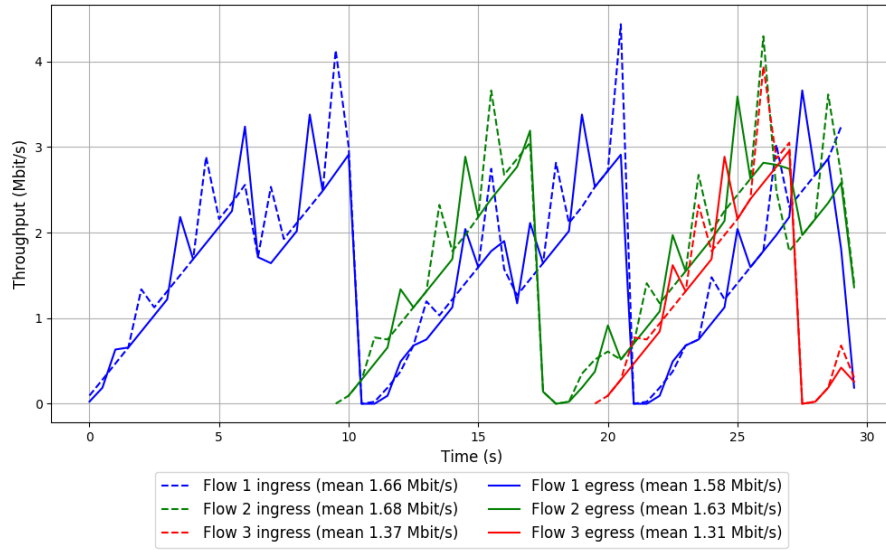
-- Flow 3:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 114.004 ms

Loss rate: 6.88%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-21 00:50:28

End at: 2017-08-21 00:50:58

# Below is generated by plot.py at 2017-08-21 04:43:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.36 Mbit/s

95th percentile per-packet one-way delay: 114.315 ms

Loss rate: 2.44%

-- Flow 1:

Average throughput: 3.64 Mbit/s

95th percentile per-packet one-way delay: 114.205 ms

Loss rate: 2.13%

-- Flow 2:

Average throughput: 4.53 Mbit/s

95th percentile per-packet one-way delay: 114.387 ms

Loss rate: 2.30%

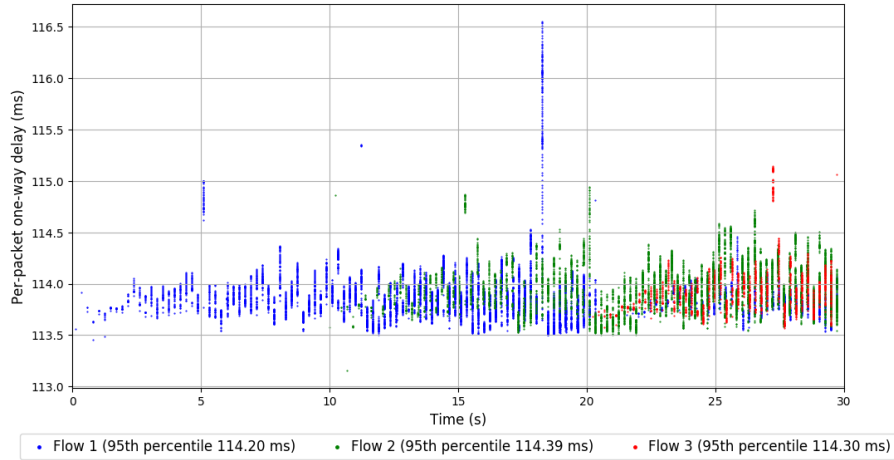
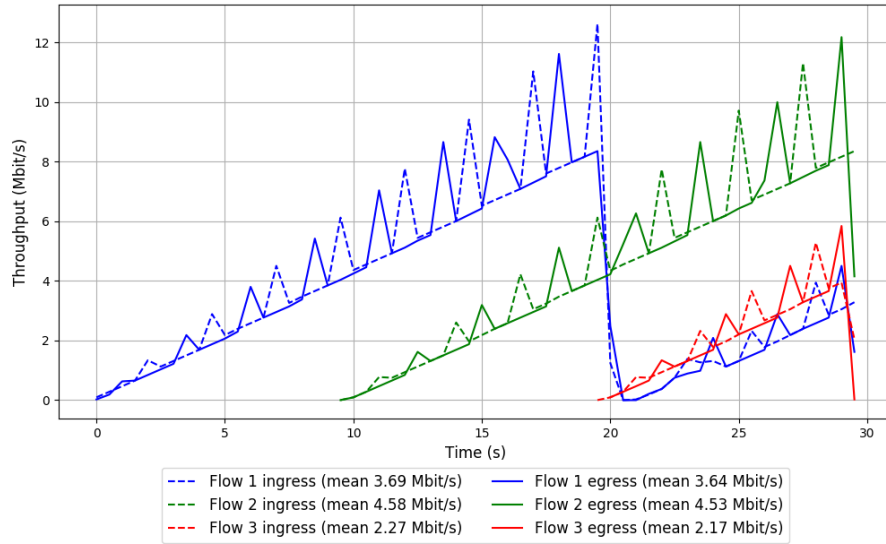
-- Flow 3:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 114.295 ms

Loss rate: 4.57%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-08-21 01:03:31

End at: 2017-08-21 01:04:01

# Below is generated by plot.py at 2017-08-21 04:43:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 113.645 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 3.54 Mbit/s

95th percentile per-packet one-way delay: 113.710 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 112.734 ms

Loss rate: 0.97%

-- Flow 3:

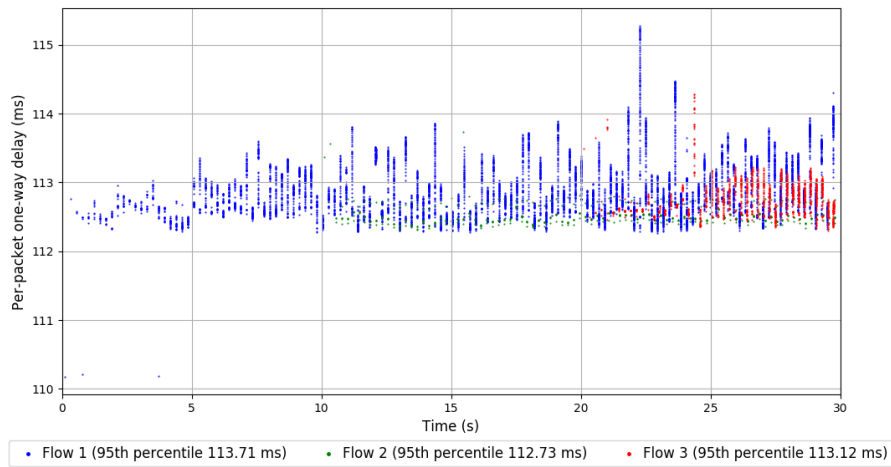
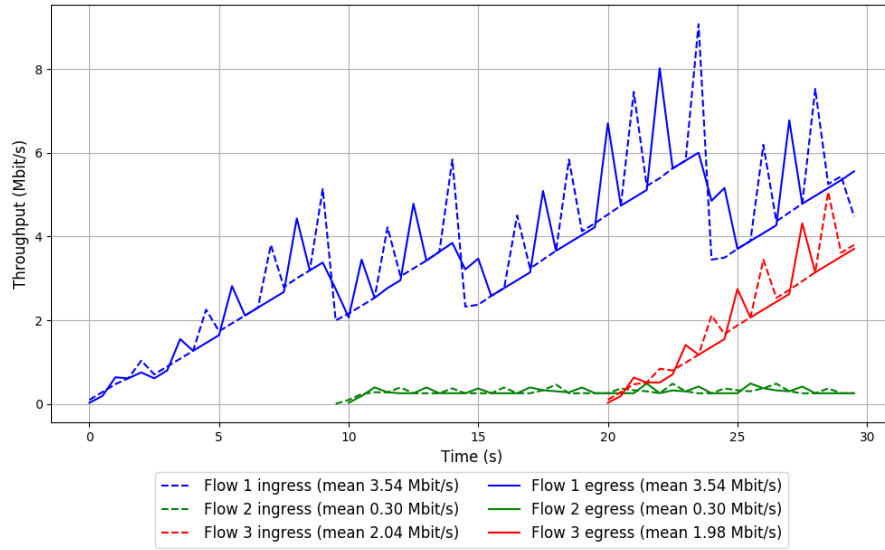
Average throughput: 1.98 Mbit/s

95th percentile per-packet one-way delay: 113.124 ms

Loss rate: 4.79%



Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-21 01:16:45

End at: 2017-08-21 01:17:15

# Below is generated by plot.py at 2017-08-21 04:43:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 113.136 ms

Loss rate: 3.48%

-- Flow 1:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 113.050 ms

Loss rate: 4.17%

-- Flow 2:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 113.226 ms

Loss rate: 2.50%

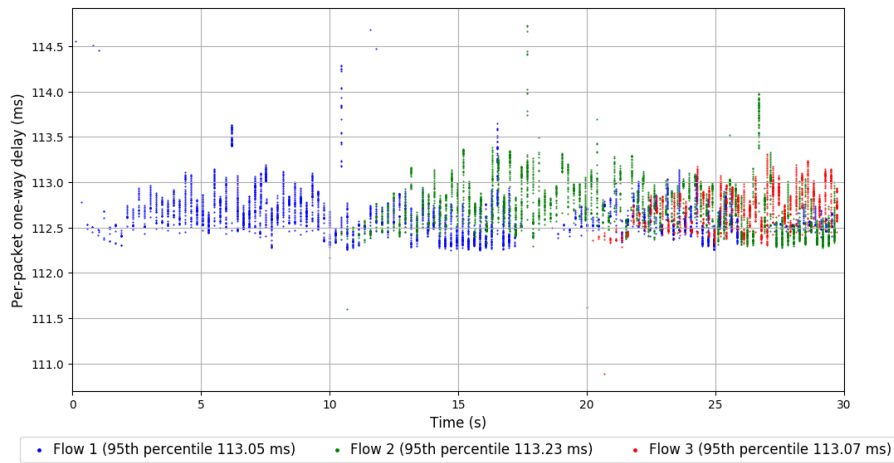
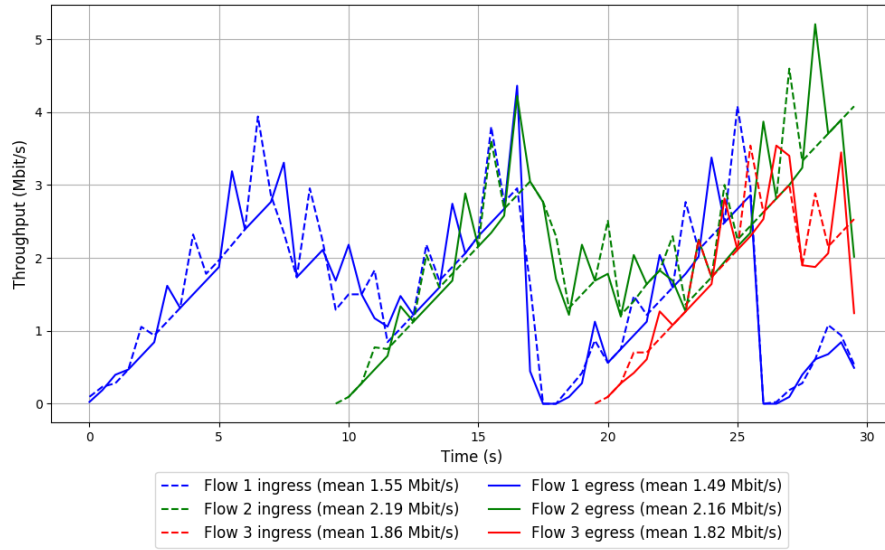
-- Flow 3:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 113.074 ms

Loss rate: 4.07%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-21 01:29:39

End at: 2017-08-21 01:30:09

# Below is generated by plot.py at 2017-08-21 04:43:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 112.789 ms

Loss rate: 2.77%

-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.840 ms

Loss rate: 2.36%

-- Flow 2:

Average throughput: 2.54 Mbit/s

95th percentile per-packet one-way delay: 112.661 ms

Loss rate: 2.50%

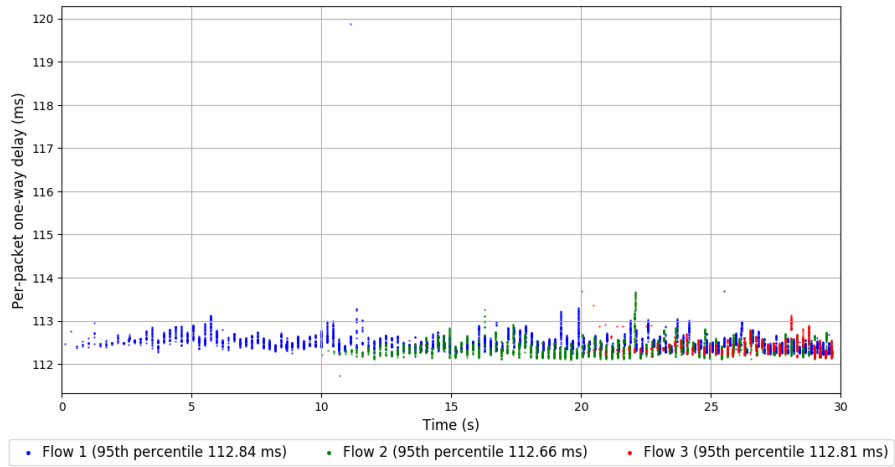
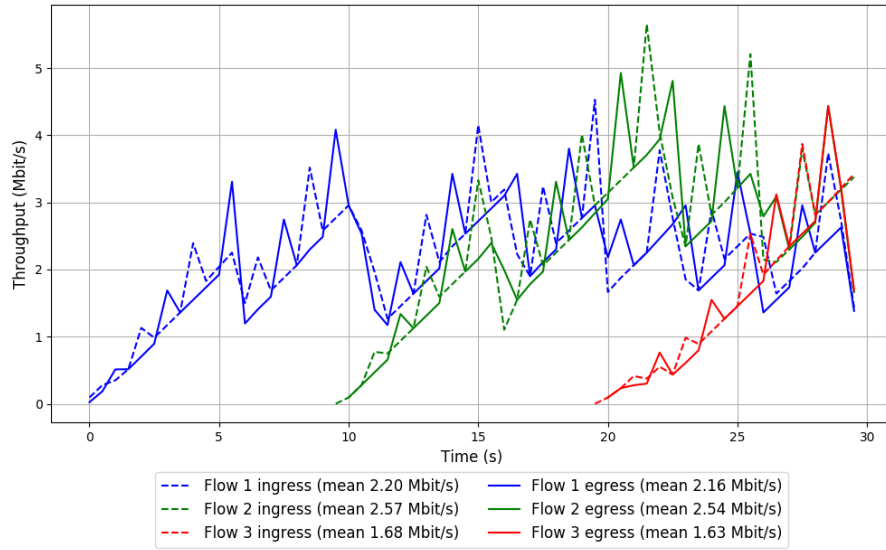
-- Flow 3:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 112.812 ms

Loss rate: 5.25%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-08-21 01:42:38

End at: 2017-08-21 01:43:08

# Below is generated by plot.py at 2017-08-21 04:43:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.05 Mbit/s

95th percentile per-packet one-way delay: 113.039 ms

Loss rate: 2.49%

-- Flow 1:

Average throughput: 1.96 Mbit/s

95th percentile per-packet one-way delay: 113.051 ms

Loss rate: 1.92%

-- Flow 2:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 113.031 ms

Loss rate: 3.17%

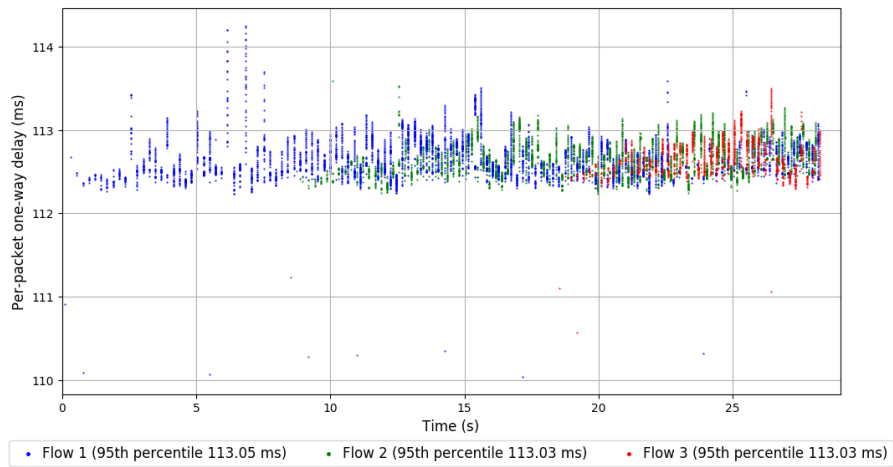
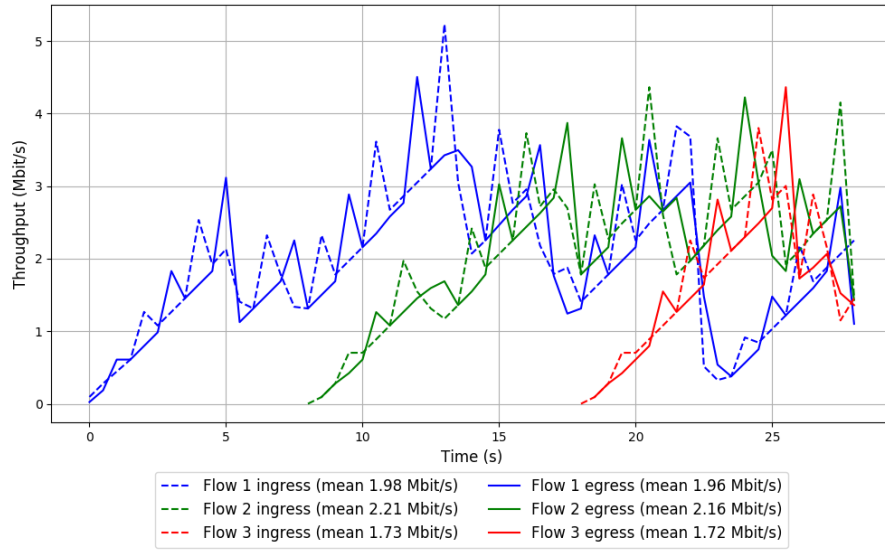
-- Flow 3:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 113.027 ms

Loss rate: 2.60%

### Run 10: Report of LEDBAT — Data Link



Run 1: Statistics of PCC

Start at: 2017-08-20 23:53:16

End at: 2017-08-20 23:53:46

# Below is generated by plot.py at 2017-08-21 04:44:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 151.69 Mbit/s

95th percentile per-packet one-way delay: 112.812 ms

Loss rate: 25.81%

-- Flow 1:

Average throughput: 82.01 Mbit/s

95th percentile per-packet one-way delay: 112.824 ms

Loss rate: 29.52%

-- Flow 2:

Average throughput: 34.45 Mbit/s

95th percentile per-packet one-way delay: 112.809 ms

Loss rate: 42.35%

-- Flow 3:

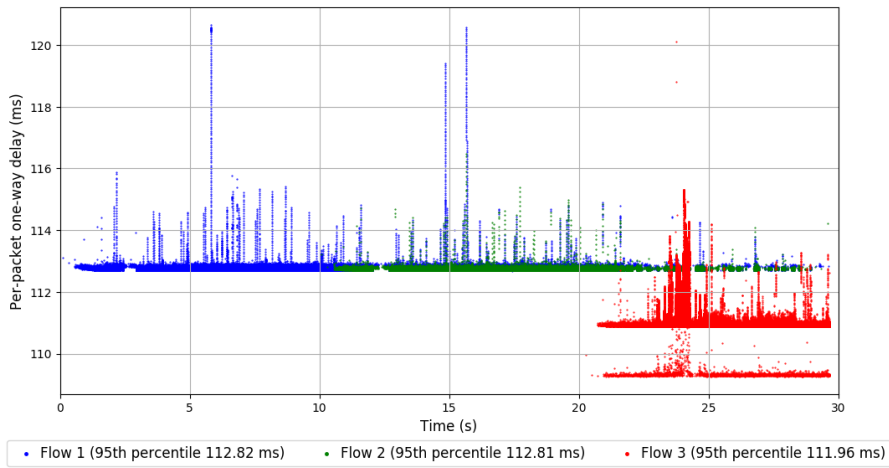
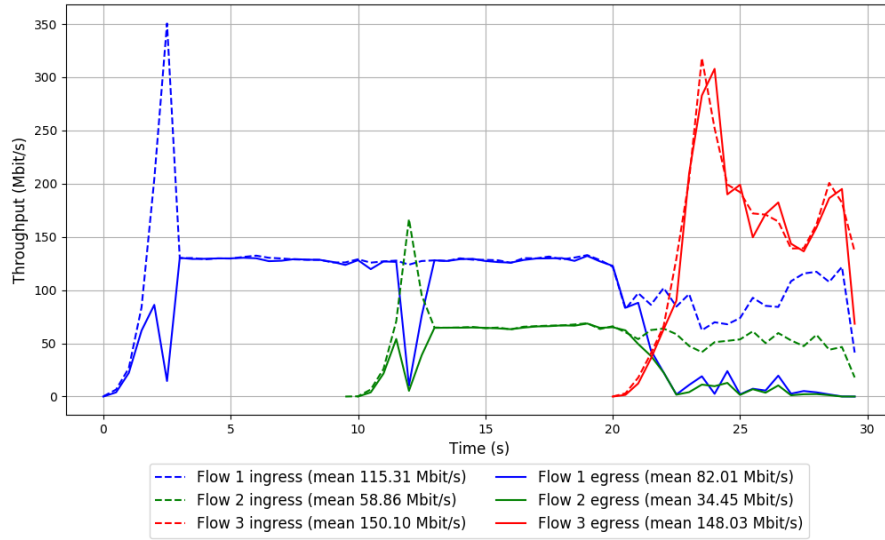
Average throughput: 148.03 Mbit/s

95th percentile per-packet one-way delay: 111.961 ms

Loss rate: 3.62%



### Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-08-21 00:05:55

End at: 2017-08-21 00:06:25

# Below is generated by plot.py at 2017-08-21 04:44:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 327.69 Mbit/s

95th percentile per-packet one-way delay: 117.697 ms

Loss rate: 4.26%

-- Flow 1:

Average throughput: 327.03 Mbit/s

95th percentile per-packet one-way delay: 117.707 ms

Loss rate: 3.59%

-- Flow 2:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 112.768 ms

Loss rate: 77.11%

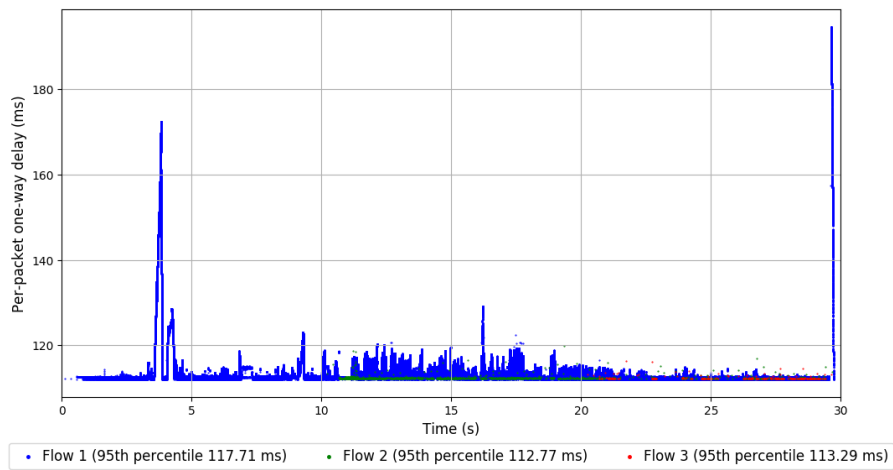
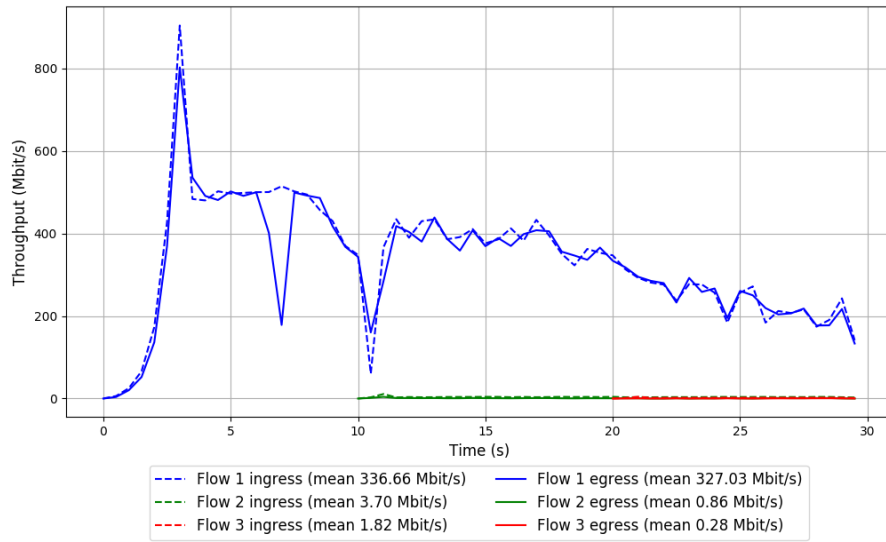
-- Flow 3:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 113.294 ms

Loss rate: 85.04%

## Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-21 00:19:00

End at: 2017-08-21 00:19:30

# Below is generated by plot.py at 2017-08-21 04:45:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 229.83 Mbit/s

95th percentile per-packet one-way delay: 112.573 ms

Loss rate: 27.85%

-- Flow 1:

Average throughput: 147.30 Mbit/s

95th percentile per-packet one-way delay: 112.323 ms

Loss rate: 28.39%

-- Flow 2:

Average throughput: 62.48 Mbit/s

95th percentile per-packet one-way delay: 112.537 ms

Loss rate: 38.92%

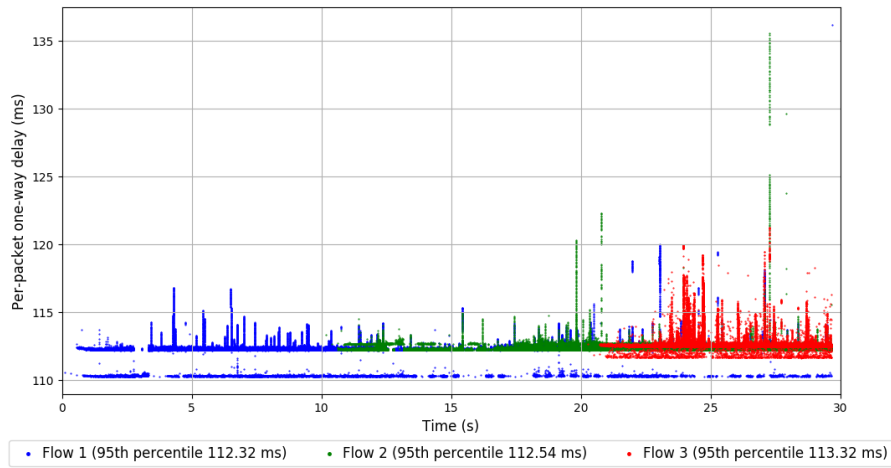
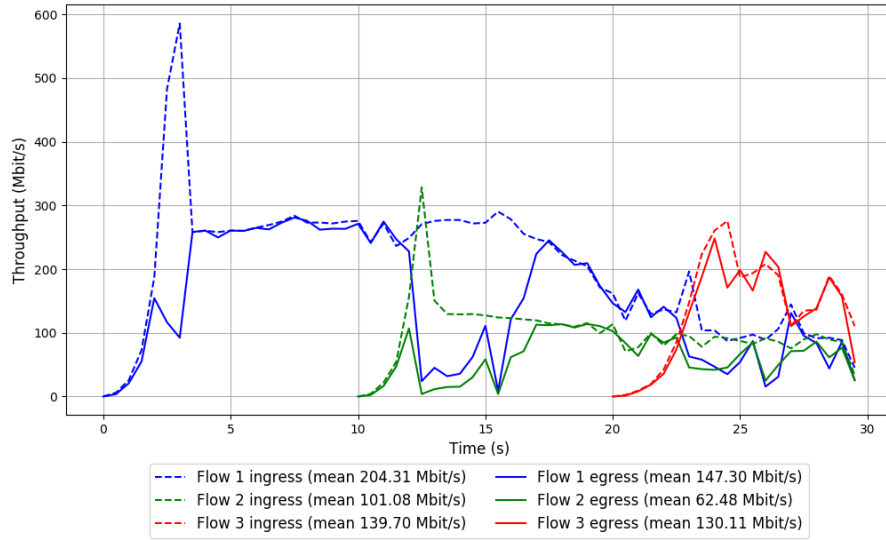
-- Flow 3:

Average throughput: 130.11 Mbit/s

95th percentile per-packet one-way delay: 113.316 ms

Loss rate: 9.02%

### Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-08-21 00:32:01

End at: 2017-08-21 00:32:31

# Below is generated by plot.py at 2017-08-21 04:45:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 325.59 Mbit/s

95th percentile per-packet one-way delay: 117.345 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 324.62 Mbit/s

95th percentile per-packet one-way delay: 117.349 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 0.67 Mbit/s

95th percentile per-packet one-way delay: 113.655 ms

Loss rate: 65.32%

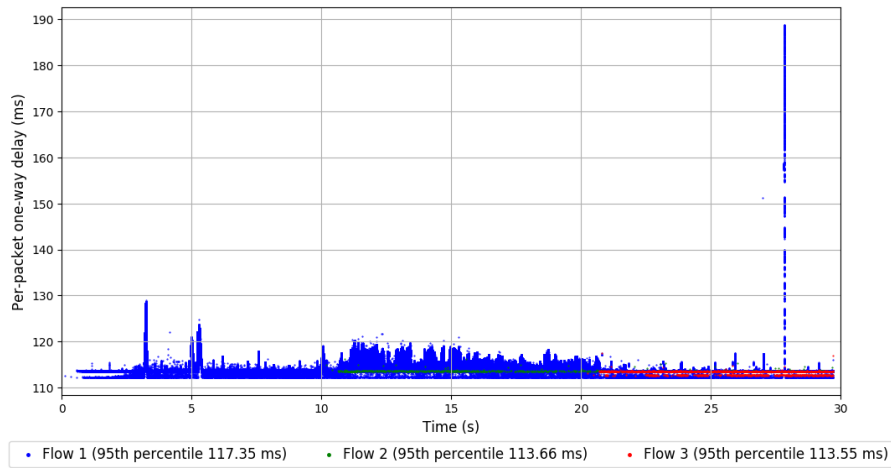
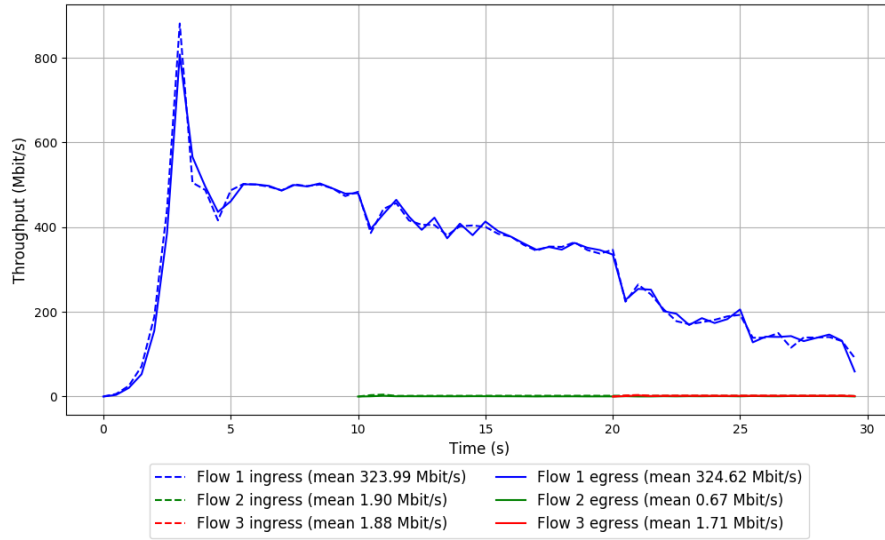
-- Flow 3:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 113.553 ms

Loss rate: 11.29%

### Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-08-21 00:45:02

End at: 2017-08-21 00:45:32

# Below is generated by plot.py at 2017-08-21 04:45:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 204.61 Mbit/s

95th percentile per-packet one-way delay: 113.575 ms

Loss rate: 15.37%

-- Flow 1:

Average throughput: 163.67 Mbit/s

95th percentile per-packet one-way delay: 113.571 ms

Loss rate: 14.76%

-- Flow 2:

Average throughput: 28.56 Mbit/s

95th percentile per-packet one-way delay: 113.569 ms

Loss rate: 7.75%

-- Flow 3:

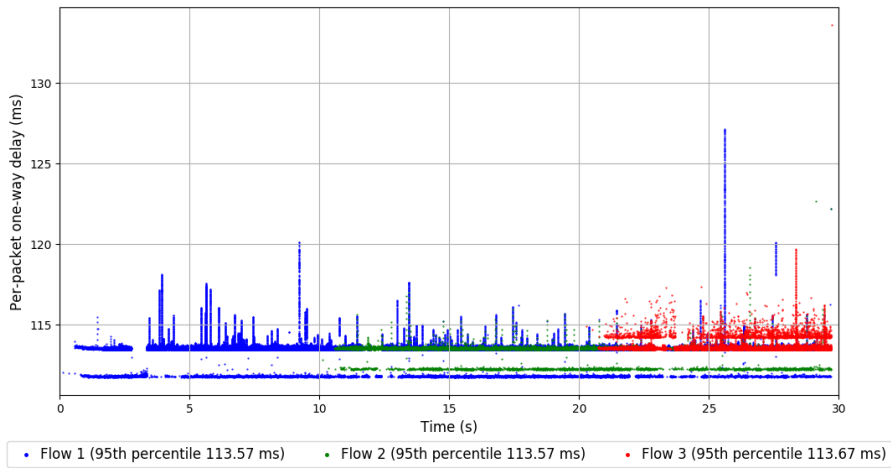
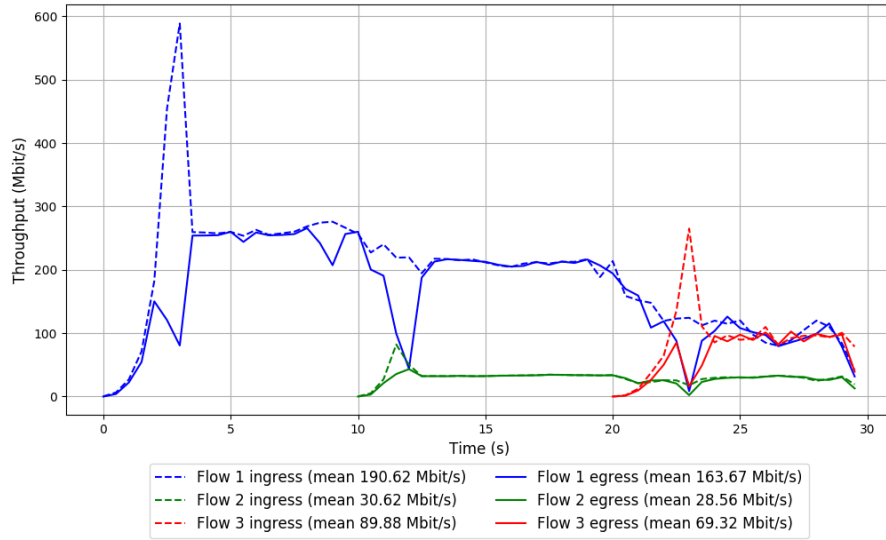
Average throughput: 69.32 Mbit/s

95th percentile per-packet one-way delay: 113.665 ms

Loss rate: 24.64%



### Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-08-21 00:57:50

End at: 2017-08-21 00:58:20

# Below is generated by plot.py at 2017-08-21 04:47:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 432.87 Mbit/s

95th percentile per-packet one-way delay: 118.357 ms

Loss rate: 4.44%

-- Flow 1:

Average throughput: 278.19 Mbit/s

95th percentile per-packet one-way delay: 117.523 ms

Loss rate: 6.06%

-- Flow 2:

Average throughput: 233.15 Mbit/s

95th percentile per-packet one-way delay: 120.787 ms

Loss rate: 1.35%

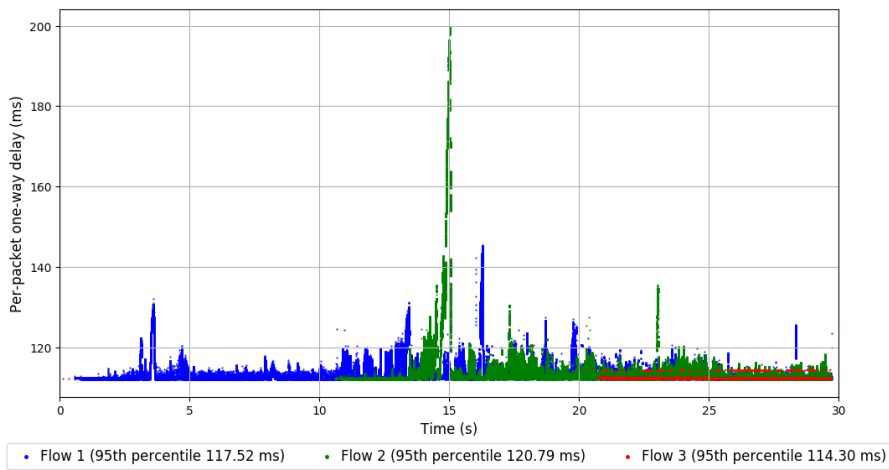
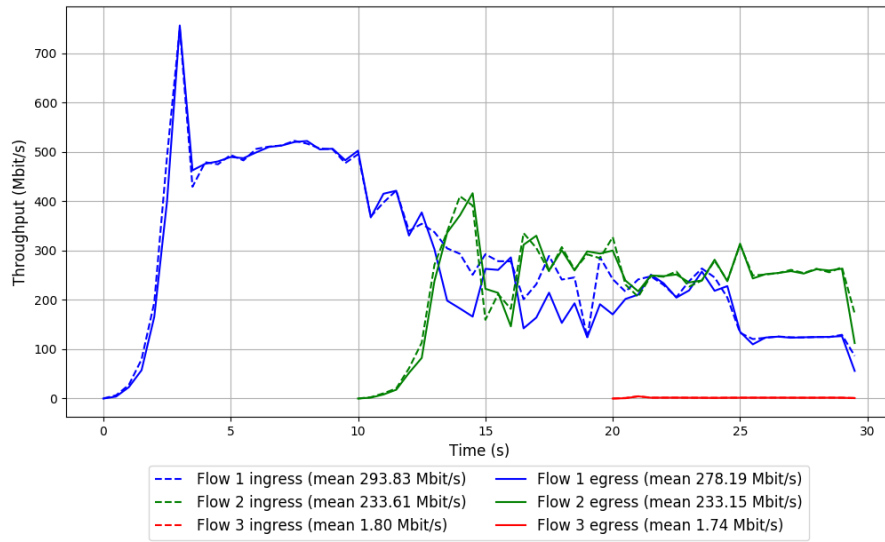
-- Flow 3:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 114.296 ms

Loss rate: 5.35%

### Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-08-21 01:11:13

End at: 2017-08-21 01:11:43

# Below is generated by plot.py at 2017-08-21 04:47:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 227.02 Mbit/s

95th percentile per-packet one-way delay: 118.900 ms

Loss rate: 26.03%

-- Flow 1:

Average throughput: 39.06 Mbit/s

95th percentile per-packet one-way delay: 112.379 ms

Loss rate: 66.02%

-- Flow 2:

Average throughput: 199.71 Mbit/s

95th percentile per-packet one-way delay: 113.221 ms

Loss rate: 1.23%

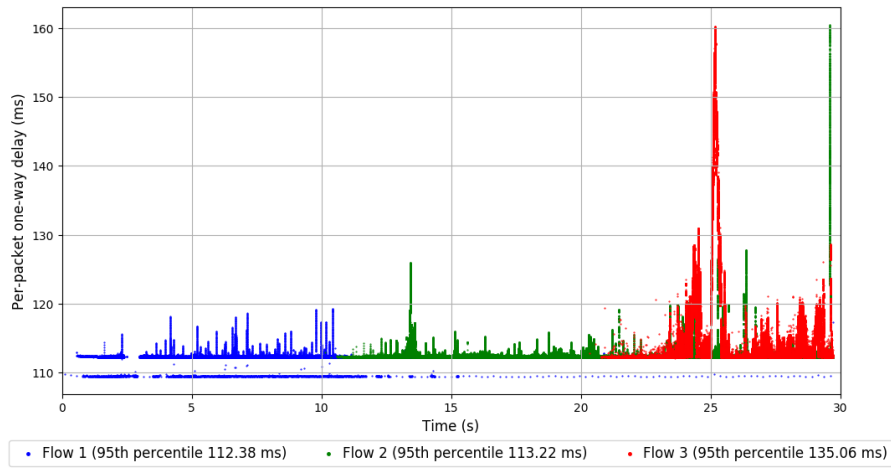
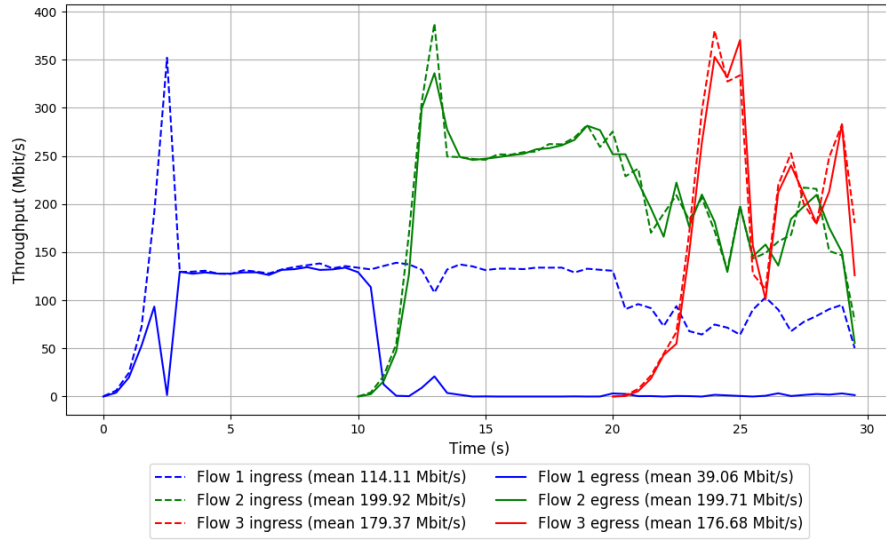
-- Flow 3:

Average throughput: 176.68 Mbit/s

95th percentile per-packet one-way delay: 135.063 ms

Loss rate: 4.04%

### Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-21 01:24:25

End at: 2017-08-21 01:24:55

# Below is generated by plot.py at 2017-08-21 04:47:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 132.08 Mbit/s

95th percentile per-packet one-way delay: 112.700 ms

Loss rate: 21.30%

-- Flow 1:

Average throughput: 81.90 Mbit/s

95th percentile per-packet one-way delay: 112.447 ms

Loss rate: 28.48%

-- Flow 2:

Average throughput: 4.91 Mbit/s

95th percentile per-packet one-way delay: 112.500 ms

Loss rate: 39.09%

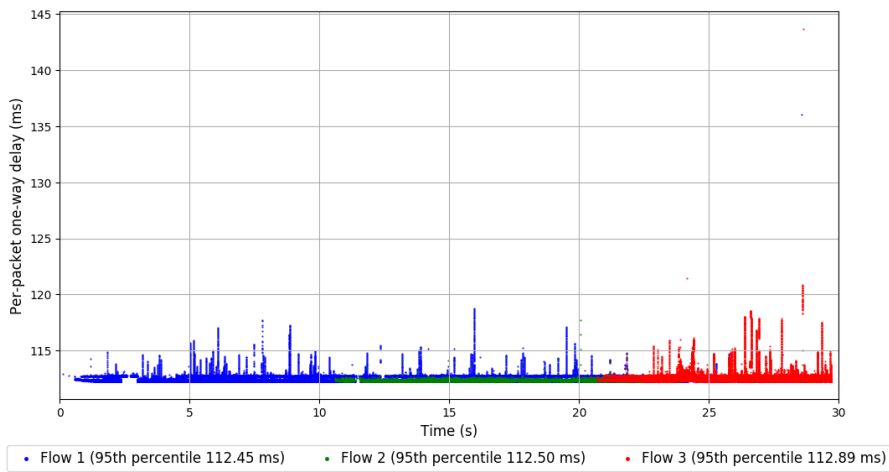
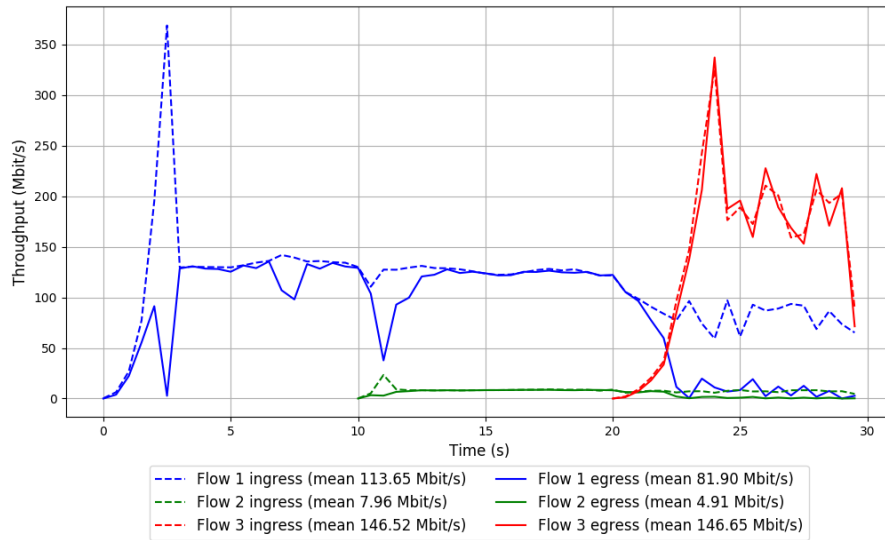
-- Flow 3:

Average throughput: 146.65 Mbit/s

95th percentile per-packet one-way delay: 112.895 ms

Loss rate: 2.21%

### Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-08-21 01:37:23

End at: 2017-08-21 01:37:53

# Below is generated by plot.py at 2017-08-21 04:47:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 222.78 Mbit/s

95th percentile per-packet one-way delay: 112.355 ms

Loss rate: 26.13%

-- Flow 1:

Average throughput: 109.84 Mbit/s

95th percentile per-packet one-way delay: 111.874 ms

Loss rate: 41.40%

-- Flow 2:

Average throughput: 170.77 Mbit/s

95th percentile per-packet one-way delay: 112.526 ms

Loss rate: 0.64%

-- Flow 3:

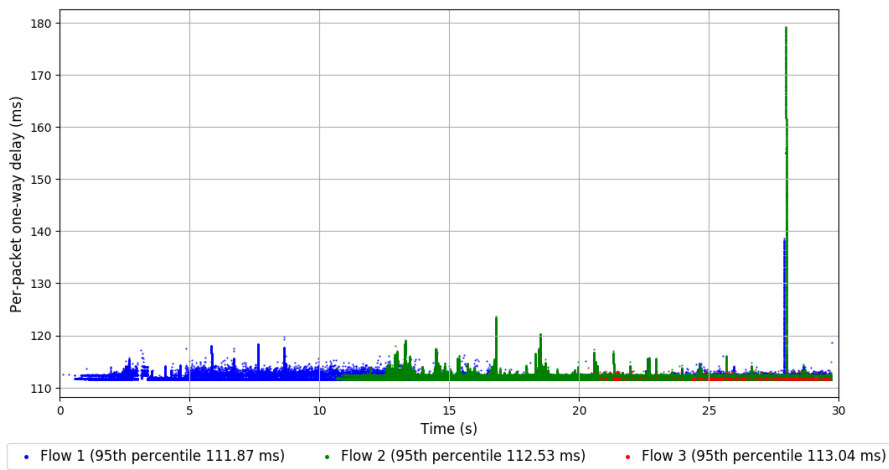
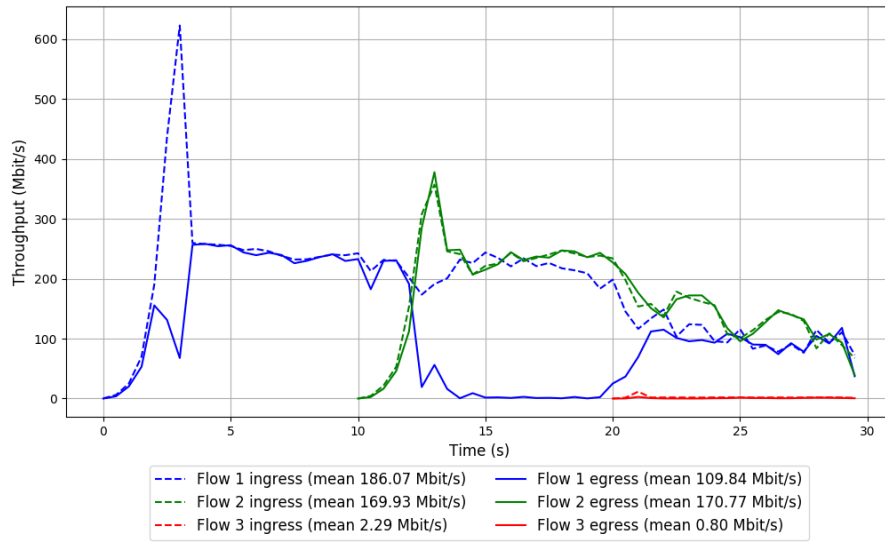
Average throughput: 0.80 Mbit/s

95th percentile per-packet one-way delay: 113.044 ms

Loss rate: 65.99%



### Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-08-21 01:50:11

End at: 2017-08-21 01:50:41

# Below is generated by plot.py at 2017-08-21 04:48:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 221.23 Mbit/s

95th percentile per-packet one-way delay: 112.460 ms

Loss rate: 26.38%

-- Flow 1:

Average throughput: 115.71 Mbit/s

95th percentile per-packet one-way delay: 112.006 ms

Loss rate: 40.39%

-- Flow 2:

Average throughput: 158.90 Mbit/s

95th percentile per-packet one-way delay: 113.024 ms

Loss rate: 0.77%

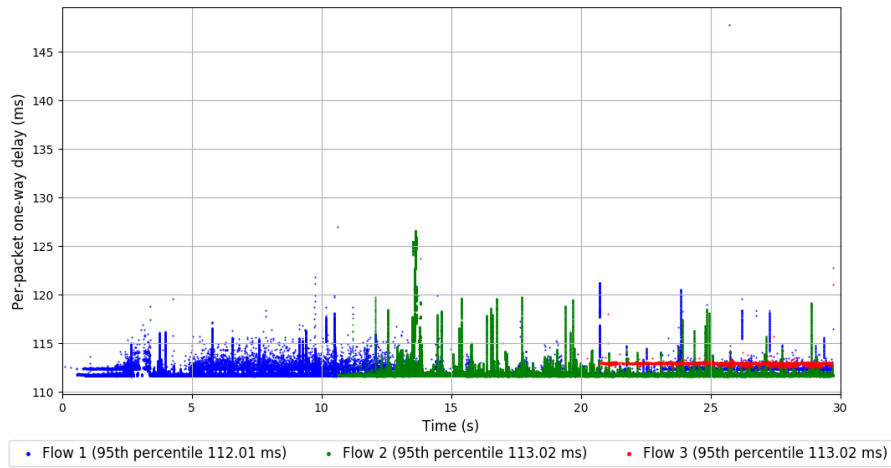
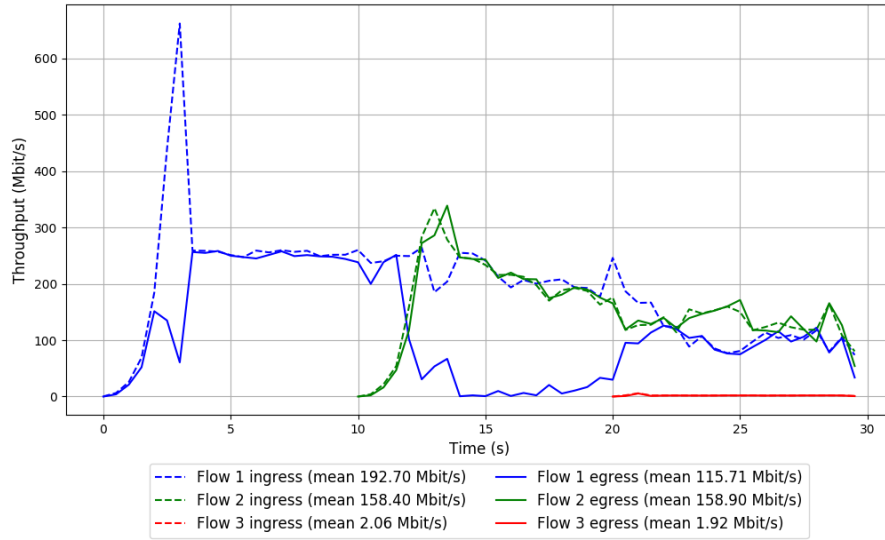
-- Flow 3:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 113.022 ms

Loss rate: 8.48%

Run 10: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2017-08-20 23:44:58

End at: 2017-08-20 23:45:28

# Below is generated by plot.py at 2017-08-21 04:48:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.24 Mbit/s

95th percentile per-packet one-way delay: 112.520 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 110.306 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.02 Mbit/s

95th percentile per-packet one-way delay: 110.594 ms

Loss rate: 0.25%

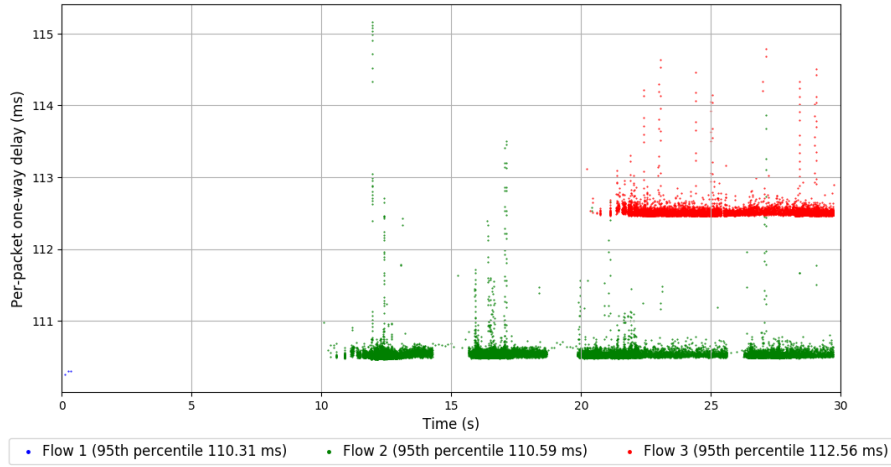
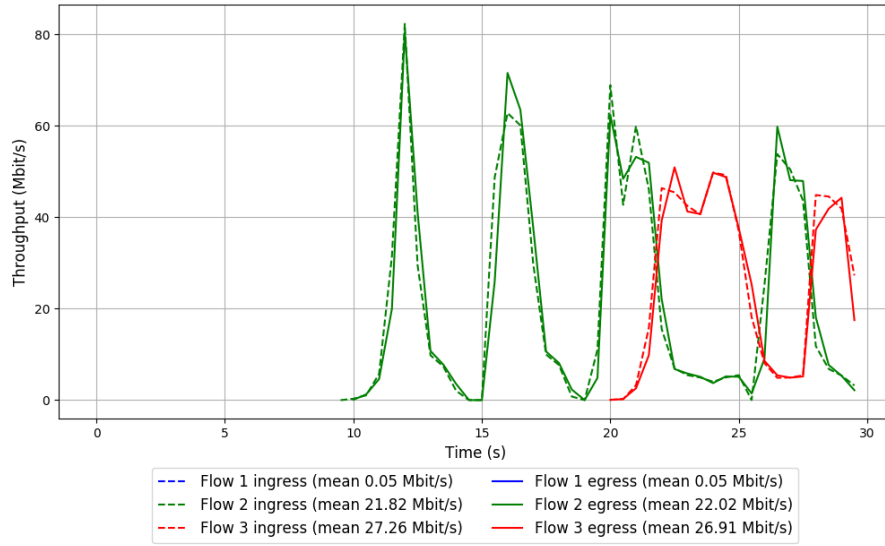
-- Flow 3:

Average throughput: 26.91 Mbit/s

95th percentile per-packet one-way delay: 112.555 ms

Loss rate: 3.57%

# Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-08-20 23:57:30

End at: 2017-08-20 23:58:00

# Below is generated by plot.py at 2017-08-21 04:48:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 25.30 Mbit/s

95th percentile per-packet one-way delay: 112.037 ms

Loss rate: 2.33%

-- Flow 1:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 115.052 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.78 Mbit/s

95th percentile per-packet one-way delay: 112.058 ms

Loss rate: 2.13%

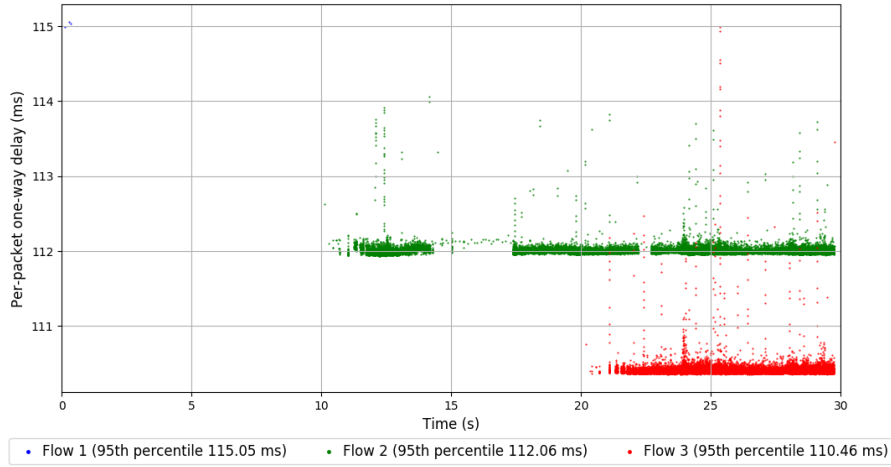
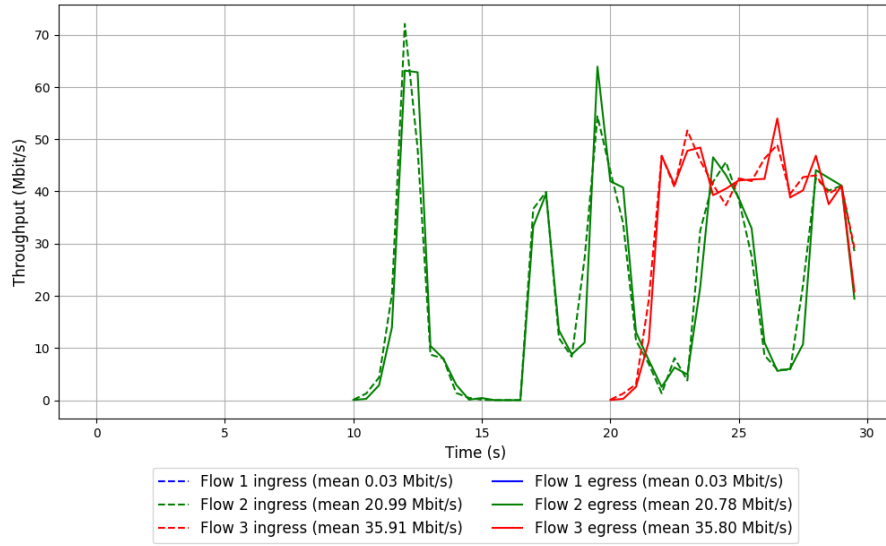
-- Flow 3:

Average throughput: 35.80 Mbit/s

95th percentile per-packet one-way delay: 110.464 ms

Loss rate: 2.57%

## Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-21 00:10:33

End at: 2017-08-21 00:11:03

# Below is generated by plot.py at 2017-08-21 04:48:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.77 Mbit/s

95th percentile per-packet one-way delay: 112.574 ms

Loss rate: 1.96%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 109.893 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.20 Mbit/s

95th percentile per-packet one-way delay: 112.593 ms

Loss rate: 1.03%

-- Flow 3:

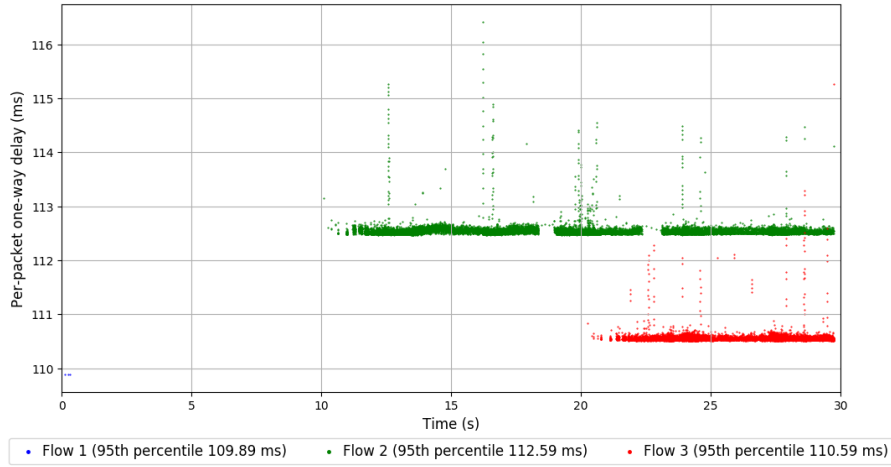
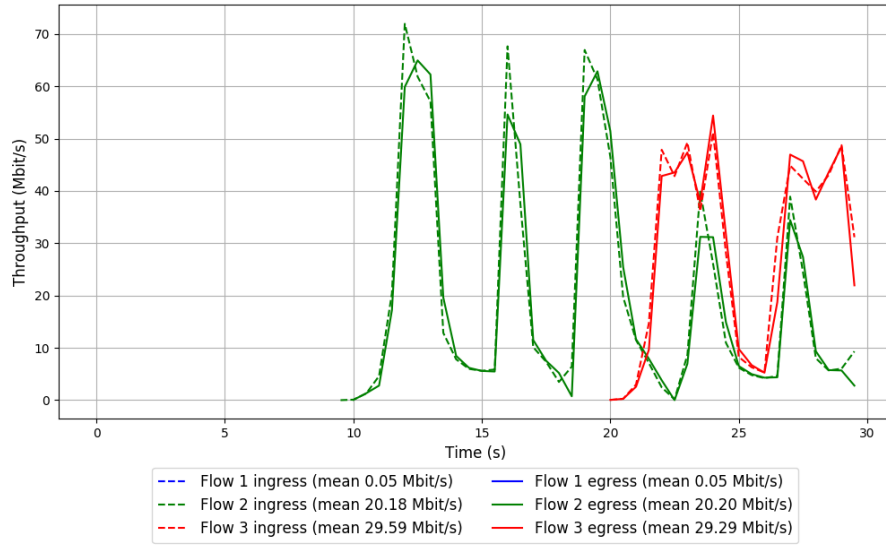
Average throughput: 29.29 Mbit/s

95th percentile per-packet one-way delay: 110.590 ms

Loss rate: 3.25%



### Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-08-21 00:23:42

End at: 2017-08-21 00:24:12

# Below is generated by plot.py at 2017-08-21 04:48:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 20.37 Mbit/s

95th percentile per-packet one-way delay: 112.281 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.932 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.59 Mbit/s

95th percentile per-packet one-way delay: 111.258 ms

Loss rate: 0.26%

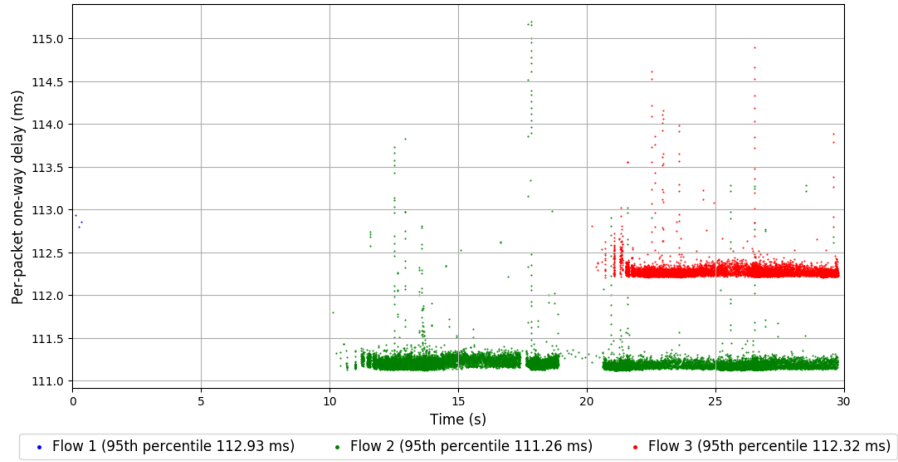
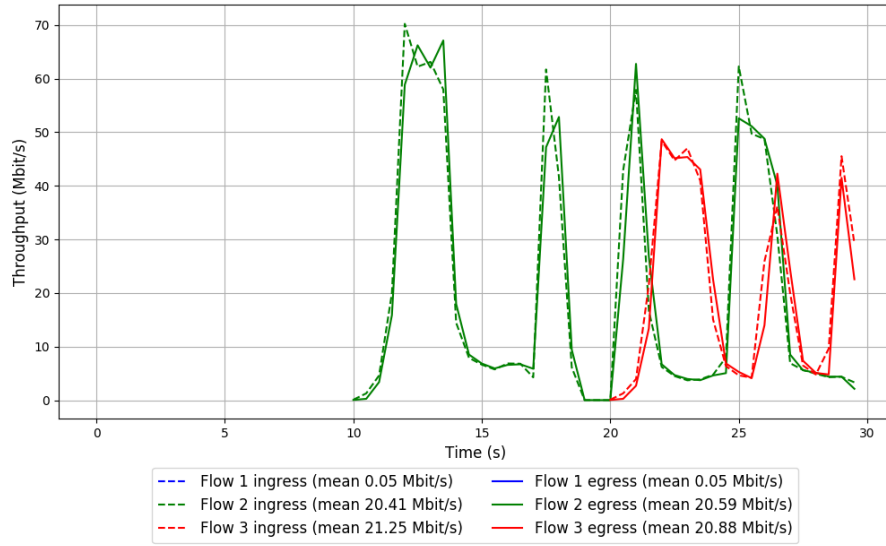
-- Flow 3:

Average throughput: 20.88 Mbit/s

95th percentile per-packet one-way delay: 112.321 ms

Loss rate: 3.97%

### Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-08-21 00:36:42

End at: 2017-08-21 00:37:12

# Below is generated by plot.py at 2017-08-21 04:48:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 24.65 Mbit/s

95th percentile per-packet one-way delay: 113.674 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 110.656 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 24.98 Mbit/s

95th percentile per-packet one-way delay: 113.033 ms

Loss rate: 0.28%

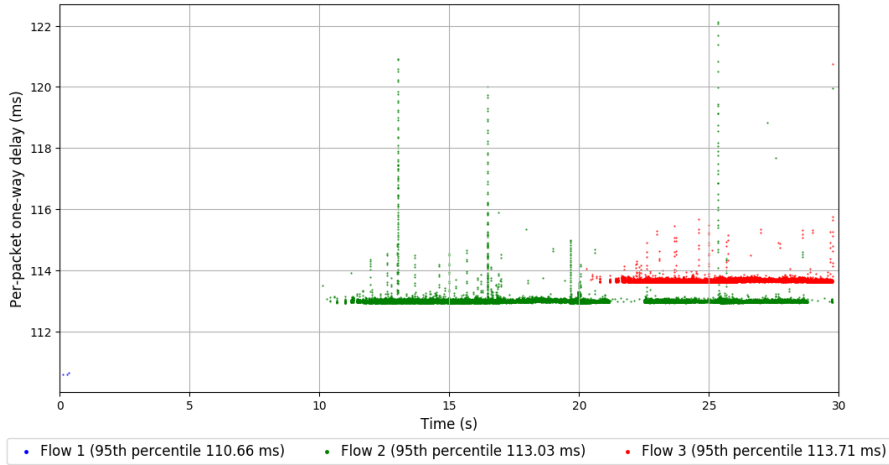
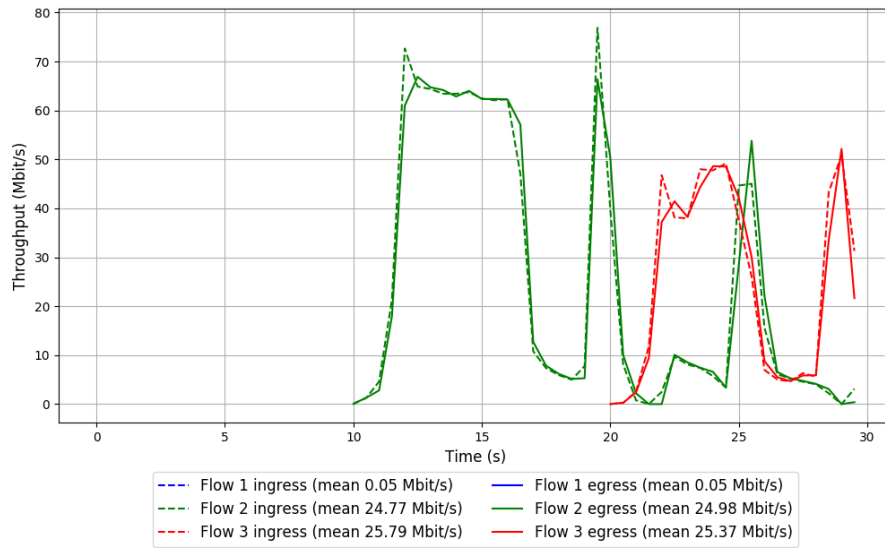
-- Flow 3:

Average throughput: 25.37 Mbit/s

95th percentile per-packet one-way delay: 113.713 ms

Loss rate: 3.88%

### Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-08-21 00:49:38

End at: 2017-08-21 00:50:08

# Below is generated by plot.py at 2017-08-21 04:48:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.04 Mbit/s

95th percentile per-packet one-way delay: 113.603 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 113.241 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.41 Mbit/s

95th percentile per-packet one-way delay: 113.617 ms

Loss rate: 0.59%

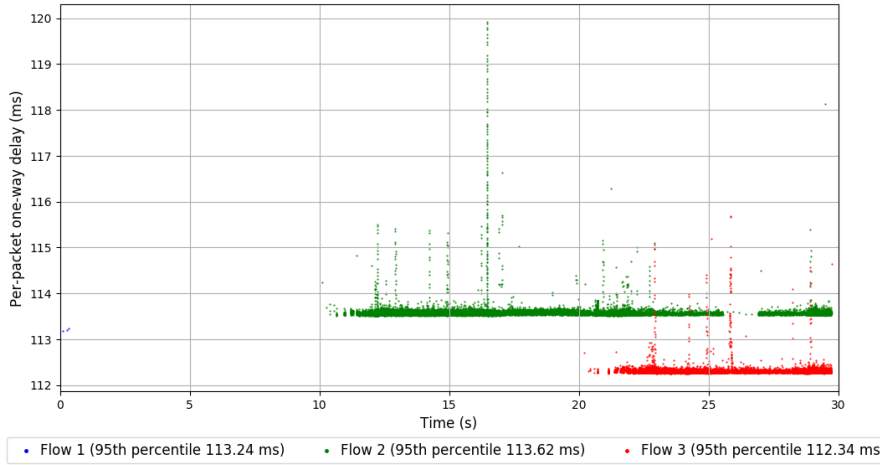
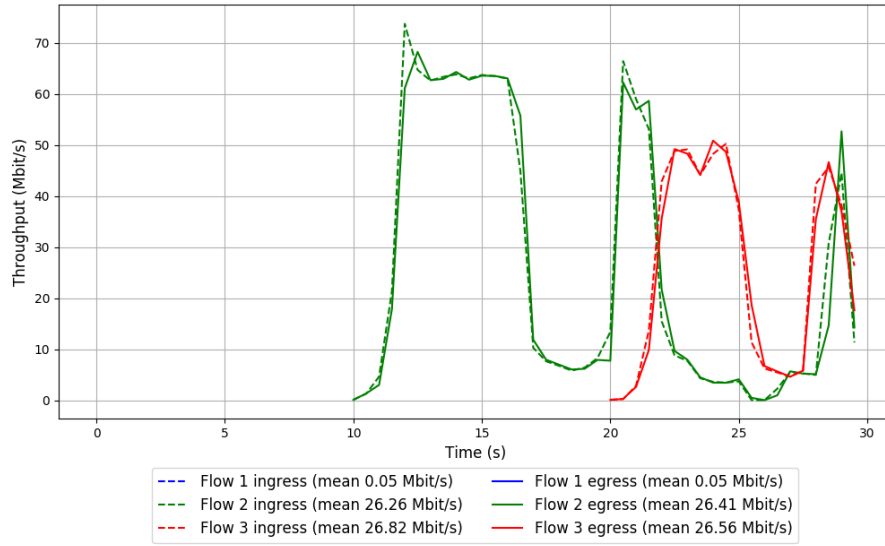
-- Flow 3:

Average throughput: 26.56 Mbit/s

95th percentile per-packet one-way delay: 112.340 ms

Loss rate: 3.25%

### Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-08-21 01:02:42

End at: 2017-08-21 01:03:12

# Below is generated by plot.py at 2017-08-21 04:48:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 25.76 Mbit/s

95th percentile per-packet one-way delay: 112.300 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 111.725 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.42 Mbit/s

95th percentile per-packet one-way delay: 111.623 ms

Loss rate: 0.37%

-- Flow 3:

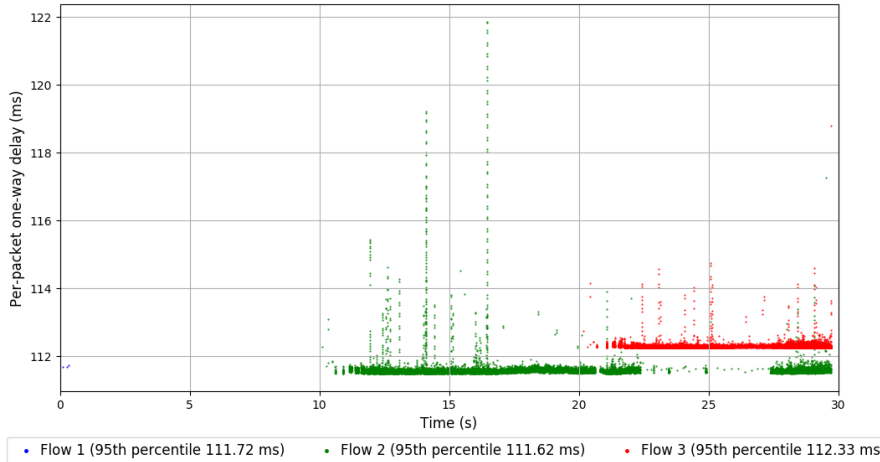
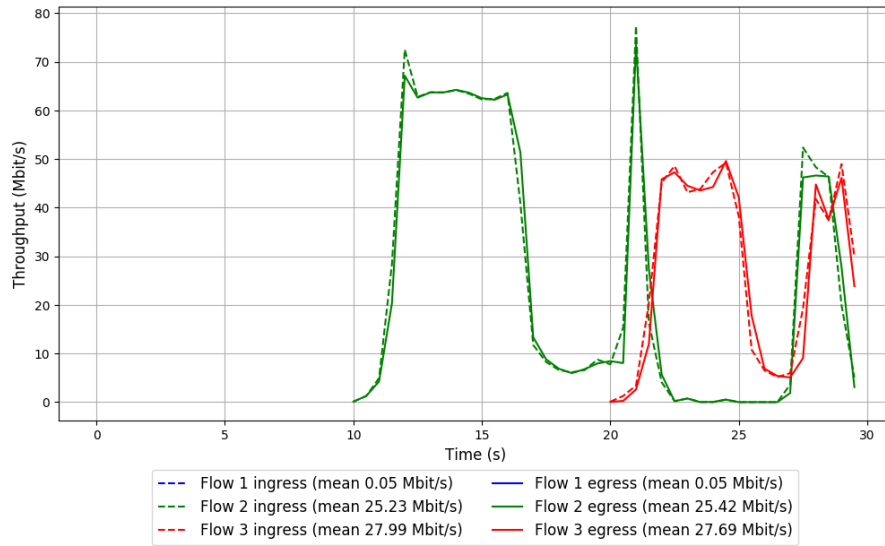
Average throughput: 27.69 Mbit/s

95th percentile per-packet one-way delay: 112.331 ms

Loss rate: 3.27%



### Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-08-21 01:15:56

End at: 2017-08-21 01:16:26

# Below is generated by plot.py at 2017-08-21 04:48:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 28.97 Mbit/s

95th percentile per-packet one-way delay: 114.327 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 110.737 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 27.46 Mbit/s

95th percentile per-packet one-way delay: 110.651 ms

Loss rate: 0.19%

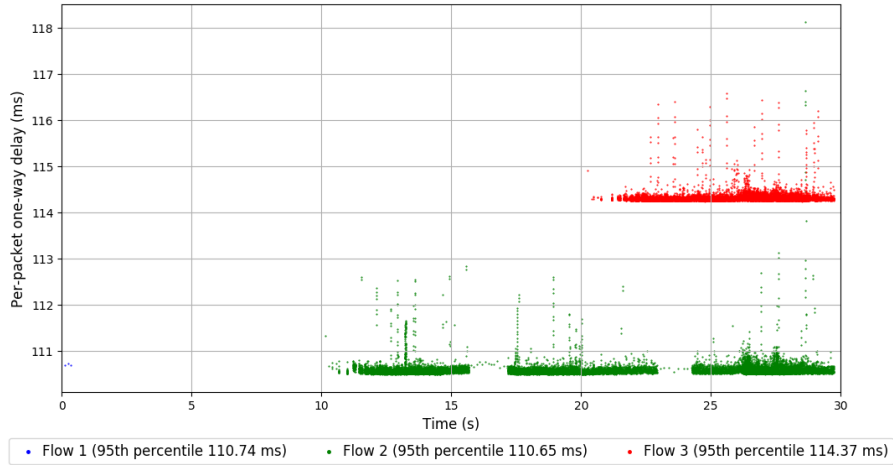
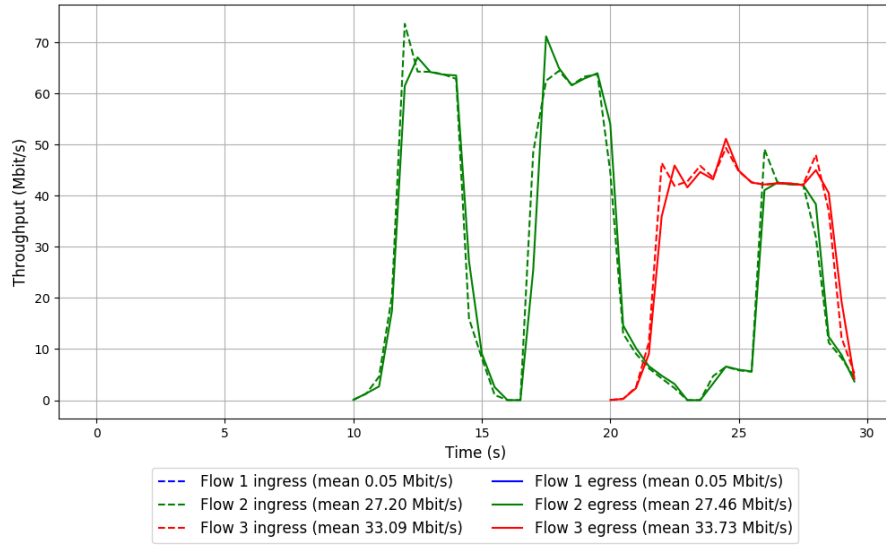
-- Flow 3:

Average throughput: 33.73 Mbit/s

95th percentile per-packet one-way delay: 114.367 ms

Loss rate: 0.50%

### Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-21 01:28:49

End at: 2017-08-21 01:29:19

# Below is generated by plot.py at 2017-08-21 04:48:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 29.66 Mbit/s

95th percentile per-packet one-way delay: 112.547 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.934 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 28.78 Mbit/s

95th percentile per-packet one-way delay: 110.374 ms

Loss rate: 1.59%

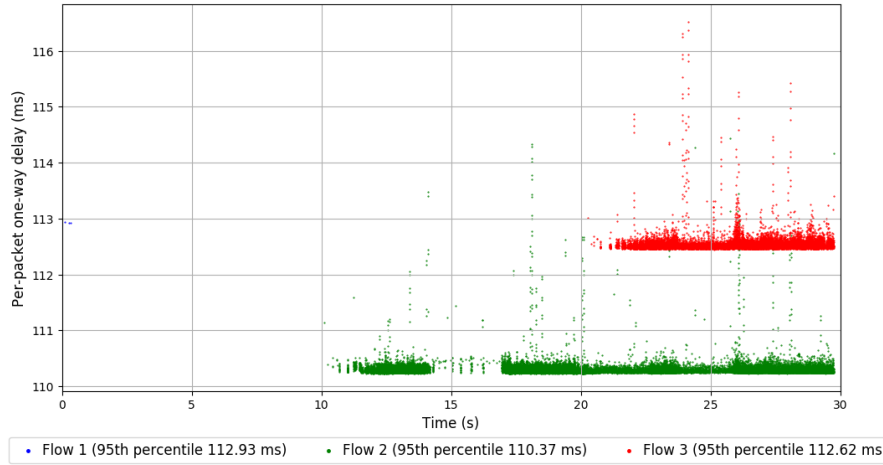
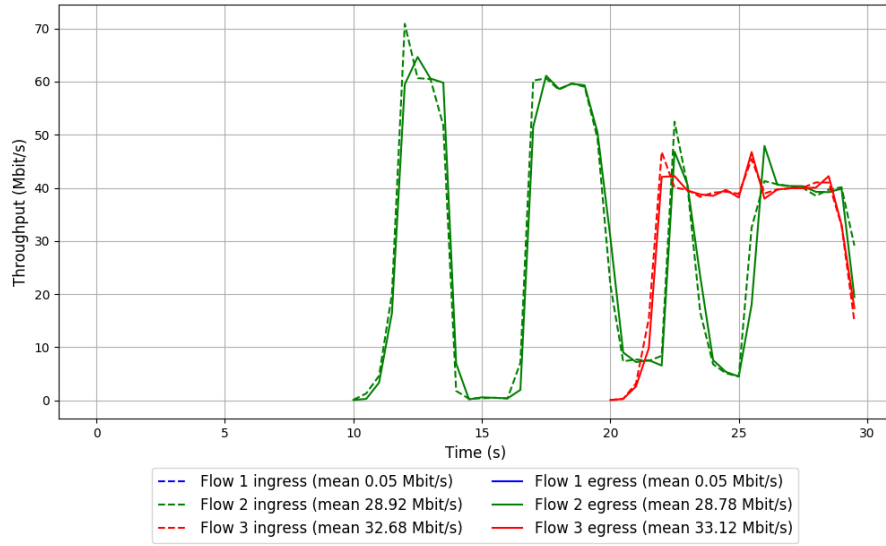
-- Flow 3:

Average throughput: 33.12 Mbit/s

95th percentile per-packet one-way delay: 112.617 ms

Loss rate: 0.98%

### Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-08-21 01:41:48

End at: 2017-08-21 01:42:18

# Below is generated by plot.py at 2017-08-21 04:48:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 34.35 Mbit/s

95th percentile per-packet one-way delay: 111.235 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 110.455 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 34.75 Mbit/s

95th percentile per-packet one-way delay: 110.742 ms

Loss rate: 0.15%

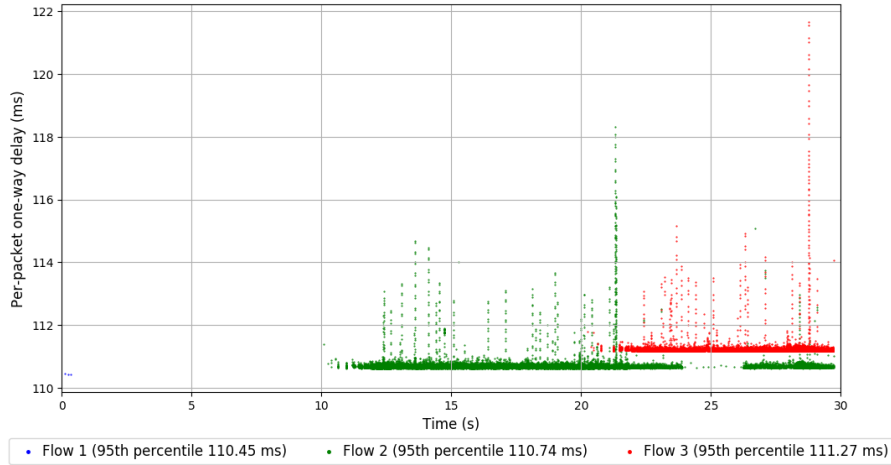
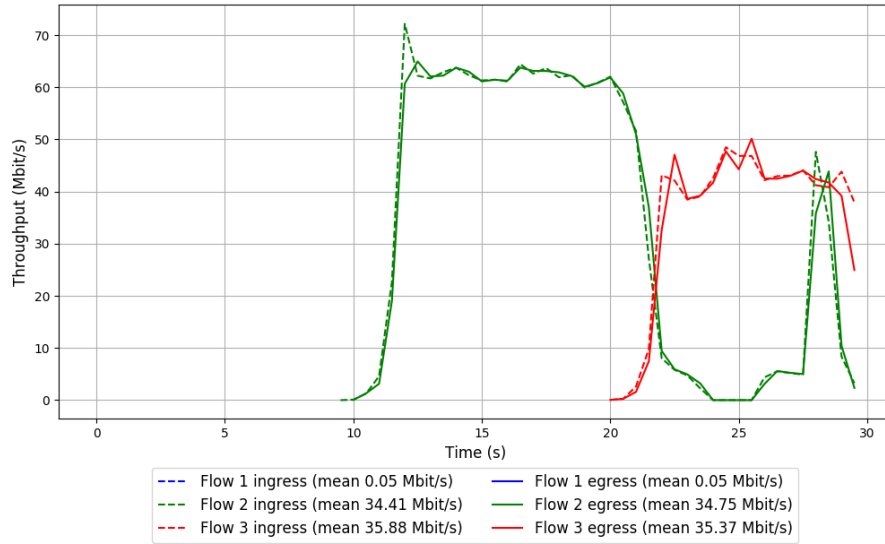
-- Flow 3:

Average throughput: 35.37 Mbit/s

95th percentile per-packet one-way delay: 111.268 ms

Loss rate: 3.65%

Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of Saturator

Start at: 2017-08-20 23:52:28

End at: 2017-08-20 23:52:58

# Below is generated by plot.py at 2017-08-21 04:48:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.41 Mbit/s

95th percentile per-packet one-way delay: 111.832 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 3.16 Mbit/s

95th percentile per-packet one-way delay: 114.112 ms

Loss rate: 57.14%

-- Flow 2:

Average throughput: 10.59 Mbit/s

95th percentile per-packet one-way delay: 111.717 ms

Loss rate: 1.41%

-- Flow 3:

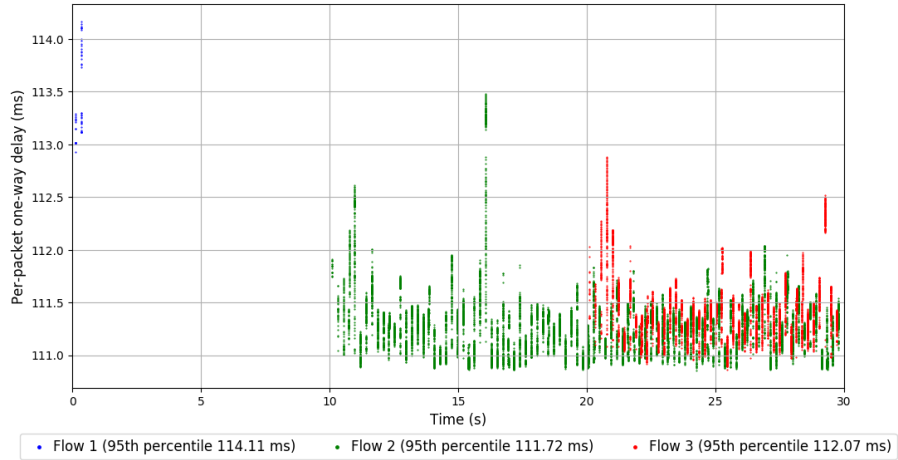
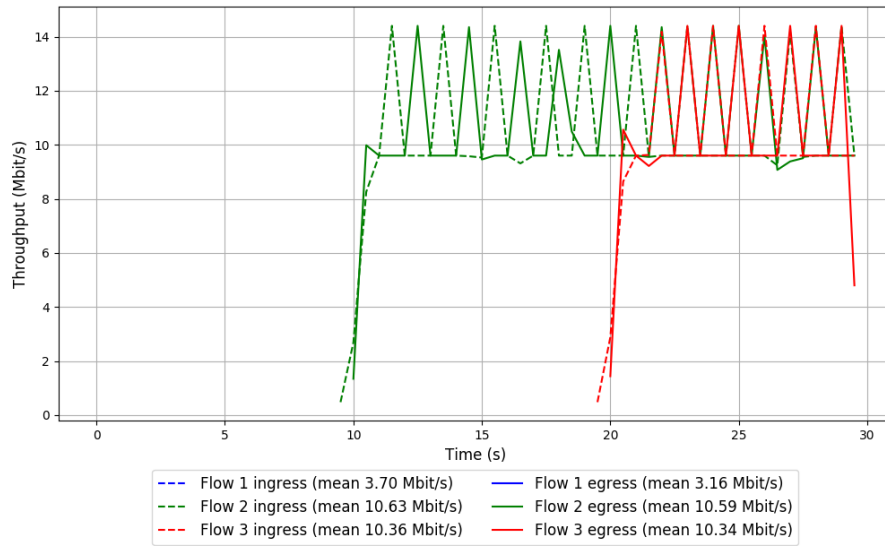
Average throughput: 10.34 Mbit/s

95th percentile per-packet one-way delay: 112.073 ms

Loss rate: 2.45%



### Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

Start at: 2017-08-21 00:05:07

End at: 2017-08-21 00:05:37

# Below is generated by plot.py at 2017-08-21 04:48:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.47 Mbit/s

95th percentile per-packet one-way delay: 113.155 ms

Loss rate: 10.26%

-- Flow 1:

Average throughput: 10.52 Mbit/s

95th percentile per-packet one-way delay: 112.970 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 2.55 Mbit/s

95th percentile per-packet one-way delay: 113.311 ms

Loss rate: 48.52%

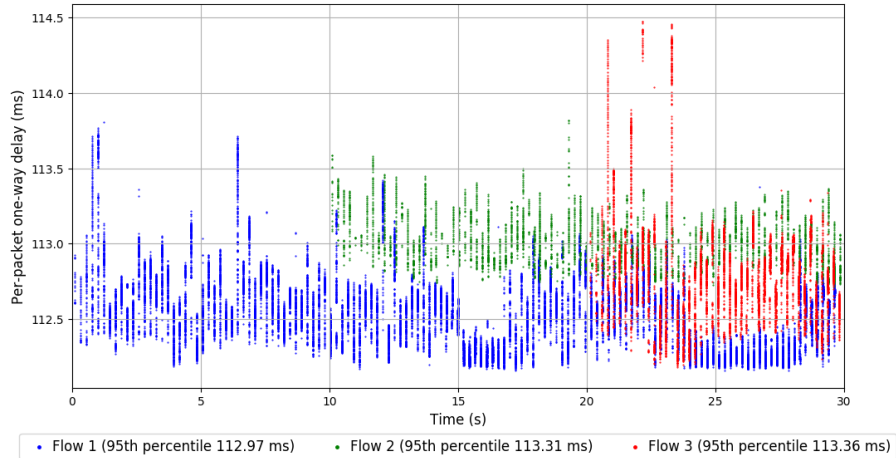
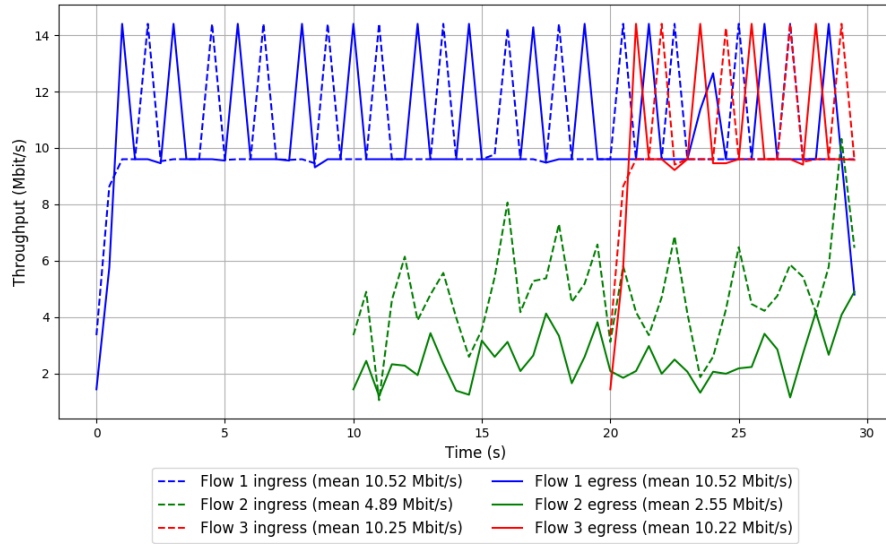
-- Flow 3:

Average throughput: 10.22 Mbit/s

95th percentile per-packet one-way delay: 113.358 ms

Loss rate: 2.57%

## Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: 2017-08-21 00:18:13

End at: 2017-08-21 00:18:43

# Below is generated by plot.py at 2017-08-21 04:48:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 113.443 ms

Loss rate: 25.14%

-- Flow 1:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 112.937 ms

Loss rate: 57.14%

-- Flow 2:

Average throughput: 2.68 Mbit/s

95th percentile per-packet one-way delay: 113.413 ms

Loss rate: 47.59%

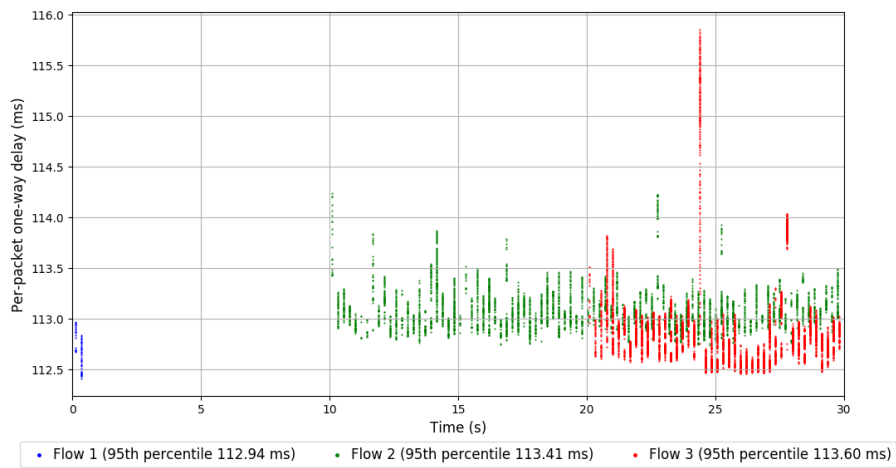
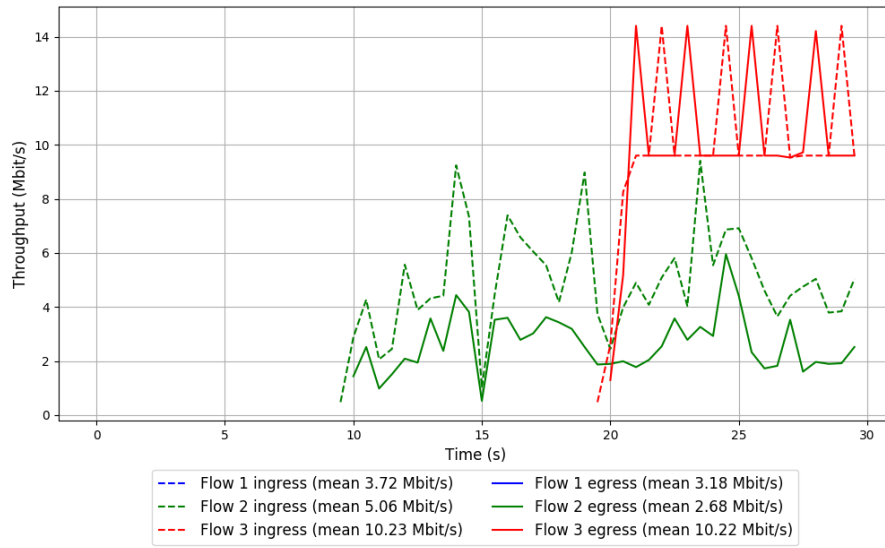
-- Flow 3:

Average throughput: 10.22 Mbit/s

95th percentile per-packet one-way delay: 113.596 ms

Loss rate: 2.42%

### Run 3: Report of Saturator — Data Link



Run 4: Statistics of Saturator

Start at: 2017-08-21 00:31:13

End at: 2017-08-21 00:31:43

# Below is generated by plot.py at 2017-08-21 04:48:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 17.40 Mbit/s

95th percentile per-packet one-way delay: 114.174 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 10.46 Mbit/s

95th percentile per-packet one-way delay: 114.201 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 10.48 Mbit/s

95th percentile per-packet one-way delay: 113.955 ms

Loss rate: 1.20%

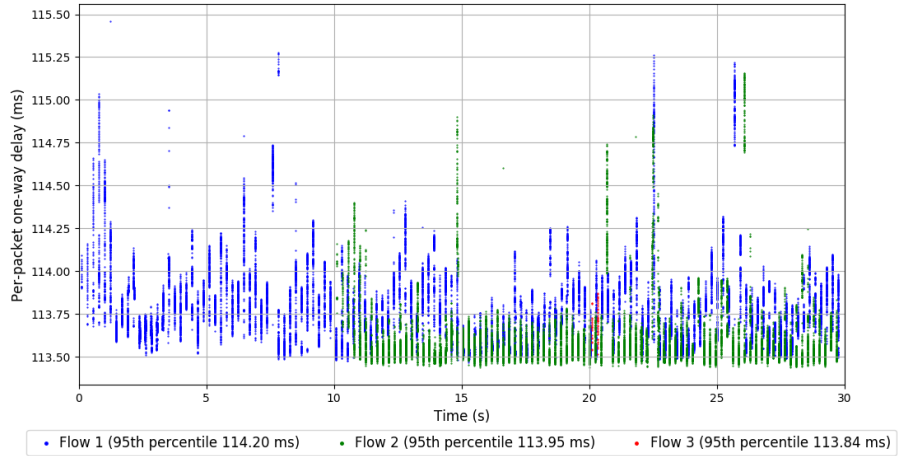
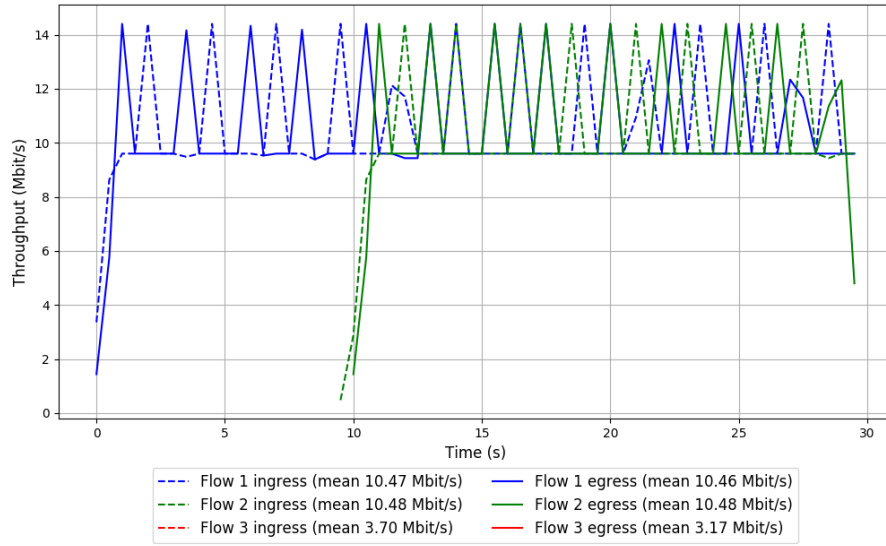
-- Flow 3:

Average throughput: 3.17 Mbit/s

95th percentile per-packet one-way delay: 113.845 ms

Loss rate: 57.14%

### Run 4: Report of Saturator — Data Link



Run 5: Statistics of Saturator

Start at: 2017-08-21 00:44:14

End at: 2017-08-21 00:44:44

# Below is generated by plot.py at 2017-08-21 04:48:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.58 Mbit/s

95th percentile per-packet one-way delay: 114.458 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 10.50 Mbit/s

95th percentile per-packet one-way delay: 114.460 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 114.279 ms

Loss rate: 52.86%

-- Flow 3:

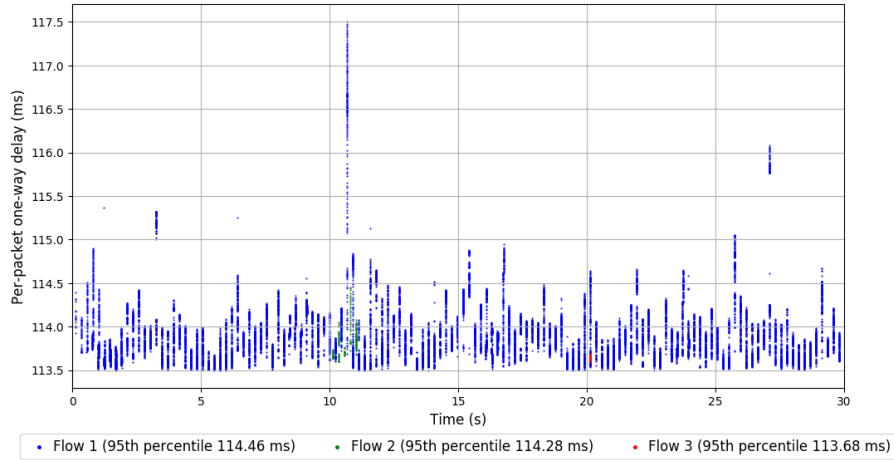
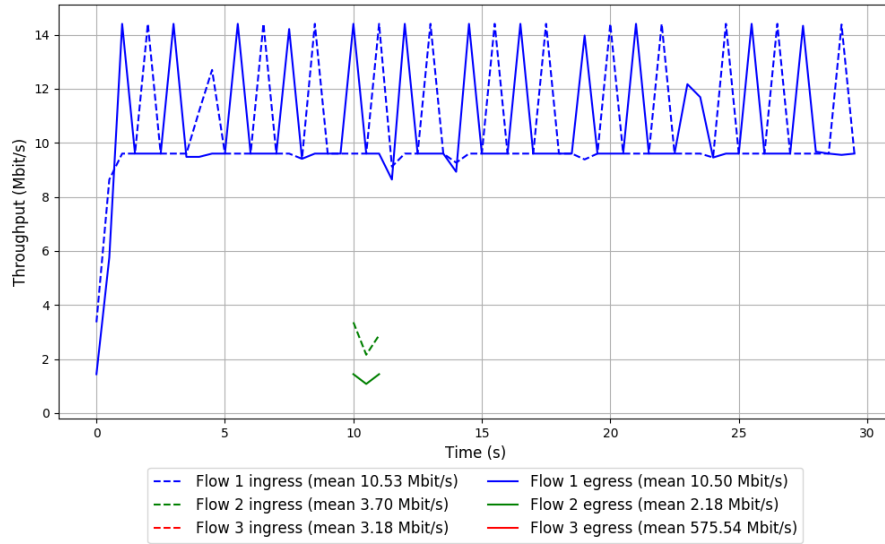
Average throughput: 575.54 Mbit/s

95th percentile per-packet one-way delay: 113.679 ms

Loss rate: 66.67%



### Run 5: Report of Saturator — Data Link



Run 6: Statistics of Saturator

Start at: 2017-08-21 00:57:03

End at: 2017-08-21 00:57:33

# Below is generated by plot.py at 2017-08-21 04:48:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.34 Mbit/s

95th percentile per-packet one-way delay: 114.015 ms

Loss rate: 4.29%

-- Flow 1:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 114.048 ms

Loss rate: 10.94%

-- Flow 2:

Average throughput: 10.42 Mbit/s

95th percentile per-packet one-way delay: 114.145 ms

Loss rate: 1.43%

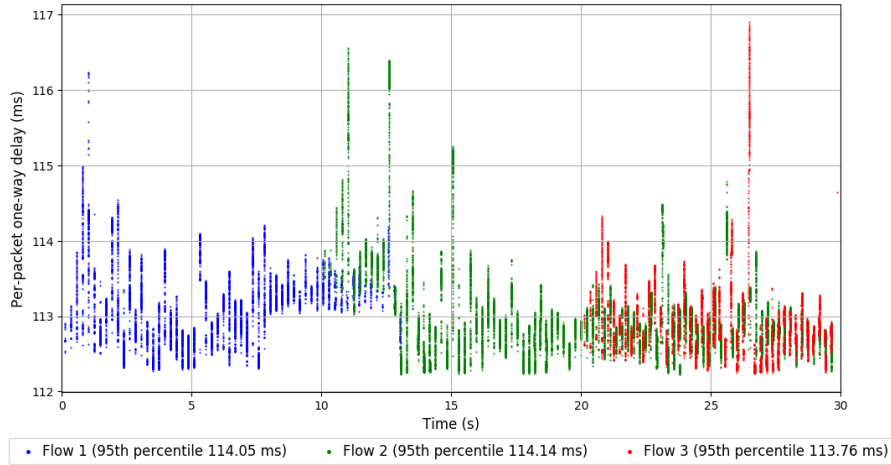
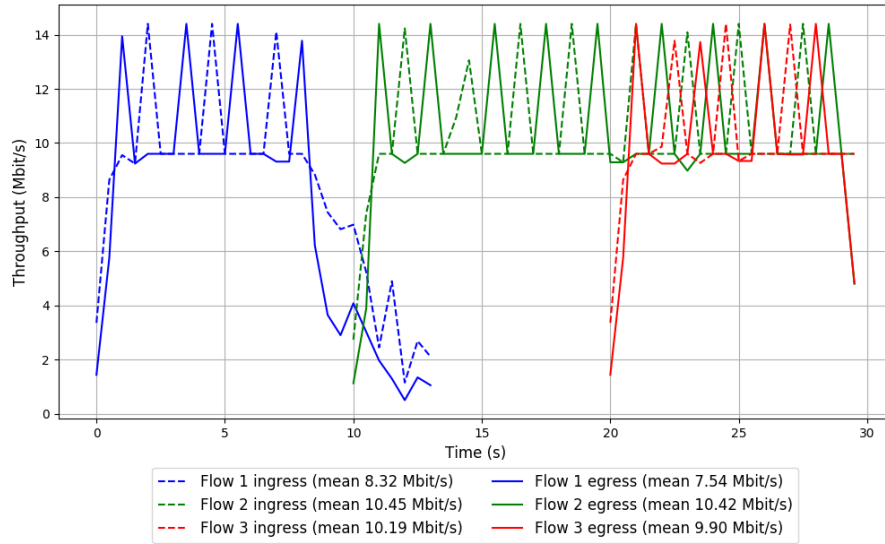
-- Flow 3:

Average throughput: 9.90 Mbit/s

95th percentile per-packet one-way delay: 113.762 ms

Loss rate: 2.91%

Run 6: Report of Saturator — Data Link



Run 7: Statistics of Saturator

Start at: 2017-08-21 01:10:26

End at: 2017-08-21 01:10:56

# Below is generated by plot.py at 2017-08-21 04:48:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.18 Mbit/s

95th percentile per-packet one-way delay: 113.516 ms

Loss rate: 5.41%

-- Flow 1:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 113.705 ms

Loss rate: 51.20%

-- Flow 2:

Average throughput: 10.40 Mbit/s

95th percentile per-packet one-way delay: 113.487 ms

Loss rate: 1.46%

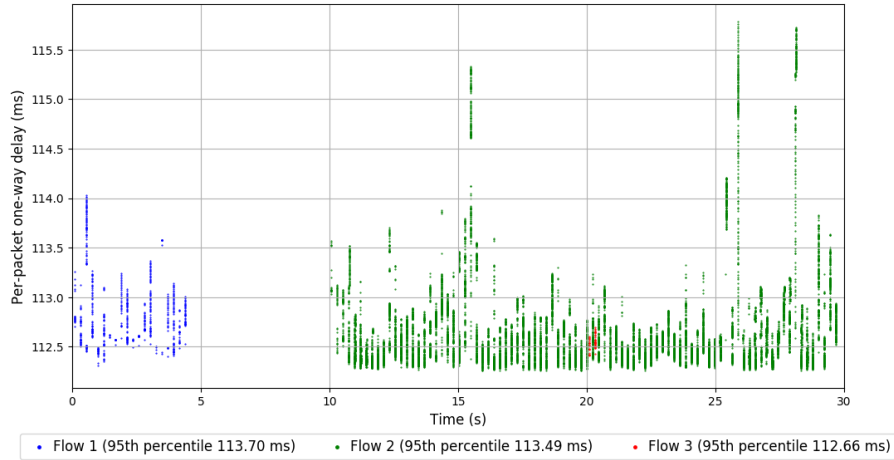
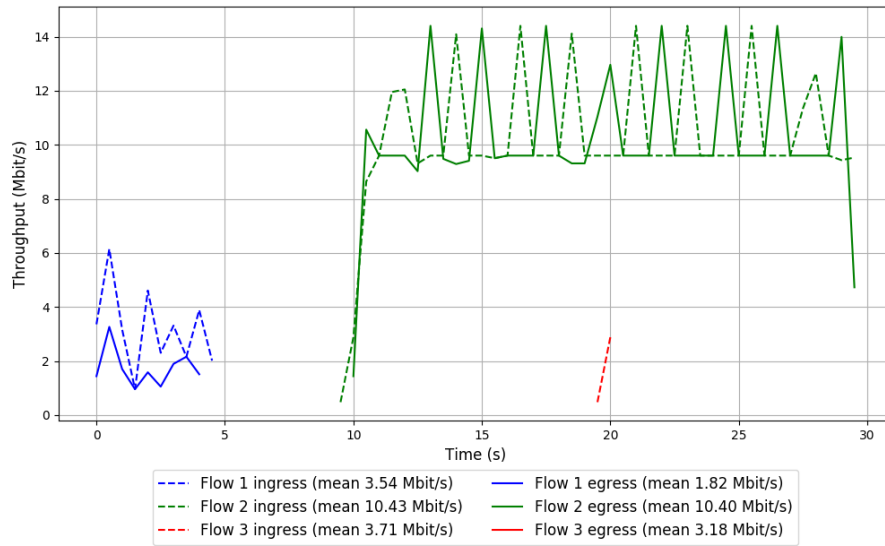
-- Flow 3:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 112.658 ms

Loss rate: 57.14%

### Run 7: Report of Saturator — Data Link



Run 8: Statistics of Saturator

Start at: 2017-08-21 01:23:37

End at: 2017-08-21 01:24:07

# Below is generated by plot.py at 2017-08-21 04:48:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 20.85 Mbit/s

95th percentile per-packet one-way delay: 114.036 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 10.64 Mbit/s

95th percentile per-packet one-way delay: 114.005 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 10.35 Mbit/s

95th percentile per-packet one-way delay: 113.942 ms

Loss rate: 1.65%

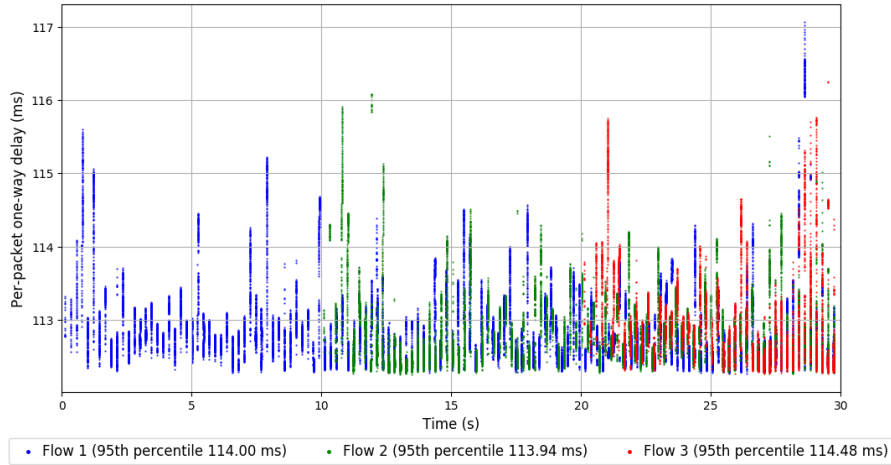
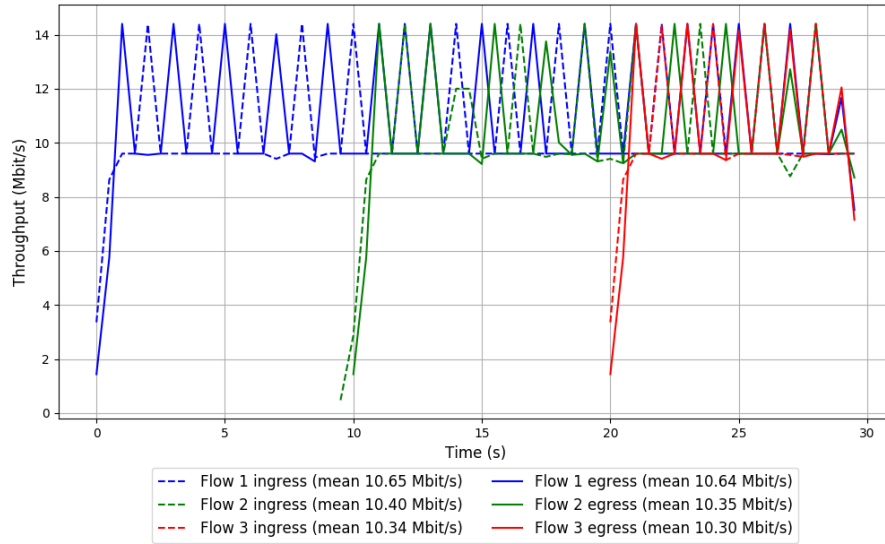
-- Flow 3:

Average throughput: 10.30 Mbit/s

95th percentile per-packet one-way delay: 114.480 ms

Loss rate: 2.61%

Run 8: Report of Saturator — Data Link



Run 9: Statistics of Saturator

Start at: 2017-08-21 01:36:36

End at: 2017-08-21 01:37:06

# Below is generated by plot.py at 2017-08-21 04:48:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 113.173 ms

Loss rate: 50.43%

-- Flow 1:

Average throughput: 3.20 Mbit/s

95th percentile per-packet one-way delay: 112.413 ms

Loss rate: 57.14%

-- Flow 2:

Average throughput: 3.20 Mbit/s

95th percentile per-packet one-way delay: 113.965 ms

Loss rate: 57.14%

-- Flow 3:

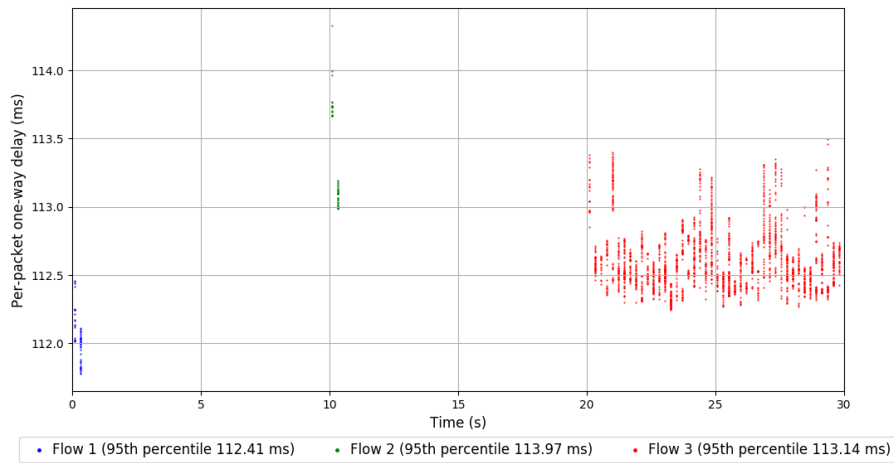
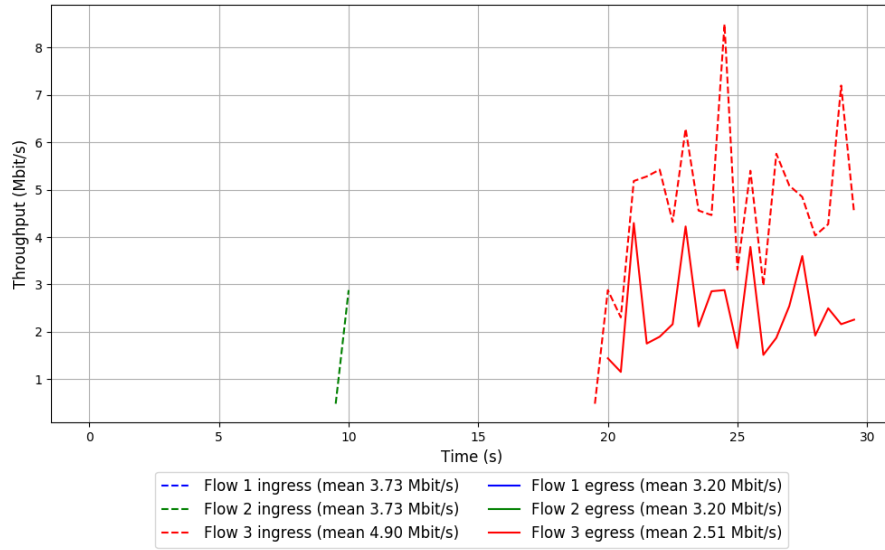
Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 113.140 ms

Loss rate: 49.96%



### Run 9: Report of Saturator — Data Link



Run 10: Statistics of Saturator

Start at: 2017-08-21 01:49:25

End at: 2017-08-21 01:49:55

# Below is generated by plot.py at 2017-08-21 04:48:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 113.434 ms

Loss rate: 47.16%

-- Flow 1:

Average throughput: 526.32 Mbit/s

95th percentile per-packet one-way delay: 1978.687 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.03 Mbit/s

95th percentile per-packet one-way delay: 113.414 ms

Loss rate: 47.11%

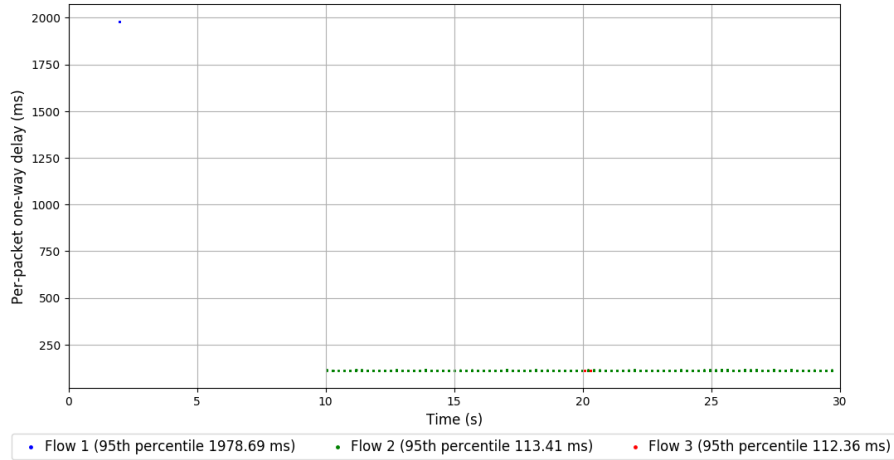
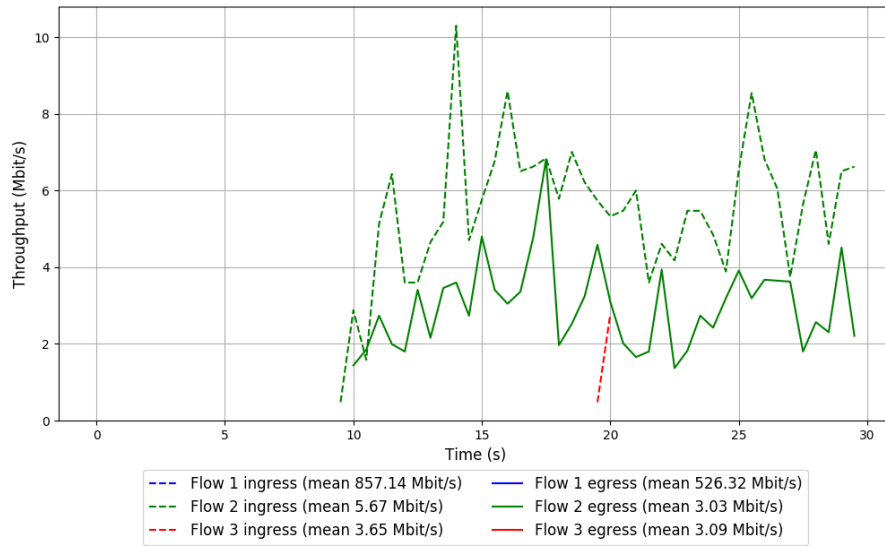
-- Flow 3:

Average throughput: 3.09 Mbit/s

95th percentile per-packet one-way delay: 112.363 ms

Loss rate: 57.35%

Run 10: Report of Saturator — Data Link



Run 1: Statistics of SCReAM

Start at: 2017-08-20 23:41:11

End at: 2017-08-20 23:41:41

# Below is generated by plot.py at 2017-08-21 04:48:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.176 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.172 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.182 ms

Loss rate: 1.05%

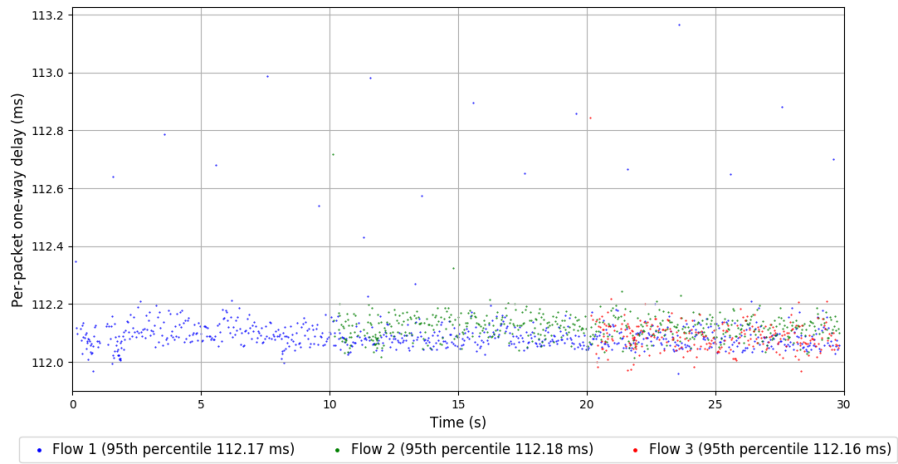
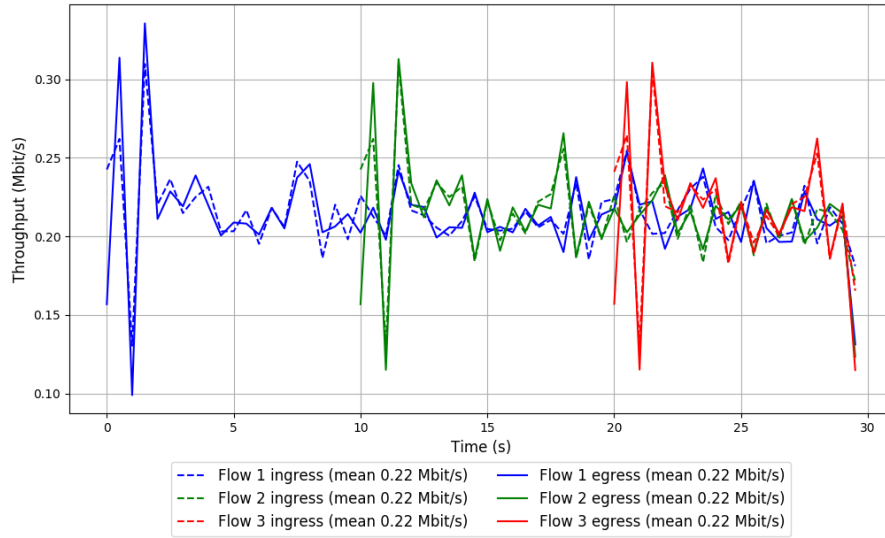
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.158 ms

Loss rate: 2.25%

# Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2017-08-20 23:54:11

End at: 2017-08-20 23:54:41

# Below is generated by plot.py at 2017-08-21 04:48:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.895 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.205 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.619 ms

Loss rate: 1.25%

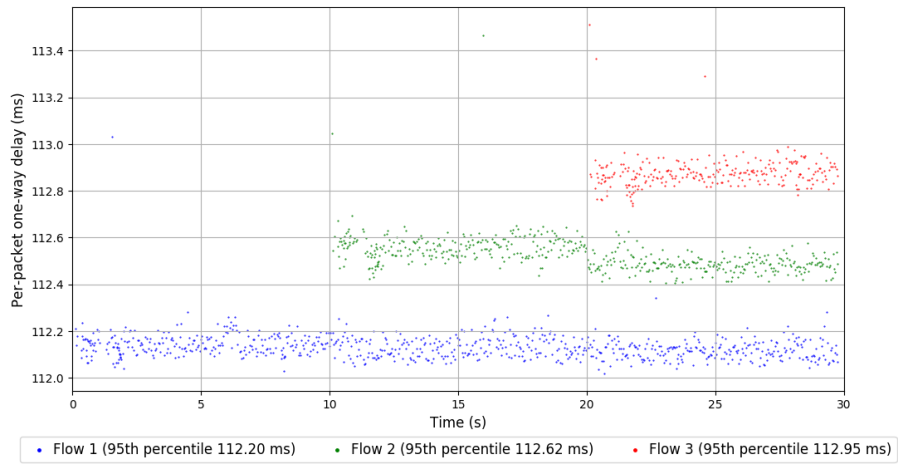
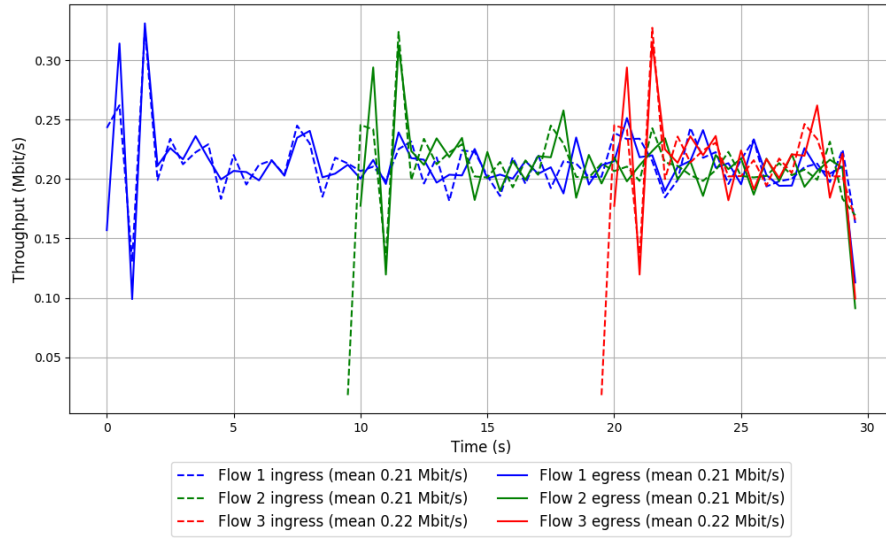
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.951 ms

Loss rate: 2.25%

## Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-08-21 00:06:57

End at: 2017-08-21 00:07:27

# Below is generated by plot.py at 2017-08-21 04:48:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 113.435 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.524 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.456 ms

Loss rate: 1.05%

-- Flow 3:

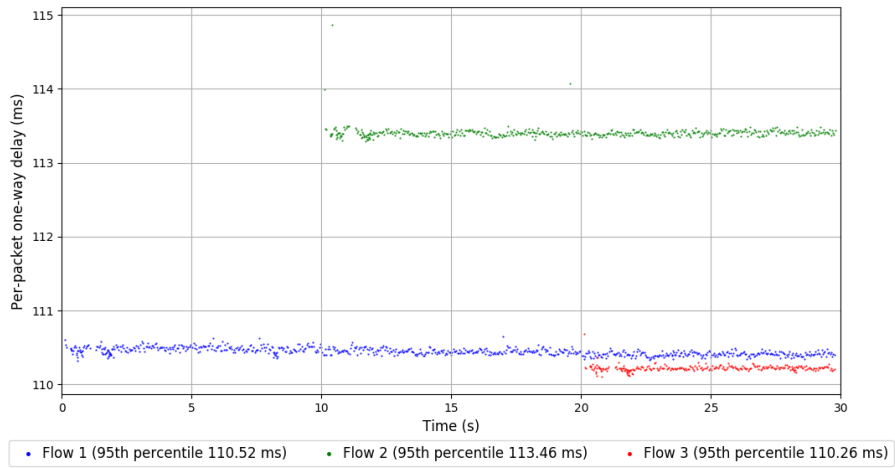
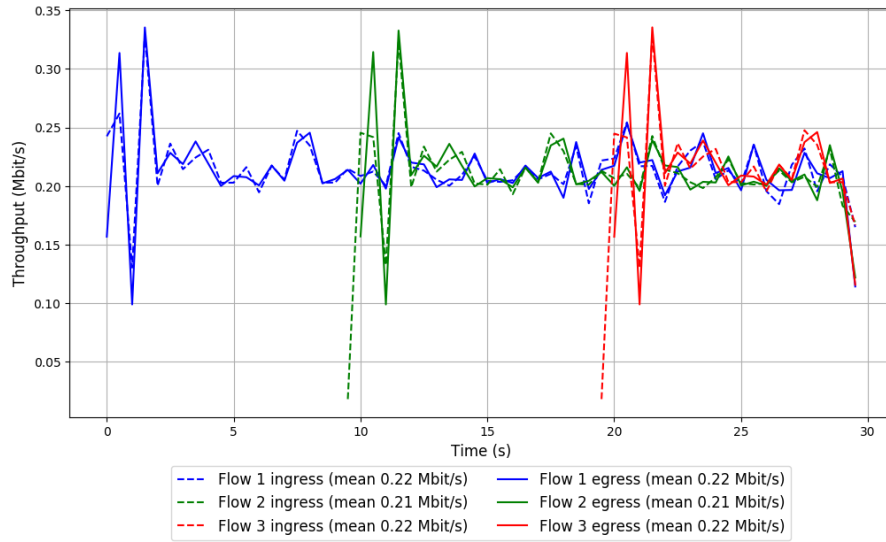
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.263 ms

Loss rate: 2.25%



### Run 3: Report of SCReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-08-21 00:20:00

End at: 2017-08-21 00:20:30

# Below is generated by plot.py at 2017-08-21 04:48:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 113.016 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.028 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 112.266 ms

Loss rate: 1.03%

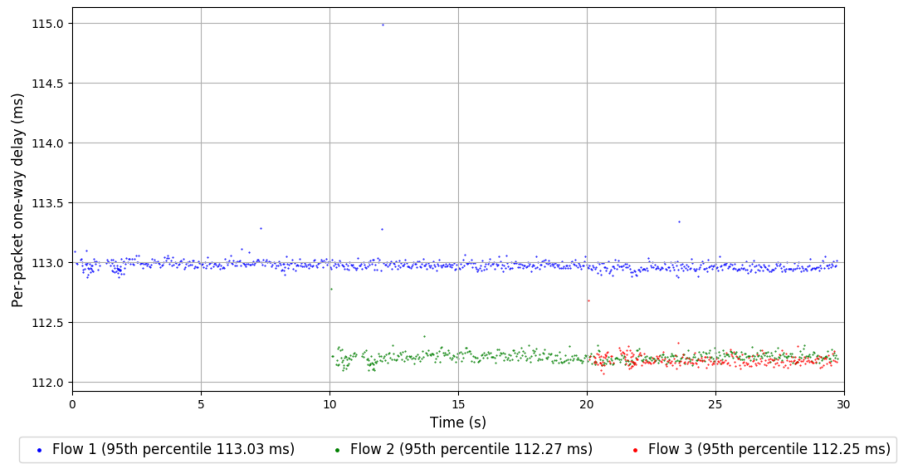
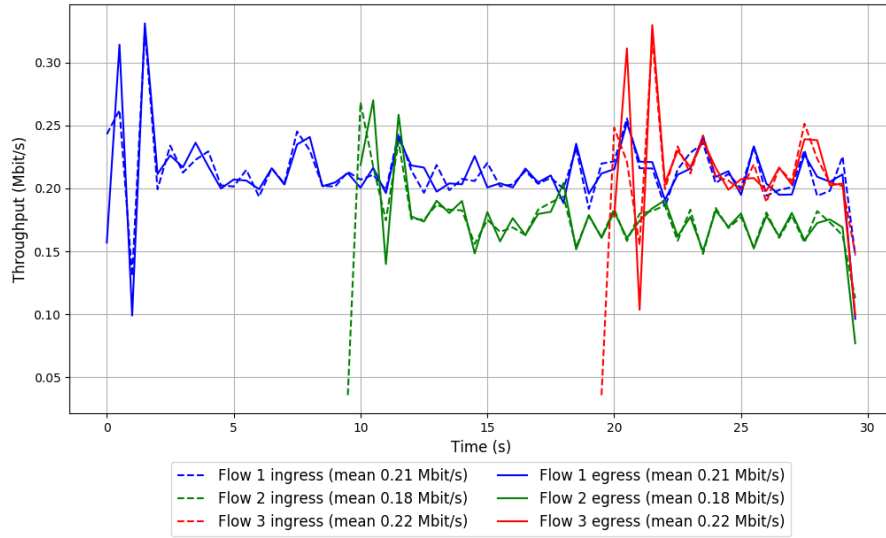
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.249 ms

Loss rate: 2.25%

Run 4: Report of SCReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-08-21 00:33:02

End at: 2017-08-21 00:33:32

# Below is generated by plot.py at 2017-08-21 04:48:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 113.409 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.179 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.668 ms

Loss rate: 1.05%

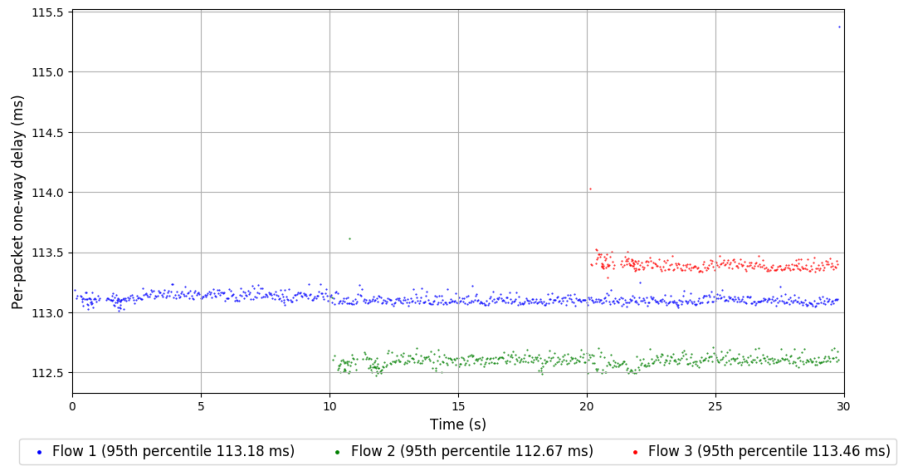
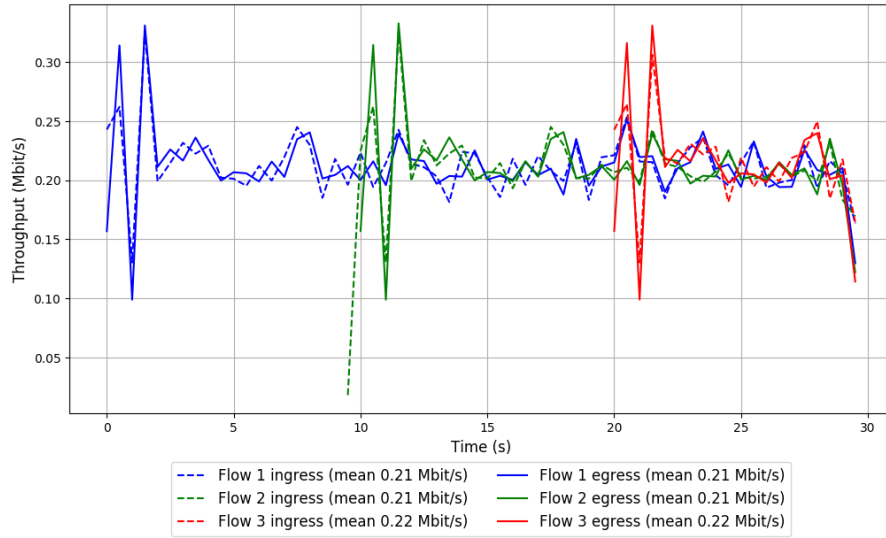
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.460 ms

Loss rate: 2.25%

### Run 5: Report of SCReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-08-21 00:46:00

End at: 2017-08-21 00:46:30

# Below is generated by plot.py at 2017-08-21 04:48:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 113.509 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.014 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 112.696 ms

Loss rate: 0.98%

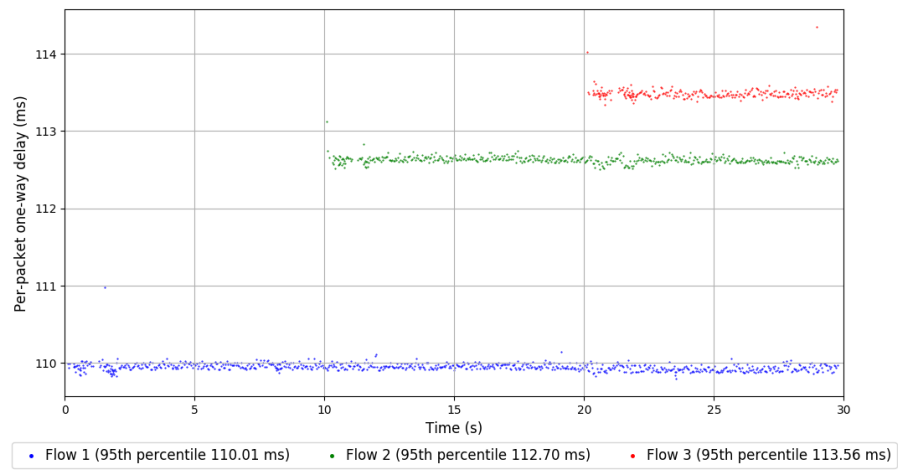
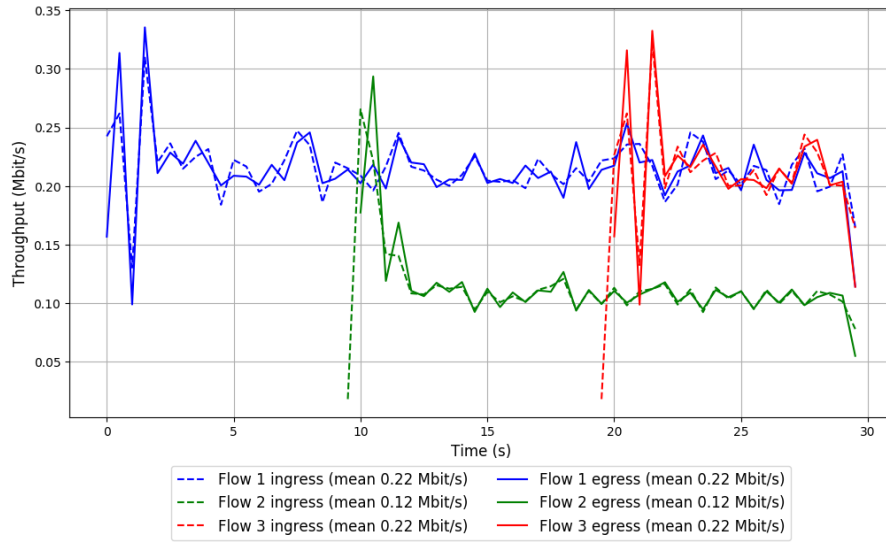
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.563 ms

Loss rate: 2.25%

### Run 6: Report of SCReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-08-21 00:58:58

End at: 2017-08-21 00:59:28

# Below is generated by plot.py at 2017-08-21 04:48:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 113.073 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.091 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.454 ms

Loss rate: 1.05%

-- Flow 3:

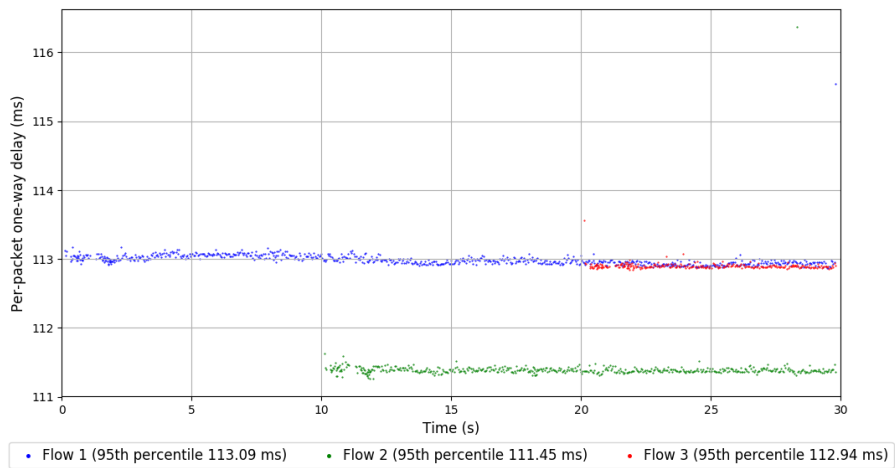
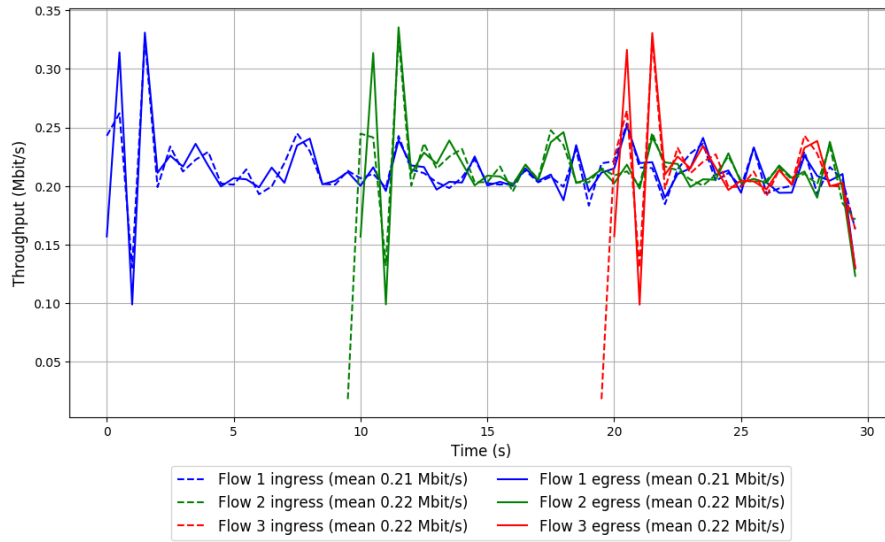
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.943 ms

Loss rate: 1.86%



### Run 7: Report of SCReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-08-21 01:12:13

End at: 2017-08-21 01:12:43

# Below is generated by plot.py at 2017-08-21 04:48:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 113.161 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 111.459 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.659 ms

Loss rate: 1.05%

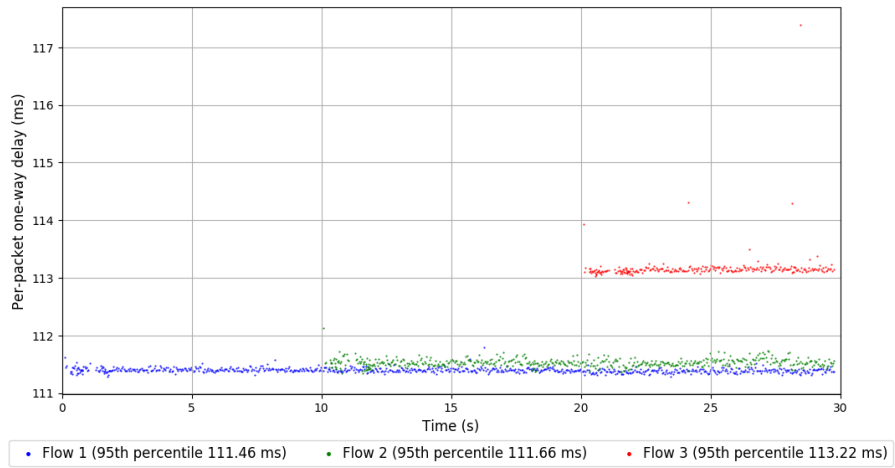
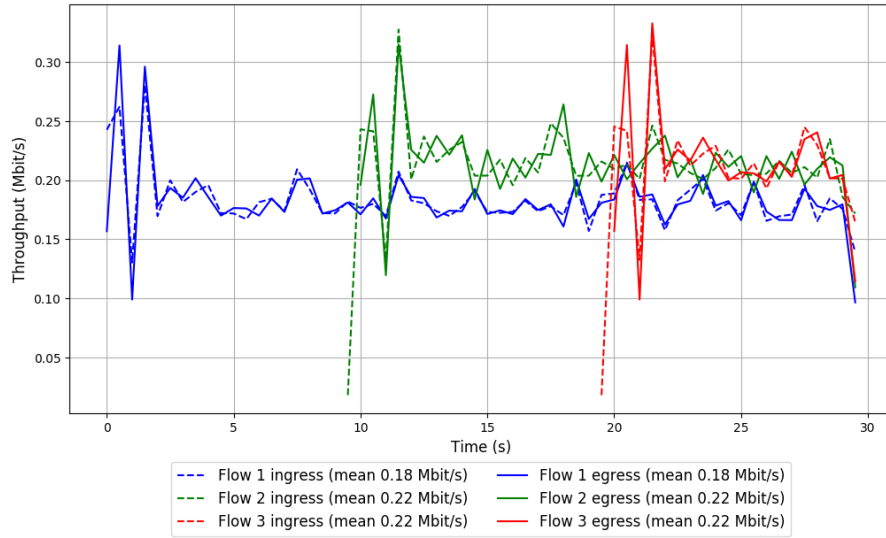
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.219 ms

Loss rate: 2.25%

### Run 8: Report of SCReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-08-21 01:25:19

End at: 2017-08-21 01:25:49

# Below is generated by plot.py at 2017-08-21 04:48:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 113.064 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.061 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.311 ms

Loss rate: 1.05%

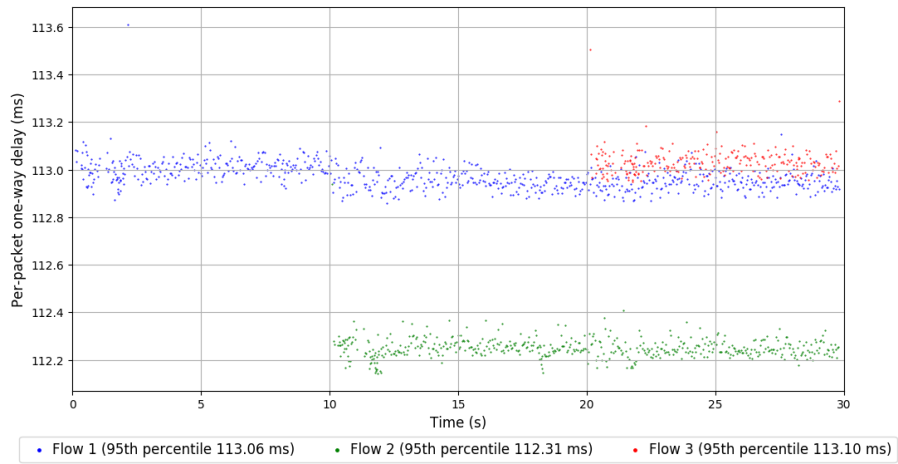
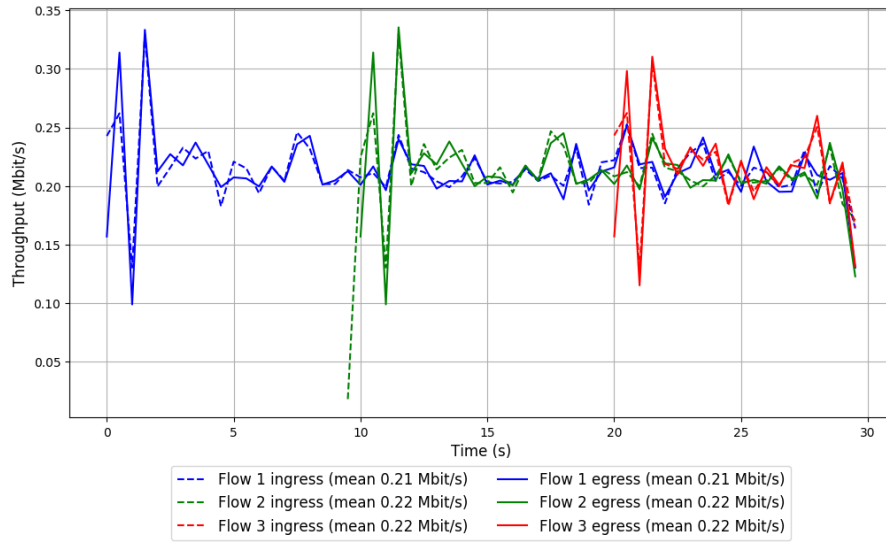
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.100 ms

Loss rate: 1.86%

### Run 9: Report of SCReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-08-21 01:38:23

End at: 2017-08-21 01:38:53

# Below is generated by plot.py at 2017-08-21 04:48:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 112.786 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.808 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 112.384 ms

Loss rate: 0.98%

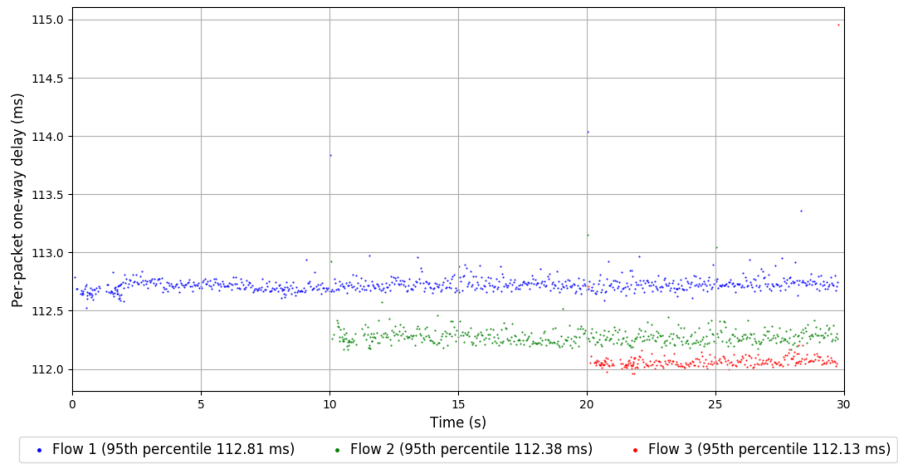
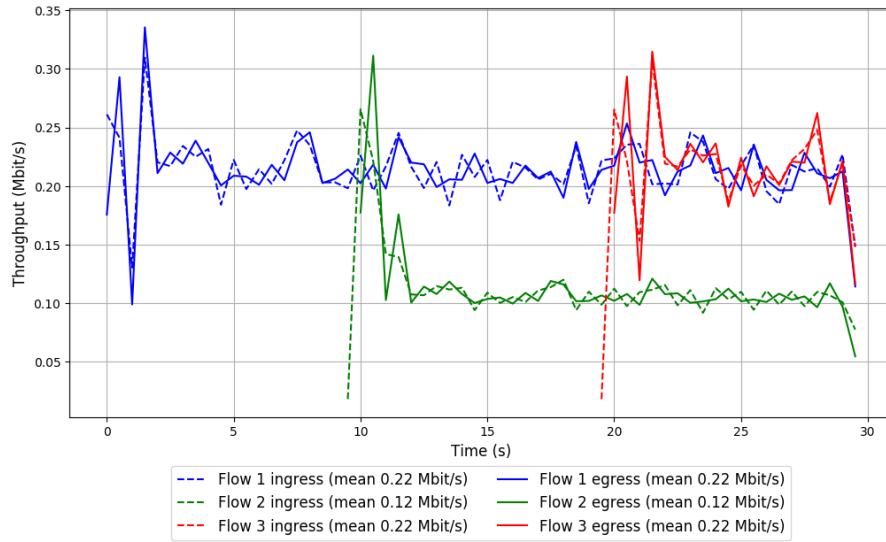
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.132 ms

Loss rate: 1.86%

### Run 10: Report of SCReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2017-08-20 23:50:56

End at: 2017-08-20 23:51:26

# Below is generated by plot.py at 2017-08-21 04:48:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.09 Mbit/s

95th percentile per-packet one-way delay: 113.385 ms

Loss rate: 3.02%

-- Flow 1:

Average throughput: 1.60 Mbit/s

95th percentile per-packet one-way delay: 113.486 ms

Loss rate: 1.88%

-- Flow 2:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 112.601 ms

Loss rate: 4.76%

-- Flow 3:

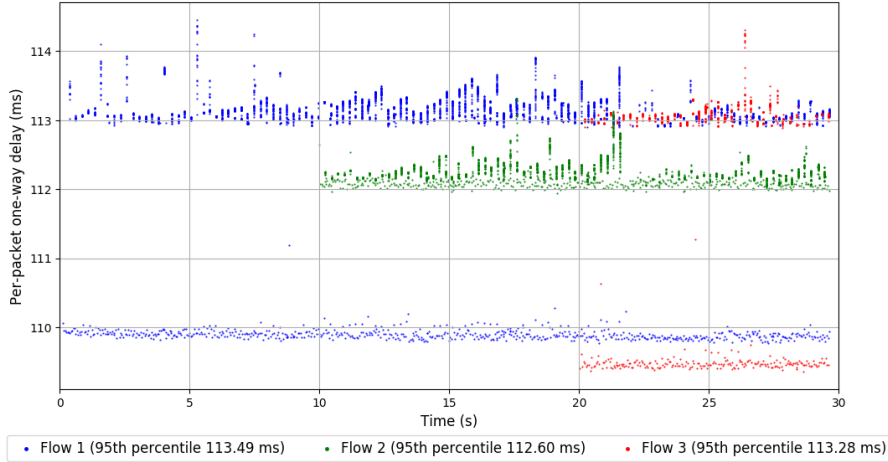
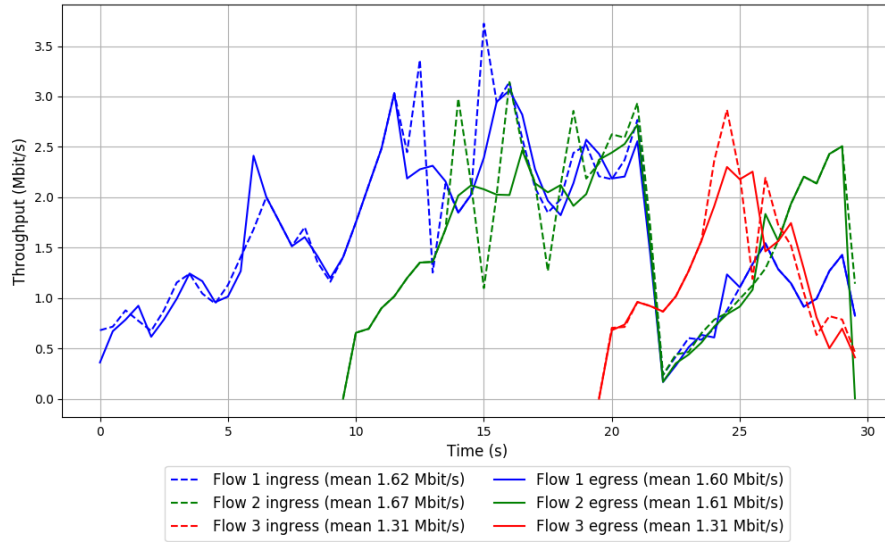
Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 113.285 ms

Loss rate: 2.79%



# Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-08-21 00:03:34

End at: 2017-08-21 00:04:04

# Below is generated by plot.py at 2017-08-21 04:49:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.41 Mbit/s

95th percentile per-packet one-way delay: 113.122 ms

Loss rate: 2.02%

-- Flow 1:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 113.069 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 113.189 ms

Loss rate: 3.23%

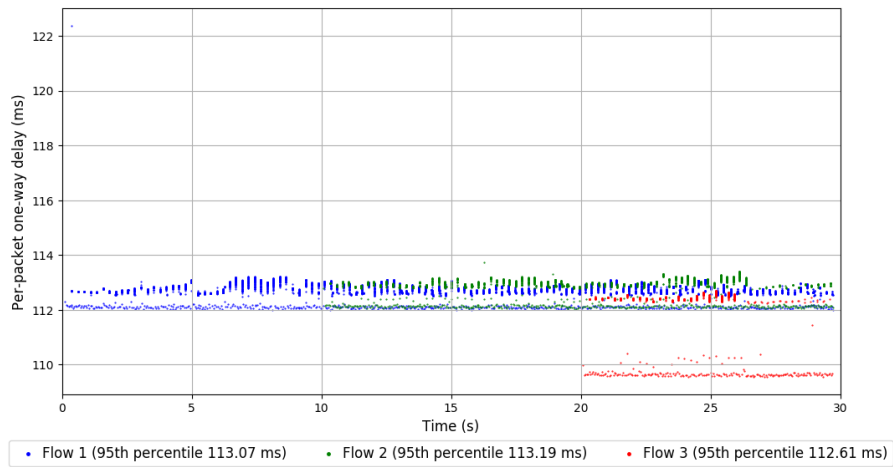
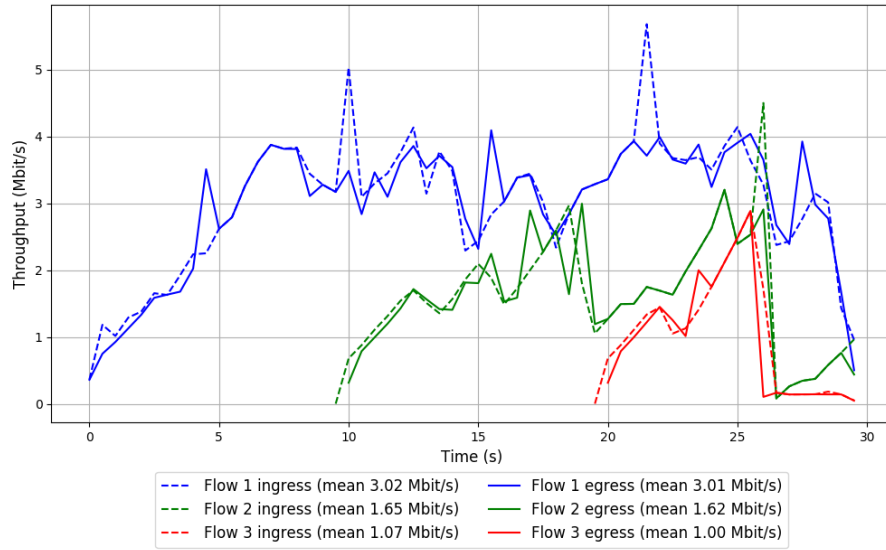
-- Flow 3:

Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 112.614 ms

Loss rate: 7.92%

## Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-21 00:16:40

End at: 2017-08-21 00:17:10

# Below is generated by plot.py at 2017-08-21 04:49:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.93 Mbit/s

95th percentile per-packet one-way delay: 113.493 ms

Loss rate: 3.12%

-- Flow 1:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 113.081 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 113.584 ms

Loss rate: 4.44%

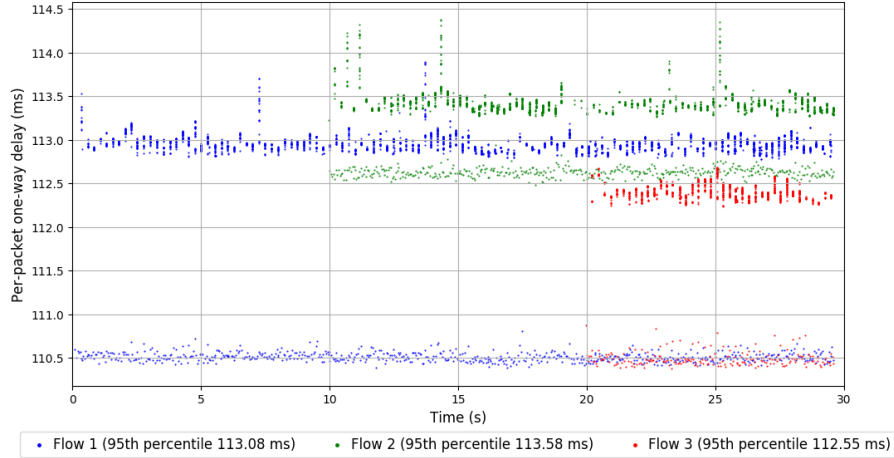
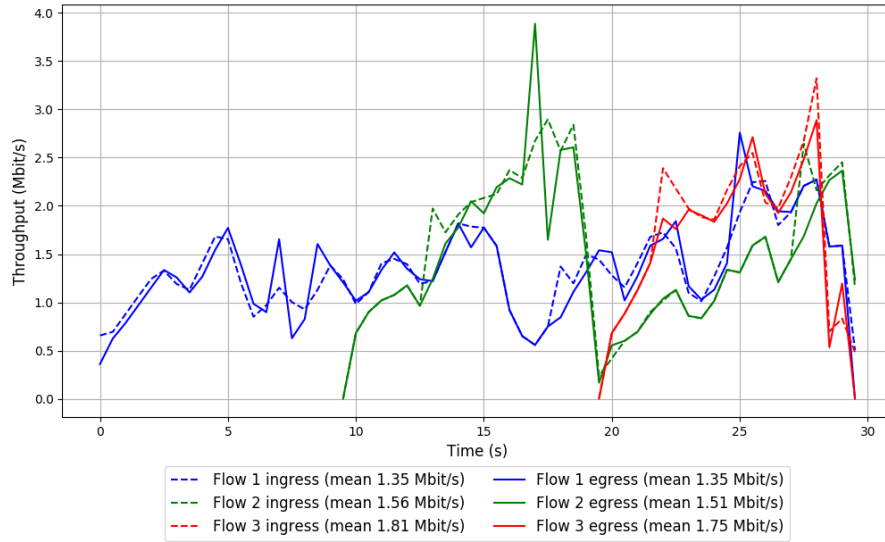
-- Flow 3:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 112.554 ms

Loss rate: 5.85%

### Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-21 00:29:41

End at: 2017-08-21 00:30:11

# Below is generated by plot.py at 2017-08-21 04:49:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.56 Mbit/s

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

Loss rate: 4.46%

-- Flow 1:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 113.828 ms

Loss rate: 3.14%

-- Flow 2:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 113.871 ms

Loss rate: 5.18%

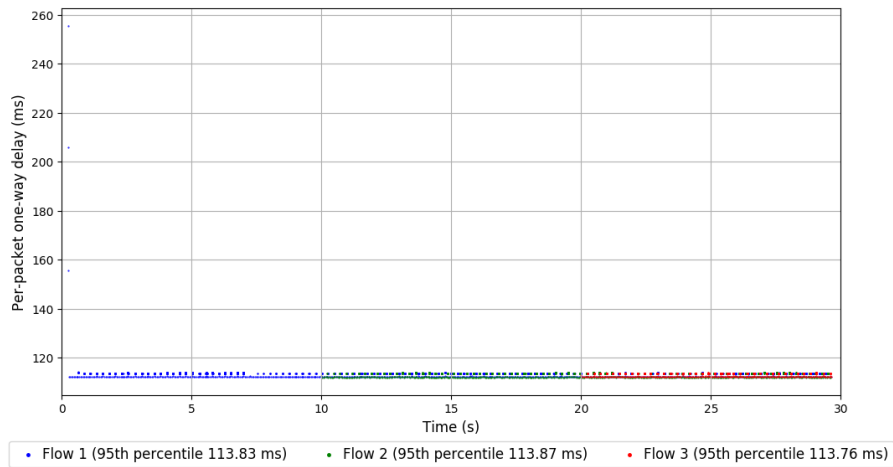
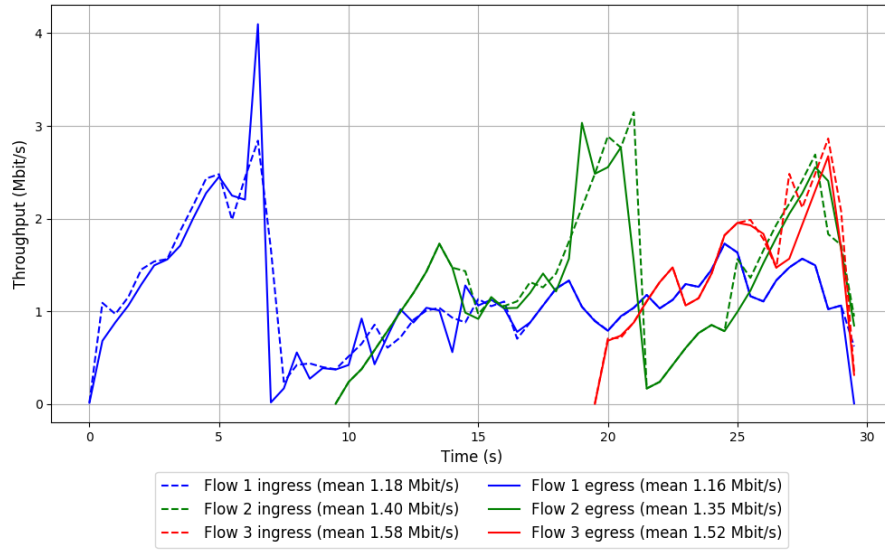
-- Flow 3:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 113.758 ms

Loss rate: 6.13%

### Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-21 00:42:42

End at: 2017-08-21 00:43:12

# Below is generated by plot.py at 2017-08-21 04:49:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.77 Mbit/s

95th percentile per-packet one-way delay: 114.504 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 114.483 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 114.016 ms

Loss rate: 2.53%

-- Flow 3:

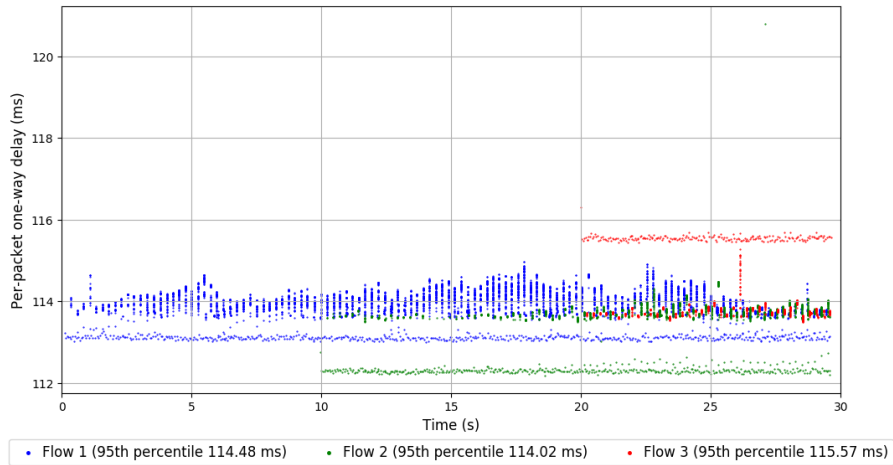
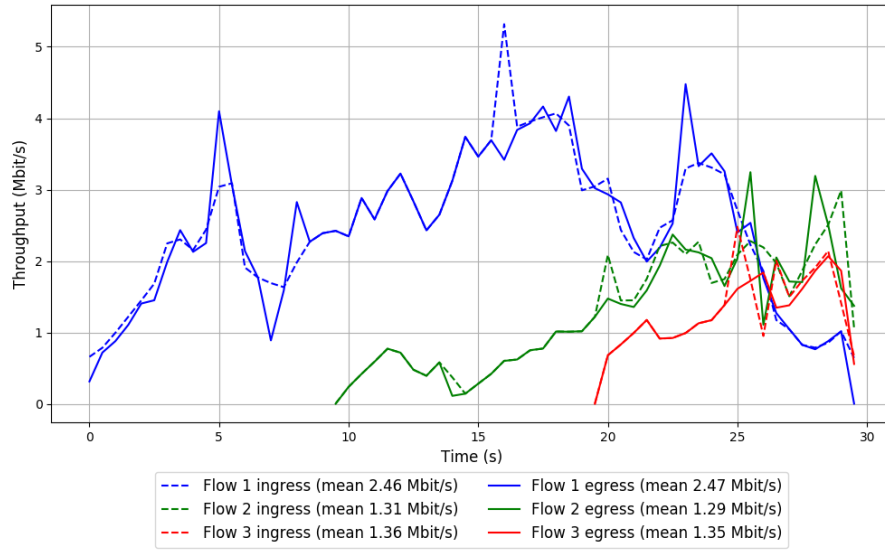
Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 115.570 ms

Loss rate: 2.50%



Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-08-21 00:55:30

End at: 2017-08-21 00:56:00

# Below is generated by plot.py at 2017-08-21 04:49:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.86 Mbit/s

95th percentile per-packet one-way delay: 113.843 ms

Loss rate: 3.15%

-- Flow 1:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 113.895 ms

Loss rate: 3.48%

-- Flow 2:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 113.717 ms

Loss rate: 2.96%

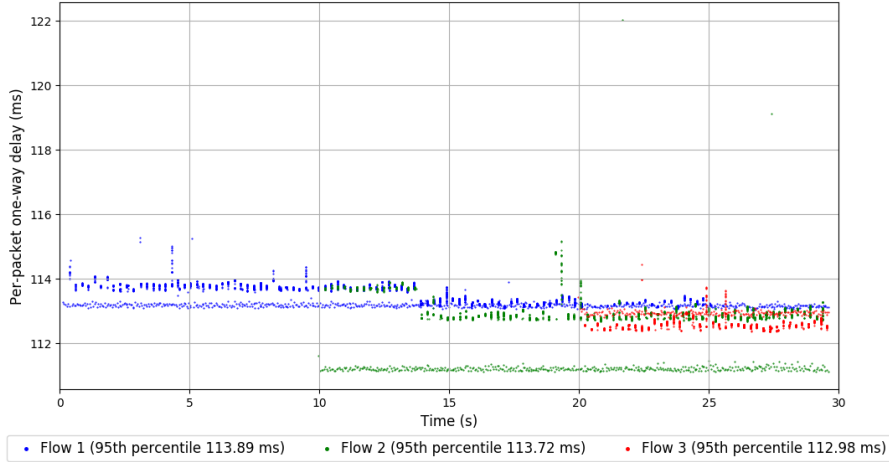
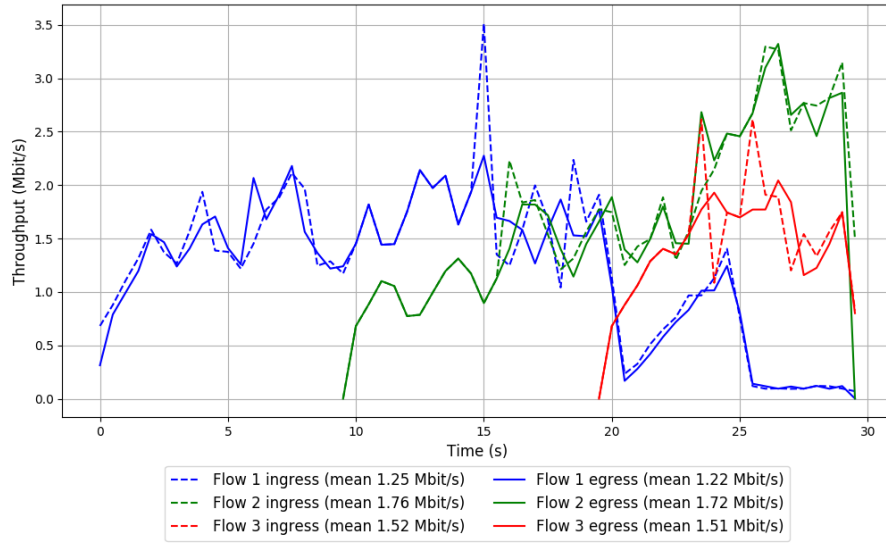
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 112.982 ms

Loss rate: 2.76%

### Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-21 01:08:53

End at: 2017-08-21 01:09:23

# Below is generated by plot.py at 2017-08-21 04:49:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.77 Mbit/s

95th percentile per-packet one-way delay: 112.854 ms

Loss rate: 2.68%

-- Flow 1:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 112.821 ms

Loss rate: 2.08%

-- Flow 2:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 112.872 ms

Loss rate: 2.19%

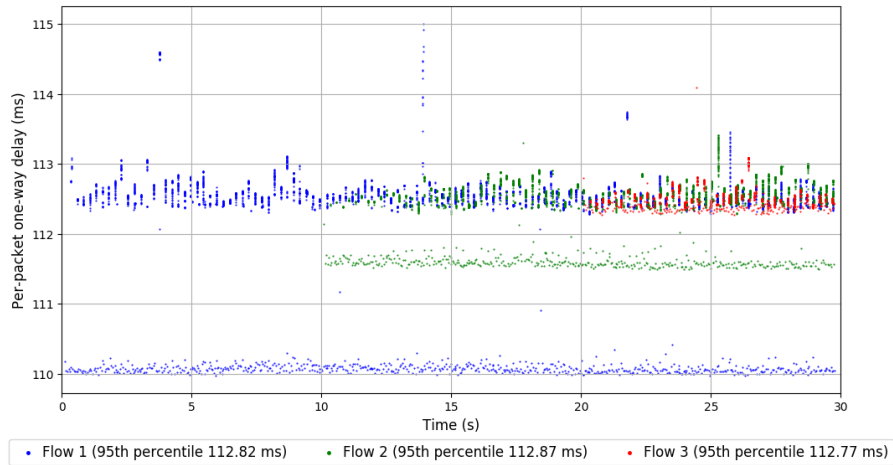
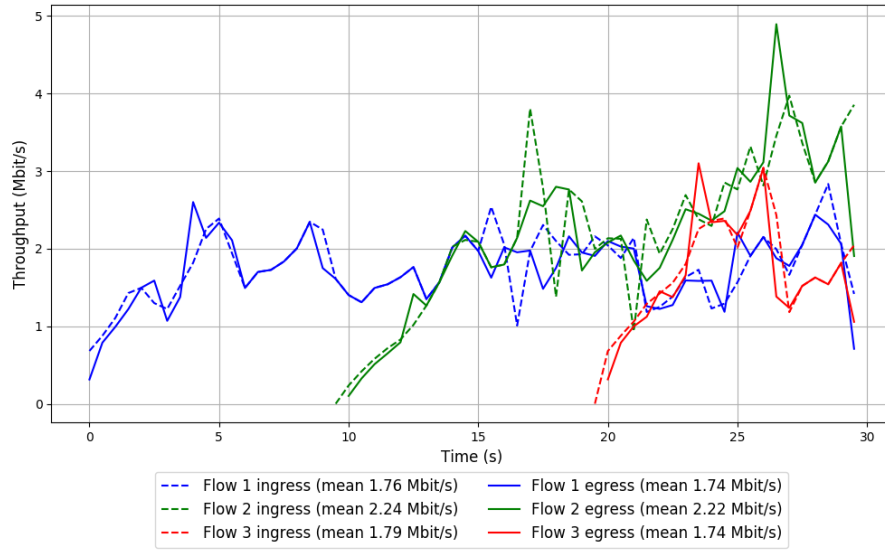
-- Flow 3:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 112.773 ms

Loss rate: 5.67%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-21 01:22:04

End at: 2017-08-21 01:22:34

# Below is generated by plot.py at 2017-08-21 04:49:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.72 Mbit/s

95th percentile per-packet one-way delay: 113.005 ms

Loss rate: 2.28%

-- Flow 1:

Average throughput: 2.78 Mbit/s

95th percentile per-packet one-way delay: 113.040 ms

Loss rate: 2.37%

-- Flow 2:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 112.927 ms

Loss rate: 1.24%

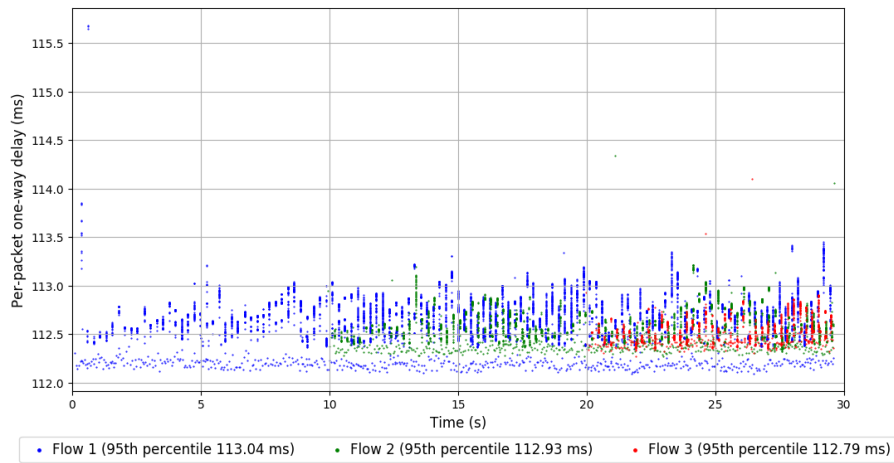
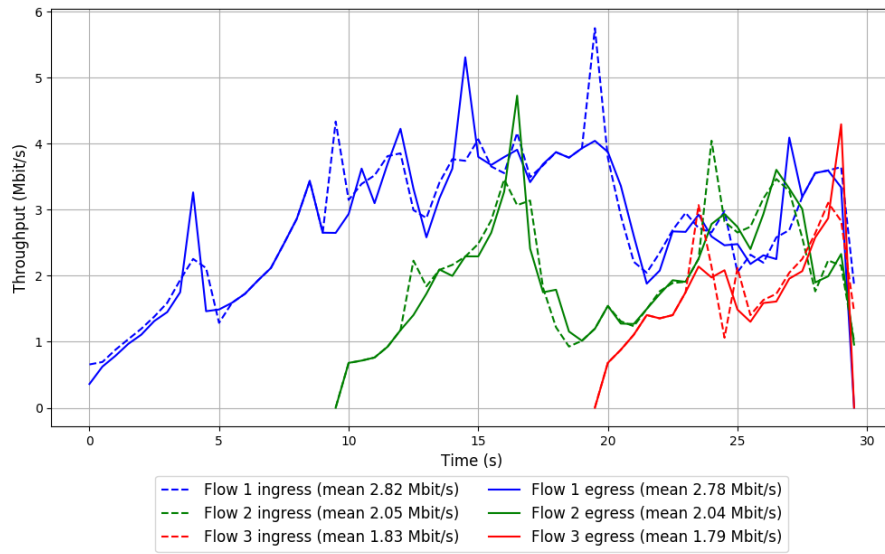
-- Flow 3:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 112.793 ms

Loss rate: 4.23%

### Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-08-21 01:35:04

End at: 2017-08-21 01:35:34

# Below is generated by plot.py at 2017-08-21 04:49:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.46 Mbit/s

95th percentile per-packet one-way delay: 113.165 ms

Loss rate: 2.70%

-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 113.202 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 112.103 ms

Loss rate: 7.34%

-- Flow 3:

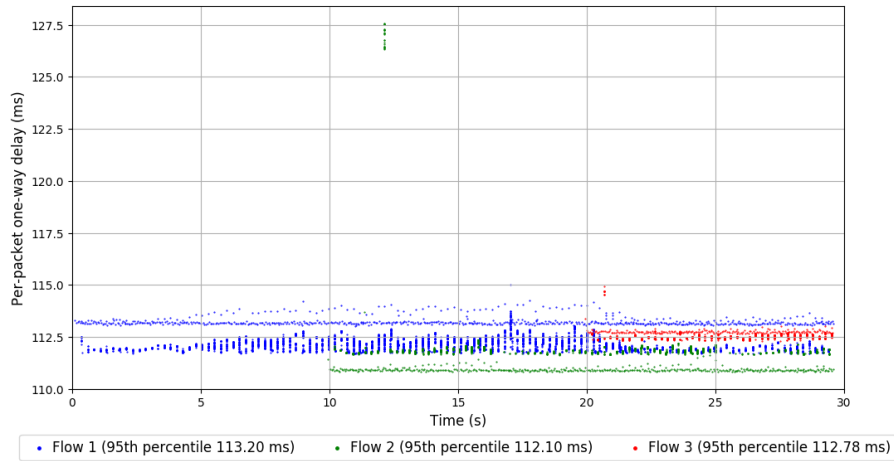
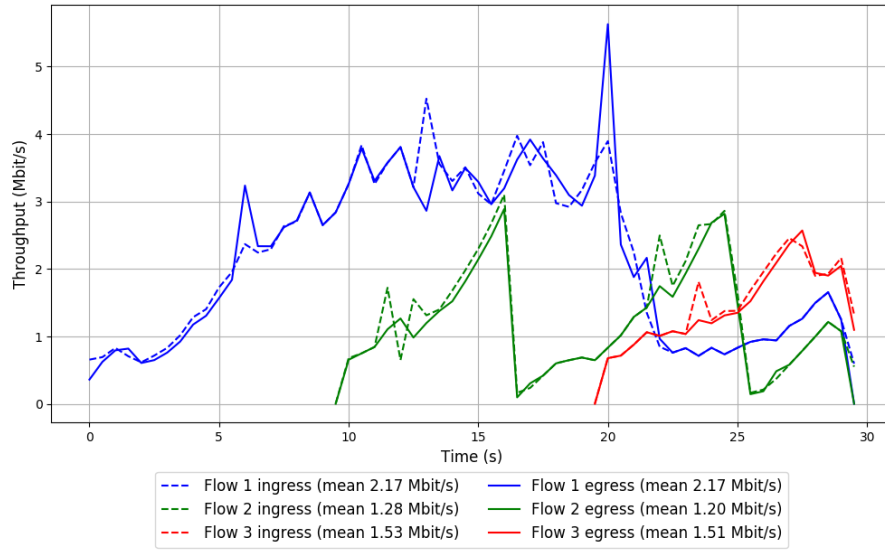
Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 112.780 ms

Loss rate: 4.39%



### Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-21 01:47:52

End at: 2017-08-21 01:48:22

# Below is generated by plot.py at 2017-08-21 04:49:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 113.145 ms

Loss rate: 3.36%

-- Flow 1:

Average throughput: 1.54 Mbit/s

95th percentile per-packet one-way delay: 112.830 ms

Loss rate: 4.09%

-- Flow 2:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 113.256 ms

Loss rate: 2.38%

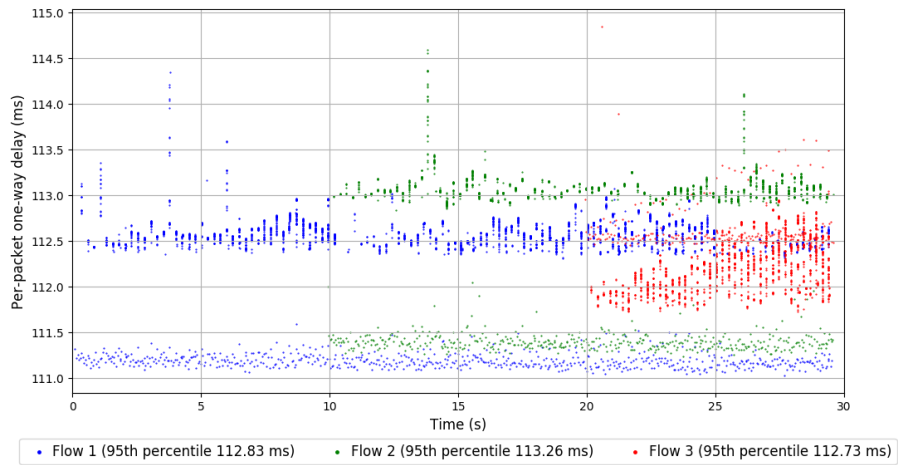
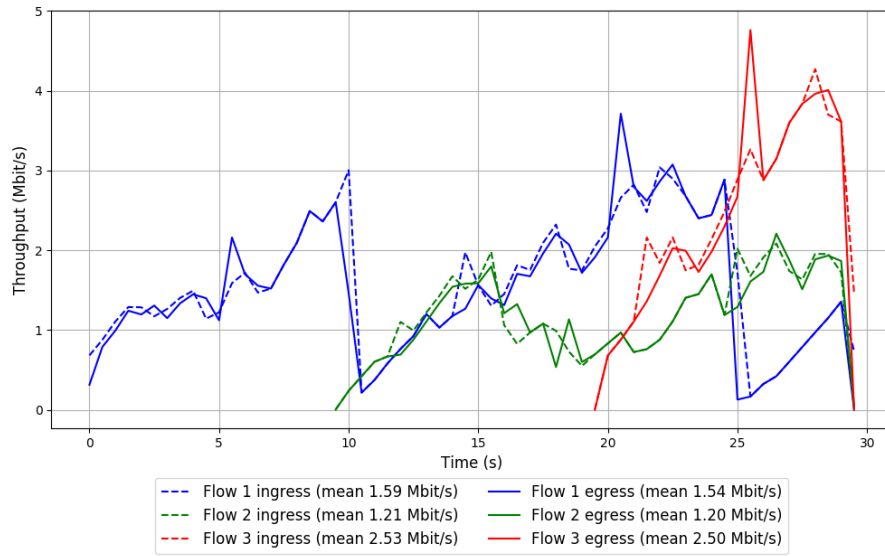
-- Flow 3:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 112.731 ms

Loss rate: 2.94%

Run 10: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2017-08-20 23:49:56

End at: 2017-08-20 23:50:26

# Below is generated by plot.py at 2017-08-21 04:49:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 105.87 Mbit/s

95th percentile per-packet one-way delay: 112.395 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 182.72 Mbit/s

95th percentile per-packet one-way delay: 112.520 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 63.22 Mbit/s

95th percentile per-packet one-way delay: 112.185 ms

Loss rate: 1.43%

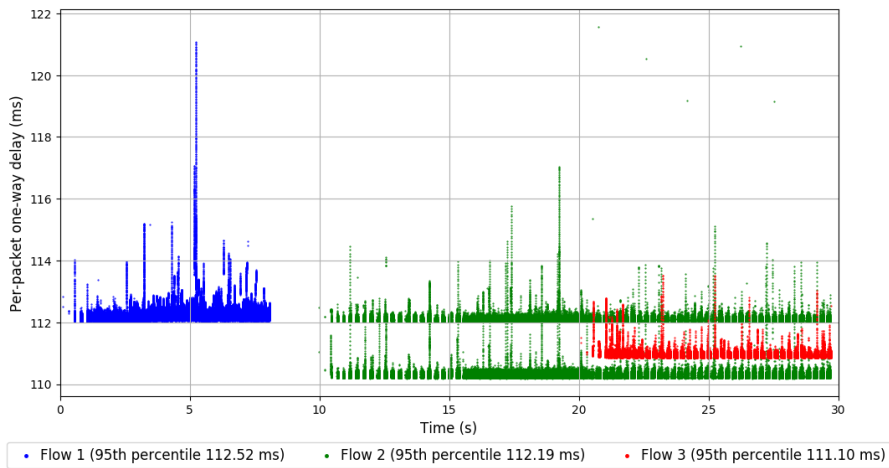
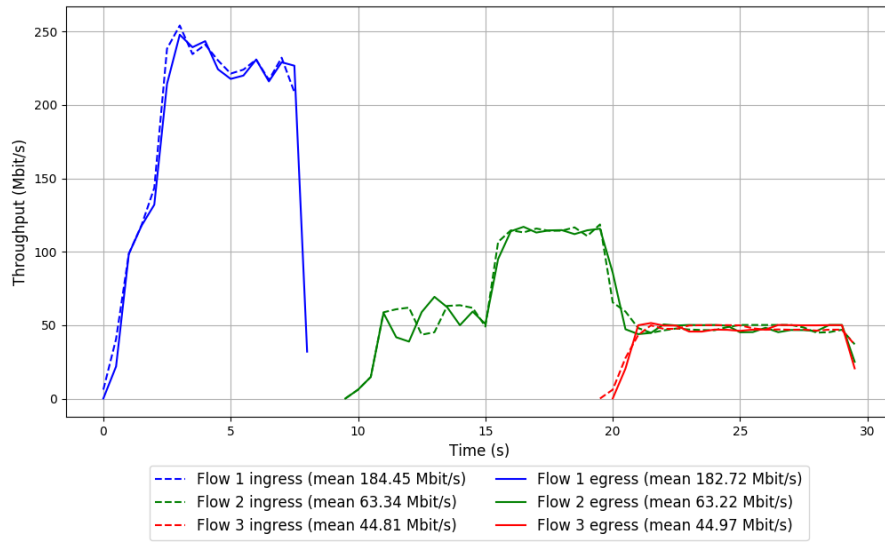
-- Flow 3:

Average throughput: 44.97 Mbit/s

95th percentile per-packet one-way delay: 111.099 ms

Loss rate: 1.93%

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



Run 2: Statistics of TaoVA-100x

Start at: 2017-08-21 00:02:30

End at: 2017-08-21 00:03:00

# Below is generated by plot.py at 2017-08-21 04:50:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 163.82 Mbit/s

95th percentile per-packet one-way delay: 112.878 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 154.82 Mbit/s

95th percentile per-packet one-way delay: 112.716 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 41.72 Mbit/s

95th percentile per-packet one-way delay: 113.872 ms

Loss rate: 0.16%

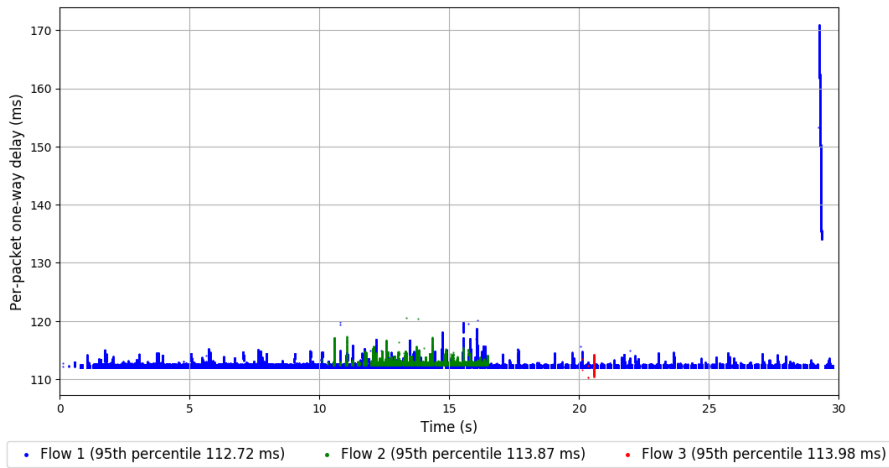
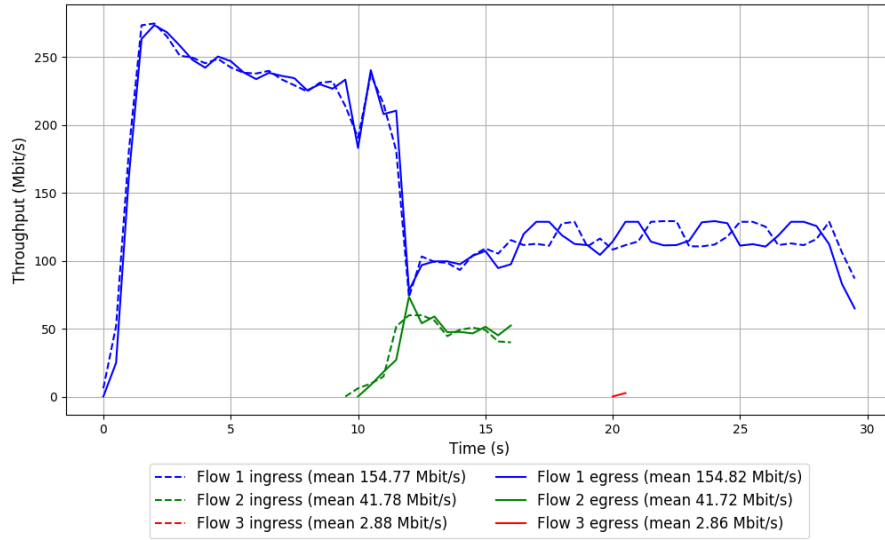
-- Flow 3:

Average throughput: 2.86 Mbit/s

95th percentile per-packet one-way delay: 113.985 ms

Loss rate: 0.00%

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-08-21 00:15:35

End at: 2017-08-21 00:16:05

# Below is generated by plot.py at 2017-08-21 04:50:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 168.88 Mbit/s

95th percentile per-packet one-way delay: 115.351 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 129.18 Mbit/s

95th percentile per-packet one-way delay: 115.653 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 38.33 Mbit/s

95th percentile per-packet one-way delay: 115.069 ms

Loss rate: 1.10%

-- Flow 3:

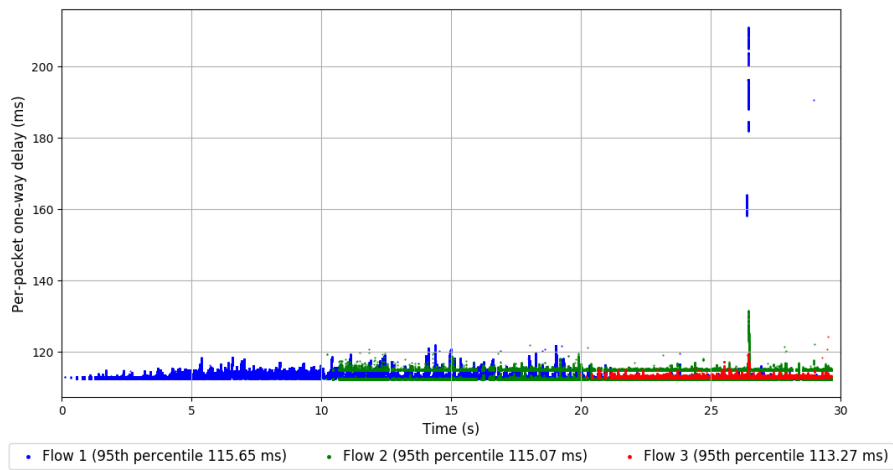
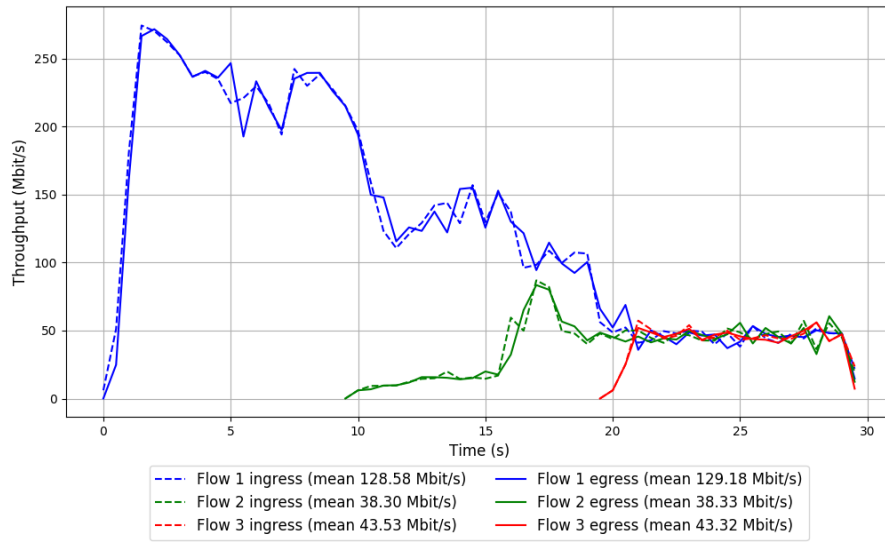
Average throughput: 43.32 Mbit/s

95th percentile per-packet one-way delay: 113.268 ms

Loss rate: 2.76%



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



Run 4: Statistics of TaoVA-100x

Start at: 2017-08-21 00:28:39

End at: 2017-08-21 00:29:09

# Below is generated by plot.py at 2017-08-21 04:50:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 142.47 Mbit/s

95th percentile per-packet one-way delay: 113.774 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 146.21 Mbit/s

95th percentile per-packet one-way delay: 113.593 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 194.05 Mbit/s

95th percentile per-packet one-way delay: 113.790 ms

Loss rate: 0.76%

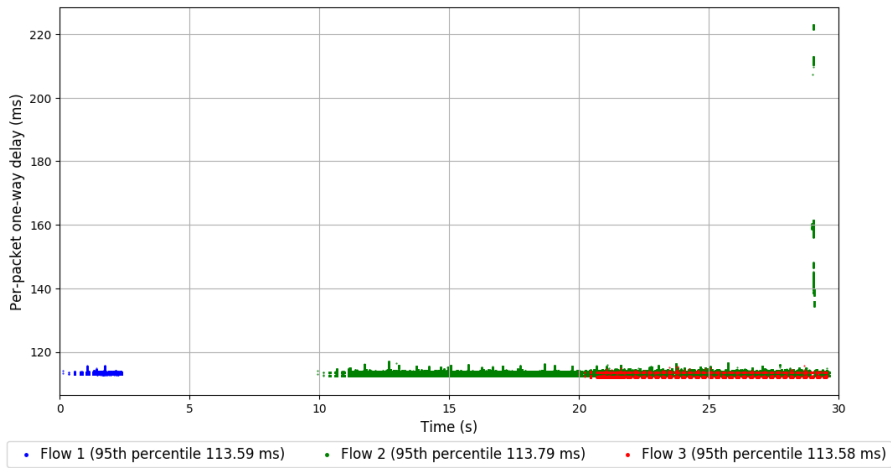
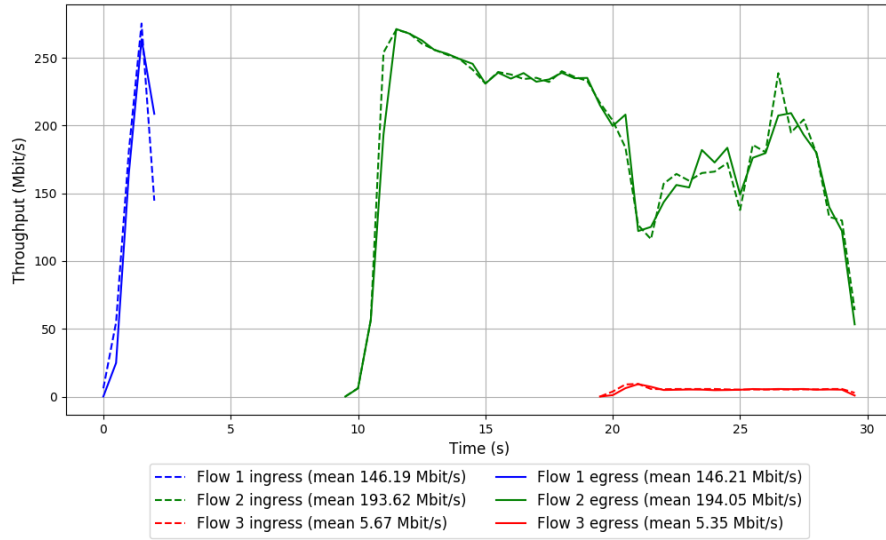
-- Flow 3:

Average throughput: 5.35 Mbit/s

95th percentile per-packet one-way delay: 113.583 ms

Loss rate: 8.21%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-08-21 00:41:43

End at: 2017-08-21 00:42:13

# Below is generated by plot.py at 2017-08-21 04:51:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 103.36 Mbit/s

95th percentile per-packet one-way delay: 113.718 ms

Loss rate: 3.61%

-- Flow 1:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 112.363 ms

Loss rate: 91.17%

-- Flow 2:

Average throughput: 135.09 Mbit/s

95th percentile per-packet one-way delay: 113.686 ms

Loss rate: 0.85%

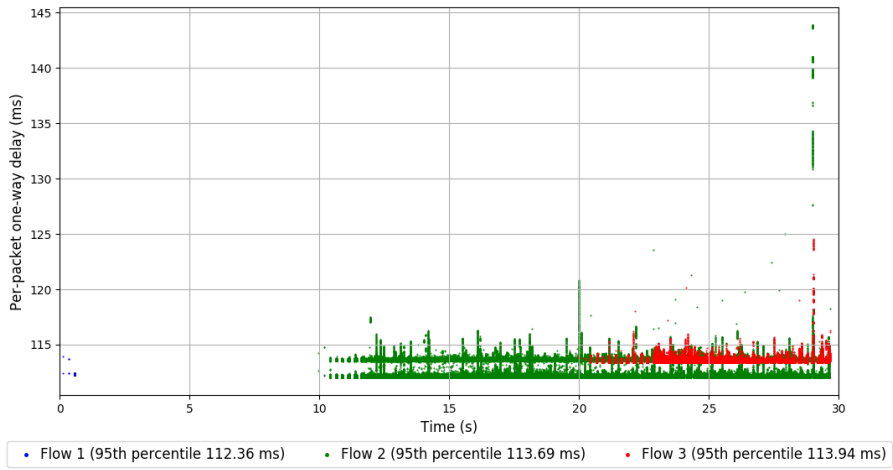
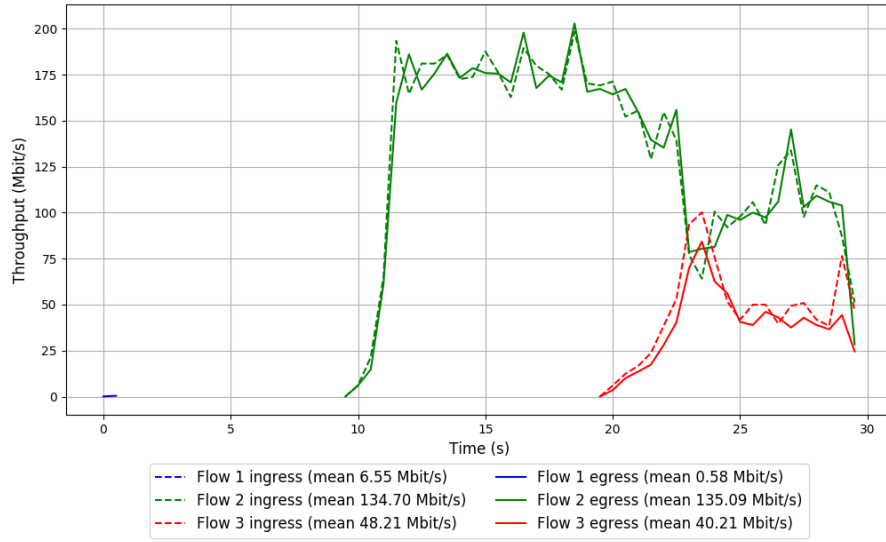
-- Flow 3:

Average throughput: 40.21 Mbit/s

95th percentile per-packet one-way delay: 113.936 ms

Loss rate: 18.53%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-08-21 00:54:37

End at: 2017-08-21 00:55:07

# Below is generated by plot.py at 2017-08-21 04:51:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 51.02 Mbit/s

95th percentile per-packet one-way delay: 113.658 ms

Loss rate: 4.83%

-- Flow 1:

Average throughput: 20.85 Mbit/s

95th percentile per-packet one-way delay: 113.611 ms

Loss rate: 3.36%

-- Flow 2:

Average throughput: 22.39 Mbit/s

95th percentile per-packet one-way delay: 113.691 ms

Loss rate: 2.55%

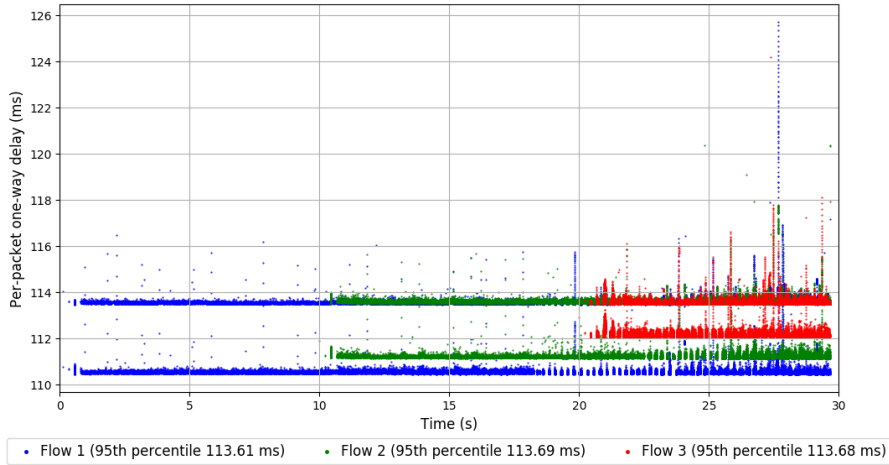
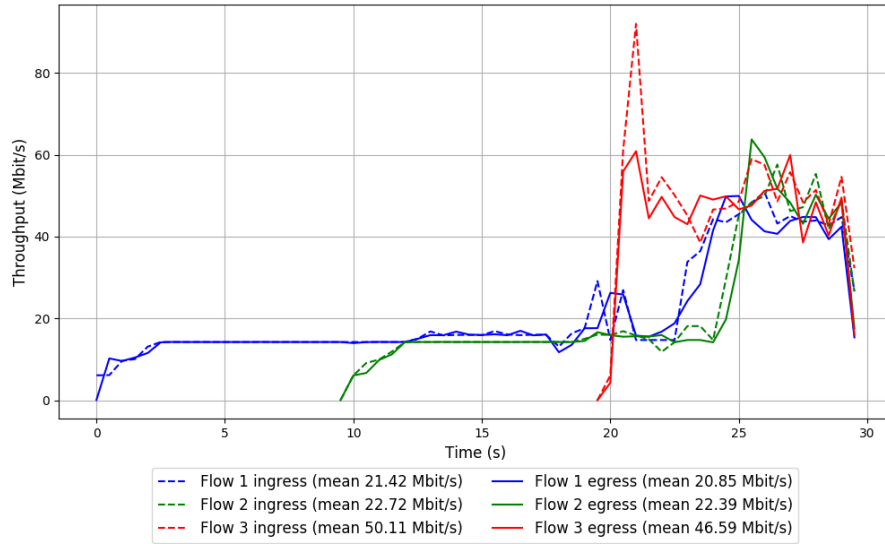
-- Flow 3:

Average throughput: 46.59 Mbit/s

95th percentile per-packet one-way delay: 113.677 ms

Loss rate: 8.80%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-08-21 01:07:51

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

# Below is generated by plot.py at 2017-08-21 04:51:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 109.97 Mbit/s

95th percentile per-packet one-way delay: 114.393 ms

Loss rate: 11.24%

-- Flow 1:

Average throughput: 43.28 Mbit/s

95th percentile per-packet one-way delay: 112.391 ms

Loss rate: 23.39%

-- Flow 2:

Average throughput: 78.78 Mbit/s

95th percentile per-packet one-way delay: 116.425 ms

Loss rate: 1.05%

-- Flow 3:

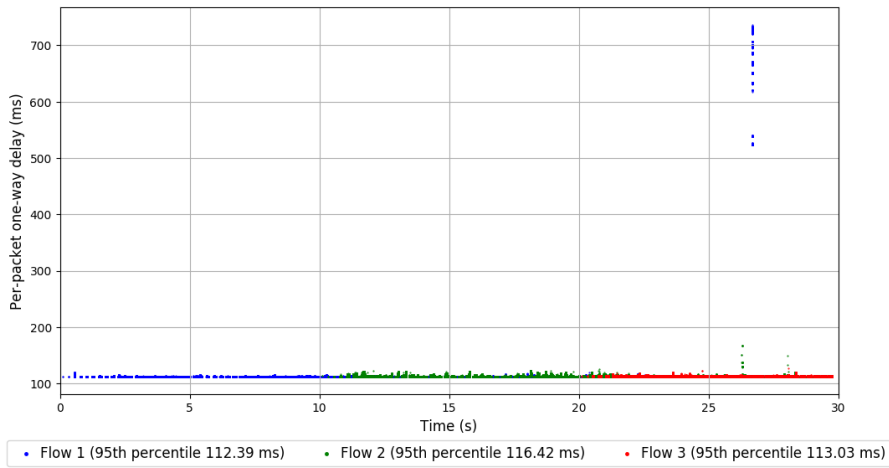
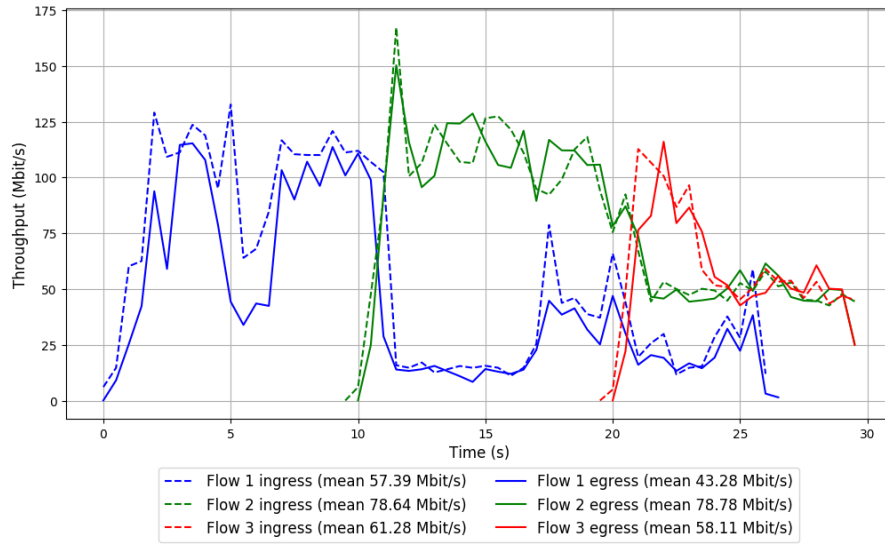
Average throughput: 58.11 Mbit/s

95th percentile per-packet one-way delay: 113.025 ms

Loss rate: 7.48%



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



Run 8: Statistics of TaoVA-100x

Start at: 2017-08-21 01:21:00

End at: 2017-08-21 01:21:30

# Below is generated by plot.py at 2017-08-21 04:52:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 142.91 Mbit/s

95th percentile per-packet one-way delay: 114.090 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 107.97 Mbit/s

95th percentile per-packet one-way delay: 114.318 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 50.52 Mbit/s

95th percentile per-packet one-way delay: 113.311 ms

Loss rate: 1.47%

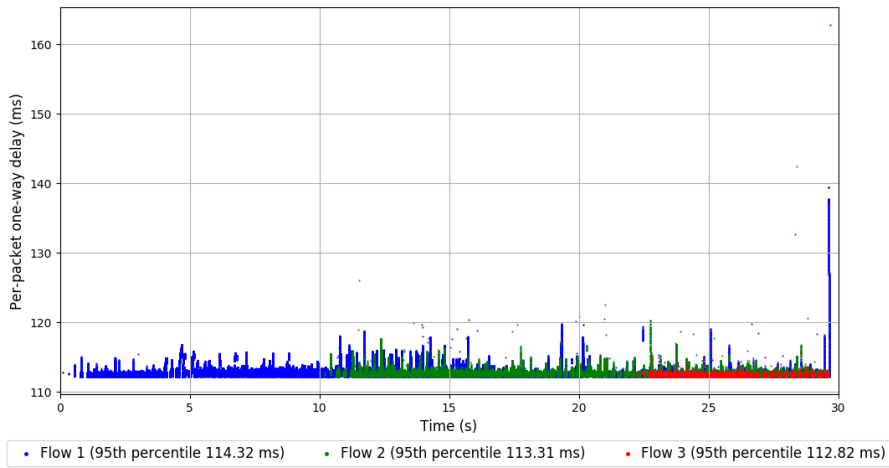
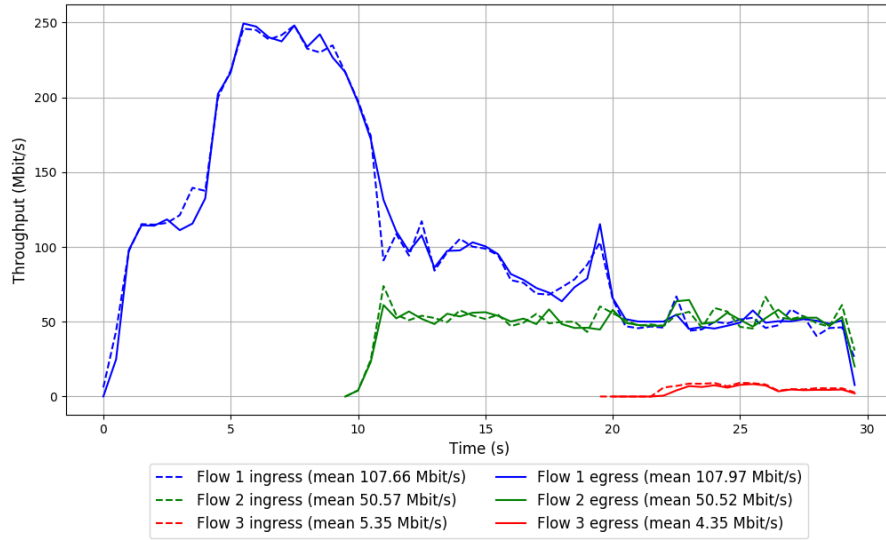
-- Flow 3:

Average throughput: 4.35 Mbit/s

95th percentile per-packet one-way delay: 112.824 ms

Loss rate: 21.02%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-08-21 01:33:54

End at: 2017-08-21 01:34:24

# Below is generated by plot.py at 2017-08-21 04:53:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 185.27 Mbit/s

95th percentile per-packet one-way delay: 113.562 ms

Loss rate: 2.60%

-- Flow 1:

Average throughput: 163.28 Mbit/s

95th percentile per-packet one-way delay: 113.614 ms

Loss rate: 1.41%

-- Flow 2:

Average throughput: 14.29 Mbit/s

95th percentile per-packet one-way delay: 112.364 ms

Loss rate: 17.97%

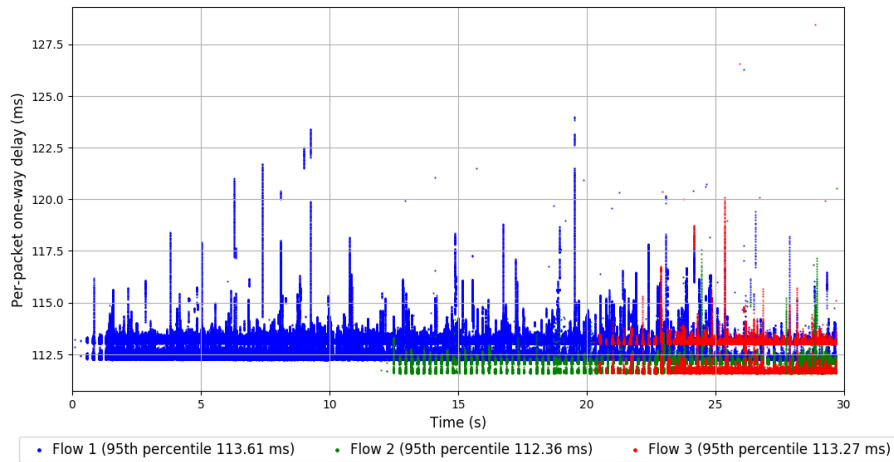
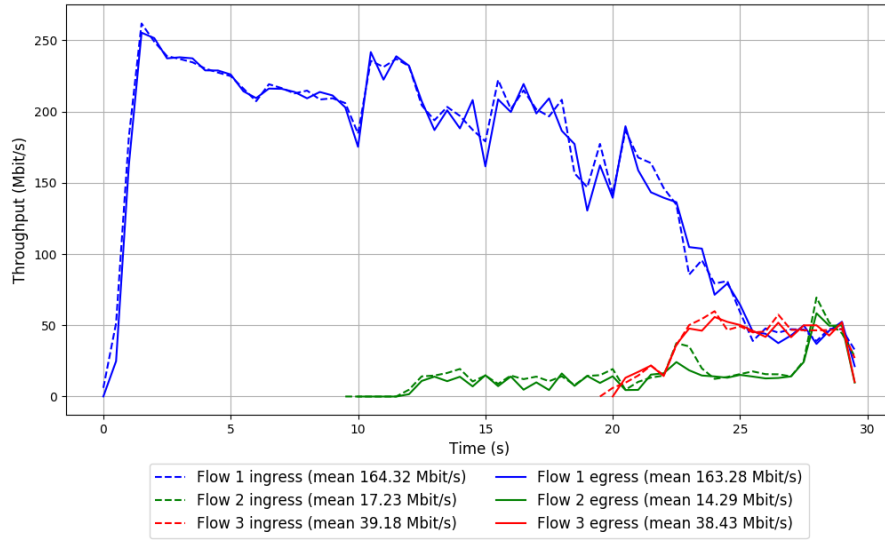
-- Flow 3:

Average throughput: 38.43 Mbit/s

95th percentile per-packet one-way delay: 113.271 ms

Loss rate: 3.97%

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



Run 10: Statistics of TaoVA-100x

Start at: 2017-08-21 01:46:46

End at: 2017-08-21 01:47:16

# Below is generated by plot.py at 2017-08-21 04:53:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 146.78 Mbit/s

95th percentile per-packet one-way delay: 112.584 ms

Loss rate: 4.70%

-- Flow 1:

Average throughput: 219.16 Mbit/s

95th percentile per-packet one-way delay: 112.284 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.90 Mbit/s

95th percentile per-packet one-way delay: 112.373 ms

Loss rate: 19.15%

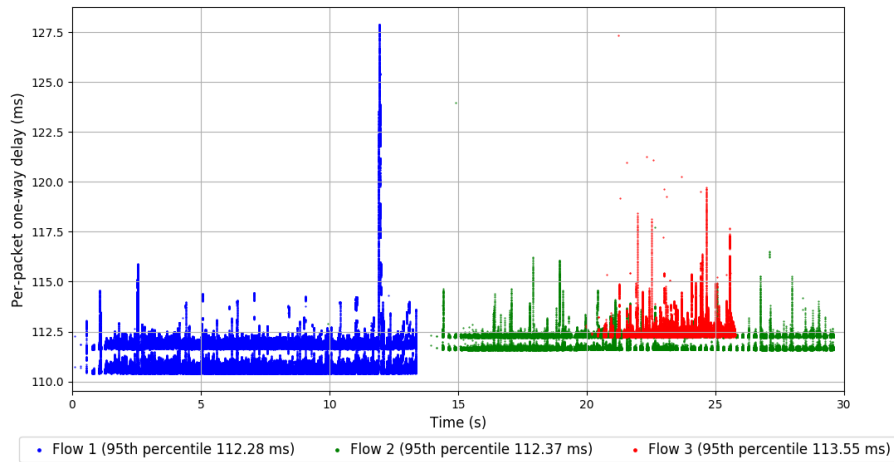
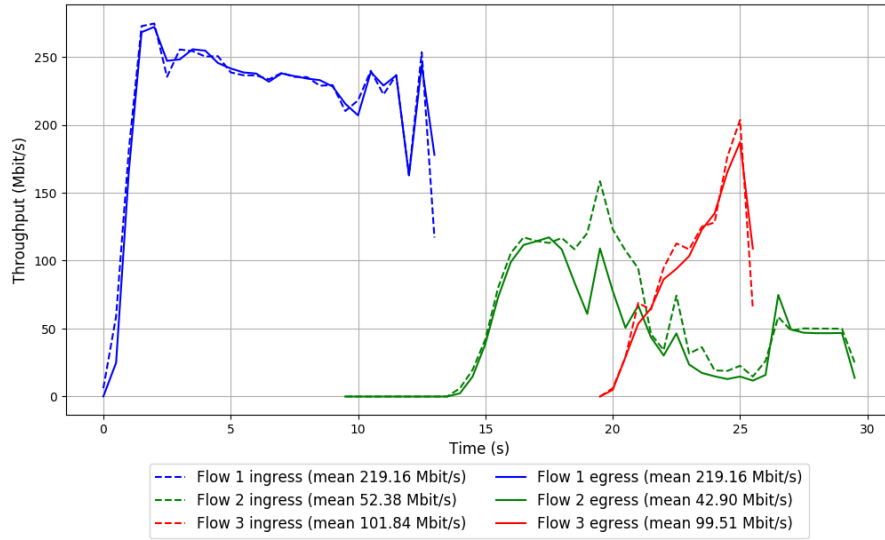
-- Flow 3:

Average throughput: 99.51 Mbit/s

95th percentile per-packet one-way delay: 113.550 ms

Loss rate: 2.30%

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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-20 23:41:57

End at: 2017-08-20 23:42:27

# Below is generated by plot.py at 2017-08-21 04:53:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 29.13 Mbit/s

95th percentile per-packet one-way delay: 113.684 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 15.07 Mbit/s

95th percentile per-packet one-way delay: 114.991 ms

Loss rate: 2.20%

-- Flow 2:

Average throughput: 20.84 Mbit/s

95th percentile per-packet one-way delay: 113.042 ms

Loss rate: 1.53%

-- Flow 3:

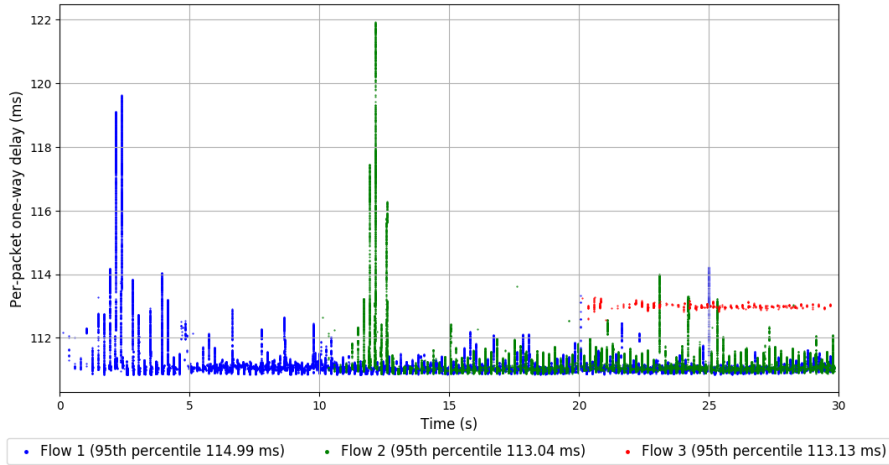
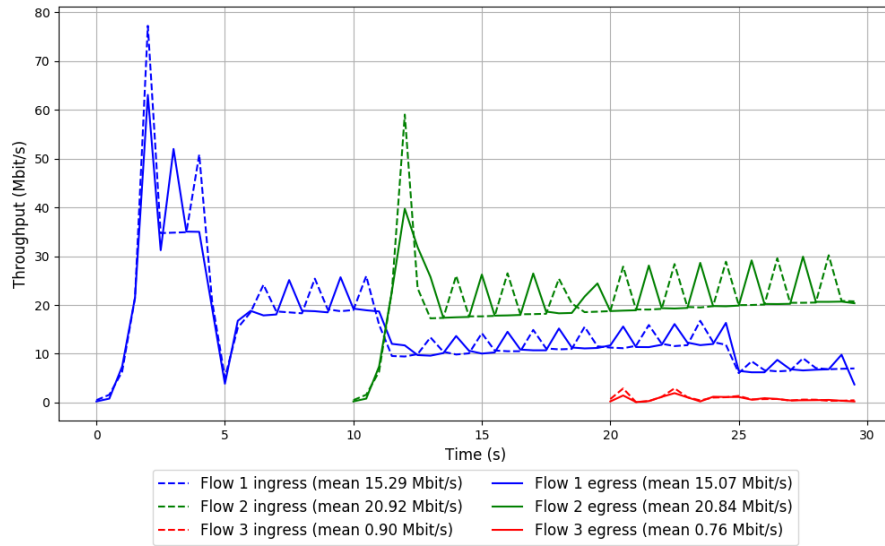
Average throughput: 0.76 Mbit/s

95th percentile per-packet one-way delay: 113.134 ms

Loss rate: 18.18%



# Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-08-20 23:54:57

End at: 2017-08-20 23:55:27

# Below is generated by plot.py at 2017-08-21 04:53:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.70 Mbit/s

95th percentile per-packet one-way delay: 112.990 ms

Loss rate: 3.83%

-- Flow 1:

Average throughput: 3.13 Mbit/s

95th percentile per-packet one-way delay: 111.224 ms

Loss rate: 2.93%

-- Flow 2:

Average throughput: 2.90 Mbit/s

95th percentile per-packet one-way delay: 112.348 ms

Loss rate: 3.64%

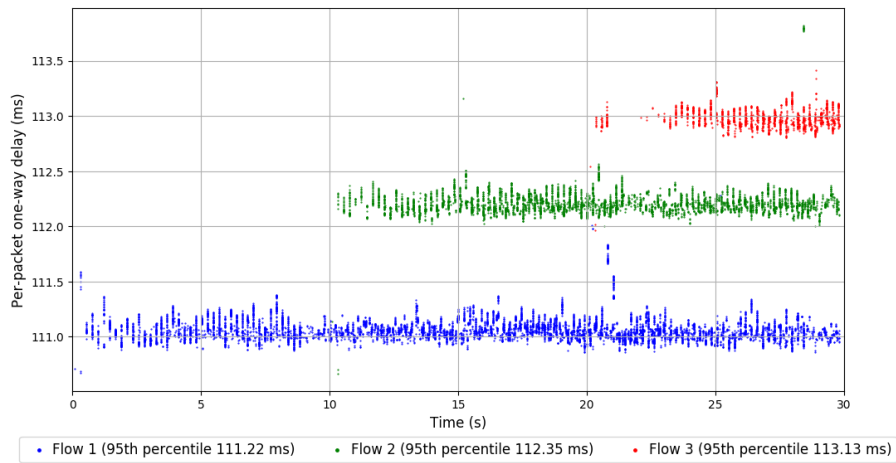
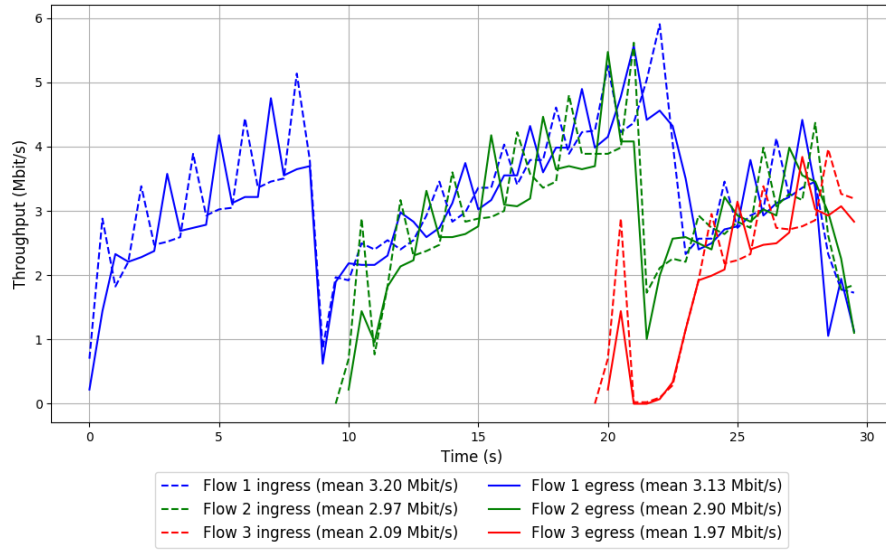
-- Flow 3:

Average throughput: 1.97 Mbit/s

95th percentile per-packet one-way delay: 113.127 ms

Loss rate: 8.53%

## Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-21 00:07:43

End at: 2017-08-21 00:08:13

# Below is generated by plot.py at 2017-08-21 04:53:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 16.11 Mbit/s

95th percentile per-packet one-way delay: 113.107 ms

Loss rate: 3.09%

-- Flow 1:

Average throughput: 2.71 Mbit/s

95th percentile per-packet one-way delay: 112.655 ms

Loss rate: 3.62%

-- Flow 2:

Average throughput: 12.77 Mbit/s

95th percentile per-packet one-way delay: 113.163 ms

Loss rate: 2.19%

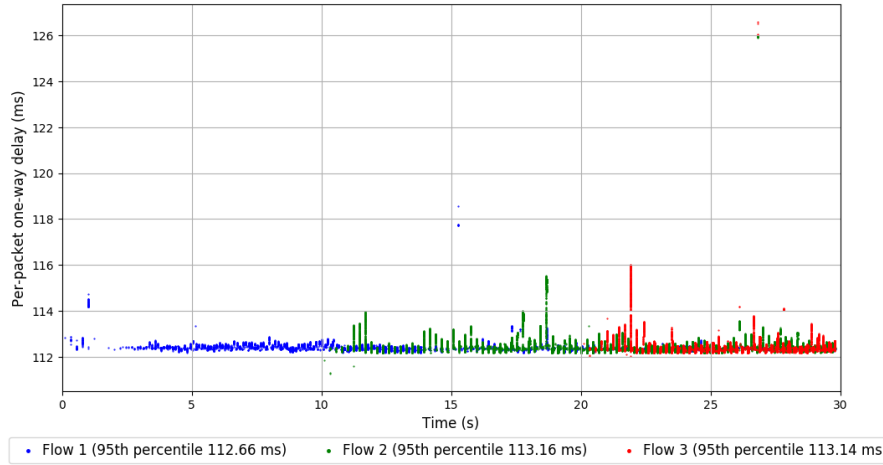
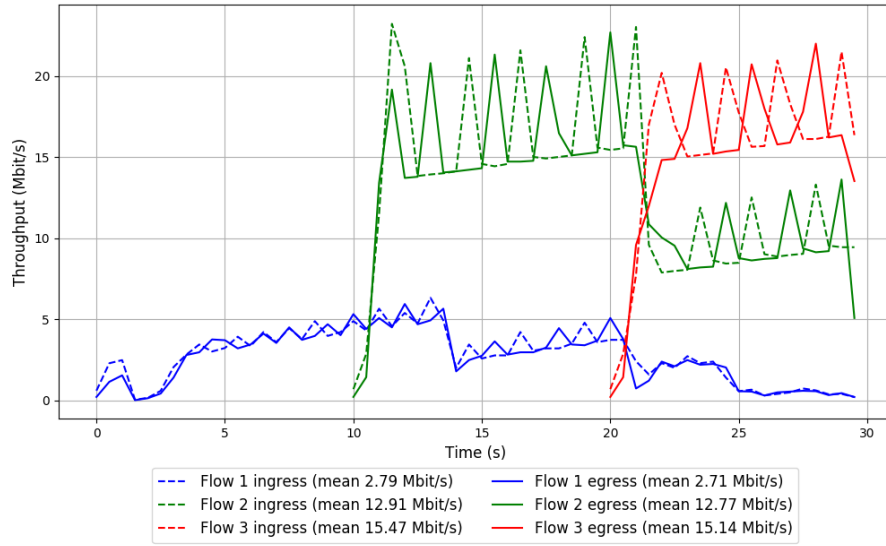
-- Flow 3:

Average throughput: 15.14 Mbit/s

95th percentile per-packet one-way delay: 113.136 ms

Loss rate: 4.33%

### Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-21 00:20:46

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

# Below is generated by plot.py at 2017-08-21 04:53:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.20 Mbit/s

95th percentile per-packet one-way delay: 113.690 ms

Loss rate: 3.67%

-- Flow 1:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 112.548 ms

Loss rate: 3.01%

-- Flow 2:

Average throughput: 6.35 Mbit/s

95th percentile per-packet one-way delay: 113.172 ms

Loss rate: 4.91%

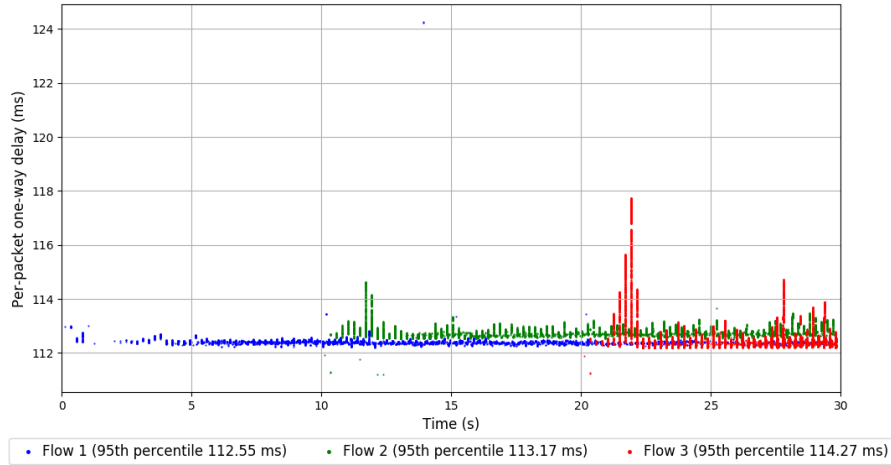
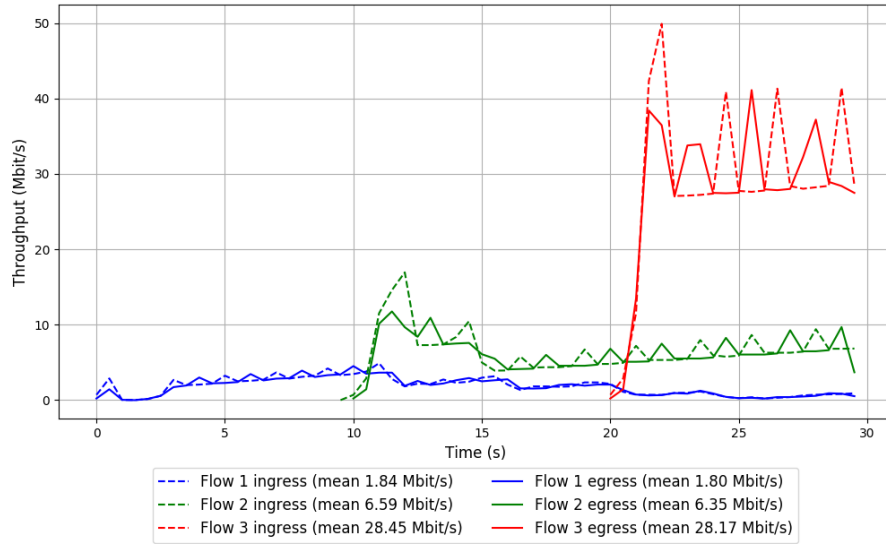
-- Flow 3:

Average throughput: 28.17 Mbit/s

95th percentile per-packet one-way delay: 114.273 ms

Loss rate: 3.22%

### Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-08-21 00:33:49

End at: 2017-08-21 00:34:19

# Below is generated by plot.py at 2017-08-21 04:53:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.94 Mbit/s

95th percentile per-packet one-way delay: 113.935 ms

Loss rate: 3.80%

-- Flow 1:

Average throughput: 3.26 Mbit/s

95th percentile per-packet one-way delay: 113.847 ms

Loss rate: 3.24%

-- Flow 2:

Average throughput: 2.94 Mbit/s

95th percentile per-packet one-way delay: 113.848 ms

Loss rate: 3.26%

-- Flow 3:

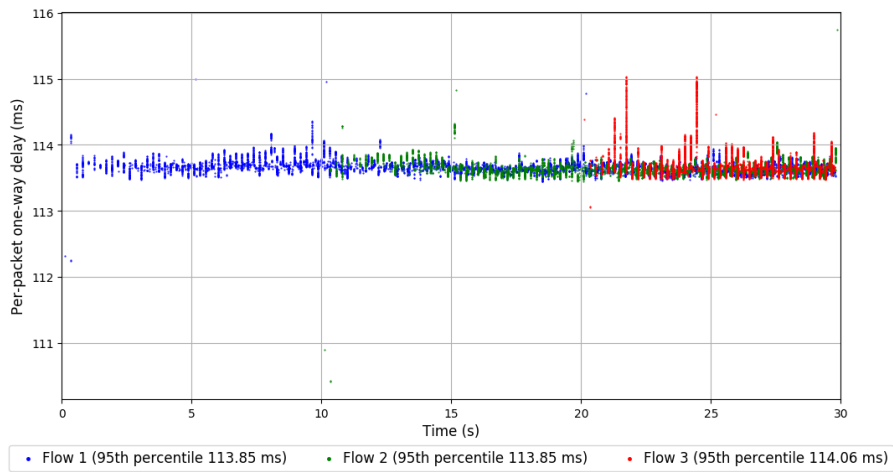
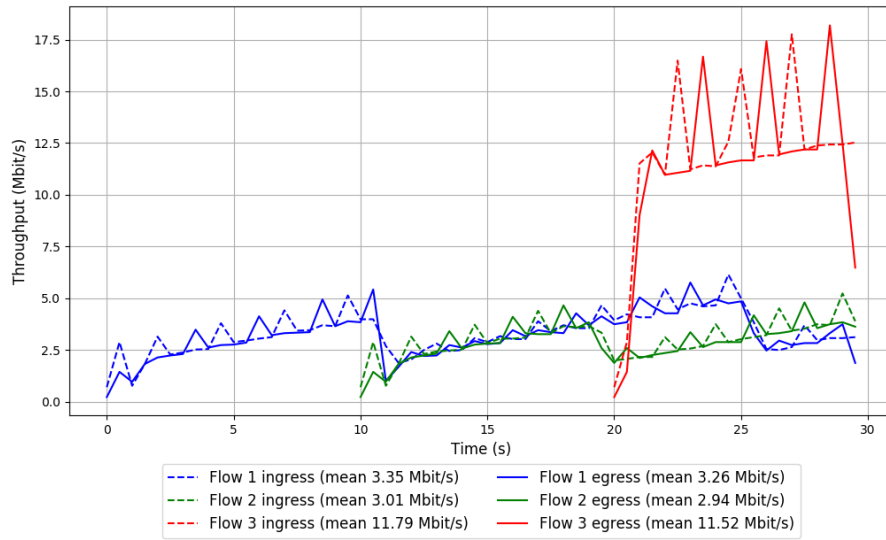
Average throughput: 11.52 Mbit/s

95th percentile per-packet one-way delay: 114.061 ms

Loss rate: 4.56%



### Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-21 00:46:46

End at: 2017-08-21 00:47:16

# Below is generated by plot.py at 2017-08-21 04:53:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 9.57 Mbit/s

95th percentile per-packet one-way delay: 114.083 ms

Loss rate: 2.50%

-- Flow 1:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 113.926 ms

Loss rate: 4.07%

-- Flow 2:

Average throughput: 9.84 Mbit/s

95th percentile per-packet one-way delay: 114.175 ms

Loss rate: 1.43%

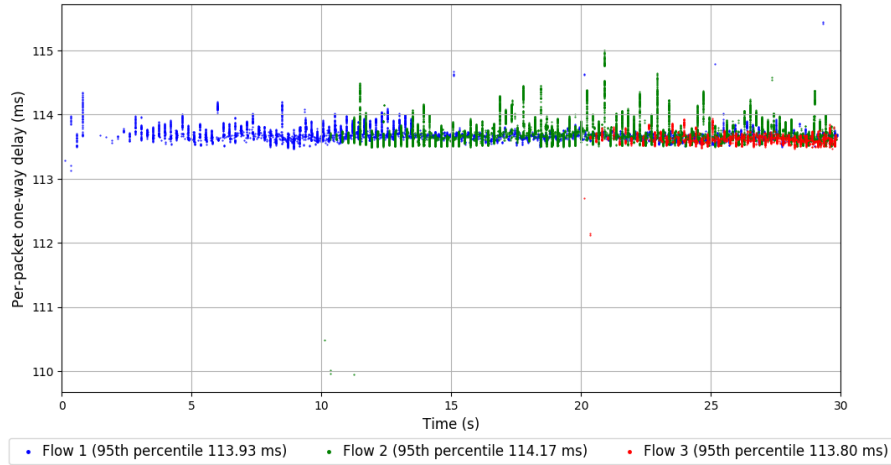
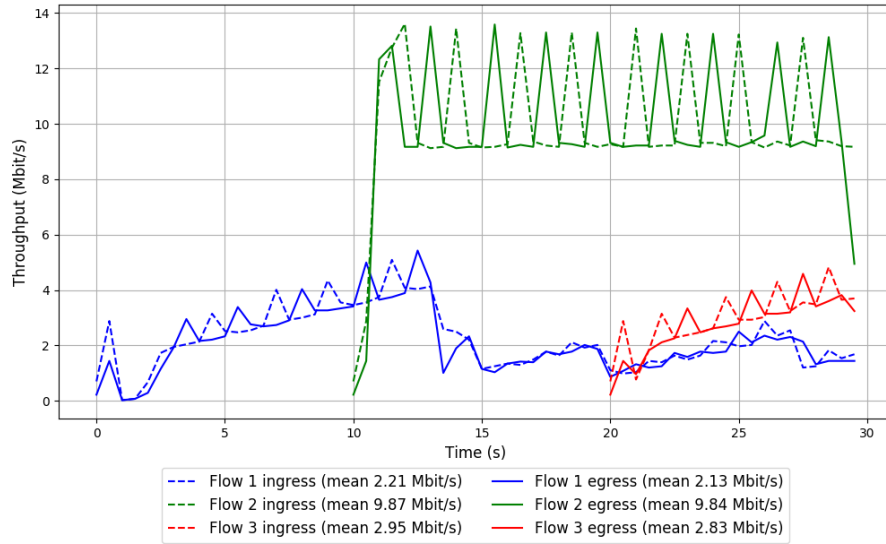
-- Flow 3:

Average throughput: 2.83 Mbit/s

95th percentile per-packet one-way delay: 113.797 ms

Loss rate: 6.16%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-21 00:59:44

End at: 2017-08-21 01:00:14

# Below is generated by plot.py at 2017-08-21 04:53:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 21.63 Mbit/s

95th percentile per-packet one-way delay: 114.054 ms

Loss rate: 2.71%

-- Flow 1:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 112.731 ms

Loss rate: 11.10%

-- Flow 2:

Average throughput: 15.08 Mbit/s

95th percentile per-packet one-way delay: 113.404 ms

Loss rate: 1.21%

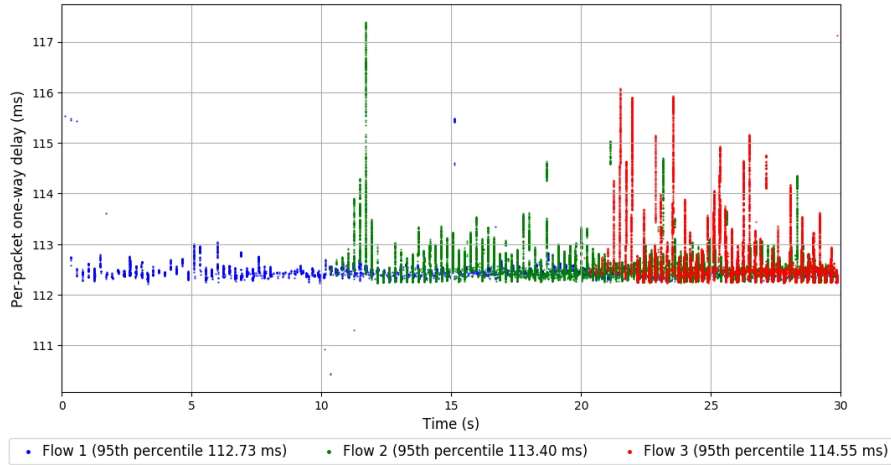
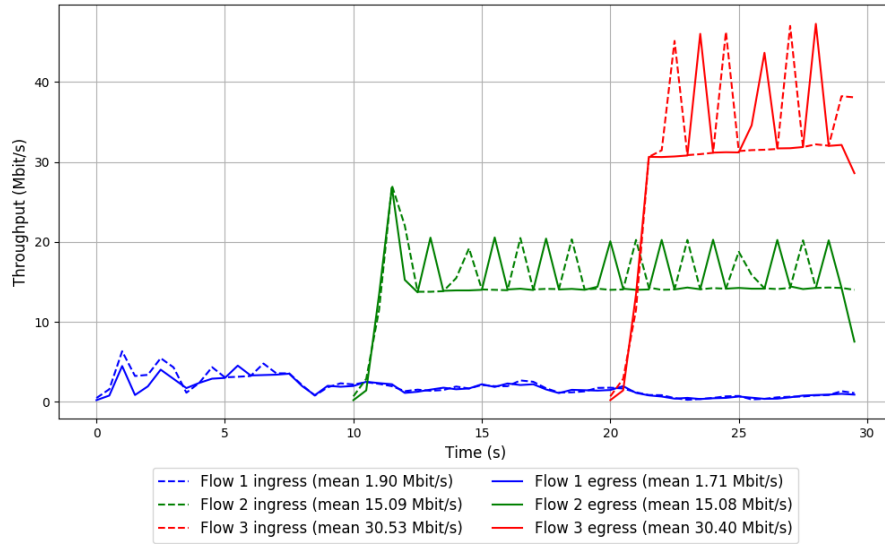
-- Flow 3:

Average throughput: 30.40 Mbit/s

95th percentile per-packet one-way delay: 114.551 ms

Loss rate: 2.64%

### Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-21 01:12:59

End at: 2017-08-21 01:13:29

# Below is generated by plot.py at 2017-08-21 04:53:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 43.37 Mbit/s

95th percentile per-packet one-way delay: 119.264 ms

Loss rate: 1.97%

-- Flow 1:

Average throughput: 10.18 Mbit/s

95th percentile per-packet one-way delay: 119.276 ms

Loss rate: 3.11%

-- Flow 2:

Average throughput: 49.60 Mbit/s

95th percentile per-packet one-way delay: 119.321 ms

Loss rate: 1.53%

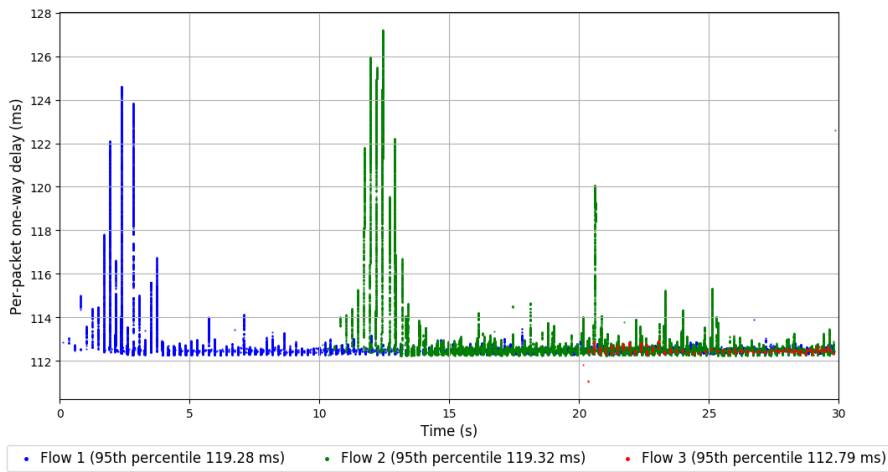
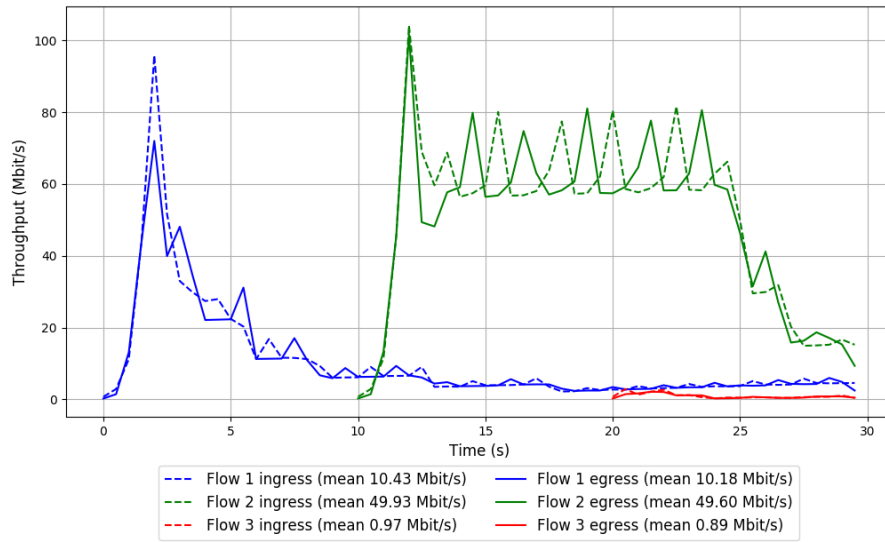
-- Flow 3:

Average throughput: 0.89 Mbit/s

95th percentile per-packet one-way delay: 112.786 ms

Loss rate: 10.71%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-08-21 01:26:05

End at: 2017-08-21 01:26:35

# Below is generated by plot.py at 2017-08-21 04:53:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.93 Mbit/s

95th percentile per-packet one-way delay: 112.794 ms

Loss rate: 2.01%

-- Flow 1:

Average throughput: 3.72 Mbit/s

95th percentile per-packet one-way delay: 112.824 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 0.83 Mbit/s

95th percentile per-packet one-way delay: 112.606 ms

Loss rate: 1.73%

-- Flow 3:

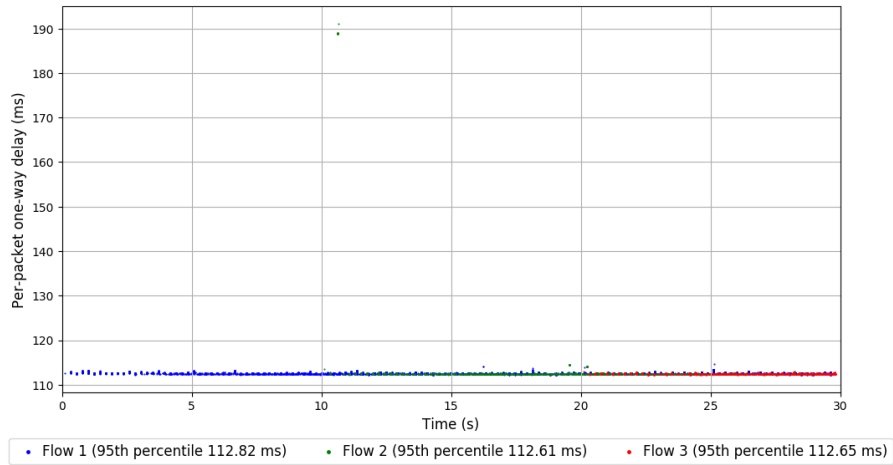
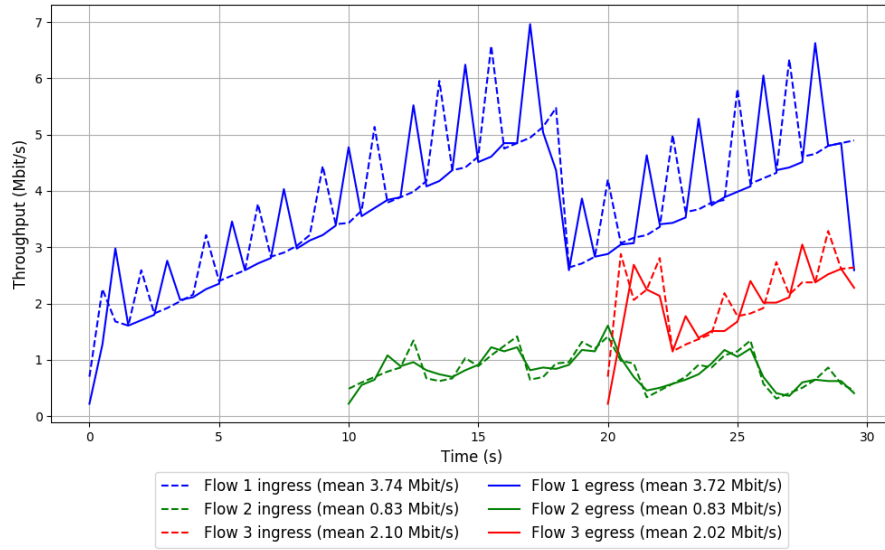
Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 112.650 ms

Loss rate: 6.48%



### Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-21 01:39:09

End at: 2017-08-21 01:39:39

# Below is generated by plot.py at 2017-08-21 04:53:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.81 Mbit/s

95th percentile per-packet one-way delay: 113.238 ms

Loss rate: 2.19%

-- Flow 1:

Average throughput: 3.57 Mbit/s

95th percentile per-packet one-way delay: 112.846 ms

Loss rate: 1.44%

-- Flow 2:

Average throughput: 2.94 Mbit/s

95th percentile per-packet one-way delay: 112.910 ms

Loss rate: 2.05%

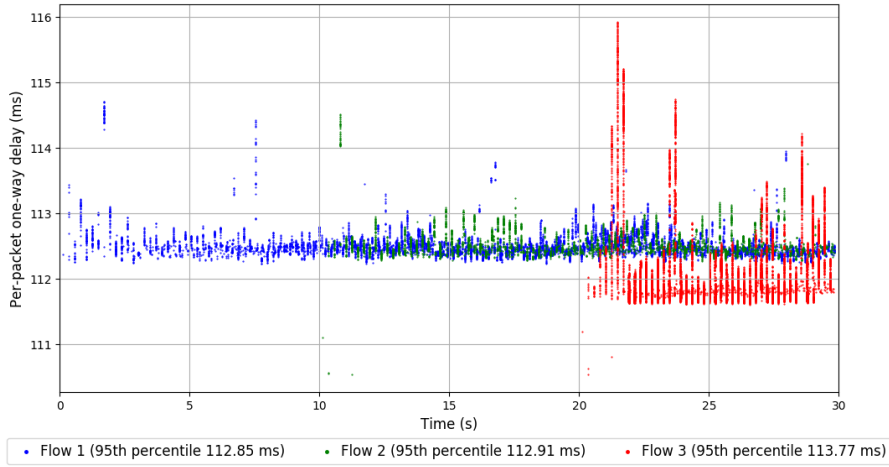
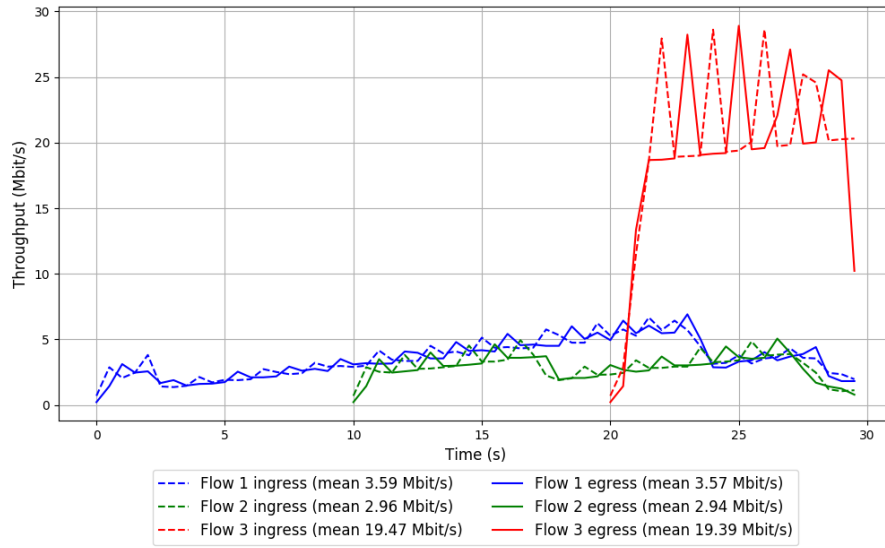
-- Flow 3:

Average throughput: 19.39 Mbit/s

95th percentile per-packet one-way delay: 113.765 ms

Loss rate: 2.65%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-08-20 23:46:34

End at: 2017-08-20 23:47:04

# Below is generated by plot.py at 2017-08-21 04:53:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 52.46 Mbit/s

95th percentile per-packet one-way delay: 123.451 ms

Loss rate: 61.35%

-- Flow 1:

Average throughput: 12.06 Mbit/s

95th percentile per-packet one-way delay: 113.330 ms

Loss rate: 87.18%

-- Flow 2:

Average throughput: 52.15 Mbit/s

95th percentile per-packet one-way delay: 128.998 ms

Loss rate: 2.37%

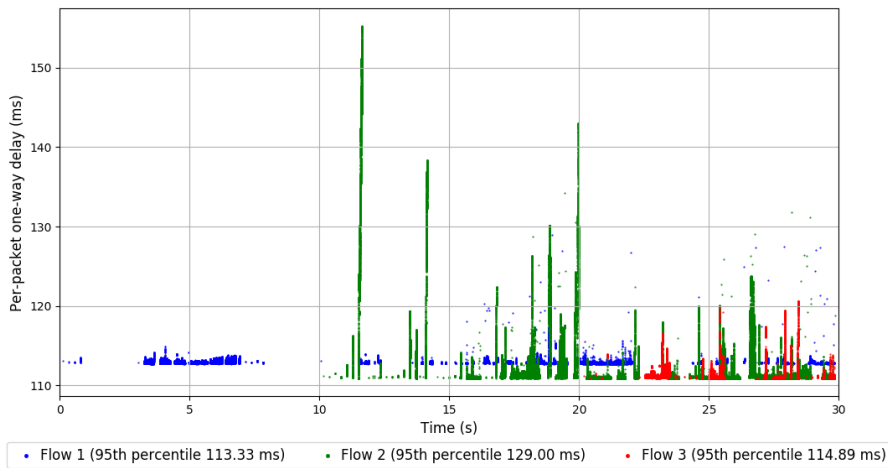
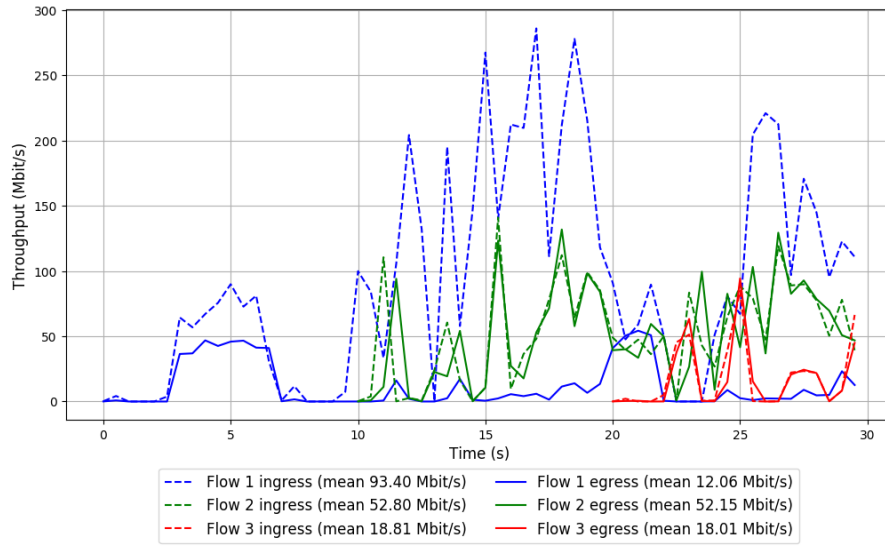
-- Flow 3:

Average throughput: 18.01 Mbit/s

95th percentile per-packet one-way delay: 114.889 ms

Loss rate: 6.51%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-08-20 23:59:06

End at: 2017-08-20 23:59:36

# Below is generated by plot.py at 2017-08-21 04:54:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 117.96 Mbit/s

95th percentile per-packet one-way delay: 149.966 ms

Loss rate: 13.39%

-- Flow 1:

Average throughput: 82.63 Mbit/s

95th percentile per-packet one-way delay: 162.272 ms

Loss rate: 2.55%

-- Flow 2:

Average throughput: 34.91 Mbit/s

95th percentile per-packet one-way delay: 114.710 ms

Loss rate: 39.85%

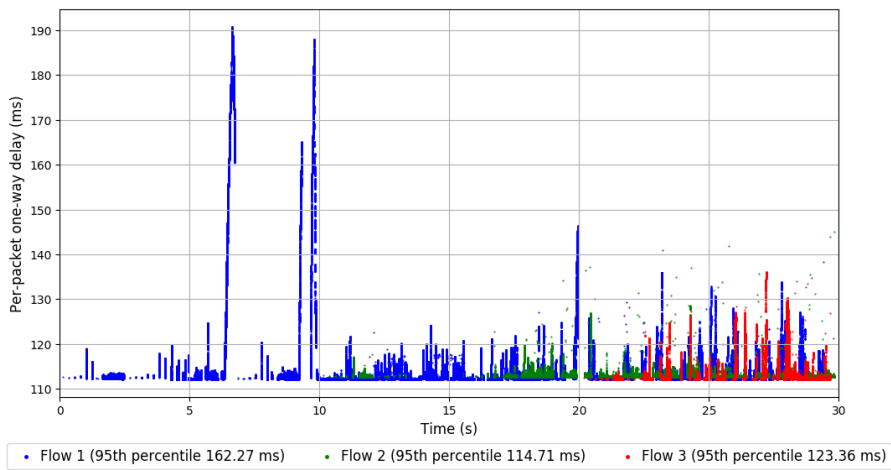
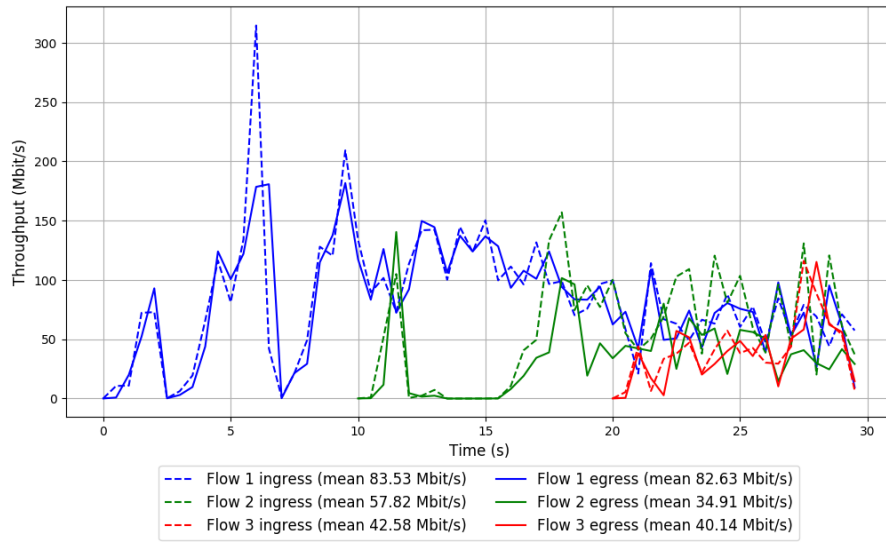
-- Flow 3:

Average throughput: 40.14 Mbit/s

95th percentile per-packet one-way delay: 123.361 ms

Loss rate: 5.73%

## Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-21 00:12:09

End at: 2017-08-21 00:12:39

# Below is generated by plot.py at 2017-08-21 04:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.20 Mbit/s

95th percentile per-packet one-way delay: 127.707 ms

Loss rate: 29.46%

-- Flow 1:

Average throughput: 18.14 Mbit/s

95th percentile per-packet one-way delay: 127.847 ms

Loss rate: 57.97%

-- Flow 2:

Average throughput: 86.33 Mbit/s

95th percentile per-packet one-way delay: 129.666 ms

Loss rate: 2.79%

-- Flow 3:

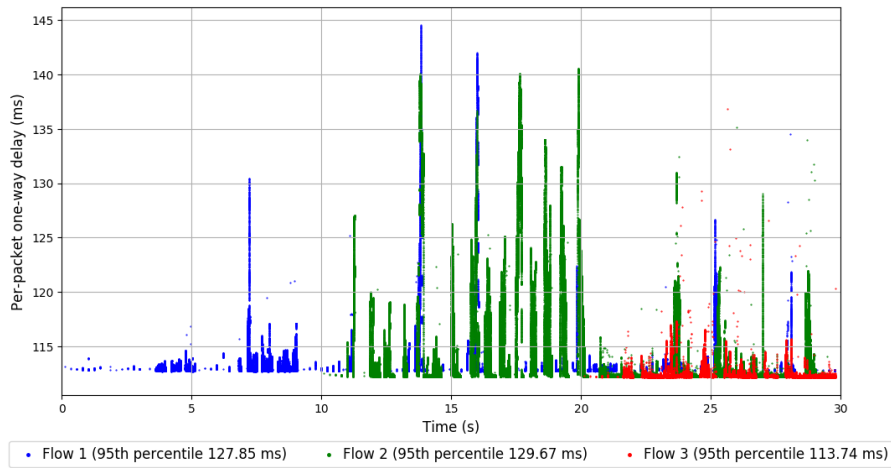
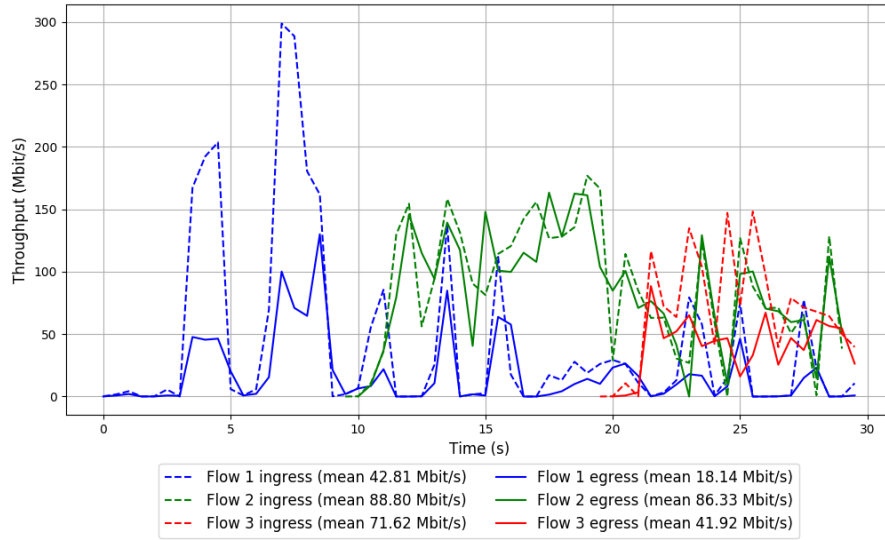
Average throughput: 41.92 Mbit/s

95th percentile per-packet one-way delay: 113.738 ms

Loss rate: 42.78%



### Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-08-21 00:25:17

End at: 2017-08-21 00:25:47

# Below is generated by plot.py at 2017-08-21 04:54:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 31.41 Mbit/s

95th percentile per-packet one-way delay: 117.025 ms

Loss rate: 58.22%

-- Flow 1:

Average throughput: 13.09 Mbit/s

95th percentile per-packet one-way delay: 112.854 ms

Loss rate: 68.72%

-- Flow 2:

Average throughput: 18.27 Mbit/s

95th percentile per-packet one-way delay: 113.083 ms

Loss rate: 73.05%

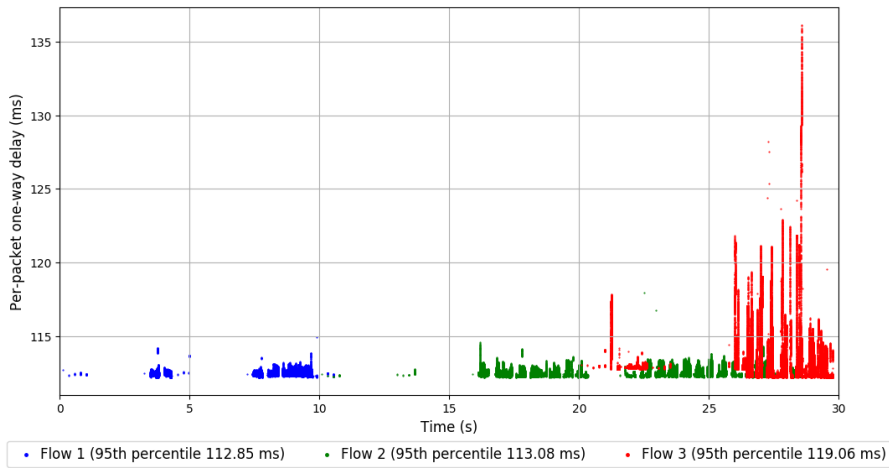
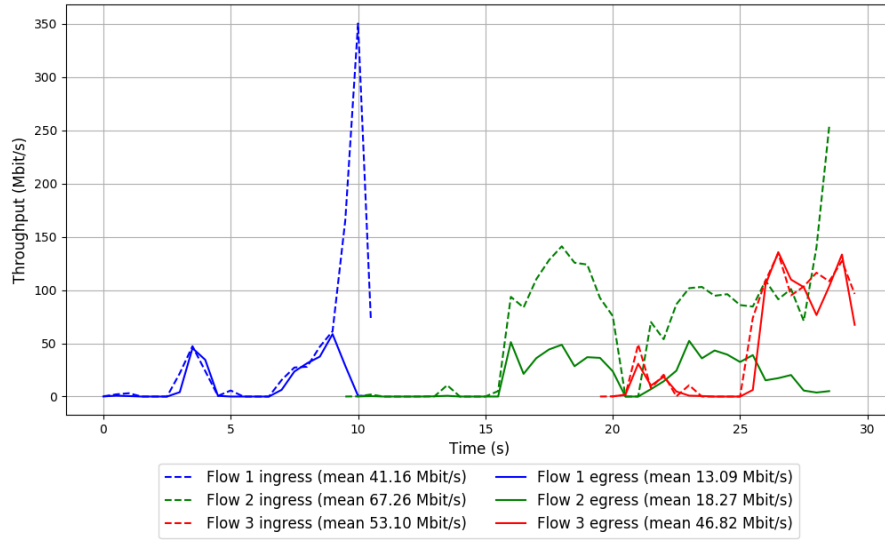
-- Flow 3:

Average throughput: 46.82 Mbit/s

95th percentile per-packet one-way delay: 119.065 ms

Loss rate: 13.85%

### Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-08-21 00:38:17

End at: 2017-08-21 00:38:47

# Below is generated by plot.py at 2017-08-21 04:54:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 105.27 Mbit/s

95th percentile per-packet one-way delay: 122.481 ms

Loss rate: 25.59%

-- Flow 1:

Average throughput: 90.22 Mbit/s

95th percentile per-packet one-way delay: 123.597 ms

Loss rate: 2.34%

-- Flow 2:

Average throughput: 13.16 Mbit/s

95th percentile per-packet one-way delay: 113.982 ms

Loss rate: 79.27%

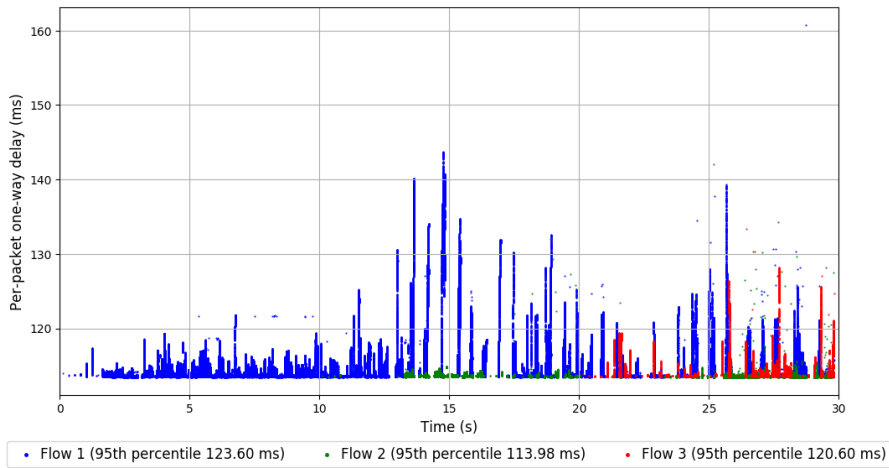
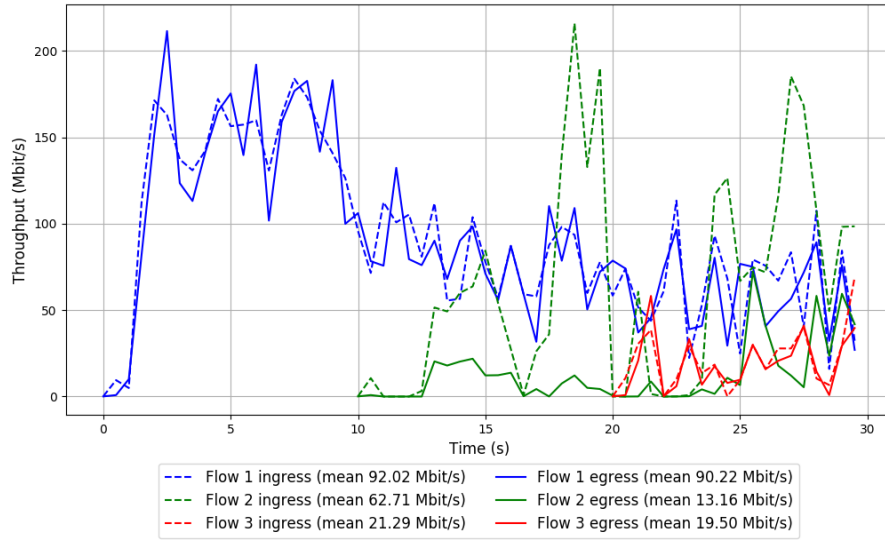
-- Flow 3:

Average throughput: 19.50 Mbit/s

95th percentile per-packet one-way delay: 120.602 ms

Loss rate: 10.00%

### Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-08-21 00:51:15

End at: 2017-08-21 00:51:45

# Below is generated by plot.py at 2017-08-21 04:54:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 62.71 Mbit/s

95th percentile per-packet one-way delay: 137.424 ms

Loss rate: 55.10%

-- Flow 1:

Average throughput: 13.02 Mbit/s

95th percentile per-packet one-way delay: 114.487 ms

Loss rate: 85.23%

-- Flow 2:

Average throughput: 60.43 Mbit/s

95th percentile per-packet one-way delay: 155.081 ms

Loss rate: 2.85%

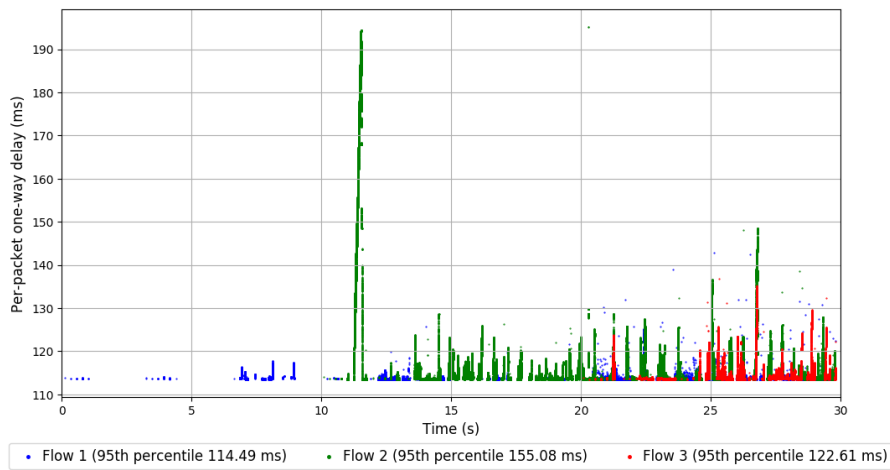
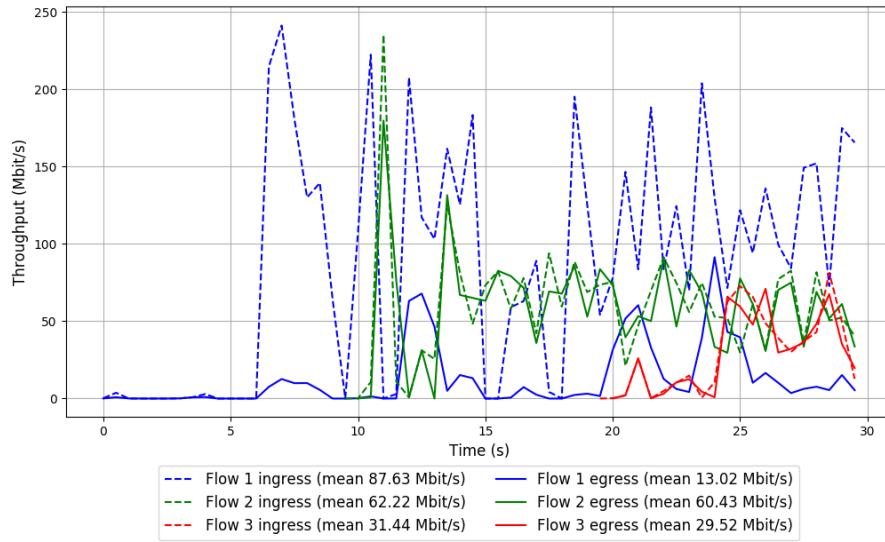
-- Flow 3:

Average throughput: 29.52 Mbit/s

95th percentile per-packet one-way delay: 122.608 ms

Loss rate: 6.42%

### Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-08-21 01:04:18

End at: 2017-08-21 01:04:48

# Below is generated by plot.py at 2017-08-21 04:54:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 109.21 Mbit/s

95th percentile per-packet one-way delay: 135.652 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 88.76 Mbit/s

95th percentile per-packet one-way delay: 136.364 ms

Loss rate: 1.81%

-- Flow 2:

Average throughput: 31.10 Mbit/s

95th percentile per-packet one-way delay: 132.645 ms

Loss rate: 1.35%

-- Flow 3:

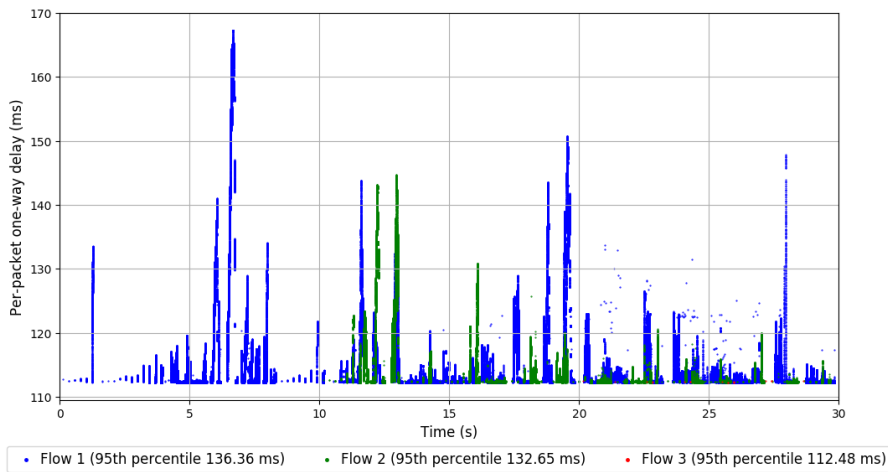
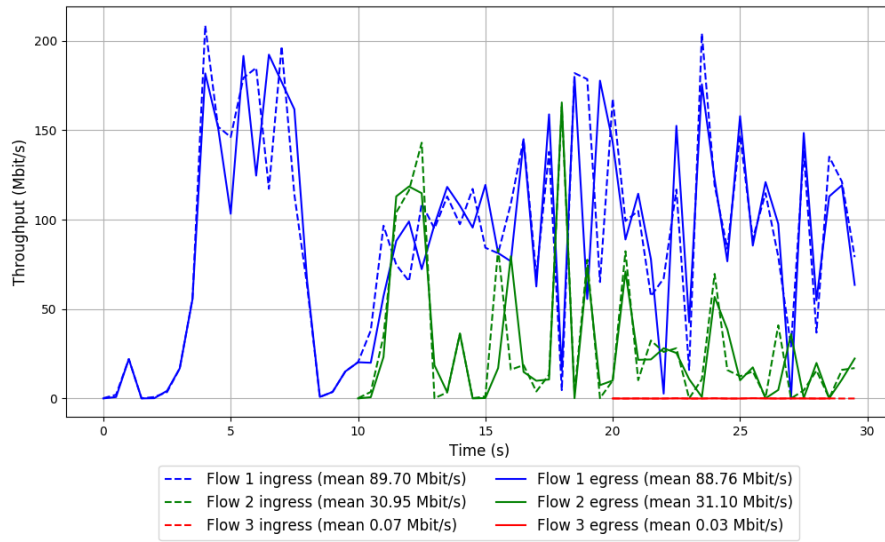
Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 112.484 ms

Loss rate: 64.81%



Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-08-21 01:17:32

End at: 2017-08-21 01:18:02

# Below is generated by plot.py at 2017-08-21 04:54:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 37.61 Mbit/s

95th percentile per-packet one-way delay: 119.094 ms

Loss rate: 59.15%

-- Flow 1:

Average throughput: 15.20 Mbit/s

95th percentile per-packet one-way delay: 113.034 ms

Loss rate: 73.80%

-- Flow 2:

Average throughput: 3.13 Mbit/s

95th percentile per-packet one-way delay: 112.688 ms

Loss rate: 83.67%

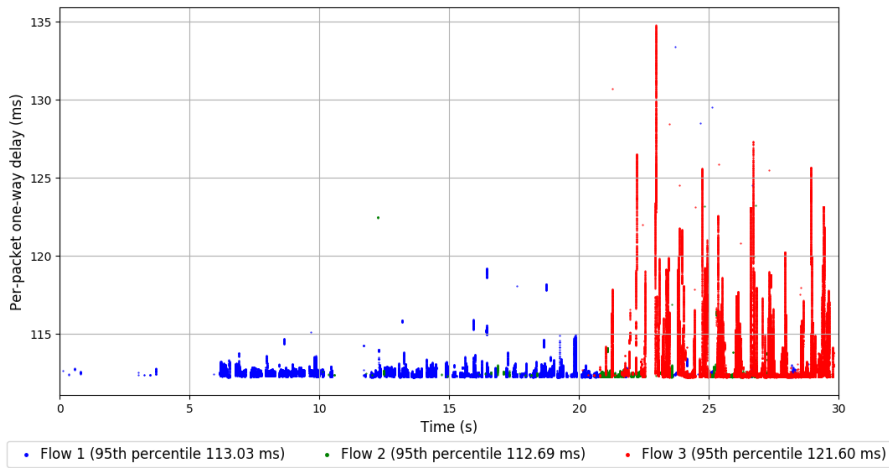
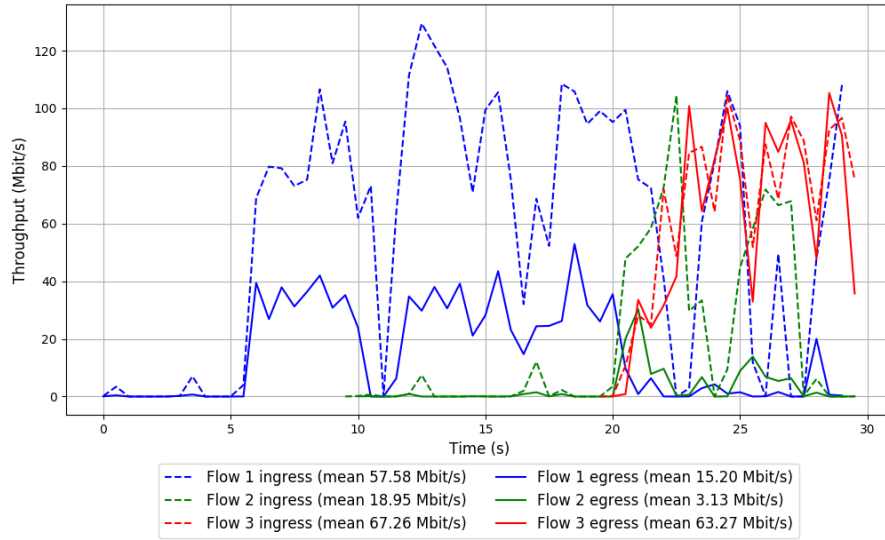
-- Flow 3:

Average throughput: 63.27 Mbit/s

95th percentile per-packet one-way delay: 121.599 ms

Loss rate: 8.18%

### Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-08-21 01:30:26

End at: 2017-08-21 01:30:56

# Below is generated by plot.py at 2017-08-21 04:54:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 62.65 Mbit/s

95th percentile per-packet one-way delay: 118.457 ms

Loss rate: 50.95%

-- Flow 1:

Average throughput: 29.95 Mbit/s

95th percentile per-packet one-way delay: 114.039 ms

Loss rate: 68.56%

-- Flow 2:

Average throughput: 34.39 Mbit/s

95th percentile per-packet one-way delay: 122.208 ms

Loss rate: 0.47%

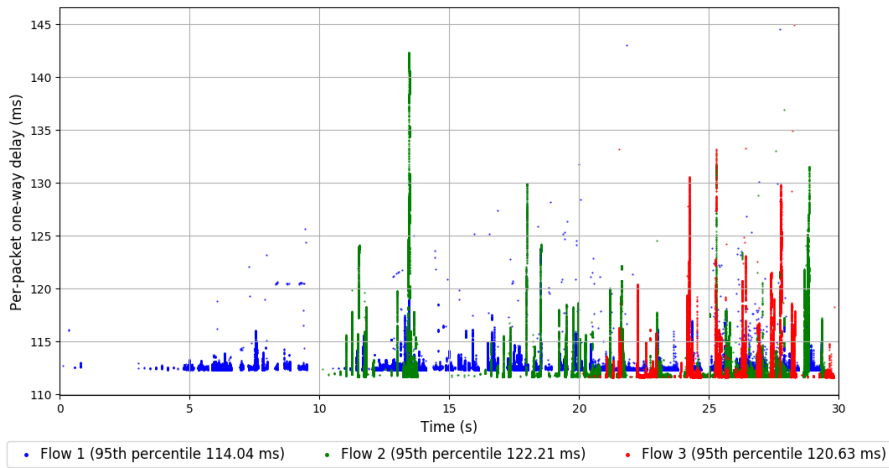
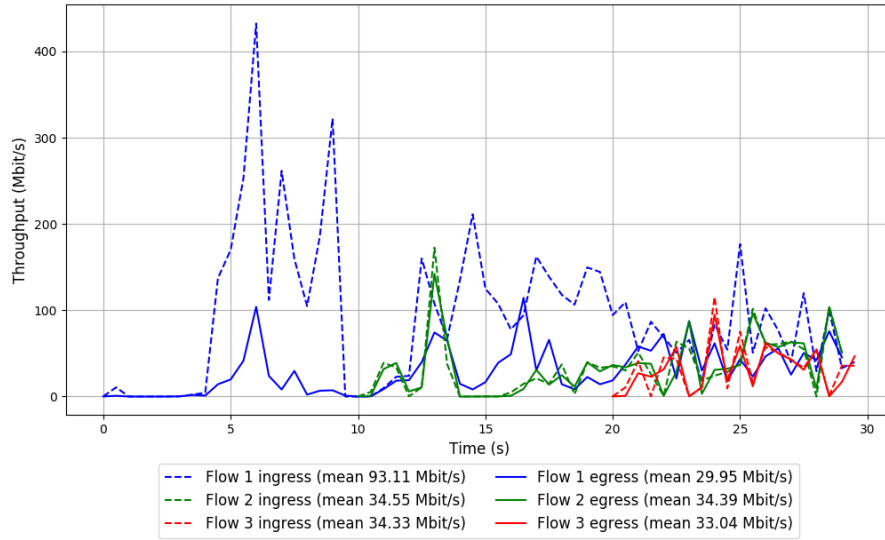
-- Flow 3:

Average throughput: 33.04 Mbit/s

95th percentile per-packet one-way delay: 120.626 ms

Loss rate: 5.81%

### Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-08-21 01:43:25

End at: 2017-08-21 01:43:55

# Below is generated by plot.py at 2017-08-21 04:55:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 31.84 Mbit/s

95th percentile per-packet one-way delay: 113.090 ms

Loss rate: 70.41%

-- Flow 1:

Average throughput: 16.00 Mbit/s

95th percentile per-packet one-way delay: 113.108 ms

Loss rate: 76.57%

-- Flow 2:

Average throughput: 21.44 Mbit/s

95th percentile per-packet one-way delay: 113.008 ms

Loss rate: 58.02%

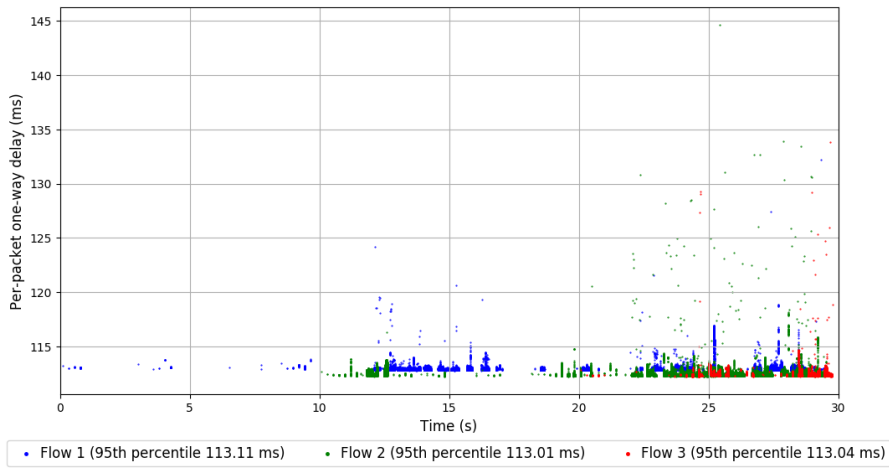
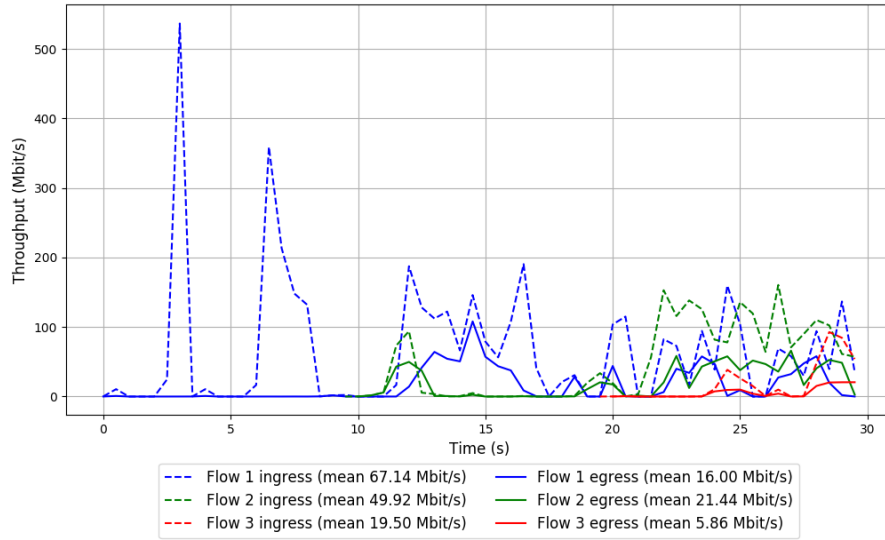
-- Flow 3:

Average throughput: 5.86 Mbit/s

95th percentile per-packet one-way delay: 113.042 ms

Loss rate: 70.29%

Run 10: Report of Verus — Data Link



Run 1: Statistics of WebRTC media

Start at: 2017-08-20 23:51:42

End at: 2017-08-20 23:52:12

# Below is generated by plot.py at 2017-08-21 04:55:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 113.481 ms

Loss rate: 4.63%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.482 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 113.211 ms

Loss rate: 0.00%

-- Flow 3:

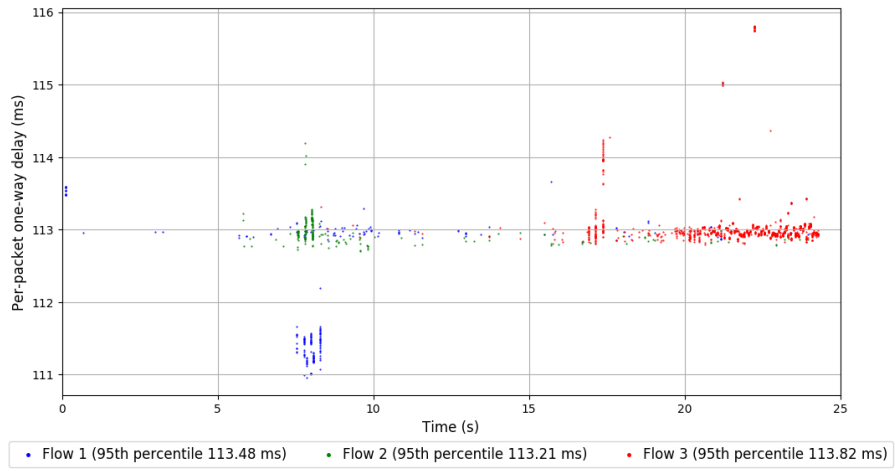
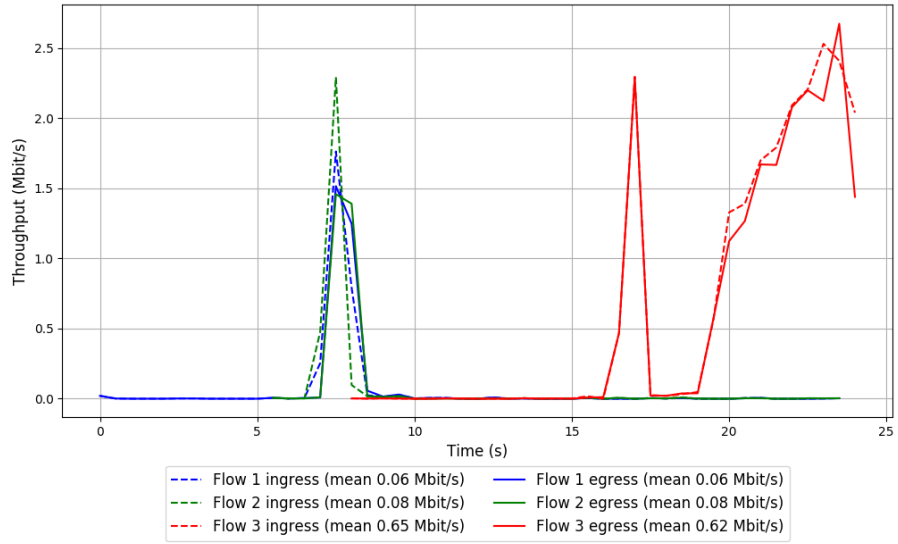
Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 113.819 ms

Loss rate: 5.94%



Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-08-21 00:04:21

End at: 2017-08-21 00:04:51

# Below is generated by plot.py at 2017-08-21 04:55:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 112.913 ms

Loss rate: 2.75%

-- Flow 1:

Average throughput: 0.07 Mbit/s

95th percentile per-packet one-way delay: 112.898 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 112.955 ms

Loss rate: 1.87%

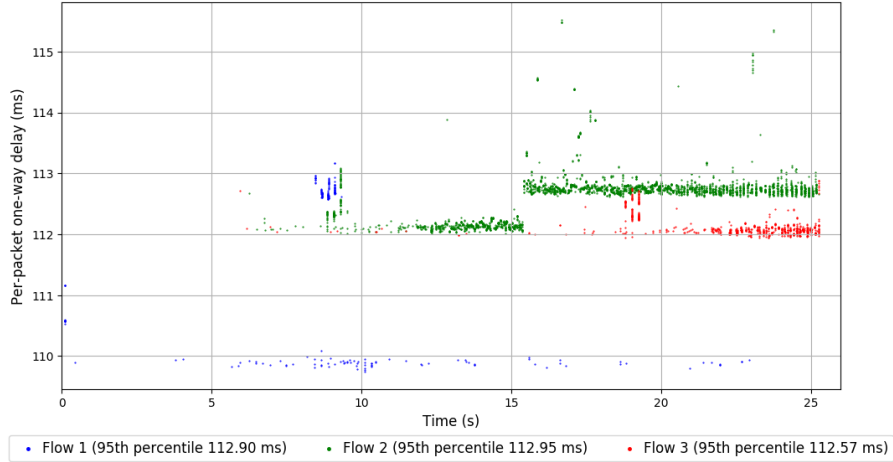
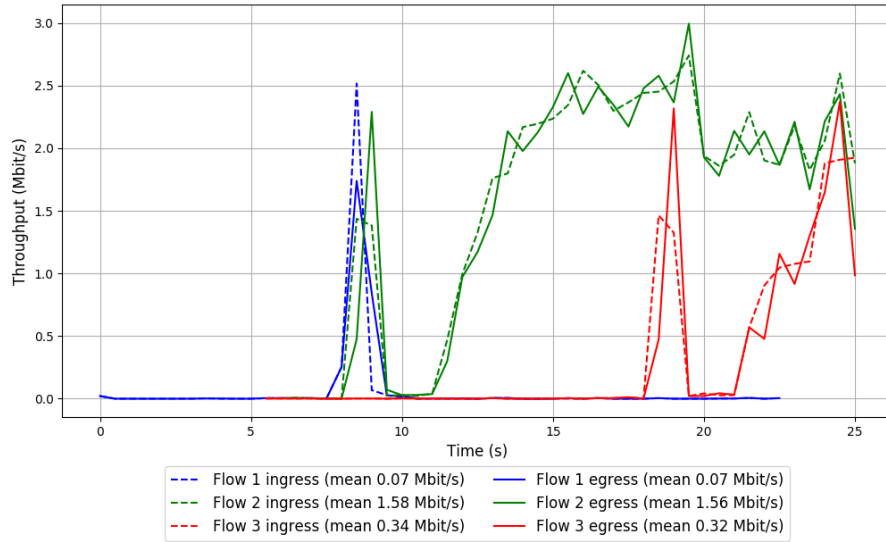
-- Flow 3:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 112.569 ms

Loss rate: 7.34%

## Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-21 00:17:27

End at: 2017-08-21 00:17:57

# Below is generated by plot.py at 2017-08-21 04:55:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 112.681 ms

Loss rate: 2.45%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.052 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 112.326 ms

Loss rate: 1.43%

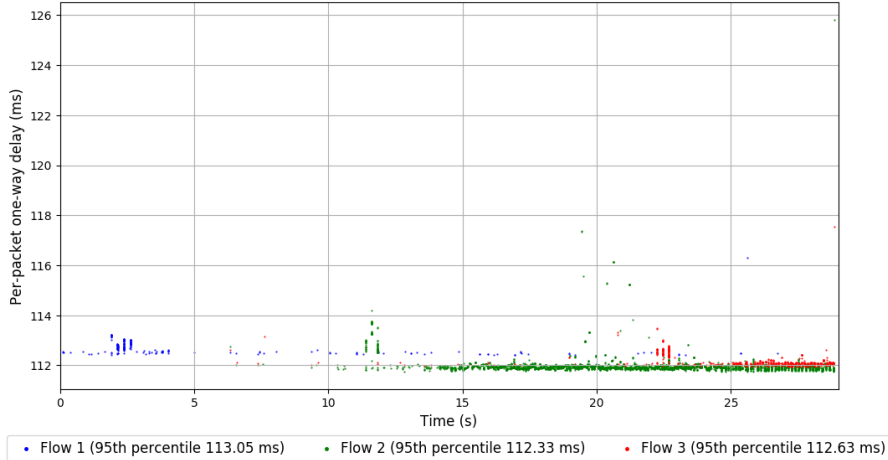
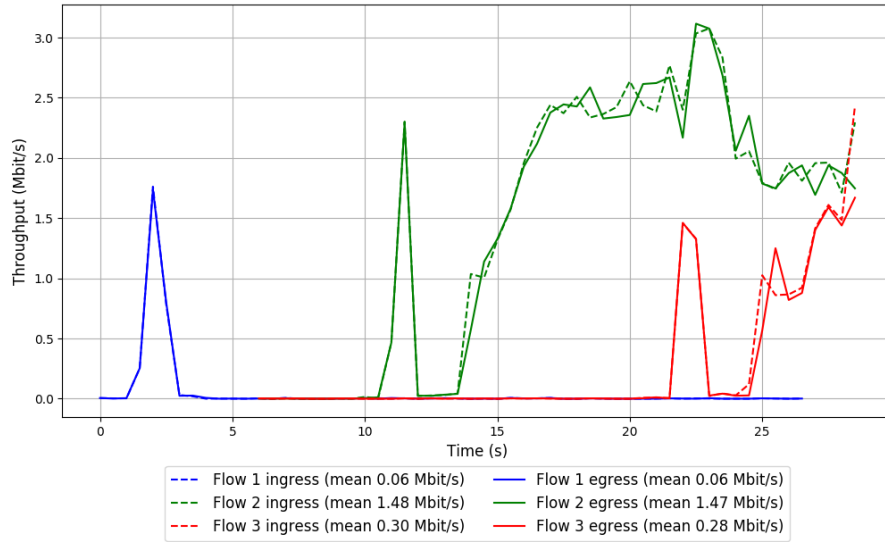
-- Flow 3:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 112.628 ms

Loss rate: 8.02%

### Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-08-21 00:30:27

End at: 2017-08-21 00:30:57

# Below is generated by plot.py at 2017-08-21 04:55:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 113.793 ms

Loss rate: 4.11%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.841 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 113.765 ms

Loss rate: 0.10%

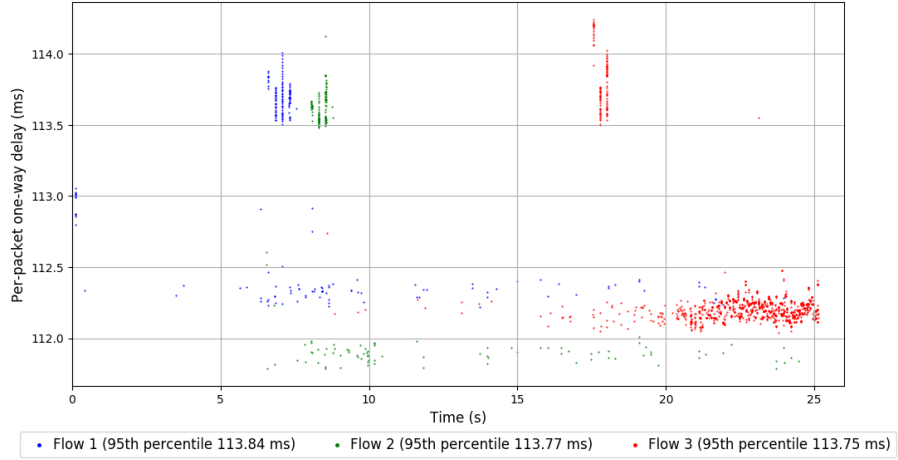
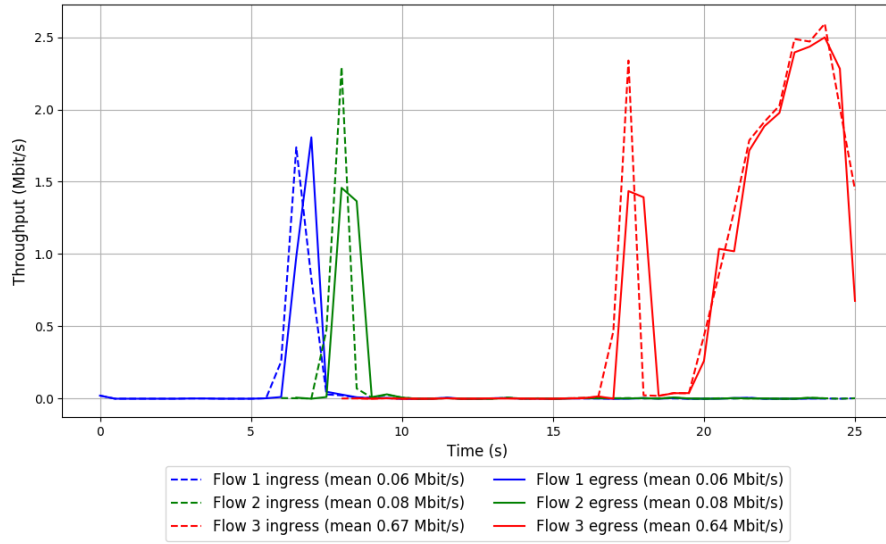
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 113.747 ms

Loss rate: 5.17%

### Run 4: Report of WebRTC media — Data Link



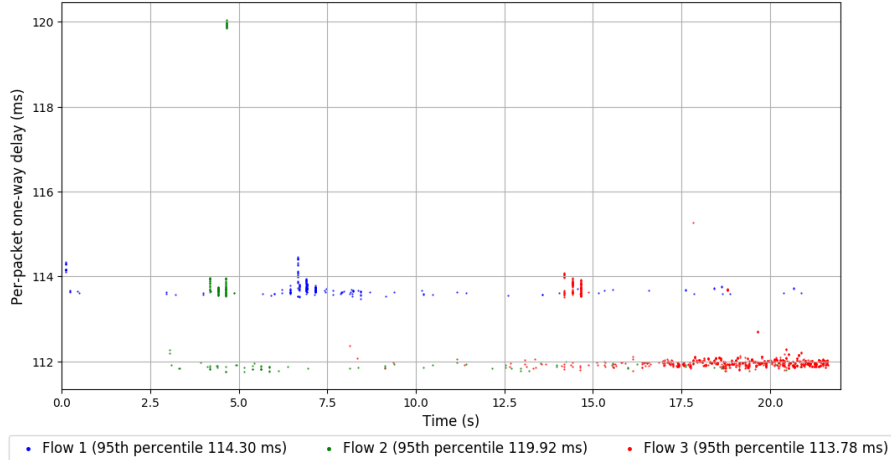
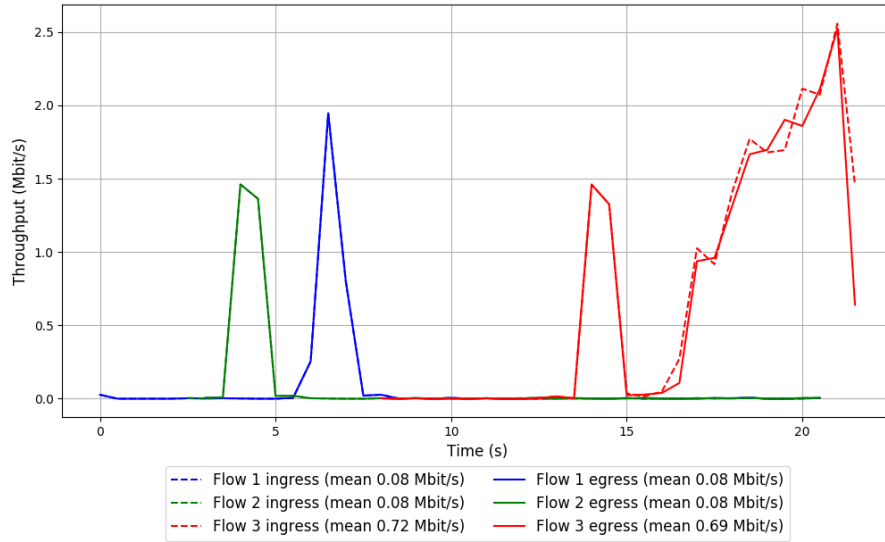
Run 5: Statistics of WebRTC media

Start at: 2017-08-21 00:43:28

End at: 2017-08-21 00:43:58



Run 5: Report of WebRTC media — Data Link

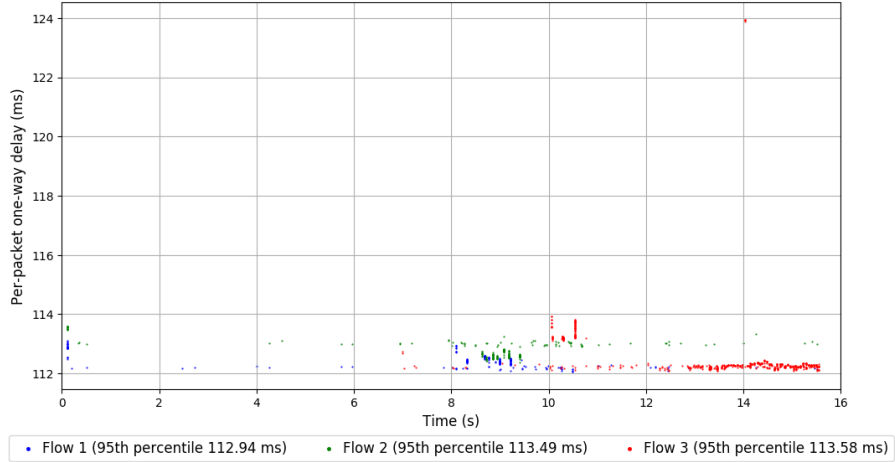
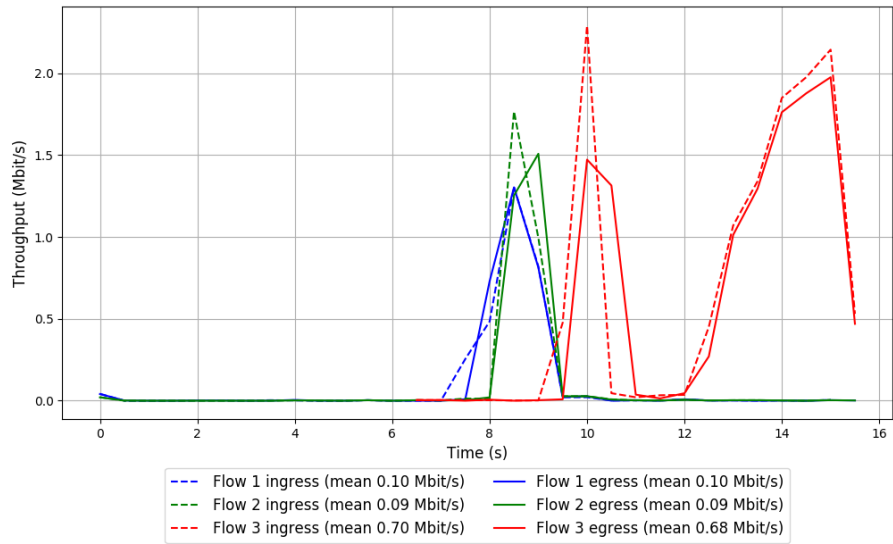


Run 6: Statistics of WebRTC media

Start at: 2017-08-21 00:56:16

End at: 2017-08-21 00:56:46

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-08-21 01:09:39

End at: 2017-08-21 01:10:09

# Below is generated by plot.py at 2017-08-21 04:55:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.65 Mbit/s

95th percentile per-packet one-way delay: 113.345 ms

Loss rate: 2.52%

-- Flow 1:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 113.784 ms

Loss rate: 1.59%

-- Flow 2:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 112.789 ms

Loss rate: 1.86%

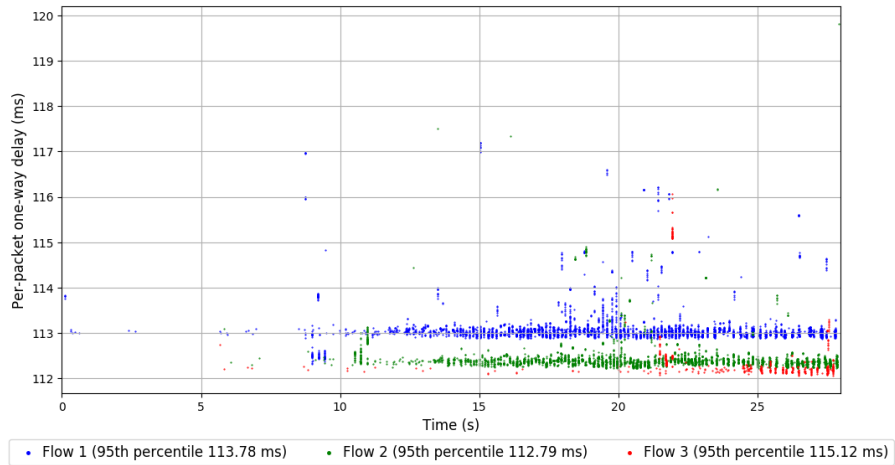
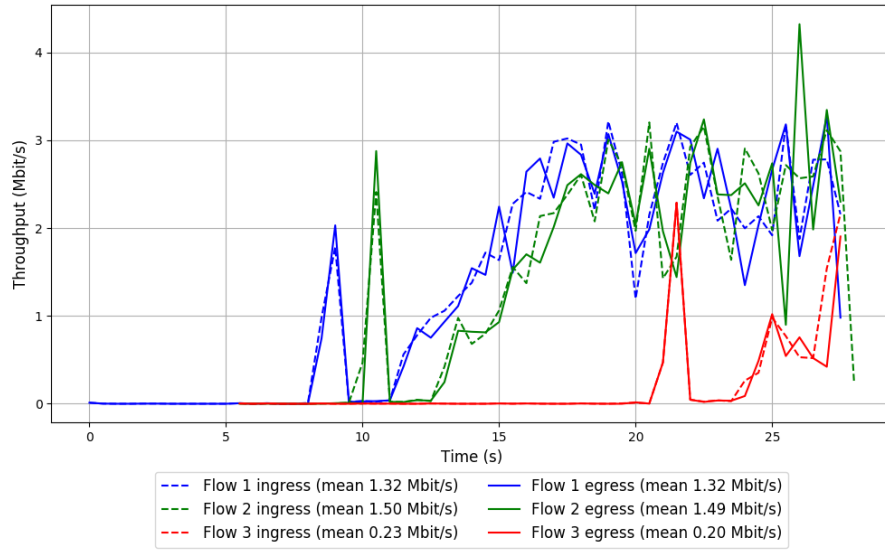
-- Flow 3:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 115.121 ms

Loss rate: 13.66%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-21 01:22:51

End at: 2017-08-21 01:23:21

# Below is generated by plot.py at 2017-08-21 04:55:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 112.823 ms

Loss rate: 2.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 113.040 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 112.341 ms

Loss rate: 1.52%

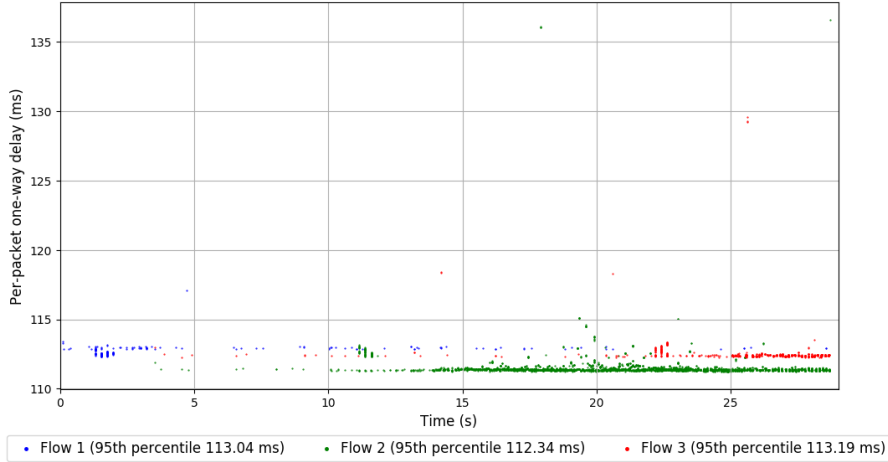
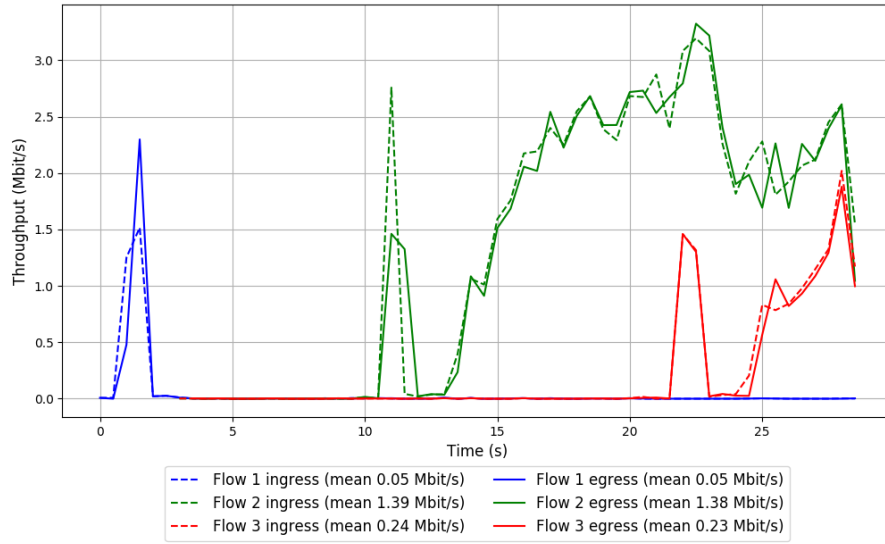
-- Flow 3:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 113.195 ms

Loss rate: 5.40%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-08-21 01:35:50

End at: 2017-08-21 01:36:20

# Below is generated by plot.py at 2017-08-21 04:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 113.194 ms

Loss rate: 2.32%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.330 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 113.253 ms

Loss rate: 1.69%

-- Flow 3:

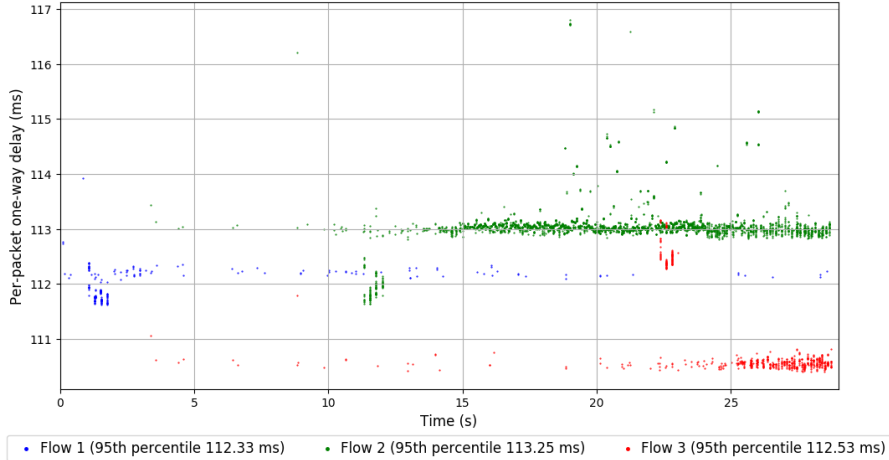
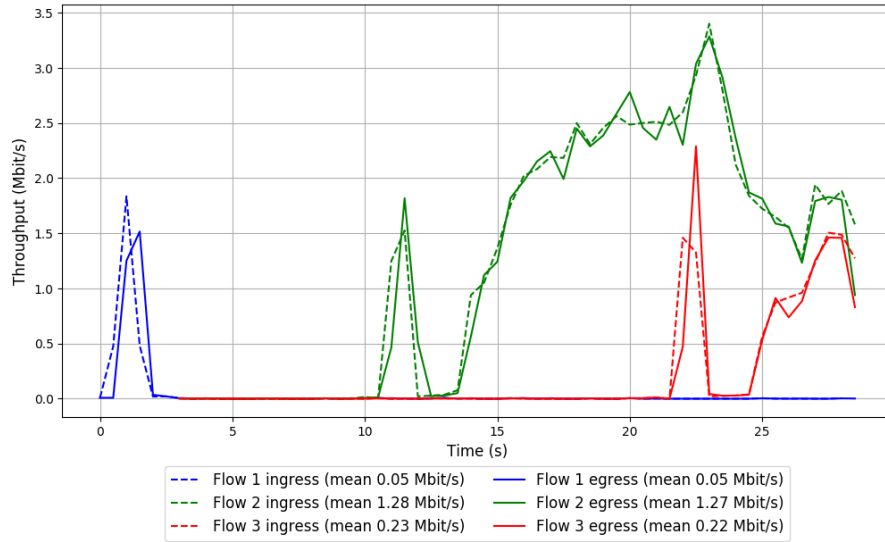
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.531 ms

Loss rate: 6.38%



### Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-21 01:48:38

End at: 2017-08-21 01:49:08

# Below is generated by plot.py at 2017-08-21 04:55:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.56 Mbit/s

95th percentile per-packet one-way delay: 112.978 ms

Loss rate: 2.19%

-- Flow 1:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 113.096 ms

Loss rate: 1.92%

-- Flow 2:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 112.083 ms

Loss rate: 1.64%

-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.291 ms

Loss rate: 7.55%

Run 10: Report of WebRTC media — Data Link

