

Pantheon Report

Generated at 2018-01-17 23:45:48 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

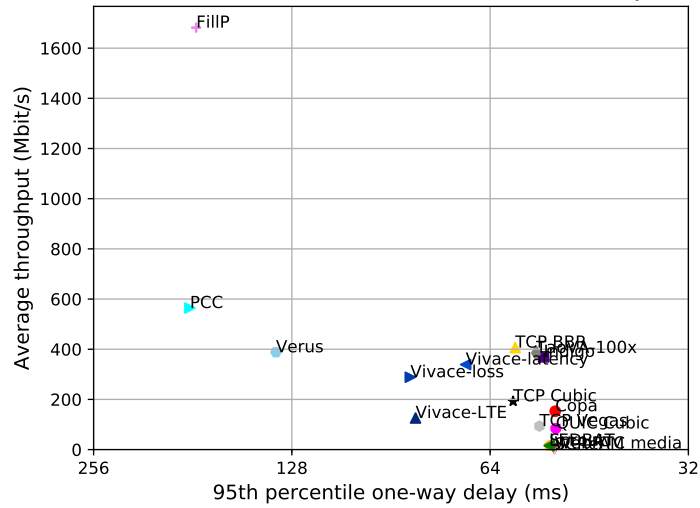
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

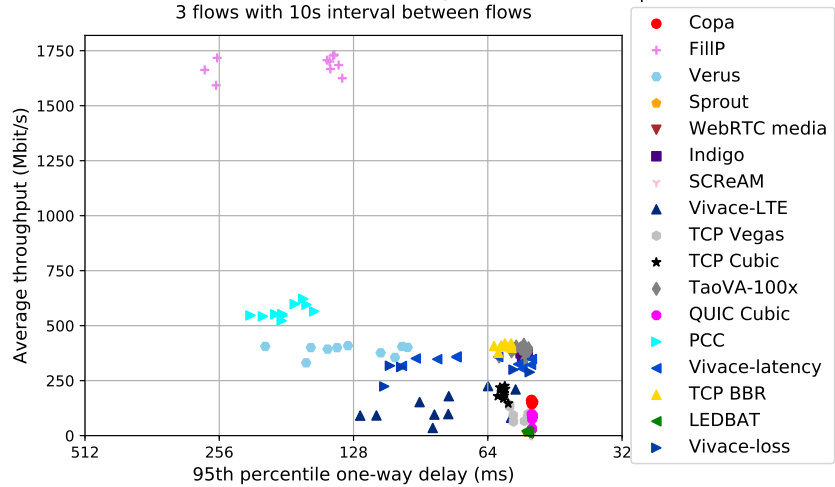
Git summary:

```
branch: master @ 54510ce29f849c716ac5c8199ca1604b6abdfbc3
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
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 @ f1a14bffe749737437f61b1eaeeb30b267cde681
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/vivace @ 423cbca3e8ea1d599e7b5cf725835e8a2b6bfac6
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from GCE London Ethernet to GCE Iowa 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	204.79	207.29	193.94	57.64	58.96	59.99	0.57	0.70	1.29
TCP Cubic	10	85.32	101.58	120.46	58.44	58.16	60.00	0.92	0.76	1.40
LEDBAT	6	7.28	9.56	6.51	51.92	52.23	51.97	1.41	1.86	2.68
PCC	10	522.58	49.17	27.42	183.13	169.44	142.88	3.30	3.76	4.42
QUIC Cubic	10	50.88	39.47	21.81	50.65	50.67	50.62	0.42	0.79	1.34
SCReAM	10	0.22	0.22	0.22	50.96	50.80	50.87	0.30	0.42	0.85
WebRTC media	10	2.25	1.44	0.60	50.96	51.11	51.04	0.40	0.57	1.58
Sprout	10	7.71	7.55	7.36	52.00	52.03	51.96	1.19	1.19	1.58
TaoVA-100x	10	209.95	203.70	159.56	53.88	55.52	53.75	0.38	0.53	2.06
TCP Vegas	10	48.98	44.68	45.45	53.01	53.58	53.11	0.71	0.83	1.85
Verus	10	217.05	203.48	109.38	131.31	134.03	132.75	1.33	1.49	2.67
Copa	10	80.92	74.94	85.25	50.94	50.86	50.79	0.26	0.45	1.41
FillP	10	882.48	849.80	713.05	163.13	152.86	185.64	6.00	6.89	12.95
Indigo	10	185.88	188.38	182.21	52.69	53.41	53.62	0.57	0.57	1.16
Vivace-latency	10	195.06	181.02	70.20	70.33	70.86	52.16	0.40	0.70	2.32
Vivace-loss	5	132.33	154.04	128.20	807.06	72.71	75.07	0.68	0.77	2.19
Vivace-LTE	10	47.08	67.22	104.86	80.98	88.71	71.66	1.32	0.70	0.79

Run 1: Statistics of TCP BBR

Start at: 2018-01-17 15:39:42

End at: 2018-01-17 15:40:12

Below is generated by plot.py at 2018-01-17 21:34:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 407.49 Mbit/s

95th percentile per-packet one-way delay: 61.976 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 203.39 Mbit/s

95th percentile per-packet one-way delay: 61.269 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 209.73 Mbit/s

95th percentile per-packet one-way delay: 61.936 ms

Loss rate: 0.60%

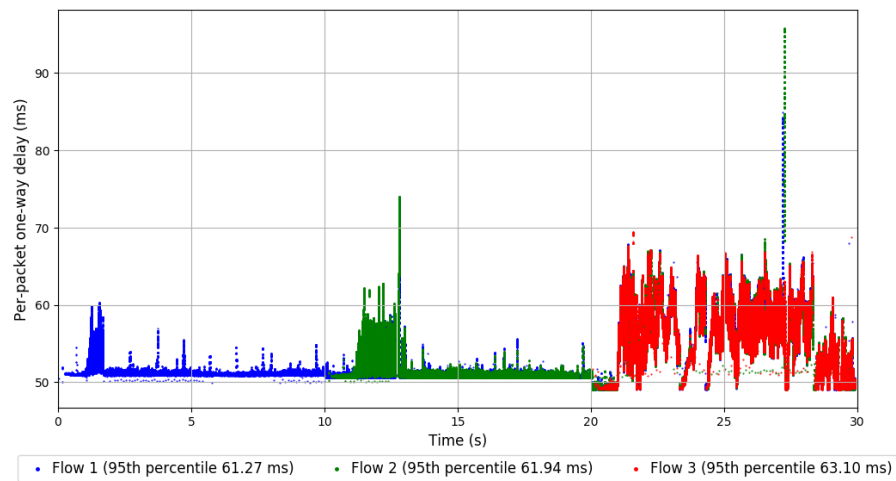
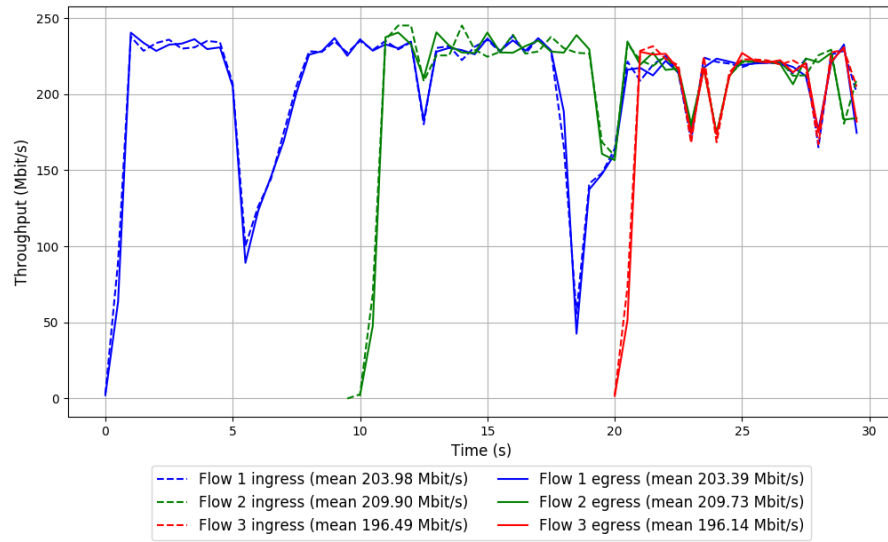
-- Flow 3:

Average throughput: 196.14 Mbit/s

95th percentile per-packet one-way delay: 63.102 ms

Loss rate: 1.21%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-01-17 15:57:06

End at: 2018-01-17 15:57:36

Below is generated by plot.py at 2018-01-17 21:34:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 406.32 Mbit/s

95th percentile per-packet one-way delay: 59.868 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 205.09 Mbit/s

95th percentile per-packet one-way delay: 58.334 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 209.89 Mbit/s

95th percentile per-packet one-way delay: 59.868 ms

Loss rate: 0.61%

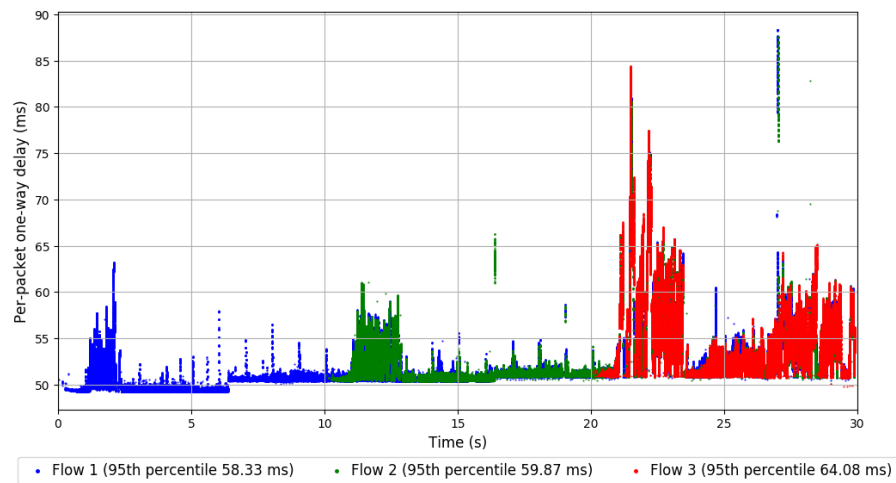
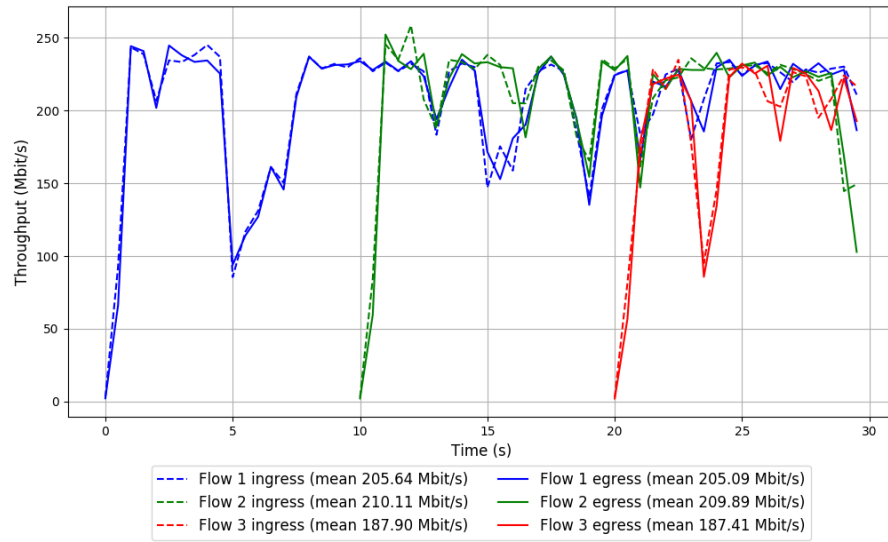
-- Flow 3:

Average throughput: 187.41 Mbit/s

95th percentile per-packet one-way delay: 64.083 ms

Loss rate: 1.29%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-01-17 16:14:39

End at: 2018-01-17 16:15:09

Below is generated by plot.py at 2018-01-17 21:34:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 399.45 Mbit/s

95th percentile per-packet one-way delay: 56.655 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 204.61 Mbit/s

95th percentile per-packet one-way delay: 55.699 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 194.49 Mbit/s

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

Loss rate: 0.93%

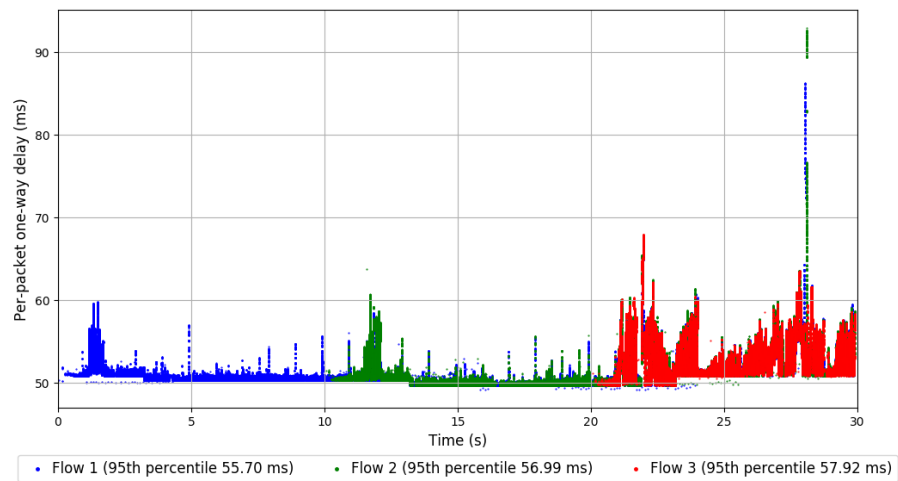
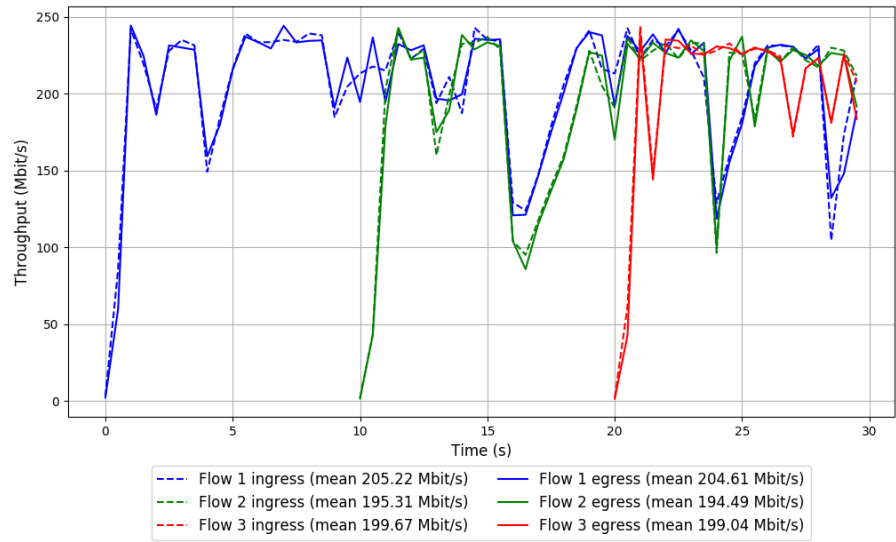
-- Flow 3:

Average throughput: 199.04 Mbit/s

95th percentile per-packet one-way delay: 57.920 ms

Loss rate: 1.23%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-01-17 16:32:11

End at: 2018-01-17 16:32:41

Below is generated by plot.py at 2018-01-17 21:34:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 376.79 Mbit/s

95th percentile per-packet one-way delay: 60.556 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 183.66 Mbit/s

95th percentile per-packet one-way delay: 59.656 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 191.38 Mbit/s

95th percentile per-packet one-way delay: 61.059 ms

Loss rate: 0.94%

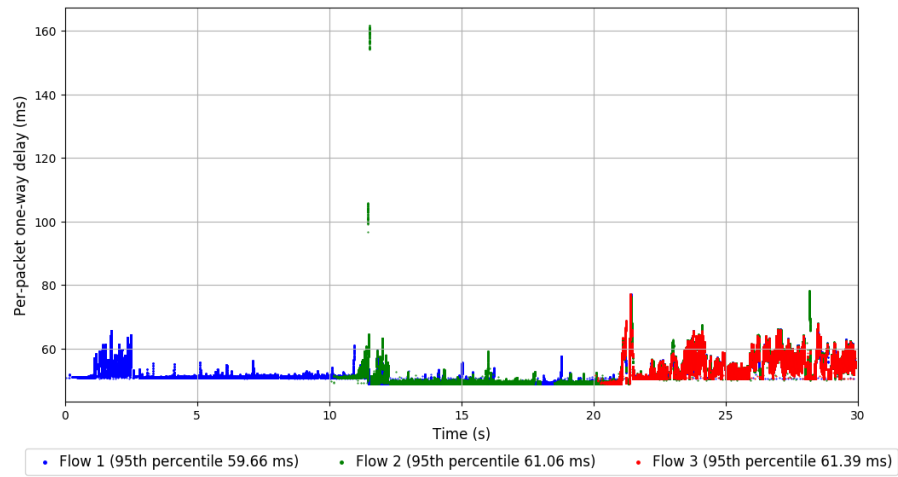
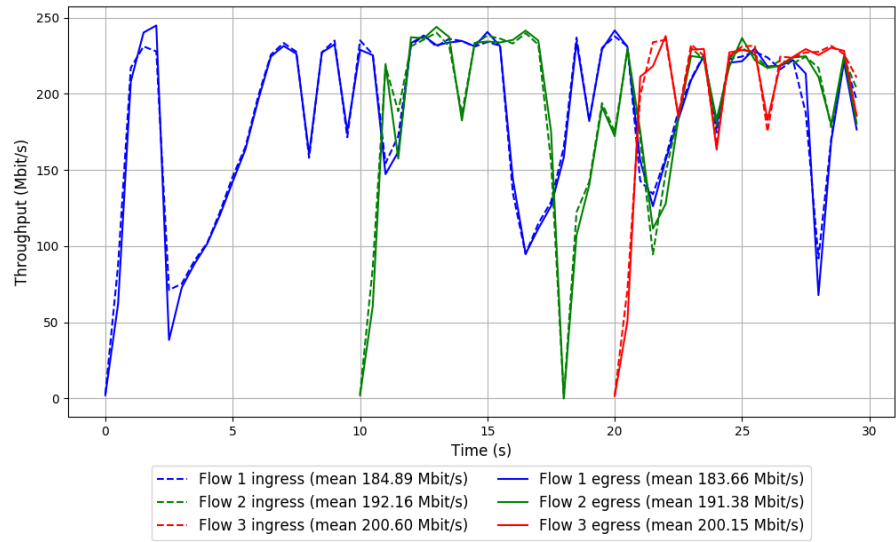
-- Flow 3:

Average throughput: 200.15 Mbit/s

95th percentile per-packet one-way delay: 61.387 ms

Loss rate: 1.25%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-01-17 16:49:45

End at: 2018-01-17 16:50:15

Below is generated by plot.py at 2018-01-17 21:34:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 408.36 Mbit/s

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

Loss rate: 0.68%

-- Flow 1:

Average throughput: 209.19 Mbit/s

95th percentile per-packet one-way delay: 56.411 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 212.67 Mbit/s

95th percentile per-packet one-way delay: 57.900 ms

Loss rate: 0.66%

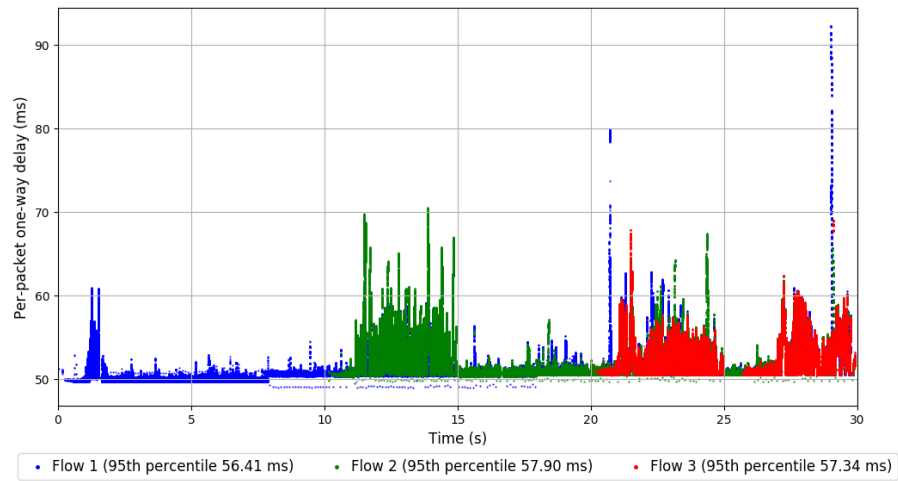
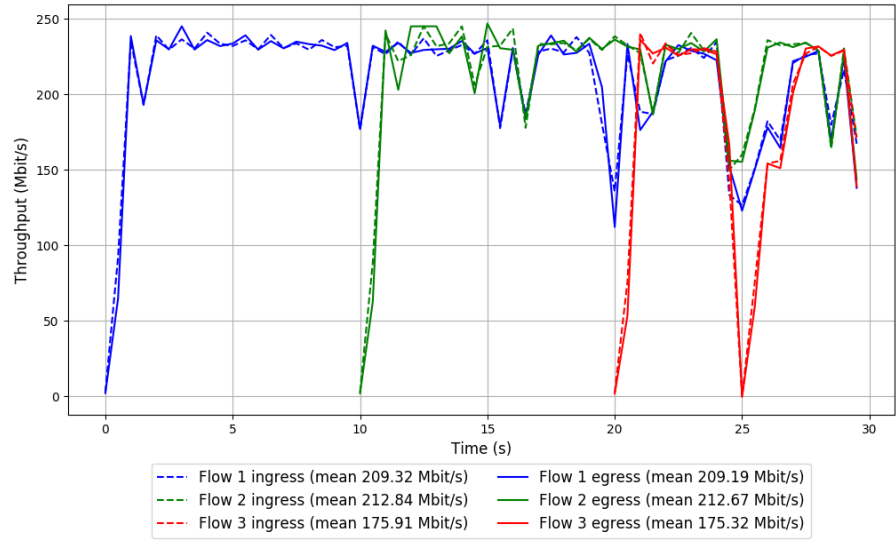
-- Flow 3:

Average throughput: 175.32 Mbit/s

95th percentile per-packet one-way delay: 57.345 ms

Loss rate: 1.53%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-01-17 17:07:34

End at: 2018-01-17 17:08:04

Below is generated by plot.py at 2018-01-17 21:34:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 409.87 Mbit/s

95th percentile per-packet one-way delay: 59.675 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 203.95 Mbit/s

95th percentile per-packet one-way delay: 58.637 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 211.80 Mbit/s

95th percentile per-packet one-way delay: 59.804 ms

Loss rate: 0.59%

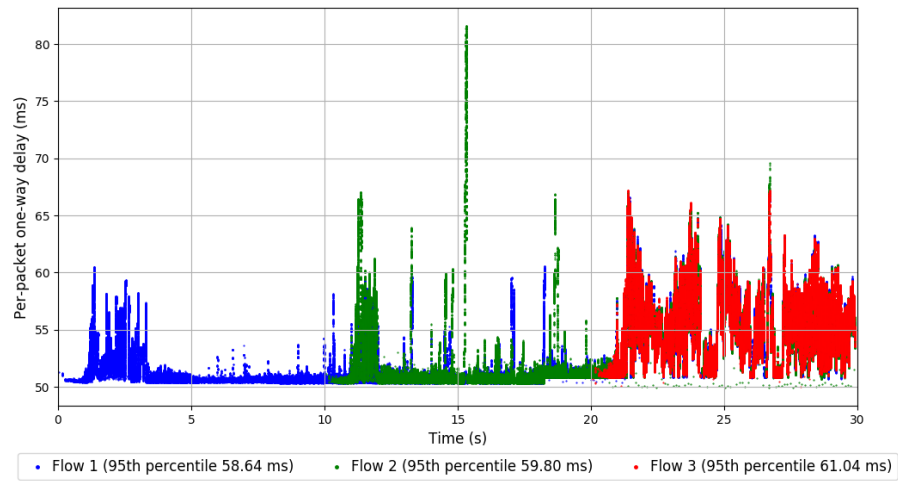
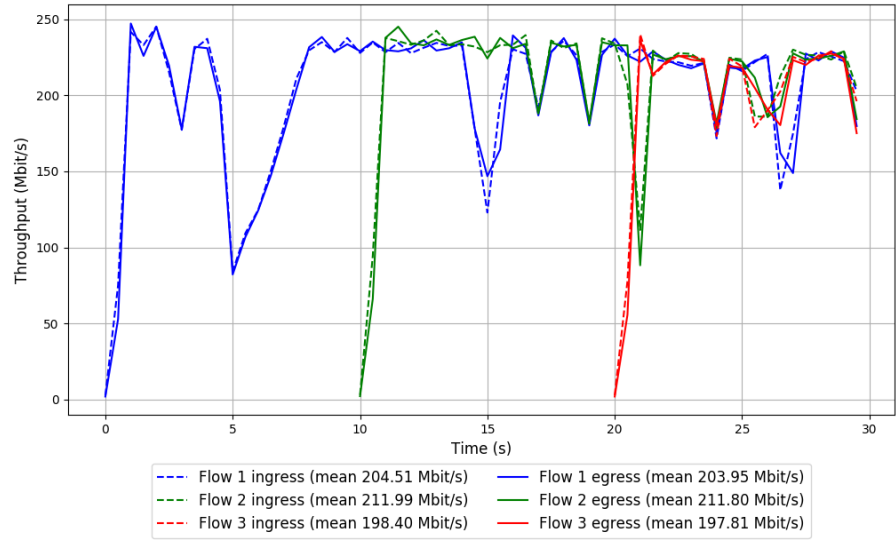
-- Flow 3:

Average throughput: 197.81 Mbit/s

95th percentile per-packet one-way delay: 61.041 ms

Loss rate: 1.18%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-01-17 17:25:17

End at: 2018-01-17 17:25:47

Below is generated by plot.py at 2018-01-17 21:34:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 419.59 Mbit/s

95th percentile per-packet one-way delay: 58.594 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 209.10 Mbit/s

95th percentile per-packet one-way delay: 57.621 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 214.12 Mbit/s

95th percentile per-packet one-way delay: 58.634 ms

Loss rate: 0.58%

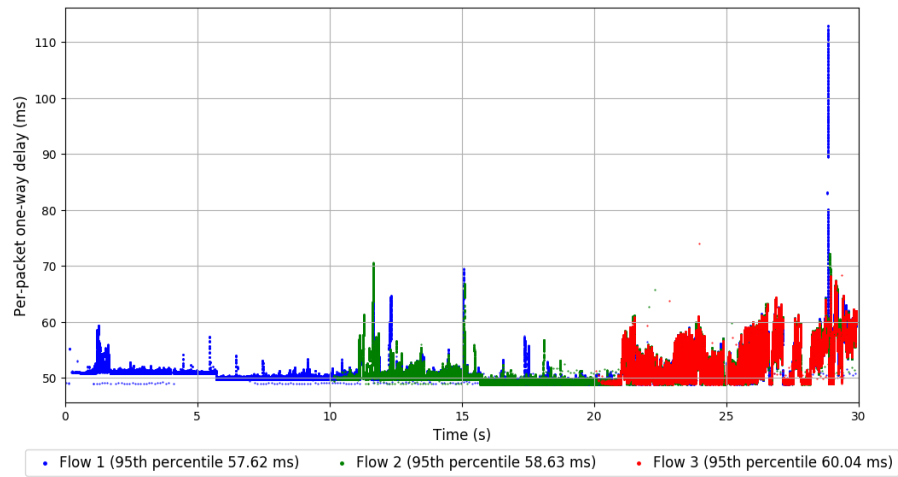
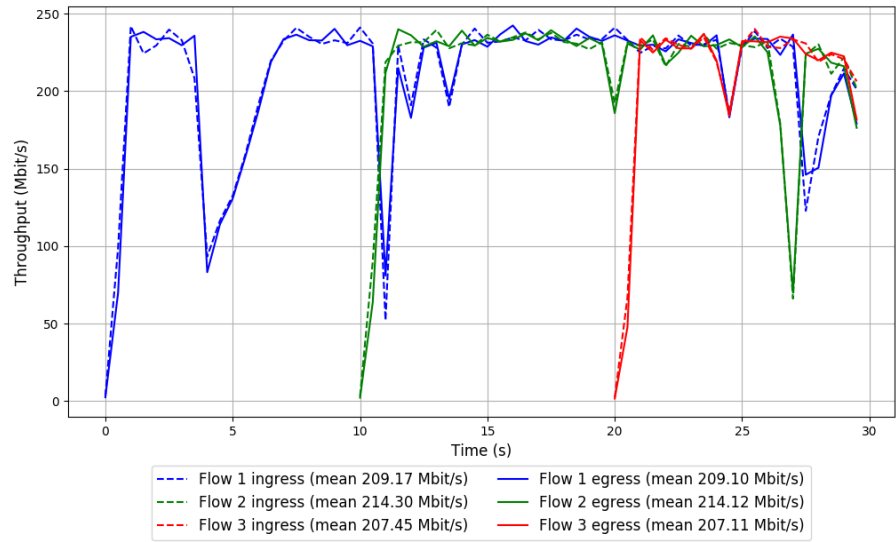
-- Flow 3:

Average throughput: 207.11 Mbit/s

95th percentile per-packet one-way delay: 60.038 ms

Loss rate: 1.17%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-01-17 17:42:34

End at: 2018-01-17 17:43:04

Below is generated by plot.py at 2018-01-17 21:34:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 419.57 Mbit/s

95th percentile per-packet one-way delay: 56.726 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 212.28 Mbit/s

95th percentile per-packet one-way delay: 55.952 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 212.22 Mbit/s

95th percentile per-packet one-way delay: 56.861 ms

Loss rate: 0.58%

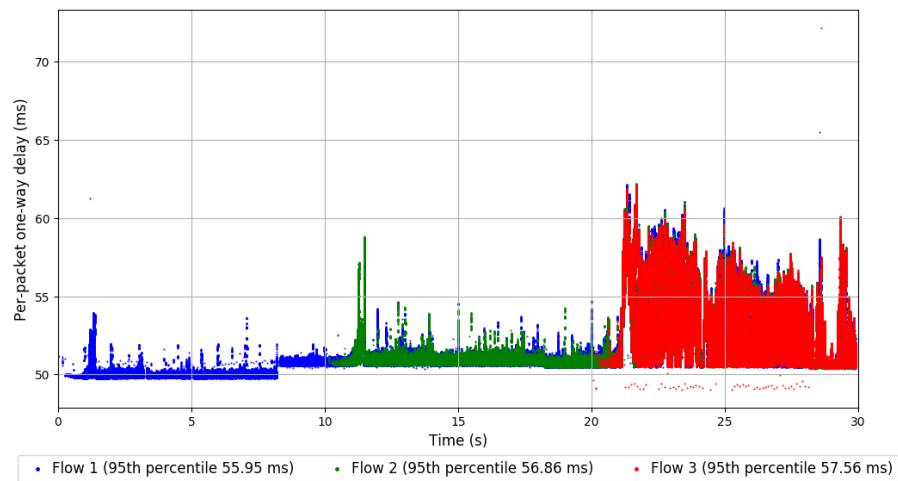
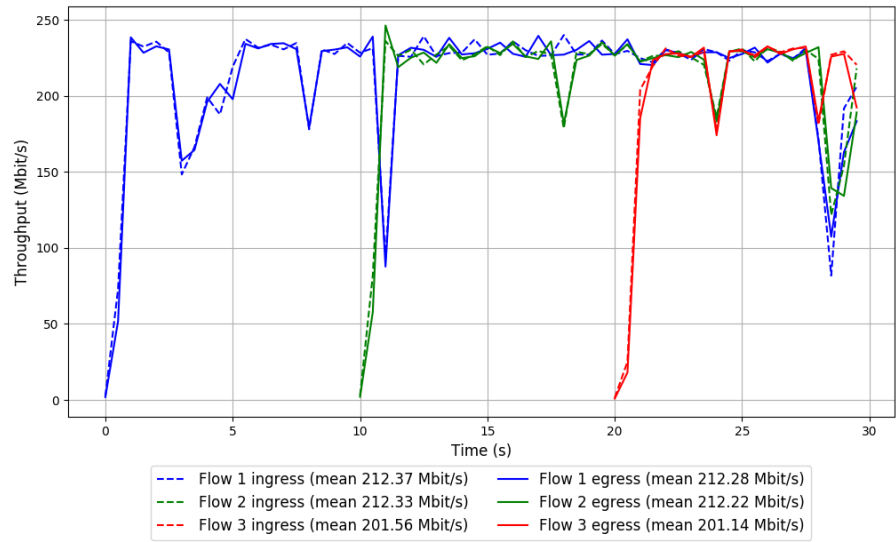
-- Flow 3:

Average throughput: 201.14 Mbit/s

95th percentile per-packet one-way delay: 57.565 ms

Loss rate: 1.32%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-01-17 18:00:14

End at: 2018-01-17 18:00:44

Below is generated by plot.py at 2018-01-17 21:41:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 406.85 Mbit/s

95th percentile per-packet one-way delay: 58.266 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 209.15 Mbit/s

95th percentile per-packet one-way delay: 56.539 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 203.53 Mbit/s

95th percentile per-packet one-way delay: 59.679 ms

Loss rate: 0.92%

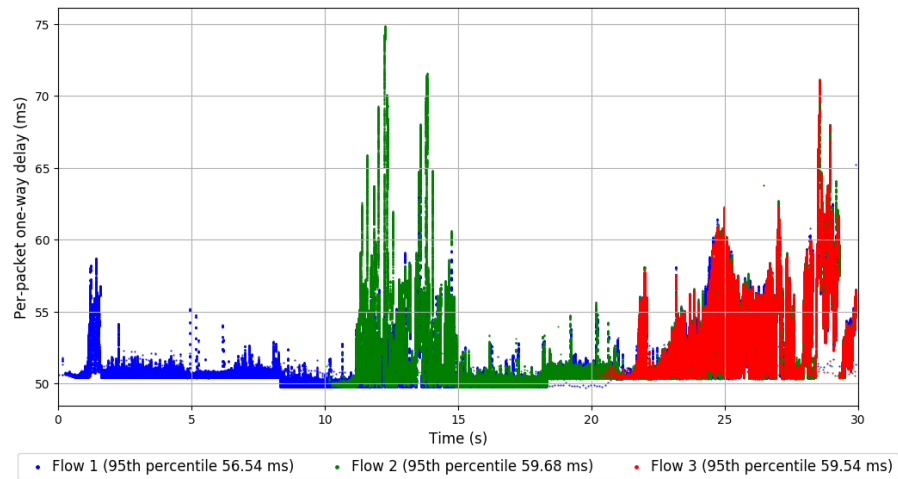
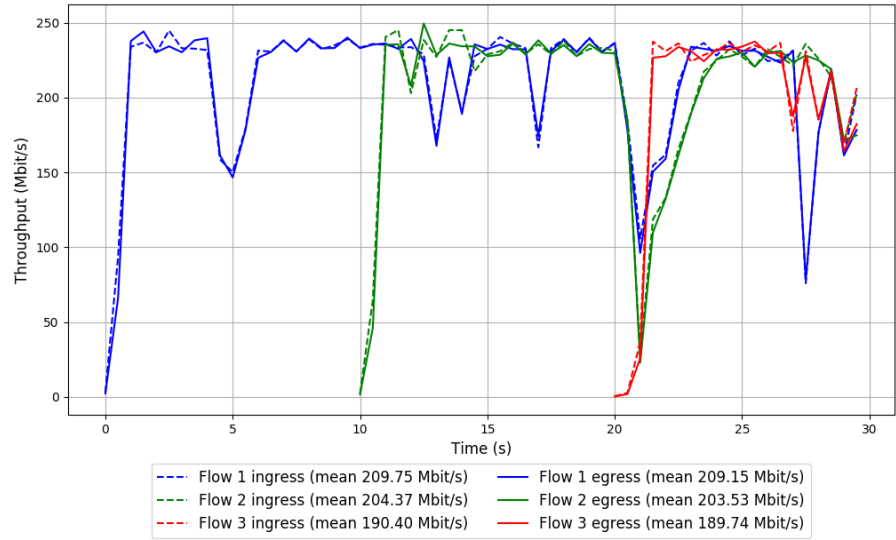
-- Flow 3:

Average throughput: 189.74 Mbit/s

95th percentile per-packet one-way delay: 59.538 ms

Loss rate: 1.38%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-01-17 18:18:12

End at: 2018-01-17 18:18:42

Below is generated by plot.py at 2018-01-17 21:41:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 410.12 Mbit/s

95th percentile per-packet one-way delay: 56.789 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 207.49 Mbit/s

95th percentile per-packet one-way delay: 56.268 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 213.05 Mbit/s

95th percentile per-packet one-way delay: 56.868 ms

Loss rate: 0.62%

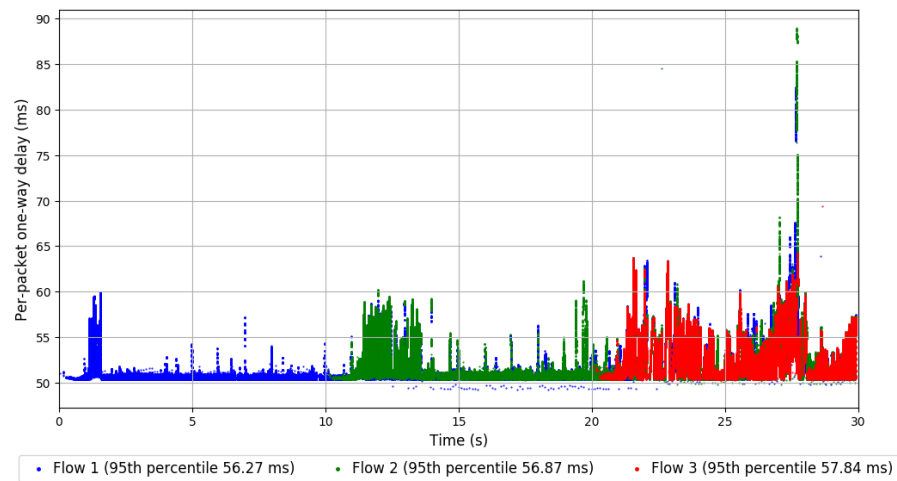
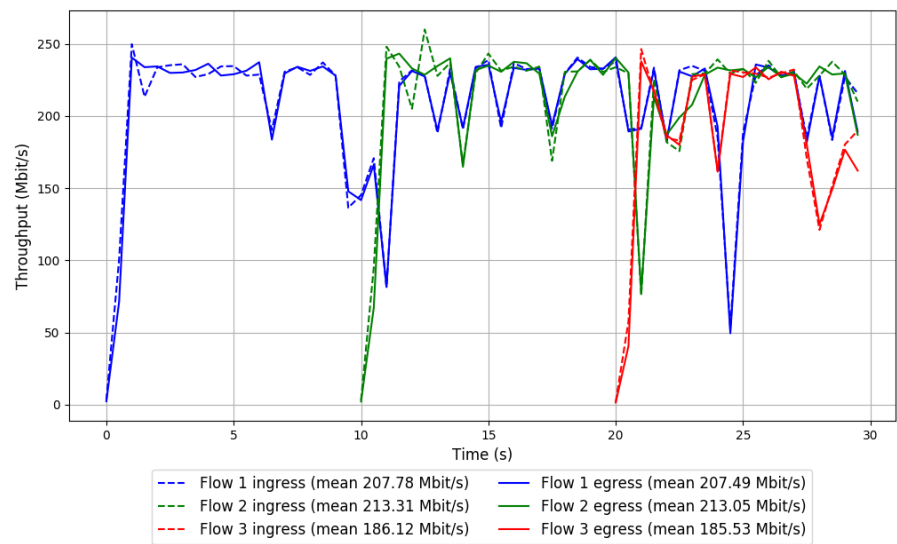
-- Flow 3:

Average throughput: 185.53 Mbit/s

95th percentile per-packet one-way delay: 57.836 ms

Loss rate: 1.34%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-01-17 15:32:37

End at: 2018-01-17 15:33:07

Below is generated by plot.py at 2018-01-17 21:41:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 192.84 Mbit/s

95th percentile per-packet one-way delay: 58.814 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 76.07 Mbit/s

95th percentile per-packet one-way delay: 60.022 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 120.59 Mbit/s

95th percentile per-packet one-way delay: 57.604 ms

Loss rate: 1.00%

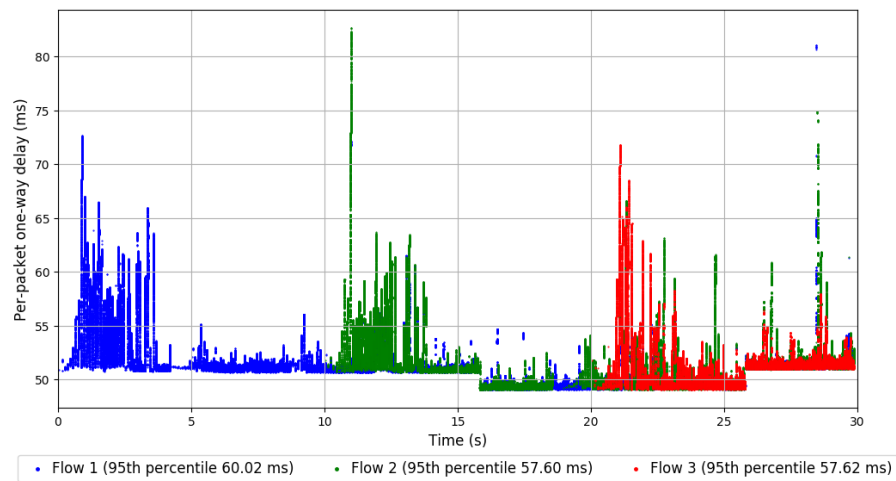
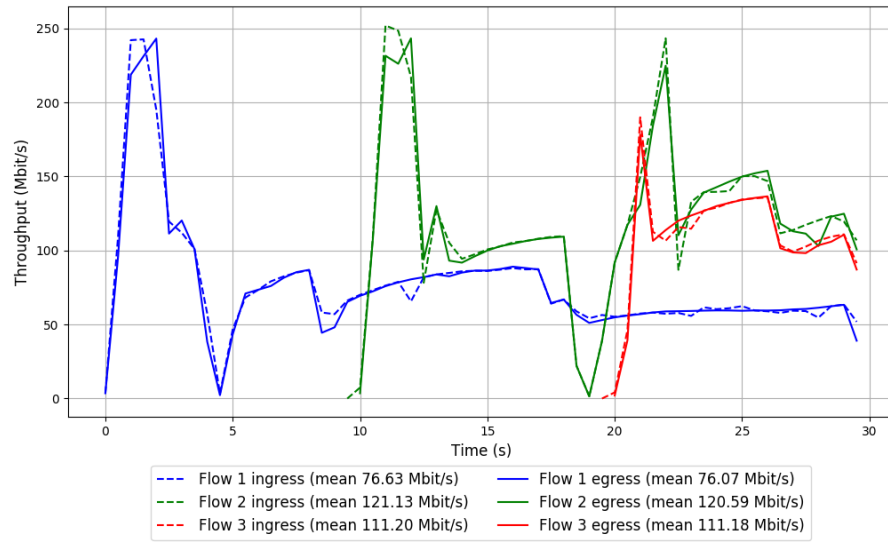
-- Flow 3:

Average throughput: 111.18 Mbit/s

95th percentile per-packet one-way delay: 57.623 ms

Loss rate: 1.03%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-01-17 15:49:54

End at: 2018-01-17 15:50:24

Below is generated by plot.py at 2018-01-17 21:41:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 169.19 Mbit/s

95th percentile per-packet one-way delay: 59.039 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 74.17 Mbit/s

95th percentile per-packet one-way delay: 59.415 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 100.20 Mbit/s

95th percentile per-packet one-way delay: 59.796 ms

Loss rate: 0.82%

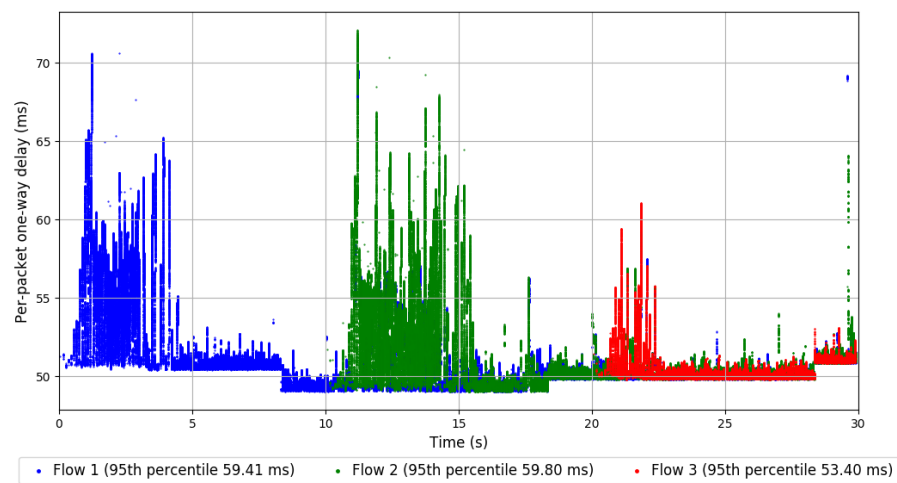
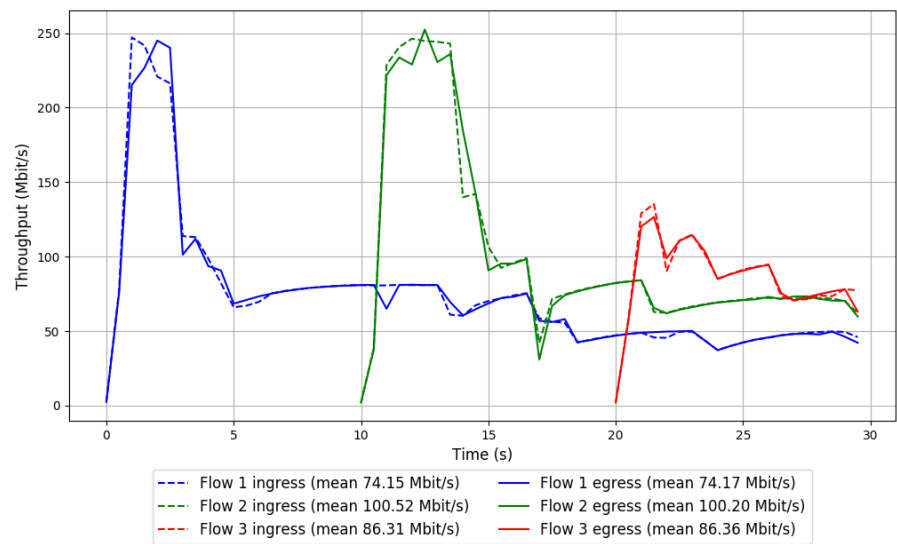
-- Flow 3:

Average throughput: 86.36 Mbit/s

95th percentile per-packet one-way delay: 53.397 ms

Loss rate: 0.97%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-01-17 16:07:34

End at: 2018-01-17 16:08:04

Below is generated by plot.py at 2018-01-17 21:41:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 195.31 Mbit/s

95th percentile per-packet one-way delay: 59.289 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 91.98 Mbit/s

95th percentile per-packet one-way delay: 59.762 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 113.67 Mbit/s

95th percentile per-packet one-way delay: 57.195 ms

Loss rate: 0.30%

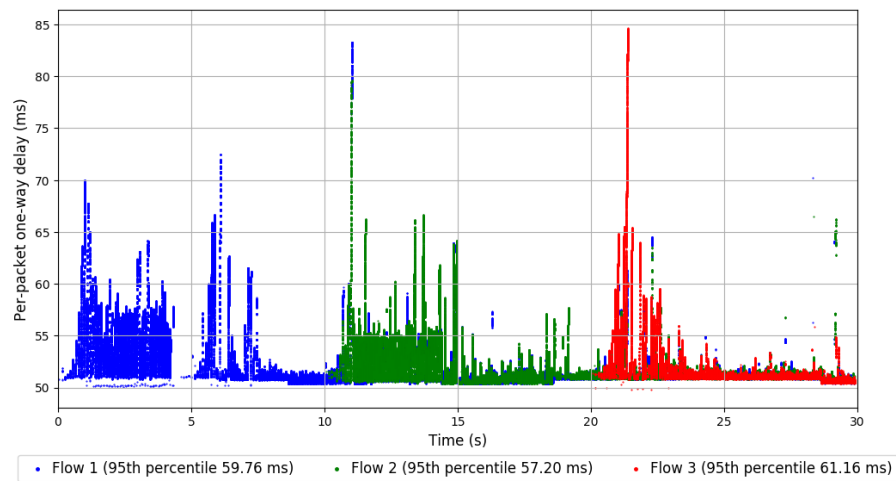
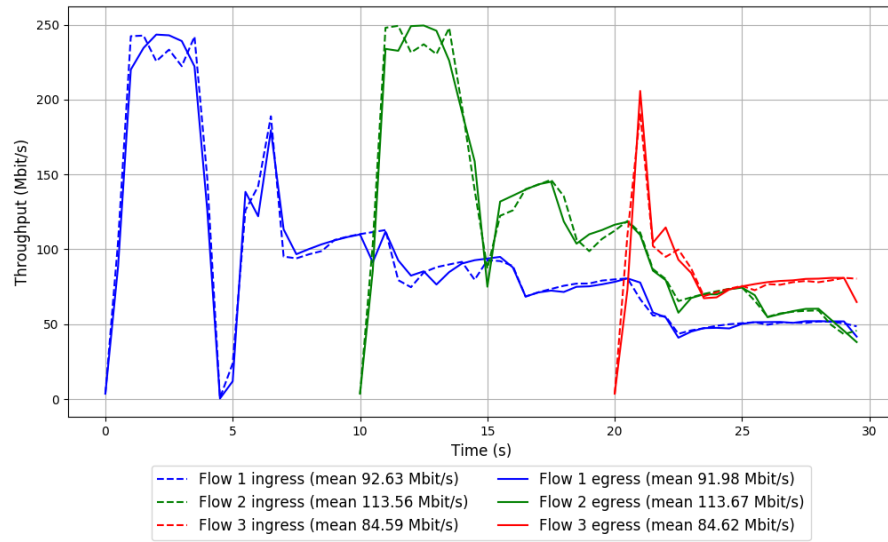
-- Flow 3:

Average throughput: 84.62 Mbit/s

95th percentile per-packet one-way delay: 61.156 ms

Loss rate: 0.99%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-01-17 16:25:06

End at: 2018-01-17 16:25:36

Below is generated by plot.py at 2018-01-17 21:41:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 201.90 Mbit/s

95th percentile per-packet one-way delay: 59.064 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 108.71 Mbit/s

95th percentile per-packet one-way delay: 58.059 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 88.31 Mbit/s

95th percentile per-packet one-way delay: 60.025 ms

Loss rate: 0.47%

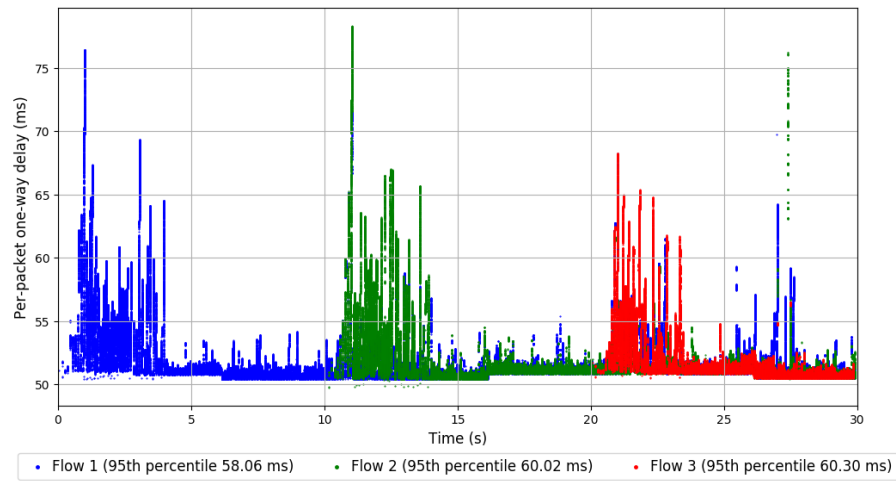
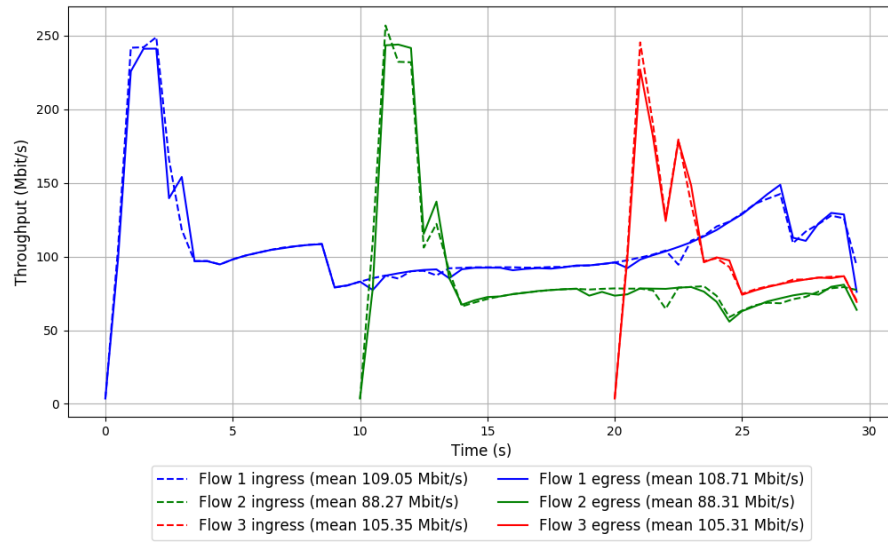
-- Flow 3:

Average throughput: 105.31 Mbit/s

95th percentile per-packet one-way delay: 60.299 ms

Loss rate: 1.07%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-01-17 16:42:38

End at: 2018-01-17 16:43:08

Below is generated by plot.py at 2018-01-17 21:41:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.69 Mbit/s

95th percentile per-packet one-way delay: 60.781 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 35.95 Mbit/s

95th percentile per-packet one-way delay: 60.318 ms

Loss rate: 1.64%

-- Flow 2:

Average throughput: 155.22 Mbit/s

95th percentile per-packet one-way delay: 60.682 ms

Loss rate: 1.22%

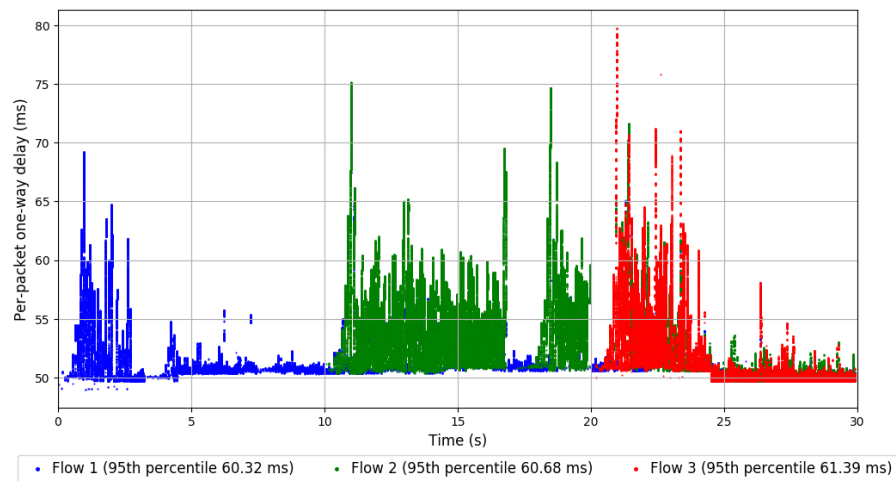
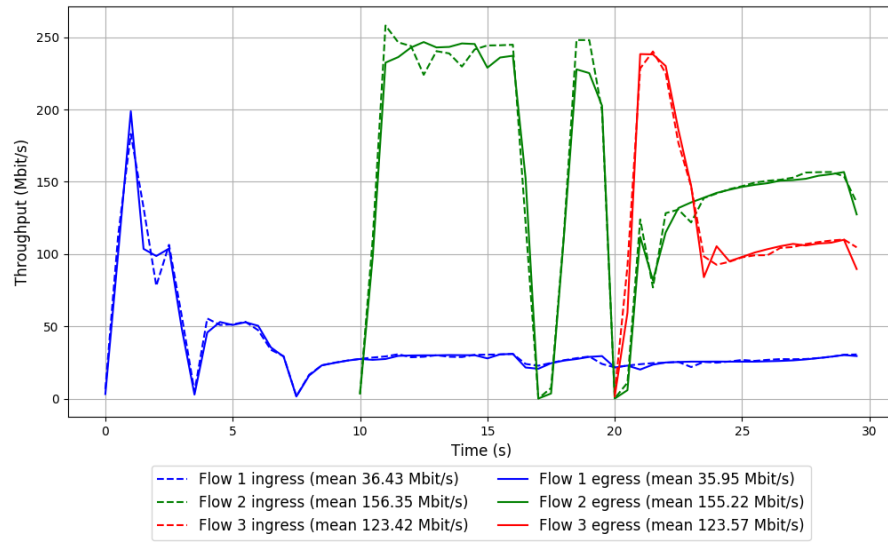
-- Flow 3:

Average throughput: 123.57 Mbit/s

95th percentile per-packet one-way delay: 61.391 ms

Loss rate: 0.89%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-01-17 17:00:13

End at: 2018-01-17 17:00:43

Below is generated by plot.py at 2018-01-17 21:41:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 218.74 Mbit/s

95th percentile per-packet one-way delay: 60.116 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 86.82 Mbit/s

95th percentile per-packet one-way delay: 58.731 ms

Loss rate: 1.57%

-- Flow 2:

Average throughput: 105.21 Mbit/s

95th percentile per-packet one-way delay: 58.563 ms

Loss rate: 0.54%

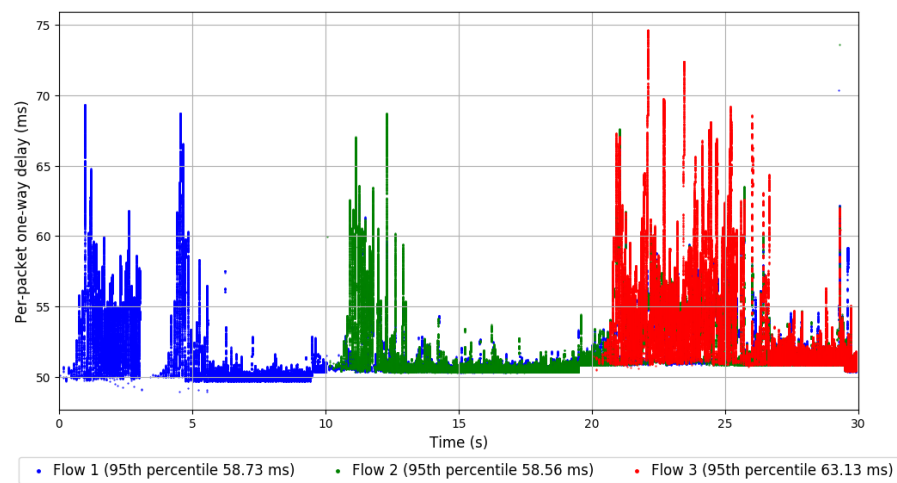
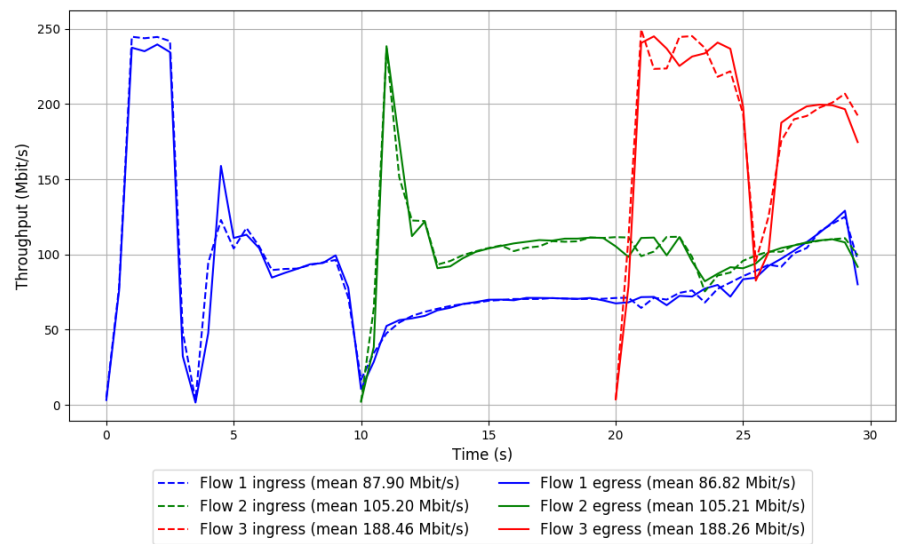
-- Flow 3:

Average throughput: 188.26 Mbit/s

95th percentile per-packet one-way delay: 63.130 ms

Loss rate: 1.13%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-01-17 17:18:09

End at: 2018-01-17 17:18:39

Below is generated by plot.py at 2018-01-17 21:41:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 181.61 Mbit/s

95th percentile per-packet one-way delay: 58.795 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 80.47 Mbit/s

95th percentile per-packet one-way delay: 56.316 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 99.26 Mbit/s

95th percentile per-packet one-way delay: 59.742 ms

Loss rate: 0.67%

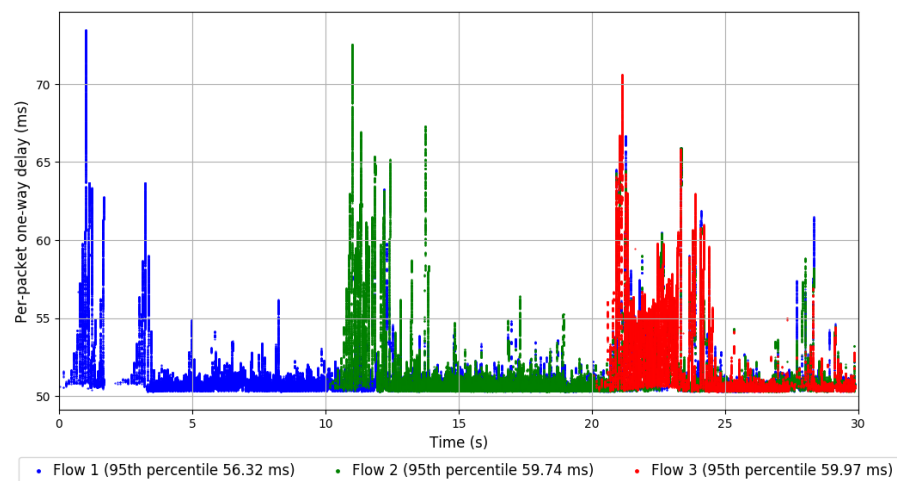
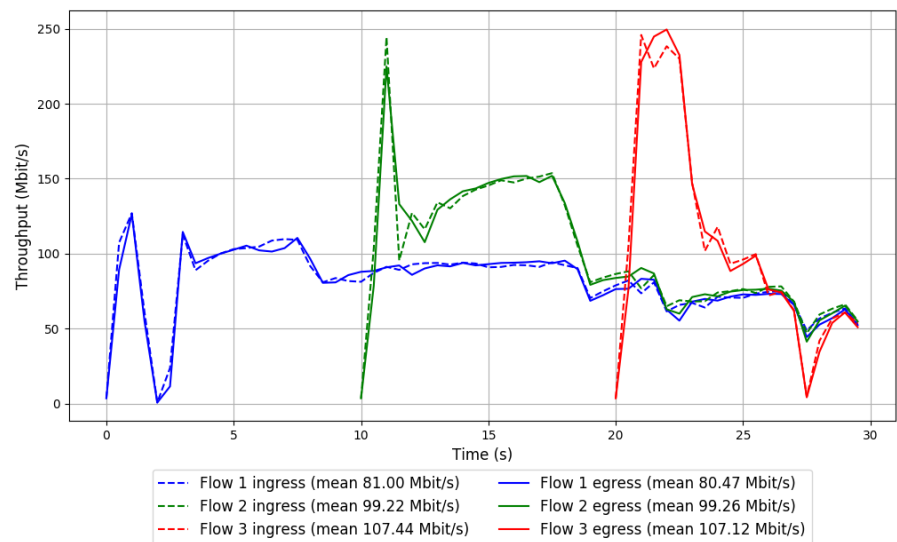
-- Flow 3:

Average throughput: 107.12 Mbit/s

95th percentile per-packet one-way delay: 59.969 ms

Loss rate: 1.32%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-01-17 17:35:39

End at: 2018-01-17 17:36:09

Below is generated by plot.py at 2018-01-17 21:41:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 212.59 Mbit/s

95th percentile per-packet one-way delay: 58.448 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 100.70 Mbit/s

95th percentile per-packet one-way delay: 57.897 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 90.90 Mbit/s

95th percentile per-packet one-way delay: 56.117 ms

Loss rate: 0.51%

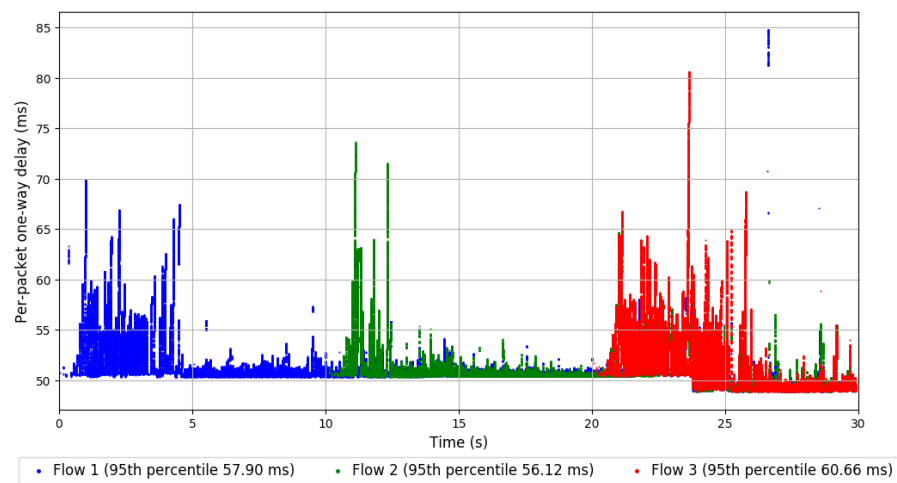
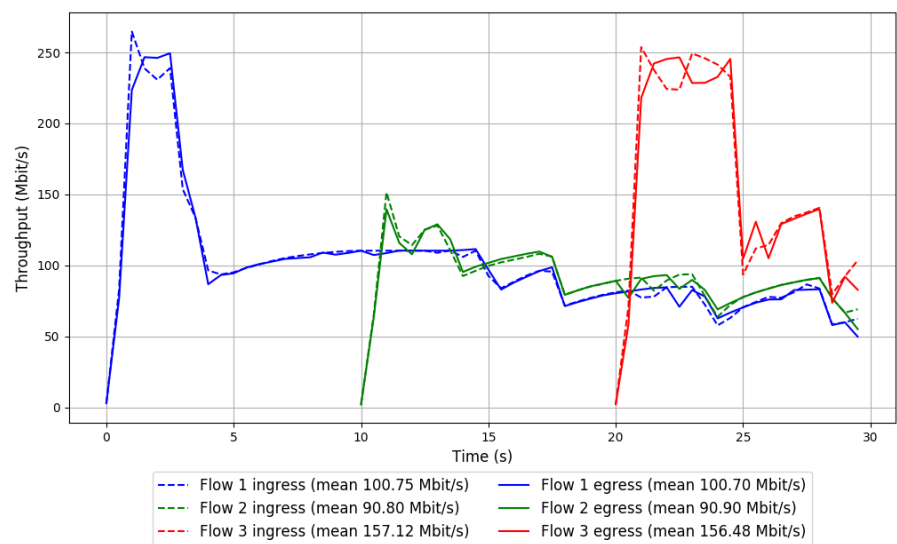
-- Flow 3:

Average throughput: 156.48 Mbit/s

95th percentile per-packet one-way delay: 60.655 ms

Loss rate: 1.43%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-01-17 17:53:01

End at: 2018-01-17 17:53:31

Below is generated by plot.py at 2018-01-17 21:41:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 226.25 Mbit/s

95th percentile per-packet one-way delay: 58.642 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 111.36 Mbit/s

95th percentile per-packet one-way delay: 58.107 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 117.72 Mbit/s

95th percentile per-packet one-way delay: 58.554 ms

Loss rate: 0.49%

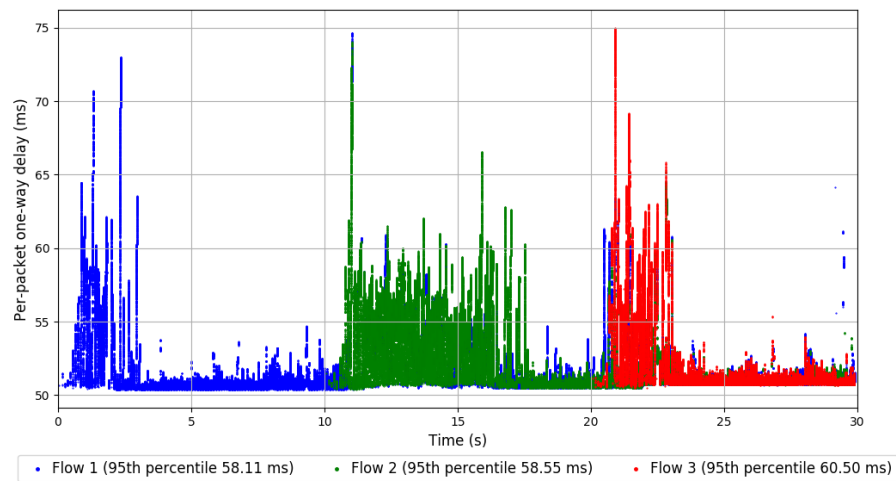
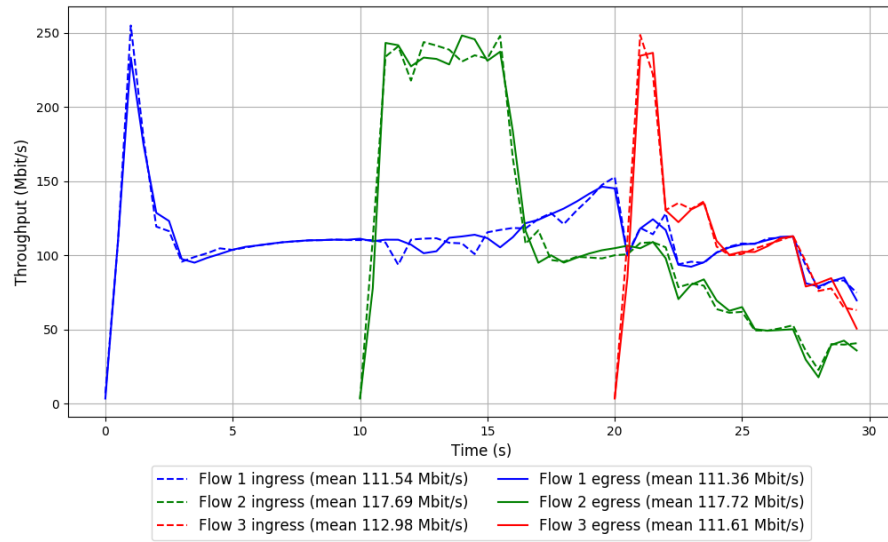
-- Flow 3:

Average throughput: 111.61 Mbit/s

95th percentile per-packet one-way delay: 60.500 ms

Loss rate: 2.23%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-01-17 18:10:57

End at: 2018-01-17 18:11:27

Below is generated by plot.py at 2018-01-17 21:41:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.33 Mbit/s

95th percentile per-packet one-way delay: 57.587 ms

Loss rate: 1.69%

-- Flow 1:

Average throughput: 86.97 Mbit/s

95th percentile per-packet one-way delay: 55.729 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 24.75 Mbit/s

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

Loss rate: 1.58%

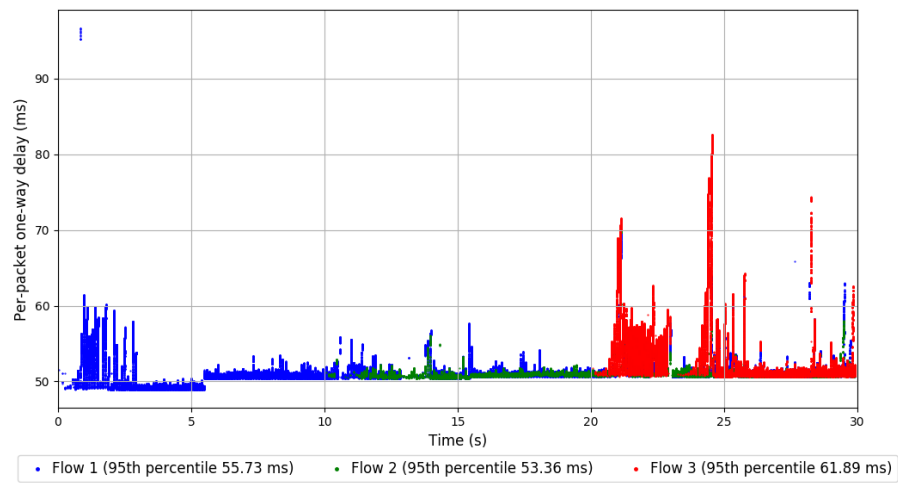
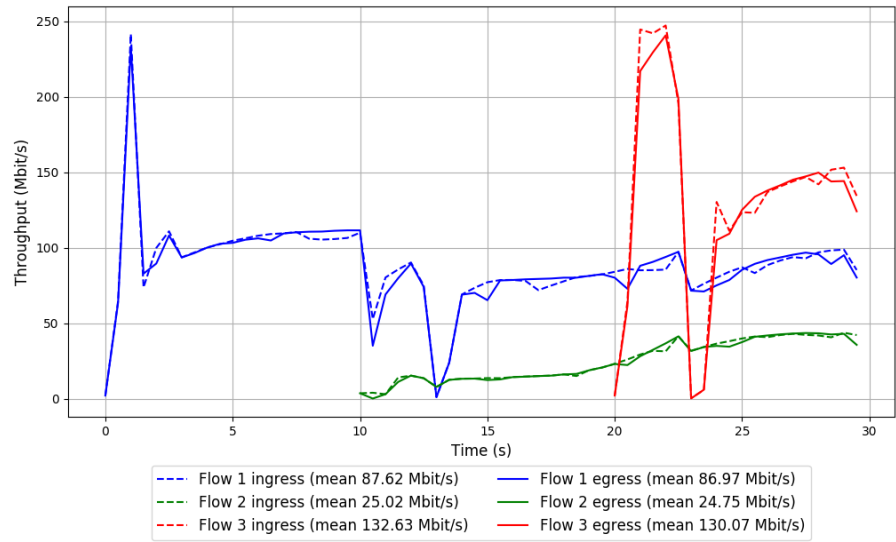
-- Flow 3:

Average throughput: 130.07 Mbit/s

95th percentile per-packet one-way delay: 61.894 ms

Loss rate: 2.94%

Run 10: Report of TCP Cubic — Data Link

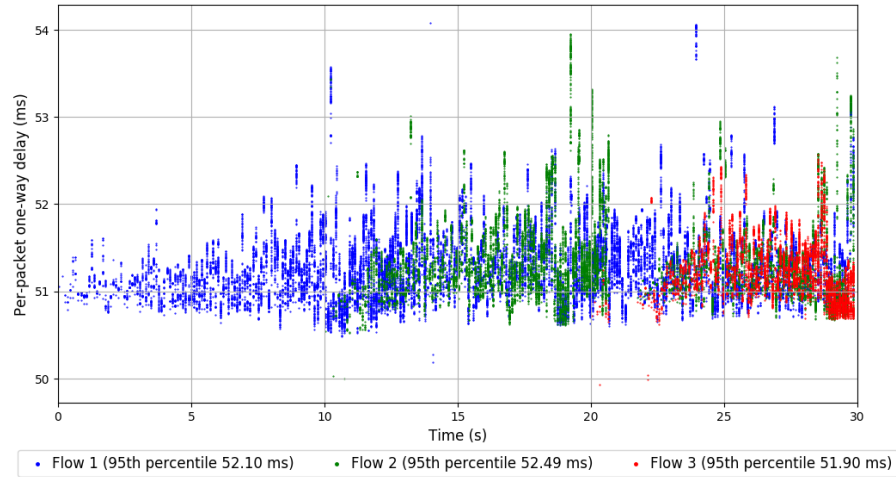
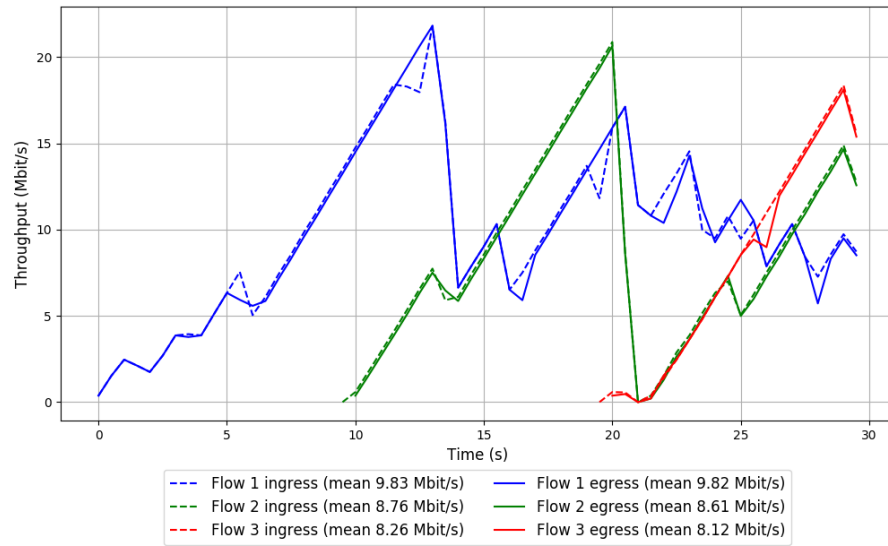


```
Run 1: Statistics of LEDBAT

Start at: 2018-01-17 15:36:09
End at: 2018-01-17 15:36:39

# Below is generated by plot.py at 2018-01-17 21:41:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.21 Mbit/s
95th percentile per-packet one-way delay: 52.246 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 9.82 Mbit/s
95th percentile per-packet one-way delay: 52.097 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 8.61 Mbit/s
95th percentile per-packet one-way delay: 52.493 ms
Loss rate: 2.19%
-- Flow 3:
Average throughput: 8.12 Mbit/s
95th percentile per-packet one-way delay: 51.898 ms
Loss rate: 2.61%
```

Run 1: Report of LEDBAT — Data Link

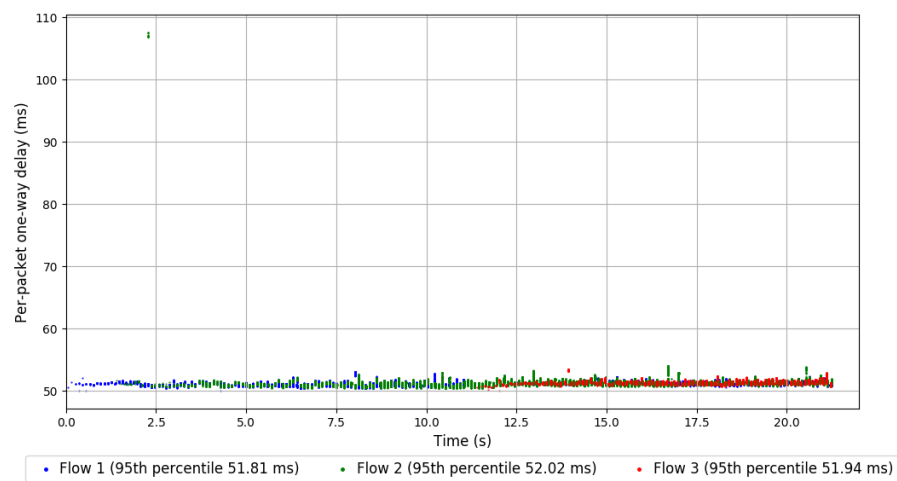
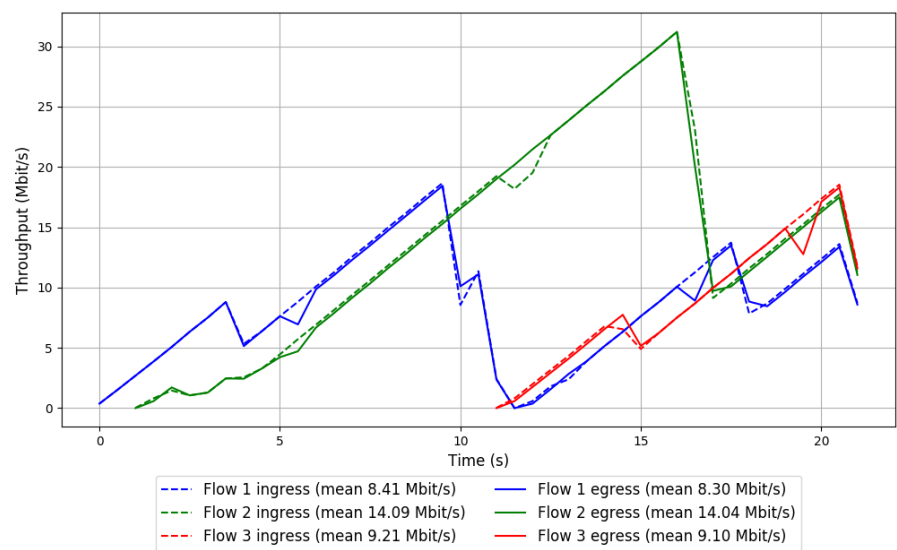


Run 2: Statistics of LEDBAT

Start at: 2018-01-17 15:53:22

End at: 2018-01-17 15:53:52

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-01-17 16:10:59

End at: 2018-01-17 16:11:29

Below is generated by plot.py at 2018-01-17 21:41:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 21.48 Mbit/s

95th percentile per-packet one-way delay: 52.438 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 5.69 Mbit/s

95th percentile per-packet one-way delay: 52.148 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 19.19 Mbit/s

95th percentile per-packet one-way delay: 52.630 ms

Loss rate: 0.60%

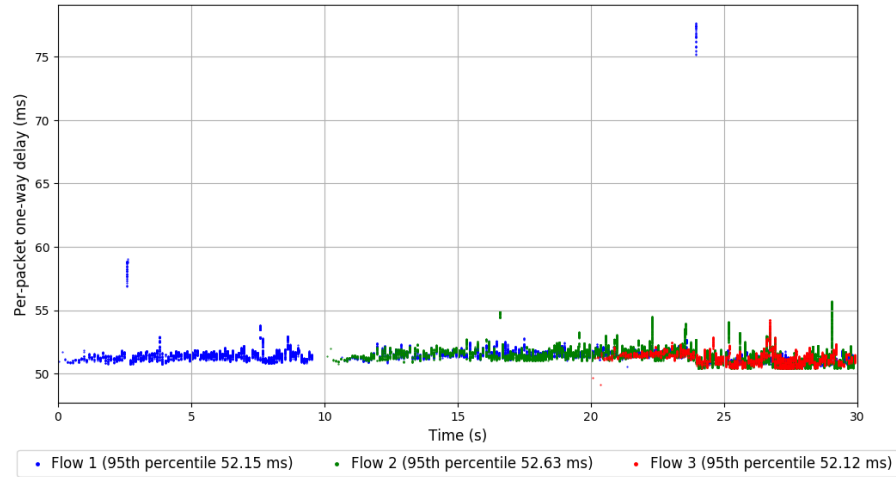
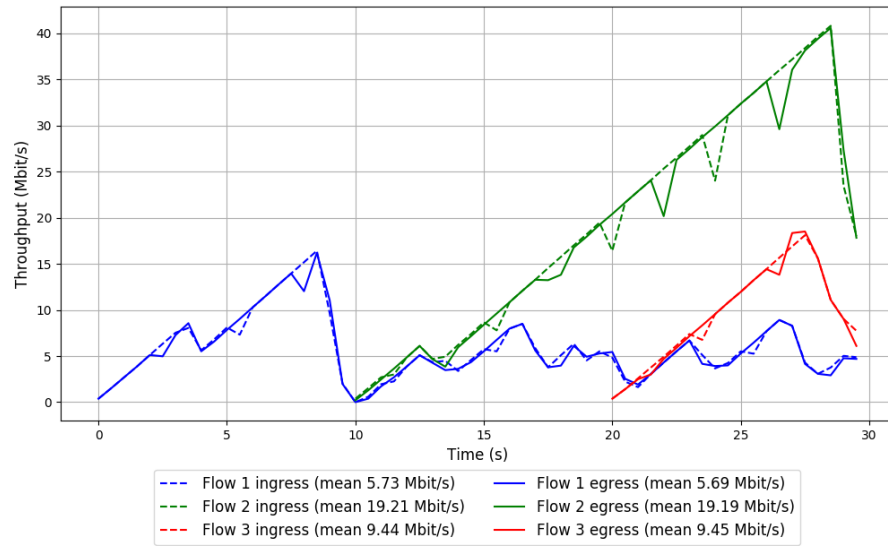
-- Flow 3:

Average throughput: 9.45 Mbit/s

95th percentile per-packet one-way delay: 52.124 ms

Loss rate: 0.88%

Run 3: Report of LEDBAT — Data Link

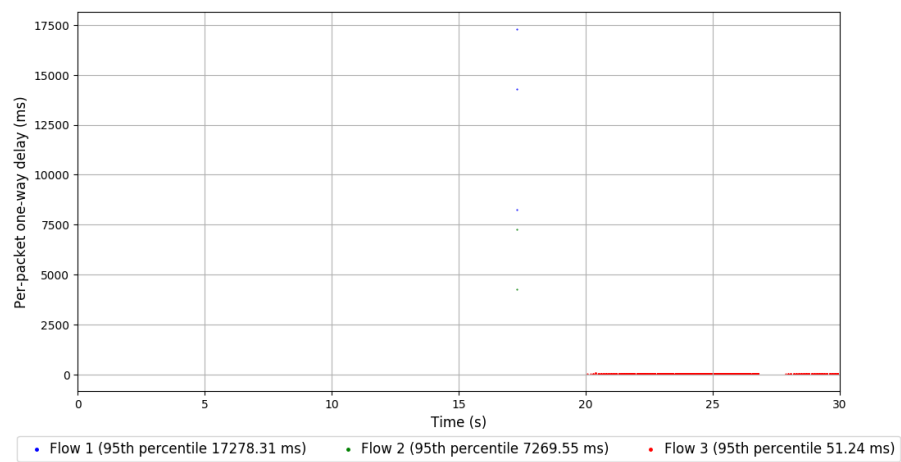
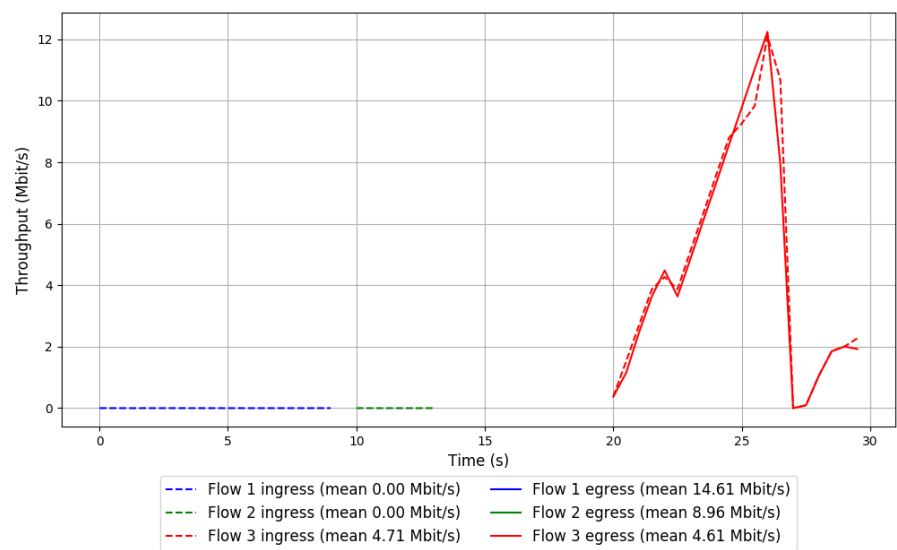


Run 4: Statistics of LEDBAT

Start at: 2018-01-17 16:28:33

End at: 2018-01-17 16:29:03

Run 4: Report of LEDBAT — Data Link

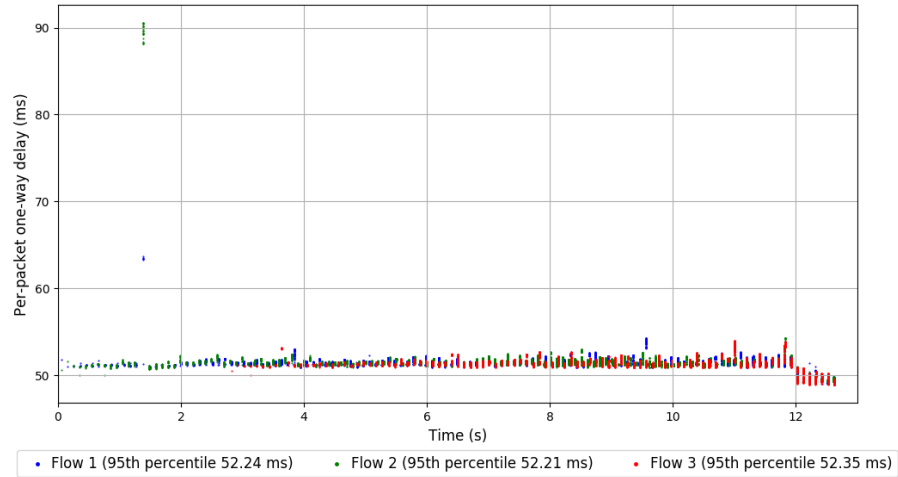
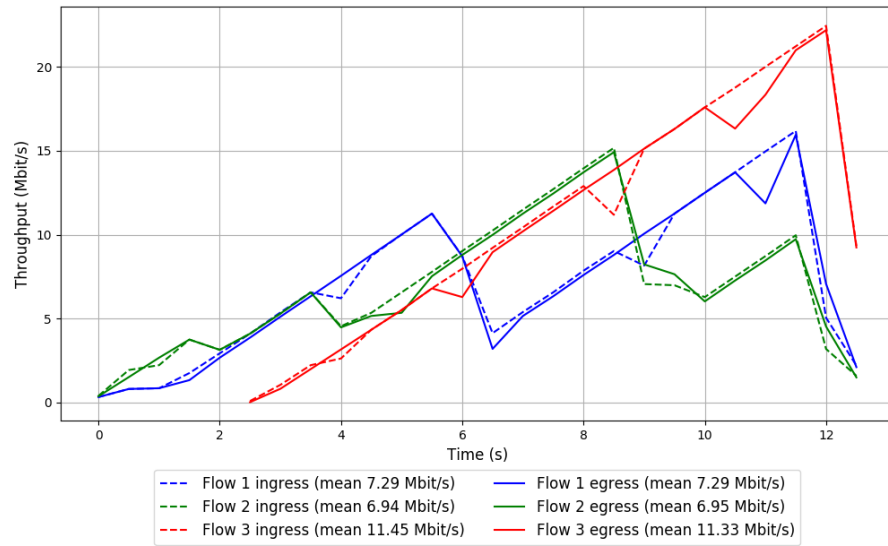


Run 5: Statistics of LEDBAT

Start at: 2018-01-17 16:46:03

End at: 2018-01-17 16:46:33

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-01-17 17:03:52

End at: 2018-01-17 17:04:22

Below is generated by plot.py at 2018-01-17 21:41:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 17.39 Mbit/s

95th percentile per-packet one-way delay: 52.109 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 10.29 Mbit/s

95th percentile per-packet one-way delay: 51.989 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 6.99 Mbit/s

95th percentile per-packet one-way delay: 52.353 ms

Loss rate: 1.86%

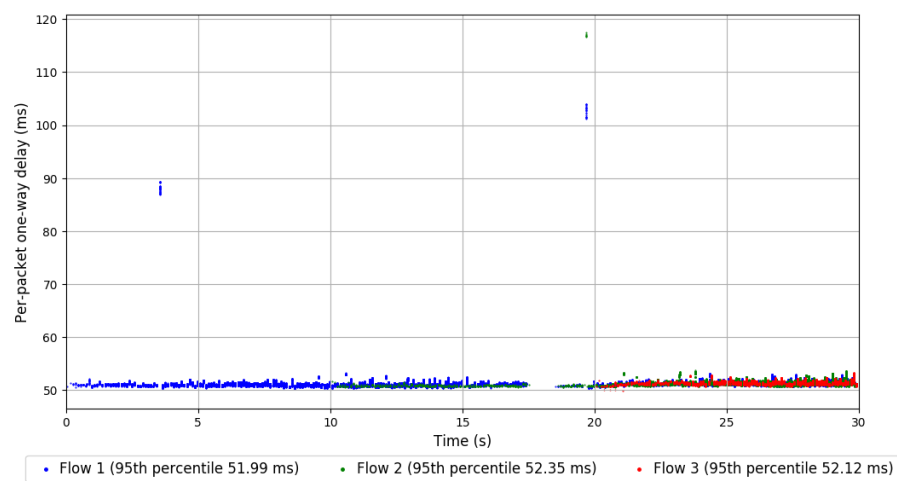
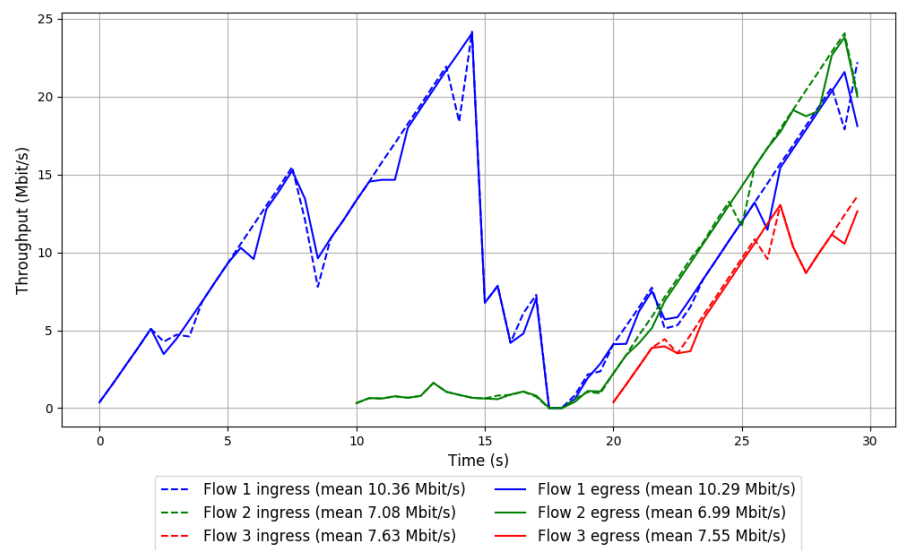
-- Flow 3:

Average throughput: 7.55 Mbit/s

95th percentile per-packet one-way delay: 52.116 ms

Loss rate: 2.16%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-01-17 17:21:34

End at: 2018-01-17 17:22:04

Below is generated by plot.py at 2018-01-17 21:41:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.66 Mbit/s

95th percentile per-packet one-way delay: 52.009 ms

Loss rate: 2.18%

-- Flow 1:

Average throughput: 4.94 Mbit/s

95th percentile per-packet one-way delay: 51.851 ms

Loss rate: 1.34%

-- Flow 2:

Average throughput: 6.74 Mbit/s

95th percentile per-packet one-way delay: 52.158 ms

Loss rate: 2.69%

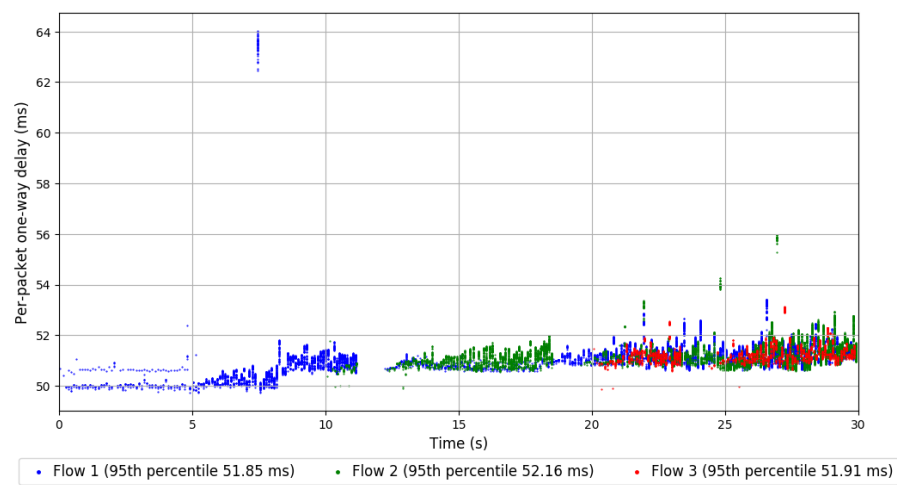
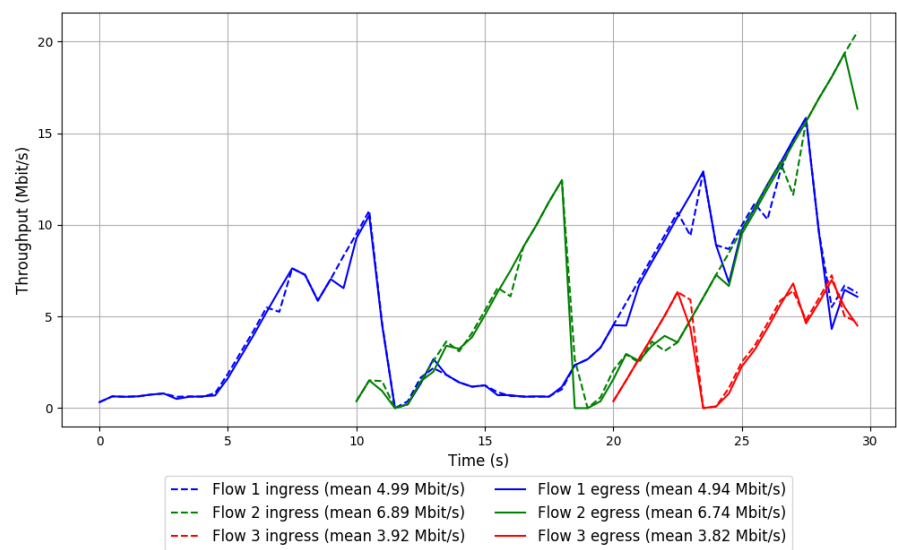
-- Flow 3:

Average throughput: 3.82 Mbit/s

95th percentile per-packet one-way delay: 51.907 ms

Loss rate: 3.60%

Run 7: Report of LEDBAT — Data Link

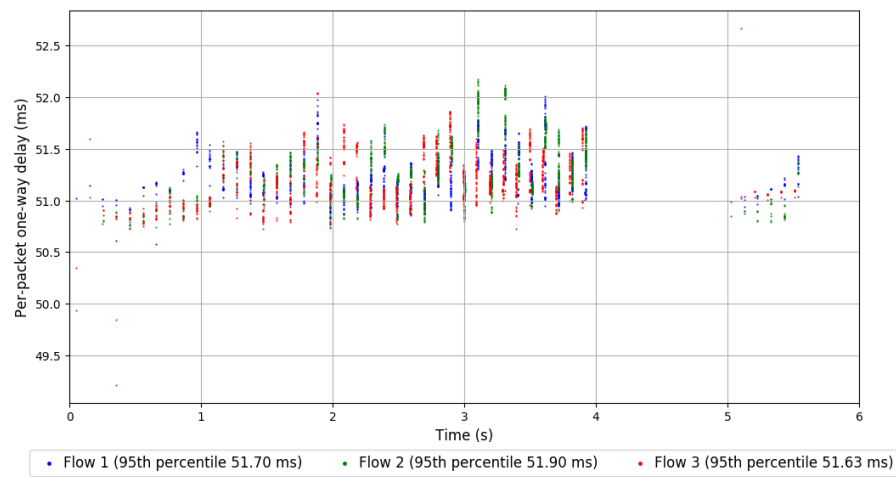
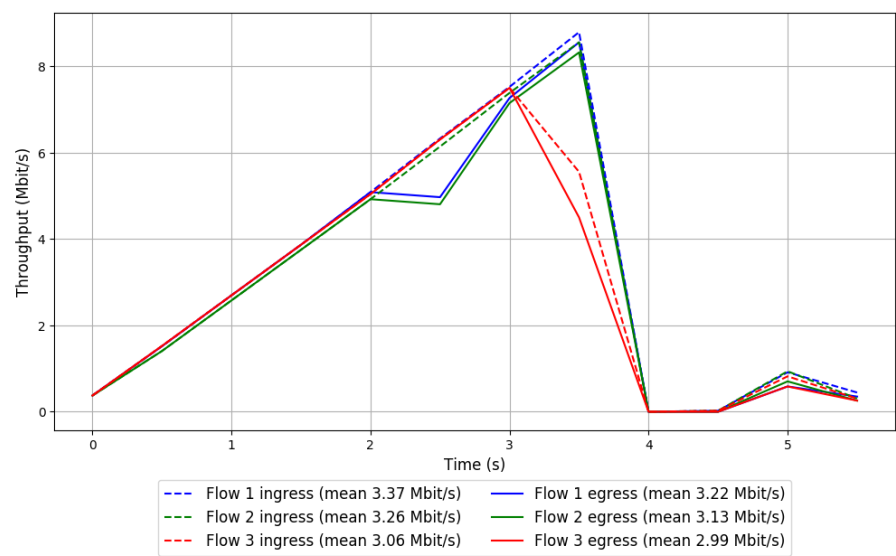


Run 8: Statistics of LEDBAT

Start at: 2018-01-17 17:38:59

End at: 2018-01-17 17:39:29

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-01-17 17:56:35

End at: 2018-01-17 17:57:05

Below is generated by plot.py at 2018-01-17 21:41:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.79 Mbit/s

95th percentile per-packet one-way delay: 51.946 ms

Loss rate: 2.73%

-- Flow 1:

Average throughput: 5.05 Mbit/s

95th percentile per-packet one-way delay: 51.735 ms

Loss rate: 2.58%

-- Flow 2:

Average throughput: 6.76 Mbit/s

95th percentile per-packet one-way delay: 51.906 ms

Loss rate: 2.70%

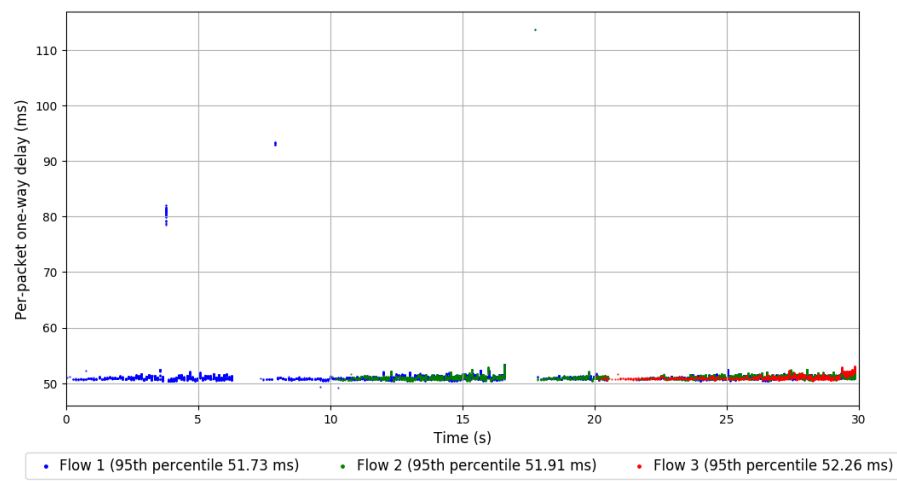
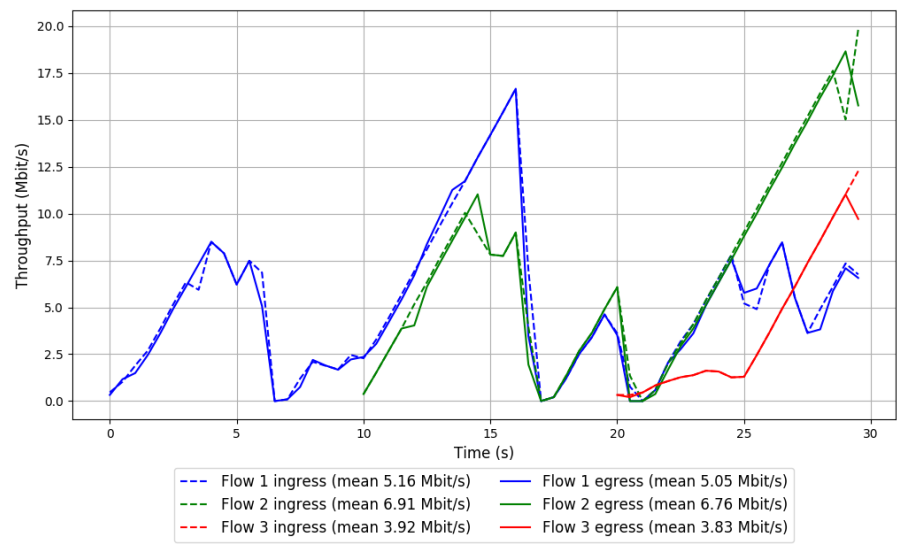
-- Flow 3:

Average throughput: 3.83 Mbit/s

95th percentile per-packet one-way delay: 52.258 ms

Loss rate: 3.45%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-01-17 18:14:32

End at: 2018-01-17 18:15:02

Below is generated by plot.py at 2018-01-17 21:41:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.94 Mbit/s

95th percentile per-packet one-way delay: 51.730 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 51.693 ms

Loss rate: 1.97%

-- Flow 2:

Average throughput: 9.08 Mbit/s

95th percentile per-packet one-way delay: 51.813 ms

Loss rate: 1.11%

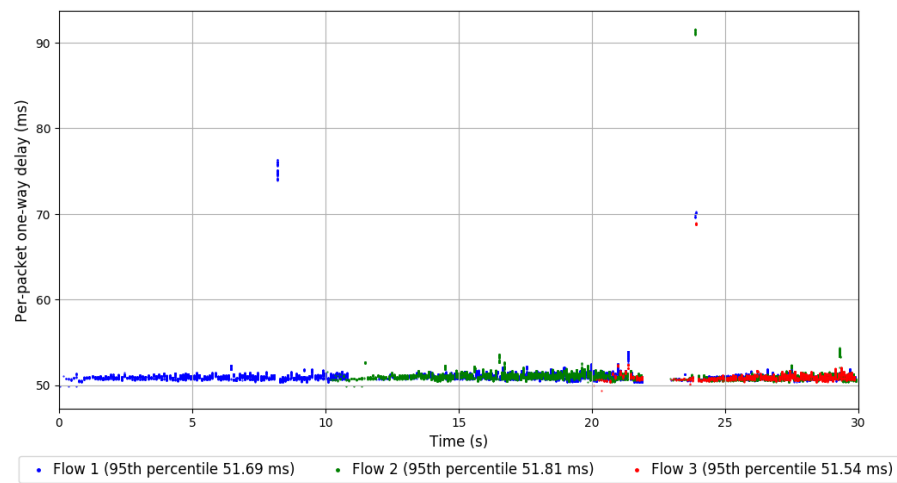
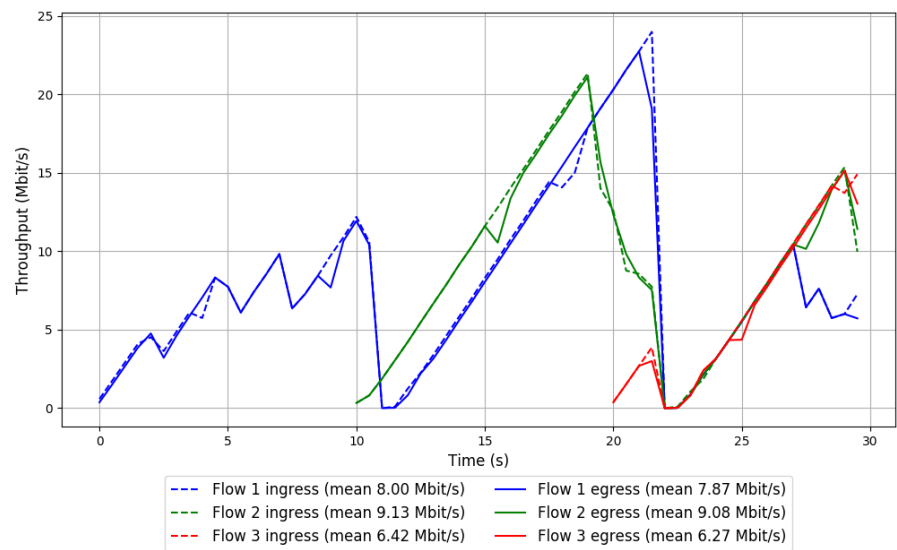
-- Flow 3:

Average throughput: 6.27 Mbit/s

95th percentile per-packet one-way delay: 51.544 ms

Loss rate: 3.35%

Run 10: Report of LEDBAT — Data Link

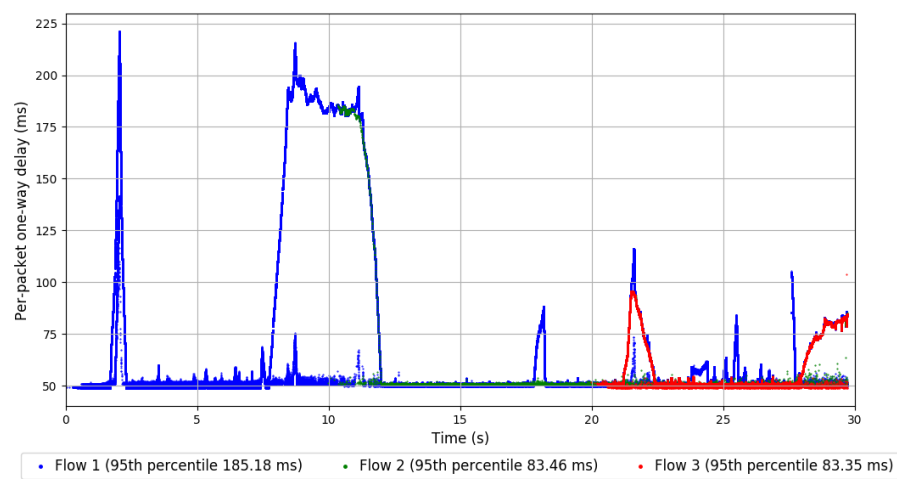
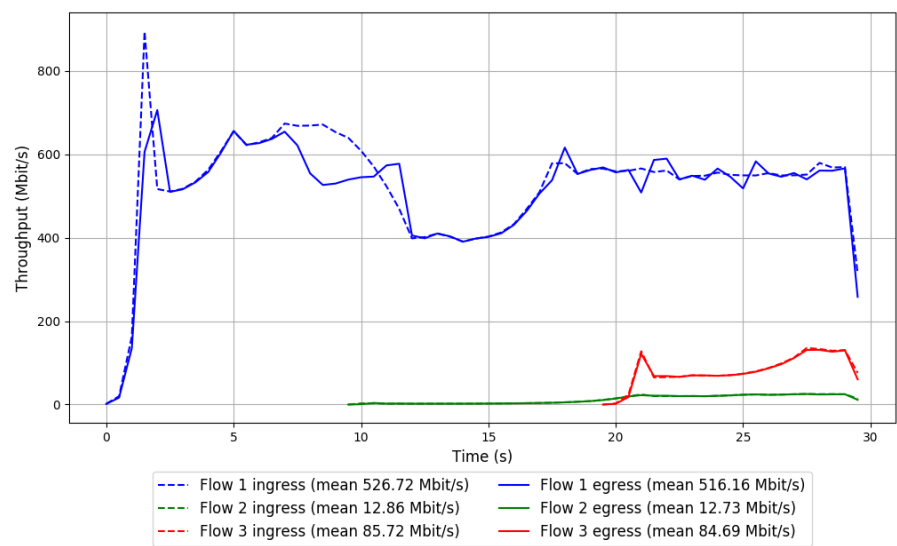


```
Run 1: Statistics of PCC

Start at: 2018-01-17 15:40:44
End at: 2018-01-17 15:41:14

# Below is generated by plot.py at 2018-01-17 21:49:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 552.40 Mbit/s
95th percentile per-packet one-way delay: 184.828 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 516.16 Mbit/s
95th percentile per-packet one-way delay: 185.176 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 83.464 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 84.69 Mbit/s
95th percentile per-packet one-way delay: 83.351 ms
Loss rate: 2.22%
```

Run 1: Report of PCC — Data Link

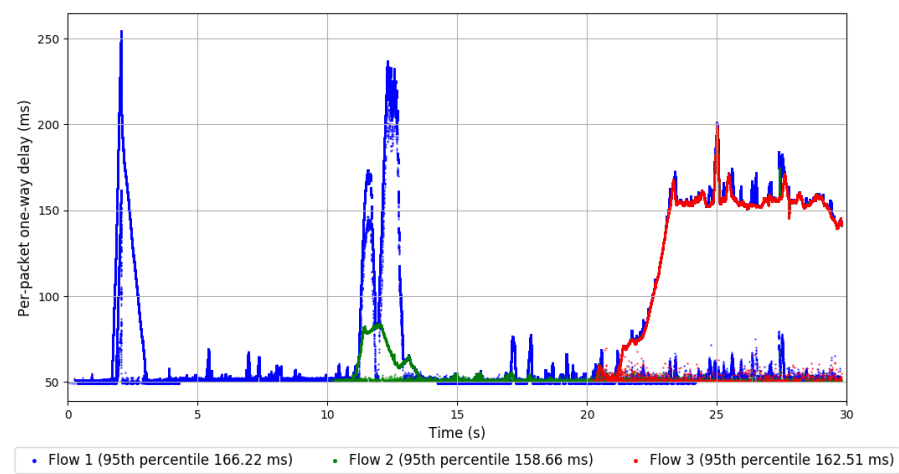
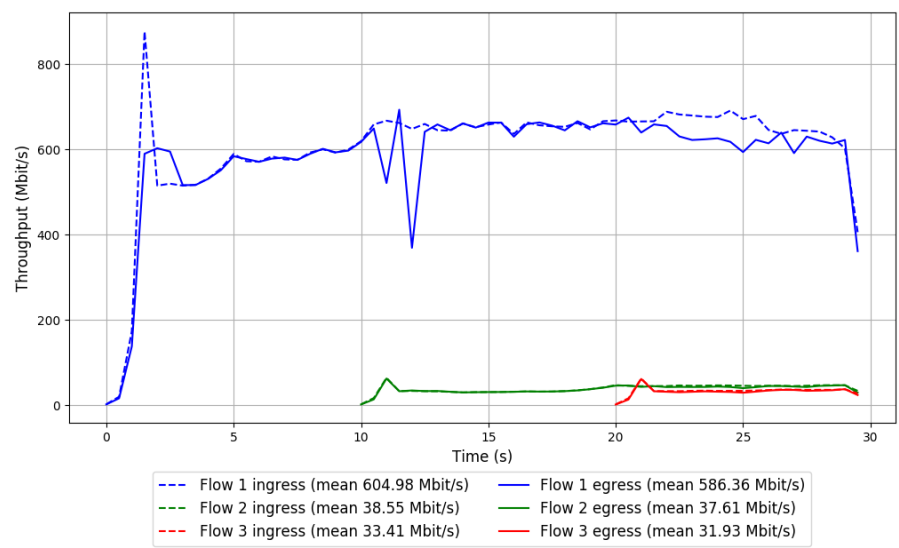


```
Run 2: Statistics of PCC

Start at: 2018-01-17 15:58:08
End at: 2018-01-17 15:58:38

# Below is generated by plot.py at 2018-01-17 21:50:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 621.71 Mbit/s
95th percentile per-packet one-way delay: 165.878 ms
Loss rate: 3.42%
-- Flow 1:
Average throughput: 586.36 Mbit/s
95th percentile per-packet one-way delay: 166.215 ms
Loss rate: 3.40%
-- Flow 2:
Average throughput: 37.61 Mbit/s
95th percentile per-packet one-way delay: 158.663 ms
Loss rate: 2.95%
-- Flow 3:
Average throughput: 31.93 Mbit/s
95th percentile per-packet one-way delay: 162.507 ms
Loss rate: 5.43%
```


Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-01-17 16:15:41

End at: 2018-01-17 16:16:11

Below is generated by plot.py at 2018-01-17 21:50:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 545.99 Mbit/s

95th percentile per-packet one-way delay: 184.542 ms

Loss rate: 2.13%

-- Flow 1:

Average throughput: 481.62 Mbit/s

95th percentile per-packet one-way delay: 184.838 ms

Loss rate: 2.17%

-- Flow 2:

Average throughput: 65.08 Mbit/s

95th percentile per-packet one-way delay: 184.003 ms

Loss rate: 2.20%

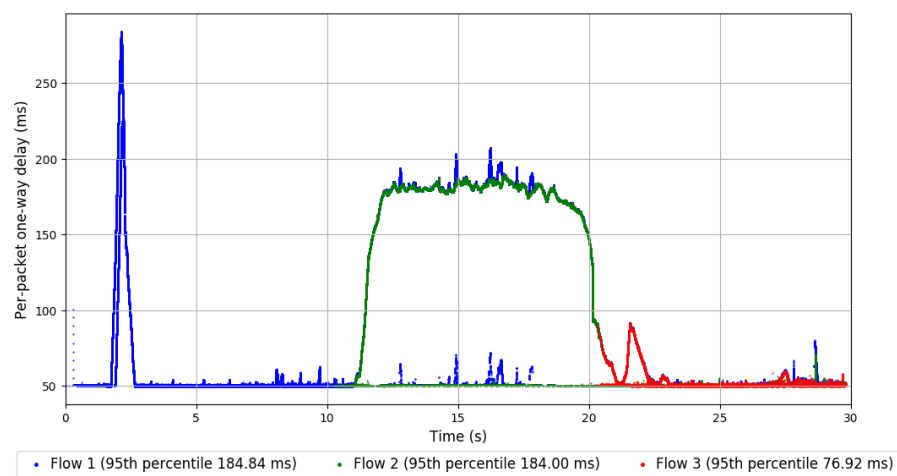
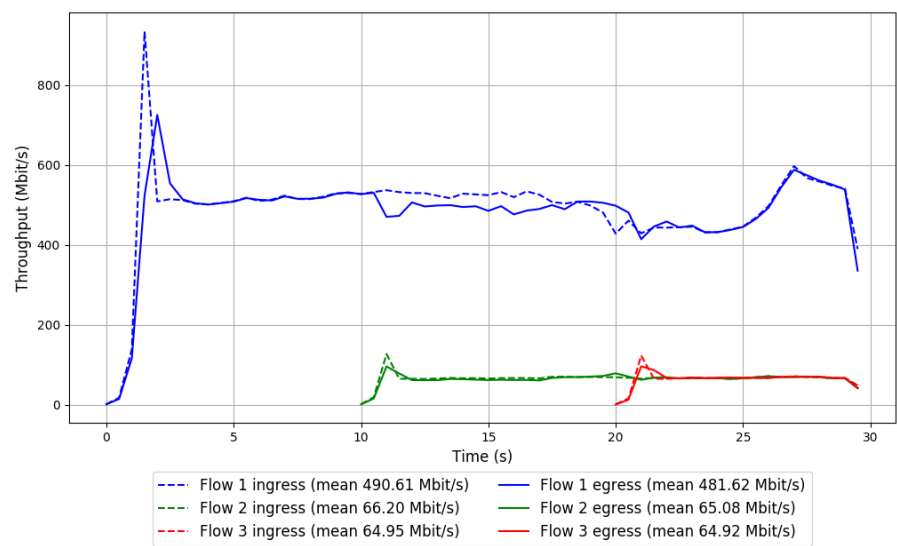
-- Flow 3:

Average throughput: 64.92 Mbit/s

95th percentile per-packet one-way delay: 76.923 ms

Loss rate: 1.09%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-01-17 16:33:11

End at: 2018-01-17 16:33:41

Below is generated by plot.py at 2018-01-17 21:50:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 546.64 Mbit/s

95th percentile per-packet one-way delay: 217.955 ms

Loss rate: 5.62%

-- Flow 1:

Average throughput: 543.36 Mbit/s

95th percentile per-packet one-way delay: 218.035 ms

Loss rate: 5.61%

-- Flow 2:

Average throughput: 3.95 Mbit/s

95th percentile per-packet one-way delay: 214.944 ms

Loss rate: 7.35%

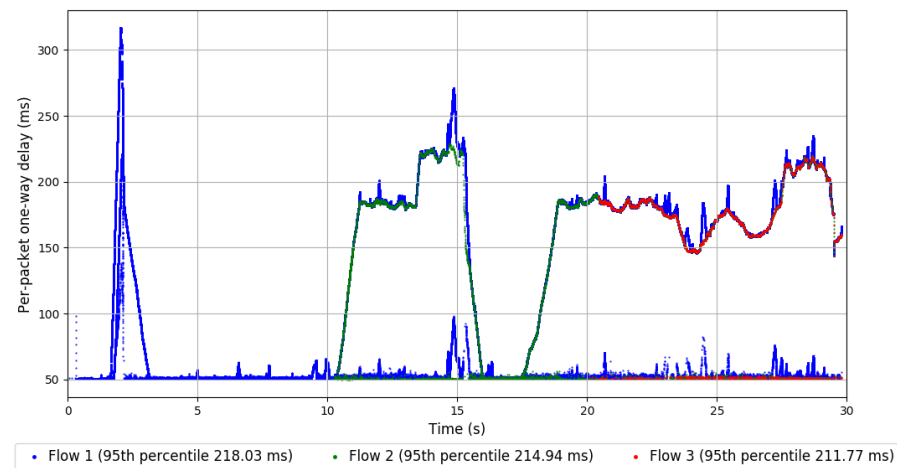
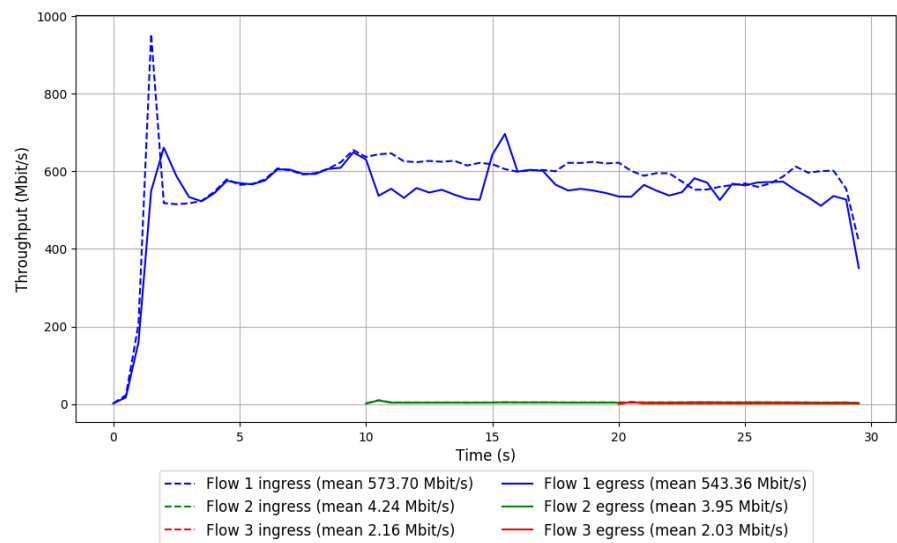
-- Flow 3:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 211.769 ms

Loss rate: 7.21%

Run 4: Report of PCC — Data Link

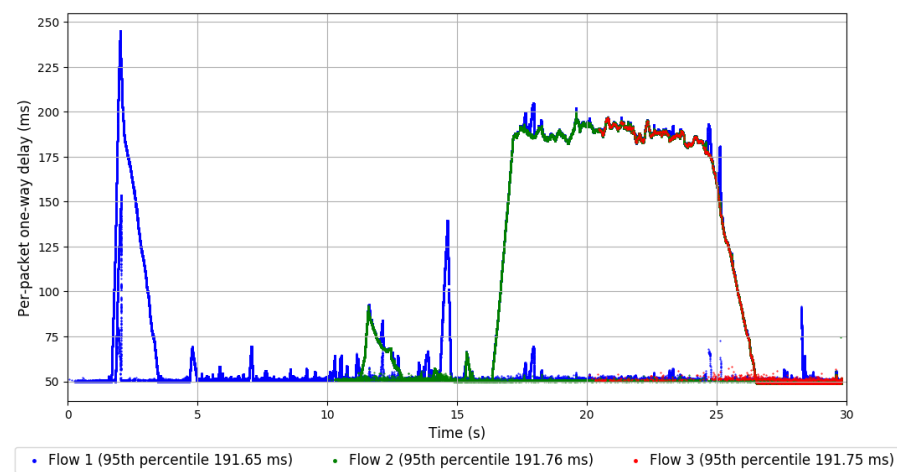
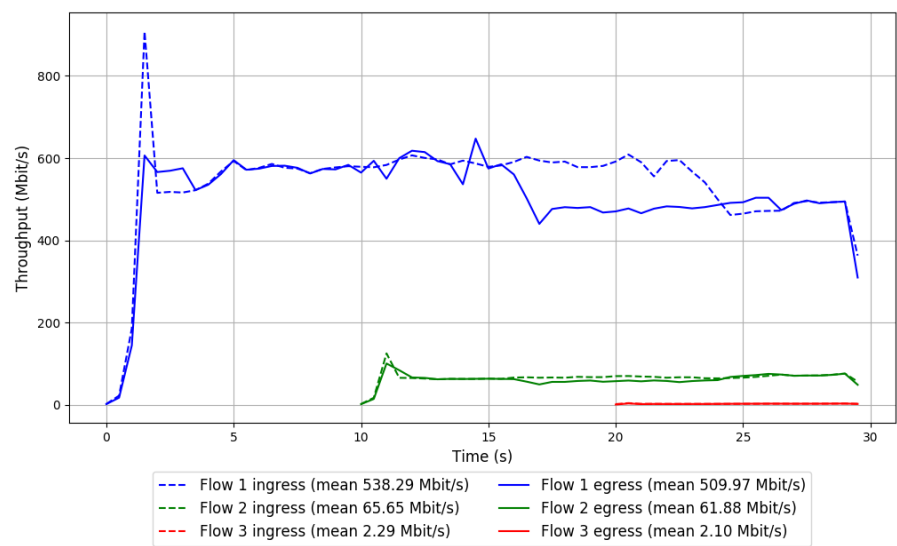


```
Run 5: Statistics of PCC

Start at: 2018-01-17 16:50:48
End at: 2018-01-17 16:51:18

# Below is generated by plot.py at 2018-01-17 21:51:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 551.72 Mbit/s
95th percentile per-packet one-way delay: 191.661 ms
Loss rate: 5.64%
-- Flow 1:
Average throughput: 509.97 Mbit/s
95th percentile per-packet one-way delay: 191.652 ms
Loss rate: 5.58%
-- Flow 2:
Average throughput: 61.88 Mbit/s
95th percentile per-packet one-way delay: 191.759 ms
Loss rate: 6.23%
-- Flow 3:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 191.753 ms
Loss rate: 9.26%
```

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-01-17 17:08:37

End at: 2018-01-17 17:09:07

Below is generated by plot.py at 2018-01-17 21:51:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 522.60 Mbit/s

95th percentile per-packet one-way delay: 185.475 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 513.94 Mbit/s

95th percentile per-packet one-way delay: 185.526 ms

Loss rate: 1.88%

-- Flow 2:

Average throughput: 4.07 Mbit/s

95th percentile per-packet one-way delay: 183.219 ms

Loss rate: 4.08%

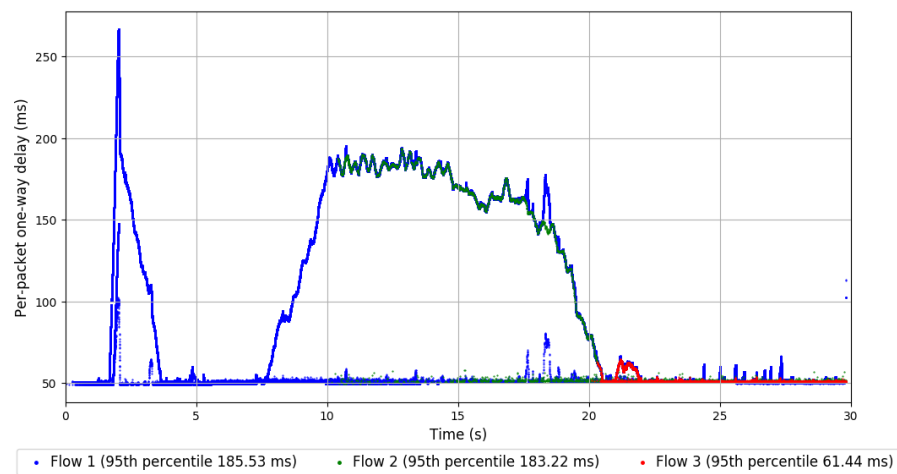
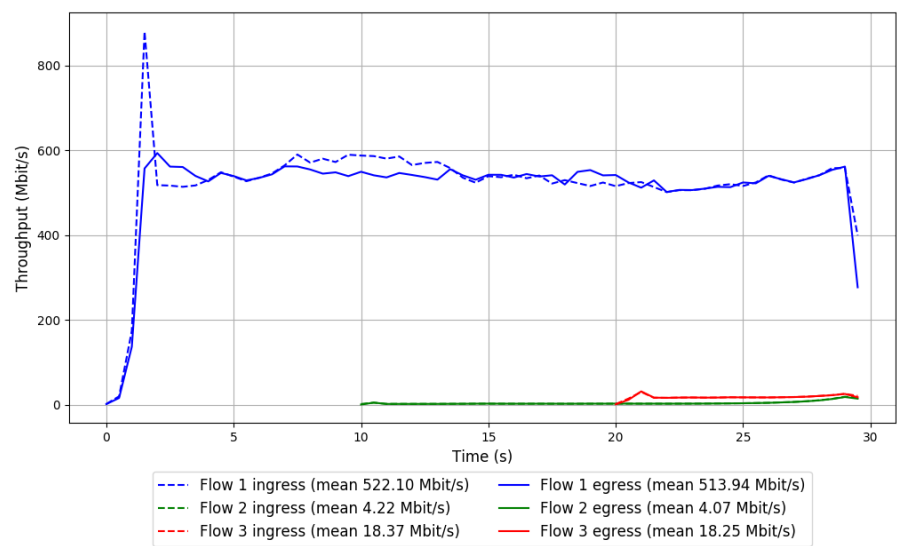
-- Flow 3:

Average throughput: 18.25 Mbit/s

95th percentile per-packet one-way delay: 61.435 ms

Loss rate: 1.66%

Run 6: Report of PCC — Data Link



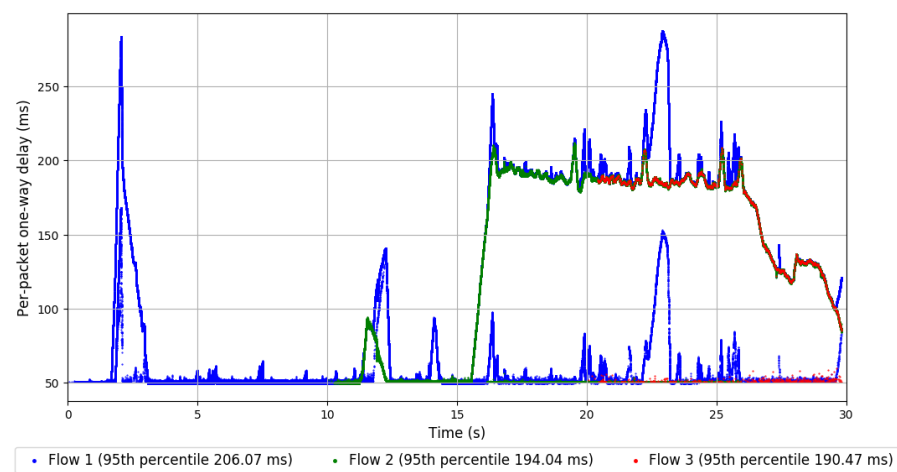
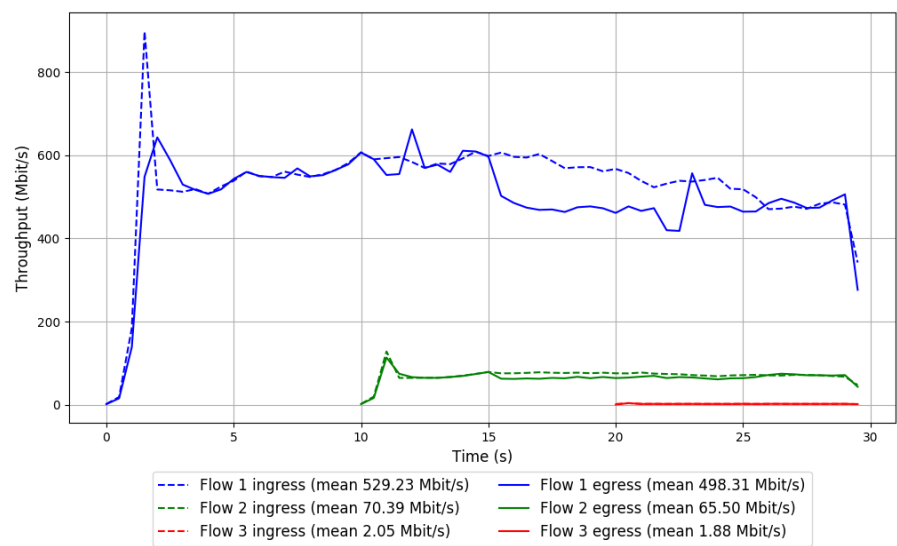
Run 7: Statistics of PCC

Start at: 2018-01-17 17:26:20

End at: 2018-01-17 17:26:50

```
# Below is generated by plot.py at 2018-01-17 21:51:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 542.31 Mbit/s
95th percentile per-packet one-way delay: 204.349 ms
Loss rate: 6.27%
-- Flow 1:
Average throughput: 498.31 Mbit/s
95th percentile per-packet one-way delay: 206.075 ms
Loss rate: 6.16%
-- Flow 2:
Average throughput: 65.50 Mbit/s
95th percentile per-packet one-way delay: 194.041 ms
Loss rate: 7.40%
-- Flow 3:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 190.469 ms
Loss rate: 9.62%
```

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-01-17 17:43:37

End at: 2018-01-17 17:44:07

Below is generated by plot.py at 2018-01-17 21:52:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 595.28 Mbit/s

95th percentile per-packet one-way delay: 163.143 ms

Loss rate: 1.92%

-- Flow 1:

Average throughput: 533.40 Mbit/s

95th percentile per-packet one-way delay: 163.044 ms

Loss rate: 1.80%

-- Flow 2:

Average throughput: 63.99 Mbit/s

95th percentile per-packet one-way delay: 163.079 ms

Loss rate: 2.23%

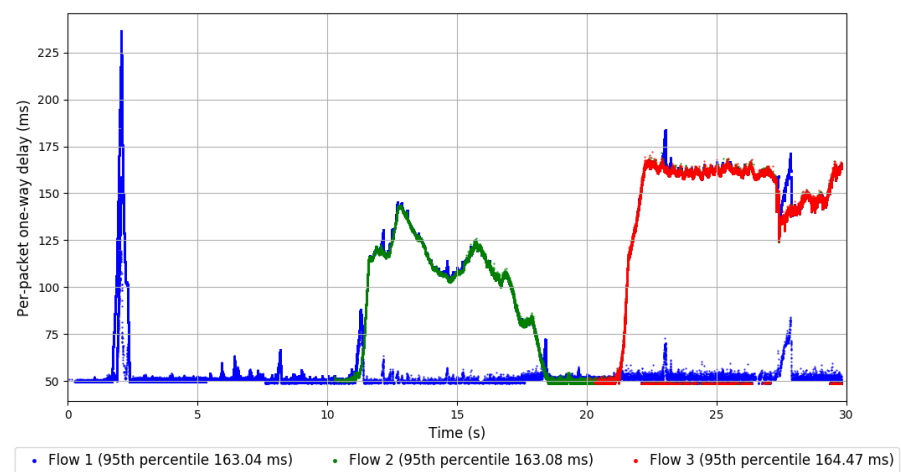
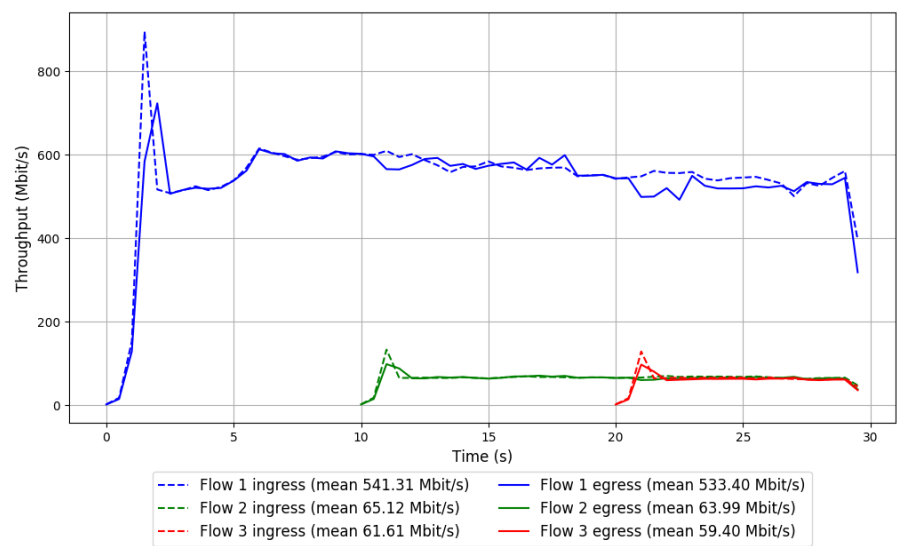
-- Flow 3:

Average throughput: 59.40 Mbit/s

95th percentile per-packet one-way delay: 164.475 ms

Loss rate: 4.58%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-01-17 18:01:17

End at: 2018-01-17 18:01:47

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 598.08 Mbit/s

95th percentile per-packet one-way delay: 173.412 ms

Loss rate: 2.51%

-- Flow 1:

Average throughput: 578.52 Mbit/s

95th percentile per-packet one-way delay: 173.933 ms

Loss rate: 2.51%

-- Flow 2:

Average throughput: 27.37 Mbit/s

95th percentile per-packet one-way delay: 164.454 ms

Loss rate: 2.44%

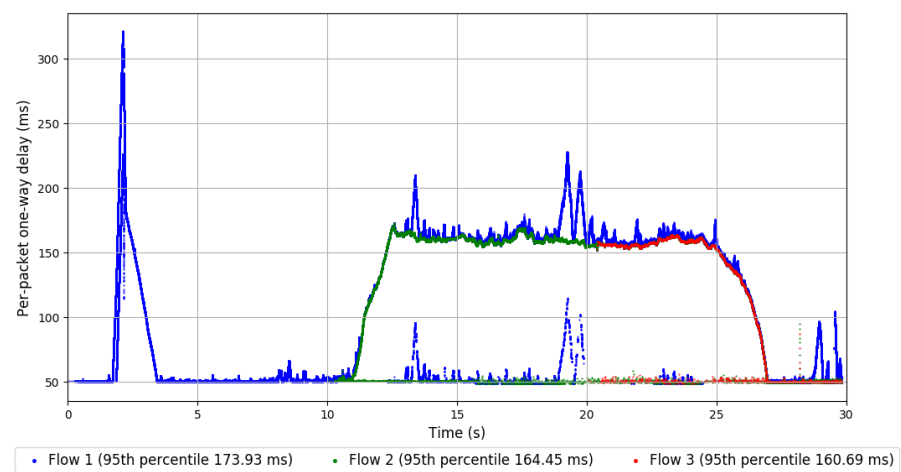
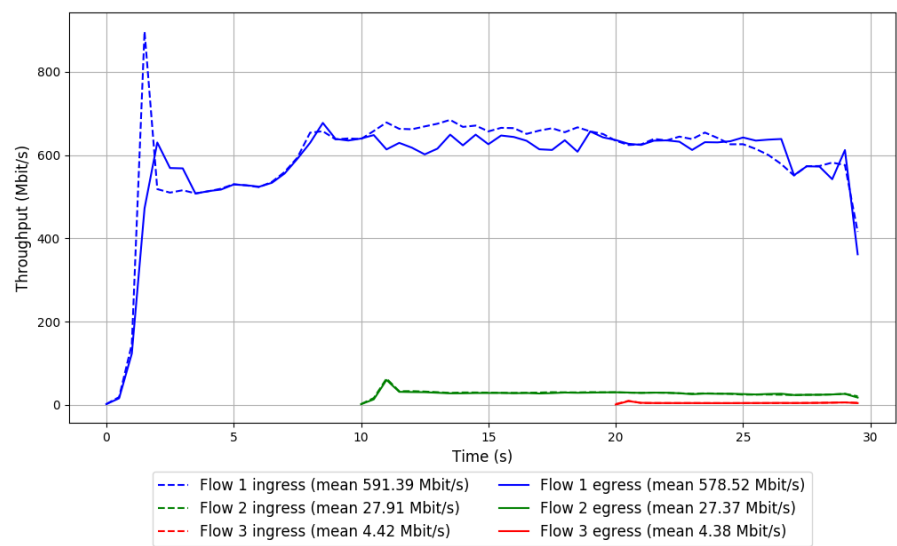
-- Flow 3:

Average throughput: 4.38 Mbit/s

95th percentile per-packet one-way delay: 160.694 ms

Loss rate: 2.04%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2018-01-17 18:19:14

End at: 2018-01-17 18:19:44

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 564.82 Mbit/s

95th percentile per-packet one-way delay: 156.817 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 464.12 Mbit/s

95th percentile per-packet one-way delay: 156.849 ms

Loss rate: 1.55%

-- Flow 2:

Average throughput: 149.51 Mbit/s

95th percentile per-packet one-way delay: 156.726 ms

Loss rate: 1.29%

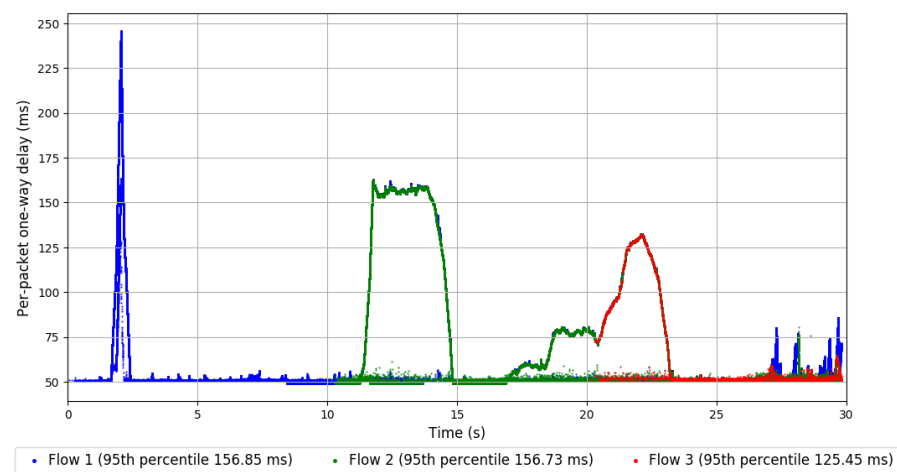
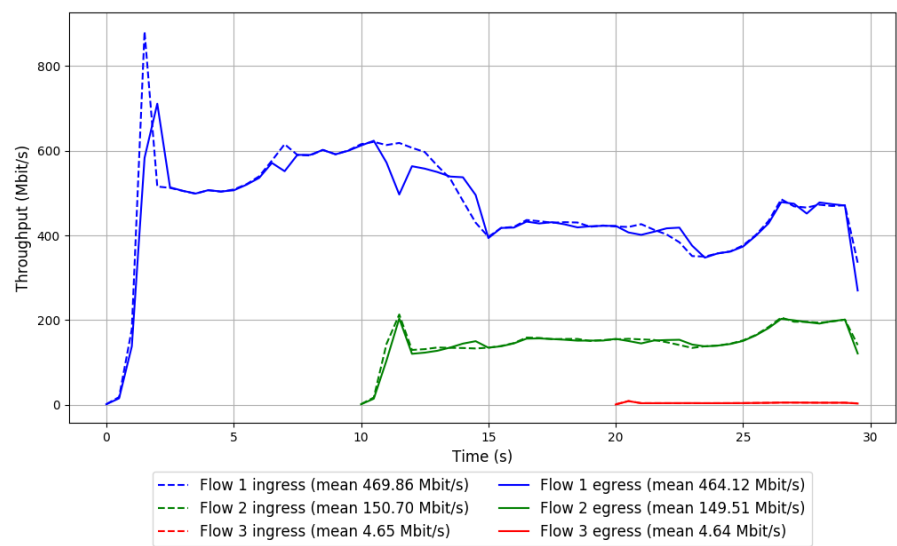
-- Flow 3:

Average throughput: 4.64 Mbit/s

95th percentile per-packet one-way delay: 125.451 ms

Loss rate: 1.11%

Run 10: Report of PCC — Data Link

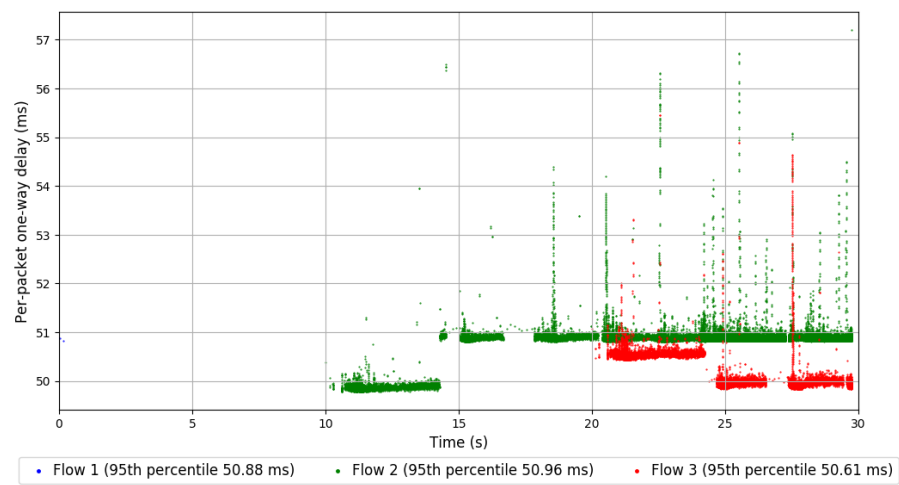
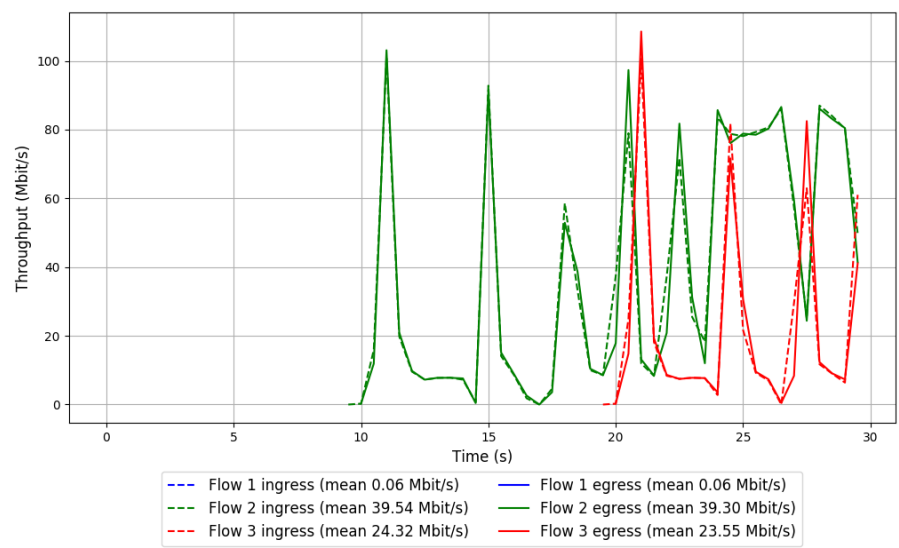


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-17 15:42:30
End at: 2018-01-17 15:43:00

# Below is generated by plot.py at 2018-01-17 21:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.84 Mbit/s
95th percentile per-packet one-way delay: 50.946 ms
Loss rate: 1.79%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.881 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.30 Mbit/s
95th percentile per-packet one-way delay: 50.957 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 23.55 Mbit/s
95th percentile per-packet one-way delay: 50.606 ms
Loss rate: 4.17%
```

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-01-17 15:59:55

End at: 2018-01-17 16:00:25

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.10 Mbit/s

95th percentile per-packet one-way delay: 50.872 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 68.96 Mbit/s

95th percentile per-packet one-way delay: 50.885 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 31.03 Mbit/s

95th percentile per-packet one-way delay: 49.954 ms

Loss rate: 0.37%

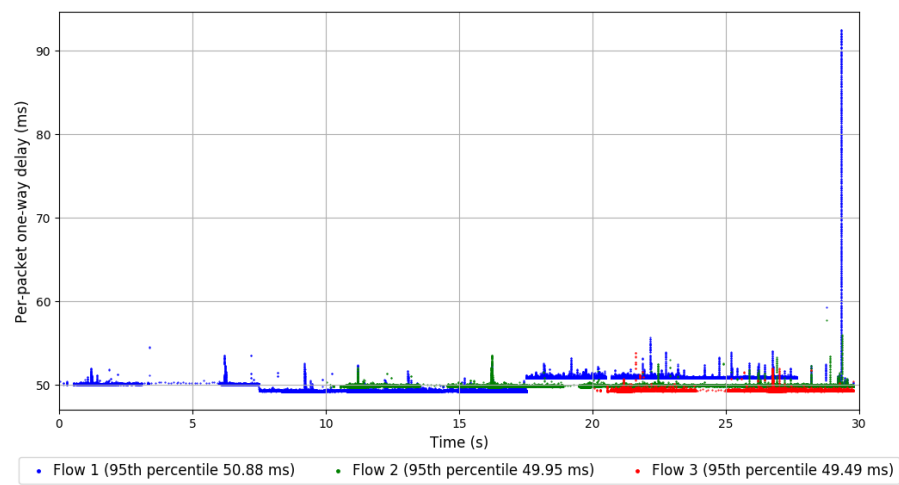
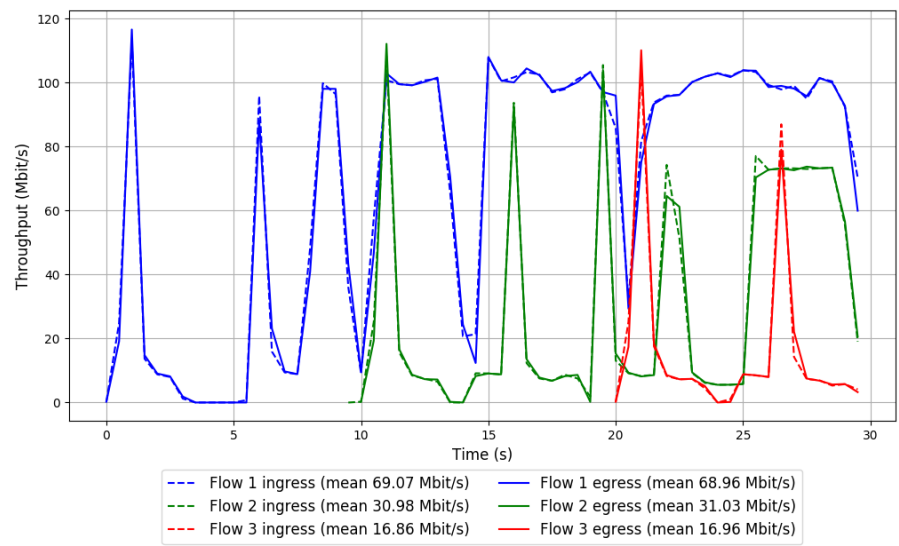
-- Flow 3:

Average throughput: 16.96 Mbit/s

95th percentile per-packet one-way delay: 49.491 ms

Loss rate: 0.40%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-01-17 16:17:26

End at: 2018-01-17 16:17:56

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.26 Mbit/s

95th percentile per-packet one-way delay: 50.805 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 55.23 Mbit/s

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

Loss rate: 0.54%

-- Flow 2:

Average throughput: 48.60 Mbit/s

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

Loss rate: 1.06%

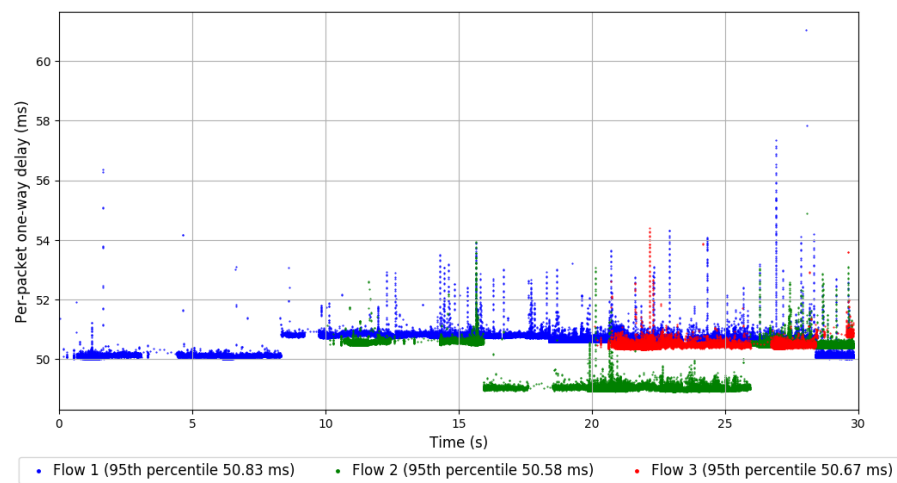
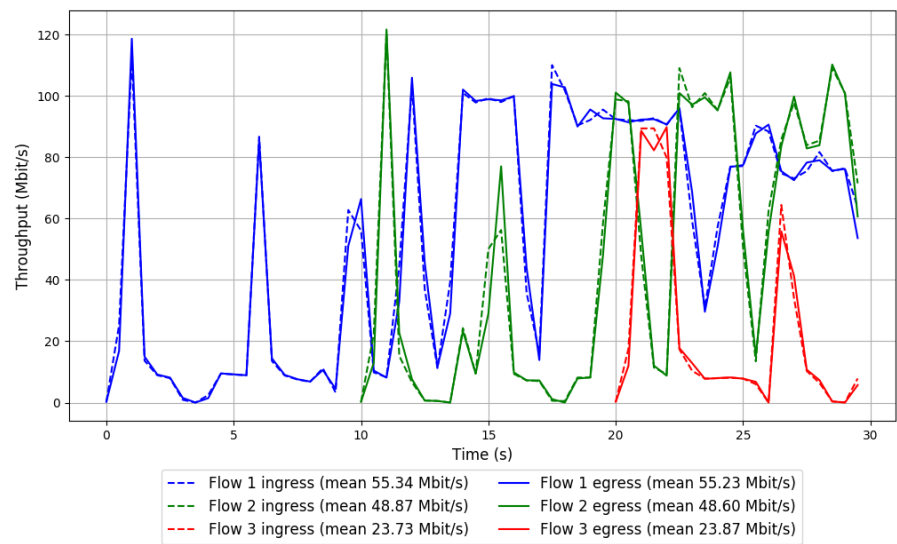
-- Flow 3:

Average throughput: 23.87 Mbit/s

95th percentile per-packet one-way delay: 50.670 ms

Loss rate: 0.47%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-01-17 16:34:57

End at: 2018-01-17 16:35:27

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.56 Mbit/s

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

Loss rate: 0.45%

-- Flow 1:

Average throughput: 47.96 Mbit/s

95th percentile per-packet one-way delay: 50.828 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 31.49 Mbit/s

95th percentile per-packet one-way delay: 51.002 ms

Loss rate: 0.18%

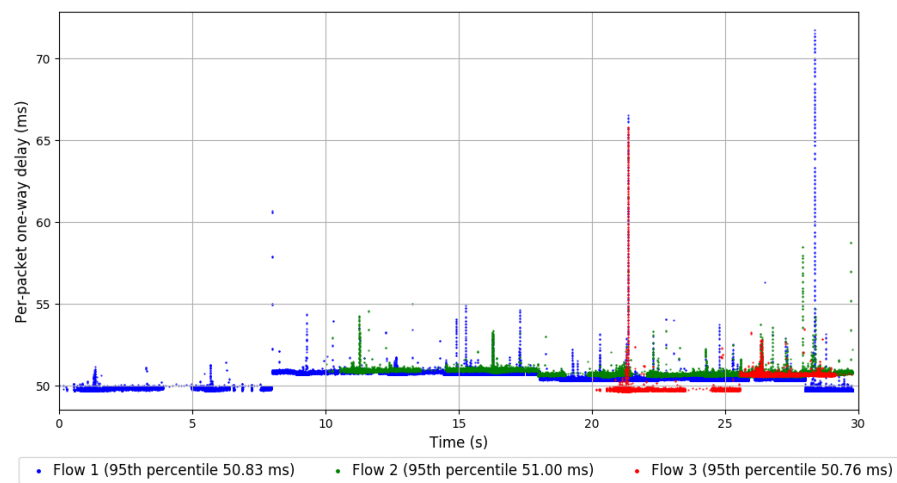
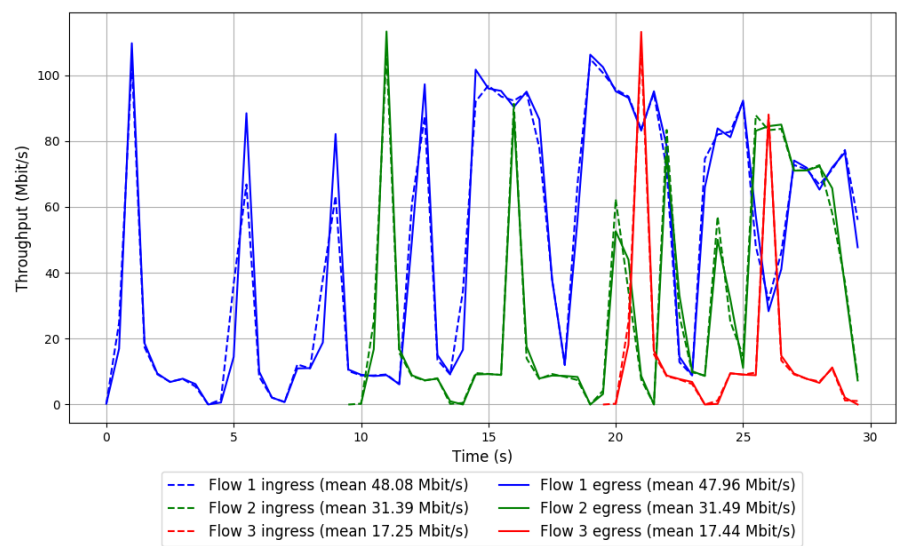
-- Flow 3:

Average throughput: 17.44 Mbit/s

95th percentile per-packet one-way delay: 50.756 ms

Loss rate: 0.31%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-01-17 16:52:33

End at: 2018-01-17 16:53:03

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.69 Mbit/s

95th percentile per-packet one-way delay: 50.887 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 54.97 Mbit/s

95th percentile per-packet one-way delay: 50.913 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 47.79 Mbit/s

95th percentile per-packet one-way delay: 50.425 ms

Loss rate: 0.75%

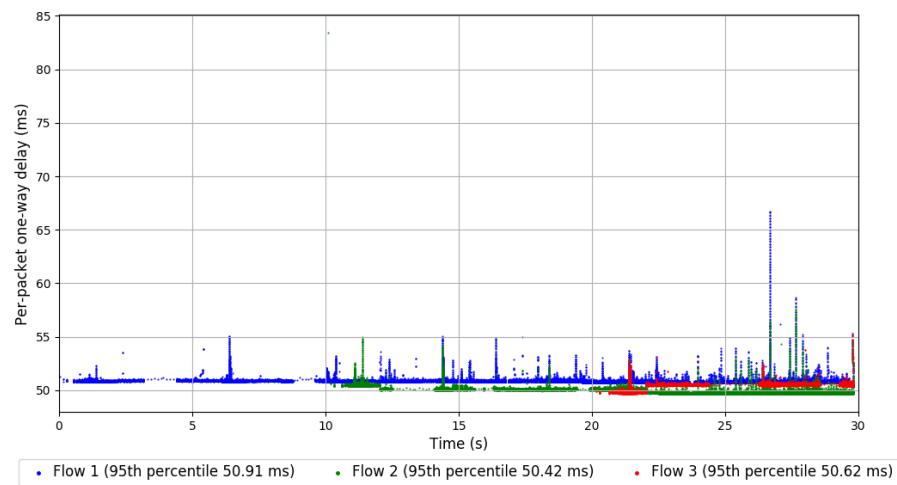
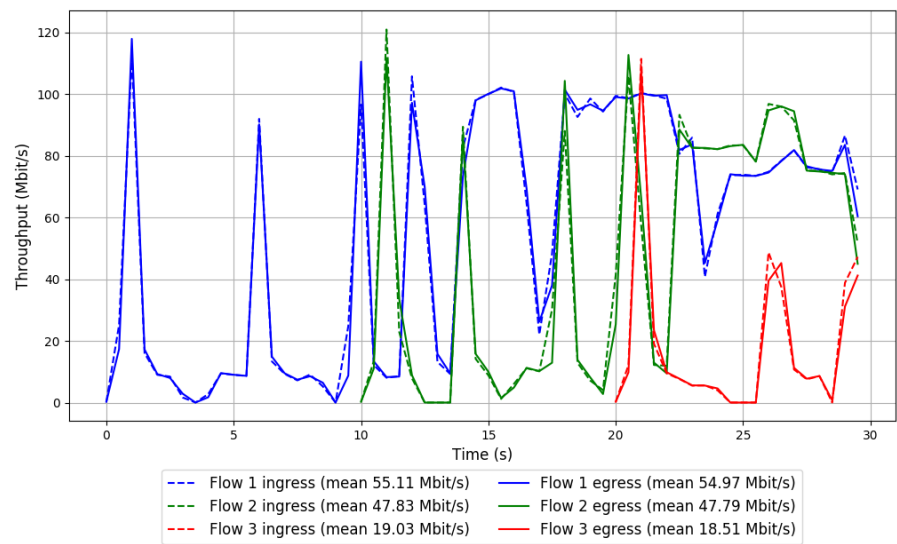
-- Flow 3:

Average throughput: 18.51 Mbit/s

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

Loss rate: 3.67%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-01-17 17:10:25

End at: 2018-01-17 17:10:55

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.83 Mbit/s

95th percentile per-packet one-way delay: 50.760 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 48.18 Mbit/s

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

Loss rate: 0.23%

-- Flow 2:

Average throughput: 45.72 Mbit/s

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

Loss rate: 0.29%

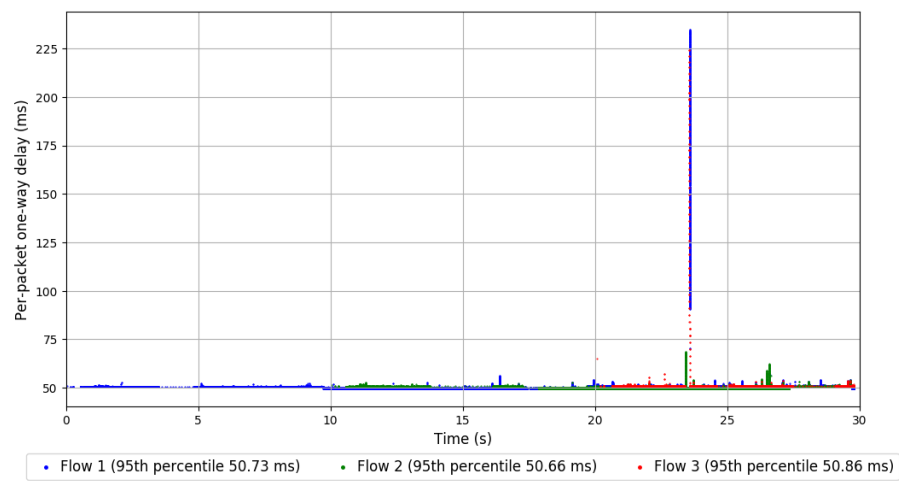
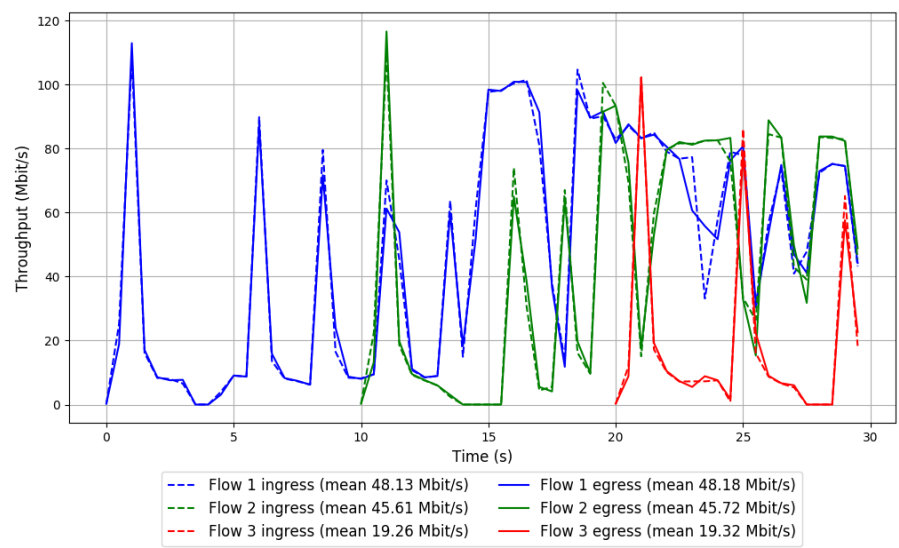
-- Flow 3:

Average throughput: 19.32 Mbit/s

95th percentile per-packet one-way delay: 50.858 ms

Loss rate: 0.85%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-01-17 17:28:08

End at: 2018-01-17 17:28:38

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.79 Mbit/s

95th percentile per-packet one-way delay: 50.773 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 52.48 Mbit/s

95th percentile per-packet one-way delay: 50.717 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 47.41 Mbit/s

95th percentile per-packet one-way delay: 50.757 ms

Loss rate: 0.64%

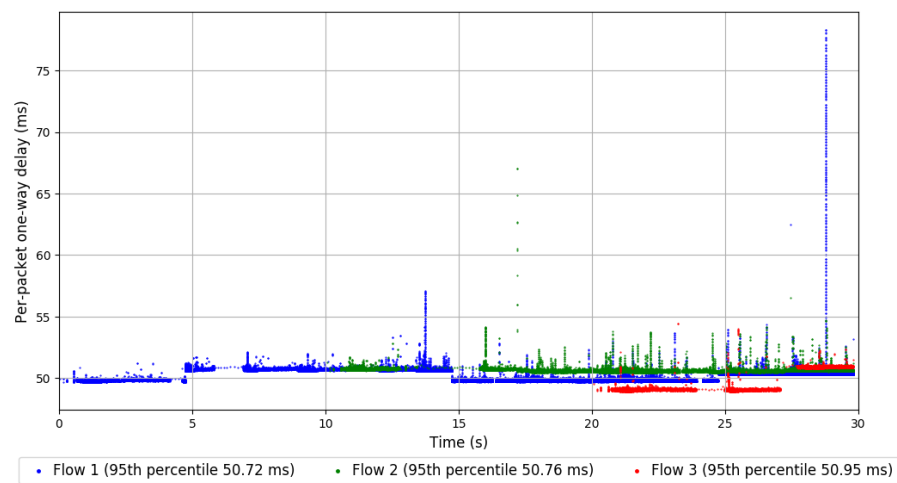
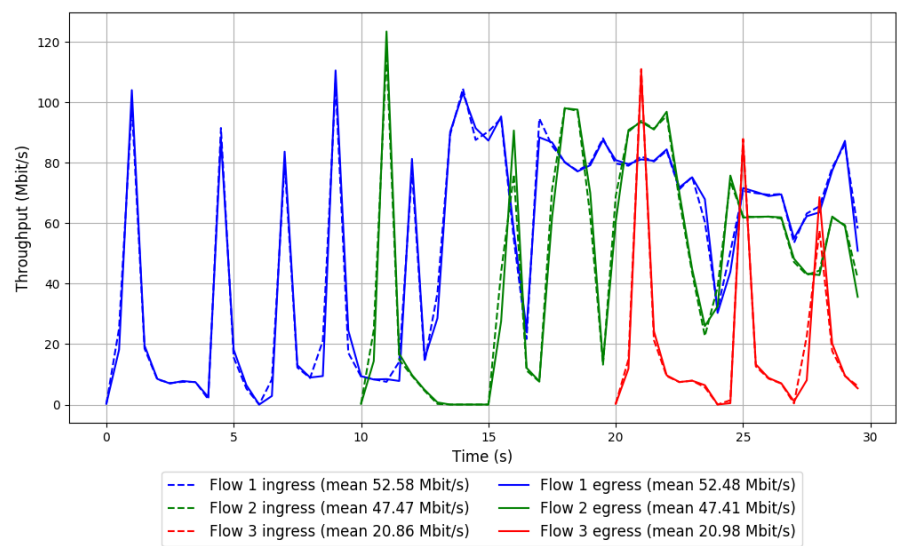
-- Flow 3:

Average throughput: 20.98 Mbit/s

95th percentile per-packet one-way delay: 50.946 ms

Loss rate: 0.41%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-01-17 17:45:24

End at: 2018-01-17 17:45:54

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.53 Mbit/s

95th percentile per-packet one-way delay: 50.788 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 58.08 Mbit/s

95th percentile per-packet one-way delay: 49.104 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 28.98 Mbit/s

95th percentile per-packet one-way delay: 50.858 ms

Loss rate: 1.47%

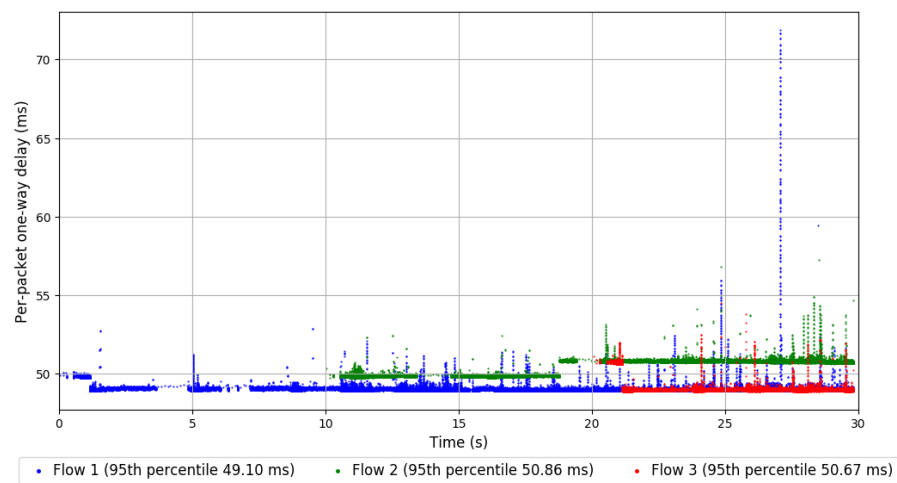
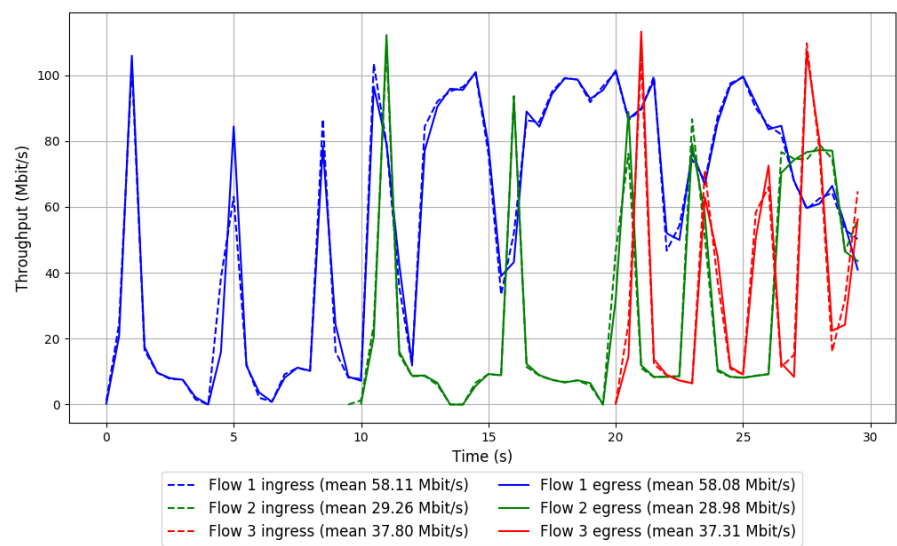
-- Flow 3:

Average throughput: 37.31 Mbit/s

95th percentile per-packet one-way delay: 50.671 ms

Loss rate: 2.29%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-01-17 18:03:09

End at: 2018-01-17 18:03:39

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 98.23 Mbit/s

95th percentile per-packet one-way delay: 51.066 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 63.23 Mbit/s

95th percentile per-packet one-way delay: 50.839 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 42.29 Mbit/s

95th percentile per-packet one-way delay: 51.135 ms

Loss rate: 0.91%

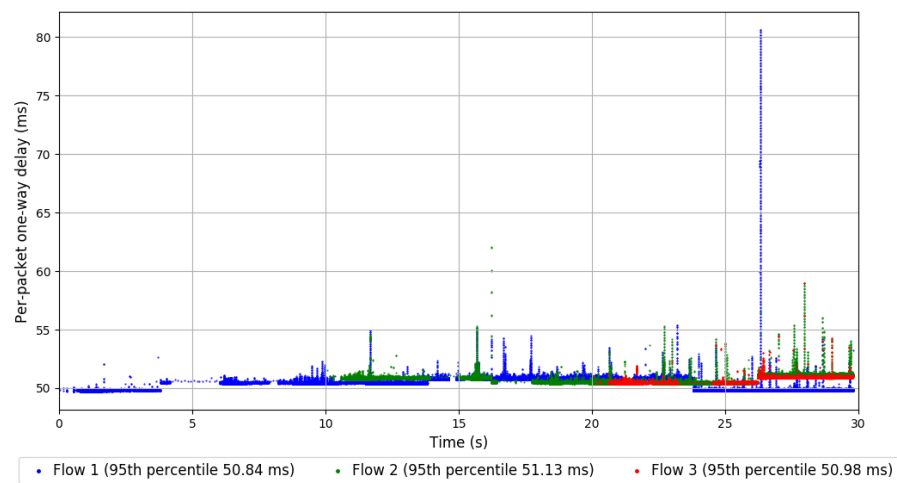
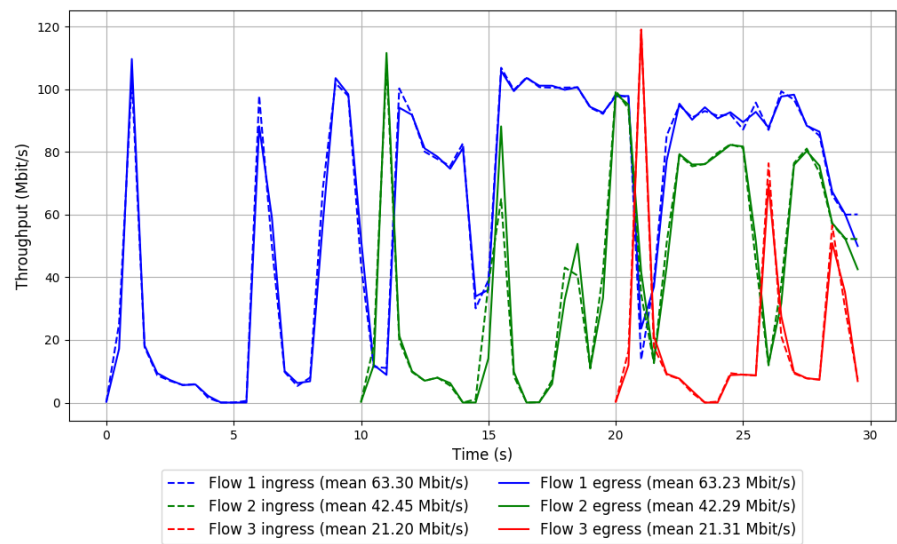
-- Flow 3:

Average throughput: 21.31 Mbit/s

95th percentile per-packet one-way delay: 50.975 ms

Loss rate: 0.48%

Run 9: Report of QUIC Cubic — Data Link

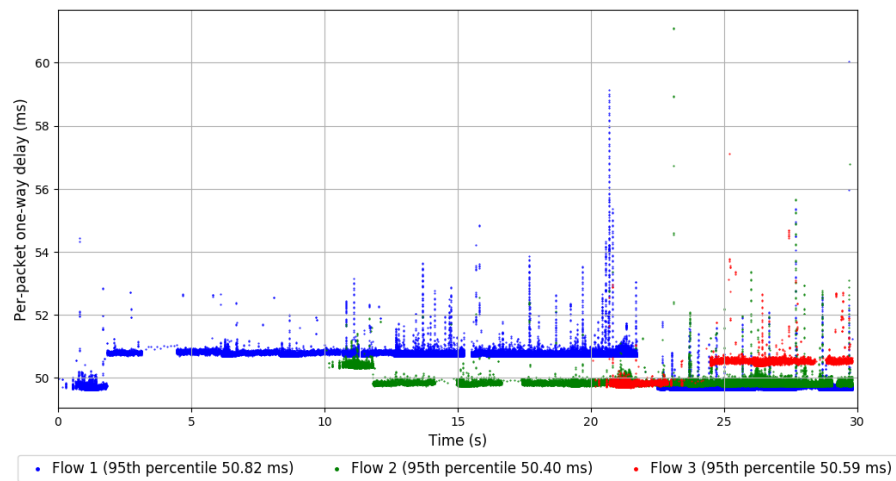
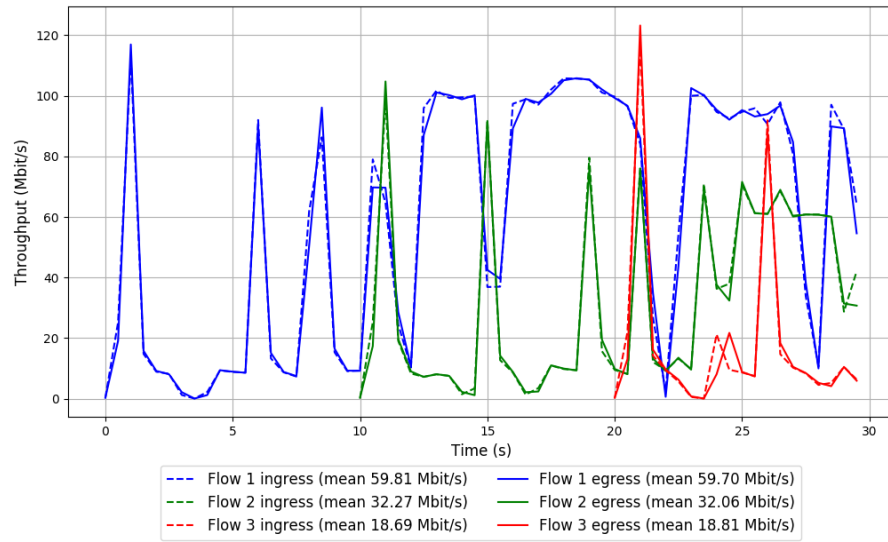


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-01-17 18:21:01
End at: 2018-01-17 18:21:31

# Below is generated by plot.py at 2018-01-17 21:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.12 Mbit/s
95th percentile per-packet one-way delay: 50.802 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 59.70 Mbit/s
95th percentile per-packet one-way delay: 50.821 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 32.06 Mbit/s
95th percentile per-packet one-way delay: 50.396 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 18.81 Mbit/s
95th percentile per-packet one-way delay: 50.588 ms
Loss rate: 0.39%
```

Run 10: Report of QUIC Cubic — Data Link

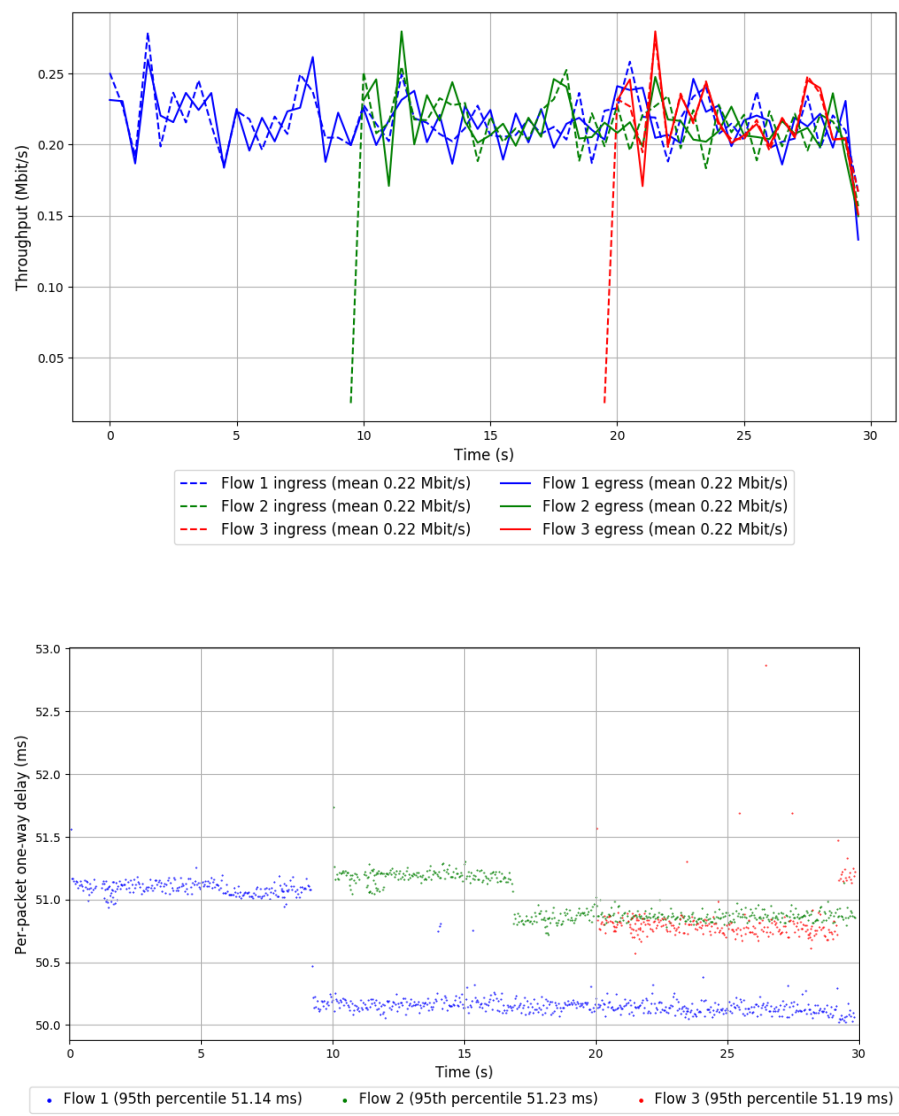


```
Run 1: Statistics of SCReAM

Start at: 2018-01-17 15:34:26
End at: 2018-01-17 15:34:56

# Below is generated by plot.py at 2018-01-17 21:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.207 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.144 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.229 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.185 ms
Loss rate: 0.74%
```

Run 1: Report of SReAM — Data Link

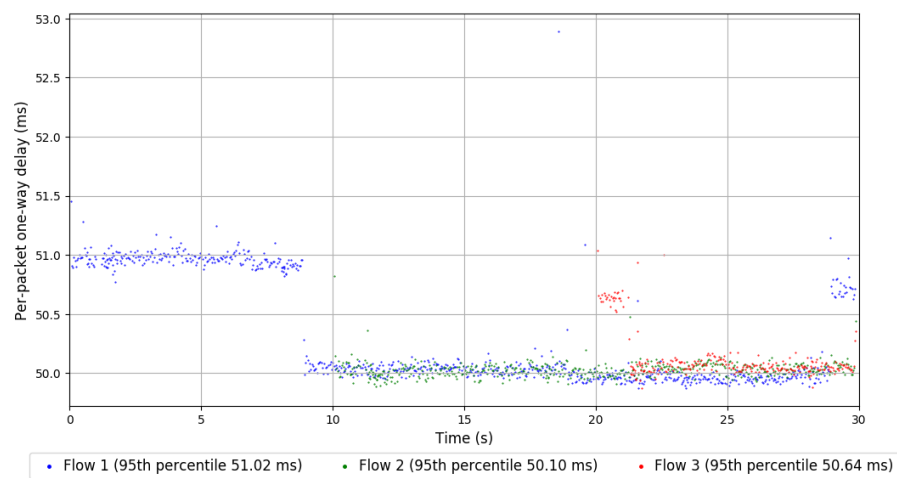
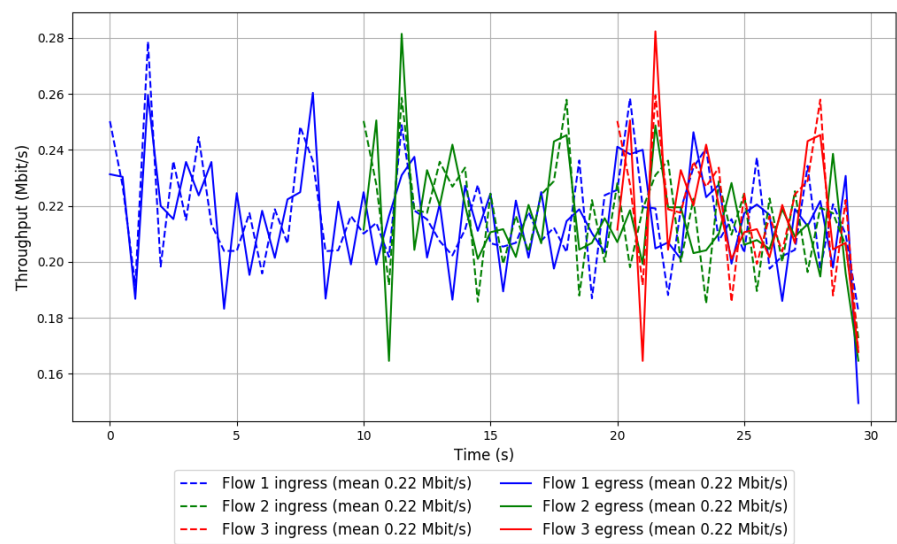


```
Run 2: Statistics of SCReAM

Start at: 2018-01-17 15:51:34
End at: 2018-01-17 15:52:04

# Below is generated by plot.py at 2018-01-17 21:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.987 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.019 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.104 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.644 ms
Loss rate: 0.74%
```


Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-01-17 16:09:13

End at: 2018-01-17 16:09:43

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 51.161 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.952 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.234 ms

Loss rate: 0.42%

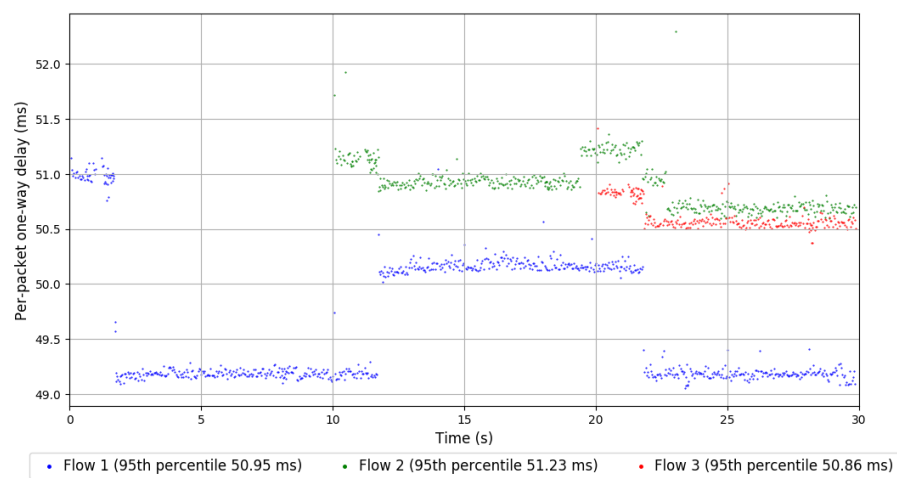
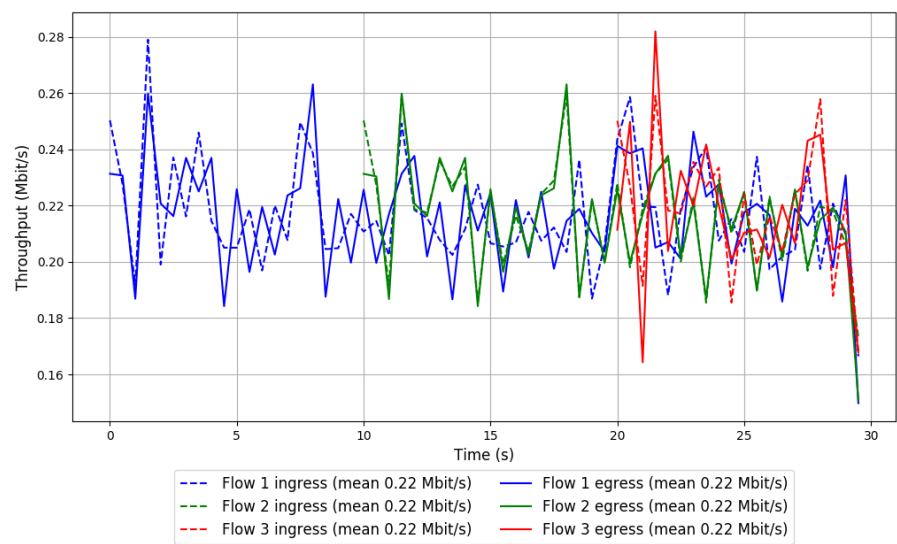
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.859 ms

Loss rate: 0.74%

Run 3: Report of SReAM — Data Link

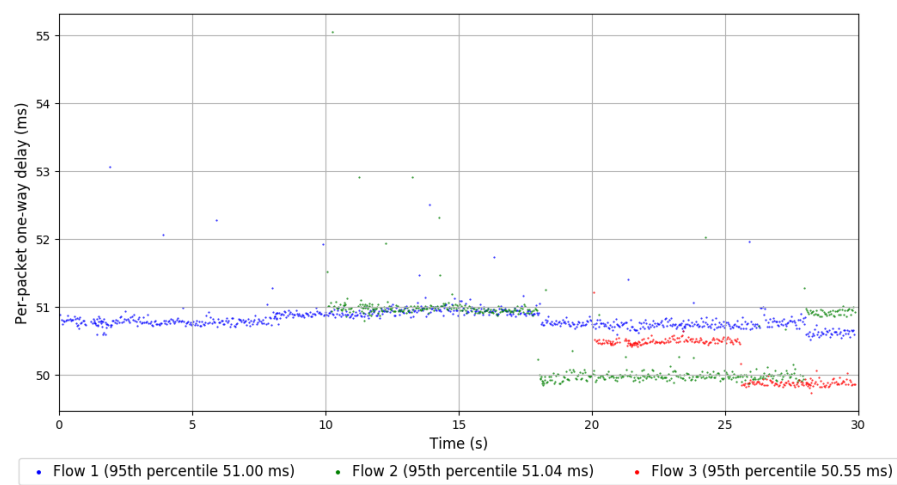
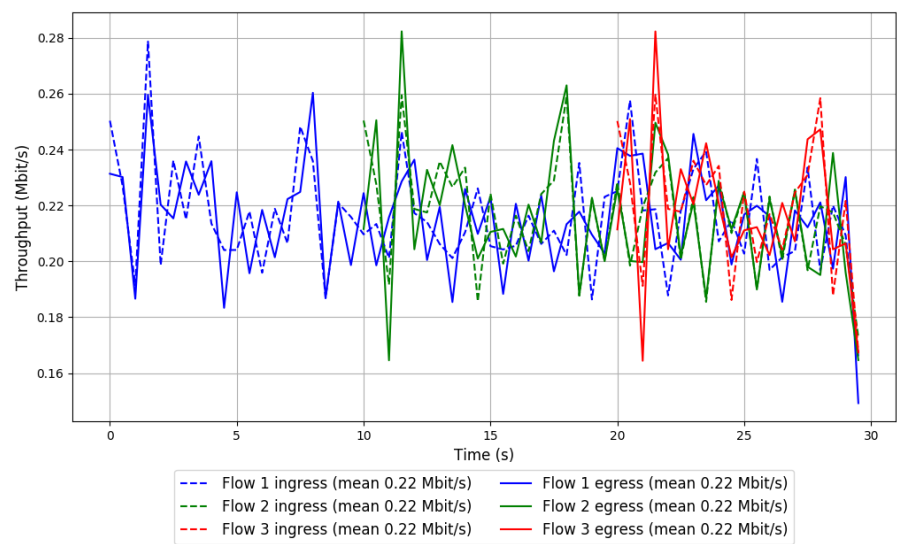


```
Run 4: Statistics of SCReAM

Start at: 2018-01-17 16:26:47
End at: 2018-01-17 16:27:17

# Below is generated by plot.py at 2018-01-17 21:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.018 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.004 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.039 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.549 ms
Loss rate: 0.73%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-01-17 16:44:17

End at: 2018-01-17 16:44:47

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 51.086 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.633 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.127 ms

Loss rate: 0.42%

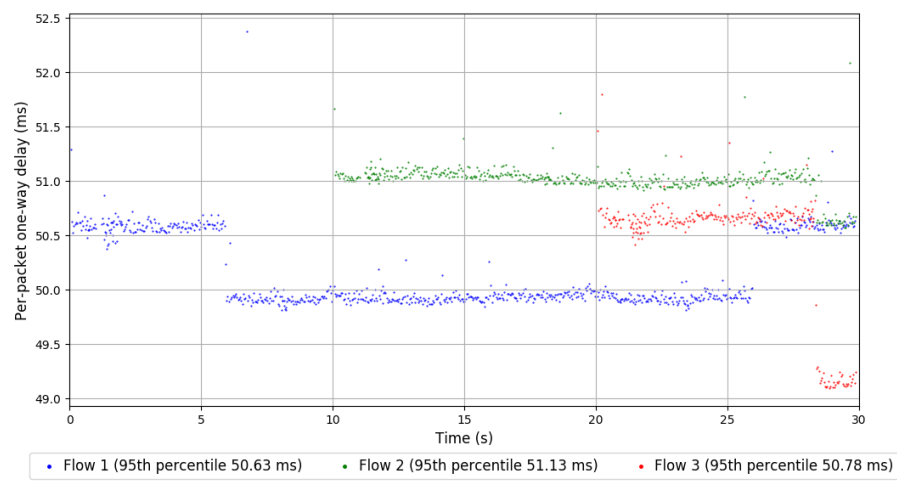
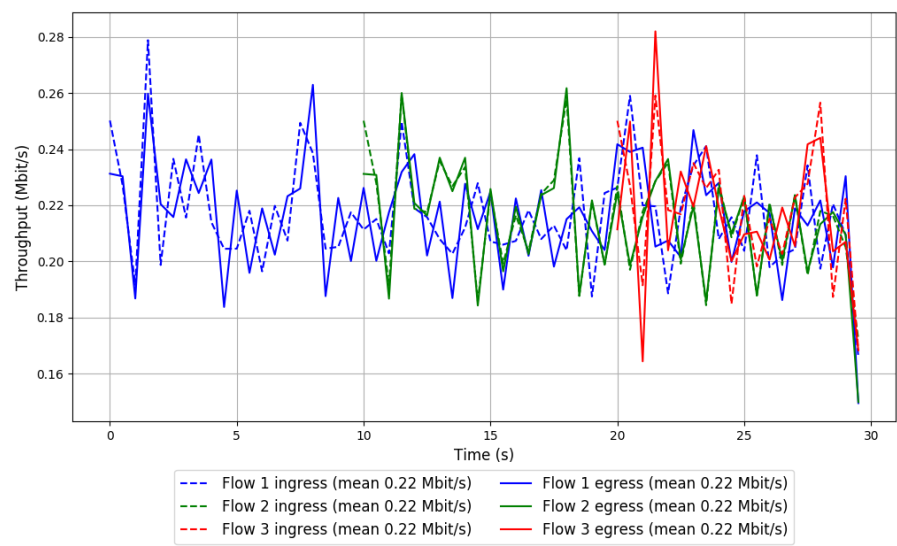
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.74%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2018-01-17 17:02:06

End at: 2018-01-17 17:02:36

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 51.253 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.293 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.015 ms

Loss rate: 0.42%

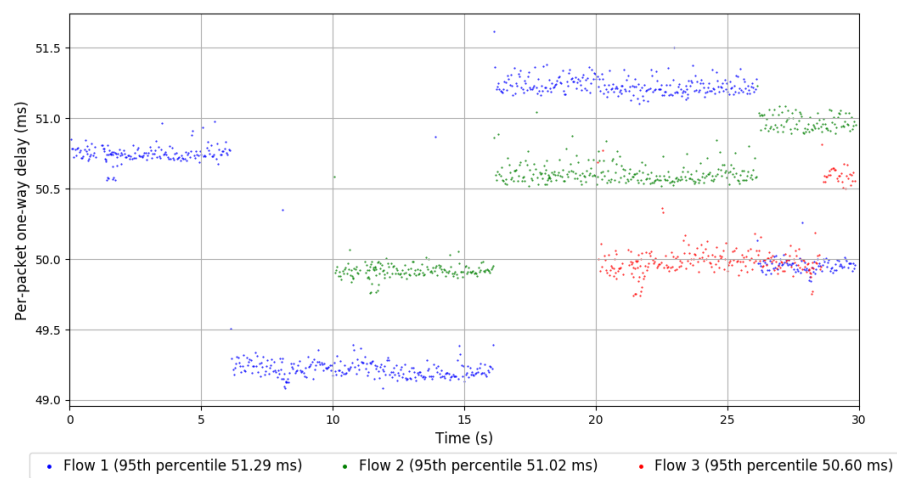
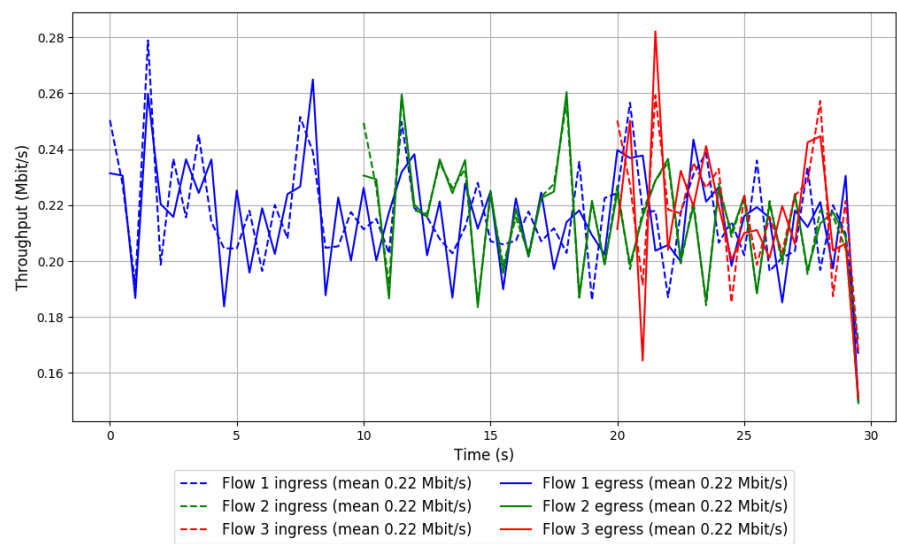
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 1.11%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2018-01-17 17:19:50

End at: 2018-01-17 17:20:20

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.999 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.701 ms

Loss rate: 0.42%

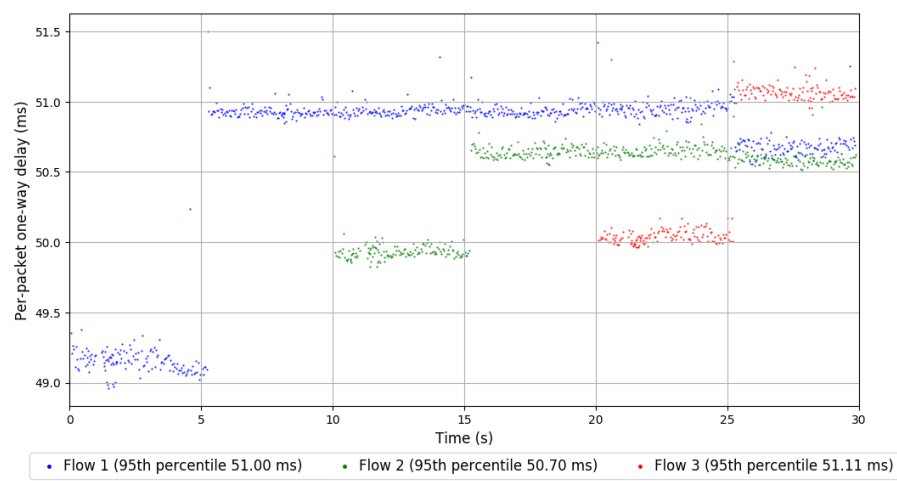
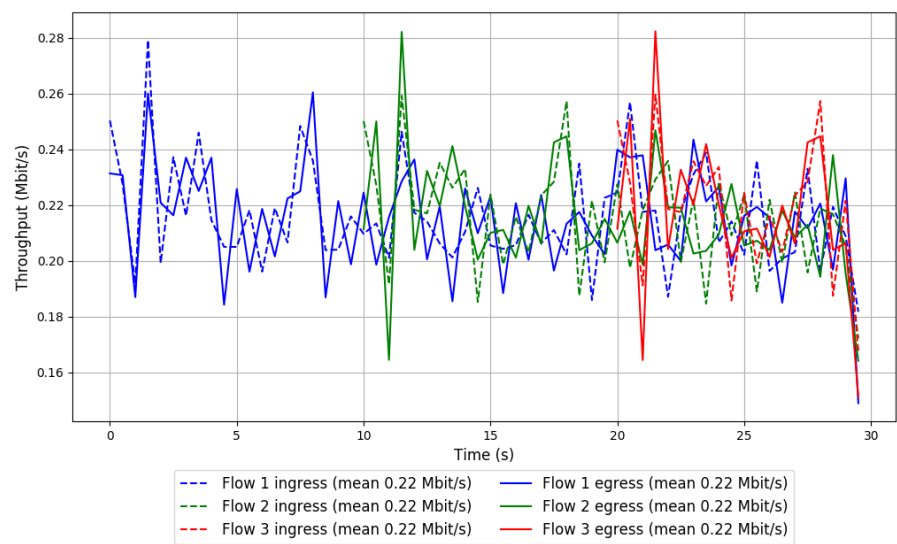
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.114 ms

Loss rate: 1.11%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2018-01-17 17:37:13

End at: 2018-01-17 17:37:43

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 51.027 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.044 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.891 ms

Loss rate: 0.42%

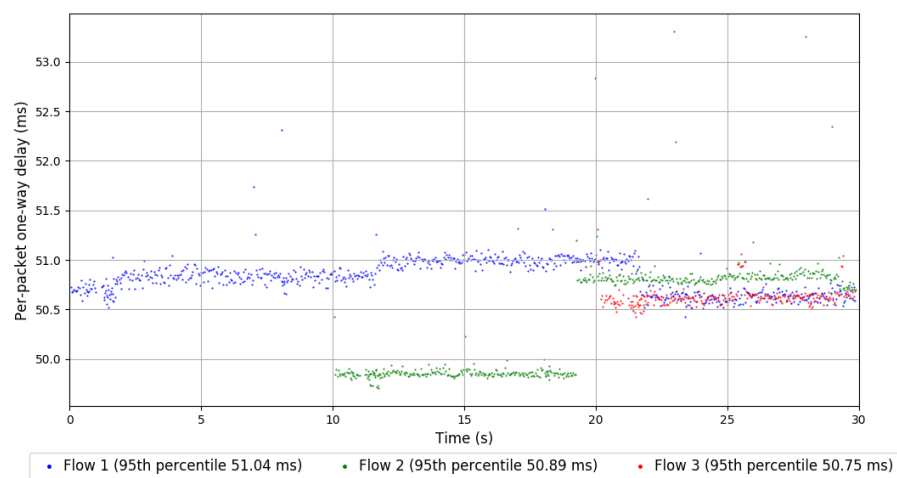
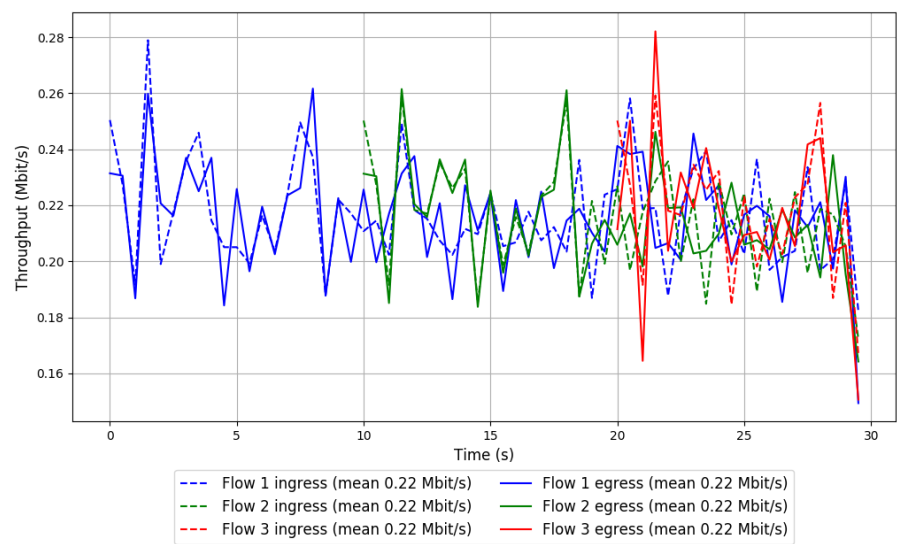
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.752 ms

Loss rate: 1.10%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2018-01-17 17:54:49

End at: 2018-01-17 17:55:19

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 51.050 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.953 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.055 ms

Loss rate: 0.42%

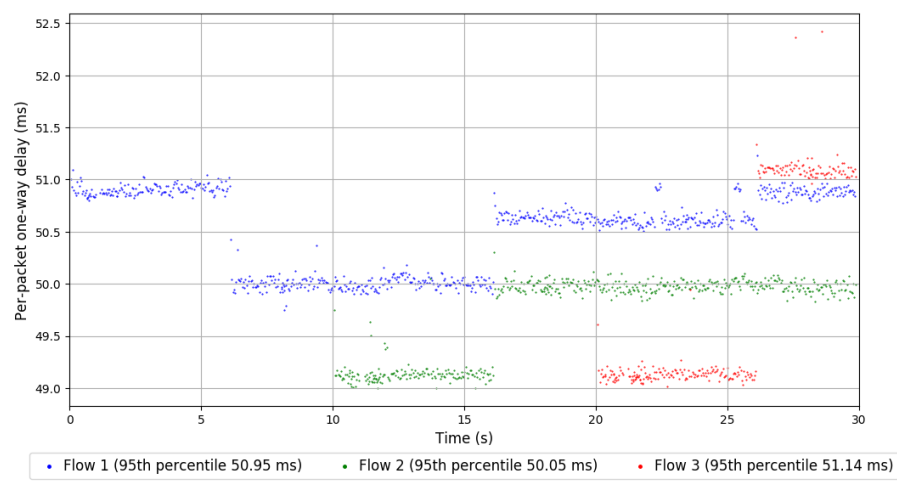
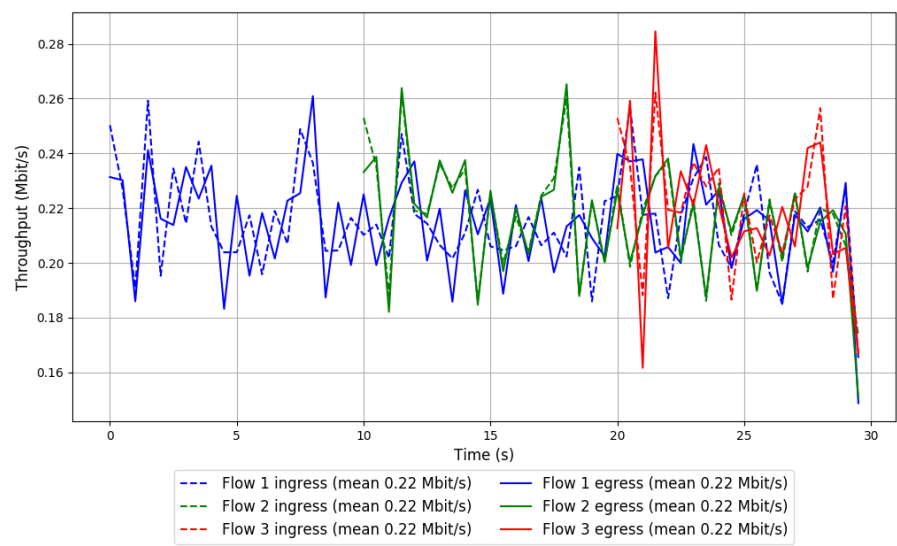
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.139 ms

Loss rate: 0.73%

Run 9: Report of SReAM — Data Link

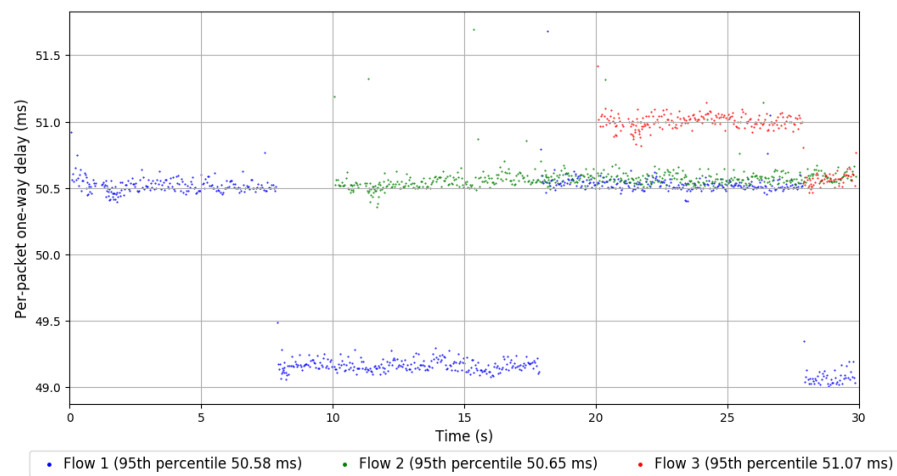
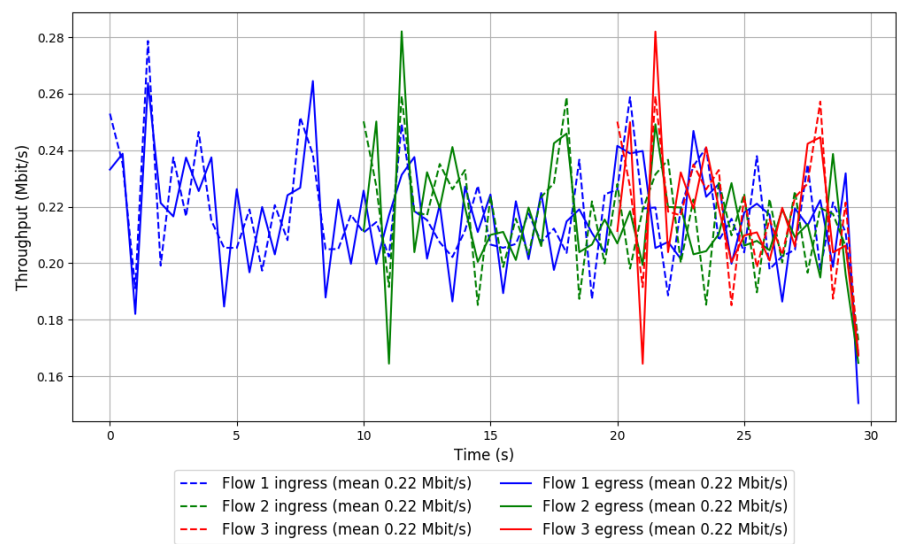


```
Run 10: Statistics of SReAM

Start at: 2018-01-17 18:12:47
End at: 2018-01-17 18:13:17

# Below is generated by plot.py at 2018-01-17 21:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.025 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.582 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.647 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.073 ms
Loss rate: 0.74%
```


Run 10: Report of SReAM — Data Link

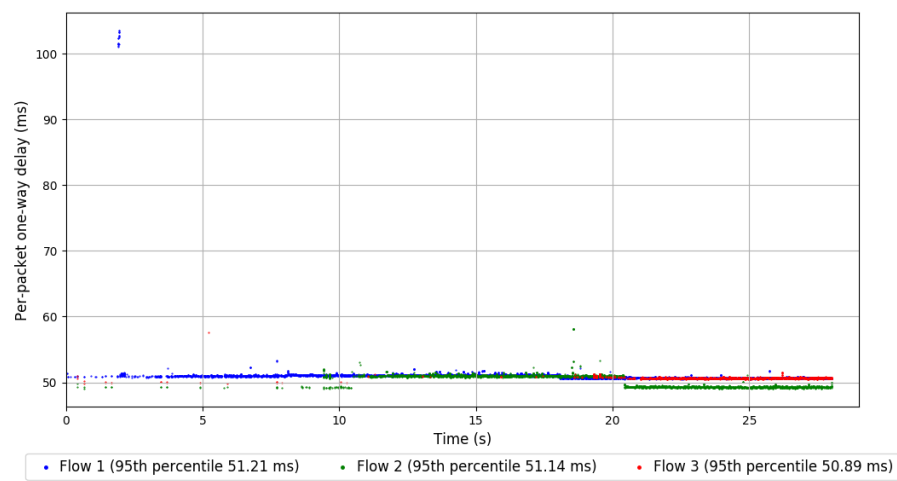
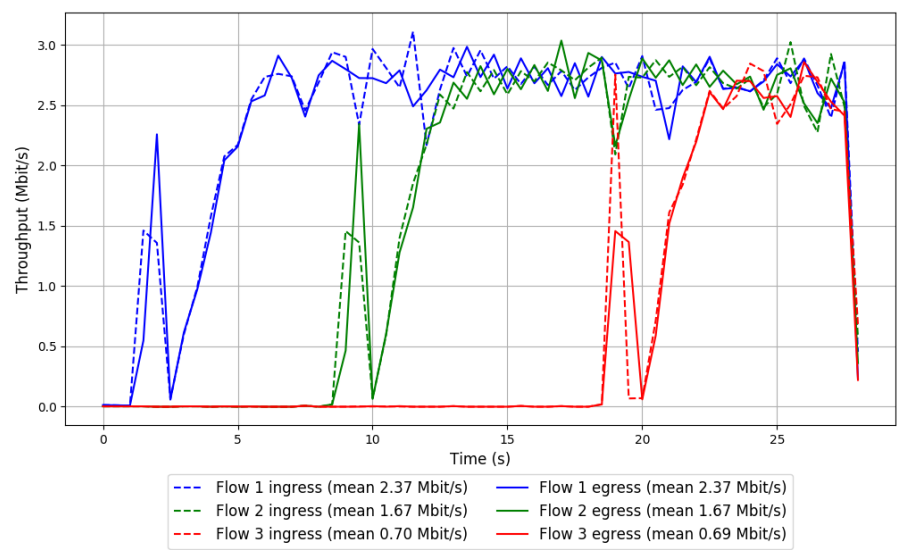


```
Run 1: Statistics of WebRTC media

Start at: 2018-01-17 15:39:03
End at: 2018-01-17 15:39:33

# Below is generated by plot.py at 2018-01-17 21:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.69 Mbit/s
95th percentile per-packet one-way delay: 51.188 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 51.214 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 1.67 Mbit/s
95th percentile per-packet one-way delay: 51.143 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 50.893 ms
Loss rate: 1.77%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-01-17 15:56:26

End at: 2018-01-17 15:56:56

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 51.075 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 50.924 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 51.129 ms

Loss rate: 0.40%

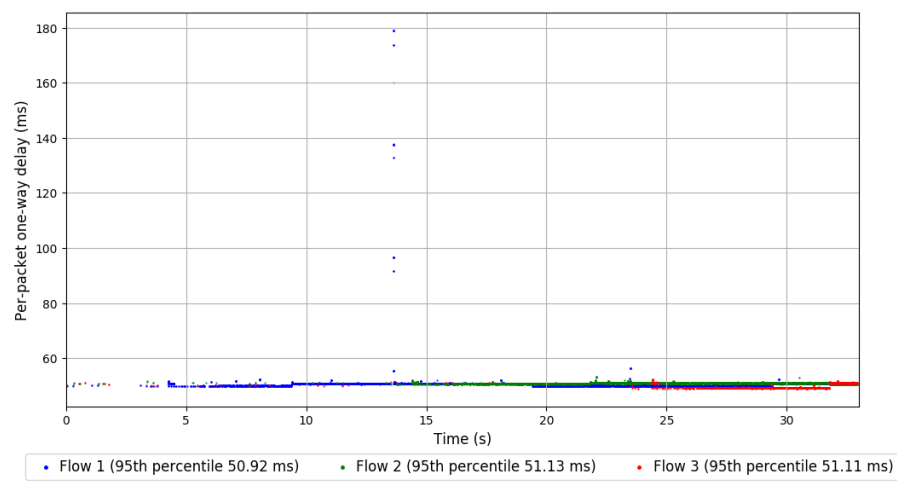
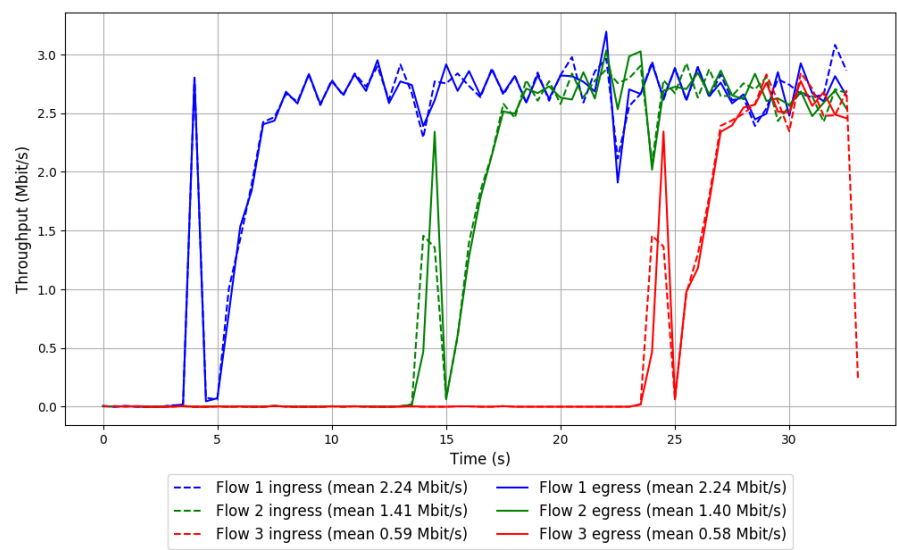
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 51.107 ms

Loss rate: 1.81%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-01-17 16:13:59

End at: 2018-01-17 16:14:29

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.19 Mbit/s

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

Loss rate: 0.59%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 51.033 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 51.005 ms

Loss rate: 0.61%

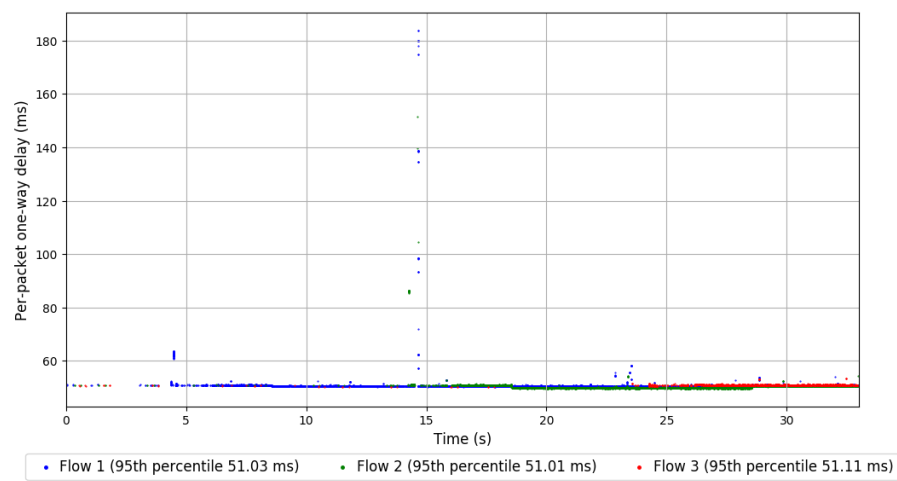
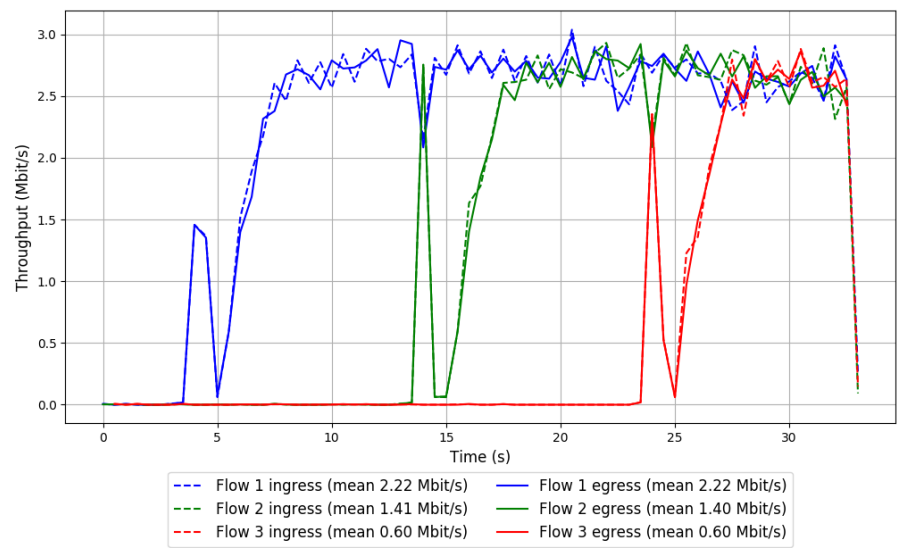
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 51.113 ms

Loss rate: 1.48%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-01-17 16:31:31

End at: 2018-01-17 16:32:01

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.19 Mbit/s

95th percentile per-packet one-way delay: 51.069 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 2.22 Mbit/s

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

Loss rate: 0.35%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 50.922 ms

Loss rate: 0.62%

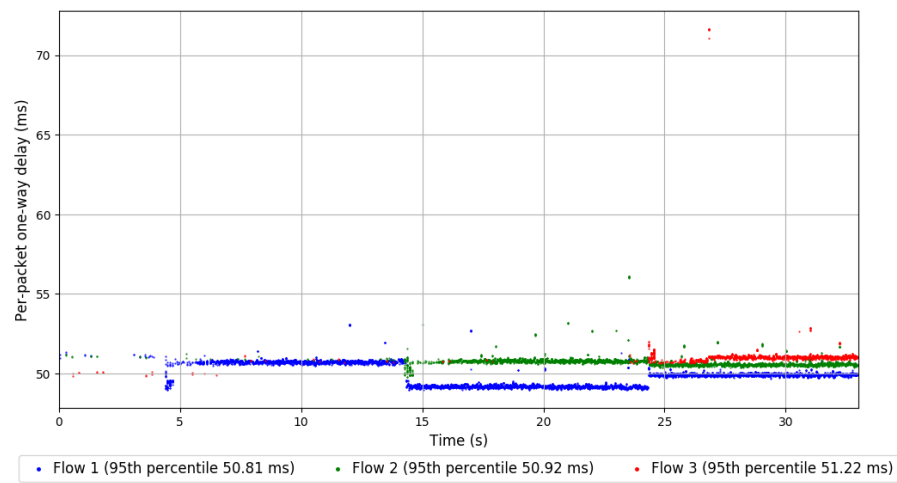
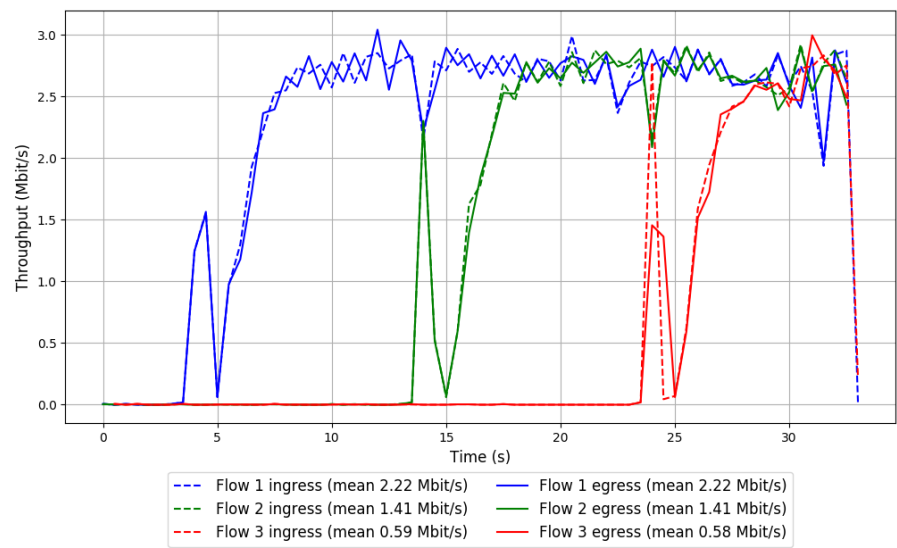
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 51.221 ms

Loss rate: 1.80%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-01-17 16:49:05

End at: 2018-01-17 16:49:35

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 51.118 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 50.720 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 51.210 ms

Loss rate: 0.60%

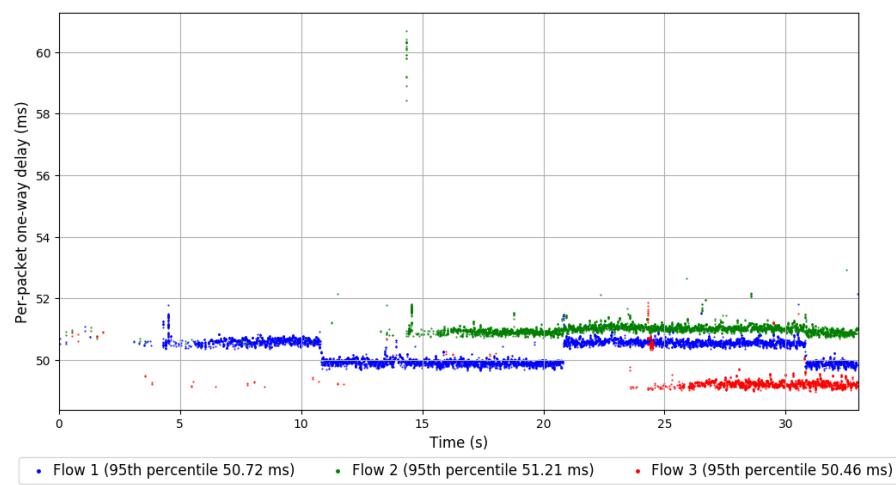
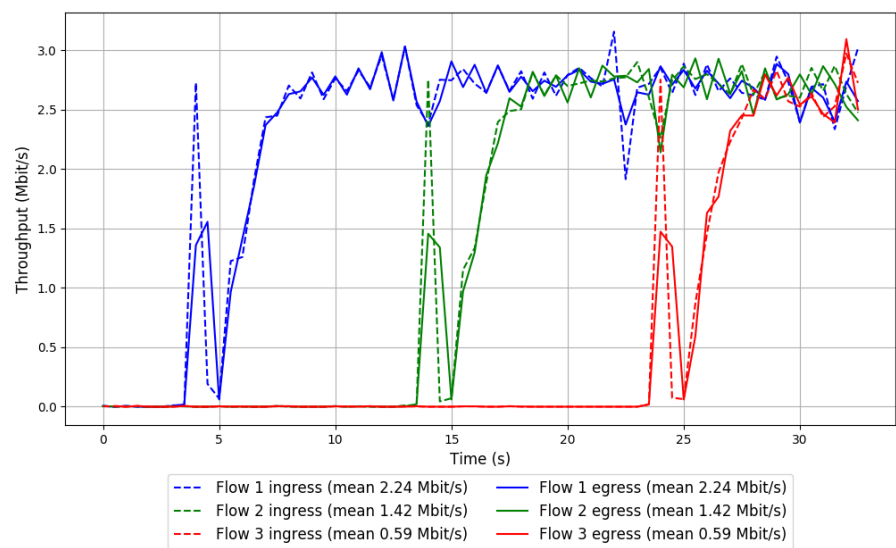
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 50.461 ms

Loss rate: 1.17%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-01-17 17:06:54

End at: 2018-01-17 17:07:24

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 51.131 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 50.697 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 51.156 ms

Loss rate: 0.66%

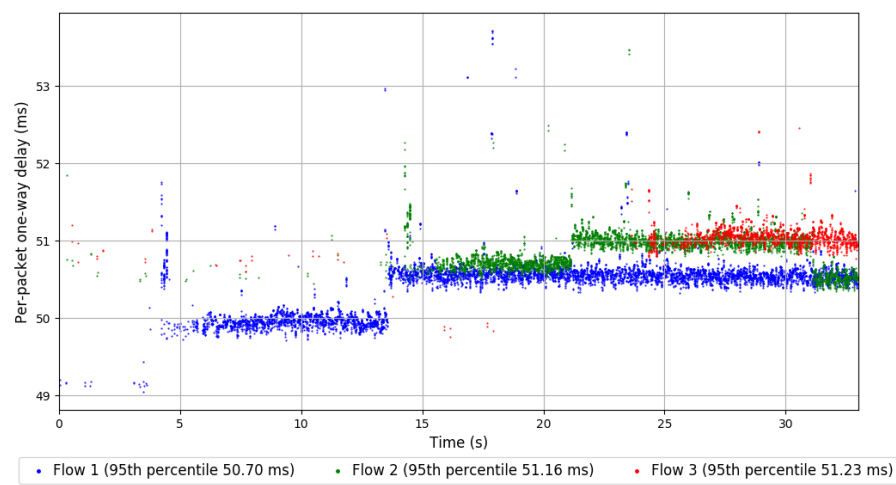
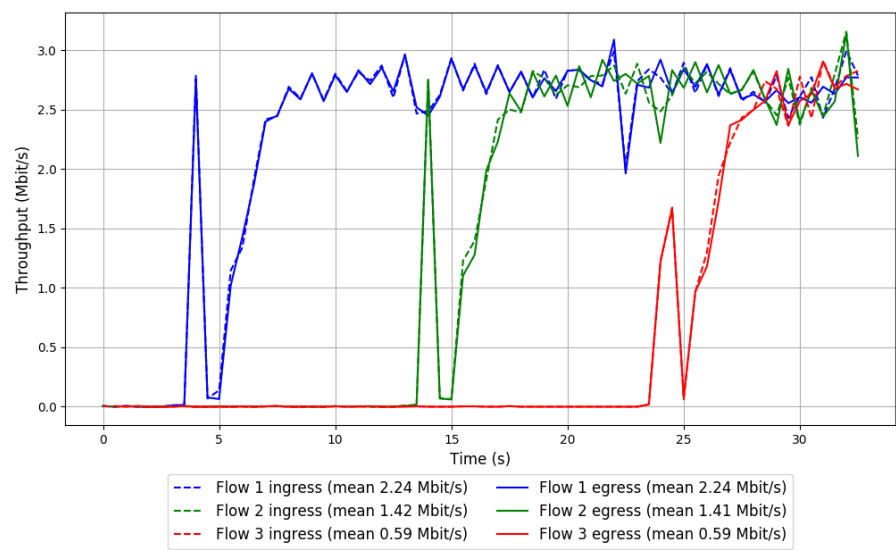
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 51.231 ms

Loss rate: 1.19%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-01-17 17:24:37

End at: 2018-01-17 17:25:07

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 51.135 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 51.113 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 51.127 ms

Loss rate: 0.68%

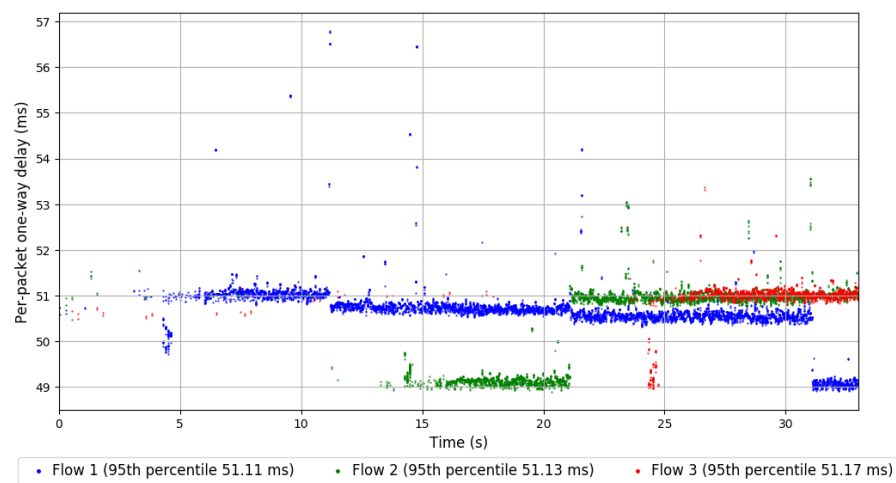
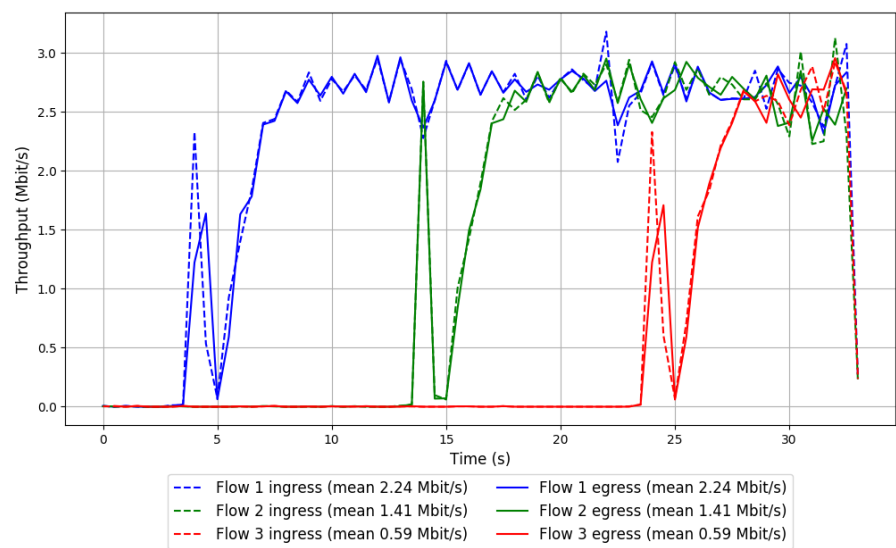
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 51.173 ms

Loss rate: 1.23%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-01-17 17:41:54

End at: 2018-01-17 17:42:24

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 51.129 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 51.162 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 51.017 ms

Loss rate: 0.43%

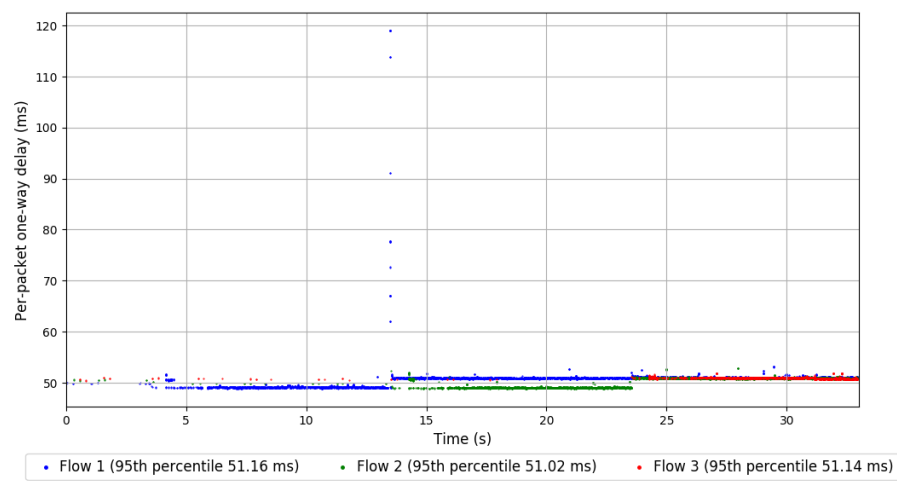
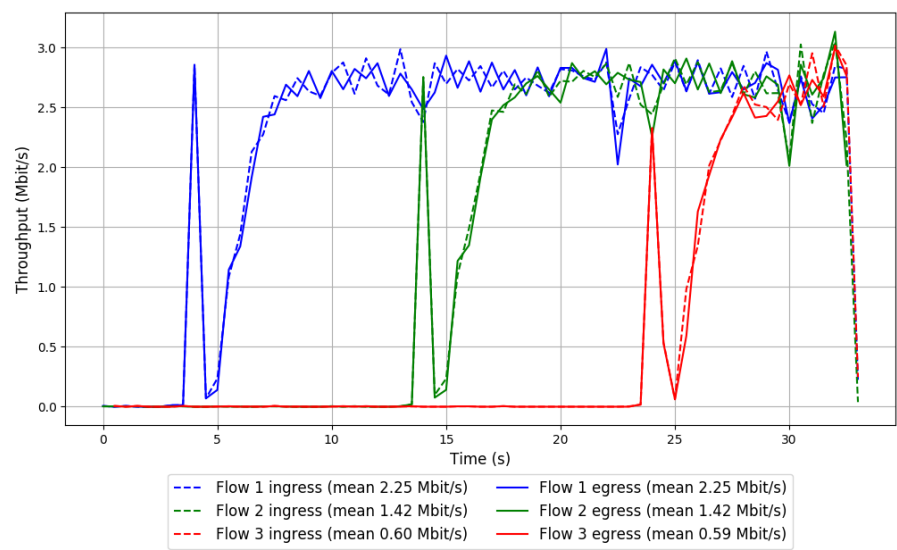
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 51.141 ms

Loss rate: 1.84%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-01-17 17:59:34

End at: 2018-01-17 18:00:04

Below is generated by plot.py at 2018-01-17 21:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 51.297 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 50.845 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 51.381 ms

Loss rate: 0.45%

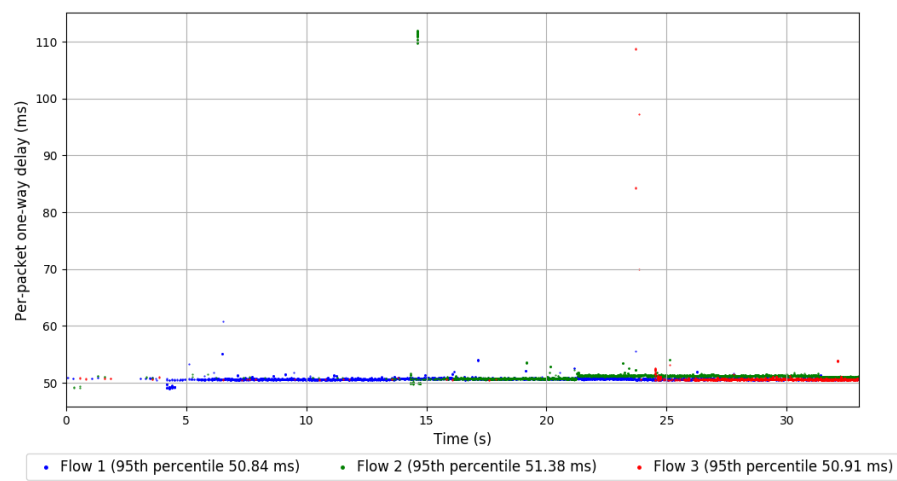
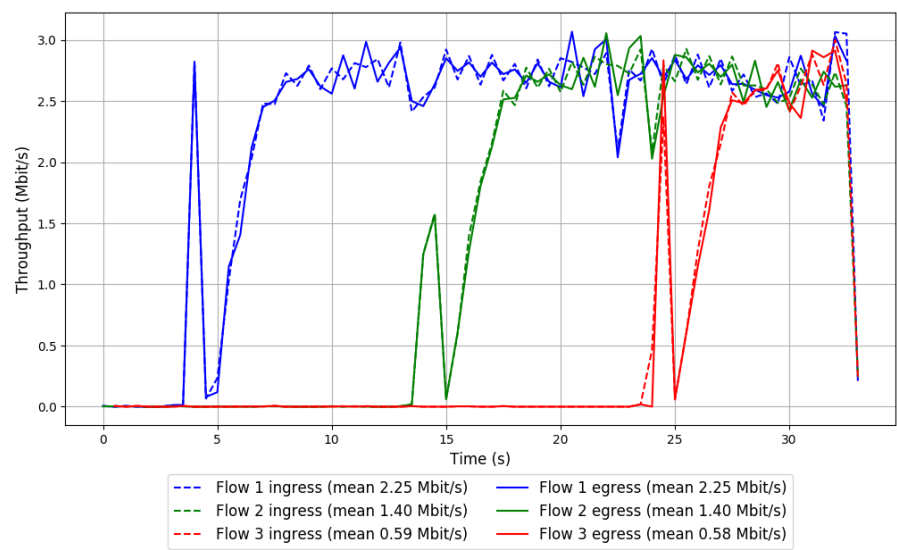
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 50.908 ms

Loss rate: 1.73%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-01-17 18:17:33

End at: 2018-01-17 18:18:03

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 51.113 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 51.124 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 50.987 ms

Loss rate: 0.68%

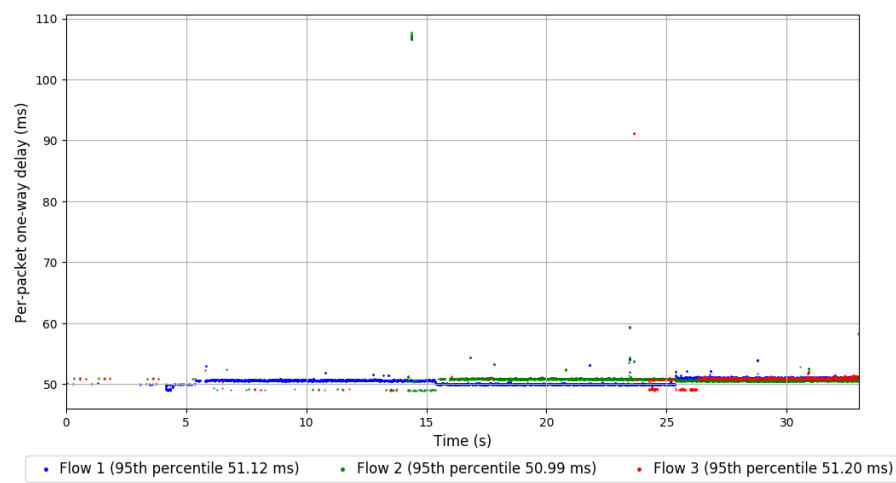
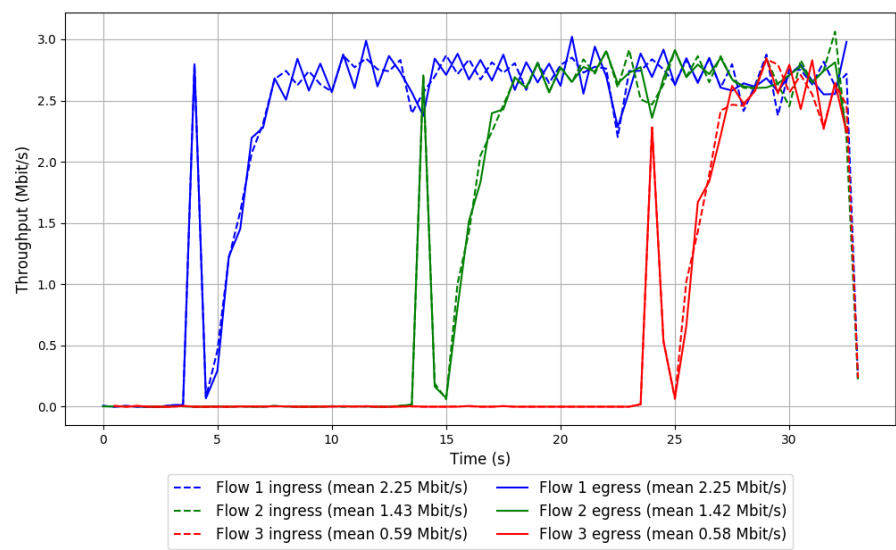
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 51.199 ms

Loss rate: 1.80%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-01-17 15:27:58

End at: 2018-01-17 15:28:28

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.29 Mbit/s

95th percentile per-packet one-way delay: 52.220 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 52.245 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 7.76 Mbit/s

95th percentile per-packet one-way delay: 52.210 ms

Loss rate: 0.62%

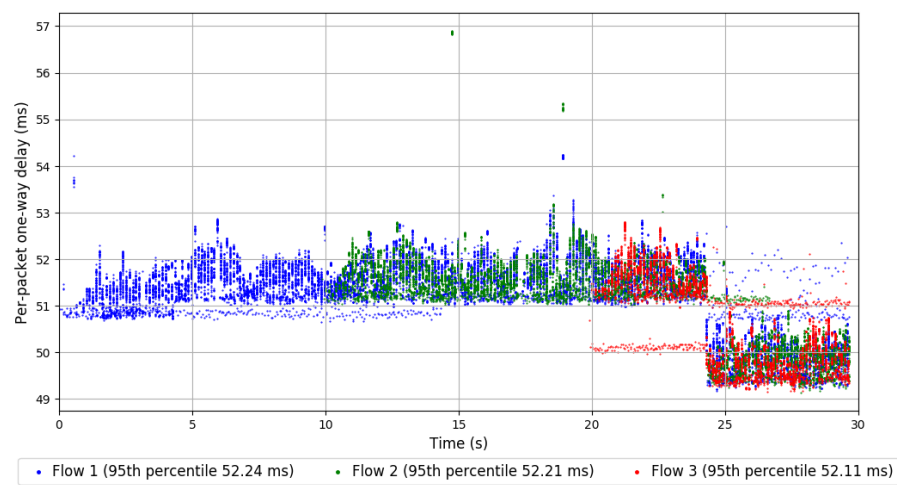
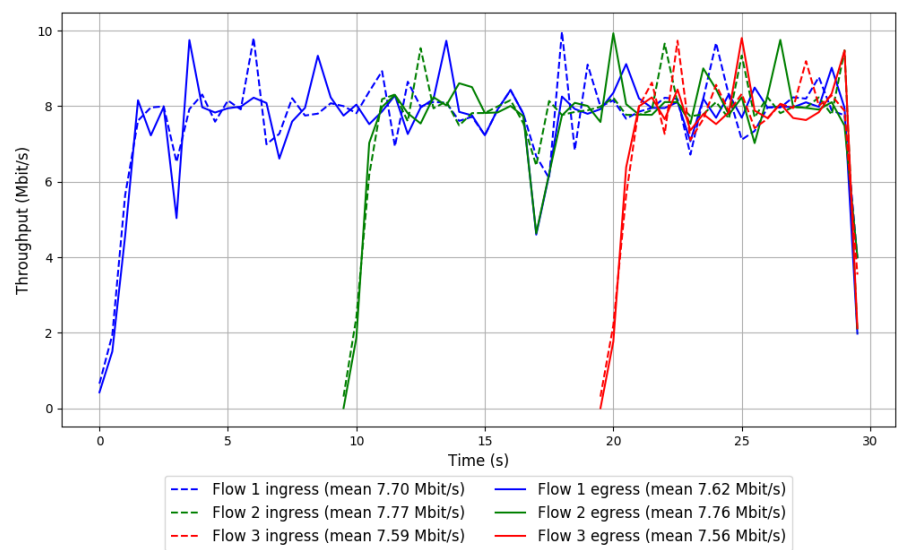
-- Flow 3:

Average throughput: 7.56 Mbit/s

95th percentile per-packet one-way delay: 52.109 ms

Loss rate: 1.18%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-01-17 15:45:25

End at: 2018-01-17 15:45:55

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.20 Mbit/s

95th percentile per-packet one-way delay: 51.904 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 51.857 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 7.63 Mbit/s

95th percentile per-packet one-way delay: 51.874 ms

Loss rate: 1.80%

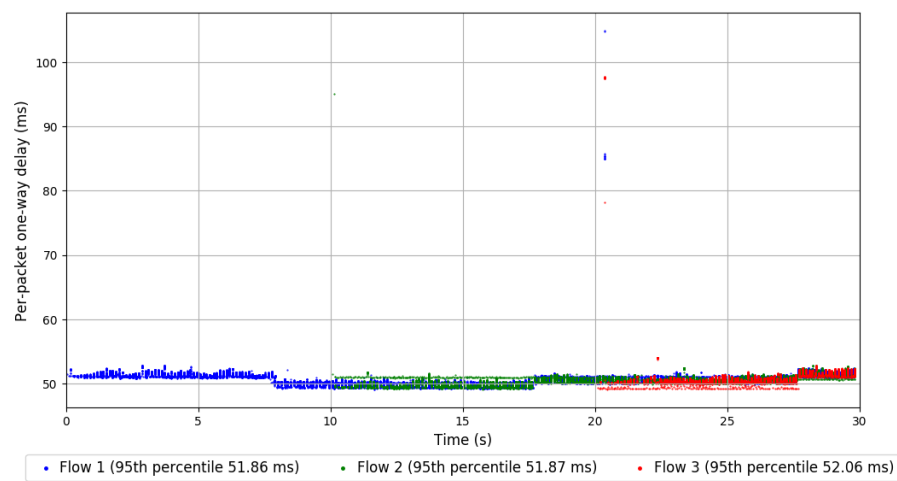
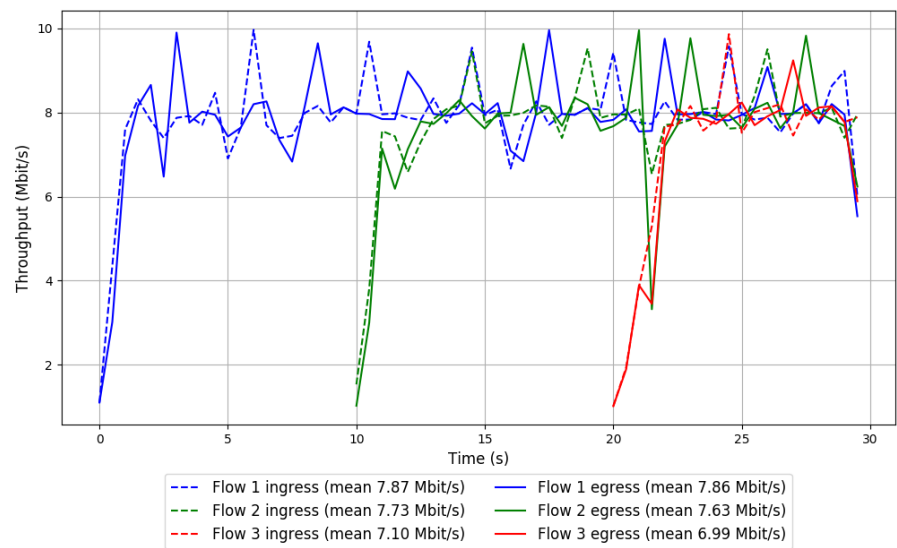
-- Flow 3:

Average throughput: 6.99 Mbit/s

95th percentile per-packet one-way delay: 52.059 ms

Loss rate: 2.75%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-01-17 16:02:55

End at: 2018-01-17 16:03:25

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.21 Mbit/s

95th percentile per-packet one-way delay: 52.140 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 52.121 ms

Loss rate: 1.23%

-- Flow 2:

Average throughput: 7.78 Mbit/s

95th percentile per-packet one-way delay: 52.154 ms

Loss rate: 0.67%

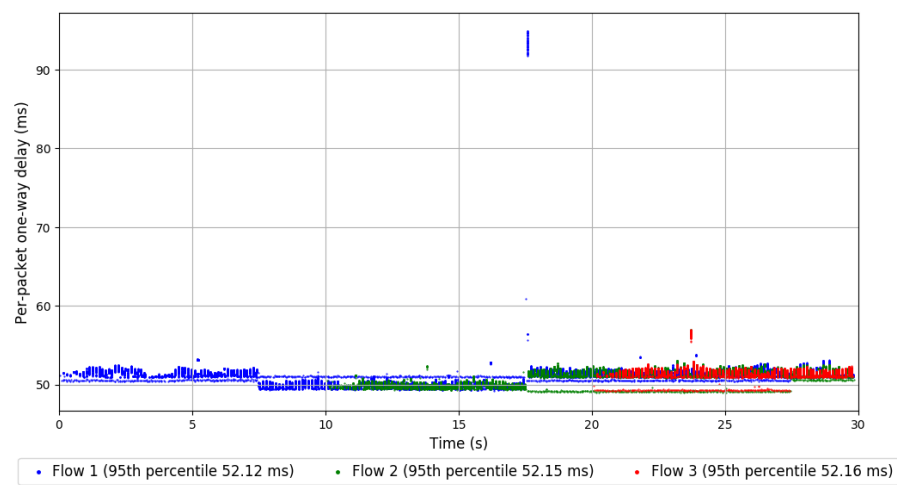
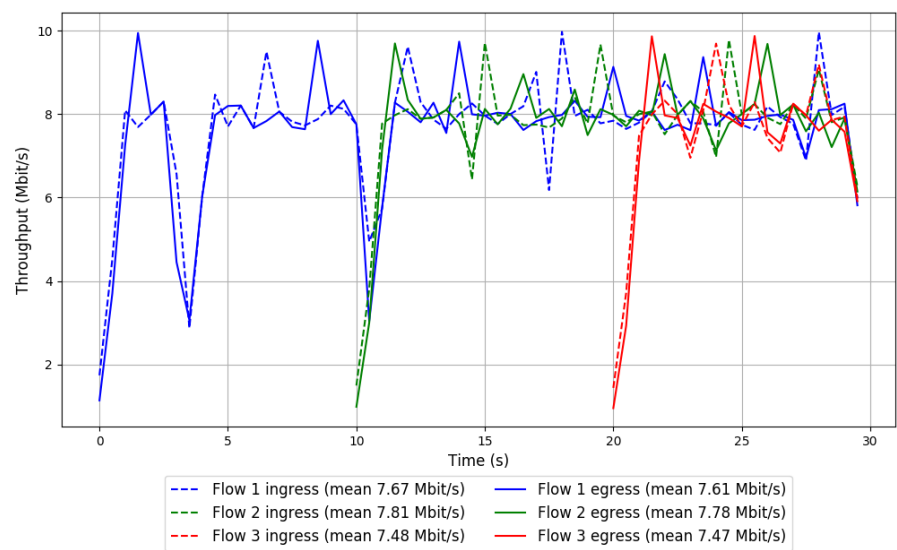
-- Flow 3:

Average throughput: 7.47 Mbit/s

95th percentile per-packet one-way delay: 52.162 ms

Loss rate: 1.35%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-01-17 16:20:25

End at: 2018-01-17 16:20:55

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.52 Mbit/s

95th percentile per-packet one-way delay: 52.245 ms

Loss rate: 1.99%

-- Flow 1:

Average throughput: 7.58 Mbit/s

95th percentile per-packet one-way delay: 52.170 ms

Loss rate: 2.14%

-- Flow 2:

Average throughput: 6.94 Mbit/s

95th percentile per-packet one-way delay: 52.462 ms

Loss rate: 1.89%

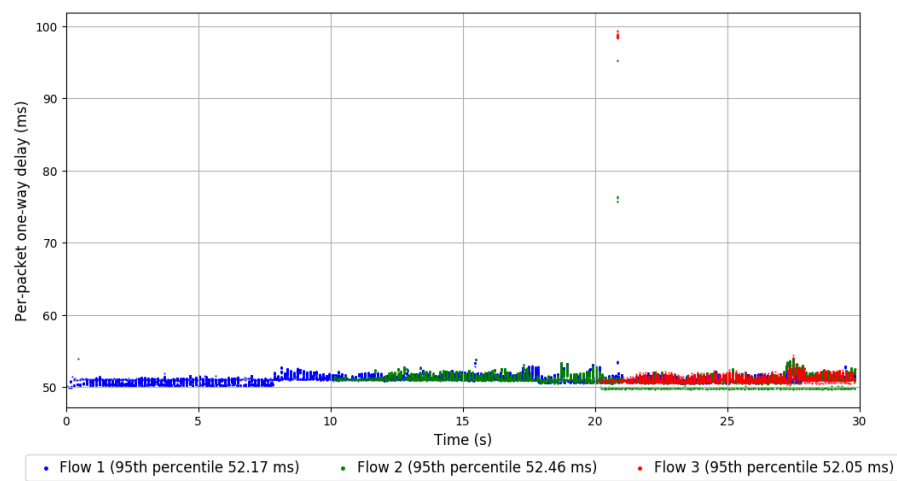
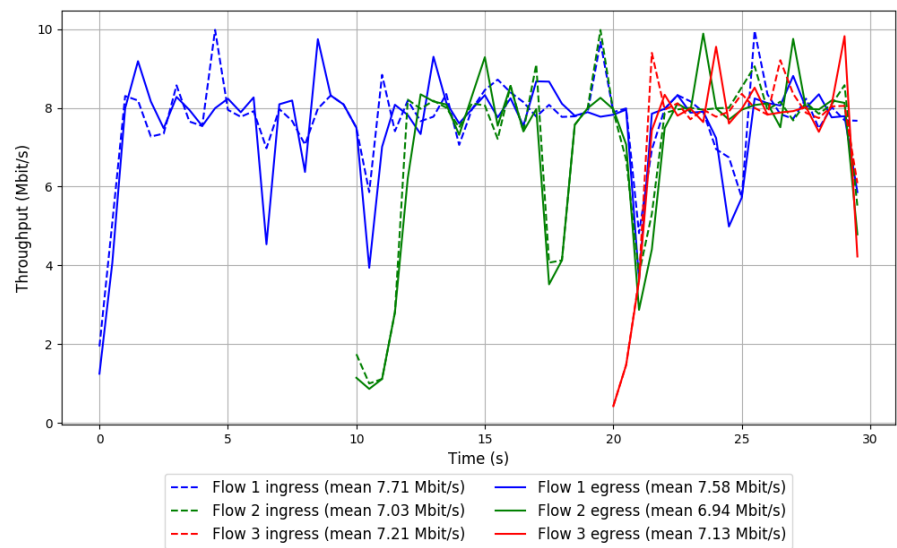
-- Flow 3:

Average throughput: 7.13 Mbit/s

95th percentile per-packet one-way delay: 52.045 ms

Loss rate: 1.68%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-01-17 16:37:56

End at: 2018-01-17 16:38:26

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.47 Mbit/s

95th percentile per-packet one-way delay: 52.024 ms

Loss rate: 2.03%

-- Flow 1:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 51.946 ms

Loss rate: 1.77%

-- Flow 2:

Average throughput: 7.15 Mbit/s

95th percentile per-packet one-way delay: 52.039 ms

Loss rate: 2.12%

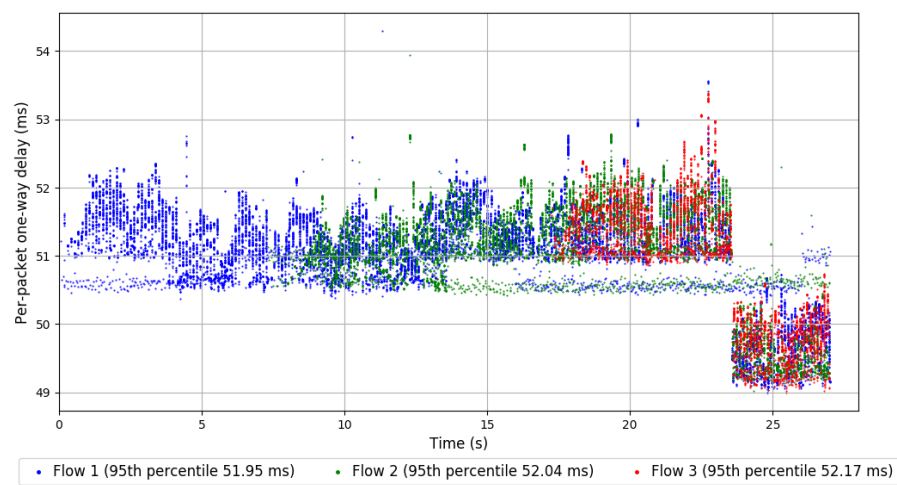
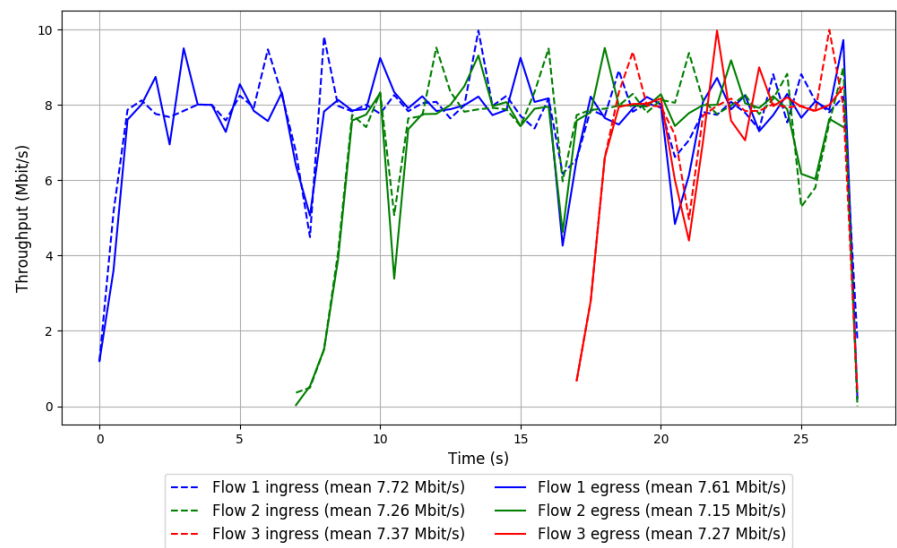
-- Flow 3:

Average throughput: 7.27 Mbit/s

95th percentile per-packet one-way delay: 52.175 ms

Loss rate: 2.62%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-01-17 16:55:35

End at: 2018-01-17 16:56:05

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.37 Mbit/s

95th percentile per-packet one-way delay: 52.176 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 52.250 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 52.086 ms

Loss rate: 0.64%

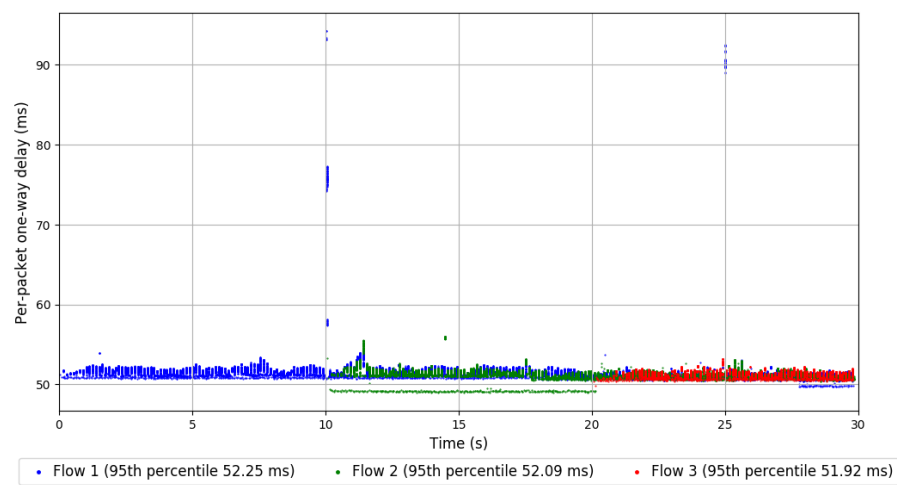
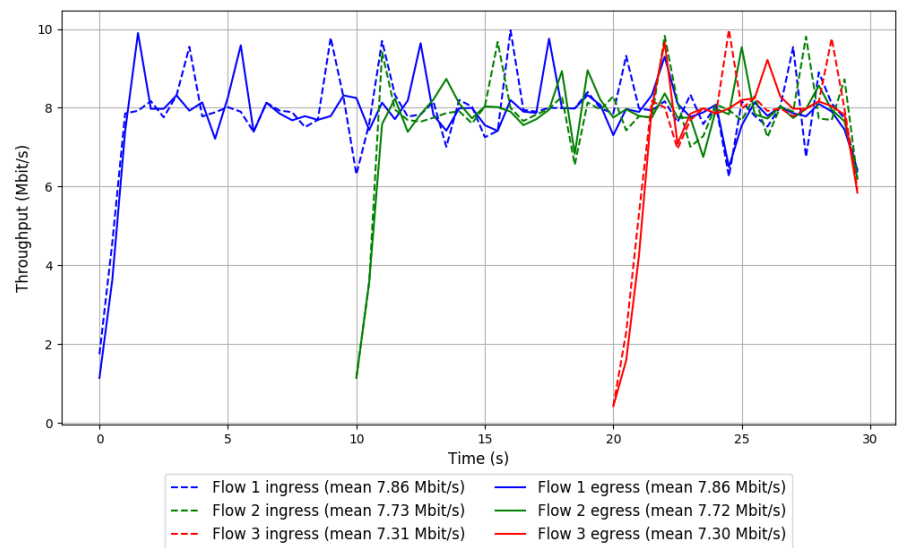
-- Flow 3:

Average throughput: 7.30 Mbit/s

95th percentile per-packet one-way delay: 51.918 ms

Loss rate: 1.35%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-01-17 17:13:28

End at: 2018-01-17 17:13:58

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.30 Mbit/s

95th percentile per-packet one-way delay: 51.904 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 51.879 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 51.843 ms

Loss rate: 1.25%

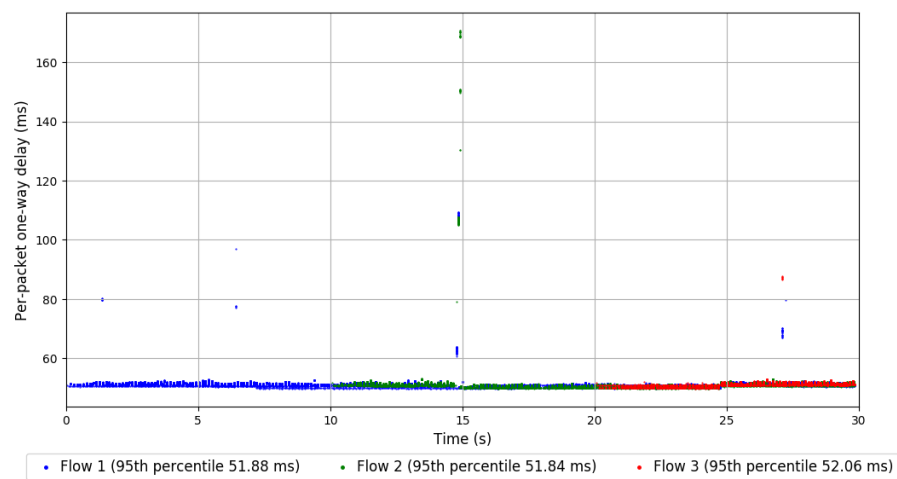
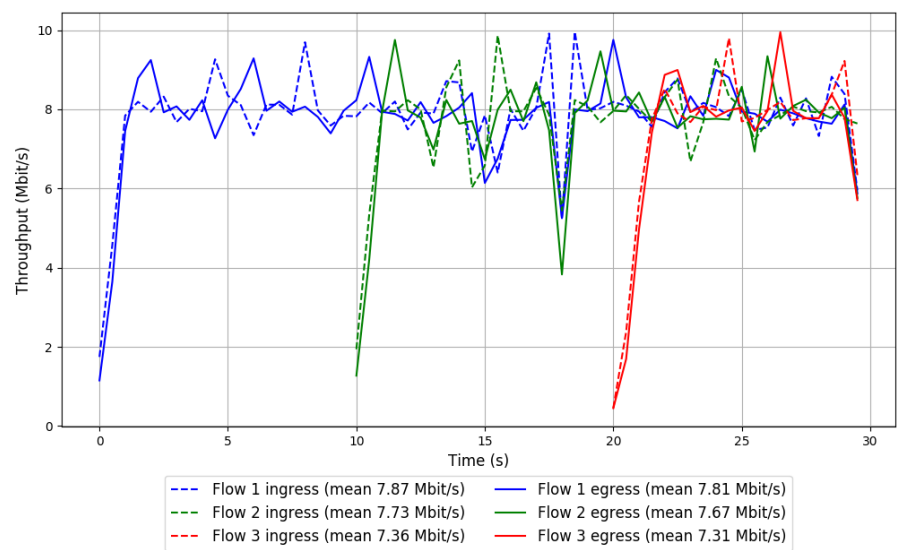
-- Flow 3:

Average throughput: 7.31 Mbit/s

95th percentile per-packet one-way delay: 52.061 ms

Loss rate: 1.42%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-01-17 17:31:04

End at: 2018-01-17 17:31:34

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.37 Mbit/s

95th percentile per-packet one-way delay: 51.662 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 51.540 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 7.68 Mbit/s

95th percentile per-packet one-way delay: 51.760 ms

Loss rate: 0.66%

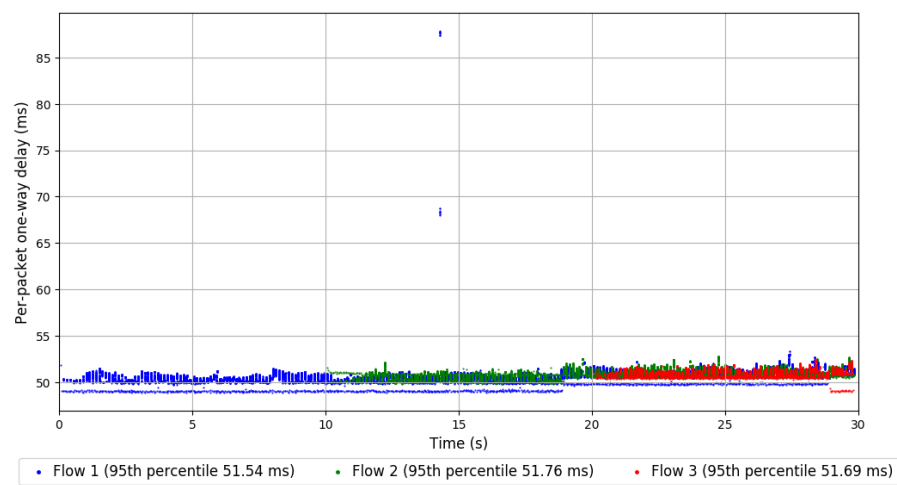
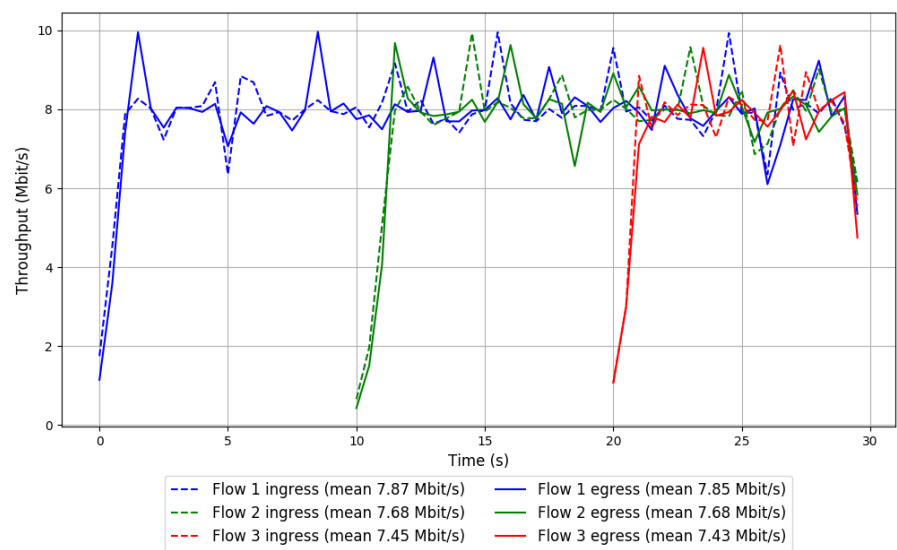
-- Flow 3:

Average throughput: 7.43 Mbit/s

95th percentile per-packet one-way delay: 51.687 ms

Loss rate: 1.51%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-01-17 17:48:20

End at: 2018-01-17 17:48:50

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.94 Mbit/s

95th percentile per-packet one-way delay: 51.875 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 7.66 Mbit/s

95th percentile per-packet one-way delay: 51.909 ms

Loss rate: 1.63%

-- Flow 2:

Average throughput: 7.80 Mbit/s

95th percentile per-packet one-way delay: 51.846 ms

Loss rate: 0.57%

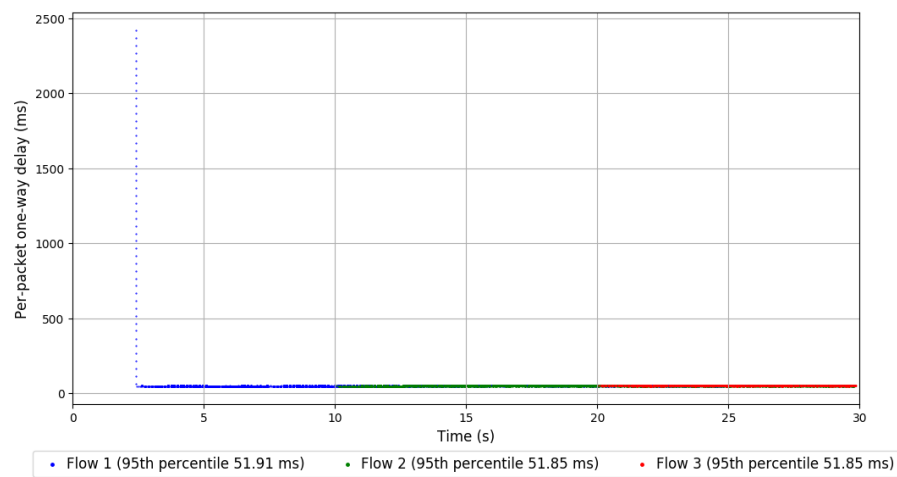
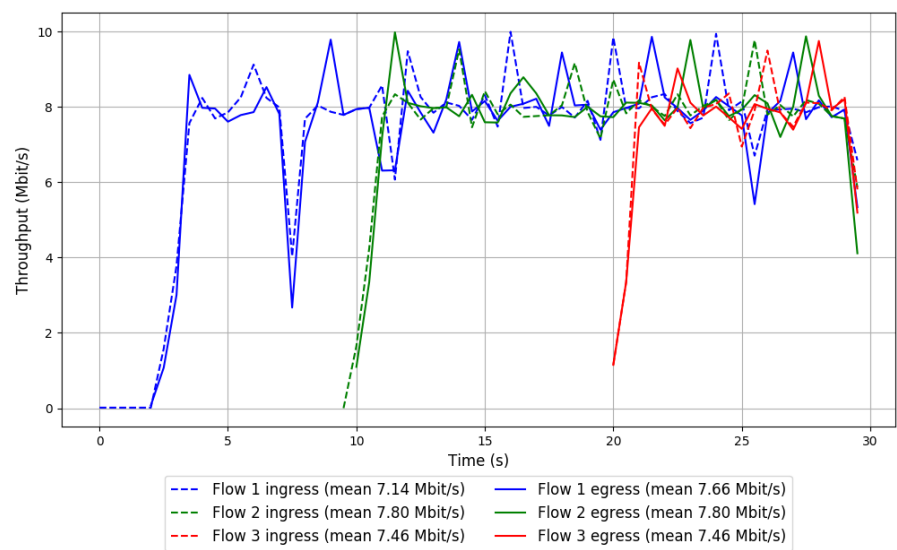
-- Flow 3:

Average throughput: 7.46 Mbit/s

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

Loss rate: 0.62%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-01-17 18:06:12

End at: 2018-01-17 18:06:42

Below is generated by plot.py at 2018-01-17 21:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.97 Mbit/s

95th percentile per-packet one-way delay: 51.999 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 7.60 Mbit/s

95th percentile per-packet one-way delay: 52.047 ms

Loss rate: 1.34%

-- Flow 2:

Average throughput: 7.34 Mbit/s

95th percentile per-packet one-way delay: 52.012 ms

Loss rate: 1.66%

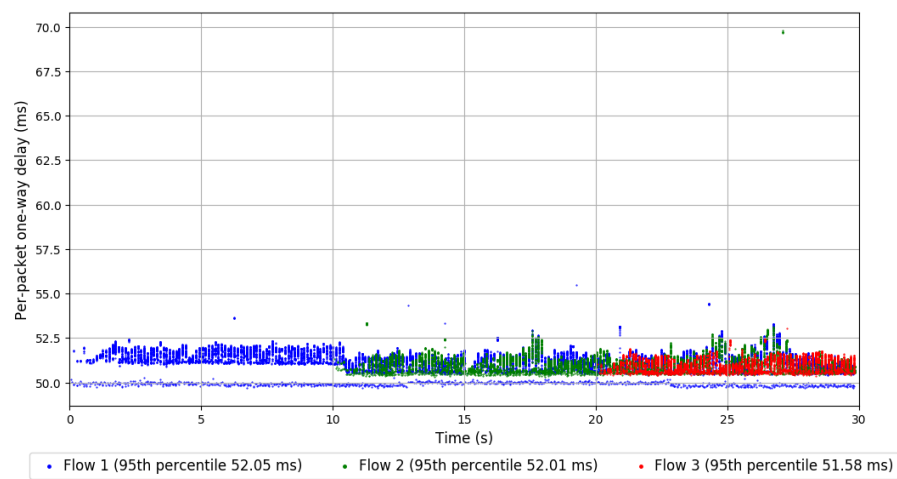
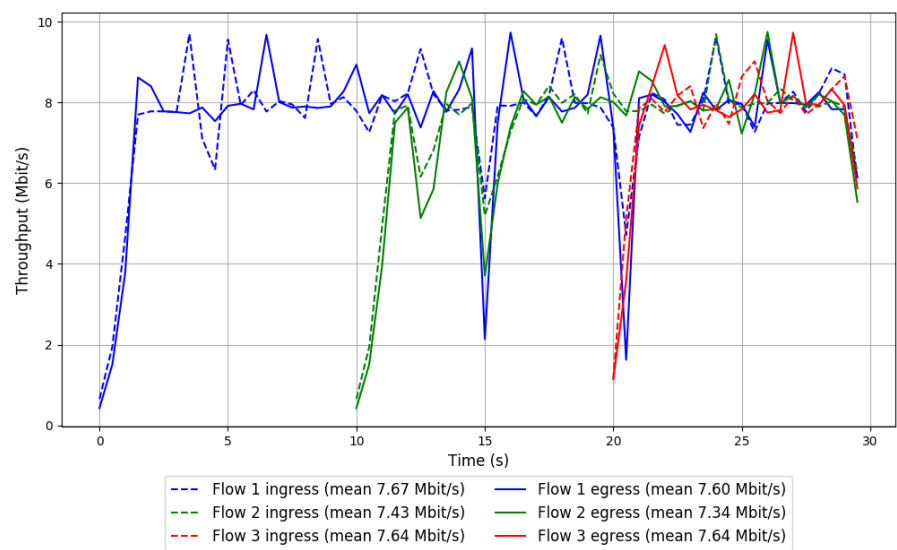
-- Flow 3:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 51.575 ms

Loss rate: 1.29%

Run 10: Report of Sprout — Data Link

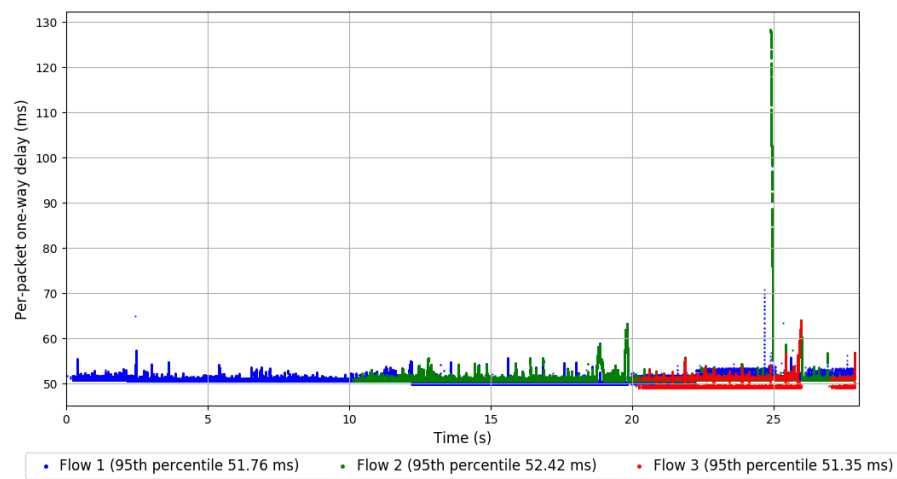
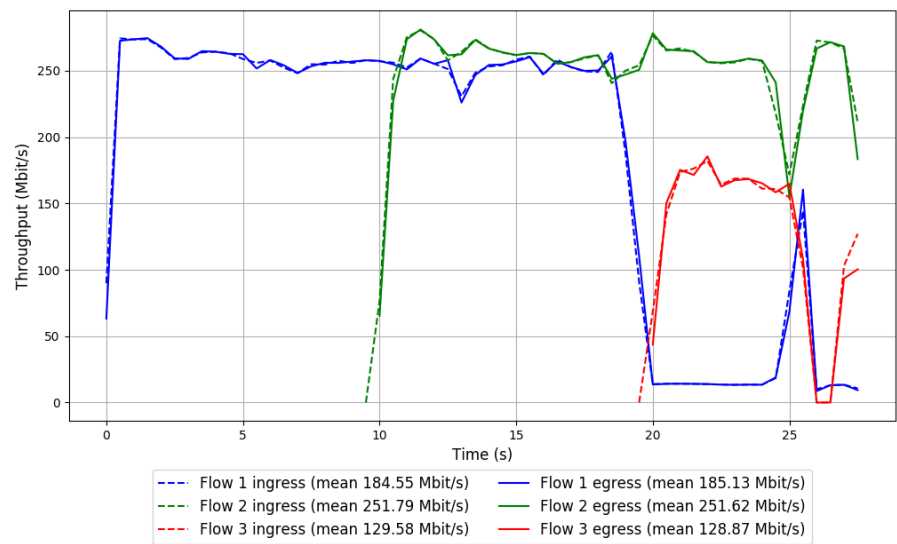


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-01-17 15:30:28
End at: 2018-01-17 15:30:58

# Below is generated by plot.py at 2018-01-17 22:05:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 382.87 Mbit/s
95th percentile per-packet one-way delay: 51.905 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 185.13 Mbit/s
95th percentile per-packet one-way delay: 51.763 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 251.62 Mbit/s
95th percentile per-packet one-way delay: 52.417 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 128.87 Mbit/s
95th percentile per-packet one-way delay: 51.346 ms
Loss rate: 1.79%
```

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

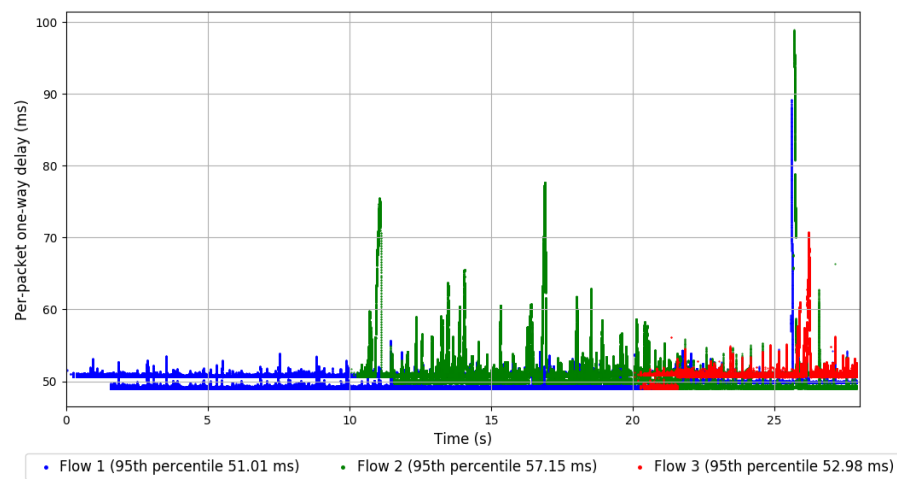
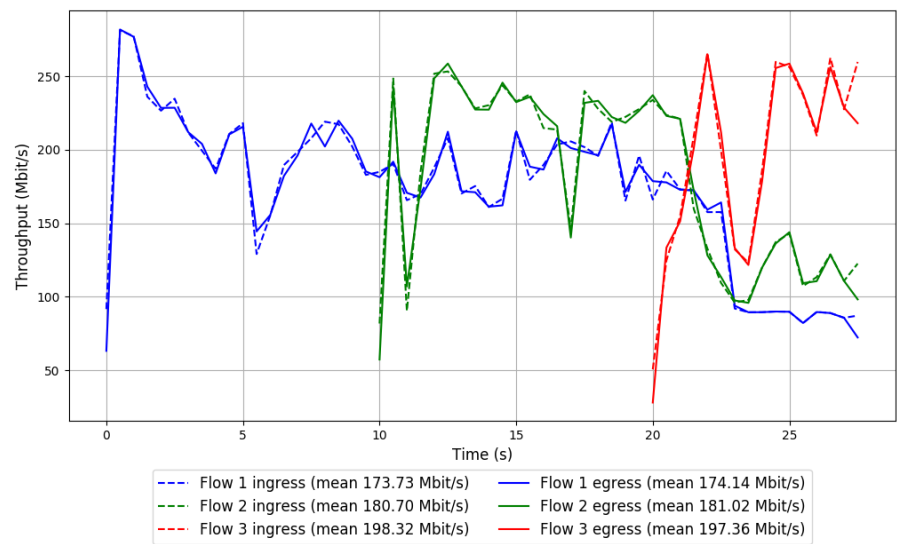


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-01-17 15:47:51
End at: 2018-01-17 15:48:21

# Below is generated by plot.py at 2018-01-17 22:05:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.58 Mbit/s
95th percentile per-packet one-way delay: 52.893 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 174.14 Mbit/s
95th percentile per-packet one-way delay: 51.008 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 181.02 Mbit/s
95th percentile per-packet one-way delay: 57.146 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 197.36 Mbit/s
95th percentile per-packet one-way delay: 52.976 ms
Loss rate: 2.14%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-01-17 16:05:26

End at: 2018-01-17 16:05:56

Below is generated by plot.py at 2018-01-17 22:05:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 374.43 Mbit/s

95th percentile per-packet one-way delay: 52.896 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 180.08 Mbit/s

95th percentile per-packet one-way delay: 51.318 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 227.84 Mbit/s

95th percentile per-packet one-way delay: 54.767 ms

Loss rate: 0.63%

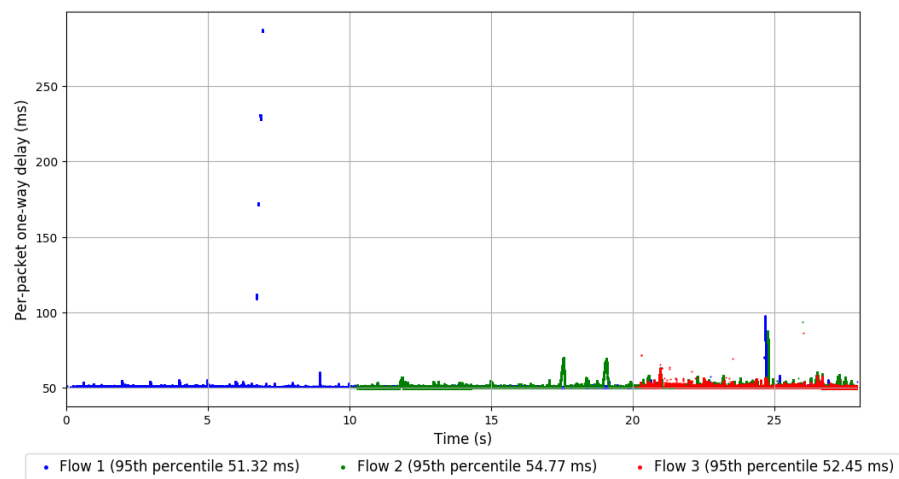
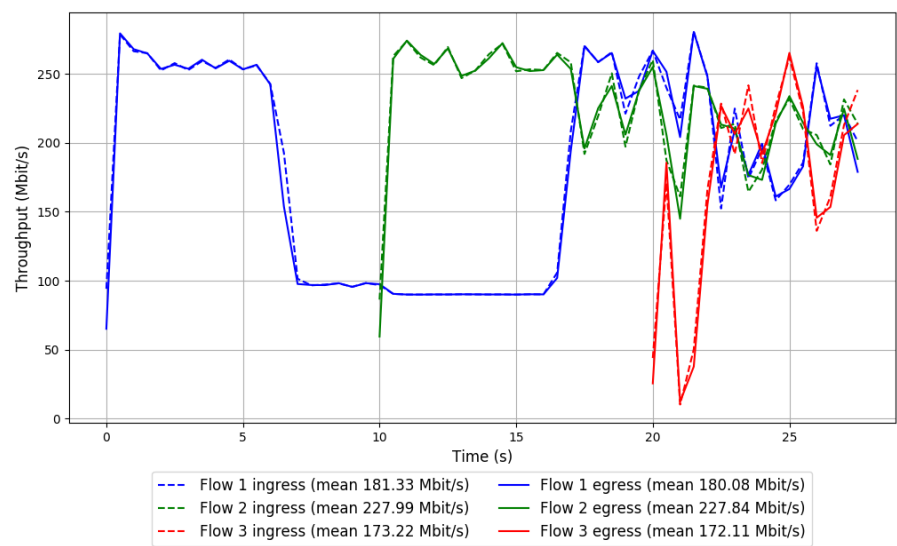
-- Flow 3:

Average throughput: 172.11 Mbit/s

95th percentile per-packet one-way delay: 52.450 ms

Loss rate: 1.89%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-01-17 16:22:55

End at: 2018-01-17 16:23:25

Below is generated by plot.py at 2018-01-17 22:06:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 413.32 Mbit/s

95th percentile per-packet one-way delay: 53.132 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 238.06 Mbit/s

95th percentile per-packet one-way delay: 53.980 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 184.04 Mbit/s

95th percentile per-packet one-way delay: 51.899 ms

Loss rate: 0.65%

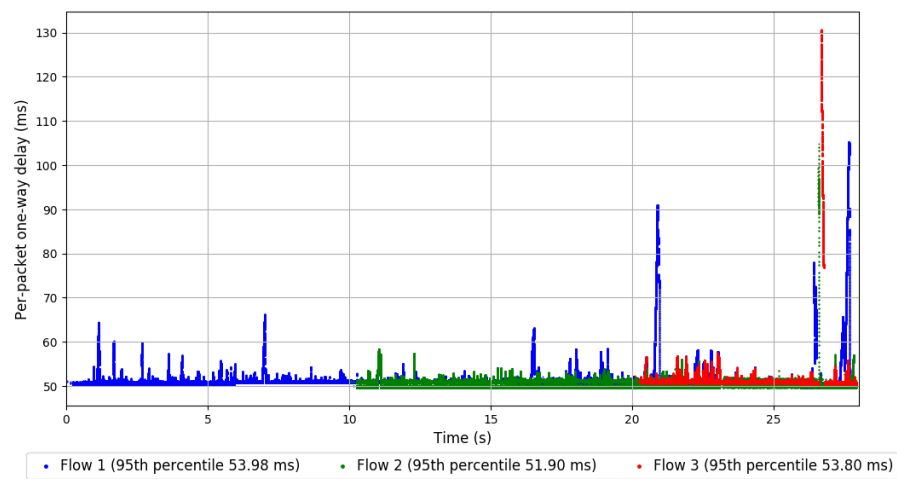
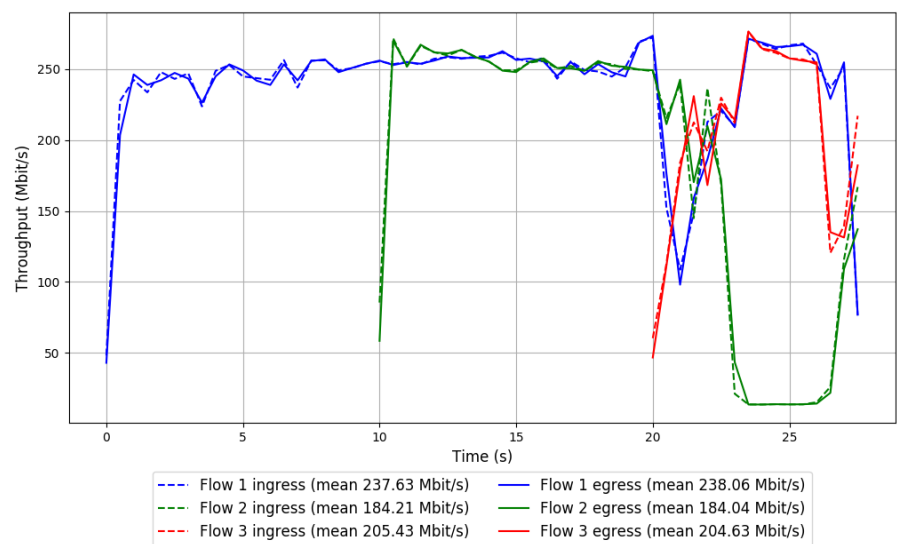
-- Flow 3:

Average throughput: 204.63 Mbit/s

95th percentile per-packet one-way delay: 53.796 ms

Loss rate: 1.66%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-01-17 16:40:26

End at: 2018-01-17 16:40:56

Below is generated by plot.py at 2018-01-17 22:06:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 393.77 Mbit/s

95th percentile per-packet one-way delay: 56.031 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 211.67 Mbit/s

95th percentile per-packet one-way delay: 52.899 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 208.24 Mbit/s

95th percentile per-packet one-way delay: 58.939 ms

Loss rate: 0.90%

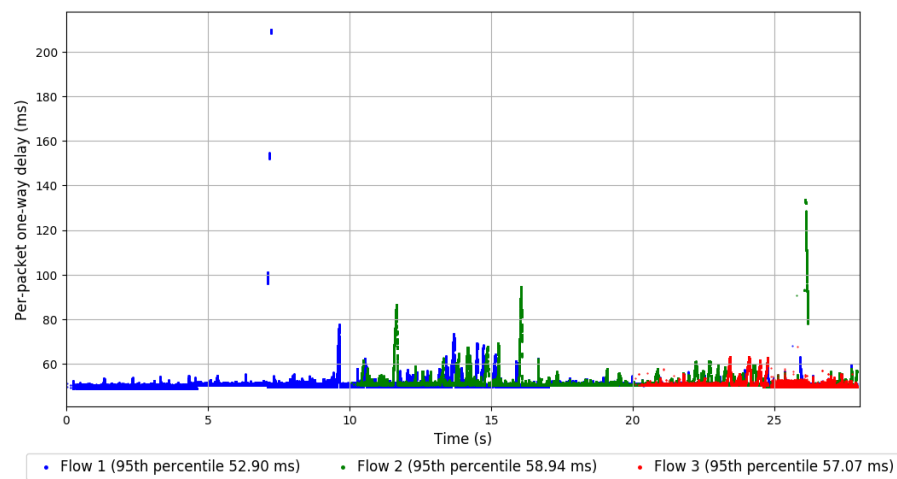
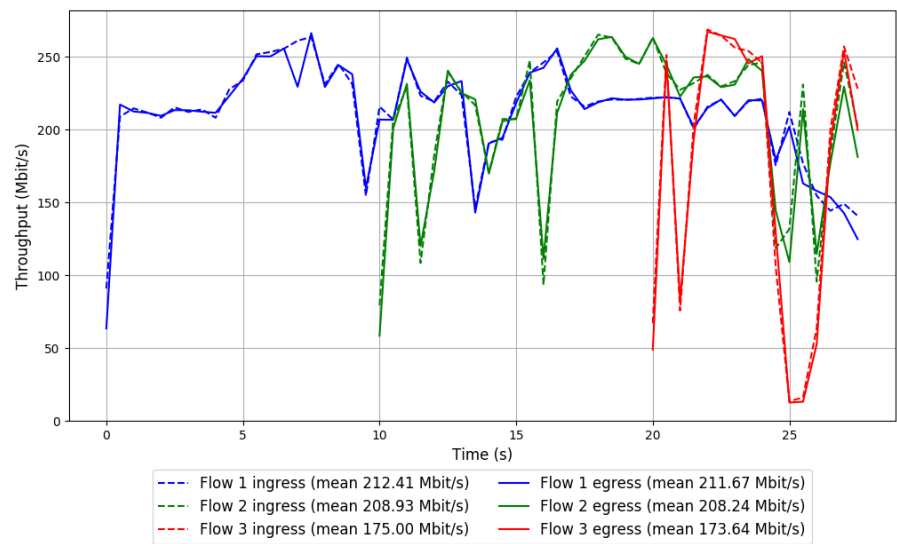
-- Flow 3:

Average throughput: 173.64 Mbit/s

95th percentile per-packet one-way delay: 57.071 ms

Loss rate: 2.06%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-01-17 16:58:05

End at: 2018-01-17 16:58:35

Below is generated by plot.py at 2018-01-17 22:06:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 383.39 Mbit/s

95th percentile per-packet one-way delay: 56.612 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 223.57 Mbit/s

95th percentile per-packet one-way delay: 55.516 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 183.15 Mbit/s

95th percentile per-packet one-way delay: 58.011 ms

Loss rate: 0.17%

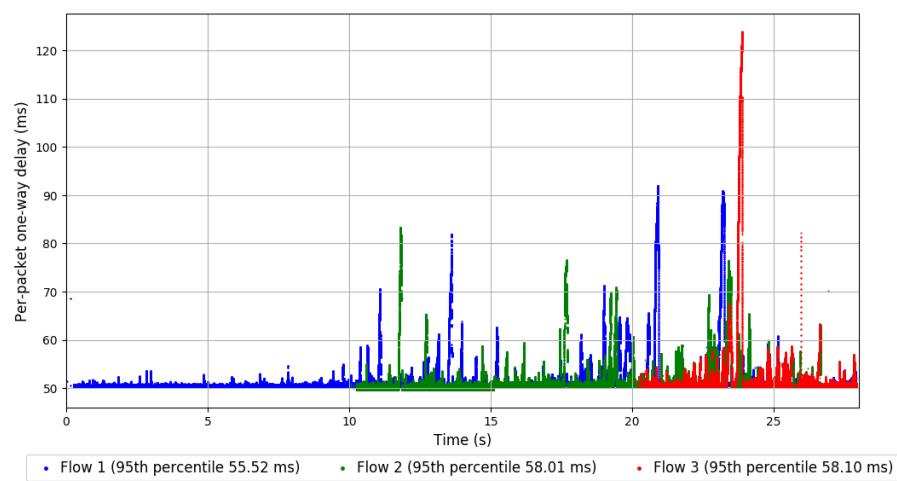
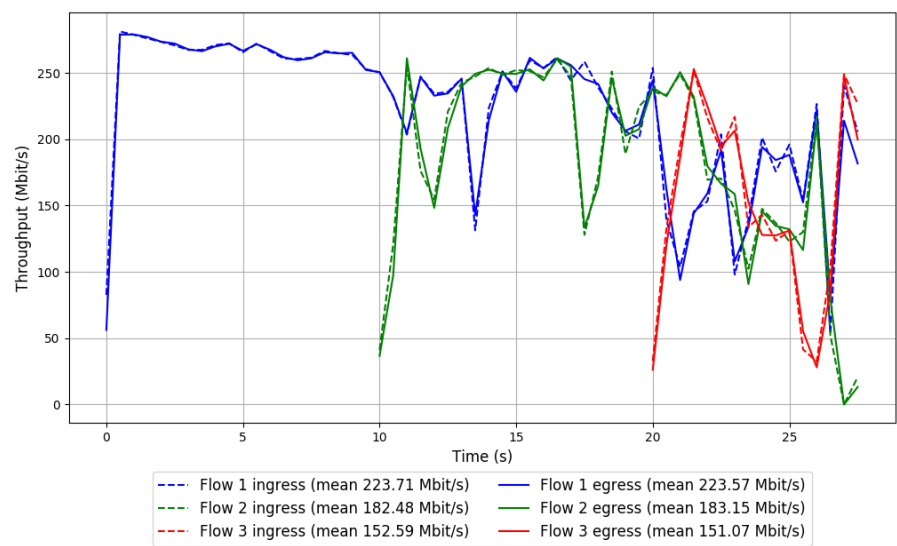
-- Flow 3:

Average throughput: 151.07 Mbit/s

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

Loss rate: 2.25%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-01-17 17:15:58

End at: 2018-01-17 17:16:28

Below is generated by plot.py at 2018-01-17 22:12:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 396.99 Mbit/s

95th percentile per-packet one-way delay: 54.087 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 209.77 Mbit/s

95th percentile per-packet one-way delay: 56.294 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 217.51 Mbit/s

95th percentile per-packet one-way delay: 51.746 ms

Loss rate: 0.65%

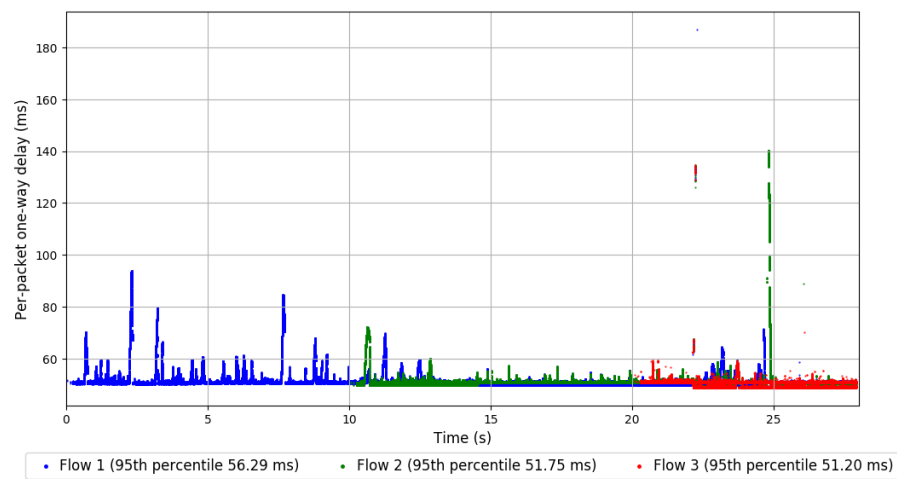
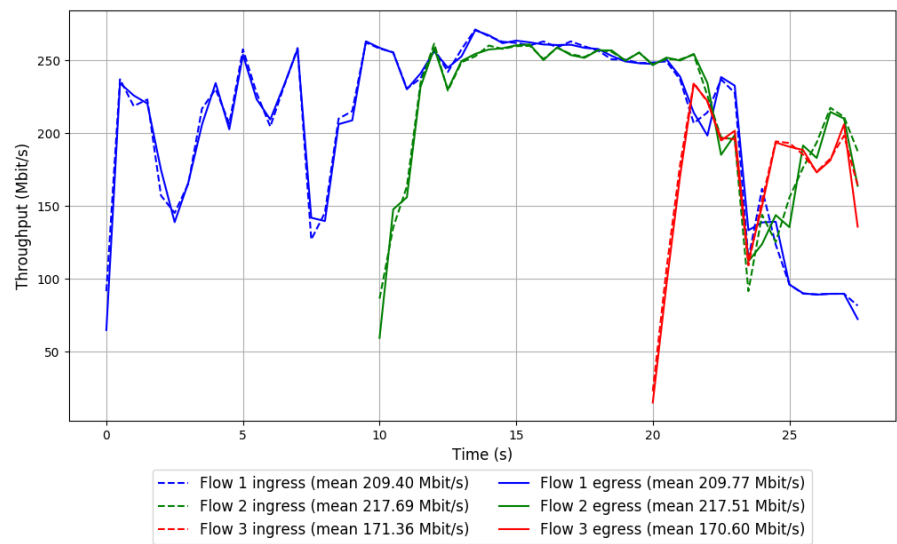
-- Flow 3:

Average throughput: 170.60 Mbit/s

95th percentile per-packet one-way delay: 51.202 ms

Loss rate: 1.67%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-01-17 17:33:32

End at: 2018-01-17 17:34:02

Below is generated by plot.py at 2018-01-17 22:12:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 359.88 Mbit/s

95th percentile per-packet one-way delay: 60.377 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 223.74 Mbit/s

95th percentile per-packet one-way delay: 58.708 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 189.34 Mbit/s

95th percentile per-packet one-way delay: 62.372 ms

Loss rate: 0.29%

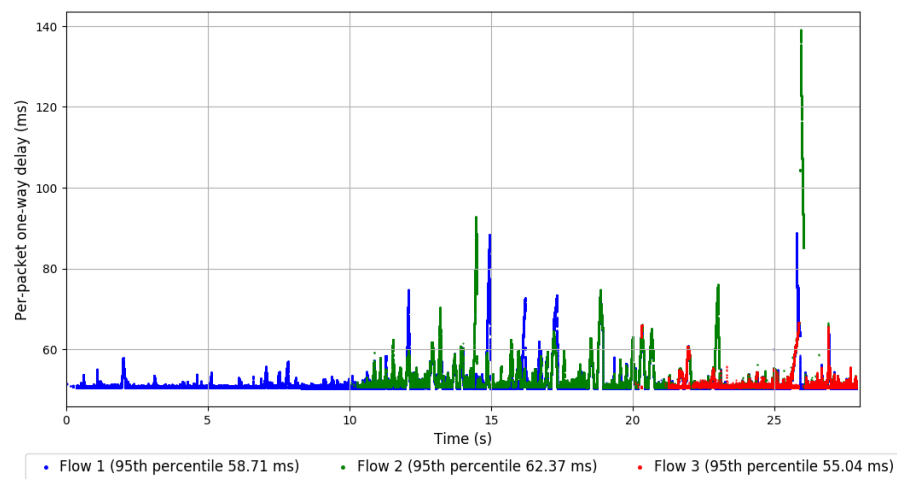
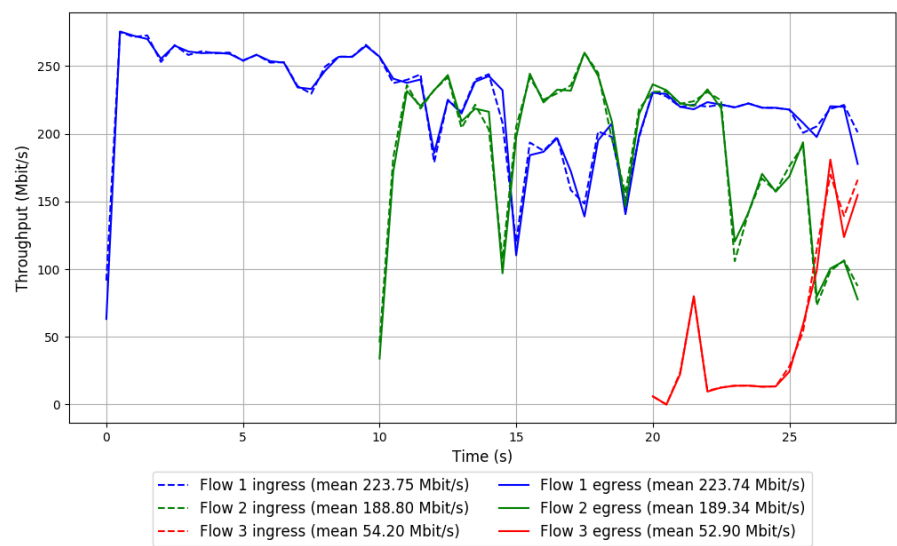
-- Flow 3:

Average throughput: 52.90 Mbit/s

95th percentile per-packet one-way delay: 55.043 ms

Loss rate: 3.67%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-01-17 17:50:51

End at: 2018-01-17 17:51:21

Below is generated by plot.py at 2018-01-17 22:17:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 397.27 Mbit/s

95th percentile per-packet one-way delay: 51.861 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 218.17 Mbit/s

95th percentile per-packet one-way delay: 52.449 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 204.54 Mbit/s

95th percentile per-packet one-way delay: 51.230 ms

Loss rate: 0.55%

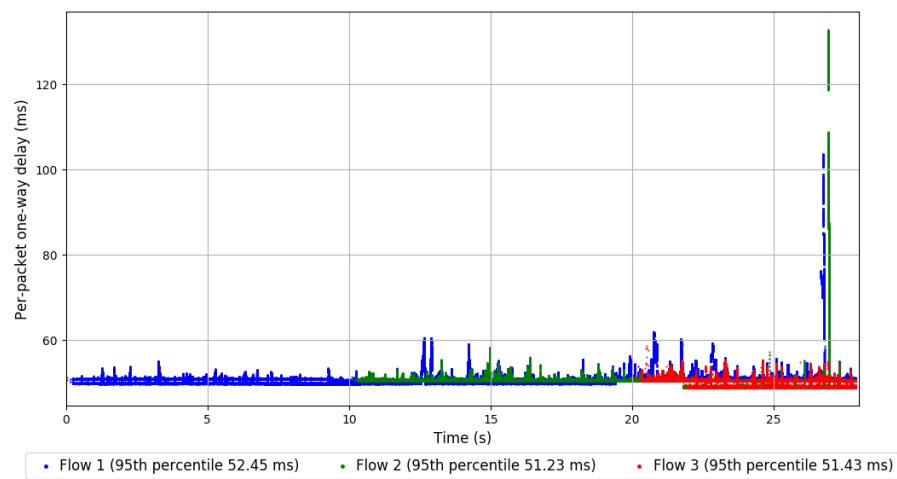
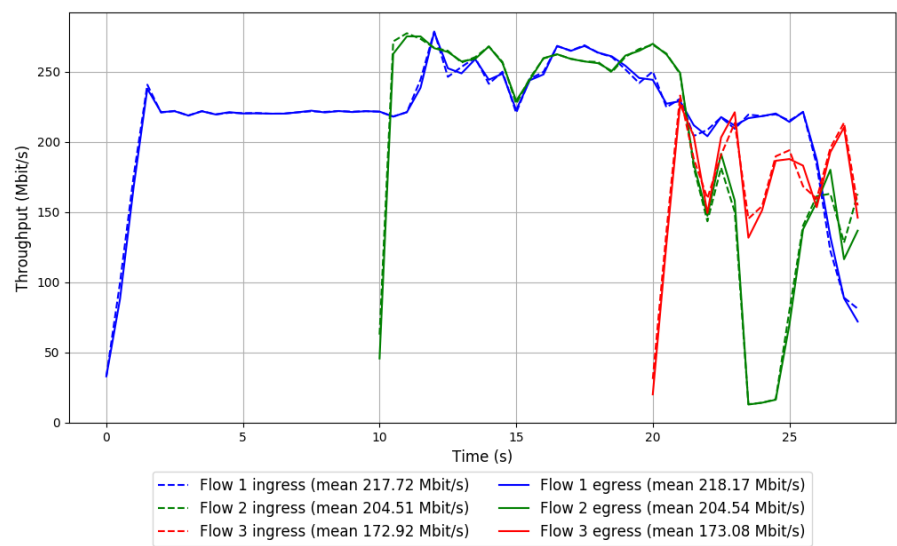
-- Flow 3:

Average throughput: 173.08 Mbit/s

95th percentile per-packet one-way delay: 51.426 ms

Loss rate: 1.20%

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

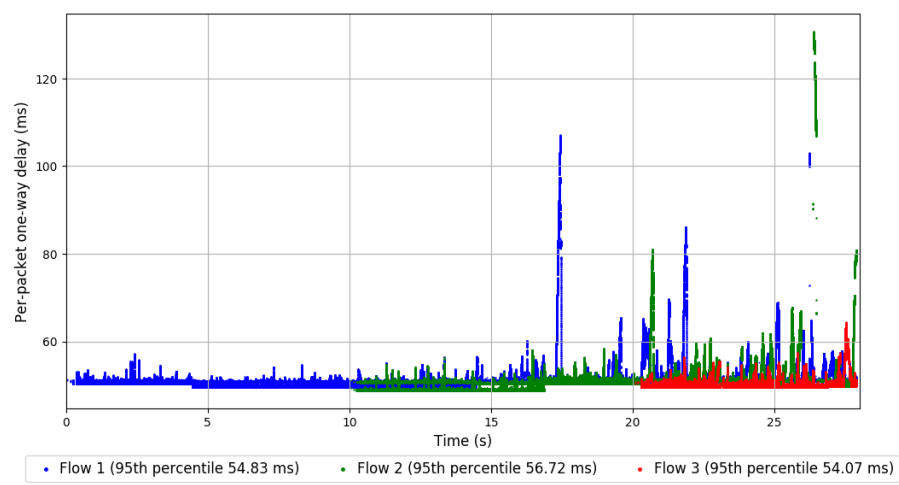
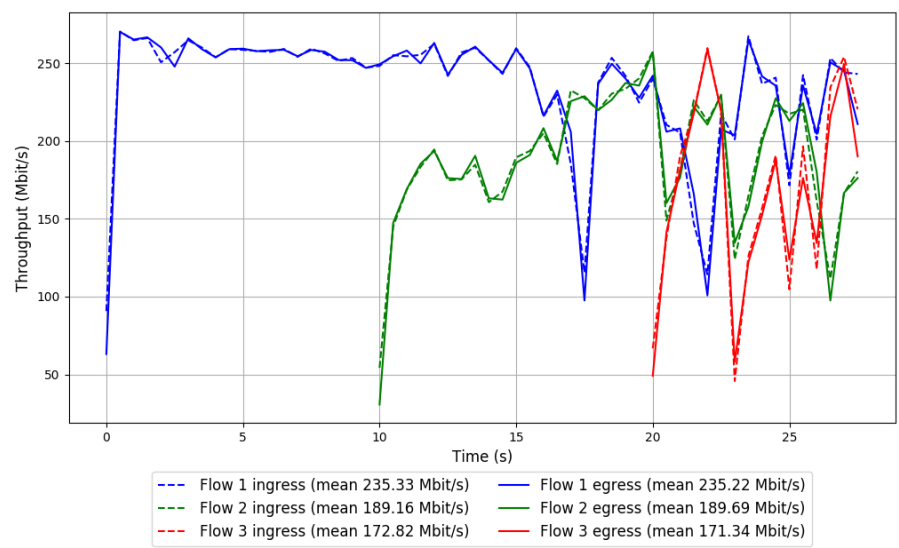


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-17 18:08:46
End at: 2018-01-17 18:09:16

# Below is generated by plot.py at 2018-01-17 22:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 404.80 Mbit/s
95th percentile per-packet one-way delay: 55.255 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 235.22 Mbit/s
95th percentile per-packet one-way delay: 54.827 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 189.69 Mbit/s
95th percentile per-packet one-way delay: 56.715 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 171.34 Mbit/s
95th percentile per-packet one-way delay: 54.067 ms
Loss rate: 2.25%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-01-17 15:41:46

End at: 2018-01-17 15:42:16

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.14 Mbit/s

95th percentile per-packet one-way delay: 51.655 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 85.80 Mbit/s

95th percentile per-packet one-way delay: 51.704 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 8.28 Mbit/s

95th percentile per-packet one-way delay: 50.831 ms

Loss rate: 0.78%

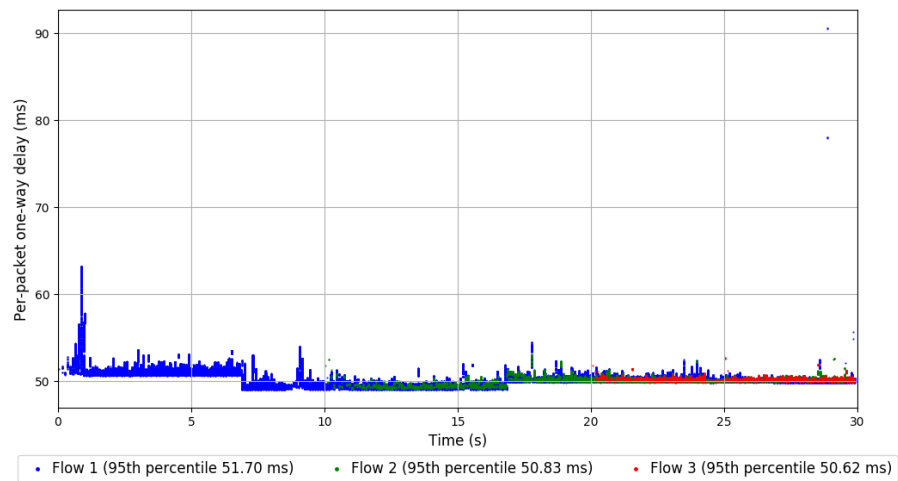
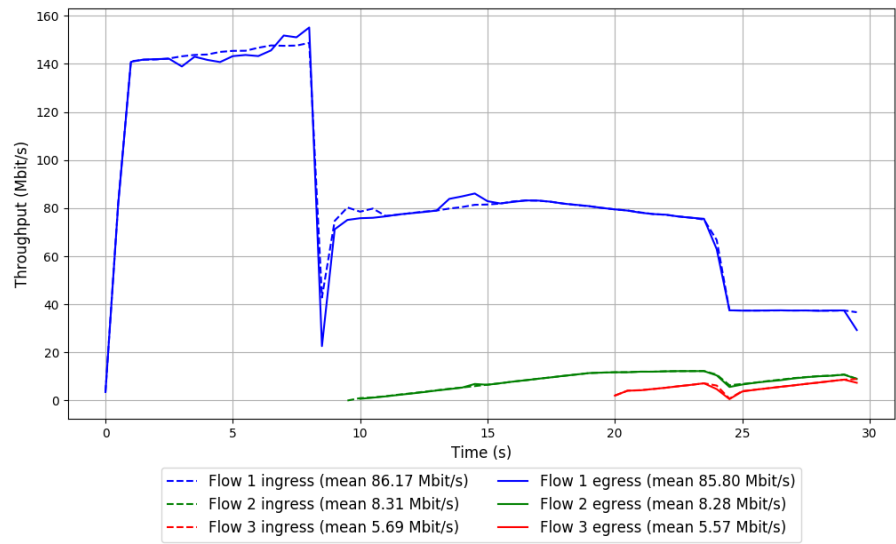
-- Flow 3:

Average throughput: 5.57 Mbit/s

95th percentile per-packet one-way delay: 50.624 ms

Loss rate: 3.08%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-01-17 15:59:11

End at: 2018-01-17 15:59:41

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.00 Mbit/s

95th percentile per-packet one-way delay: 52.968 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 29.90 Mbit/s

95th percentile per-packet one-way delay: 51.806 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 47.66 Mbit/s

95th percentile per-packet one-way delay: 56.185 ms

Loss rate: 0.92%

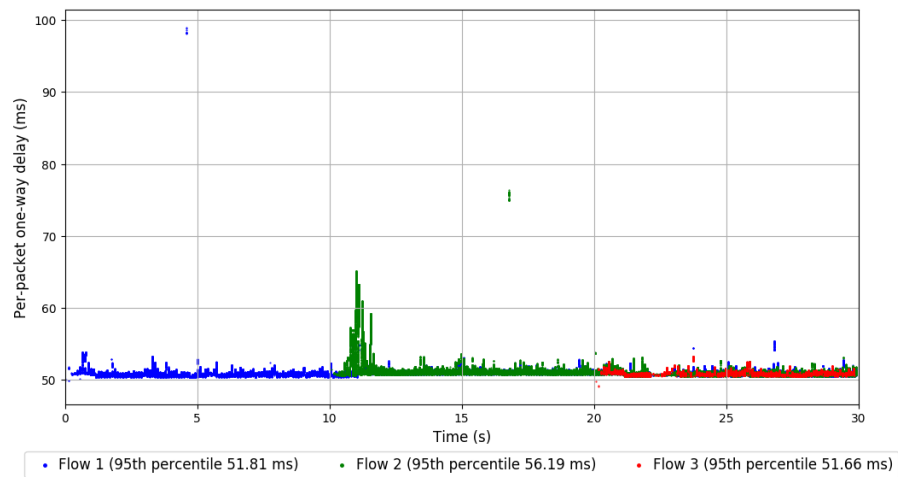
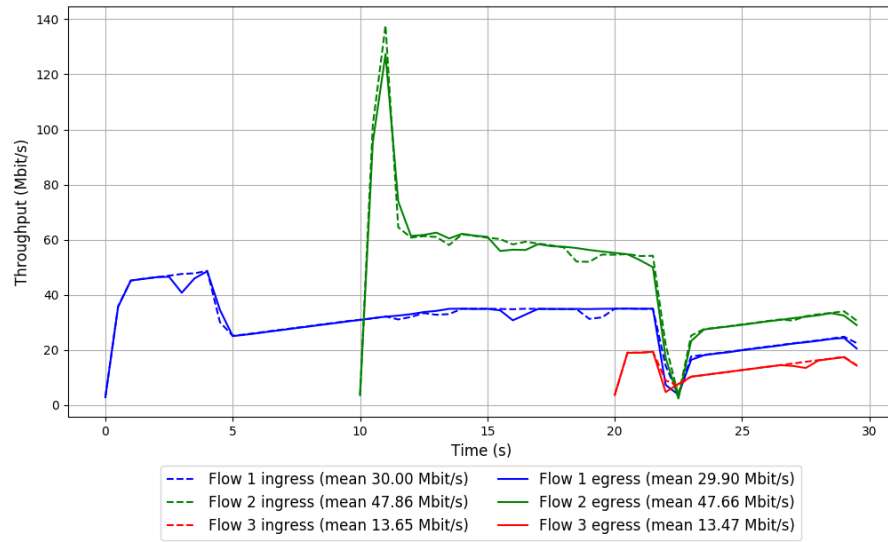
-- Flow 3:

Average throughput: 13.47 Mbit/s

95th percentile per-packet one-way delay: 51.657 ms

Loss rate: 2.74%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-01-17 16:16:42

End at: 2018-01-17 16:17:12

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.30 Mbit/s

95th percentile per-packet one-way delay: 51.977 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 34.49 Mbit/s

95th percentile per-packet one-way delay: 51.989 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 85.24 Mbit/s

95th percentile per-packet one-way delay: 52.009 ms

Loss rate: 0.37%

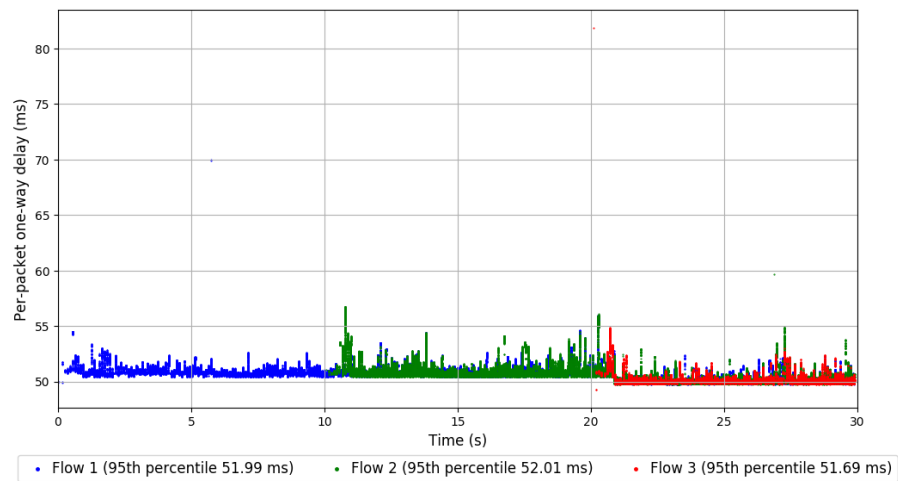
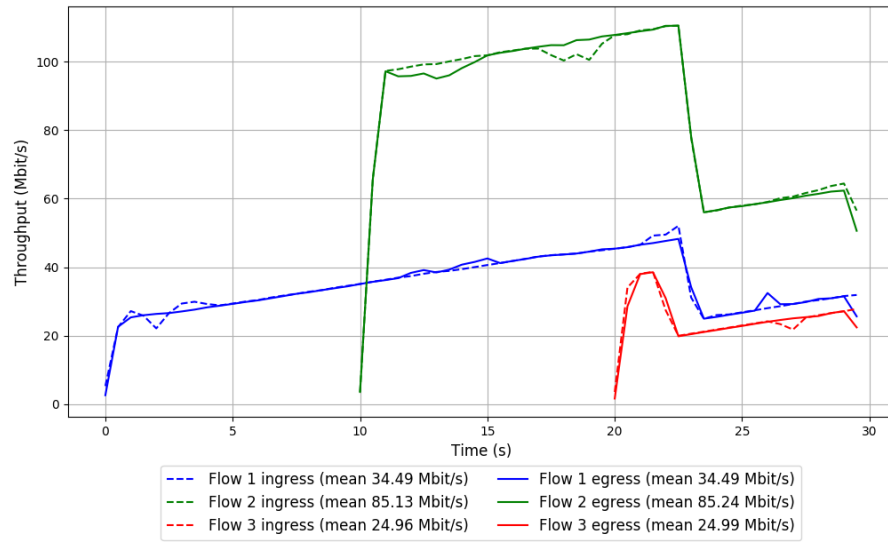
-- Flow 3:

Average throughput: 24.99 Mbit/s

95th percentile per-packet one-way delay: 51.691 ms

Loss rate: 1.22%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-01-17 16:34:13

End at: 2018-01-17 16:34:43

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.54 Mbit/s

95th percentile per-packet one-way delay: 52.071 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 27.60 Mbit/s

95th percentile per-packet one-way delay: 52.064 ms

Loss rate: 1.36%

-- Flow 2:

Average throughput: 25.56 Mbit/s

95th percentile per-packet one-way delay: 51.983 ms

Loss rate: 0.68%

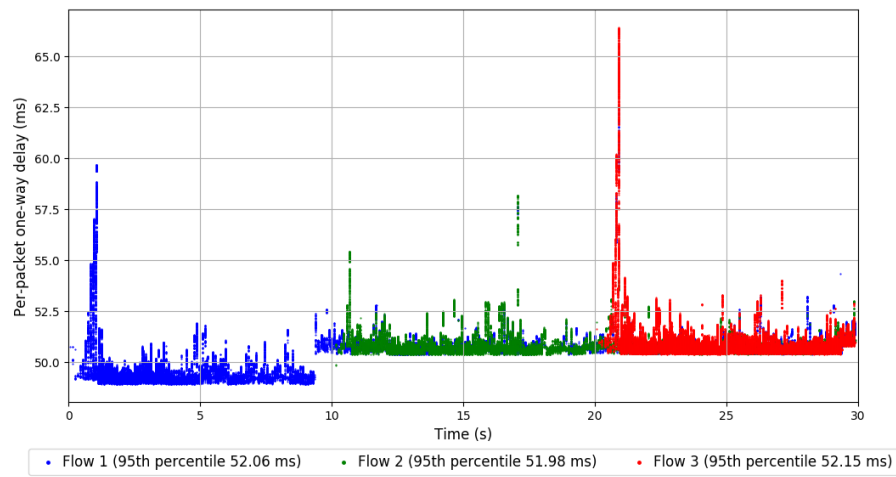
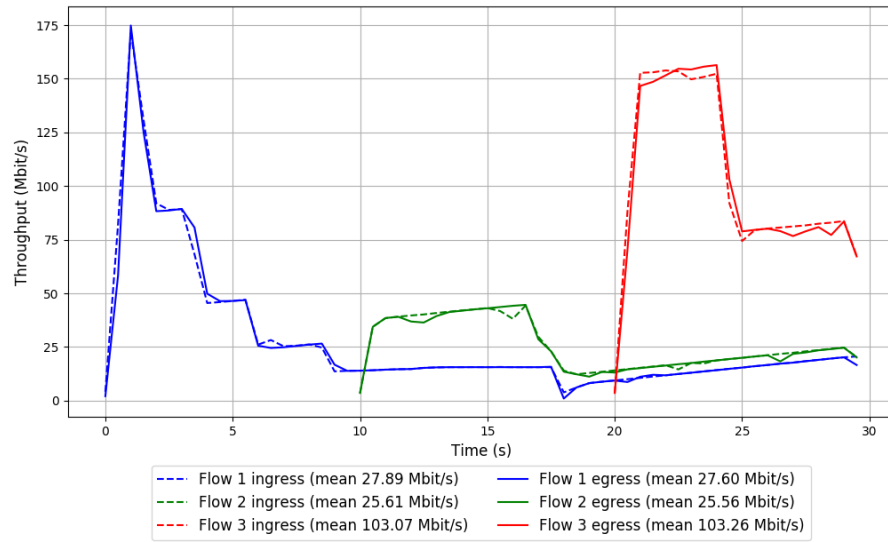
-- Flow 3:

Average throughput: 103.26 Mbit/s

95th percentile per-packet one-way delay: 52.147 ms

Loss rate: 0.85%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-01-17 16:51:50

End at: 2018-01-17 16:52:20

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.71 Mbit/s

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

Loss rate: 1.25%

-- Flow 1:

Average throughput: 17.28 Mbit/s

95th percentile per-packet one-way delay: 52.123 ms

Loss rate: 1.57%

-- Flow 2:

Average throughput: 55.19 Mbit/s

95th percentile per-packet one-way delay: 59.919 ms

Loss rate: 0.82%

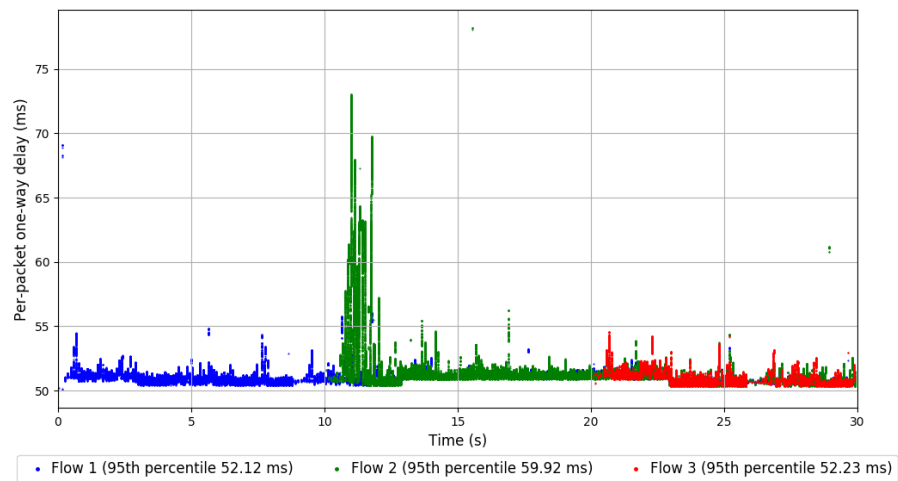
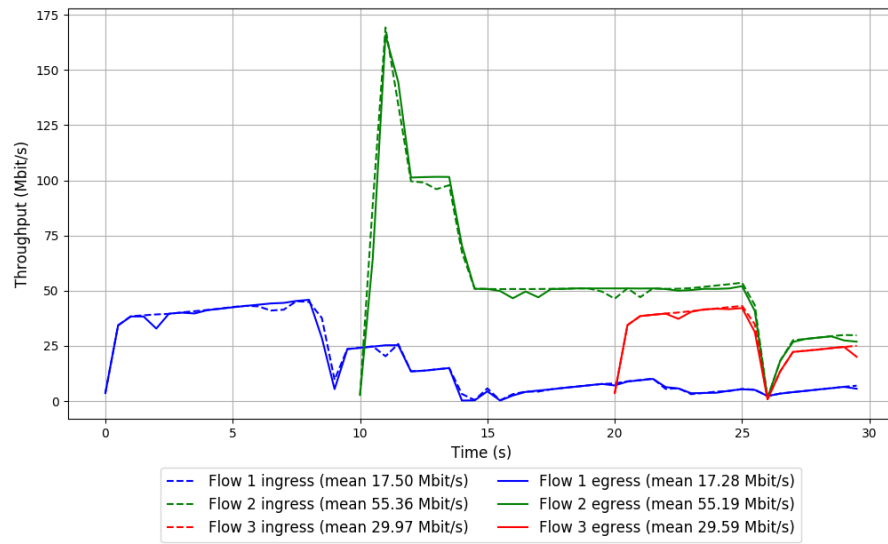
-- Flow 3:

Average throughput: 29.59 Mbit/s

95th percentile per-packet one-way delay: 52.230 ms

Loss rate: 2.30%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-01-17 17:09:37

End at: 2018-01-17 17:10:07

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.89 Mbit/s

95th percentile per-packet one-way delay: 57.232 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 104.27 Mbit/s

95th percentile per-packet one-way delay: 57.067 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 37.39 Mbit/s

95th percentile per-packet one-way delay: 56.564 ms

Loss rate: 0.55%

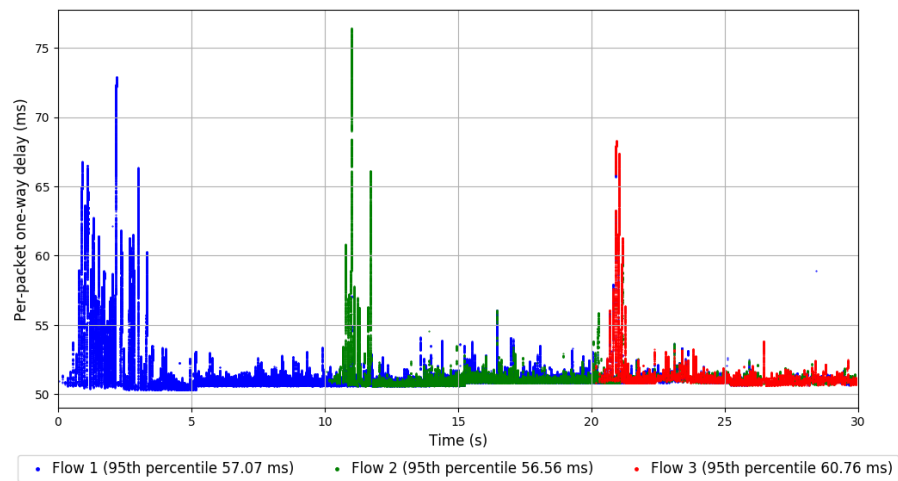
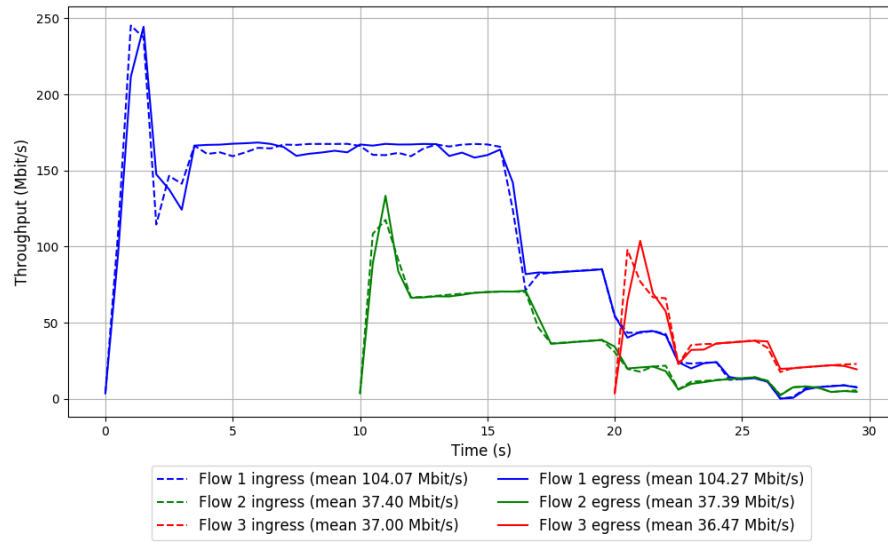
-- Flow 3:

Average throughput: 36.47 Mbit/s

95th percentile per-packet one-way delay: 60.756 ms

Loss rate: 2.46%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-01-17 17:27:23

End at: 2018-01-17 17:27:53

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.34 Mbit/s

95th percentile per-packet one-way delay: 51.274 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 36.25 Mbit/s

95th percentile per-packet one-way delay: 51.611 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 58.19 Mbit/s

95th percentile per-packet one-way delay: 50.795 ms

Loss rate: 0.22%

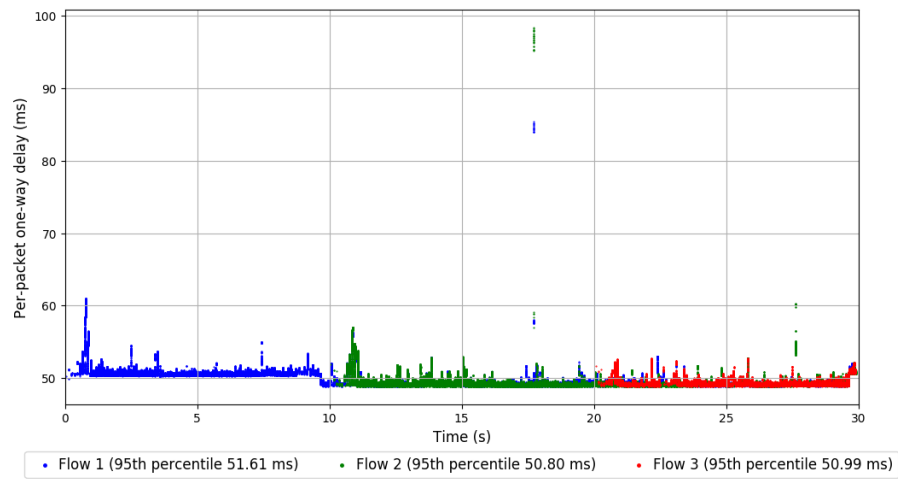
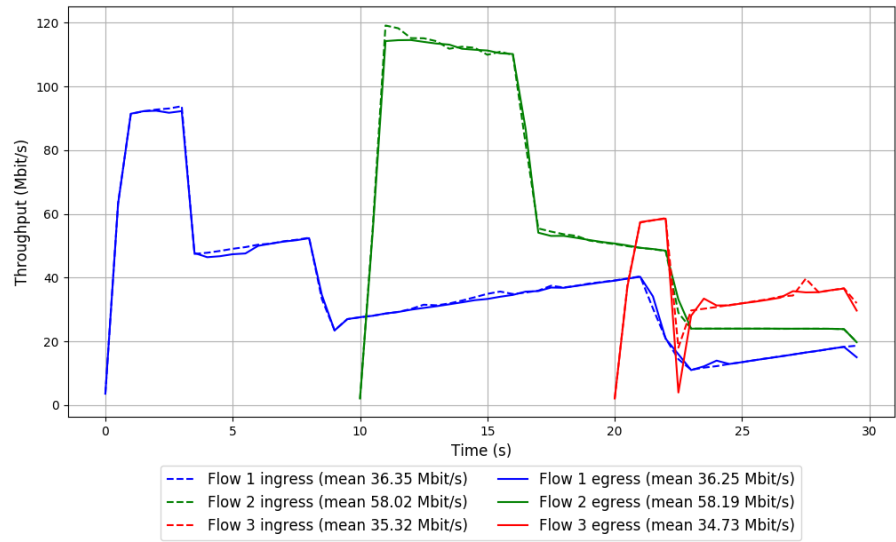
-- Flow 3:

Average throughput: 34.73 Mbit/s

95th percentile per-packet one-way delay: 50.987 ms

Loss rate: 2.67%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-01-17 17:44:40

End at: 2018-01-17 17:45:10

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.17 Mbit/s

95th percentile per-packet one-way delay: 52.142 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 31.06 Mbit/s

95th percentile per-packet one-way delay: 51.925 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 56.40 Mbit/s

95th percentile per-packet one-way delay: 52.752 ms

Loss rate: 0.99%

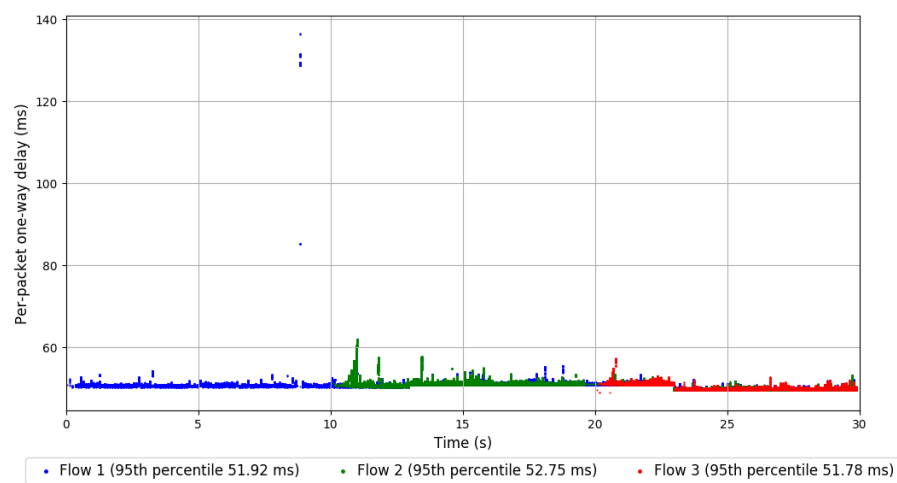
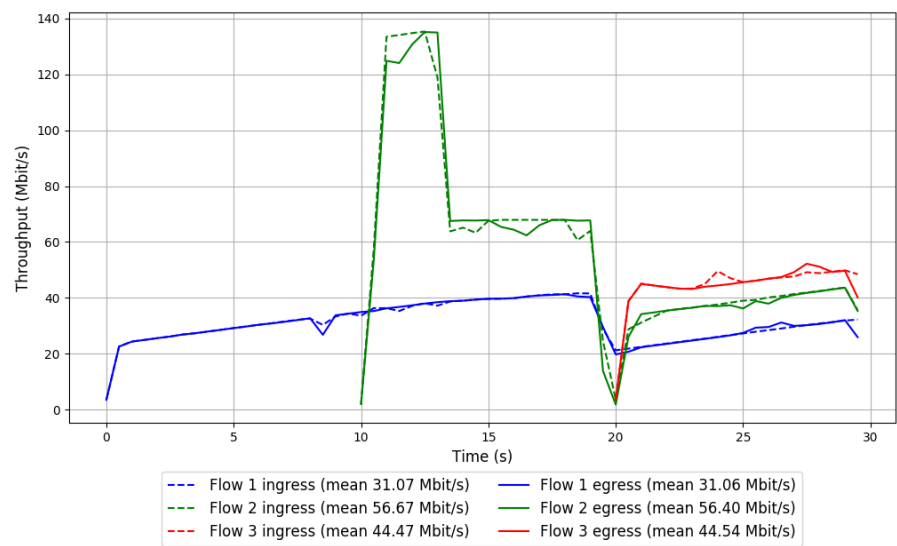
-- Flow 3:

Average throughput: 44.54 Mbit/s

95th percentile per-packet one-way delay: 51.777 ms

Loss rate: 1.14%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-01-17 18:02:21

End at: 2018-01-17 18:02:51

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.14 Mbit/s

95th percentile per-packet one-way delay: 57.163 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 96.13 Mbit/s

95th percentile per-packet one-way delay: 57.995 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 44.97 Mbit/s

95th percentile per-packet one-way delay: 52.043 ms

Loss rate: 0.25%

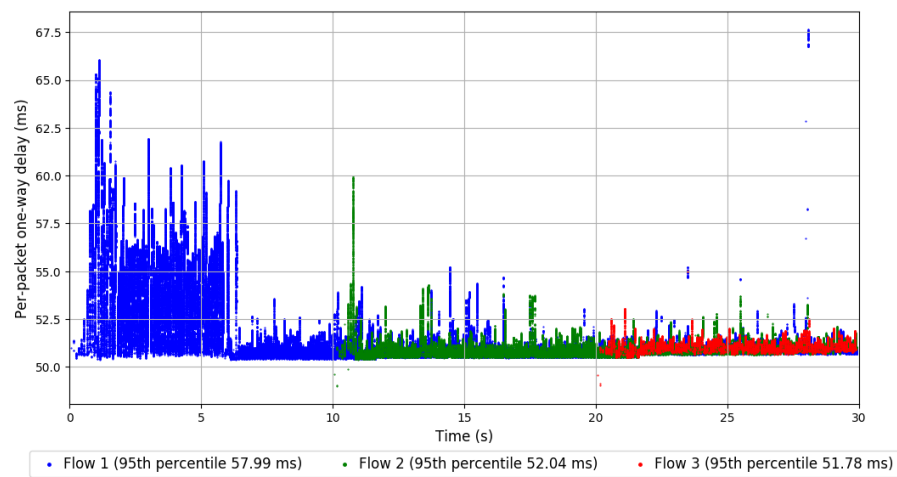
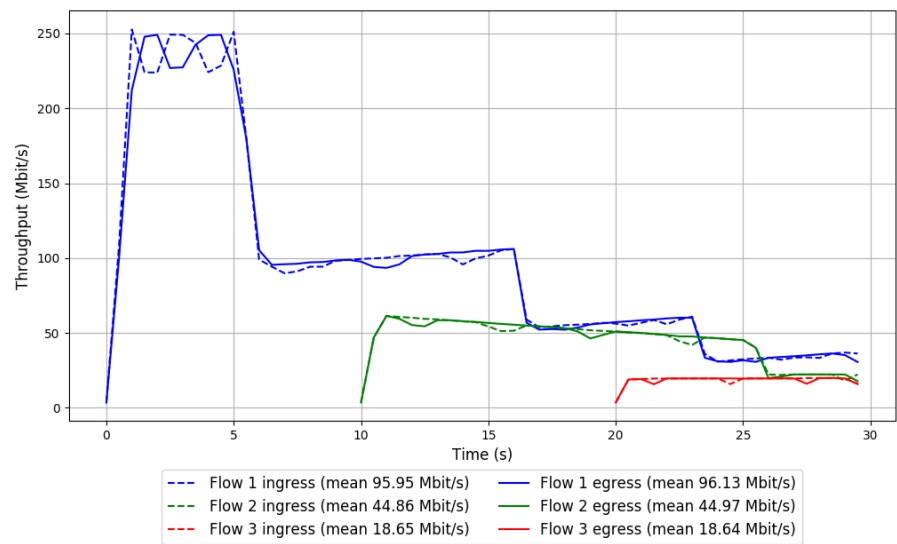
-- Flow 3:

Average throughput: 18.64 Mbit/s

95th percentile per-packet one-way delay: 51.783 ms

Loss rate: 1.08%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-01-17 18:20:16

End at: 2018-01-17 18:20:46

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.69 Mbit/s

95th percentile per-packet one-way delay: 56.133 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 26.98 Mbit/s

95th percentile per-packet one-way delay: 51.815 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 27.89 Mbit/s

95th percentile per-packet one-way delay: 52.729 ms

Loss rate: 2.72%

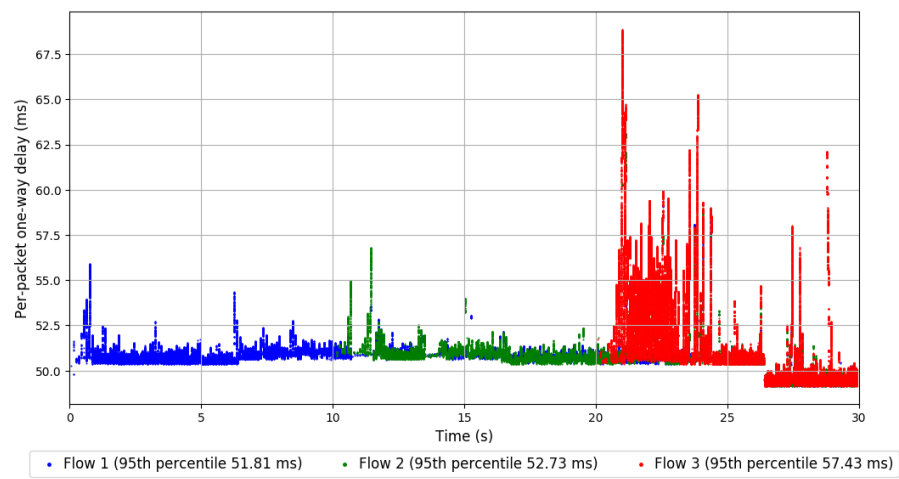
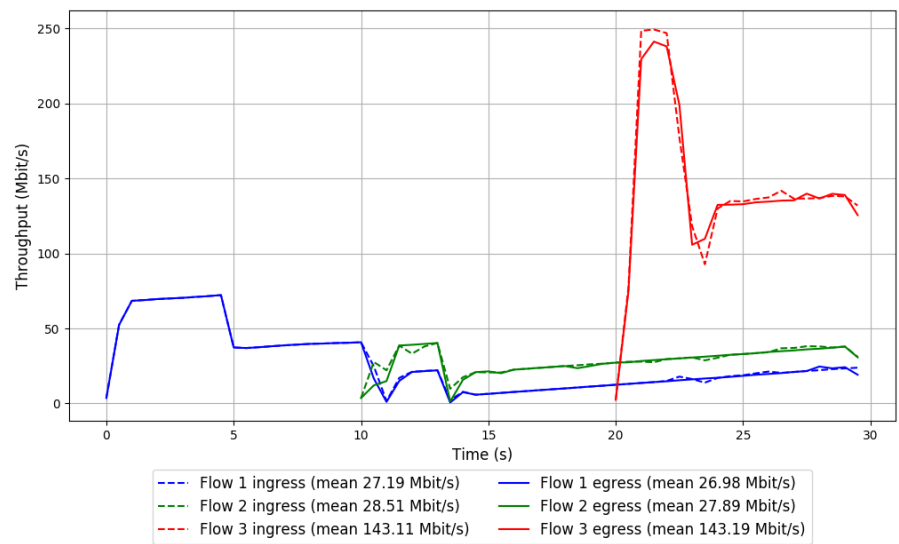
-- Flow 3:

Average throughput: 143.19 Mbit/s

95th percentile per-packet one-way delay: 57.431 ms

Loss rate: 0.97%

Run 10: Report of TCP Vegas — Data Link

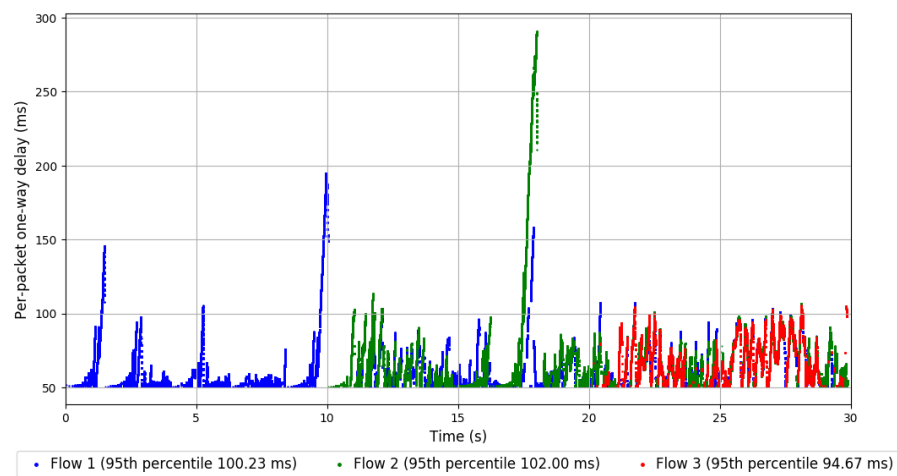
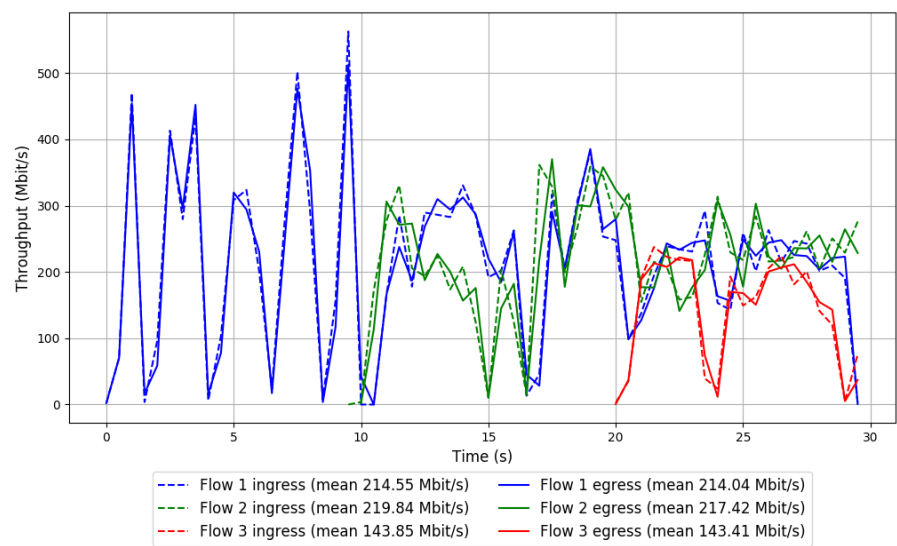


```
Run 1: Statistics of Verus

Start at: 2018-01-17 15:43:12
End at: 2018-01-17 15:43:42

# Below is generated by plot.py at 2018-01-17 22:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 405.33 Mbit/s
95th percentile per-packet one-way delay: 99.639 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 214.04 Mbit/s
95th percentile per-packet one-way delay: 100.229 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 217.42 Mbit/s
95th percentile per-packet one-way delay: 101.998 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 143.41 Mbit/s
95th percentile per-packet one-way delay: 94.666 ms
Loss rate: 1.43%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-01-17 16:00:40

End at: 2018-01-17 16:01:10

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 409.14 Mbit/s

95th percentile per-packet one-way delay: 131.700 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 215.33 Mbit/s

95th percentile per-packet one-way delay: 133.145 ms

Loss rate: 1.51%

-- Flow 2:

Average throughput: 225.74 Mbit/s

95th percentile per-packet one-way delay: 127.192 ms

Loss rate: 0.61%

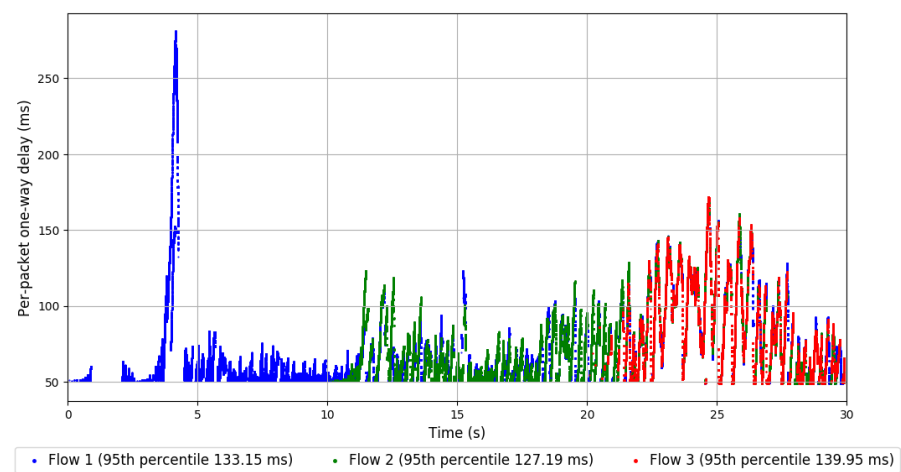
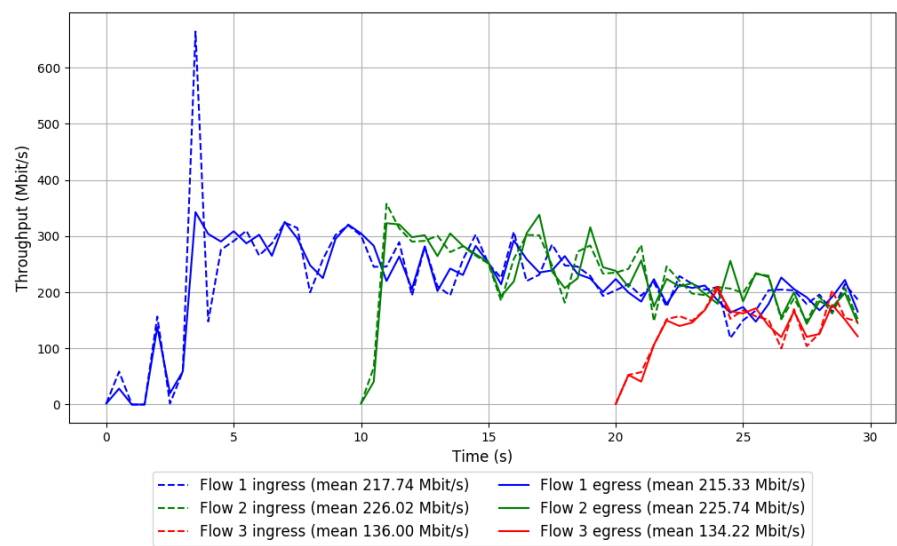
-- Flow 3:

Average throughput: 134.22 Mbit/s

95th percentile per-packet one-way delay: 139.953 ms

Loss rate: 2.22%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-01-17 16:18:11

End at: 2018-01-17 16:18:41

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 400.34 Mbit/s

95th percentile per-packet one-way delay: 159.541 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 266.57 Mbit/s

95th percentile per-packet one-way delay: 169.890 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 151.78 Mbit/s

95th percentile per-packet one-way delay: 119.730 ms

Loss rate: 0.88%

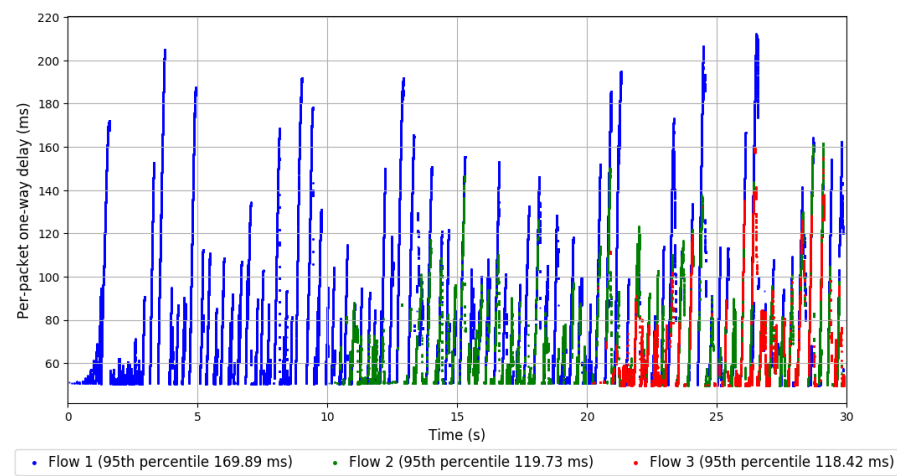
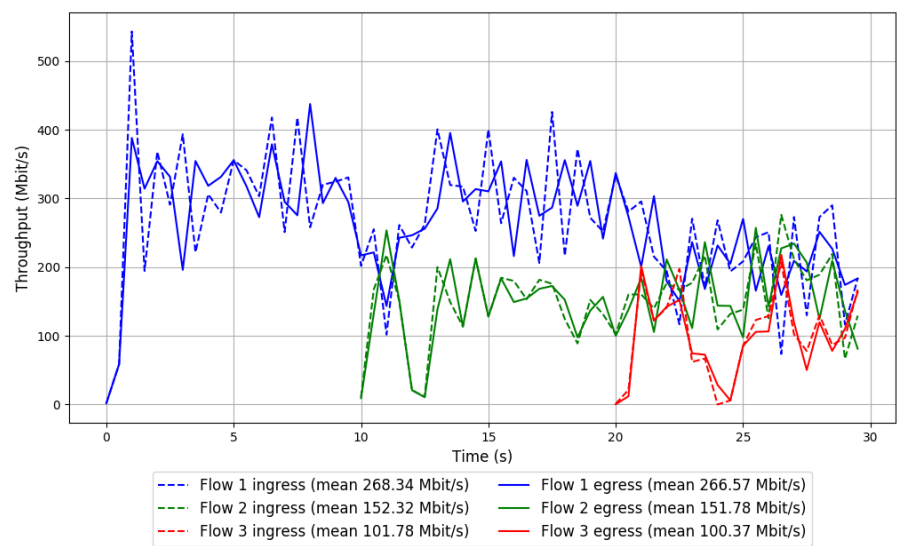
-- Flow 3:

Average throughput: 100.37 Mbit/s

95th percentile per-packet one-way delay: 118.425 ms

Loss rate: 2.44%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-01-17 16:35:41

End at: 2018-01-17 16:36:11

Below is generated by plot.py at 2018-01-17 22:18:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 355.63 Mbit/s

95th percentile per-packet one-way delay: 103.337 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 202.79 Mbit/s

95th percentile per-packet one-way delay: 99.715 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 184.02 Mbit/s

95th percentile per-packet one-way delay: 101.696 ms

Loss rate: 0.55%

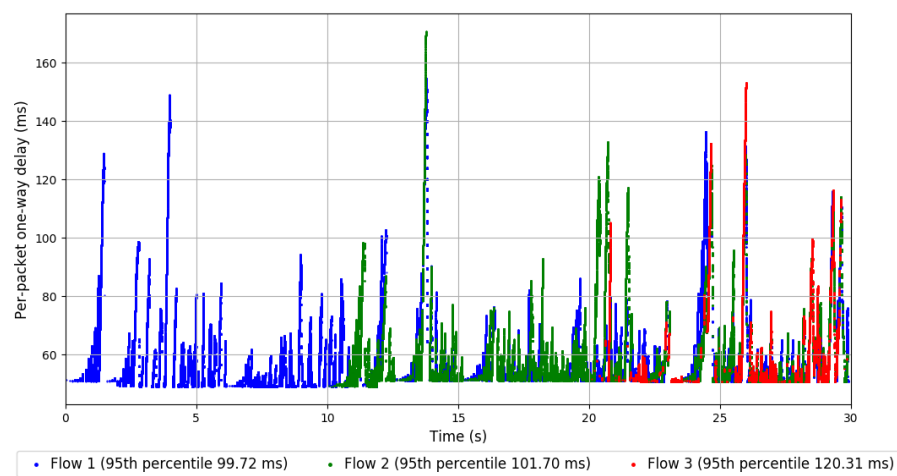
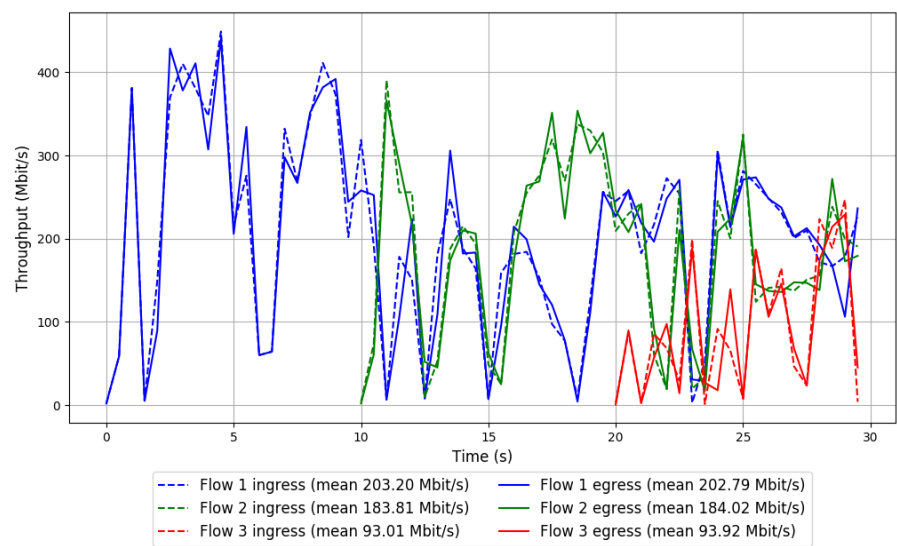
-- Flow 3:

Average throughput: 93.92 Mbit/s

95th percentile per-packet one-way delay: 120.309 ms

Loss rate: 0.05%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-01-17 16:53:18

End at: 2018-01-17 16:53:48

Below is generated by plot.py at 2018-01-17 22:19:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 399.96 Mbit/s

95th percentile per-packet one-way delay: 139.306 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 231.35 Mbit/s

95th percentile per-packet one-way delay: 139.496 ms

Loss rate: 2.48%

-- Flow 2:

Average throughput: 193.63 Mbit/s

95th percentile per-packet one-way delay: 139.268 ms

Loss rate: 0.32%

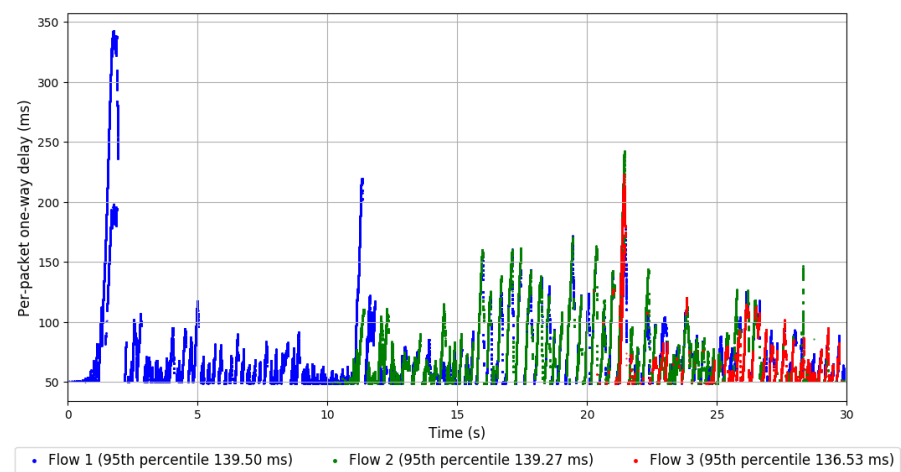
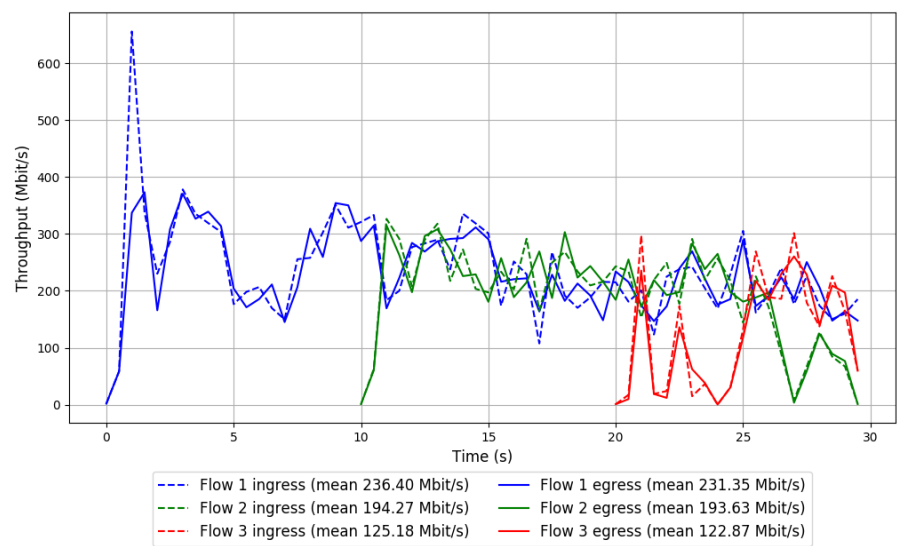
-- Flow 3:

Average throughput: 122.87 Mbit/s

95th percentile per-packet one-way delay: 136.532 ms

Loss rate: 2.83%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-01-17 17:11:10

End at: 2018-01-17 17:11:40

Below is generated by plot.py at 2018-01-17 22:20:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 376.54 Mbit/s

95th percentile per-packet one-way delay: 111.264 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 203.65 Mbit/s

95th percentile per-packet one-way delay: 119.988 ms

Loss rate: 1.56%

-- Flow 2:

Average throughput: 194.94 Mbit/s

95th percentile per-packet one-way delay: 113.773 ms

Loss rate: 0.60%

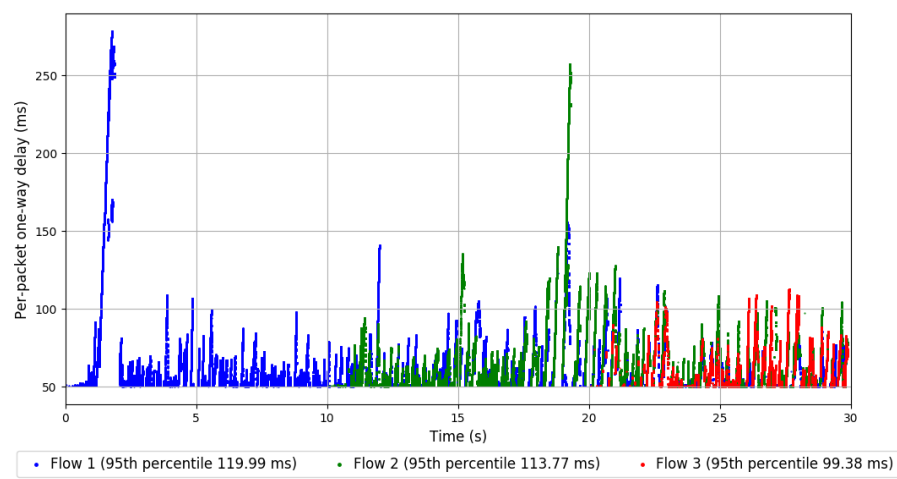
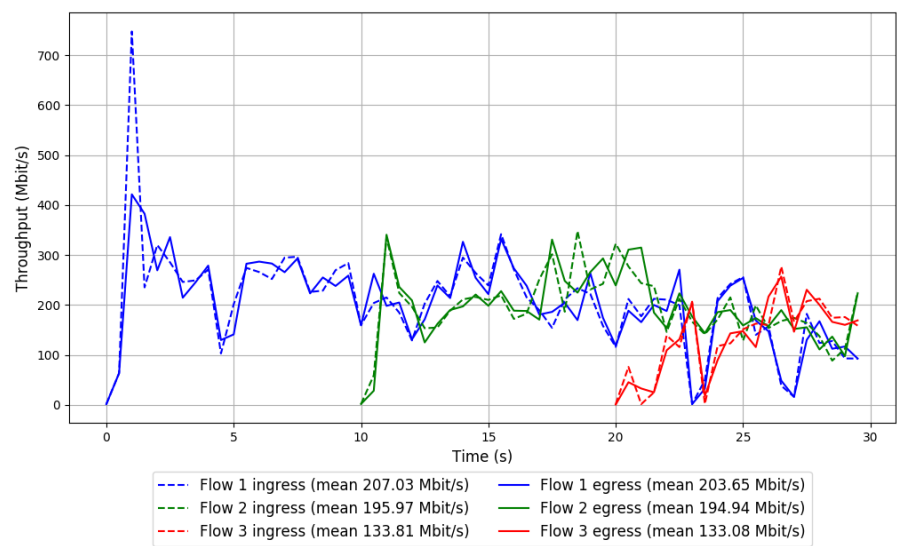
-- Flow 3:

Average throughput: 133.08 Mbit/s

95th percentile per-packet one-way delay: 99.383 ms

Loss rate: 1.69%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-01-17 17:28:52

End at: 2018-01-17 17:29:22

Below is generated by plot.py at 2018-01-17 22:23:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 331.08 Mbit/s

95th percentile per-packet one-way delay: 163.459 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 154.84 Mbit/s

95th percentile per-packet one-way delay: 145.486 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 176.72 Mbit/s

95th percentile per-packet one-way delay: 159.990 ms

Loss rate: 1.96%

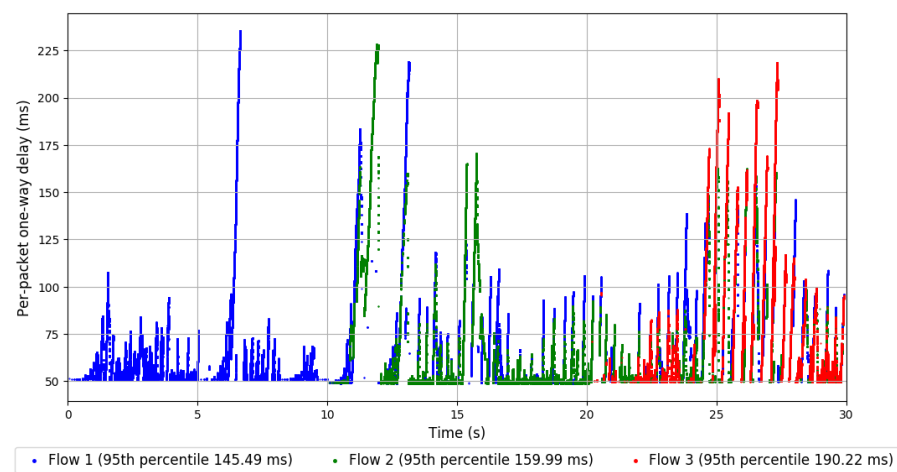
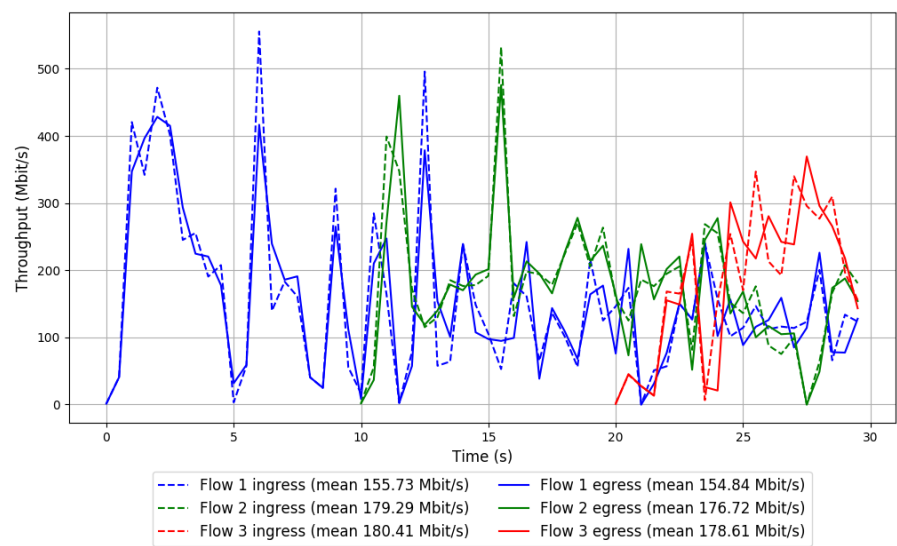
-- Flow 3:

Average throughput: 178.61 Mbit/s

95th percentile per-packet one-way delay: 190.225 ms

Loss rate: 1.96%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-01-17 17:46:08

End at: 2018-01-17 17:46:38

Below is generated by plot.py at 2018-01-17 22:24:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 393.30 Mbit/s

95th percentile per-packet one-way delay: 146.377 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 252.09 Mbit/s

95th percentile per-packet one-way delay: 132.572 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 170.37 Mbit/s

95th percentile per-packet one-way delay: 151.936 ms

Loss rate: 2.80%

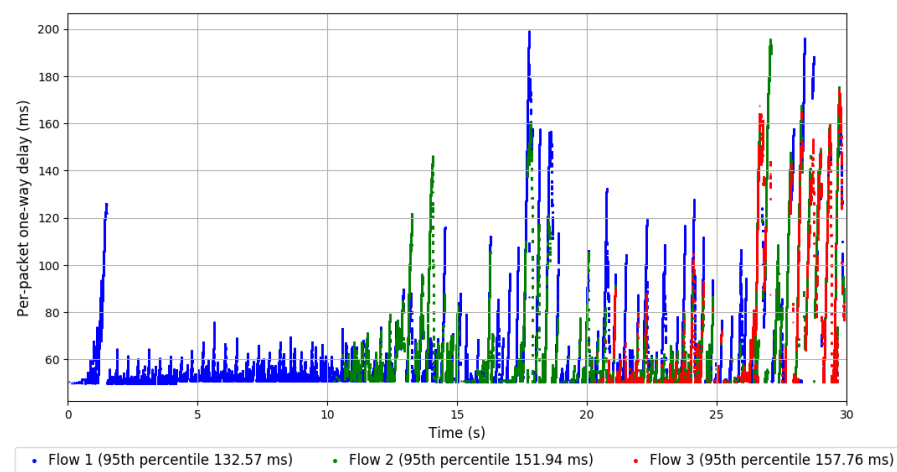
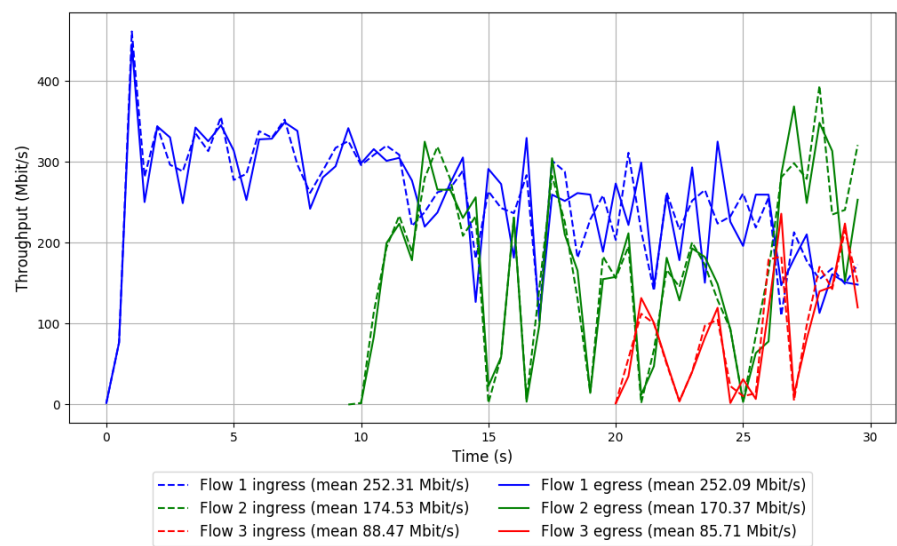
-- Flow 3:

Average throughput: 85.71 Mbit/s

95th percentile per-packet one-way delay: 157.757 ms

Loss rate: 4.25%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-01-17 18:03:55

End at: 2018-01-17 18:04:25

Below is generated by plot.py at 2018-01-17 22:24:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 405.84 Mbit/s

95th percentile per-packet one-way delay: 201.907 ms

Loss rate: 4.61%

-- Flow 1:

Average throughput: 200.39 Mbit/s

95th percentile per-packet one-way delay: 174.629 ms

Loss rate: 4.01%

-- Flow 2:

Average throughput: 286.69 Mbit/s

95th percentile per-packet one-way delay: 229.376 ms

Loss rate: 5.15%

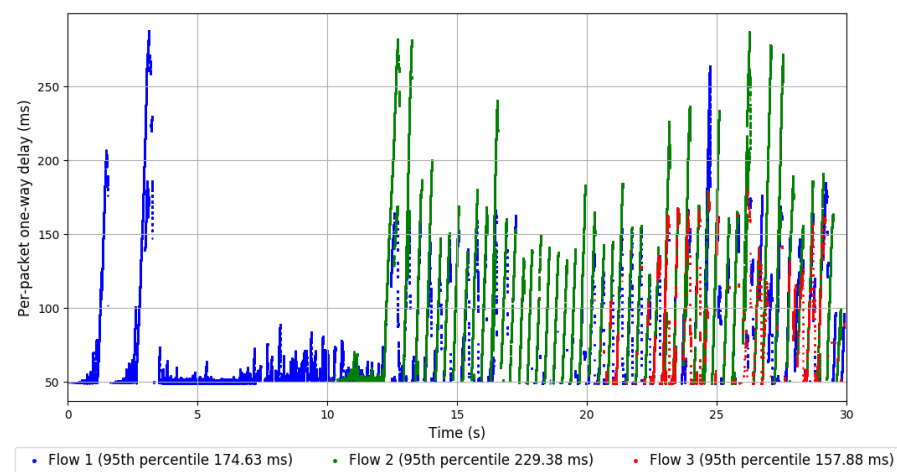
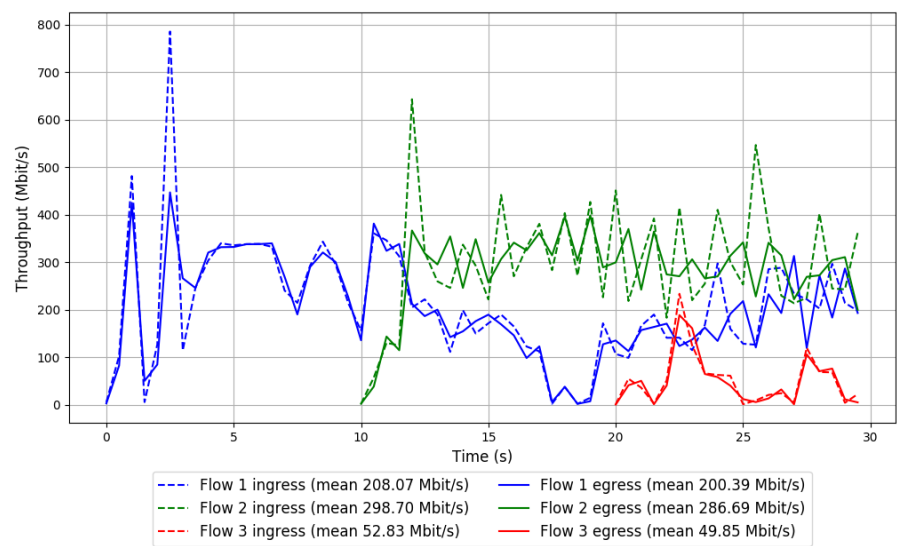
-- Flow 3:

Average throughput: 49.85 Mbit/s

95th percentile per-packet one-way delay: 157.876 ms

Loss rate: 5.63%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-01-17 18:21:45

End at: 2018-01-17 18:22:15

Below is generated by plot.py at 2018-01-17 22:25:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 401.26 Mbit/s

95th percentile per-packet one-way delay: 96.779 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 229.42 Mbit/s

95th percentile per-packet one-way delay: 97.946 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 233.52 Mbit/s

95th percentile per-packet one-way delay: 95.330 ms

Loss rate: 0.42%

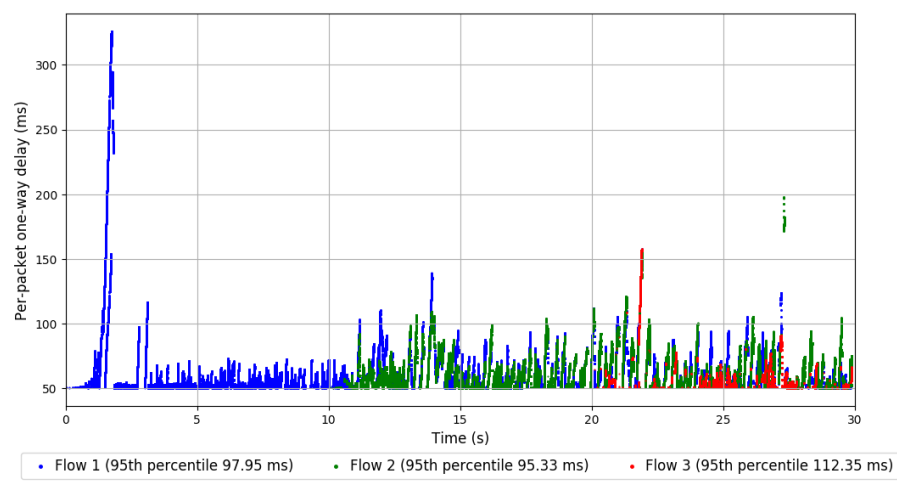
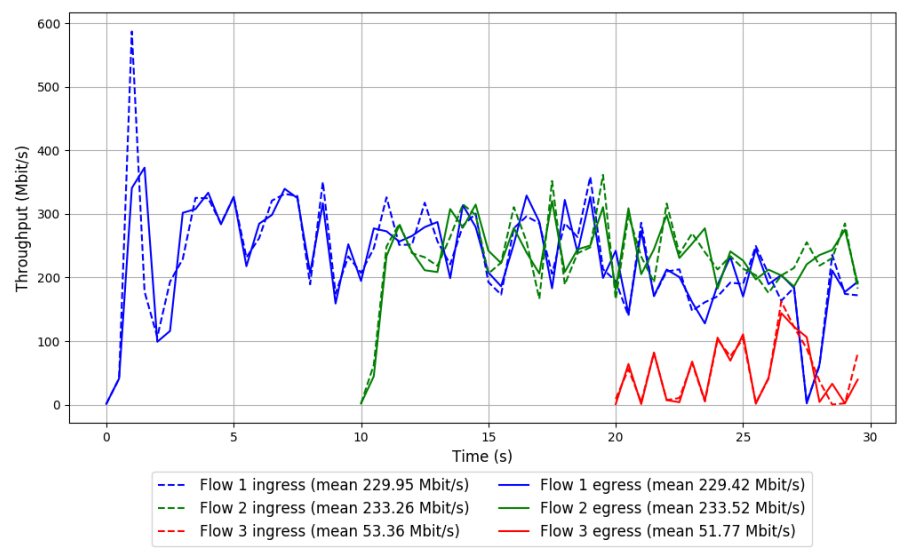
-- Flow 3:

Average throughput: 51.77 Mbit/s

95th percentile per-packet one-way delay: 112.351 ms

Loss rate: 4.19%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-01-17 15:31:42

End at: 2018-01-17 15:32:12

Below is generated by plot.py at 2018-01-17 22:25:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.28 Mbit/s

95th percentile per-packet one-way delay: 51.101 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 82.88 Mbit/s

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

Loss rate: 0.32%

-- Flow 2:

Average throughput: 68.44 Mbit/s

95th percentile per-packet one-way delay: 51.186 ms

Loss rate: 0.17%

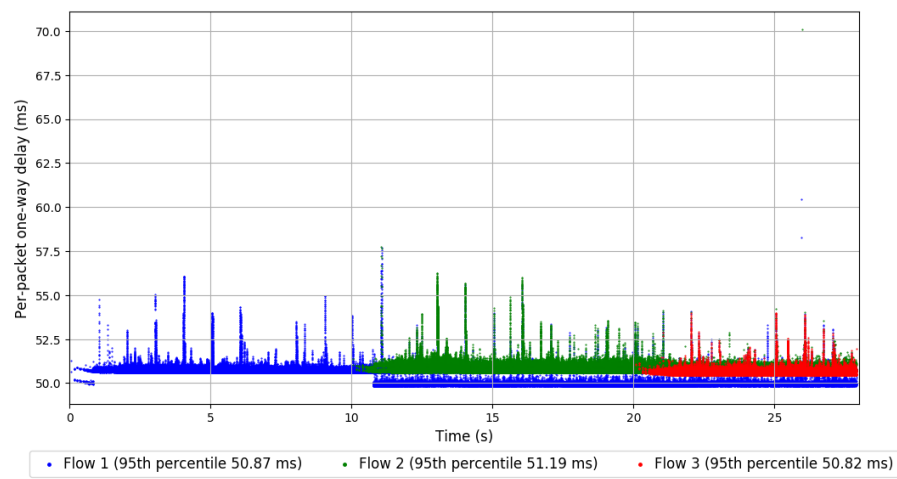
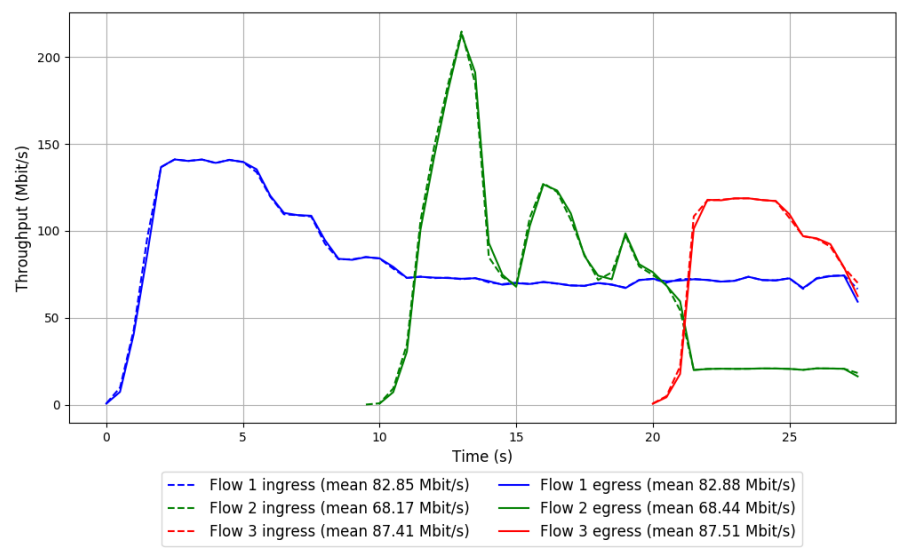
-- Flow 3:

Average throughput: 87.51 Mbit/s

95th percentile per-packet one-way delay: 50.823 ms

Loss rate: 1.13%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-01-17 15:49:01

End at: 2018-01-17 15:49:31

Below is generated by plot.py at 2018-01-17 22:25:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.79 Mbit/s

95th percentile per-packet one-way delay: 50.980 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 73.32 Mbit/s

95th percentile per-packet one-way delay: 51.019 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 75.15 Mbit/s

95th percentile per-packet one-way delay: 50.899 ms

Loss rate: 0.47%

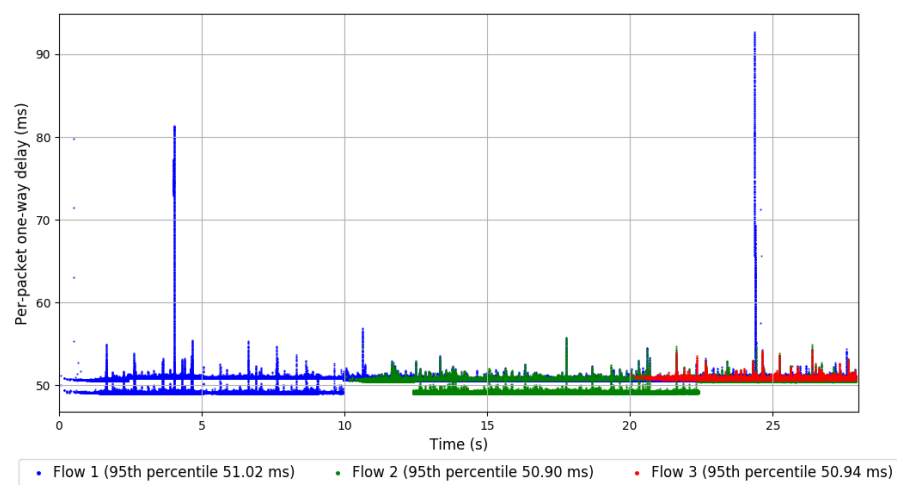
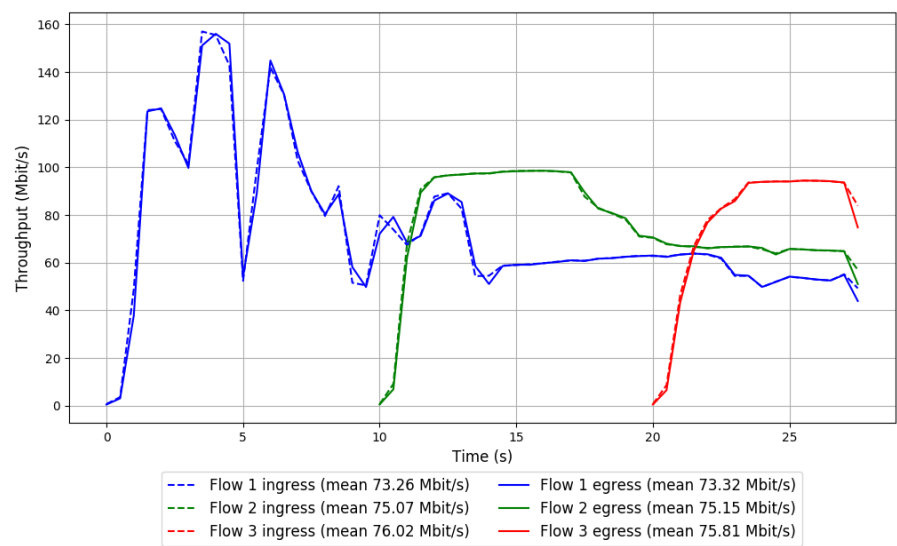
-- Flow 3:

Average throughput: 75.81 Mbit/s

95th percentile per-packet one-way delay: 50.942 ms

Loss rate: 1.55%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-01-17 16:06:40

End at: 2018-01-17 16:07:10

Below is generated by plot.py at 2018-01-17 22:25:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 149.07 Mbit/s

95th percentile per-packet one-way delay: 50.924 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 74.35 Mbit/s

95th percentile per-packet one-way delay: 50.943 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 76.44 Mbit/s

95th percentile per-packet one-way delay: 50.884 ms

Loss rate: 0.54%

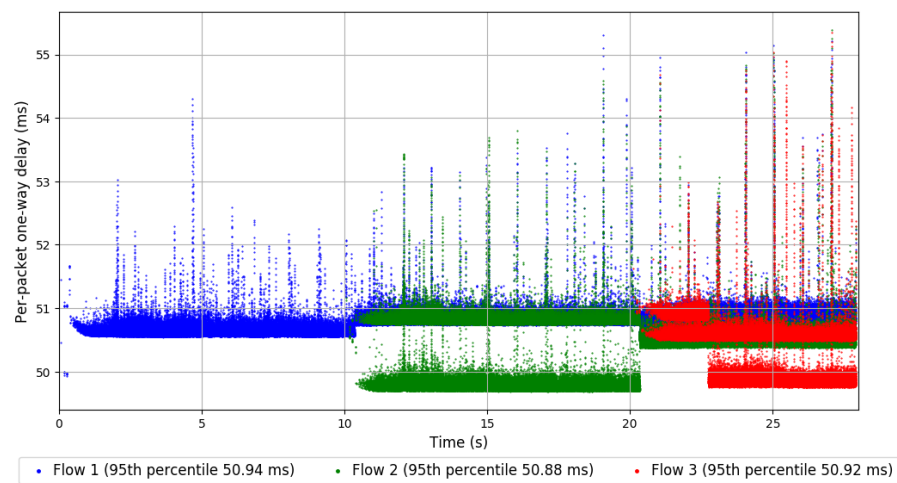
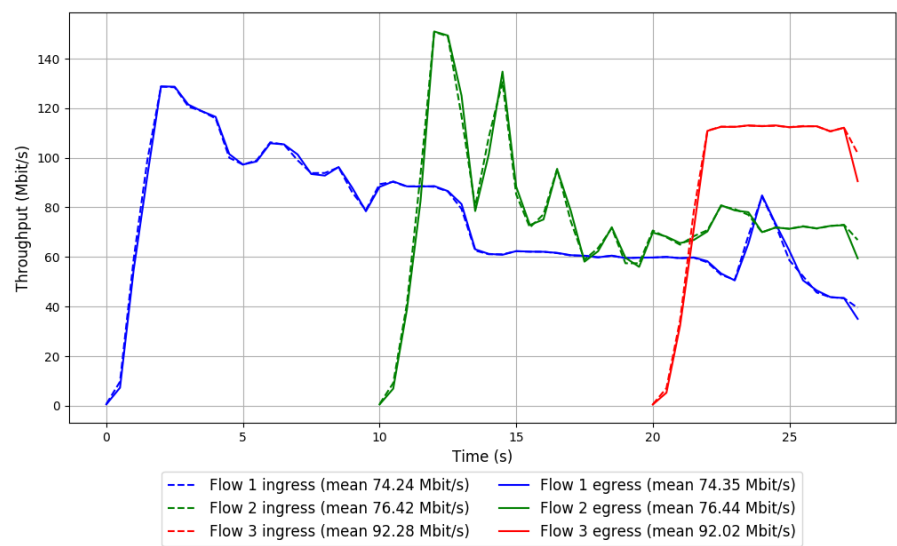
-- Flow 3:

Average throughput: 92.02 Mbit/s

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

Loss rate: 1.56%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-01-17 16:24:12

End at: 2018-01-17 16:24:42

Below is generated by plot.py at 2018-01-17 22:25:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 153.68 Mbit/s

95th percentile per-packet one-way delay: 50.950 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 79.73 Mbit/s

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

Loss rate: 0.24%

-- Flow 2:

Average throughput: 79.28 Mbit/s

95th percentile per-packet one-way delay: 50.981 ms

Loss rate: 0.47%

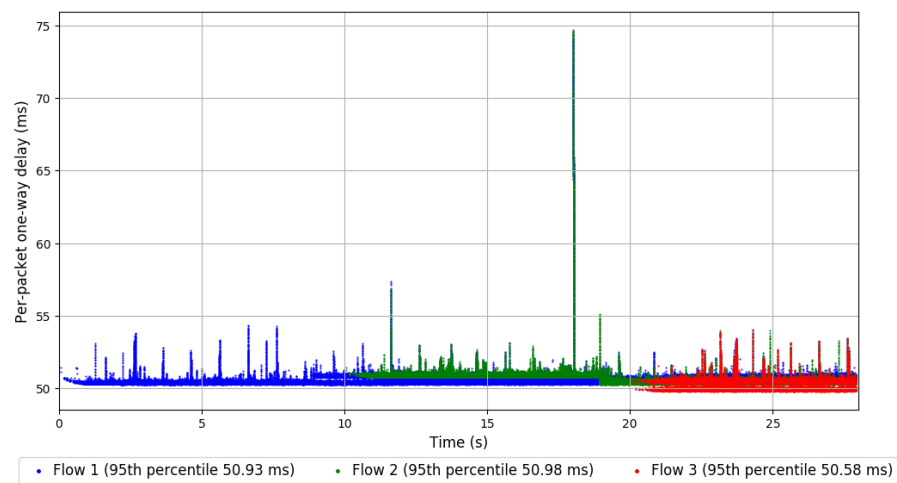
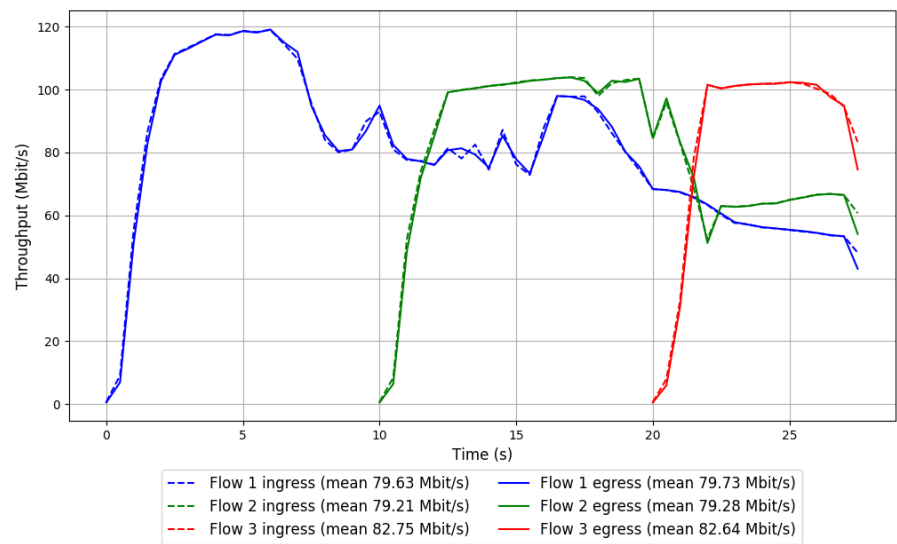
-- Flow 3:

Average throughput: 82.64 Mbit/s

95th percentile per-packet one-way delay: 50.576 ms

Loss rate: 1.39%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-01-17 16:41:42

End at: 2018-01-17 16:42:12

Below is generated by plot.py at 2018-01-17 22:27:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 162.61 Mbit/s

95th percentile per-packet one-way delay: 51.033 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 85.78 Mbit/s

95th percentile per-packet one-way delay: 51.032 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 75.26 Mbit/s

95th percentile per-packet one-way delay: 51.093 ms

Loss rate: 0.16%

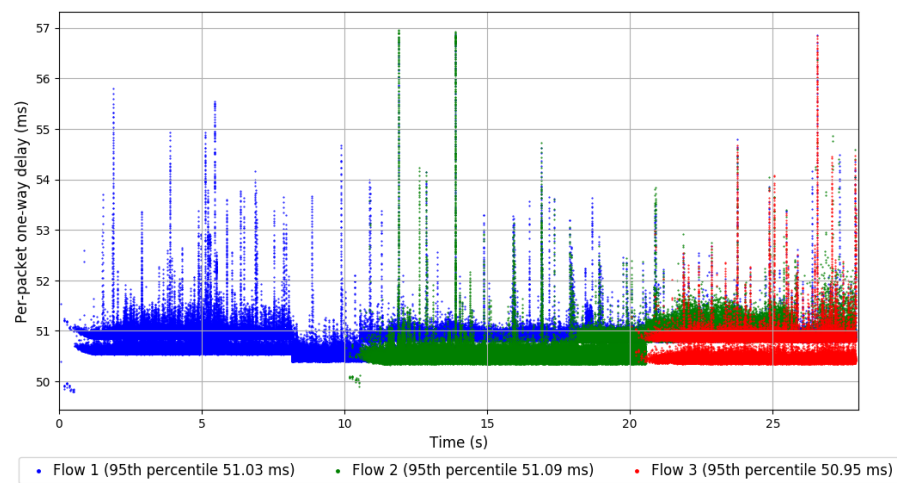
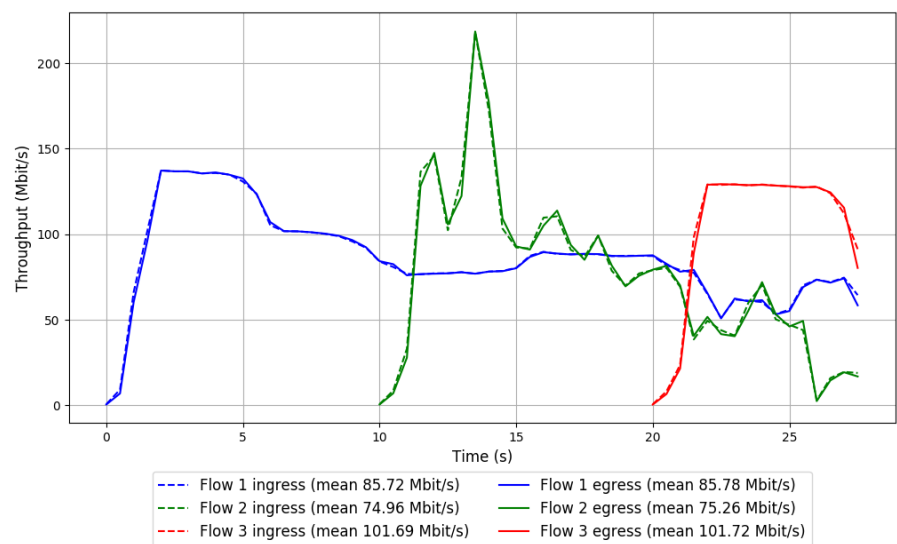
-- Flow 3:

Average throughput: 101.72 Mbit/s

95th percentile per-packet one-way delay: 50.950 ms

Loss rate: 1.25%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-01-17 16:59:19

End at: 2018-01-17 16:59:49

Below is generated by plot.py at 2018-01-17 22:27:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 150.35 Mbit/s

95th percentile per-packet one-way delay: 50.948 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 79.16 Mbit/s

95th percentile per-packet one-way delay: 50.900 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 69.46 Mbit/s

95th percentile per-packet one-way delay: 50.803 ms

Loss rate: 0.49%

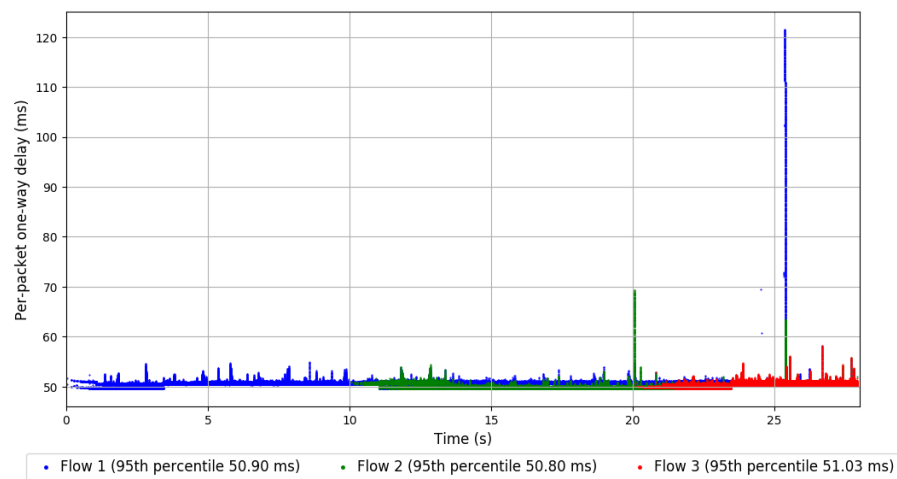
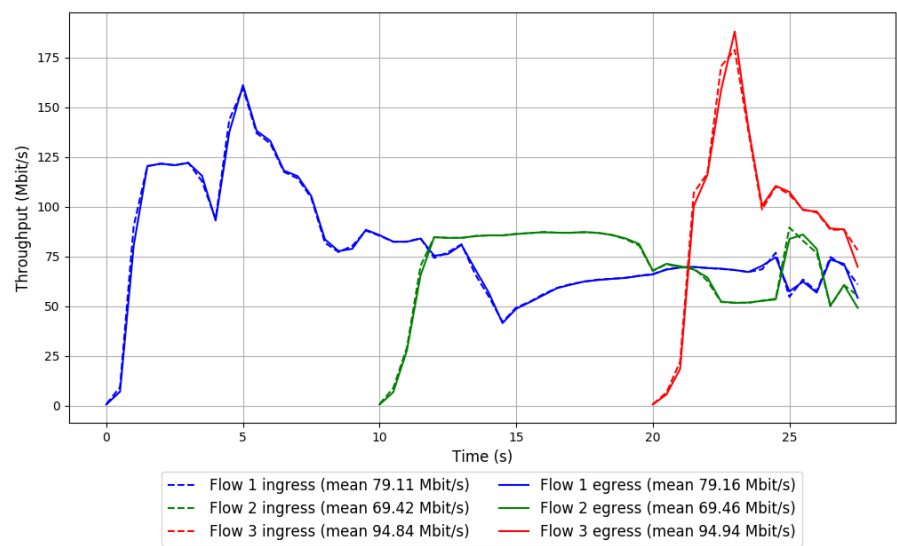
-- Flow 3:

Average throughput: 94.94 Mbit/s

95th percentile per-packet one-way delay: 51.030 ms

Loss rate: 1.13%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-01-17 17:17:15

End at: 2018-01-17 17:17:45

Below is generated by plot.py at 2018-01-17 22:27:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 148.93 Mbit/s

95th percentile per-packet one-way delay: 50.844 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 83.17 Mbit/s

95th percentile per-packet one-way delay: 50.618 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 73.33 Mbit/s

95th percentile per-packet one-way delay: 50.979 ms

Loss rate: 0.29%

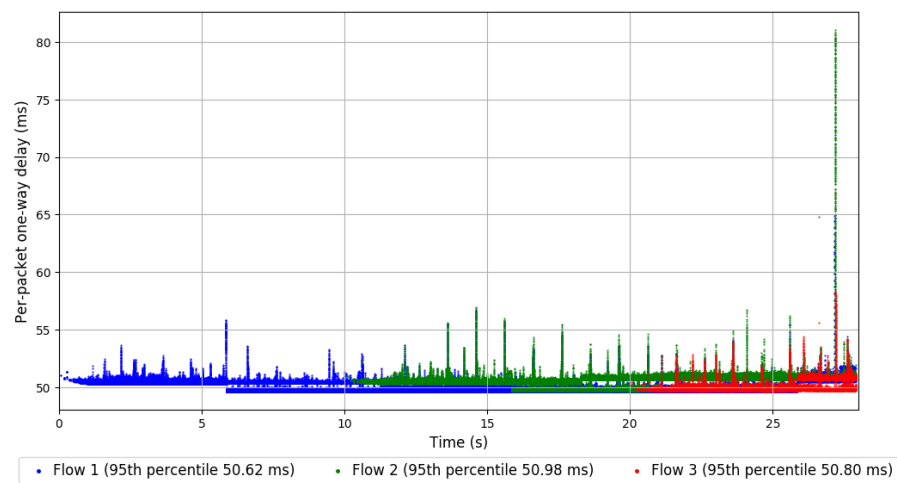
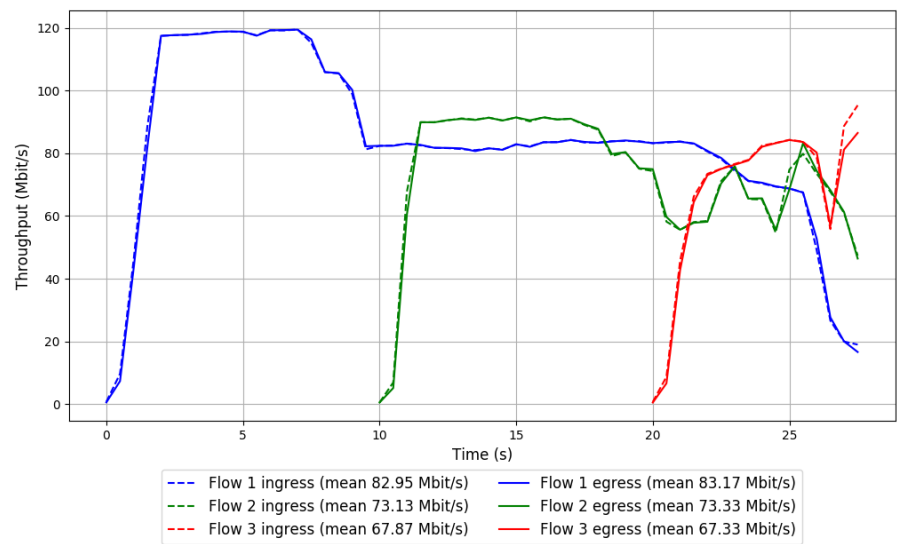
-- Flow 3:

Average throughput: 67.33 Mbit/s

95th percentile per-packet one-way delay: 50.803 ms

Loss rate: 2.07%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-01-17 17:34:44

End at: 2018-01-17 17:35:14

Below is generated by plot.py at 2018-01-17 22:28:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 160.56 Mbit/s

95th percentile per-packet one-way delay: 51.191 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 86.07 Mbit/s

95th percentile per-packet one-way delay: 51.281 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 78.27 Mbit/s

95th percentile per-packet one-way delay: 50.707 ms

Loss rate: 0.55%

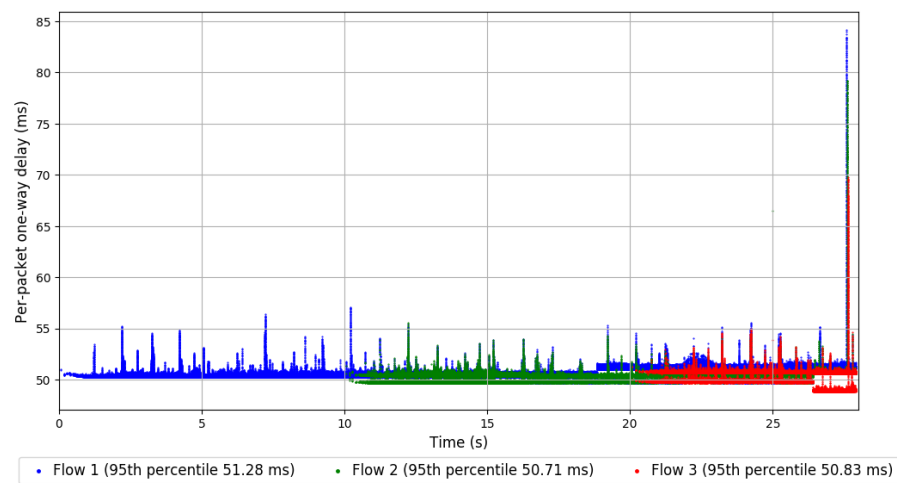
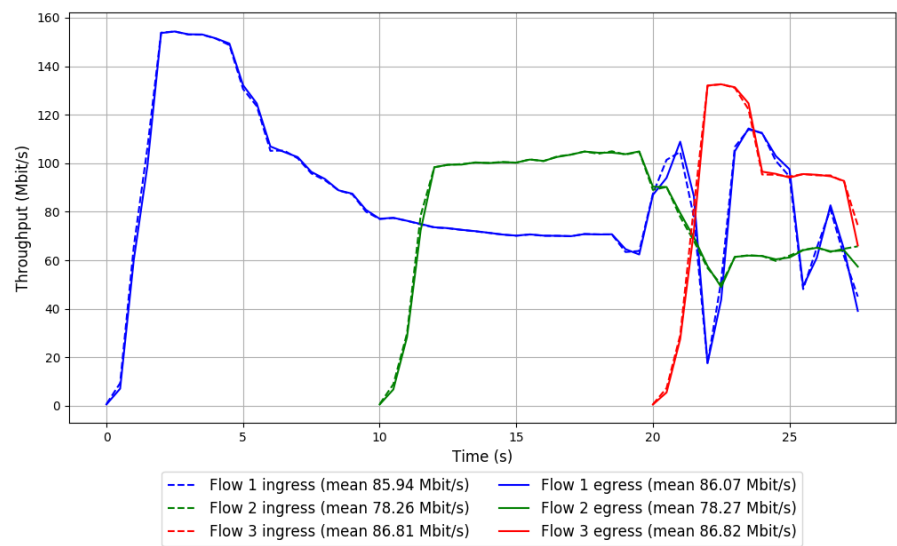
-- Flow 3:

Average throughput: 86.82 Mbit/s

95th percentile per-packet one-way delay: 50.834 ms

Loss rate: 1.27%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-01-17 17:52:06

End at: 2018-01-17 17:52:36

Below is generated by plot.py at 2018-01-17 22:29:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 156.68 Mbit/s

95th percentile per-packet one-way delay: 51.116 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 82.17 Mbit/s

95th percentile per-packet one-way delay: 51.146 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 77.42 Mbit/s

95th percentile per-packet one-way delay: 50.488 ms

Loss rate: 0.48%

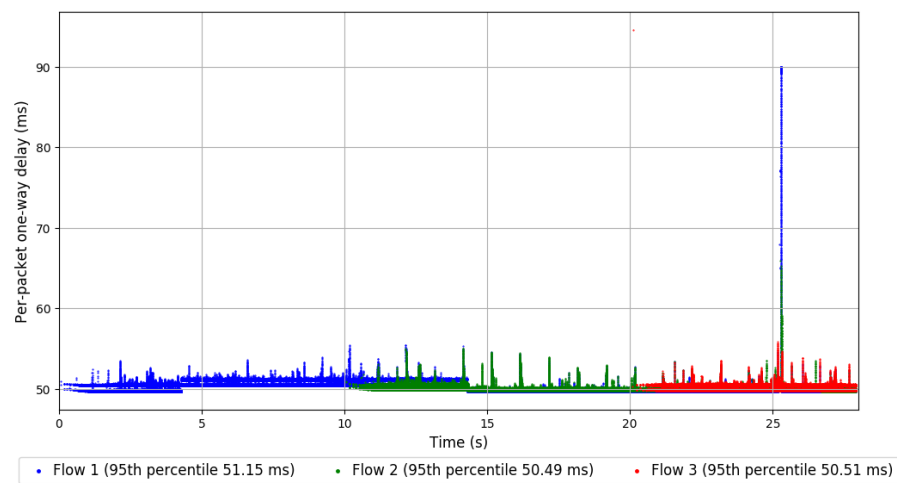
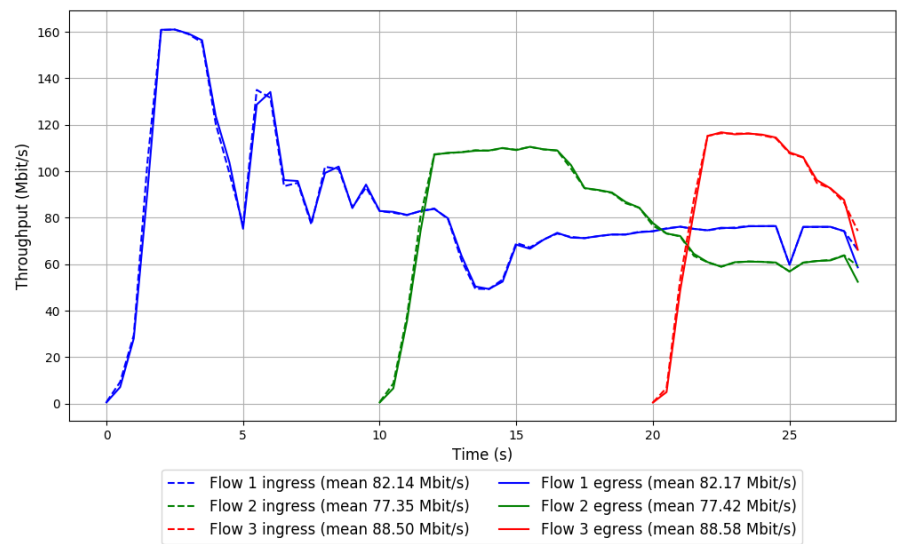
-- Flow 3:

Average throughput: 88.58 Mbit/s

95th percentile per-packet one-way delay: 50.507 ms

Loss rate: 1.16%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-01-17 18:10:02

End at: 2018-01-17 18:10:32

Below is generated by plot.py at 2018-01-17 22:29:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 152.57 Mbit/s

95th percentile per-packet one-way delay: 50.635 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 82.56 Mbit/s

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

Loss rate: 0.34%

-- Flow 2:

Average throughput: 76.36 Mbit/s

95th percentile per-packet one-way delay: 50.555 ms

Loss rate: 0.87%

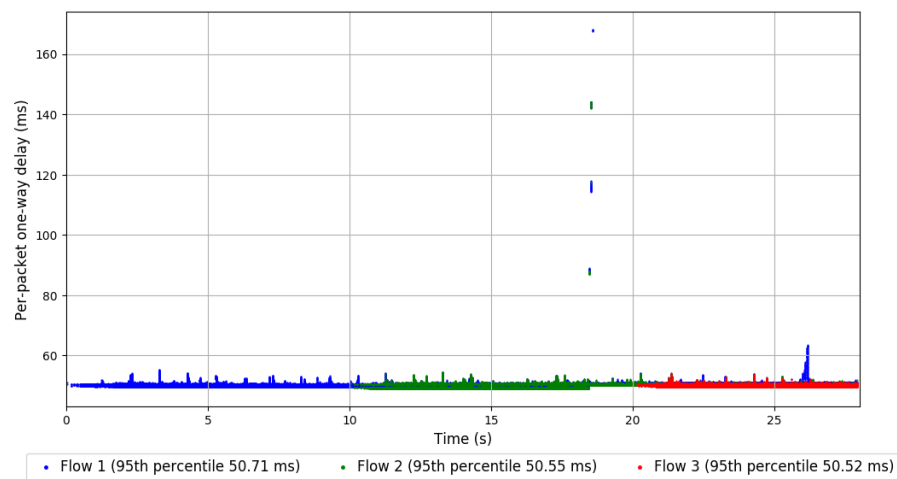
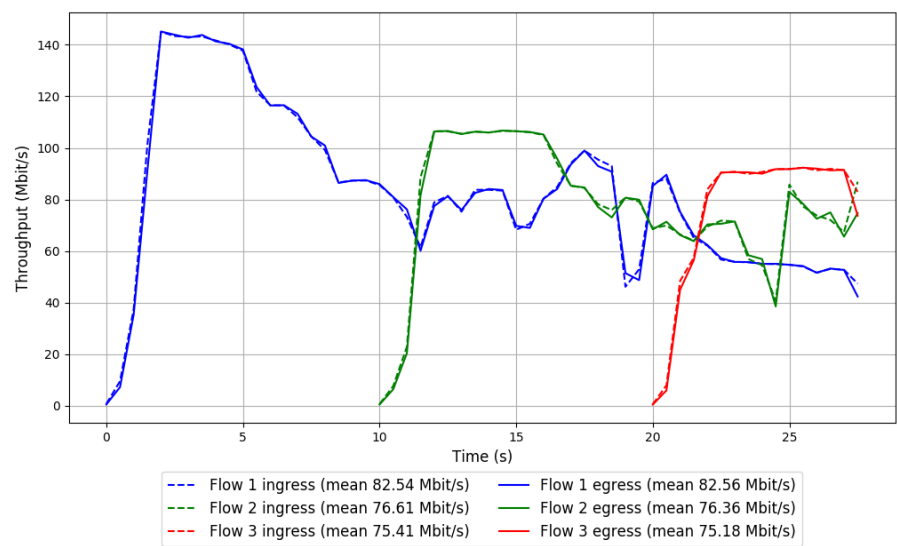
-- Flow 3:

Average throughput: 75.18 Mbit/s

95th percentile per-packet one-way delay: 50.524 ms

Loss rate: 1.55%

Run 10: Report of Copa — Data Link

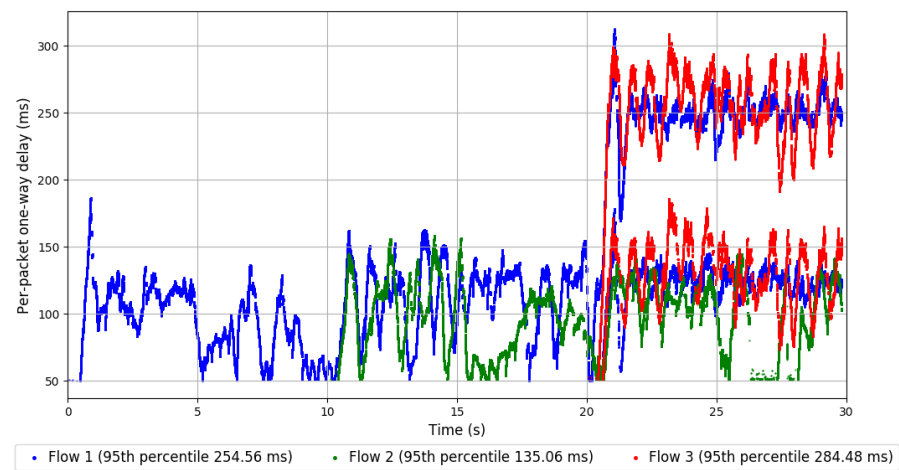
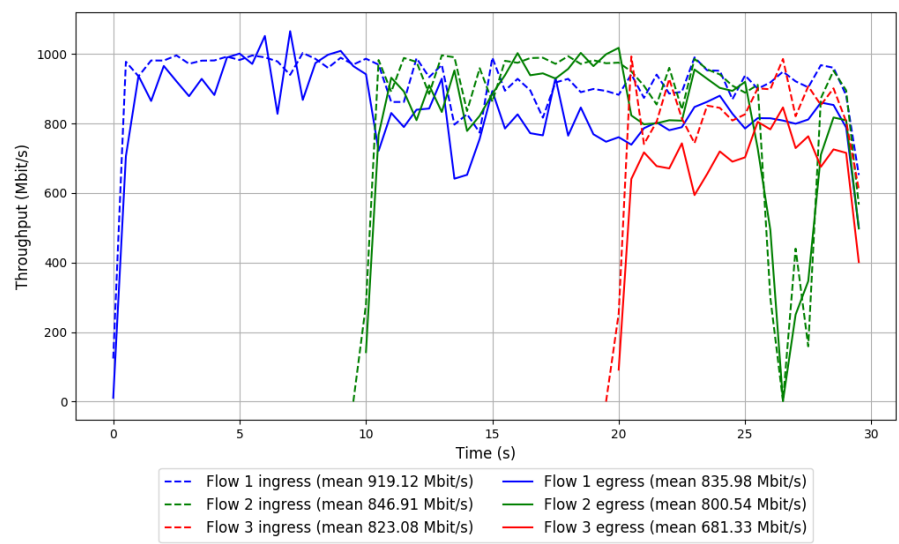


```
Run 1: Statistics of FillP

Start at: 2018-01-17 15:28:38
End at: 2018-01-17 15:29:08

# Below is generated by plot.py at 2018-01-17 22:55:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1592.80 Mbit/s
95th percentile per-packet one-way delay: 260.221 ms
Loss rate: 9.63%
-- Flow 1:
Average throughput: 835.98 Mbit/s
95th percentile per-packet one-way delay: 254.557 ms
Loss rate: 9.35%
-- Flow 2:
Average throughput: 800.54 Mbit/s
95th percentile per-packet one-way delay: 135.059 ms
Loss rate: 6.00%
-- Flow 3:
Average throughput: 681.33 Mbit/s
95th percentile per-packet one-way delay: 284.475 ms
Loss rate: 18.08%
```

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-01-17 15:46:05

End at: 2018-01-17 15:46:35

Below is generated by plot.py at 2018-01-17 22:55:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 1624.97 Mbit/s

95th percentile per-packet one-way delay: 135.667 ms

Loss rate: 4.63%

-- Flow 1:

Average throughput: 925.98 Mbit/s

95th percentile per-packet one-way delay: 129.941 ms

Loss rate: 3.73%

-- Flow 2:

Average throughput: 884.86 Mbit/s

95th percentile per-packet one-way delay: 140.128 ms

Loss rate: 4.66%

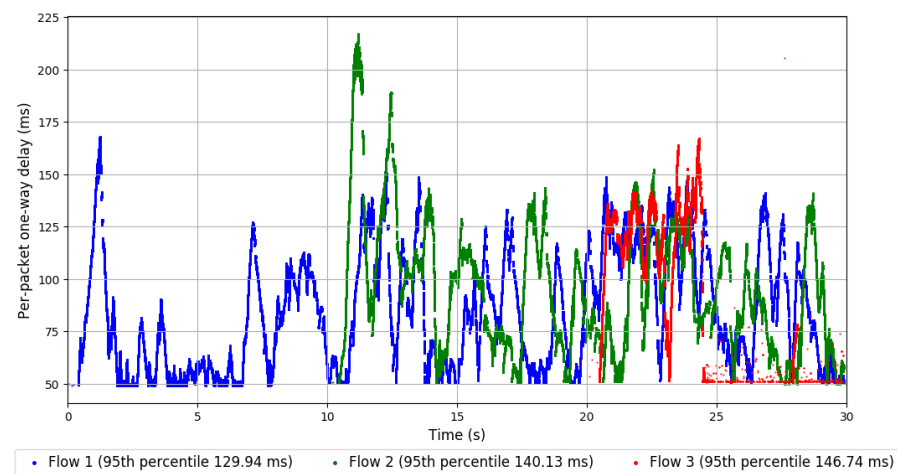
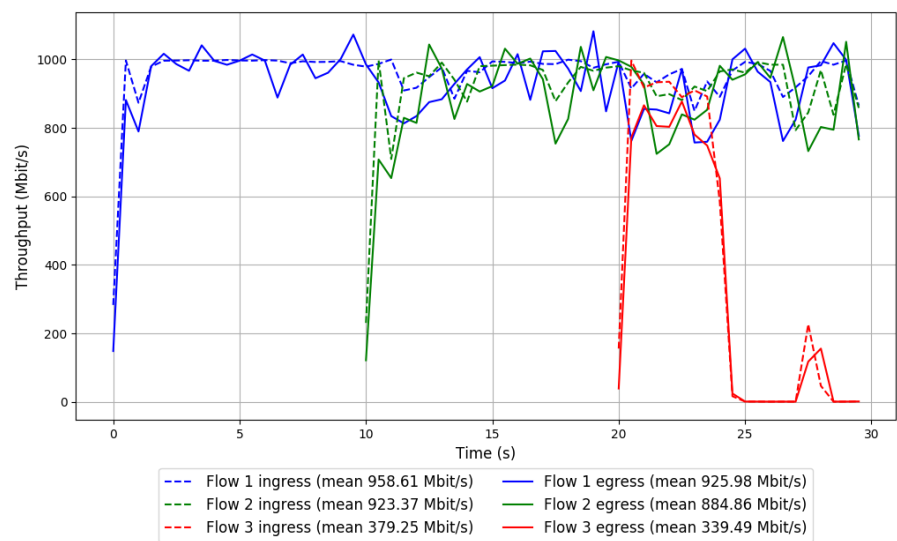
-- Flow 3:

Average throughput: 339.49 Mbit/s

95th percentile per-packet one-way delay: 146.743 ms

Loss rate: 11.46%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-01-17 16:03:35

End at: 2018-01-17 16:04:05

Below is generated by plot.py at 2018-01-17 23:00:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 1732.03 Mbit/s

95th percentile per-packet one-way delay: 141.380 ms

Loss rate: 6.87%

-- Flow 1:

Average throughput: 897.15 Mbit/s

95th percentile per-packet one-way delay: 138.271 ms

Loss rate: 5.12%

-- Flow 2:

Average throughput: 853.21 Mbit/s

95th percentile per-packet one-way delay: 153.689 ms

Loss rate: 7.87%

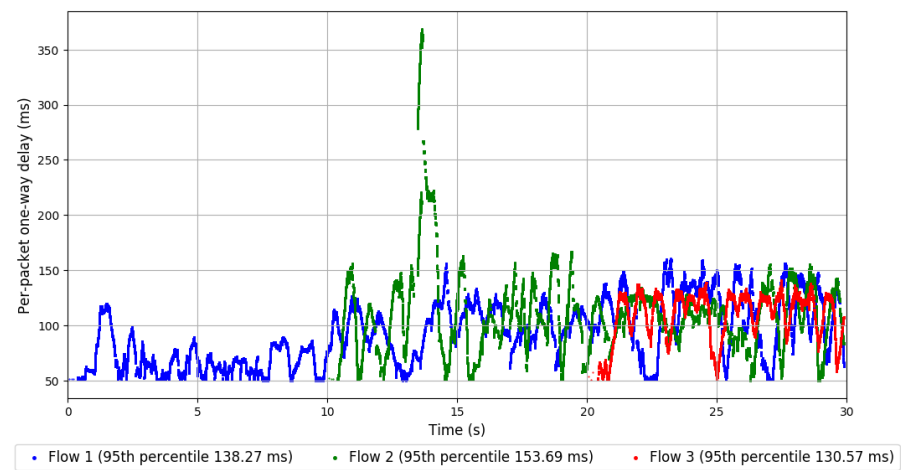
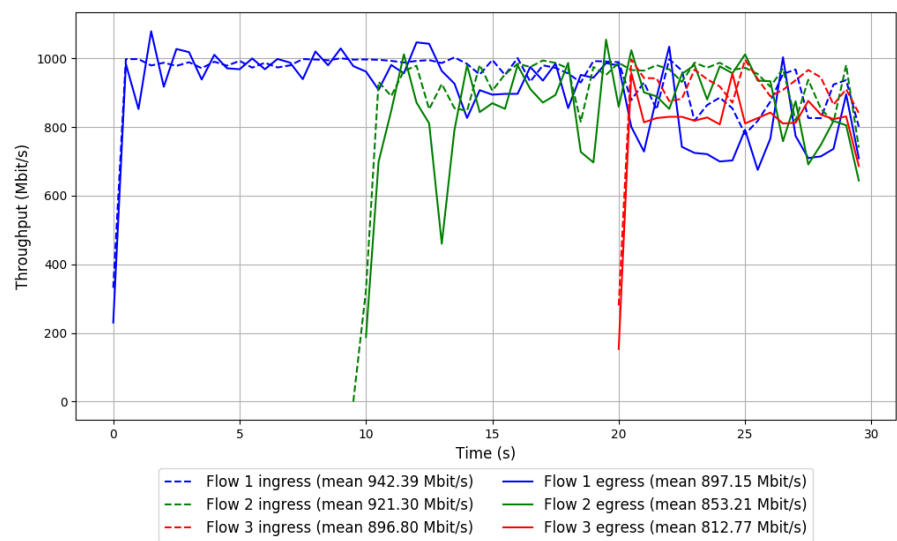
-- Flow 3:

Average throughput: 812.77 Mbit/s

95th percentile per-packet one-way delay: 130.569 ms

Loss rate: 10.32%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-01-17 16:21:05

End at: 2018-01-17 16:21:35

Below is generated by plot.py at 2018-01-17 23:00:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 1700.70 Mbit/s

95th percentile per-packet one-way delay: 144.839 ms

Loss rate: 7.13%

-- Flow 1:

Average throughput: 924.74 Mbit/s

95th percentile per-packet one-way delay: 128.840 ms

Loss rate: 3.92%

-- Flow 2:

Average throughput: 859.04 Mbit/s

95th percentile per-packet one-way delay: 139.023 ms

Loss rate: 6.60%

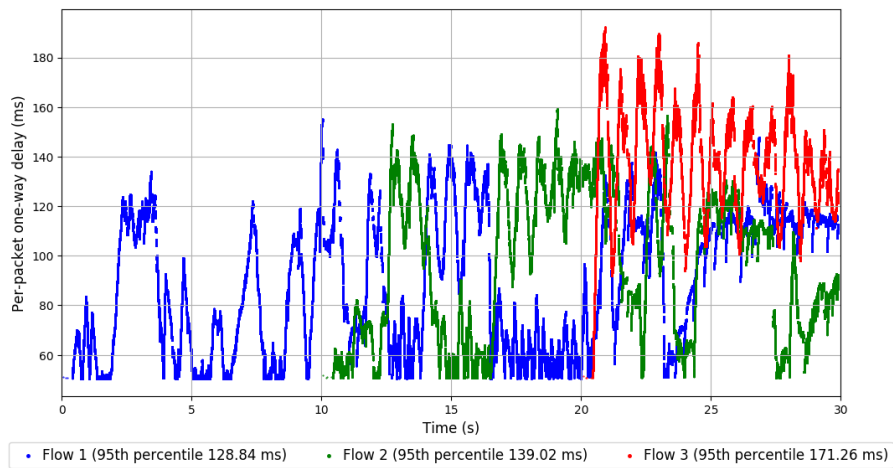
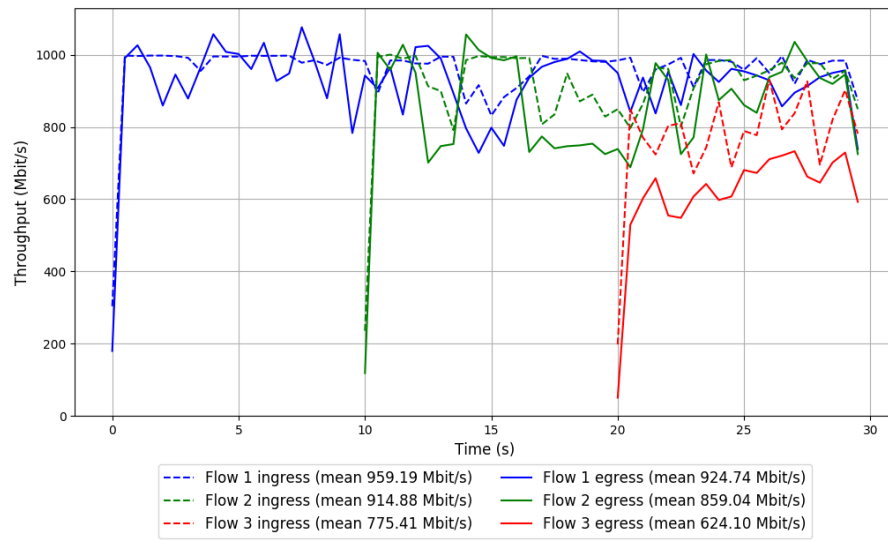
-- Flow 3:

Average throughput: 624.10 Mbit/s

95th percentile per-packet one-way delay: 171.256 ms

Loss rate: 20.35%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-01-17 16:38:36

End at: 2018-01-17 16:39:06

Below is generated by plot.py at 2018-01-17 23:00:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 1667.09 Mbit/s

95th percentile per-packet one-way delay: 144.258 ms

Loss rate: 7.86%

-- Flow 1:

Average throughput: 881.65 Mbit/s

95th percentile per-packet one-way delay: 137.159 ms

Loss rate: 5.66%

-- Flow 2:

Average throughput: 828.20 Mbit/s

95th percentile per-packet one-way delay: 144.191 ms

Loss rate: 8.72%

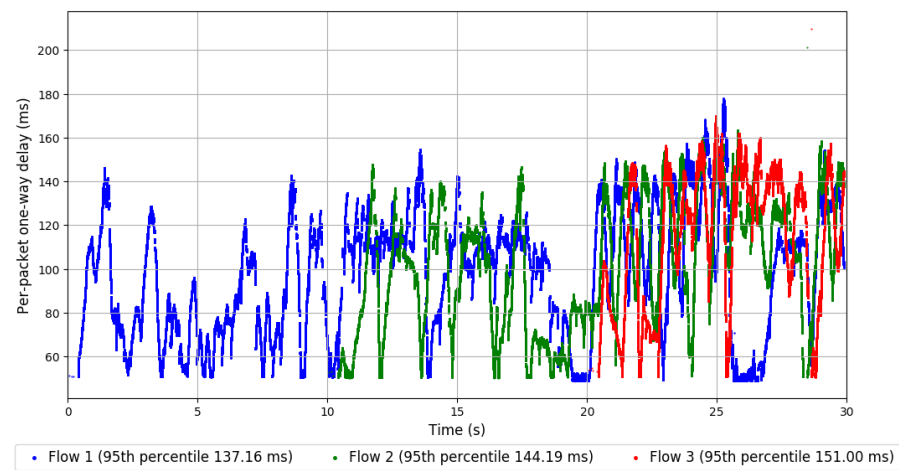
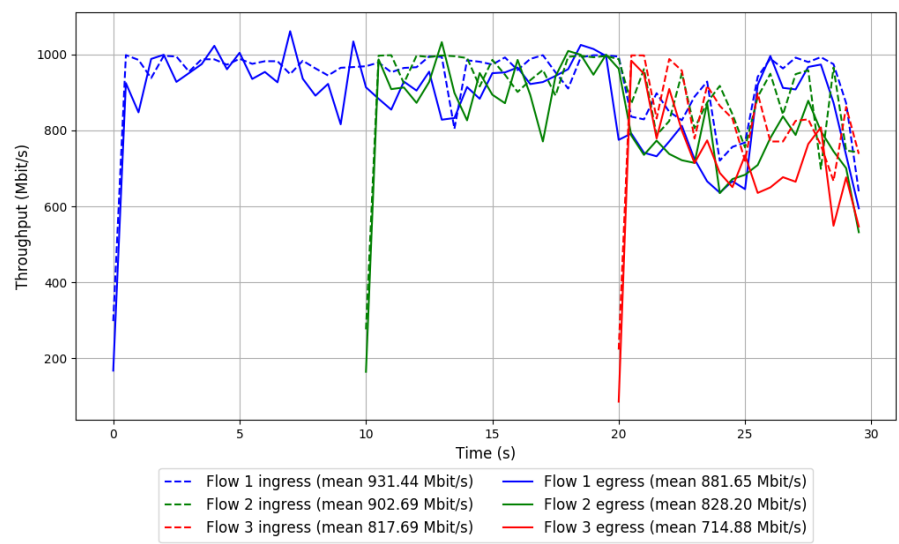
-- Flow 3:

Average throughput: 714.88 Mbit/s

95th percentile per-packet one-way delay: 151.003 ms

Loss rate: 13.48%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-01-17 16:56:15

End at: 2018-01-17 16:56:45

Below is generated by plot.py at 2018-01-17 23:00:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 1707.00 Mbit/s

95th percentile per-packet one-way delay: 146.770 ms

Loss rate: 6.40%

-- Flow 1:

Average throughput: 863.95 Mbit/s

95th percentile per-packet one-way delay: 154.226 ms

Loss rate: 6.09%

-- Flow 2:

Average throughput: 884.13 Mbit/s

95th percentile per-packet one-way delay: 137.073 ms

Loss rate: 4.97%

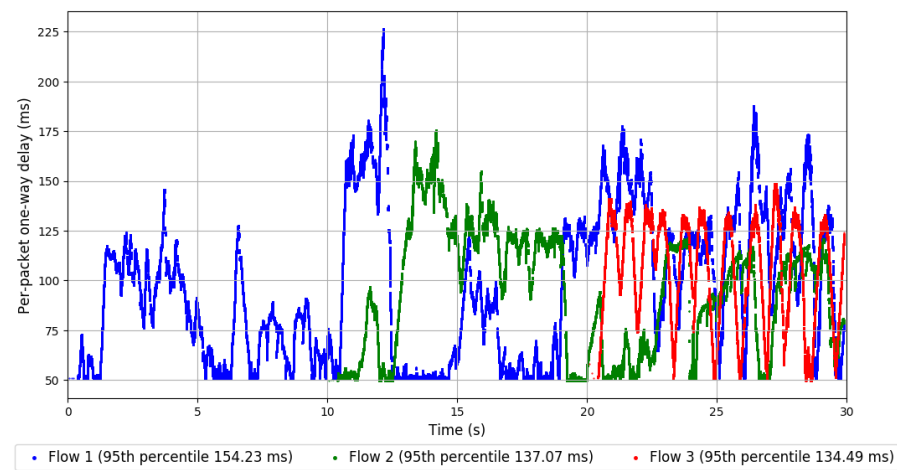
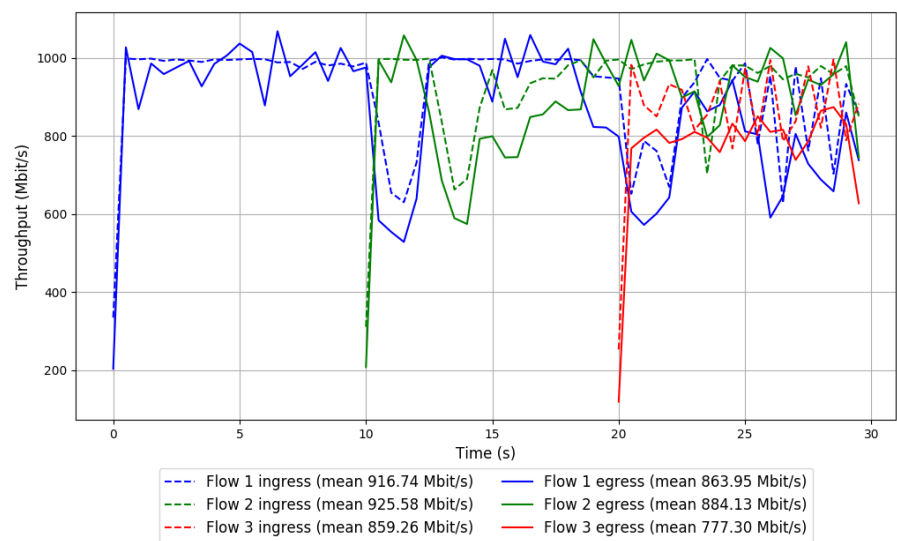
-- Flow 3:

Average throughput: 777.30 Mbit/s

95th percentile per-packet one-way delay: 134.486 ms

Loss rate: 10.54%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-01-17 17:14:08

End at: 2018-01-17 17:14:38

Below is generated by plot.py at 2018-01-17 23:01:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 1684.92 Mbit/s

95th percentile per-packet one-way delay: 138.227 ms

Loss rate: 7.36%

-- Flow 1:

Average throughput: 838.95 Mbit/s

95th percentile per-packet one-way delay: 142.329 ms

Loss rate: 8.36%

-- Flow 2:

Average throughput: 888.91 Mbit/s

95th percentile per-packet one-way delay: 130.689 ms

Loss rate: 4.09%

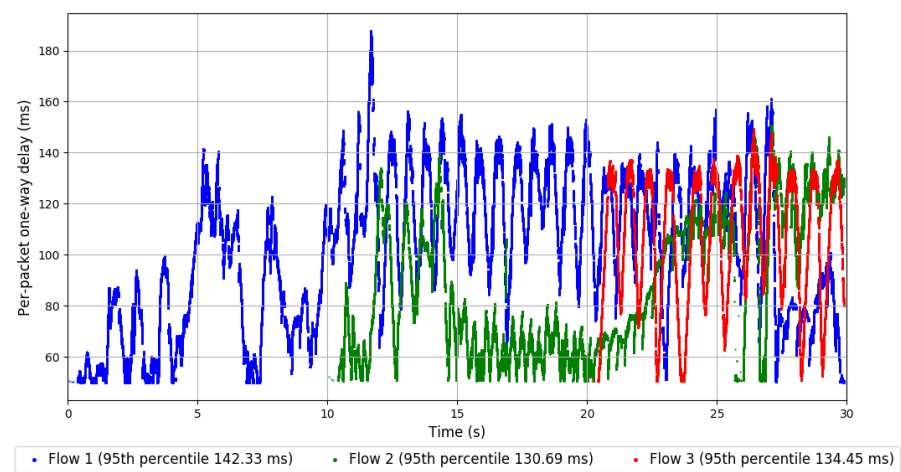
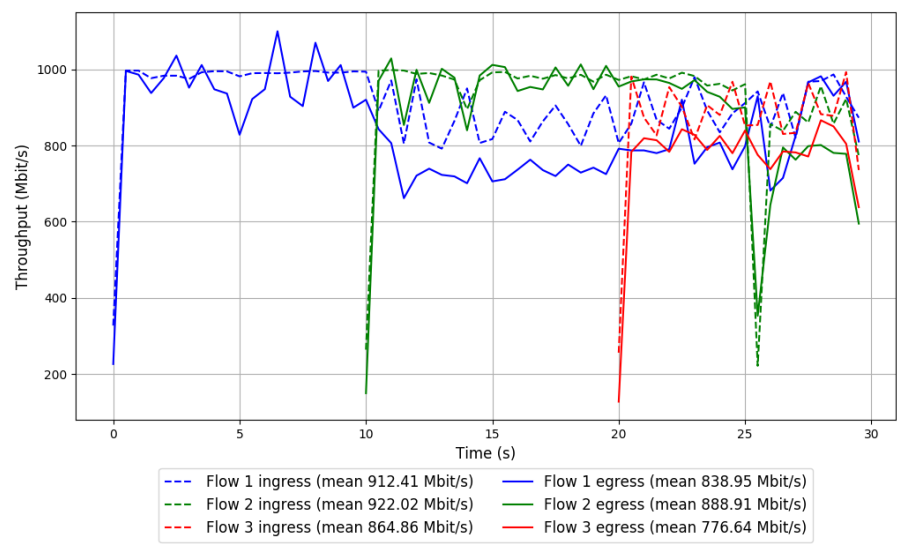
-- Flow 3:

Average throughput: 776.64 Mbit/s

95th percentile per-packet one-way delay: 134.450 ms

Loss rate: 11.15%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-01-17 17:31:44

End at: 2018-01-17 17:32:14

Below is generated by plot.py at 2018-01-17 23:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 1727.54 Mbit/s

95th percentile per-packet one-way delay: 142.190 ms

Loss rate: 7.66%

-- Flow 1:

Average throughput: 887.49 Mbit/s

95th percentile per-packet one-way delay: 132.787 ms

Loss rate: 6.41%

-- Flow 2:

Average throughput: 858.92 Mbit/s

95th percentile per-packet one-way delay: 133.472 ms

Loss rate: 8.09%

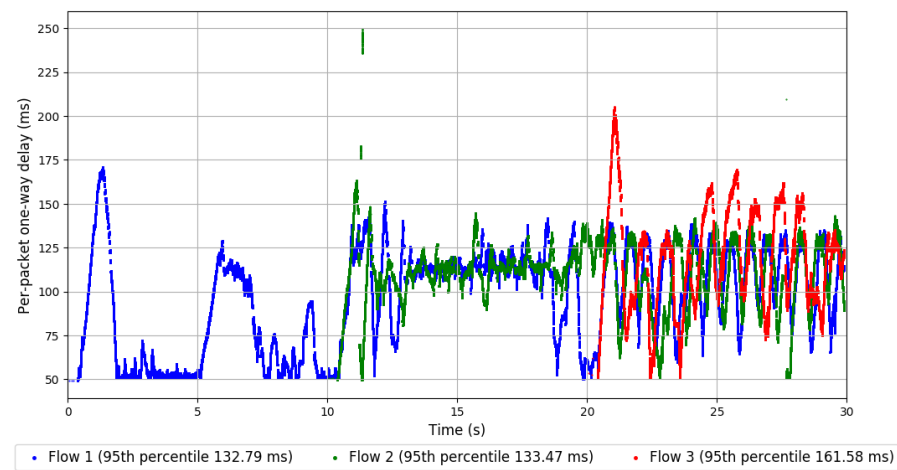
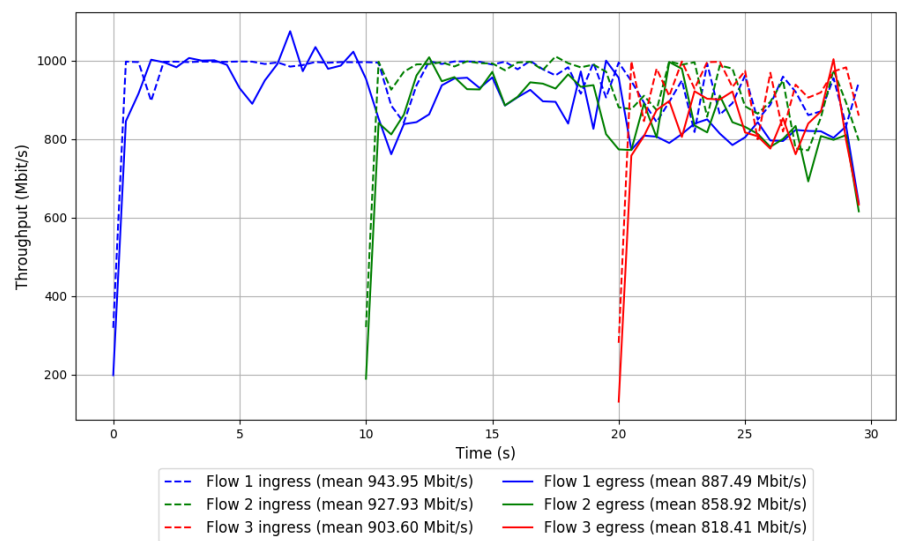
-- Flow 3:

Average throughput: 818.41 Mbit/s

95th percentile per-packet one-way delay: 161.578 ms

Loss rate: 10.71%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-01-17 17:49:00

End at: 2018-01-17 17:49:30

Below is generated by plot.py at 2018-01-17 23:28:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 1662.58 Mbit/s

95th percentile per-packet one-way delay: 275.976 ms

Loss rate: 8.56%

-- Flow 1:

Average throughput: 841.39 Mbit/s

95th percentile per-packet one-way delay: 283.873 ms

Loss rate: 7.93%

-- Flow 2:

Average throughput: 845.67 Mbit/s

95th percentile per-packet one-way delay: 140.954 ms

Loss rate: 8.21%

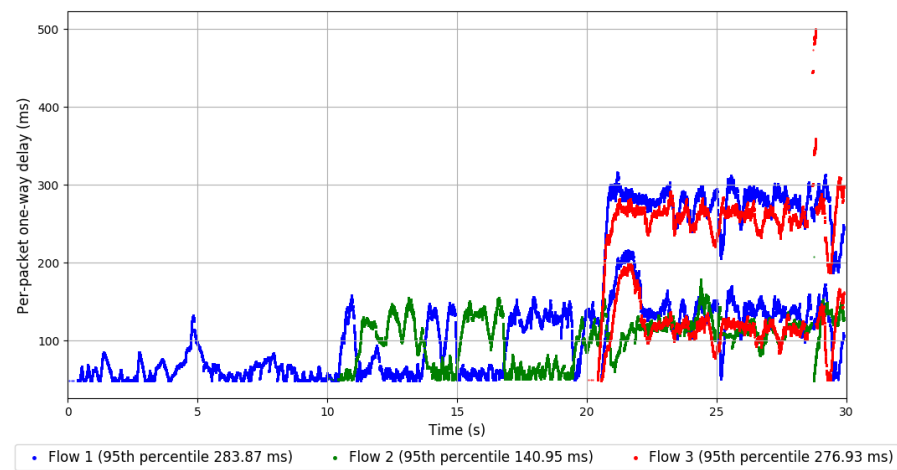
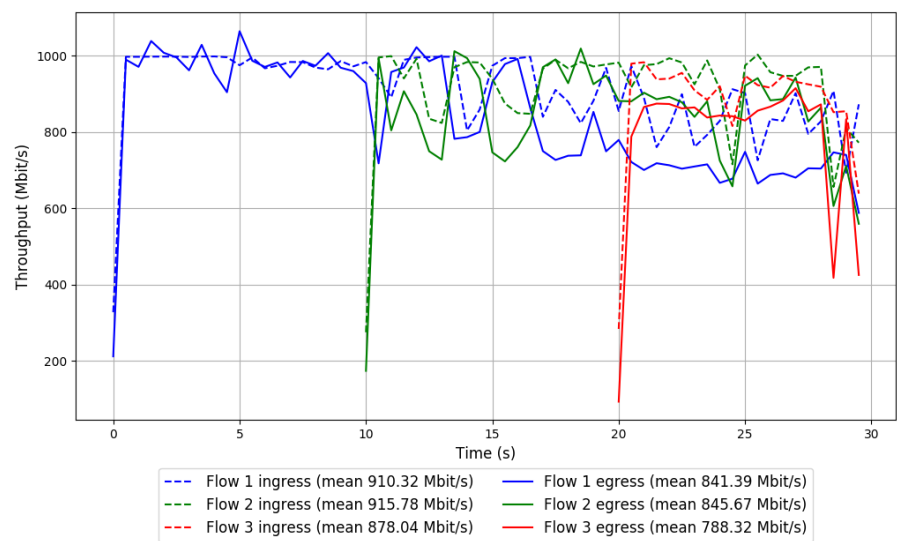
-- Flow 3:

Average throughput: 788.32 Mbit/s

95th percentile per-packet one-way delay: 276.934 ms

Loss rate: 11.26%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-01-17 18:06:53

End at: 2018-01-17 18:07:23

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 1717.41 Mbit/s

95th percentile per-packet one-way delay: 258.785 ms

Loss rate: 6.82%

-- Flow 1:

Average throughput: 927.49 Mbit/s

95th percentile per-packet one-way delay: 129.333 ms

Loss rate: 3.42%

-- Flow 2:

Average throughput: 794.56 Mbit/s

95th percentile per-packet one-way delay: 274.303 ms

Loss rate: 9.71%

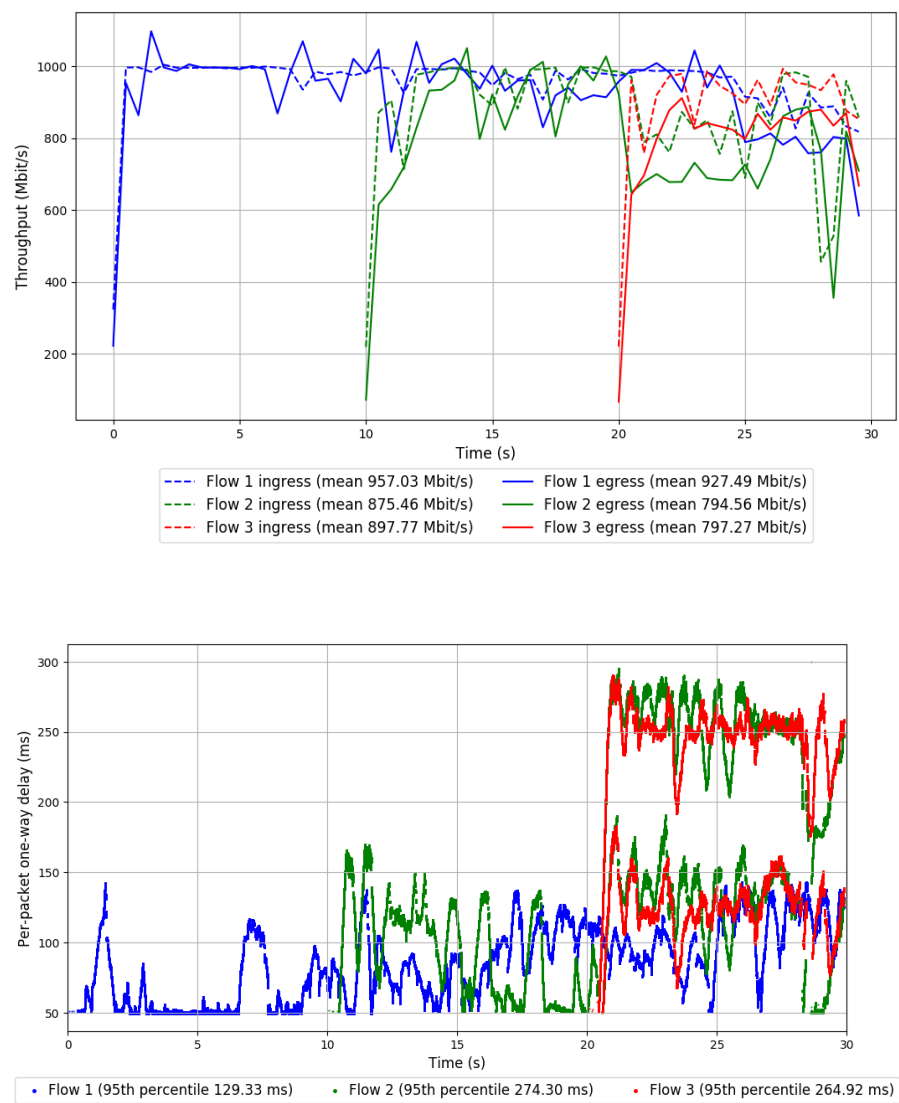
-- Flow 3:

Average throughput: 797.27 Mbit/s

95th percentile per-packet one-way delay: 264.919 ms

Loss rate: 12.13%

Run 10: Report of FillP — Data Link

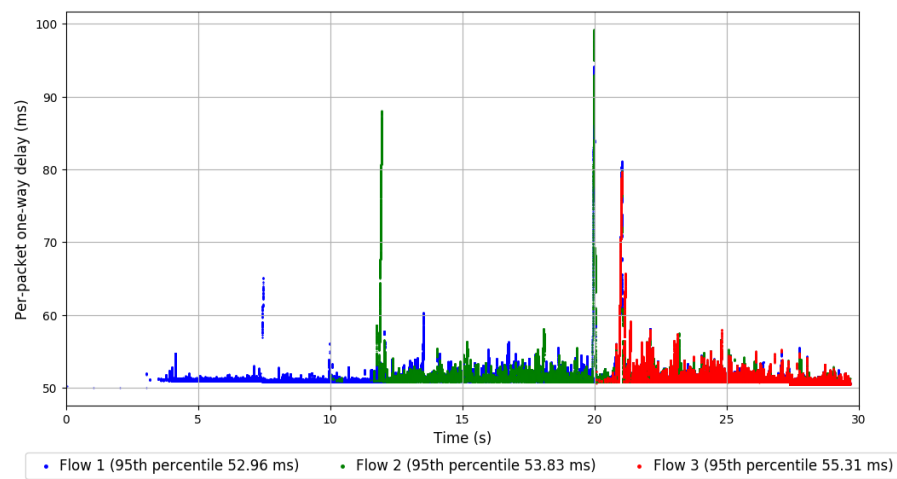
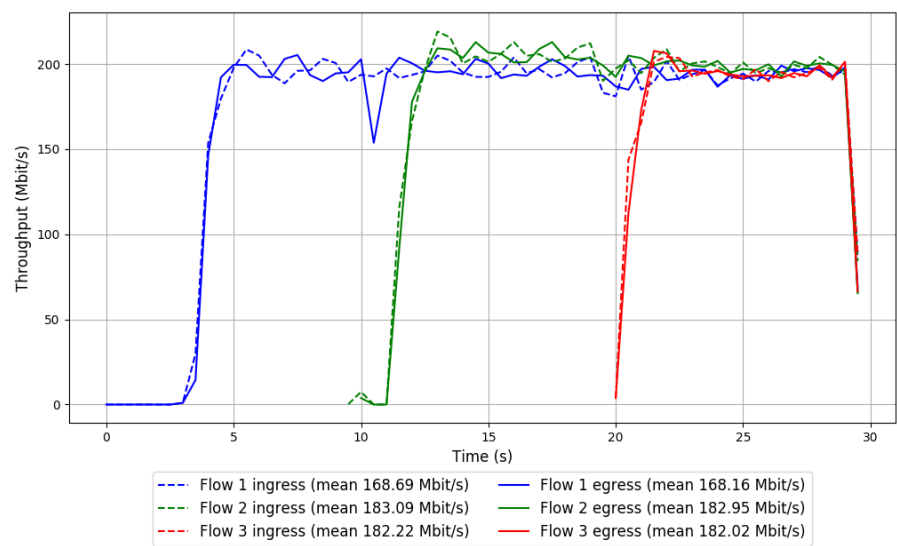


```
Run 1: Statistics of Indigo

Start at: 2018-01-17 15:35:05
End at: 2018-01-17 15:35:35

# Below is generated by plot.py at 2018-01-17 23:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 348.62 Mbit/s
95th percentile per-packet one-way delay: 53.525 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 168.16 Mbit/s
95th percentile per-packet one-way delay: 52.962 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 182.95 Mbit/s
95th percentile per-packet one-way delay: 53.833 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 182.02 Mbit/s
95th percentile per-packet one-way delay: 55.313 ms
Loss rate: 1.14%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-01-17 15:52:13

End at: 2018-01-17 15:52:43

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 363.63 Mbit/s

95th percentile per-packet one-way delay: 52.502 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 180.12 Mbit/s

95th percentile per-packet one-way delay: 52.351 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 189.86 Mbit/s

95th percentile per-packet one-way delay: 52.622 ms

Loss rate: 0.62%

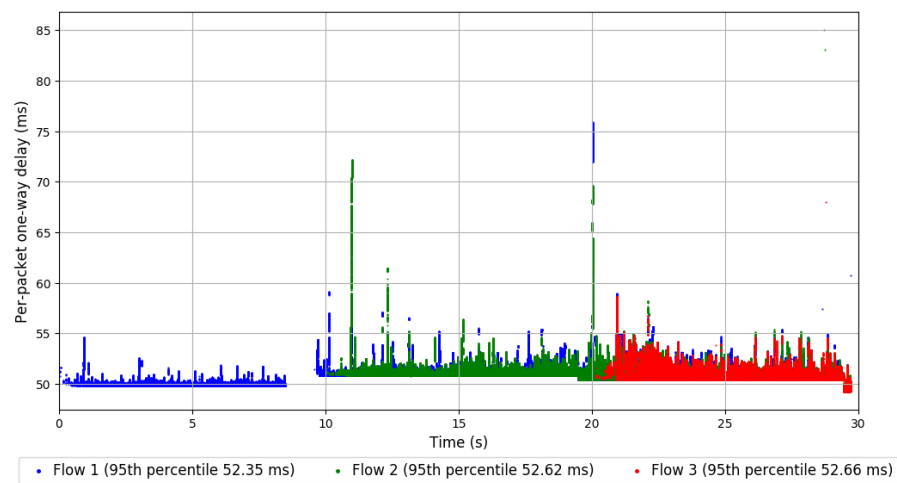
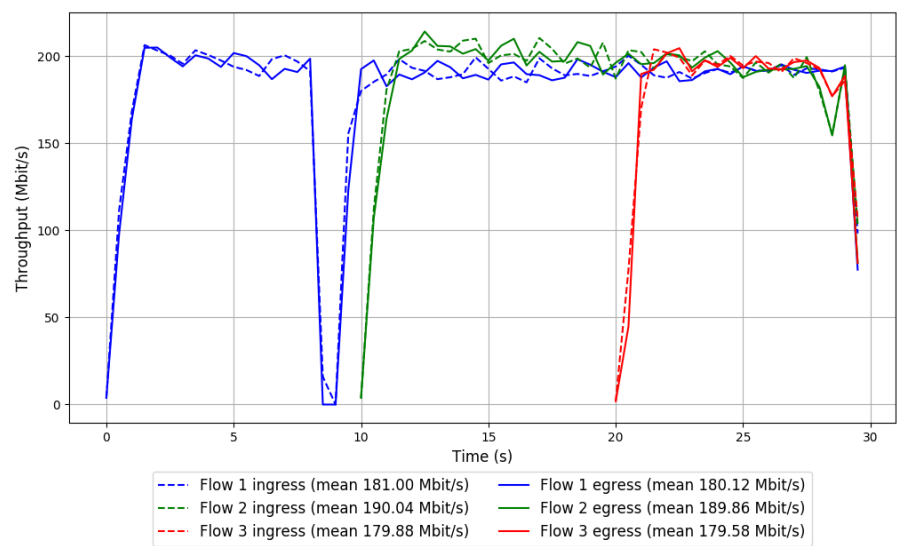
-- Flow 3:

Average throughput: 179.58 Mbit/s

95th percentile per-packet one-way delay: 52.657 ms

Loss rate: 1.21%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-01-17 16:09:52

End at: 2018-01-17 16:10:22

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 374.45 Mbit/s

95th percentile per-packet one-way delay: 54.034 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 192.01 Mbit/s

95th percentile per-packet one-way delay: 53.363 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 187.34 Mbit/s

95th percentile per-packet one-way delay: 54.321 ms

Loss rate: 0.55%

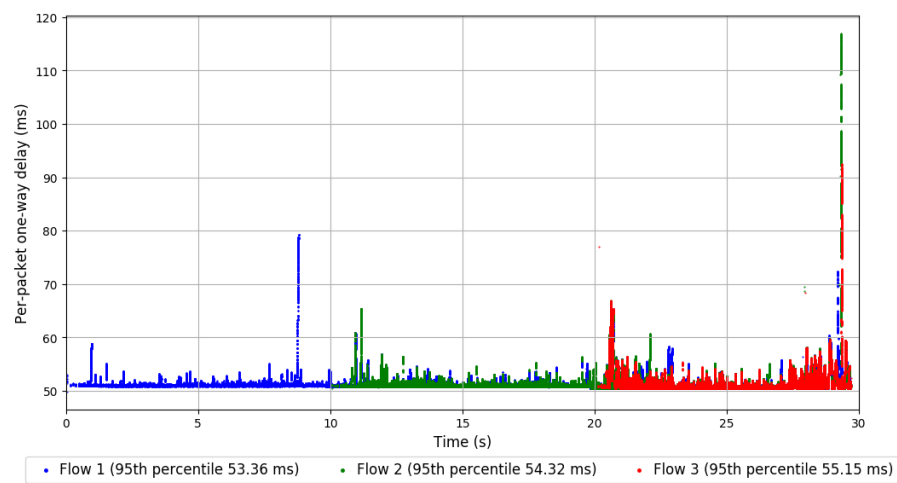
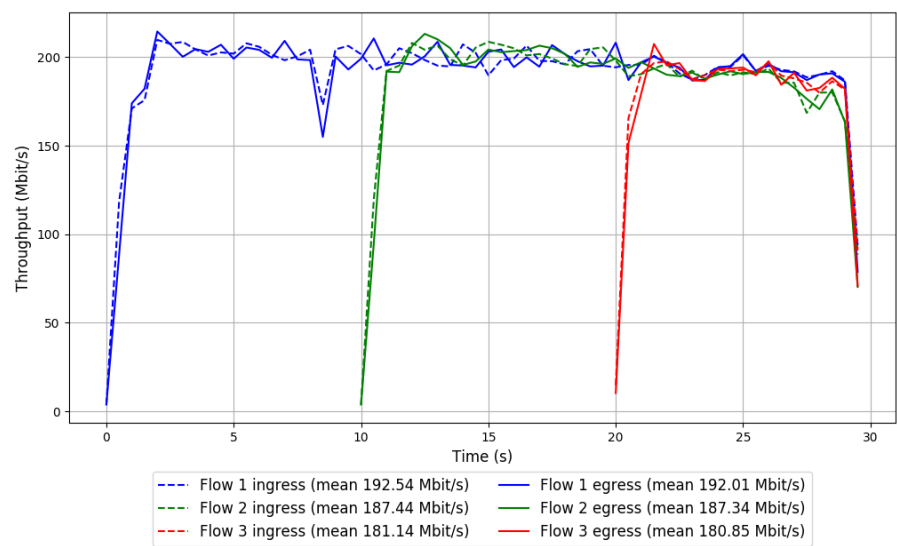
-- Flow 3:

Average throughput: 180.85 Mbit/s

95th percentile per-packet one-way delay: 55.154 ms

Loss rate: 1.17%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-01-17 16:27:26

End at: 2018-01-17 16:27:56

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 372.86 Mbit/s

95th percentile per-packet one-way delay: 52.873 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 188.47 Mbit/s

95th percentile per-packet one-way delay: 52.767 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 188.80 Mbit/s

95th percentile per-packet one-way delay: 53.072 ms

Loss rate: 0.70%

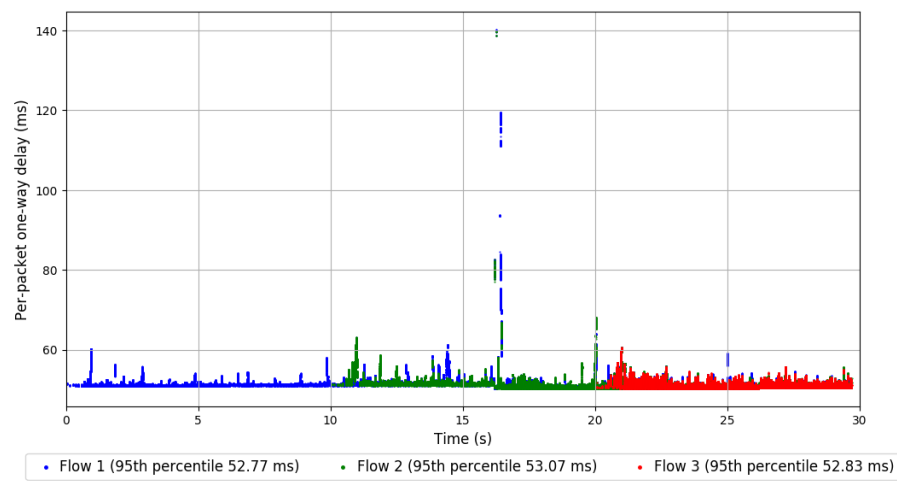
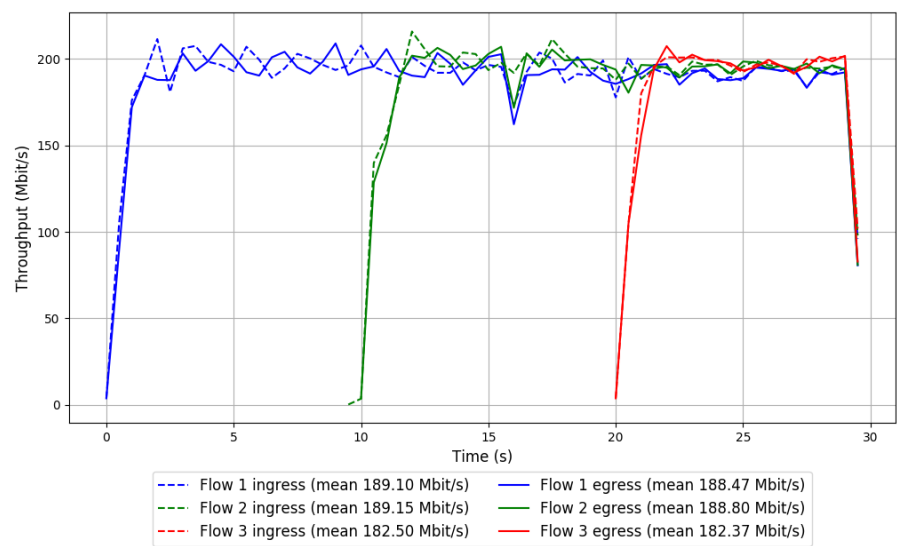
-- Flow 3:

Average throughput: 182.37 Mbit/s

95th percentile per-packet one-way delay: 52.832 ms

Loss rate: 1.13%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-01-17 16:44:56

End at: 2018-01-17 16:45:26

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 370.89 Mbit/s

95th percentile per-packet one-way delay: 52.204 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 185.56 Mbit/s

95th percentile per-packet one-way delay: 51.988 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 190.19 Mbit/s

95th percentile per-packet one-way delay: 52.428 ms

Loss rate: 0.52%

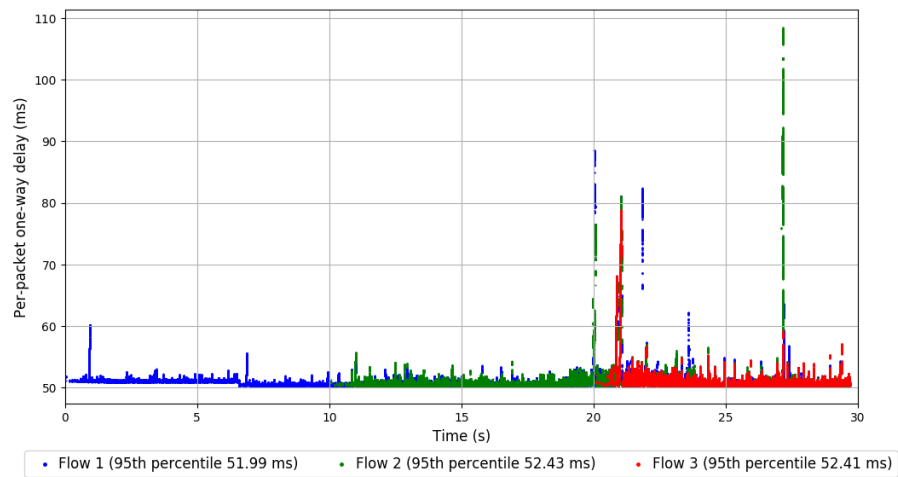
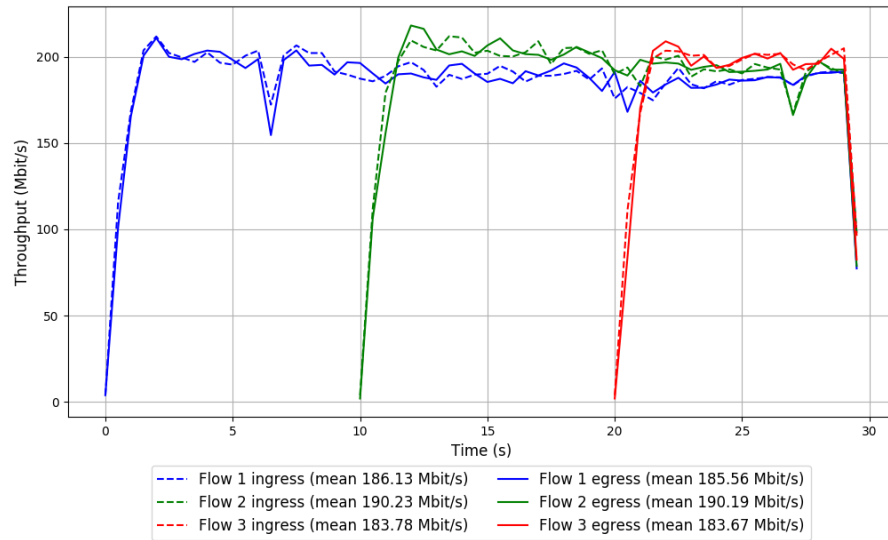
-- Flow 3:

Average throughput: 183.67 Mbit/s

95th percentile per-packet one-way delay: 52.405 ms

Loss rate: 1.08%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2018-01-17 17:02:46

End at: 2018-01-17 17:03:16

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 378.01 Mbit/s

95th percentile per-packet one-way delay: 52.839 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 192.96 Mbit/s

95th percentile per-packet one-way delay: 52.422 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 190.47 Mbit/s

95th percentile per-packet one-way delay: 53.837 ms

Loss rate: 0.51%

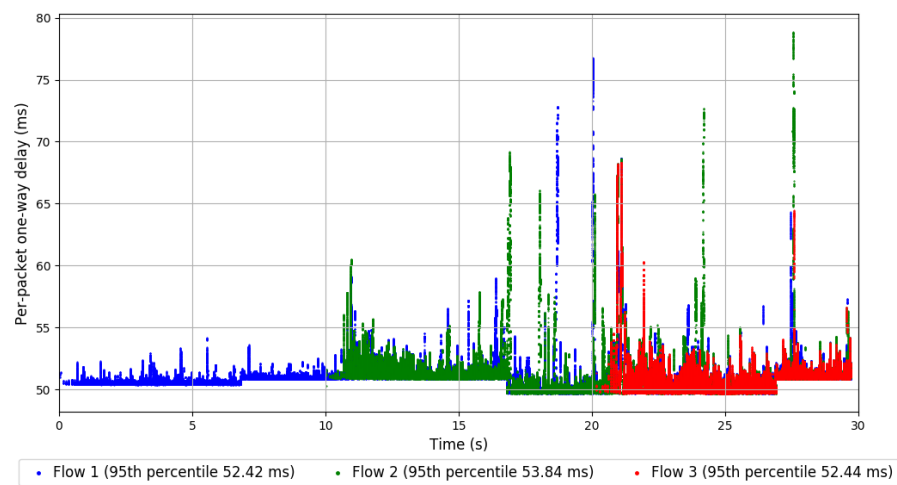
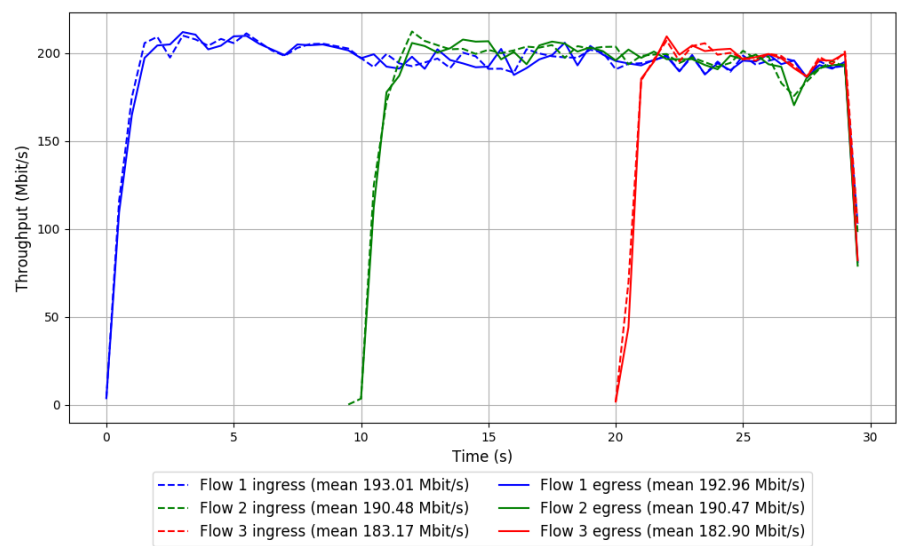
-- Flow 3:

Average throughput: 182.90 Mbit/s

95th percentile per-packet one-way delay: 52.441 ms

Loss rate: 1.17%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2018-01-17 17:20:29

End at: 2018-01-17 17:20:59

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 361.83 Mbit/s

95th percentile per-packet one-way delay: 53.620 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 179.05 Mbit/s

95th percentile per-packet one-way delay: 52.863 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 186.67 Mbit/s

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

Loss rate: 0.51%

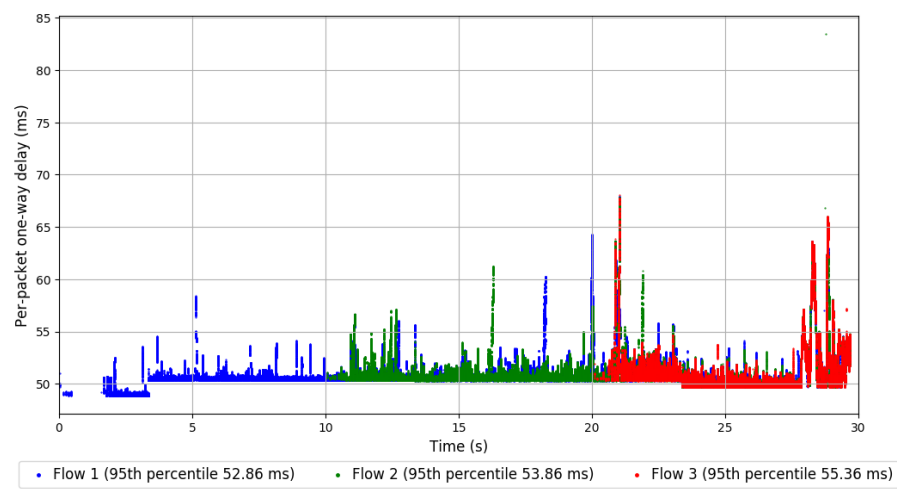
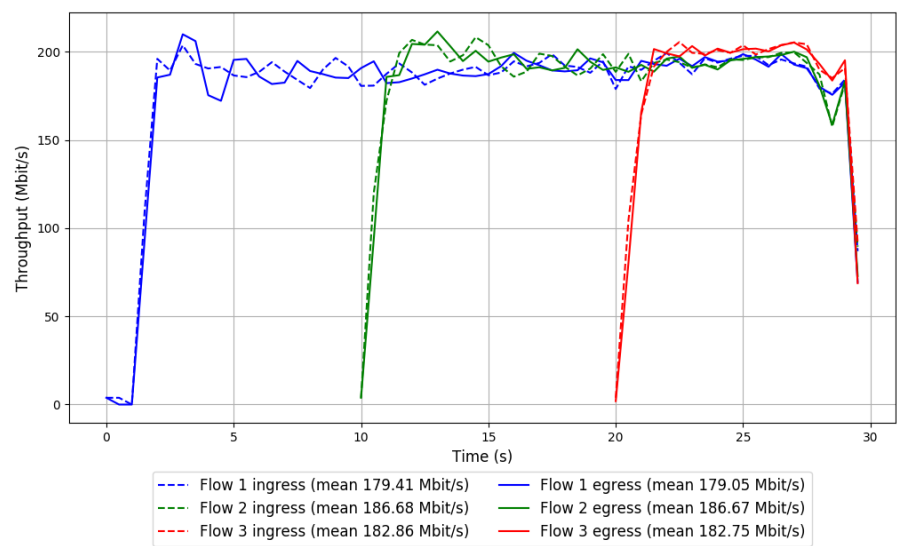
-- Flow 3:

Average throughput: 182.75 Mbit/s

95th percentile per-packet one-way delay: 55.356 ms

Loss rate: 1.13%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2018-01-17 17:37:53

End at: 2018-01-17 17:38:23

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 380.11 Mbit/s

95th percentile per-packet one-way delay: 52.094 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 193.91 Mbit/s

95th percentile per-packet one-way delay: 51.745 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 191.13 Mbit/s

95th percentile per-packet one-way delay: 52.242 ms

Loss rate: 0.53%

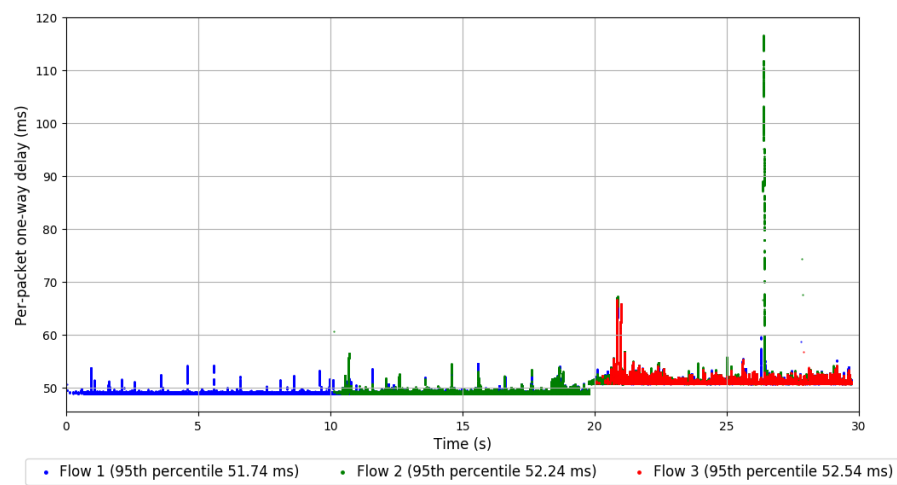
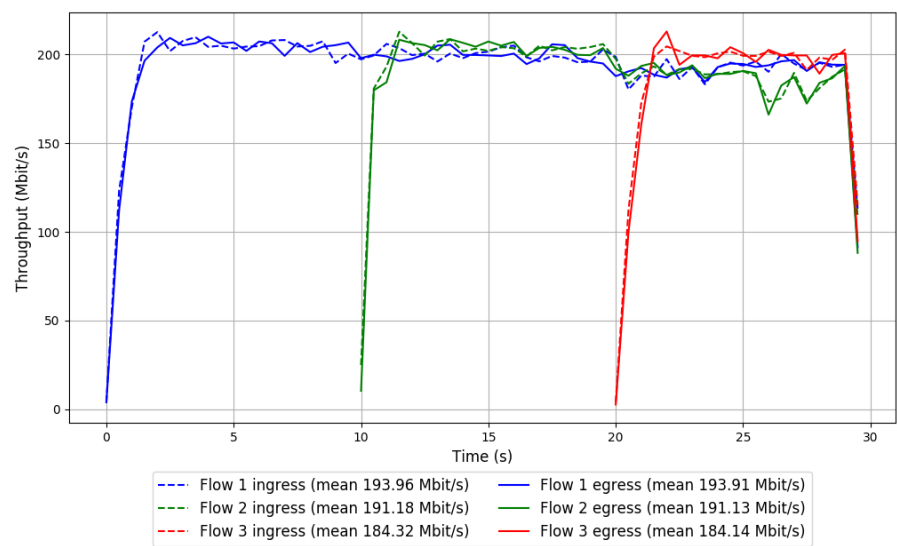
-- Flow 3:

Average throughput: 184.14 Mbit/s

95th percentile per-packet one-way delay: 52.537 ms

Loss rate: 1.16%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2018-01-17 17:55:28

End at: 2018-01-17 17:55:58

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 375.59 Mbit/s

95th percentile per-packet one-way delay: 53.530 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 191.54 Mbit/s

95th percentile per-packet one-way delay: 53.027 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 188.69 Mbit/s

95th percentile per-packet one-way delay: 53.780 ms

Loss rate: 0.58%

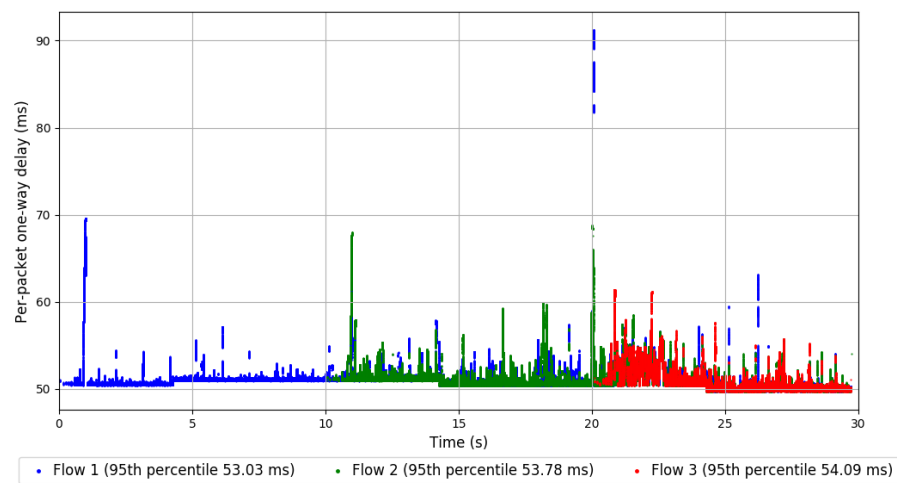
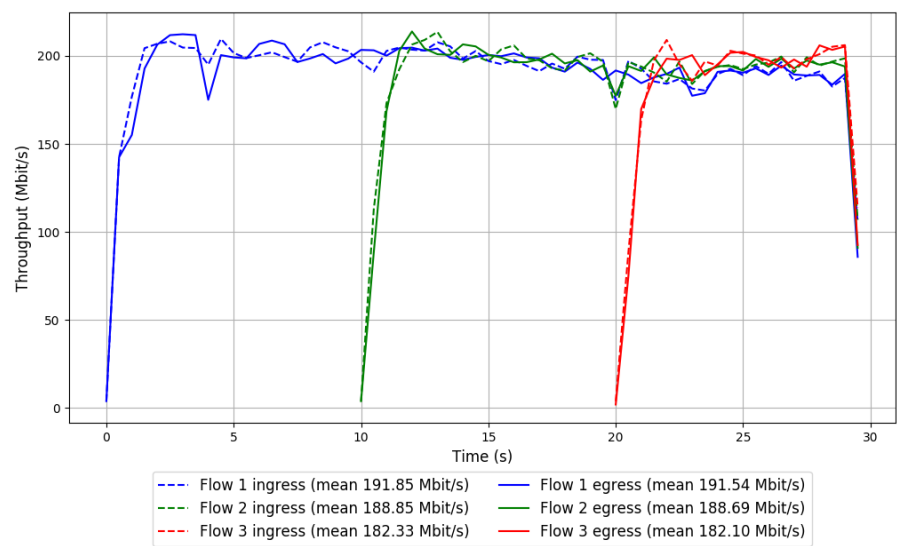
-- Flow 3:

Average throughput: 182.10 Mbit/s

95th percentile per-packet one-way delay: 54.092 ms

Loss rate: 1.19%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2018-01-17 18:13:26

End at: 2018-01-17 18:13:56

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 370.48 Mbit/s

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

Loss rate: 0.68%

-- Flow 1:

Average throughput: 187.06 Mbit/s

95th percentile per-packet one-way delay: 53.391 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 187.67 Mbit/s

95th percentile per-packet one-way delay: 54.090 ms

Loss rate: 0.58%

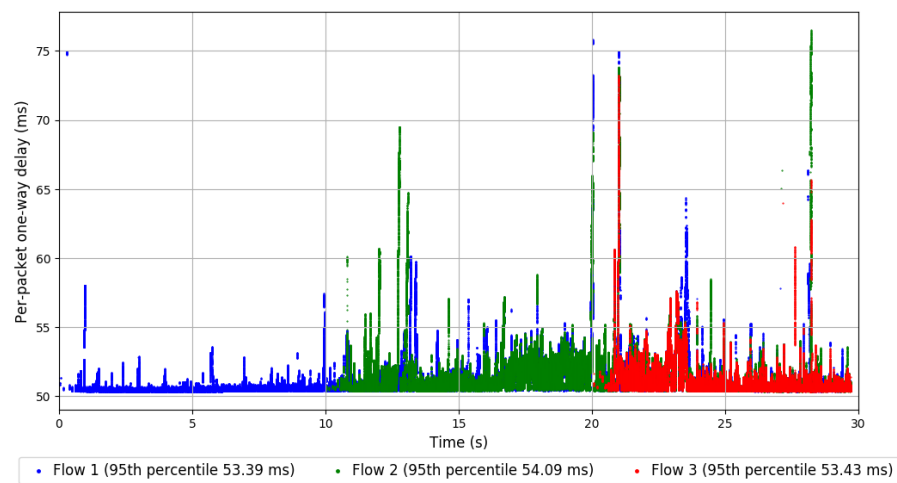
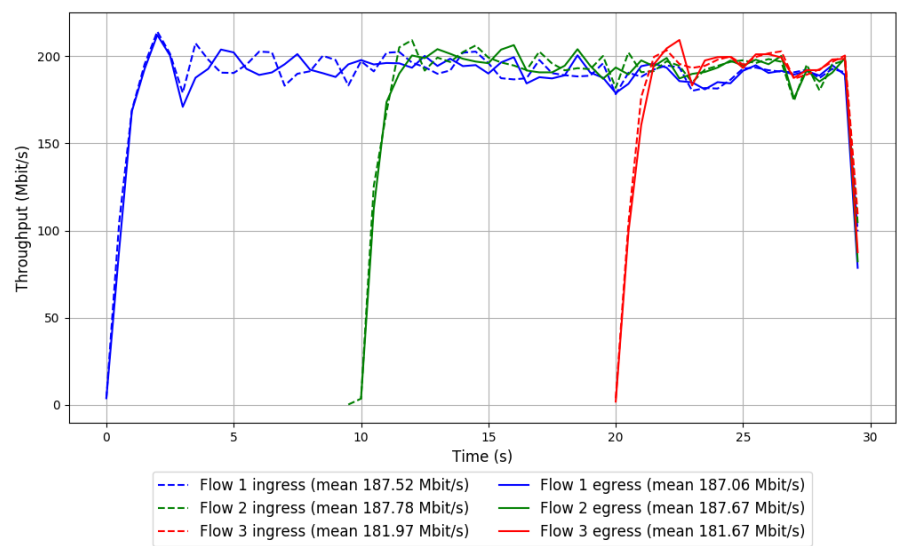
-- Flow 3:

Average throughput: 181.67 Mbit/s

95th percentile per-packet one-way delay: 53.434 ms

Loss rate: 1.19%

Run 10: Report of Indigo — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-01-17 15:37:55

End at: 2018-01-17 15:38:25

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 304.15 Mbit/s

95th percentile per-packet one-way delay: 53.512 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 180.60 Mbit/s

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

Loss rate: 0.39%

-- Flow 2:

Average throughput: 146.82 Mbit/s

95th percentile per-packet one-way delay: 51.057 ms

Loss rate: 0.66%

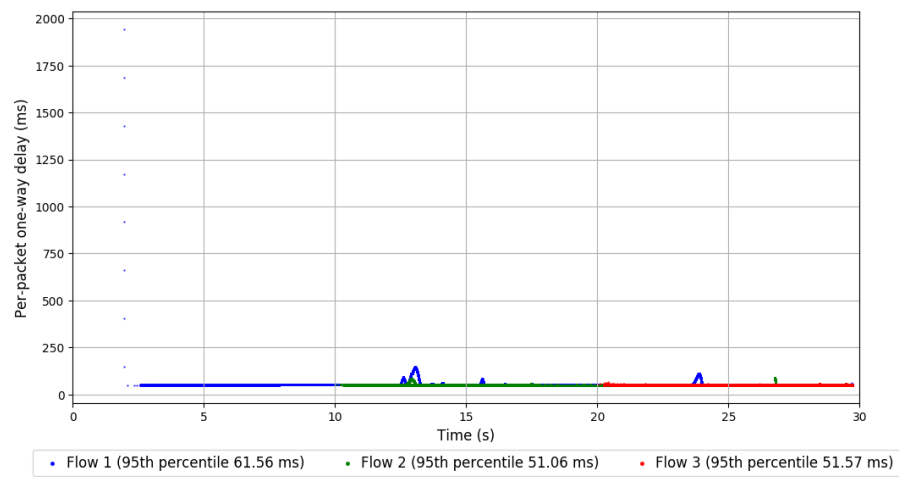
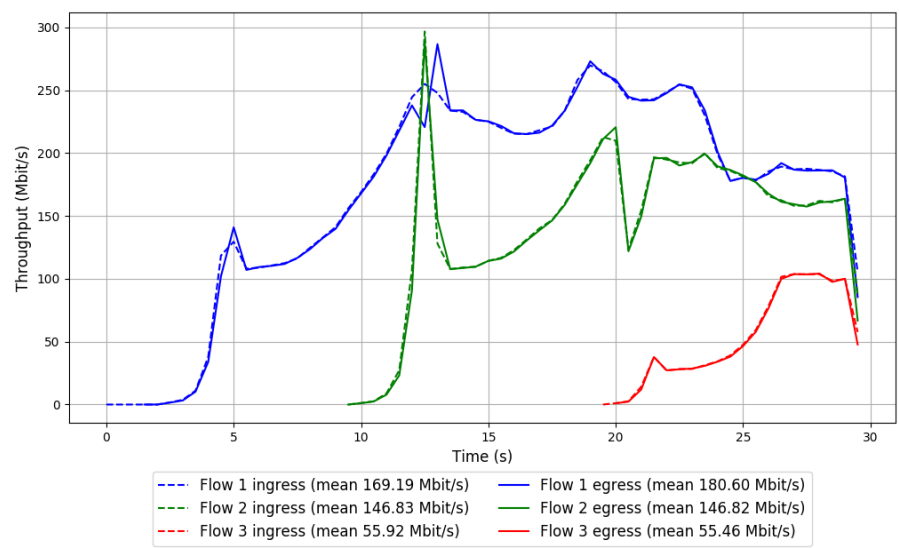
-- Flow 3:

Average throughput: 55.46 Mbit/s

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

Loss rate: 1.85%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-01-17 15:55:10

End at: 2018-01-17 15:55:40

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 357.10 Mbit/s

95th percentile per-packet one-way delay: 60.655 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 202.43 Mbit/s

95th percentile per-packet one-way delay: 65.868 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 185.54 Mbit/s

95th percentile per-packet one-way delay: 54.129 ms

Loss rate: 0.19%

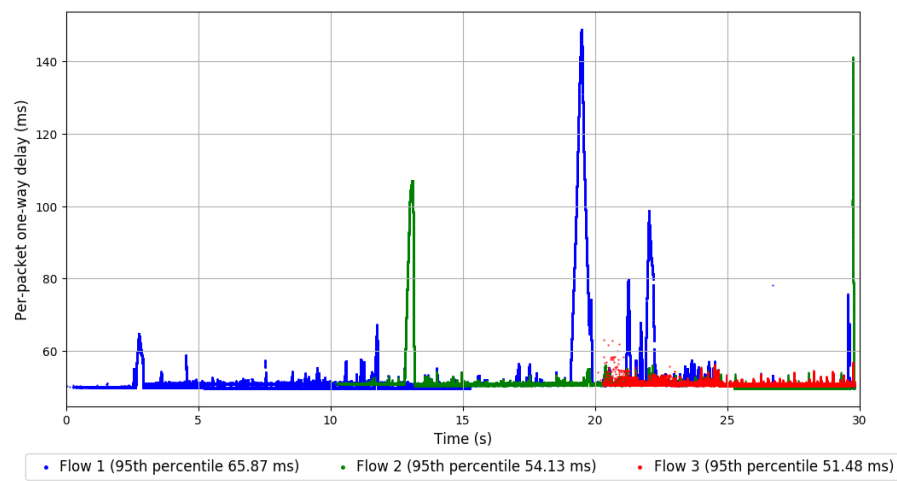
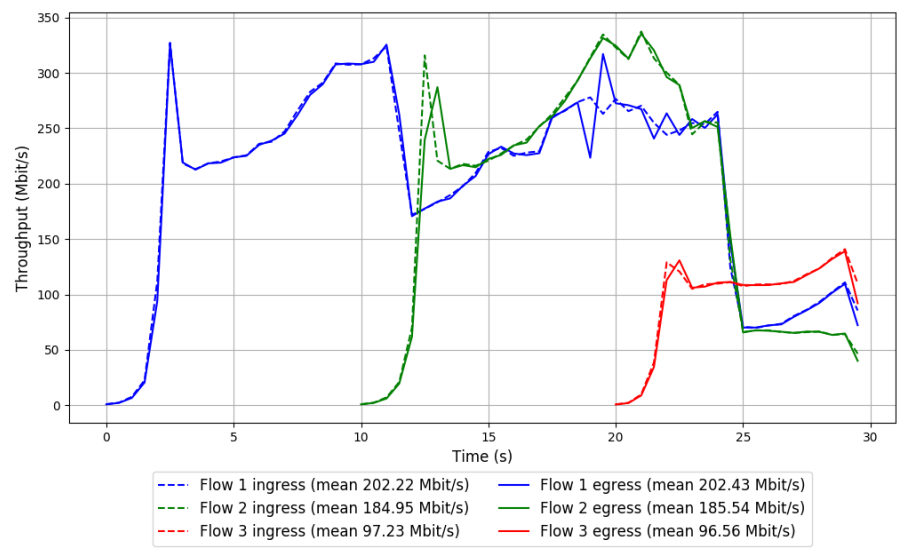
-- Flow 3:

Average throughput: 96.56 Mbit/s

95th percentile per-packet one-way delay: 51.475 ms

Loss rate: 1.74%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-01-17 16:12:45

End at: 2018-01-17 16:13:15

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 347.56 Mbit/s

95th percentile per-packet one-way delay: 83.110 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 225.10 Mbit/s

95th percentile per-packet one-way delay: 91.998 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 130.35 Mbit/s

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

Loss rate: 0.65%

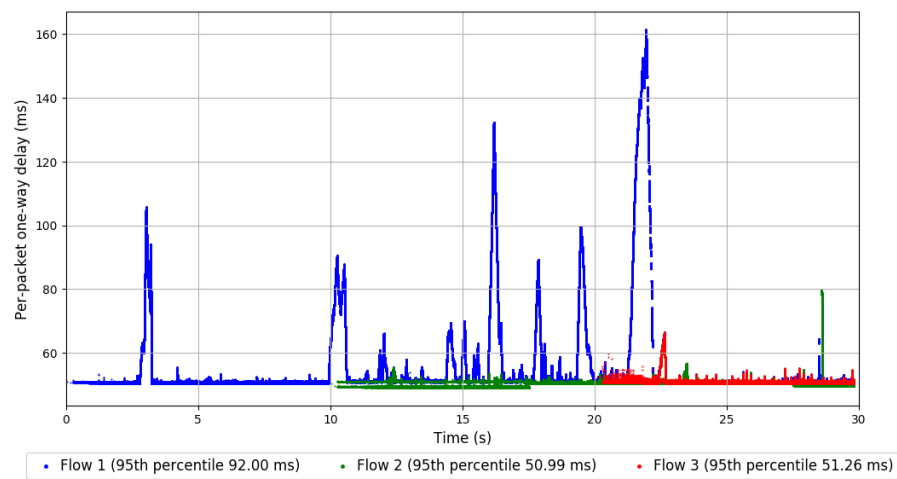
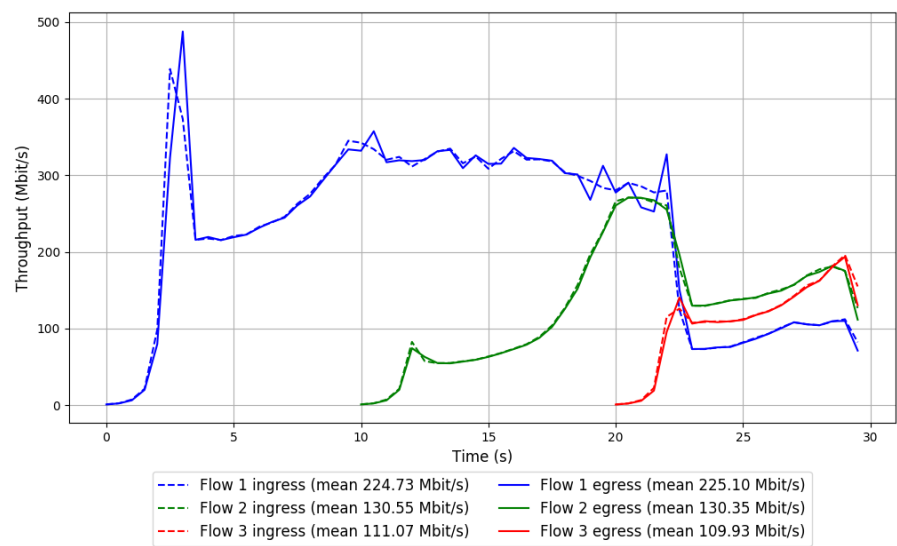
-- Flow 3:

Average throughput: 109.93 Mbit/s

95th percentile per-packet one-way delay: 51.264 ms

Loss rate: 2.05%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-01-17 16:30:17

End at: 2018-01-17 16:30:47

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 322.27 Mbit/s

95th percentile per-packet one-way delay: 51.216 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 177.83 Mbit/s

95th percentile per-packet one-way delay: 51.040 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 184.37 Mbit/s

95th percentile per-packet one-way delay: 51.625 ms

Loss rate: 0.47%

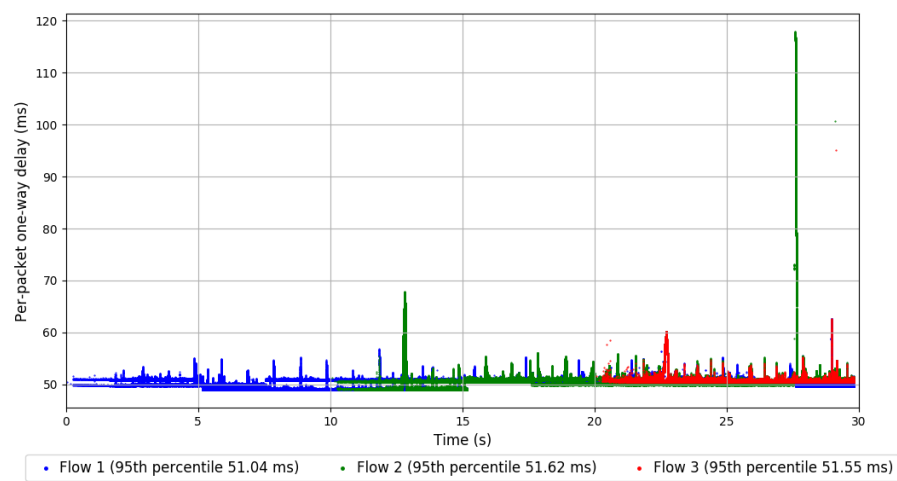
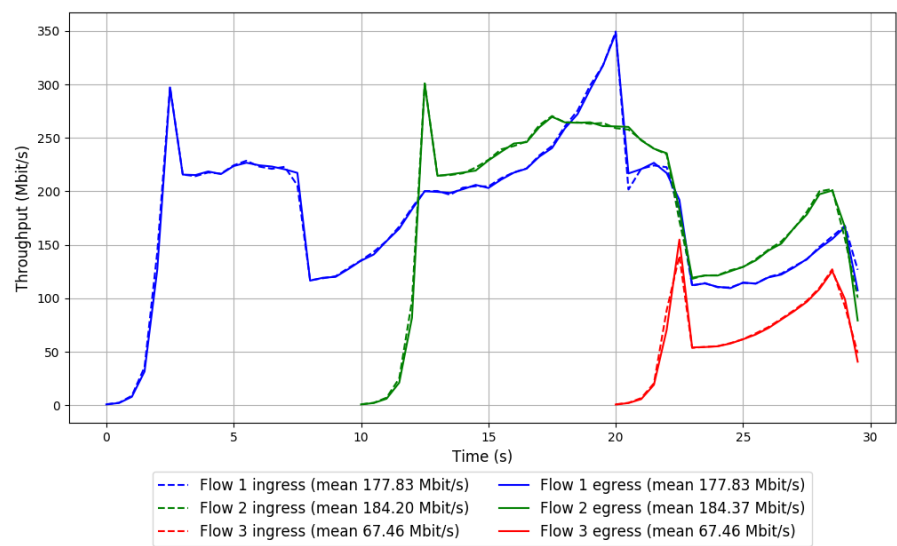
-- Flow 3:

Average throughput: 67.46 Mbit/s

95th percentile per-packet one-way delay: 51.550 ms

Loss rate: 1.12%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-01-17 16:47:50

End at: 2018-01-17 16:48:20

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 356.06 Mbit/s

95th percentile per-packet one-way delay: 75.247 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 219.54 Mbit/s

95th percentile per-packet one-way delay: 102.837 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 179.41 Mbit/s

95th percentile per-packet one-way delay: 50.966 ms

Loss rate: 0.39%

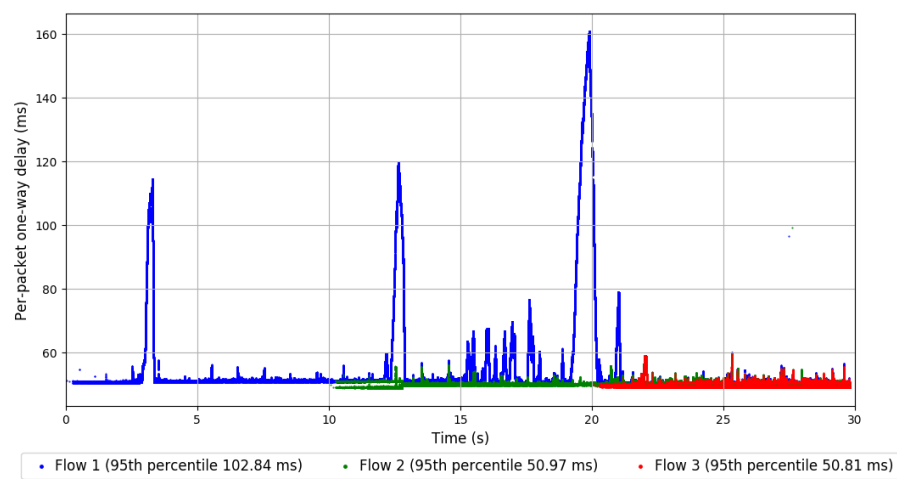
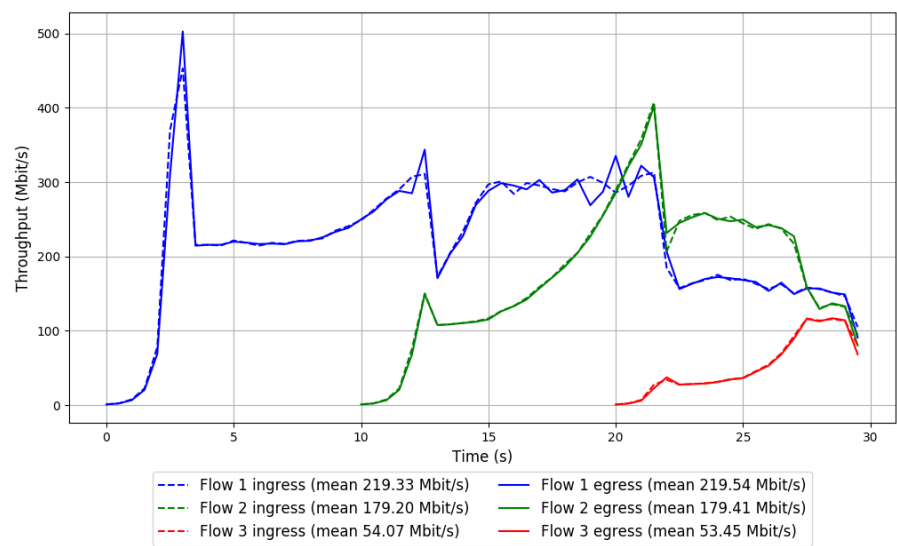
-- Flow 3:

Average throughput: 53.45 Mbit/s

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

Loss rate: 2.14%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-01-17 17:05:38

End at: 2018-01-17 17:06:08

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 350.76 Mbit/s

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

Loss rate: 0.47%

-- Flow 1:

Average throughput: 200.68 Mbit/s

95th percentile per-packet one-way delay: 57.036 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 211.51 Mbit/s

95th percentile per-packet one-way delay: 121.823 ms

Loss rate: 0.33%

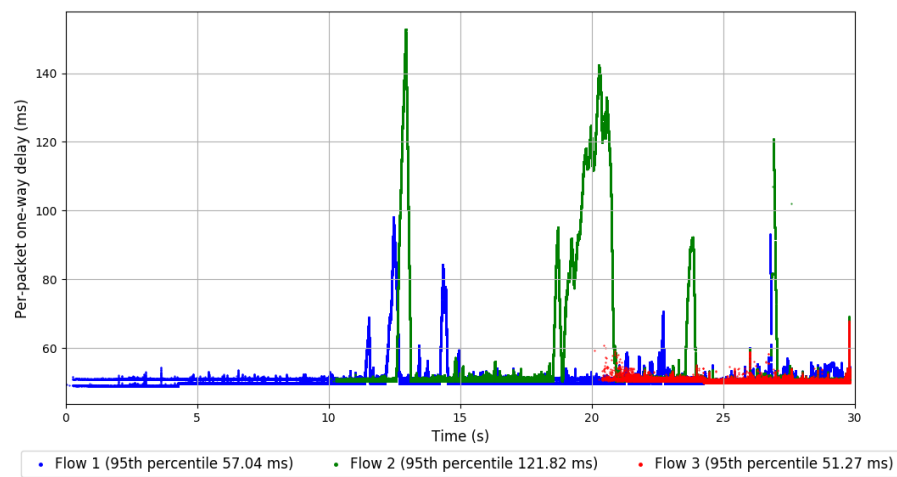
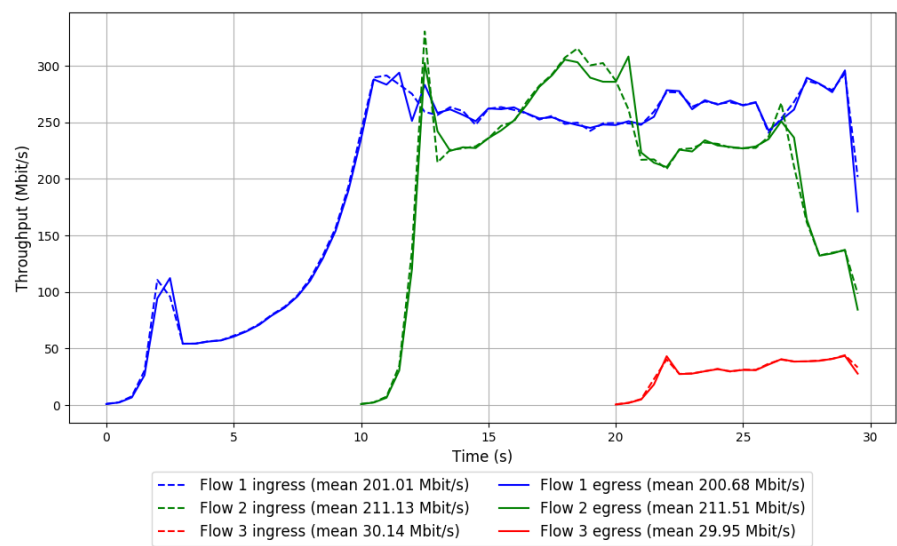
-- Flow 3:

Average throughput: 29.95 Mbit/s

95th percentile per-packet one-way delay: 51.267 ms

Loss rate: 1.74%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-01-17 17:23:21

End at: 2018-01-17 17:23:51

Below is generated by plot.py at 2018-01-17 23:30:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 348.53 Mbit/s

95th percentile per-packet one-way delay: 50.980 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 209.02 Mbit/s

95th percentile per-packet one-way delay: 50.935 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 203.70 Mbit/s

95th percentile per-packet one-way delay: 51.101 ms

Loss rate: 0.62%

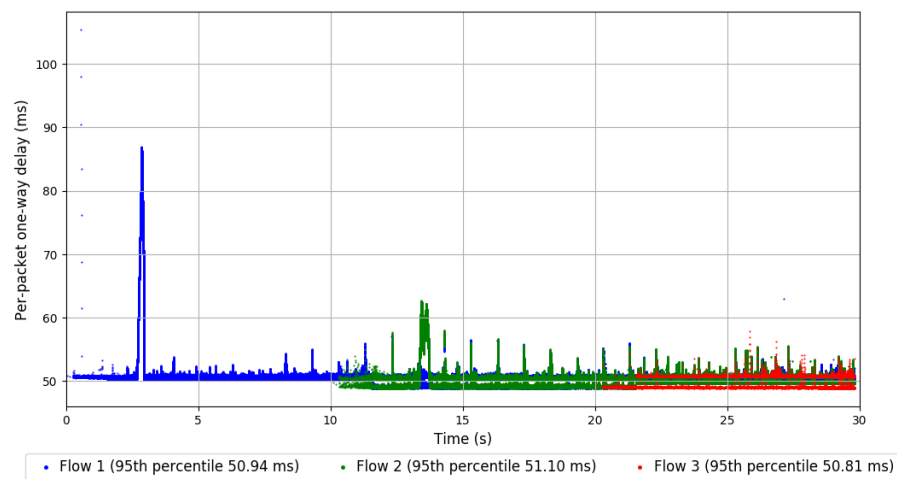
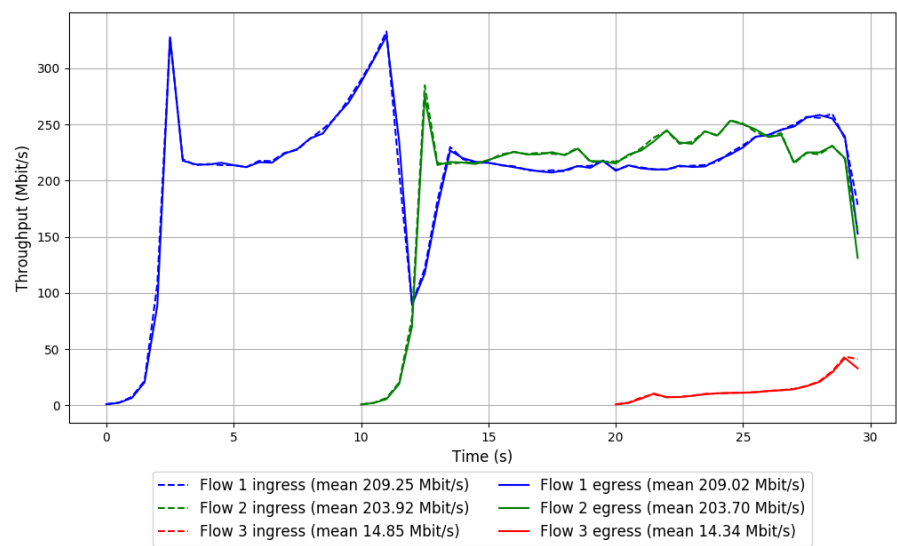
-- Flow 3:

Average throughput: 14.34 Mbit/s

95th percentile per-packet one-way delay: 50.815 ms

Loss rate: 4.45%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-01-17 17:40:44

End at: 2018-01-17 17:41:14

Below is generated by plot.py at 2018-01-17 23:33:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 325.12 Mbit/s

95th percentile per-packet one-way delay: 54.717 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 177.75 Mbit/s

95th percentile per-packet one-way delay: 56.338 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 178.04 Mbit/s

95th percentile per-packet one-way delay: 52.957 ms

Loss rate: 0.31%

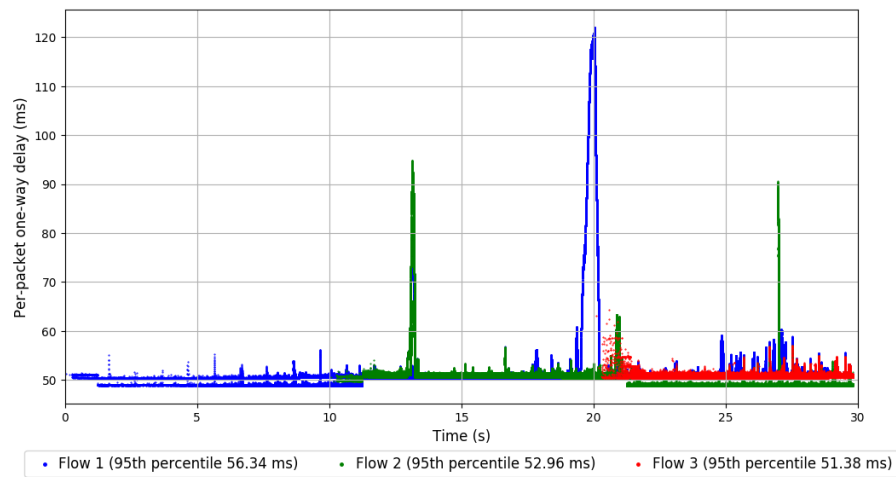
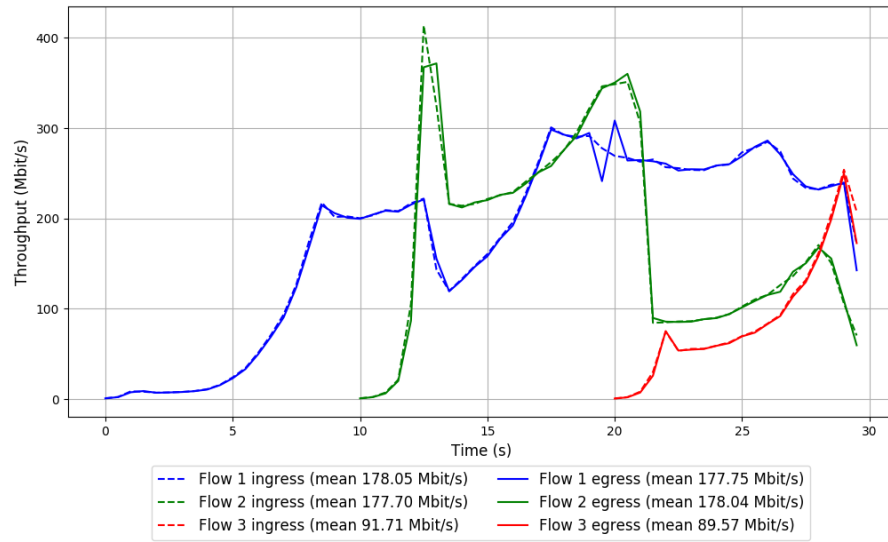
-- Flow 3:

Average throughput: 89.57 Mbit/s

95th percentile per-packet one-way delay: 51.380 ms

Loss rate: 3.47%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-01-17 17:58:22

End at: 2018-01-17 17:58:52

Below is generated by plot.py at 2018-01-17 23:33:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 317.05 Mbit/s

95th percentile per-packet one-way delay: 99.705 ms

Loss rate: 2.02%

-- Flow 1:

Average throughput: 133.05 Mbit/s

95th percentile per-packet one-way delay: 54.905 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 240.03 Mbit/s

95th percentile per-packet one-way delay: 172.393 ms

Loss rate: 3.07%

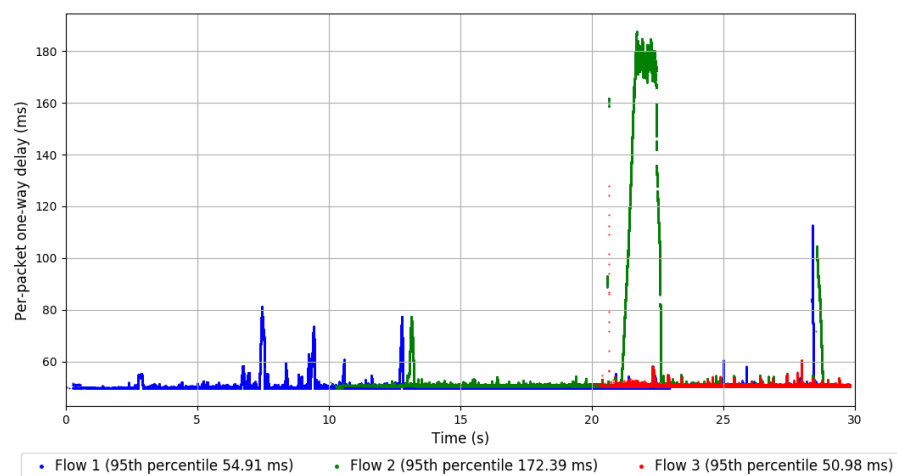
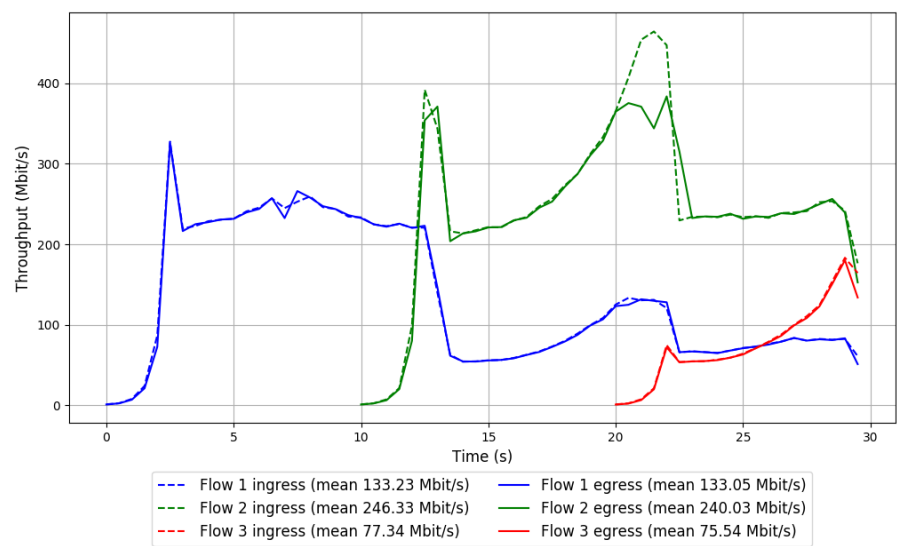
-- Flow 3:

Average throughput: 75.54 Mbit/s

95th percentile per-packet one-way delay: 50.978 ms

Loss rate: 3.35%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-01-17 18:16:18

End at: 2018-01-17 18:16:48

Below is generated by plot.py at 2018-01-17 23:35:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 360.23 Mbit/s

95th percentile per-packet one-way delay: 75.206 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 224.57 Mbit/s

95th percentile per-packet one-way delay: 110.765 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 150.44 Mbit/s

95th percentile per-packet one-way delay: 51.541 ms

Loss rate: 0.30%

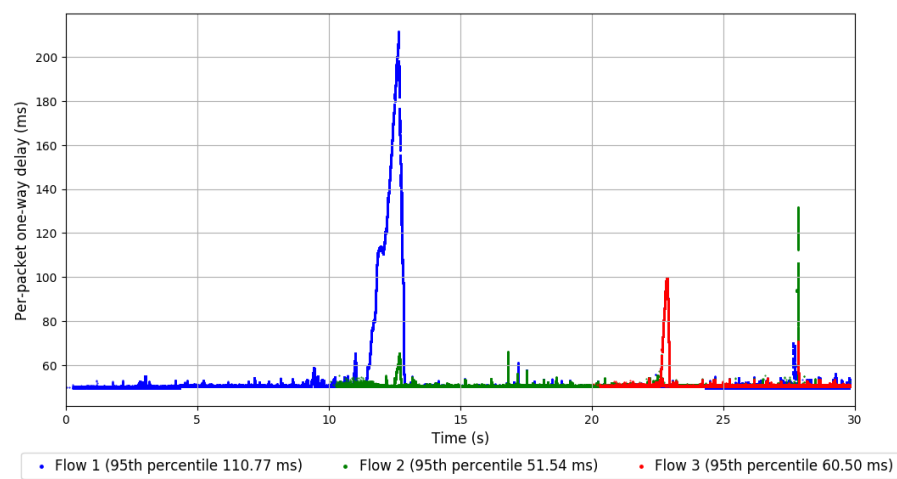
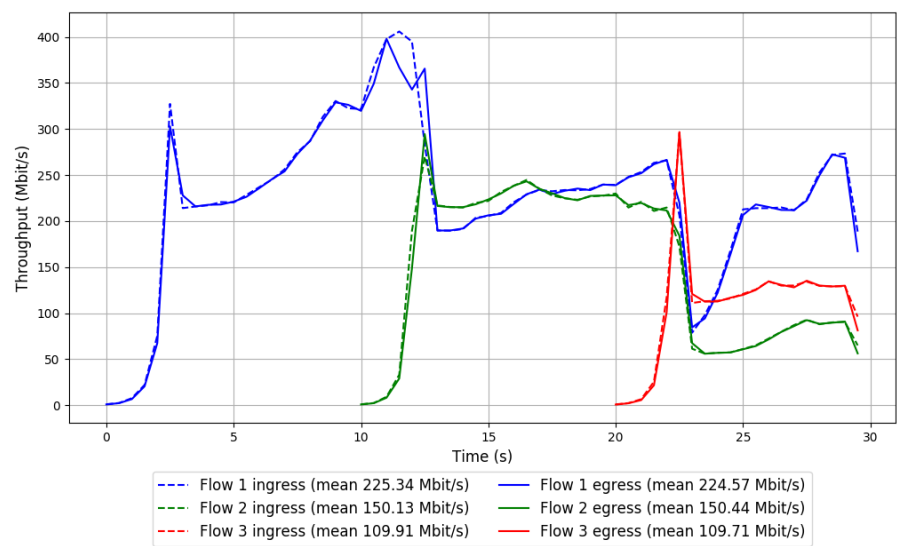
-- Flow 3:

Average throughput: 109.71 Mbit/s

95th percentile per-packet one-way delay: 60.496 ms

Loss rate: 1.27%

Run 10: Report of Vivace-latency — Data Link

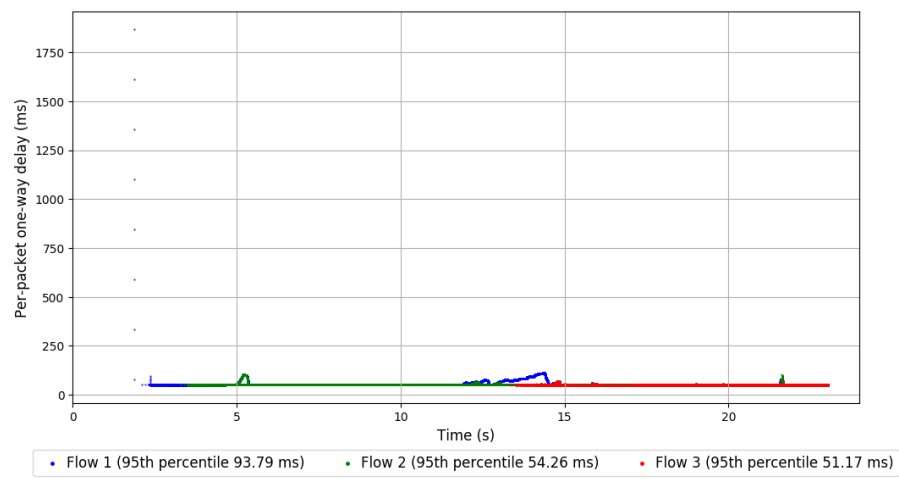
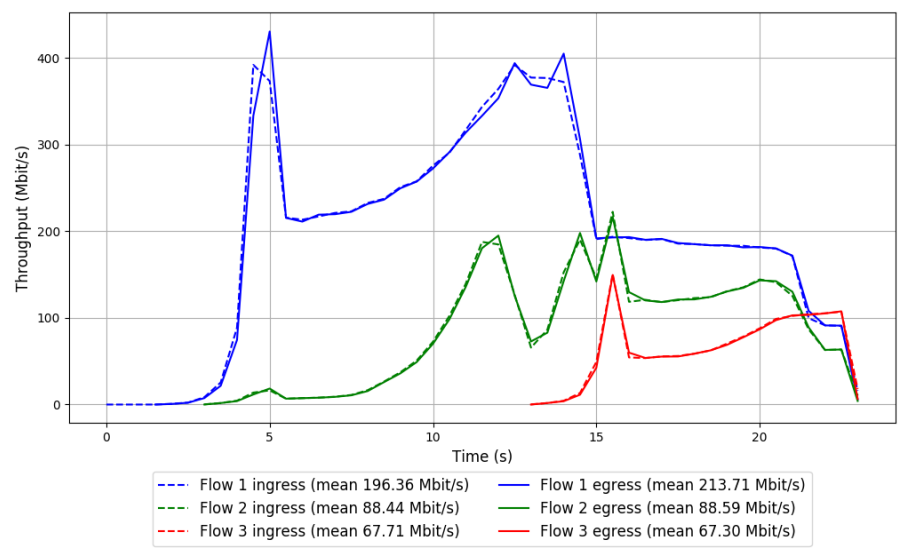


Run 1: Statistics of Vivace-loss

Start at: 2018-01-17 15:44:21

End at: 2018-01-17 15:44:51

Run 1: Report of Vivace-loss — Data Link

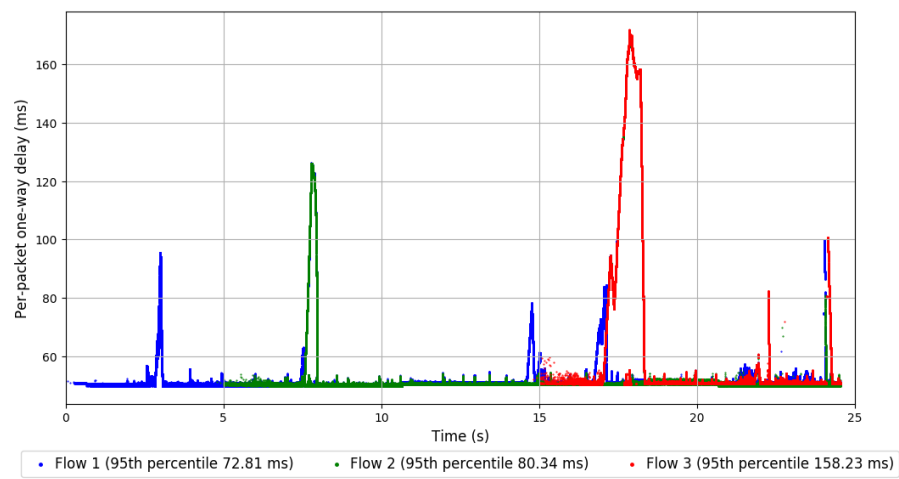
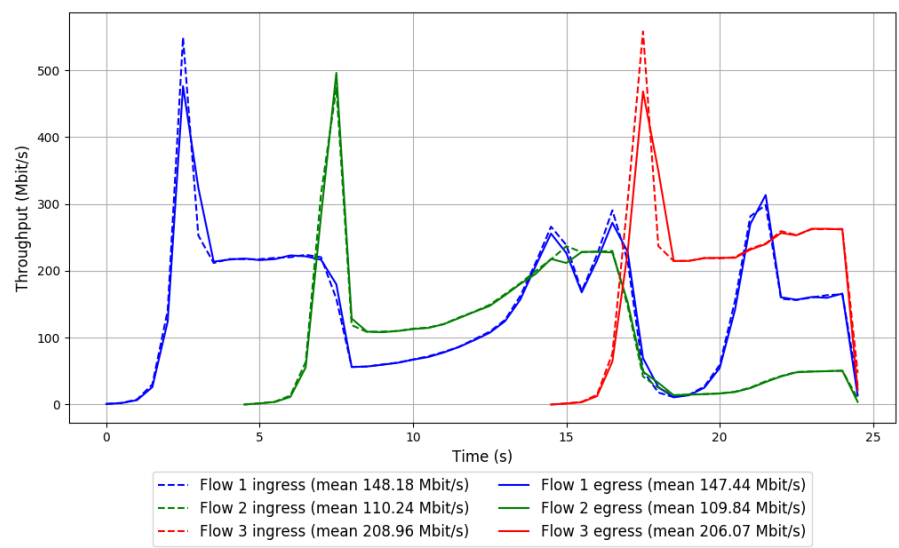


```
Run 2: Statistics of Vivace-loss

Start at: 2018-01-17 16:01:49
End at: 2018-01-17 16:02:19

# Below is generated by plot.py at 2018-01-17 23:35:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 317.80 Mbit/s
95th percentile per-packet one-way delay: 106.076 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 147.44 Mbit/s
95th percentile per-packet one-way delay: 72.805 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 109.84 Mbit/s
95th percentile per-packet one-way delay: 80.340 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 206.07 Mbit/s
95th percentile per-packet one-way delay: 158.226 ms
Loss rate: 2.41%
```


Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-01-17 16:19:20

End at: 2018-01-17 16:19:50

Below is generated by plot.py at 2018-01-17 23:37:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 299.93 Mbit/s

95th percentile per-packet one-way delay: 56.045 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 160.84 Mbit/s

95th percentile per-packet one-way delay: 56.450 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 119.84 Mbit/s

95th percentile per-packet one-way delay: 52.772 ms

Loss rate: 0.35%

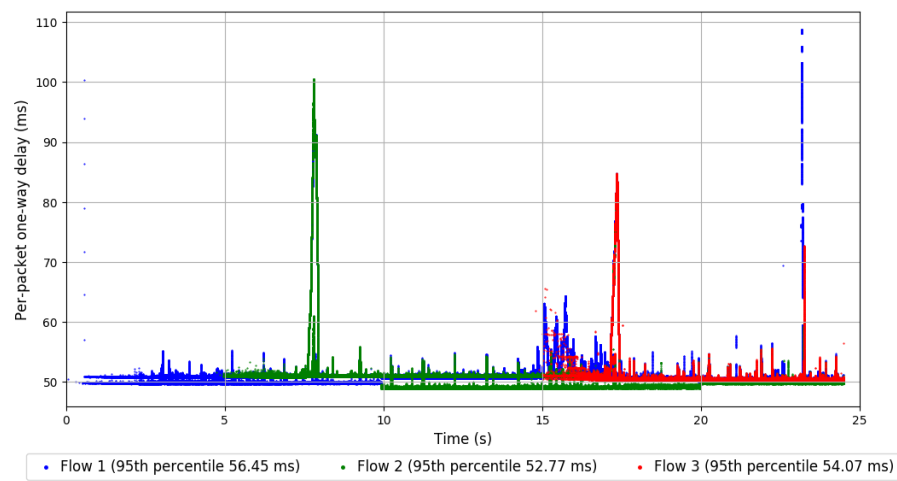
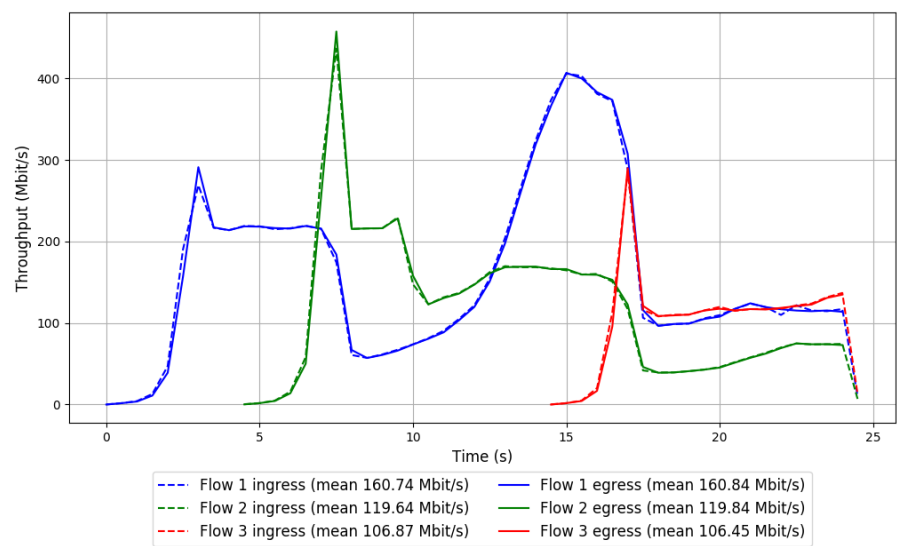
-- Flow 3:

Average throughput: 106.45 Mbit/s

95th percentile per-packet one-way delay: 54.068 ms

Loss rate: 1.50%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-01-17 16:36:46

End at: 2018-01-17 16:37:16

Below is generated by plot.py at 2018-01-17 23:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 288.61 Mbit/s

95th percentile per-packet one-way delay: 51.547 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 144.44 Mbit/s

95th percentile per-packet one-way delay: 51.730 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 158.40 Mbit/s

95th percentile per-packet one-way delay: 51.270 ms

Loss rate: 0.49%

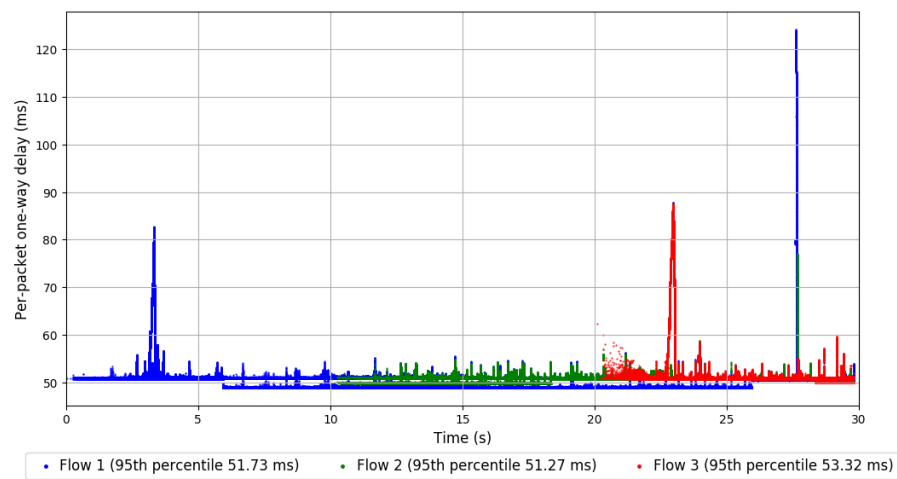
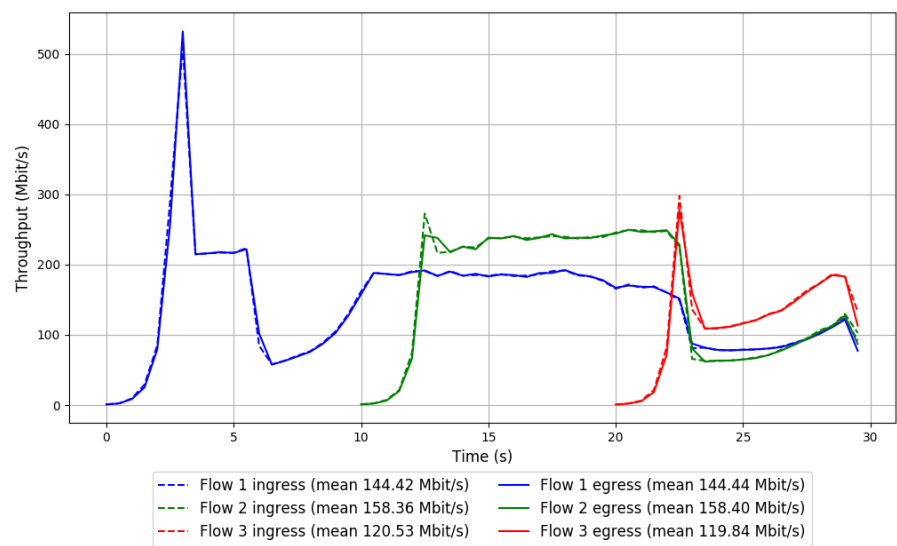
-- Flow 3:

Average throughput: 119.84 Mbit/s

95th percentile per-packet one-way delay: 53.319 ms

Loss rate: 1.71%

Run 4: Report of Vivace-loss — Data Link

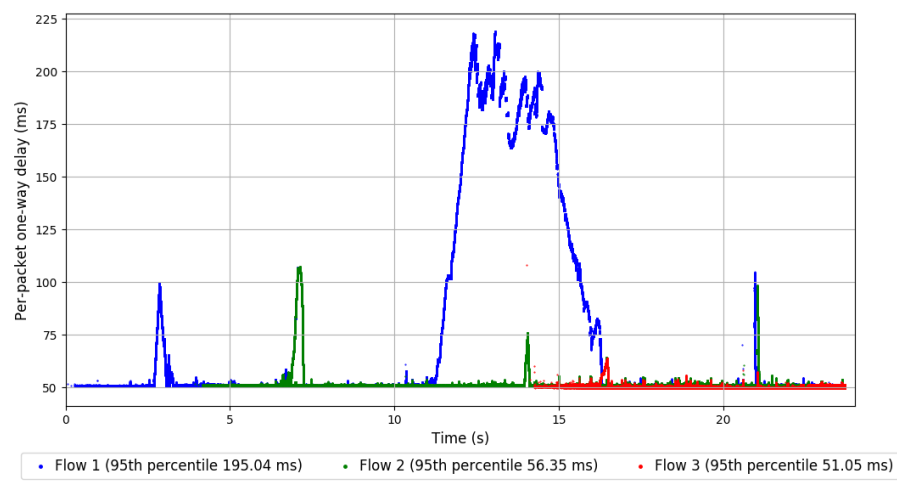
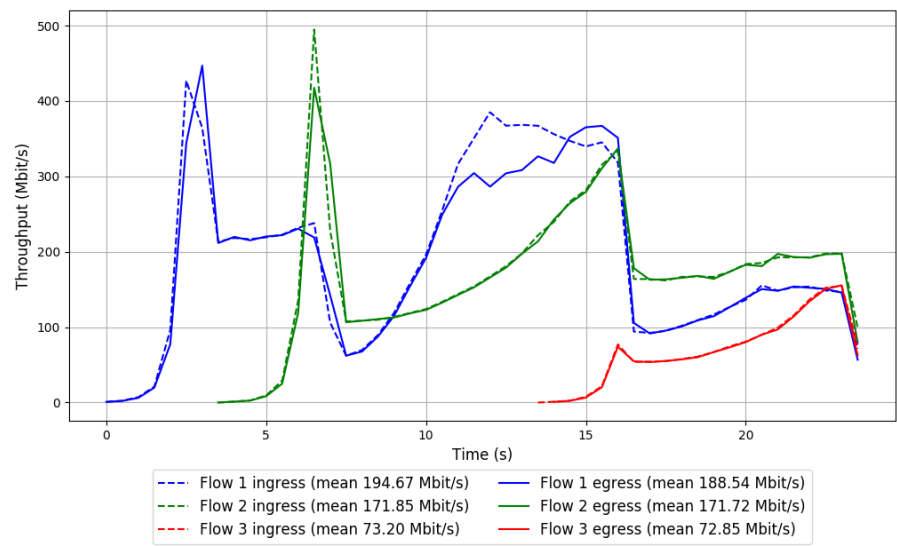


Run 5: Statistics of Vivace-loss

Start at: 2018-01-17 16:54:26

End at: 2018-01-17 16:54:56

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-01-17 17:12:18

End at: 2018-01-17 17:12:48

Below is generated by plot.py at 2018-01-17 23:41:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 311.98 Mbit/s

95th percentile per-packet one-way delay: 100.083 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 159.59 Mbit/s

95th percentile per-packet one-way delay: 131.653 ms

Loss rate: 1.82%

-- Flow 2:

Average throughput: 163.11 Mbit/s

95th percentile per-packet one-way delay: 59.621 ms

Loss rate: 0.71%

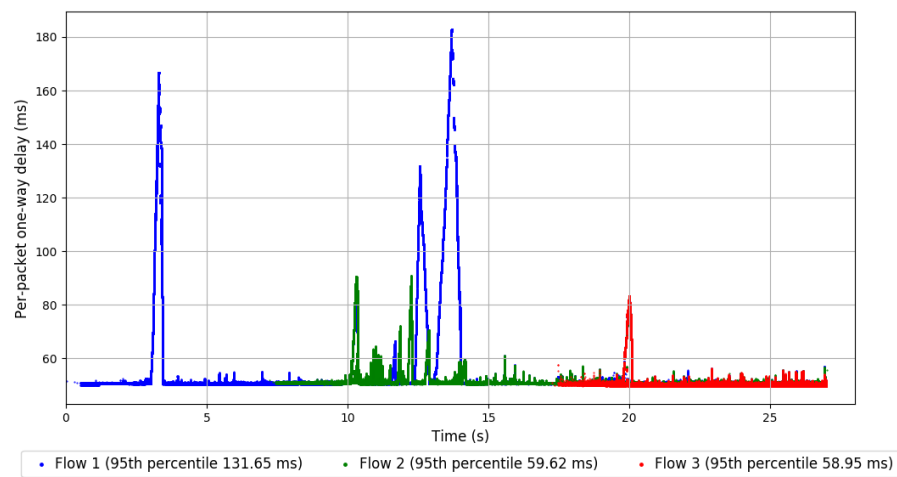
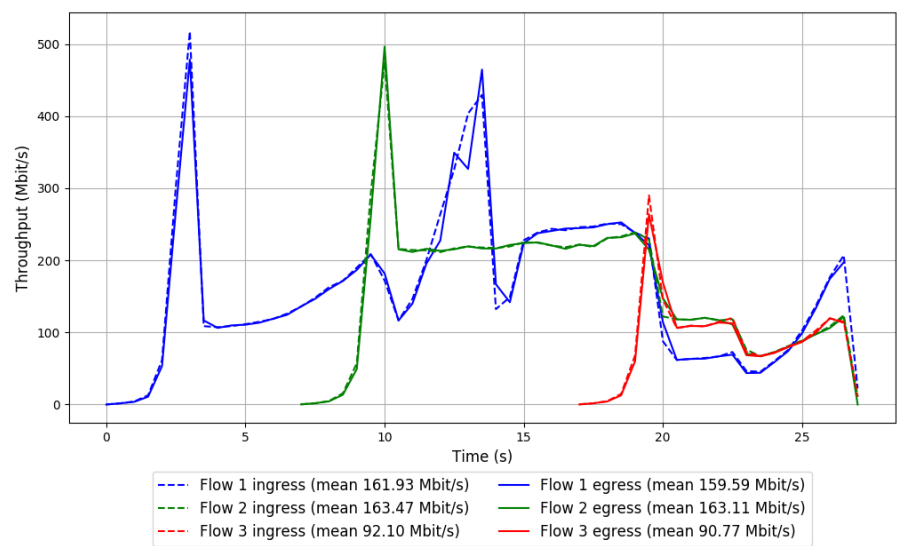
-- Flow 3:

Average throughput: 90.77 Mbit/s

95th percentile per-packet one-way delay: 58.949 ms

Loss rate: 2.44%

Run 6: Report of Vivace-loss — Data Link

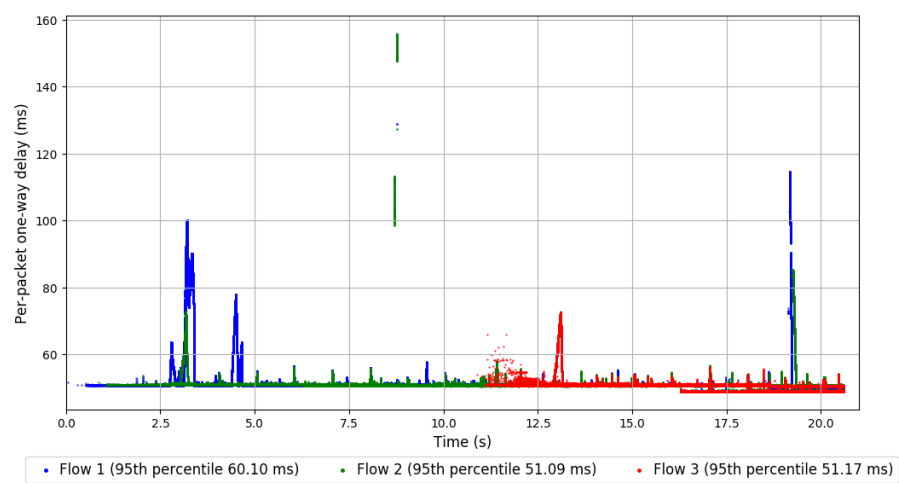
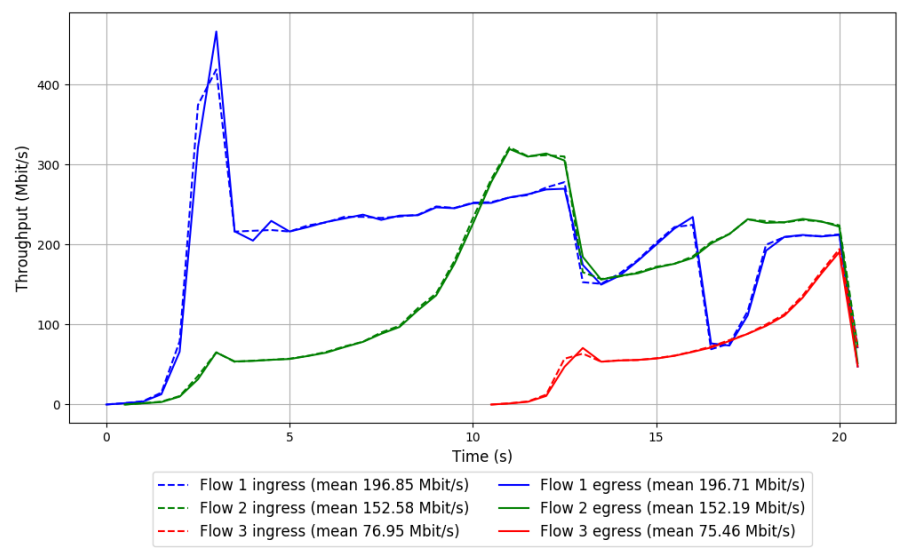


Run 7: Statistics of Vivace-loss

Start at: 2018-01-17 17:29:57

End at: 2018-01-17 17:30:27

Run 7: Report of Vivace-loss — Data Link

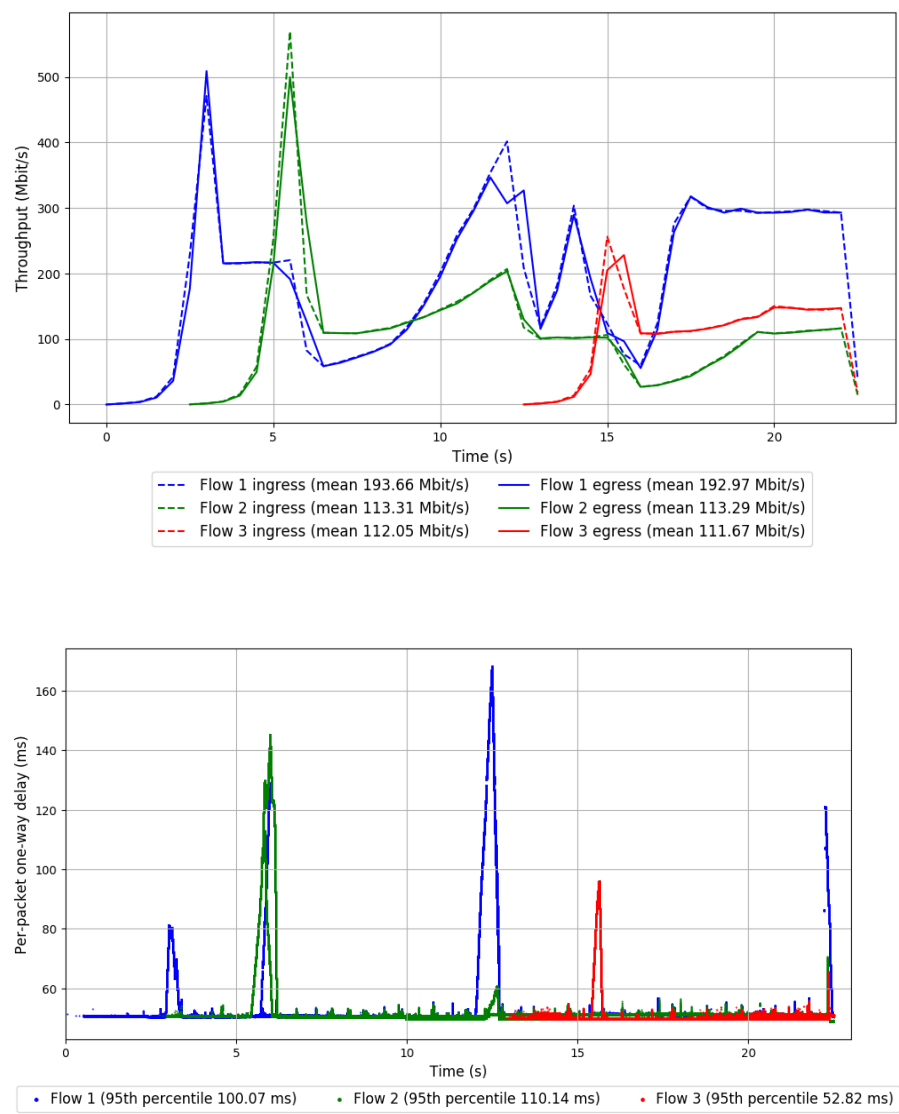


Run 8: Statistics of Vivace-loss

Start at: 2018-01-17 17:47:15

End at: 2018-01-17 17:47:45

Run 8: Report of Vivace-loss — Data Link

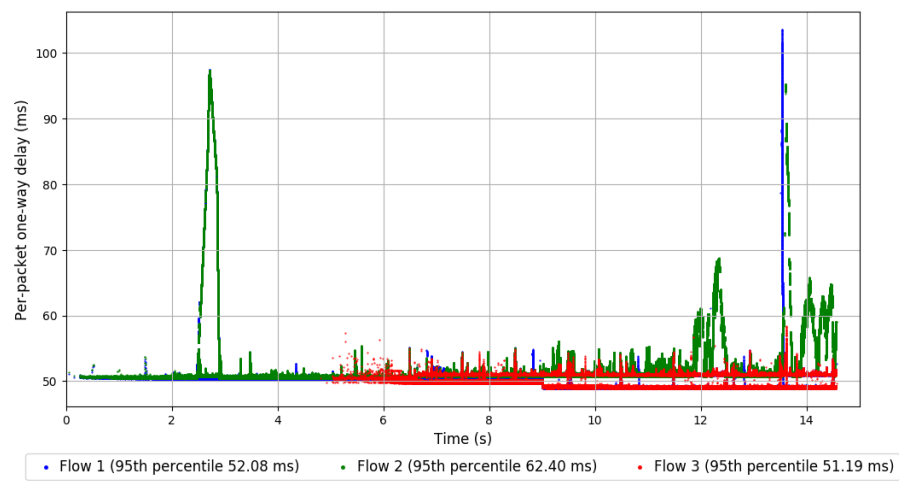
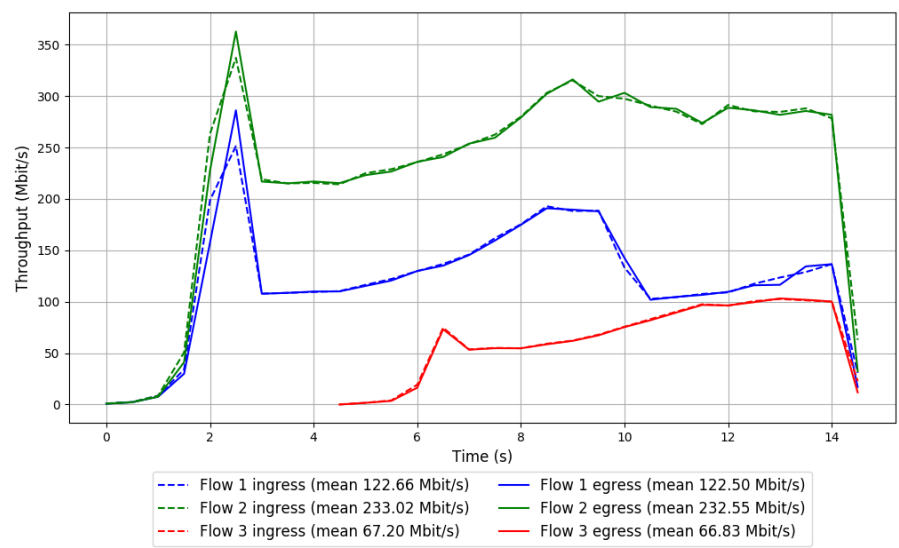


Run 9: Statistics of Vivace-loss

Start at: 2018-01-17 18:05:11

End at: 2018-01-17 18:05:41

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-01-17 18:22:53

End at: 2018-01-17 18:23:23

Below is generated by plot.py at 2018-01-17 23:42:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 223.88 Mbit/s

95th percentile per-packet one-way delay: 109.232 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 49.35 Mbit/s

95th percentile per-packet one-way delay: 3722.646 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 219.00 Mbit/s

95th percentile per-packet one-way delay: 119.550 ms

Loss rate: 1.44%

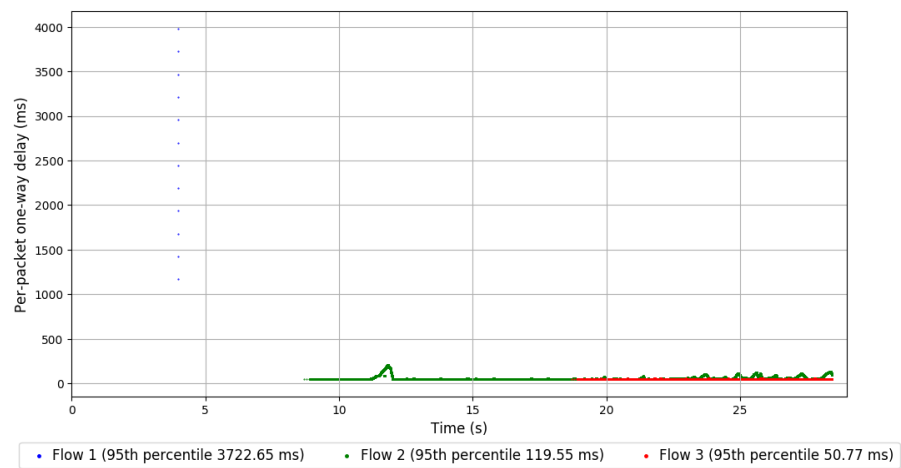
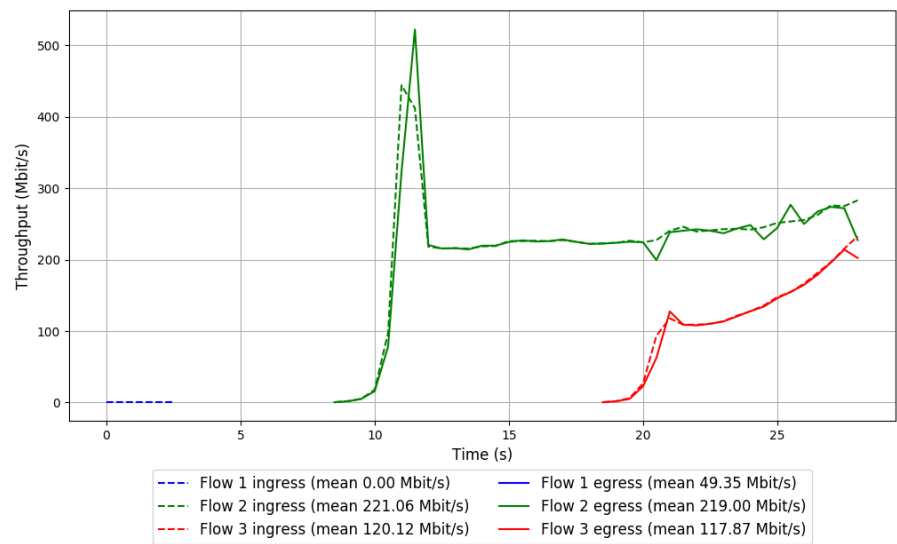
-- Flow 3:

Average throughput: 117.87 Mbit/s

95th percentile per-packet one-way delay: 50.770 ms

Loss rate: 2.88%

Run 10: Report of Vivace-loss — Data Link

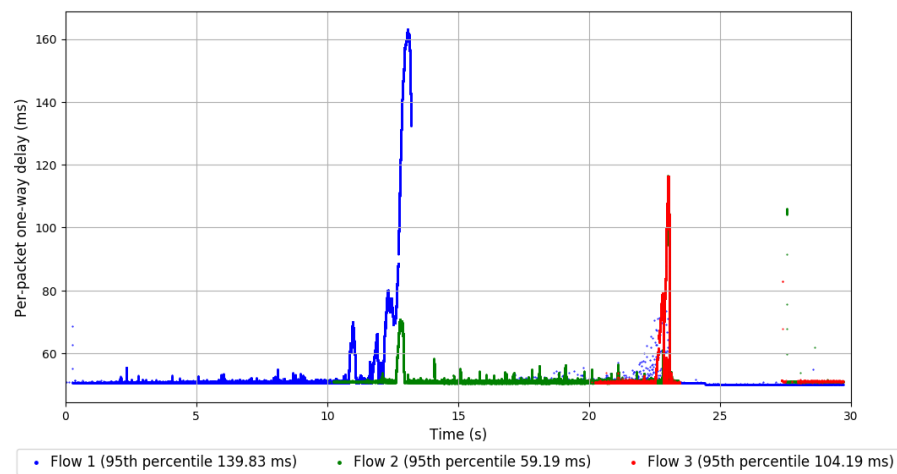
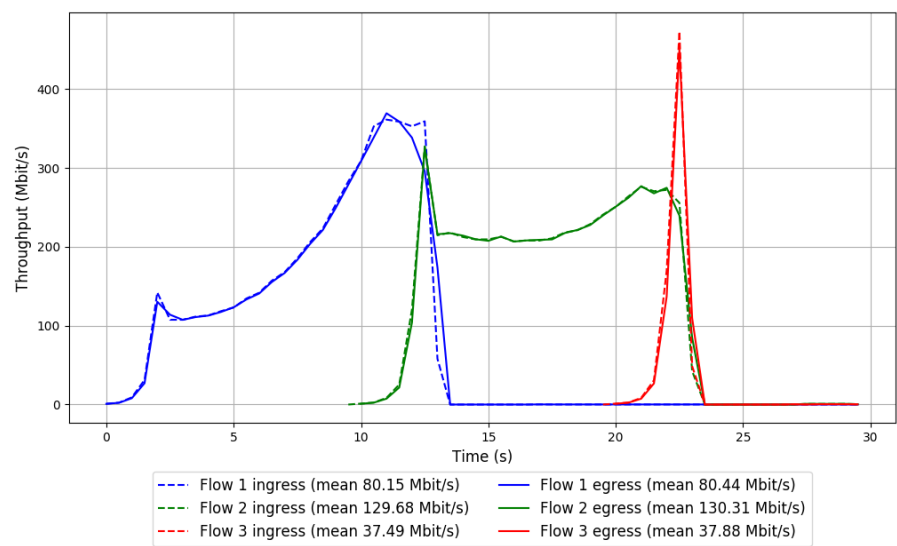


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-01-17 15:33:28
End at: 2018-01-17 15:33:58

# Below is generated by plot.py at 2018-01-17 23:43:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 179.41 Mbit/s
95th percentile per-packet one-way delay: 78.285 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.44 Mbit/s
95th percentile per-packet one-way delay: 139.829 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 130.31 Mbit/s
95th percentile per-packet one-way delay: 59.188 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.88 Mbit/s
95th percentile per-packet one-way delay: 104.193 ms
Loss rate: 0.02%
```

Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-01-17 15:50:45

End at: 2018-01-17 15:51:15

Below is generated by plot.py at 2018-01-17 23:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.28 Mbit/s

95th percentile per-packet one-way delay: 56.751 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 14.24 Mbit/s

95th percentile per-packet one-way delay: 64.417 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 12.22 Mbit/s

95th percentile per-packet one-way delay: 50.925 ms

Loss rate: 0.02%

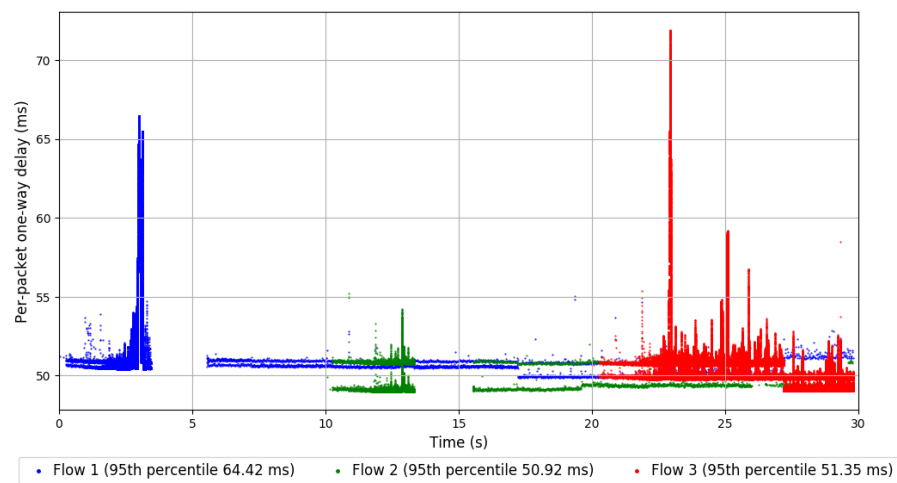
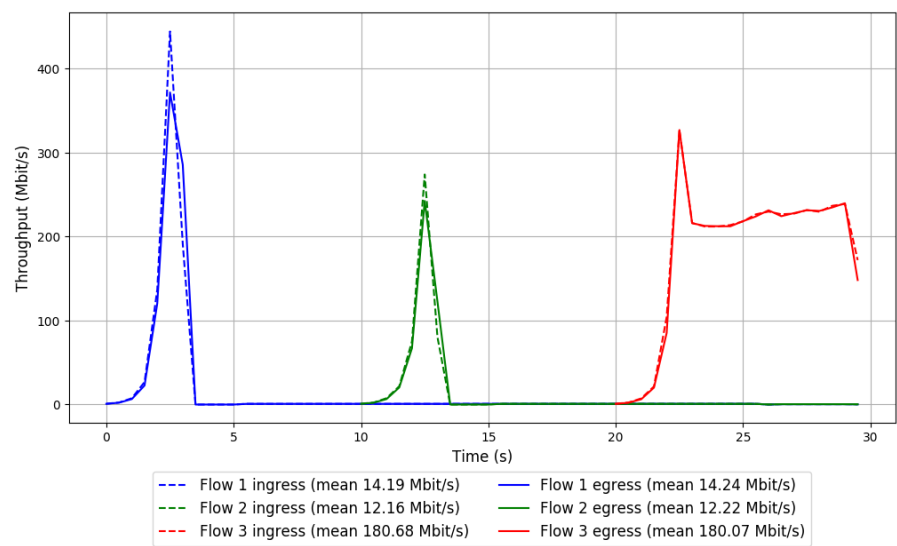
-- Flow 3:

Average throughput: 180.07 Mbit/s

95th percentile per-packet one-way delay: 51.351 ms

Loss rate: 1.37%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-01-17 16:08:25

End at: 2018-01-17 16:08:55

Below is generated by plot.py at 2018-01-17 23:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.05 Mbit/s

95th percentile per-packet one-way delay: 123.674 ms

Loss rate: 3.73%

-- Flow 1:

Average throughput: 12.34 Mbit/s

95th percentile per-packet one-way delay: 150.504 ms

Loss rate: 12.64%

-- Flow 2:

Average throughput: 22.99 Mbit/s

95th percentile per-packet one-way delay: 138.040 ms

Loss rate: 4.77%

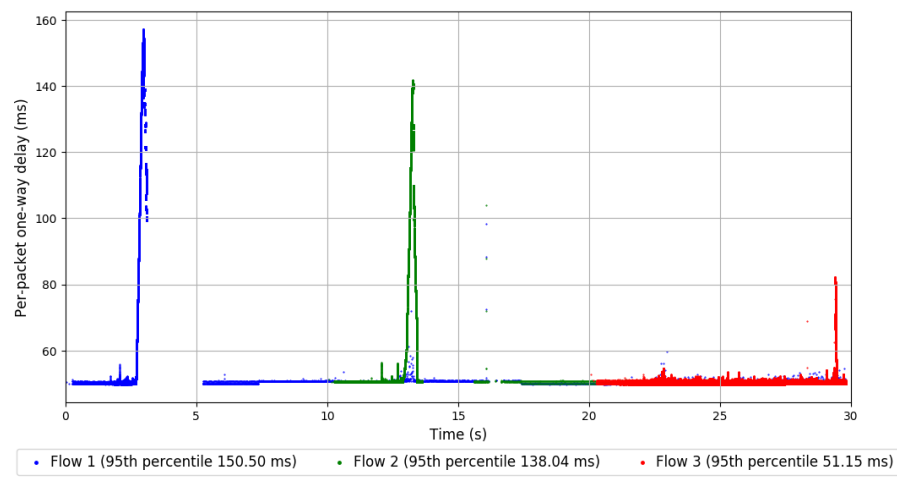
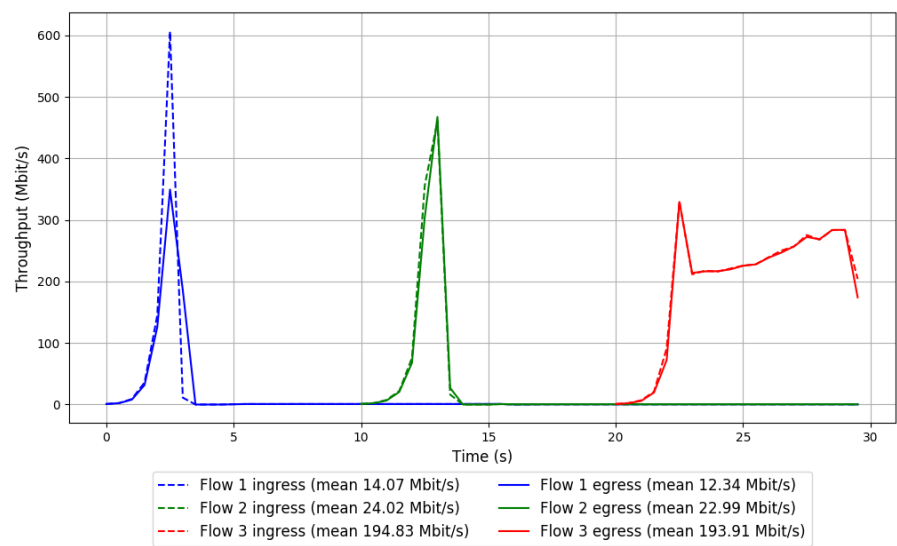
-- Flow 3:

Average throughput: 193.91 Mbit/s

95th percentile per-packet one-way delay: 51.151 ms

Loss rate: 1.52%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-01-17 16:25:58

End at: 2018-01-17 16:26:28

Below is generated by plot.py at 2018-01-17 23:44:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.73 Mbit/s

95th percentile per-packet one-way delay: 84.311 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 14.95 Mbit/s

95th percentile per-packet one-way delay: 72.711 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 22.39 Mbit/s

95th percentile per-packet one-way delay: 125.127 ms

Loss rate: 0.72%

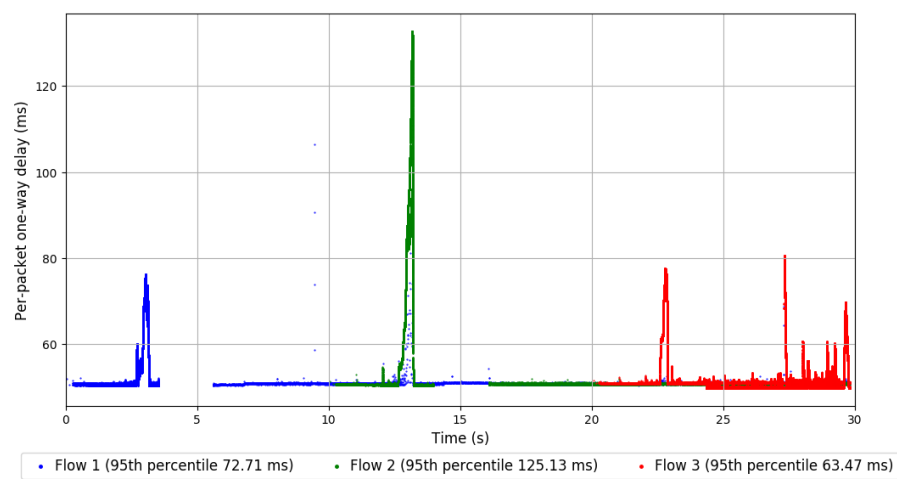
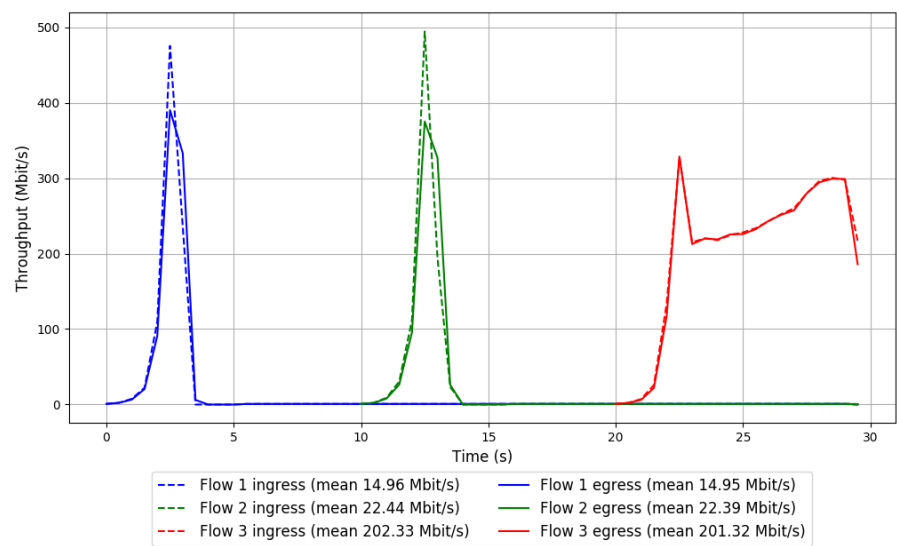
-- Flow 3:

Average throughput: 201.32 Mbit/s

95th percentile per-packet one-way delay: 63.468 ms

Loss rate: 1.53%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-01-17 16:43:28

End at: 2018-01-17 16:43:58

Below is generated by plot.py at 2018-01-17 23:44:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.74 Mbit/s

95th percentile per-packet one-way delay: 113.726 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 15.21 Mbit/s

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

Loss rate: 0.04%

-- Flow 2:

Average throughput: 22.44 Mbit/s

95th percentile per-packet one-way delay: 155.199 ms

Loss rate: 0.01%

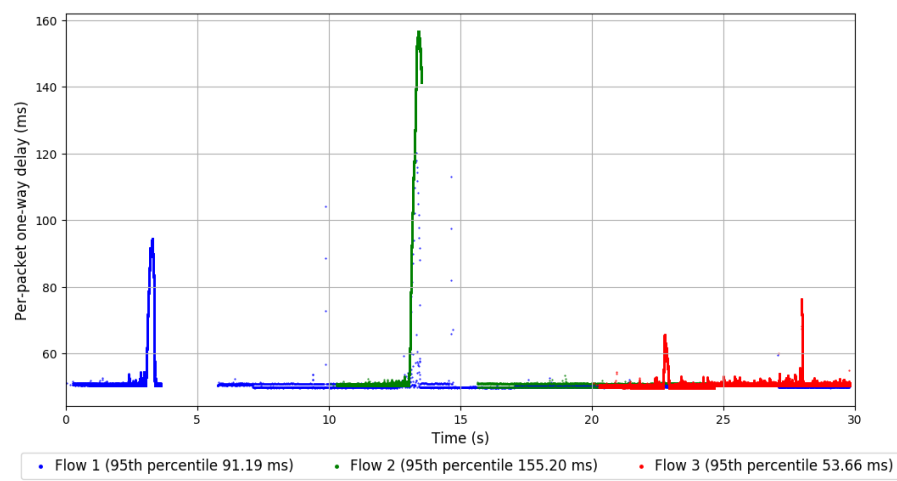
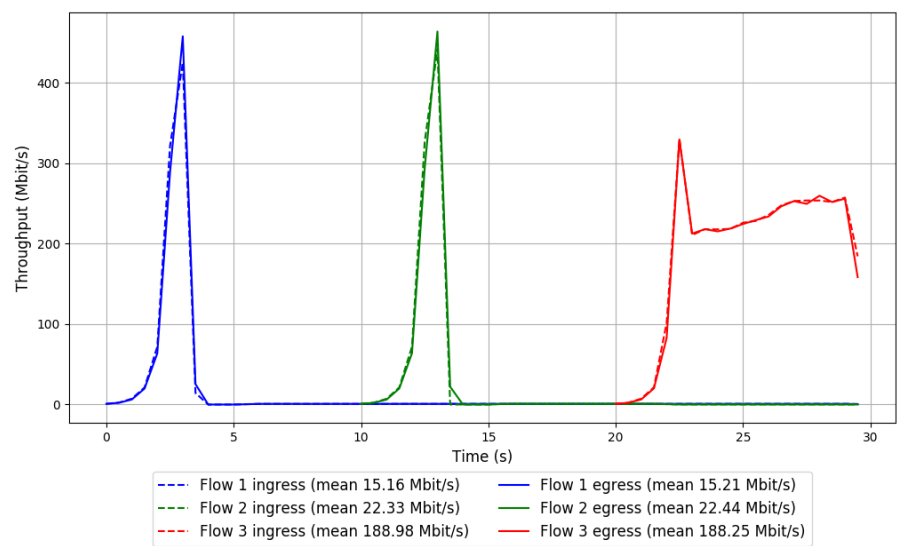
-- Flow 3:

Average throughput: 188.25 Mbit/s

95th percentile per-packet one-way delay: 53.665 ms

Loss rate: 1.40%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-01-17 17:01:05

End at: 2018-01-17 17:01:35

Below is generated by plot.py at 2018-01-17 23:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 210.08 Mbit/s

95th percentile per-packet one-way delay: 55.446 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 90.72 Mbit/s

95th percentile per-packet one-way delay: 58.008 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 168.94 Mbit/s

95th percentile per-packet one-way delay: 53.568 ms

Loss rate: 0.83%

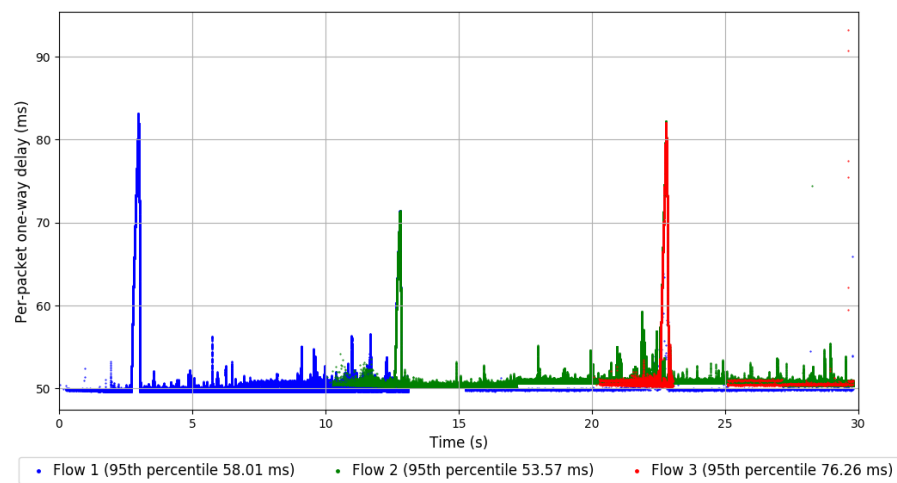
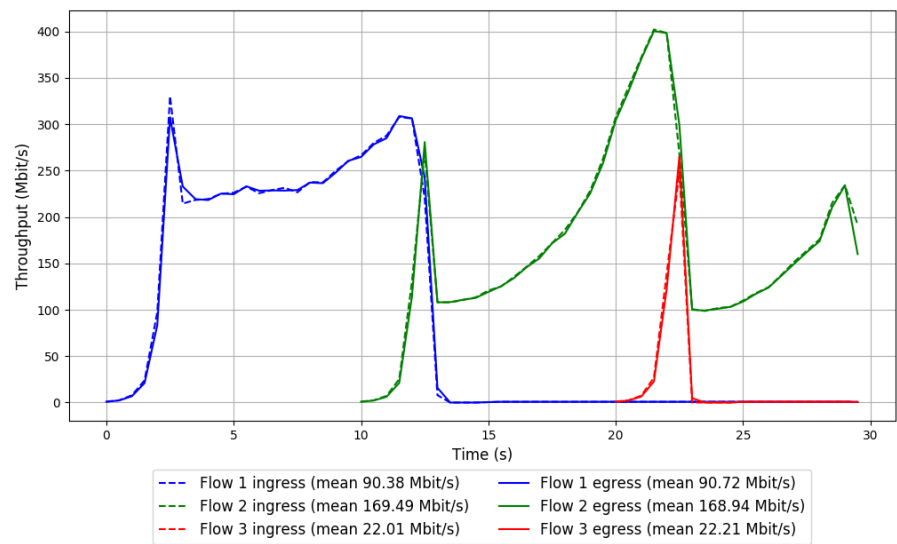
-- Flow 3:

Average throughput: 22.21 Mbit/s

95th percentile per-packet one-way delay: 76.263 ms

Loss rate: 0.04%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-01-17 17:19:00

End at: 2018-01-17 17:19:30

Below is generated by plot.py at 2018-01-17 23:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 98.03 Mbit/s

95th percentile per-packet one-way delay: 78.479 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 76.64 Mbit/s

95th percentile per-packet one-way delay: 68.179 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 11.55 Mbit/s

95th percentile per-packet one-way delay: 62.677 ms

Loss rate: 0.04%

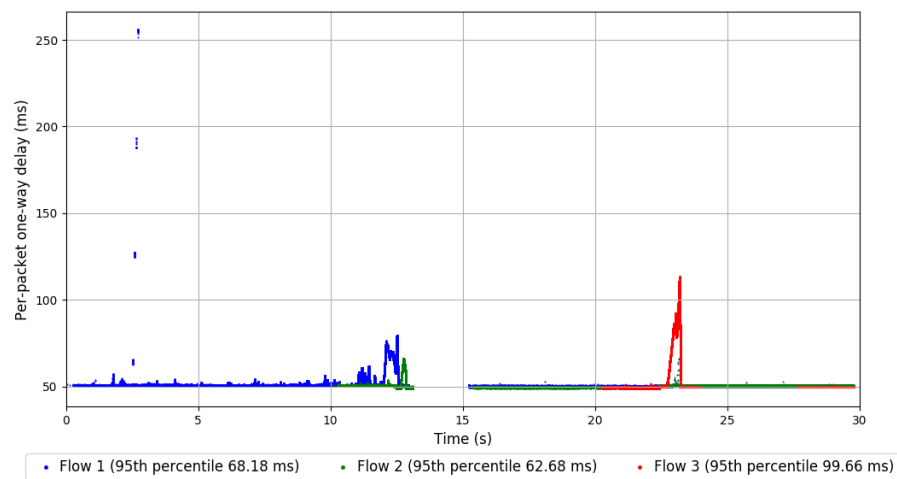
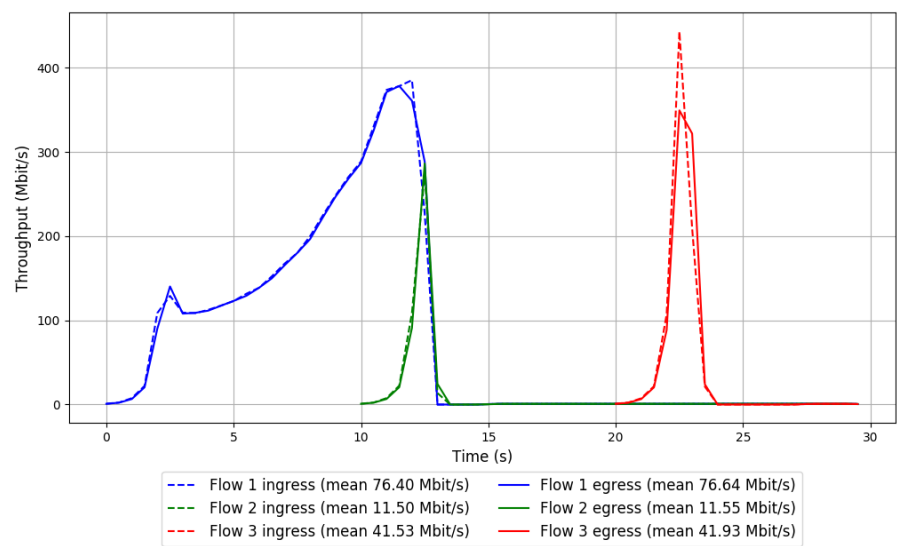
-- Flow 3:

Average throughput: 41.93 Mbit/s

95th percentile per-packet one-way delay: 99.660 ms

Loss rate: 0.02%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-01-17 17:36:30

End at: 2018-01-17 17:37:00

Below is generated by plot.py at 2018-01-17 23:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 34.98 Mbit/s

95th percentile per-packet one-way delay: 85.046 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 50.721 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 20.84 Mbit/s

95th percentile per-packet one-way delay: 92.436 ms

Loss rate: 0.02%

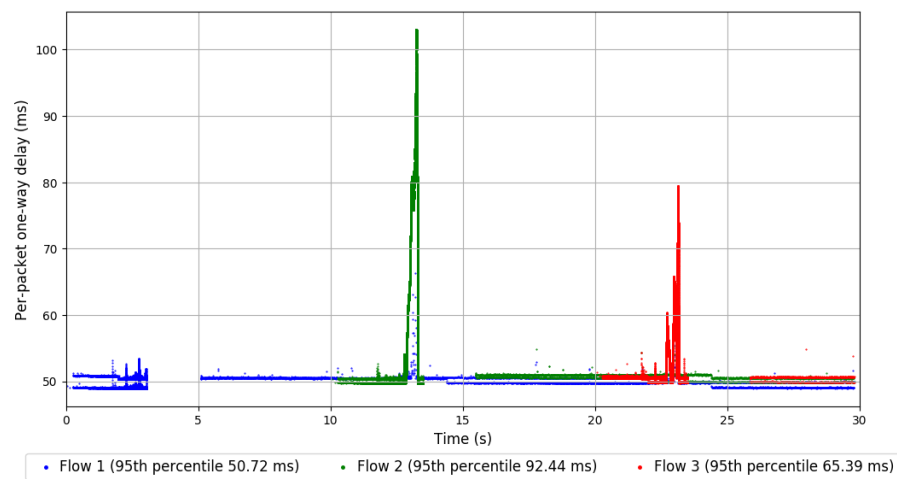
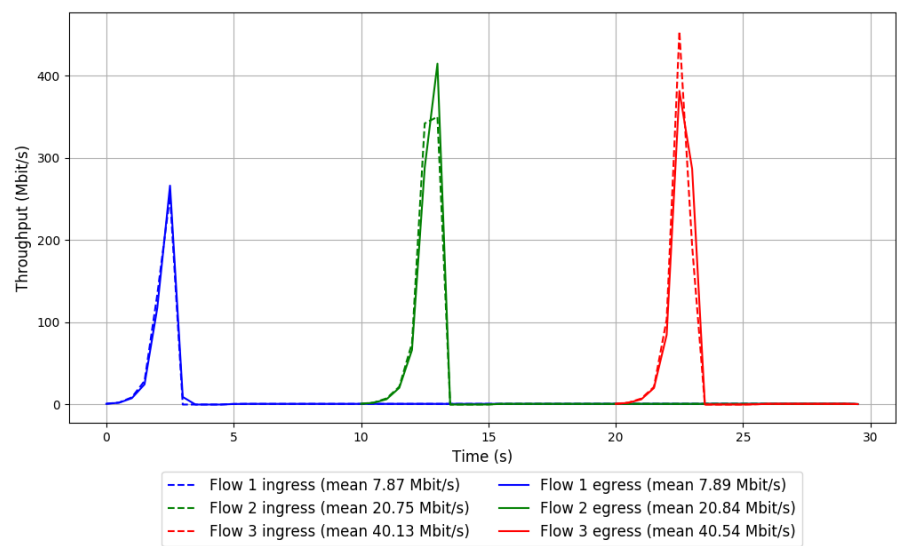
-- Flow 3:

Average throughput: 40.54 Mbit/s

95th percentile per-packet one-way delay: 65.385 ms

Loss rate: 0.02%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-01-17 17:53:54

End at: 2018-01-17 17:54:24

Below is generated by plot.py at 2018-01-17 23:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 152.50 Mbit/s

95th percentile per-packet one-way delay: 91.000 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 51.131 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 158.76 Mbit/s

95th percentile per-packet one-way delay: 96.750 ms

Loss rate: 0.00%

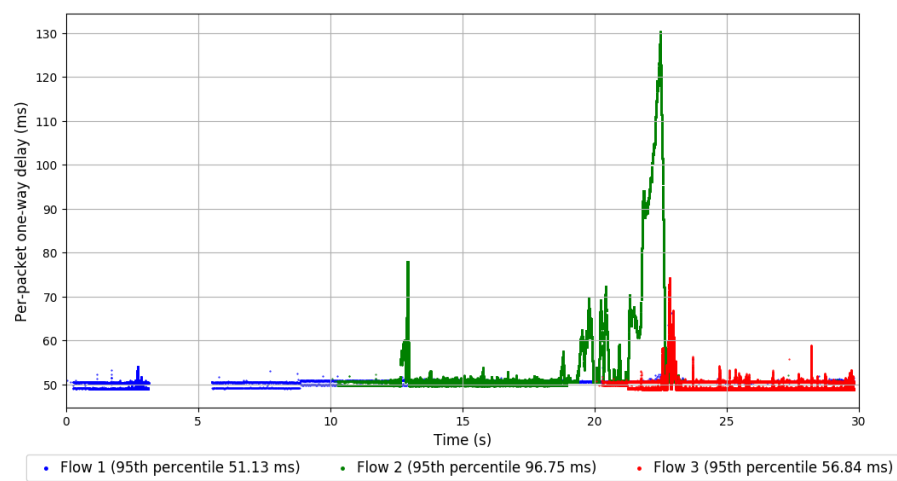
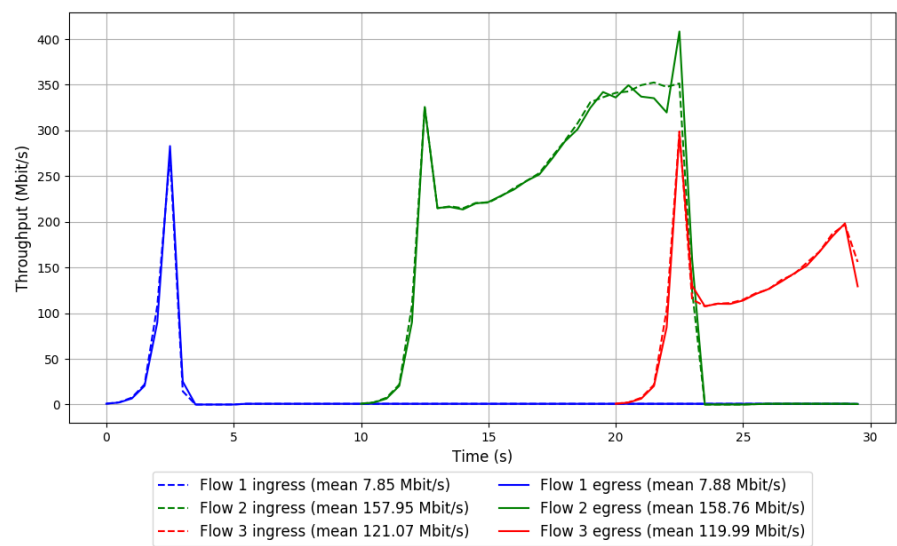
-- Flow 3:

Average throughput: 119.99 Mbit/s

95th percentile per-packet one-way delay: 56.841 ms

Loss rate: 1.92%

Run 9: Report of Vivace-LTE — Data Link



```
Run 10: Statistics of Vivace-LTE

Start at: 2018-01-17 18:11:45
End at: 2018-01-17 18:12:15

# Below is generated by plot.py at 2018-01-17 23:45:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 225.35 Mbit/s
95th percentile per-packet one-way delay: 63.924 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 150.49 Mbit/s
95th percentile per-packet one-way delay: 63.080 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 101.75 Mbit/s
95th percentile per-packet one-way delay: 53.181 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 22.54 Mbit/s
95th percentile per-packet one-way delay: 94.658 ms
Loss rate: 0.04%
```

Run 10: Report of Vivace-LTE — Data Link

