

## Pantheon Report

Generated at 2017-08-12 12:07:17 (UTC).

Data path: GCE Sydney 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.

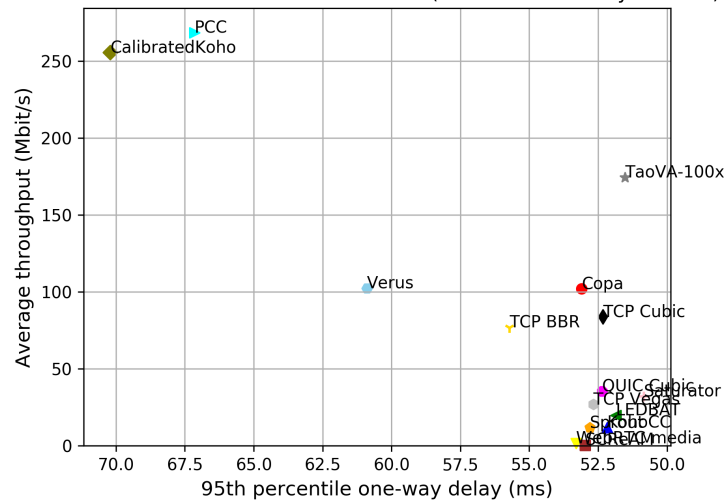
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

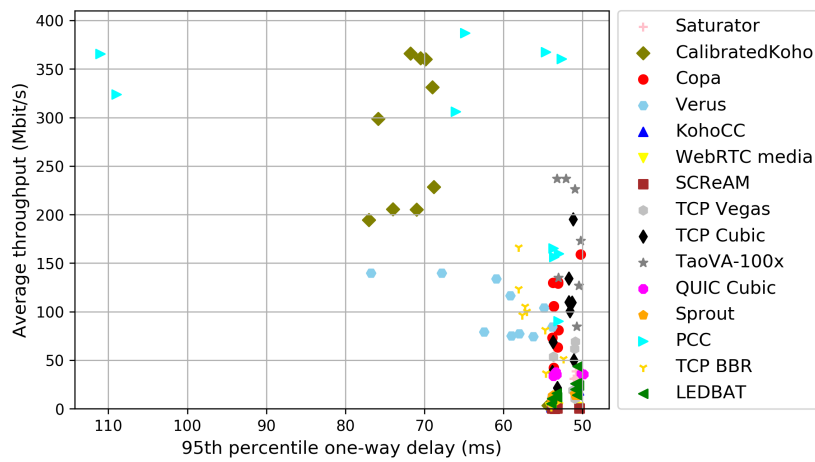
Git summary:

```
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 Sydney 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 Sydney Ethernet to GCE Tokyo Ethernet, 10 runs of 30s each per scheme  
3 flows with 10s interval between flows



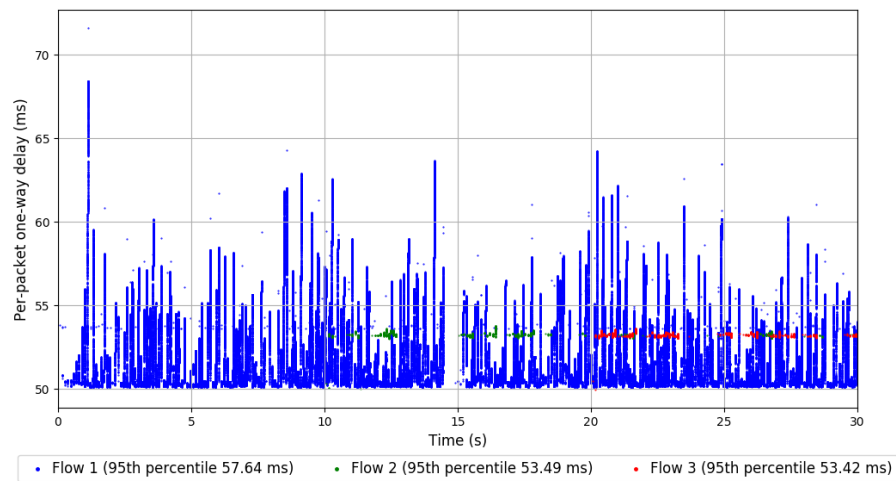
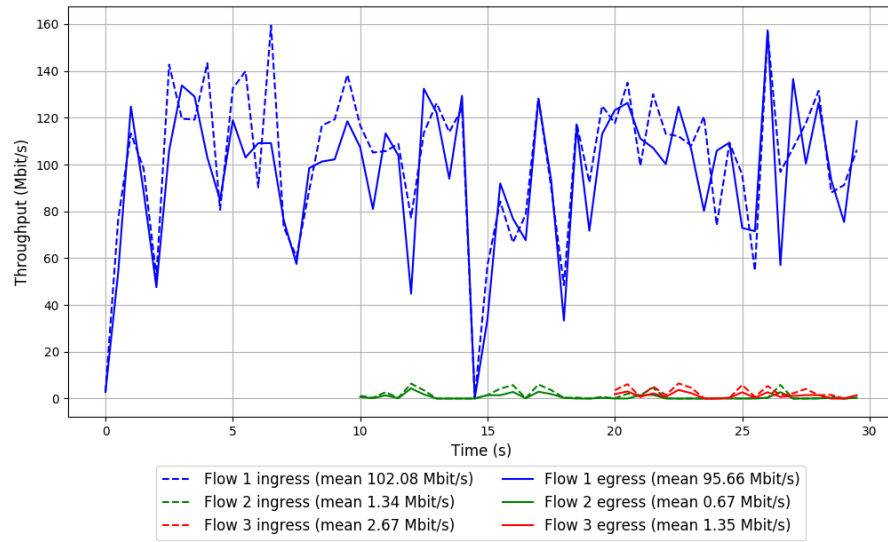
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	49.94	25.36	30.27	54.80	54.53	54.60	19.68	34.73	27.97
CalibratedKoho	10	127.97	162.48	58.98	62.98	66.10	62.97	35.10	27.18	33.11
Copa	10	78.00	46.29	22.13	52.20	53.00	52.29	15.26	17.96	41.50
TCP Cubic	10	44.47	29.60	59.63	52.18	52.25	52.91	2.05	8.62	4.57
KohoCC	10	5.91	7.16	3.68	52.11	51.79	52.83	47.85	36.66	64.65
LEDBAT	10	10.82	10.32	5.93	51.87	51.07	51.80	2.16	0.74	5.47
PCC	10	203.80	54.51	86.65	68.33	52.86	52.99	21.90	44.05	32.55
QUIC Cubic	9	0.06	40.70	26.18	50.60	51.13	51.33	0.00	0.00	0.00
Saturator	6	20.54	14.80	17.52	51.28	52.67	52.00	9.62	28.68	19.34
SCReAM	10	33.21	0.21	0.22	164.82	52.26	50.96	0.00	0.00	0.00
Sprout	10	6.47	5.17	5.44	52.06	52.37	52.23	6.57	12.01	9.64
TaoVA-100x	7	100.62	123.45	85.18	51.21	51.84	52.33	39.09	26.18	23.09
TCP Vegas	10	8.41	21.28	20.38	855.20	52.25	51.68	1.38	3.61	3.70
Verus	10	54.27	62.02	21.78	59.24	58.61	56.65	41.53	10.64	41.06
WebRTC media	10	0.05	1.48	0.38	52.72	52.12	52.46	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2017-08-12 08:48:16
End at: 2017-08-12 08:48:46

# Below is generated by plot.py at 2017-08-12 11:43:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.54 Mbit/s
95th percentile per-packet one-way delay: 57.619 ms
Loss rate: 7.04%
-- Flow 1:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 57.638 ms
Loss rate: 6.30%
-- Flow 2:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 53.487 ms
Loss rate: 50.18%
-- Flow 3:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 53.417 ms
Loss rate: 49.29%
```

# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-12 08:59:31

End at: 2017-08-12 09:00:01

# Below is generated by plot.py at 2017-08-12 11:43:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.03 Mbit/s

95th percentile per-packet one-way delay: 53.401 ms

Loss rate: 37.57%

-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 53.510 ms

Loss rate: 43.11%

-- Flow 2:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 53.356 ms

Loss rate: 38.24%

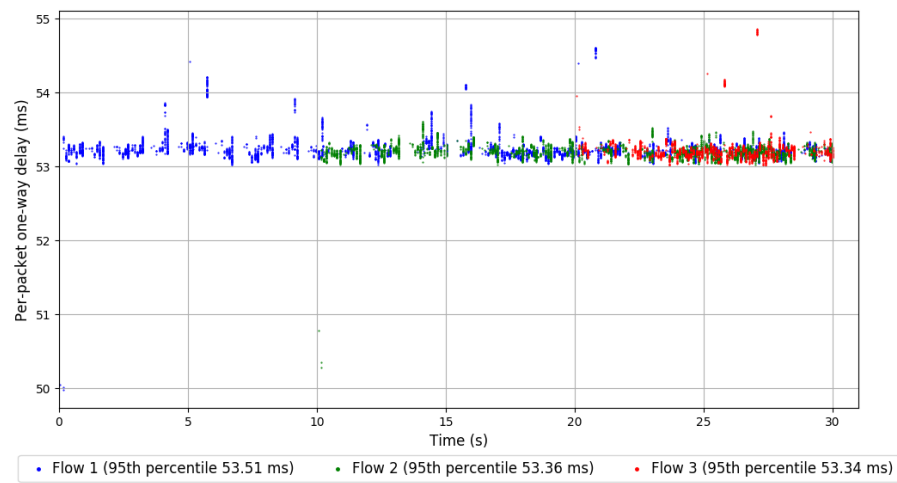
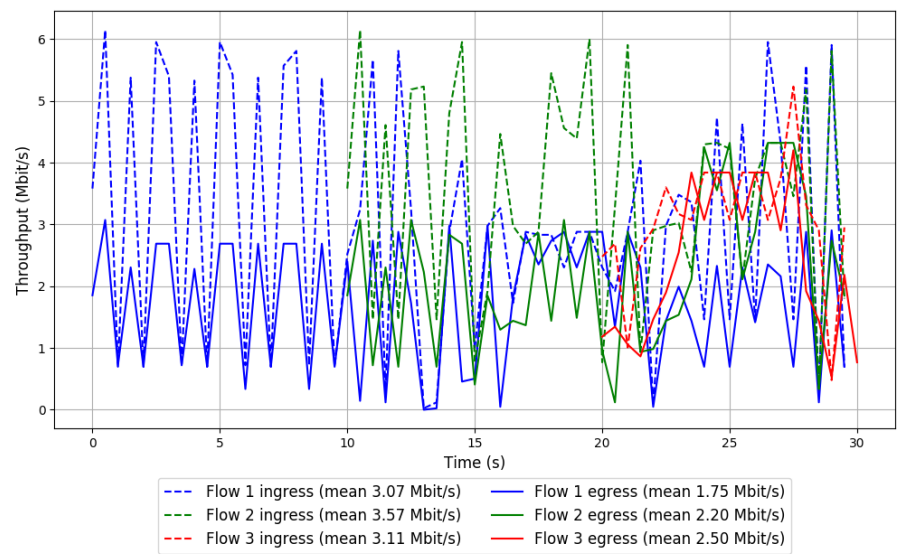
-- Flow 3:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 53.341 ms

Loss rate: 19.53%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-08-12 09:10:40

End at: 2017-08-12 09:11:10

# Below is generated by plot.py at 2017-08-12 11:43:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 105.54 Mbit/s

95th percentile per-packet one-way delay: 57.249 ms

Loss rate: 4.32%

-- Flow 1:

Average throughput: 104.02 Mbit/s

95th percentile per-packet one-way delay: 57.274 ms

Loss rate: 3.80%

-- Flow 2:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 53.390 ms

Loss rate: 27.16%

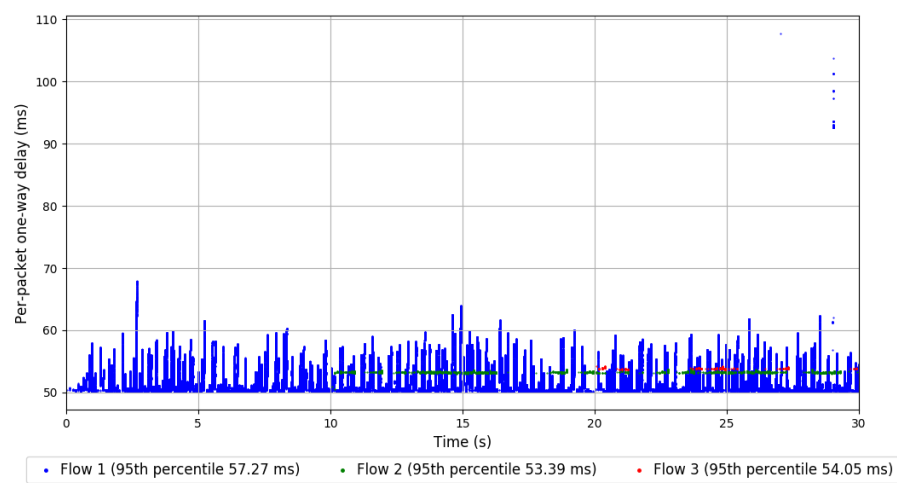
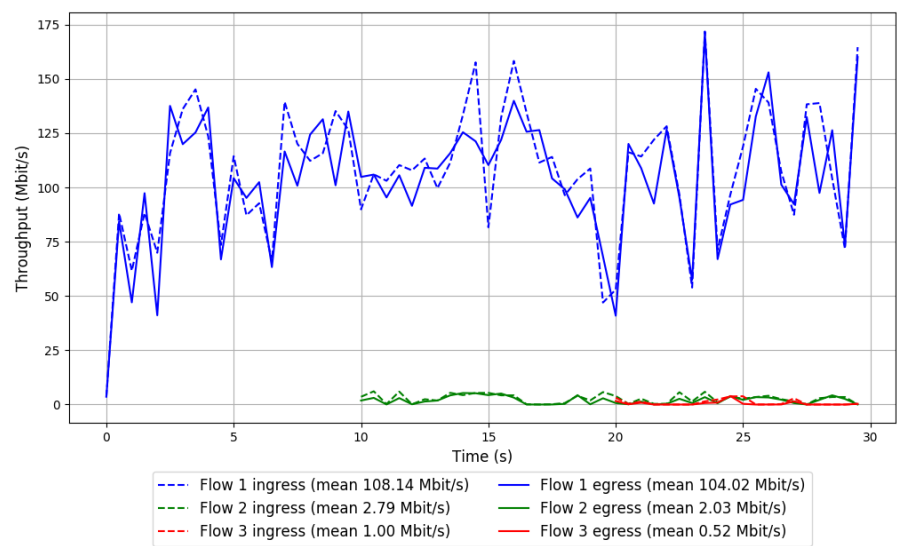
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 54.048 ms

Loss rate: 47.93%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-08-12 09:21:56

End at: 2017-08-12 09:22:26

# Below is generated by plot.py at 2017-08-12 11:44:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 123.70 Mbit/s

95th percentile per-packet one-way delay: 58.099 ms

Loss rate: 5.06%

-- Flow 1:

Average throughput: 92.54 Mbit/s

95th percentile per-packet one-way delay: 57.834 ms

Loss rate: 4.61%

-- Flow 2:

Average throughput: 0.73 Mbit/s

95th percentile per-packet one-way delay: 53.862 ms

Loss rate: 51.84%

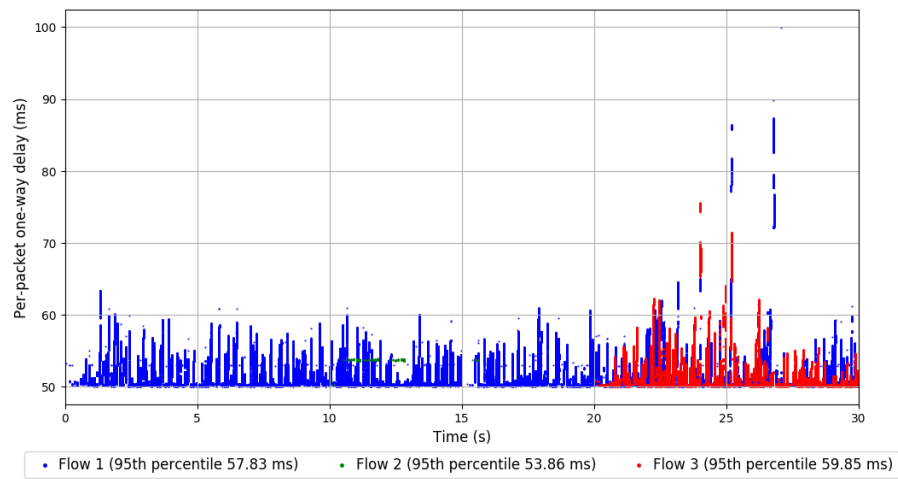
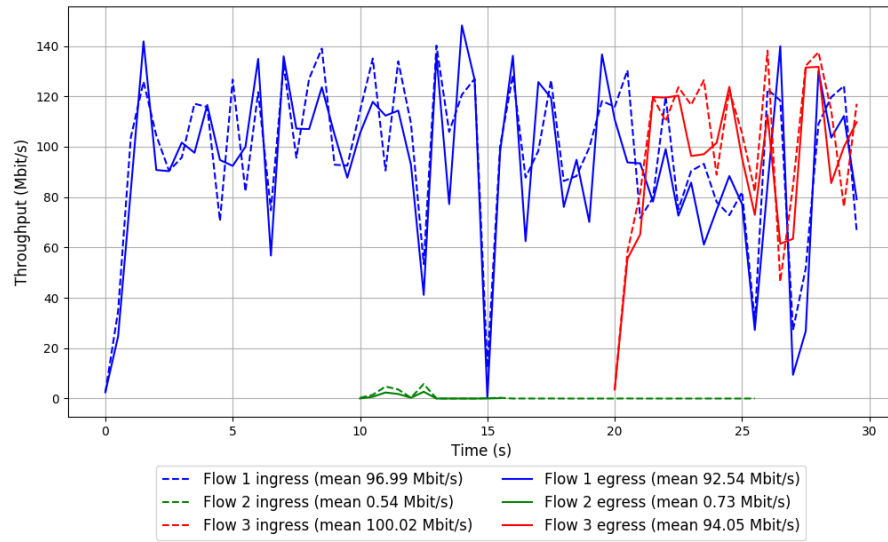
-- Flow 3:

Average throughput: 94.05 Mbit/s

95th percentile per-packet one-way delay: 59.848 ms

Loss rate: 5.98%

# Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-12 09:33:22

End at: 2017-08-12 09:33:52

# Below is generated by plot.py at 2017-08-12 11:44:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.23 Mbit/s

95th percentile per-packet one-way delay: 57.026 ms

Loss rate: 9.36%

-- Flow 1:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 54.033 ms

Loss rate: 41.76%

-- Flow 2:

Average throughput: 100.04 Mbit/s

95th percentile per-packet one-way delay: 56.990 ms

Loss rate: 8.10%

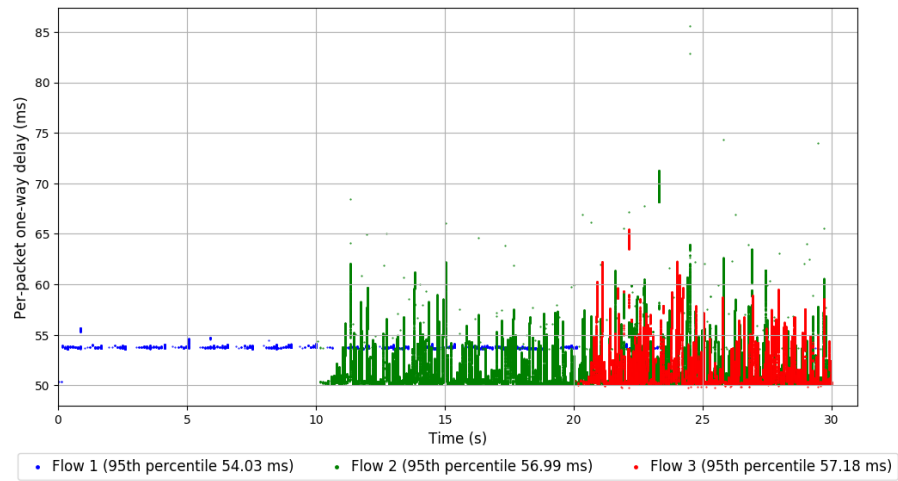
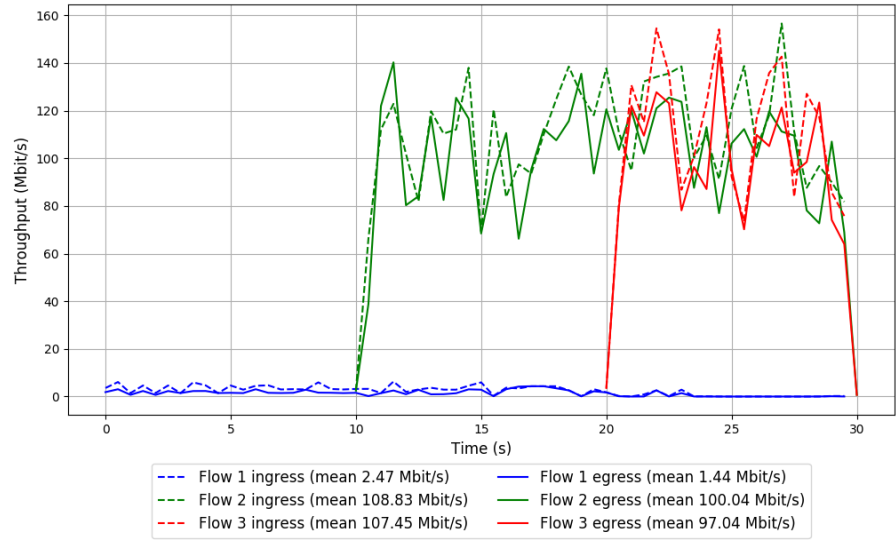
-- Flow 3:

Average throughput: 97.04 Mbit/s

95th percentile per-packet one-way delay: 57.179 ms

Loss rate: 9.69%

# Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-08-12 09:44:45

End at: 2017-08-12 09:45:15

# Below is generated by plot.py at 2017-08-12 11:44:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 53.959 ms

Loss rate: 47.44%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 49.965 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.86 Mbit/s

95th percentile per-packet one-way delay: 53.988 ms

Loss rate: 47.70%

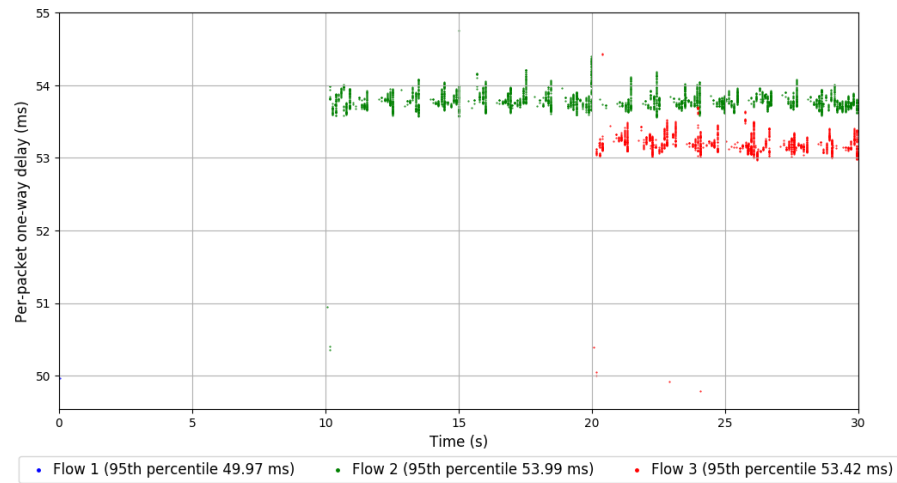
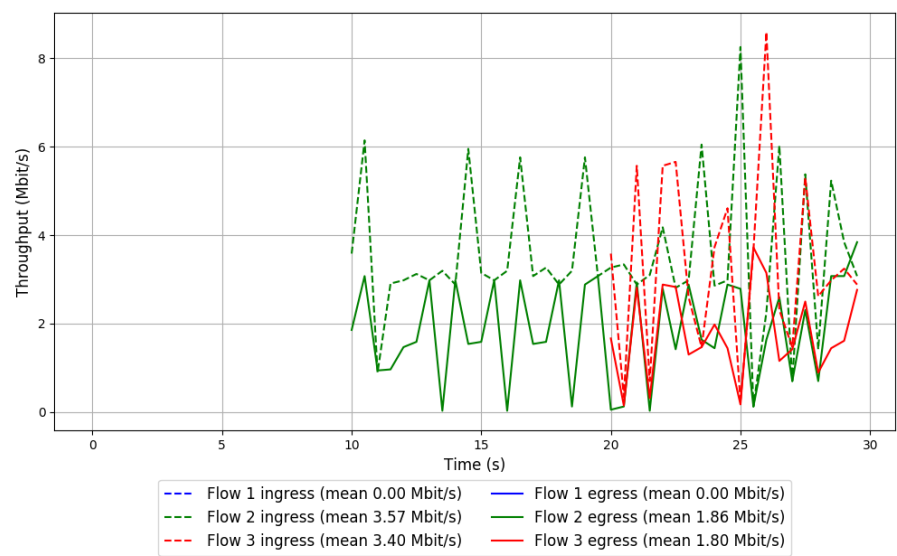
-- Flow 3:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 53.424 ms

Loss rate: 46.90%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-12 09:56:03

End at: 2017-08-12 09:56:33

# Below is generated by plot.py at 2017-08-12 11:44:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 166.39 Mbit/s

95th percentile per-packet one-way delay: 58.100 ms

Loss rate: 4.00%

-- Flow 1:

Average throughput: 105.21 Mbit/s

95th percentile per-packet one-way delay: 57.715 ms

Loss rate: 3.43%

-- Flow 2:

Average throughput: 91.74 Mbit/s

95th percentile per-packet one-way delay: 58.535 ms

Loss rate: 4.84%

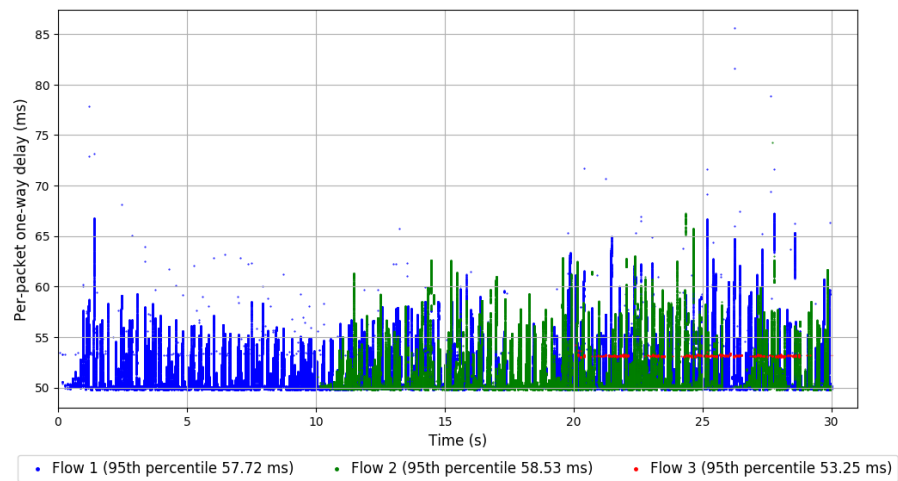
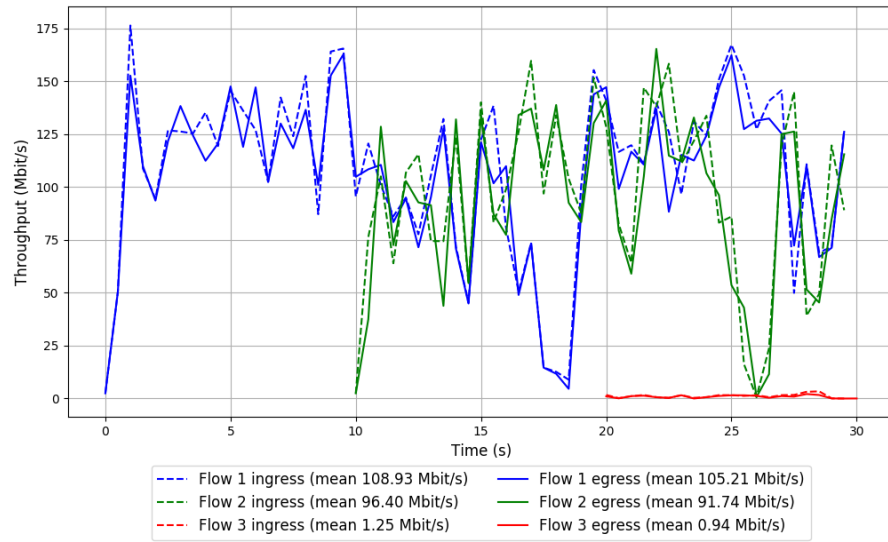
-- Flow 3:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 53.252 ms

Loss rate: 24.97%

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



Run 8: Statistics of TCP BBR

Start at: 2017-08-12 10:06:59

End at: 2017-08-12 10:07:29

# Below is generated by plot.py at 2017-08-12 11:44:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.55 Mbit/s

95th percentile per-packet one-way delay: 54.625 ms

Loss rate: 23.36%

-- Flow 1:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 53.380 ms

Loss rate: 47.15%

-- Flow 2:

Average throughput: 51.83 Mbit/s

95th percentile per-packet one-way delay: 54.796 ms

Loss rate: 21.71%

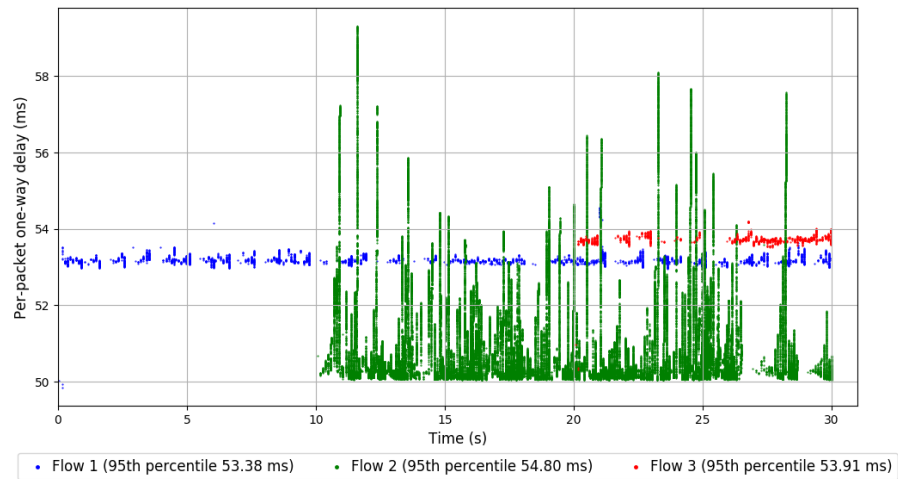
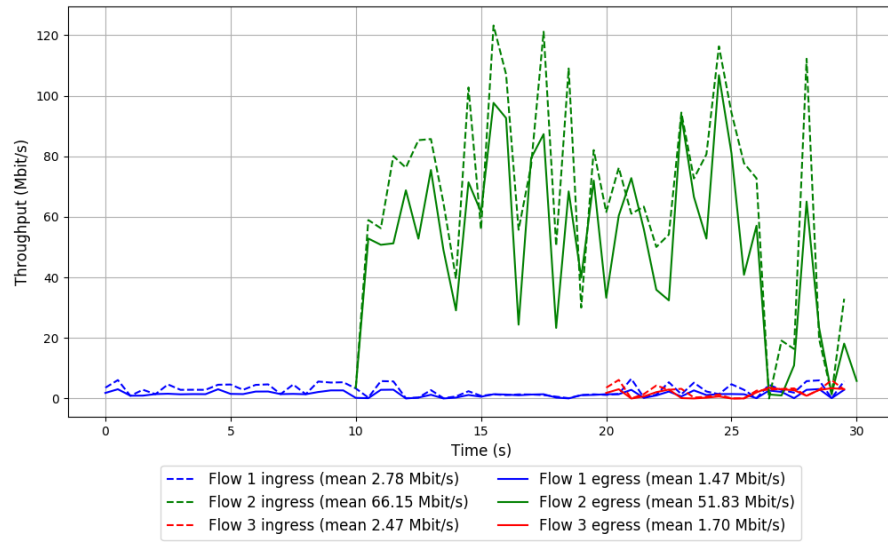
-- Flow 3:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 53.908 ms

Loss rate: 31.25%

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



Run 9: Statistics of TCP BBR

Start at: 2017-08-12 10:18:12

End at: 2017-08-12 10:18:42

# Below is generated by plot.py at 2017-08-12 11:44:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 51.62 Mbit/s

95th percentile per-packet one-way delay: 52.417 ms

Loss rate: 29.47%

-- Flow 1:

Average throughput: 36.08 Mbit/s

95th percentile per-packet one-way delay: 52.165 ms

Loss rate: 29.99%

-- Flow 2:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 53.320 ms

Loss rate: 49.46%

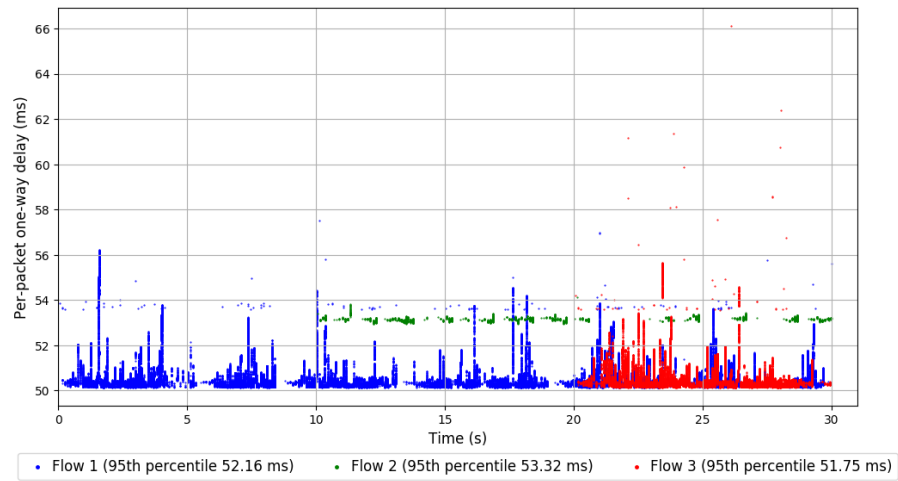
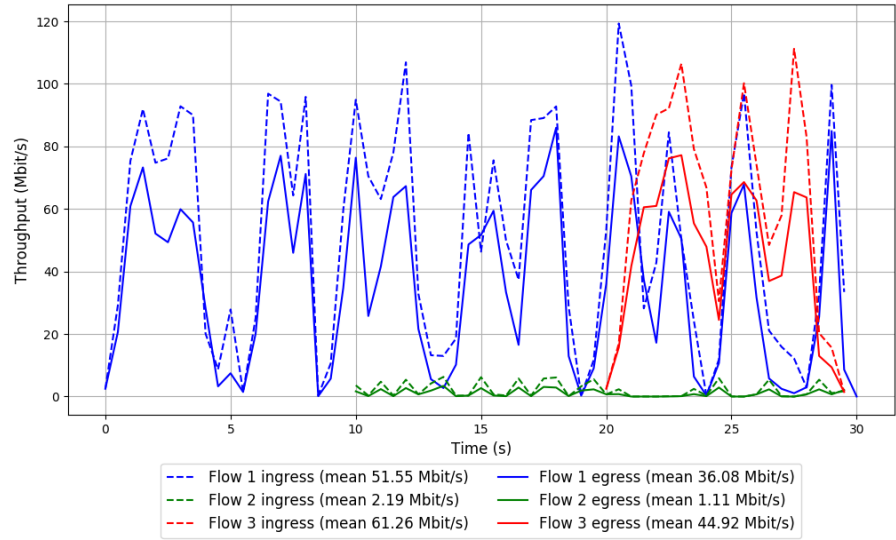
-- Flow 3:

Average throughput: 44.92 Mbit/s

95th percentile per-packet one-way delay: 51.747 ms

Loss rate: 26.70%

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



Run 10: Statistics of TCP BBR

Start at: 2017-08-12 10:29:15

End at: 2017-08-12 10:29:45

# Below is generated by plot.py at 2017-08-12 11:44:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.35 Mbit/s

95th percentile per-packet one-way delay: 54.715 ms

Loss rate: 17.40%

-- Flow 1:

Average throughput: 61.27 Mbit/s

95th percentile per-packet one-way delay: 54.535 ms

Loss rate: 16.63%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 53.562 ms

Loss rate: 48.03%

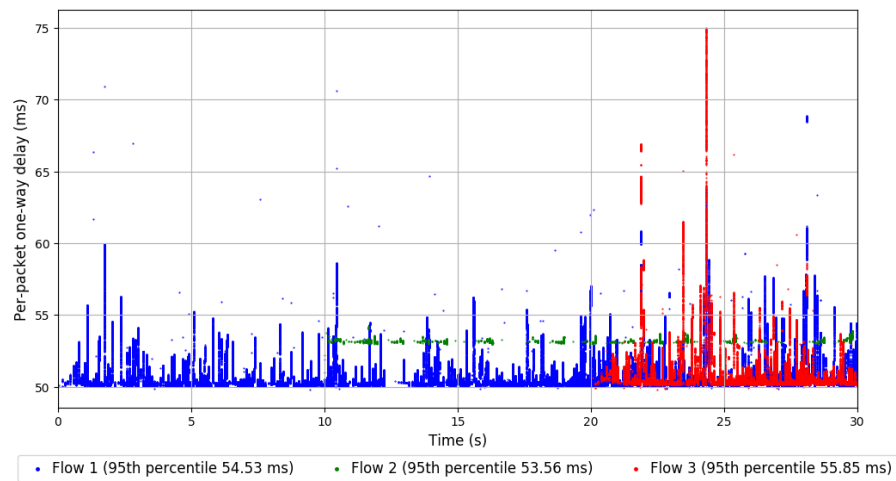
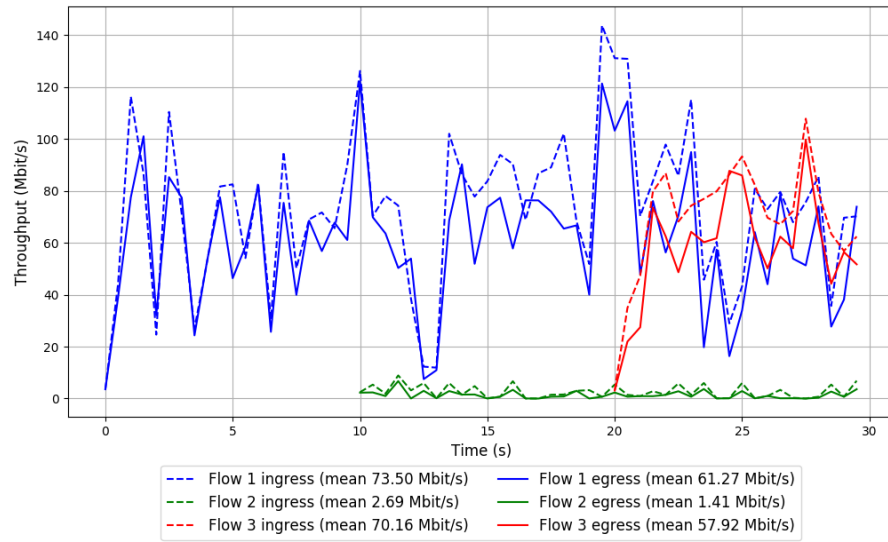
-- Flow 3:

Average throughput: 57.92 Mbit/s

95th percentile per-packet one-way delay: 55.850 ms

Loss rate: 17.45%

# Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-12 08:46:02

End at: 2017-08-12 08:46:32

# Below is generated by plot.py at 2017-08-12 11:45:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 205.26 Mbit/s

95th percentile per-packet one-way delay: 71.012 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 0.97 Mbit/s

95th percentile per-packet one-way delay: 54.363 ms

Loss rate: 69.06%

-- Flow 2:

Average throughput: 306.37 Mbit/s

95th percentile per-packet one-way delay: 71.051 ms

Loss rate: 0.30%

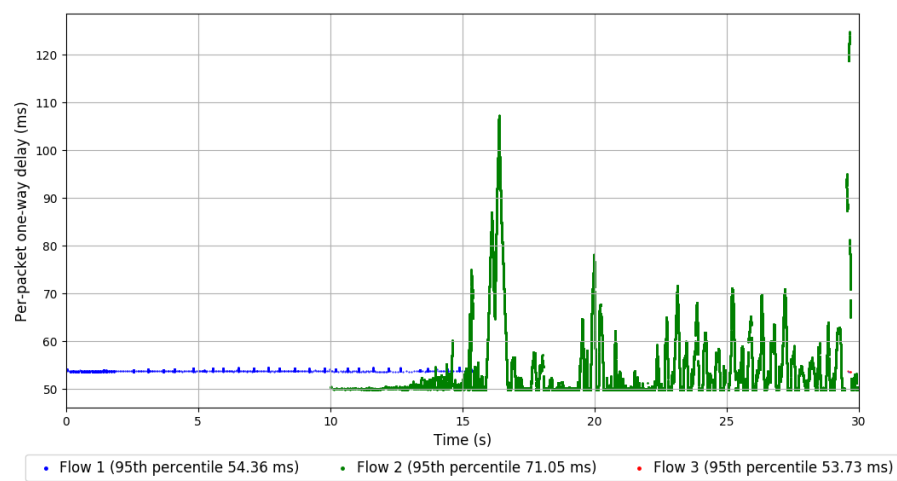
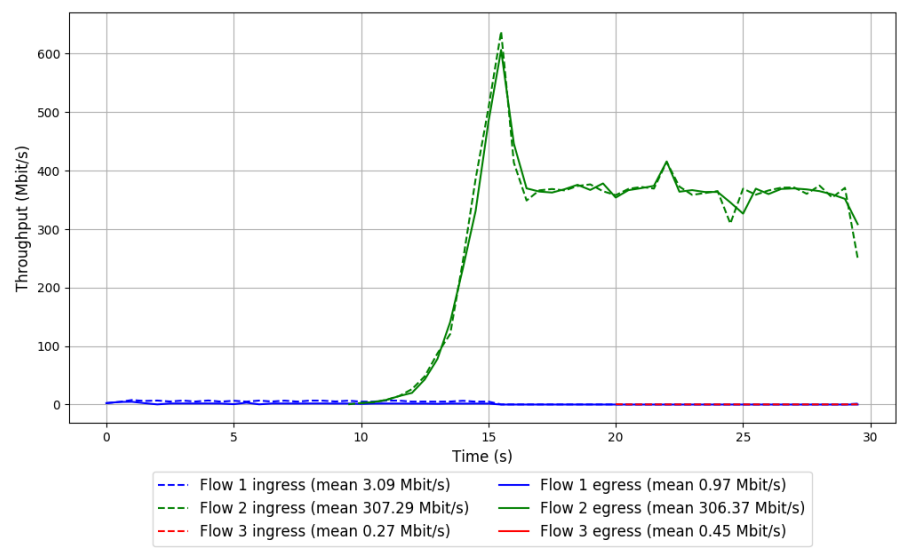
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 53.725 ms

Loss rate: 98.18%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-08-12 08:57:13

End at: 2017-08-12 08:57:43

# Below is generated by plot.py at 2017-08-12 11:45:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 228.48 Mbit/s

95th percentile per-packet one-way delay: 68.805 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 54.466 ms

Loss rate: 69.31%

-- Flow 2:

Average throughput: 271.16 Mbit/s

95th percentile per-packet one-way delay: 69.348 ms

Loss rate: 0.09%

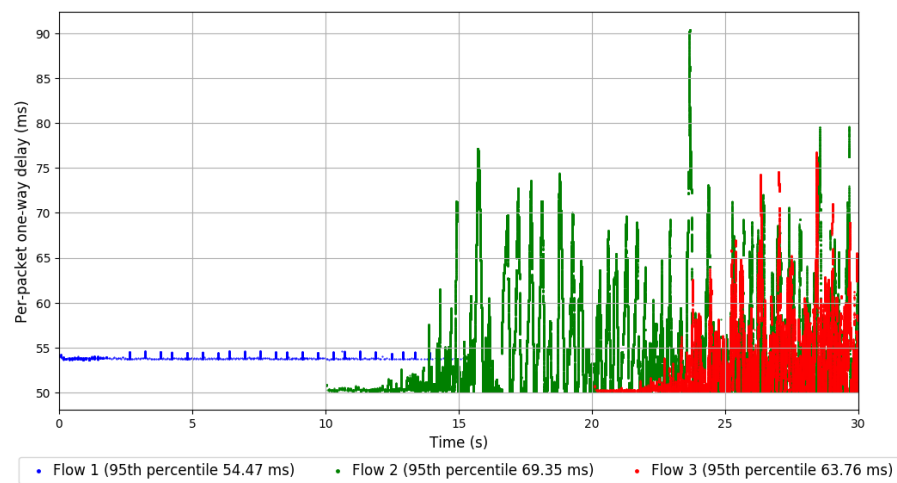
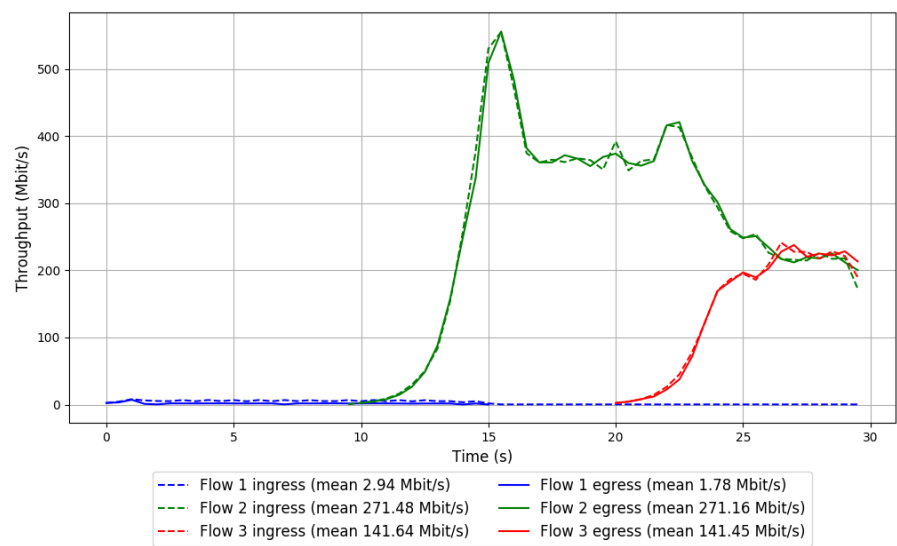
-- Flow 3:

Average throughput: 141.45 Mbit/s

95th percentile per-packet one-way delay: 63.759 ms

Loss rate: 0.14%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-08-12 09:08:11

End at: 2017-08-12 09:08:41

# Below is generated by plot.py at 2017-08-12 11:46:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 366.19 Mbit/s

95th percentile per-packet one-way delay: 71.771 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 228.20 Mbit/s

95th percentile per-packet one-way delay: 73.033 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 155.84 Mbit/s

95th percentile per-packet one-way delay: 69.669 ms

Loss rate: 0.26%

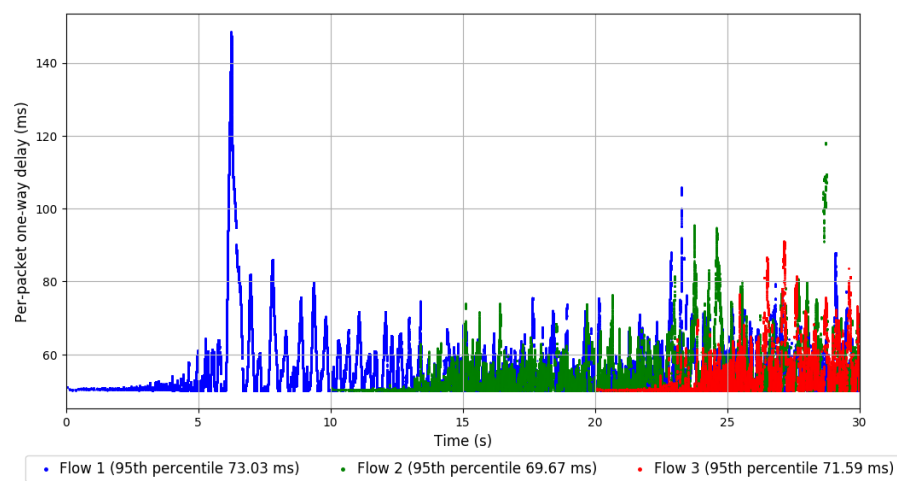
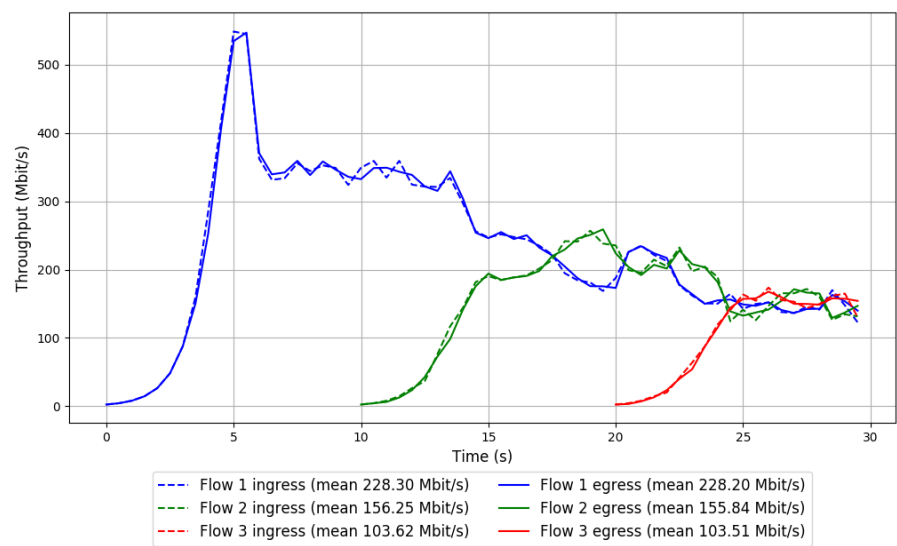
-- Flow 3:

Average throughput: 103.51 Mbit/s

95th percentile per-packet one-way delay: 71.595 ms

Loss rate: 0.10%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-08-12 09:19:32

End at: 2017-08-12 09:20:02

# Below is generated by plot.py at 2017-08-12 11:46:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 331.15 Mbit/s

95th percentile per-packet one-way delay: 68.971 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 286.60 Mbit/s

95th percentile per-packet one-way delay: 69.281 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 53.696 ms

Loss rate: 99.76%

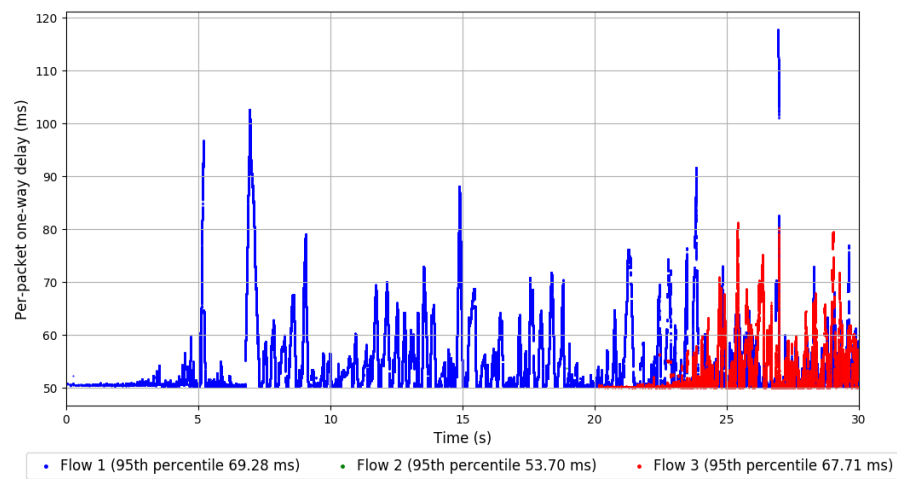
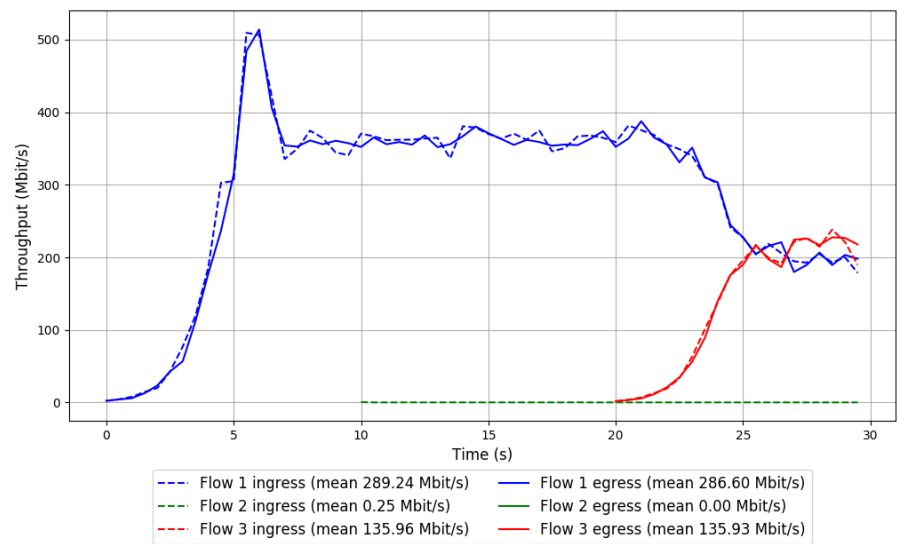
-- Flow 3:

Average throughput: 135.93 Mbit/s

95th percentile per-packet one-way delay: 67.706 ms

Loss rate: 0.03%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-08-12 09:31:11

End at: 2017-08-12 09:31:41

# Below is generated by plot.py at 2017-08-12 11:46:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 194.61 Mbit/s

95th percentile per-packet one-way delay: 77.030 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 1.05 Mbit/s

95th percentile per-packet one-way delay: 54.002 ms

Loss rate: 69.57%

-- Flow 2:

Average throughput: 290.52 Mbit/s

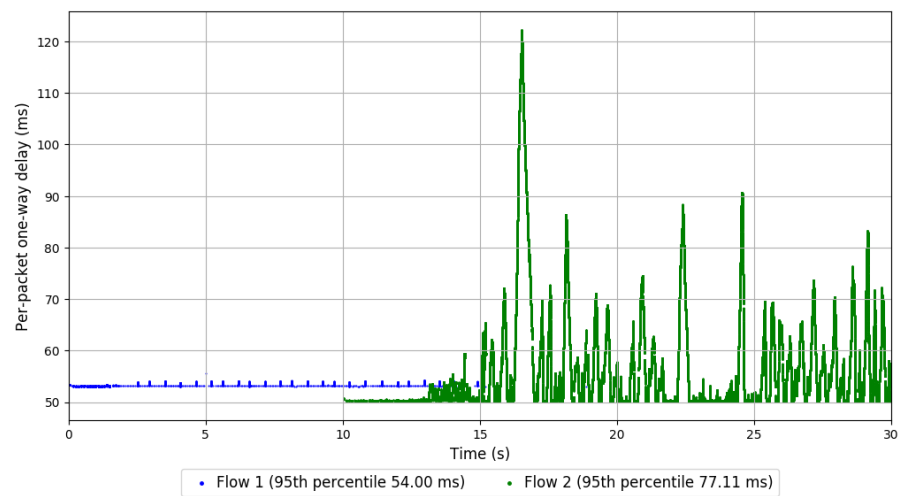
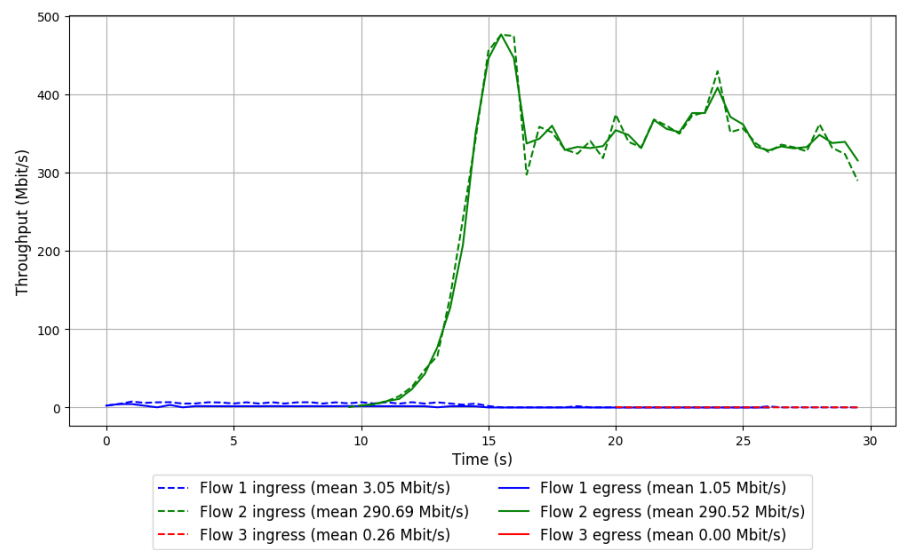
95th percentile per-packet one-way delay: 77.111 ms

Loss rate: 0.05%

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-12 09:42:16

End at: 2017-08-12 09:42:46

# Below is generated by plot.py at 2017-08-12 11:48:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 360.18 Mbit/s

95th percentile per-packet one-way delay: 69.850 ms

Loss rate: 1.73%

-- Flow 1:

Average throughput: 231.38 Mbit/s

95th percentile per-packet one-way delay: 68.929 ms

Loss rate: 2.33%

-- Flow 2:

Average throughput: 143.00 Mbit/s

95th percentile per-packet one-way delay: 71.895 ms

Loss rate: 0.78%

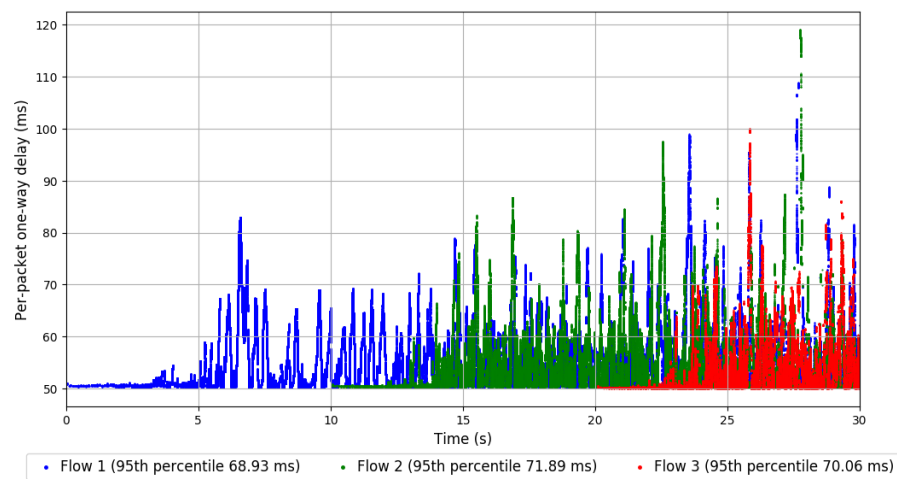
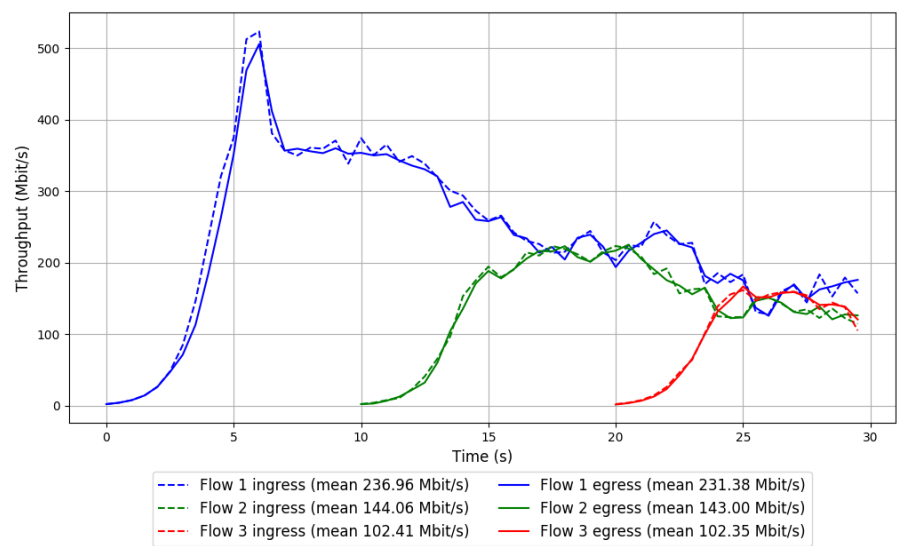
-- Flow 3:

Average throughput: 102.35 Mbit/s

95th percentile per-packet one-way delay: 70.058 ms

Loss rate: 0.15%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-08-12 09:53:46

End at: 2017-08-12 09:54:16

# Below is generated by plot.py at 2017-08-12 11:48:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 205.48 Mbit/s

95th percentile per-packet one-way delay: 73.980 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 53.785 ms

Loss rate: 69.55%

-- Flow 2:

Average throughput: 306.63 Mbit/s

95th percentile per-packet one-way delay: 74.004 ms

Loss rate: 0.44%

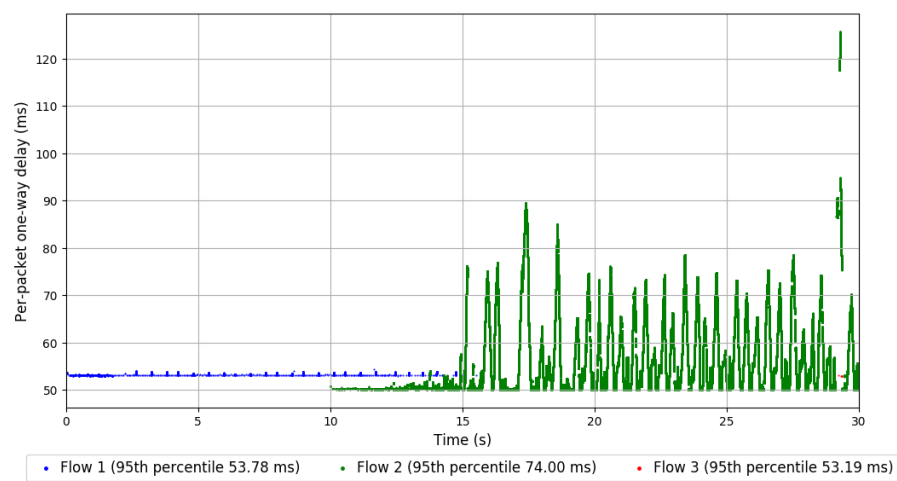
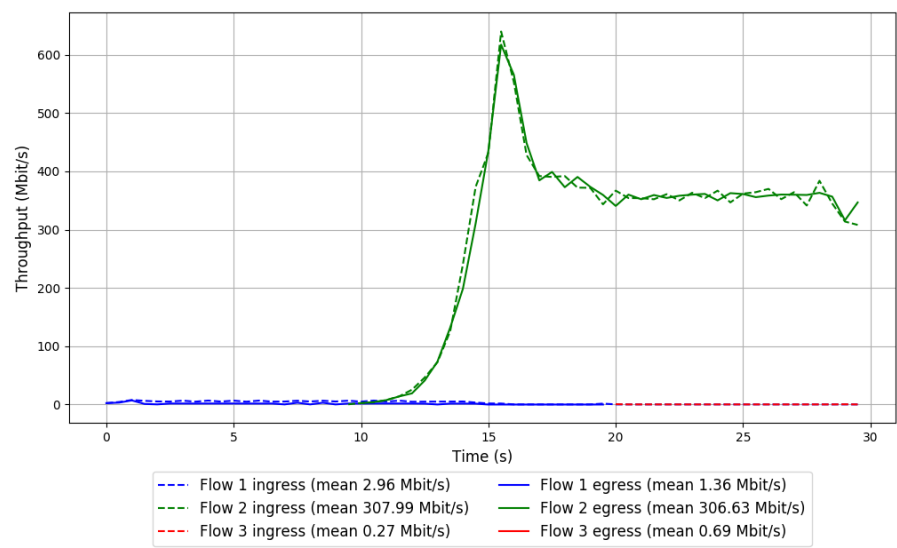
-- Flow 3:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 53.191 ms

Loss rate: 97.29%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-08-12 10:04:41

End at: 2017-08-12 10:05:11

# Below is generated by plot.py at 2017-08-12 11:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 298.60 Mbit/s

95th percentile per-packet one-way delay: 75.844 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 298.60 Mbit/s

95th percentile per-packet one-way delay: 75.844 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.00 Mbit/s

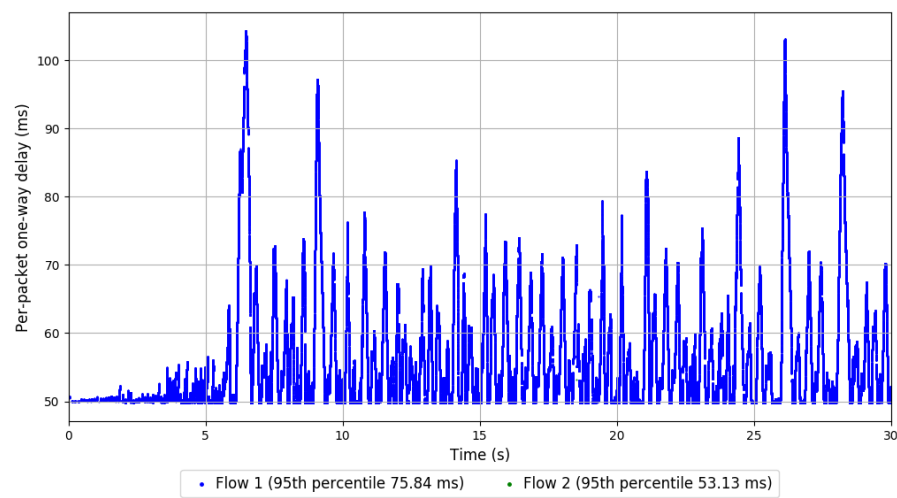
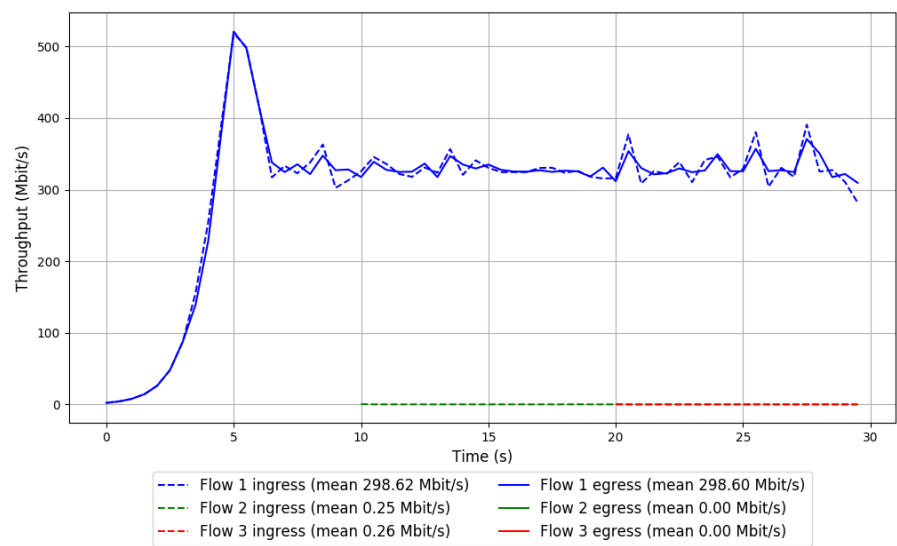
95th percentile per-packet one-way delay: 53.131 ms

Loss rate: 99.76%

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-08-12 10:15:44

End at: 2017-08-12 10:16:14

# Below is generated by plot.py at 2017-08-12 11:49:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 361.16 Mbit/s

95th percentile per-packet one-way delay: 70.493 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 227.88 Mbit/s

95th percentile per-packet one-way delay: 71.760 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 149.61 Mbit/s

95th percentile per-packet one-way delay: 67.165 ms

Loss rate: 0.09%

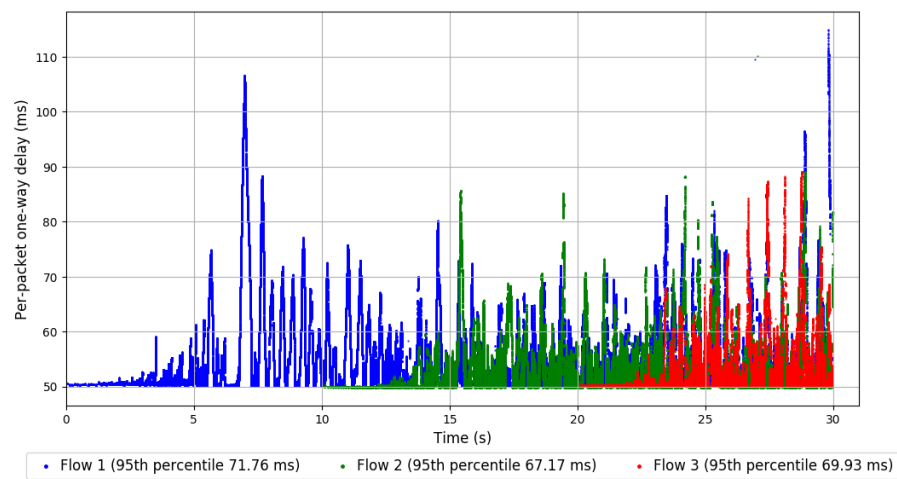
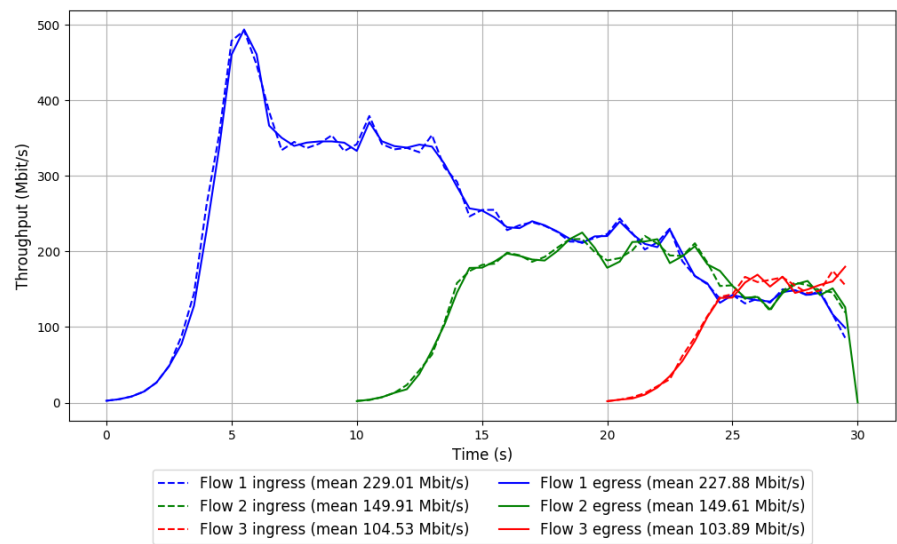
-- Flow 3:

Average throughput: 103.89 Mbit/s

95th percentile per-packet one-way delay: 69.927 ms

Loss rate: 0.62%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-08-12 10:27:15

End at: 2017-08-12 10:27:45

# Below is generated by plot.py at 2017-08-12 11:49:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.49 Mbit/s

95th percentile per-packet one-way delay: 54.301 ms

Loss rate: 69.74%

-- Flow 1:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 54.376 ms

Loss rate: 69.75%

-- Flow 2:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 53.971 ms

Loss rate: 70.30%

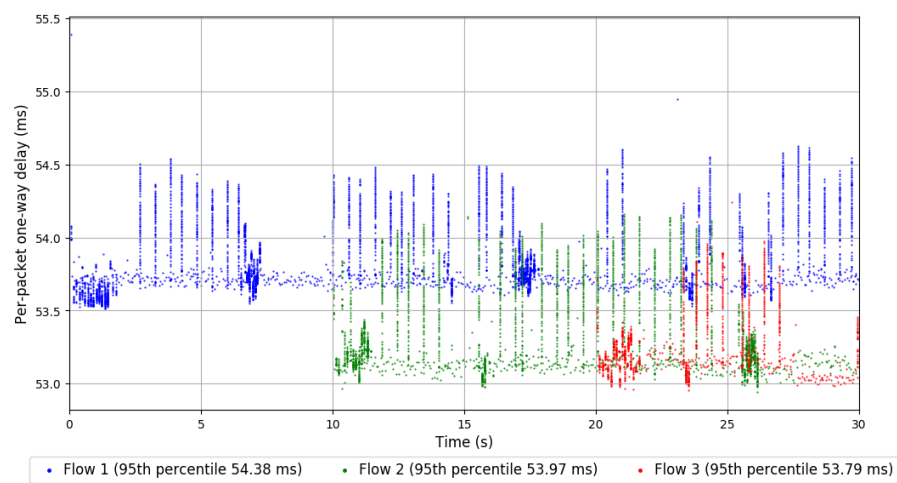
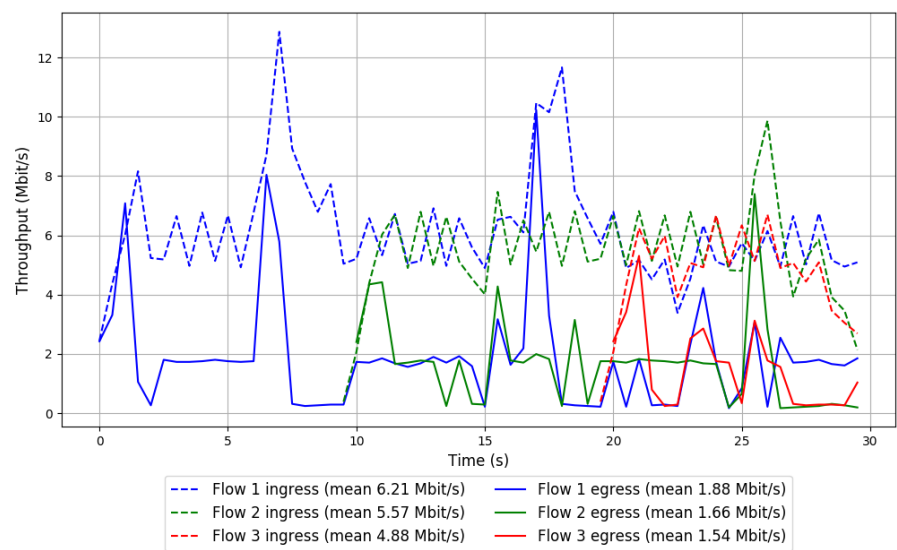
-- Flow 3:

Average throughput: 1.54 Mbit/s

95th percentile per-packet one-way delay: 53.793 ms

Loss rate: 68.39%

Run 10: Report of CalibratedKoho — Data Link



Run 1: Statistics of Copa

Start at: 2017-08-12 08:50:24

End at: 2017-08-12 08:50:54

# Below is generated by plot.py at 2017-08-12 11:49:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.04 Mbit/s

95th percentile per-packet one-way delay: 53.058 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 75.02 Mbit/s

95th percentile per-packet one-way delay: 53.711 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 93.23 Mbit/s

95th percentile per-packet one-way delay: 50.335 ms

Loss rate: 0.00%

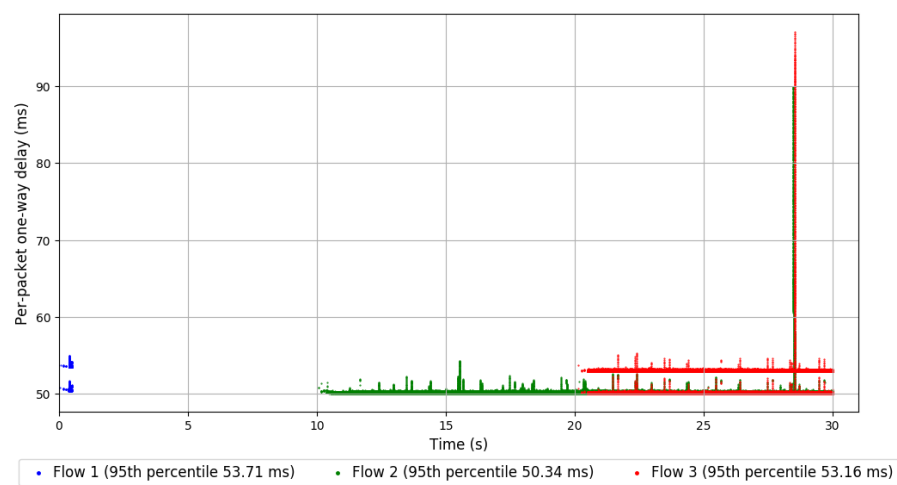
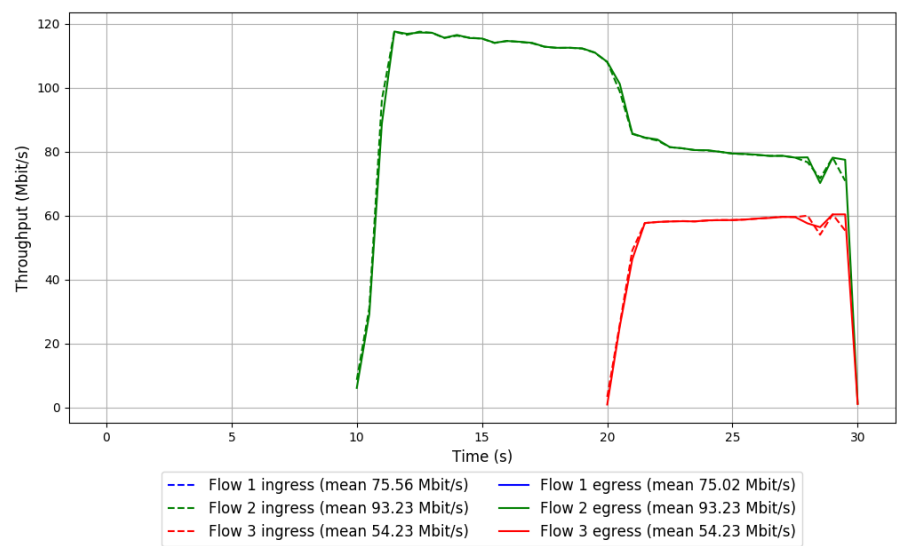
-- Flow 3:

Average throughput: 54.23 Mbit/s

95th percentile per-packet one-way delay: 53.156 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-08-12 09:01:36

End at: 2017-08-12 09:02:06

# Below is generated by plot.py at 2017-08-12 11:49:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 105.59 Mbit/s

95th percentile per-packet one-way delay: 53.633 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 102.01 Mbit/s

95th percentile per-packet one-way delay: 53.655 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 92.43 Mbit/s

95th percentile per-packet one-way delay: 53.284 ms

Loss rate: 0.00%

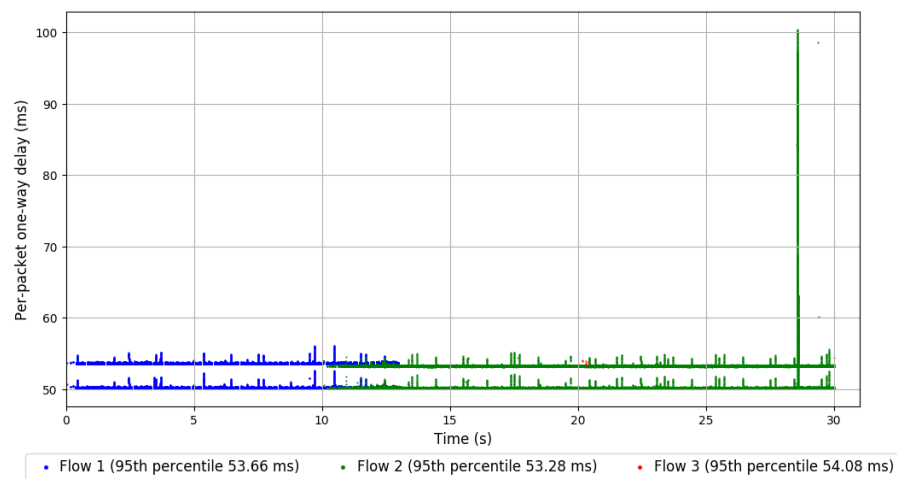
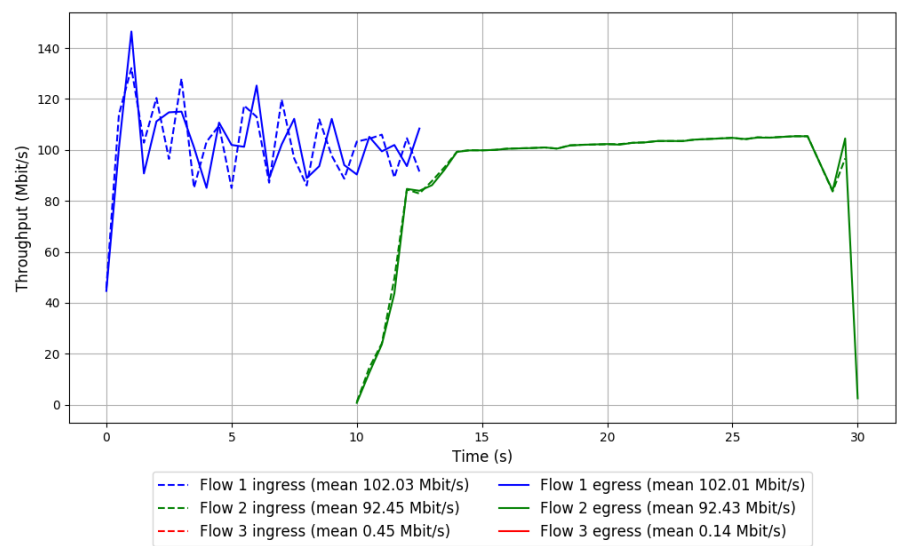
-- Flow 3:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 54.083 ms

Loss rate: 69.26%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-12 09:12:52

End at: 2017-08-12 09:13:22

# Below is generated by plot.py at 2017-08-12 11:50:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 129.14 Mbit/s

95th percentile per-packet one-way delay: 53.098 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 87.72 Mbit/s

95th percentile per-packet one-way delay: 50.625 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.49 Mbit/s

95th percentile per-packet one-way delay: 53.185 ms

Loss rate: 0.00%

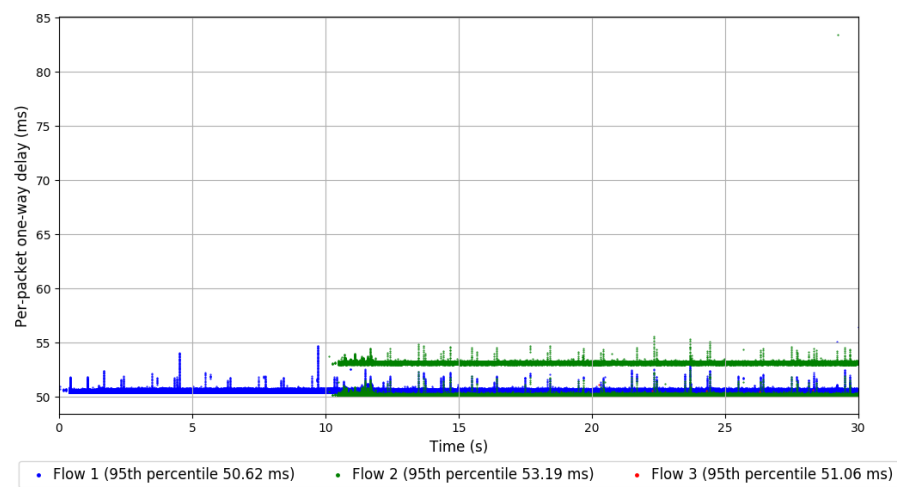
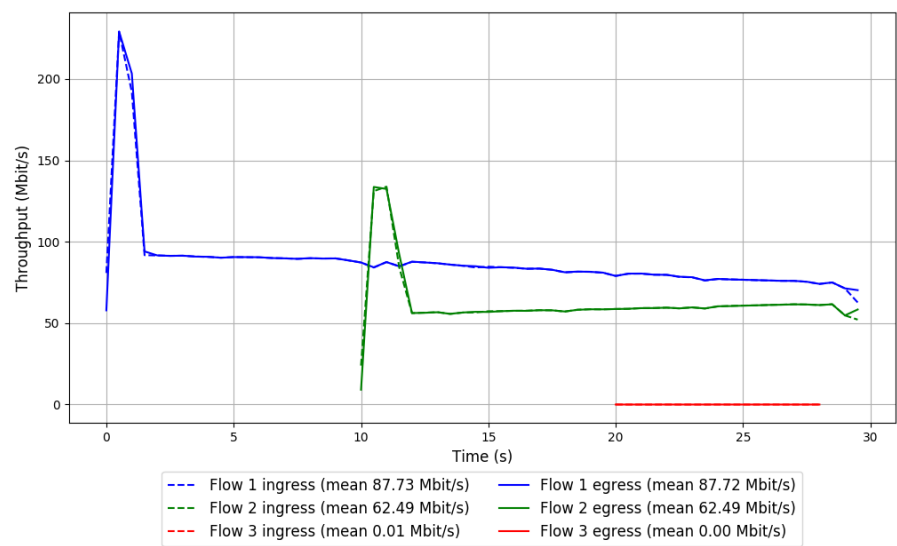
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 51.064 ms

Loss rate: 92.35%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-12 09:24:12

End at: 2017-08-12 09:24:42

# Below is generated by plot.py at 2017-08-12 11:50:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 63.26 Mbit/s

95th percentile per-packet one-way delay: 53.127 ms

Loss rate: 34.42%

-- Flow 1:

Average throughput: 43.43 Mbit/s

95th percentile per-packet one-way delay: 53.065 ms

Loss rate: 43.32%

-- Flow 2:

Average throughput: 19.74 Mbit/s

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

Loss rate: 0.07%

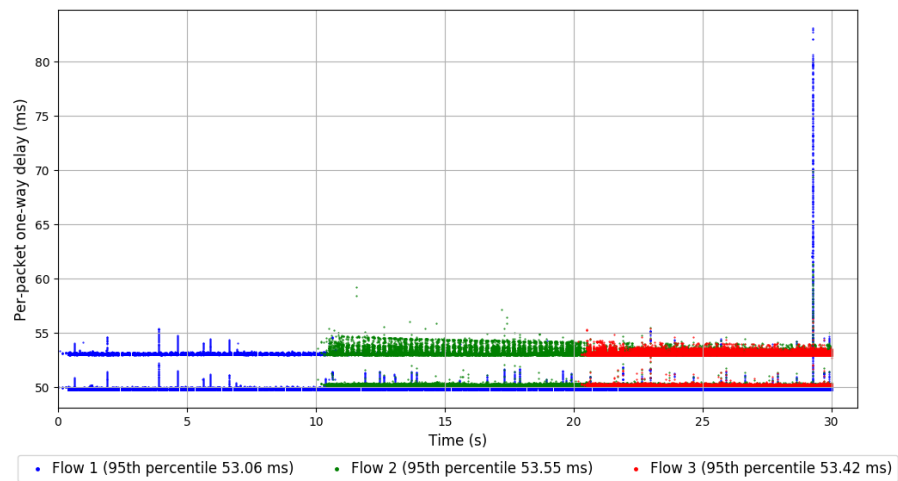
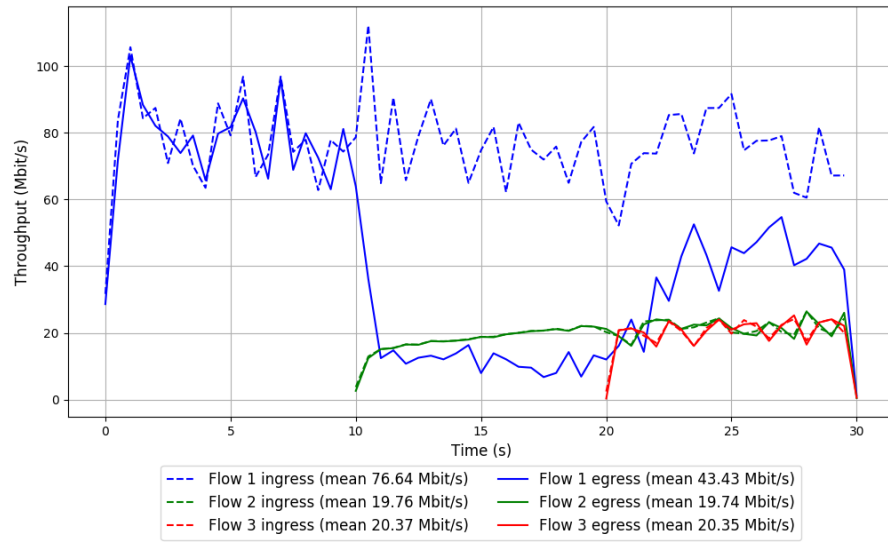
-- Flow 3:

Average throughput: 20.35 Mbit/s

95th percentile per-packet one-way delay: 53.425 ms

Loss rate: 0.07%

# Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-08-12 09:35:31

End at: 2017-08-12 09:36:01

# Below is generated by plot.py at 2017-08-12 11:50:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 105.65 Mbit/s

95th percentile per-packet one-way delay: 53.630 ms

Loss rate: 3.32%

-- Flow 1:

Average throughput: 75.28 Mbit/s

95th percentile per-packet one-way delay: 50.291 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 28.88 Mbit/s

95th percentile per-packet one-way delay: 53.764 ms

Loss rate: 15.89%

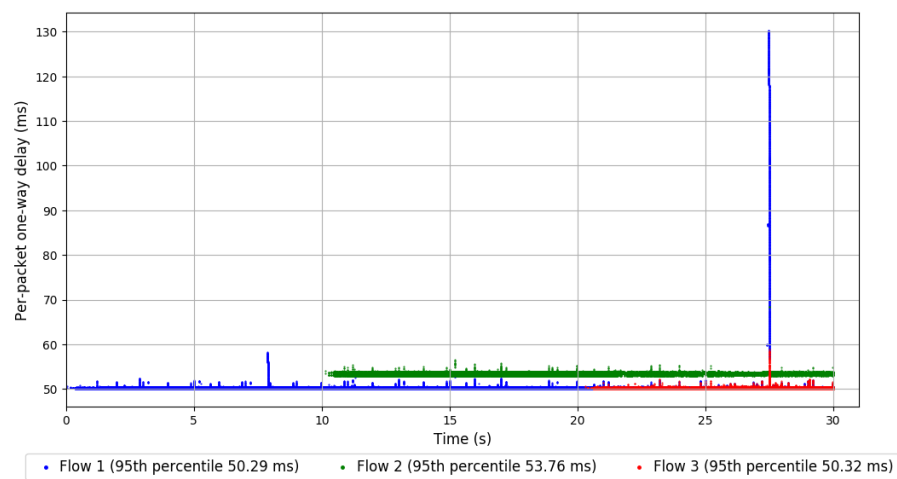
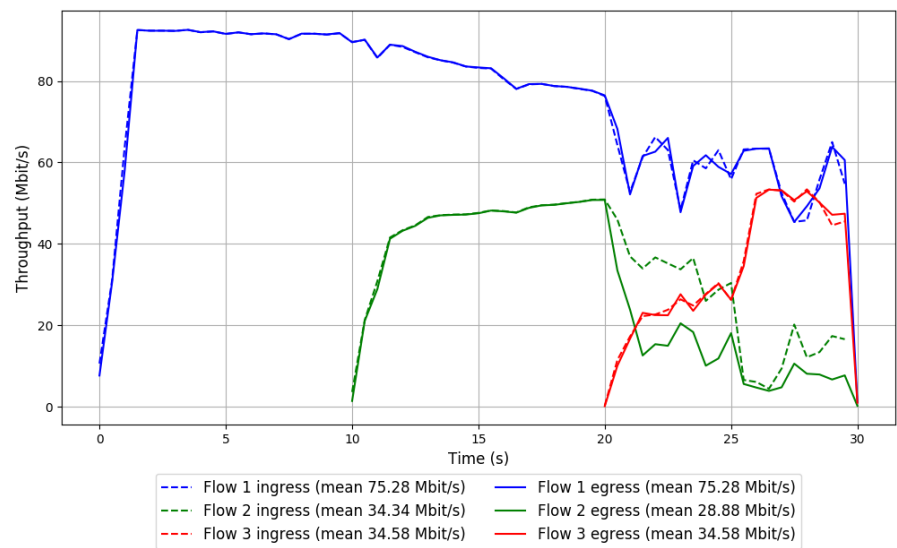
-- Flow 3:

Average throughput: 34.58 Mbit/s

95th percentile per-packet one-way delay: 50.317 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-08-12 09:46:51

End at: 2017-08-12 09:47:21

# Below is generated by plot.py at 2017-08-12 11:51:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 129.75 Mbit/s

95th percentile per-packet one-way delay: 53.703 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 85.34 Mbit/s

95th percentile per-packet one-way delay: 49.977 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 66.90 Mbit/s

95th percentile per-packet one-way delay: 53.766 ms

Loss rate: 0.00%

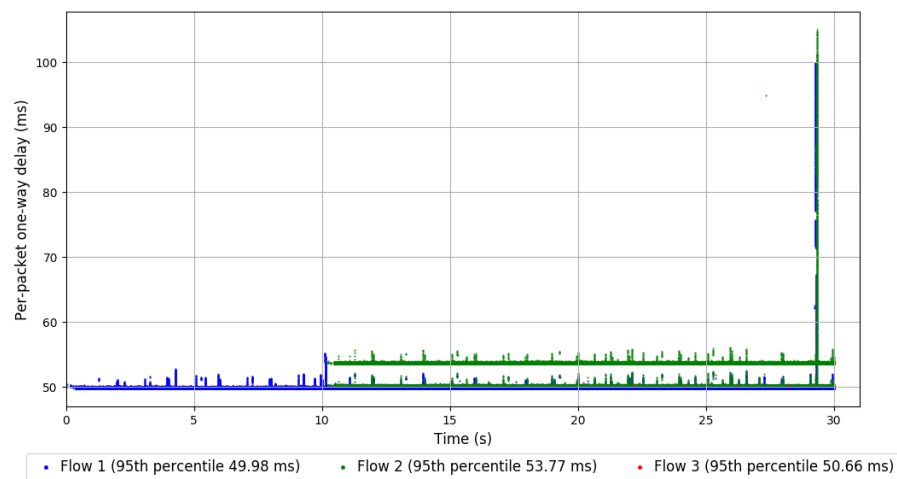
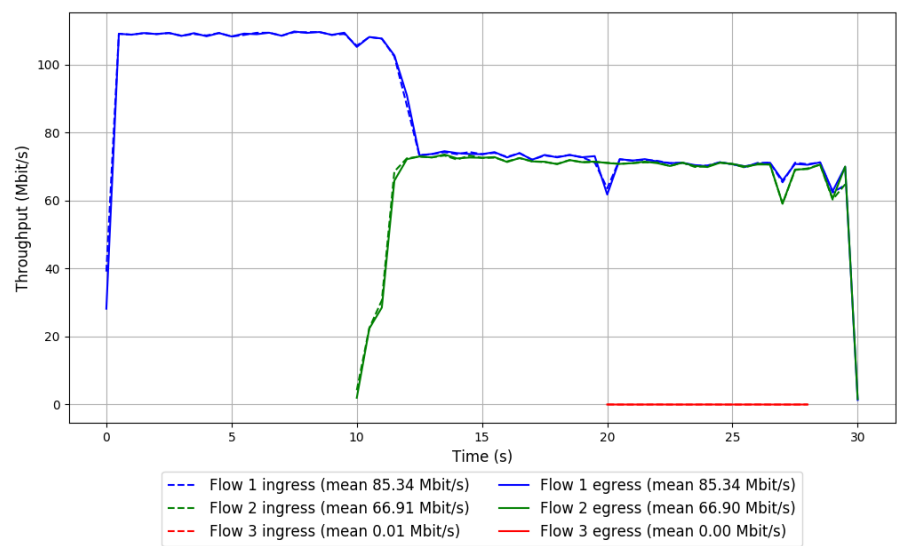
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 50.660 ms

Loss rate: 92.35%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-08-12 09:58:15

End at: 2017-08-12 09:58:45

# Below is generated by plot.py at 2017-08-12 11:51:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 42.03 Mbit/s

95th percentile per-packet one-way delay: 53.657 ms

Loss rate: 49.09%

-- Flow 1:

Average throughput: 13.93 Mbit/s

95th percentile per-packet one-way delay: 53.698 ms

Loss rate: 78.70%

-- Flow 2:

Average throughput: 53.53 Mbit/s

95th percentile per-packet one-way delay: 53.628 ms

Loss rate: 31.20%

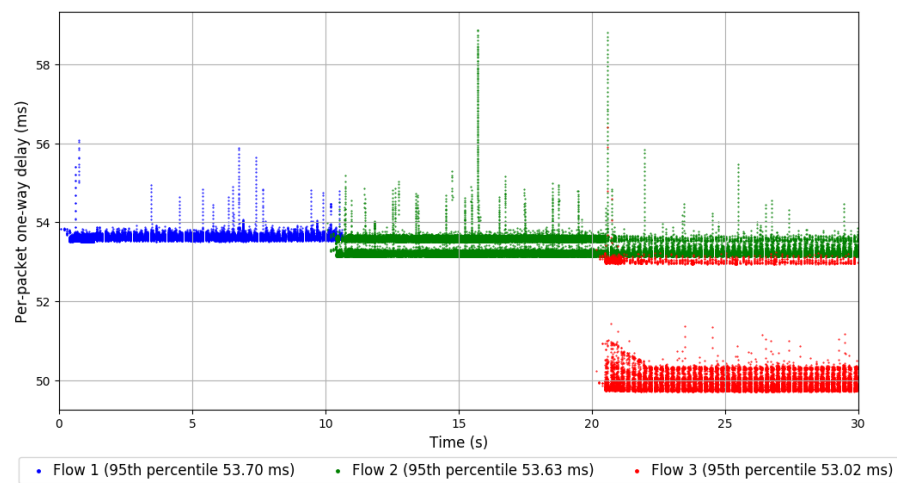
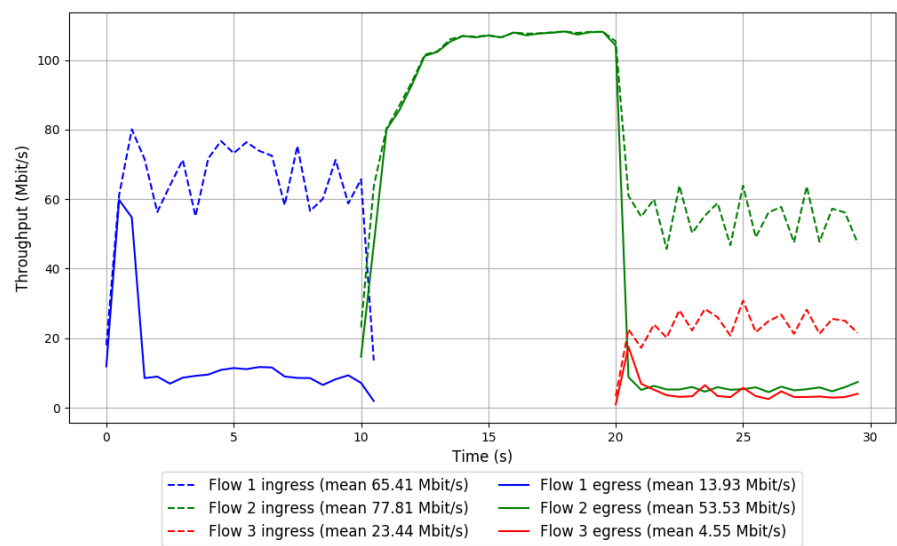
-- Flow 3:

Average throughput: 4.55 Mbit/s

95th percentile per-packet one-way delay: 53.021 ms

Loss rate: 80.60%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-12 10:09:05

End at: 2017-08-12 10:09:35

# Below is generated by plot.py at 2017-08-12 11:51:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 73.34 Mbit/s

95th percentile per-packet one-way delay: 53.799 ms

Loss rate: 30.75%

-- Flow 1:

Average throughput: 73.25 Mbit/s

95th percentile per-packet one-way delay: 53.799 ms

Loss rate: 30.52%

-- Flow 2:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 53.662 ms

Loss rate: 46.17%

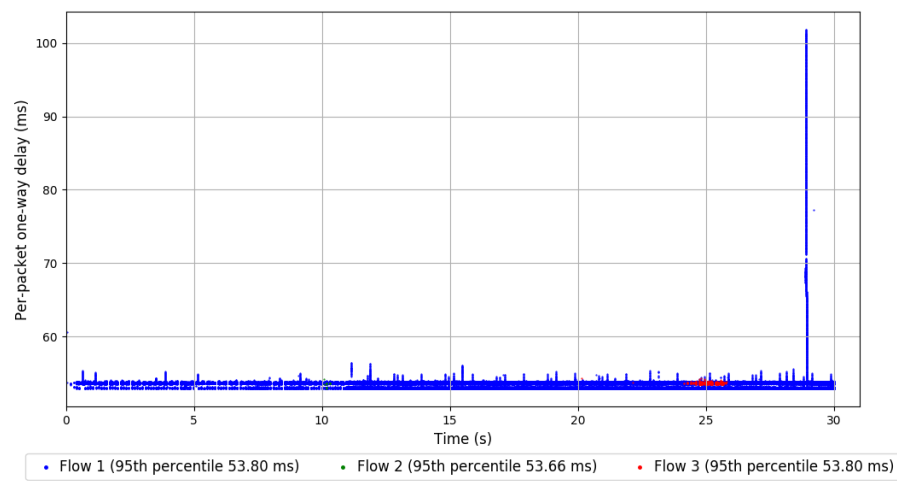
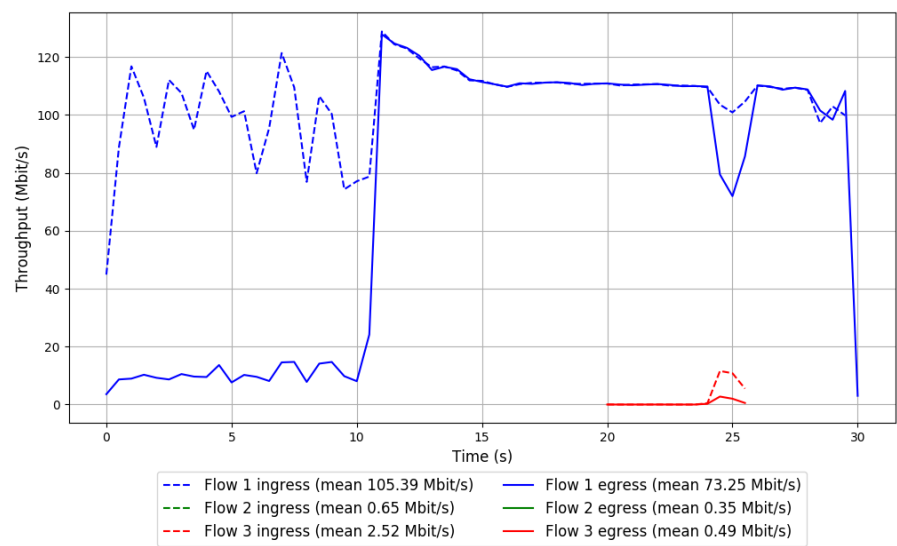
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 53.800 ms

Loss rate: 80.37%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-08-12 10:20:17

End at: 2017-08-12 10:20:47

# Below is generated by plot.py at 2017-08-12 11:52:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 159.06 Mbit/s

95th percentile per-packet one-way delay: 50.221 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 135.04 Mbit/s

95th percentile per-packet one-way delay: 50.224 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 53.848 ms

Loss rate: 86.19%

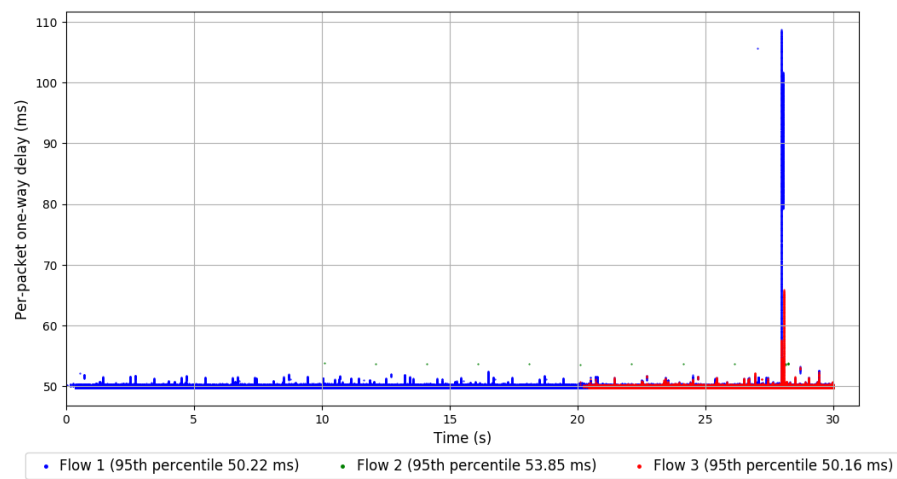
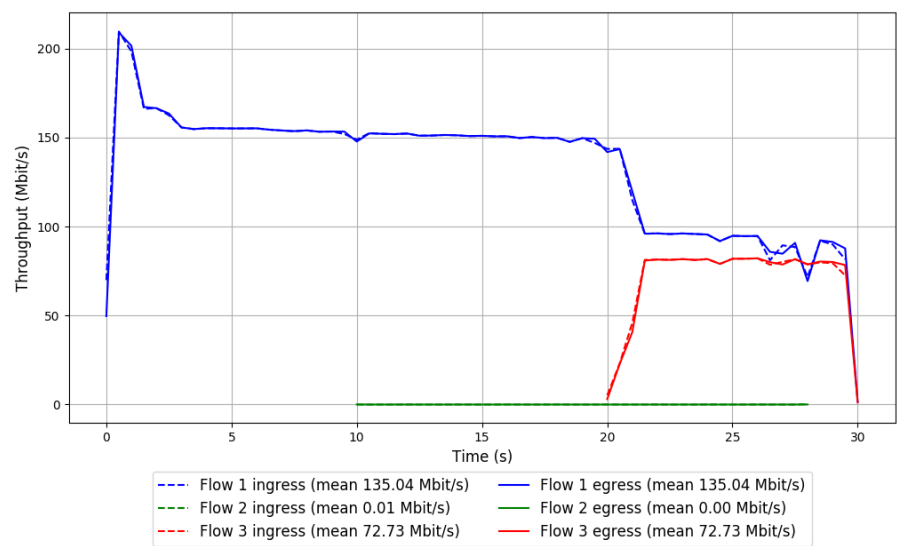
-- Flow 3:

Average throughput: 72.73 Mbit/s

95th percentile per-packet one-way delay: 50.165 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-08-12 10:31:32

End at: 2017-08-12 10:32:02

# Below is generated by plot.py at 2017-08-12 11:52:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 130.38 Mbit/s

95th percentile per-packet one-way delay: 53.073 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 89.00 Mbit/s

95th percentile per-packet one-way delay: 52.975 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 45.30 Mbit/s

95th percentile per-packet one-way delay: 50.930 ms

Loss rate: 0.06%

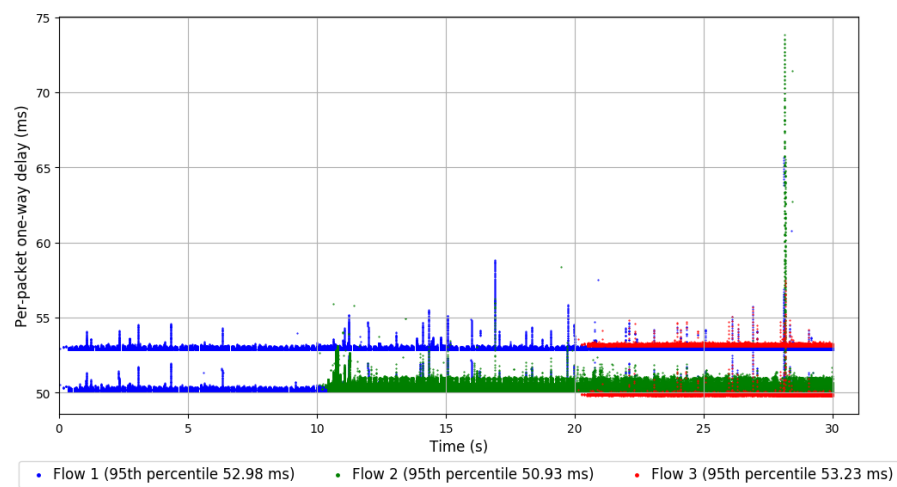
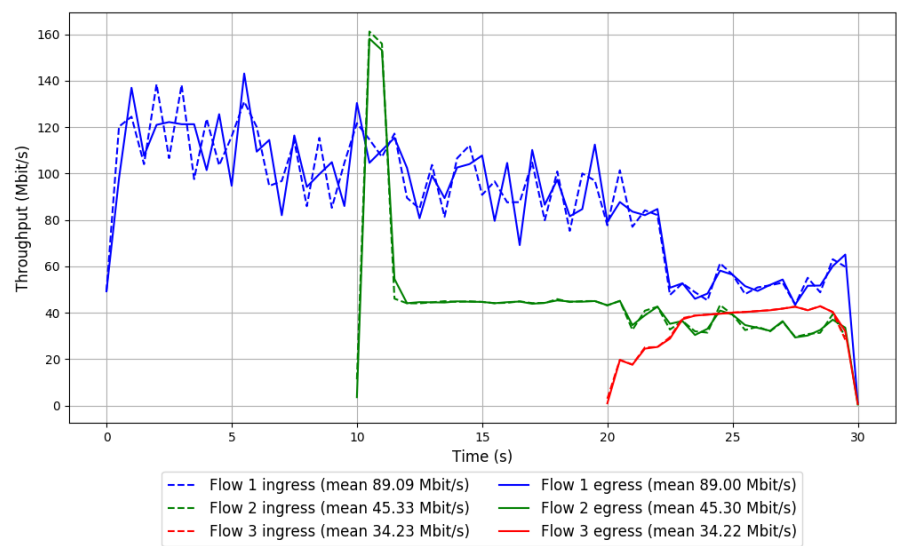
-- Flow 3:

Average throughput: 34.22 Mbit/s

95th percentile per-packet one-way delay: 53.234 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

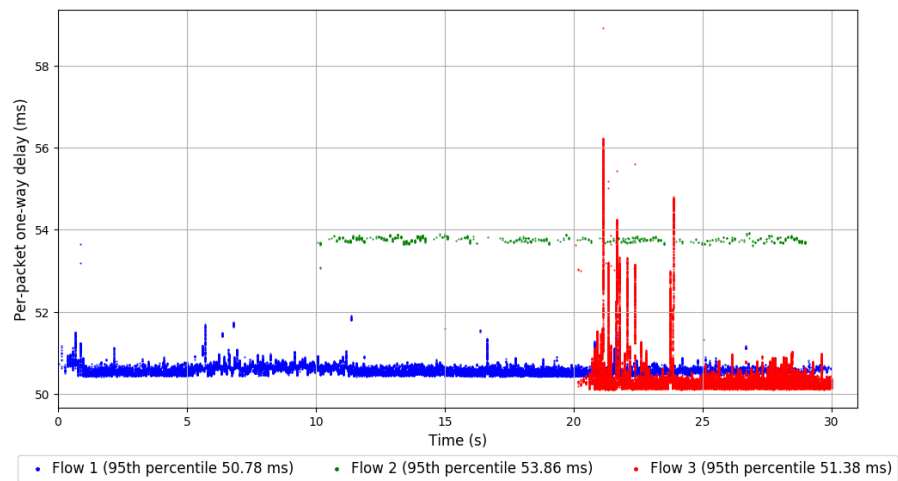
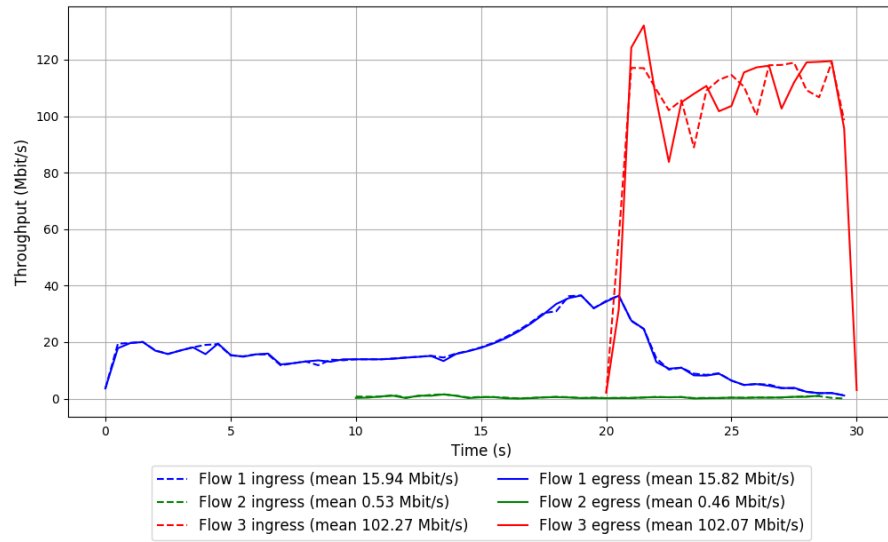


```
Run 1: Statistics of TCP Cubic

Start at: 2017-08-12 08:49:02
End at: 2017-08-12 08:49:32

# Below is generated by plot.py at 2017-08-12 11:52:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.96 Mbit/s
95th percentile per-packet one-way delay: 51.089 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 15.82 Mbit/s
95th percentile per-packet one-way delay: 50.784 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 53.857 ms
Loss rate: 15.52%
-- Flow 3:
Average throughput: 102.07 Mbit/s
95th percentile per-packet one-way delay: 51.384 ms
Loss rate: 0.23%
```

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



Run 2: Statistics of TCP Cubic

Start at: 2017-08-12 09:00:11

End at: 2017-08-12 09:00:41

# Below is generated by plot.py at 2017-08-12 11:52:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 109.46 Mbit/s

95th percentile per-packet one-way delay: 51.329 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 48.67 Mbit/s

95th percentile per-packet one-way delay: 50.689 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 48.16 Mbit/s

95th percentile per-packet one-way delay: 50.984 ms

Loss rate: 2.22%

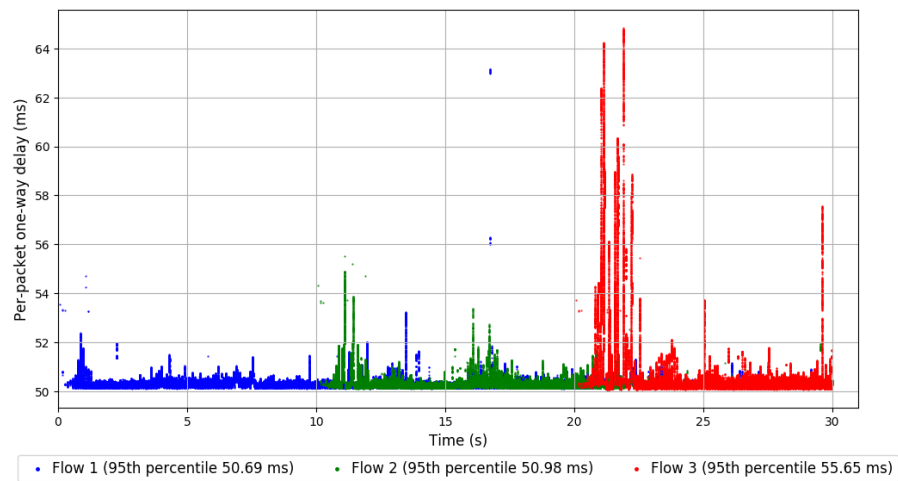
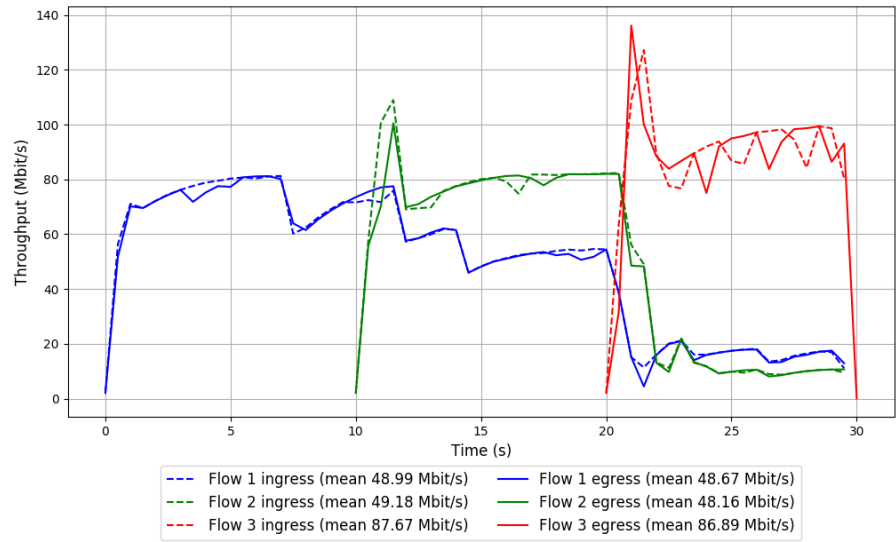
-- Flow 3:

Average throughput: 86.89 Mbit/s

95th percentile per-packet one-way delay: 55.652 ms

Loss rate: 0.93%

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



Run 3: Statistics of TCP Cubic

Start at: 2017-08-12 09:11:27

End at: 2017-08-12 09:11:57

# Below is generated by plot.py at 2017-08-12 11:52:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.65 Mbit/s

95th percentile per-packet one-way delay: 51.573 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 63.40 Mbit/s

95th percentile per-packet one-way delay: 51.478 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 3.23 Mbit/s

95th percentile per-packet one-way delay: 50.689 ms

Loss rate: 1.76%

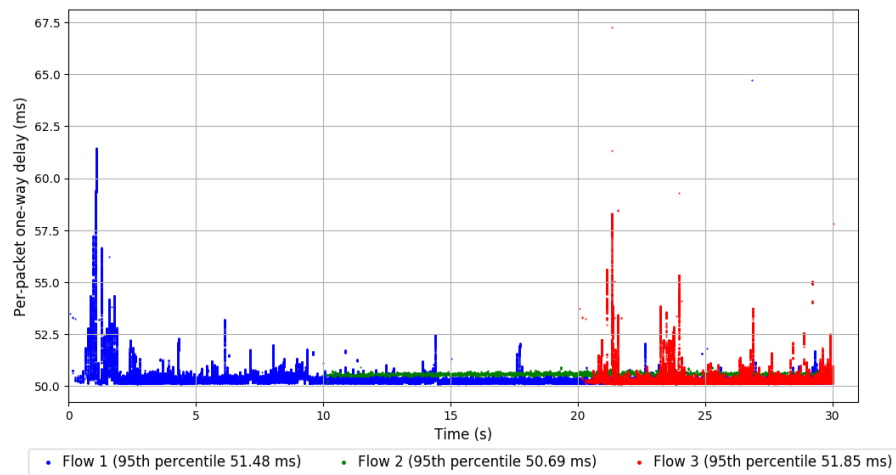
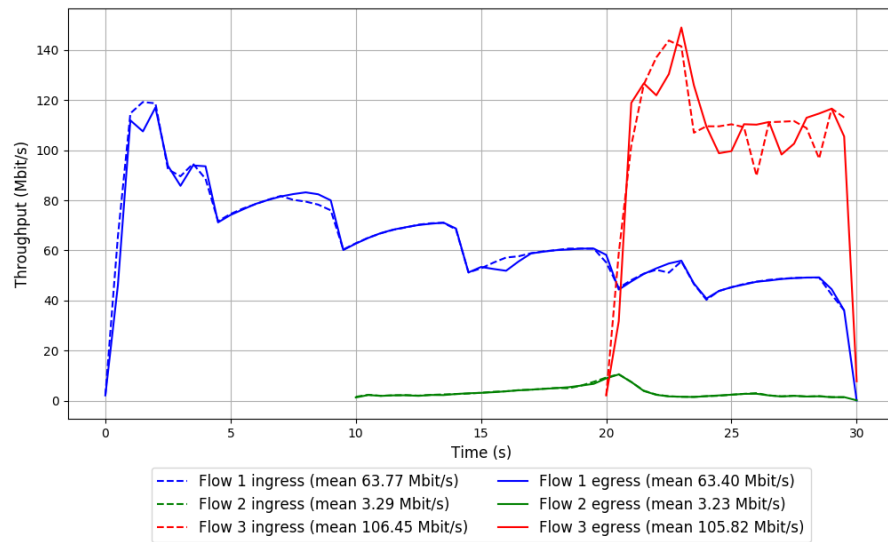
-- Flow 3:

Average throughput: 105.82 Mbit/s

95th percentile per-packet one-way delay: 51.847 ms

Loss rate: 0.55%

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



Run 4: Statistics of TCP Cubic

Start at: 2017-08-12 09:22:45

End at: 2017-08-12 09:23:15

# Below is generated by plot.py at 2017-08-12 11:53:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 134.40 Mbit/s

95th percentile per-packet one-way delay: 51.723 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 105.27 Mbit/s

95th percentile per-packet one-way delay: 51.251 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 53.825 ms

Loss rate: 36.56%

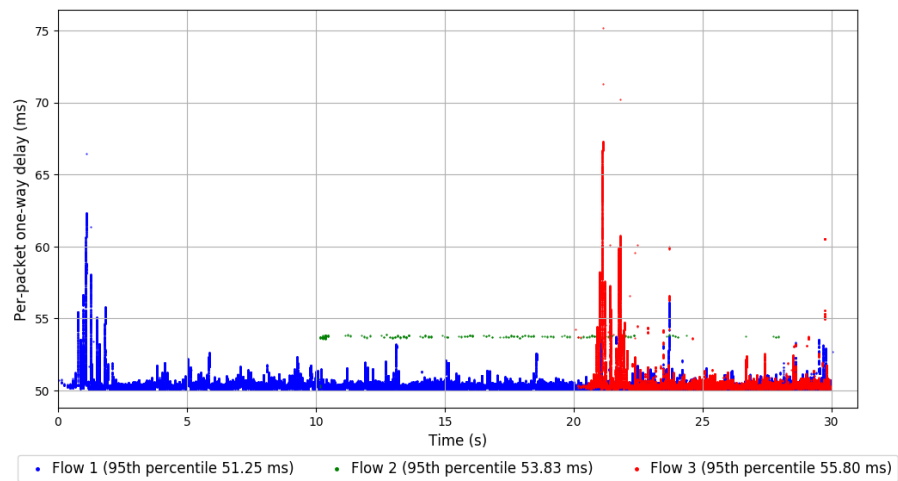
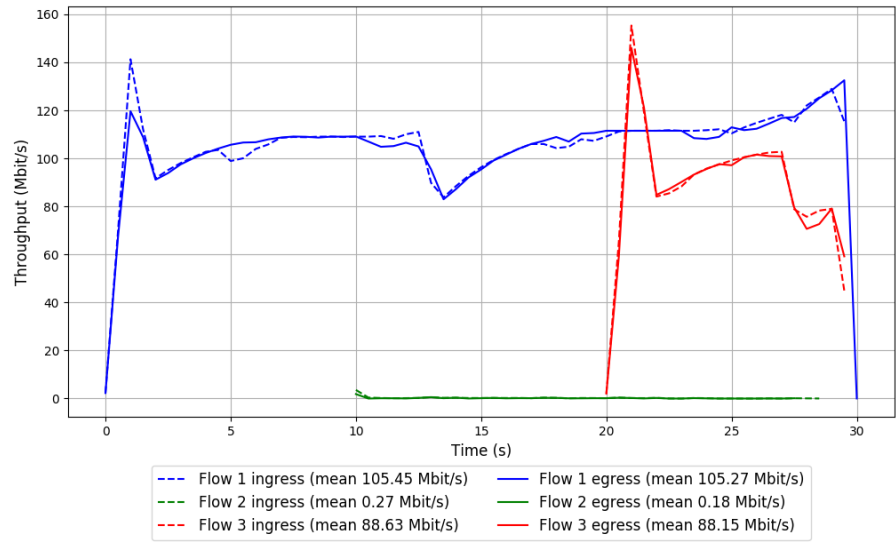
-- Flow 3:

Average throughput: 88.15 Mbit/s

95th percentile per-packet one-way delay: 55.802 ms

Loss rate: 0.58%

# Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-12 09:34:09

End at: 2017-08-12 09:34:39

# Below is generated by plot.py at 2017-08-12 11:53:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 38.10 Mbit/s

95th percentile per-packet one-way delay: 53.806 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 3.47 Mbit/s

95th percentile per-packet one-way delay: 53.896 ms

Loss rate: 2.57%

-- Flow 2:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 50.848 ms

Loss rate: 1.48%

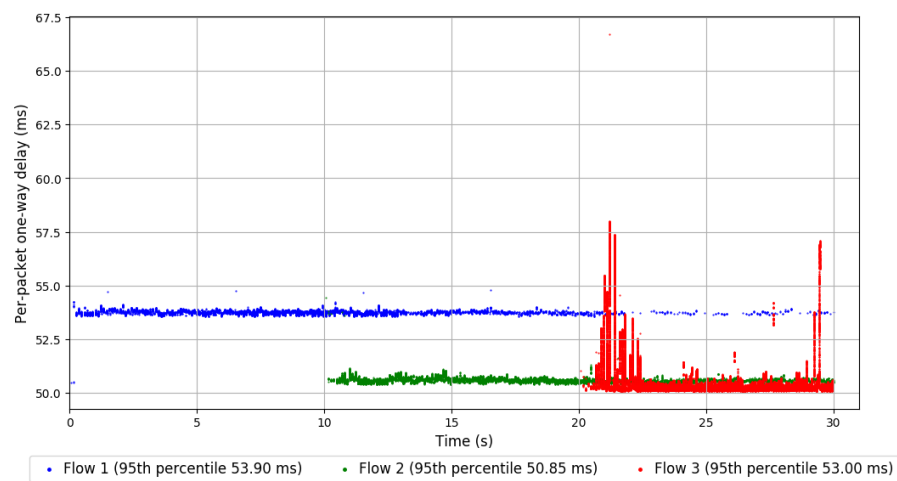
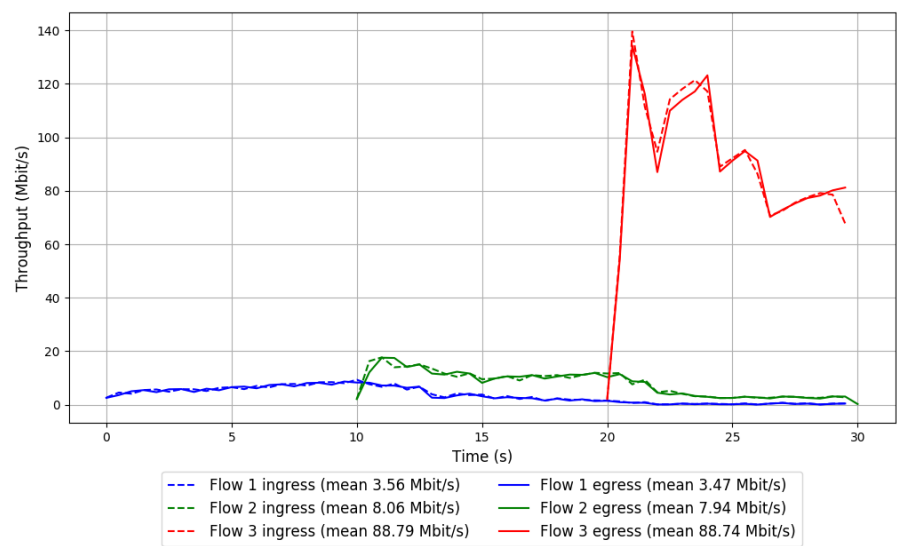
-- Flow 3:

Average throughput: 88.74 Mbit/s

95th percentile per-packet one-way delay: 52.996 ms

Loss rate: 0.06%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-08-12 09:45:24

End at: 2017-08-12 09:45:54

# Below is generated by plot.py at 2017-08-12 11:53:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 109.78 Mbit/s

95th percentile per-packet one-way delay: 51.721 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 87.64 Mbit/s

95th percentile per-packet one-way delay: 51.491 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 54.039 ms

Loss rate: 24.54%

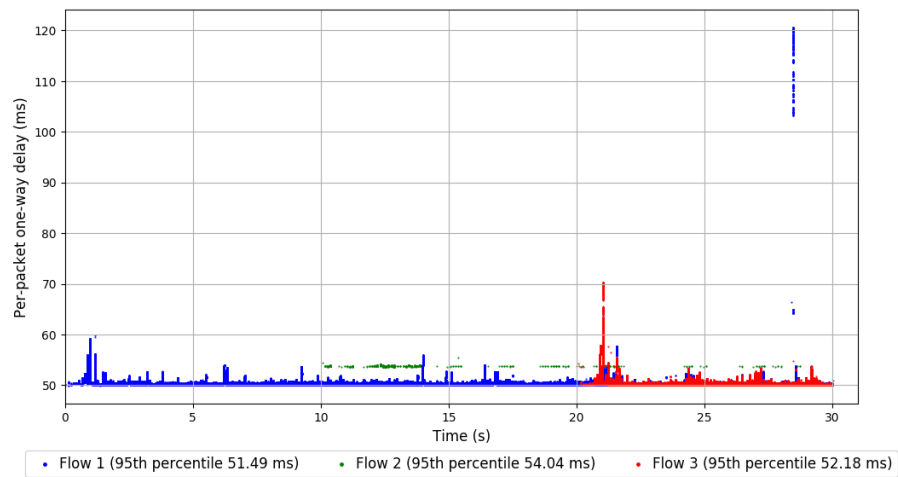
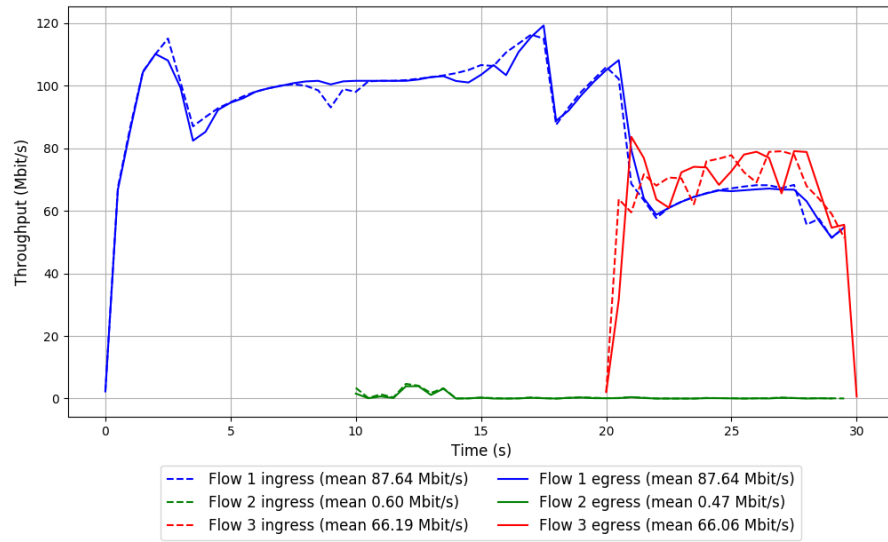
-- Flow 3:

Average throughput: 66.06 Mbit/s

95th percentile per-packet one-way delay: 52.183 ms

Loss rate: 0.23%

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



Run 7: Statistics of TCP Cubic

Start at: 2017-08-12 09:56:55

End at: 2017-08-12 09:57:25

# Below is generated by plot.py at 2017-08-12 11:53:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.58 Mbit/s

95th percentile per-packet one-way delay: 53.888 ms

Loss rate: 2.73%

-- Flow 1:

Average throughput: 6.48 Mbit/s

95th percentile per-packet one-way delay: 53.909 ms

Loss rate: 1.93%

-- Flow 2:

Average throughput: 4.35 Mbit/s

95th percentile per-packet one-way delay: 53.860 ms

Loss rate: 2.64%

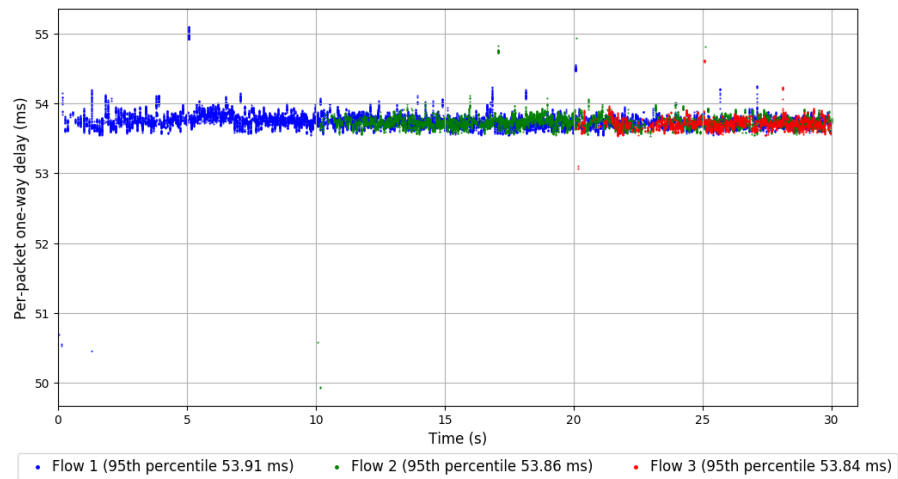
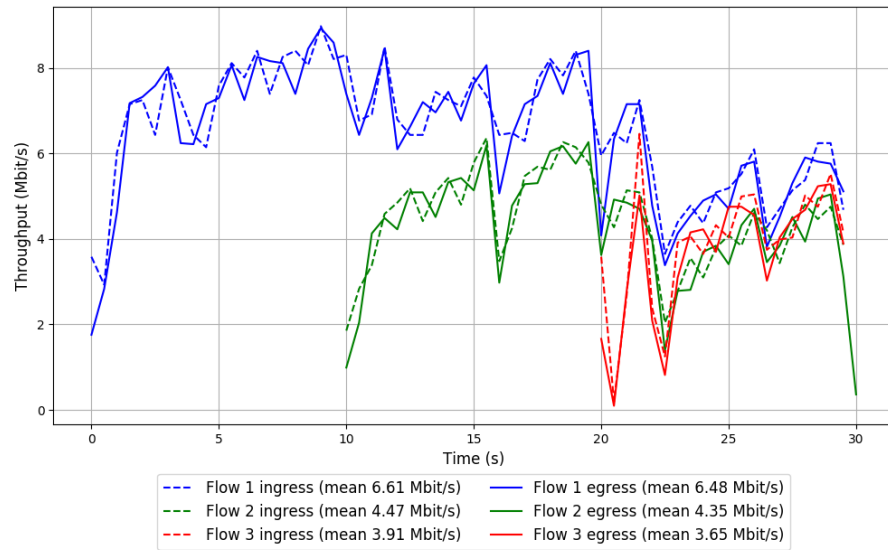
-- Flow 3:

Average throughput: 3.65 Mbit/s

95th percentile per-packet one-way delay: 53.840 ms

Loss rate: 7.01%

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



Run 8: Statistics of TCP Cubic

Start at: 2017-08-12 10:07:41

End at: 2017-08-12 10:08:11

# Below is generated by plot.py at 2017-08-12 11:53:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 68.96 Mbit/s

95th percentile per-packet one-way delay: 53.730 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 2.40 Mbit/s

95th percentile per-packet one-way delay: 53.936 ms

Loss rate: 10.92%

-- Flow 2:

Average throughput: 99.80 Mbit/s

95th percentile per-packet one-way delay: 52.288 ms

Loss rate: 0.19%

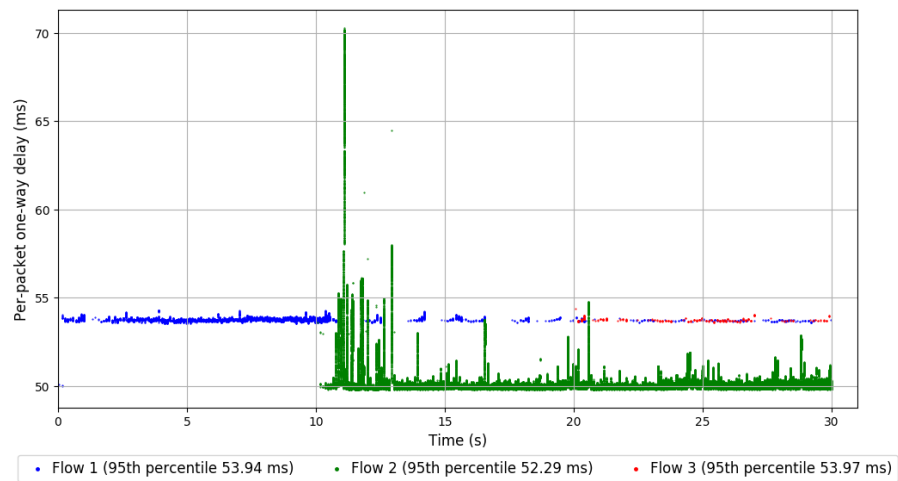
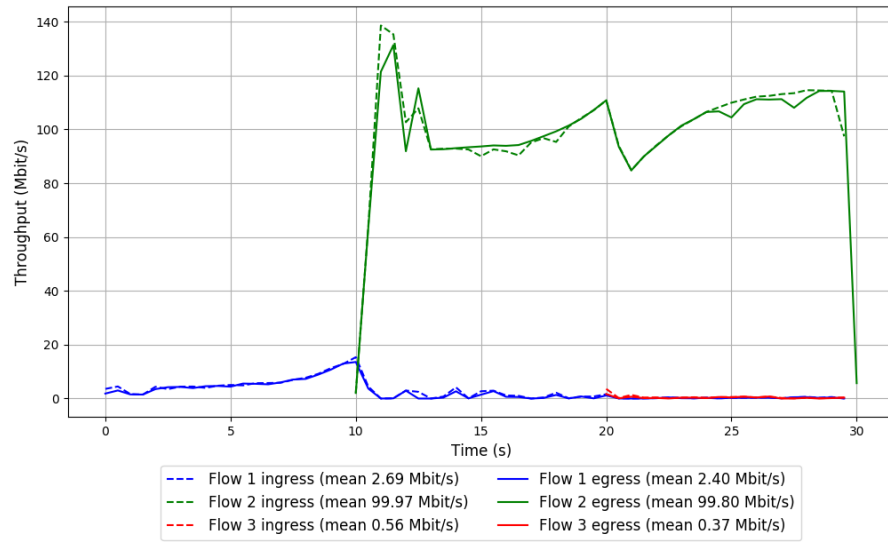
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 53.972 ms

Loss rate: 34.89%

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



Run 9: Statistics of TCP Cubic

Start at: 2017-08-12 10:18:56

End at: 2017-08-12 10:19:26

# Below is generated by plot.py at 2017-08-12 11:53:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 21.65 Mbit/s

95th percentile per-packet one-way delay: 53.172 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 4.38 Mbit/s

95th percentile per-packet one-way delay: 53.253 ms

Loss rate: 2.60%

-- Flow 2:

Average throughput: 20.16 Mbit/s

95th percentile per-packet one-way delay: 50.796 ms

Loss rate: 1.26%

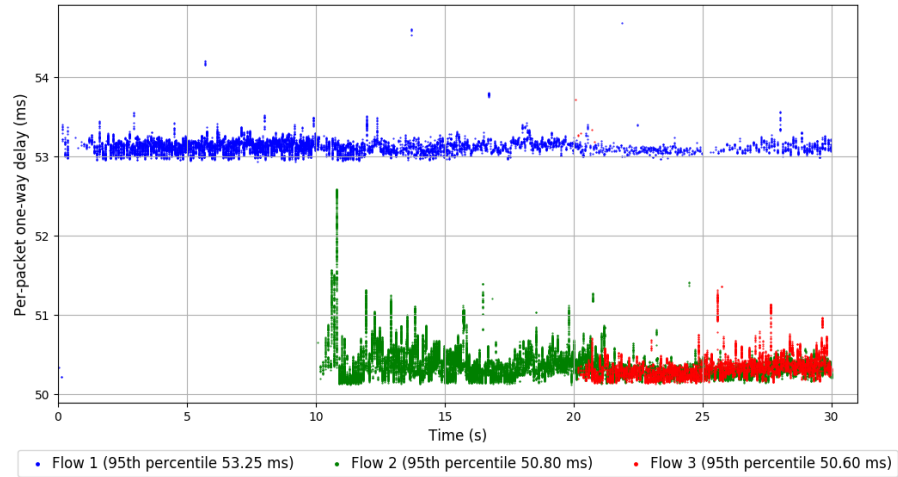
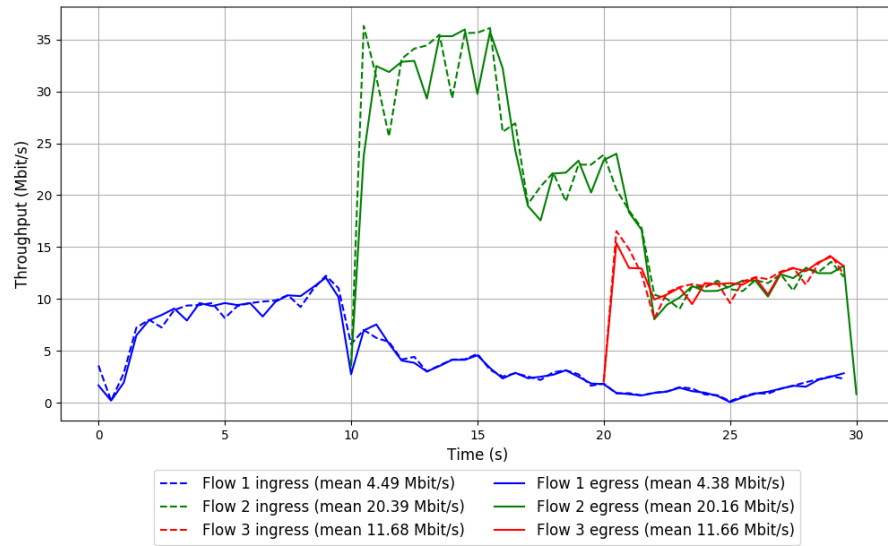
-- Flow 3:

Average throughput: 11.66 Mbit/s

95th percentile per-packet one-way delay: 50.600 ms

Loss rate: 0.23%

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



Run 10: Statistics of TCP Cubic

Start at: 2017-08-12 10:30:01

End at: 2017-08-12 10:30:31

# Below is generated by plot.py at 2017-08-12 11:54:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 195.36 Mbit/s

95th percentile per-packet one-way delay: 51.196 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 107.16 Mbit/s

95th percentile per-packet one-way delay: 51.123 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 111.21 Mbit/s

95th percentile per-packet one-way delay: 51.319 ms

Loss rate: 0.07%

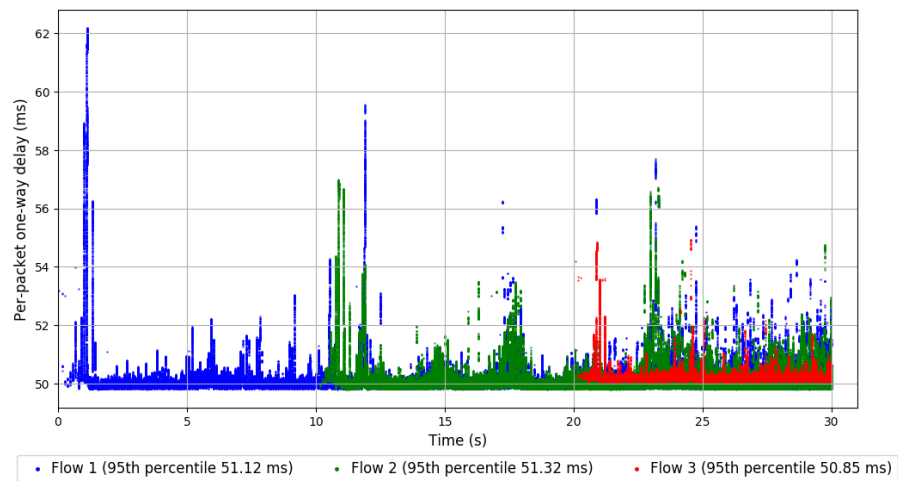
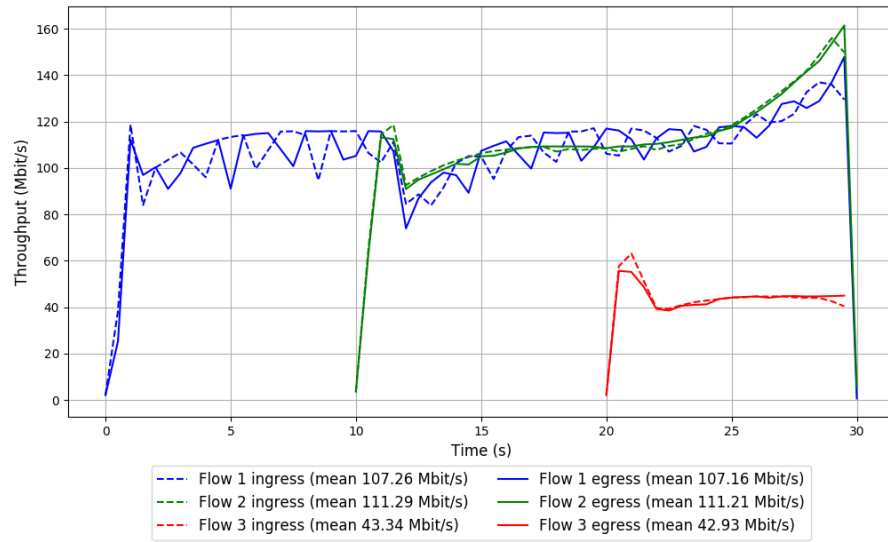
-- Flow 3:

Average throughput: 42.93 Mbit/s

95th percentile per-packet one-way delay: 50.855 ms

Loss rate: 0.99%

## Run 10: Report of TCP Cubic — Data Link

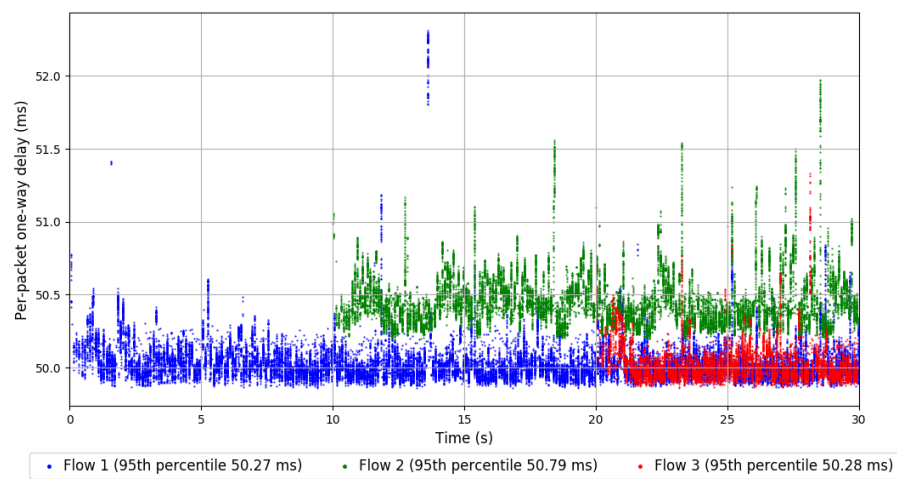
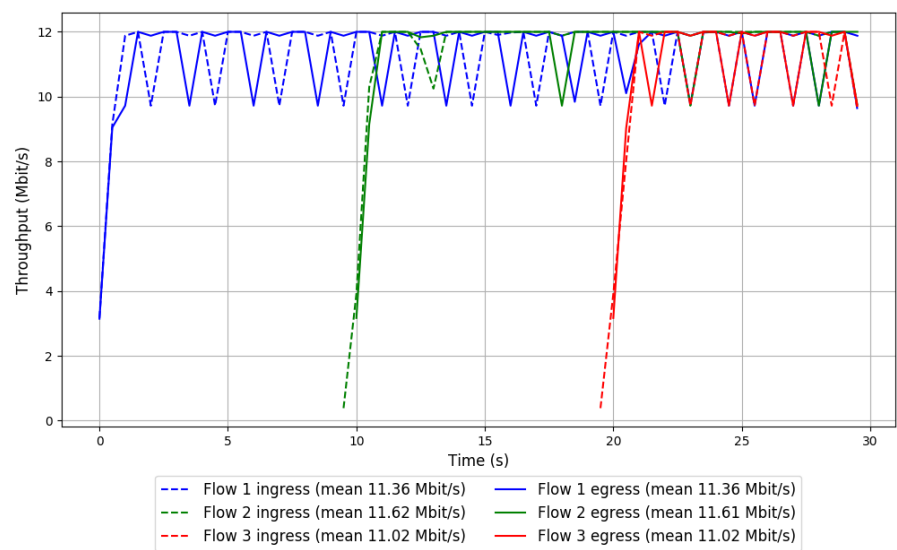


```
Run 1: Statistics of KohoCC

Start at: 2017-08-12 08:44:33
End at: 2017-08-12 08:45:03

# Below is generated by plot.py at 2017-08-12 11:54:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.75 Mbit/s
95th percentile per-packet one-way delay: 50.654 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 11.36 Mbit/s
95th percentile per-packet one-way delay: 50.270 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.61 Mbit/s
95th percentile per-packet one-way delay: 50.790 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 50.285 ms
Loss rate: 0.00%
```

Run 1: Report of KohoCC — Data Link

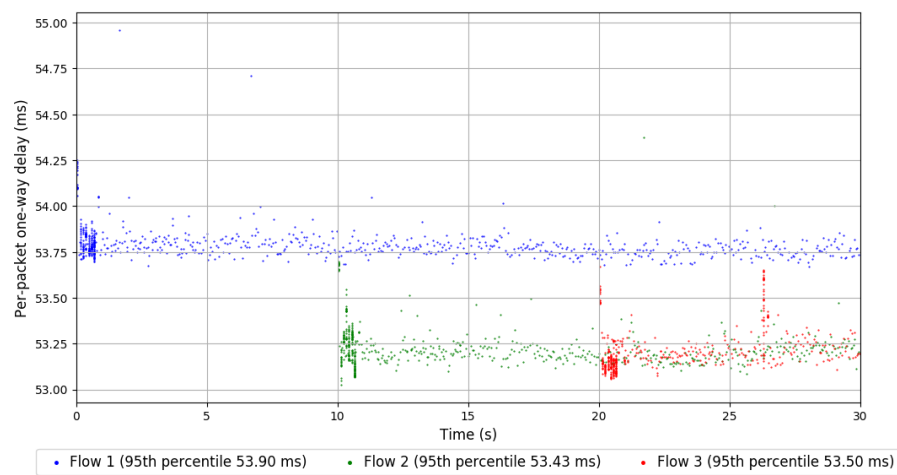
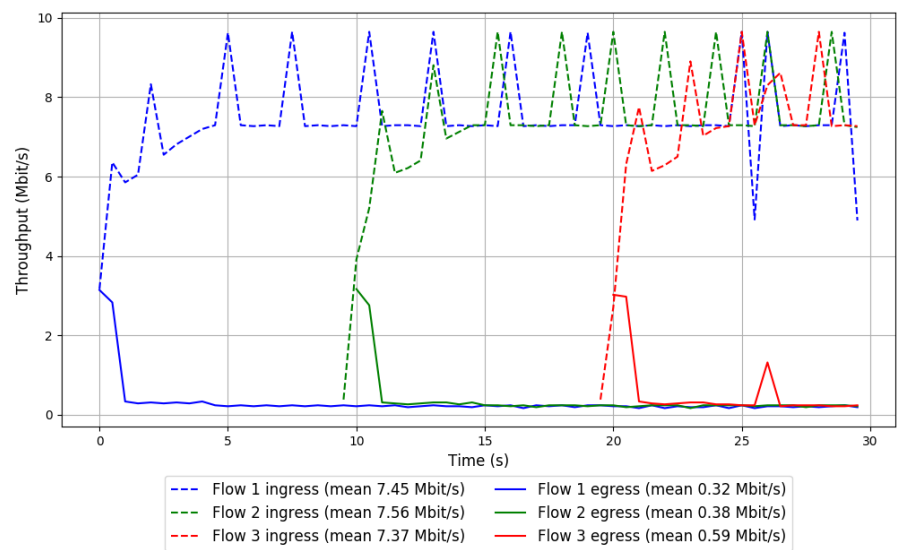


```
Run 2: Statistics of KohoCC

Start at: 2017-08-12 08:55:33
End at: 2017-08-12 08:56:03

# Below is generated by plot.py at 2017-08-12 11:54:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 53.847 ms
Loss rate: 94.84%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 53.900 ms
Loss rate: 95.69%
-- Flow 2:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 53.431 ms
Loss rate: 94.97%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 53.502 ms
Loss rate: 91.99%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-08-12 09:06:51

End at: 2017-08-12 09:07:21

# Below is generated by plot.py at 2017-08-12 11:54:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.21 Mbit/s

95th percentile per-packet one-way delay: 53.715 ms

Loss rate: 52.68%

-- Flow 1:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 53.846 ms

Loss rate: 95.69%

-- Flow 2:

Average throughput: 11.57 Mbit/s

95th percentile per-packet one-way delay: 50.878 ms

Loss rate: 0.36%

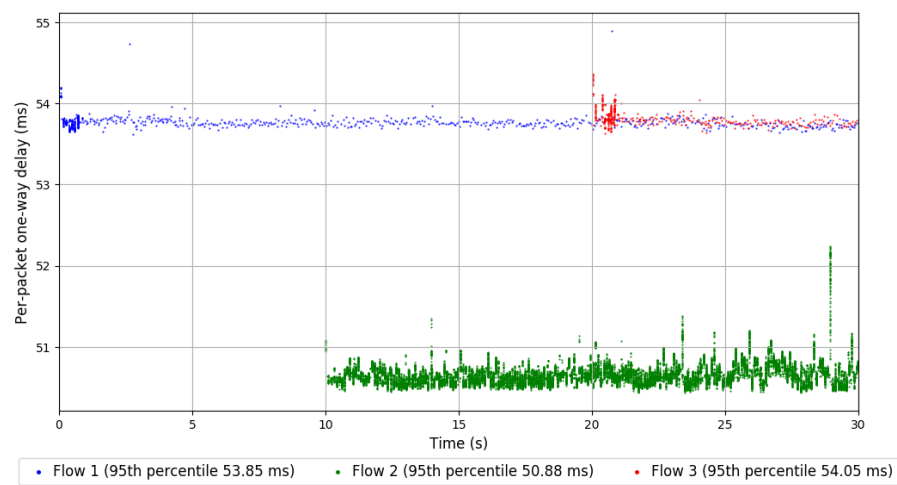
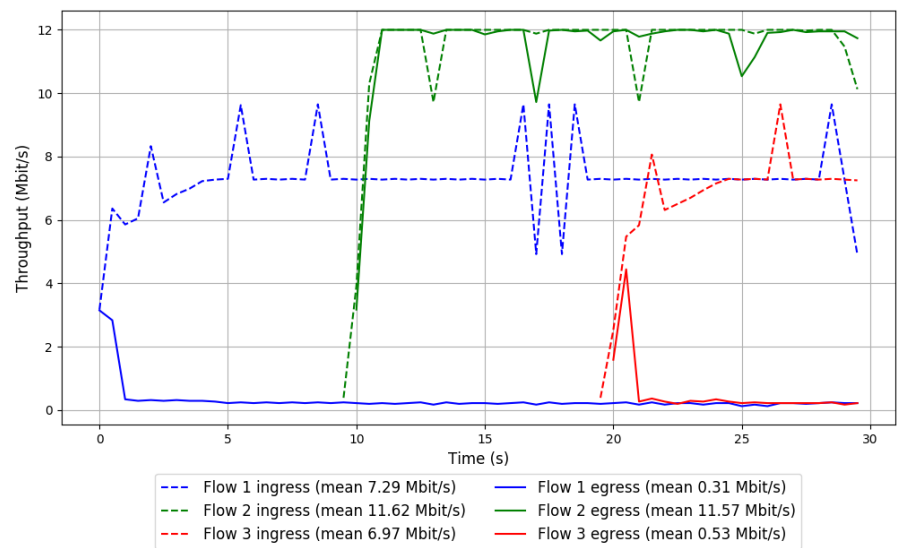
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 54.054 ms

Loss rate: 92.47%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-12 09:18:11

End at: 2017-08-12 09:18:41

# Below is generated by plot.py at 2017-08-12 11:54:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.78 Mbit/s

95th percentile per-packet one-way delay: 50.879 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 11.38 Mbit/s

95th percentile per-packet one-way delay: 50.934 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 11.62 Mbit/s

95th percentile per-packet one-way delay: 50.691 ms

Loss rate: 0.05%

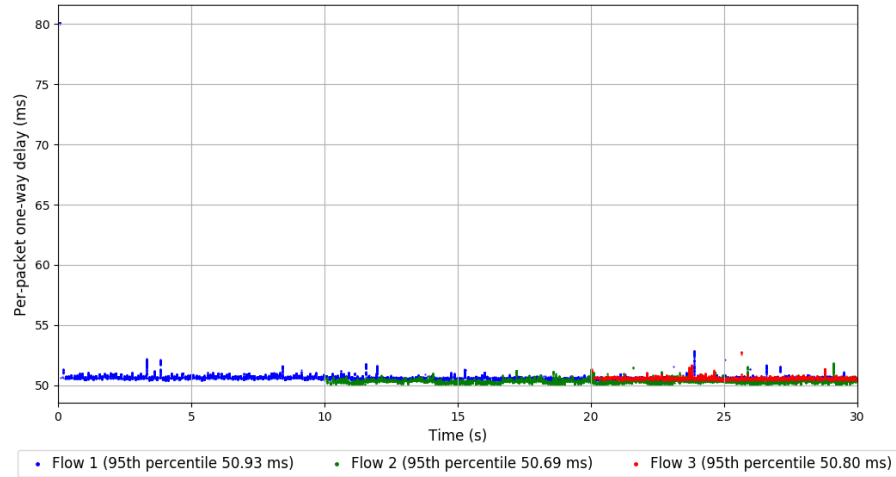
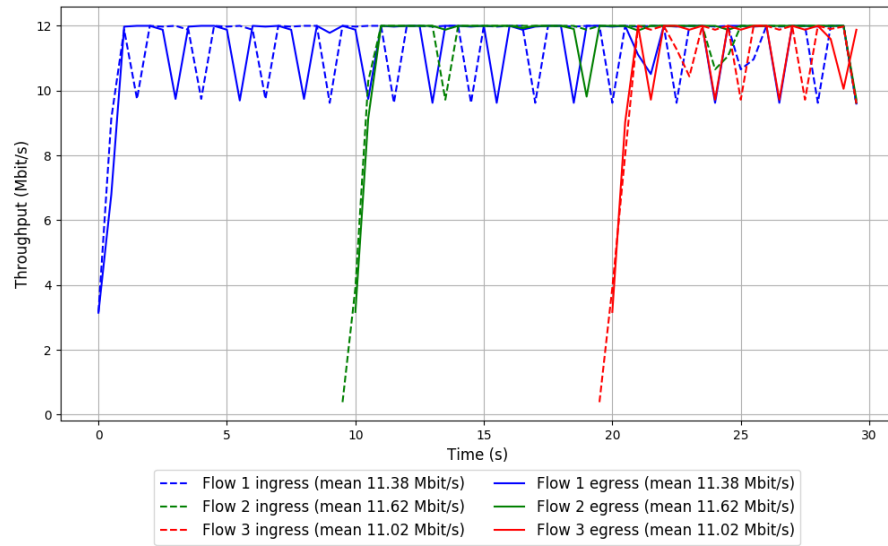
-- Flow 3:

Average throughput: 11.02 Mbit/s

95th percentile per-packet one-way delay: 50.799 ms

Loss rate: 0.03%

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



Run 5: Statistics of KohoCC

Start at: 2017-08-12 09:29:28

End at: 2017-08-12 09:29:58

# Below is generated by plot.py at 2017-08-12 11:54:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.97 Mbit/s

95th percentile per-packet one-way delay: 53.165 ms

Loss rate: 52.86%

-- Flow 1:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 53.401 ms

Loss rate: 95.55%

-- Flow 2:

Average throughput: 11.21 Mbit/s

95th percentile per-packet one-way delay: 50.410 ms

Loss rate: 0.05%

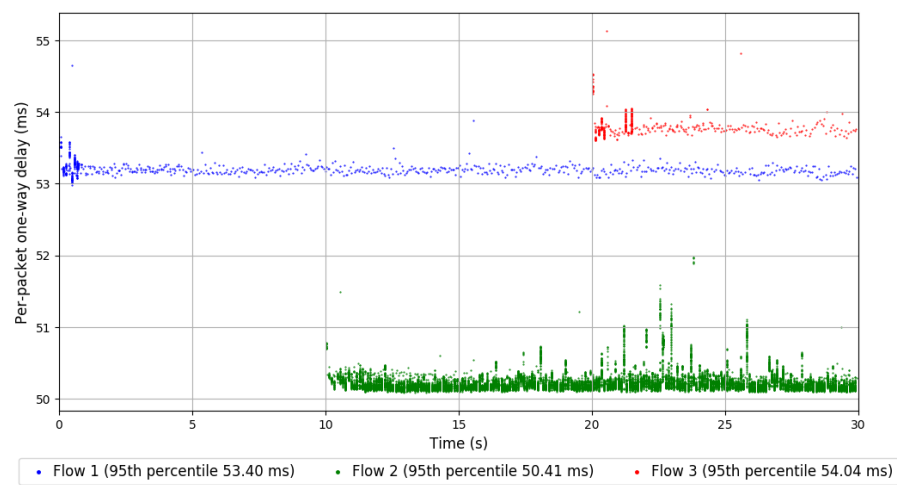
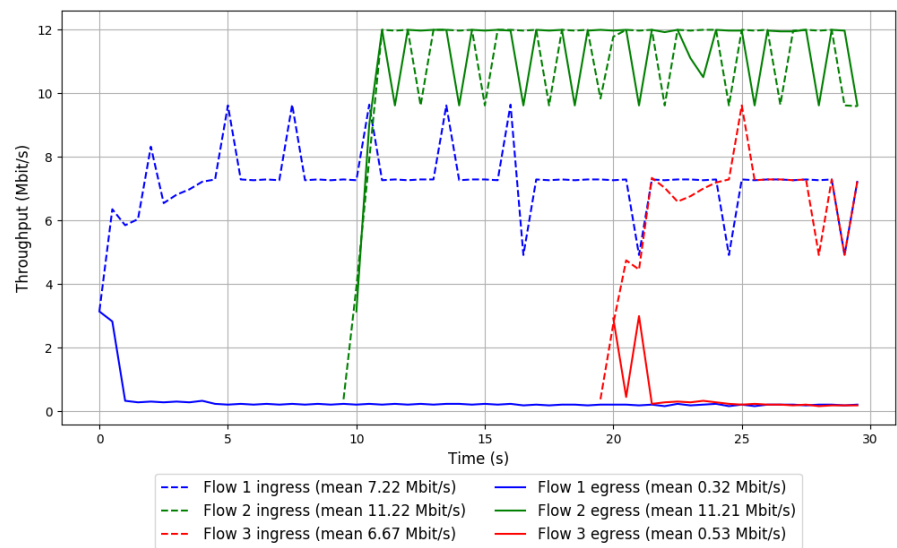
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 54.039 ms

Loss rate: 92.11%

Run 5: Report of KohoCC — Data Link

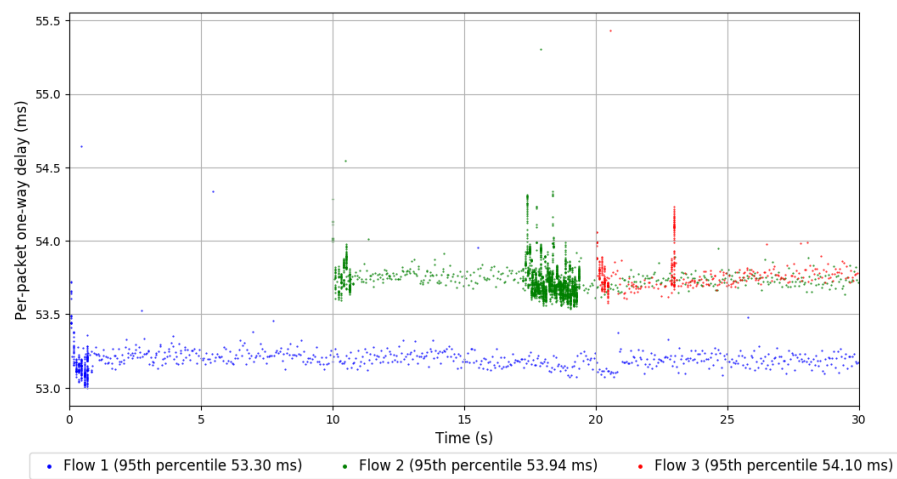
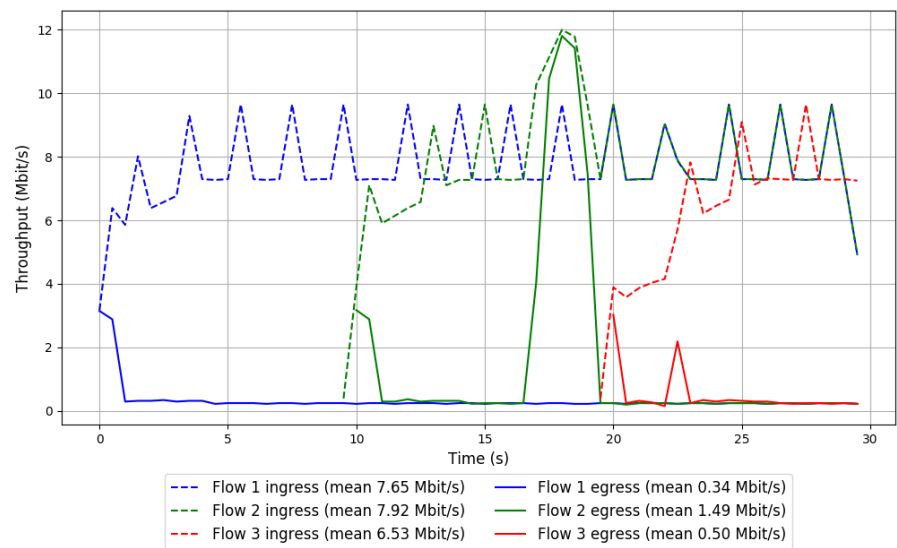


```
Run 6: Statistics of KohoCC

Start at: 2017-08-12 09:40:42
End at: 2017-08-12 09:41:12

# Below is generated by plot.py at 2017-08-12 11:54:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 53.932 ms
Loss rate: 90.10%
-- Flow 1:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 53.300 ms
Loss rate: 95.62%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 53.938 ms
Loss rate: 81.18%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 54.099 ms
Loss rate: 92.39%
```

Run 6: Report of KohoCC — Data Link

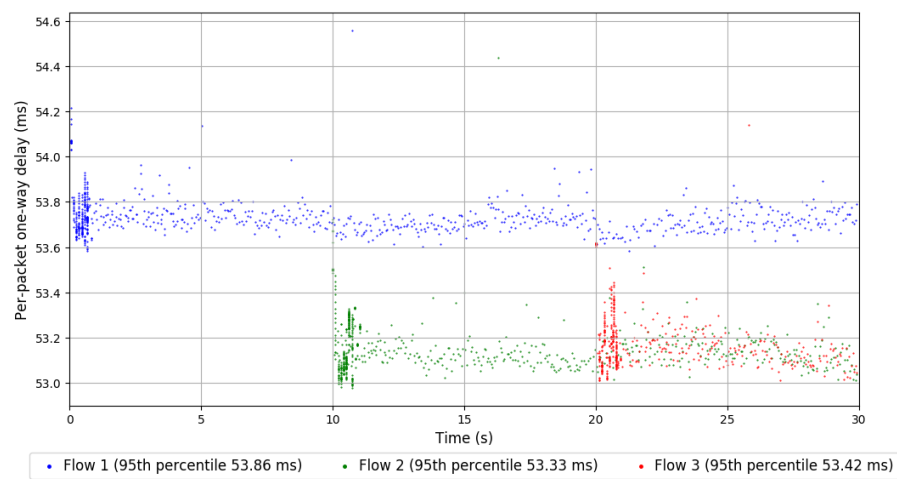
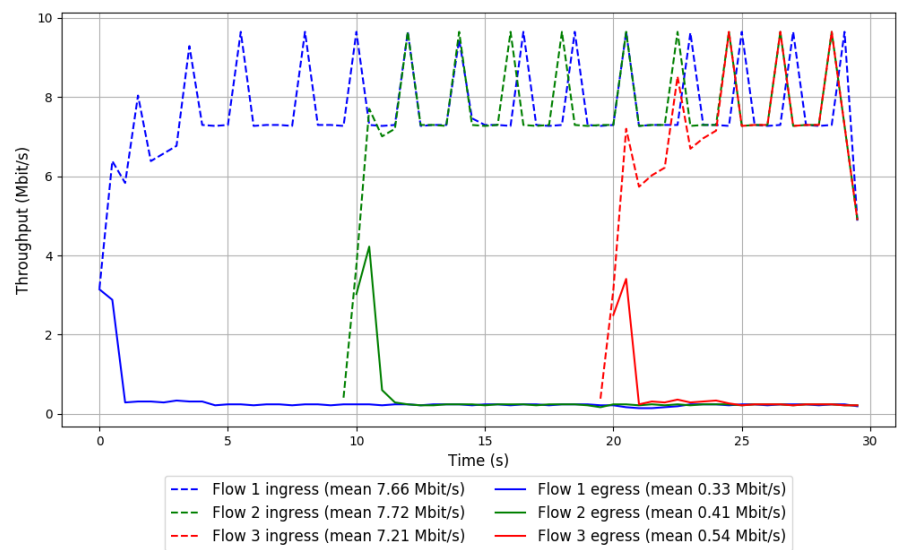


```
Run 7: Statistics of KohoCC

Start at: 2017-08-12 09:52:08
End at: 2017-08-12 09:52:38

# Below is generated by plot.py at 2017-08-12 11:54:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 53.803 ms
Loss rate: 94.86%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 53.861 ms
Loss rate: 95.70%
-- Flow 2:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 53.330 ms
Loss rate: 94.66%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 53.424 ms
Loss rate: 92.57%
```

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-12 10:03:21

End at: 2017-08-12 10:03:51

# Below is generated by plot.py at 2017-08-12 11:54:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 19.02 Mbit/s

95th percentile per-packet one-way delay: 50.476 ms

Loss rate: 9.99%

-- Flow 1:

Average throughput: 11.31 Mbit/s

95th percentile per-packet one-way delay: 50.402 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 11.29 Mbit/s

95th percentile per-packet one-way delay: 50.502 ms

Loss rate: 0.18%

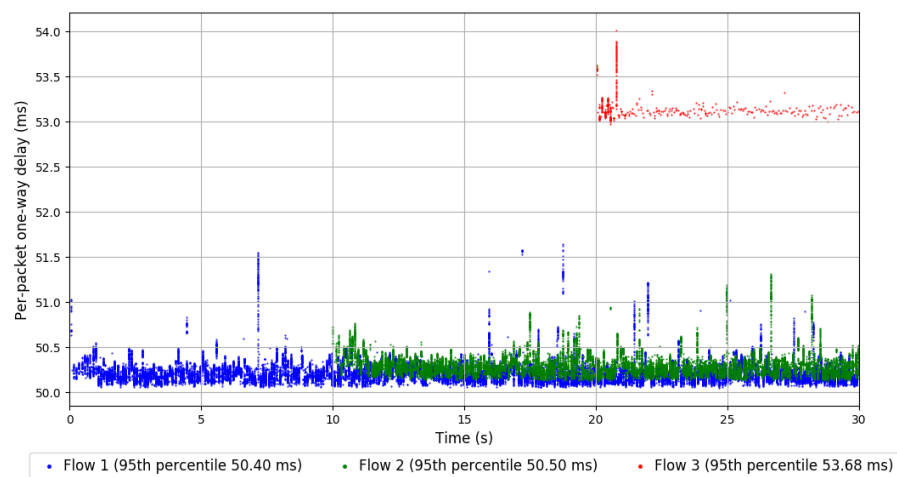
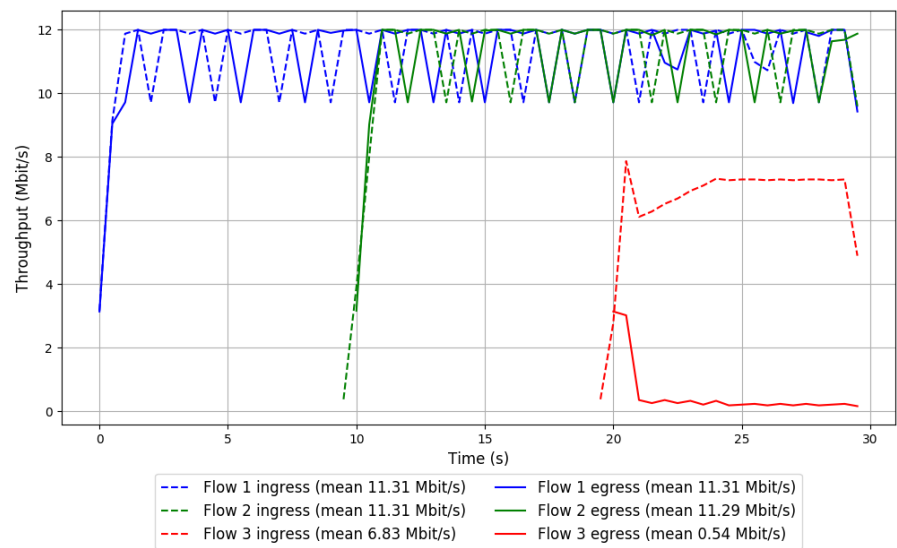
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 53.682 ms

Loss rate: 92.17%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-08-12 10:14:10

End at: 2017-08-12 10:14:40

# Below is generated by plot.py at 2017-08-12 11:54:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.59 Mbit/s

95th percentile per-packet one-way delay: 50.736 ms

Loss rate: 23.03%

-- Flow 1:

Average throughput: 11.71 Mbit/s

95th percentile per-packet one-way delay: 50.698 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 53.295 ms

Loss rate: 94.97%

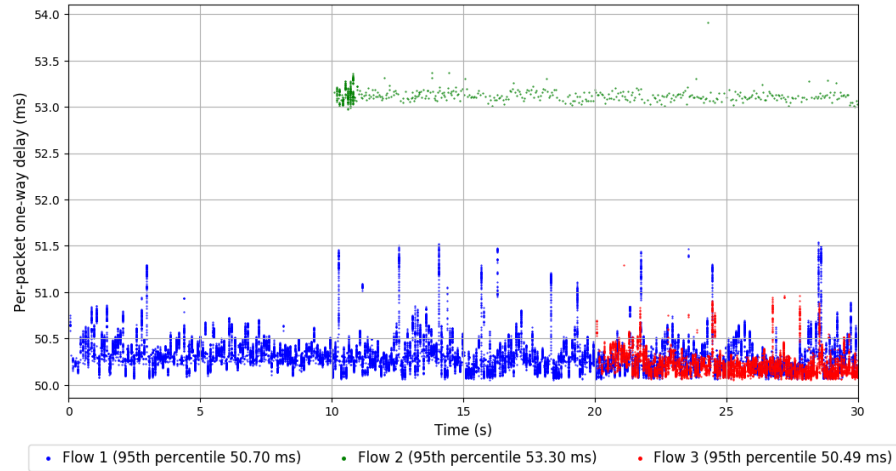
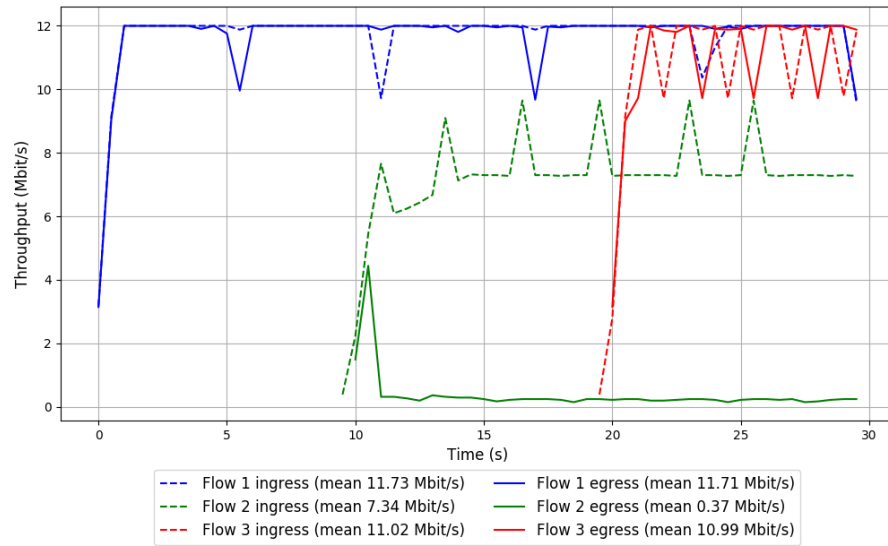
-- Flow 3:

Average throughput: 10.99 Mbit/s

95th percentile per-packet one-way delay: 50.495 ms

Loss rate: 0.21%

# Run 9: Report of KohoCC — Data Link

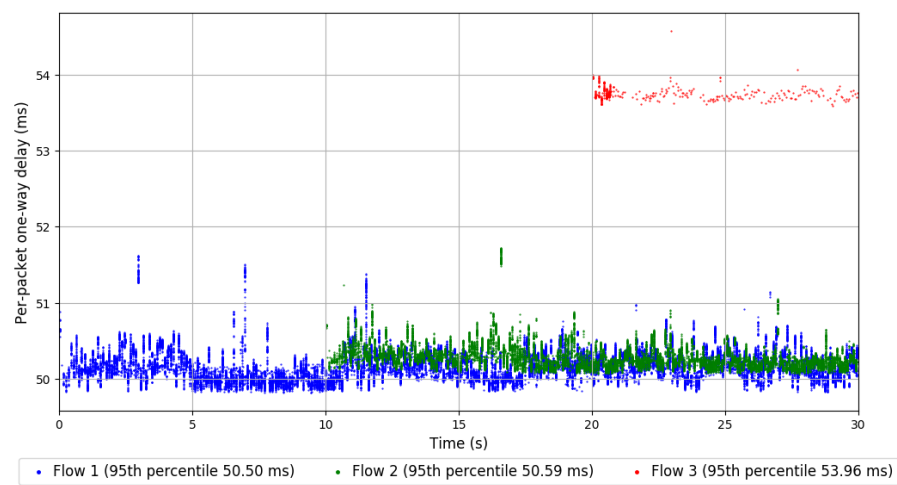
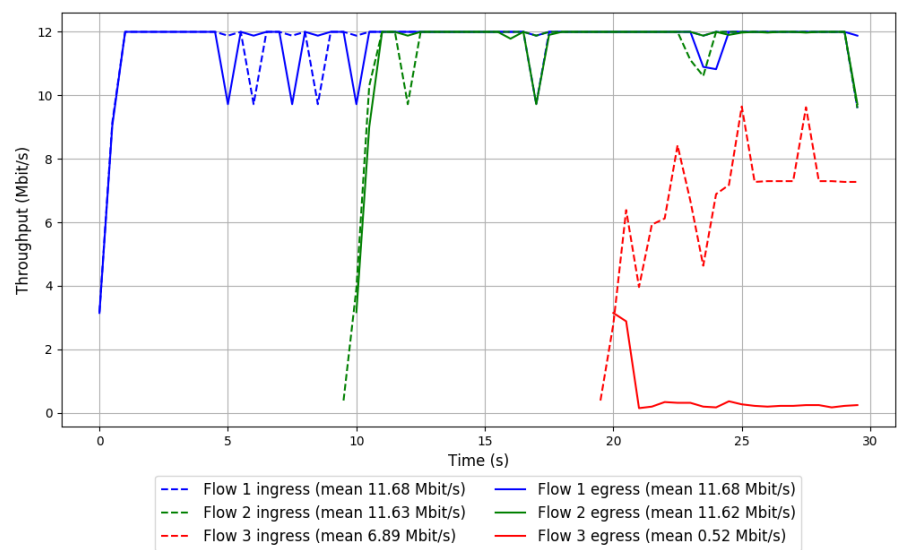


```
Run 10: Statistics of KohoCC

Start at: 2017-08-12 10:25:38
End at: 2017-08-12 10:26:08

# Below is generated by plot.py at 2017-08-12 11:54:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.58 Mbit/s
95th percentile per-packet one-way delay: 50.564 ms
Loss rate: 9.80%
-- Flow 1:
Average throughput: 11.68 Mbit/s
95th percentile per-packet one-way delay: 50.502 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.62 Mbit/s
95th percentile per-packet one-way delay: 50.594 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 53.959 ms
Loss rate: 92.52%
```

Run 10: Report of KohoCC — Data Link

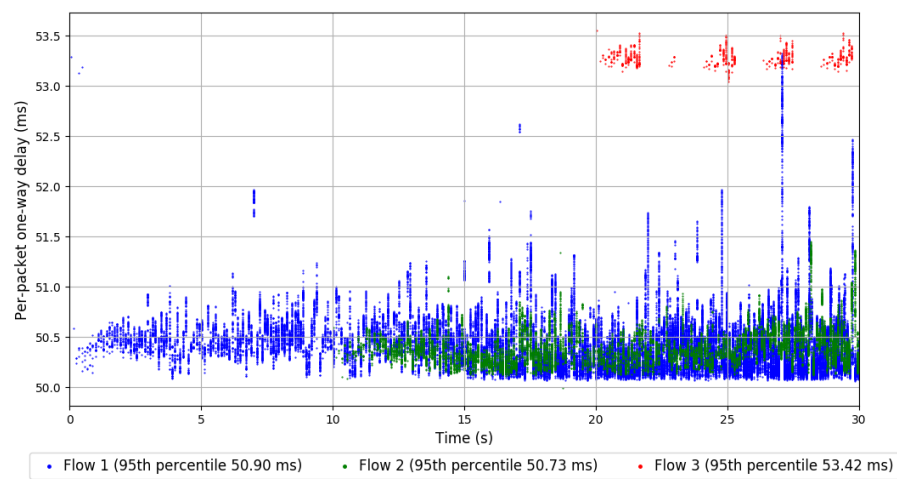
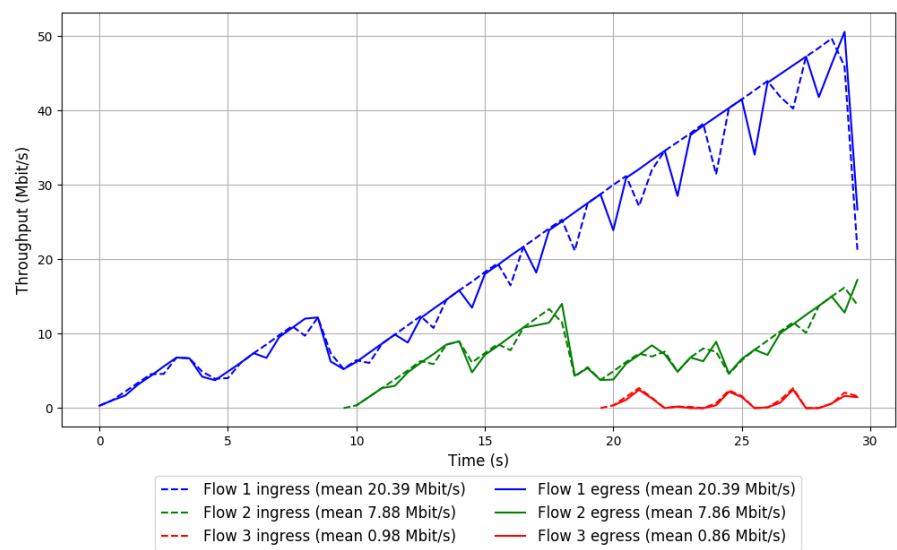


```
Run 1: Statistics of LEDBAT

Start at: 2017-08-12 08:52:00
End at: 2017-08-12 08:52:30

# Below is generated by plot.py at 2017-08-12 11:54:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.90 Mbit/s
95th percentile per-packet one-way delay: 50.929 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 20.39 Mbit/s
95th percentile per-packet one-way delay: 50.896 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.86 Mbit/s
95th percentile per-packet one-way delay: 50.732 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 53.425 ms
Loss rate: 13.52%
```

Run 1: Report of LEDBAT — Data Link

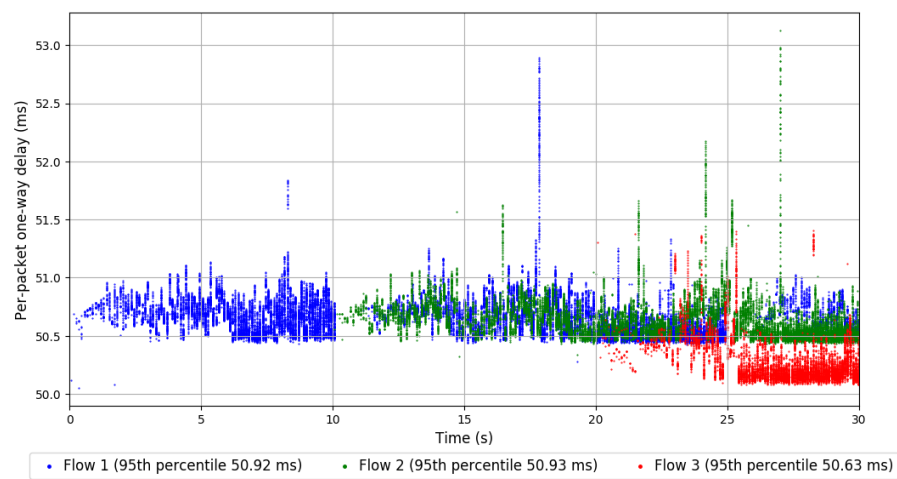
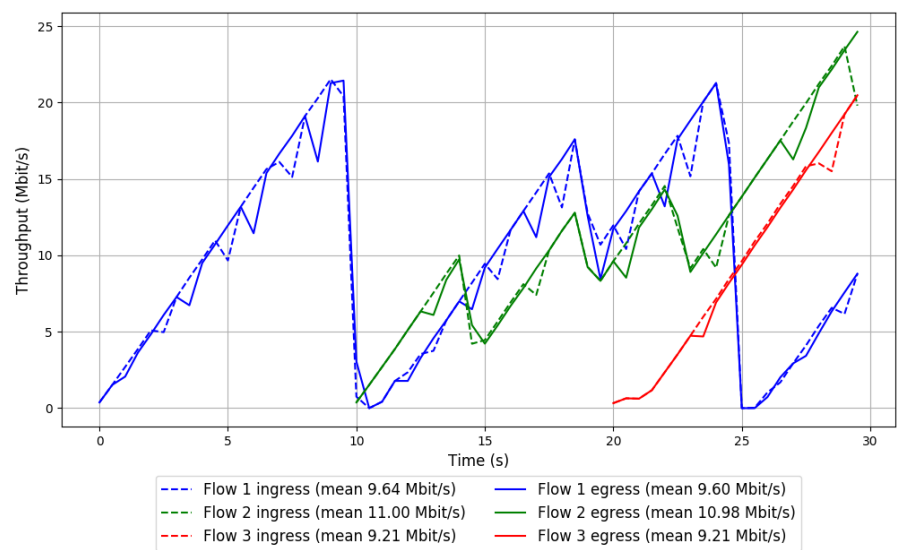


```
Run 2: Statistics of LEDBAT

Start at: 2017-08-12 09:03:20
End at: 2017-08-12 09:03:50

# Below is generated by plot.py at 2017-08-12 11:54:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.95 Mbit/s
95th percentile per-packet one-way delay: 50.910 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 9.60 Mbit/s
95th percentile per-packet one-way delay: 50.921 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 10.98 Mbit/s
95th percentile per-packet one-way delay: 50.926 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 9.21 Mbit/s
95th percentile per-packet one-way delay: 50.633 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-12 09:14:37

End at: 2017-08-12 09:15:07

# Below is generated by plot.py at 2017-08-12 11:54:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 43.75 Mbit/s

95th percentile per-packet one-way delay: 50.629 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 30.34 Mbit/s

95th percentile per-packet one-way delay: 50.611 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 19.85 Mbit/s

95th percentile per-packet one-way delay: 50.610 ms

Loss rate: 0.00%

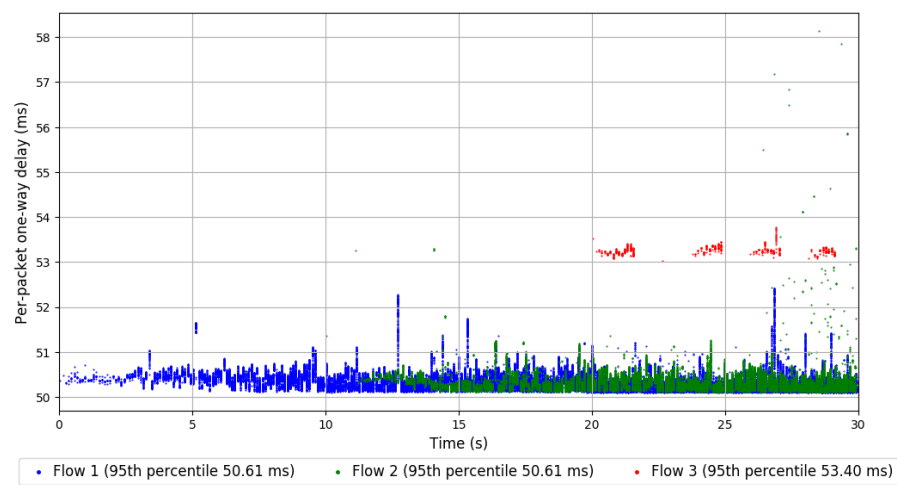
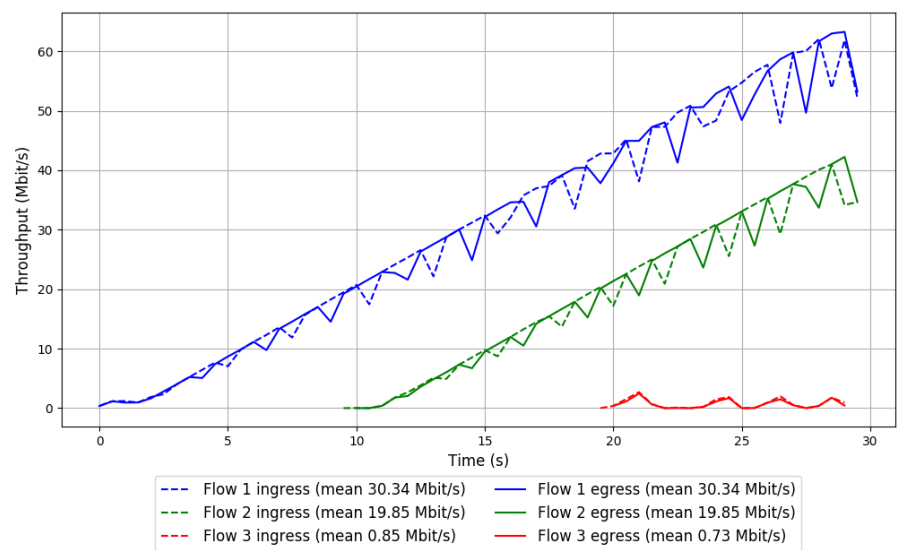
-- Flow 3:

Average throughput: 0.73 Mbit/s

95th percentile per-packet one-way delay: 53.401 ms

Loss rate: 15.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-08-12 09:25:54

End at: 2017-08-12 09:26:24

# Below is generated by plot.py at 2017-08-12 11:54:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.45 Mbit/s

95th percentile per-packet one-way delay: 50.674 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 17.90 Mbit/s

95th percentile per-packet one-way delay: 50.681 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 8.39 Mbit/s

95th percentile per-packet one-way delay: 50.688 ms

Loss rate: 0.19%

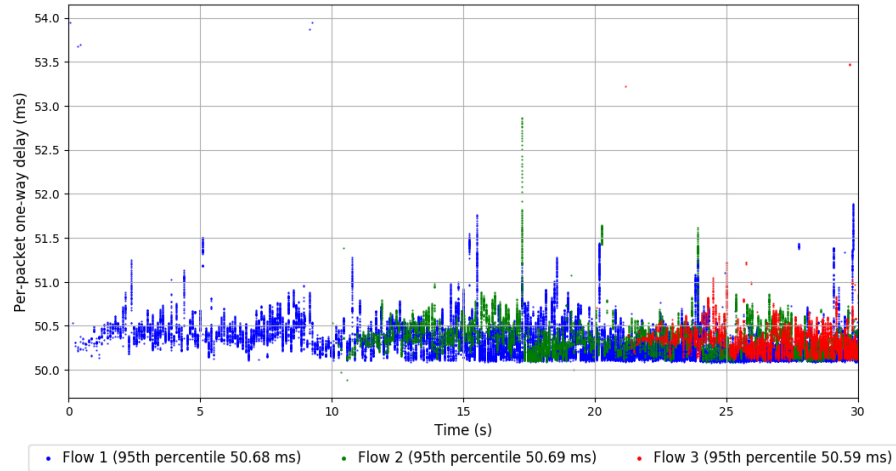
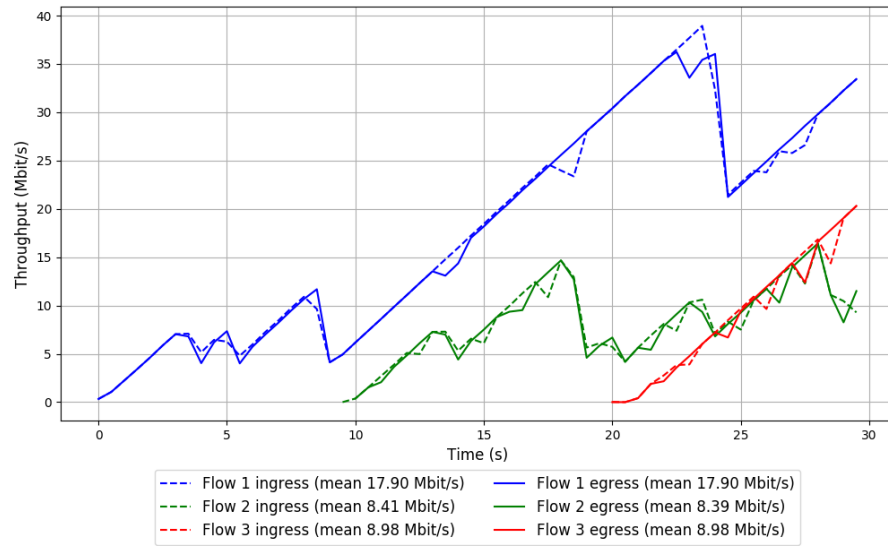
-- Flow 3:

Average throughput: 8.98 Mbit/s

95th percentile per-packet one-way delay: 50.591 ms

Loss rate: 0.01%

# Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

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

End at: 2017-08-12 09:37:39

# Below is generated by plot.py at 2017-08-12 11:54:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.35 Mbit/s

95th percentile per-packet one-way delay: 53.867 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 54.020 ms

Loss rate: 5.85%

-- Flow 2:

Average throughput: 7.26 Mbit/s

95th percentile per-packet one-way delay: 50.923 ms

Loss rate: 0.51%

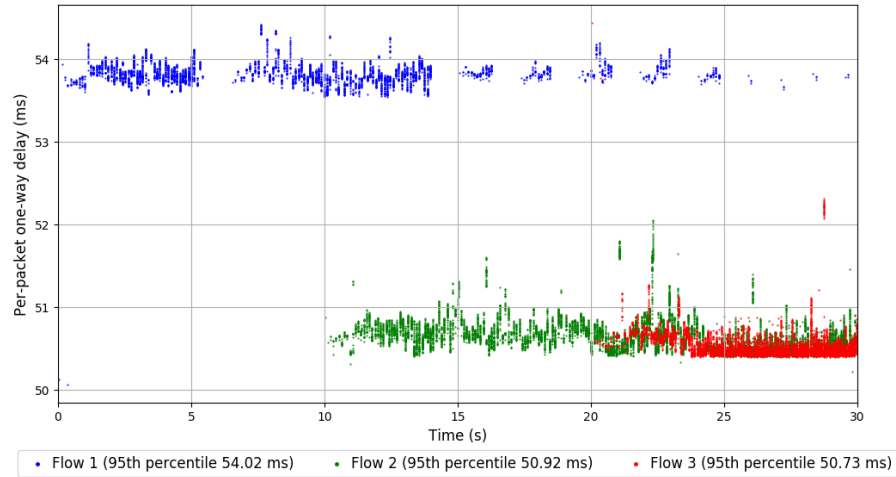
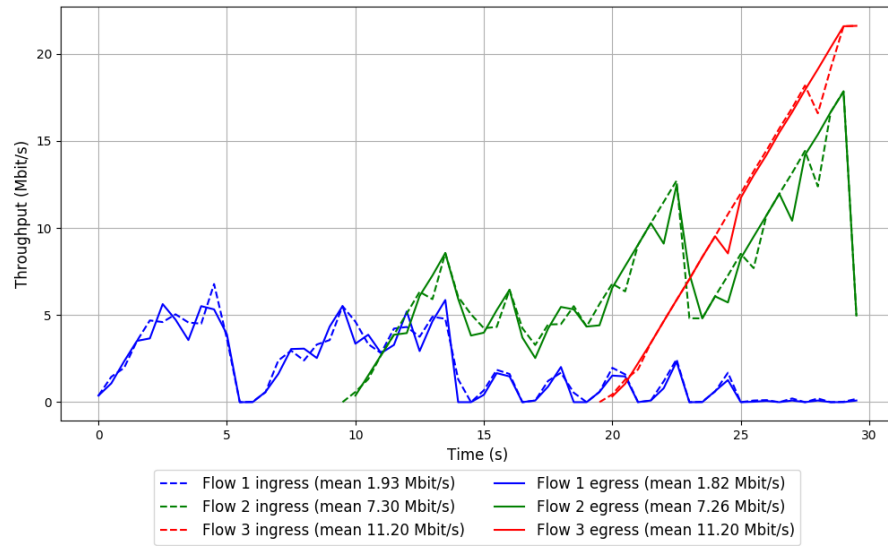
-- Flow 3:

Average throughput: 11.20 Mbit/s

95th percentile per-packet one-way delay: 50.726 ms

Loss rate: 0.00%

## Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-12 09:48:36

End at: 2017-08-12 09:49:06

# Below is generated by plot.py at 2017-08-12 11:54:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 14.26 Mbit/s

95th percentile per-packet one-way delay: 50.660 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 7.13 Mbit/s

95th percentile per-packet one-way delay: 50.620 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 6.27 Mbit/s

95th percentile per-packet one-way delay: 50.832 ms

Loss rate: 0.34%

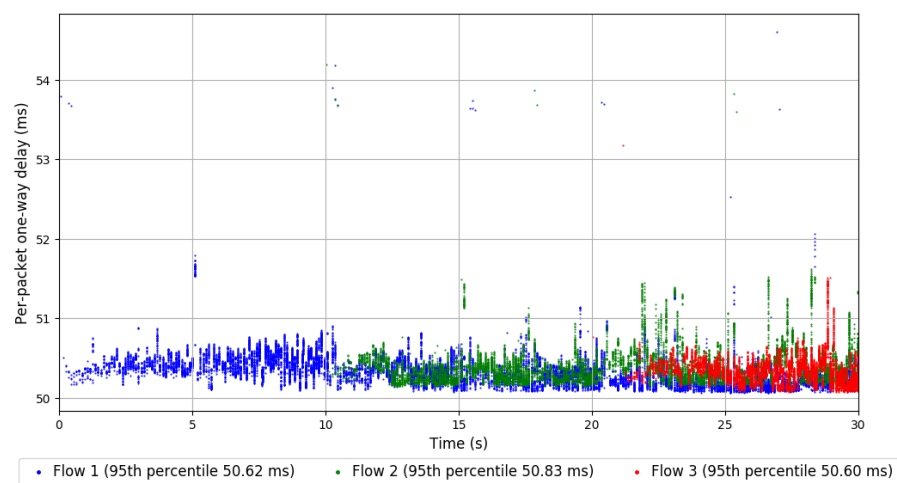
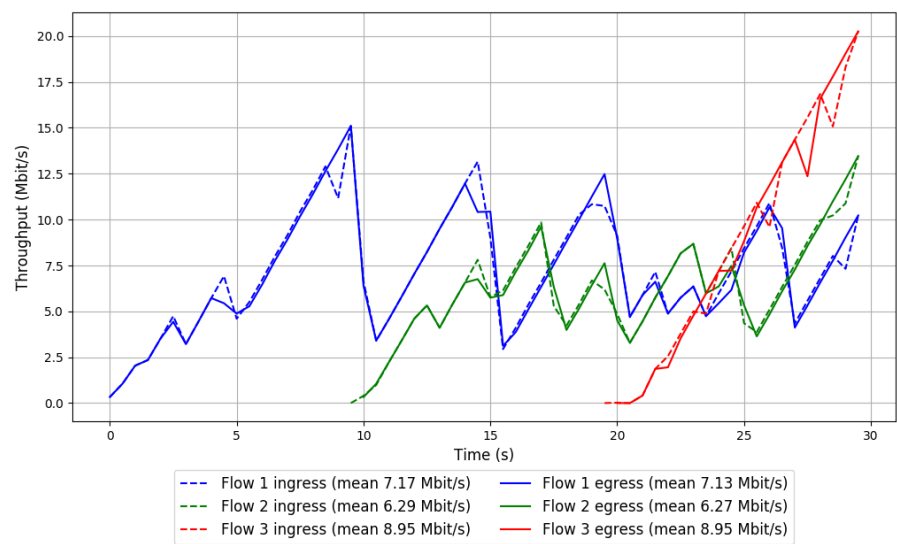
-- Flow 3:

Average throughput: 8.95 Mbit/s

95th percentile per-packet one-way delay: 50.597 ms

Loss rate: 0.01%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-08-12 09:59:49

End at: 2017-08-12 10:00:19

# Below is generated by plot.py at 2017-08-12 11:54:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 24.03 Mbit/s

95th percentile per-packet one-way delay: 50.458 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 13.96 Mbit/s

95th percentile per-packet one-way delay: 50.477 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 15.09 Mbit/s

95th percentile per-packet one-way delay: 50.434 ms

Loss rate: 0.51%

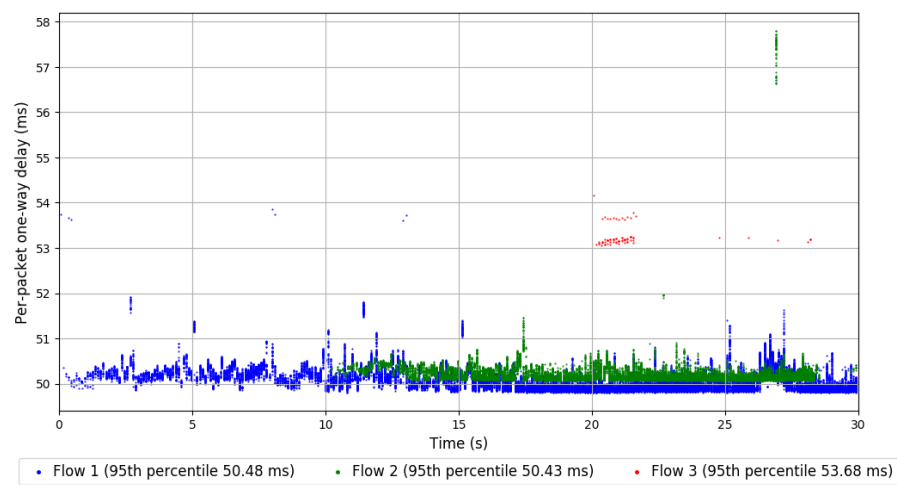
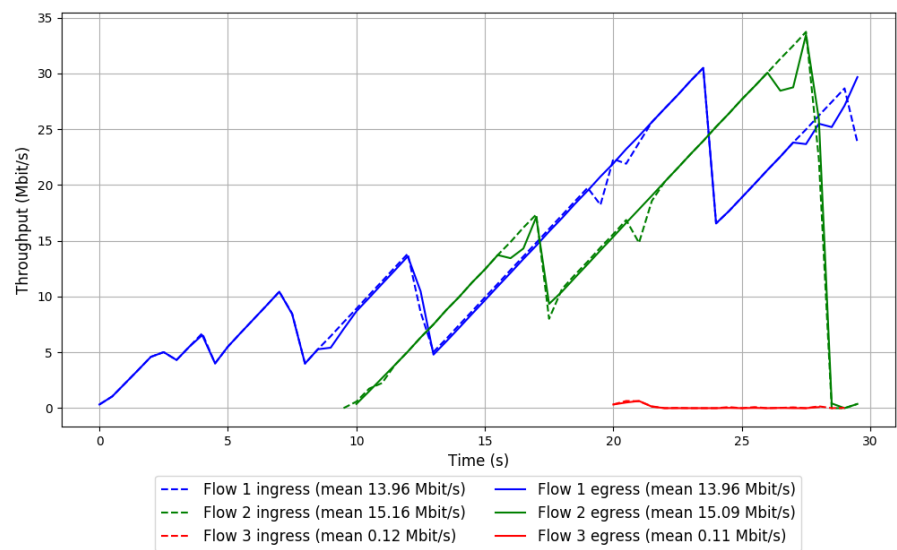
-- Flow 3:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 53.681 ms

Loss rate: 20.89%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-12 10:10:37

End at: 2017-08-12 10:11:07

# Below is generated by plot.py at 2017-08-12 11:54:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.35 Mbit/s

95th percentile per-packet one-way delay: 53.964 ms

Loss rate: 4.85%

-- Flow 1:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 53.553 ms

Loss rate: 4.61%

-- Flow 2:

Average throughput: 2.91 Mbit/s

95th percentile per-packet one-way delay: 54.053 ms

Loss rate: 5.23%

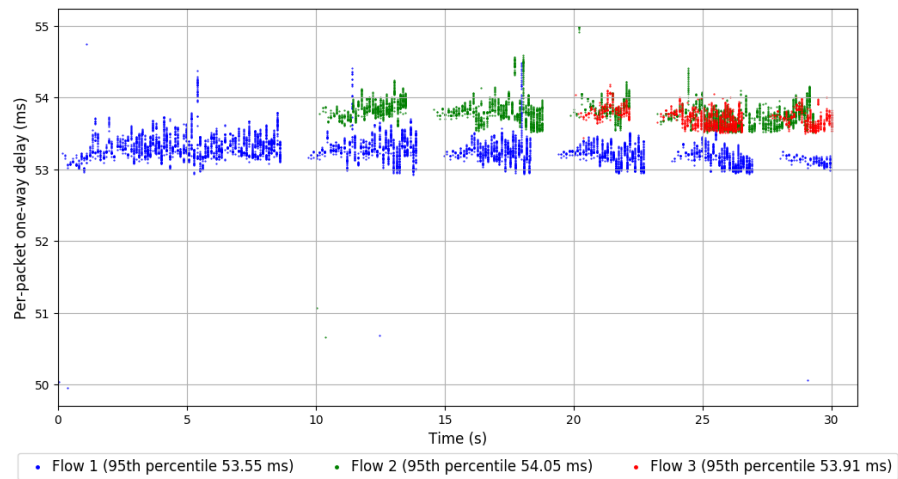
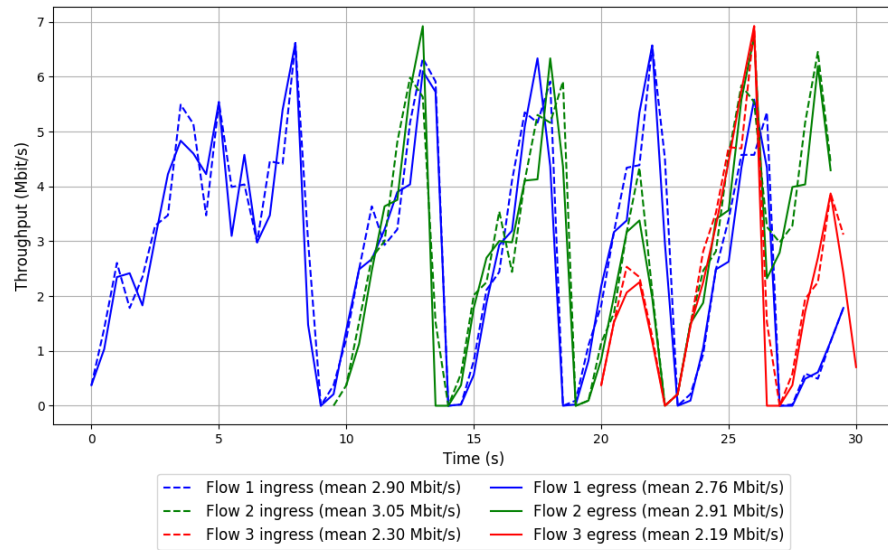
-- Flow 3:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 53.910 ms

Loss rate: 4.78%

## Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-12 10:22:04

End at: 2017-08-12 10:22:34

# Below is generated by plot.py at 2017-08-12 11:54:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.78 Mbit/s

95th percentile per-packet one-way delay: 53.282 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 2.59 Mbit/s

95th percentile per-packet one-way delay: 53.485 ms

Loss rate: 4.01%

-- Flow 2:

Average throughput: 16.93 Mbit/s

95th percentile per-packet one-way delay: 50.665 ms

Loss rate: 0.00%

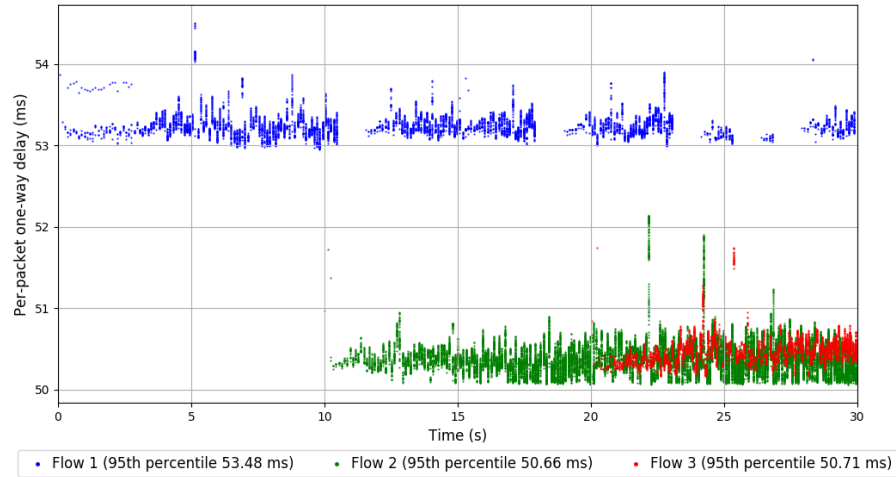
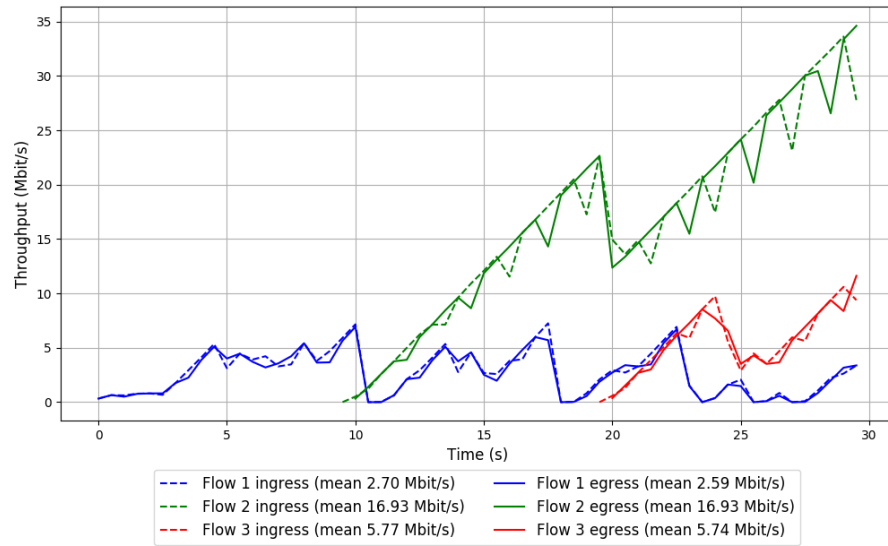
-- Flow 3:

Average throughput: 5.74 Mbit/s

95th percentile per-packet one-way delay: 50.710 ms

Loss rate: 0.53%

# Run 9: Report of LEDBAT — Data Link

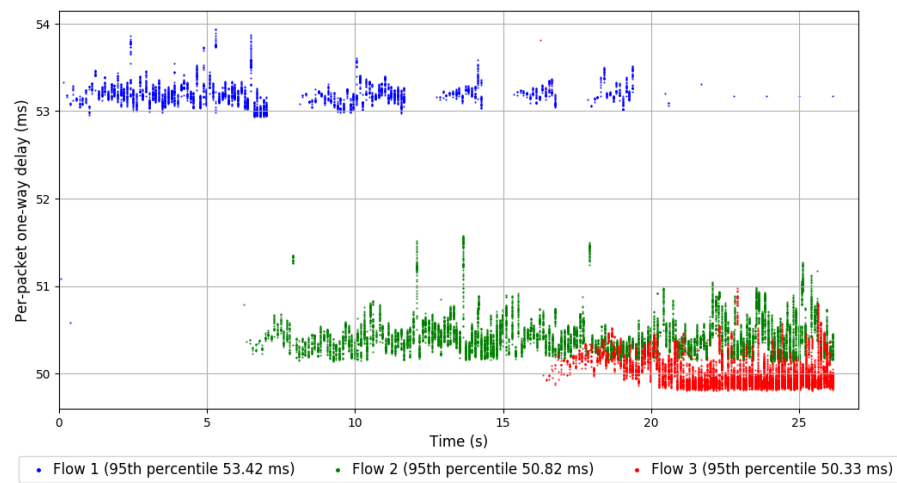
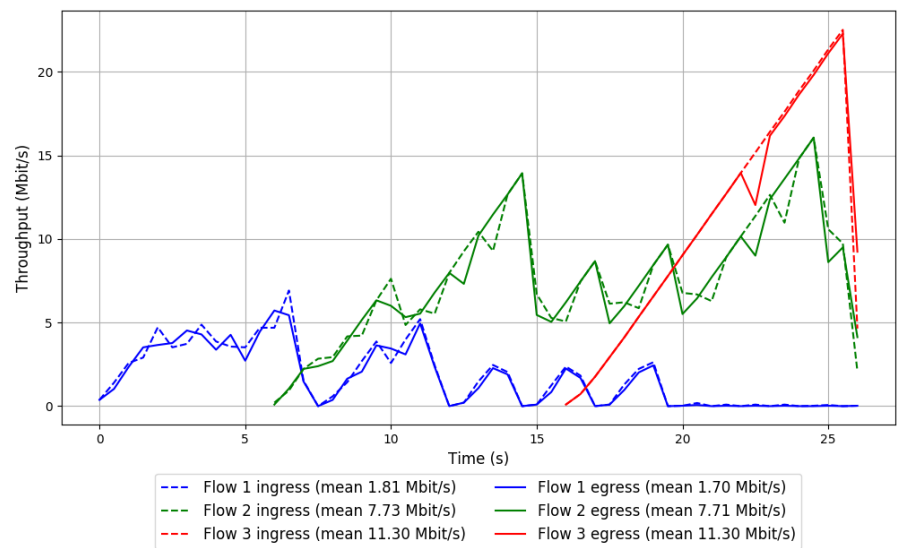


```
Run 10: Statistics of LEDBAT

Start at: 2017-08-12 10:33:17
End at: 2017-08-12 10:33:47

# Below is generated by plot.py at 2017-08-12 11:54:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.86 Mbit/s
95th percentile per-packet one-way delay: 53.218 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 53.417 ms
Loss rate: 6.00%
-- Flow 2:
Average throughput: 7.71 Mbit/s
95th percentile per-packet one-way delay: 50.819 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 11.30 Mbit/s
95th percentile per-packet one-way delay: 50.329 ms
Loss rate: 0.00%
```

Run 10: Report of LEDBAT — Data Link

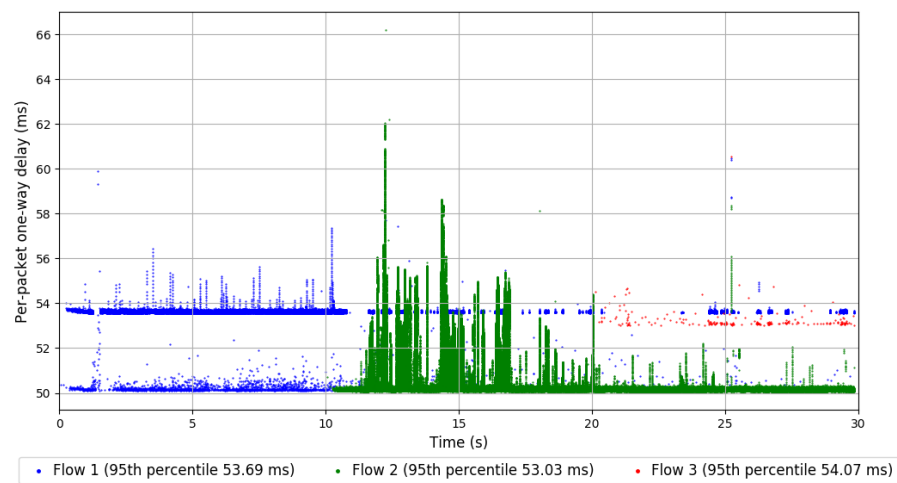
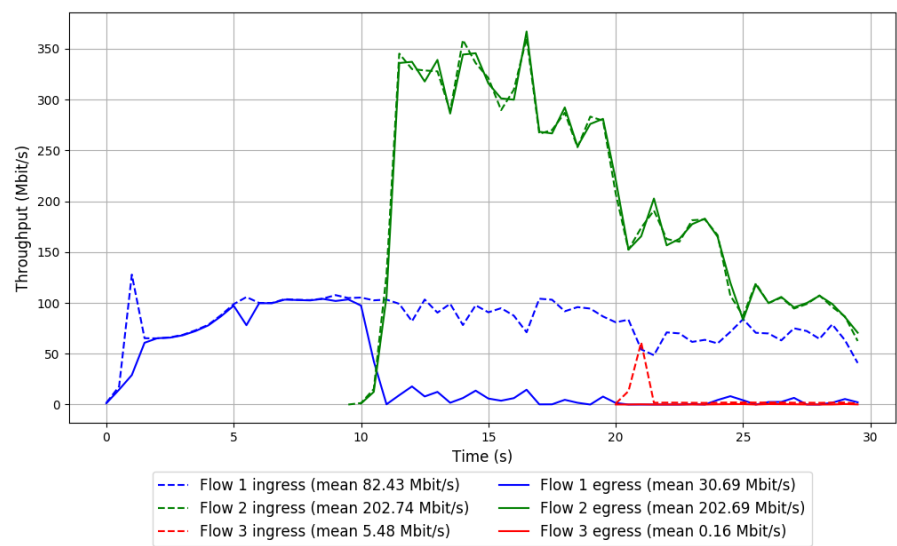


```
Run 1: Statistics of PCC

Start at: 2017-08-12 08:51:12
End at: 2017-08-12 08:51:42

# Below is generated by plot.py at 2017-08-12 11:55:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.36 Mbit/s
95th percentile per-packet one-way delay: 53.663 ms
Loss rate: 24.44%
-- Flow 1:
Average throughput: 30.69 Mbit/s
95th percentile per-packet one-way delay: 53.688 ms
Loss rate: 62.76%
-- Flow 2:
Average throughput: 202.69 Mbit/s
95th percentile per-packet one-way delay: 53.033 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 54.067 ms
Loss rate: 97.01%
```

Run 1: Report of PCC — Data Link

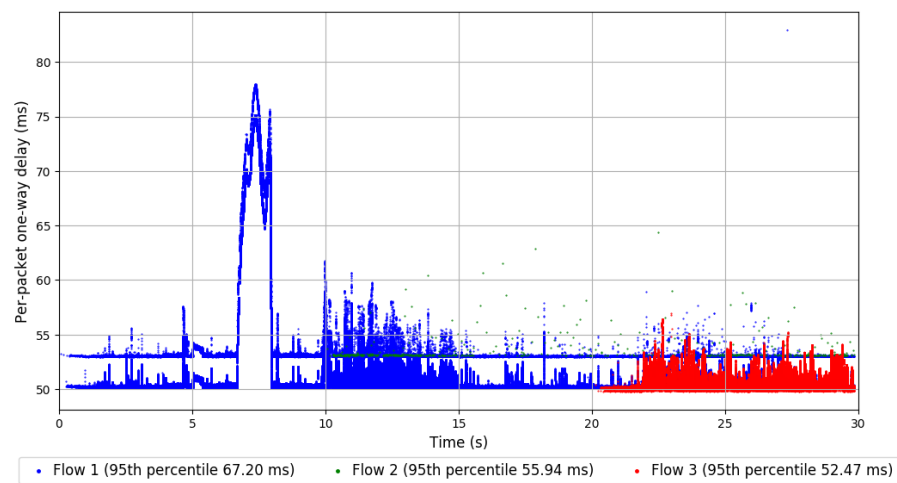
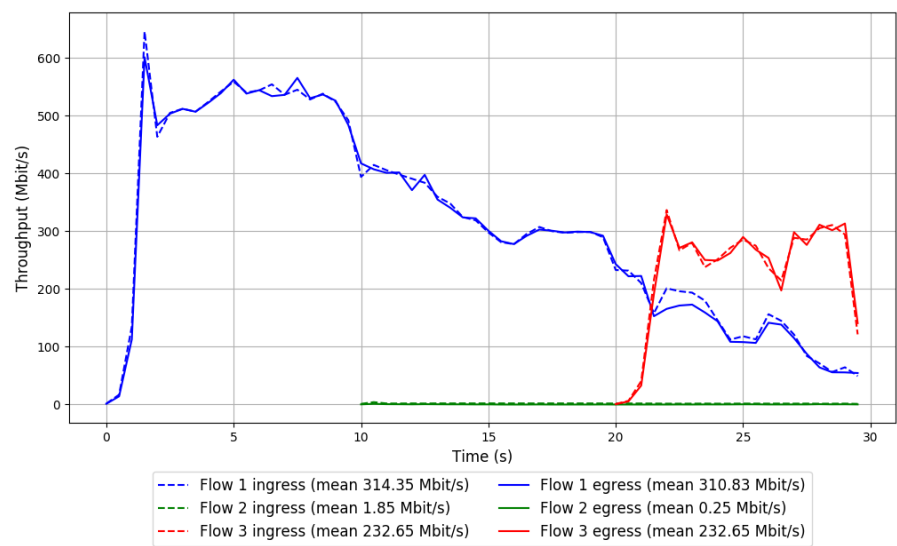


```
Run 2: Statistics of PCC

Start at: 2017-08-12 09:02:25
End at: 2017-08-12 09:02:55

# Below is generated by plot.py at 2017-08-12 11:56:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.90 Mbit/s
95th percentile per-packet one-way delay: 64.871 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 310.83 Mbit/s
95th percentile per-packet one-way delay: 67.197 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 55.942 ms
Loss rate: 86.36%
-- Flow 3:
Average throughput: 232.65 Mbit/s
95th percentile per-packet one-way delay: 52.471 ms
Loss rate: 0.00%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-12 09:13:43

End at: 2017-08-12 09:14:13

# Below is generated by plot.py at 2017-08-12 11:56:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 360.41 Mbit/s

95th percentile per-packet one-way delay: 52.638 ms

Loss rate: 5.16%

-- Flow 1:

Average throughput: 301.22 Mbit/s

95th percentile per-packet one-way delay: 52.293 ms

Loss rate: 5.71%

-- Flow 2:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 53.735 ms

Loss rate: 92.35%

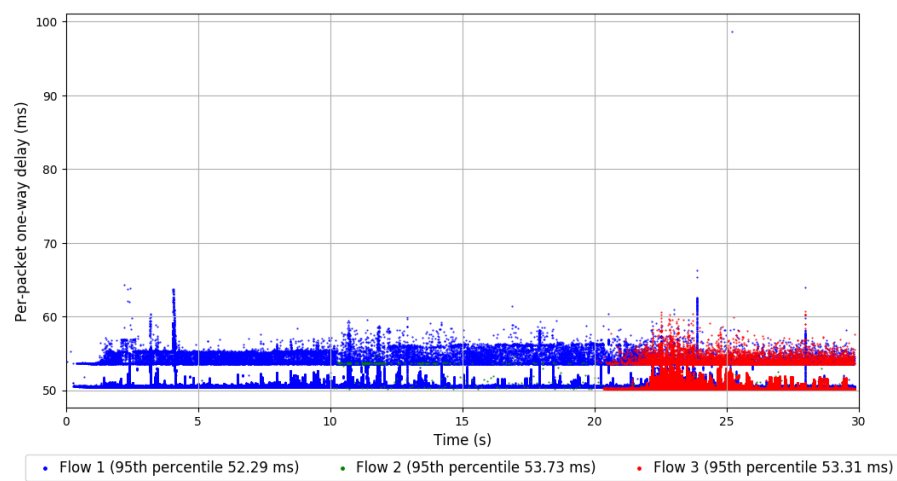
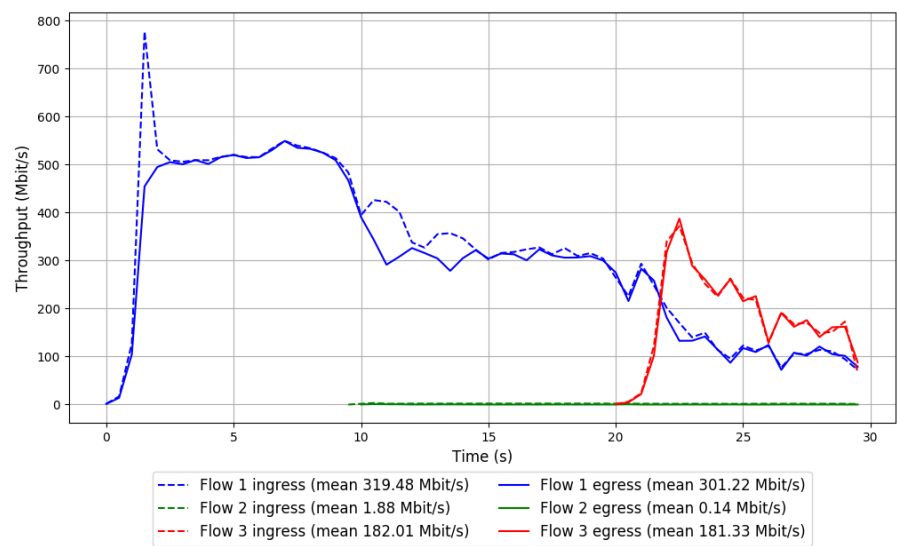
-- Flow 3:

Average throughput: 181.33 Mbit/s

95th percentile per-packet one-way delay: 53.315 ms

Loss rate: 0.34%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-08-12 09:24:59

End at: 2017-08-12 09:25:29

# Below is generated by plot.py at 2017-08-12 11:57:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 367.36 Mbit/s

95th percentile per-packet one-way delay: 54.617 ms

Loss rate: 4.39%

-- Flow 1:

Average throughput: 298.12 Mbit/s

95th percentile per-packet one-way delay: 56.070 ms

Loss rate: 4.70%

-- Flow 2:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 53.149 ms

Loss rate: 89.26%

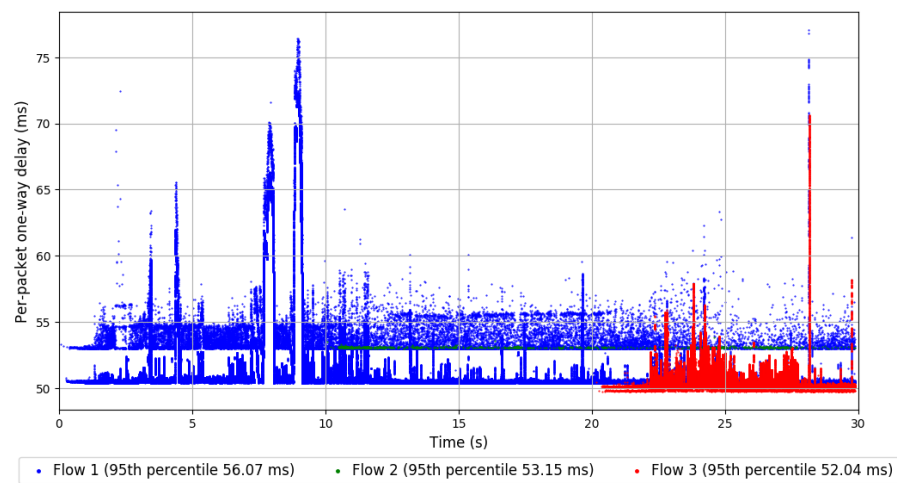
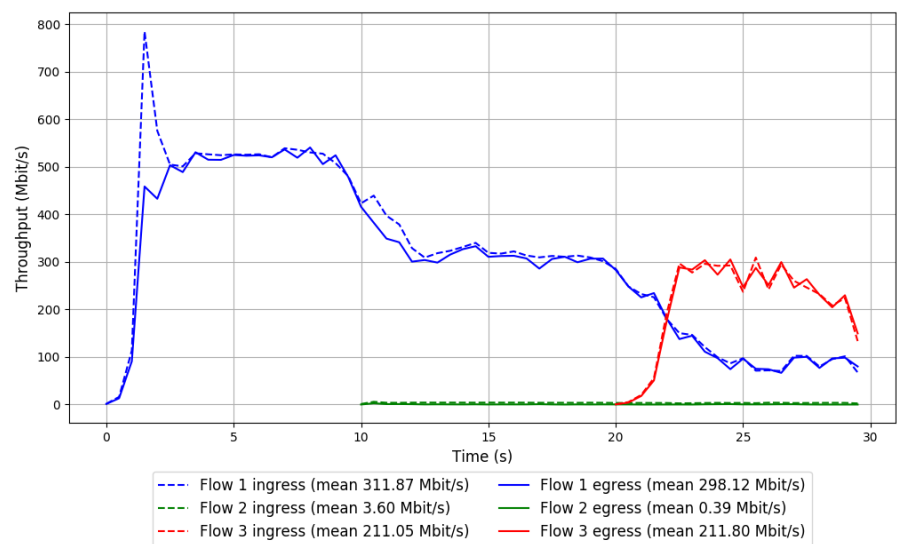
-- Flow 3:

Average throughput: 211.80 Mbit/s

95th percentile per-packet one-way delay: 52.044 ms

Loss rate: 0.07%

Run 4: Report of PCC — Data Link

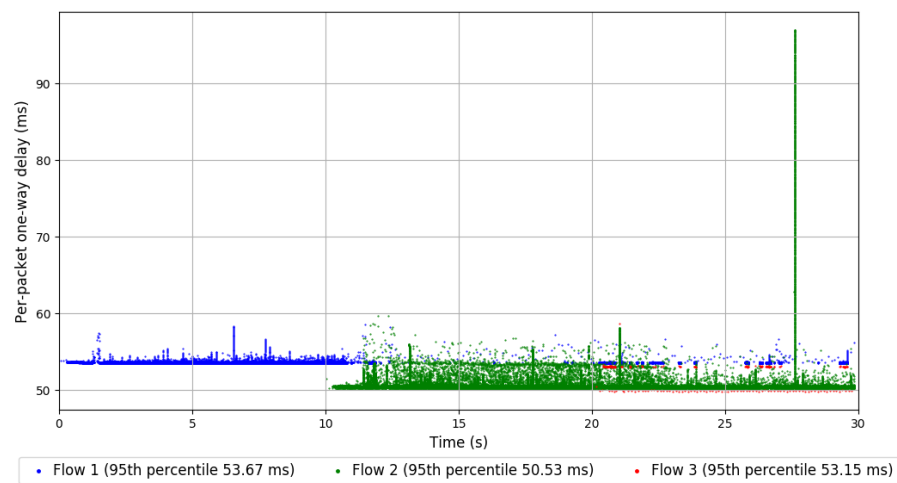
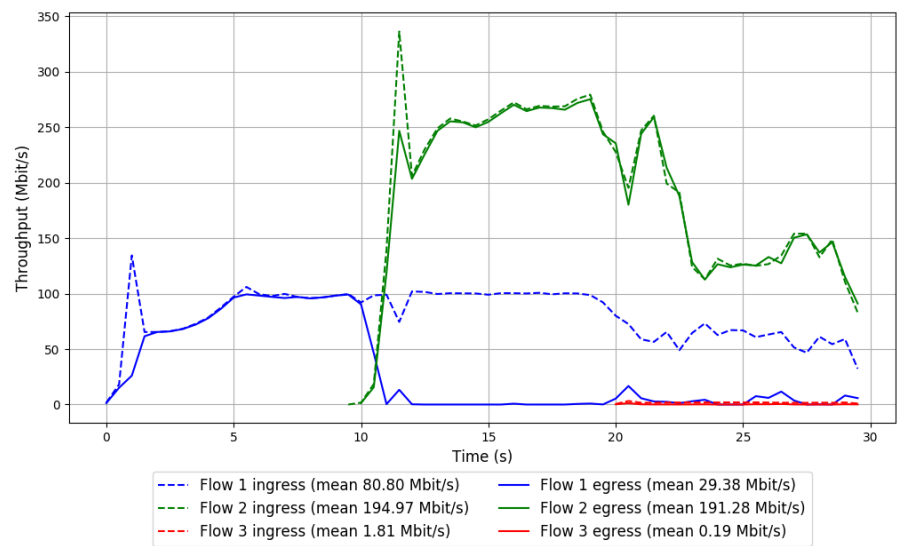


```
Run 5: Statistics of PCC

Start at: 2017-08-12 09:36:22
End at: 2017-08-12 09:36:52

# Below is generated by plot.py at 2017-08-12 11:57:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 156.60 Mbit/s
95th percentile per-packet one-way delay: 53.606 ms
Loss rate: 25.79%
-- Flow 1:
Average throughput: 29.38 Mbit/s
95th percentile per-packet one-way delay: 53.666 ms
Loss rate: 63.65%
-- Flow 2:
Average throughput: 191.28 Mbit/s
95th percentile per-packet one-way delay: 50.535 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 53.147 ms
Loss rate: 89.44%
```

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-08-12 09:47:43

End at: 2017-08-12 09:48:13

# Below is generated by plot.py at 2017-08-12 11:58:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 324.02 Mbit/s

95th percentile per-packet one-way delay: 108.973 ms

Loss rate: 2.41%

-- Flow 1:

Average throughput: 322.45 Mbit/s

95th percentile per-packet one-way delay: 109.094 ms

Loss rate: 2.11%

-- Flow 2:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 50.378 ms

Loss rate: 2.09%

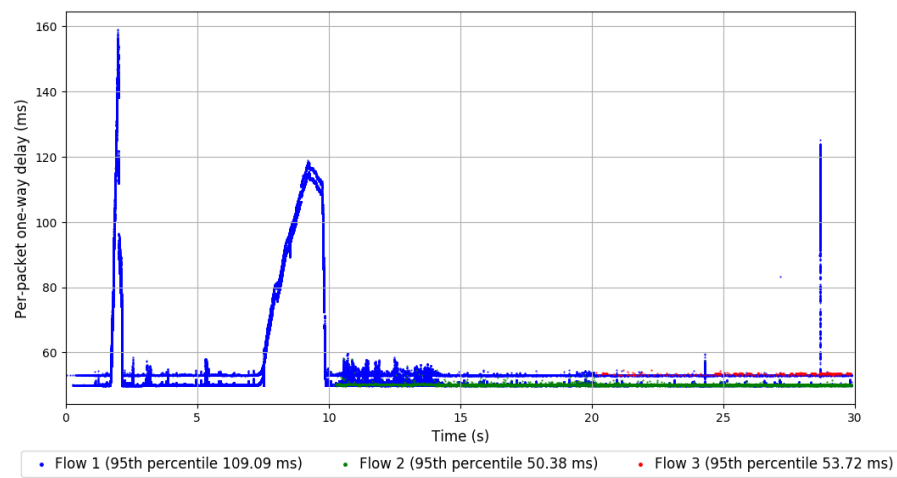
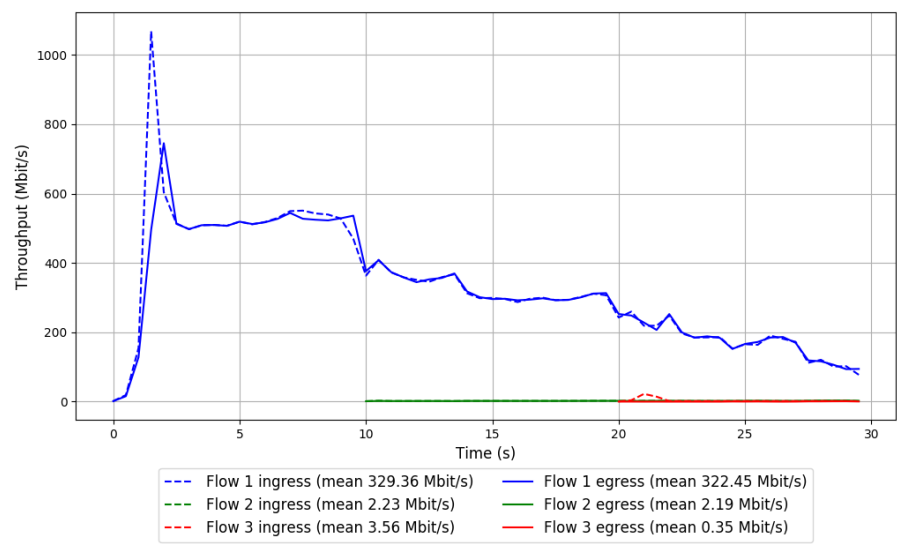
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 53.721 ms

Loss rate: 90.12%

Run 6: Report of PCC — Data Link

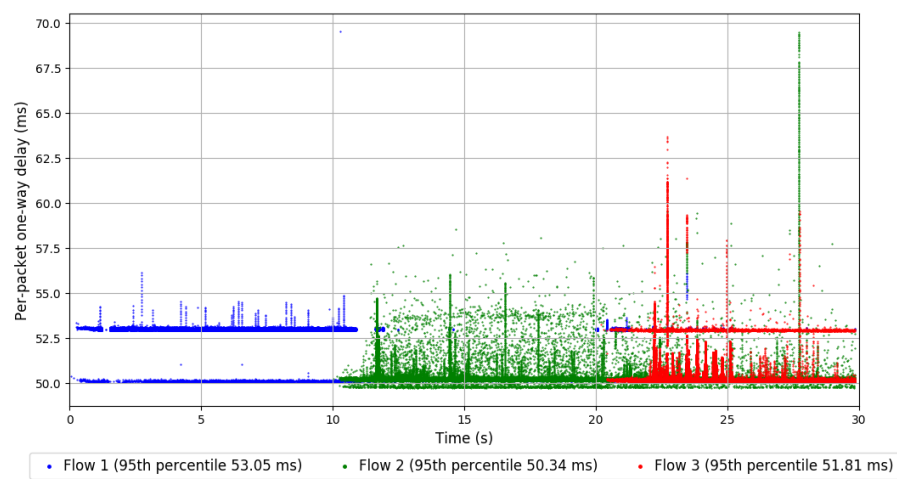
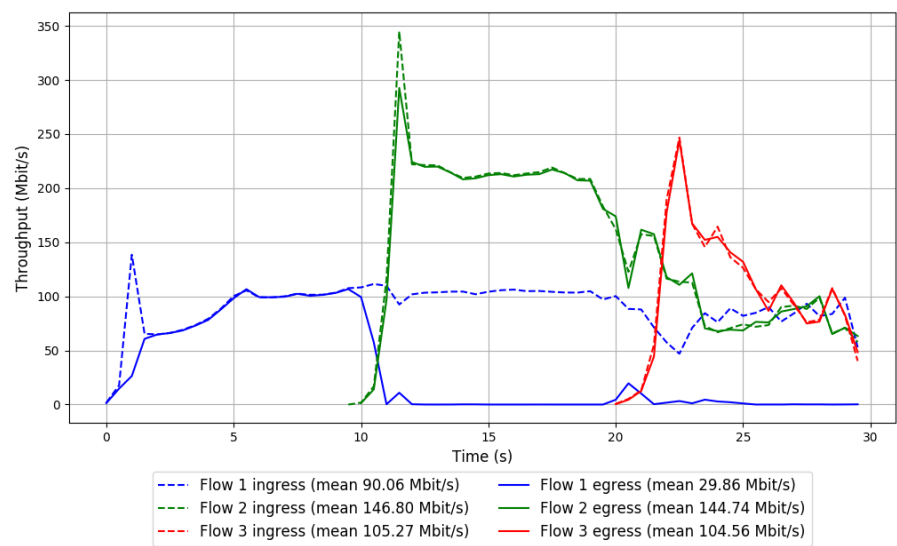


```
Run 7: Statistics of PCC

Start at: 2017-08-12 09:59:01
End at: 2017-08-12 09:59:31

# Below is generated by plot.py at 2017-08-12 11:58:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 159.88 Mbit/s
95th percentile per-packet one-way delay: 53.002 ms
Loss rate: 27.90%
-- Flow 1:
Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 53.050 ms
Loss rate: 66.84%
-- Flow 2:
Average throughput: 144.74 Mbit/s
95th percentile per-packet one-way delay: 50.339 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 104.56 Mbit/s
95th percentile per-packet one-way delay: 51.809 ms
Loss rate: 0.84%
```

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-12 10:09:53

End at: 2017-08-12 10:10:23

# Below is generated by plot.py at 2017-08-12 11:58:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.09 Mbit/s

95th percentile per-packet one-way delay: 53.066 ms

Loss rate: 7.17%

-- Flow 1:

Average throughput: 87.45 Mbit/s

95th percentile per-packet one-way delay: 53.068 ms

Loss rate: 7.30%

-- Flow 2:

Average throughput: 2.73 Mbit/s

95th percentile per-packet one-way delay: 53.043 ms

Loss rate: 3.54%

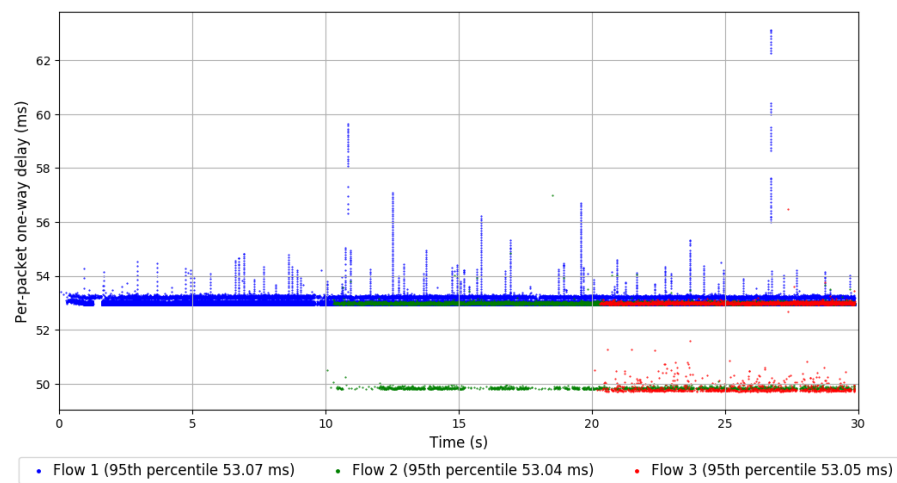
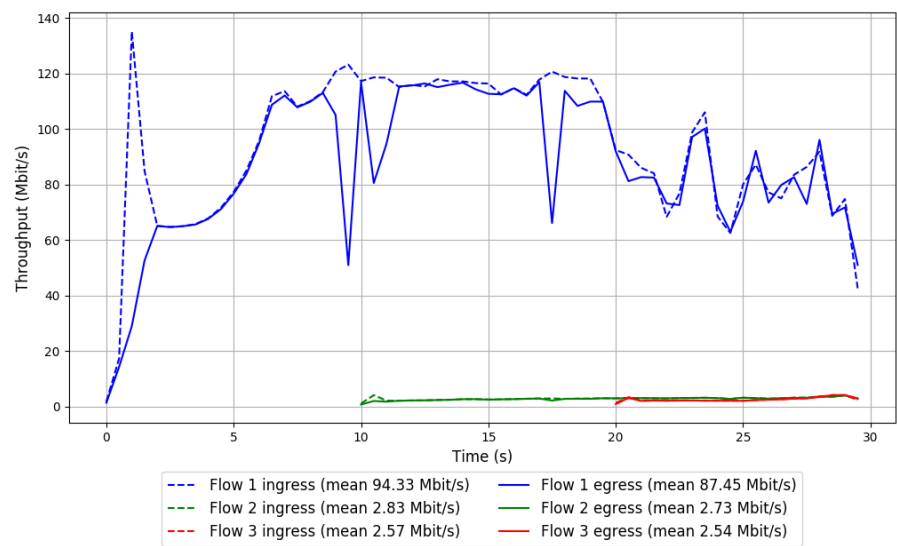
-- Flow 3:

Average throughput: 2.54 Mbit/s

95th percentile per-packet one-way delay: 53.045 ms

Loss rate: 1.43%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-08-12 10:21:13

End at: 2017-08-12 10:21:43

# Below is generated by plot.py at 2017-08-12 11:59:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 305.99 Mbit/s

95th percentile per-packet one-way delay: 66.042 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 305.33 Mbit/s

95th percentile per-packet one-way delay: 66.048 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 53.702 ms

Loss rate: 75.70%

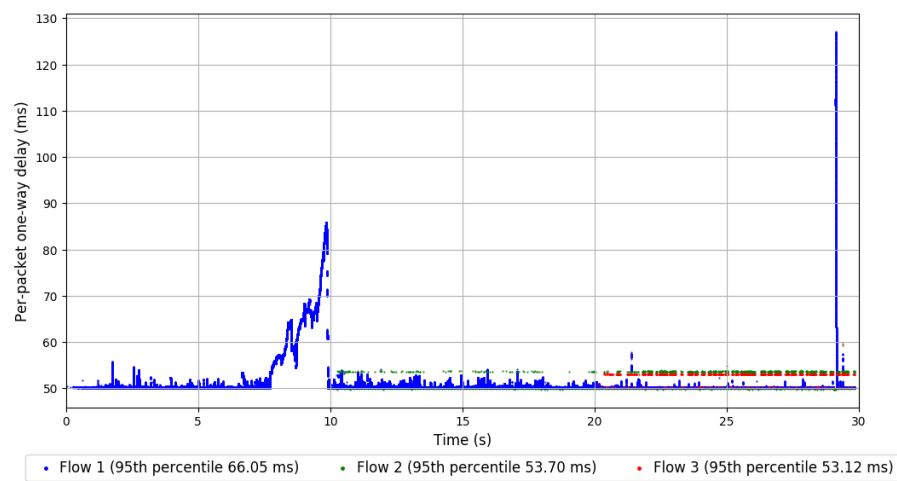
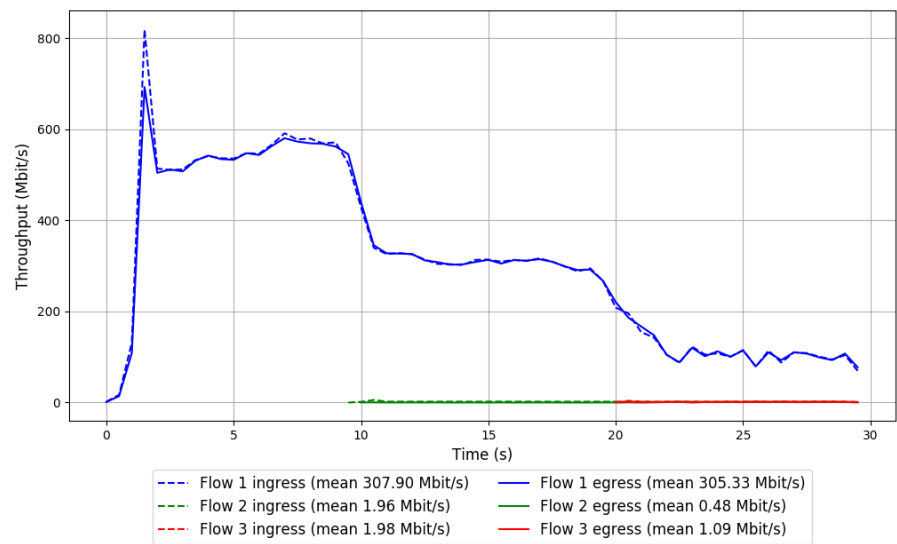
-- Flow 3:

Average throughput: 1.09 Mbit/s

95th percentile per-packet one-way delay: 53.124 ms

Loss rate: 45.01%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-08-12 10:32:23

End at: 2017-08-12 10:32:53

# Below is generated by plot.py at 2017-08-12 11:59:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 365.70 Mbit/s

95th percentile per-packet one-way delay: 111.000 ms

Loss rate: 3.95%

-- Flow 1:

Average throughput: 322.63 Mbit/s

95th percentile per-packet one-way delay: 119.101 ms

Loss rate: 4.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 54.754 ms

Loss rate: 87.84%

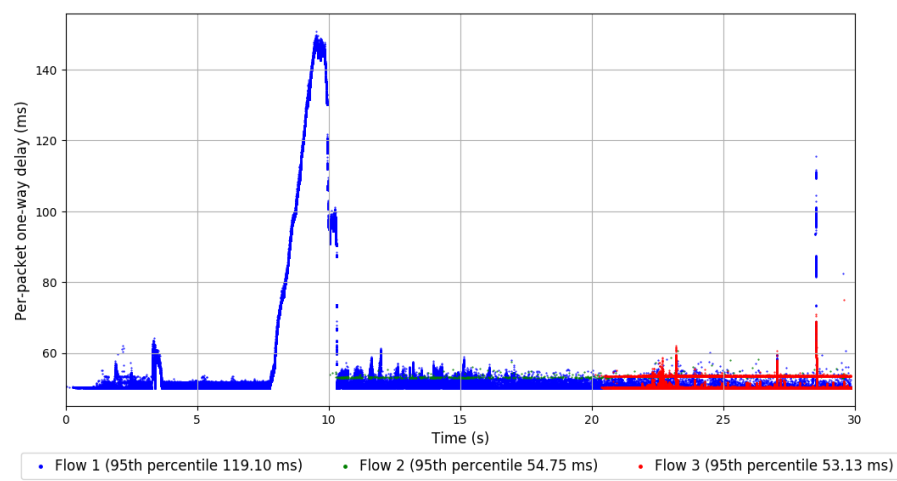
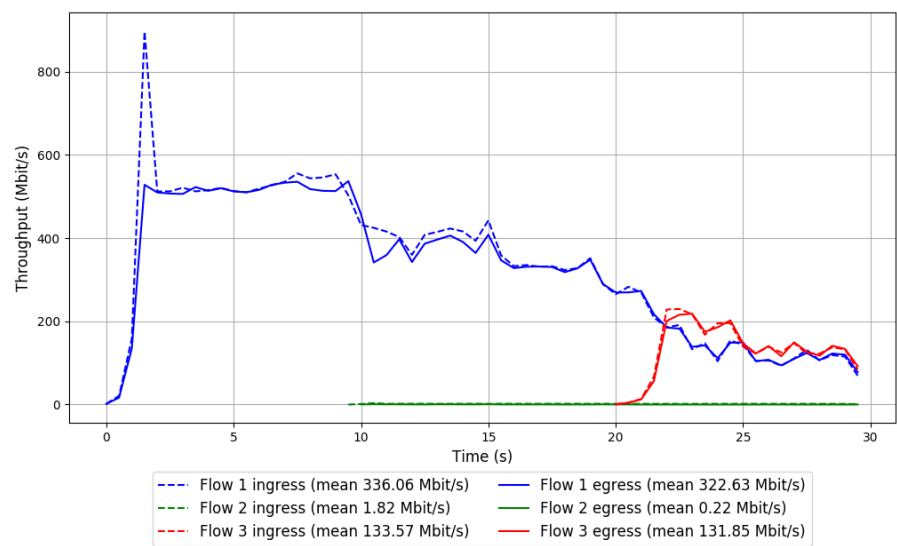
-- Flow 3:

Average throughput: 131.85 Mbit/s

95th percentile per-packet one-way delay: 53.126 ms

Loss rate: 1.29%

Run 10: Report of PCC — Data Link

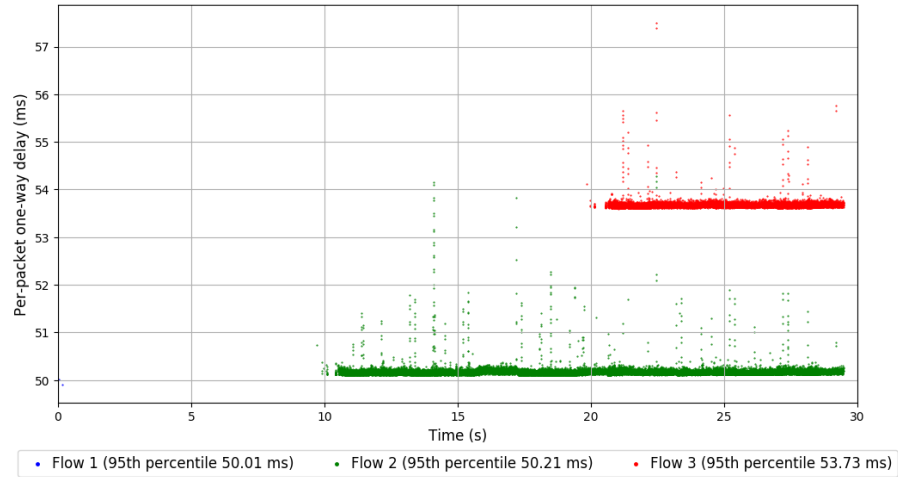
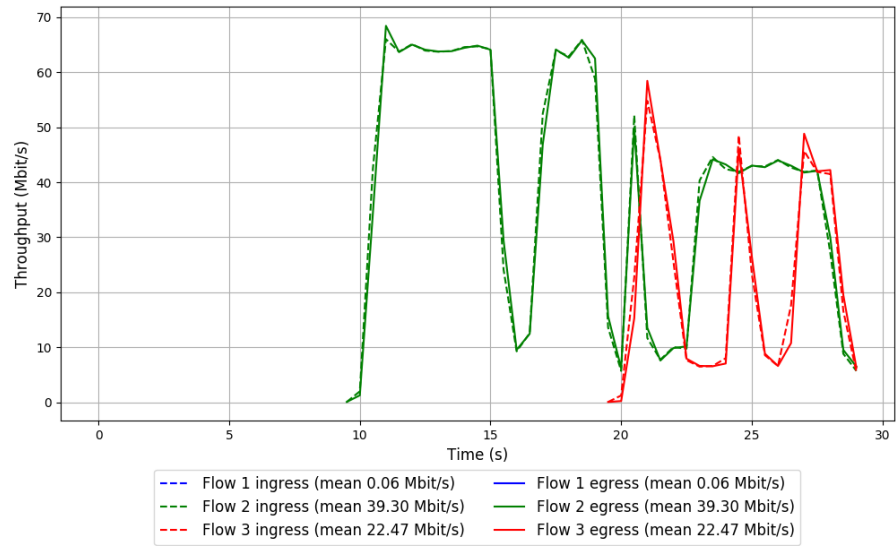


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-08-12 08:41:40
End at: 2017-08-12 08:42:10

# Below is generated by plot.py at 2017-08-12 11:59:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.72 Mbit/s
95th percentile per-packet one-way delay: 53.679 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.014 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.30 Mbit/s
95th percentile per-packet one-way delay: 50.212 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.47 Mbit/s
95th percentile per-packet one-way delay: 53.729 ms
Loss rate: 0.00%
```

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



Run 2: Statistics of QUIC Cubic

Start at: 2017-08-12 08:52:41

End at: 2017-08-12 08:53:11

# Below is generated by plot.py at 2017-08-12 11:59:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 37.81 Mbit/s

95th percentile per-packet one-way delay: 53.343 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.006 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.82 Mbit/s

95th percentile per-packet one-way delay: 53.356 ms

Loss rate: 0.00%

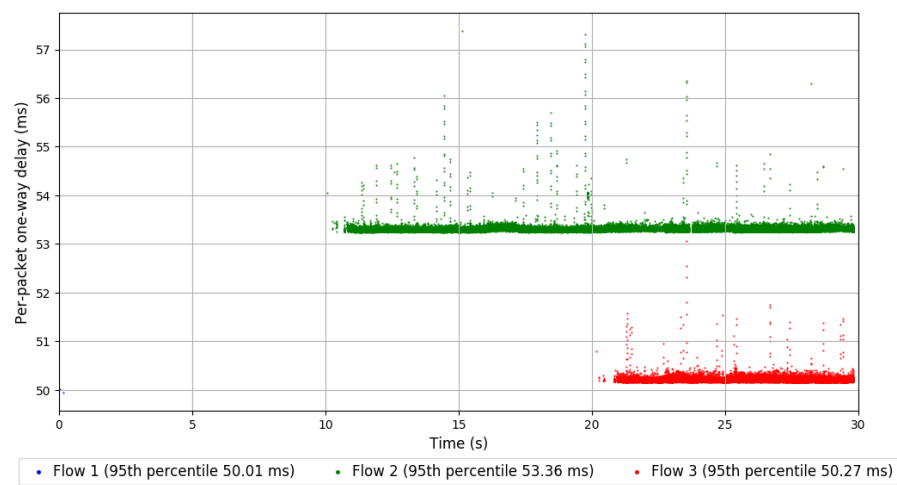
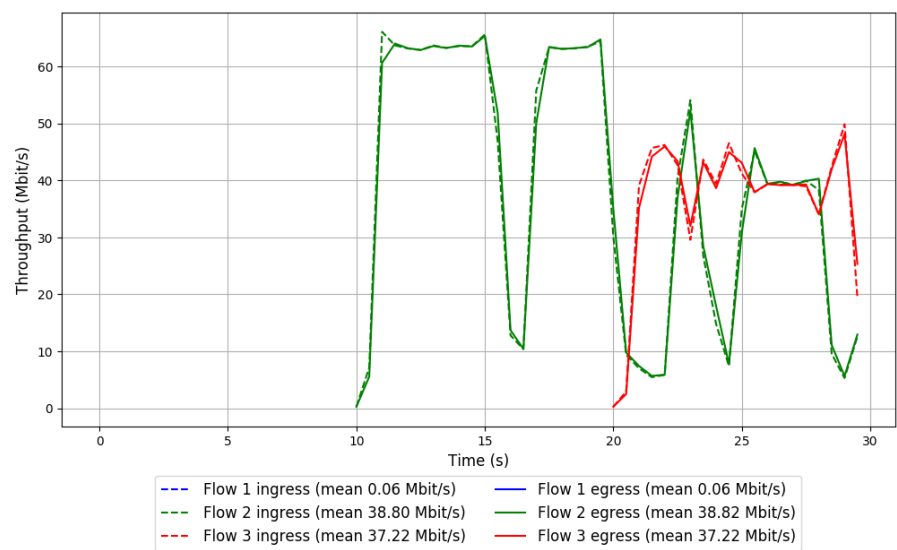
-- Flow 3:

Average throughput: 37.22 Mbit/s

95th percentile per-packet one-way delay: 50.272 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-12 09:04:01

End at: 2017-08-12 09:04:31

# Below is generated by plot.py at 2017-08-12 11:59:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 34.73 Mbit/s

95th percentile per-packet one-way delay: 53.652 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.629 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.43 Mbit/s

95th percentile per-packet one-way delay: 50.226 ms

Loss rate: 0.00%

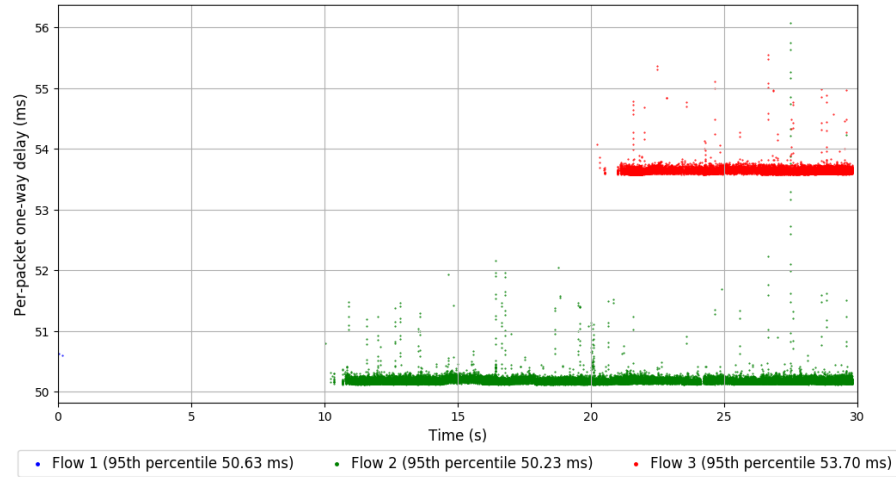
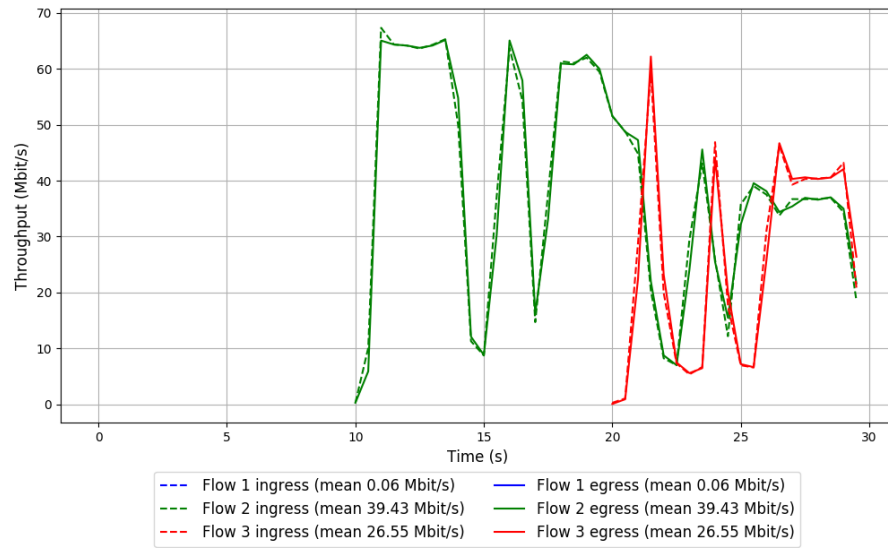
-- Flow 3:

Average throughput: 26.55 Mbit/s

95th percentile per-packet one-way delay: 53.699 ms

Loss rate: 0.00%

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



Run 4: Statistics of QUIC Cubic

Start at: 2017-08-12 09:15:20

End at: 2017-08-12 09:15:50

# Below is generated by plot.py at 2017-08-12 11:59:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 35.40 Mbit/s

95th percentile per-packet one-way delay: 49.886 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.353 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.82 Mbit/s

95th percentile per-packet one-way delay: 49.884 ms

Loss rate: 0.00%

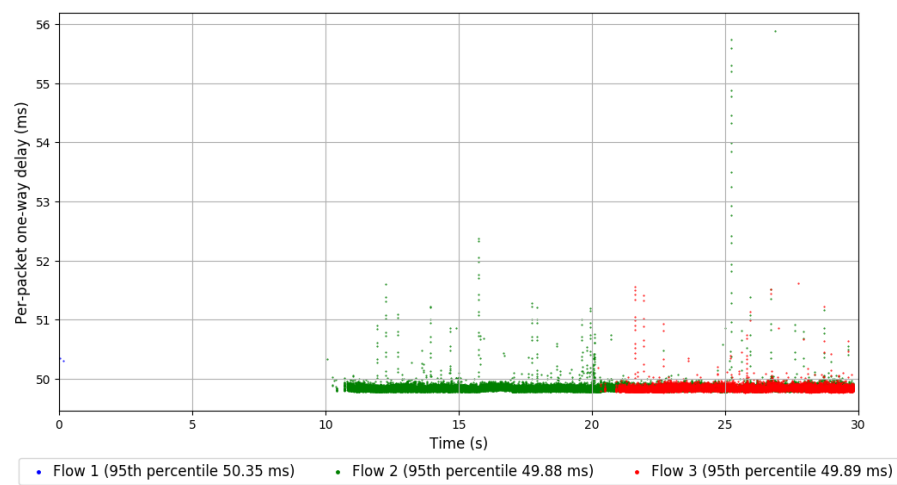
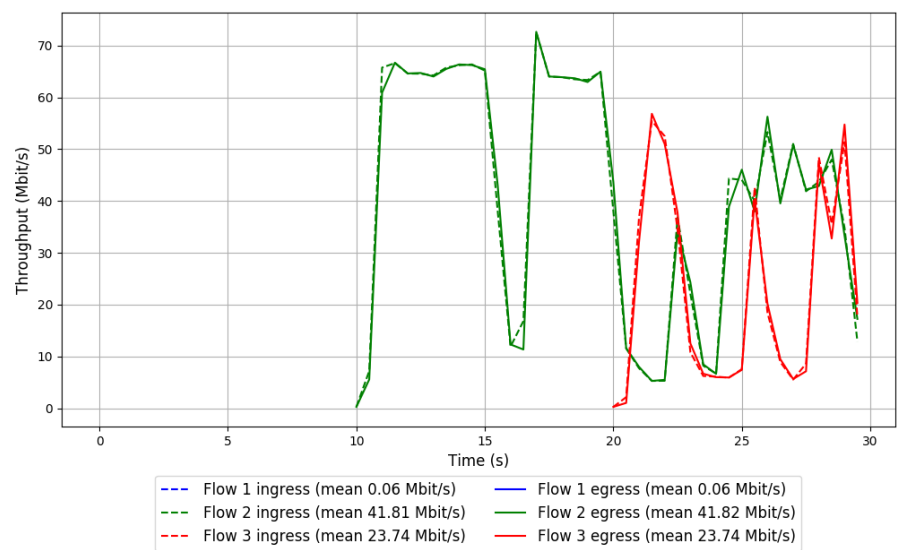
-- Flow 3:

Average throughput: 23.74 Mbit/s

95th percentile per-packet one-way delay: 49.893 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-08-12 09:26:36

End at: 2017-08-12 09:27:06

Run 5: Report of QUIC Cubic — Data Link

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Figure is missing

Run 6: Statistics of QUIC Cubic

Start at: 2017-08-12 09:37:50

End at: 2017-08-12 09:38:20

# Below is generated by plot.py at 2017-08-12 11:59:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 35.00 Mbit/s

95th percentile per-packet one-way delay: 53.259 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.322 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.09 Mbit/s

95th percentile per-packet one-way delay: 53.267 ms

Loss rate: 0.00%

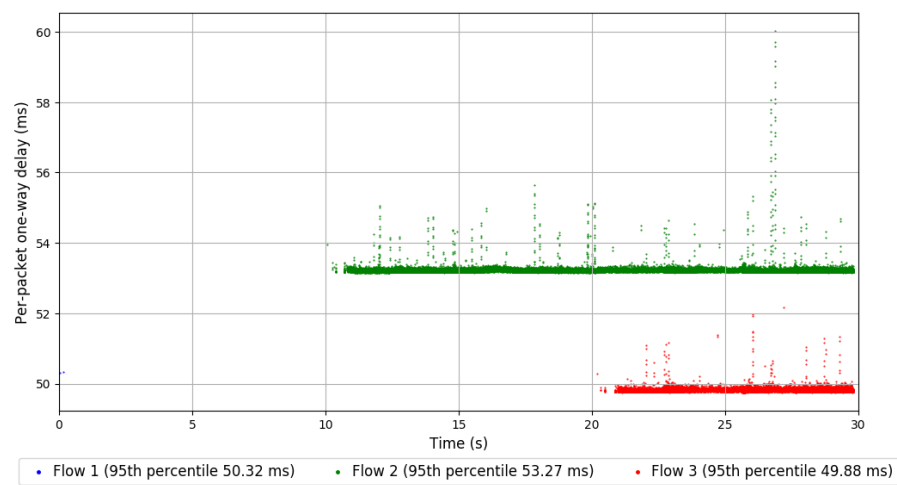
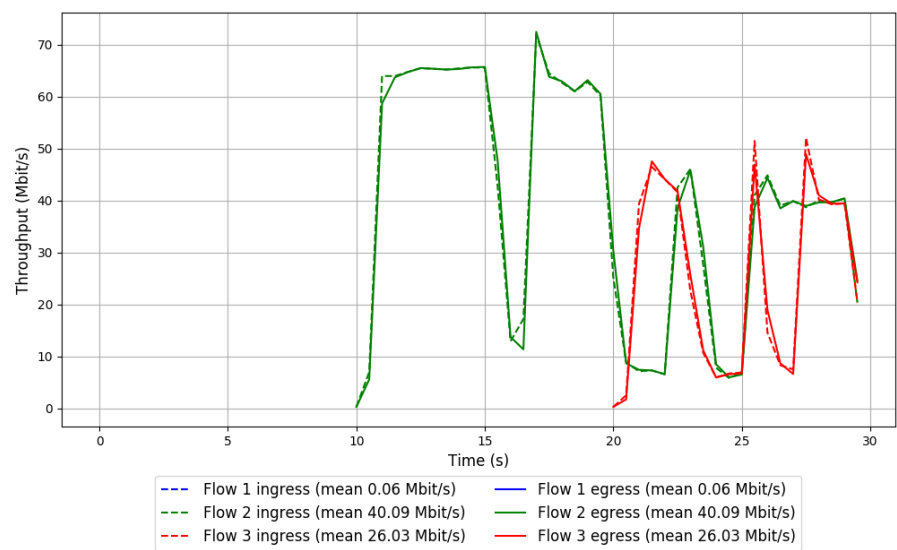
-- Flow 3:

Average throughput: 26.03 Mbit/s

95th percentile per-packet one-way delay: 49.882 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-08-12 09:49:16

End at: 2017-08-12 09:49:46

# Below is generated by plot.py at 2017-08-12 11:59:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.20 Mbit/s

95th percentile per-packet one-way delay: 50.133 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.404 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.83 Mbit/s

95th percentile per-packet one-way delay: 49.930 ms

Loss rate: 0.00%

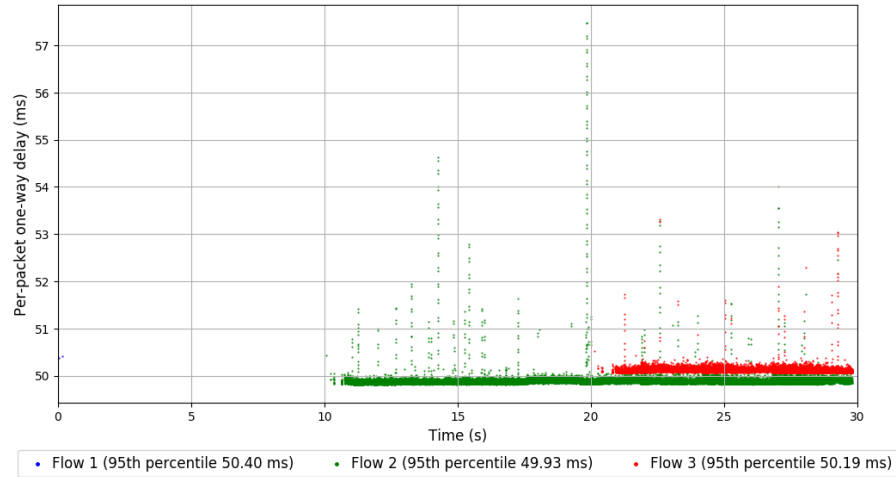
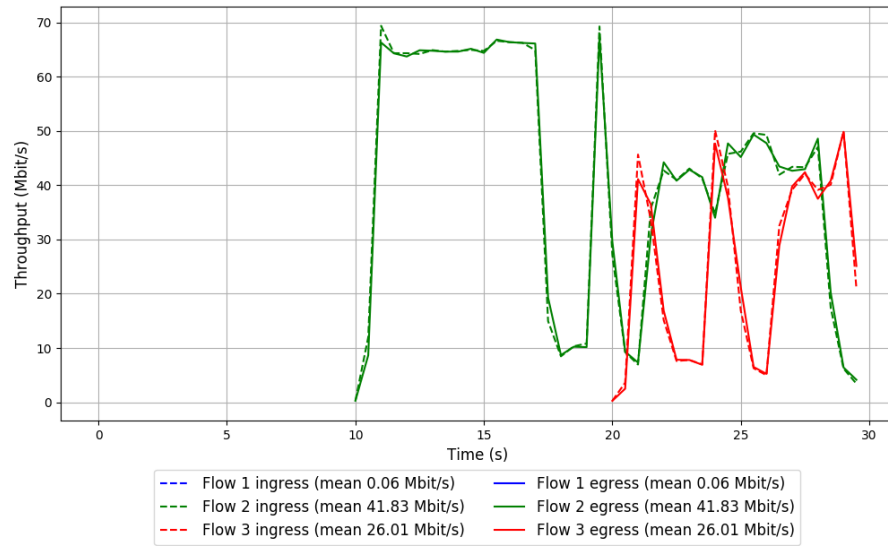
-- Flow 3:

Average throughput: 26.01 Mbit/s

95th percentile per-packet one-way delay: 50.185 ms

Loss rate: 0.00%

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



Run 8: Statistics of QUIC Cubic

Start at: 2017-08-12 10:00:31

End at: 2017-08-12 10:01:01

# Below is generated by plot.py at 2017-08-12 11:59:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.30 Mbit/s

95th percentile per-packet one-way delay: 50.141 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.348 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.19 Mbit/s

95th percentile per-packet one-way delay: 49.860 ms

Loss rate: 0.00%

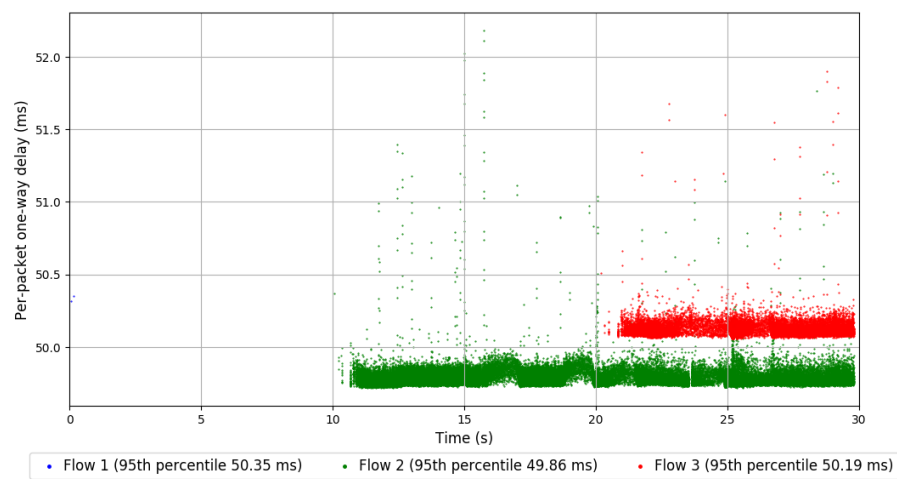
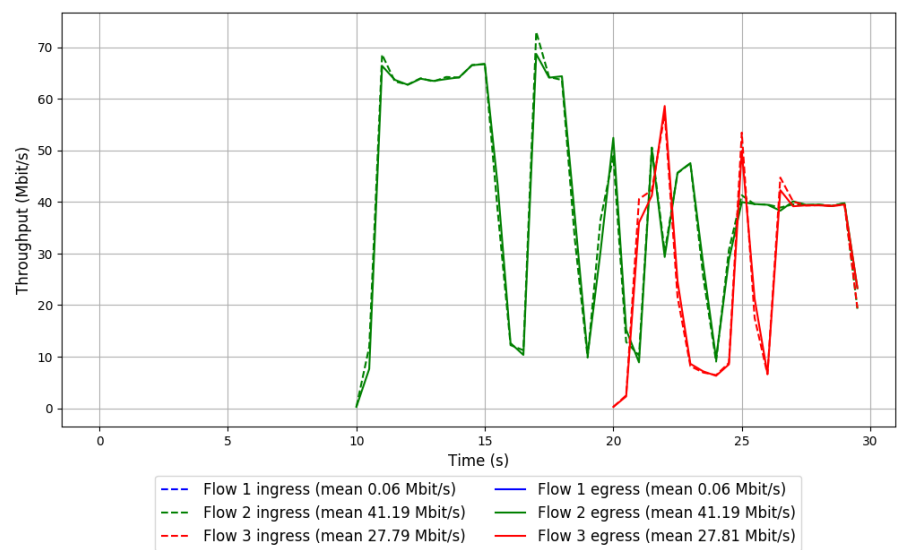
-- Flow 3:

Average throughput: 27.81 Mbit/s

95th percentile per-packet one-way delay: 50.189 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-12 10:11:17

End at: 2017-08-12 10:11:47

# Below is generated by plot.py at 2017-08-12 11:59:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 34.87 Mbit/s

95th percentile per-packet one-way delay: 53.592 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.362 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.43 Mbit/s

95th percentile per-packet one-way delay: 49.832 ms

Loss rate: 0.00%

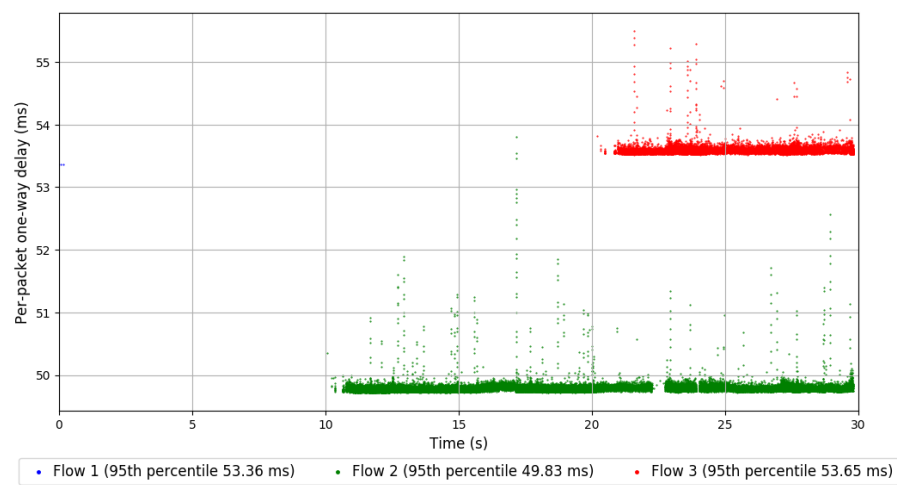
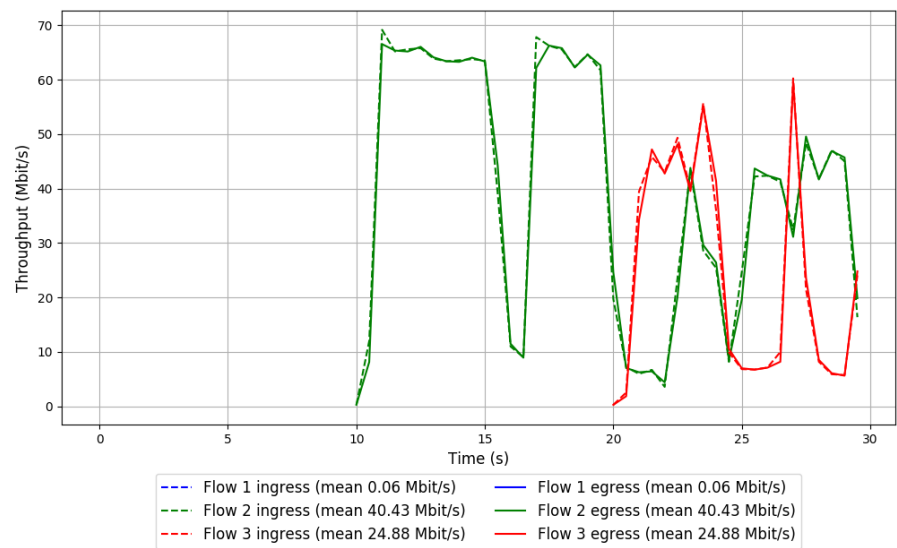
-- Flow 3:

Average throughput: 24.88 Mbit/s

95th percentile per-packet one-way delay: 53.650 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-08-12 10:22:45

End at: 2017-08-12 10:23:15

# Below is generated by plot.py at 2017-08-12 11:59:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 35.56 Mbit/s

95th percentile per-packet one-way delay: 53.599 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 49.951 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.40 Mbit/s

95th percentile per-packet one-way delay: 53.605 ms

Loss rate: 0.00%

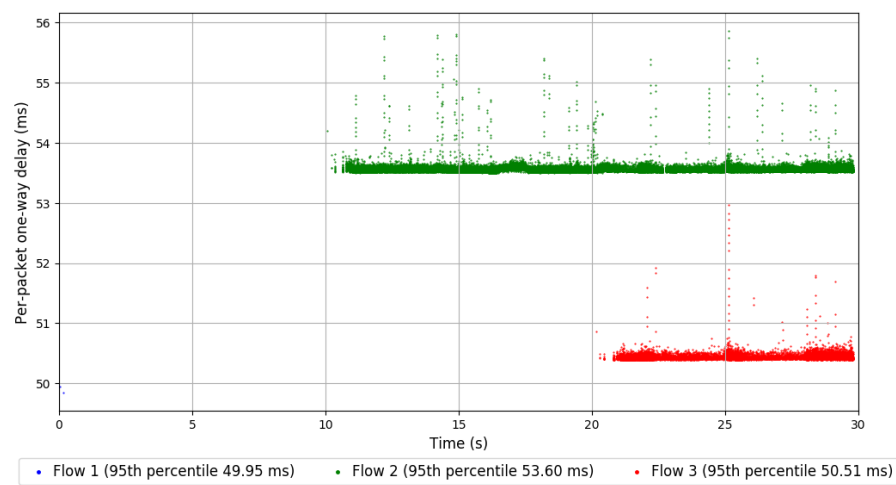
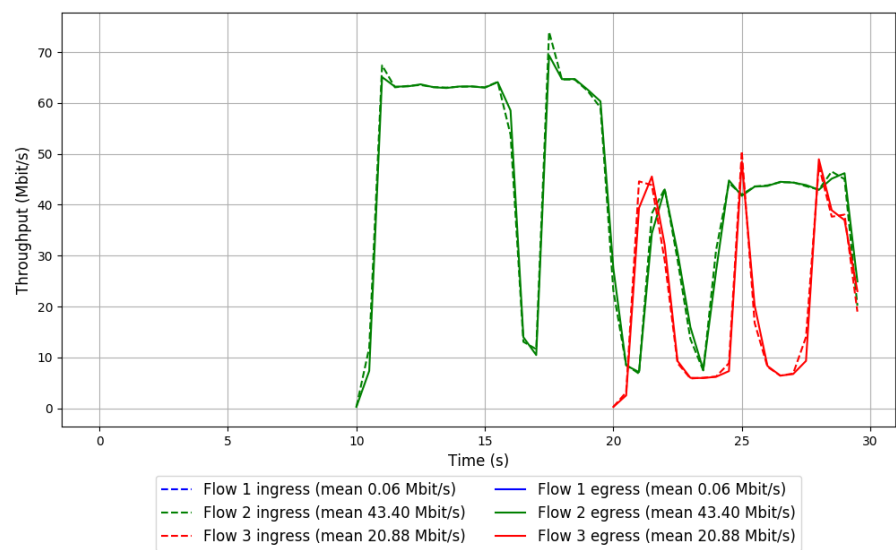
-- Flow 3:

Average throughput: 20.88 Mbit/s

95th percentile per-packet one-way delay: 50.509 ms

Loss rate: 0.00%

Run 10: Report of QUIC Cubic — Data Link

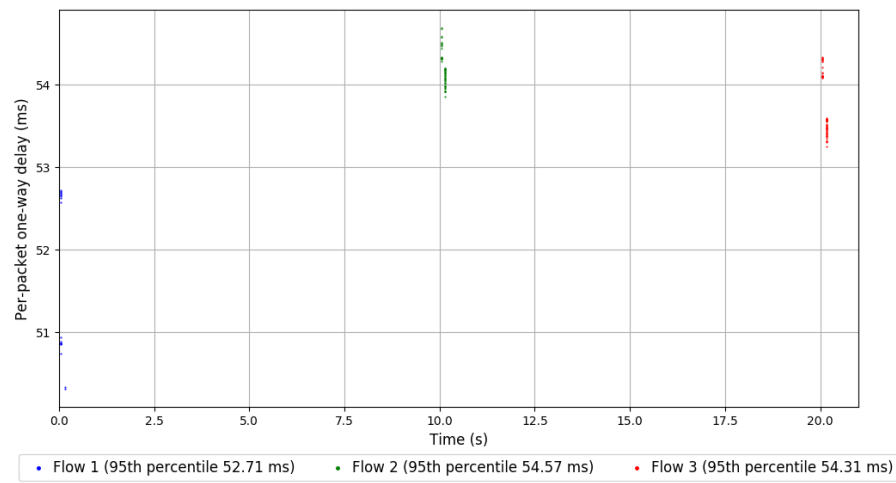
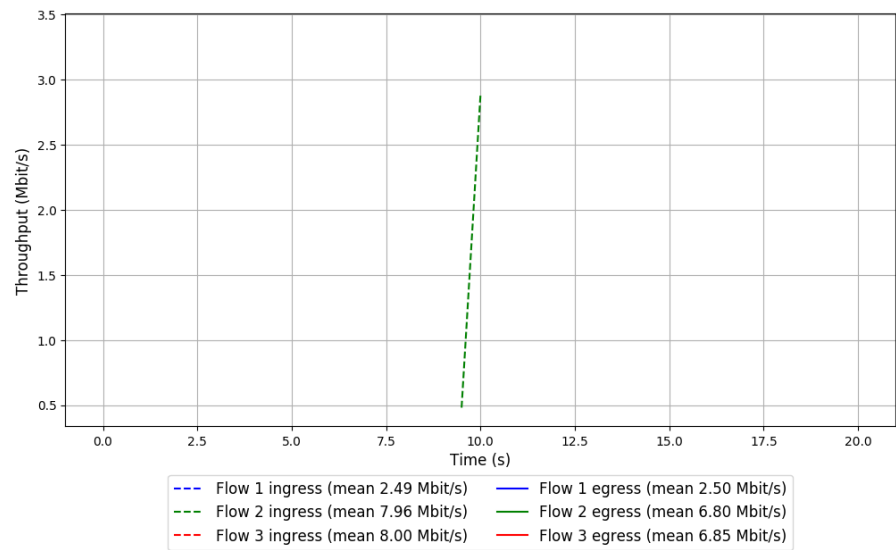


Run 1: Statistics of Saturator

Start at: 2017-08-12 08:46:56

End at: 2017-08-12 08:47:26

Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

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

End at: 2017-08-12 08:58:38

# Below is generated by plot.py at 2017-08-12 12:00:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 30.83 Mbit/s

95th percentile per-packet one-way delay: 51.073 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 23.62 Mbit/s

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

Loss rate: 0.01%

-- Flow 2:

Average throughput: 6.60 Mbit/s

95th percentile per-packet one-way delay: 54.352 ms

Loss rate: 57.14%

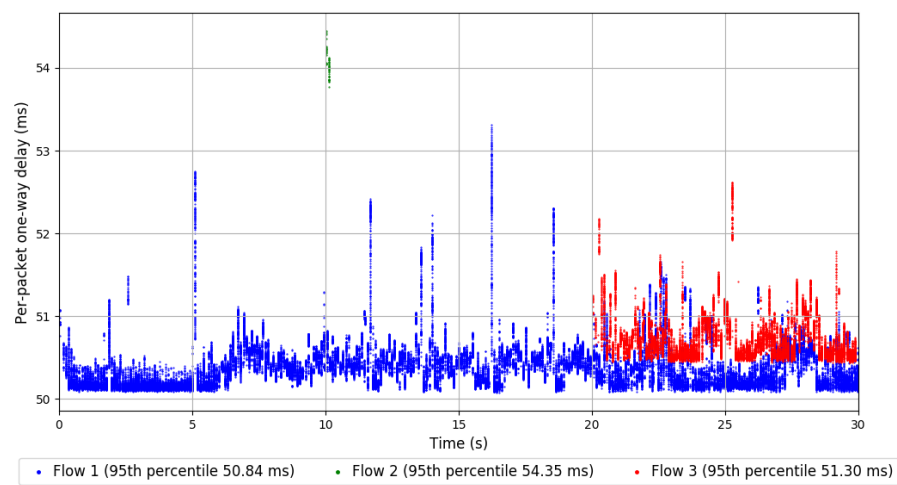
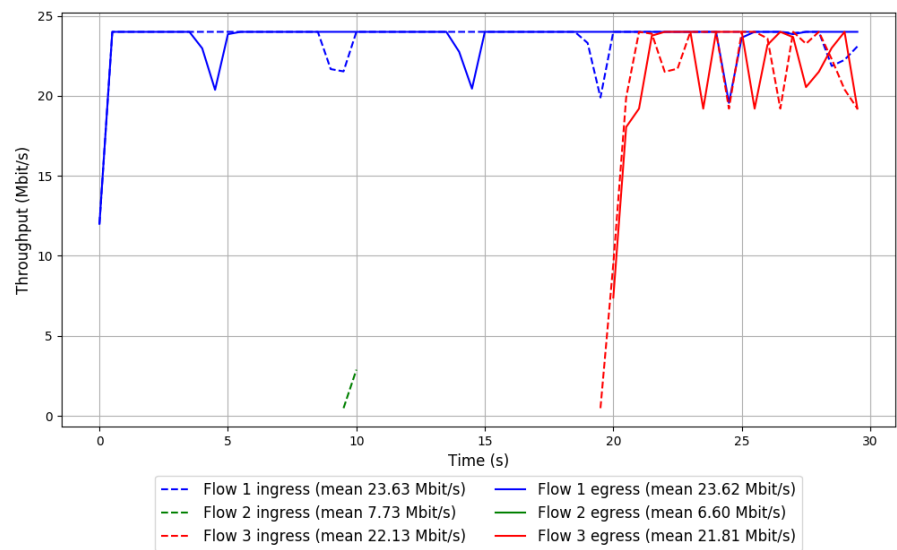
-- Flow 3:

Average throughput: 21.81 Mbit/s

95th percentile per-packet one-way delay: 51.305 ms

Loss rate: 1.43%

Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: 2017-08-12 09:09:17

End at: 2017-08-12 09:09:47

# Below is generated by plot.py at 2017-08-12 12:00:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 45.73 Mbit/s

95th percentile per-packet one-way delay: 50.883 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 22.78 Mbit/s

95th percentile per-packet one-way delay: 51.056 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.89 Mbit/s

95th percentile per-packet one-way delay: 50.673 ms

Loss rate: 0.08%

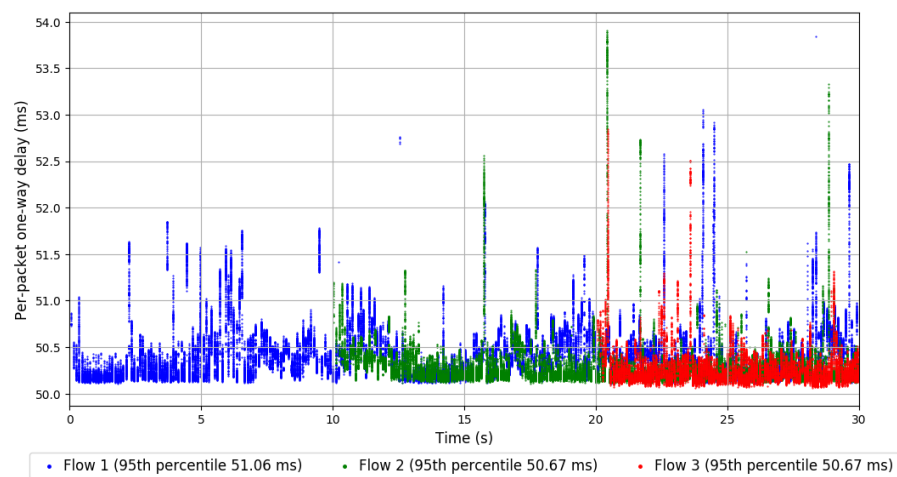
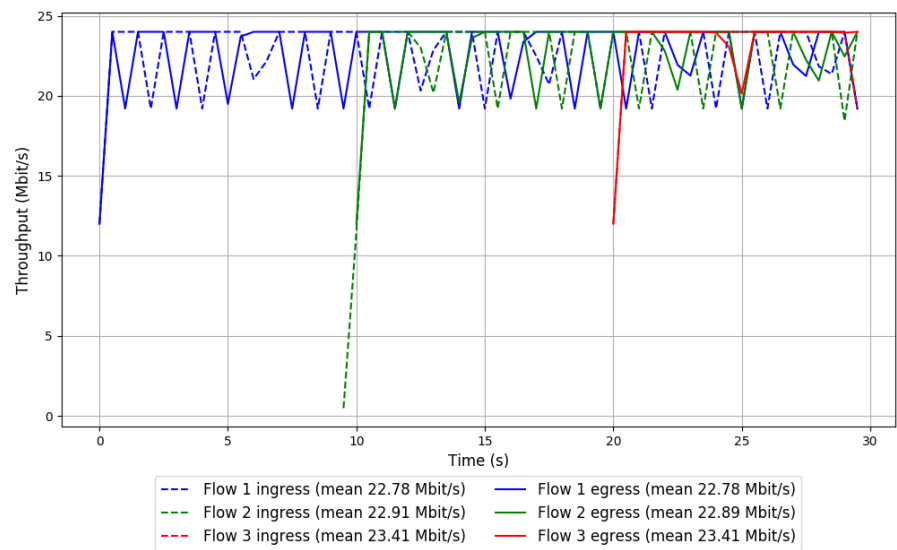
-- Flow 3:

Average throughput: 23.41 Mbit/s

95th percentile per-packet one-way delay: 50.669 ms

Loss rate: 0.01%

Run 3: Report of Saturator — Data Link



Run 4: Statistics of Saturator

Start at: 2017-08-12 09:20:35

End at: 2017-08-12 09:21:05

# Below is generated by plot.py at 2017-08-12 12:00:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.75 Mbit/s

95th percentile per-packet one-way delay: 50.878 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 6.86 Mbit/s

95th percentile per-packet one-way delay: 53.697 ms

Loss rate: 57.14%

-- Flow 2:

Average throughput: 6.57 Mbit/s

95th percentile per-packet one-way delay: 54.454 ms

Loss rate: 57.14%

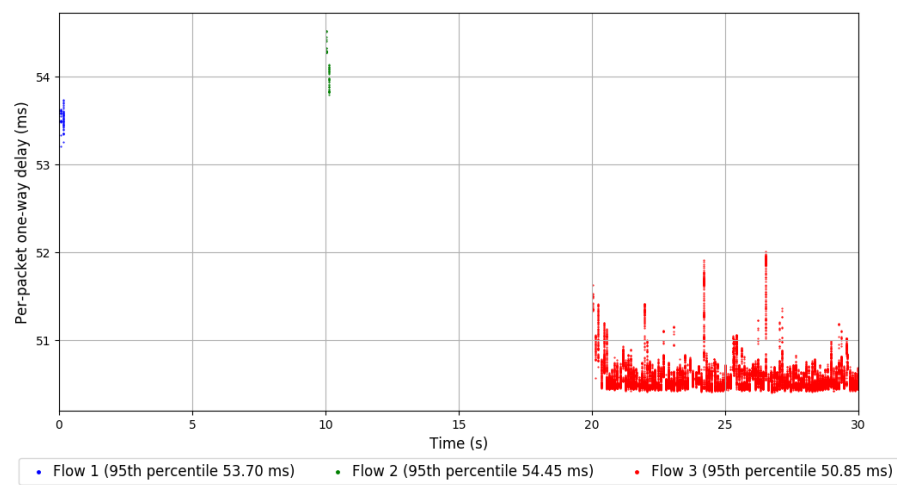
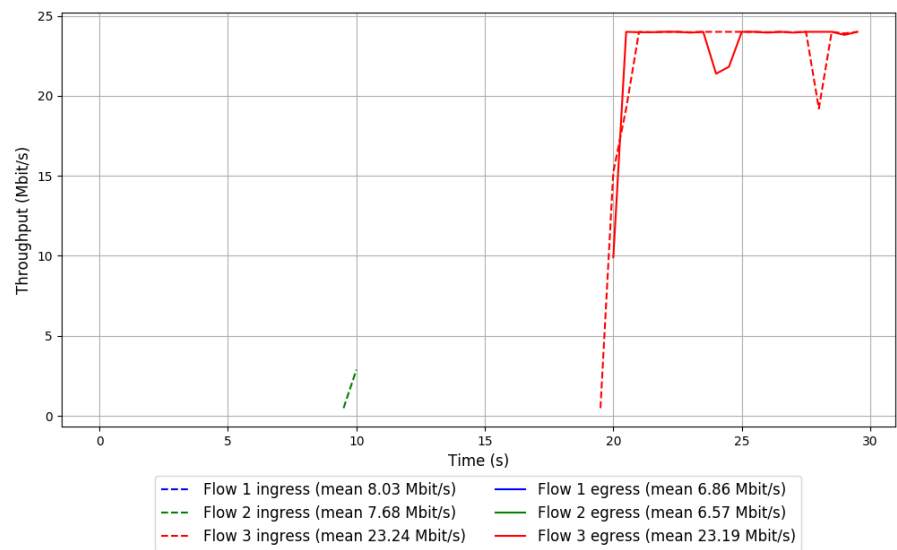
-- Flow 3:

Average throughput: 23.19 Mbit/s

95th percentile per-packet one-way delay: 50.846 ms

Loss rate: 0.26%

Run 4: Report of Saturator — Data Link

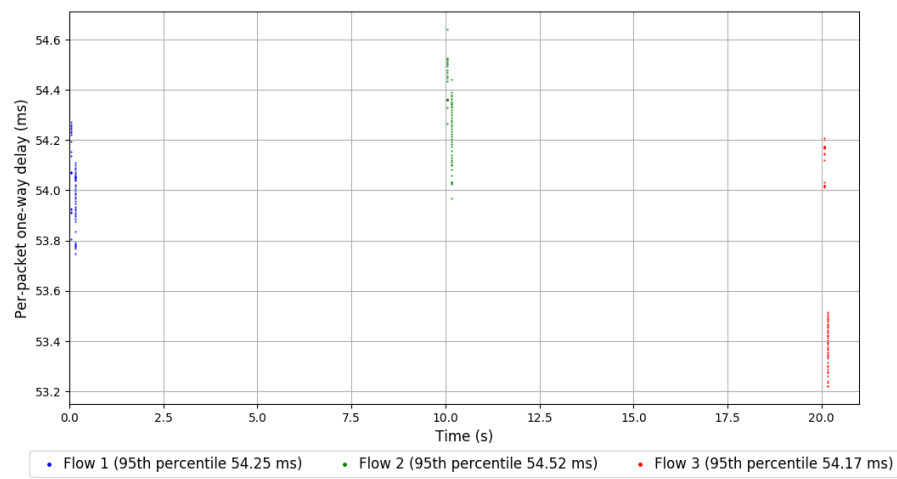
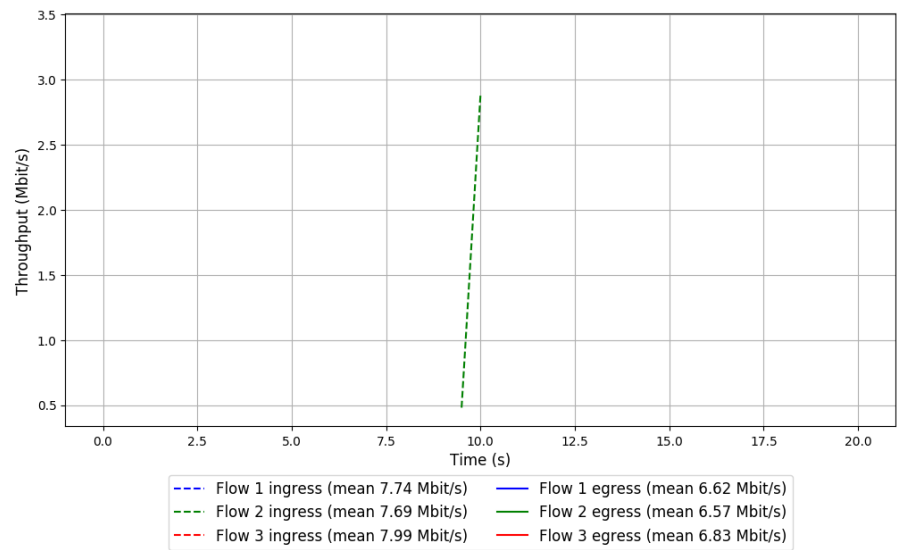


Run 5: Statistics of Saturator

Start at: 2017-08-12 09:32:02

End at: 2017-08-12 09:32:32

Run 5: Report of Saturator — Data Link



Run 6: Statistics of Saturator

Start at: 2017-08-12 09:43:21

End at: 2017-08-12 09:43:51

# Below is generated by plot.py at 2017-08-12 12:00:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 31.40 Mbit/s

95th percentile per-packet one-way delay: 50.832 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 23.63 Mbit/s

95th percentile per-packet one-way delay: 50.779 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 6.75 Mbit/s

95th percentile per-packet one-way delay: 55.120 ms

Loss rate: 57.14%

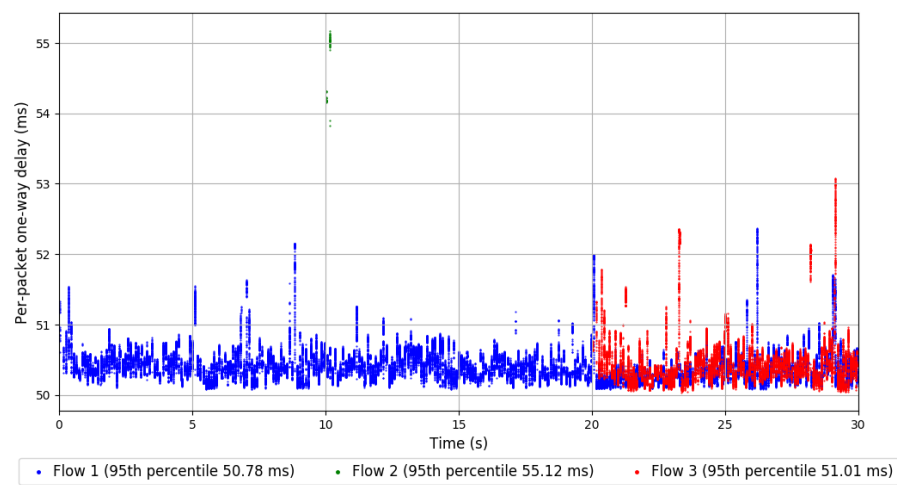
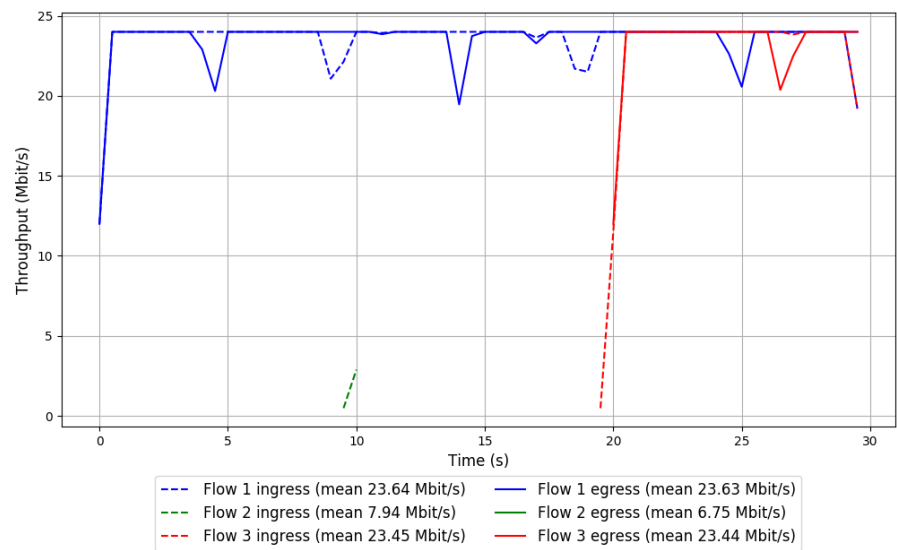
-- Flow 3:

Average throughput: 23.44 Mbit/s

95th percentile per-packet one-way delay: 51.014 ms

Loss rate: 0.04%

Run 6: Report of Saturator — Data Link



Run 7: Statistics of Saturator

Start at: 2017-08-12 09:54:40

End at: 2017-08-12 09:55:10

# Below is generated by plot.py at 2017-08-12 12:00:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 38.35 Mbit/s

95th percentile per-packet one-way delay: 50.797 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 22.89 Mbit/s

95th percentile per-packet one-way delay: 50.627 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 23.23 Mbit/s

95th percentile per-packet one-way delay: 51.147 ms

Loss rate: 0.53%

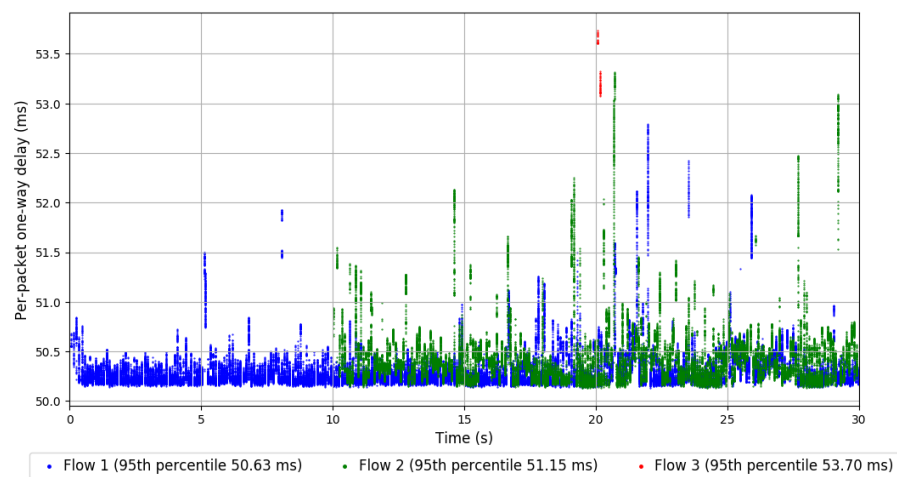
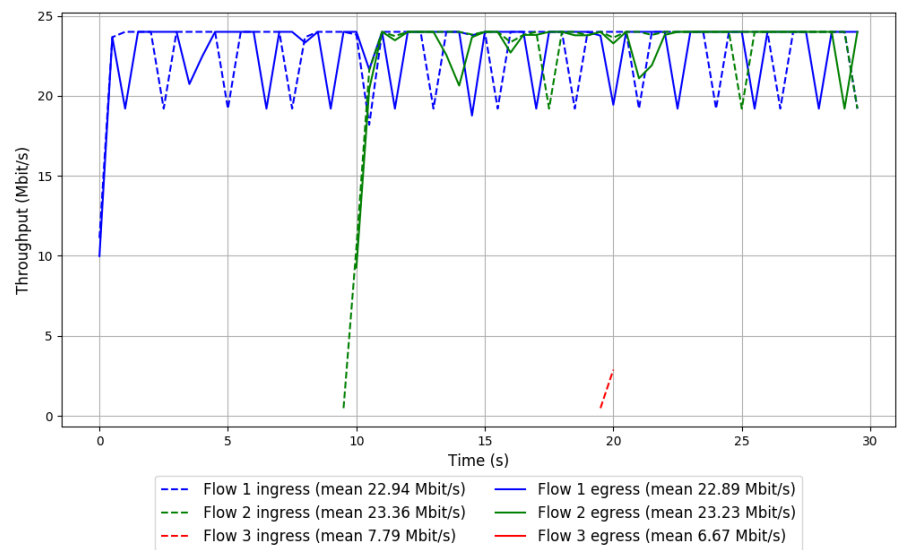
-- Flow 3:

Average throughput: 6.67 Mbit/s

95th percentile per-packet one-way delay: 53.698 ms

Loss rate: 57.14%

Run 7: Report of Saturator — Data Link

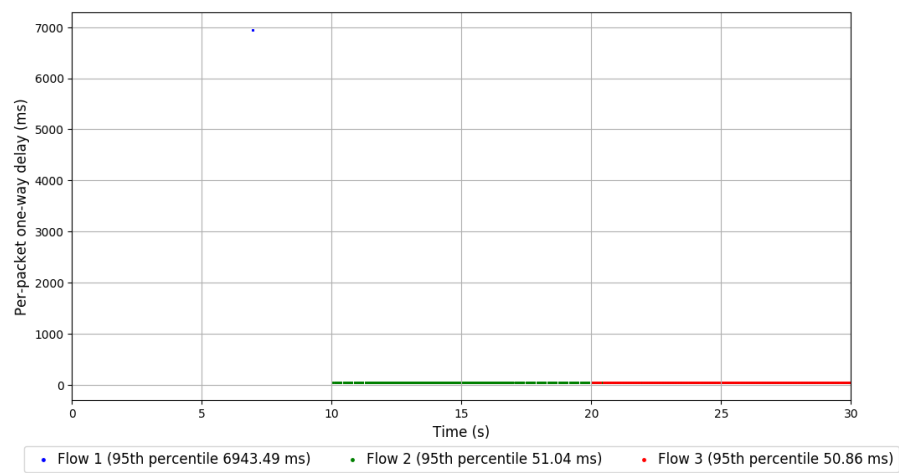
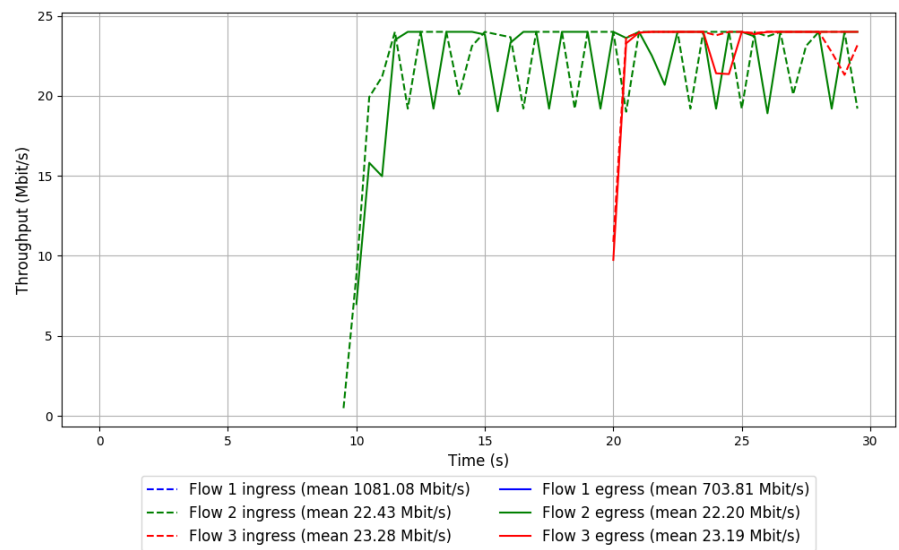


Run 8: Statistics of Saturator

Start at: 2017-08-12 10:05:37

End at: 2017-08-12 10:06:07

Run 8: Report of Saturator — Data Link



Run 9: Statistics of Saturator

Start at: 2017-08-12 10:16:49

End at: 2017-08-12 10:17:19

# Below is generated by plot.py at 2017-08-12 12:00:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 38.57 Mbit/s

95th percentile per-packet one-way delay: 50.601 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 23.45 Mbit/s

95th percentile per-packet one-way delay: 50.688 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 22.73 Mbit/s

95th percentile per-packet one-way delay: 50.273 ms

Loss rate: 0.06%

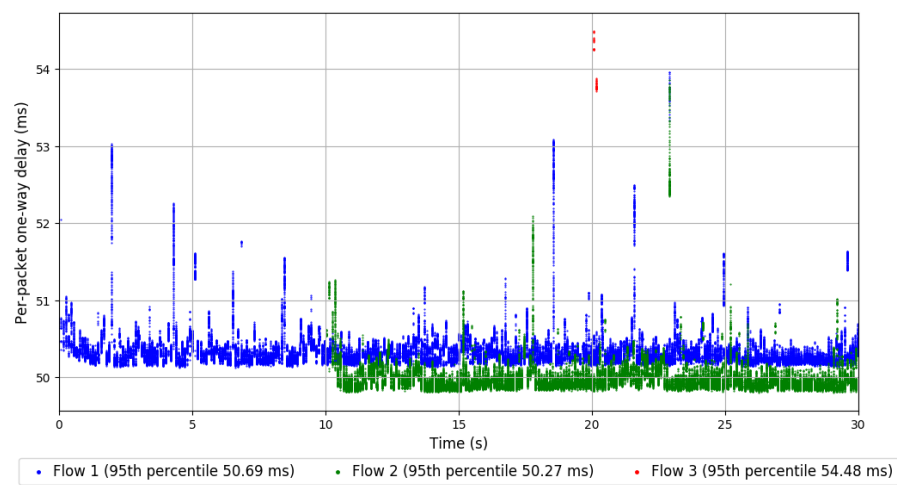
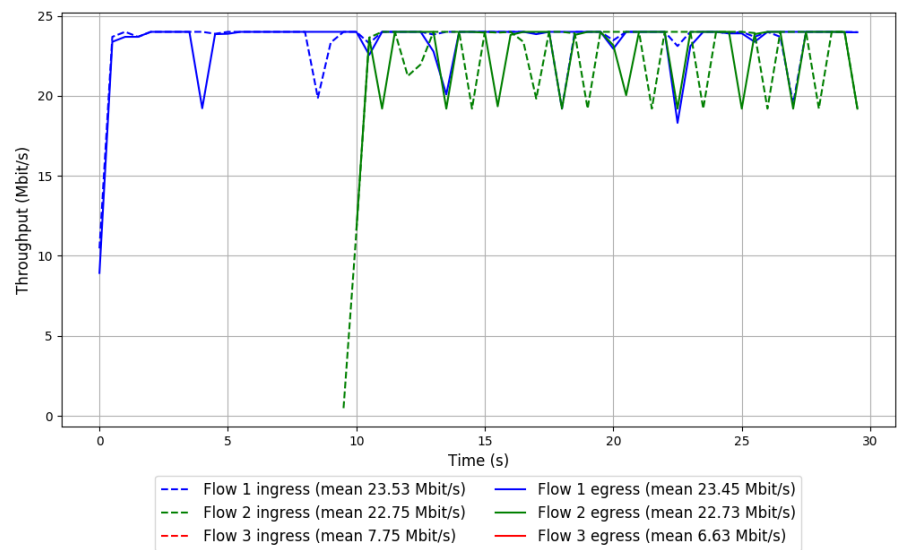
-- Flow 3:

Average throughput: 6.63 Mbit/s

95th percentile per-packet one-way delay: 54.477 ms

Loss rate: 57.14%

Run 9: Report of Saturator — Data Link

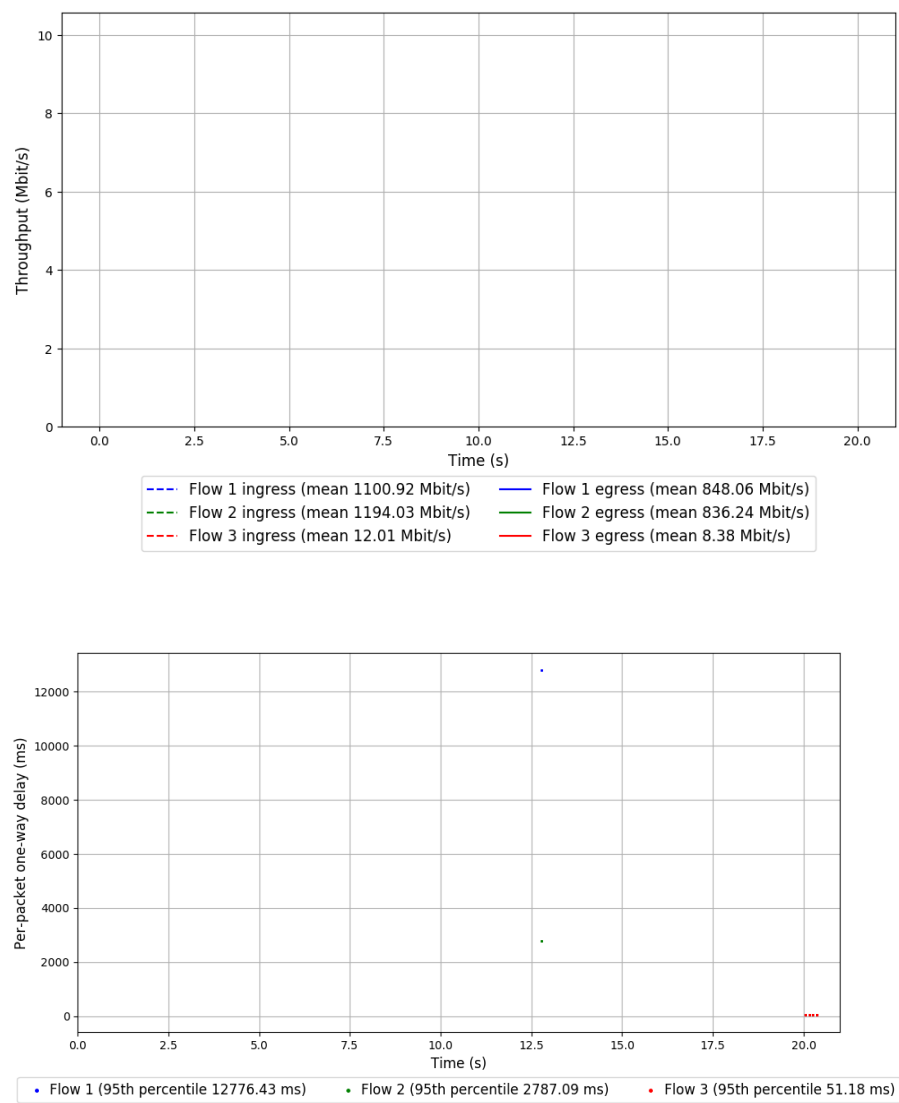


Run 10: Statistics of Saturator

Start at: 2017-08-12 10:27:55

End at: 2017-08-12 10:28:25

Run 10: Report of Saturator — Data Link

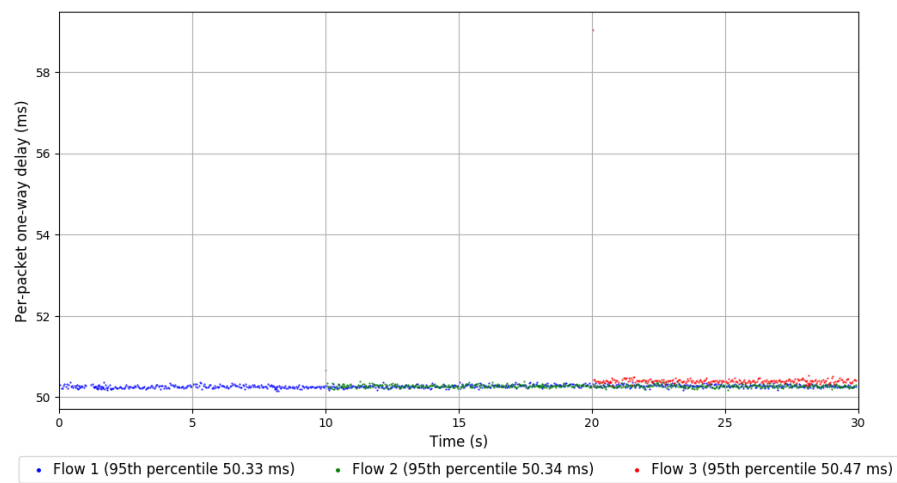
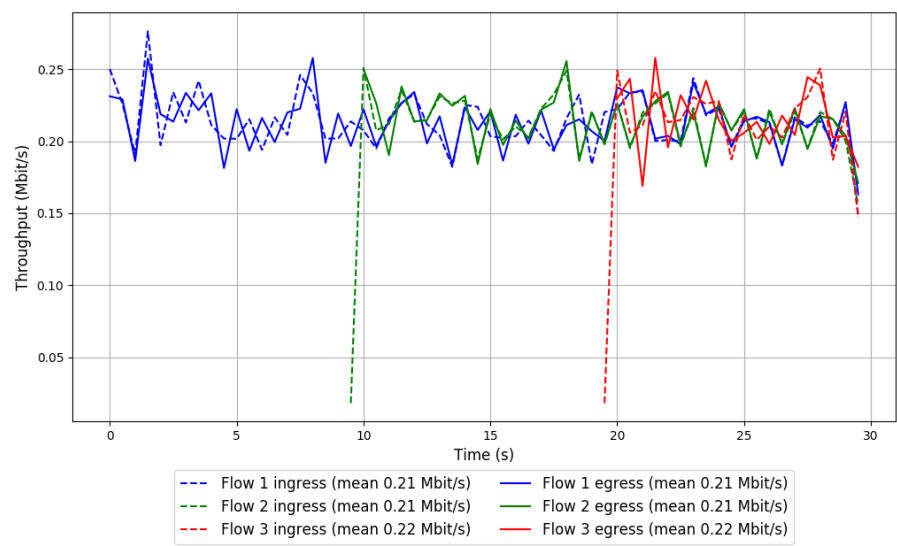


```
Run 1: Statistics of SCReAM

Start at: 2017-08-12 08:43:53
End at: 2017-08-12 08:44:23

# Below is generated by plot.py at 2017-08-12 12:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.413 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.333 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.336 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.469 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

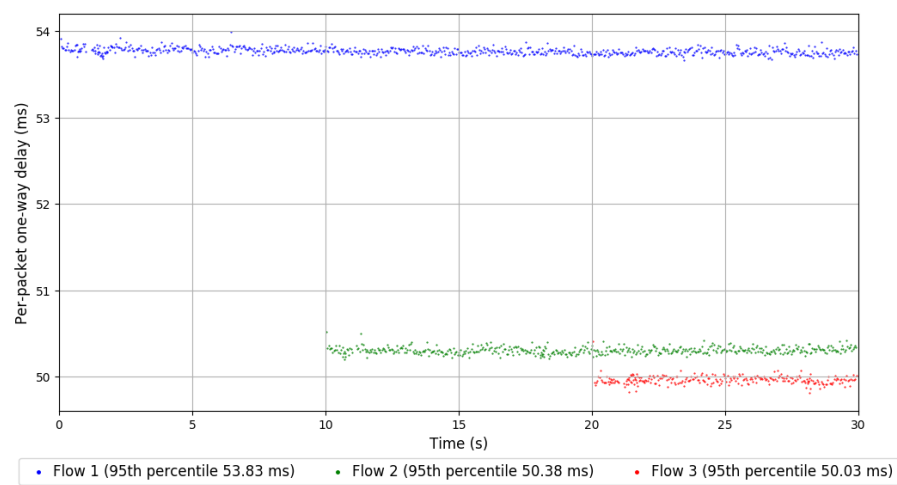
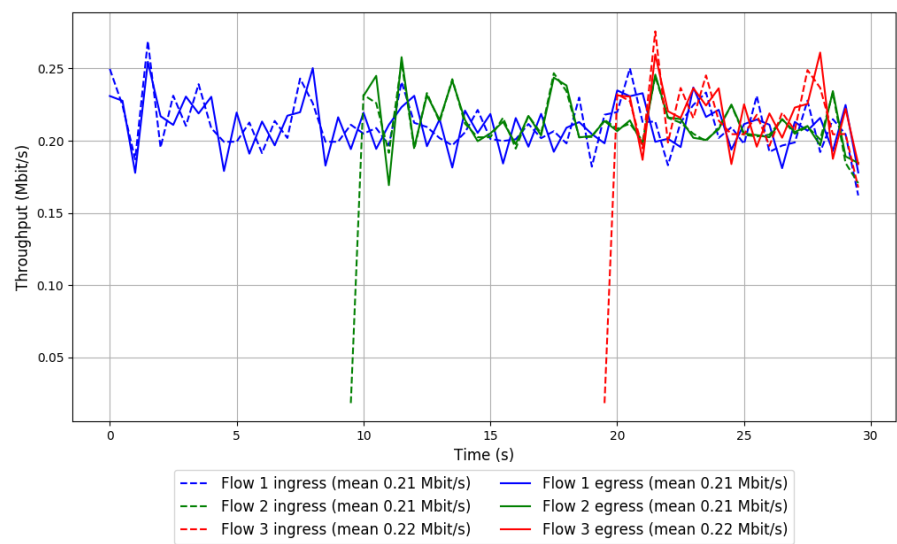


```
Run 2: Statistics of SReAM

Start at: 2017-08-12 08:54:54
End at: 2017-08-12 08:55:24

# Below is generated by plot.py at 2017-08-12 12:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.820 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.833 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.376 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.029 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2017-08-12 09:06:12

End at: 2017-08-12 09:06:42

# Below is generated by plot.py at 2017-08-12 12:00:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.514 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 330.20 Mbit/s

95th percentile per-packet one-way delay: 1184.879 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.522 ms

Loss rate: 0.00%

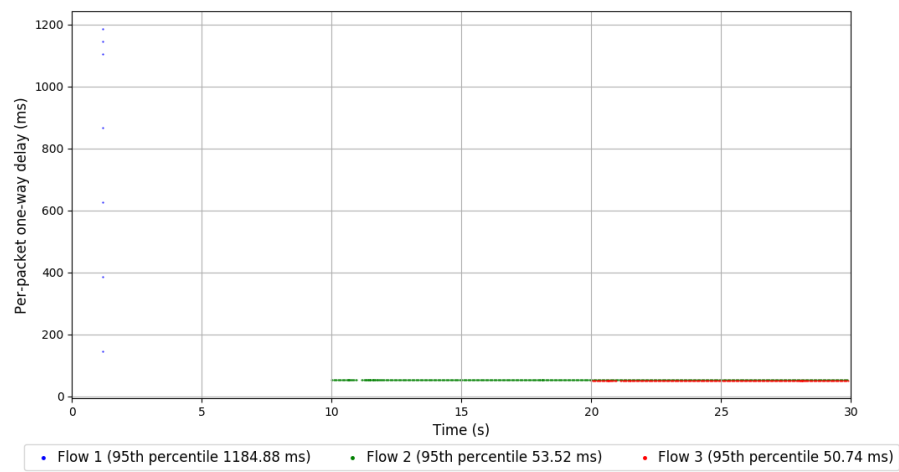
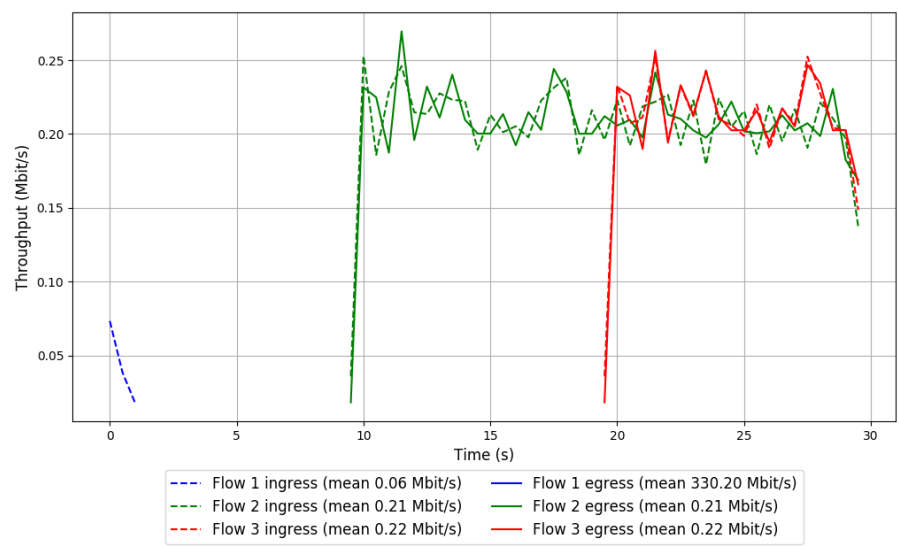
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.737 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-08-12 09:17:32

End at: 2017-08-12 09:18:02

# Below is generated by plot.py at 2017-08-12 12:00:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.821 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.741 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.847 ms

Loss rate: 0.00%

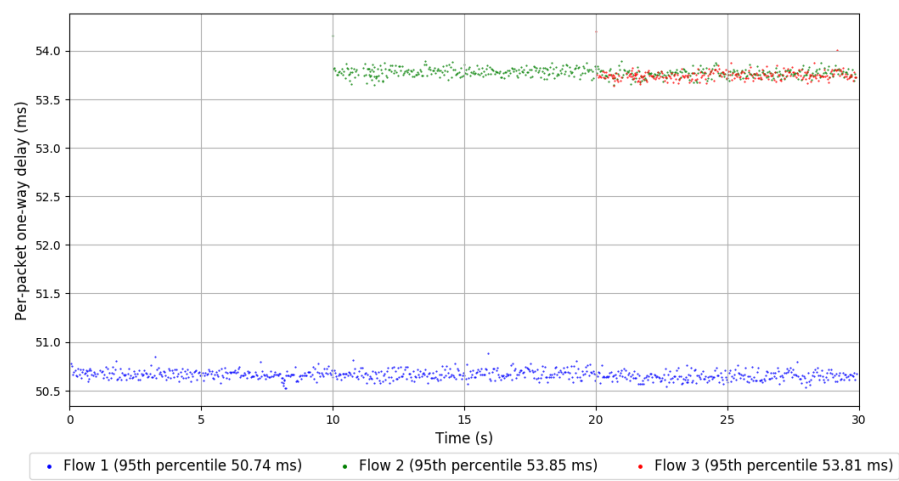
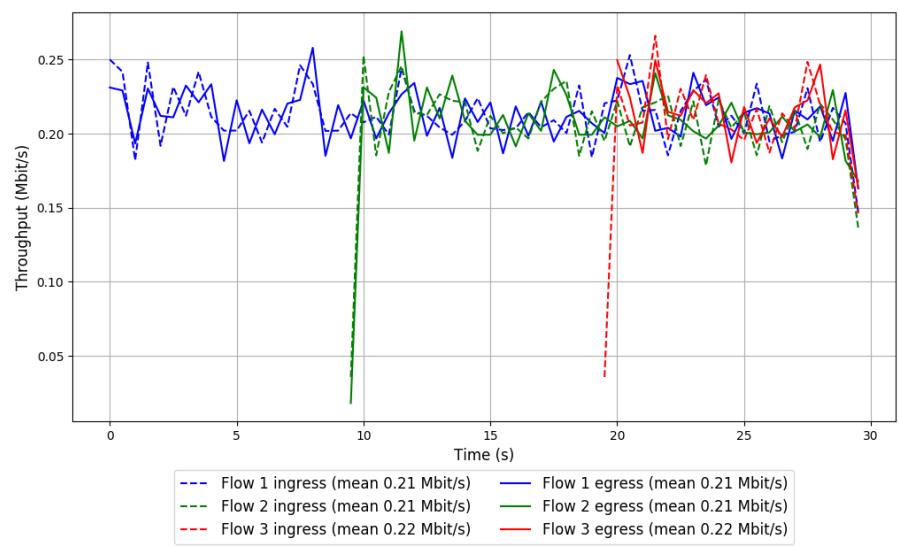
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.813 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-08-12 09:28:48

End at: 2017-08-12 09:29:18

# Below is generated by plot.py at 2017-08-12 12:00:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.250 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.058 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.281 ms

Loss rate: 0.00%

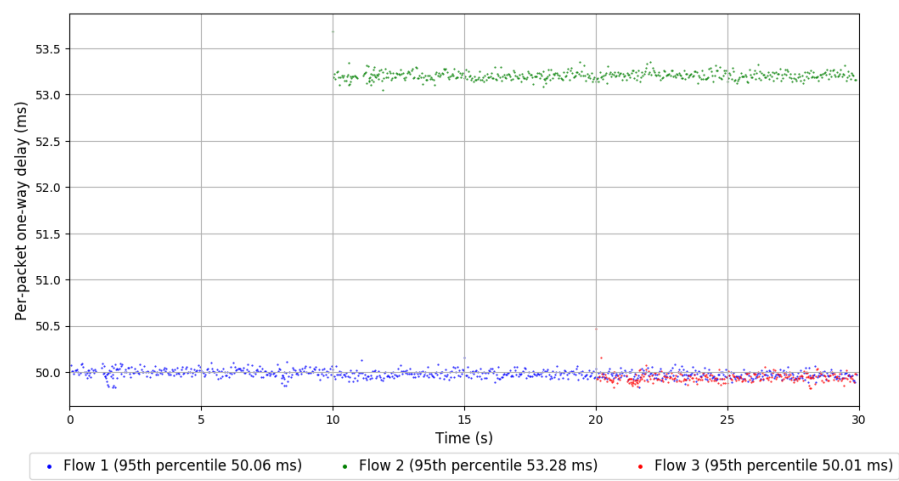
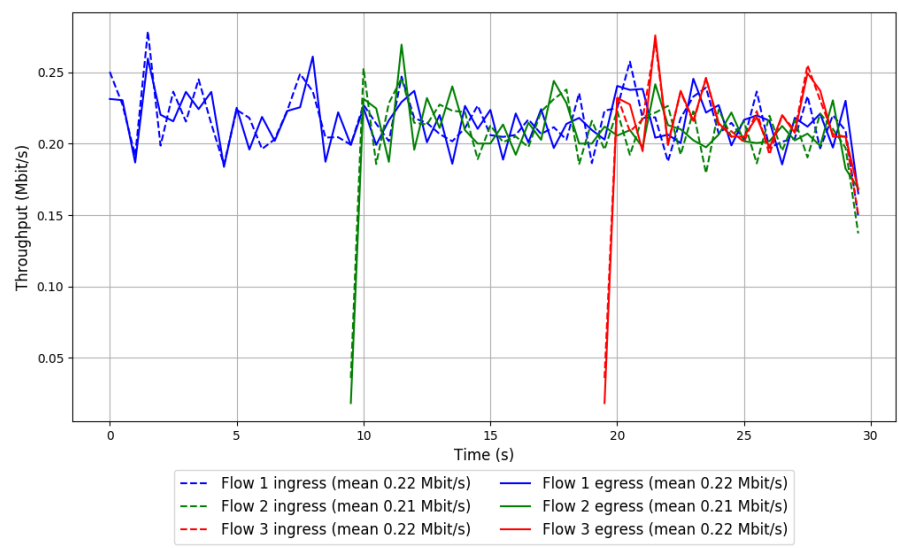
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.014 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-08-12 09:40:02

End at: 2017-08-12 09:40:32

# Below is generated by plot.py at 2017-08-12 12:00:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.878 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.366 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.911 ms

Loss rate: 0.00%

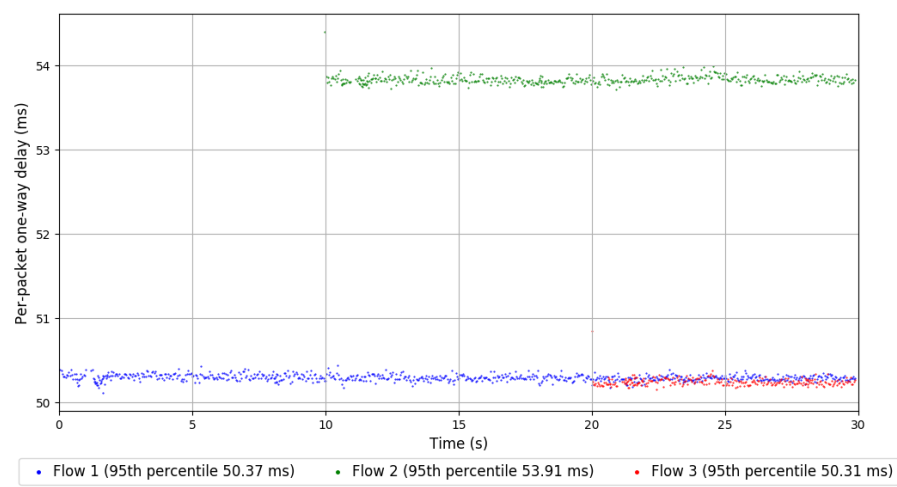
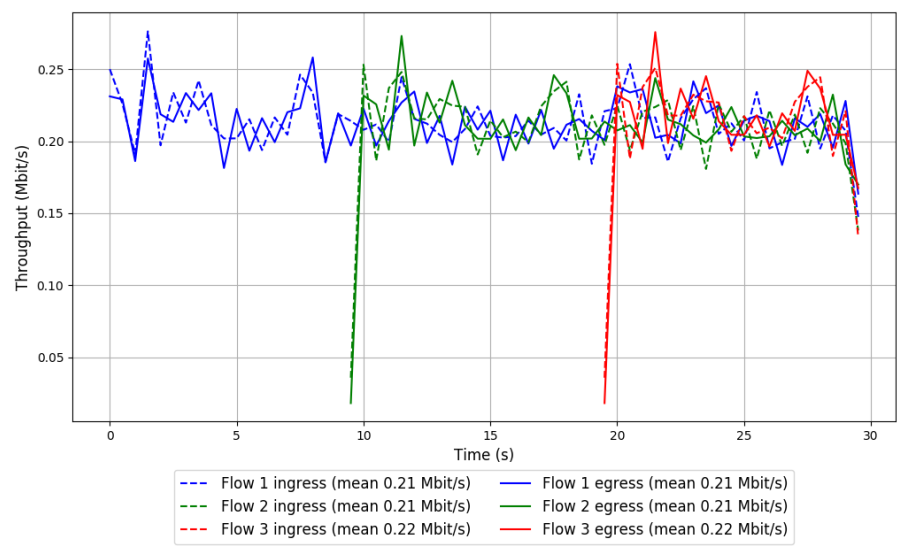
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.311 ms

Loss rate: 0.00%

Run 6: Report of SCReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-08-12 09:51:28

End at: 2017-08-12 09:51:58

# Below is generated by plot.py at 2017-08-12 12:00:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 53.807 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.830 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.489 ms

Loss rate: 0.00%

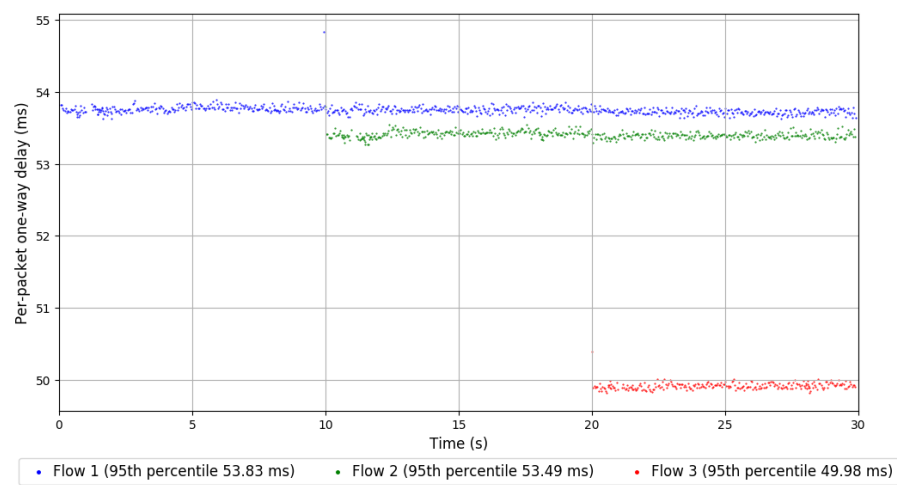
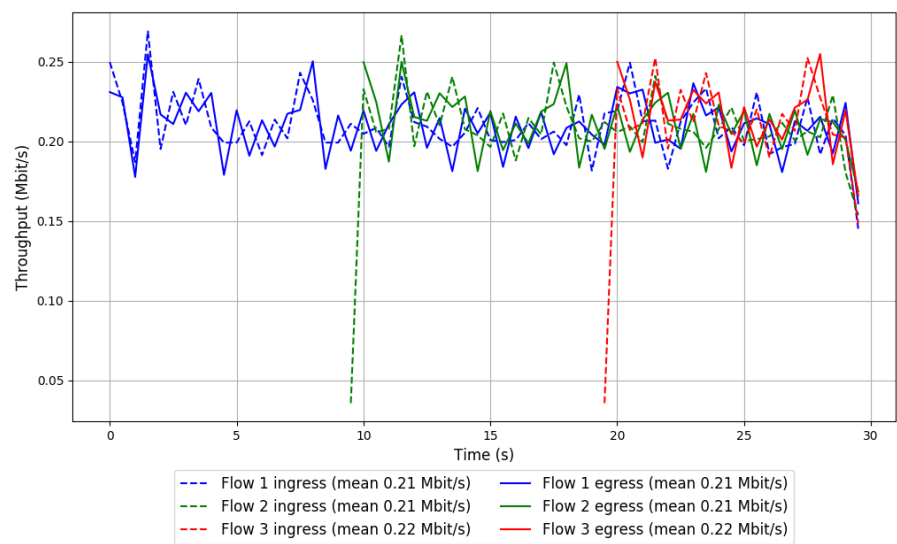
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.981 ms

Loss rate: 0.00%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-08-12 10:02:41

End at: 2017-08-12 10:03:11

# Below is generated by plot.py at 2017-08-12 12:00:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.342 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.358 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.309 ms

Loss rate: 0.00%

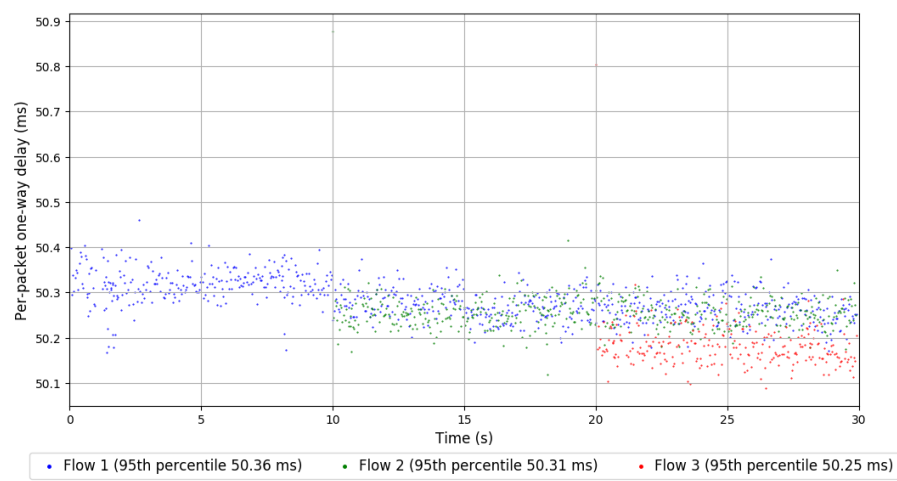
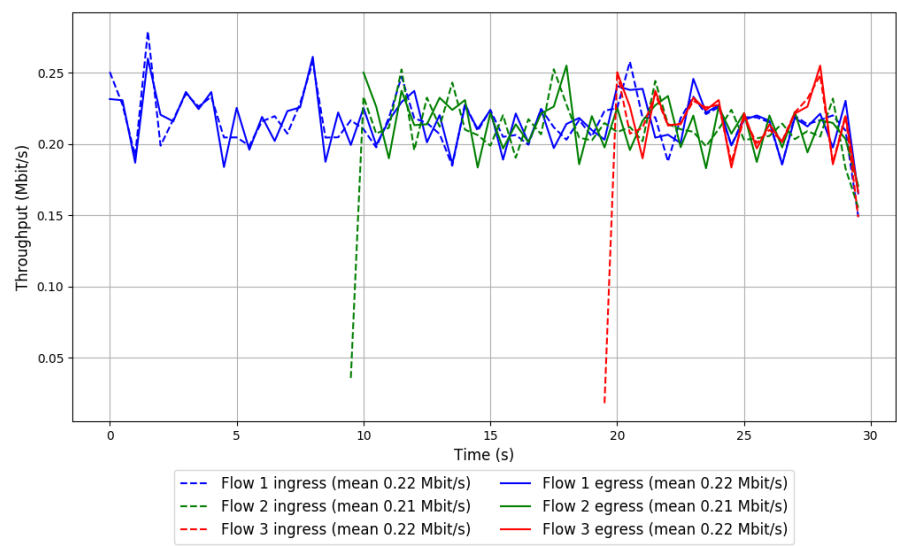
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.246 ms

Loss rate: 0.00%

Run 8: Report of SCRaM — Data Link

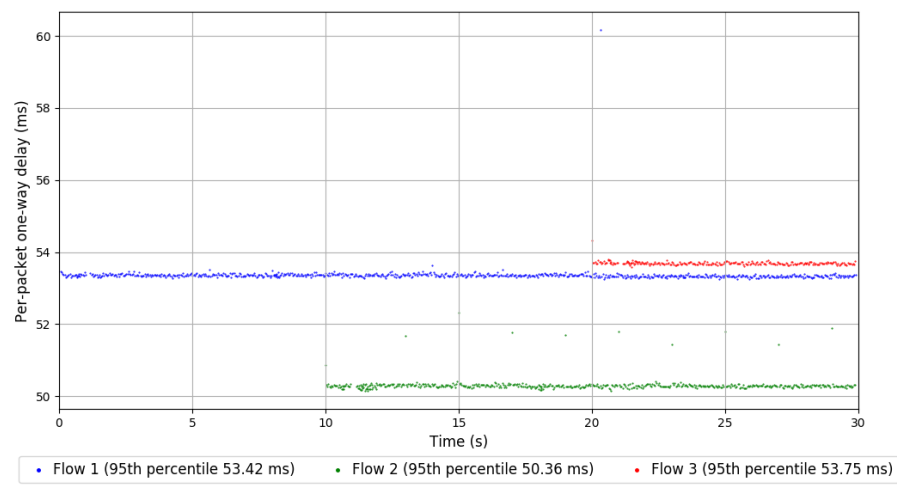
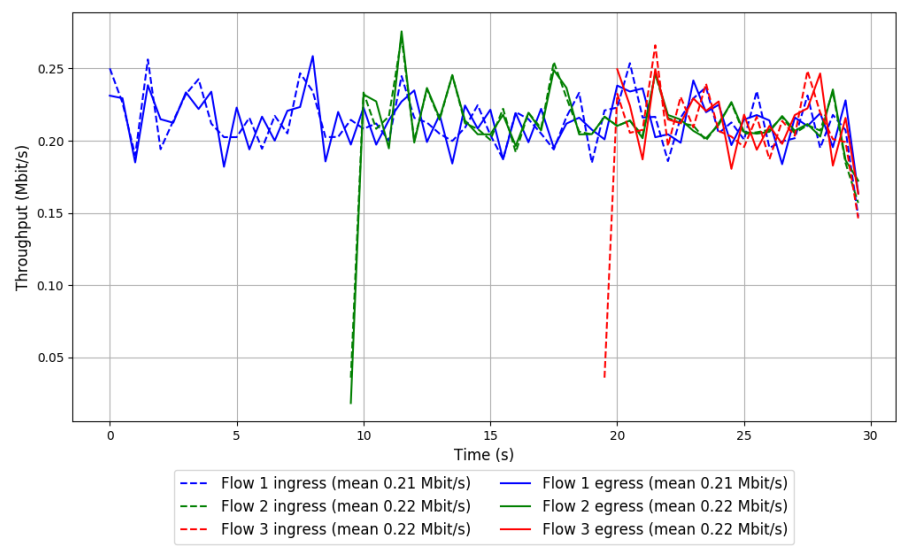


```
Run 9: Statistics of SCReAM

Start at: 2017-08-12 10:13:31
End at: 2017-08-12 10:14:01

# Below is generated by plot.py at 2017-08-12 12:00:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.705 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.418 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.357 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.751 ms
Loss rate: 0.00%
```

Run 9: Report of SReAM — Data Link

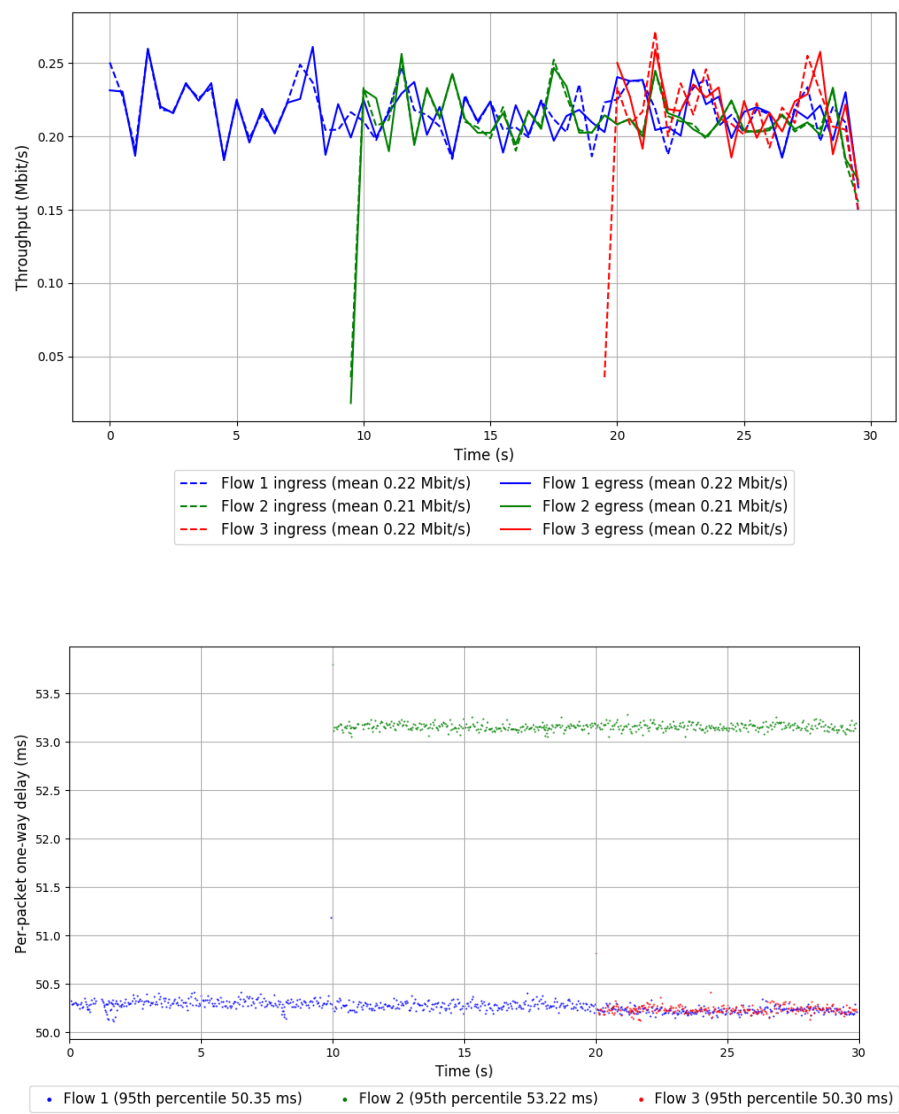


```
Run 10: Statistics of SReAM

Start at: 2017-08-12 10:24:58
End at: 2017-08-12 10:25:28

# Below is generated by plot.py at 2017-08-12 12:00:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.193 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.348 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.217 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.295 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link

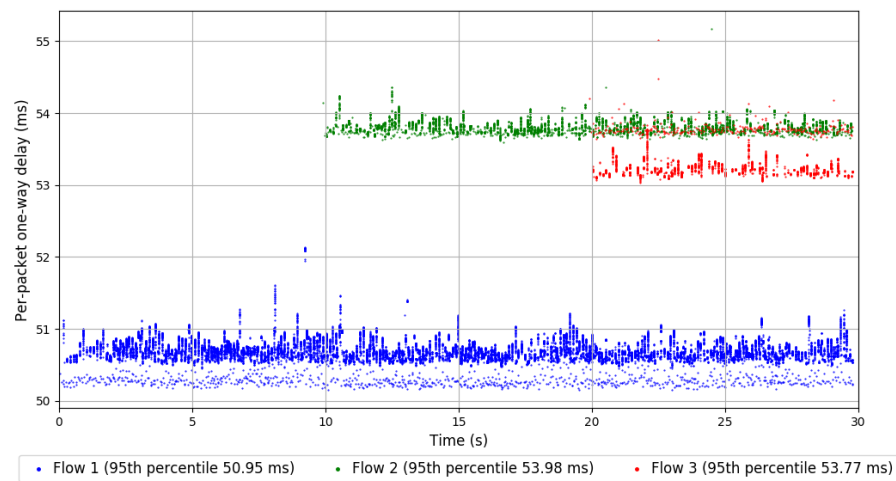
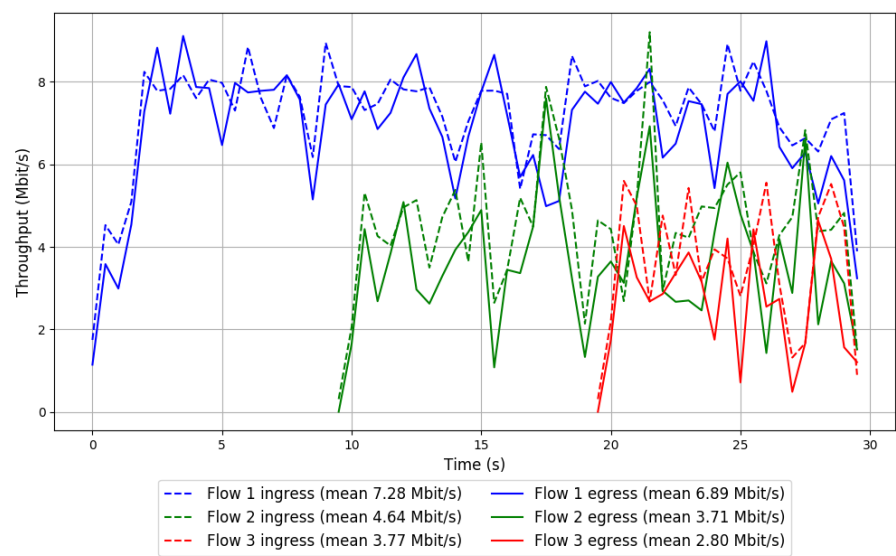


```
Run 1: Statistics of Sprout

Start at: 2017-08-12 08:47:35
End at: 2017-08-12 08:48:05

# Below is generated by plot.py at 2017-08-12 12:00:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.29 Mbit/s
95th percentile per-packet one-way delay: 53.879 ms
Loss rate: 11.44%
-- Flow 1:
Average throughput: 6.89 Mbit/s
95th percentile per-packet one-way delay: 50.945 ms
Loss rate: 5.31%
-- Flow 2:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 53.983 ms
Loss rate: 20.08%
-- Flow 3:
Average throughput: 2.80 Mbit/s
95th percentile per-packet one-way delay: 53.766 ms
Loss rate: 25.76%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-08-12 08:58:50

End at: 2017-08-12 08:59:20

# Below is generated by plot.py at 2017-08-12 12:00:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.80 Mbit/s

95th percentile per-packet one-way delay: 53.775 ms

Loss rate: 3.17%

-- Flow 1:

Average throughput: 7.97 Mbit/s

95th percentile per-packet one-way delay: 51.137 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 7.03 Mbit/s

95th percentile per-packet one-way delay: 50.827 ms

Loss rate: 4.19%

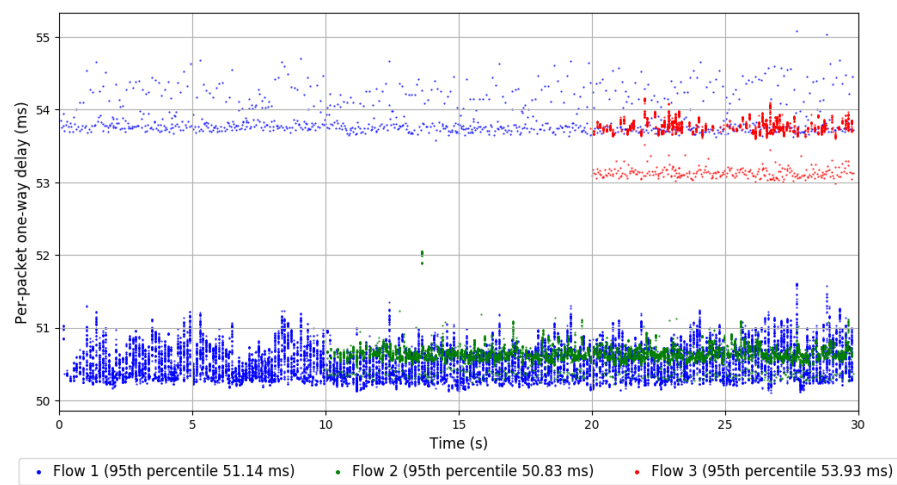
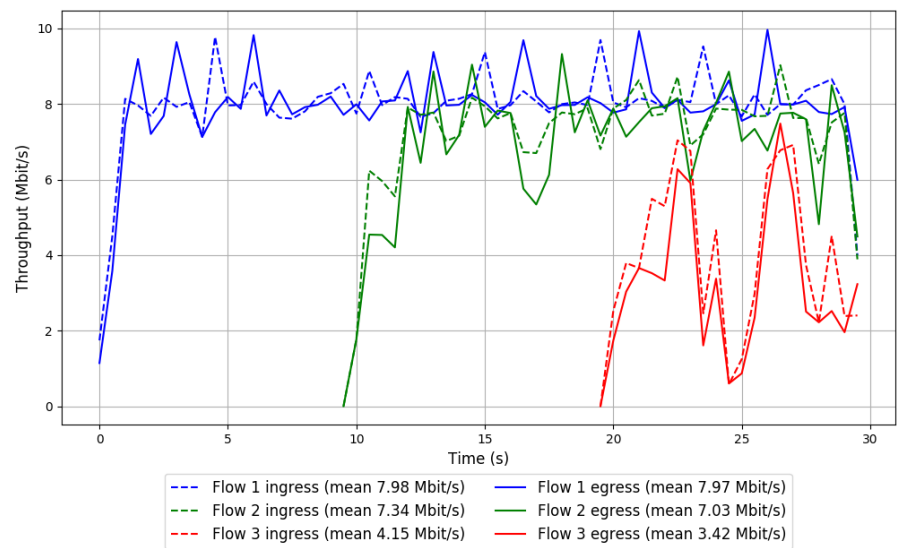
-- Flow 3:

Average throughput: 3.42 Mbit/s

95th percentile per-packet one-way delay: 53.933 ms

Loss rate: 17.61%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-12 09:10:00

End at: 2017-08-12 09:10:30

# Below is generated by plot.py at 2017-08-12 12:00:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.65 Mbit/s

95th percentile per-packet one-way delay: 53.878 ms

Loss rate: 19.42%

-- Flow 1:

Average throughput: 3.60 Mbit/s

95th percentile per-packet one-way delay: 53.848 ms

Loss rate: 20.57%

-- Flow 2:

Average throughput: 2.98 Mbit/s

95th percentile per-packet one-way delay: 53.913 ms

Loss rate: 19.08%

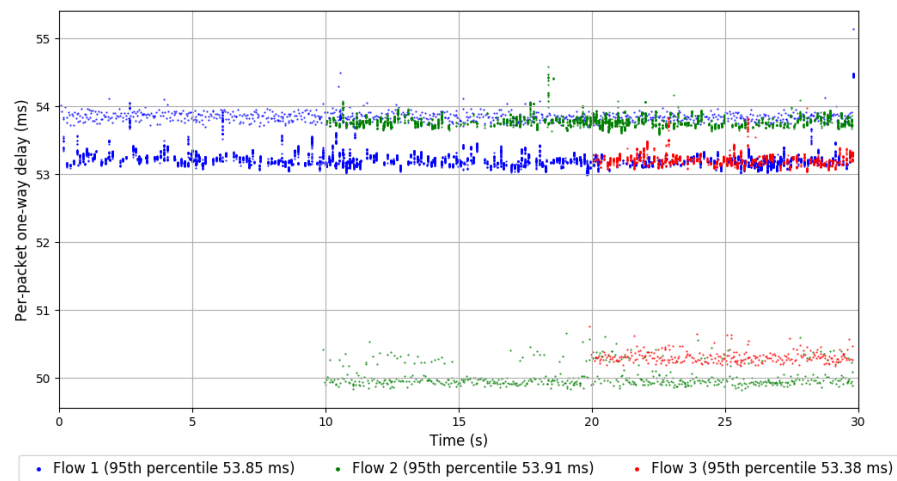
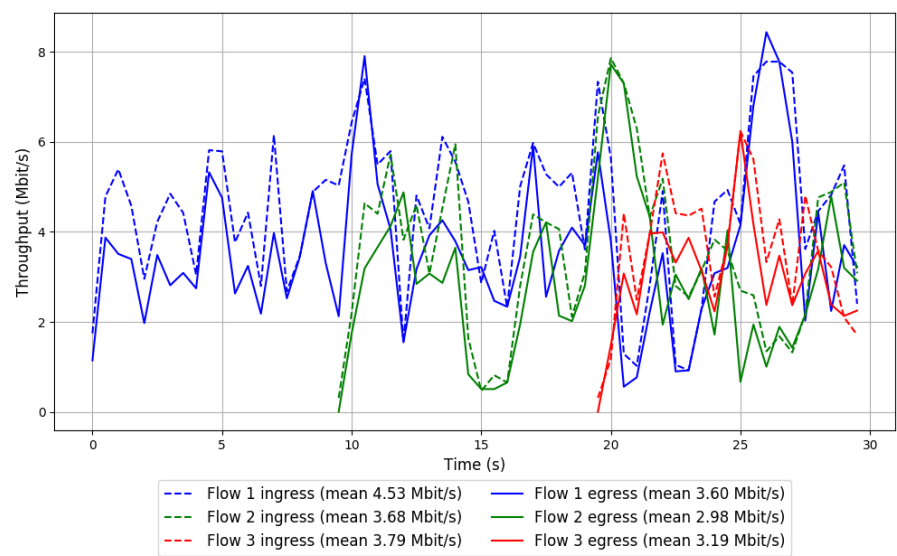
-- Flow 3:

Average throughput: 3.19 Mbit/s

95th percentile per-packet one-way delay: 53.384 ms

Loss rate: 15.90%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-12 09:21:16

End at: 2017-08-12 09:21:46

# Below is generated by plot.py at 2017-08-12 12:00:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.68 Mbit/s

95th percentile per-packet one-way delay: 53.334 ms

Loss rate: 7.49%

-- Flow 1:

Average throughput: 6.83 Mbit/s

95th percentile per-packet one-way delay: 53.238 ms

Loss rate: 4.46%

-- Flow 2:

Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 53.417 ms

Loss rate: 21.01%

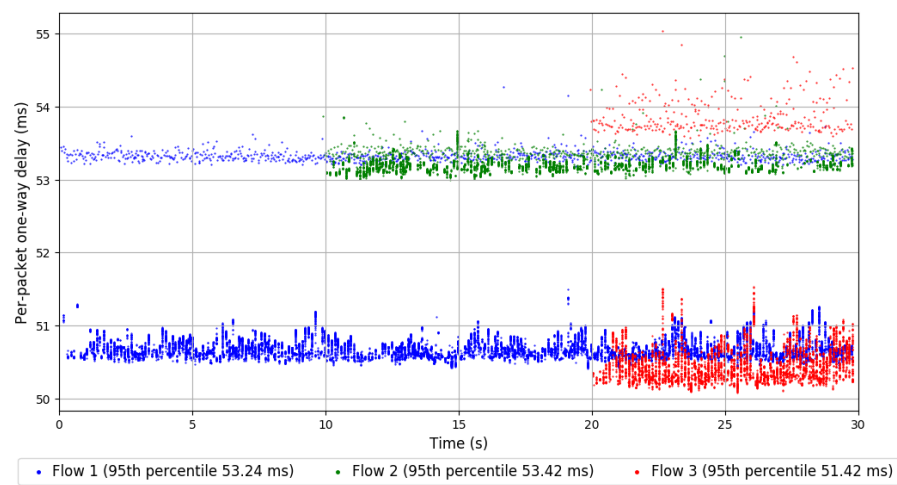
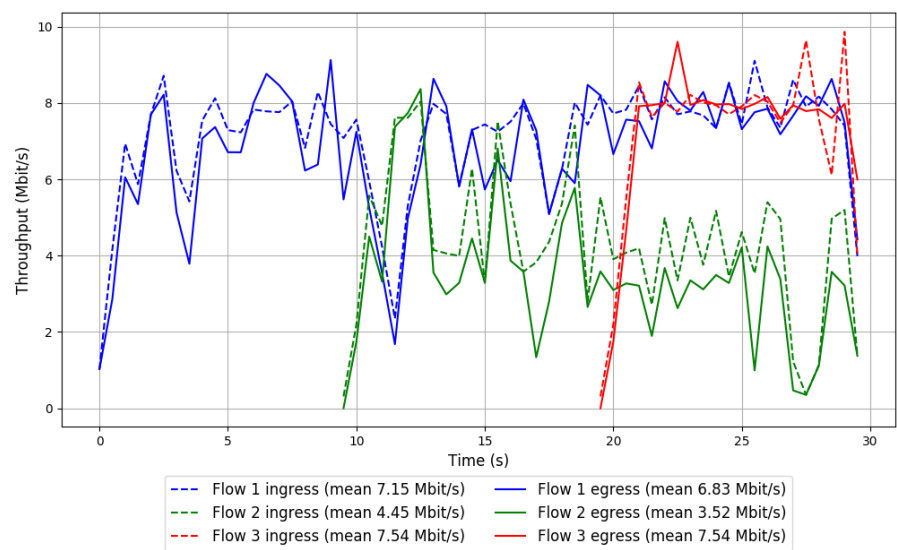
-- Flow 3:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 51.422 ms

Loss rate: 0.05%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-12 09:32:41

End at: 2017-08-12 09:33:11

# Below is generated by plot.py at 2017-08-12 12:00:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.48 Mbit/s

95th percentile per-packet one-way delay: 53.855 ms

Loss rate: 15.14%

-- Flow 1:

Average throughput: 3.47 Mbit/s

95th percentile per-packet one-way delay: 53.373 ms

Loss rate: 16.83%

-- Flow 2:

Average throughput: 2.71 Mbit/s

95th percentile per-packet one-way delay: 53.968 ms

Loss rate: 22.31%

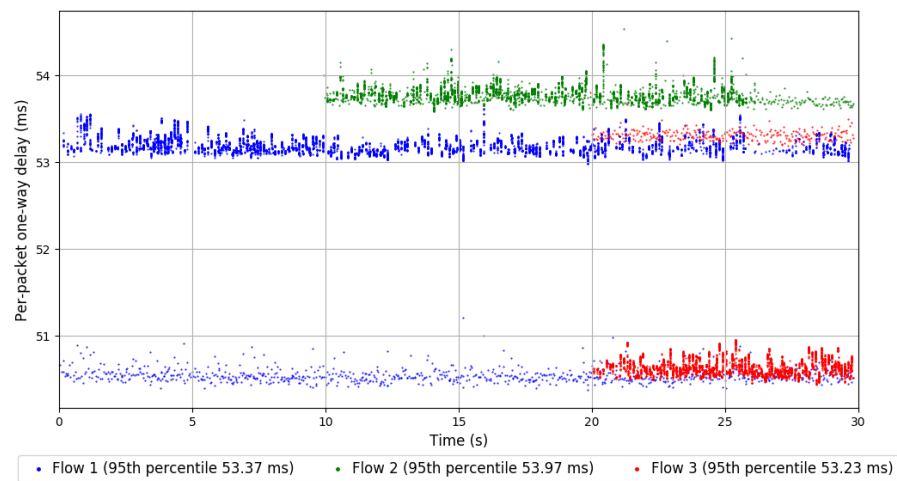
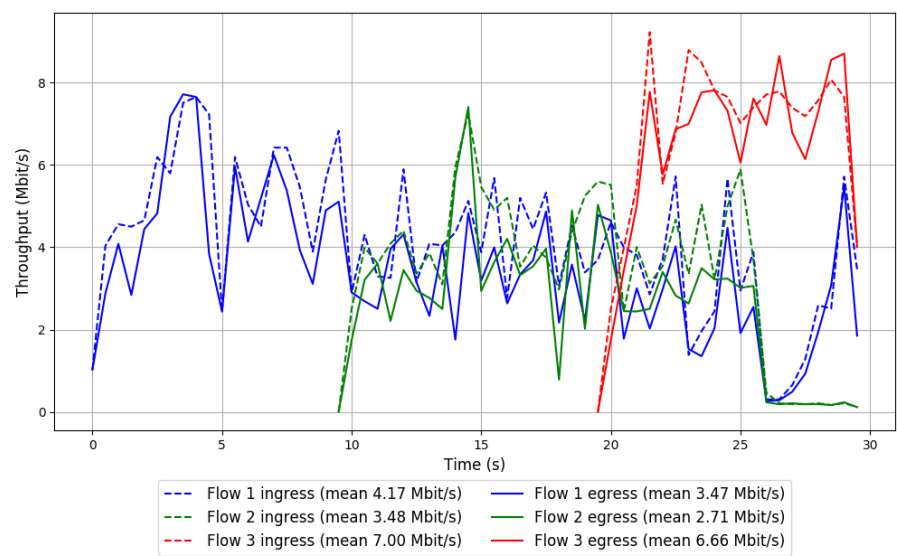
-- Flow 3:

Average throughput: 6.66 Mbit/s

95th percentile per-packet one-way delay: 53.227 ms

Loss rate: 4.93%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-08-12 09:44:04

End at: 2017-08-12 09:44:34

# Below is generated by plot.py at 2017-08-12 12:00:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.62 Mbit/s

95th percentile per-packet one-way delay: 50.919 ms

Loss rate: 5.03%

-- Flow 1:

Average throughput: 6.71 Mbit/s

95th percentile per-packet one-way delay: 53.542 ms

Loss rate: 5.03%

-- Flow 2:

Average throughput: 7.02 Mbit/s

95th percentile per-packet one-way delay: 50.841 ms

Loss rate: 5.45%

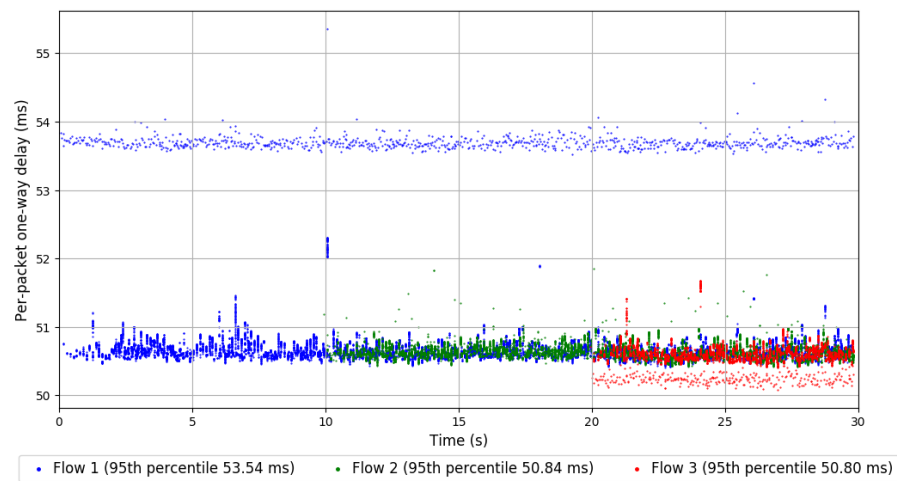
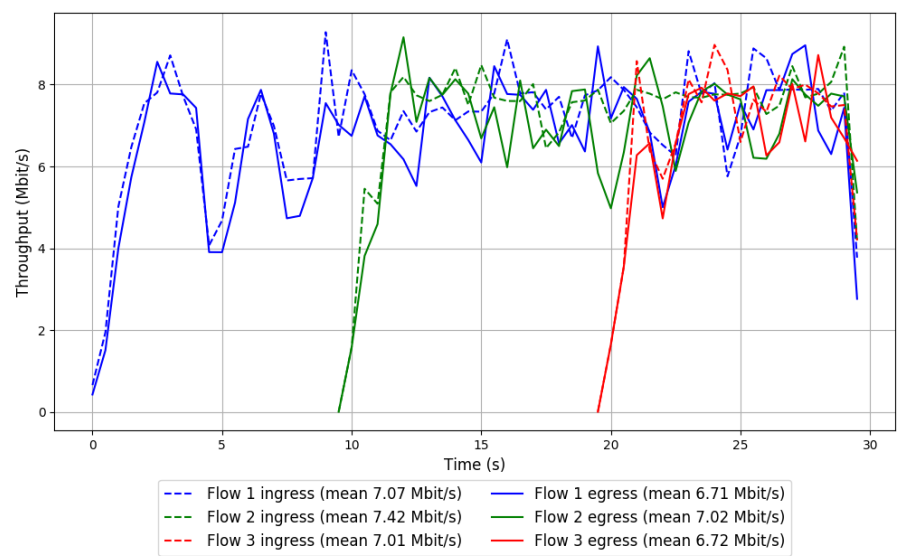
-- Flow 3:

Average throughput: 6.72 Mbit/s

95th percentile per-packet one-way delay: 50.798 ms

Loss rate: 4.16%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-12 09:55:23

End at: 2017-08-12 09:55:53

# Below is generated by plot.py at 2017-08-12 12:00:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.11 Mbit/s

95th percentile per-packet one-way delay: 53.237 ms

Loss rate: 6.87%

-- Flow 1:

Average throughput: 7.04 Mbit/s

95th percentile per-packet one-way delay: 50.611 ms

Loss rate: 4.80%

-- Flow 2:

Average throughput: 2.36 Mbit/s

95th percentile per-packet one-way delay: 53.412 ms

Loss rate: 22.68%

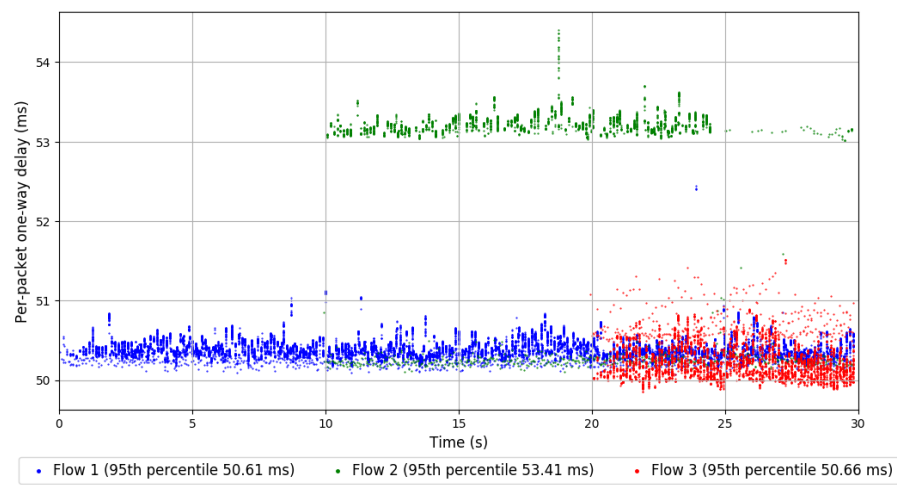
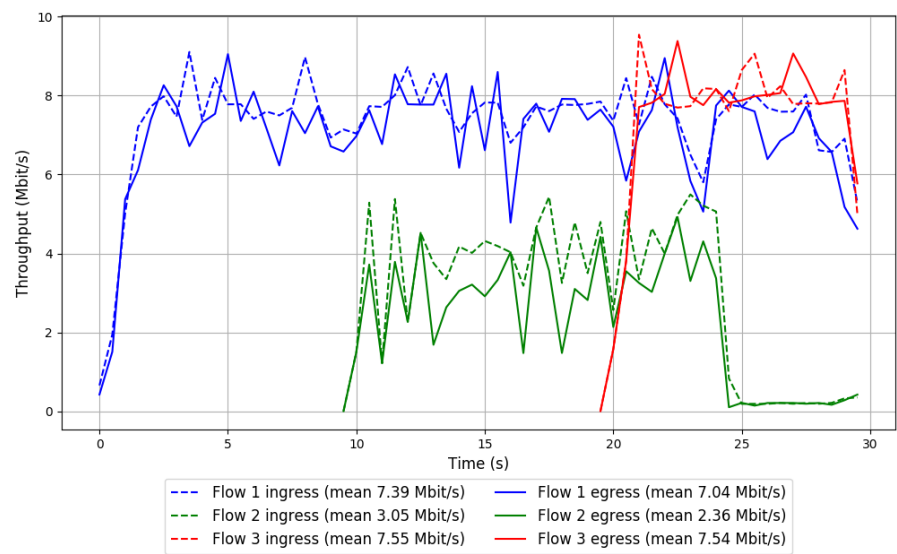
-- Flow 3:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 50.662 ms

Loss rate: 0.14%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-12 10:06:19

End at: 2017-08-12 10:06:49

# Below is generated by plot.py at 2017-08-12 12:00:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.81 Mbit/s

95th percentile per-packet one-way delay: 50.549 ms

Loss rate: 5.30%

-- Flow 1:

Average throughput: 6.75 Mbit/s

95th percentile per-packet one-way delay: 50.574 ms

Loss rate: 6.34%

-- Flow 2:

Average throughput: 7.23 Mbit/s

95th percentile per-packet one-way delay: 50.503 ms

Loss rate: 3.55%

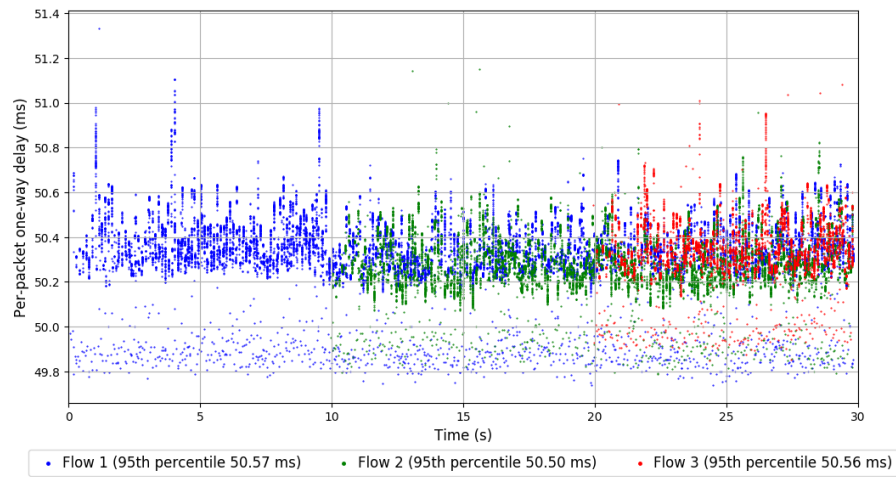
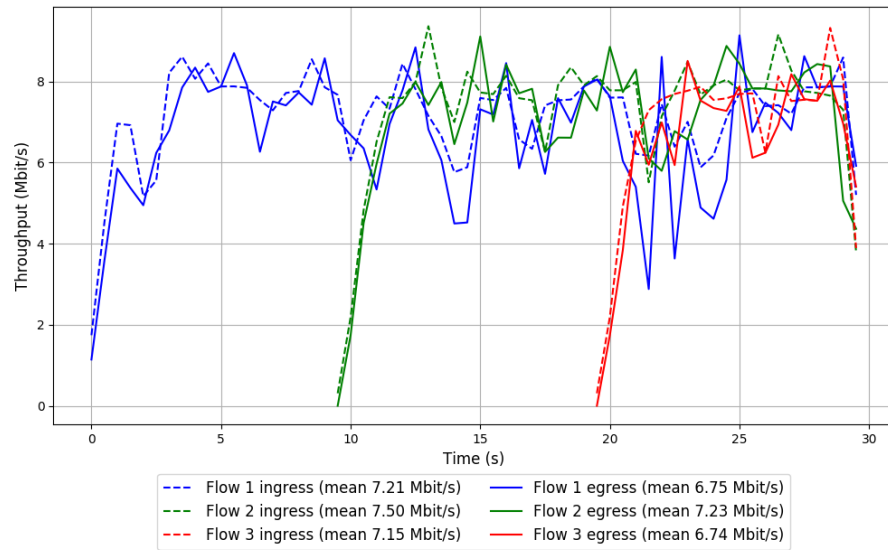
-- Flow 3:

Average throughput: 6.74 Mbit/s

95th percentile per-packet one-way delay: 50.565 ms

Loss rate: 5.80%

## Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-08-12 10:17:32

End at: 2017-08-12 10:18:02

# Below is generated by plot.py at 2017-08-12 12:00:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.57 Mbit/s

95th percentile per-packet one-way delay: 53.649 ms

Loss rate: 2.78%

-- Flow 1:

Average throughput: 7.46 Mbit/s

95th percentile per-packet one-way delay: 52.365 ms

Loss rate: 2.29%

-- Flow 2:

Average throughput: 7.73 Mbit/s

95th percentile per-packet one-way delay: 50.732 ms

Loss rate: 0.02%

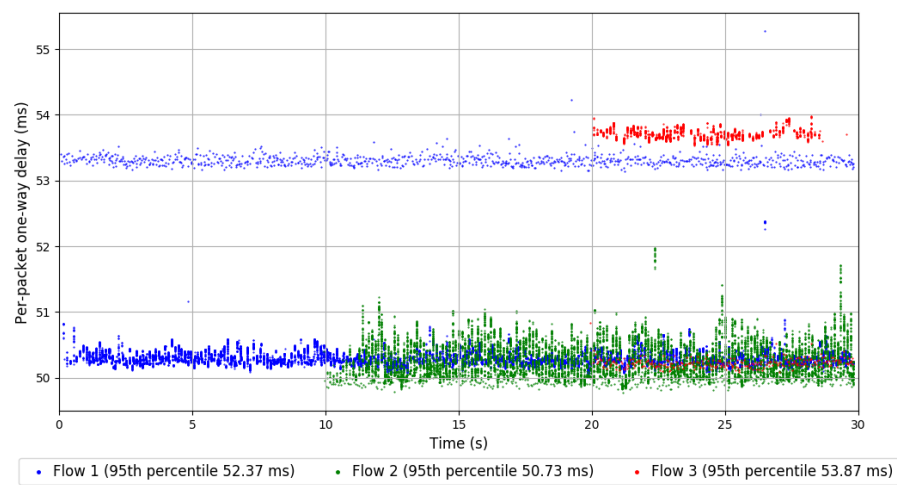
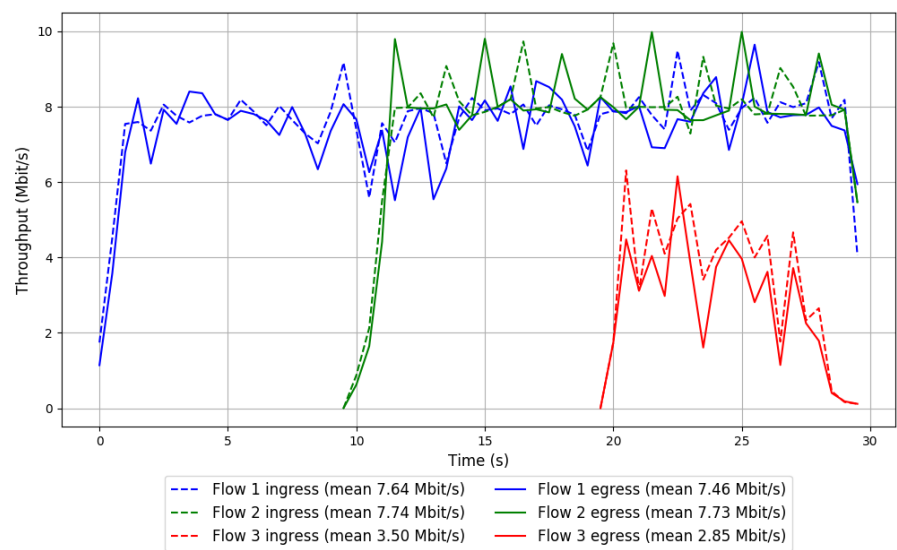
-- Flow 3:

Average throughput: 2.85 Mbit/s

95th percentile per-packet one-way delay: 53.865 ms

Loss rate: 18.36%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-12 10:28:34

End at: 2017-08-12 10:29:04

# Below is generated by plot.py at 2017-08-12 12:00:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.16 Mbit/s

95th percentile per-packet one-way delay: 51.014 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 50.955 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.36 Mbit/s

95th percentile per-packet one-way delay: 52.095 ms

Loss rate: 1.70%

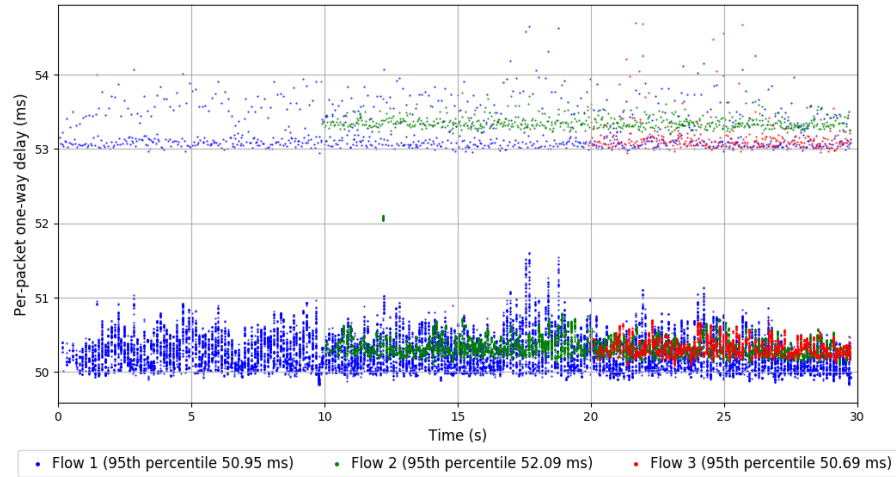
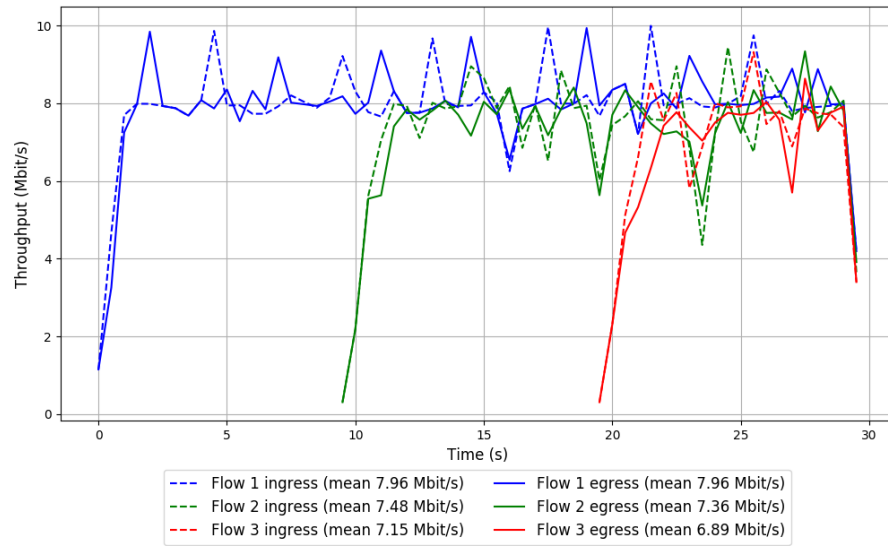
-- Flow 3:

Average throughput: 6.89 Mbit/s

95th percentile per-packet one-way delay: 50.689 ms

Loss rate: 3.70%

## Run 10: Report of Sprout — Data Link

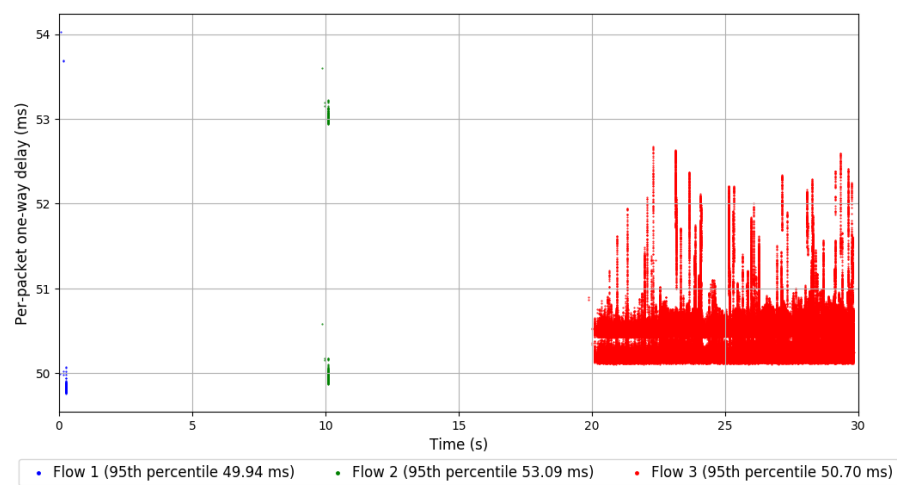
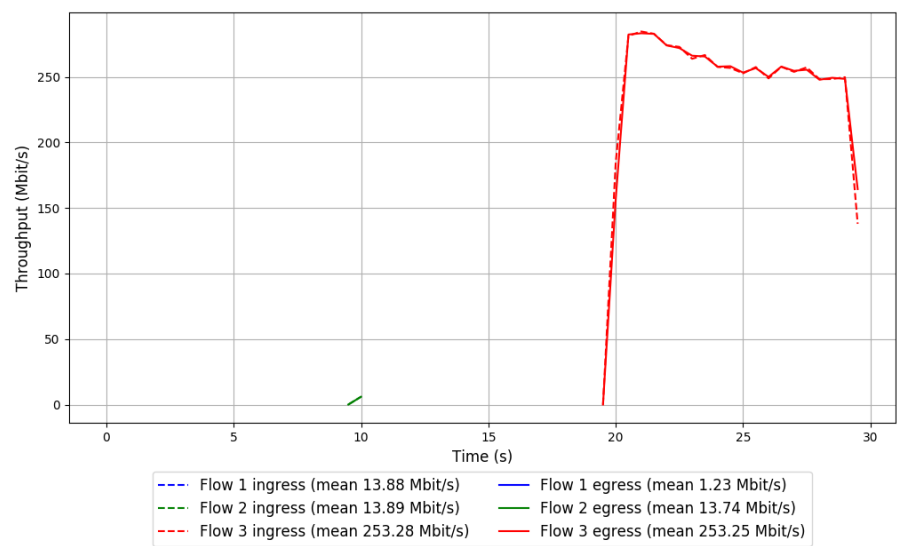


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-08-12 08:45:14
End at: 2017-08-12 08:45:44

# Below is generated by plot.py at 2017-08-12 12:01:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.67 Mbit/s
95th percentile per-packet one-way delay: 50.708 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 49.943 ms
Loss rate: 91.17%
-- Flow 2:
Average throughput: 13.74 Mbit/s
95th percentile per-packet one-way delay: 53.093 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 253.25 Mbit/s
95th percentile per-packet one-way delay: 50.705 ms
Loss rate: 0.02%
```

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

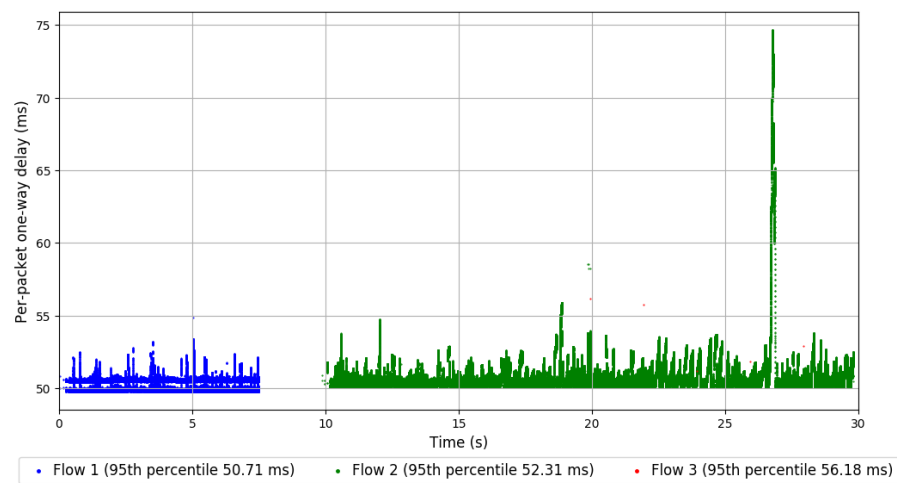
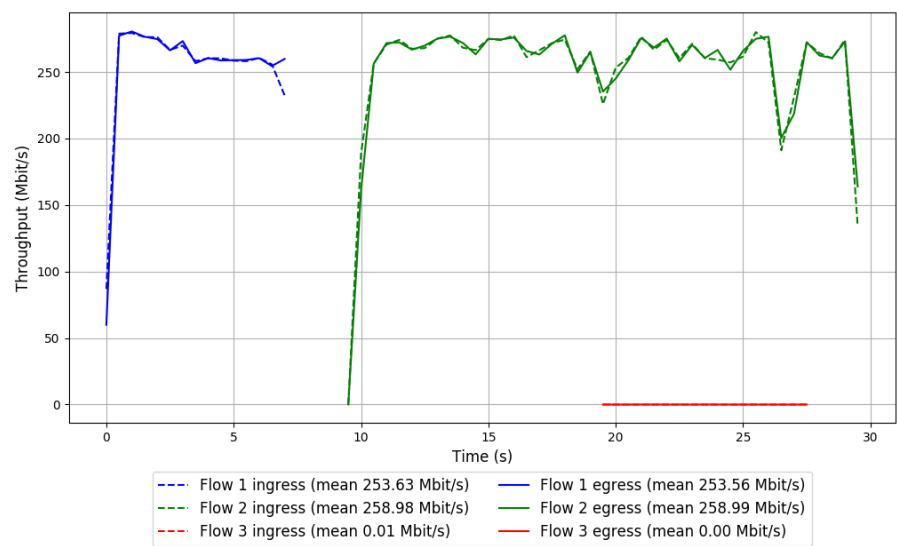


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-08-12 08:56:13
End at: 2017-08-12 08:56:43

# Below is generated by plot.py at 2017-08-12 12:02:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 237.07 Mbit/s
95th percentile per-packet one-way delay: 52.080 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 253.56 Mbit/s
95th percentile per-packet one-way delay: 50.709 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 258.99 Mbit/s
95th percentile per-packet one-way delay: 52.307 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 56.184 ms
Loss rate: 92.35%
```

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

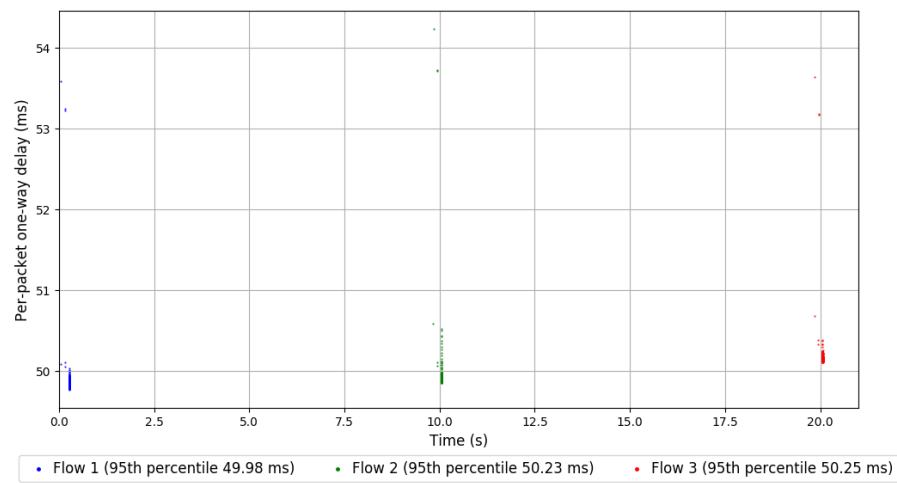
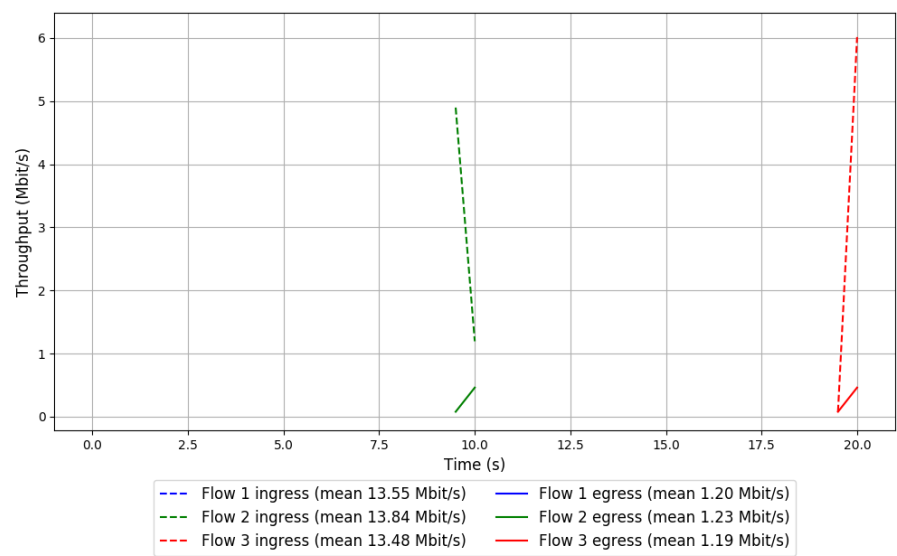


Run 3: Statistics of TaoVA-100x

Start at: 2017-08-12 09:07:32

End at: 2017-08-12 09:08:02

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

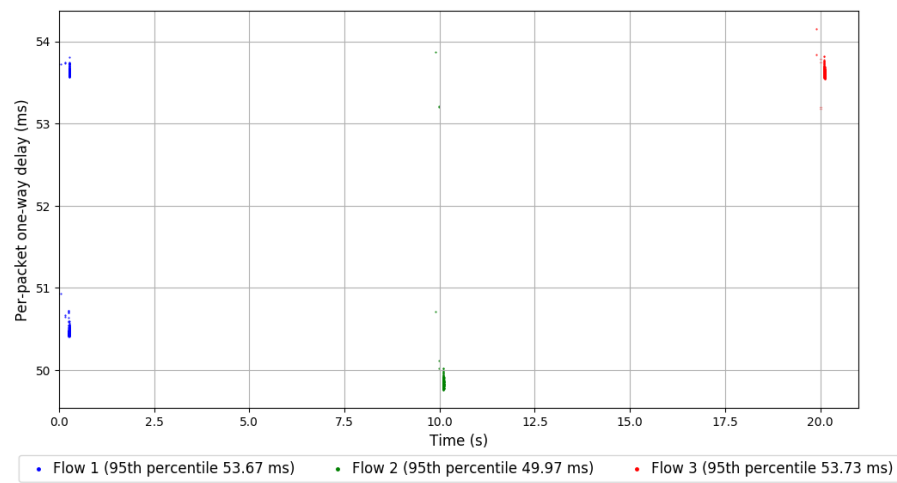
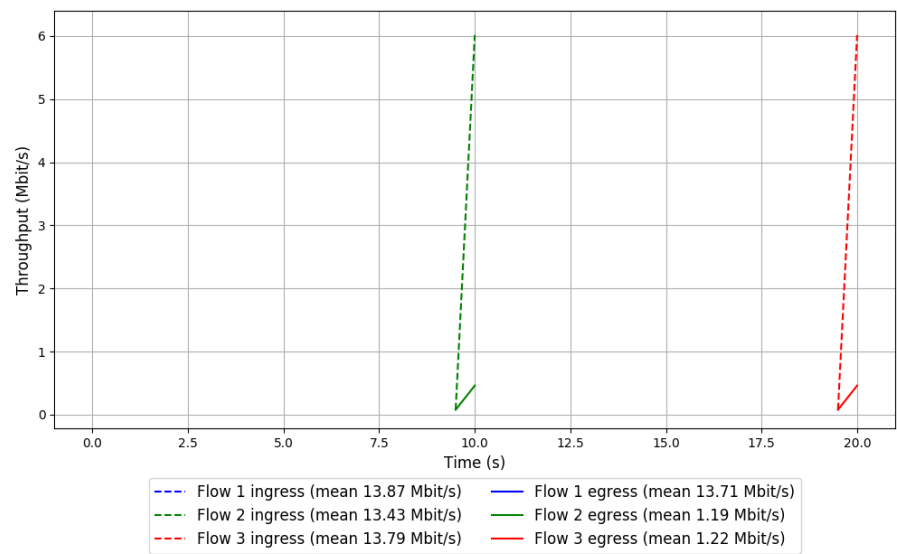


Run 4: Statistics of TaoVA-100x

Start at: 2017-08-12 09:18:53

End at: 2017-08-12 09:19:23

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-08-12 09:30:08

End at: 2017-08-12 09:30:39

# Below is generated by plot.py at 2017-08-12 12:02:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 236.88 Mbit/s

95th percentile per-packet one-way delay: 53.206 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 210.57 Mbit/s

95th percentile per-packet one-way delay: 50.359 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 49.914 ms

Loss rate: 90.92%

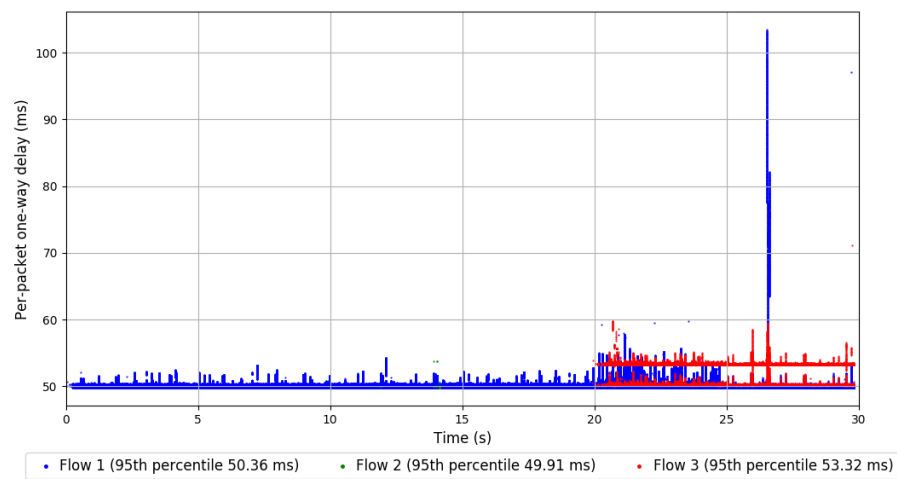
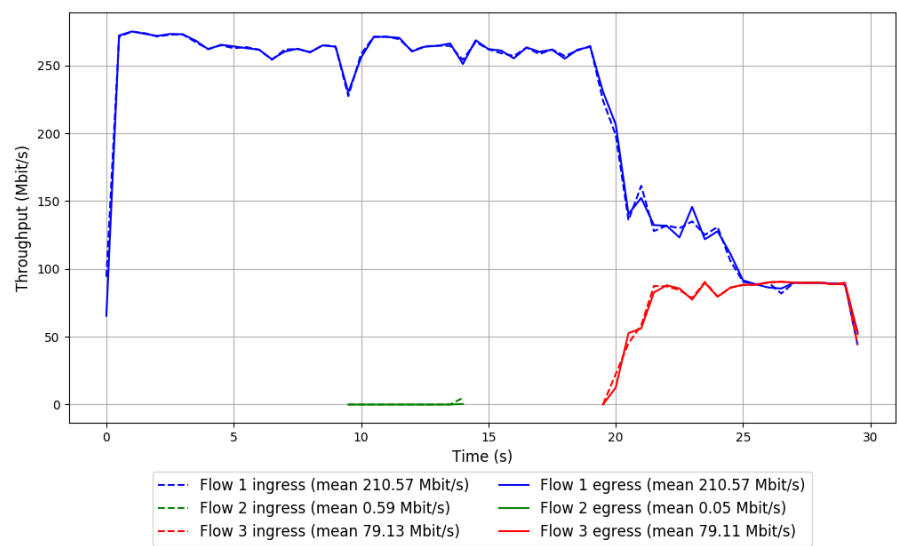
-- Flow 3:

Average throughput: 79.11 Mbit/s

95th percentile per-packet one-way delay: 53.317 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-08-12 09:41:22

End at: 2017-08-12 09:41:52

# Below is generated by plot.py at 2017-08-12 12:03:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 134.96 Mbit/s

95th percentile per-packet one-way delay: 53.051 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 48.17 Mbit/s

95th percentile per-packet one-way delay: 53.112 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 97.40 Mbit/s

95th percentile per-packet one-way delay: 51.352 ms

Loss rate: 0.00%

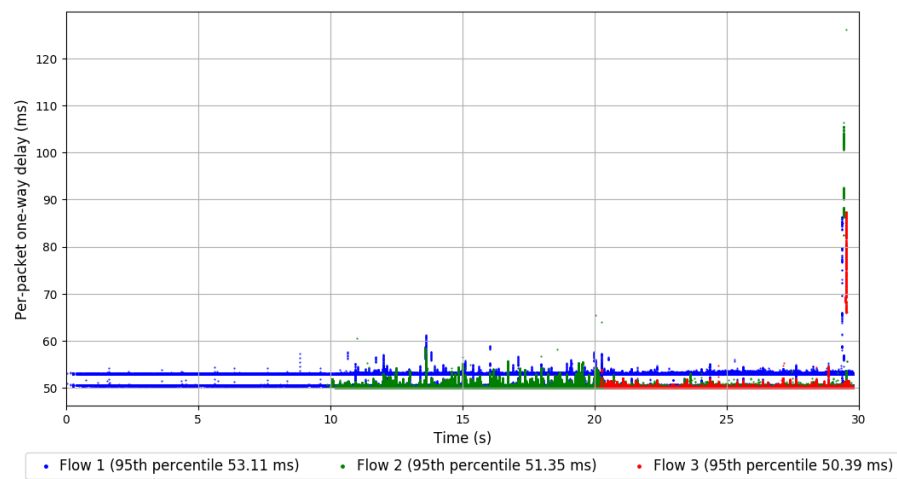
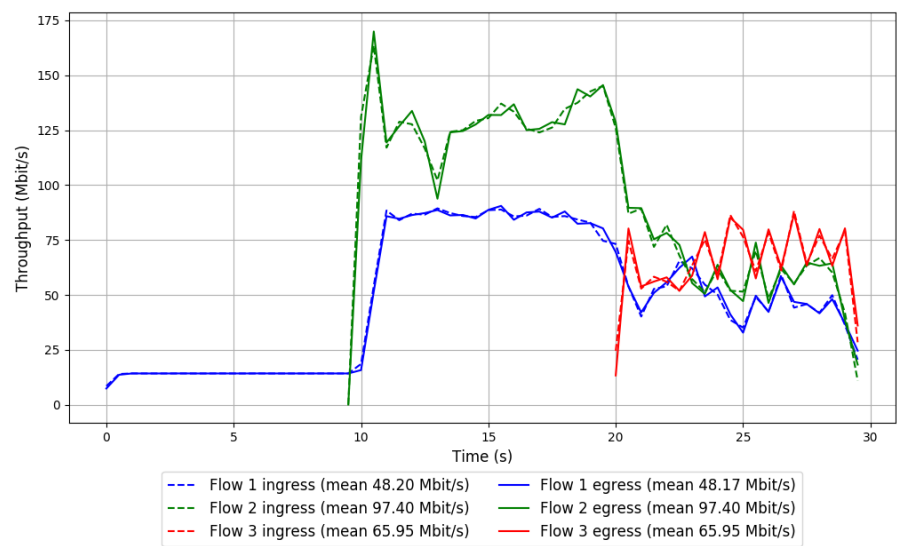
-- Flow 3:

Average throughput: 65.95 Mbit/s

95th percentile per-packet one-way delay: 50.392 ms

Loss rate: 0.00%

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

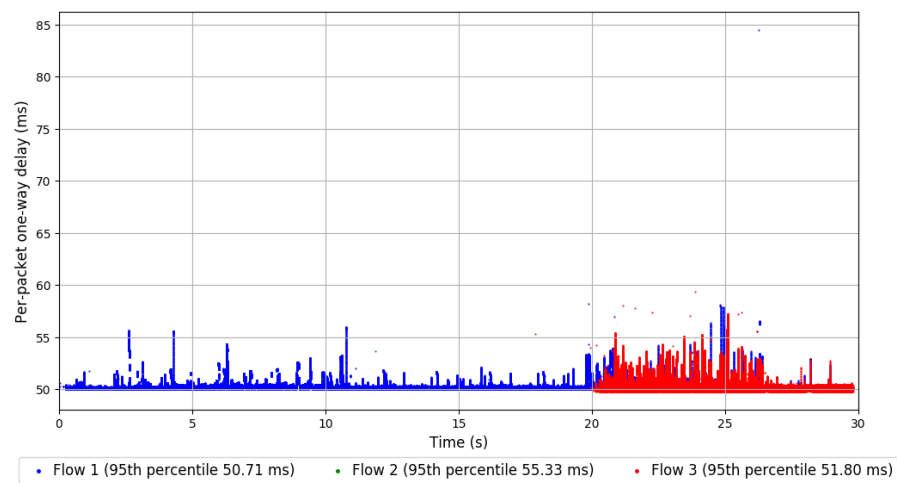
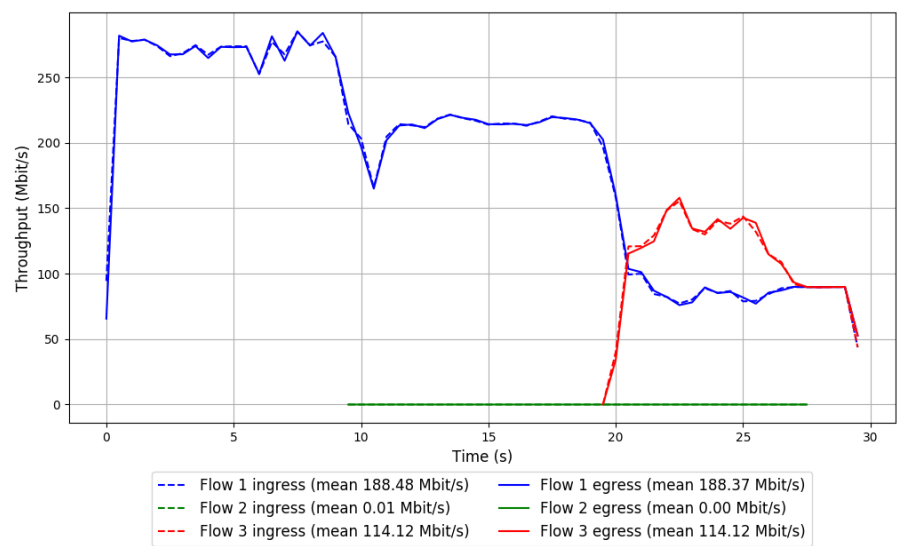


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-08-12 09:52:48
End at: 2017-08-12 09:53:18

# Below is generated by plot.py at 2017-08-12 12:04:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 226.20 Mbit/s
95th percentile per-packet one-way delay: 50.959 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 188.37 Mbit/s
95th percentile per-packet one-way delay: 50.714 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 55.334 ms
Loss rate: 92.35%
-- Flow 3:
Average throughput: 114.12 Mbit/s
95th percentile per-packet one-way delay: 51.804 ms
Loss rate: 0.00%
```

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

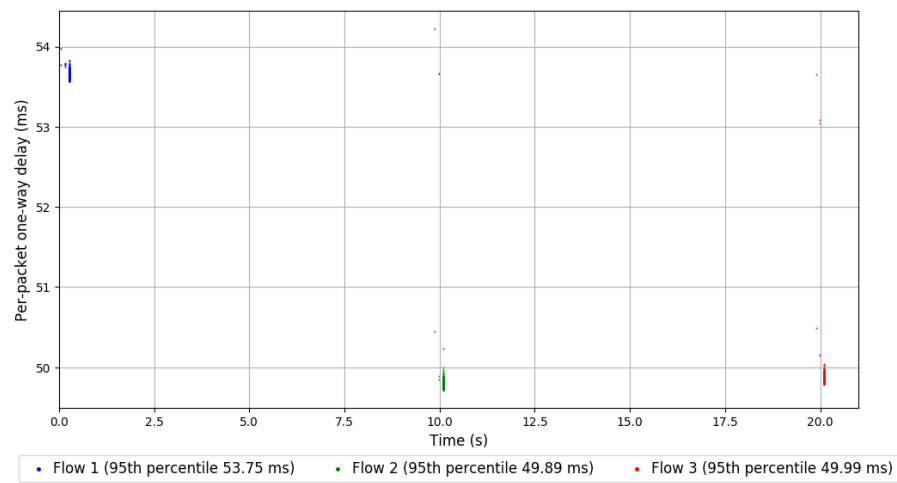
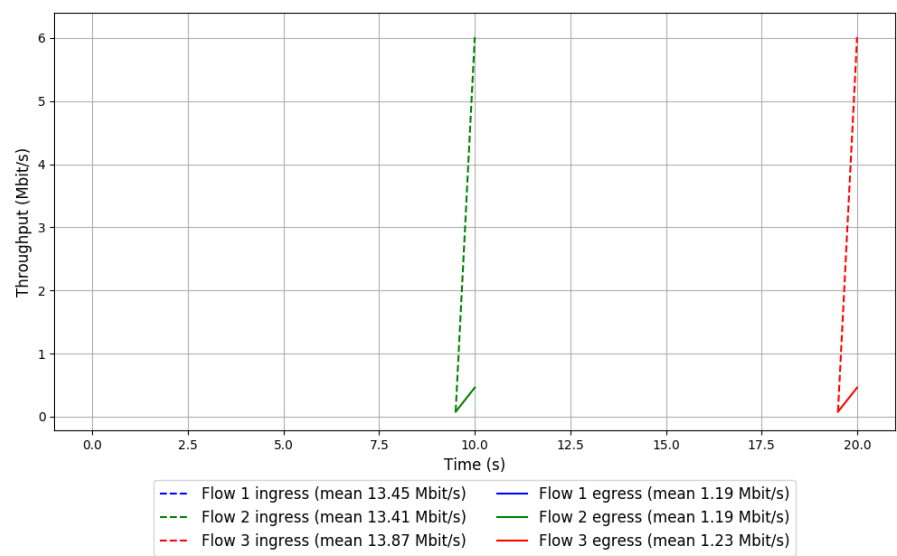


Run 8: Statistics of TaoVA-100x

Start at: 2017-08-12 10:04:02

End at: 2017-08-12 10:04:32

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-08-12 10:14:51

End at: 2017-08-12 10:15:21

# Below is generated by plot.py at 2017-08-12 12:04:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 126.91 Mbit/s

95th percentile per-packet one-way delay: 50.471 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 50.284 ms

Loss rate: 91.17%

-- Flow 2:

Average throughput: 235.52 Mbit/s

95th percentile per-packet one-way delay: 50.643 ms

Loss rate: 0.01%

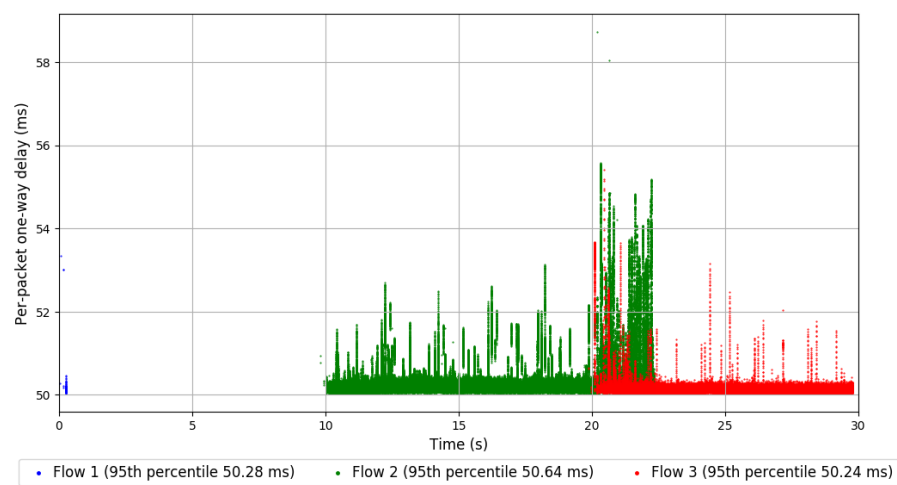
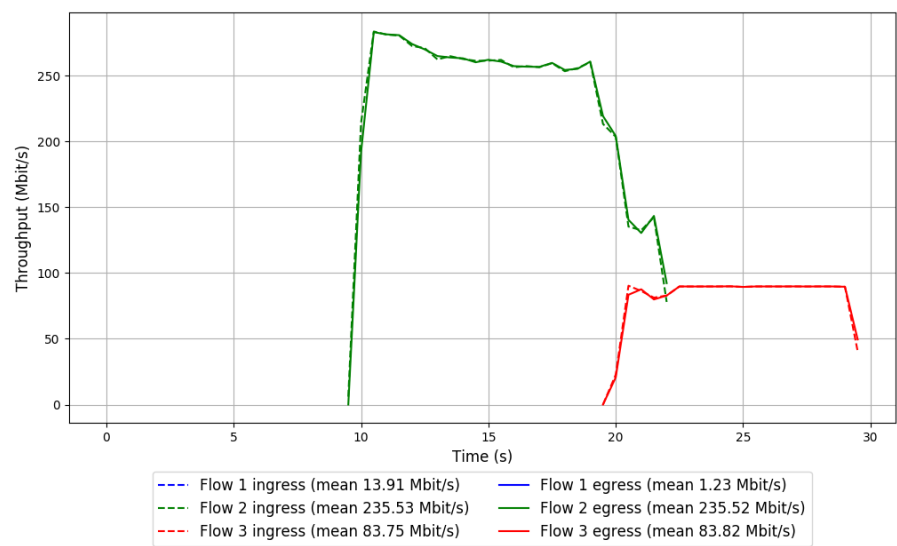
-- Flow 3:

Average throughput: 83.82 Mbit/s

95th percentile per-packet one-way delay: 50.240 ms

Loss rate: 0.00%

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

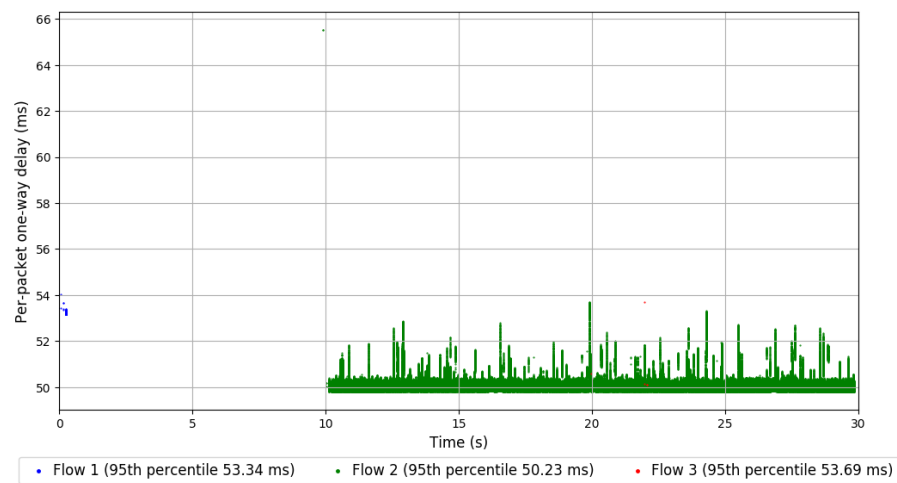
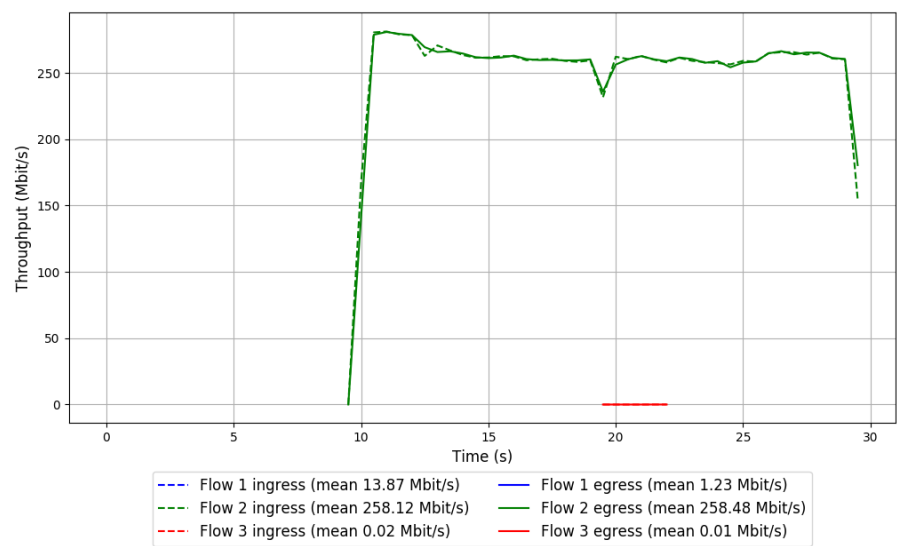


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-08-12 10:26:19
End at: 2017-08-12 10:26:49

# Below is generated by plot.py at 2017-08-12 12:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 172.92 Mbit/s
95th percentile per-packet one-way delay: 50.229 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 53.342 ms
Loss rate: 91.17%
-- Flow 2:
Average throughput: 258.48 Mbit/s
95th percentile per-packet one-way delay: 50.228 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 53.686 ms
Loss rate: 69.26%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-12 08:43:10

End at: 2017-08-12 08:43:40

# Below is generated by plot.py at 2017-08-12 12:04:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 69.00 Mbit/s

95th percentile per-packet one-way delay: 50.927 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 8.82 Mbit/s

95th percentile per-packet one-way delay: 50.599 ms

Loss rate: 1.40%

-- Flow 2:

Average throughput: 48.11 Mbit/s

95th percentile per-packet one-way delay: 50.897 ms

Loss rate: 0.06%

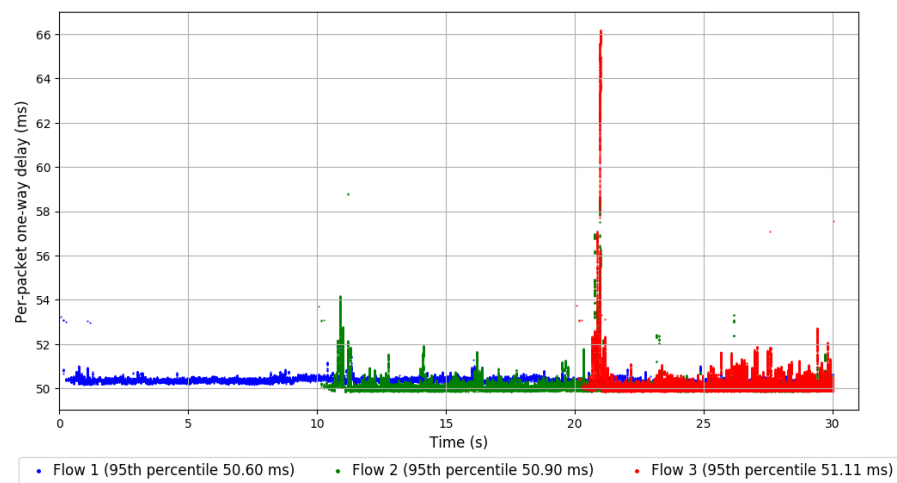
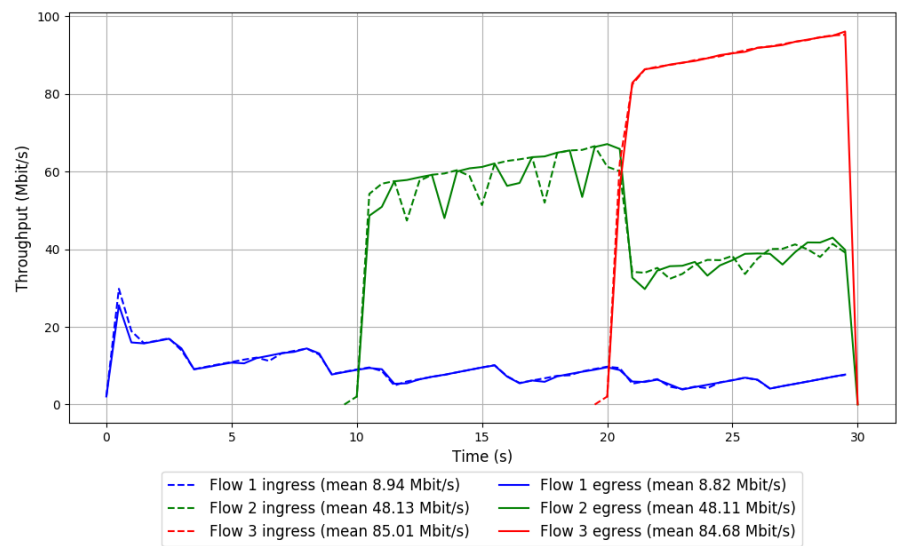
-- Flow 3:

Average throughput: 84.68 Mbit/s

95th percentile per-packet one-way delay: 51.112 ms

Loss rate: 0.35%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-08-12 08:54:13

End at: 2017-08-12 08:54:43

# Below is generated by plot.py at 2017-08-12 12:04:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.86 Mbit/s

95th percentile per-packet one-way delay: 53.747 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 10.66 Mbit/s

95th percentile per-packet one-way delay: 50.906 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 53.279 ms

Loss rate: 9.57%

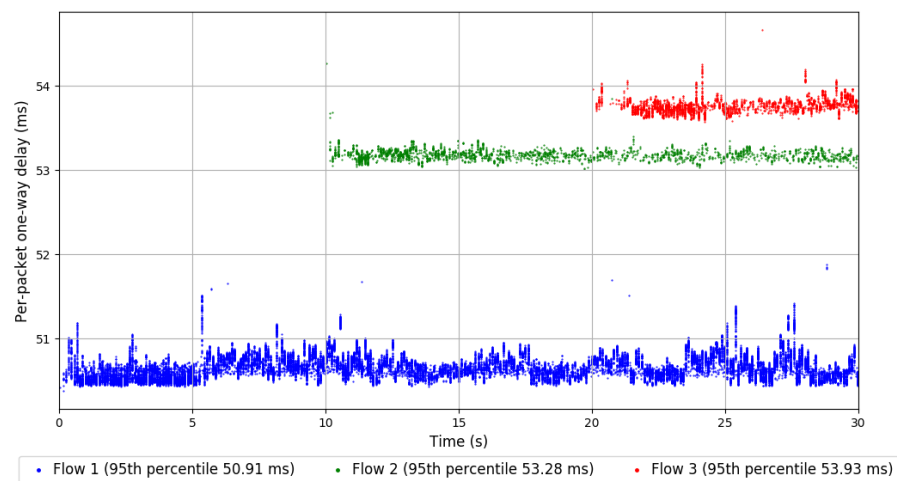
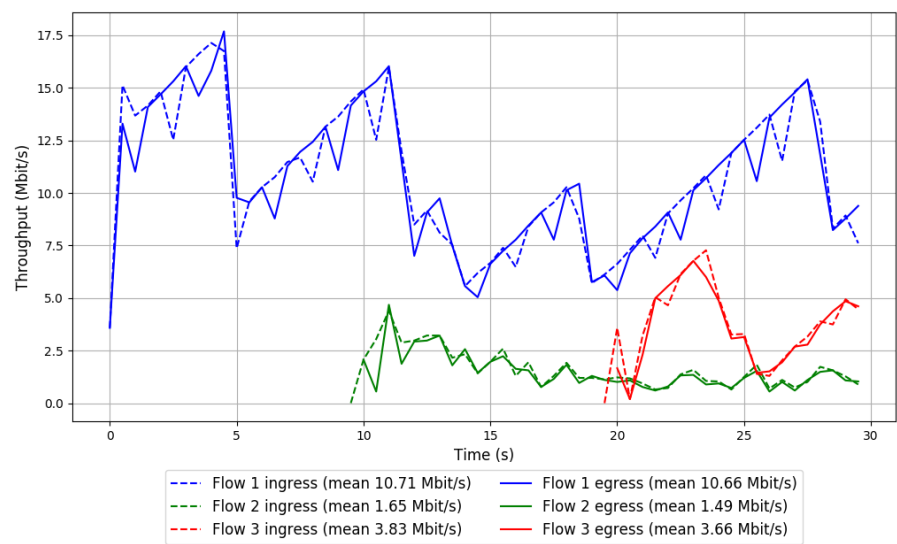
-- Flow 3:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 53.930 ms

Loss rate: 4.54%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-12 09:05:32

End at: 2017-08-12 09:06:02

# Below is generated by plot.py at 2017-08-12 12:04:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.37 Mbit/s

95th percentile per-packet one-way delay: 50.941 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 17.19 Mbit/s

95th percentile per-packet one-way delay: 3965.776 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 9.51 Mbit/s

95th percentile per-packet one-way delay: 50.970 ms

Loss rate: 0.62%

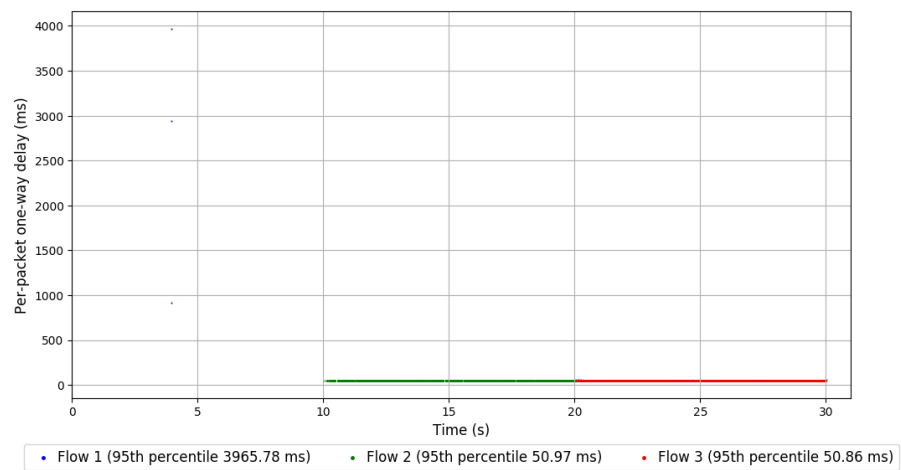
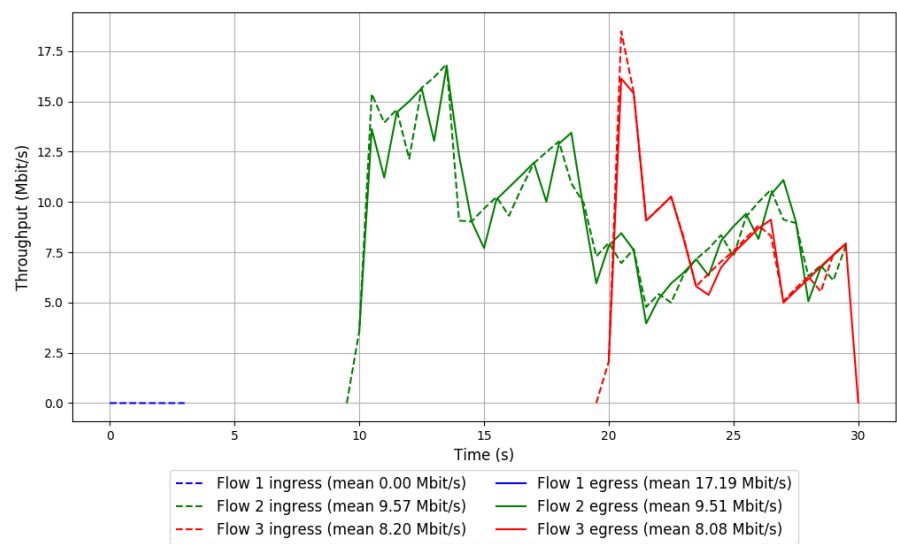
-- Flow 3:

Average throughput: 8.08 Mbit/s

95th percentile per-packet one-way delay: 50.857 ms

Loss rate: 1.50%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-12 09:16:49

End at: 2017-08-12 09:17:19

# Below is generated by plot.py at 2017-08-12 12:05:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 61.66 Mbit/s

95th percentile per-packet one-way delay: 50.989 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 17.07 Mbit/s

95th percentile per-packet one-way delay: 4047.503 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 79.81 Mbit/s

95th percentile per-packet one-way delay: 50.929 ms

Loss rate: 0.09%

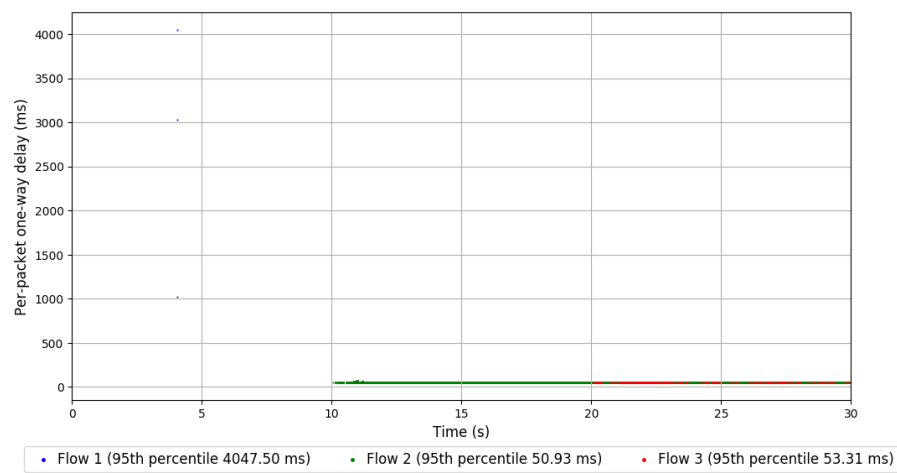
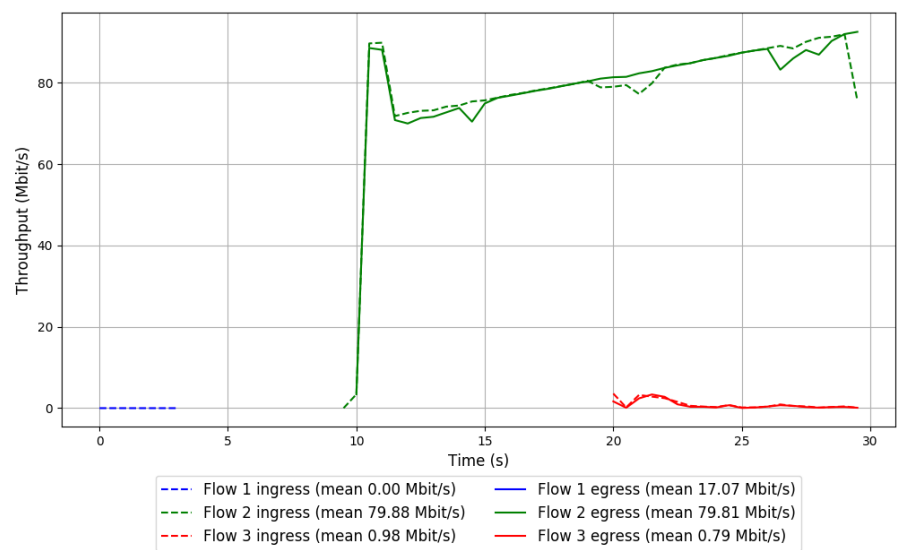
-- Flow 3:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 53.310 ms

Loss rate: 18.95%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-08-12 09:28:08

End at: 2017-08-12 09:28:38

# Below is generated by plot.py at 2017-08-12 12:05:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.60 Mbit/s

95th percentile per-packet one-way delay: 53.811 ms

Loss rate: 3.00%

-- Flow 1:

Average throughput: 2.49 Mbit/s

95th percentile per-packet one-way delay: 53.915 ms

Loss rate: 4.02%

-- Flow 2:

Average throughput: 5.79 Mbit/s

95th percentile per-packet one-way delay: 50.749 ms

Loss rate: 2.11%

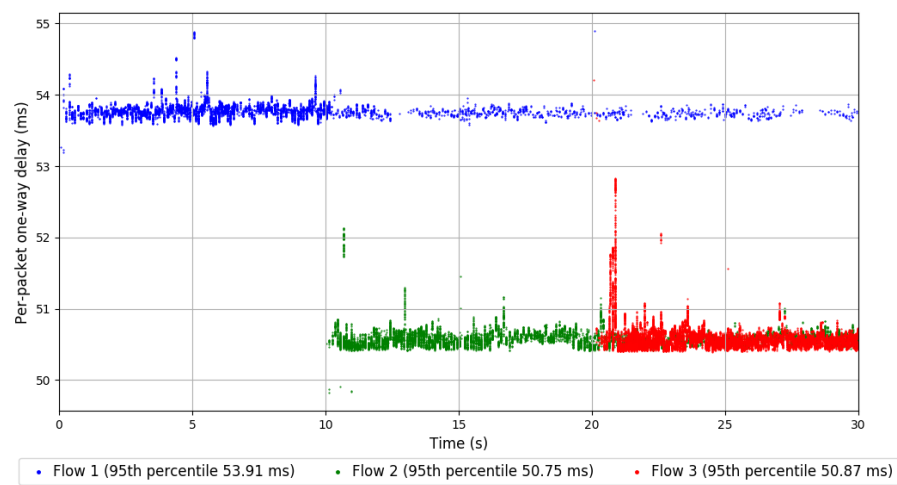
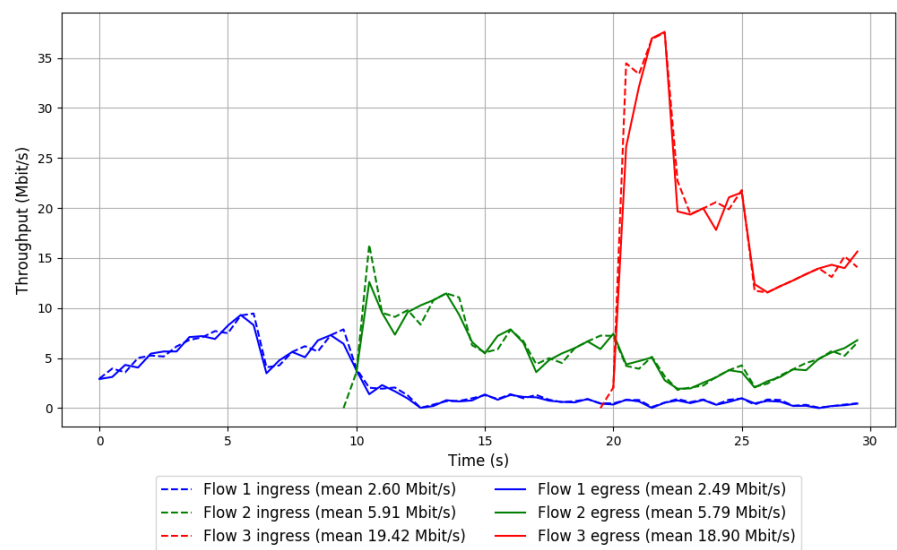
-- Flow 3:

Average throughput: 18.90 Mbit/s

95th percentile per-packet one-way delay: 50.870 ms

Loss rate: 3.13%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-12 09:39:19

End at: 2017-08-12 09:39:49

# Below is generated by plot.py at 2017-08-12 12:05:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 53.62 Mbit/s

95th percentile per-packet one-way delay: 53.694 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 2.95 Mbit/s

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

Loss rate: 2.65%

-- Flow 2:

Average throughput: 55.42 Mbit/s

95th percentile per-packet one-way delay: 50.809 ms

Loss rate: 0.00%

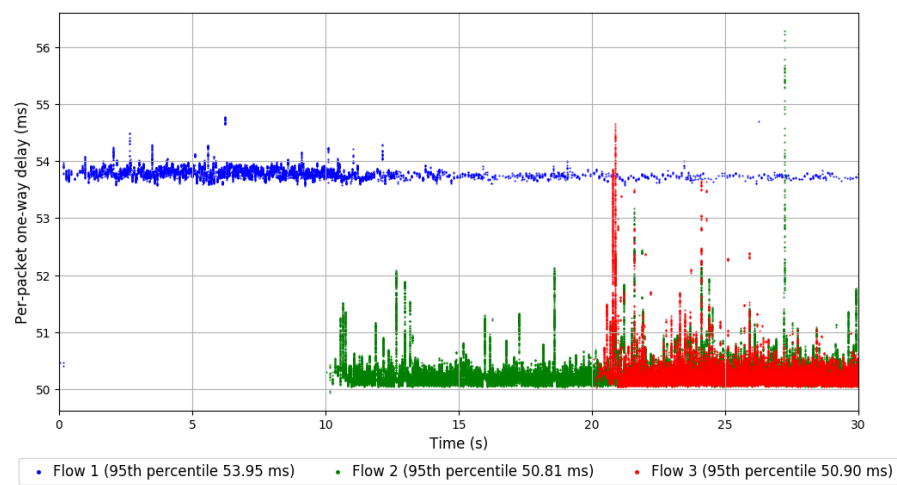
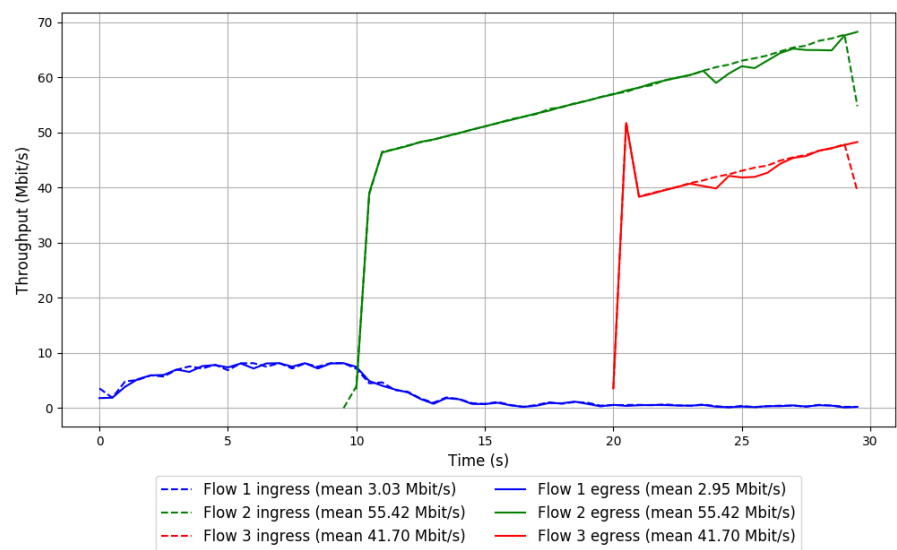
-- Flow 3:

Average throughput: 41.70 Mbit/s

95th percentile per-packet one-way delay: 50.897 ms

Loss rate: 0.01%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-12 09:50:47

End at: 2017-08-12 09:51:17

# Below is generated by plot.py at 2017-08-12 12:05:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 18.91 Mbit/s

95th percentile per-packet one-way delay: 51.214 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 15.73 Mbit/s

95th percentile per-packet one-way delay: 50.730 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 1.04 Mbit/s

95th percentile per-packet one-way delay: 53.336 ms

Loss rate: 10.58%

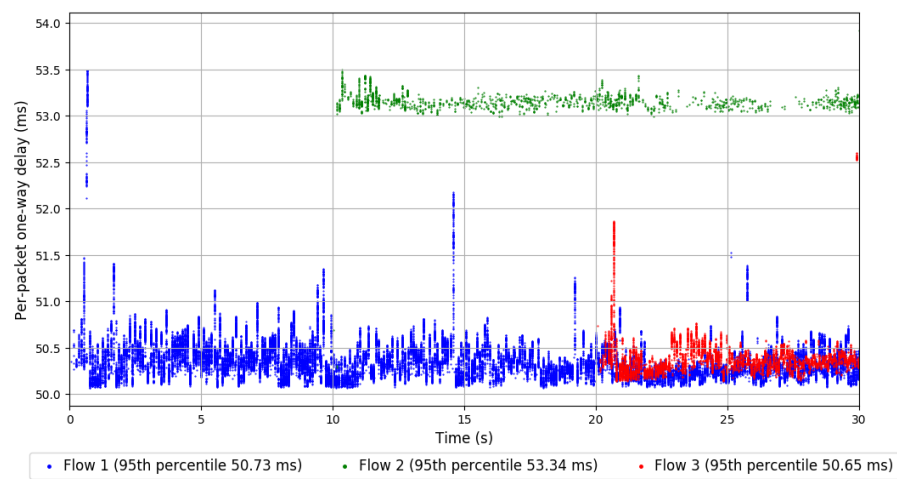
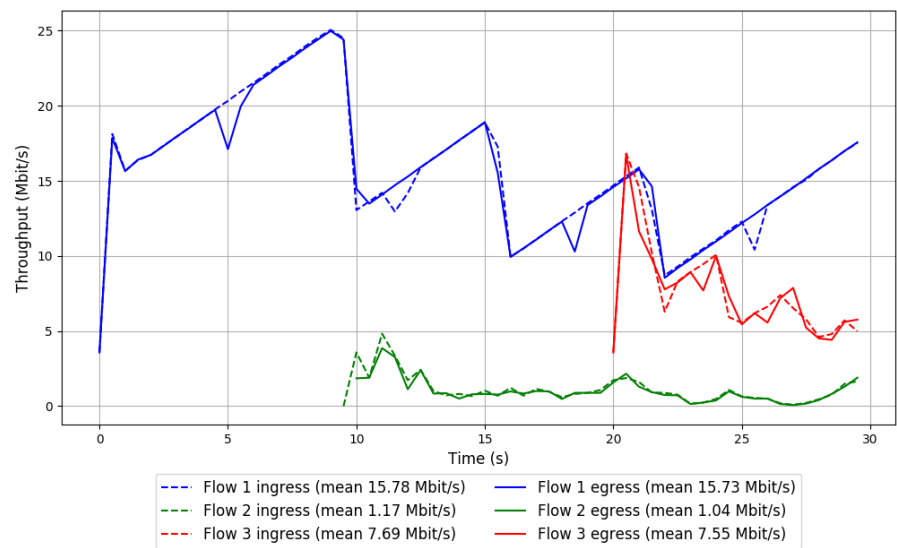
-- Flow 3:

Average throughput: 7.55 Mbit/s

95th percentile per-packet one-way delay: 50.654 ms

Loss rate: 1.84%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-12 10:02:01

End at: 2017-08-12 10:02:31

# Below is generated by plot.py at 2017-08-12 12:05:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.04 Mbit/s

95th percentile per-packet one-way delay: 53.741 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 4.60 Mbit/s

95th percentile per-packet one-way delay: 53.243 ms

Loss rate: 1.92%

-- Flow 2:

Average throughput: 3.51 Mbit/s

95th percentile per-packet one-way delay: 53.820 ms

Loss rate: 4.09%

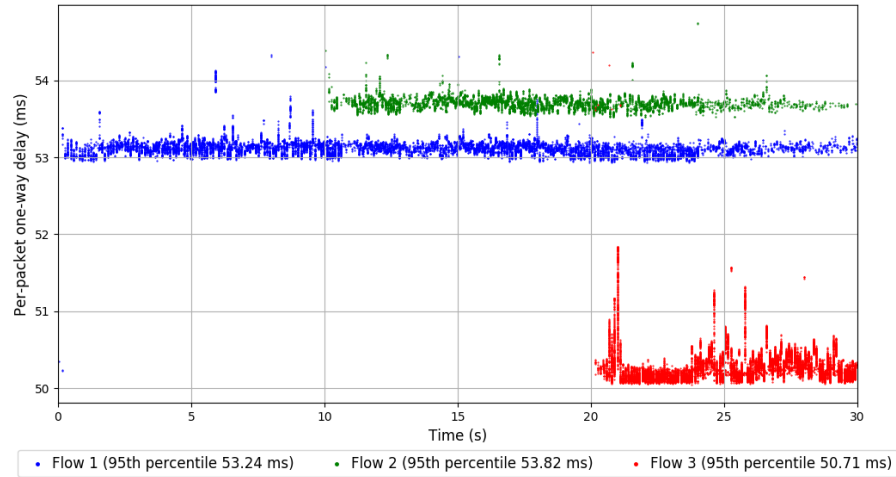
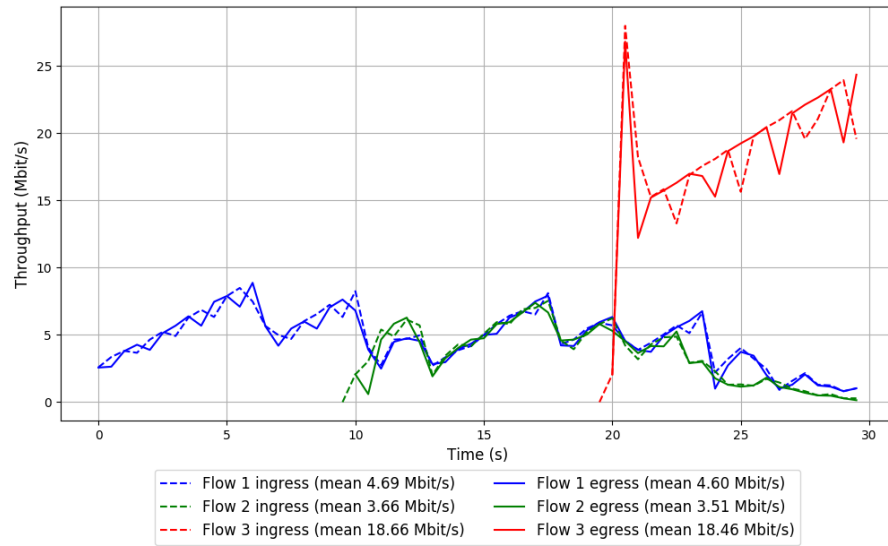
-- Flow 3:

Average throughput: 18.46 Mbit/s

95th percentile per-packet one-way delay: 50.709 ms

Loss rate: 1.12%

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



Run 9: Statistics of TCP Vegas

Start at: 2017-08-12 10:12:50

End at: 2017-08-12 10:13:20

# Below is generated by plot.py at 2017-08-12 12:05:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.95 Mbit/s

95th percentile per-packet one-way delay: 53.850 ms

Loss rate: 2.28%

-- Flow 1:

Average throughput: 4.62 Mbit/s

95th percentile per-packet one-way delay: 53.885 ms

Loss rate: 3.11%

-- Flow 2:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 53.879 ms

Loss rate: 5.34%

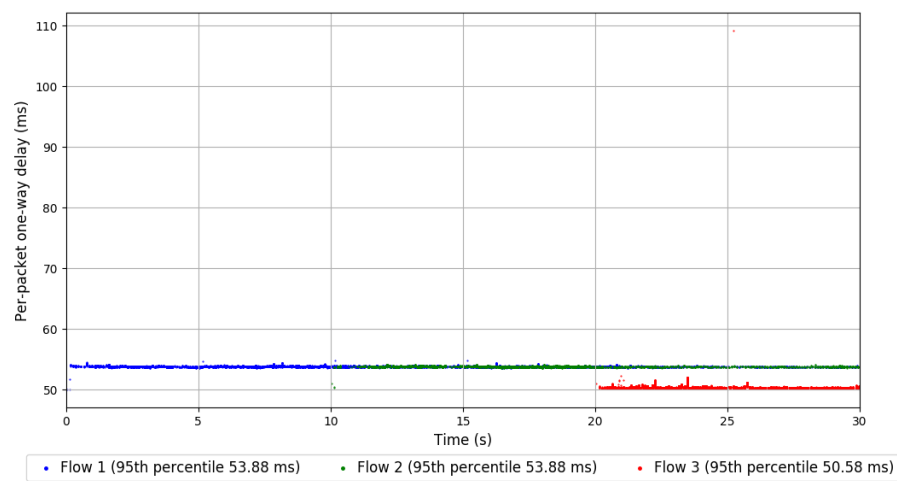
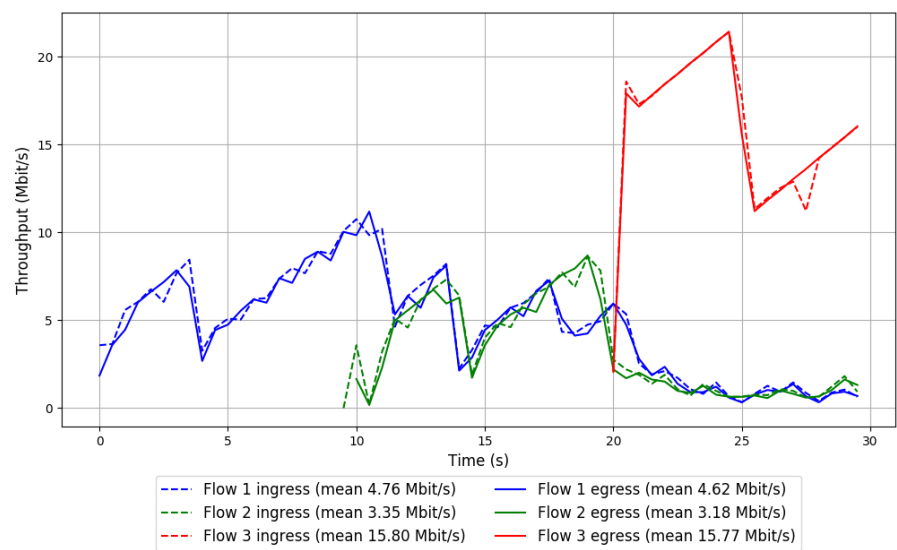
-- Flow 3:

Average throughput: 15.77 Mbit/s

95th percentile per-packet one-way delay: 50.584 ms

Loss rate: 0.22%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-12 10:24:18

End at: 2017-08-12 10:24:48

# Below is generated by plot.py at 2017-08-12 12:05:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.71 Mbit/s

95th percentile per-packet one-way delay: 53.873 ms

Loss rate: 4.14%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 171.459 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.96 Mbit/s

95th percentile per-packet one-way delay: 53.859 ms

Loss rate: 3.65%

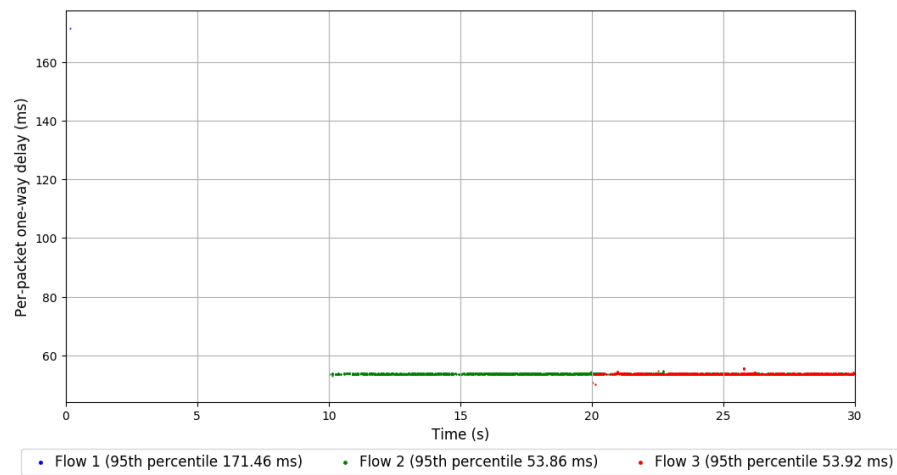
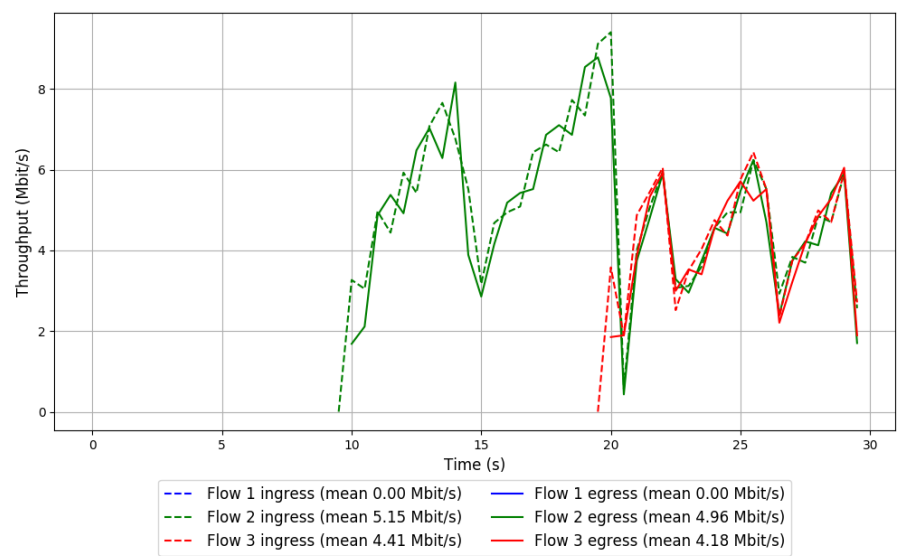
-- Flow 3:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 53.918 ms

Loss rate: 5.30%

Run 10: Report of TCP Vegas — Data Link

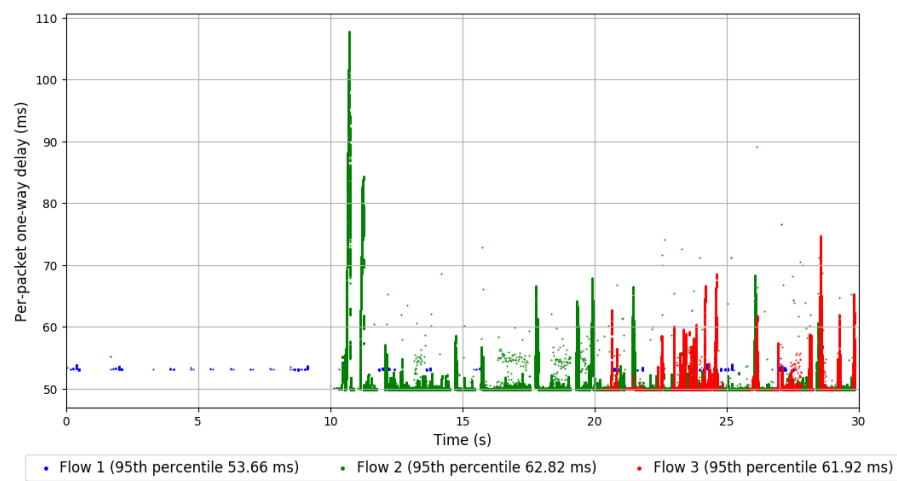
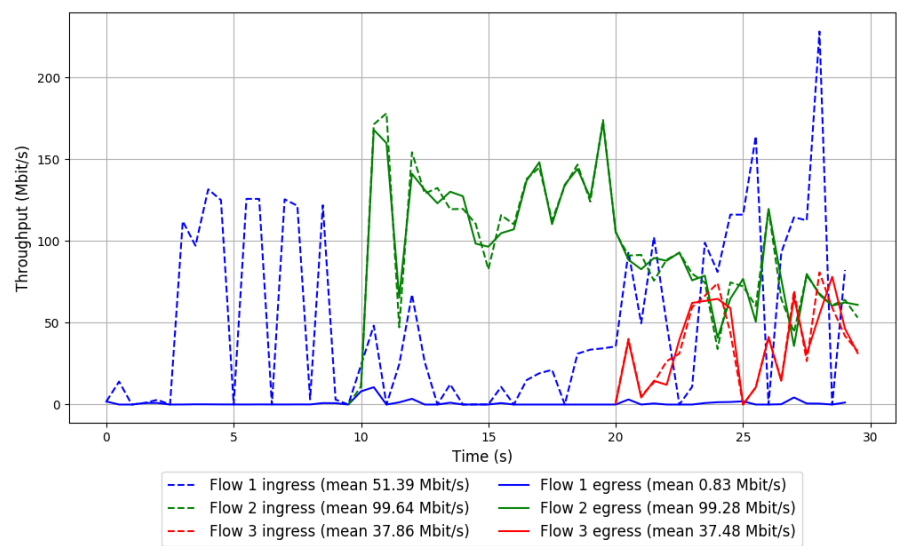


```
Run 1: Statistics of Verus

Start at: 2017-08-12 08:42:23
End at: 2017-08-12 08:42:53

# Below is generated by plot.py at 2017-08-12 12:05:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.18 Mbit/s
95th percentile per-packet one-way delay: 62.429 ms
Loss rate: 38.89%
-- Flow 1:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 53.659 ms
Loss rate: 98.40%
-- Flow 2:
Average throughput: 99.28 Mbit/s
95th percentile per-packet one-way delay: 62.819 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 37.48 Mbit/s
95th percentile per-packet one-way delay: 61.919 ms
Loss rate: 0.92%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-08-12 08:53:24

End at: 2017-08-12 08:53:54

# Below is generated by plot.py at 2017-08-12 12:05:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 116.57 Mbit/s

95th percentile per-packet one-way delay: 59.148 ms

Loss rate: 20.77%

-- Flow 1:

Average throughput: 66.59 Mbit/s

95th percentile per-packet one-way delay: 55.938 ms

Loss rate: 31.24%

-- Flow 2:

Average throughput: 75.34 Mbit/s

95th percentile per-packet one-way delay: 65.204 ms

Loss rate: 0.30%

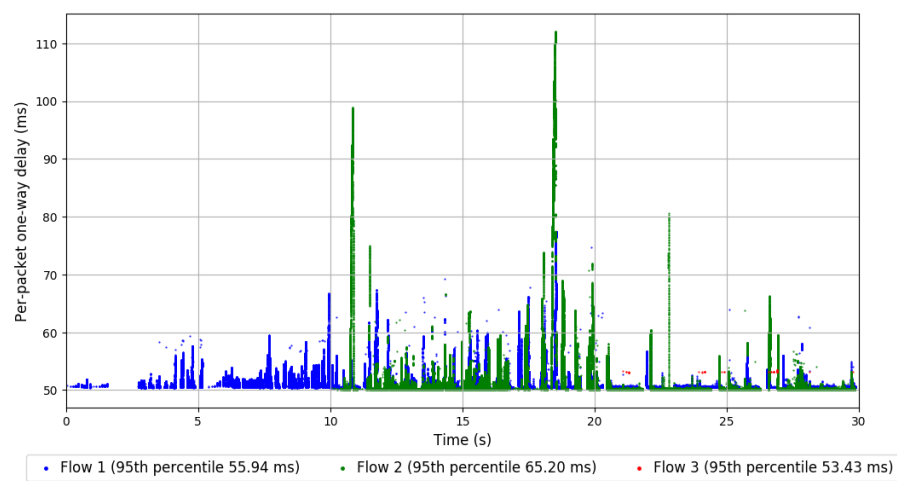
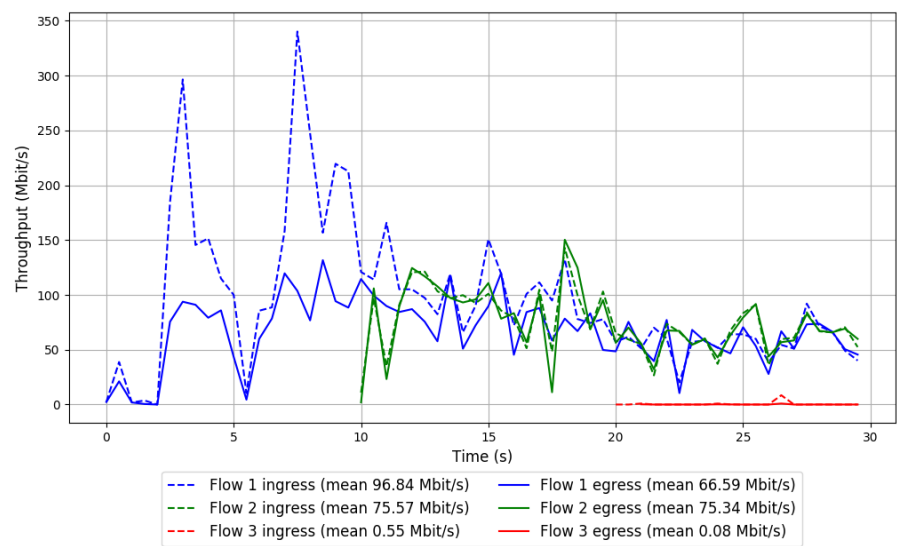
-- Flow 3:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 53.433 ms

Loss rate: 86.31%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-12 09:04:44

End at: 2017-08-12 09:05:14

# Below is generated by plot.py at 2017-08-12 12:05:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 103.92 Mbit/s

95th percentile per-packet one-way delay: 54.851 ms

Loss rate: 3.19%

-- Flow 1:

Average throughput: 70.91 Mbit/s

95th percentile per-packet one-way delay: 53.307 ms

Loss rate: 4.09%

-- Flow 2:

Average throughput: 49.32 Mbit/s

95th percentile per-packet one-way delay: 57.647 ms

Loss rate: 0.11%

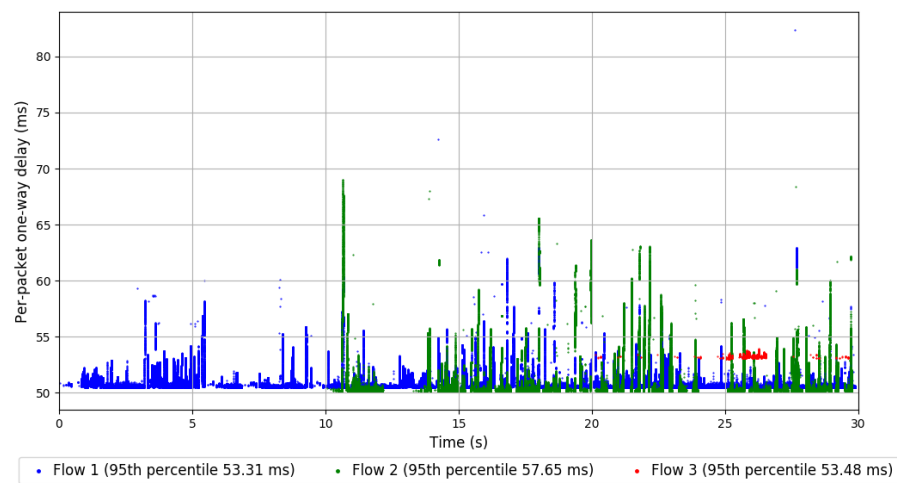
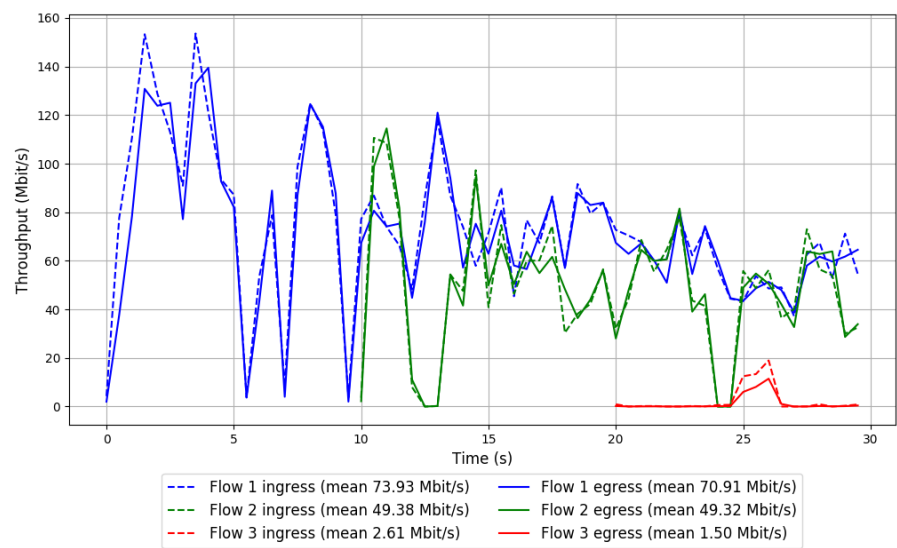
-- Flow 3:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 53.481 ms

Loss rate: 43.19%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-08-12 09:16:03

End at: 2017-08-12 09:16:33

# Below is generated by plot.py at 2017-08-12 12:05:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.52 Mbit/s

95th percentile per-packet one-way delay: 53.824 ms

Loss rate: 26.11%

-- Flow 1:

Average throughput: 83.03 Mbit/s

95th percentile per-packet one-way delay: 53.830 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 53.778 ms

Loss rate: 94.72%

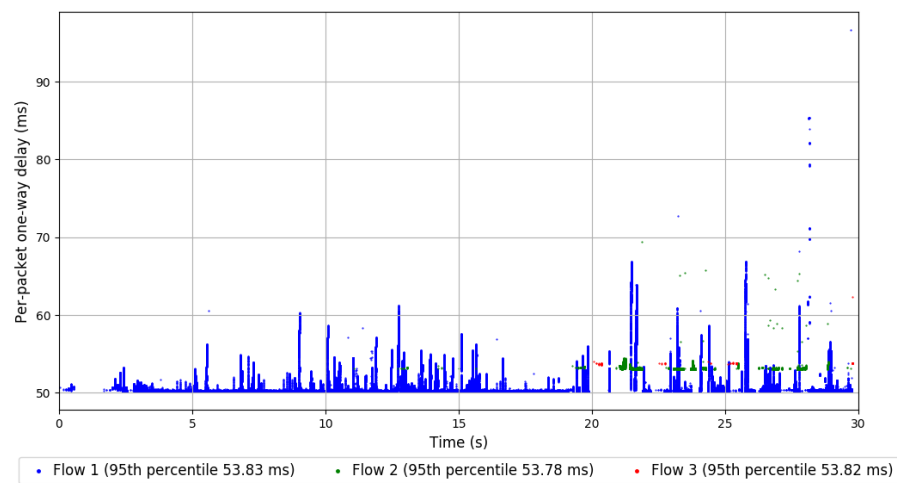
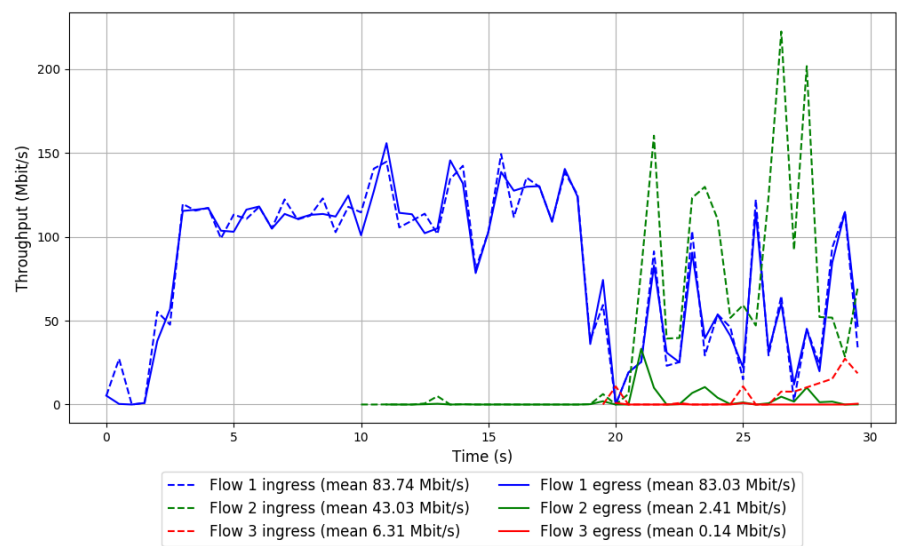
-- Flow 3:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 53.817 ms

Loss rate: 97.86%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-08-12 09:27:18

End at: 2017-08-12 09:27:48

# Below is generated by plot.py at 2017-08-12 12:06:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 139.61 Mbit/s

95th percentile per-packet one-way delay: 76.767 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 108.92 Mbit/s

95th percentile per-packet one-way delay: 82.482 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 46.24 Mbit/s

95th percentile per-packet one-way delay: 56.078 ms

Loss rate: 0.05%

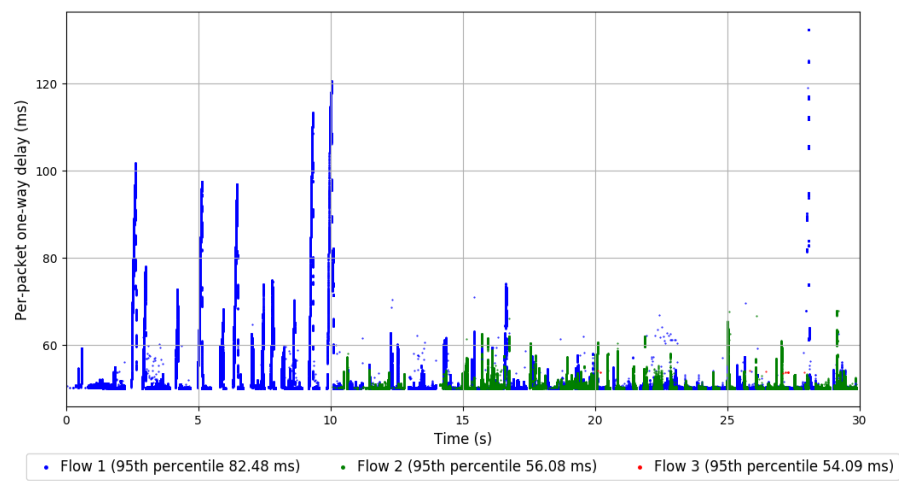
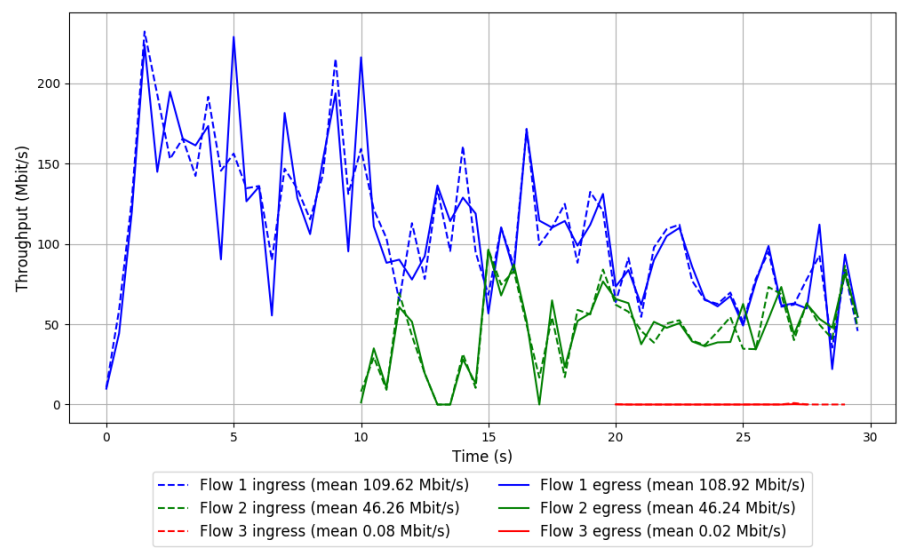
-- Flow 3:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 54.090 ms

Loss rate: 76.56%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-08-12 09:38:33

End at: 2017-08-12 09:39:03

# Below is generated by plot.py at 2017-08-12 12:06:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.49 Mbit/s

95th percentile per-packet one-way delay: 58.001 ms

Loss rate: 32.85%

-- Flow 1:

Average throughput: 19.37 Mbit/s

95th percentile per-packet one-way delay: 54.278 ms

Loss rate: 66.32%

-- Flow 2:

Average throughput: 66.19 Mbit/s

95th percentile per-packet one-way delay: 59.288 ms

Loss rate: 0.59%

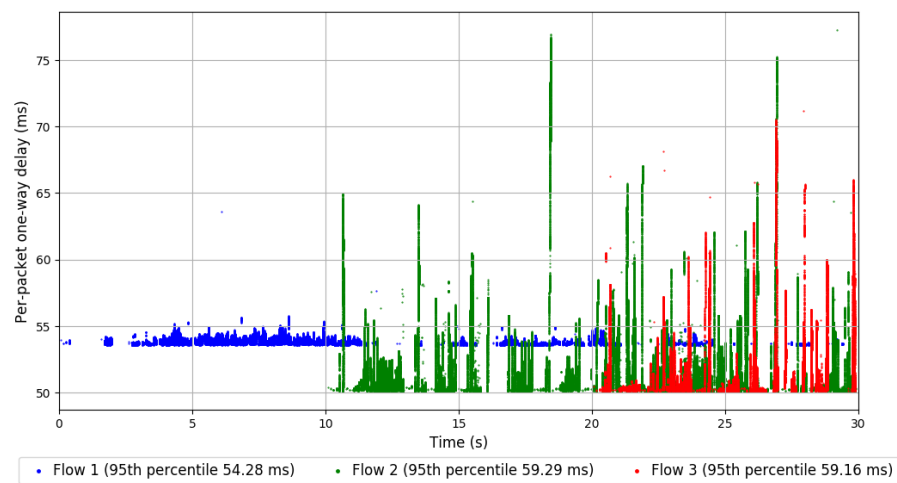
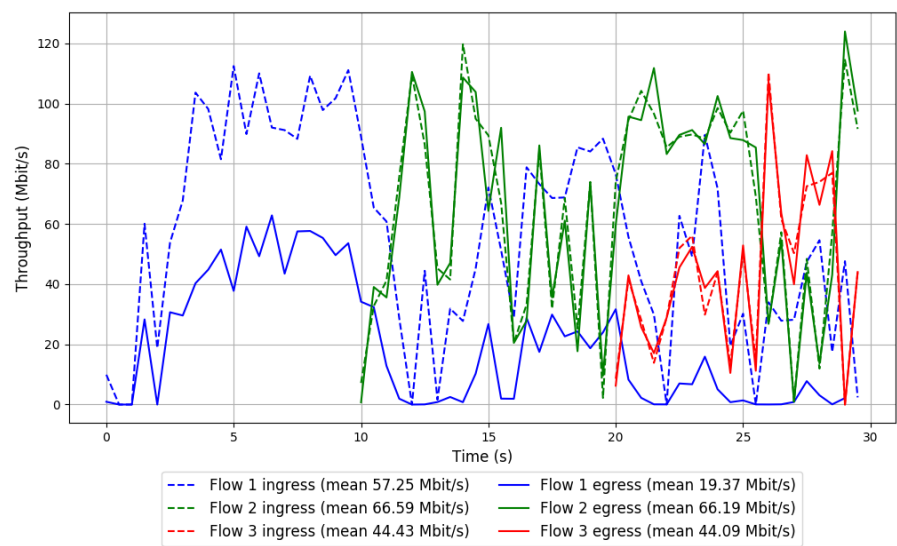
-- Flow 3:

Average throughput: 44.09 Mbit/s

95th percentile per-packet one-way delay: 59.158 ms

Loss rate: 0.76%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-08-12 09:50:00

End at: 2017-08-12 09:50:30

# Below is generated by plot.py at 2017-08-12 12:06:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 74.22 Mbit/s

95th percentile per-packet one-way delay: 56.225 ms

Loss rate: 48.37%

-- Flow 1:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 53.351 ms

Loss rate: 98.18%

-- Flow 2:

Average throughput: 86.23 Mbit/s

95th percentile per-packet one-way delay: 56.843 ms

Loss rate: 0.20%

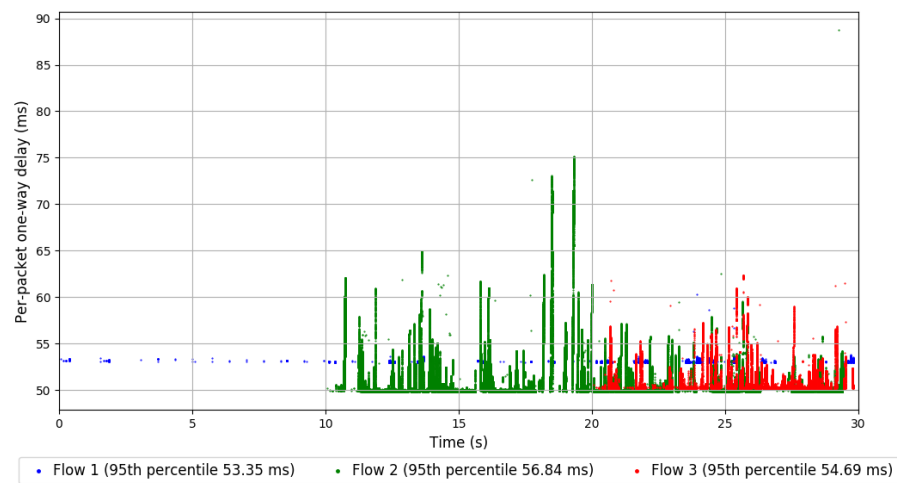
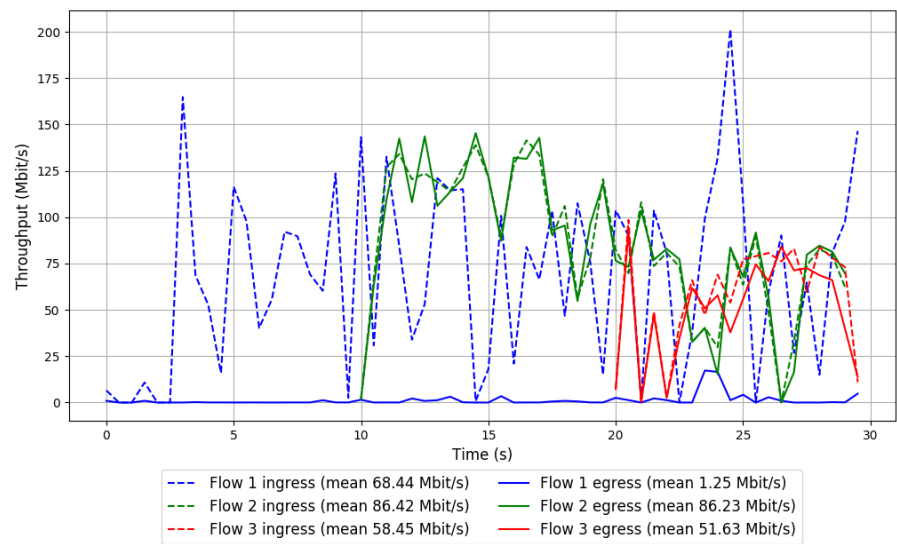
-- Flow 3:

Average throughput: 51.63 Mbit/s

95th percentile per-packet one-way delay: 54.690 ms

Loss rate: 11.67%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-08-12 10:01:14

End at: 2017-08-12 10:01:44

# Below is generated by plot.py at 2017-08-12 12:06:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 75.00 Mbit/s

95th percentile per-packet one-way delay: 58.988 ms

Loss rate: 38.79%

-- Flow 1:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 53.906 ms

Loss rate: 99.37%

-- Flow 2:

Average throughput: 90.65 Mbit/s

95th percentile per-packet one-way delay: 58.777 ms

Loss rate: 0.06%

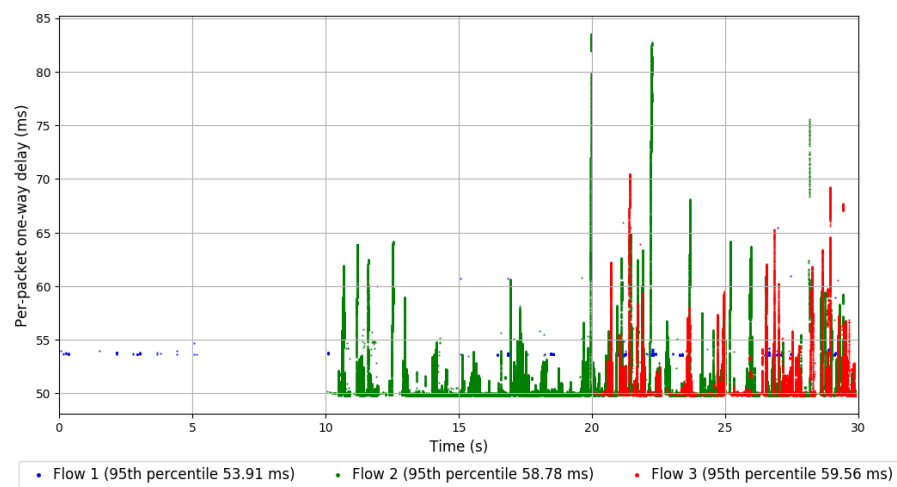
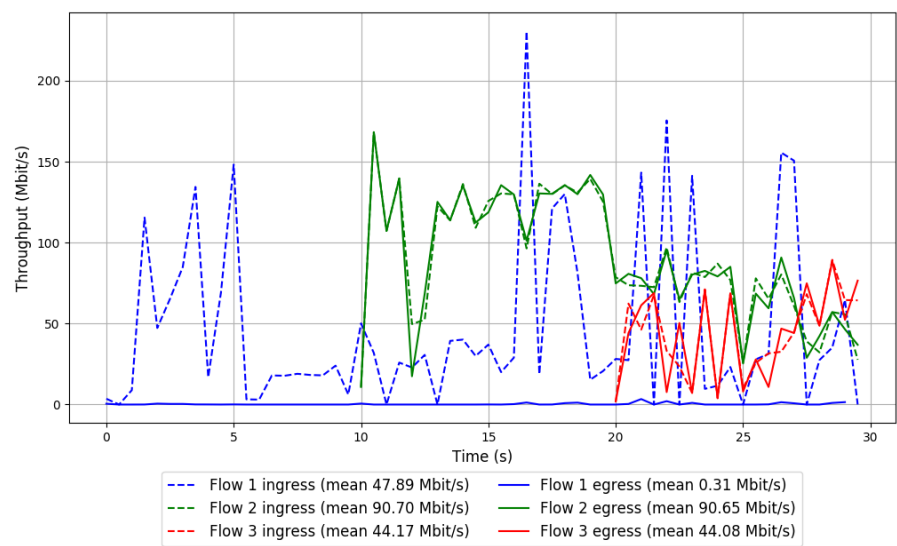
-- Flow 3:

Average throughput: 44.08 Mbit/s

95th percentile per-packet one-way delay: 59.564 ms

Loss rate: 0.20%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-08-12 10:12:00

End at: 2017-08-12 10:12:30

# Below is generated by plot.py at 2017-08-12 12:07:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 139.72 Mbit/s

95th percentile per-packet one-way delay: 67.813 ms

Loss rate: 8.32%

-- Flow 1:

Average throughput: 99.18 Mbit/s

95th percentile per-packet one-way delay: 70.954 ms

Loss rate: 11.01%

-- Flow 2:

Average throughput: 61.00 Mbit/s

95th percentile per-packet one-way delay: 54.994 ms

Loss rate: 0.12%

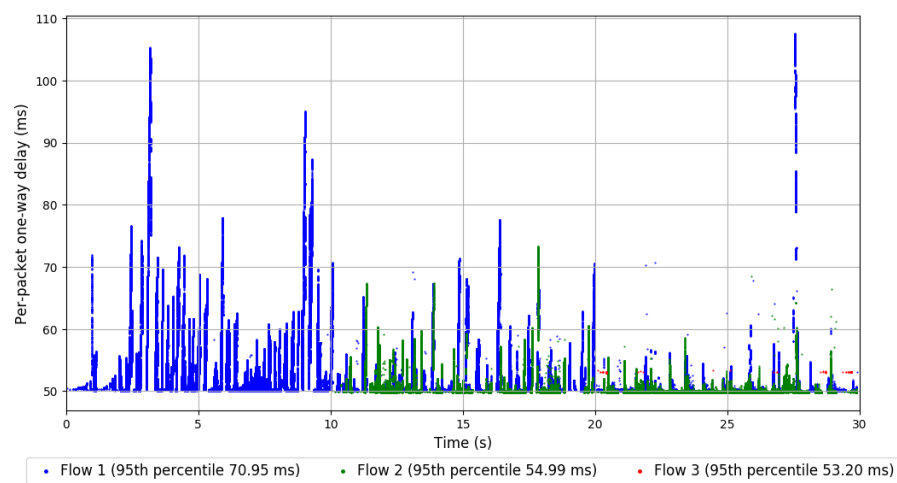
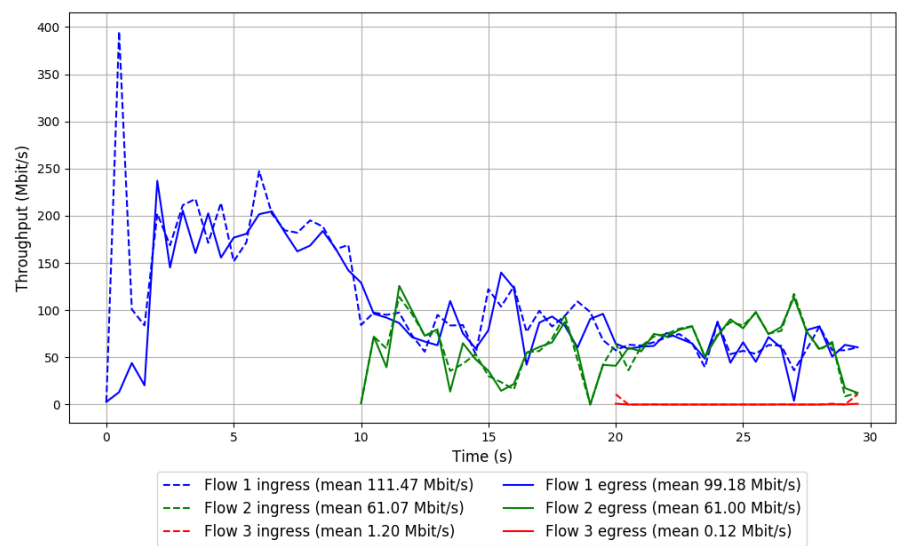
-- Flow 3:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 53.199 ms

Loss rate: 90.34%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-08-12 10:23:28

End at: 2017-08-12 10:23:58

# Below is generated by plot.py at 2017-08-12 12:07:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 133.97 Mbit/s

95th percentile per-packet one-way delay: 60.890 ms

Loss rate: 6.02%

-- Flow 1:

Average throughput: 92.36 Mbit/s

95th percentile per-packet one-way delay: 60.652 ms

Loss rate: 5.16%

-- Flow 2:

Average throughput: 43.58 Mbit/s

95th percentile per-packet one-way delay: 60.722 ms

Loss rate: 9.92%

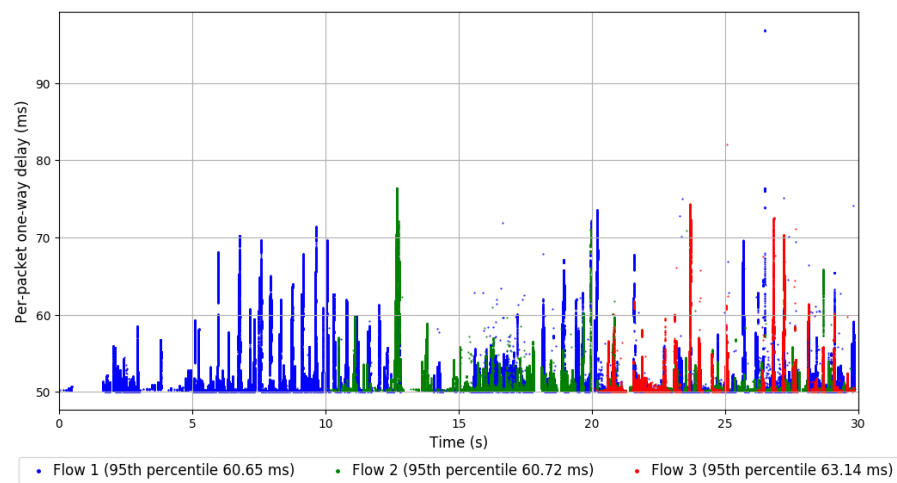
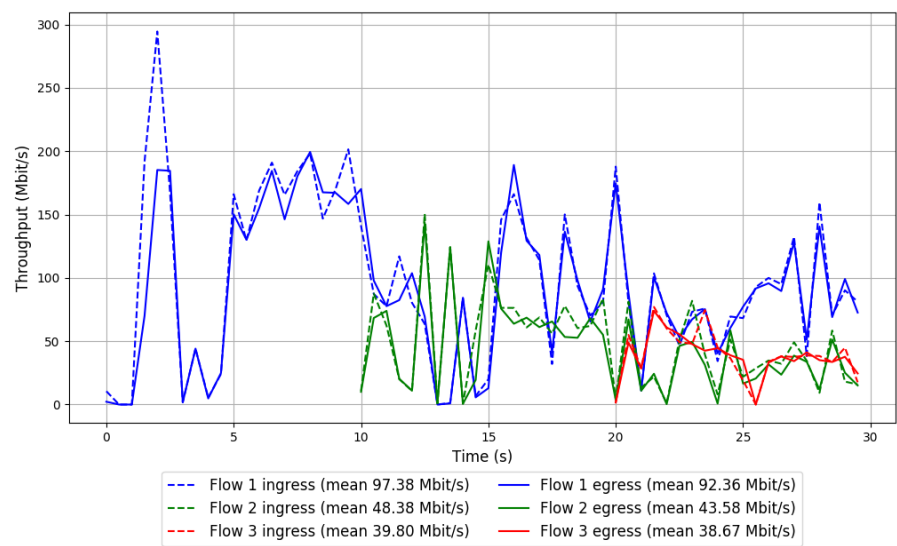
-- Flow 3:

Average throughput: 38.67 Mbit/s

95th percentile per-packet one-way delay: 63.141 ms

Loss rate: 2.82%

Run 10: Report of Verus — Data Link

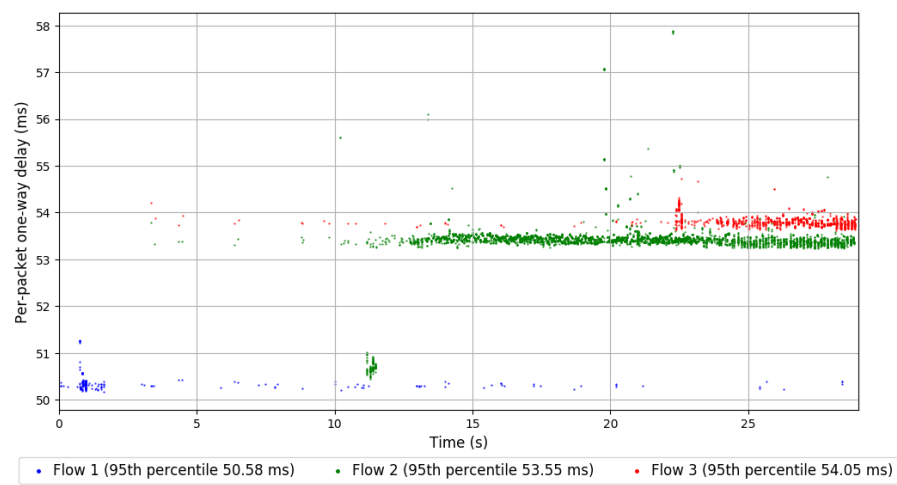
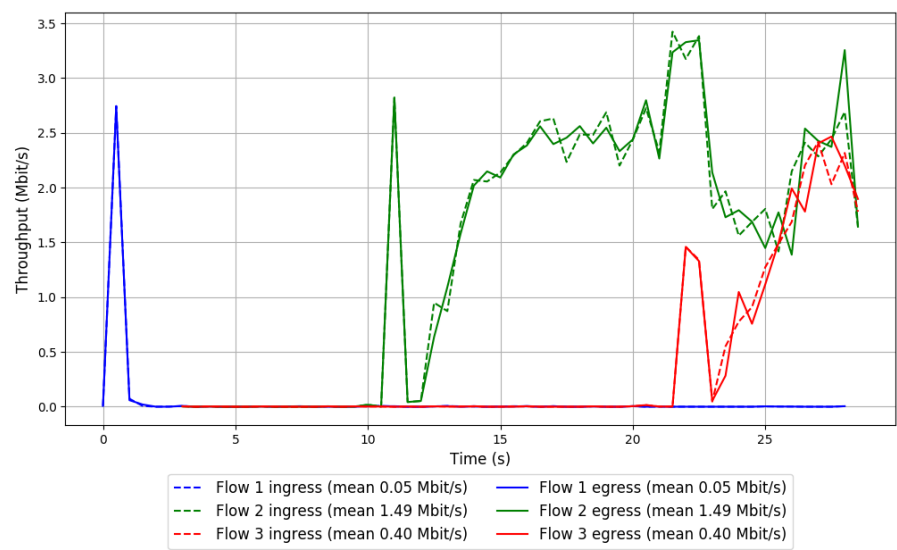


```
Run 1: Statistics of WebRTC media

Start at: 2017-08-12 08:49:45
End at: 2017-08-12 08:50:15

# Below is generated by plot.py at 2017-08-12 12:07:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 53.871 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 50.581 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 53.552 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 54.054 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-08-12 09:00:57

End at: 2017-08-12 09:01:27

# Below is generated by plot.py at 2017-08-12 12:07:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 53.907 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.345 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 53.971 ms

Loss rate: 0.00%

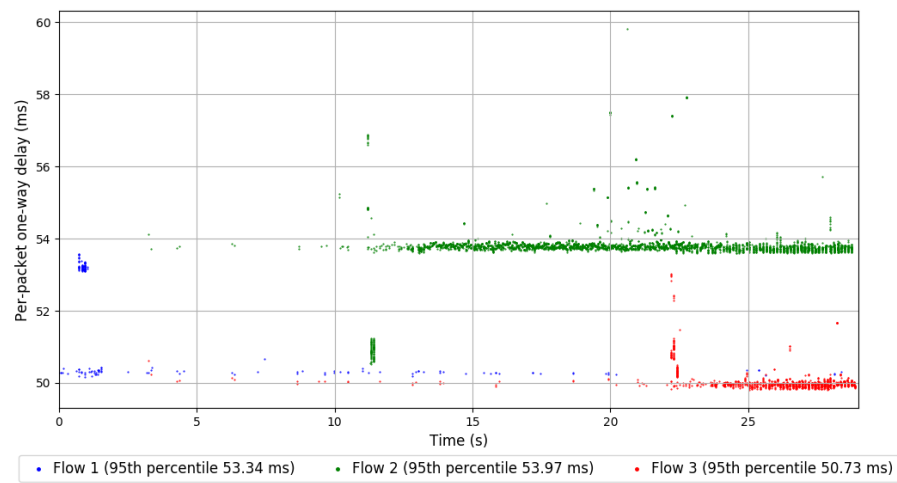
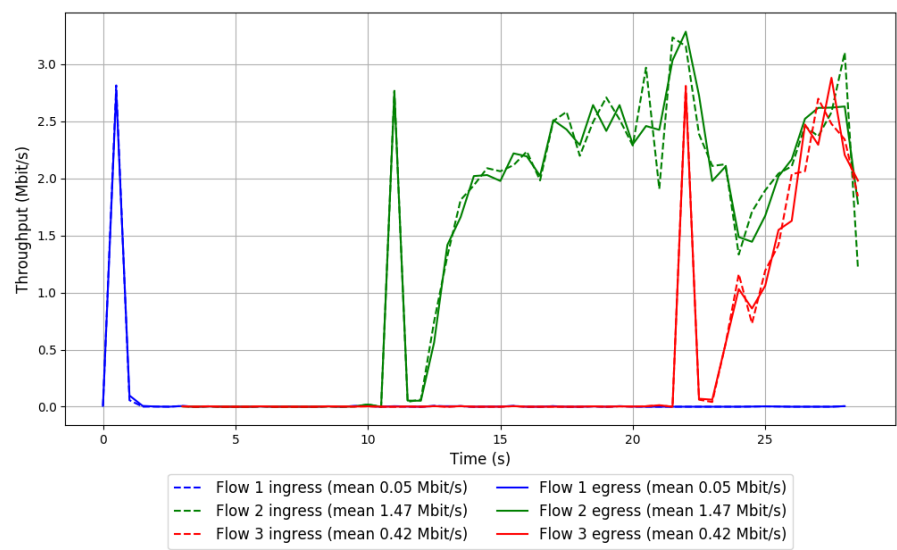
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 50.728 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-12 09:12:13

End at: 2017-08-12 09:12:43

# Below is generated by plot.py at 2017-08-12 12:07:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.67 Mbit/s

95th percentile per-packet one-way delay: 53.894 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 50.632 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 53.921 ms

Loss rate: 0.00%

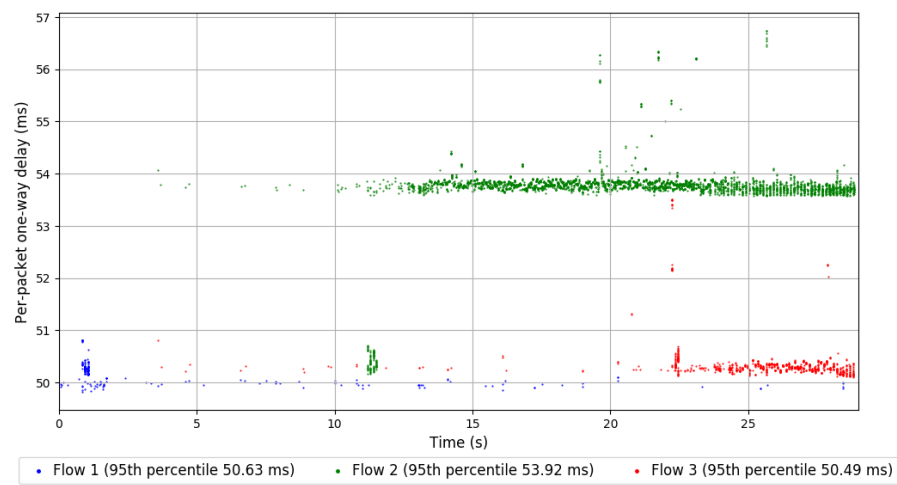
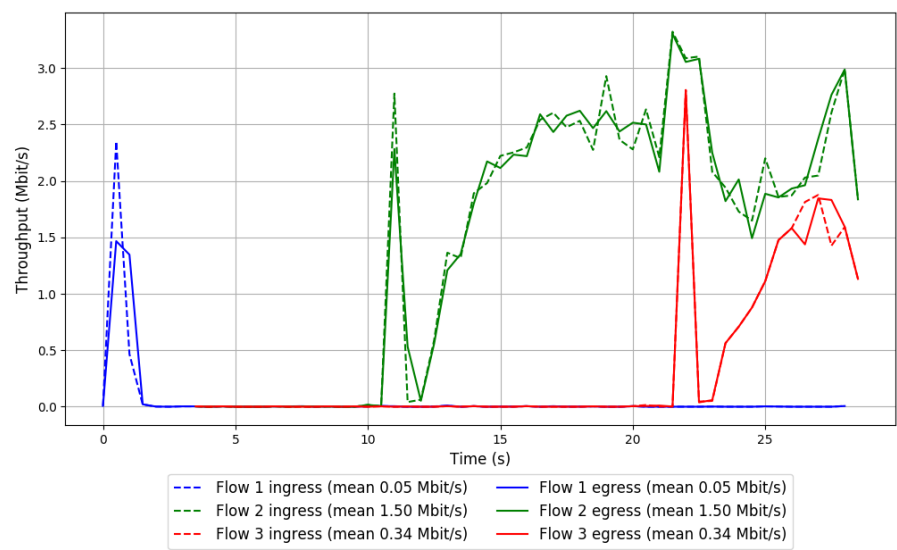
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 50.494 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-08-12 09:23:32

End at: 2017-08-12 09:24:02

# Below is generated by plot.py at 2017-08-12 12:07:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 50.480 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.358 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 50.236 ms

Loss rate: 0.00%

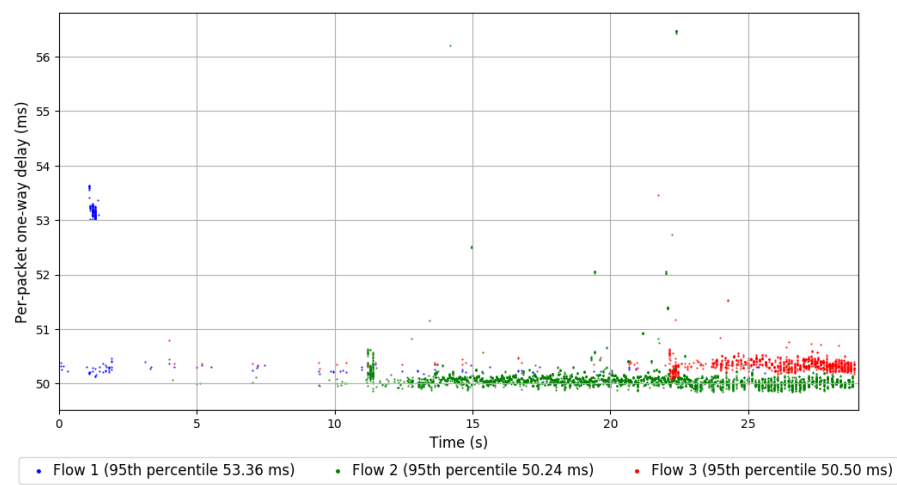
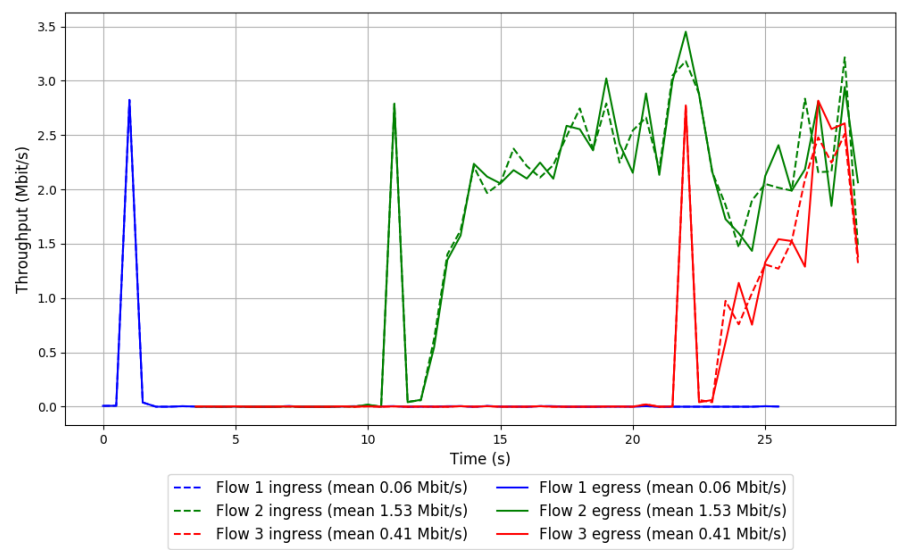
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 50.498 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-08-12 09:34:51

End at: 2017-08-12 09:35:21

# Below is generated by plot.py at 2017-08-12 12:07:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 54.069 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.906 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 54.079 ms

Loss rate: 0.00%

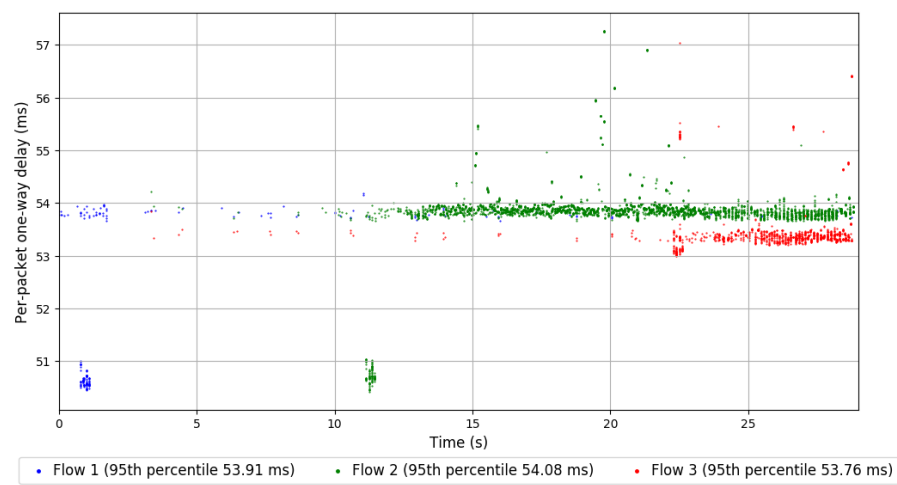
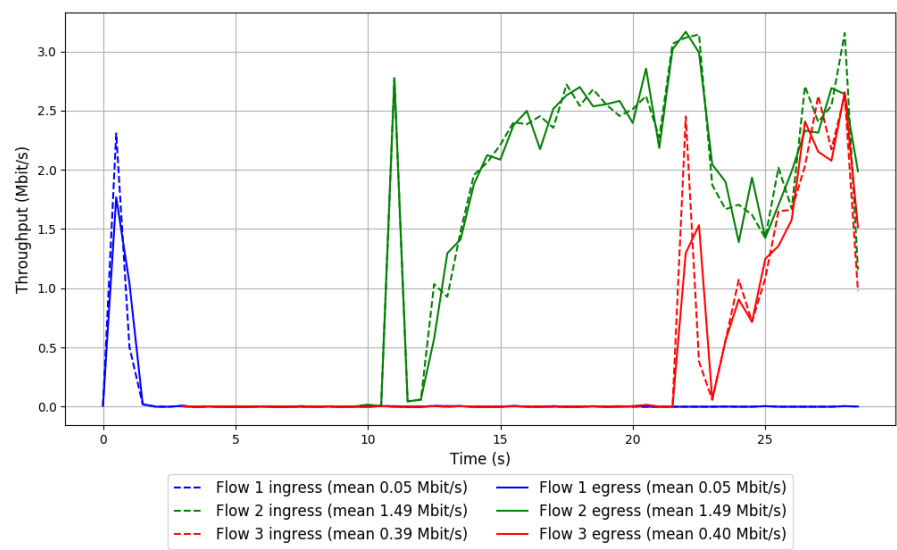
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 53.761 ms

Loss rate: 0.01%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-08-12 09:46:11

End at: 2017-08-12 09:46:41

# Below is generated by plot.py at 2017-08-12 12:07:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 53.247 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.755 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 53.235 ms

Loss rate: 0.00%

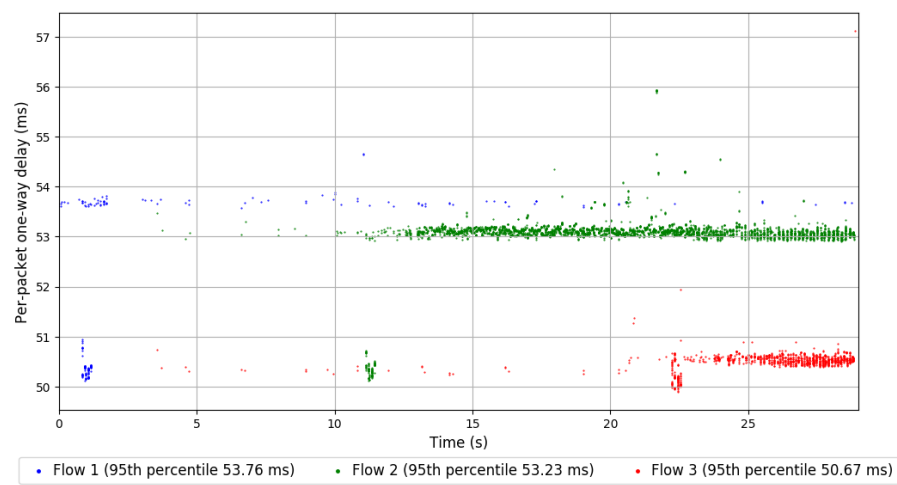
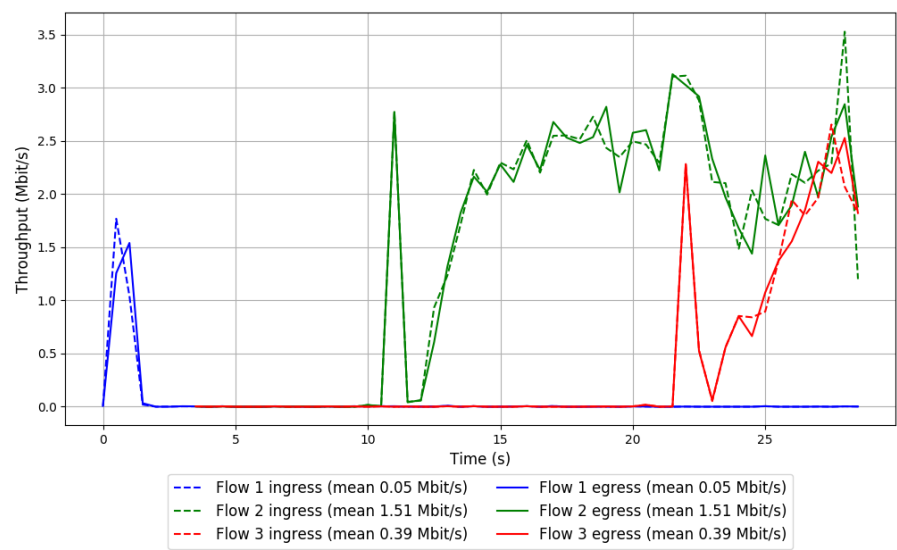
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 50.669 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-08-12 09:57:35

End at: 2017-08-12 09:58:05

# Below is generated by plot.py at 2017-08-12 12:07:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 53.105 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.130 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 50.900 ms

Loss rate: 0.00%

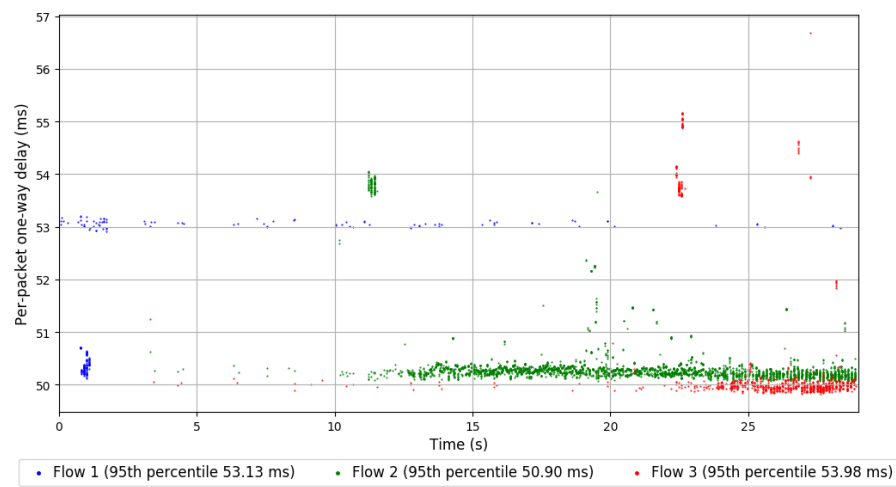
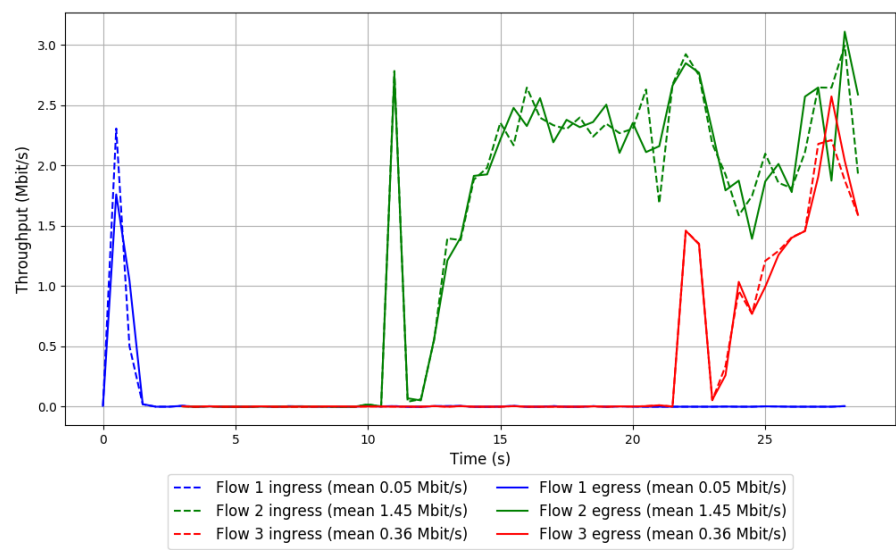
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 53.984 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-12 10:08:25

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

# Below is generated by plot.py at 2017-08-12 12:07:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 53.665 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 50.725 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 50.119 ms

Loss rate: 0.00%

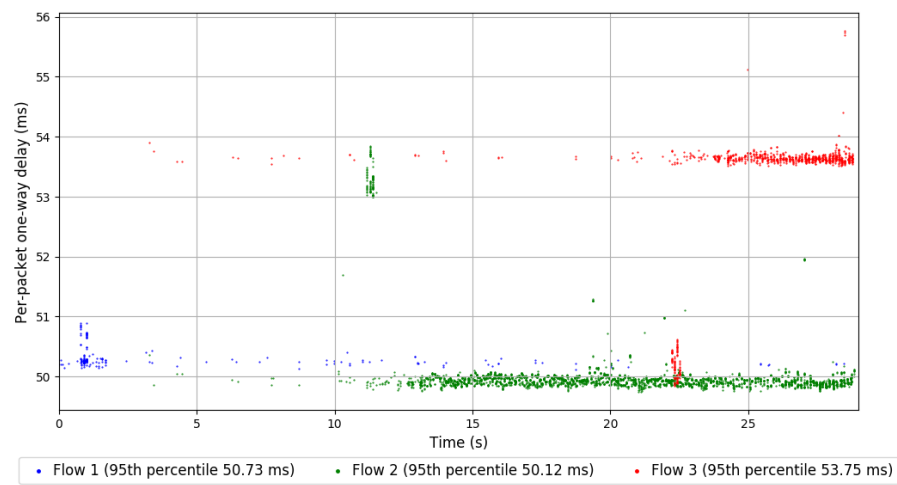
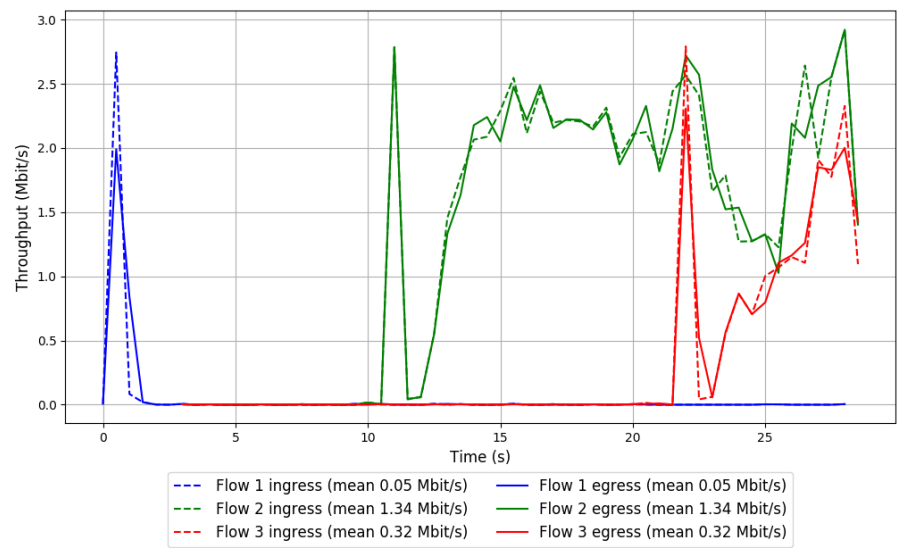
-- Flow 3:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 53.747 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-08-12 10:19:37

End at: 2017-08-12 10:20:07

# Below is generated by plot.py at 2017-08-12 12:07:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 53.583 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.969 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 50.726 ms

Loss rate: 0.00%

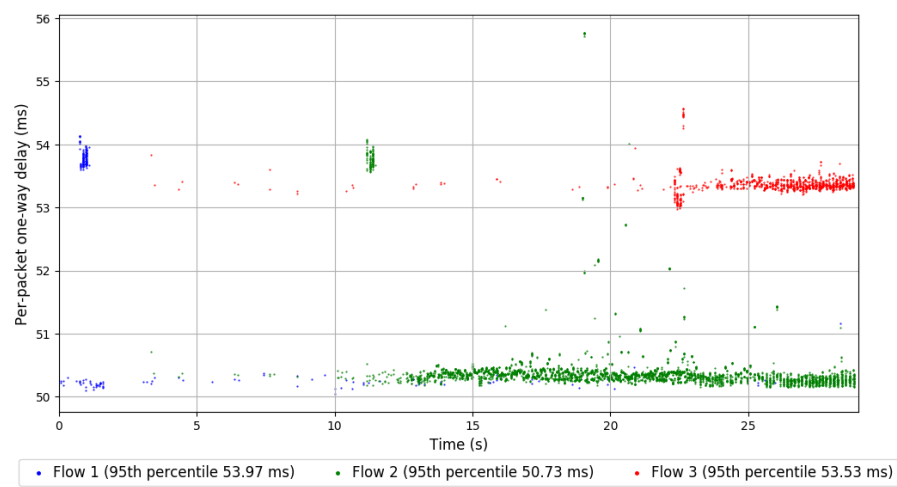
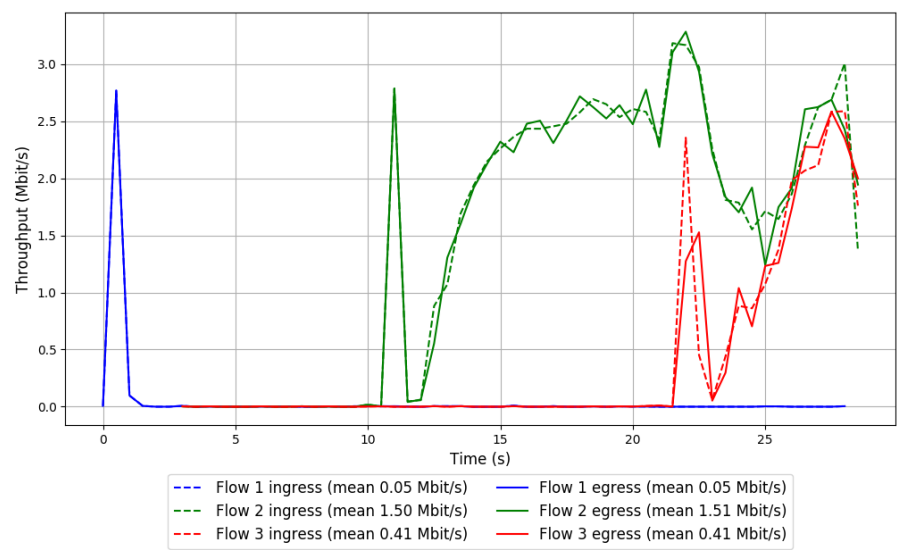
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 53.526 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-12 10:30:52

End at: 2017-08-12 10:31:22

# Below is generated by plot.py at 2017-08-12 12:07:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 53.141 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.800 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 50.463 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 53.147 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

