

## Pantheon Report

Generated at 2017-09-08 03:42:48 (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.

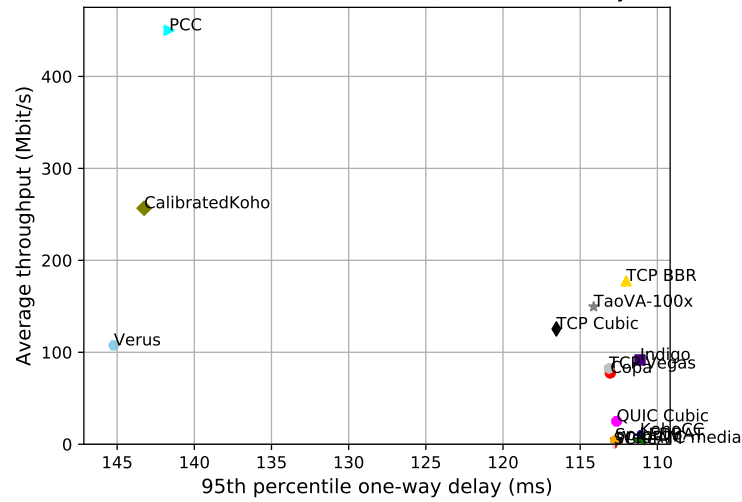
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

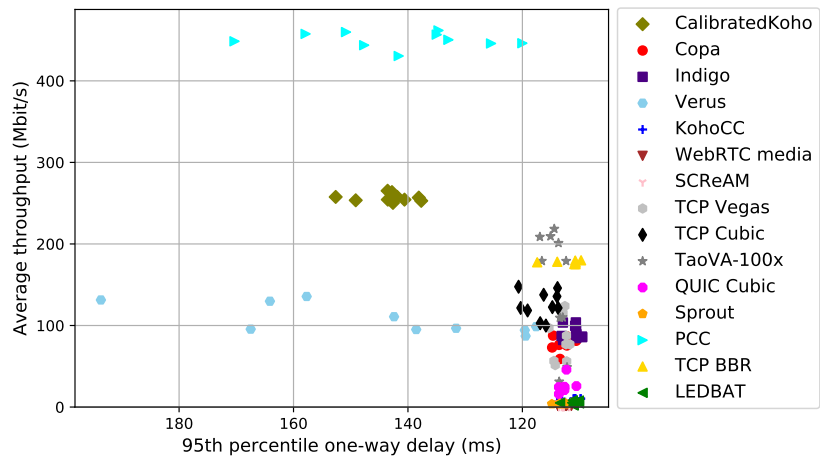
Git summary:

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

test from GCE Tokyo Ethernet to GCE 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	7	91.65	88.95	82.62	111.32	111.34	114.25	0.85	1.27	2.71
CalibratedKoho	10	178.74	100.79	22.00	148.54	135.48	121.23	0.78	1.90	8.73
Copa	8	43.25	44.90	30.00	234.46	112.30	112.45	0.46	1.01	4.82
TCP Cubic	10	65.46	66.22	49.03	115.14	117.22	117.89	0.85	1.30	2.67
Indigo	10	45.97	52.87	34.48	111.11	111.17	111.10	0.68	0.90	2.97
KohoCC	10	5.20	5.13	4.84	111.12	111.11	111.19	0.79	1.16	2.46
LEDBAT	9	2.90	2.43	1.63	111.17	111.28	111.03	1.84	2.59	4.58
PCC	10	287.93	180.21	134.38	151.30	128.67	118.33	0.61	0.64	3.18
QUIC Cubic	10	2.56	21.66	25.23	112.04	111.87	111.93	0.06	1.57	2.74
SCReAM	6	0.21	0.18	0.22	112.39	112.50	111.65	0.75	1.03	2.19
Sprout	10	2.39	2.14	1.98	112.58	112.76	112.33	1.21	1.51	3.57
TaoVA-100x	10	94.97	57.75	65.95	113.50	113.90	114.62	0.62	1.22	3.76
TCP Vegas	9	45.13	36.92	37.06	112.65	113.48	114.99	0.70	1.12	2.76
Verus	10	69.84	42.89	29.22	148.55	157.58	126.09	0.72	2.11	3.47
WebRTC media	10	0.23	1.29	0.21	112.25	112.48	112.35	0.25	1.34	7.13

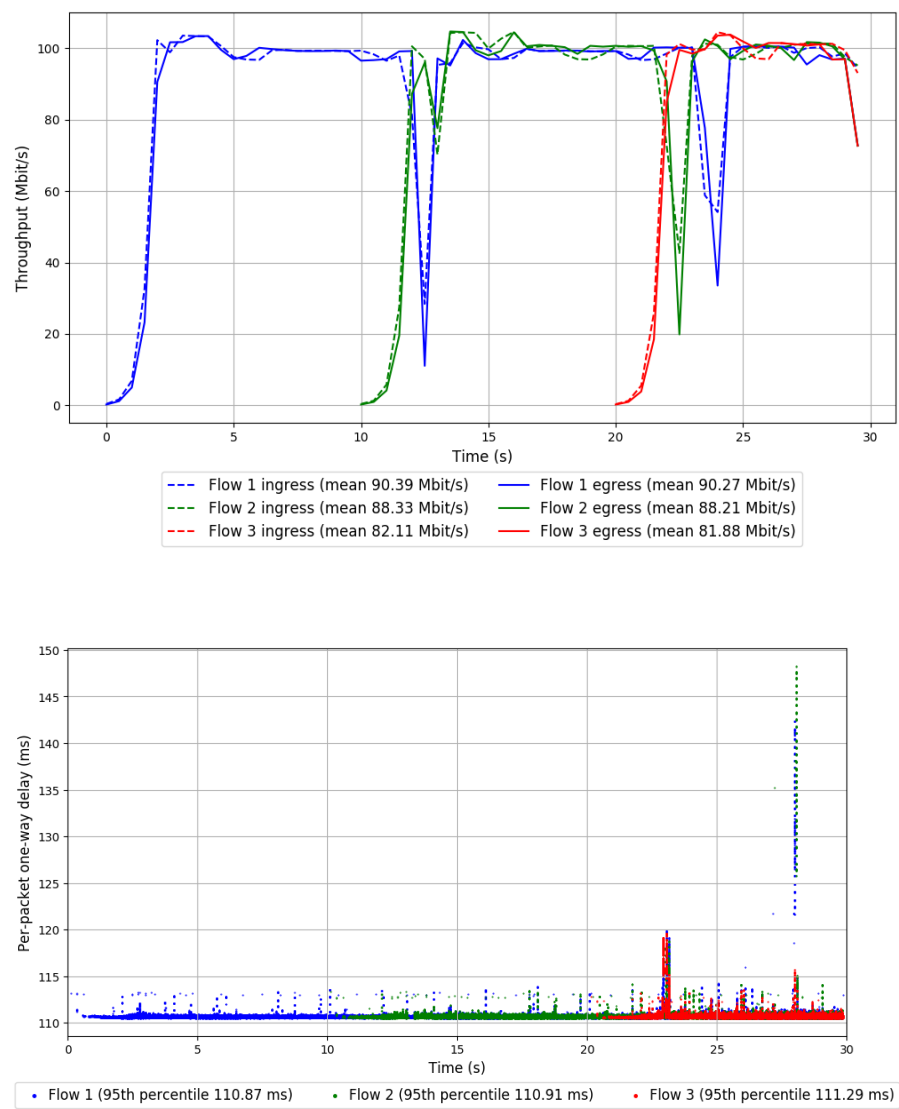
```
Run 1: Statistics of TCP BBR

Start at: 2017-09-07 21:50:58
End at: 2017-09-07 21:51:28

# Below is generated by plot.py at 2017-09-08 03:14:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 175.45 Mbit/s
95th percentile per-packet one-way delay: 110.917 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 90.27 Mbit/s
95th percentile per-packet one-way delay: 110.872 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 88.21 Mbit/s
95th percentile per-packet one-way delay: 110.911 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 81.88 Mbit/s
95th percentile per-packet one-way delay: 111.287 ms
Loss rate: 2.73%
```



Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-09-07 22:04:22

End at: 2017-09-07 22:04:52

# Below is generated by plot.py at 2017-09-08 03:14:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 177.55 Mbit/s

95th percentile per-packet one-way delay: 117.409 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 90.83 Mbit/s

95th percentile per-packet one-way delay: 113.340 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 89.13 Mbit/s

95th percentile per-packet one-way delay: 113.163 ms

Loss rate: 1.25%

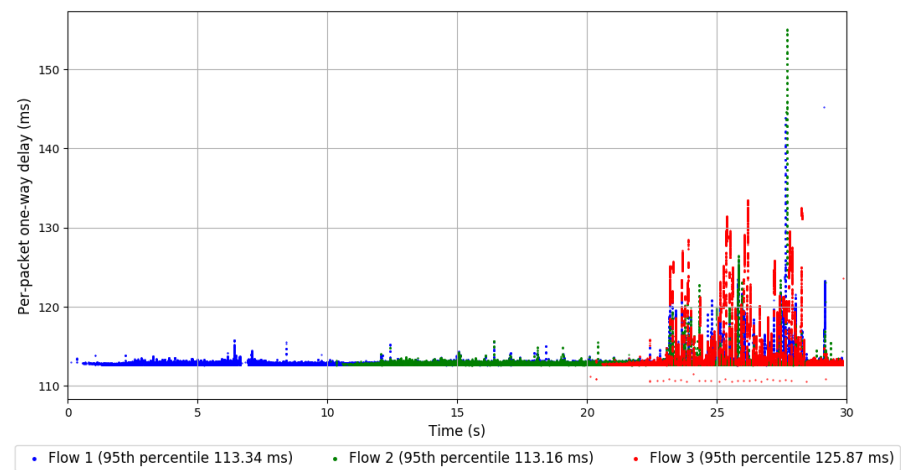
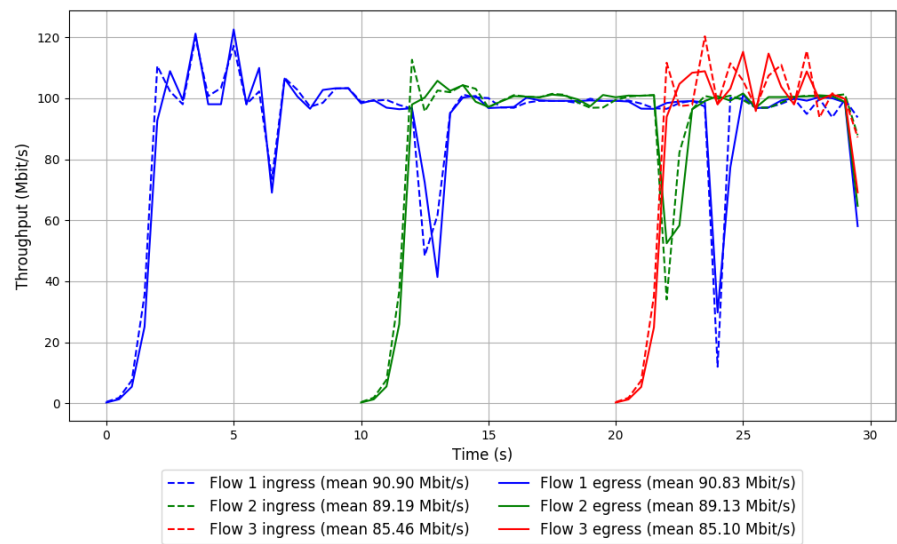
-- Flow 3:

Average throughput: 85.10 Mbit/s

95th percentile per-packet one-way delay: 125.873 ms

Loss rate: 2.59%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-09-07 22:18:01

End at: 2017-09-07 22:18:31

# Below is generated by plot.py at 2017-09-08 03:14:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 178.20 Mbit/s

95th percentile per-packet one-way delay: 113.901 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 91.00 Mbit/s

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

Loss rate: 0.83%

-- Flow 2:

Average throughput: 91.84 Mbit/s

95th percentile per-packet one-way delay: 113.495 ms

Loss rate: 1.23%

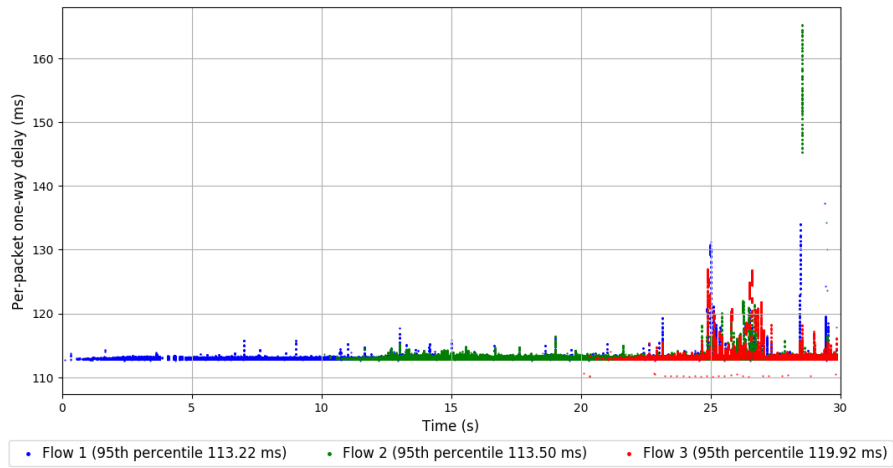
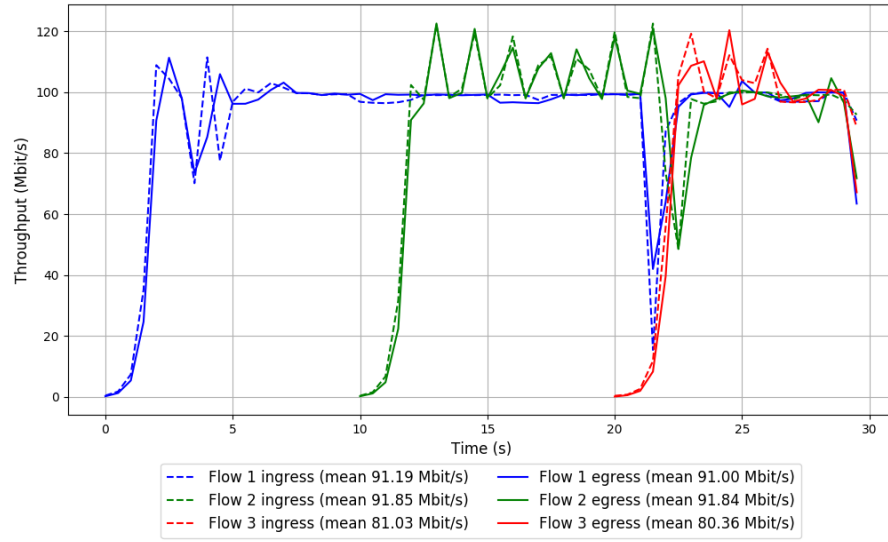
-- Flow 3:

Average throughput: 80.36 Mbit/s

95th percentile per-packet one-way delay: 119.920 ms

Loss rate: 2.69%

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



Run 4: Statistics of TCP BBR

Start at: 2017-09-07 22:31:32

End at: 2017-09-07 22:32:02

# Below is generated by plot.py at 2017-09-08 03:14:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 177.27 Mbit/s

95th percentile per-packet one-way delay: 110.684 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 92.15 Mbit/s

95th percentile per-packet one-way delay: 110.655 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 87.42 Mbit/s

95th percentile per-packet one-way delay: 110.681 ms

Loss rate: 1.37%

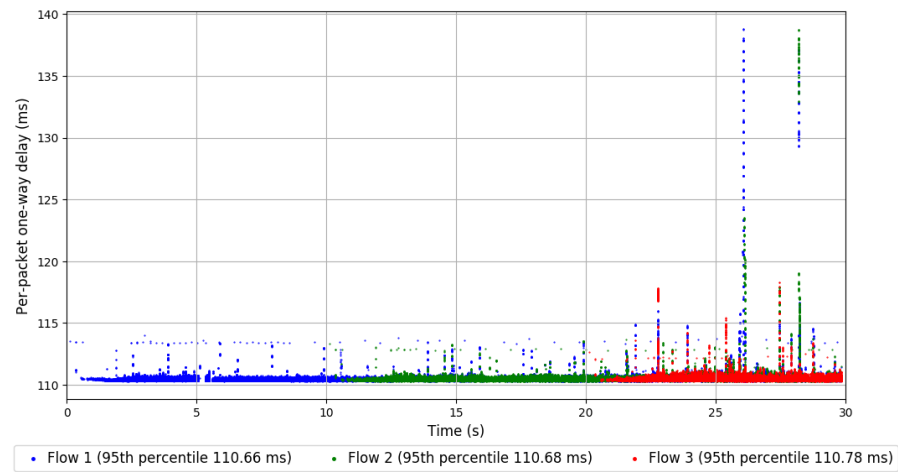
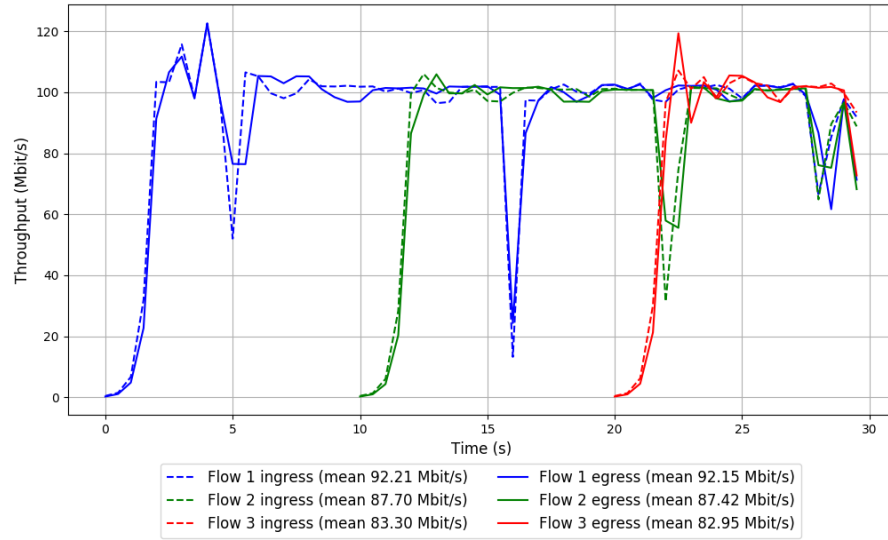
-- Flow 3:

Average throughput: 82.95 Mbit/s

95th percentile per-packet one-way delay: 110.776 ms

Loss rate: 2.71%

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



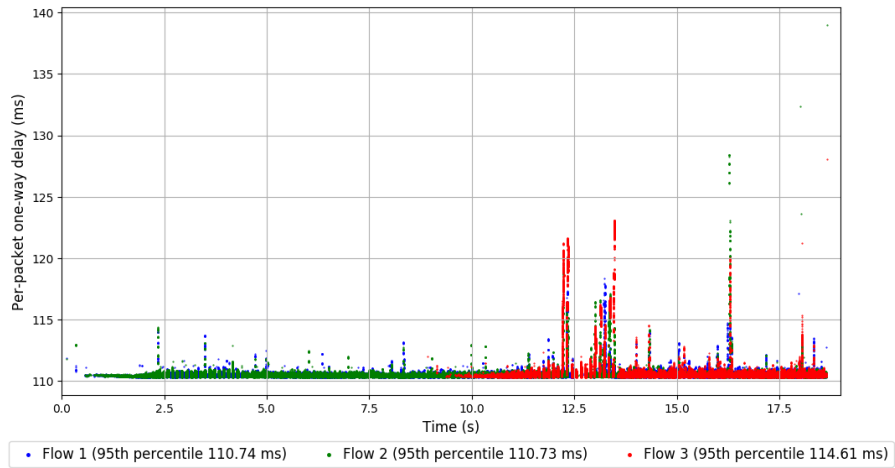
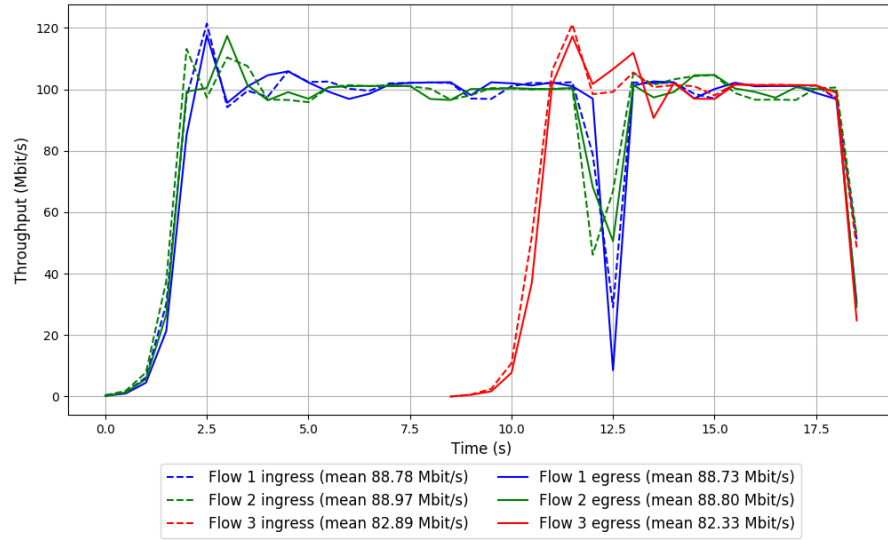
Run 5: Statistics of TCP BBR

Start at: 2017-09-07 22:45:03

End at: 2017-09-07 22:45:33



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



Run 6: Statistics of TCP BBR

Start at: 2017-09-07 22:58:17

End at: 2017-09-07 22:58:47

# Below is generated by plot.py at 2017-09-08 03:15:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 175.18 Mbit/s

95th percentile per-packet one-way delay: 110.710 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 90.10 Mbit/s

95th percentile per-packet one-way delay: 110.658 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 87.84 Mbit/s

95th percentile per-packet one-way delay: 110.676 ms

Loss rate: 1.23%

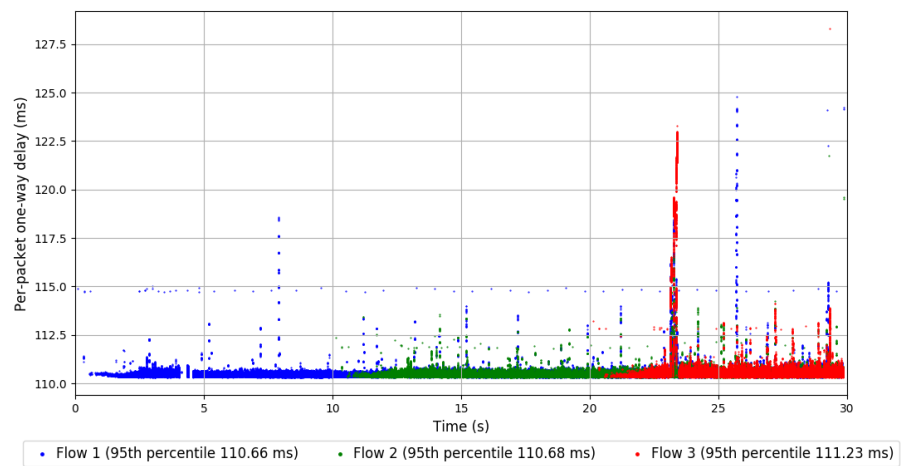
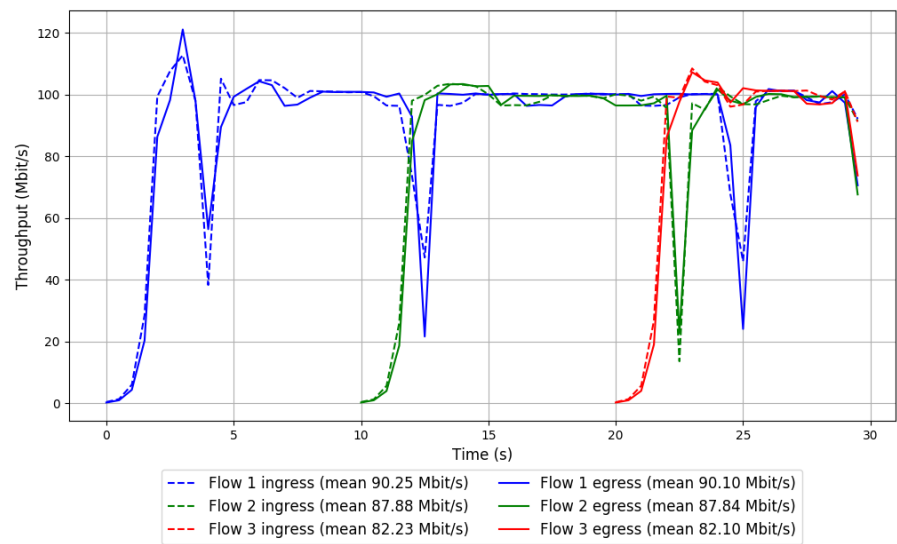
-- Flow 3:

Average throughput: 82.10 Mbit/s

95th percentile per-packet one-way delay: 111.230 ms

Loss rate: 2.61%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-09-07 23:11:42

End at: 2017-09-07 23:12:12

# Below is generated by plot.py at 2017-09-08 03:15:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 179.63 Mbit/s

95th percentile per-packet one-way delay: 110.756 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 93.53 Mbit/s

95th percentile per-packet one-way delay: 110.743 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 88.95 Mbit/s

95th percentile per-packet one-way delay: 110.722 ms

Loss rate: 1.26%

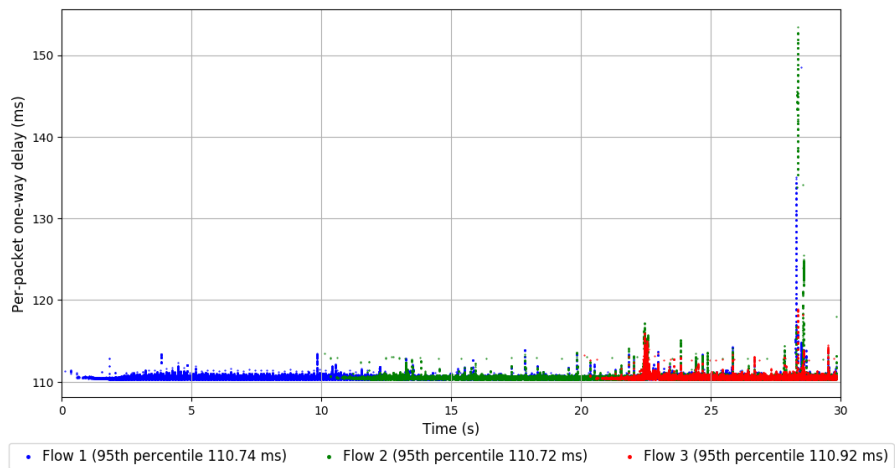
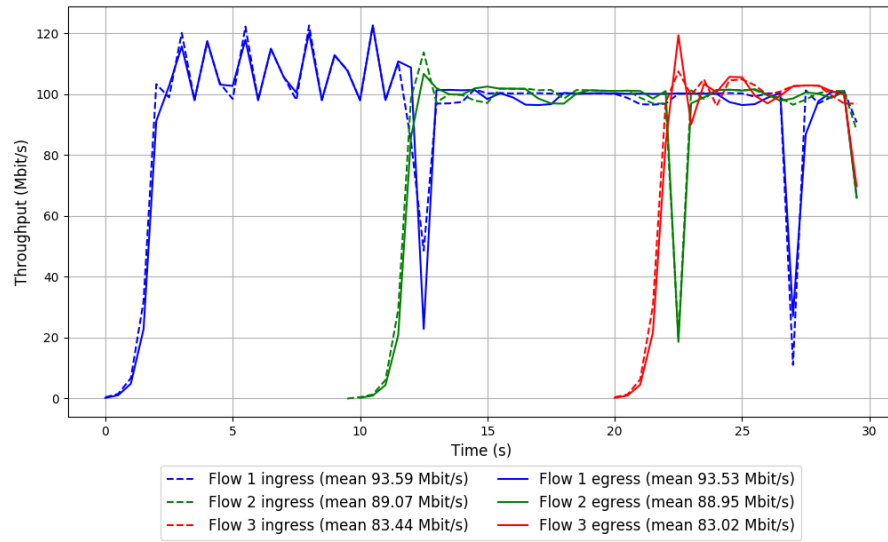
-- Flow 3:

Average throughput: 83.02 Mbit/s

95th percentile per-packet one-way delay: 110.920 ms

Loss rate: 2.92%

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

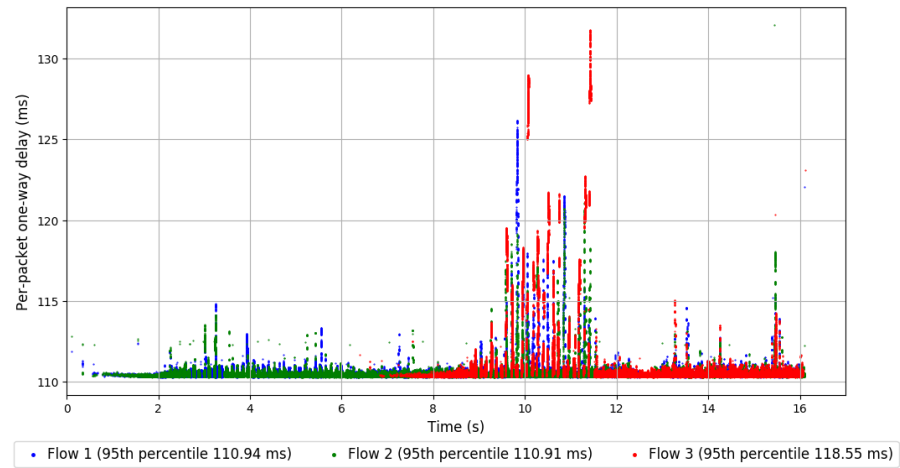
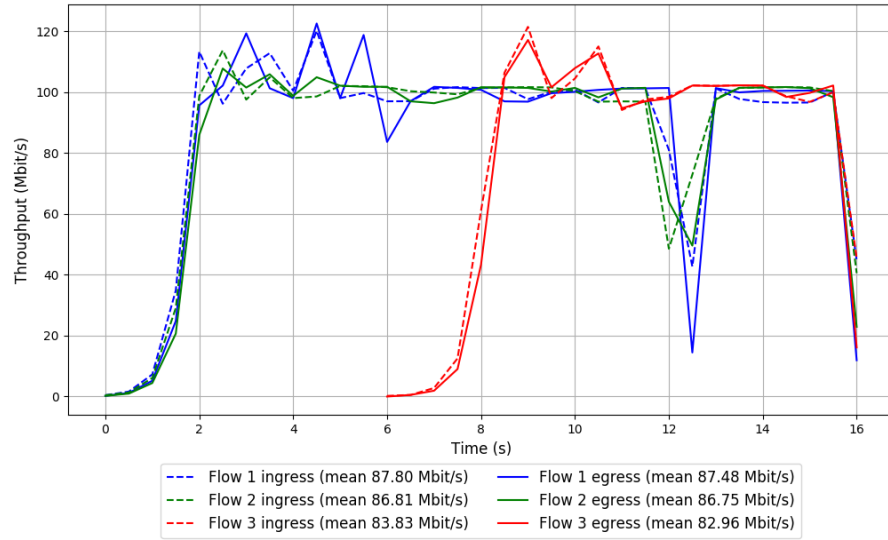


Run 8: Statistics of TCP BBR

Start at: 2017-09-07 23:25:23

End at: 2017-09-07 23:25:53

# Run 8: Report of TCP BBR — Data Link



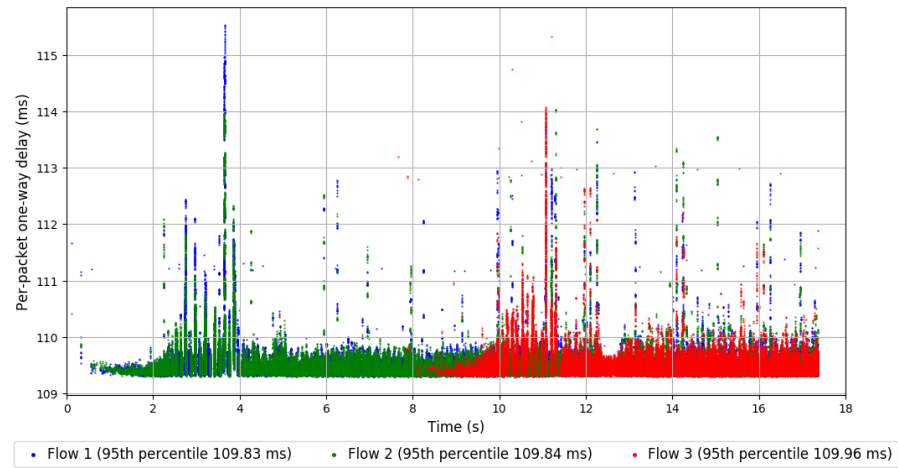
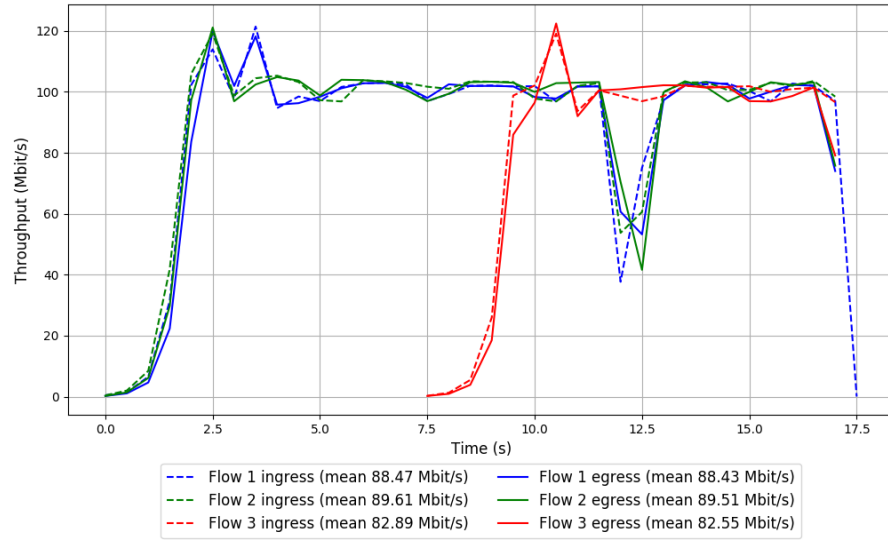
Run 9: Statistics of TCP BBR

Start at: 2017-09-07 23:38:56

End at: 2017-09-07 23:39:26



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



Run 10: Statistics of TCP BBR

Start at: 2017-09-07 23:52:32

End at: 2017-09-07 23:53:02

# Below is generated by plot.py at 2017-09-08 03:16:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 179.97 Mbit/s

95th percentile per-packet one-way delay: 109.744 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 93.69 Mbit/s

95th percentile per-packet one-way delay: 109.753 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 89.29 Mbit/s

95th percentile per-packet one-way delay: 109.730 ms

Loss rate: 1.21%

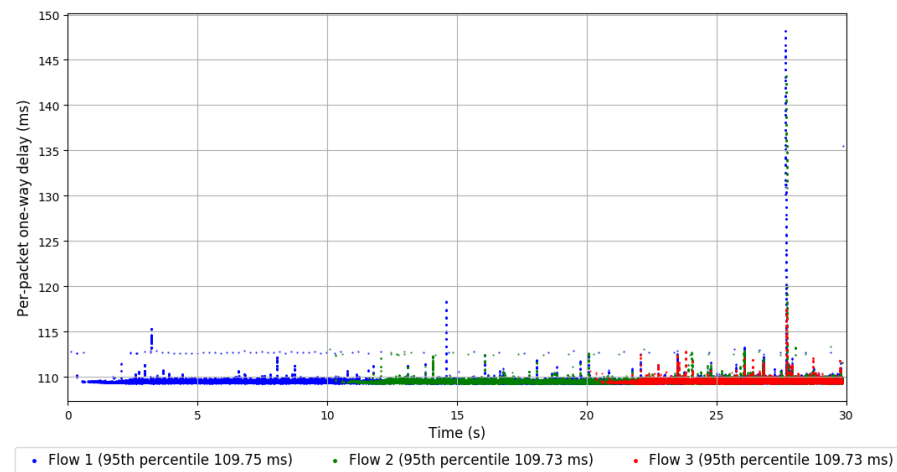
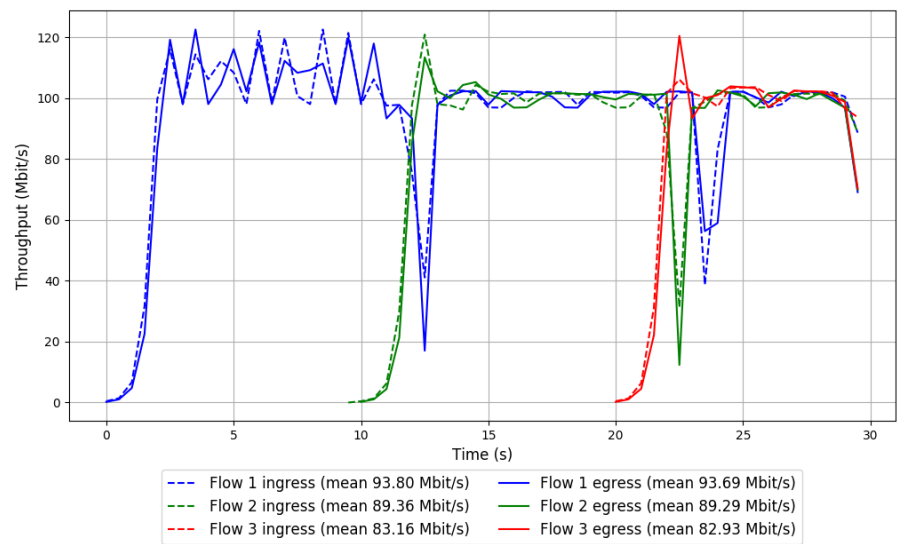
-- Flow 3:

Average throughput: 82.93 Mbit/s

95th percentile per-packet one-way delay: 109.734 ms

Loss rate: 2.75%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-09-07 22:00:44

End at: 2017-09-07 22:01:14

# Below is generated by plot.py at 2017-09-08 03:17:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 254.34 Mbit/s

95th percentile per-packet one-way delay: 140.604 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 185.78 Mbit/s

95th percentile per-packet one-way delay: 143.856 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 88.40 Mbit/s

95th percentile per-packet one-way delay: 133.978 ms

Loss rate: 2.56%

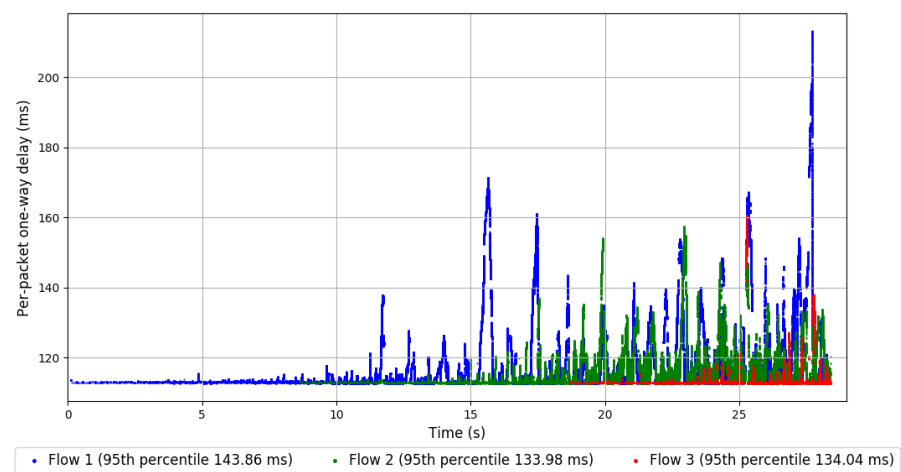
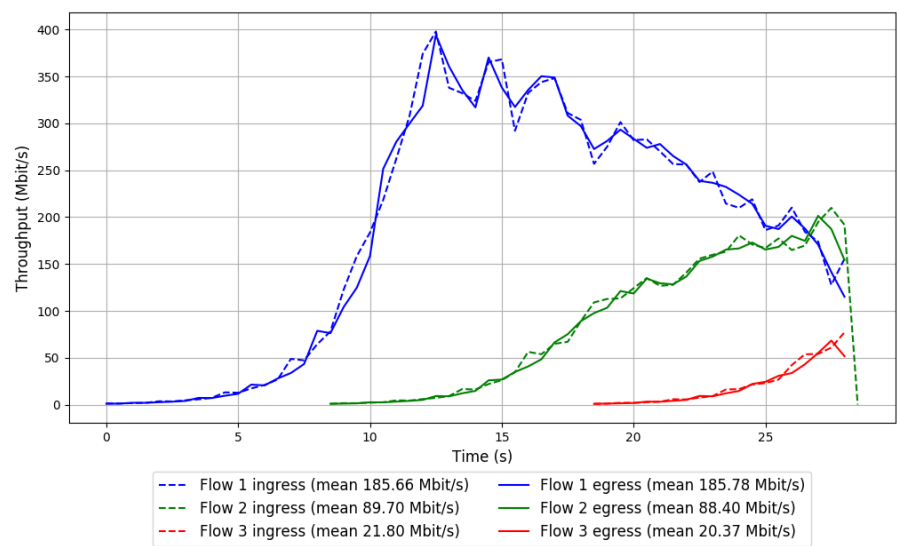
-- Flow 3:

Average throughput: 20.37 Mbit/s

95th percentile per-packet one-way delay: 134.044 ms

Loss rate: 8.65%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-09-07 22:14:20

End at: 2017-09-07 22:14:50

# Below is generated by plot.py at 2017-09-08 03:17:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 256.85 Mbit/s

95th percentile per-packet one-way delay: 138.107 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 185.81 Mbit/s

95th percentile per-packet one-way delay: 138.905 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 92.90 Mbit/s

95th percentile per-packet one-way delay: 135.684 ms

Loss rate: 1.97%

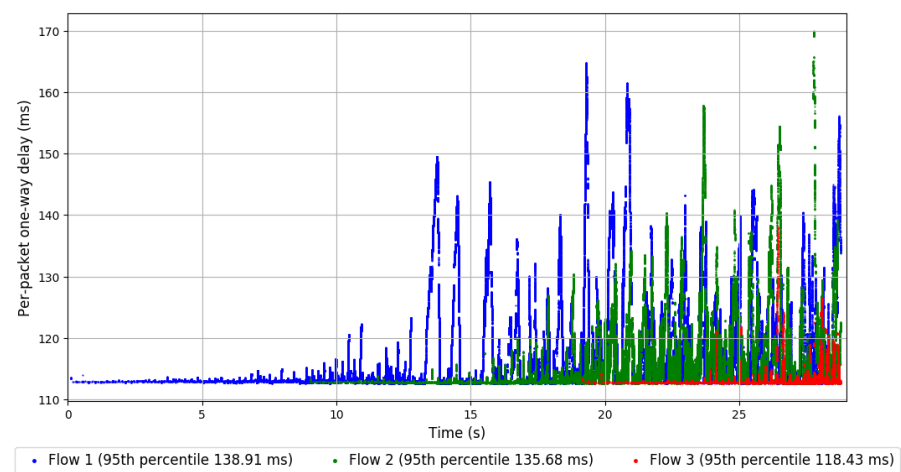
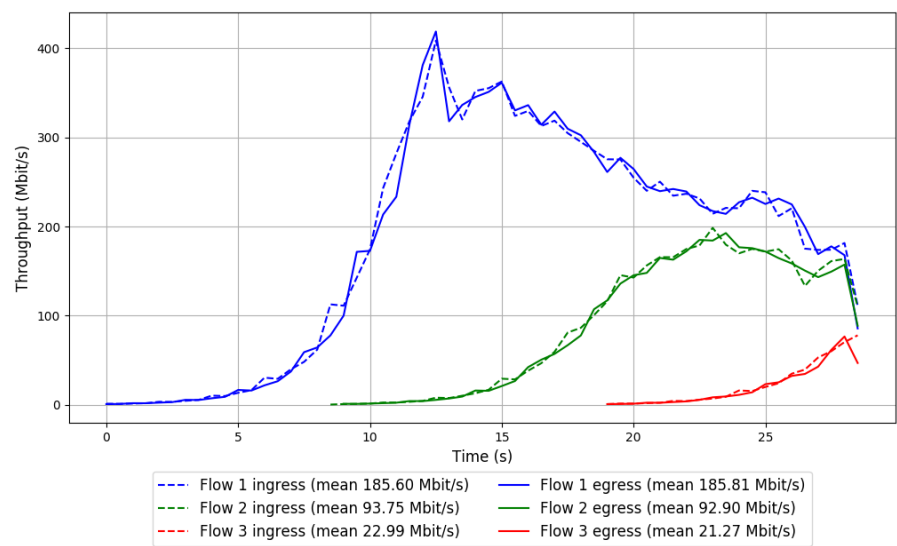
-- Flow 3:

Average throughput: 21.27 Mbit/s

95th percentile per-packet one-way delay: 118.431 ms

Loss rate: 9.59%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-09-07 22:27:54

End at: 2017-09-07 22:28:24

# Below is generated by plot.py at 2017-09-08 03:17:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 250.37 Mbit/s

95th percentile per-packet one-way delay: 142.624 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 168.65 Mbit/s

95th percentile per-packet one-way delay: 150.618 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 106.90 Mbit/s

95th percentile per-packet one-way delay: 131.868 ms

Loss rate: 1.97%

-- Flow 3:

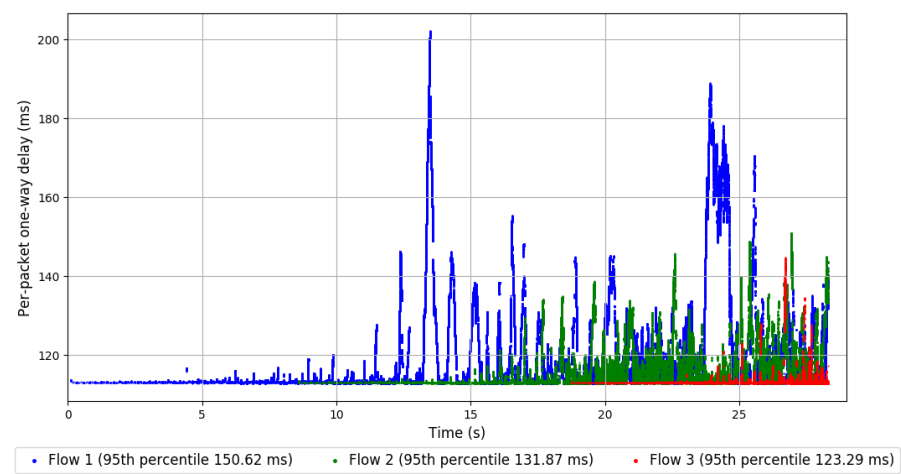
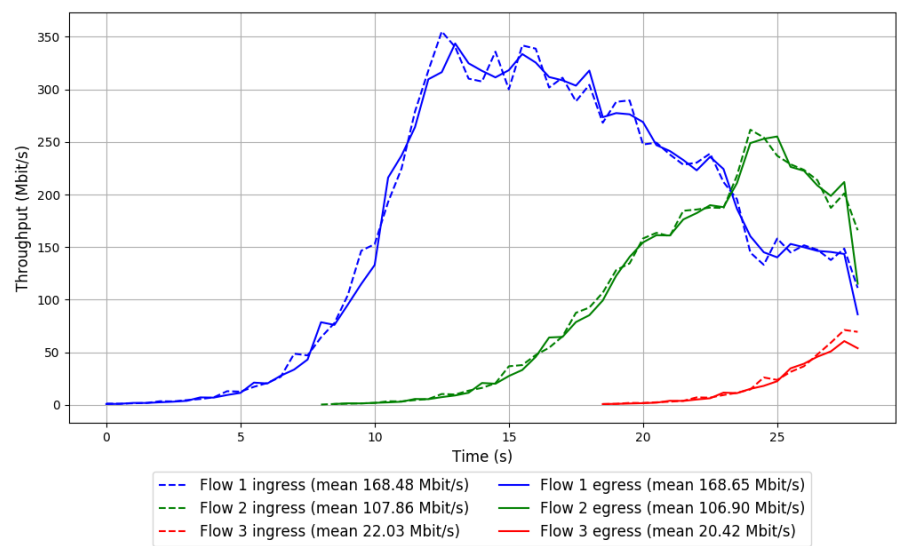
Average throughput: 20.42 Mbit/s

95th percentile per-packet one-way delay: 123.286 ms

Loss rate: 9.42%



Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-09-07 22:41:23

End at: 2017-09-07 22:41:53

# Below is generated by plot.py at 2017-09-08 03:18:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 253.56 Mbit/s

95th percentile per-packet one-way delay: 149.127 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 168.42 Mbit/s

95th percentile per-packet one-way delay: 172.249 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 111.53 Mbit/s

95th percentile per-packet one-way delay: 134.937 ms

Loss rate: 1.63%

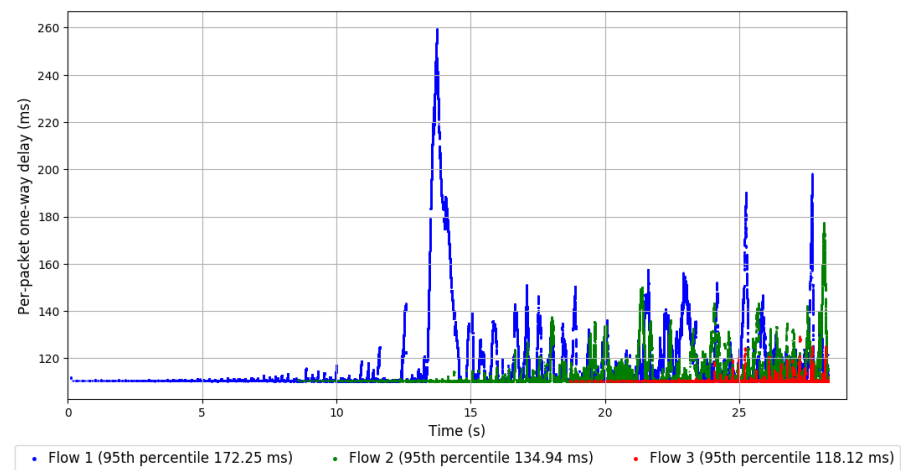
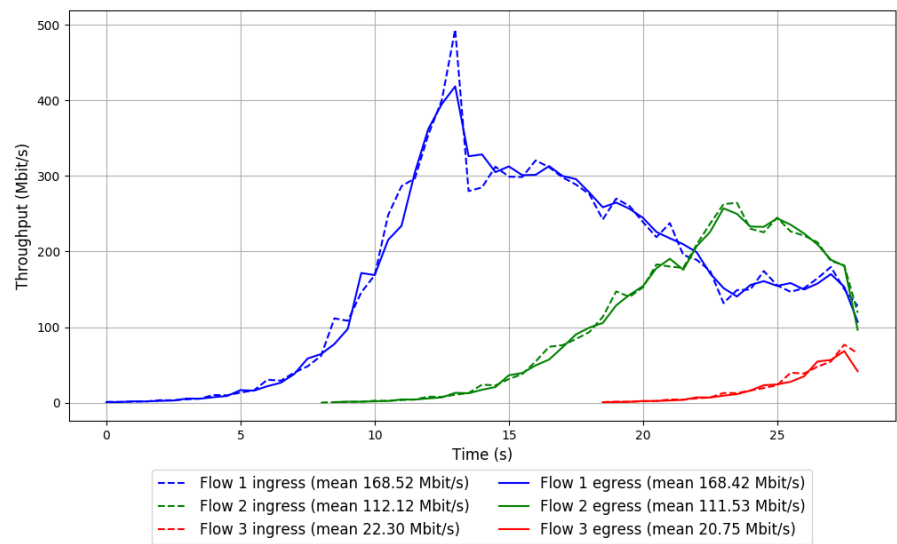
-- Flow 3:

Average throughput: 20.75 Mbit/s

95th percentile per-packet one-way delay: 118.120 ms

Loss rate: 9.07%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-09-07 22:54:34

End at: 2017-09-07 22:55:04

# Below is generated by plot.py at 2017-09-08 03:18:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 254.35 Mbit/s

95th percentile per-packet one-way delay: 143.521 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 171.65 Mbit/s

95th percentile per-packet one-way delay: 150.058 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 101.40 Mbit/s

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

Loss rate: 2.01%

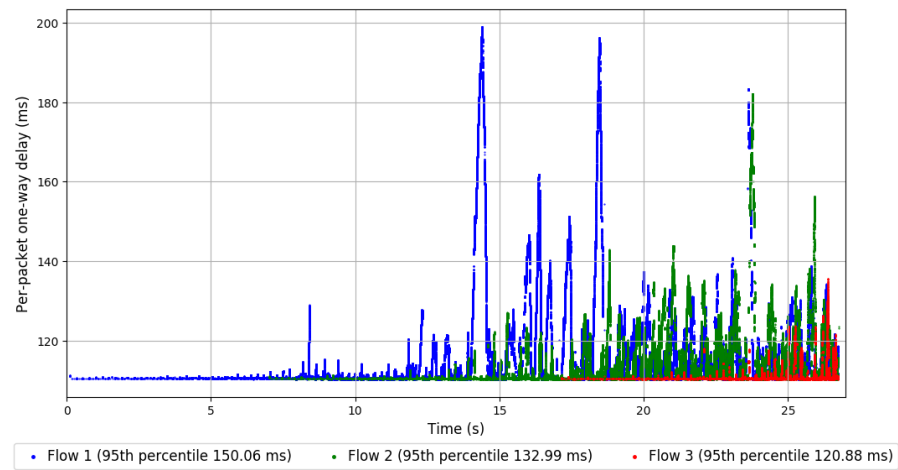
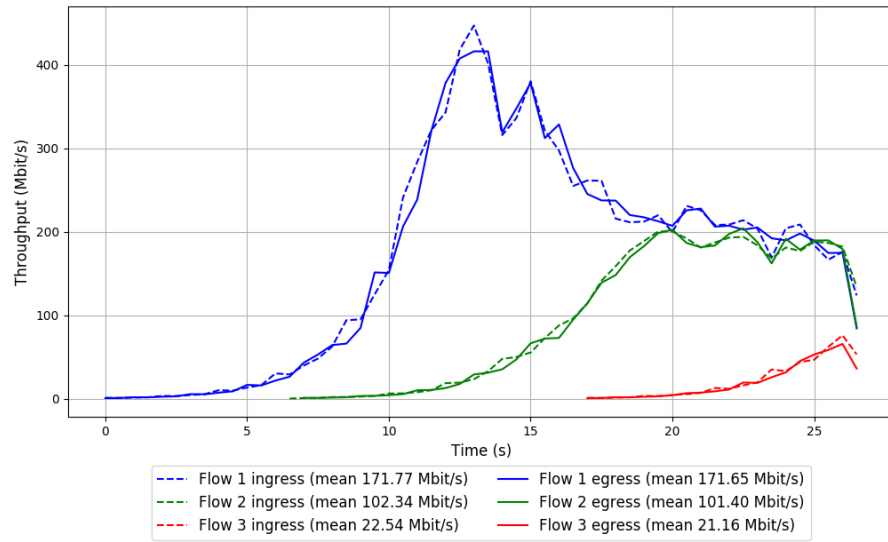
-- Flow 3:

Average throughput: 21.16 Mbit/s

95th percentile per-packet one-way delay: 120.875 ms

Loss rate: 8.26%

## Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-09-07 23:08:03

End at: 2017-09-07 23:08:33

# Below is generated by plot.py at 2017-09-08 03:19:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 257.65 Mbit/s

95th percentile per-packet one-way delay: 152.630 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 179.10 Mbit/s

95th percentile per-packet one-way delay: 156.226 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 101.35 Mbit/s

95th percentile per-packet one-way delay: 141.357 ms

Loss rate: 1.64%

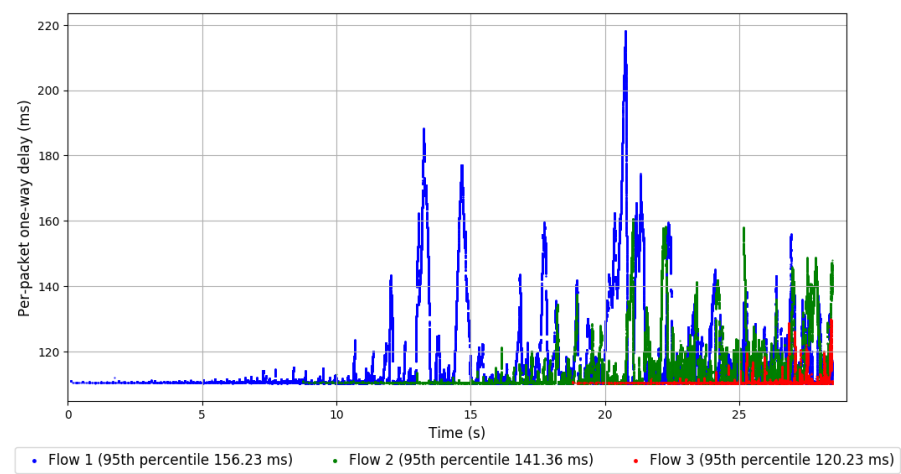
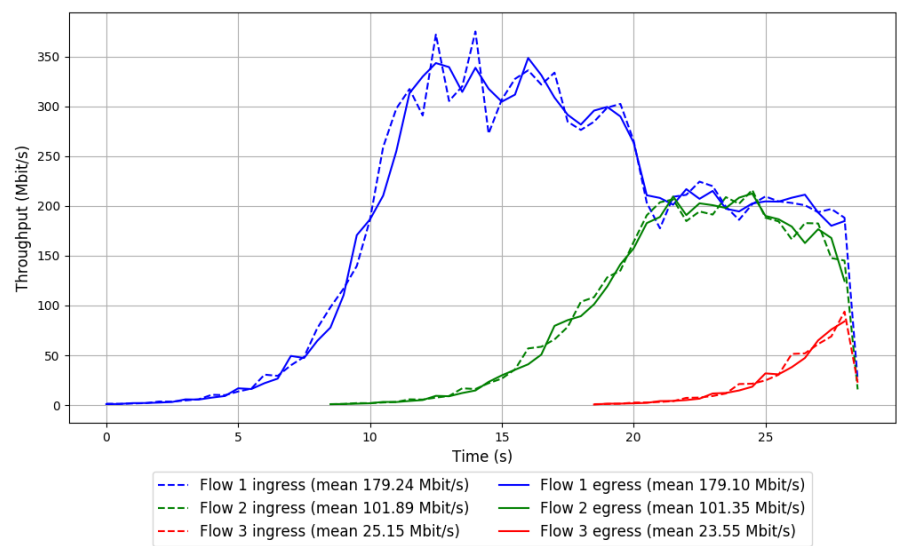
-- Flow 3:

Average throughput: 23.55 Mbit/s

95th percentile per-packet one-way delay: 120.226 ms

Loss rate: 8.40%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-09-07 23:21:42

End at: 2017-09-07 23:22:12

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 265.25 Mbit/s

95th percentile per-packet one-way delay: 143.557 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 187.15 Mbit/s

95th percentile per-packet one-way delay: 146.094 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 106.49 Mbit/s

95th percentile per-packet one-way delay: 138.735 ms

Loss rate: 1.84%

-- Flow 3:

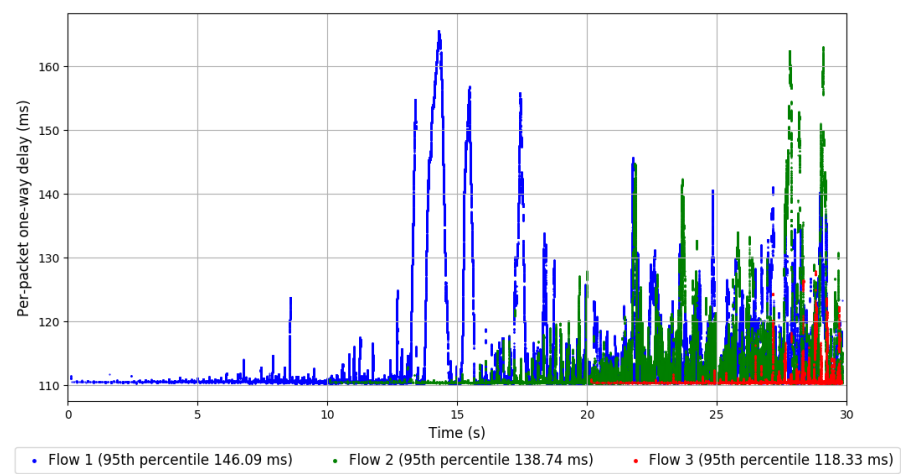
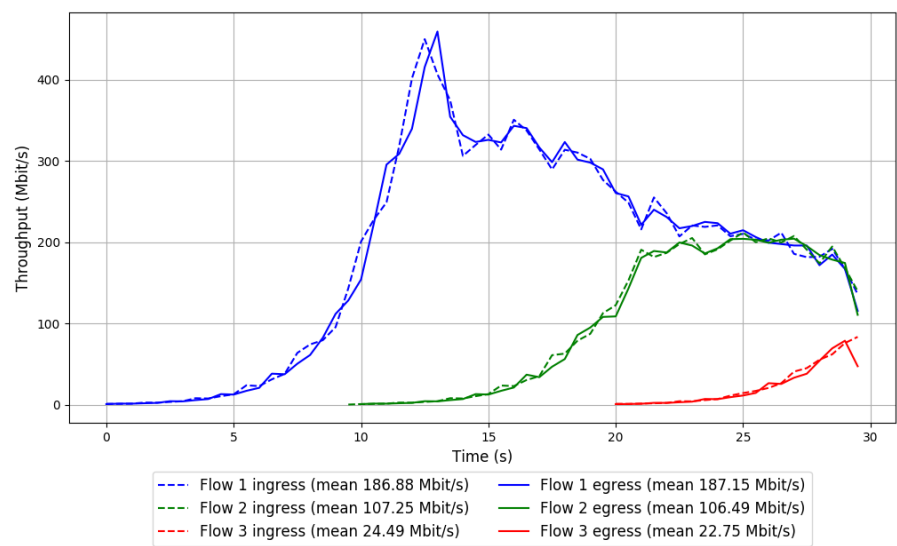
Average throughput: 22.75 Mbit/s

95th percentile per-packet one-way delay: 118.335 ms

Loss rate: 9.24%



Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-09-07 23:35:14

End at: 2017-09-07 23:35:44

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 263.58 Mbit/s

95th percentile per-packet one-way delay: 142.791 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 191.36 Mbit/s

95th percentile per-packet one-way delay: 144.939 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 95.26 Mbit/s

95th percentile per-packet one-way delay: 138.676 ms

Loss rate: 1.58%

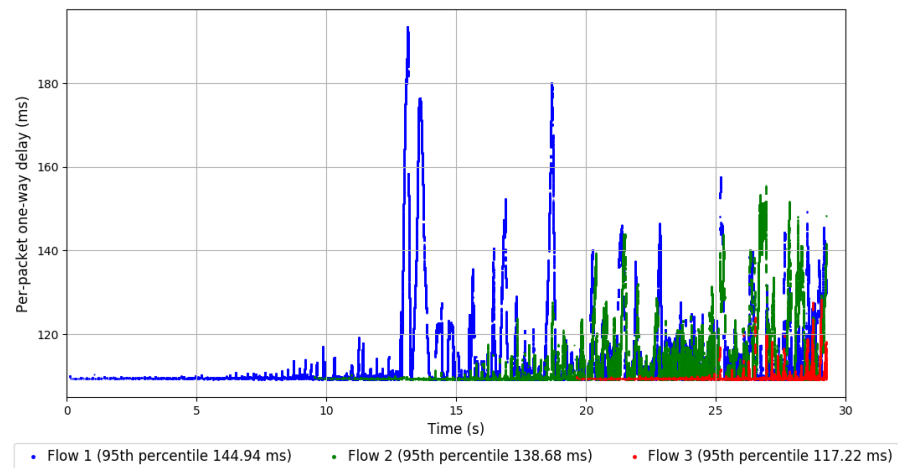
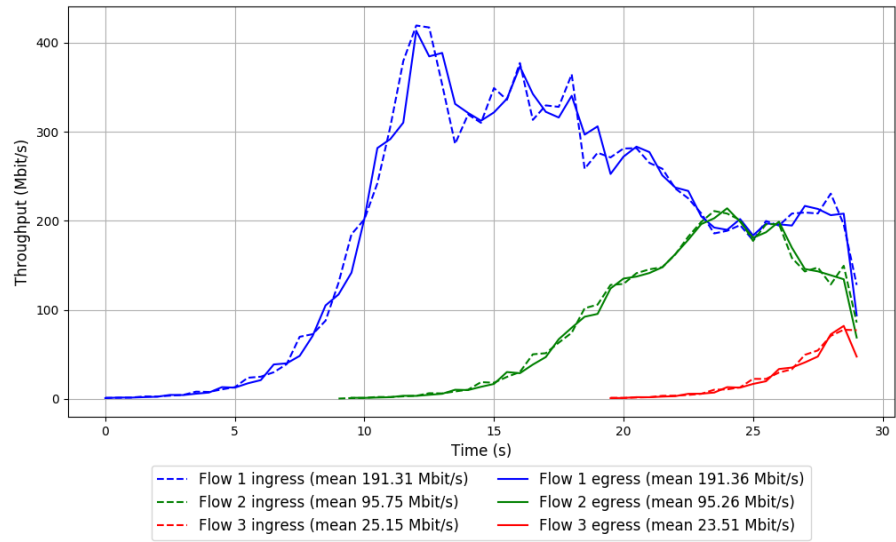
-- Flow 3:

Average throughput: 23.51 Mbit/s

95th percentile per-packet one-way delay: 117.216 ms

Loss rate: 8.60%

## Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-09-07 23:48:50

End at: 2017-09-07 23:49:20

# Below is generated by plot.py at 2017-09-08 03:20:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 257.76 Mbit/s

95th percentile per-packet one-way delay: 141.888 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 181.00 Mbit/s

95th percentile per-packet one-way delay: 143.301 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 99.02 Mbit/s

95th percentile per-packet one-way delay: 135.824 ms

Loss rate: 1.94%

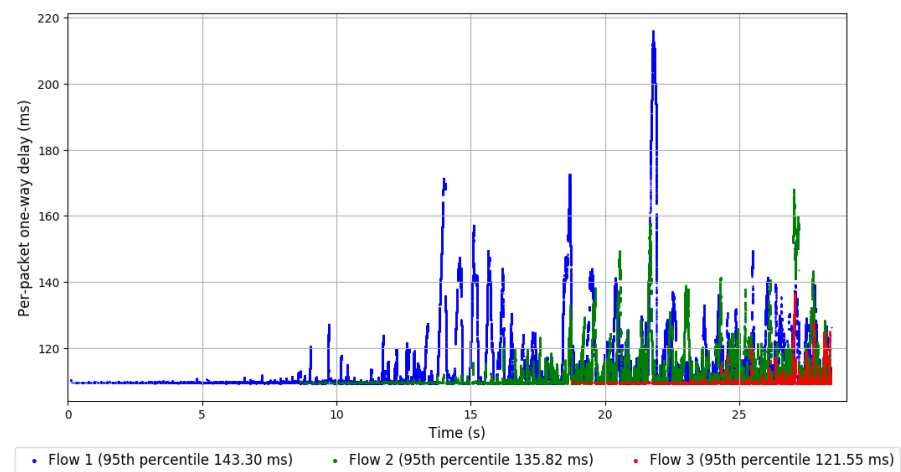
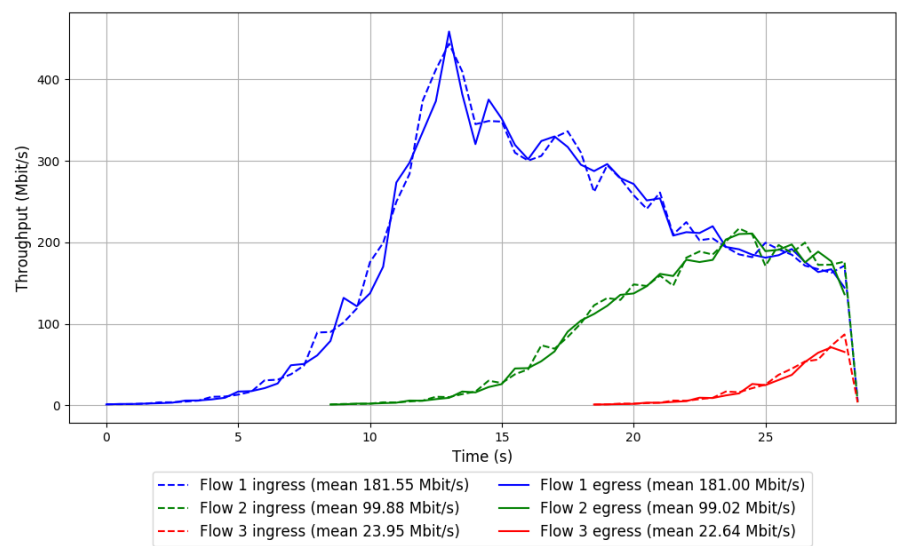
-- Flow 3:

Average throughput: 22.64 Mbit/s

95th percentile per-packet one-way delay: 121.548 ms

Loss rate: 7.54%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-09-08 00:02:10

End at: 2017-09-08 00:02:40

# Below is generated by plot.py at 2017-09-08 03:20:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 252.87 Mbit/s

95th percentile per-packet one-way delay: 137.679 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 168.43 Mbit/s

95th percentile per-packet one-way delay: 139.122 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 104.65 Mbit/s

95th percentile per-packet one-way delay: 130.775 ms

Loss rate: 1.89%

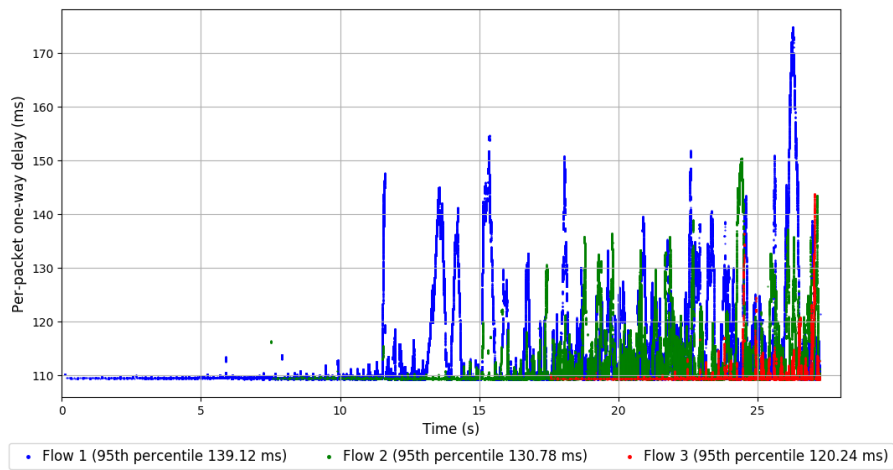
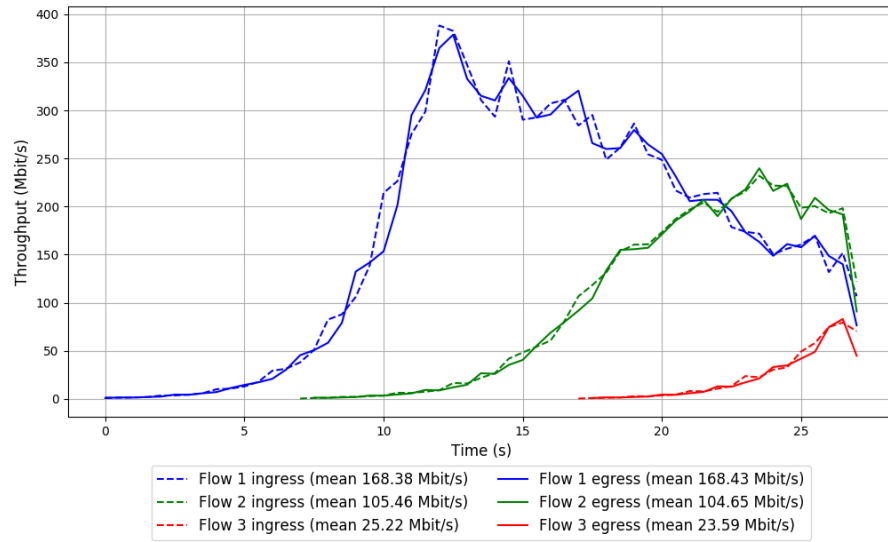
-- Flow 3:

Average throughput: 23.59 Mbit/s

95th percentile per-packet one-way delay: 120.243 ms

Loss rate: 8.56%

# Run 10: Report of CalibratedKoho — Data Link



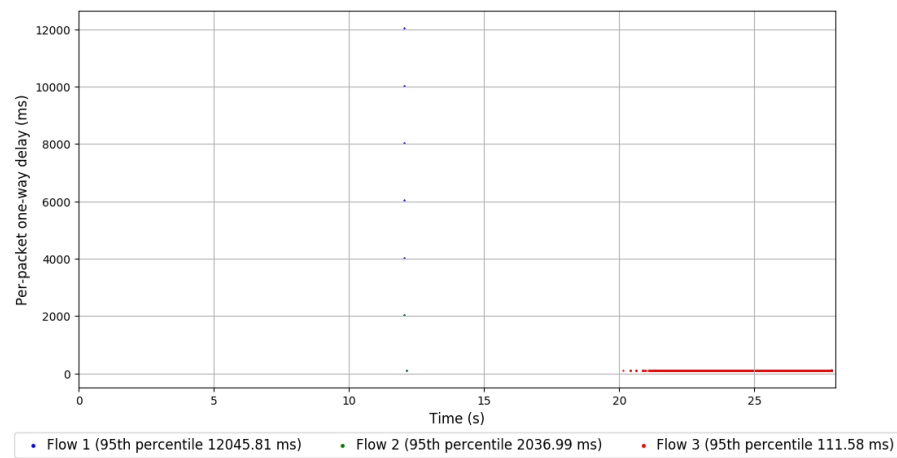
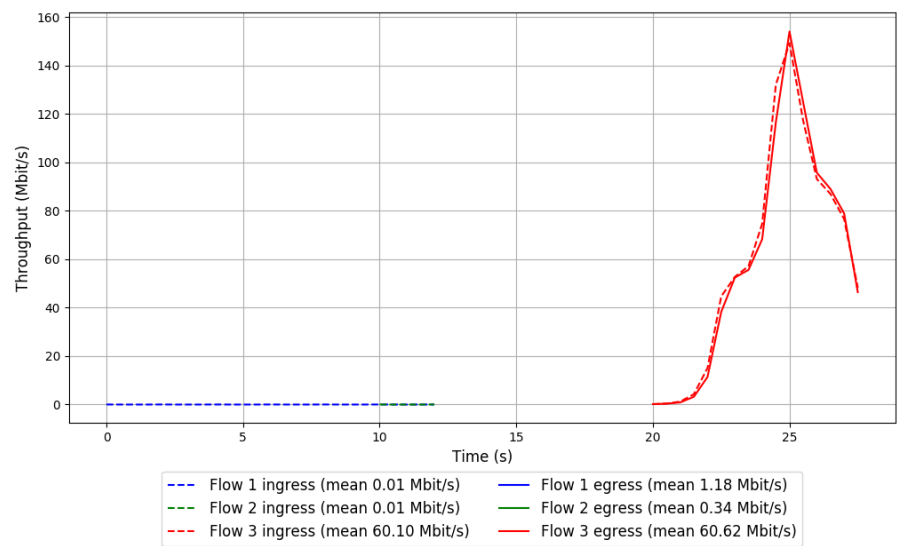
Run 1: Statistics of Copa

Start at: 2017-09-07 21:52:43

End at: 2017-09-07 21:53:13



Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-09-07 22:06:07

End at: 2017-09-07 22:06:37

# Below is generated by plot.py at 2017-09-08 03:20:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.64 Mbit/s

95th percentile per-packet one-way delay: 114.639 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 49.61 Mbit/s

95th percentile per-packet one-way delay: 113.641 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 42.41 Mbit/s

95th percentile per-packet one-way delay: 114.713 ms

Loss rate: 1.04%

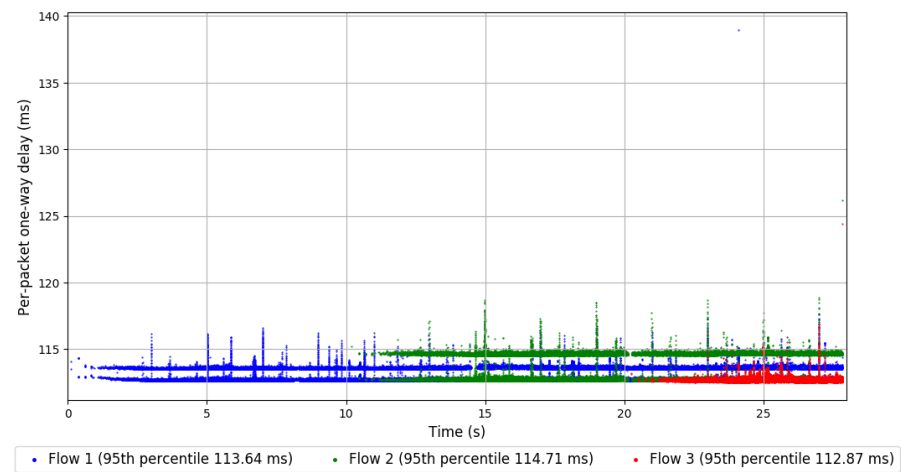
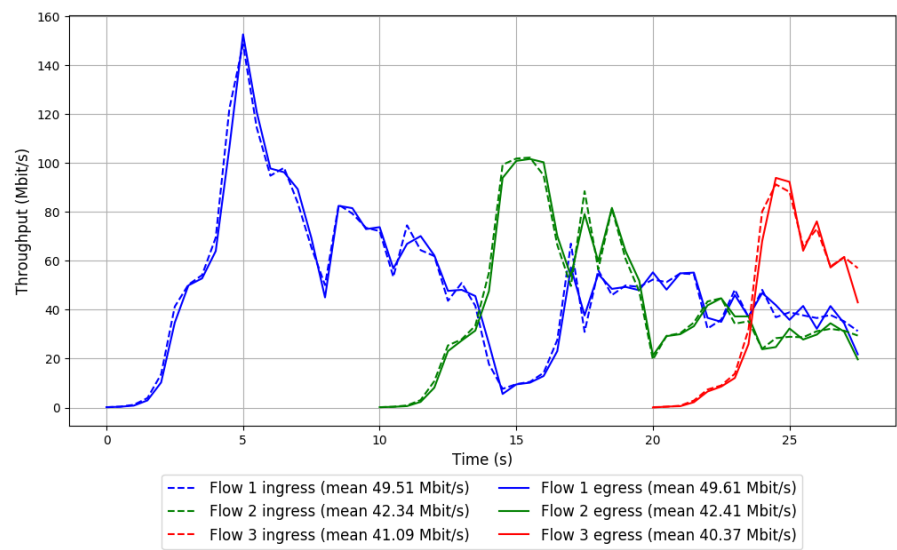
-- Flow 3:

Average throughput: 40.37 Mbit/s

95th percentile per-packet one-way delay: 112.870 ms

Loss rate: 4.47%

Run 2: Report of Copa — Data Link

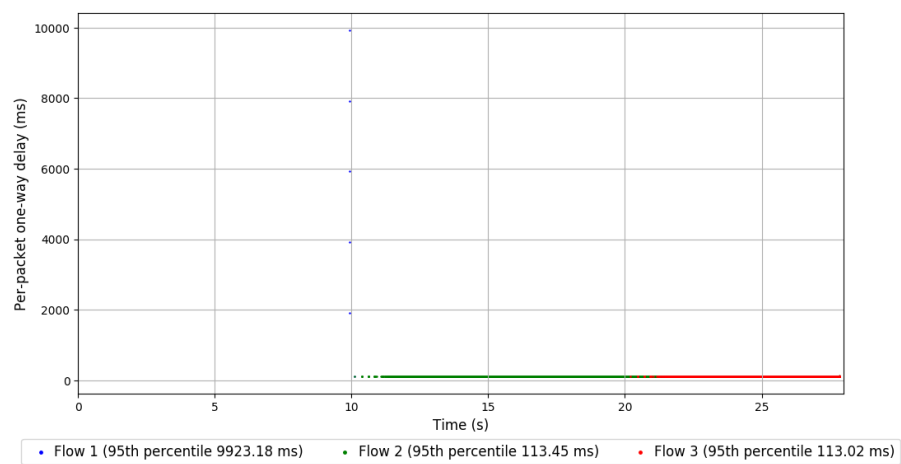
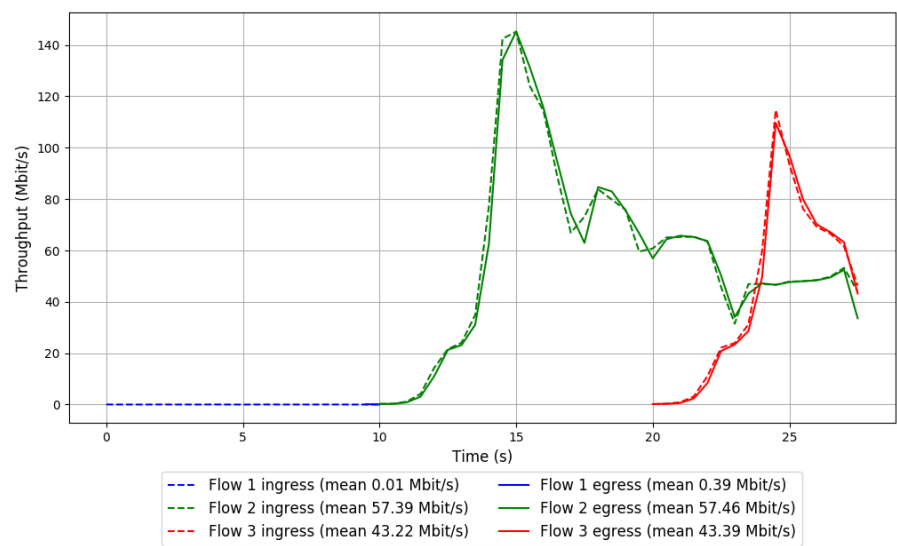


Run 3: Statistics of Copa

Start at: 2017-09-07 22:19:47

End at: 2017-09-07 22:20:17

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-09-07 22:33:18

End at: 2017-09-07 22:33:48

# Below is generated by plot.py at 2017-09-08 03:21:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 76.26 Mbit/s

95th percentile per-packet one-way delay: 113.592 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 47.02 Mbit/s

95th percentile per-packet one-way delay: 112.165 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 39.51 Mbit/s

95th percentile per-packet one-way delay: 113.651 ms

Loss rate: 0.98%

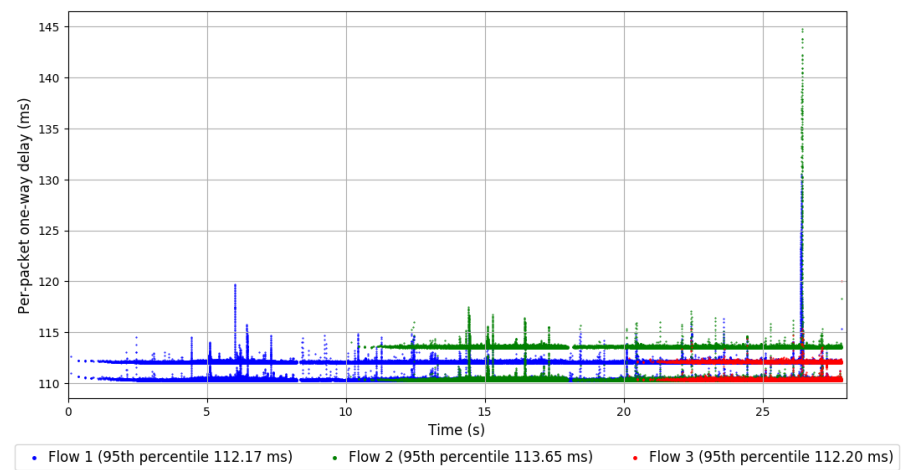
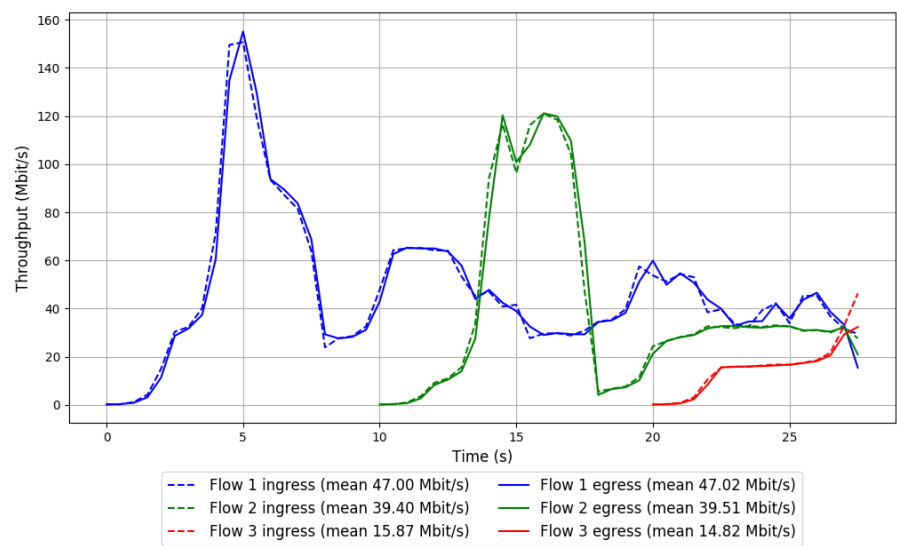
-- Flow 3:

Average throughput: 14.82 Mbit/s

95th percentile per-packet one-way delay: 112.197 ms

Loss rate: 9.22%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-09-07 22:46:46

End at: 2017-09-07 22:47:16

# Below is generated by plot.py at 2017-09-08 03:21:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 58.98 Mbit/s

95th percentile per-packet one-way delay: 113.423 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 1089.890 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.65 Mbit/s

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

Loss rate: 1.43%

-- Flow 3:

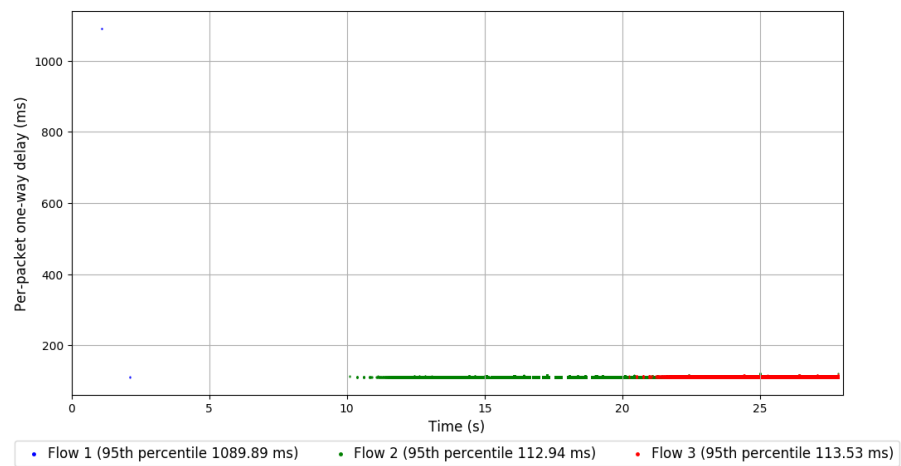
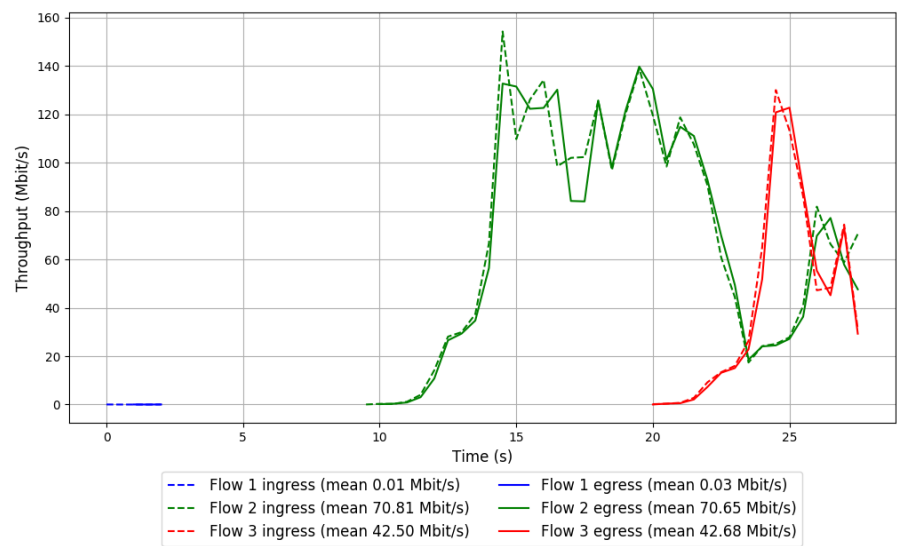
Average throughput: 42.68 Mbit/s

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

Loss rate: 2.34%



Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-09-07 23:00:03

End at: 2017-09-07 23:00:33

# Below is generated by plot.py at 2017-09-08 03:21:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.07 Mbit/s

95th percentile per-packet one-way delay: 112.854 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 50.64 Mbit/s

95th percentile per-packet one-way delay: 112.873 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 37.64 Mbit/s

95th percentile per-packet one-way delay: 112.677 ms

Loss rate: 0.61%

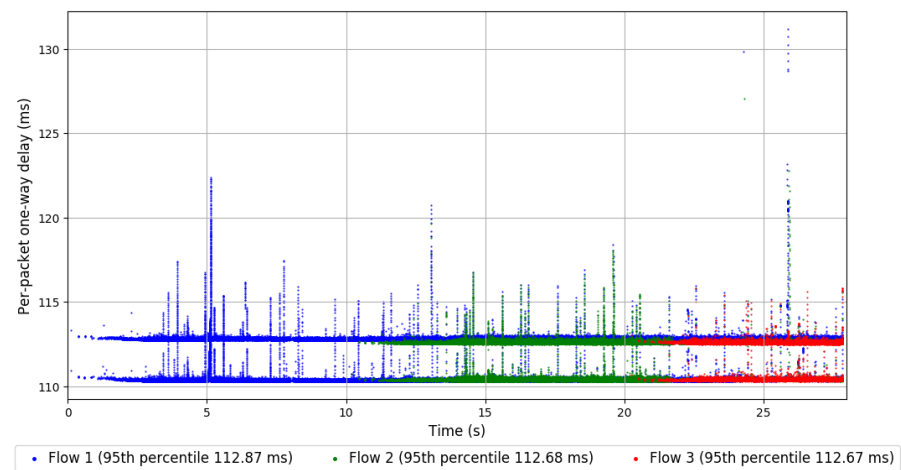
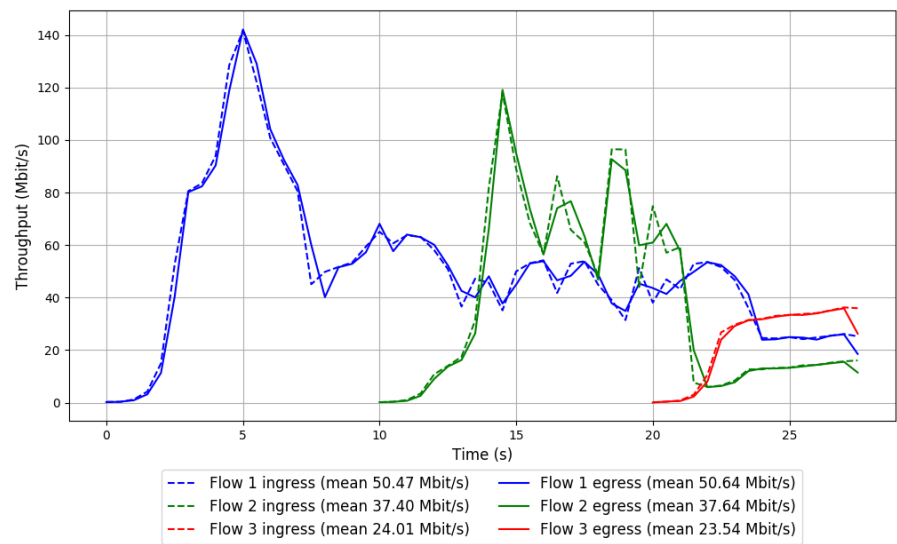
-- Flow 3:

Average throughput: 23.54 Mbit/s

95th percentile per-packet one-way delay: 112.675 ms

Loss rate: 4.75%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-09-07 23:13:28

End at: 2017-09-07 23:13:58

# Below is generated by plot.py at 2017-09-08 03:21:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.28 Mbit/s

95th percentile per-packet one-way delay: 110.605 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 47.71 Mbit/s

95th percentile per-packet one-way delay: 110.472 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 44.19 Mbit/s

95th percentile per-packet one-way delay: 110.471 ms

Loss rate: 0.61%

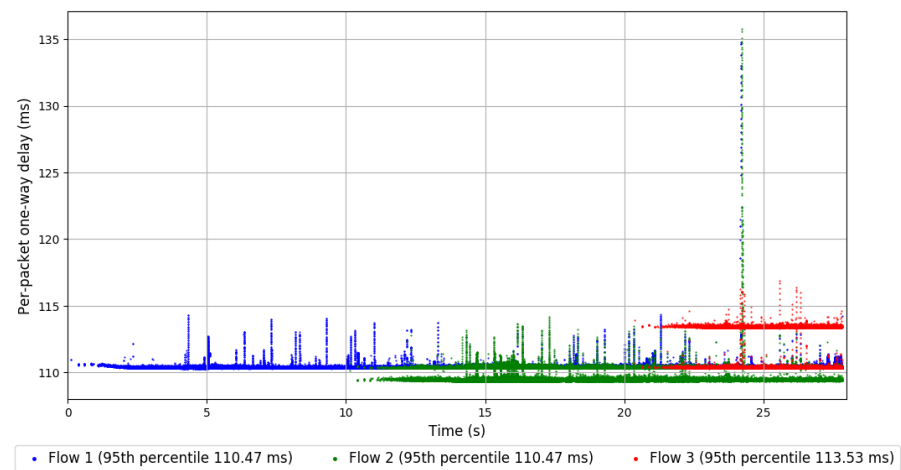
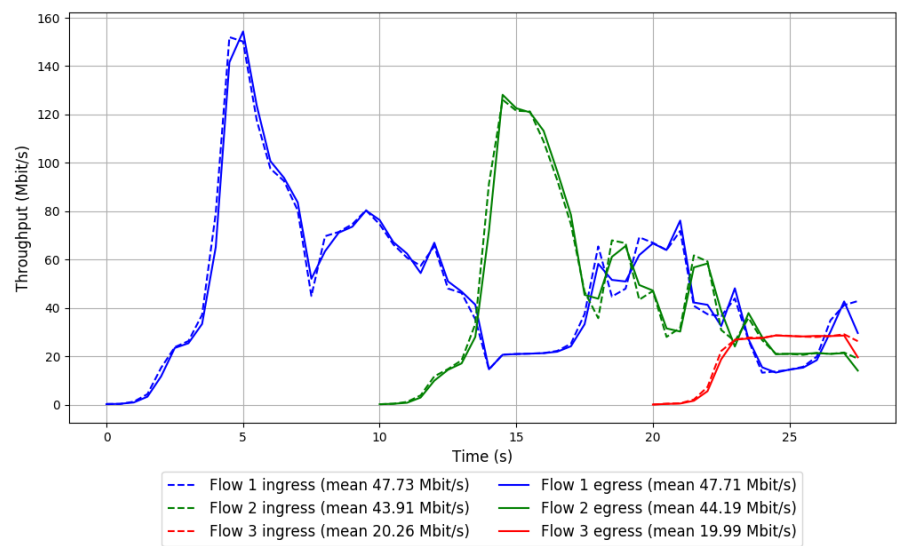
-- Flow 3:

Average throughput: 19.99 Mbit/s

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

Loss rate: 4.22%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-09-07 23:27:05

End at: 2017-09-07 23:27:35

# Below is generated by plot.py at 2017-09-08 03:22:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 75.49 Mbit/s

95th percentile per-packet one-way delay: 112.213 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 52.77 Mbit/s

95th percentile per-packet one-way delay: 112.180 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 29.01 Mbit/s

95th percentile per-packet one-way delay: 111.591 ms

Loss rate: 0.97%

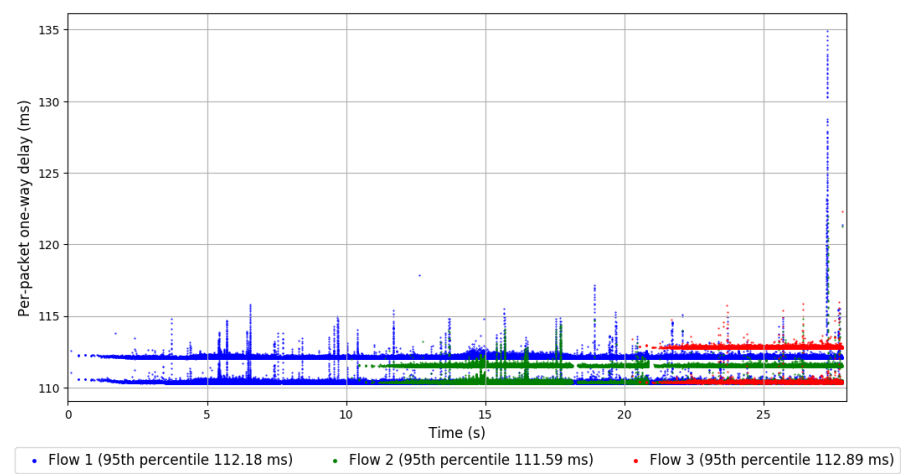
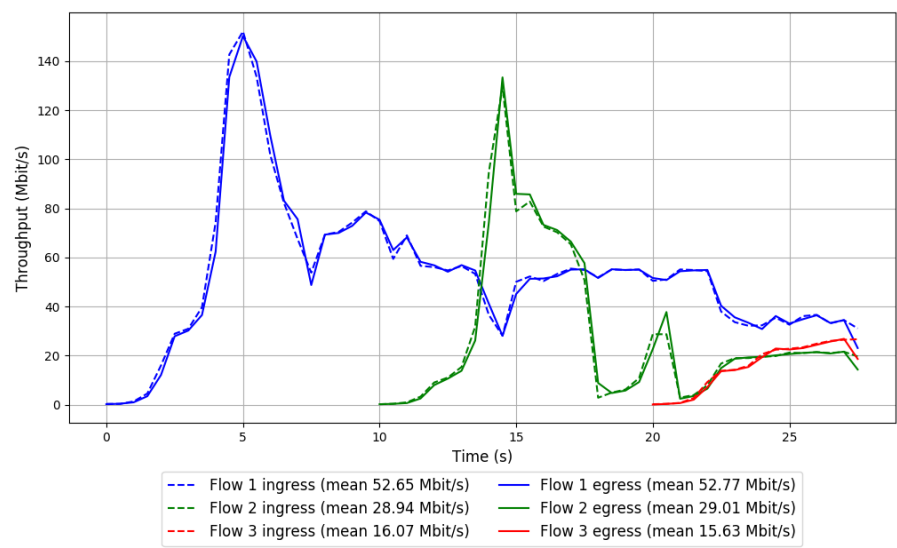
-- Flow 3:

Average throughput: 15.63 Mbit/s

95th percentile per-packet one-way delay: 112.889 ms

Loss rate: 5.43%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-09-07 23:40:38

End at: 2017-09-07 23:41:08

# Below is generated by plot.py at 2017-09-08 03:22:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.82 Mbit/s

95th percentile per-packet one-way delay: 112.269 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 51.22 Mbit/s

95th percentile per-packet one-way delay: 109.561 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 40.49 Mbit/s

95th percentile per-packet one-way delay: 112.336 ms

Loss rate: 1.22%

-- Flow 3:

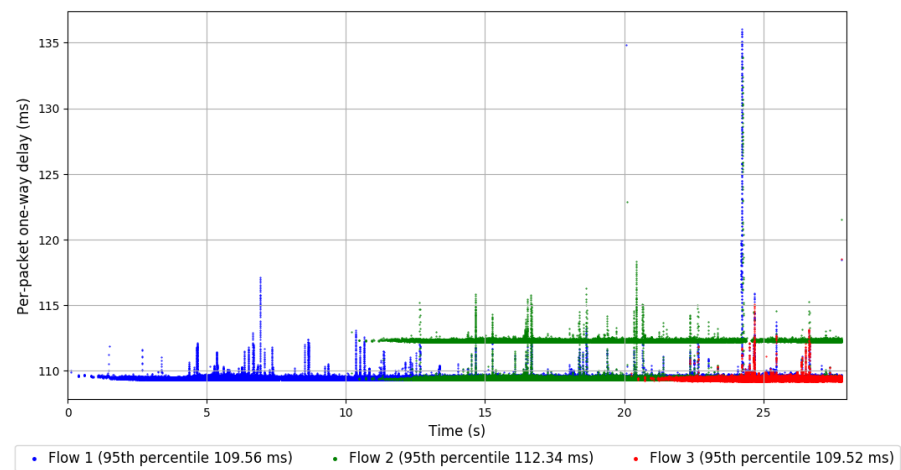
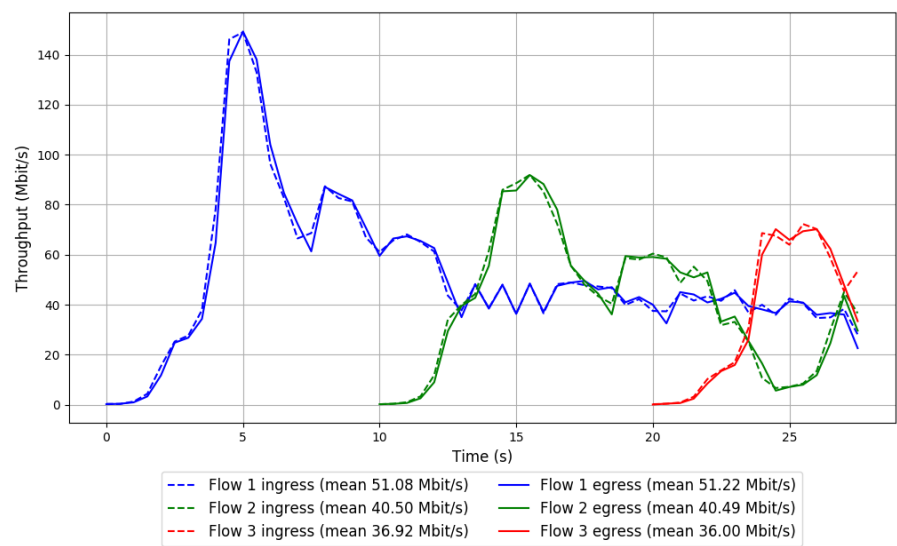
Average throughput: 36.00 Mbit/s

95th percentile per-packet one-way delay: 109.521 ms

Loss rate: 5.15%



Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-09-07 23:54:18

End at: 2017-09-07 23:54:48

# Below is generated by plot.py at 2017-09-08 03:22:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 73.06 Mbit/s

95th percentile per-packet one-way delay: 114.798 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 47.01 Mbit/s

95th percentile per-packet one-way delay: 114.862 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 55.31 Mbit/s

95th percentile per-packet one-way delay: 110.006 ms

Loss rate: 1.19%

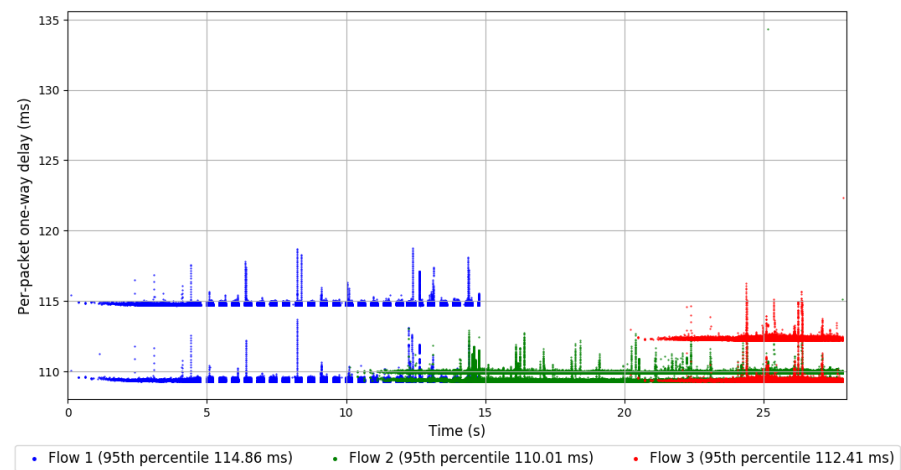
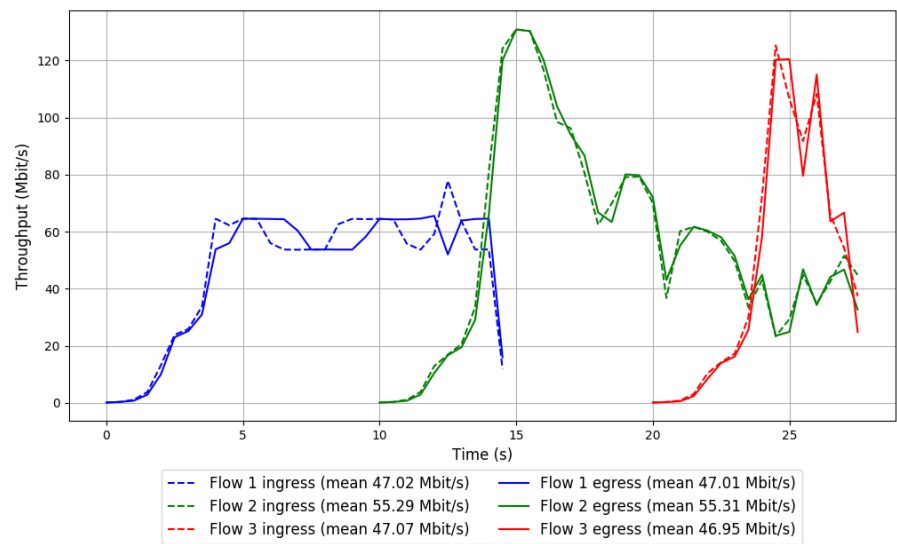
-- Flow 3:

Average throughput: 46.95 Mbit/s

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

Loss rate: 2.98%

Run 10: Report of Copa — Data Link

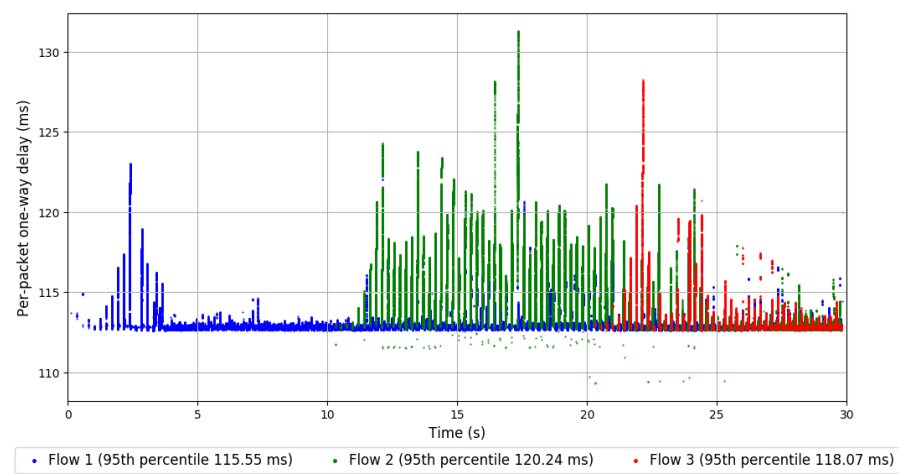
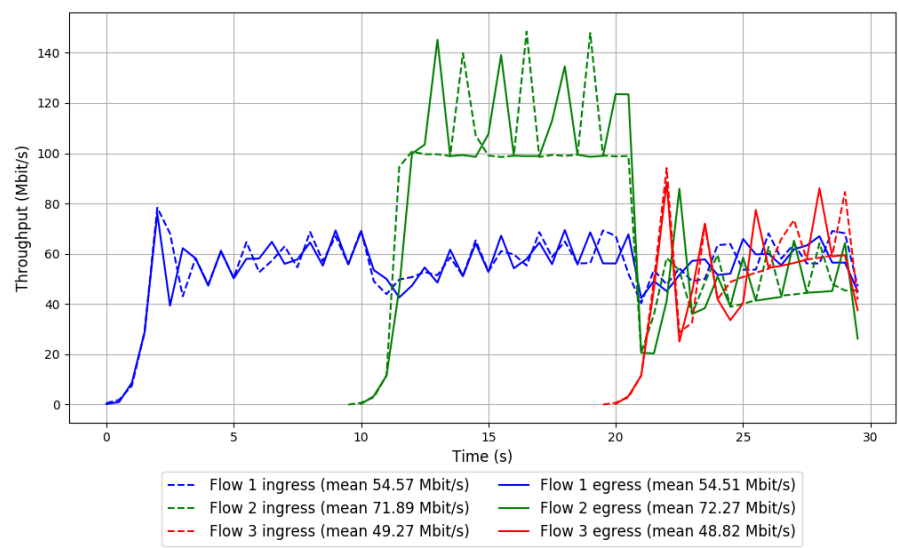


```
Run 1: Statistics of TCP Cubic

Start at: 2017-09-07 21:58:17
End at: 2017-09-07 21:58:47

# Below is generated by plot.py at 2017-09-08 03:22:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 118.45 Mbit/s
95th percentile per-packet one-way delay: 119.091 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 54.51 Mbit/s
95th percentile per-packet one-way delay: 115.548 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 72.27 Mbit/s
95th percentile per-packet one-way delay: 120.236 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 48.82 Mbit/s
95th percentile per-packet one-way delay: 118.066 ms
Loss rate: 3.05%
```

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-09-07 22:11:52

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

# Below is generated by plot.py at 2017-09-08 03:22:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 121.53 Mbit/s

95th percentile per-packet one-way delay: 120.293 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 71.46 Mbit/s

95th percentile per-packet one-way delay: 119.938 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 47.79 Mbit/s

95th percentile per-packet one-way delay: 120.162 ms

Loss rate: 1.53%

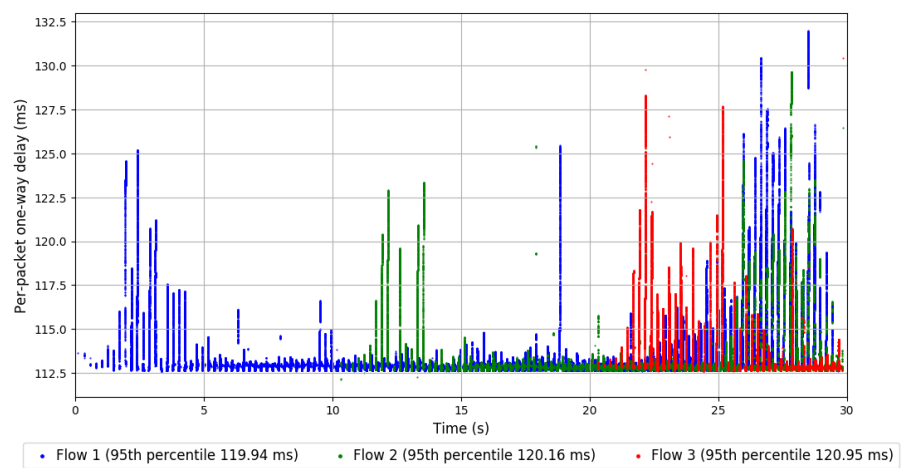
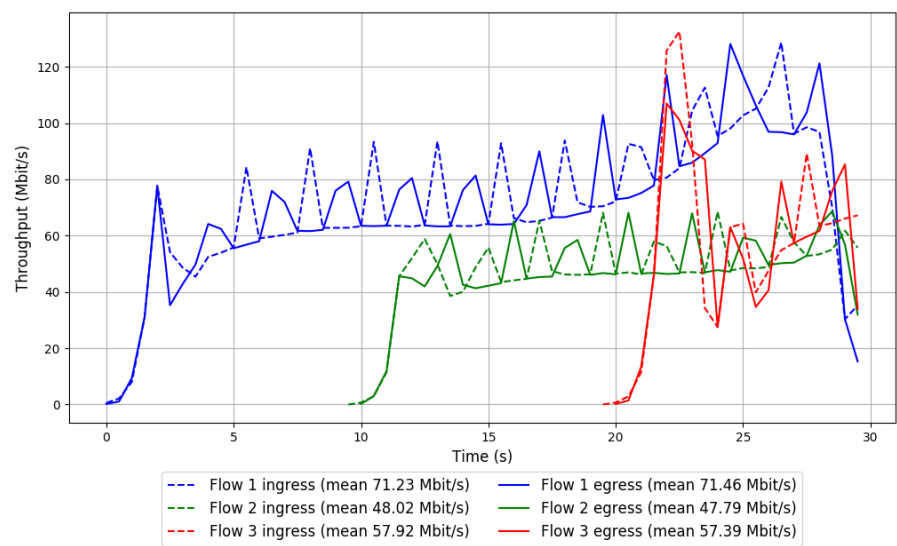
-- Flow 3:

Average throughput: 57.39 Mbit/s

95th percentile per-packet one-way delay: 120.953 ms

Loss rate: 2.94%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-09-07 22:25:28

End at: 2017-09-07 22:25:58

# Below is generated by plot.py at 2017-09-08 03:23:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.93 Mbit/s

95th percentile per-packet one-way delay: 115.889 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 48.57 Mbit/s

95th percentile per-packet one-way delay: 115.360 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 47.72 Mbit/s

95th percentile per-packet one-way delay: 117.188 ms

Loss rate: 1.35%

-- Flow 3:

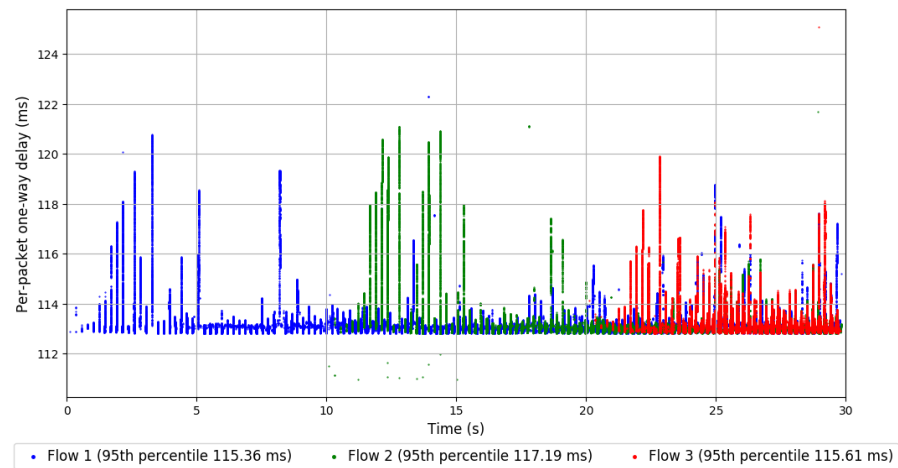
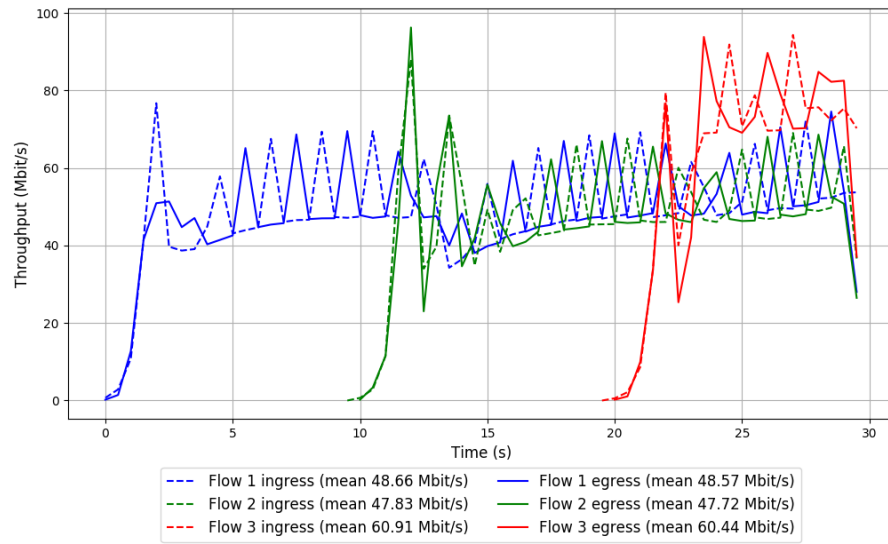
Average throughput: 60.44 Mbit/s

95th percentile per-packet one-way delay: 115.606 ms

Loss rate: 3.06%



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



Run 4: Statistics of TCP Cubic

Start at: 2017-09-07 22:38:54

End at: 2017-09-07 22:39:24

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 145.89 Mbit/s

95th percentile per-packet one-way delay: 113.859 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 82.72 Mbit/s

95th percentile per-packet one-way delay: 113.405 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 73.46 Mbit/s

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

Loss rate: 1.38%

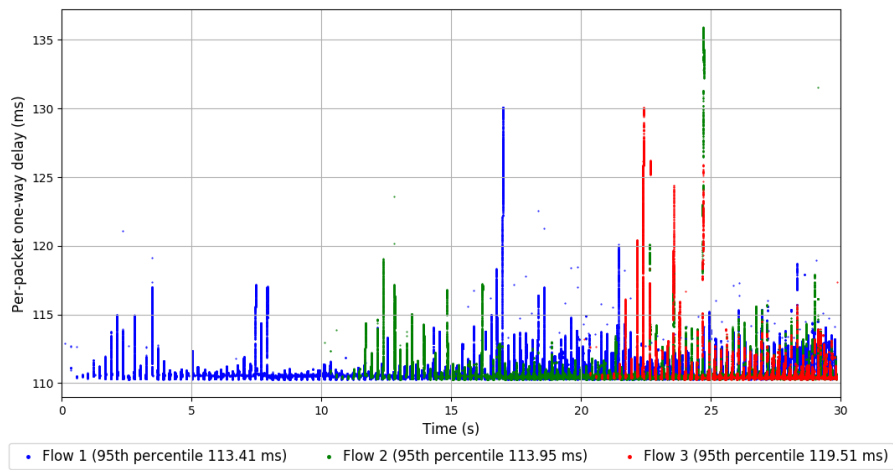
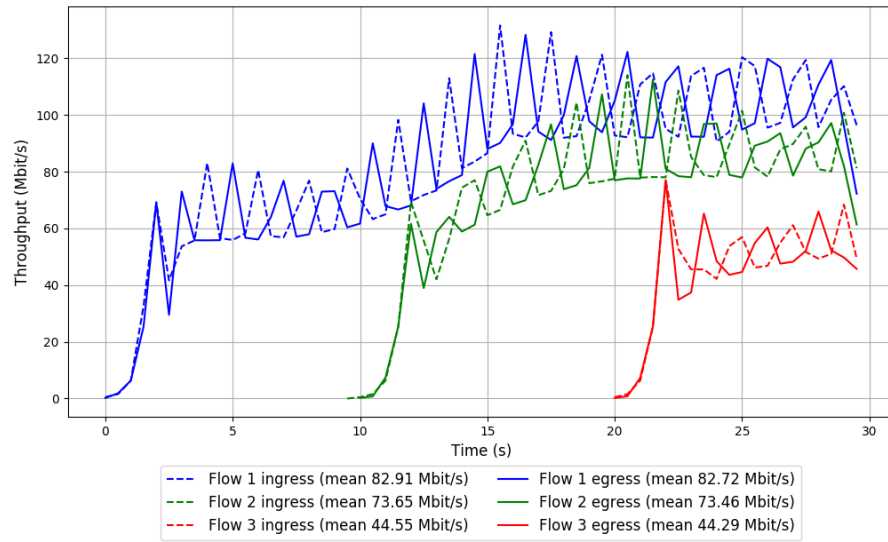
-- Flow 3:

Average throughput: 44.29 Mbit/s

95th percentile per-packet one-way delay: 119.512 ms

Loss rate: 2.78%

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



Run 5: Statistics of TCP Cubic

Start at: 2017-09-07 22:52:06

End at: 2017-09-07 22:52:36

# Below is generated by plot.py at 2017-09-08 03:23:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 122.52 Mbit/s

95th percentile per-packet one-way delay: 114.757 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 63.61 Mbit/s

95th percentile per-packet one-way delay: 112.729 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 62.75 Mbit/s

95th percentile per-packet one-way delay: 115.341 ms

Loss rate: 1.73%

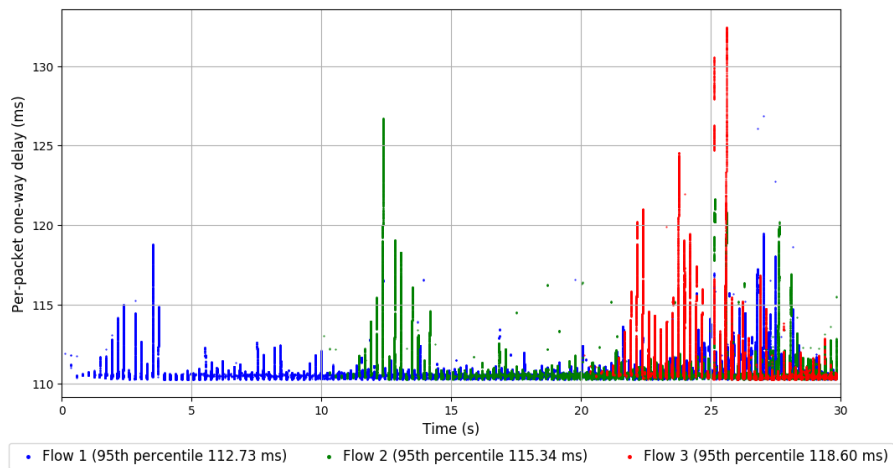
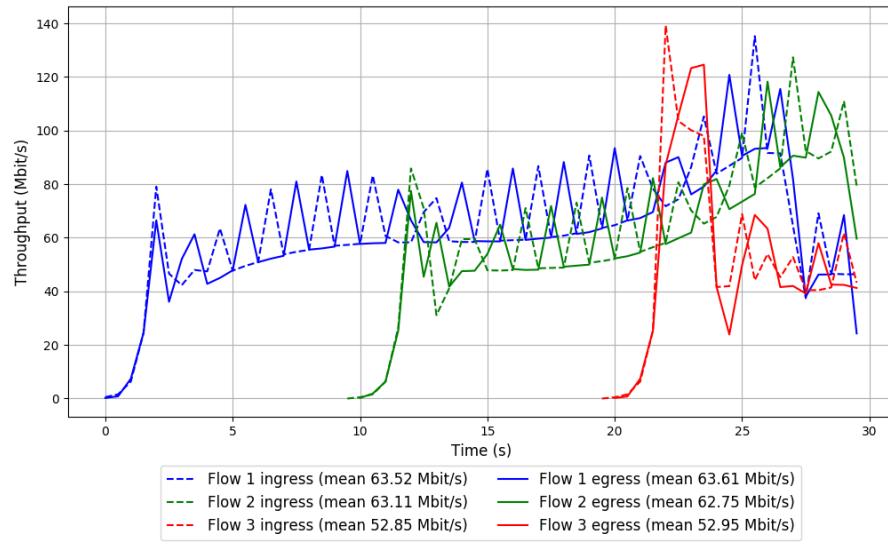
-- Flow 3:

Average throughput: 52.95 Mbit/s

95th percentile per-packet one-way delay: 118.603 ms

Loss rate: 2.07%

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



Run 6: Statistics of TCP Cubic

Start at: 2017-09-07 23:05:35

End at: 2017-09-07 23:06:05

# Below is generated by plot.py at 2017-09-08 03:23:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 121.54 Mbit/s

95th percentile per-packet one-way delay: 113.751 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 74.90 Mbit/s

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

Loss rate: 0.66%

-- Flow 2:

Average throughput: 49.79 Mbit/s

95th percentile per-packet one-way delay: 113.527 ms

Loss rate: 1.78%

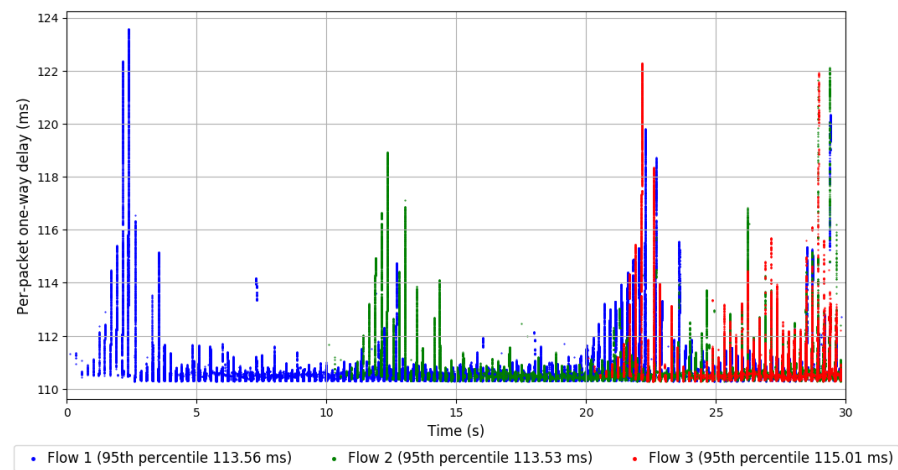
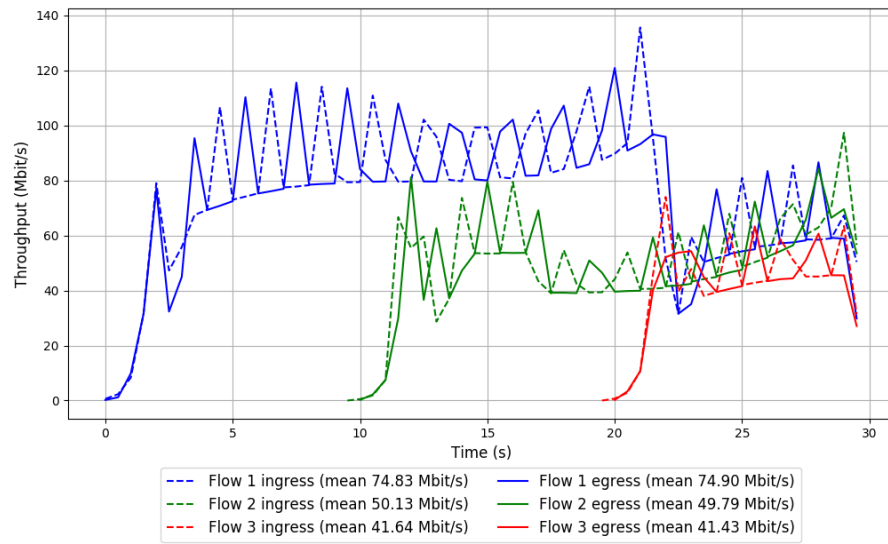
-- Flow 3:

Average throughput: 41.43 Mbit/s

95th percentile per-packet one-way delay: 115.009 ms

Loss rate: 2.74%

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



Run 7: Statistics of TCP Cubic

Start at: 2017-09-07 23:19:16

End at: 2017-09-07 23:19:46

# Below is generated by plot.py at 2017-09-08 03:23:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 102.84 Mbit/s

95th percentile per-packet one-way delay: 116.887 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 50.00 Mbit/s

95th percentile per-packet one-way delay: 113.781 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 56.35 Mbit/s

95th percentile per-packet one-way delay: 117.781 ms

Loss rate: 1.03%

-- Flow 3:

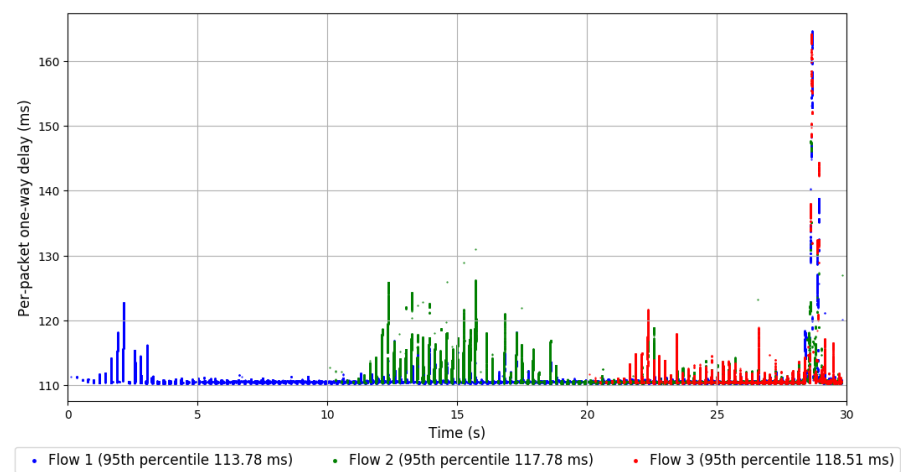
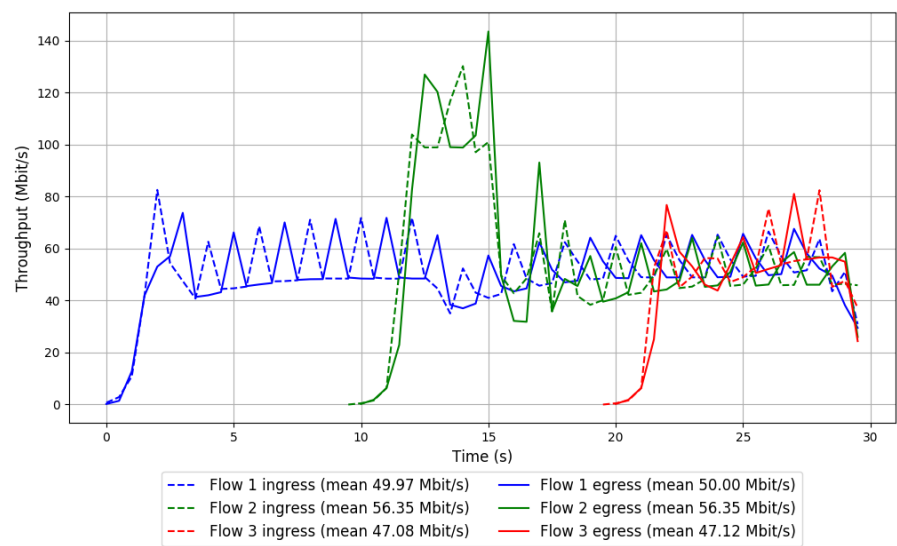
Average throughput: 47.12 Mbit/s

95th percentile per-packet one-way delay: 118.509 ms

Loss rate: 2.19%



Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-09-07 23:32:46

End at: 2017-09-07 23:33:16

# Below is generated by plot.py at 2017-09-08 03:24:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 135.69 Mbit/s

95th percentile per-packet one-way delay: 113.950 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 76.04 Mbit/s

95th percentile per-packet one-way delay: 113.291 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 65.13 Mbit/s

95th percentile per-packet one-way delay: 114.895 ms

Loss rate: 1.45%

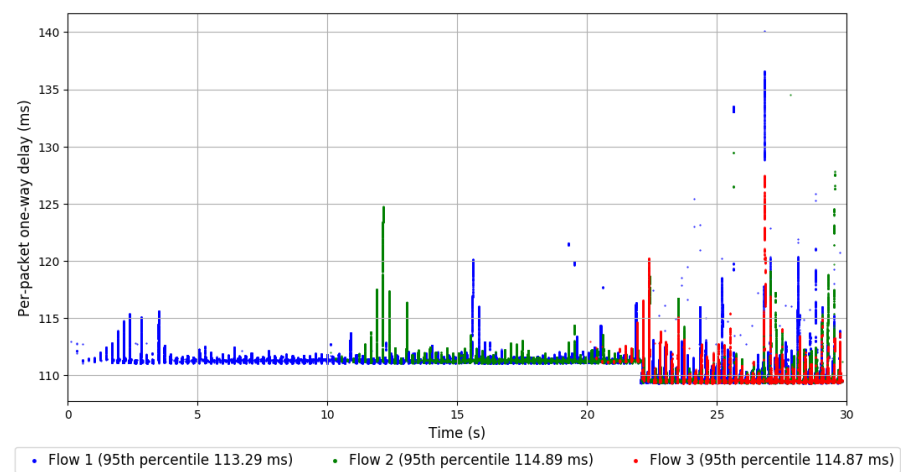
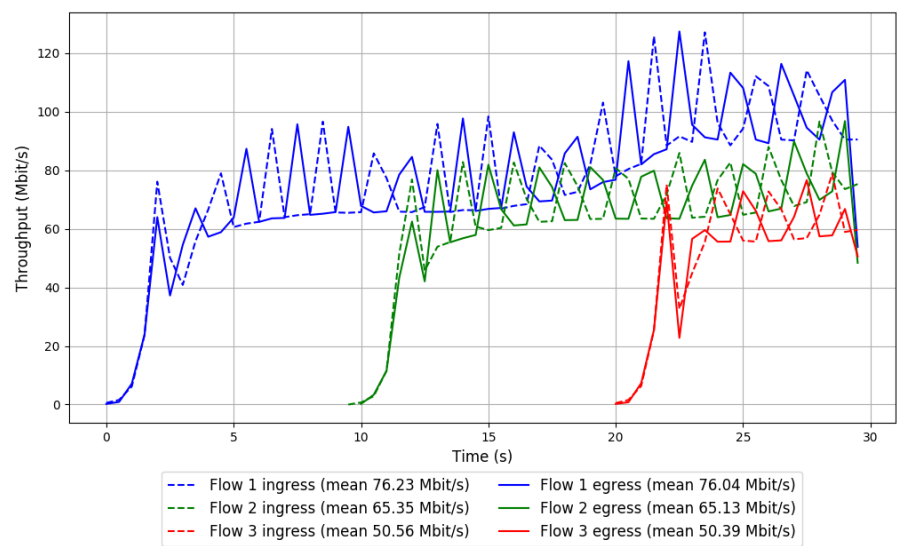
-- Flow 3:

Average throughput: 50.39 Mbit/s

95th percentile per-packet one-way delay: 114.866 ms

Loss rate: 2.97%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-09-07 23:46:21

End at: 2017-09-07 23:46:51

# Below is generated by plot.py at 2017-09-08 03:24:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 147.53 Mbit/s

95th percentile per-packet one-way delay: 120.668 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 76.22 Mbit/s

95th percentile per-packet one-way delay: 118.529 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 86.41 Mbit/s

95th percentile per-packet one-way delay: 122.145 ms

Loss rate: 0.67%

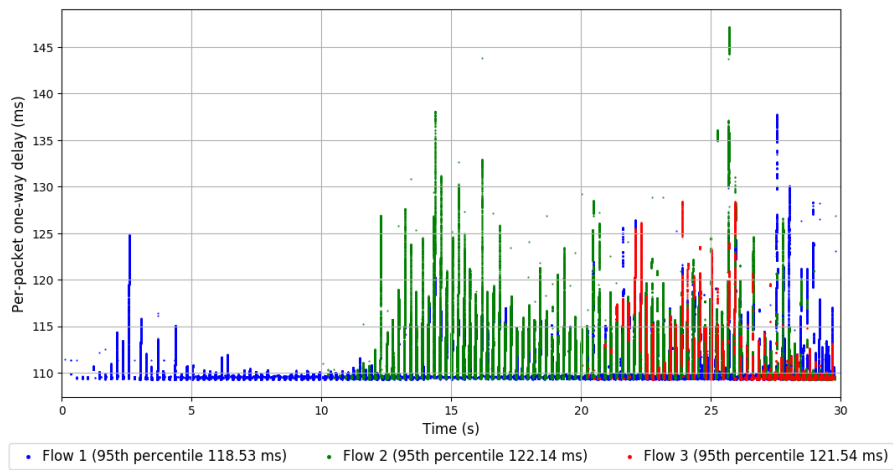
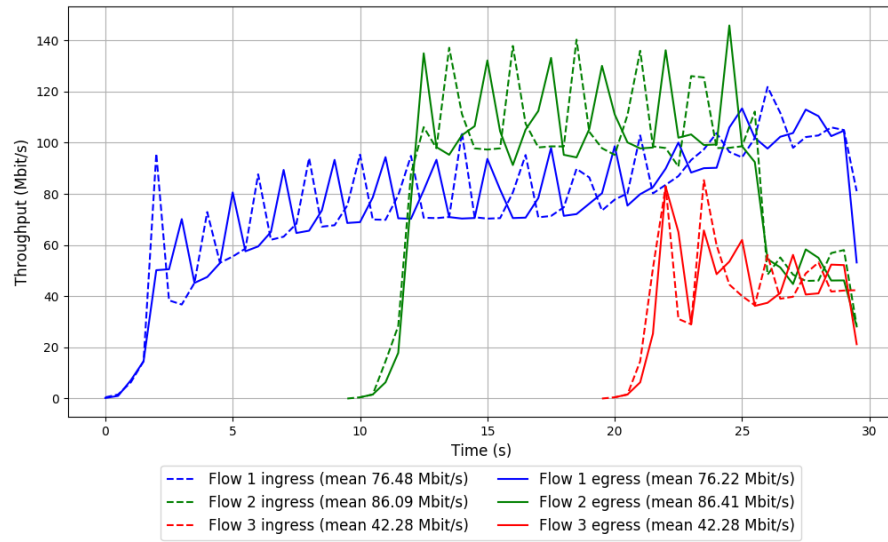
-- Flow 3:

Average throughput: 42.28 Mbit/s

95th percentile per-packet one-way delay: 121.540 ms

Loss rate: 2.53%

# Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-09-07 23:59:42

End at: 2017-09-08 00:00:12

# Below is generated by plot.py at 2017-09-08 03:24:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 137.64 Mbit/s

95th percentile per-packet one-way delay: 116.280 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 56.54 Mbit/s

95th percentile per-packet one-way delay: 115.270 ms

Loss rate: 1.28%

-- Flow 2:

Average throughput: 100.48 Mbit/s

95th percentile per-packet one-way delay: 116.996 ms

Loss rate: 1.25%

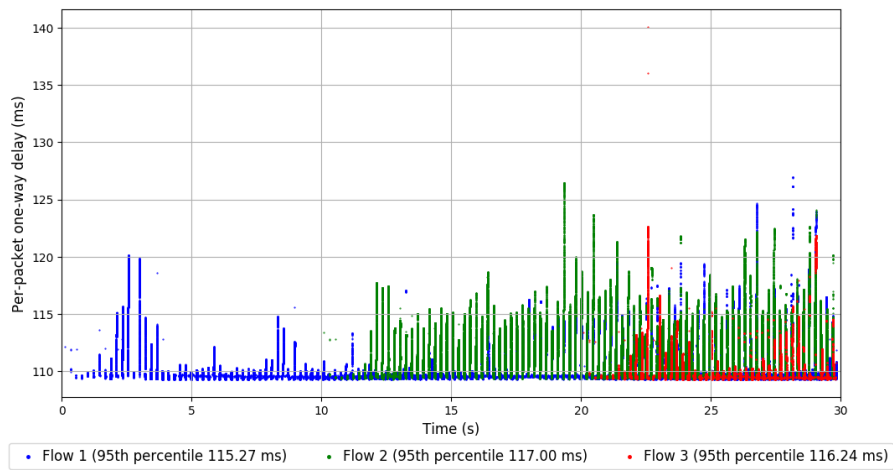
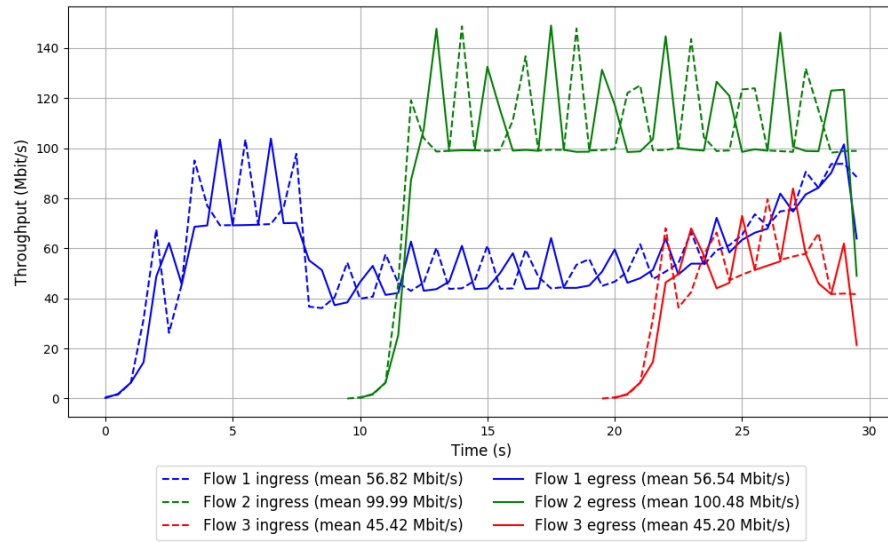
-- Flow 3:

Average throughput: 45.20 Mbit/s

95th percentile per-packet one-way delay: 116.241 ms

Loss rate: 2.32%

# Run 10: Report of TCP Cubic — Data Link



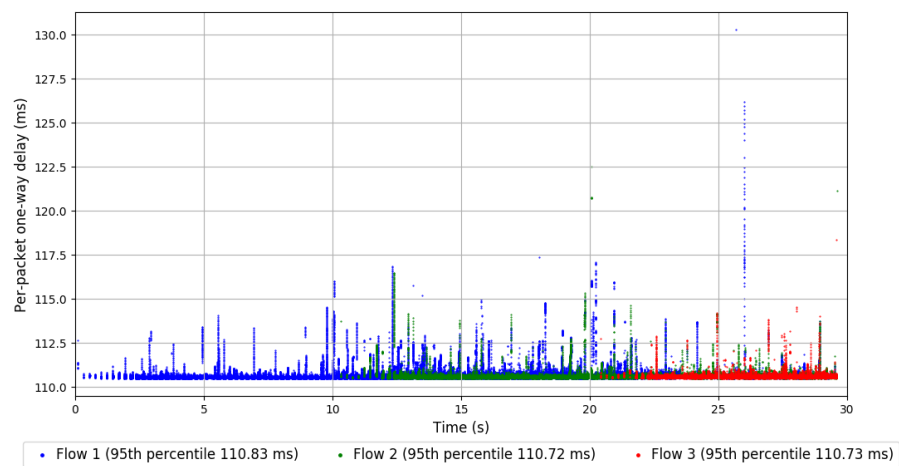
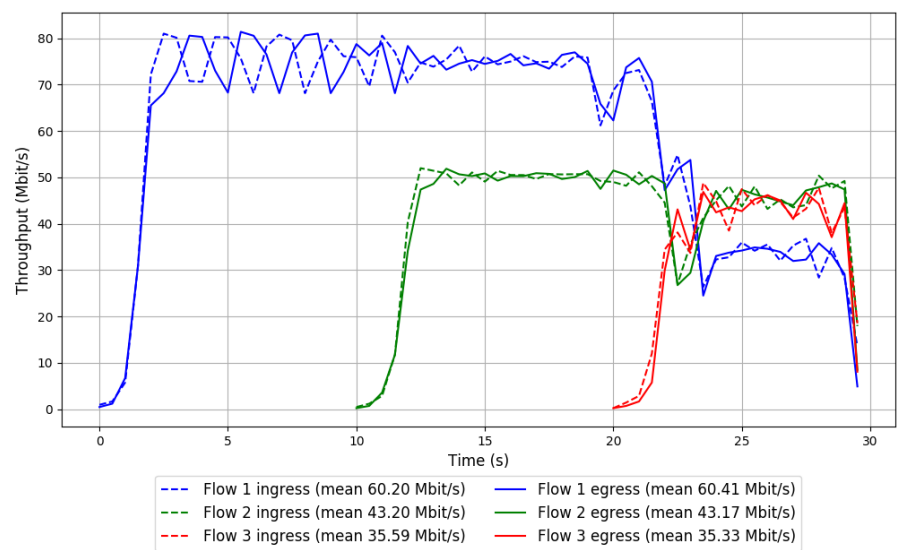
```
Run 1: Statistics of Indigo

Start at: 2017-09-07 21:50:03
End at: 2017-09-07 21:50:33

# Below is generated by plot.py at 2017-09-08 03:24:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.62 Mbit/s
95th percentile per-packet one-way delay: 110.775 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 60.41 Mbit/s
95th percentile per-packet one-way delay: 110.825 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 43.17 Mbit/s
95th percentile per-packet one-way delay: 110.717 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 35.33 Mbit/s
95th percentile per-packet one-way delay: 110.728 ms
Loss rate: 3.03%
```



Run 1: Report of Indigo — Data Link

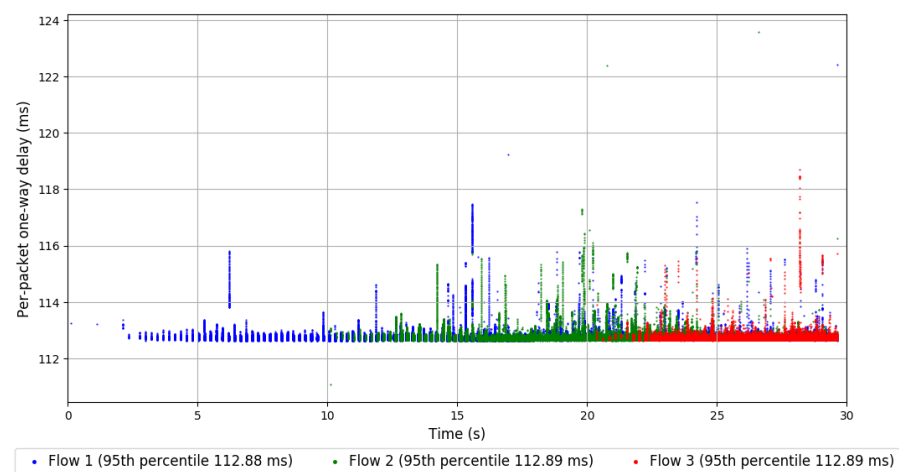
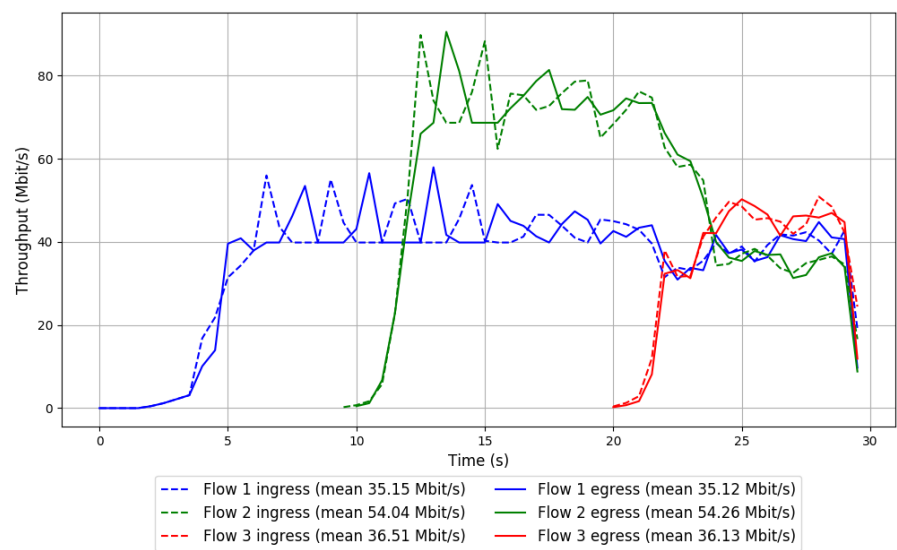


```
Run 2: Statistics of Indigo

Start at: 2017-09-07 22:03:28
End at: 2017-09-07 22:03:58

# Below is generated by plot.py at 2017-09-08 03:25:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.30 Mbit/s
95th percentile per-packet one-way delay: 112.885 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 35.12 Mbit/s
95th percentile per-packet one-way delay: 112.881 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 54.26 Mbit/s
95th percentile per-packet one-way delay: 112.889 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 36.13 Mbit/s
95th percentile per-packet one-way delay: 112.885 ms
Loss rate: 3.36%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-09-07 22:17:06

End at: 2017-09-07 22:17:36

# Below is generated by plot.py at 2017-09-08 03:25:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 103.63 Mbit/s

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

Loss rate: 0.90%

-- Flow 1:

Average throughput: 59.34 Mbit/s

95th percentile per-packet one-way delay: 112.907 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 48.60 Mbit/s

95th percentile per-packet one-way delay: 112.957 ms

Loss rate: 0.85%

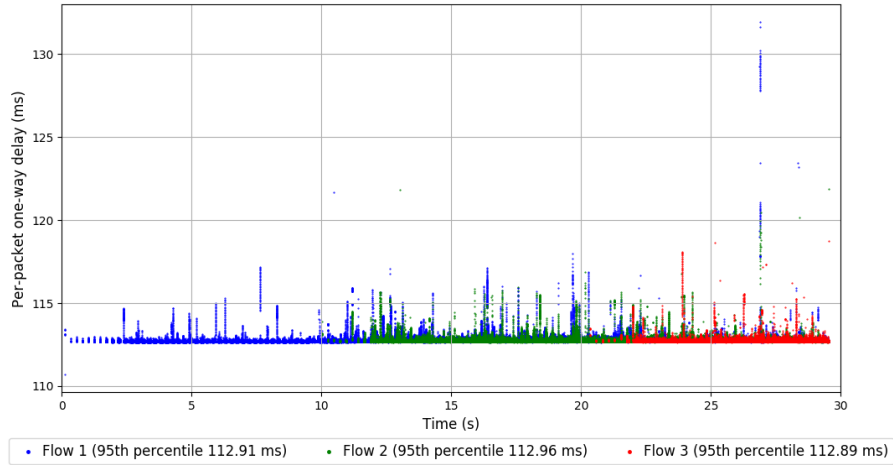
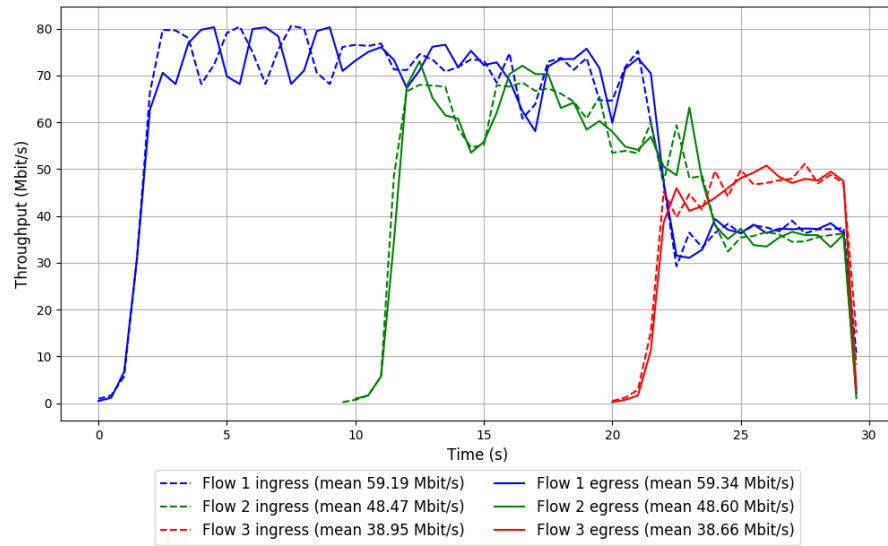
-- Flow 3:

Average throughput: 38.66 Mbit/s

95th percentile per-packet one-way delay: 112.886 ms

Loss rate: 3.01%

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



Run 4: Statistics of Indigo

Start at: 2017-09-07 22:30:38

End at: 2017-09-07 22:31:08

# Below is generated by plot.py at 2017-09-08 03:25:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.17 Mbit/s

95th percentile per-packet one-way delay: 113.138 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 38.15 Mbit/s

95th percentile per-packet one-way delay: 113.083 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 61.52 Mbit/s

95th percentile per-packet one-way delay: 113.235 ms

Loss rate: 1.18%

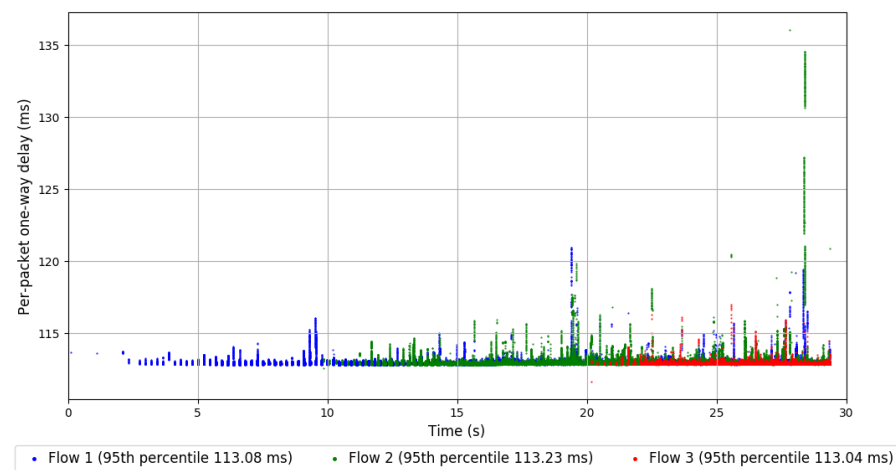
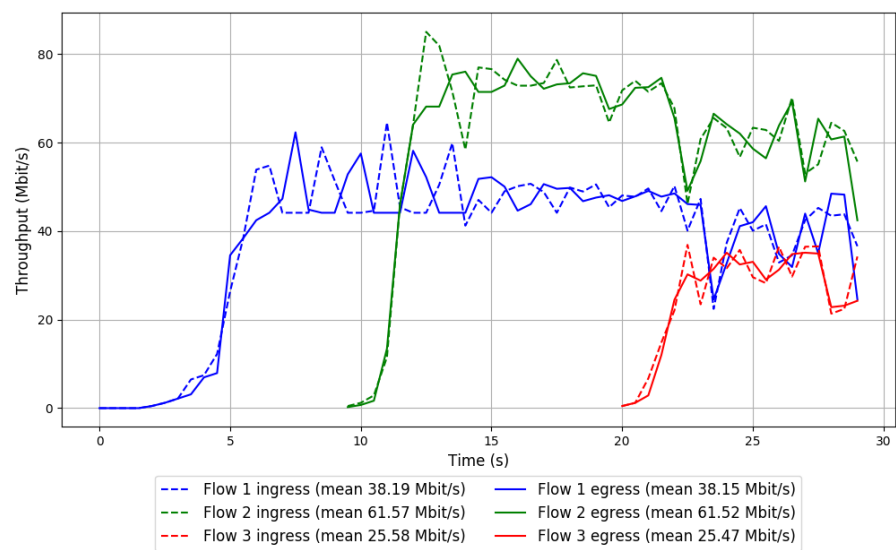
-- Flow 3:

Average throughput: 25.47 Mbit/s

95th percentile per-packet one-way delay: 113.040 ms

Loss rate: 3.01%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-09-07 22:44:08

End at: 2017-09-07 22:44:38

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.26 Mbit/s

95th percentile per-packet one-way delay: 110.552 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 40.36 Mbit/s

95th percentile per-packet one-way delay: 110.467 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 63.08 Mbit/s

95th percentile per-packet one-way delay: 110.646 ms

Loss rate: 1.20%

-- Flow 3:

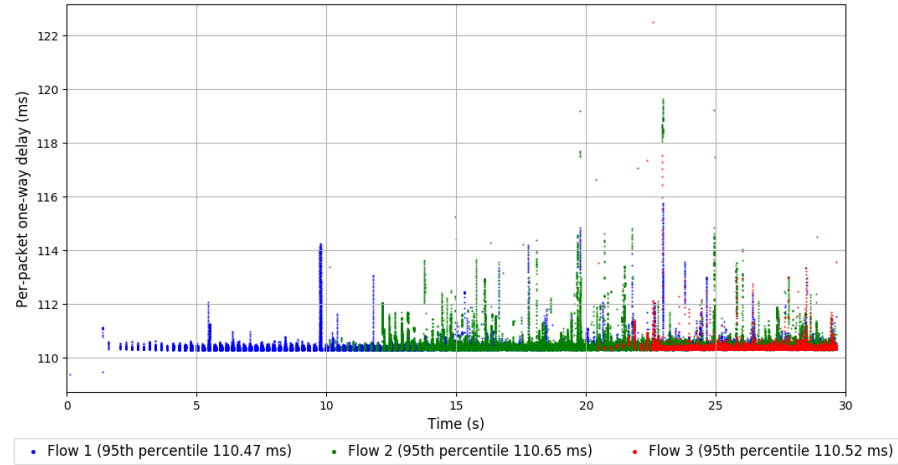
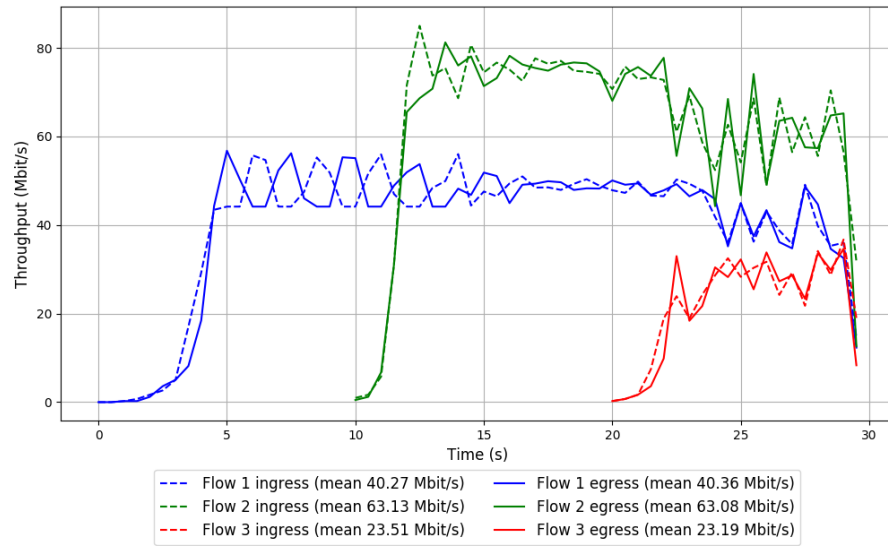
Average throughput: 23.19 Mbit/s

95th percentile per-packet one-way delay: 110.517 ms

Loss rate: 3.69%



## Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-09-07 22:57:21

End at: 2017-09-07 22:57:51

# Below is generated by plot.py at 2017-09-08 03:25:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 103.78 Mbit/s

95th percentile per-packet one-way delay: 110.650 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 59.49 Mbit/s

95th percentile per-packet one-way delay: 110.575 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 50.59 Mbit/s

95th percentile per-packet one-way delay: 110.855 ms

Loss rate: 0.86%

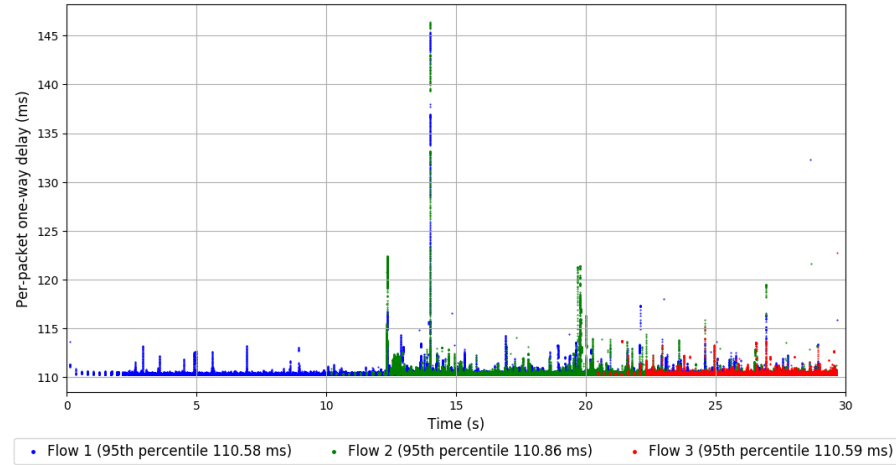
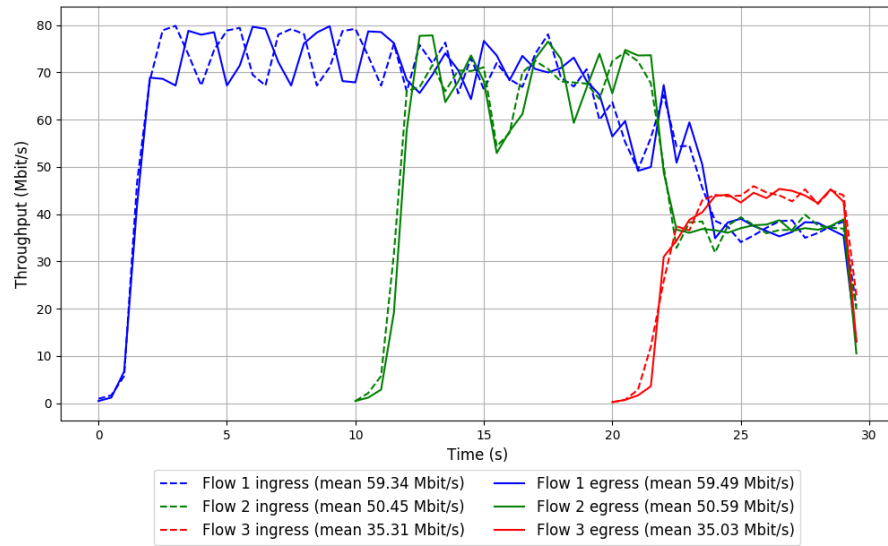
-- Flow 3:

Average throughput: 35.03 Mbit/s

95th percentile per-packet one-way delay: 110.591 ms

Loss rate: 3.02%

## Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-09-07 23:10:48

End at: 2017-09-07 23:11:18

# Below is generated by plot.py at 2017-09-08 03:25:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.04 Mbit/s

95th percentile per-packet one-way delay: 110.613 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 48.92 Mbit/s

95th percentile per-packet one-way delay: 110.627 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 48.25 Mbit/s

95th percentile per-packet one-way delay: 110.555 ms

Loss rate: 0.76%

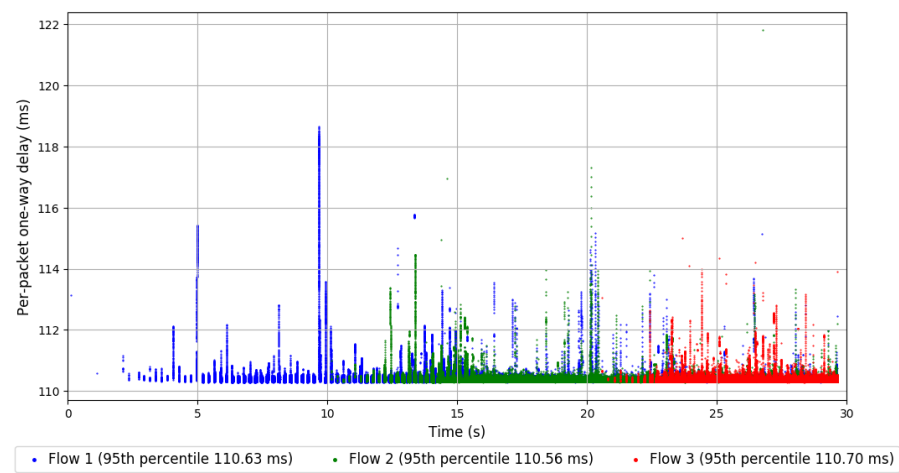
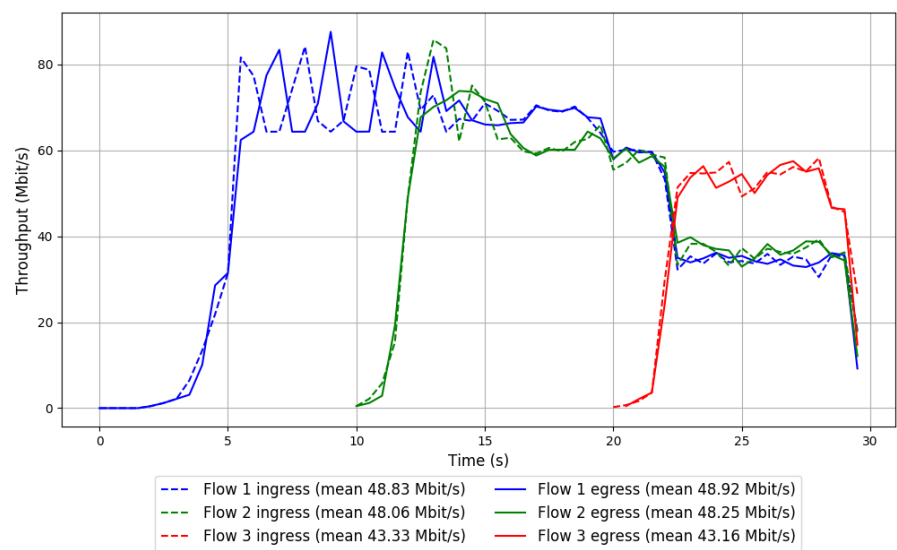
-- Flow 3:

Average throughput: 43.16 Mbit/s

95th percentile per-packet one-way delay: 110.696 ms

Loss rate: 2.79%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-09-07 23:24:29

End at: 2017-09-07 23:24:59

# Below is generated by plot.py at 2017-09-08 03:25:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.62 Mbit/s

95th percentile per-packet one-way delay: 110.603 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 38.05 Mbit/s

95th percentile per-packet one-way delay: 110.607 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 53.00 Mbit/s

95th percentile per-packet one-way delay: 110.631 ms

Loss rate: 0.82%

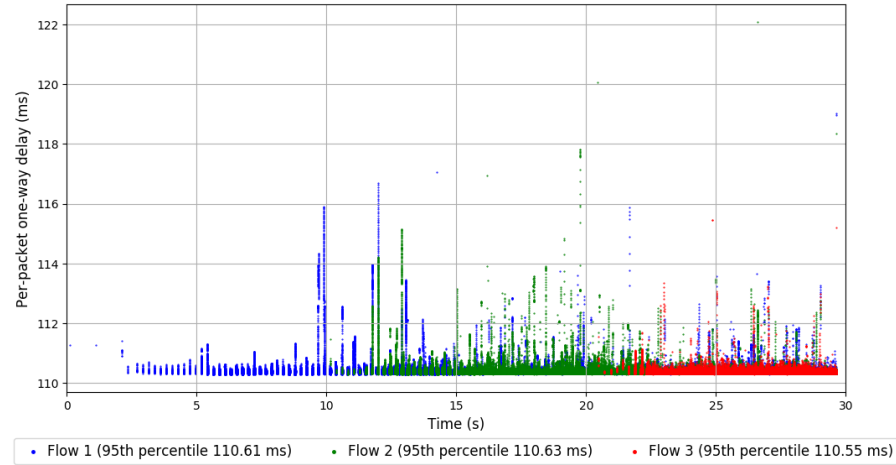
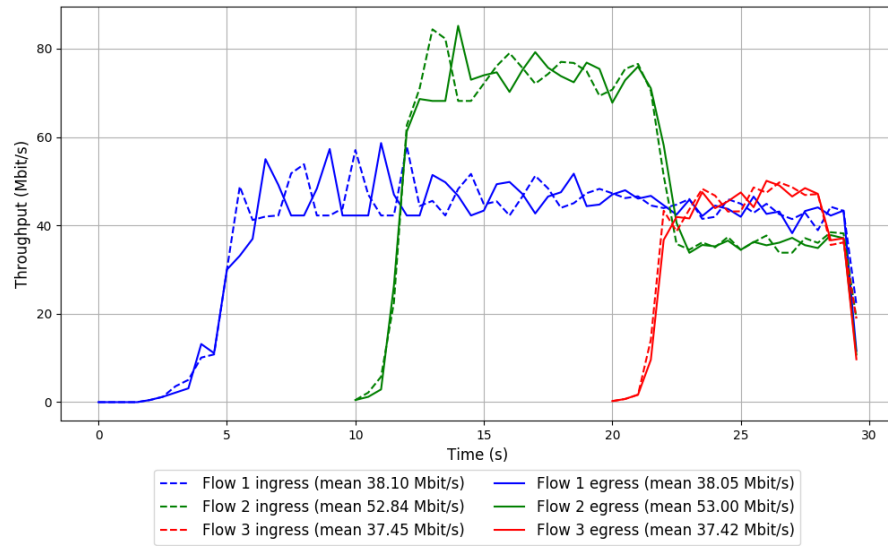
-- Flow 3:

Average throughput: 37.42 Mbit/s

95th percentile per-packet one-way delay: 110.545 ms

Loss rate: 2.44%

## Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-09-07 23:38:01

End at: 2017-09-07 23:38:31

# Below is generated by plot.py at 2017-09-08 03:26:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.73 Mbit/s

95th percentile per-packet one-way delay: 109.554 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 39.76 Mbit/s

95th percentile per-packet one-way delay: 109.540 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 53.48 Mbit/s

95th percentile per-packet one-way delay: 109.606 ms

Loss rate: 0.78%

-- Flow 3:

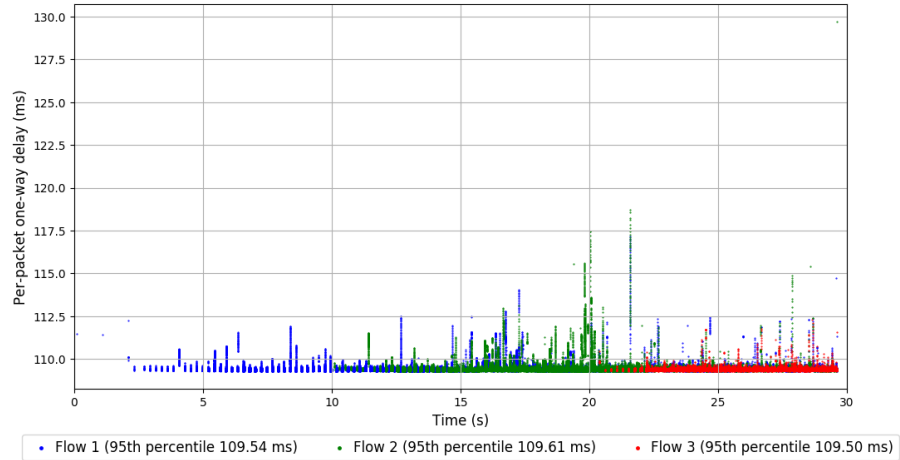
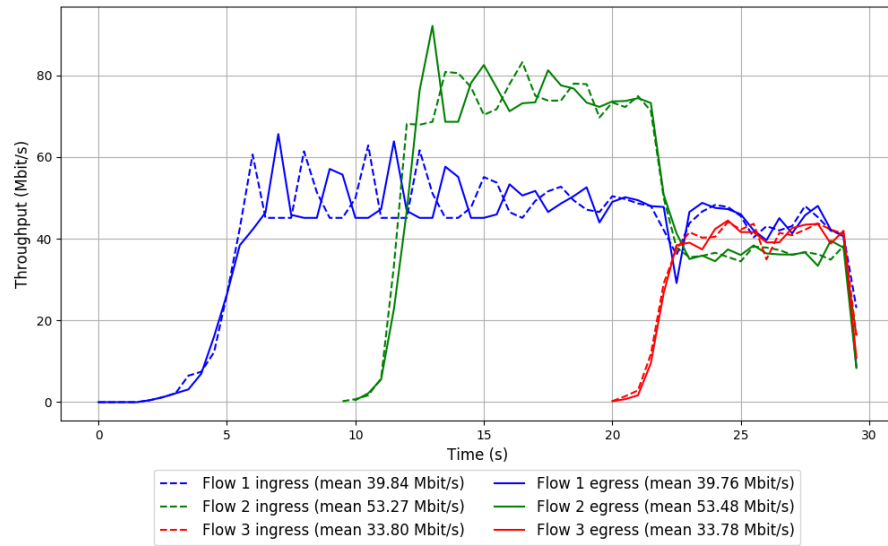
Average throughput: 33.78 Mbit/s

95th percentile per-packet one-way delay: 109.499 ms

Loss rate: 2.32%



## Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-09-07 23:51:38

End at: 2017-09-07 23:52:08

# Below is generated by plot.py at 2017-09-08 03:26:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.41 Mbit/s

95th percentile per-packet one-way delay: 109.584 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 40.07 Mbit/s

95th percentile per-packet one-way delay: 109.581 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 52.71 Mbit/s

95th percentile per-packet one-way delay: 109.588 ms

Loss rate: 0.65%

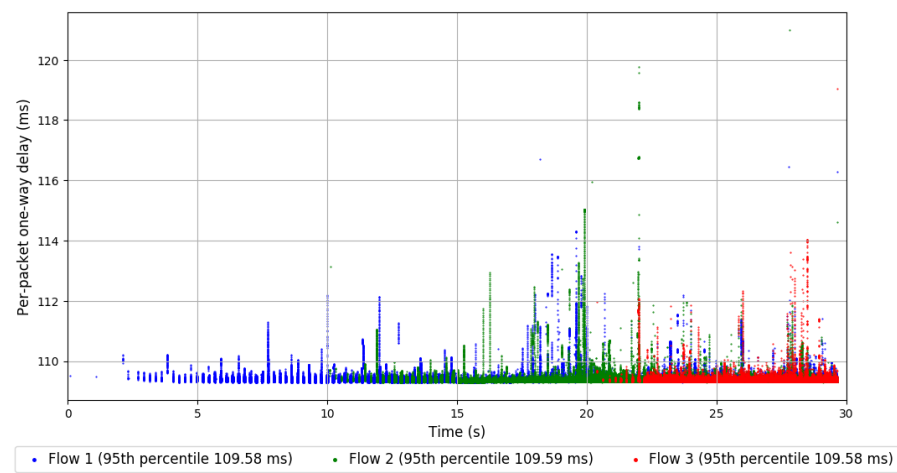
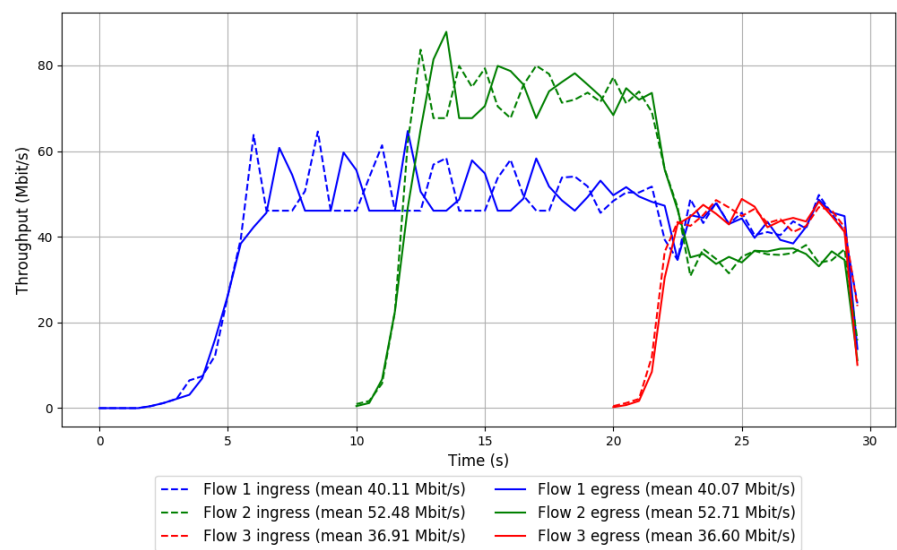
-- Flow 3:

Average throughput: 36.60 Mbit/s

95th percentile per-packet one-way delay: 109.580 ms

Loss rate: 3.05%

Run 10: Report of Indigo — Data Link

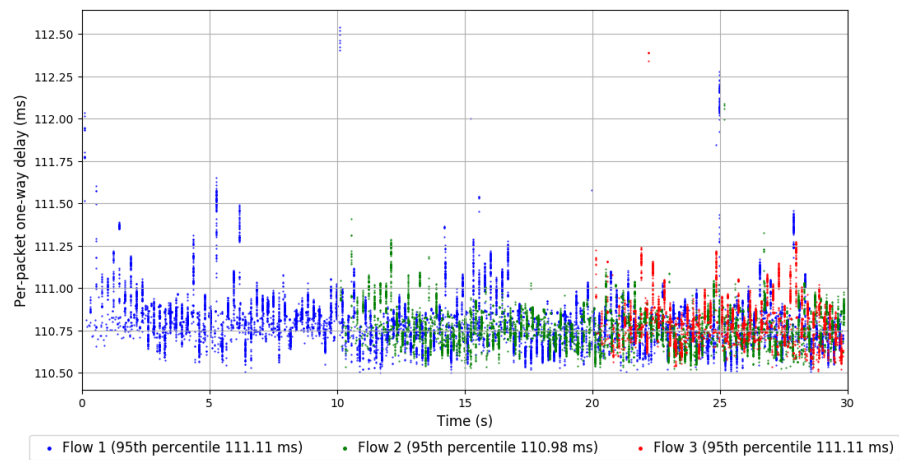
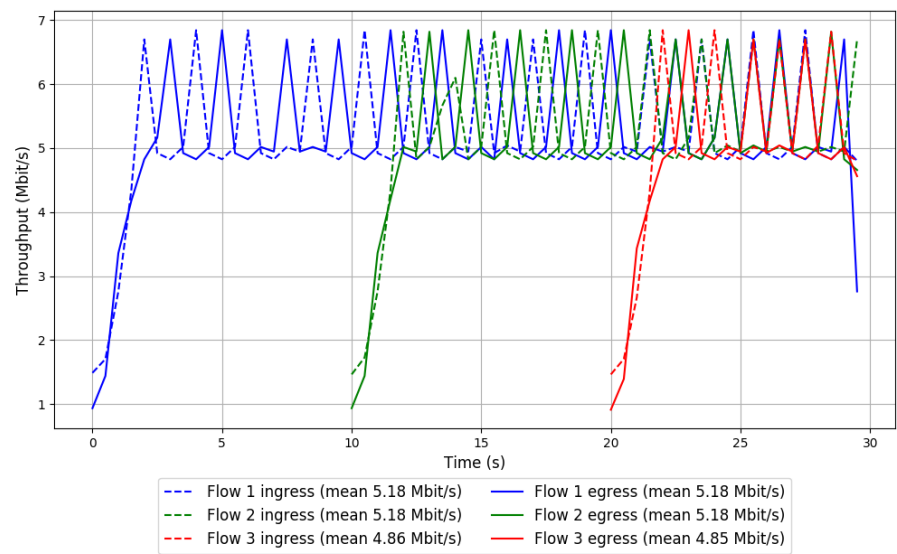


```
Run 1: Statistics of KohoCC

Start at: 2017-09-07 21:51:56
End at: 2017-09-07 21:52:26

# Below is generated by plot.py at 2017-09-08 03:26:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.19 Mbit/s
95th percentile per-packet one-way delay: 111.068 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 111.109 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 110.977 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 111.111 ms
Loss rate: 2.49%
```

Run 1: Report of KohoCC — Data Link

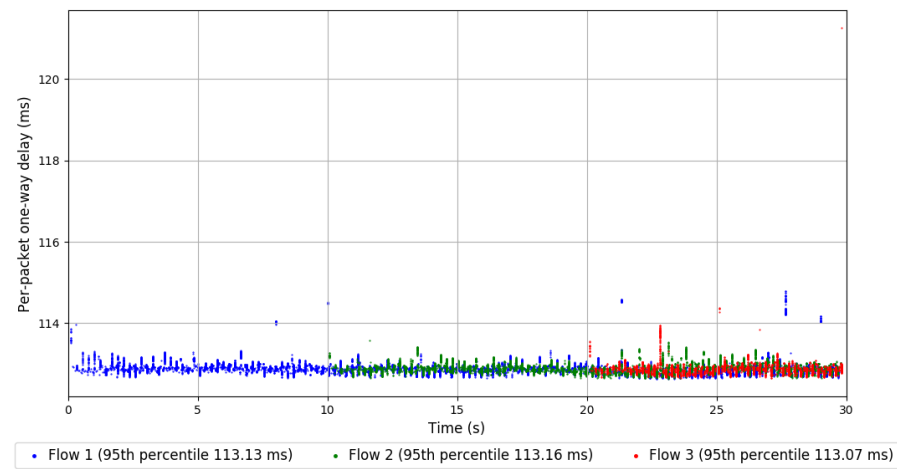
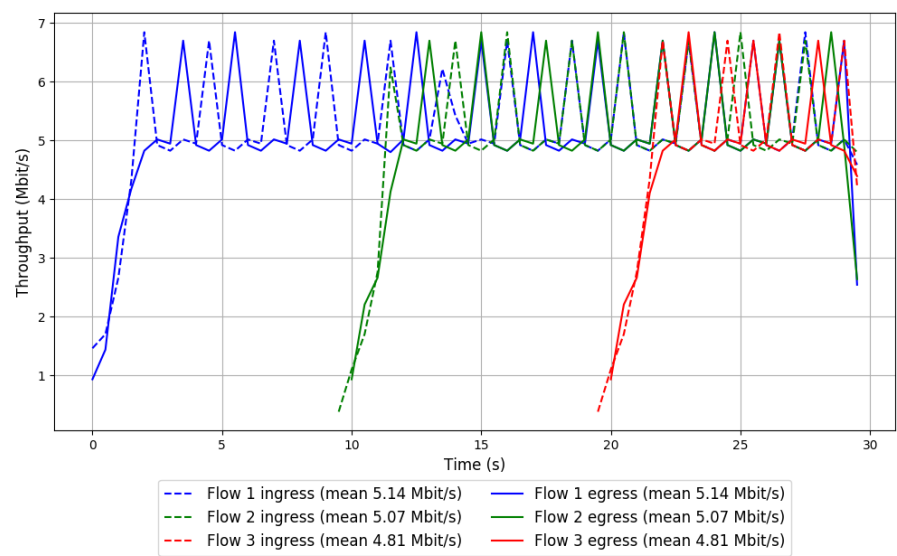


```
Run 2: Statistics of KohoCC

Start at: 2017-09-07 22:05:20
End at: 2017-09-07 22:05:50

# Below is generated by plot.py at 2017-09-08 03:26:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.07 Mbit/s
95th percentile per-packet one-way delay: 113.133 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 5.14 Mbit/s
95th percentile per-packet one-way delay: 113.127 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 5.07 Mbit/s
95th percentile per-packet one-way delay: 113.161 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 4.81 Mbit/s
95th percentile per-packet one-way delay: 113.070 ms
Loss rate: 2.18%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-09-07 22:19:00

End at: 2017-09-07 22:19:30

# Below is generated by plot.py at 2017-09-08 03:26:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.06 Mbit/s

95th percentile per-packet one-way delay: 113.349 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 5.14 Mbit/s

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

Loss rate: 0.78%

-- Flow 2:

Average throughput: 5.05 Mbit/s

95th percentile per-packet one-way delay: 113.299 ms

Loss rate: 1.18%

-- Flow 3:

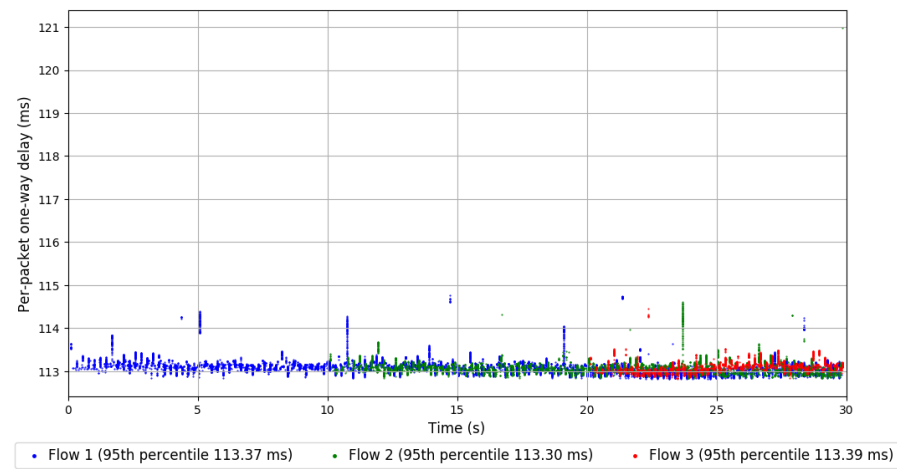
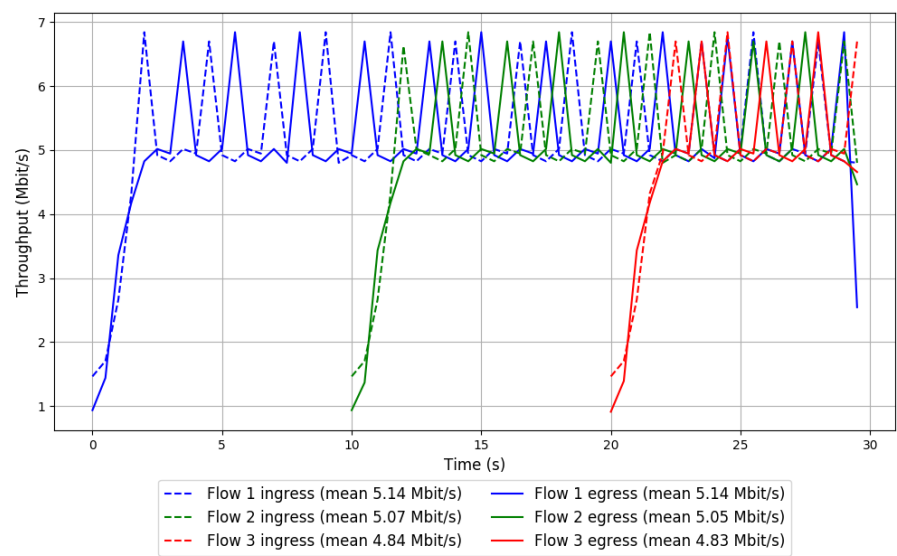
Average throughput: 4.83 Mbit/s

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

Loss rate: 2.50%



Run 3: Report of KohoCC — Data Link

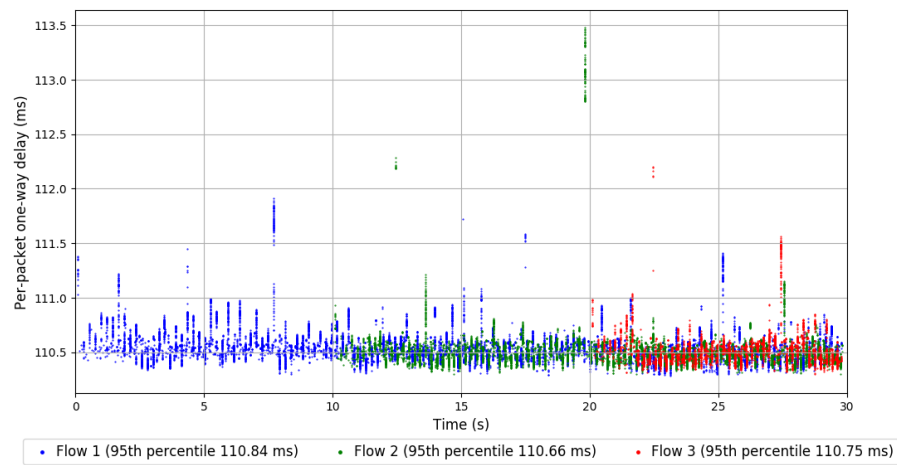
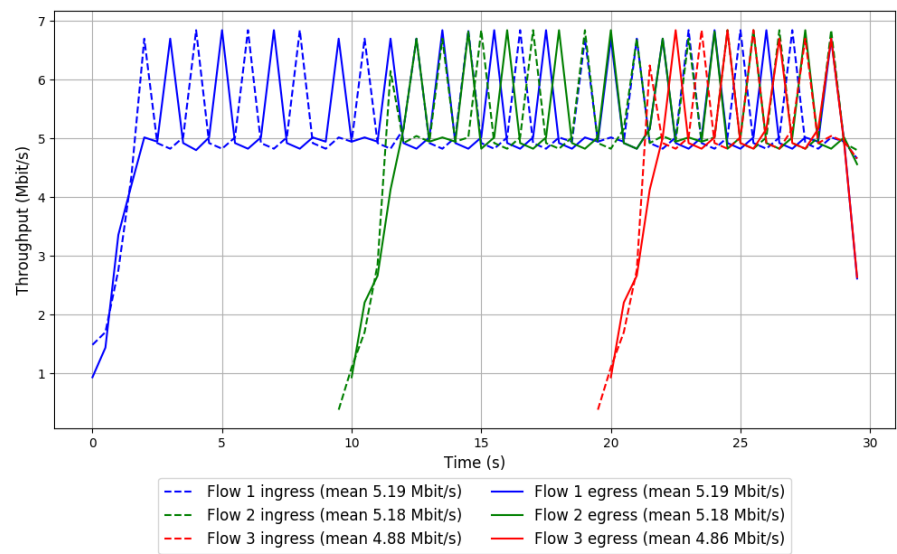


```
Run 4: Statistics of KohoCC

Start at: 2017-09-07 22:32:30
End at: 2017-09-07 22:33:00

# Below is generated by plot.py at 2017-09-08 03:26:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.21 Mbit/s
95th percentile per-packet one-way delay: 110.794 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 5.19 Mbit/s
95th percentile per-packet one-way delay: 110.840 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 110.658 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 110.755 ms
Loss rate: 2.49%
```

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-09-07 22:45:58

End at: 2017-09-07 22:46:28

# Below is generated by plot.py at 2017-09-08 03:26:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.23 Mbit/s

95th percentile per-packet one-way delay: 110.884 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 5.26 Mbit/s

95th percentile per-packet one-way delay: 110.893 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 5.12 Mbit/s

95th percentile per-packet one-way delay: 110.929 ms

Loss rate: 1.17%

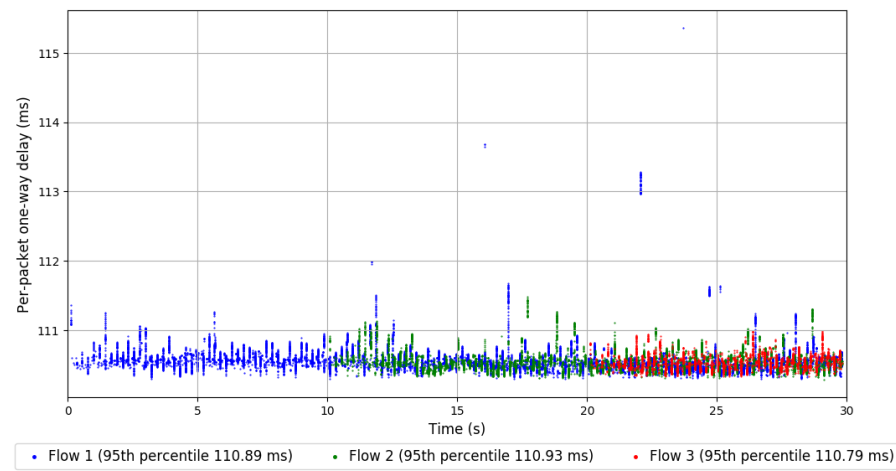
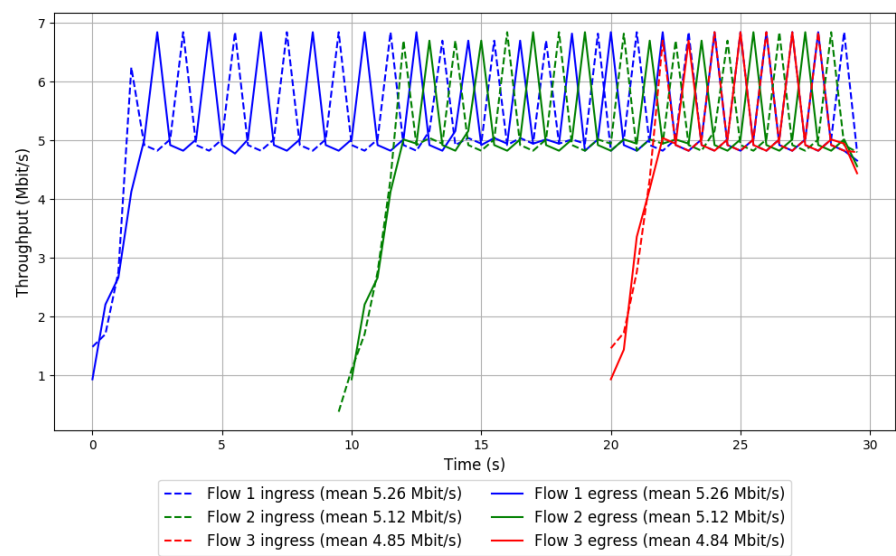
-- Flow 3:

Average throughput: 4.84 Mbit/s

95th percentile per-packet one-way delay: 110.793 ms

Loss rate: 2.49%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-09-07 22:59:15

End at: 2017-09-07 22:59:45

# Below is generated by plot.py at 2017-09-08 03:26:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.16 Mbit/s

95th percentile per-packet one-way delay: 110.890 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 5.18 Mbit/s

95th percentile per-packet one-way delay: 110.830 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 5.12 Mbit/s

95th percentile per-packet one-way delay: 110.878 ms

Loss rate: 1.17%

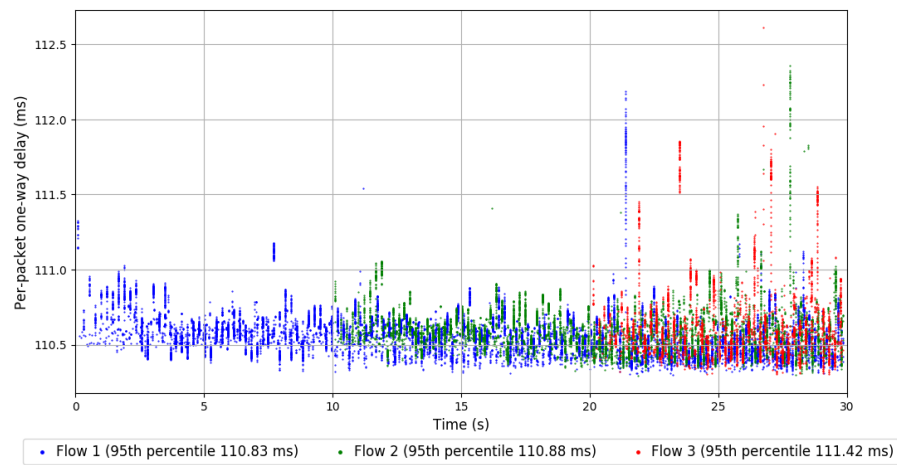
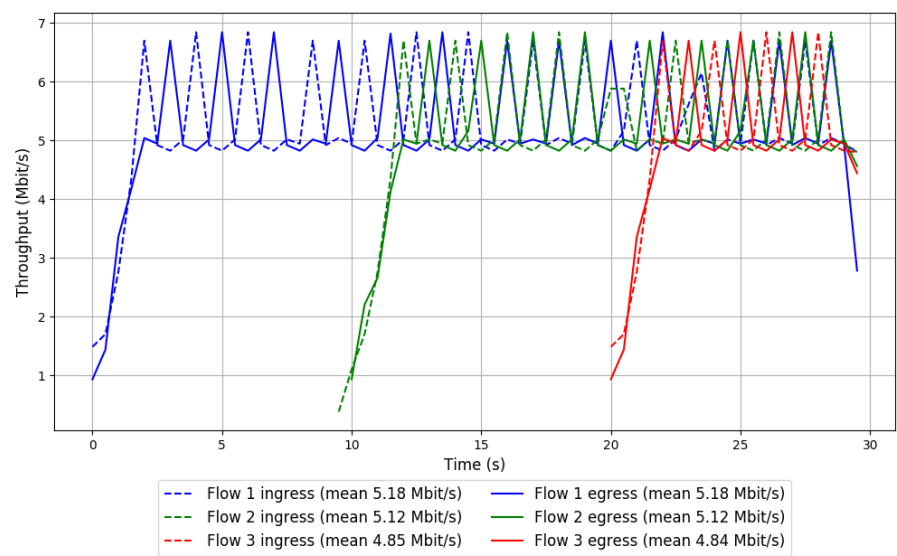
-- Flow 3:

Average throughput: 4.84 Mbit/s

95th percentile per-packet one-way delay: 111.420 ms

Loss rate: 2.49%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-09-07 23:12:41

End at: 2017-09-07 23:13:11

# Below is generated by plot.py at 2017-09-08 03:26:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.20 Mbit/s

95th percentile per-packet one-way delay: 110.712 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 5.18 Mbit/s

95th percentile per-packet one-way delay: 110.701 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 5.18 Mbit/s

95th percentile per-packet one-way delay: 110.774 ms

Loss rate: 1.12%

-- Flow 3:

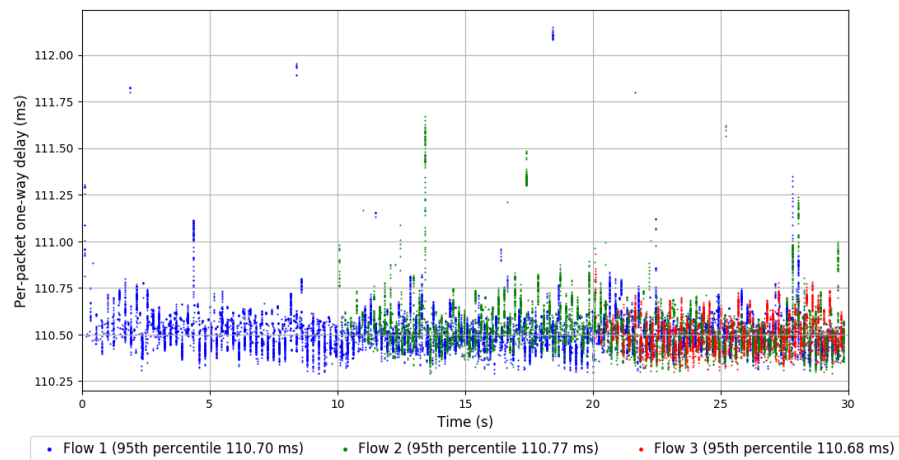
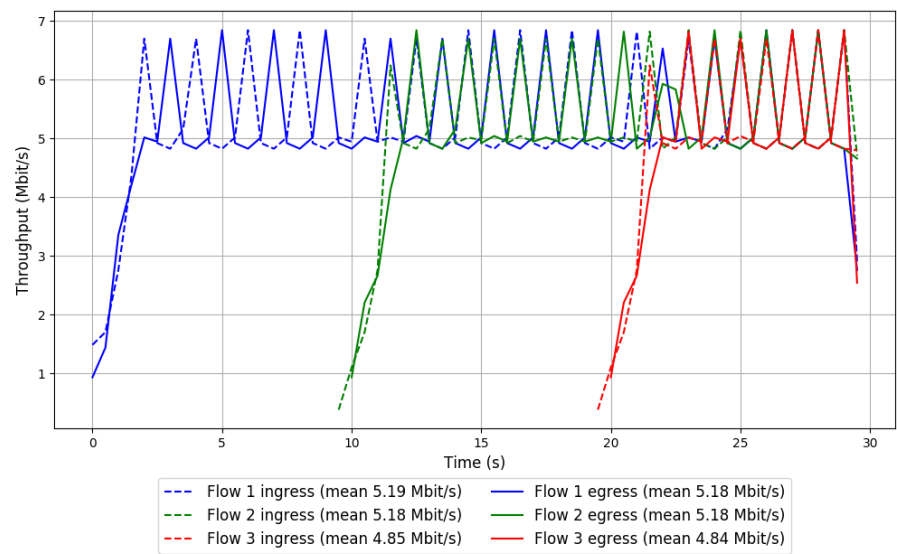
Average throughput: 4.84 Mbit/s

95th percentile per-packet one-way delay: 110.677 ms

Loss rate: 2.49%



Run 7: Report of KohoCC — Data Link

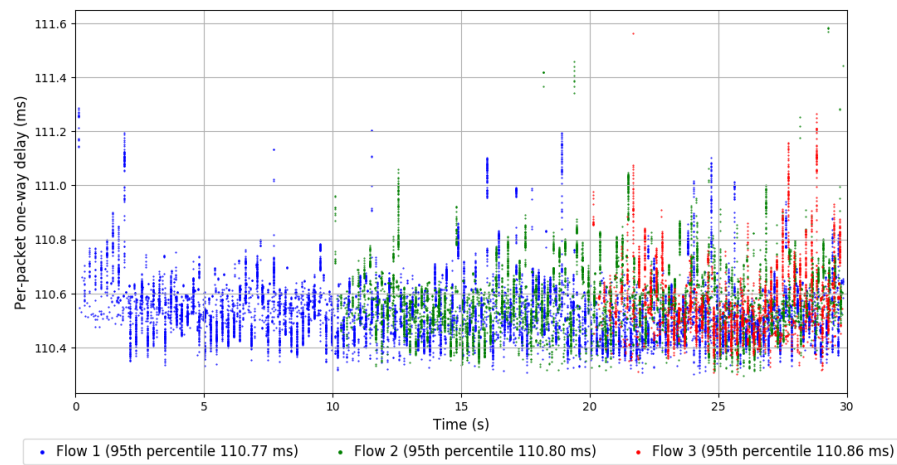
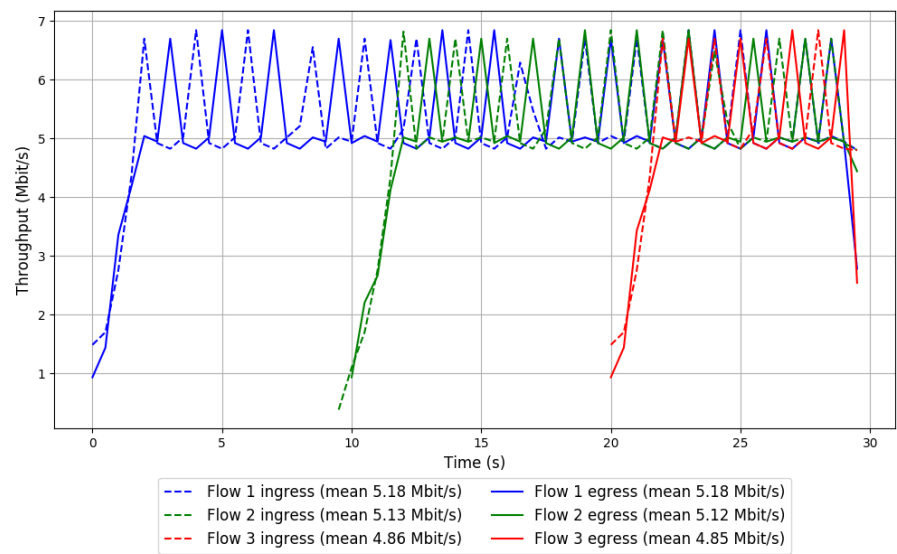


```
Run 8: Statistics of KohoCC

Start at: 2017-09-07 23:26:17
End at: 2017-09-07 23:26:47

# Below is generated by plot.py at 2017-09-08 03:26:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.16 Mbit/s
95th percentile per-packet one-way delay: 110.799 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 110.770 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 5.12 Mbit/s
95th percentile per-packet one-way delay: 110.803 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 110.857 ms
Loss rate: 2.49%
```

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-09-07 23:39:50

End at: 2017-09-07 23:40:20

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.32 Mbit/s

95th percentile per-packet one-way delay: 109.813 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 5.30 Mbit/s

95th percentile per-packet one-way delay: 109.797 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 5.18 Mbit/s

95th percentile per-packet one-way delay: 109.795 ms

Loss rate: 1.16%

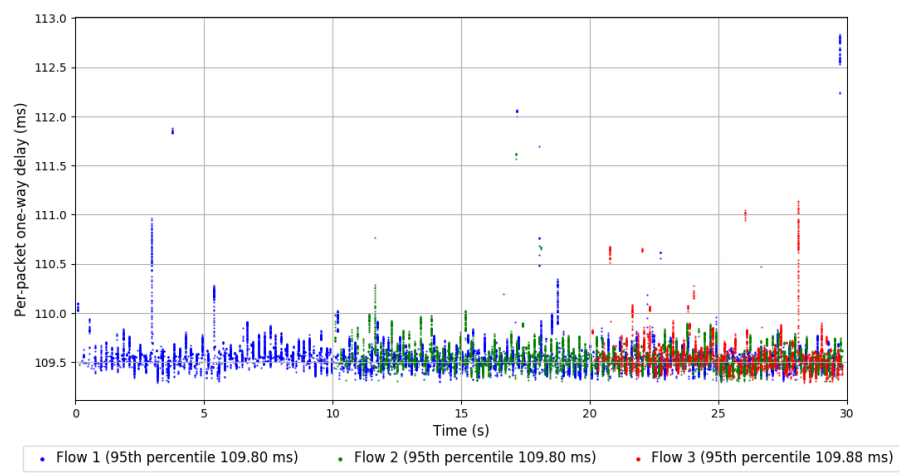
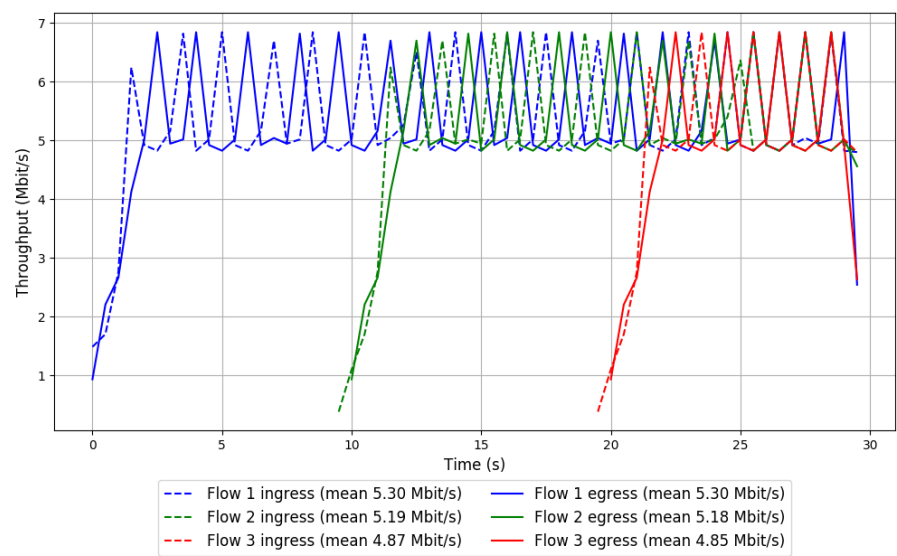
-- Flow 3:

Average throughput: 4.85 Mbit/s

95th percentile per-packet one-way delay: 109.882 ms

Loss rate: 2.49%

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-09-07 23:53:31

End at: 2017-09-07 23:54:01

# Below is generated by plot.py at 2017-09-08 03:26:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.20 Mbit/s

95th percentile per-packet one-way delay: 109.825 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 5.22 Mbit/s

95th percentile per-packet one-way delay: 109.725 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 5.12 Mbit/s

95th percentile per-packet one-way delay: 109.797 ms

Loss rate: 1.17%

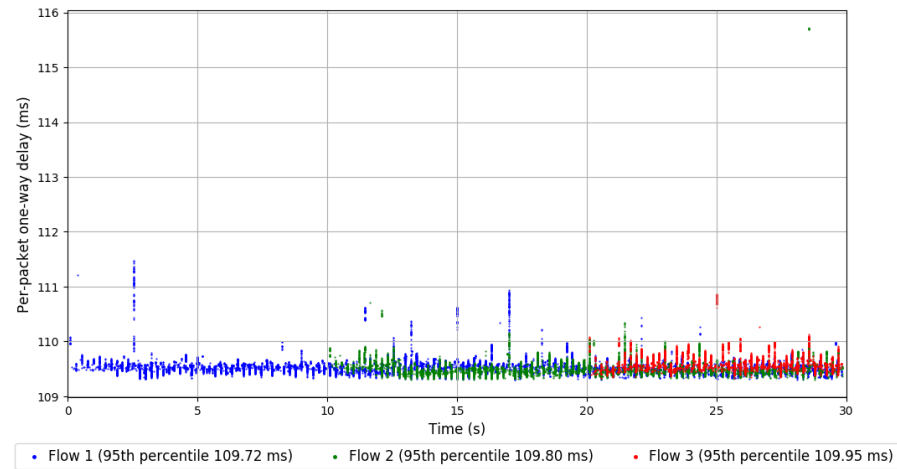
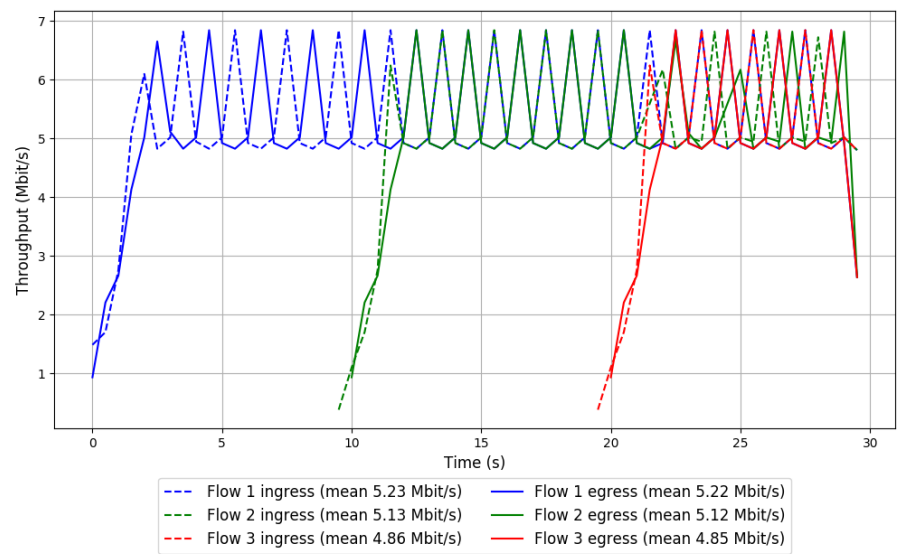
-- Flow 3:

Average throughput: 4.85 Mbit/s

95th percentile per-packet one-way delay: 109.951 ms

Loss rate: 2.49%

Run 10: Report of KohoCC — Data Link



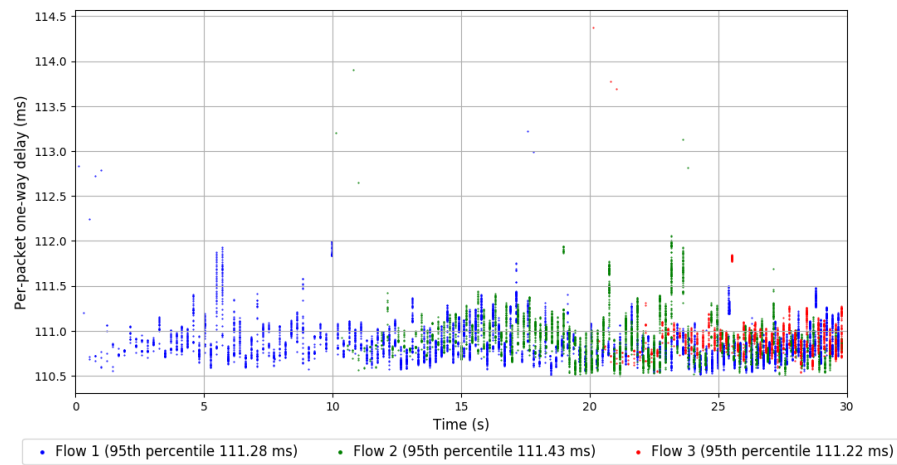
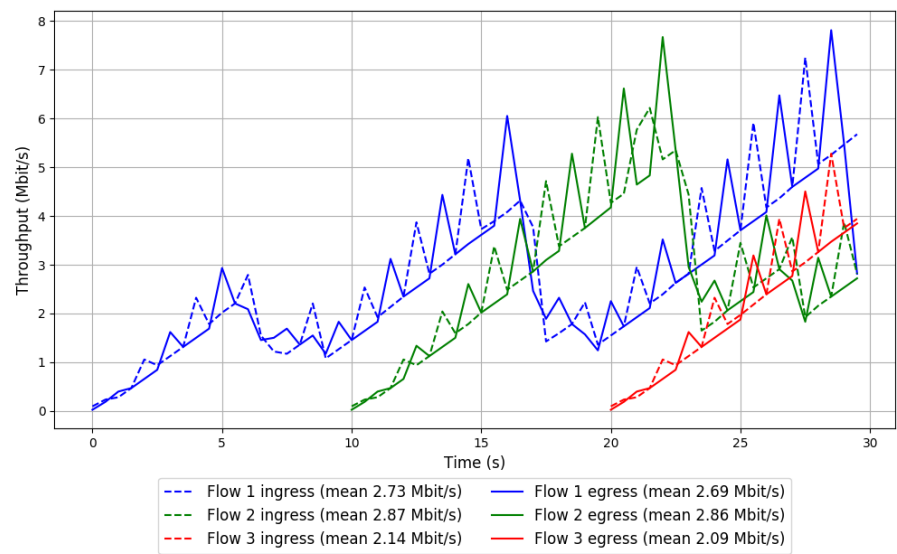
```
Run 1: Statistics of LEDBAT

Start at: 2017-09-07 21:54:40
End at: 2017-09-07 21:55:10

# Below is generated by plot.py at 2017-09-08 03:26:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.26 Mbit/s
95th percentile per-packet one-way delay: 111.309 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 111.277 ms
Loss rate: 1.88%
-- Flow 2:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 111.427 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 111.218 ms
Loss rate: 4.72%
```



Run 1: Report of LEDBAT — Data Link

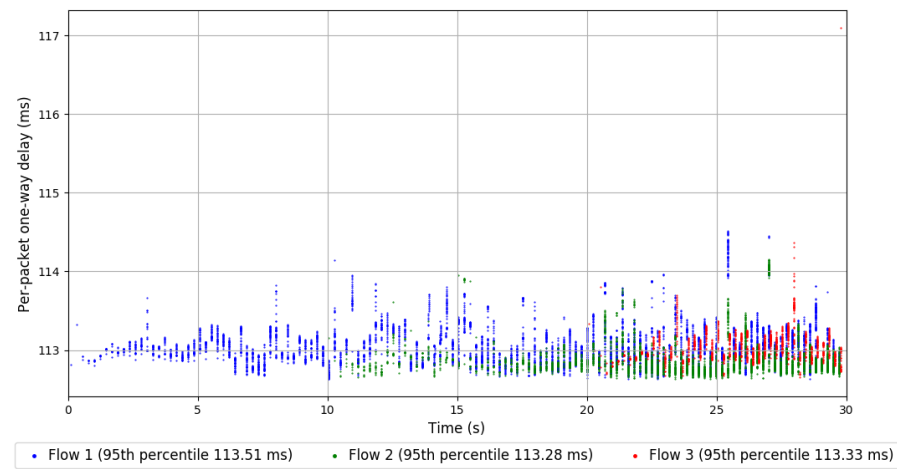
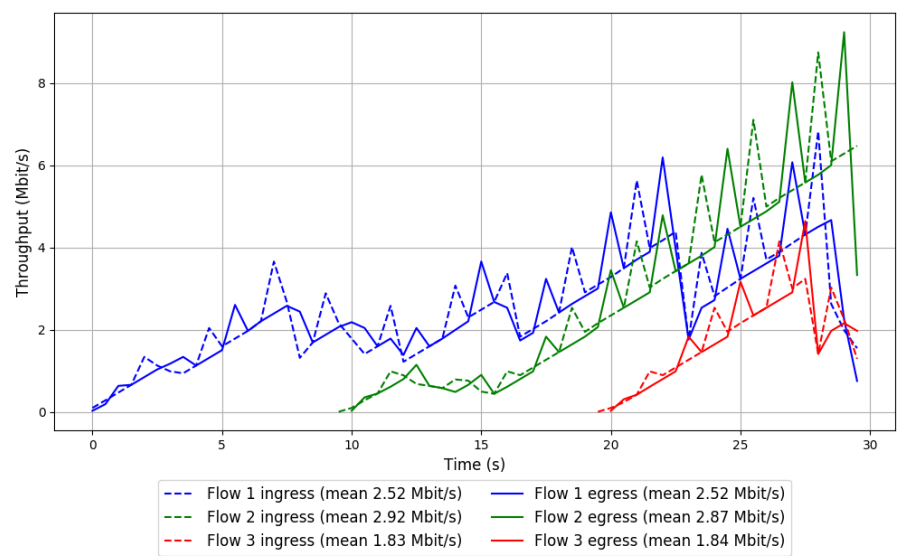


```
Run 2: Statistics of LEDBAT

Start at: 2017-09-07 22:08:11
End at: 2017-09-07 22:08:41

# Below is generated by plot.py at 2017-09-08 03:26:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.02 Mbit/s
95th percentile per-packet one-way delay: 113.421 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 113.512 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 113.275 ms
Loss rate: 2.80%
-- Flow 3:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 113.334 ms
Loss rate: 1.62%
```

Run 2: Report of LEDBAT — Data Link

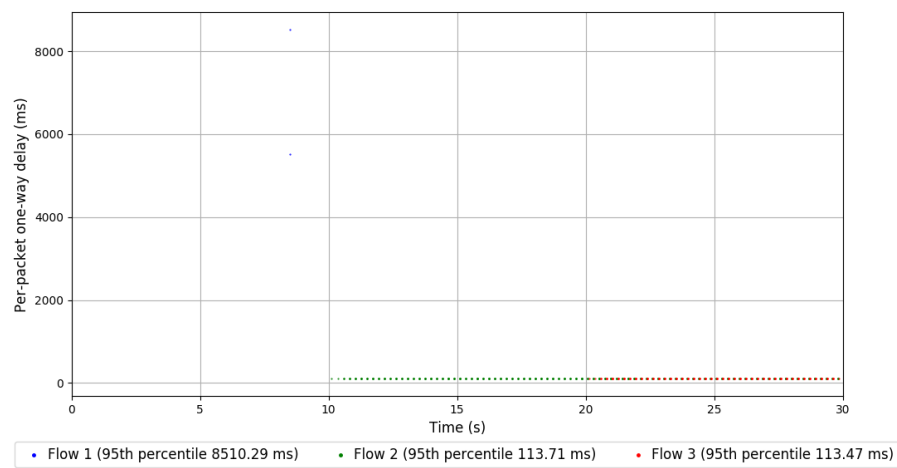
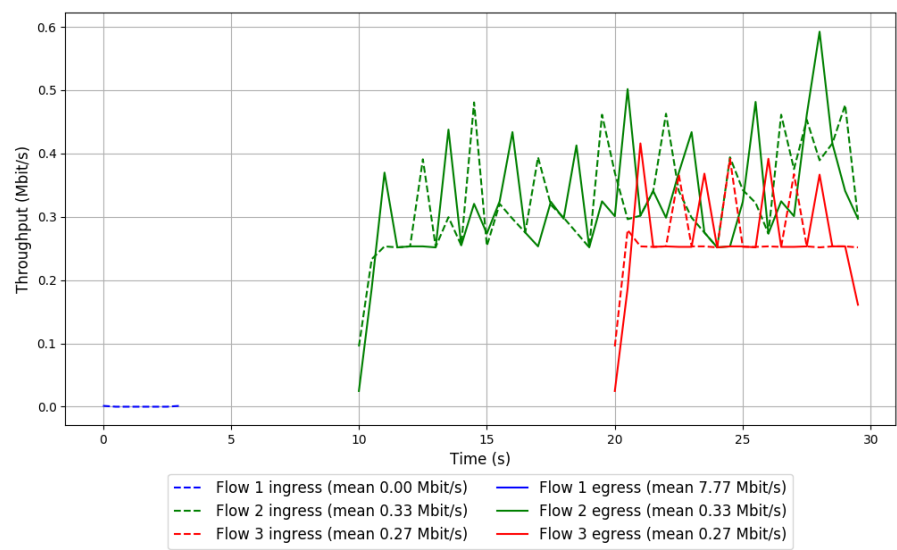


Run 3: Statistics of LEDBAT

Start at: 2017-09-07 22:21:47

End at: 2017-09-07 22:22:17

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-09-07 22:35:20

End at: 2017-09-07 22:35:50

# Below is generated by plot.py at 2017-09-08 03:26:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.29 Mbit/s

95th percentile per-packet one-way delay: 111.198 ms

Loss rate: 2.05%

-- Flow 1:

Average throughput: 4.79 Mbit/s

95th percentile per-packet one-way delay: 111.054 ms

Loss rate: 1.53%

-- Flow 2:

Average throughput: 4.55 Mbit/s

95th percentile per-packet one-way delay: 111.865 ms

Loss rate: 2.30%

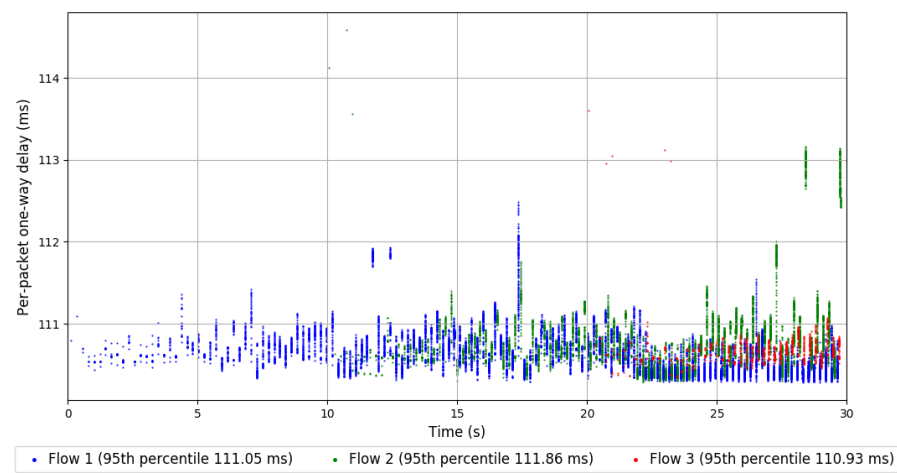
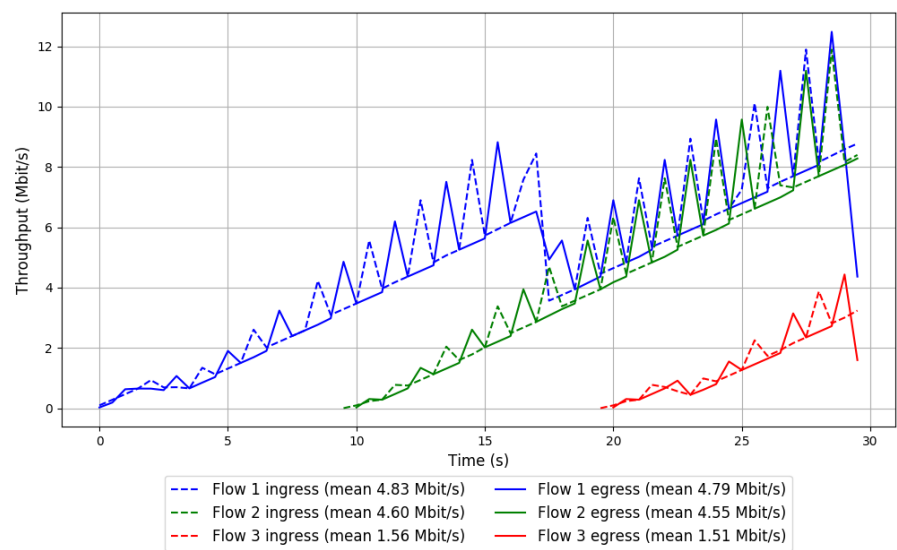
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 110.928 ms

Loss rate: 5.36%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-09-07 22:48:46

End at: 2017-09-07 22:49:16

# Below is generated by plot.py at 2017-09-08 03:26:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 111.035 ms

Loss rate: 2.58%

-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 111.203 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 1.84 Mbit/s

95th percentile per-packet one-way delay: 110.992 ms

Loss rate: 2.71%

-- Flow 3:

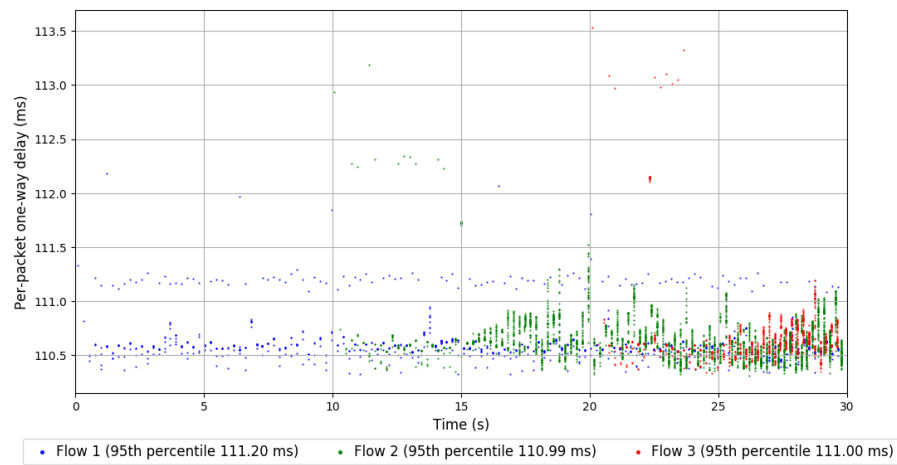
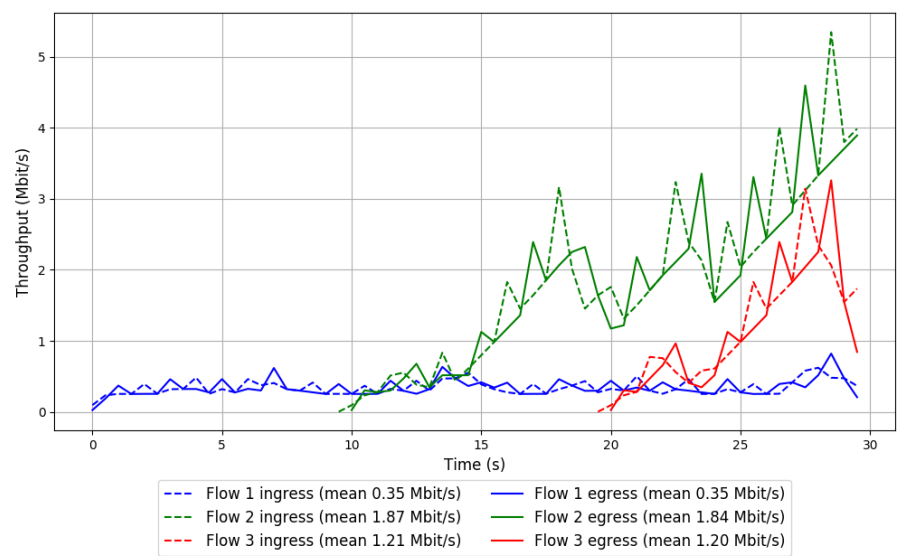
Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 111.002 ms

Loss rate: 3.77%



Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-09-07 23:02:06

End at: 2017-09-07 23:02:36

# Below is generated by plot.py at 2017-09-08 03:26:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.22 Mbit/s

95th percentile per-packet one-way delay: 111.090 ms

Loss rate: 2.54%

-- Flow 1:

Average throughput: 2.75 Mbit/s

95th percentile per-packet one-way delay: 111.054 ms

Loss rate: 3.30%

-- Flow 2:

Average throughput: 2.96 Mbit/s

95th percentile per-packet one-way delay: 111.326 ms

Loss rate: 0.82%

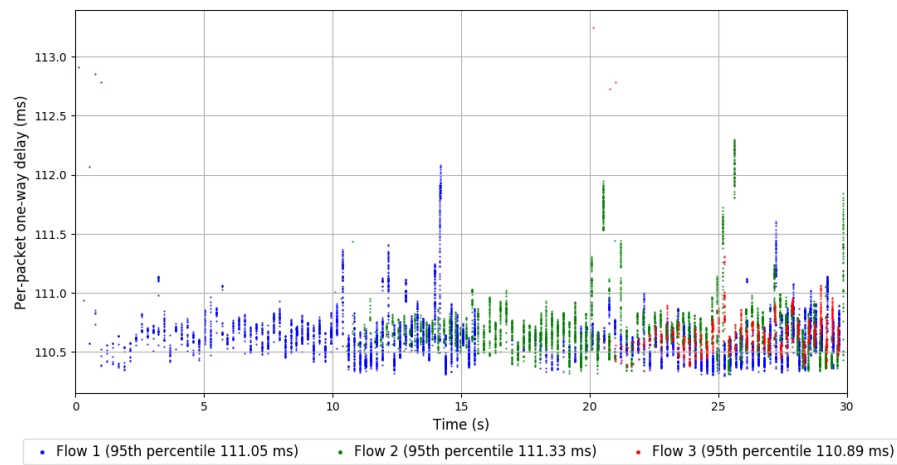
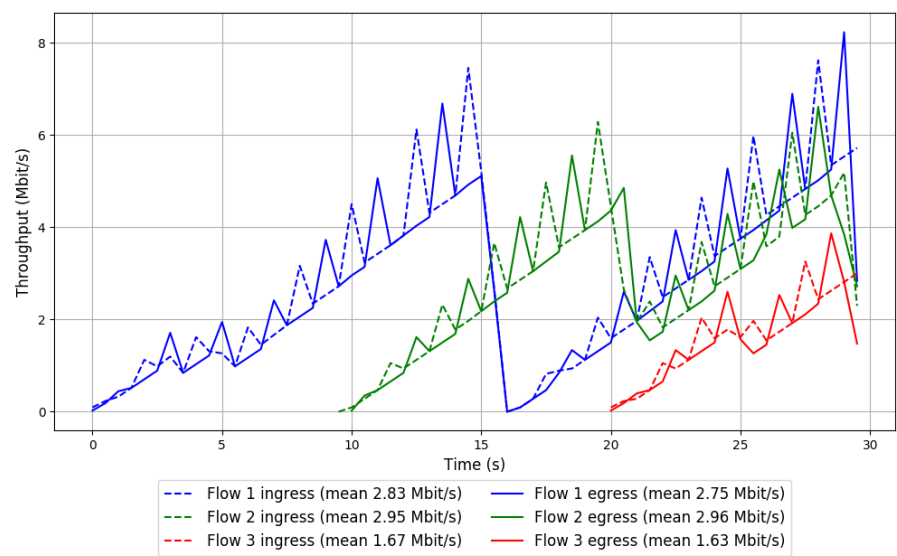
-- Flow 3:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 110.888 ms

Loss rate: 4.83%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-09-07 23:15:32

End at: 2017-09-07 23:16:02

# Below is generated by plot.py at 2017-09-08 03:26:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.64 Mbit/s

95th percentile per-packet one-way delay: 111.123 ms

Loss rate: 2.41%

-- Flow 1:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 111.083 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 2.84 Mbit/s

95th percentile per-packet one-way delay: 111.274 ms

Loss rate: 2.81%

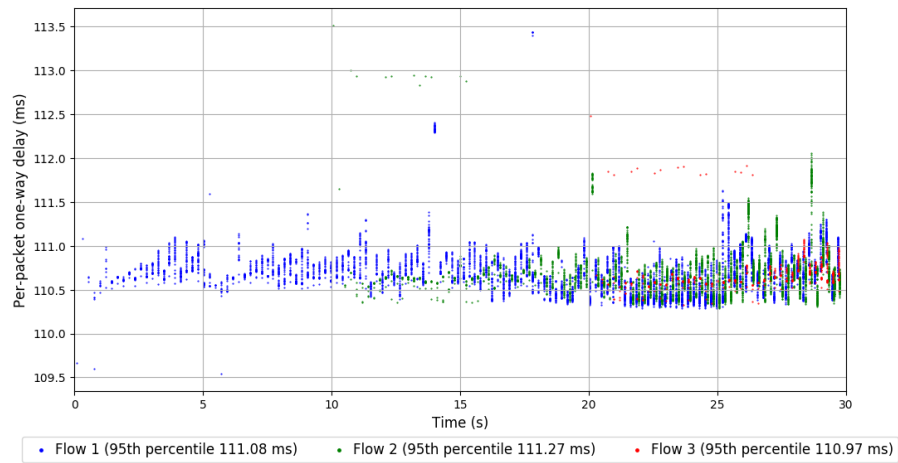
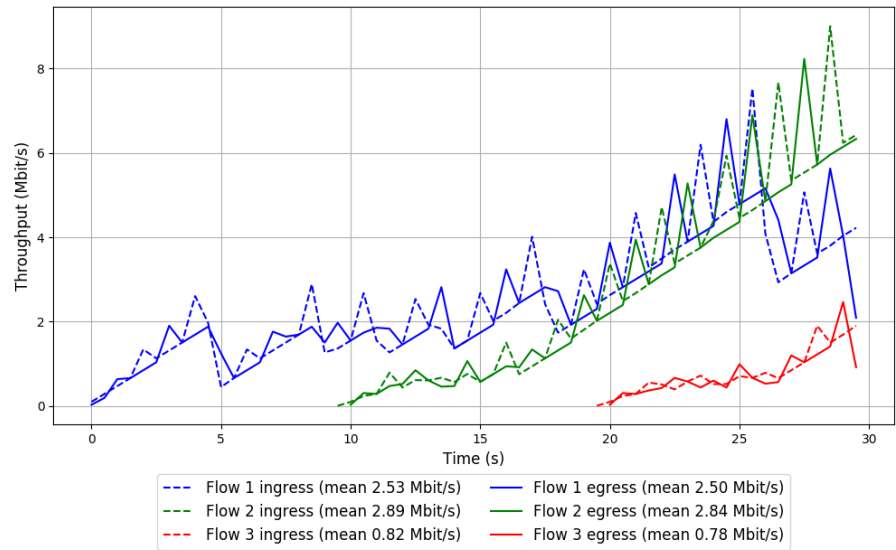
-- Flow 3:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 110.969 ms

Loss rate: 6.14%

## Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-09-07 23:29:07

End at: 2017-09-07 23:29:37

# Below is generated by plot.py at 2017-09-08 03:26:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 111.076 ms

Loss rate: 3.49%

-- Flow 1:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 111.080 ms

Loss rate: 3.21%

-- Flow 2:

Average throughput: 1.03 Mbit/s

95th percentile per-packet one-way delay: 111.228 ms

Loss rate: 2.80%

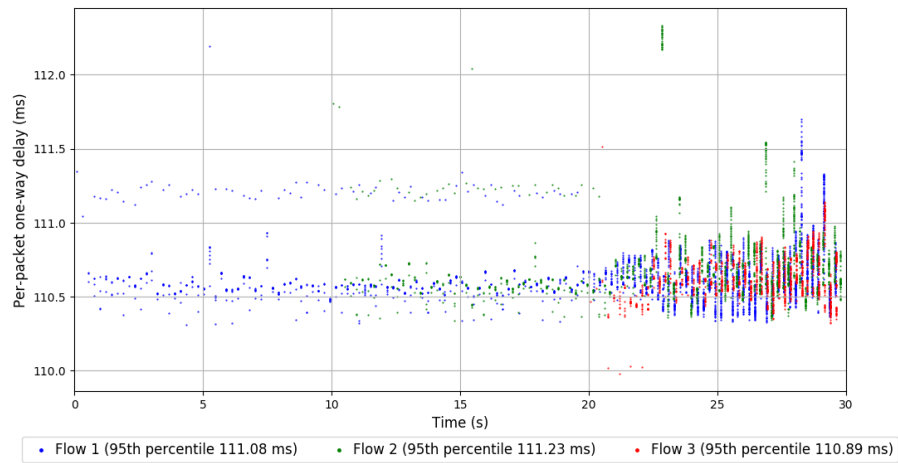
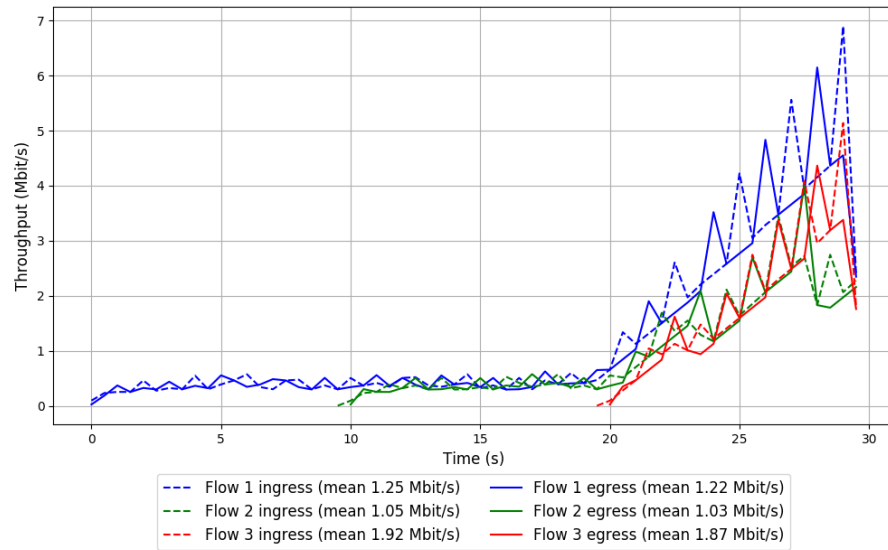
-- Flow 3:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 110.886 ms

Loss rate: 4.82%

## Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-09-07 23:42:42

End at: 2017-09-07 23:43:12

# Below is generated by plot.py at 2017-09-08 03:26:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.46 Mbit/s

95th percentile per-packet one-way delay: 110.085 ms

Loss rate: 2.60%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 110.112 ms

Loss rate: 1.60%

-- Flow 2:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 110.080 ms

Loss rate: 3.03%

-- Flow 3:

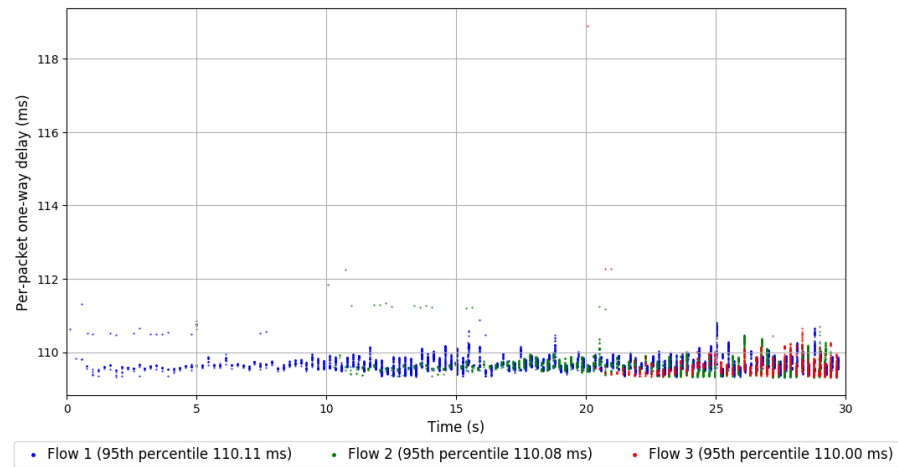
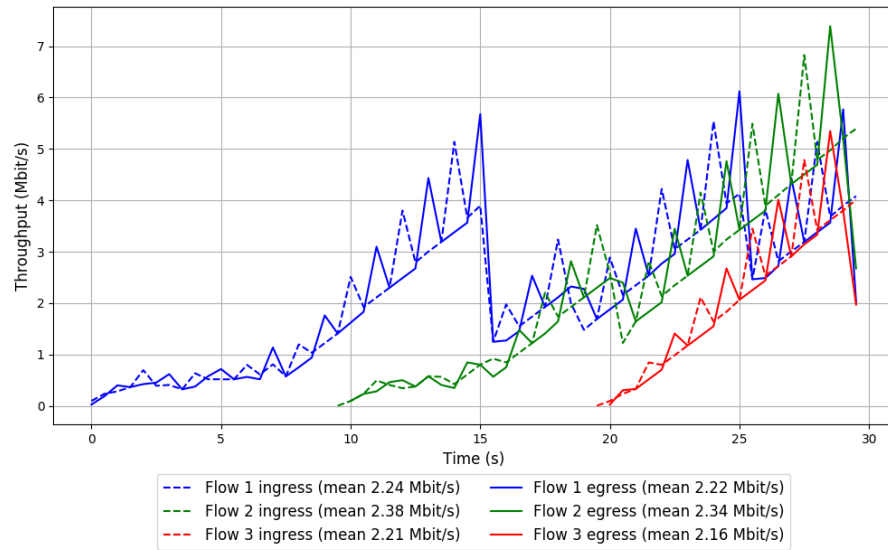
Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 110.005 ms

Loss rate: 4.71%



# Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-09-07 23:56:19

End at: 2017-09-07 23:56:49

# Below is generated by plot.py at 2017-09-08 03:26:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 110.128 ms

Loss rate: 1.94%

-- Flow 1:

Average throughput: 7.06 Mbit/s

95th percentile per-packet one-way delay: 110.152 ms

Loss rate: 1.52%

-- Flow 2:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 110.020 ms

Loss rate: 4.77%

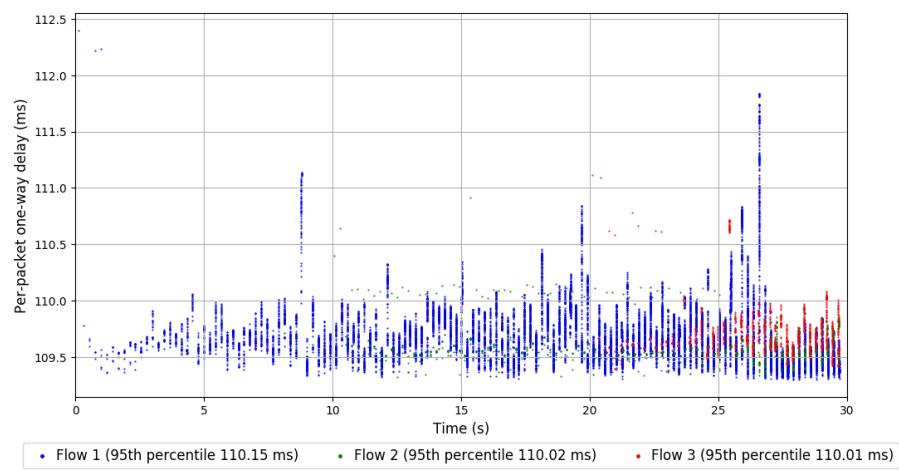
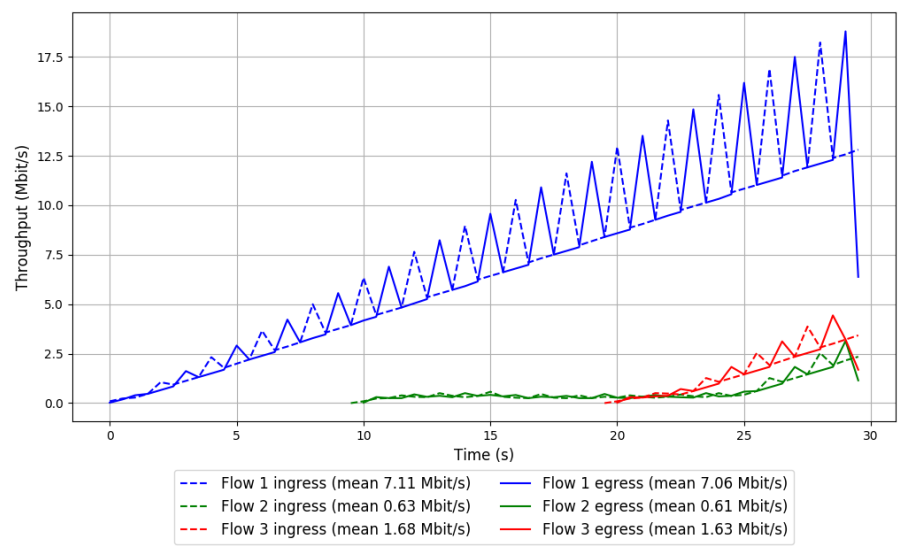
-- Flow 3:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 110.009 ms

Loss rate: 5.26%

Run 10: Report of LEDBAT — Data Link

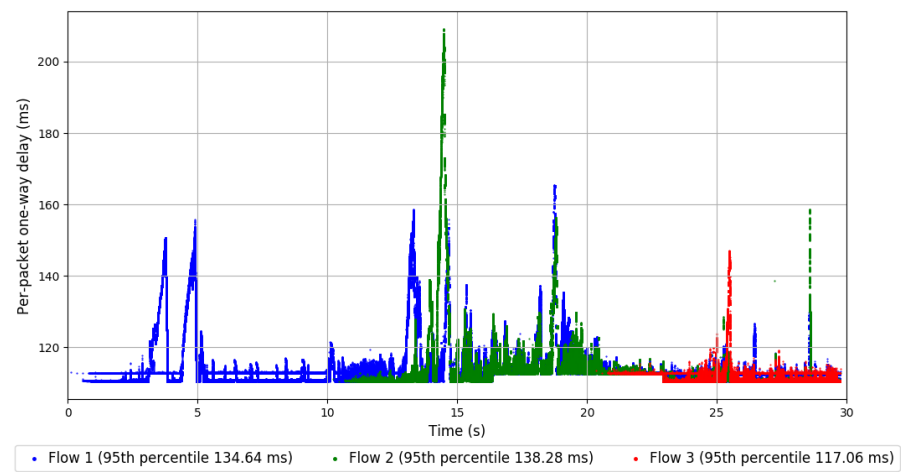
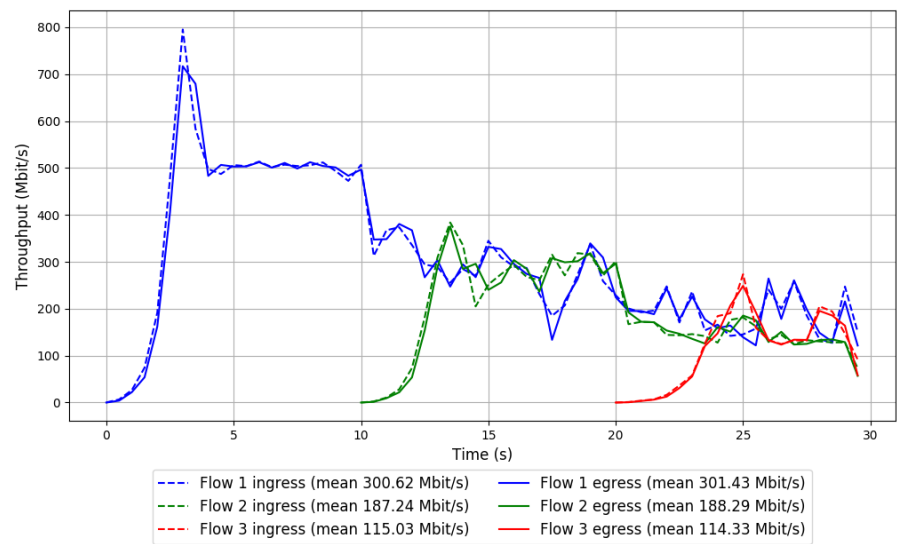


```
Run 1: Statistics of PCC

Start at: 2017-09-07 21:53:32
End at: 2017-09-07 21:54:02

# Below is generated by plot.py at 2017-09-08 03:28:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 461.84 Mbit/s
95th percentile per-packet one-way delay: 134.654 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 301.43 Mbit/s
95th percentile per-packet one-way delay: 134.643 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 188.29 Mbit/s
95th percentile per-packet one-way delay: 138.281 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 114.33 Mbit/s
95th percentile per-packet one-way delay: 117.058 ms
Loss rate: 2.88%
```

Run 1: Report of PCC — Data Link

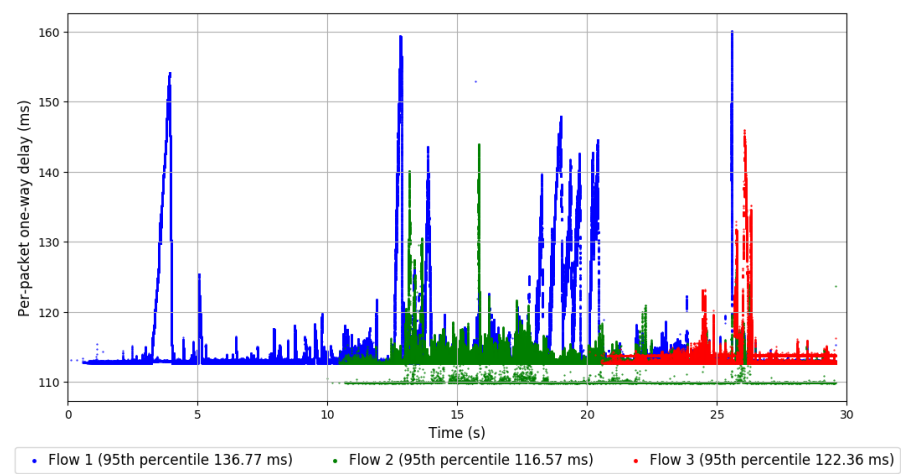
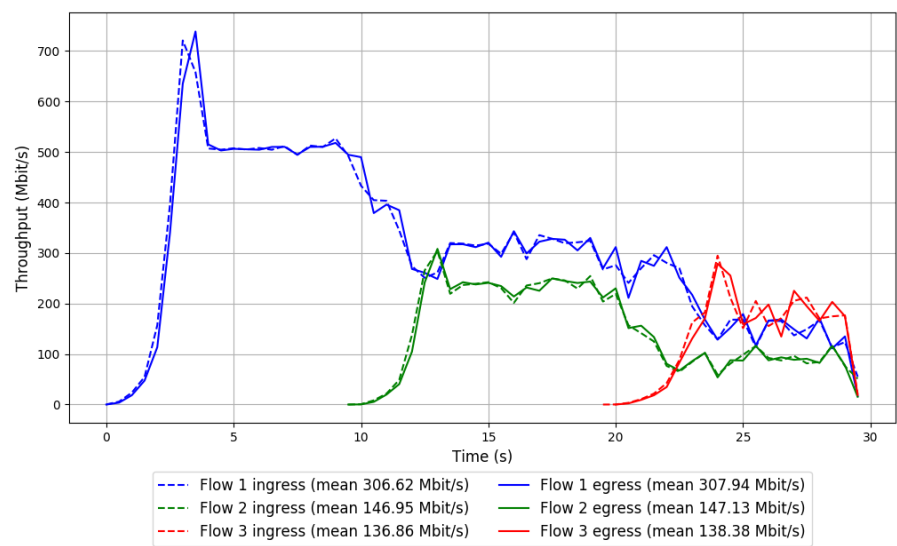


```
Run 2: Statistics of PCC

Start at: 2017-09-07 22:07:04
End at: 2017-09-07 22:07:34

# Below is generated by plot.py at 2017-09-08 03:28:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.35 Mbit/s
95th percentile per-packet one-way delay: 132.925 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 307.94 Mbit/s
95th percentile per-packet one-way delay: 136.766 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 147.13 Mbit/s
95th percentile per-packet one-way delay: 116.567 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 138.38 Mbit/s
95th percentile per-packet one-way delay: 122.365 ms
Loss rate: 1.19%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-09-07 22:20:39

End at: 2017-09-07 22:21:09

# Below is generated by plot.py at 2017-09-08 03:29:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 456.69 Mbit/s

95th percentile per-packet one-way delay: 134.968 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 266.85 Mbit/s

95th percentile per-packet one-way delay: 139.258 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 204.21 Mbit/s

95th percentile per-packet one-way delay: 135.029 ms

Loss rate: 0.86%

-- Flow 3:

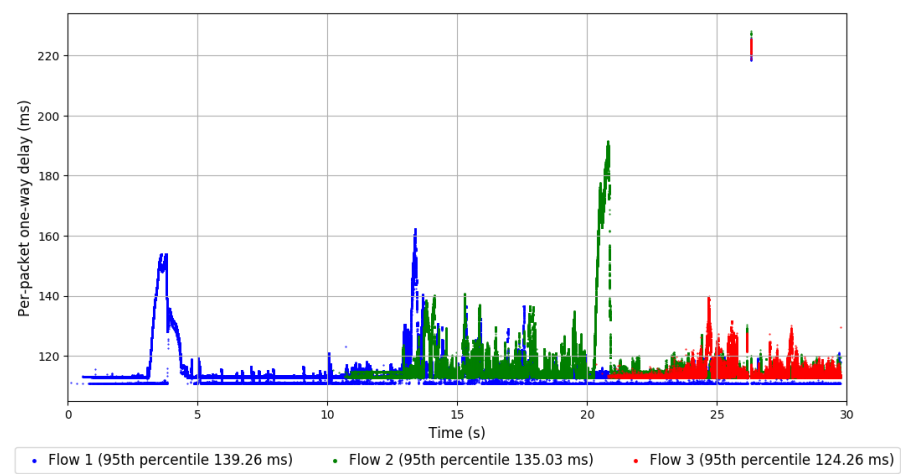
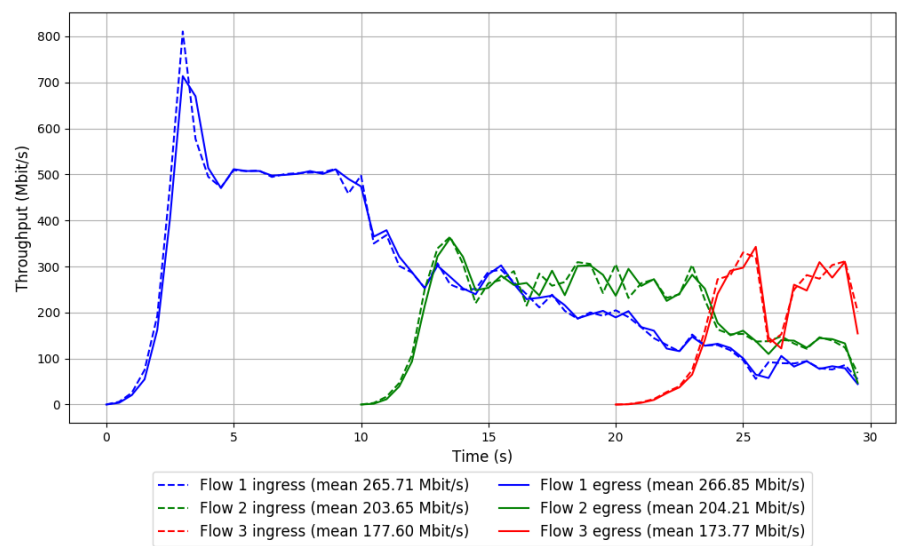
Average throughput: 173.77 Mbit/s

95th percentile per-packet one-way delay: 124.258 ms

Loss rate: 4.38%



Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-09-07 22:34:13

End at: 2017-09-07 22:34:43

# Below is generated by plot.py at 2017-09-08 03:29:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 445.85 Mbit/s

95th percentile per-packet one-way delay: 125.472 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 291.59 Mbit/s

95th percentile per-packet one-way delay: 130.861 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 158.56 Mbit/s

95th percentile per-packet one-way delay: 117.461 ms

Loss rate: 0.63%

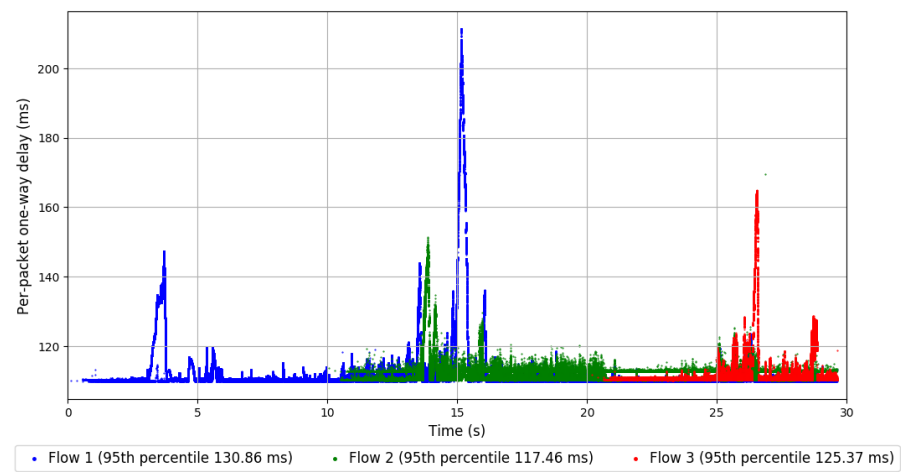
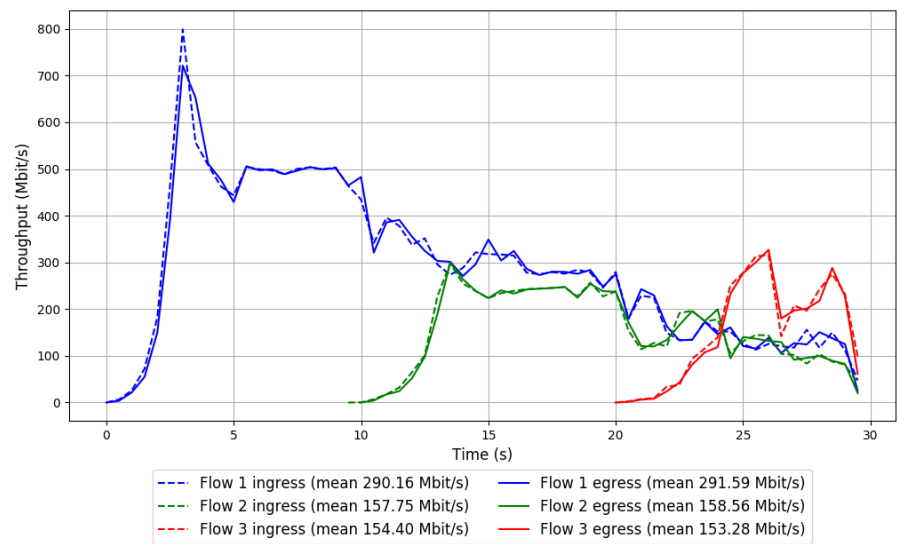
-- Flow 3:

Average throughput: 153.28 Mbit/s

95th percentile per-packet one-way delay: 125.368 ms

Loss rate: 3.08%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-09-07 22:47:38

End at: 2017-09-07 22:48:08

# Below is generated by plot.py at 2017-09-08 03:31:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 446.14 Mbit/s

95th percentile per-packet one-way delay: 119.999 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 280.28 Mbit/s

95th percentile per-packet one-way delay: 118.601 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 190.87 Mbit/s

95th percentile per-packet one-way delay: 123.388 ms

Loss rate: 0.75%

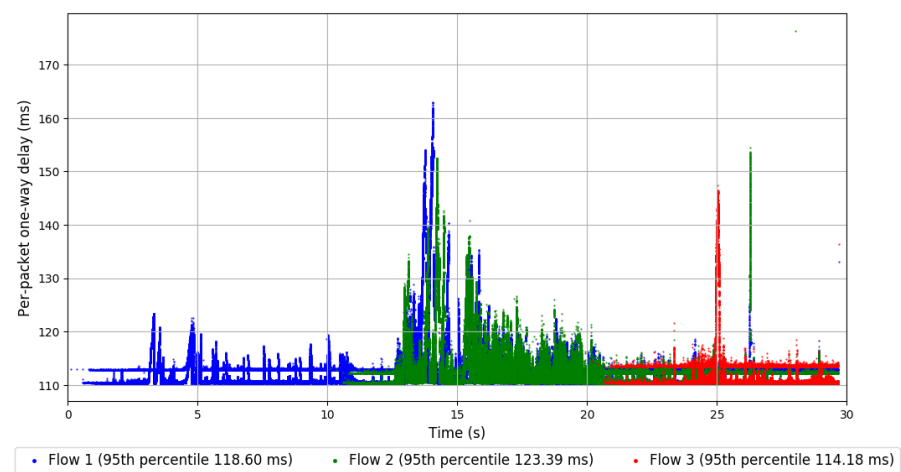
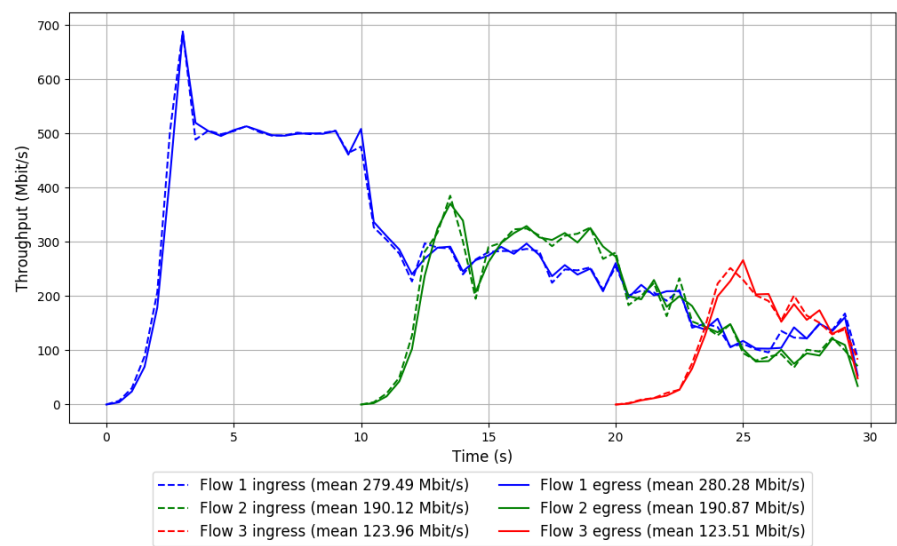
-- Flow 3:

Average throughput: 123.51 Mbit/s

95th percentile per-packet one-way delay: 114.177 ms

Loss rate: 2.57%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-09-07 23:00:59

End at: 2017-09-07 23:01:29

# Below is generated by plot.py at 2017-09-08 03:31:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 430.49 Mbit/s

95th percentile per-packet one-way delay: 141.611 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 290.66 Mbit/s

95th percentile per-packet one-way delay: 175.065 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 150.26 Mbit/s

95th percentile per-packet one-way delay: 116.045 ms

Loss rate: 0.71%

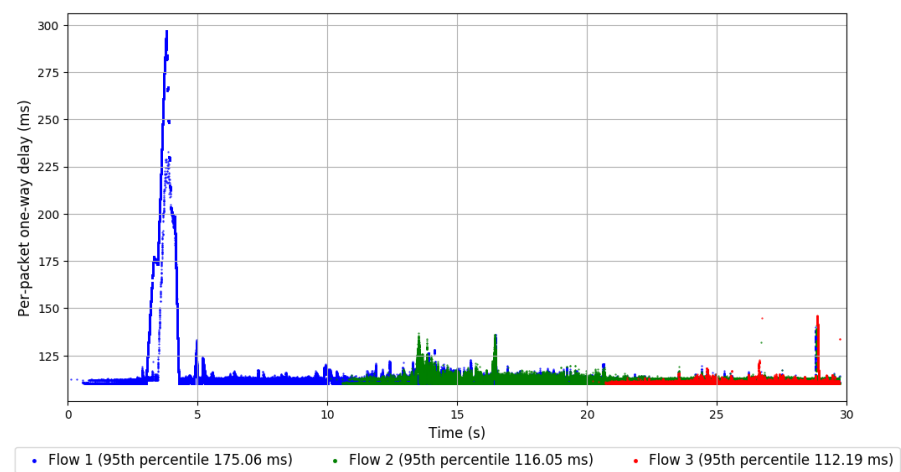
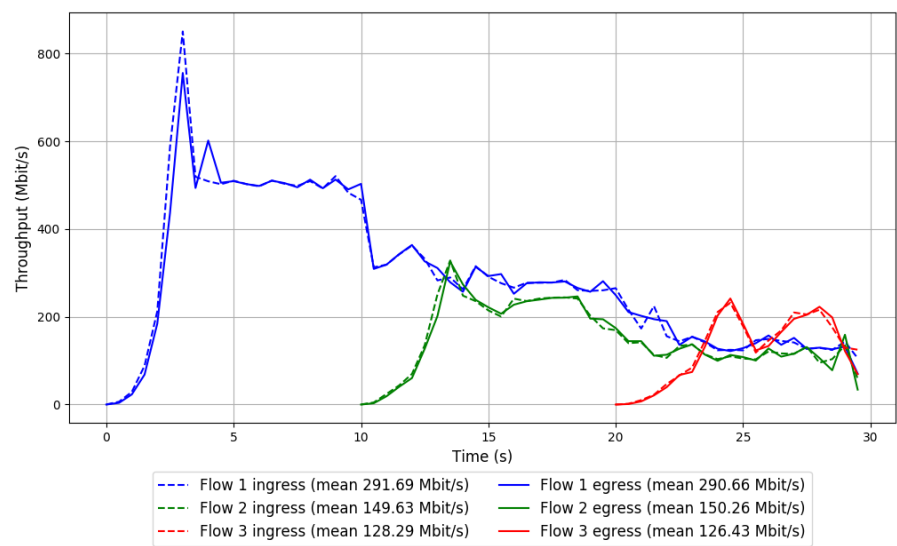
-- Flow 3:

Average throughput: 126.43 Mbit/s

95th percentile per-packet one-way delay: 112.193 ms

Loss rate: 3.53%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-09-07 23:14:24

End at: 2017-09-07 23:14:54

# Below is generated by plot.py at 2017-09-08 03:32:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 457.58 Mbit/s

95th percentile per-packet one-way delay: 157.882 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 276.25 Mbit/s

95th percentile per-packet one-way delay: 169.536 ms

Loss rate: 1.44%

-- Flow 2:

Average throughput: 200.64 Mbit/s

95th percentile per-packet one-way delay: 161.630 ms

Loss rate: 0.59%

-- Flow 3:

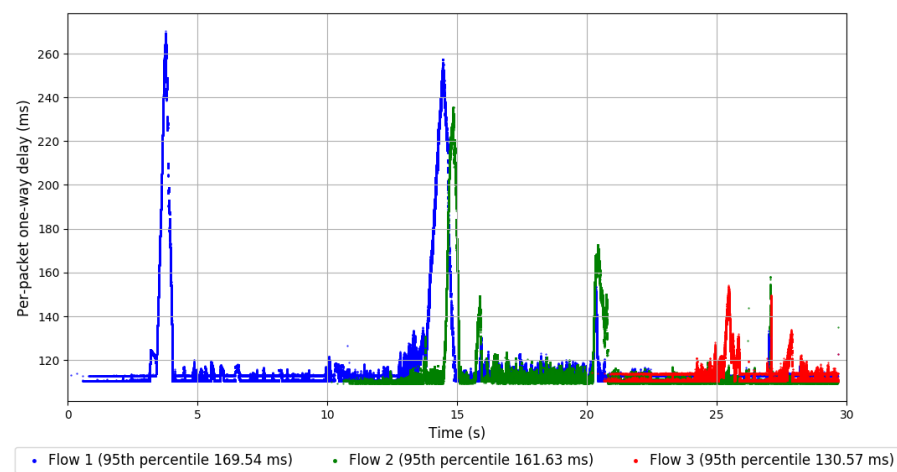
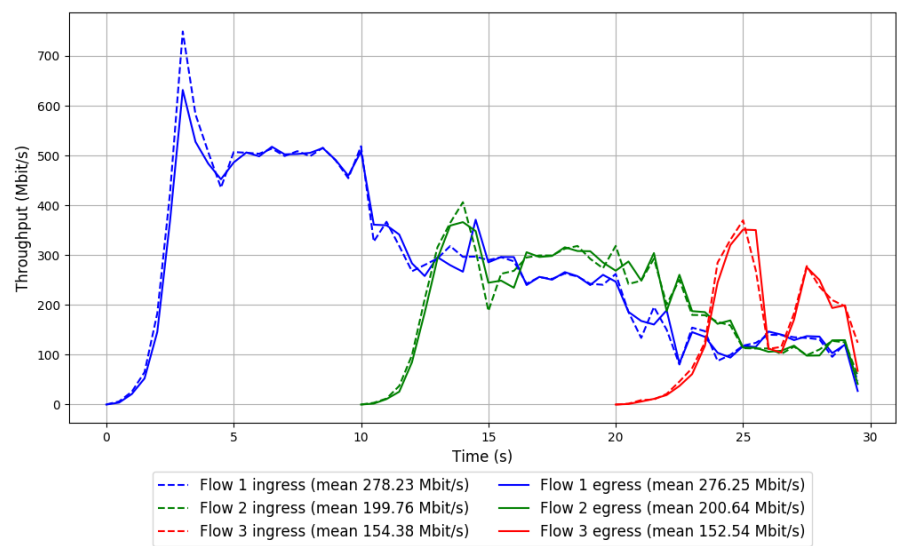
Average throughput: 152.54 Mbit/s

95th percentile per-packet one-way delay: 130.571 ms

Loss rate: 3.45%



Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-09-07 23:28:00

End at: 2017-09-07 23:28:30

# Below is generated by plot.py at 2017-09-08 03:32:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 448.52 Mbit/s

95th percentile per-packet one-way delay: 170.309 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 294.33 Mbit/s

95th percentile per-packet one-way delay: 187.736 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 166.95 Mbit/s

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

Loss rate: 0.41%

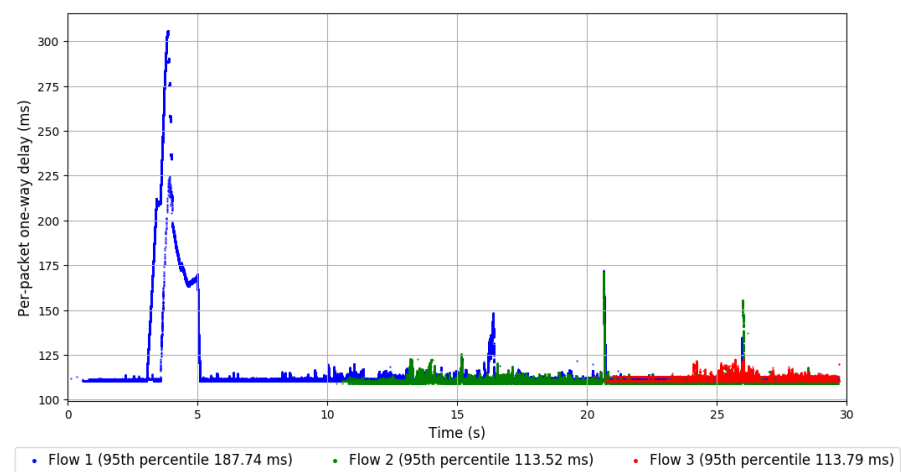
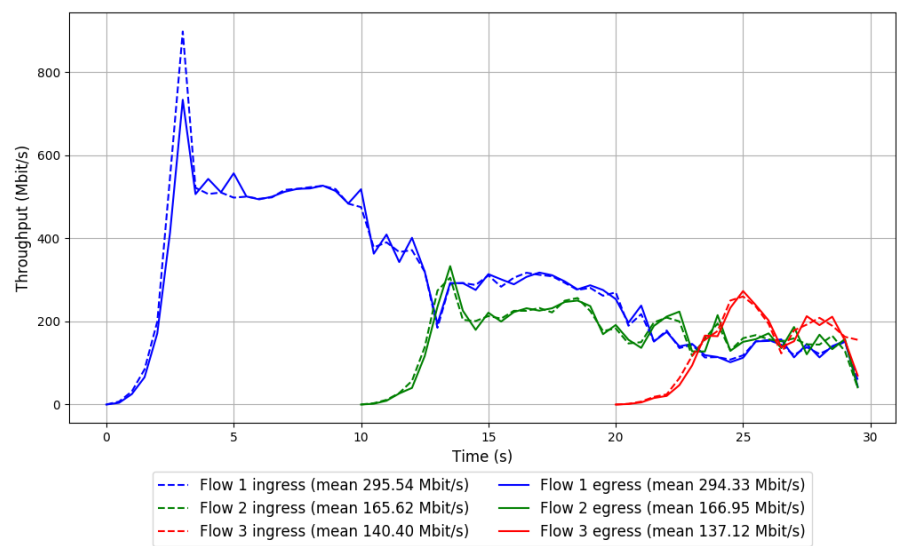
-- Flow 3:

Average throughput: 137.12 Mbit/s

95th percentile per-packet one-way delay: 113.793 ms

Loss rate: 4.65%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-09-07 23:41:34

End at: 2017-09-07 23:42:04

# Below is generated by plot.py at 2017-09-08 03:34:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 443.73 Mbit/s

95th percentile per-packet one-way delay: 147.648 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 280.99 Mbit/s

95th percentile per-packet one-way delay: 150.315 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 184.18 Mbit/s

95th percentile per-packet one-way delay: 137.059 ms

Loss rate: 0.43%

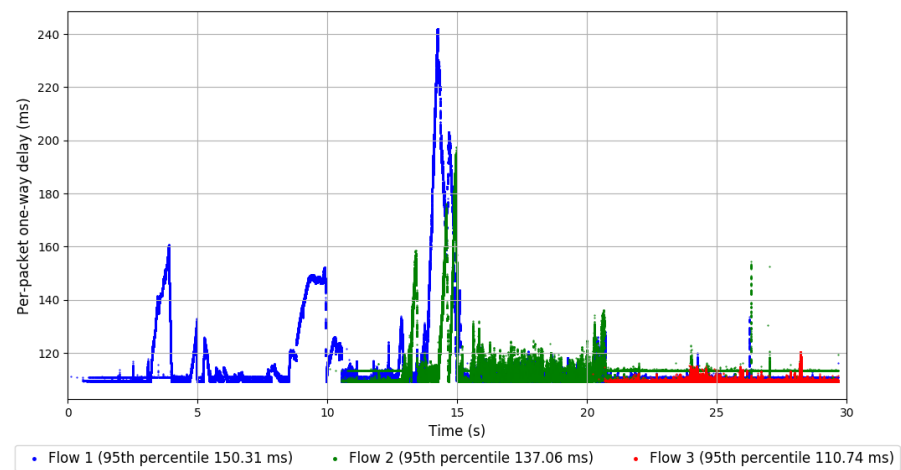
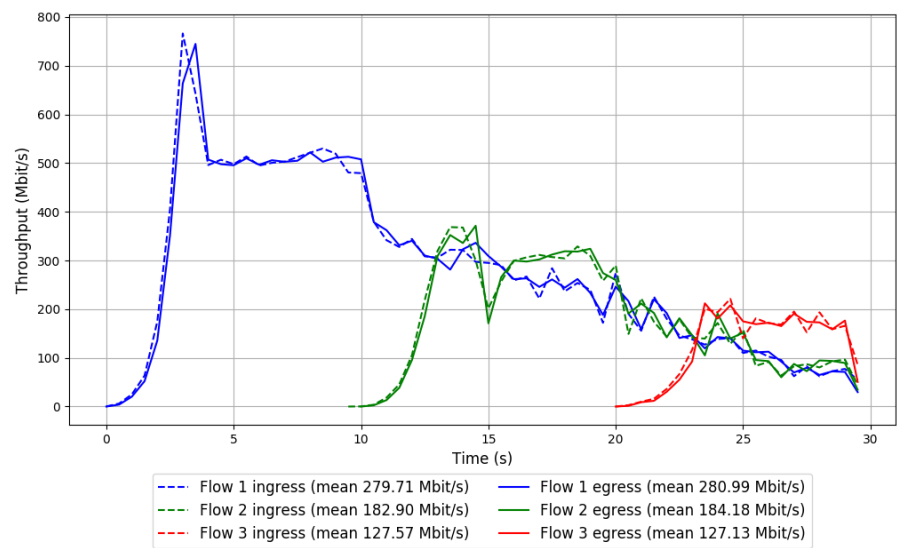
-- Flow 3:

Average throughput: 127.13 Mbit/s

95th percentile per-packet one-way delay: 110.741 ms

Loss rate: 2.84%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-09-07 23:55:12

End at: 2017-09-07 23:55:42

# Below is generated by plot.py at 2017-09-08 03:34:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 459.84 Mbit/s

95th percentile per-packet one-way delay: 150.825 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 289.03 Mbit/s

95th percentile per-packet one-way delay: 170.174 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 211.01 Mbit/s

95th percentile per-packet one-way delay: 127.729 ms

Loss rate: 0.50%

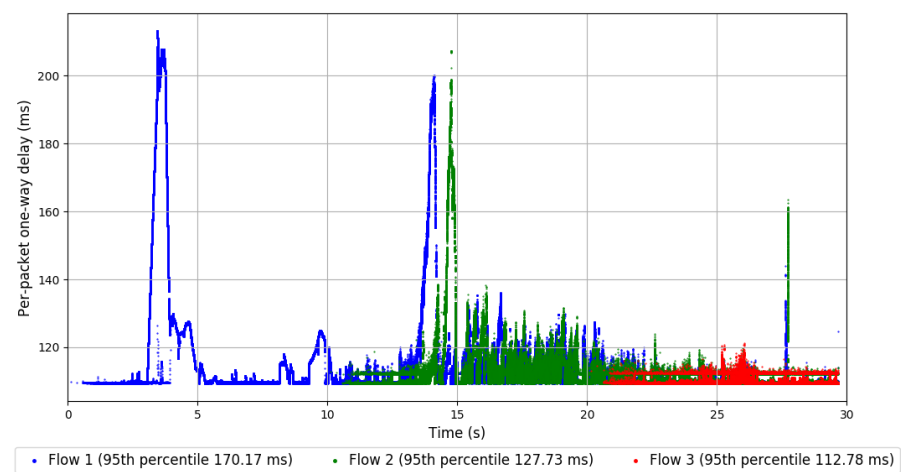
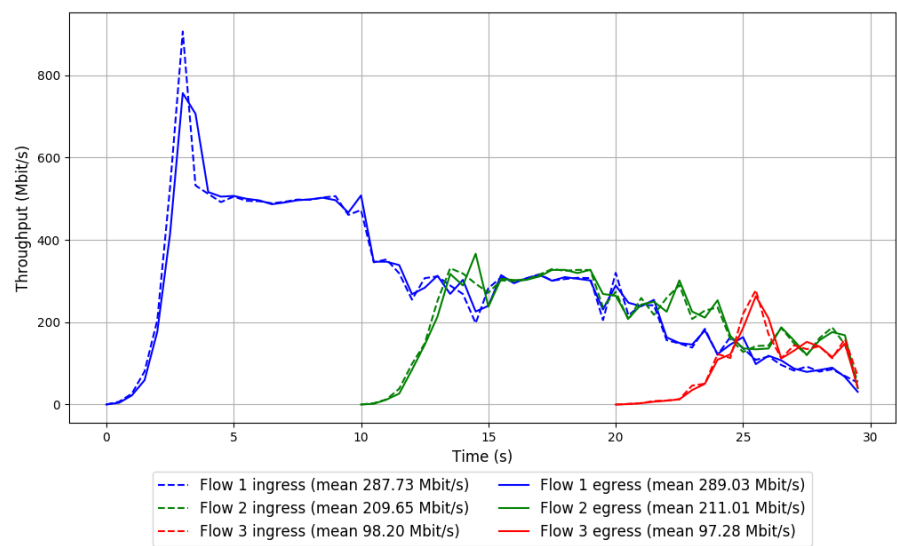
-- Flow 3:

Average throughput: 97.28 Mbit/s

95th percentile per-packet one-way delay: 112.785 ms

Loss rate: 3.23%

Run 10: Report of PCC — Data Link



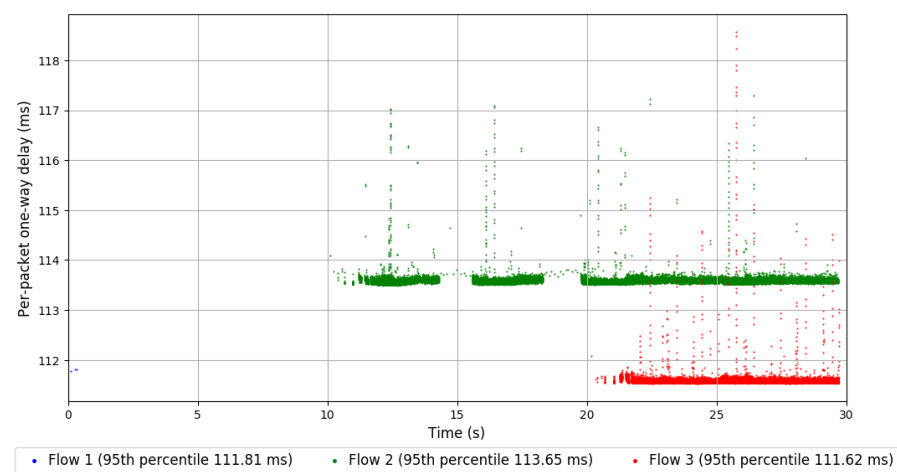
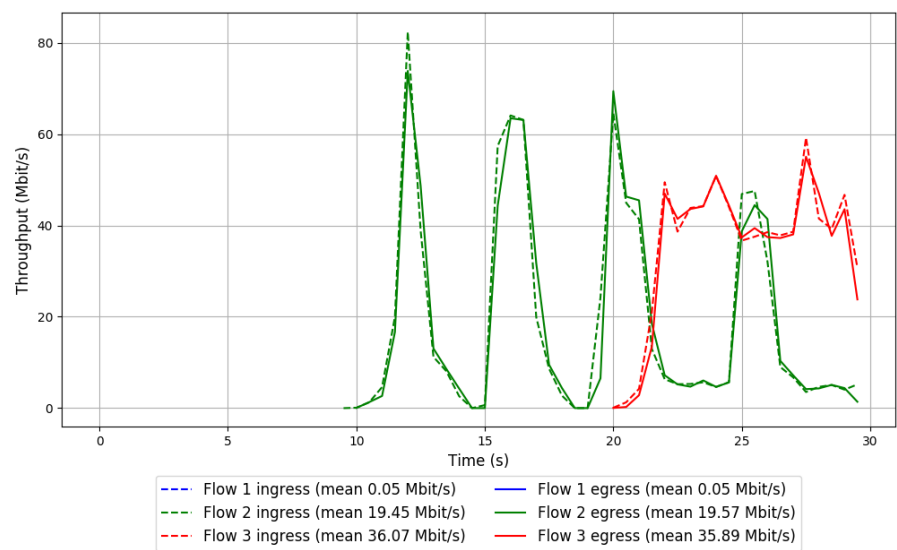
```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-07 21:55:27
End at: 2017-09-07 21:55:57

# Below is generated by plot.py at 2017-09-08 03:34:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 113.625 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 111.814 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.57 Mbit/s
95th percentile per-packet one-way delay: 113.648 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 35.89 Mbit/s
95th percentile per-packet one-way delay: 111.621 ms
Loss rate: 2.76%
```



Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-09-07 22:08:58

End at: 2017-09-07 22:09:28

# Below is generated by plot.py at 2017-09-08 03:34:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 45.78 Mbit/s

95th percentile per-packet one-way delay: 112.302 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 25.15 Mbit/s

95th percentile per-packet one-way delay: 111.657 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 24.32 Mbit/s

95th percentile per-packet one-way delay: 111.096 ms

Loss rate: 1.41%

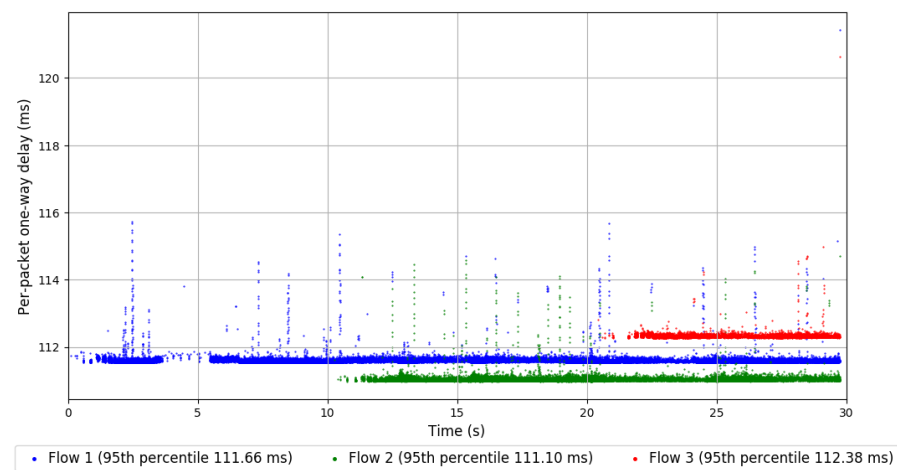
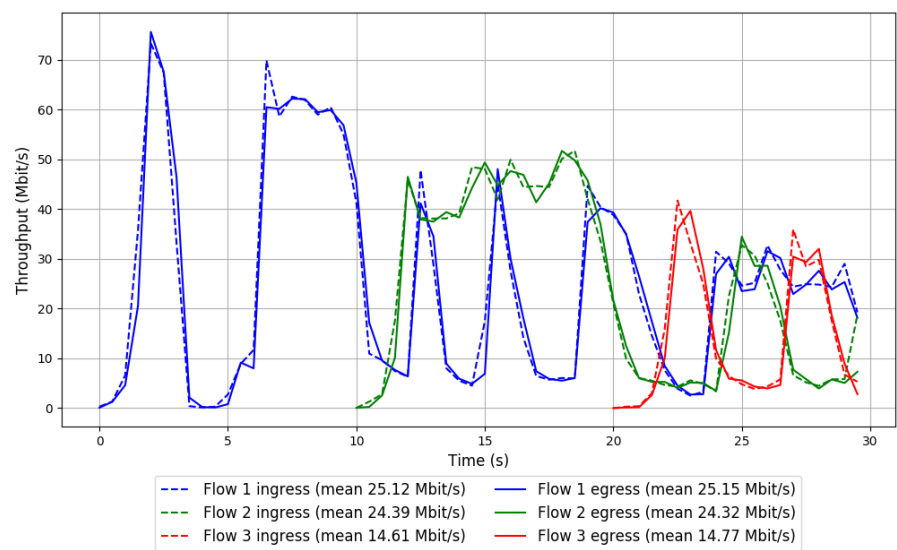
-- Flow 3:

Average throughput: 14.77 Mbit/s

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

Loss rate: 1.30%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-09-07 22:22:33

End at: 2017-09-07 22:23:03

# Below is generated by plot.py at 2017-09-08 03:34:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 25.74 Mbit/s

95th percentile per-packet one-way delay: 110.558 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 114.113 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.19 Mbit/s

95th percentile per-packet one-way delay: 110.580 ms

Loss rate: 0.22%

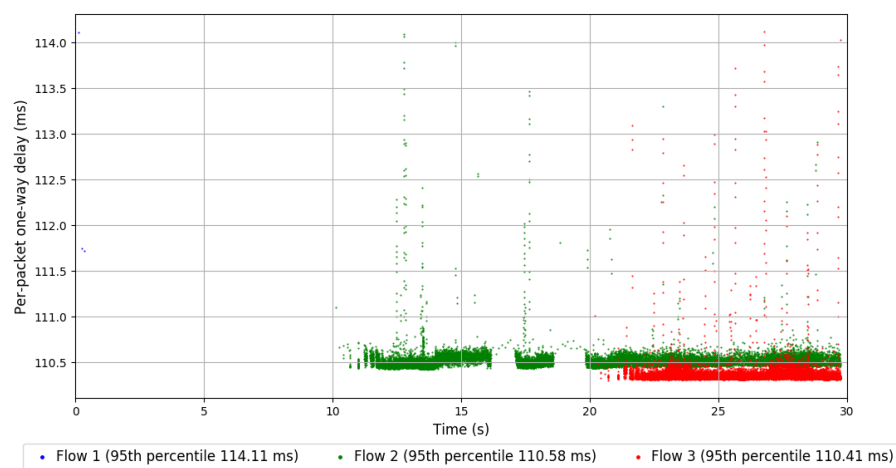
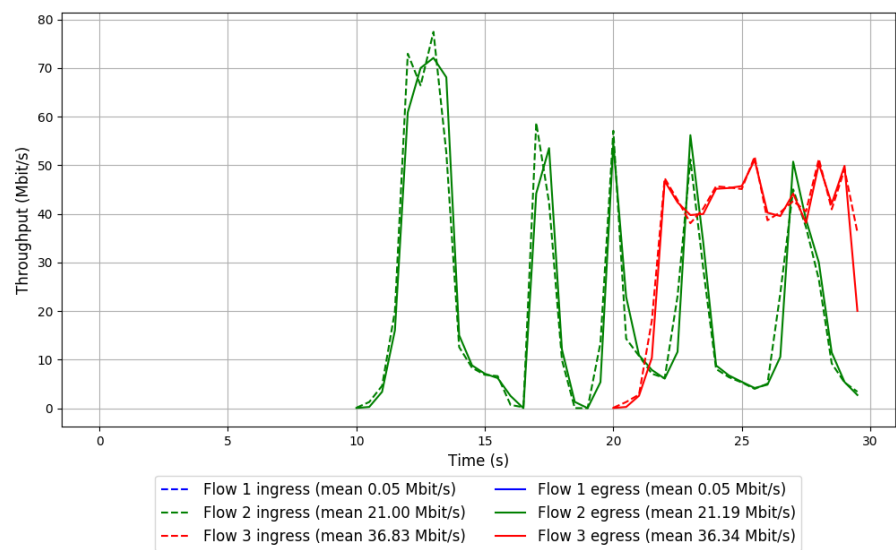
-- Flow 3:

Average throughput: 36.34 Mbit/s

95th percentile per-packet one-way delay: 110.410 ms

Loss rate: 3.55%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-09-07 22:36:08

End at: 2017-09-07 22:36:38

# Below is generated by plot.py at 2017-09-08 03:34:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.29 Mbit/s

95th percentile per-packet one-way delay: 112.888 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.869 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 23.82 Mbit/s

95th percentile per-packet one-way delay: 111.129 ms

Loss rate: 1.70%

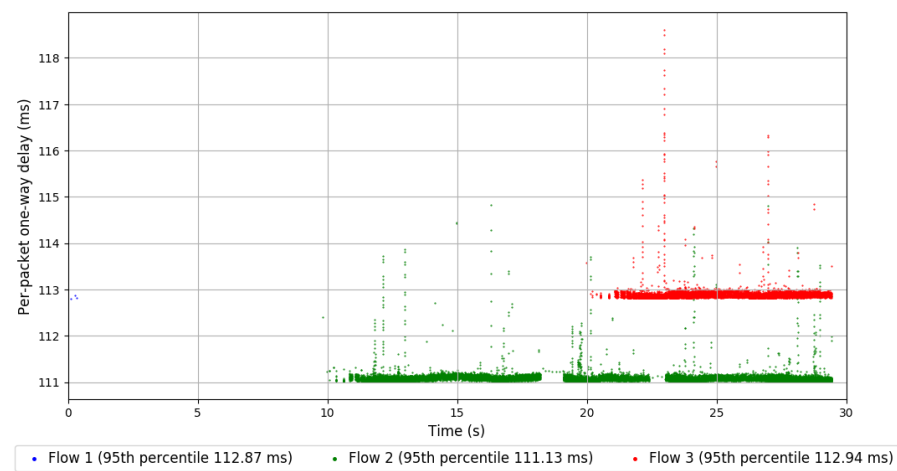
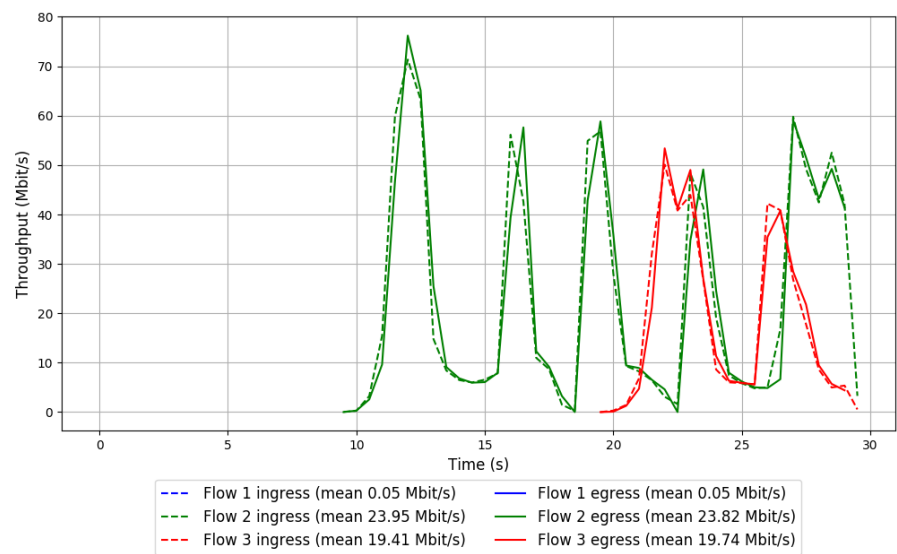
-- Flow 3:

Average throughput: 19.74 Mbit/s

95th percentile per-packet one-way delay: 112.938 ms

Loss rate: 0.66%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-09-07 22:49:32

End at: 2017-09-07 22:50:02

# Below is generated by plot.py at 2017-09-08 03:34:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.63 Mbit/s

95th percentile per-packet one-way delay: 112.758 ms

Loss rate: 2.38%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 111.331 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.89 Mbit/s

95th percentile per-packet one-way delay: 110.447 ms

Loss rate: 1.65%

-- Flow 3:

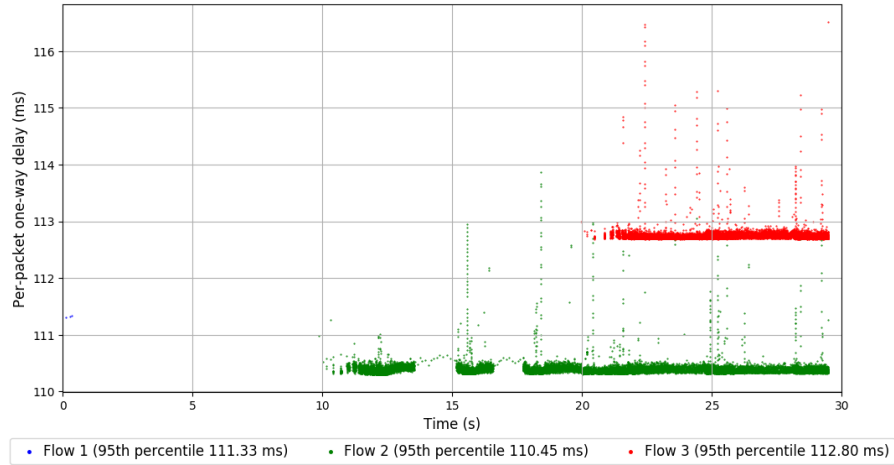
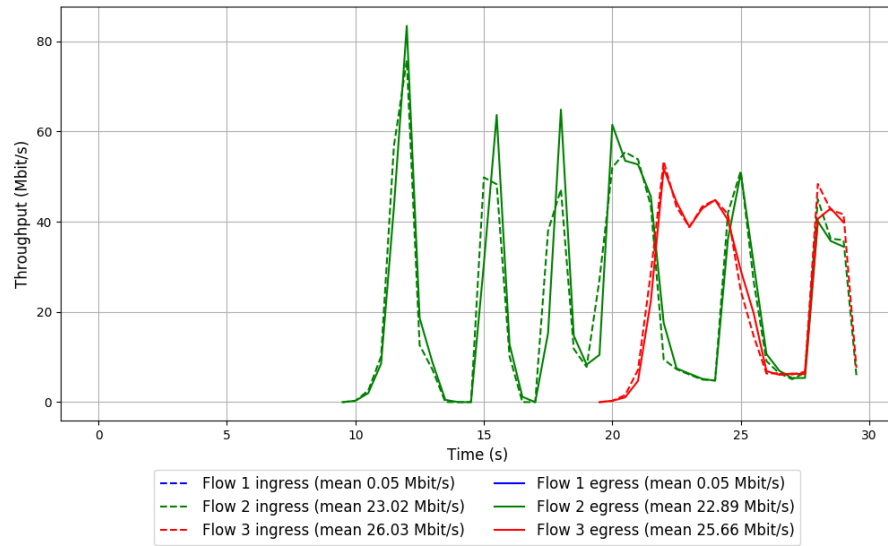
Average throughput: 25.66 Mbit/s

95th percentile per-packet one-way delay: 112.795 ms

Loss rate: 3.68%



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



Run 6: Statistics of QUIC Cubic

Start at: 2017-09-07 23:02:53

End at: 2017-09-07 23:03:23

# Below is generated by plot.py at 2017-09-08 03:34:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.17 Mbit/s

95th percentile per-packet one-way delay: 112.687 ms

Loss rate: 2.54%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.269 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.47 Mbit/s

95th percentile per-packet one-way delay: 112.694 ms

Loss rate: 1.74%

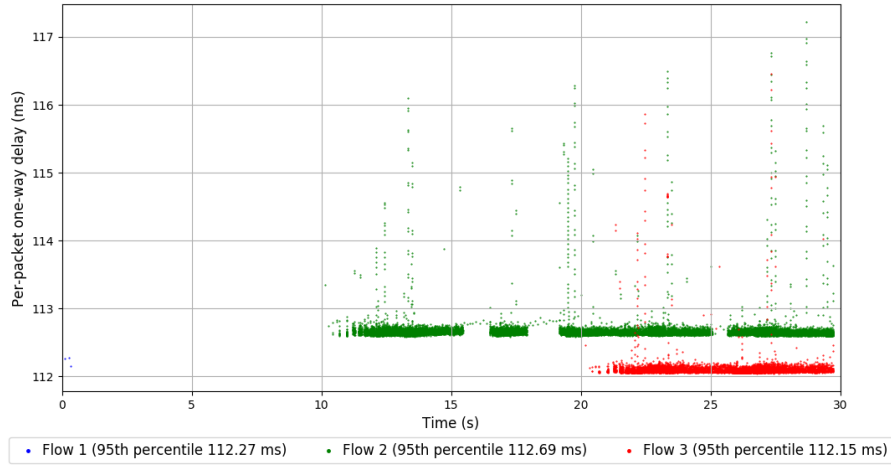
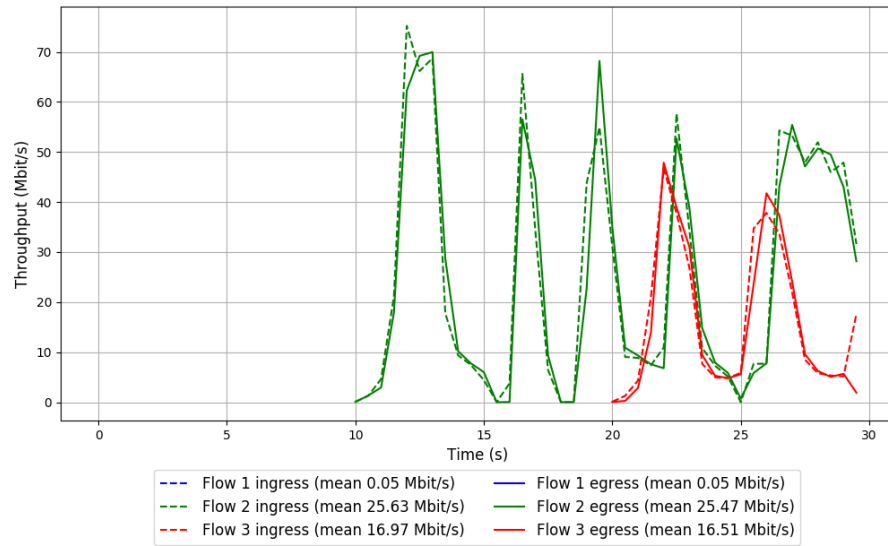
-- Flow 3:

Average throughput: 16.51 Mbit/s

95th percentile per-packet one-way delay: 112.147 ms

Loss rate: 4.99%

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



Run 7: Statistics of QUIC Cubic

Start at: 2017-09-07 23:16:19

End at: 2017-09-07 23:16:49

# Below is generated by plot.py at 2017-09-08 03:34:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.98 Mbit/s

95th percentile per-packet one-way delay: 113.627 ms

Loss rate: 3.40%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 111.260 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 19.62 Mbit/s

95th percentile per-packet one-way delay: 111.115 ms

Loss rate: 3.18%

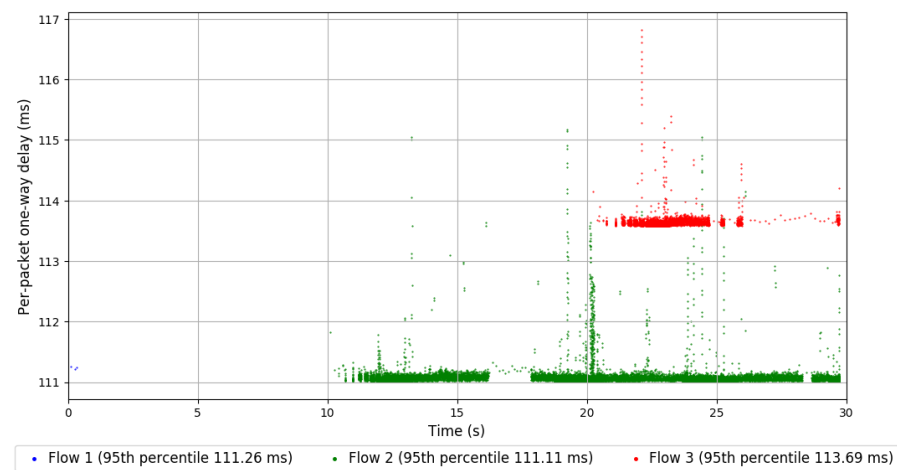
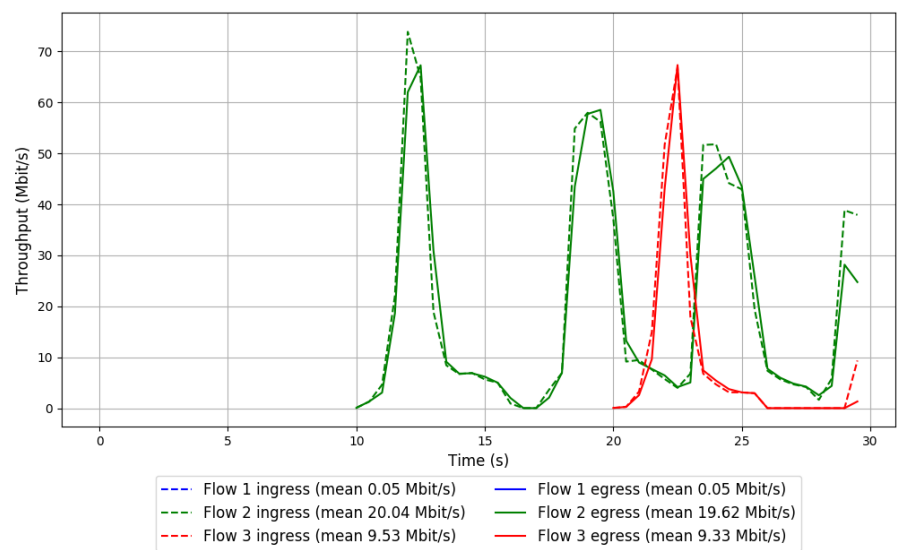
-- Flow 3:

Average throughput: 9.33 Mbit/s

95th percentile per-packet one-way delay: 113.690 ms

Loss rate: 4.34%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-09-07 23:29:54

End at: 2017-09-07 23:30:24

# Below is generated by plot.py at 2017-09-08 03:34:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 24.90 Mbit/s

95th percentile per-packet one-way delay: 112.651 ms

Loss rate: 1.97%

-- Flow 1:

Average throughput: 0.05 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.30 Mbit/s

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

Loss rate: 1.96%

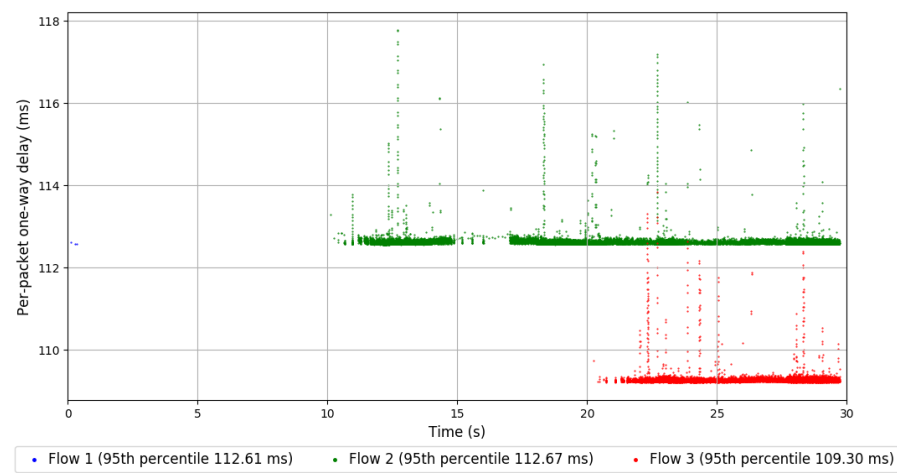
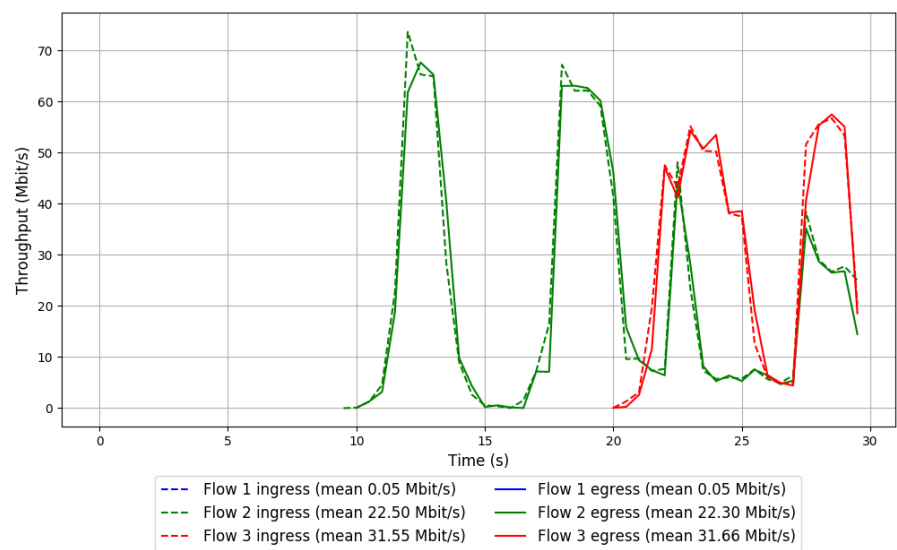
-- Flow 3:

Average throughput: 31.66 Mbit/s

95th percentile per-packet one-way delay: 109.303 ms

Loss rate: 1.97%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-09-07 23:43:29

End at: 2017-09-07 23:43:59

# Below is generated by plot.py at 2017-09-08 03:34:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 20.76 Mbit/s

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

Loss rate: 3.06%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 109.537 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 17.36 Mbit/s

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

Loss rate: 2.62%

-- Flow 3:

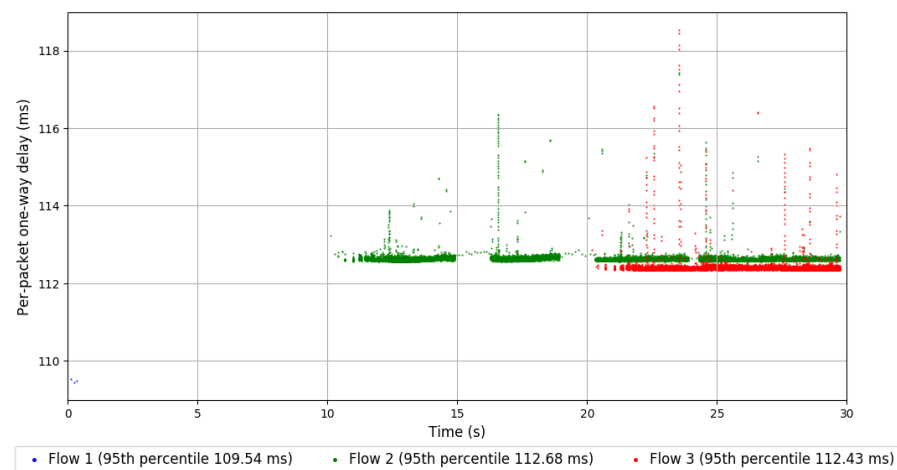
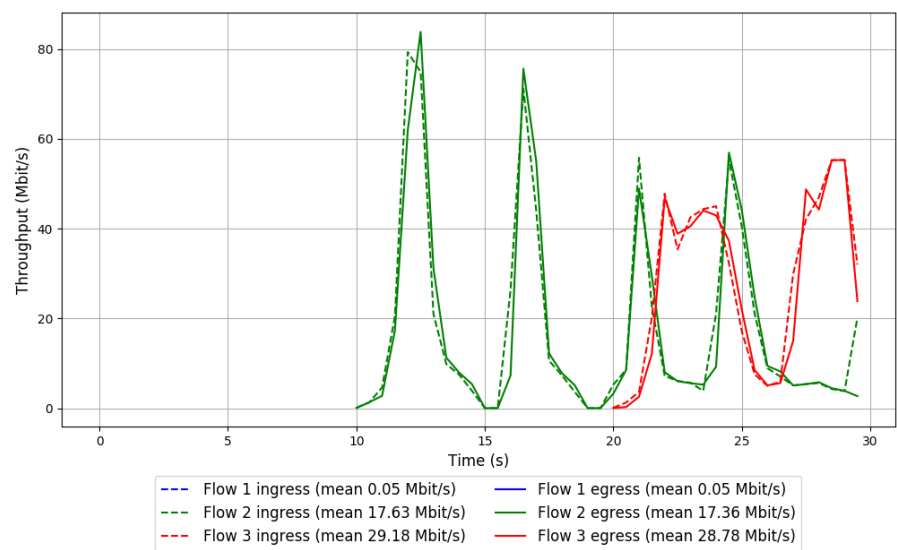
Average throughput: 28.78 Mbit/s

95th percentile per-packet one-way delay: 112.433 ms

Loss rate: 3.62%



Run 9: Report of QUIC Cubic — Data Link

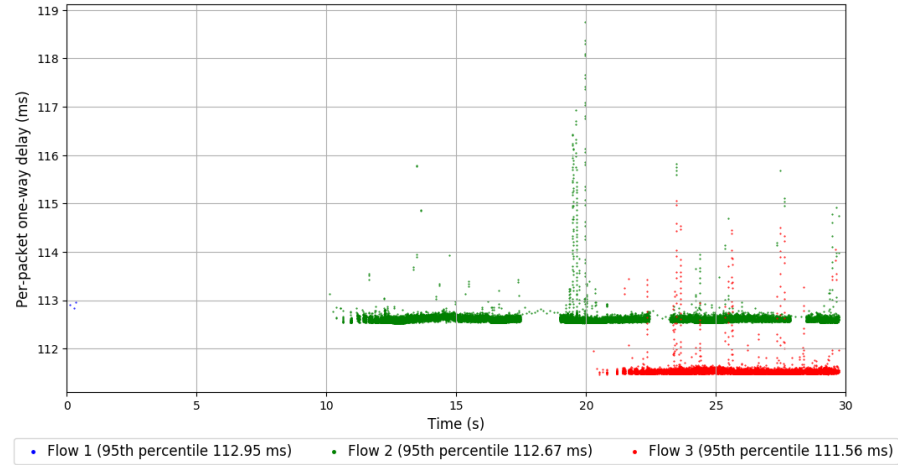
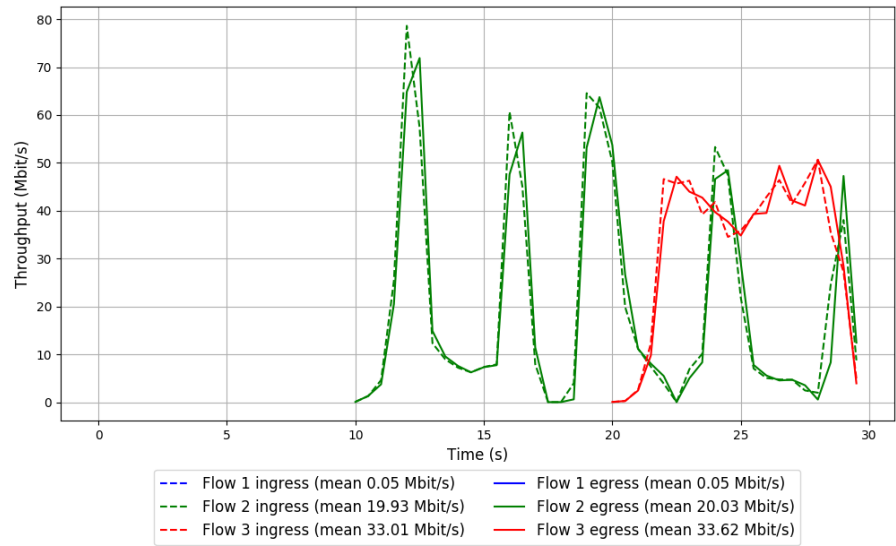


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-07 23:57:07
End at: 2017-09-07 23:57:37

# Below is generated by plot.py at 2017-09-08 03:34:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.00 Mbit/s
95th percentile per-packet one-way delay: 112.644 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 112.951 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.03 Mbit/s
95th percentile per-packet one-way delay: 112.668 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 33.62 Mbit/s
95th percentile per-packet one-way delay: 111.560 ms
Loss rate: 0.50%
```

# Run 10: Report of QUIC Cubic — Data Link

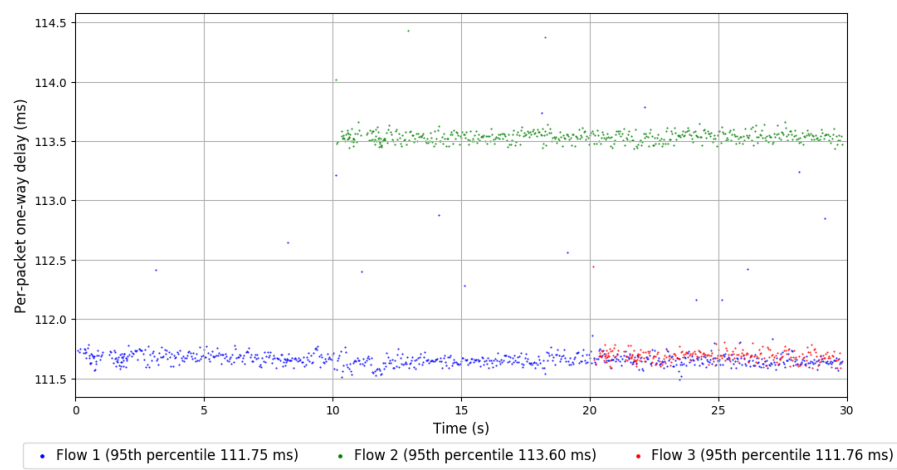
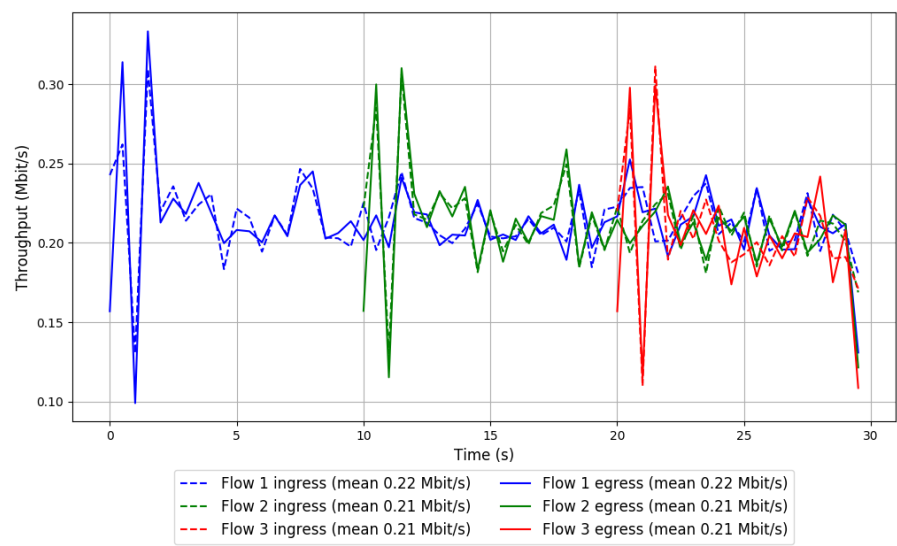


```
Run 1: Statistics of SCReAM

Start at: 2017-09-07 21:48:23
End at: 2017-09-07 21:48:53

# Below is generated by plot.py at 2017-09-08 03:34:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 113.583 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.747 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.604 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 111.762 ms
Loss rate: 2.24%
```

Run 1: Report of SReAM — Data Link

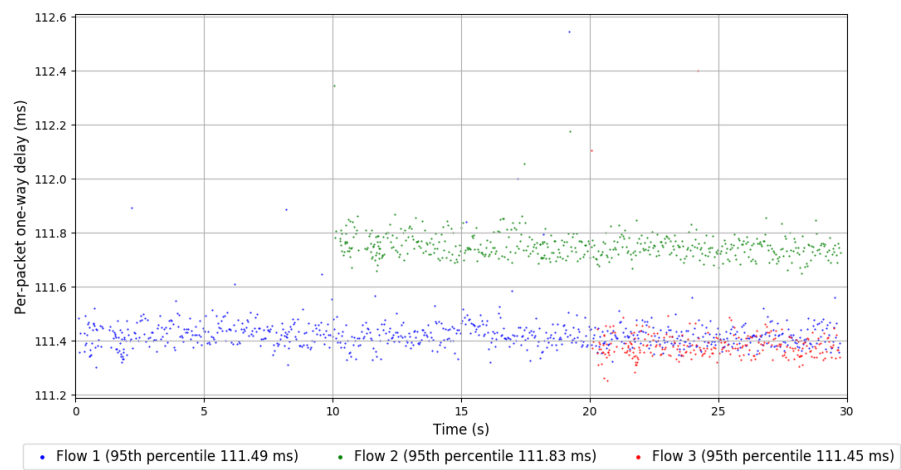
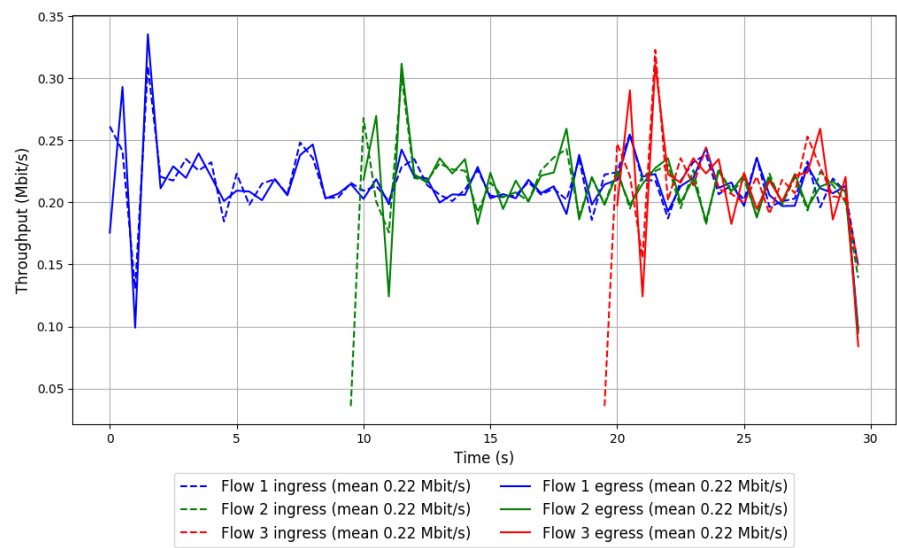


```
Run 2: Statistics of SReAM

Start at: 2017-09-07 22:01:52
End at: 2017-09-07 22:02:22

# Below is generated by plot.py at 2017-09-08 03:34:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 111.796 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.492 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.828 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.453 ms
Loss rate: 2.25%
```

Run 2: Report of SReAM — Data Link



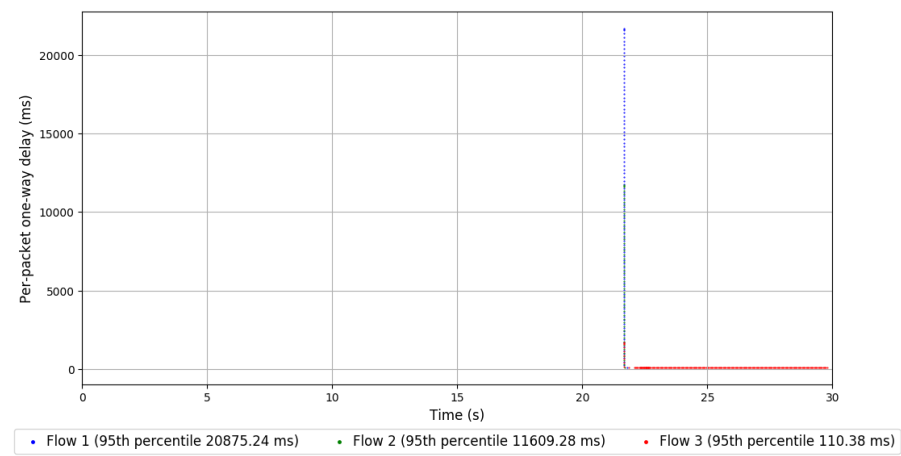
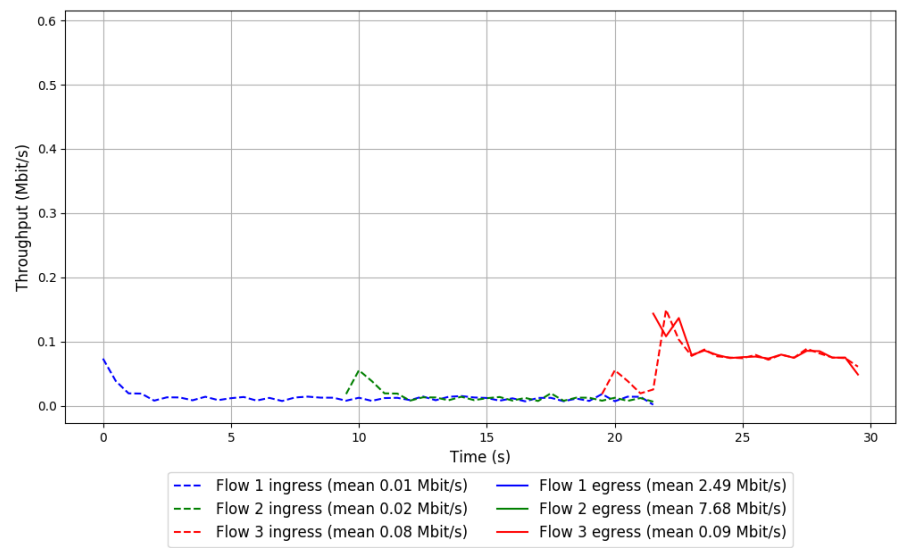
Run 3: Statistics of SCReAM

Start at: 2017-09-07 22:15:28

End at: 2017-09-07 22:15:58



Run 3: Report of SReAM — Data Link

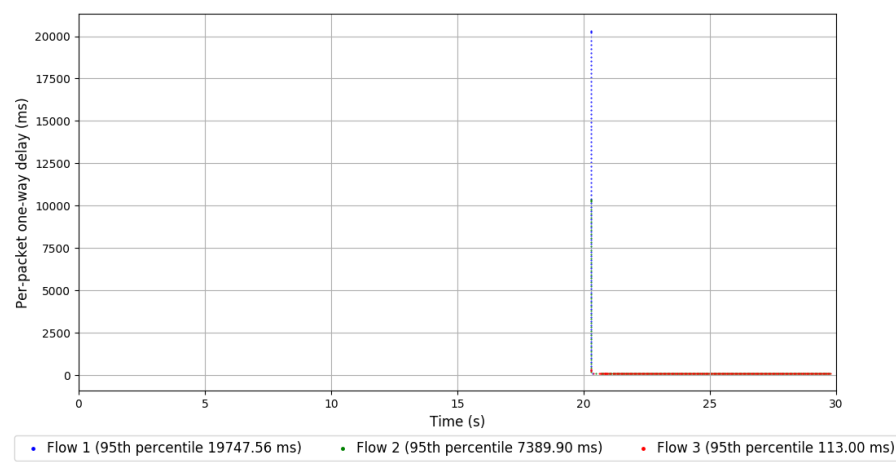
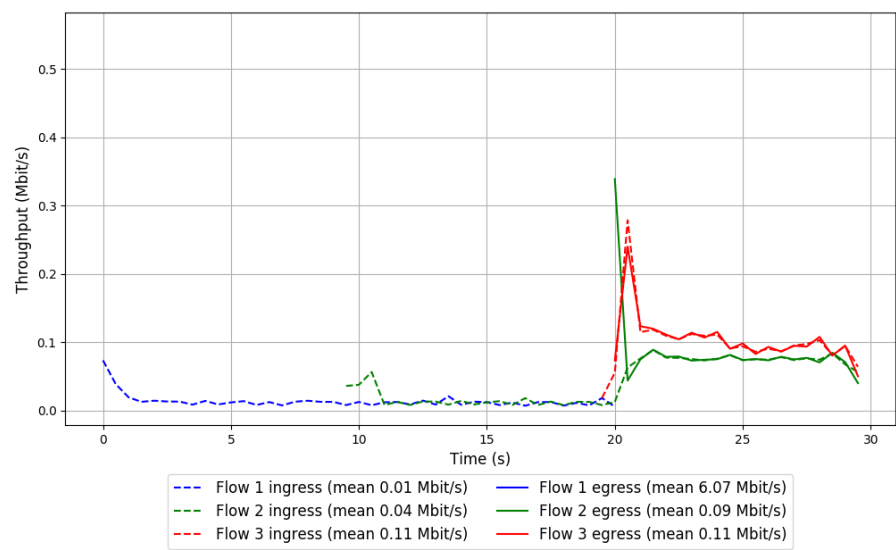


Run 4: Statistics of SReAM

Start at: 2017-09-07 22:29:02

End at: 2017-09-07 22:29:32

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-09-07 22:42:31

End at: 2017-09-07 22:43:01

# Below is generated by plot.py at 2017-09-08 03:34:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 1.12%

-- Flow 1:

Average throughput: 0.21 Mbit/s

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

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.117 ms

Loss rate: 1.05%

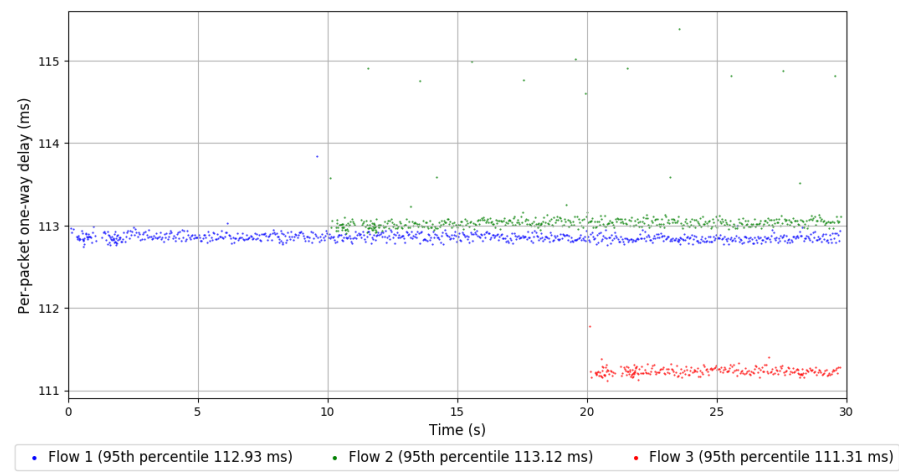
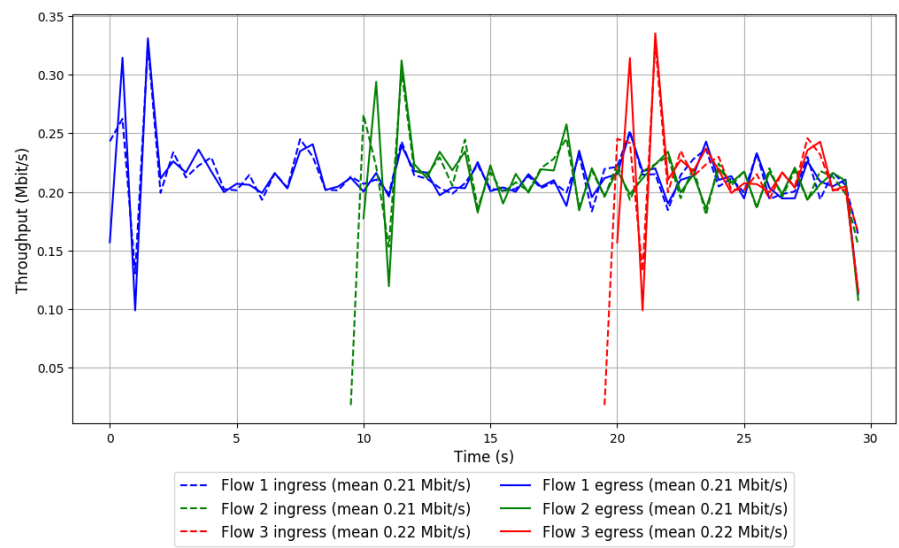
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.306 ms

Loss rate: 2.25%

Run 5: Report of SReAM — Data Link

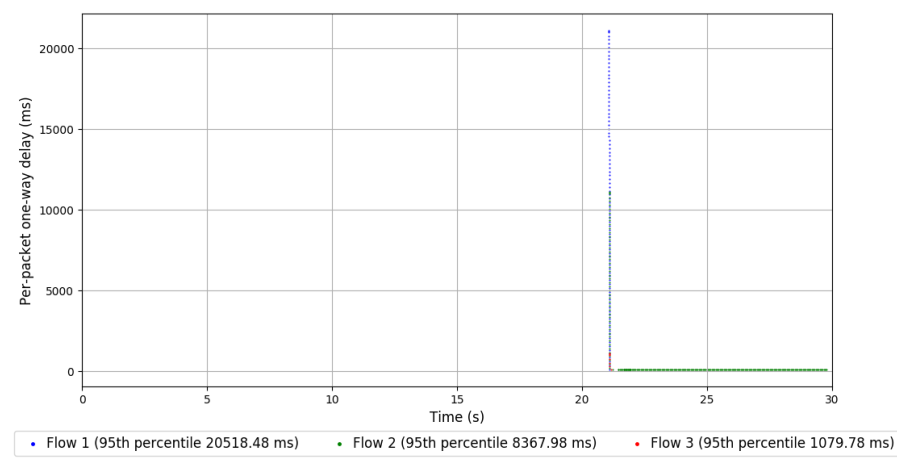
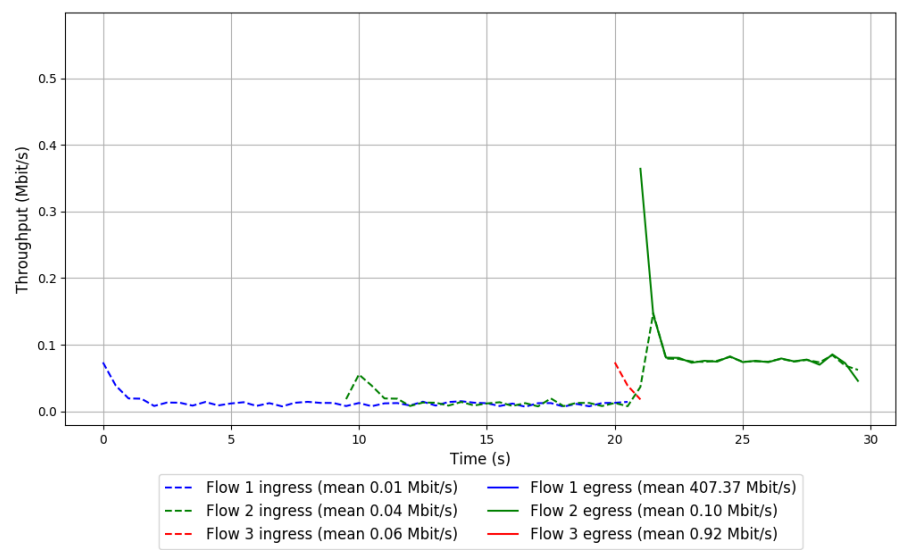


Run 6: Statistics of SReAM

Start at: 2017-09-07 22:55:41

End at: 2017-09-07 22:56:11

Run 6: Report of SReAM — Data Link



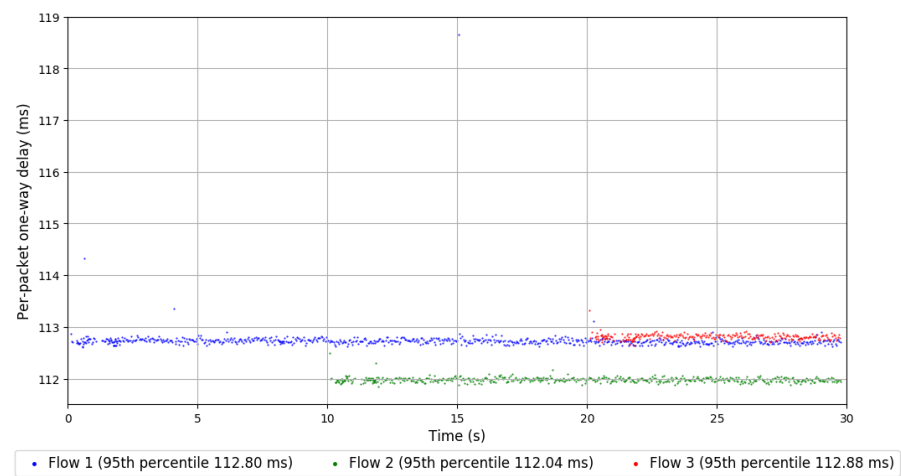
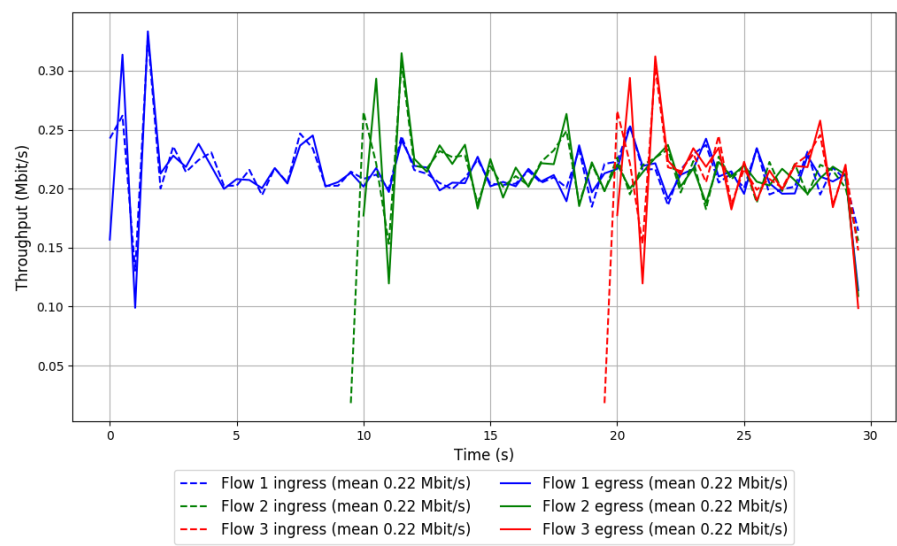
```
Run 7: Statistics of SReAM

Start at: 2017-09-07 23:09:11
End at: 2017-09-07 23:09:41

# Below is generated by plot.py at 2017-09-08 03:34:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.843 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.801 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.044 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.883 ms
Loss rate: 2.25%
```



Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-09-07 23:22:51

End at: 2017-09-07 23:23:21

# Below is generated by plot.py at 2017-09-08 03:34:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 112.888 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.906 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 112.076 ms

Loss rate: 0.98%

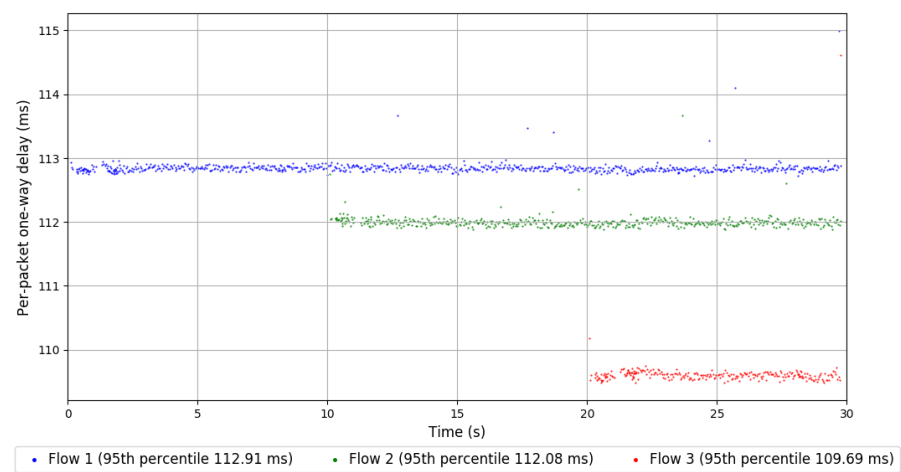
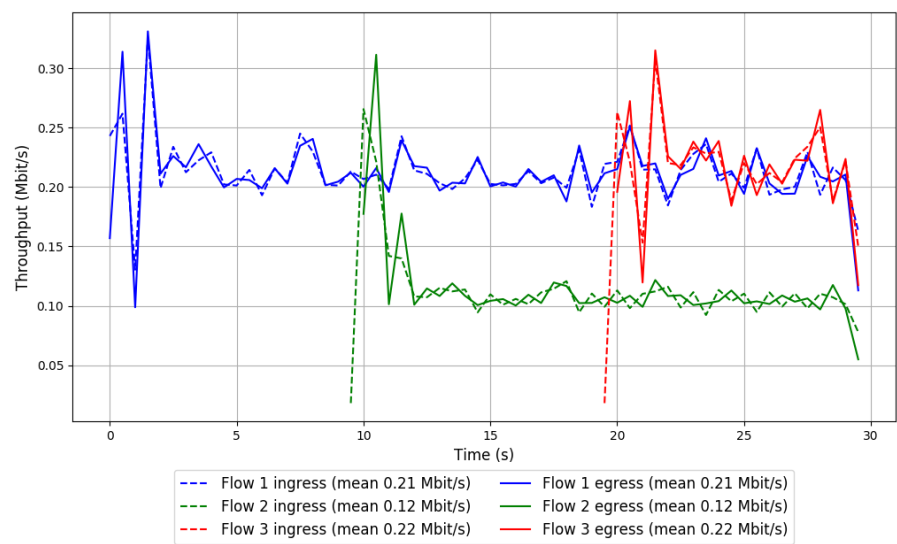
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 109.688 ms

Loss rate: 1.87%

Run 8: Report of SCRaM — Data Link

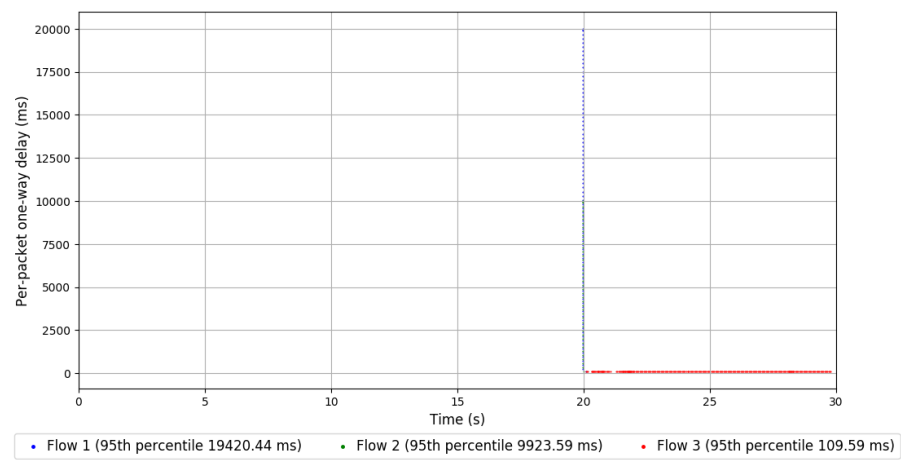
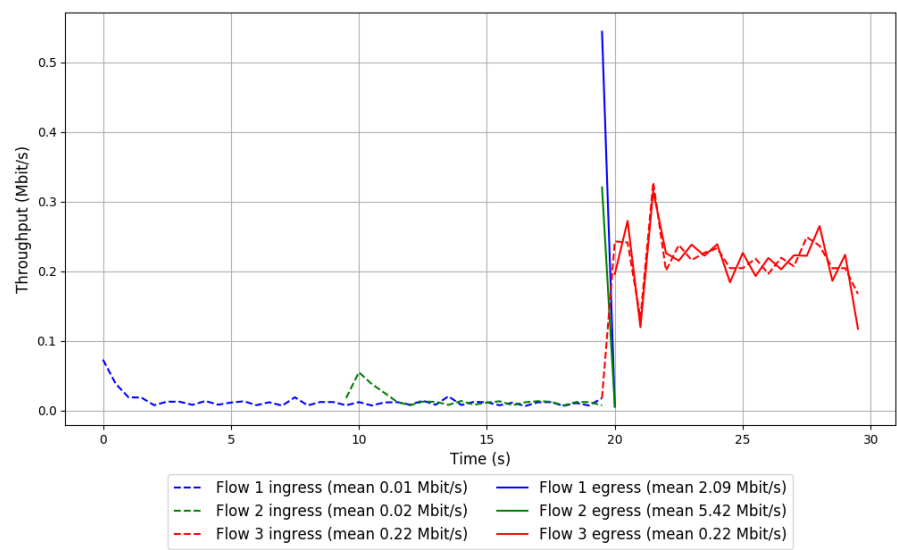


Run 9: Statistics of SReAM

Start at: 2017-09-07 23:36:23

End at: 2017-09-07 23:36:53

Run 9: Report of SReAM — Data Link

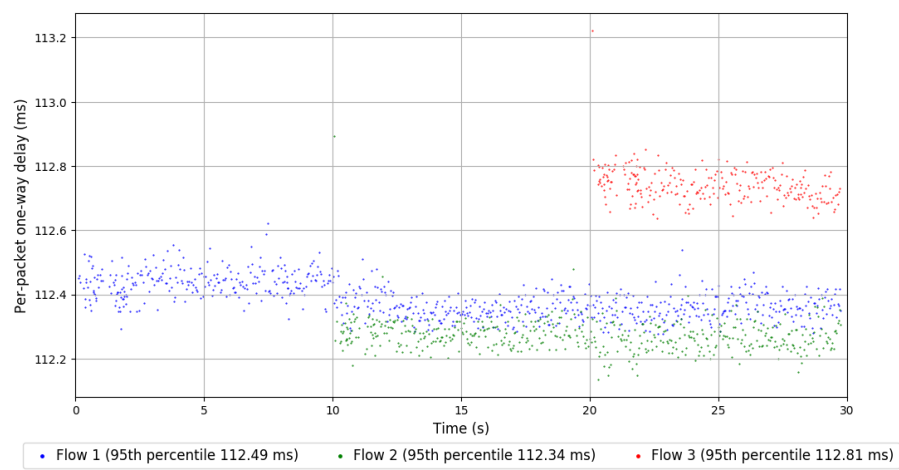
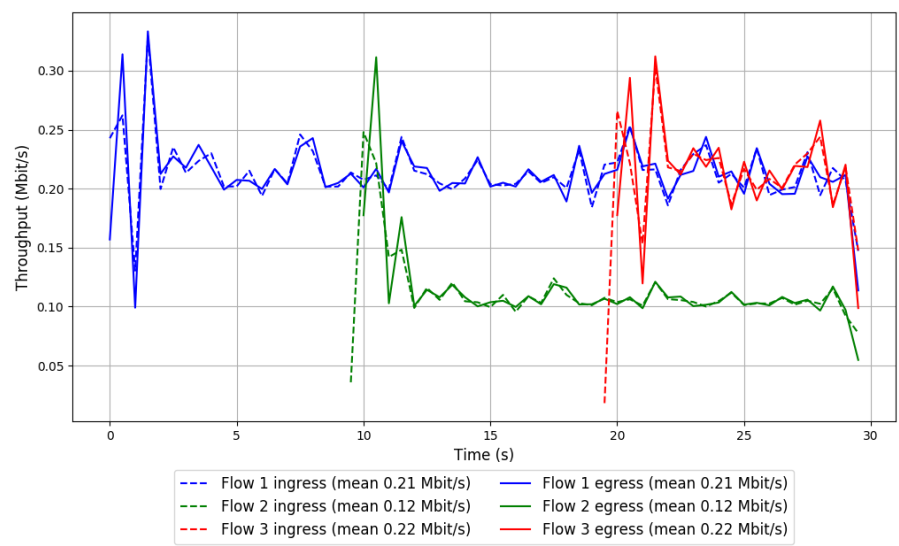


```
Run 10: Statistics of SReAM

Start at: 2017-09-07 23:49:58
End at: 2017-09-07 23:50:28

# Below is generated by plot.py at 2017-09-08 03:34:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 112.767 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.486 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 112.339 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.811 ms
Loss rate: 2.25%
```

Run 10: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2017-09-07 21:59:57

End at: 2017-09-07 22:00:27

# Below is generated by plot.py at 2017-09-08 03:34:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 113.321 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 113.317 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 113.193 ms

Loss rate: 1.58%

-- Flow 3:

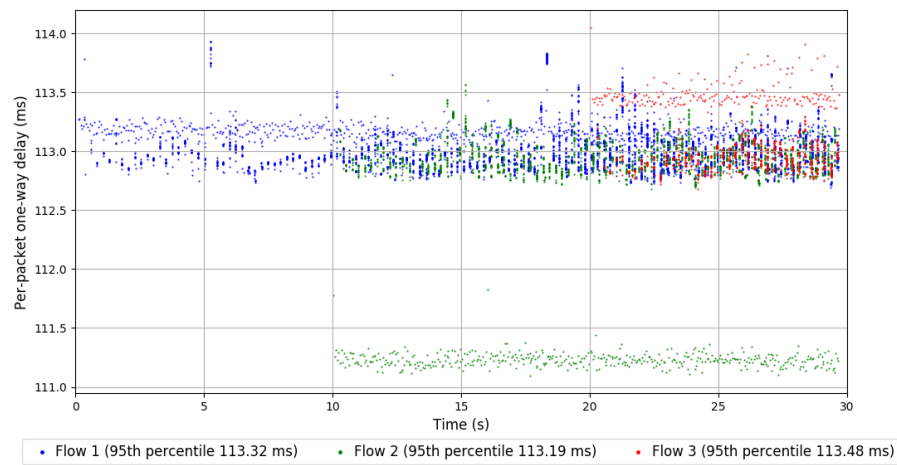
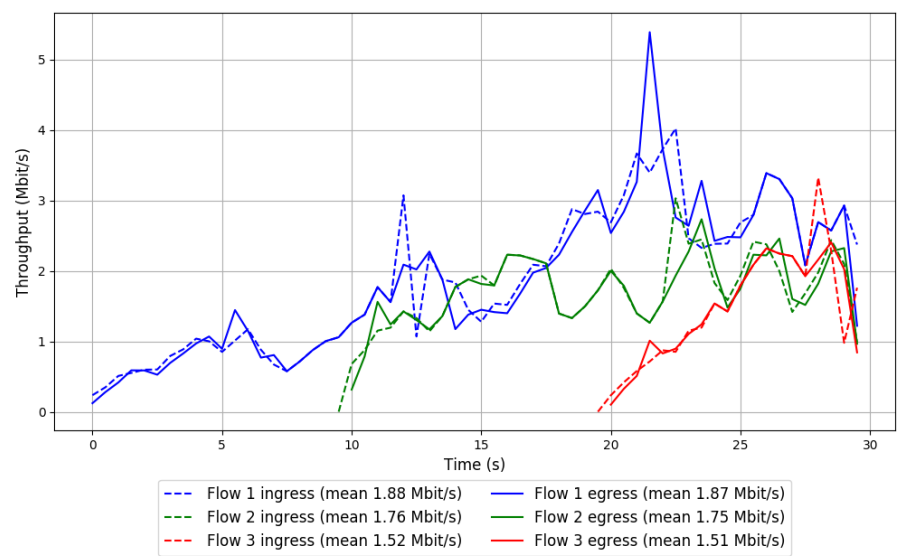
Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 113.477 ms

Loss rate: 3.07%



Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-09-07 22:13:33

End at: 2017-09-07 22:14:03

# Below is generated by plot.py at 2017-09-08 03:34:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.54 Mbit/s

95th percentile per-packet one-way delay: 113.407 ms

Loss rate: 1.88%

-- Flow 1:

Average throughput: 2.80 Mbit/s

95th percentile per-packet one-way delay: 113.420 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 1.81 Mbit/s

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

Loss rate: 2.64%

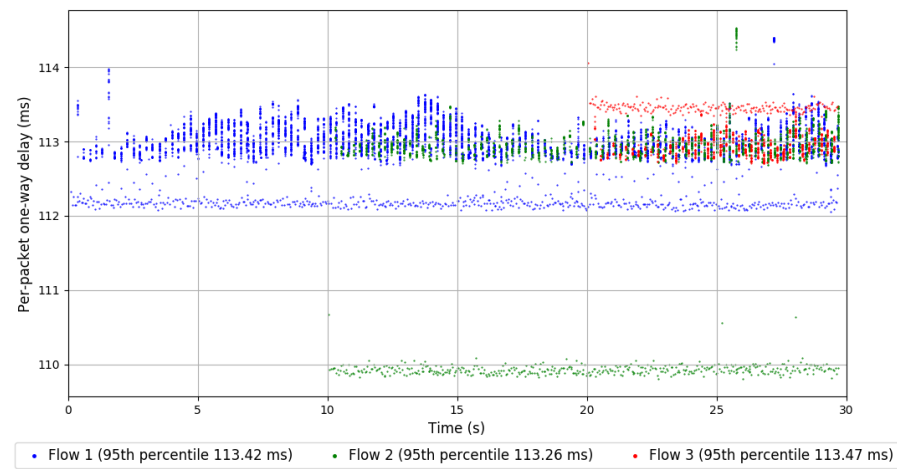
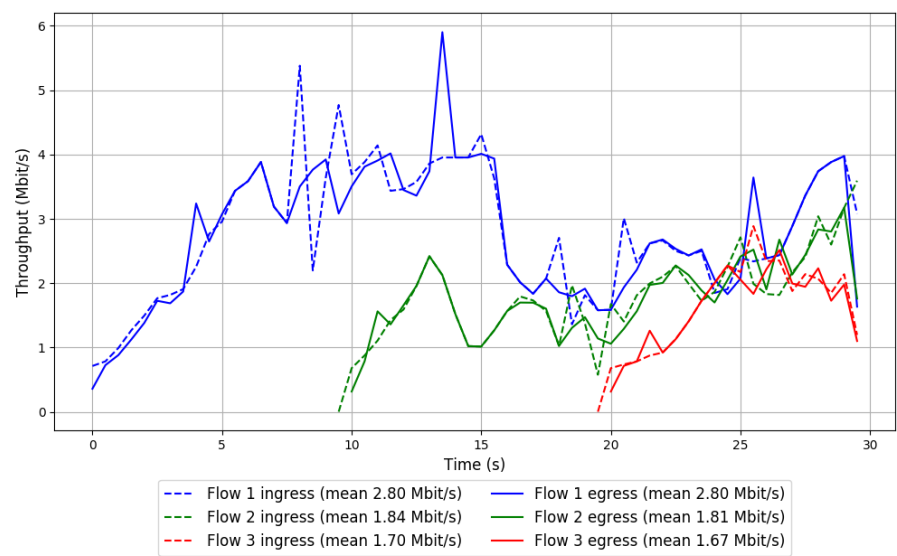
-- Flow 3:

Average throughput: 1.67 Mbit/s

95th percentile per-packet one-way delay: 113.465 ms

Loss rate: 4.26%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-09-07 22:27:08

End at: 2017-09-07 22:27:38

# Below is generated by plot.py at 2017-09-08 03:34:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.73 Mbit/s

95th percentile per-packet one-way delay: 114.846 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 114.903 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 1.77 Mbit/s

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

Loss rate: 2.15%

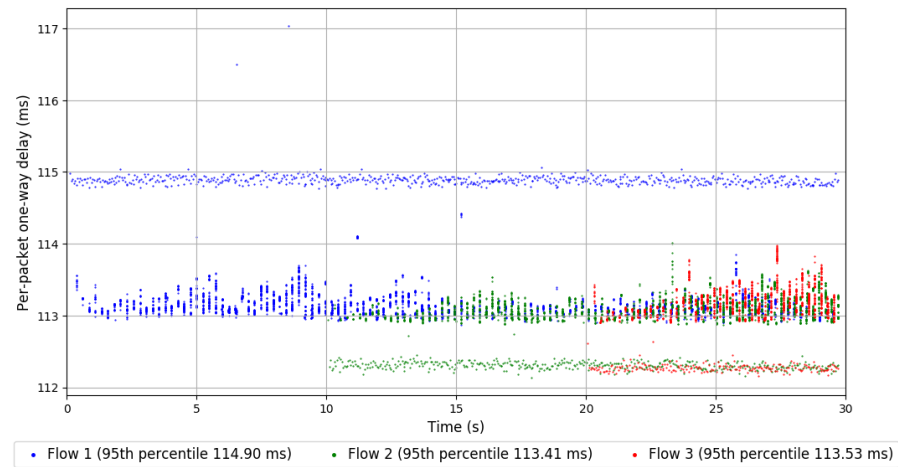
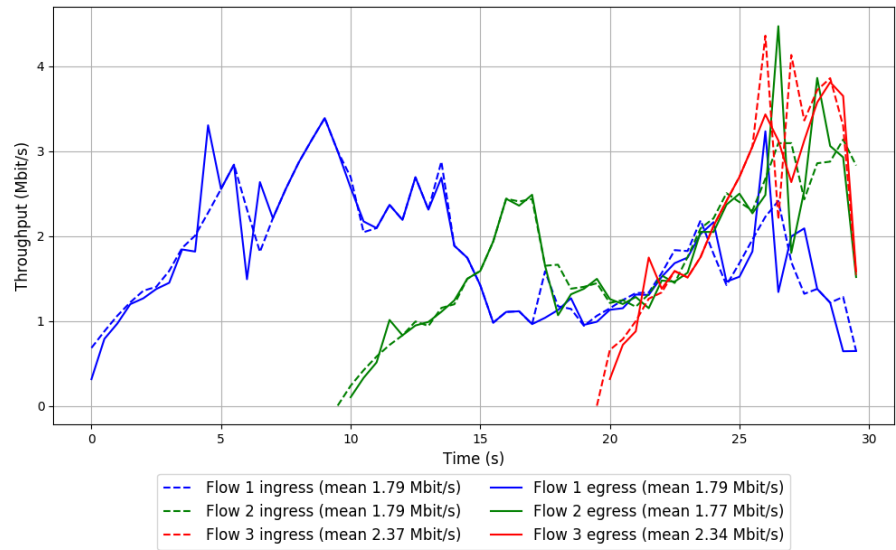
-- Flow 3:

Average throughput: 2.34 Mbit/s

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

Loss rate: 3.30%

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



Run 4: Statistics of Sprout

Start at: 2017-09-07 22:40:36

End at: 2017-09-07 22:41:06

# Below is generated by plot.py at 2017-09-08 03:34:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.98 Mbit/s

95th percentile per-packet one-way delay: 112.580 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 111.061 ms

Loss rate: 1.13%

-- Flow 2:

Average throughput: 2.05 Mbit/s

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

Loss rate: 1.81%

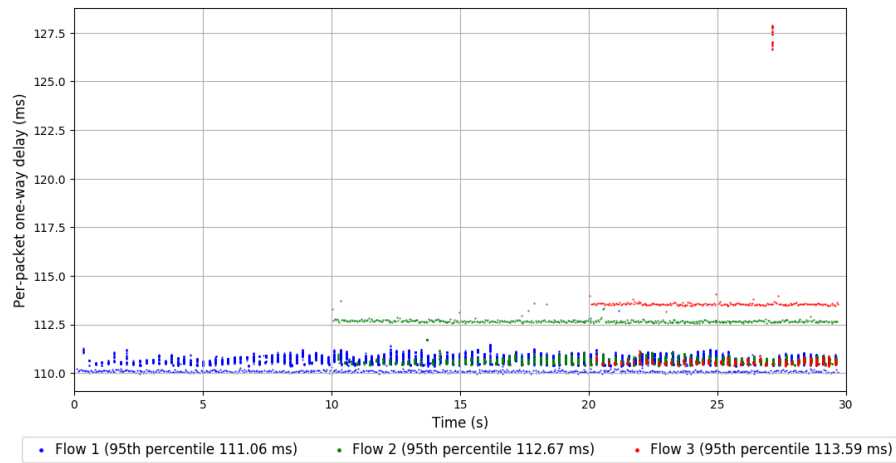
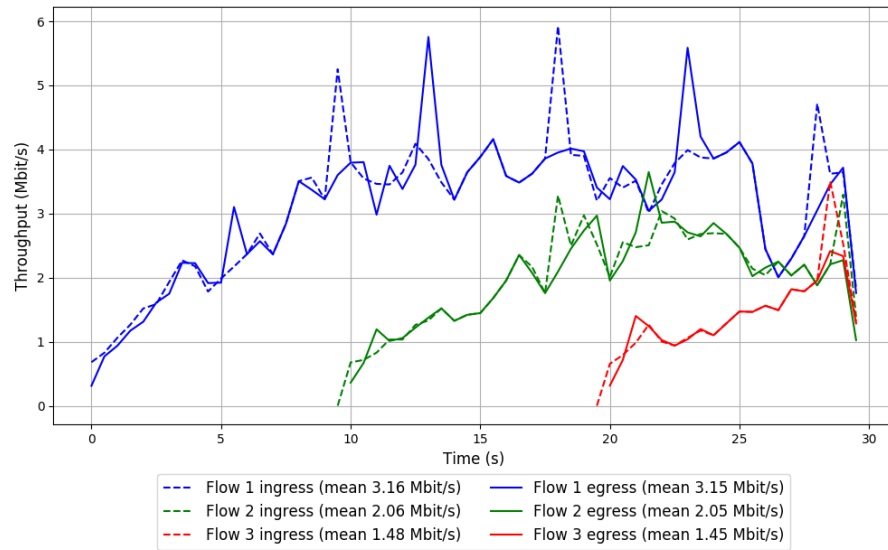
-- Flow 3:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 113.591 ms

Loss rate: 4.48%

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



Run 5: Statistics of Sprout

Start at: 2017-09-07 22:53:48

End at: 2017-09-07 22:54:18

# Below is generated by plot.py at 2017-09-08 03:34:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.41 Mbit/s

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

Loss rate: 1.82%

-- Flow 1:

Average throughput: 2.53 Mbit/s

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

Loss rate: 1.29%

-- Flow 2:

Average throughput: 1.88 Mbit/s

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

Loss rate: 1.44%

-- Flow 3:

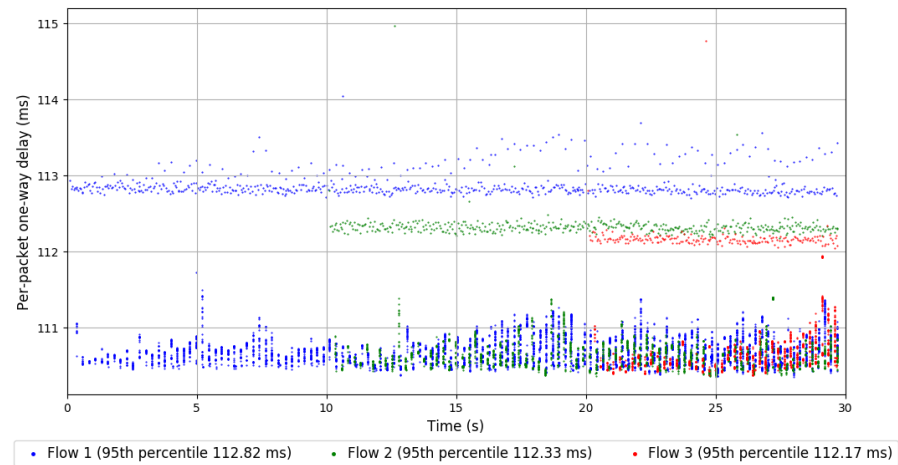
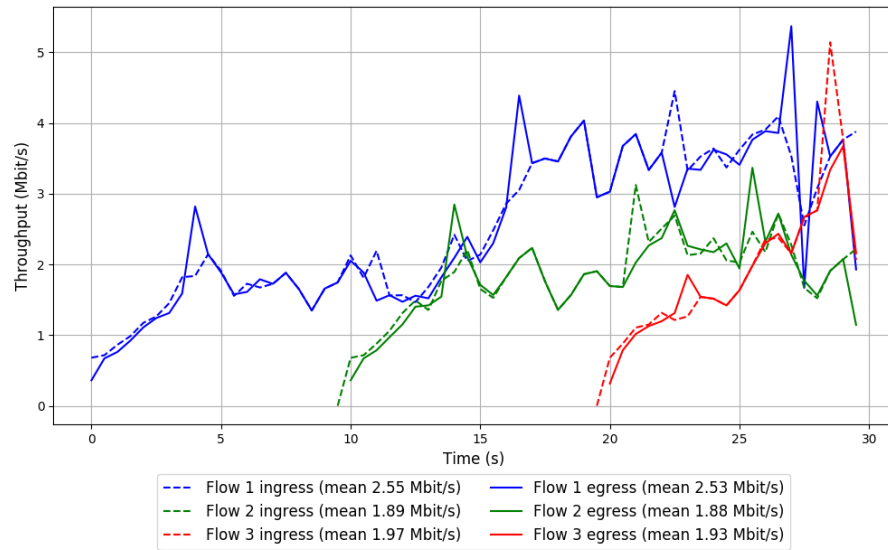
Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 112.166 ms

Loss rate: 4.63%



## Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-09-07 23:07:16

End at: 2017-09-07 23:07:46

# Below is generated by plot.py at 2017-09-08 03:34:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.95 Mbit/s

95th percentile per-packet one-way delay: 112.751 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 2.74 Mbit/s

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

Loss rate: 1.10%

-- Flow 2:

Average throughput: 2.36 Mbit/s

95th percentile per-packet one-way delay: 111.792 ms

Loss rate: 1.14%

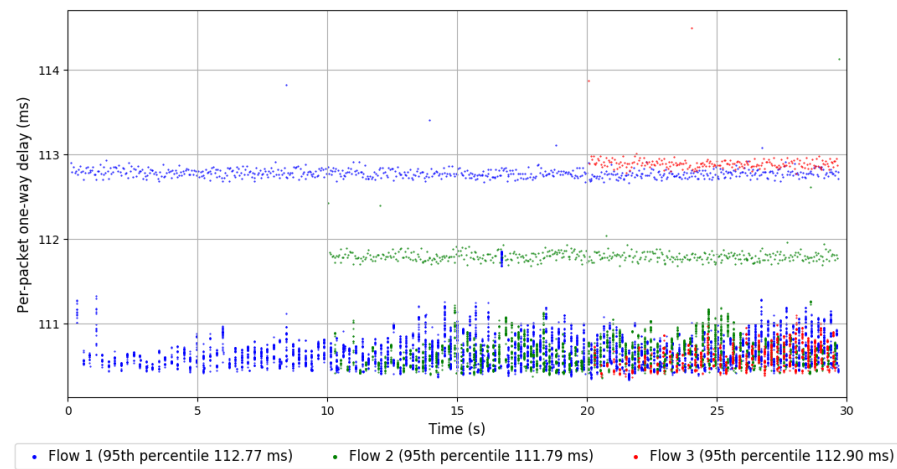
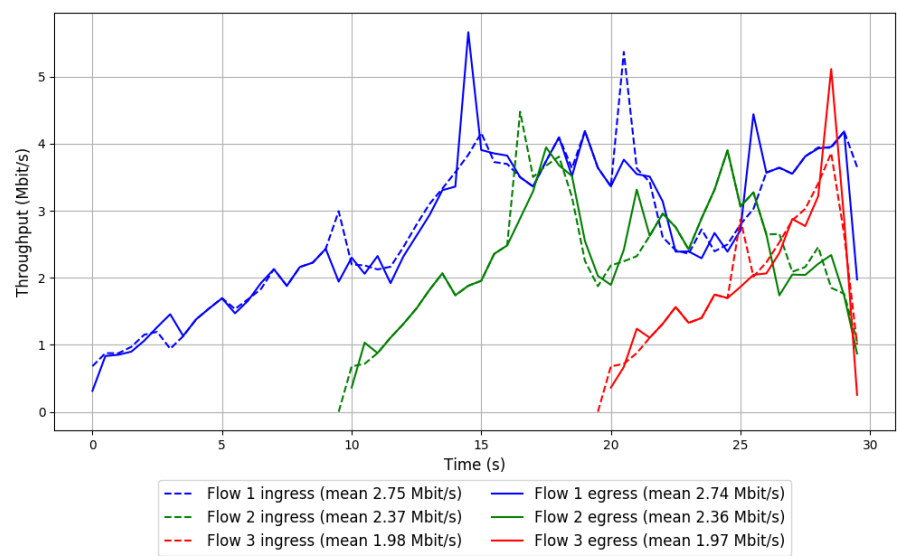
-- Flow 3:

Average throughput: 1.97 Mbit/s

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

Loss rate: 2.58%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-09-07 23:20:55

End at: 2017-09-07 23:21:25

# Below is generated by plot.py at 2017-09-08 03:34:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.61 Mbit/s

95th percentile per-packet one-way delay: 112.349 ms

Loss rate: 1.71%

-- Flow 1:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 112.198 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 113.700 ms

Loss rate: 2.09%

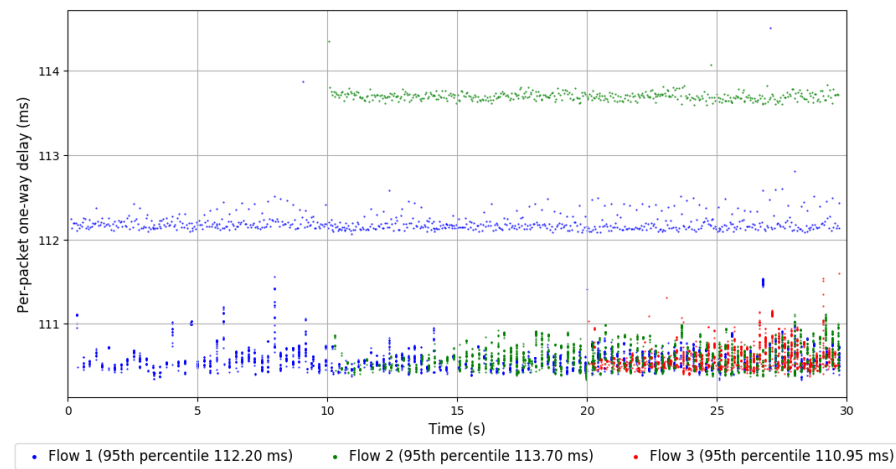
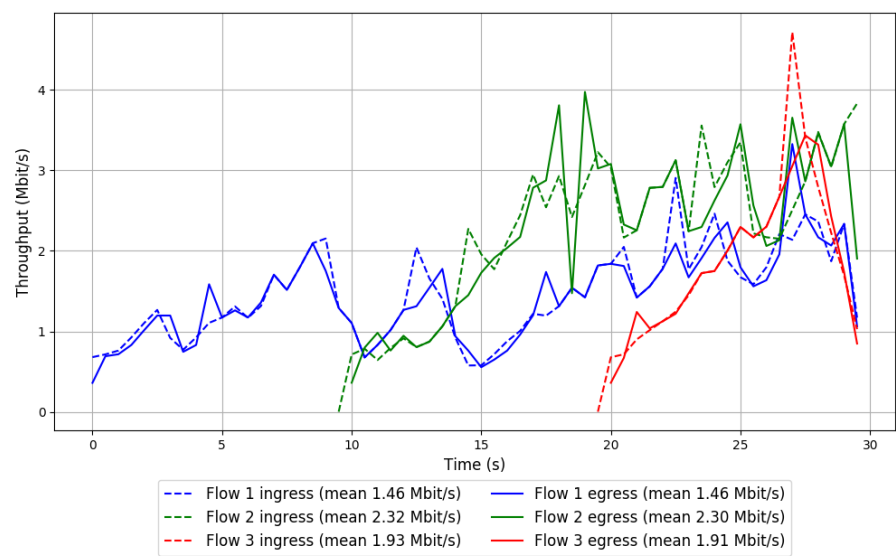
-- Flow 3:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 110.948 ms

Loss rate: 2.77%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-09-07 23:34:27

End at: 2017-09-07 23:34:57

# Below is generated by plot.py at 2017-09-08 03:34:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 112.725 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 112.797 ms

Loss rate: 1.87%

-- Flow 2:

Average throughput: 2.71 Mbit/s

95th percentile per-packet one-way delay: 112.328 ms

Loss rate: 0.86%

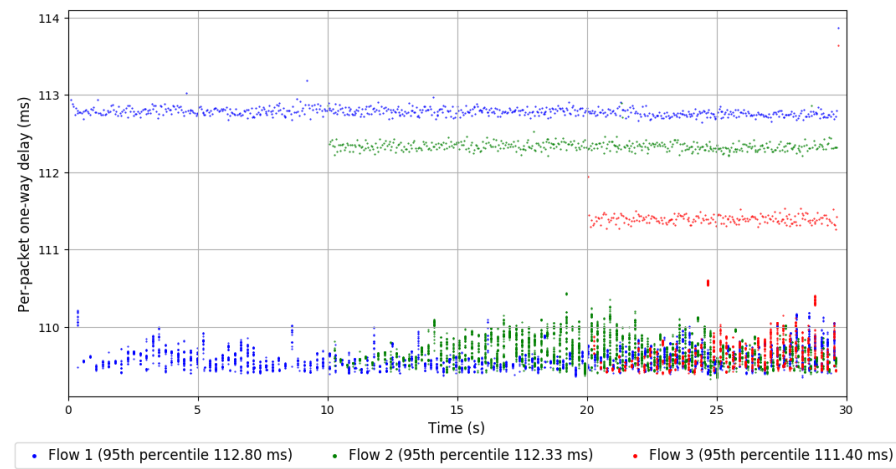
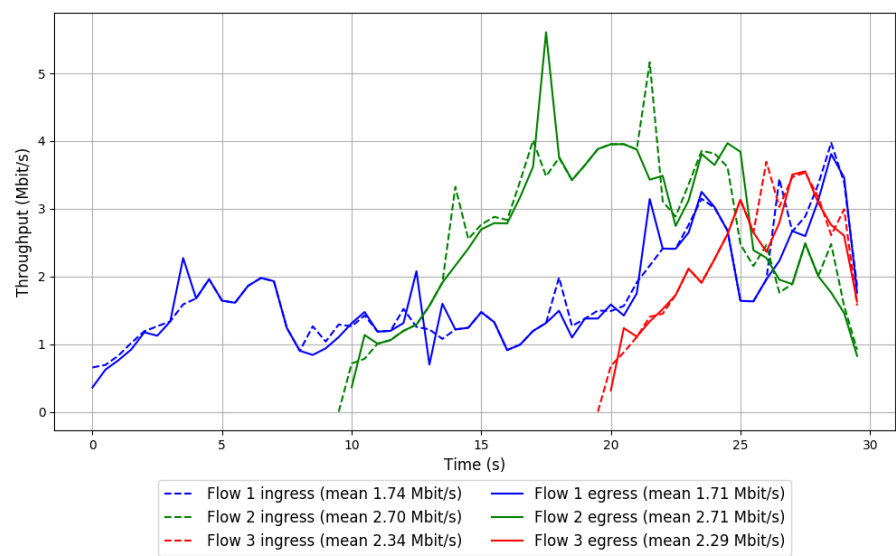
-- Flow 3:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 111.397 ms

Loss rate: 3.87%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-09-07 23:48:03

End at: 2017-09-07 23:48:33

# Below is generated by plot.py at 2017-09-08 03:34:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.30 Mbit/s

95th percentile per-packet one-way delay: 111.383 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 2.96 Mbit/s

95th percentile per-packet one-way delay: 111.355 ms

Loss rate: 1.63%

-- Flow 2:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 112.395 ms

Loss rate: 0.60%

-- Flow 3:

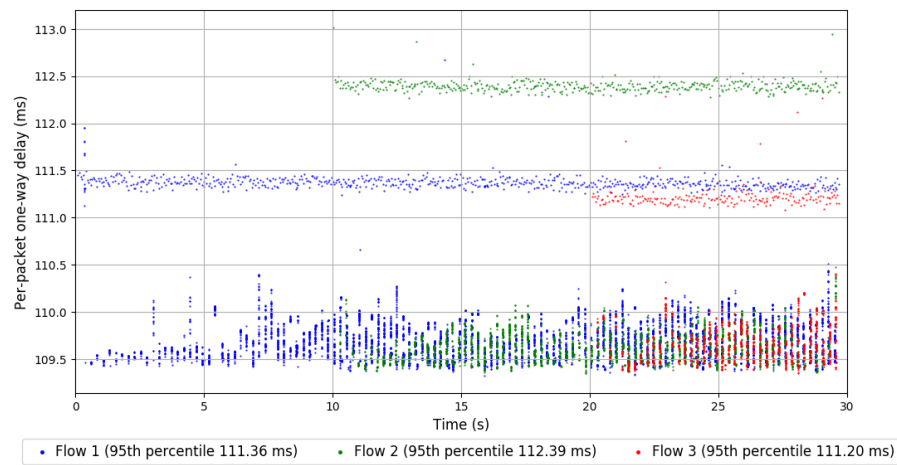
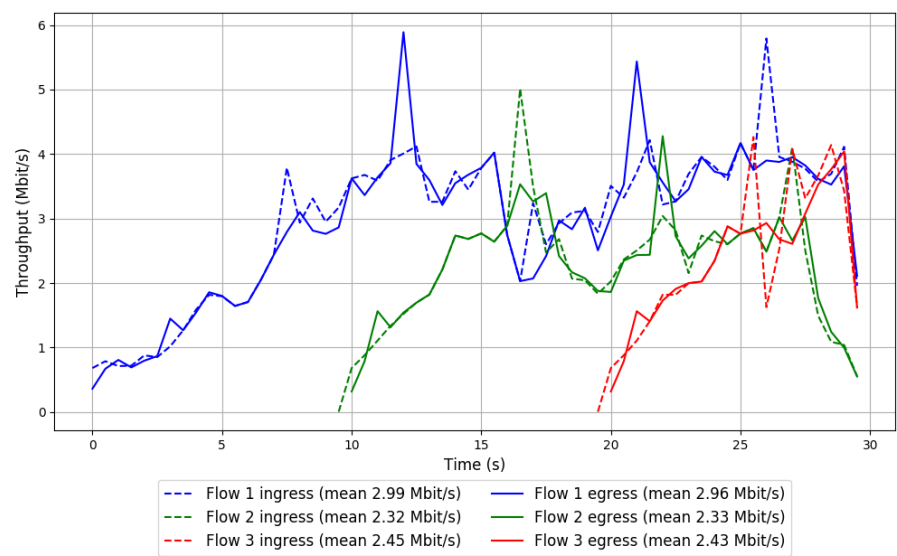
Average throughput: 2.43 Mbit/s

95th percentile per-packet one-way delay: 111.203 ms

Loss rate: 3.36%



Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-09-08 00:01:23

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

# Below is generated by plot.py at 2017-09-08 03:35:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.24 Mbit/s

95th percentile per-packet one-way delay: 111.237 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 2.88 Mbit/s

95th percentile per-packet one-way delay: 111.200 ms

Loss rate: 1.13%

-- Flow 2:

Average throughput: 2.44 Mbit/s

95th percentile per-packet one-way delay: 112.510 ms

Loss rate: 0.77%

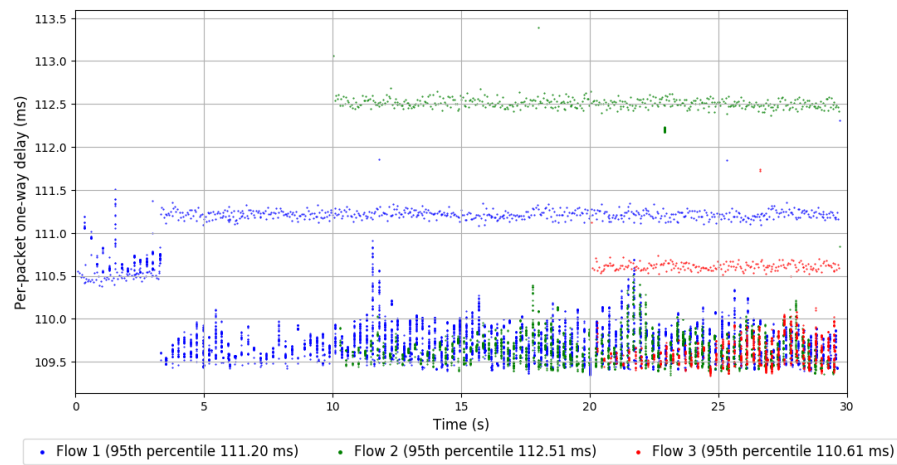
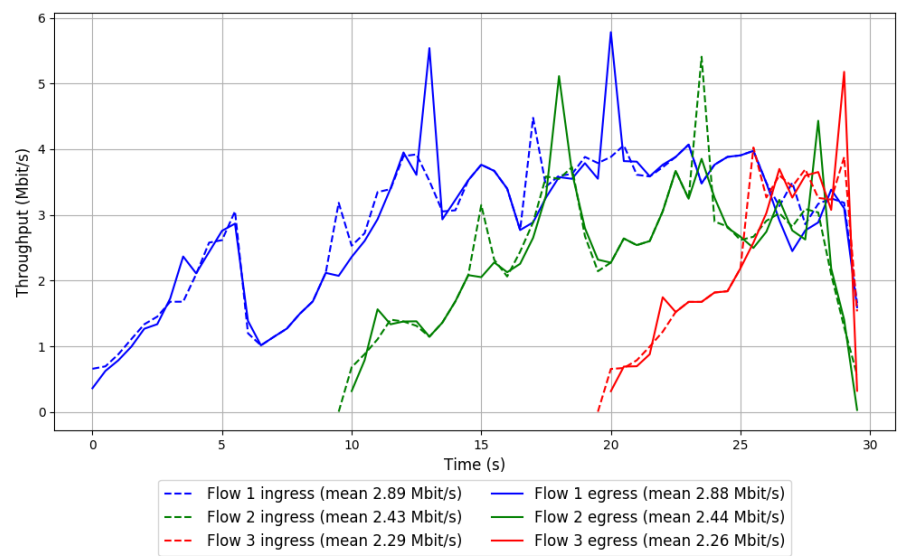
-- Flow 3:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 110.614 ms

Loss rate: 3.40%

Run 10: Report of Sprout — Data Link

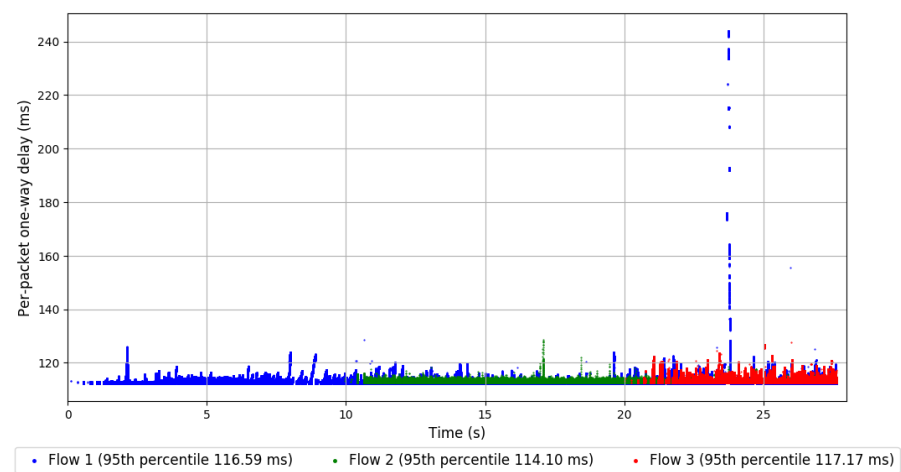
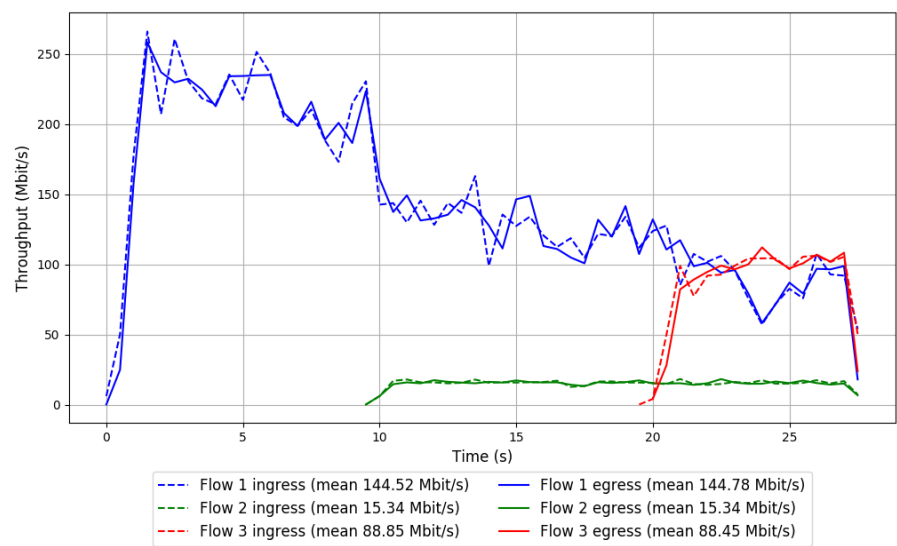


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-07 21:57:11
End at: 2017-09-07 21:57:41

# Below is generated by plot.py at 2017-09-08 03:36:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 179.11 Mbit/s
95th percentile per-packet one-way delay: 116.597 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 144.78 Mbit/s
95th percentile per-packet one-way delay: 116.590 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 15.34 Mbit/s
95th percentile per-packet one-way delay: 114.103 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 88.45 Mbit/s
95th percentile per-packet one-way delay: 117.170 ms
Loss rate: 3.20%
```

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

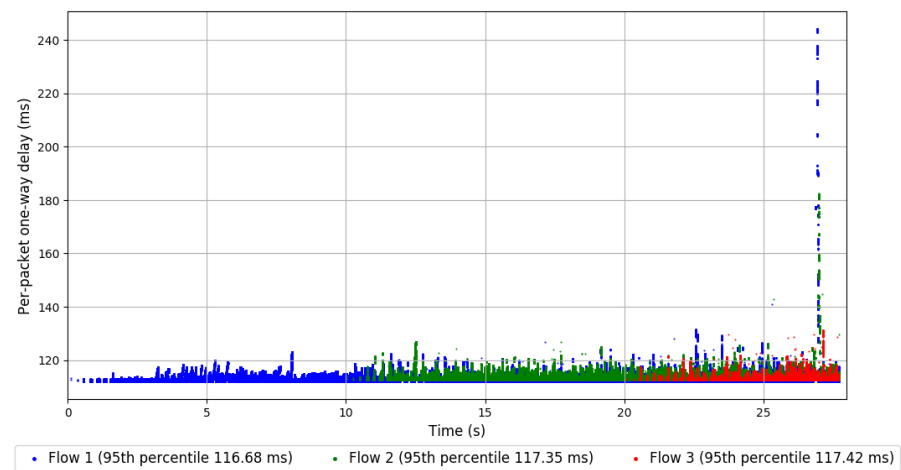
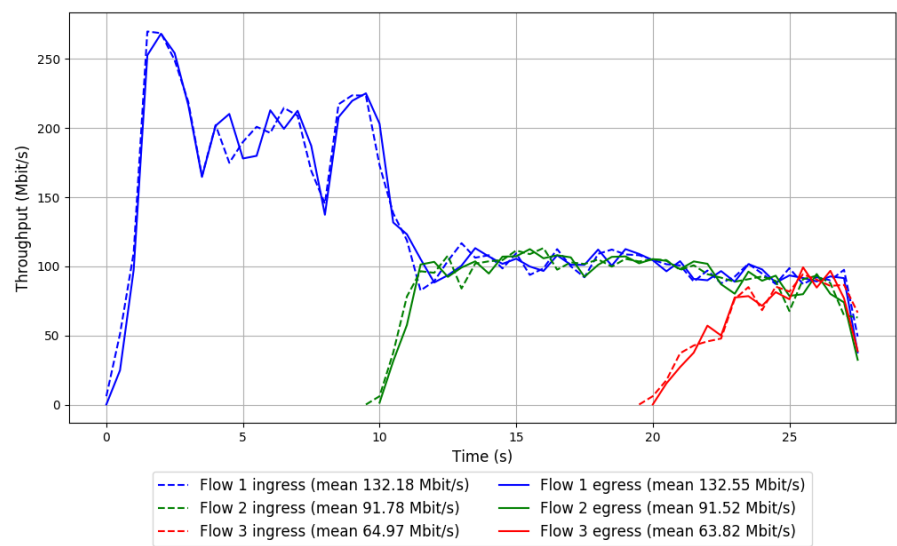


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-07 22:10:43
End at: 2017-09-07 22:11:13

# Below is generated by plot.py at 2017-09-08 03:36:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 208.68 Mbit/s
95th percentile per-packet one-way delay: 116.943 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 132.55 Mbit/s
95th percentile per-packet one-way delay: 116.677 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 91.52 Mbit/s
95th percentile per-packet one-way delay: 117.347 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 63.82 Mbit/s
95th percentile per-packet one-way delay: 117.418 ms
Loss rate: 4.81%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-09-07 22:24:19

End at: 2017-09-07 22:24:49

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 209.41 Mbit/s

95th percentile per-packet one-way delay: 115.081 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 188.04 Mbit/s

95th percentile per-packet one-way delay: 114.929 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 8.82 Mbit/s

95th percentile per-packet one-way delay: 113.000 ms

Loss rate: 0.00%

-- Flow 3:

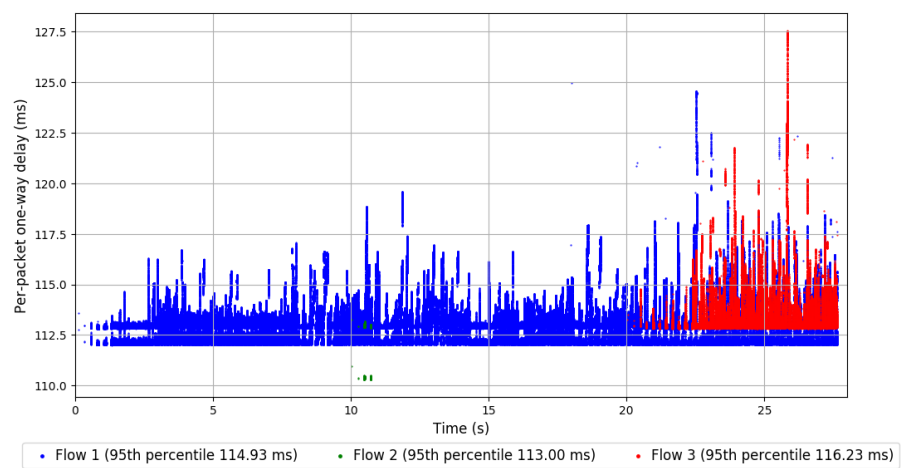
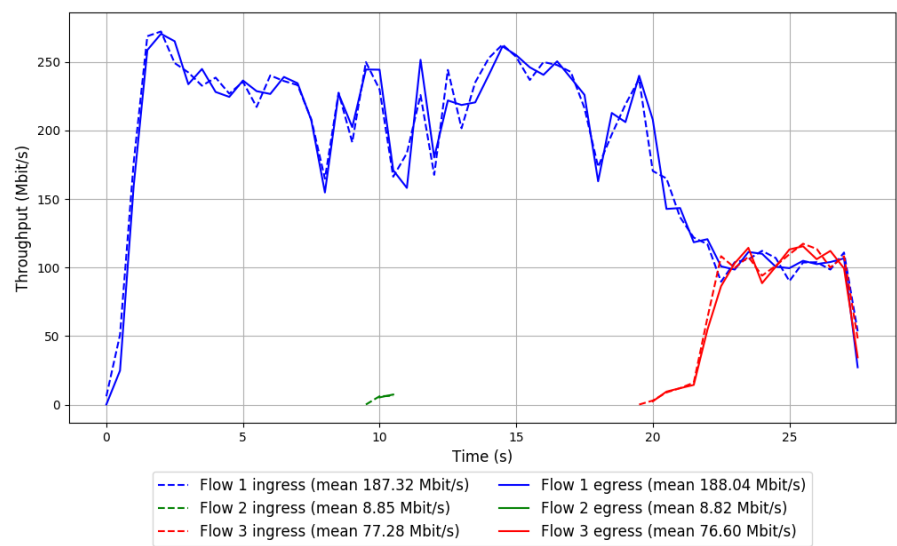
Average throughput: 76.60 Mbit/s

95th percentile per-packet one-way delay: 116.233 ms

Loss rate: 3.70%



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



Run 4: Statistics of TaoVA-100x

Start at: 2017-09-07 22:37:55

End at: 2017-09-07 22:38:25

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 109.96 Mbit/s

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

Loss rate: 1.55%

-- Flow 1:

Average throughput: 14.62 Mbit/s

95th percentile per-packet one-way delay: 112.833 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 116.58 Mbit/s

95th percentile per-packet one-way delay: 112.849 ms

Loss rate: 1.04%

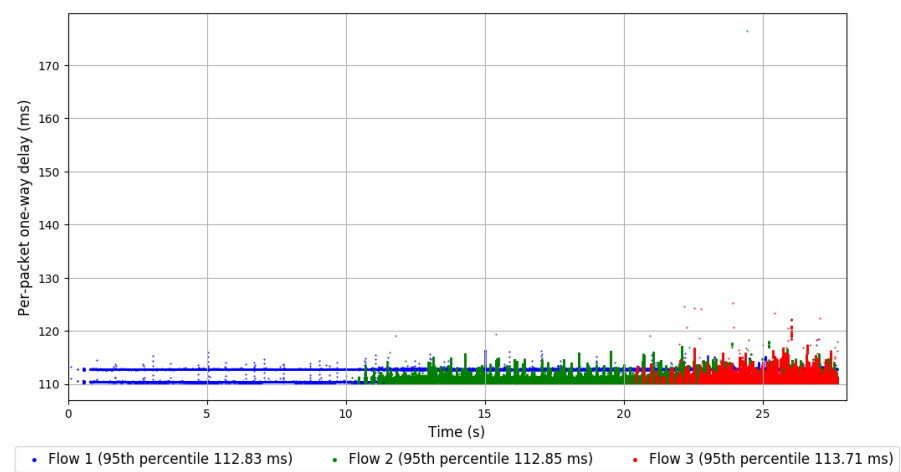
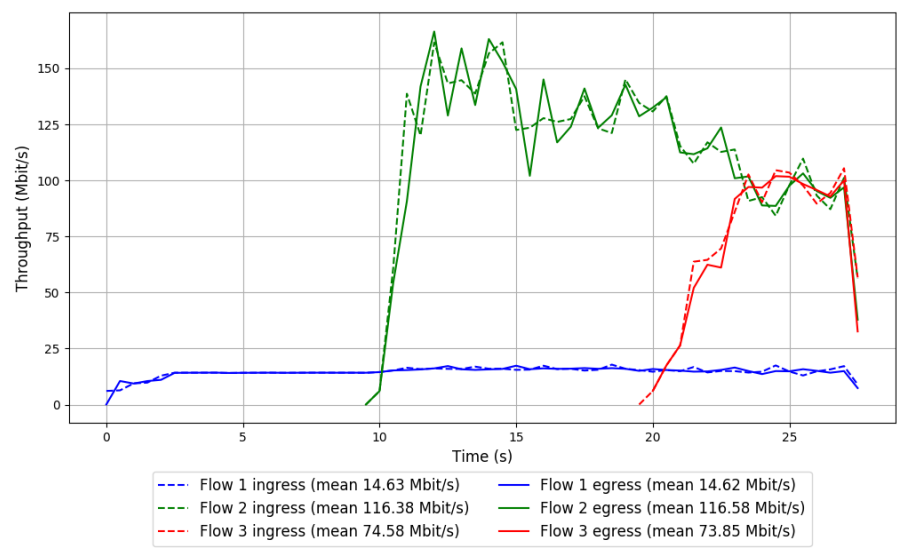
-- Flow 3:

Average throughput: 73.85 Mbit/s

95th percentile per-packet one-way delay: 113.712 ms

Loss rate: 3.78%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-09-07 22:51:16

End at: 2017-09-07 22:51:46

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 31.15 Mbit/s

95th percentile per-packet one-way delay: 113.567 ms

Loss rate: 1.88%

-- Flow 1:

Average throughput: 15.06 Mbit/s

95th percentile per-packet one-way delay: 112.656 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 13.60 Mbit/s

95th percentile per-packet one-way delay: 113.622 ms

Loss rate: 1.46%

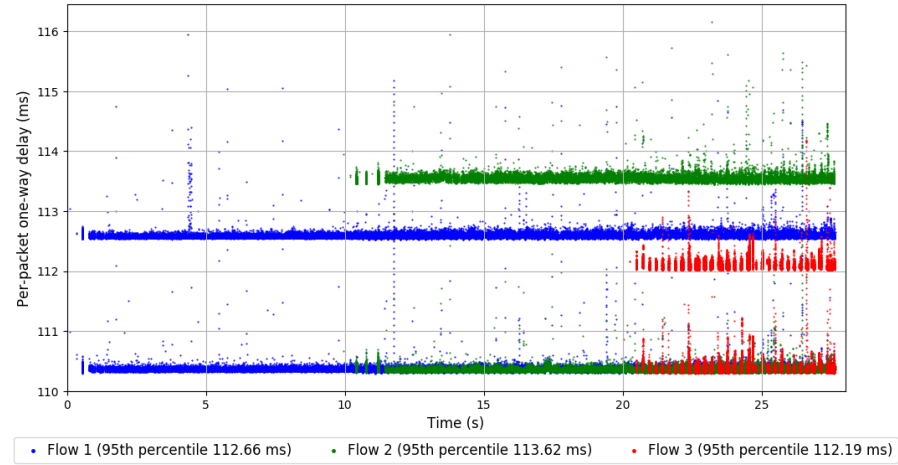
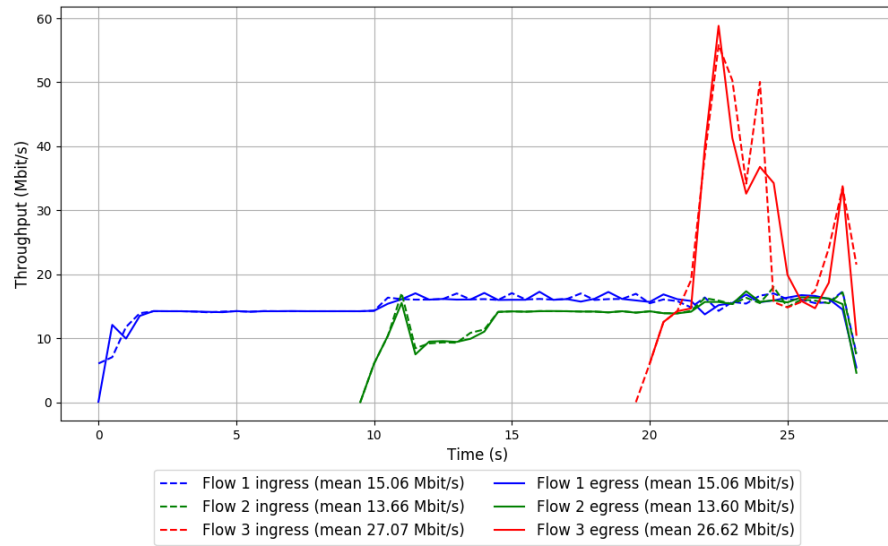
-- Flow 3:

Average throughput: 26.62 Mbit/s

95th percentile per-packet one-way delay: 112.193 ms

Loss rate: 4.46%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-09-07 23:04:36

End at: 2017-09-07 23:05:06

# Below is generated by plot.py at 2017-09-08 03:37:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 109.50 Mbit/s

95th percentile per-packet one-way delay: 113.451 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 14.45 Mbit/s

95th percentile per-packet one-way delay: 112.904 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 119.30 Mbit/s

95th percentile per-packet one-way delay: 113.232 ms

Loss rate: 0.90%

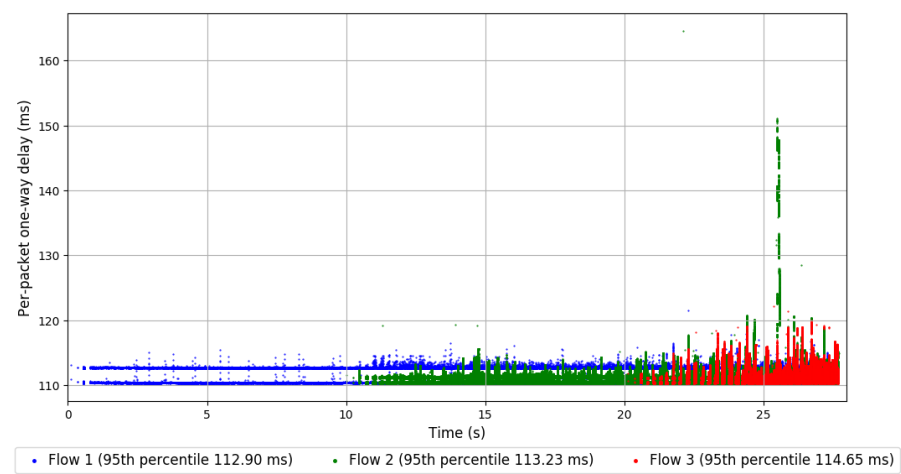
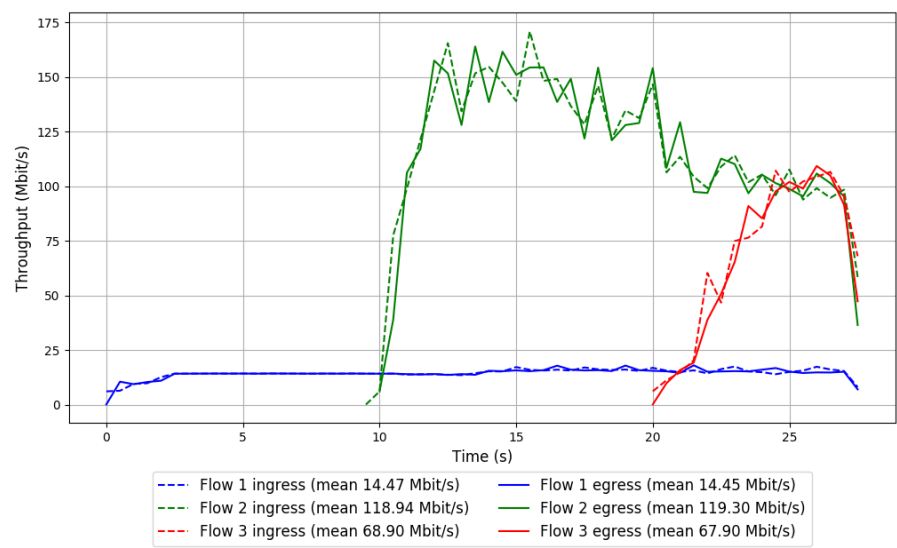
-- Flow 3:

Average throughput: 67.90 Mbit/s

95th percentile per-packet one-way delay: 114.651 ms

Loss rate: 4.27%

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



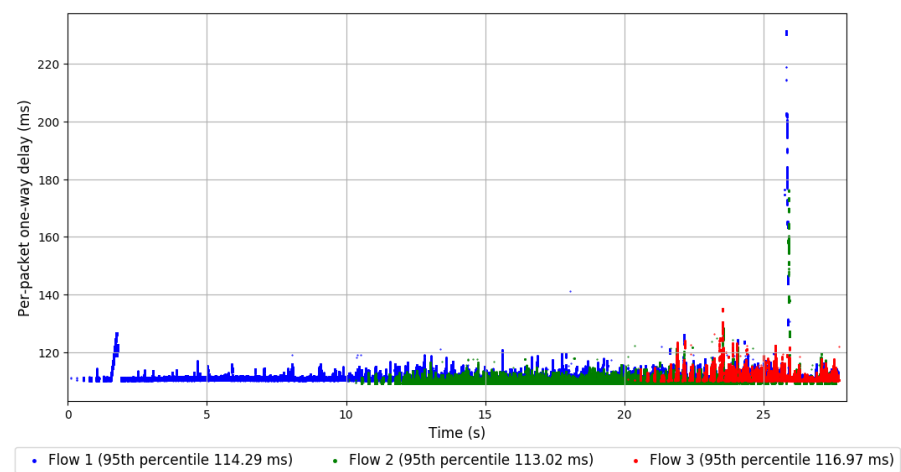
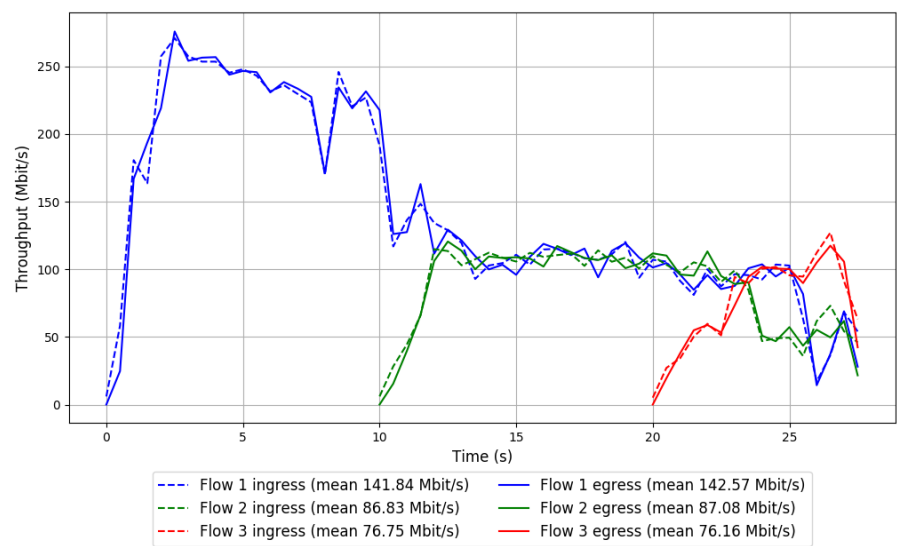
```
Run 7: Statistics of TaoVA-100x

Start at: 2017-09-07 23:18:05
End at: 2017-09-07 23:18:35

# Below is generated by plot.py at 2017-09-08 03:38:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 218.51 Mbit/s
95th percentile per-packet one-way delay: 114.423 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 142.57 Mbit/s
95th percentile per-packet one-way delay: 114.294 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 87.08 Mbit/s
95th percentile per-packet one-way delay: 113.023 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 76.16 Mbit/s
95th percentile per-packet one-way delay: 116.969 ms
Loss rate: 3.56%
```



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



Run 8: Statistics of TaoVA-100x

Start at: 2017-09-07 23:31:38

End at: 2017-09-07 23:32:08

# Below is generated by plot.py at 2017-09-08 03:38:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 201.17 Mbit/s

95th percentile per-packet one-way delay: 113.692 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 134.48 Mbit/s

95th percentile per-packet one-way delay: 111.523 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 116.021 ms

Loss rate: 1.73%

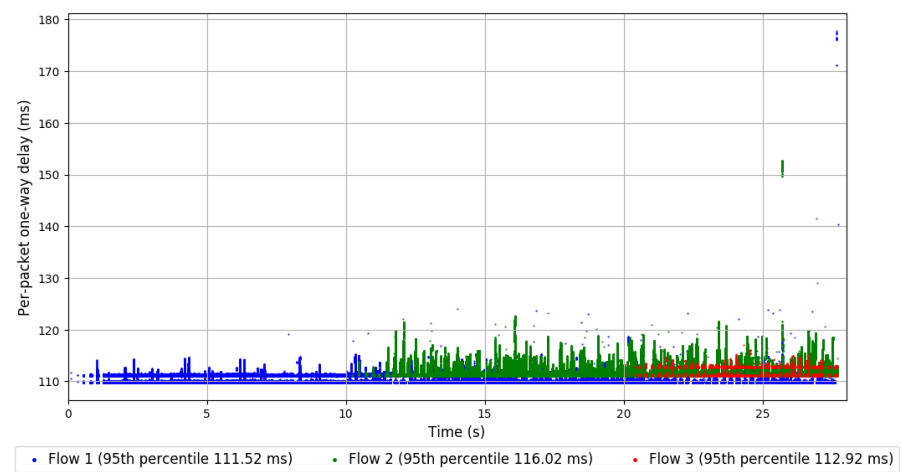
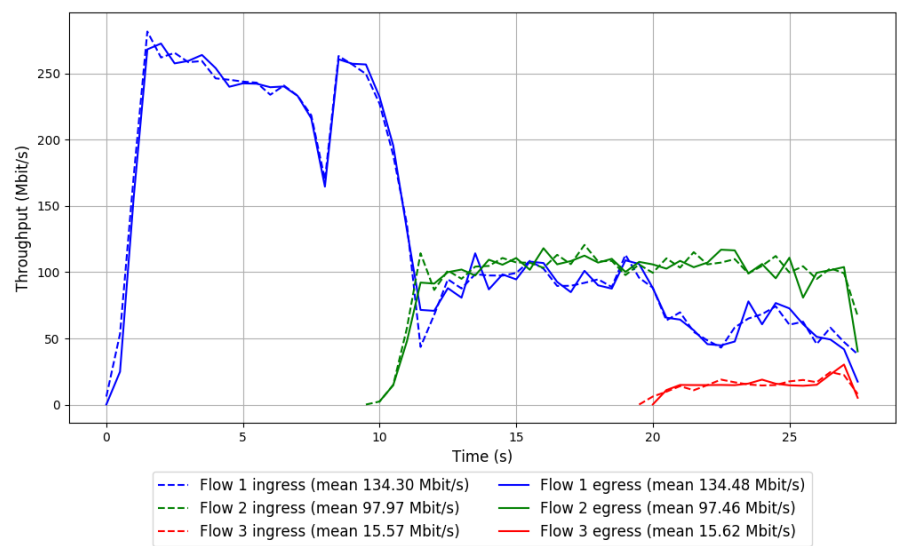
-- Flow 3:

Average throughput: 15.62 Mbit/s

95th percentile per-packet one-way delay: 112.925 ms

Loss rate: 2.51%

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

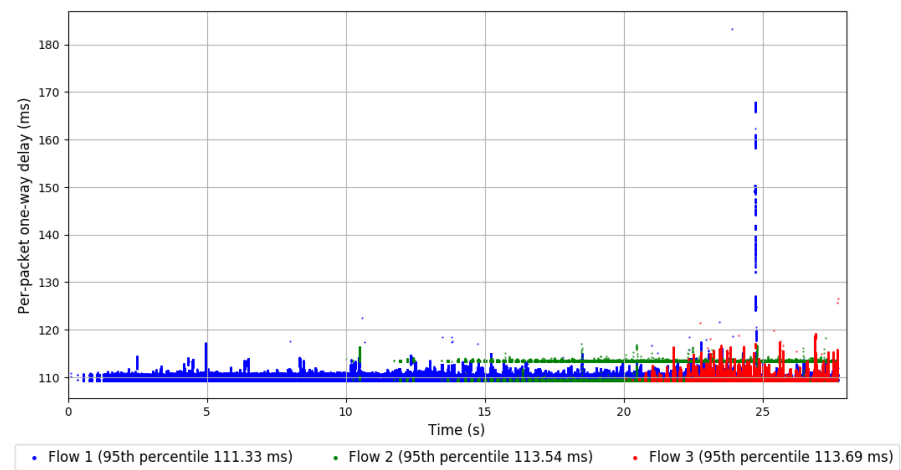
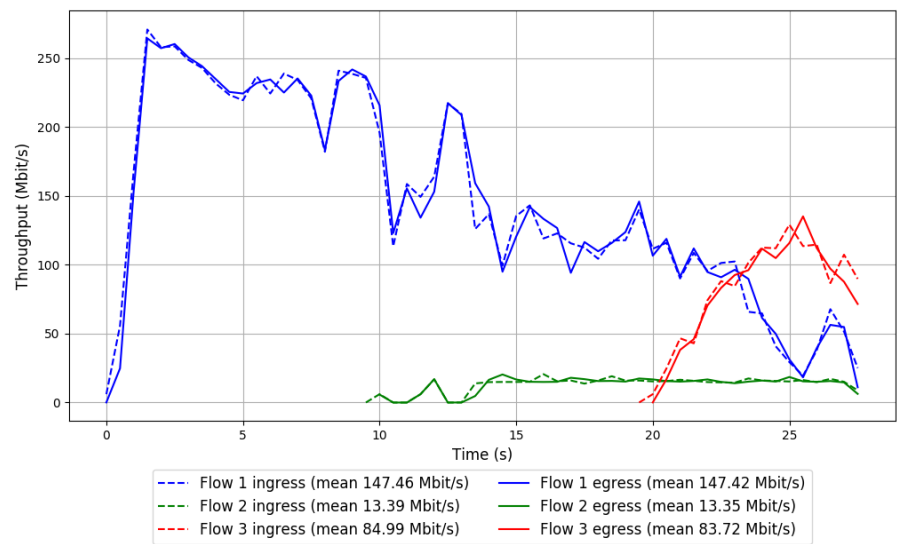


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-09-07 23:45:16
End at: 2017-09-07 23:45:46

# Below is generated by plot.py at 2017-09-08 03:39:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 179.10 Mbit/s
95th percentile per-packet one-way delay: 112.359 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 147.42 Mbit/s
95th percentile per-packet one-way delay: 111.330 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 13.35 Mbit/s
95th percentile per-packet one-way delay: 113.539 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 83.72 Mbit/s
95th percentile per-packet one-way delay: 113.694 ms
Loss rate: 4.11%
```

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

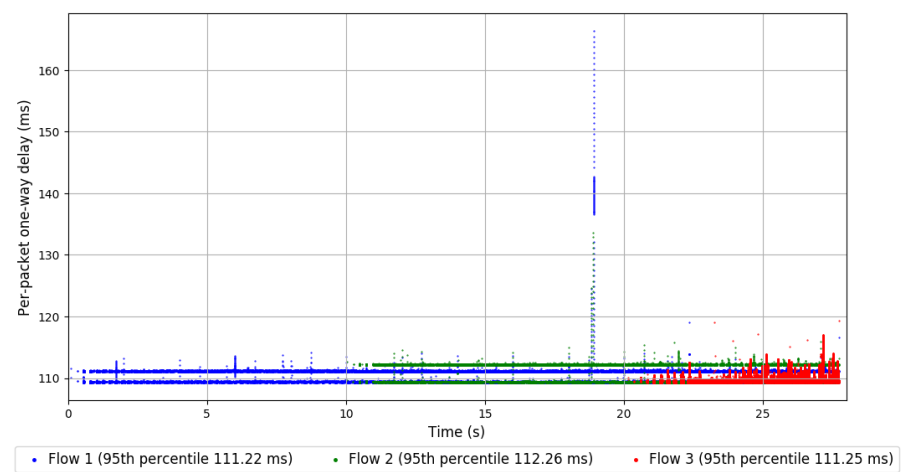
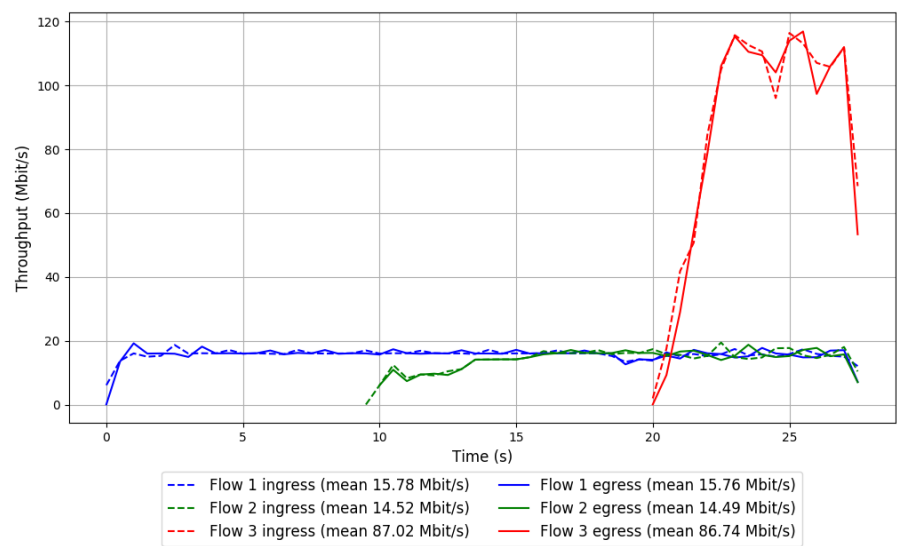


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-09-07 23:58:50
End at: 2017-09-07 23:59:20

# Below is generated by plot.py at 2017-09-08 03:39:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.86 Mbit/s
95th percentile per-packet one-way delay: 112.197 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 15.76 Mbit/s
95th percentile per-packet one-way delay: 111.218 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 14.49 Mbit/s
95th percentile per-packet one-way delay: 112.261 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 86.74 Mbit/s
95th percentile per-packet one-way delay: 111.246 ms
Loss rate: 3.16%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-09-07 21:49:09

End at: 2017-09-07 21:49:39

# Below is generated by plot.py at 2017-09-08 03:39:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 123.85 Mbit/s

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

Loss rate: 1.16%

-- Flow 1:

Average throughput: 82.70 Mbit/s

95th percentile per-packet one-way delay: 112.319 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 36.95 Mbit/s

95th percentile per-packet one-way delay: 114.421 ms

Loss rate: 1.20%

-- Flow 3:

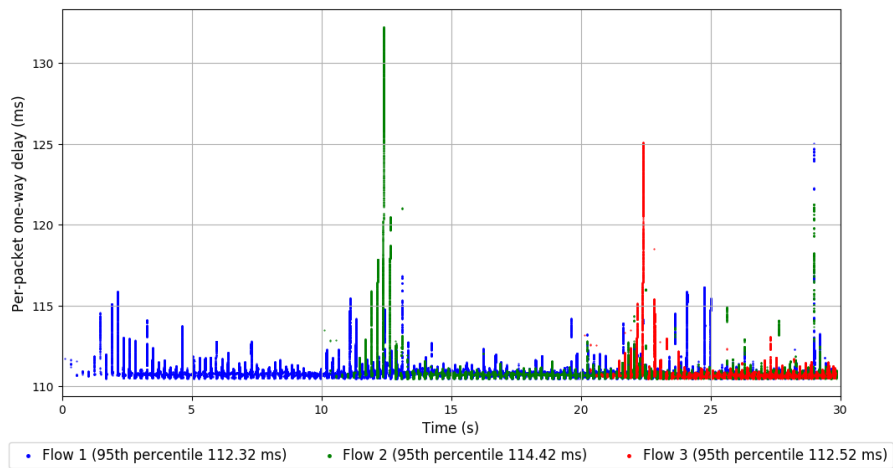
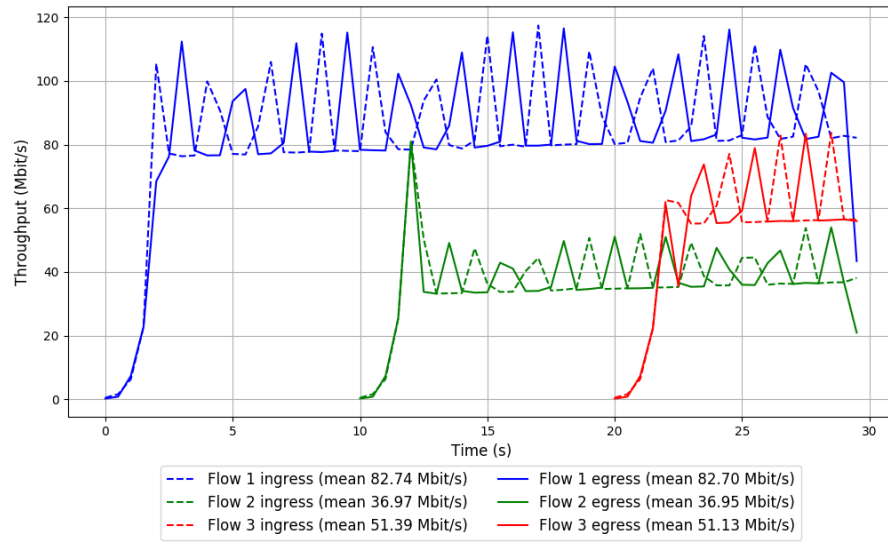
Average throughput: 51.13 Mbit/s

95th percentile per-packet one-way delay: 112.518 ms

Loss rate: 2.78%



# Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-09-07 22:02:38

End at: 2017-09-07 22:03:08

# Below is generated by plot.py at 2017-09-08 03:39:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 51.42 Mbit/s

95th percentile per-packet one-way delay: 114.259 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 28.00 Mbit/s

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

Loss rate: 1.21%

-- Flow 2:

Average throughput: 13.79 Mbit/s

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

Loss rate: 0.55%

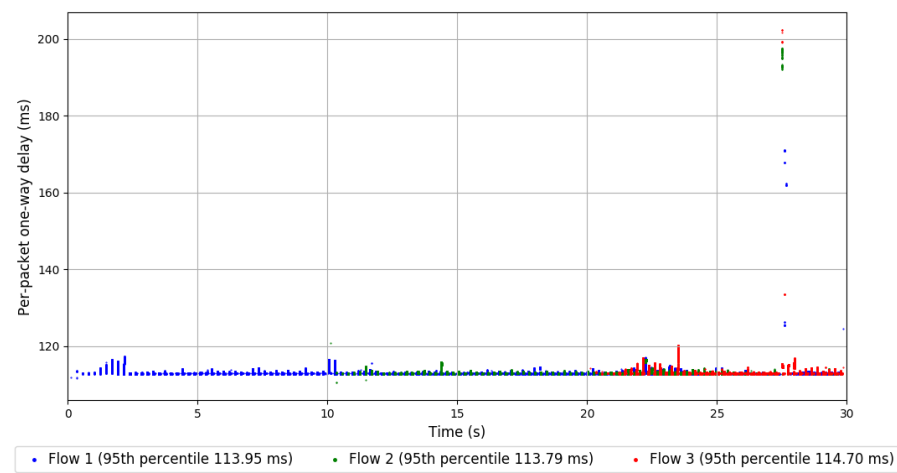
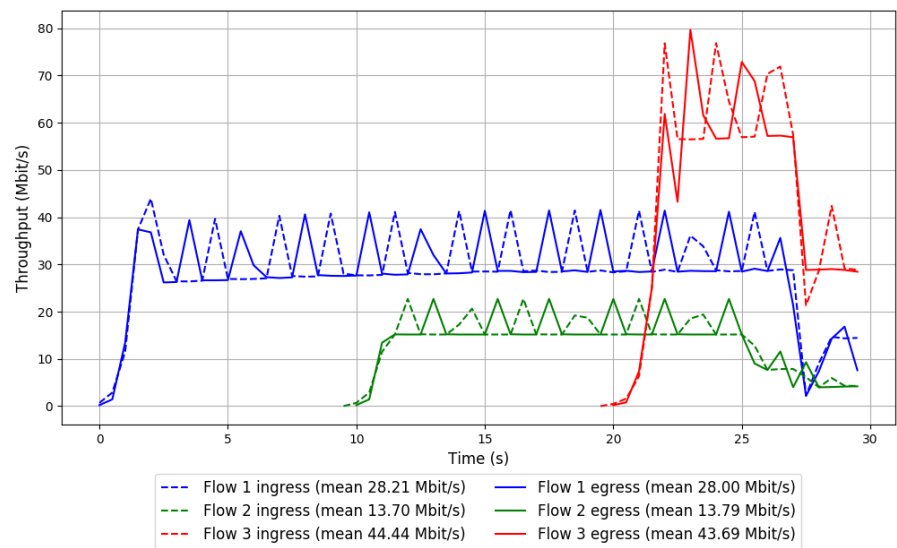
-- Flow 3:

Average throughput: 43.69 Mbit/s

95th percentile per-packet one-way delay: 114.699 ms

Loss rate: 3.95%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-09-07 22:16:14

End at: 2017-09-07 22:16:44

# Below is generated by plot.py at 2017-09-08 03:39:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.05 Mbit/s

95th percentile per-packet one-way delay: 115.352 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 48.64 Mbit/s

95th percentile per-packet one-way delay: 114.419 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 39.10 Mbit/s

95th percentile per-packet one-way delay: 114.596 ms

Loss rate: 0.97%

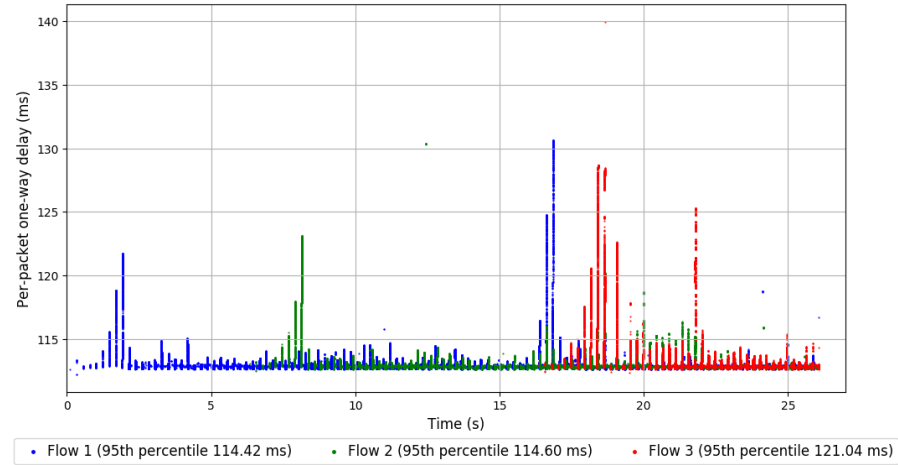
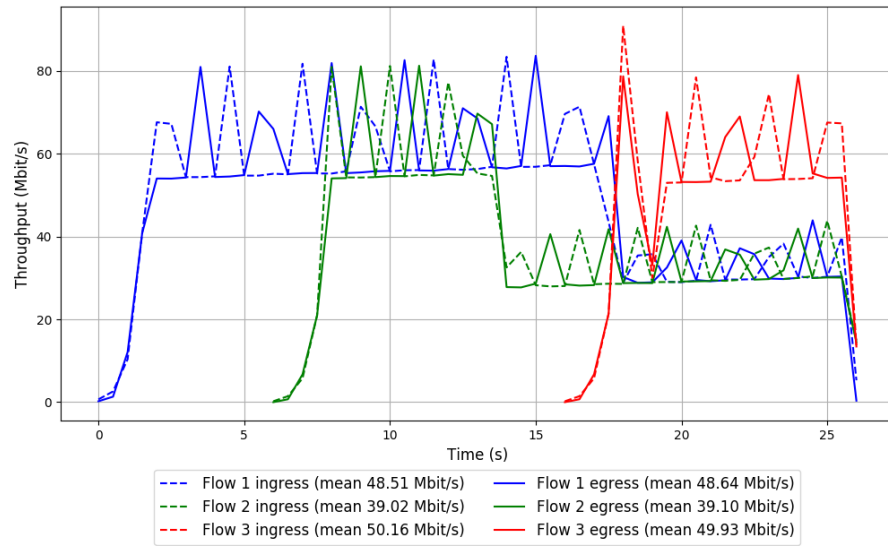
-- Flow 3:

Average throughput: 49.93 Mbit/s

95th percentile per-packet one-way delay: 121.037 ms

Loss rate: 2.72%

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



Run 4: Statistics of TCP Vegas

Start at: 2017-09-07 22:29:48

End at: 2017-09-07 22:30:18

# Below is generated by plot.py at 2017-09-08 03:39:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 56.54 Mbit/s

95th percentile per-packet one-way delay: 114.491 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 28.47 Mbit/s

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

Loss rate: 0.44%

-- Flow 2:

Average throughput: 34.53 Mbit/s

95th percentile per-packet one-way delay: 115.843 ms

Loss rate: 1.22%

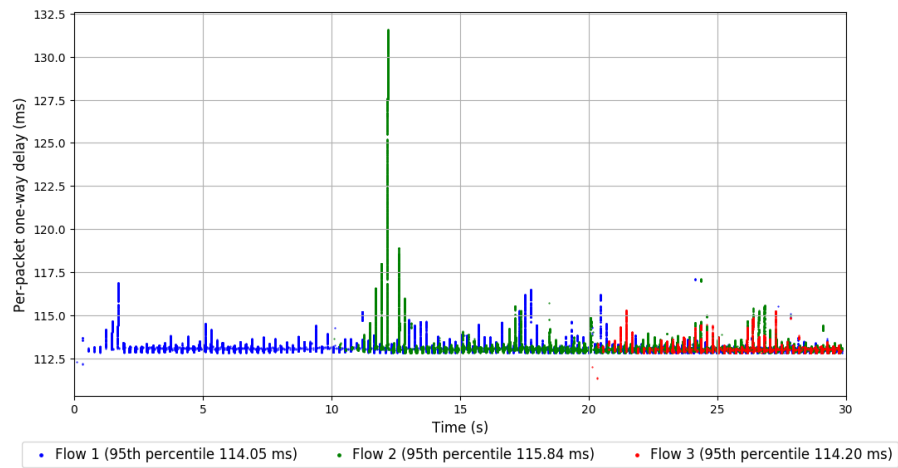
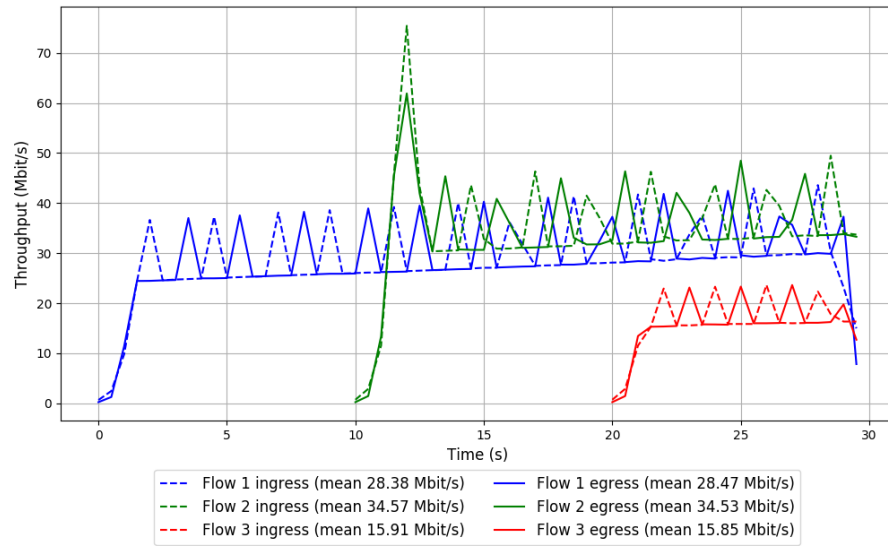
-- Flow 3:

Average throughput: 15.85 Mbit/s

95th percentile per-packet one-way delay: 114.199 ms

Loss rate: 2.59%

# Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-09-07 22:43:17

End at: 2017-09-07 22:43:47

# Below is generated by plot.py at 2017-09-08 03:39:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 76.89 Mbit/s

95th percentile per-packet one-way delay: 111.710 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 44.69 Mbit/s

95th percentile per-packet one-way delay: 111.542 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 31.79 Mbit/s

95th percentile per-packet one-way delay: 112.585 ms

Loss rate: 1.24%

-- Flow 3:

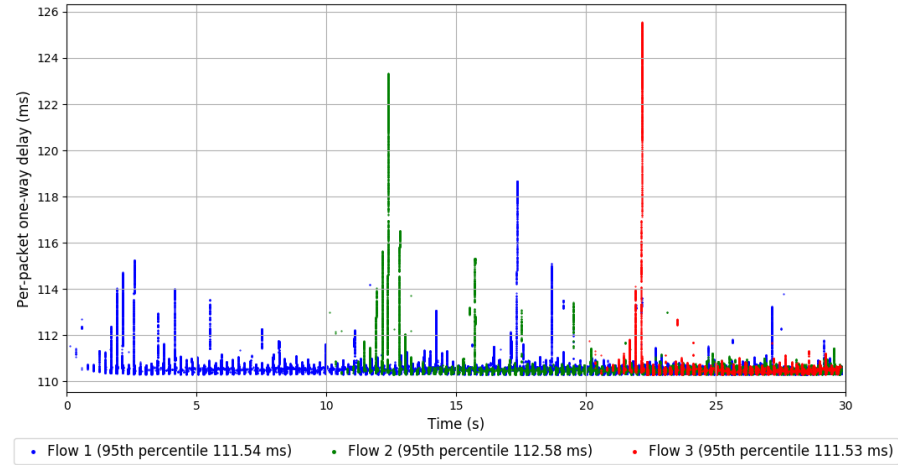
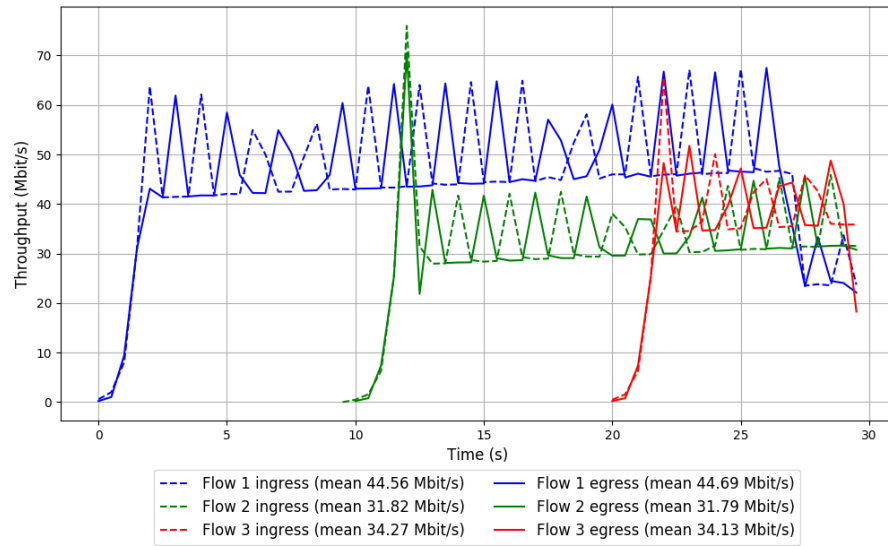
Average throughput: 34.13 Mbit/s

95th percentile per-packet one-way delay: 111.532 ms

Loss rate: 2.65%



# Run 5: Report of TCP Vegas — Data Link

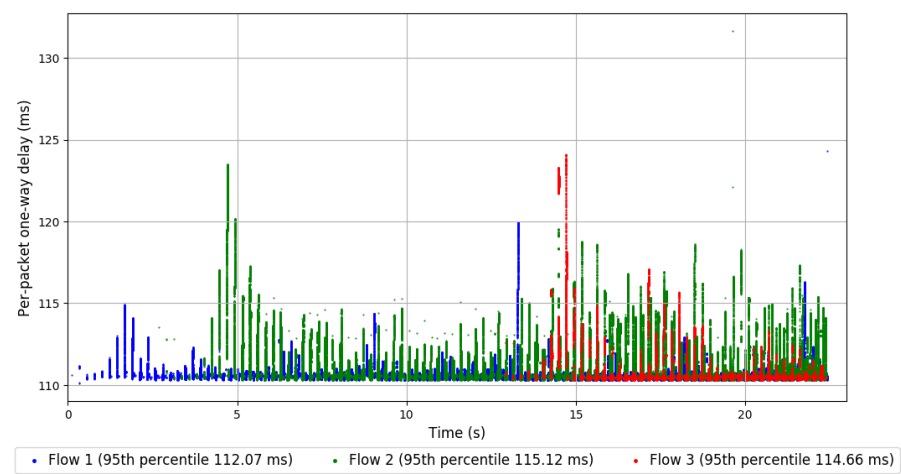
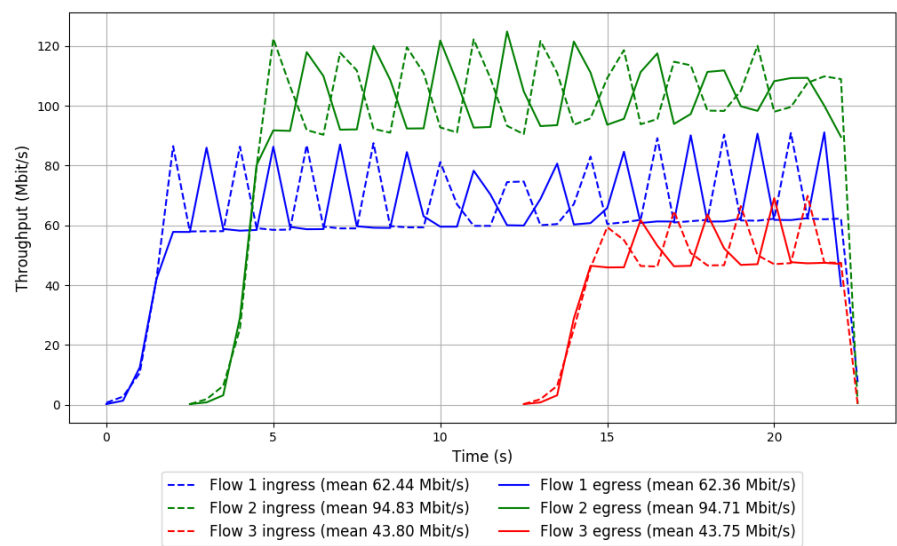


Run 6: Statistics of TCP Vegas

Start at: 2017-09-07 22:56:27

End at: 2017-09-07 22:56:57

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-09-07 23:09:57

End at: 2017-09-07 23:10:27

# Below is generated by plot.py at 2017-09-08 03:40:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 56.08 Mbit/s

95th percentile per-packet one-way delay: 112.259 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 23.80 Mbit/s

95th percentile per-packet one-way delay: 111.656 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 32.64 Mbit/s

95th percentile per-packet one-way delay: 113.084 ms

Loss rate: 1.14%

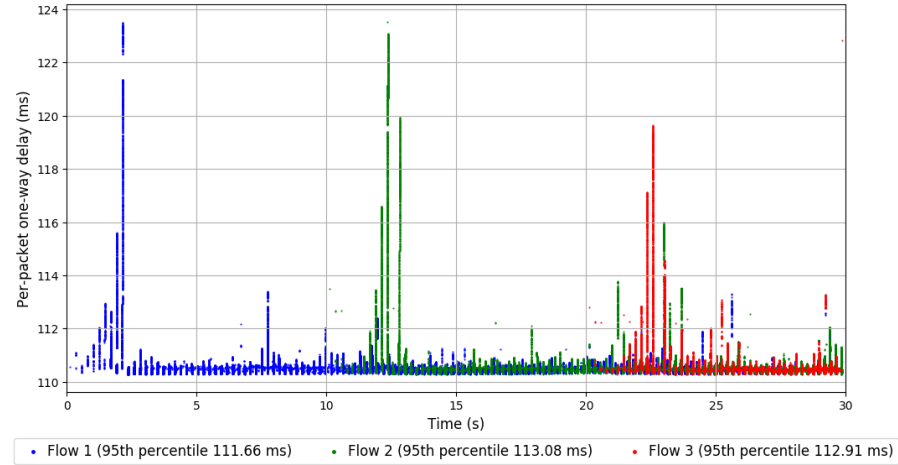
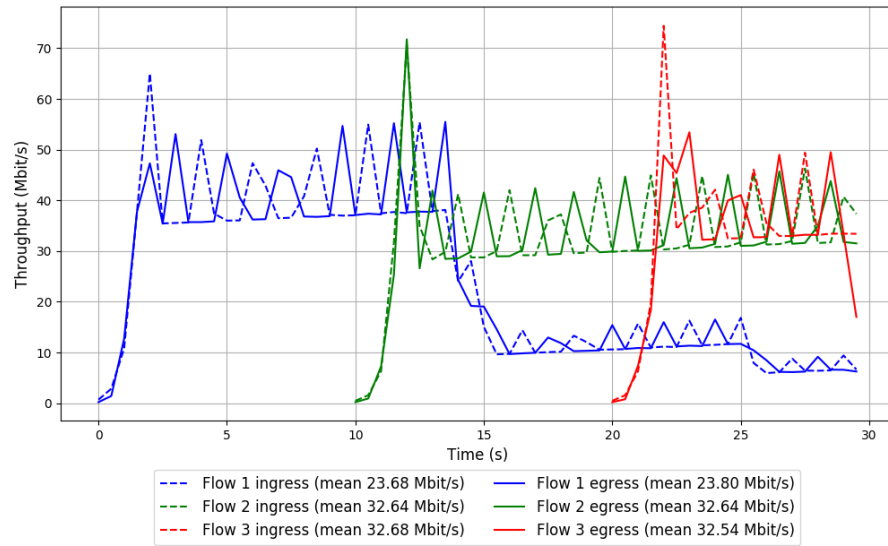
-- Flow 3:

Average throughput: 32.54 Mbit/s

95th percentile per-packet one-way delay: 112.910 ms

Loss rate: 2.57%

# Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-09-07 23:23:37

End at: 2017-09-07 23:24:07

# Below is generated by plot.py at 2017-09-08 03:40:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 76.93 Mbit/s

95th percentile per-packet one-way delay: 112.387 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 43.71 Mbit/s

95th percentile per-packet one-way delay: 111.879 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 35.02 Mbit/s

95th percentile per-packet one-way delay: 112.303 ms

Loss rate: 1.24%

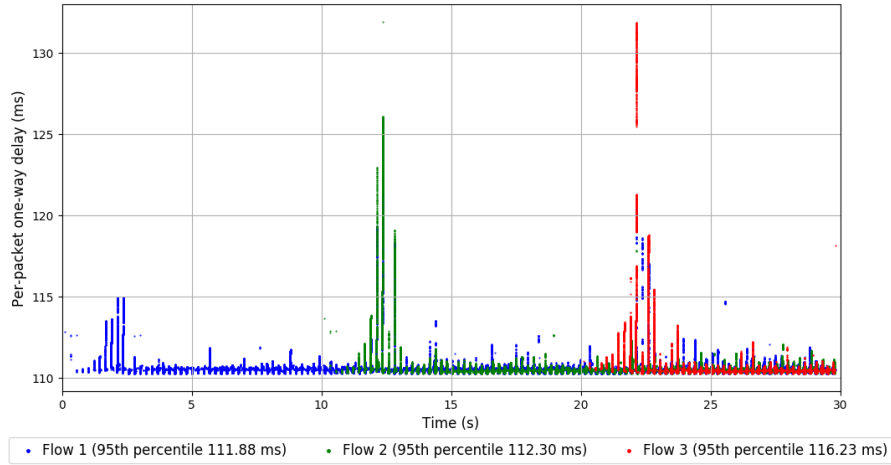
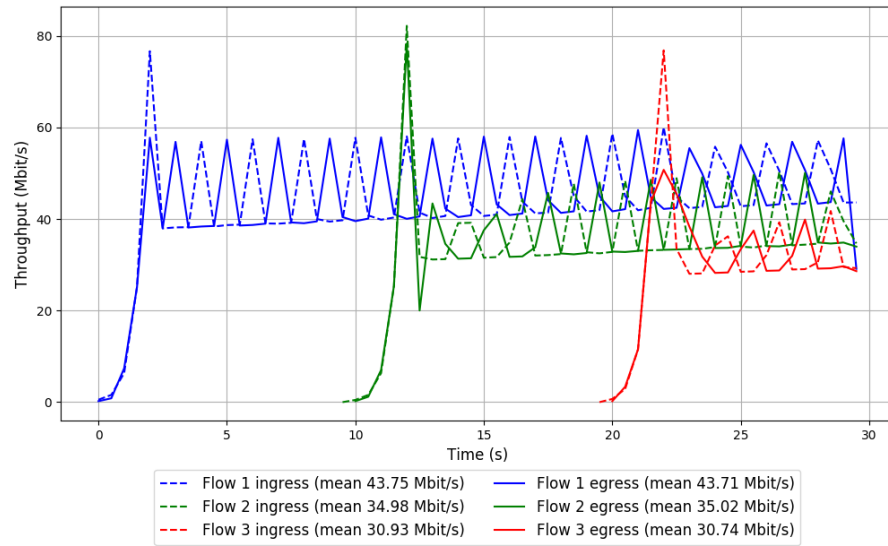
-- Flow 3:

Average throughput: 30.74 Mbit/s

95th percentile per-packet one-way delay: 116.228 ms

Loss rate: 2.39%

# Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-09-07 23:37:09

End at: 2017-09-07 23:37:39

# Below is generated by plot.py at 2017-09-08 03:40:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.47 Mbit/s

95th percentile per-packet one-way delay: 112.296 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 37.04 Mbit/s

95th percentile per-packet one-way delay: 111.729 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 59.17 Mbit/s

95th percentile per-packet one-way delay: 112.307 ms

Loss rate: 1.28%

-- Flow 3:

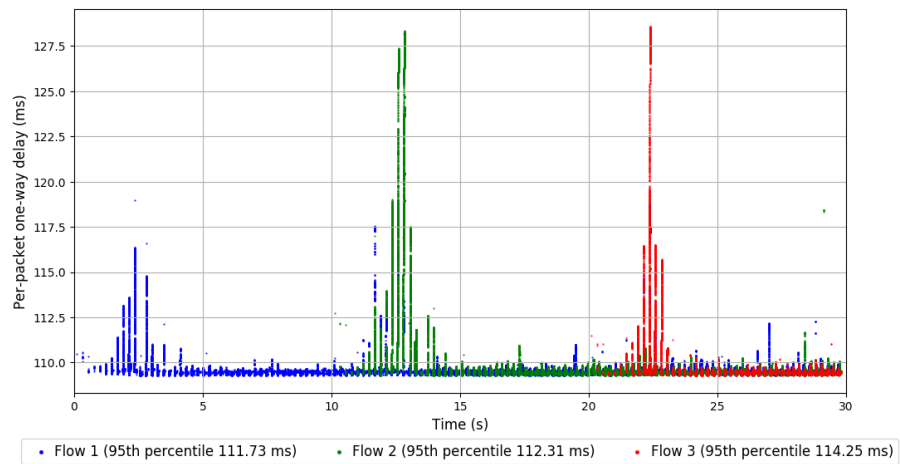
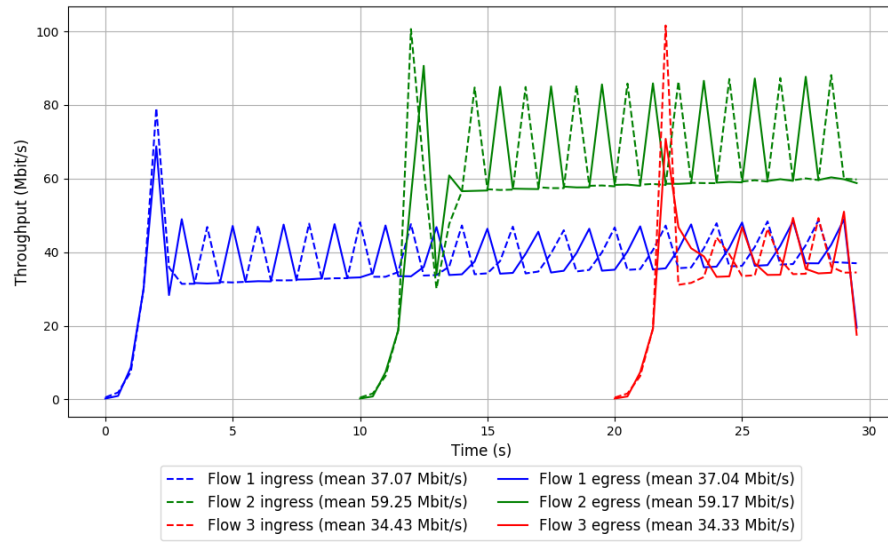
Average throughput: 34.33 Mbit/s

95th percentile per-packet one-way delay: 114.255 ms

Loss rate: 2.55%



# Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-09-07 23:50:44

End at: 2017-09-07 23:51:14

# Below is generated by plot.py at 2017-09-08 03:40:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 115.18 Mbit/s

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

Loss rate: 1.16%

-- Flow 1:

Average throughput: 69.10 Mbit/s

95th percentile per-packet one-way delay: 112.297 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 49.25 Mbit/s

95th percentile per-packet one-way delay: 112.417 ms

Loss rate: 1.24%

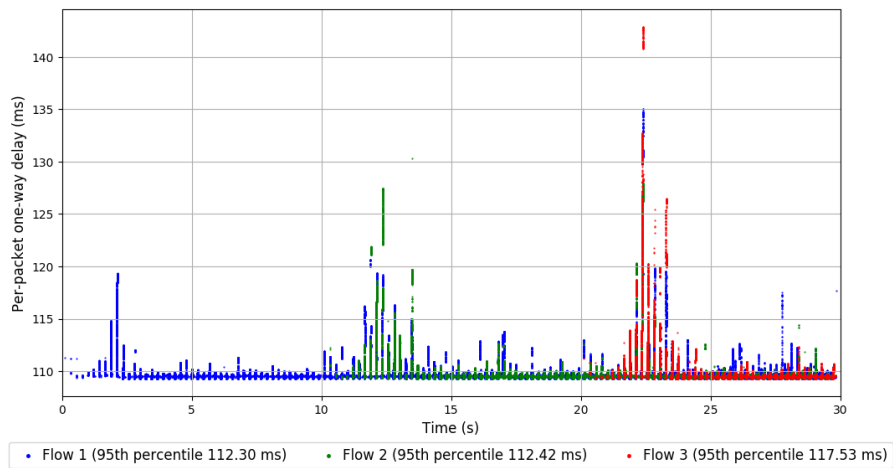
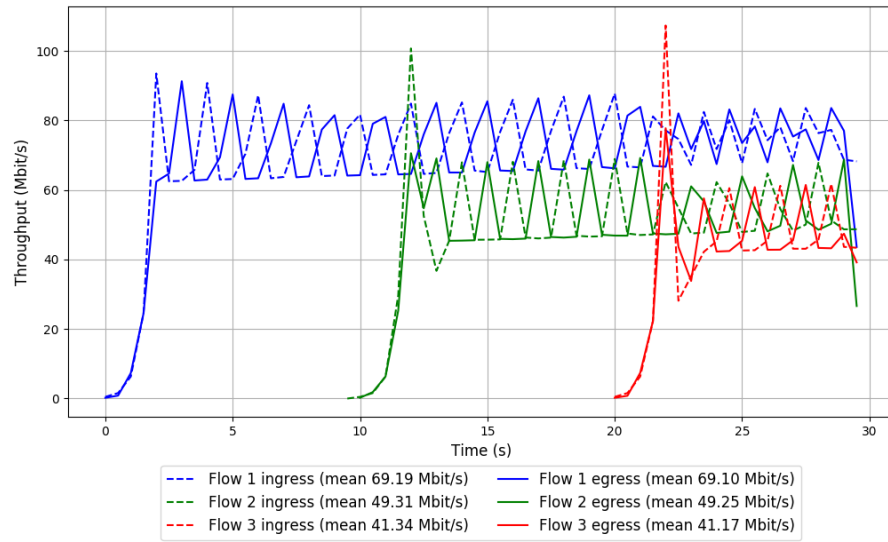
-- Flow 3:

Average throughput: 41.17 Mbit/s

95th percentile per-packet one-way delay: 117.535 ms

Loss rate: 2.64%

# Run 10: Report of TCP Vegas — Data Link

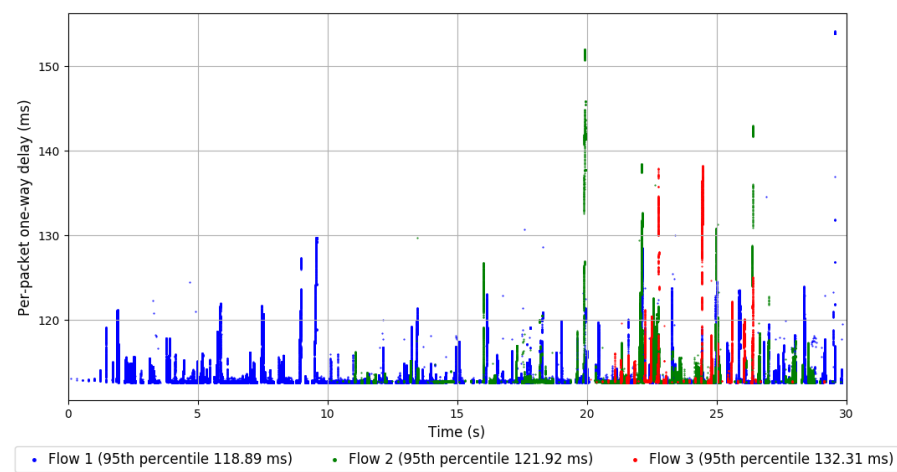
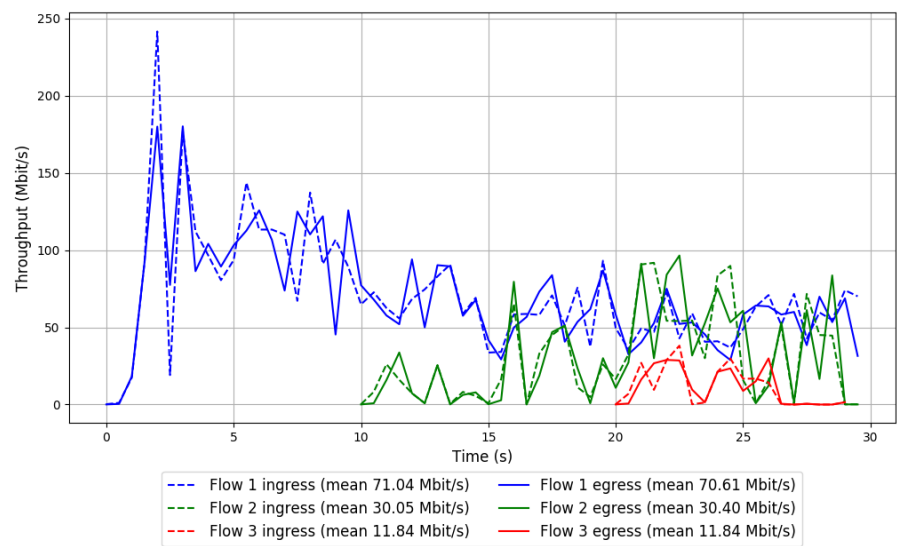


```
Run 1: Statistics of Verus

Start at: 2017-09-07 21:56:16
End at: 2017-09-07 21:56:46

# Below is generated by plot.py at 2017-09-08 03:40:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.28 Mbit/s
95th percentile per-packet one-way delay: 119.577 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 70.61 Mbit/s
95th percentile per-packet one-way delay: 118.888 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 30.40 Mbit/s
95th percentile per-packet one-way delay: 121.915 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 132.314 ms
Loss rate: 0.00%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-09-07 22:09:48

End at: 2017-09-07 22:10:18

# Below is generated by plot.py at 2017-09-08 03:41:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.61 Mbit/s

95th percentile per-packet one-way delay: 131.584 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 62.26 Mbit/s

95th percentile per-packet one-way delay: 130.433 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 42.03 Mbit/s

95th percentile per-packet one-way delay: 128.040 ms

Loss rate: 2.66%

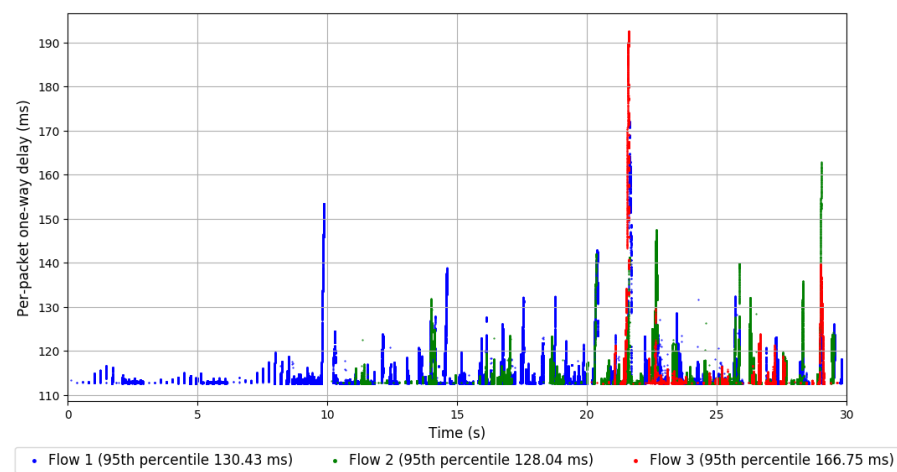
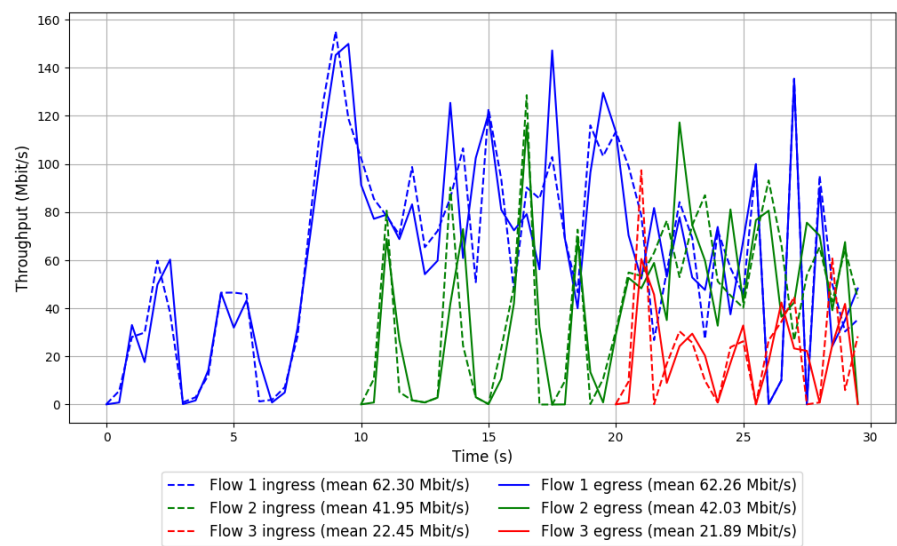
-- Flow 3:

Average throughput: 21.89 Mbit/s

95th percentile per-packet one-way delay: 166.751 ms

Loss rate: 6.38%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-09-07 22:23:23

End at: 2017-09-07 22:23:53

# Below is generated by plot.py at 2017-09-08 03:41:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 110.79 Mbit/s

95th percentile per-packet one-way delay: 142.428 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 65.53 Mbit/s

95th percentile per-packet one-way delay: 122.074 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 42.11 Mbit/s

95th percentile per-packet one-way delay: 253.380 ms

Loss rate: 3.98%

-- Flow 3:

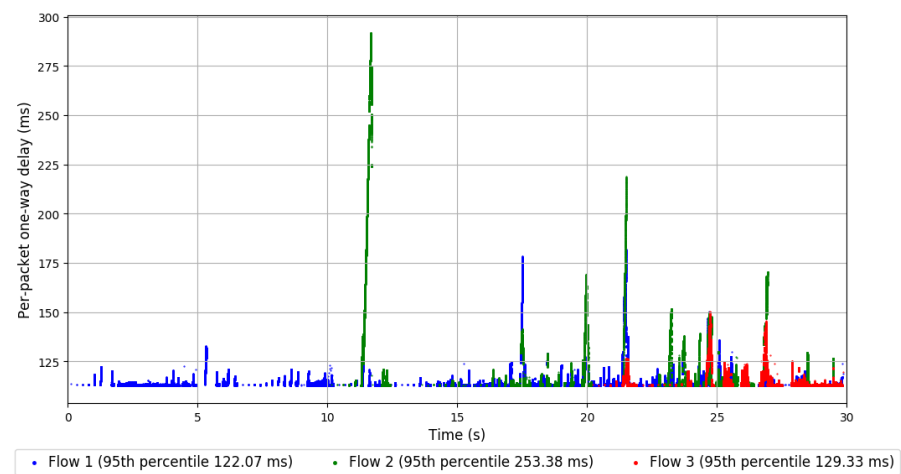
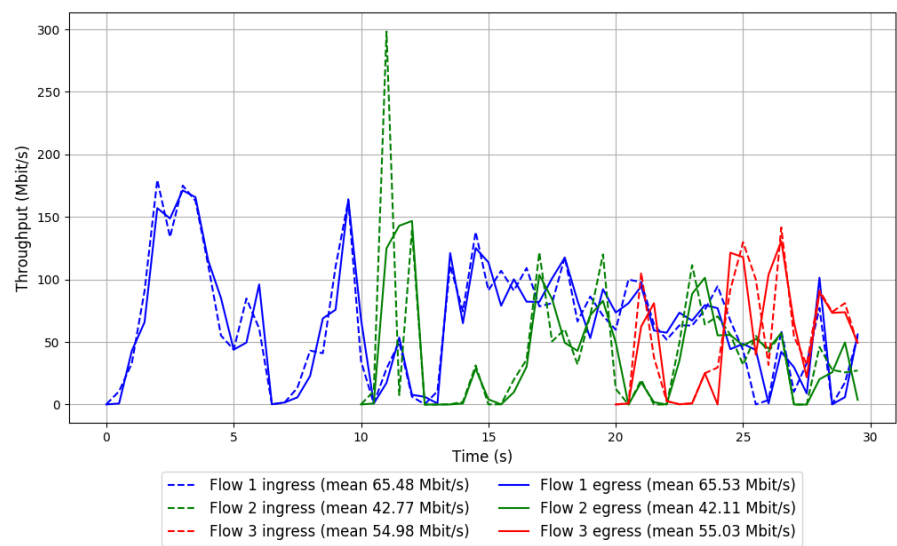
Average throughput: 55.03 Mbit/s

95th percentile per-packet one-way delay: 129.326 ms

Loss rate: 1.70%



Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-09-07 22:36:57

End at: 2017-09-07 22:37:27

# Below is generated by plot.py at 2017-09-08 03:41:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 135.59 Mbit/s

95th percentile per-packet one-way delay: 157.699 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 106.85 Mbit/s

95th percentile per-packet one-way delay: 161.999 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 34.33 Mbit/s

95th percentile per-packet one-way delay: 118.946 ms

Loss rate: 2.09%

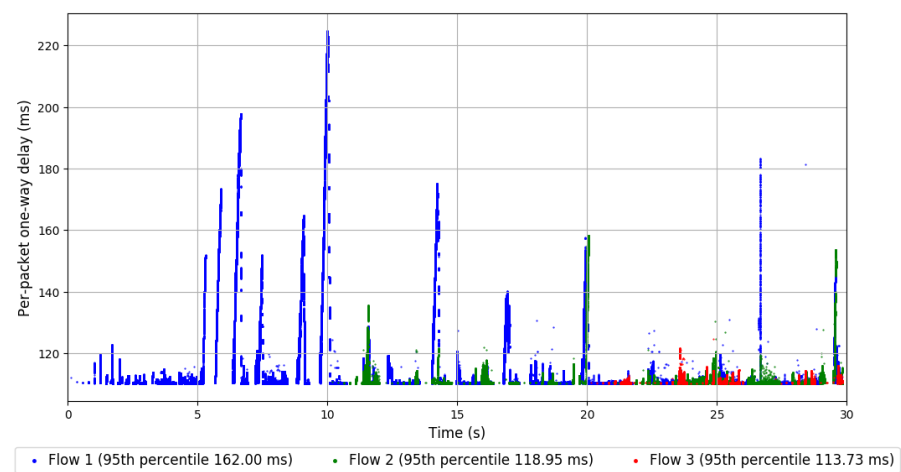
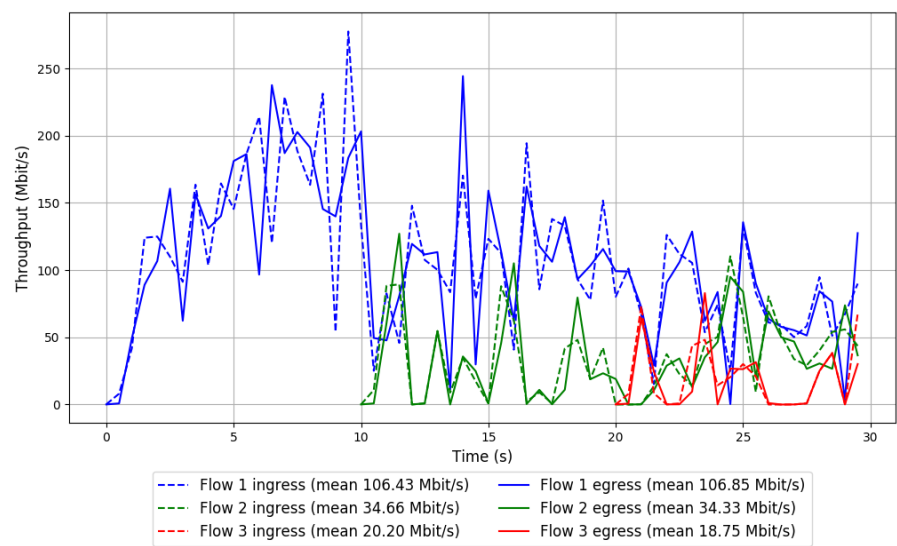
-- Flow 3:

Average throughput: 18.75 Mbit/s

95th percentile per-packet one-way delay: 113.730 ms

Loss rate: 9.32%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-09-07 22:50:22

End at: 2017-09-07 22:50:52

# Below is generated by plot.py at 2017-09-08 03:41:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.10 Mbit/s

95th percentile per-packet one-way delay: 119.437 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 40.97 Mbit/s

95th percentile per-packet one-way delay: 117.868 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 53.50 Mbit/s

95th percentile per-packet one-way delay: 119.080 ms

Loss rate: 0.63%

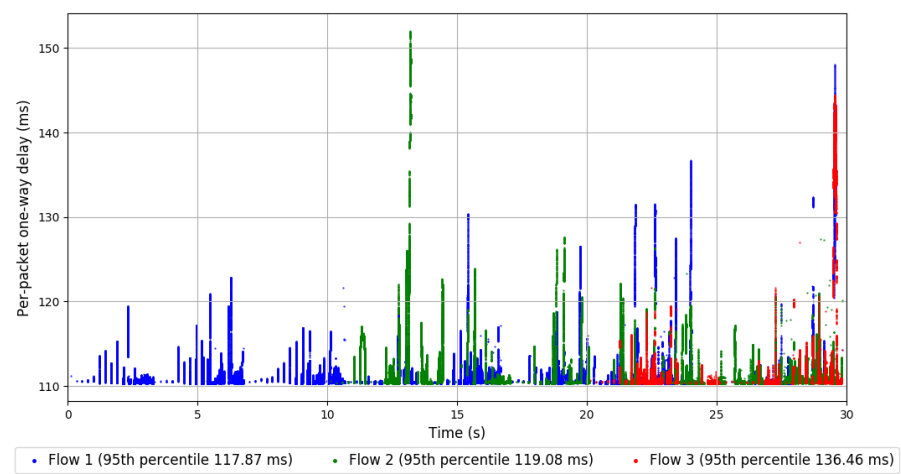
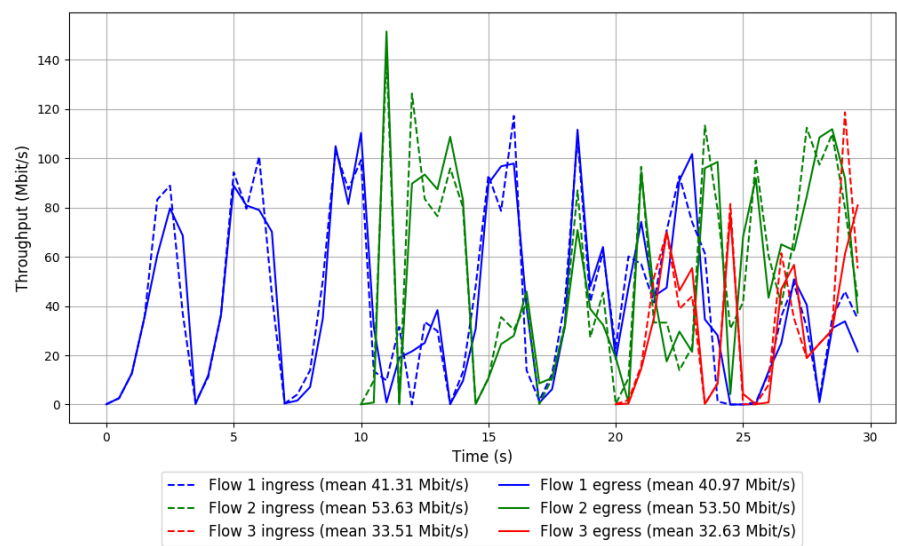
-- Flow 3:

Average throughput: 32.63 Mbit/s

95th percentile per-packet one-way delay: 136.459 ms

Loss rate: 4.80%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-09-07 23:03:42

End at: 2017-09-07 23:04:12

# Below is generated by plot.py at 2017-09-08 03:41:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.52 Mbit/s

95th percentile per-packet one-way delay: 167.483 ms

Loss rate: 2.82%

-- Flow 1:

Average throughput: 48.05 Mbit/s

95th percentile per-packet one-way delay: 220.089 ms

Loss rate: 2.24%

-- Flow 2:

Average throughput: 60.44 Mbit/s

95th percentile per-packet one-way delay: 134.783 ms

Loss rate: 3.49%

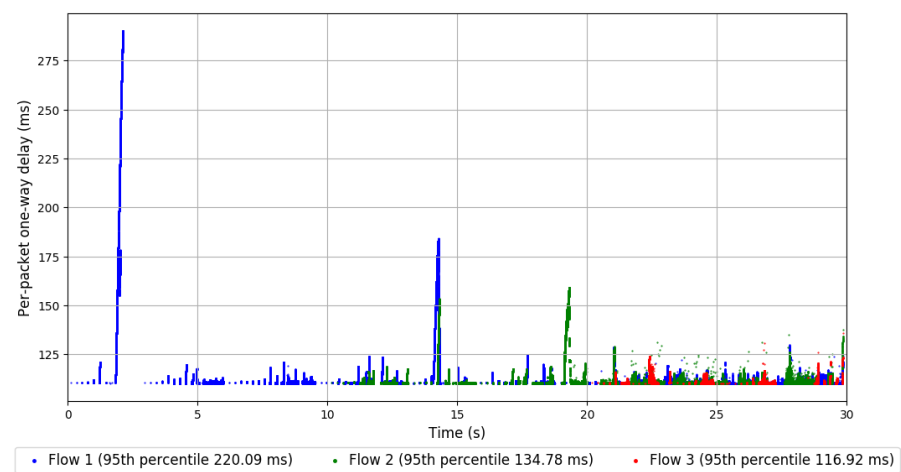
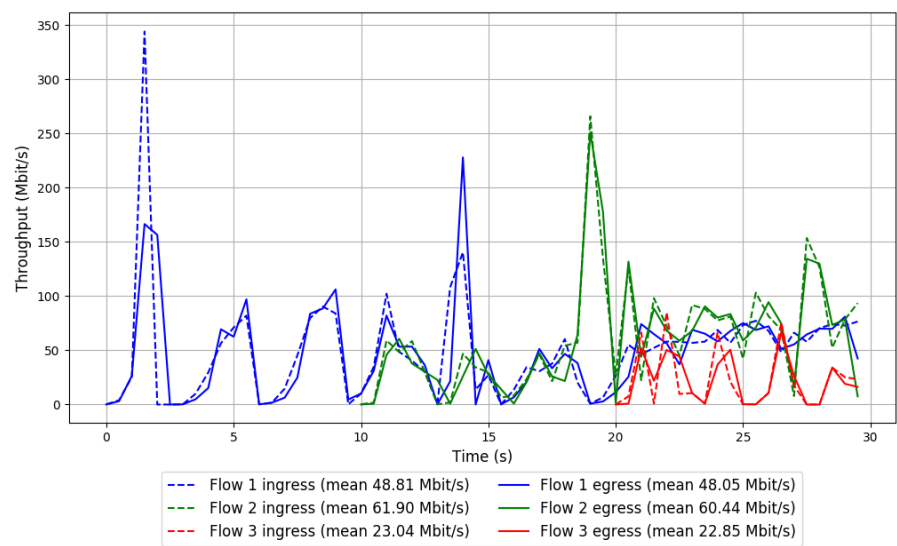
-- Flow 3:

Average throughput: 22.85 Mbit/s

95th percentile per-packet one-way delay: 116.925 ms

Loss rate: 2.90%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-09-07 23:17:07

End at: 2017-09-07 23:17:37

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 129.78 Mbit/s

95th percentile per-packet one-way delay: 164.124 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 98.07 Mbit/s

95th percentile per-packet one-way delay: 163.282 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.59 Mbit/s

95th percentile per-packet one-way delay: 214.511 ms

Loss rate: 2.75%

-- Flow 3:

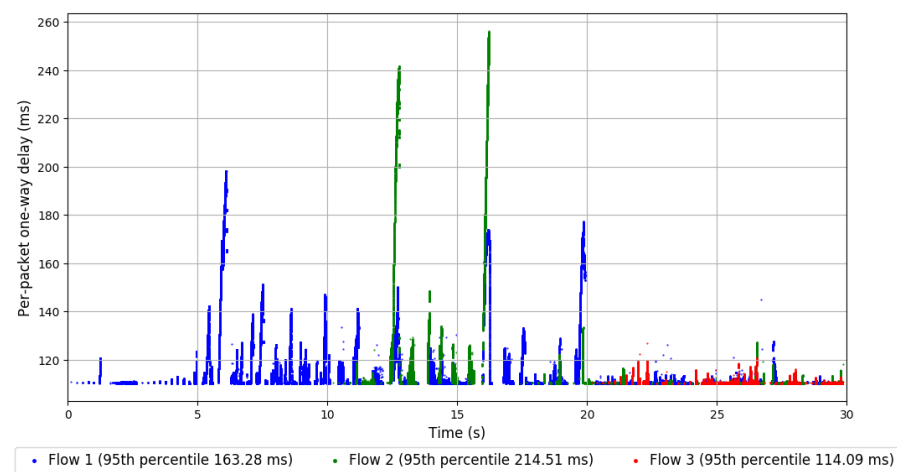
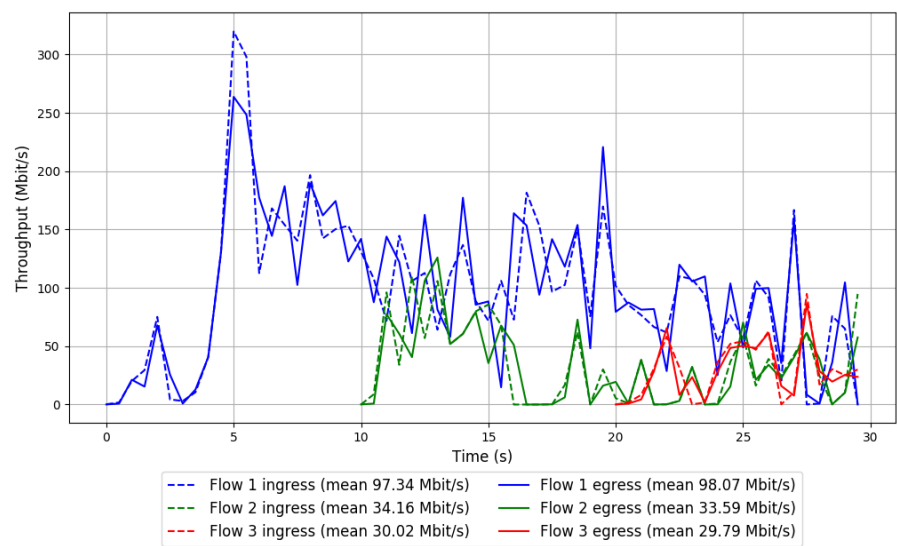
Average throughput: 29.79 Mbit/s

95th percentile per-packet one-way delay: 114.093 ms

Loss rate: 2.82%



Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-09-07 23:30:43

End at: 2017-09-07 23:31:13

# Below is generated by plot.py at 2017-09-08 03:42:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.08 Mbit/s

95th percentile per-packet one-way delay: 138.557 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 59.43 Mbit/s

95th percentile per-packet one-way delay: 133.805 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 31.08 Mbit/s

95th percentile per-packet one-way delay: 248.016 ms

Loss rate: 3.84%

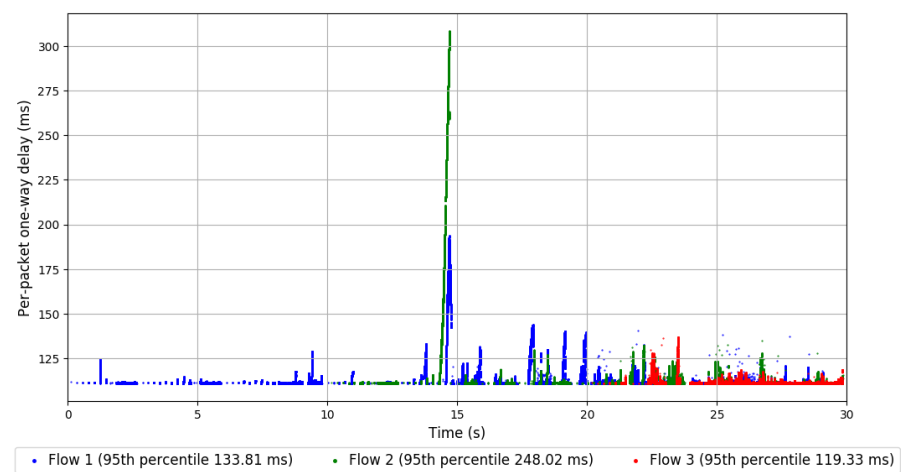
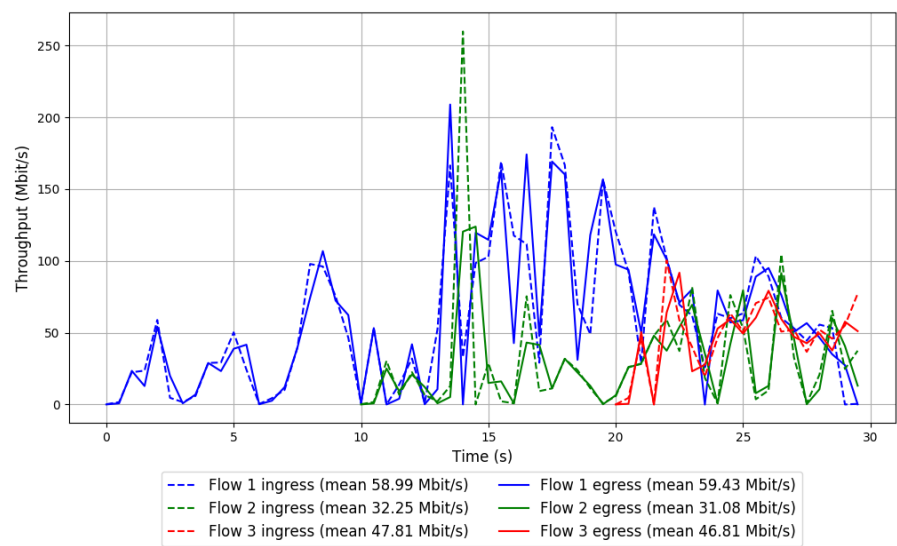
-- Flow 3:

Average throughput: 46.81 Mbit/s

95th percentile per-packet one-way delay: 119.325 ms

Loss rate: 4.27%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-09-07 23:44:18

End at: 2017-09-07 23:44:48

# Below is generated by plot.py at 2017-09-08 03:42:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 131.32 Mbit/s

95th percentile per-packet one-way delay: 193.665 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 91.41 Mbit/s

95th percentile per-packet one-way delay: 200.807 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 48.26 Mbit/s

95th percentile per-packet one-way delay: 117.966 ms

Loss rate: 1.69%

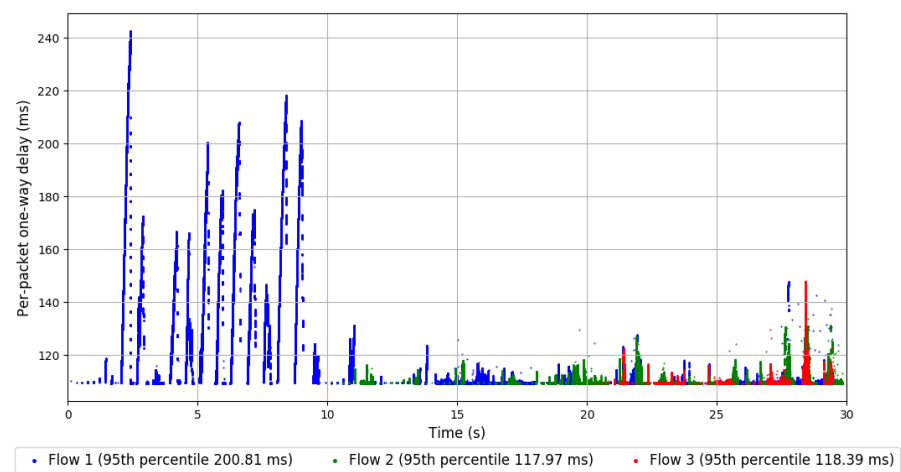
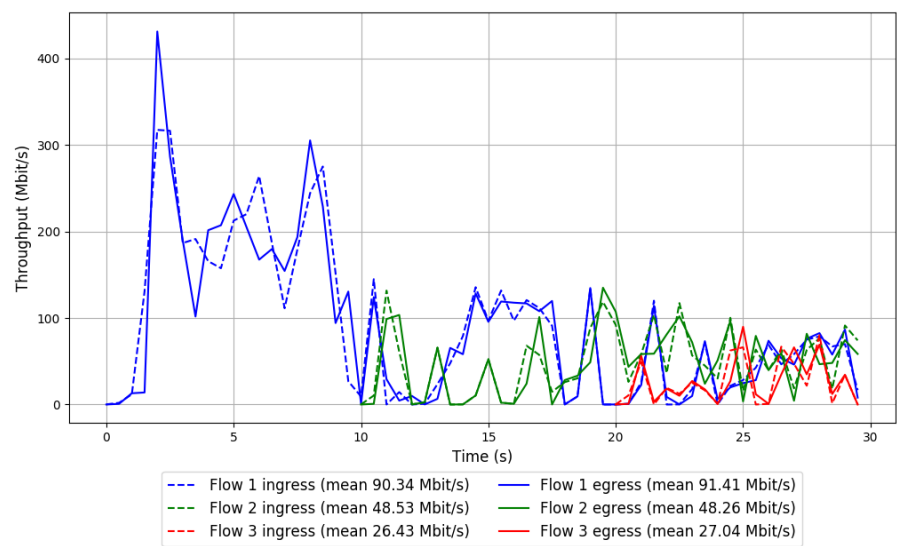
-- Flow 3:

Average throughput: 27.04 Mbit/s

95th percentile per-packet one-way delay: 118.386 ms

Loss rate: 0.03%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-09-07 23:57:55

End at: 2017-09-07 23:58:25

# Below is generated by plot.py at 2017-09-08 03:42:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 98.59 Mbit/s

95th percentile per-packet one-way delay: 117.600 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 55.19 Mbit/s

95th percentile per-packet one-way delay: 116.295 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 53.13 Mbit/s

95th percentile per-packet one-way delay: 119.179 ms

Loss rate: 0.00%

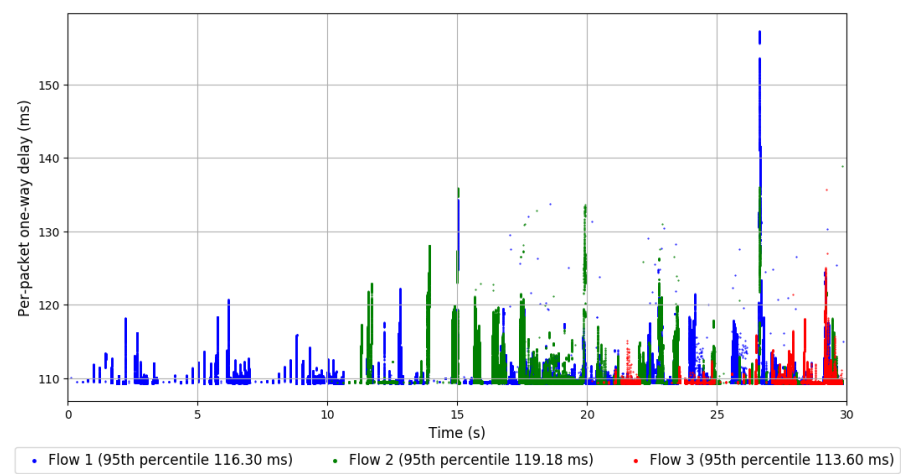
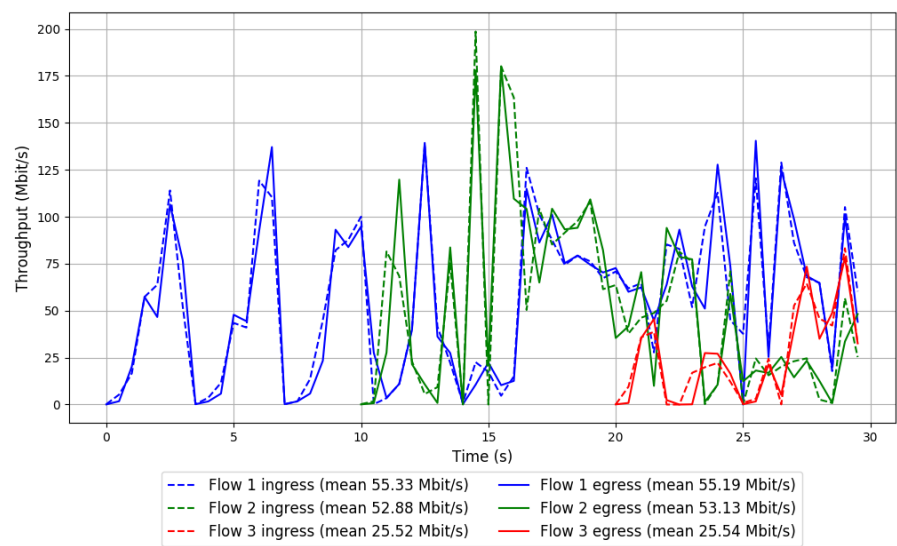
-- Flow 3:

Average throughput: 25.54 Mbit/s

95th percentile per-packet one-way delay: 113.604 ms

Loss rate: 2.49%

Run 10: Report of Verus — Data Link



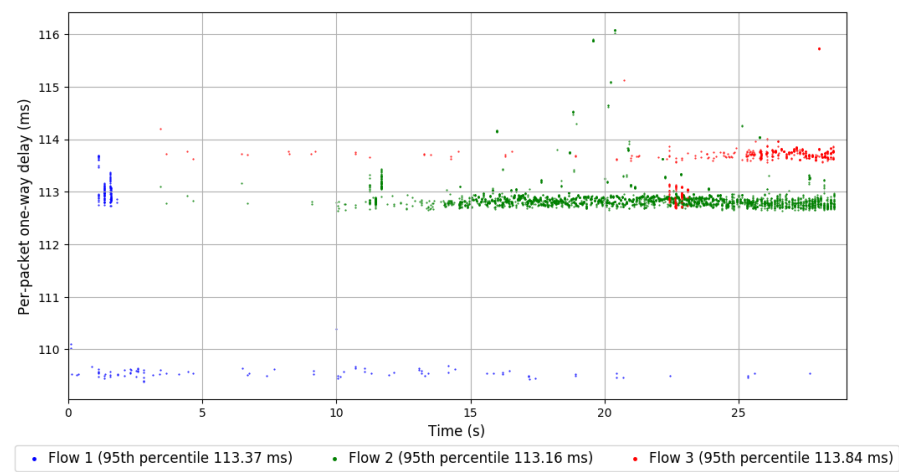
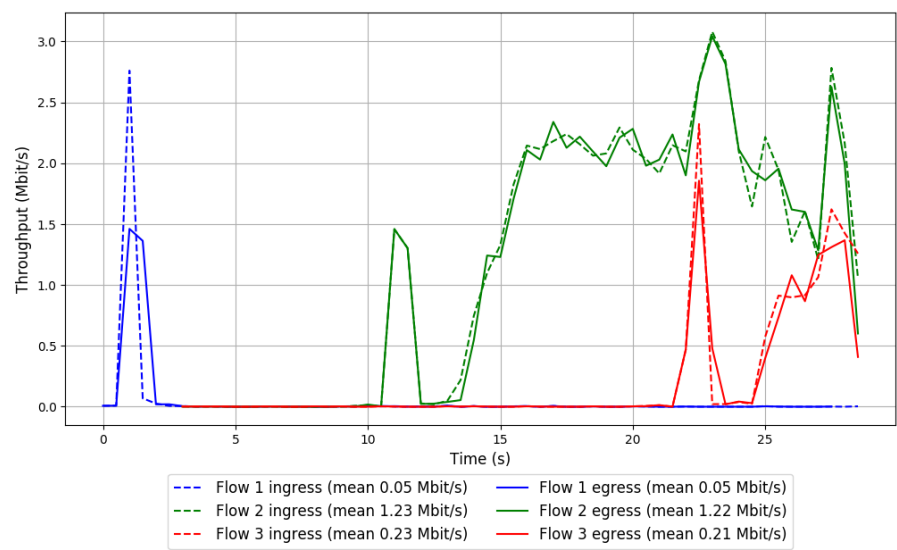
```
Run 1: Statistics of WebRTC media

Start at: 2017-09-07 21:59:11
End at: 2017-09-07 21:59:41

# Below is generated by plot.py at 2017-09-08 03:42:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 113.762 ms
Loss rate: 3.01%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 113.366 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 113.158 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.841 ms
Loss rate: 10.83%
```



Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-09-07 22:12:47

End at: 2017-09-07 22:13:17

# Below is generated by plot.py at 2017-09-08 03:42:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 112.900 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 0.05 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.23 Mbit/s

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

Loss rate: 1.11%

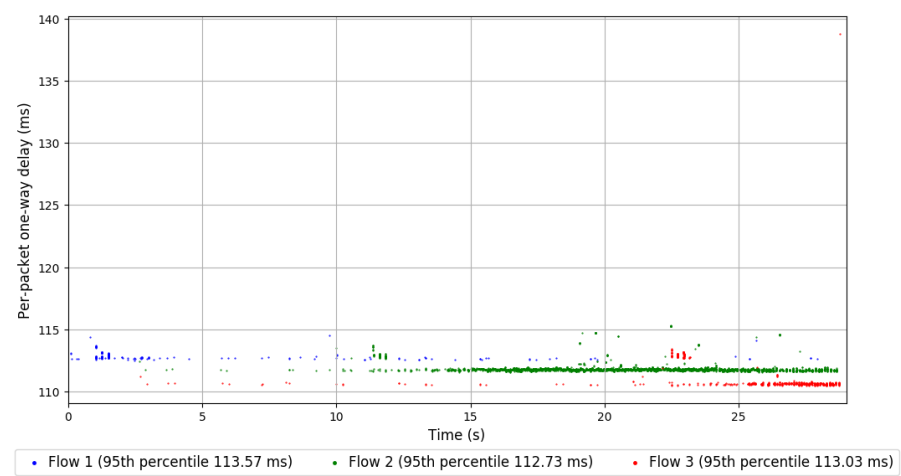
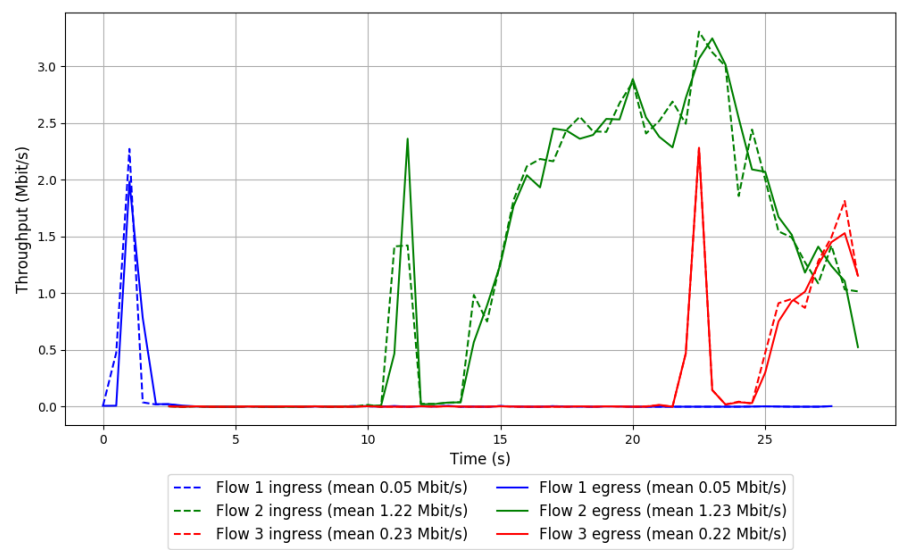
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.029 ms

Loss rate: 4.65%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-09-07 22:26:21

End at: 2017-09-07 22:26:51

# Below is generated by plot.py at 2017-09-08 03:42:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 113.751 ms

Loss rate: 2.90%

-- Flow 1:

Average throughput: 0.05 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.26 Mbit/s

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

Loss rate: 1.10%

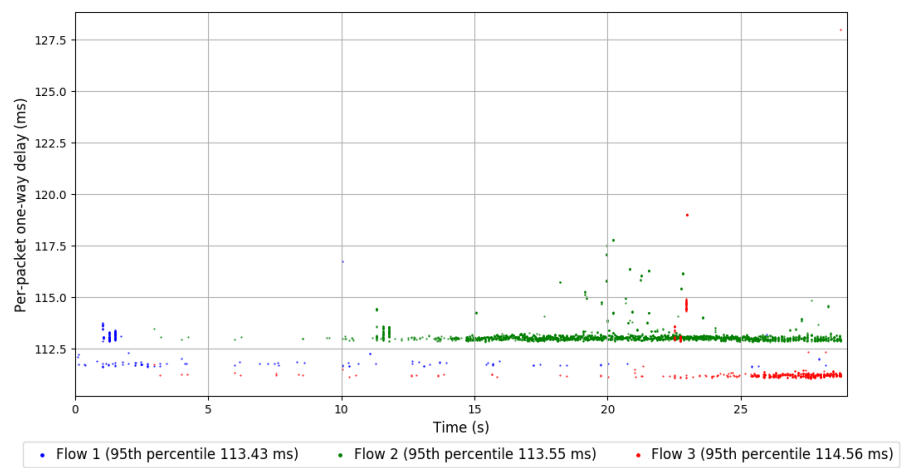
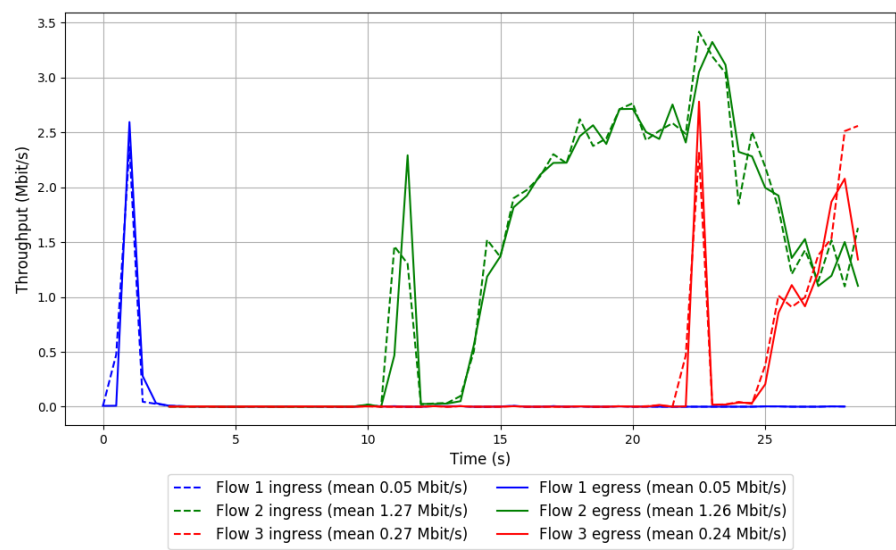
-- Flow 3:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 114.556 ms

Loss rate: 11.87%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-09-07 22:39:50

End at: 2017-09-07 22:40:20

# Below is generated by plot.py at 2017-09-08 03:42:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.08 Mbit/s

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

Loss rate: 1.93%

-- Flow 1:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 110.661 ms

Loss rate: 2.12%

-- Flow 2:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 113.438 ms

Loss rate: 1.43%

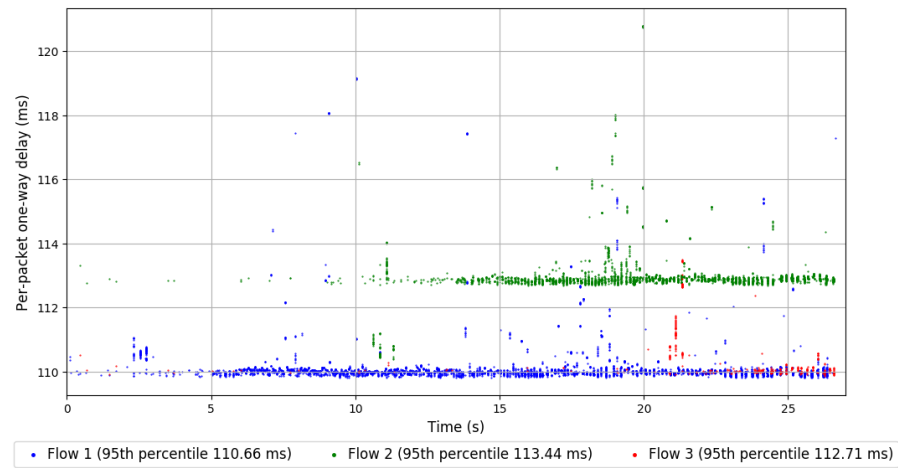
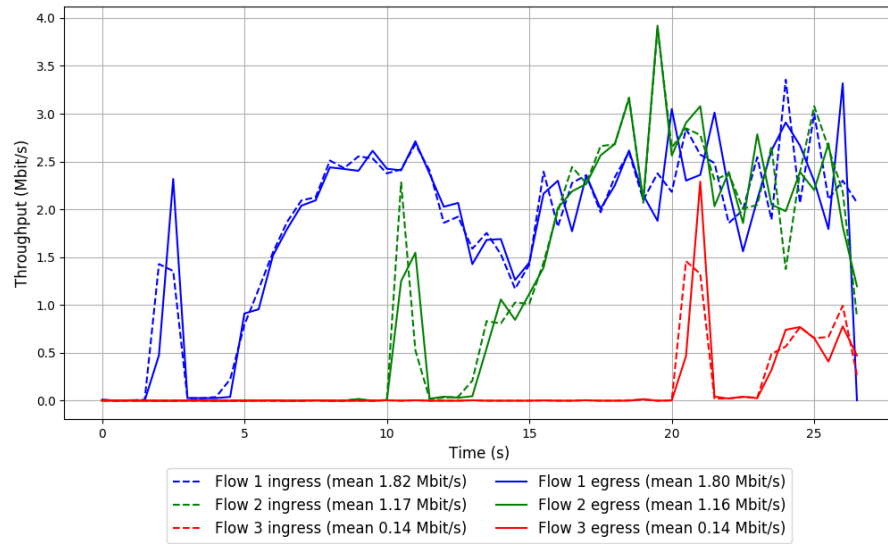
-- Flow 3:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 112.711 ms

Loss rate: 3.64%

# Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-09-07 22:53:01

End at: 2017-09-07 22:53:31

# Below is generated by plot.py at 2017-09-08 03:42:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.48 Mbit/s

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

Loss rate: 2.12%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.954 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 111.519 ms

Loss rate: 1.26%

-- Flow 3:

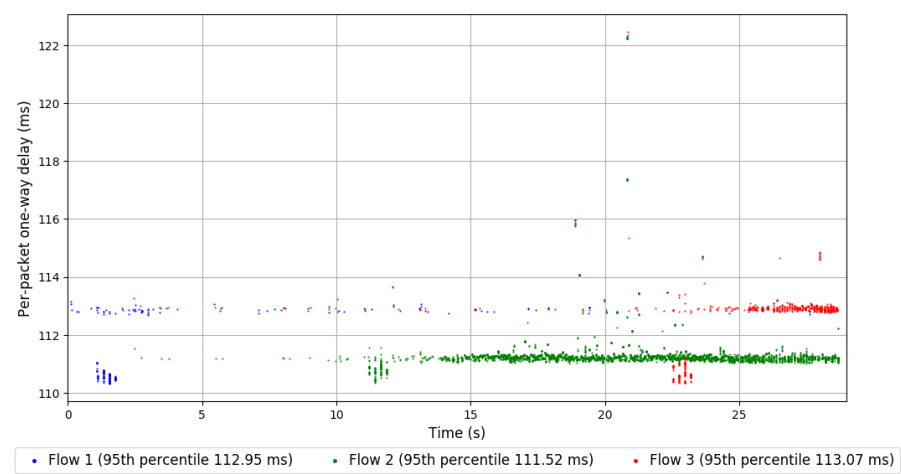
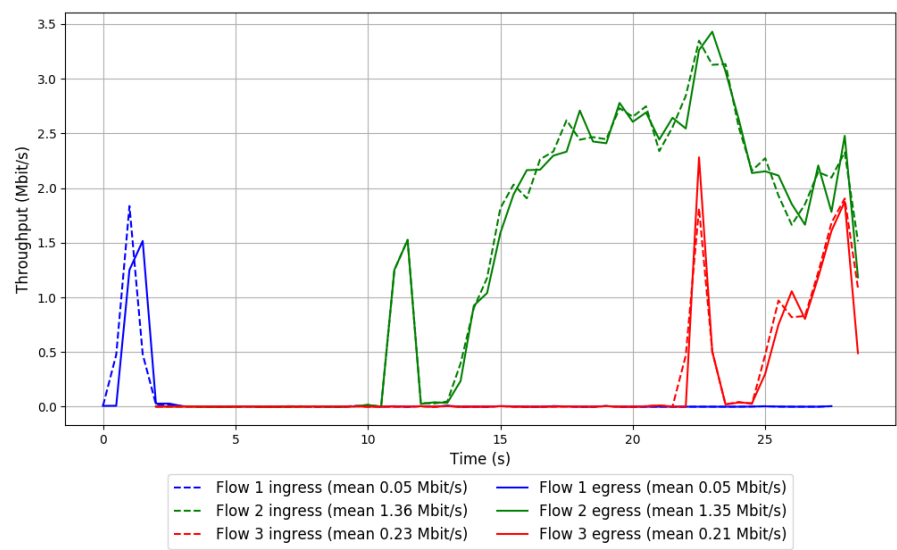
Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.068 ms

Loss rate: 7.78%



Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-09-07 23:06:30

End at: 2017-09-07 23:07:00

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 112.283 ms

Loss rate: 1.98%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 113.812 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 112.070 ms

Loss rate: 1.56%

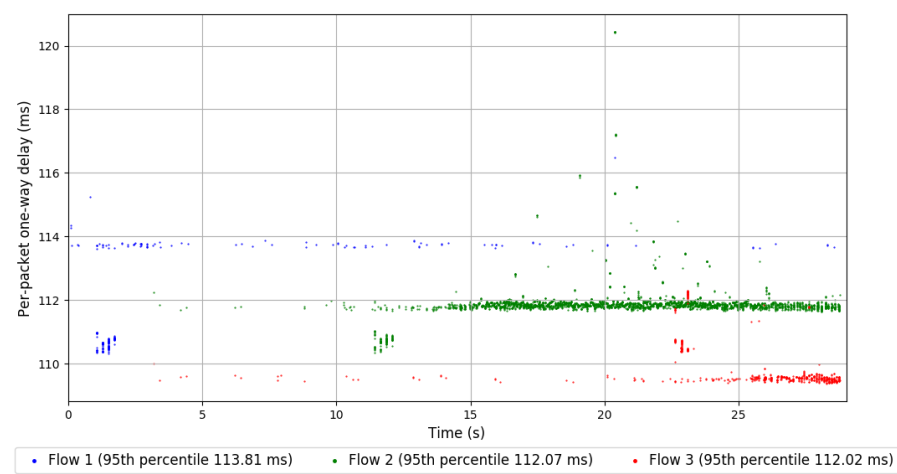
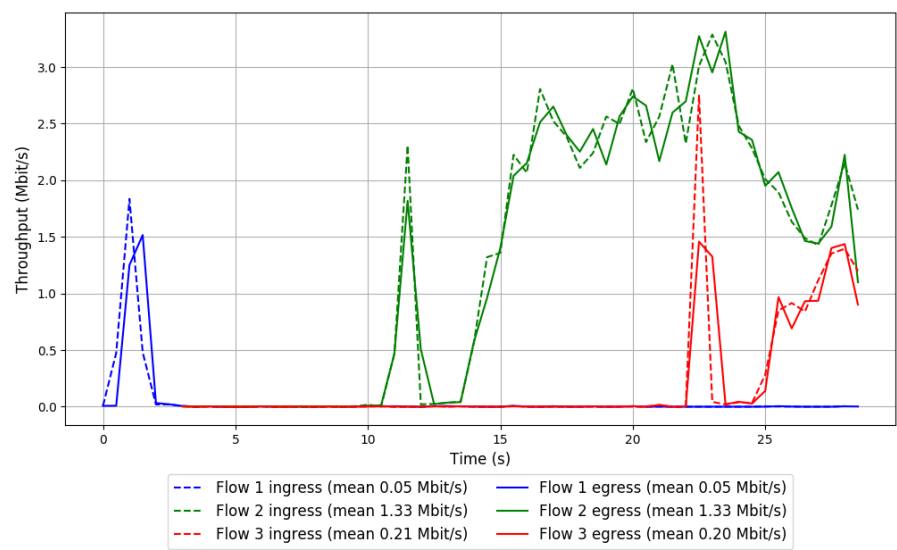
-- Flow 3:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 112.018 ms

Loss rate: 5.13%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-09-07 23:20:09

End at: 2017-09-07 23:20:39

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 112.419 ms

Loss rate: 1.92%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 111.909 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 112.457 ms

Loss rate: 1.06%

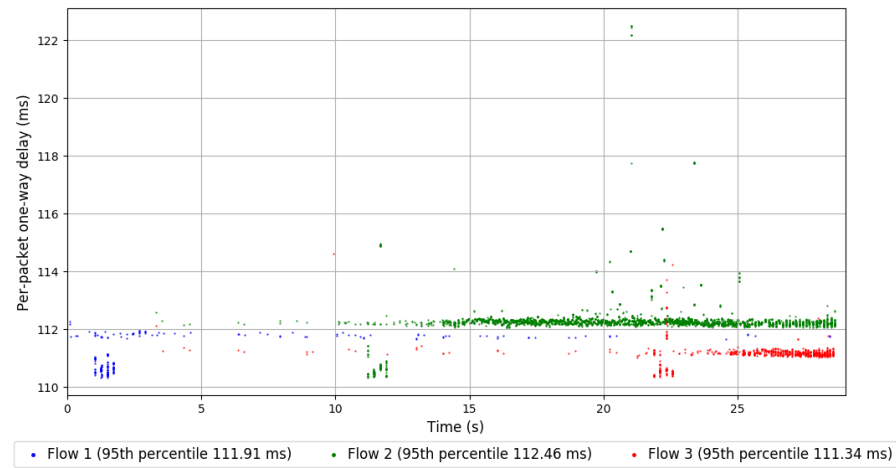
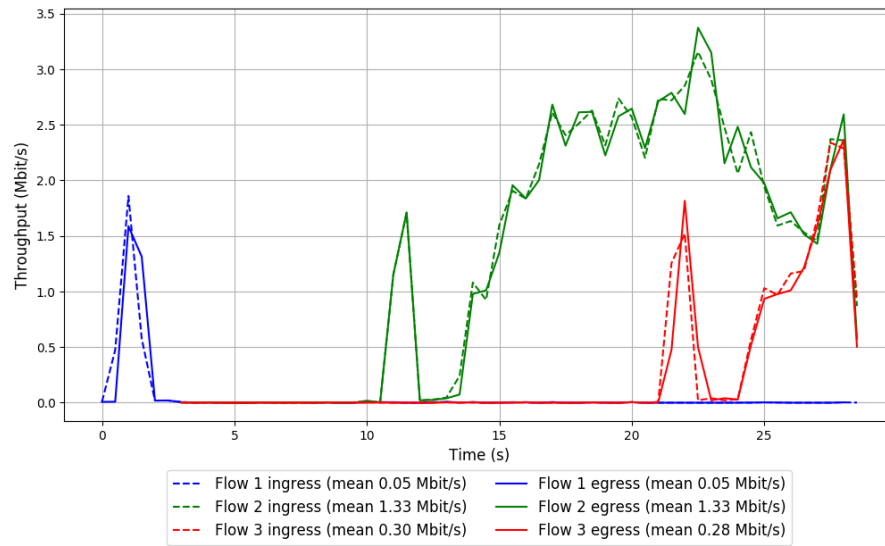
-- Flow 3:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 111.338 ms

Loss rate: 6.18%

# Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-09-07 23:33:41

End at: 2017-09-07 23:34:11

# Below is generated by plot.py at 2017-09-08 03:42:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 111.876 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 110.429 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 111.908 ms

Loss rate: 0.74%

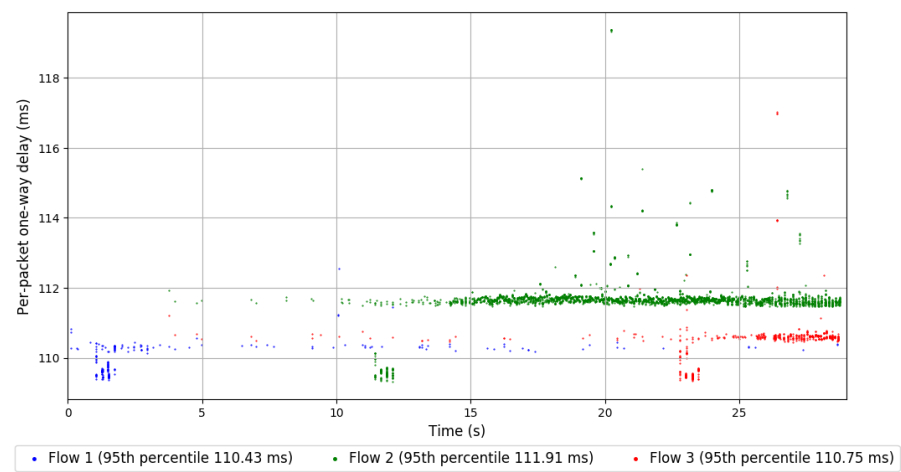
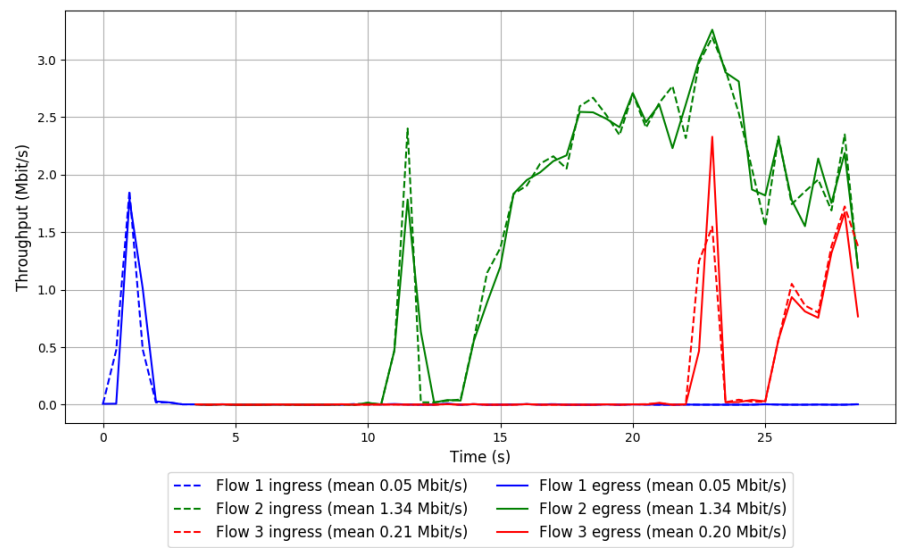
-- Flow 3:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 110.745 ms

Loss rate: 8.72%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-09-07 23:47:17

End at: 2017-09-07 23:47:47

# Below is generated by plot.py at 2017-09-08 03:42:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 112.632 ms

Loss rate: 2.16%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 110.668 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 112.712 ms

Loss rate: 1.53%

-- Flow 3:

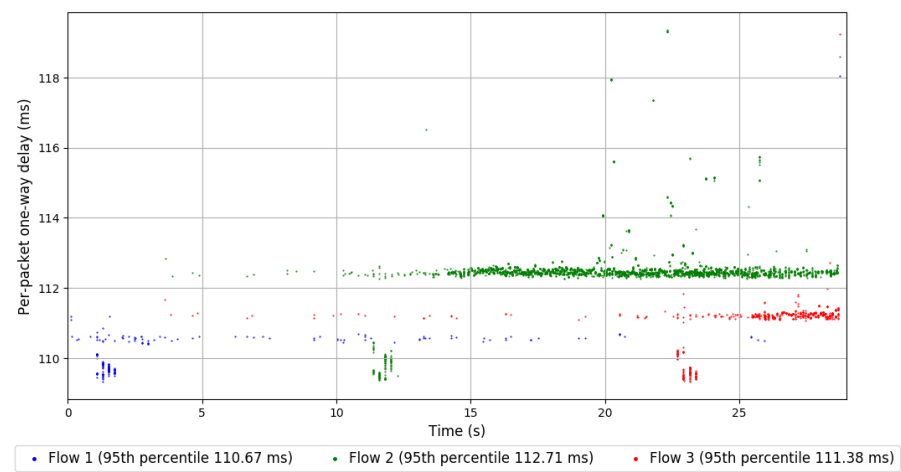
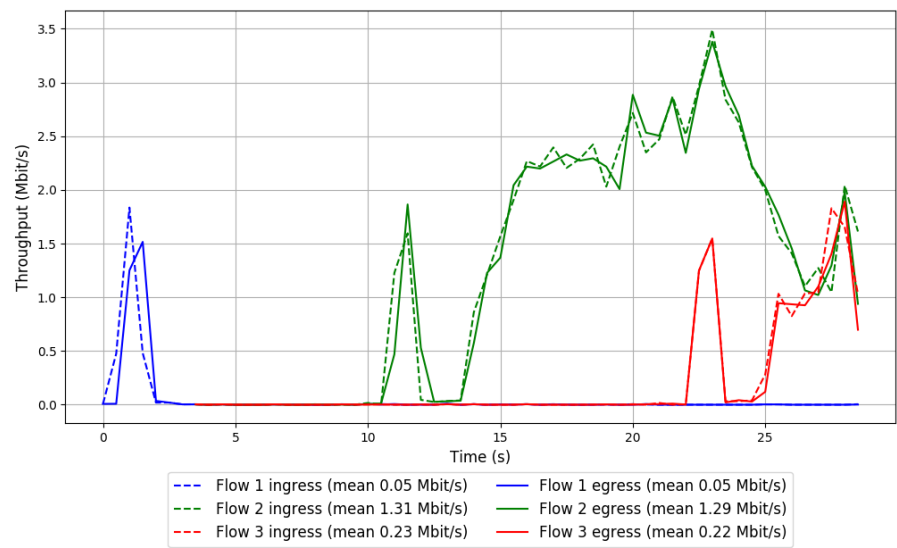
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.375 ms

Loss rate: 6.24%



Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

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

End at: 2017-09-08 00:01:07

# Below is generated by plot.py at 2017-09-08 03:42:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 111.449 ms

Loss rate: 2.41%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 111.727 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 111.261 ms

Loss rate: 1.93%

-- Flow 3:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 110.828 ms

Loss rate: 6.24%

Run 10: Report of WebRTC media — Data Link

