

Pantheon Report

Generated at 2017-08-21 16:03:42 (UTC).

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

Repeated the test of 15 congestion control schemes 10 times.

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

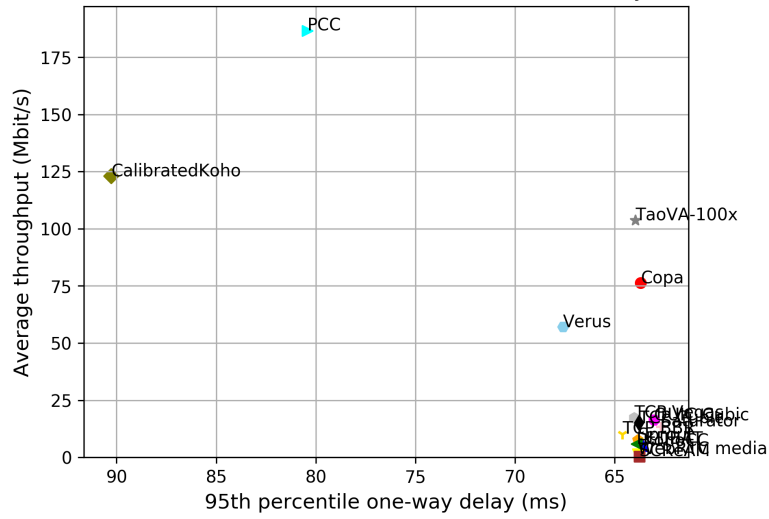
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

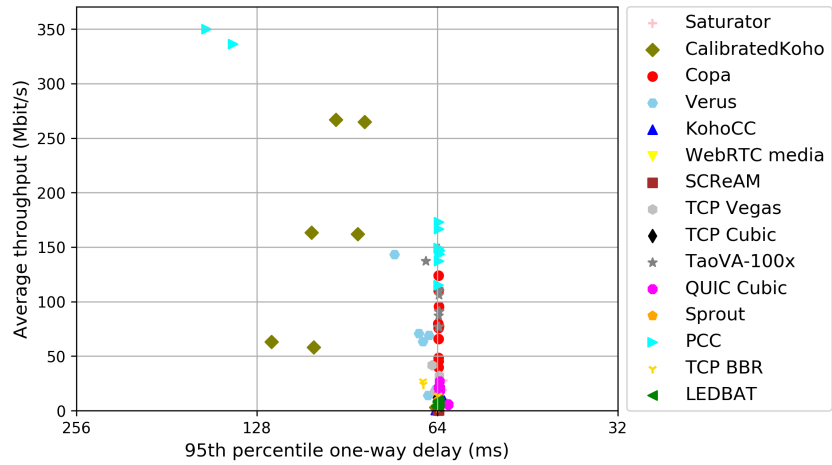
Git summary:

```
branch: master @ e43be7582298d552838afcf6382342bf187fbbd6
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ dae96123232f1bcb37725348fa2378691ce26725
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-stimuli @ fc73a85ca16c34366d1888dc8a0d0d88d4ebf2a7
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeab30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



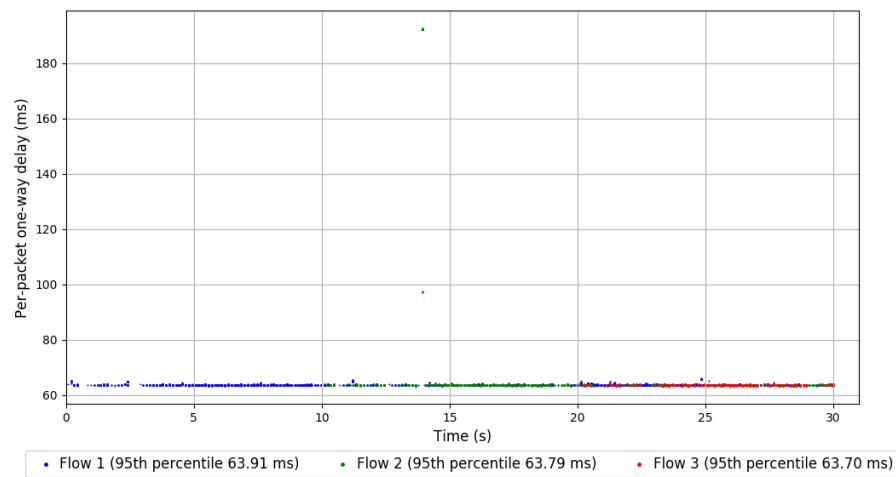
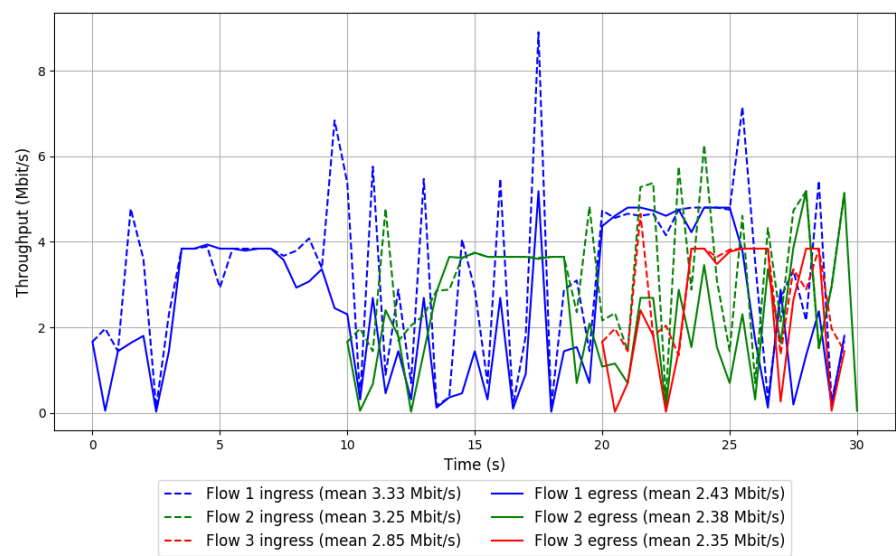
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	1.87	5.15	14.90	63.92	64.29	64.14	37.11	33.78	30.78
CalibratedKoho	8	67.47	61.37	44.26	70.83	71.90	76.69	53.02	56.90	61.29
Copa	10	62.06	35.14	35.77	63.74	82.11	79.99	13.30	21.68	10.59
TCP Cubic	10	8.98	4.33	9.63	63.41	63.76	63.35	2.40	4.65	4.41
KohoCC	10	2.10	3.28	2.32	72.06	63.79	63.61	76.40	62.64	71.04
LEDBAT	10	2.49	3.50	3.36	63.91	63.45	63.06	4.75	3.75	4.02
PCC	10	144.35	47.17	33.38	80.50	63.50	63.35	20.92	36.60	20.67
QUIC Cubic	10	0.05	13.25	23.17	63.41	62.82	62.64	0.00	0.00	0.01
Saturator	6	11.99	12.00	14.19	63.54	63.38	63.15	29.67	29.69	19.66
SCReAM	10	0.22	0.21	0.21	63.30	63.44	63.42	0.03	0.02	0.12
Sprout	10	3.93	3.65	3.61	63.34	63.77	63.74	11.48	13.07	11.44
TaoVA-100x	10	109.74	68.54	25.75	64.56	63.74	63.89	16.84	24.56	62.03
TCP Vegas	10	7.52	9.39	10.55	100.52	64.02	63.75	2.01	3.83	5.45
Verus	7	22.26	43.01	19.79	65.77	67.40	66.78	68.21	57.56	56.20
WebRTC media	9	0.06	1.61	0.44	65.69	63.76	63.53	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2017-08-21 13:04:20
End at: 2017-08-21 13:04:50

# Below is generated by plot.py at 2017-08-21 15:50:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 63.825 ms
Loss rate: 25.38%
-- Flow 1:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 63.909 ms
Loss rate: 26.87%
-- Flow 2:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 63.792 ms
Loss rate: 26.54%
-- Flow 3:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 63.704 ms
Loss rate: 17.48%
```


Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-21 13:15:18

End at: 2017-08-21 13:15:48

Below is generated by plot.py at 2017-08-21 15:50:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.62 Mbit/s

95th percentile per-packet one-way delay: 63.820 ms

Loss rate: 28.23%

-- Flow 1:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 63.814 ms

Loss rate: 19.67%

-- Flow 2:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 63.741 ms

Loss rate: 36.60%

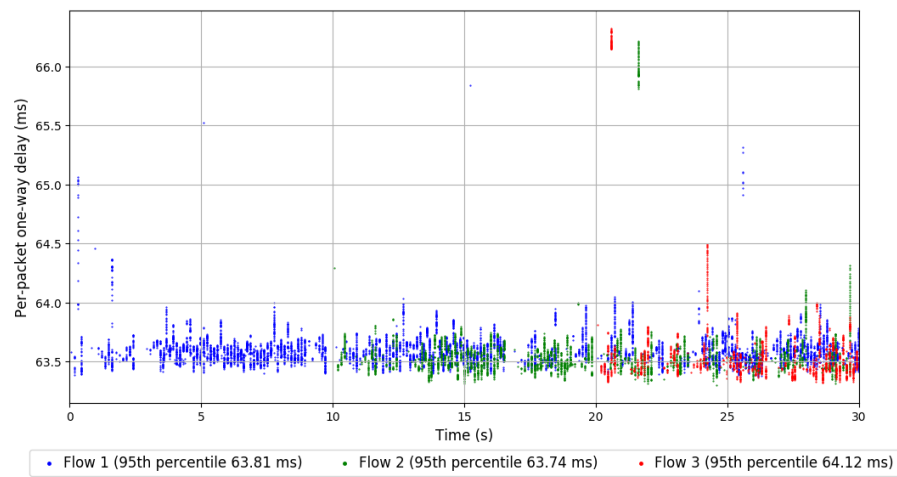
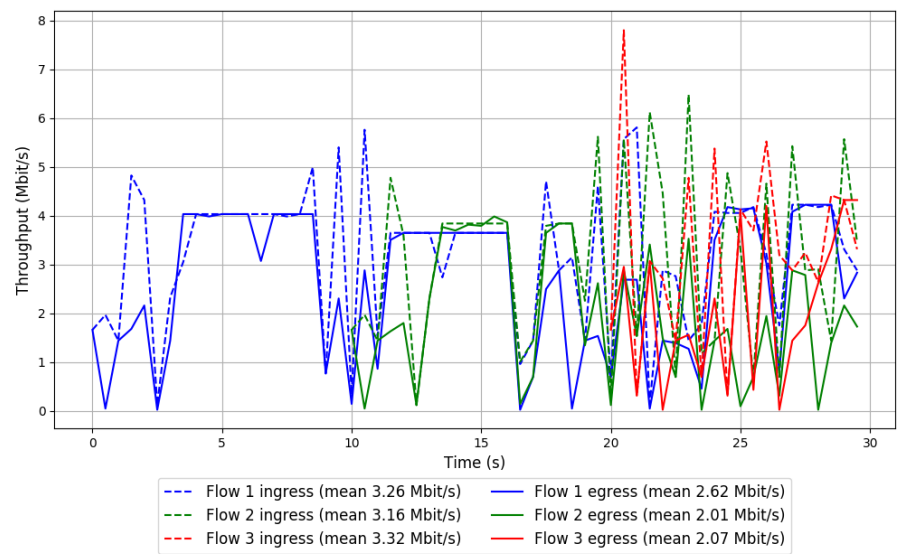
-- Flow 3:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 64.121 ms

Loss rate: 37.78%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-08-21 13:26:08

End at: 2017-08-21 13:26:38

Below is generated by plot.py at 2017-08-21 15:50:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.99 Mbit/s

95th percentile per-packet one-way delay: 63.814 ms

Loss rate: 46.09%

-- Flow 1:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 63.771 ms

Loss rate: 50.85%

-- Flow 2:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 63.888 ms

Loss rate: 48.94%

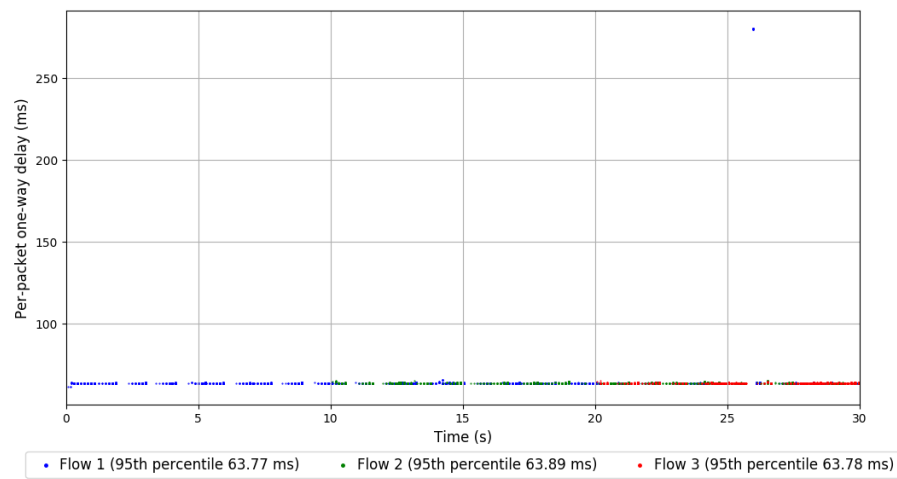
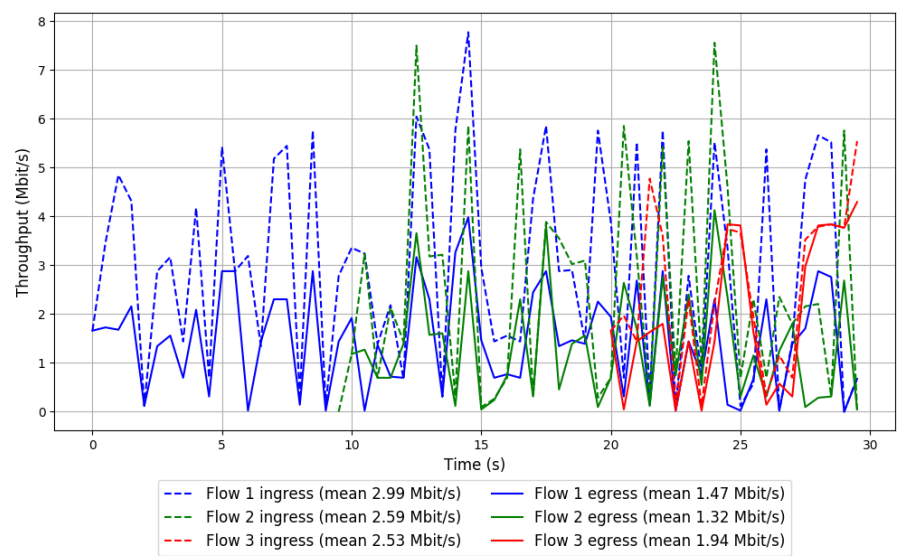
-- Flow 3:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 63.780 ms

Loss rate: 23.31%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-08-21 13:37:00

End at: 2017-08-21 13:37:30

Below is generated by plot.py at 2017-08-21 15:50:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 63.868 ms

Loss rate: 32.50%

-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 63.773 ms

Loss rate: 27.29%

-- Flow 2:

Average throughput: 2.14 Mbit/s

95th percentile per-packet one-way delay: 63.988 ms

Loss rate: 33.54%

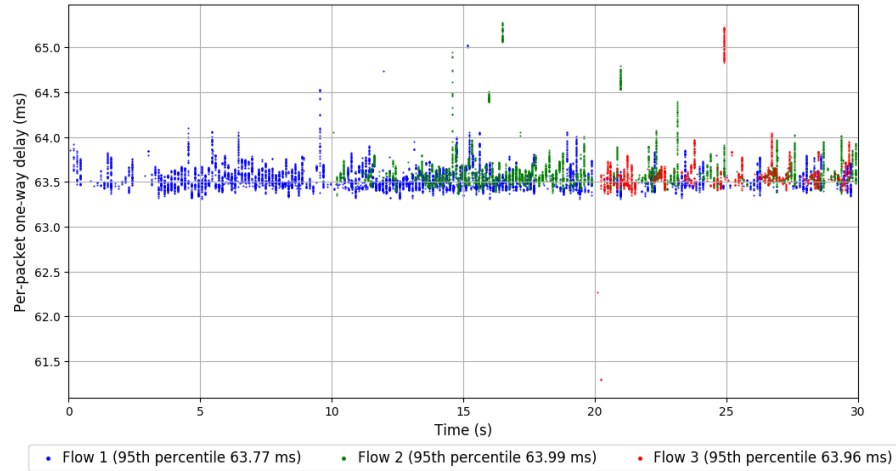
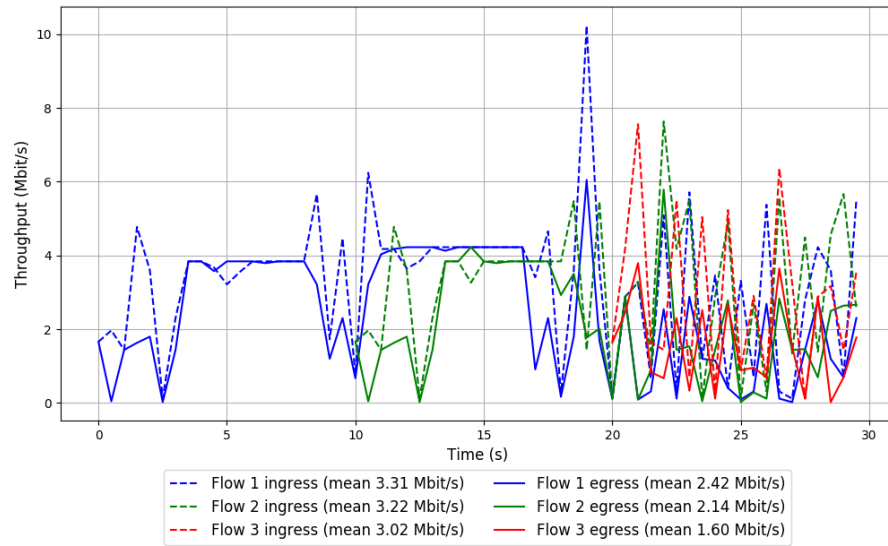
-- Flow 3:

Average throughput: 1.60 Mbit/s

95th percentile per-packet one-way delay: 63.963 ms

Loss rate: 47.82%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-21 13:48:03

End at: 2017-08-21 13:48:33

Below is generated by plot.py at 2017-08-21 15:50:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 27.02 Mbit/s

95th percentile per-packet one-way delay: 67.651 ms

Loss rate: 12.57%

-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 63.775 ms

Loss rate: 26.64%

-- Flow 2:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 63.751 ms

Loss rate: 18.53%

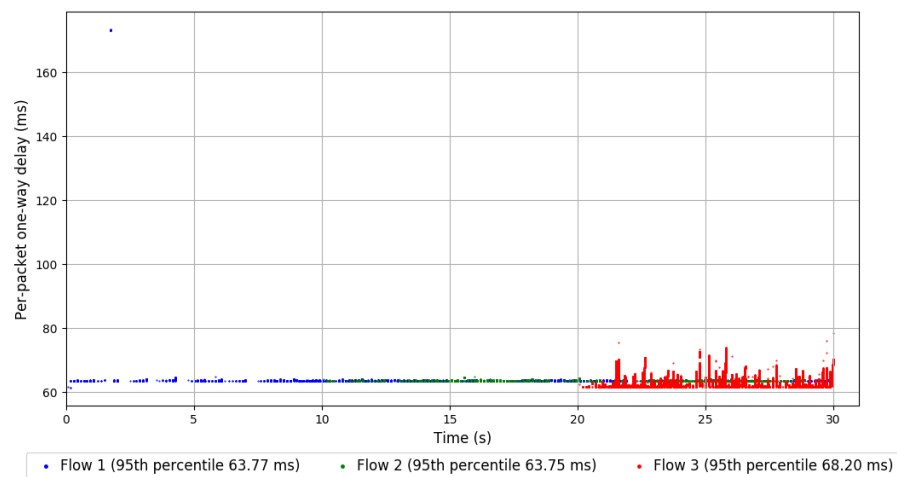
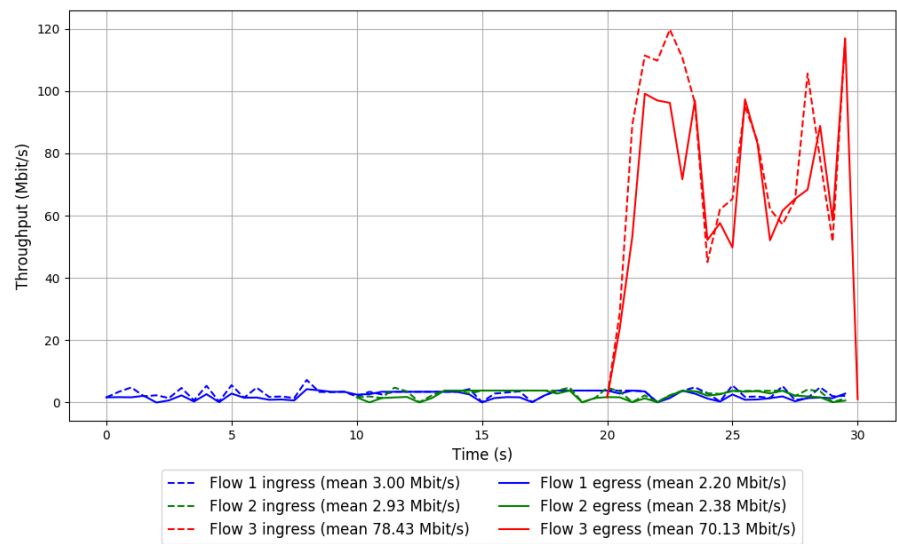
-- Flow 3:

Average throughput: 70.13 Mbit/s

95th percentile per-packet one-way delay: 68.202 ms

Loss rate: 10.51%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-08-21 13:59:10

End at: 2017-08-21 13:59:40

Below is generated by plot.py at 2017-08-21 15:50:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.18 Mbit/s

95th percentile per-packet one-way delay: 63.665 ms

Loss rate: 25.96%

-- Flow 1:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 63.850 ms

Loss rate: 23.33%

-- Flow 2:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 63.785 ms

Loss rate: 27.22%

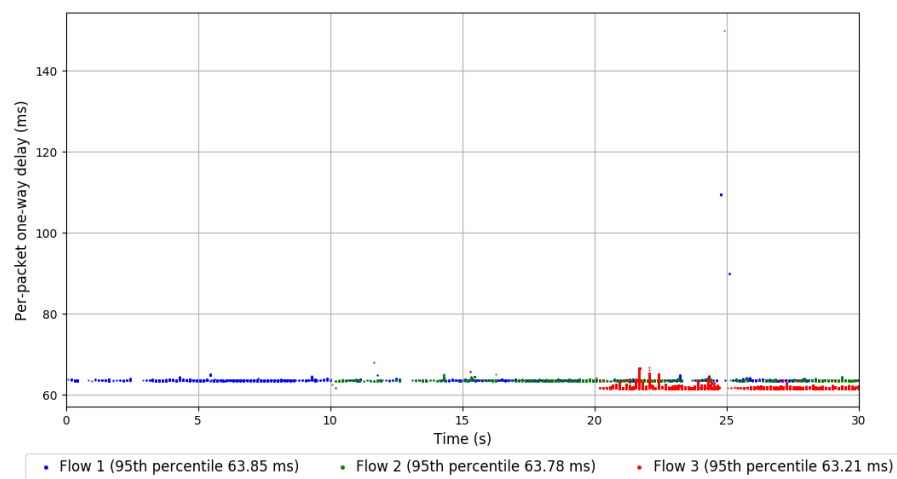
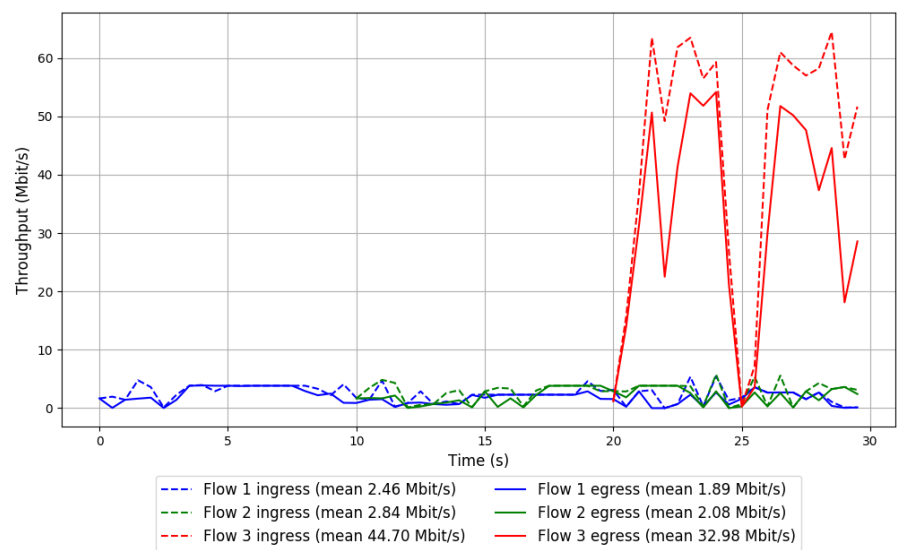
-- Flow 3:

Average throughput: 32.98 Mbit/s

95th percentile per-packet one-way delay: 63.208 ms

Loss rate: 26.24%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-21 14:10:23

End at: 2017-08-21 14:10:53

Below is generated by plot.py at 2017-08-21 15:50:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.68 Mbit/s

95th percentile per-packet one-way delay: 63.861 ms

Loss rate: 40.34%

-- Flow 1:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 63.961 ms

Loss rate: 50.60%

-- Flow 2:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 64.056 ms

Loss rate: 36.48%

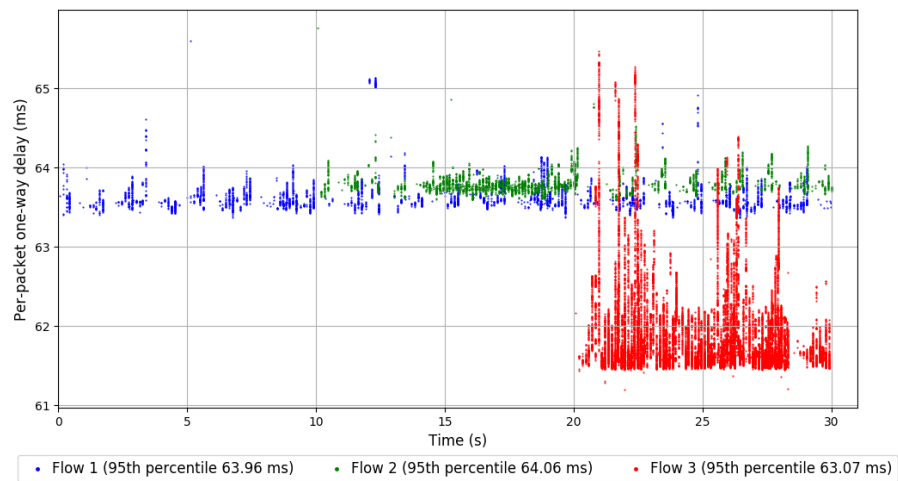
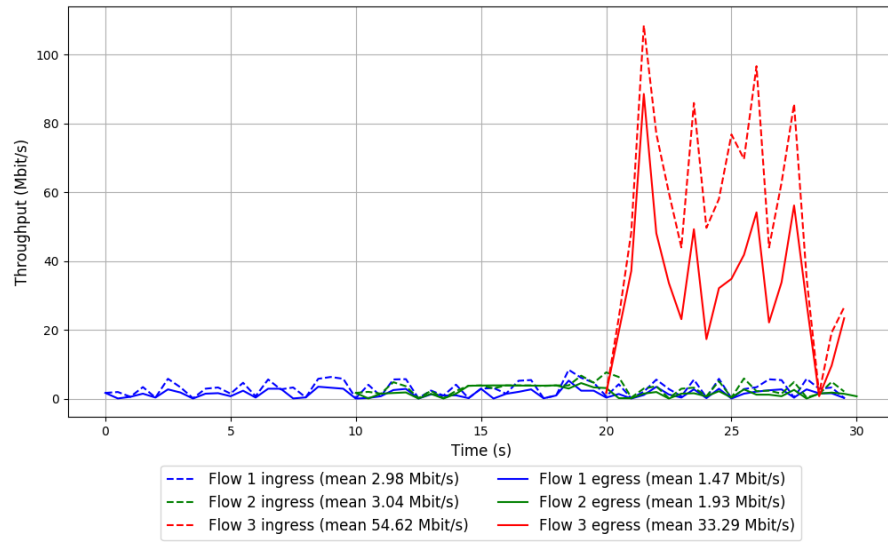
-- Flow 3:

Average throughput: 33.29 Mbit/s

95th percentile per-packet one-way delay: 63.066 ms

Loss rate: 39.07%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-08-21 14:21:27

End at: 2017-08-21 14:21:57

Below is generated by plot.py at 2017-08-21 15:50:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 64.054 ms

Loss rate: 48.71%

-- Flow 1:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 64.098 ms

Loss rate: 49.96%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 64.082 ms

Loss rate: 50.71%

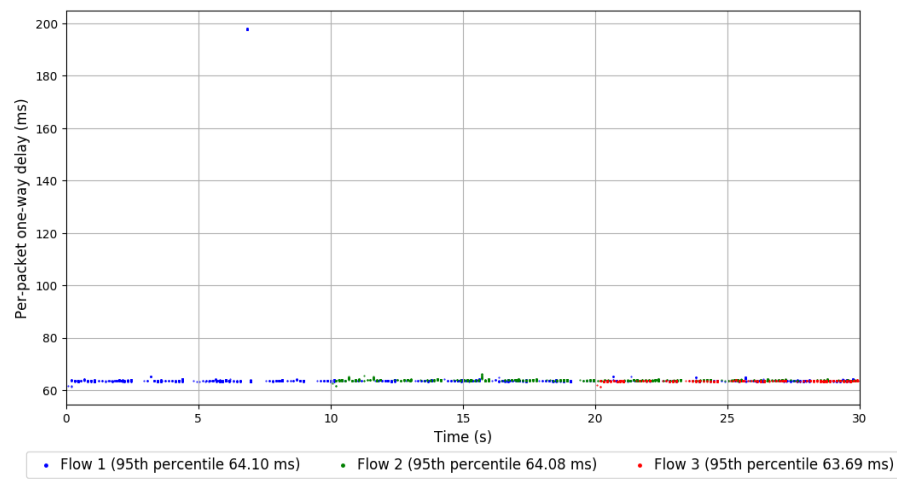
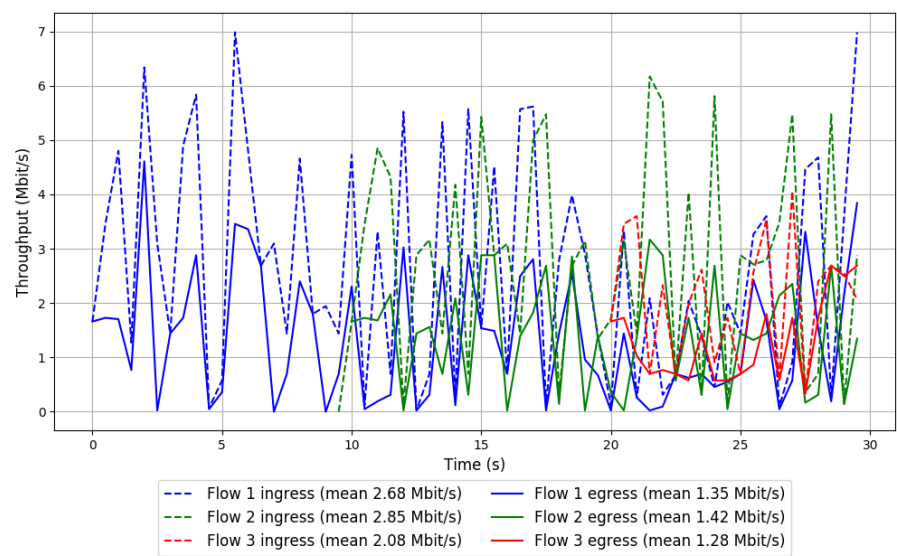
-- Flow 3:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 63.691 ms

Loss rate: 38.35%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-08-21 14:32:22

End at: 2017-08-21 14:32:52

Below is generated by plot.py at 2017-08-21 15:50:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 24.20 Mbit/s

95th percentile per-packet one-way delay: 67.565 ms

Loss rate: 26.69%

-- Flow 1:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 64.219 ms

Loss rate: 45.39%

-- Flow 2:

Average throughput: 33.66 Mbit/s

95th percentile per-packet one-way delay: 67.856 ms

Loss rate: 24.43%

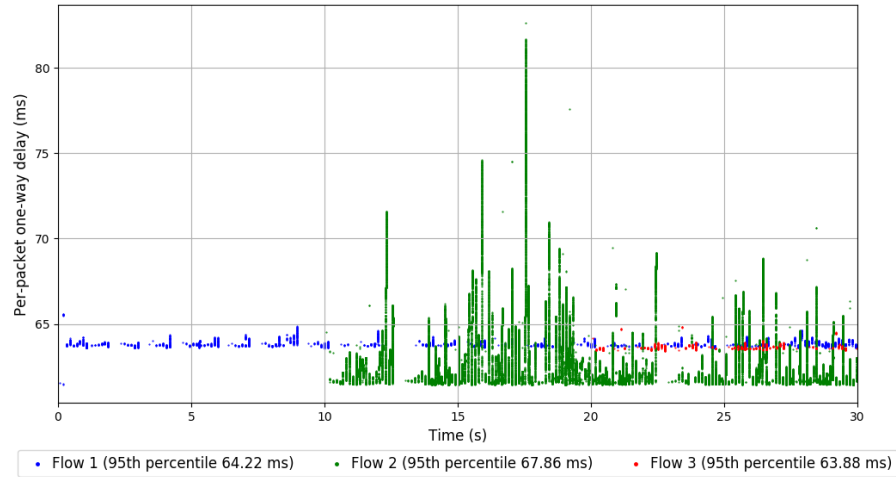
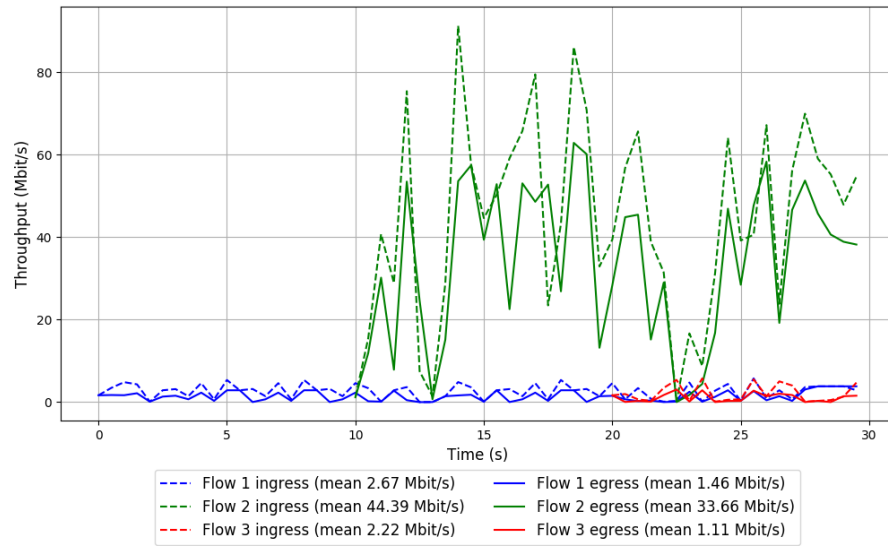
-- Flow 3:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 63.876 ms

Loss rate: 50.19%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-08-21 14:43:33

End at: 2017-08-21 14:44:03

Below is generated by plot.py at 2017-08-21 15:50:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.60 Mbit/s

95th percentile per-packet one-way delay: 63.996 ms

Loss rate: 39.50%

-- Flow 1:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 64.065 ms

Loss rate: 50.46%

-- Flow 2:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 63.982 ms

Loss rate: 34.80%

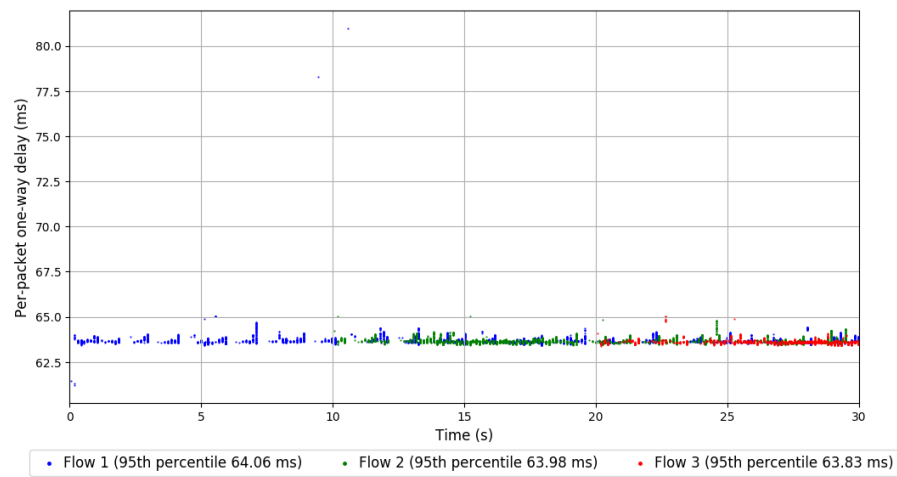
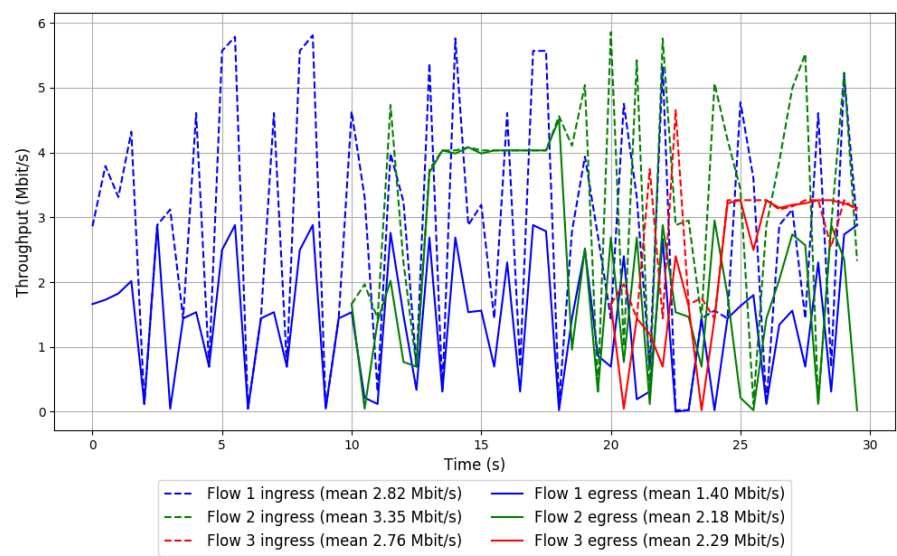
-- Flow 3:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 63.834 ms

Loss rate: 17.08%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

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

End at: 2017-08-21 13:00:51

Below is generated by plot.py at 2017-08-21 15:51:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 266.90 Mbit/s

95th percentile per-packet one-way delay: 94.437 ms

Loss rate: 6.24%

-- Flow 1:

Average throughput: 266.85 Mbit/s

95th percentile per-packet one-way delay: 94.442 ms

Loss rate: 6.14%

-- Flow 2:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 63.734 ms

Loss rate: 81.05%

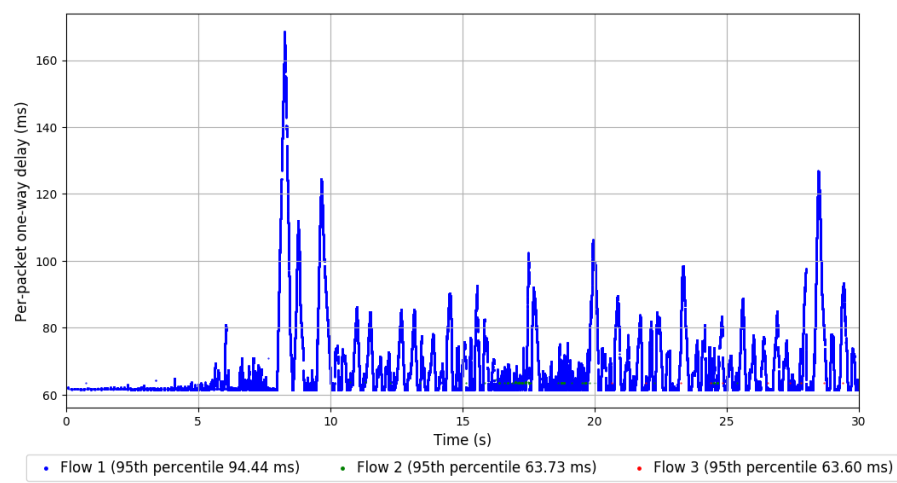
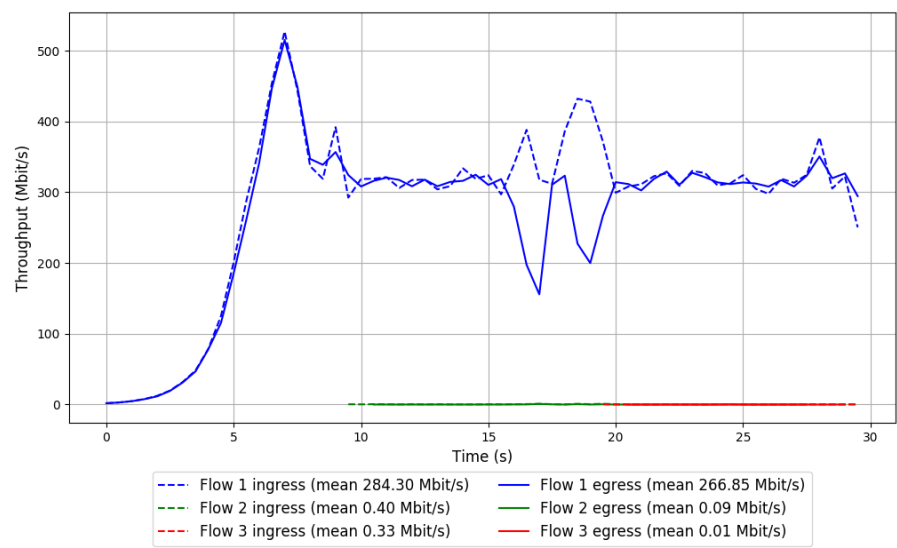
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 63.602 ms

Loss rate: 96.34%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-08-21 13:11:32

End at: 2017-08-21 13:12:02

Below is generated by plot.py at 2017-08-21 15:51:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.19 Mbit/s

95th percentile per-packet one-way delay: 102.894 ms

Loss rate: 8.59%

-- Flow 1:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 64.491 ms

Loss rate: 69.77%

-- Flow 2:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 64.436 ms

Loss rate: 68.79%

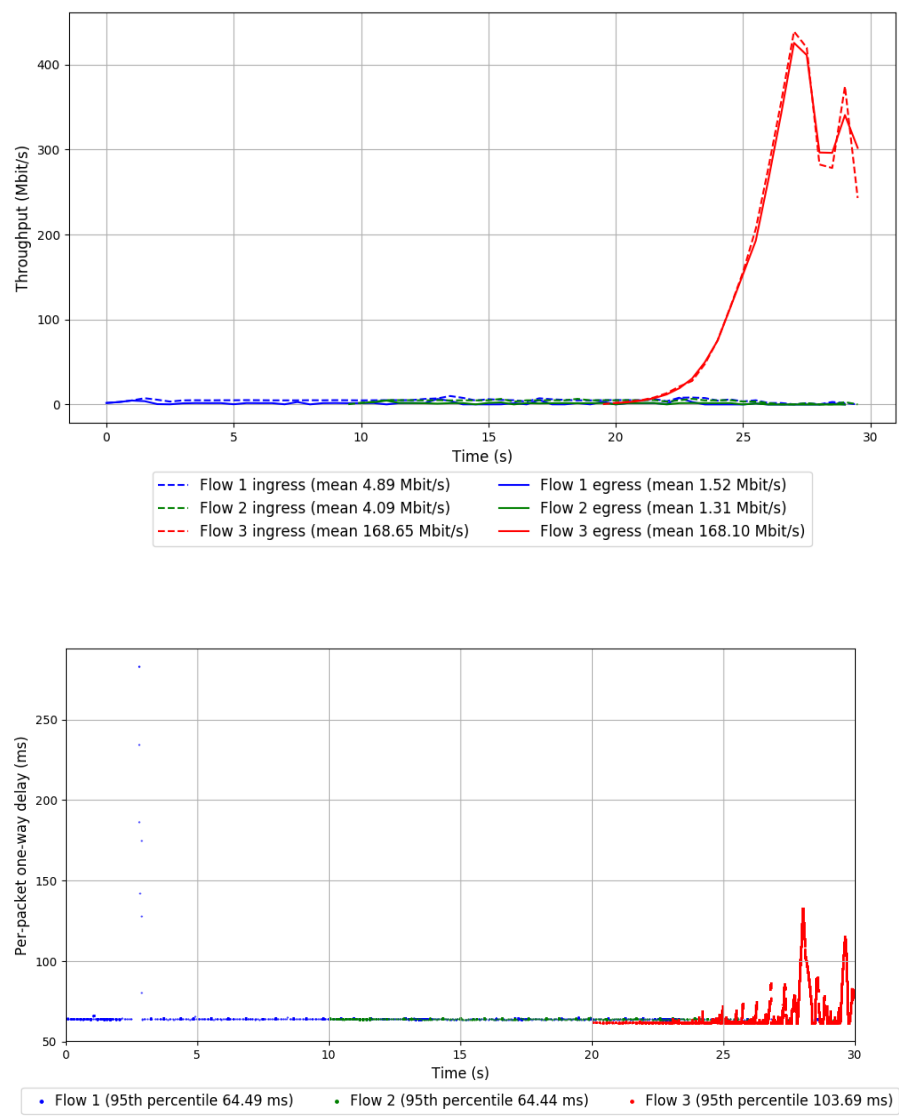
-- Flow 3:

Average throughput: 168.10 Mbit/s

95th percentile per-packet one-way delay: 103.690 ms

Loss rate: 0.34%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-08-21 13:22:19

End at: 2017-08-21 13:22:49

Below is generated by plot.py at 2017-08-21 15:51:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.03 Mbit/s

95th percentile per-packet one-way delay: 120.970 ms

Loss rate: 8.58%

-- Flow 1:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 64.422 ms

Loss rate: 69.84%

-- Flow 2:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 64.204 ms

Loss rate: 69.01%

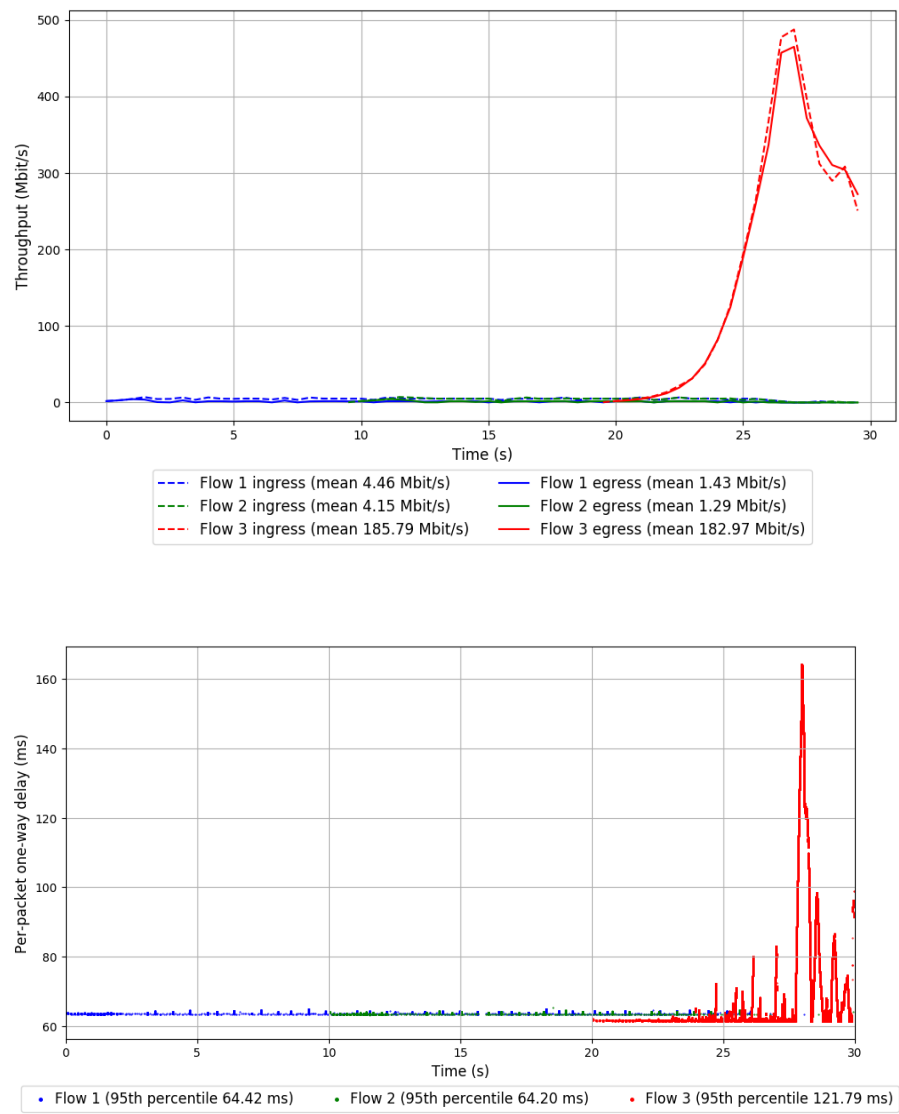
-- Flow 3:

Average throughput: 182.97 Mbit/s

95th percentile per-packet one-way delay: 121.793 ms

Loss rate: 1.46%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-08-21 13:33:17

End at: 2017-08-21 13:33:47

Below is generated by plot.py at 2017-08-21 15:51:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.00 Mbit/s

95th percentile per-packet one-way delay: 64.305 ms

Loss rate: 68.88%

-- Flow 1:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 64.365 ms

Loss rate: 70.87%

-- Flow 2:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 64.217 ms

Loss rate: 66.34%

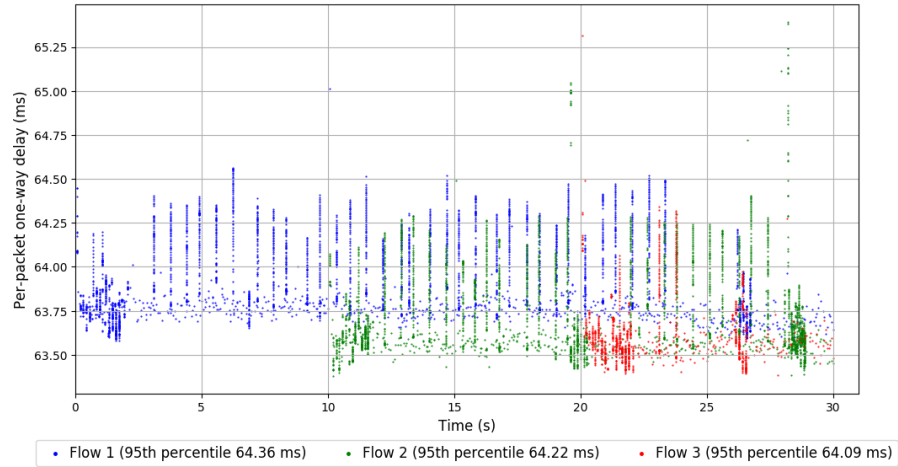
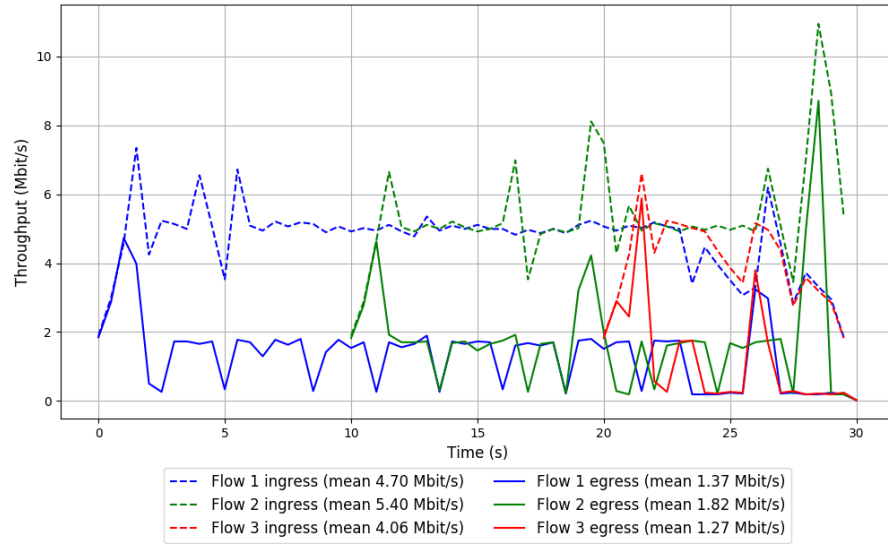
-- Flow 3:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 64.092 ms

Loss rate: 68.72%

Run 4: Report of CalibratedKoho — Data Link

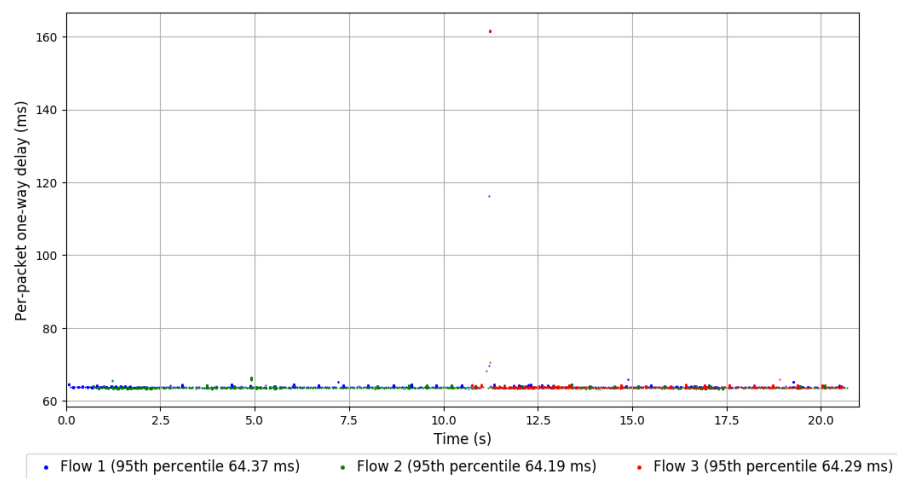
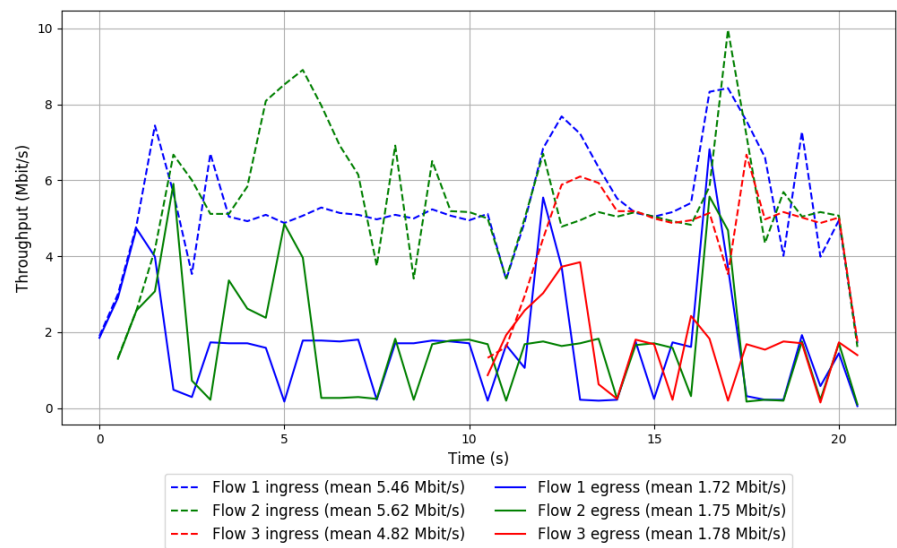


Run 5: Statistics of CalibratedKoho

Start at: 2017-08-21 13:44:14

End at: 2017-08-21 13:44:44

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-21 13:55:09

End at: 2017-08-21 13:55:39

Below is generated by plot.py at 2017-08-21 15:51:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 163.29 Mbit/s

95th percentile per-packet one-way delay: 103.755 ms

Loss rate: 3.48%

-- Flow 1:

Average throughput: 1.09 Mbit/s

95th percentile per-packet one-way delay: 64.175 ms

Loss rate: 68.61%

-- Flow 2:

Average throughput: 243.54 Mbit/s

95th percentile per-packet one-way delay: 103.910 ms

Loss rate: 2.16%

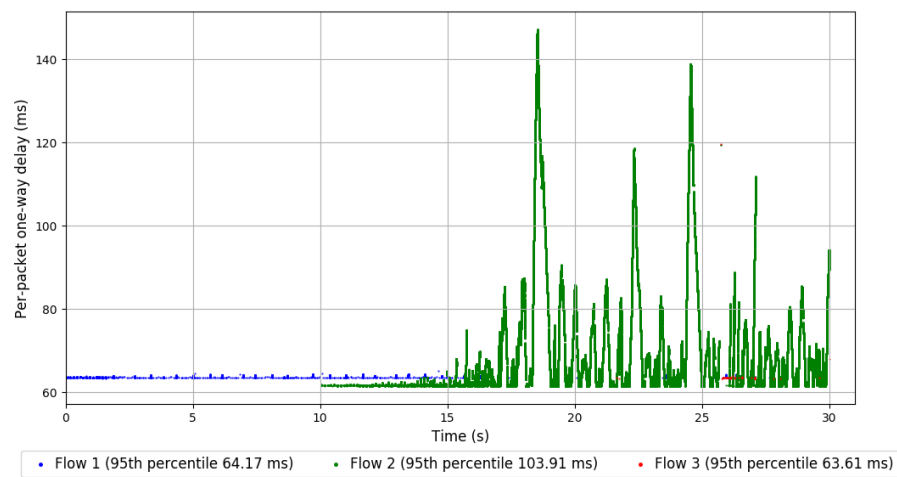
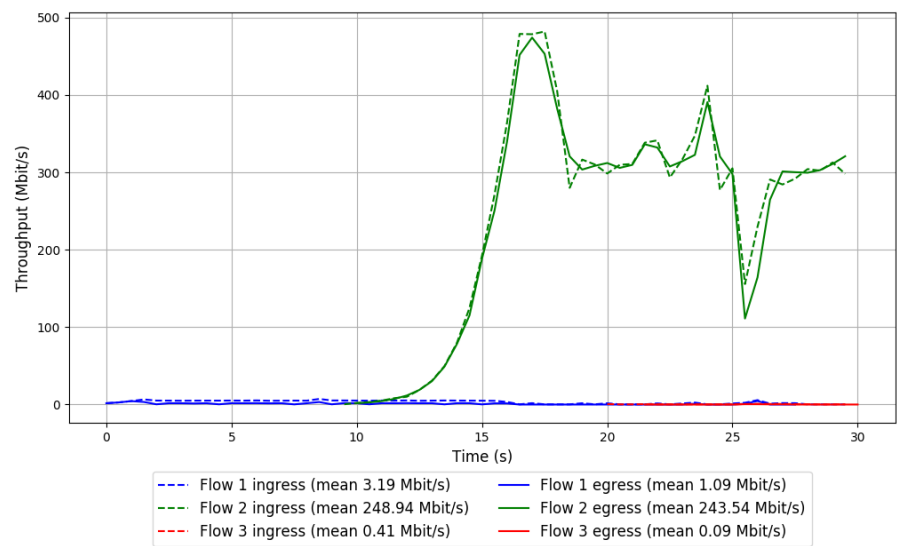
-- Flow 3:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 63.614 ms

Loss rate: 80.71%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-08-21 14:06:16

End at: 2017-08-21 14:06:46

Below is generated by plot.py at 2017-08-21 15:52:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 264.98 Mbit/s

95th percentile per-packet one-way delay: 84.627 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 264.95 Mbit/s

95th percentile per-packet one-way delay: 84.629 ms

Loss rate: 1.33%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 63.526 ms

Loss rate: 95.86%

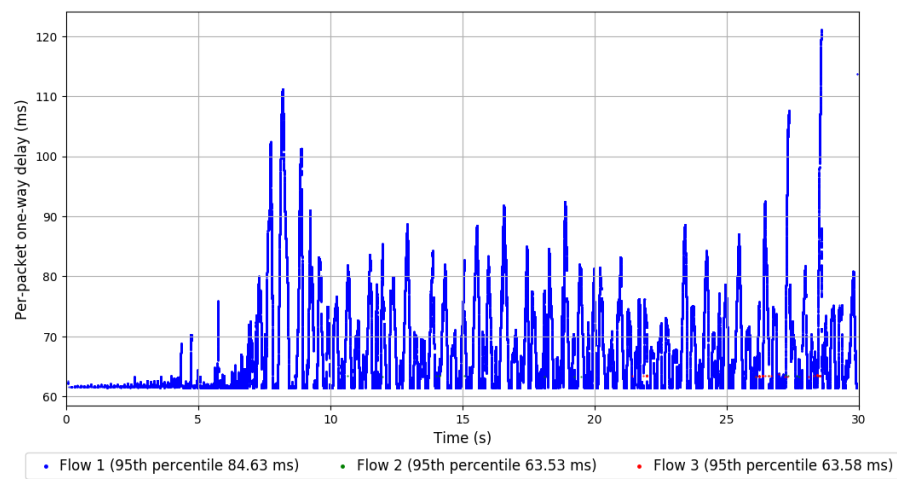
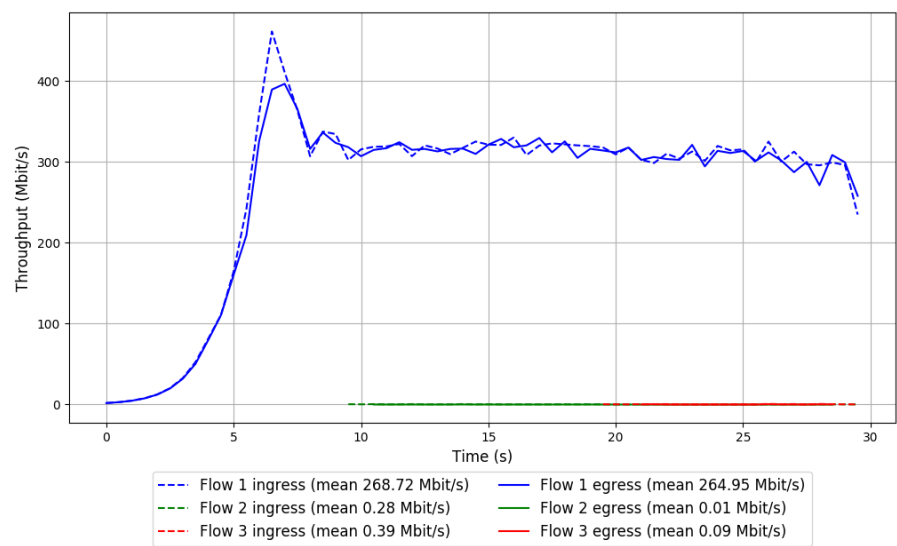
-- Flow 3:

Average throughput: 0.09 Mbit/s

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

Loss rate: 83.75%

Run 7: Report of CalibratedKoho — Data Link

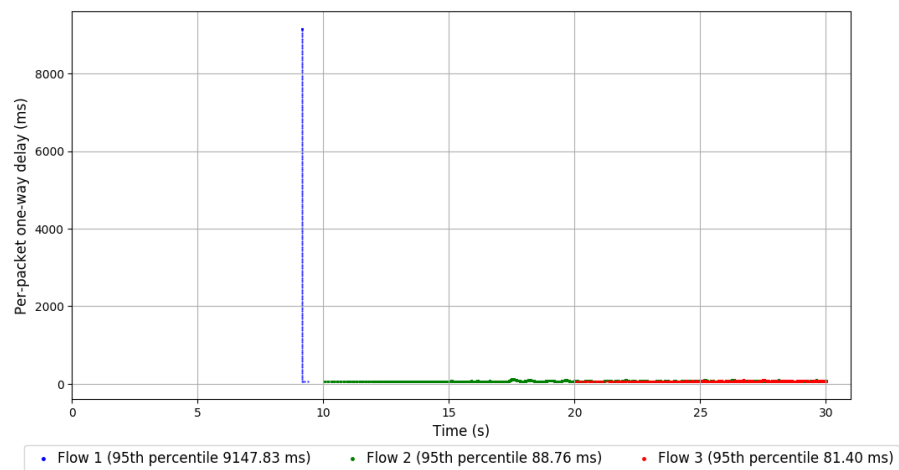
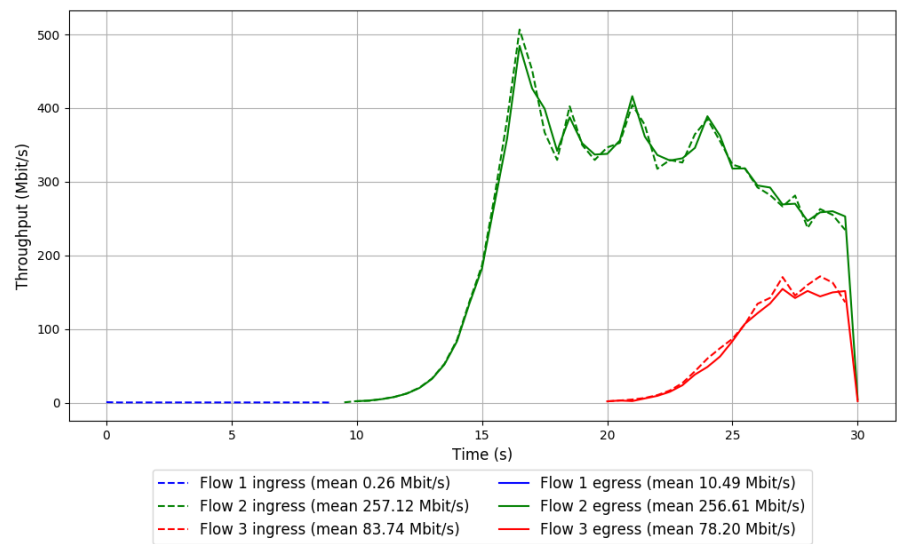


Run 8: Statistics of CalibratedKoho

Start at: 2017-08-21 14:17:26

End at: 2017-08-21 14:17:56

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-08-21 14:28:40

End at: 2017-08-21 14:29:10

Below is generated by plot.py at 2017-08-21 15:52:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 64.219 ms

Loss rate: 68.02%

-- Flow 1:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 64.248 ms

Loss rate: 69.26%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 64.227 ms

Loss rate: 68.06%

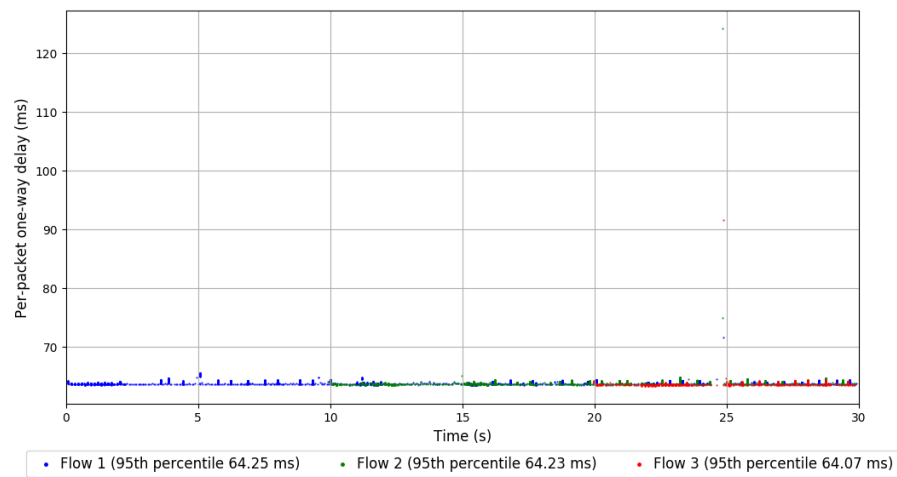
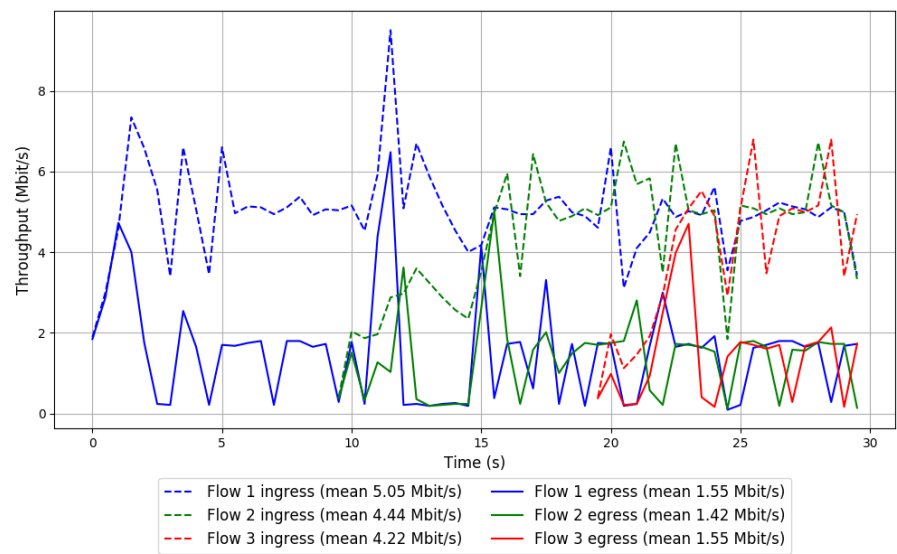
-- Flow 3:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 64.071 ms

Loss rate: 63.45%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-08-21 14:39:33

End at: 2017-08-21 14:40:03

Below is generated by plot.py at 2017-08-21 15:52:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 161.89 Mbit/s

95th percentile per-packet one-way delay: 86.927 ms

Loss rate: 5.08%

-- Flow 1:

Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 65.842 ms

Loss rate: 68.32%

-- Flow 2:

Average throughput: 241.50 Mbit/s

95th percentile per-packet one-way delay: 86.944 ms

Loss rate: 3.89%

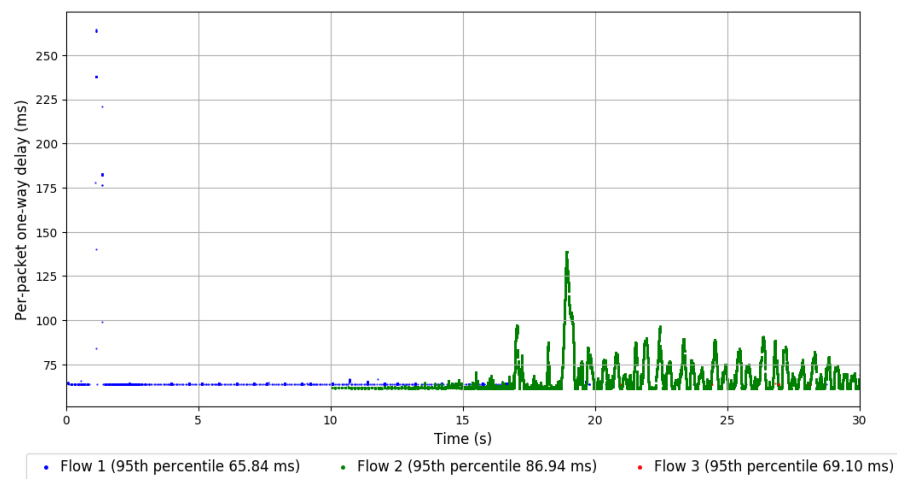
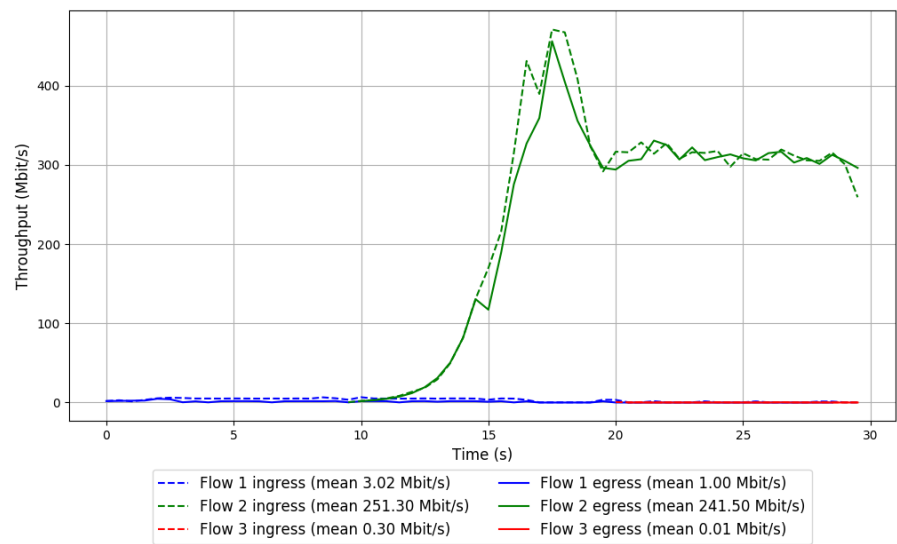
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 69.097 ms

Loss rate: 95.56%

Run 10: Report of CalibratedKoho — Data Link



Run 1: Statistics of Copa

Start at: 2017-08-21 12:58:07

End at: 2017-08-21 12:58:37

Below is generated by plot.py at 2017-08-21 15:52:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.56 Mbit/s

95th percentile per-packet one-way delay: 63.666 ms

Loss rate: 27.09%

-- Flow 1:

Average throughput: 75.30 Mbit/s

95th percentile per-packet one-way delay: 63.688 ms

Loss rate: 38.28%

-- Flow 2:

Average throughput: 5.81 Mbit/s

95th percentile per-packet one-way delay: 64.872 ms

Loss rate: 92.34%

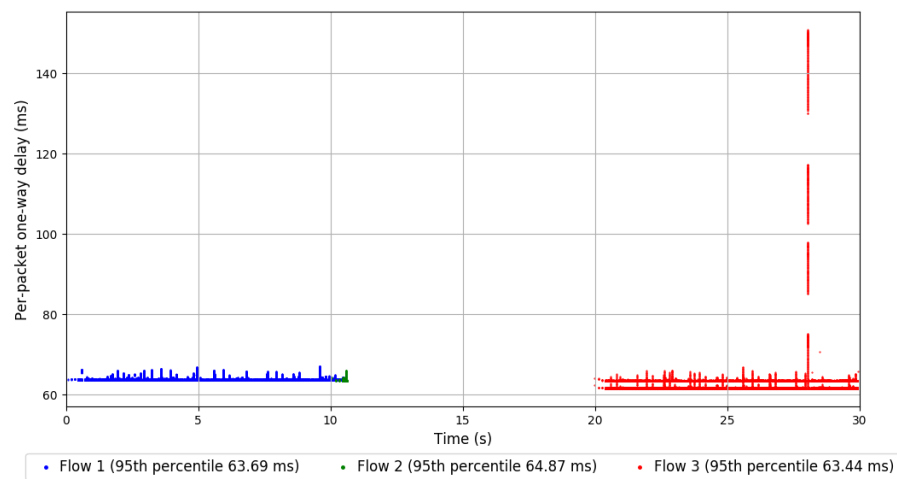
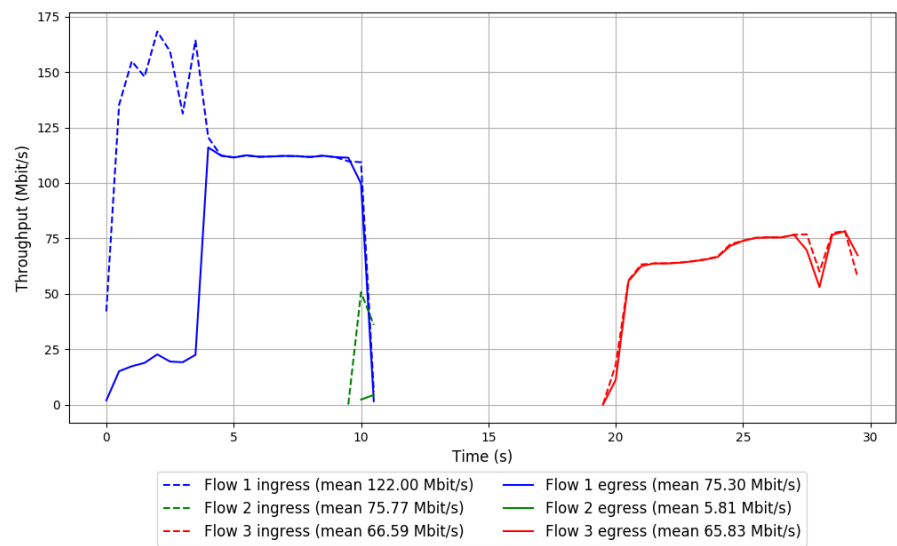
-- Flow 3:

Average throughput: 65.83 Mbit/s

95th percentile per-packet one-way delay: 63.440 ms

Loss rate: 1.12%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-08-21 13:09:10

End at: 2017-08-21 13:09:40

Below is generated by plot.py at 2017-08-21 15:53:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.31 Mbit/s

95th percentile per-packet one-way delay: 63.713 ms

Loss rate: 1.90%

-- Flow 1:

Average throughput: 97.86 Mbit/s

95th percentile per-packet one-way delay: 64.272 ms

Loss rate: 4.13%

-- Flow 2:

Average throughput: 72.31 Mbit/s

95th percentile per-packet one-way delay: 63.481 ms

Loss rate: 0.23%

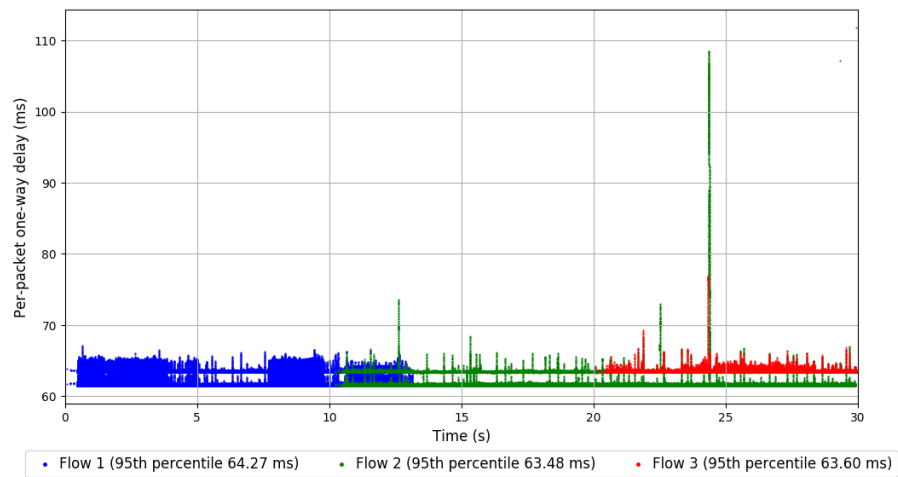
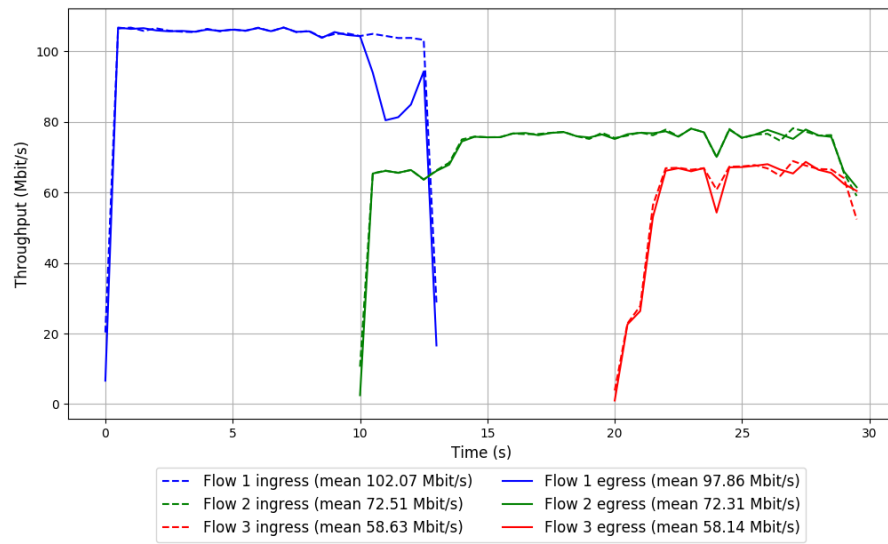
-- Flow 3:

Average throughput: 58.14 Mbit/s

95th percentile per-packet one-way delay: 63.602 ms

Loss rate: 0.90%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-21 13:20:10

End at: 2017-08-21 13:20:40

Below is generated by plot.py at 2017-08-21 15:53:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 39.81 Mbit/s

95th percentile per-packet one-way delay: 63.736 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 39.80 Mbit/s

95th percentile per-packet one-way delay: 63.736 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 63.864 ms

Loss rate: 0.00%

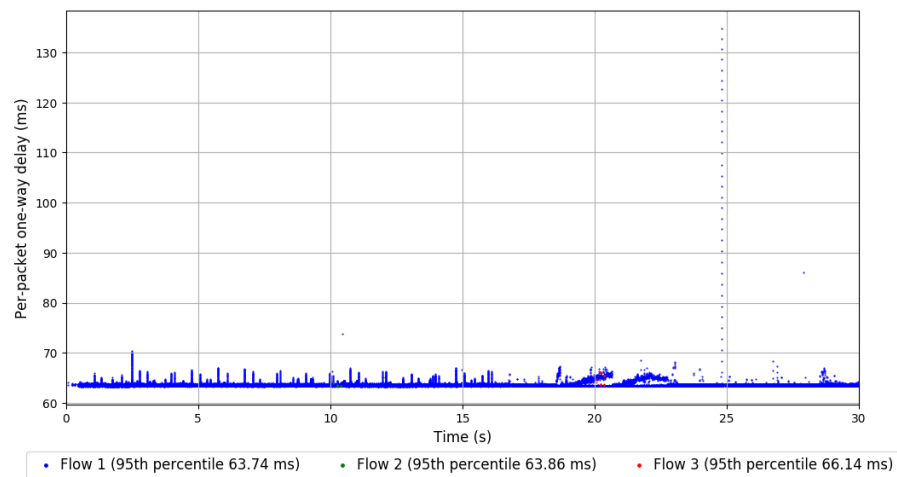
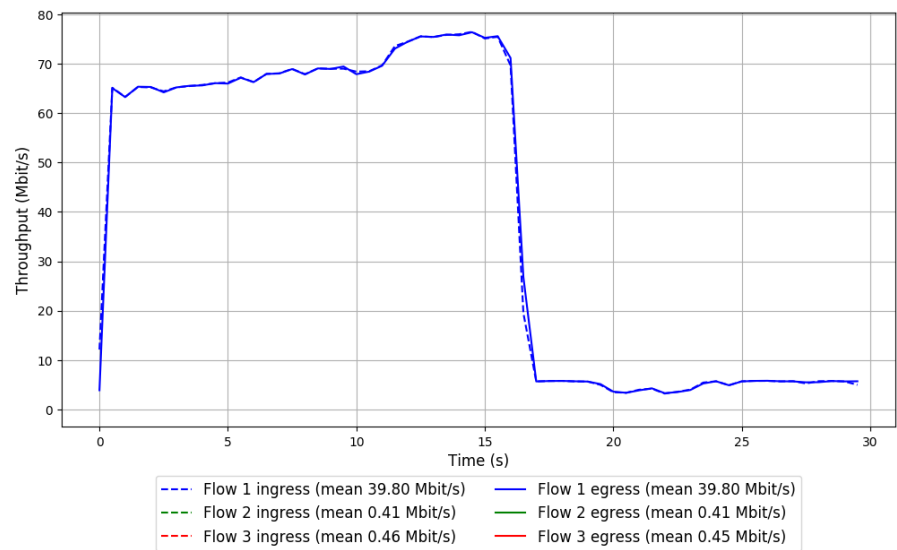
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 66.138 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-21 13:30:59

End at: 2017-08-21 13:31:29

Below is generated by plot.py at 2017-08-21 15:53:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.01 Mbit/s

95th percentile per-packet one-way delay: 63.671 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 64.90 Mbit/s

95th percentile per-packet one-way delay: 63.692 ms

Loss rate: 2.63%

-- Flow 2:

Average throughput: 60.69 Mbit/s

95th percentile per-packet one-way delay: 63.683 ms

Loss rate: 0.53%

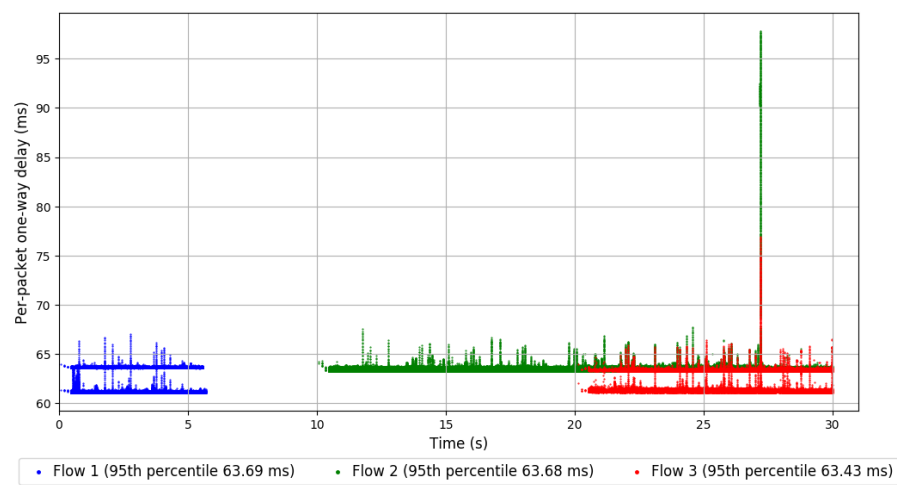
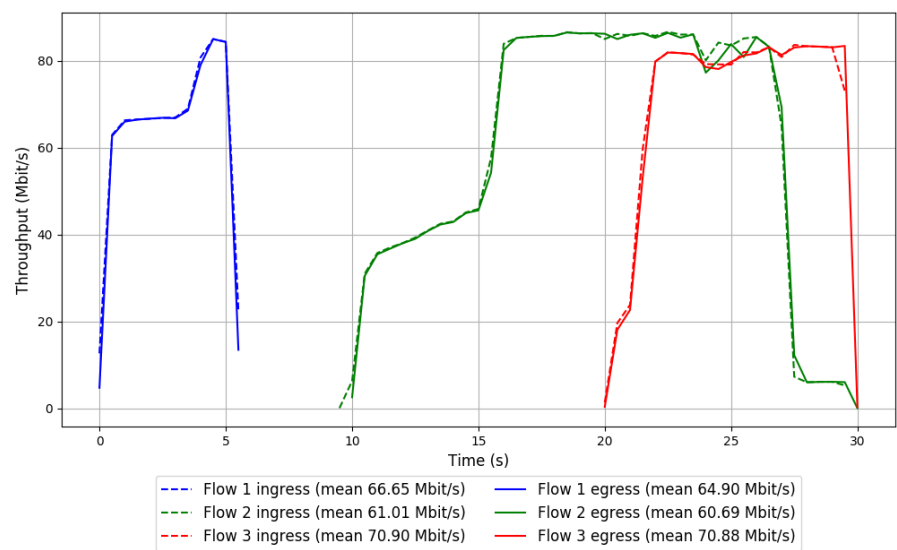
-- Flow 3:

Average throughput: 70.88 Mbit/s

95th percentile per-packet one-way delay: 63.428 ms

Loss rate: 0.15%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-08-21 13:41:52

End at: 2017-08-21 13:42:22

Below is generated by plot.py at 2017-08-21 15:53:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.05 Mbit/s

95th percentile per-packet one-way delay: 63.693 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 72.48 Mbit/s

95th percentile per-packet one-way delay: 63.684 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 72.83 Mbit/s

95th percentile per-packet one-way delay: 63.705 ms

Loss rate: 0.86%

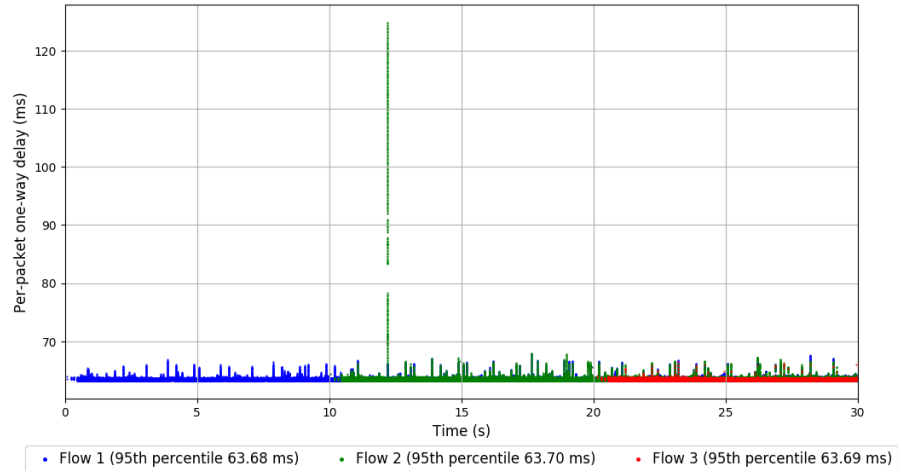
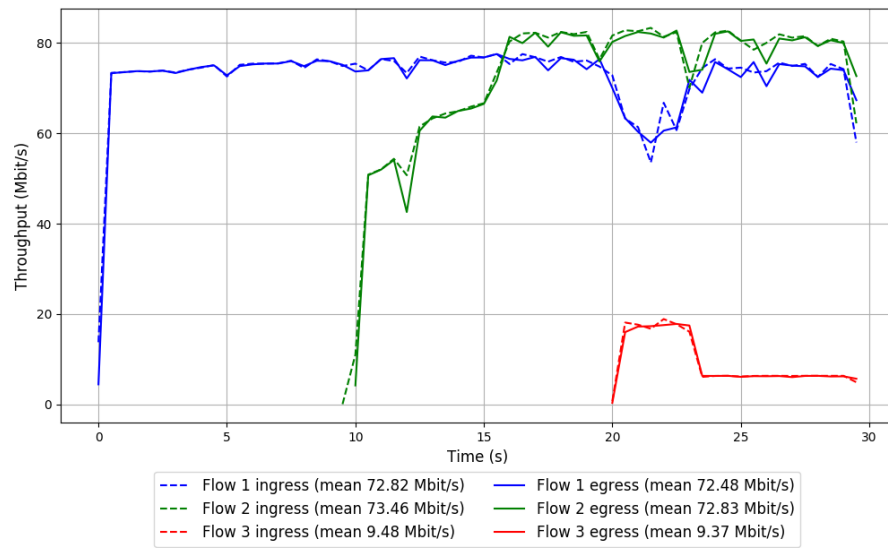
-- Flow 3:

Average throughput: 9.37 Mbit/s

95th percentile per-packet one-way delay: 63.694 ms

Loss rate: 1.12%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-08-21 13:52:54

End at: 2017-08-21 13:53:24

Below is generated by plot.py at 2017-08-21 15:53:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.43 Mbit/s

95th percentile per-packet one-way delay: 63.630 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 63.99 Mbit/s

95th percentile per-packet one-way delay: 63.496 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 249.166 ms

Loss rate: 46.17%

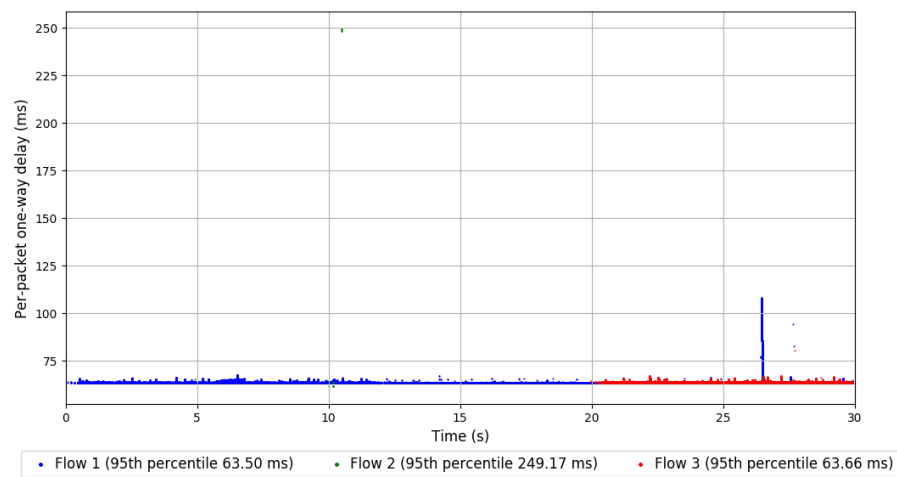
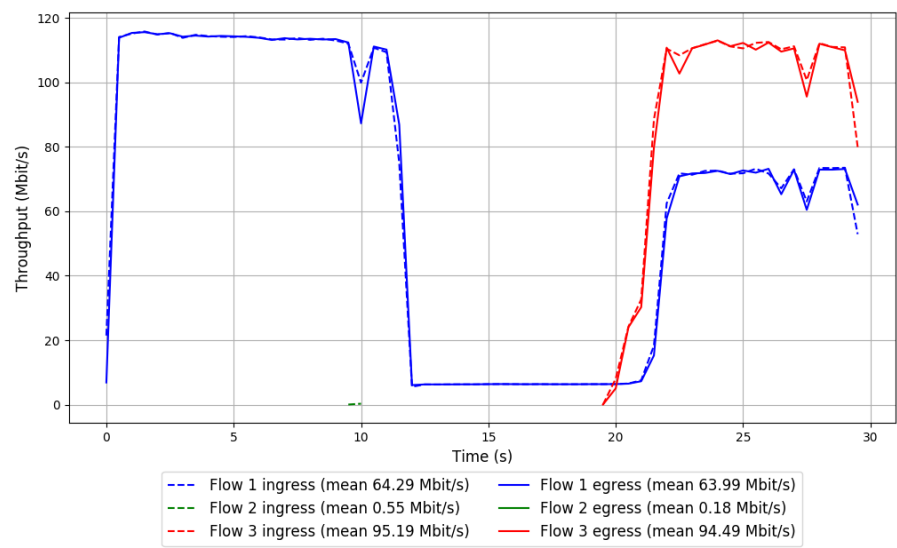
-- Flow 3:

Average throughput: 94.49 Mbit/s

95th percentile per-packet one-way delay: 63.655 ms

Loss rate: 0.73%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-08-21 14:04:01

End at: 2017-08-21 14:04:31

Below is generated by plot.py at 2017-08-21 15:54:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 65.81 Mbit/s

95th percentile per-packet one-way delay: 63.709 ms

Loss rate: 29.26%

-- Flow 1:

Average throughput: 18.61 Mbit/s

95th percentile per-packet one-way delay: 63.814 ms

Loss rate: 59.40%

-- Flow 2:

Average throughput: 70.75 Mbit/s

95th percentile per-packet one-way delay: 61.642 ms

Loss rate: 0.00%

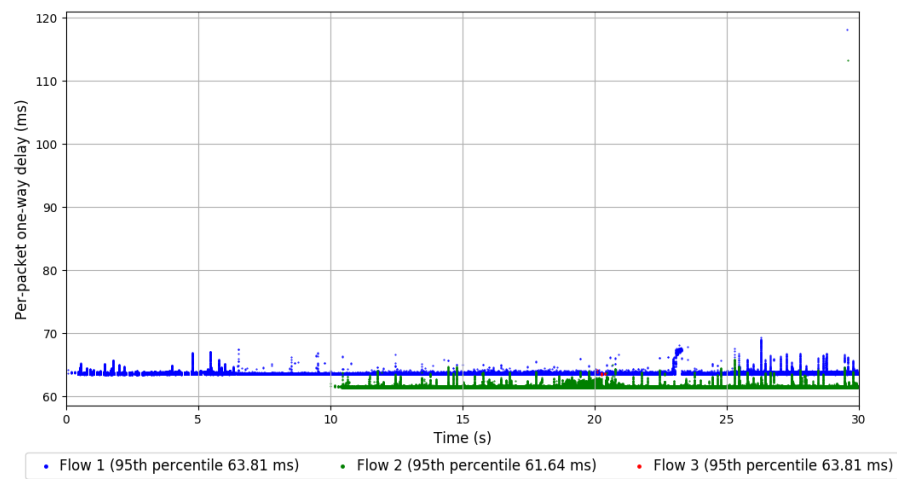
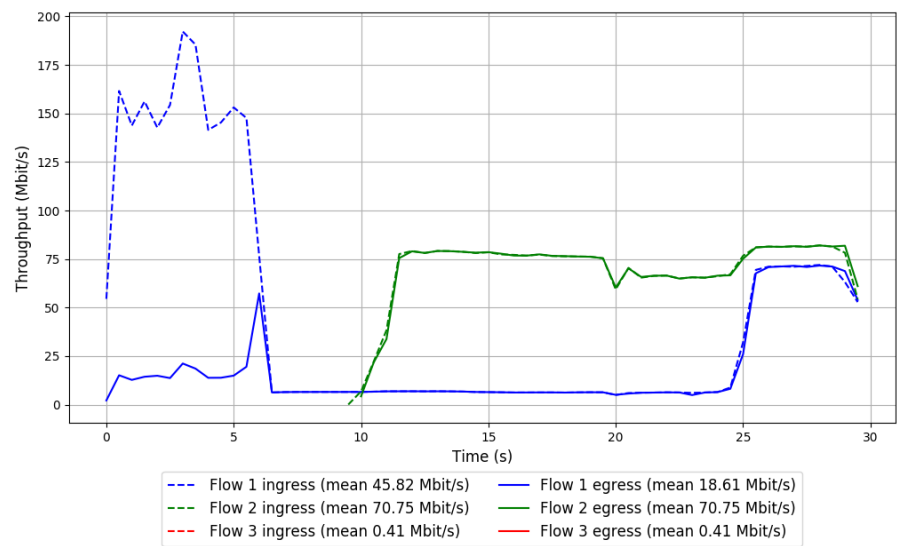
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 63.808 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-21 14:15:13

End at: 2017-08-21 14:15:43

Below is generated by plot.py at 2017-08-21 15:54:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.75 Mbit/s

95th percentile per-packet one-way delay: 63.751 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 60.08 Mbit/s

95th percentile per-packet one-way delay: 63.765 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 52.51 Mbit/s

95th percentile per-packet one-way delay: 63.550 ms

Loss rate: 1.24%

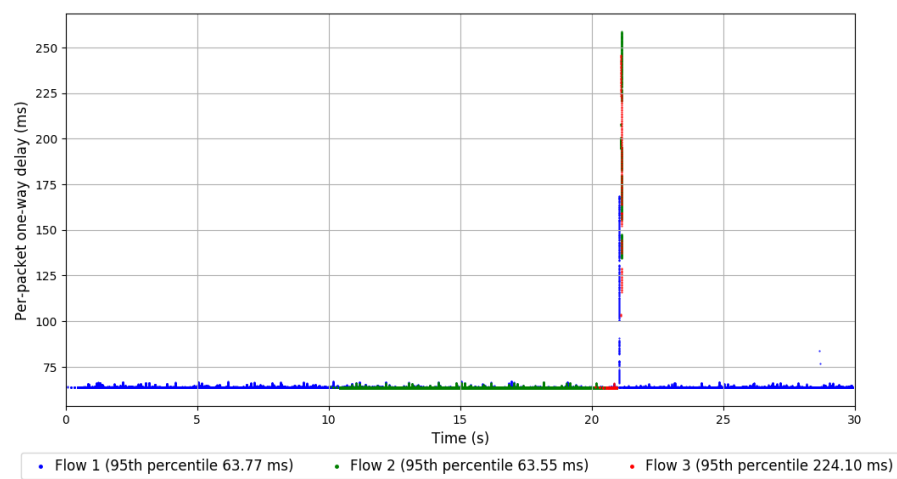
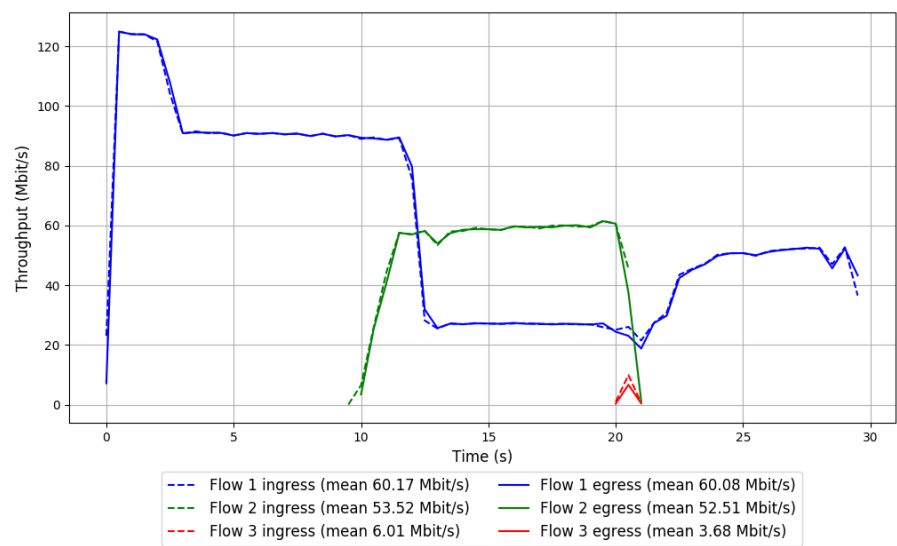
-- Flow 3:

Average throughput: 3.68 Mbit/s

95th percentile per-packet one-way delay: 224.097 ms

Loss rate: 35.34%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-08-21 14:26:19

End at: 2017-08-21 14:26:49

Below is generated by plot.py at 2017-08-21 15:54:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.35 Mbit/s

95th percentile per-packet one-way delay: 63.715 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.34 Mbit/s

95th percentile per-packet one-way delay: 63.715 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 63.537 ms

Loss rate: 0.00%

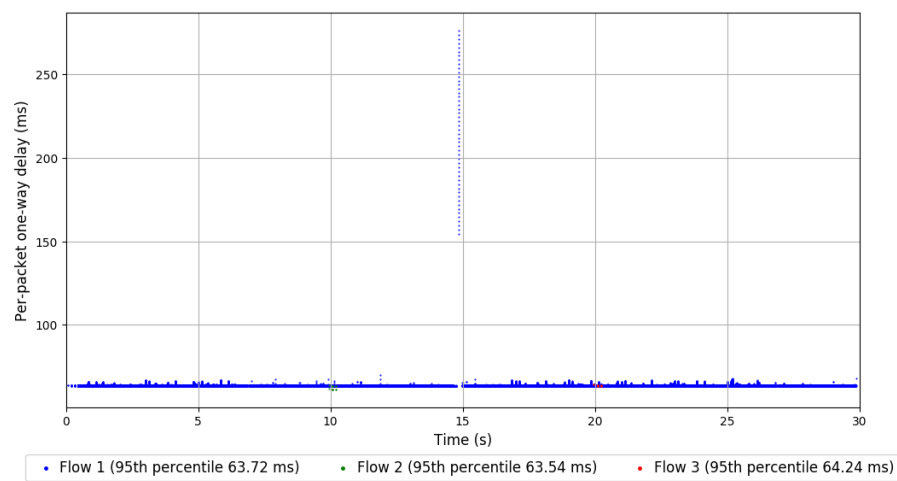
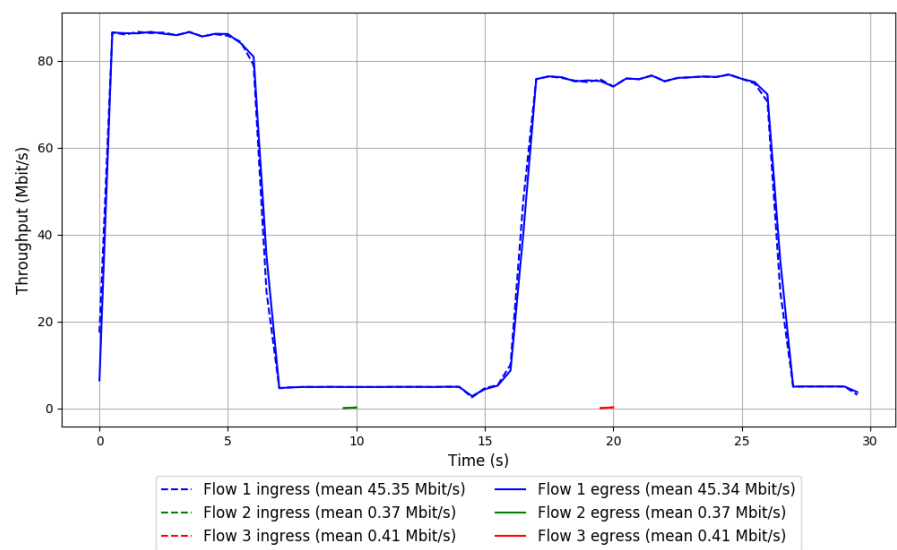
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 64.240 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-08-21 14:37:14

End at: 2017-08-21 14:37:44

Below is generated by plot.py at 2017-08-21 15:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.48 Mbit/s

95th percentile per-packet one-way delay: 63.608 ms

Loss rate: 48.14%

-- Flow 1:

Average throughput: 82.28 Mbit/s

95th percentile per-packet one-way delay: 63.513 ms

Loss rate: 27.42%

-- Flow 2:

Average throughput: 15.58 Mbit/s

95th percentile per-packet one-way delay: 63.626 ms

Loss rate: 75.39%

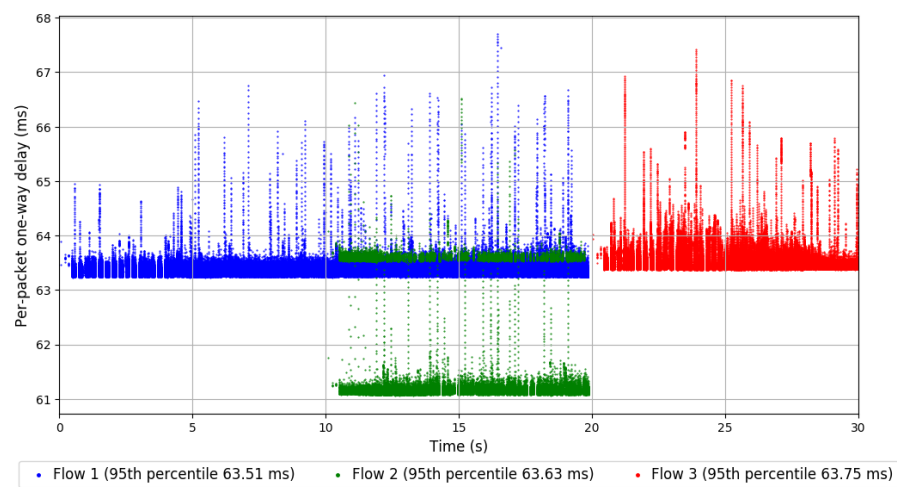
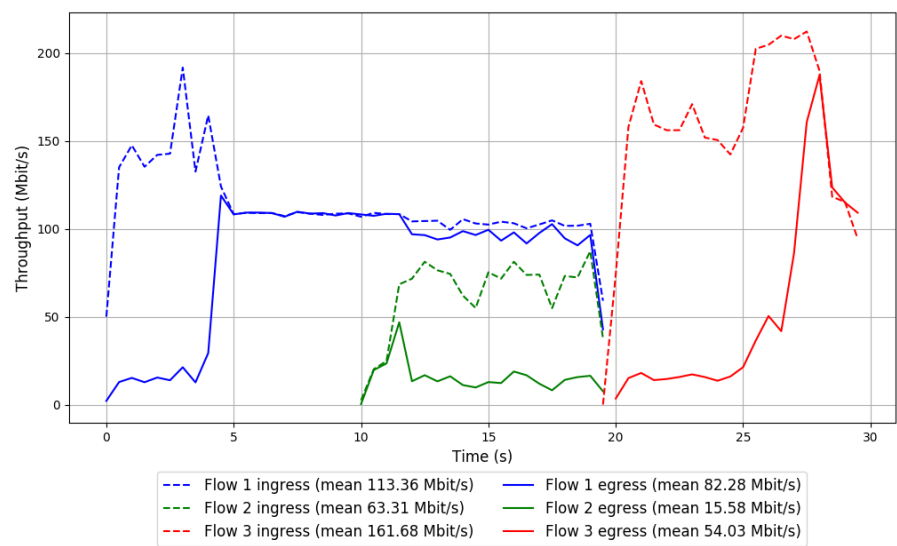
-- Flow 3:

Average throughput: 54.03 Mbit/s

95th percentile per-packet one-way delay: 63.750 ms

Loss rate: 66.58%

Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-08-21 12:56:03

End at: 2017-08-21 12:56:33

Below is generated by plot.py at 2017-08-21 15:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.64 Mbit/s

95th percentile per-packet one-way delay: 64.000 ms

Loss rate: 3.24%

-- Flow 1:

Average throughput: 4.91 Mbit/s

95th percentile per-packet one-way delay: 64.012 ms

Loss rate: 3.72%

-- Flow 2:

Average throughput: 5.32 Mbit/s

95th percentile per-packet one-way delay: 64.037 ms

Loss rate: 2.18%

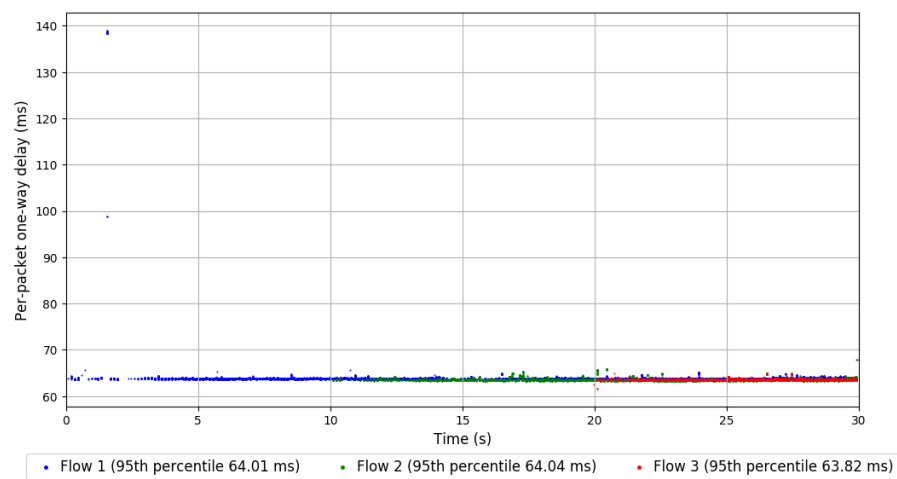
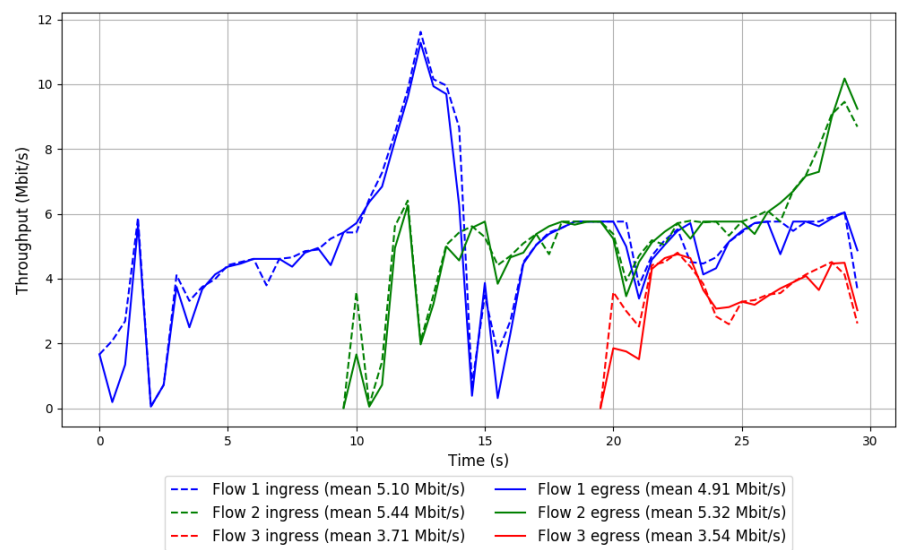
-- Flow 3:

Average throughput: 3.54 Mbit/s

95th percentile per-packet one-way delay: 63.822 ms

Loss rate: 4.39%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-21 13:07:06

End at: 2017-08-21 13:07:36

Below is generated by plot.py at 2017-08-21 15:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.76 Mbit/s

95th percentile per-packet one-way delay: 63.793 ms

Loss rate: 3.00%

-- Flow 1:

Average throughput: 6.70 Mbit/s

95th percentile per-packet one-way delay: 63.843 ms

Loss rate: 2.62%

-- Flow 2:

Average throughput: 4.52 Mbit/s

95th percentile per-packet one-way delay: 63.707 ms

Loss rate: 4.01%

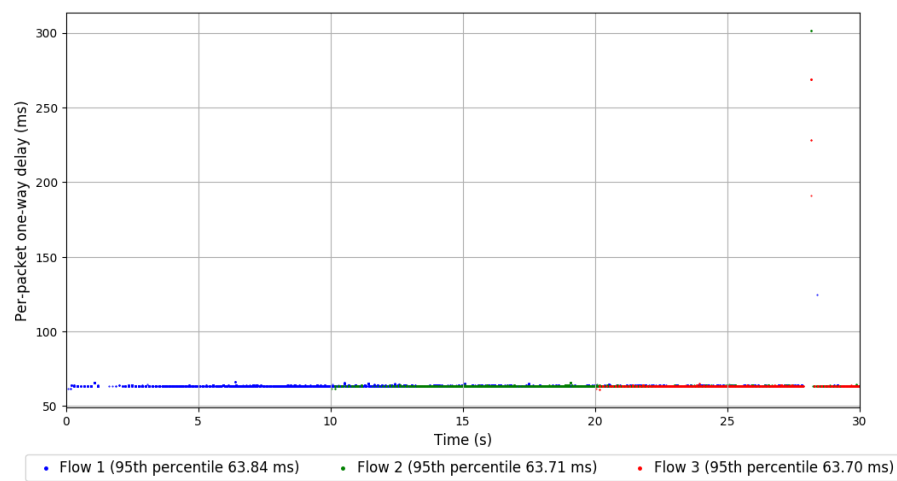
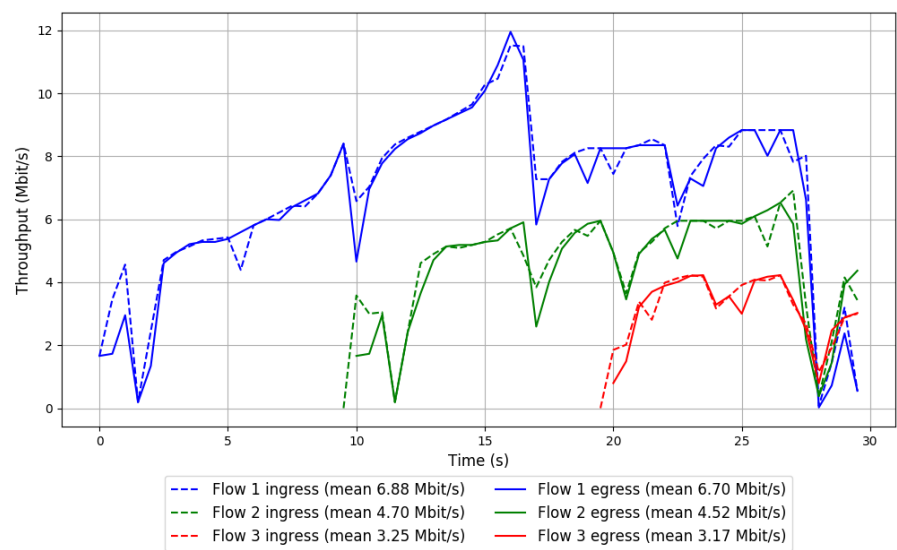
-- Flow 3:

Average throughput: 3.17 Mbit/s

95th percentile per-packet one-way delay: 63.695 ms

Loss rate: 2.46%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-08-21 13:18:04

End at: 2017-08-21 13:18:34

Below is generated by plot.py at 2017-08-21 15:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.26 Mbit/s

95th percentile per-packet one-way delay: 63.686 ms

Loss rate: 2.39%

-- Flow 1:

Average throughput: 19.86 Mbit/s

95th percentile per-packet one-way delay: 62.160 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 1.96 Mbit/s

95th percentile per-packet one-way delay: 64.022 ms

Loss rate: 10.24%

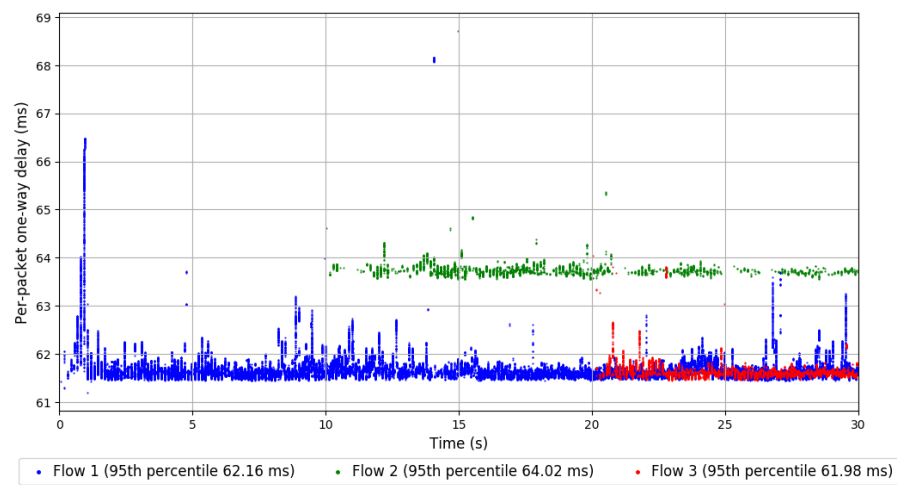
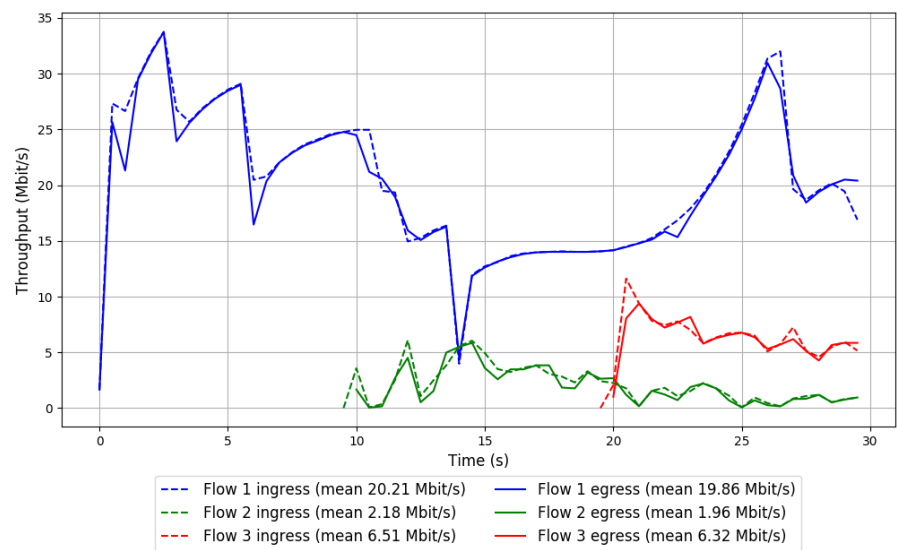
-- Flow 3:

Average throughput: 6.32 Mbit/s

95th percentile per-packet one-way delay: 61.979 ms

Loss rate: 3.40%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-08-21 13:28:54

End at: 2017-08-21 13:29:24

Below is generated by plot.py at 2017-08-21 15:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.59 Mbit/s

95th percentile per-packet one-way delay: 64.060 ms

Loss rate: 2.43%

-- Flow 1:

Average throughput: 6.02 Mbit/s

95th percentile per-packet one-way delay: 64.086 ms

Loss rate: 2.89%

-- Flow 2:

Average throughput: 6.75 Mbit/s

95th percentile per-packet one-way delay: 63.992 ms

Loss rate: 1.77%

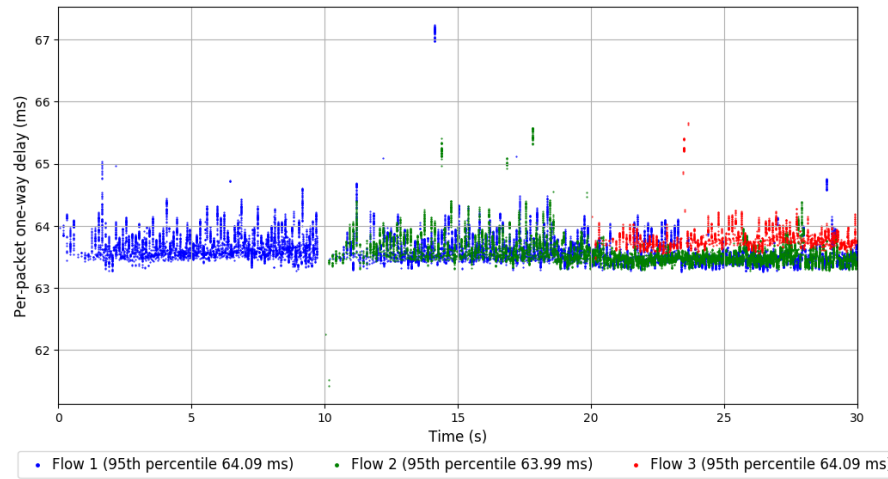
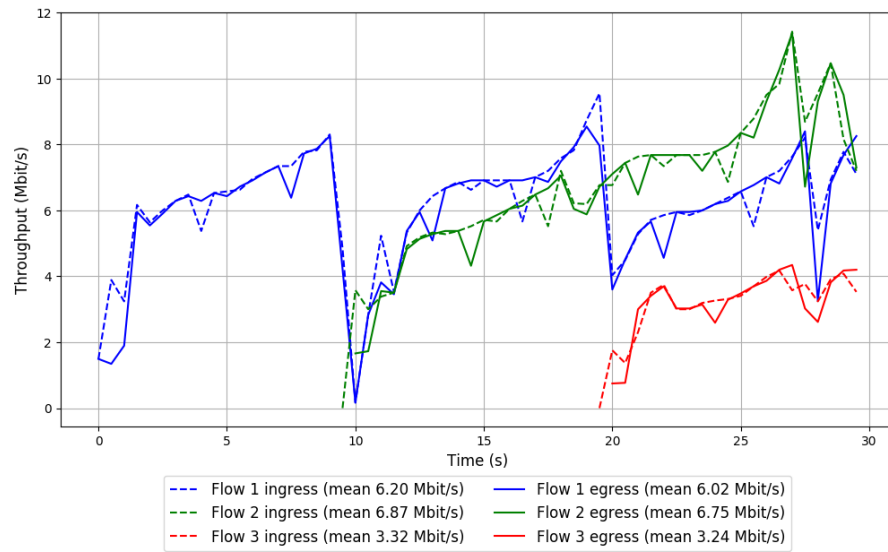
-- Flow 3:

Average throughput: 3.24 Mbit/s

95th percentile per-packet one-way delay: 64.088 ms

Loss rate: 2.59%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-21 13:39:46

End at: 2017-08-21 13:40:17

Below is generated by plot.py at 2017-08-21 15:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.26 Mbit/s

95th percentile per-packet one-way delay: 63.657 ms

Loss rate: 1.82%

-- Flow 1:

Average throughput: 11.19 Mbit/s

95th percentile per-packet one-way delay: 62.072 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 63.846 ms

Loss rate: 8.48%

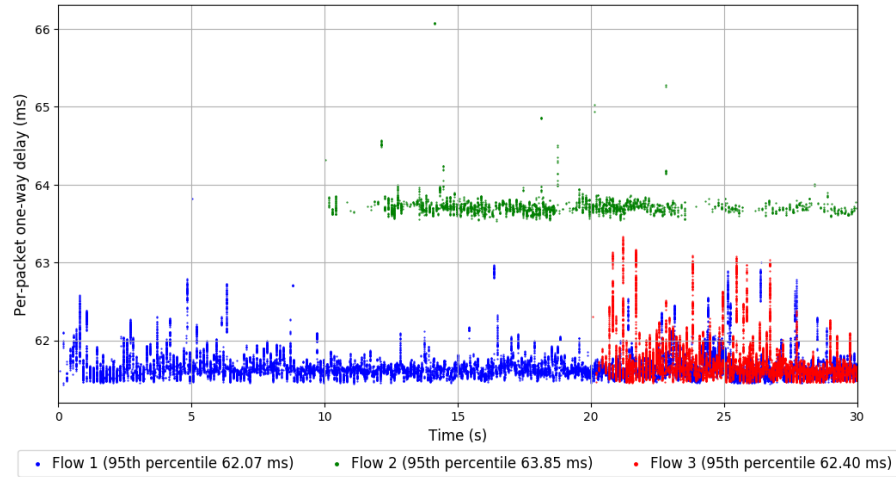
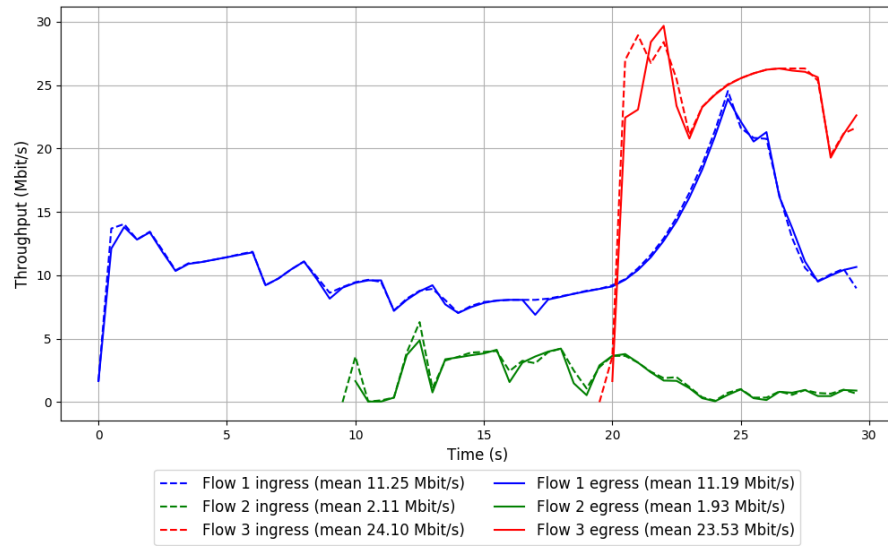
-- Flow 3:

Average throughput: 23.53 Mbit/s

95th percentile per-packet one-way delay: 62.401 ms

Loss rate: 2.38%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-08-21 13:50:50

End at: 2017-08-21 13:51:20

Below is generated by plot.py at 2017-08-21 15:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.94 Mbit/s

95th percentile per-packet one-way delay: 63.734 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 6.38 Mbit/s

95th percentile per-packet one-way delay: 63.742 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 5.07 Mbit/s

95th percentile per-packet one-way delay: 63.726 ms

Loss rate: 1.42%

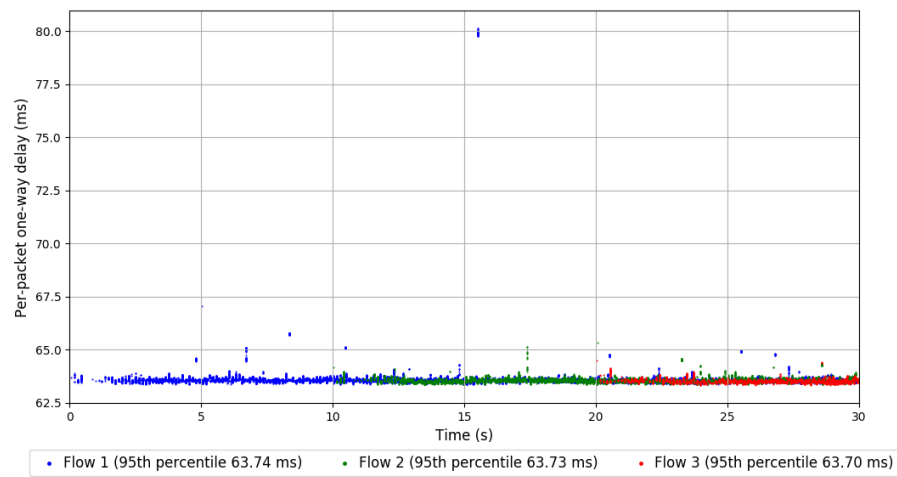
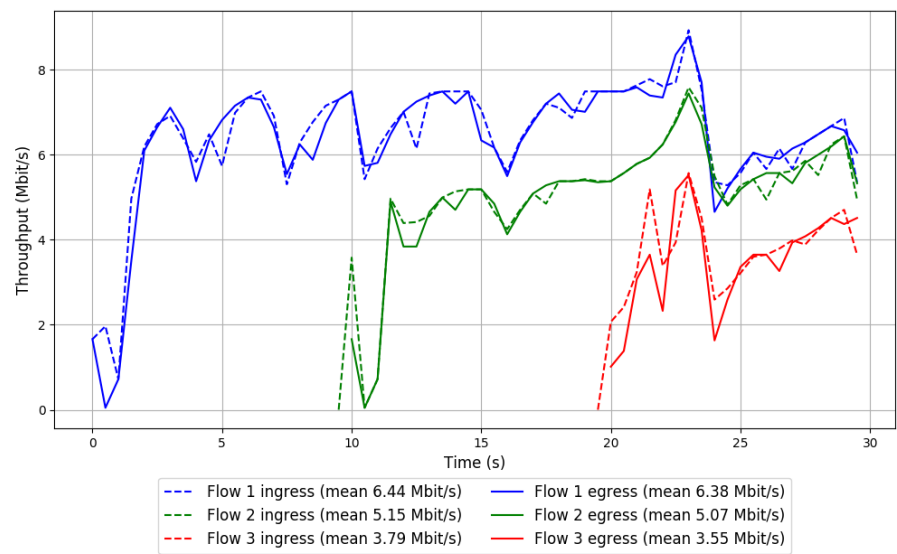
-- Flow 3:

Average throughput: 3.55 Mbit/s

95th percentile per-packet one-way delay: 63.698 ms

Loss rate: 6.40%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-08-21 14:01:57

End at: 2017-08-21 14:02:27

Below is generated by plot.py at 2017-08-21 15:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.54 Mbit/s

95th percentile per-packet one-way delay: 63.595 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 4.25 Mbit/s

95th percentile per-packet one-way delay: 63.745 ms

Loss rate: 3.21%

-- Flow 2:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 63.679 ms

Loss rate: 2.42%

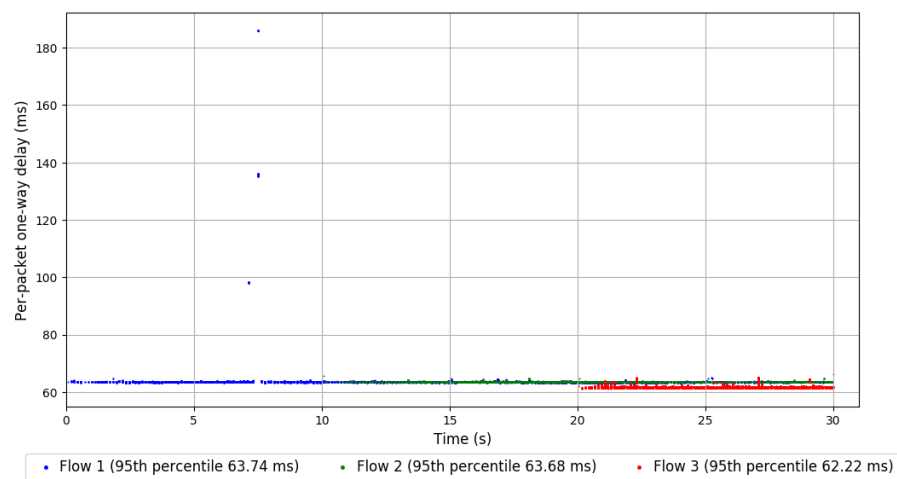
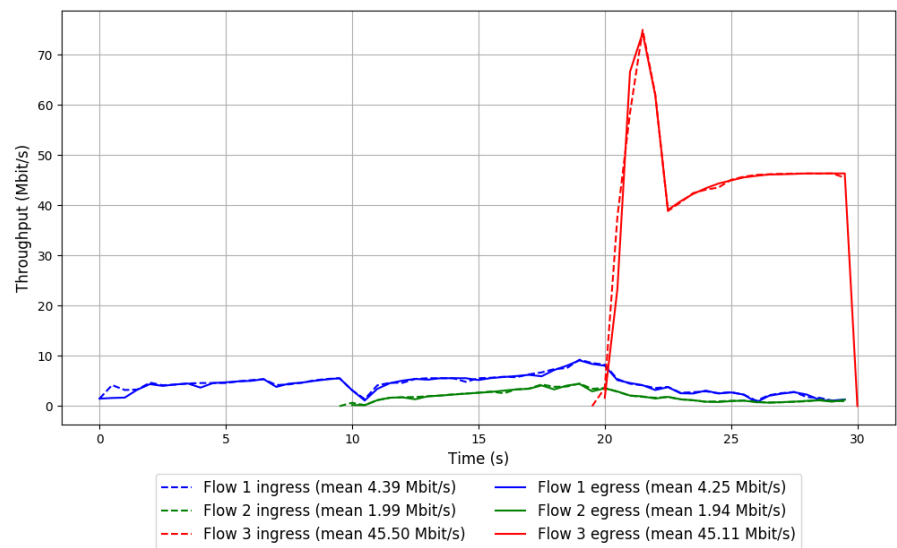
-- Flow 3:

Average throughput: 45.11 Mbit/s

95th percentile per-packet one-way delay: 62.224 ms

Loss rate: 0.81%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-08-21 14:13:11

End at: 2017-08-21 14:13:41

Below is generated by plot.py at 2017-08-21 15:55:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.47 Mbit/s

95th percentile per-packet one-way delay: 63.766 ms

Loss rate: 3.62%

-- Flow 1:

Average throughput: 6.06 Mbit/s

95th percentile per-packet one-way delay: 63.716 ms

Loss rate: 2.93%

-- Flow 2:

Average throughput: 4.01 Mbit/s

95th percentile per-packet one-way delay: 63.763 ms

Loss rate: 5.20%

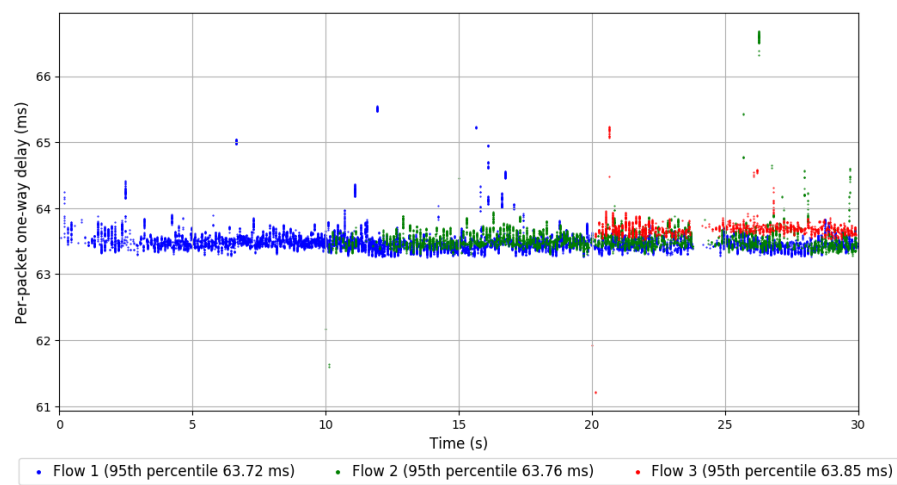
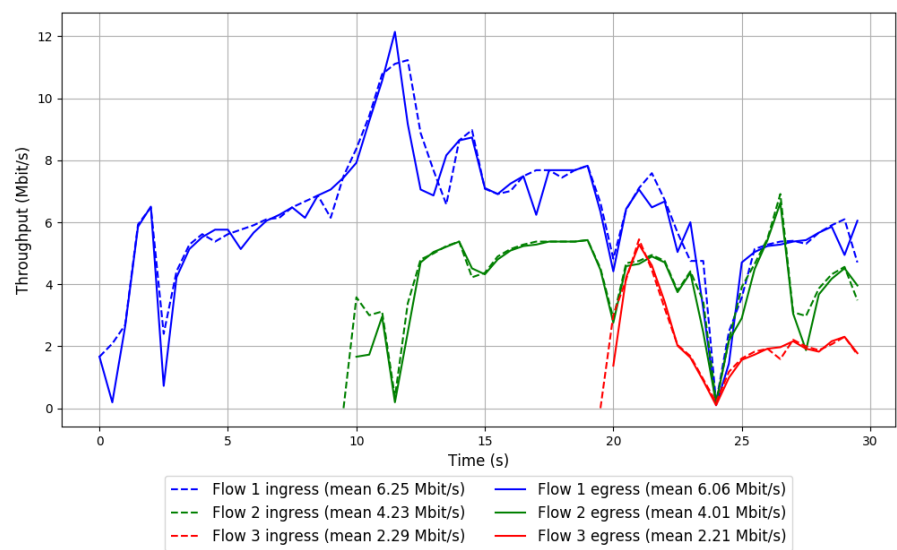
-- Flow 3:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 63.854 ms

Loss rate: 3.44%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-08-21 14:24:15

End at: 2017-08-21 14:24:45

Below is generated by plot.py at 2017-08-21 15:55:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.05 Mbit/s

95th percentile per-packet one-way delay: 63.915 ms

Loss rate: 4.19%

-- Flow 1:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 64.106 ms

Loss rate: 3.78%

-- Flow 2:

Average throughput: 8.67 Mbit/s

95th percentile per-packet one-way delay: 62.384 ms

Loss rate: 3.63%

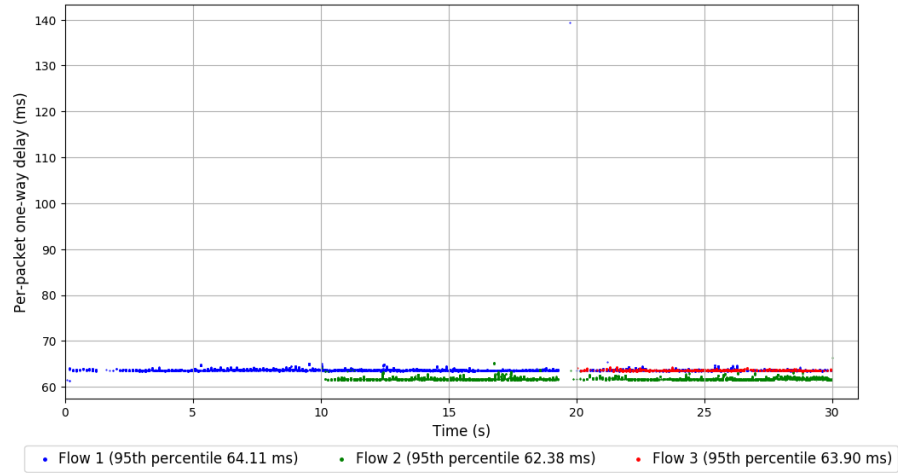
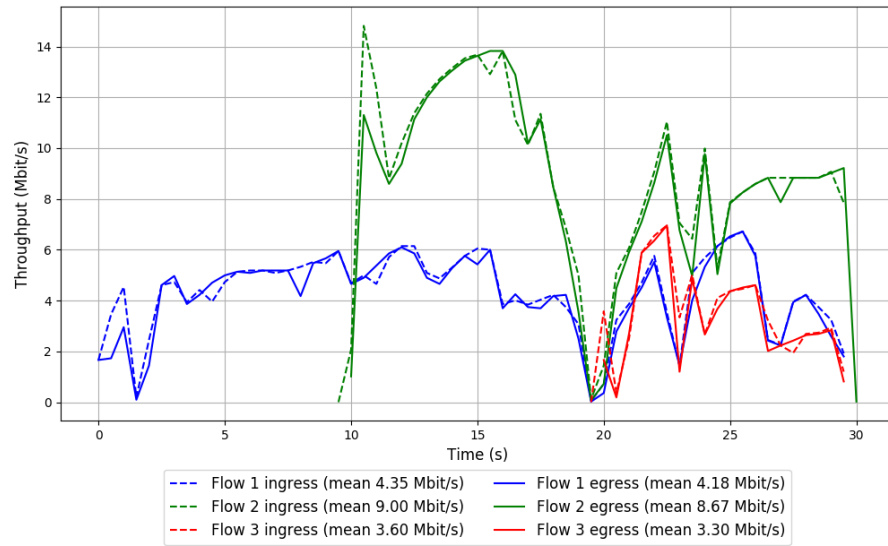
-- Flow 3:

Average throughput: 3.30 Mbit/s

95th percentile per-packet one-way delay: 63.903 ms

Loss rate: 8.51%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-08-21 14:35:10

End at: 2017-08-21 14:35:40

Below is generated by plot.py at 2017-08-21 15:55:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.10 Mbit/s

95th percentile per-packet one-way delay: 63.653 ms

Loss rate: 2.34%

-- Flow 1:

Average throughput: 20.24 Mbit/s

95th percentile per-packet one-way delay: 62.584 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 3.14 Mbit/s

95th percentile per-packet one-way delay: 64.435 ms

Loss rate: 7.12%

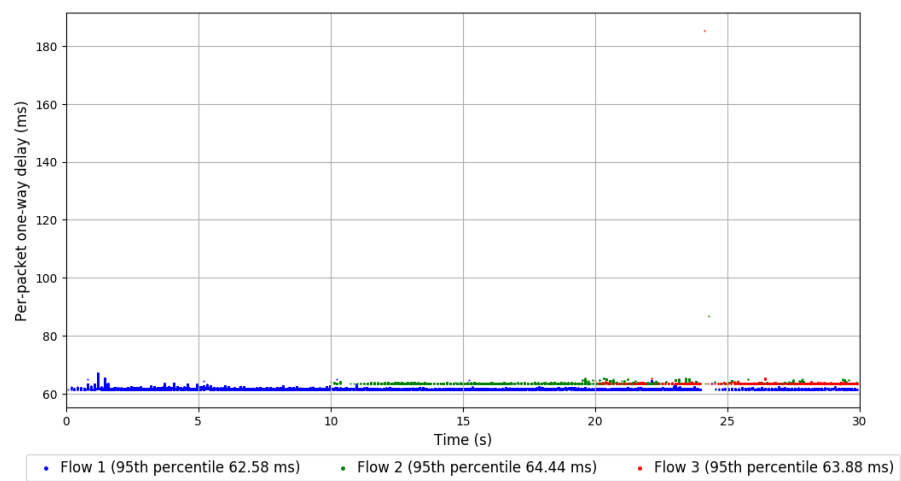
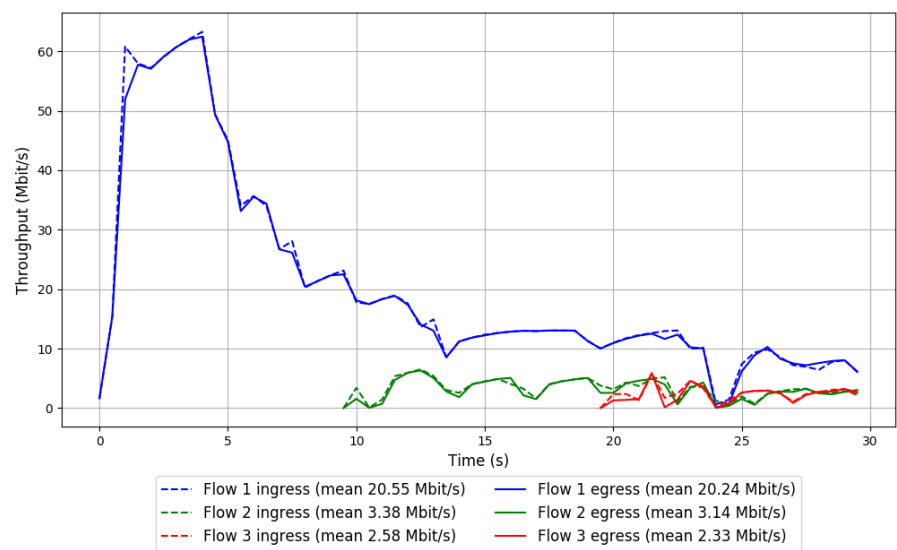
-- Flow 3:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 63.880 ms

Loss rate: 9.75%

Run 10: Report of TCP Cubic — Data Link

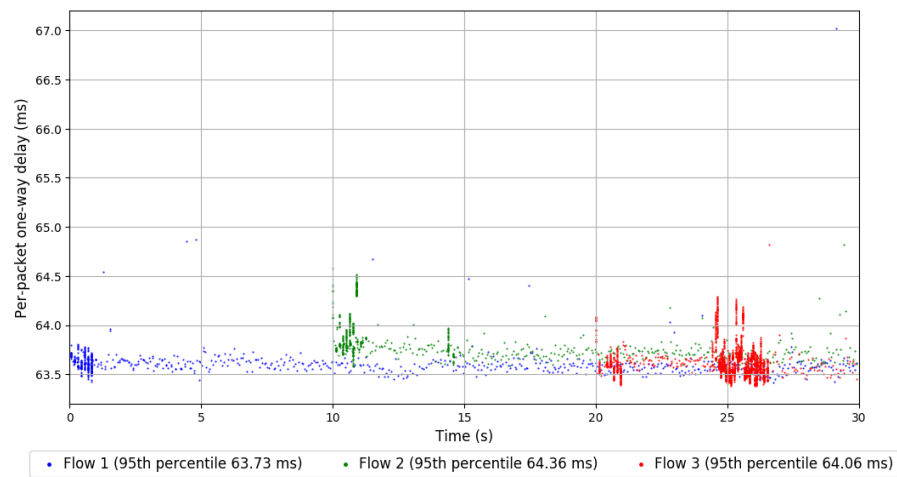
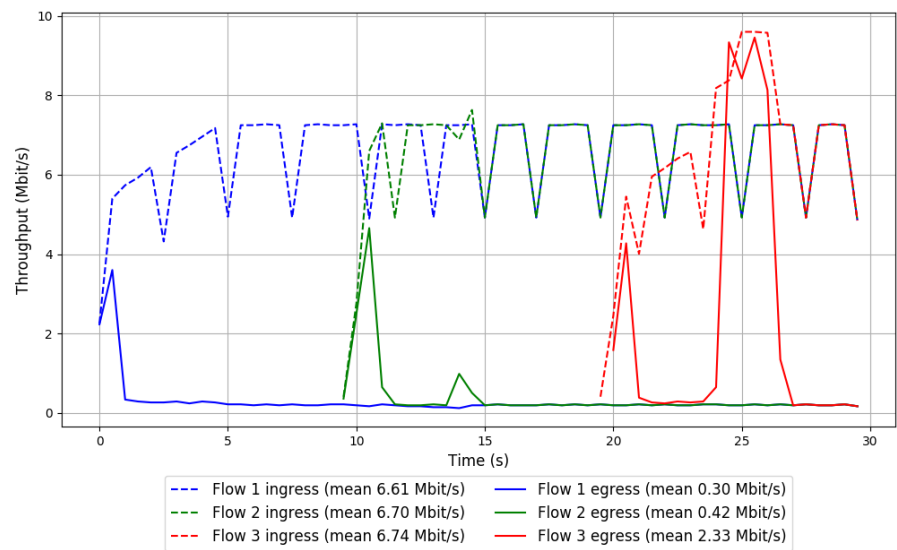


```
Run 1: Statistics of KohoCC

Start at: 2017-08-21 12:58:53
End at: 2017-08-21 12:59:23

# Below is generated by plot.py at 2017-08-21 15:55:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 64.091 ms
Loss rate: 89.85%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 63.735 ms
Loss rate: 95.47%
-- Flow 2:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 64.359 ms
Loss rate: 93.75%
-- Flow 3:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 64.063 ms
Loss rate: 65.45%
```


Run 1: Report of KohoCC — Data Link

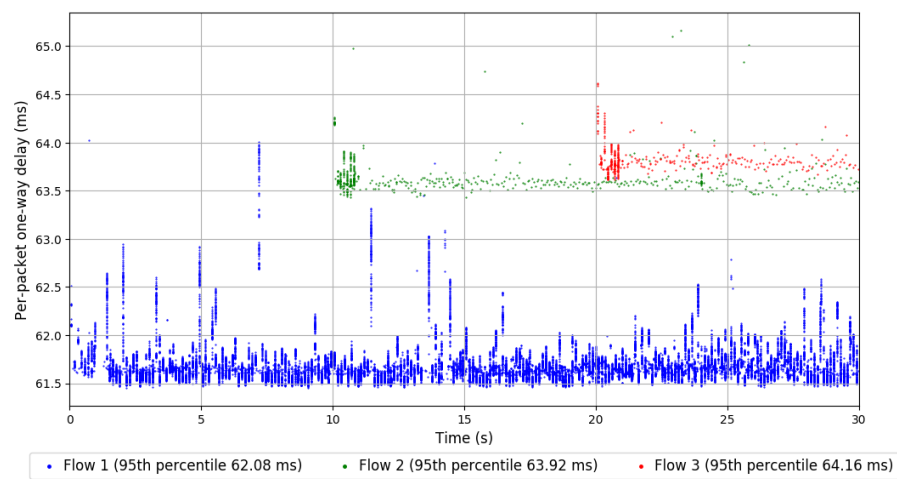
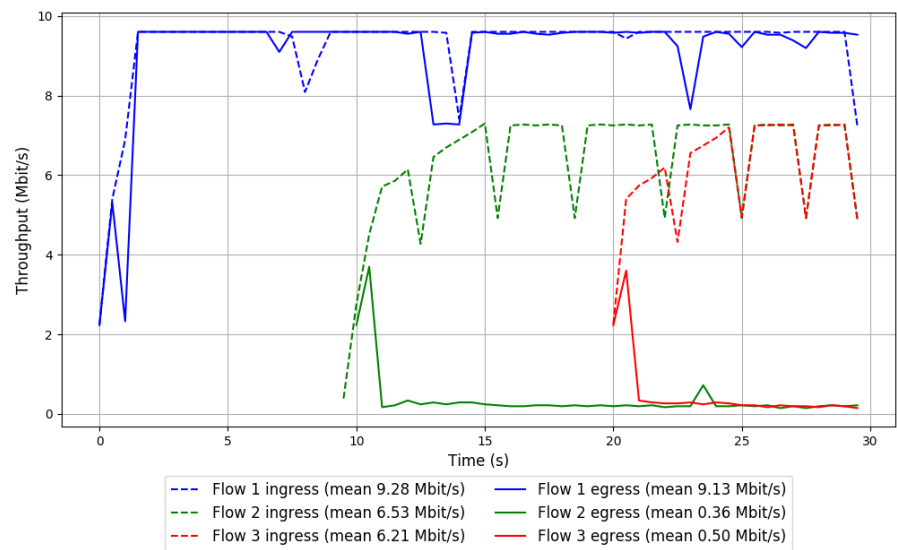


```
Run 2: Statistics of KohoCC

Start at: 2017-08-21 13:10:03
End at: 2017-08-21 13:10:33

# Below is generated by plot.py at 2017-08-21 15:55:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 62.823 ms
Loss rate: 39.23%
-- Flow 1:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 62.082 ms
Loss rate: 1.65%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 63.919 ms
Loss rate: 94.44%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 64.163 ms
Loss rate: 91.87%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-08-21 13:20:54

End at: 2017-08-21 13:21:24

Below is generated by plot.py at 2017-08-21 15:55:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.75 Mbit/s

95th percentile per-packet one-way delay: 64.411 ms

Loss rate: 94.11%

-- Flow 1:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 63.892 ms

Loss rate: 95.38%

-- Flow 2:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 67.644 ms

Loss rate: 93.43%

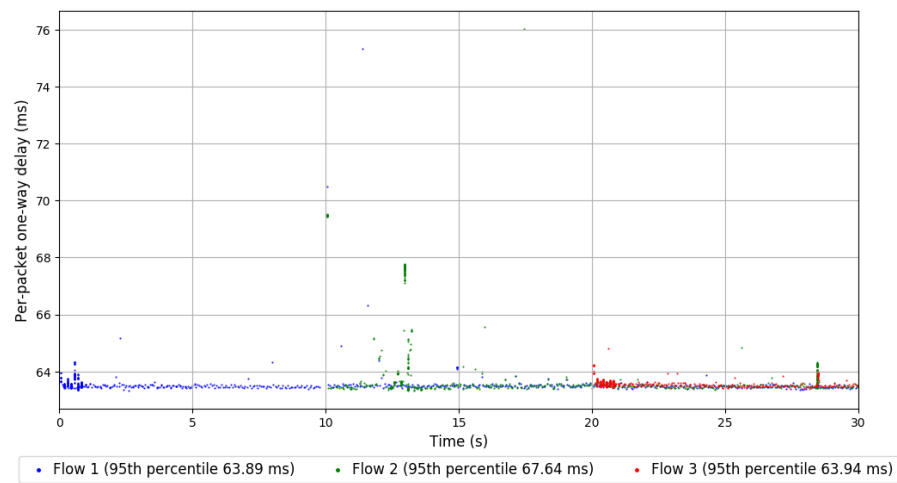
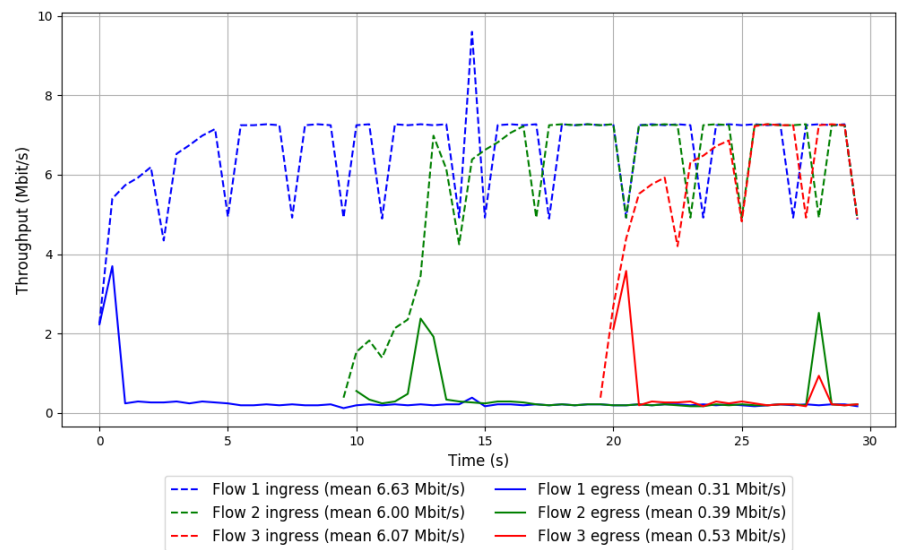
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 63.935 ms

Loss rate: 91.25%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-21 13:31:48

End at: 2017-08-21 13:32:18

Below is generated by plot.py at 2017-08-21 15:55:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.30 Mbit/s

95th percentile per-packet one-way delay: 62.409 ms

Loss rate: 40.72%

-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 63.911 ms

Loss rate: 95.47%

-- Flow 2:

Average throughput: 9.06 Mbit/s

95th percentile per-packet one-way delay: 61.967 ms

Loss rate: 2.18%

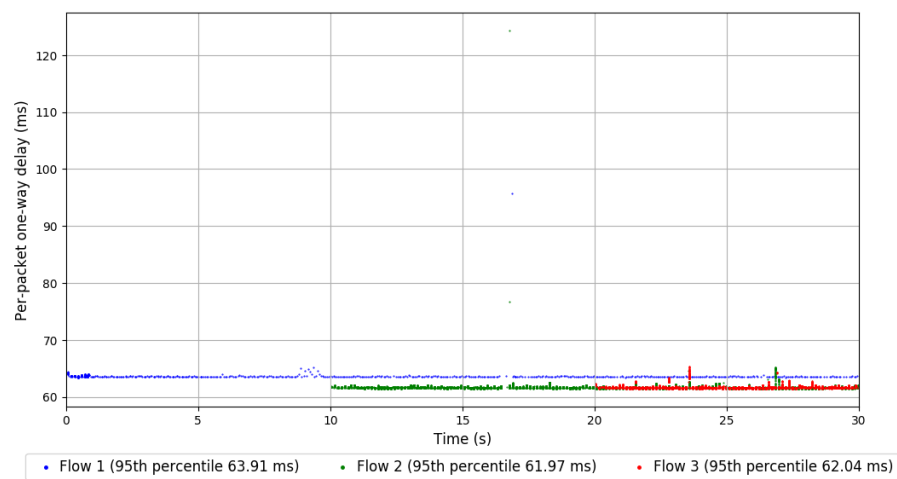
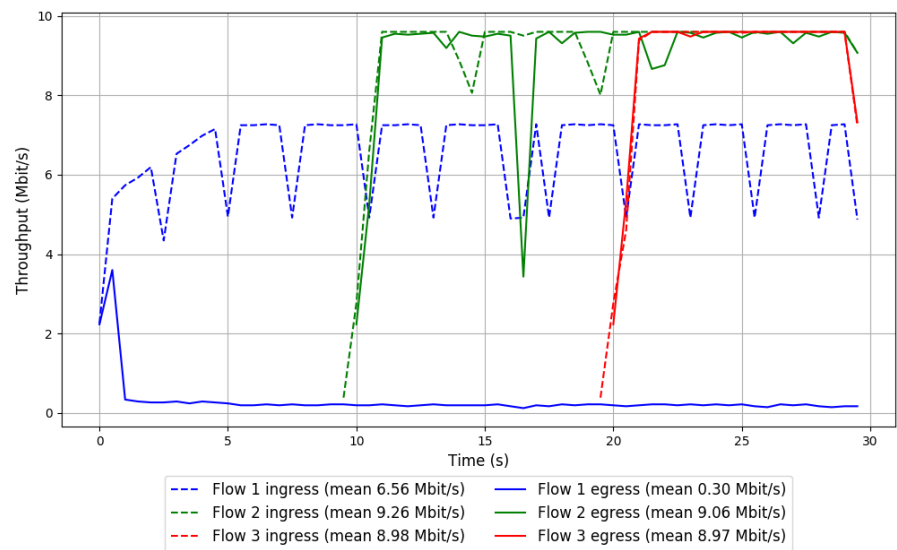
-- Flow 3:

Average throughput: 8.97 Mbit/s

95th percentile per-packet one-way delay: 62.044 ms

Loss rate: 0.07%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-08-21 13:42:48

End at: 2017-08-21 13:43:18

Below is generated by plot.py at 2017-08-21 15:55:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.68 Mbit/s

95th percentile per-packet one-way delay: 63.634 ms

Loss rate: 28.93%

-- Flow 1:

Average throughput: 9.34 Mbit/s

95th percentile per-packet one-way delay: 62.234 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 3.27 Mbit/s

95th percentile per-packet one-way delay: 64.030 ms

Loss rate: 56.43%

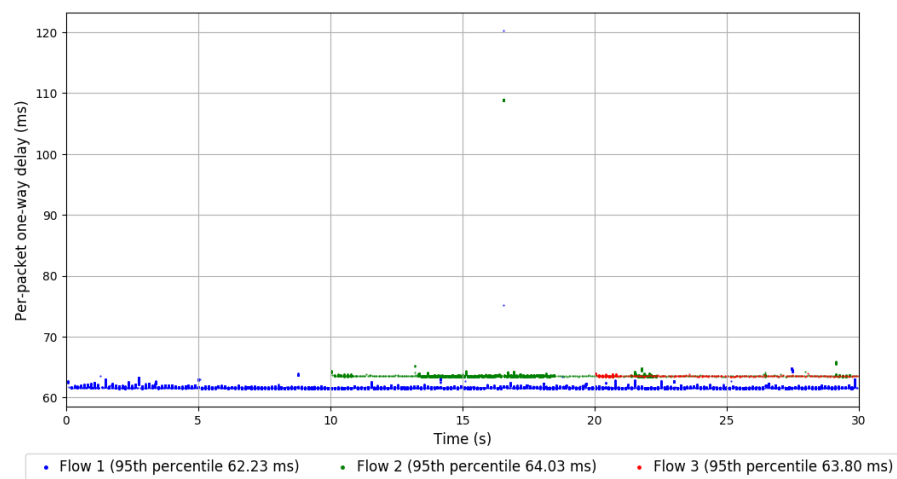
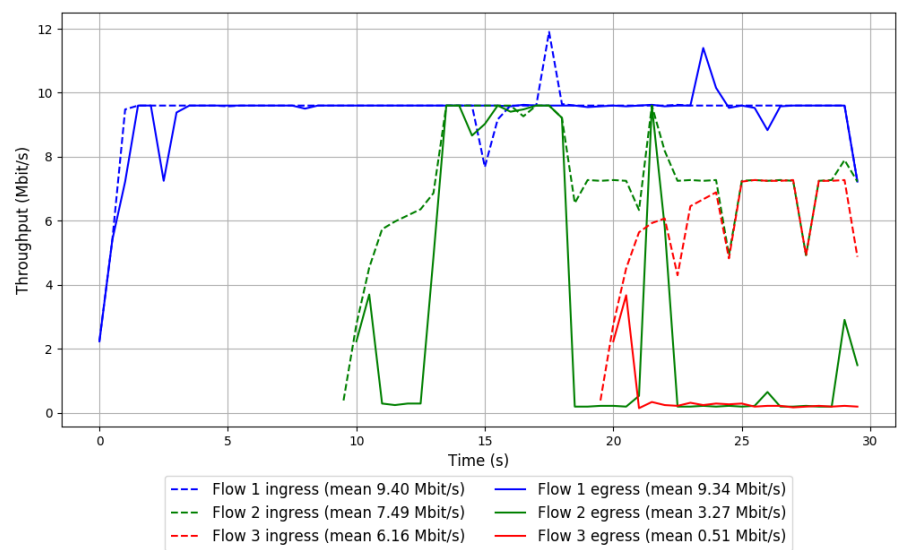
-- Flow 3:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 63.804 ms

Loss rate: 91.79%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-08-21 13:53:45

End at: 2017-08-21 13:54:15

Below is generated by plot.py at 2017-08-21 15:55:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.74 Mbit/s

95th percentile per-packet one-way delay: 63.839 ms

Loss rate: 94.30%

-- Flow 1:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 63.821 ms

Loss rate: 95.14%

-- Flow 2:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 63.909 ms

Loss rate: 94.21%

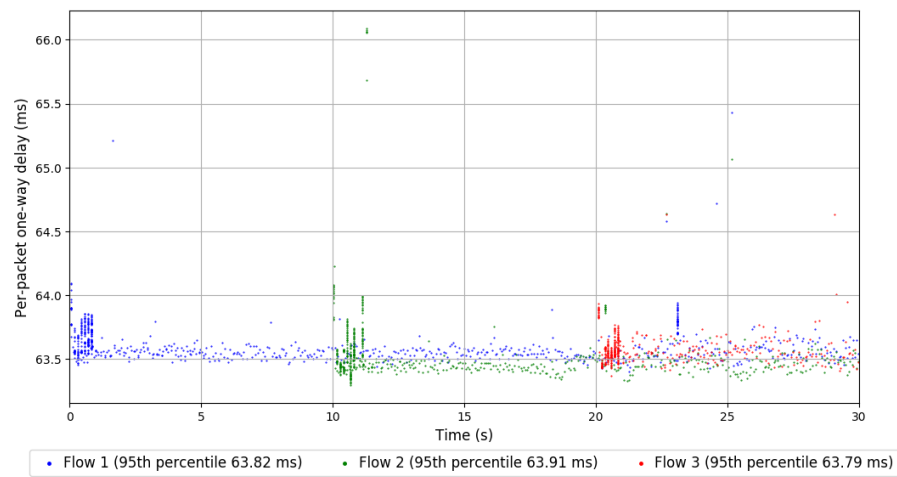
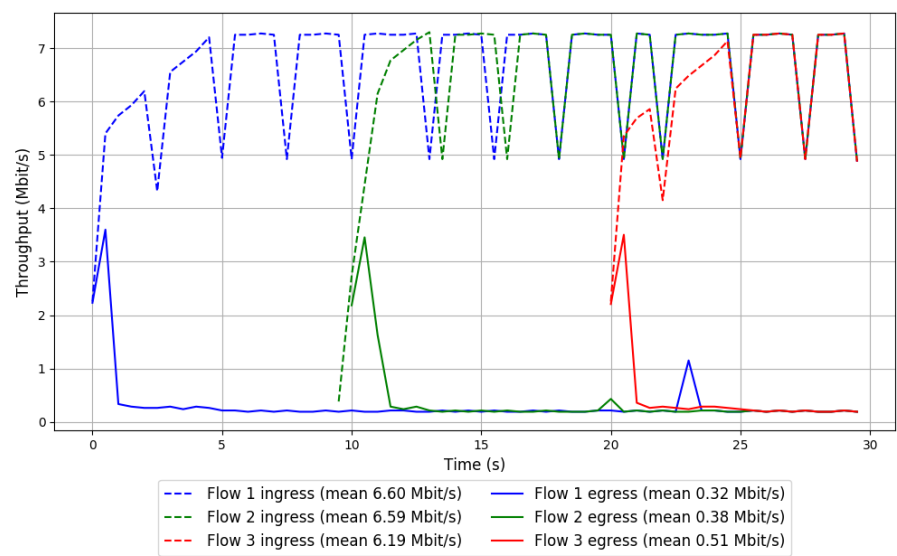
-- Flow 3:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 63.792 ms

Loss rate: 91.79%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-08-21 14:04:50

End at: 2017-08-21 14:05:20

Below is generated by plot.py at 2017-08-21 15:55:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.62 Mbit/s

95th percentile per-packet one-way delay: 63.575 ms

Loss rate: 55.50%

-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 64.134 ms

Loss rate: 95.42%

-- Flow 2:

Average throughput: 9.22 Mbit/s

95th percentile per-packet one-way delay: 62.201 ms

Loss rate: 0.62%

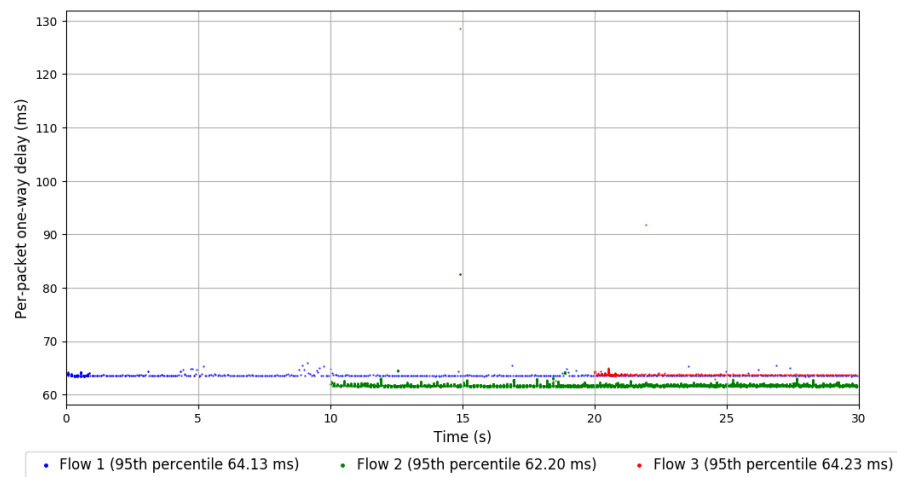
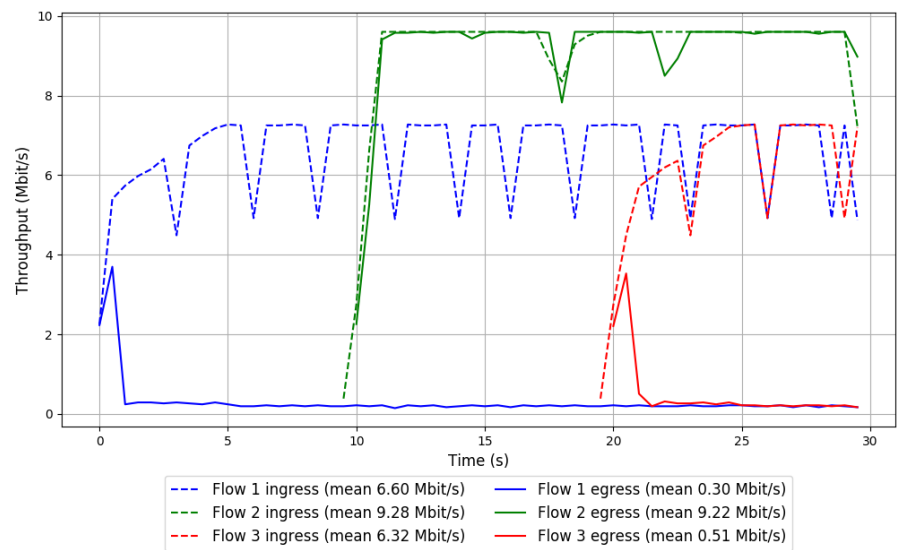
-- Flow 3:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 64.228 ms

Loss rate: 91.90%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-21 14:16:03

End at: 2017-08-21 14:16:33

Below is generated by plot.py at 2017-08-21 15:55:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.74 Mbit/s

95th percentile per-packet one-way delay: 64.152 ms

Loss rate: 94.26%

-- Flow 1:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 148.398 ms

Loss rate: 94.73%

-- Flow 2:

Average throughput: 0.34 Mbit/s

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

Loss rate: 94.71%

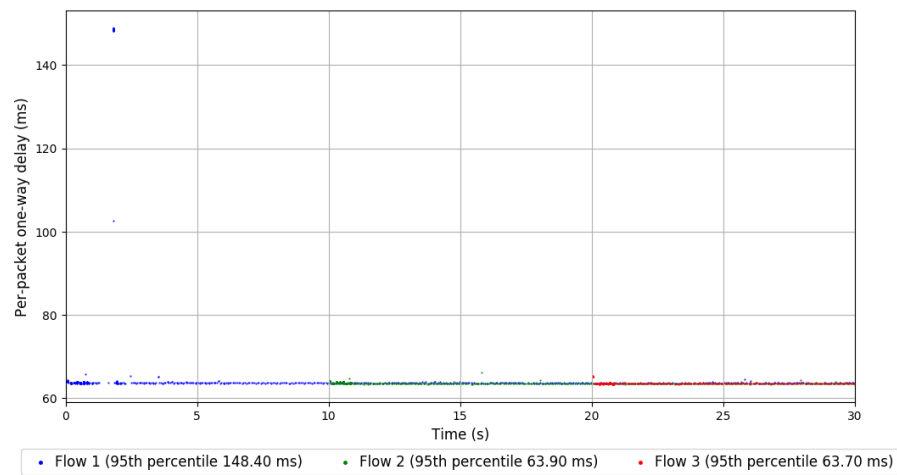
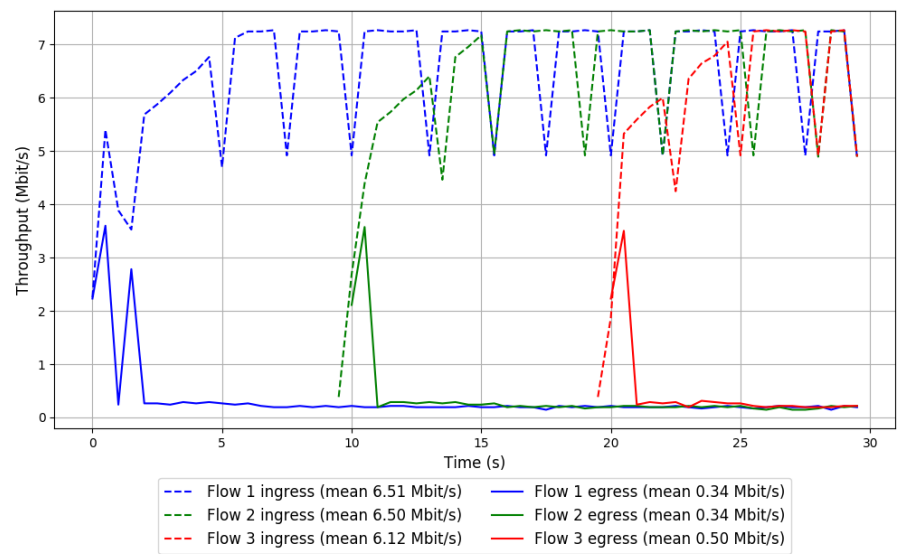
-- Flow 3:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 63.704 ms

Loss rate: 91.79%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-08-21 14:27:05

End at: 2017-08-21 14:27:35

Below is generated by plot.py at 2017-08-21 15:55:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.16 Mbit/s

95th percentile per-packet one-way delay: 62.770 ms

Loss rate: 41.47%

-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 64.330 ms

Loss rate: 94.71%

-- Flow 2:

Average throughput: 8.99 Mbit/s

95th percentile per-packet one-way delay: 62.151 ms

Loss rate: 1.96%

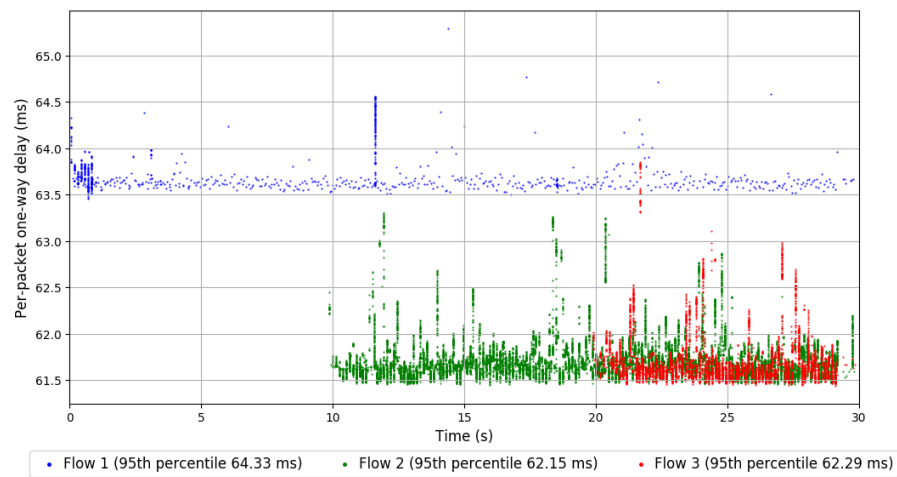
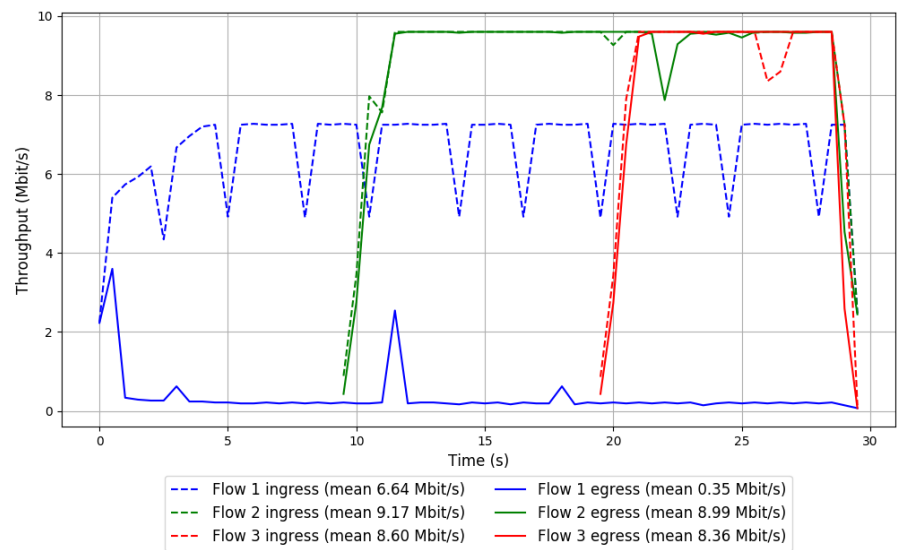
-- Flow 3:

Average throughput: 8.36 Mbit/s

95th percentile per-packet one-way delay: 62.294 ms

Loss rate: 2.88%

Run 9: Report of KohoCC — Data Link

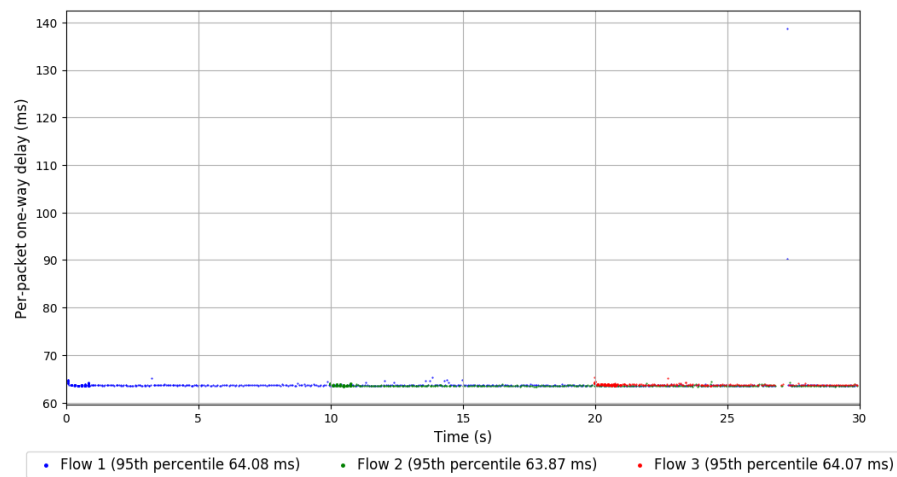
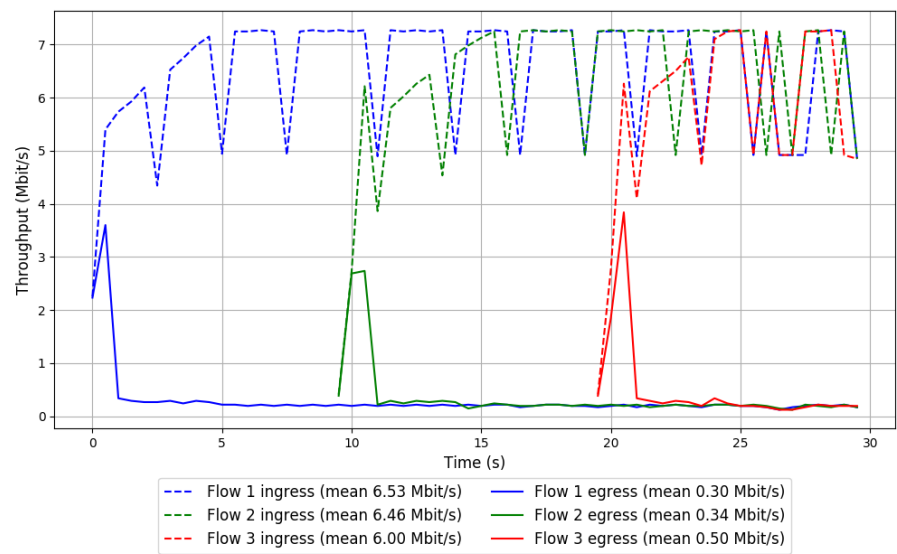


```
Run 10: Statistics of KohoCC

Start at: 2017-08-21 14:38:07
End at: 2017-08-21 14:38:37

# Below is generated by plot.py at 2017-08-21 15:55:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 63.989 ms
Loss rate: 94.56%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 64.081 ms
Loss rate: 95.39%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 63.868 ms
Loss rate: 94.67%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 64.067 ms
Loss rate: 91.60%
```

Run 10: Report of KohoCC — Data Link

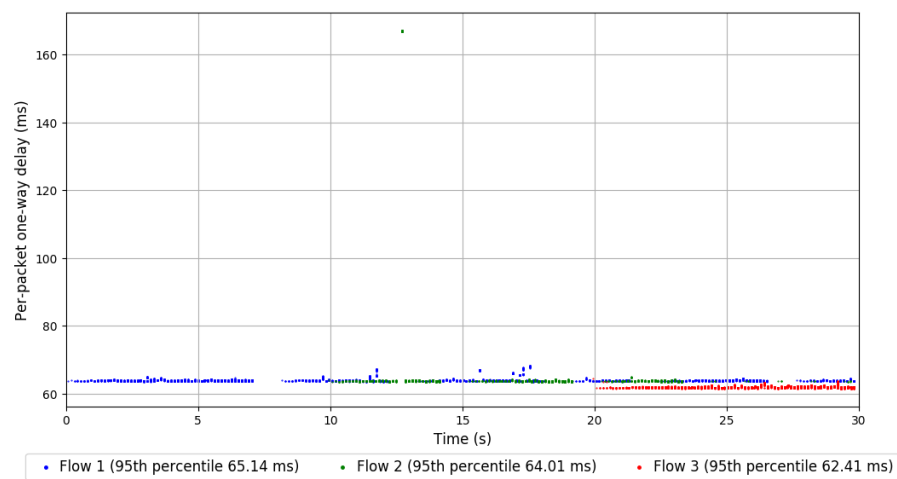
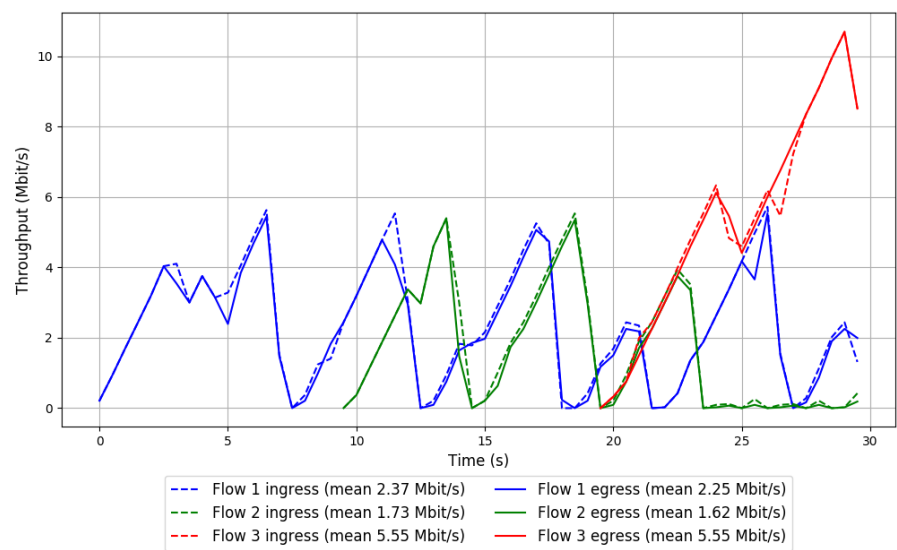


```
Run 1: Statistics of LEDBAT

Start at: 2017-08-21 12:55:22
End at: 2017-08-21 12:55:52

# Below is generated by plot.py at 2017-08-21 15:55:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.17 Mbit/s
95th percentile per-packet one-way delay: 64.133 ms
Loss rate: 3.81%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 65.138 ms
Loss rate: 5.03%
-- Flow 2:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 64.009 ms
Loss rate: 7.35%
-- Flow 3:
Average throughput: 5.55 Mbit/s
95th percentile per-packet one-way delay: 62.410 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

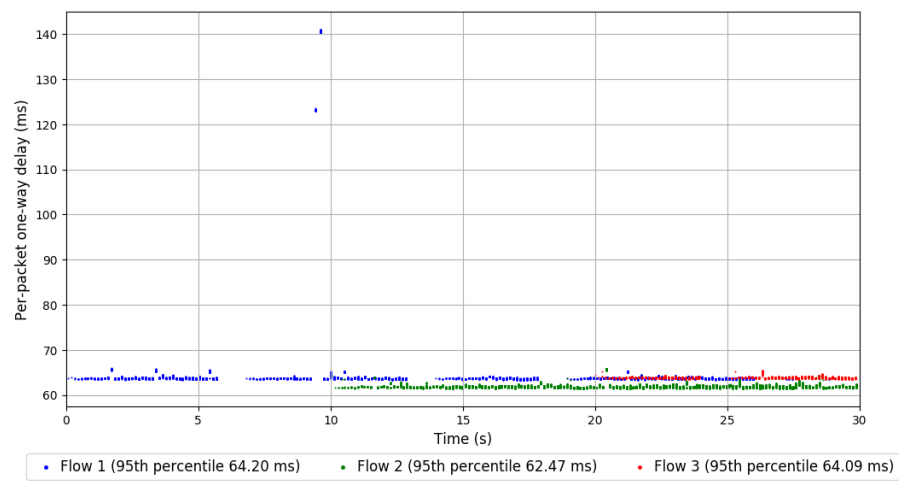
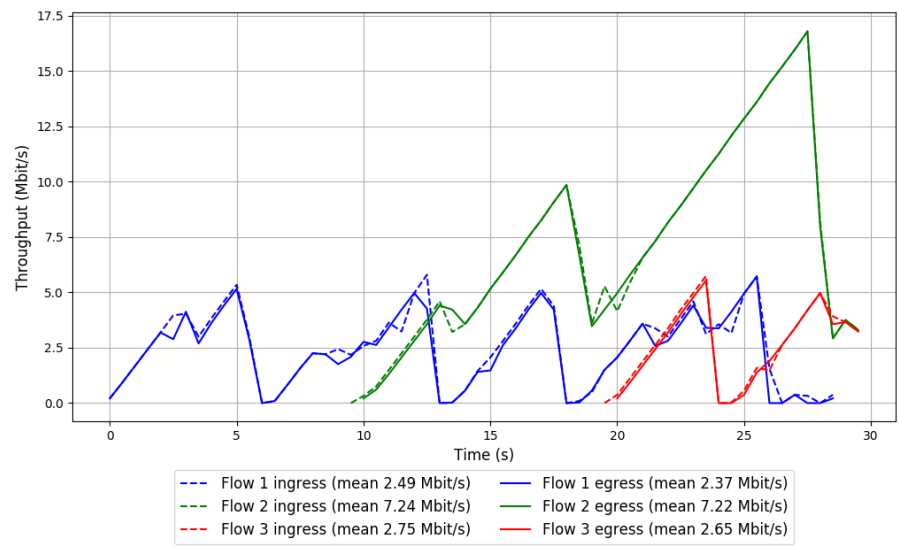


```
Run 2: Statistics of LEDBAT

Start at: 2017-08-21 13:06:25
End at: 2017-08-21 13:06:55

# Below is generated by plot.py at 2017-08-21 15:55:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.96 Mbit/s
95th percentile per-packet one-way delay: 63.942 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 64.197 ms
Loss rate: 5.19%
-- Flow 2:
Average throughput: 7.22 Mbit/s
95th percentile per-packet one-way delay: 62.465 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 64.090 ms
Loss rate: 3.48%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-21 13:17:22

End at: 2017-08-21 13:17:52

Below is generated by plot.py at 2017-08-21 15:55:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.56 Mbit/s

95th percentile per-packet one-way delay: 63.916 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 64.099 ms

Loss rate: 5.01%

-- Flow 2:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 62.055 ms

Loss rate: 0.13%

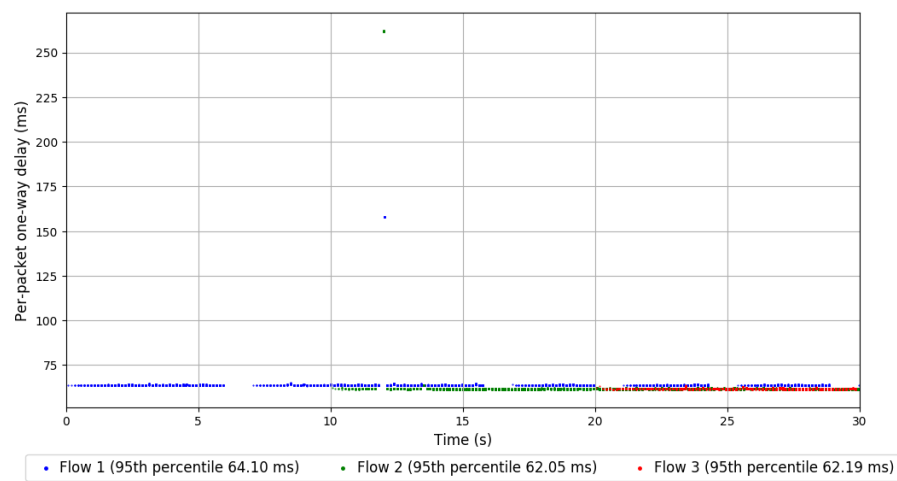
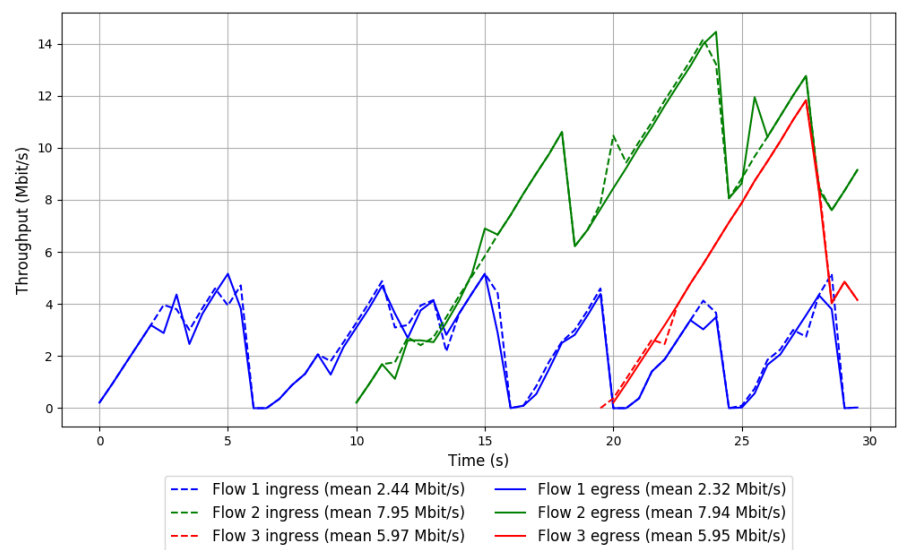
-- Flow 3:

Average throughput: 5.95 Mbit/s

95th percentile per-packet one-way delay: 62.189 ms

Loss rate: 0.24%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-08-21 13:28:13

End at: 2017-08-21 13:28:43

Below is generated by plot.py at 2017-08-21 15:55:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 64.230 ms

Loss rate: 4.44%

-- Flow 1:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 64.107 ms

Loss rate: 5.14%

-- Flow 2:

Average throughput: 1.60 Mbit/s

95th percentile per-packet one-way delay: 64.068 ms

Loss rate: 1.68%

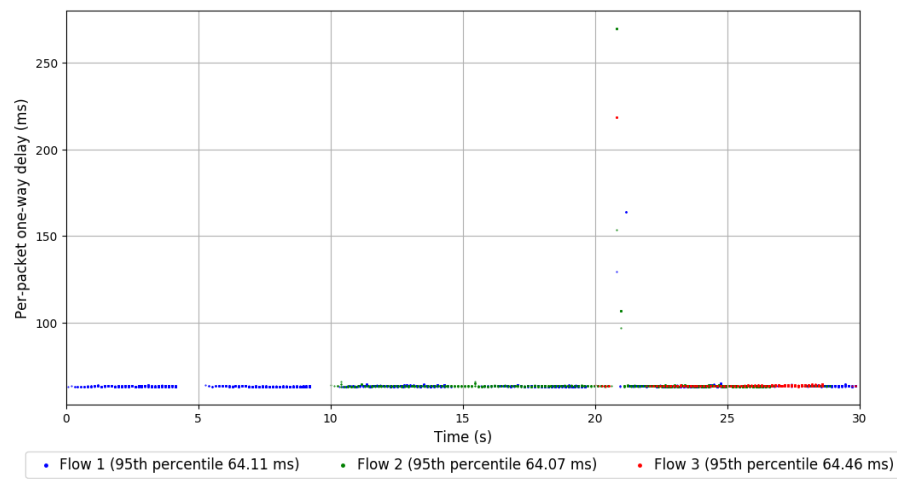
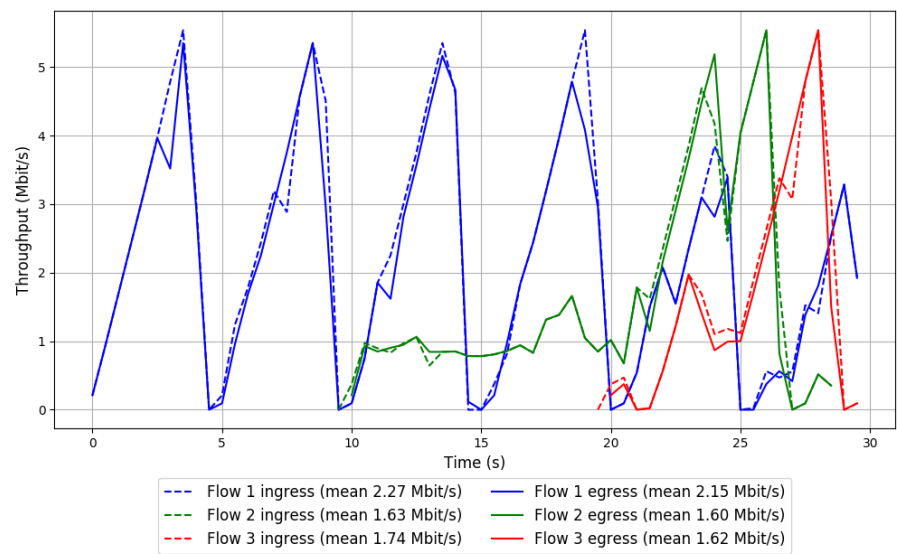
-- Flow 3:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 64.461 ms

Loss rate: 6.66%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-08-21 13:39:05

End at: 2017-08-21 13:39:35

Below is generated by plot.py at 2017-08-21 15:55:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.66 Mbit/s

95th percentile per-packet one-way delay: 63.941 ms

Loss rate: 4.91%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 63.934 ms

Loss rate: 3.94%

-- Flow 2:

Average throughput: 2.49 Mbit/s

95th percentile per-packet one-way delay: 63.979 ms

Loss rate: 5.97%

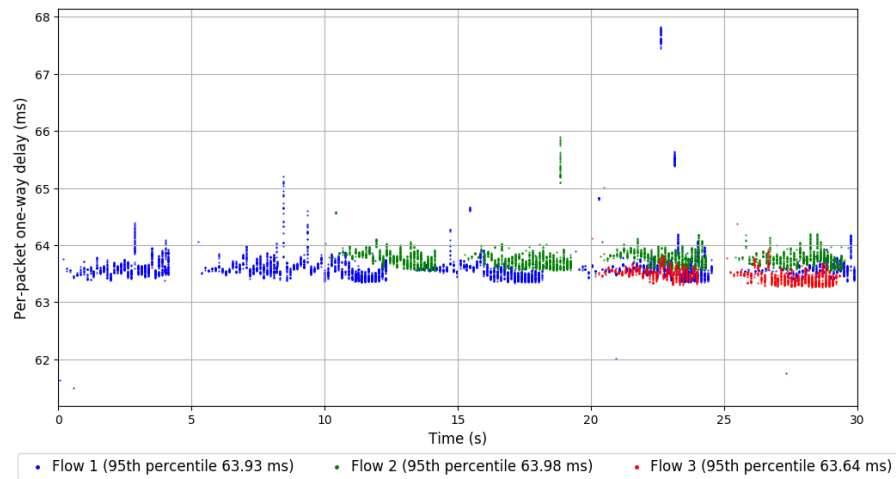
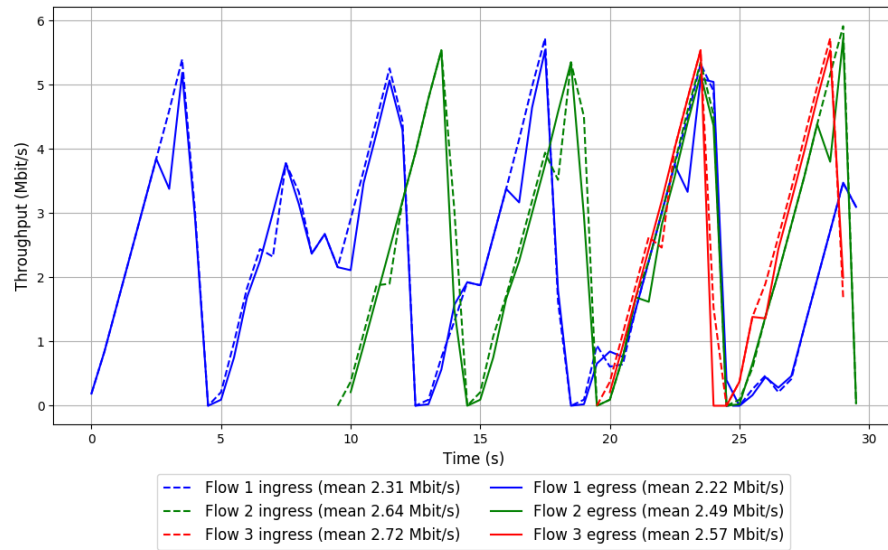
-- Flow 3:

Average throughput: 2.57 Mbit/s

95th percentile per-packet one-way delay: 63.642 ms

Loss rate: 5.38%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-21 13:50:09

End at: 2017-08-21 13:50:39

Below is generated by plot.py at 2017-08-21 15:55:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 63.952 ms

Loss rate: 5.93%

-- Flow 1:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 63.791 ms

Loss rate: 6.07%

-- Flow 2:

Average throughput: 2.40 Mbit/s

95th percentile per-packet one-way delay: 64.066 ms

Loss rate: 5.87%

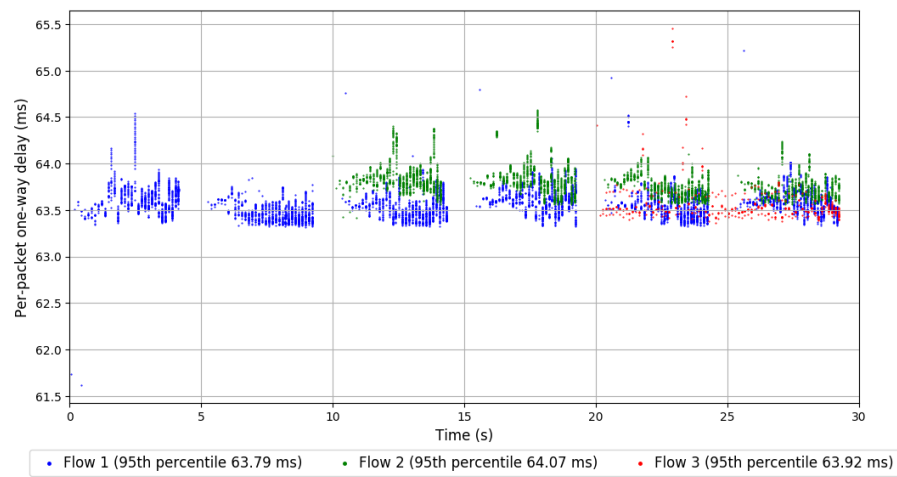
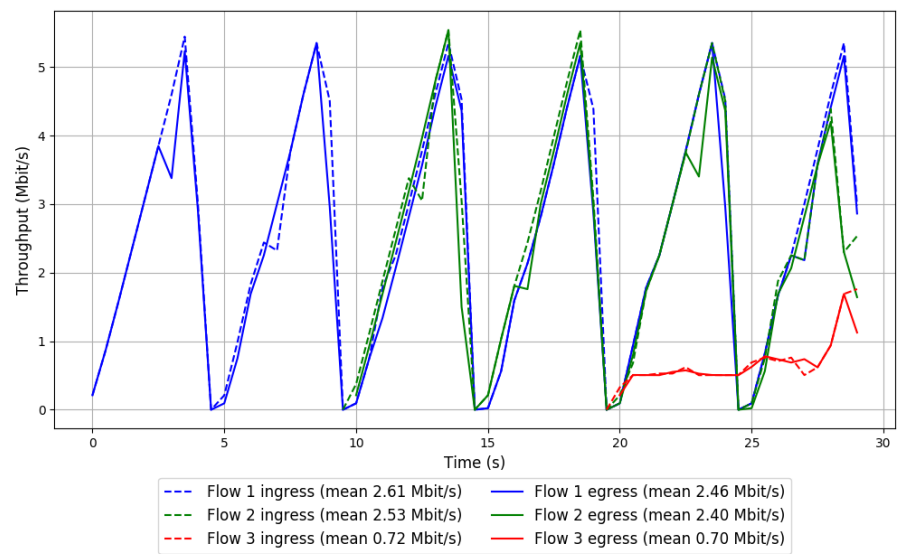
-- Flow 3:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 63.924 ms

Loss rate: 4.70%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-08-21 14:01:16

End at: 2017-08-21 14:01:46

Below is generated by plot.py at 2017-08-21 15:55:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.20 Mbit/s

95th percentile per-packet one-way delay: 63.815 ms

Loss rate: 3.24%

-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 63.860 ms

Loss rate: 4.67%

-- Flow 2:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 63.902 ms

Loss rate: 4.26%

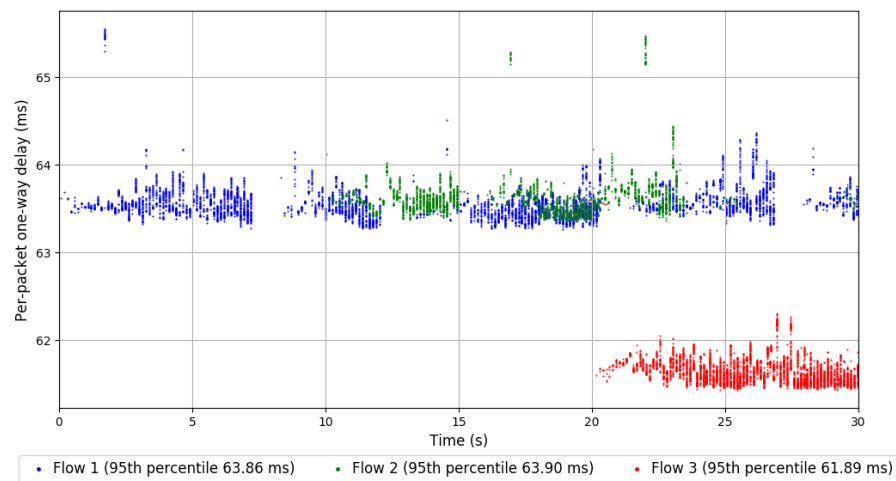
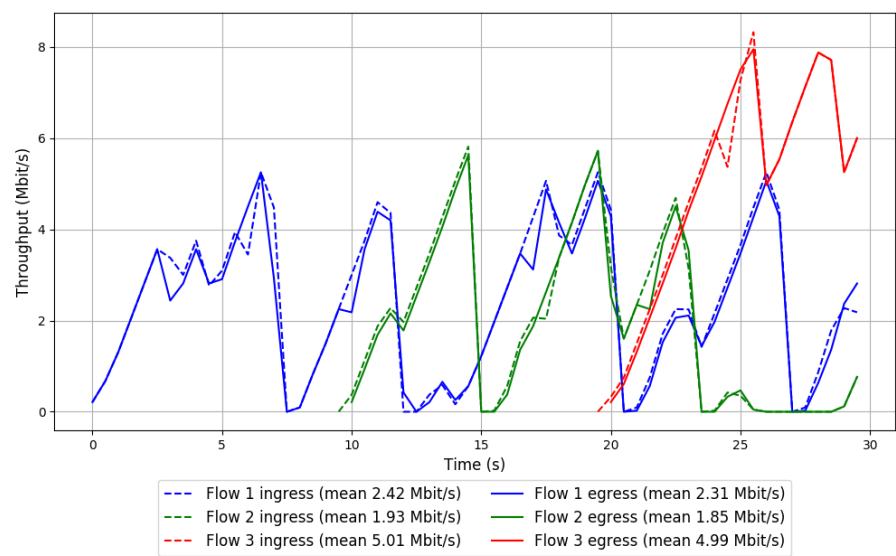
-- Flow 3:

Average throughput: 4.99 Mbit/s

95th percentile per-packet one-way delay: 61.891 ms

Loss rate: 0.38%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-21 14:12:29

End at: 2017-08-21 14:12:59

Below is generated by plot.py at 2017-08-21 15:55:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.98 Mbit/s

95th percentile per-packet one-way delay: 63.510 ms

Loss rate: 2.23%

-- Flow 1:

Average throughput: 4.81 Mbit/s

95th percentile per-packet one-way delay: 62.173 ms

Loss rate: 1.93%

-- Flow 2:

Average throughput: 1.03 Mbit/s

95th percentile per-packet one-way delay: 63.863 ms

Loss rate: 7.24%

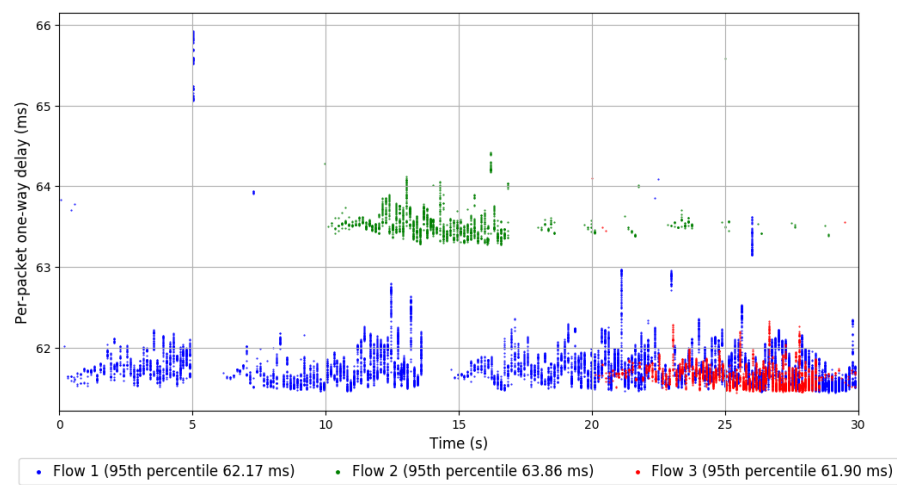
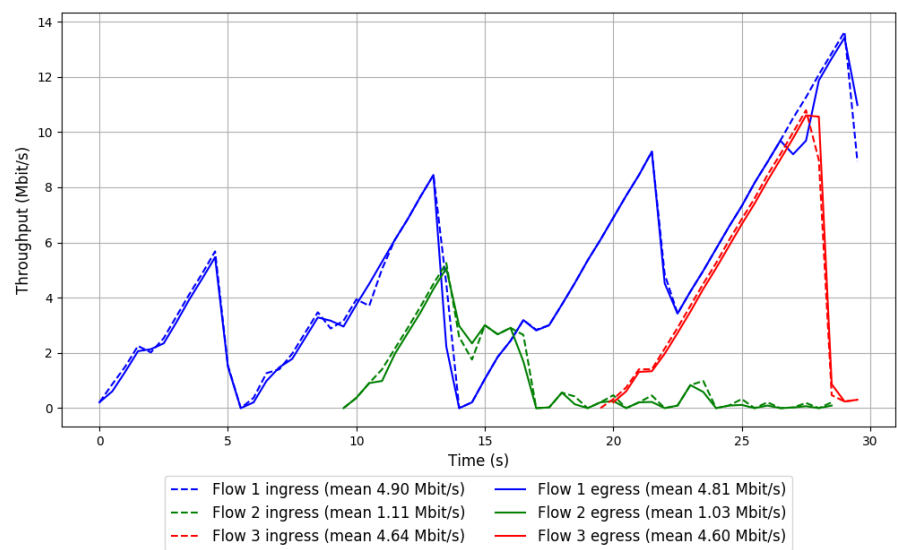
-- Flow 3:

Average throughput: 4.60 Mbit/s

95th percentile per-packet one-way delay: 61.896 ms

Loss rate: 0.87%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-21 14:23:33

End at: 2017-08-21 14:24:03

Below is generated by plot.py at 2017-08-21 15:55:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.23 Mbit/s

95th percentile per-packet one-way delay: 63.760 ms

Loss rate: 1.98%

-- Flow 1:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 63.977 ms

Loss rate: 4.32%

-- Flow 2:

Average throughput: 6.27 Mbit/s

95th percentile per-packet one-way delay: 62.192 ms

Loss rate: 0.36%

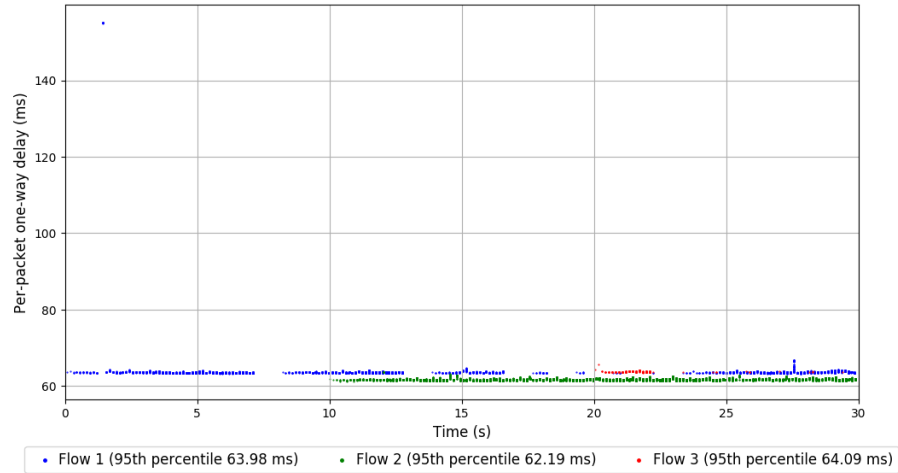
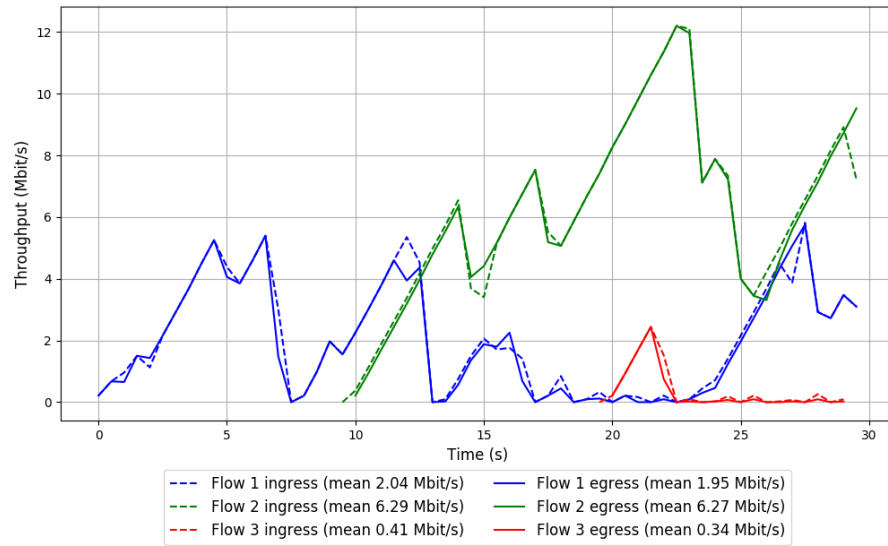
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 64.089 ms

Loss rate: 17.84%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-08-21 14:34:29

End at: 2017-08-21 14:34:59

Below is generated by plot.py at 2017-08-21 15:55:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.34 Mbit/s

95th percentile per-packet one-way delay: 63.772 ms

Loss rate: 4.06%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 63.807 ms

Loss rate: 6.25%

-- Flow 2:

Average throughput: 2.61 Mbit/s

95th percentile per-packet one-way delay: 63.918 ms

Loss rate: 4.29%

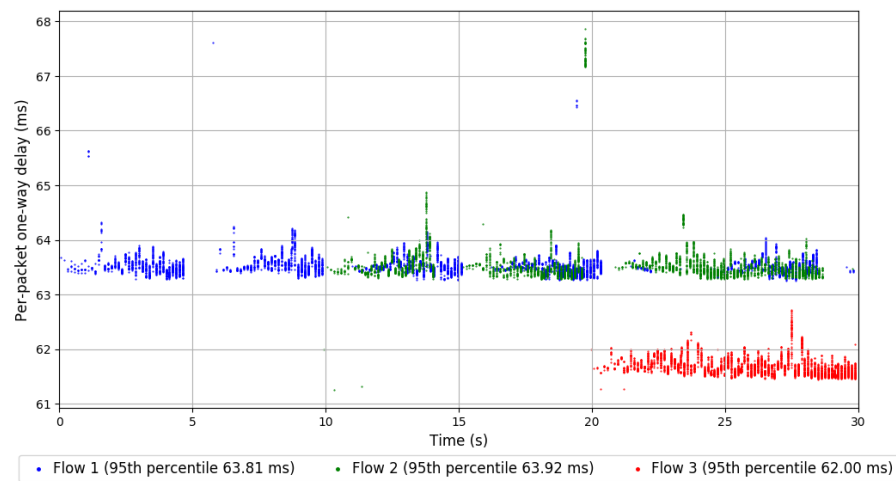
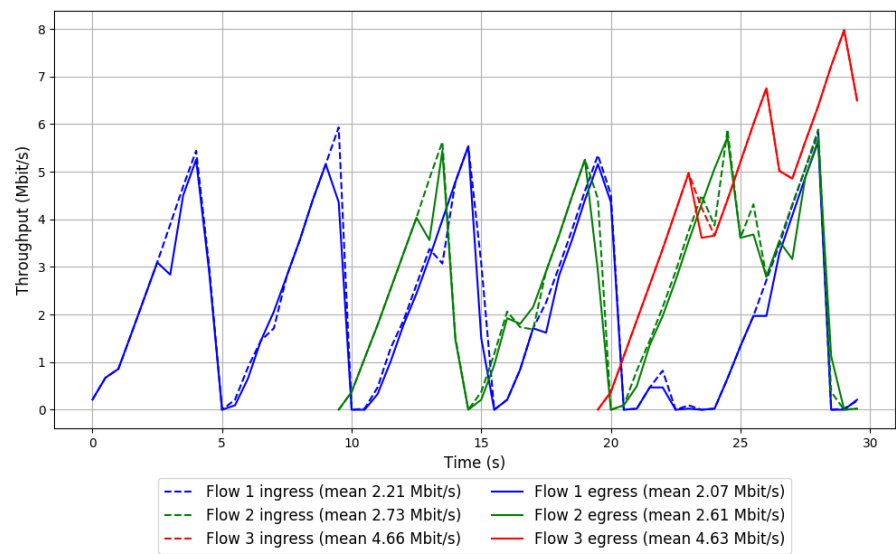
-- Flow 3:

Average throughput: 4.63 Mbit/s

95th percentile per-packet one-way delay: 61.996 ms

Loss rate: 0.69%

Run 10: Report of LEDBAT — Data Link

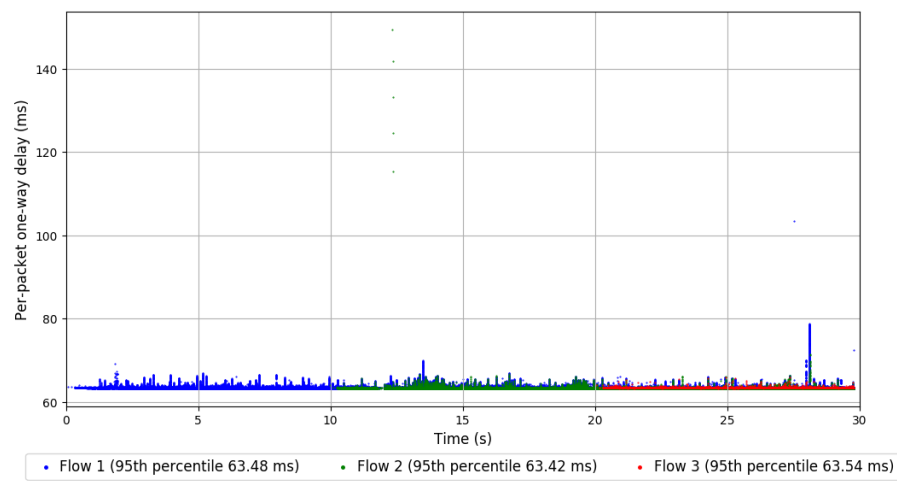
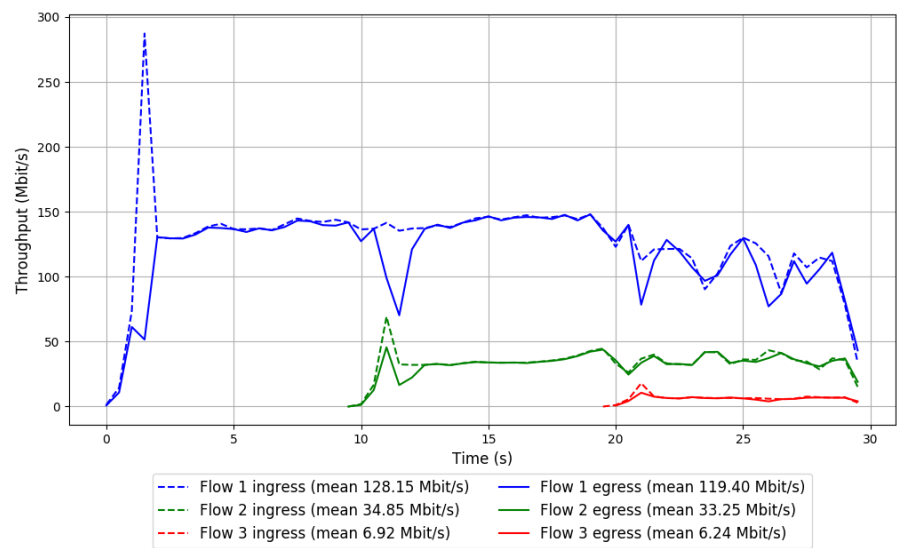


```
Run 1: Statistics of PCC

Start at: 2017-08-21 13:02:52
End at: 2017-08-21 13:03:22

# Below is generated by plot.py at 2017-08-21 15:55:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.60 Mbit/s
95th percentile per-packet one-way delay: 63.472 ms
Loss rate: 6.51%
-- Flow 1:
Average throughput: 119.40 Mbit/s
95th percentile per-packet one-way delay: 63.477 ms
Loss rate: 6.80%
-- Flow 2:
Average throughput: 33.25 Mbit/s
95th percentile per-packet one-way delay: 63.417 ms
Loss rate: 4.58%
-- Flow 3:
Average throughput: 6.24 Mbit/s
95th percentile per-packet one-way delay: 63.543 ms
Loss rate: 9.72%
```


Run 1: Report of PCC — Data Link

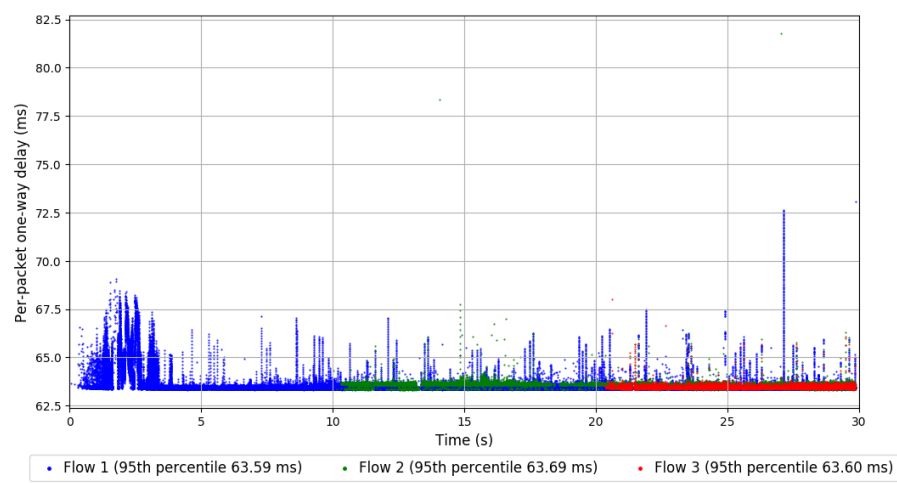
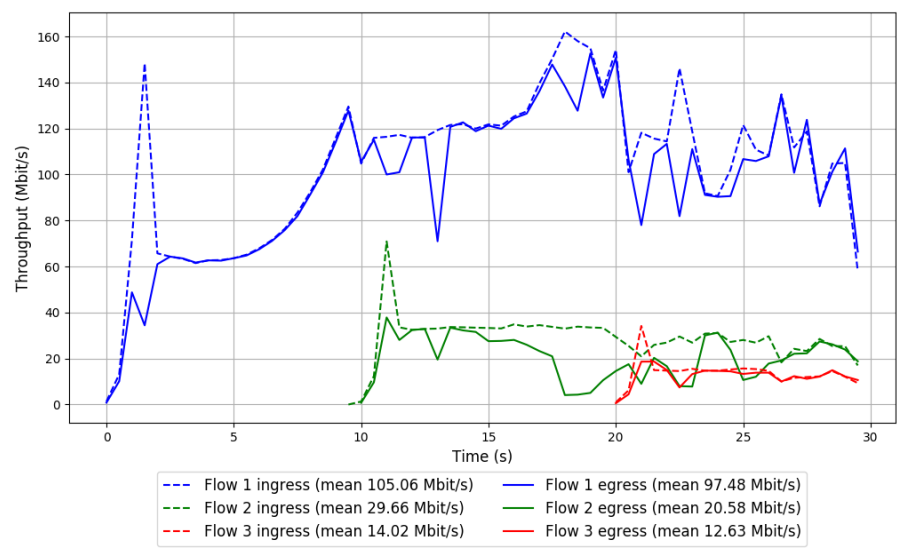


```
Run 2: Statistics of PCC

Start at: 2017-08-21 13:13:51
End at: 2017-08-21 13:14:21

# Below is generated by plot.py at 2017-08-21 15:55:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.29 Mbit/s
95th percentile per-packet one-way delay: 63.663 ms
Loss rate: 10.85%
-- Flow 1:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 63.595 ms
Loss rate: 7.19%
-- Flow 2:
Average throughput: 20.58 Mbit/s
95th percentile per-packet one-way delay: 63.688 ms
Loss rate: 30.63%
-- Flow 3:
Average throughput: 12.63 Mbit/s
95th percentile per-packet one-way delay: 63.599 ms
Loss rate: 9.88%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-21 13:24:39

End at: 2017-08-21 13:25:09

Below is generated by plot.py at 2017-08-21 15:56:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 147.54 Mbit/s

95th percentile per-packet one-way delay: 63.491 ms

Loss rate: 26.42%

-- Flow 1:

Average throughput: 107.51 Mbit/s

95th percentile per-packet one-way delay: 63.502 ms

Loss rate: 31.18%

-- Flow 2:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 64.264 ms

Loss rate: 89.37%

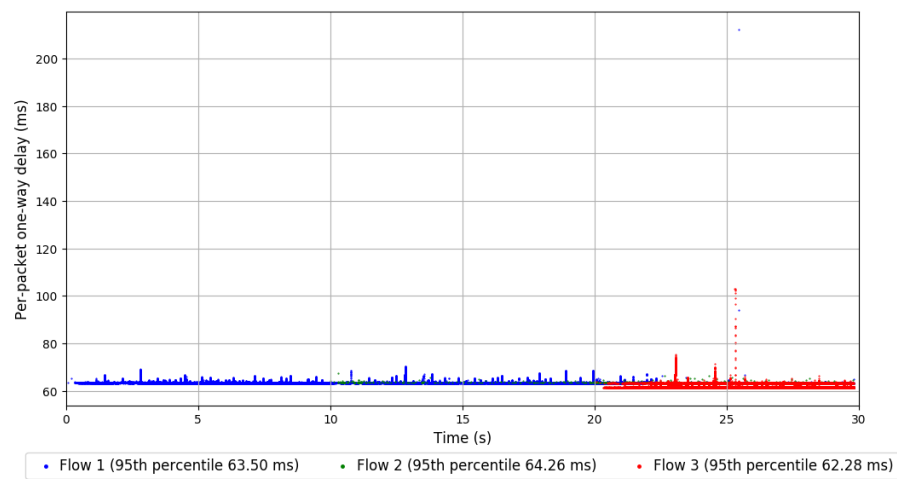
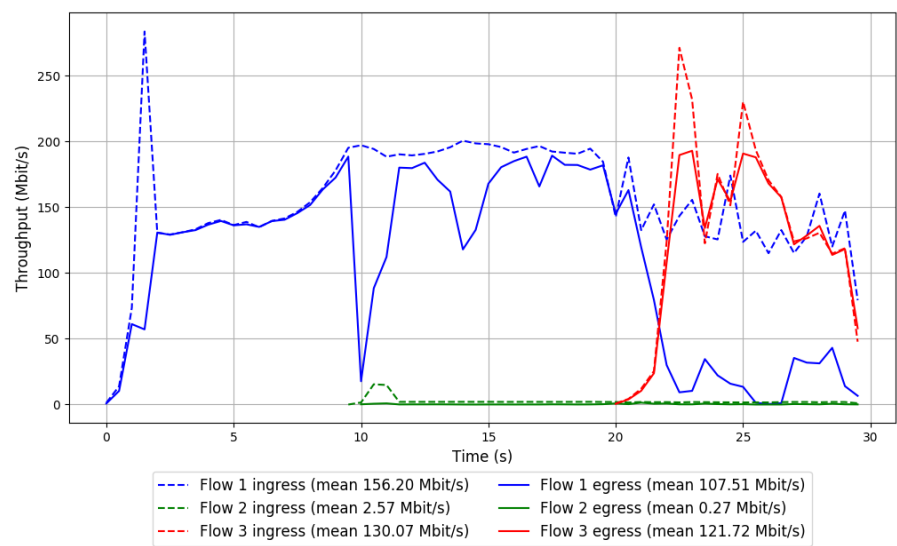
-- Flow 3:

Average throughput: 121.72 Mbit/s

95th percentile per-packet one-way delay: 62.281 ms

Loss rate: 6.44%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-08-21 13:35:31

End at: 2017-08-21 13:36:01

Below is generated by plot.py at 2017-08-21 15:56:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 149.52 Mbit/s

95th percentile per-packet one-way delay: 63.680 ms

Loss rate: 24.22%

-- Flow 1:

Average throughput: 84.32 Mbit/s

95th percentile per-packet one-way delay: 63.694 ms

Loss rate: 31.21%

-- Flow 2:

Average throughput: 19.21 Mbit/s

95th percentile per-packet one-way delay: 63.416 ms

Loss rate: 40.78%

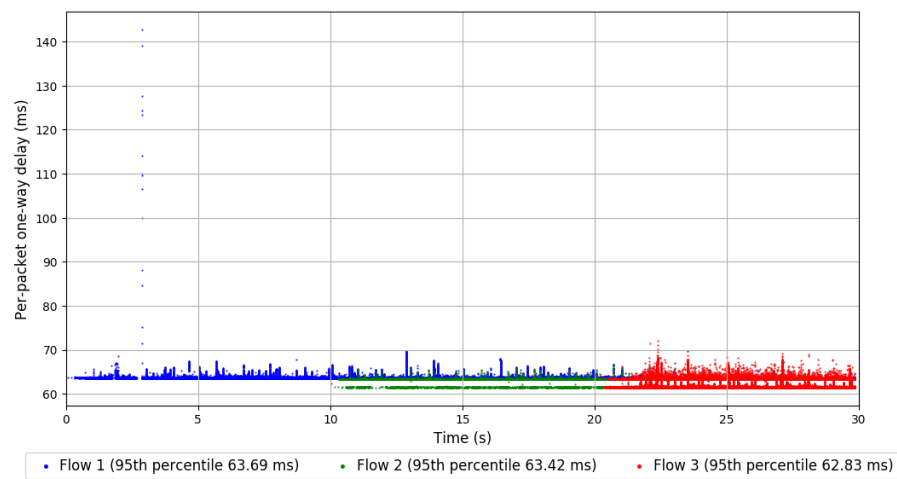
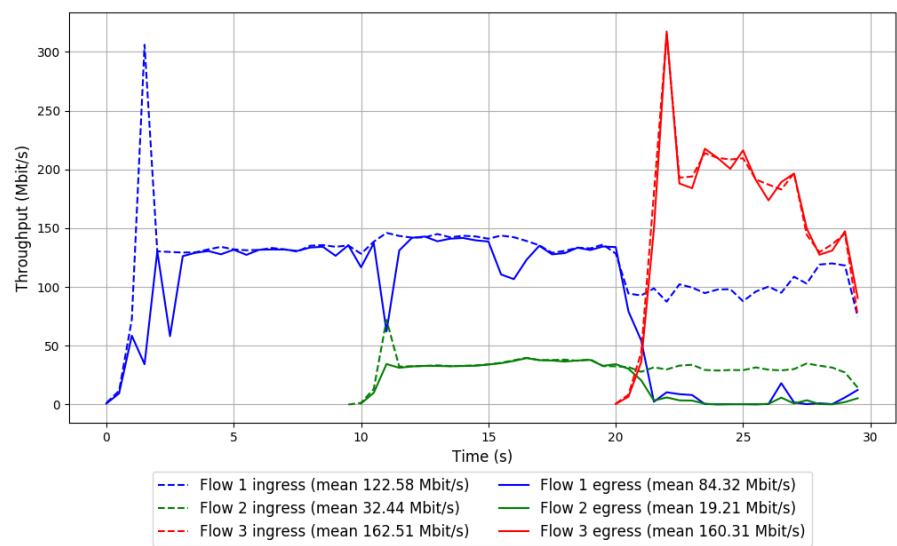
-- Flow 3:

Average throughput: 160.31 Mbit/s

95th percentile per-packet one-way delay: 62.828 ms

Loss rate: 1.38%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-08-21 13:46:27

End at: 2017-08-21 13:46:57

Below is generated by plot.py at 2017-08-21 15:57:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 336.53 Mbit/s

95th percentile per-packet one-way delay: 140.215 ms

Loss rate: 3.06%

-- Flow 1:

Average throughput: 335.64 Mbit/s

95th percentile per-packet one-way delay: 140.388 ms

Loss rate: 2.79%

-- Flow 2:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 63.696 ms

Loss rate: 66.53%

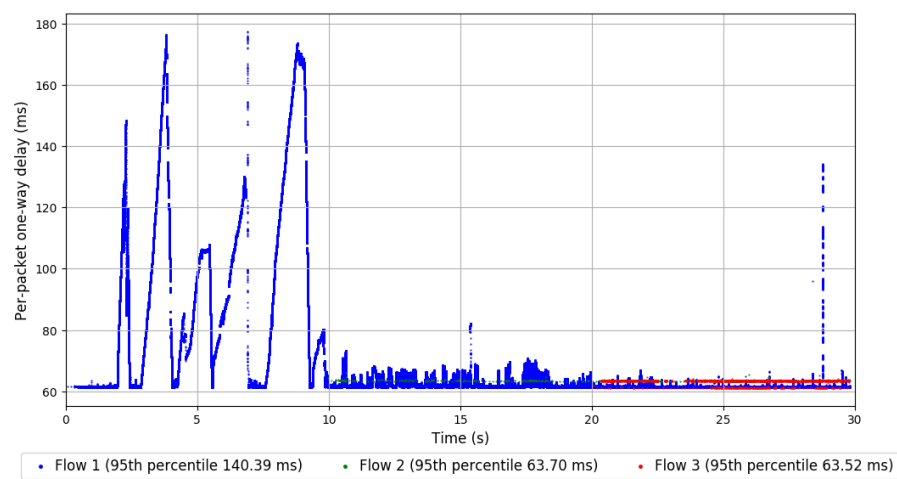
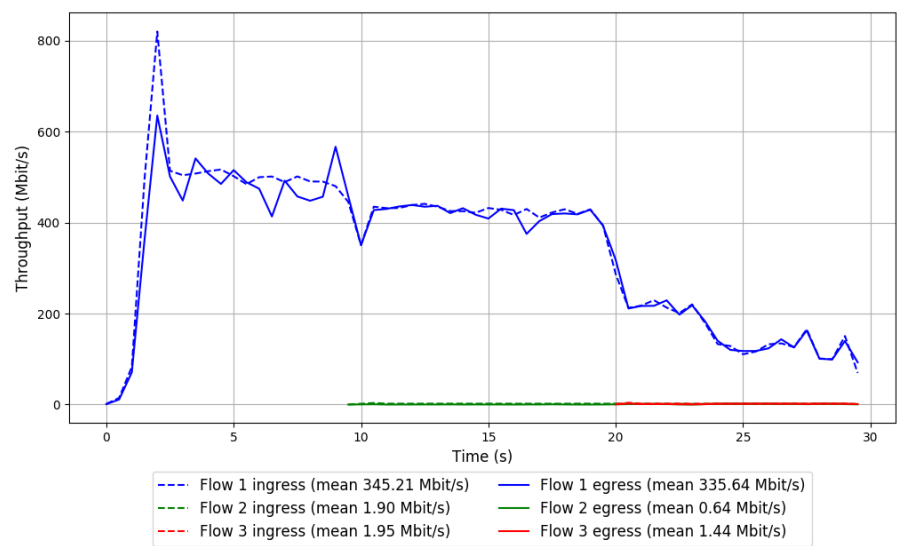
-- Flow 3:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 63.517 ms

Loss rate: 26.35%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-08-21 13:57:40

End at: 2017-08-21 13:58:10

Below is generated by plot.py at 2017-08-21 15:57:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 172.99 Mbit/s

95th percentile per-packet one-way delay: 63.630 ms

Loss rate: 24.33%

-- Flow 1:

Average throughput: 48.53 Mbit/s

95th percentile per-packet one-way delay: 63.669 ms

Loss rate: 50.87%

-- Flow 2:

Average throughput: 186.63 Mbit/s

95th percentile per-packet one-way delay: 62.821 ms

Loss rate: 3.89%

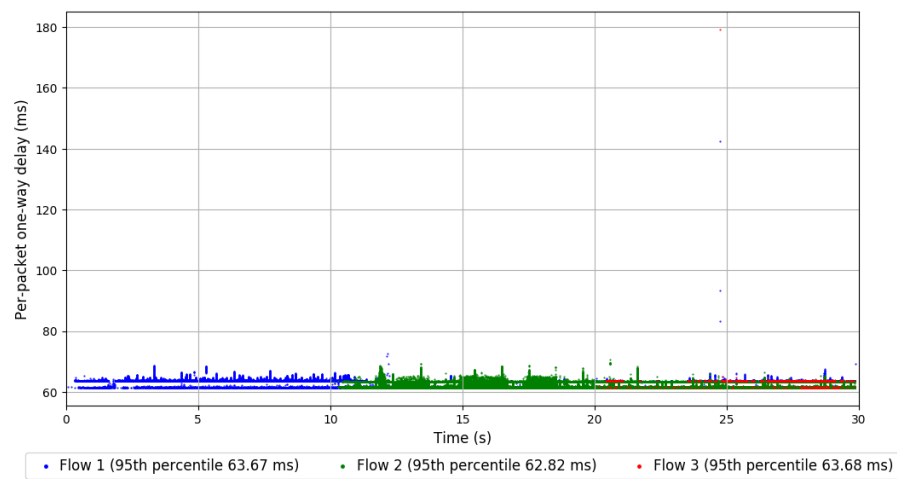
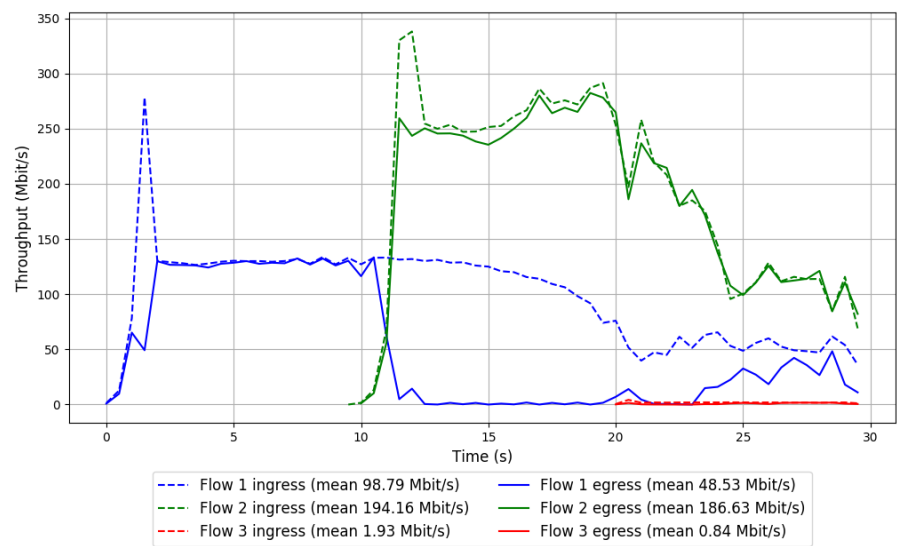
-- Flow 3:

Average throughput: 0.84 Mbit/s

95th percentile per-packet one-way delay: 63.681 ms

Loss rate: 56.57%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-08-21 14:08:54

End at: 2017-08-21 14:09:24

Below is generated by plot.py at 2017-08-21 15:57:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.35 Mbit/s

95th percentile per-packet one-way delay: 63.600 ms

Loss rate: 11.85%

-- Flow 1:

Average throughput: 115.87 Mbit/s

95th percentile per-packet one-way delay: 63.461 ms

Loss rate: 9.23%

-- Flow 2:

Average throughput: 22.23 Mbit/s

95th percentile per-packet one-way delay: 63.665 ms

Loss rate: 29.15%

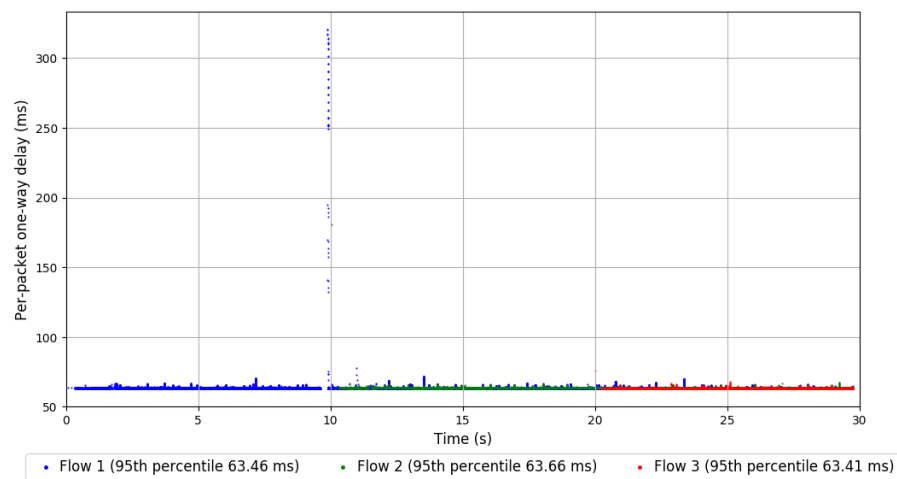
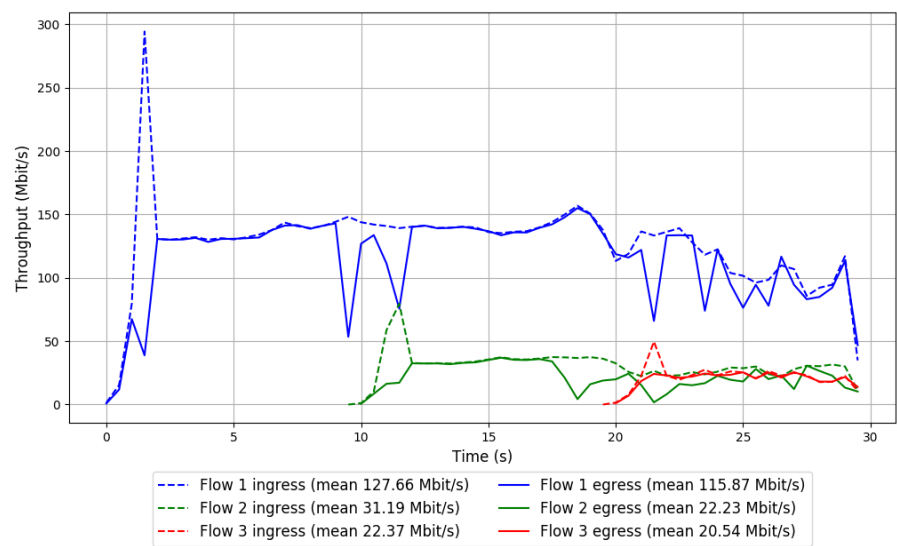
-- Flow 3:

Average throughput: 20.54 Mbit/s

95th percentile per-packet one-way delay: 63.413 ms

Loss rate: 8.28%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-21 14:19:57

End at: 2017-08-21 14:20:27

Below is generated by plot.py at 2017-08-21 15:57:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 166.72 Mbit/s

95th percentile per-packet one-way delay: 63.624 ms

Loss rate: 31.60%

-- Flow 1:

Average throughput: 50.33 Mbit/s

95th percentile per-packet one-way delay: 64.309 ms

Loss rate: 59.15%

-- Flow 2:

Average throughput: 174.97 Mbit/s

95th percentile per-packet one-way delay: 62.879 ms

Loss rate: 3.10%

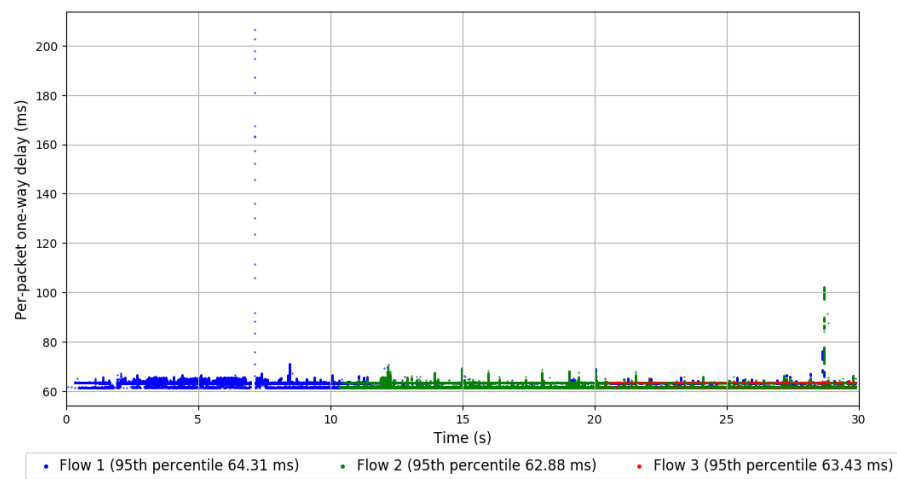
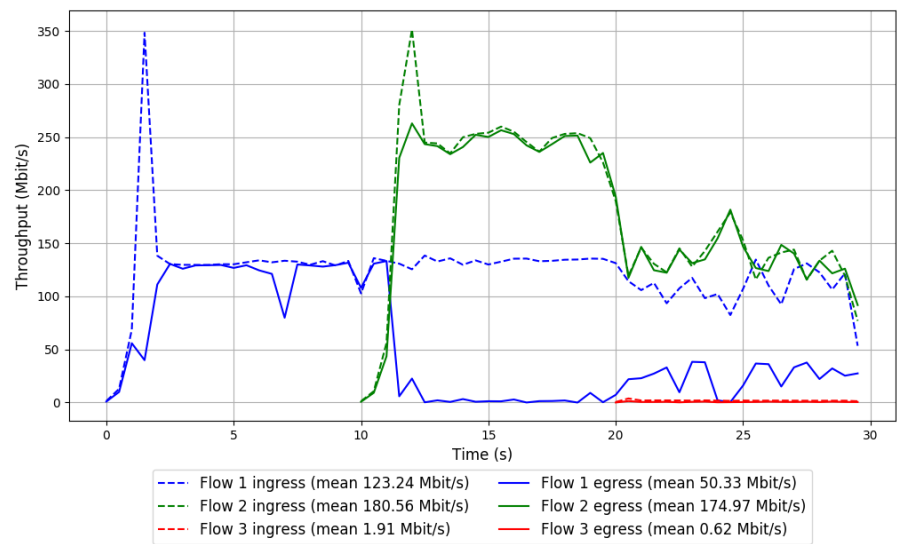
-- Flow 3:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 63.433 ms

Loss rate: 67.86%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-08-21 14:30:53

End at: 2017-08-21 14:31:23

Below is generated by plot.py at 2017-08-21 15:57:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.59 Mbit/s

95th percentile per-packet one-way delay: 63.463 ms

Loss rate: 8.02%

-- Flow 1:

Average throughput: 135.70 Mbit/s

95th percentile per-packet one-way delay: 63.432 ms

Loss rate: 7.19%

-- Flow 2:

Average throughput: 13.49 Mbit/s

95th percentile per-packet one-way delay: 63.439 ms

Loss rate: 16.71%

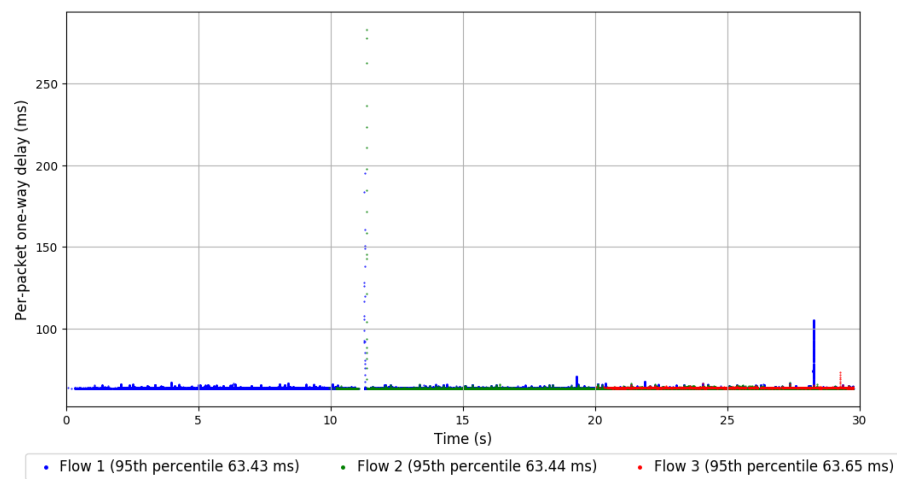
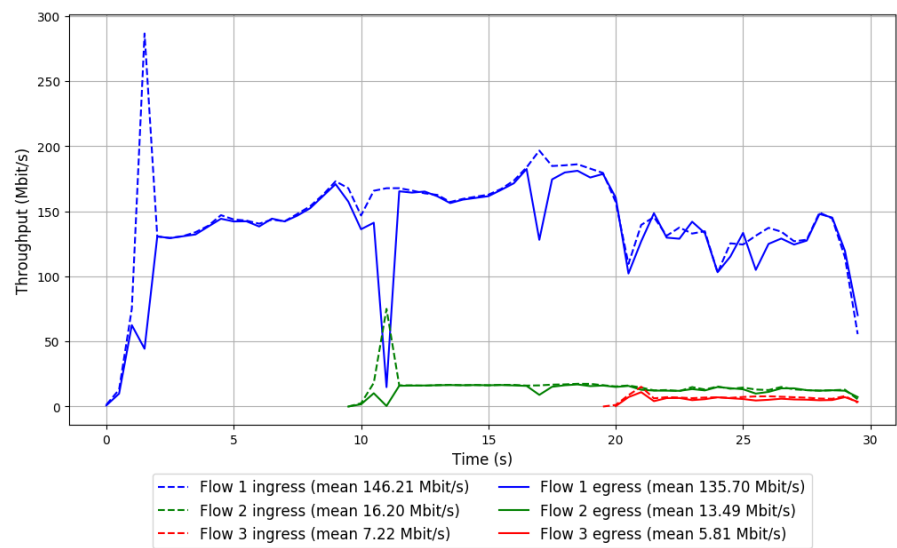
-- Flow 3:

Average throughput: 5.81 Mbit/s

95th percentile per-packet one-way delay: 63.645 ms

Loss rate: 19.64%

Run 9: Report of PCC — Data Link

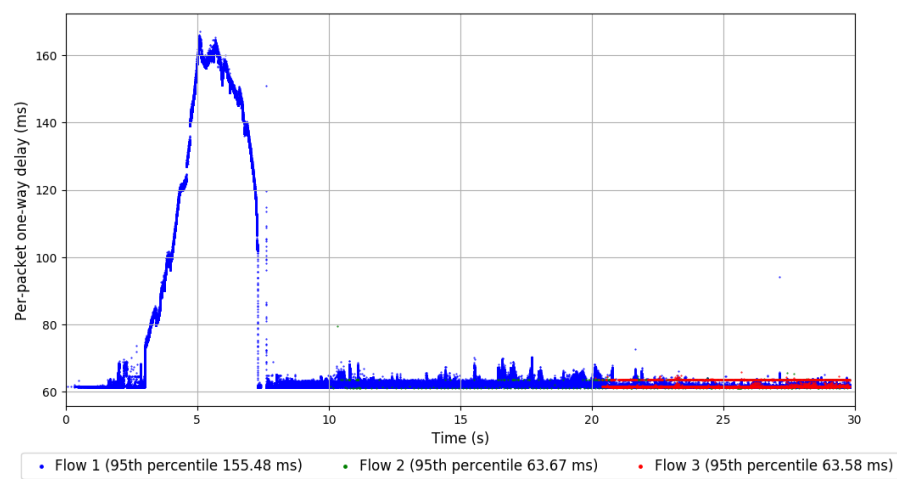
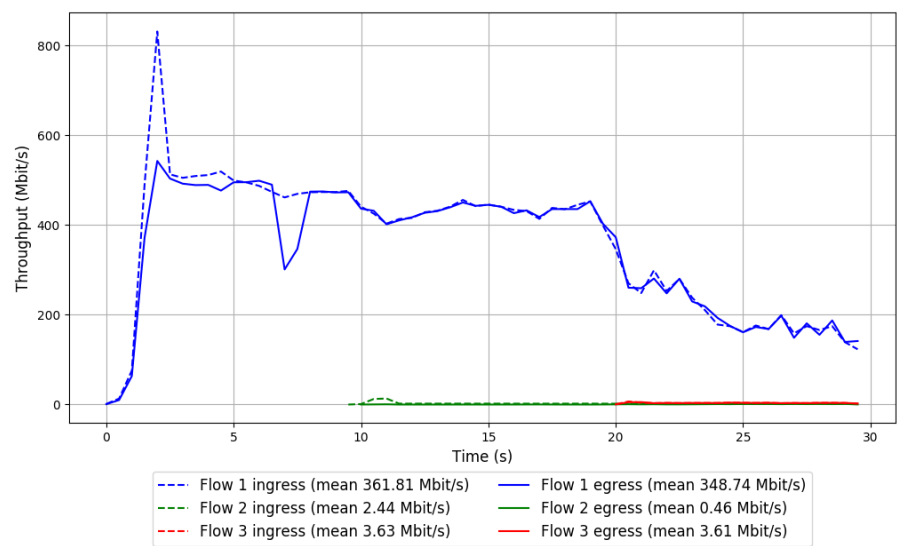


```
Run 10: Statistics of PCC

Start at: 2017-08-21 14:41:57
End at: 2017-08-21 14:42:27

# Below is generated by plot.py at 2017-08-21 15:59:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 350.22 Mbit/s
95th percentile per-packet one-way delay: 155.445 ms
Loss rate: 3.95%
-- Flow 1:
Average throughput: 348.74 Mbit/s
95th percentile per-packet one-way delay: 155.477 ms
Loss rate: 3.61%
-- Flow 2:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 63.670 ms
Loss rate: 81.30%
-- Flow 3:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 63.579 ms
Loss rate: 0.55%
```

Run 10: Report of PCC — Data Link

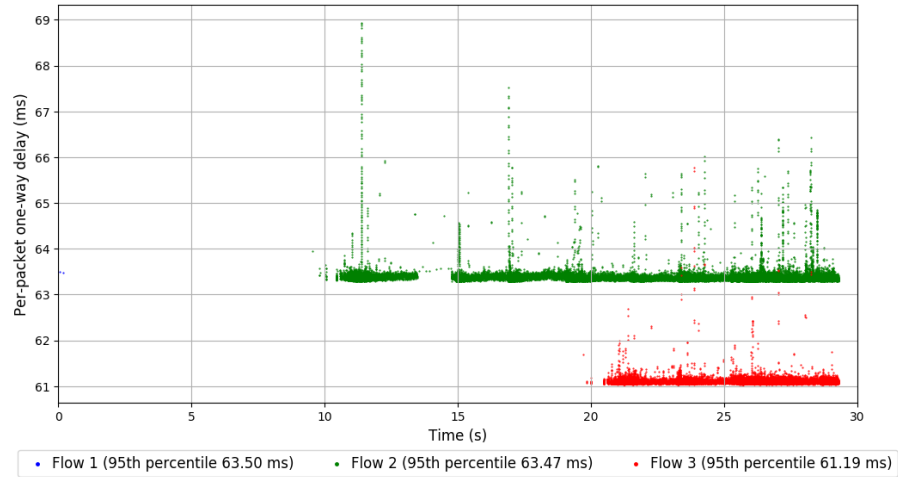
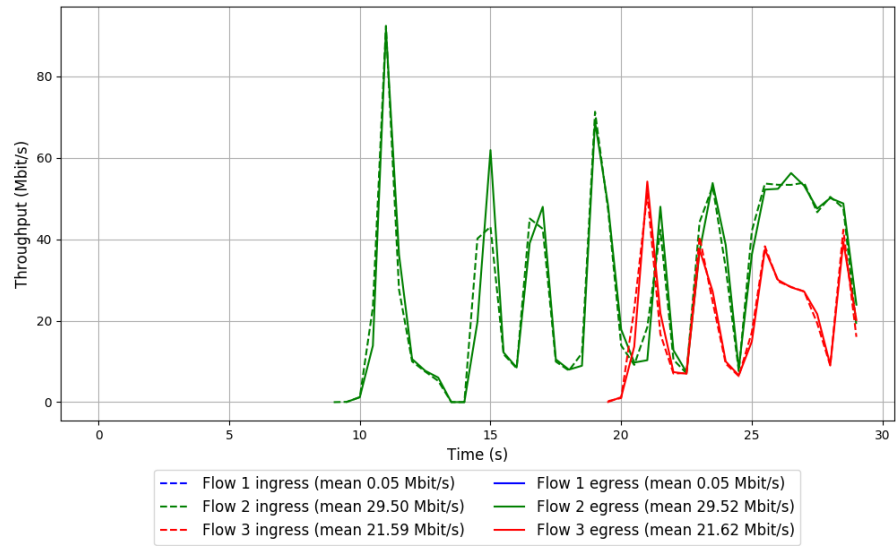


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-08-21 12:53:57
End at: 2017-08-21 12:54:27

# Below is generated by plot.py at 2017-08-21 15:59:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.01 Mbit/s
95th percentile per-packet one-way delay: 63.448 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.497 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 63.465 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 21.62 Mbit/s
95th percentile per-packet one-way delay: 61.192 ms
Loss rate: 0.01%
```

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-08-21 13:05:02

End at: 2017-08-21 13:05:32

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.35 Mbit/s

95th percentile per-packet one-way delay: 61.321 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.687 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 64.341 ms

Loss rate: 0.00%

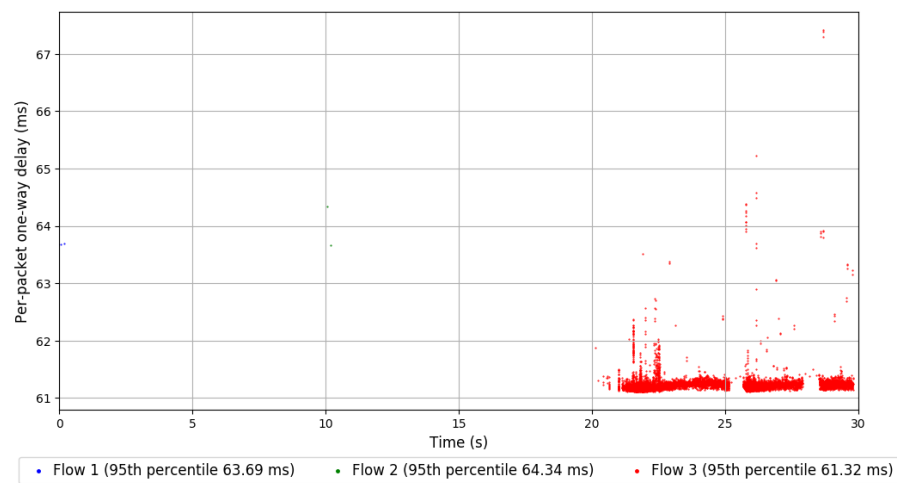
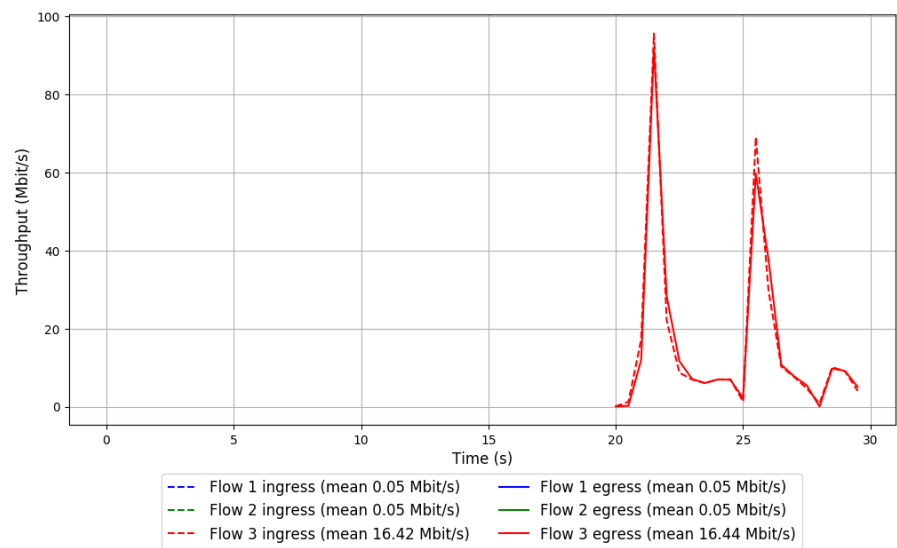
-- Flow 3:

Average throughput: 16.44 Mbit/s

95th percentile per-packet one-way delay: 61.320 ms

Loss rate: 0.01%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-21 13:15:59

End at: 2017-08-21 13:16:29

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.23 Mbit/s

95th percentile per-packet one-way delay: 61.344 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.835 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.727 ms

Loss rate: 0.00%

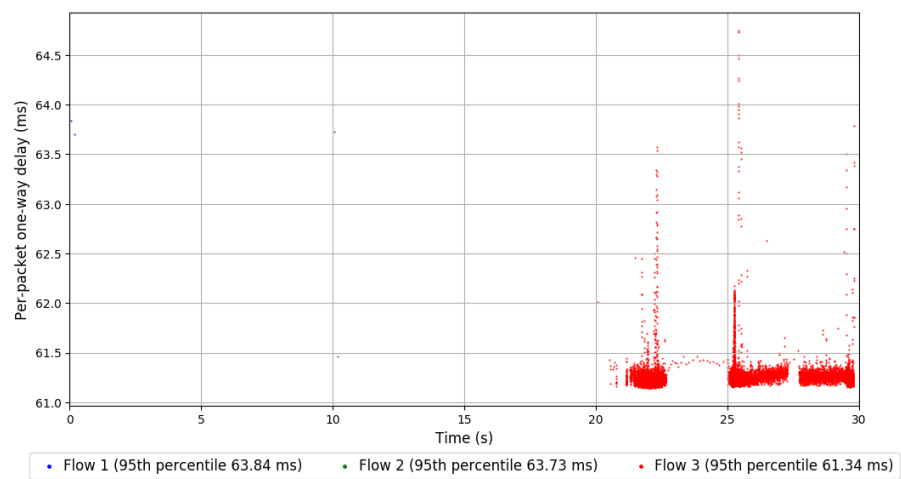
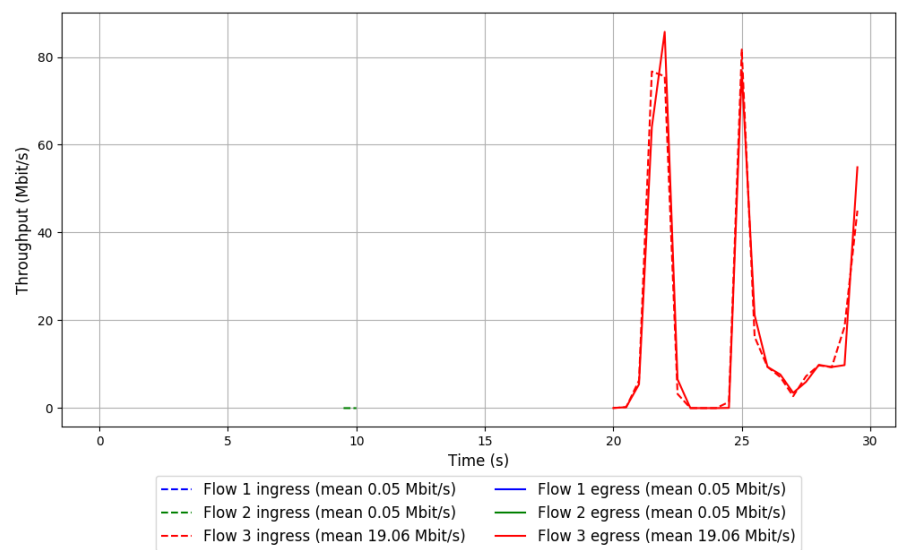
-- Flow 3:

Average throughput: 19.06 Mbit/s

95th percentile per-packet one-way delay: 61.344 ms

Loss rate: 0.02%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-08-21 13:26:49

End at: 2017-08-21 13:27:19

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 21.28 Mbit/s

95th percentile per-packet one-way delay: 63.673 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.569 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 17.73 Mbit/s

95th percentile per-packet one-way delay: 61.585 ms

Loss rate: 0.00%

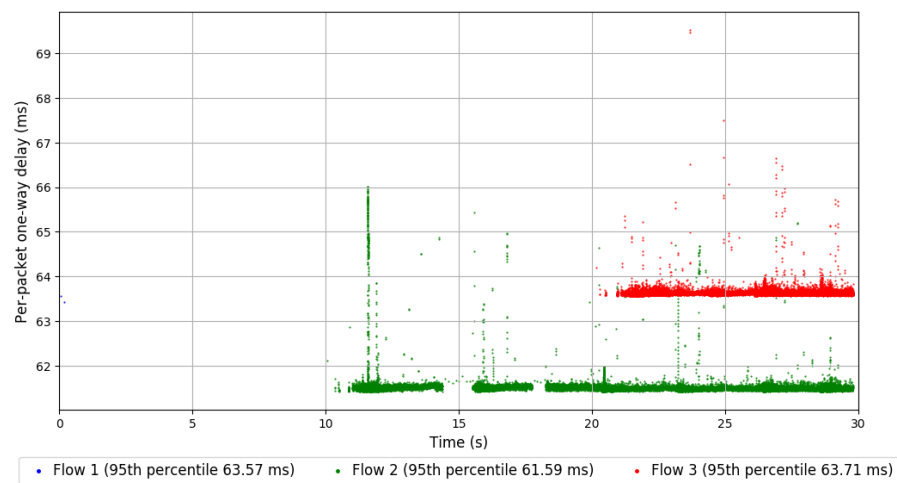
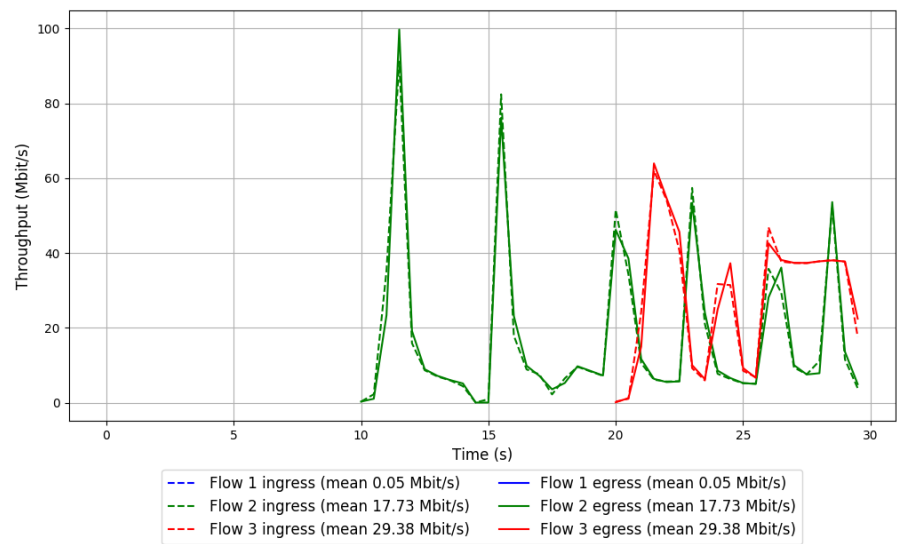
-- Flow 3:

Average throughput: 29.38 Mbit/s

95th percentile per-packet one-way delay: 63.708 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-08-21 13:37:41

End at: 2017-08-21 13:38:11

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.45 Mbit/s

95th percentile per-packet one-way delay: 63.344 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.668 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 15.49 Mbit/s

95th percentile per-packet one-way delay: 61.473 ms

Loss rate: 0.00%

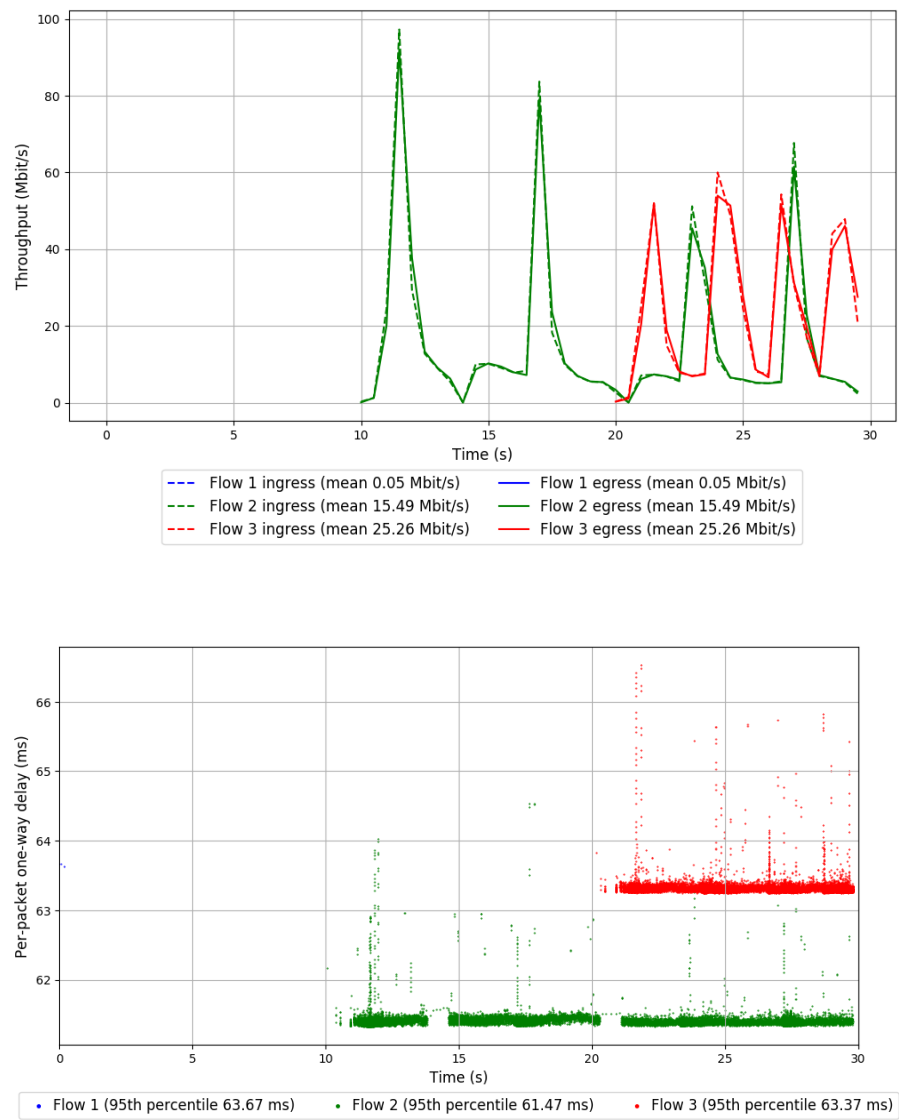
-- Flow 3:

Average throughput: 25.26 Mbit/s

95th percentile per-packet one-way delay: 63.373 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-08-21 13:48:46

End at: 2017-08-21 13:49:16

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.62 Mbit/s

95th percentile per-packet one-way delay: 63.522 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.435 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.889 ms

Loss rate: 0.00%

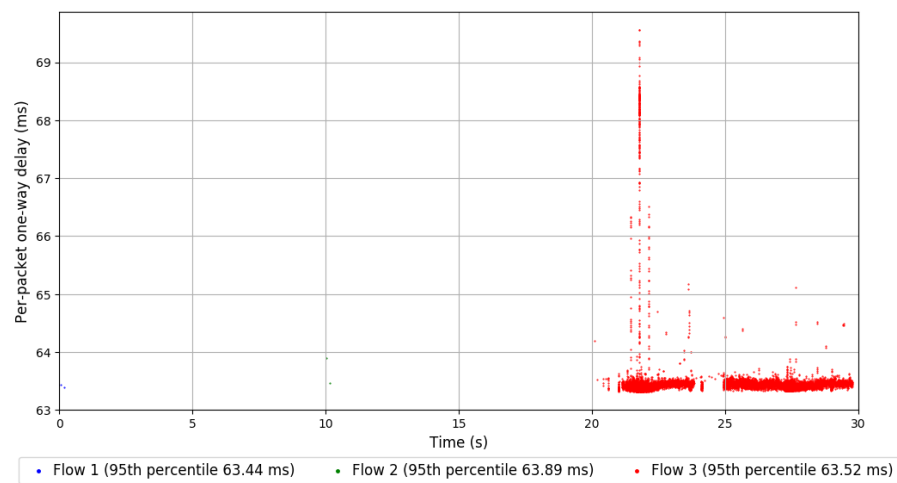
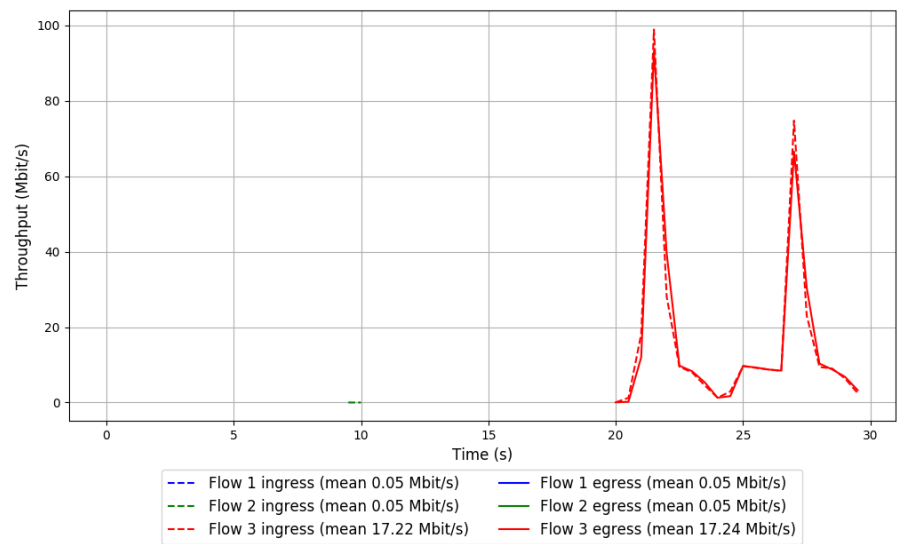
-- Flow 3:

Average throughput: 17.24 Mbit/s

95th percentile per-packet one-way delay: 63.522 ms

Loss rate: 0.01%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-08-21 13:59:52

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

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.72 Mbit/s

95th percentile per-packet one-way delay: 63.423 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.755 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 18.89 Mbit/s

95th percentile per-packet one-way delay: 63.452 ms

Loss rate: 0.00%

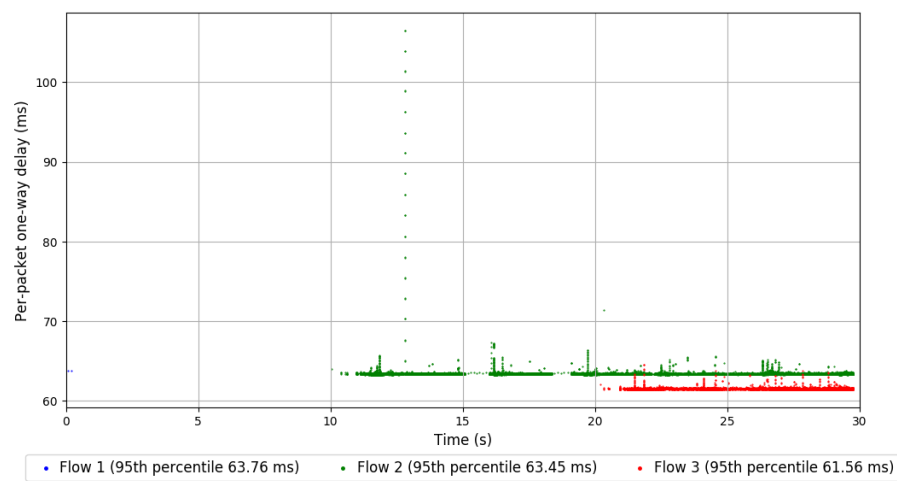
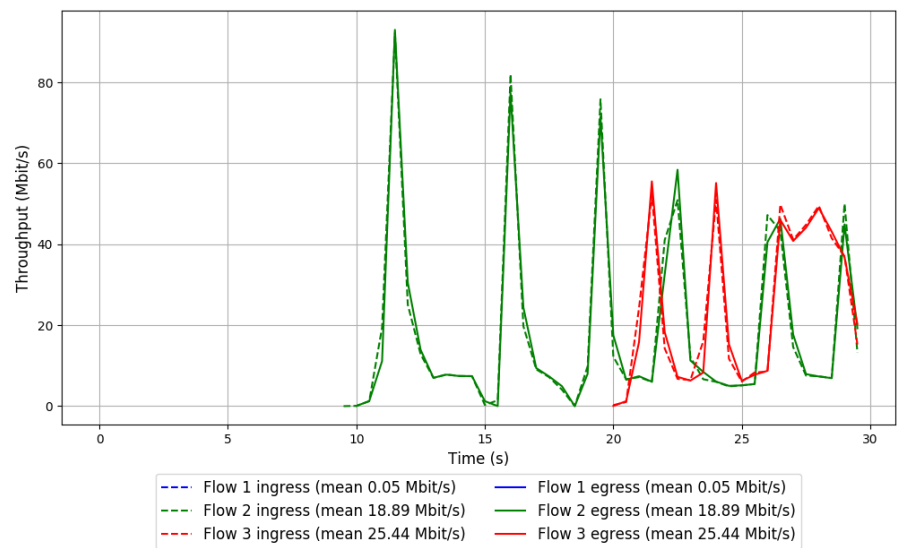
-- Flow 3:

Average throughput: 25.44 Mbit/s

95th percentile per-packet one-way delay: 61.565 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-08-21 14:11:04

End at: 2017-08-21 14:11:34

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 21.58 Mbit/s

95th percentile per-packet one-way delay: 63.351 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 61.330 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 18.55 Mbit/s

95th percentile per-packet one-way delay: 61.481 ms

Loss rate: 0.00%

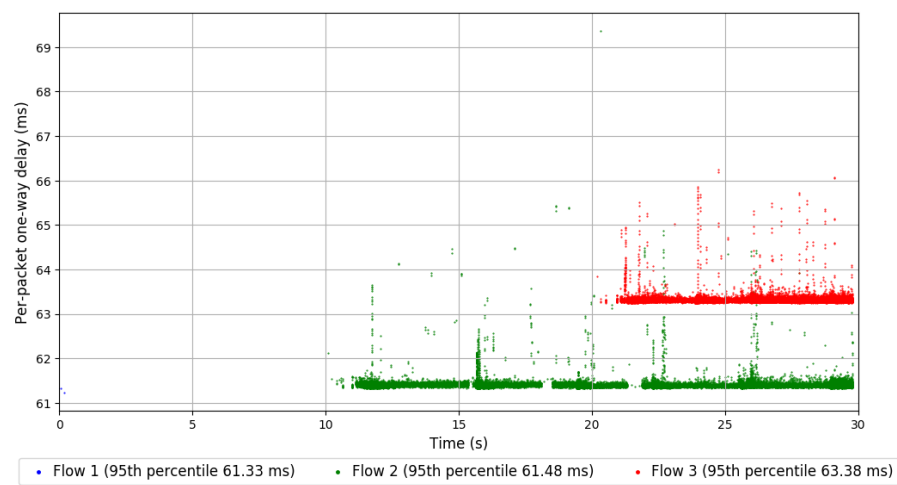
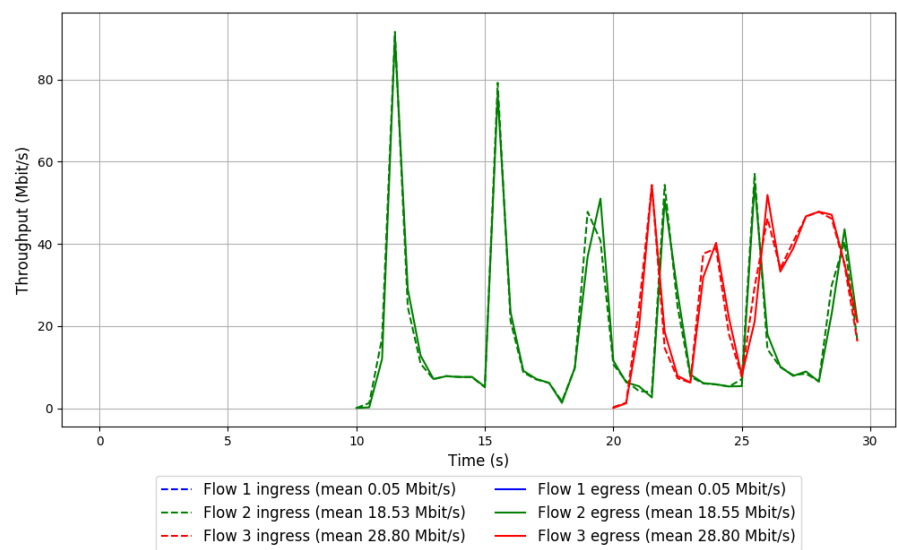
-- Flow 3:

Average throughput: 28.80 Mbit/s

95th percentile per-packet one-way delay: 63.385 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-21 14:22:09

End at: 2017-08-21 14:22:39

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 19.66 Mbit/s

95th percentile per-packet one-way delay: 63.368 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.518 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 16.86 Mbit/s

95th percentile per-packet one-way delay: 61.291 ms

Loss rate: 0.00%

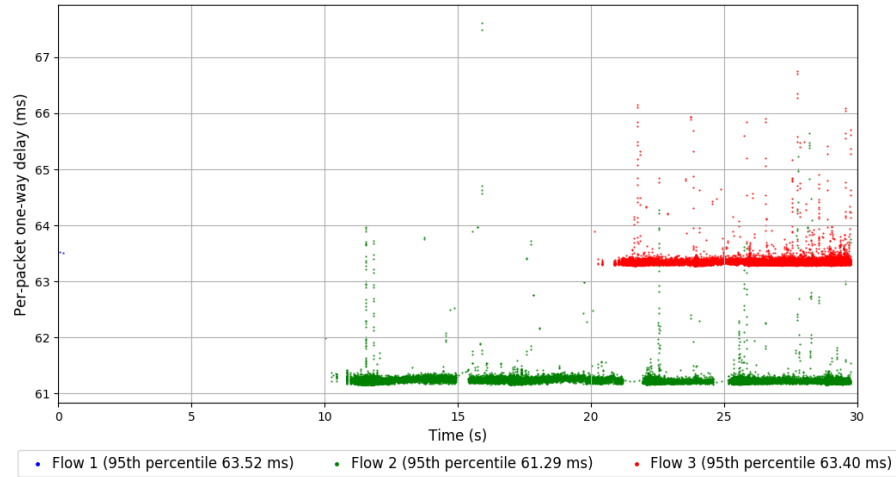
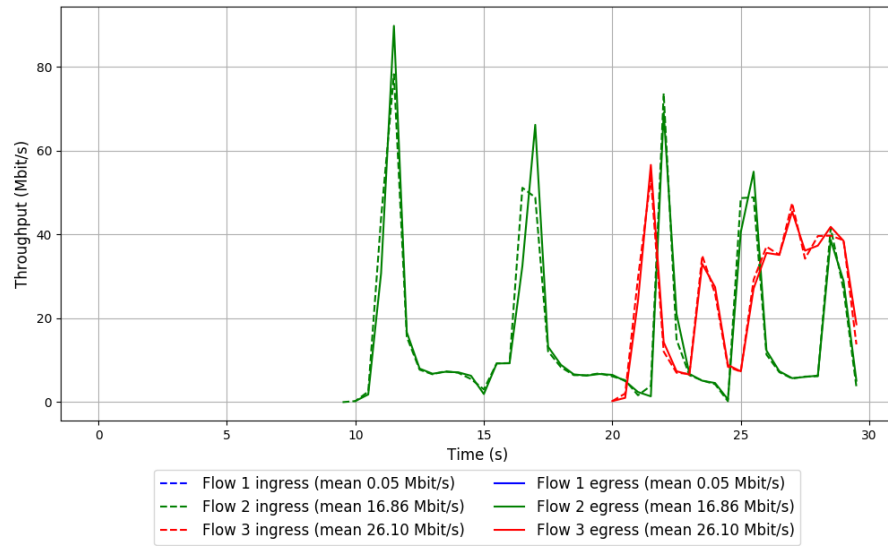
-- Flow 3:

Average throughput: 26.10 Mbit/s

95th percentile per-packet one-way delay: 63.401 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link

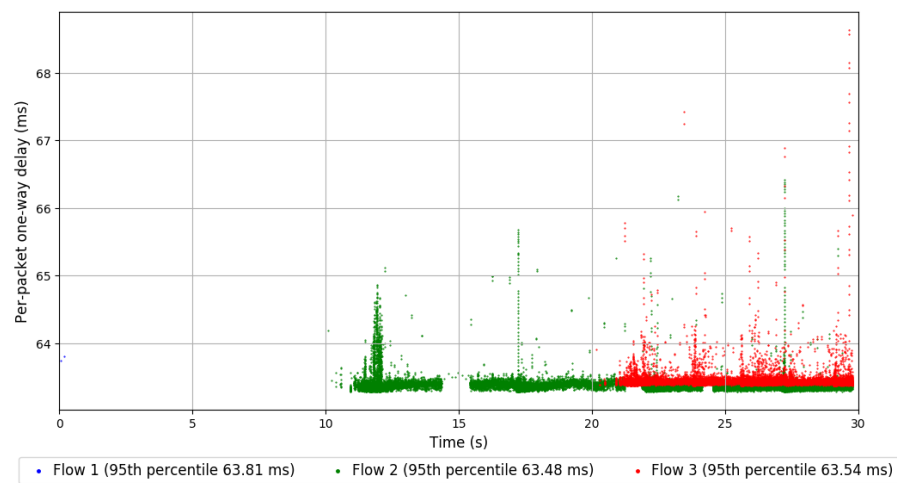
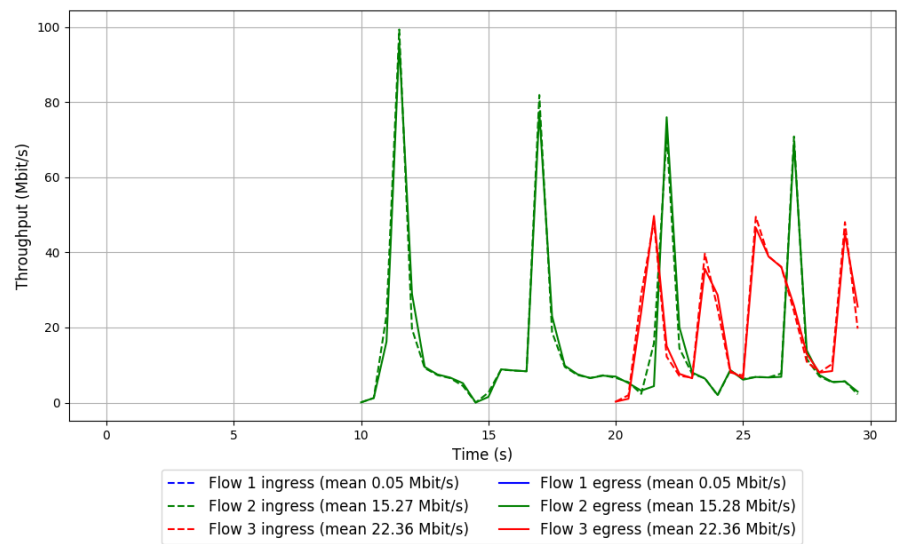


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-08-21 14:33:04
End at: 2017-08-21 14:33:34

# Below is generated by plot.py at 2017-08-21 15:59:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.36 Mbit/s
95th percentile per-packet one-way delay: 63.515 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.807 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.28 Mbit/s
95th percentile per-packet one-way delay: 63.480 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.36 Mbit/s
95th percentile per-packet one-way delay: 63.541 ms
Loss rate: 0.04%
```

Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of Saturator

Start at: 2017-08-21 12:57:25

End at: 2017-08-21 12:57:55

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.15 Mbit/s

95th percentile per-packet one-way delay: 62.643 ms

Loss rate: 2.03%

-- Flow 1:

Average throughput: 5.69 Mbit/s

95th percentile per-packet one-way delay: 64.147 ms

Loss rate: 57.14%

-- Flow 2:

Average throughput: 5.65 Mbit/s

95th percentile per-packet one-way delay: 64.577 ms

Loss rate: 57.14%

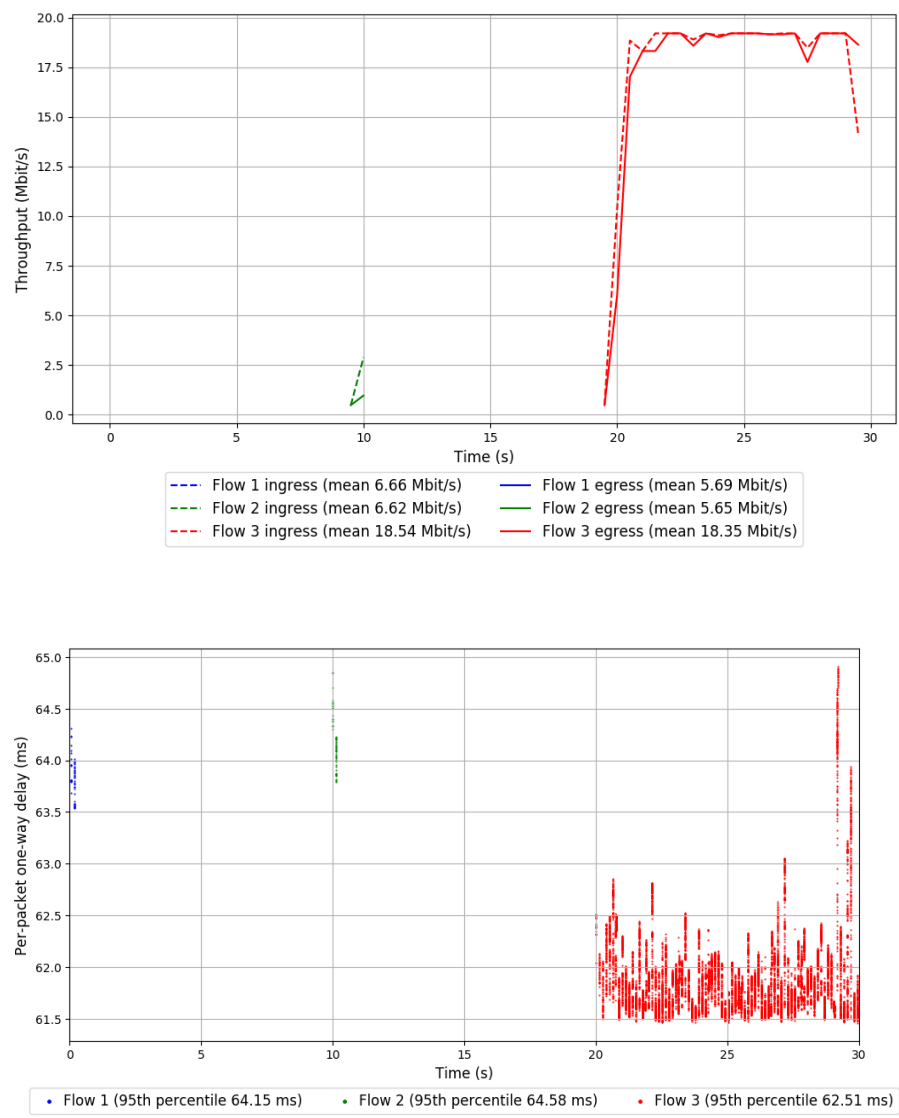
-- Flow 3:

Average throughput: 18.35 Mbit/s

95th percentile per-packet one-way delay: 62.511 ms

Loss rate: 1.02%

Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

Start at: 2017-08-21 13:08:28

End at: 2017-08-21 13:08:58

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.43 Mbit/s

95th percentile per-packet one-way delay: 62.891 ms

Loss rate: 2.83%

-- Flow 1:

Average throughput: 18.00 Mbit/s

95th percentile per-packet one-way delay: 63.129 ms

Loss rate: 3.44%

-- Flow 2:

Average throughput: 5.56 Mbit/s

95th percentile per-packet one-way delay: 64.459 ms

Loss rate: 57.14%

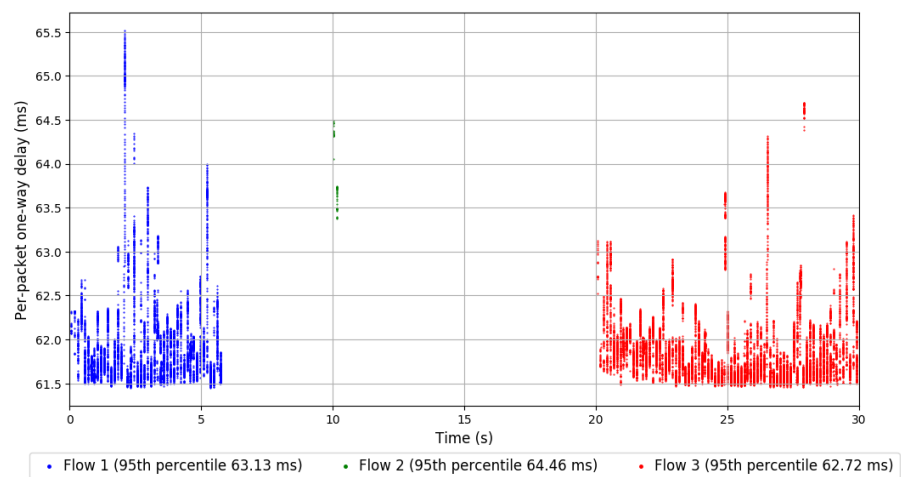
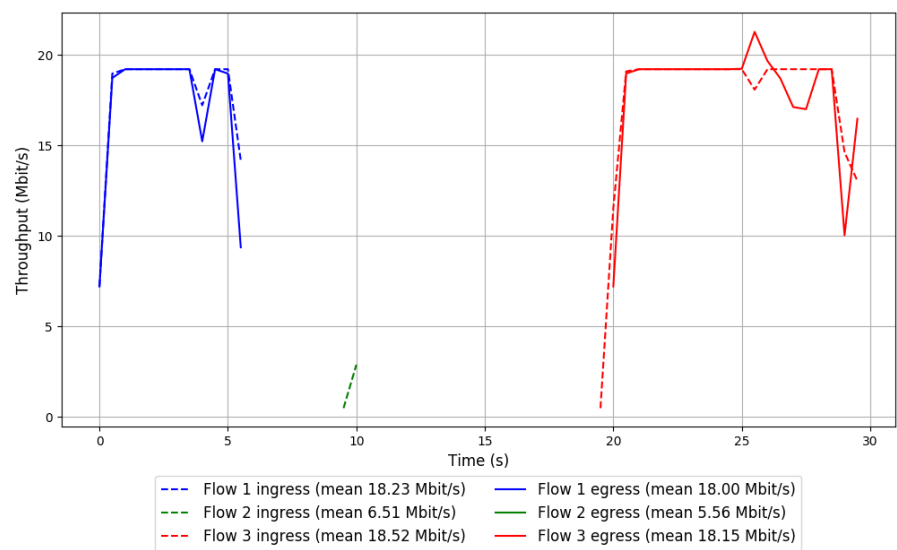
-- Flow 3:

Average throughput: 18.15 Mbit/s

95th percentile per-packet one-way delay: 62.721 ms

Loss rate: 1.97%

Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: 2017-08-21 13:19:27

End at: 2017-08-21 13:19:57

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.79 Mbit/s

95th percentile per-packet one-way delay: 62.806 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 18.75 Mbit/s

95th percentile per-packet one-way delay: 62.775 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 5.58 Mbit/s

95th percentile per-packet one-way delay: 64.103 ms

Loss rate: 57.14%

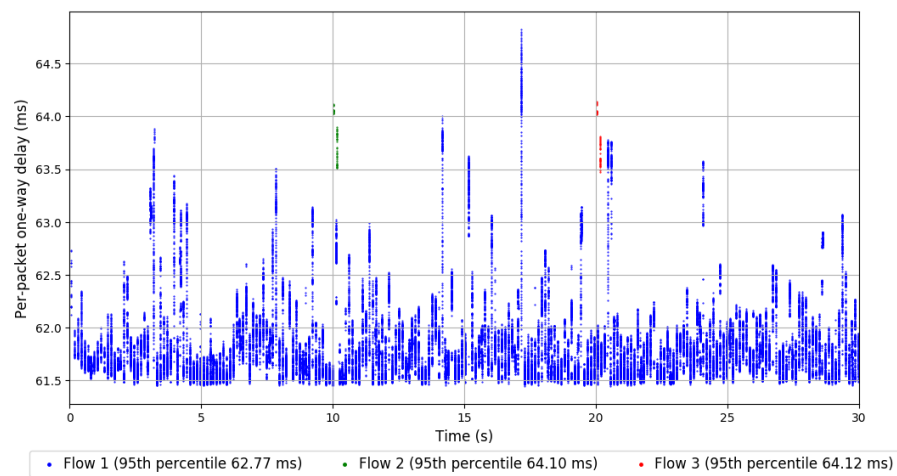
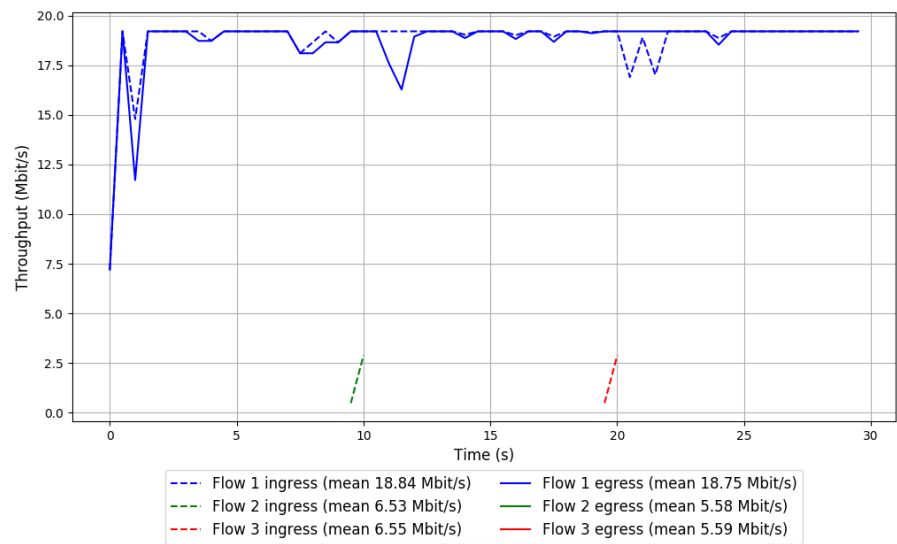
-- Flow 3:

Average throughput: 5.59 Mbit/s

95th percentile per-packet one-way delay: 64.118 ms

Loss rate: 57.14%

Run 3: Report of Saturator — Data Link



Run 4: Statistics of Saturator

Start at: 2017-08-21 13:30:17

End at: 2017-08-21 13:30:47

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.52 Mbit/s

95th percentile per-packet one-way delay: 62.457 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 5.68 Mbit/s

95th percentile per-packet one-way delay: 64.381 ms

Loss rate: 57.14%

-- Flow 2:

Average throughput: 18.45 Mbit/s

95th percentile per-packet one-way delay: 62.223 ms

Loss rate: 2.05%

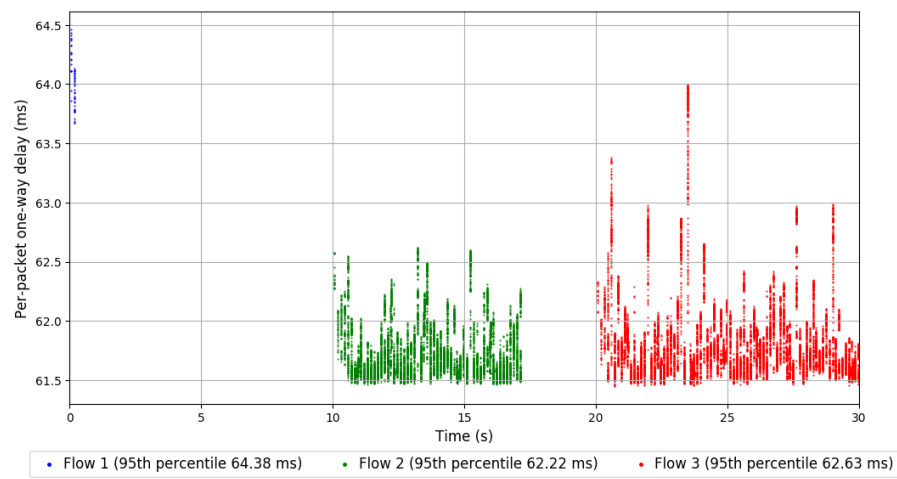
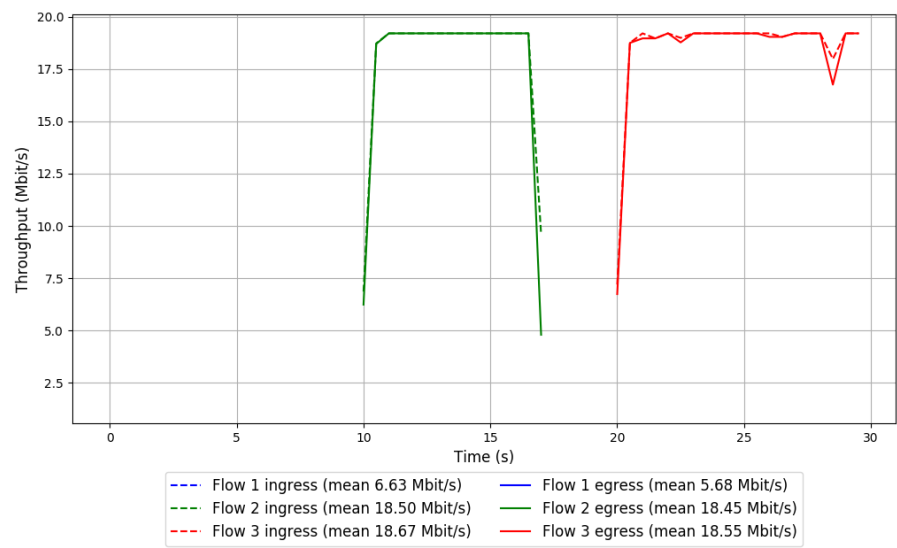
-- Flow 3:

Average throughput: 18.55 Mbit/s

95th percentile per-packet one-way delay: 62.634 ms

Loss rate: 0.62%

Run 4: Report of Saturator — Data Link



Run 5: Statistics of Saturator

Start at: 2017-08-21 13:41:09

End at: 2017-08-21 13:41:39

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 27.76 Mbit/s

95th percentile per-packet one-way delay: 62.648 ms

Loss rate: 1.69%

-- Flow 1:

Average throughput: 18.23 Mbit/s

95th percentile per-packet one-way delay: 62.642 ms

Loss rate: 2.68%

-- Flow 2:

Average throughput: 18.90 Mbit/s

95th percentile per-packet one-way delay: 62.628 ms

Loss rate: 0.21%

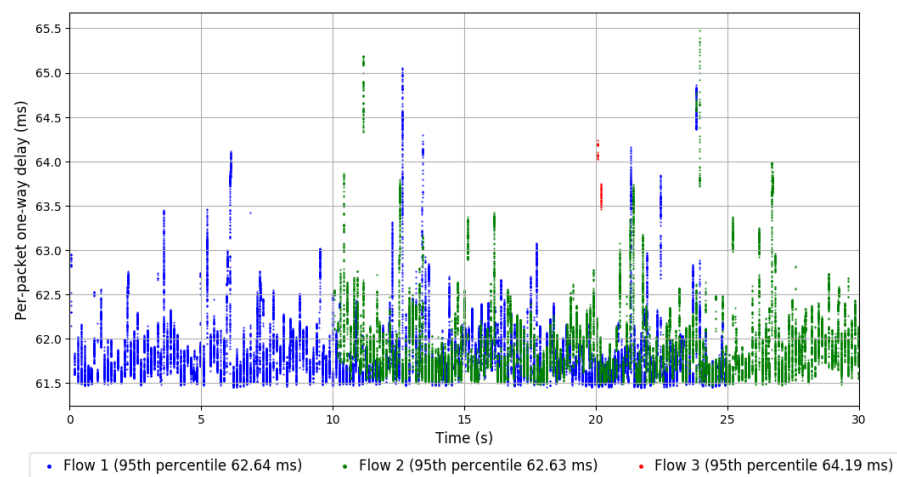
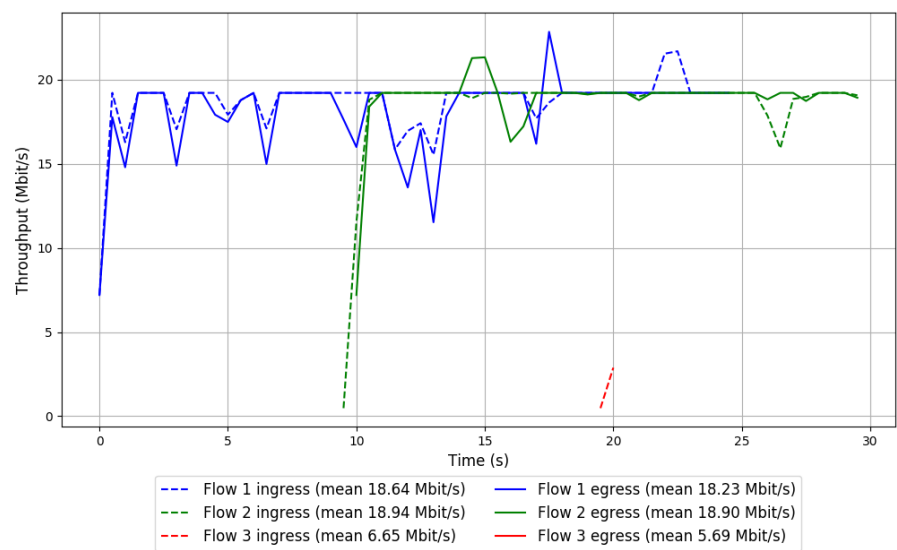
-- Flow 3:

Average throughput: 5.69 Mbit/s

95th percentile per-packet one-way delay: 64.194 ms

Loss rate: 57.14%

Run 5: Report of Saturator — Data Link



Run 6: Statistics of Saturator

Start at: 2017-08-21 13:52:12

End at: 2017-08-21 13:52:43

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 62.646 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 5.60 Mbit/s

95th percentile per-packet one-way delay: 64.193 ms

Loss rate: 57.14%

-- Flow 2:

Average throughput: 17.87 Mbit/s

95th percentile per-packet one-way delay: 62.277 ms

Loss rate: 4.44%

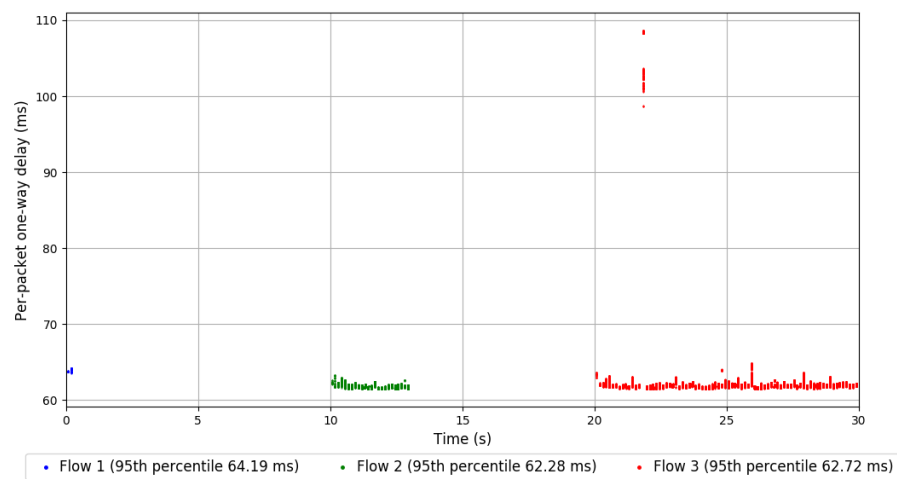
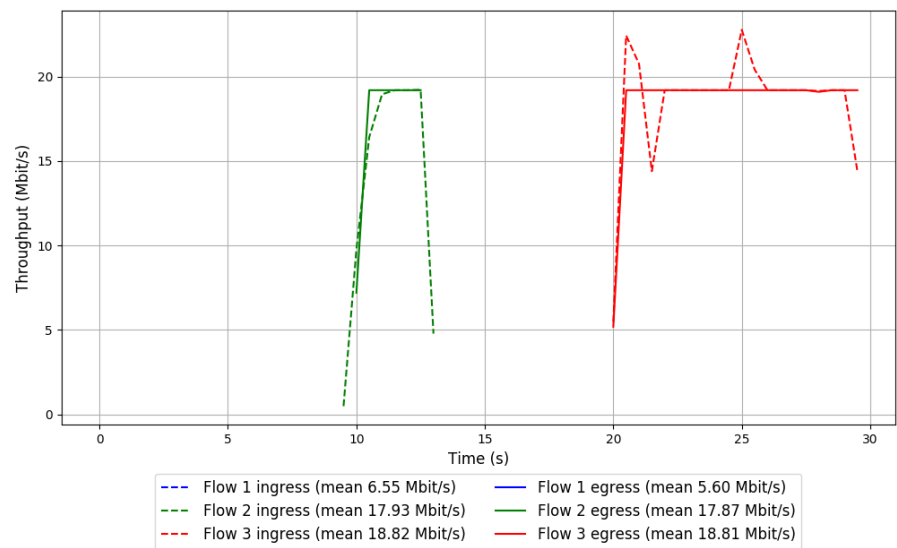
-- Flow 3:

Average throughput: 18.81 Mbit/s

95th percentile per-packet one-way delay: 62.718 ms

Loss rate: 0.09%

Run 6: Report of Saturator — Data Link

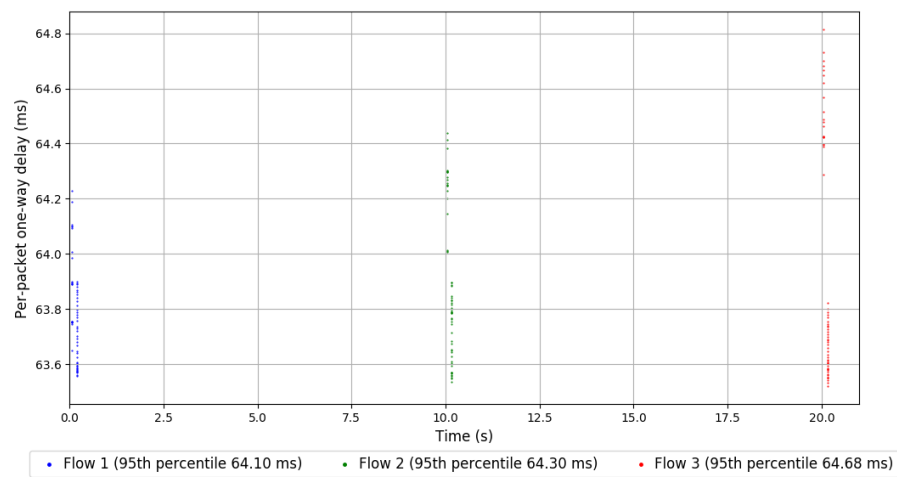
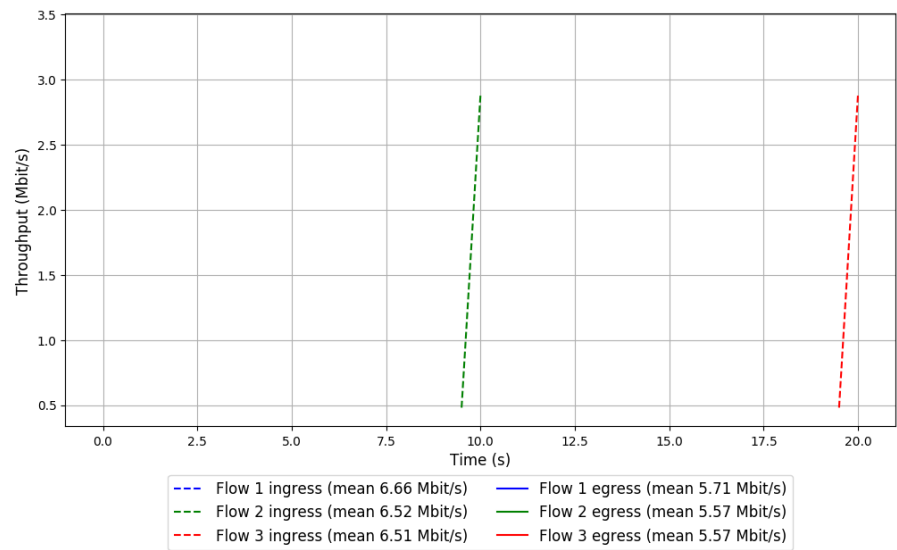


Run 7: Statistics of Saturator

Start at: 2017-08-21 14:03:20

End at: 2017-08-21 14:03:50

Run 7: Report of Saturator — Data Link

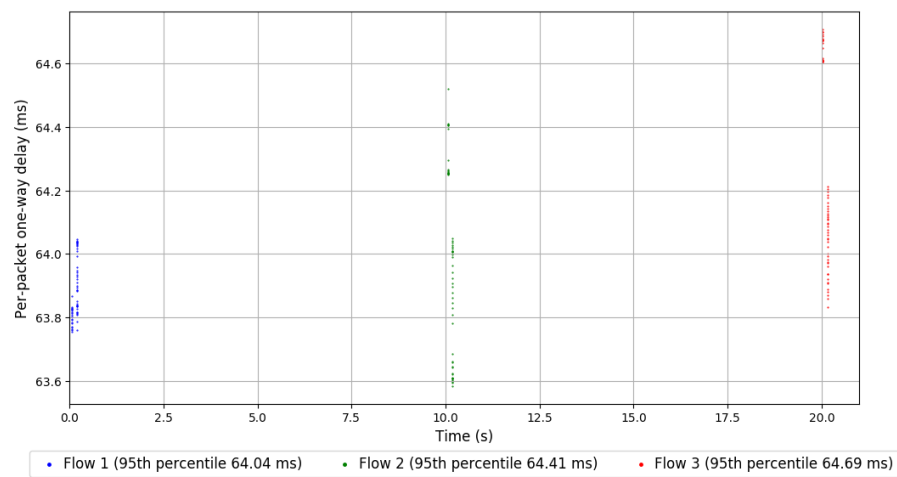
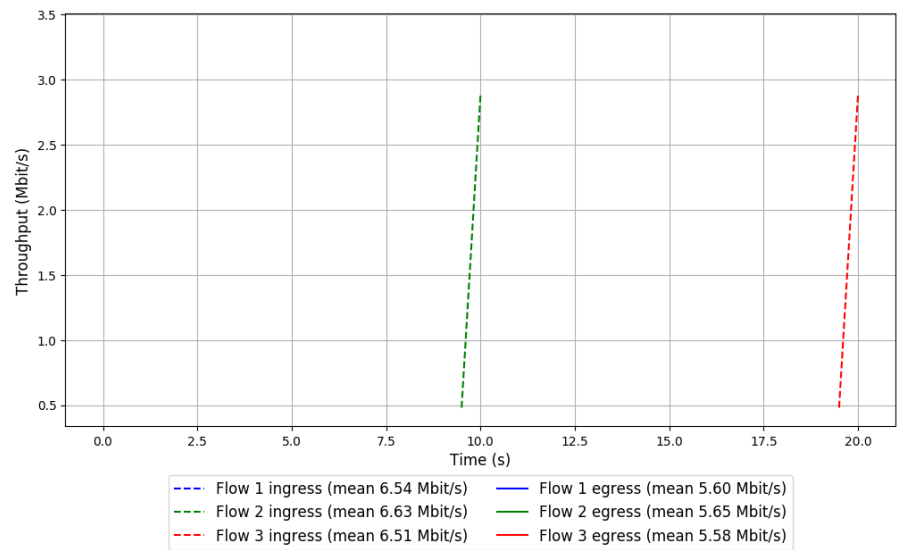


Run 8: Statistics of Saturator

Start at: 2017-08-21 14:14:33

End at: 2017-08-21 14:15:03

Run 8: Report of Saturator — Data Link

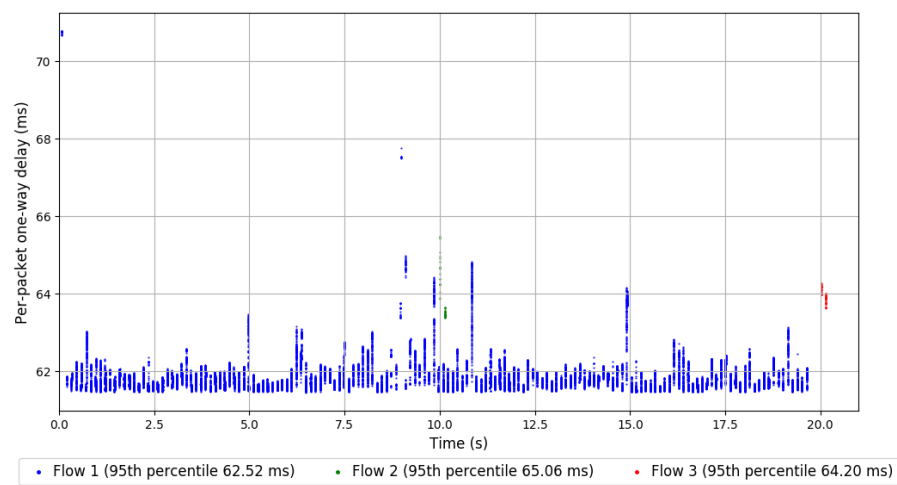
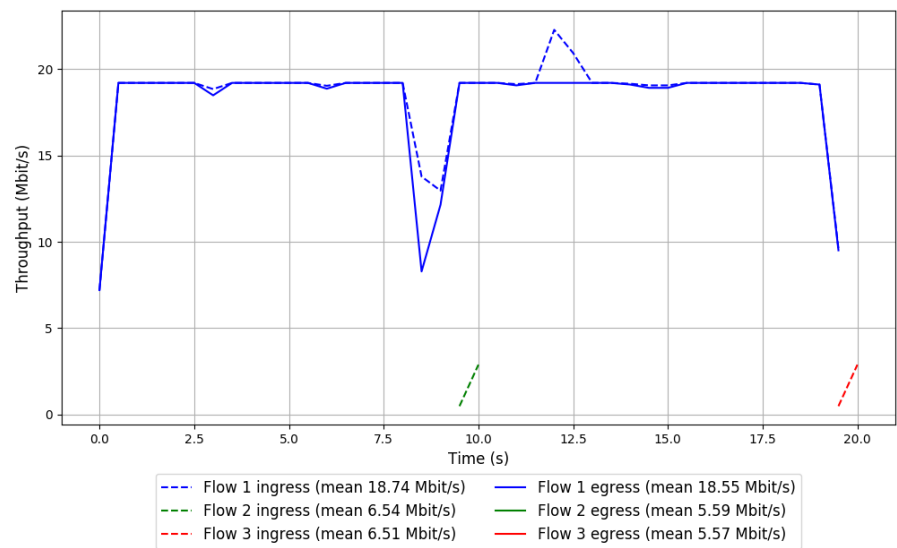


Run 9: Statistics of Saturator

Start at: 2017-08-21 14:25:38

End at: 2017-08-21 14:26:08

Run 9: Report of Saturator — Data Link

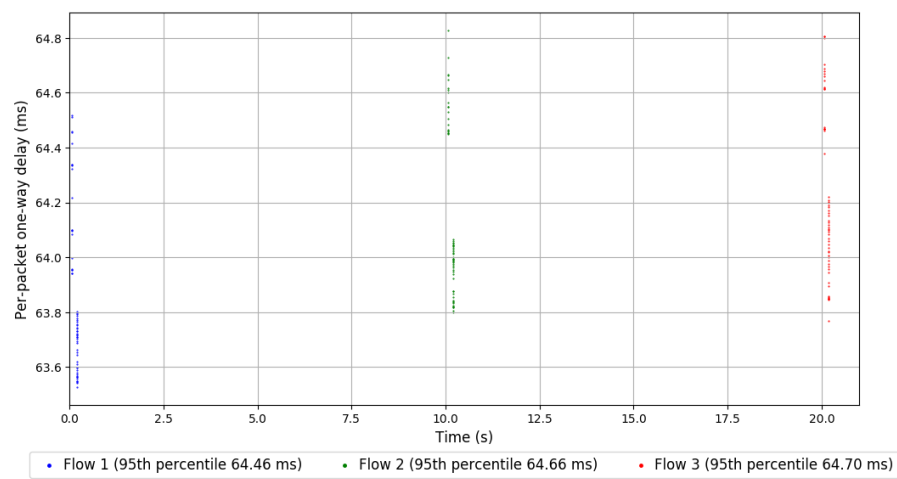
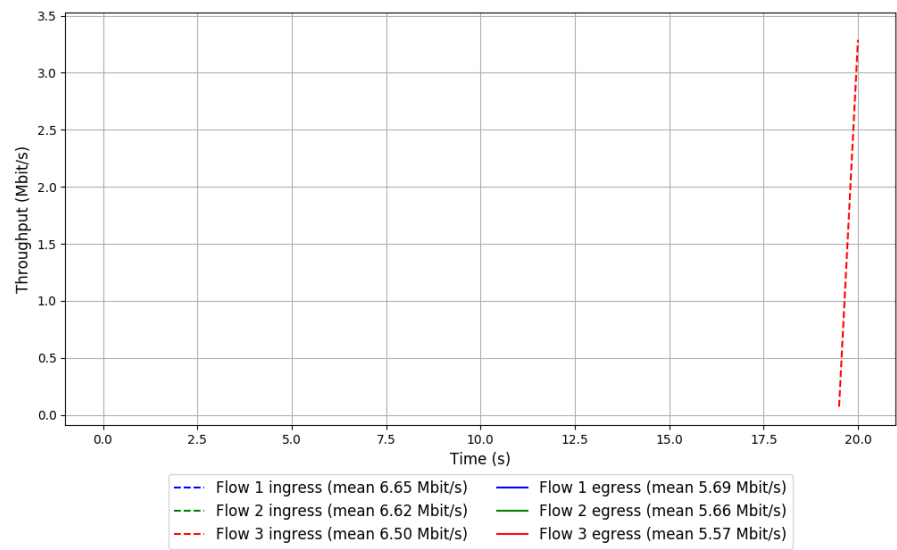


Run 10: Statistics of Saturator

Start at: 2017-08-21 14:36:34

End at: 2017-08-21 14:37:04

Run 10: Report of Saturator — Data Link

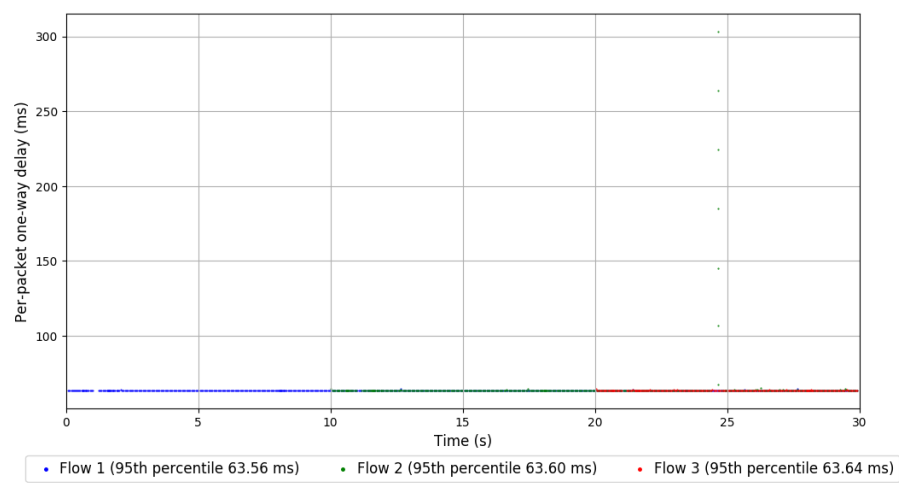
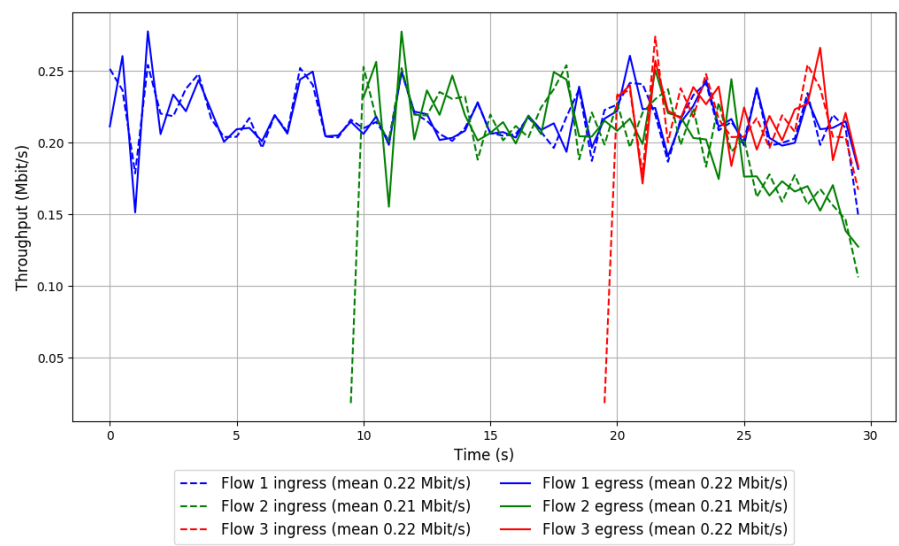


```
Run 1: Statistics of SCReAM

Start at: 2017-08-21 13:03:40
End at: 2017-08-21 13:04:10

# Below is generated by plot.py at 2017-08-21 15:59:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 63.604 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.558 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 63.603 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.638 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

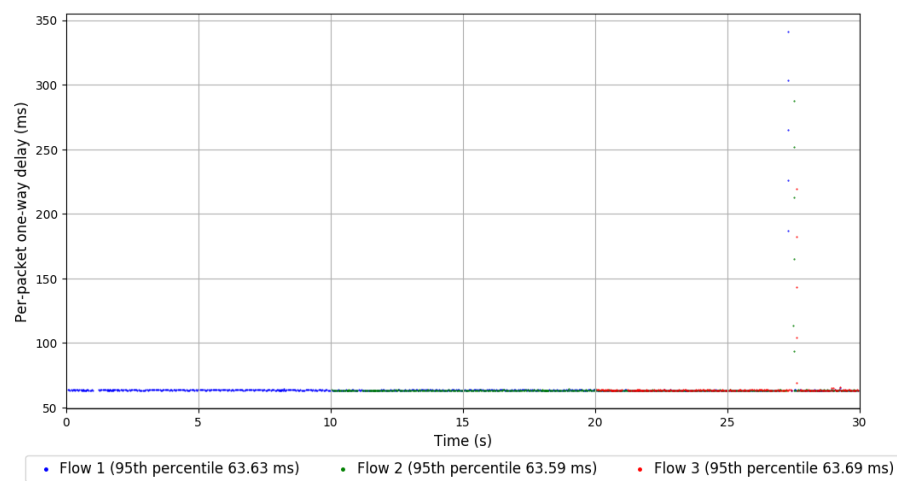
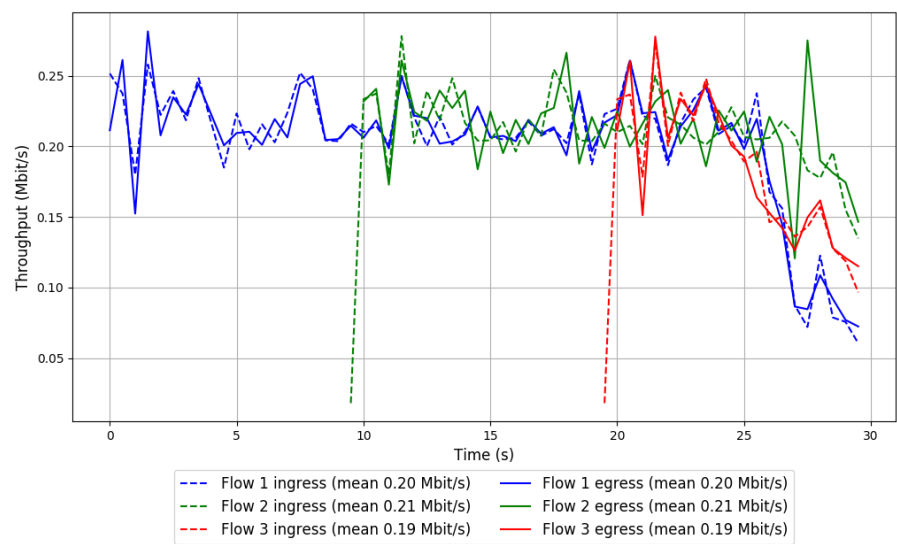


```
Run 2: Statistics of SCReAM

Start at: 2017-08-21 13:14:37
End at: 2017-08-21 13:15:07

# Below is generated by plot.py at 2017-08-21 15:59:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 63.630 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 63.635 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 63.587 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 63.692 ms
Loss rate: 1.20%
```

Run 2: Report of SCSReAM — Data Link

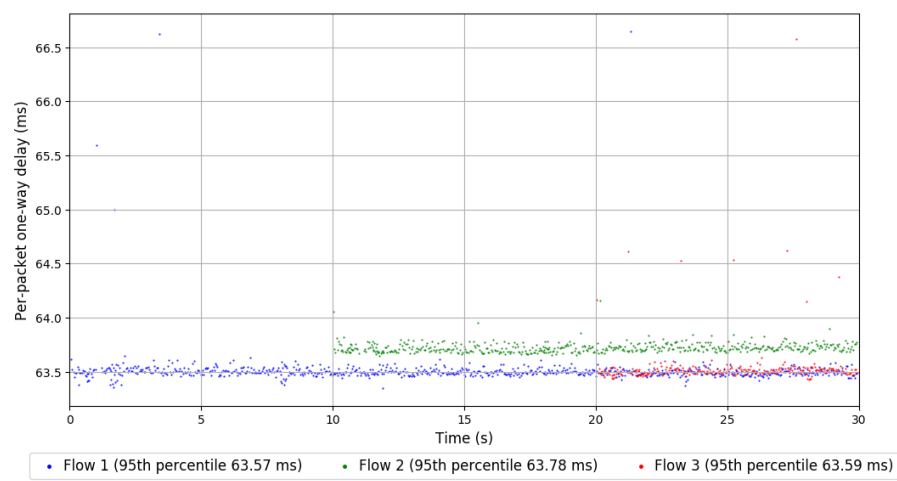
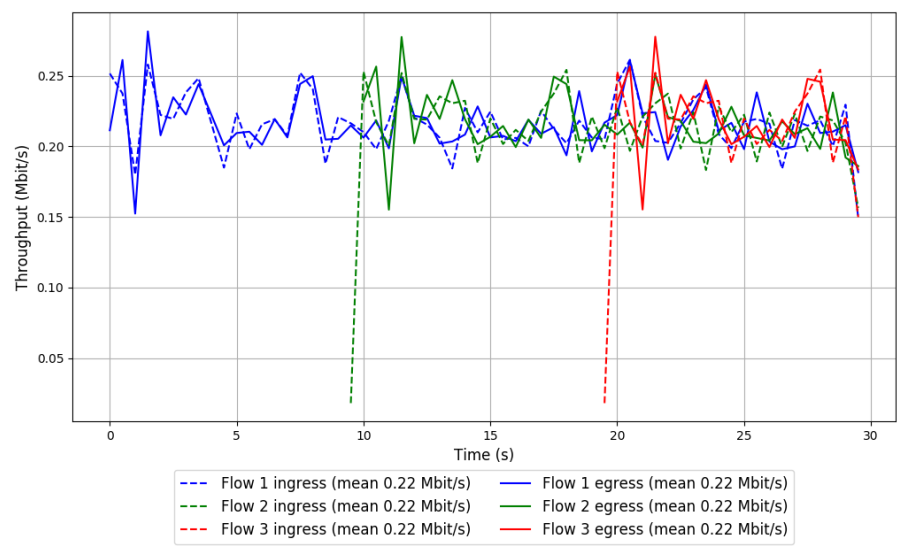


```
Run 3: Statistics of SReAM

Start at: 2017-08-21 13:25:28
End at: 2017-08-21 13:25:58

# Below is generated by plot.py at 2017-08-21 15:59:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 63.769 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.567 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.785 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.594 ms
Loss rate: 0.00%
```


Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2017-08-21 13:36:19

End at: 2017-08-21 13:36:49

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 63.882 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.955 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.564 ms

Loss rate: 0.00%

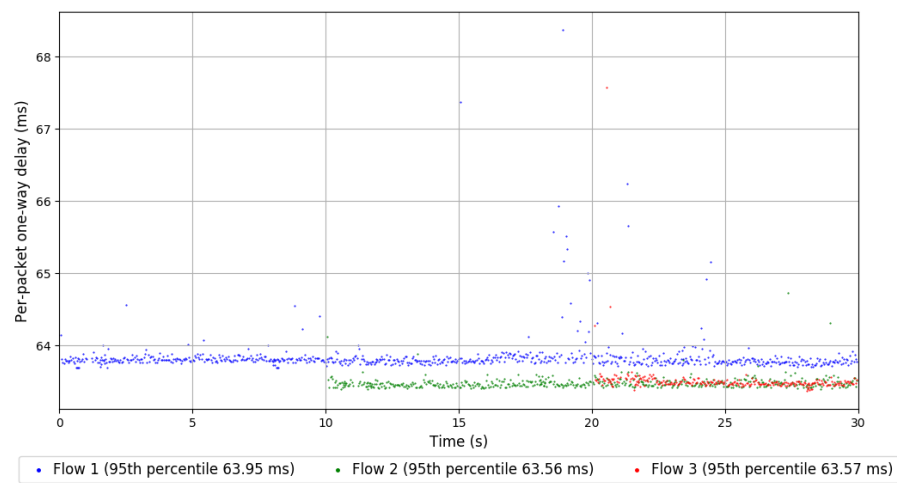
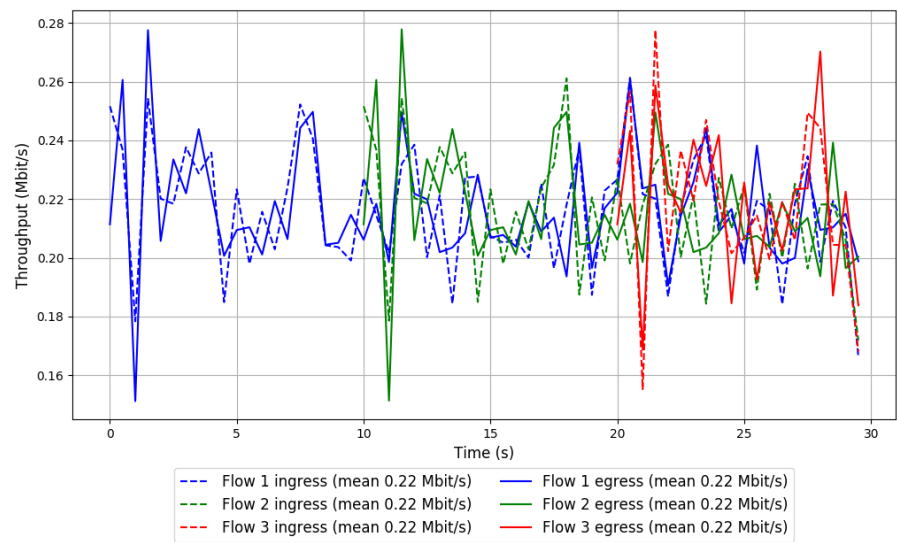
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.574 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-08-21 13:47:22

End at: 2017-08-21 13:47:52

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 63.752 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.397 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 63.784 ms

Loss rate: 0.00%

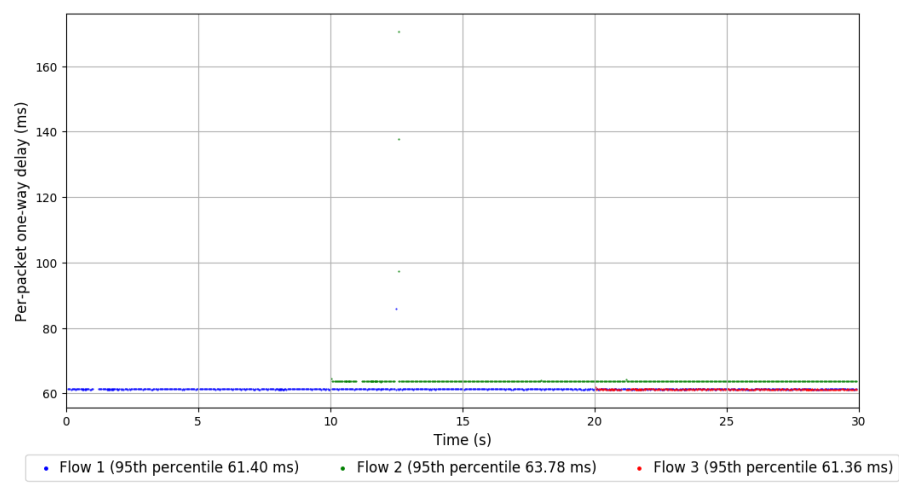
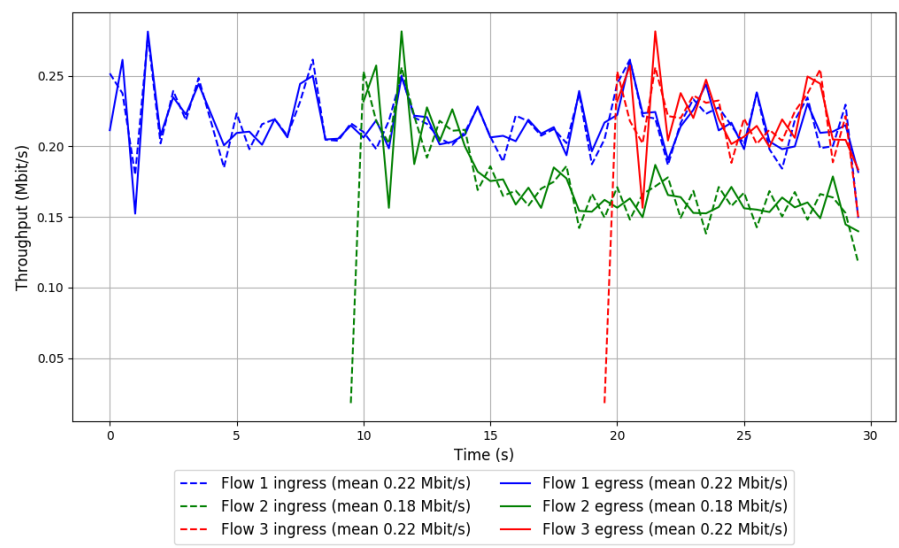
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.361 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-08-21 13:58:29

End at: 2017-08-21 13:58:59

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 63.801 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.803 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.818 ms

Loss rate: 0.00%

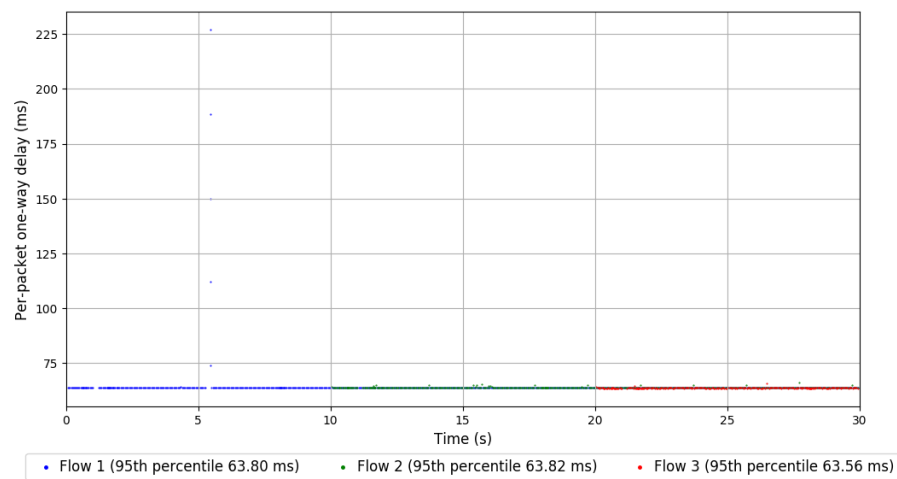
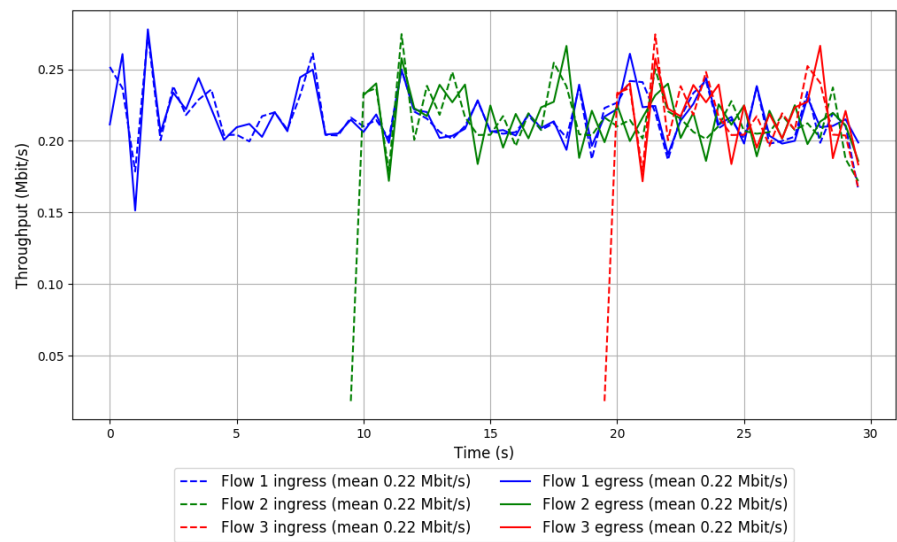
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.559 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2017-08-21 14:09:42

End at: 2017-08-21 14:10:12

Below is generated by plot.py at 2017-08-21 15:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 63.770 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.630 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.583 ms

Loss rate: 0.00%

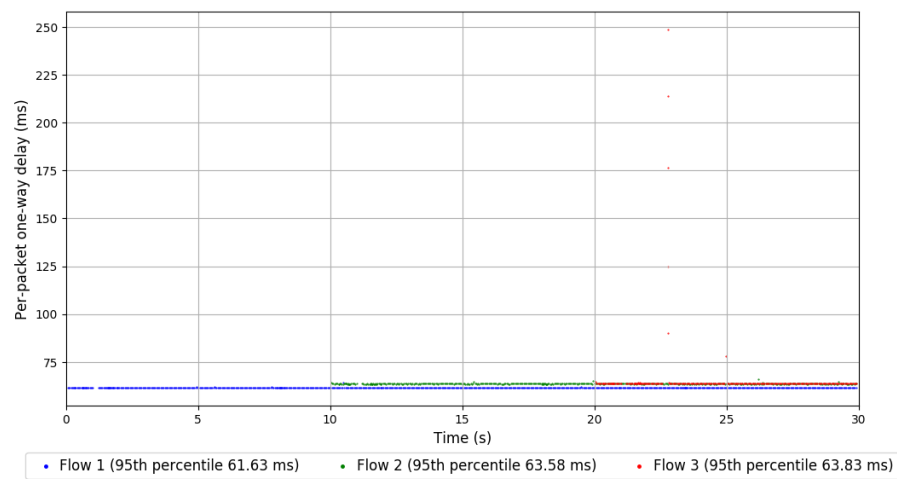
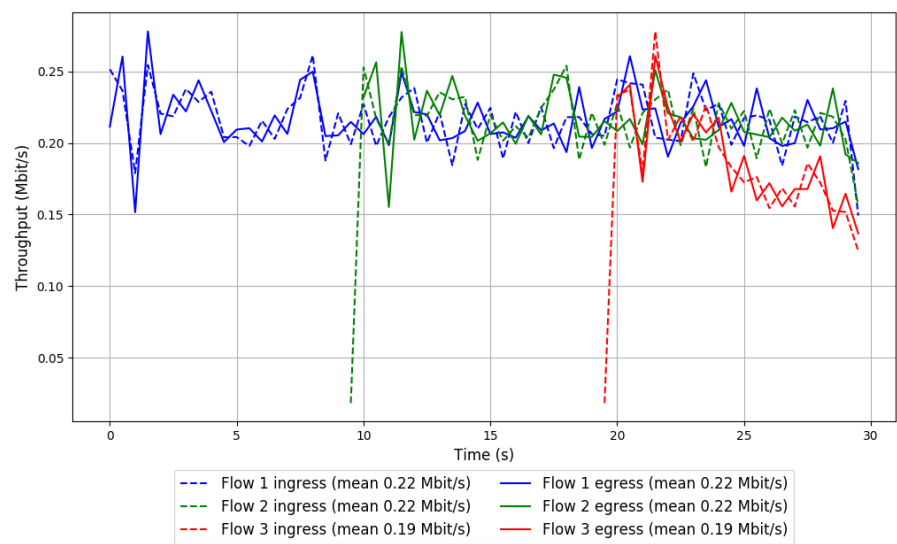
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 63.832 ms

Loss rate: 0.00%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-08-21 14:20:47

End at: 2017-08-21 14:21:17

Below is generated by plot.py at 2017-08-21 15:59:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 63.798 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 63.833 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.543 ms

Loss rate: 0.00%

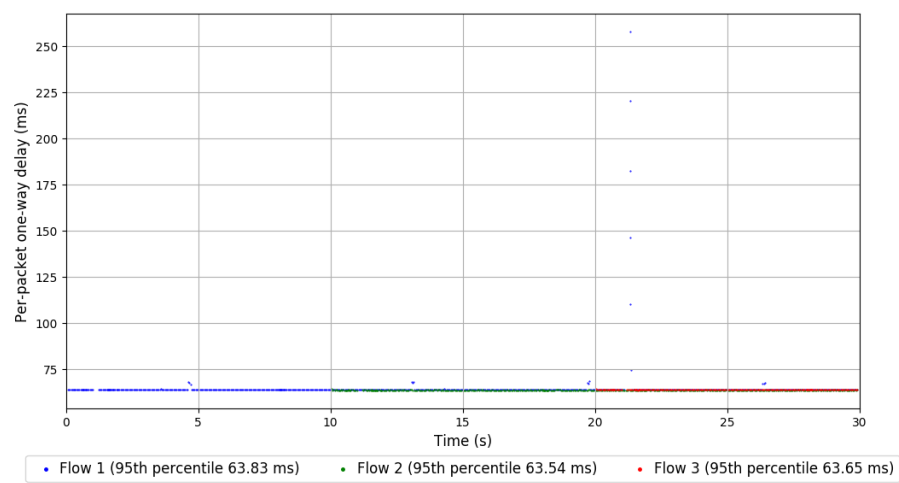
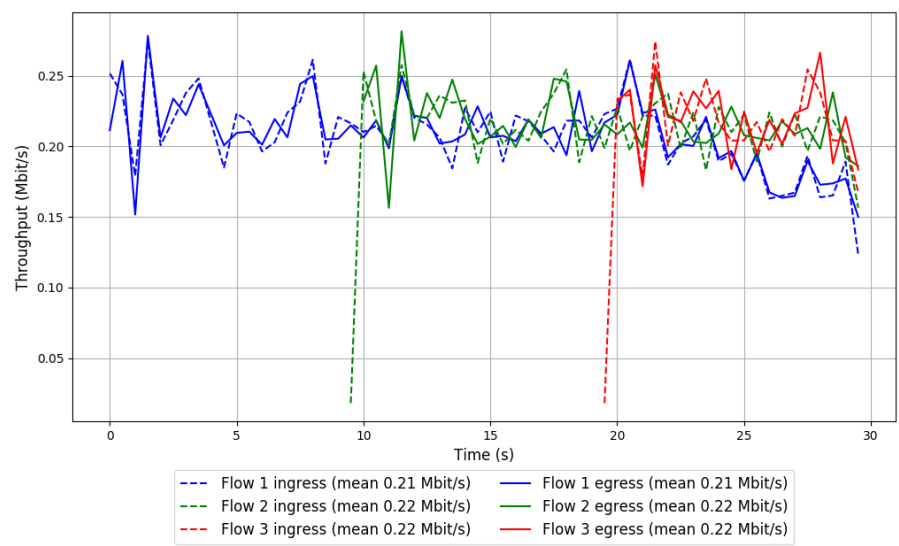
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.648 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link

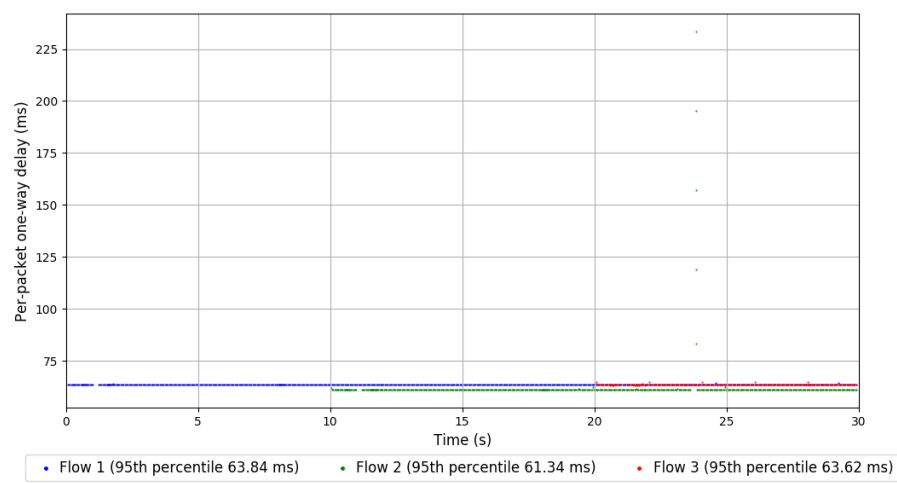
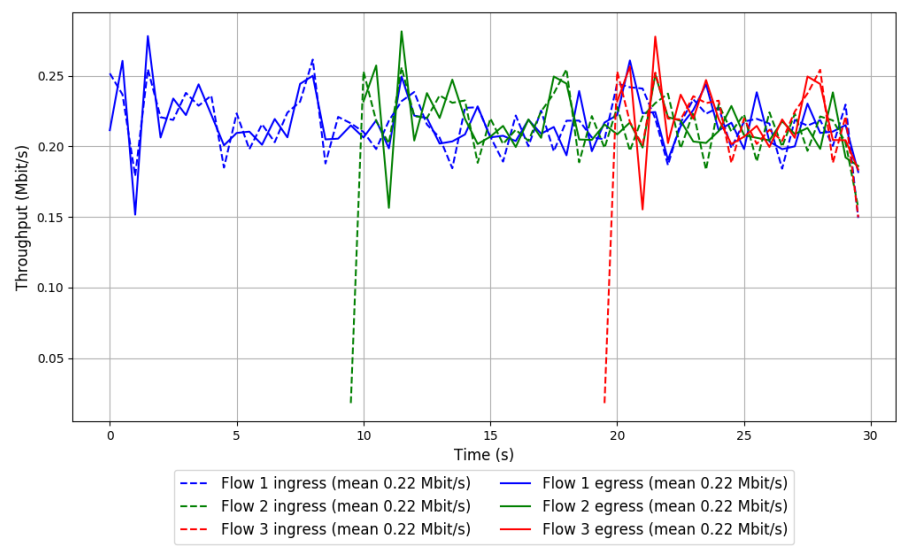


```
Run 9: Statistics of SReAM

Start at: 2017-08-21 14:31:40
End at: 2017-08-21 14:32:10

# Below is generated by plot.py at 2017-08-21 15:59:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 63.822 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.835 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.345 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.625 ms
Loss rate: 0.00%
```

Run 9: Report of SReAM — Data Link

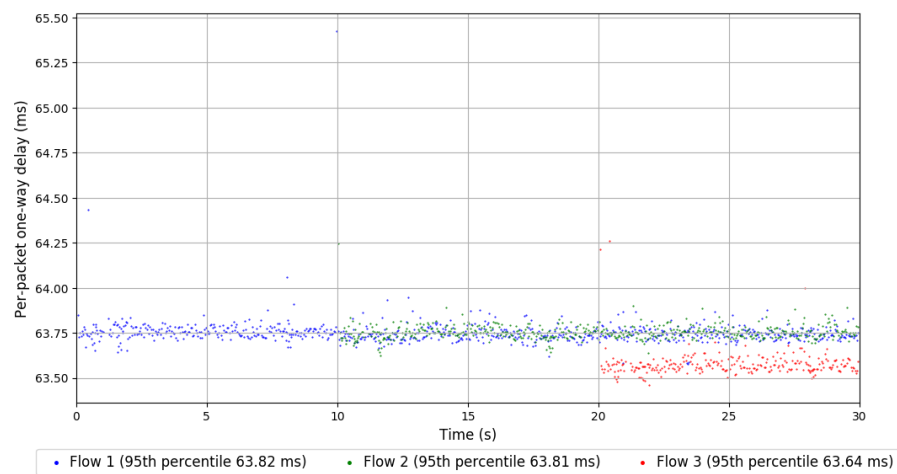
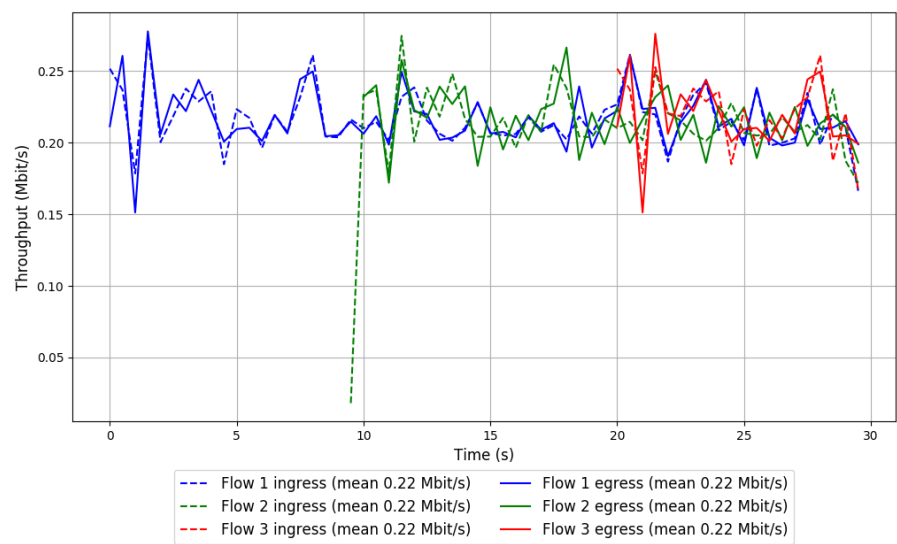


```
Run 10: Statistics of SReAM

Start at: 2017-08-21 14:42:52
End at: 2017-08-21 14:43:22

# Below is generated by plot.py at 2017-08-21 15:59:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 63.810 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.820 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.811 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.644 ms
Loss rate: 0.00%
```

Run 10: Report of SCReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2017-08-21 12:54:40

End at: 2017-08-21 12:55:10

Below is generated by plot.py at 2017-08-21 15:59:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.41 Mbit/s

95th percentile per-packet one-way delay: 63.968 ms

Loss rate: 17.78%

-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 64.008 ms

Loss rate: 18.37%

-- Flow 2:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 63.955 ms

Loss rate: 17.46%

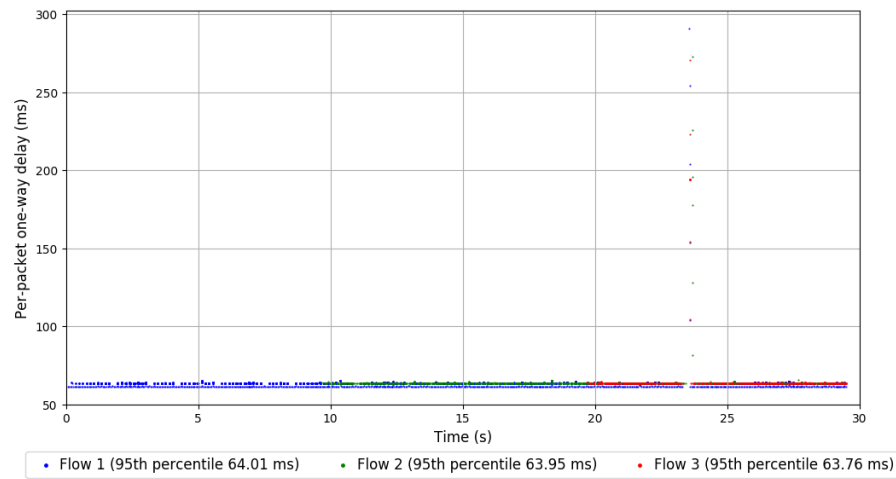
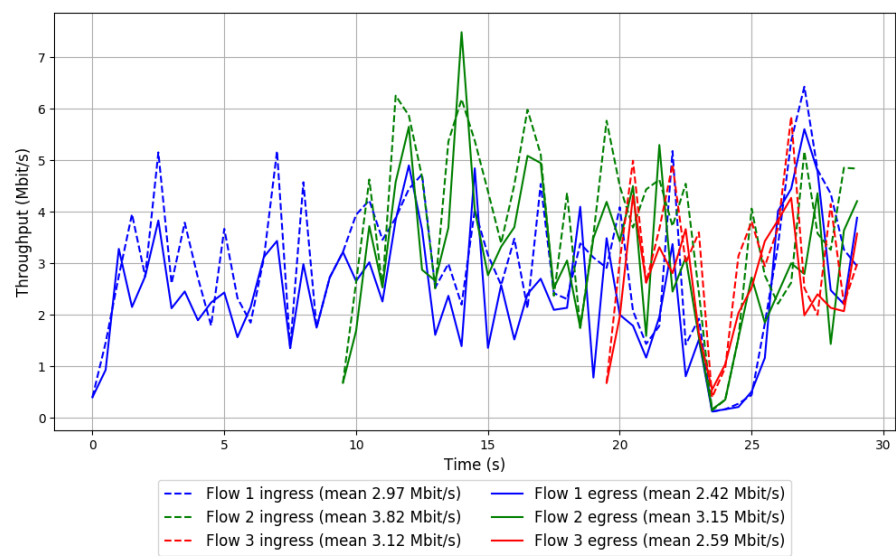
-- Flow 3:

Average throughput: 2.59 Mbit/s

95th percentile per-packet one-way delay: 63.762 ms

Loss rate: 16.89%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-08-21 13:05:44

End at: 2017-08-21 13:06:14

Below is generated by plot.py at 2017-08-21 15:59:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.62 Mbit/s

95th percentile per-packet one-way delay: 63.919 ms

Loss rate: 15.47%

-- Flow 1:

Average throughput: 3.22 Mbit/s

95th percentile per-packet one-way delay: 63.778 ms

Loss rate: 15.35%

-- Flow 2:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 63.943 ms

Loss rate: 17.19%

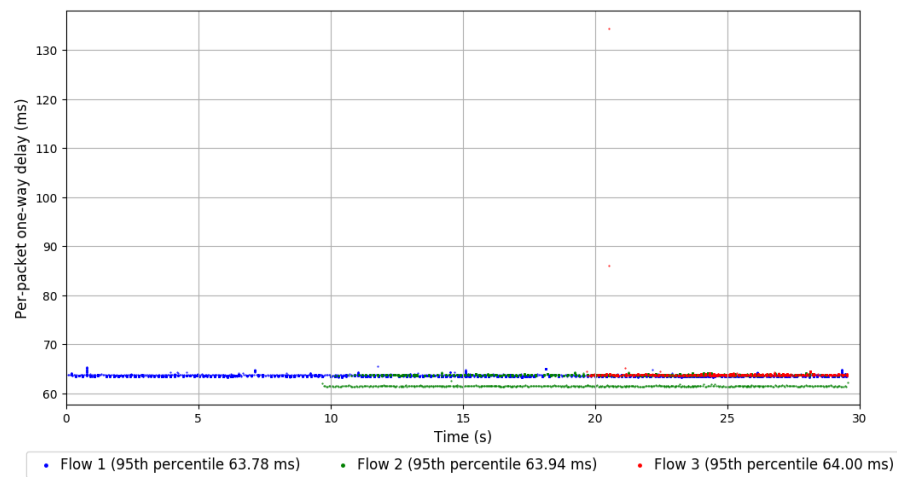
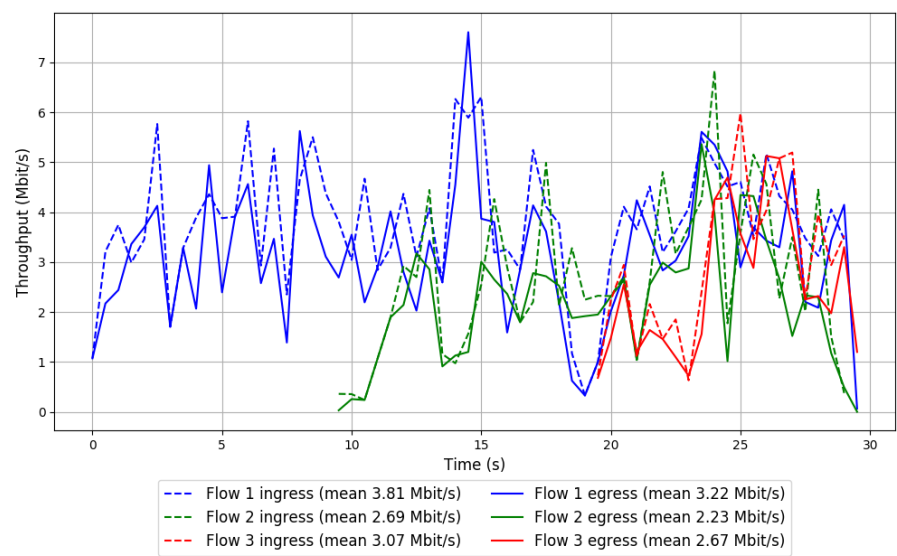
-- Flow 3:

Average throughput: 2.67 Mbit/s

95th percentile per-packet one-way delay: 63.996 ms

Loss rate: 12.91%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-21 13:16:41

End at: 2017-08-21 13:17:11

Below is generated by plot.py at 2017-08-21 15:59:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.65 Mbit/s

95th percentile per-packet one-way delay: 63.808 ms

Loss rate: 7.08%

-- Flow 1:

Average throughput: 6.22 Mbit/s

95th percentile per-packet one-way delay: 62.027 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 63.948 ms

Loss rate: 18.22%

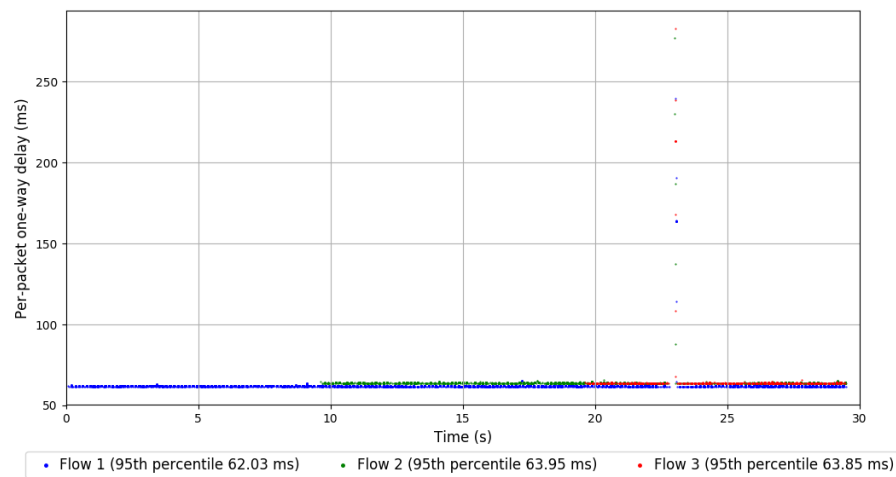
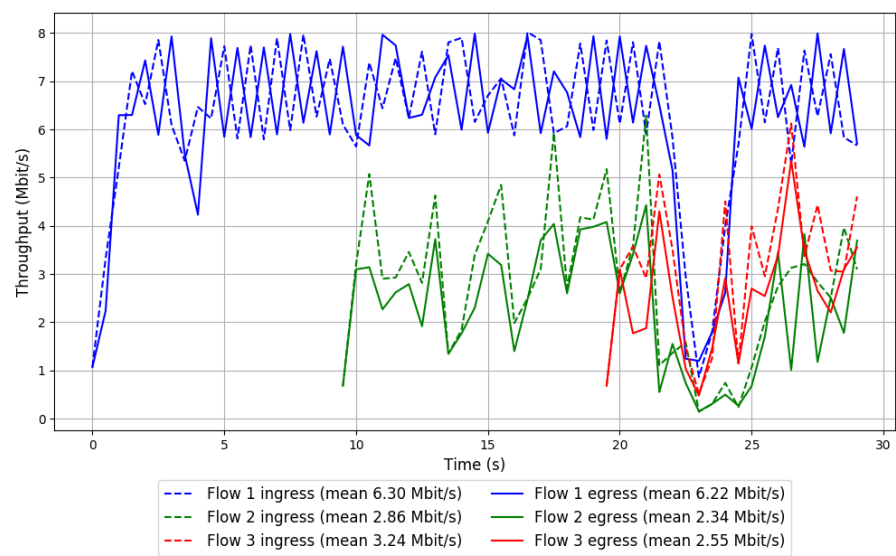
-- Flow 3:

Average throughput: 2.55 Mbit/s

95th percentile per-packet one-way delay: 63.851 ms

Loss rate: 21.11%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-21 13:27:32

End at: 2017-08-21 13:28:02

Below is generated by plot.py at 2017-08-21 15:59:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.75 Mbit/s

95th percentile per-packet one-way delay: 63.910 ms

Loss rate: 9.71%

-- Flow 1:

Average throughput: 2.74 Mbit/s

95th percentile per-packet one-way delay: 63.986 ms

Loss rate: 17.57%

-- Flow 2:

Average throughput: 5.95 Mbit/s

95th percentile per-packet one-way delay: 63.646 ms

Loss rate: 2.81%

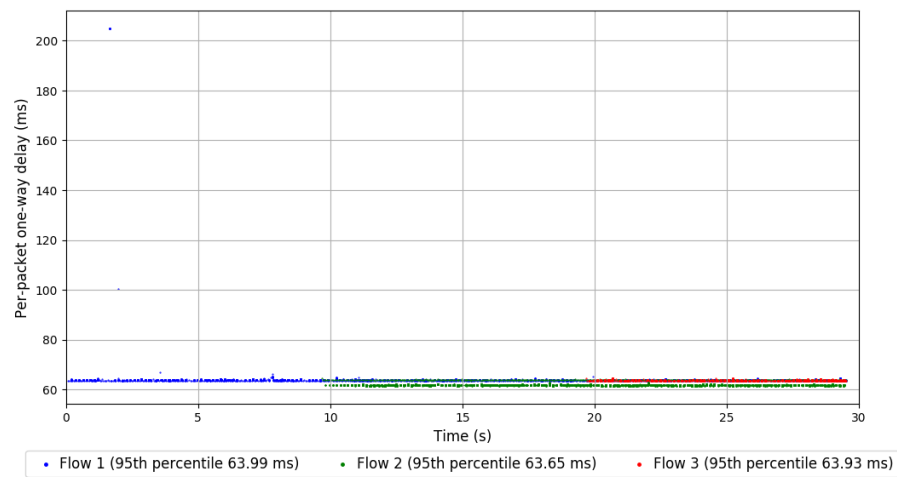
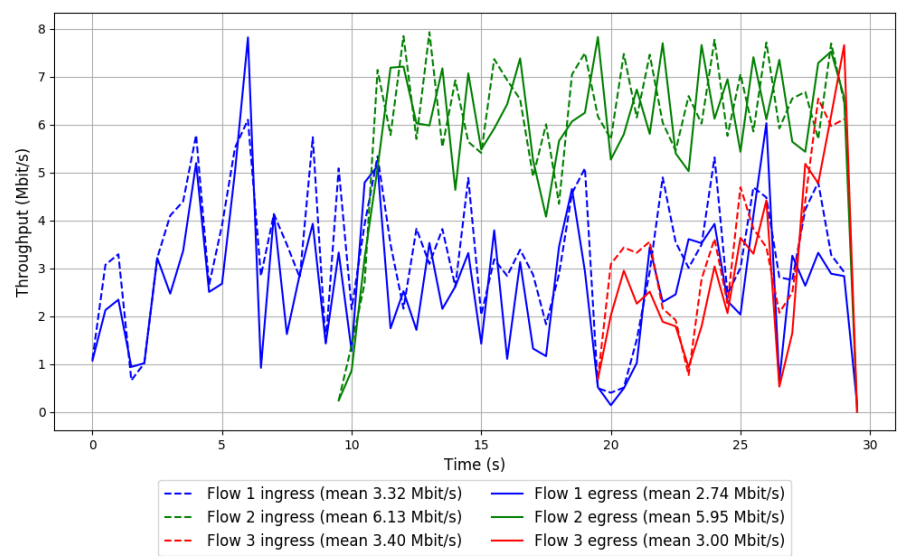
-- Flow 3:

Average throughput: 3.00 Mbit/s

95th percentile per-packet one-way delay: 63.928 ms

Loss rate: 11.77%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-21 13:38:24

End at: 2017-08-21 13:38:54

Below is generated by plot.py at 2017-08-21 15:59:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.18 Mbit/s

95th percentile per-packet one-way delay: 63.900 ms

Loss rate: 16.95%

-- Flow 1:

Average throughput: 3.20 Mbit/s

95th percentile per-packet one-way delay: 63.947 ms

Loss rate: 16.92%

-- Flow 2:

Average throughput: 2.96 Mbit/s

95th percentile per-packet one-way delay: 63.738 ms

Loss rate: 18.18%

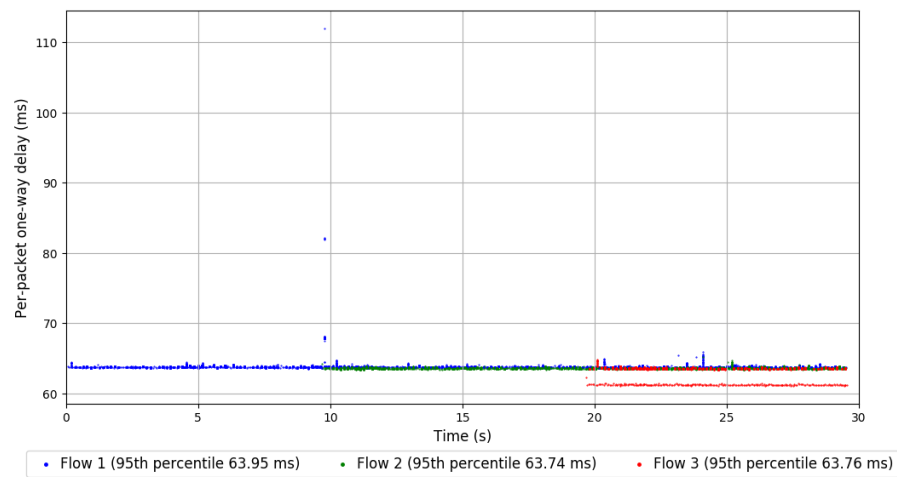
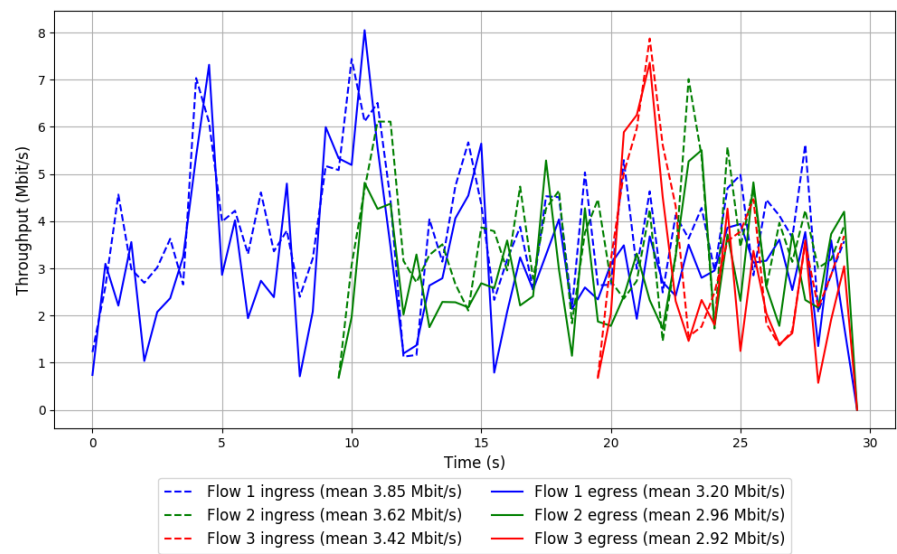
-- Flow 3:

Average throughput: 2.92 Mbit/s

95th percentile per-packet one-way delay: 63.760 ms

Loss rate: 14.42%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-08-21 13:49:28

End at: 2017-08-21 13:49:58

Below is generated by plot.py at 2017-08-21 15:59:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.08 Mbit/s

95th percentile per-packet one-way delay: 63.707 ms

Loss rate: 7.89%

-- Flow 1:

Average throughput: 3.29 Mbit/s

95th percentile per-packet one-way delay: 63.823 ms

Loss rate: 14.98%

-- Flow 2:

Average throughput: 5.83 Mbit/s

95th percentile per-packet one-way delay: 63.444 ms

Loss rate: 3.98%

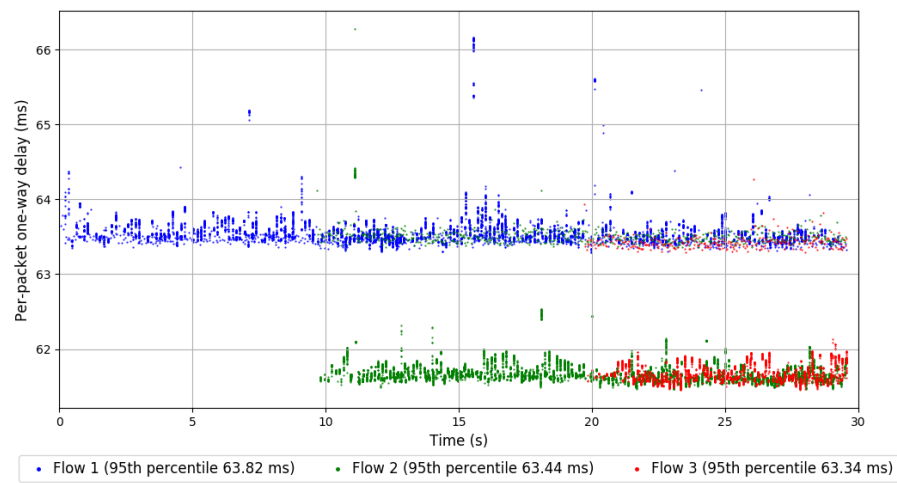
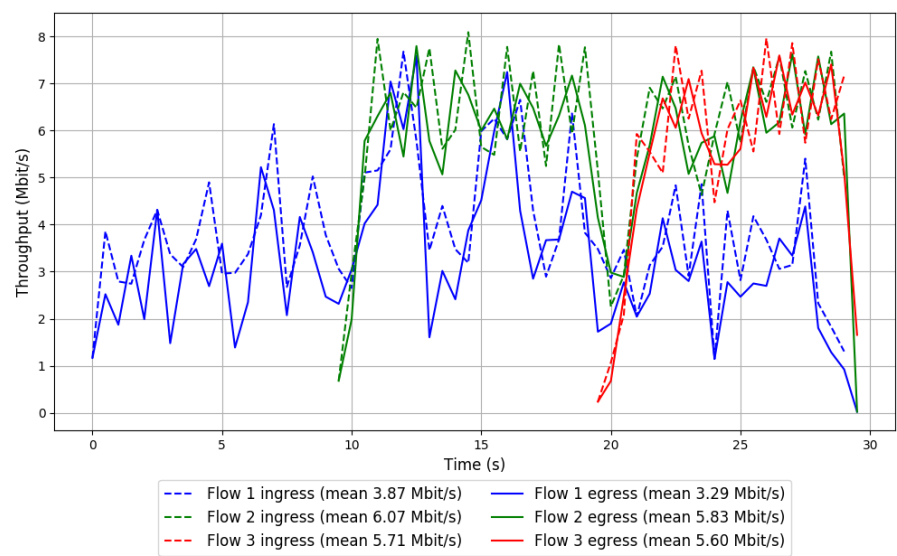
-- Flow 3:

Average throughput: 5.60 Mbit/s

95th percentile per-packet one-way delay: 63.342 ms

Loss rate: 1.88%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-21 14:00:35

End at: 2017-08-21 14:01:05

Below is generated by plot.py at 2017-08-21 15:59:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.38 Mbit/s

95th percentile per-packet one-way delay: 63.764 ms

Loss rate: 14.01%

-- Flow 1:

Average throughput: 2.68 Mbit/s

95th percentile per-packet one-way delay: 63.755 ms

Loss rate: 18.46%

-- Flow 2:

Average throughput: 2.83 Mbit/s

95th percentile per-packet one-way delay: 63.834 ms

Loss rate: 15.84%

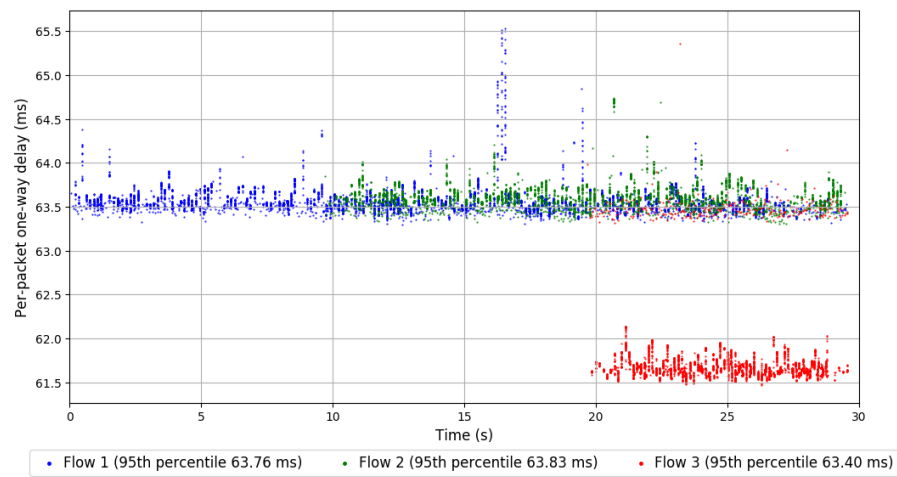
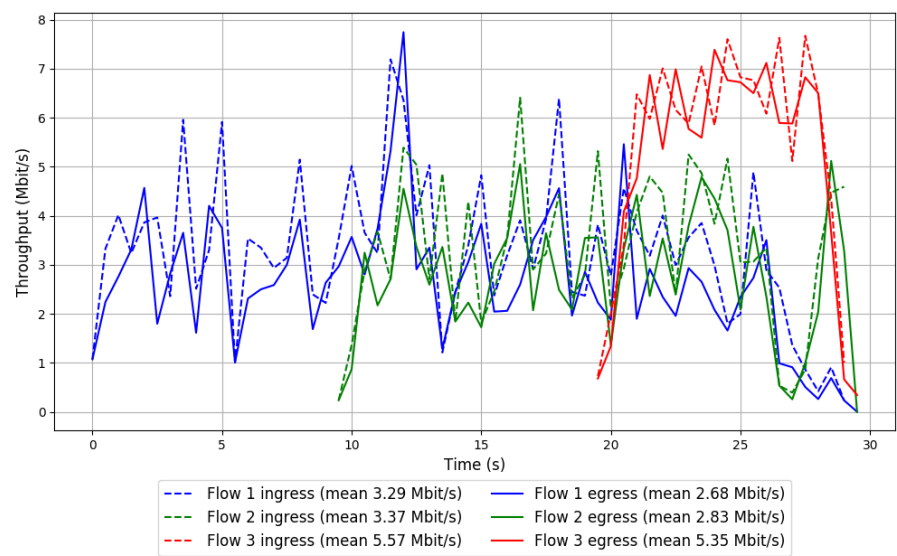
-- Flow 3:

Average throughput: 5.35 Mbit/s

95th percentile per-packet one-way delay: 63.396 ms

Loss rate: 3.94%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-21 14:11:48

End at: 2017-08-21 14:12:18

Below is generated by plot.py at 2017-08-21 15:59:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.09 Mbit/s

95th percentile per-packet one-way delay: 63.805 ms

Loss rate: 5.86%

-- Flow 1:

Average throughput: 2.92 Mbit/s

95th percentile per-packet one-way delay: 63.922 ms

Loss rate: 9.67%

-- Flow 2:

Average throughput: 6.47 Mbit/s

95th percentile per-packet one-way delay: 63.396 ms

Loss rate: 0.36%

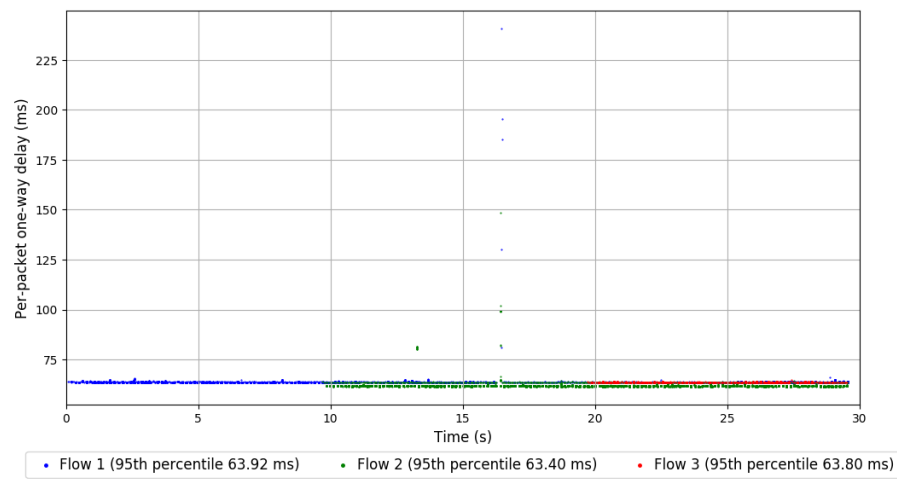
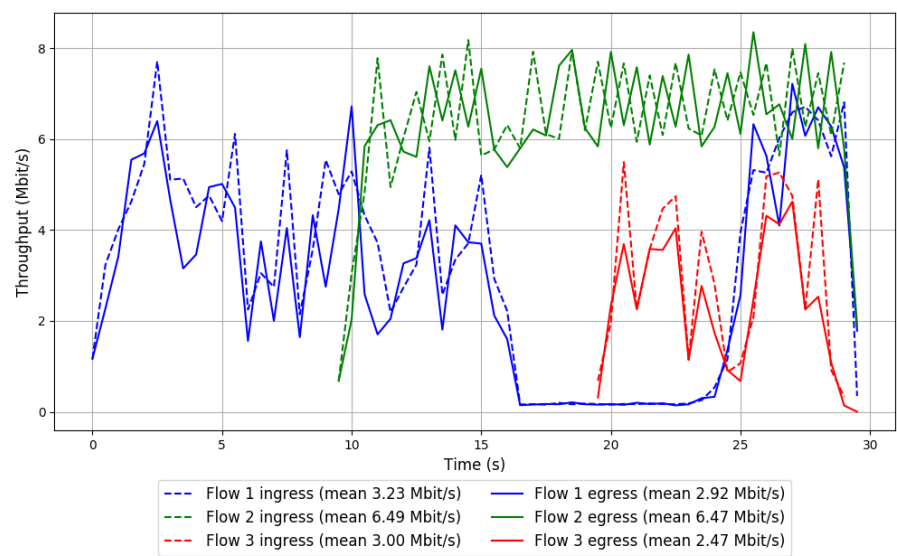
-- Flow 3:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 63.804 ms

Loss rate: 17.62%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-08-21 14:22:52

End at: 2017-08-21 14:23:22

Below is generated by plot.py at 2017-08-21 15:59:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.89 Mbit/s

95th percentile per-packet one-way delay: 63.703 ms

Loss rate: 5.64%

-- Flow 1:

Average throughput: 6.47 Mbit/s

95th percentile per-packet one-way delay: 62.085 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 63.868 ms

Loss rate: 18.20%

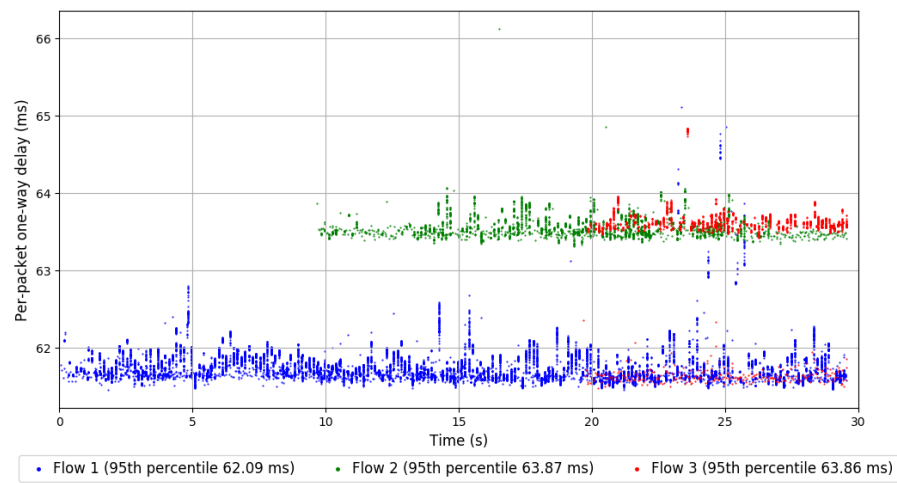
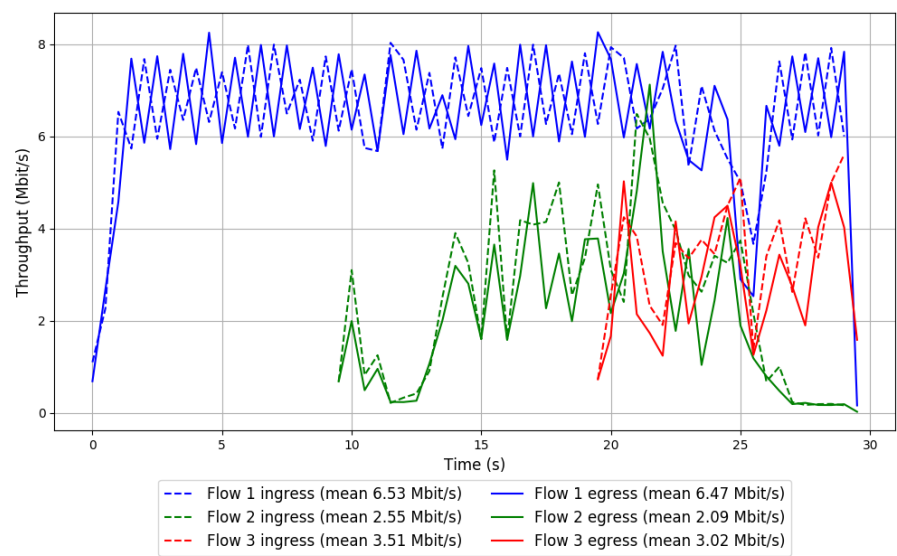
-- Flow 3:

Average throughput: 3.02 Mbit/s

95th percentile per-packet one-way delay: 63.860 ms

Loss rate: 13.74%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-21 14:33:48

End at: 2017-08-21 14:34:18

Below is generated by plot.py at 2017-08-21 15:59:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.85 Mbit/s

95th percentile per-packet one-way delay: 63.812 ms

Loss rate: 4.72%

-- Flow 1:

Average throughput: 6.11 Mbit/s

95th percentile per-packet one-way delay: 62.075 ms

Loss rate: 1.36%

-- Flow 2:

Average throughput: 2.64 Mbit/s

95th percentile per-packet one-way delay: 63.932 ms

Loss rate: 18.49%

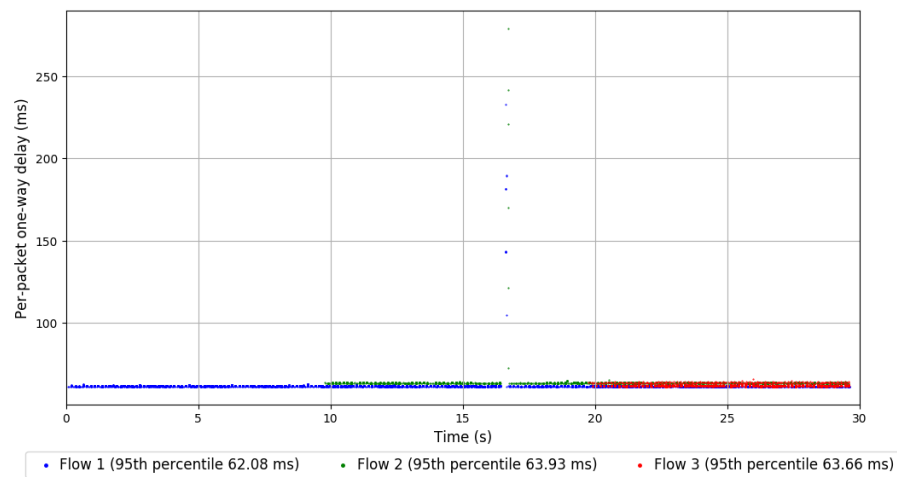
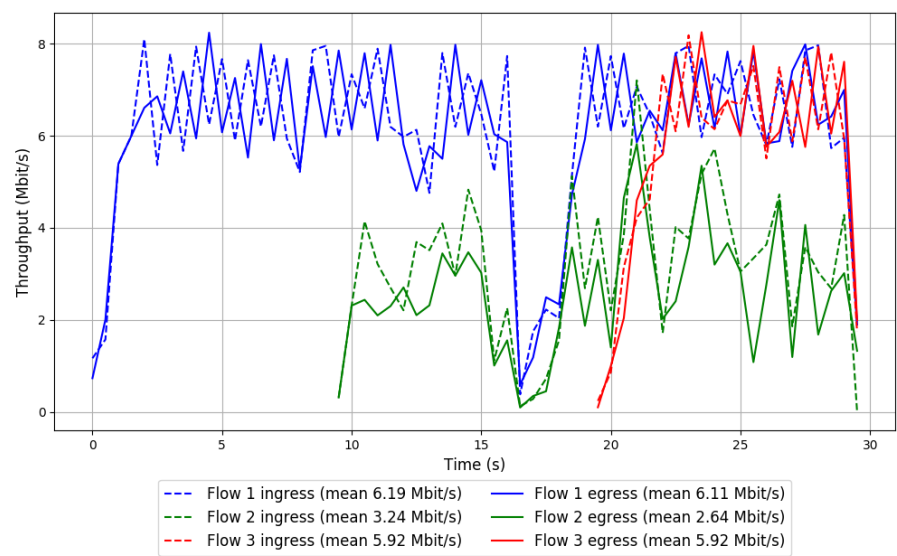
-- Flow 3:

Average throughput: 5.92 Mbit/s

95th percentile per-packet one-way delay: 63.656 ms

Loss rate: 0.08%

Run 10: Report of Sprout — Data Link

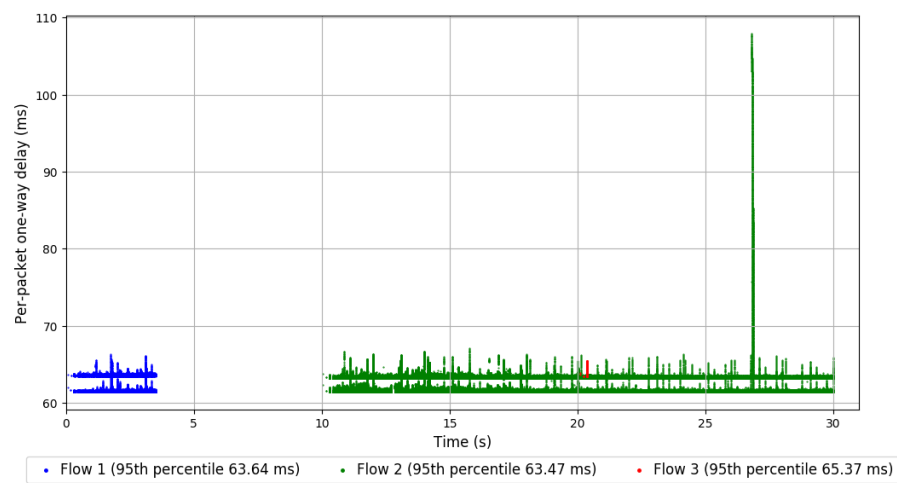
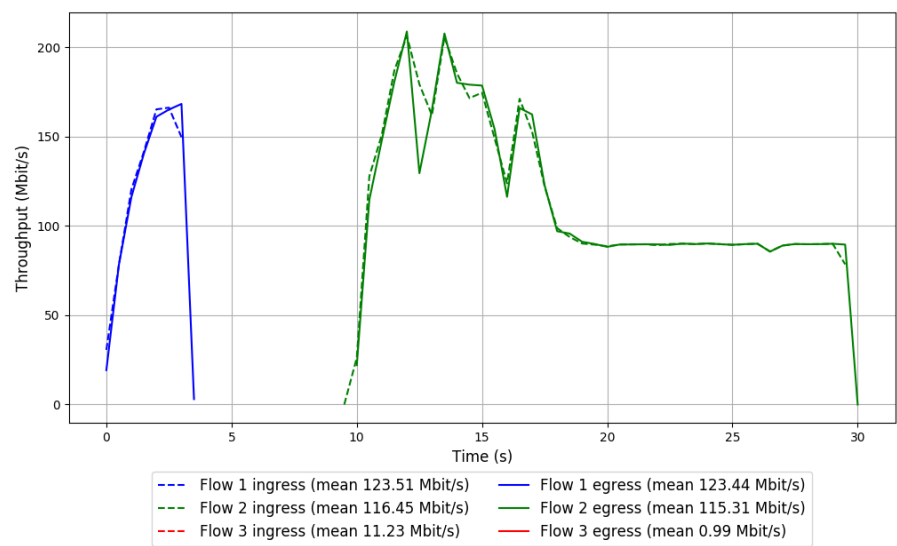


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-08-21 13:01:22
End at: 2017-08-21 13:01:52

# Below is generated by plot.py at 2017-08-21 15:59:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.07 Mbit/s
95th percentile per-packet one-way delay: 63.577 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 123.44 Mbit/s
95th percentile per-packet one-way delay: 63.638 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 115.31 Mbit/s
95th percentile per-packet one-way delay: 63.470 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 65.371 ms
Loss rate: 91.17%
```

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

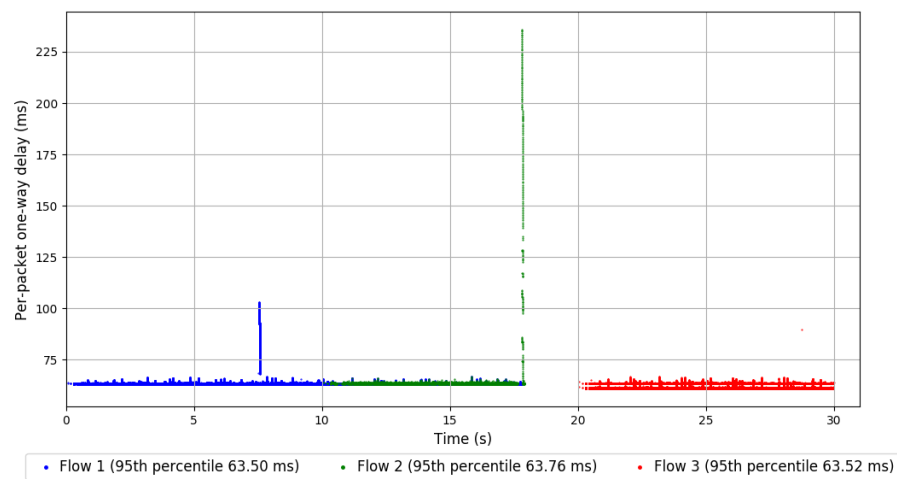
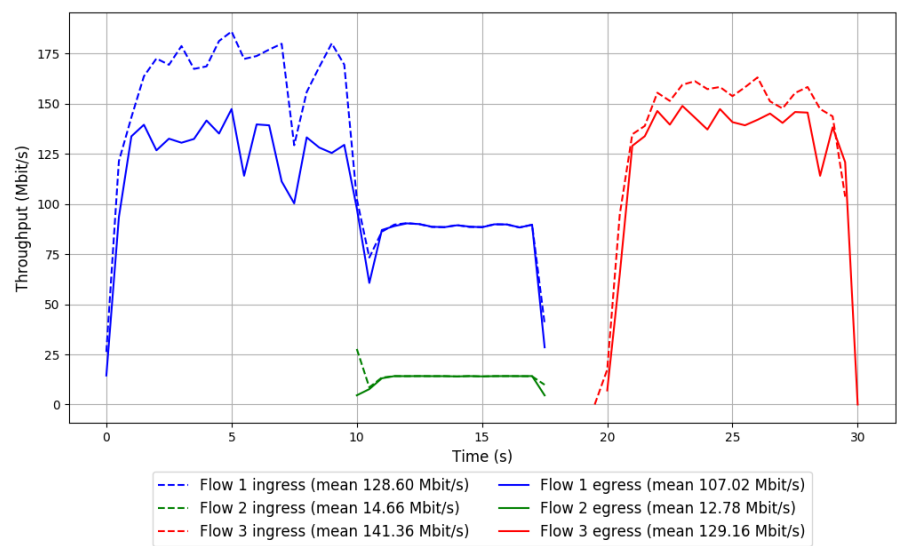


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-08-21 13:12:16
End at: 2017-08-21 13:12:46

# Below is generated by plot.py at 2017-08-21 15:59:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.61 Mbit/s
95th percentile per-packet one-way delay: 63.523 ms
Loss rate: 13.64%
-- Flow 1:
Average throughput: 107.02 Mbit/s
95th percentile per-packet one-way delay: 63.503 ms
Loss rate: 16.78%
-- Flow 2:
Average throughput: 12.78 Mbit/s
95th percentile per-packet one-way delay: 63.757 ms
Loss rate: 12.85%
-- Flow 3:
Average throughput: 129.16 Mbit/s
95th percentile per-packet one-way delay: 63.524 ms
Loss rate: 8.61%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-08-21 13:23:04

End at: 2017-08-21 13:23:34

Below is generated by plot.py at 2017-08-21 16:00:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.60 Mbit/s

95th percentile per-packet one-way delay: 63.668 ms

Loss rate: 22.18%

-- Flow 1:

Average throughput: 108.34 Mbit/s

95th percentile per-packet one-way delay: 63.674 ms

Loss rate: 22.31%

-- Flow 2:

Average throughput: 4.90 Mbit/s

95th percentile per-packet one-way delay: 63.510 ms

Loss rate: 15.85%

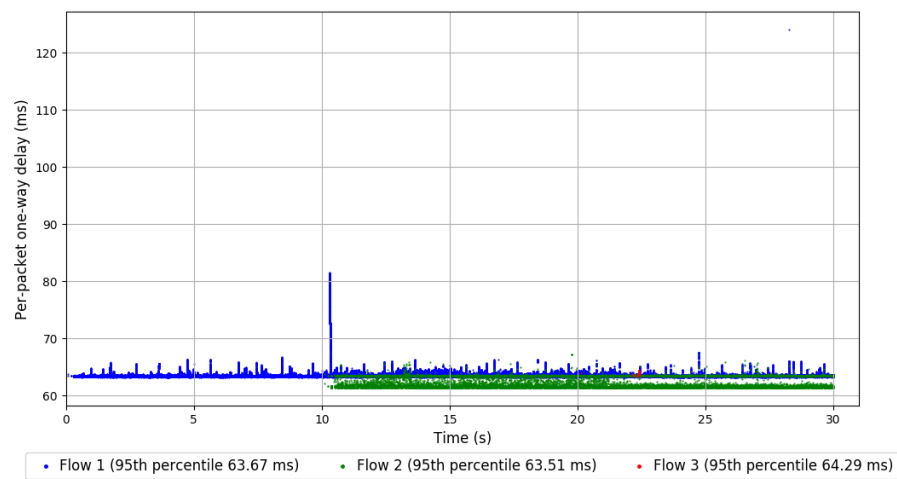
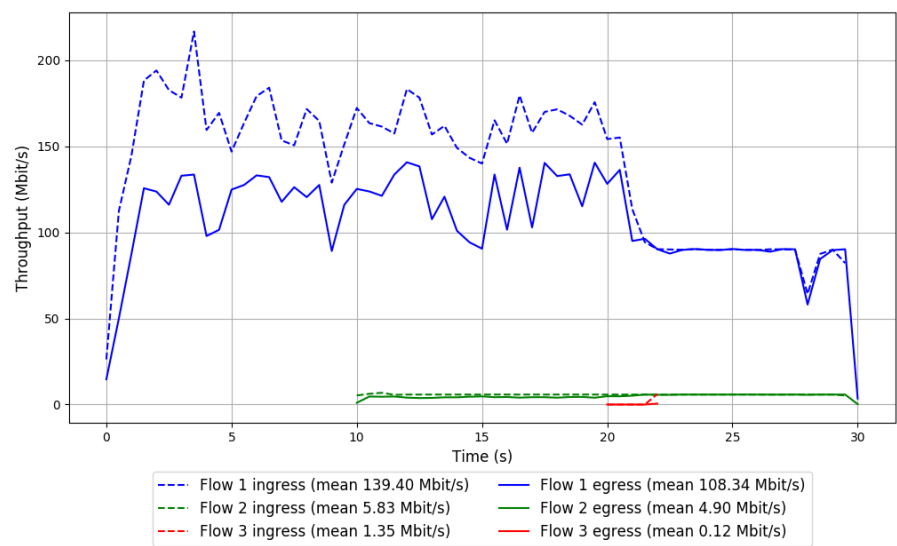
-- Flow 3:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 64.288 ms

Loss rate: 91.17%

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

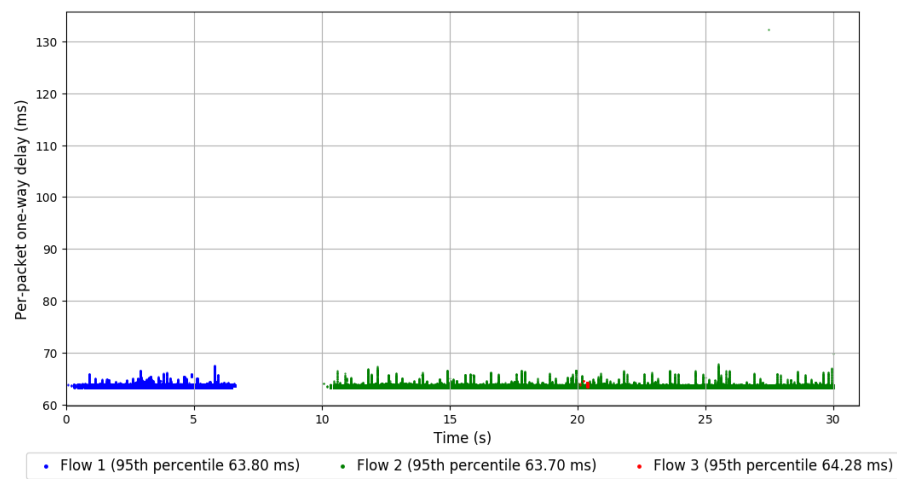
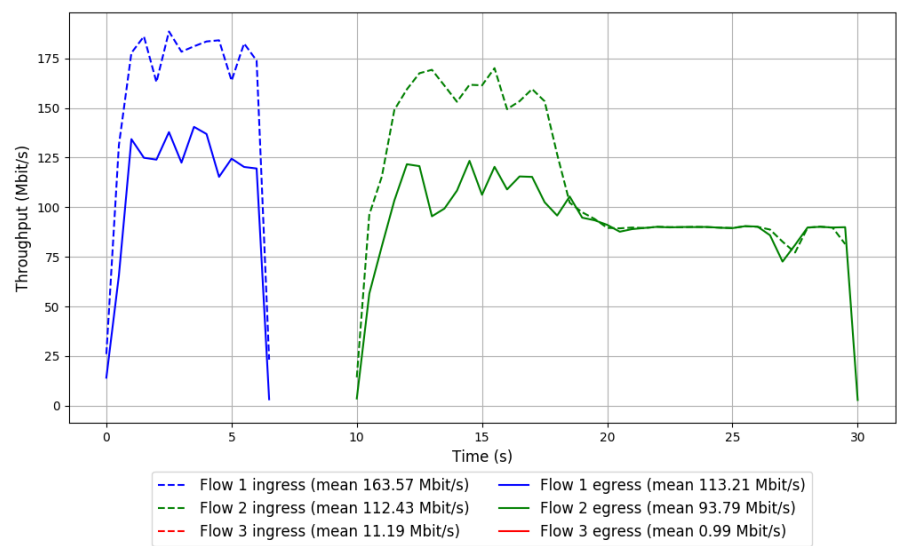


```
Run 4: Statistics of TaoVA-100x

Start at: 2017-08-21 13:33:58
End at: 2017-08-21 13:34:28

# Below is generated by plot.py at 2017-08-21 16:00:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.19 Mbit/s
95th percentile per-packet one-way delay: 63.731 ms
Loss rate: 21.24%
-- Flow 1:
Average throughput: 113.21 Mbit/s
95th percentile per-packet one-way delay: 63.798 ms
Loss rate: 30.79%
-- Flow 2:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 63.702 ms
Loss rate: 16.57%
-- Flow 3:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 64.282 ms
Loss rate: 91.17%
```

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

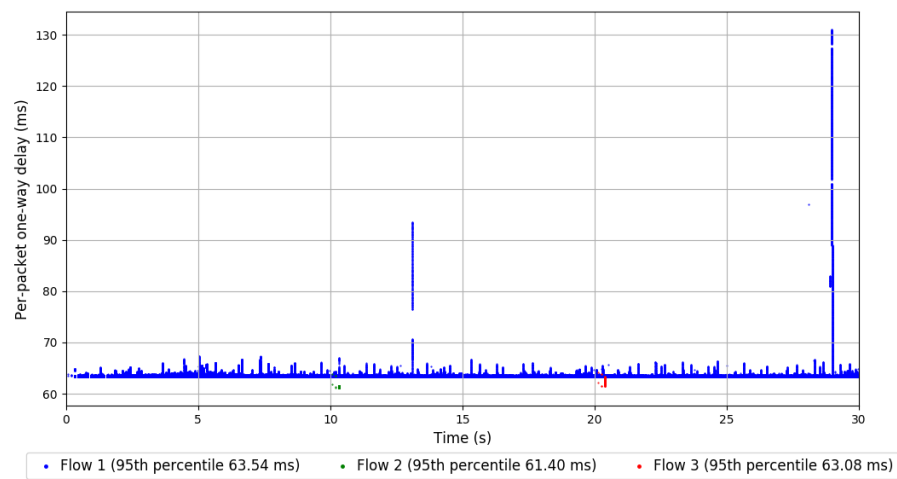
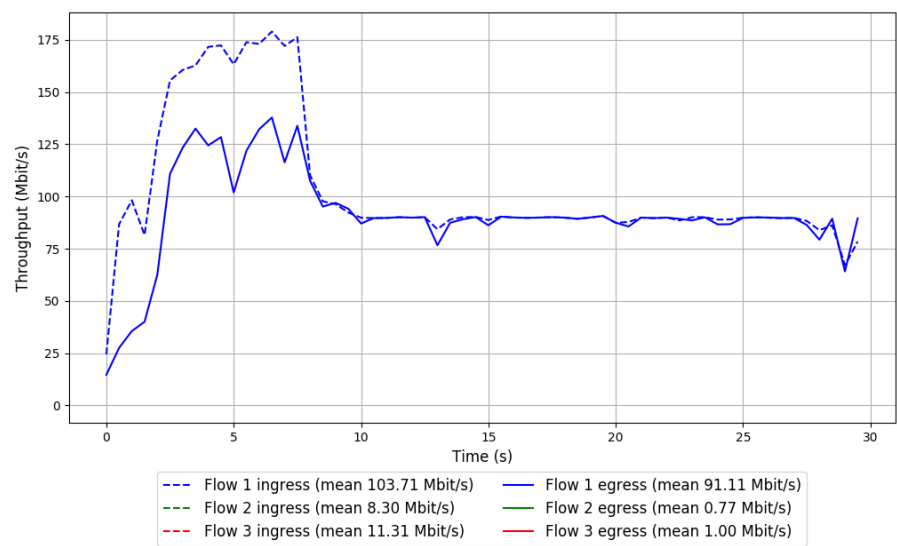


```
Run 5: Statistics of TaoVA-100x

Start at: 2017-08-21 13:44:55
End at: 2017-08-21 13:45:25

# Below is generated by plot.py at 2017-08-21 16:00:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.12 Mbit/s
95th percentile per-packet one-way delay: 63.544 ms
Loss rate: 12.29%
-- Flow 1:
Average throughput: 91.11 Mbit/s
95th percentile per-packet one-way delay: 63.544 ms
Loss rate: 12.16%
-- Flow 2:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 61.396 ms
Loss rate: 90.69%
-- Flow 3:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 63.077 ms
Loss rate: 91.17%
```

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

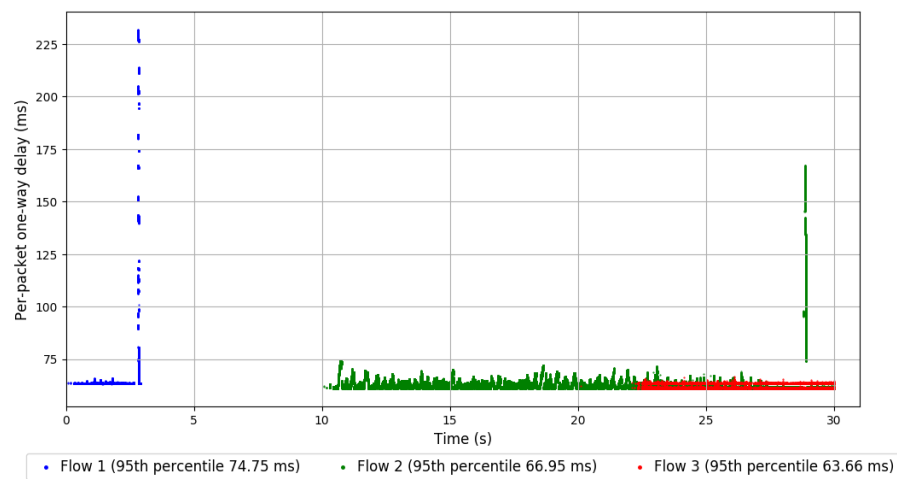
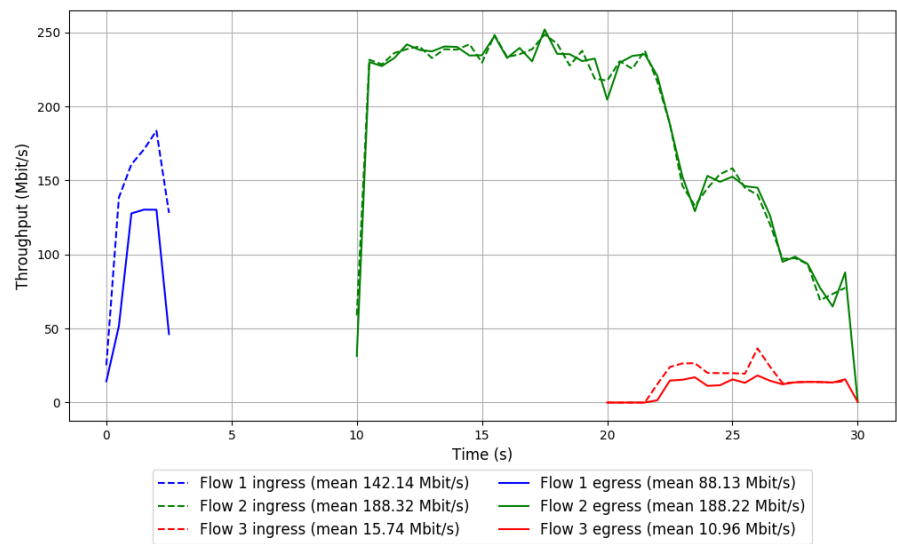


```
Run 6: Statistics of TaoVA-100x

Start at: 2017-08-21 13:56:02
End at: 2017-08-21 13:56:32

# Below is generated by plot.py at 2017-08-21 16:01:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.34 Mbit/s
95th percentile per-packet one-way delay: 66.888 ms
Loss rate: 4.69%
-- Flow 1:
Average throughput: 88.13 Mbit/s
95th percentile per-packet one-way delay: 74.748 ms
Loss rate: 38.00%
-- Flow 2:
Average throughput: 188.22 Mbit/s
95th percentile per-packet one-way delay: 66.951 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 10.96 Mbit/s
95th percentile per-packet one-way delay: 63.661 ms
Loss rate: 30.39%
```

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

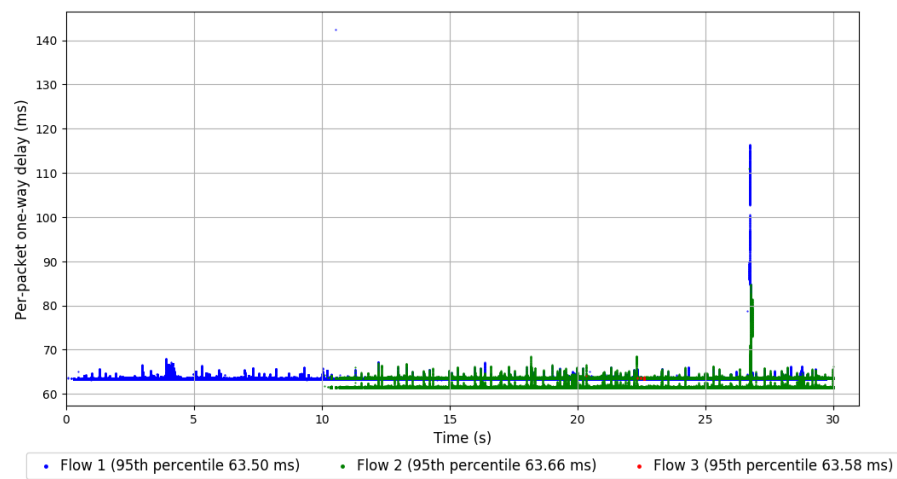
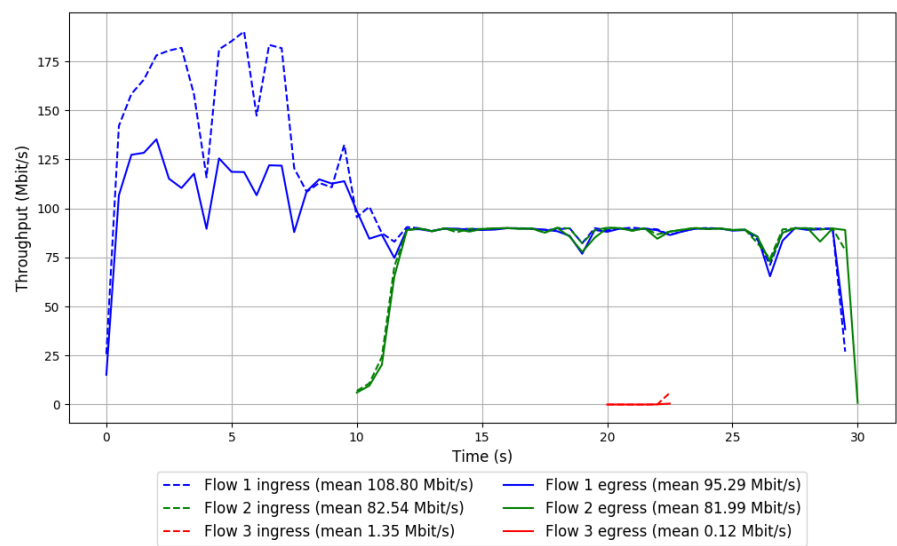


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-08-21 14:07:15
End at: 2017-08-21 14:07:45

# Below is generated by plot.py at 2017-08-21 16:01:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 148.86 Mbit/s
95th percentile per-packet one-way delay: 63.636 ms
Loss rate: 8.49%
-- Flow 1:
Average throughput: 95.29 Mbit/s
95th percentile per-packet one-way delay: 63.500 ms
Loss rate: 12.42%
-- Flow 2:
Average throughput: 81.99 Mbit/s
95th percentile per-packet one-way delay: 63.660 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 63.577 ms
Loss rate: 91.17%
```


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

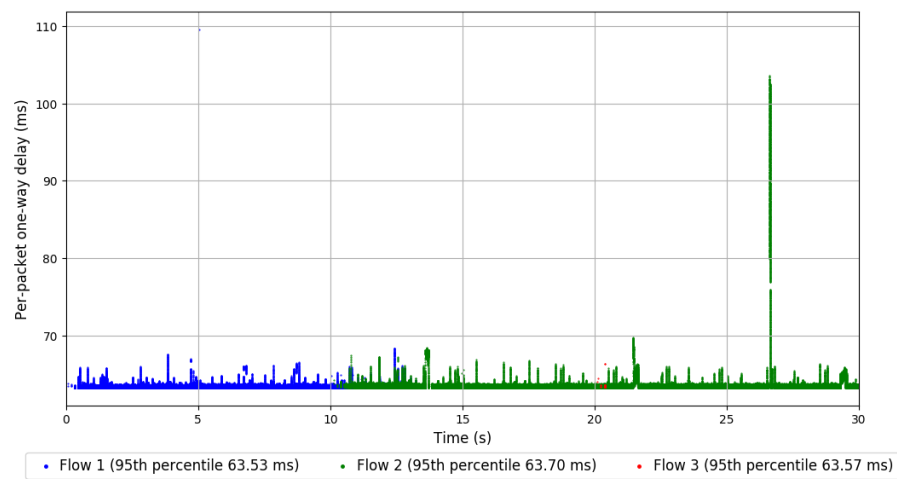
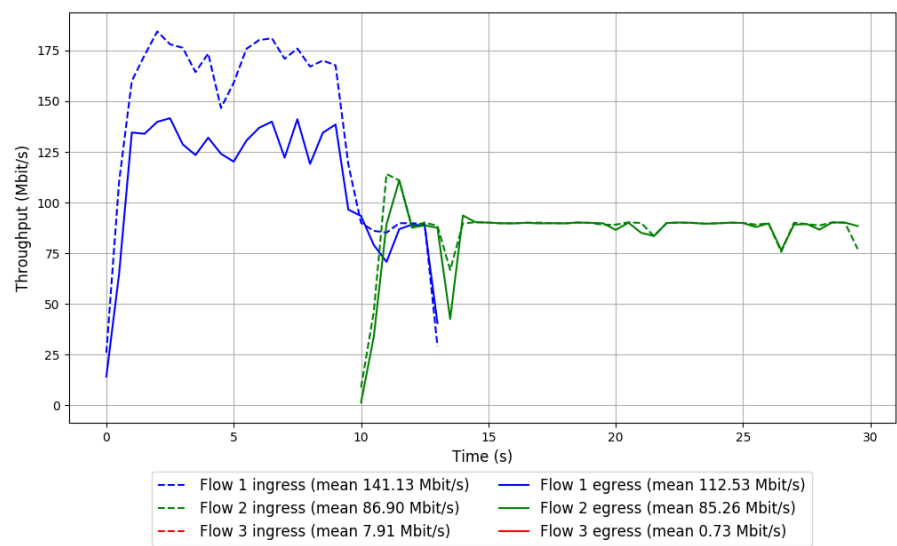


```
Run 8: Statistics of TaoVA-100x

Start at: 2017-08-21 14:18:22
End at: 2017-08-21 14:18:52

# Below is generated by plot.py at 2017-08-21 16:01:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.13 Mbit/s
95th percentile per-packet one-way delay: 63.658 ms
Loss rate: 11.48%
-- Flow 1:
Average throughput: 112.53 Mbit/s
95th percentile per-packet one-way delay: 63.533 ms
Loss rate: 20.26%
-- Flow 2:
Average throughput: 85.26 Mbit/s
95th percentile per-packet one-way delay: 63.703 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 63.567 ms
Loss rate: 90.64%
```

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

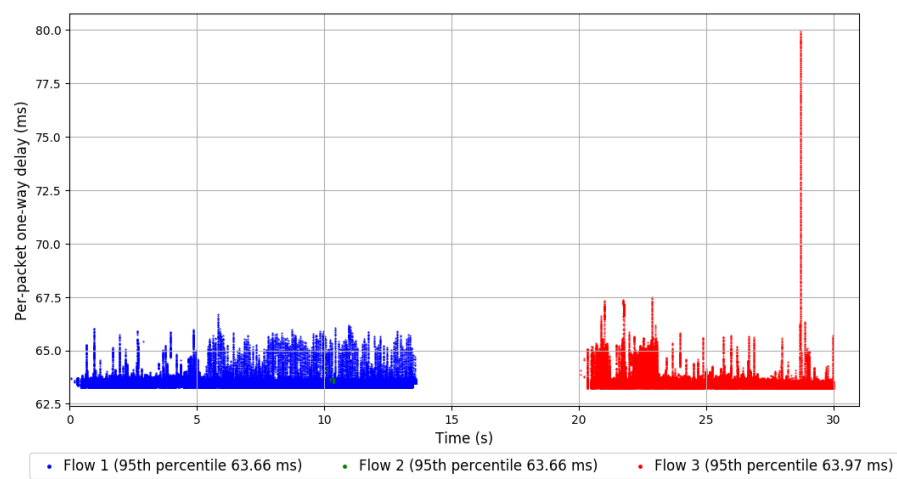
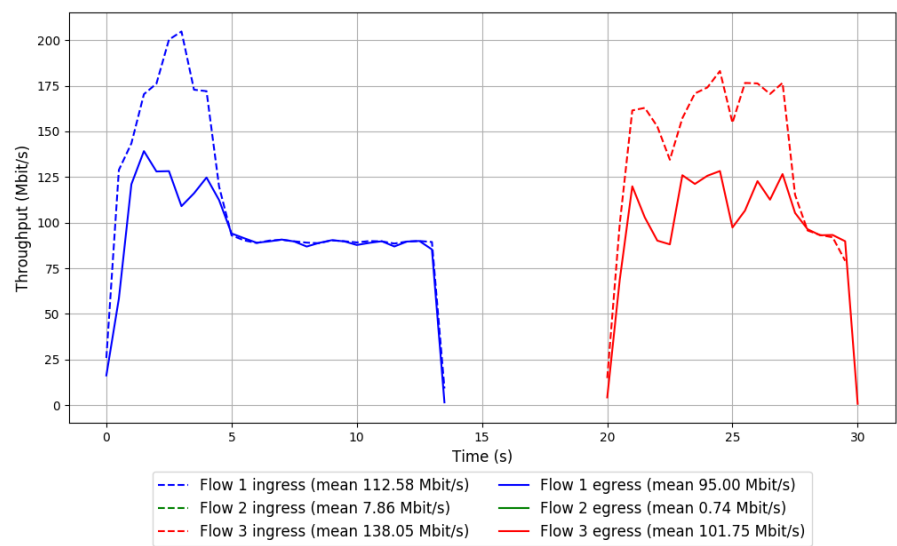


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-08-21 14:29:21
End at: 2017-08-21 14:29:51

# Below is generated by plot.py at 2017-08-21 16:02:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.74 Mbit/s
95th percentile per-packet one-way delay: 63.754 ms
Loss rate: 20.72%
-- Flow 1:
Average throughput: 95.00 Mbit/s
95th percentile per-packet one-way delay: 63.661 ms
Loss rate: 15.62%
-- Flow 2:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 63.663 ms
Loss rate: 90.64%
-- Flow 3:
Average throughput: 101.75 Mbit/s
95th percentile per-packet one-way delay: 63.970 ms
Loss rate: 26.30%
```

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

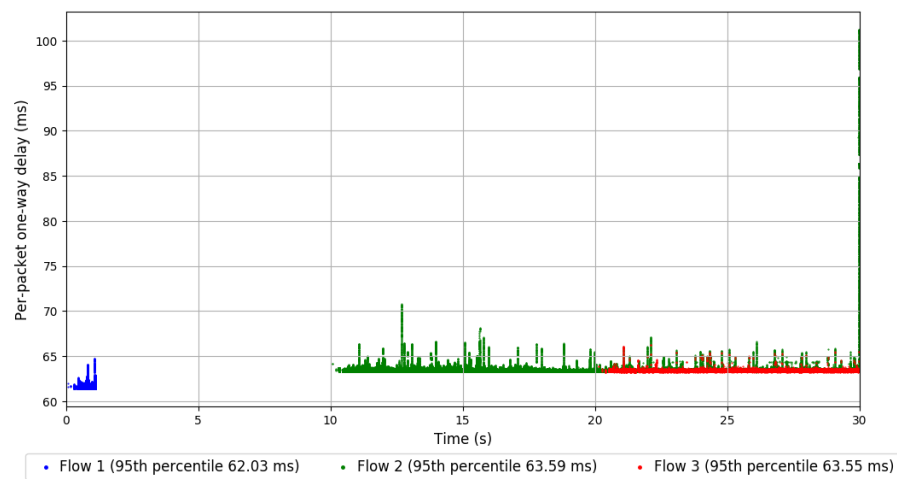
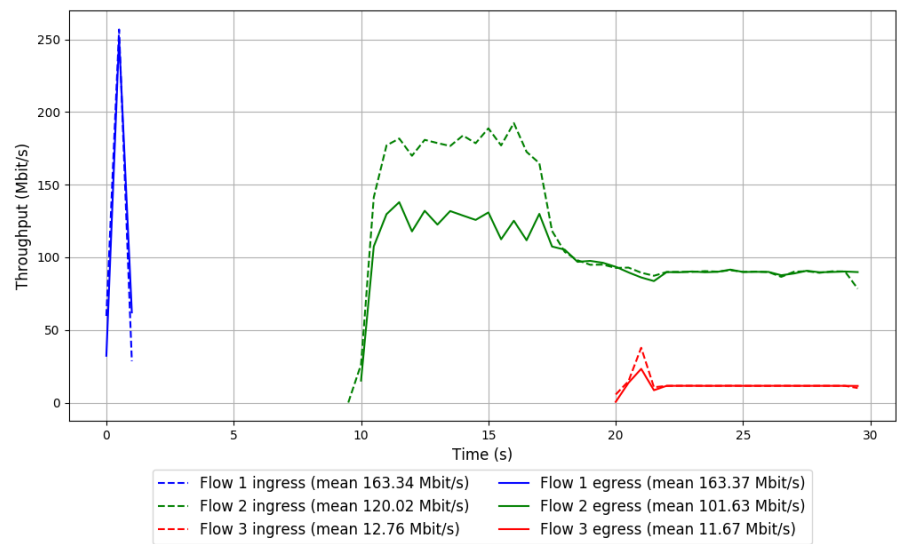


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-08-21 14:40:26
End at: 2017-08-21 14:40:56

# Below is generated by plot.py at 2017-08-21 16:02:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.29 Mbit/s
95th percentile per-packet one-way delay: 63.574 ms
Loss rate: 14.07%
-- Flow 1:
Average throughput: 163.37 Mbit/s
95th percentile per-packet one-way delay: 62.033 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 101.63 Mbit/s
95th percentile per-packet one-way delay: 63.588 ms
Loss rate: 15.37%
-- Flow 3:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 63.548 ms
Loss rate: 8.50%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-21 13:02:11

End at: 2017-08-21 13:02:41

Below is generated by plot.py at 2017-08-21 16:02:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.90 Mbit/s

95th percentile per-packet one-way delay: 63.715 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 431.071 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.91 Mbit/s

95th percentile per-packet one-way delay: 63.888 ms

Loss rate: 3.21%

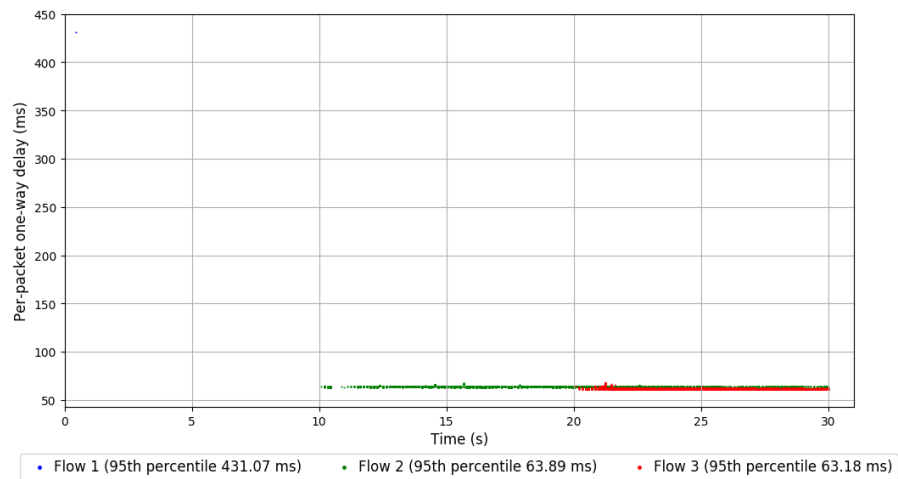
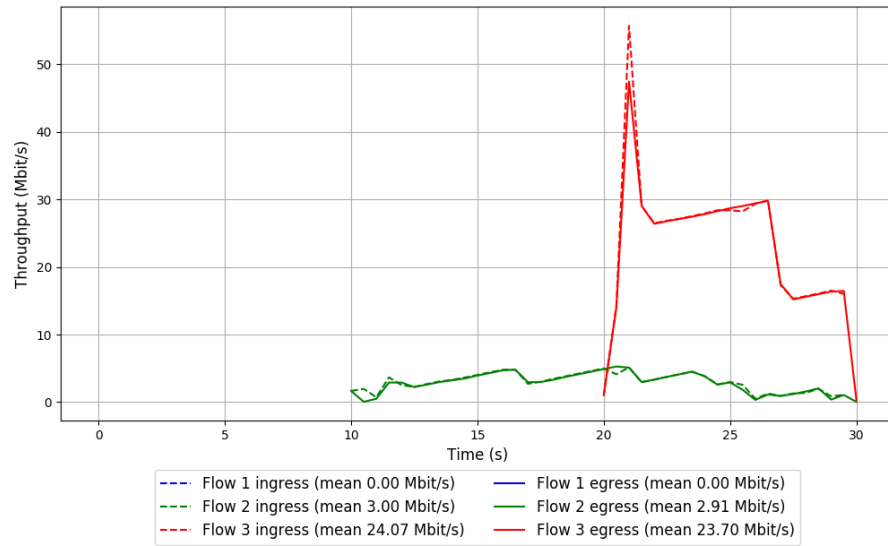
-- Flow 3:

Average throughput: 23.70 Mbit/s

95th percentile per-packet one-way delay: 63.176 ms

Loss rate: 1.56%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-08-21 13:13:10

End at: 2017-08-21 13:13:40

Below is generated by plot.py at 2017-08-21 16:02:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 63.809 ms

Loss rate: 3.98%

-- Flow 1:

Average throughput: 4.04 Mbit/s

95th percentile per-packet one-way delay: 63.876 ms

Loss rate: 3.25%

-- Flow 2:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 63.656 ms

Loss rate: 3.62%

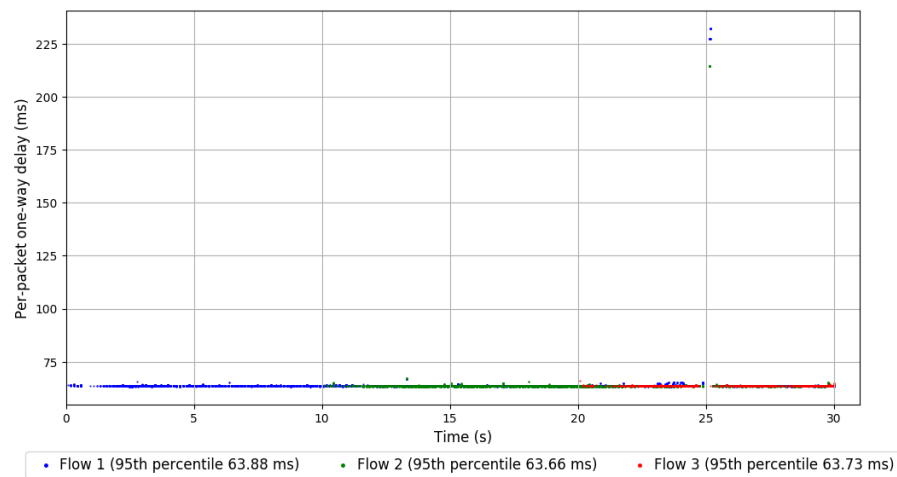
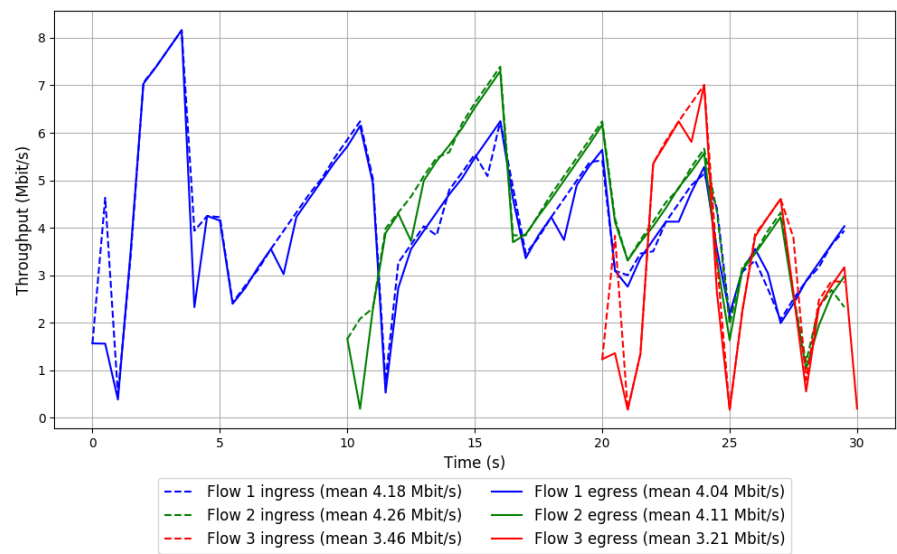
-- Flow 3:

Average throughput: 3.21 Mbit/s

95th percentile per-packet one-way delay: 63.727 ms

Loss rate: 7.53%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-21 13:23:58

End at: 2017-08-21 13:24:28

Below is generated by plot.py at 2017-08-21 16:02:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 63.909 ms

Loss rate: 3.52%

-- Flow 1:

Average throughput: 4.72 Mbit/s

95th percentile per-packet one-way delay: 63.810 ms

Loss rate: 2.93%

-- Flow 2:

Average throughput: 2.97 Mbit/s

95th percentile per-packet one-way delay: 63.984 ms

Loss rate: 3.95%

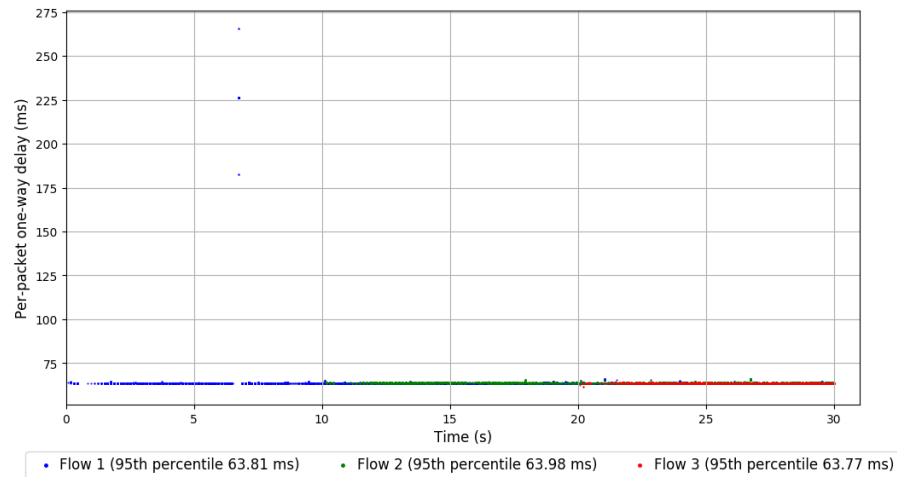
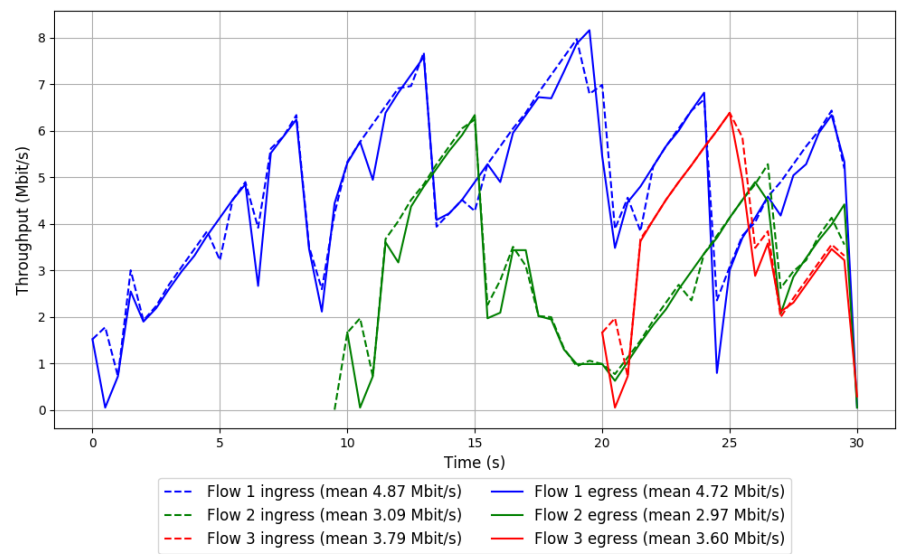
-- Flow 3:

Average throughput: 3.60 Mbit/s

95th percentile per-packet one-way delay: 63.769 ms

Loss rate: 5.08%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-21 13:34:49

End at: 2017-08-21 13:35:19

Below is generated by plot.py at 2017-08-21 16:02:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 32.27 Mbit/s

95th percentile per-packet one-way delay: 63.509 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 30.78 Mbit/s

95th percentile per-packet one-way delay: 62.714 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 63.717 ms

Loss rate: 9.48%

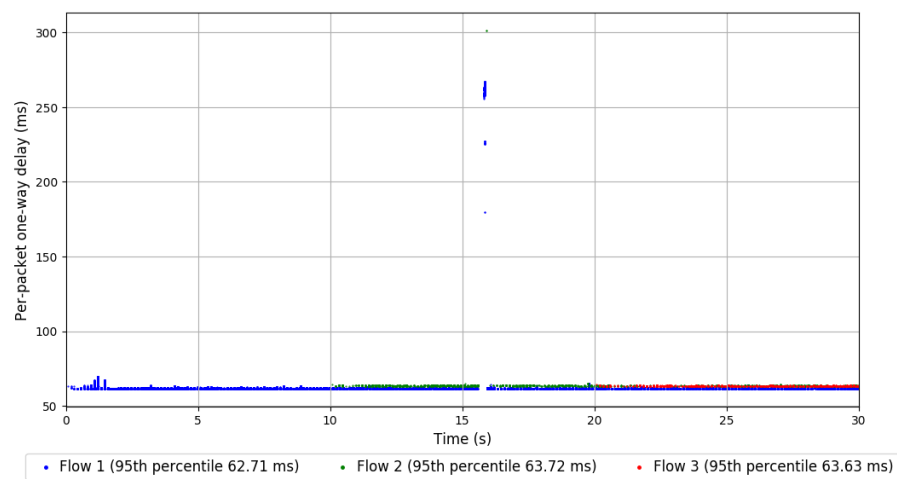
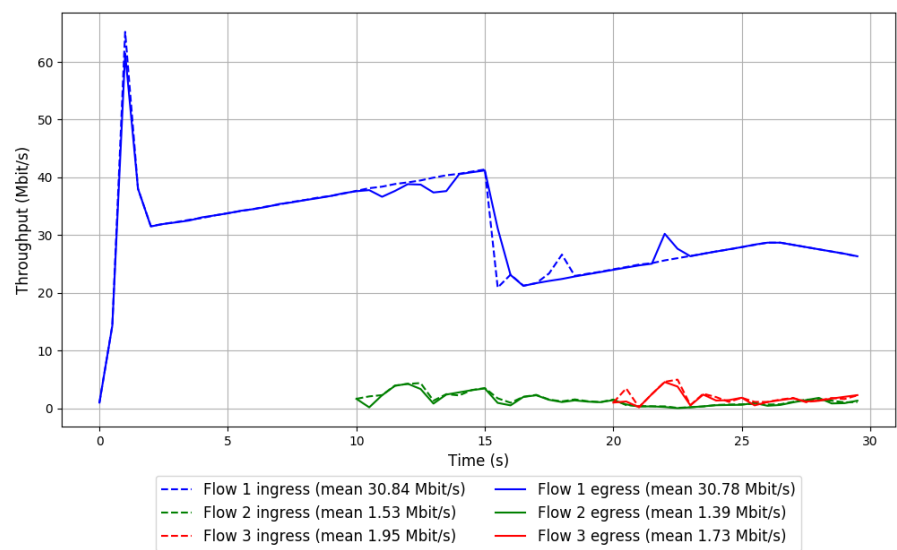
-- Flow 3:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 63.634 ms

Loss rate: 11.44%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-08-21 13:45:46

End at: 2017-08-21 13:46:16

Below is generated by plot.py at 2017-08-21 16:02:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.49 Mbit/s

95th percentile per-packet one-way delay: 63.725 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 11.49 Mbit/s

95th percentile per-packet one-way delay: 62.343 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 63.866 ms

Loss rate: 5.75%

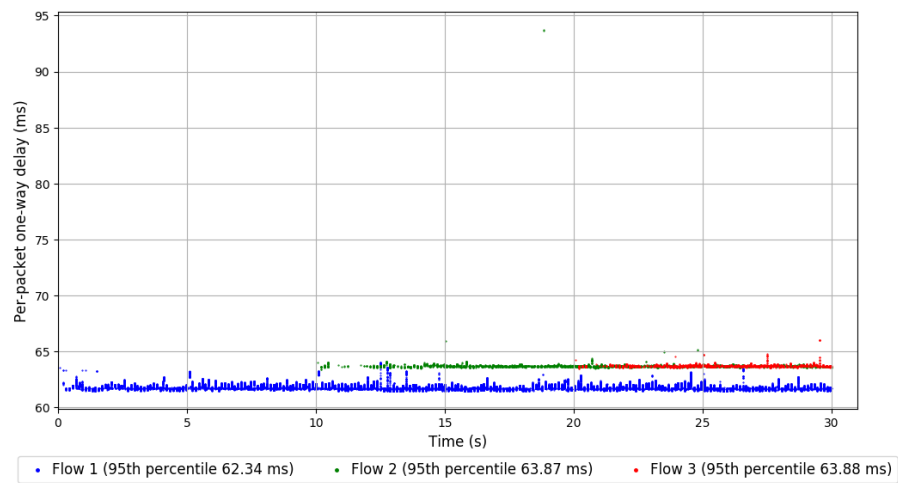
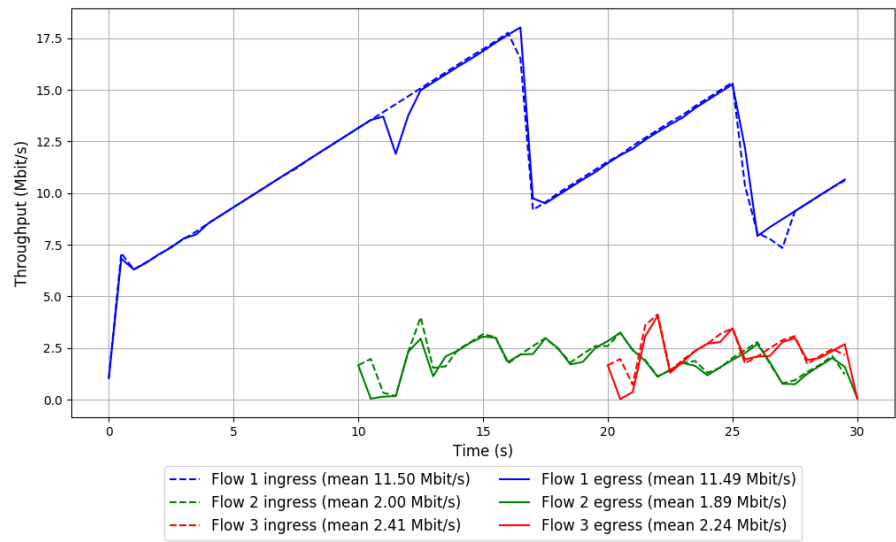
-- Flow 3:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 63.876 ms

Loss rate: 6.88%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-21 13:56:57

End at: 2017-08-21 13:57:27

Below is generated by plot.py at 2017-08-21 16:02:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 41.81 Mbit/s

95th percentile per-packet one-way delay: 65.320 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 11.20 Mbit/s

95th percentile per-packet one-way delay: 65.142 ms

Loss rate: 1.72%

-- Flow 2:

Average throughput: 43.11 Mbit/s

95th percentile per-packet one-way delay: 65.326 ms

Loss rate: 0.42%

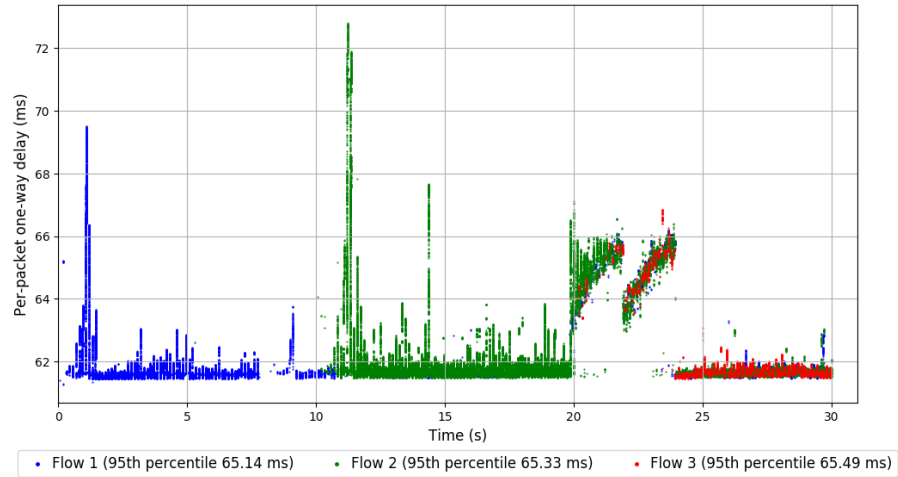
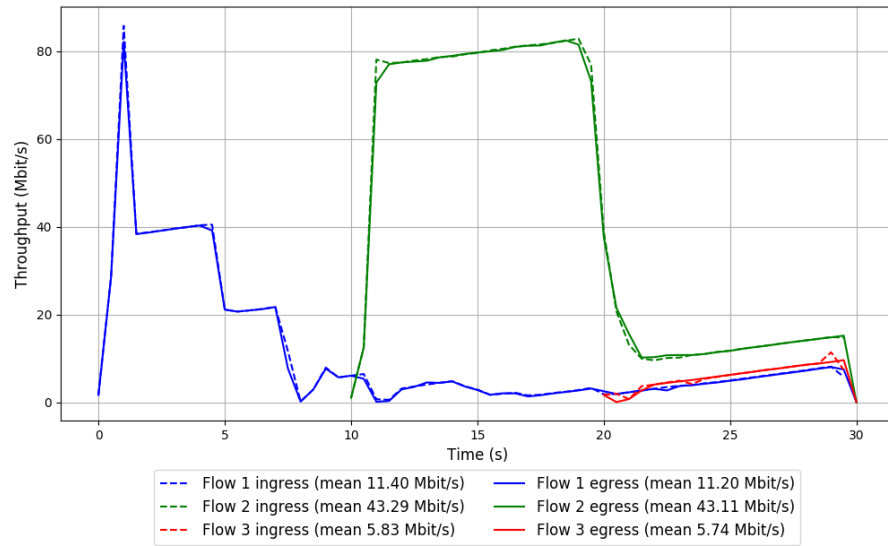
-- Flow 3:

Average throughput: 5.74 Mbit/s

95th percentile per-packet one-way delay: 65.488 ms

Loss rate: 1.65%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-21 14:08:13

End at: 2017-08-21 14:08:43

Below is generated by plot.py at 2017-08-21 16:02:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 17.31 Mbit/s

95th percentile per-packet one-way delay: 64.608 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 2.86 Mbit/s

95th percentile per-packet one-way delay: 64.565 ms

Loss rate: 2.74%

-- Flow 2:

Average throughput: 20.26 Mbit/s

95th percentile per-packet one-way delay: 65.895 ms

Loss rate: 1.02%

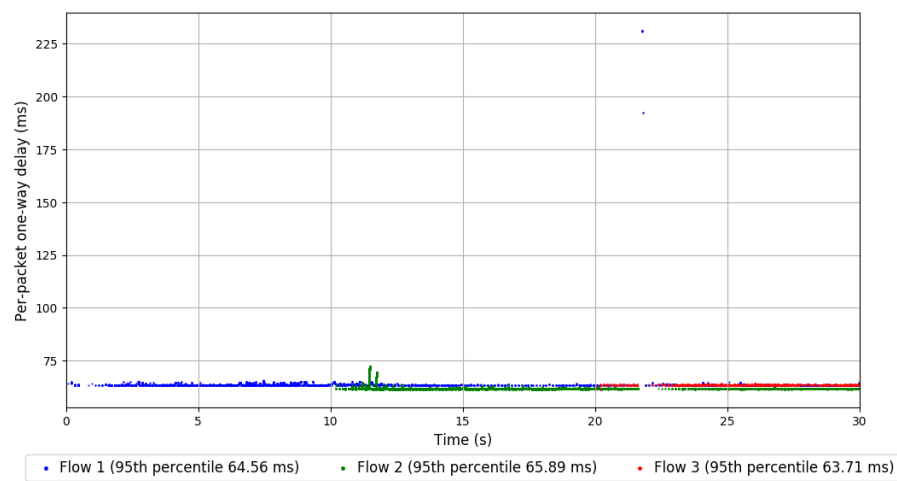
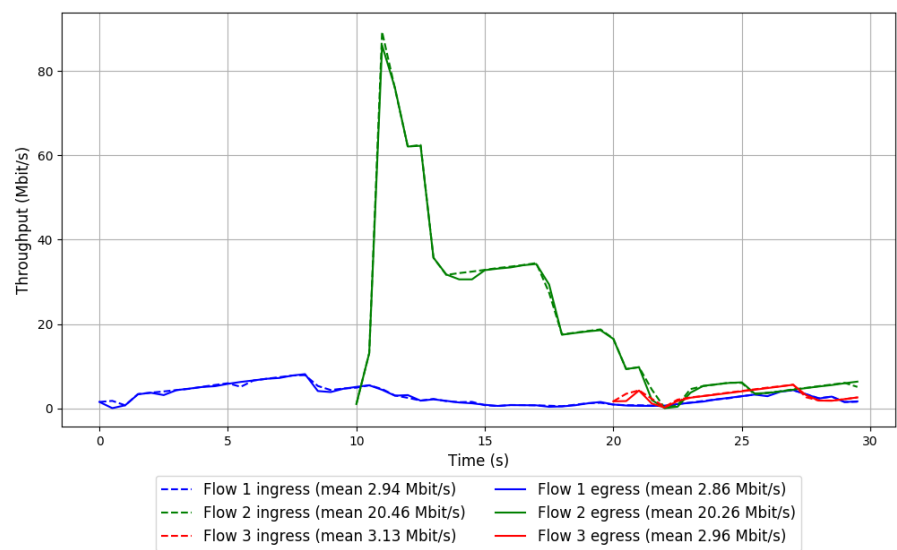
-- Flow 3:

Average throughput: 2.96 Mbit/s

95th percentile per-packet one-way delay: 63.707 ms

Loss rate: 5.79%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-21 14:19:15

End at: 2017-08-21 14:19:45

Below is generated by plot.py at 2017-08-21 16:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.54 Mbit/s

95th percentile per-packet one-way delay: 63.881 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 64.002 ms

Loss rate: 2.15%

-- Flow 2:

Average throughput: 2.94 Mbit/s

95th percentile per-packet one-way delay: 63.919 ms

Loss rate: 4.86%

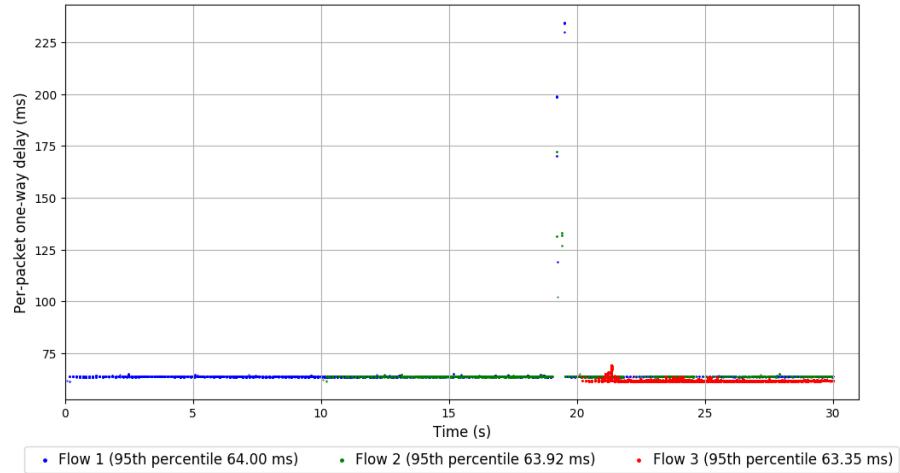
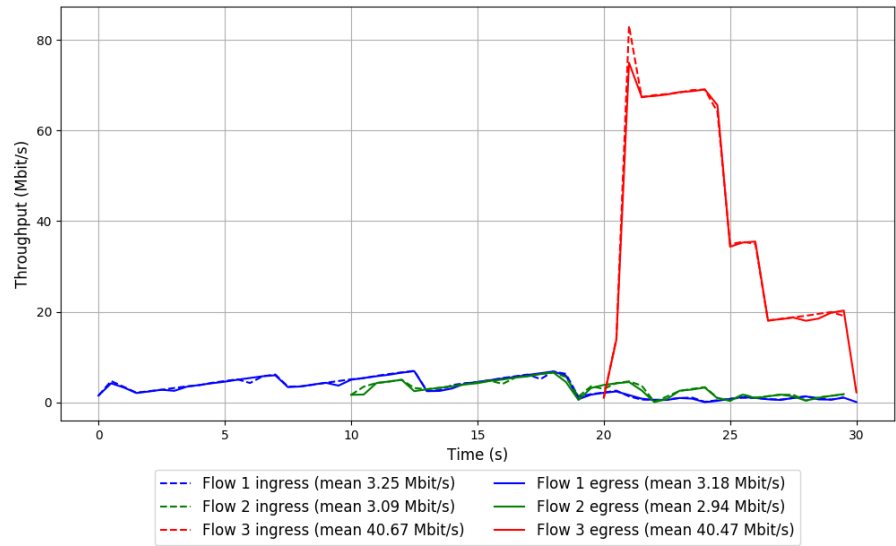
-- Flow 3:

Average throughput: 40.47 Mbit/s

95th percentile per-packet one-way delay: 63.352 ms

Loss rate: 0.79%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-08-21 14:30:11

End at: 2017-08-21 14:30:41

Below is generated by plot.py at 2017-08-21 16:02:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.04 Mbit/s

95th percentile per-packet one-way delay: 63.780 ms

Loss rate: 5.07%

-- Flow 1:

Average throughput: 3.12 Mbit/s

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

Loss rate: 3.88%

-- Flow 2:

Average throughput: 10.20 Mbit/s

95th percentile per-packet one-way delay: 62.101 ms

Loss rate: 2.62%

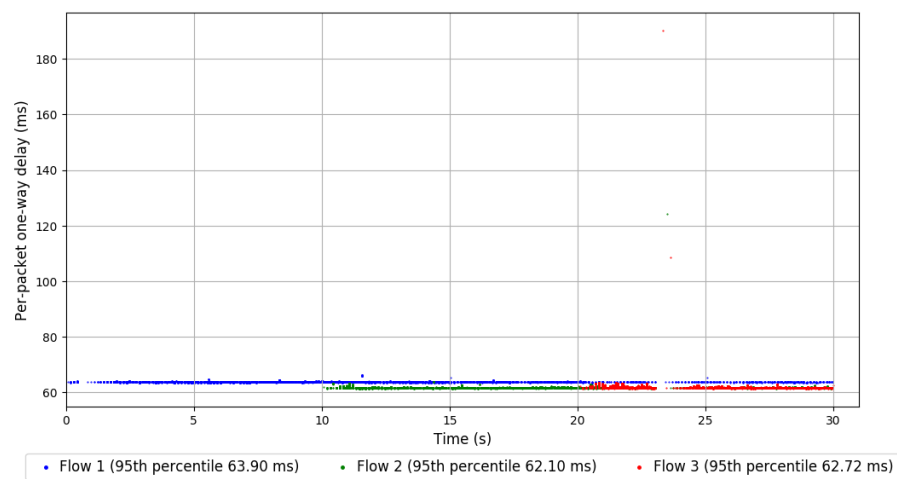
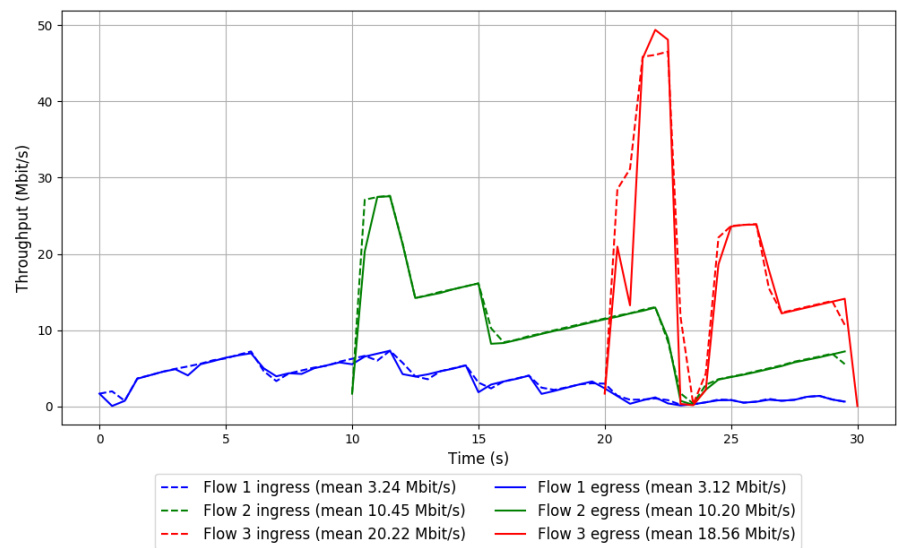
-- Flow 3:

Average throughput: 18.56 Mbit/s

95th percentile per-packet one-way delay: 62.724 ms

Loss rate: 8.18%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-21 14:41:15

End at: 2017-08-21 14:41:45

Below is generated by plot.py at 2017-08-21 16:02:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 63.888 ms

Loss rate: 3.58%

-- Flow 1:

Average throughput: 3.81 Mbit/s

95th percentile per-packet one-way delay: 63.753 ms

Loss rate: 3.16%

-- Flow 2:

Average throughput: 4.16 Mbit/s

95th percentile per-packet one-way delay: 63.836 ms

Loss rate: 3.32%

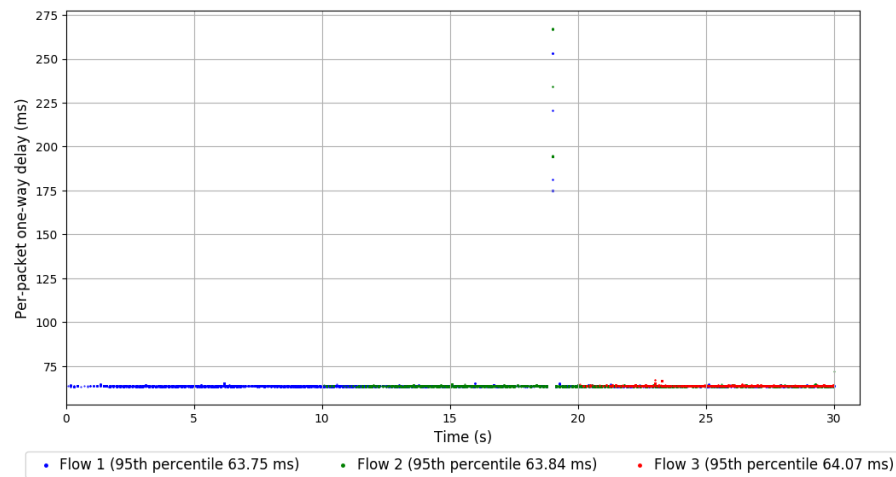
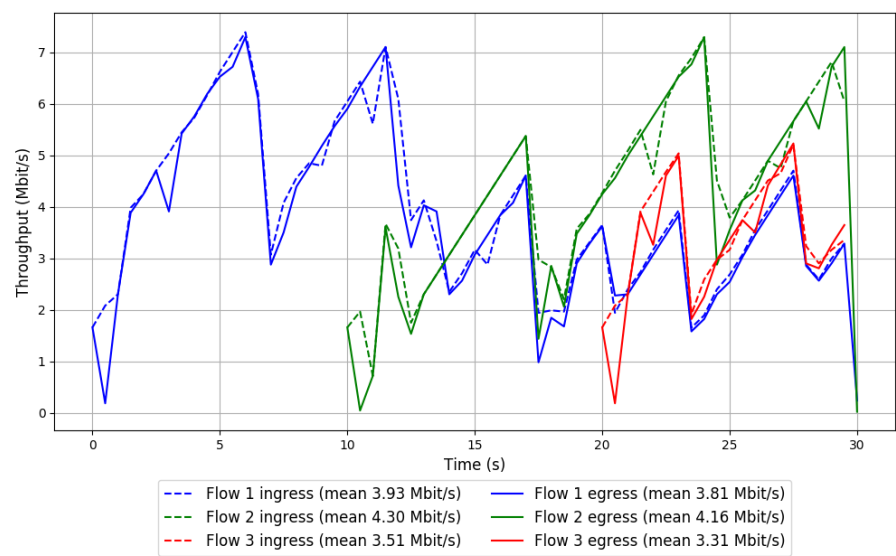
-- Flow 3:

Average throughput: 3.31 Mbit/s

95th percentile per-packet one-way delay: 64.069 ms

Loss rate: 5.62%

Run 10: Report of TCP Vegas — Data Link

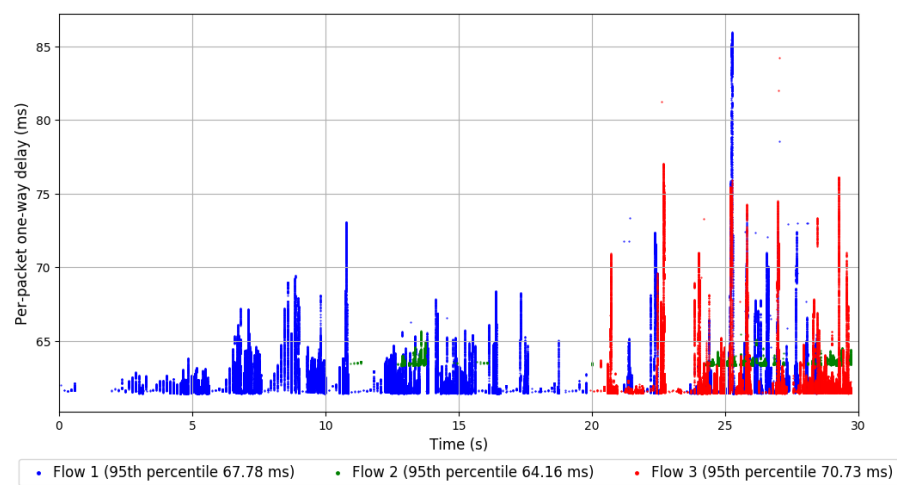
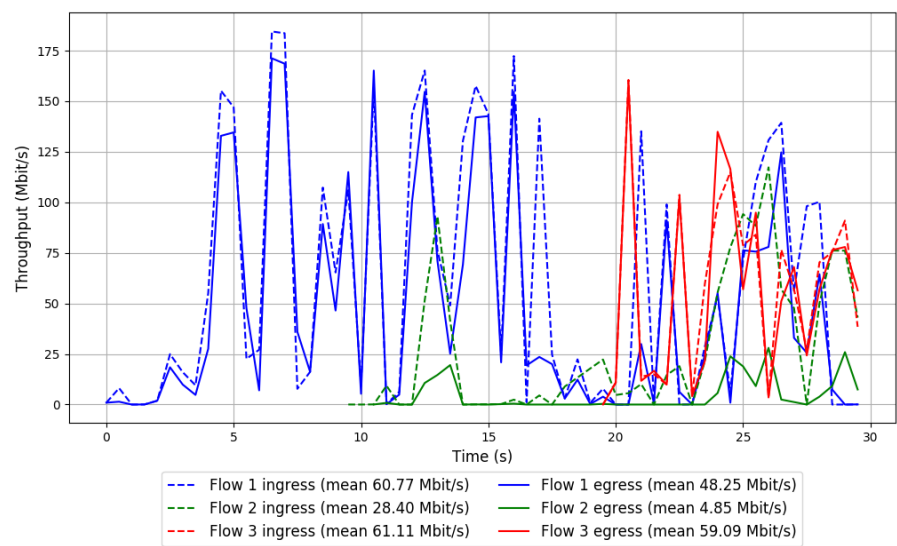


```
Run 1: Statistics of Verus

Start at: 2017-08-21 12:59:34
End at: 2017-08-21 13:00:04

# Below is generated by plot.py at 2017-08-21 16:02:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.76 Mbit/s
95th percentile per-packet one-way delay: 68.673 ms
Loss rate: 29.11%
-- Flow 1:
Average throughput: 48.25 Mbit/s
95th percentile per-packet one-way delay: 67.780 ms
Loss rate: 20.61%
-- Flow 2:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 64.158 ms
Loss rate: 83.77%
-- Flow 3:
Average throughput: 59.09 Mbit/s
95th percentile per-packet one-way delay: 70.733 ms
Loss rate: 3.30%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-08-21 13:10:45

End at: 2017-08-21 13:11:15

Below is generated by plot.py at 2017-08-21 16:02:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.65 Mbit/s

95th percentile per-packet one-way delay: 67.668 ms

Loss rate: 54.64%

-- Flow 1:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 64.738 ms

Loss rate: 97.88%

-- Flow 2:

Average throughput: 93.50 Mbit/s

95th percentile per-packet one-way delay: 67.728 ms

Loss rate: 6.94%

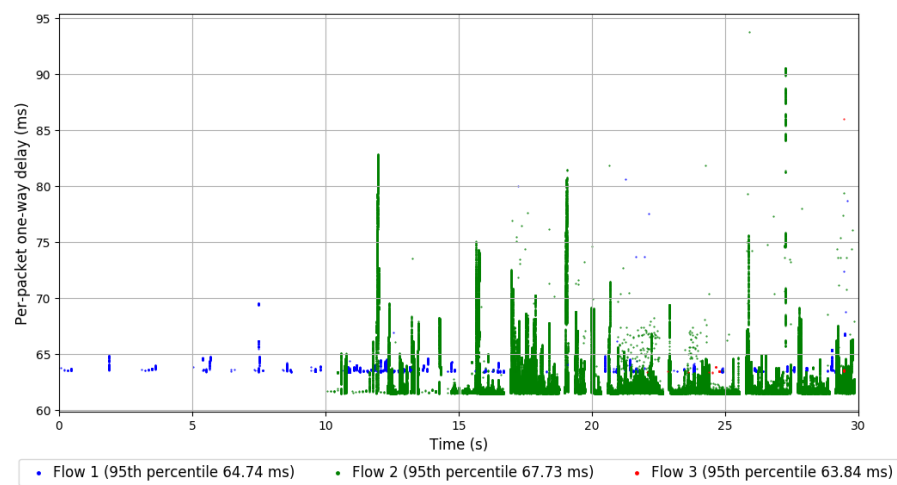
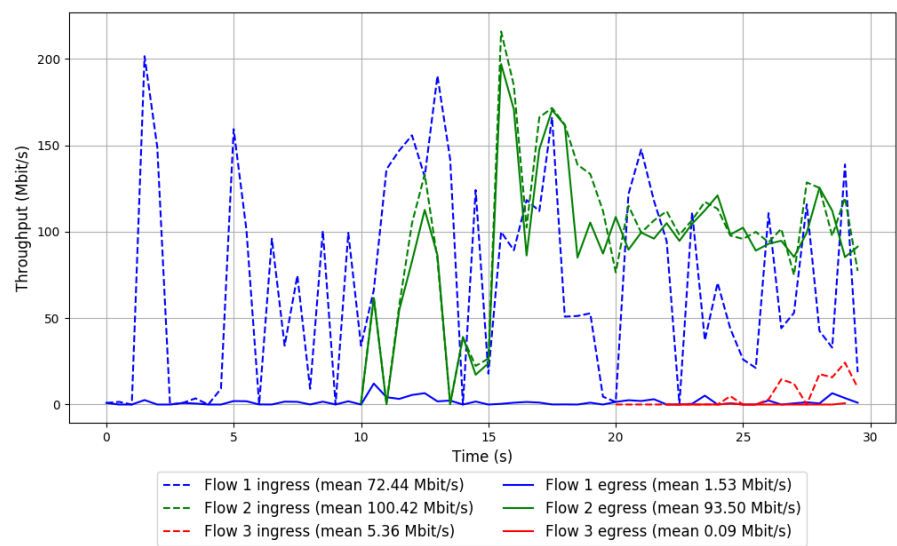
-- Flow 3:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 63.839 ms

Loss rate: 98.63%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-21 13:21:35

End at: 2017-08-21 13:22:05

Below is generated by plot.py at 2017-08-21 16:02:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 19.29 Mbit/s

95th percentile per-packet one-way delay: 64.408 ms

Loss rate: 80.83%

-- Flow 1:

Average throughput: 19.66 Mbit/s

95th percentile per-packet one-way delay: 64.407 ms

Loss rate: 73.19%

-- Flow 2:

Average throughput: 0.68 Mbit/s

95th percentile per-packet one-way delay: 64.036 ms

Loss rate: 98.29%

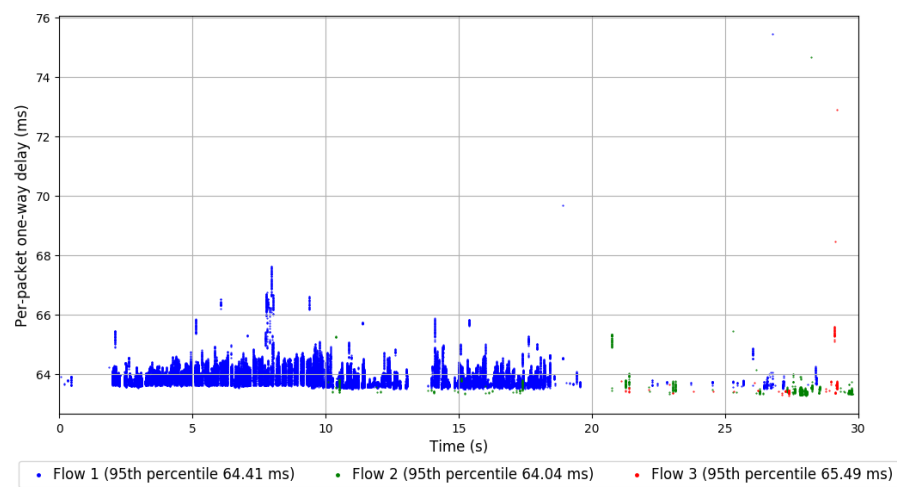
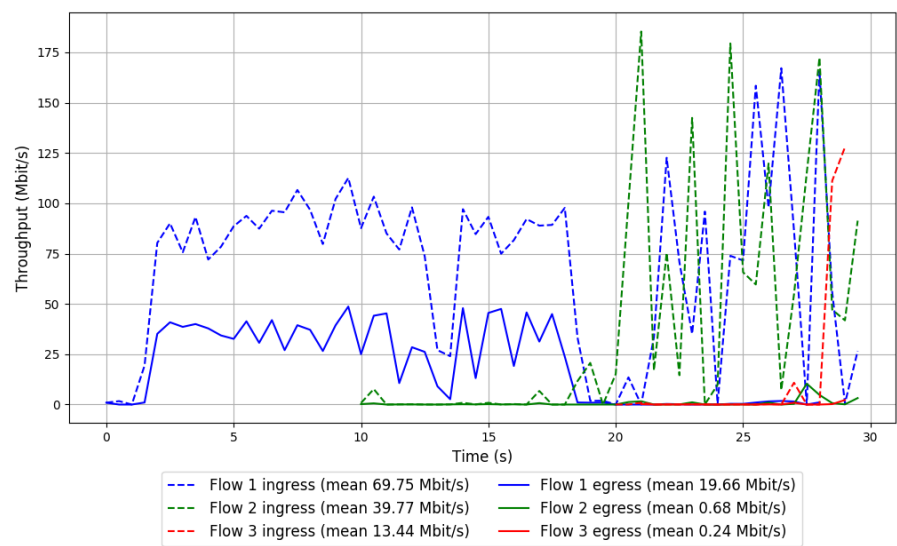
-- Flow 3:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 65.490 ms

Loss rate: 98.48%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-08-21 13:32:29

End at: 2017-08-21 13:32:59

Below is generated by plot.py at 2017-08-21 16:03:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.11 Mbit/s

95th percentile per-packet one-way delay: 66.098 ms

Loss rate: 48.10%

-- Flow 1:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 63.695 ms

Loss rate: 93.59%

-- Flow 2:

Average throughput: 98.01 Mbit/s

95th percentile per-packet one-way delay: 66.380 ms

Loss rate: 6.31%

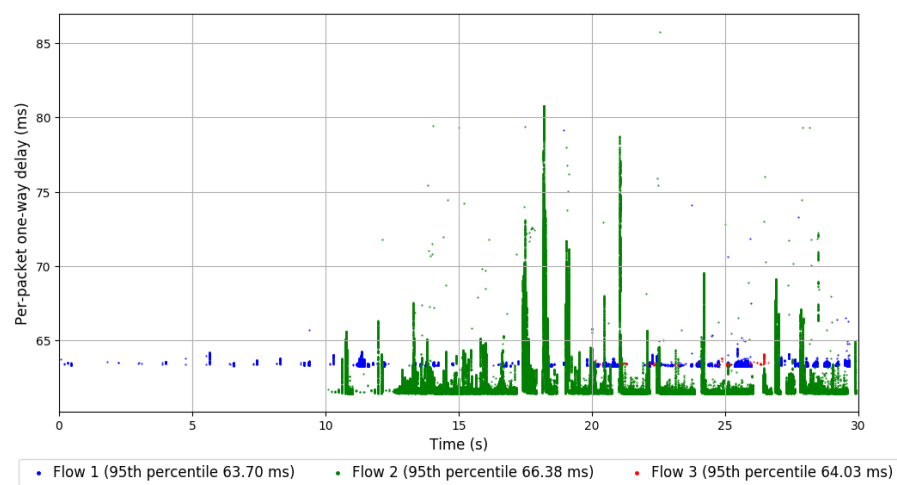
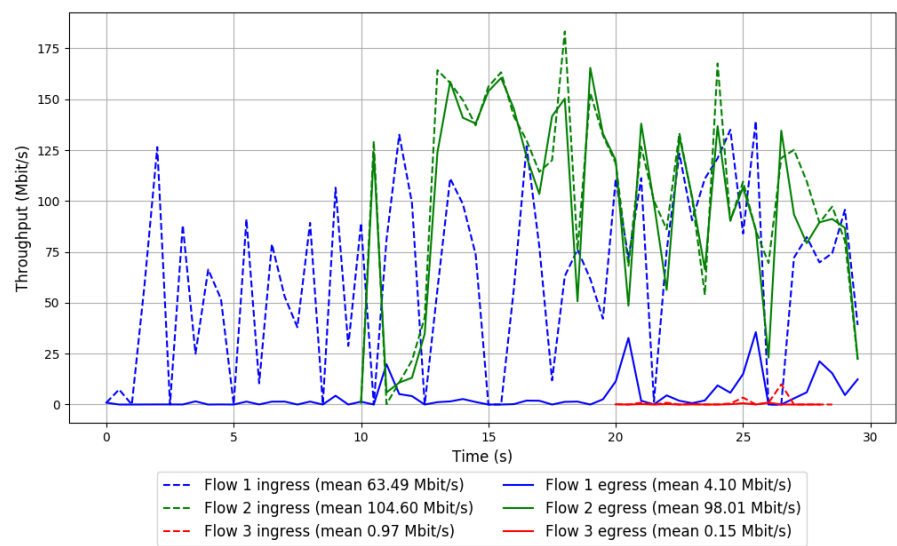
-- Flow 3:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 64.028 ms

Loss rate: 86.13%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-08-21 13:43:30

End at: 2017-08-21 13:44:00

Below is generated by plot.py at 2017-08-21 16:03:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.08 Mbit/s

95th percentile per-packet one-way delay: 66.349 ms

Loss rate: 89.36%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 63.961 ms

Loss rate: 97.62%

-- Flow 2:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 63.884 ms

Loss rate: 95.11%

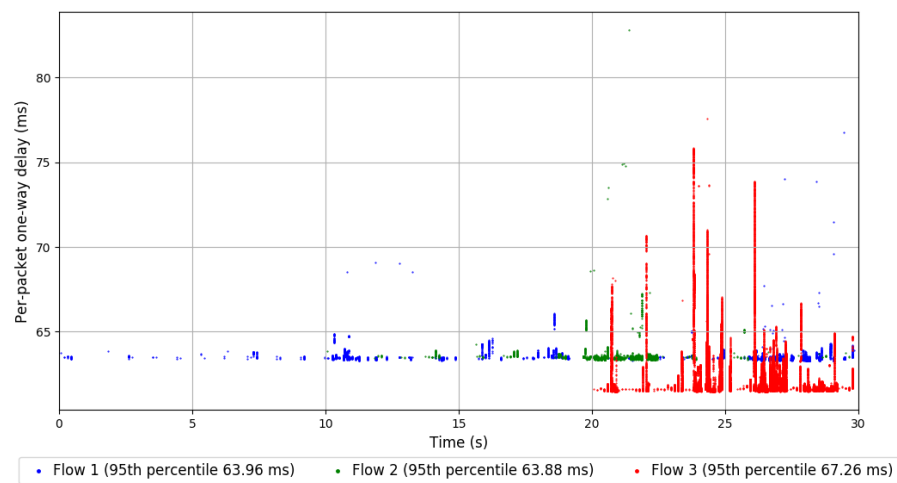
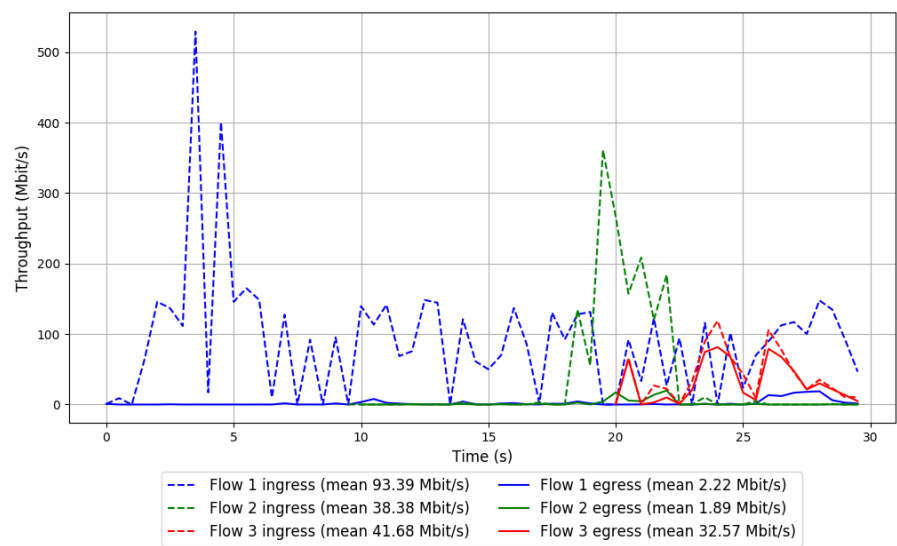
-- Flow 3:

Average throughput: 32.57 Mbit/s

95th percentile per-packet one-way delay: 67.264 ms

Loss rate: 21.89%

Run 5: Report of Verus — Data Link

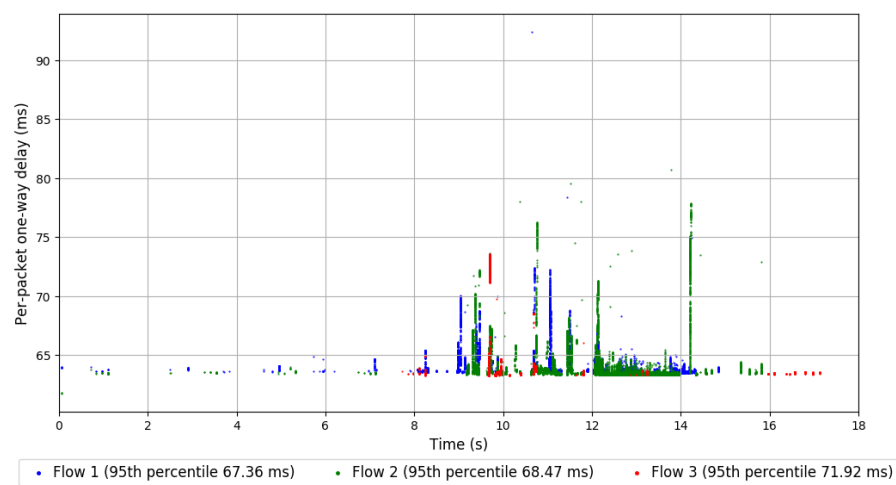
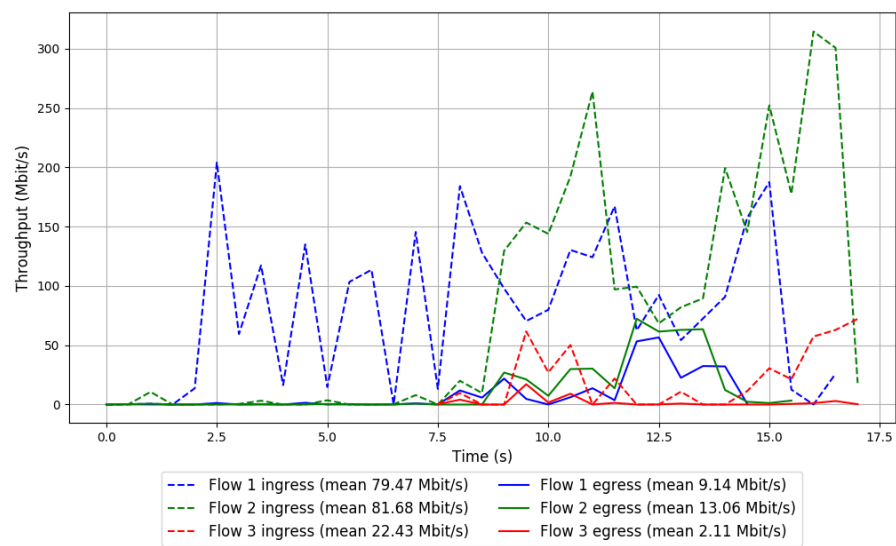


Run 6: Statistics of Verus

Start at: 2017-08-21 13:54:25

End at: 2017-08-21 13:54:55

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-08-21 14:05:31

End at: 2017-08-21 14:06:01

Below is generated by plot.py at 2017-08-21 16:03:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.89 Mbit/s

95th percentile per-packet one-way delay: 64.486 ms

Loss rate: 85.52%

-- Flow 1:

Average throughput: 15.50 Mbit/s

95th percentile per-packet one-way delay: 64.417 ms

Loss rate: 78.45%

-- Flow 2:

Average throughput: 3.04 Mbit/s

95th percentile per-packet one-way delay: 66.827 ms

Loss rate: 96.03%

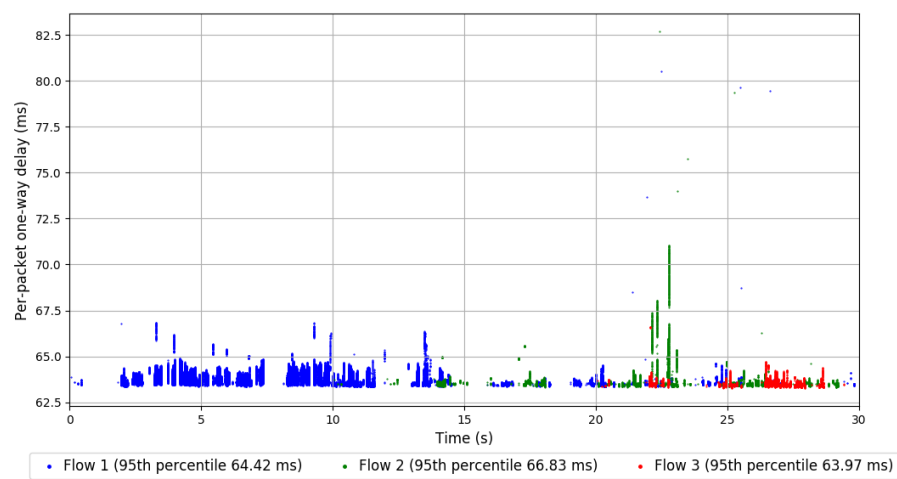
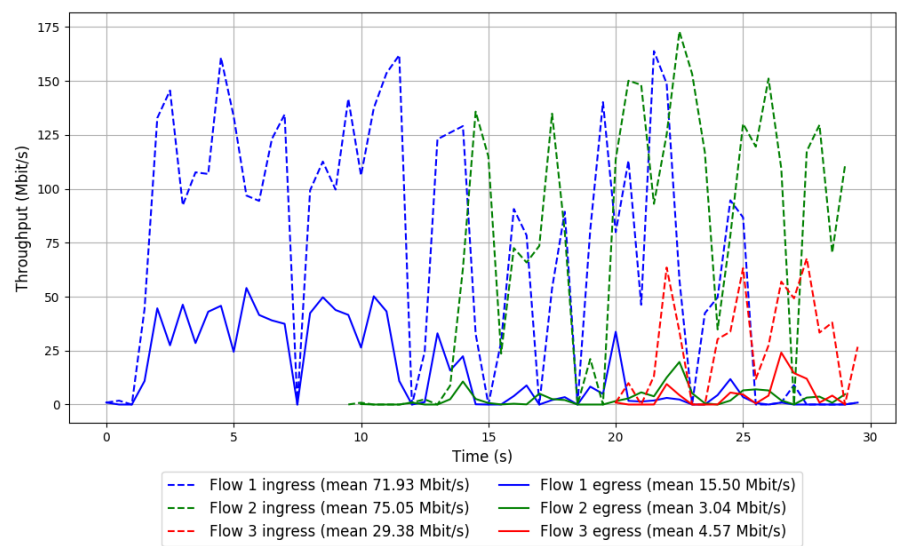
-- Flow 3:

Average throughput: 4.57 Mbit/s

95th percentile per-packet one-way delay: 63.965 ms

Loss rate: 84.75%

Run 7: Report of Verus — Data Link

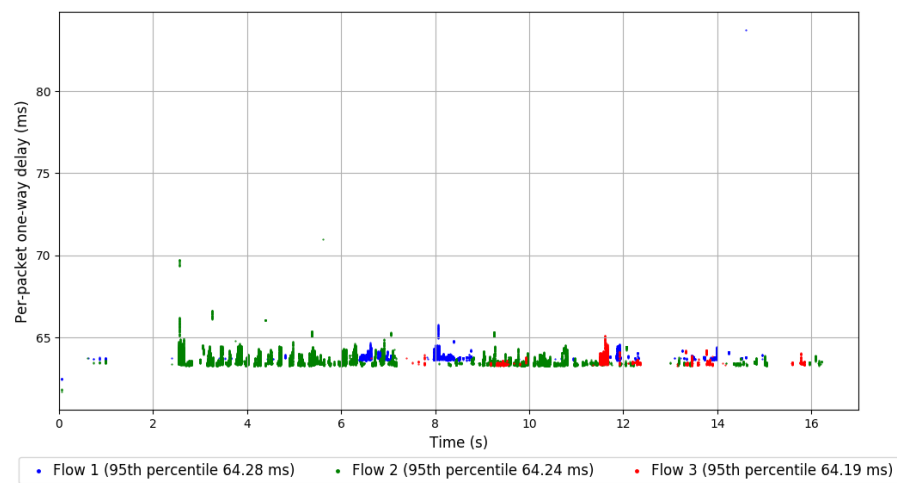
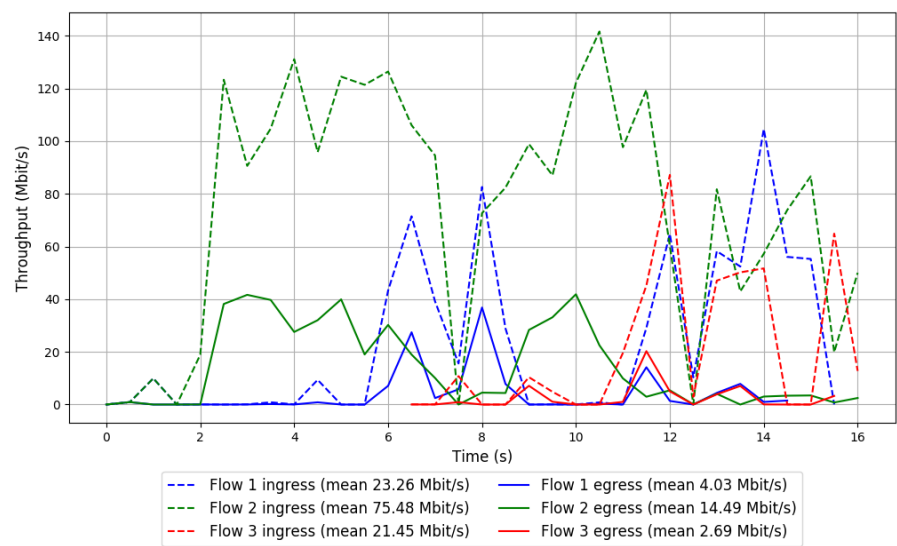


Run 8: Statistics of Verus

Start at: 2017-08-21 14:16:44

End at: 2017-08-21 14:17:14

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-08-21 14:27:46

End at: 2017-08-21 14:28:16

Below is generated by plot.py at 2017-08-21 16:03:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.38 Mbit/s

95th percentile per-packet one-way delay: 75.487 ms

Loss rate: 15.06%

-- Flow 1:

Average throughput: 64.59 Mbit/s

95th percentile per-packet one-way delay: 71.414 ms

Loss rate: 16.12%

-- Flow 2:

Average throughput: 99.10 Mbit/s

95th percentile per-packet one-way delay: 78.805 ms

Loss rate: 16.47%

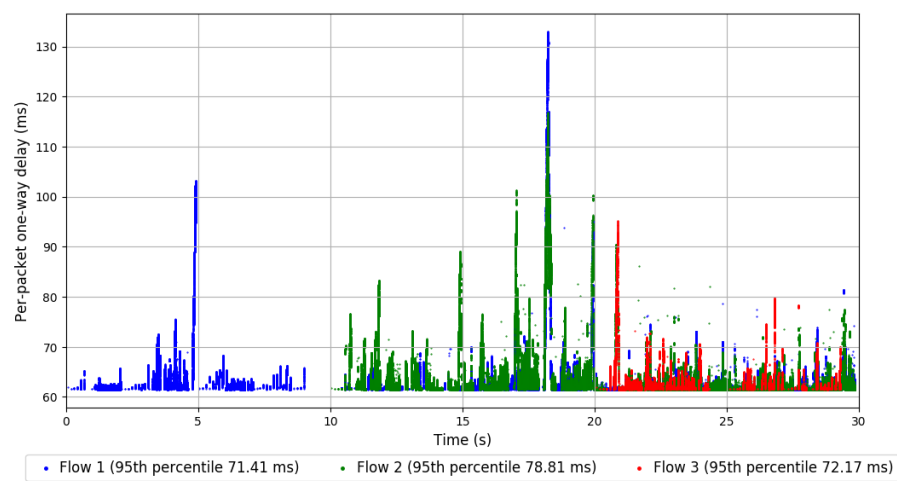
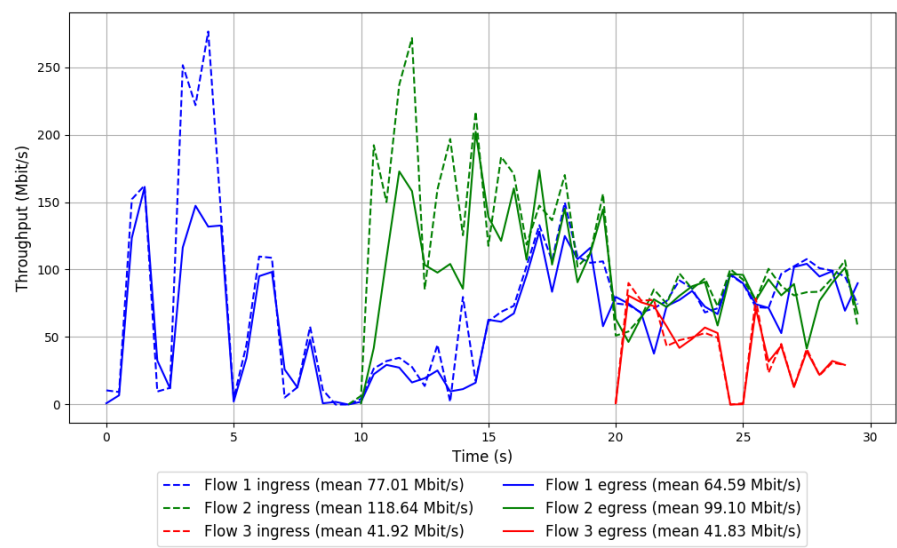
-- Flow 3:

Average throughput: 41.83 Mbit/s

95th percentile per-packet one-way delay: 72.174 ms

Loss rate: 0.22%

Run 9: Report of Verus — Data Link

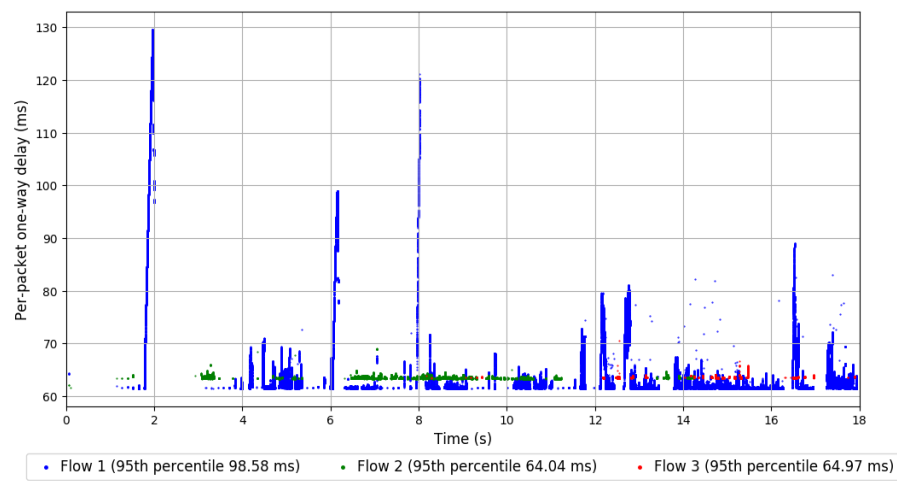
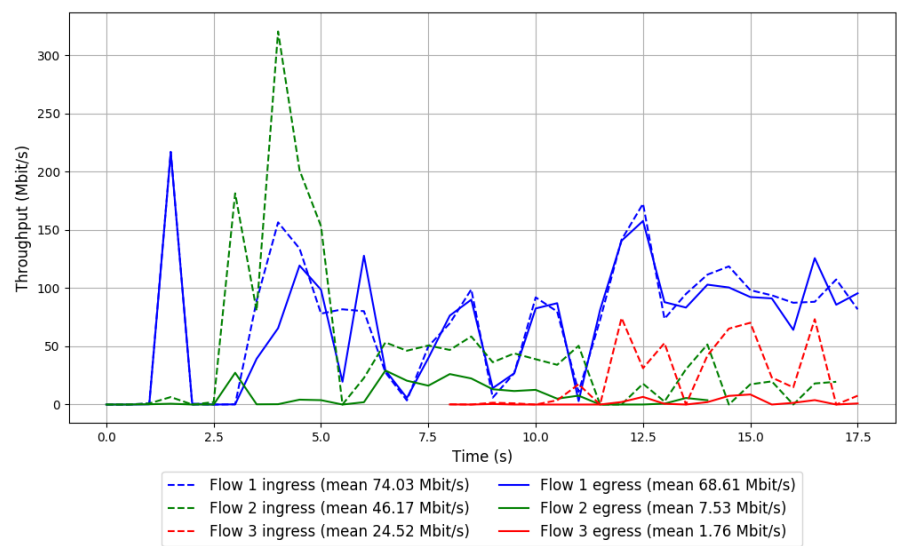


Run 10: Statistics of Verus

Start at: 2017-08-21 14:38:48

End at: 2017-08-21 14:39:18

Run 10: Report of Verus — Data Link

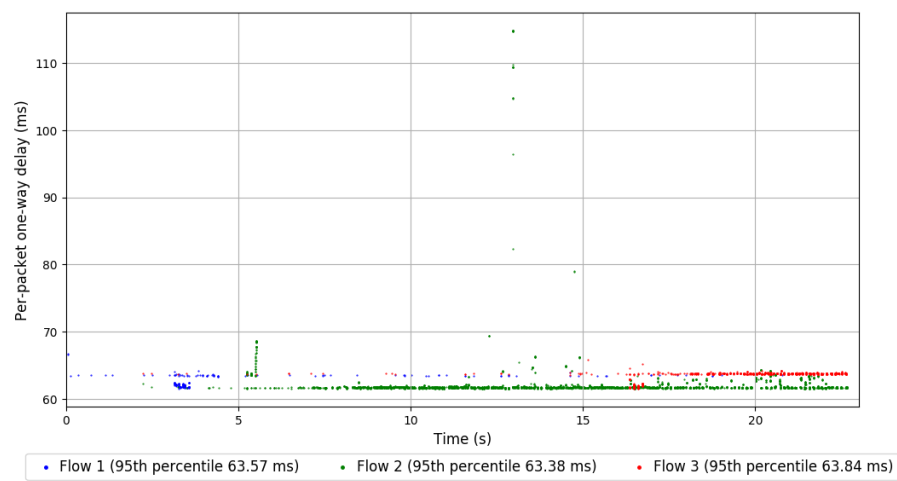
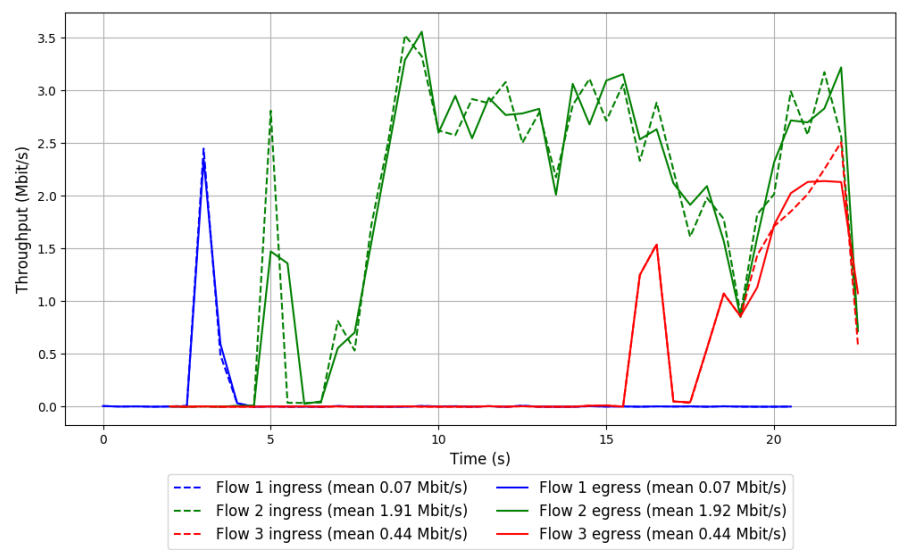


Run 1: Statistics of WebRTC media

Start at: 2017-08-21 12:56:44

End at: 2017-08-21 12:57:14

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-08-21 13:07:48

End at: 2017-08-21 13:08:18

Below is generated by plot.py at 2017-08-21 16:03:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 63.930 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.834 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 64.079 ms

Loss rate: 0.00%

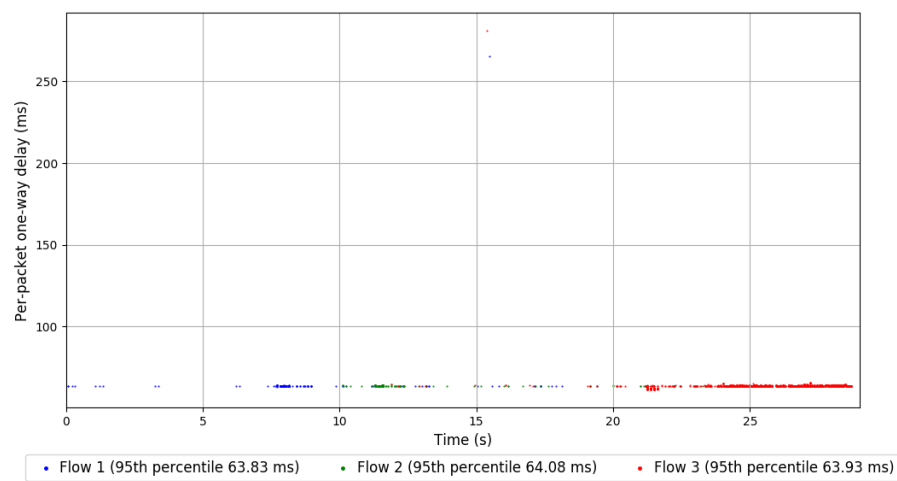
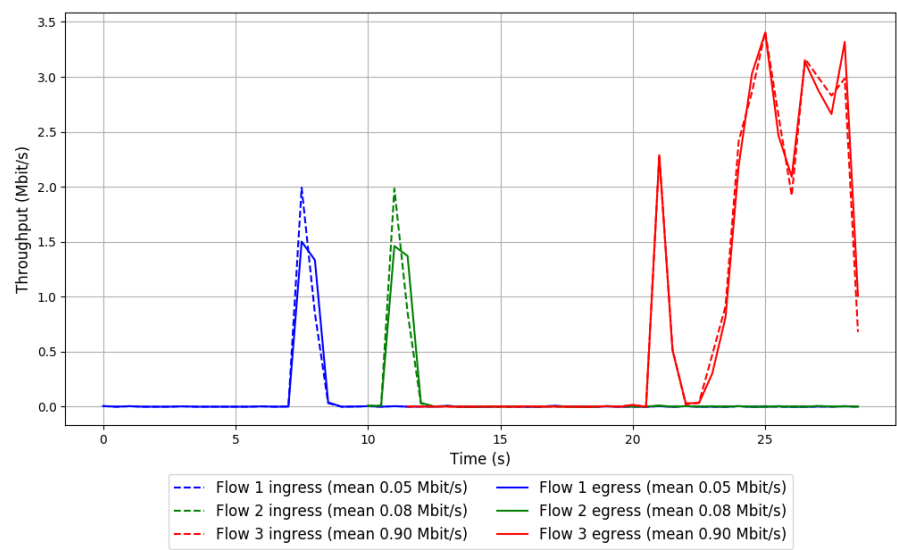
-- Flow 3:

Average throughput: 0.90 Mbit/s

95th percentile per-packet one-way delay: 63.928 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-21 13:18:46

End at: 2017-08-21 13:19:16

Below is generated by plot.py at 2017-08-21 16:03:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 64.005 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 80.006 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 64.107 ms

Loss rate: 0.00%

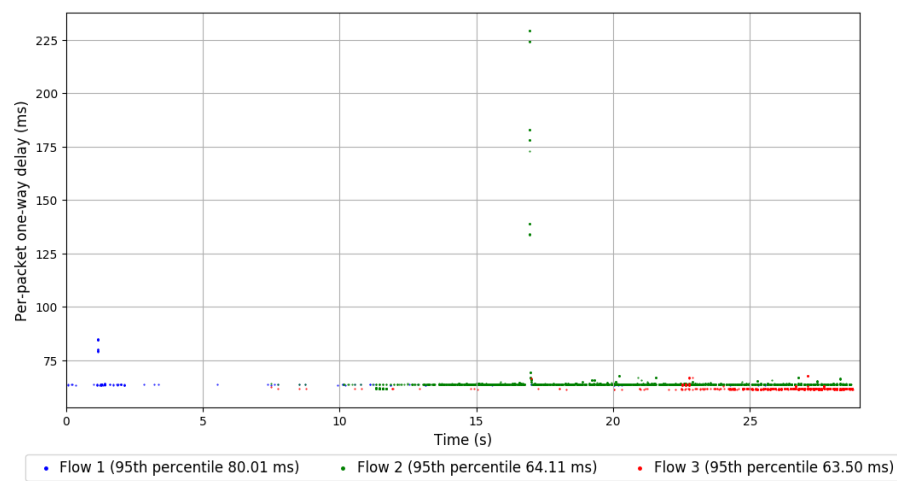
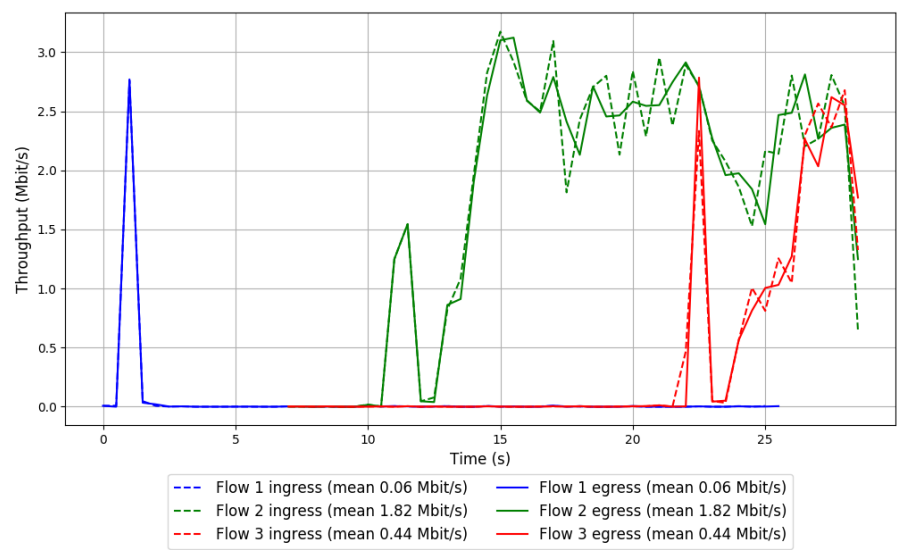
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 63.503 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-08-21 13:29:36

End at: 2017-08-21 13:30:06

Below is generated by plot.py at 2017-08-21 16:03:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 63.976 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 63.870 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.90 Mbit/s

95th percentile per-packet one-way delay: 64.035 ms

Loss rate: 0.00%

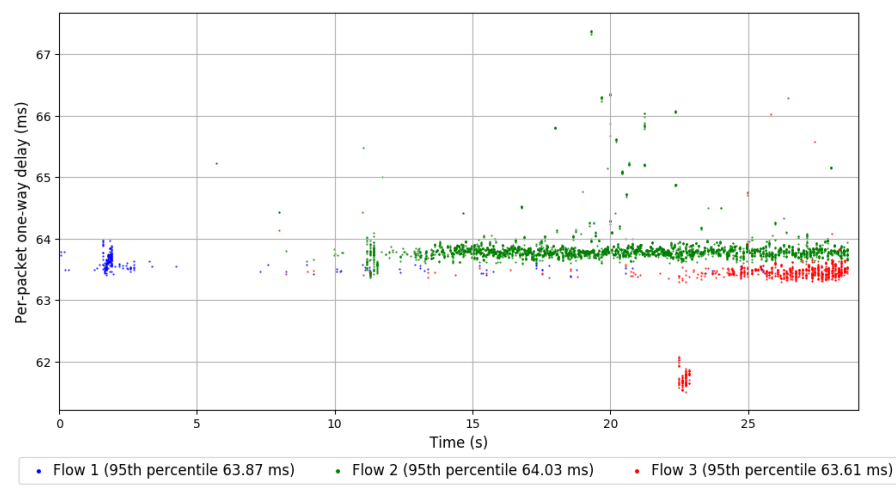
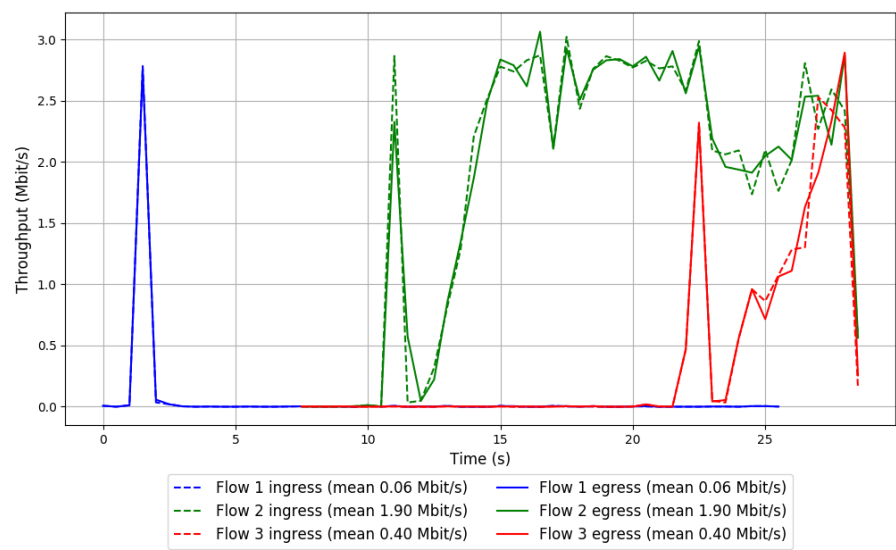
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 63.614 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-08-21 13:40:29

End at: 2017-08-21 13:40:59

Below is generated by plot.py at 2017-08-21 16:03:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.54 Mbit/s

95th percentile per-packet one-way delay: 63.620 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.893 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.84 Mbit/s

95th percentile per-packet one-way delay: 62.522 ms

Loss rate: 0.00%

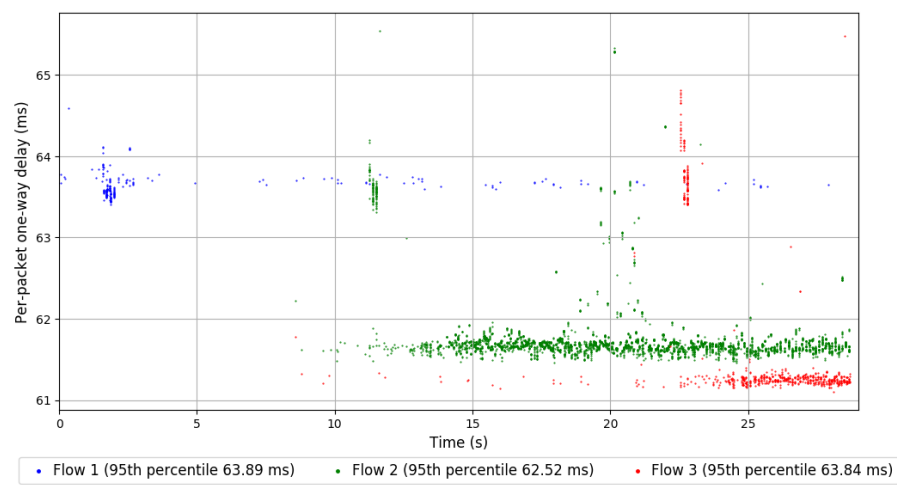
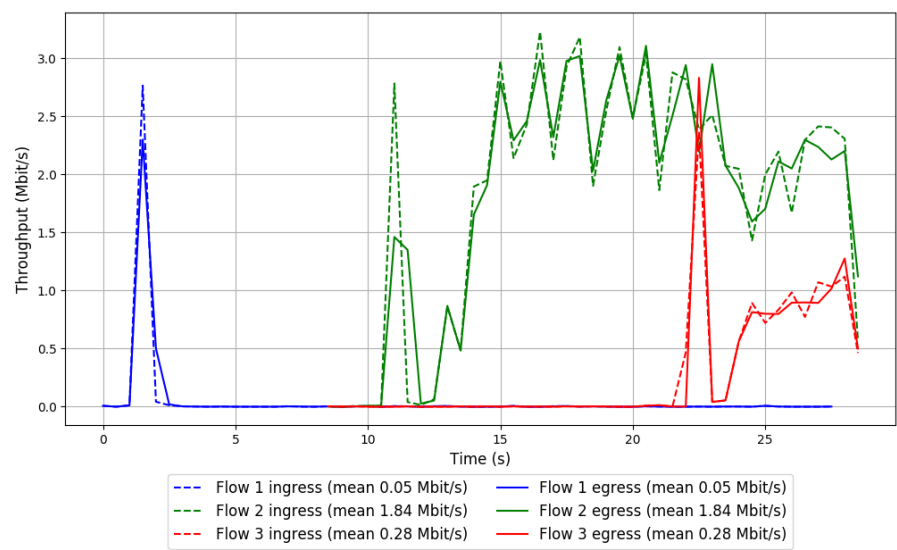
-- Flow 3:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 63.843 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-08-21 13:51:32

End at: 2017-08-21 13:52:02

Below is generated by plot.py at 2017-08-21 16:03:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 63.786 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 64.431 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 63.788 ms

Loss rate: 0.00%

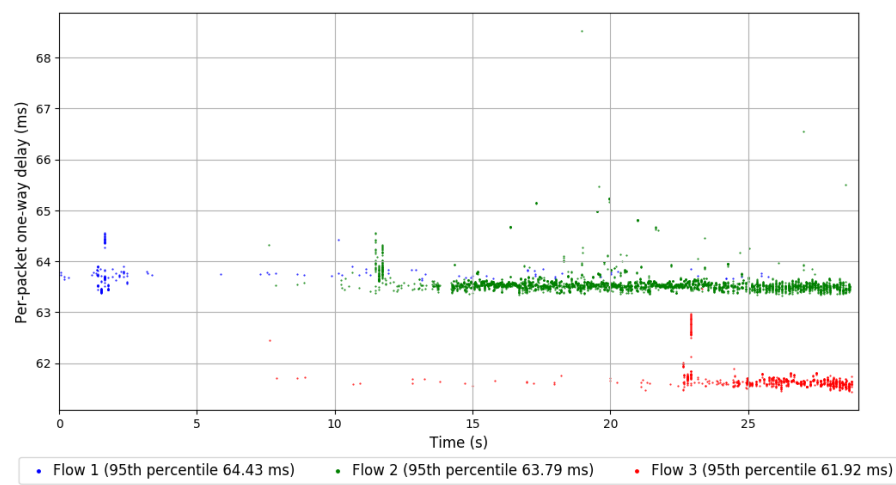
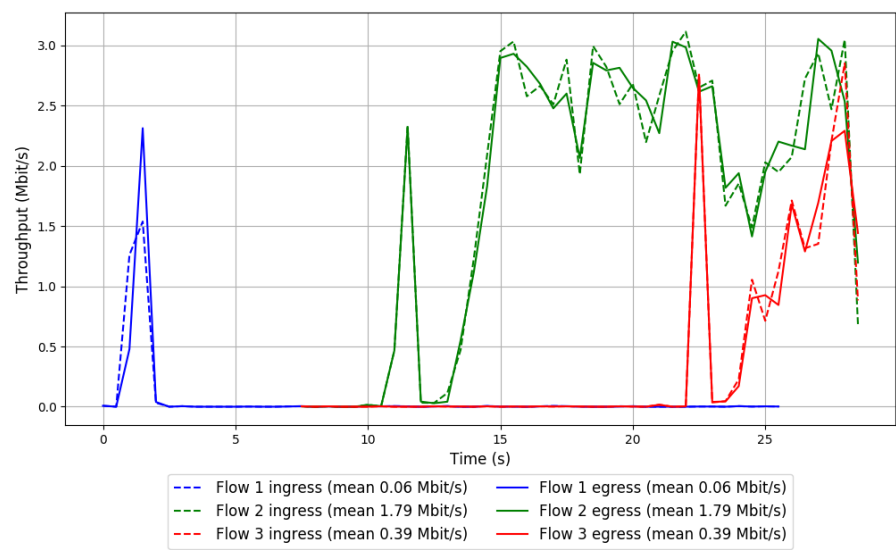
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 61.922 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-08-21 14:02:39

End at: 2017-08-21 14:03:09

Below is generated by plot.py at 2017-08-21 16:03:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 63.904 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 63.926 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 63.940 ms

Loss rate: 0.00%

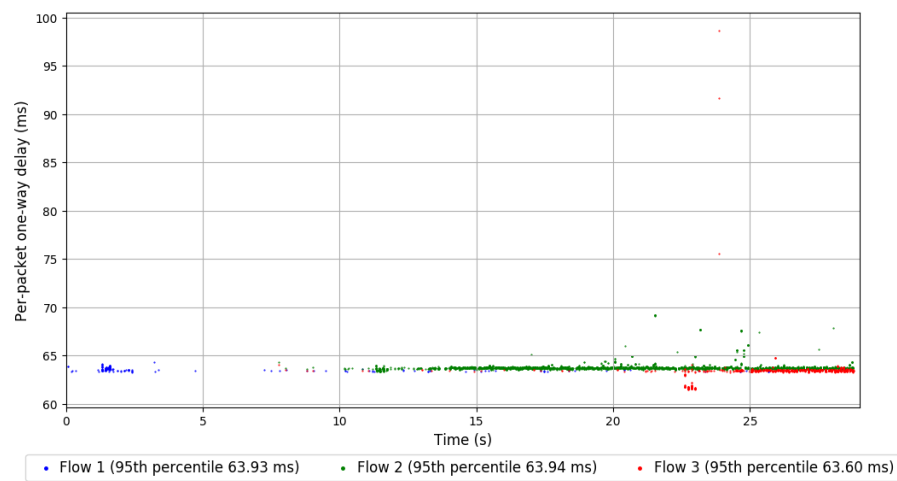
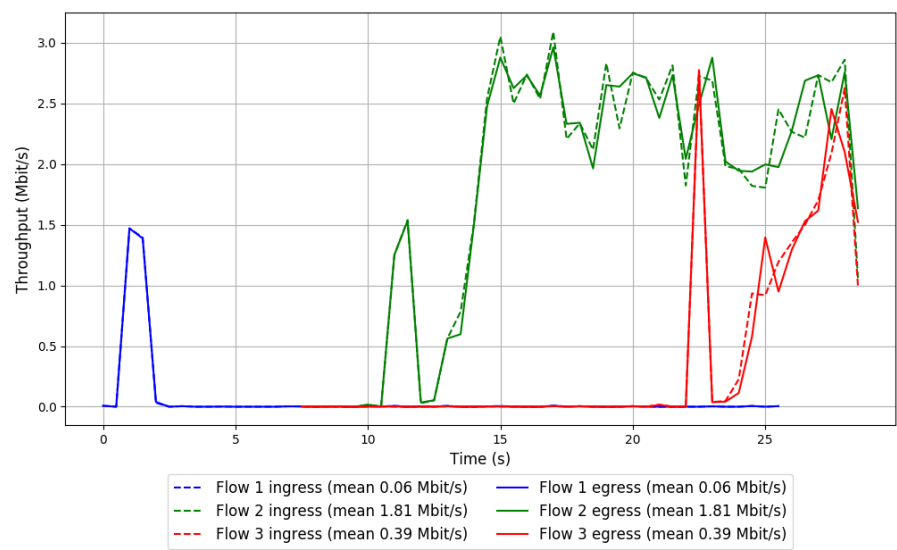
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 63.599 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-21 14:13:52

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

Below is generated by plot.py at 2017-08-21 16:03:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 63.865 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 63.639 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 63.891 ms

Loss rate: 0.00%

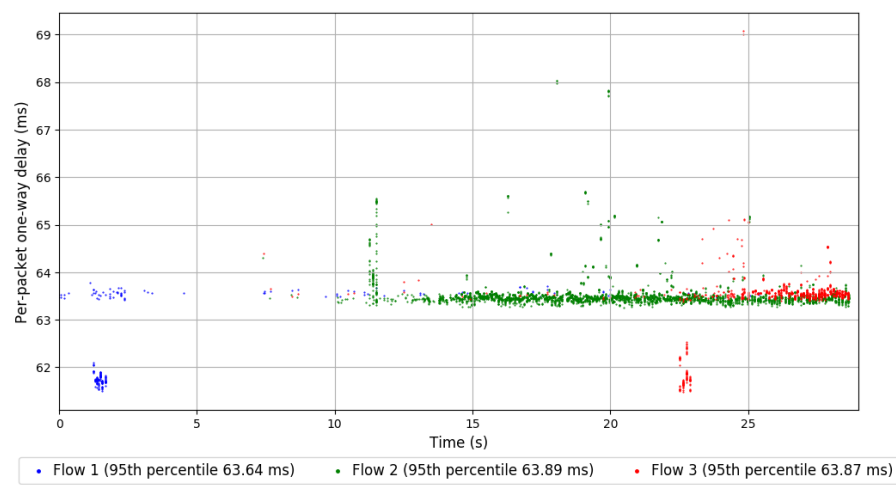
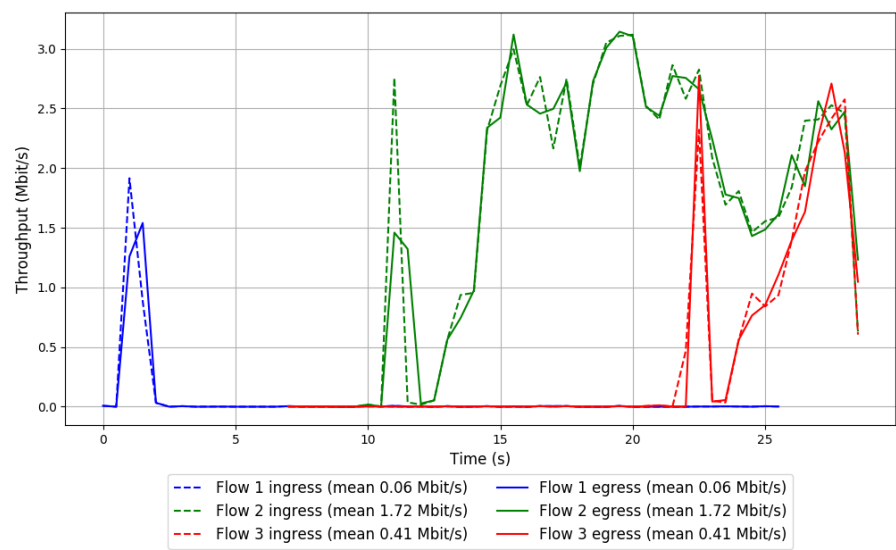
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 63.868 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-08-21 14:24:57

End at: 2017-08-21 14:25:27

Below is generated by plot.py at 2017-08-21 16:03:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 63.760 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 63.655 ms

Loss rate: 0.00%

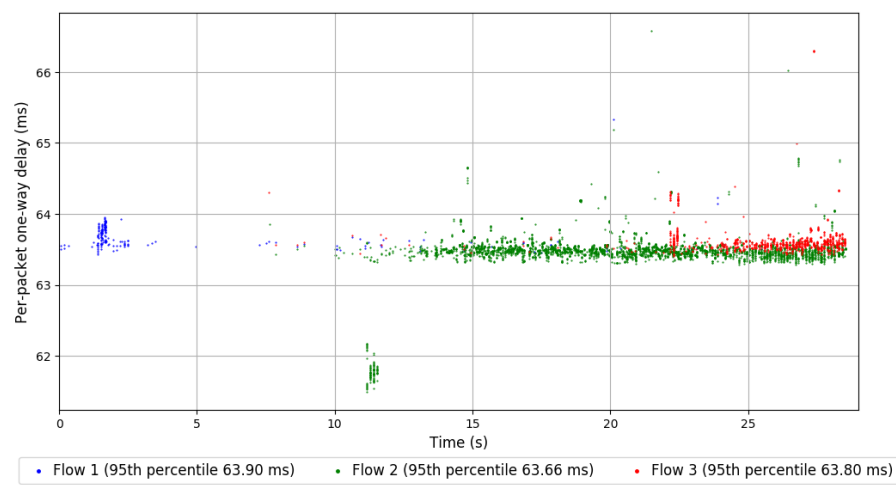
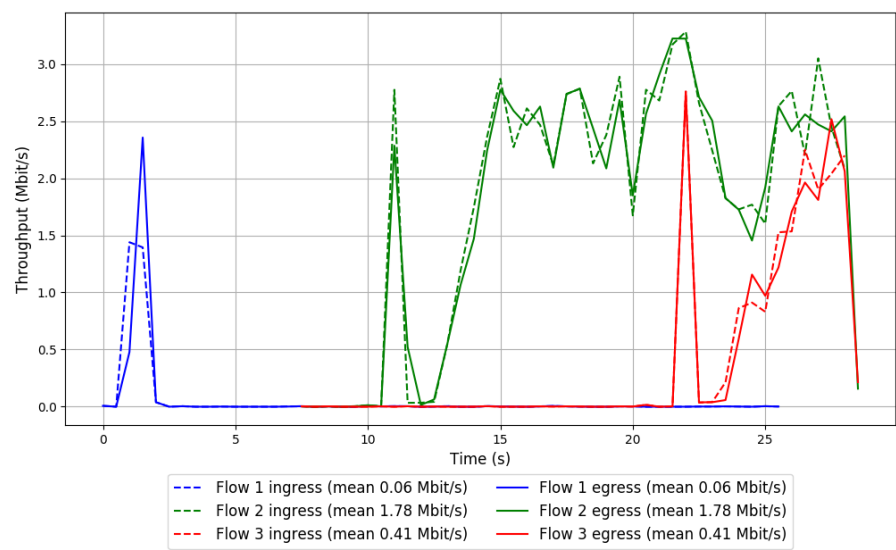
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 63.803 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-21 14:35:53

End at: 2017-08-21 14:36:23

Below is generated by plot.py at 2017-08-21 16:03:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 63.791 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 63.757 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.77 Mbit/s

95th percentile per-packet one-way delay: 63.812 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 63.733 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

