

Pantheon Report

Generated at 2017-10-12 17:02:20 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

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

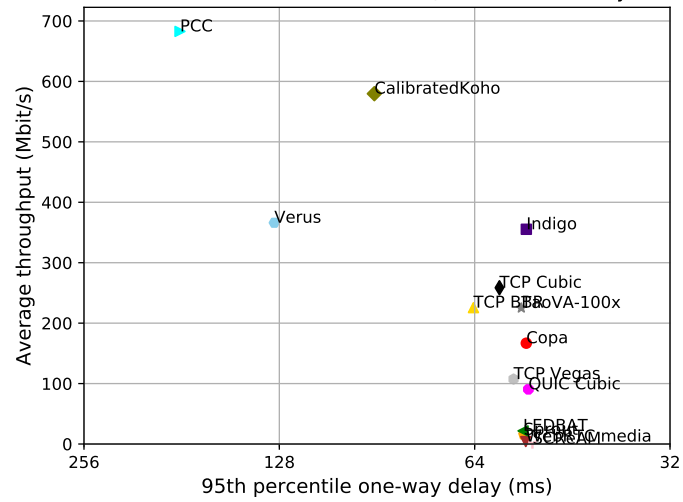
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

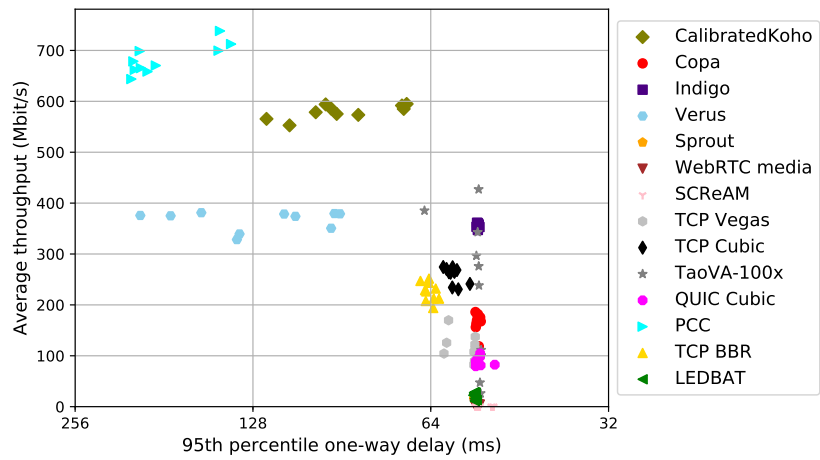
Git summary:

```
branch: indigos @ 45998d6404be7c5106956530acb9cfc43bd06e7d
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fabb936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eae30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



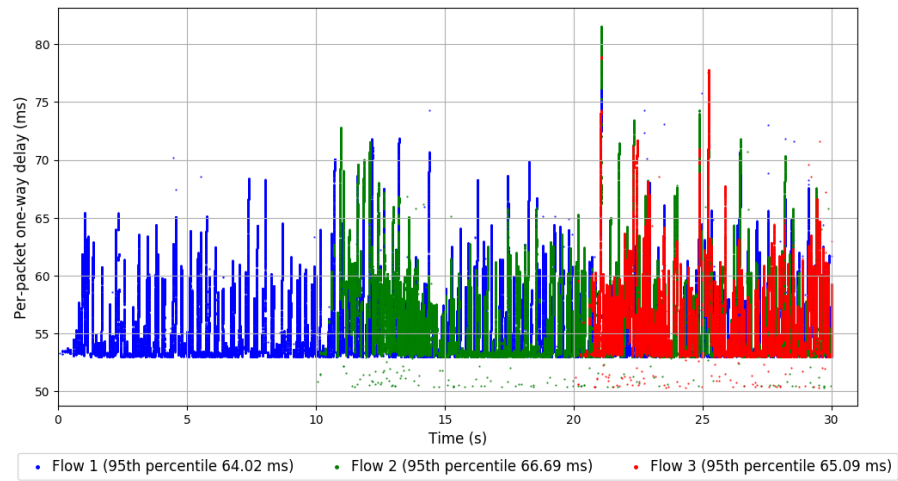
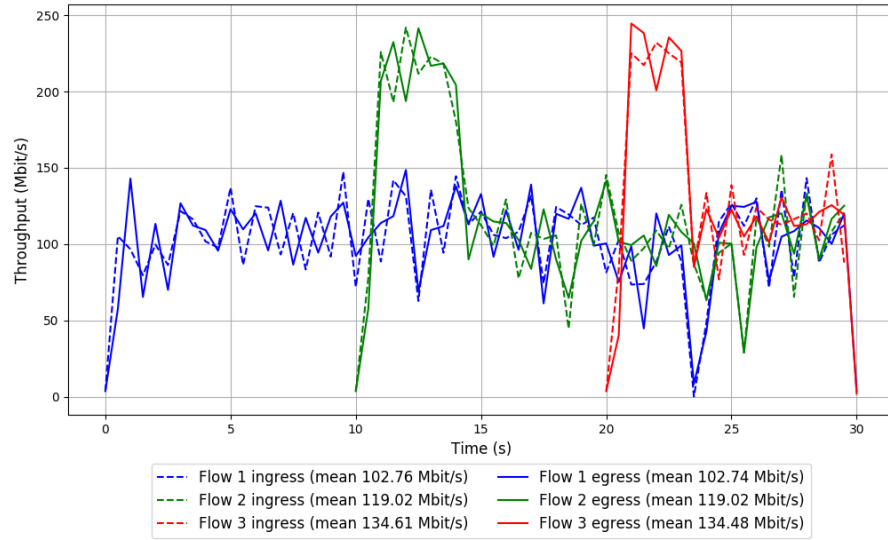
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	113.48	111.35	115.45	63.46	64.83	65.10	0.03	0.03	0.15
TCP Cubic	10	137.60	117.57	128.94	58.04	58.31	58.81	0.00	0.01	0.04
LEDBAT	10	9.81	15.17	5.56	53.92	53.94	53.75	0.00	0.00	0.01
PCC	10	548.59	190.66	22.63	187.28	145.49	139.06	4.17	1.12	1.14
QUIC Cubic	10	55.60	41.51	22.85	52.75	51.01	51.32	0.01	0.01	0.00
SCReAM	10	0.21	0.21	0.22	51.53	51.47	50.72	0.01	0.00	0.00
WebRTC media	10	2.02	1.44	0.60	52.72	51.13	53.21	0.00	0.00	0.00
Sprout	10	7.75	7.69	7.42	53.79	53.79	53.80	0.01	0.02	0.00
TaoVA-100x	10	127.19	111.89	91.96	53.79	55.40	52.95	0.01	0.02	0.01
TCP Vegas	10	75.27	40.38	16.04	55.42	54.94	53.89	0.00	0.01	0.02
Verus	10	216.87	172.94	105.66	121.72	136.83	108.67	0.25	0.70	0.29
Copa	10	90.74	81.52	83.84	53.19	52.96	53.12	0.01	0.01	0.02
CalibratedKoho	10	362.32	281.96	89.13	84.12	100.32	92.16	0.03	0.06	0.39
Indigo	7	186.18	178.66	156.36	53.13	53.46	53.60	0.01	0.01	0.01

```
Run 1: Statistics of TCP BBR

Start at: 2017-10-12 12:27:00
End at: 2017-10-12 12:27:30

# Below is generated by plot.py at 2017-10-12 15:54:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 226.48 Mbit/s
95th percentile per-packet one-way delay: 65.126 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 102.74 Mbit/s
95th percentile per-packet one-way delay: 64.018 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 119.02 Mbit/s
95th percentile per-packet one-way delay: 66.694 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 134.48 Mbit/s
95th percentile per-packet one-way delay: 65.087 ms
Loss rate: 0.00%
```


Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-10-12 12:39:40

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

Below is generated by plot.py at 2017-10-12 15:54:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 229.03 Mbit/s

95th percentile per-packet one-way delay: 65.439 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 105.37 Mbit/s

95th percentile per-packet one-way delay: 64.266 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 125.06 Mbit/s

95th percentile per-packet one-way delay: 66.531 ms

Loss rate: 0.33%

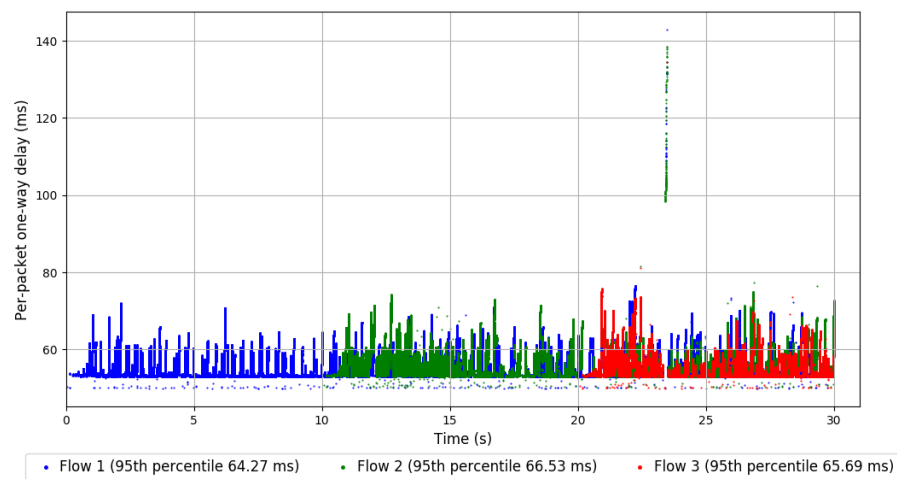
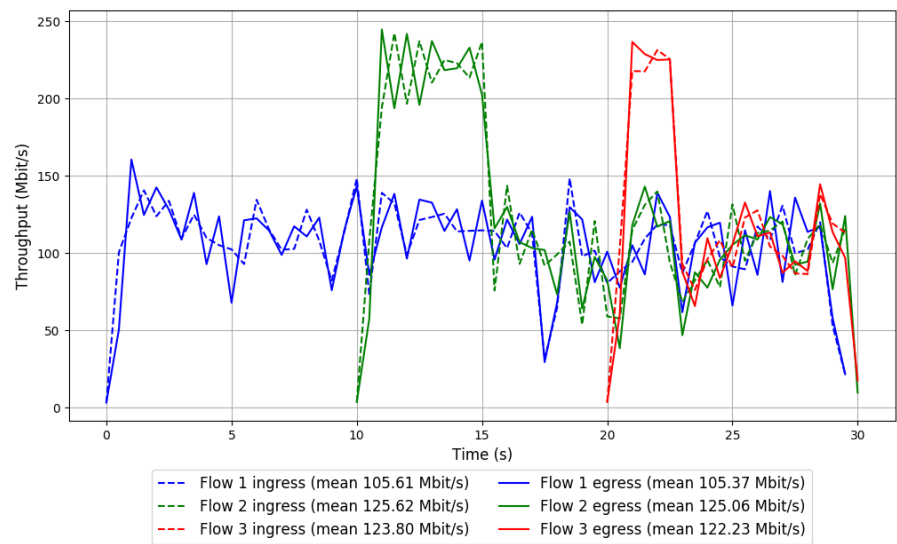
-- Flow 3:

Average throughput: 122.23 Mbit/s

95th percentile per-packet one-way delay: 65.687 ms

Loss rate: 1.14%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-10-12 12:52:25

End at: 2017-10-12 12:52:55

Below is generated by plot.py at 2017-10-12 15:55:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 247.09 Mbit/s

95th percentile per-packet one-way delay: 66.622 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 122.68 Mbit/s

95th percentile per-packet one-way delay: 66.210 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 136.02 Mbit/s

95th percentile per-packet one-way delay: 66.463 ms

Loss rate: 0.00%

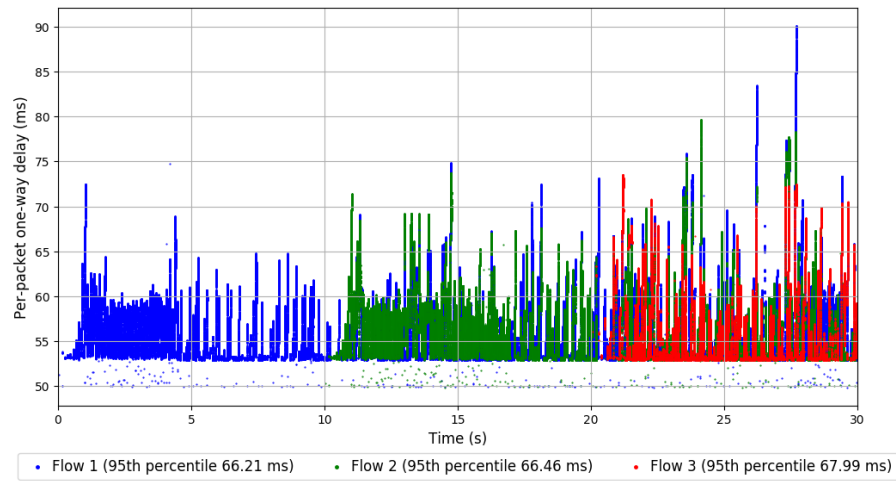
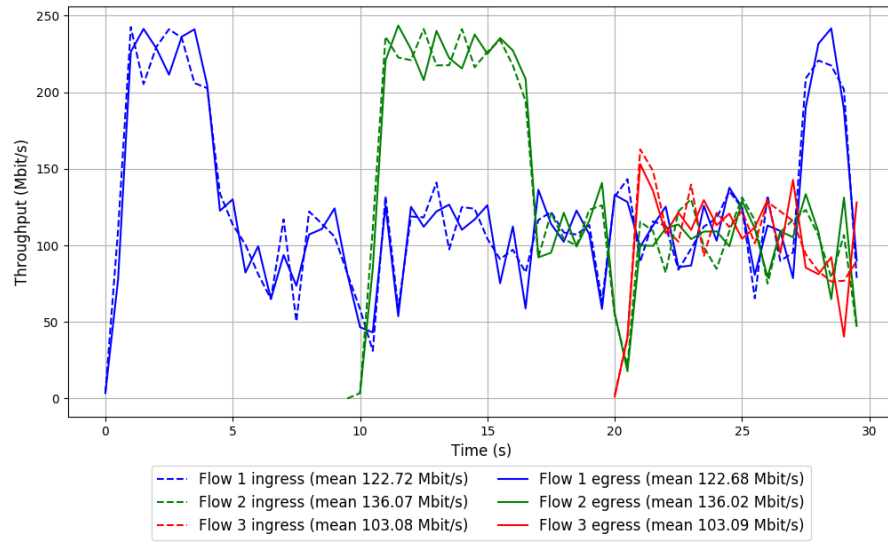
-- Flow 3:

Average throughput: 103.09 Mbit/s

95th percentile per-packet one-way delay: 67.994 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-10-12 13:04:57

End at: 2017-10-12 13:05:27

Below is generated by plot.py at 2017-10-12 15:55:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 207.74 Mbit/s

95th percentile per-packet one-way delay: 65.247 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 102.65 Mbit/s

95th percentile per-packet one-way delay: 62.517 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 99.42 Mbit/s

95th percentile per-packet one-way delay: 67.102 ms

Loss rate: 0.00%

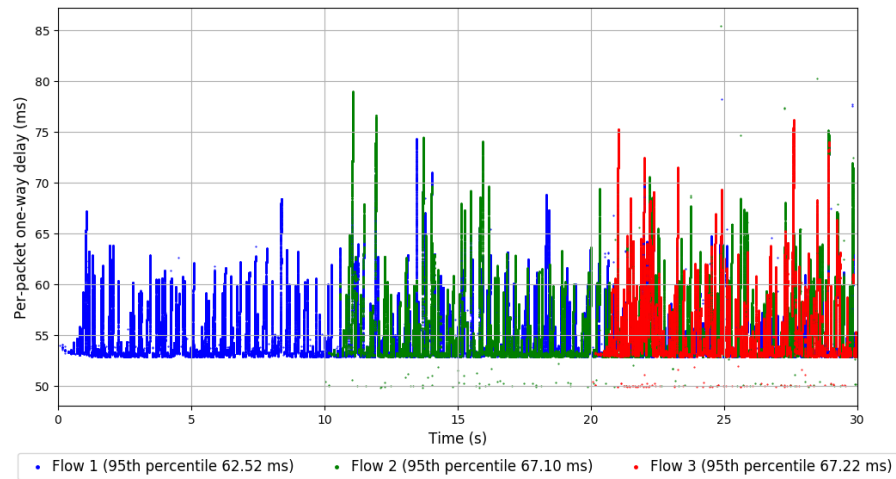
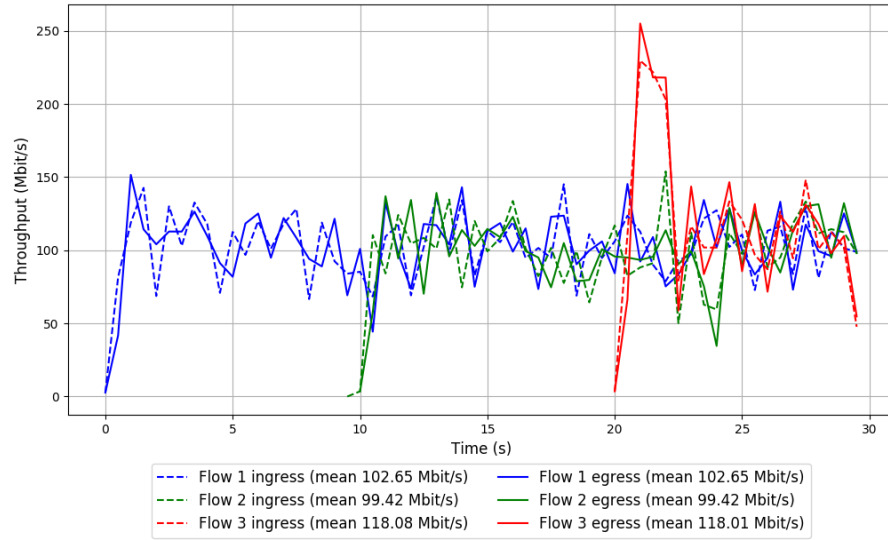
-- Flow 3:

Average throughput: 118.01 Mbit/s

95th percentile per-packet one-way delay: 67.221 ms

Loss rate: 0.01%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-10-12 13:17:30

End at: 2017-10-12 13:18:00

Below is generated by plot.py at 2017-10-12 15:55:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 212.73 Mbit/s

95th percentile per-packet one-way delay: 63.269 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 101.92 Mbit/s

95th percentile per-packet one-way delay: 62.802 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 102.98 Mbit/s

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

Loss rate: 0.00%

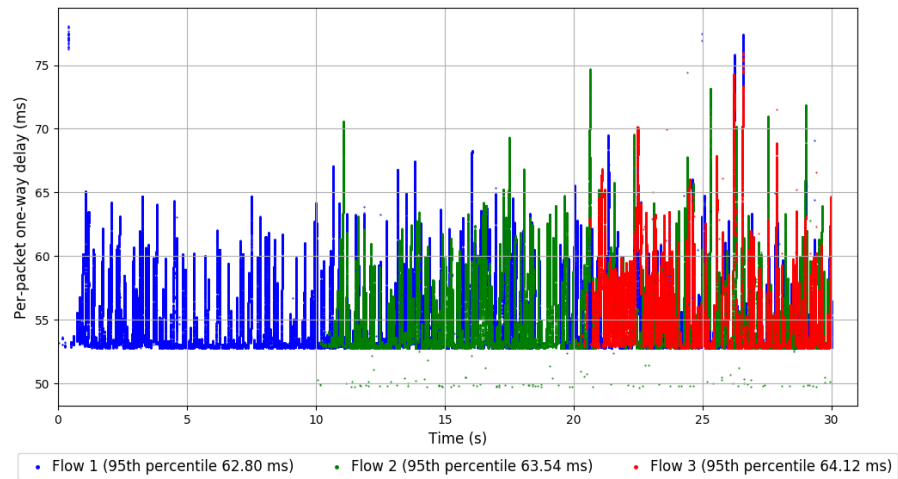
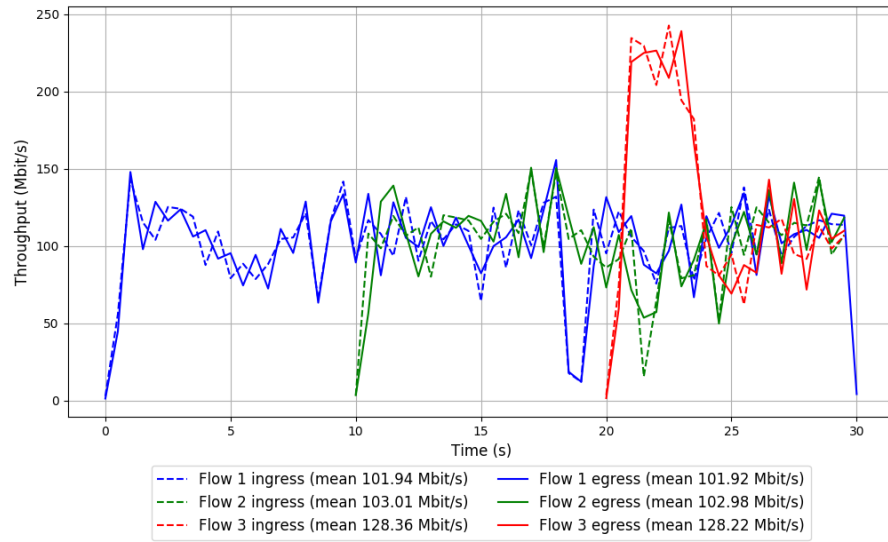
-- Flow 3:

Average throughput: 128.22 Mbit/s

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

Loss rate: 0.00%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-10-12 13:29:39

End at: 2017-10-12 13:30:09

Below is generated by plot.py at 2017-10-12 15:55:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 251.65 Mbit/s

95th percentile per-packet one-way delay: 64.447 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 146.71 Mbit/s

95th percentile per-packet one-way delay: 63.024 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 106.11 Mbit/s

95th percentile per-packet one-way delay: 65.150 ms

Loss rate: 0.00%

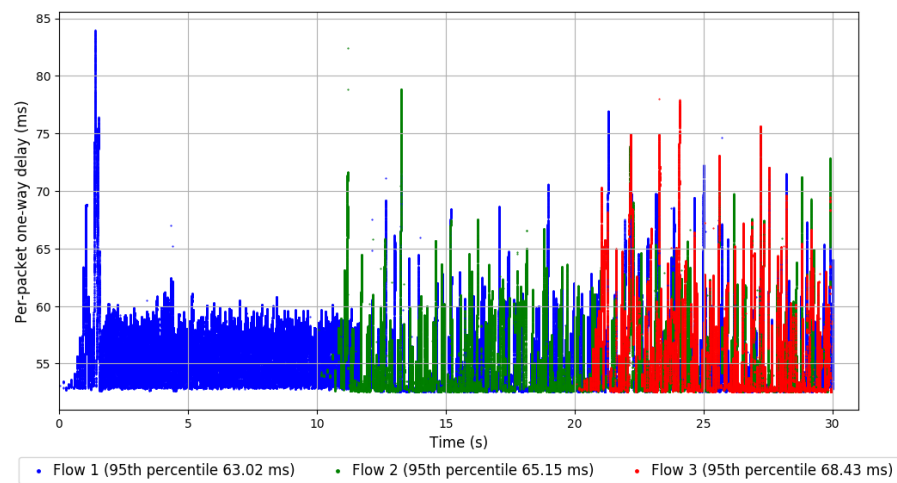
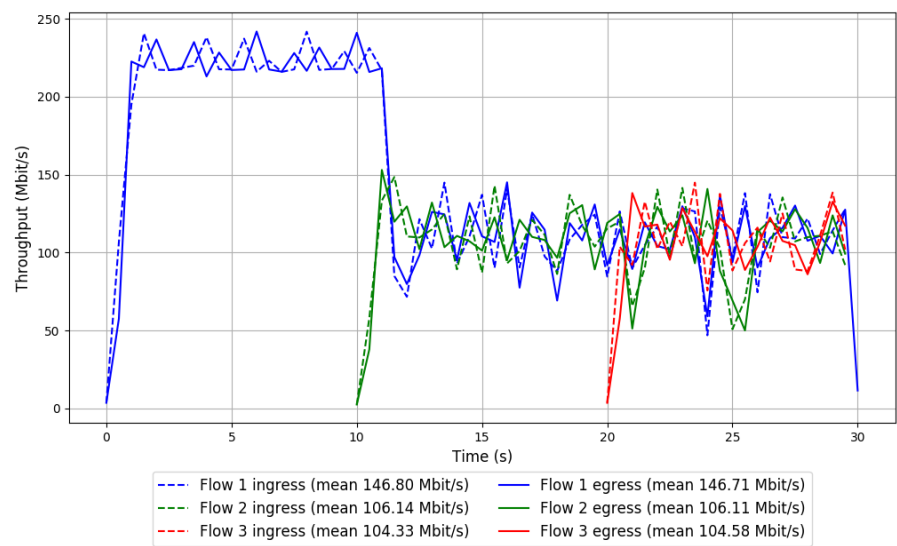
-- Flow 3:

Average throughput: 104.58 Mbit/s

95th percentile per-packet one-way delay: 68.431 ms

Loss rate: 0.01%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-10-12 13:42:09

End at: 2017-10-12 13:42:39

Below is generated by plot.py at 2017-10-12 15:55:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 232.13 Mbit/s

95th percentile per-packet one-way delay: 62.781 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 115.88 Mbit/s

95th percentile per-packet one-way delay: 62.395 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 102.91 Mbit/s

95th percentile per-packet one-way delay: 61.801 ms

Loss rate: 0.00%

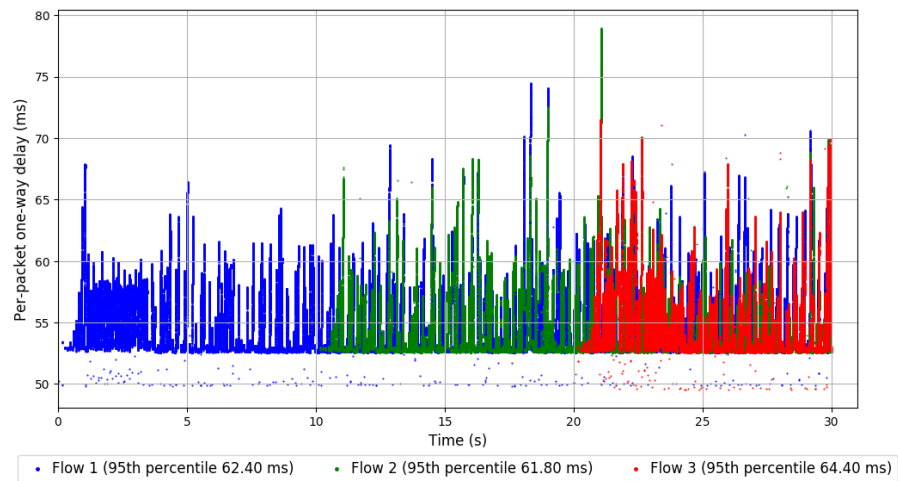
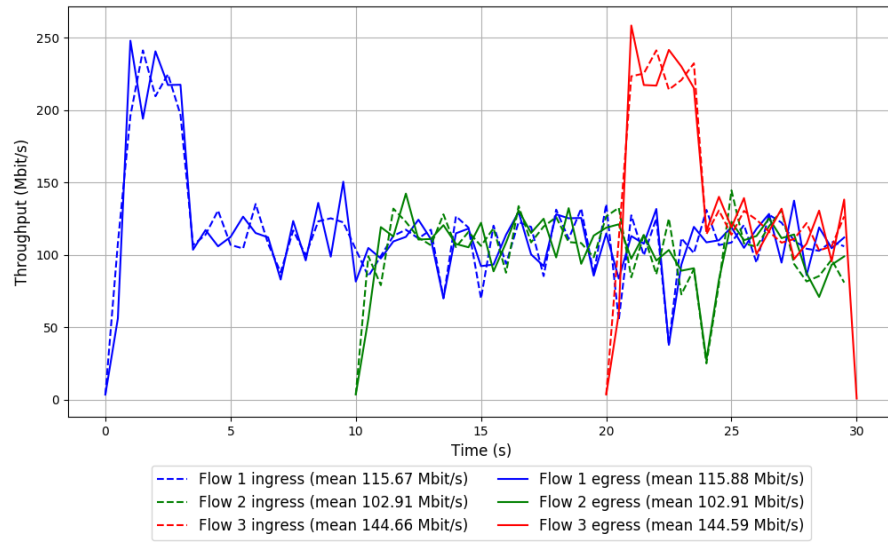
-- Flow 3:

Average throughput: 144.59 Mbit/s

95th percentile per-packet one-way delay: 64.397 ms

Loss rate: 0.05%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-10-12 13:54:21

End at: 2017-10-12 13:54:51

Below is generated by plot.py at 2017-10-12 15:55:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 243.47 Mbit/s

95th percentile per-packet one-way delay: 64.475 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 132.58 Mbit/s

95th percentile per-packet one-way delay: 64.130 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 115.07 Mbit/s

95th percentile per-packet one-way delay: 65.190 ms

Loss rate: 0.00%

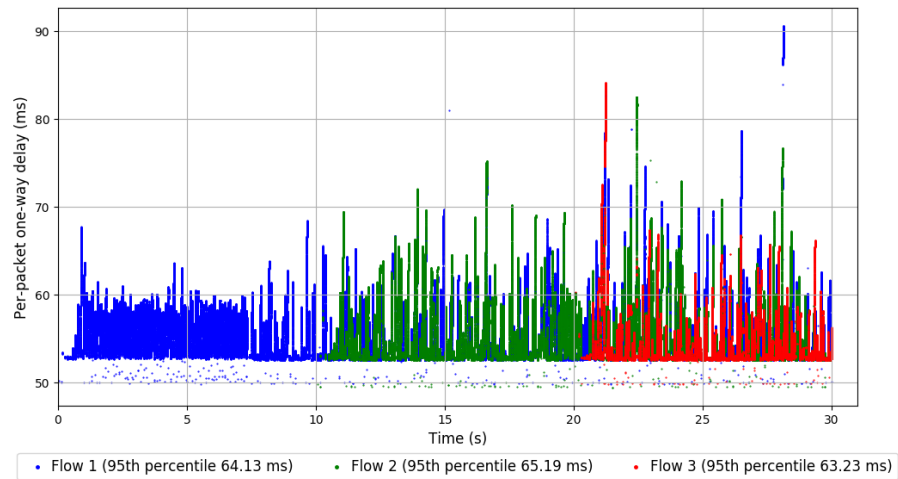
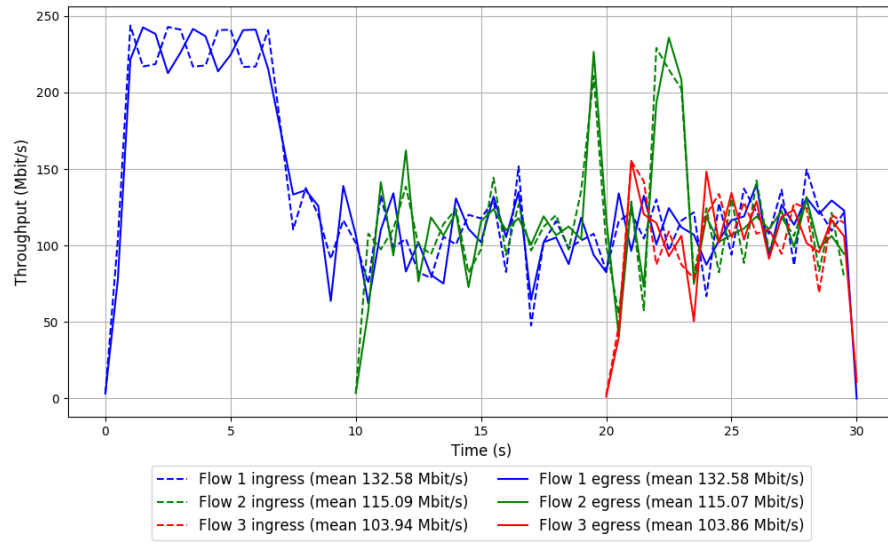
-- Flow 3:

Average throughput: 103.86 Mbit/s

95th percentile per-packet one-way delay: 63.227 ms

Loss rate: 0.12%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-10-12 14:06:56

End at: 2017-10-12 14:07:26

Below is generated by plot.py at 2017-10-12 15:57:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 193.97 Mbit/s

95th percentile per-packet one-way delay: 63.392 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 94.49 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 100.15 Mbit/s

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

Loss rate: 0.00%

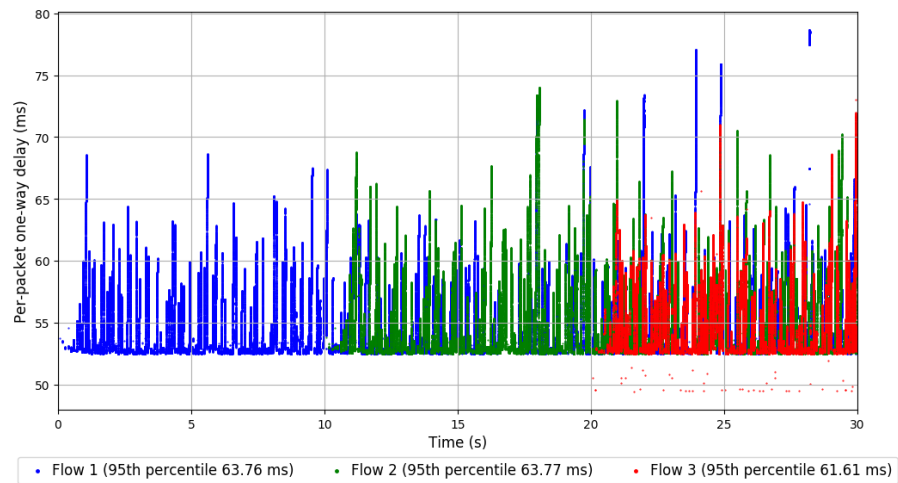
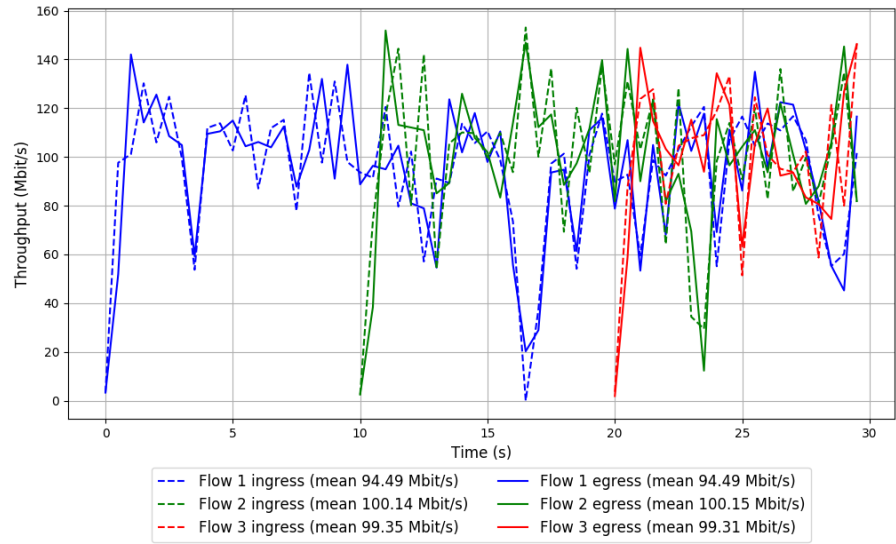
-- Flow 3:

Average throughput: 99.31 Mbit/s

95th percentile per-packet one-way delay: 61.607 ms

Loss rate: 0.00%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-10-12 14:19:08

End at: 2017-10-12 14:19:38

Below is generated by plot.py at 2017-10-12 15:58:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 212.31 Mbit/s

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

Loss rate: 0.02%

-- Flow 1:

Average throughput: 109.83 Mbit/s

95th percentile per-packet one-way delay: 61.497 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 106.76 Mbit/s

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

Loss rate: 0.00%

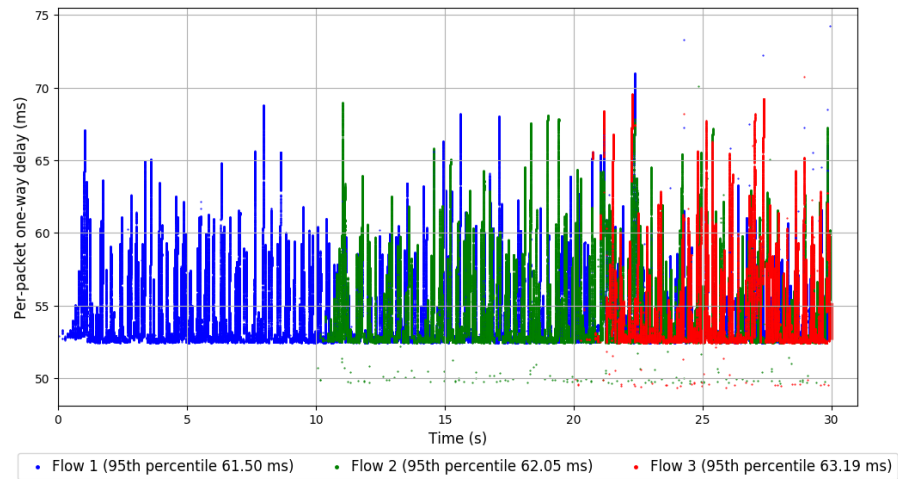
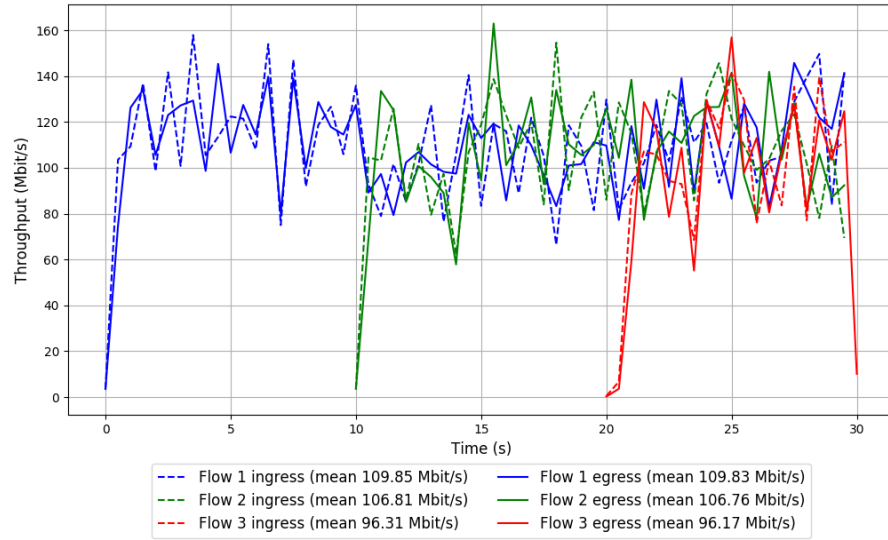
-- Flow 3:

Average throughput: 96.17 Mbit/s

95th percentile per-packet one-way delay: 63.187 ms

Loss rate: 0.13%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-10-12 12:31:57

End at: 2017-10-12 12:32:27

Below is generated by plot.py at 2017-10-12 15:59:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 263.14 Mbit/s

95th percentile per-packet one-way delay: 59.245 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 135.70 Mbit/s

95th percentile per-packet one-way delay: 57.353 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 127.51 Mbit/s

95th percentile per-packet one-way delay: 58.188 ms

Loss rate: 0.00%

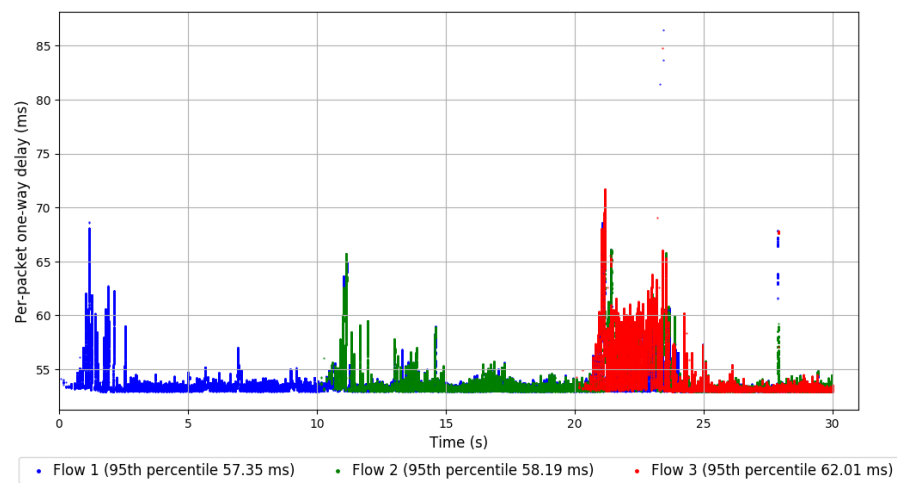
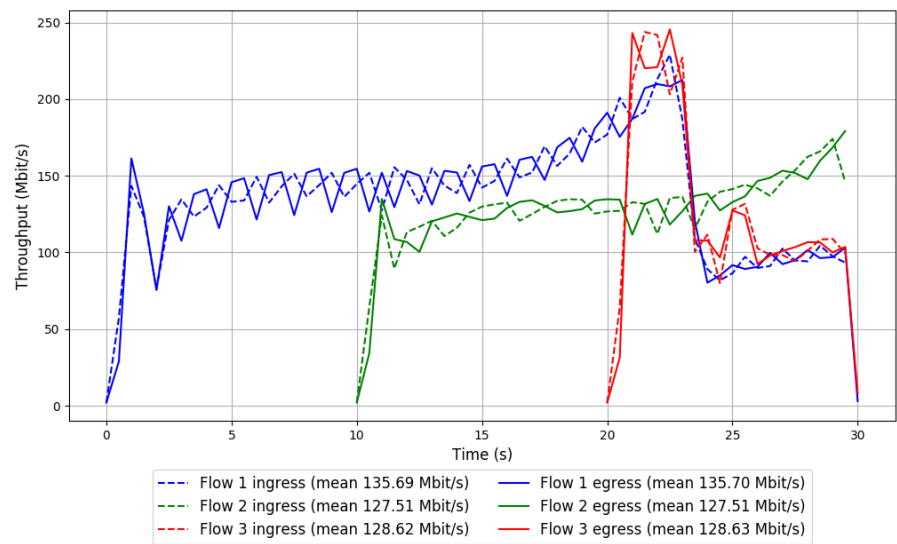
-- Flow 3:

Average throughput: 128.63 Mbit/s

95th percentile per-packet one-way delay: 62.006 ms

Loss rate: 0.00%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-10-12 12:44:39

End at: 2017-10-12 12:45:09

Below is generated by plot.py at 2017-10-12 15:59:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 264.10 Mbit/s

95th percentile per-packet one-way delay: 59.621 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 128.81 Mbit/s

95th percentile per-packet one-way delay: 58.771 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 124.28 Mbit/s

95th percentile per-packet one-way delay: 60.193 ms

Loss rate: 0.00%

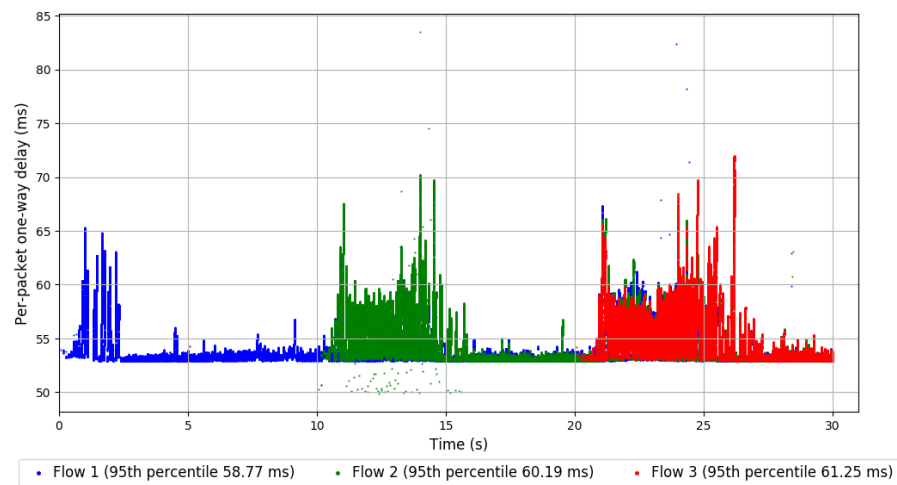
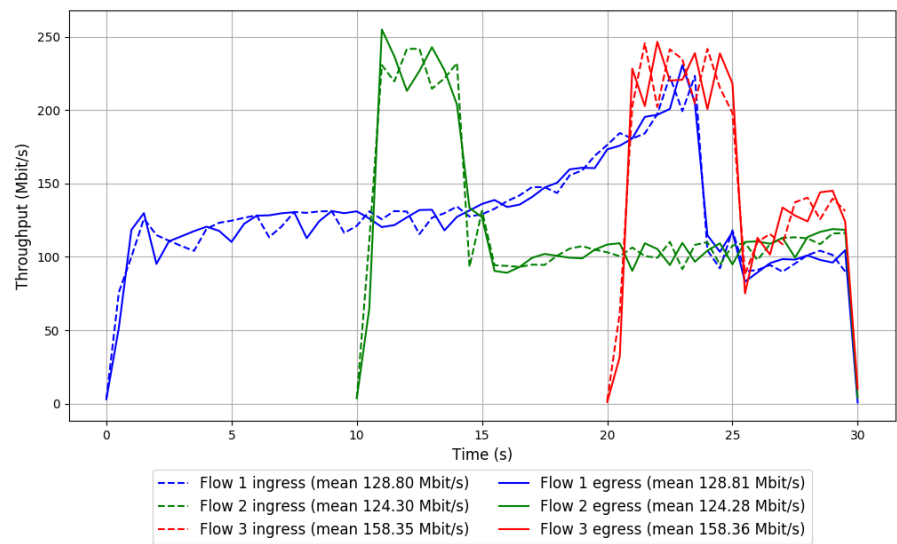
-- Flow 3:

Average throughput: 158.36 Mbit/s

95th percentile per-packet one-way delay: 61.249 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-10-12 12:57:11

End at: 2017-10-12 12:57:41

Below is generated by plot.py at 2017-10-12 15:59:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 270.53 Mbit/s

95th percentile per-packet one-way delay: 60.180 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 114.90 Mbit/s

95th percentile per-packet one-way delay: 57.804 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 129.06 Mbit/s

95th percentile per-packet one-way delay: 58.229 ms

Loss rate: 0.01%

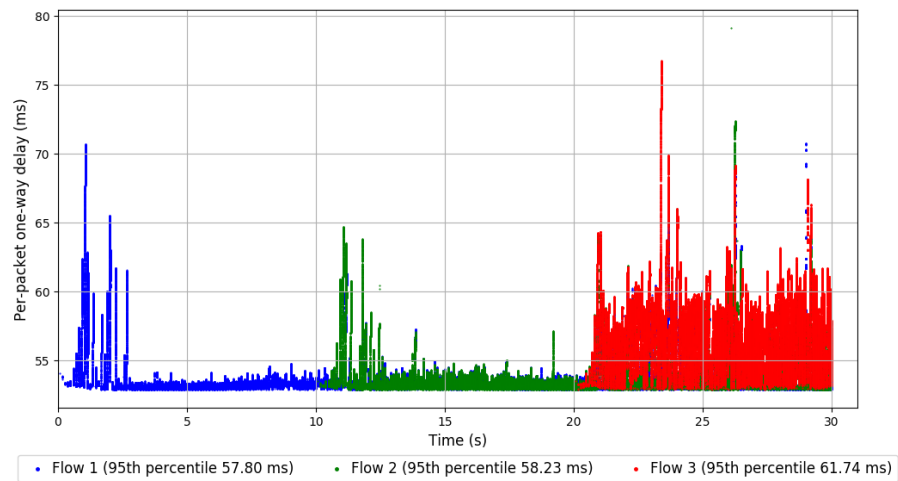
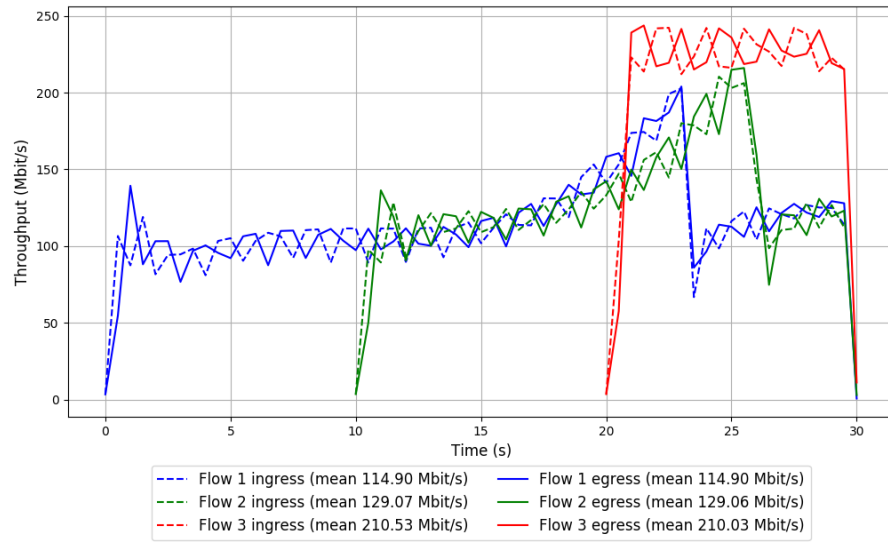
-- Flow 3:

Average throughput: 210.03 Mbit/s

95th percentile per-packet one-way delay: 61.737 ms

Loss rate: 0.26%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-10-12 13:09:42

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

Below is generated by plot.py at 2017-10-12 15:59:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 274.42 Mbit/s

95th percentile per-packet one-way delay: 60.962 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 143.58 Mbit/s

95th percentile per-packet one-way delay: 61.566 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 124.96 Mbit/s

95th percentile per-packet one-way delay: 59.954 ms

Loss rate: 0.02%

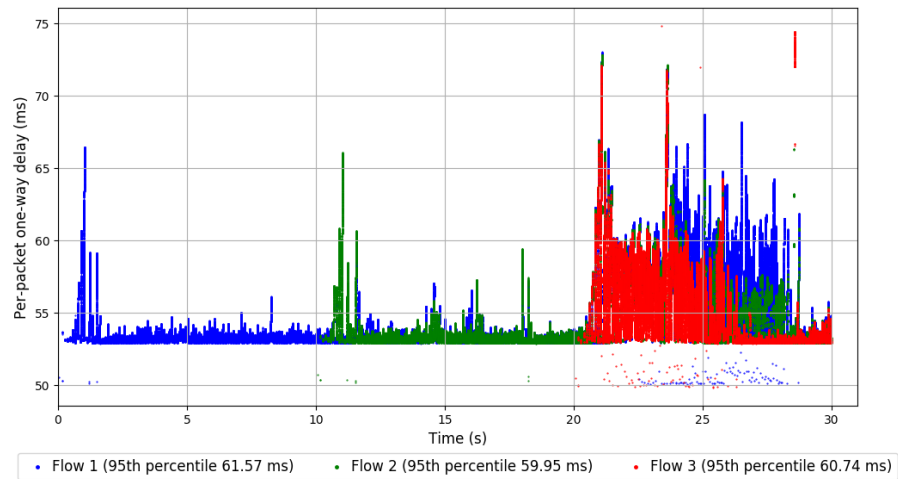
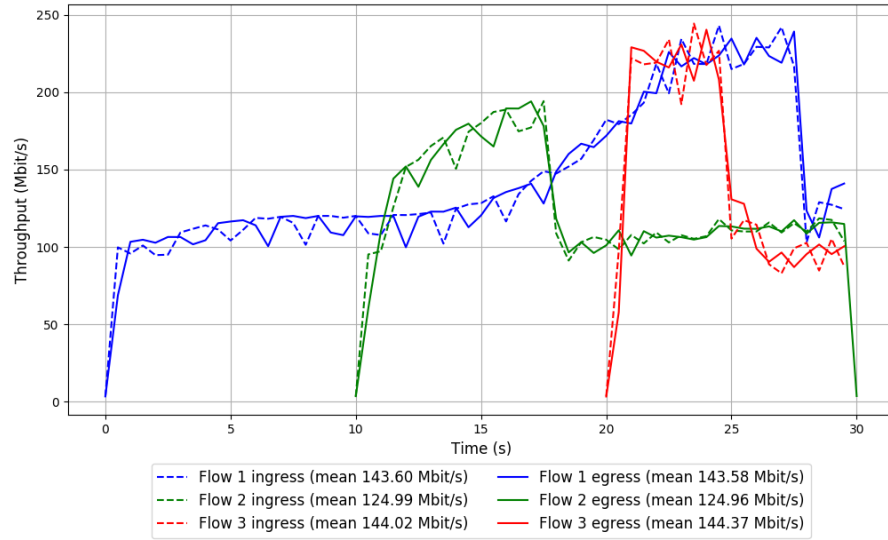
-- Flow 3:

Average throughput: 144.37 Mbit/s

95th percentile per-packet one-way delay: 60.744 ms

Loss rate: 0.00%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-10-12 13:21:56

End at: 2017-10-12 13:22:26

Below is generated by plot.py at 2017-10-12 15:59:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 264.87 Mbit/s

95th percentile per-packet one-way delay: 58.358 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 155.97 Mbit/s

95th percentile per-packet one-way delay: 58.893 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 110.25 Mbit/s

95th percentile per-packet one-way delay: 57.812 ms

Loss rate: 0.00%

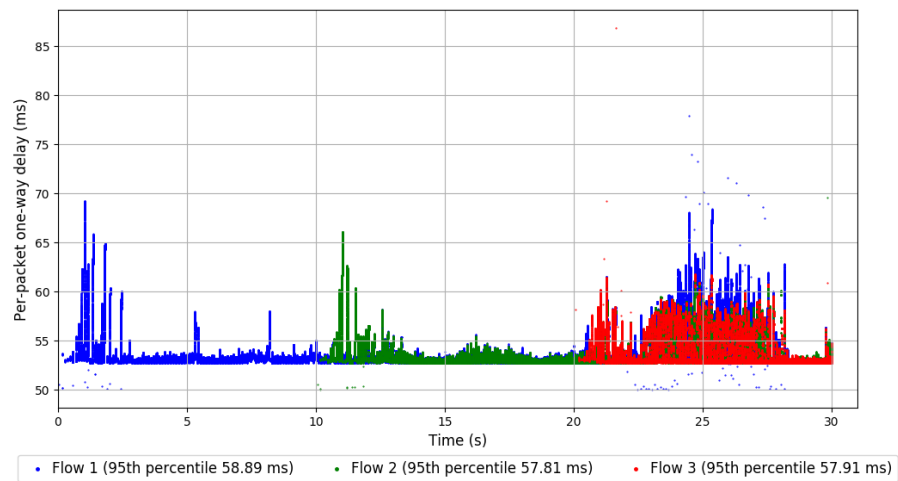
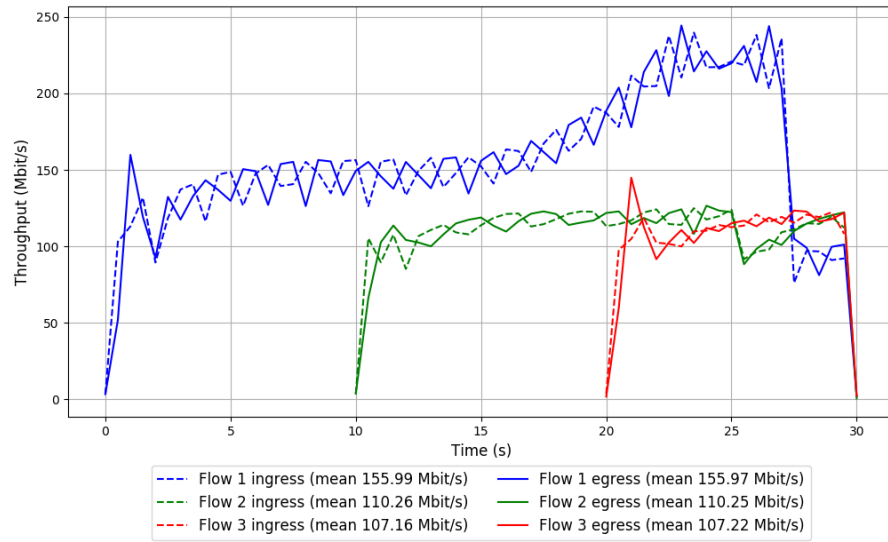
-- Flow 3:

Average throughput: 107.22 Mbit/s

95th percentile per-packet one-way delay: 57.910 ms

Loss rate: 0.00%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-10-12 13:34:26

End at: 2017-10-12 13:34:56

Below is generated by plot.py at 2017-10-12 15:59:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 230.62 Mbit/s

95th percentile per-packet one-way delay: 57.474 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 123.79 Mbit/s

95th percentile per-packet one-way delay: 57.626 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 105.19 Mbit/s

95th percentile per-packet one-way delay: 55.979 ms

Loss rate: 0.00%

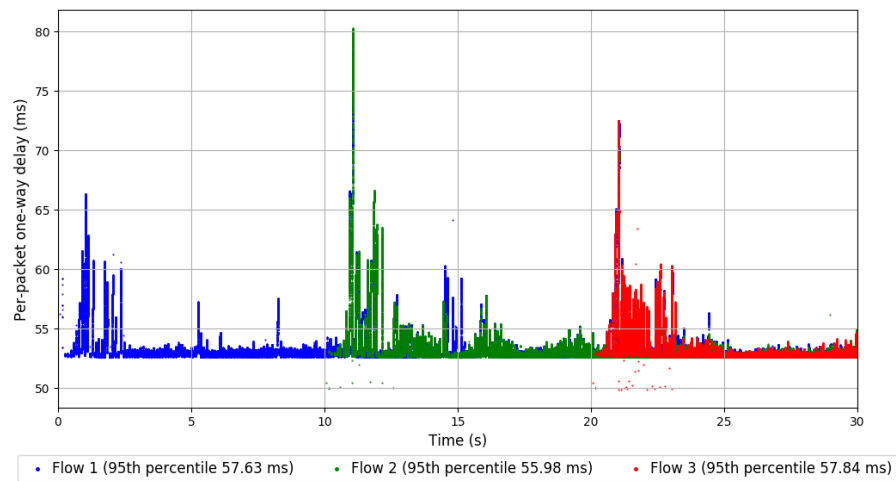
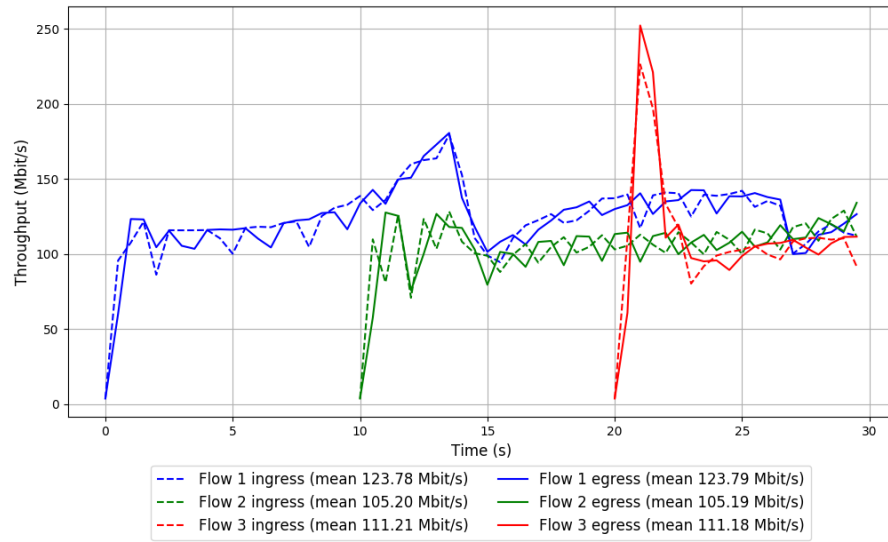
-- Flow 3:

Average throughput: 111.18 Mbit/s

95th percentile per-packet one-way delay: 57.842 ms

Loss rate: 0.00%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-10-12 13:46:32

End at: 2017-10-12 13:47:02

Below is generated by plot.py at 2017-10-12 16:02:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 234.22 Mbit/s

95th percentile per-packet one-way delay: 58.835 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 120.14 Mbit/s

95th percentile per-packet one-way delay: 57.443 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 118.68 Mbit/s

95th percentile per-packet one-way delay: 60.978 ms

Loss rate: 0.04%

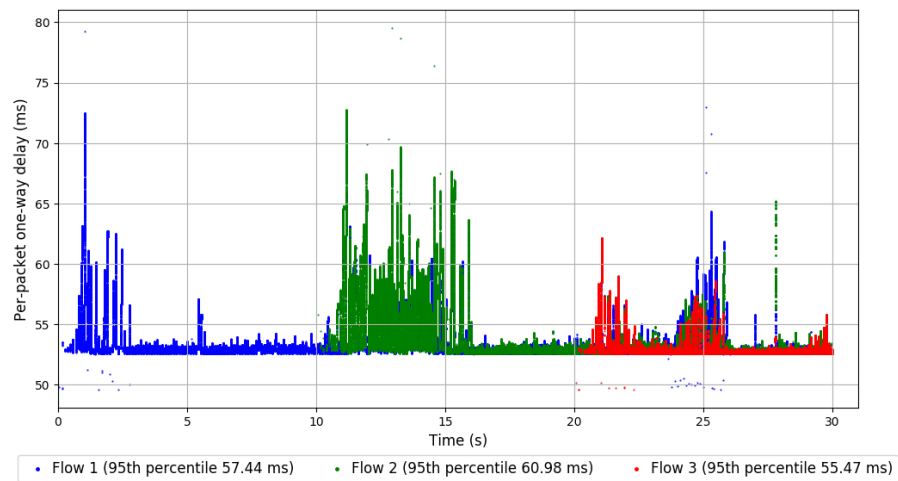
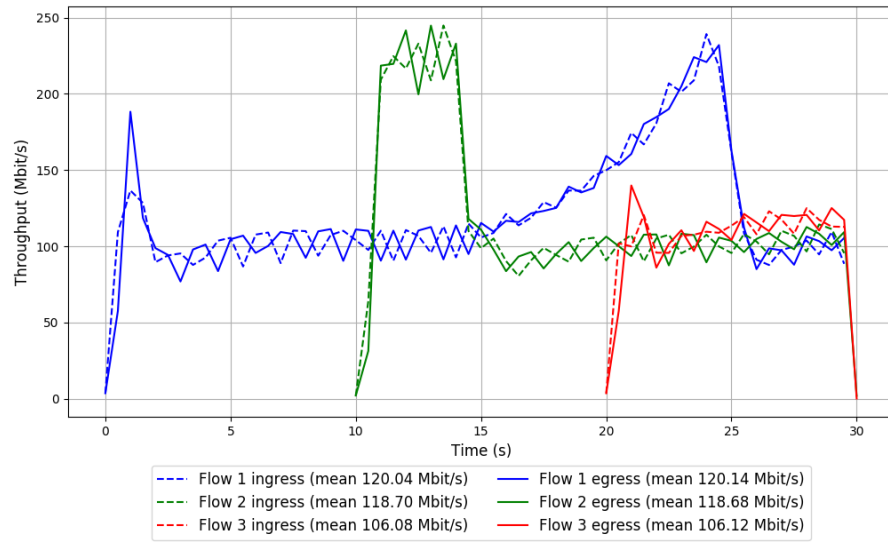
-- Flow 3:

Average throughput: 106.12 Mbit/s

95th percentile per-packet one-way delay: 55.471 ms

Loss rate: 0.00%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-10-12 13:59:11

End at: 2017-10-12 13:59:41

Below is generated by plot.py at 2017-10-12 16:02:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 274.02 Mbit/s

95th percentile per-packet one-way delay: 58.773 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 165.47 Mbit/s

95th percentile per-packet one-way delay: 59.010 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 109.59 Mbit/s

95th percentile per-packet one-way delay: 58.113 ms

Loss rate: 0.04%

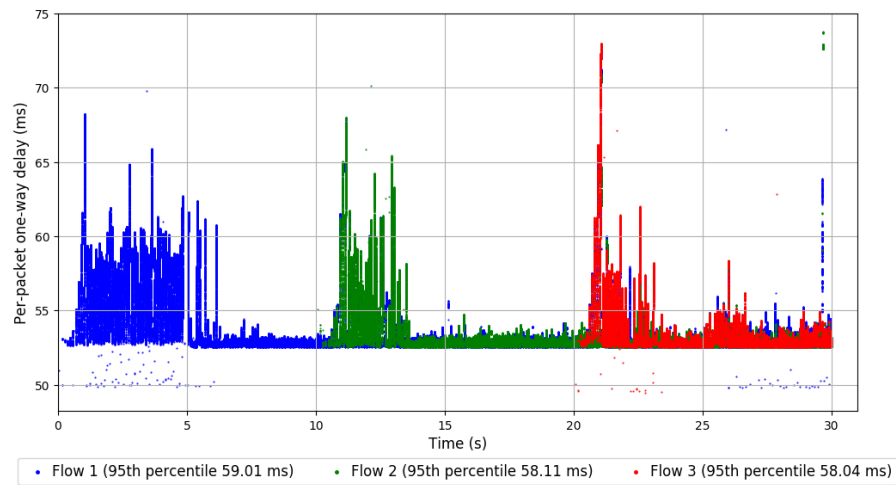
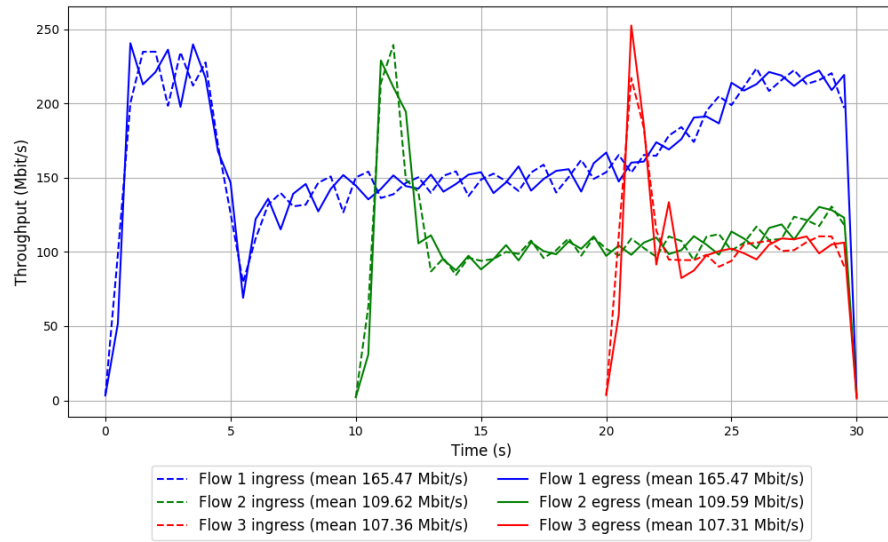
-- Flow 3:

Average throughput: 107.31 Mbit/s

95th percentile per-packet one-way delay: 58.036 ms

Loss rate: 0.03%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-10-12 14:11:25

End at: 2017-10-12 14:11:55

Below is generated by plot.py at 2017-10-12 16:03:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 268.45 Mbit/s

95th percentile per-packet one-way delay: 57.780 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 152.49 Mbit/s

95th percentile per-packet one-way delay: 57.498 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 120.81 Mbit/s

95th percentile per-packet one-way delay: 58.218 ms

Loss rate: 0.01%

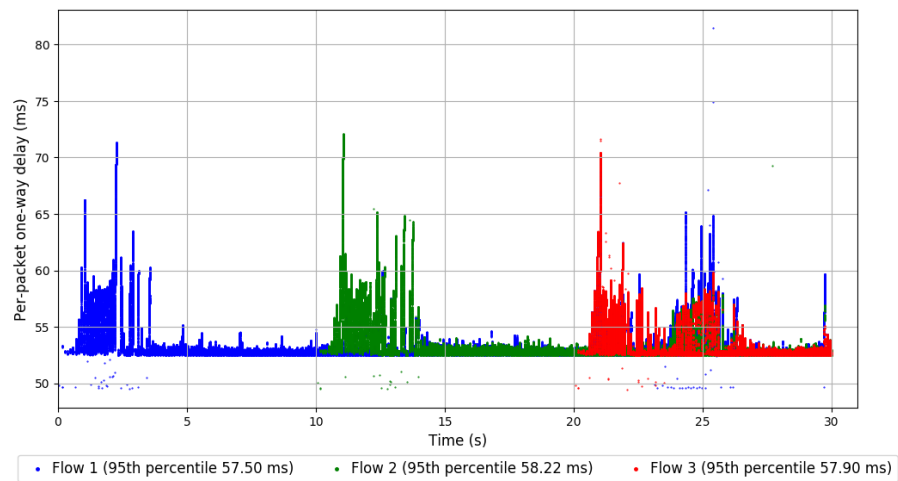
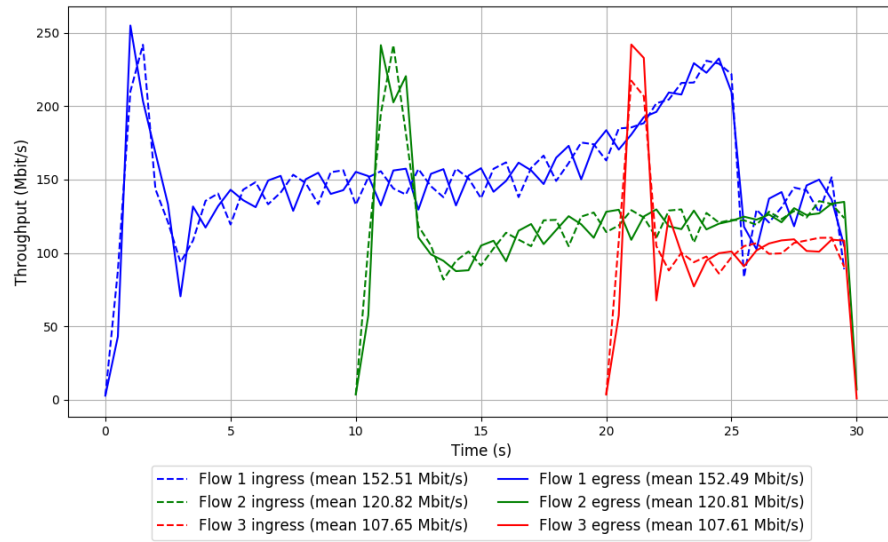
-- Flow 3:

Average throughput: 107.61 Mbit/s

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

Loss rate: 0.05%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-10-12 14:23:31

End at: 2017-10-12 14:24:01

Below is generated by plot.py at 2017-10-12 16:03:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 241.22 Mbit/s

95th percentile per-packet one-way delay: 54.936 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 135.13 Mbit/s

95th percentile per-packet one-way delay: 54.433 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 105.37 Mbit/s

95th percentile per-packet one-way delay: 55.402 ms

Loss rate: 0.01%

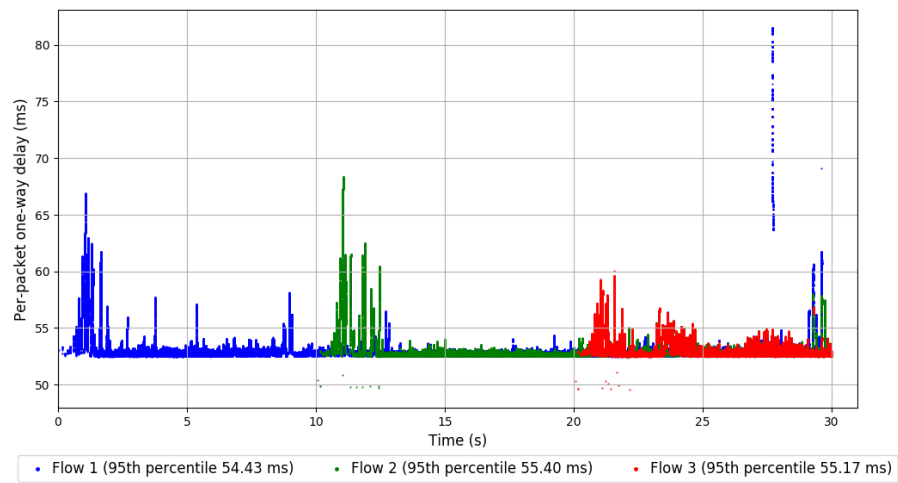
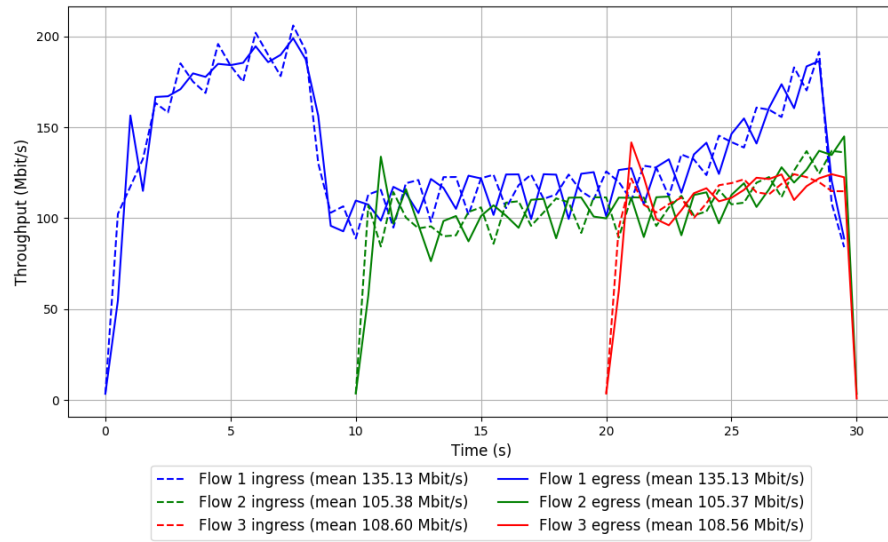
-- Flow 3:

Average throughput: 108.56 Mbit/s

95th percentile per-packet one-way delay: 55.168 ms

Loss rate: 0.04%

Run 10: Report of TCP Cubic — Data Link

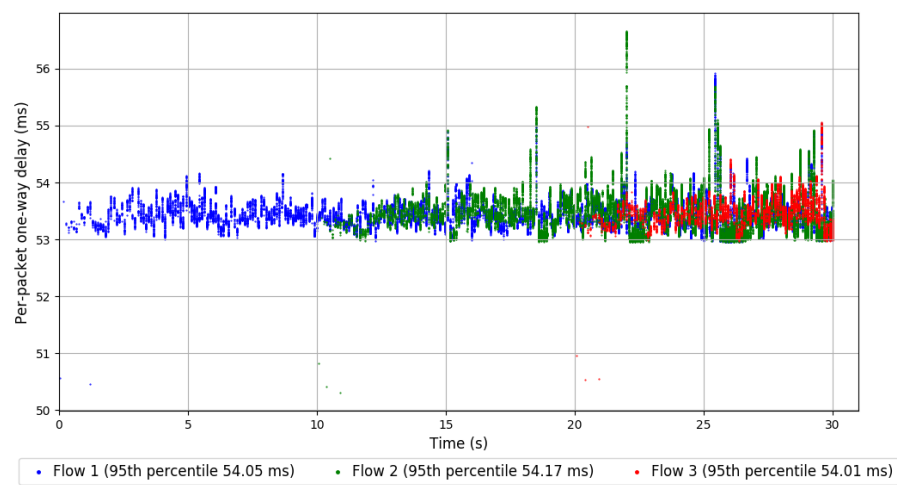
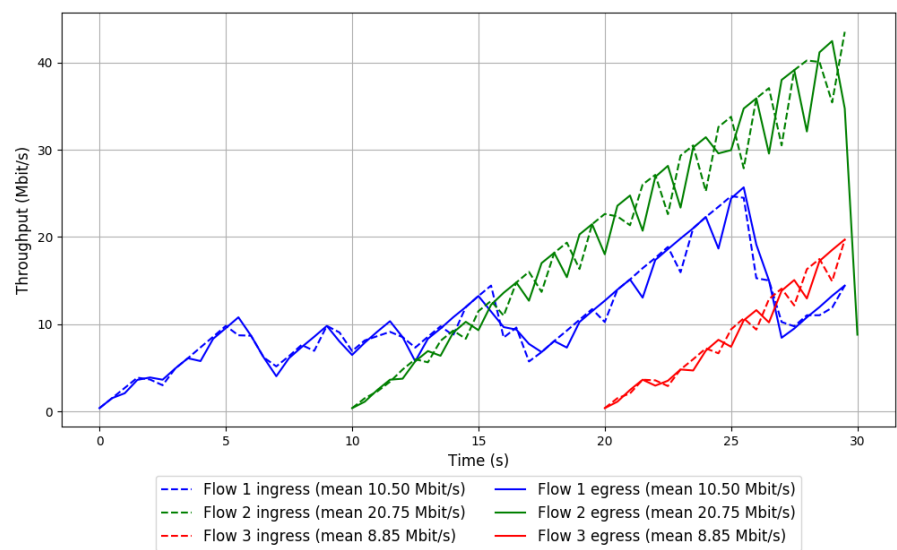


```
Run 1: Statistics of LEDBAT

Start at: 2017-10-12 12:29:20
End at: 2017-10-12 12:29:50

# Below is generated by plot.py at 2017-10-12 16:03:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.24 Mbit/s
95th percentile per-packet one-way delay: 54.090 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.50 Mbit/s
95th percentile per-packet one-way delay: 54.048 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.75 Mbit/s
95th percentile per-packet one-way delay: 54.169 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.85 Mbit/s
95th percentile per-packet one-way delay: 54.011 ms
Loss rate: 0.00%
```


Run 1: Report of LEDBAT — Data Link

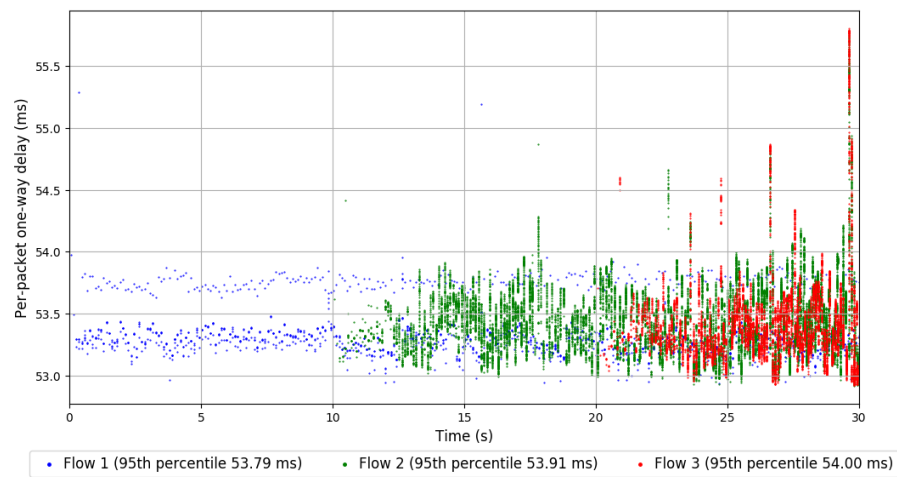
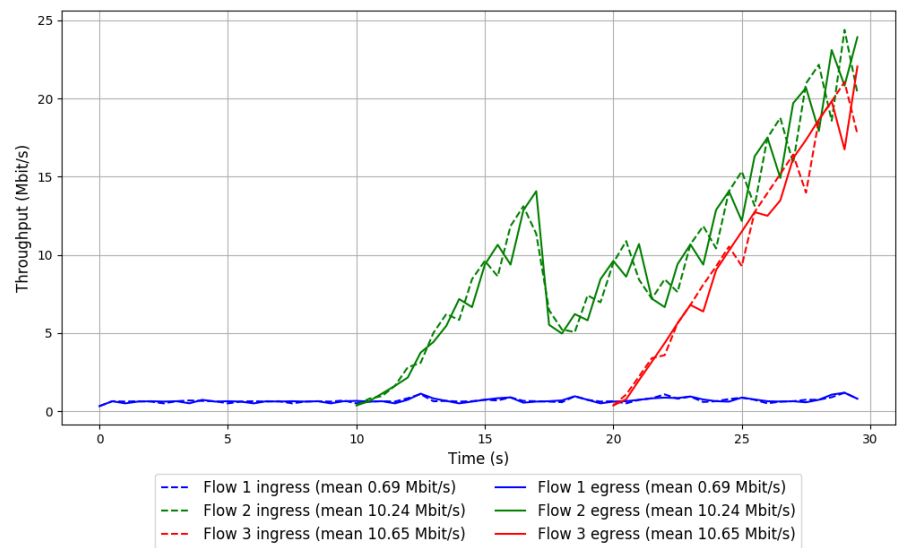


```
Run 2: Statistics of LEDBAT

Start at: 2017-10-12 12:42:01
End at: 2017-10-12 12:42:31

# Below is generated by plot.py at 2017-10-12 16:03:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 53.907 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 53.789 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.24 Mbit/s
95th percentile per-packet one-way delay: 53.907 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 10.65 Mbit/s
95th percentile per-packet one-way delay: 54.002 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-10-12 12:54:45

End at: 2017-10-12 12:55:15

Below is generated by plot.py at 2017-10-12 16:03:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.61 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 8.42 Mbit/s

95th percentile per-packet one-way delay: 54.024 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.42 Mbit/s

95th percentile per-packet one-way delay: 53.994 ms

Loss rate: 0.00%

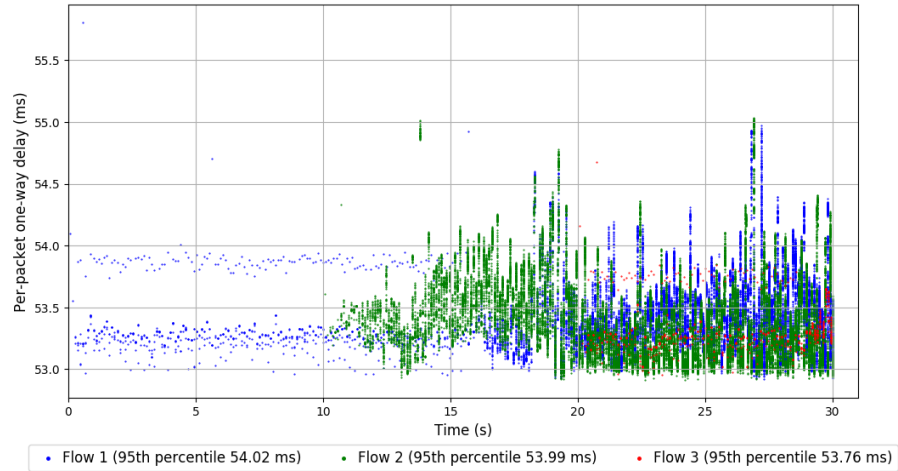
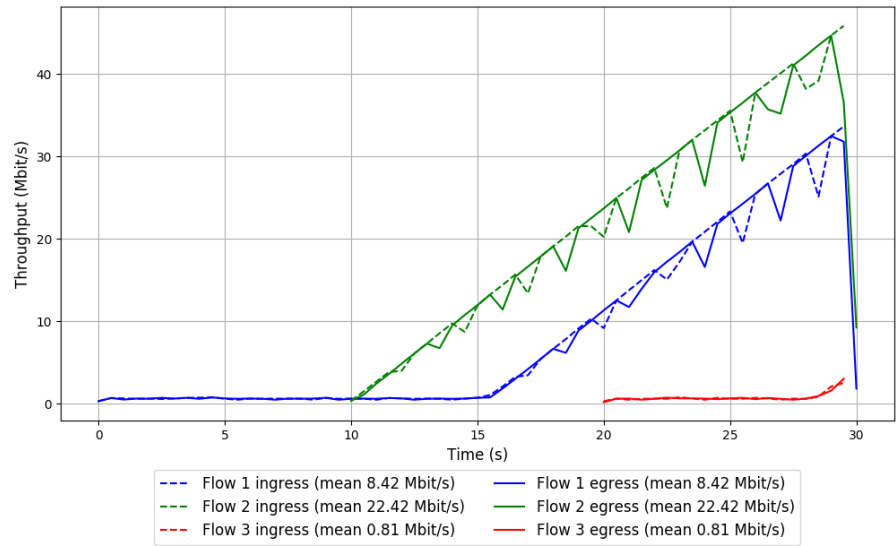
-- Flow 3:

Average throughput: 0.81 Mbit/s

95th percentile per-packet one-way delay: 53.756 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-10-12 13:07:19

End at: 2017-10-12 13:07:49

Below is generated by plot.py at 2017-10-12 16:03:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.14 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 5.72 Mbit/s

95th percentile per-packet one-way delay: 54.133 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.17 Mbit/s

95th percentile per-packet one-way delay: 53.872 ms

Loss rate: 0.00%

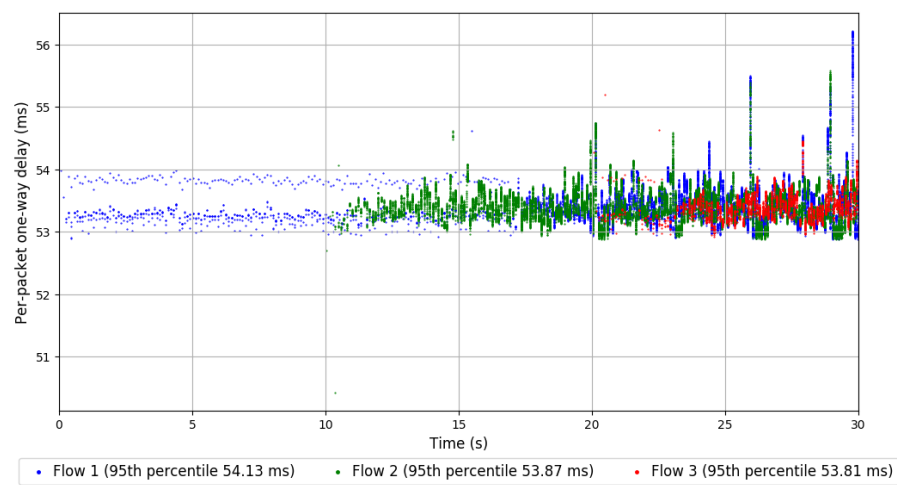
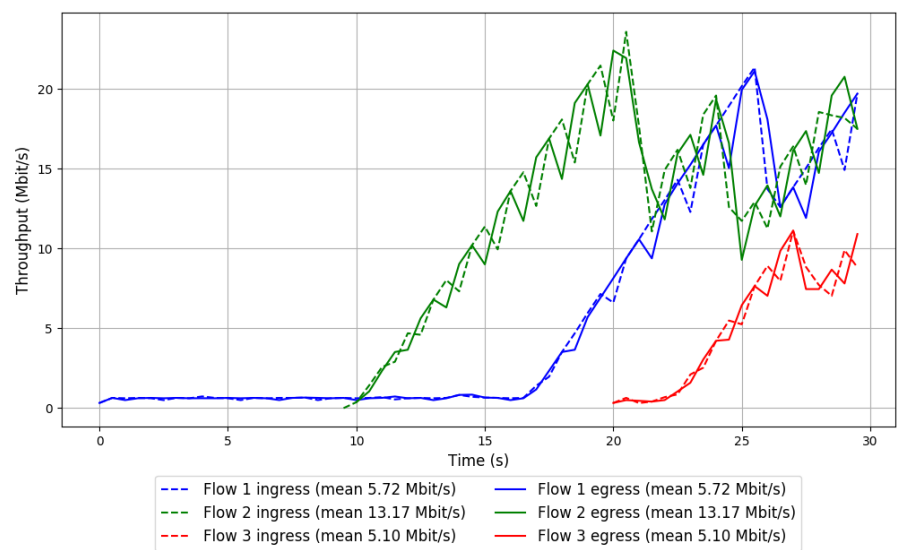
-- Flow 3:

Average throughput: 5.10 Mbit/s

95th percentile per-packet one-way delay: 53.809 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-10-12 13:19:51

End at: 2017-10-12 13:20:21

Below is generated by plot.py at 2017-10-12 16:03:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.43 Mbit/s

95th percentile per-packet one-way delay: 54.234 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.78 Mbit/s

95th percentile per-packet one-way delay: 54.306 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 14.28 Mbit/s

95th percentile per-packet one-way delay: 54.139 ms

Loss rate: 0.00%

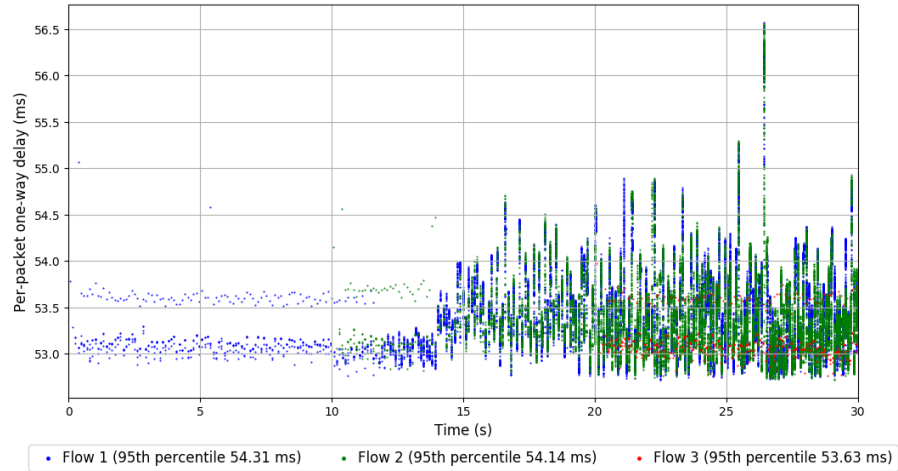
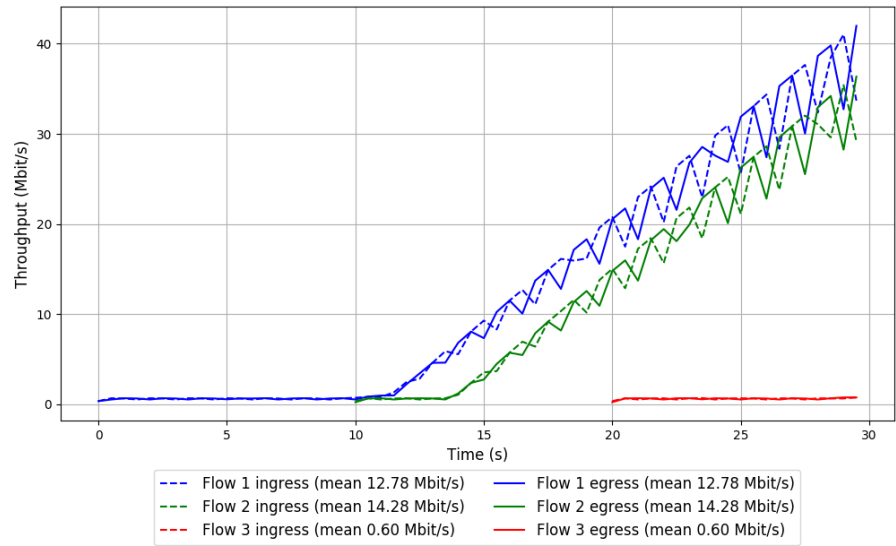
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 53.627 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-10-12 13:31:59

End at: 2017-10-12 13:32:29

Below is generated by plot.py at 2017-10-12 16:03:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.60 Mbit/s

95th percentile per-packet one-way delay: 53.946 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 15.50 Mbit/s

95th percentile per-packet one-way delay: 53.773 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 16.20 Mbit/s

95th percentile per-packet one-way delay: 54.223 ms

Loss rate: 0.00%

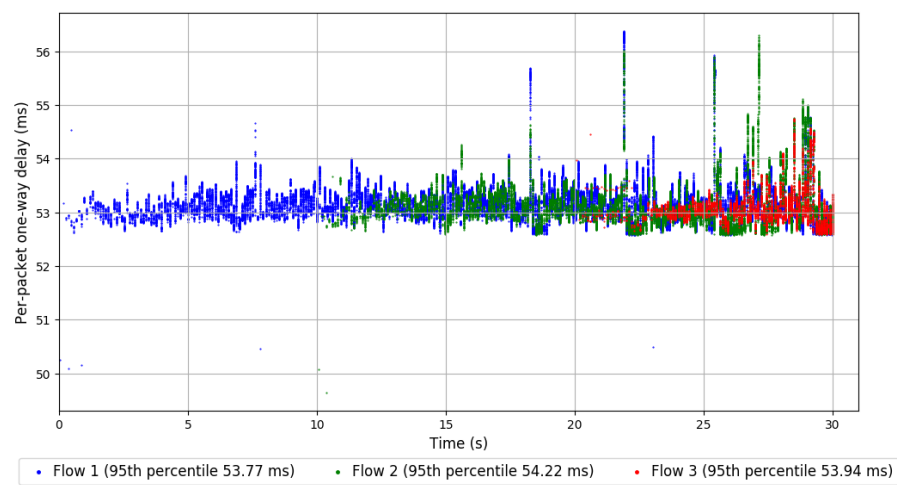
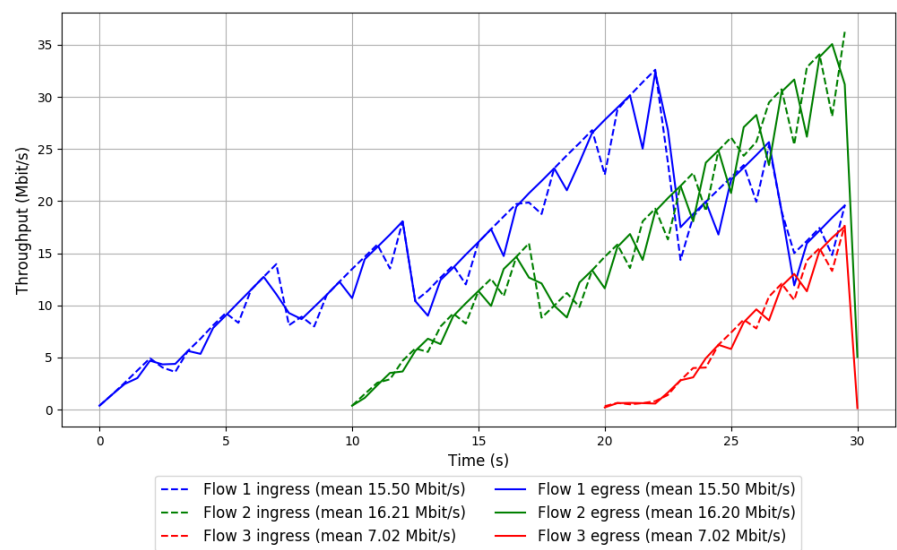
-- Flow 3:

Average throughput: 7.02 Mbit/s

95th percentile per-packet one-way delay: 53.942 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-10-12 13:44:29

End at: 2017-10-12 13:44:59

Below is generated by plot.py at 2017-10-12 16:03:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 27.79 Mbit/s

95th percentile per-packet one-way delay: 53.726 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 16.48 Mbit/s

95th percentile per-packet one-way delay: 53.529 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 16.67 Mbit/s

95th percentile per-packet one-way delay: 54.080 ms

Loss rate: 0.00%

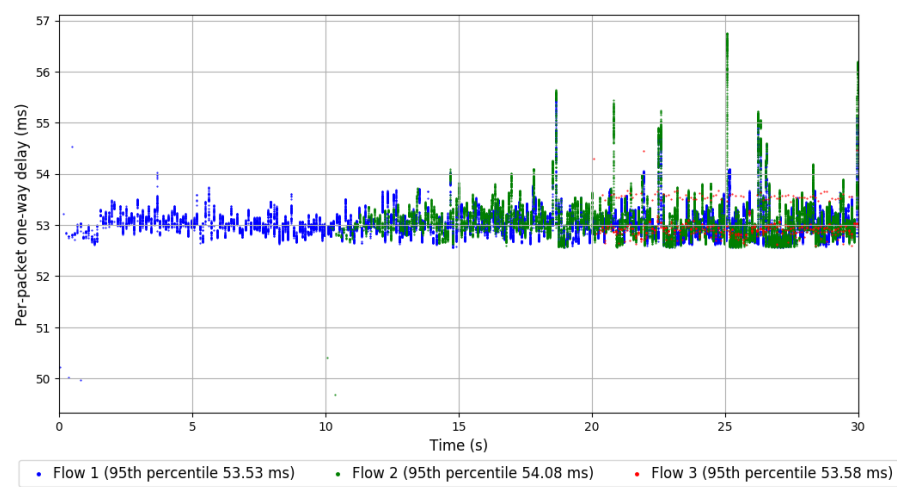
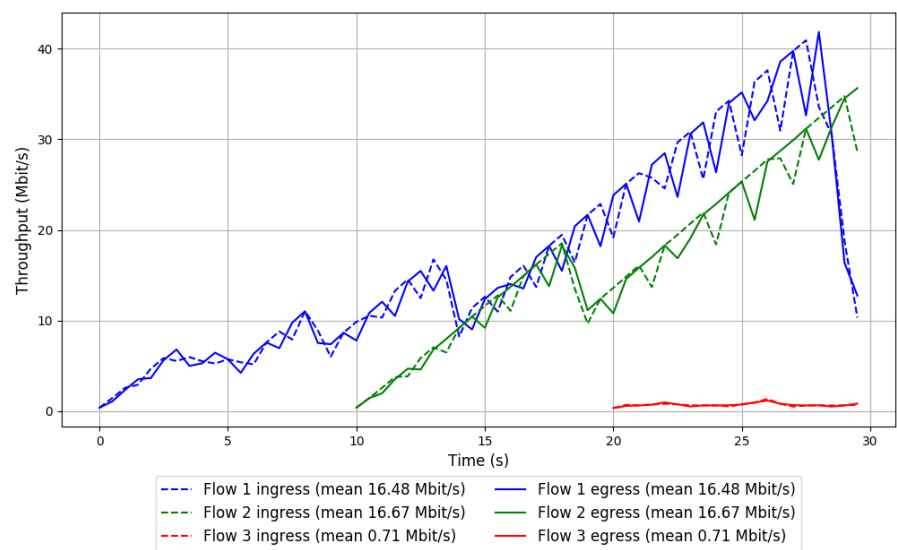
-- Flow 3:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 53.577 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-10-12 13:56:39

End at: 2017-10-12 13:57:09

Below is generated by plot.py at 2017-10-12 16:03:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 25.29 Mbit/s

95th percentile per-packet one-way delay: 54.037 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 14.75 Mbit/s

95th percentile per-packet one-way delay: 54.275 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.59 Mbit/s

95th percentile per-packet one-way delay: 53.939 ms

Loss rate: 0.00%

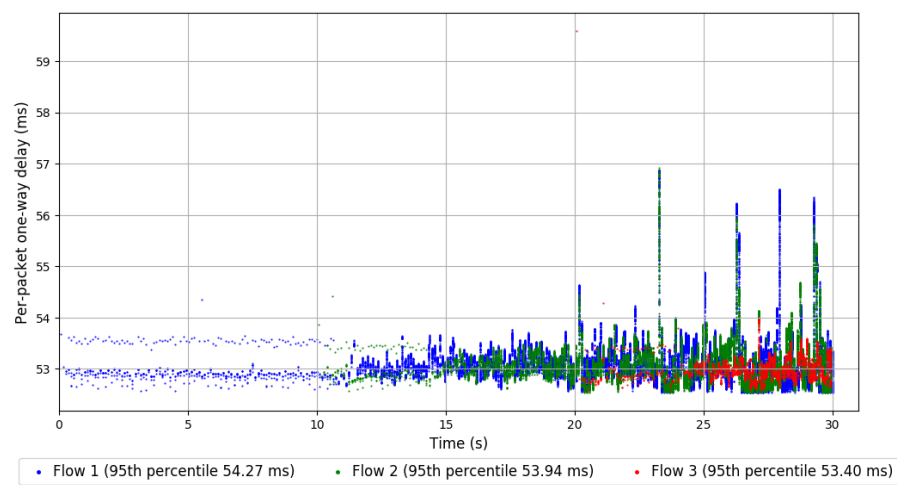
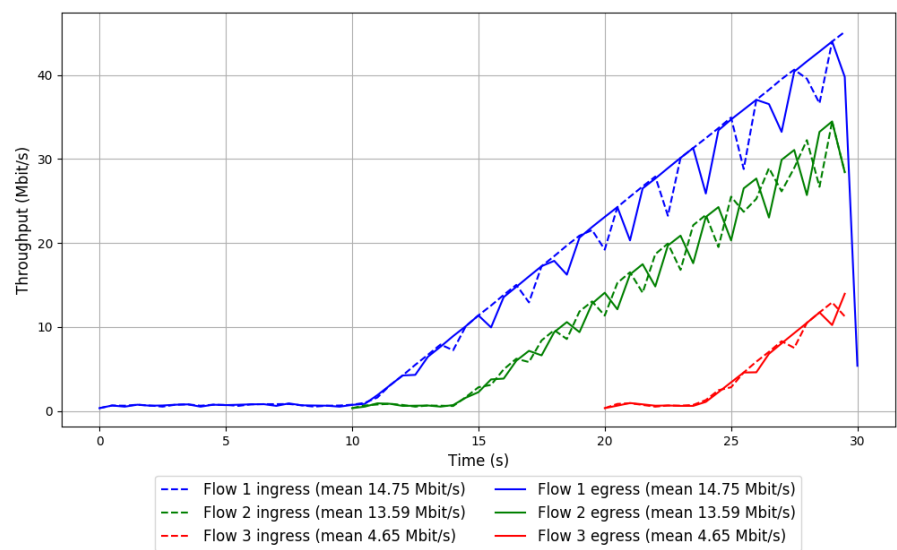
-- Flow 3:

Average throughput: 4.65 Mbit/s

95th percentile per-packet one-way delay: 53.396 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-10-12 14:09:14

End at: 2017-10-12 14:09:44

Below is generated by plot.py at 2017-10-12 16:03:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.84 Mbit/s

95th percentile per-packet one-way delay: 53.479 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.68 Mbit/s

95th percentile per-packet one-way delay: 53.444 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.18 Mbit/s

95th percentile per-packet one-way delay: 53.476 ms

Loss rate: 0.00%

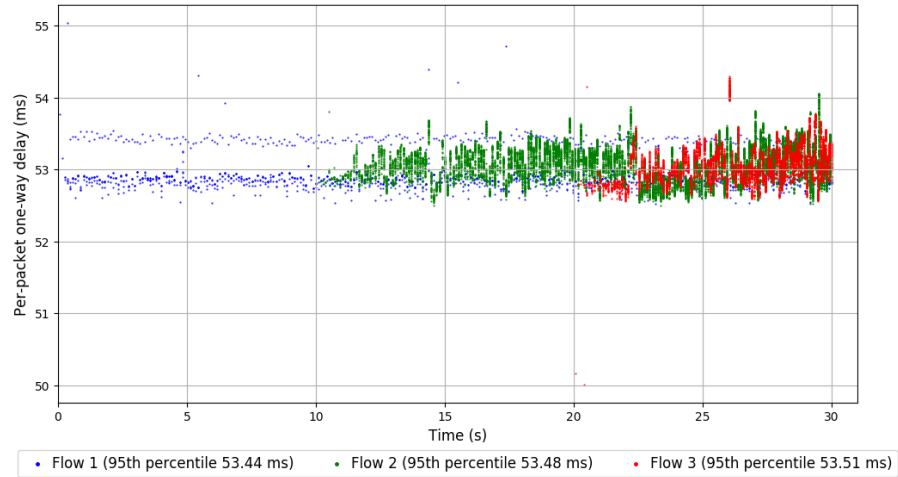
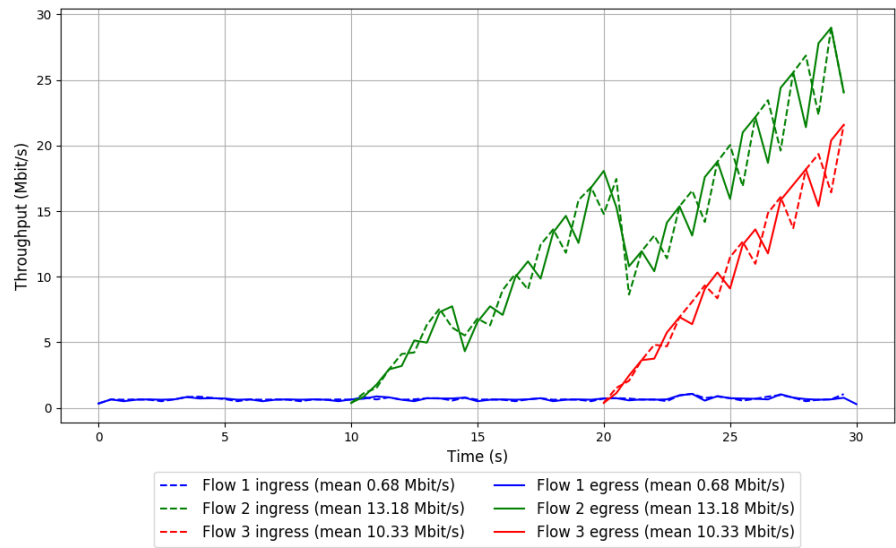
-- Flow 3:

Average throughput: 10.33 Mbit/s

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

Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-10-12 14:21:22

End at: 2017-10-12 14:21:52

Below is generated by plot.py at 2017-10-12 16:03:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.26 Mbit/s

95th percentile per-packet one-way delay: 53.759 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 12.56 Mbit/s

95th percentile per-packet one-way delay: 53.836 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 11.17 Mbit/s

95th percentile per-packet one-way delay: 53.569 ms

Loss rate: 0.02%

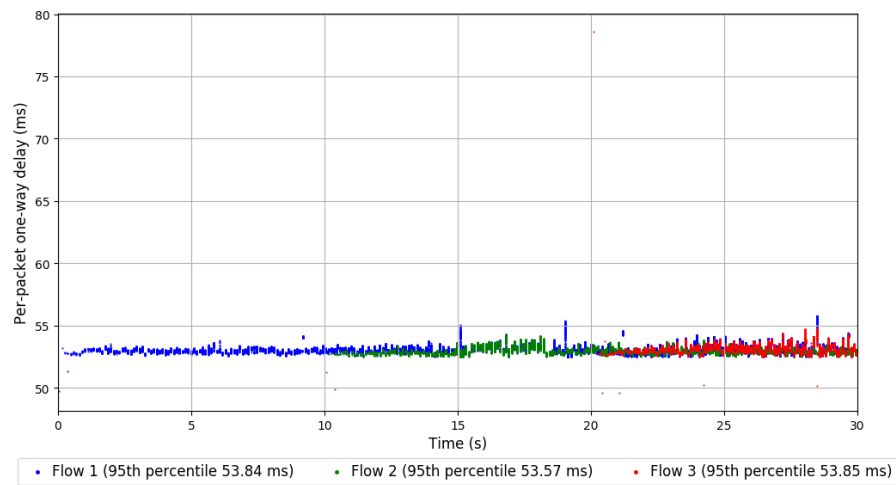
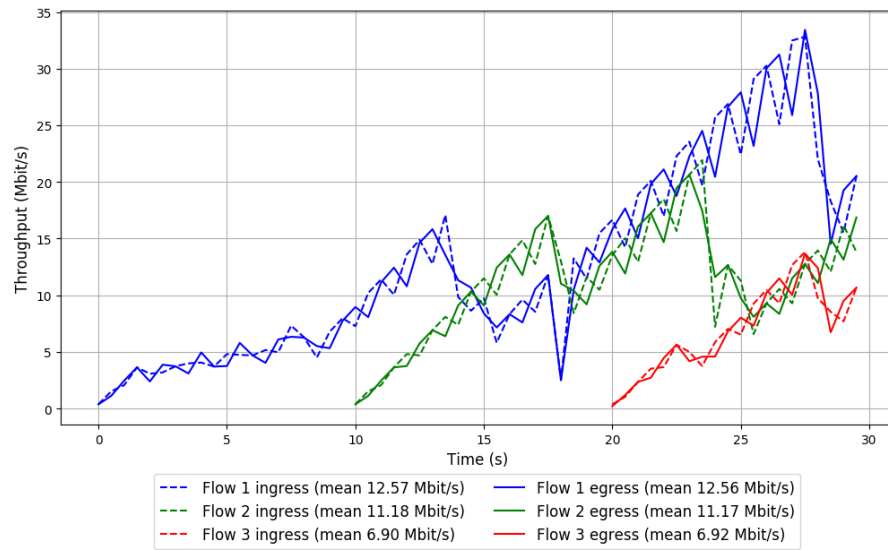
-- Flow 3:

Average throughput: 6.92 Mbit/s

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

Loss rate: 0.09%

Run 10: Report of LEDBAT — Data Link

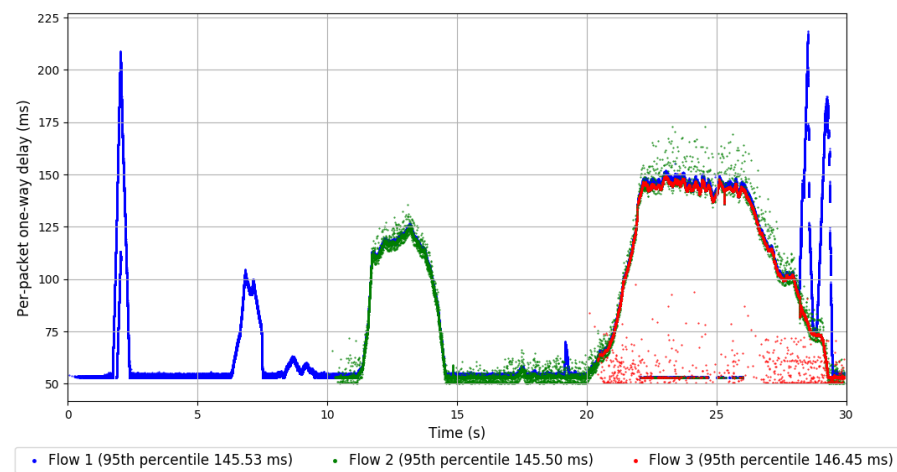
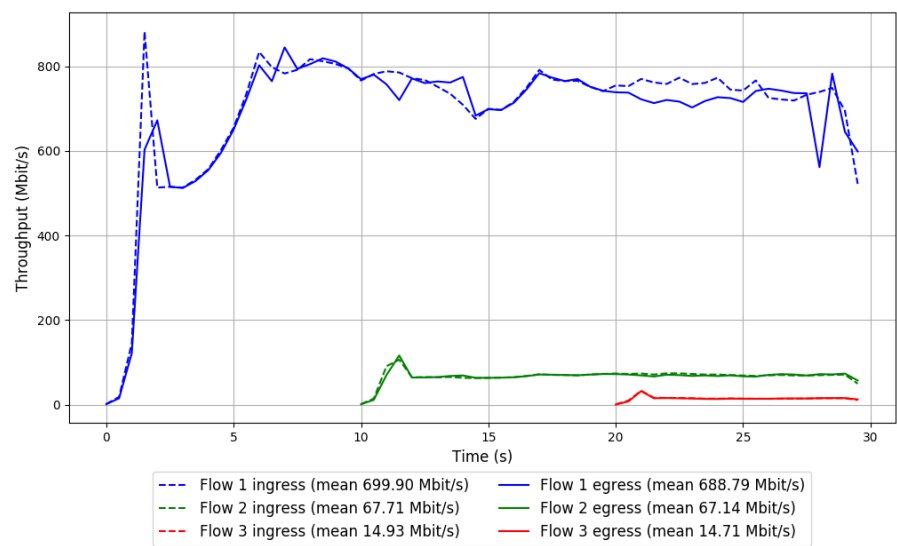


```
Run 1: Statistics of PCC

Start at: 2017-10-12 12:25:52
End at: 2017-10-12 12:26:22

# Below is generated by plot.py at 2017-10-12 16:12:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 738.26 Mbit/s
95th percentile per-packet one-way delay: 145.549 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 688.79 Mbit/s
95th percentile per-packet one-way delay: 145.530 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 67.14 Mbit/s
95th percentile per-packet one-way delay: 145.505 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 14.71 Mbit/s
95th percentile per-packet one-way delay: 146.452 ms
Loss rate: 1.76%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-10-12 12:38:32

End at: 2017-10-12 12:39:02

Below is generated by plot.py at 2017-10-12 16:12:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 699.55 Mbit/s

95th percentile per-packet one-way delay: 146.359 ms

Loss rate: 2.55%

-- Flow 1:

Average throughput: 536.88 Mbit/s

95th percentile per-packet one-way delay: 146.334 ms

Loss rate: 2.29%

-- Flow 2:

Average throughput: 236.26 Mbit/s

95th percentile per-packet one-way delay: 146.416 ms

Loss rate: 3.48%

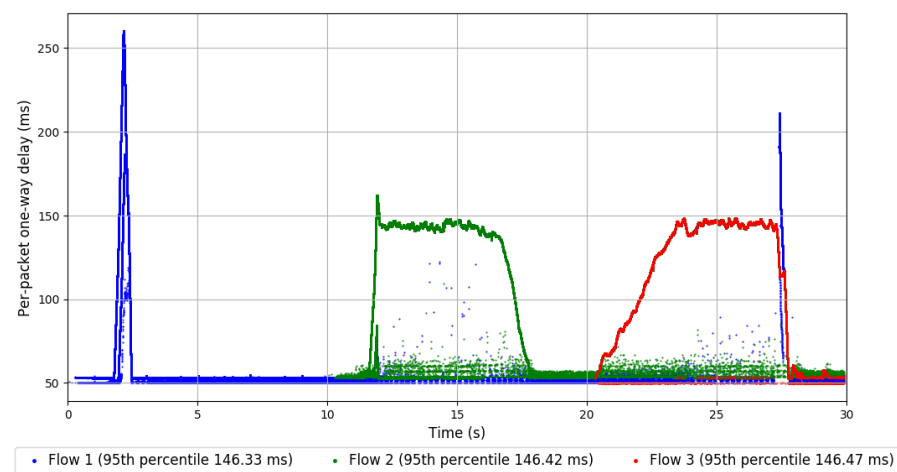
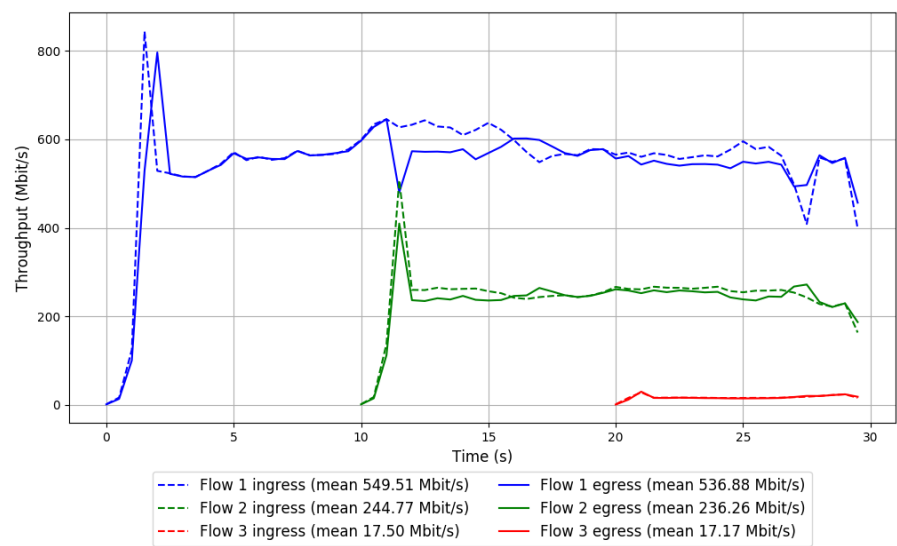
-- Flow 3:

Average throughput: 17.17 Mbit/s

95th percentile per-packet one-way delay: 146.474 ms

Loss rate: 1.85%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-10-12 12:51:20

End at: 2017-10-12 12:51:50

Below is generated by plot.py at 2017-10-12 16:12:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 662.03 Mbit/s

95th percentile per-packet one-way delay: 202.864 ms

Loss rate: 3.93%

-- Flow 1:

Average throughput: 448.90 Mbit/s

95th percentile per-packet one-way delay: 216.668 ms

Loss rate: 5.25%

-- Flow 2:

Average throughput: 318.63 Mbit/s

95th percentile per-packet one-way delay: 145.314 ms

Loss rate: 1.02%

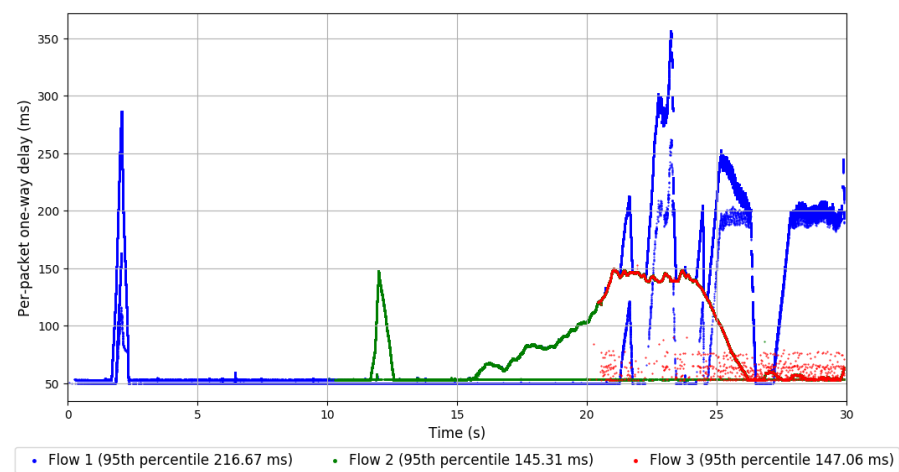
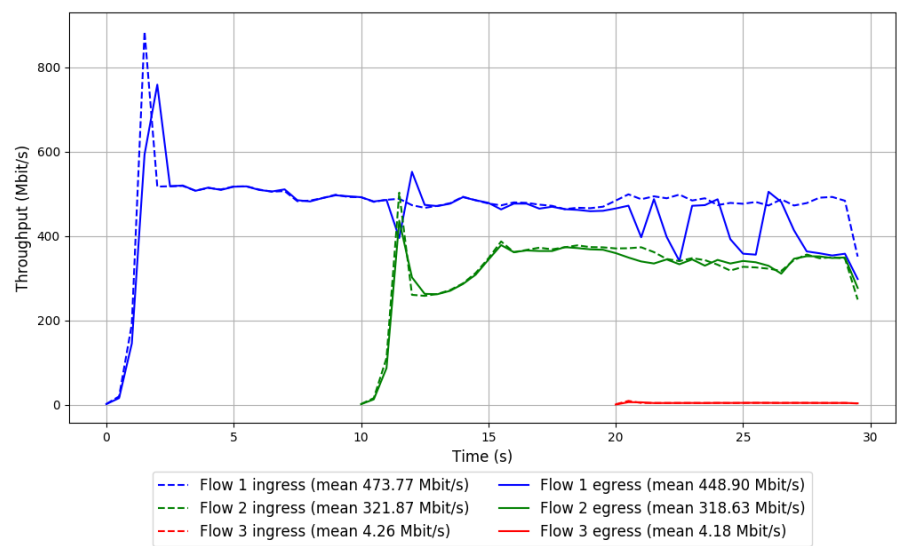
-- Flow 3:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 147.059 ms

Loss rate: 2.01%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-10-12 13:03:51

End at: 2017-10-12 13:04:21

Below is generated by plot.py at 2017-10-12 16:12:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 643.72 Mbit/s

95th percentile per-packet one-way delay: 205.604 ms

Loss rate: 7.38%

-- Flow 1:

Average throughput: 520.05 Mbit/s

95th percentile per-packet one-way delay: 222.180 ms

Loss rate: 8.90%

-- Flow 2:

Average throughput: 154.00 Mbit/s

95th percentile per-packet one-way delay: 142.587 ms

Loss rate: 0.39%

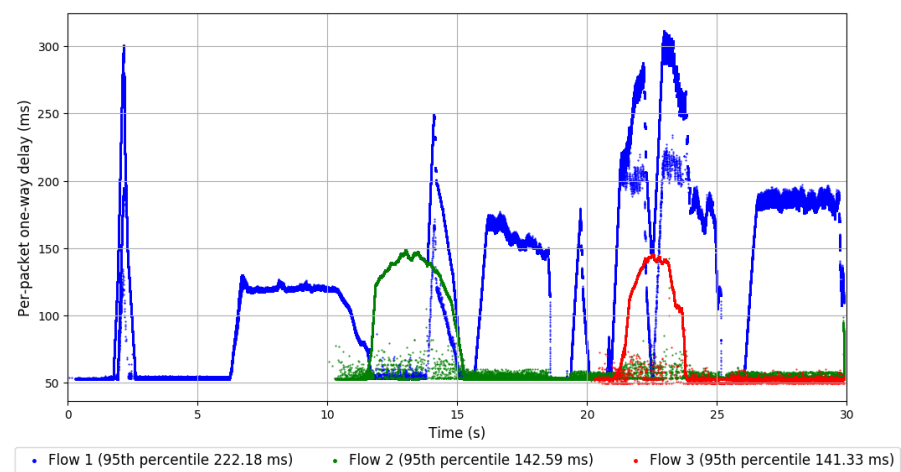
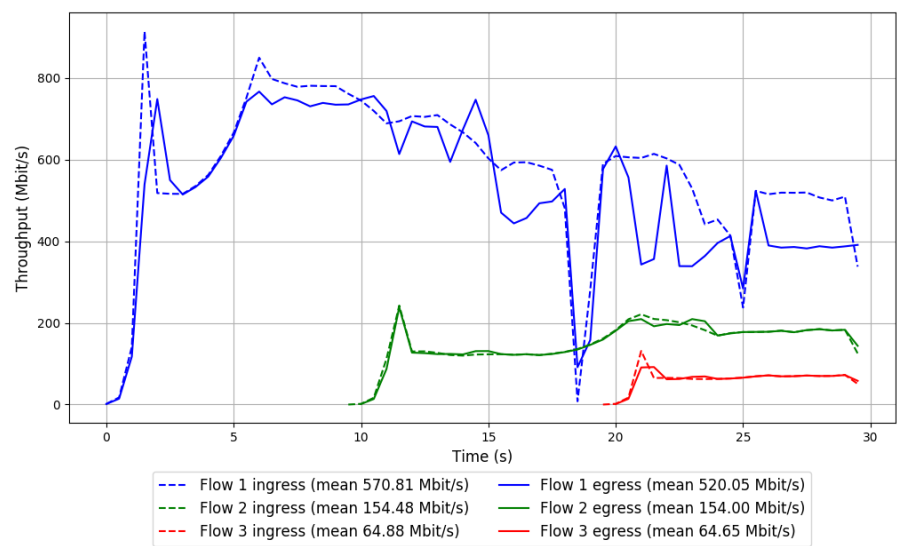
-- Flow 3:

Average throughput: 64.65 Mbit/s

95th percentile per-packet one-way delay: 141.329 ms

Loss rate: 0.38%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-10-12 13:16:24

End at: 2017-10-12 13:16:54

Below is generated by plot.py at 2017-10-12 16:14:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 698.74 Mbit/s

95th percentile per-packet one-way delay: 199.001 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 674.99 Mbit/s

95th percentile per-packet one-way delay: 199.292 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 18.81 Mbit/s

95th percentile per-packet one-way delay: 144.188 ms

Loss rate: 0.55%

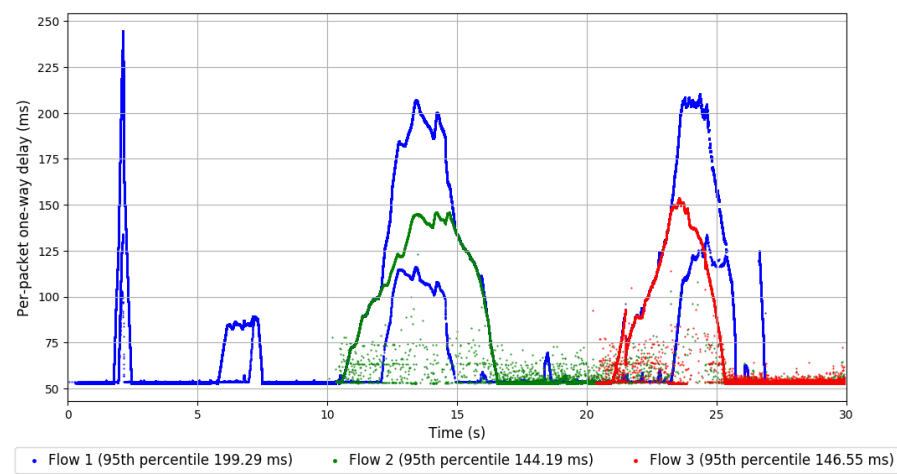
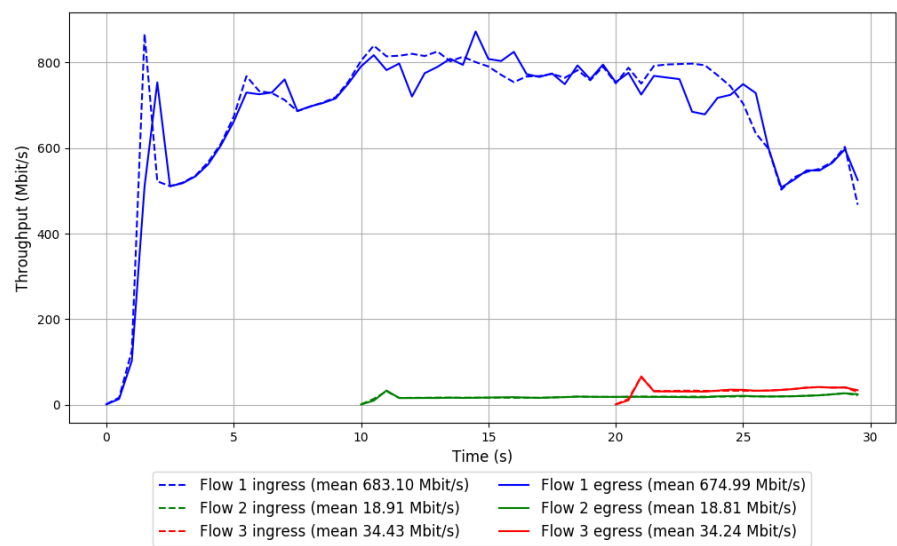
-- Flow 3:

Average throughput: 34.24 Mbit/s

95th percentile per-packet one-way delay: 146.553 ms

Loss rate: 0.60%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-10-12 13:28:34

End at: 2017-10-12 13:29:04

Below is generated by plot.py at 2017-10-12 16:14:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 665.28 Mbit/s

95th percentile per-packet one-way delay: 198.115 ms

Loss rate: 5.64%

-- Flow 1:

Average throughput: 613.66 Mbit/s

95th percentile per-packet one-way delay: 198.880 ms

Loss rate: 6.01%

-- Flow 2:

Average throughput: 69.41 Mbit/s

95th percentile per-packet one-way delay: 159.321 ms

Loss rate: 0.92%

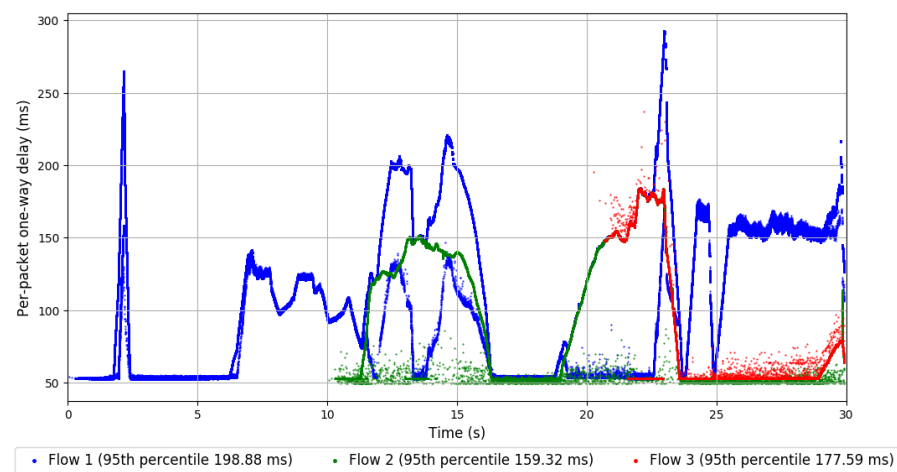
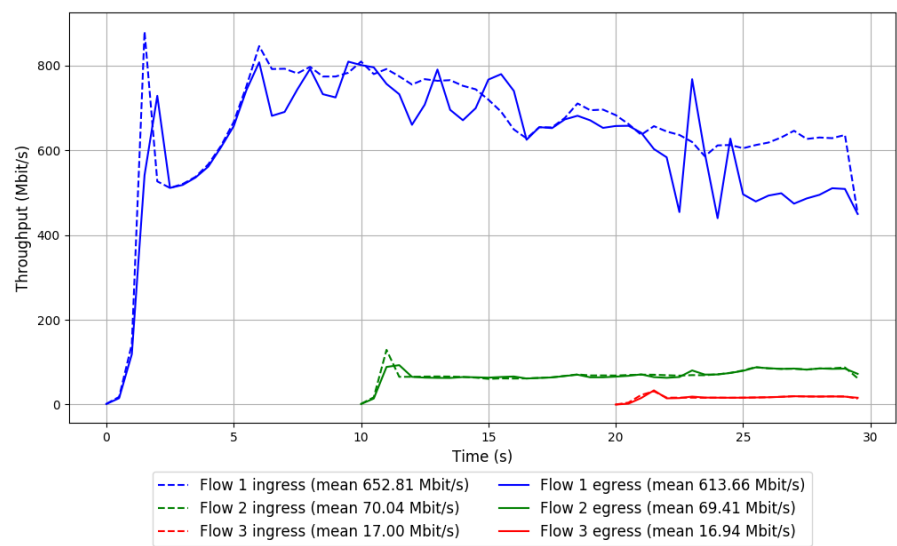
-- Flow 3:

Average throughput: 16.94 Mbit/s

95th percentile per-packet one-way delay: 177.587 ms

Loss rate: 1.83%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-10-12 13:41:02

End at: 2017-10-12 13:41:32

Below is generated by plot.py at 2017-10-12 16:14:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 712.51 Mbit/s

95th percentile per-packet one-way delay: 139.386 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 532.01 Mbit/s

95th percentile per-packet one-way delay: 139.294 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 255.57 Mbit/s

95th percentile per-packet one-way delay: 139.832 ms

Loss rate: 0.85%

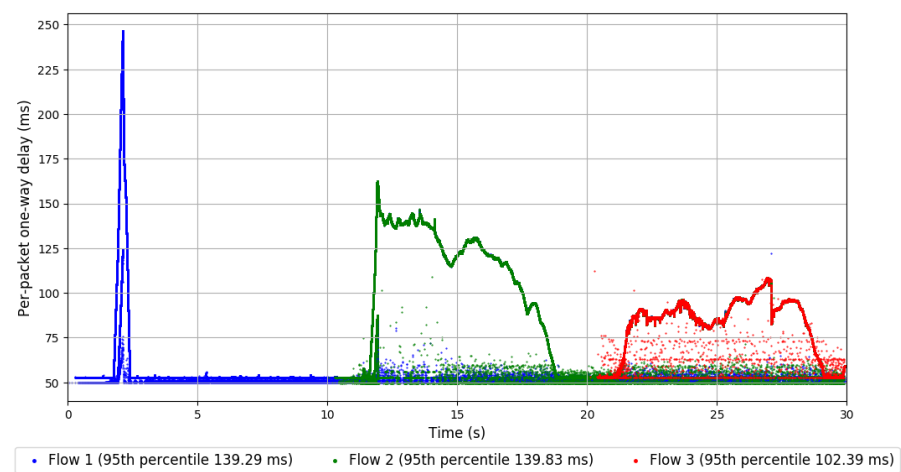
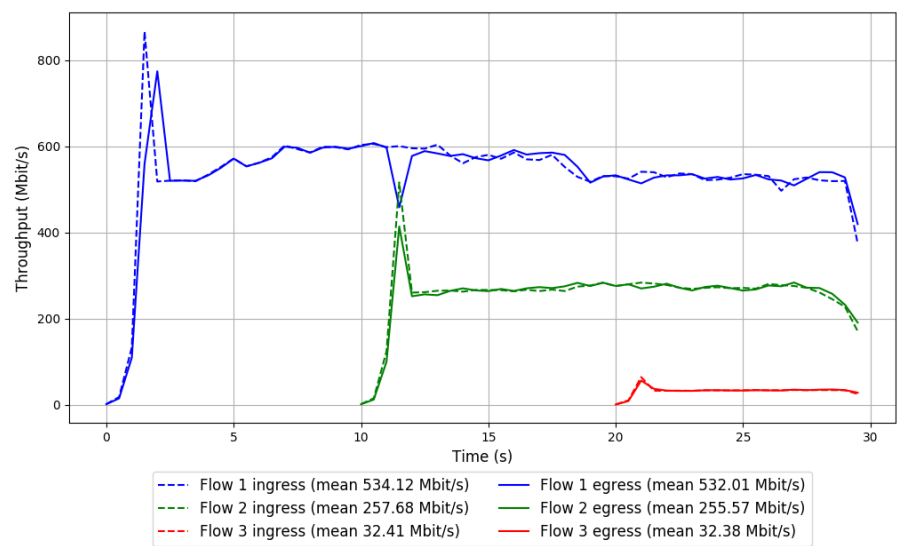
-- Flow 3:

Average throughput: 32.38 Mbit/s

95th percentile per-packet one-way delay: 102.395 ms

Loss rate: 0.10%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-10-12 13:53:15

End at: 2017-10-12 13:53:45

Below is generated by plot.py at 2017-10-12 16:14:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 670.34 Mbit/s

95th percentile per-packet one-way delay: 186.897 ms

Loss rate: 2.43%

-- Flow 1:

Average throughput: 479.61 Mbit/s

95th percentile per-packet one-way delay: 189.906 ms

Loss rate: 3.15%

-- Flow 2:

Average throughput: 270.46 Mbit/s

95th percentile per-packet one-way delay: 137.961 ms

Loss rate: 0.58%

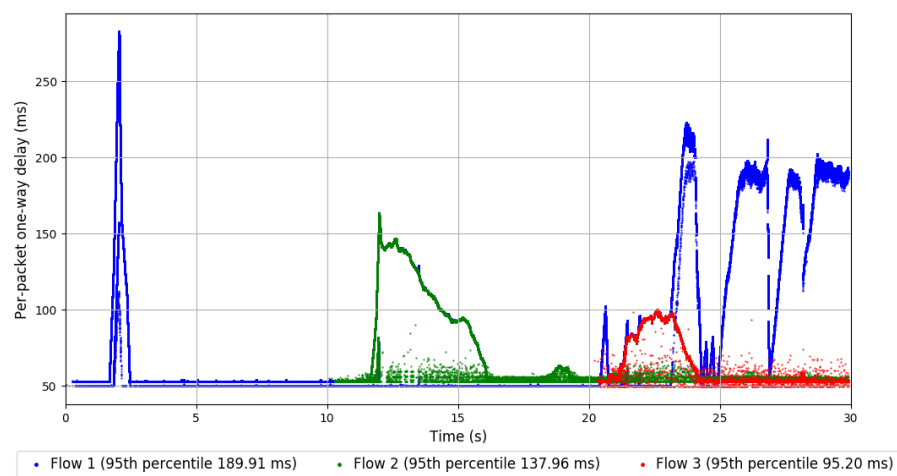
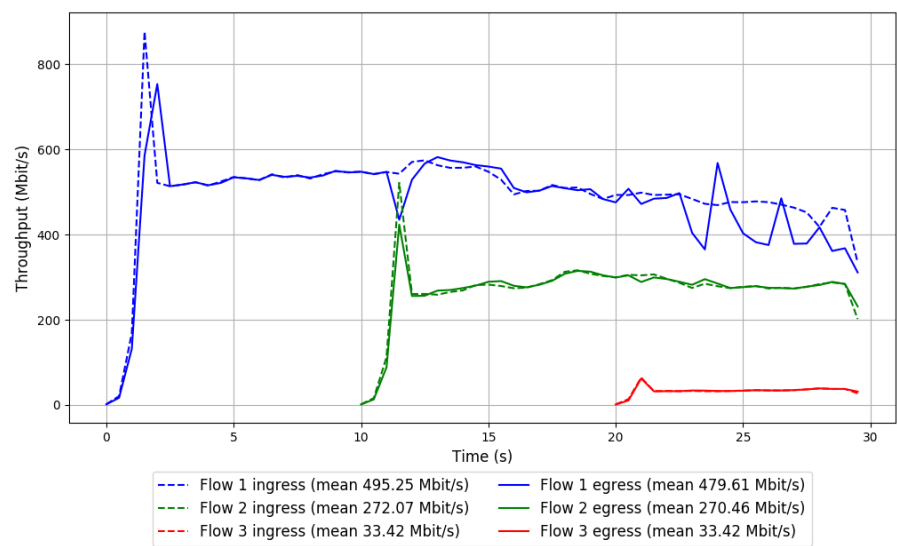
-- Flow 3:

Average throughput: 33.42 Mbit/s

95th percentile per-packet one-way delay: 95.205 ms

Loss rate: 0.00%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-10-12 14:05:50

End at: 2017-10-12 14:06:20

Below is generated by plot.py at 2017-10-12 16:23:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 678.52 Mbit/s

95th percentile per-packet one-way delay: 203.975 ms

Loss rate: 4.00%

-- Flow 1:

Average throughput: 509.18 Mbit/s

95th percentile per-packet one-way delay: 211.321 ms

Loss rate: 5.03%

-- Flow 2:

Average throughput: 252.52 Mbit/s

95th percentile per-packet one-way delay: 142.650 ms

Loss rate: 0.80%

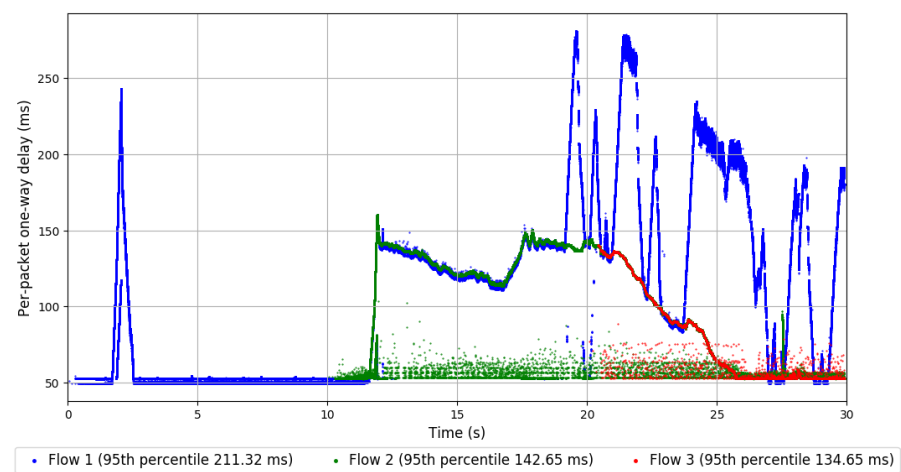
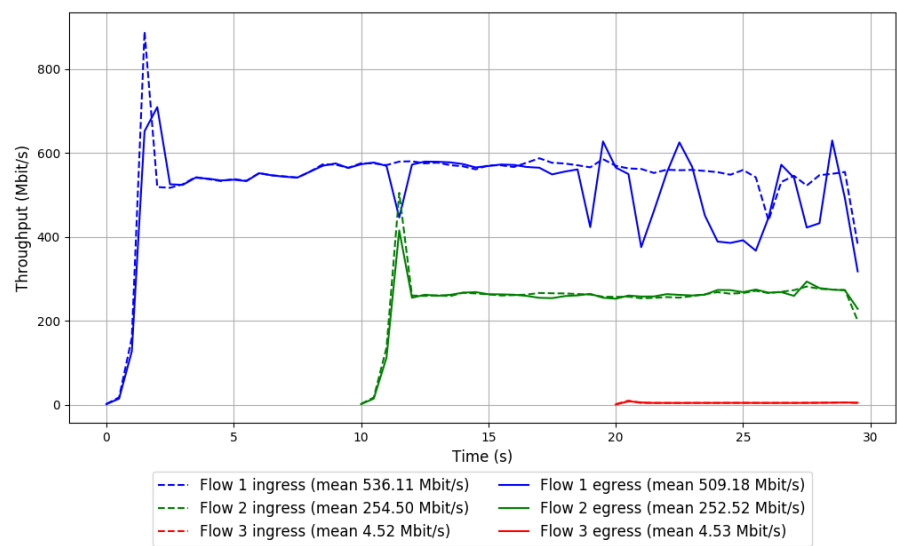
-- Flow 3:

Average throughput: 4.53 Mbit/s

95th percentile per-packet one-way delay: 134.651 ms

Loss rate: 0.00%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-10-12 14:18:02

End at: 2017-10-12 14:18:32

Below is generated by plot.py at 2017-10-12 16:23:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 658.48 Mbit/s

95th percentile per-packet one-way delay: 193.038 ms

Loss rate: 6.32%

-- Flow 1:

Average throughput: 481.82 Mbit/s

95th percentile per-packet one-way delay: 203.415 ms

Loss rate: 7.90%

-- Flow 2:

Average throughput: 263.76 Mbit/s

95th percentile per-packet one-way delay: 151.106 ms

Loss rate: 1.73%

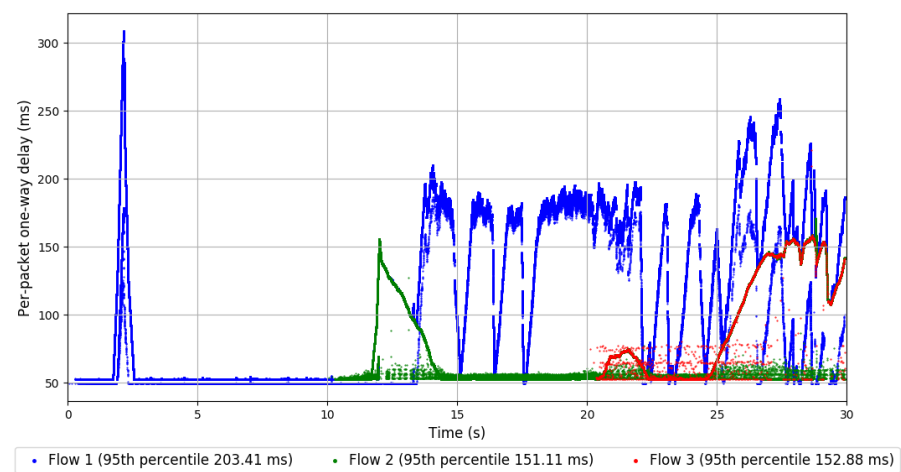
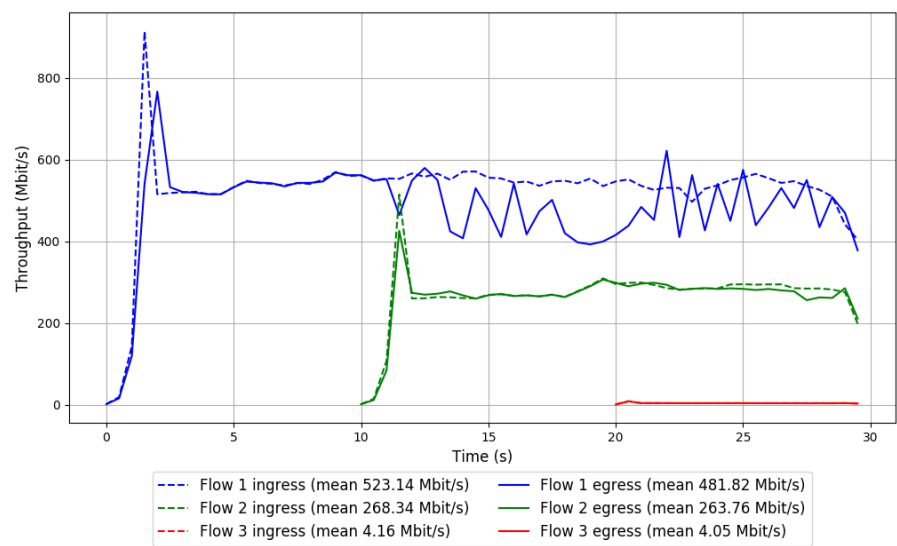
-- Flow 3:

Average throughput: 4.05 Mbit/s

95th percentile per-packet one-way delay: 152.884 ms

Loss rate: 2.82%

Run 10: Report of PCC — Data Link

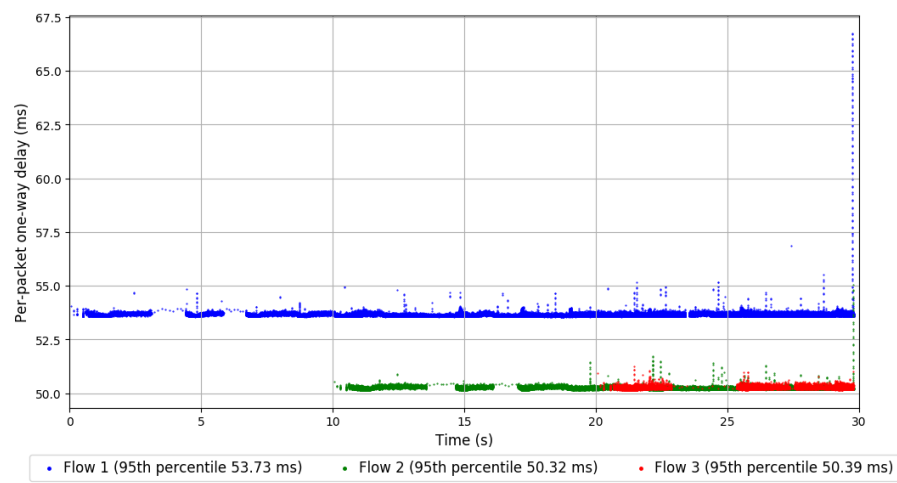
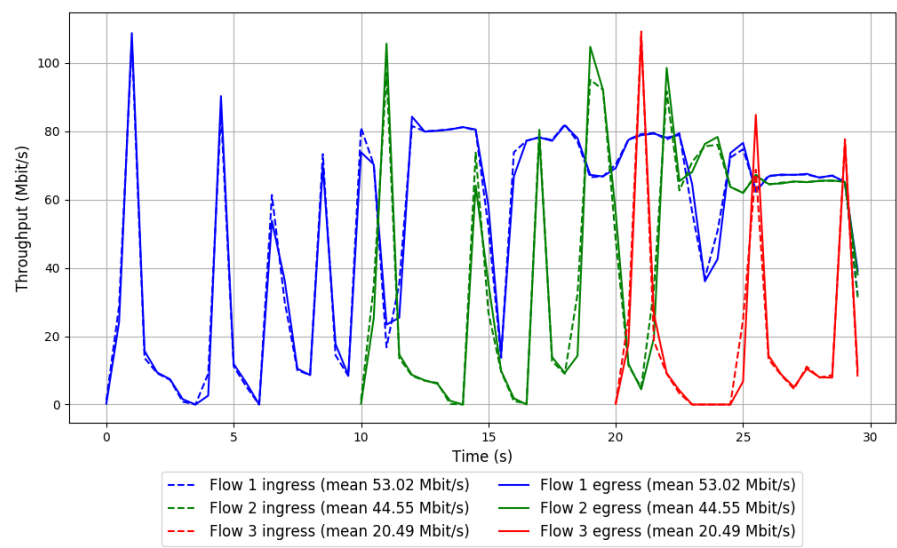


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-10-12 12:32:51
End at: 2017-10-12 12:33:21

# Below is generated by plot.py at 2017-10-12 16:23:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.28 Mbit/s
95th percentile per-packet one-way delay: 53.710 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.02 Mbit/s
95th percentile per-packet one-way delay: 53.735 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.55 Mbit/s
95th percentile per-packet one-way delay: 50.316 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.49 Mbit/s
95th percentile per-packet one-way delay: 50.394 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-10-12 12:45:33

End at: 2017-10-12 12:46:03

Below is generated by plot.py at 2017-10-12 16:23:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.38 Mbit/s

95th percentile per-packet one-way delay: 53.708 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.67 Mbit/s

95th percentile per-packet one-way delay: 53.714 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 35.75 Mbit/s

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

Loss rate: 0.00%

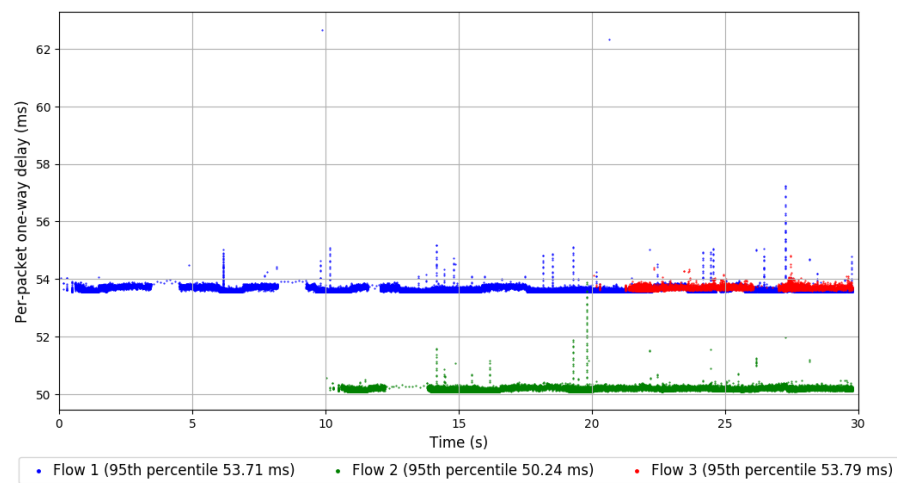
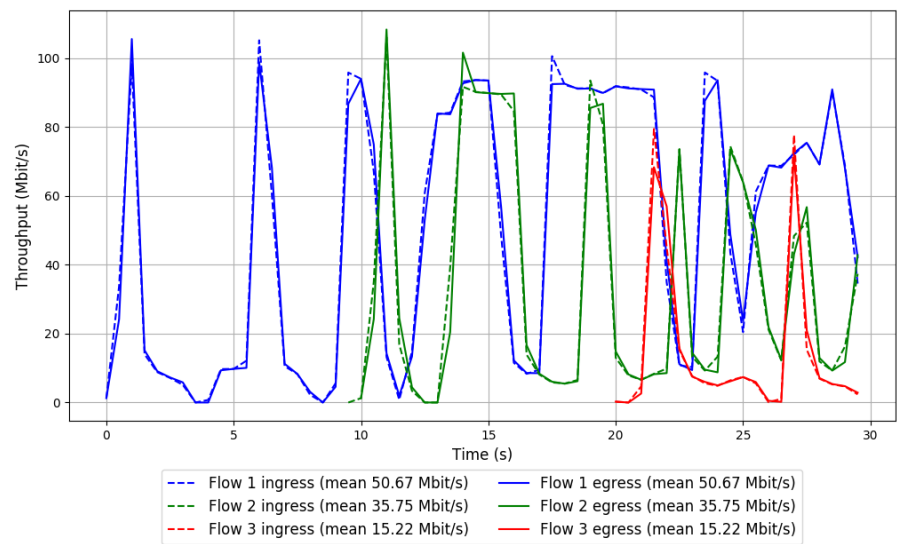
-- Flow 3:

Average throughput: 15.22 Mbit/s

95th percentile per-packet one-way delay: 53.794 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-10-12 12:58:06

End at: 2017-10-12 12:58:36

Below is generated by plot.py at 2017-10-12 16:23:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.04 Mbit/s

95th percentile per-packet one-way delay: 53.094 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.10 Mbit/s

95th percentile per-packet one-way delay: 53.128 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.82 Mbit/s

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

Loss rate: 0.00%

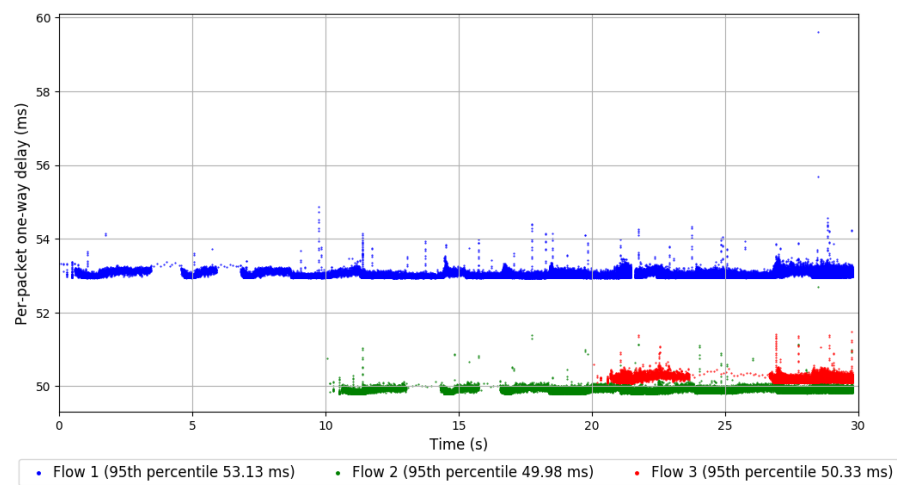
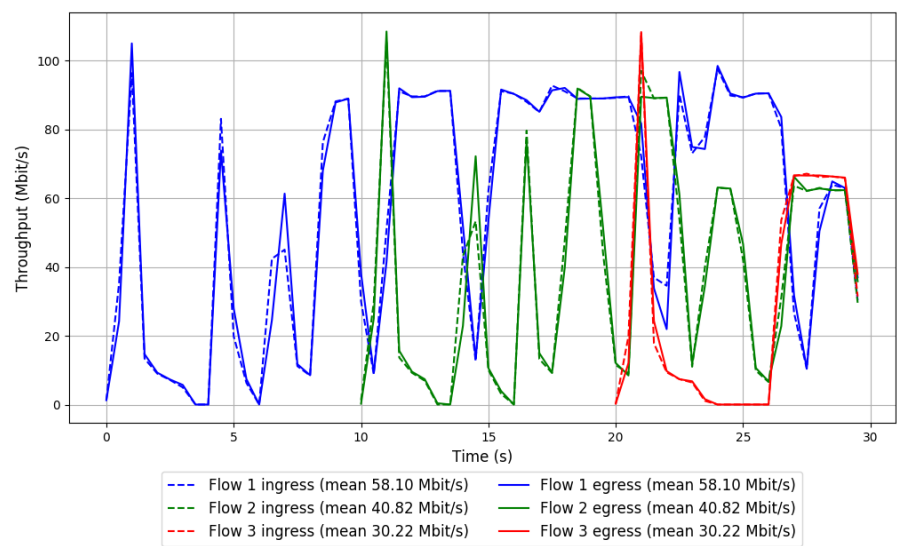
-- Flow 3:

Average throughput: 30.22 Mbit/s

95th percentile per-packet one-way delay: 50.327 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-10-12 13:10:37

End at: 2017-10-12 13:11:07

Below is generated by plot.py at 2017-10-12 16:23:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.66 Mbit/s

95th percentile per-packet one-way delay: 53.678 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 53.32 Mbit/s

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

Loss rate: 0.01%

-- Flow 2:

Average throughput: 42.38 Mbit/s

95th percentile per-packet one-way delay: 50.238 ms

Loss rate: 0.00%

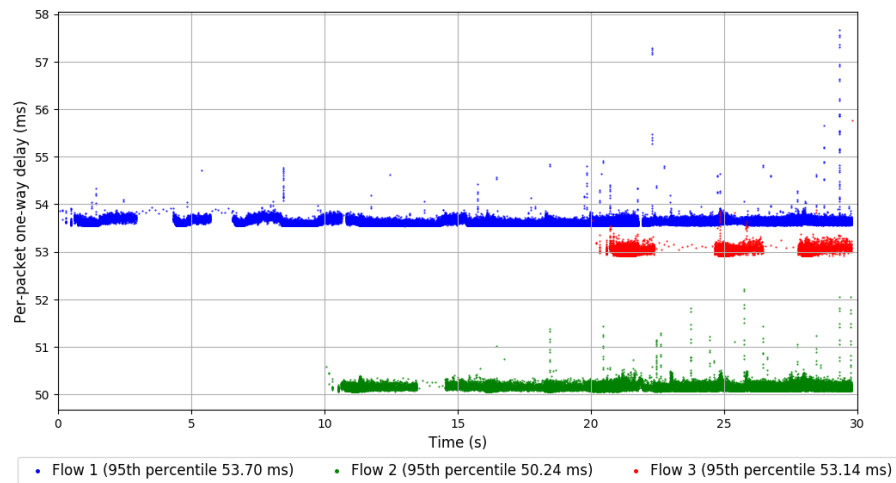
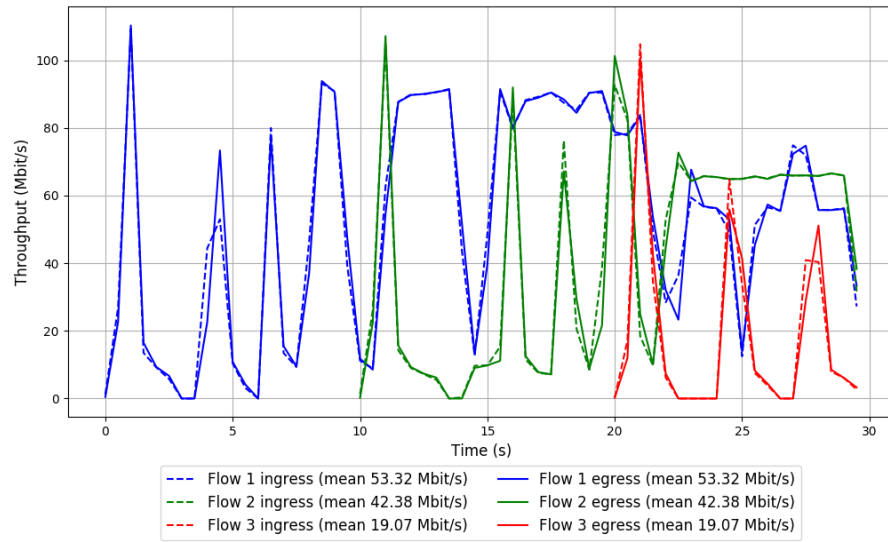
-- Flow 3:

Average throughput: 19.07 Mbit/s

95th percentile per-packet one-way delay: 53.139 ms

Loss rate: 0.01%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-10-12 13:22:50

End at: 2017-10-12 13:23:20

Below is generated by plot.py at 2017-10-12 16:23:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 98.90 Mbit/s

95th percentile per-packet one-way delay: 52.798 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 62.12 Mbit/s

95th percentile per-packet one-way delay: 52.823 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 42.26 Mbit/s

95th percentile per-packet one-way delay: 50.065 ms

Loss rate: 0.00%

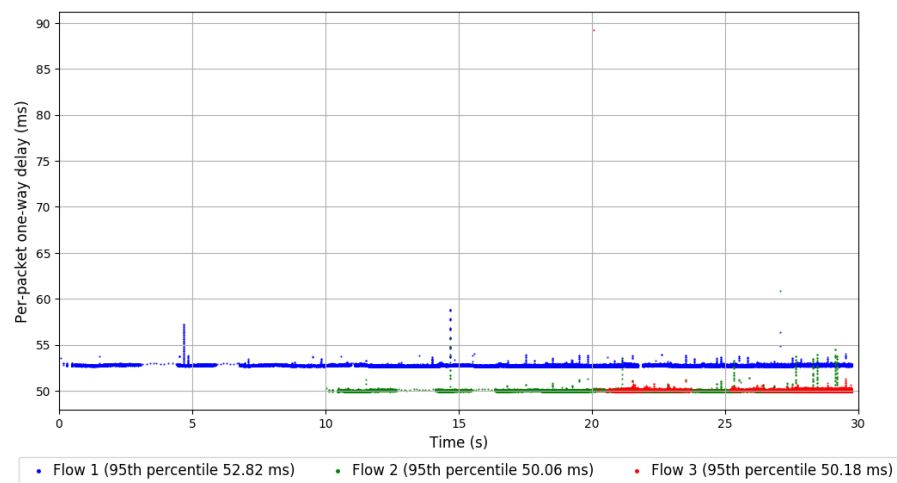
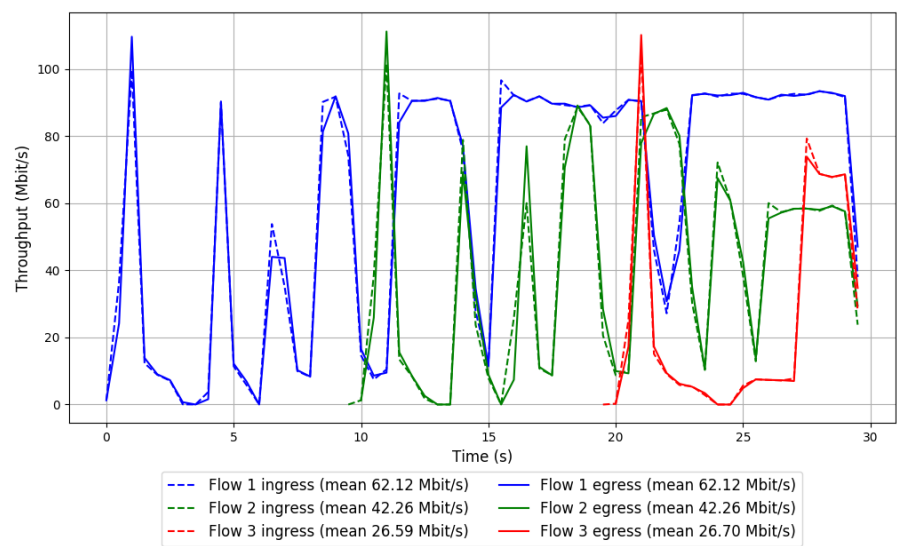
-- Flow 3:

Average throughput: 26.70 Mbit/s

95th percentile per-packet one-way delay: 50.180 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-10-12 13:35:19

End at: 2017-10-12 13:35:49

Below is generated by plot.py at 2017-10-12 16:23:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.62 Mbit/s

95th percentile per-packet one-way delay: 52.788 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 60.01 Mbit/s

95th percentile per-packet one-way delay: 52.757 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 44.41 Mbit/s

95th percentile per-packet one-way delay: 52.860 ms

Loss rate: 0.01%

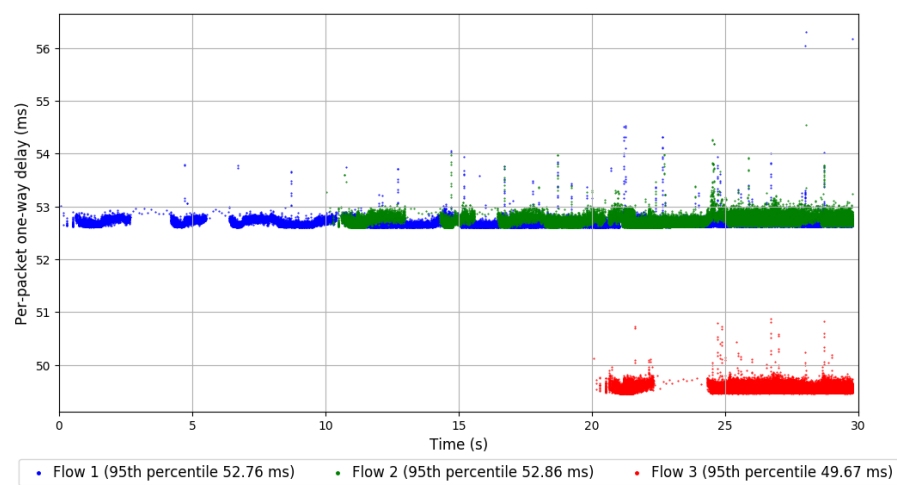
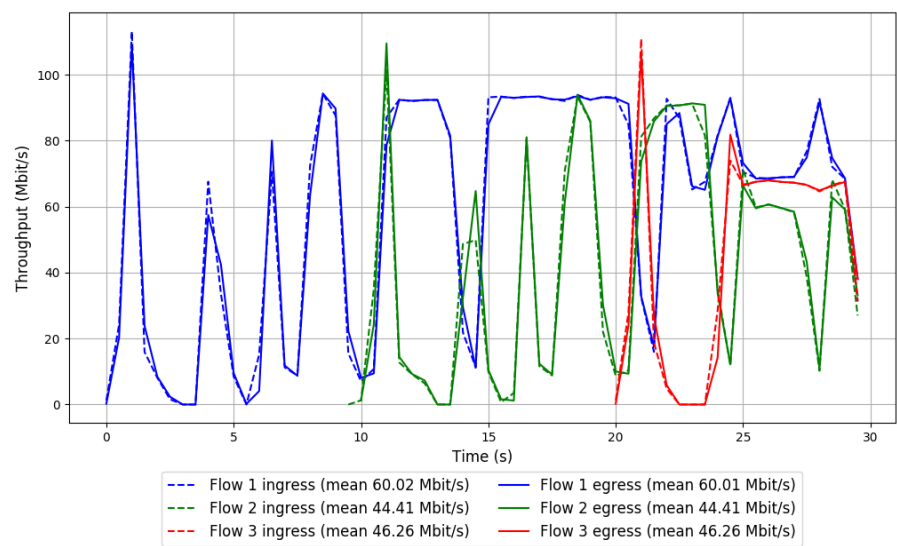
-- Flow 3:

Average throughput: 46.26 Mbit/s

95th percentile per-packet one-way delay: 49.672 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-10-12 13:47:25

End at: 2017-10-12 13:47:55

Below is generated by plot.py at 2017-10-12 16:23:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.80 Mbit/s

95th percentile per-packet one-way delay: 53.319 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 53.09 Mbit/s

95th percentile per-packet one-way delay: 52.686 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 54.28 Mbit/s

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

Loss rate: 0.05%

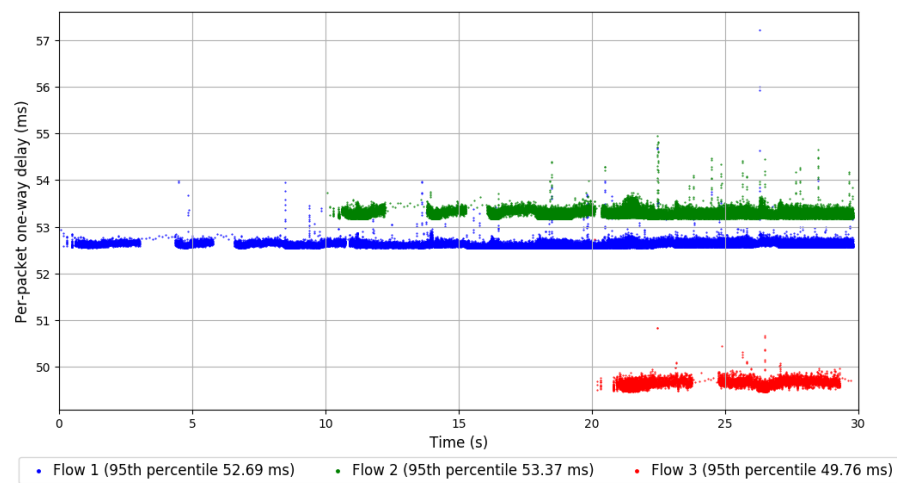
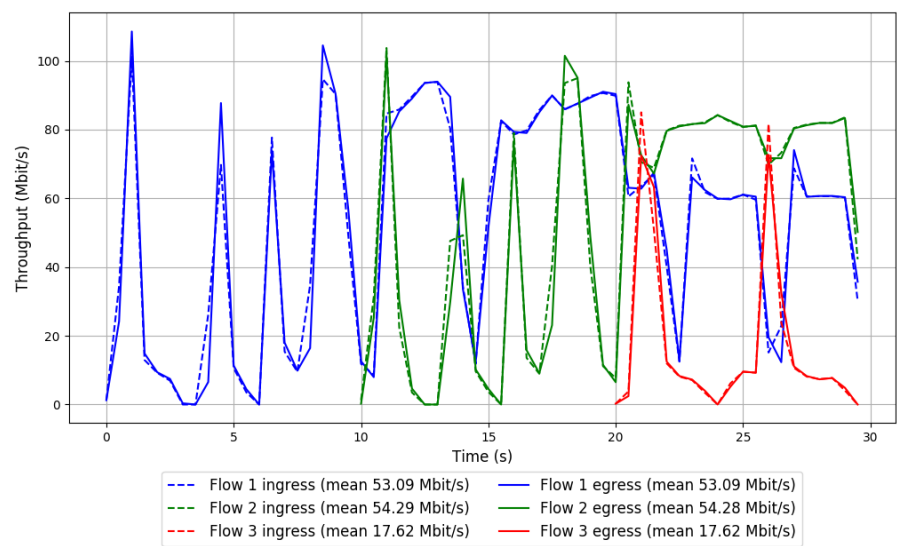
-- Flow 3:

Average throughput: 17.62 Mbit/s

95th percentile per-packet one-way delay: 49.760 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-10-12 14:00:06

End at: 2017-10-12 14:00:36

Below is generated by plot.py at 2017-10-12 16:23:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.52 Mbit/s

95th percentile per-packet one-way delay: 49.866 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.71 Mbit/s

95th percentile per-packet one-way delay: 49.572 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 29.05 Mbit/s

95th percentile per-packet one-way delay: 49.905 ms

Loss rate: 0.00%

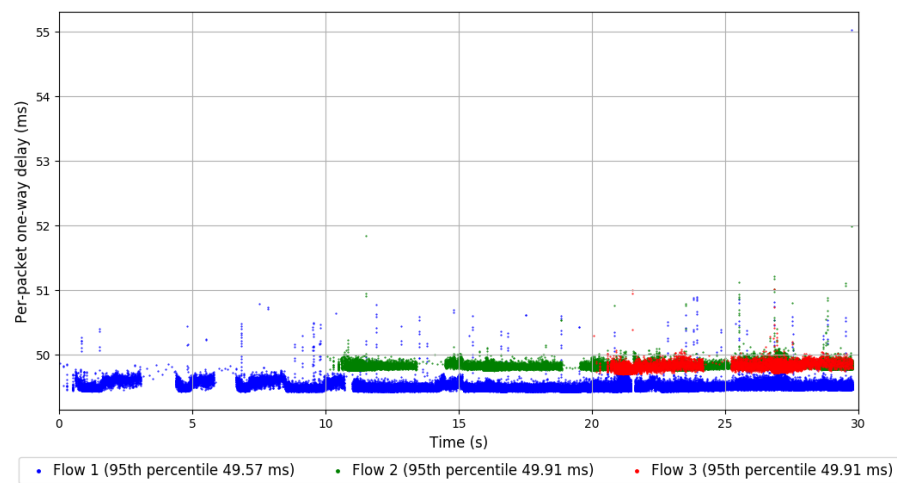
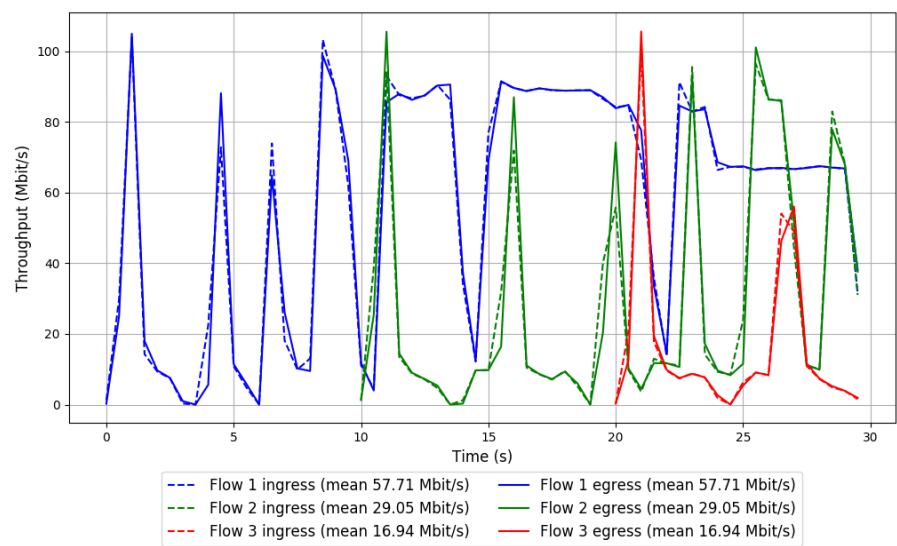
-- Flow 3:

Average throughput: 16.94 Mbit/s

95th percentile per-packet one-way delay: 49.908 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-10-12 14:12:19

End at: 2017-10-12 14:12:49

Below is generated by plot.py at 2017-10-12 16:23:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.57 Mbit/s

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

Loss rate: 0.01%

-- Flow 1:

Average throughput: 54.17 Mbit/s

95th percentile per-packet one-way delay: 52.651 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 48.58 Mbit/s

95th percentile per-packet one-way delay: 53.302 ms

Loss rate: 0.02%

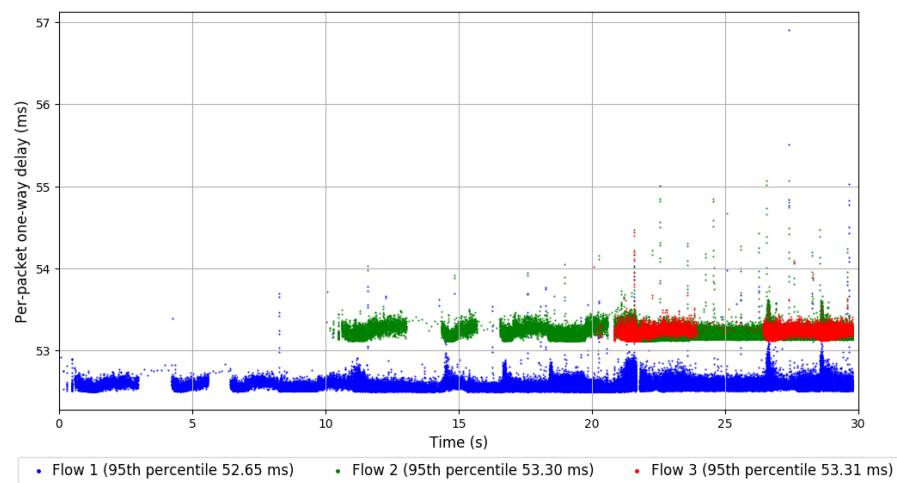
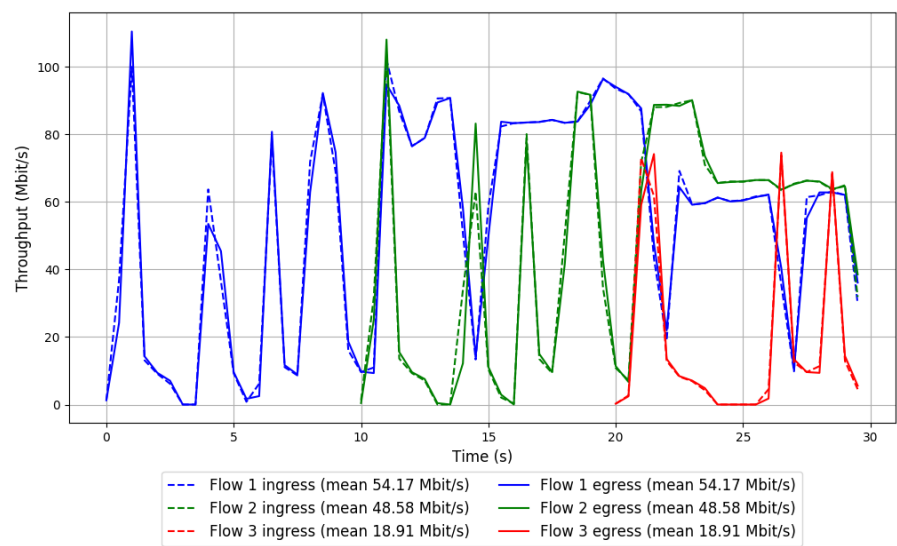
-- Flow 3:

Average throughput: 18.91 Mbit/s

95th percentile per-packet one-way delay: 53.308 ms

Loss rate: 0.01%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-10-12 14:24:24

End at: 2017-10-12 14:24:54

Below is generated by plot.py at 2017-10-12 16:23:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.21 Mbit/s

95th percentile per-packet one-way delay: 52.690 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 53.75 Mbit/s

95th percentile per-packet one-way delay: 52.702 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 32.98 Mbit/s

95th percentile per-packet one-way delay: 49.848 ms

Loss rate: 0.00%

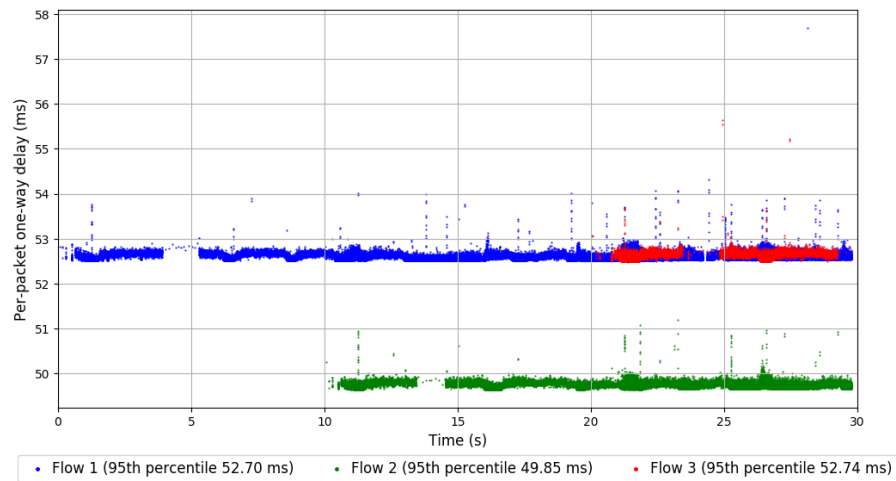
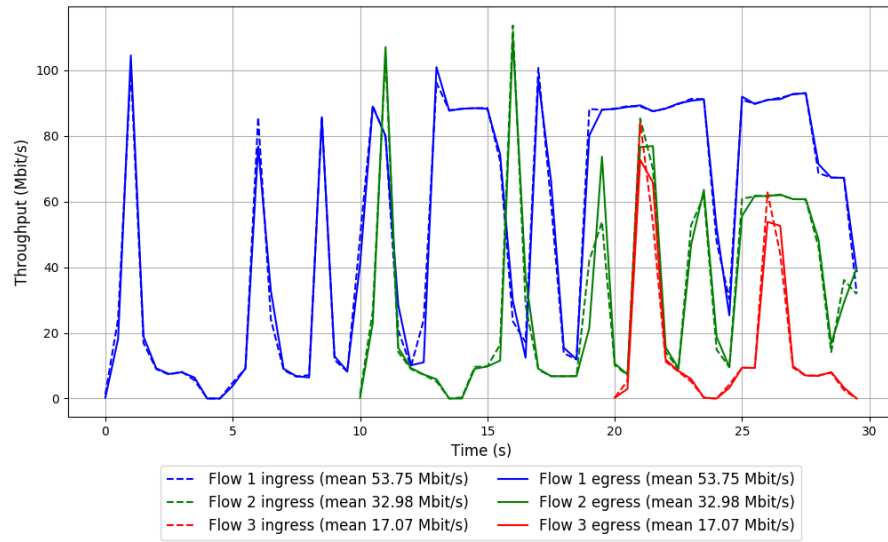
-- Flow 3:

Average throughput: 17.07 Mbit/s

95th percentile per-packet one-way delay: 52.740 ms

Loss rate: 0.00%

Run 10: Report of QUIC Cubic — Data Link

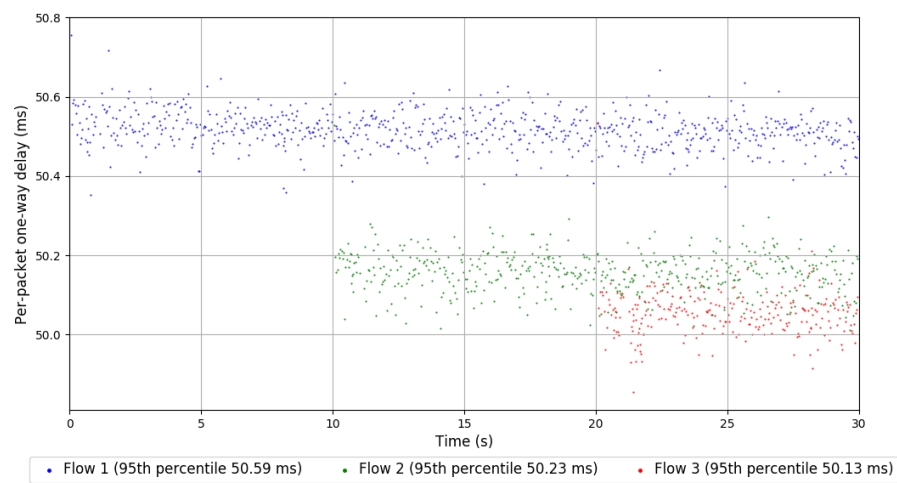
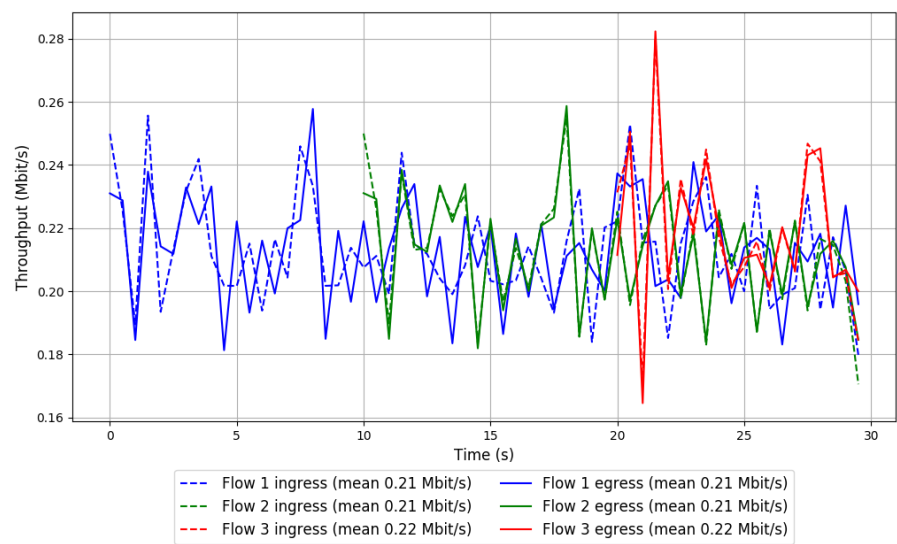


```
Run 1: Statistics of SCReAM

Start at: 2017-10-12 12:24:08
End at: 2017-10-12 12:24:38

# Below is generated by plot.py at 2017-10-12 16:23:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.574 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.587 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.234 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.129 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

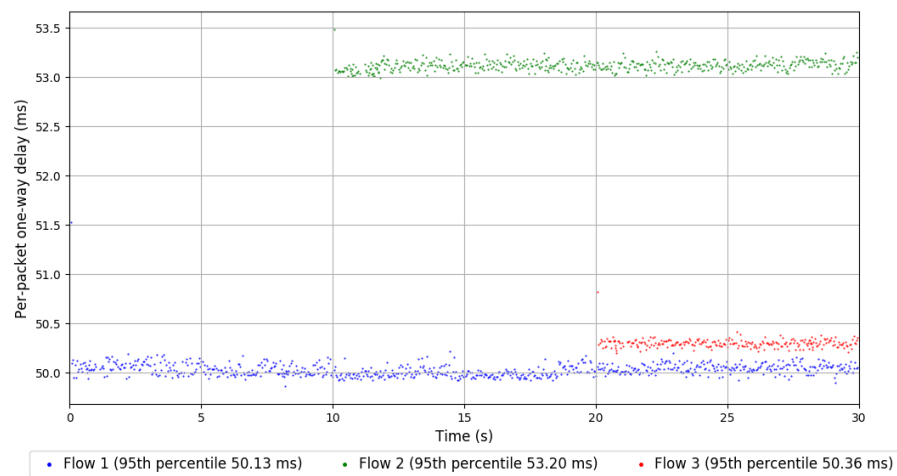
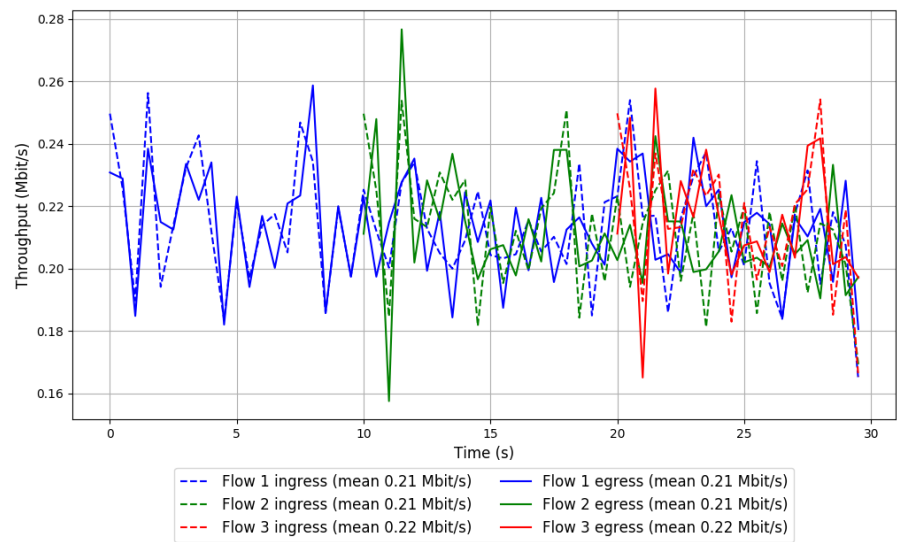


```
Run 2: Statistics of SCReAM

Start at: 2017-10-12 12:36:48
End at: 2017-10-12 12:37:18

# Below is generated by plot.py at 2017-10-12 16:23:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.167 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.134 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.200 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.356 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-10-12 12:49:36

End at: 2017-10-12 12:50:06

Below is generated by plot.py at 2017-10-12 16:23:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.214 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.198 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.228 ms

Loss rate: 0.00%

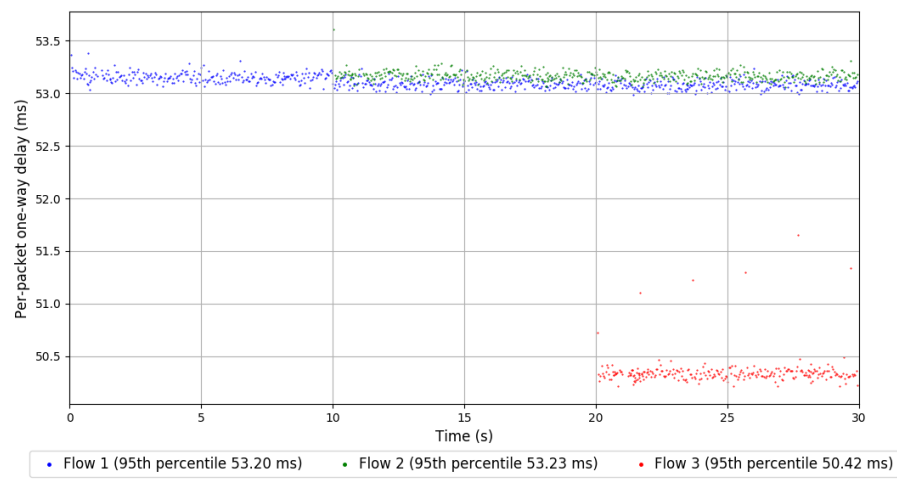
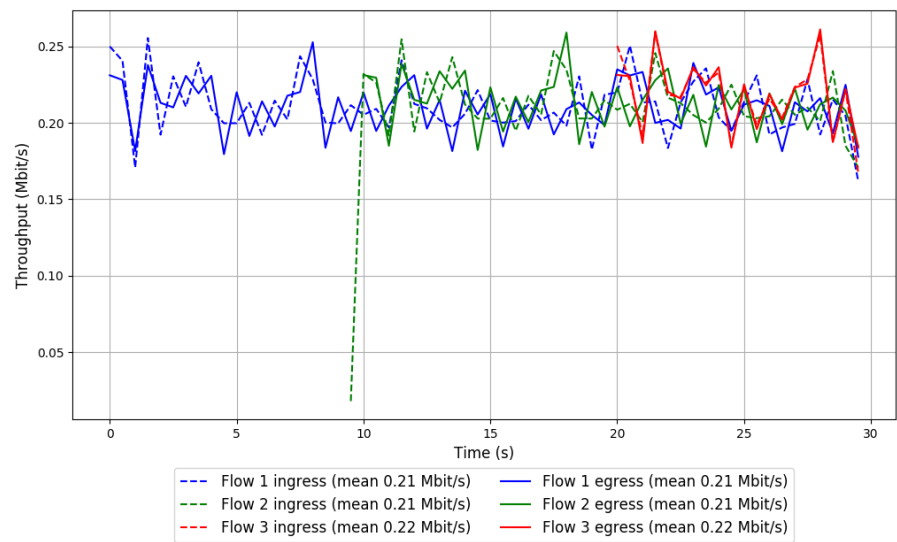
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.417 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

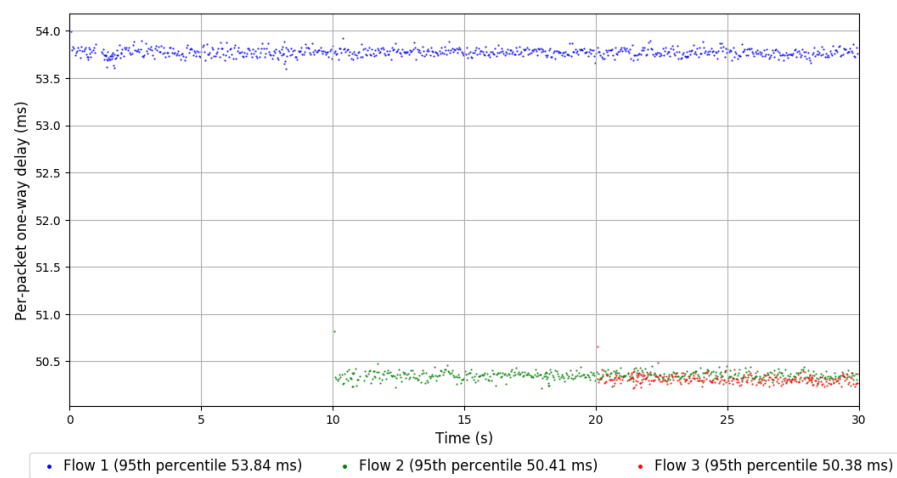
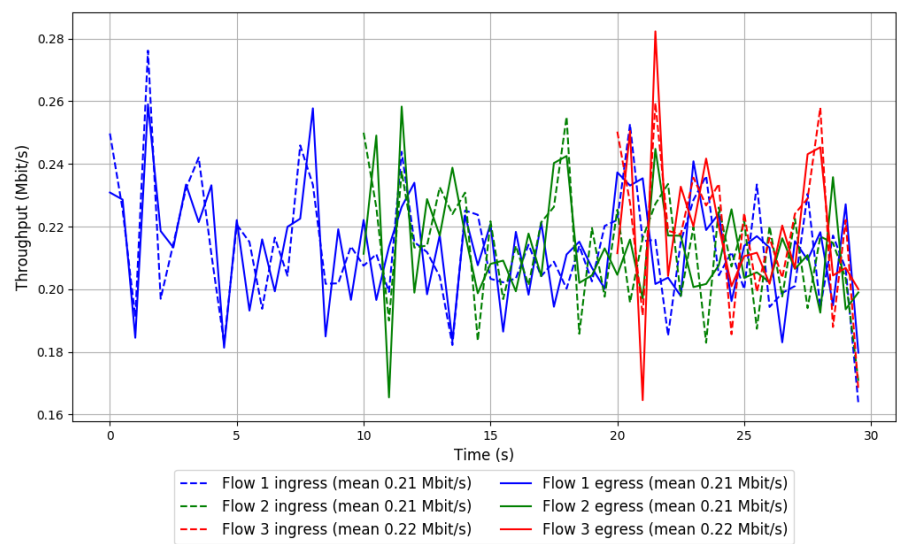


```
Run 4: Statistics of SCReAM

Start at: 2017-10-12 13:02:08
End at: 2017-10-12 13:02:38

# Below is generated by plot.py at 2017-10-12 16:23:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.823 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.844 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.410 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.377 ms
Loss rate: 0.00%
```

Run 4: Report of SReAM — Data Link

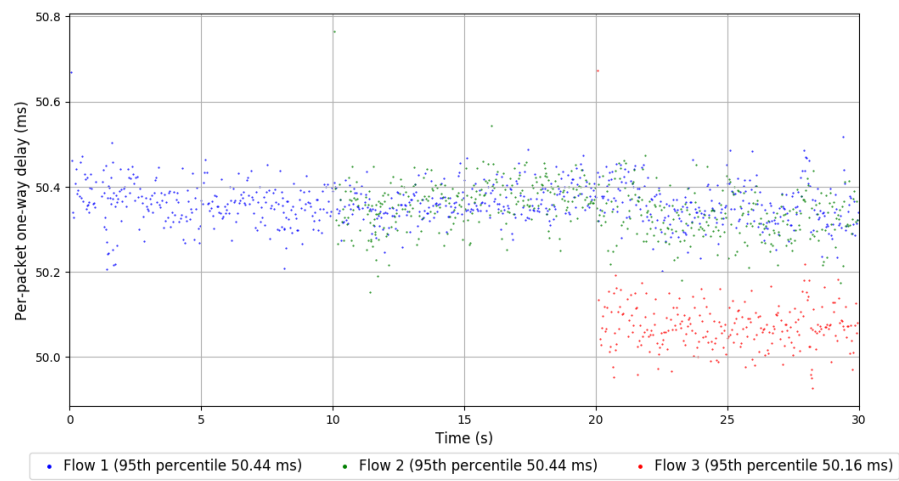
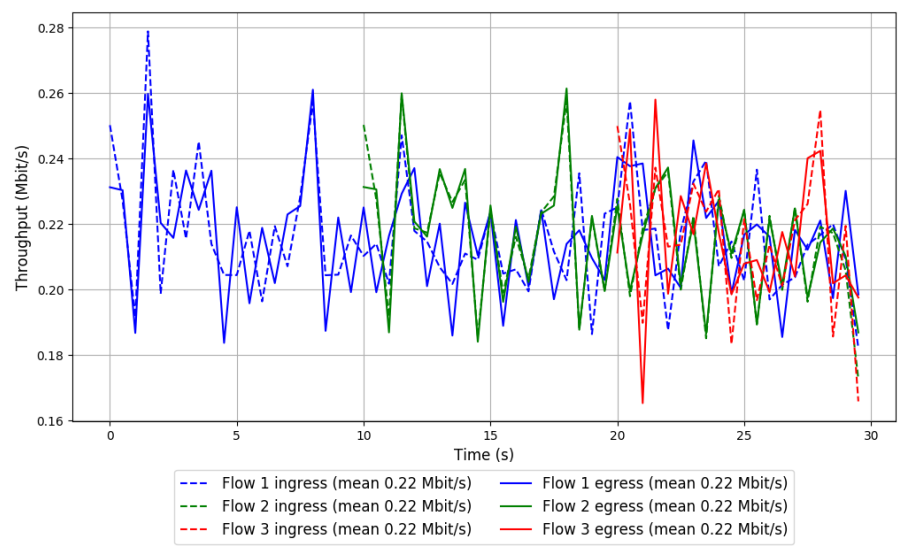


```
Run 5: Statistics of SCReAM

Start at: 2017-10-12 13:14:41
End at: 2017-10-12 13:15:11

# Below is generated by plot.py at 2017-10-12 16:23:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.437 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.441 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.439 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.157 ms
Loss rate: 0.00%
```

Run 5: Report of SReAM — Data Link

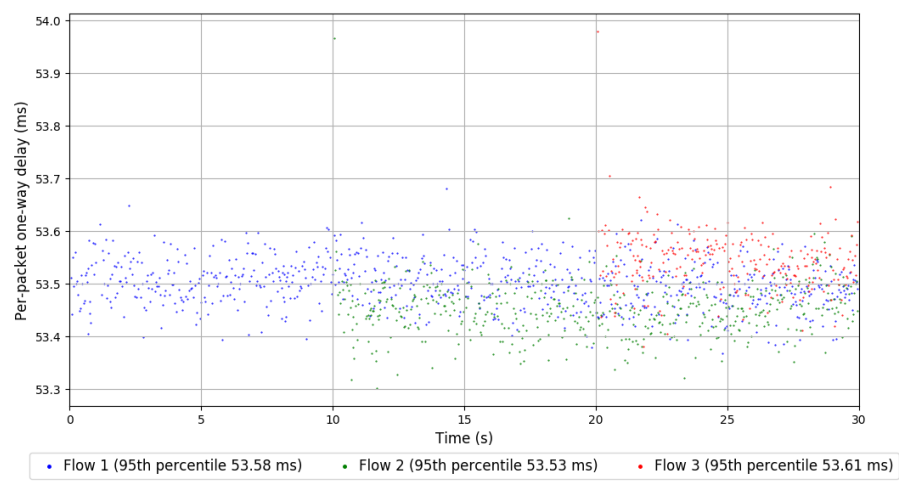
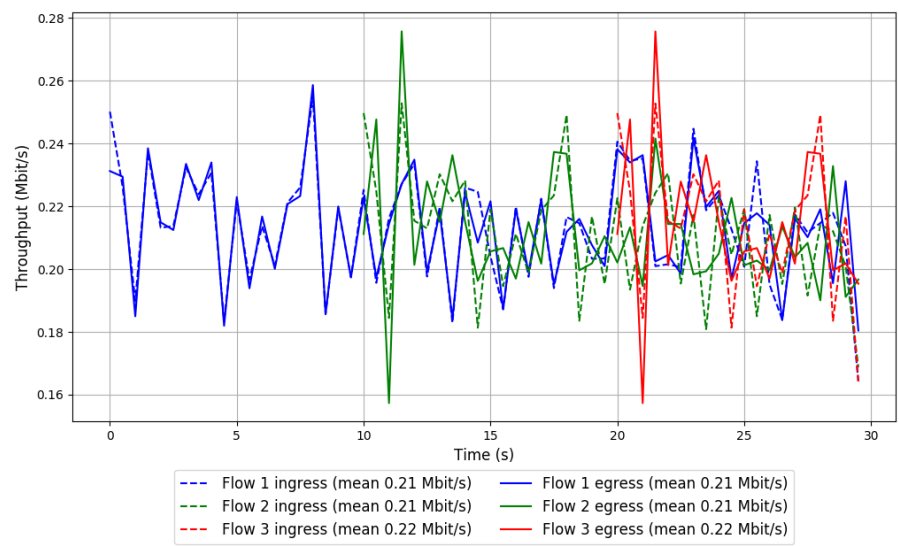


```
Run 6: Statistics of SCReAM

Start at: 2017-10-12 13:26:51
End at: 2017-10-12 13:27:21

# Below is generated by plot.py at 2017-10-12 16:23:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.583 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.577 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.528 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.612 ms
Loss rate: 0.00%
```

Run 6: Report of SReAM — Data Link

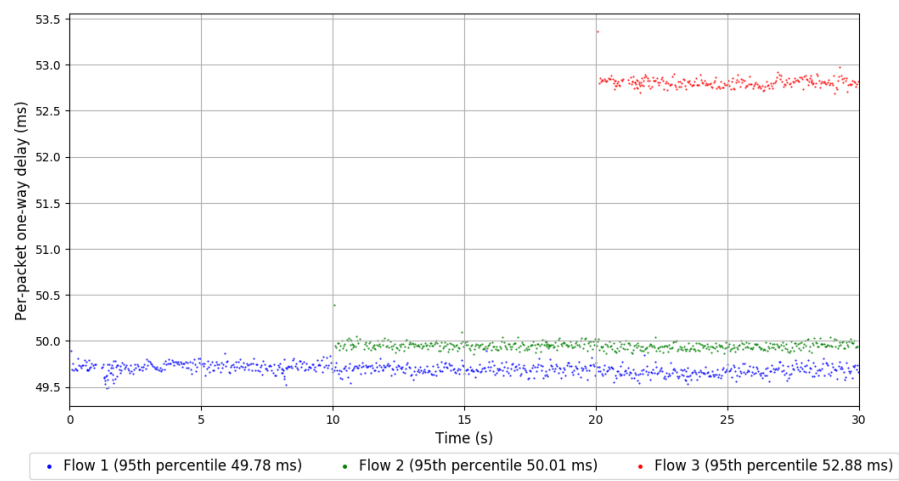
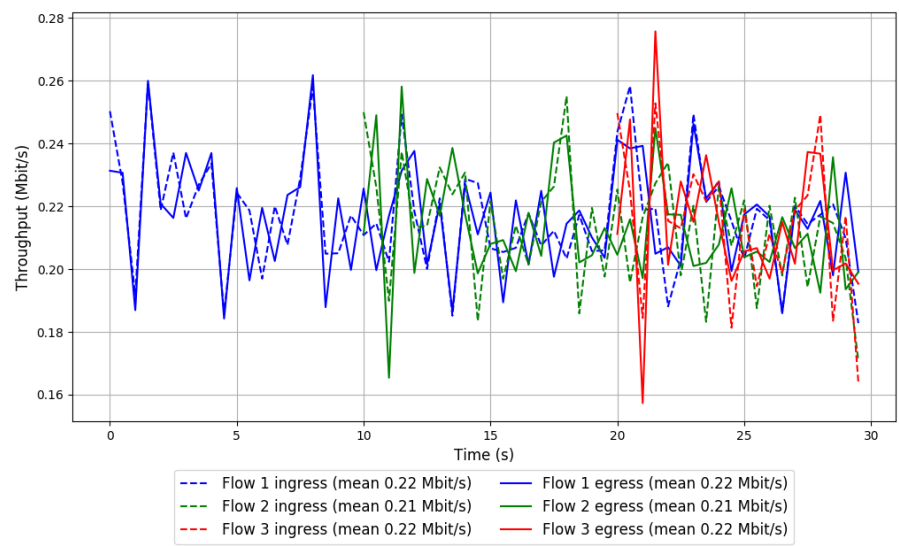


```
Run 7: Statistics of SReAM

Start at: 2017-10-12 13:39:24
End at: 2017-10-12 13:39:54

# Below is generated by plot.py at 2017-10-12 16:23:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 52.827 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.779 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.008 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.878 ms
Loss rate: 0.00%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-10-12 13:51:31

End at: 2017-10-12 13:52:01

Below is generated by plot.py at 2017-10-12 16:23:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 53.556 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.574 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.527 ms

Loss rate: 0.00%

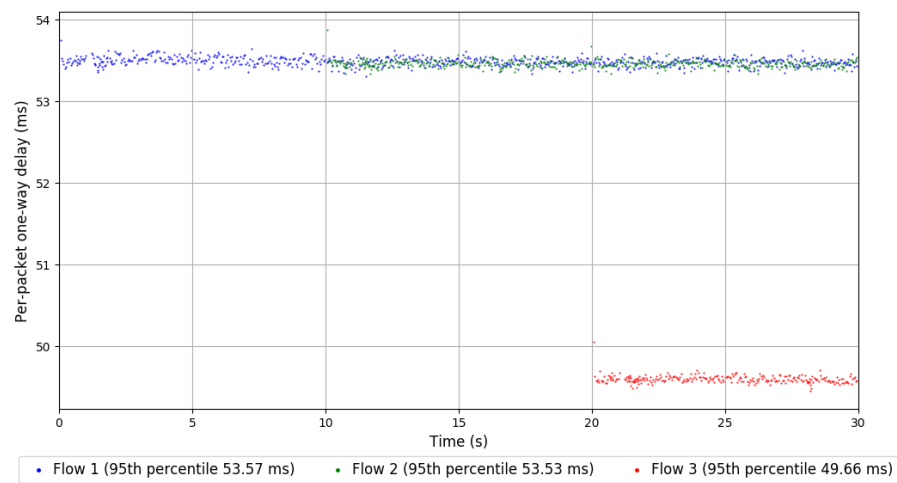
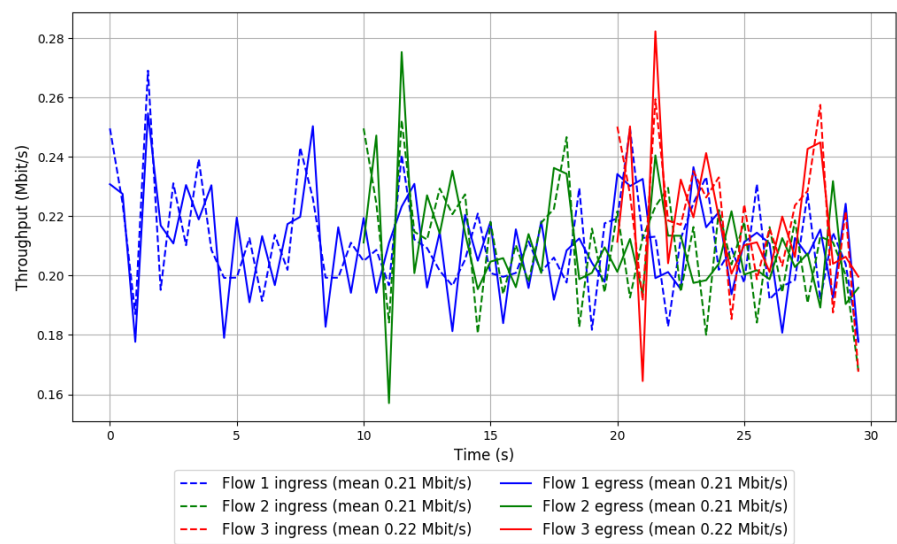
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.660 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-10-12 14:04:11

End at: 2017-10-12 14:04:41

Below is generated by plot.py at 2017-10-12 16:23:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.127 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.145 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.068 ms

Loss rate: 0.00%

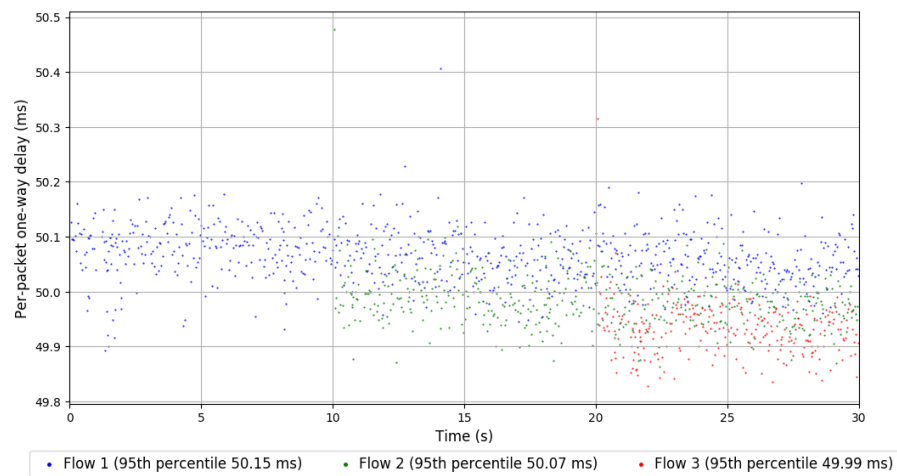
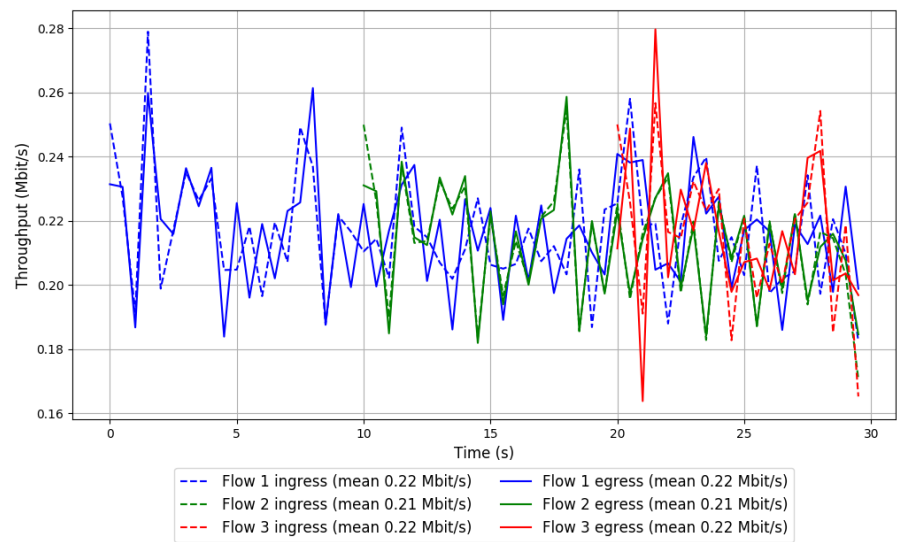
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.993 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link

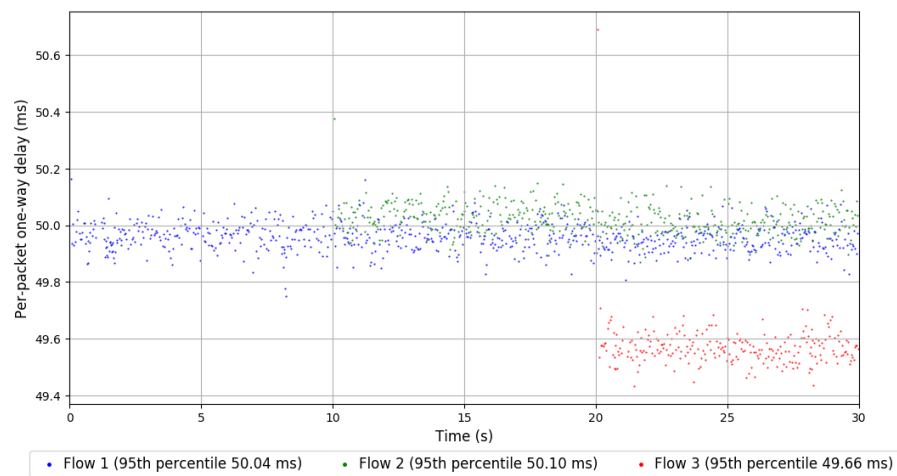
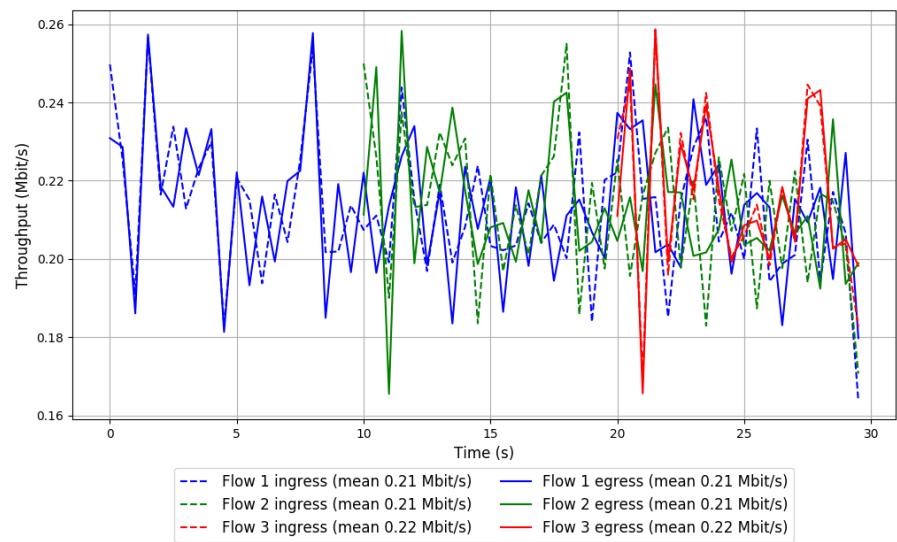


```
Run 10: Statistics of SCReAM

Start at: 2017-10-12 14:16:23
End at: 2017-10-12 14:16:53

# Below is generated by plot.py at 2017-10-12 16:23:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.080 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.103 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.658 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link

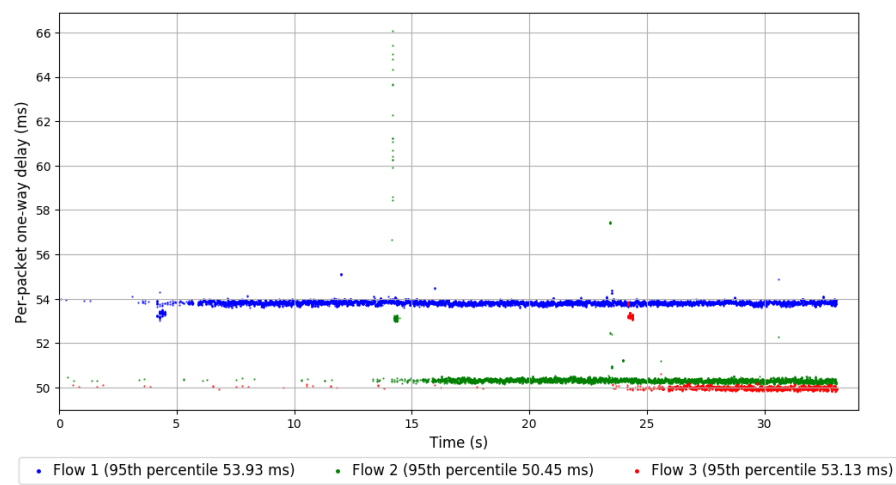
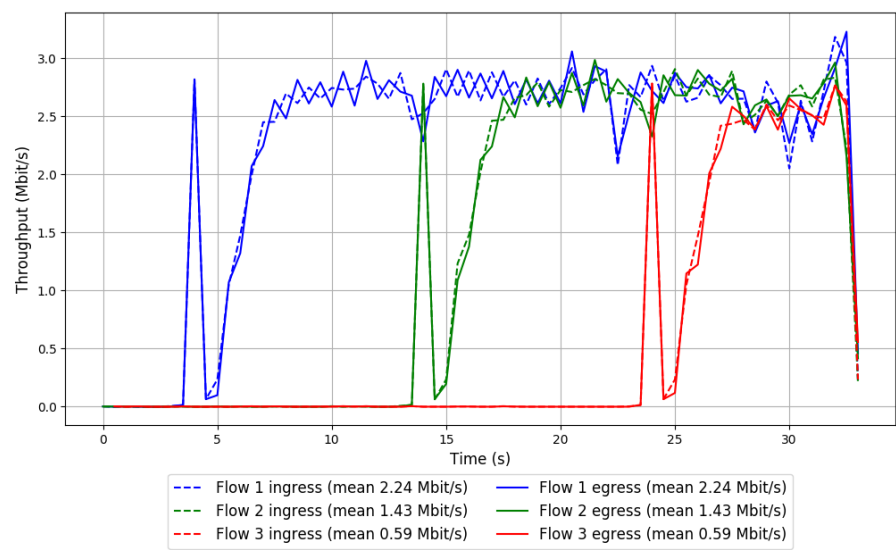


```
Run 1: Statistics of WebRTC media

Start at: 2017-10-12 12:28:41
End at: 2017-10-12 12:29:11

# Below is generated by plot.py at 2017-10-12 16:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 53.910 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 53.934 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 50.445 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 53.126 ms
Loss rate: 0.00%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-10-12 12:41:21

End at: 2017-10-12 12:41:51

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 53.843 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.24 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 53.880 ms

Loss rate: 0.00%

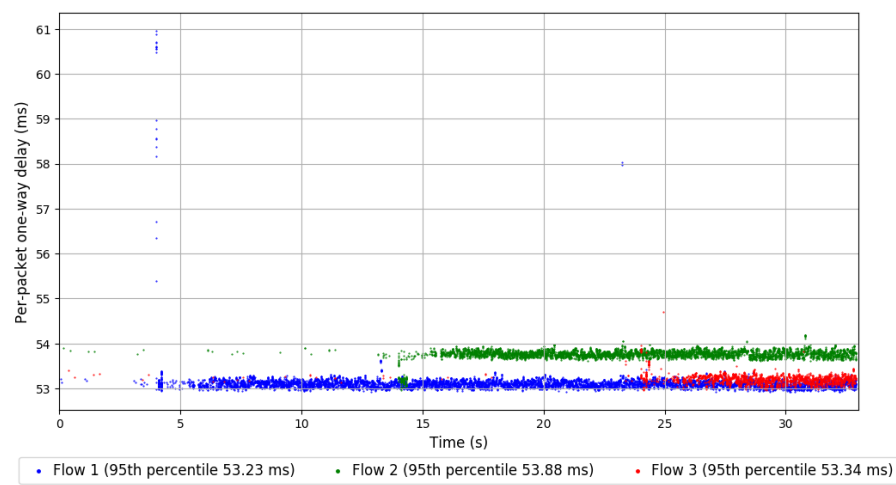
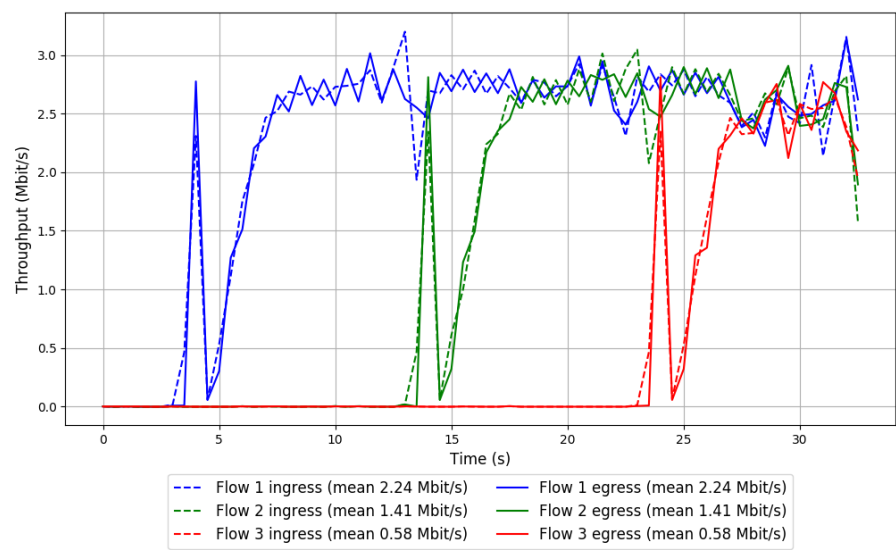
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 53.338 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-10-12 12:54:06

End at: 2017-10-12 12:54:36

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.32 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.849 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 50.440 ms

Loss rate: 0.00%

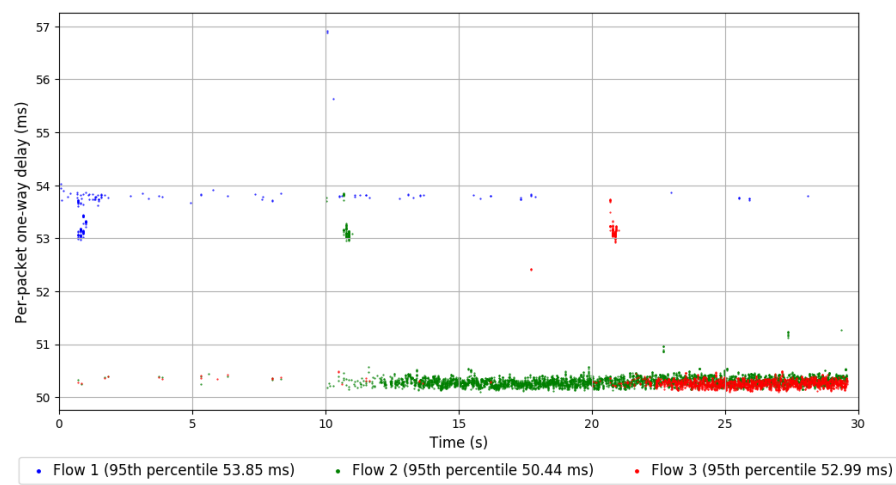
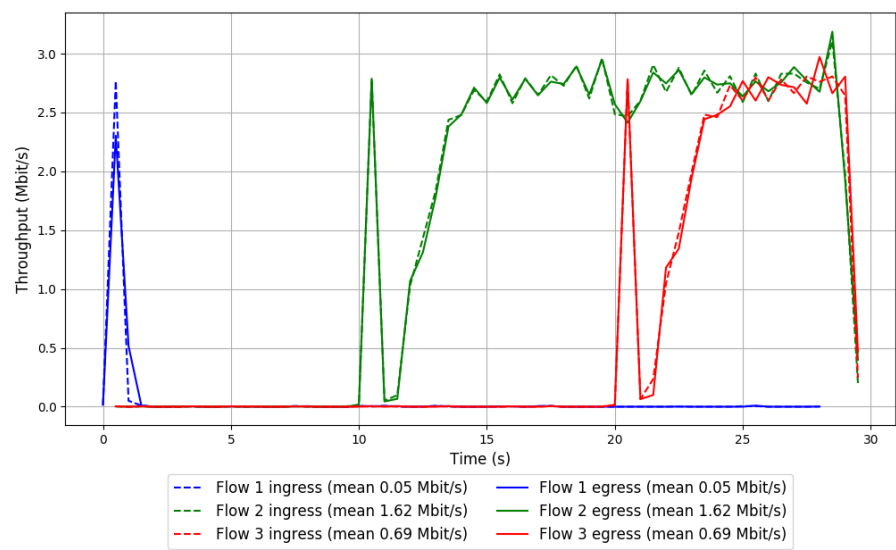
-- Flow 3:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 52.990 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-10-12 13:06:39

End at: 2017-10-12 13:07:09

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 53.196 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 53.200 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 50.479 ms

Loss rate: 0.02%

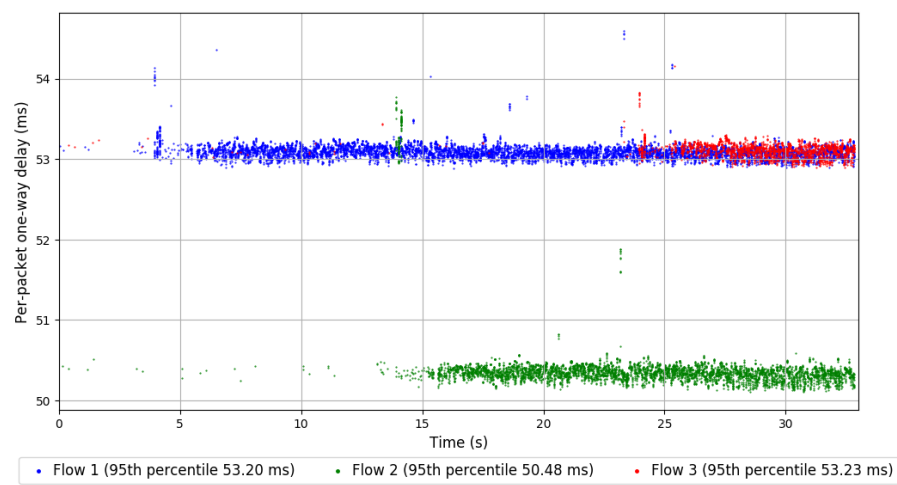
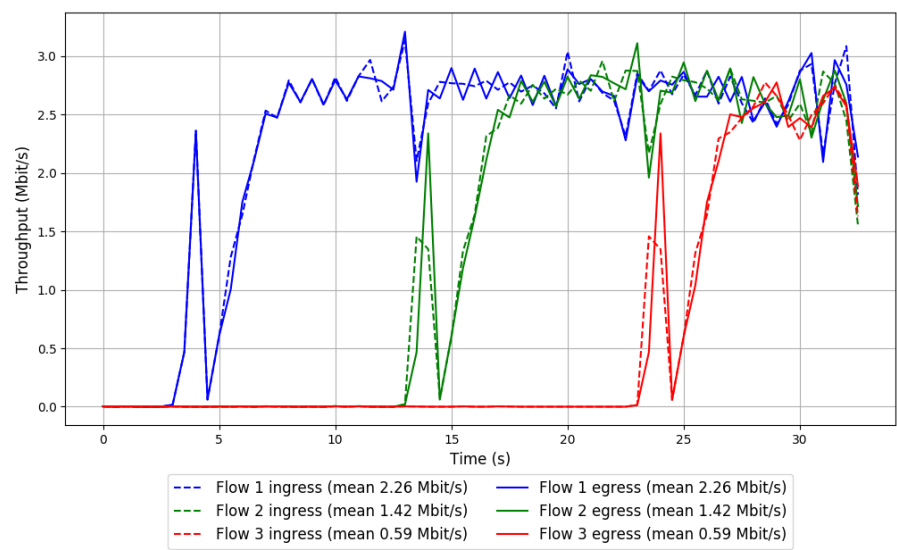
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 53.235 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-10-12 13:19:11

End at: 2017-10-12 13:19:41

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 53.114 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 53.111 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 53.100 ms

Loss rate: 0.00%

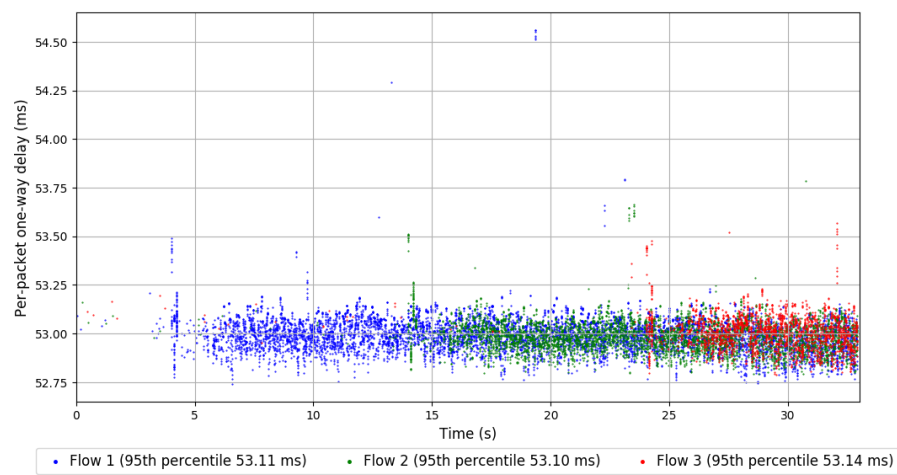
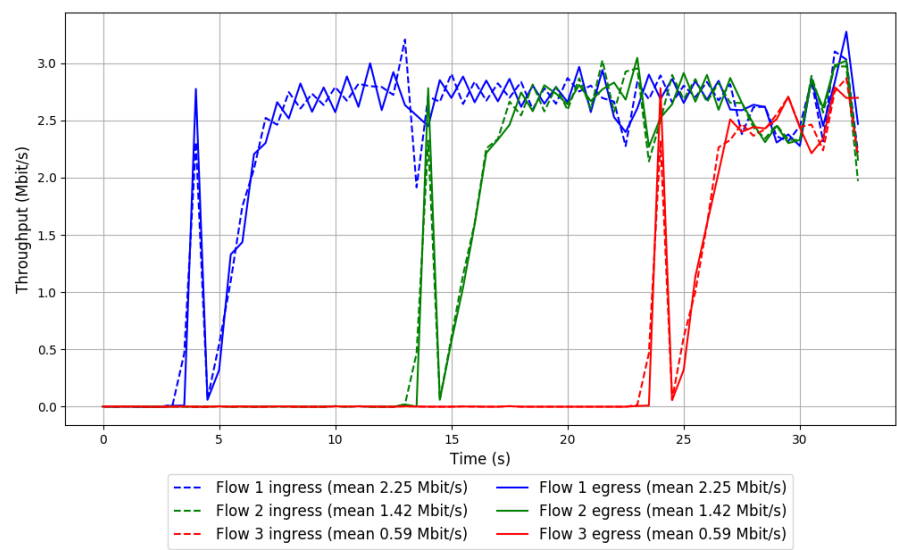
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 53.142 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-10-12 13:31:19

End at: 2017-10-12 13:31:49

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 53.462 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 50.166 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 49.862 ms

Loss rate: 0.00%

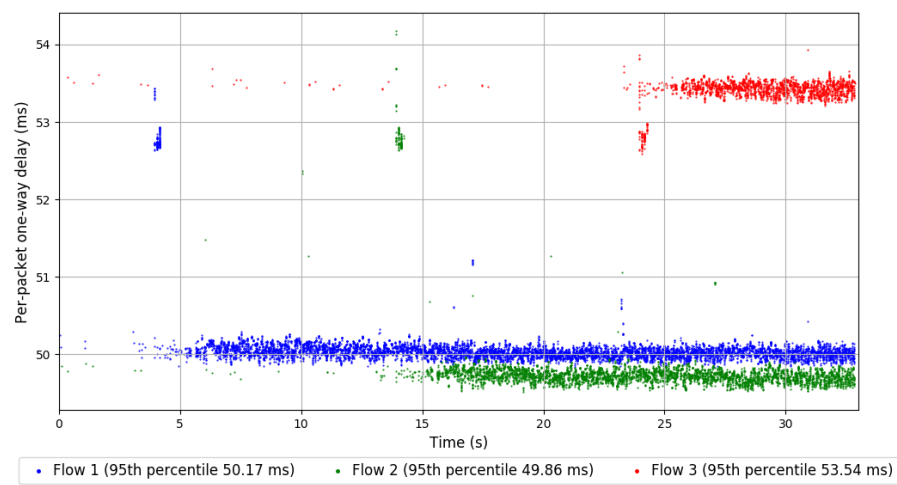
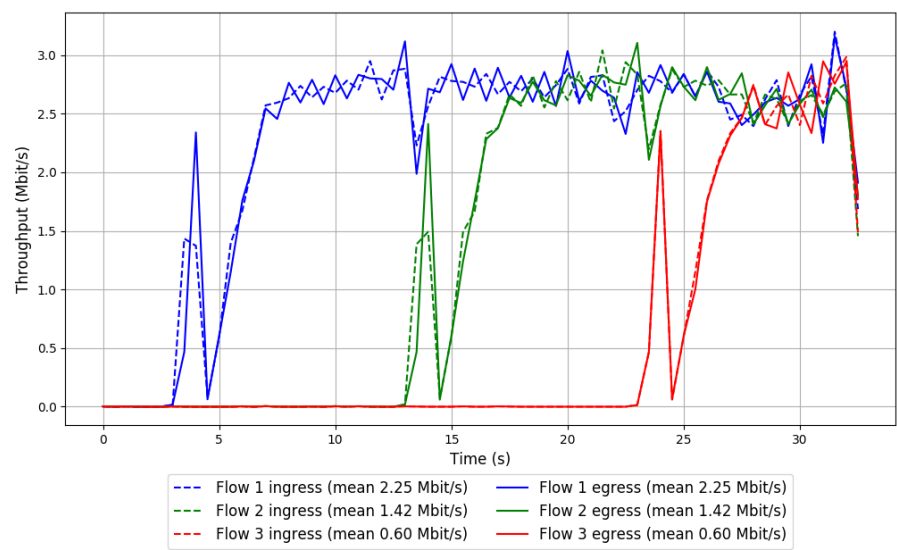
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 53.544 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-10-12 13:43:49

End at: 2017-10-12 13:44:19

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 52.861 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 49.854 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 50.123 ms

Loss rate: 0.00%

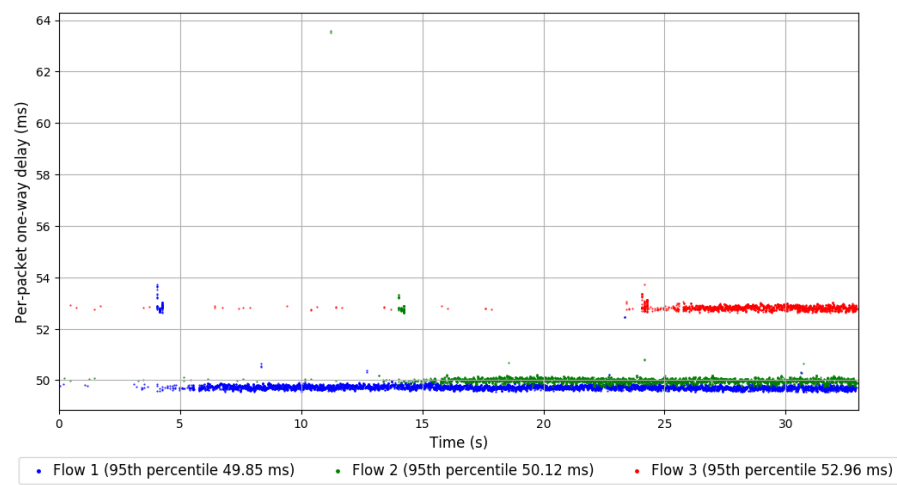
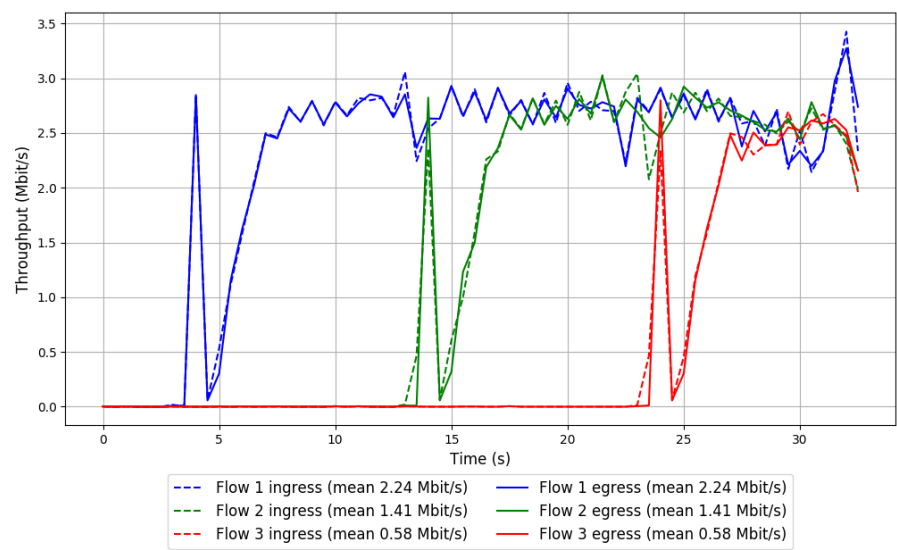
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 52.963 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-10-12 13:56:00

End at: 2017-10-12 13:56:30

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 53.550 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 53.575 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 49.735 ms

Loss rate: 0.00%

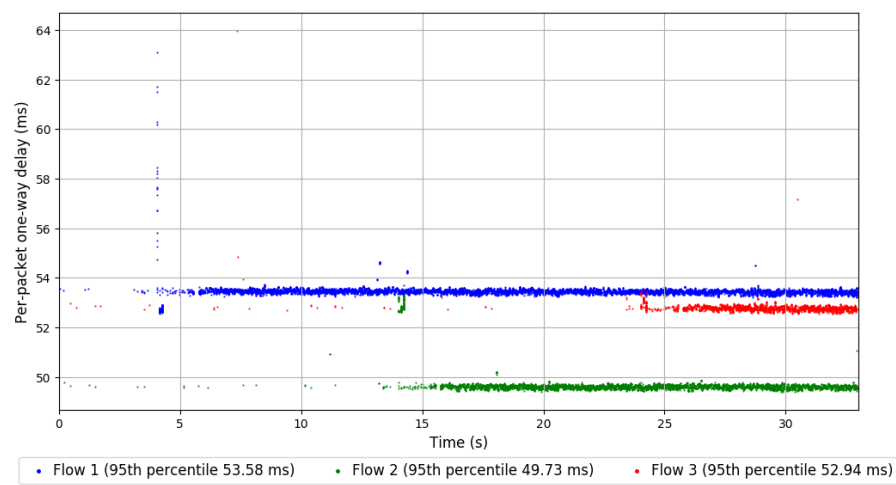
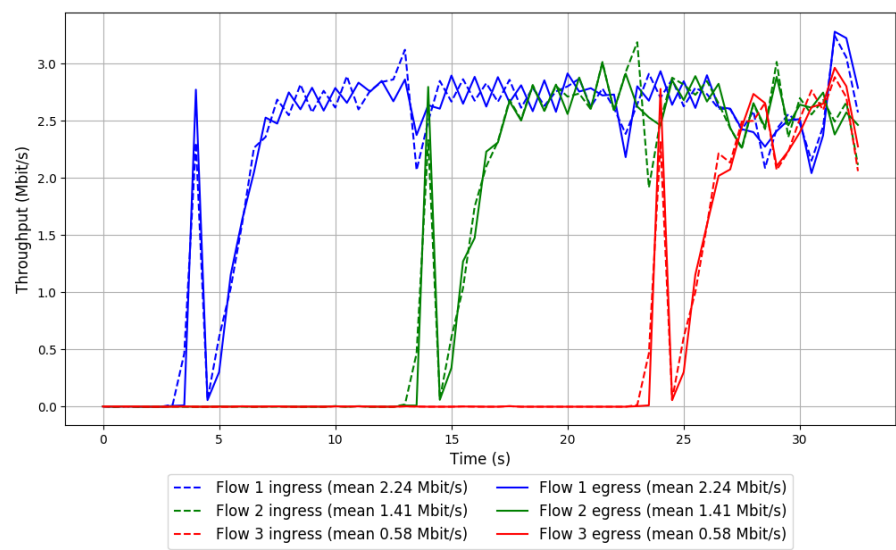
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 52.942 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-10-12 14:08:35

End at: 2017-10-12 14:09:05

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 53.466 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 53.487 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 49.742 ms

Loss rate: 0.00%

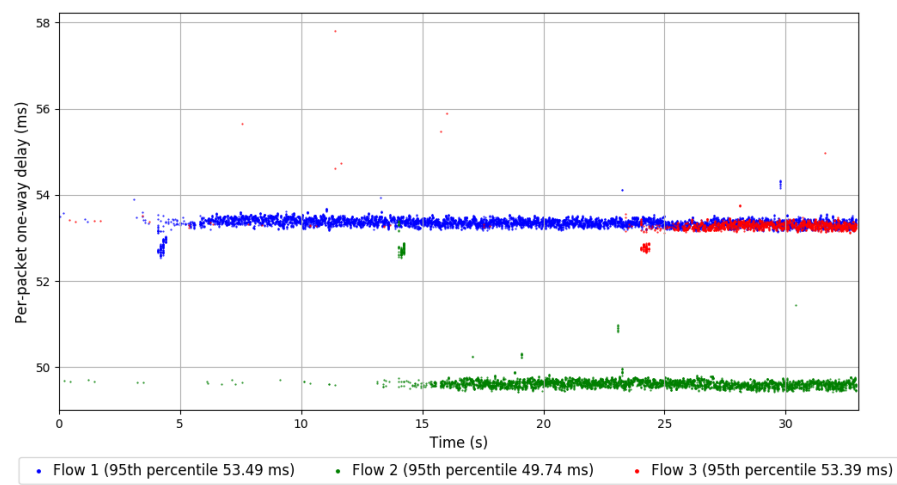
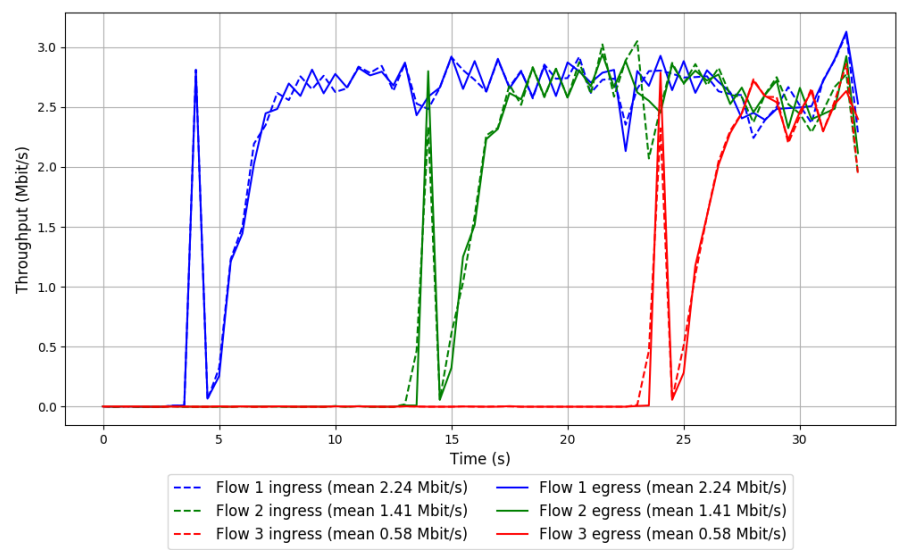
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 53.394 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-10-12 14:20:42

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

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 53.426 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 52.838 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 53.453 ms

Loss rate: 0.00%

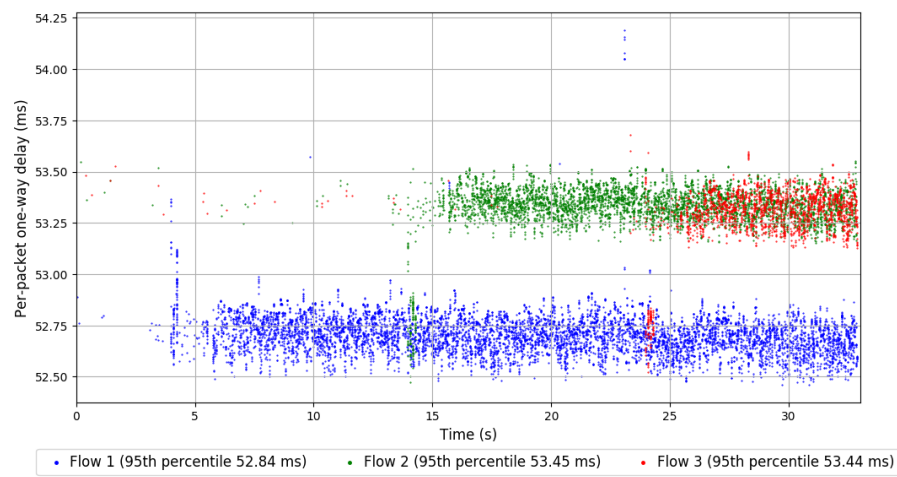
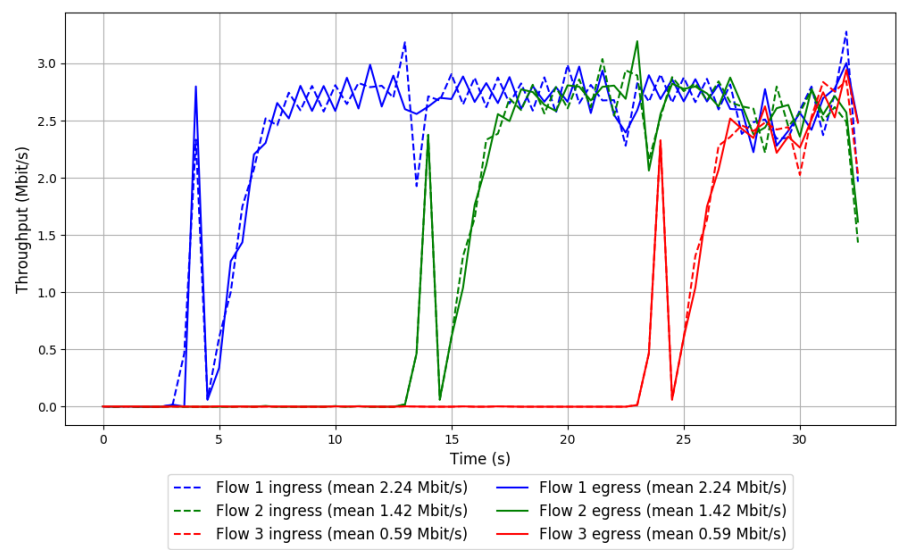
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 53.443 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

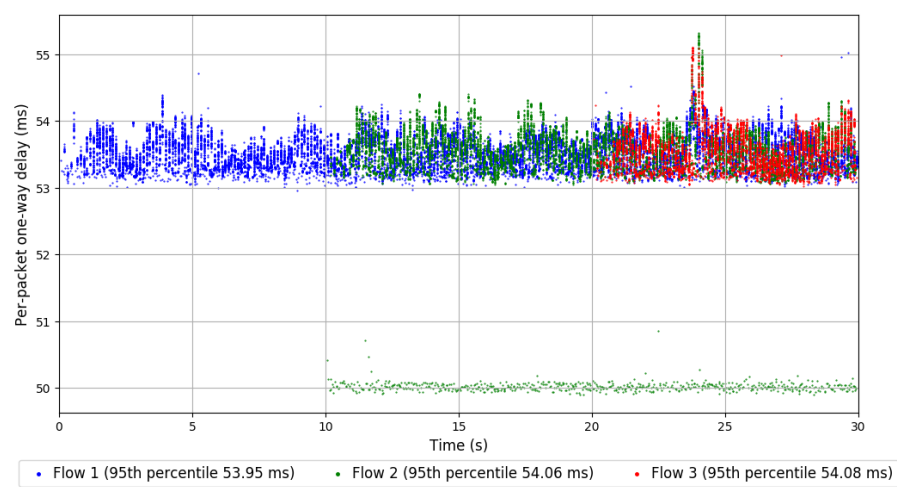
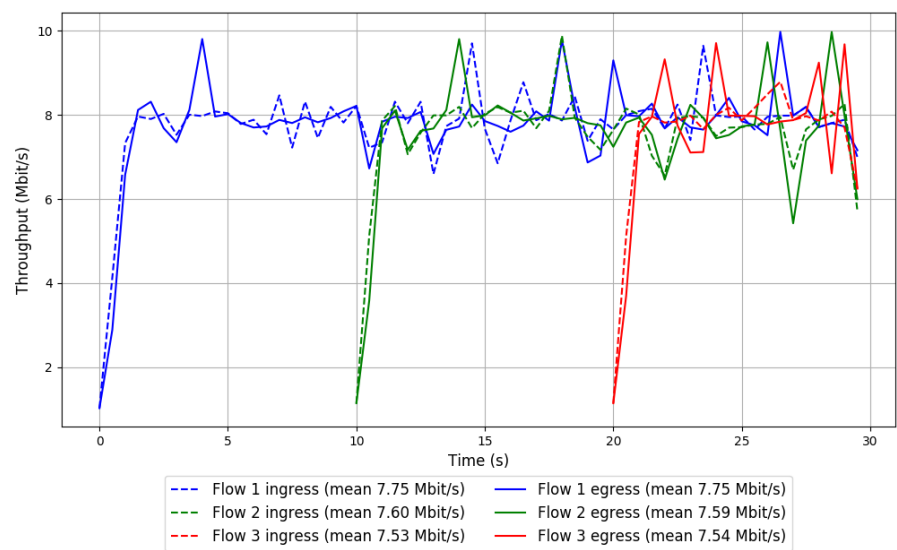


```
Run 1: Statistics of Sprout

Start at: 2017-10-12 12:30:02
End at: 2017-10-12 12:30:32

# Below is generated by plot.py at 2017-10-12 16:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.28 Mbit/s
95th percentile per-packet one-way delay: 54.004 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 7.75 Mbit/s
95th percentile per-packet one-way delay: 53.946 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 54.063 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 7.54 Mbit/s
95th percentile per-packet one-way delay: 54.084 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-10-12 12:42:41

End at: 2017-10-12 12:43:11

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.38 Mbit/s

95th percentile per-packet one-way delay: 54.057 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 54.071 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.68 Mbit/s

95th percentile per-packet one-way delay: 54.034 ms

Loss rate: 0.00%

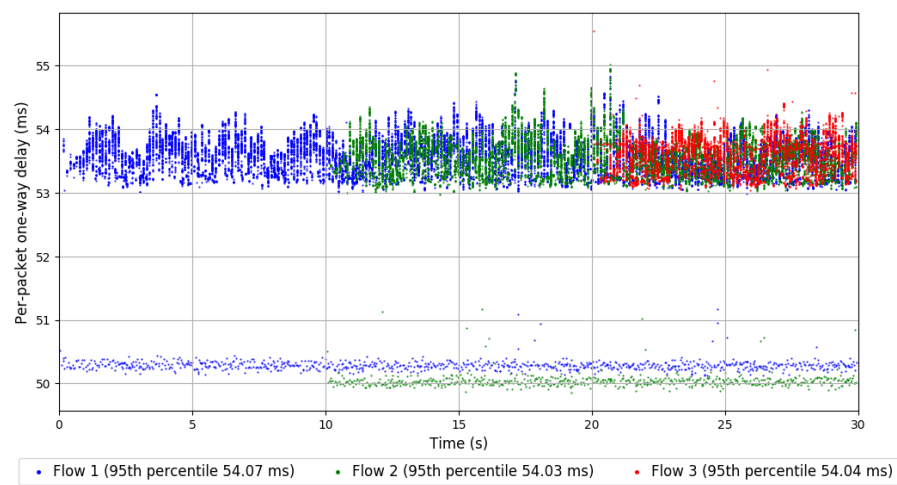
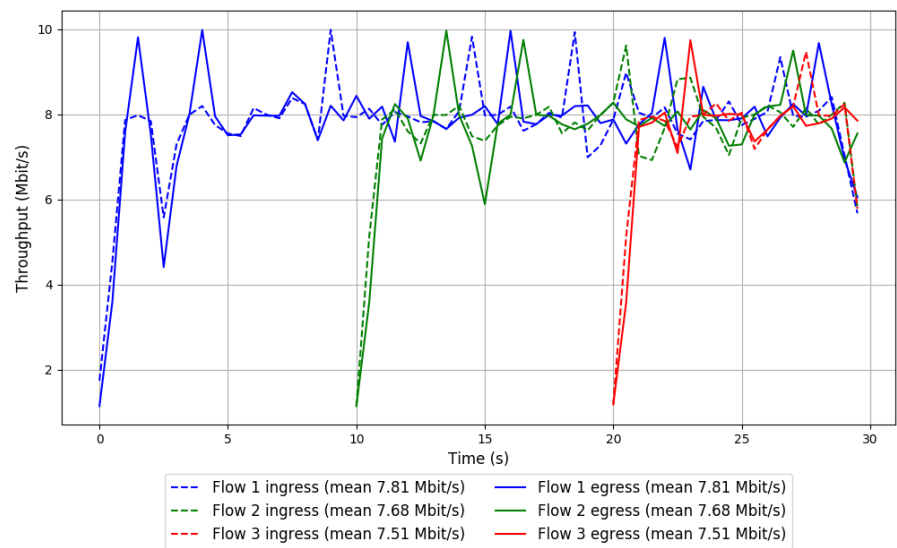
-- Flow 3:

Average throughput: 7.51 Mbit/s

95th percentile per-packet one-way delay: 54.038 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

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

End at: 2017-10-12 12:55:57

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.19 Mbit/s

95th percentile per-packet one-way delay: 53.978 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 53.969 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.76 Mbit/s

95th percentile per-packet one-way delay: 53.962 ms

Loss rate: 0.00%

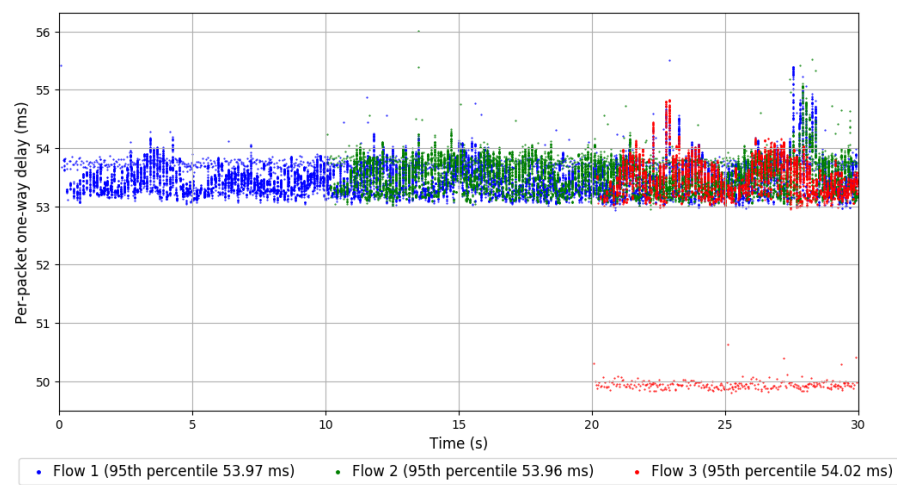
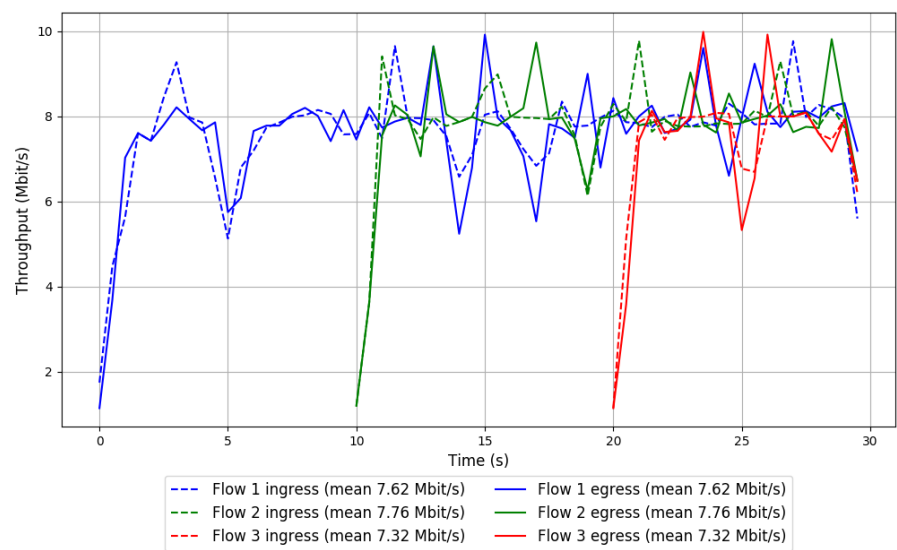
-- Flow 3:

Average throughput: 7.32 Mbit/s

95th percentile per-packet one-way delay: 54.025 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-10-12 13:07:59

End at: 2017-10-12 13:08:29

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.33 Mbit/s

95th percentile per-packet one-way delay: 54.072 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.70 Mbit/s

95th percentile per-packet one-way delay: 54.086 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 54.101 ms

Loss rate: 0.00%

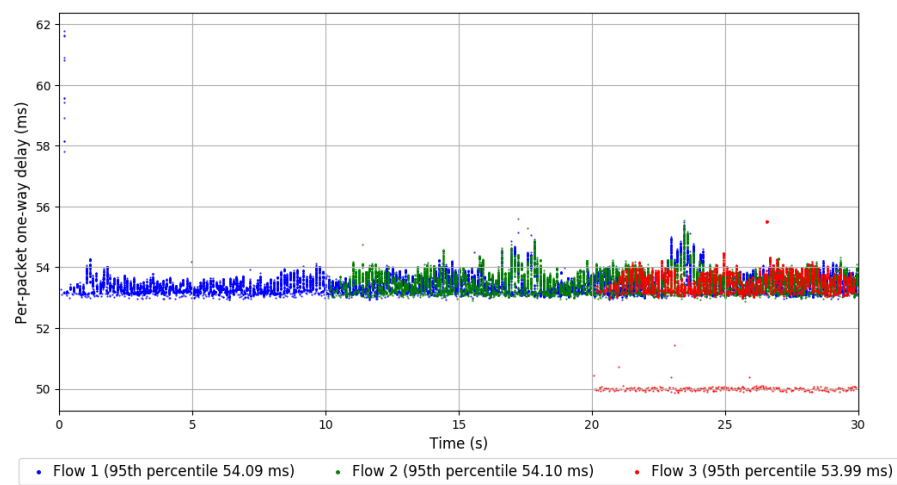
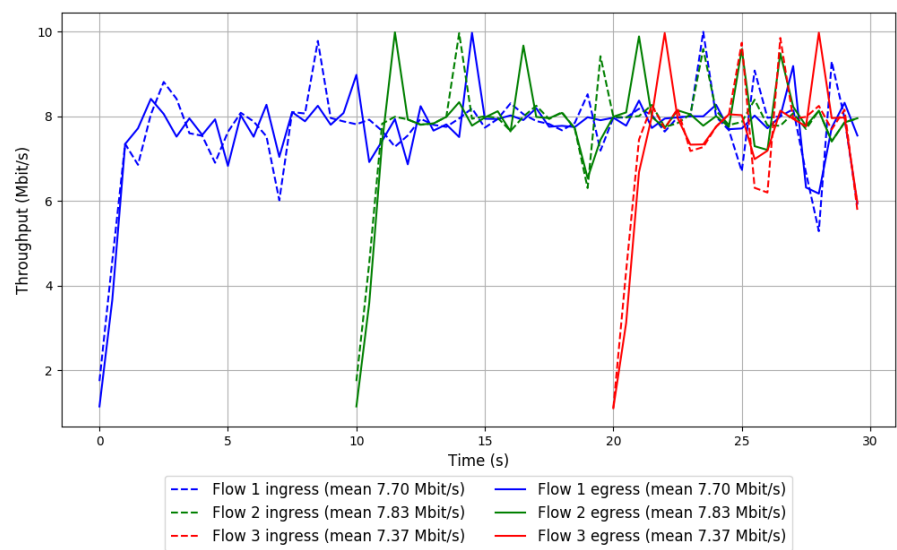
-- Flow 3:

Average throughput: 7.37 Mbit/s

95th percentile per-packet one-way delay: 53.990 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-10-12 13:20:32

End at: 2017-10-12 13:21:02

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.29 Mbit/s

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

Loss rate: 0.01%

-- Flow 1:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 53.761 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 53.819 ms

Loss rate: 0.00%

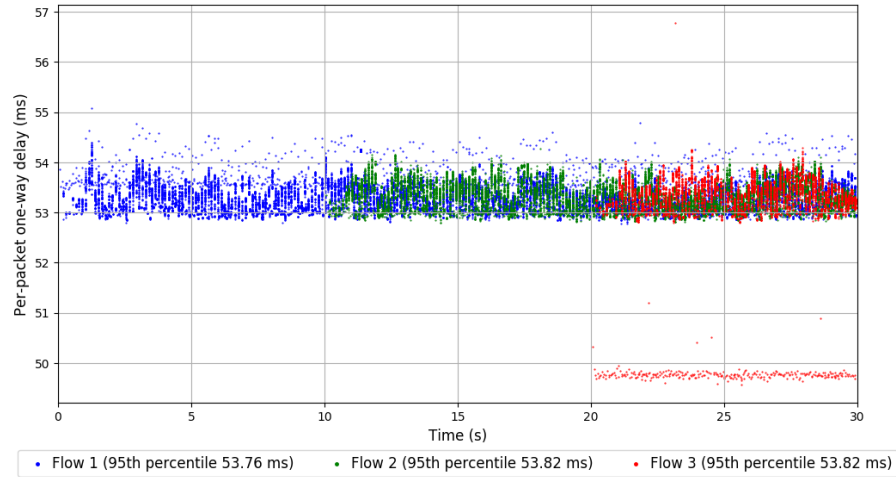
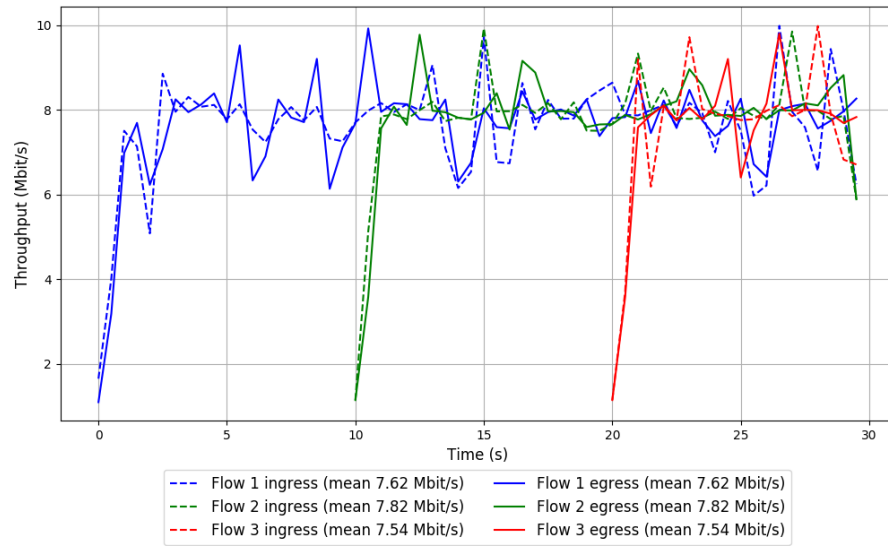
-- Flow 3:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 53.822 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-10-12 13:32:40

End at: 2017-10-12 13:33:10

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.49 Mbit/s

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

Loss rate: 0.03%

-- Flow 1:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 53.737 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 53.595 ms

Loss rate: 0.00%

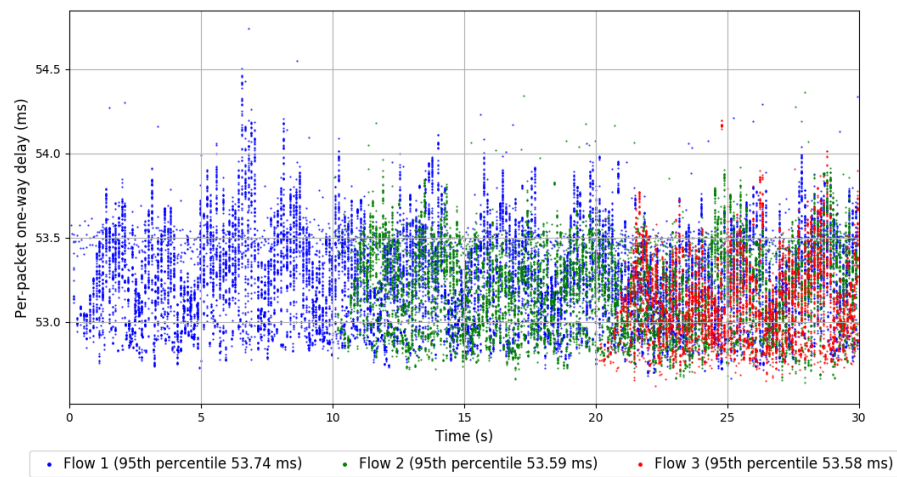
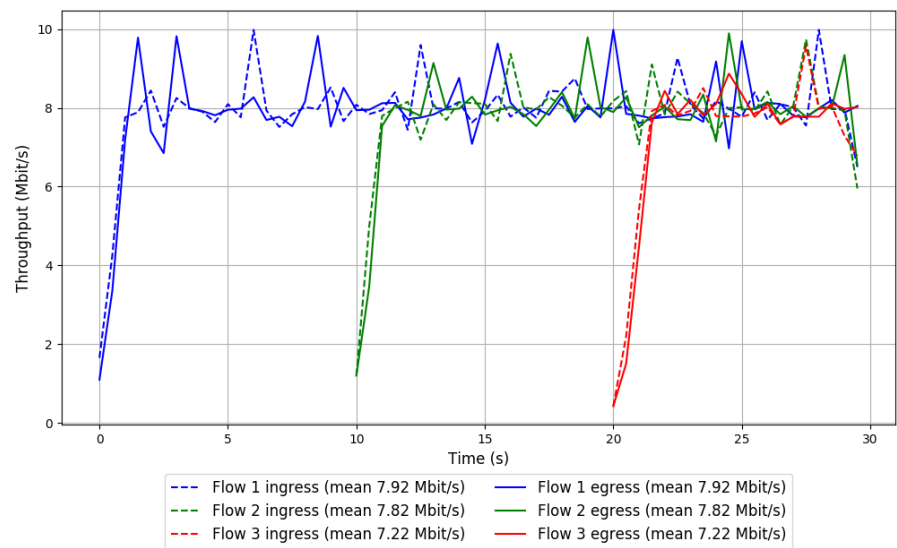
-- Flow 3:

Average throughput: 7.22 Mbit/s

95th percentile per-packet one-way delay: 53.581 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-10-12 13:45:10

End at: 2017-10-12 13:45:40

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.10 Mbit/s

95th percentile per-packet one-way delay: 53.626 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 53.627 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.26 Mbit/s

95th percentile per-packet one-way delay: 53.621 ms

Loss rate: 0.10%

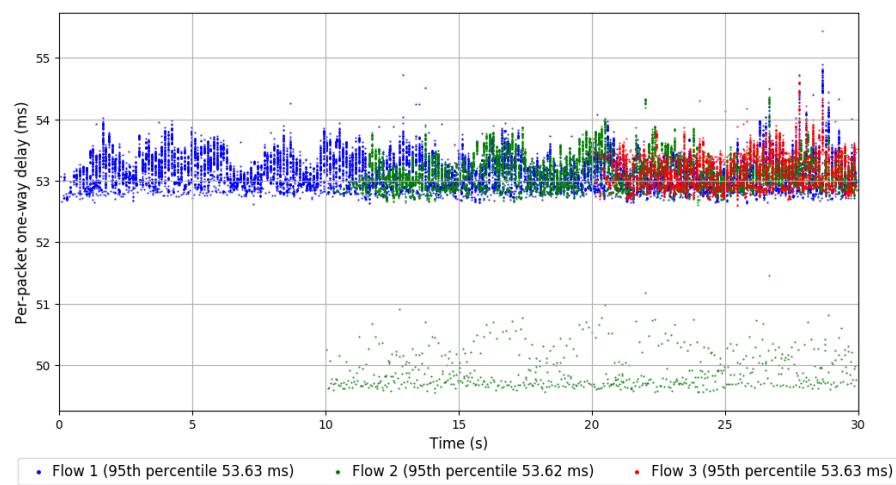
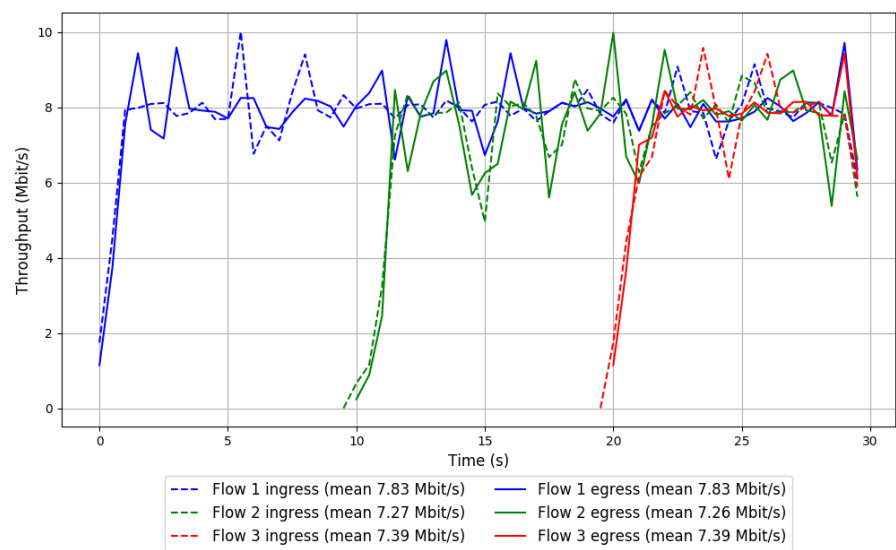
-- Flow 3:

Average throughput: 7.39 Mbit/s

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

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-10-12 13:57:21

End at: 2017-10-12 13:57:51

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.34 Mbit/s

95th percentile per-packet one-way delay: 53.639 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 7.69 Mbit/s

95th percentile per-packet one-way delay: 53.612 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.77 Mbit/s

95th percentile per-packet one-way delay: 53.667 ms

Loss rate: 0.05%

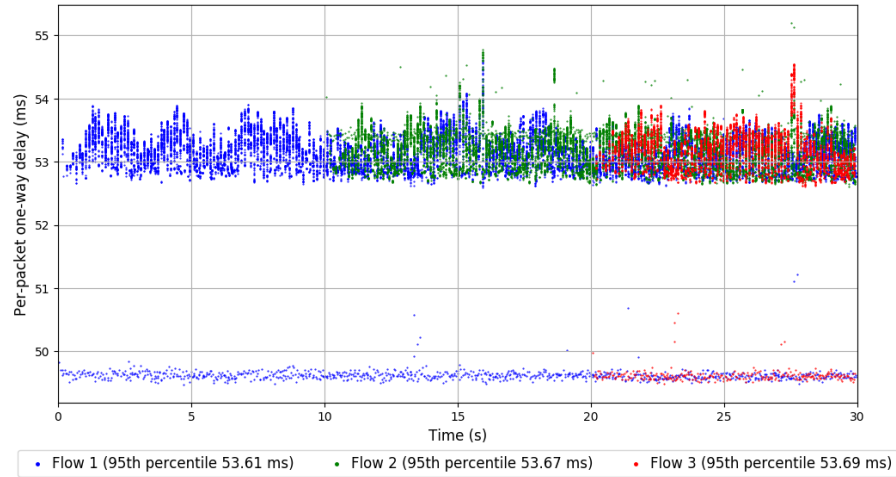
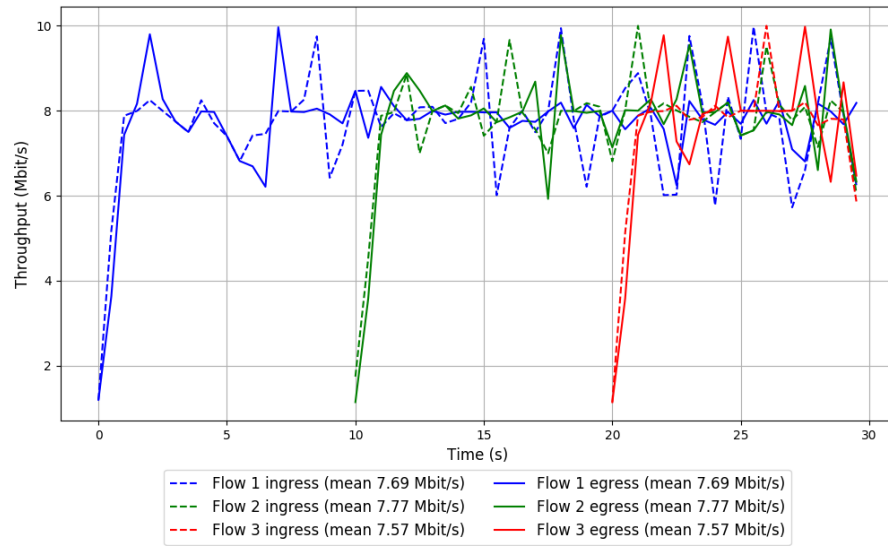
-- Flow 3:

Average throughput: 7.57 Mbit/s

95th percentile per-packet one-way delay: 53.689 ms

Loss rate: 0.00%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-10-12 14:09:55

End at: 2017-10-12 14:10:25

Below is generated by plot.py at 2017-10-12 16:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.26 Mbit/s

95th percentile per-packet one-way delay: 53.560 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 7.73 Mbit/s

95th percentile per-packet one-way delay: 53.560 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 7.73 Mbit/s

95th percentile per-packet one-way delay: 53.559 ms

Loss rate: 0.00%

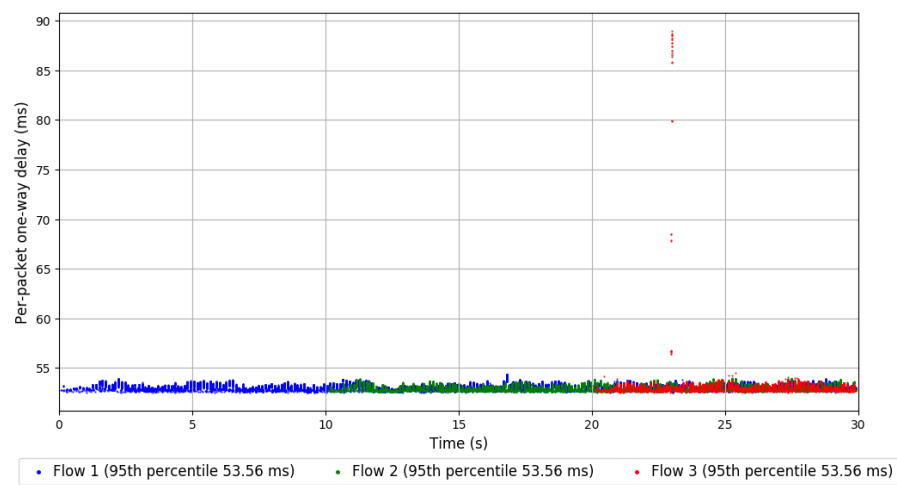
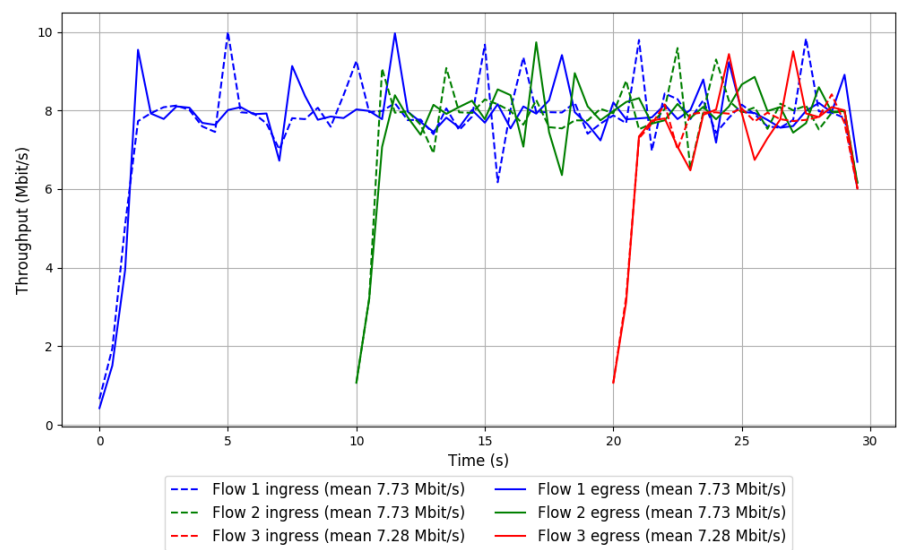
-- Flow 3:

Average throughput: 7.28 Mbit/s

95th percentile per-packet one-way delay: 53.559 ms

Loss rate: 0.00%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-10-12 14:22:03

End at: 2017-10-12 14:22:33

Below is generated by plot.py at 2017-10-12 16:23:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.33 Mbit/s

95th percentile per-packet one-way delay: 53.560 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.78 Mbit/s

95th percentile per-packet one-way delay: 53.560 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 53.516 ms

Loss rate: 0.00%

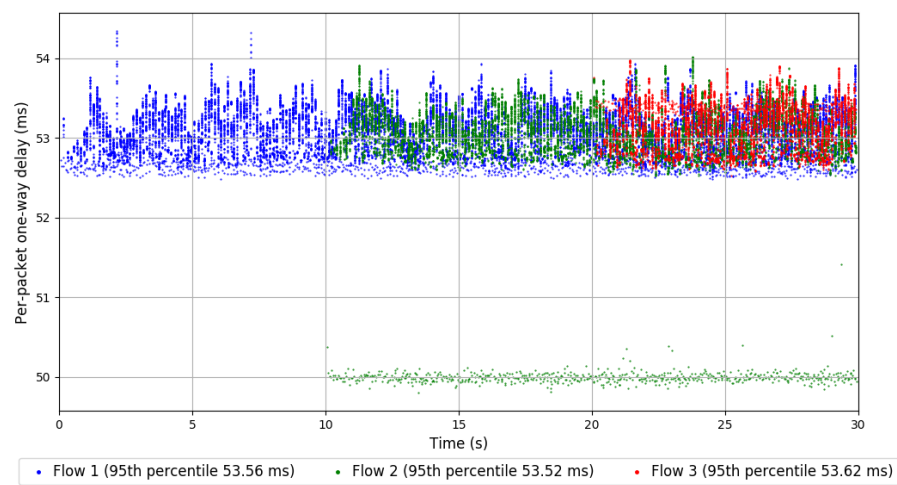
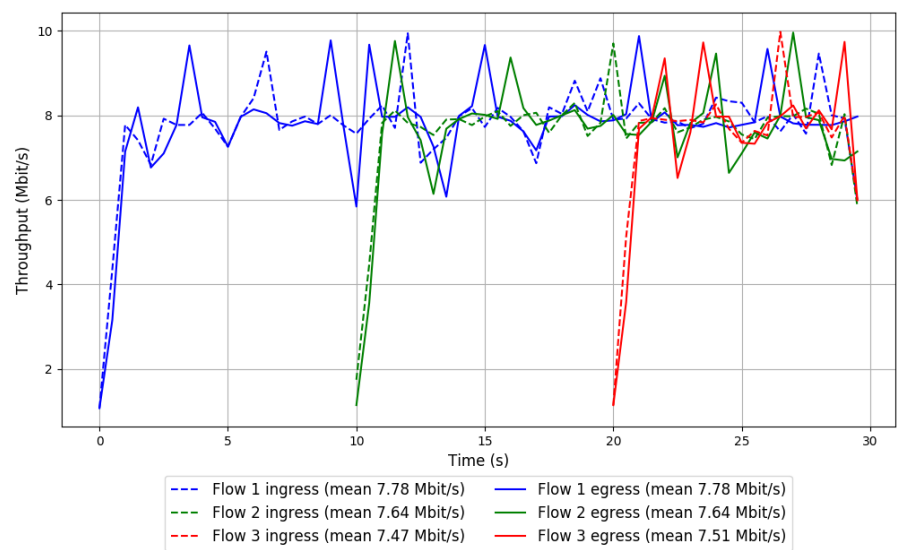
-- Flow 3:

Average throughput: 7.51 Mbit/s

95th percentile per-packet one-way delay: 53.615 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

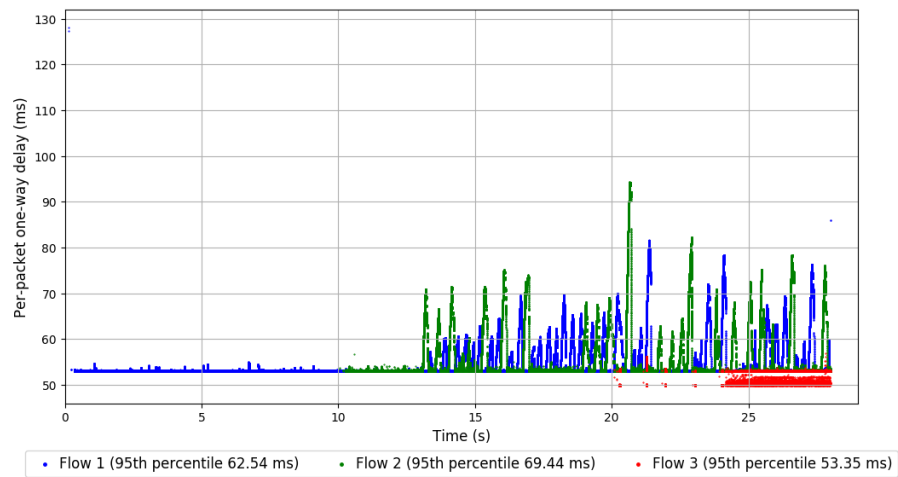
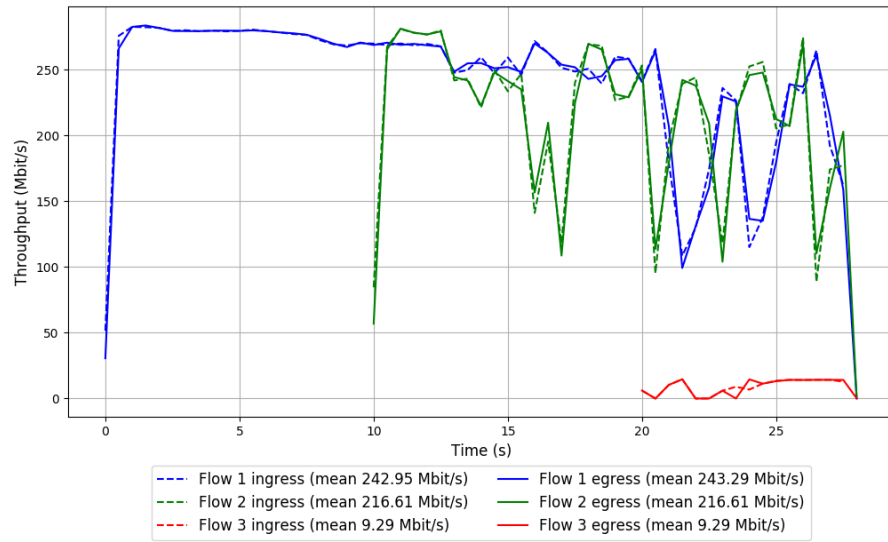


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-10-12 12:30:42
End at: 2017-10-12 12:31:12

# Below is generated by plot.py at 2017-10-12 16:28:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 385.28 Mbit/s
95th percentile per-packet one-way delay: 65.581 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 243.29 Mbit/s
95th percentile per-packet one-way delay: 62.537 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 216.61 Mbit/s
95th percentile per-packet one-way delay: 69.439 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.29 Mbit/s
95th percentile per-packet one-way delay: 53.346 ms
Loss rate: 0.00%
```


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

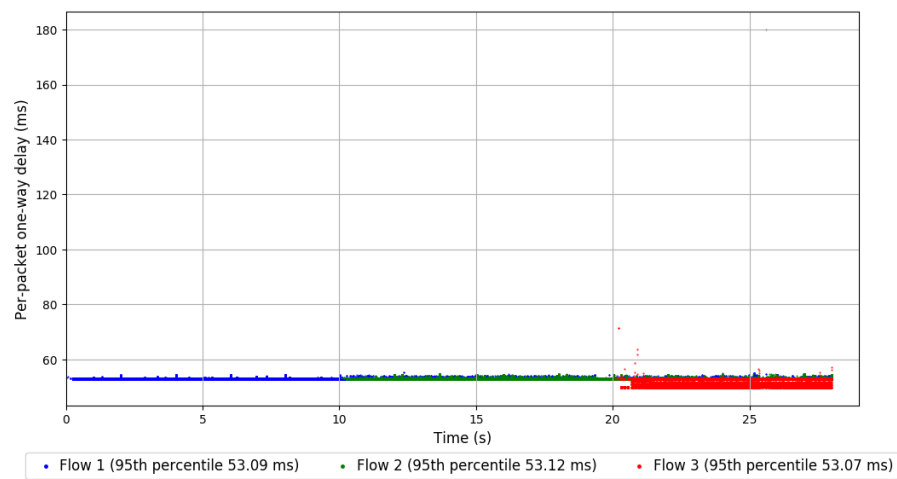
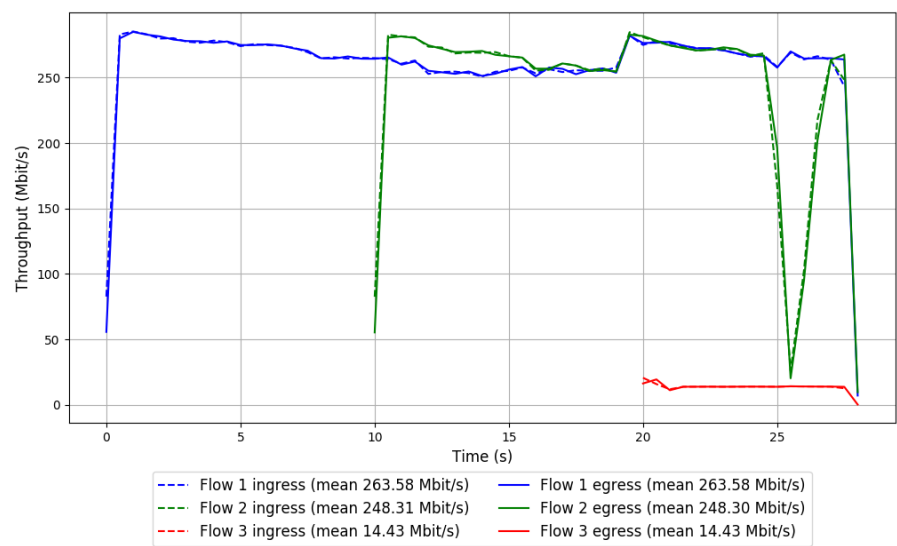


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-10-12 12:43:22
End at: 2017-10-12 12:43:52

# Below is generated by plot.py at 2017-10-12 16:30:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 427.08 Mbit/s
95th percentile per-packet one-way delay: 53.099 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 263.58 Mbit/s
95th percentile per-packet one-way delay: 53.088 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 248.30 Mbit/s
95th percentile per-packet one-way delay: 53.116 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.43 Mbit/s
95th percentile per-packet one-way delay: 53.074 ms
Loss rate: 0.01%
```

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

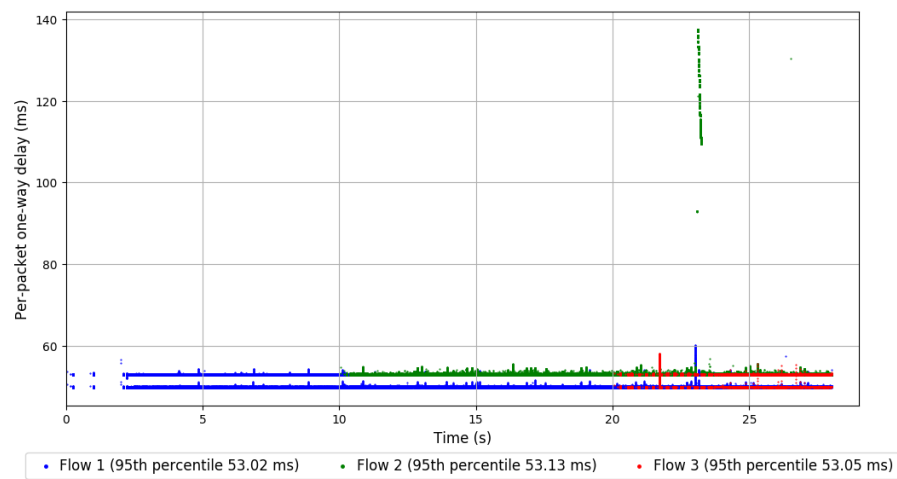
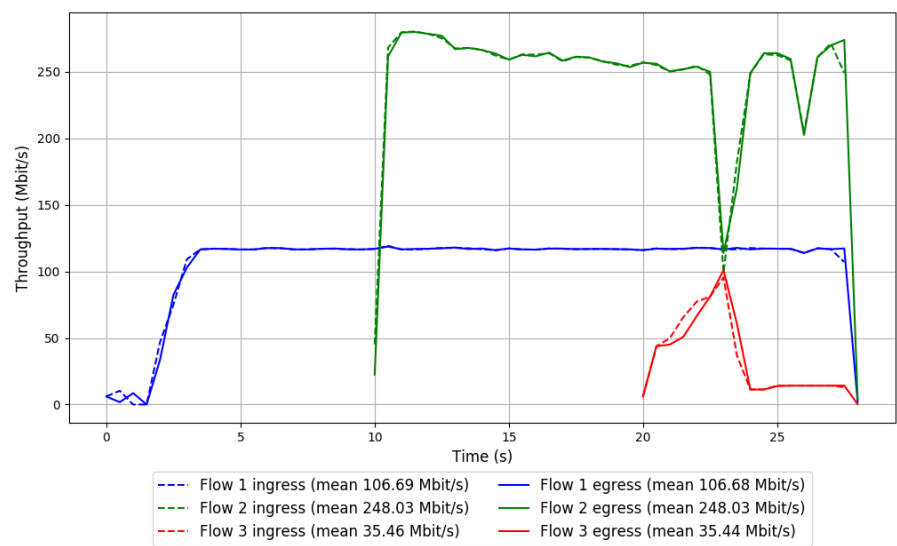


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-10-12 12:56:07
End at: 2017-10-12 12:56:37

# Below is generated by plot.py at 2017-10-12 16:30:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 275.95 Mbit/s
95th percentile per-packet one-way delay: 53.089 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 106.68 Mbit/s
95th percentile per-packet one-way delay: 53.023 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 248.03 Mbit/s
95th percentile per-packet one-way delay: 53.132 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 35.44 Mbit/s
95th percentile per-packet one-way delay: 53.055 ms
Loss rate: 0.00%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-10-12 13:08:40

End at: 2017-10-12 13:09:10

Below is generated by plot.py at 2017-10-12 16:30:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 238.19 Mbit/s

95th percentile per-packet one-way delay: 53.039 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 100.39 Mbit/s

95th percentile per-packet one-way delay: 53.010 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 108.14 Mbit/s

95th percentile per-packet one-way delay: 53.014 ms

Loss rate: 0.01%

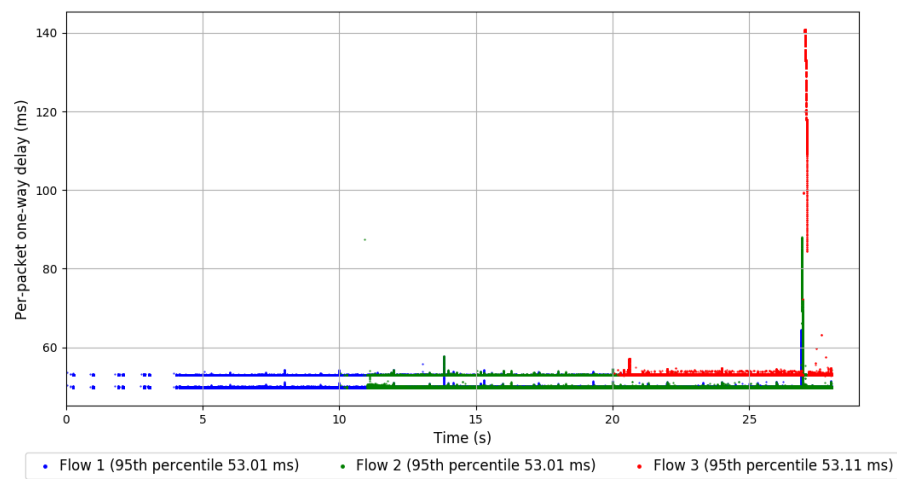
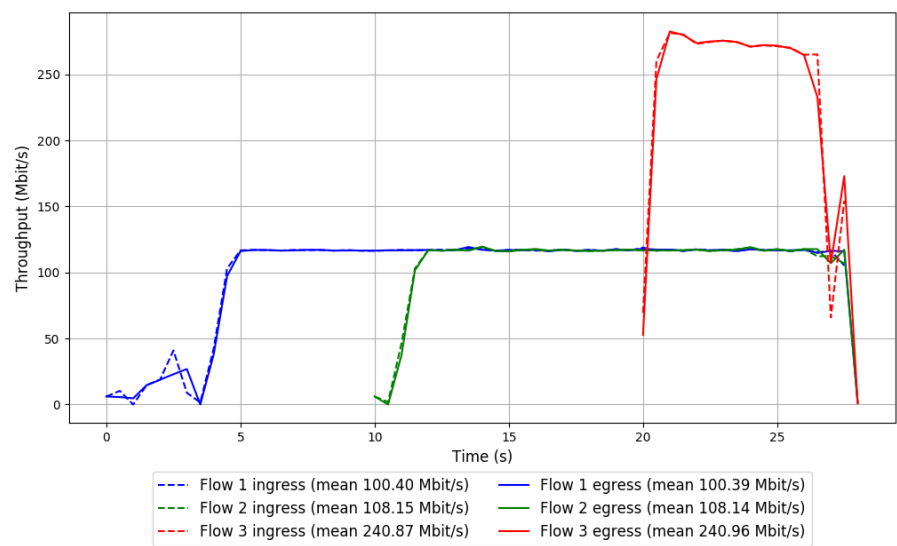
-- Flow 3:

Average throughput: 240.96 Mbit/s

95th percentile per-packet one-way delay: 53.114 ms

Loss rate: 0.01%

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



Run 5: Statistics of TaoVA-100x

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

End at: 2017-10-12 13:21:42

Below is generated by plot.py at 2017-10-12 16:30:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 47.33 Mbit/s

95th percentile per-packet one-way delay: 52.830 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 14.12 Mbit/s

95th percentile per-packet one-way delay: 52.850 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.25 Mbit/s

95th percentile per-packet one-way delay: 52.833 ms

Loss rate: 0.01%

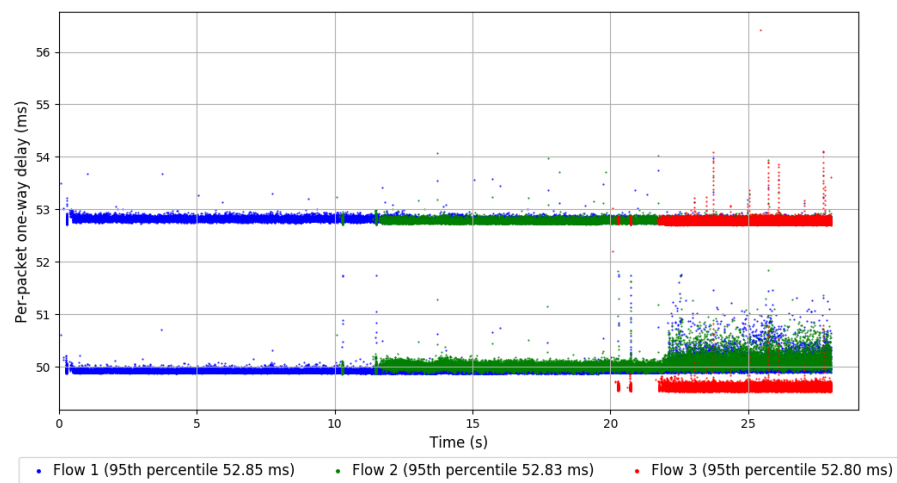
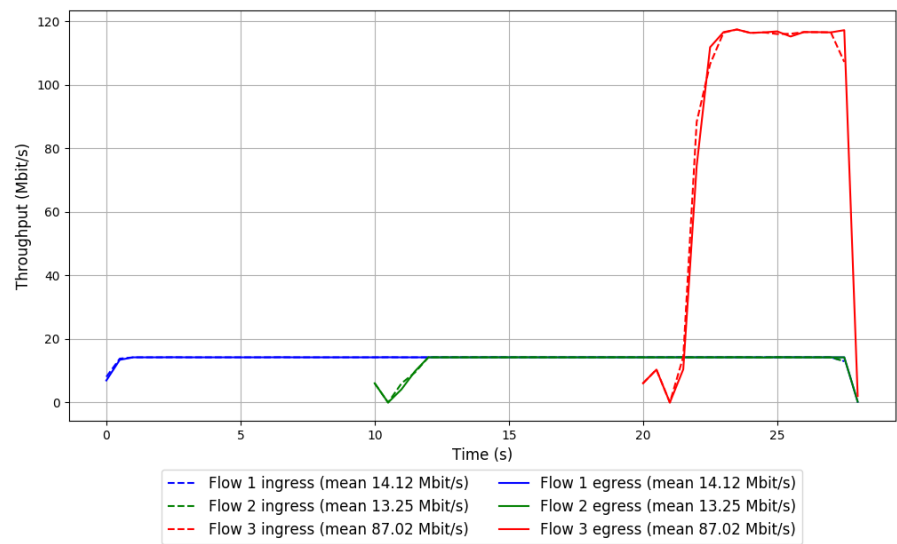
-- Flow 3:

Average throughput: 87.02 Mbit/s

95th percentile per-packet one-way delay: 52.803 ms

Loss rate: 0.01%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-10-12 13:33:20

End at: 2017-10-12 13:33:50

Below is generated by plot.py at 2017-10-12 16:30:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 296.54 Mbit/s

95th percentile per-packet one-way delay: 53.565 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 82.57 Mbit/s

95th percentile per-packet one-way delay: 52.727 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 228.33 Mbit/s

95th percentile per-packet one-way delay: 61.845 ms

Loss rate: 0.16%

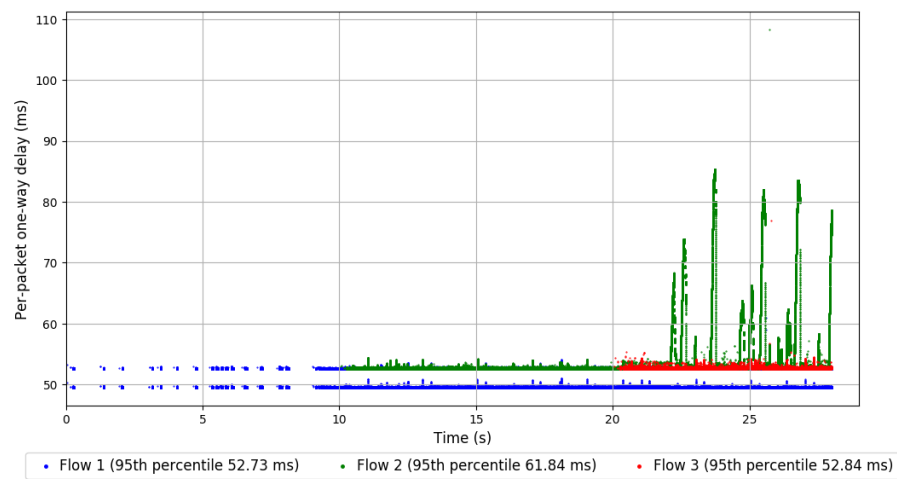
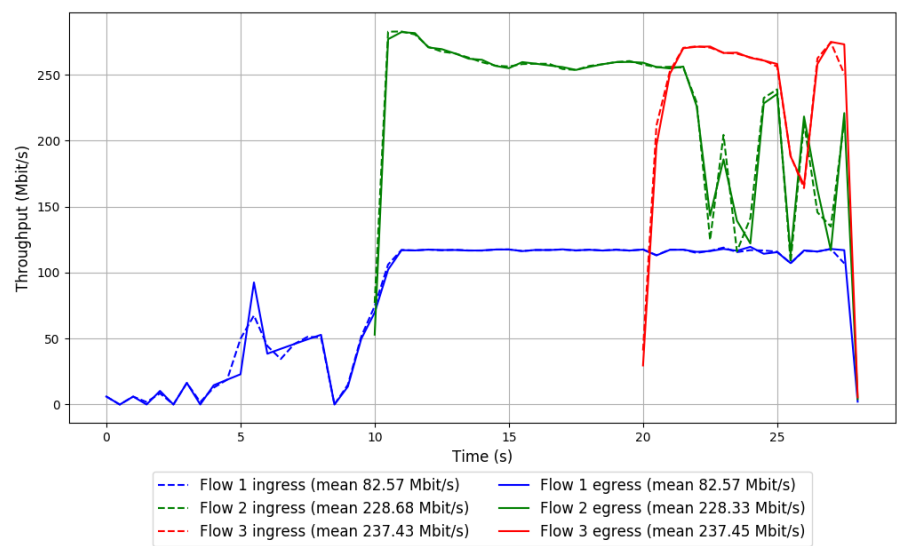
-- Flow 3:

Average throughput: 237.45 Mbit/s

95th percentile per-packet one-way delay: 52.836 ms

Loss rate: 0.01%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-10-12 13:45:50

End at: 2017-10-12 13:46:20

Below is generated by plot.py at 2017-10-12 16:30:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.09 Mbit/s

95th percentile per-packet one-way delay: 52.700 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 14.12 Mbit/s

95th percentile per-packet one-way delay: 52.708 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 14.05 Mbit/s

95th percentile per-packet one-way delay: 52.694 ms

Loss rate: 0.01%

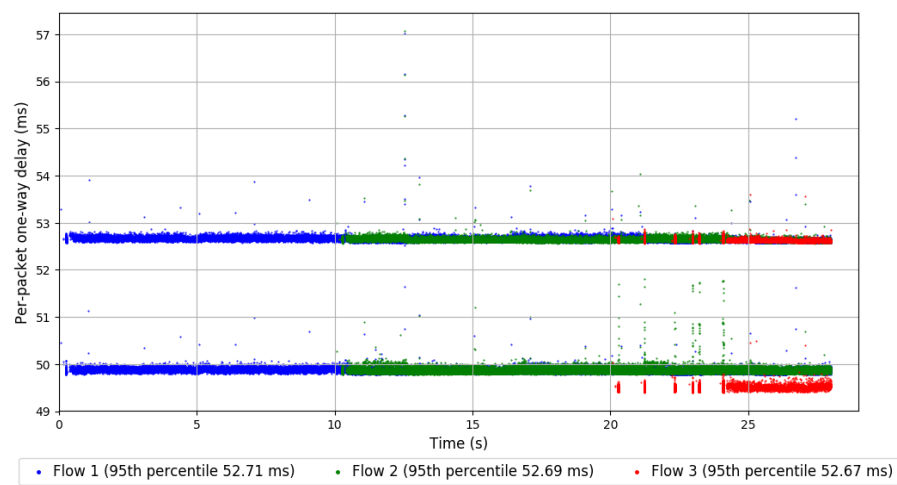
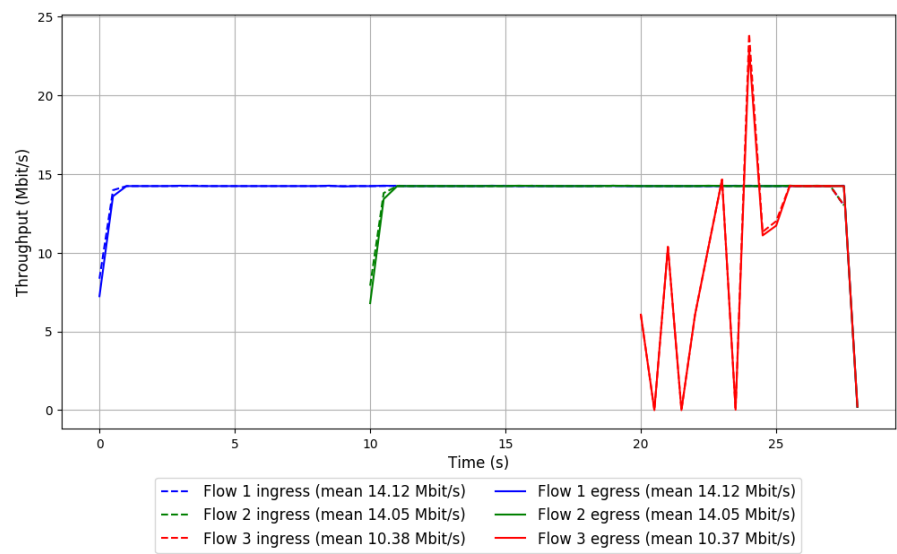
-- Flow 3:

Average throughput: 10.37 Mbit/s

95th percentile per-packet one-way delay: 52.675 ms

Loss rate: 0.03%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-10-12 13:58:01

End at: 2017-10-12 13:58:31

Below is generated by plot.py at 2017-10-12 16:30:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 343.02 Mbit/s

95th percentile per-packet one-way delay: 53.304 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 261.07 Mbit/s

95th percentile per-packet one-way delay: 52.734 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 14.04 Mbit/s

95th percentile per-packet one-way delay: 52.694 ms

Loss rate: 0.01%

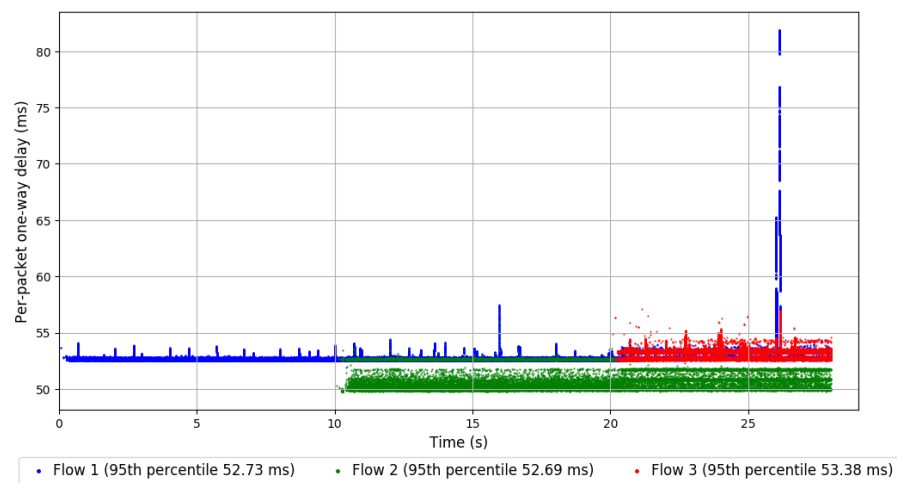
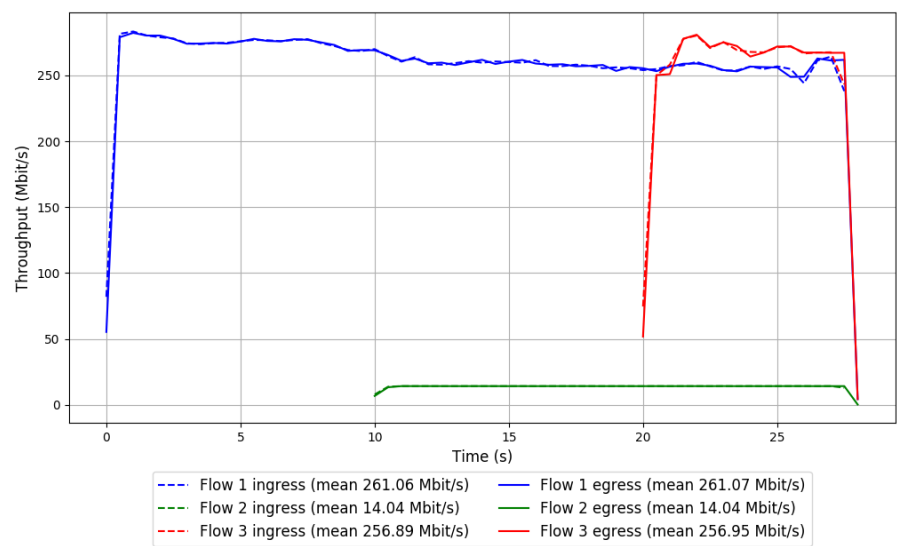
-- Flow 3:

Average throughput: 256.95 Mbit/s

95th percentile per-packet one-way delay: 53.376 ms

Loss rate: 0.01%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-10-12 14:10:35

End at: 2017-10-12 14:11:05

Below is generated by plot.py at 2017-10-12 16:30:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.33 Mbit/s

95th percentile per-packet one-way delay: 52.604 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 98.38 Mbit/s

95th percentile per-packet one-way delay: 52.597 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 14.06 Mbit/s

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

Loss rate: 0.01%

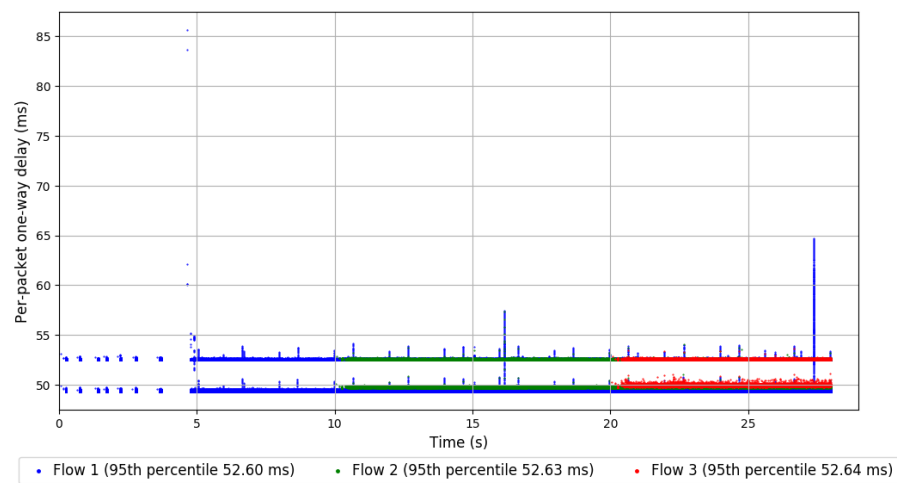
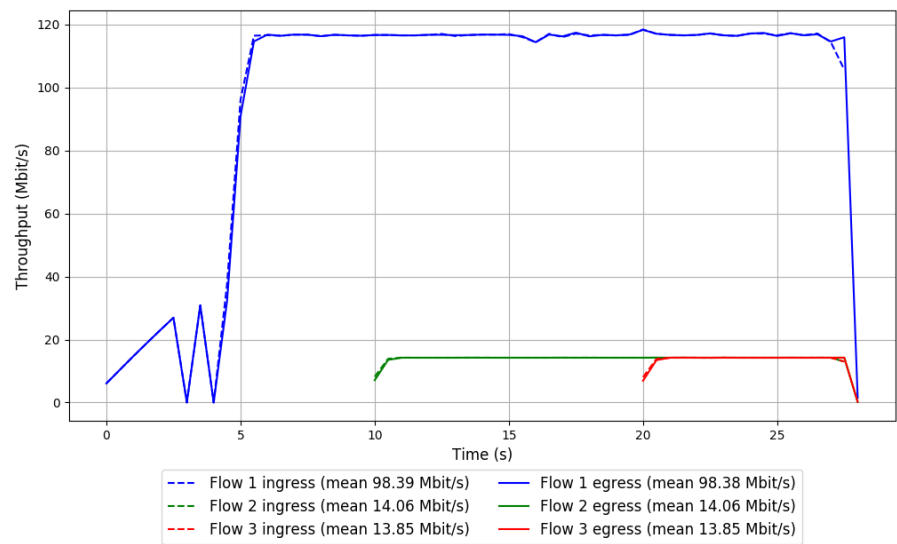
-- Flow 3:

Average throughput: 13.85 Mbit/s

95th percentile per-packet one-way delay: 52.643 ms

Loss rate: 0.01%

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

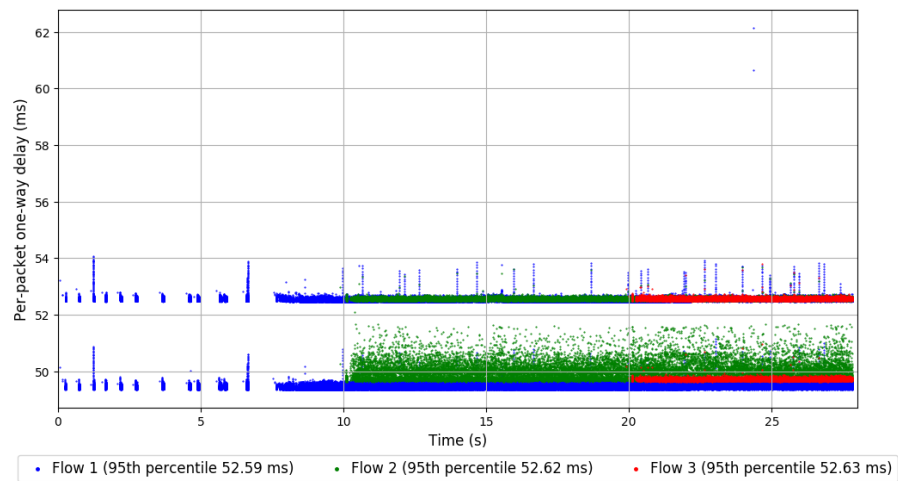
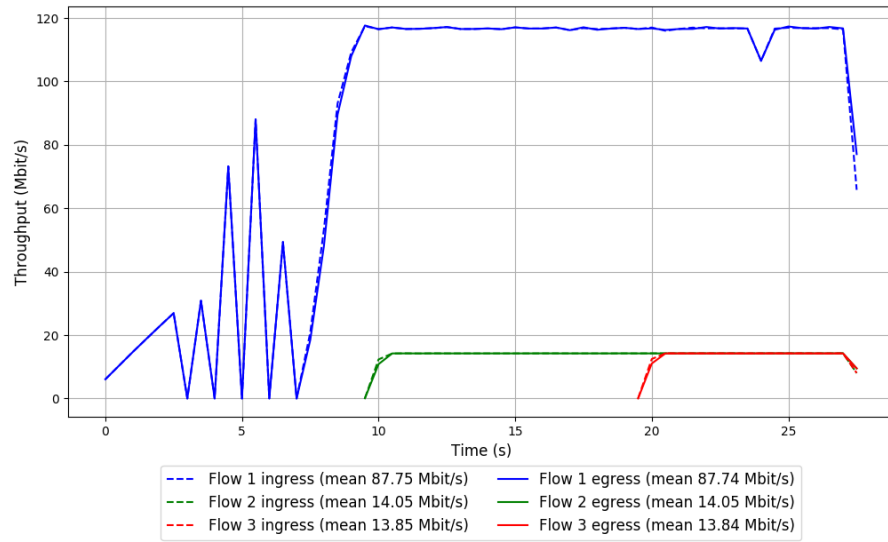


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-10-12 14:22:43
End at: 2017-10-12 14:23:13

# Below is generated by plot.py at 2017-10-12 16:30:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.77 Mbit/s
95th percentile per-packet one-way delay: 52.596 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 87.74 Mbit/s
95th percentile per-packet one-way delay: 52.590 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 14.05 Mbit/s
95th percentile per-packet one-way delay: 52.624 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 13.84 Mbit/s
95th percentile per-packet one-way delay: 52.627 ms
Loss rate: 0.02%
```

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



Run 1: Statistics of TCP Vegas

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

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

Below is generated by plot.py at 2017-10-12 16:30:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.14 Mbit/s

95th percentile per-packet one-way delay: 53.842 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 104.20 Mbit/s

95th percentile per-packet one-way delay: 53.834 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.92 Mbit/s

95th percentile per-packet one-way delay: 54.153 ms

Loss rate: 0.00%

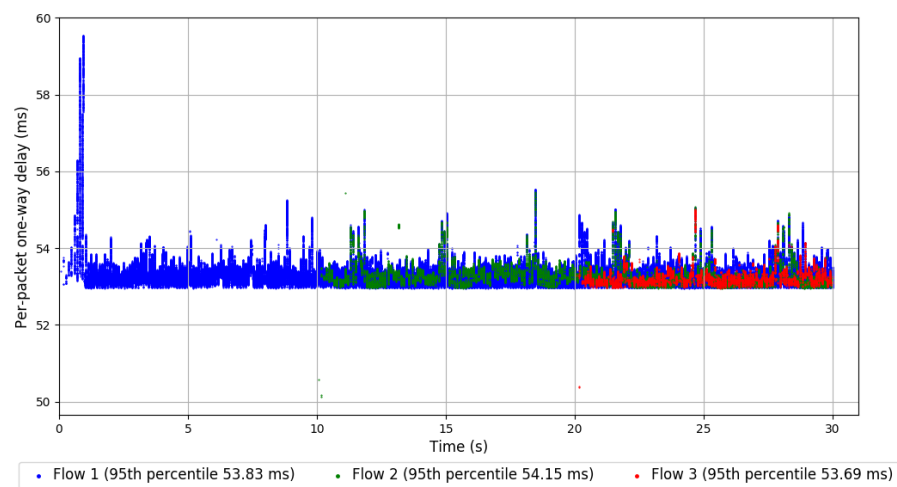
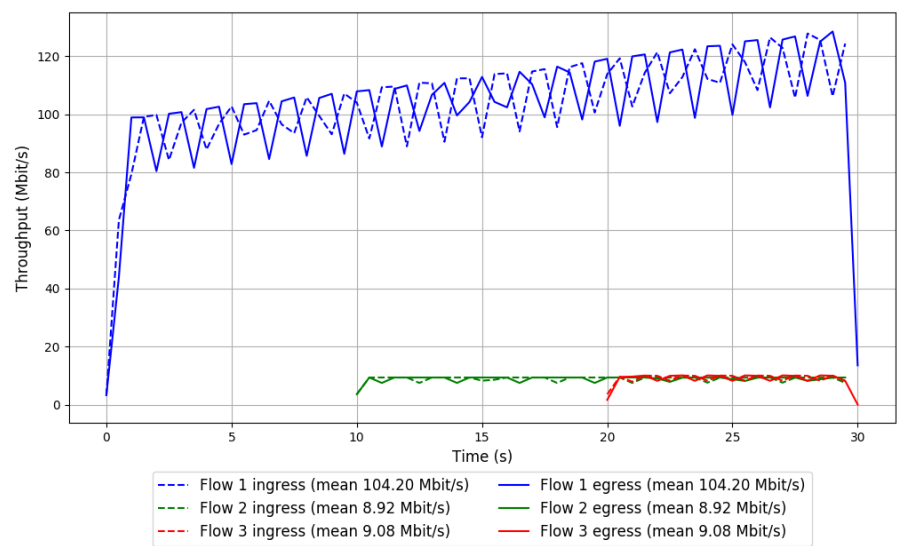
-- Flow 3:

Average throughput: 9.08 Mbit/s

95th percentile per-packet one-way delay: 53.688 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-10-12 12:40:35

End at: 2017-10-12 12:41:05

Below is generated by plot.py at 2017-10-12 16:30:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 122.17 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 113.48 Mbit/s

95th percentile per-packet one-way delay: 53.895 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.65 Mbit/s

95th percentile per-packet one-way delay: 53.876 ms

Loss rate: 0.02%

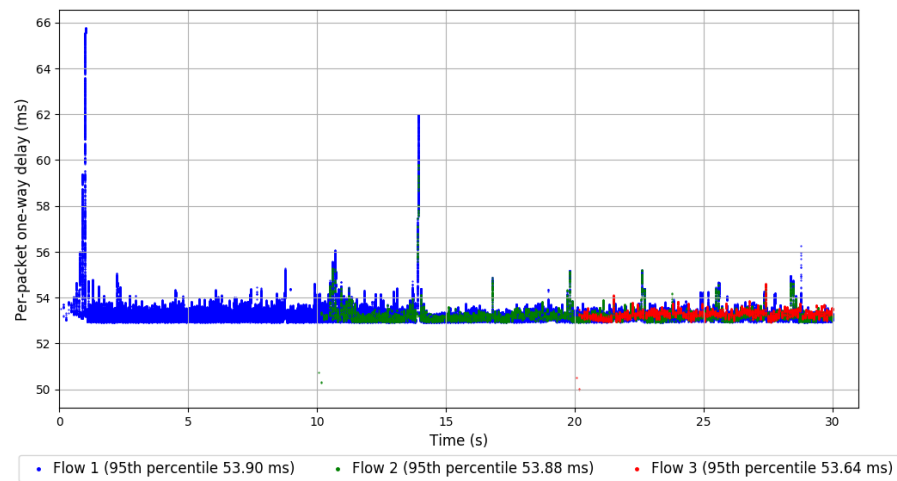
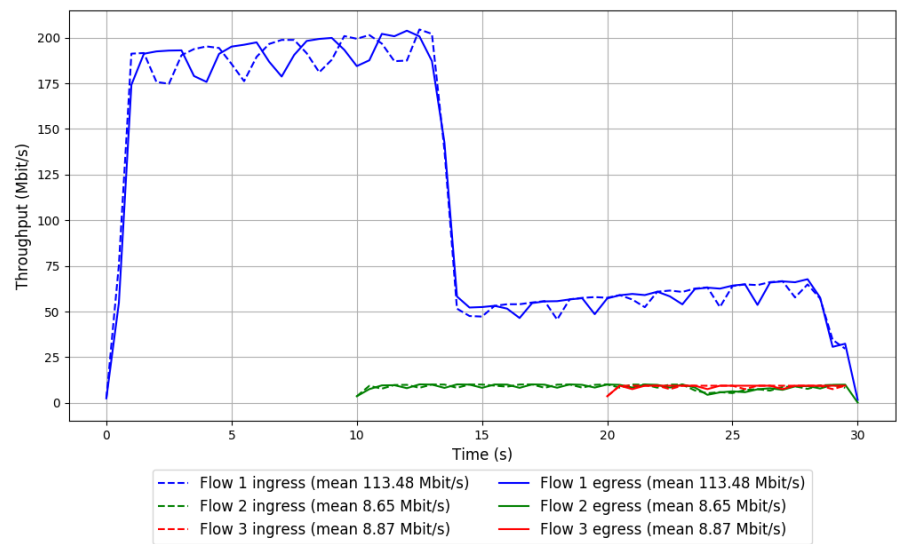
-- Flow 3:

Average throughput: 8.87 Mbit/s

95th percentile per-packet one-way delay: 53.637 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-10-12 12:53:20

End at: 2017-10-12 12:53:50

Below is generated by plot.py at 2017-10-12 16:30:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.78 Mbit/s

95th percentile per-packet one-way delay: 54.084 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 76.15 Mbit/s

95th percentile per-packet one-way delay: 53.967 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 9.97 Mbit/s

95th percentile per-packet one-way delay: 53.593 ms

Loss rate: 0.00%

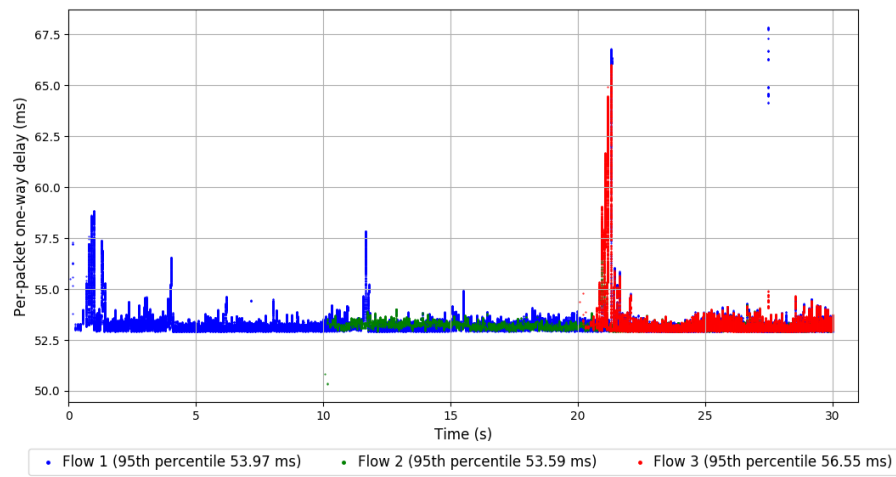
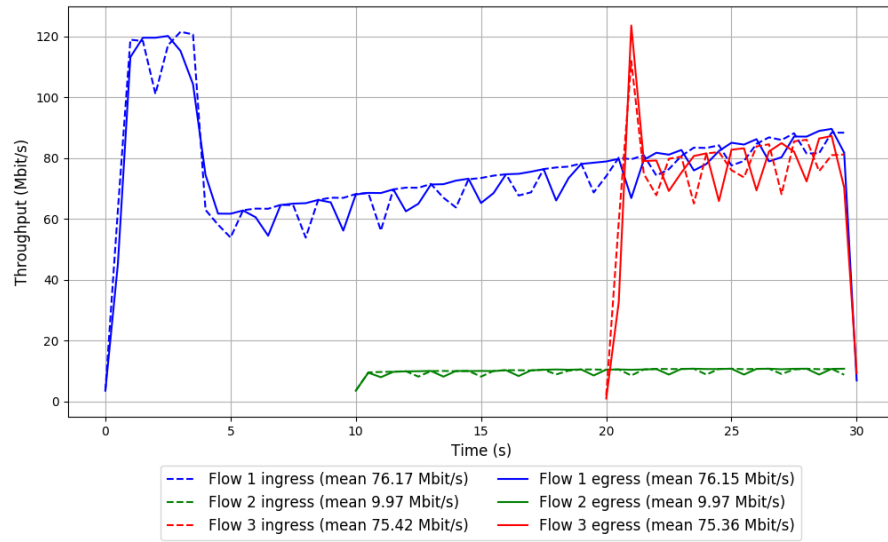
-- Flow 3:

Average throughput: 75.36 Mbit/s

95th percentile per-packet one-way delay: 56.547 ms

Loss rate: 0.12%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-10-12 13:05:50

End at: 2017-10-12 13:06:20

Below is generated by plot.py at 2017-10-12 16:30:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 169.80 Mbit/s

95th percentile per-packet one-way delay: 59.710 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 155.27 Mbit/s

95th percentile per-packet one-way delay: 59.825 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 17.49 Mbit/s

95th percentile per-packet one-way delay: 58.926 ms

Loss rate: 0.00%

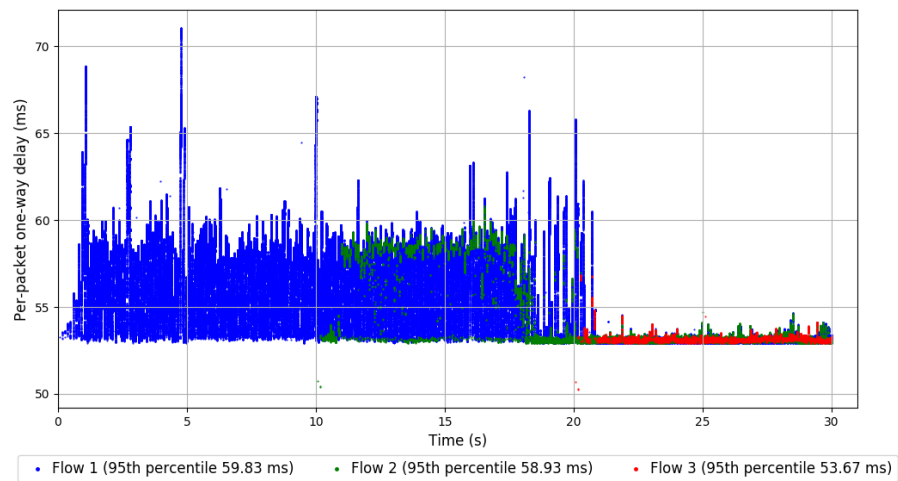
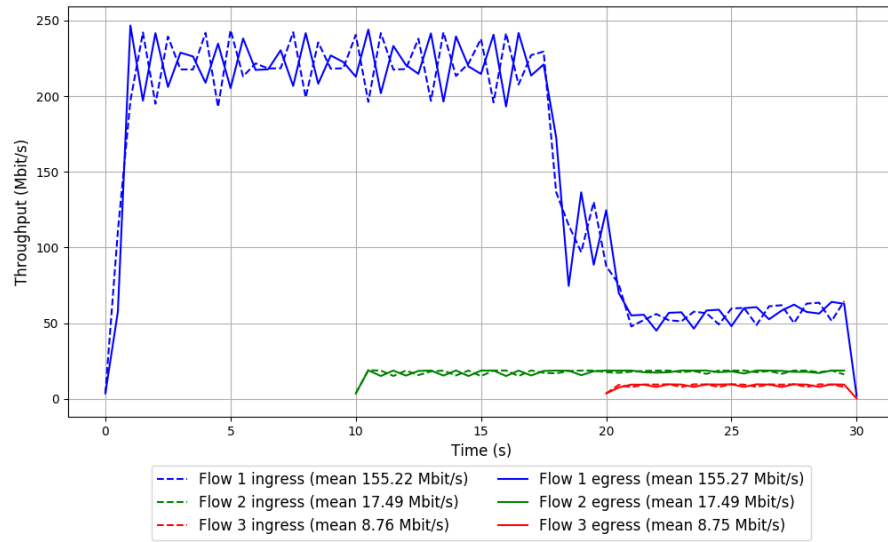
-- Flow 3:

Average throughput: 8.75 Mbit/s

95th percentile per-packet one-way delay: 53.672 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-10-12 13:18:24

End at: 2017-10-12 13:18:54

Below is generated by plot.py at 2017-10-12 16:30:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.39 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 70.52 Mbit/s

95th percentile per-packet one-way delay: 53.571 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 96.05 Mbit/s

95th percentile per-packet one-way delay: 54.078 ms

Loss rate: 0.00%

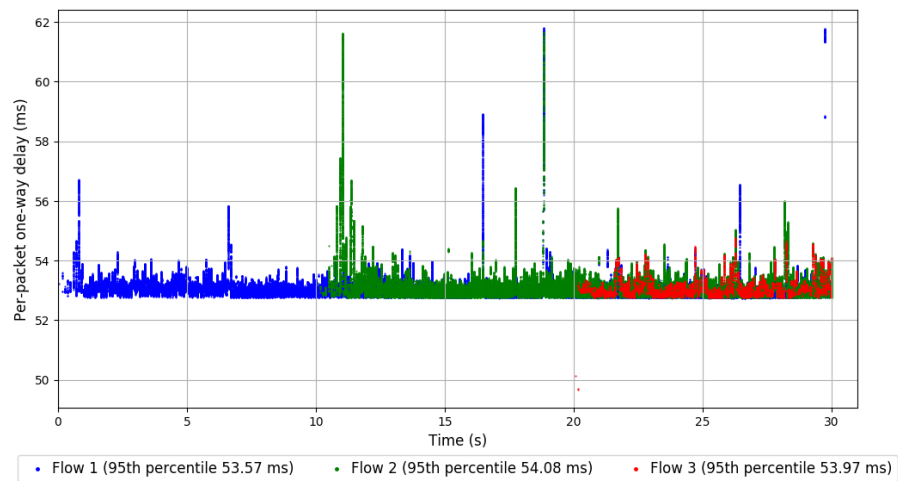
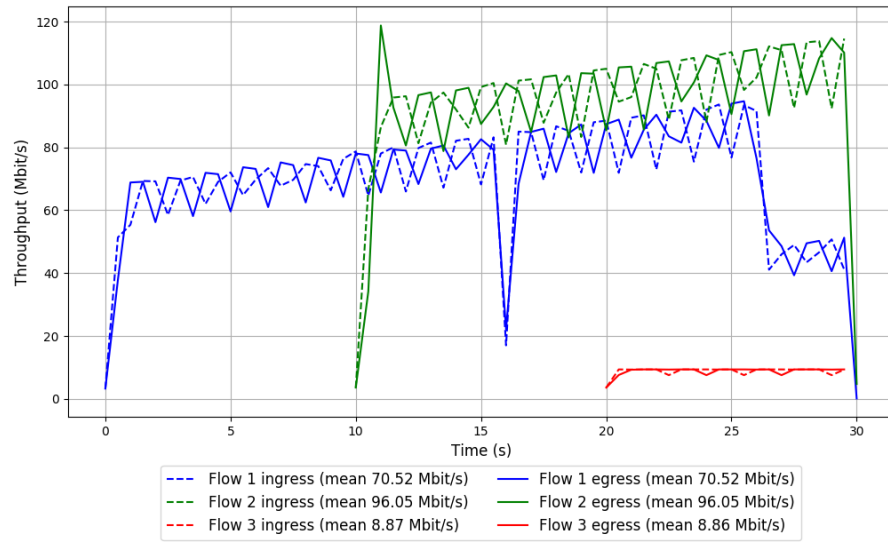
-- Flow 3:

Average throughput: 8.86 Mbit/s

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

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-10-12 13:30:35

End at: 2017-10-12 13:31:05

Below is generated by plot.py at 2017-10-12 16:30:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.84 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 77.88 Mbit/s

95th percentile per-packet one-way delay: 54.120 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 9.62 Mbit/s

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

Loss rate: 0.00%

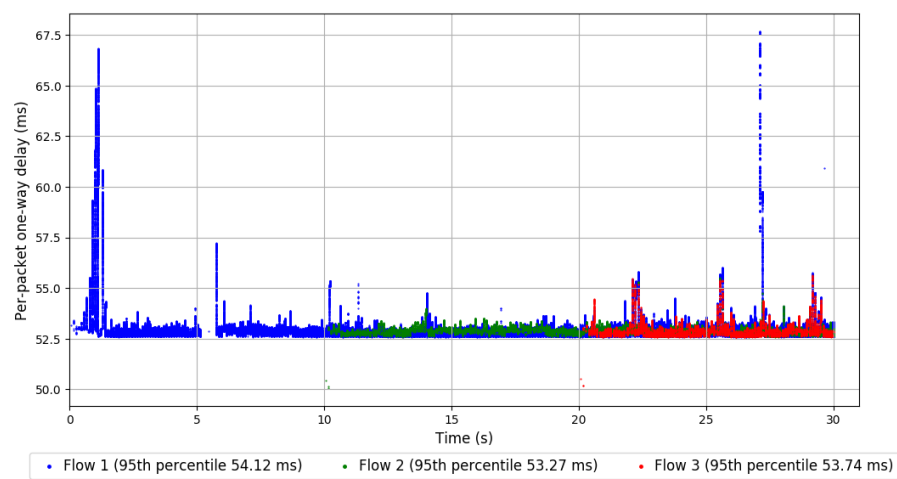
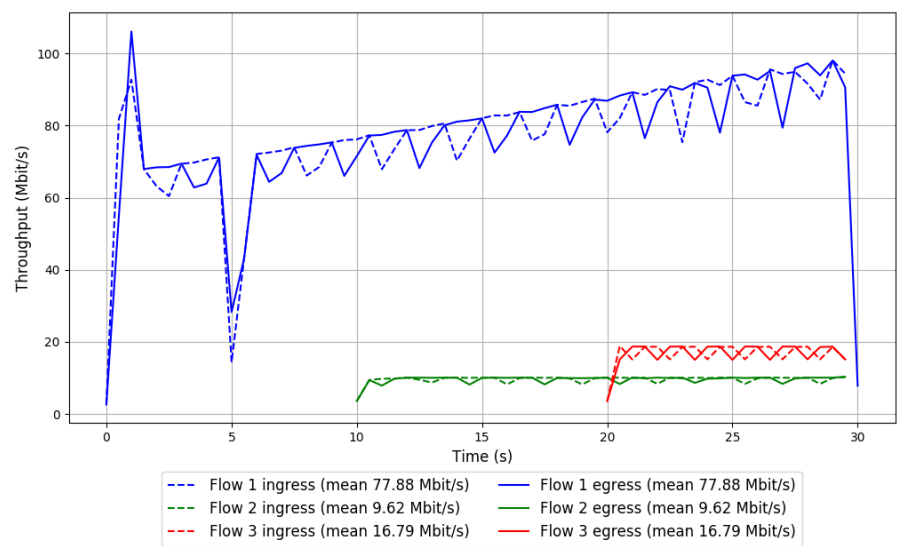
-- Flow 3:

Average throughput: 16.79 Mbit/s

95th percentile per-packet one-way delay: 53.744 ms

Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-10-12 13:43:04

End at: 2017-10-12 13:43:34

Below is generated by plot.py at 2017-10-12 16:30:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.32 Mbit/s

95th percentile per-packet one-way delay: 60.786 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 9.28 Mbit/s

95th percentile per-packet one-way delay: 57.984 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 137.96 Mbit/s

95th percentile per-packet one-way delay: 60.939 ms

Loss rate: 0.00%

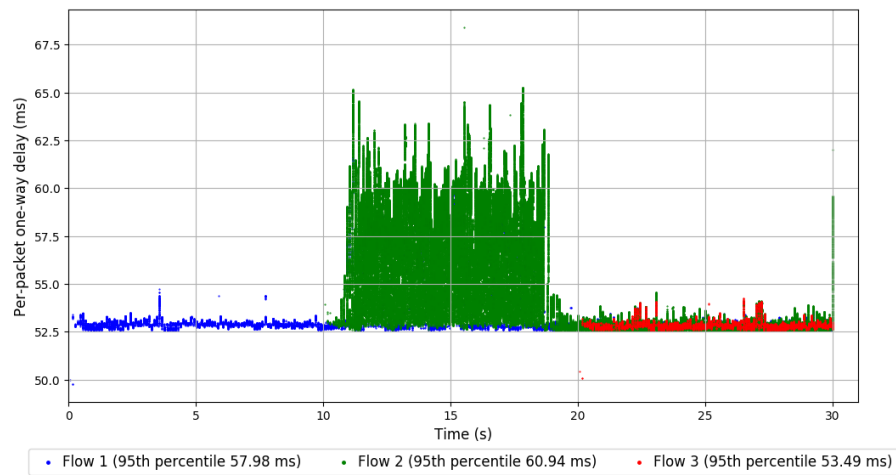
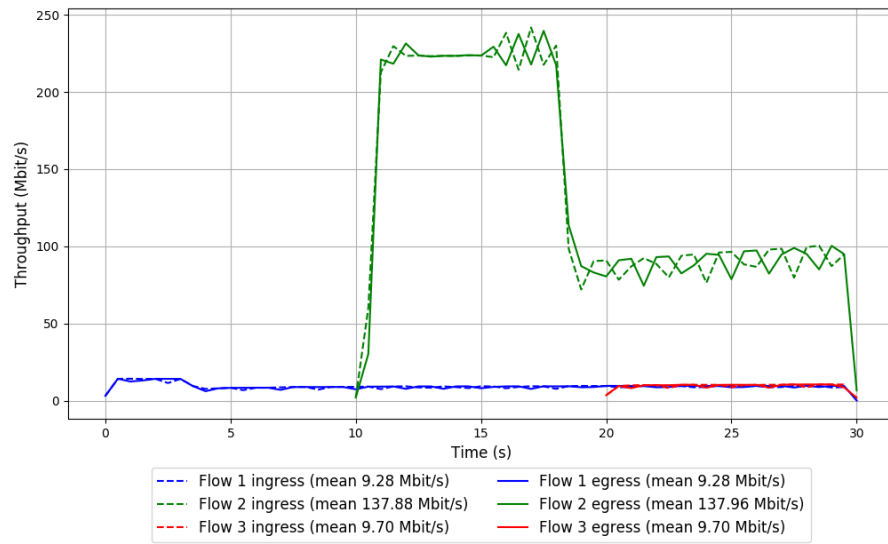
-- Flow 3:

Average throughput: 9.70 Mbit/s

95th percentile per-packet one-way delay: 53.488 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-10-12 13:55:16

End at: 2017-10-12 13:55:46

Below is generated by plot.py at 2017-10-12 16:30:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.33 Mbit/s

95th percentile per-packet one-way delay: 54.109 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 15.59 Mbit/s

95th percentile per-packet one-way delay: 53.594 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 97.56 Mbit/s

95th percentile per-packet one-way delay: 54.311 ms

Loss rate: 0.00%

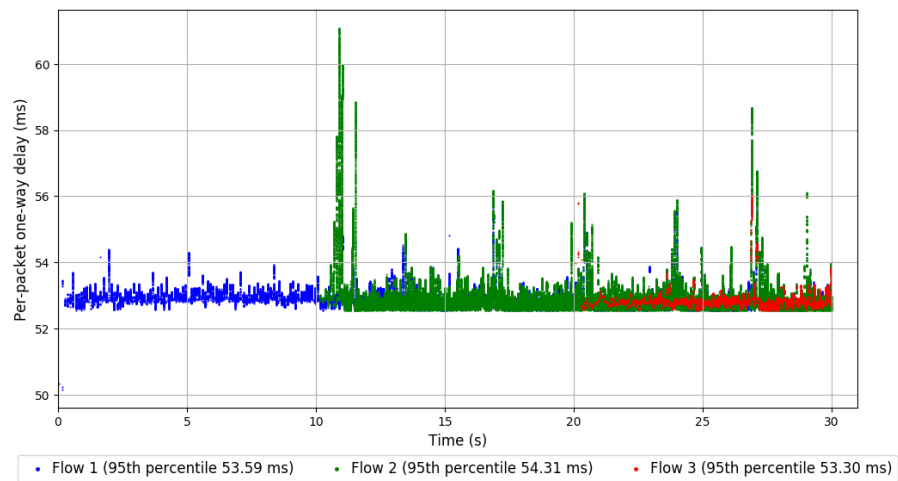
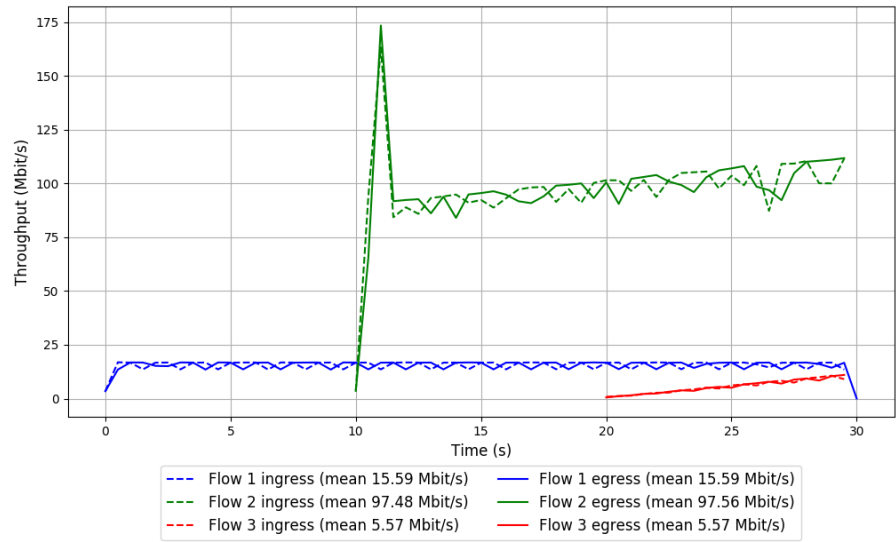
-- Flow 3:

Average throughput: 5.57 Mbit/s

95th percentile per-packet one-way delay: 53.302 ms

Loss rate: 0.09%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-10-12 14:07:48

End at: 2017-10-12 14:08:18

Below is generated by plot.py at 2017-10-12 16:30:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.63 Mbit/s

95th percentile per-packet one-way delay: 60.157 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 116.97 Mbit/s

95th percentile per-packet one-way delay: 60.242 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.68 Mbit/s

95th percentile per-packet one-way delay: 53.140 ms

Loss rate: 0.00%

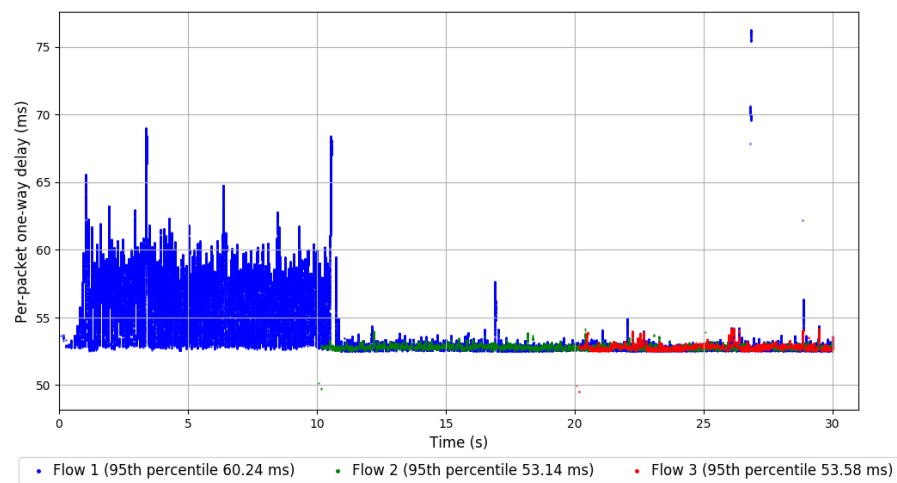
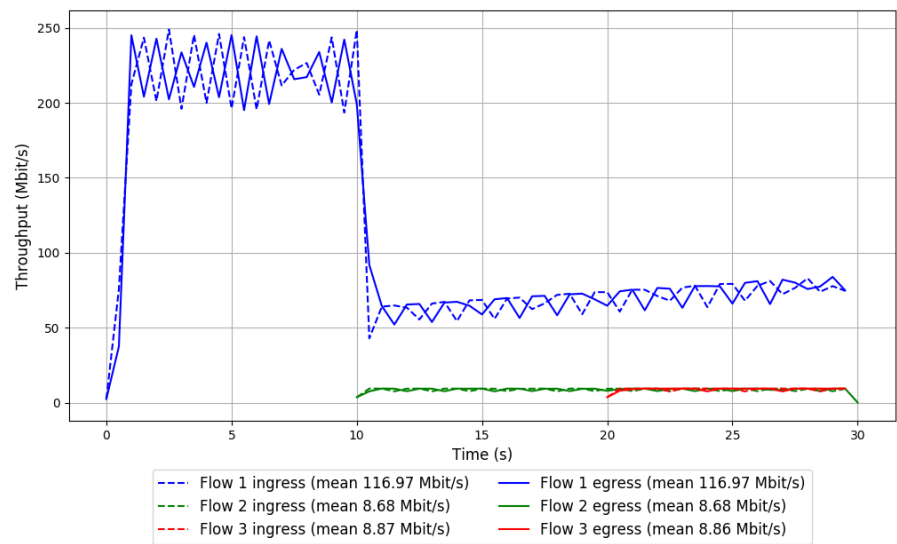
-- Flow 3:

Average throughput: 8.86 Mbit/s

95th percentile per-packet one-way delay: 53.582 ms

Loss rate: 0.00%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-10-12 14:20:01

End at: 2017-10-12 14:20:31

Below is generated by plot.py at 2017-10-12 16:30:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.09 Mbit/s

95th percentile per-packet one-way delay: 53.158 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 13.36 Mbit/s

95th percentile per-packet one-way delay: 53.160 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.87 Mbit/s

95th percentile per-packet one-way delay: 53.080 ms

Loss rate: 0.03%

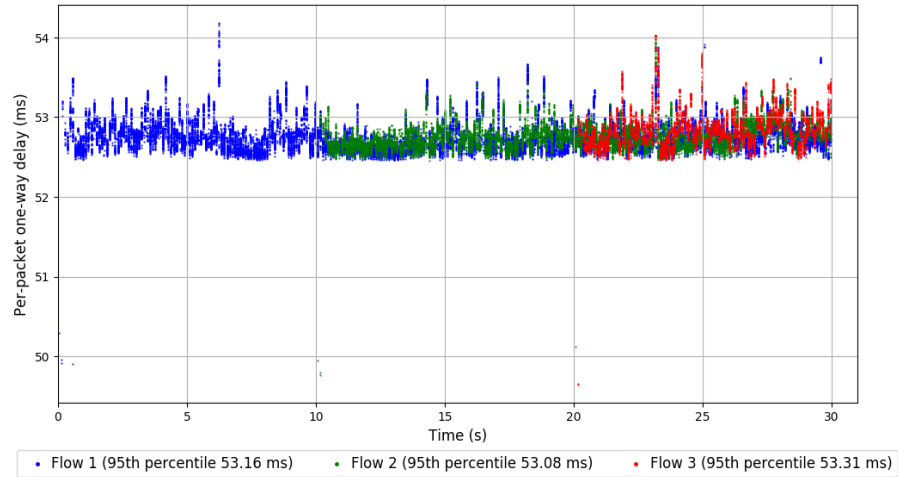
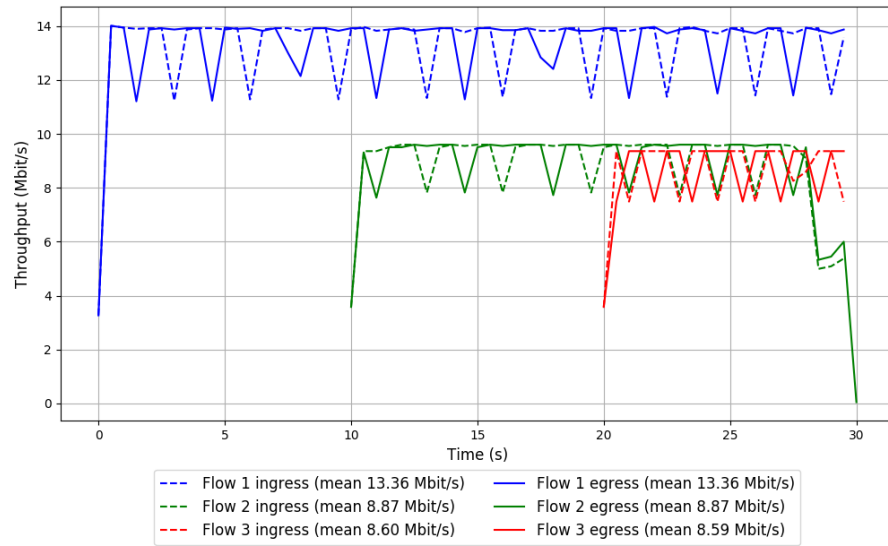
-- Flow 3:

Average throughput: 8.59 Mbit/s

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

Loss rate: 0.00%

Run 10: Report of TCP Vegas — Data Link

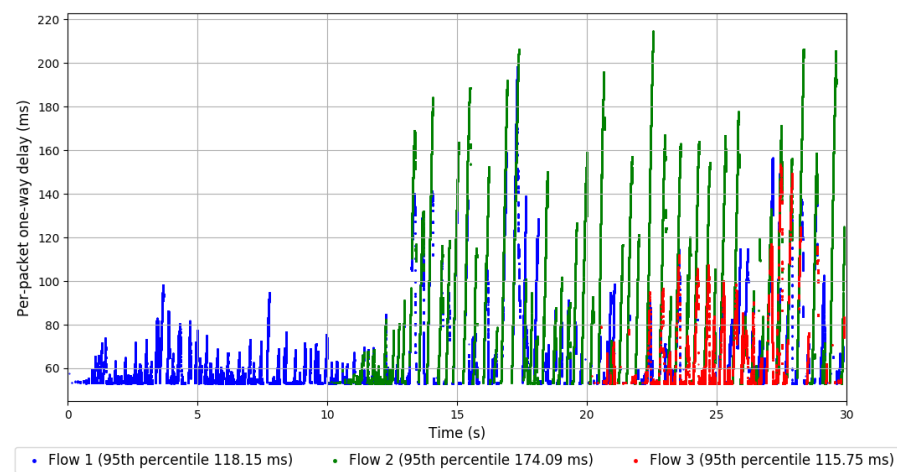
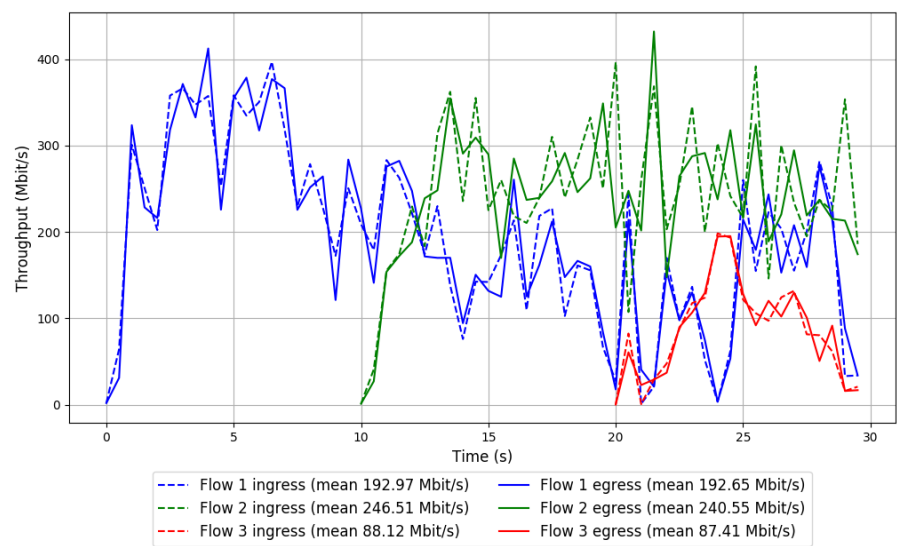


```
Run 1: Statistics of Verus

Start at: 2017-10-12 12:23:02
End at: 2017-10-12 12:23:32

# Below is generated by plot.py at 2017-10-12 16:35:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 381.15 Mbit/s
95th percentile per-packet one-way delay: 156.541 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 192.65 Mbit/s
95th percentile per-packet one-way delay: 118.149 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 240.55 Mbit/s
95th percentile per-packet one-way delay: 174.094 ms
Loss rate: 2.41%
-- Flow 3:
Average throughput: 87.41 Mbit/s
95th percentile per-packet one-way delay: 115.746 ms
Loss rate: 0.52%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-10-12 12:35:42

End at: 2017-10-12 12:36:12

Below is generated by plot.py at 2017-10-12 16:35:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 375.73 Mbit/s

95th percentile per-packet one-way delay: 198.572 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 268.90 Mbit/s

95th percentile per-packet one-way delay: 187.431 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 125.99 Mbit/s

95th percentile per-packet one-way delay: 228.727 ms

Loss rate: 3.19%

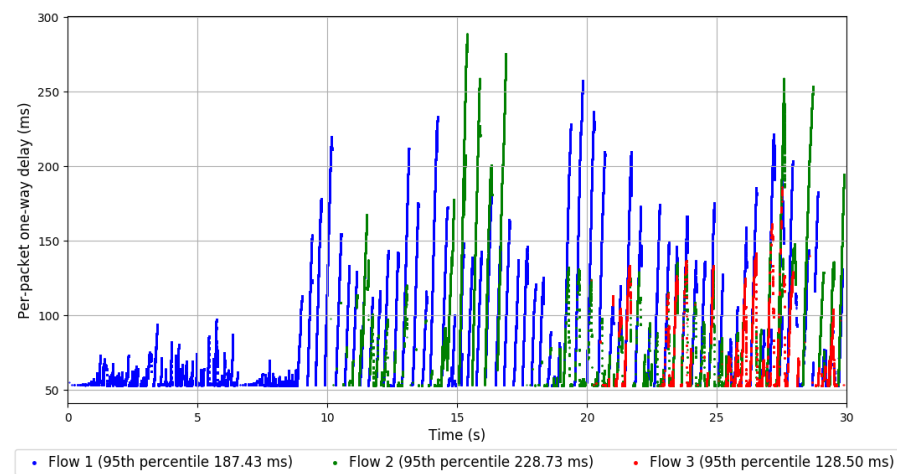
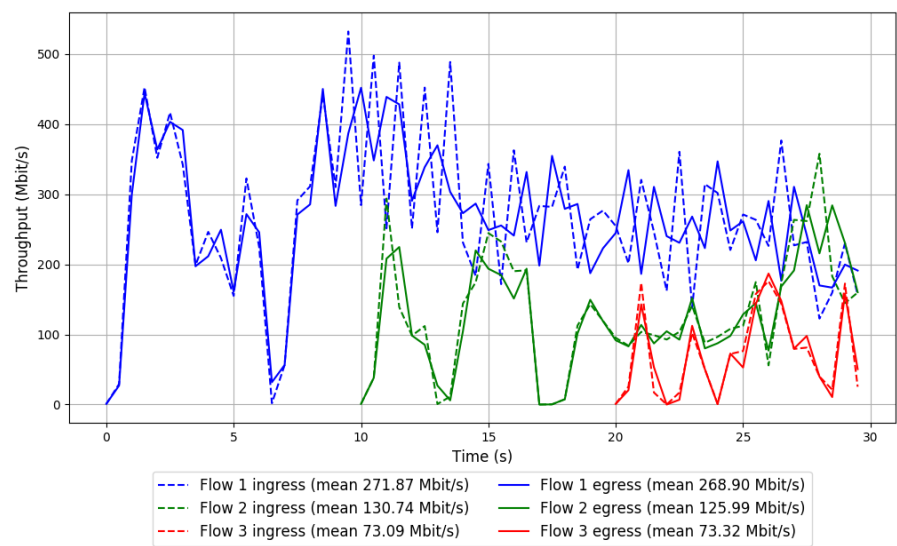
-- Flow 3:

Average throughput: 73.32 Mbit/s

95th percentile per-packet one-way delay: 128.505 ms

Loss rate: 0.41%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-10-12 12:48:33

End at: 2017-10-12 12:49:03

Below is generated by plot.py at 2017-10-12 16:35:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.31 Mbit/s

95th percentile per-packet one-way delay: 136.257 ms

Loss rate: 0.22%

-- Flow 1:

Average throughput: 187.26 Mbit/s

95th percentile per-packet one-way delay: 132.177 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 161.23 Mbit/s

95th percentile per-packet one-way delay: 138.539 ms

Loss rate: 0.12%

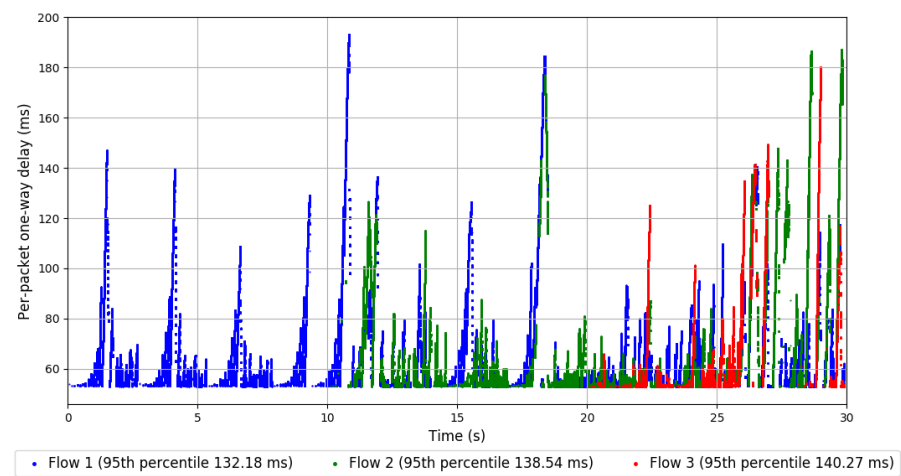
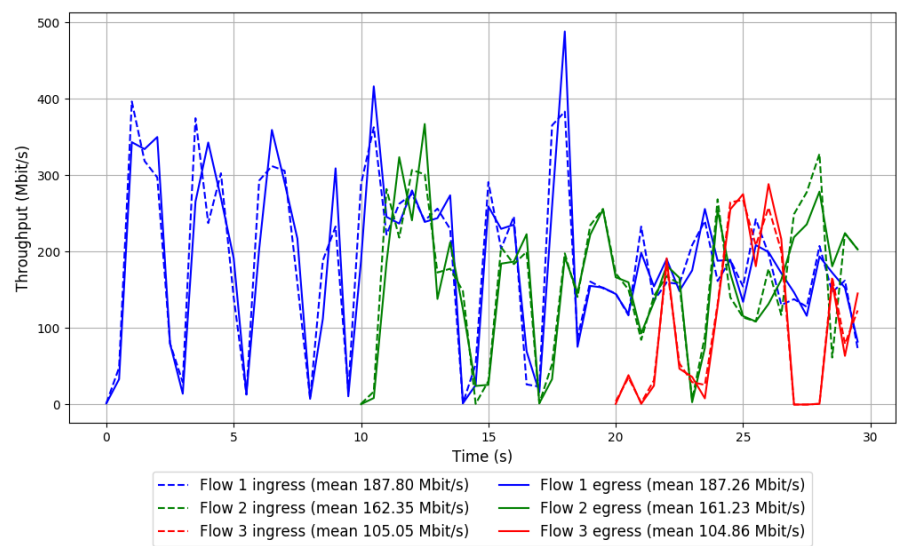
-- Flow 3:

Average throughput: 104.86 Mbit/s

95th percentile per-packet one-way delay: 140.273 ms

Loss rate: 0.17%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-10-12 13:01:02

End at: 2017-10-12 13:01:32

Below is generated by plot.py at 2017-10-12 16:35:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 378.51 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 229.57 Mbit/s

95th percentile per-packet one-way delay: 113.103 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 168.00 Mbit/s

95th percentile per-packet one-way delay: 117.062 ms

Loss rate: 0.00%

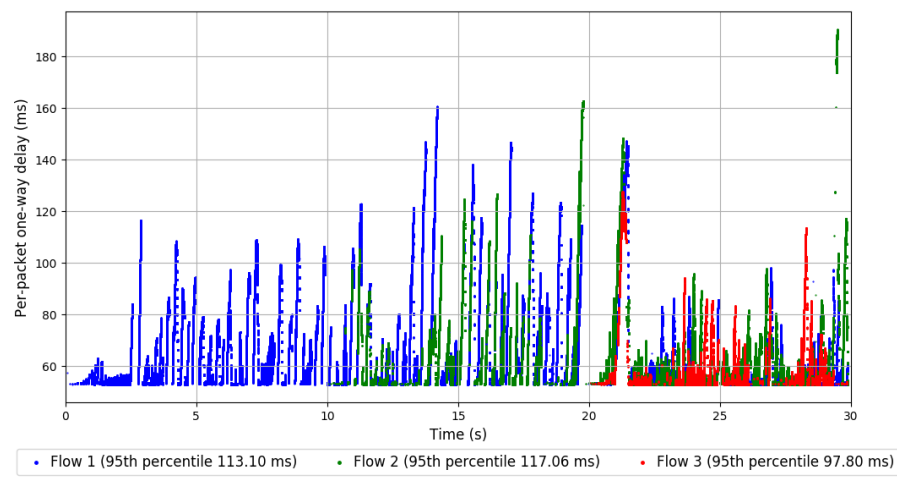
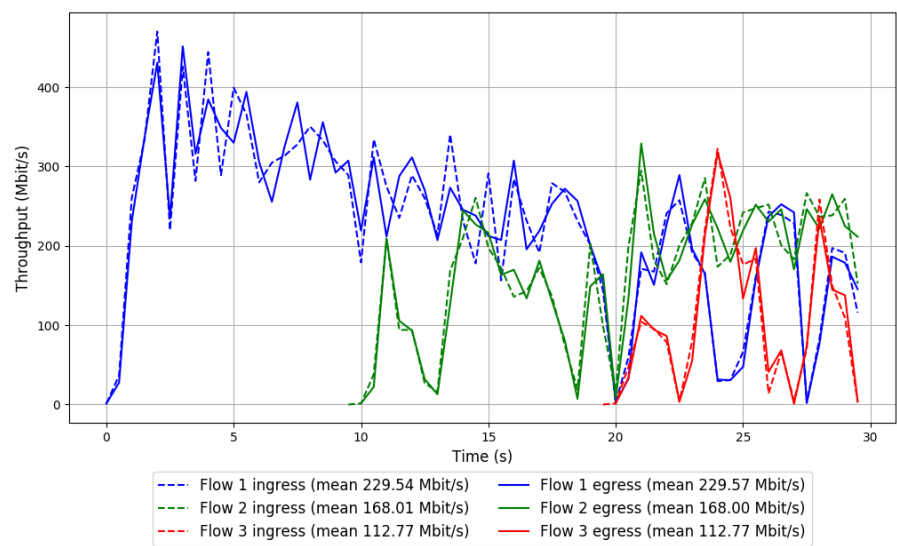
-- Flow 3:

Average throughput: 112.77 Mbit/s

95th percentile per-packet one-way delay: 97.797 ms

Loss rate: 0.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-10-12 13:13:35

End at: 2017-10-12 13:14:05

Below is generated by plot.py at 2017-10-12 16:35:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 375.07 Mbit/s

95th percentile per-packet one-way delay: 176.431 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 211.39 Mbit/s

95th percentile per-packet one-way delay: 119.604 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 187.60 Mbit/s

95th percentile per-packet one-way delay: 206.973 ms

Loss rate: 1.22%

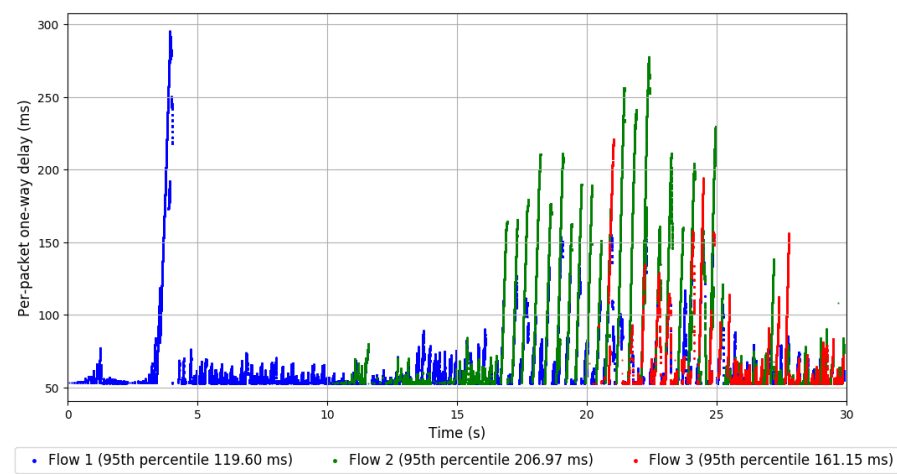
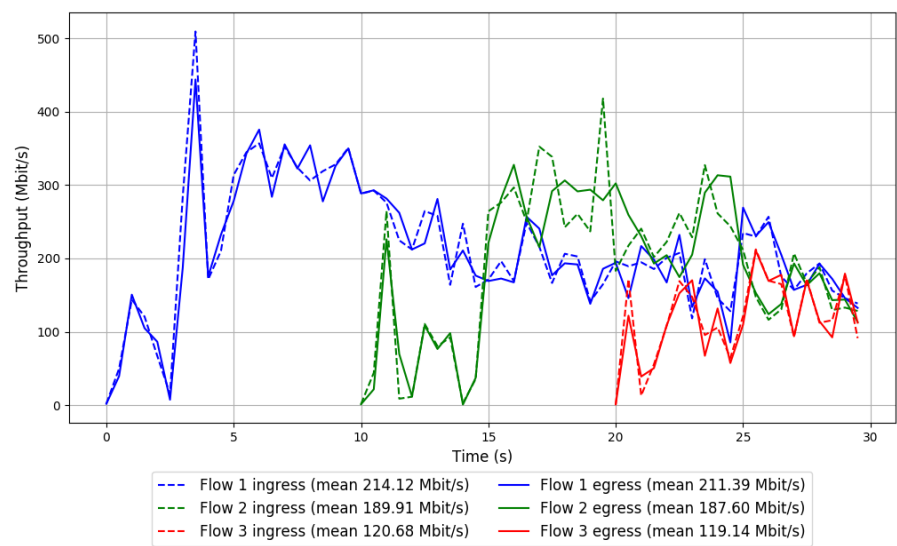
-- Flow 3:

Average throughput: 119.14 Mbit/s

95th percentile per-packet one-way delay: 161.153 ms

Loss rate: 1.31%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-10-12 13:25:47

End at: 2017-10-12 13:26:17

Below is generated by plot.py at 2017-10-12 16:35:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 339.37 Mbit/s

95th percentile per-packet one-way delay: 134.866 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 219.43 Mbit/s

95th percentile per-packet one-way delay: 152.548 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 141.24 Mbit/s

95th percentile per-packet one-way delay: 112.154 ms

Loss rate: 0.00%

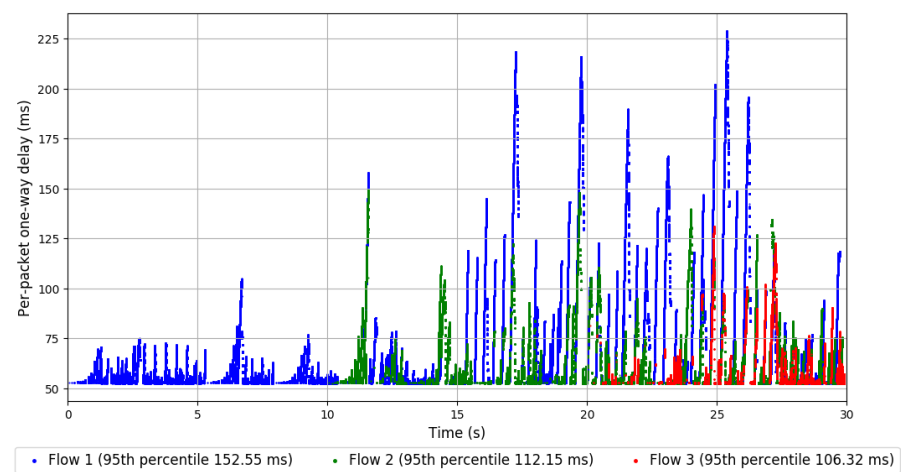
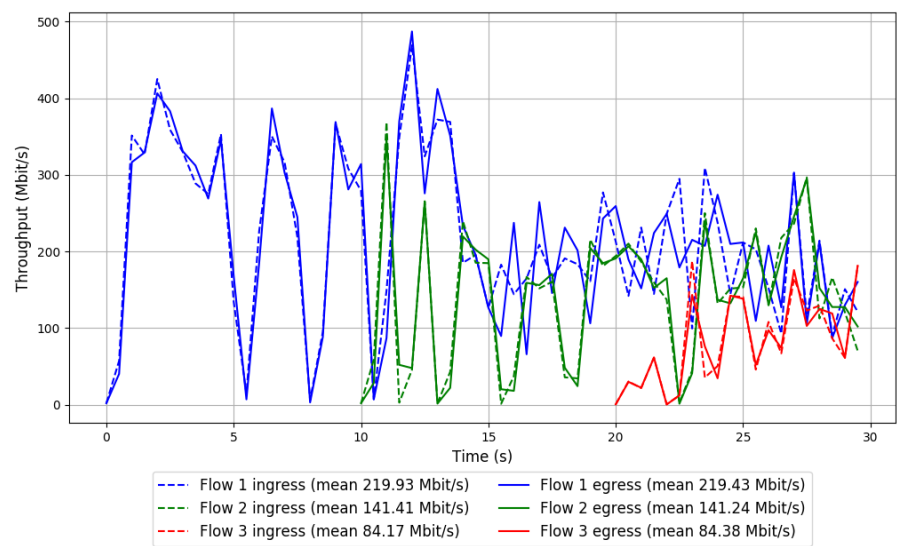
-- Flow 3:

Average throughput: 84.38 Mbit/s

95th percentile per-packet one-way delay: 106.324 ms

Loss rate: 0.00%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-10-12 13:38:20

End at: 2017-10-12 13:38:50

Below is generated by plot.py at 2017-10-12 16:36:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 350.62 Mbit/s

95th percentile per-packet one-way delay: 94.369 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 221.94 Mbit/s

95th percentile per-packet one-way delay: 95.327 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 138.27 Mbit/s

95th percentile per-packet one-way delay: 95.184 ms

Loss rate: 0.00%

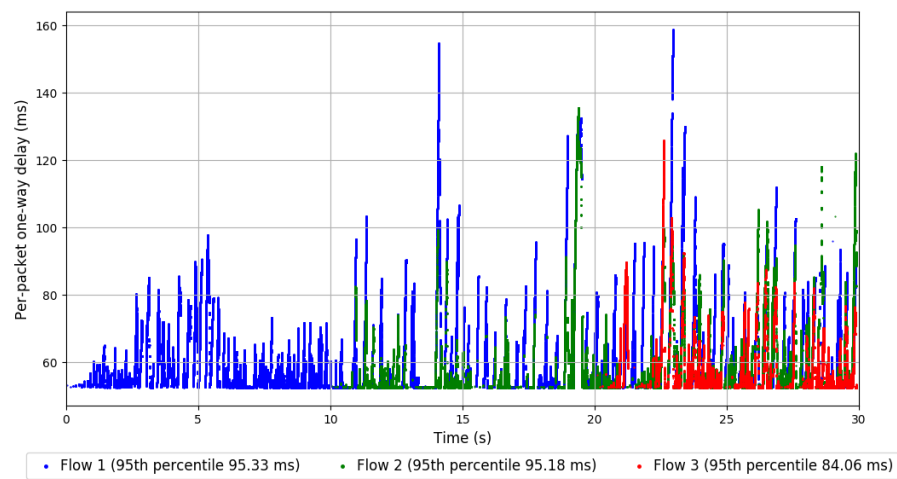
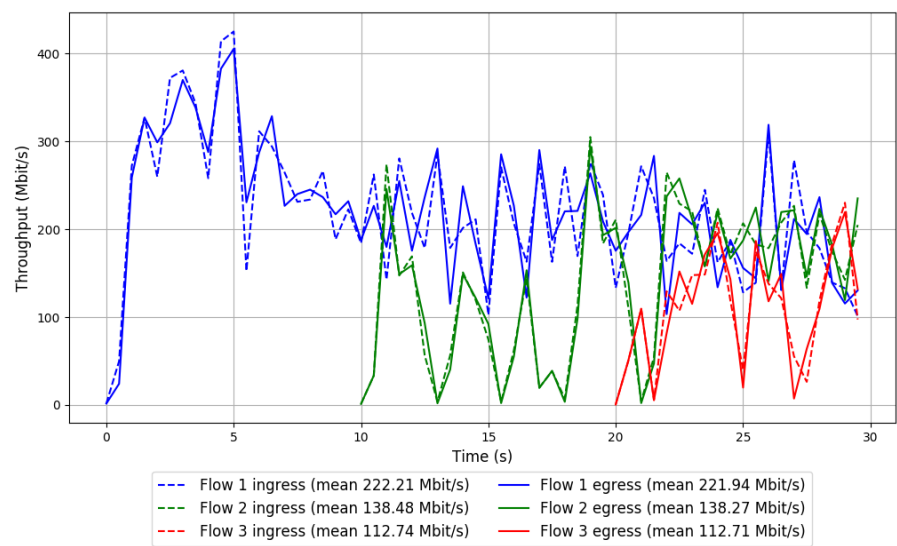
-- Flow 3:

Average throughput: 112.71 Mbit/s

95th percentile per-packet one-way delay: 84.062 ms

Loss rate: 0.07%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-10-12 13:50:25

End at: 2017-10-12 13:50:55

Below is generated by plot.py at 2017-10-12 16:37:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 378.95 Mbit/s

95th percentile per-packet one-way delay: 91.165 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 221.13 Mbit/s

95th percentile per-packet one-way delay: 87.421 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 164.22 Mbit/s

95th percentile per-packet one-way delay: 100.732 ms

Loss rate: 0.09%

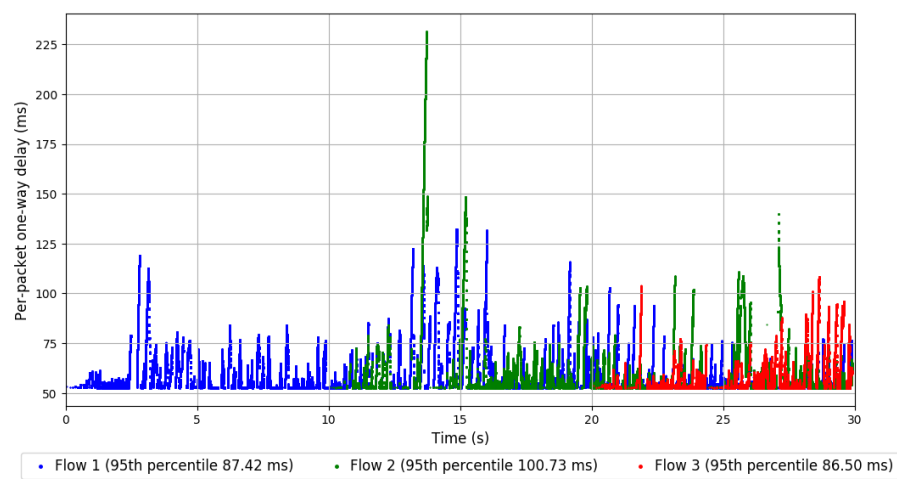
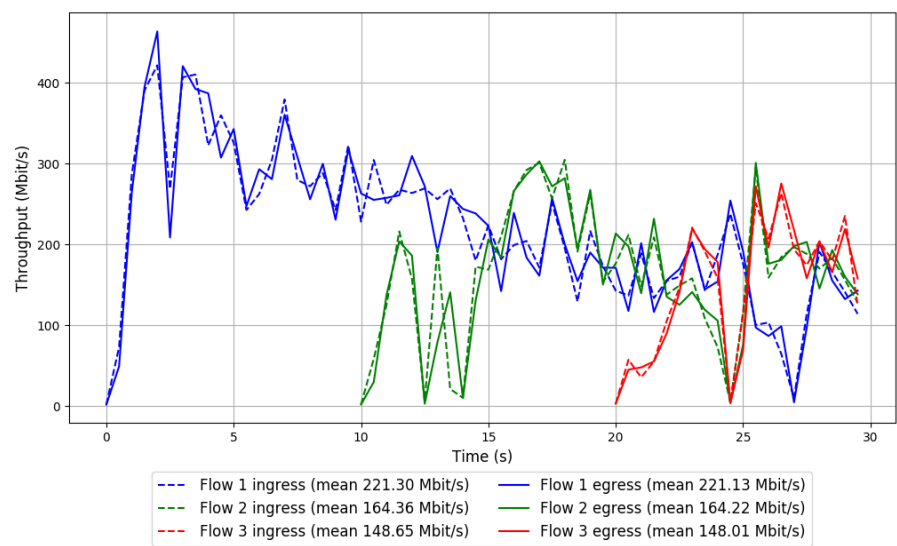
-- Flow 3:

Average throughput: 148.01 Mbit/s

95th percentile per-packet one-way delay: 86.495 ms

Loss rate: 0.46%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-10-12 14:03:04

End at: 2017-10-12 14:03:34

Below is generated by plot.py at 2017-10-12 16:41:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 379.45 Mbit/s

95th percentile per-packet one-way delay: 93.184 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 229.99 Mbit/s

95th percentile per-packet one-way delay: 94.441 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 183.92 Mbit/s

95th percentile per-packet one-way delay: 93.255 ms

Loss rate: 0.02%

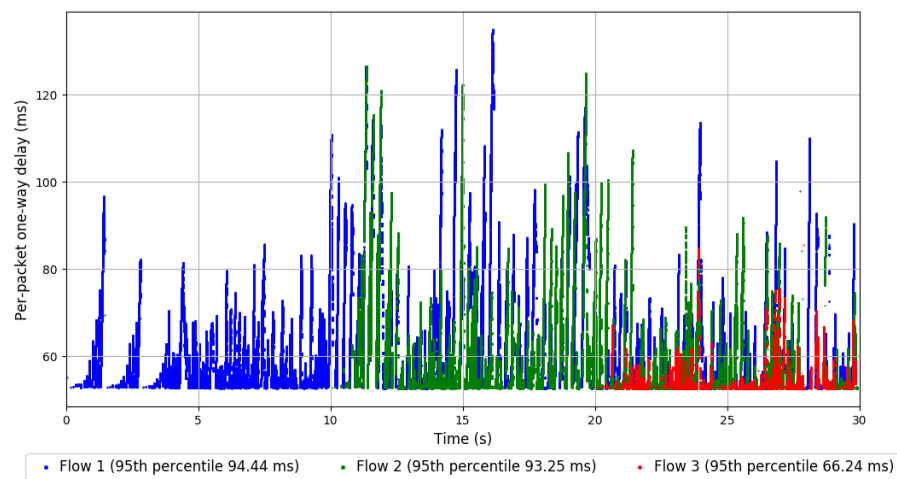
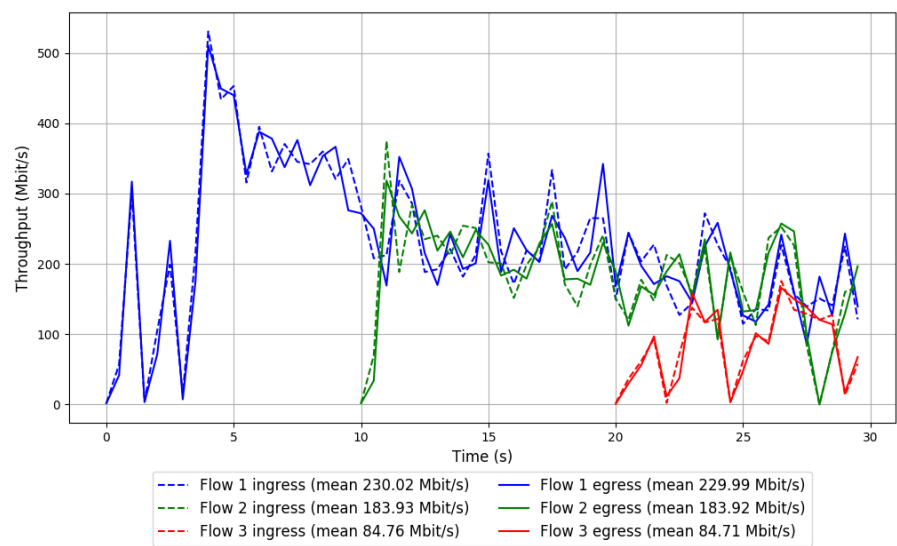
-- Flow 3:

Average throughput: 84.71 Mbit/s

95th percentile per-packet one-way delay: 66.242 ms

Loss rate: 0.00%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-10-12 14:15:17

End at: 2017-10-12 14:15:47

Below is generated by plot.py at 2017-10-12 16:41:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 374.02 Mbit/s

95th percentile per-packet one-way delay: 108.464 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 186.43 Mbit/s

95th percentile per-packet one-way delay: 117.021 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 218.37 Mbit/s

95th percentile per-packet one-way delay: 101.561 ms

Loss rate: 0.00%

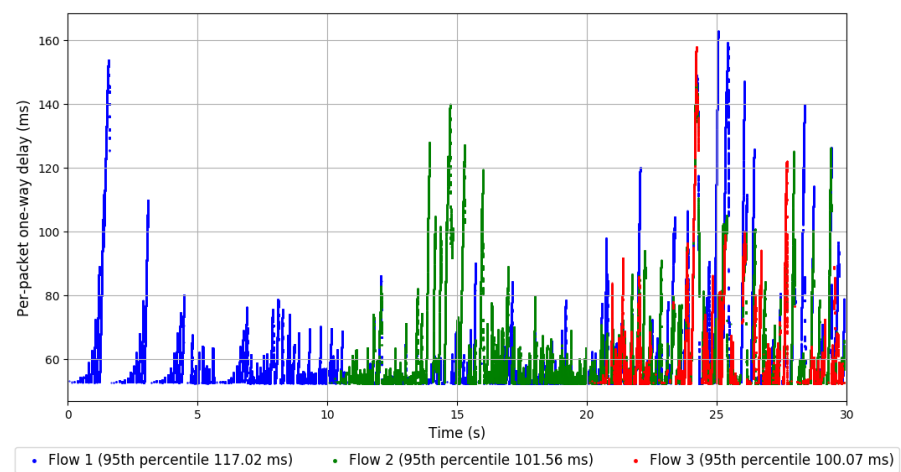
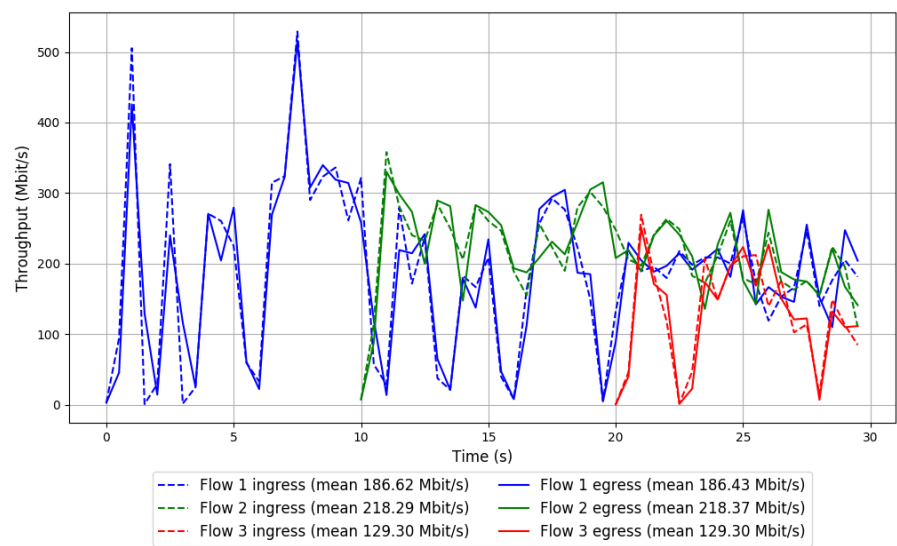
-- Flow 3:

Average throughput: 129.30 Mbit/s

95th percentile per-packet one-way delay: 100.070 ms

Loss rate: 0.00%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-10-12 12:34:54

End at: 2017-10-12 12:35:24

Below is generated by plot.py at 2017-10-12 16:41:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.67 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 95.33 Mbit/s

95th percentile per-packet one-way delay: 53.069 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.01 Mbit/s

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

Loss rate: 0.00%

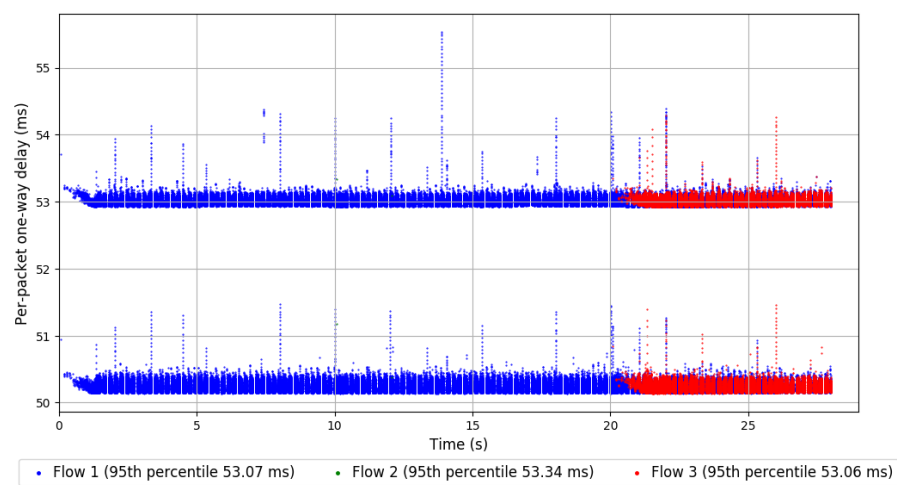
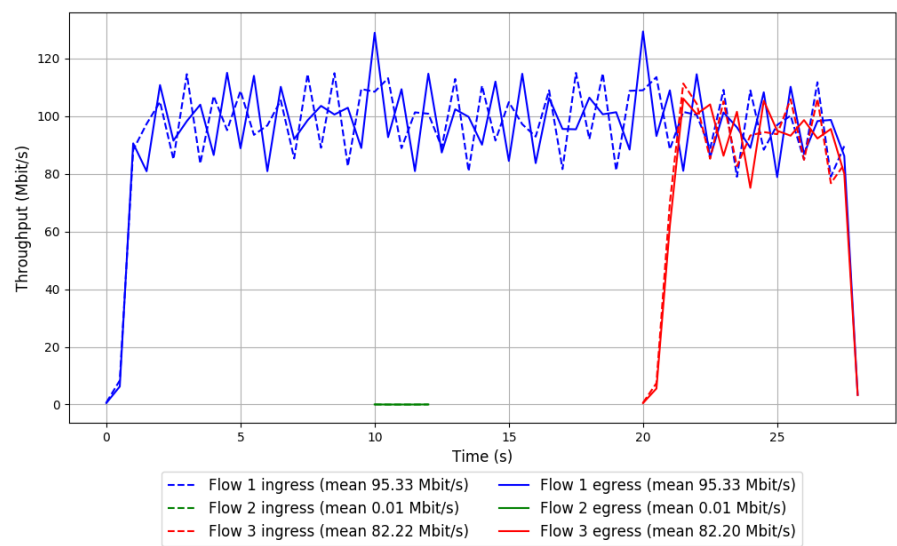
-- Flow 3:

Average throughput: 82.20 Mbit/s

95th percentile per-packet one-way delay: 53.063 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-10-12 12:47:37

End at: 2017-10-12 12:48:07

Below is generated by plot.py at 2017-10-12 16:41:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 185.96 Mbit/s

95th percentile per-packet one-way delay: 53.761 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 91.97 Mbit/s

95th percentile per-packet one-way delay: 53.833 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 138.64 Mbit/s

95th percentile per-packet one-way delay: 53.054 ms

Loss rate: 0.00%

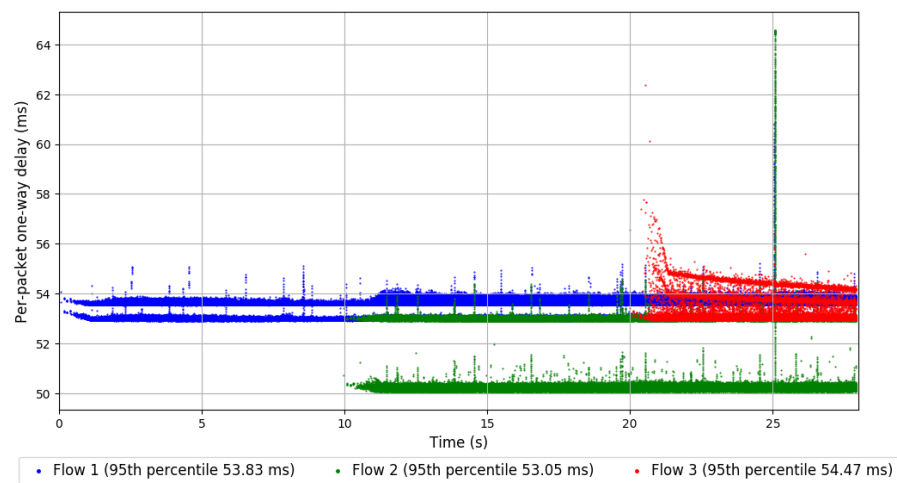
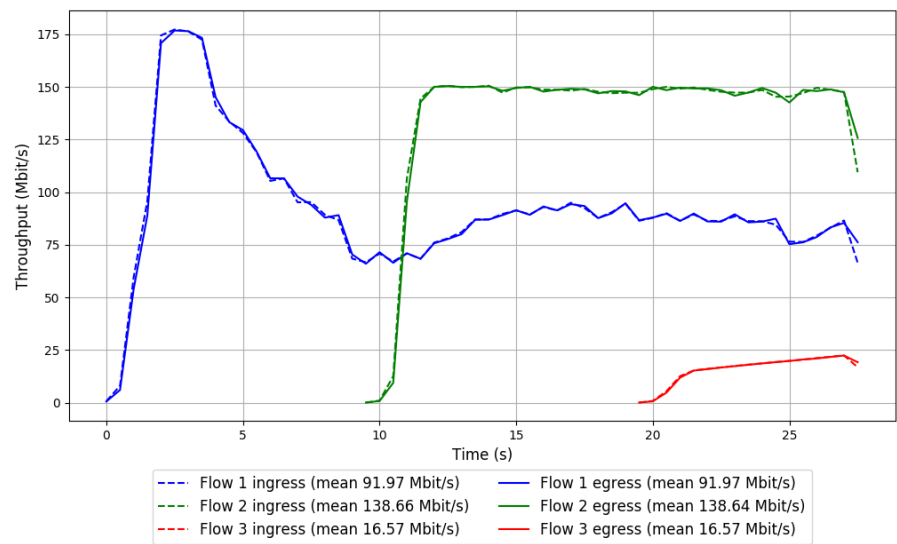
-- Flow 3:

Average throughput: 16.57 Mbit/s

95th percentile per-packet one-way delay: 54.467 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-10-12 13:00:10

End at: 2017-10-12 13:00:40

Below is generated by plot.py at 2017-10-12 16:41:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 156.30 Mbit/s

95th percentile per-packet one-way delay: 53.690 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 82.04 Mbit/s

95th percentile per-packet one-way delay: 53.008 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 77.85 Mbit/s

95th percentile per-packet one-way delay: 53.845 ms

Loss rate: 0.01%

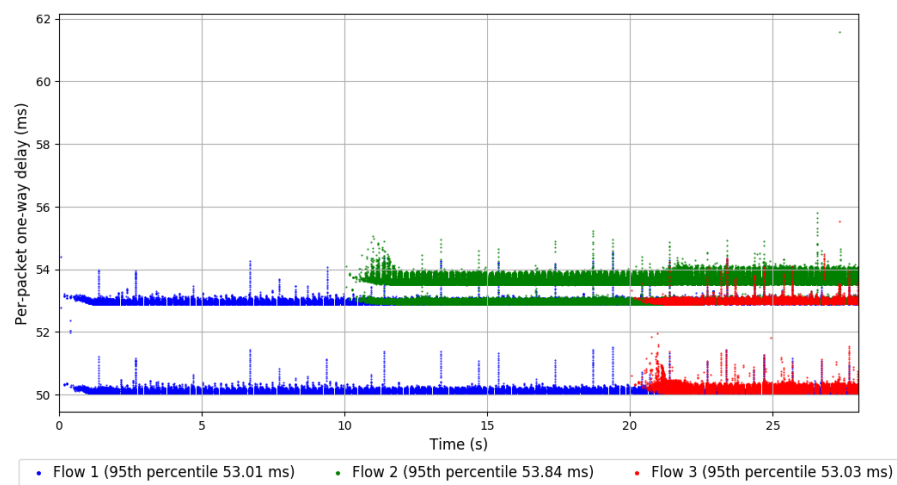
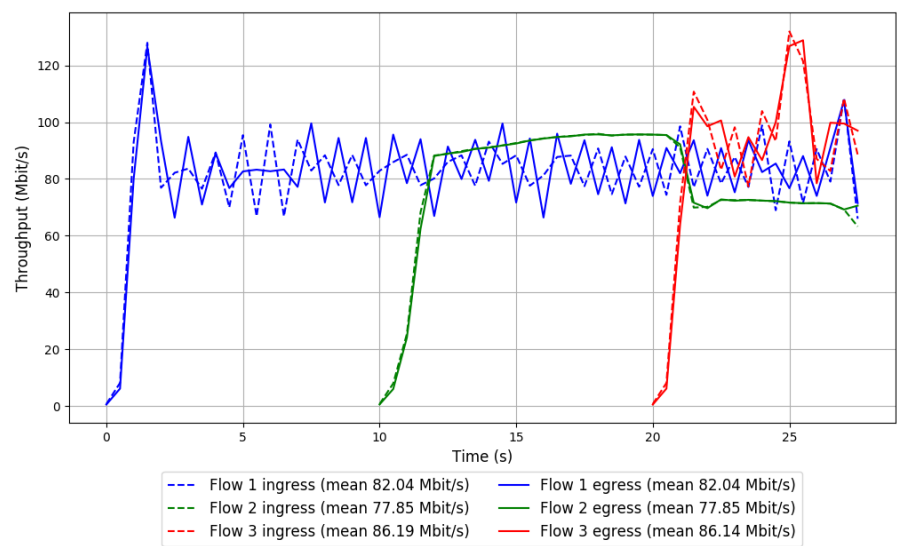
-- Flow 3:

Average throughput: 86.14 Mbit/s

95th percentile per-packet one-way delay: 53.027 ms

Loss rate: 0.03%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-10-12 13:12:41

End at: 2017-10-12 13:13:11

Below is generated by plot.py at 2017-10-12 16:41:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 163.14 Mbit/s

95th percentile per-packet one-way delay: 53.570 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 88.76 Mbit/s

95th percentile per-packet one-way delay: 53.607 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 75.51 Mbit/s

95th percentile per-packet one-way delay: 52.978 ms

Loss rate: 0.00%

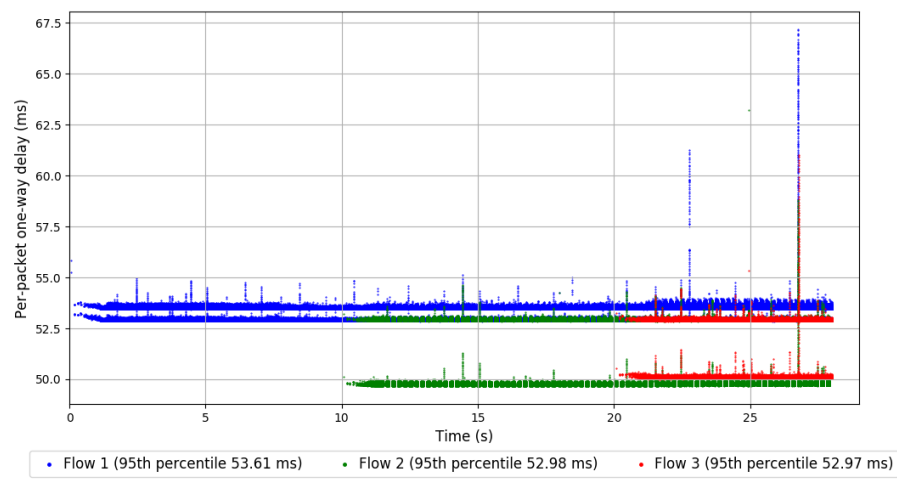
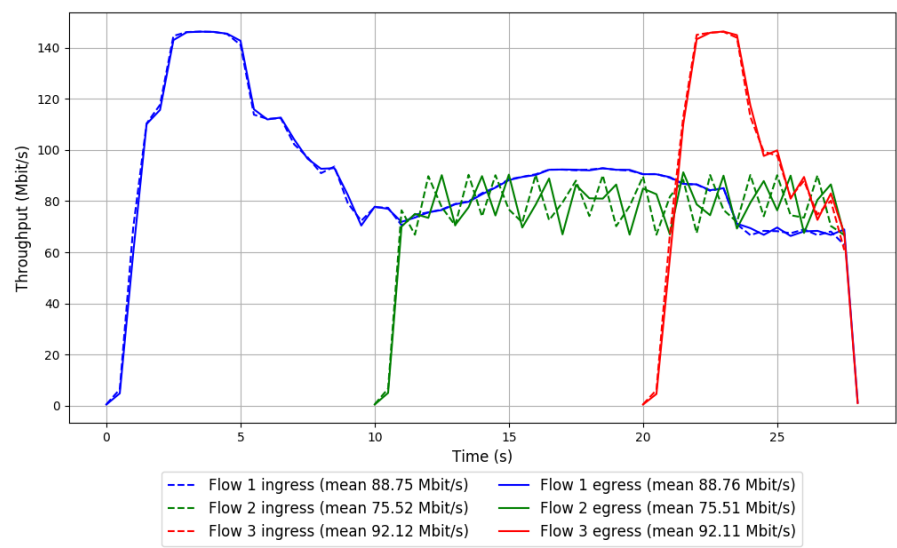
-- Flow 3:

Average throughput: 92.11 Mbit/s

95th percentile per-packet one-way delay: 52.967 ms

Loss rate: 0.01%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-10-12 13:24:54

End at: 2017-10-12 13:25:24

Below is generated by plot.py at 2017-10-12 16:41:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 175.63 Mbit/s

95th percentile per-packet one-way delay: 52.791 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 88.77 Mbit/s

95th percentile per-packet one-way delay: 52.788 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 87.94 Mbit/s

95th percentile per-packet one-way delay: 52.795 ms

Loss rate: 0.00%

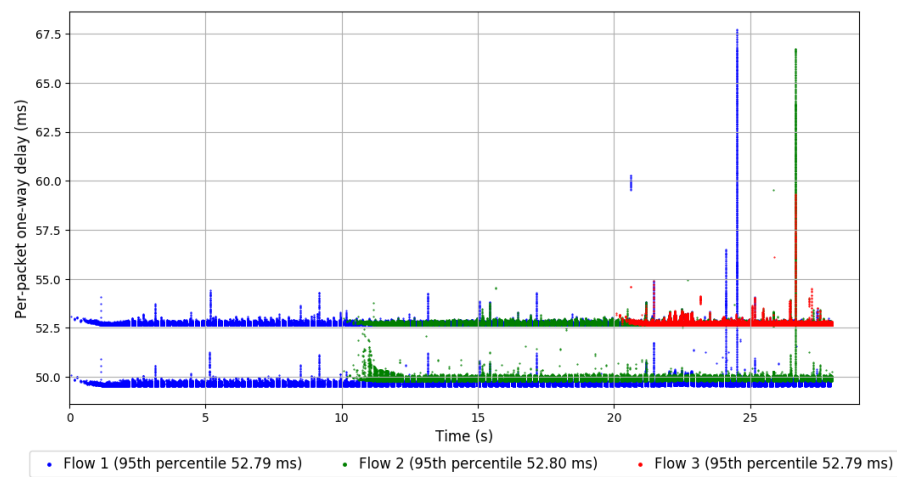
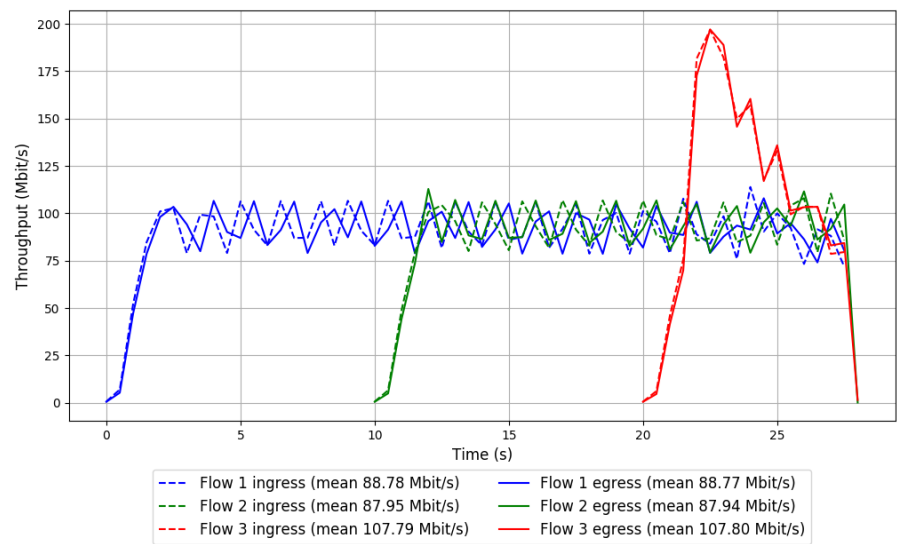
-- Flow 3:

Average throughput: 107.80 Mbit/s

95th percentile per-packet one-way delay: 52.792 ms

Loss rate: 0.02%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-10-12 13:37:24

End at: 2017-10-12 13:37:54

Below is generated by plot.py at 2017-10-12 16:42:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.85 Mbit/s

95th percentile per-packet one-way delay: 53.319 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 92.24 Mbit/s

95th percentile per-packet one-way delay: 53.351 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 88.44 Mbit/s

95th percentile per-packet one-way delay: 52.721 ms

Loss rate: 0.01%

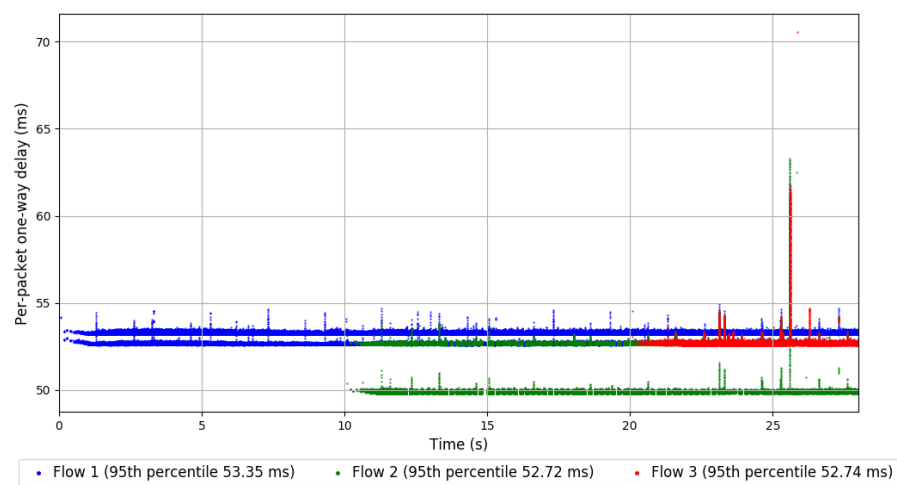
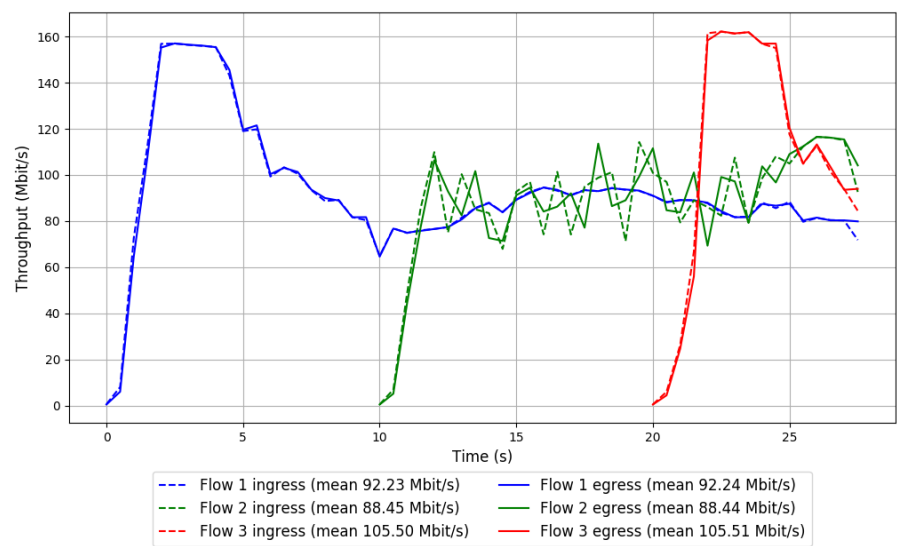
-- Flow 3:

Average throughput: 105.51 Mbit/s

95th percentile per-packet one-way delay: 52.742 ms

Loss rate: 0.02%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-10-12 13:49:29

End at: 2017-10-12 13:49:59

Below is generated by plot.py at 2017-10-12 16:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 169.16 Mbit/s

95th percentile per-packet one-way delay: 53.450 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 89.39 Mbit/s

95th percentile per-packet one-way delay: 53.473 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 89.92 Mbit/s

95th percentile per-packet one-way delay: 52.776 ms

Loss rate: 0.01%

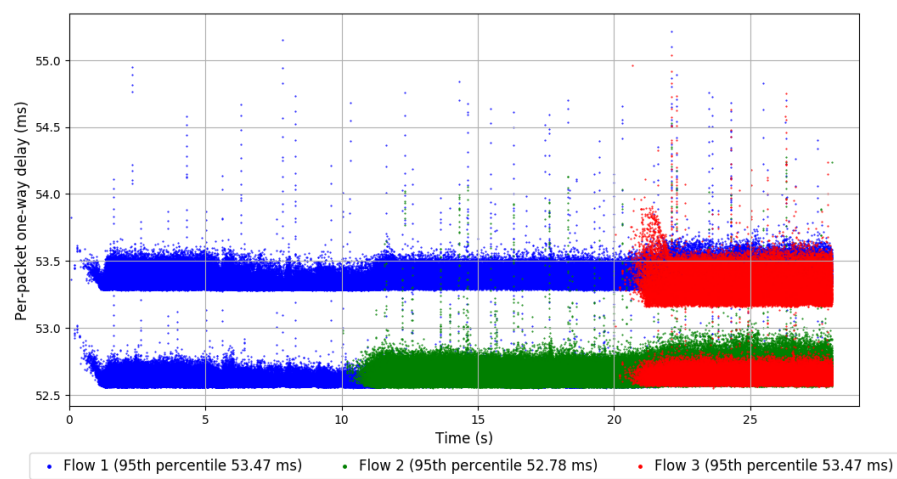
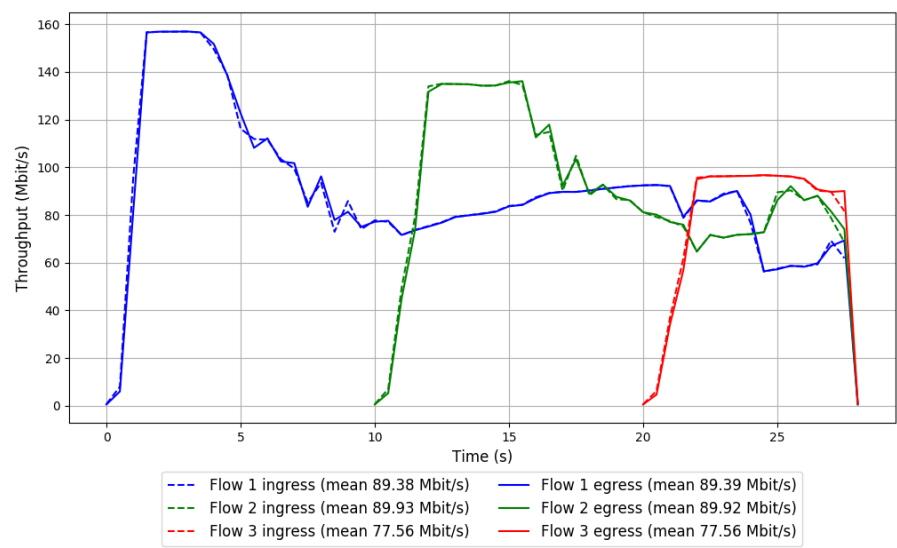
-- Flow 3:

Average throughput: 77.56 Mbit/s

95th percentile per-packet one-way delay: 53.467 ms

Loss rate: 0.03%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-10-12 14:02:10

End at: 2017-10-12 14:02:40

Below is generated by plot.py at 2017-10-12 16:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 181.70 Mbit/s

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

Loss rate: 0.01%

-- Flow 1:

Average throughput: 103.55 Mbit/s

95th percentile per-packet one-way delay: 52.659 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 82.93 Mbit/s

95th percentile per-packet one-way delay: 52.808 ms

Loss rate: 0.01%

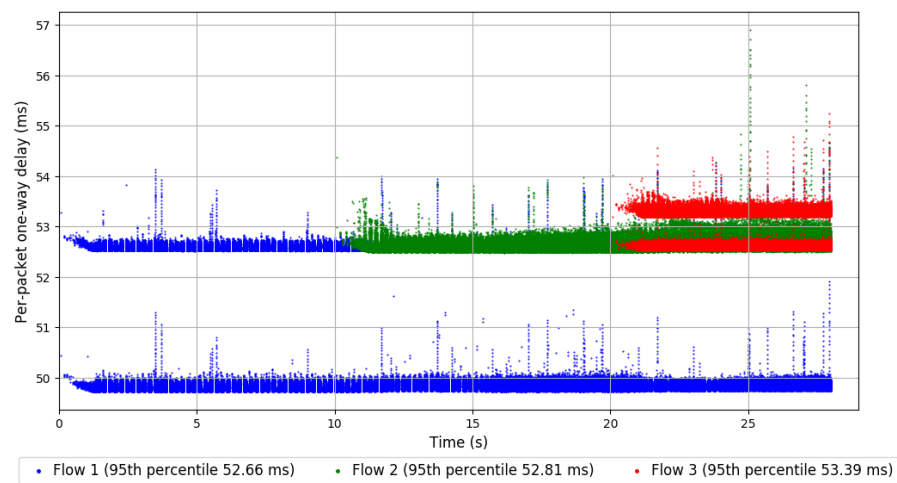
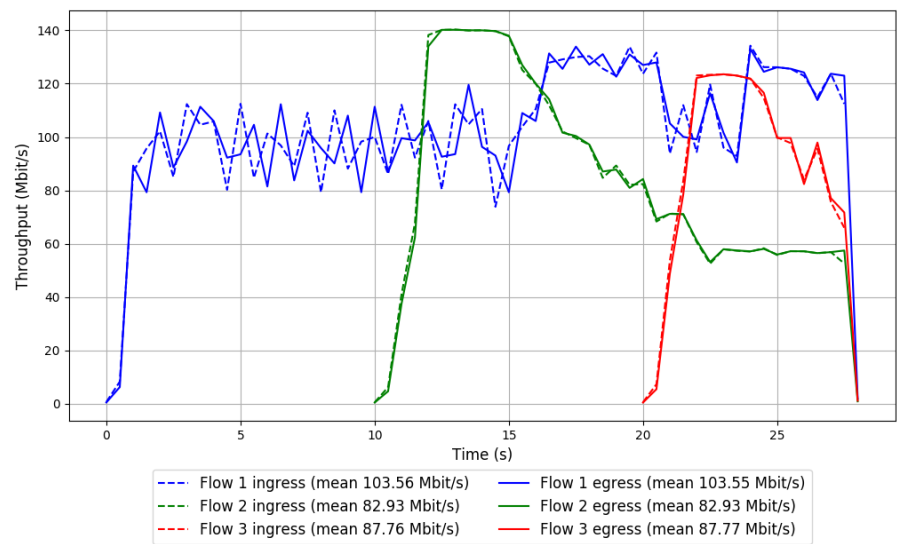
-- Flow 3:

Average throughput: 87.77 Mbit/s

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

Loss rate: 0.02%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-10-12 14:14:24

End at: 2017-10-12 14:14:54

Below is generated by plot.py at 2017-10-12 16:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 167.67 Mbit/s

95th percentile per-packet one-way delay: 52.666 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 89.50 Mbit/s

95th percentile per-packet one-way delay: 52.734 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 85.15 Mbit/s

95th percentile per-packet one-way delay: 52.613 ms

Loss rate: 0.02%

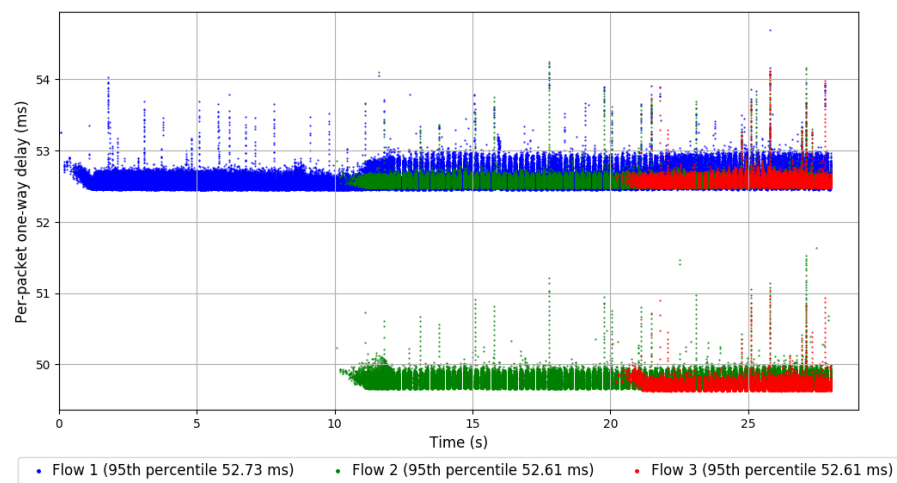
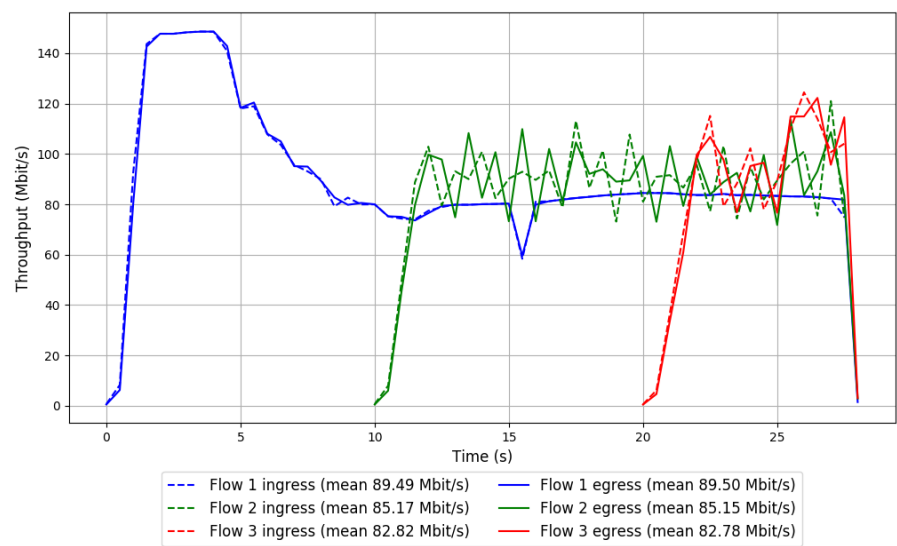
-- Flow 3:

Average throughput: 82.78 Mbit/s

95th percentile per-packet one-way delay: 52.613 ms

Loss rate: 0.04%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-10-12 14:26:29

End at: 2017-10-12 14:26:59

Below is generated by plot.py at 2017-10-12 16:45:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 171.22 Mbit/s

95th percentile per-packet one-way delay: 53.325 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 85.83 Mbit/s

95th percentile per-packet one-way delay: 53.416 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 88.79 Mbit/s

95th percentile per-packet one-way delay: 52.631 ms

Loss rate: 0.02%

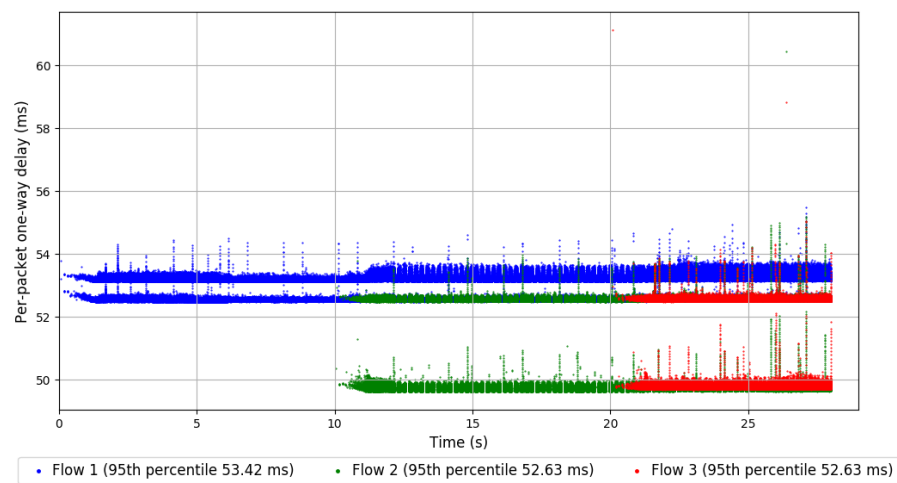
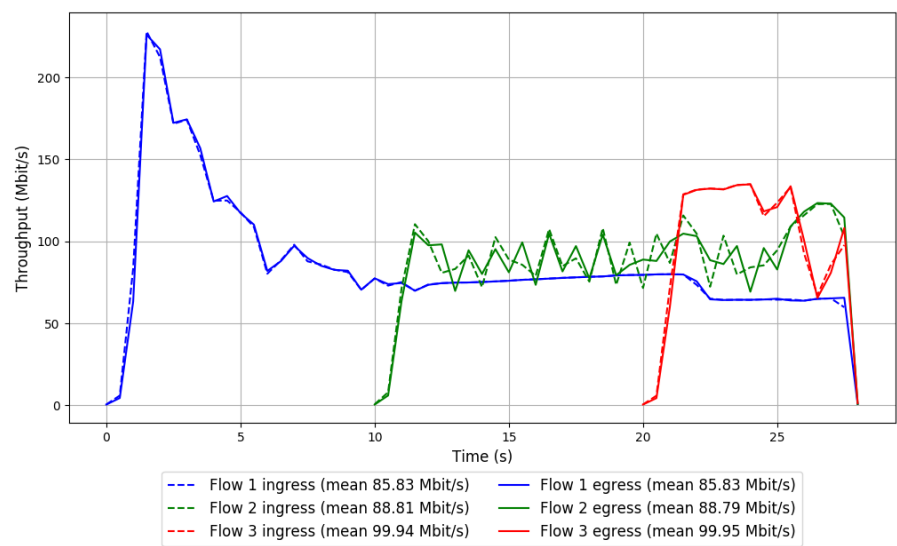
-- Flow 3:

Average throughput: 99.95 Mbit/s

95th percentile per-packet one-way delay: 52.634 ms

Loss rate: 0.03%

Run 10: Report of Copa — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-10-12 12:33:36

End at: 2017-10-12 12:34:06

Below is generated by plot.py at 2017-10-12 16:50:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 552.78 Mbit/s

95th percentile per-packet one-way delay: 110.979 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 338.84 Mbit/s

95th percentile per-packet one-way delay: 95.643 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 246.07 Mbit/s

95th percentile per-packet one-way delay: 135.911 ms

Loss rate: 0.08%

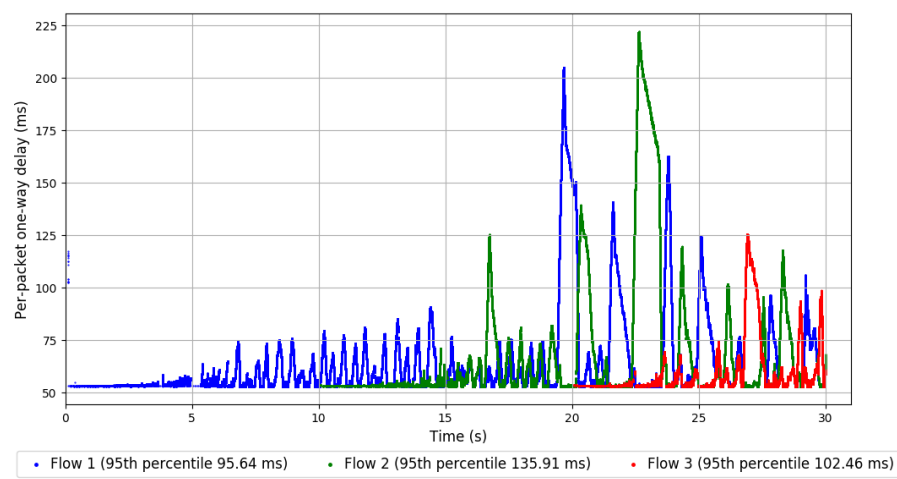
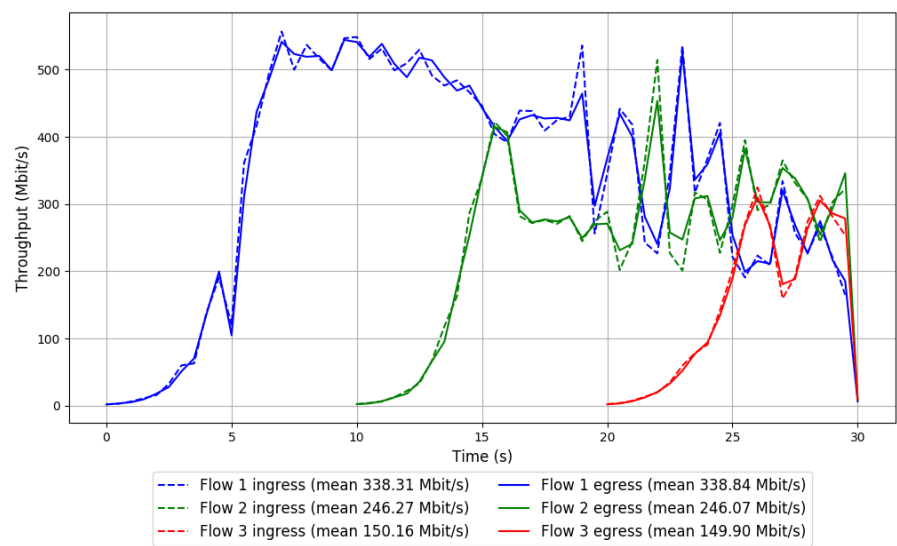
-- Flow 3:

Average throughput: 149.90 Mbit/s

95th percentile per-packet one-way delay: 102.460 ms

Loss rate: 0.15%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-10-12 12:46:17

End at: 2017-10-12 12:46:48

Below is generated by plot.py at 2017-10-12 16:50:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 575.21 Mbit/s

95th percentile per-packet one-way delay: 92.345 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 348.76 Mbit/s

95th percentile per-packet one-way delay: 77.897 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 268.86 Mbit/s

95th percentile per-packet one-way delay: 100.975 ms

Loss rate: 0.01%

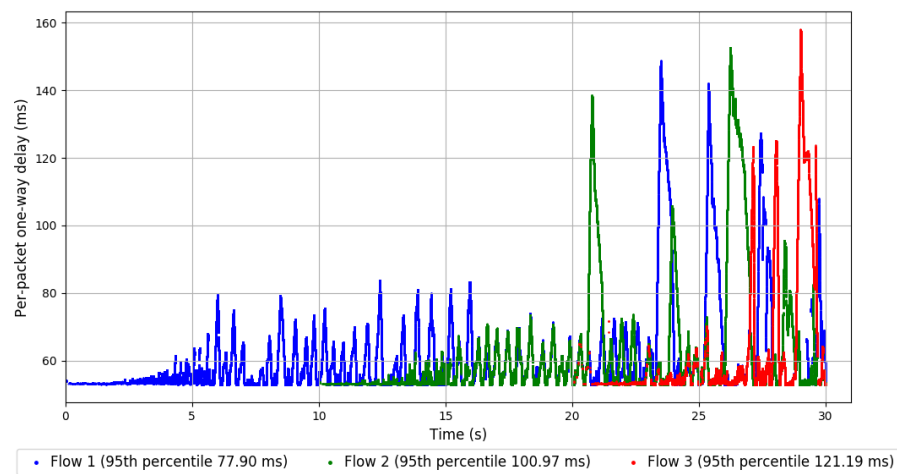
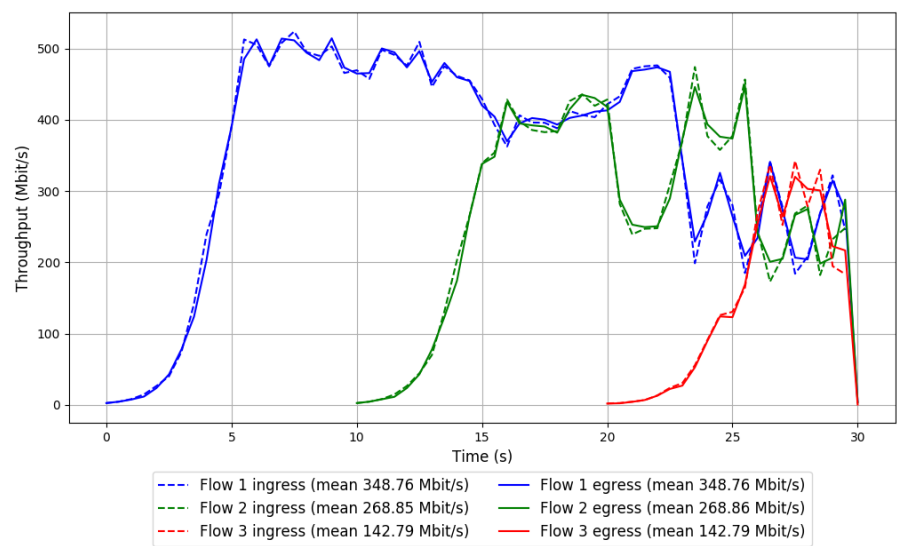
-- Flow 3:

Average throughput: 142.79 Mbit/s

95th percentile per-packet one-way delay: 121.192 ms

Loss rate: 0.01%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-10-12 12:58:51

End at: 2017-10-12 12:59:21

Below is generated by plot.py at 2017-10-12 16:50:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 573.36 Mbit/s

95th percentile per-packet one-way delay: 84.896 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 358.22 Mbit/s

95th percentile per-packet one-way delay: 79.044 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 281.81 Mbit/s

95th percentile per-packet one-way delay: 102.462 ms

Loss rate: 0.02%

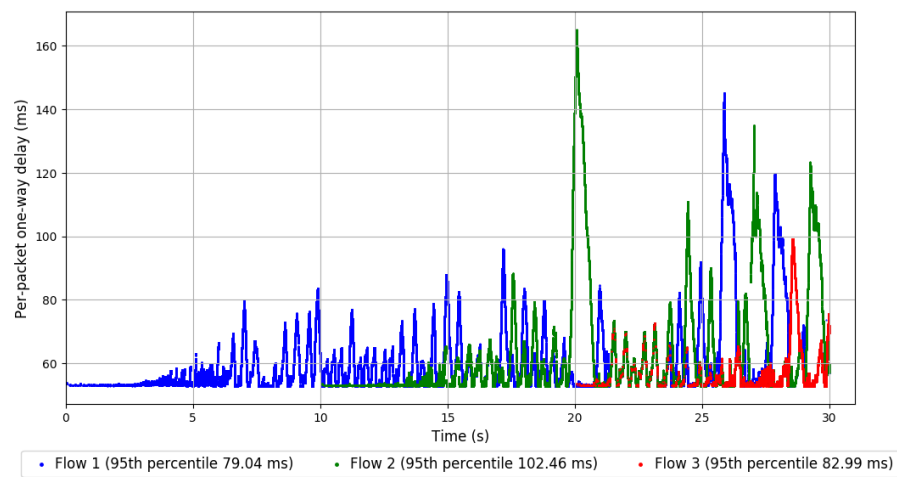
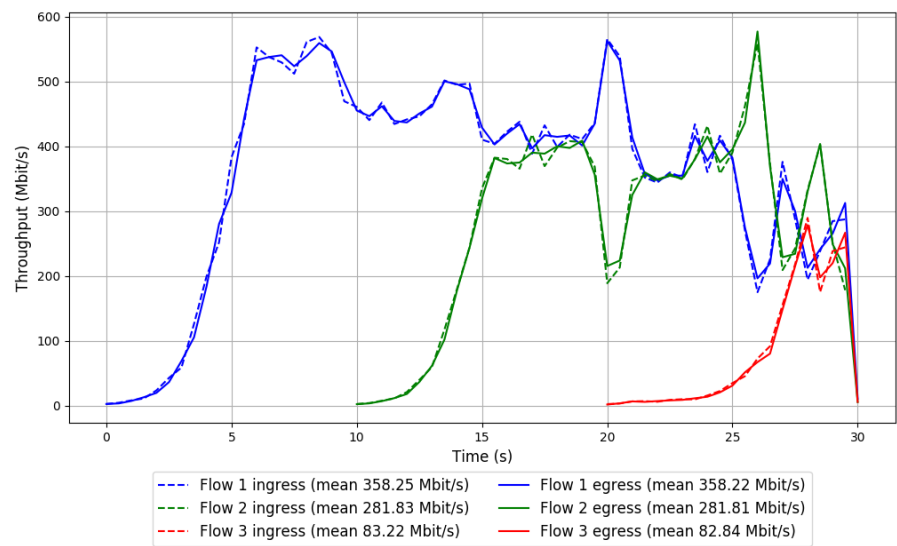
-- Flow 3:

Average throughput: 82.84 Mbit/s

95th percentile per-packet one-way delay: 82.987 ms

Loss rate: 0.48%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-10-12 13:11:21

End at: 2017-10-12 13:11:51

Below is generated by plot.py at 2017-10-12 16:52:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 585.05 Mbit/s

95th percentile per-packet one-way delay: 71.109 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 370.12 Mbit/s

95th percentile per-packet one-way delay: 72.627 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 318.81 Mbit/s

95th percentile per-packet one-way delay: 69.702 ms

Loss rate: 0.03%

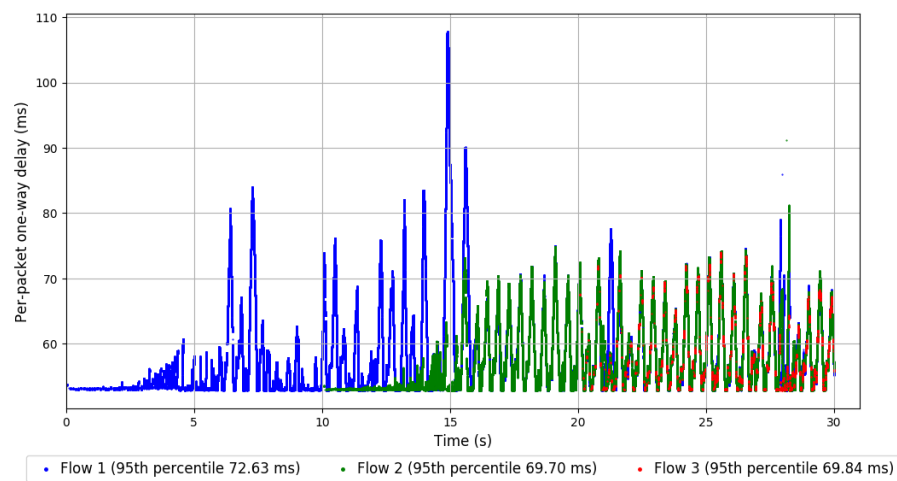
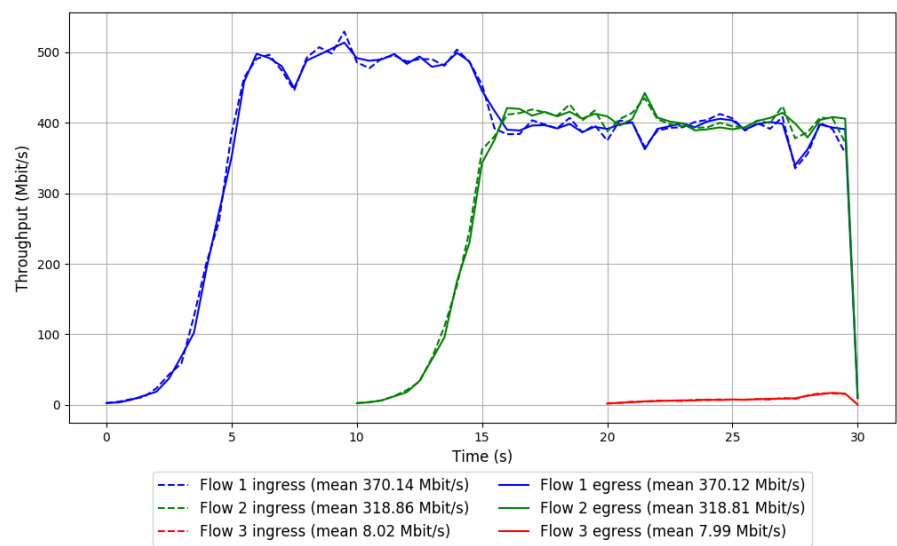
-- Flow 3:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 69.839 ms

Loss rate: 0.59%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-10-12 13:23:35

End at: 2017-10-12 13:24:05

Below is generated by plot.py at 2017-10-12 16:53:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 565.50 Mbit/s

95th percentile per-packet one-way delay: 121.410 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 343.84 Mbit/s

95th percentile per-packet one-way delay: 104.710 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 257.74 Mbit/s

95th percentile per-packet one-way delay: 133.045 ms

Loss rate: 0.07%

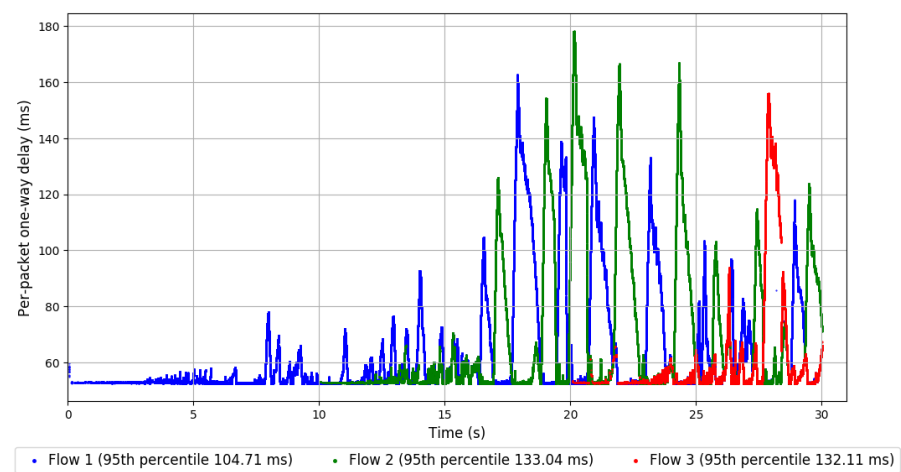
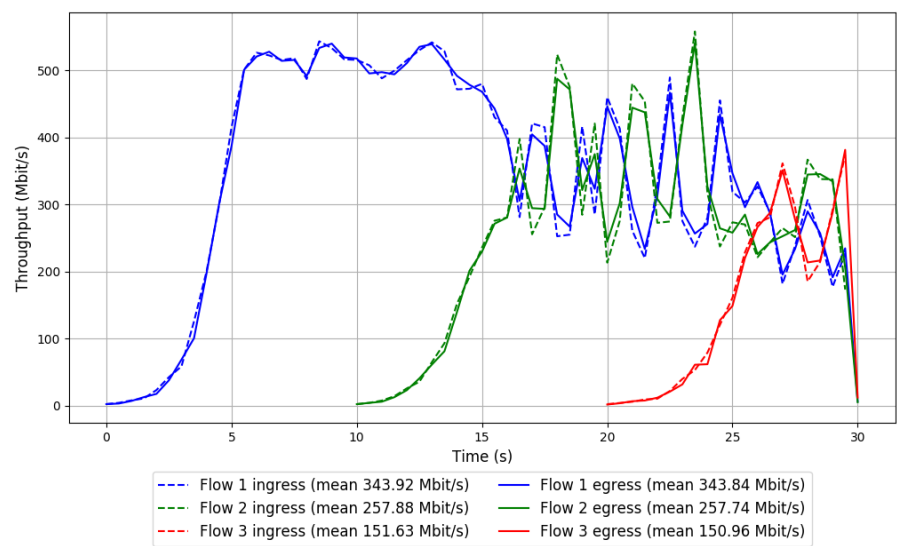
-- Flow 3:

Average throughput: 150.96 Mbit/s

95th percentile per-packet one-way delay: 132.106 ms

Loss rate: 0.45%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-10-12 13:36:04

End at: 2017-10-12 13:36:34

Below is generated by plot.py at 2017-10-12 16:55:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 593.97 Mbit/s

95th percentile per-packet one-way delay: 96.409 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 362.13 Mbit/s

95th percentile per-packet one-way delay: 90.696 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 277.66 Mbit/s

95th percentile per-packet one-way delay: 107.390 ms

Loss rate: 0.03%

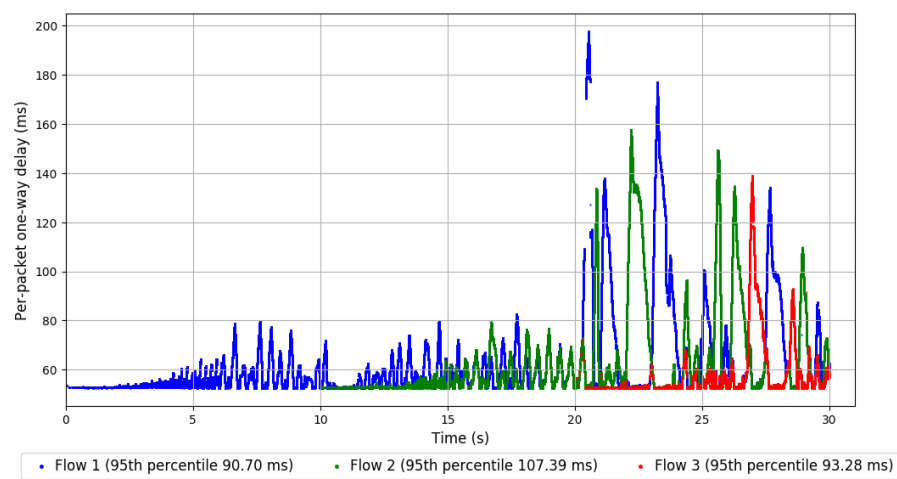
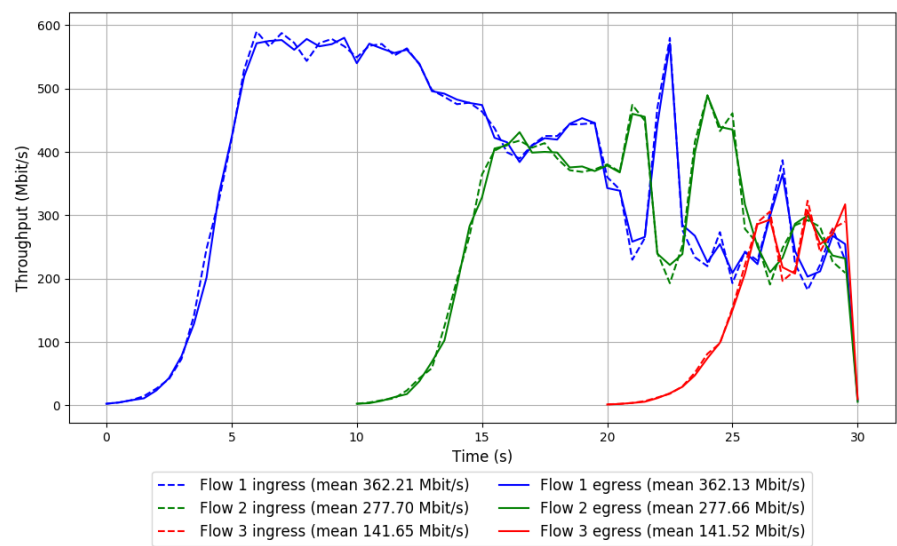
-- Flow 3:

Average throughput: 141.52 Mbit/s

95th percentile per-packet one-way delay: 93.284 ms

Loss rate: 0.15%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-10-12 13:48:10

End at: 2017-10-12 13:48:40

Below is generated by plot.py at 2017-10-12 16:55:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 578.54 Mbit/s

95th percentile per-packet one-way delay: 100.214 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 356.49 Mbit/s

95th percentile per-packet one-way delay: 100.381 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 255.64 Mbit/s

95th percentile per-packet one-way delay: 96.911 ms

Loss rate: 0.06%

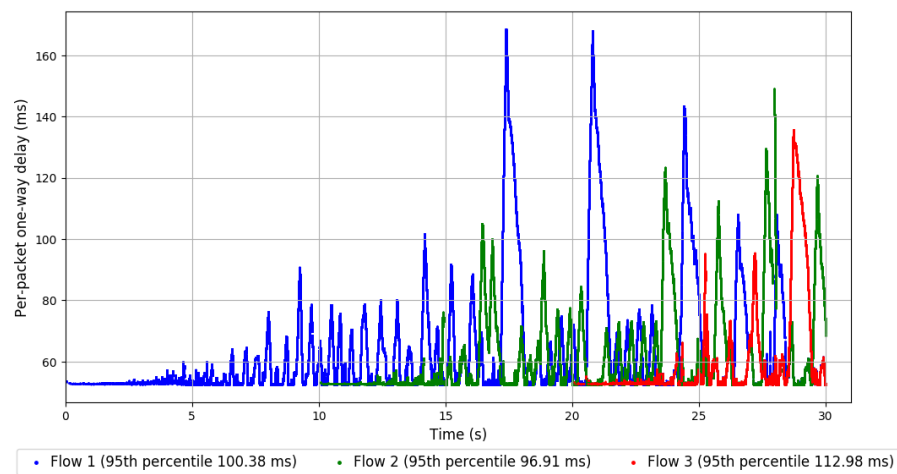
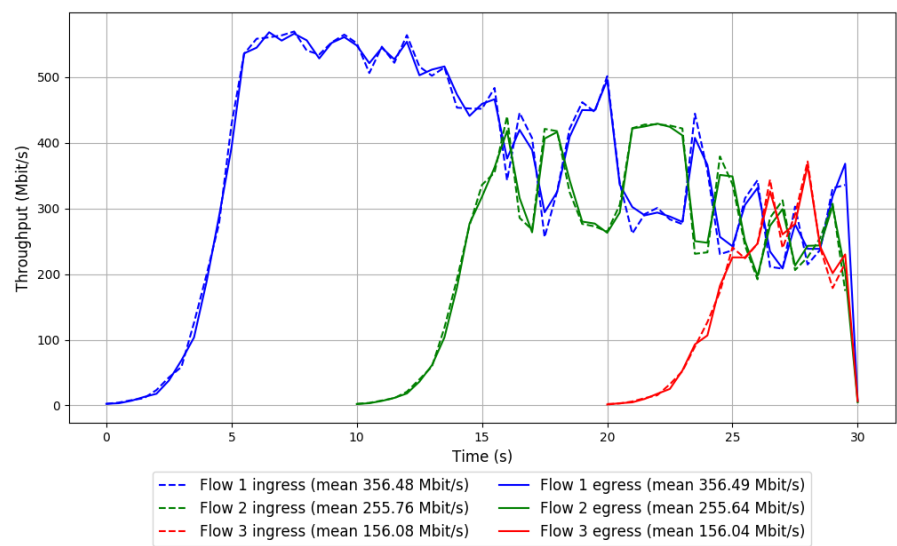
-- Flow 3:

Average throughput: 156.04 Mbit/s

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

Loss rate: 0.05%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-10-12 14:00:50

End at: 2017-10-12 14:01:20

Below is generated by plot.py at 2017-10-12 16:55:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 591.80 Mbit/s

95th percentile per-packet one-way delay: 71.604 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 378.68 Mbit/s

95th percentile per-packet one-way delay: 72.545 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 319.04 Mbit/s

95th percentile per-packet one-way delay: 70.085 ms

Loss rate: 0.07%

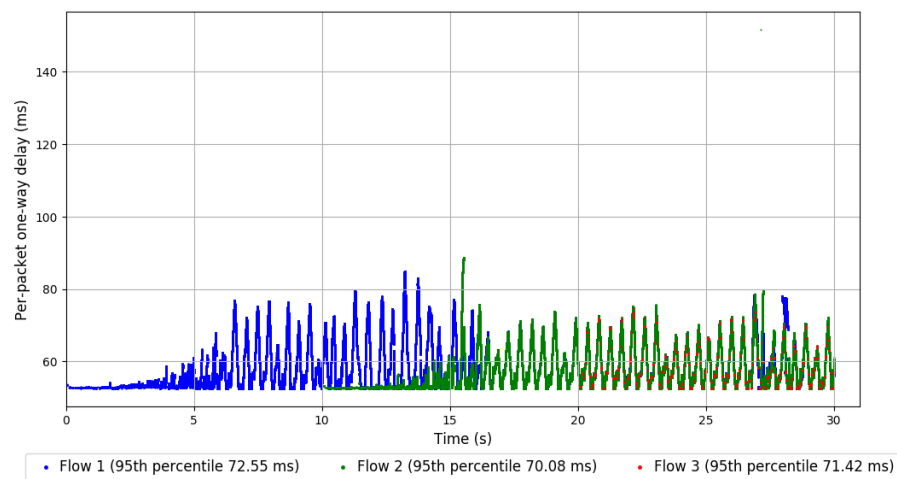
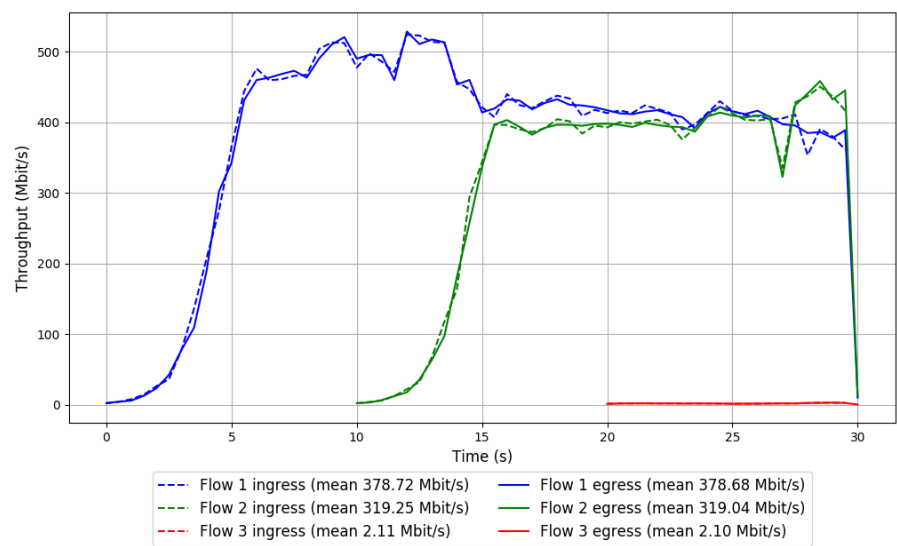
-- Flow 3:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 71.425 ms

Loss rate: 0.69%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-10-12 14:13:04

End at: 2017-10-12 14:13:34

Below is generated by plot.py at 2017-10-12 17:00:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 585.72 Mbit/s

95th percentile per-packet one-way delay: 94.361 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 379.29 Mbit/s

95th percentile per-packet one-way delay: 76.655 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 282.88 Mbit/s

95th percentile per-packet one-way delay: 117.552 ms

Loss rate: 0.05%

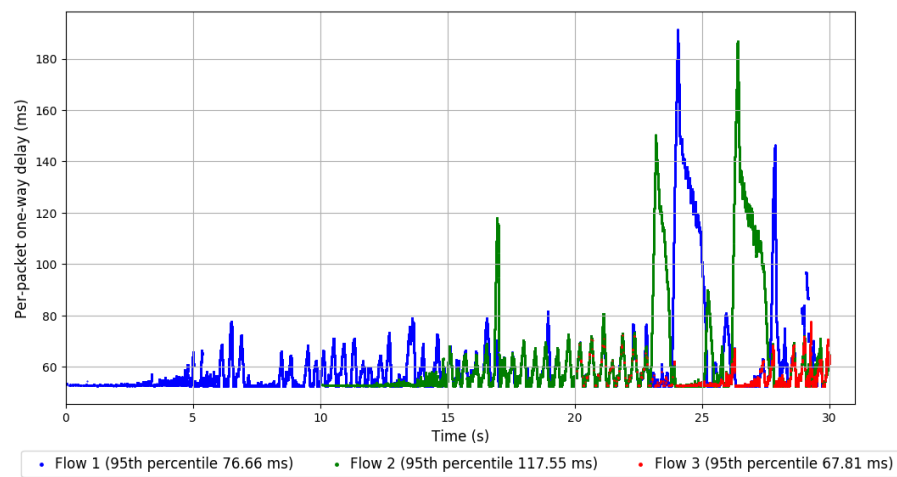
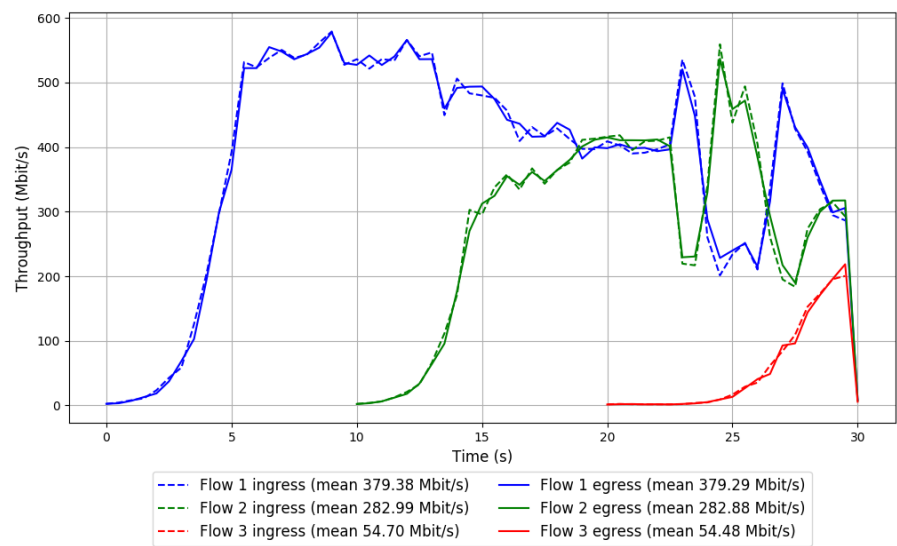
-- Flow 3:

Average throughput: 54.48 Mbit/s

95th percentile per-packet one-way delay: 67.811 ms

Loss rate: 0.47%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-10-12 14:25:08

End at: 2017-10-12 14:25:38

Below is generated by plot.py at 2017-10-12 17:01:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 594.85 Mbit/s

95th percentile per-packet one-way delay: 70.298 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 386.79 Mbit/s

95th percentile per-packet one-way delay: 70.985 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 311.09 Mbit/s

95th percentile per-packet one-way delay: 69.149 ms

Loss rate: 0.14%

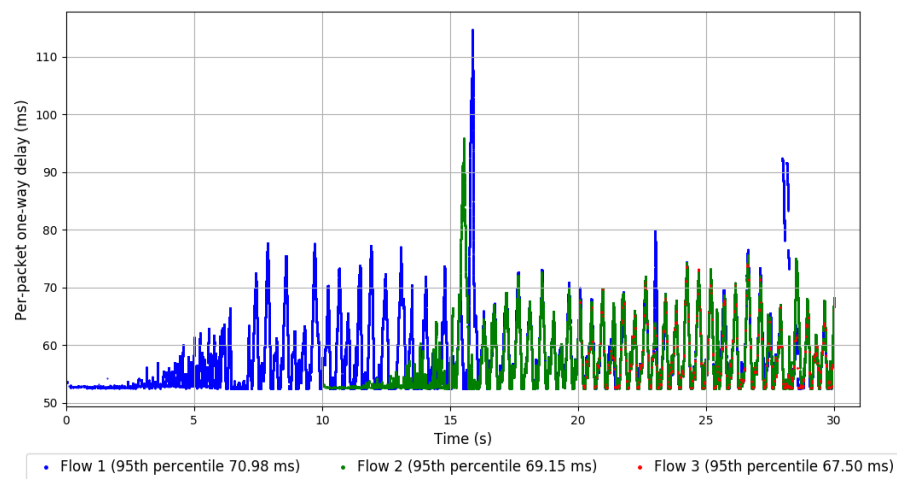
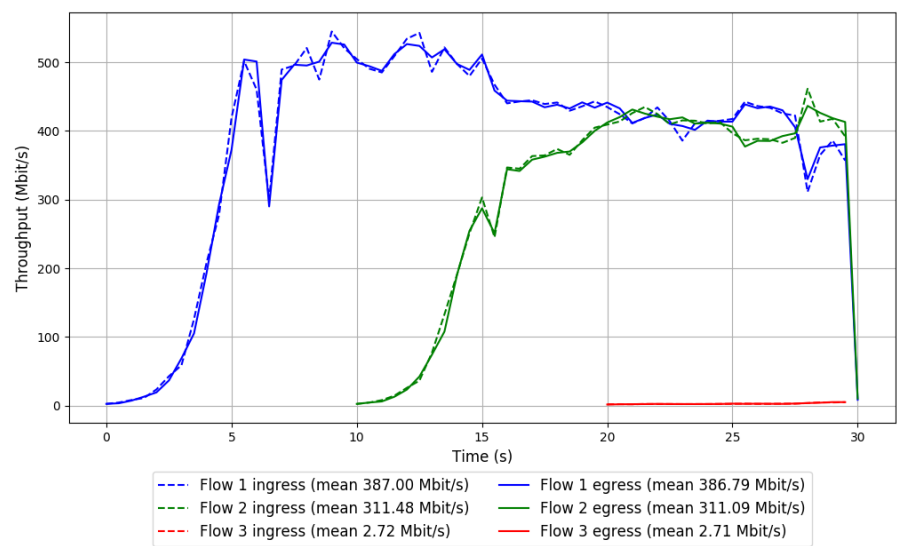
-- Flow 3:

Average throughput: 2.71 Mbit/s

95th percentile per-packet one-way delay: 67.502 ms

Loss rate: 0.84%

Run 10: Report of CalibratedKoho — Data Link

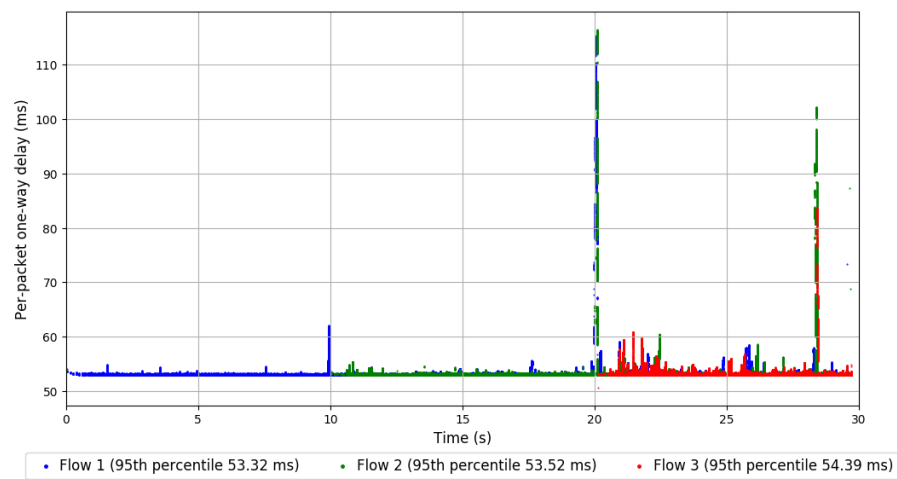
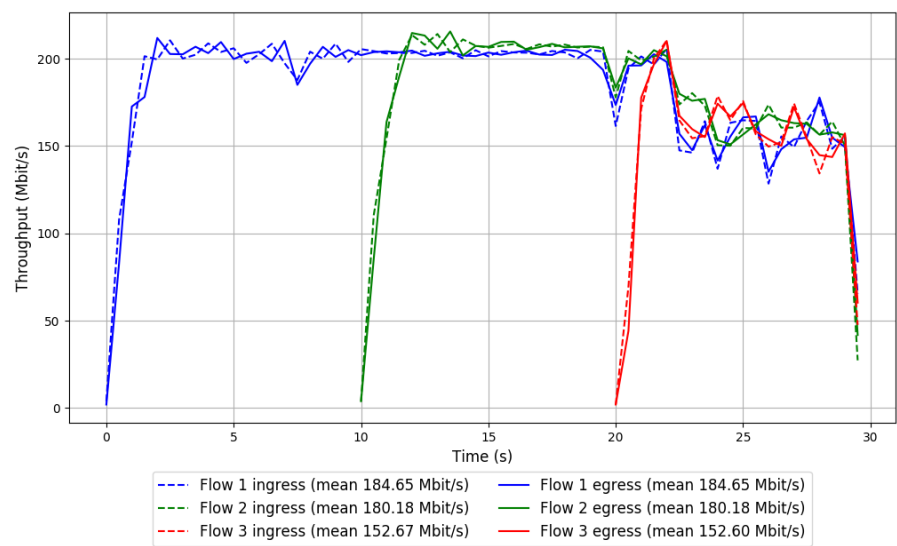


```
Run 1: Statistics of Indigo

Start at: 2017-10-12 12:24:48
End at: 2017-10-12 12:25:18

# Below is generated by plot.py at 2017-10-12 17:01:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.35 Mbit/s
95th percentile per-packet one-way delay: 53.490 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 184.65 Mbit/s
95th percentile per-packet one-way delay: 53.318 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 180.18 Mbit/s
95th percentile per-packet one-way delay: 53.521 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 152.60 Mbit/s
95th percentile per-packet one-way delay: 54.392 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-10-12 12:37:27

End at: 2017-10-12 12:37:57

Below is generated by plot.py at 2017-10-12 17:01:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 361.40 Mbit/s

95th percentile per-packet one-way delay: 53.429 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 187.44 Mbit/s

95th percentile per-packet one-way delay: 53.219 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 183.86 Mbit/s

95th percentile per-packet one-way delay: 53.802 ms

Loss rate: 0.00%

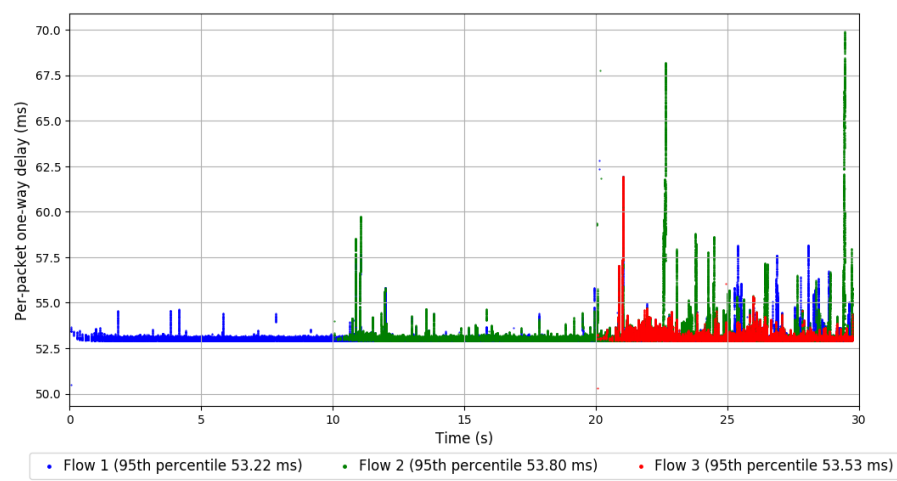
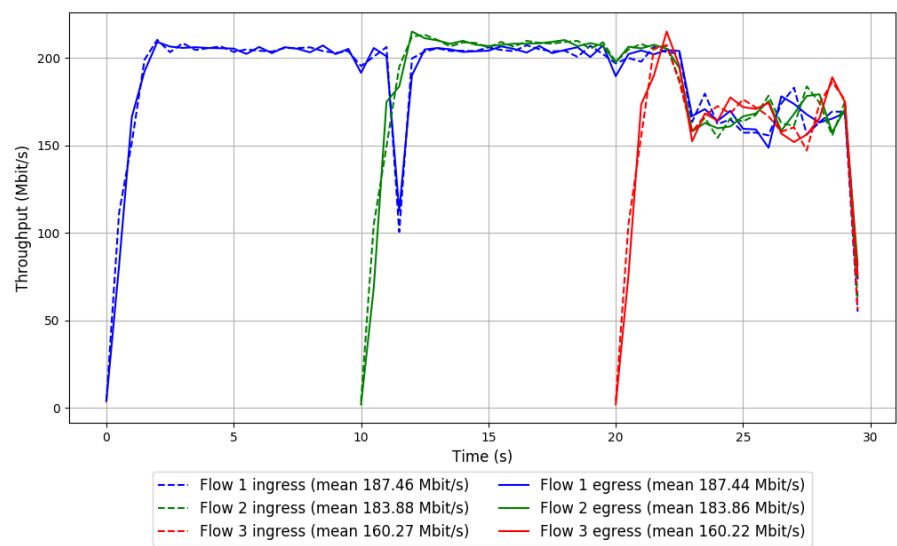
-- Flow 3:

Average throughput: 160.22 Mbit/s

95th percentile per-packet one-way delay: 53.528 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-10-12 12:50:15

End at: 2017-10-12 12:50:45

Below is generated by plot.py at 2017-10-12 17:01:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 360.77 Mbit/s

95th percentile per-packet one-way delay: 53.260 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 189.28 Mbit/s

95th percentile per-packet one-way delay: 53.179 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 182.20 Mbit/s

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

Loss rate: 0.00%

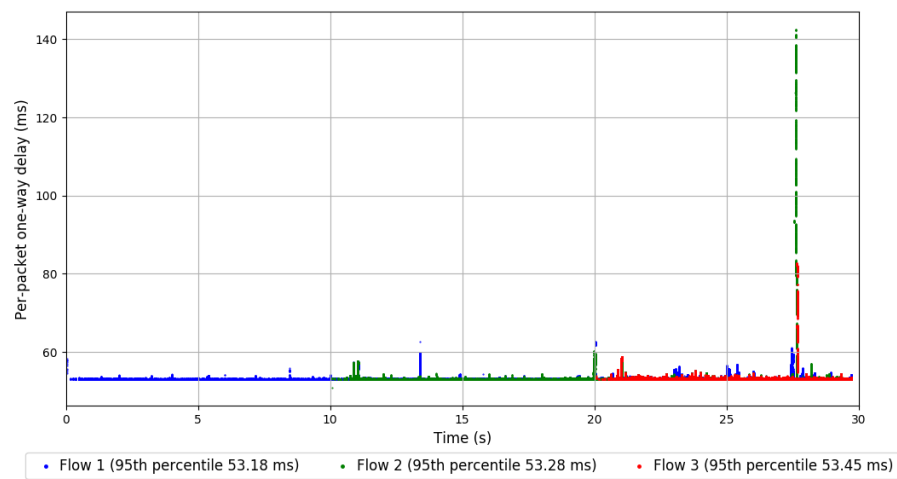
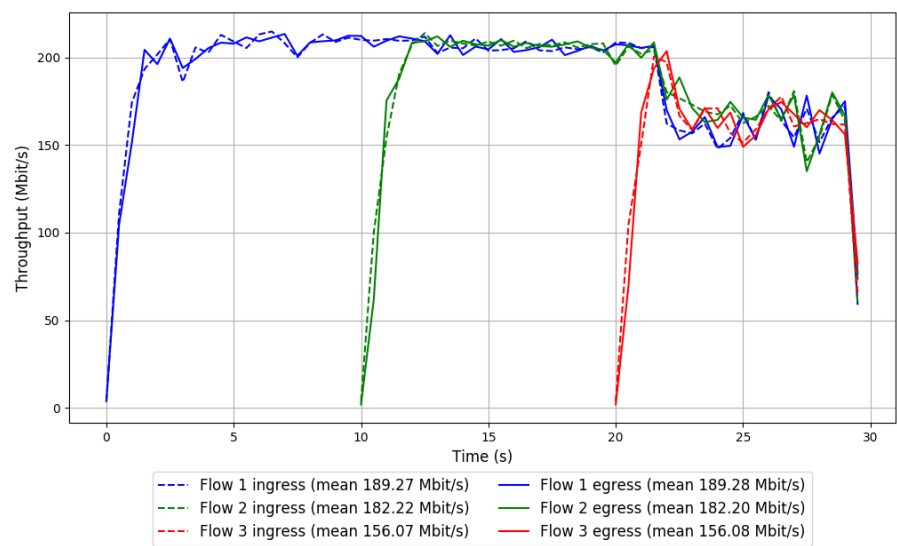
-- Flow 3:

Average throughput: 156.08 Mbit/s

95th percentile per-packet one-way delay: 53.451 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-10-12 13:02:48

End at: 2017-10-12 13:03:18

Below is generated by plot.py at 2017-10-12 17:01:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 347.14 Mbit/s

95th percentile per-packet one-way delay: 53.265 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 185.70 Mbit/s

95th percentile per-packet one-way delay: 53.105 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 169.65 Mbit/s

95th percentile per-packet one-way delay: 53.737 ms

Loss rate: 0.00%

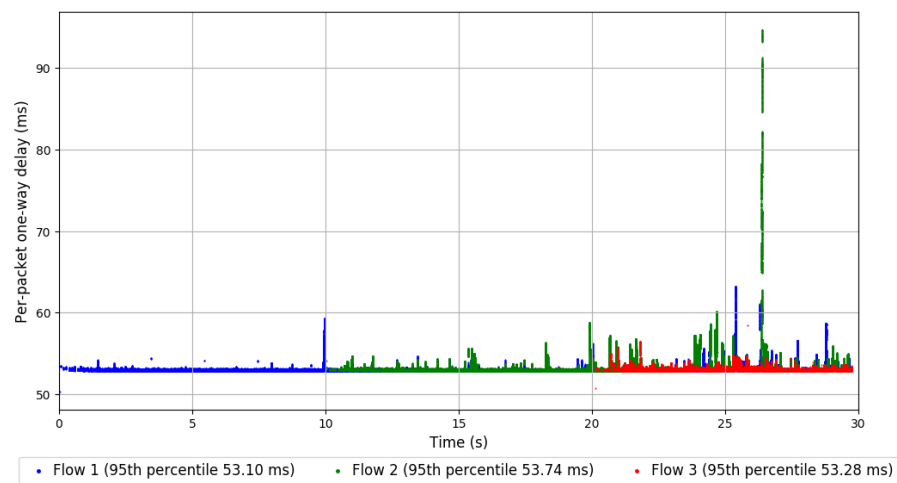
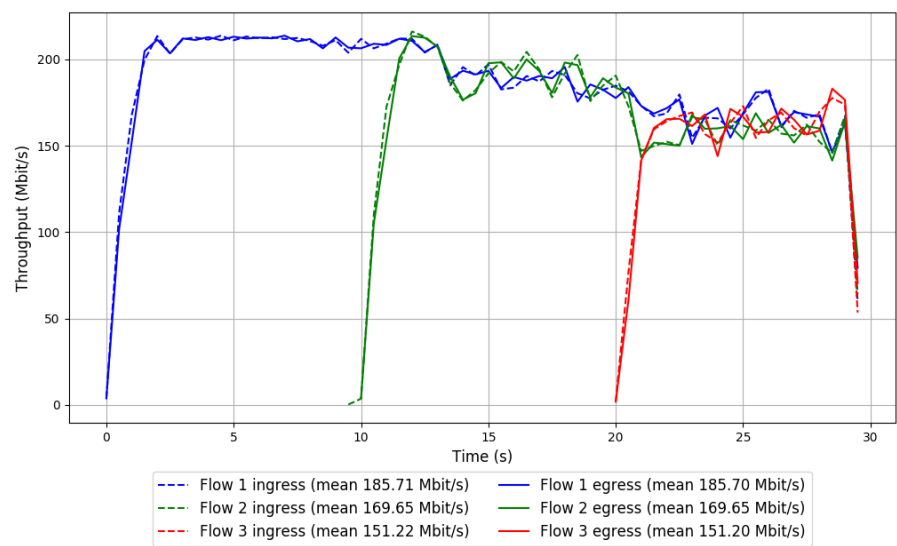
-- Flow 3:

Average throughput: 151.20 Mbit/s

95th percentile per-packet one-way delay: 53.280 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-10-12 13:15:20

End at: 2017-10-12 13:15:50

Below is generated by plot.py at 2017-10-12 17:01:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 353.48 Mbit/s

95th percentile per-packet one-way delay: 53.523 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 185.88 Mbit/s

95th percentile per-packet one-way delay: 53.169 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 176.40 Mbit/s

95th percentile per-packet one-way delay: 53.844 ms

Loss rate: 0.02%

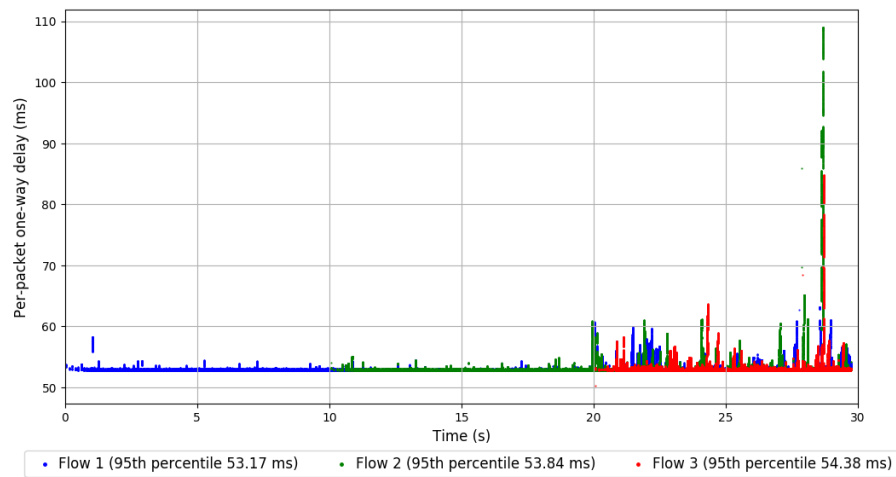
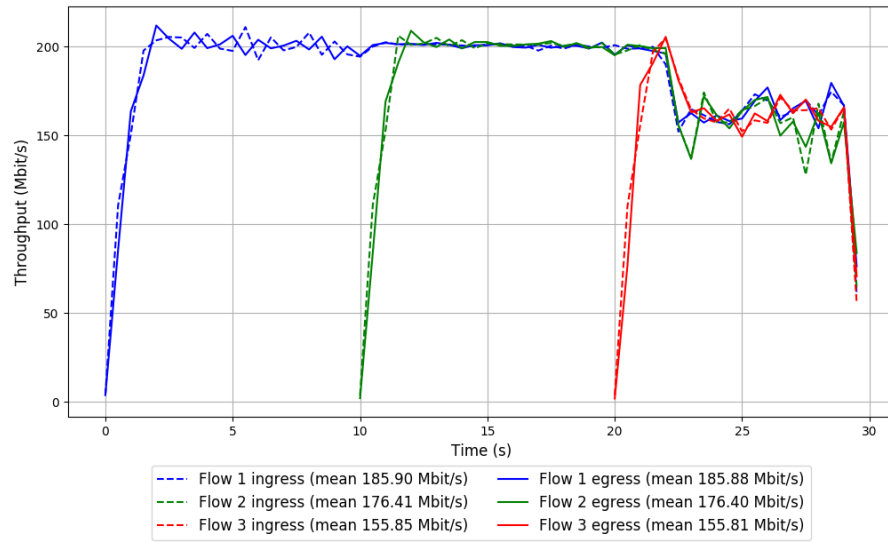
-- Flow 3:

Average throughput: 155.81 Mbit/s

95th percentile per-packet one-way delay: 54.378 ms

Loss rate: 0.01%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-10-12 13:27:30

End at: 2017-10-12 13:28:00

Below is generated by plot.py at 2017-10-12 17:01:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 353.05 Mbit/s

95th percentile per-packet one-way delay: 52.923 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 184.09 Mbit/s

95th percentile per-packet one-way delay: 52.910 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 179.63 Mbit/s

95th percentile per-packet one-way delay: 52.889 ms

Loss rate: 0.02%

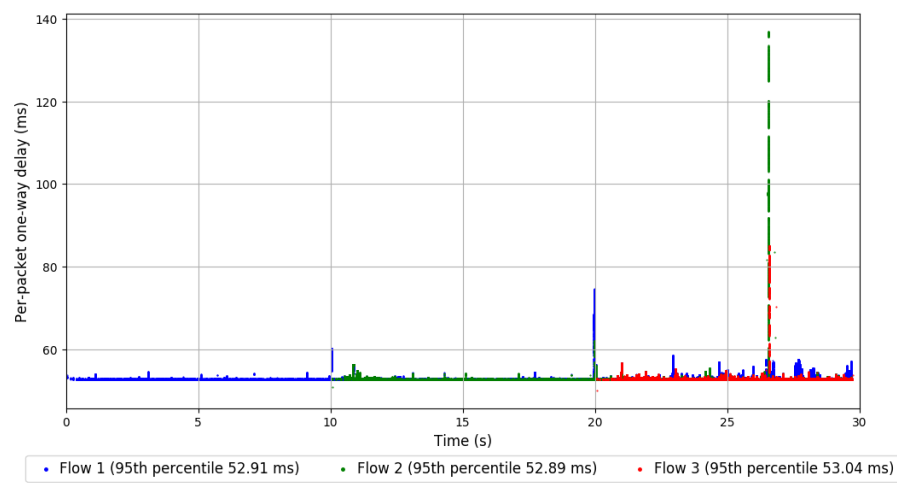
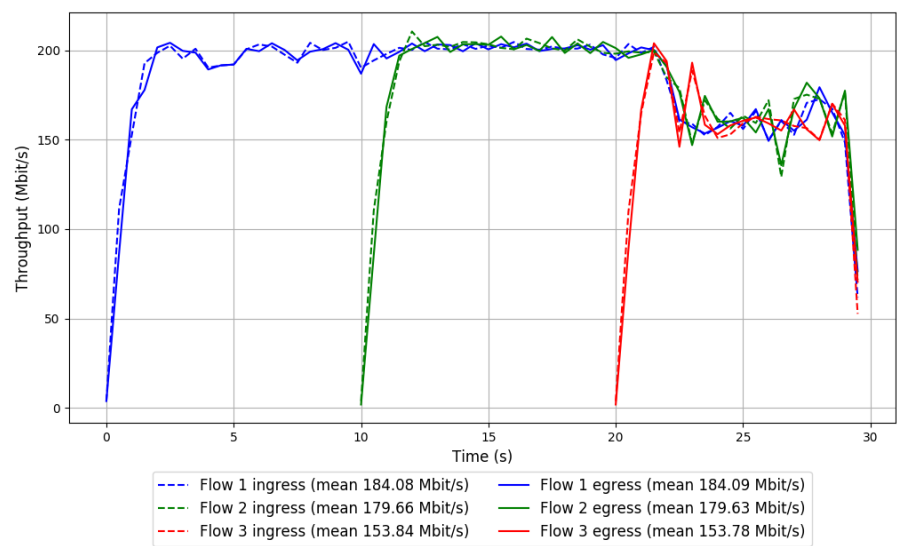
-- Flow 3:

Average throughput: 153.78 Mbit/s

95th percentile per-packet one-way delay: 53.042 ms

Loss rate: 0.01%

Run 6: Report of Indigo — Data Link

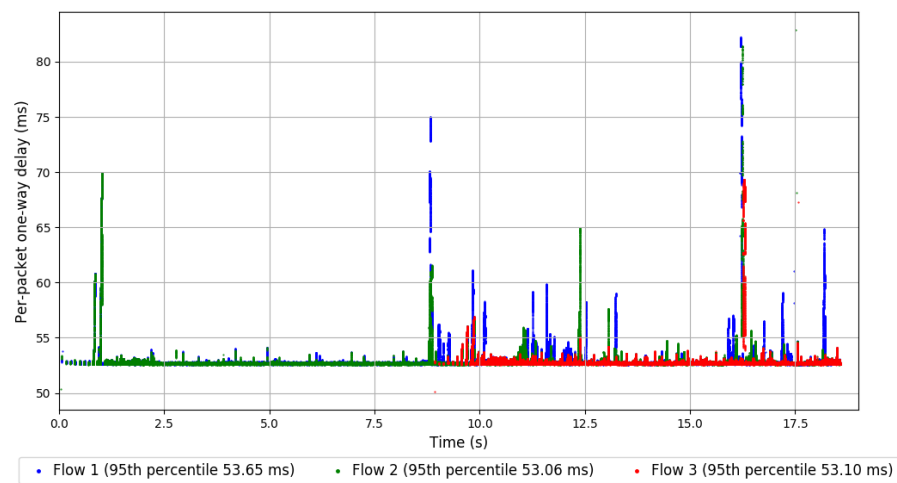
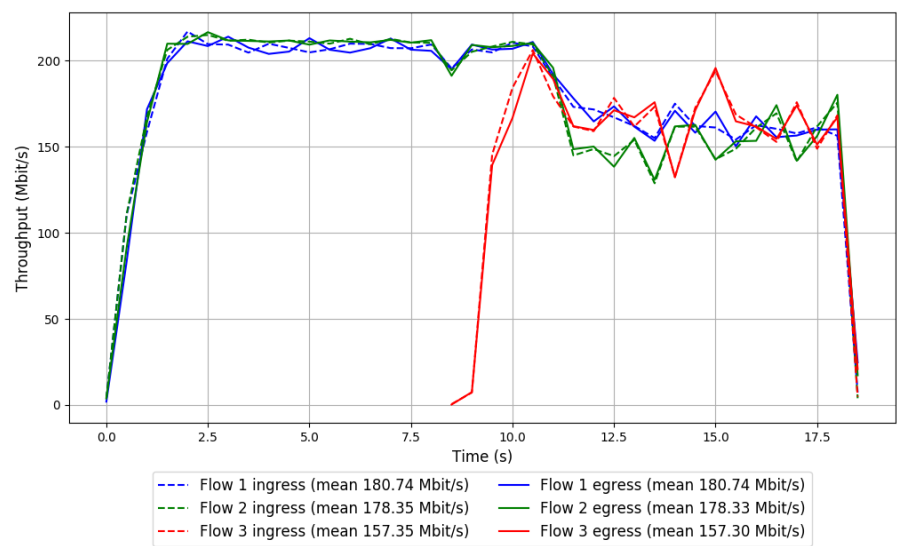


Run 7: Statistics of Indigo

Start at: 2017-10-12 13:40:03

End at: 2017-10-12 13:40:33

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-10-12 13:52:11

End at: 2017-10-12 13:52:41

Below is generated by plot.py at 2017-10-12 17:02:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 358.06 Mbit/s

95th percentile per-packet one-way delay: 53.078 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 186.23 Mbit/s

95th percentile per-packet one-way delay: 52.990 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 178.71 Mbit/s

95th percentile per-packet one-way delay: 53.170 ms

Loss rate: 0.01%

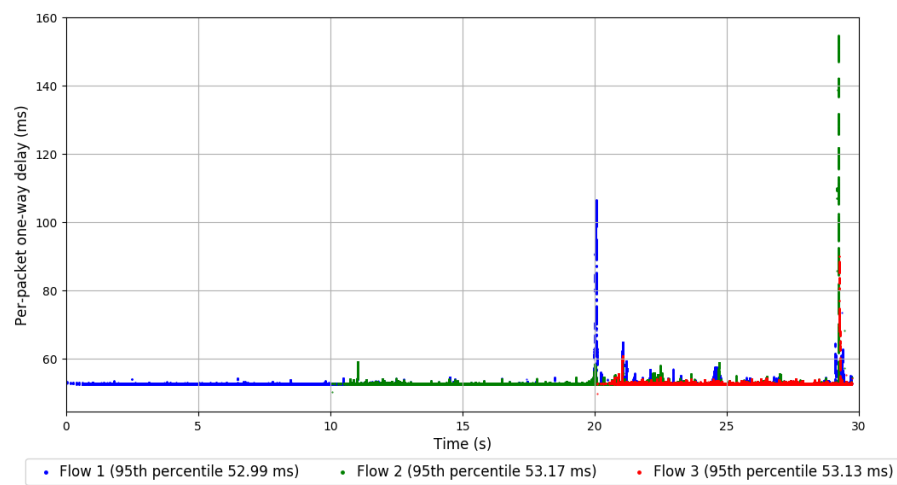
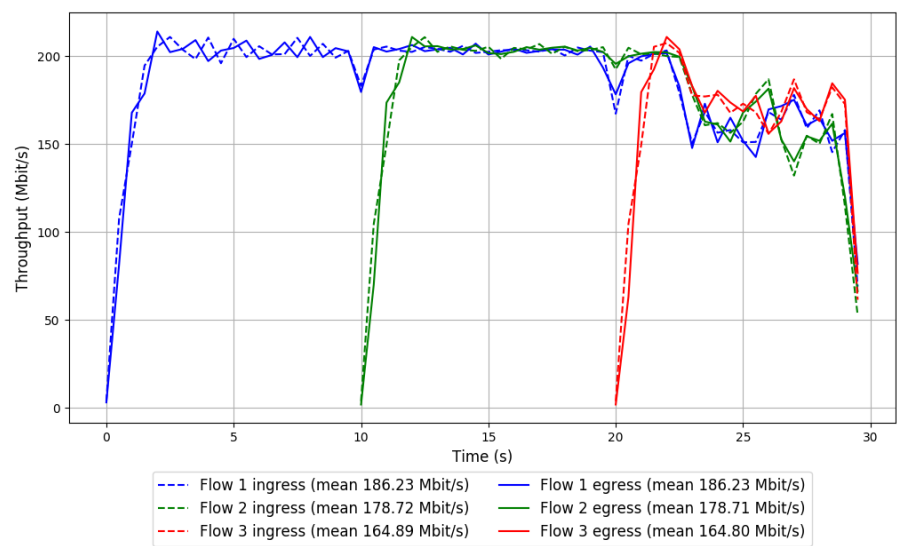
-- Flow 3:

Average throughput: 164.80 Mbit/s

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

Loss rate: 0.03%

Run 8: Report of Indigo — Data Link

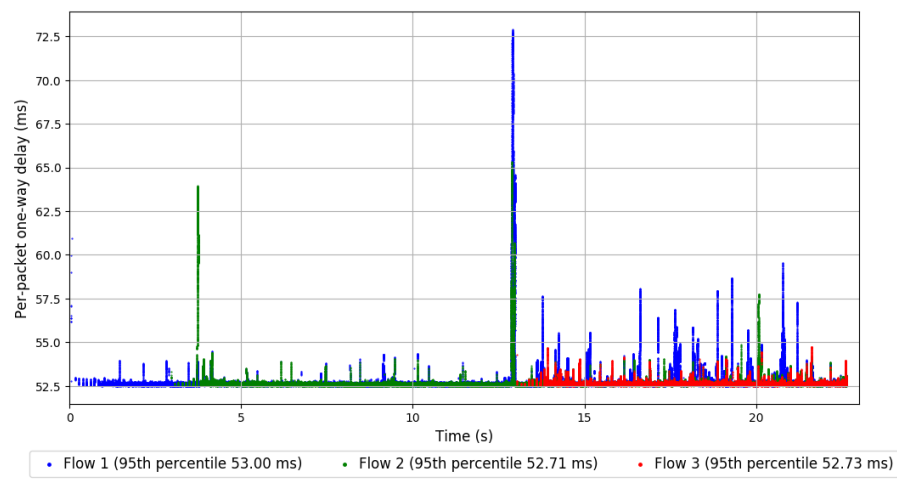
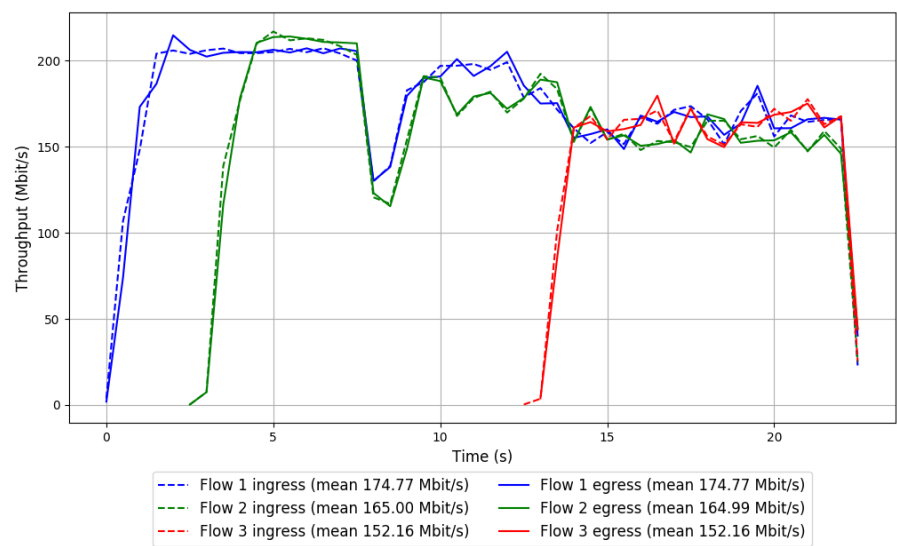


Run 9: Statistics of Indigo

Start at: 2017-10-12 14:04:50

End at: 2017-10-12 14:05:20

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-10-12 14:17:03

End at: 2017-10-12 14:17:33

Run 10: Report of Indigo — Data Link

