

Pantheon Report

Generated at 2018-03-21 15:43:36 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

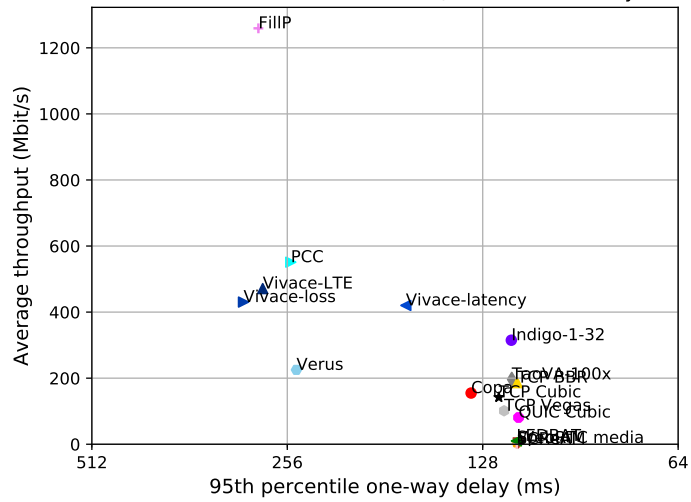
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

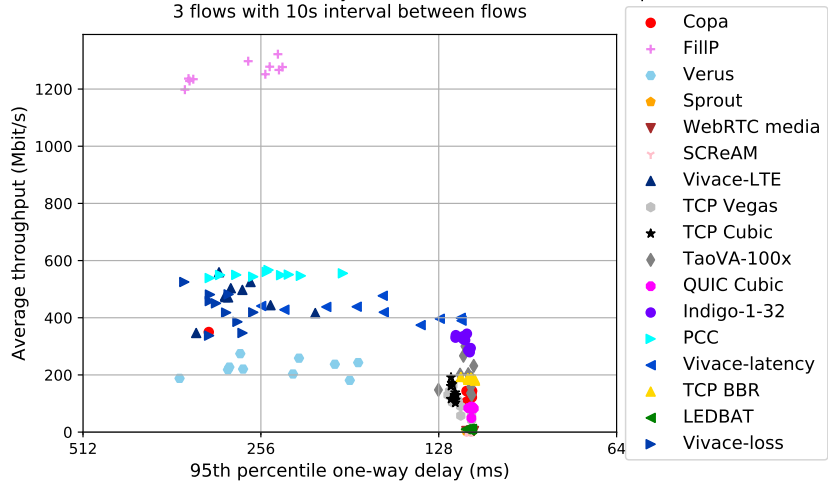
Git summary:

```
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5ceec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



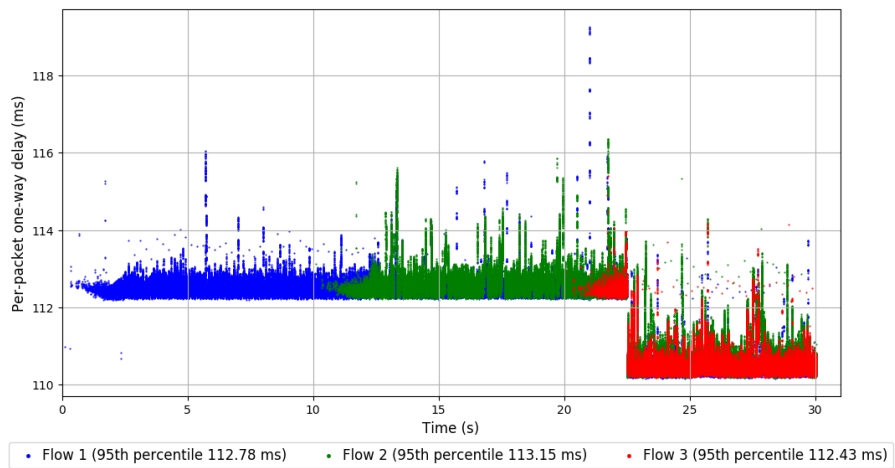
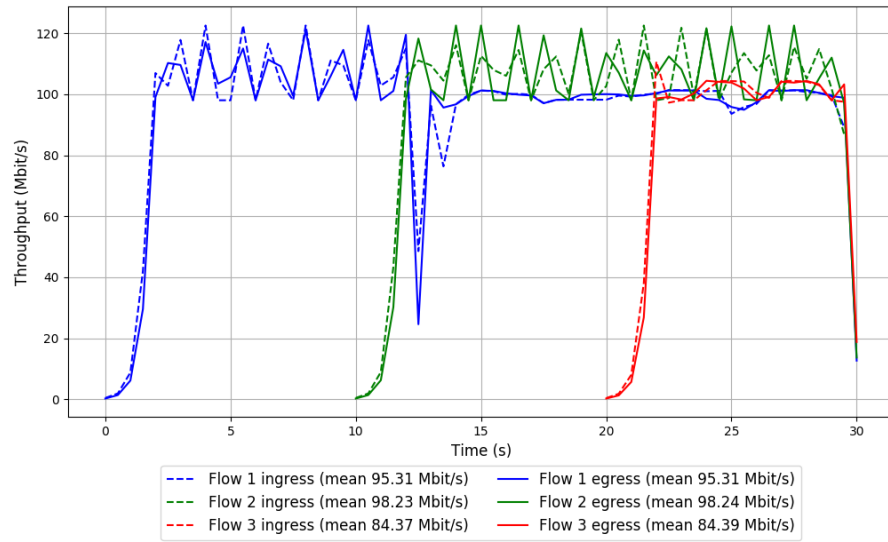
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	94.53	95.58	85.79	112.94	113.22	113.46	0.00	0.00	0.00
TCP Cubic	10	80.84	66.08	52.45	120.15	119.44	120.20	0.00	0.05	0.11
LEDBAT	10	6.55	4.15	2.14	113.67	113.26	112.58	0.00	0.00	0.00
PCC	10	474.47	97.89	35.27	257.40	217.20	215.15	2.29	1.47	1.86
QUIC Cubic	10	43.99	43.74	24.66	112.21	112.14	112.35	0.00	0.00	0.00
SCReAM	10	0.20	0.22	0.22	112.84	112.54	112.05	0.00	0.00	0.00
WebRTC media	10	2.09	1.30	0.47	112.61	111.65	112.51	0.00	0.00	0.01
Sprout	10	2.54	2.44	1.82	113.36	113.26	113.19	0.00	0.00	0.00
TaoVA-100x	10	100.55	116.74	54.67	113.84	116.18	115.35	0.00	0.01	0.00
TCP Vegas	10	53.63	47.94	47.73	116.44	117.16	119.77	0.01	0.04	0.29
Verus	10	125.63	120.49	60.76	206.77	276.73	205.09	1.09	5.38	1.19
Copa	10	98.28	57.91	54.63	133.20	122.06	124.71	3.62	0.05	0.48
FillP	10	653.73	632.16	558.16	256.96	281.10	293.00	12.14	12.54	16.01
Indigo-1-32	10	156.19	168.80	145.86	113.99	117.95	117.14	0.00	0.00	0.01
Vivace-latency	10	253.30	198.22	107.00	169.58	153.57	162.48	0.15	0.11	1.15
Vivace-loss	10	246.67	210.91	133.52	290.75	240.21	282.93	2.92	2.58	7.51
Vivace-LTE	10	285.49	206.33	147.97	267.14	221.37	218.03	0.78	1.00	1.21

```
Run 1: Statistics of TCP BBR

Start at: 2018-03-21 08:53:41
End at: 2018-03-21 08:54:11

# Below is generated by plot.py at 2018-03-21 14:01:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 188.73 Mbit/s
95th percentile per-packet one-way delay: 112.872 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.31 Mbit/s
95th percentile per-packet one-way delay: 112.782 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 98.24 Mbit/s
95th percentile per-packet one-way delay: 113.154 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.39 Mbit/s
95th percentile per-packet one-way delay: 112.430 ms
Loss rate: 0.00%
```


Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-21 09:13:10

End at: 2018-03-21 09:13:40

Below is generated by plot.py at 2018-03-21 14:01:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 183.18 Mbit/s

95th percentile per-packet one-way delay: 114.148 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 94.00 Mbit/s

95th percentile per-packet one-way delay: 113.337 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 90.10 Mbit/s

95th percentile per-packet one-way delay: 113.707 ms

Loss rate: 0.00%

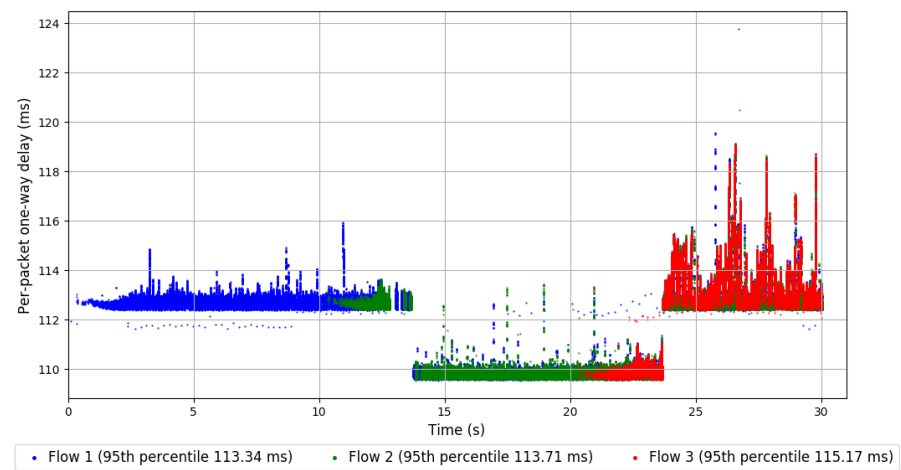
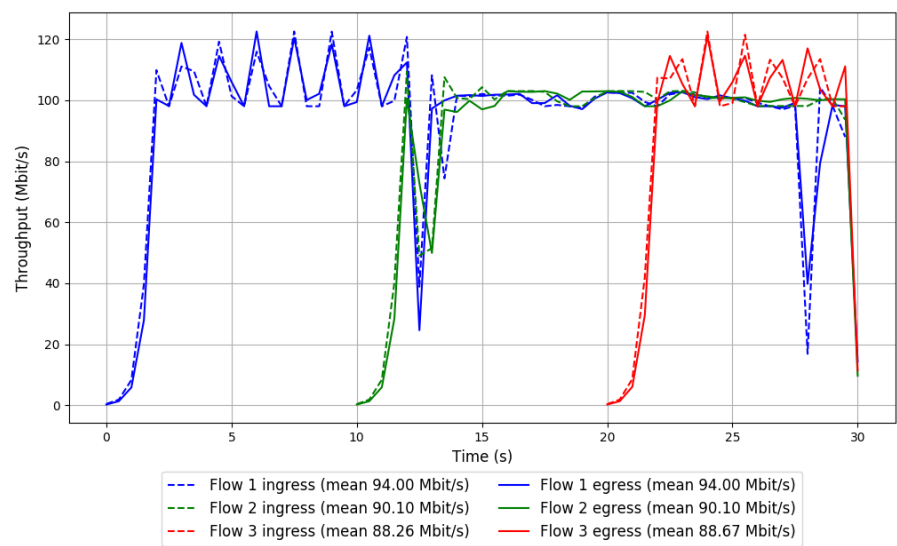
-- Flow 3:

Average throughput: 88.67 Mbit/s

95th percentile per-packet one-way delay: 115.168 ms

Loss rate: 0.00%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-03-21 09:32:46

End at: 2018-03-21 09:33:16

Below is generated by plot.py at 2018-03-21 14:01:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 185.91 Mbit/s

95th percentile per-packet one-way delay: 112.934 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 91.67 Mbit/s

95th percentile per-packet one-way delay: 112.774 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 97.93 Mbit/s

95th percentile per-packet one-way delay: 113.088 ms

Loss rate: 0.00%

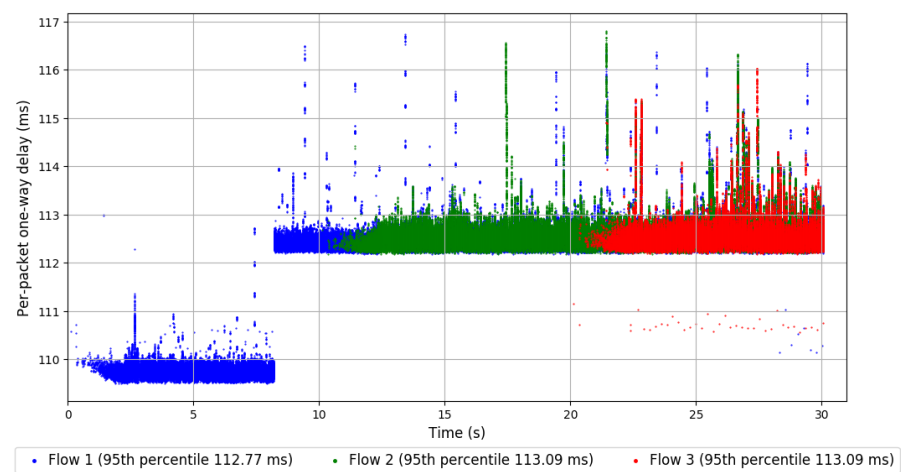
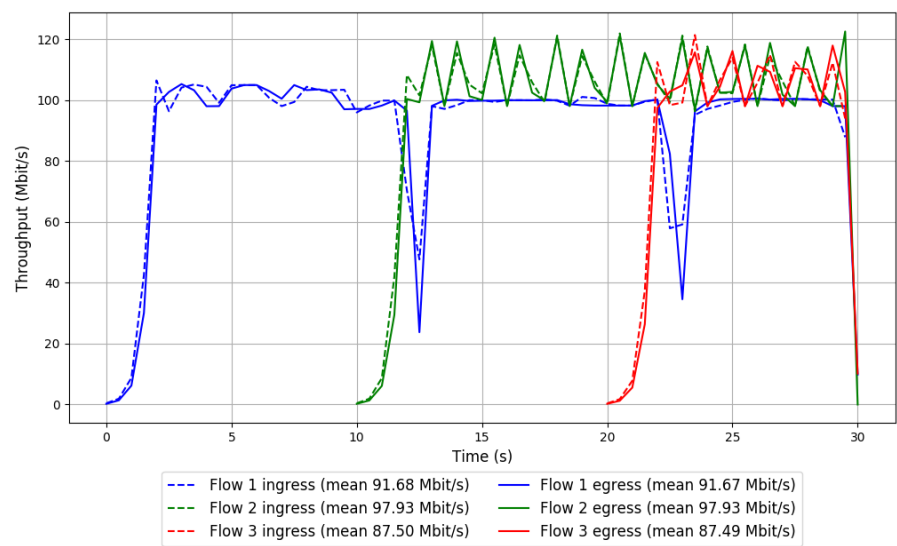
-- Flow 3:

Average throughput: 87.49 Mbit/s

95th percentile per-packet one-way delay: 113.093 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-03-21 09:52:07

End at: 2018-03-21 09:52:37

Below is generated by plot.py at 2018-03-21 14:01:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 183.23 Mbit/s

95th percentile per-packet one-way delay: 113.178 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 95.00 Mbit/s

95th percentile per-packet one-way delay: 112.901 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 92.04 Mbit/s

95th percentile per-packet one-way delay: 113.628 ms

Loss rate: 0.00%

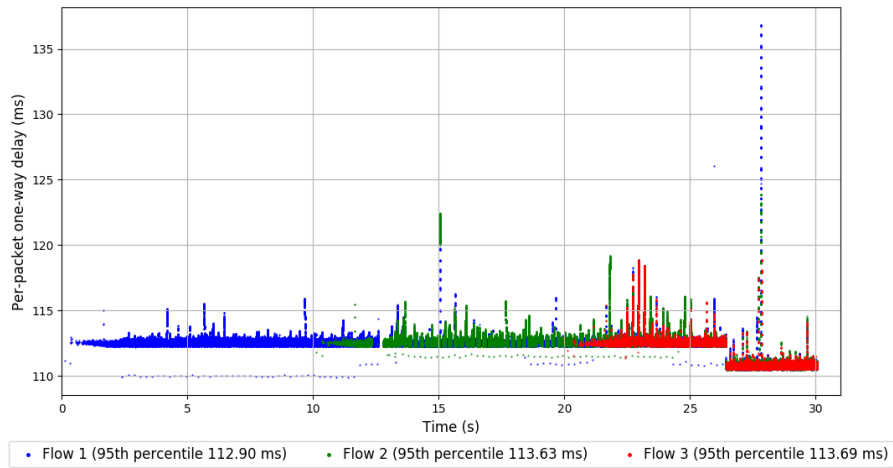
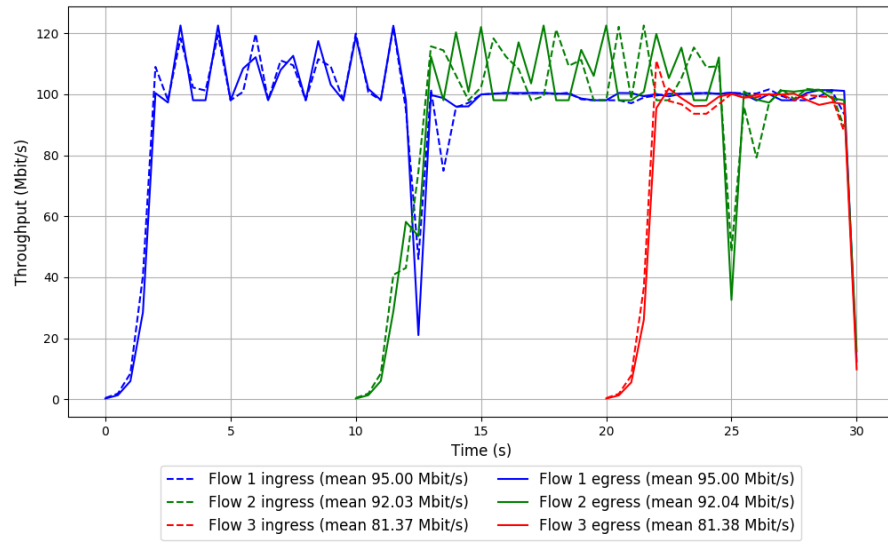
-- Flow 3:

Average throughput: 81.38 Mbit/s

95th percentile per-packet one-way delay: 113.687 ms

Loss rate: 0.00%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-03-21 10:11:26

End at: 2018-03-21 10:11:56

Below is generated by plot.py at 2018-03-21 14:01:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 185.53 Mbit/s

95th percentile per-packet one-way delay: 111.275 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 94.01 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 93.46 Mbit/s

95th percentile per-packet one-way delay: 111.247 ms

Loss rate: 0.00%

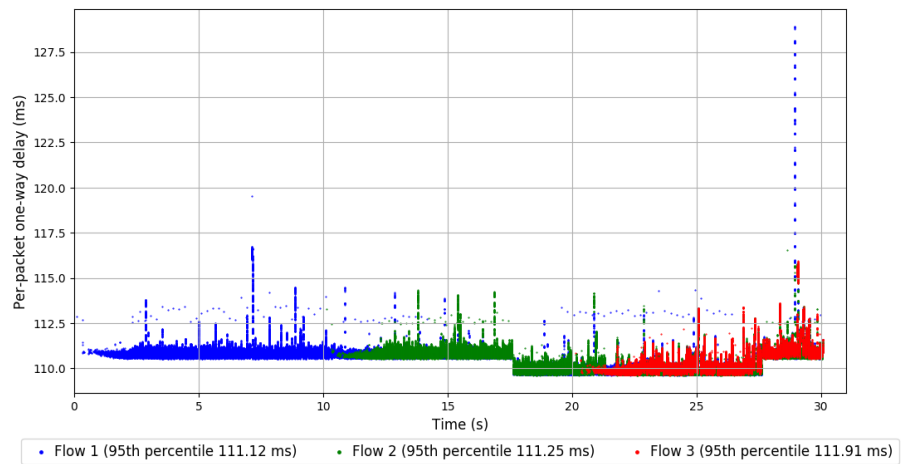
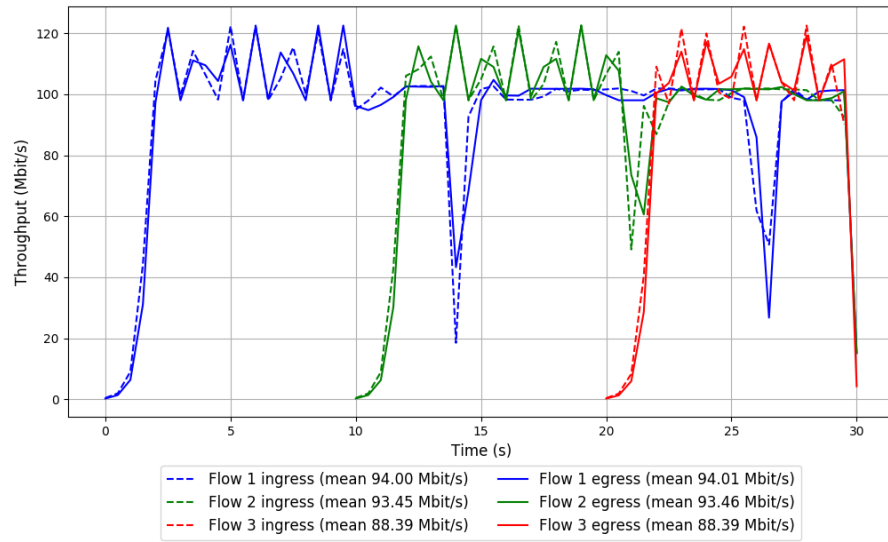
-- Flow 3:

Average throughput: 88.39 Mbit/s

95th percentile per-packet one-way delay: 111.908 ms

Loss rate: 0.00%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-03-21 10:30:40

End at: 2018-03-21 10:31:10

Below is generated by plot.py at 2018-03-21 14:01:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 189.08 Mbit/s

95th percentile per-packet one-way delay: 114.274 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 95.84 Mbit/s

95th percentile per-packet one-way delay: 114.436 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 98.33 Mbit/s

95th percentile per-packet one-way delay: 112.371 ms

Loss rate: 0.00%

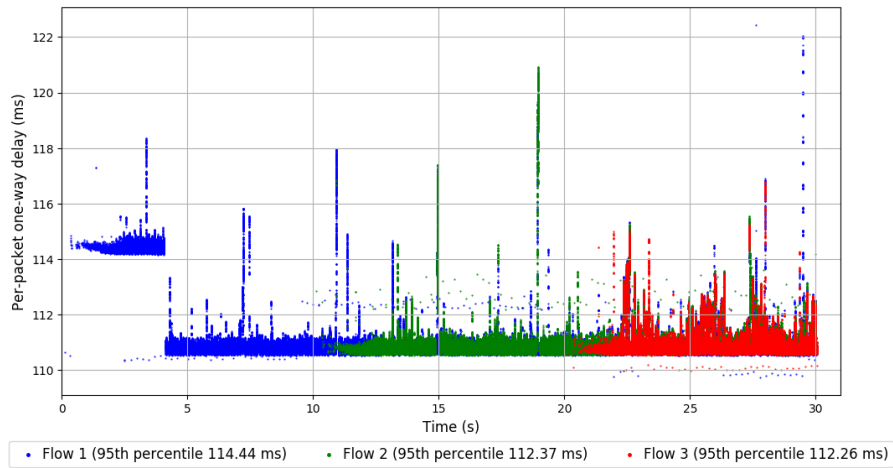
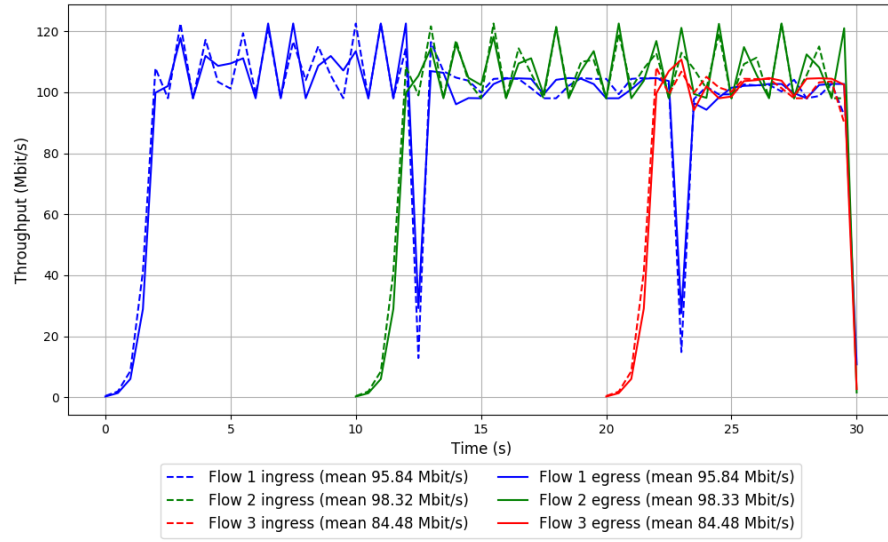
-- Flow 3:

Average throughput: 84.48 Mbit/s

95th percentile per-packet one-way delay: 112.260 ms

Loss rate: 0.00%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-03-21 10:50:02

End at: 2018-03-21 10:50:32

Below is generated by plot.py at 2018-03-21 14:01:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 192.93 Mbit/s

95th percentile per-packet one-way delay: 117.433 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 98.81 Mbit/s

95th percentile per-packet one-way delay: 116.743 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 98.14 Mbit/s

95th percentile per-packet one-way delay: 117.846 ms

Loss rate: 0.00%

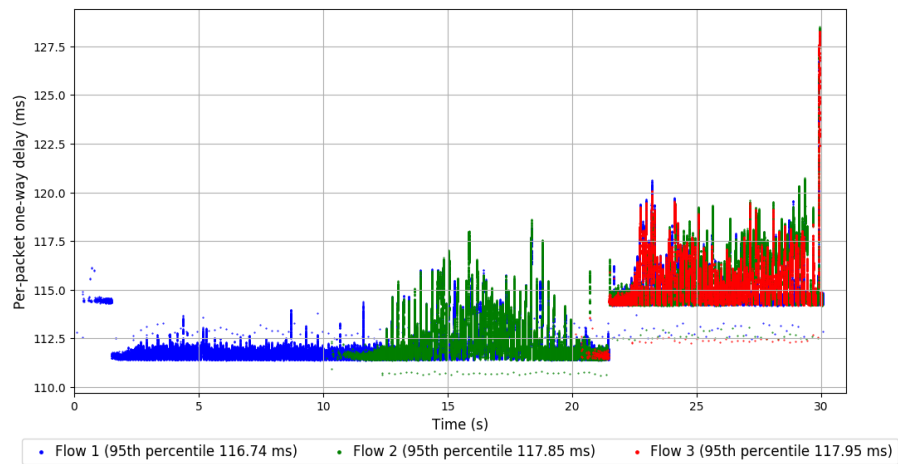
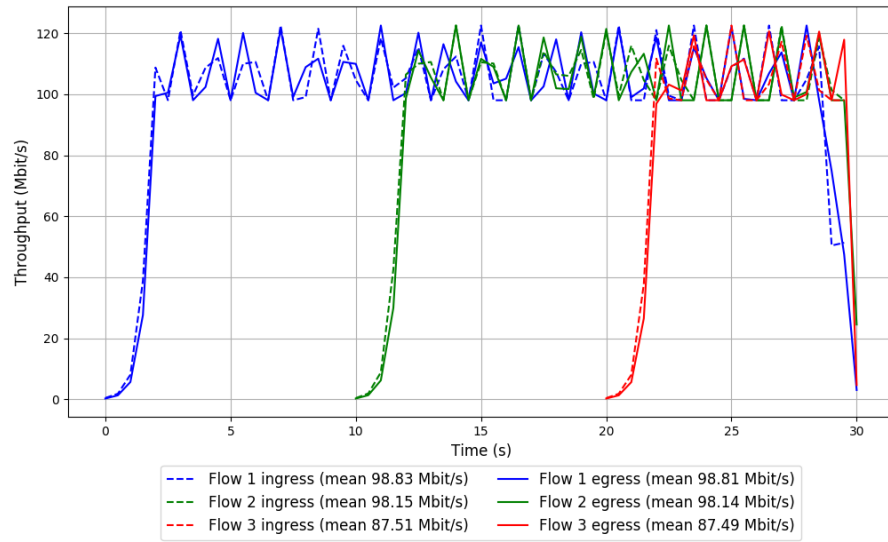
-- Flow 3:

Average throughput: 87.49 Mbit/s

95th percentile per-packet one-way delay: 117.950 ms

Loss rate: 0.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-03-21 11:09:37

End at: 2018-03-21 11:10:07

Below is generated by plot.py at 2018-03-21 14:01:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.01 Mbit/s

95th percentile per-packet one-way delay: 111.134 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 91.71 Mbit/s

95th percentile per-packet one-way delay: 111.069 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 90.43 Mbit/s

95th percentile per-packet one-way delay: 111.215 ms

Loss rate: 0.01%

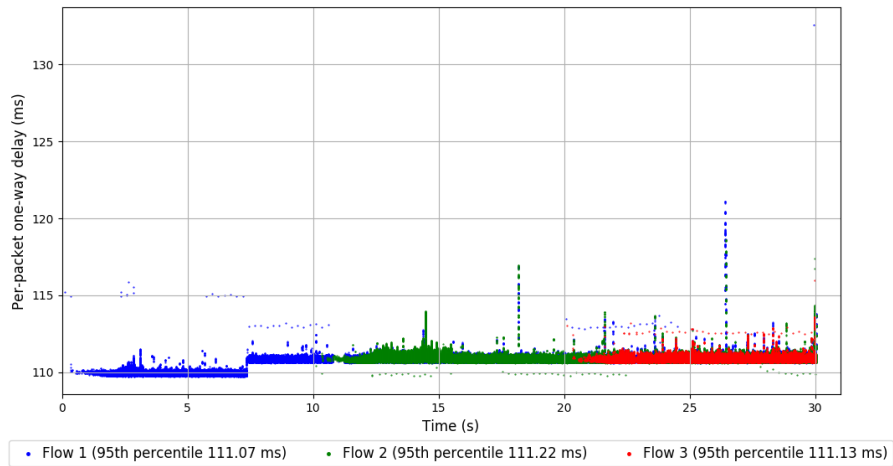
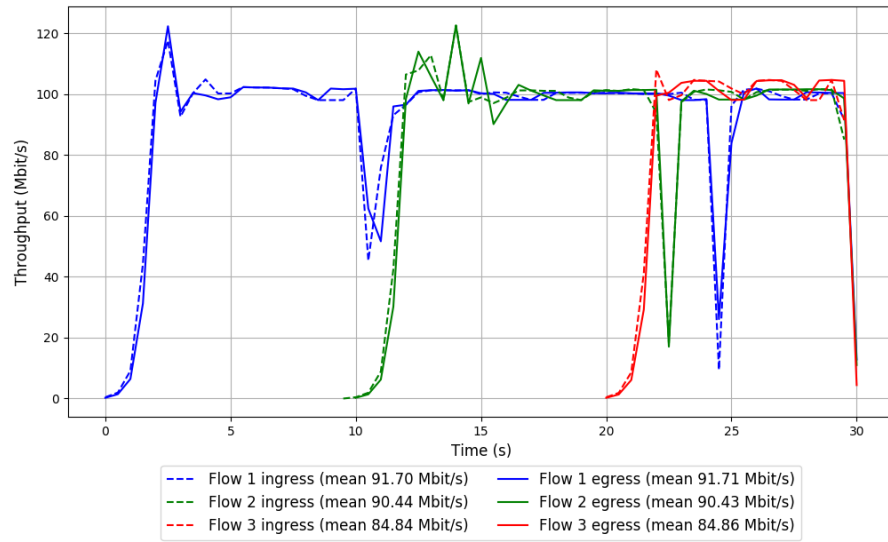
-- Flow 3:

Average throughput: 84.86 Mbit/s

95th percentile per-packet one-way delay: 111.133 ms

Loss rate: 0.00%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-03-21 11:28:57

End at: 2018-03-21 11:29:27

Below is generated by plot.py at 2018-03-21 14:04:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 190.46 Mbit/s

95th percentile per-packet one-way delay: 112.875 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 96.97 Mbit/s

95th percentile per-packet one-way delay: 112.743 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 98.26 Mbit/s

95th percentile per-packet one-way delay: 113.080 ms

Loss rate: 0.00%

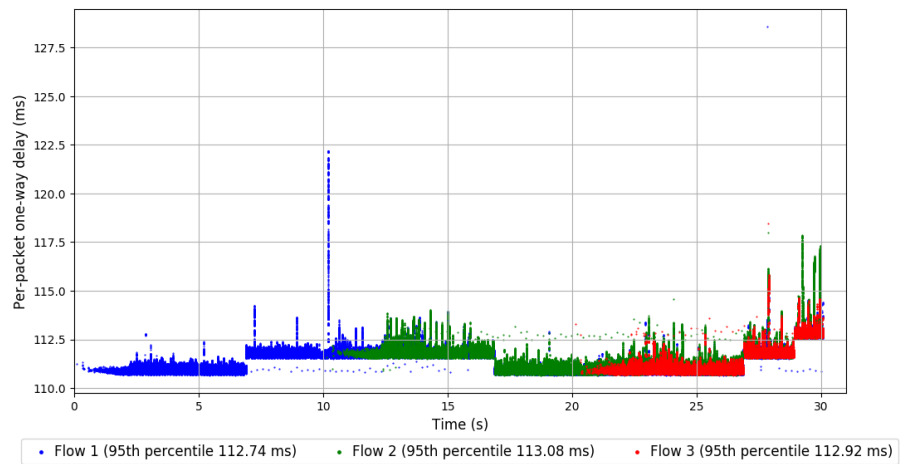
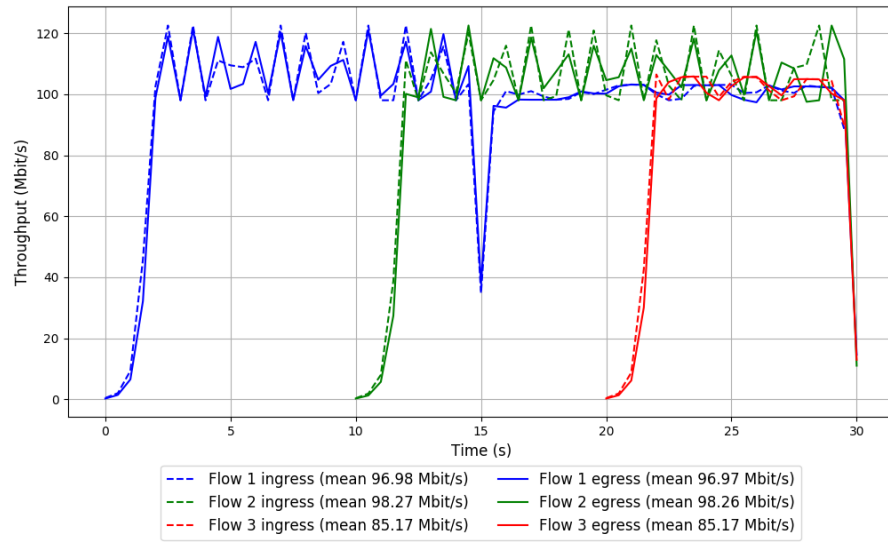
-- Flow 3:

Average throughput: 85.17 Mbit/s

95th percentile per-packet one-way delay: 112.916 ms

Loss rate: 0.02%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-03-21 11:48:38

End at: 2018-03-21 11:49:08

Below is generated by plot.py at 2018-03-21 14:04:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 186.11 Mbit/s

95th percentile per-packet one-way delay: 112.388 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 91.98 Mbit/s

95th percentile per-packet one-way delay: 111.506 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 98.83 Mbit/s

95th percentile per-packet one-way delay: 112.861 ms

Loss rate: 0.00%

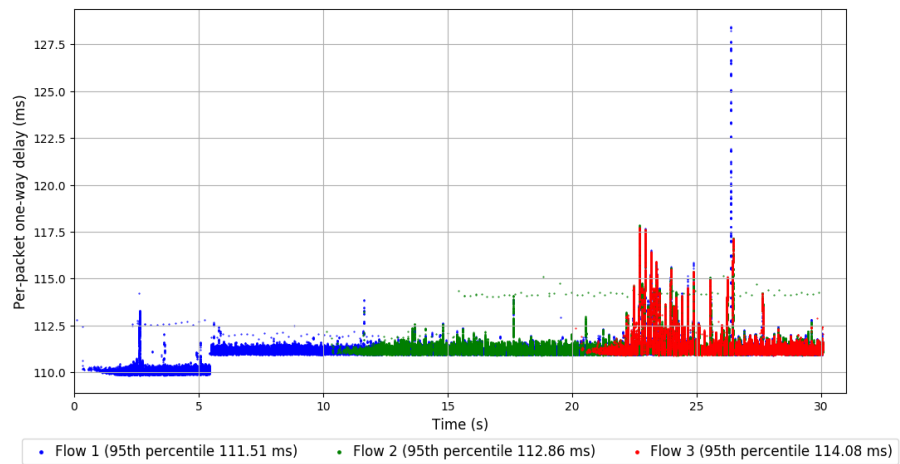
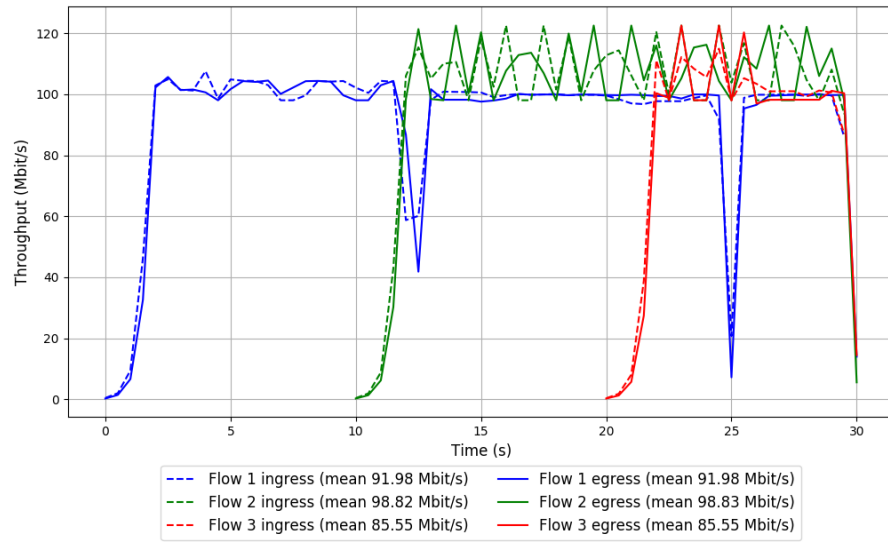
-- Flow 3:

Average throughput: 85.55 Mbit/s

95th percentile per-packet one-way delay: 114.078 ms

Loss rate: 0.00%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-03-21 08:46:08

End at: 2018-03-21 08:46:38

Below is generated by plot.py at 2018-03-21 14:04:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.66 Mbit/s

95th percentile per-packet one-way delay: 122.063 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 67.87 Mbit/s

95th percentile per-packet one-way delay: 122.458 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.00 Mbit/s

95th percentile per-packet one-way delay: 117.105 ms

Loss rate: 0.00%

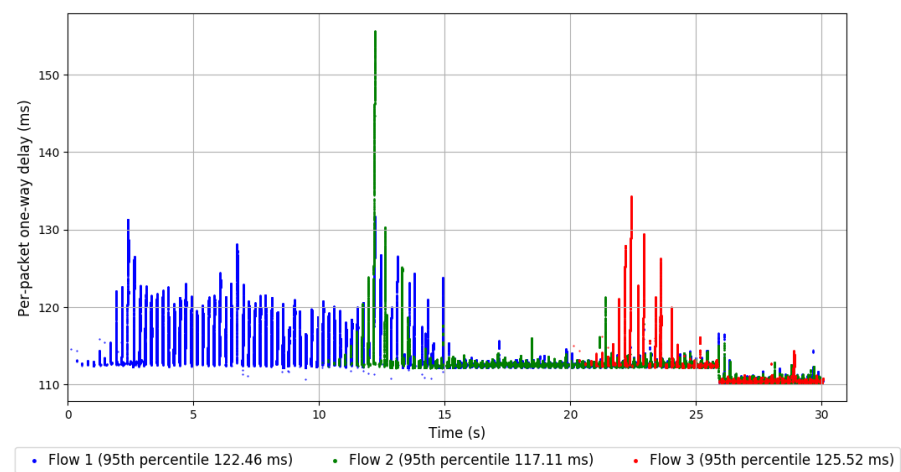
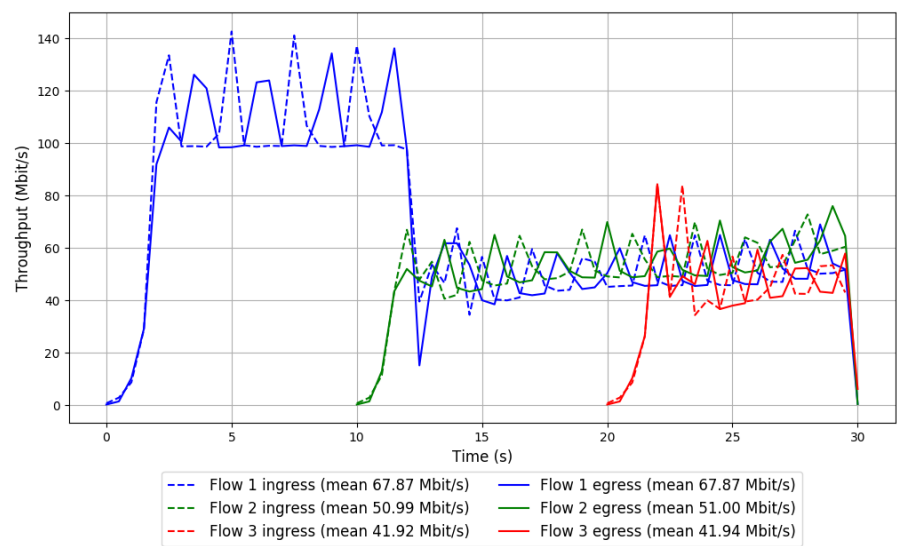
-- Flow 3:

Average throughput: 41.94 Mbit/s

95th percentile per-packet one-way delay: 125.517 ms

Loss rate: 0.00%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-03-21 09:05:32

End at: 2018-03-21 09:06:02

Below is generated by plot.py at 2018-03-21 14:04:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 171.64 Mbit/s

95th percentile per-packet one-way delay: 121.644 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 103.39 Mbit/s

95th percentile per-packet one-way delay: 121.434 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 57.82 Mbit/s

95th percentile per-packet one-way delay: 117.731 ms

Loss rate: 0.00%

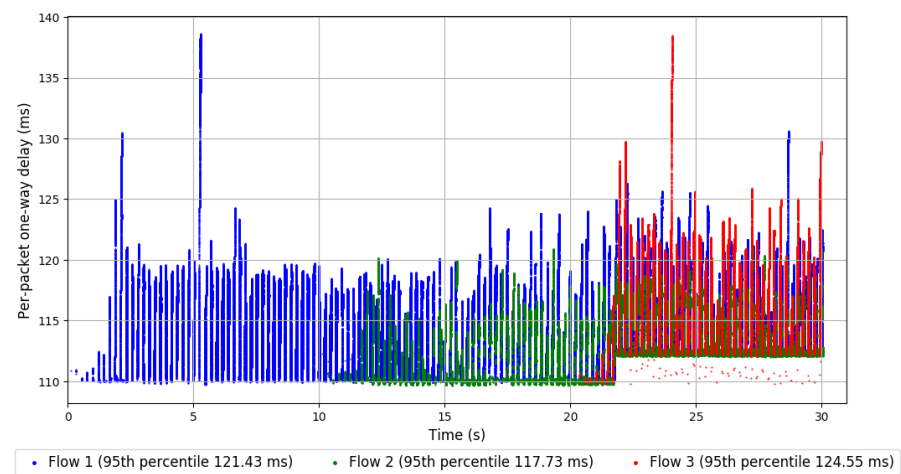
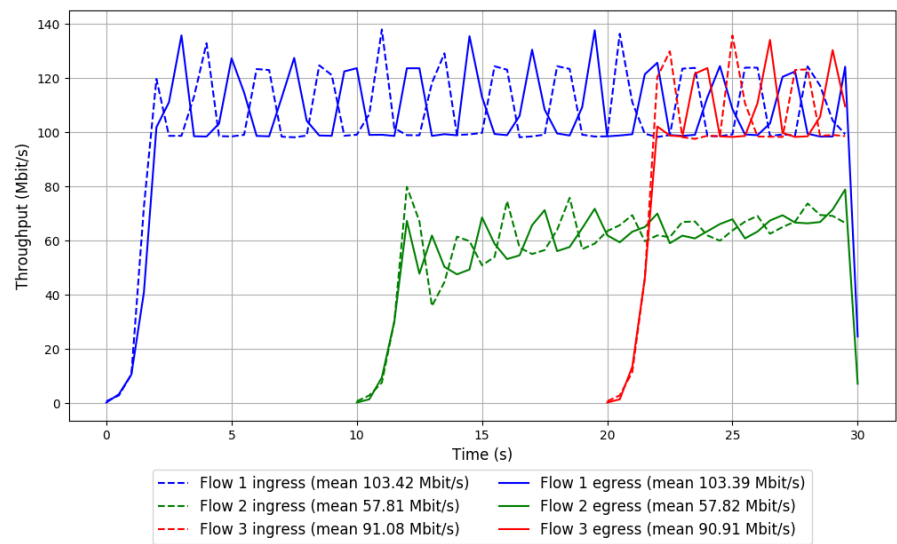
-- Flow 3:

Average throughput: 90.91 Mbit/s

95th percentile per-packet one-way delay: 124.548 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-03-21 09:25:10

End at: 2018-03-21 09:25:40

Below is generated by plot.py at 2018-03-21 14:04:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 191.89 Mbit/s

95th percentile per-packet one-way delay: 122.025 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 95.54 Mbit/s

95th percentile per-packet one-way delay: 121.023 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 99.55 Mbit/s

95th percentile per-packet one-way delay: 122.646 ms

Loss rate: 0.45%

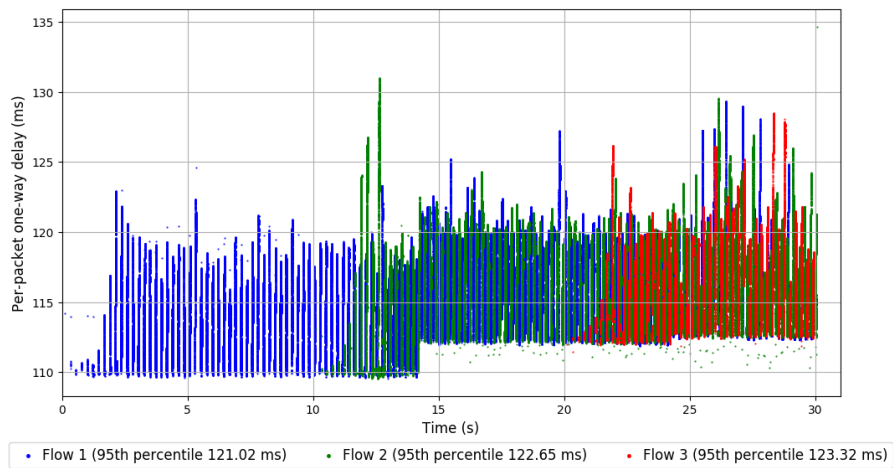
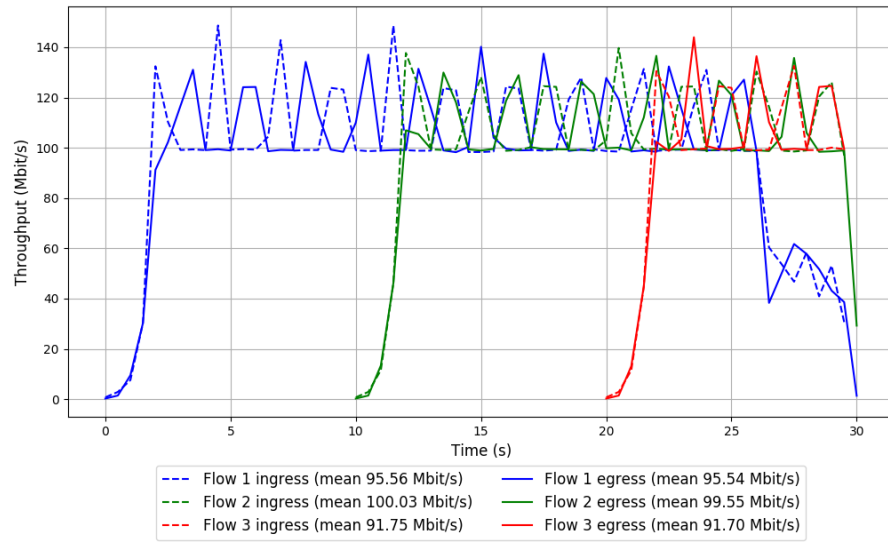
-- Flow 3:

Average throughput: 91.70 Mbit/s

95th percentile per-packet one-way delay: 123.323 ms

Loss rate: 0.00%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-03-21 09:44:38

End at: 2018-03-21 09:45:08

Below is generated by plot.py at 2018-03-21 14:04:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 160.78 Mbit/s

95th percentile per-packet one-way delay: 122.083 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 95.02 Mbit/s

95th percentile per-packet one-way delay: 121.516 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 54.59 Mbit/s

95th percentile per-packet one-way delay: 119.855 ms

Loss rate: 0.00%

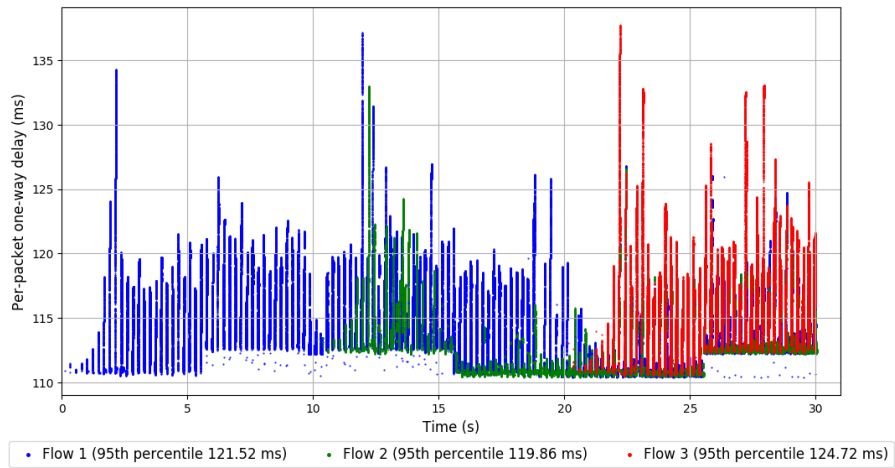
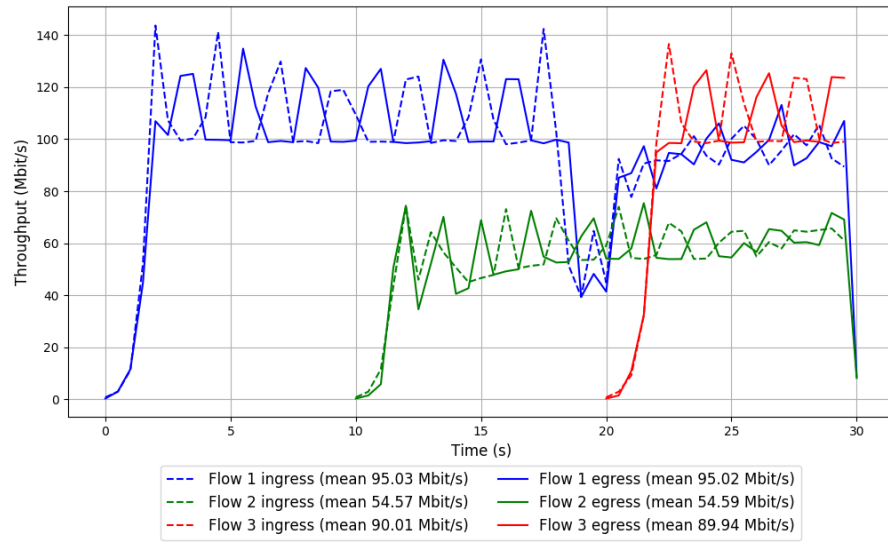
-- Flow 3:

Average throughput: 89.94 Mbit/s

95th percentile per-packet one-way delay: 124.719 ms

Loss rate: 0.00%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-03-21 10:03:51

End at: 2018-03-21 10:04:21

Below is generated by plot.py at 2018-03-21 14:04:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 128.85 Mbit/s

95th percentile per-packet one-way delay: 120.324 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.50 Mbit/s

95th percentile per-packet one-way delay: 119.633 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 97.62 Mbit/s

95th percentile per-packet one-way delay: 120.767 ms

Loss rate: 0.00%

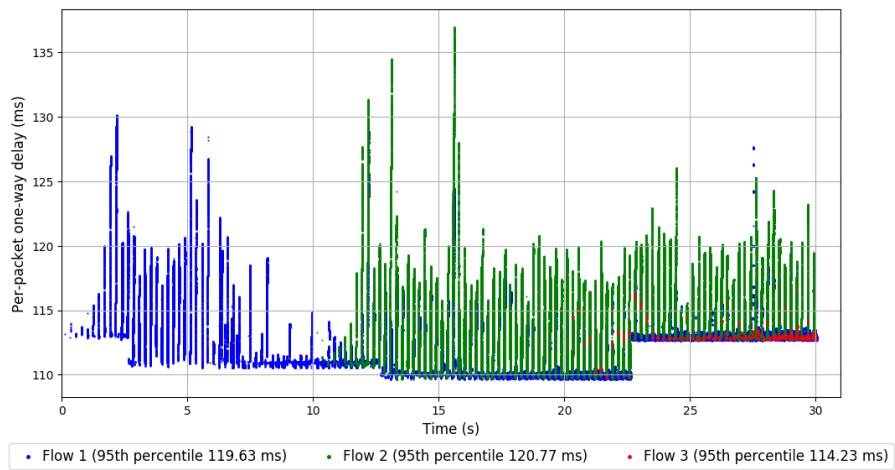
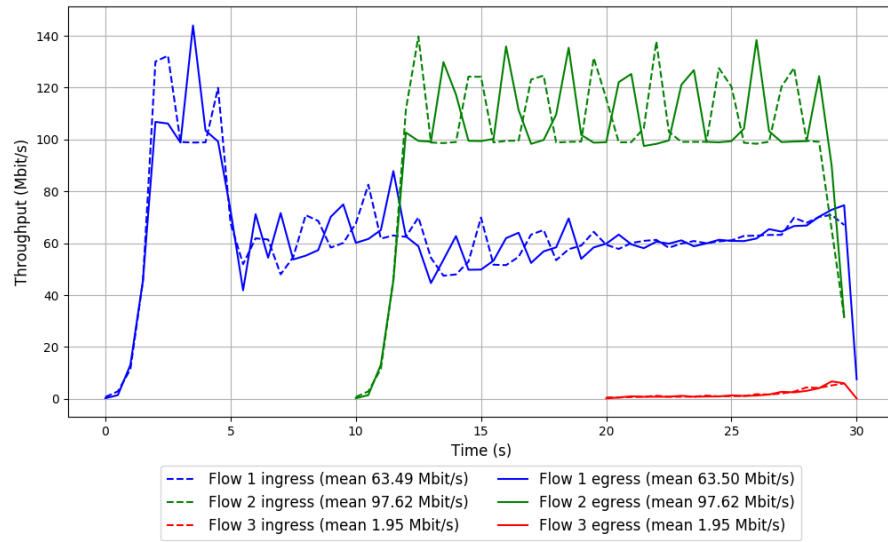
-- Flow 3:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 114.231 ms

Loss rate: 0.19%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-03-21 10:23:07

End at: 2018-03-21 10:23:37

Below is generated by plot.py at 2018-03-21 14:04:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.62 Mbit/s

95th percentile per-packet one-way delay: 119.982 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 70.64 Mbit/s

95th percentile per-packet one-way delay: 118.645 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.41 Mbit/s

95th percentile per-packet one-way delay: 116.174 ms

Loss rate: 0.02%

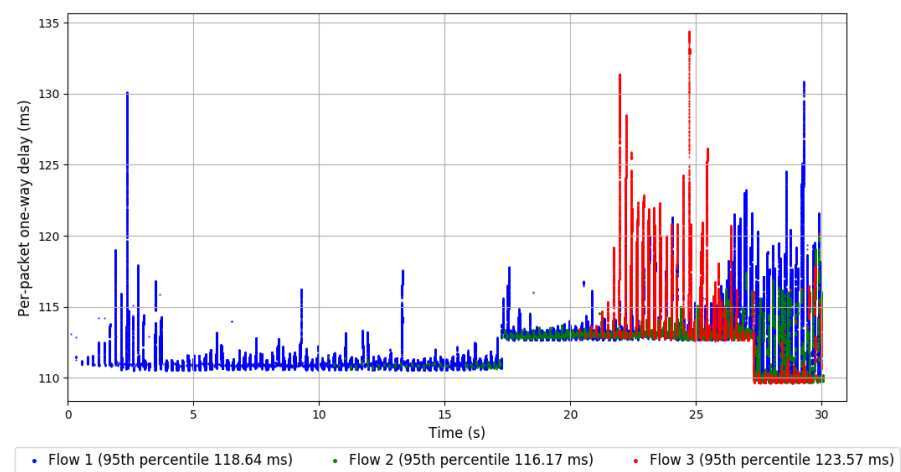
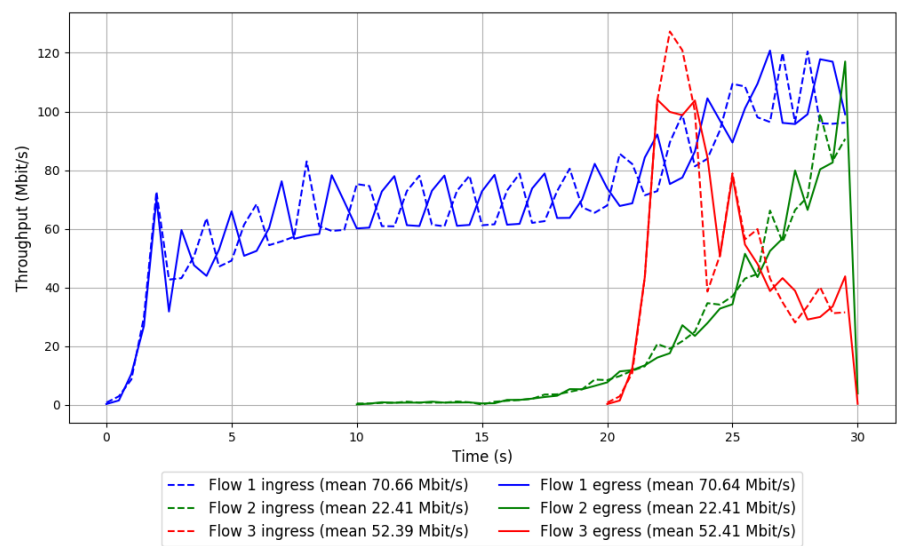
-- Flow 3:

Average throughput: 52.41 Mbit/s

95th percentile per-packet one-way delay: 123.572 ms

Loss rate: 0.00%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-03-21 10:42:28

End at: 2018-03-21 10:42:58

Below is generated by plot.py at 2018-03-21 14:05:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.81 Mbit/s

95th percentile per-packet one-way delay: 119.857 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 68.56 Mbit/s

95th percentile per-packet one-way delay: 117.739 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.86 Mbit/s

95th percentile per-packet one-way delay: 116.284 ms

Loss rate: 0.02%

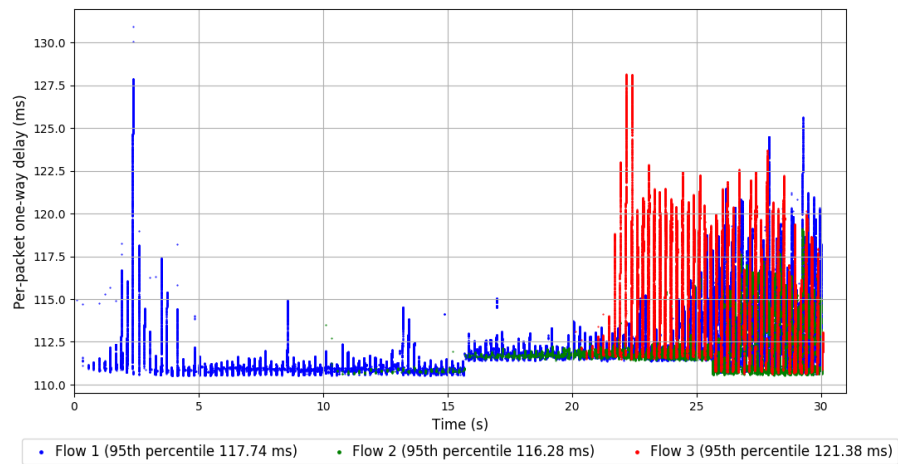
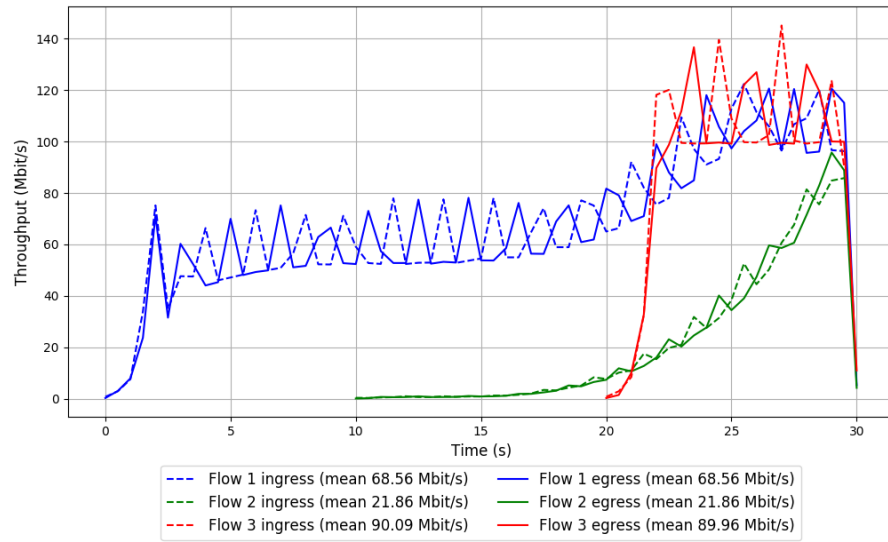
-- Flow 3:

Average throughput: 89.96 Mbit/s

95th percentile per-packet one-way delay: 121.384 ms

Loss rate: 0.16%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-03-21 11:02:06

End at: 2018-03-21 11:02:36

Below is generated by plot.py at 2018-03-21 14:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 168.39 Mbit/s

95th percentile per-packet one-way delay: 121.397 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 81.53 Mbit/s

95th percentile per-packet one-way delay: 121.250 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 100.18 Mbit/s

95th percentile per-packet one-way delay: 121.608 ms

Loss rate: 0.00%

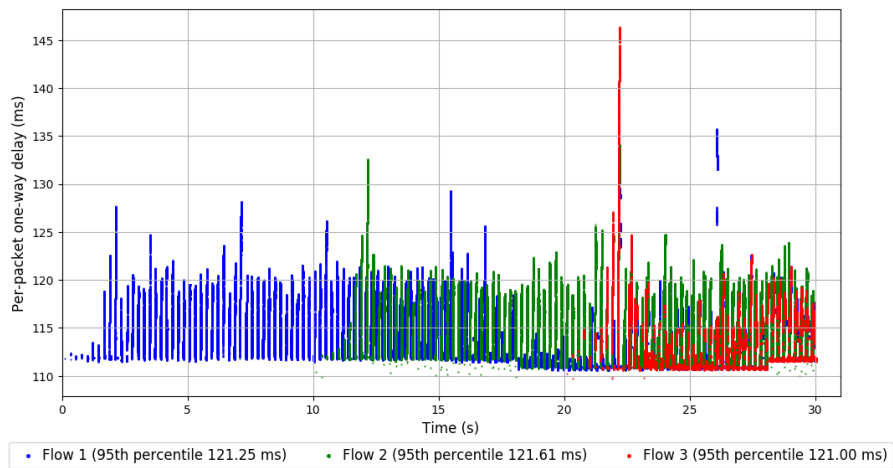
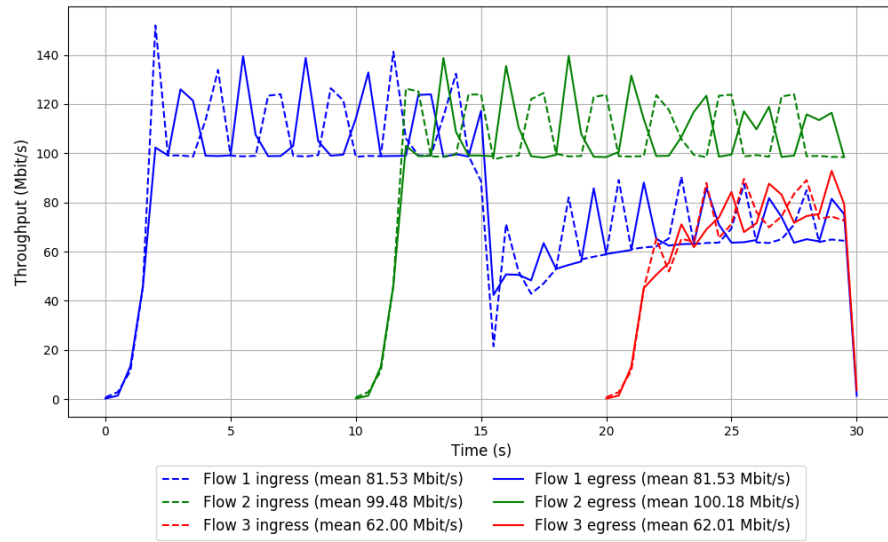
-- Flow 3:

Average throughput: 62.01 Mbit/s

95th percentile per-packet one-way delay: 121.003 ms

Loss rate: 0.00%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-03-21 11:21:16

End at: 2018-03-21 11:21:46

Below is generated by plot.py at 2018-03-21 14:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 129.16 Mbit/s

95th percentile per-packet one-way delay: 119.552 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 75.46 Mbit/s

95th percentile per-packet one-way delay: 119.231 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 79.81 Mbit/s

95th percentile per-packet one-way delay: 120.731 ms

Loss rate: 0.00%

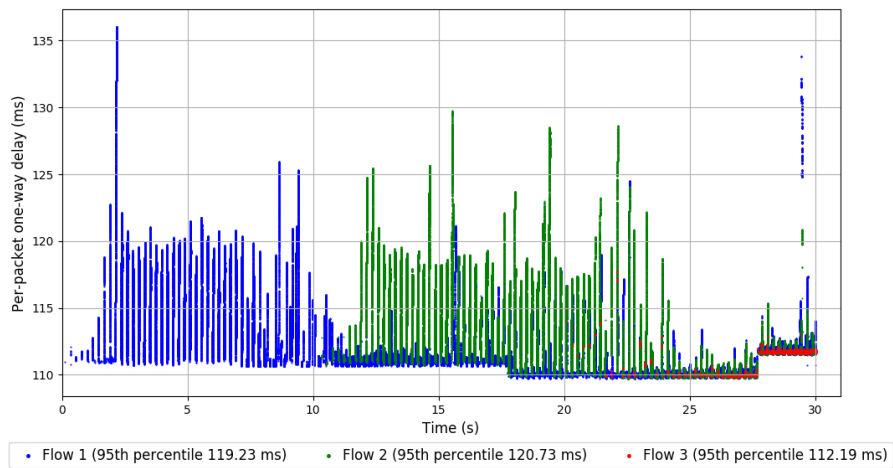
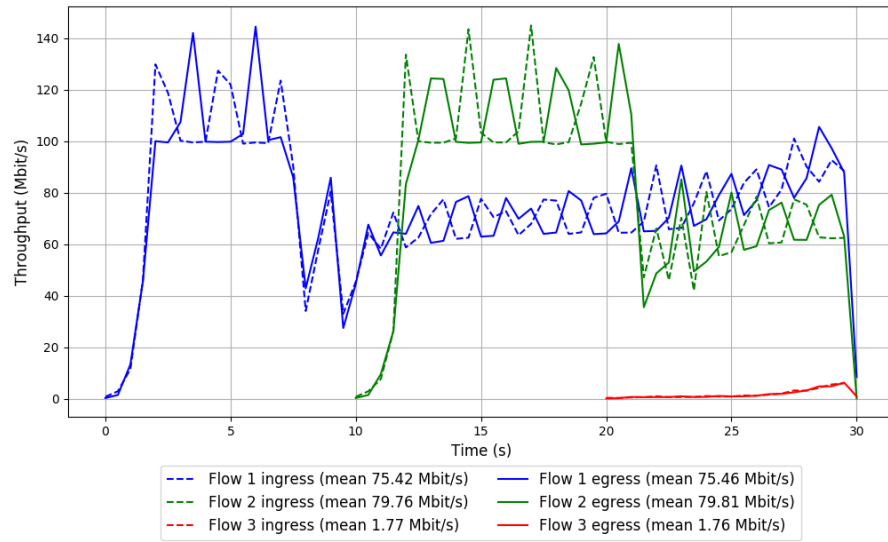
-- Flow 3:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 112.191 ms

Loss rate: 0.55%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-03-21 11:40:50

End at: 2018-03-21 11:41:20

Below is generated by plot.py at 2018-03-21 14:06:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.05 Mbit/s

95th percentile per-packet one-way delay: 120.056 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 86.92 Mbit/s

95th percentile per-packet one-way delay: 118.543 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 75.92 Mbit/s

95th percentile per-packet one-way delay: 121.472 ms

Loss rate: 0.00%

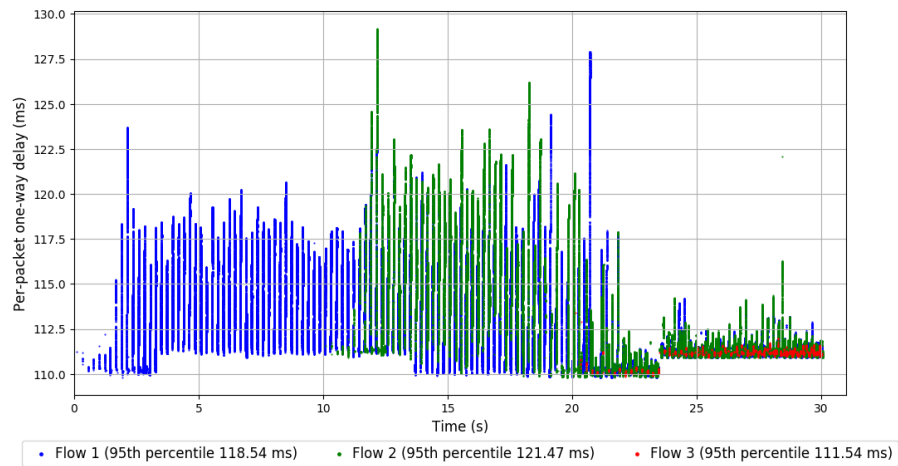
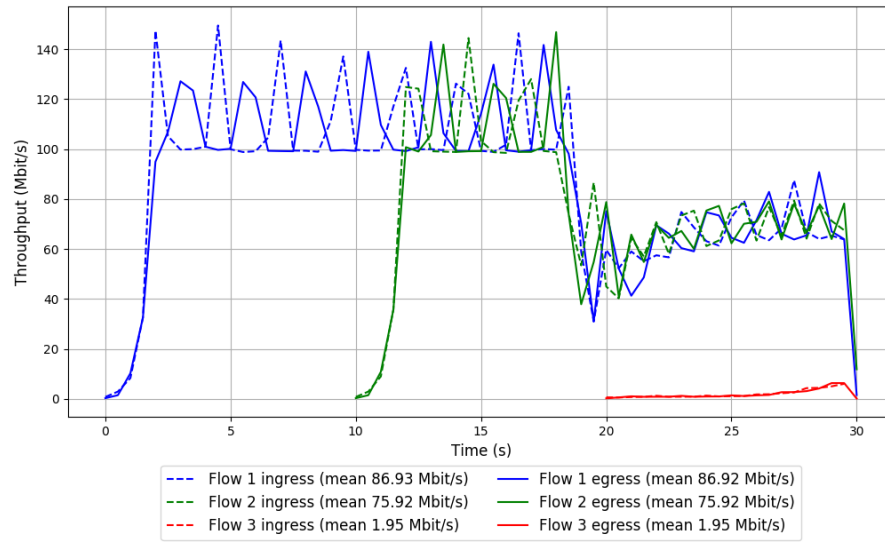
-- Flow 3:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 111.543 ms

Loss rate: 0.19%

Run 10: Report of TCP Cubic — Data Link

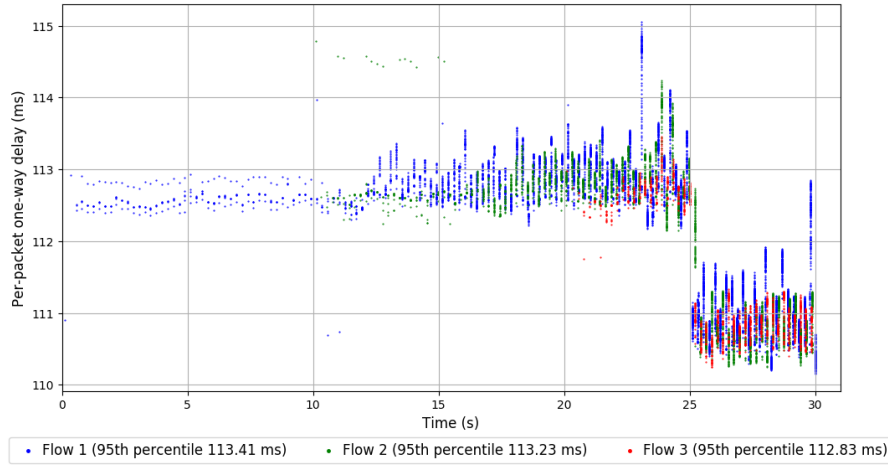
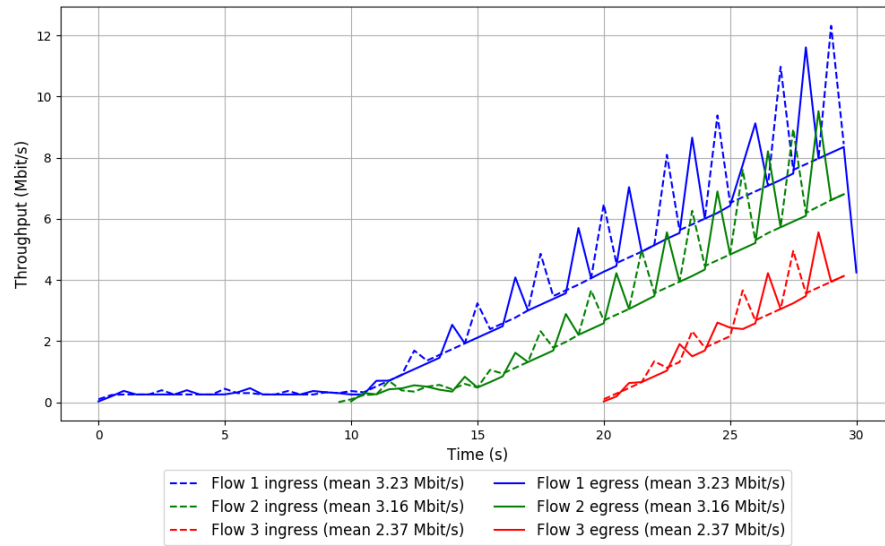


```
Run 1: Statistics of LEDBAT

Start at: 2018-03-21 08:41:09
End at: 2018-03-21 08:41:39

# Below is generated by plot.py at 2018-03-21 14:06:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.10 Mbit/s
95th percentile per-packet one-way delay: 113.323 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.23 Mbit/s
95th percentile per-packet one-way delay: 113.414 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 113.230 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 112.828 ms
Loss rate: 0.00%
```


Run 1: Report of LEDBAT — Data Link

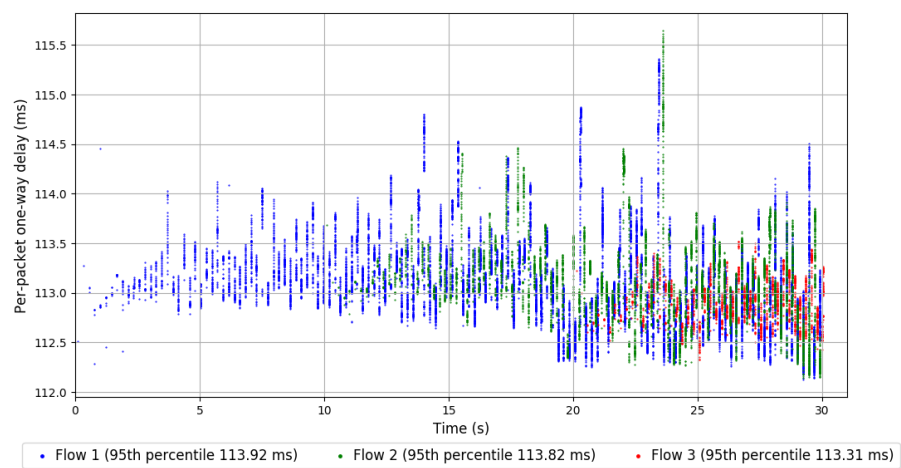
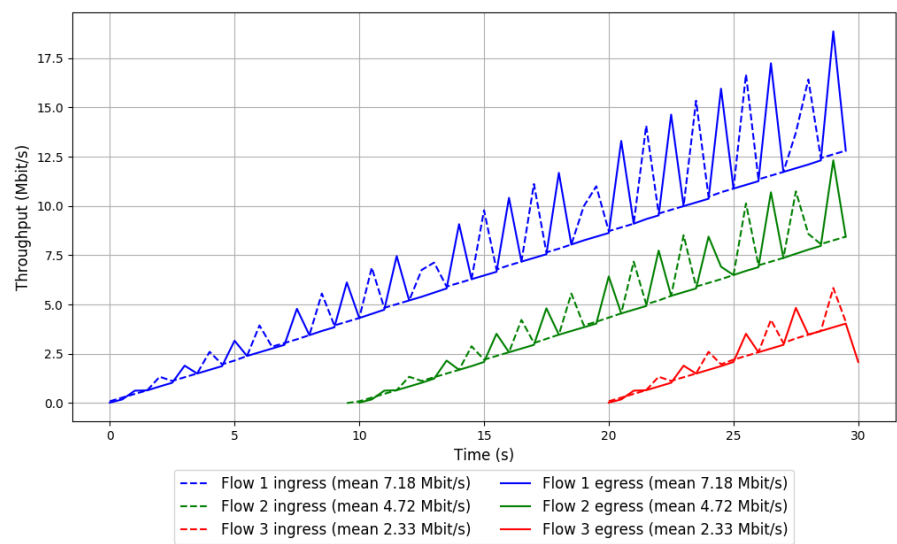


```
Run 2: Statistics of LEDBAT

Start at: 2018-03-21 09:00:35
End at: 2018-03-21 09:01:05

# Below is generated by plot.py at 2018-03-21 14:06:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 113.865 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 113.917 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 113.822 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 113.310 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-03-21 09:20:01

End at: 2018-03-21 09:20:31

Below is generated by plot.py at 2018-03-21 14:06:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.96 Mbit/s

95th percentile per-packet one-way delay: 113.191 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.08 Mbit/s

95th percentile per-packet one-way delay: 113.189 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.73 Mbit/s

95th percentile per-packet one-way delay: 113.227 ms

Loss rate: 0.00%

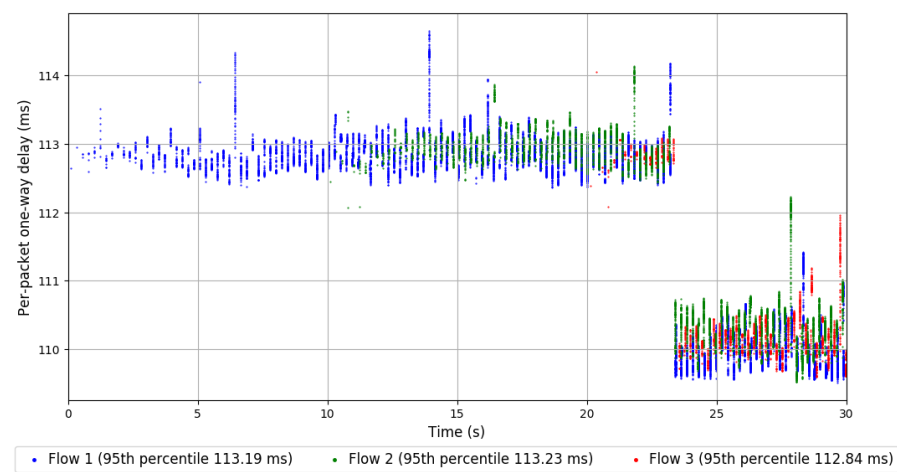
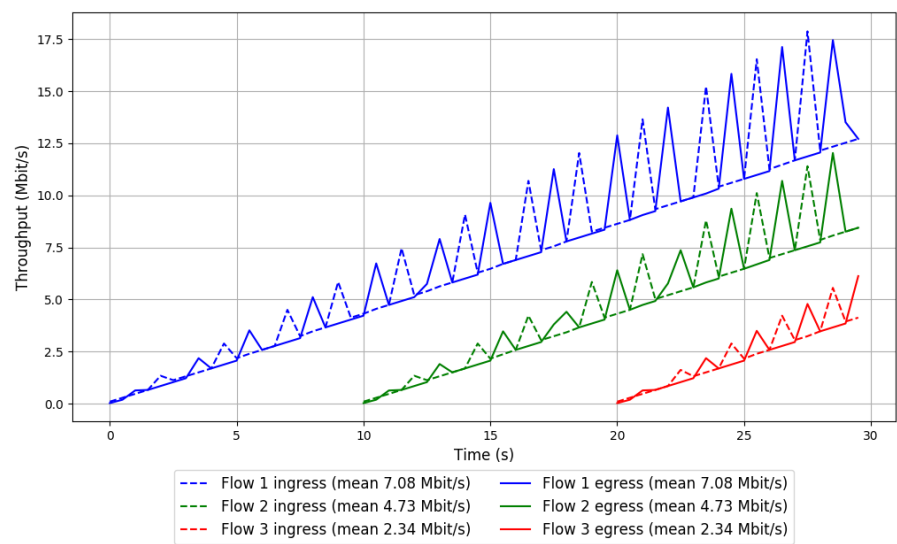
-- Flow 3:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 112.836 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-03-21 09:39:46

End at: 2018-03-21 09:40:16

Below is generated by plot.py at 2018-03-21 14:06:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.22 Mbit/s

95th percentile per-packet one-way delay: 114.140 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 6.44 Mbit/s

95th percentile per-packet one-way delay: 114.433 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.61 Mbit/s

95th percentile per-packet one-way delay: 113.880 ms

Loss rate: 0.00%

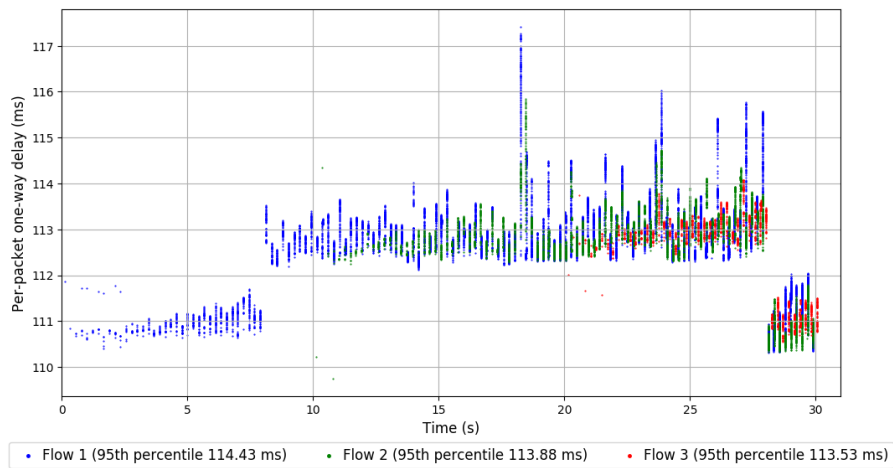
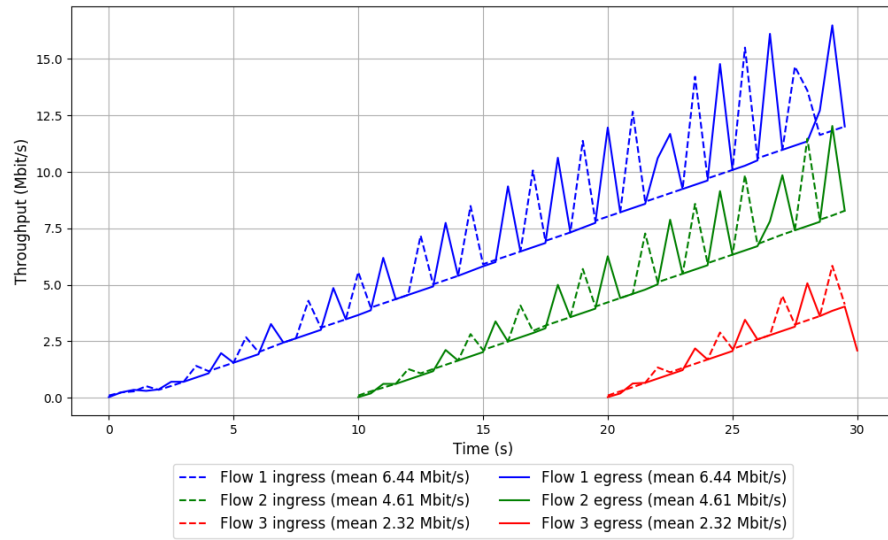
-- Flow 3:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 113.531 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-03-21 09:58:54

End at: 2018-03-21 09:59:24

Below is generated by plot.py at 2018-03-21 14:06:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.89 Mbit/s

95th percentile per-packet one-way delay: 113.842 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 6.99 Mbit/s

95th percentile per-packet one-way delay: 113.890 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.38 Mbit/s

95th percentile per-packet one-way delay: 113.722 ms

Loss rate: 0.00%

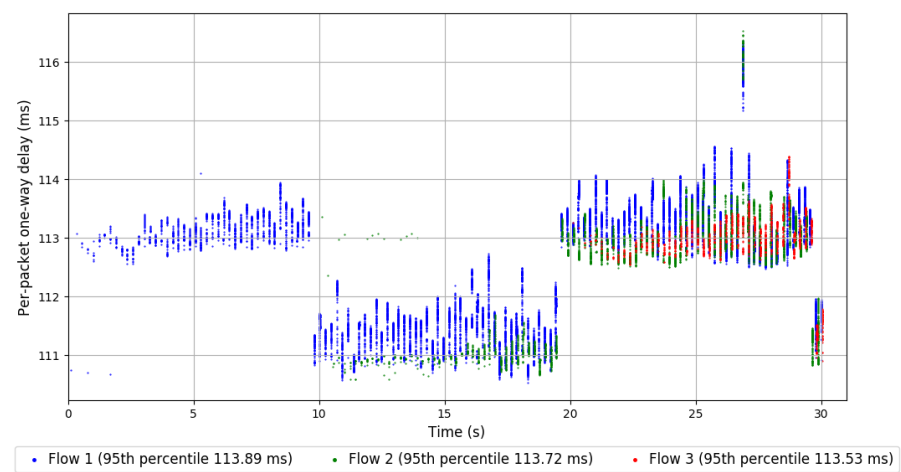
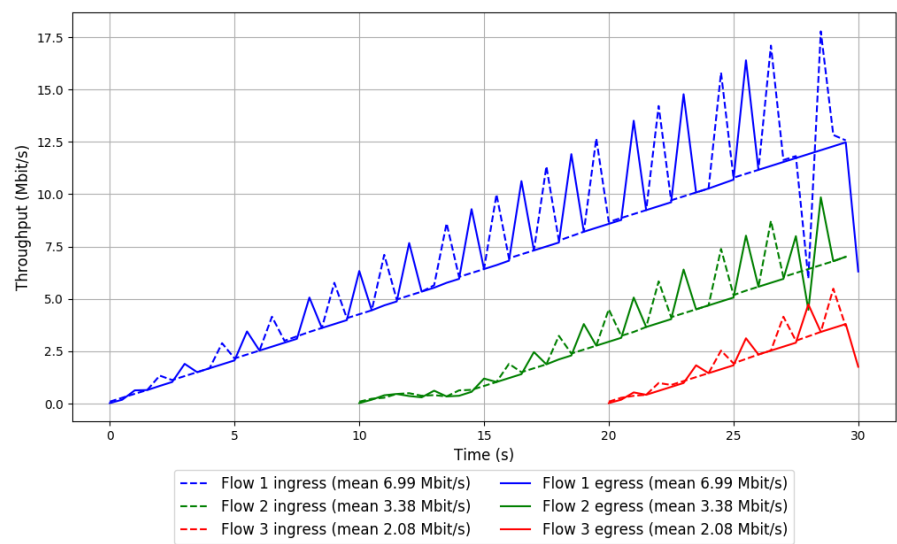
-- Flow 3:

Average throughput: 2.08 Mbit/s

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

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-03-21 10:18:12

End at: 2018-03-21 10:18:42

Below is generated by plot.py at 2018-03-21 14:06:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.03 Mbit/s

95th percentile per-packet one-way delay: 113.383 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.19 Mbit/s

95th percentile per-packet one-way delay: 113.508 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.76 Mbit/s

95th percentile per-packet one-way delay: 111.079 ms

Loss rate: 0.00%

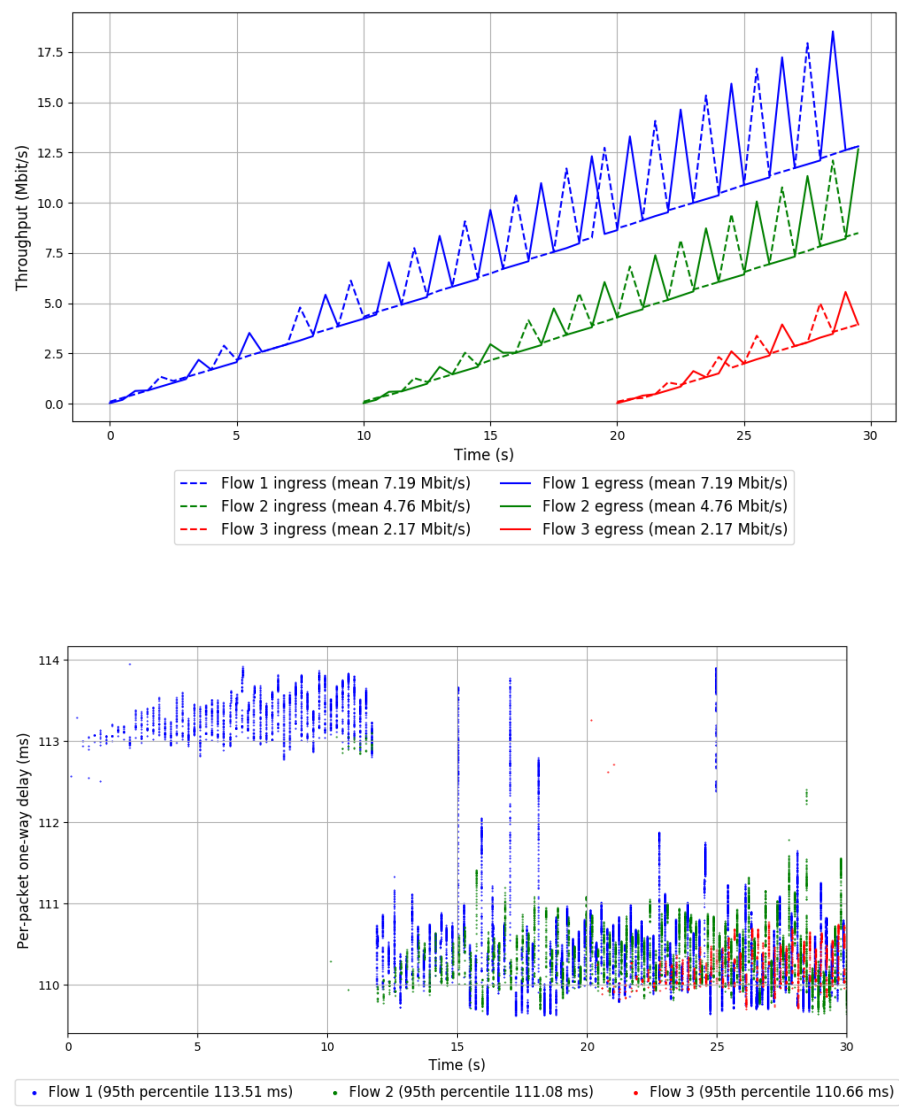
-- Flow 3:

Average throughput: 2.17 Mbit/s

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

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-03-21 10:37:26

End at: 2018-03-21 10:37:56

Below is generated by plot.py at 2018-03-21 14:06:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.04 Mbit/s

95th percentile per-packet one-way delay: 115.160 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 6.44 Mbit/s

95th percentile per-packet one-way delay: 115.261 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.61 Mbit/s

95th percentile per-packet one-way delay: 114.800 ms

Loss rate: 0.00%

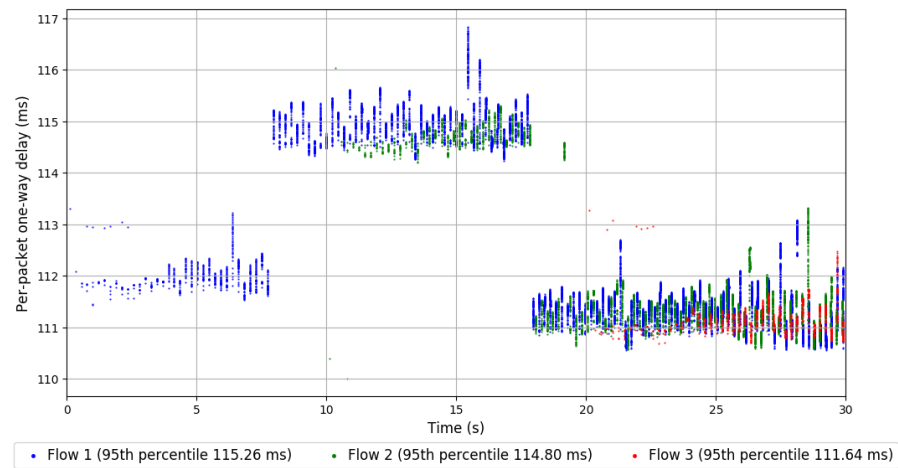
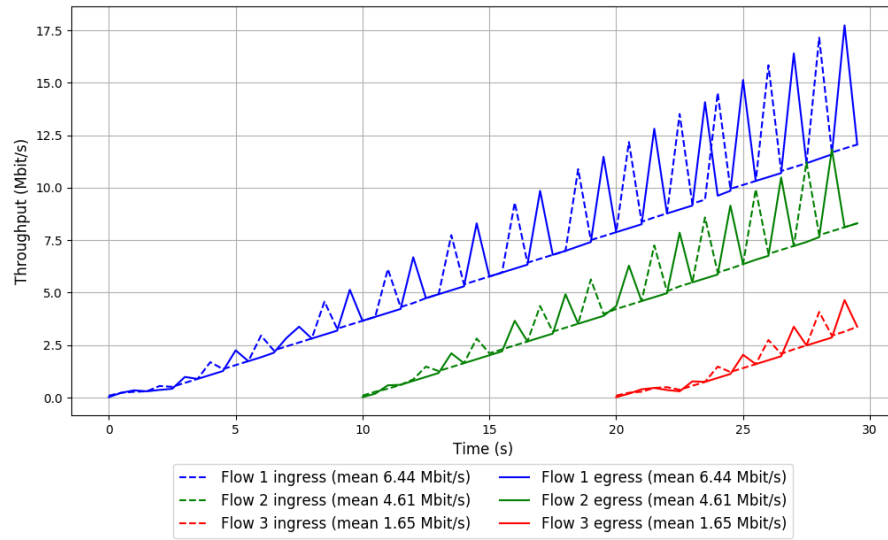
-- Flow 3:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 111.640 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-03-21 10:57:07

End at: 2018-03-21 10:57:37

Below is generated by plot.py at 2018-03-21 14:06:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.96 Mbit/s

95th percentile per-packet one-way delay: 112.453 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.28 Mbit/s

95th percentile per-packet one-way delay: 112.421 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.61 Mbit/s

95th percentile per-packet one-way delay: 112.497 ms

Loss rate: 0.00%

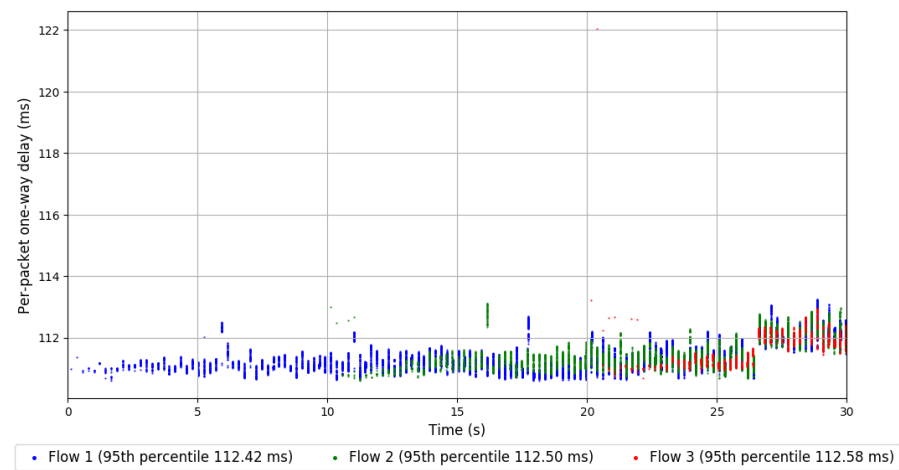
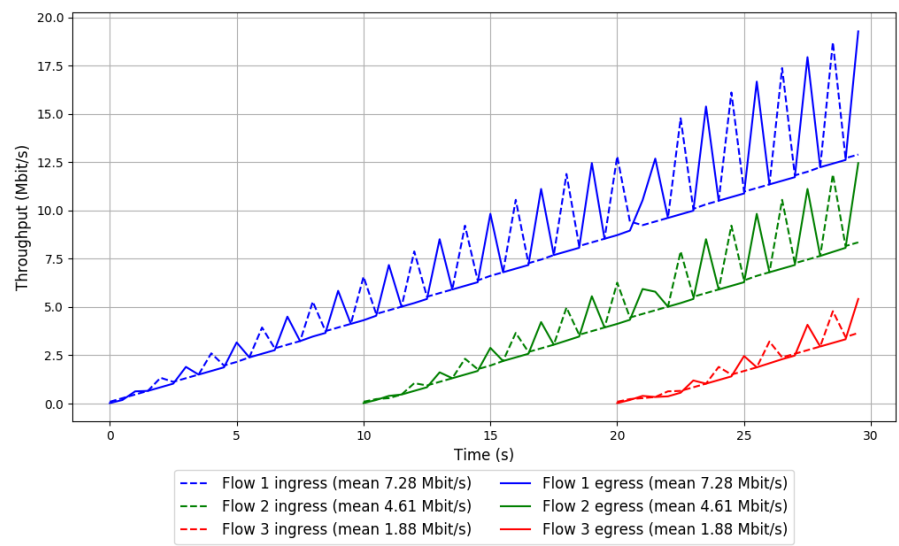
-- Flow 3:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 112.577 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-03-21 11:16:20

End at: 2018-03-21 11:16:50

Below is generated by plot.py at 2018-03-21 14:06:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.53 Mbit/s

95th percentile per-packet one-way delay: 112.901 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.17 Mbit/s

95th percentile per-packet one-way delay: 113.013 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 112.652 ms

Loss rate: 0.00%

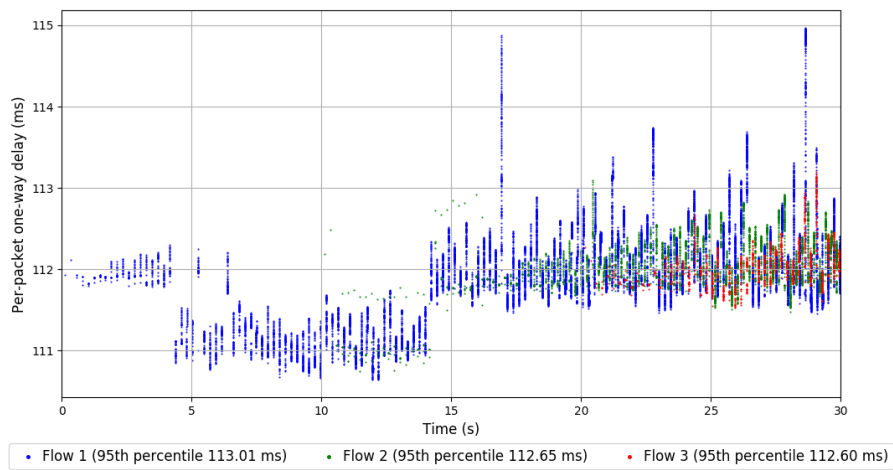
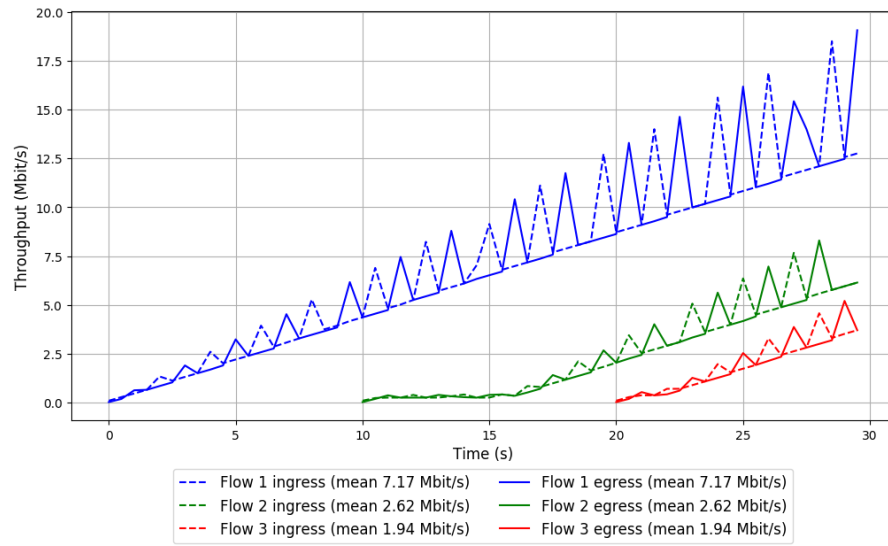
-- Flow 3:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 112.603 ms

Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-03-21 11:35:52

End at: 2018-03-21 11:36:22

Below is generated by plot.py at 2018-03-21 14:06:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.15 Mbit/s

95th percentile per-packet one-way delay: 113.664 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 6.55 Mbit/s

95th percentile per-packet one-way delay: 113.695 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.34 Mbit/s

95th percentile per-packet one-way delay: 113.656 ms

Loss rate: 0.00%

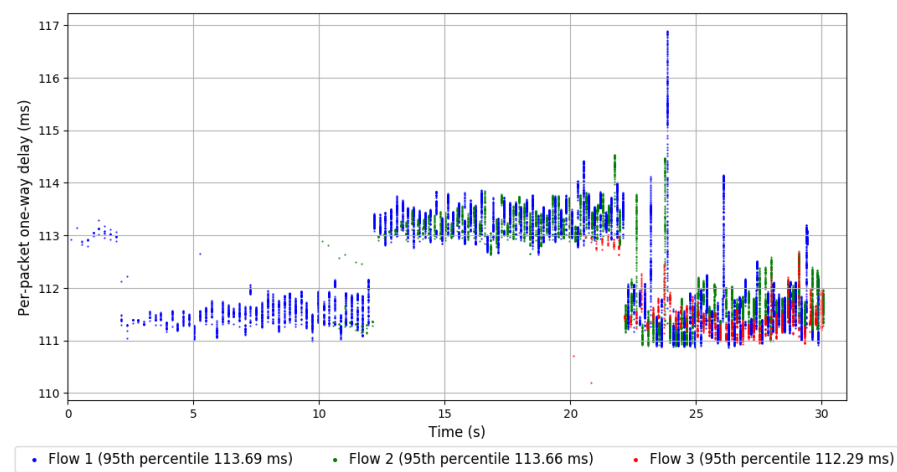
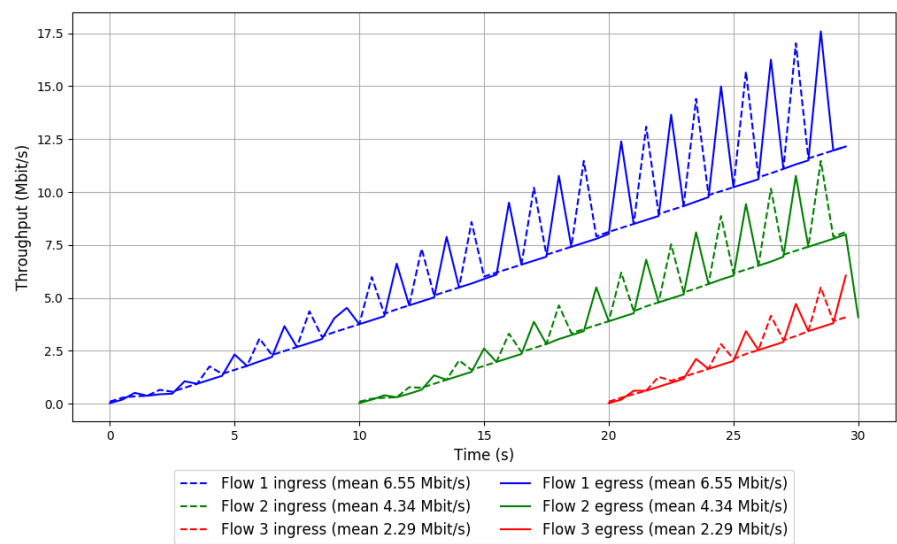
-- Flow 3:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 112.289 ms

Loss rate: 0.00%

Run 10: Report of LEDBAT — Data Link

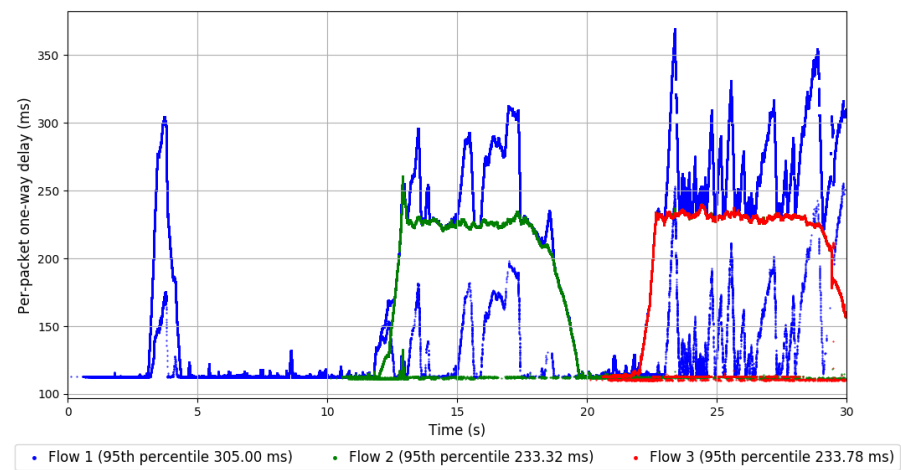
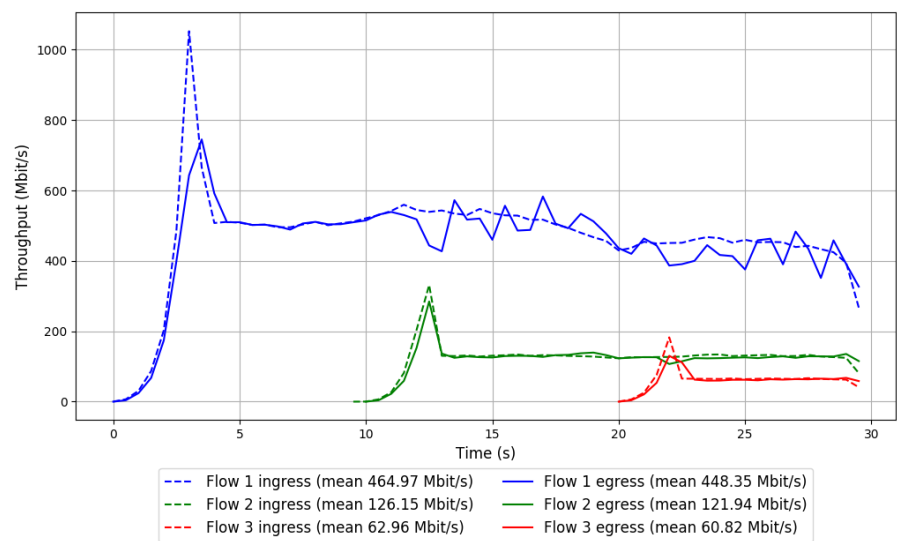


```
Run 1: Statistics of PCC

Start at: 2018-03-21 08:59:23
End at: 2018-03-21 08:59:53

# Below is generated by plot.py at 2018-03-21 14:14:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 549.50 Mbit/s
95th percentile per-packet one-way delay: 300.059 ms
Loss rate: 3.53%
-- Flow 1:
Average throughput: 448.35 Mbit/s
95th percentile per-packet one-way delay: 304.995 ms
Loss rate: 3.57%
-- Flow 2:
Average throughput: 121.94 Mbit/s
95th percentile per-packet one-way delay: 233.322 ms
Loss rate: 3.33%
-- Flow 3:
Average throughput: 60.82 Mbit/s
95th percentile per-packet one-way delay: 233.777 ms
Loss rate: 3.39%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-03-21 09:18:50

End at: 2018-03-21 09:19:20

Below is generated by plot.py at 2018-03-21 14:14:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 546.65 Mbit/s

95th percentile per-packet one-way delay: 219.062 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 462.36 Mbit/s

95th percentile per-packet one-way delay: 222.511 ms

Loss rate: 1.30%

-- Flow 2:

Average throughput: 124.84 Mbit/s

95th percentile per-packet one-way delay: 188.868 ms

Loss rate: 0.66%

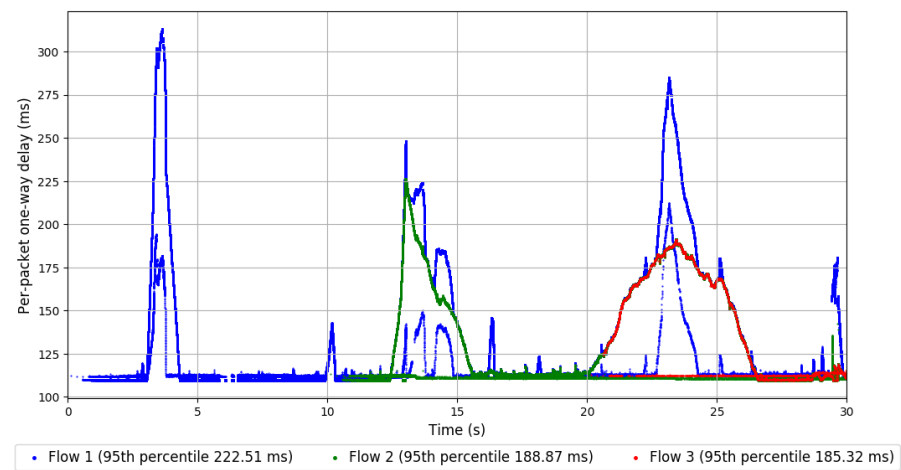
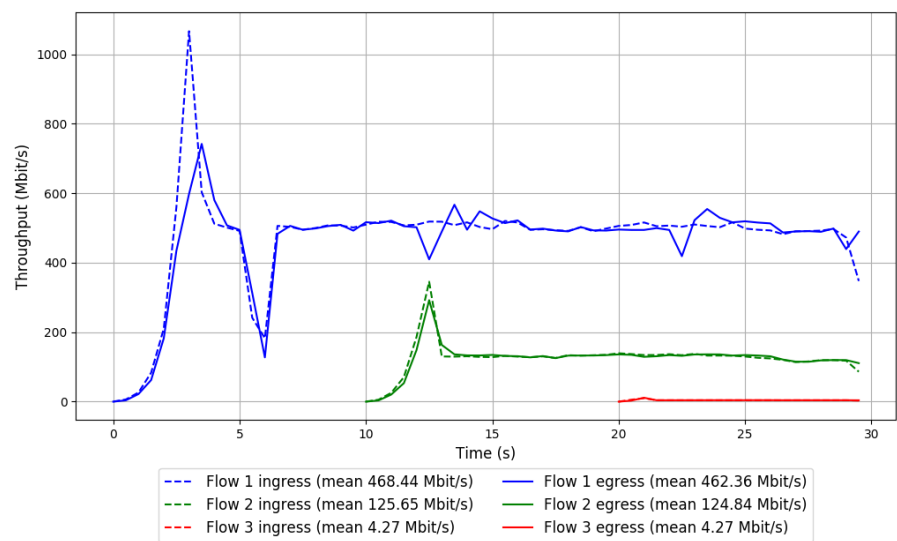
-- Flow 3:

Average throughput: 4.27 Mbit/s

95th percentile per-packet one-way delay: 185.322 ms

Loss rate: 0.00%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-03-21 09:38:34

End at: 2018-03-21 09:39:04

Below is generated by plot.py at 2018-03-21 14:14:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 549.99 Mbit/s

95th percentile per-packet one-way delay: 281.766 ms

Loss rate: 1.85%

-- Flow 1:

Average throughput: 456.79 Mbit/s

95th percentile per-packet one-way delay: 292.468 ms

Loss rate: 2.07%

-- Flow 2:

Average throughput: 123.89 Mbit/s

95th percentile per-packet one-way delay: 219.697 ms

Loss rate: 0.88%

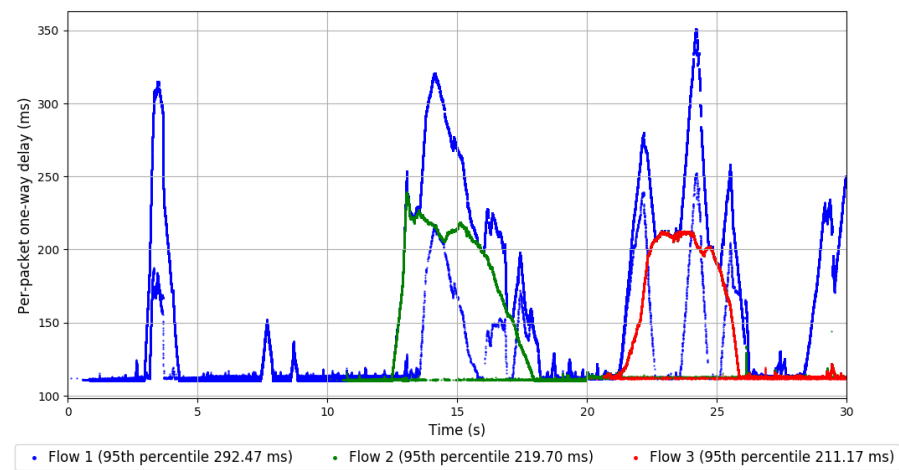
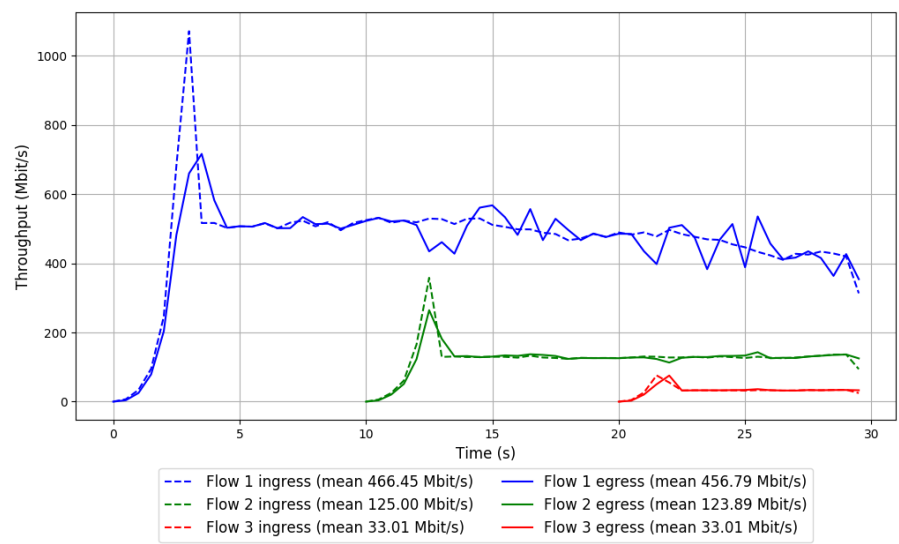
-- Flow 3:

Average throughput: 33.01 Mbit/s

95th percentile per-packet one-way delay: 211.174 ms

Loss rate: 0.00%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-03-21 09:57:43

End at: 2018-03-21 09:58:13

Below is generated by plot.py at 2018-03-21 14:14:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 550.91 Mbit/s

95th percentile per-packet one-way delay: 229.595 ms

Loss rate: 1.66%

-- Flow 1:

Average throughput: 499.04 Mbit/s

95th percentile per-packet one-way delay: 229.850 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 62.35 Mbit/s

95th percentile per-packet one-way delay: 228.158 ms

Loss rate: 0.99%

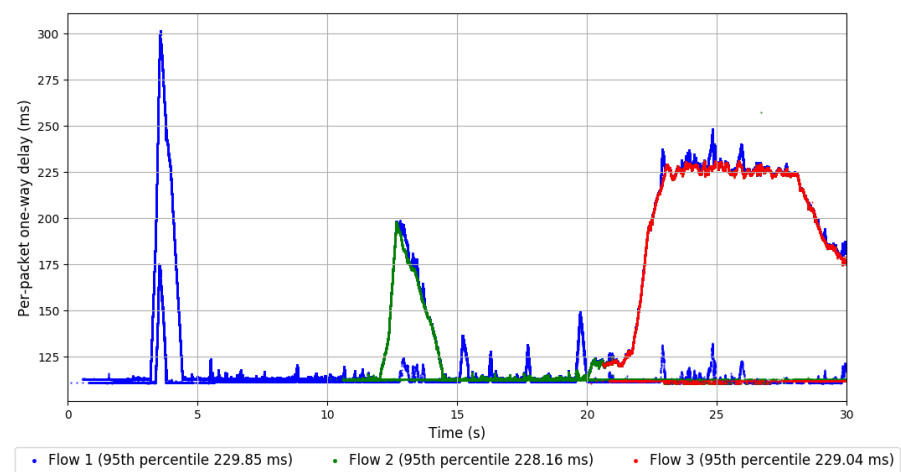
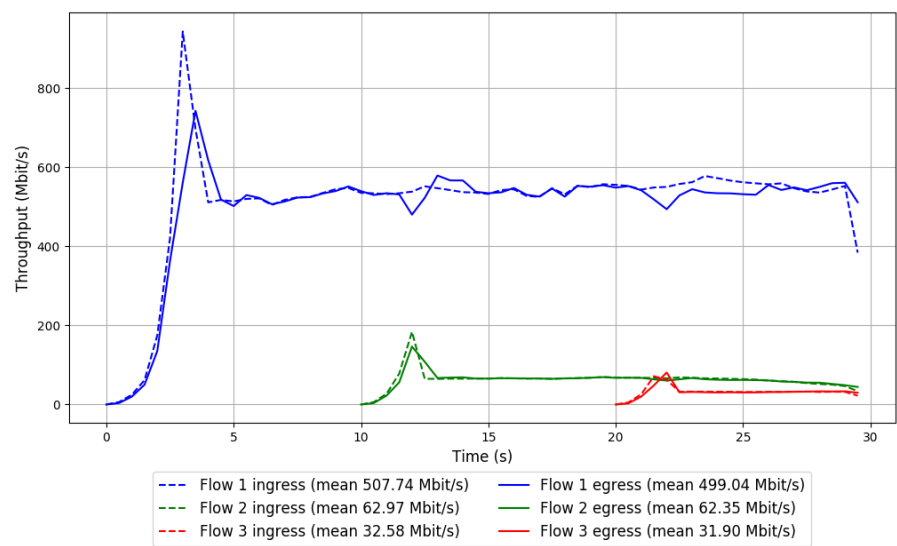
-- Flow 3:

Average throughput: 31.90 Mbit/s

95th percentile per-packet one-way delay: 229.042 ms

Loss rate: 2.02%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-03-21 10:17:01

End at: 2018-03-21 10:17:31

Below is generated by plot.py at 2018-03-21 14:14:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 555.36 Mbit/s

95th percentile per-packet one-way delay: 185.953 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 522.10 Mbit/s

95th percentile per-packet one-way delay: 186.709 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 33.80 Mbit/s

95th percentile per-packet one-way delay: 163.811 ms

Loss rate: 0.01%

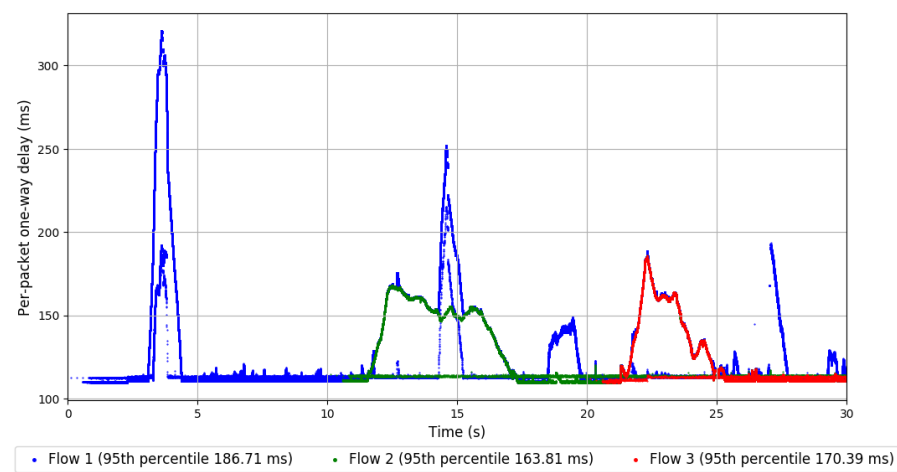
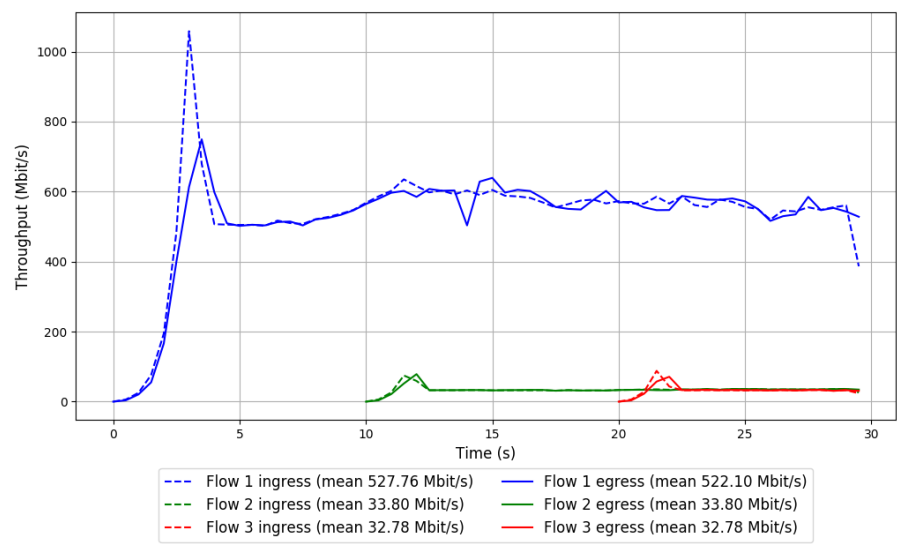
-- Flow 3:

Average throughput: 32.78 Mbit/s

95th percentile per-packet one-way delay: 170.393 ms

Loss rate: 0.00%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-03-21 10:36:15

End at: 2018-03-21 10:36:45

Below is generated by plot.py at 2018-03-21 14:15:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 560.27 Mbit/s

95th percentile per-packet one-way delay: 250.356 ms

Loss rate: 2.01%

-- Flow 1:

Average throughput: 471.10 Mbit/s

95th percentile per-packet one-way delay: 254.474 ms

Loss rate: 2.00%

-- Flow 2:

Average throughput: 132.19 Mbit/s

95th percentile per-packet one-way delay: 233.432 ms

Loss rate: 2.08%

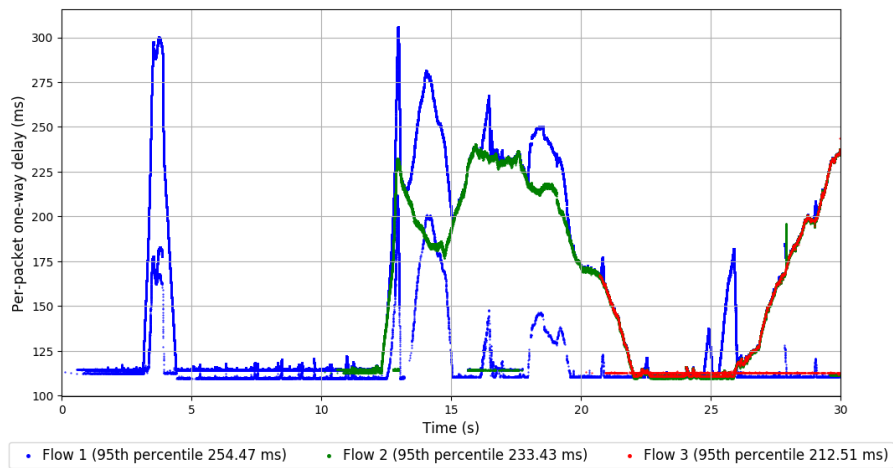
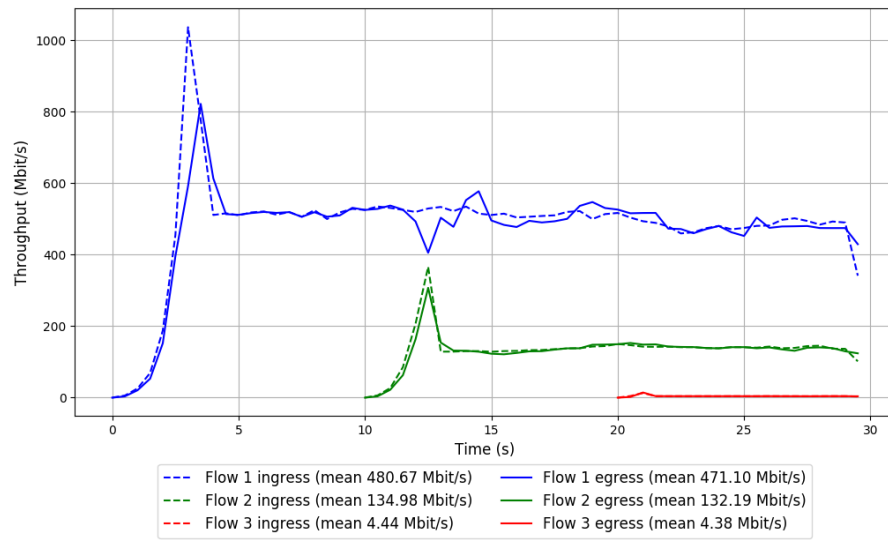
-- Flow 3:

Average throughput: 4.38 Mbit/s

95th percentile per-packet one-way delay: 212.508 ms

Loss rate: 1.30%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-03-21 10:55:57

End at: 2018-03-21 10:56:27

Below is generated by plot.py at 2018-03-21 14:15:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 538.93 Mbit/s

95th percentile per-packet one-way delay: 312.448 ms

Loss rate: 3.59%

-- Flow 1:

Average throughput: 474.39 Mbit/s

95th percentile per-packet one-way delay: 319.177 ms

Loss rate: 4.00%

-- Flow 2:

Average throughput: 66.05 Mbit/s

95th percentile per-packet one-way delay: 222.302 ms

Loss rate: 0.29%

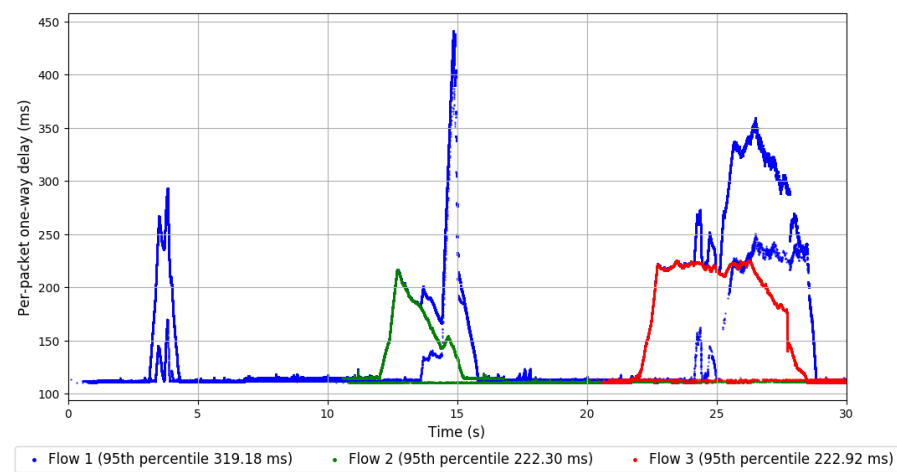
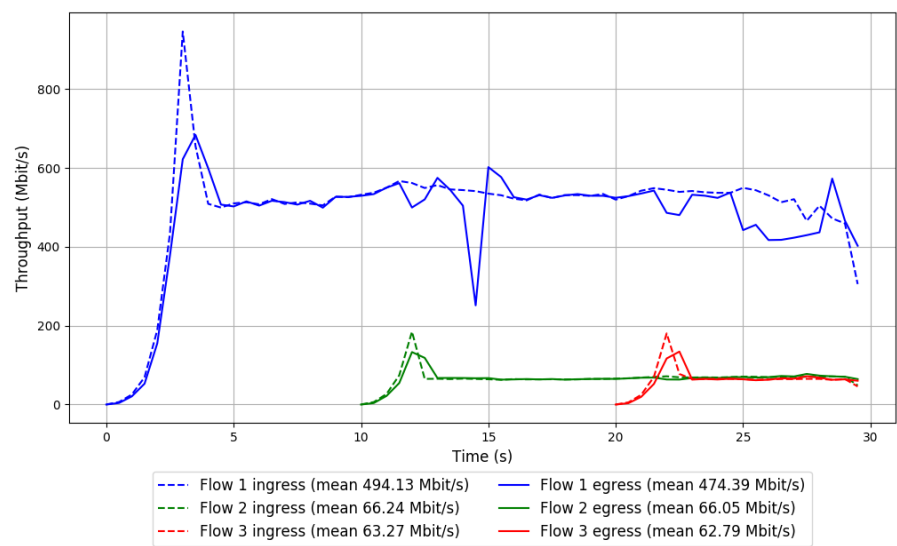
-- Flow 3:

Average throughput: 62.79 Mbit/s

95th percentile per-packet one-way delay: 222.919 ms

Loss rate: 0.79%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-03-21 11:15:09

End at: 2018-03-21 11:15:39

Below is generated by plot.py at 2018-03-21 14:15:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 548.94 Mbit/s

95th percentile per-packet one-way delay: 236.582 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 498.74 Mbit/s

95th percentile per-packet one-way delay: 240.090 ms

Loss rate: 1.73%

-- Flow 2:

Average throughput: 71.40 Mbit/s

95th percentile per-packet one-way delay: 229.178 ms

Loss rate: 1.19%

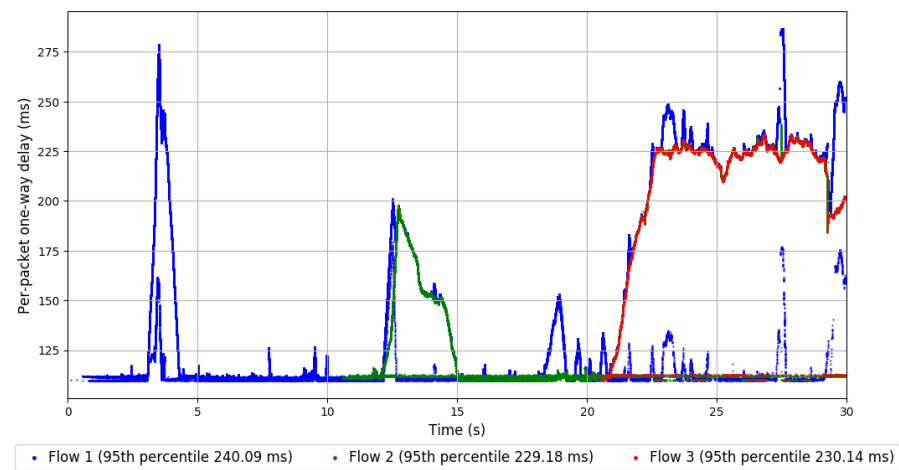
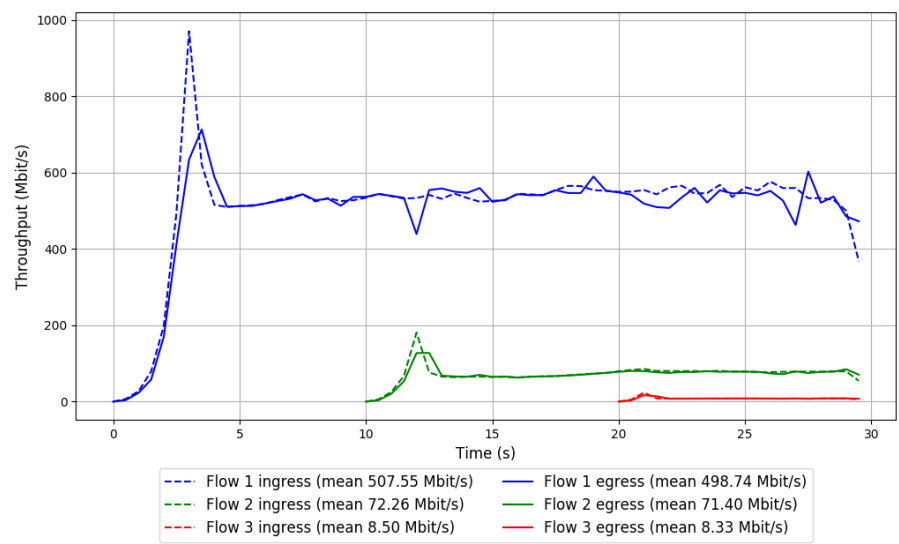
-- Flow 3:

Average throughput: 8.33 Mbit/s

95th percentile per-packet one-way delay: 230.141 ms

Loss rate: 2.01%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-03-21 11:34:40

End at: 2018-03-21 11:35:10

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 566.89 Mbit/s

95th percentile per-packet one-way delay: 248.432 ms

Loss rate: 3.46%

-- Flow 1:

Average throughput: 449.60 Mbit/s

95th percentile per-packet one-way delay: 257.017 ms

Loss rate: 3.12%

-- Flow 2:

Average throughput: 121.02 Mbit/s

95th percentile per-packet one-way delay: 221.658 ms

Loss rate: 3.51%

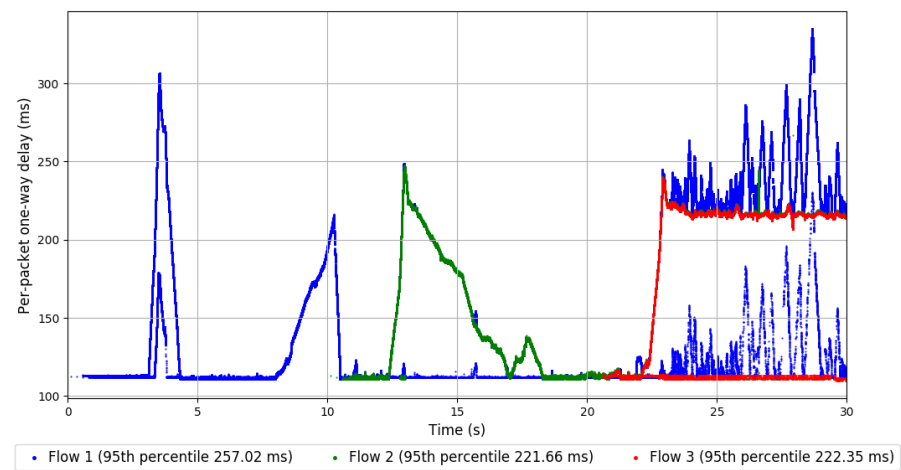
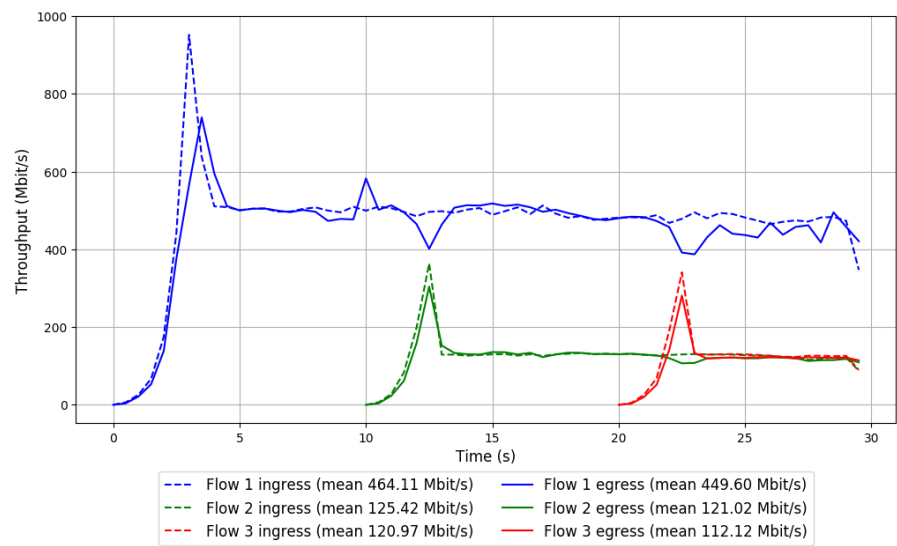
-- Flow 3:

Average throughput: 112.12 Mbit/s

95th percentile per-packet one-way delay: 222.351 ms

Loss rate: 7.32%

Run 9: Report of PCC — Data Link

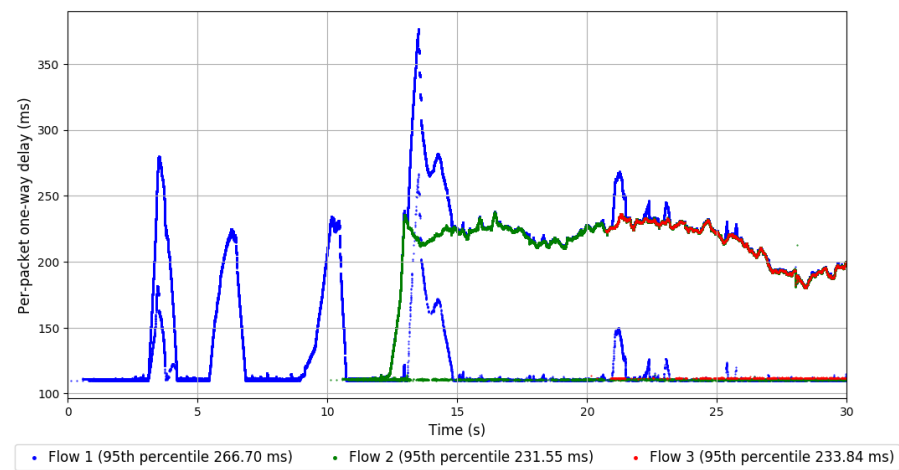
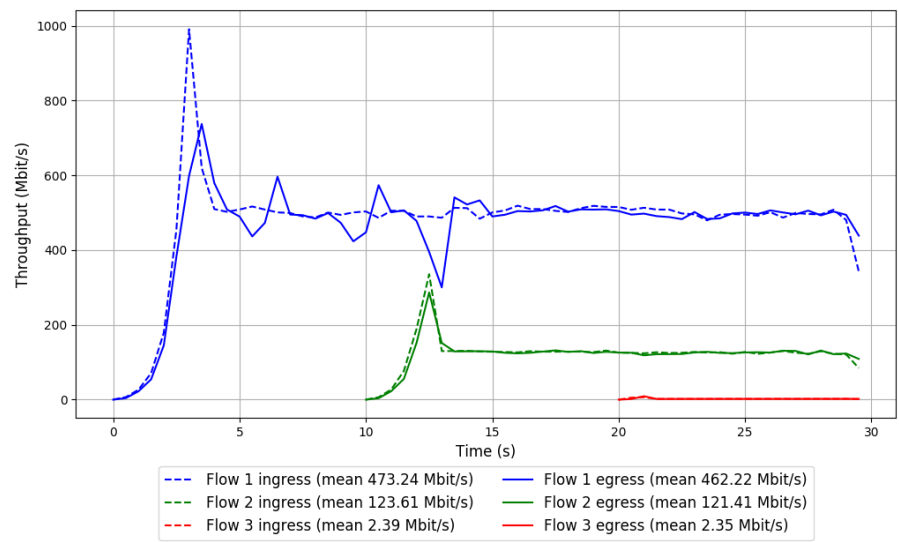


```
Run 10: Statistics of PCC

Start at: 2018-03-21 11:54:23
End at: 2018-03-21 11:54:53

# Below is generated by plot.py at 2018-03-21 14:23:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 543.68 Mbit/s
95th percentile per-packet one-way delay: 263.757 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 462.22 Mbit/s
95th percentile per-packet one-way delay: 266.697 ms
Loss rate: 2.32%
-- Flow 2:
Average throughput: 121.41 Mbit/s
95th percentile per-packet one-way delay: 231.553 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 233.843 ms
Loss rate: 1.79%
```

Run 10: Report of PCC — Data Link

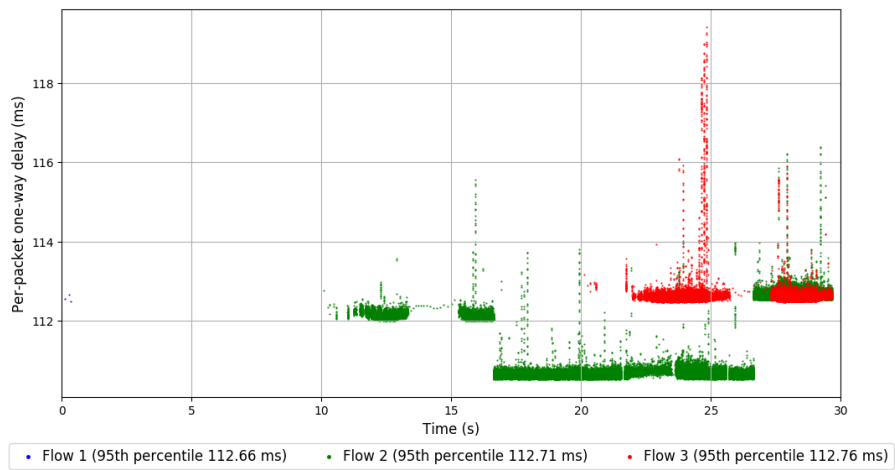
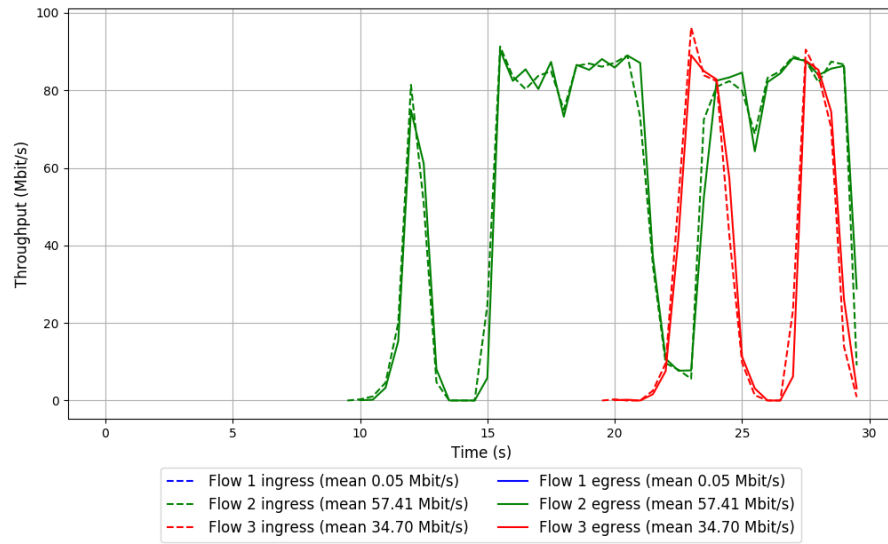


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-21 08:51:57
End at: 2018-03-21 08:52:27

# Below is generated by plot.py at 2018-03-21 14:23:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.25 Mbit/s
95th percentile per-packet one-way delay: 112.726 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 112.659 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.41 Mbit/s
95th percentile per-packet one-way delay: 112.714 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.70 Mbit/s
95th percentile per-packet one-way delay: 112.757 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-03-21 09:11:25

End at: 2018-03-21 09:11:55

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.14 Mbit/s

95th percentile per-packet one-way delay: 114.090 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 48.65 Mbit/s

95th percentile per-packet one-way delay: 112.274 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.01 Mbit/s

95th percentile per-packet one-way delay: 112.624 ms

Loss rate: 0.00%

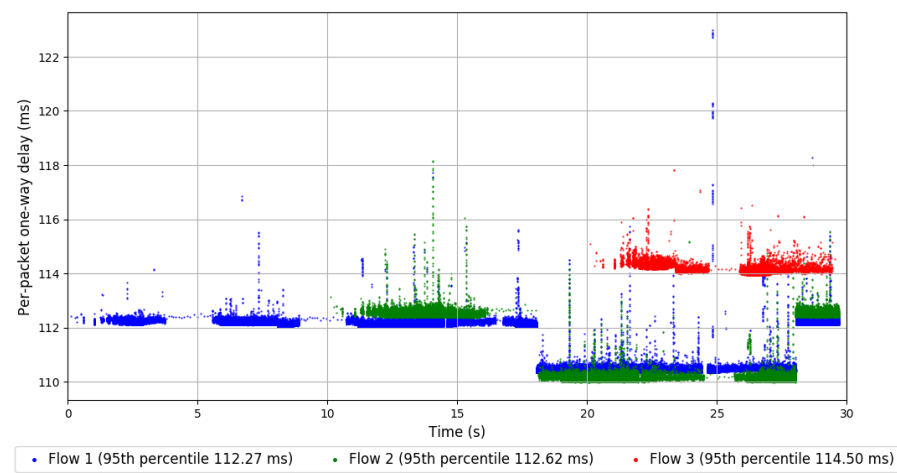
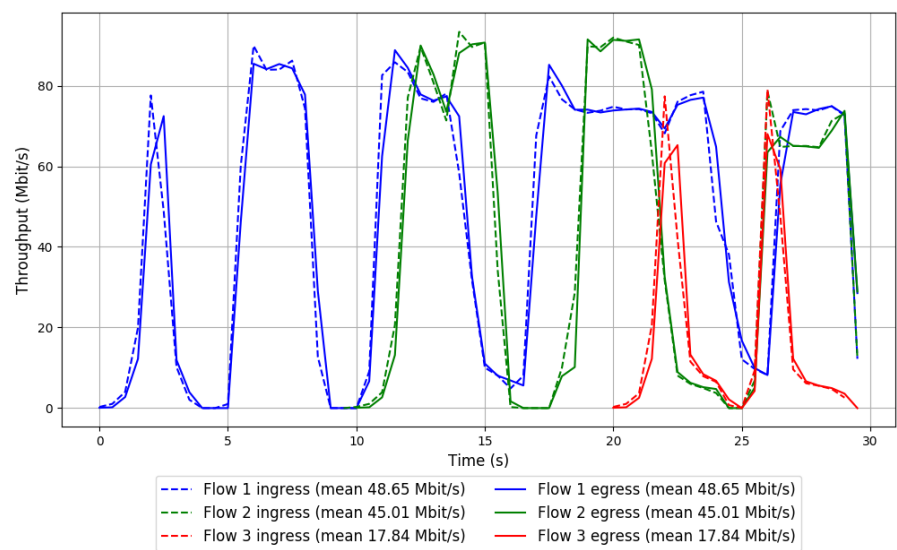
-- Flow 3:

Average throughput: 17.84 Mbit/s

95th percentile per-packet one-way delay: 114.496 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-21 09:30:58

End at: 2018-03-21 09:31:28

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.09 Mbit/s

95th percentile per-packet one-way delay: 112.144 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.66 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.41 Mbit/s

95th percentile per-packet one-way delay: 111.600 ms

Loss rate: 0.00%

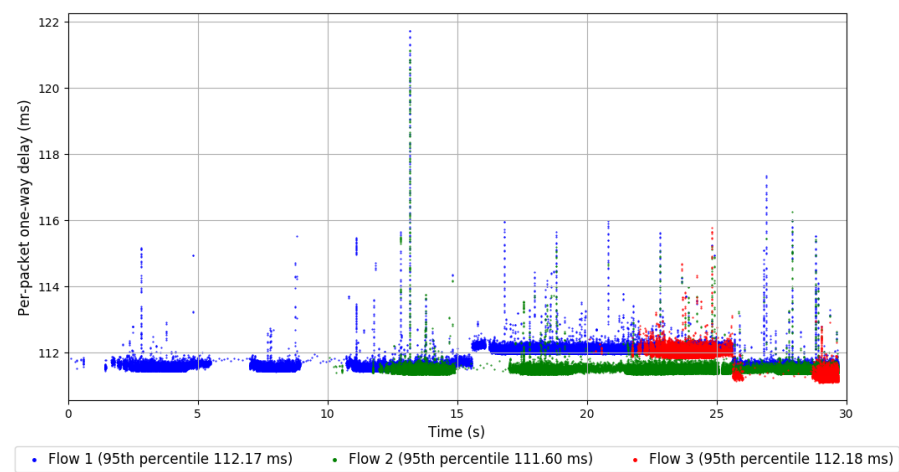
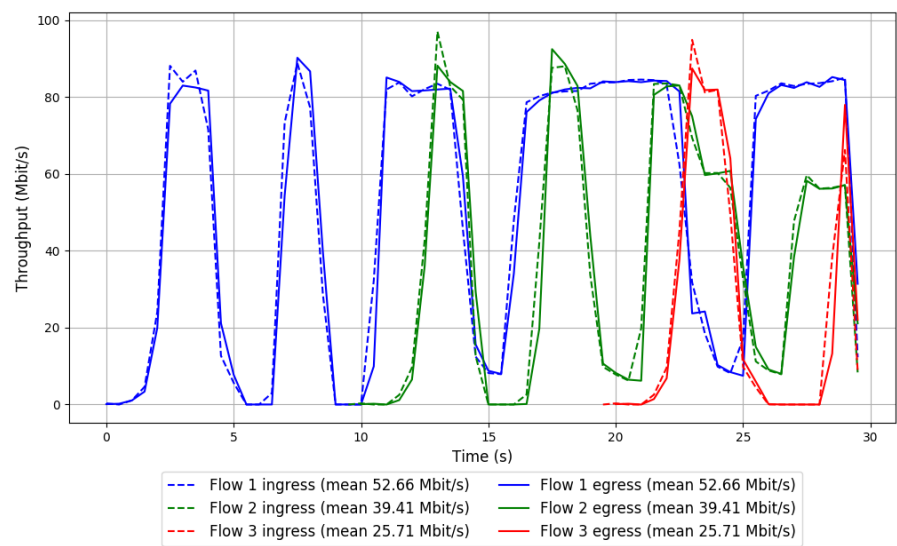
-- Flow 3:

Average throughput: 25.71 Mbit/s

95th percentile per-packet one-way delay: 112.182 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-21 09:50:24

End at: 2018-03-21 09:50:54

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.81 Mbit/s

95th percentile per-packet one-way delay: 112.631 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 49.20 Mbit/s

95th percentile per-packet one-way delay: 112.587 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.22 Mbit/s

95th percentile per-packet one-way delay: 112.698 ms

Loss rate: 0.00%

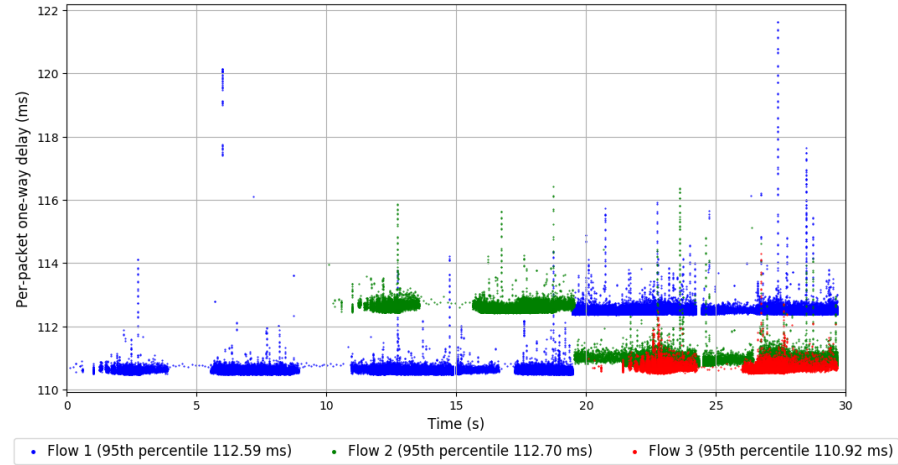
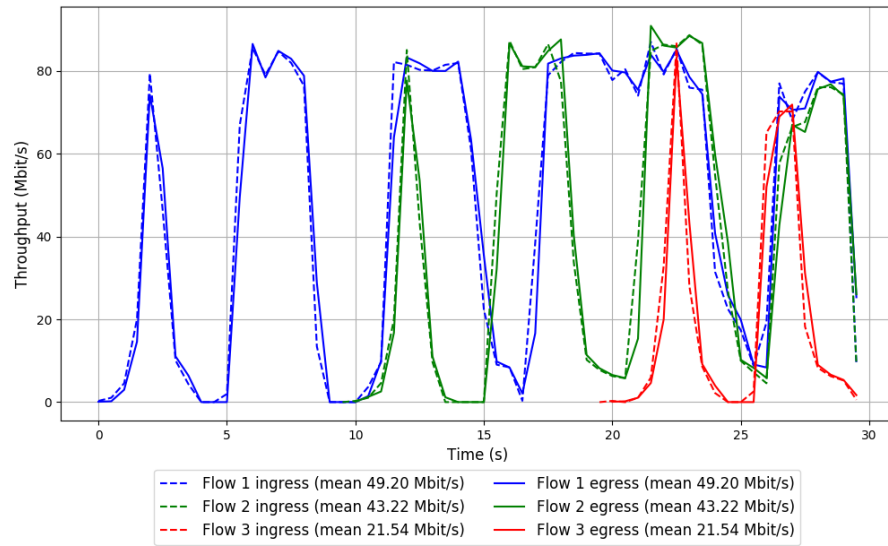
-- Flow 3:

Average throughput: 21.54 Mbit/s

95th percentile per-packet one-way delay: 110.924 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-21 10:09:45

End at: 2018-03-21 10:10:15

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.65 Mbit/s

95th percentile per-packet one-way delay: 113.026 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 49.14 Mbit/s

95th percentile per-packet one-way delay: 112.776 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.32 Mbit/s

95th percentile per-packet one-way delay: 113.120 ms

Loss rate: 0.00%

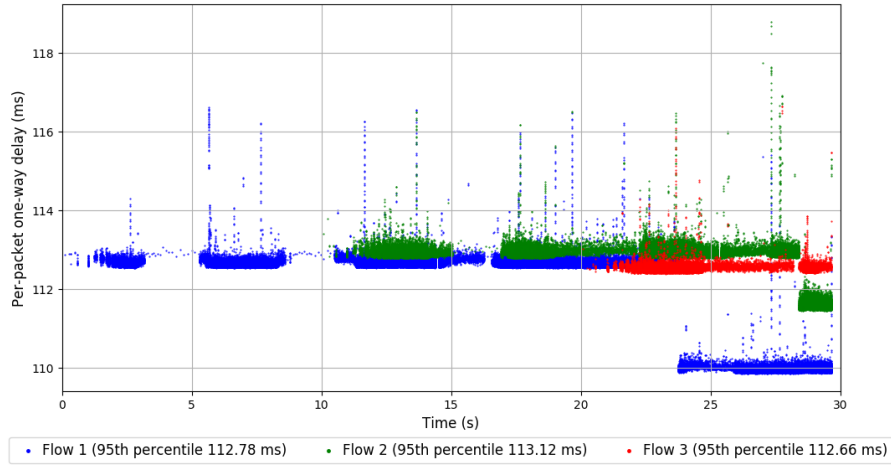
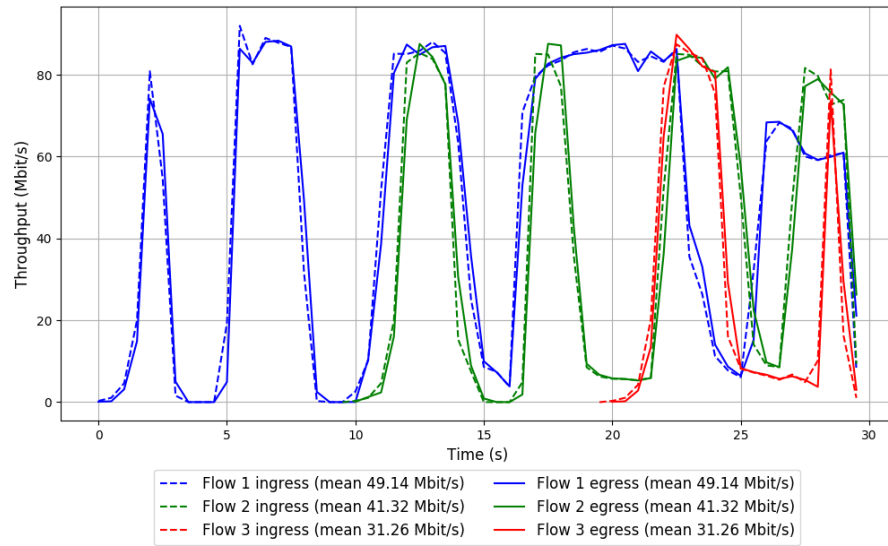
-- Flow 3:

Average throughput: 31.26 Mbit/s

95th percentile per-packet one-way delay: 112.663 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-21 10:28:58

End at: 2018-03-21 10:29:28

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.70 Mbit/s

95th percentile per-packet one-way delay: 112.881 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 49.27 Mbit/s

95th percentile per-packet one-way delay: 112.883 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.94 Mbit/s

95th percentile per-packet one-way delay: 112.895 ms

Loss rate: 0.00%

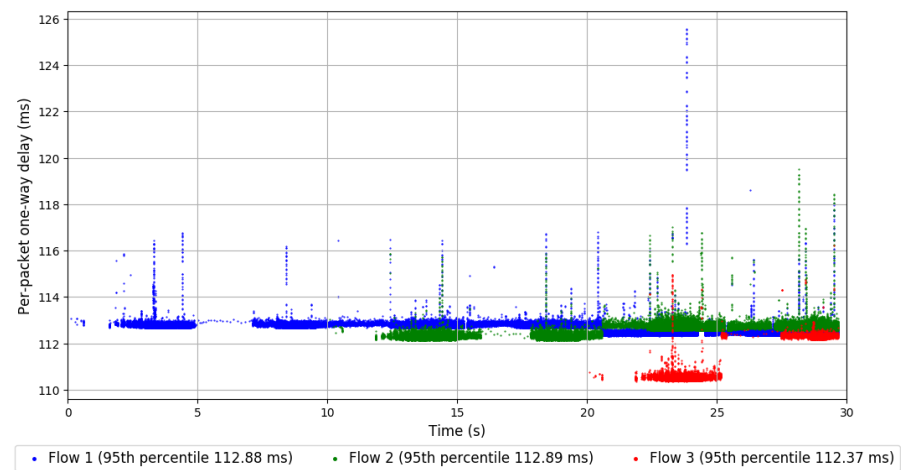
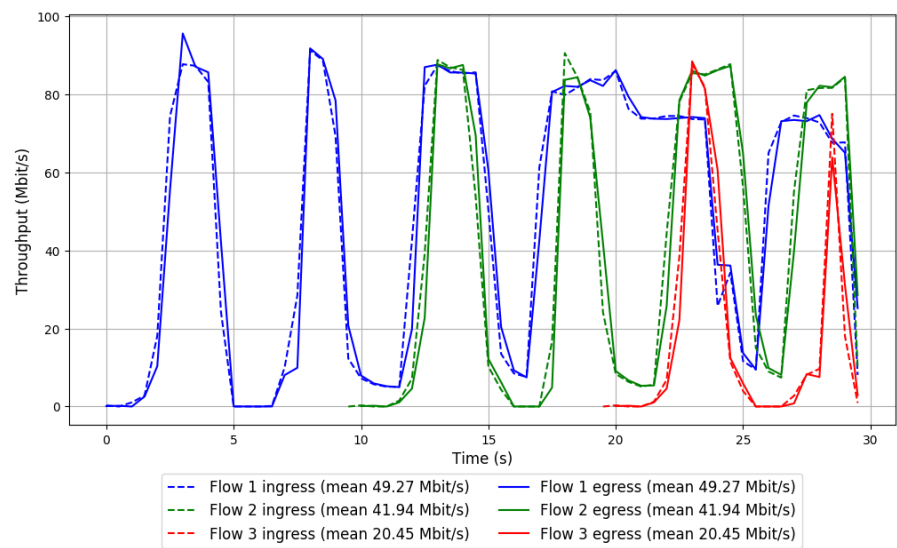
-- Flow 3:

Average throughput: 20.45 Mbit/s

95th percentile per-packet one-way delay: 112.374 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-21 10:48:16

End at: 2018-03-21 10:48:46

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.35 Mbit/s

95th percentile per-packet one-way delay: 112.716 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.06 Mbit/s

95th percentile per-packet one-way delay: 110.089 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.13 Mbit/s

95th percentile per-packet one-way delay: 112.813 ms

Loss rate: 0.00%

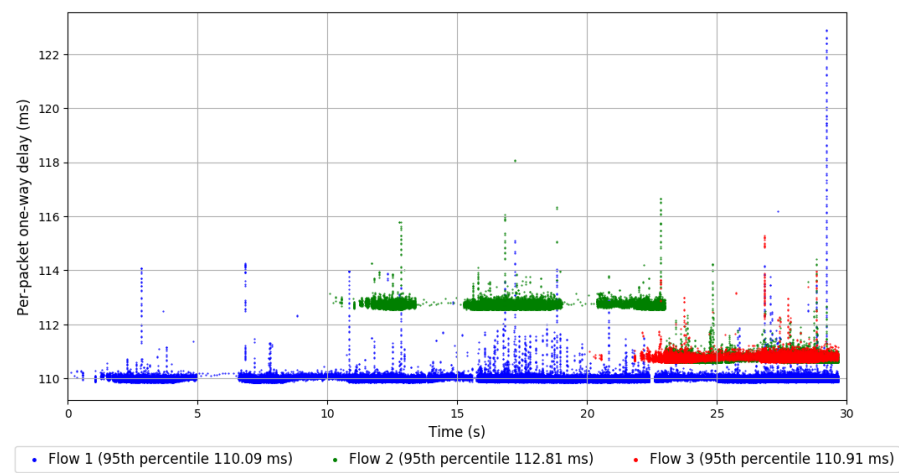
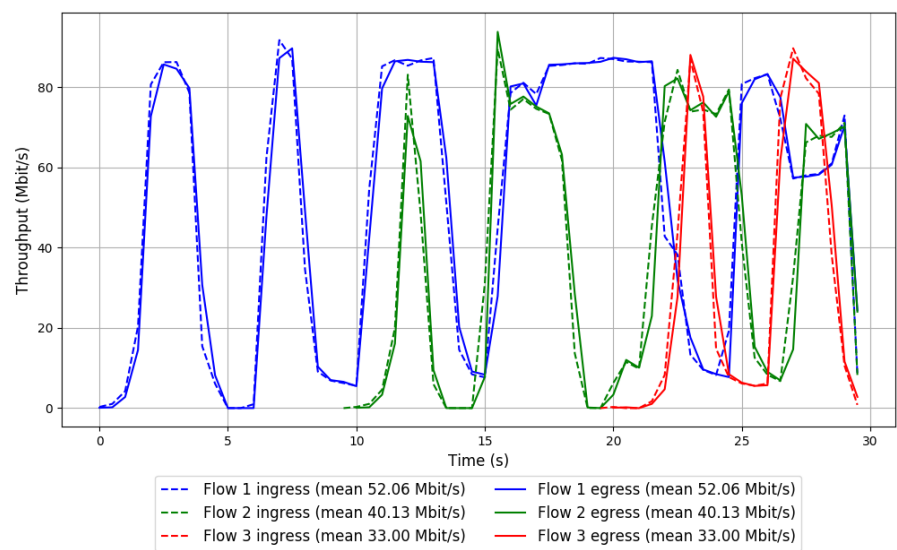
-- Flow 3:

Average throughput: 33.00 Mbit/s

95th percentile per-packet one-way delay: 110.911 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-21 11:07:55

End at: 2018-03-21 11:08:25

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.26 Mbit/s

95th percentile per-packet one-way delay: 112.688 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 44.36 Mbit/s

95th percentile per-packet one-way delay: 112.674 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 40.97 Mbit/s

95th percentile per-packet one-way delay: 109.887 ms

Loss rate: 0.00%

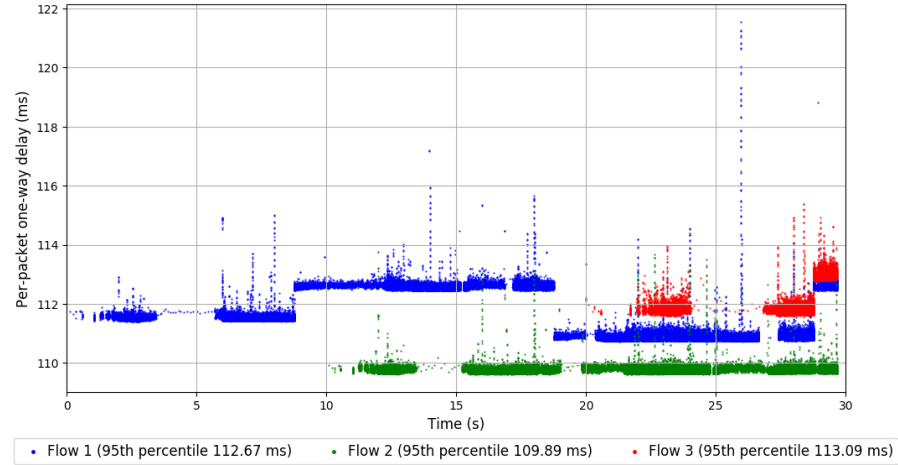
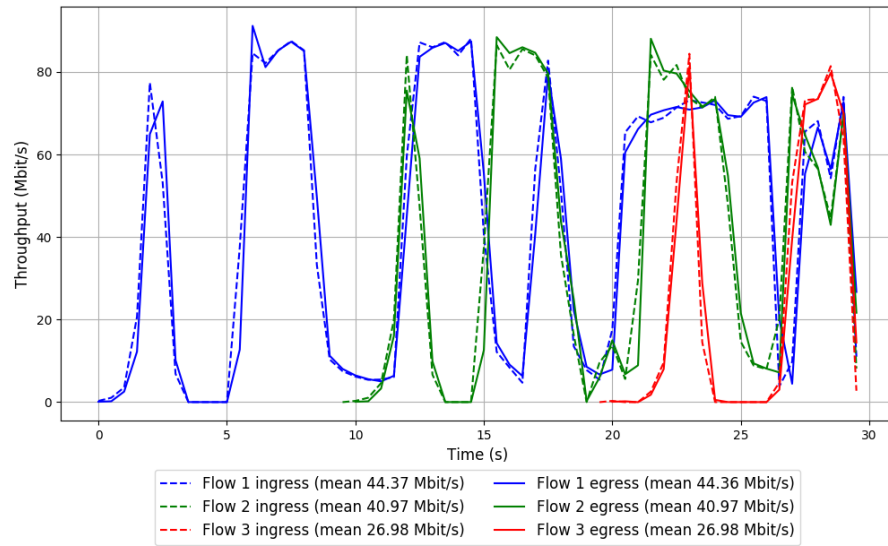
-- Flow 3:

Average throughput: 26.98 Mbit/s

95th percentile per-packet one-way delay: 113.087 ms

Loss rate: 0.02%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-21 11:27:09

End at: 2018-03-21 11:27:39

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.63 Mbit/s

95th percentile per-packet one-way delay: 111.660 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 48.36 Mbit/s

95th percentile per-packet one-way delay: 111.227 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.12 Mbit/s

95th percentile per-packet one-way delay: 111.191 ms

Loss rate: 0.01%

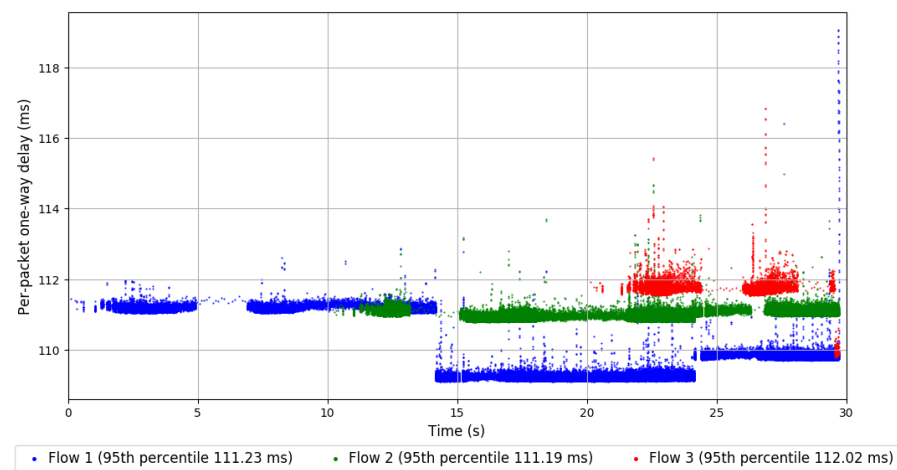
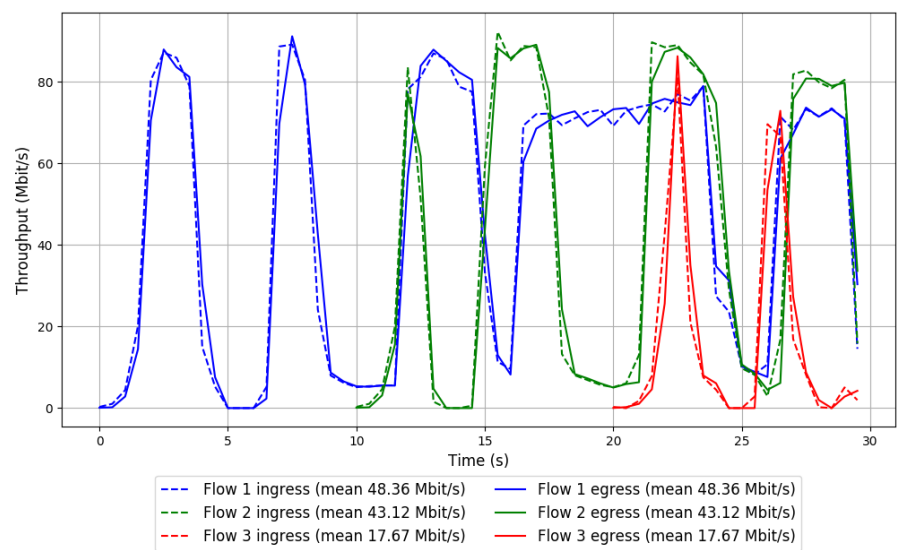
-- Flow 3:

Average throughput: 17.67 Mbit/s

95th percentile per-packet one-way delay: 112.018 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-03-21 11:46:54

End at: 2018-03-21 11:47:24

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.48 Mbit/s

95th percentile per-packet one-way delay: 112.769 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.17 Mbit/s

95th percentile per-packet one-way delay: 112.799 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.83 Mbit/s

95th percentile per-packet one-way delay: 111.903 ms

Loss rate: 0.00%

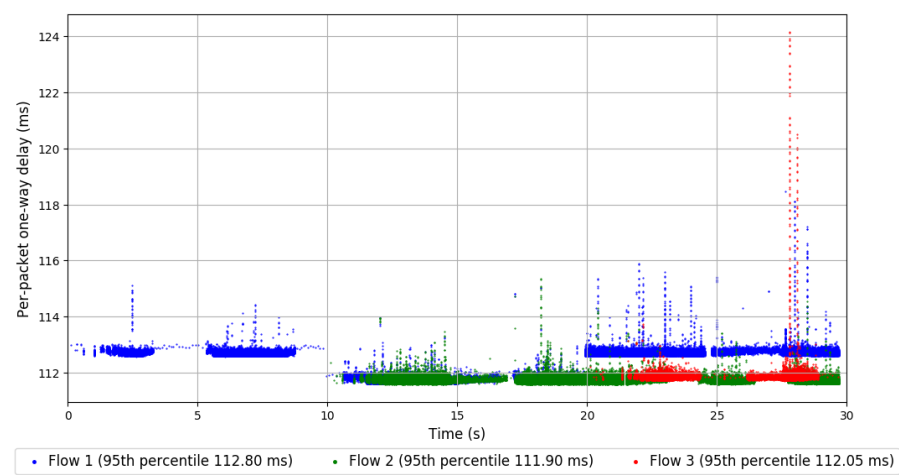
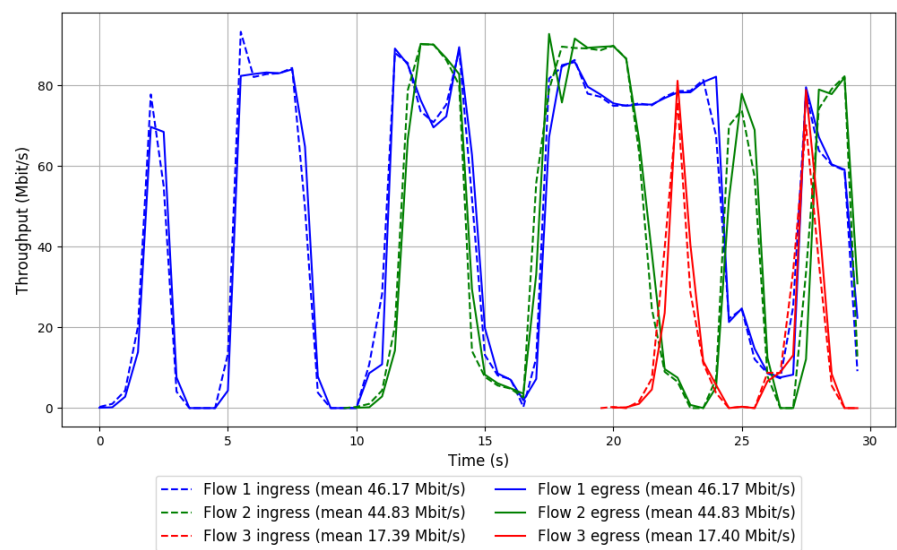
-- Flow 3:

Average throughput: 17.40 Mbit/s

95th percentile per-packet one-way delay: 112.054 ms

Loss rate: 0.00%

Run 10: Report of QUIC Cubic — Data Link

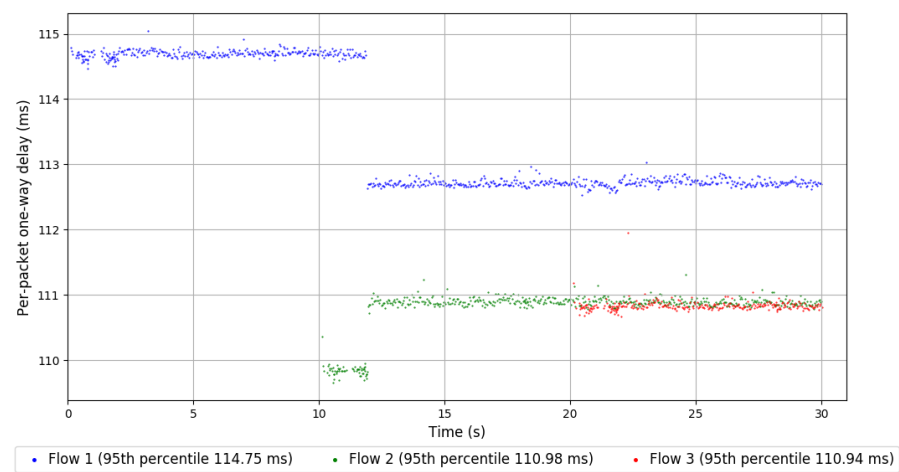
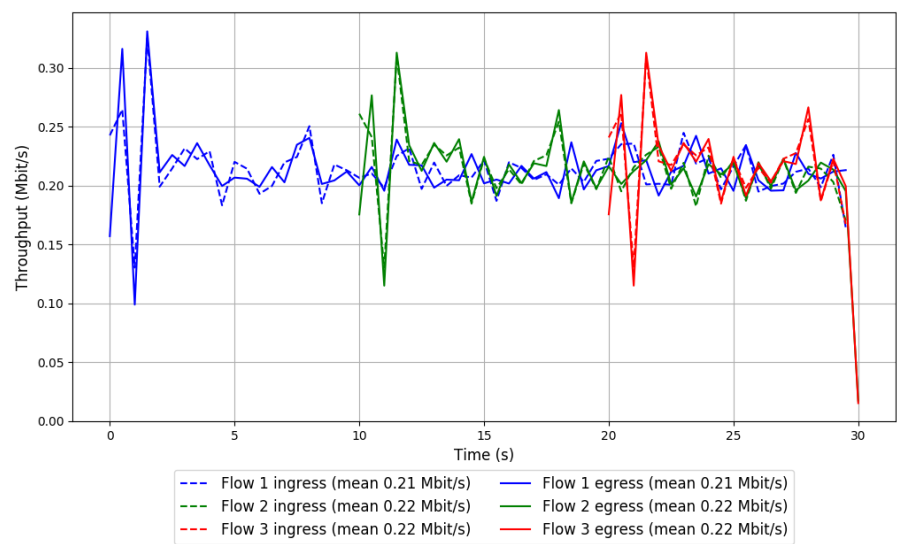


```
Run 1: Statistics of SCReAM

Start at: 2018-03-21 08:45:22
End at: 2018-03-21 08:45:52

# Below is generated by plot.py at 2018-03-21 14:23:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 114.730 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 114.755 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.983 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.935 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

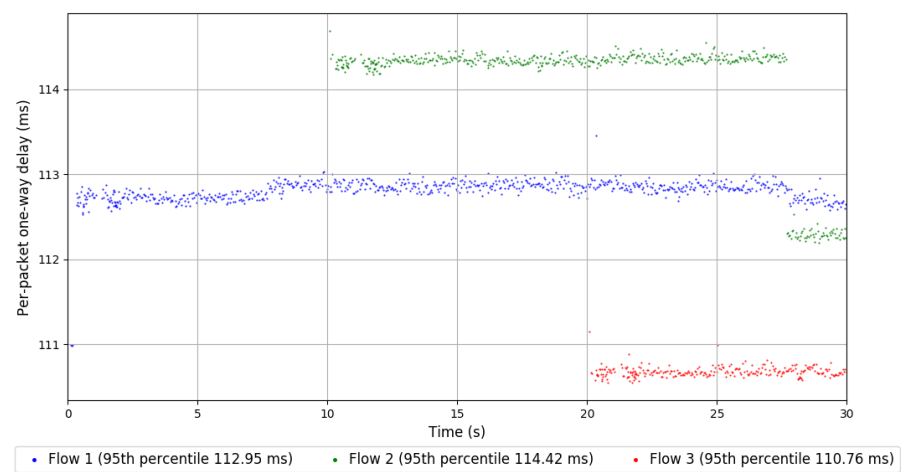
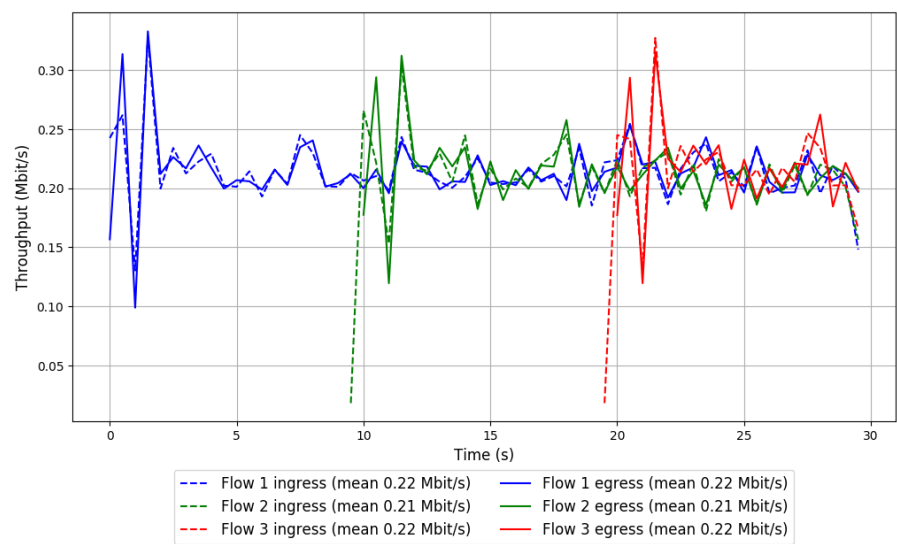


```
Run 2: Statistics of SReAM

Start at: 2018-03-21 09:04:46
End at: 2018-03-21 09:05:16

# Below is generated by plot.py at 2018-03-21 14:23:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 114.393 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.946 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 114.425 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.763 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2018-03-21 09:24:24

End at: 2018-03-21 09:24:54

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.441 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.443 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.453 ms

Loss rate: 0.00%

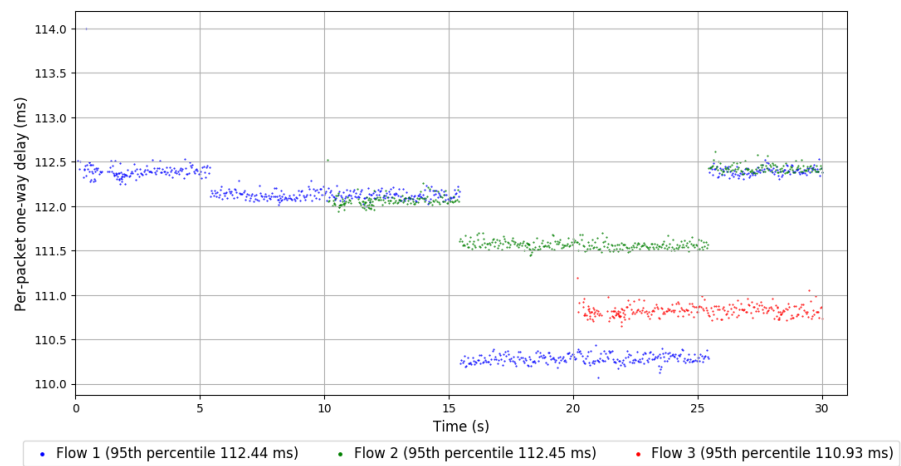
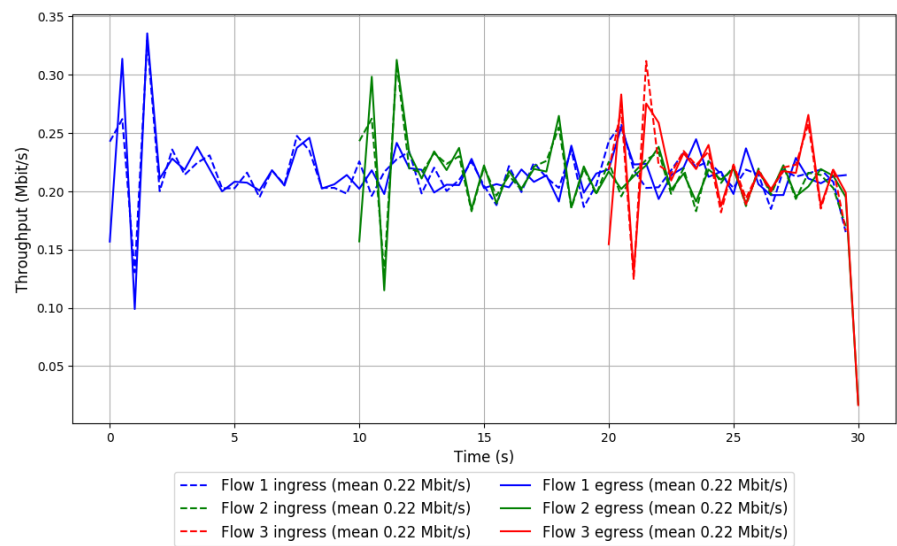
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.930 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-03-21 09:43:52

End at: 2018-03-21 09:44:22

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.639 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.634 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.675 ms

Loss rate: 0.00%

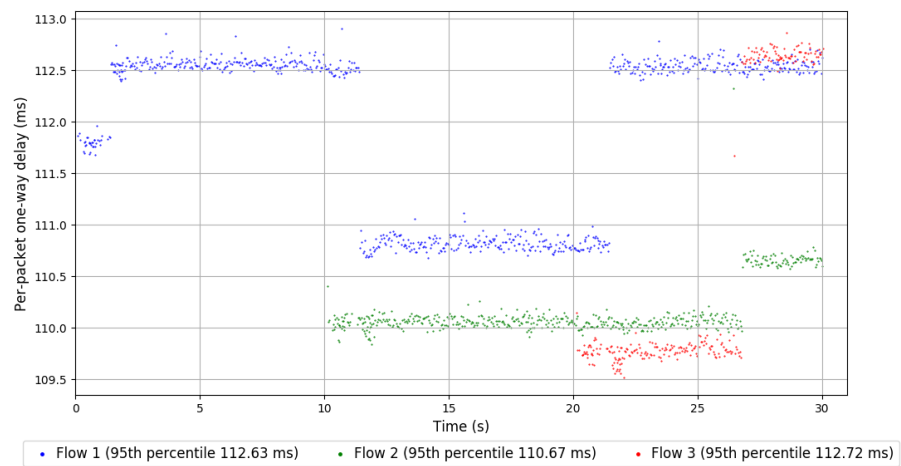
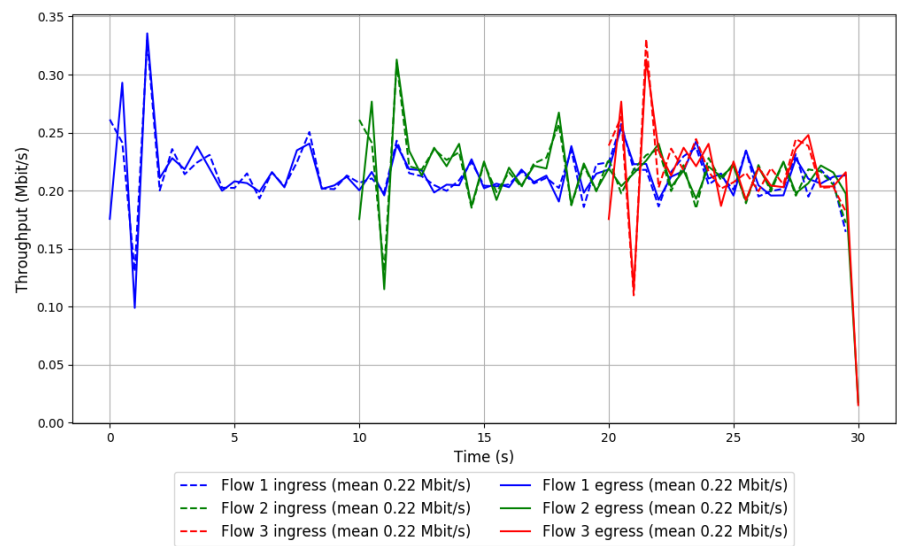
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.718 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-03-21 10:03:05

End at: 2018-03-21 10:03:35

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 112.844 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 111.984 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.806 ms

Loss rate: 0.00%

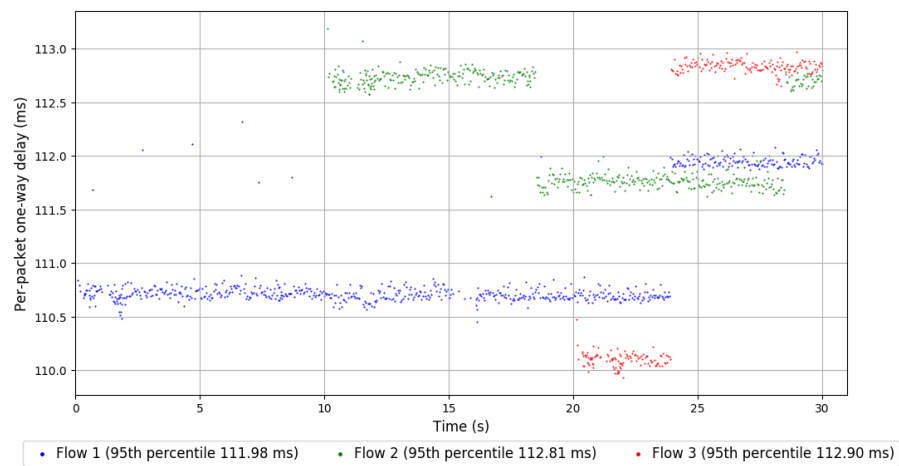
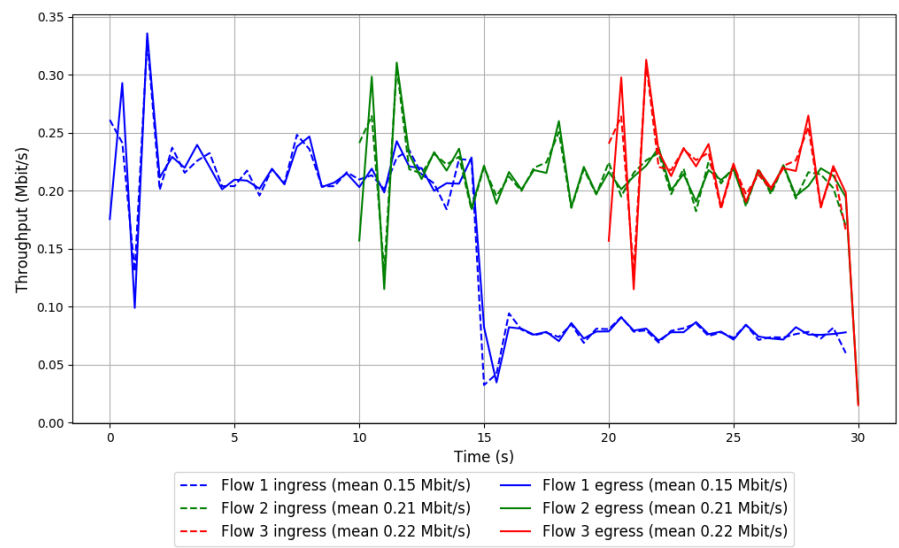
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.903 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2018-03-21 10:22:21

End at: 2018-03-21 10:22:51

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 113.109 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.139 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.635 ms

Loss rate: 0.00%

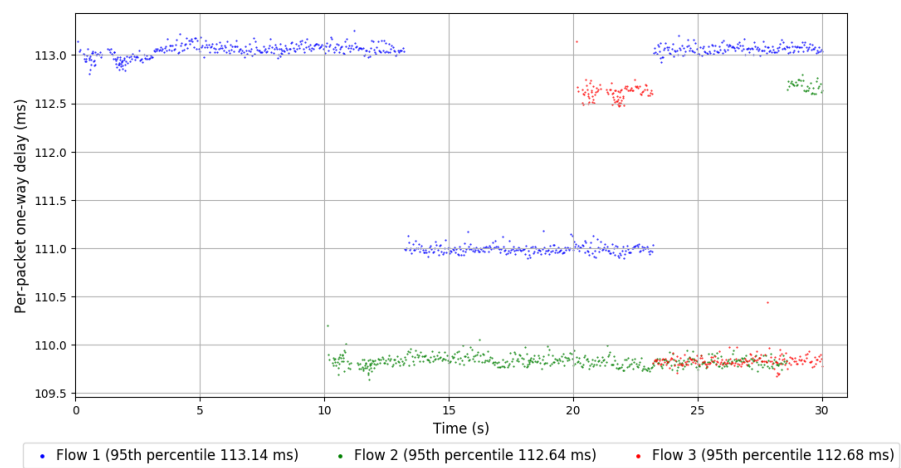
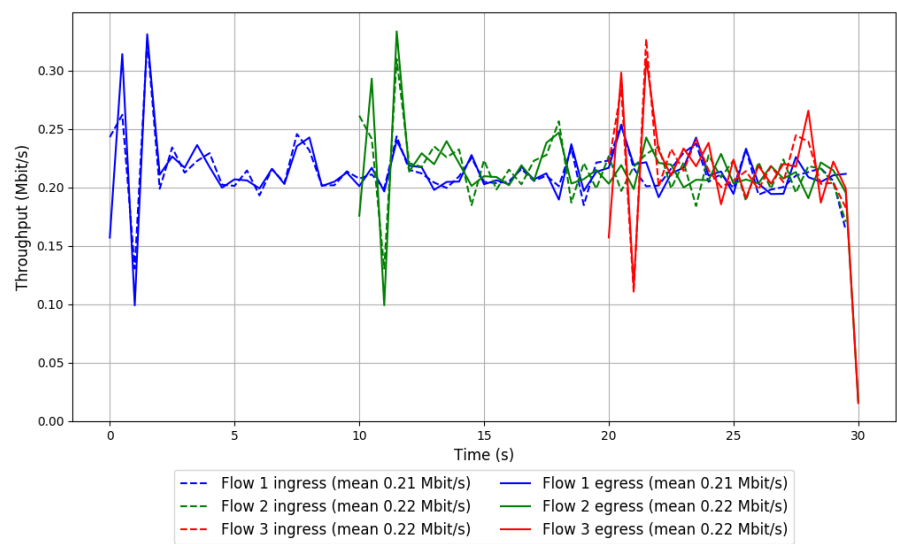
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link

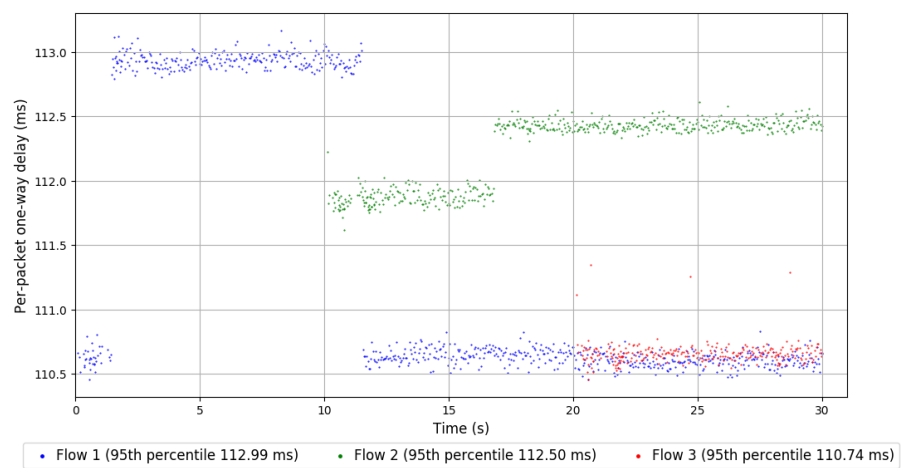
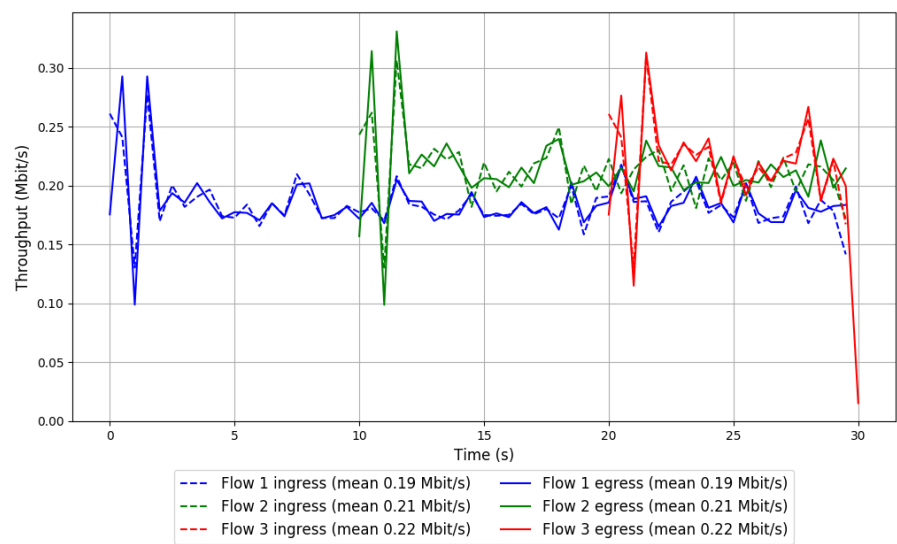


```
Run 7: Statistics of SCReAM

Start at: 2018-03-21 10:41:42
End at: 2018-03-21 10:42:12

# Below is generated by plot.py at 2018-03-21 14:23:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 112.962 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 112.992 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.503 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.736 ms
Loss rate: 0.00%
```


Run 7: Report of SCSReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2018-03-21 11:01:20

End at: 2018-03-21 11:01:50

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 113.055 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.003 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.020 ms

Loss rate: 0.00%

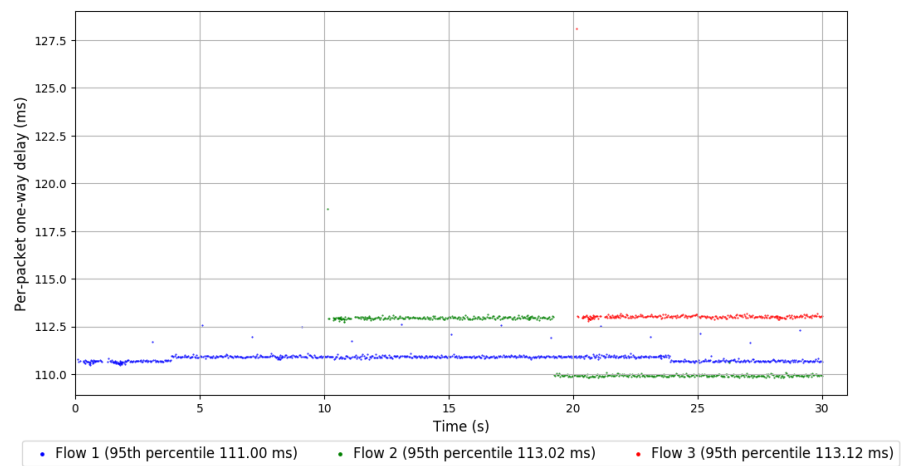
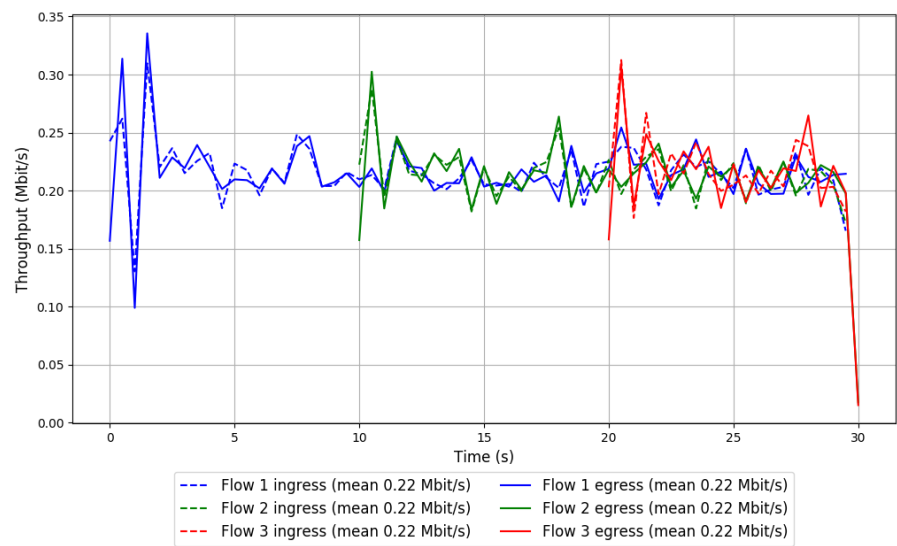
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.118 ms

Loss rate: 0.00%

Run 8: Report of SCRaM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-03-21 11:20:30

End at: 2018-03-21 11:21:00

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 115.192 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 115.221 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

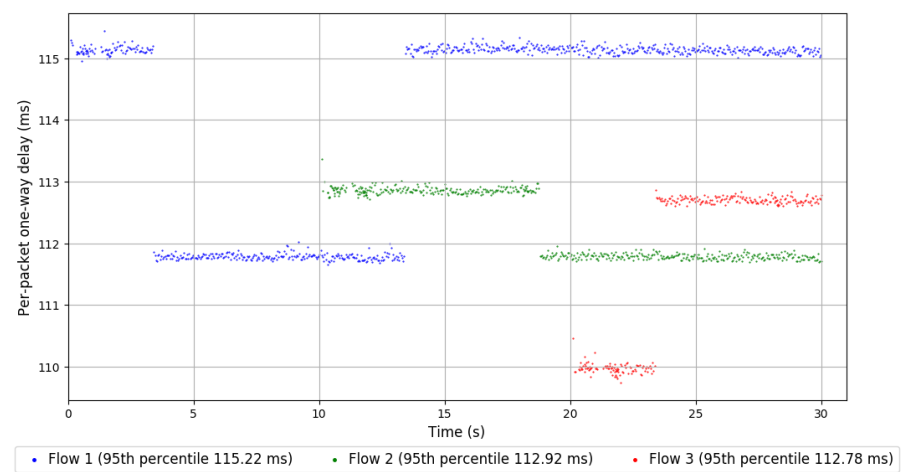
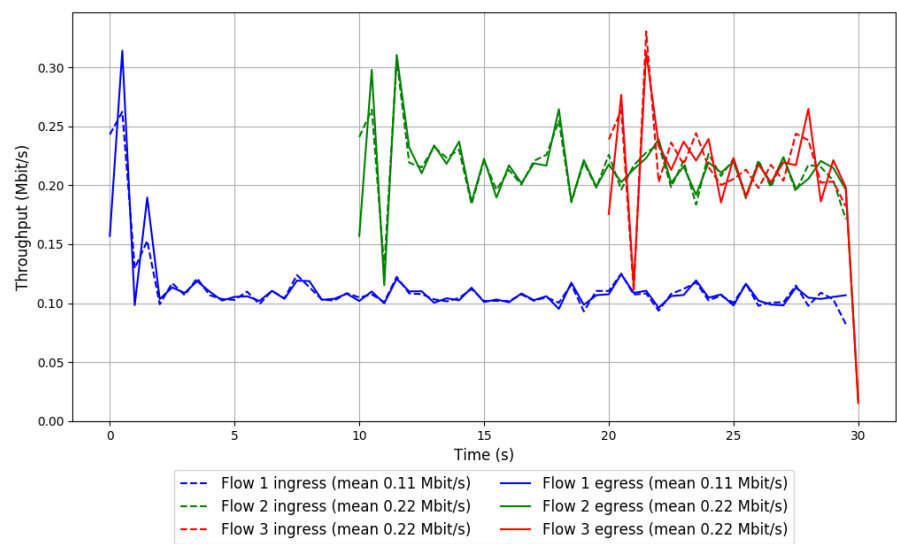
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.776 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2018-03-21 11:40:05

End at: 2018-03-21 11:40:35

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.963 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

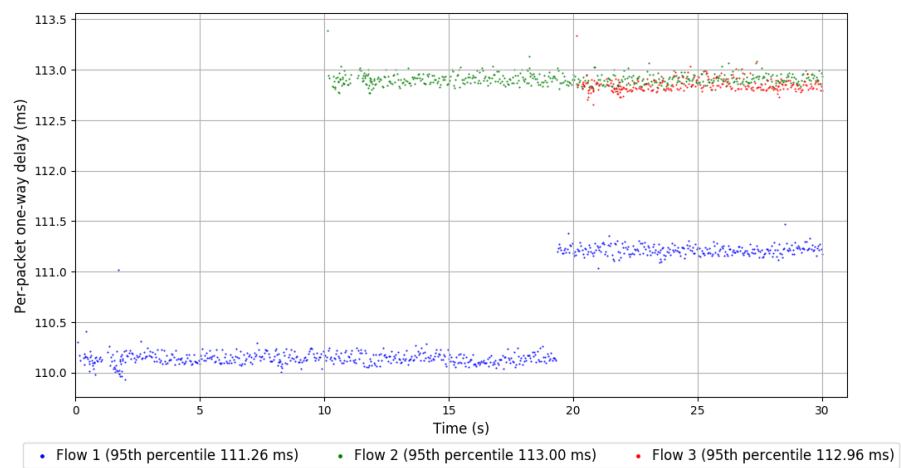
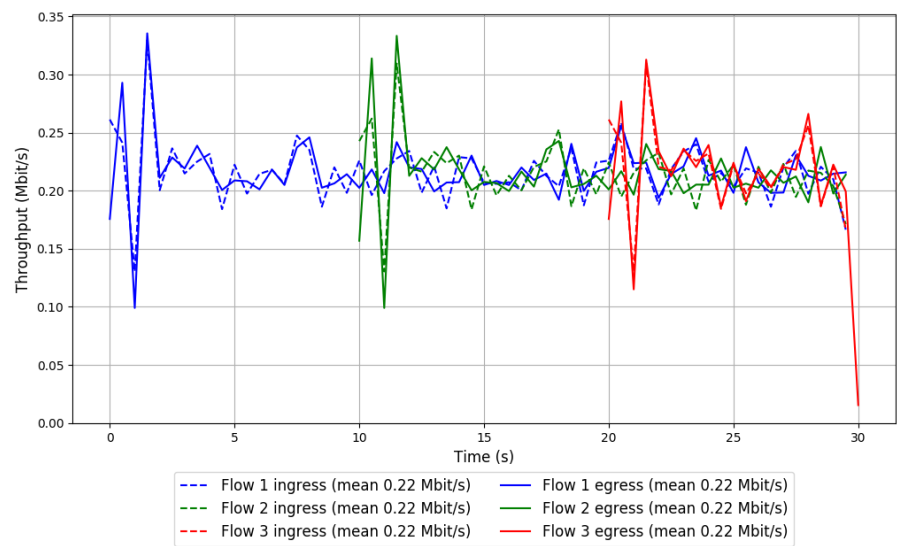
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.963 ms

Loss rate: 0.00%

Run 10: Report of SReAM — Data Link

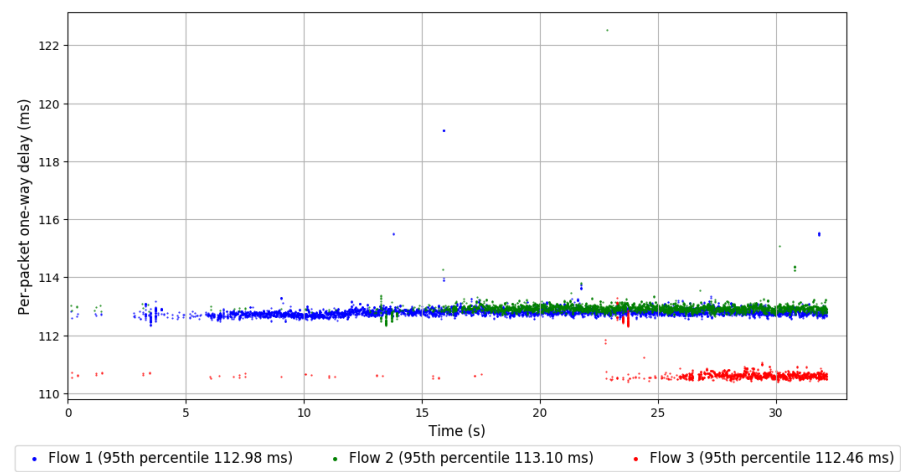
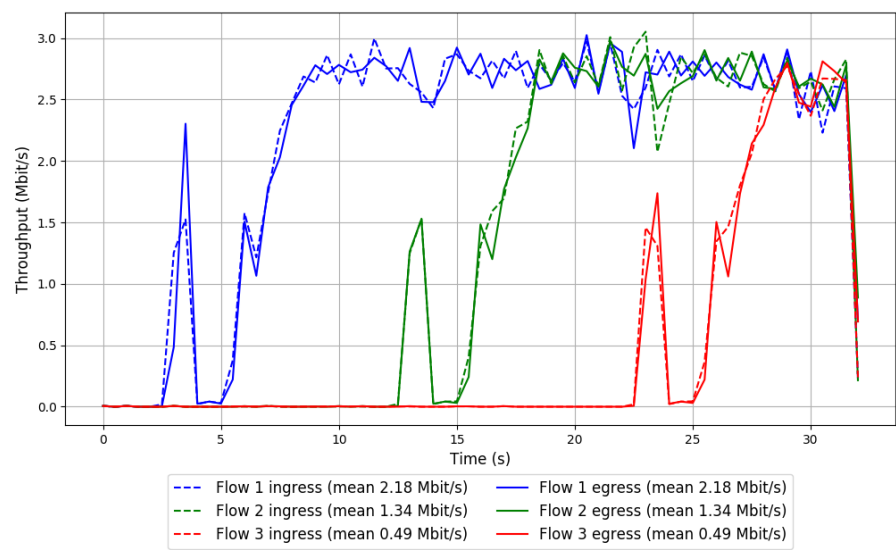


```
Run 1: Statistics of WebRTC media

Start at: 2018-03-21 08:54:39
End at: 2018-03-21 08:55:09

# Below is generated by plot.py at 2018-03-21 14:23:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 113.043 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 112.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 113.098 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 112.456 ms
Loss rate: 0.00%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-21 09:14:08

End at: 2018-03-21 09:14:38

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.85 Mbit/s

95th percentile per-packet one-way delay: 111.593 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 110.787 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 110.947 ms

Loss rate: 0.00%

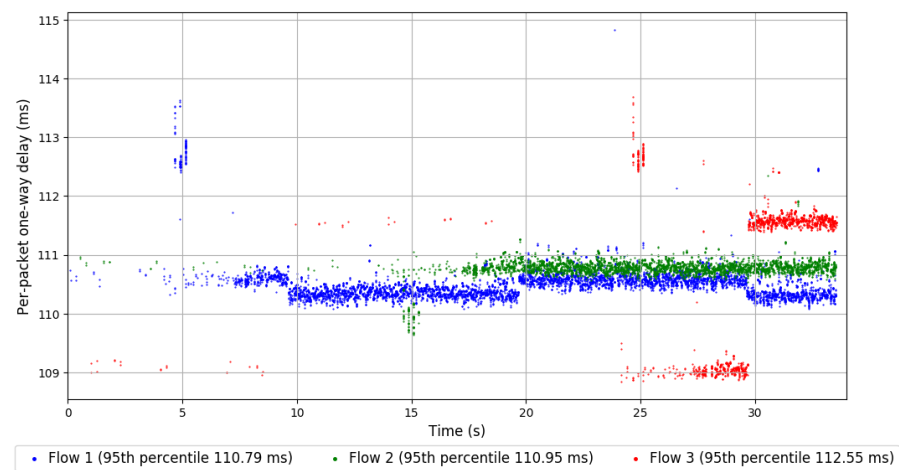
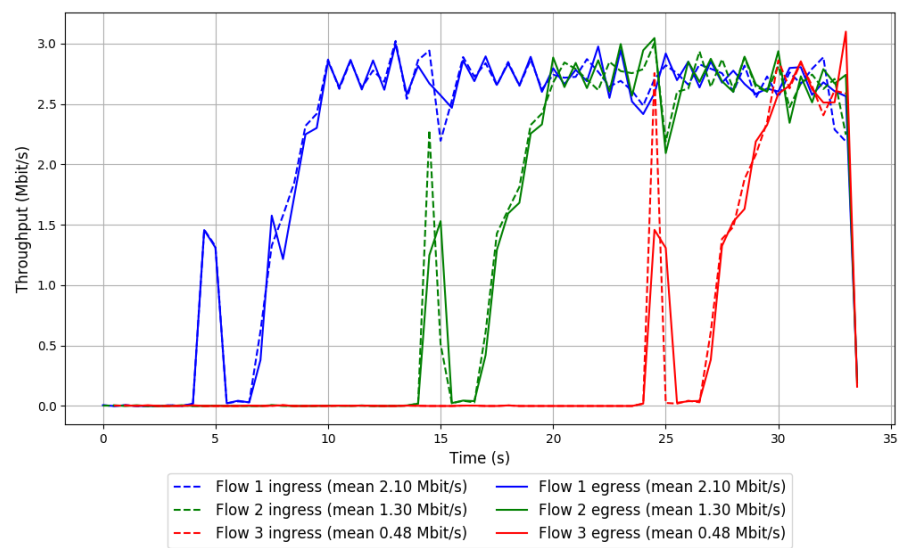
-- Flow 3:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 112.548 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-21 09:33:44

End at: 2018-03-21 09:34:14

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.82 Mbit/s

95th percentile per-packet one-way delay: 112.716 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 112.637 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 109.946 ms

Loss rate: 0.00%

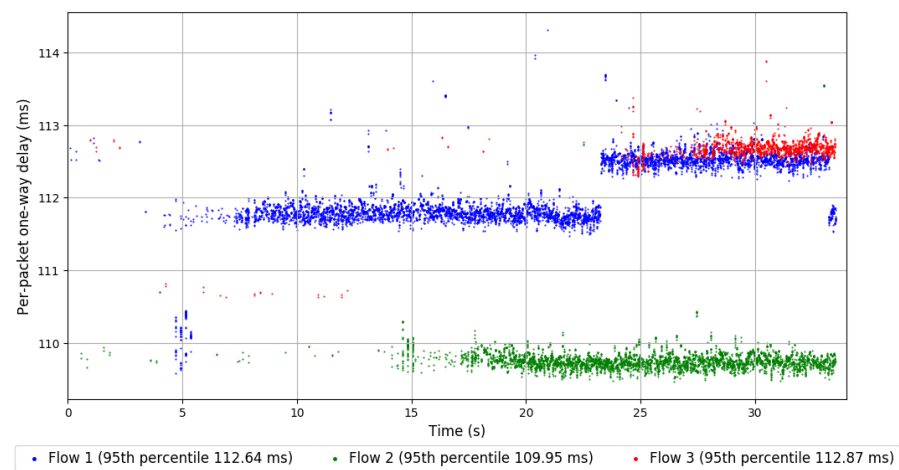
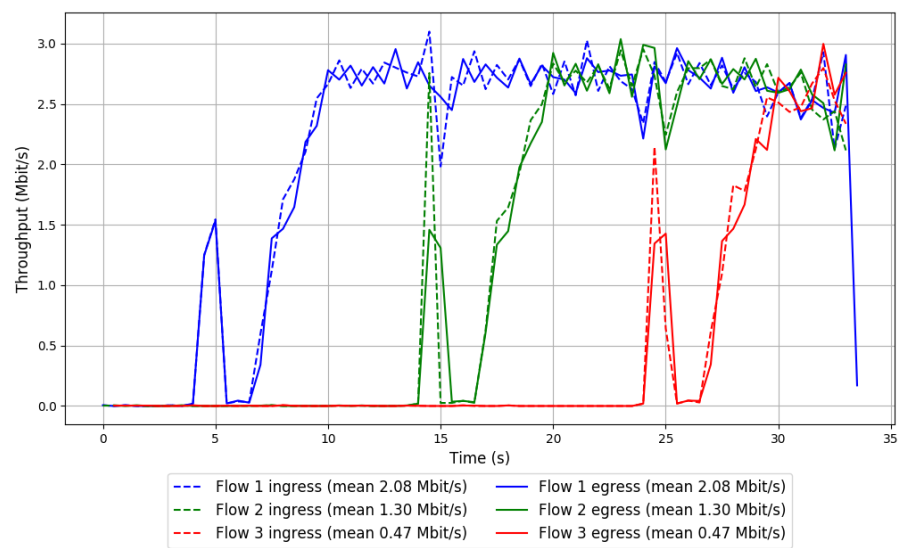
-- Flow 3:

Average throughput: 0.47 Mbit/s

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

Loss rate: 0.06%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-03-21 09:53:05

End at: 2018-03-21 09:53:35

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.85 Mbit/s

95th percentile per-packet one-way delay: 112.916 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 112.950 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 112.646 ms

Loss rate: 0.00%

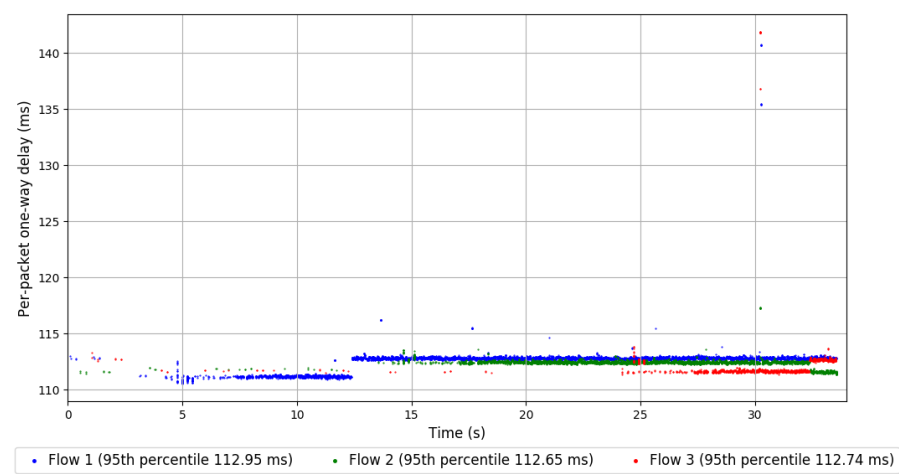
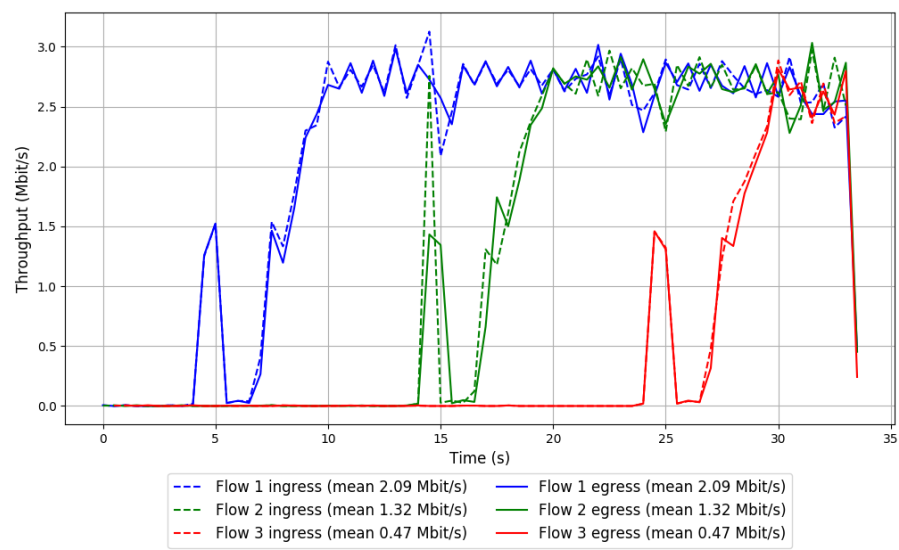
-- Flow 3:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 112.737 ms

Loss rate: 0.06%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-03-21 10:12:25

End at: 2018-03-21 10:12:55

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.73 Mbit/s

95th percentile per-packet one-way delay: 114.954 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 113.186 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 112.575 ms

Loss rate: 0.00%

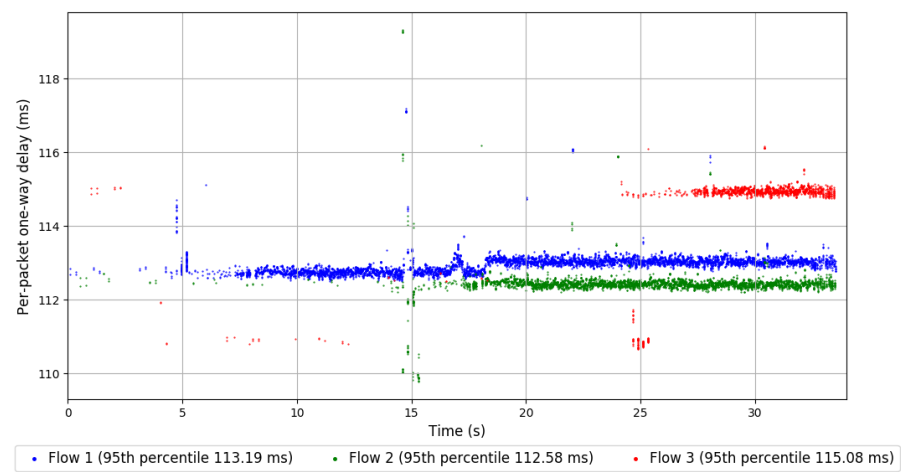
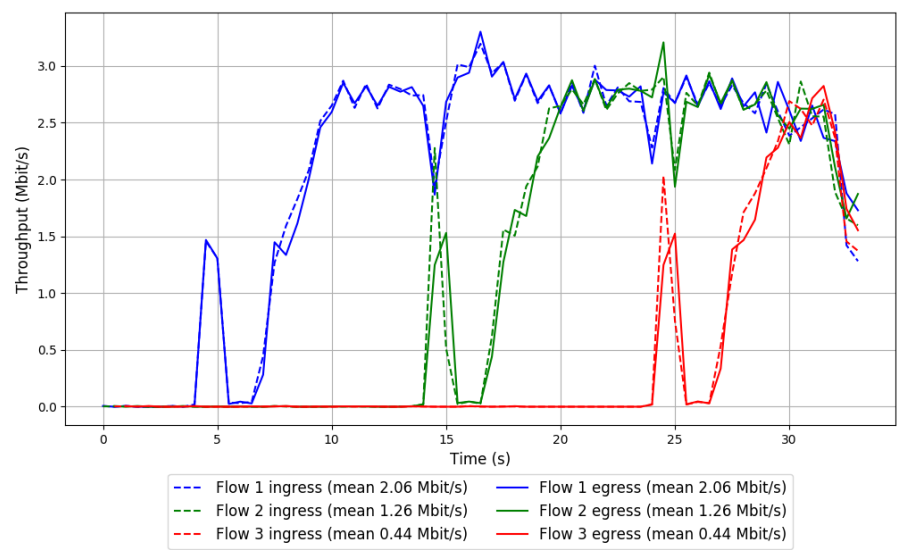
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 115.078 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-03-21 10:31:38

End at: 2018-03-21 10:32:08

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.83 Mbit/s

95th percentile per-packet one-way delay: 113.027 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 113.094 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 112.576 ms

Loss rate: 0.00%

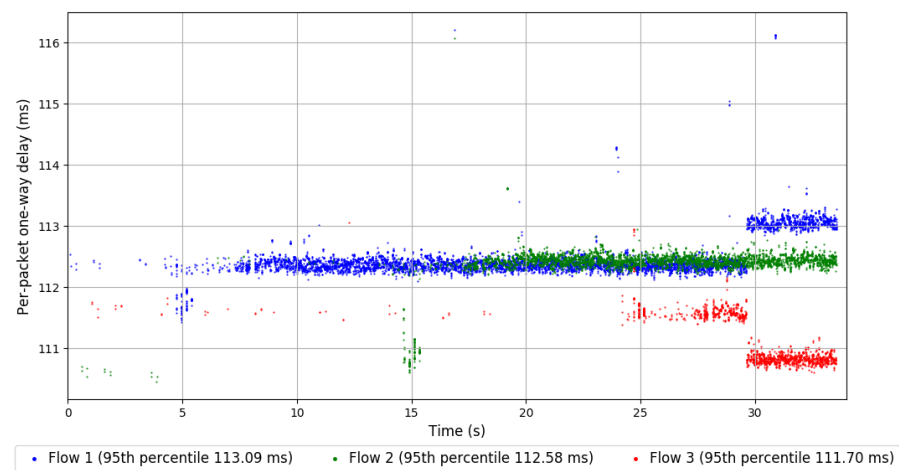
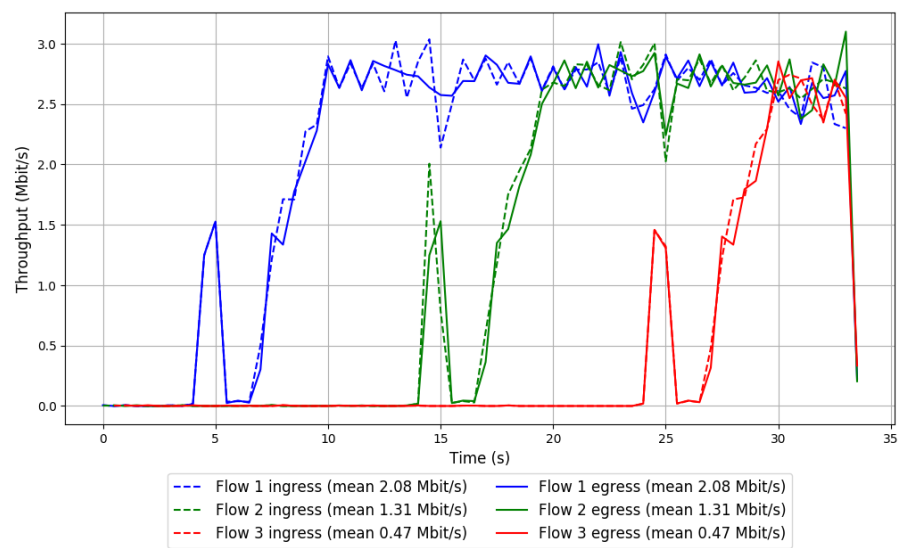
-- Flow 3:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 111.702 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-03-21 10:51:00

End at: 2018-03-21 10:51:30

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.81 Mbit/s

95th percentile per-packet one-way delay: 112.701 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 112.723 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 111.032 ms

Loss rate: 0.00%

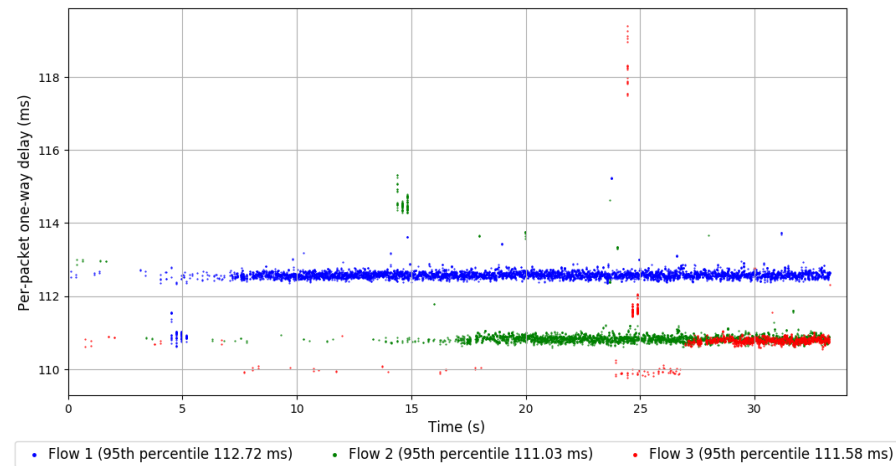
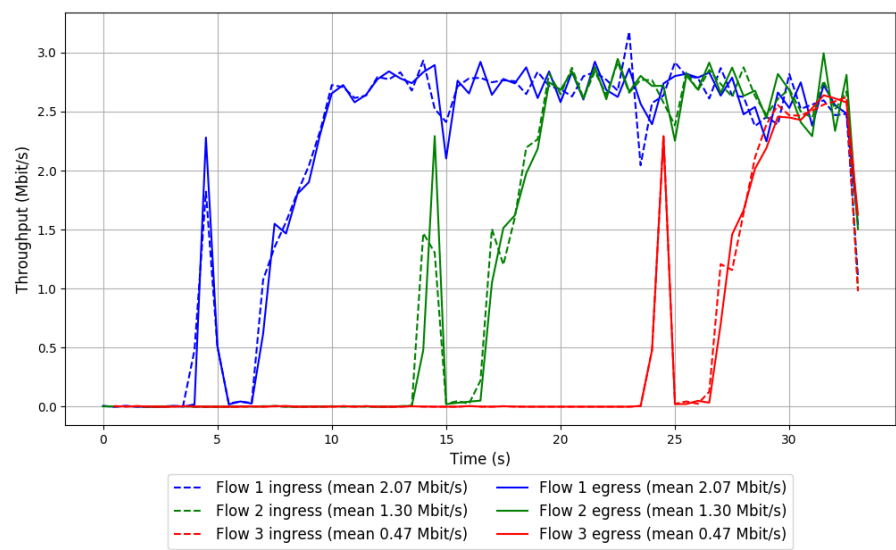
-- Flow 3:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 111.580 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-03-21 11:10:34

End at: 2018-03-21 11:11:04

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.81 Mbit/s

95th percentile per-packet one-way delay: 112.019 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 111.880 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.29 Mbit/s

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

Loss rate: 0.00%

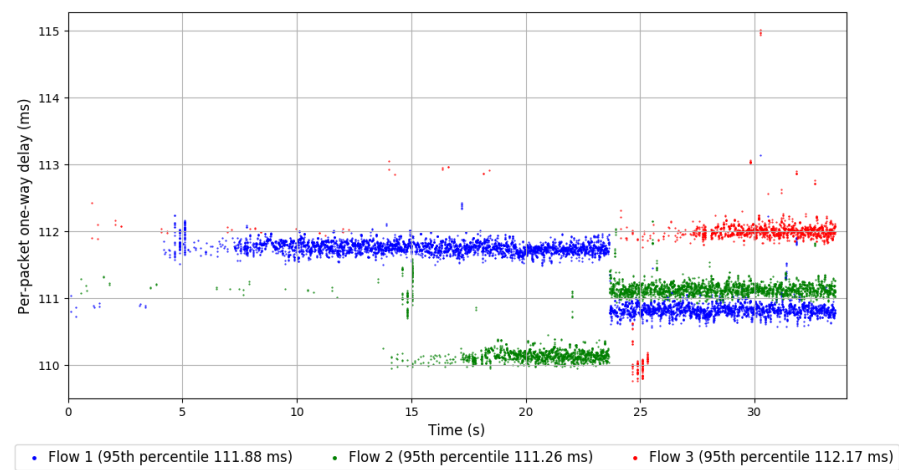
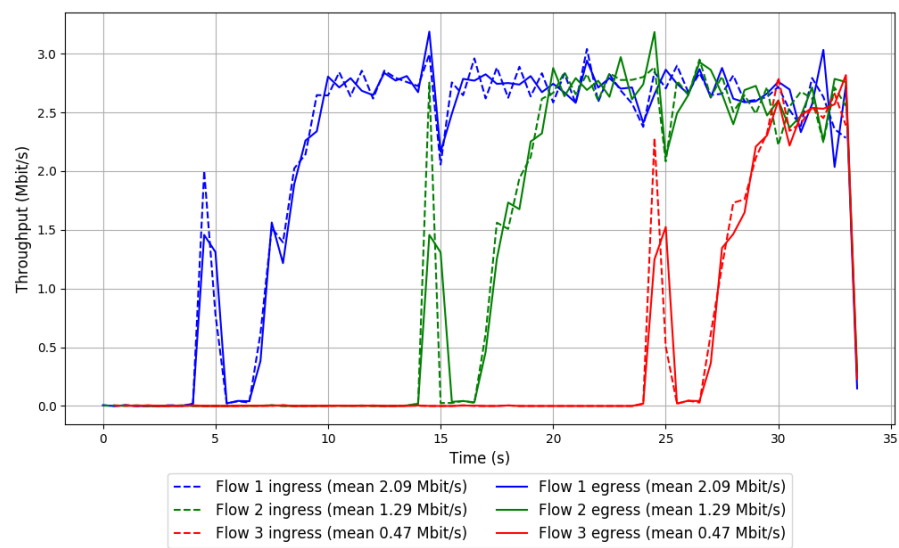
-- Flow 3:

Average throughput: 0.47 Mbit/s

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

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-03-21 11:29:55

End at: 2018-03-21 11:30:25

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.77 Mbit/s

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

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 112.928 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 111.156 ms

Loss rate: 0.00%

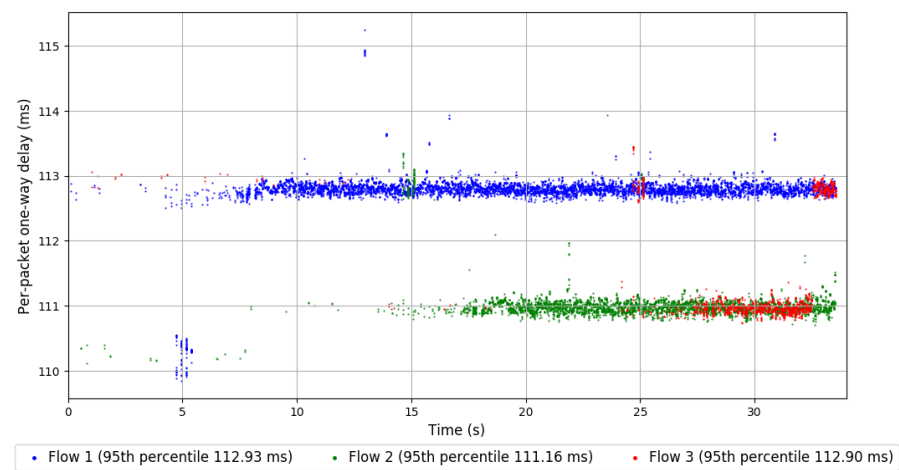
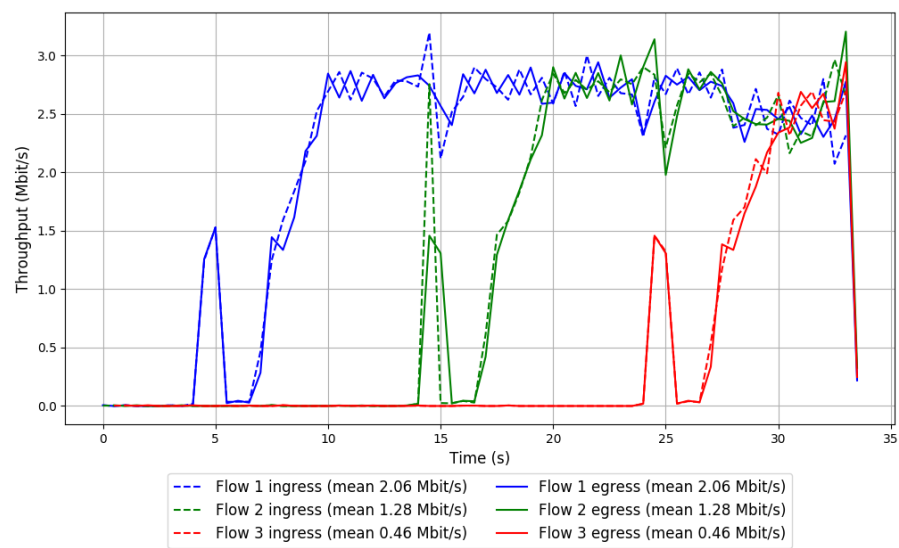
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 112.900 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-03-21 11:49:38

End at: 2018-03-21 11:50:08

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.82 Mbit/s

95th percentile per-packet one-way delay: 112.936 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 112.967 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 111.225 ms

Loss rate: 0.00%

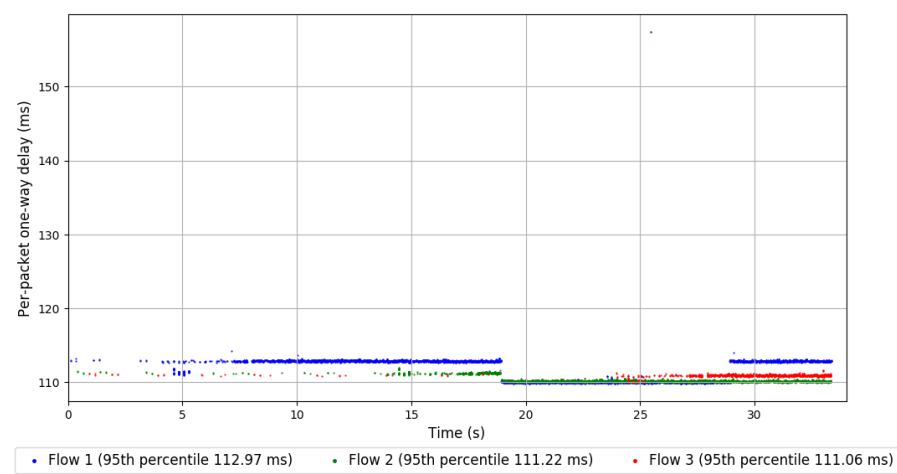
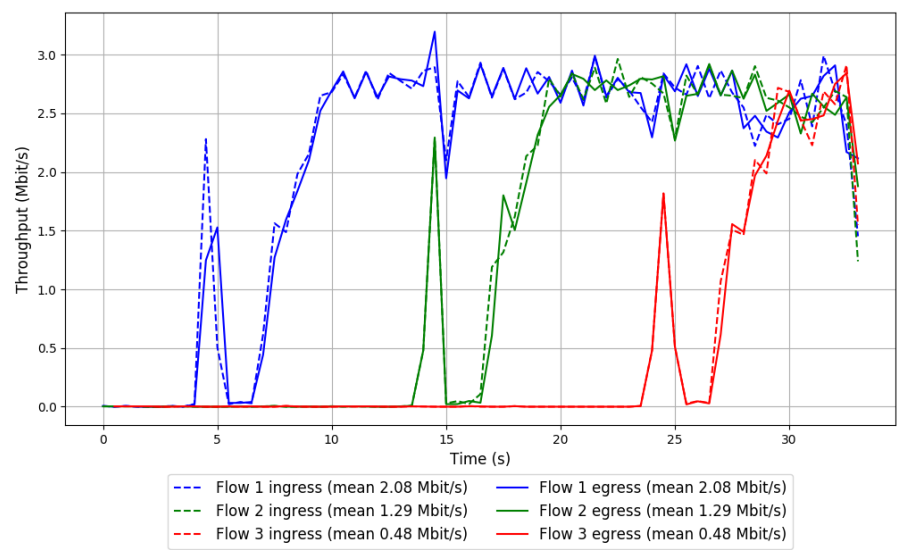
-- Flow 3:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 111.056 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

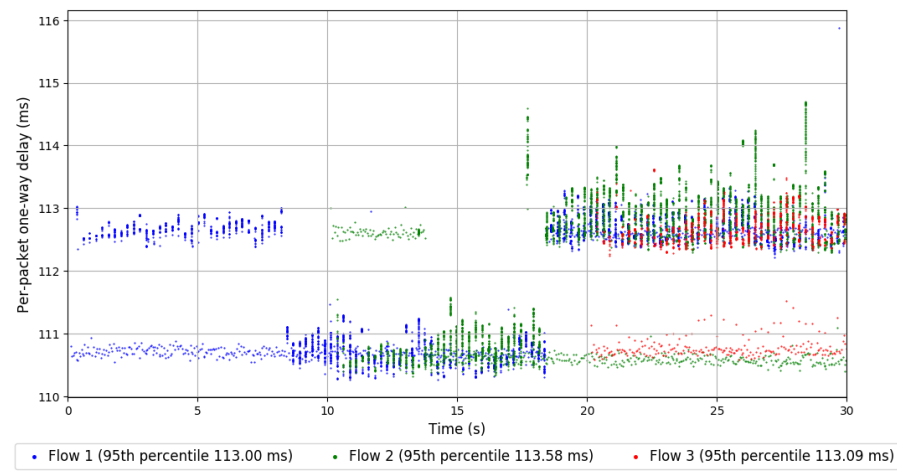
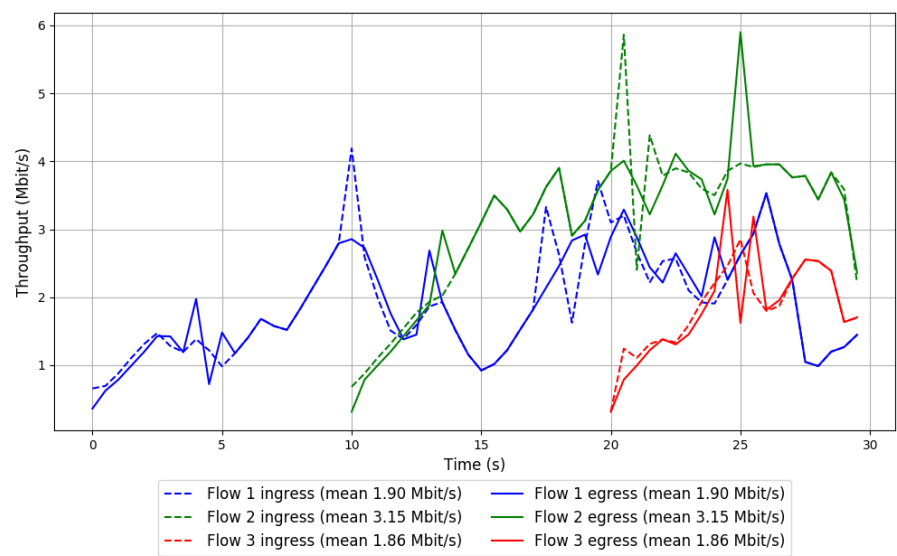


```
Run 1: Statistics of Sprout

Start at: 2018-03-21 08:41:55
End at: 2018-03-21 08:42:25

# Below is generated by plot.py at 2018-03-21 14:23:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.60 Mbit/s
95th percentile per-packet one-way delay: 113.301 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 113.002 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 113.577 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 113.093 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-03-21 09:01:22

End at: 2018-03-21 09:01:52

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.41 Mbit/s

95th percentile per-packet one-way delay: 113.186 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.55 Mbit/s

95th percentile per-packet one-way delay: 113.184 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 113.280 ms

Loss rate: 0.00%

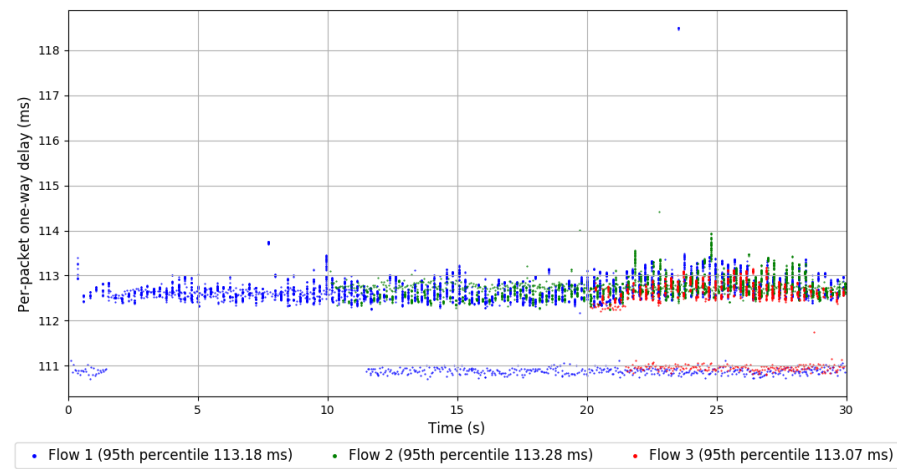
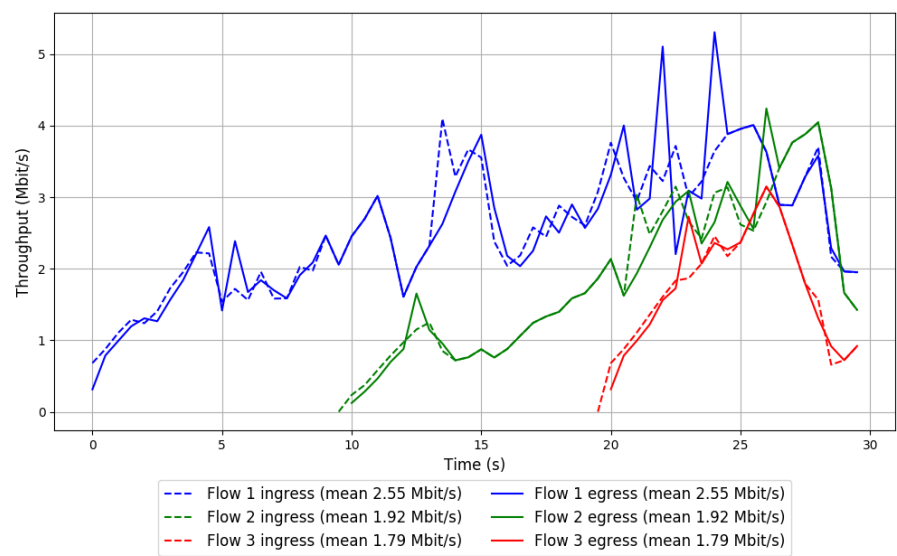
-- Flow 3:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 113.070 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-03-21 09:20:48

End at: 2018-03-21 09:21:18

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.62 Mbit/s

95th percentile per-packet one-way delay: 112.268 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 112.324 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.56 Mbit/s

95th percentile per-packet one-way delay: 112.264 ms

Loss rate: 0.00%

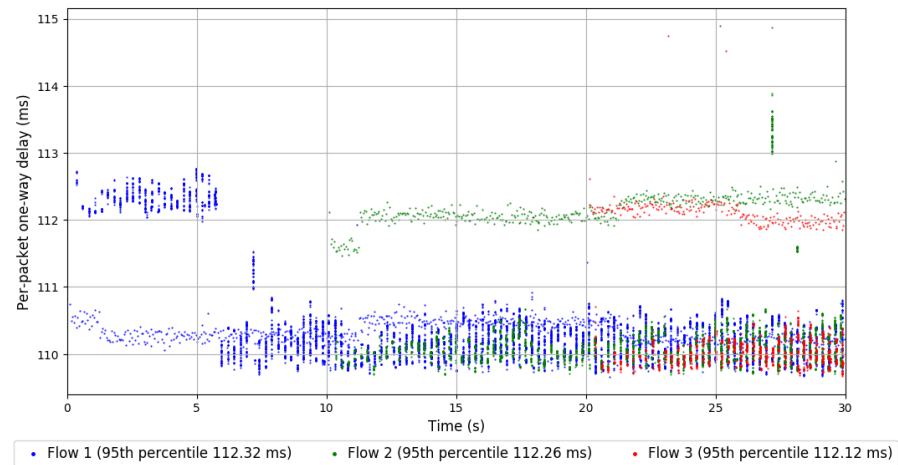
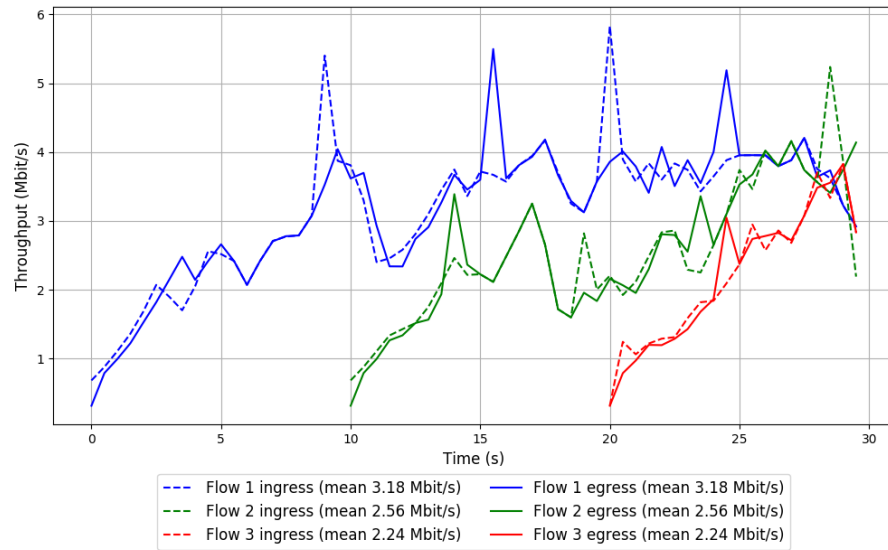
-- Flow 3:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 112.124 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-03-21 09:40:33

End at: 2018-03-21 09:41:03

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.51 Mbit/s

95th percentile per-packet one-way delay: 112.527 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.660 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.82 Mbit/s

95th percentile per-packet one-way delay: 111.508 ms

Loss rate: 0.00%

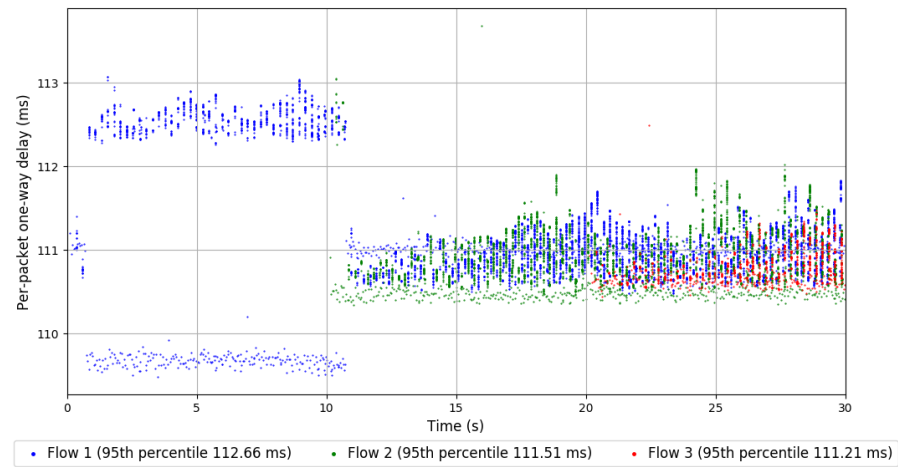
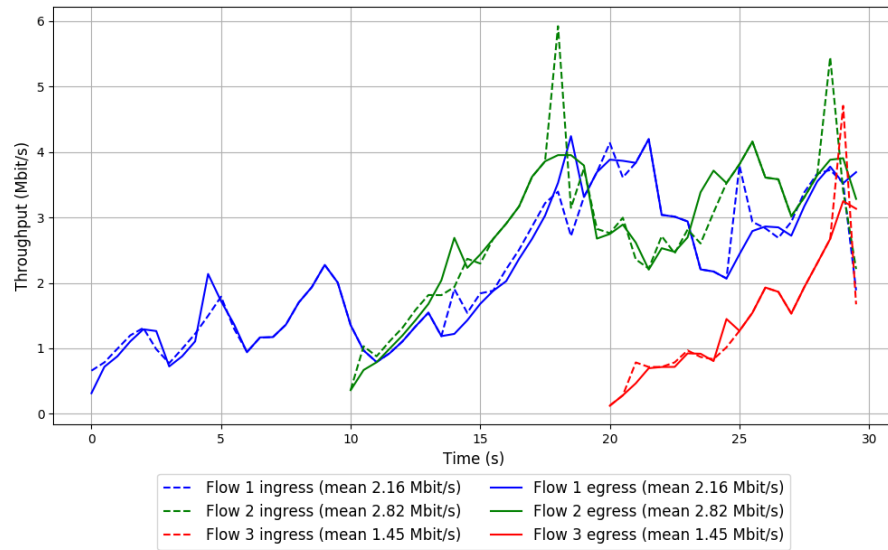
-- Flow 3:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 111.213 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-03-21 09:59:41

End at: 2018-03-21 10:00:11

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.95 Mbit/s

95th percentile per-packet one-way delay: 113.065 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.37 Mbit/s

95th percentile per-packet one-way delay: 113.179 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.94 Mbit/s

95th percentile per-packet one-way delay: 112.660 ms

Loss rate: 0.00%

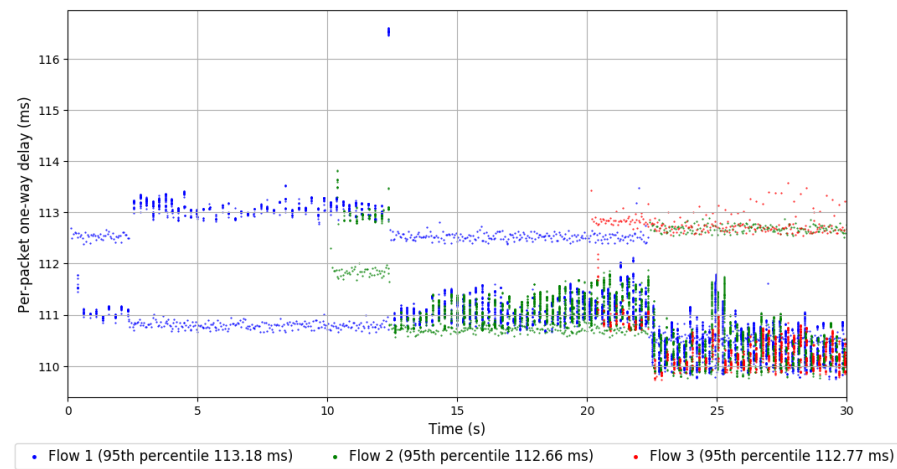
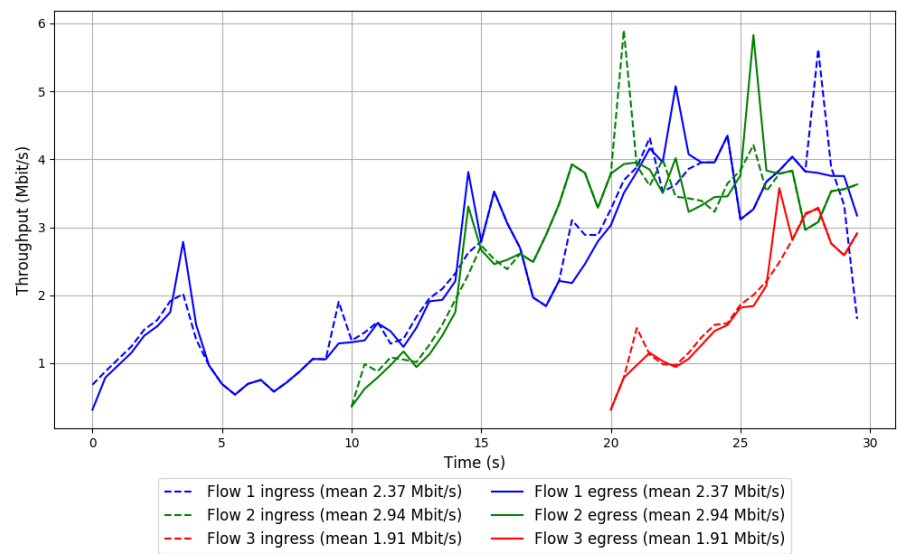
-- Flow 3:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 112.772 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-03-21 10:18:59

End at: 2018-03-21 10:19:29

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.28 Mbit/s

95th percentile per-packet one-way delay: 113.487 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.74 Mbit/s

95th percentile per-packet one-way delay: 113.239 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.89 Mbit/s

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

Loss rate: 0.00%

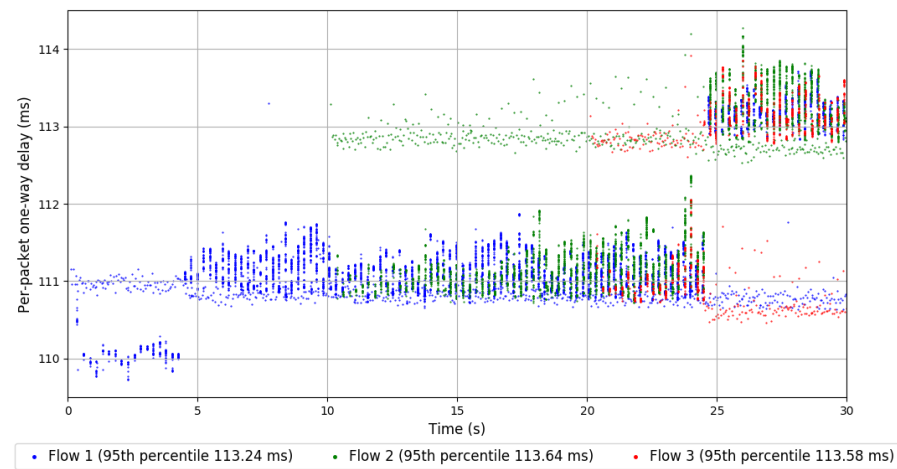
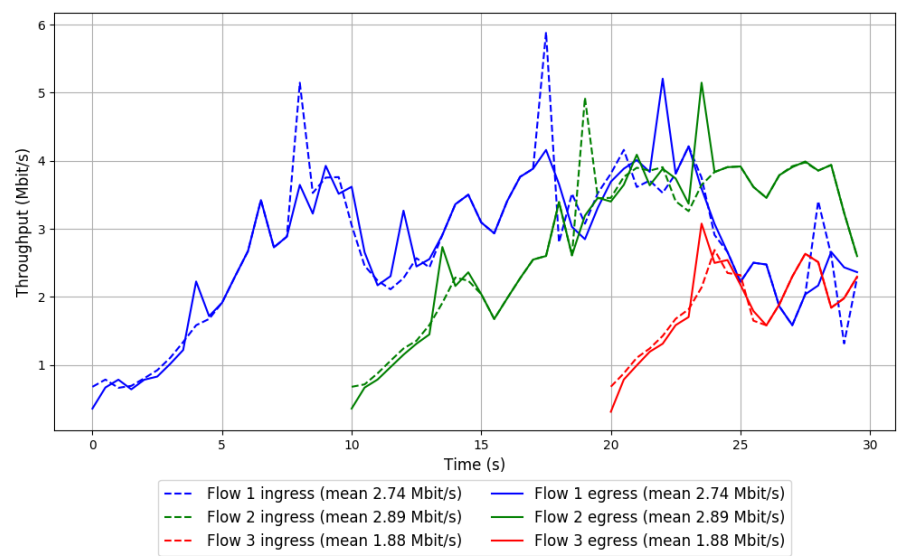
-- Flow 3:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 113.580 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-03-21 10:38:13

End at: 2018-03-21 10:38:43

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.98 Mbit/s

95th percentile per-packet one-way delay: 114.908 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 114.840 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 115.028 ms

Loss rate: 0.00%

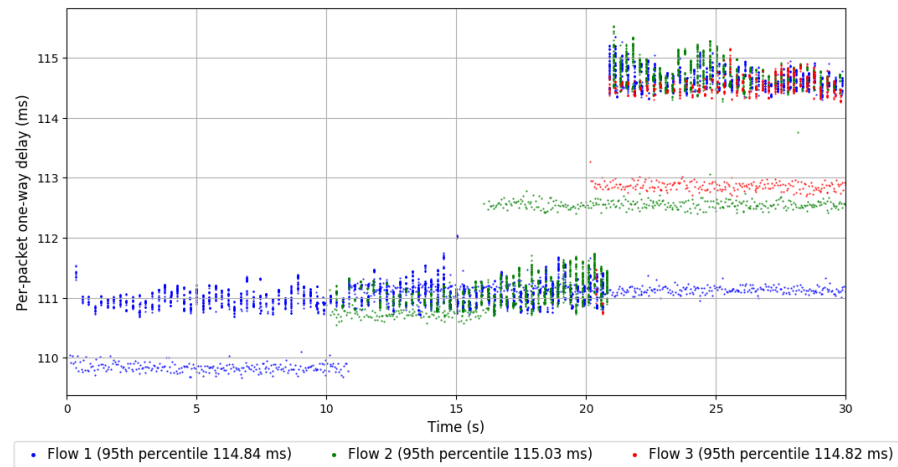
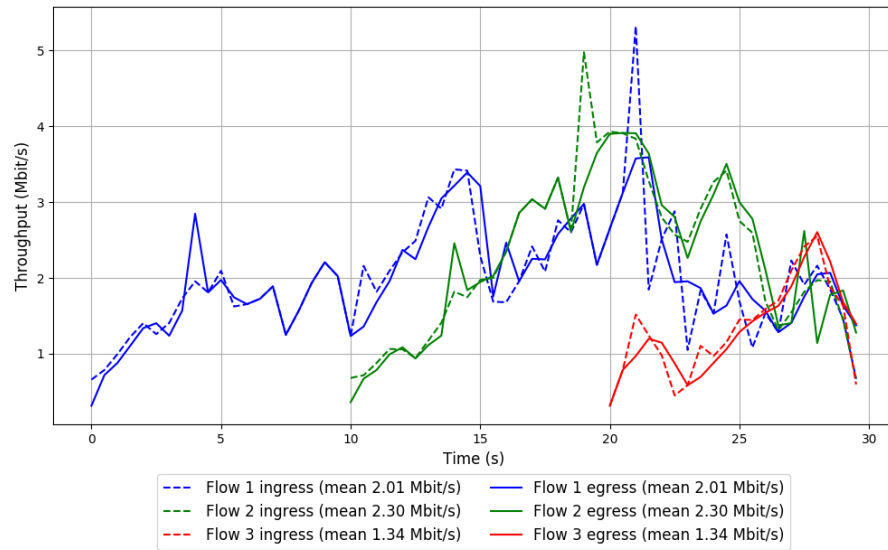
-- Flow 3:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 114.818 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-03-21 10:57:55

End at: 2018-03-21 10:58:25

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 115.007 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.44 Mbit/s

95th percentile per-packet one-way delay: 115.074 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 114.784 ms

Loss rate: 0.00%

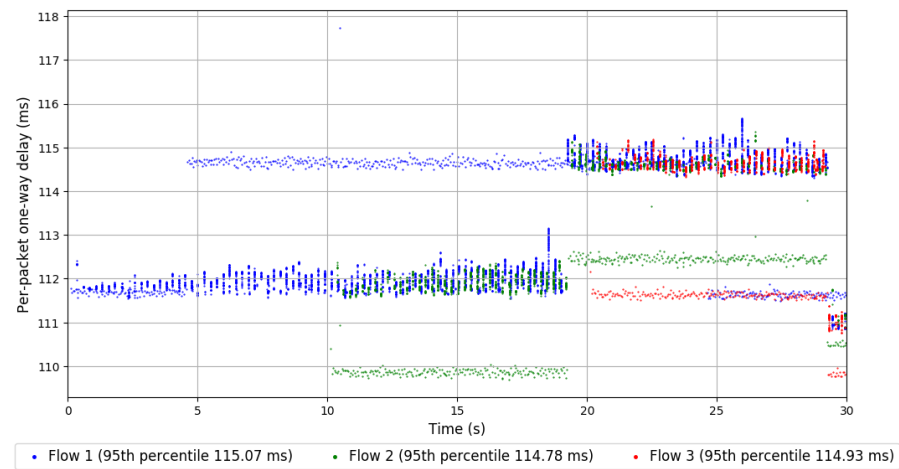
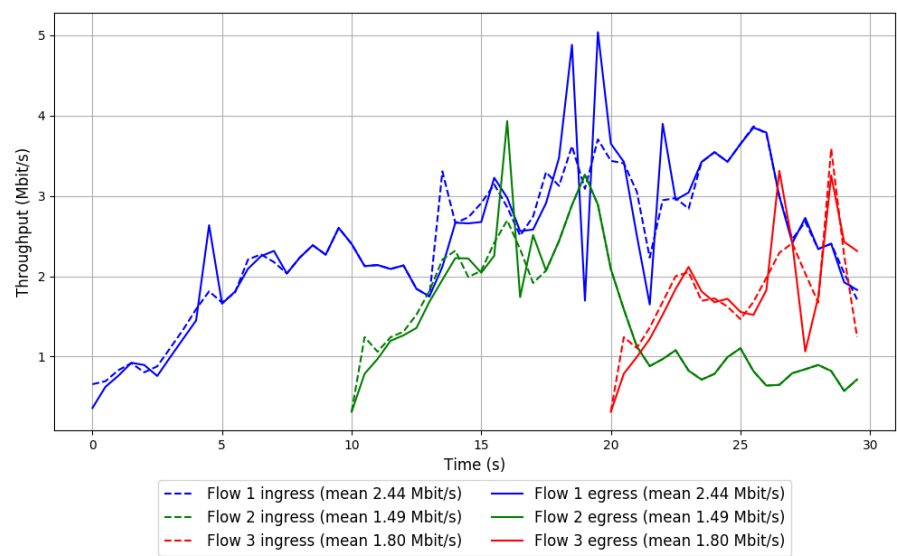
-- Flow 3:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 114.931 ms

Loss rate: 0.00%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-03-21 11:17:07

End at: 2018-03-21 11:17:37

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.41 Mbit/s

95th percentile per-packet one-way delay: 112.584 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.10 Mbit/s

95th percentile per-packet one-way delay: 112.572 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 112.491 ms

Loss rate: 0.00%

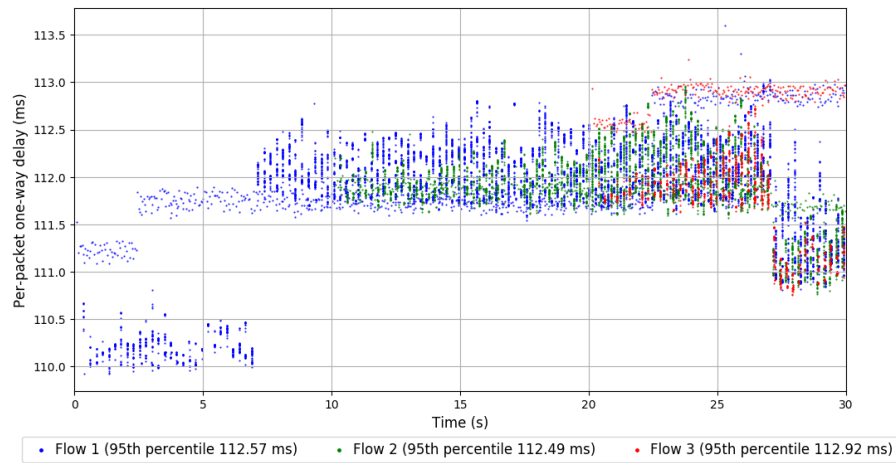
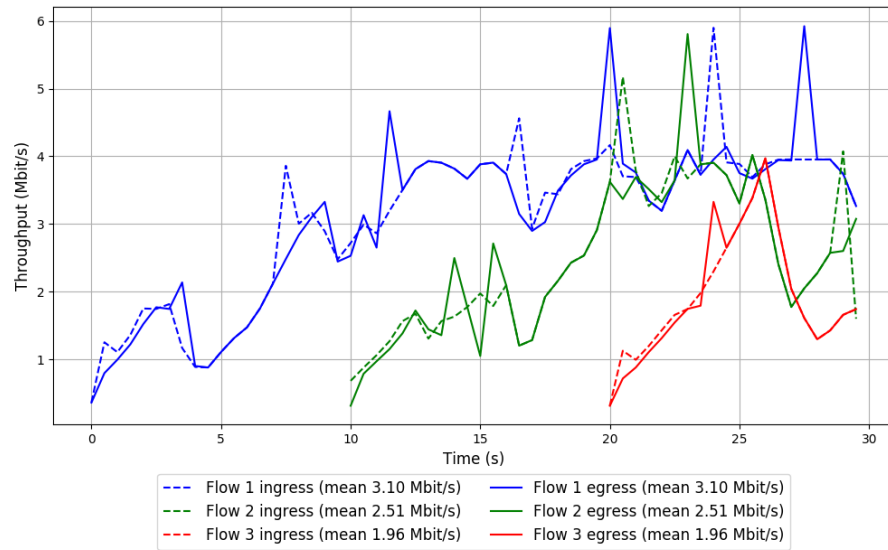
-- Flow 3:

Average throughput: 1.96 Mbit/s

95th percentile per-packet one-way delay: 112.916 ms

Loss rate: 0.00%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-03-21 11:36:46

End at: 2018-03-21 11:37:16

Below is generated by plot.py at 2018-03-21 14:23:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.78 Mbit/s

95th percentile per-packet one-way delay: 113.471 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.93 Mbit/s

95th percentile per-packet one-way delay: 113.497 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 113.401 ms

Loss rate: 0.00%

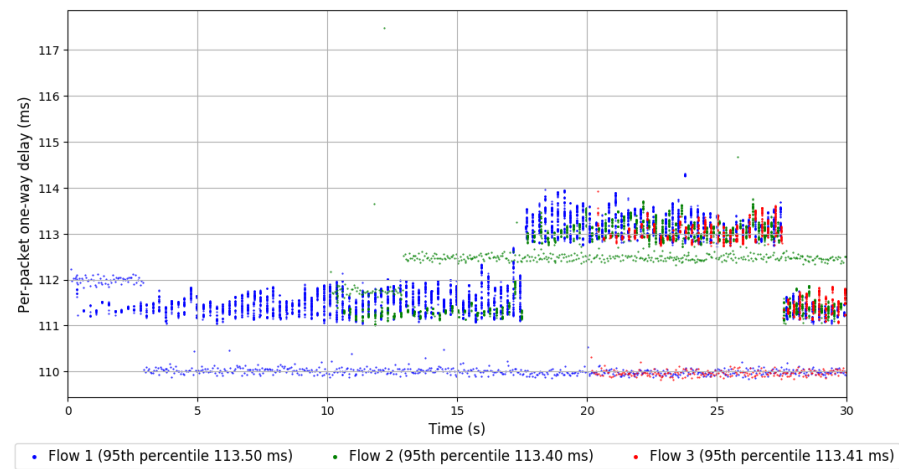
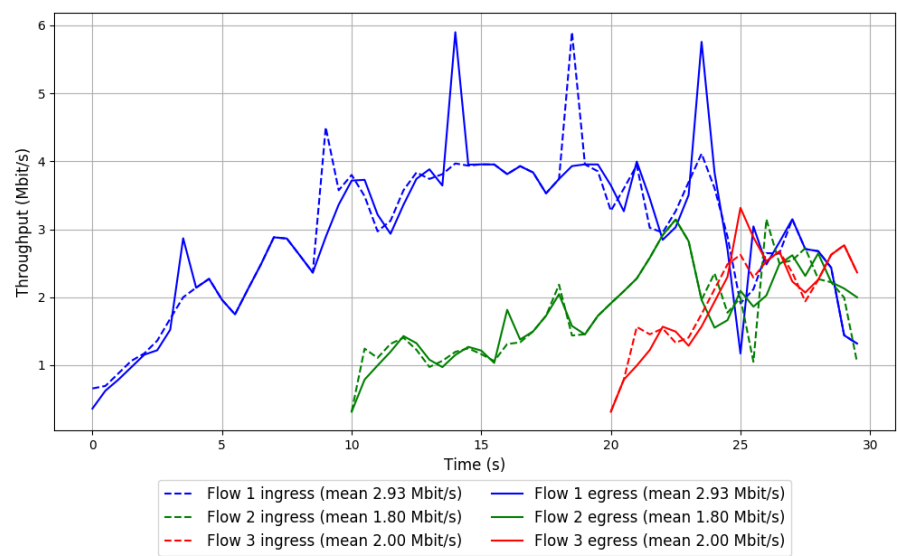
-- Flow 3:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 113.412 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

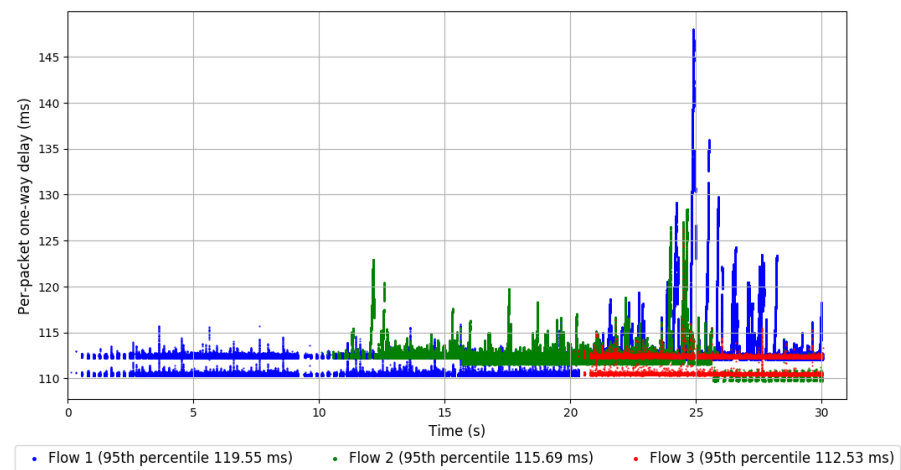
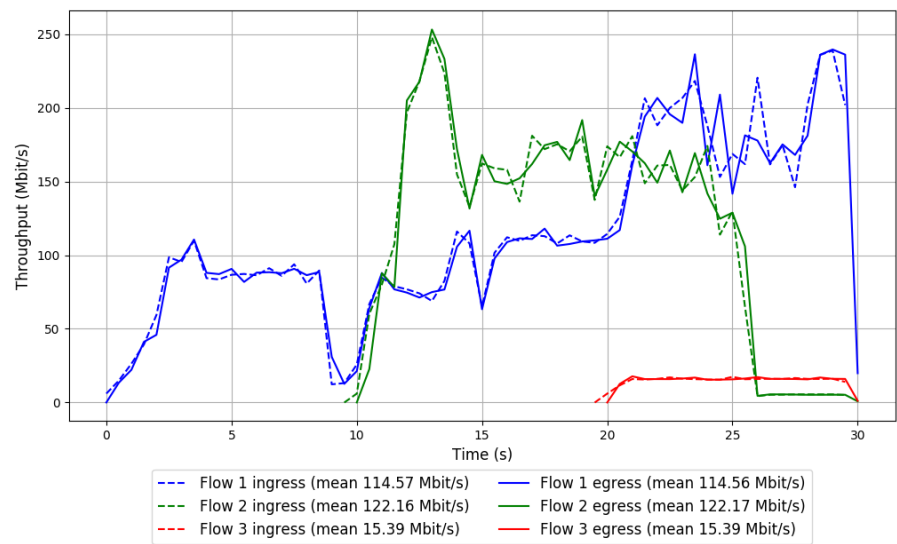


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-21 08:57:13
End at: 2018-03-21 08:57:43

# Below is generated by plot.py at 2018-03-21 14:23:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 201.06 Mbit/s
95th percentile per-packet one-way delay: 117.783 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 114.56 Mbit/s
95th percentile per-packet one-way delay: 119.548 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 122.17 Mbit/s
95th percentile per-packet one-way delay: 115.687 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.39 Mbit/s
95th percentile per-packet one-way delay: 112.533 ms
Loss rate: 0.00%
```


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

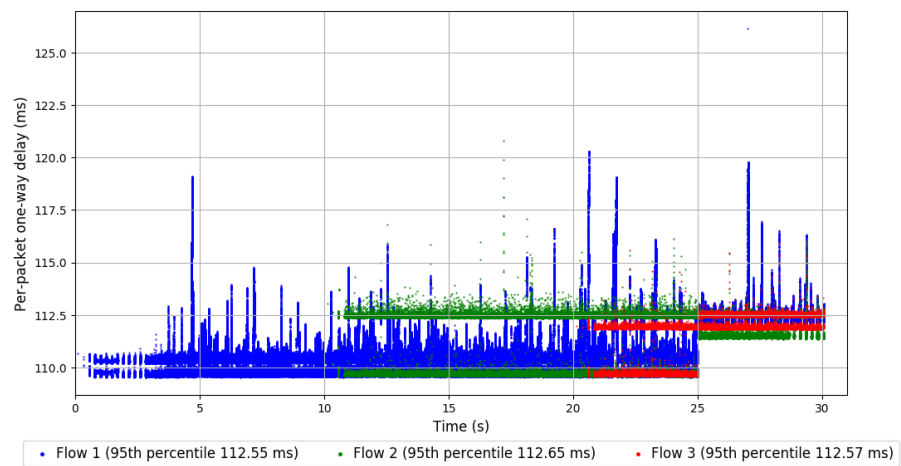
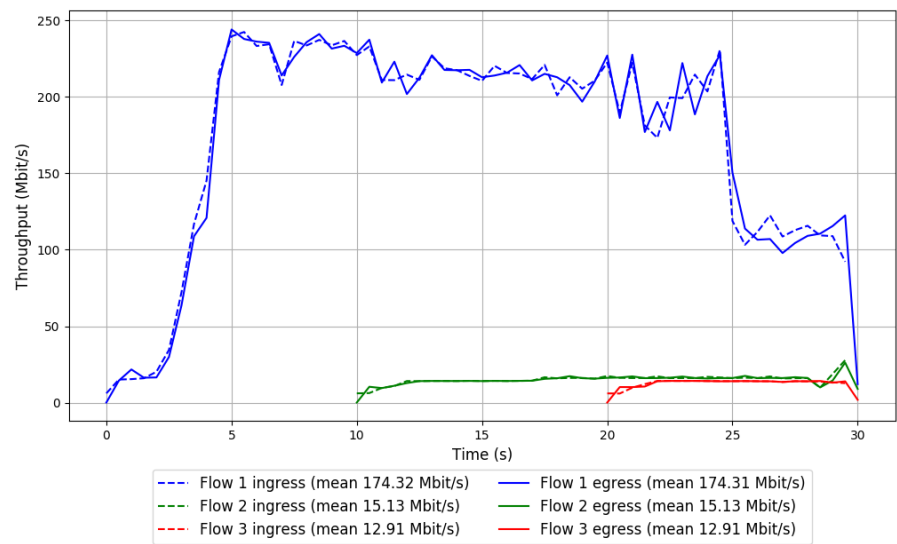


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-21 09:16:39
End at: 2018-03-21 09:17:09

# Below is generated by plot.py at 2018-03-21 14:23:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 188.65 Mbit/s
95th percentile per-packet one-way delay: 112.562 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 174.31 Mbit/s
95th percentile per-packet one-way delay: 112.547 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.13 Mbit/s
95th percentile per-packet one-way delay: 112.650 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.91 Mbit/s
95th percentile per-packet one-way delay: 112.566 ms
Loss rate: 0.00%
```

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

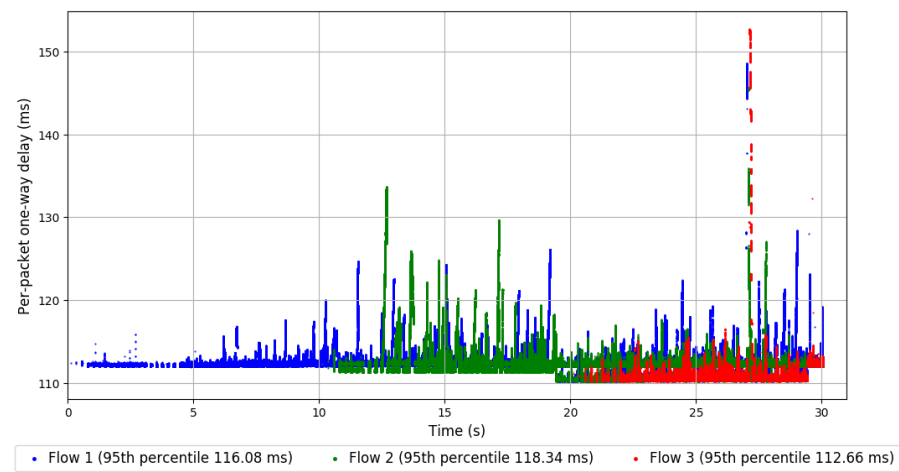
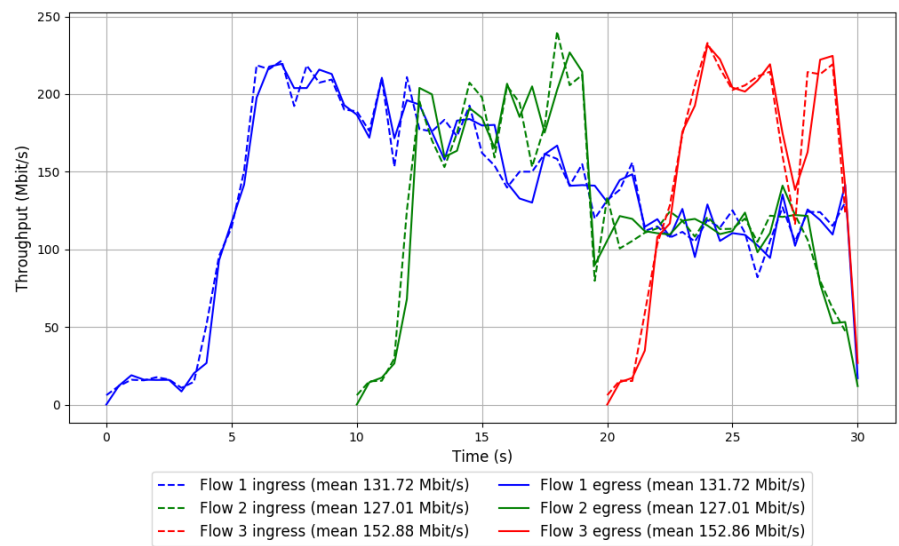


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-21 09:36:14
End at: 2018-03-21 09:36:44

# Below is generated by plot.py at 2018-03-21 14:26:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 266.90 Mbit/s
95th percentile per-packet one-way delay: 116.258 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 131.72 Mbit/s
95th percentile per-packet one-way delay: 116.078 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 127.01 Mbit/s
95th percentile per-packet one-way delay: 118.337 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 152.86 Mbit/s
95th percentile per-packet one-way delay: 112.661 ms
Loss rate: 0.00%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-03-21 09:55:35

End at: 2018-03-21 09:56:05

Below is generated by plot.py at 2018-03-21 14:26:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.30 Mbit/s

95th percentile per-packet one-way delay: 113.070 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 41.00 Mbit/s

95th percentile per-packet one-way delay: 112.711 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 135.31 Mbit/s

95th percentile per-packet one-way delay: 113.404 ms

Loss rate: 0.01%

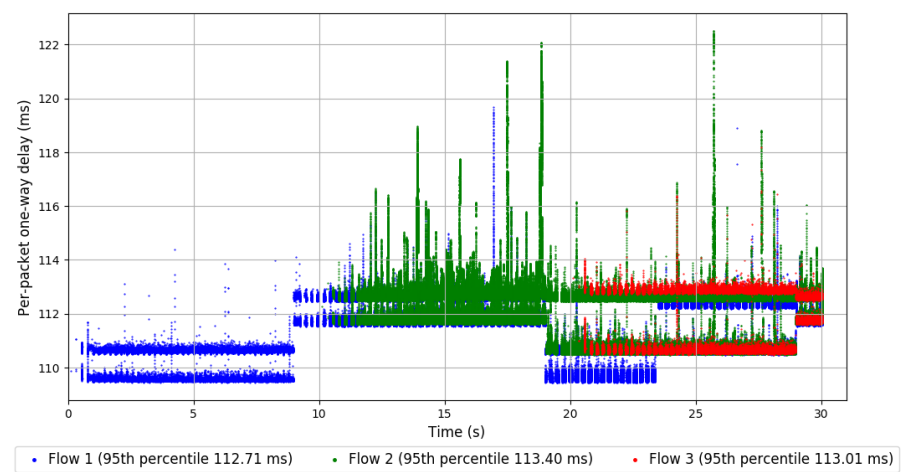
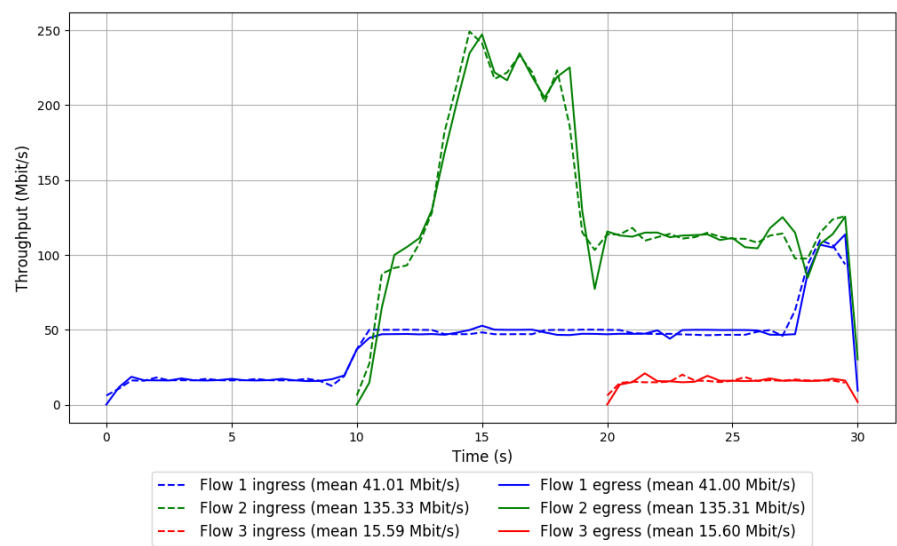
-- Flow 3:

Average throughput: 15.60 Mbit/s

95th percentile per-packet one-way delay: 113.010 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-03-21 10:14:53

End at: 2018-03-21 10:15:23

Below is generated by plot.py at 2018-03-21 14:26:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 147.63 Mbit/s

95th percentile per-packet one-way delay: 128.158 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 26.44 Mbit/s

95th percentile per-packet one-way delay: 112.822 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 120.51 Mbit/s

95th percentile per-packet one-way delay: 131.478 ms

Loss rate: 0.00%

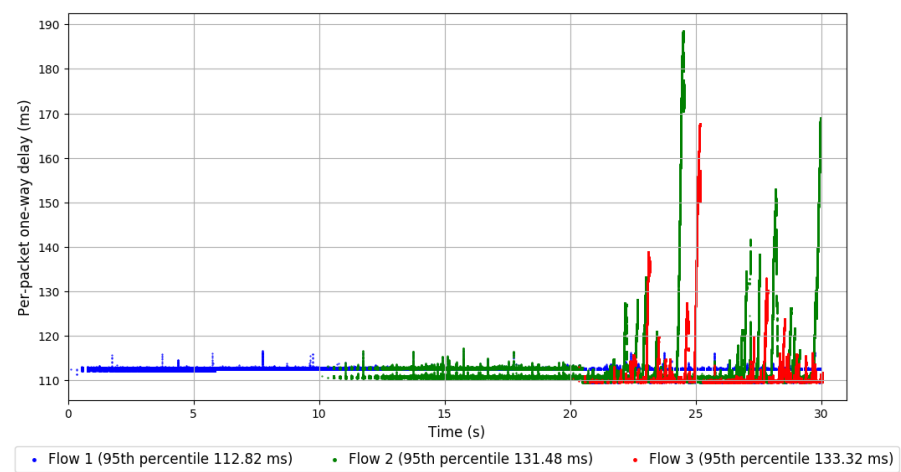
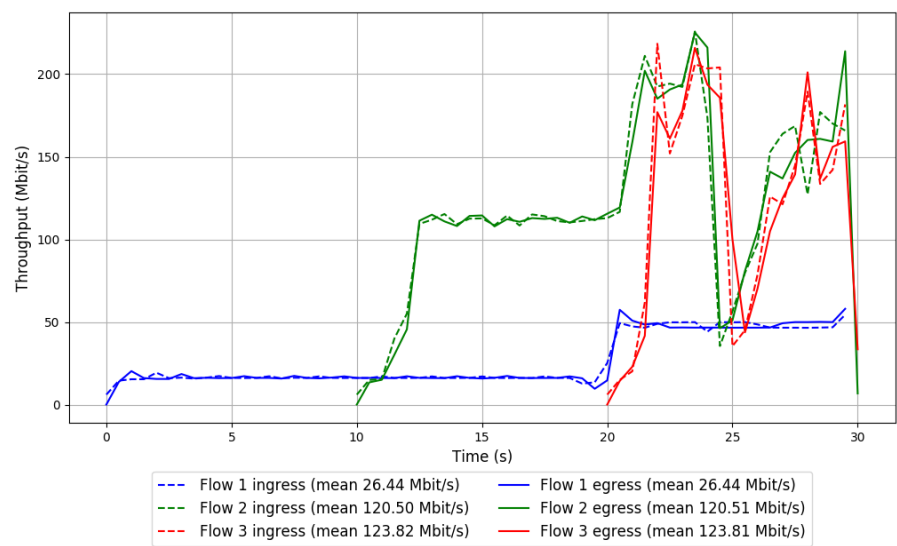
-- Flow 3:

Average throughput: 123.81 Mbit/s

95th percentile per-packet one-way delay: 133.323 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-21 10:34:08

End at: 2018-03-21 10:34:38

Below is generated by plot.py at 2018-03-21 14:26:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 158.27 Mbit/s

95th percentile per-packet one-way delay: 112.936 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 43.13 Mbit/s

95th percentile per-packet one-way delay: 113.052 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 164.91 Mbit/s

95th percentile per-packet one-way delay: 111.695 ms

Loss rate: 0.01%

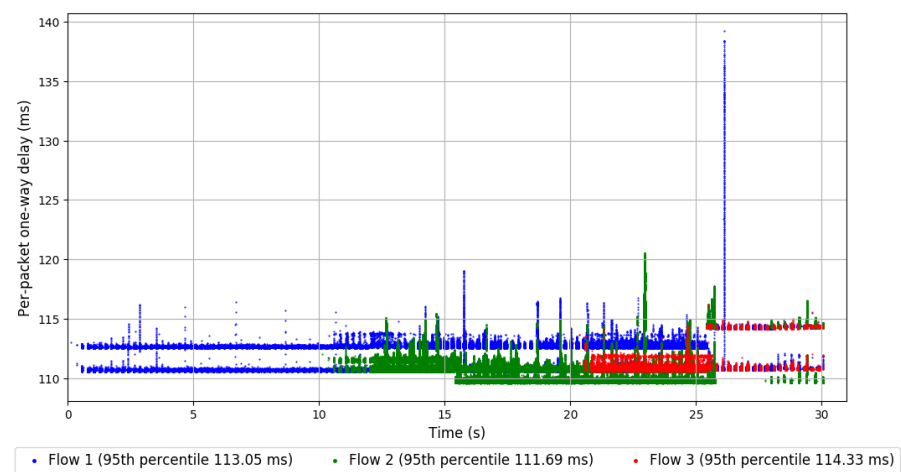
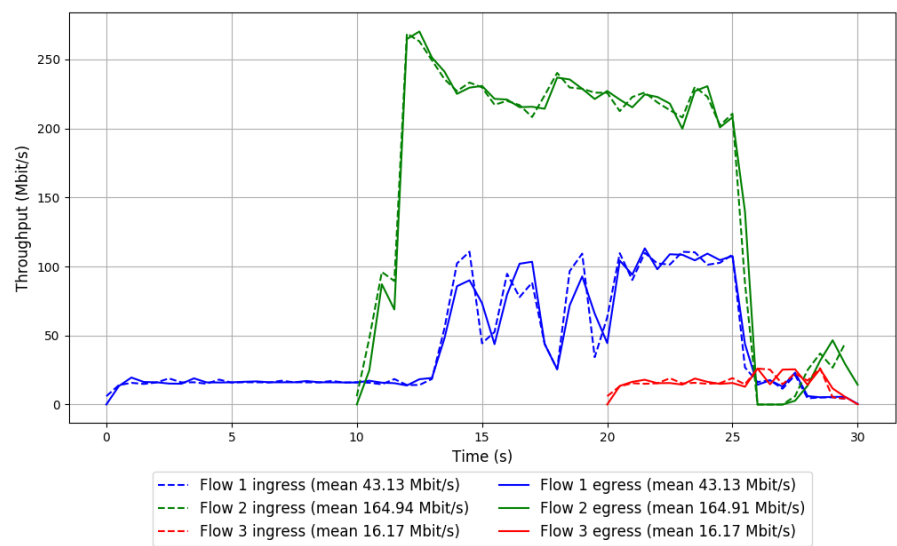
-- Flow 3:

Average throughput: 16.17 Mbit/s

95th percentile per-packet one-way delay: 114.331 ms

Loss rate: 0.01%

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

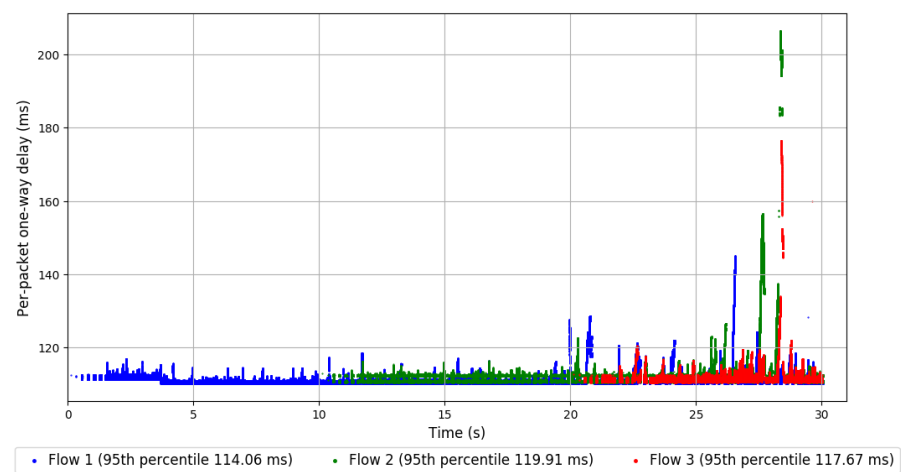
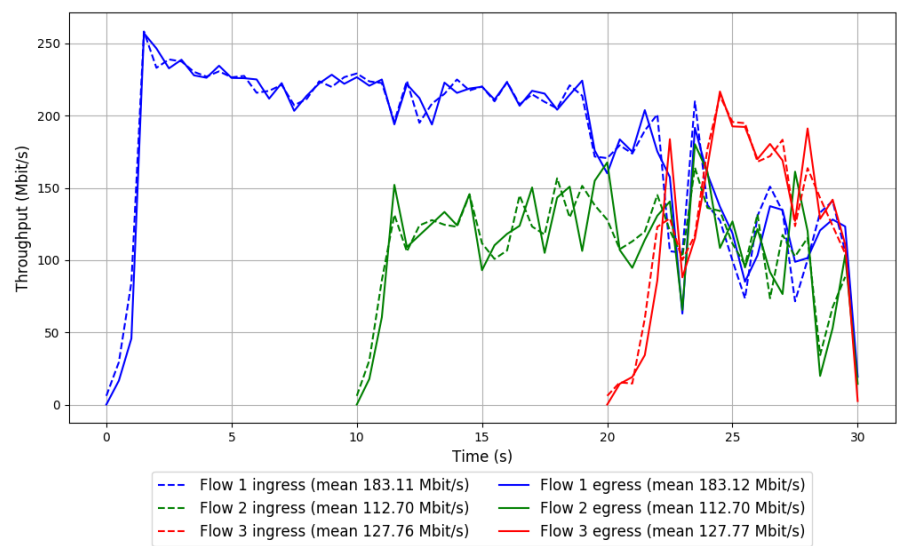


```
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-21 10:53:30
End at: 2018-03-21 10:54:00

# Below is generated by plot.py at 2018-03-21 14:31:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 300.35 Mbit/s
95th percentile per-packet one-way delay: 115.574 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 183.12 Mbit/s
95th percentile per-packet one-way delay: 114.065 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 112.70 Mbit/s
95th percentile per-packet one-way delay: 119.905 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 127.77 Mbit/s
95th percentile per-packet one-way delay: 117.671 ms
Loss rate: 0.00%
```

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-21 11:13:03

End at: 2018-03-21 11:13:33

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 129.57 Mbit/s

95th percentile per-packet one-way delay: 112.578 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 16.05 Mbit/s

95th percentile per-packet one-way delay: 112.917 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 162.64 Mbit/s

95th percentile per-packet one-way delay: 111.179 ms

Loss rate: 0.00%

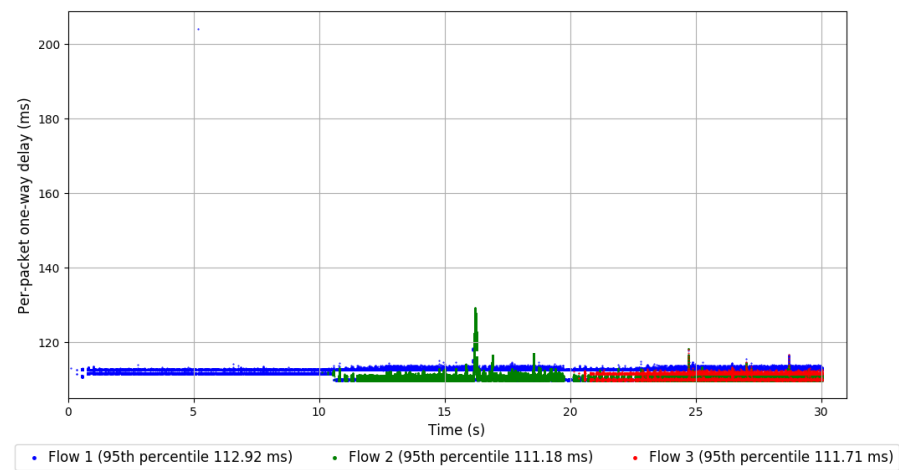
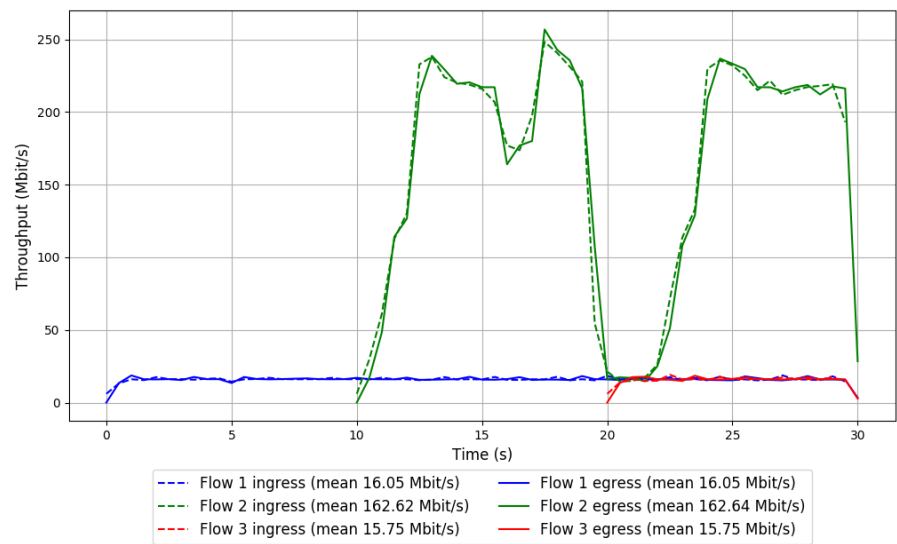
-- Flow 3:

Average throughput: 15.75 Mbit/s

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

Loss rate: 0.00%

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

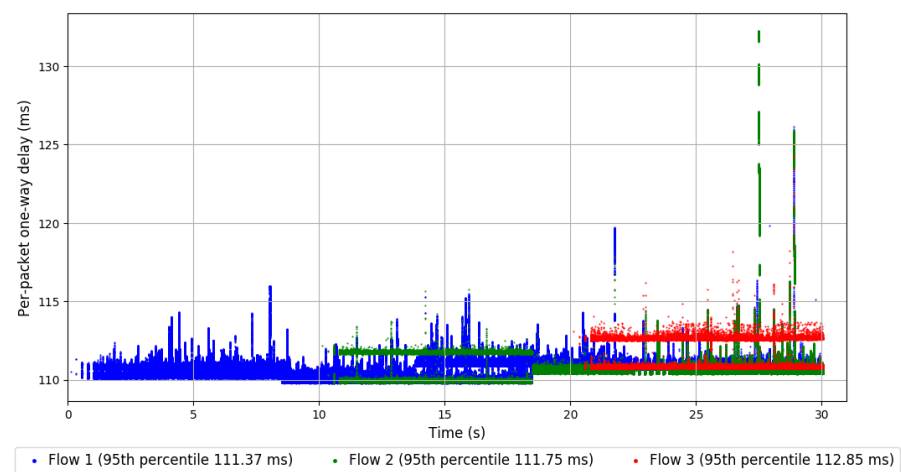
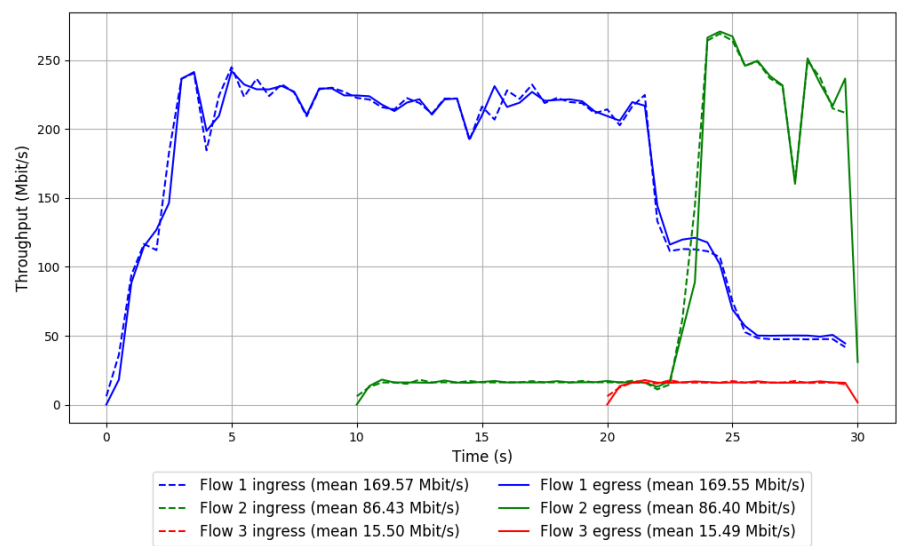


```
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-21 11:32:25
End at: 2018-03-21 11:32:55

# Below is generated by plot.py at 2018-03-21 14:31:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 231.66 Mbit/s
95th percentile per-packet one-way delay: 111.686 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 169.55 Mbit/s
95th percentile per-packet one-way delay: 111.374 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 86.40 Mbit/s
95th percentile per-packet one-way delay: 111.752 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 15.49 Mbit/s
95th percentile per-packet one-way delay: 112.847 ms
Loss rate: 0.03%
```


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

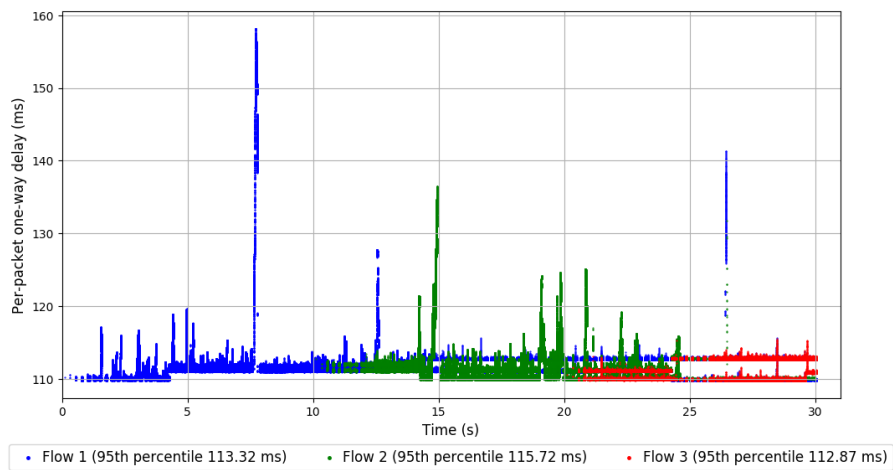
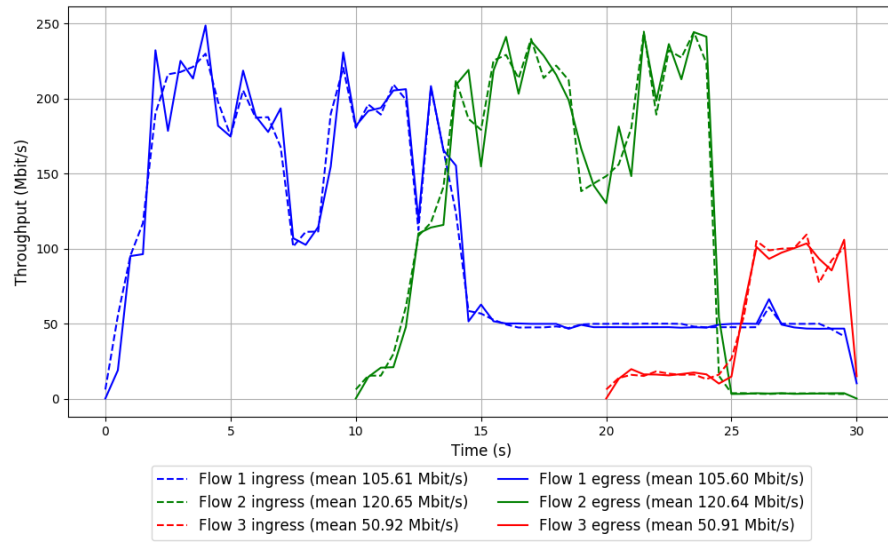


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-21 11:52:10
End at: 2018-03-21 11:52:40

# Below is generated by plot.py at 2018-03-21 14:31:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 202.72 Mbit/s
95th percentile per-packet one-way delay: 114.080 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 105.60 Mbit/s
95th percentile per-packet one-way delay: 113.317 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 120.64 Mbit/s
95th percentile per-packet one-way delay: 115.716 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.91 Mbit/s
95th percentile per-packet one-way delay: 112.867 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-03-21 08:52:47

End at: 2018-03-21 08:53:17

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.12 Mbit/s

95th percentile per-packet one-way delay: 119.092 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 81.87 Mbit/s

95th percentile per-packet one-way delay: 117.072 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.56 Mbit/s

95th percentile per-packet one-way delay: 113.907 ms

Loss rate: 0.12%

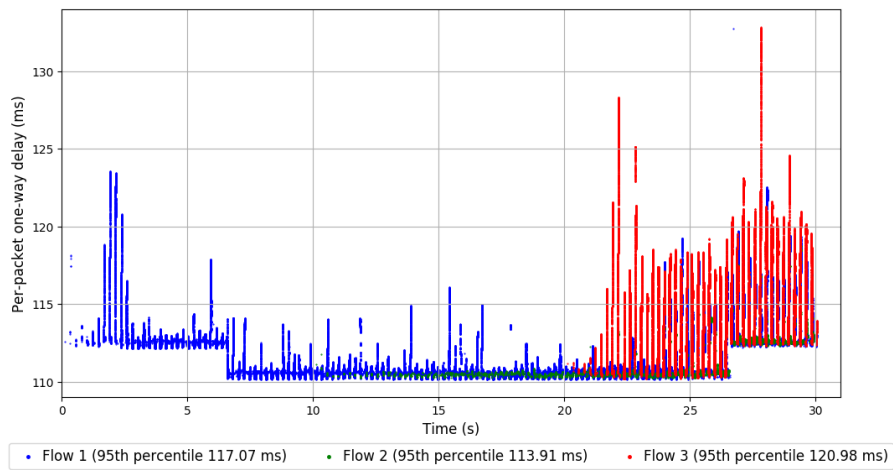
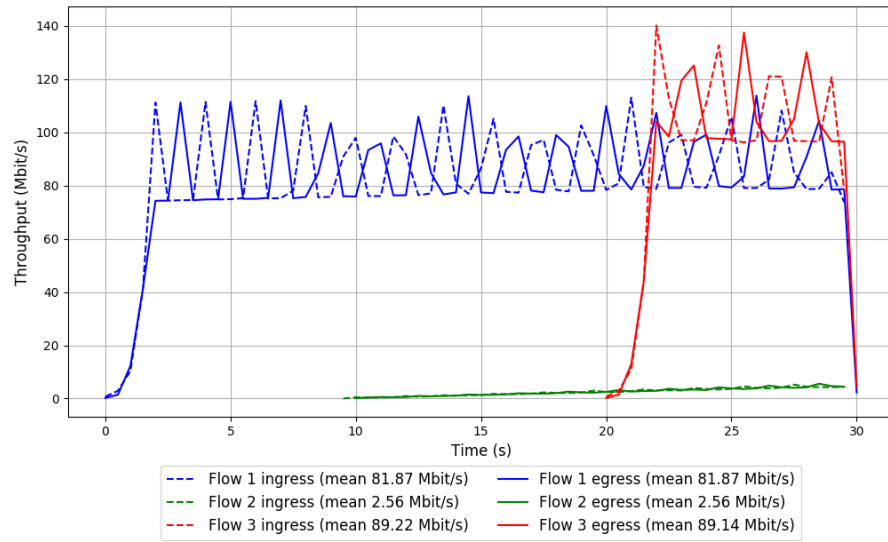
-- Flow 3:

Average throughput: 89.14 Mbit/s

95th percentile per-packet one-way delay: 120.985 ms

Loss rate: 0.07%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-03-21 09:12:17

End at: 2018-03-21 09:12:47

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.58 Mbit/s

95th percentile per-packet one-way delay: 121.294 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 33.01 Mbit/s

95th percentile per-packet one-way delay: 116.770 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.82 Mbit/s

95th percentile per-packet one-way delay: 119.459 ms

Loss rate: 0.00%

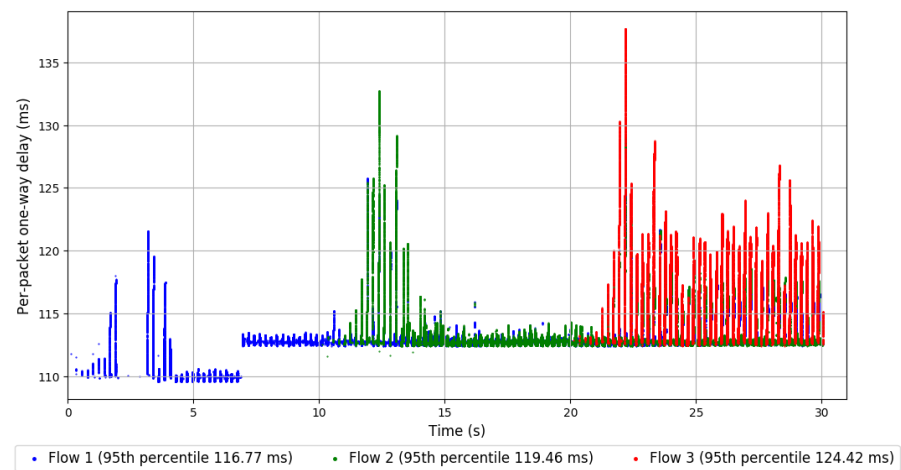
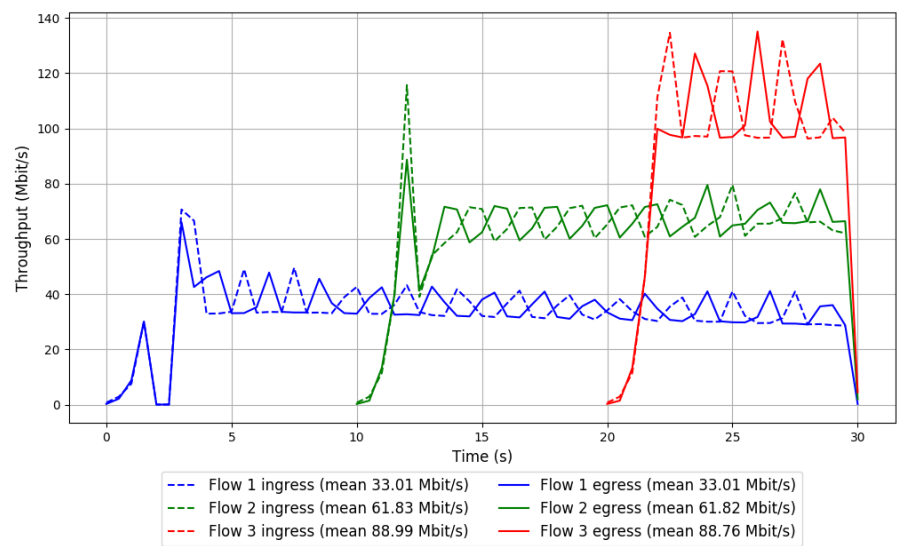
-- Flow 3:

Average throughput: 88.76 Mbit/s

95th percentile per-packet one-way delay: 124.425 ms

Loss rate: 0.27%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-03-21 09:31:50

End at: 2018-03-21 09:32:20

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.05 Mbit/s

95th percentile per-packet one-way delay: 122.734 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 66.81 Mbit/s

95th percentile per-packet one-way delay: 113.307 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 99.68 Mbit/s

95th percentile per-packet one-way delay: 125.364 ms

Loss rate: 0.00%

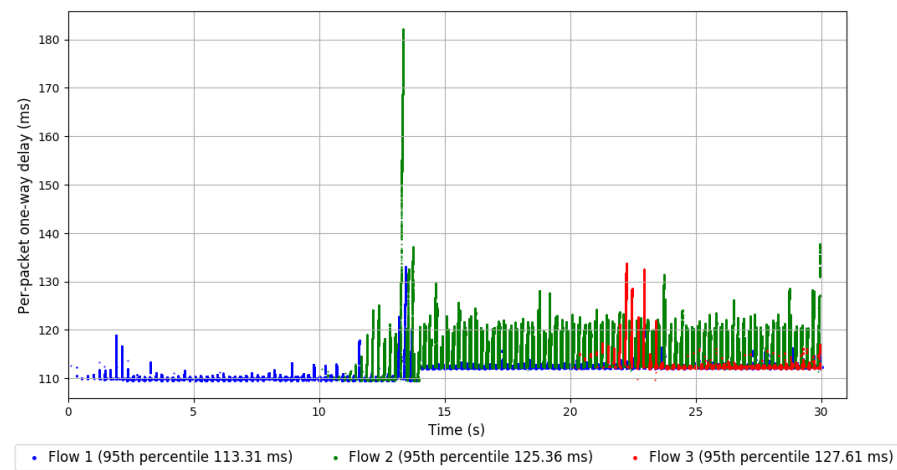
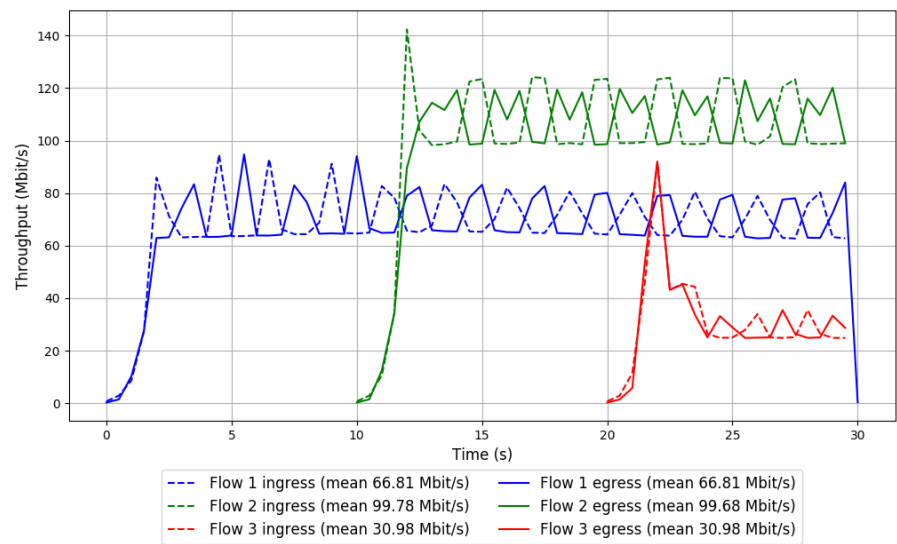
-- Flow 3:

Average throughput: 30.98 Mbit/s

95th percentile per-packet one-way delay: 127.611 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-03-21 09:51:15

End at: 2018-03-21 09:51:45

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.35 Mbit/s

95th percentile per-packet one-way delay: 117.526 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 36.16 Mbit/s

95th percentile per-packet one-way delay: 115.272 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.59 Mbit/s

95th percentile per-packet one-way delay: 115.840 ms

Loss rate: 0.00%

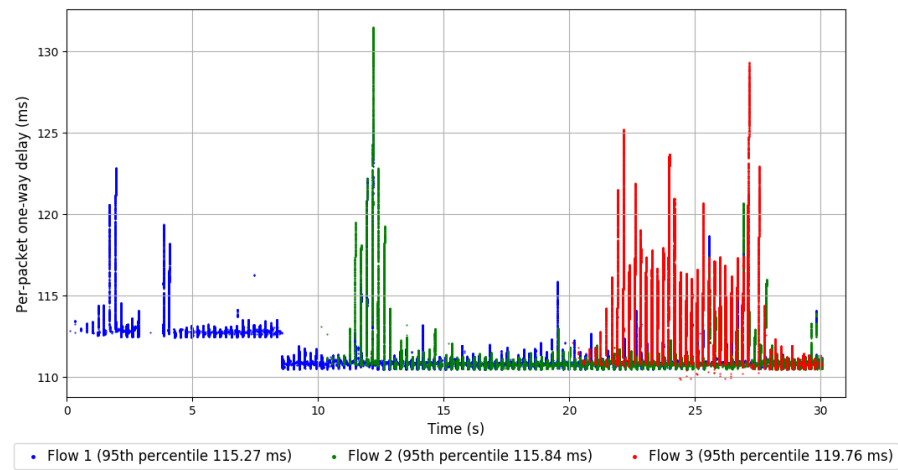
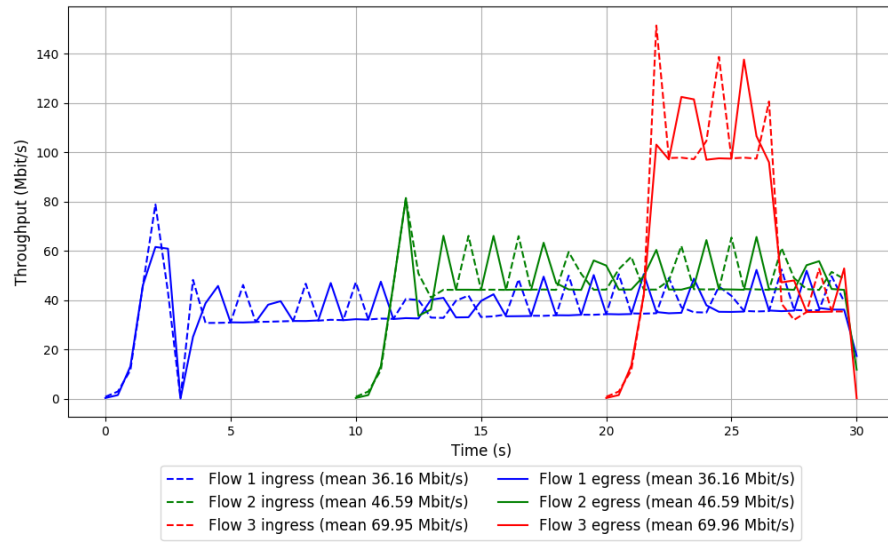
-- Flow 3:

Average throughput: 69.96 Mbit/s

95th percentile per-packet one-way delay: 119.760 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-03-21 10:10:37

End at: 2018-03-21 10:11:07

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 42.06 Mbit/s

95th percentile per-packet one-way delay: 112.630 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 31.58 Mbit/s

95th percentile per-packet one-way delay: 111.900 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.67 Mbit/s

95th percentile per-packet one-way delay: 111.060 ms

Loss rate: 0.05%

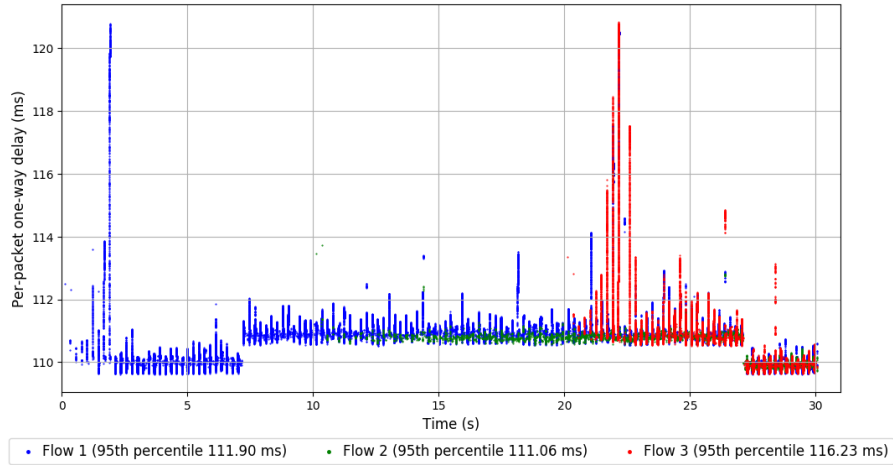
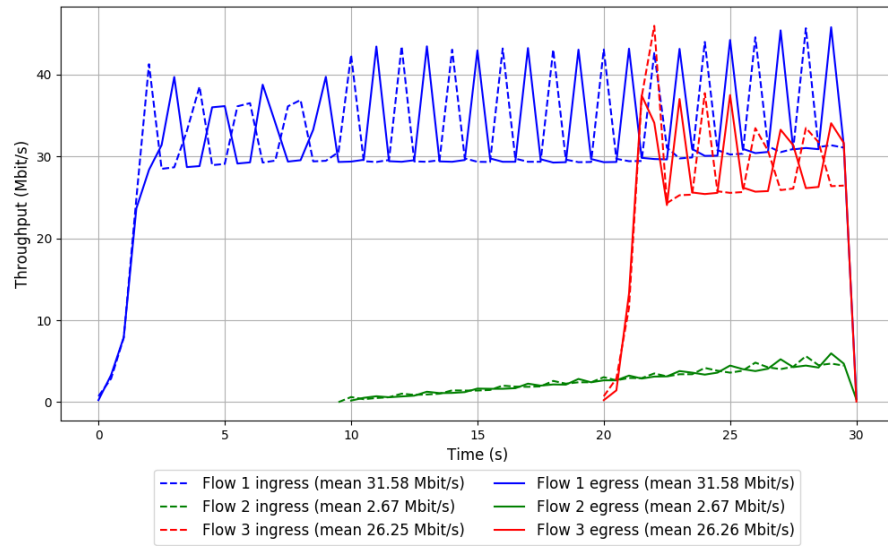
-- Flow 3:

Average throughput: 26.26 Mbit/s

95th percentile per-packet one-way delay: 116.226 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-03-21 10:29:50

End at: 2018-03-21 10:30:20

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.45 Mbit/s

95th percentile per-packet one-way delay: 117.465 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 21.46 Mbit/s

95th percentile per-packet one-way delay: 114.952 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 37.69 Mbit/s

95th percentile per-packet one-way delay: 115.587 ms

Loss rate: 0.00%

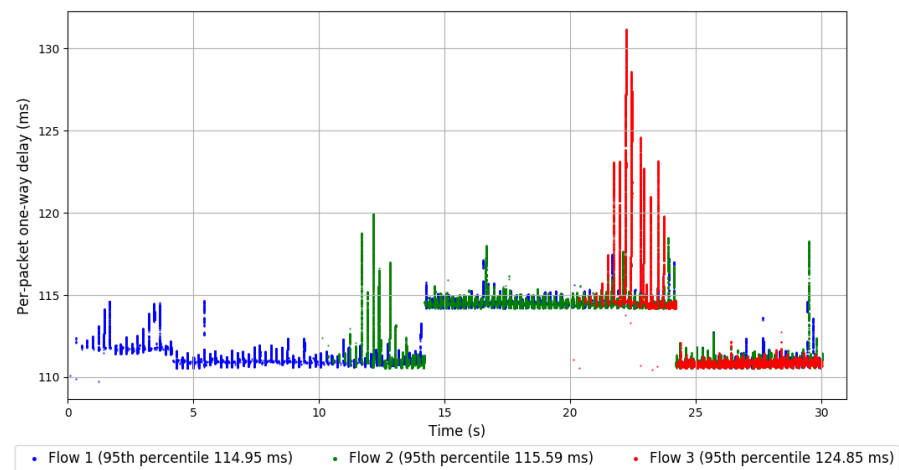
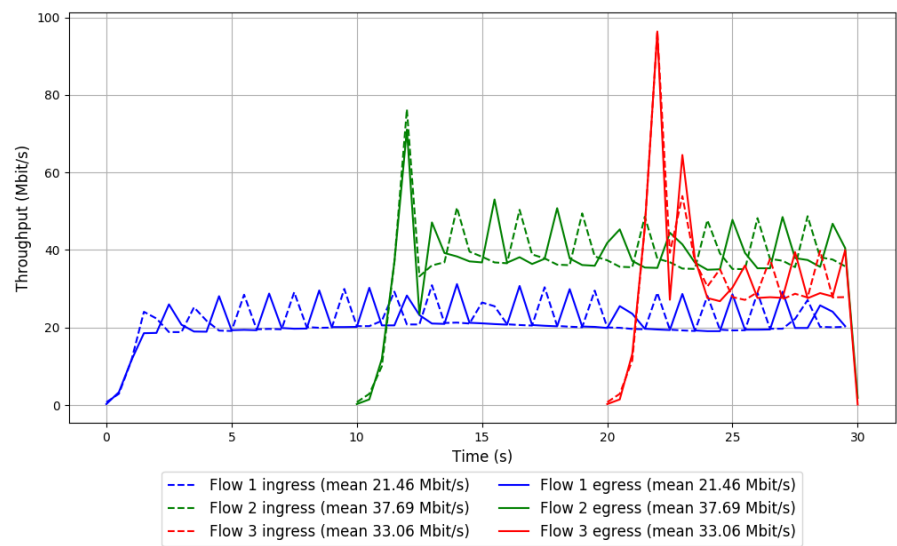
-- Flow 3:

Average throughput: 33.06 Mbit/s

95th percentile per-packet one-way delay: 124.852 ms

Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-03-21 10:49:08

End at: 2018-03-21 10:49:38

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 129.79 Mbit/s

95th percentile per-packet one-way delay: 123.471 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 101.78 Mbit/s

95th percentile per-packet one-way delay: 123.864 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 33.08 Mbit/s

95th percentile per-packet one-way delay: 120.121 ms

Loss rate: 0.00%

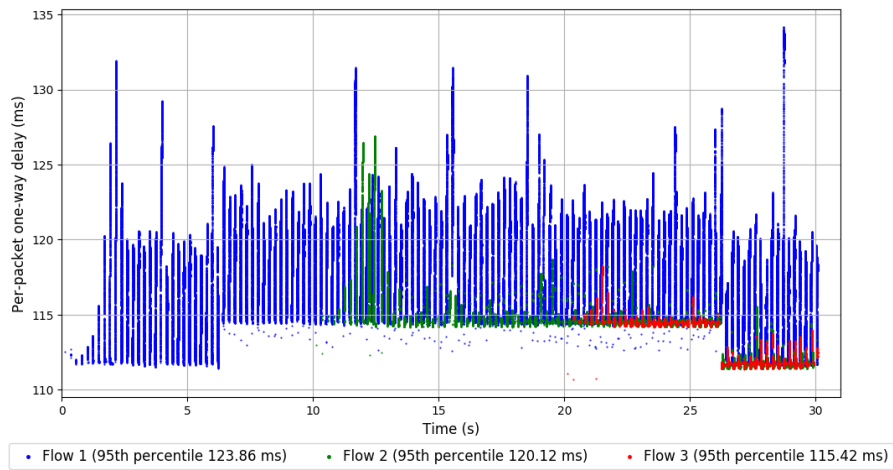
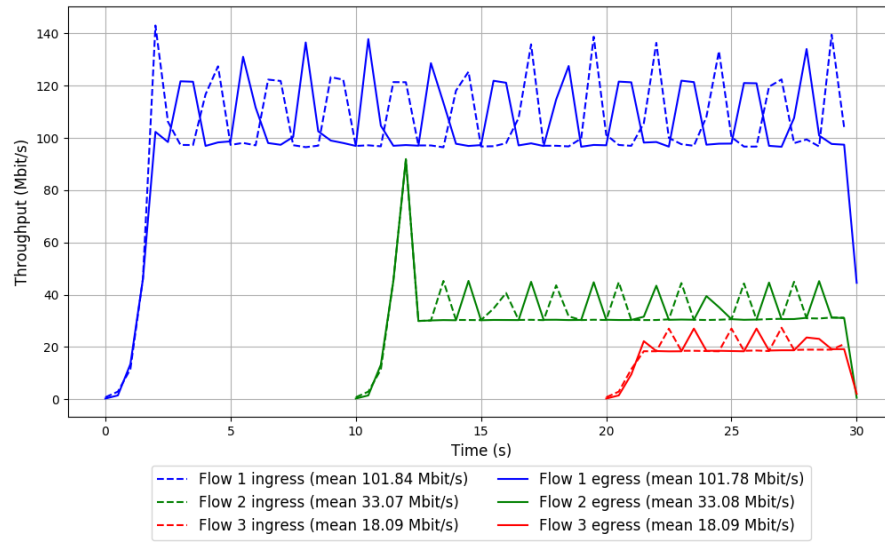
-- Flow 3:

Average throughput: 18.09 Mbit/s

95th percentile per-packet one-way delay: 115.418 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-03-21 11:08:46

End at: 2018-03-21 11:09:16

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 65.77 Mbit/s

95th percentile per-packet one-way delay: 112.648 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 35.95 Mbit/s

95th percentile per-packet one-way delay: 112.060 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 29.99 Mbit/s

95th percentile per-packet one-way delay: 114.783 ms

Loss rate: 0.07%

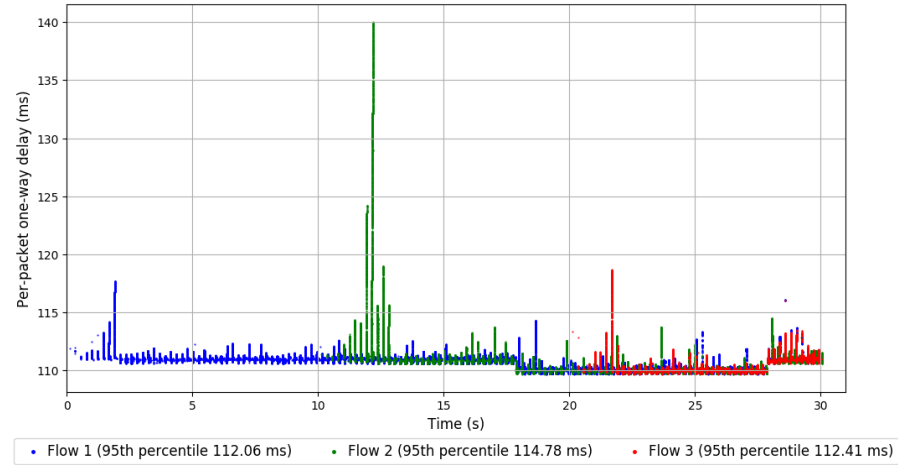
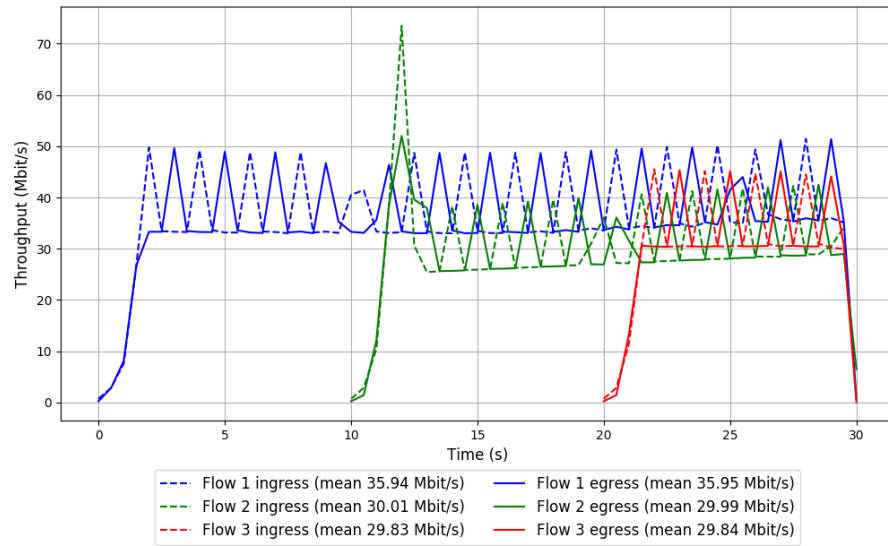
-- Flow 3:

Average throughput: 29.84 Mbit/s

95th percentile per-packet one-way delay: 112.406 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-03-21 11:28:00

End at: 2018-03-21 11:28:30

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 163.38 Mbit/s

95th percentile per-packet one-way delay: 121.145 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 97.68 Mbit/s

95th percentile per-packet one-way delay: 120.675 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 98.13 Mbit/s

95th percentile per-packet one-way delay: 122.191 ms

Loss rate: 0.19%

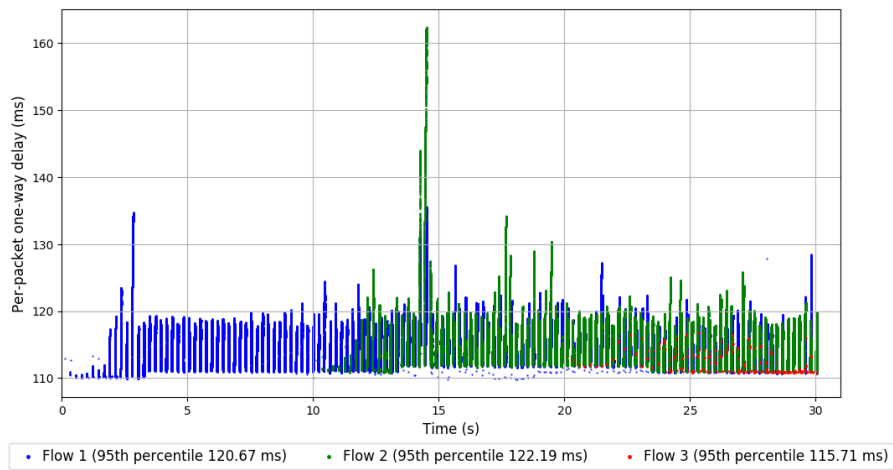
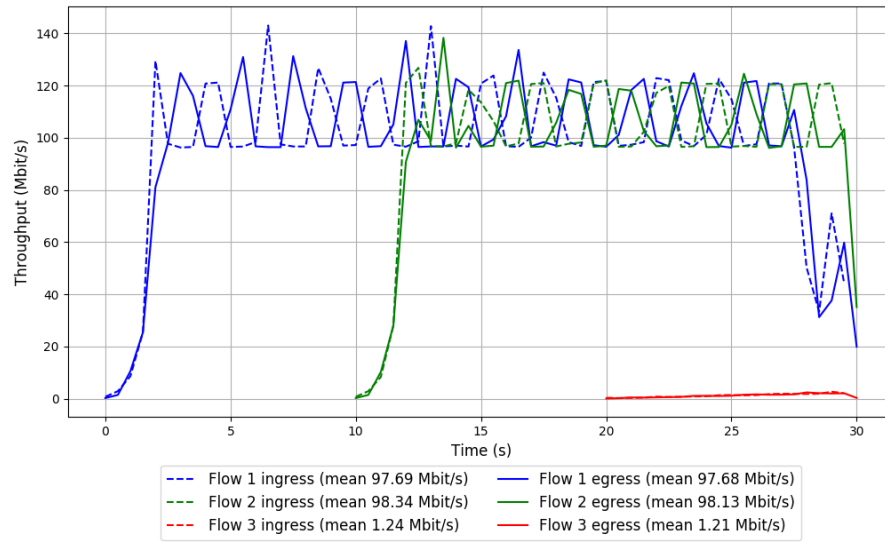
-- Flow 3:

Average throughput: 1.21 Mbit/s

95th percentile per-packet one-way delay: 115.707 ms

Loss rate: 2.54%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-03-21 11:47:45

End at: 2018-03-21 11:48:15

Below is generated by plot.py at 2018-03-21 14:31:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.38 Mbit/s

95th percentile per-packet one-way delay: 118.618 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 29.96 Mbit/s

95th percentile per-packet one-way delay: 118.494 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 67.22 Mbit/s

95th percentile per-packet one-way delay: 113.334 ms

Loss rate: 0.00%

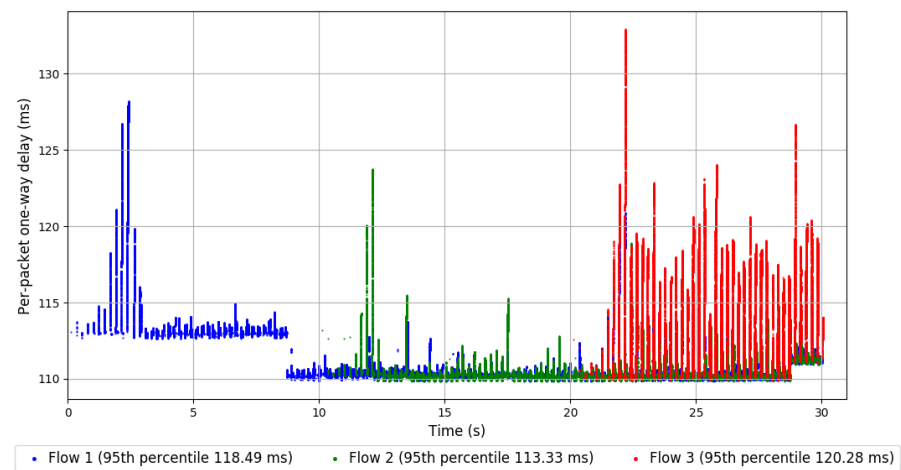
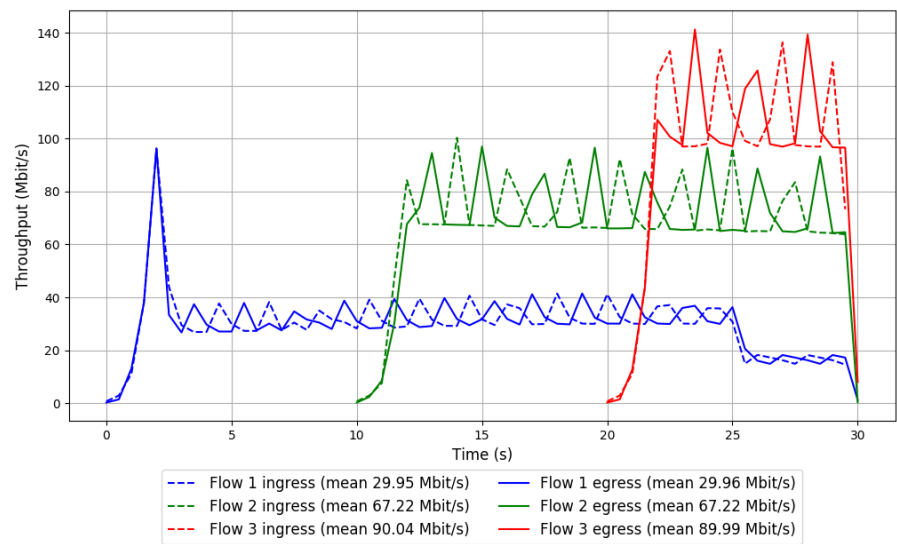
-- Flow 3:

Average throughput: 89.99 Mbit/s

95th percentile per-packet one-way delay: 120.281 ms

Loss rate: 0.05%

Run 10: Report of TCP Vegas — Data Link

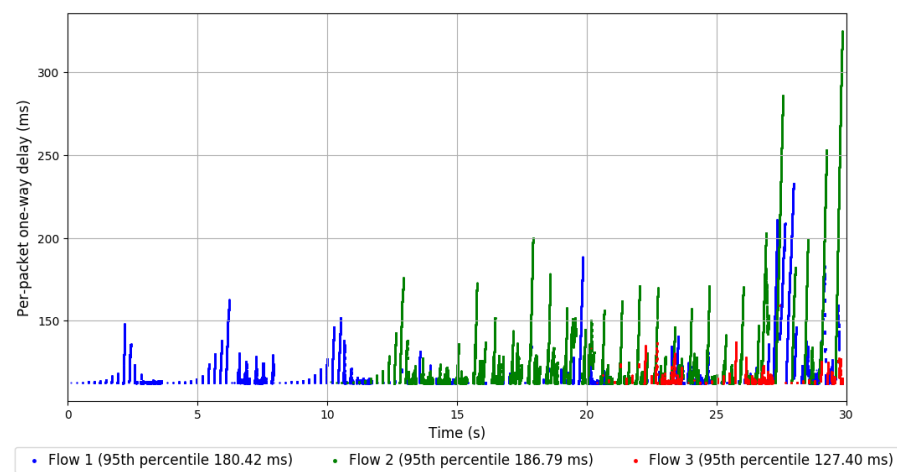
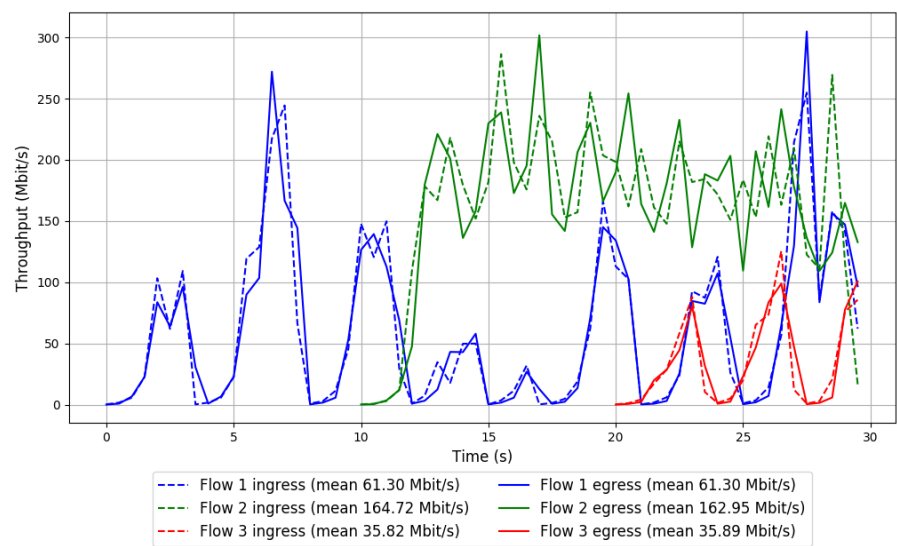


```
Run 1: Statistics of Verus

Start at: 2018-03-21 08:58:22
End at: 2018-03-21 08:58:52

# Below is generated by plot.py at 2018-03-21 14:31:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 181.07 Mbit/s
95th percentile per-packet one-way delay: 181.038 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.30 Mbit/s
95th percentile per-packet one-way delay: 180.420 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 162.95 Mbit/s
95th percentile per-packet one-way delay: 186.793 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.89 Mbit/s
95th percentile per-packet one-way delay: 127.402 ms
Loss rate: 0.00%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-03-21 09:17:45

End at: 2018-03-21 09:18:15

Below is generated by plot.py at 2018-03-21 14:31:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 220.49 Mbit/s

95th percentile per-packet one-way delay: 274.388 ms

Loss rate: 3.07%

-- Flow 1:

Average throughput: 97.36 Mbit/s

95th percentile per-packet one-way delay: 210.651 ms

Loss rate: 3.31%

-- Flow 2:

Average throughput: 158.53 Mbit/s

95th percentile per-packet one-way delay: 285.764 ms

Loss rate: 3.17%

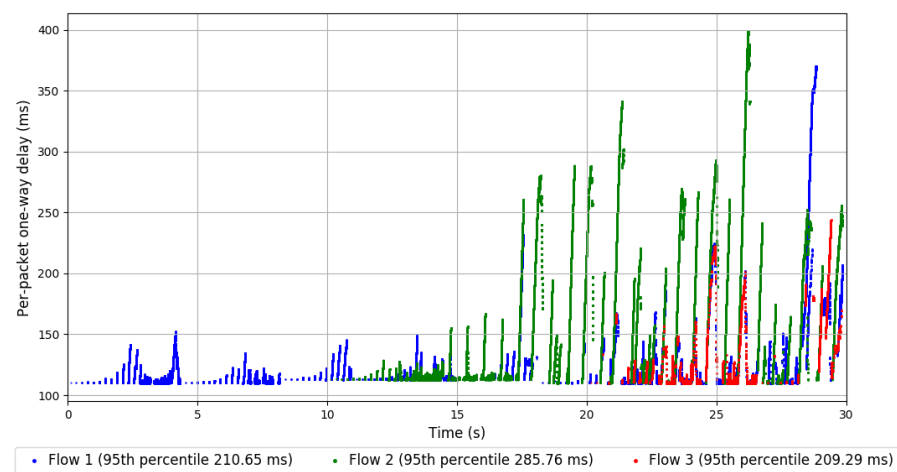
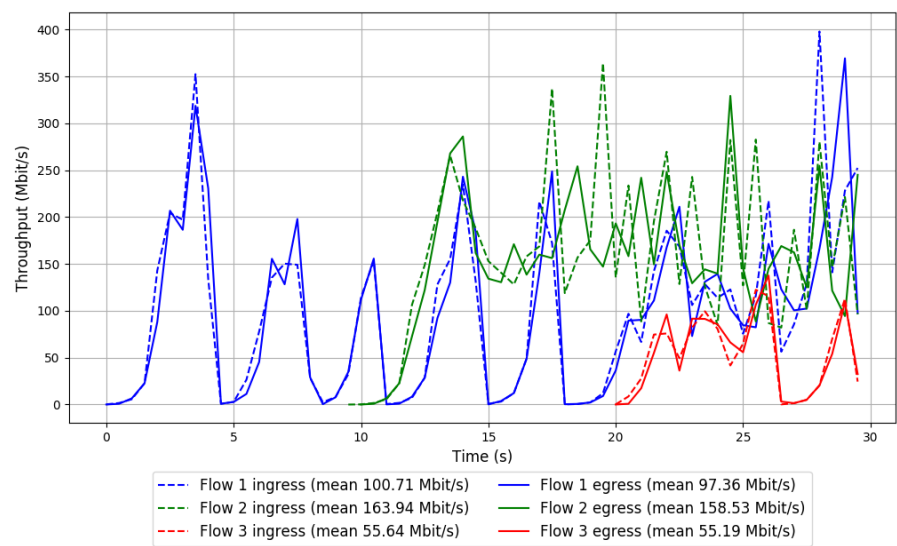
-- Flow 3:

Average throughput: 55.19 Mbit/s

95th percentile per-packet one-way delay: 209.288 ms

Loss rate: 1.10%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-03-21 09:37:30

End at: 2018-03-21 09:38:00

Below is generated by plot.py at 2018-03-21 14:32:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 218.41 Mbit/s

95th percentile per-packet one-way delay: 291.044 ms

Loss rate: 5.29%

-- Flow 1:

Average throughput: 144.70 Mbit/s

95th percentile per-packet one-way delay: 188.141 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 89.26 Mbit/s

95th percentile per-packet one-way delay: 349.674 ms

Loss rate: 16.15%

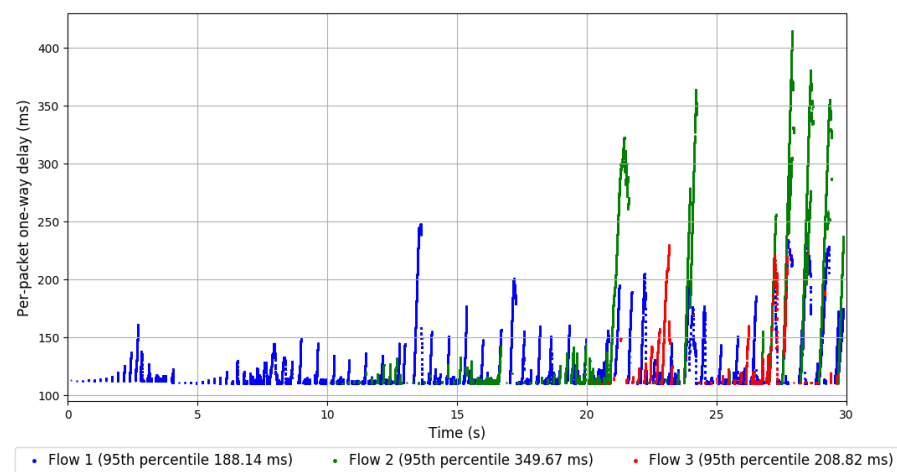
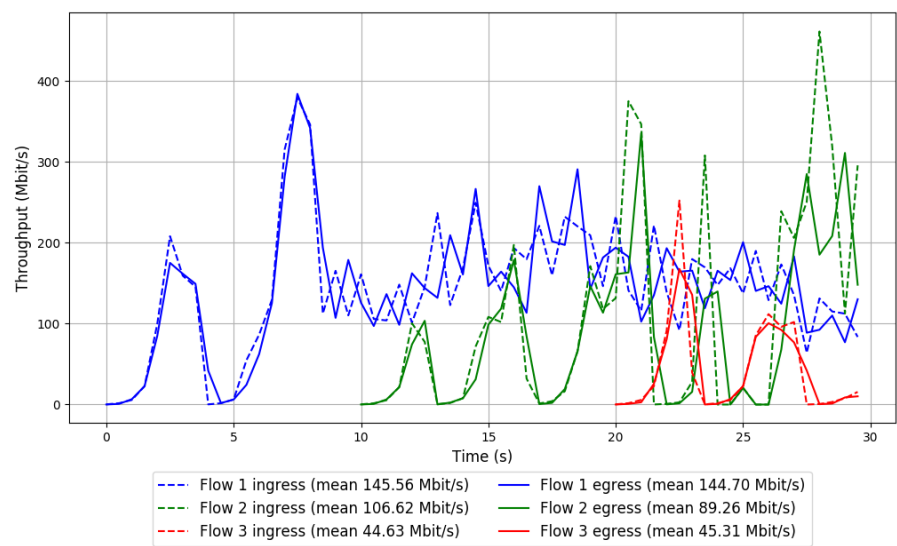
-- Flow 3:

Average throughput: 45.31 Mbit/s

95th percentile per-packet one-way delay: 208.825 ms

Loss rate: 0.76%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-03-21 09:56:36

End at: 2018-03-21 09:57:06

Below is generated by plot.py at 2018-03-21 14:32:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 258.60 Mbit/s

95th percentile per-packet one-way delay: 220.673 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 146.47 Mbit/s

95th percentile per-packet one-way delay: 173.102 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 129.67 Mbit/s

95th percentile per-packet one-way delay: 249.982 ms

Loss rate: 0.96%

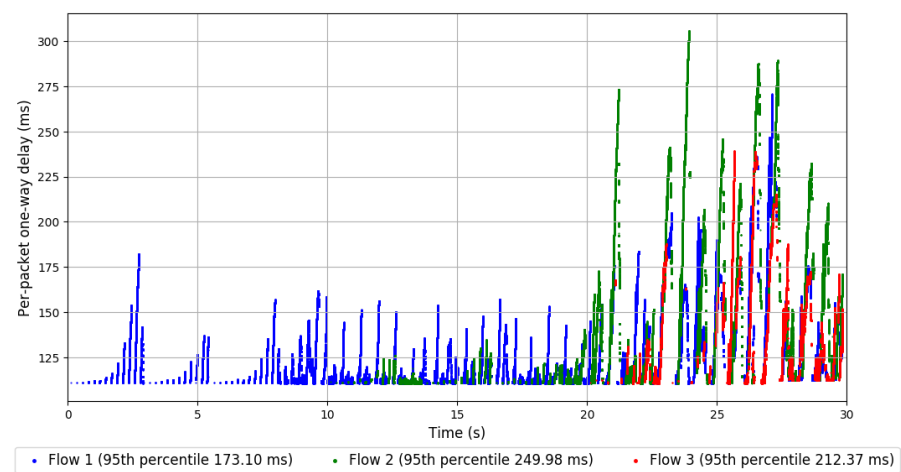
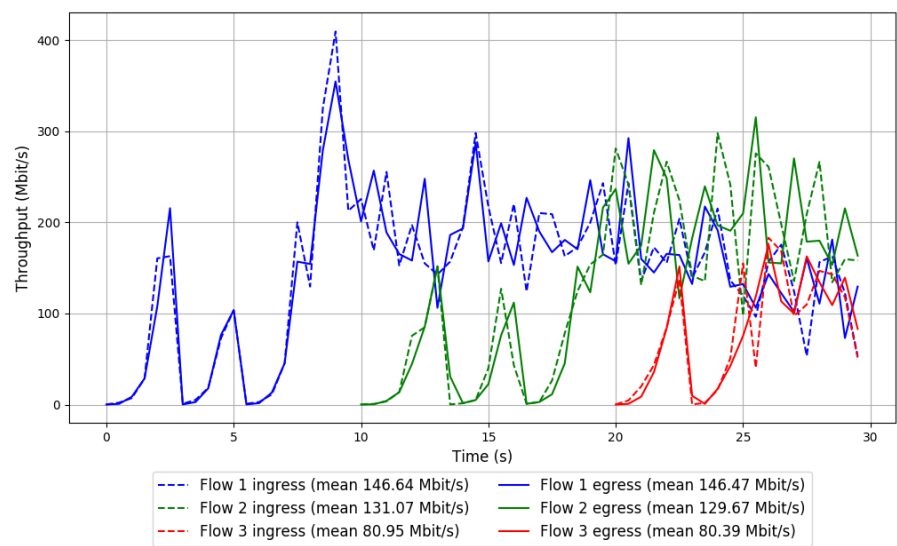
-- Flow 3:

Average throughput: 80.39 Mbit/s

95th percentile per-packet one-way delay: 212.368 ms

Loss rate: 0.65%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-03-21 10:15:56

End at: 2018-03-21 10:16:26

Below is generated by plot.py at 2018-03-21 14:32:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.37 Mbit/s

95th percentile per-packet one-way delay: 191.882 ms

Loss rate: 3.77%

-- Flow 1:

Average throughput: 155.78 Mbit/s

95th percentile per-packet one-way delay: 168.105 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 102.77 Mbit/s

95th percentile per-packet one-way delay: 417.206 ms

Loss rate: 11.90%

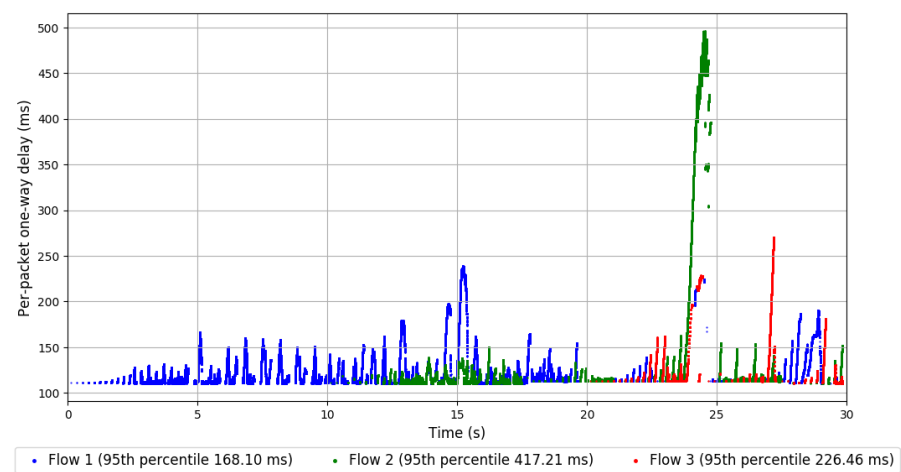
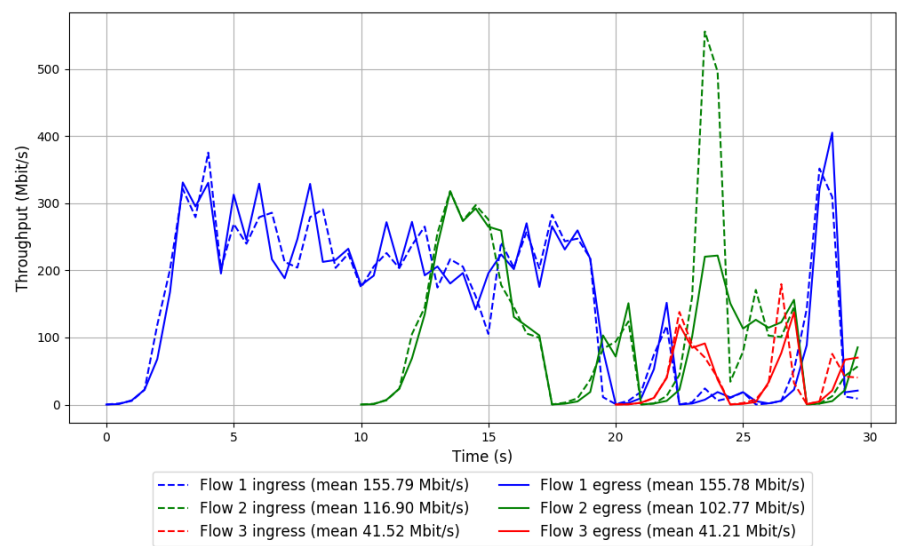
-- Flow 3:

Average throughput: 41.21 Mbit/s

95th percentile per-packet one-way delay: 226.457 ms

Loss rate: 0.75%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-03-21 10:35:12

End at: 2018-03-21 10:35:42

Below is generated by plot.py at 2018-03-21 14:32:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 203.29 Mbit/s

95th percentile per-packet one-way delay: 225.900 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 79.48 Mbit/s

95th percentile per-packet one-way delay: 195.332 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 169.09 Mbit/s

95th percentile per-packet one-way delay: 265.466 ms

Loss rate: 2.27%

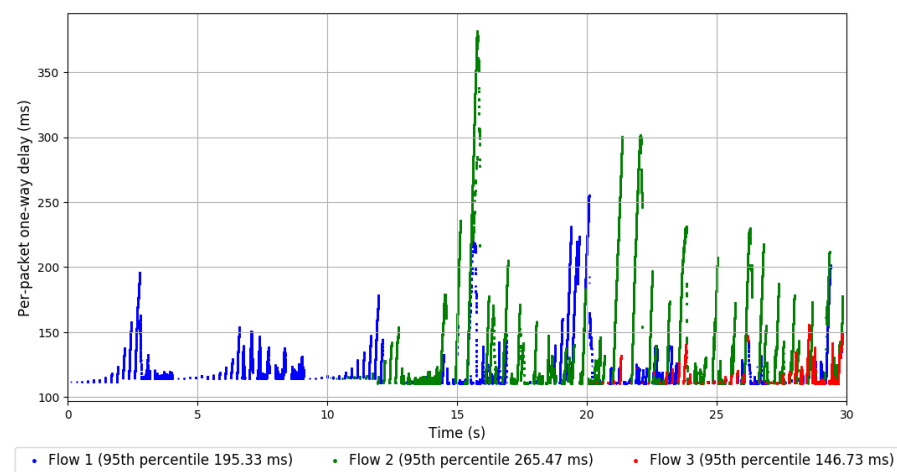
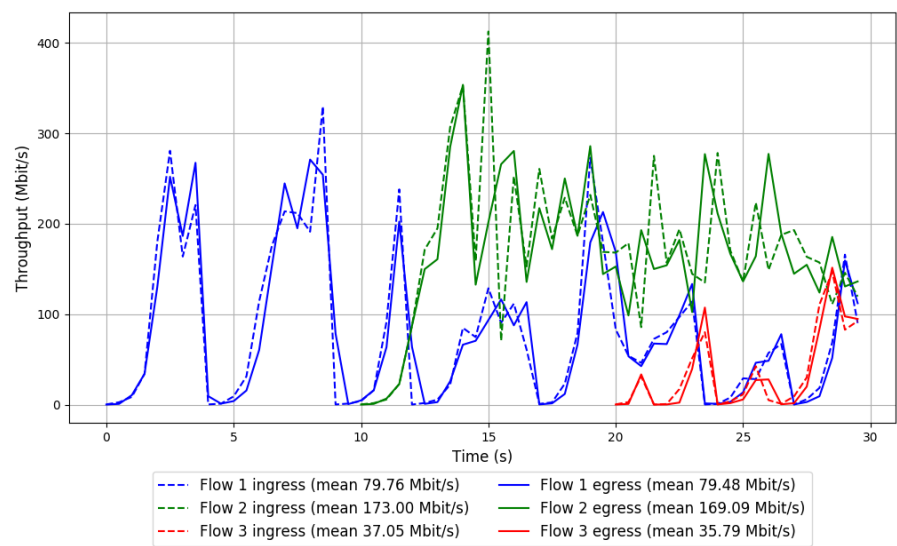
-- Flow 3:

Average throughput: 35.79 Mbit/s

95th percentile per-packet one-way delay: 146.733 ms

Loss rate: 3.27%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-03-21 10:54:47

End at: 2018-03-21 10:55:17

Below is generated by plot.py at 2018-03-21 14:34:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 274.36 Mbit/s

95th percentile per-packet one-way delay: 277.414 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 152.74 Mbit/s

95th percentile per-packet one-way delay: 249.011 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 156.81 Mbit/s

95th percentile per-packet one-way delay: 299.708 ms

Loss rate: 2.35%

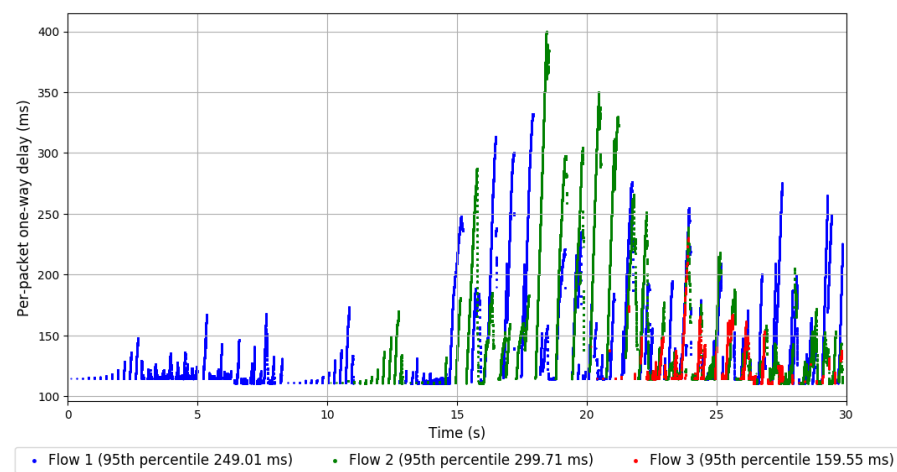
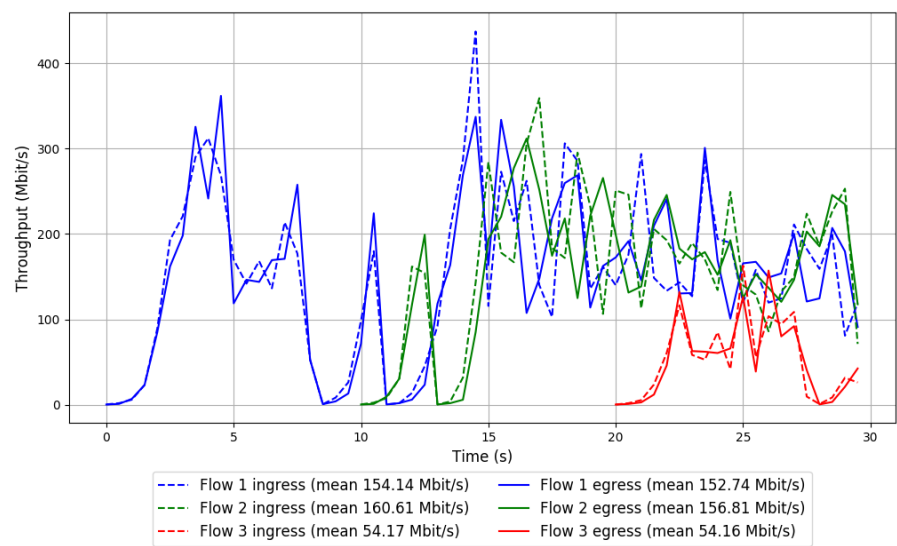
-- Flow 3:

Average throughput: 54.16 Mbit/s

95th percentile per-packet one-way delay: 159.550 ms

Loss rate: 0.06%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-03-21 11:14:04

End at: 2018-03-21 11:14:34

Below is generated by plot.py at 2018-03-21 14:34:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 243.09 Mbit/s

95th percentile per-packet one-way delay: 175.205 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 164.16 Mbit/s

95th percentile per-packet one-way delay: 187.806 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 72.31 Mbit/s

95th percentile per-packet one-way delay: 140.353 ms

Loss rate: 0.00%

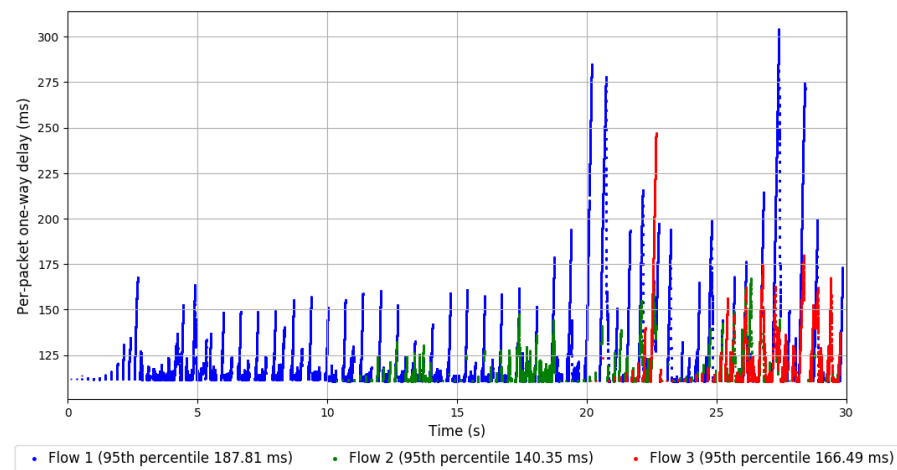
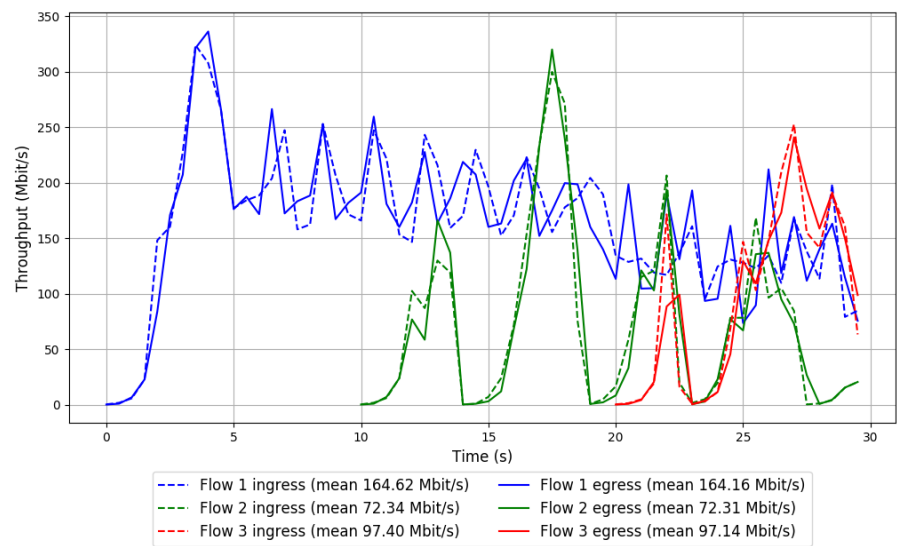
-- Flow 3:

Average throughput: 97.14 Mbit/s

95th percentile per-packet one-way delay: 166.494 ms

Loss rate: 0.00%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-03-21 11:33:38

End at: 2018-03-21 11:34:08

Below is generated by plot.py at 2018-03-21 14:34:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 187.95 Mbit/s

95th percentile per-packet one-way delay: 351.455 ms

Loss rate: 8.18%

-- Flow 1:

Average throughput: 93.27 Mbit/s

95th percentile per-packet one-way delay: 222.701 ms

Loss rate: 2.66%

-- Flow 2:

Average throughput: 94.69 Mbit/s

95th percentile per-packet one-way delay: 374.351 ms

Loss rate: 17.02%

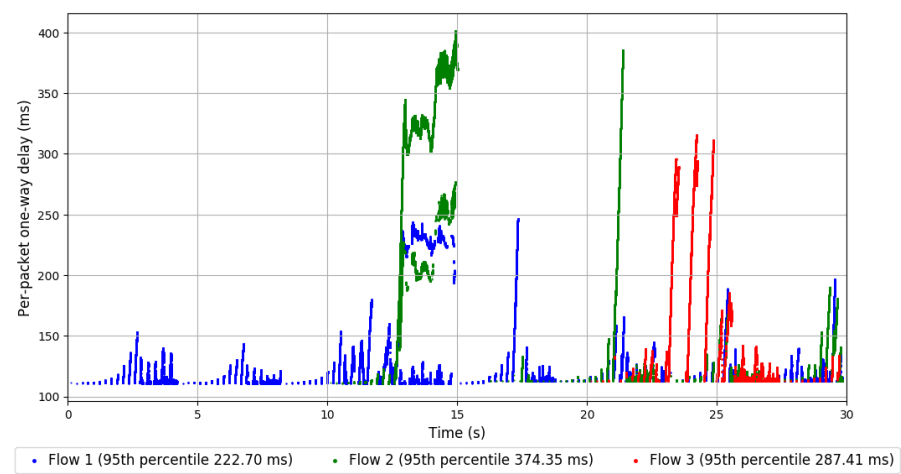
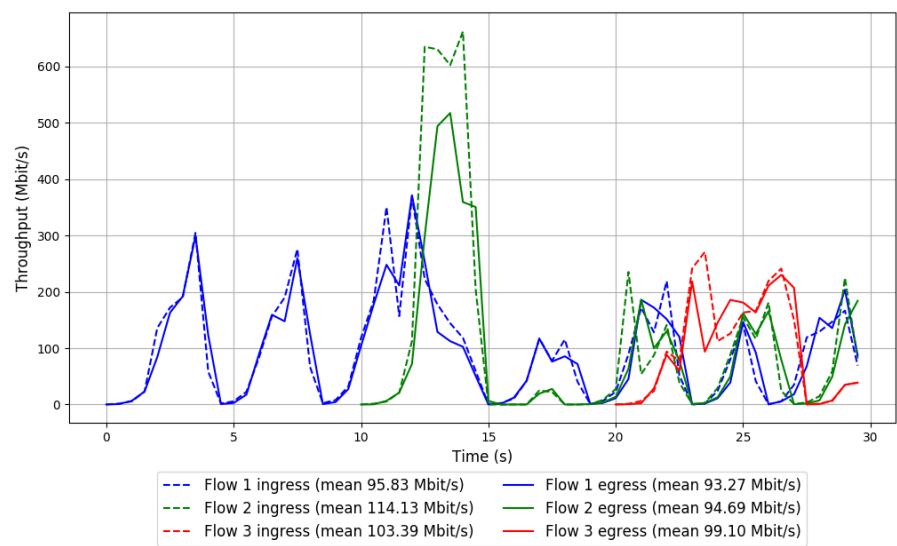
-- Flow 3:

Average throughput: 99.10 Mbit/s

95th percentile per-packet one-way delay: 287.410 ms

Loss rate: 3.95%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-03-21 11:53:19

End at: 2018-03-21 11:53:49

Below is generated by plot.py at 2018-03-21 14:35:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 227.37 Mbit/s

95th percentile per-packet one-way delay: 289.469 ms

Loss rate: 2.29%

-- Flow 1:

Average throughput: 161.07 Mbit/s

95th percentile per-packet one-way delay: 292.402 ms

Loss rate: 3.03%

-- Flow 2:

Average throughput: 68.77 Mbit/s

95th percentile per-packet one-way delay: 197.977 ms

Loss rate: 0.02%

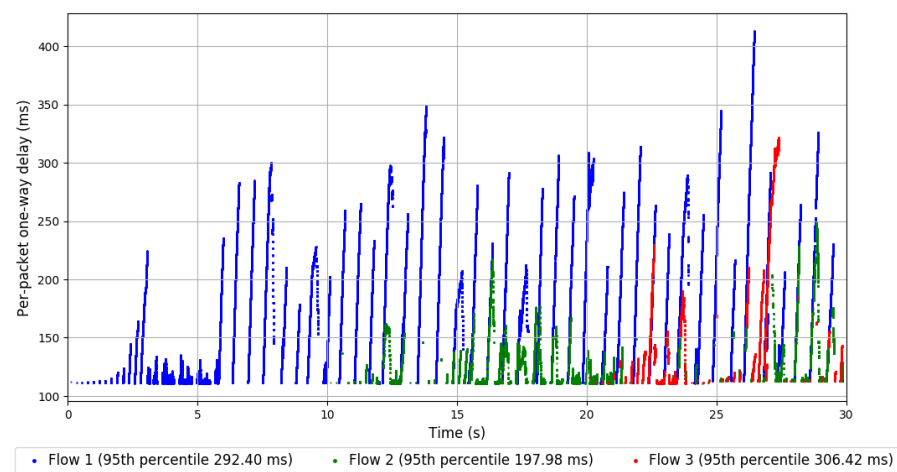
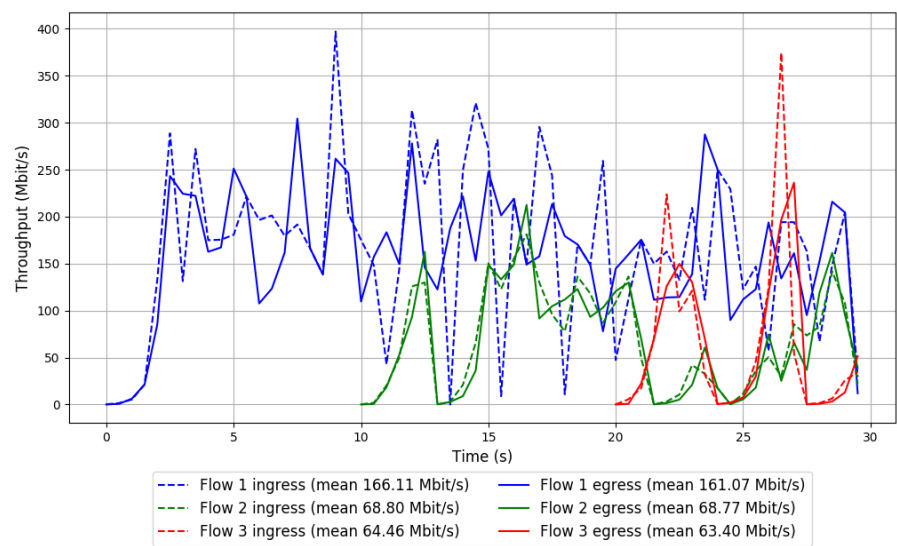
-- Flow 3:

Average throughput: 63.40 Mbit/s

95th percentile per-packet one-way delay: 306.416 ms

Loss rate: 1.36%

Run 10: Report of Verus — Data Link

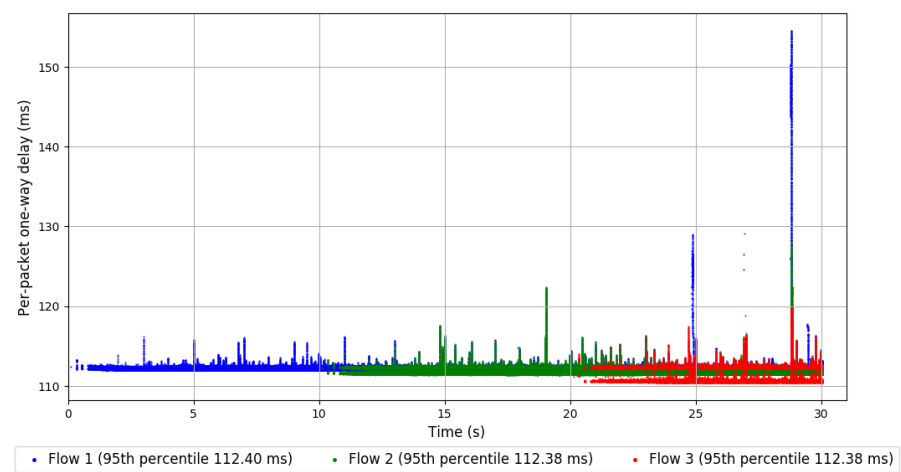
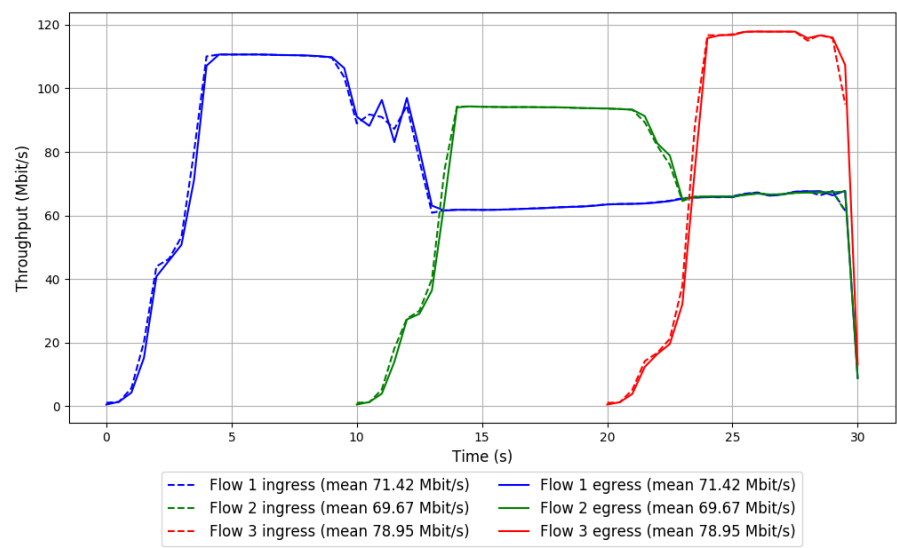


```
Run 1: Statistics of Copa

Start at: 2018-03-21 08:48:22
End at: 2018-03-21 08:48:52

# Below is generated by plot.py at 2018-03-21 14:36:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.97 Mbit/s
95th percentile per-packet one-way delay: 112.393 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.42 Mbit/s
95th percentile per-packet one-way delay: 112.404 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.67 Mbit/s
95th percentile per-packet one-way delay: 112.383 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 78.95 Mbit/s
95th percentile per-packet one-way delay: 112.377 ms
Loss rate: 0.00%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-03-21 09:07:55

End at: 2018-03-21 09:08:25

Below is generated by plot.py at 2018-03-21 14:37:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.10 Mbit/s

95th percentile per-packet one-way delay: 112.684 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 69.14 Mbit/s

95th percentile per-packet one-way delay: 112.604 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 63.48 Mbit/s

95th percentile per-packet one-way delay: 112.784 ms

Loss rate: 0.00%

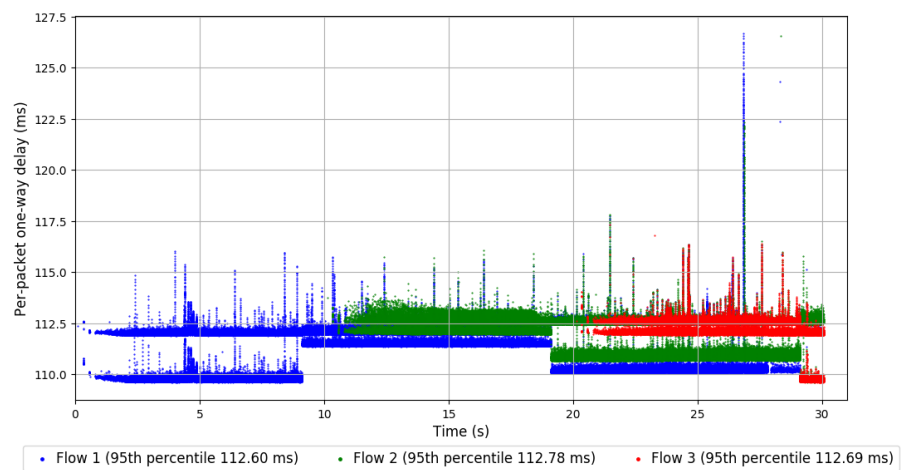
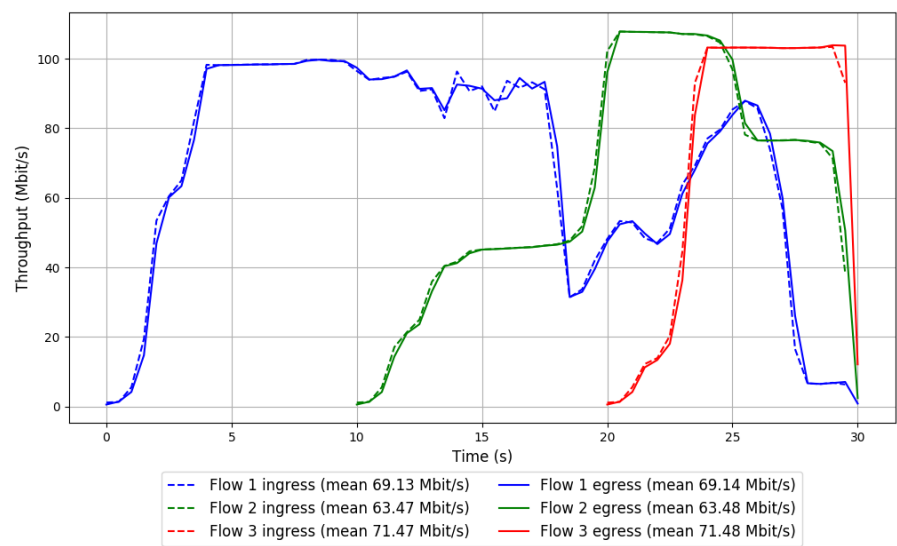
-- Flow 3:

Average throughput: 71.48 Mbit/s

95th percentile per-packet one-way delay: 112.686 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-03-21 09:27:24

End at: 2018-03-21 09:27:54

Below is generated by plot.py at 2018-03-21 14:37:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.65 Mbit/s

95th percentile per-packet one-way delay: 112.487 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.81 Mbit/s

95th percentile per-packet one-way delay: 112.505 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 75.43 Mbit/s

95th percentile per-packet one-way delay: 112.489 ms

Loss rate: 0.00%

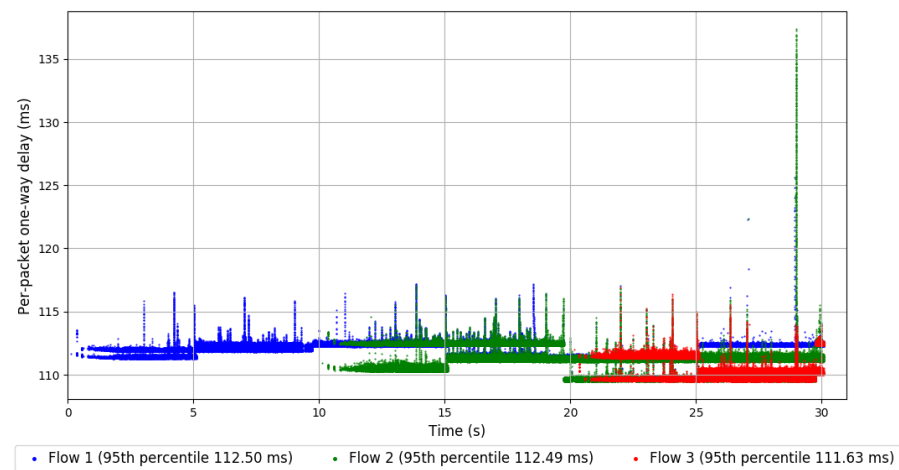
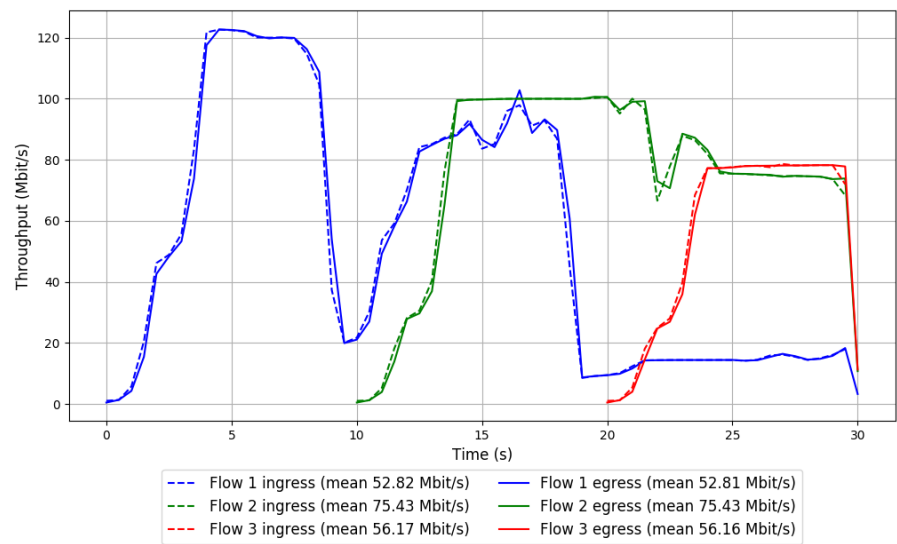
-- Flow 3:

Average throughput: 56.16 Mbit/s

95th percentile per-packet one-way delay: 111.626 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-21 09:46:51

End at: 2018-03-21 09:47:21

Below is generated by plot.py at 2018-03-21 14:37:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.43 Mbit/s

95th percentile per-packet one-way delay: 112.958 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 67.60 Mbit/s

95th percentile per-packet one-way delay: 113.039 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 69.55 Mbit/s

95th percentile per-packet one-way delay: 112.884 ms

Loss rate: 0.00%

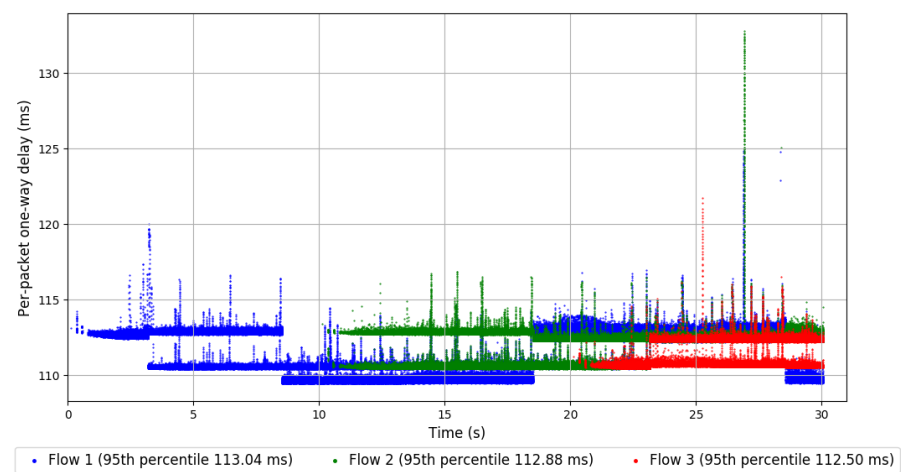
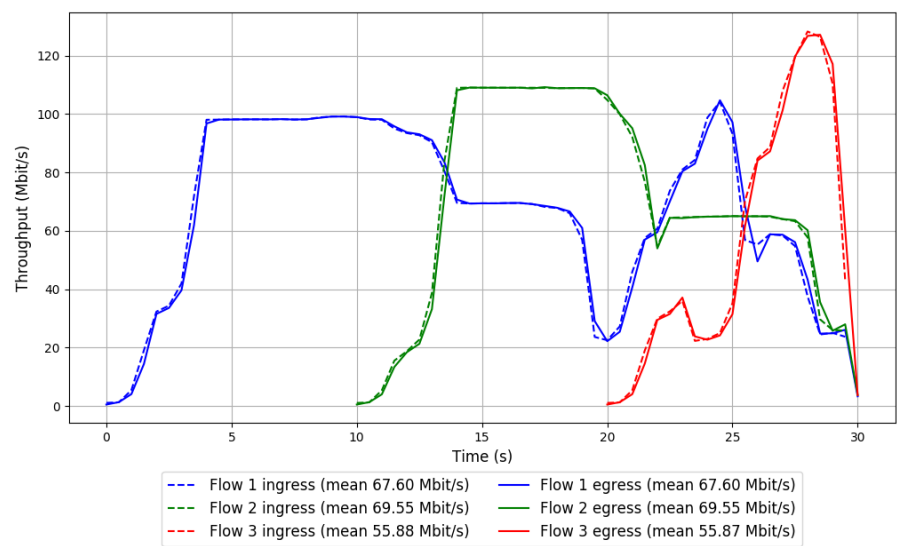
-- Flow 3:

Average throughput: 55.87 Mbit/s

95th percentile per-packet one-way delay: 112.503 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-03-21 10:06:06

End at: 2018-03-21 10:06:36

Below is generated by plot.py at 2018-03-21 14:38:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 145.16 Mbit/s

95th percentile per-packet one-way delay: 112.733 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 73.11 Mbit/s

95th percentile per-packet one-way delay: 112.746 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 72.54 Mbit/s

95th percentile per-packet one-way delay: 112.750 ms

Loss rate: 0.00%

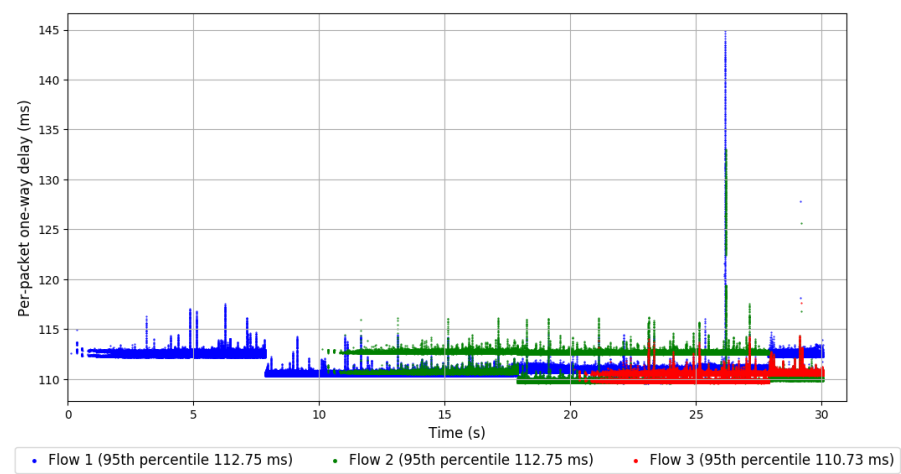
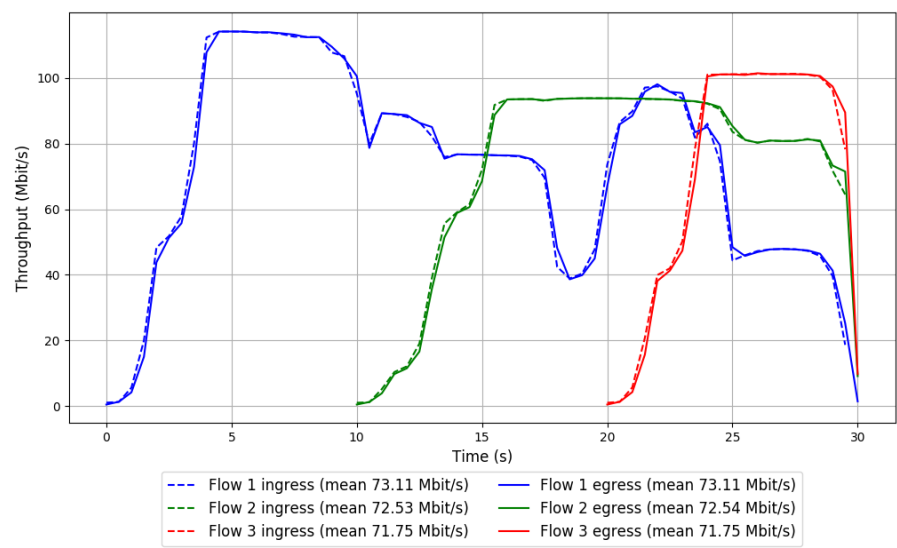
-- Flow 3:

Average throughput: 71.75 Mbit/s

95th percentile per-packet one-way delay: 110.727 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-21 10:25:23

End at: 2018-03-21 10:25:53

Below is generated by plot.py at 2018-03-21 14:38:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 130.72 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 81.03 Mbit/s

95th percentile per-packet one-way delay: 112.946 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 58.04 Mbit/s

95th percentile per-packet one-way delay: 112.775 ms

Loss rate: 0.00%

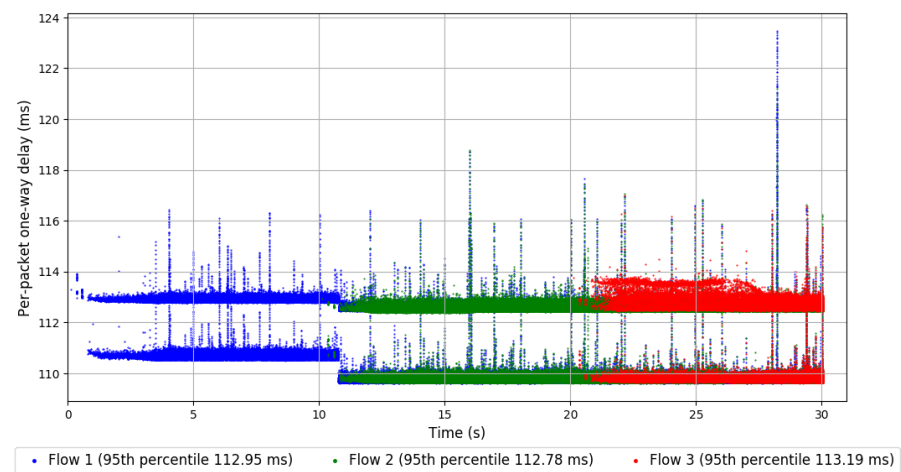
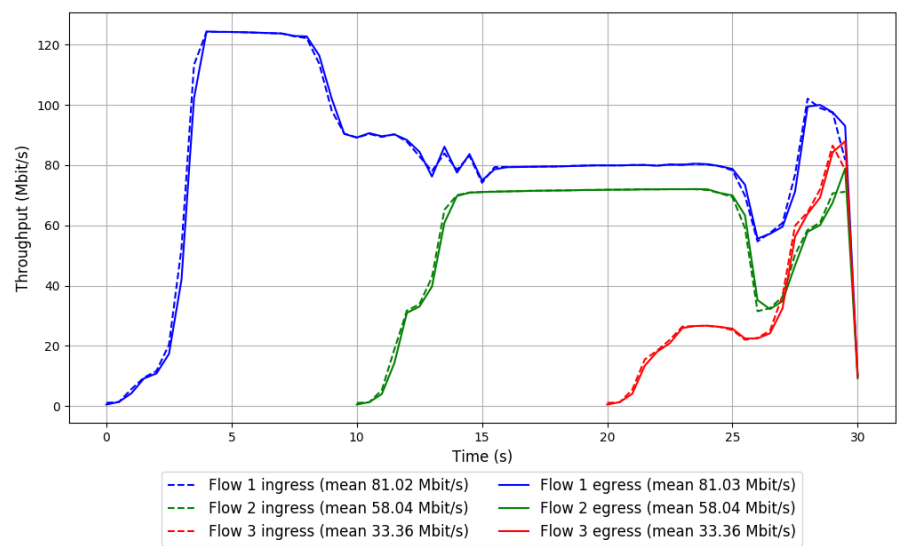
-- Flow 3:

Average throughput: 33.36 Mbit/s

95th percentile per-packet one-way delay: 113.195 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-03-21 10:44:44

End at: 2018-03-21 10:45:14

Below is generated by plot.py at 2018-03-21 14:38:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.58 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 78.91 Mbit/s

95th percentile per-packet one-way delay: 114.302 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.05 Mbit/s

95th percentile per-packet one-way delay: 112.528 ms

Loss rate: 0.00%

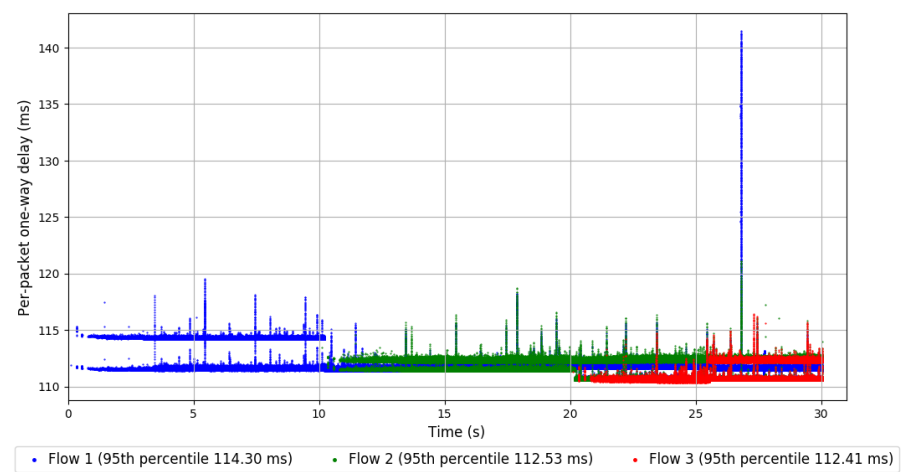
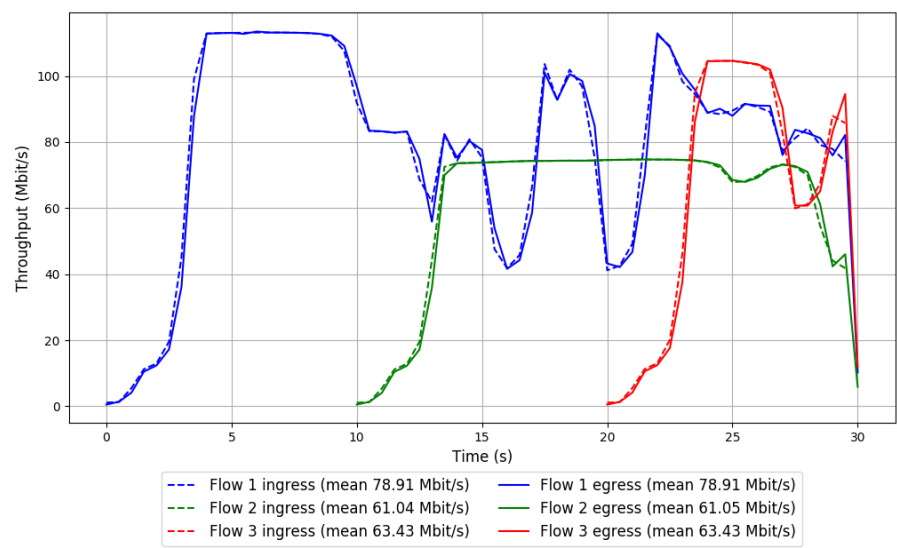
-- Flow 3:

Average throughput: 63.43 Mbit/s

95th percentile per-packet one-way delay: 112.409 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-03-21 11:04:28

End at: 2018-03-21 11:04:58

Below is generated by plot.py at 2018-03-21 14:38:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 106.00 Mbit/s

95th percentile per-packet one-way delay: 114.863 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.41 Mbit/s

95th percentile per-packet one-way delay: 112.847 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 65.74 Mbit/s

95th percentile per-packet one-way delay: 112.920 ms

Loss rate: 0.00%

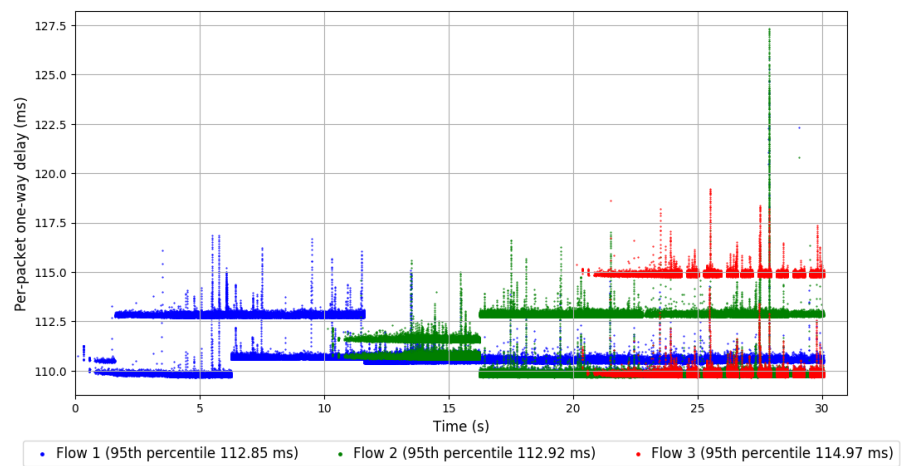
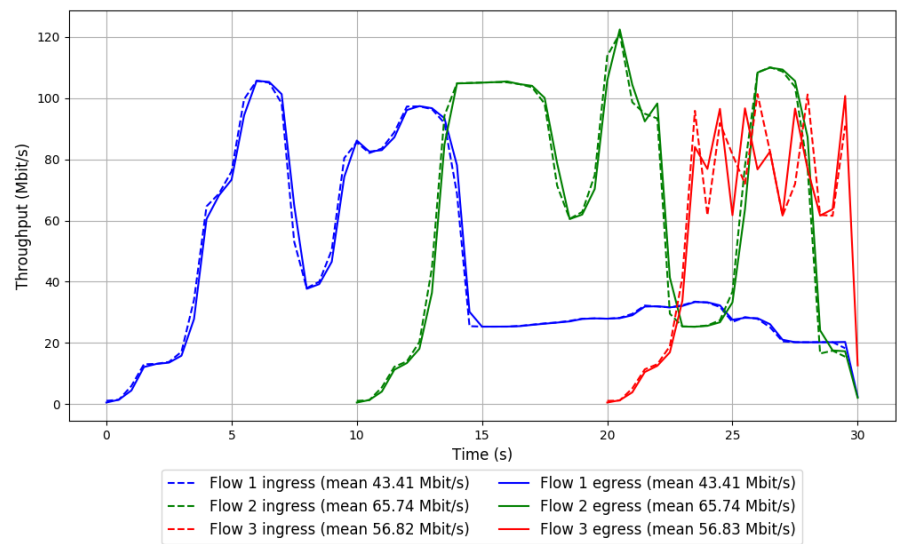
-- Flow 3:

Average throughput: 56.83 Mbit/s

95th percentile per-packet one-way delay: 114.974 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-03-21 11:23:39

End at: 2018-03-21 11:24:09

Below is generated by plot.py at 2018-03-21 14:40:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.76 Mbit/s

95th percentile per-packet one-way delay: 114.877 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 98.17 Mbit/s

95th percentile per-packet one-way delay: 114.909 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.80 Mbit/s

95th percentile per-packet one-way delay: 113.025 ms

Loss rate: 0.00%

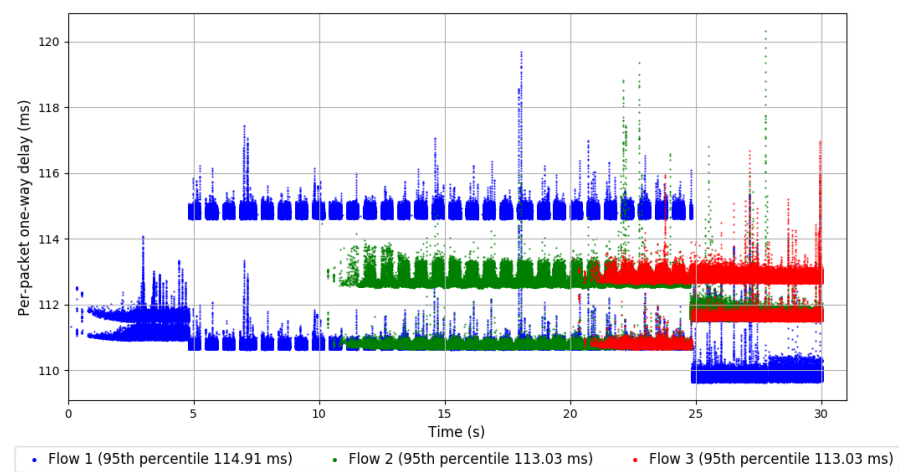
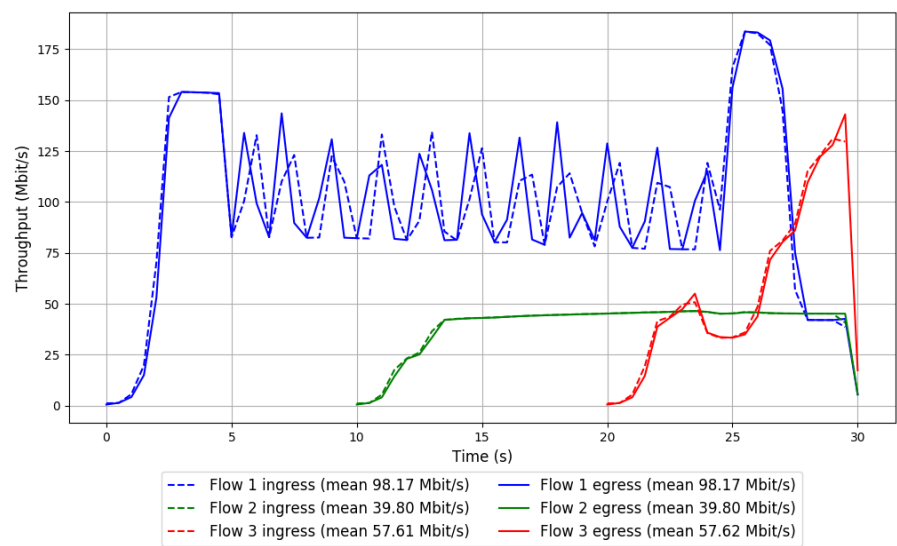
-- Flow 3:

Average throughput: 57.62 Mbit/s

95th percentile per-packet one-way delay: 113.029 ms

Loss rate: 0.01%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-03-21 11:43:03

End at: 2018-03-21 11:43:33

Below is generated by plot.py at 2018-03-21 14:46:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 350.05 Mbit/s

95th percentile per-packet one-way delay: 313.652 ms

Loss rate: 36.04%

-- Flow 1:

Average throughput: 347.21 Mbit/s

95th percentile per-packet one-way delay: 313.728 ms

Loss rate: 36.22%

-- Flow 2:

Average throughput: 3.83 Mbit/s

95th percentile per-packet one-way delay: 206.024 ms

Loss rate: 0.50%

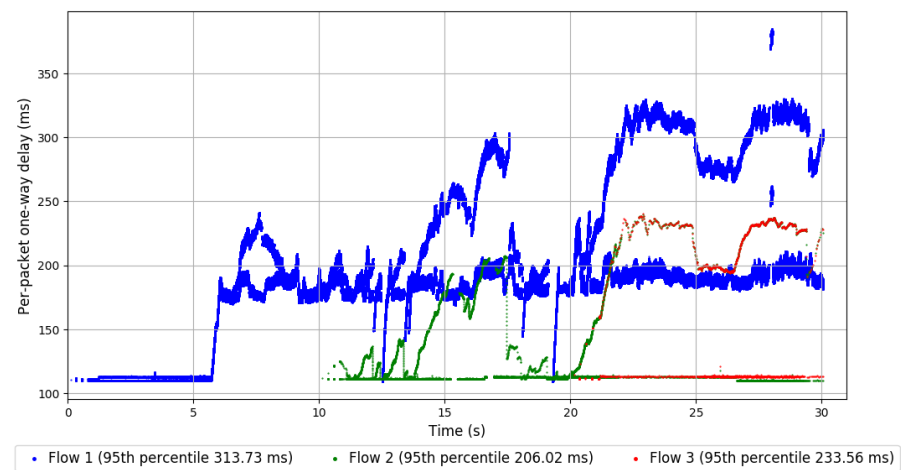
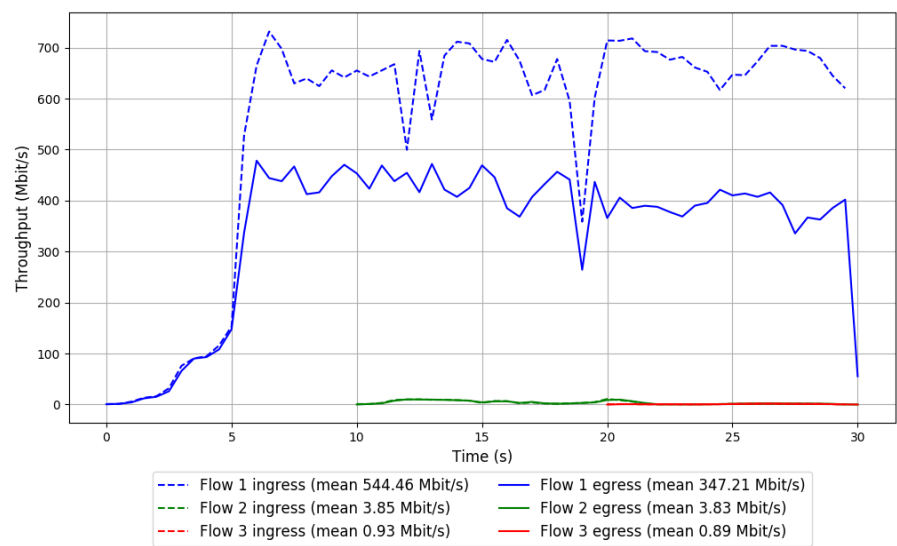
-- Flow 3:

Average throughput: 0.89 Mbit/s

95th percentile per-packet one-way delay: 233.560 ms

Loss rate: 4.79%

Run 10: Report of Copa — Data Link

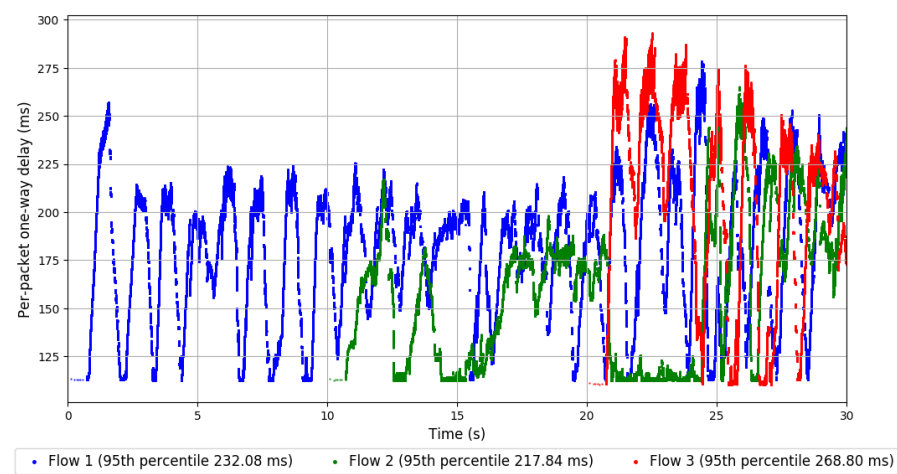
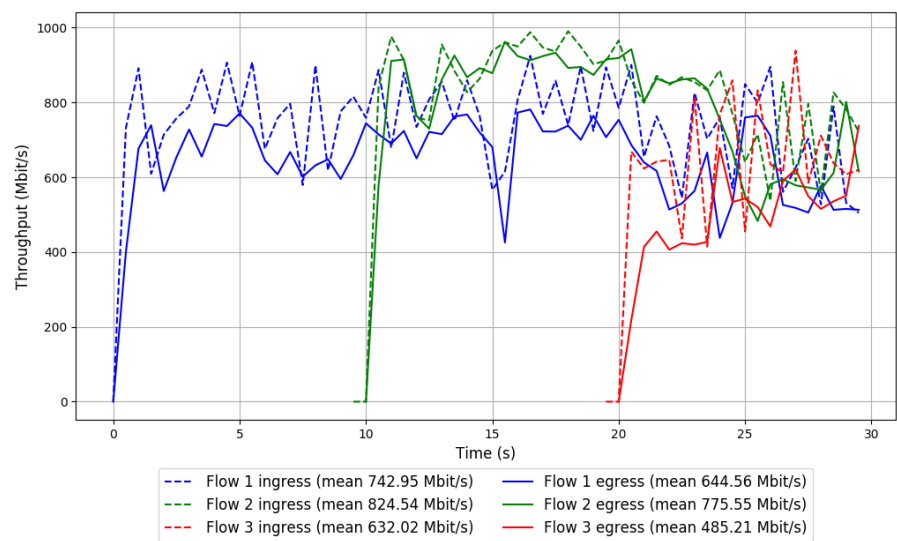


```
Run 1: Statistics of FillP

Start at: 2018-03-21 08:55:26
End at: 2018-03-21 08:55:56

# Below is generated by plot.py at 2018-03-21 15:00:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1321.95 Mbit/s
95th percentile per-packet one-way delay: 239.584 ms
Loss rate: 11.95%
-- Flow 1:
Average throughput: 644.56 Mbit/s
95th percentile per-packet one-way delay: 232.076 ms
Loss rate: 13.24%
-- Flow 2:
Average throughput: 775.55 Mbit/s
95th percentile per-packet one-way delay: 217.839 ms
Loss rate: 5.93%
-- Flow 3:
Average throughput: 485.21 Mbit/s
95th percentile per-packet one-way delay: 268.800 ms
Loss rate: 23.20%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-03-21 09:14:54

End at: 2018-03-21 09:15:24

Below is generated by plot.py at 2018-03-21 15:00:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 1297.50 Mbit/s

95th percentile per-packet one-way delay: 268.965 ms

Loss rate: 12.94%

-- Flow 1:

Average throughput: 656.46 Mbit/s

95th percentile per-packet one-way delay: 234.019 ms

Loss rate: 12.81%

-- Flow 2:

Average throughput: 662.43 Mbit/s

95th percentile per-packet one-way delay: 281.936 ms

Loss rate: 11.96%

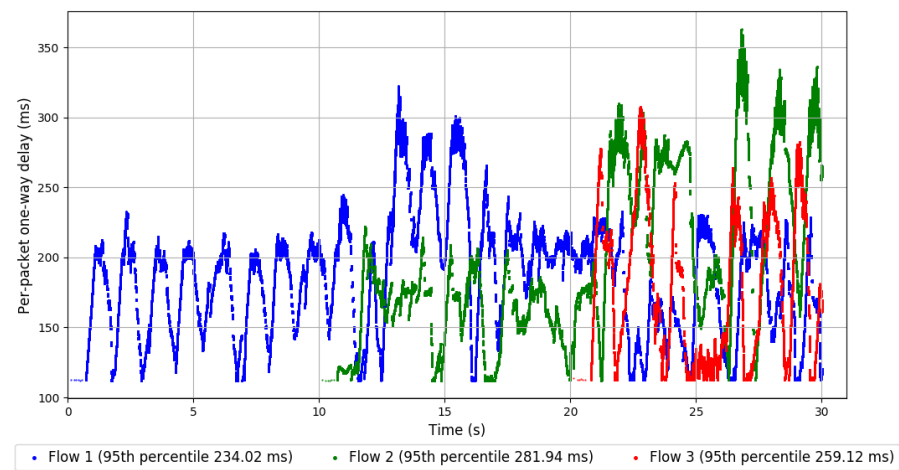
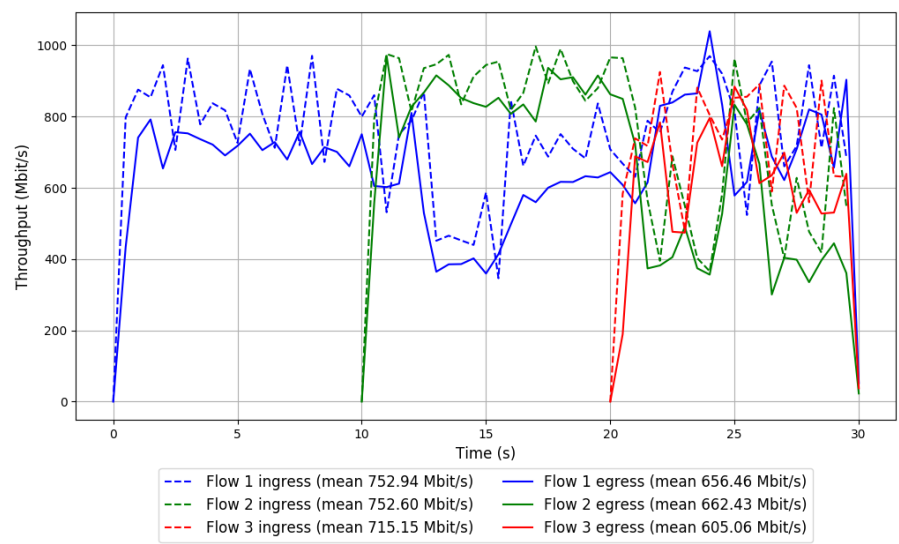
-- Flow 3:

Average throughput: 605.06 Mbit/s

95th percentile per-packet one-way delay: 259.116 ms

Loss rate: 15.40%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-21 09:34:31

End at: 2018-03-21 09:35:01

Below is generated by plot.py at 2018-03-21 15:00:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 1236.54 Mbit/s

95th percentile per-packet one-way delay: 339.393 ms

Loss rate: 12.46%

-- Flow 1:

Average throughput: 663.03 Mbit/s

95th percentile per-packet one-way delay: 238.369 ms

Loss rate: 10.86%

-- Flow 2:

Average throughput: 611.13 Mbit/s

95th percentile per-packet one-way delay: 366.085 ms

Loss rate: 12.28%

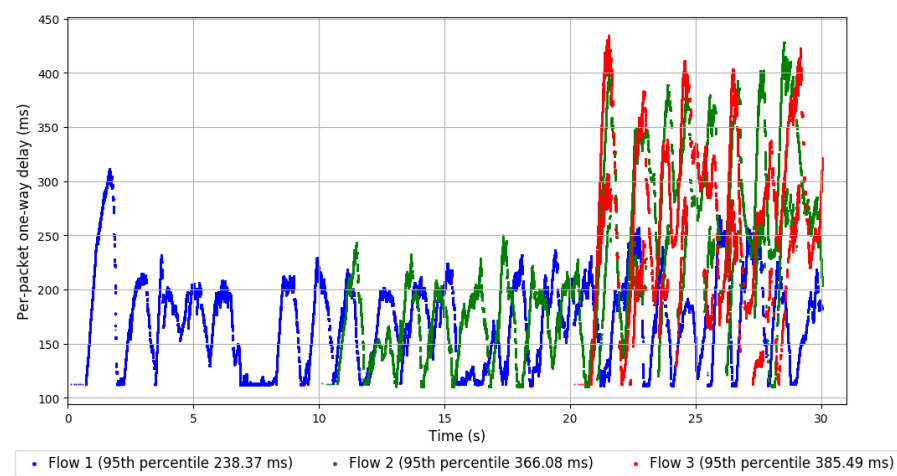
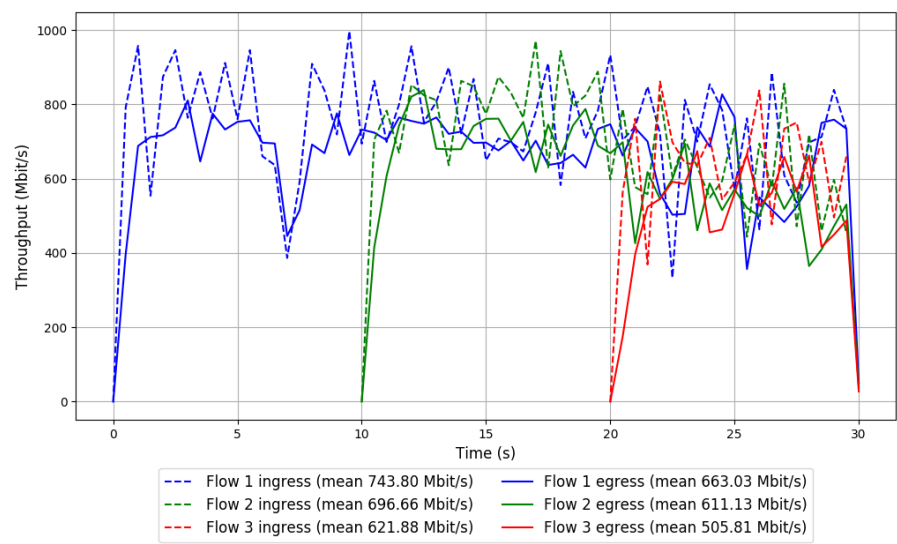
-- Flow 3:

Average throughput: 505.81 Mbit/s

95th percentile per-packet one-way delay: 385.486 ms

Loss rate: 18.66%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-03-21 09:53:52

End at: 2018-03-21 09:54:22

Below is generated by plot.py at 2018-03-21 15:00:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 1228.23 Mbit/s

95th percentile per-packet one-way delay: 338.012 ms

Loss rate: 14.88%

-- Flow 1:

Average throughput: 640.77 Mbit/s

95th percentile per-packet one-way delay: 224.203 ms

Loss rate: 15.29%

-- Flow 2:

Average throughput: 619.98 Mbit/s

95th percentile per-packet one-way delay: 360.472 ms

Loss rate: 14.35%

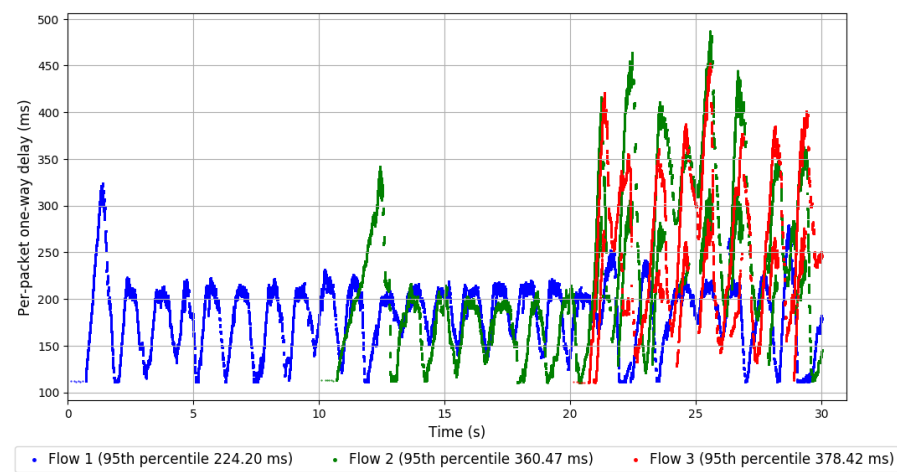
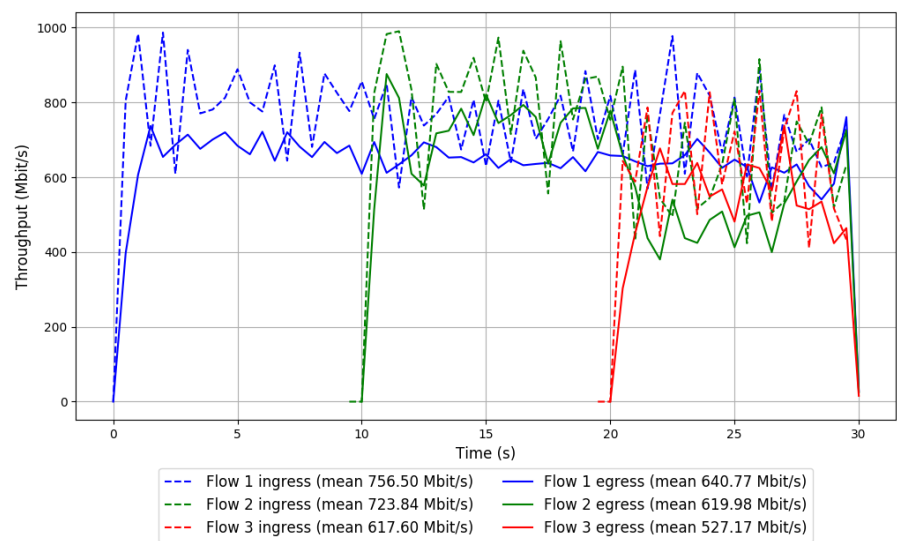
-- Flow 3:

Average throughput: 527.17 Mbit/s

95th percentile per-packet one-way delay: 378.415 ms

Loss rate: 14.61%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-03-21 10:13:11

End at: 2018-03-21 10:13:41

Below is generated by plot.py at 2018-03-21 15:00:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 1197.84 Mbit/s

95th percentile per-packet one-way delay: 344.234 ms

Loss rate: 10.16%

-- Flow 1:

Average throughput: 666.56 Mbit/s

95th percentile per-packet one-way delay: 320.324 ms

Loss rate: 7.35%

-- Flow 2:

Average throughput: 505.04 Mbit/s

95th percentile per-packet one-way delay: 366.422 ms

Loss rate: 15.29%

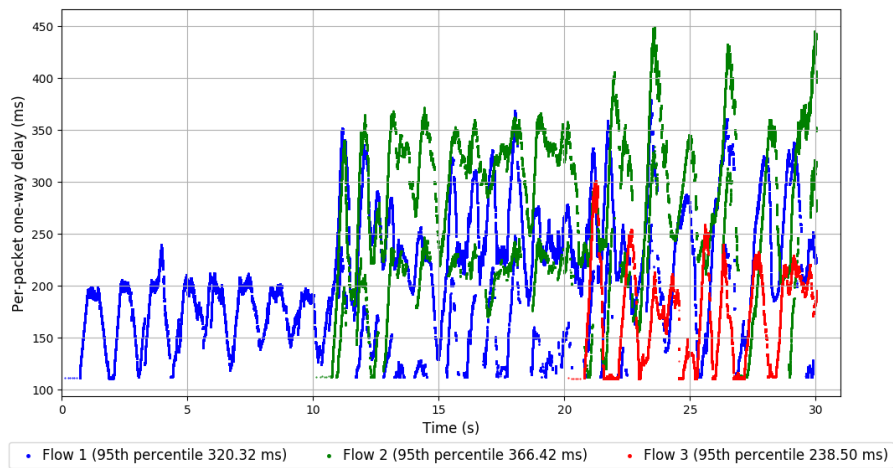
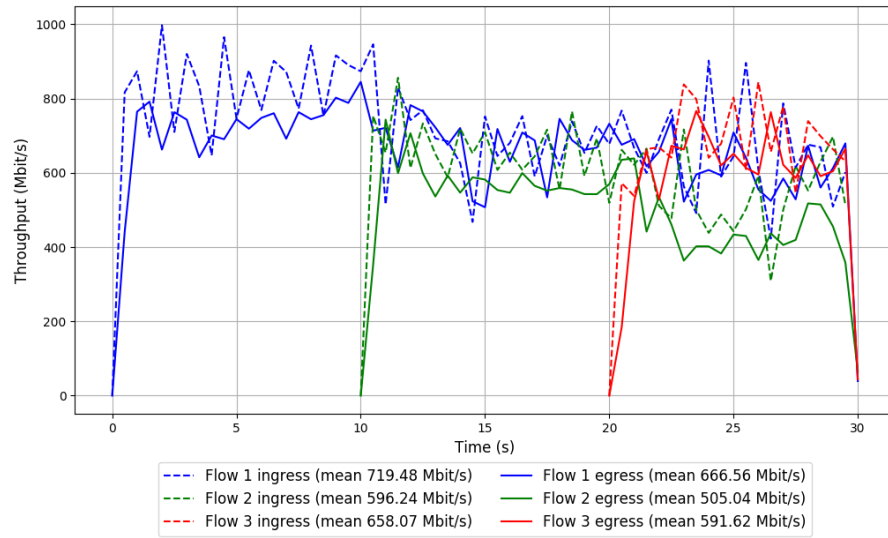
-- Flow 3:

Average throughput: 591.62 Mbit/s

95th percentile per-packet one-way delay: 238.497 ms

Loss rate: 10.08%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-03-21 10:32:24

End at: 2018-03-21 10:32:54

Below is generated by plot.py at 2018-03-21 15:01:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 1266.87 Mbit/s

95th percentile per-packet one-way delay: 238.591 ms

Loss rate: 14.00%

-- Flow 1:

Average throughput: 643.21 Mbit/s

95th percentile per-packet one-way delay: 237.450 ms

Loss rate: 13.15%

-- Flow 2:

Average throughput: 648.04 Mbit/s

95th percentile per-packet one-way delay: 227.378 ms

Loss rate: 13.40%

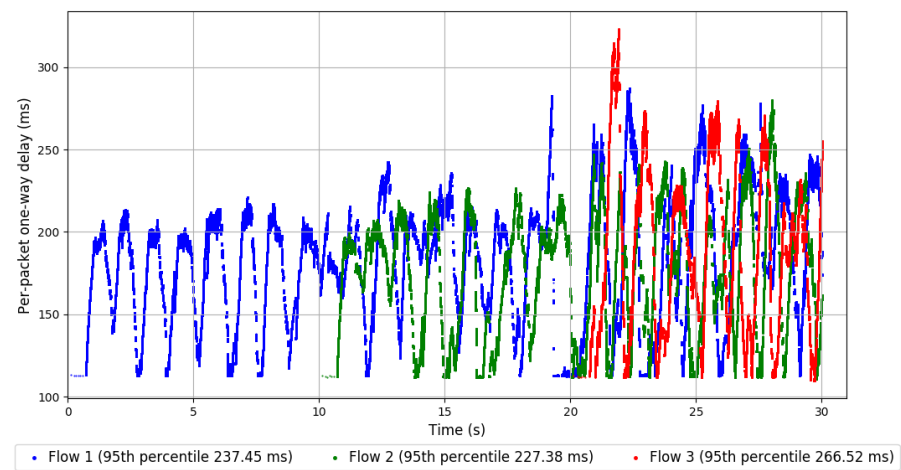
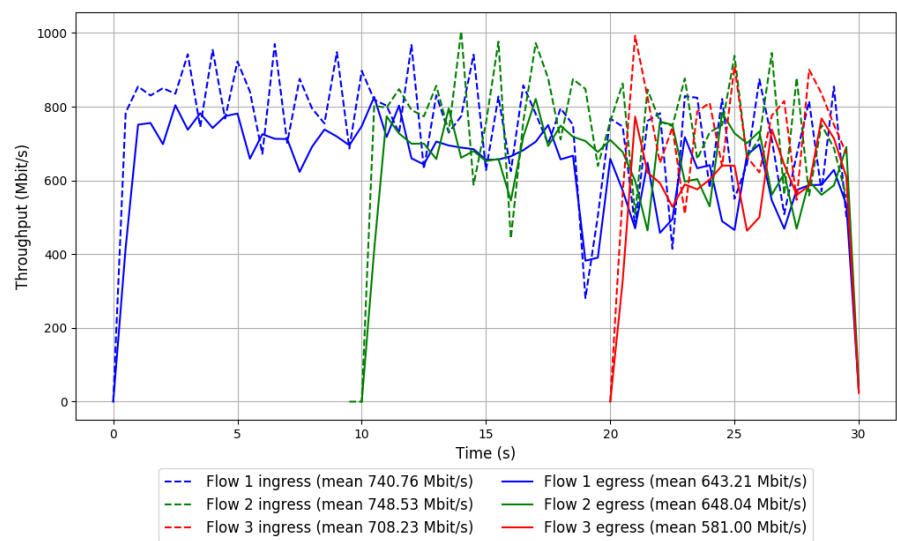
-- Flow 3:

Average throughput: 581.00 Mbit/s

95th percentile per-packet one-way delay: 266.518 ms

Loss rate: 17.96%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-03-21 10:51:47

End at: 2018-03-21 10:52:17

Below is generated by plot.py at 2018-03-21 15:03:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 1251.78 Mbit/s

95th percentile per-packet one-way delay: 251.605 ms

Loss rate: 15.68%

-- Flow 1:

Average throughput: 674.96 Mbit/s

95th percentile per-packet one-way delay: 241.831 ms

Loss rate: 13.34%

-- Flow 2:

Average throughput: 614.90 Mbit/s

95th percentile per-packet one-way delay: 247.348 ms

Loss rate: 15.73%

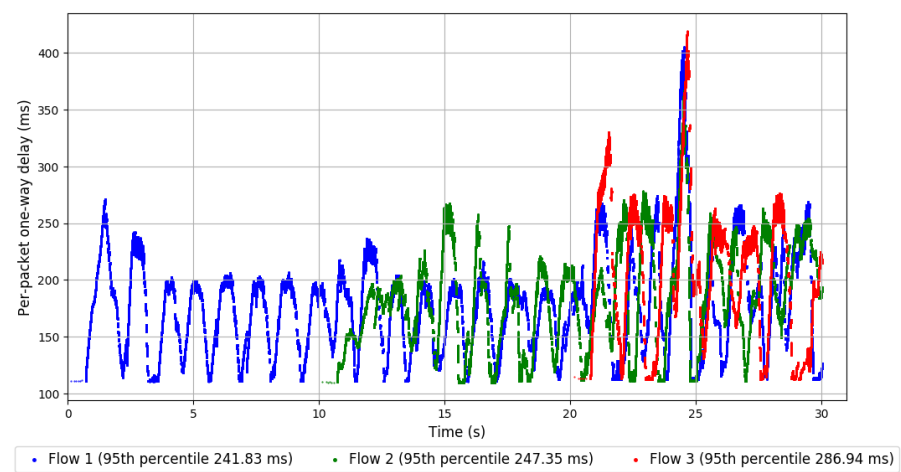
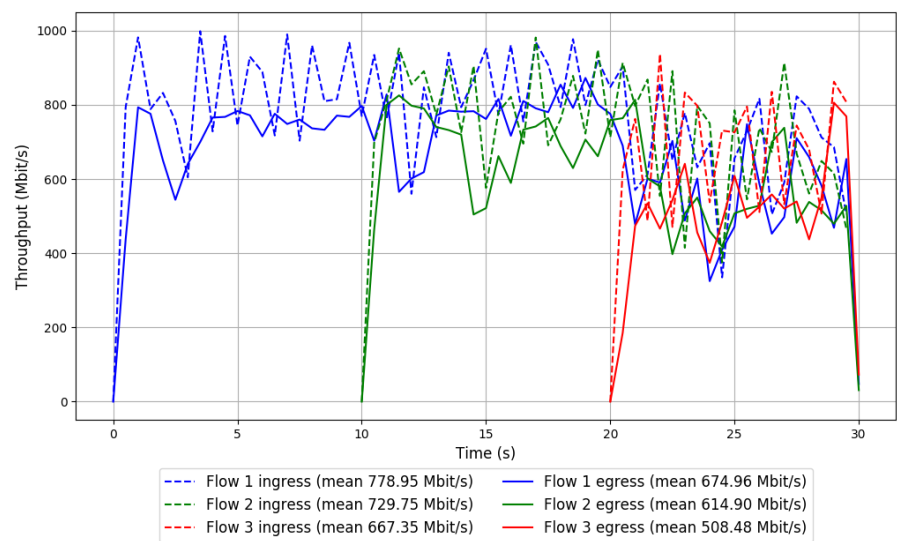
-- Flow 3:

Average throughput: 508.48 Mbit/s

95th percentile per-packet one-way delay: 286.938 ms

Loss rate: 23.82%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-03-21 11:11:20

End at: 2018-03-21 11:11:50

Below is generated by plot.py at 2018-03-21 15:12:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 1234.49 Mbit/s

95th percentile per-packet one-way delay: 333.162 ms

Loss rate: 13.01%

-- Flow 1:

Average throughput: 654.27 Mbit/s

95th percentile per-packet one-way delay: 340.290 ms

Loss rate: 12.82%

-- Flow 2:

Average throughput: 587.42 Mbit/s

95th percentile per-packet one-way delay: 270.202 ms

Loss rate: 13.72%

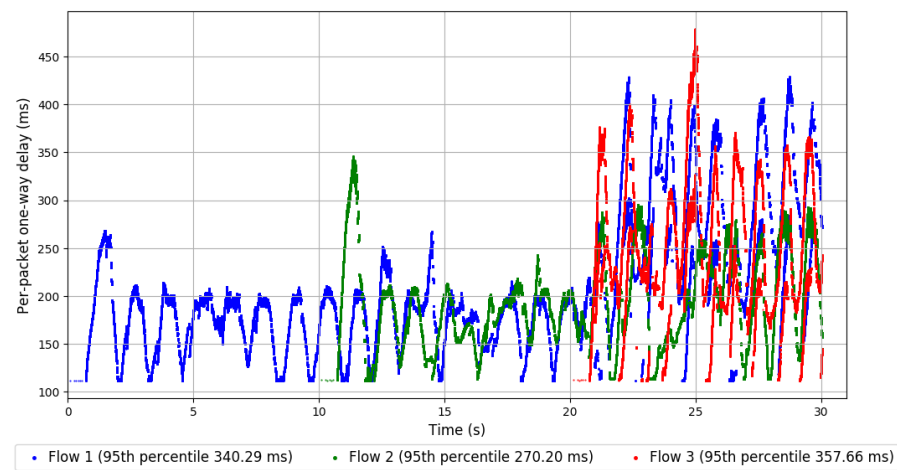
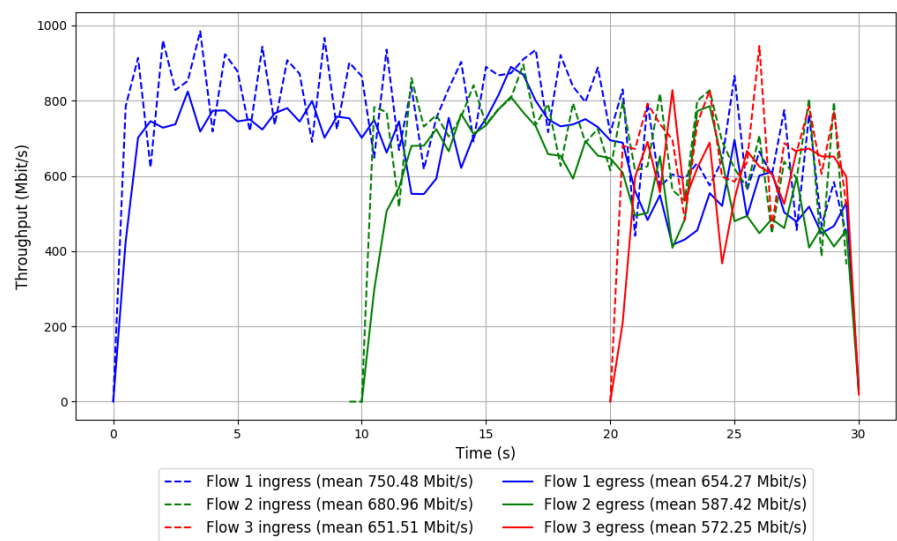
-- Flow 3:

Average throughput: 572.25 Mbit/s

95th percentile per-packet one-way delay: 357.662 ms

Loss rate: 12.18%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-21 11:30:42

End at: 2018-03-21 11:31:12

Below is generated by plot.py at 2018-03-21 15:23:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 1276.99 Mbit/s

95th percentile per-packet one-way delay: 235.357 ms

Loss rate: 12.60%

-- Flow 1:

Average throughput: 623.07 Mbit/s

95th percentile per-packet one-way delay: 233.300 ms

Loss rate: 13.86%

-- Flow 2:

Average throughput: 680.86 Mbit/s

95th percentile per-packet one-way delay: 228.677 ms

Loss rate: 11.67%

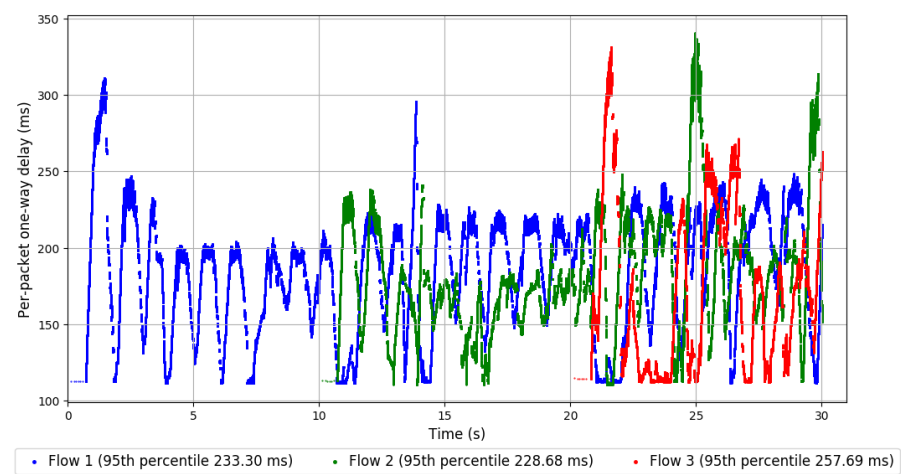
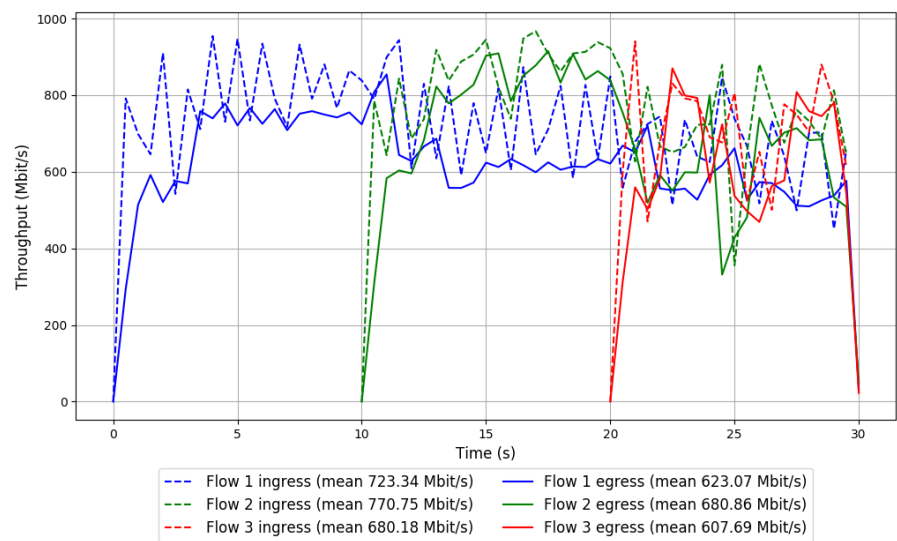
-- Flow 3:

Average throughput: 607.69 Mbit/s

95th percentile per-packet one-way delay: 257.693 ms

Loss rate: 10.67%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-03-21 11:50:25

End at: 2018-03-21 11:50:55

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 1278.18 Mbit/s

95th percentile per-packet one-way delay: 247.367 ms

Loss rate: 10.25%

-- Flow 1:

Average throughput: 670.40 Mbit/s

95th percentile per-packet one-way delay: 267.755 ms

Loss rate: 8.71%

-- Flow 2:

Average throughput: 616.26 Mbit/s

95th percentile per-packet one-way delay: 244.688 ms

Loss rate: 11.08%

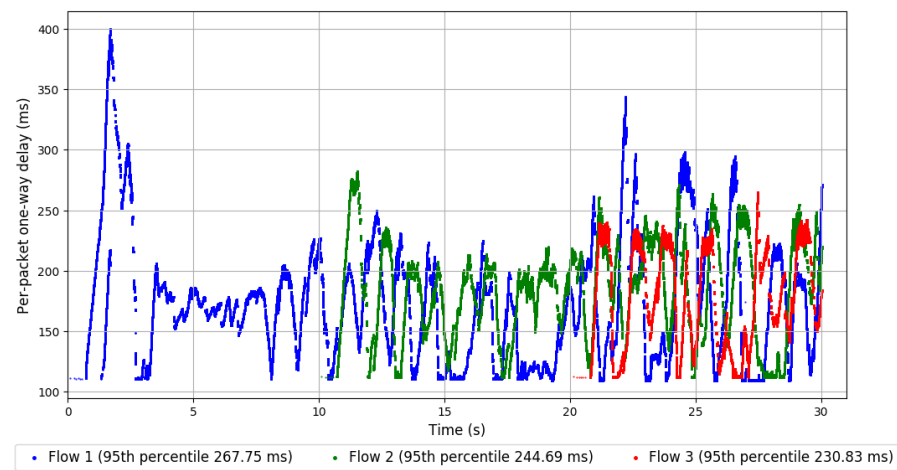
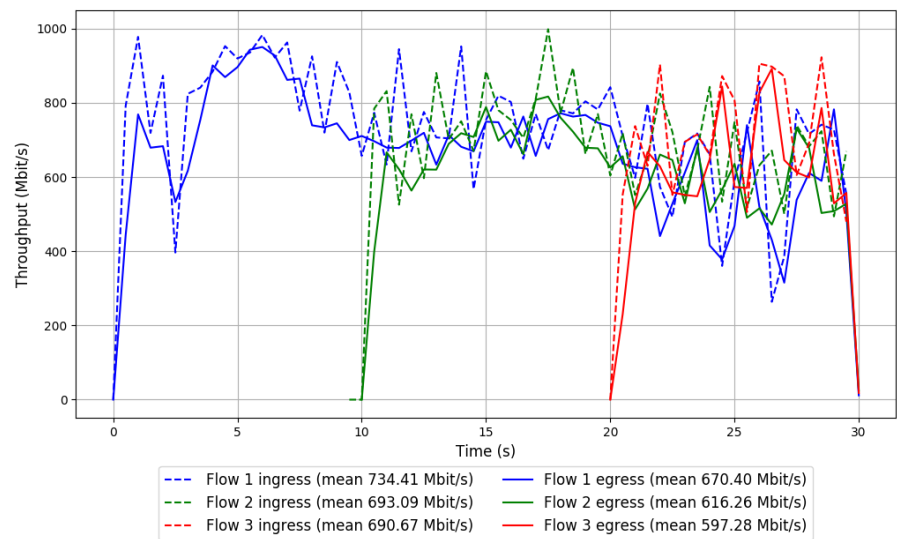
-- Flow 3:

Average throughput: 597.28 Mbit/s

95th percentile per-packet one-way delay: 230.832 ms

Loss rate: 13.52%

Run 10: Report of FillP — Data Link

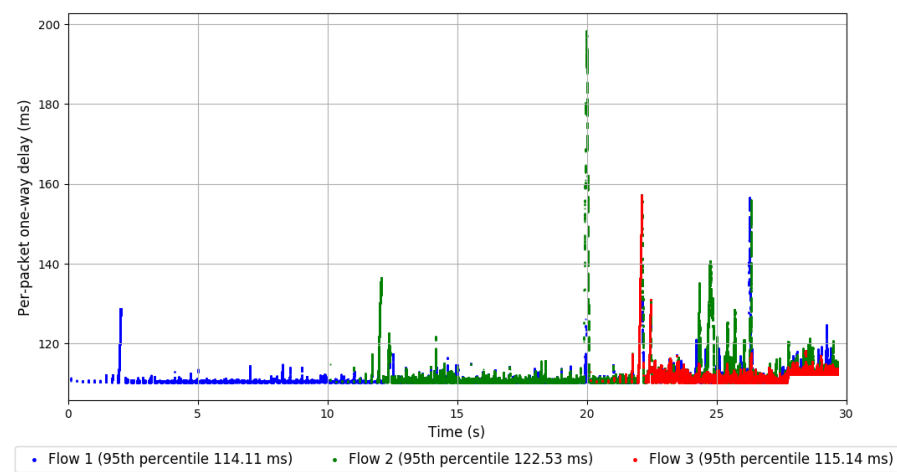
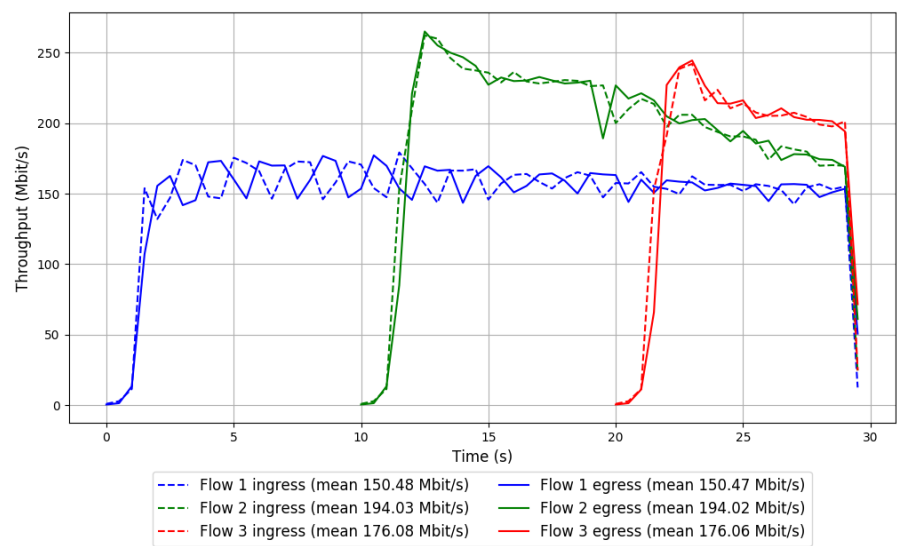


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-21 08:49:26
End at: 2018-03-21 08:49:56

# Below is generated by plot.py at 2018-03-21 15:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 335.49 Mbit/s
95th percentile per-packet one-way delay: 116.360 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 150.47 Mbit/s
95th percentile per-packet one-way delay: 114.115 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 194.02 Mbit/s
95th percentile per-packet one-way delay: 122.532 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.06 Mbit/s
95th percentile per-packet one-way delay: 115.136 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-1-32 — Data Link



Run 2: Statistics of Indigo-1-32

Start at: 2018-03-21 09:08:57

End at: 2018-03-21 09:09:27

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 293.85 Mbit/s

95th percentile per-packet one-way delay: 113.025 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 152.00 Mbit/s

95th percentile per-packet one-way delay: 112.899 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 150.37 Mbit/s

95th percentile per-packet one-way delay: 113.806 ms

Loss rate: 0.00%

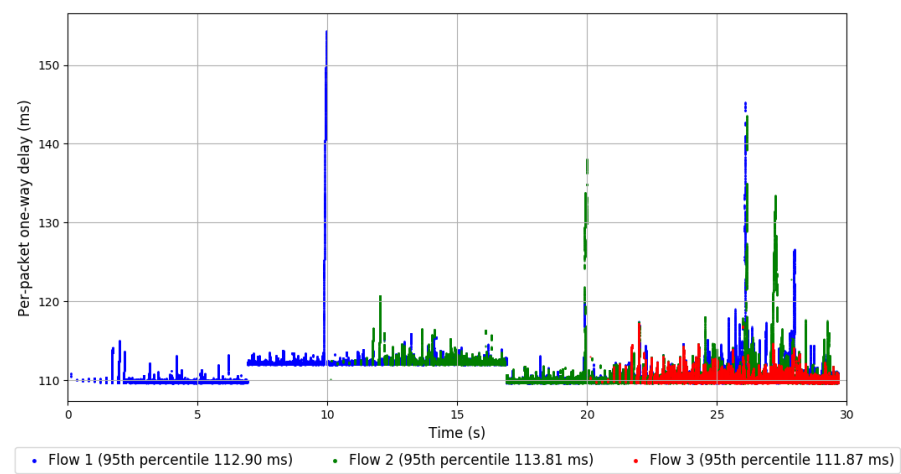
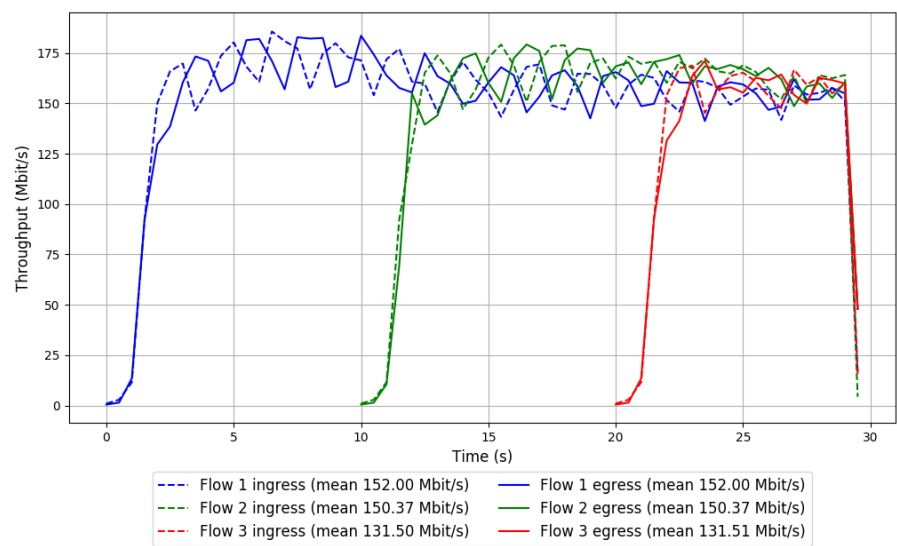
-- Flow 3:

Average throughput: 131.51 Mbit/s

95th percentile per-packet one-way delay: 111.866 ms

Loss rate: 0.00%

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-21 09:28:25

End at: 2018-03-21 09:28:55

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 279.36 Mbit/s

95th percentile per-packet one-way delay: 113.443 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 144.16 Mbit/s

95th percentile per-packet one-way delay: 113.245 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 139.07 Mbit/s

95th percentile per-packet one-way delay: 113.517 ms

Loss rate: 0.00%

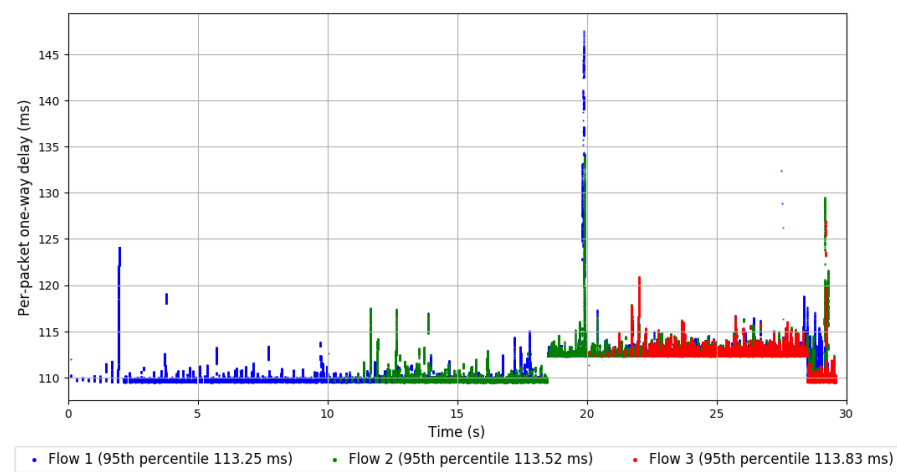
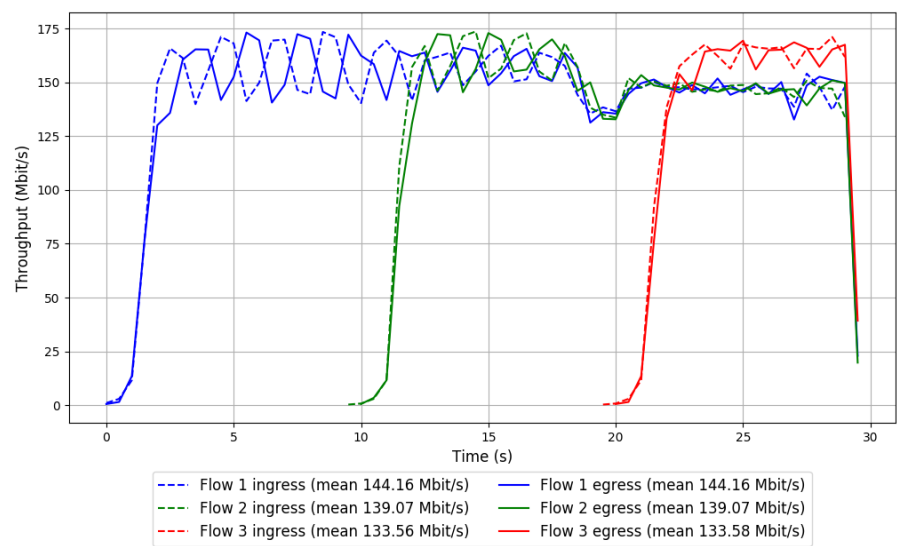
-- Flow 3:

Average throughput: 133.58 Mbit/s

95th percentile per-packet one-way delay: 113.831 ms

Loss rate: 0.00%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-03-21 09:47:52

End at: 2018-03-21 09:48:22

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 286.41 Mbit/s

95th percentile per-packet one-way delay: 114.128 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 152.80 Mbit/s

95th percentile per-packet one-way delay: 113.209 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 138.08 Mbit/s

95th percentile per-packet one-way delay: 114.027 ms

Loss rate: 0.00%

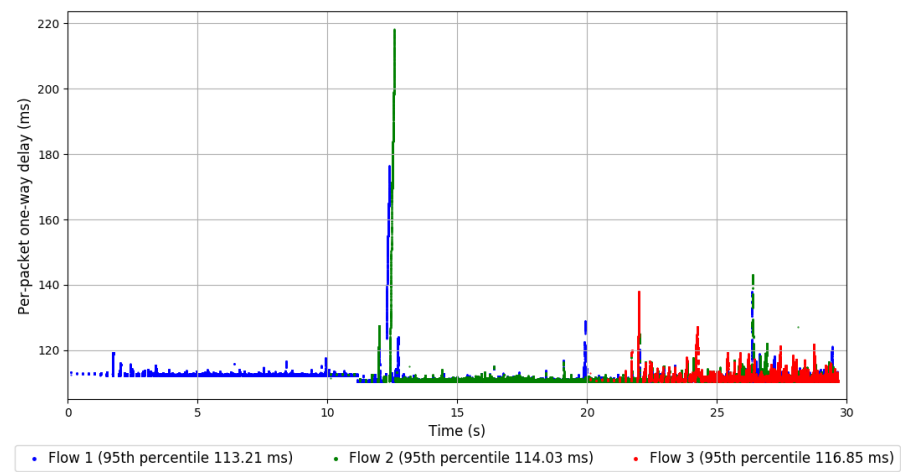
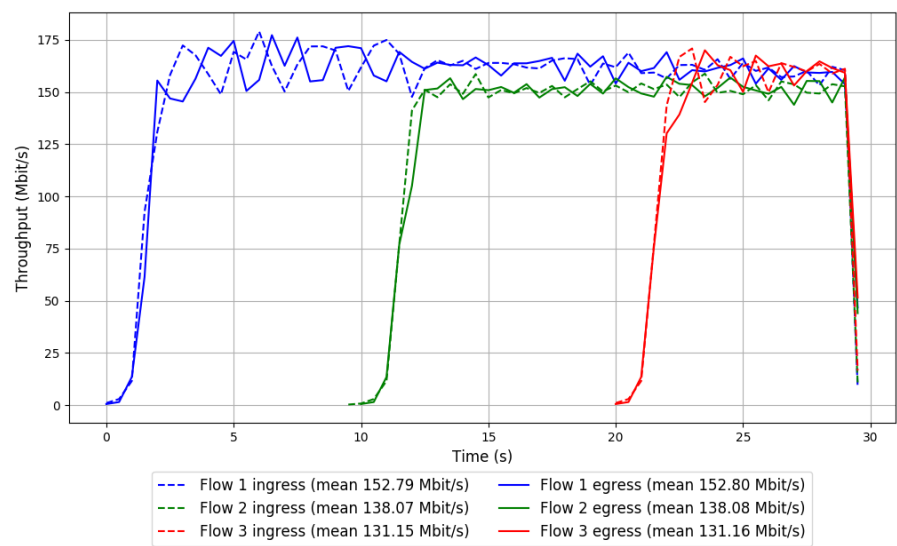
-- Flow 3:

Average throughput: 131.16 Mbit/s

95th percentile per-packet one-way delay: 116.854 ms

Loss rate: 0.00%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-21 10:07:09

End at: 2018-03-21 10:07:39

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 344.20 Mbit/s

95th percentile per-packet one-way delay: 114.691 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 207.54 Mbit/s

95th percentile per-packet one-way delay: 115.897 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 143.33 Mbit/s

95th percentile per-packet one-way delay: 113.837 ms

Loss rate: 0.00%

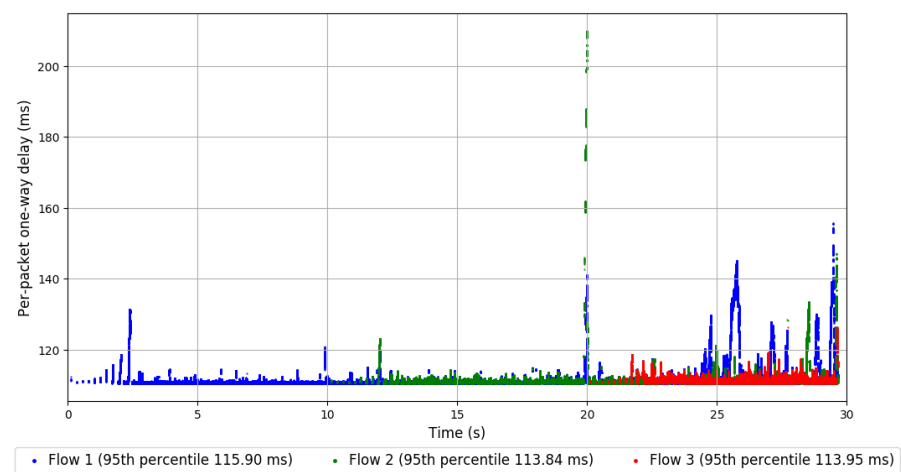
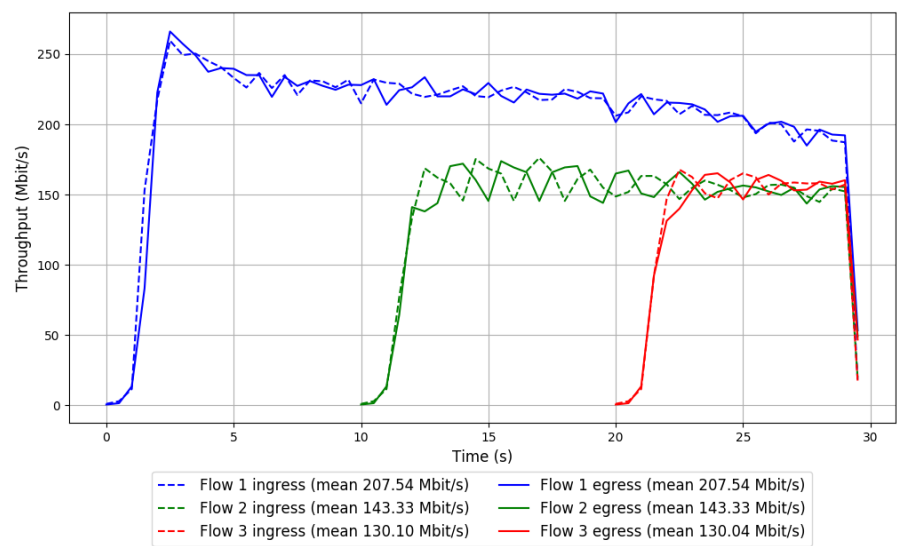
-- Flow 3:

Average throughput: 130.04 Mbit/s

95th percentile per-packet one-way delay: 113.949 ms

Loss rate: 0.00%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-21 10:26:25

End at: 2018-03-21 10:26:55

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 321.53 Mbit/s

95th percentile per-packet one-way delay: 115.486 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 147.93 Mbit/s

95th percentile per-packet one-way delay: 114.403 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 197.66 Mbit/s

95th percentile per-packet one-way delay: 121.762 ms

Loss rate: 0.00%

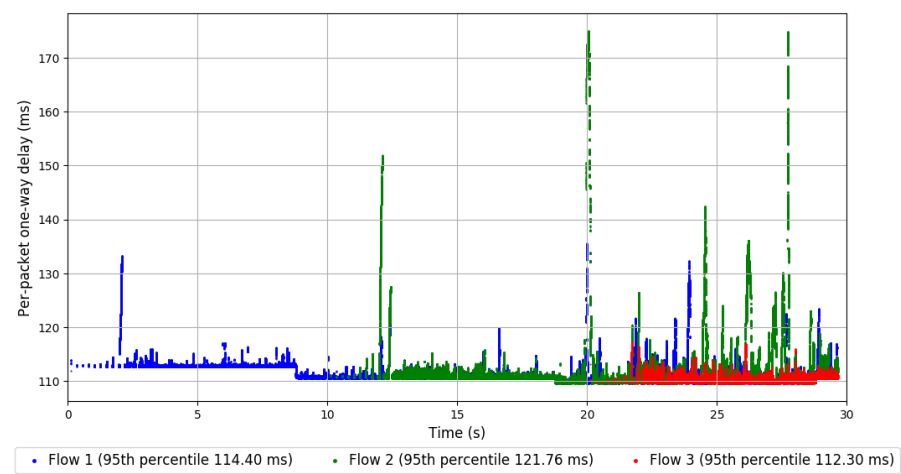
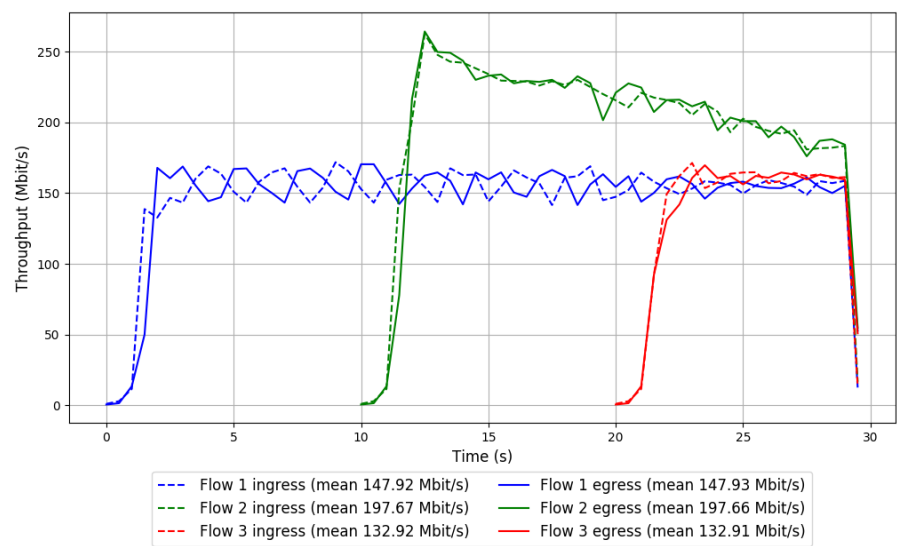
-- Flow 3:

Average throughput: 132.91 Mbit/s

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

Loss rate: 0.00%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-21 10:45:46

End at: 2018-03-21 10:46:16

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 325.12 Mbit/s

95th percentile per-packet one-way delay: 116.353 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 152.72 Mbit/s

95th percentile per-packet one-way delay: 113.025 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 196.98 Mbit/s

95th percentile per-packet one-way delay: 123.198 ms

Loss rate: 0.00%

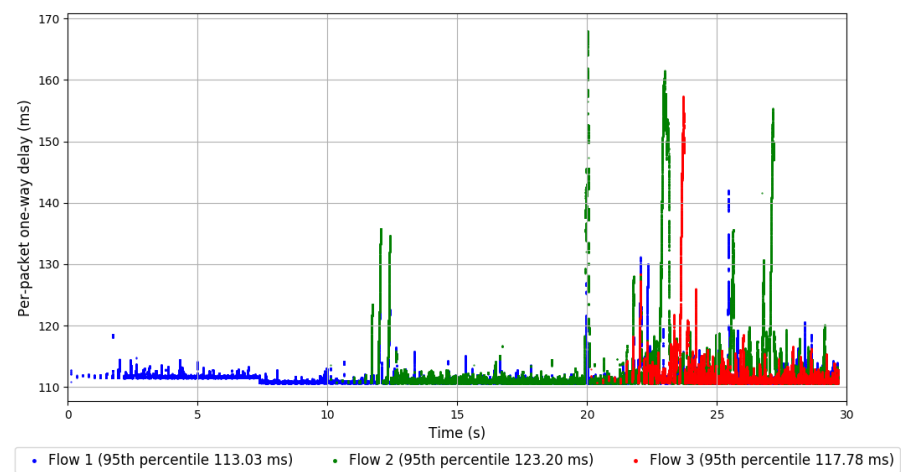
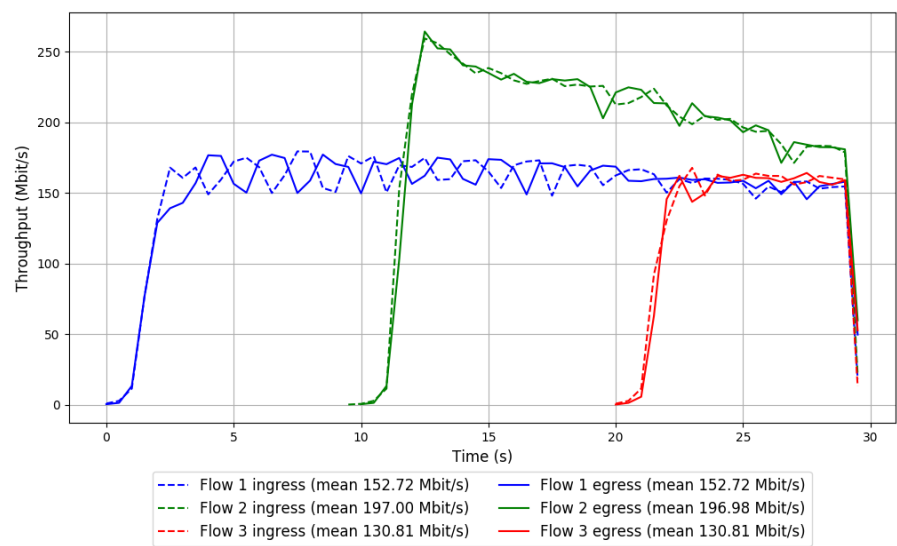
-- Flow 3:

Average throughput: 130.81 Mbit/s

95th percentile per-packet one-way delay: 117.780 ms

Loss rate: 0.01%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-03-21 11:05:26

End at: 2018-03-21 11:05:56

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 330.38 Mbit/s

95th percentile per-packet one-way delay: 119.911 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 149.35 Mbit/s

95th percentile per-packet one-way delay: 116.248 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 188.74 Mbit/s

95th percentile per-packet one-way delay: 120.597 ms

Loss rate: 0.00%

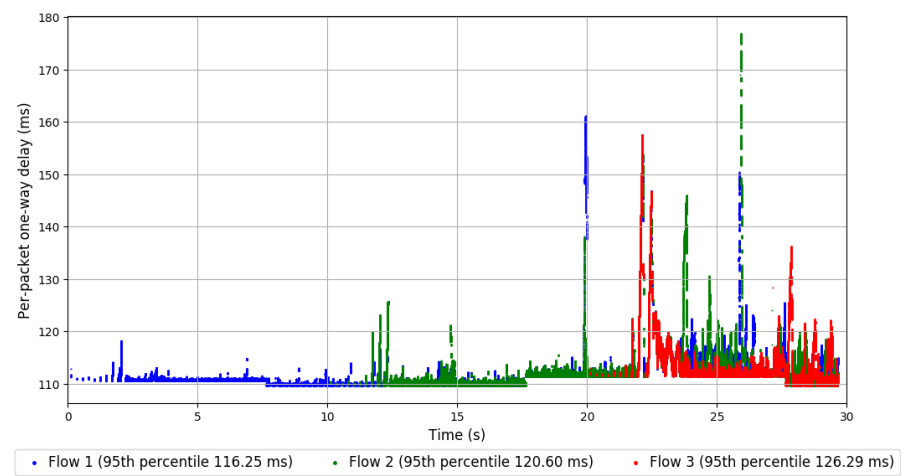
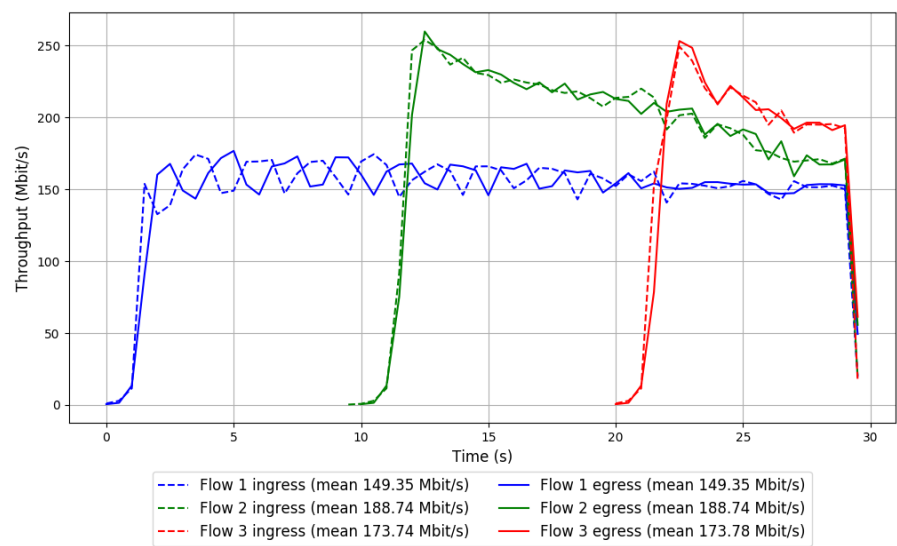
-- Flow 3:

Average throughput: 173.78 Mbit/s

95th percentile per-packet one-way delay: 126.293 ms

Loss rate: 0.00%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-03-21 11:24:39

End at: 2018-03-21 11:25:09

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 293.51 Mbit/s

95th percentile per-packet one-way delay: 113.342 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 153.22 Mbit/s

95th percentile per-packet one-way delay: 112.866 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 142.47 Mbit/s

95th percentile per-packet one-way delay: 113.479 ms

Loss rate: 0.01%

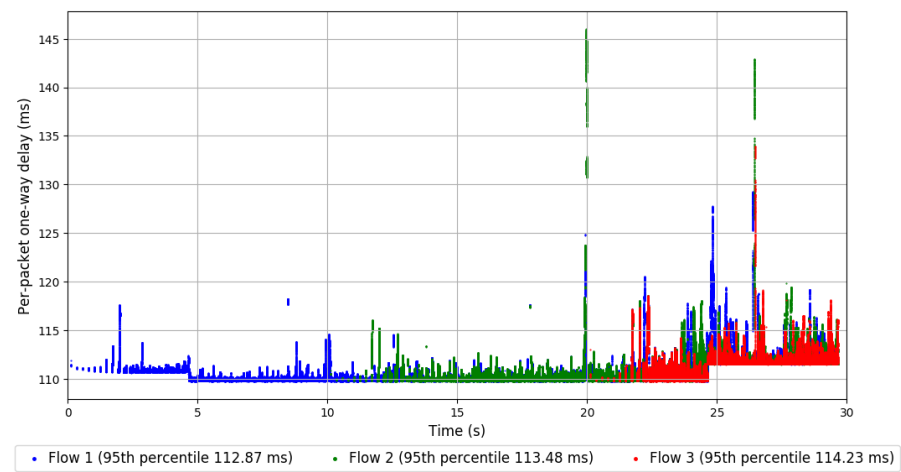
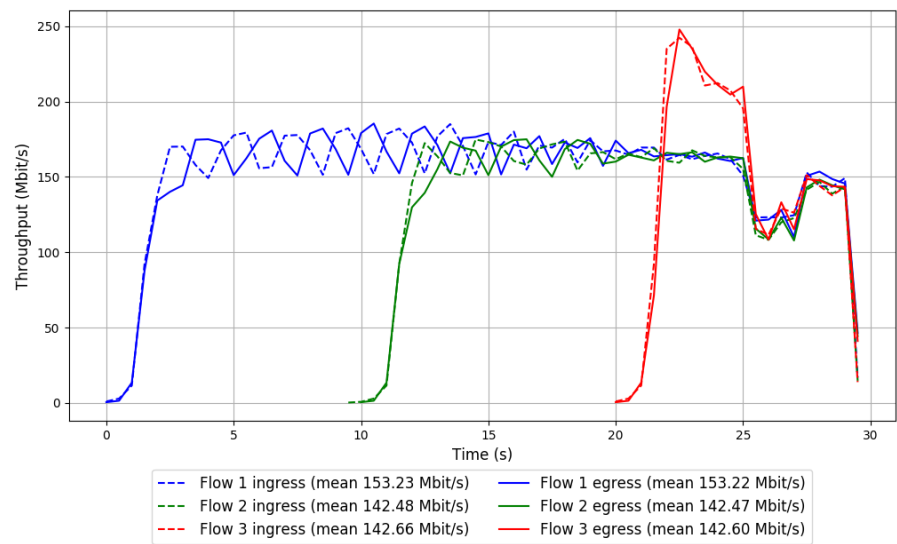
-- Flow 3:

Average throughput: 142.60 Mbit/s

95th percentile per-packet one-way delay: 114.226 ms

Loss rate: 0.05%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-21 11:44:20

End at: 2018-03-21 11:44:50

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 339.12 Mbit/s

95th percentile per-packet one-way delay: 119.768 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 151.73 Mbit/s

95th percentile per-packet one-way delay: 114.042 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 197.25 Mbit/s

95th percentile per-packet one-way delay: 122.700 ms

Loss rate: 0.00%

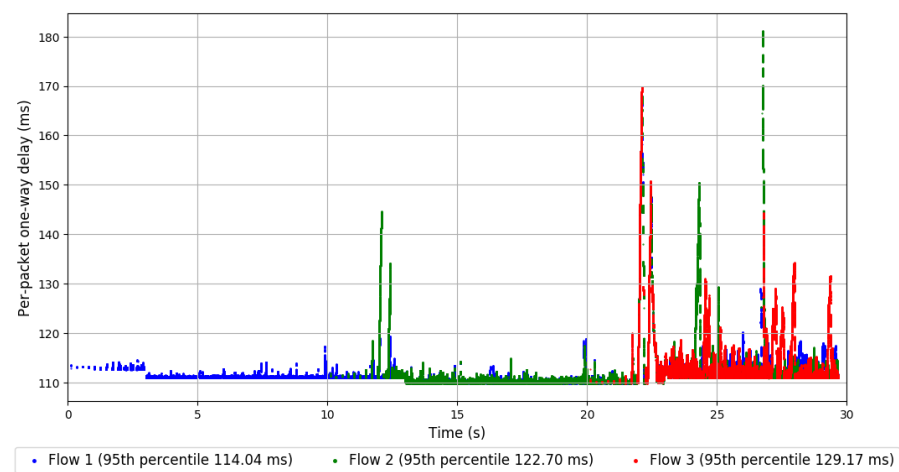
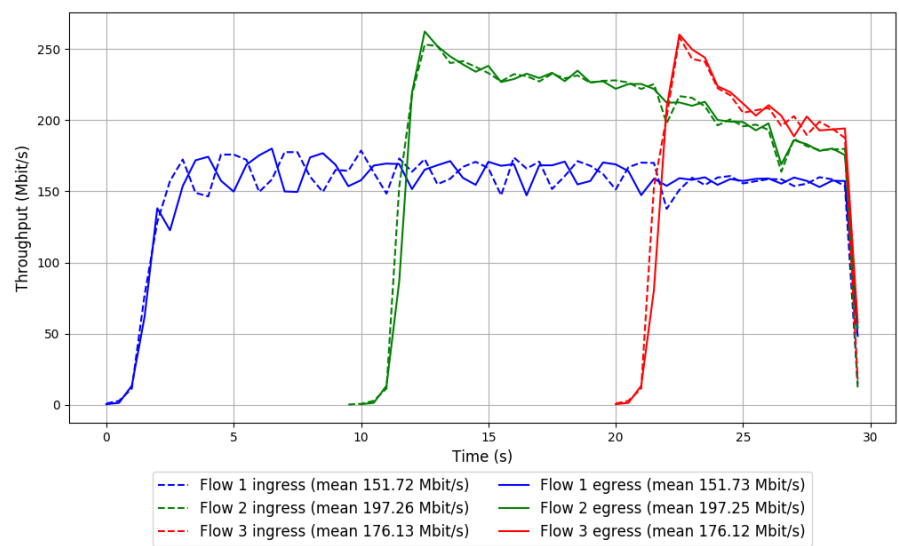
-- Flow 3:

Average throughput: 176.12 Mbit/s

95th percentile per-packet one-way delay: 129.168 ms

Loss rate: 0.00%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-03-21 08:50:38

End at: 2018-03-21 08:51:08

Below is generated by plot.py at 2018-03-21 15:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 396.49 Mbit/s

95th percentile per-packet one-way delay: 127.496 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 233.51 Mbit/s

95th percentile per-packet one-way delay: 114.178 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 193.07 Mbit/s

95th percentile per-packet one-way delay: 134.130 ms

Loss rate: 0.00%

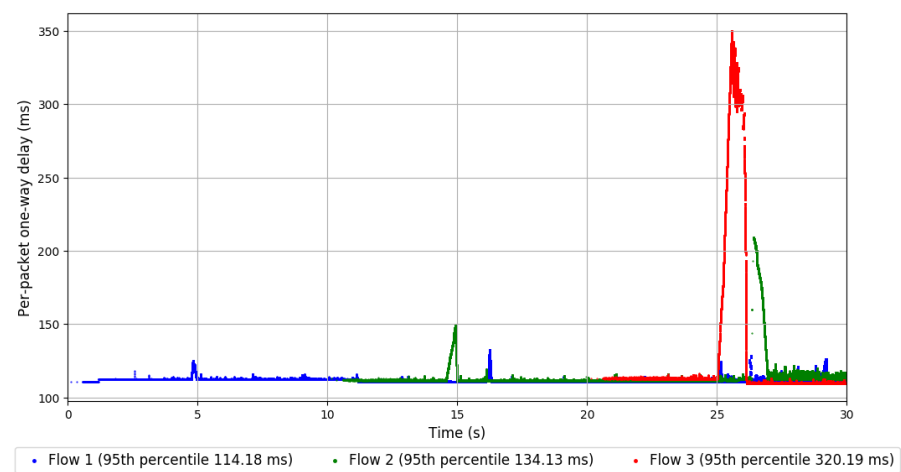
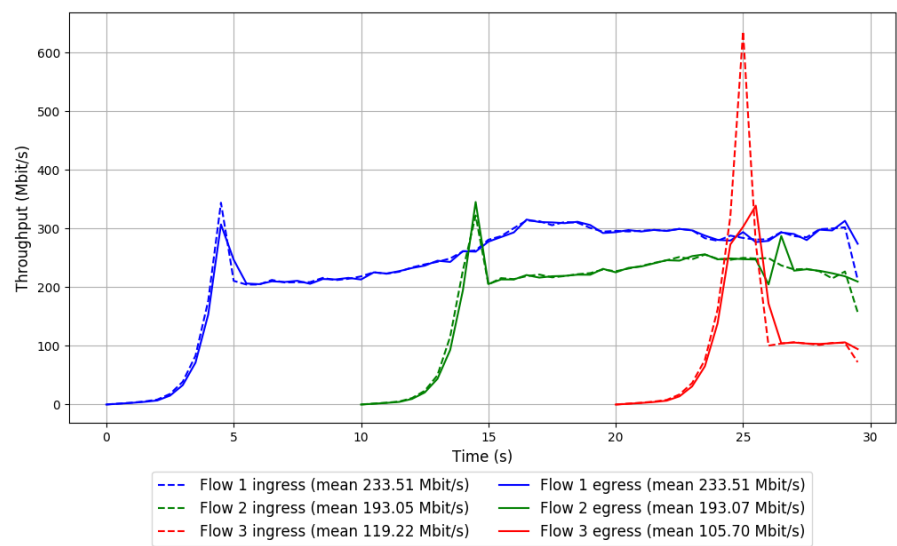
-- Flow 3:

Average throughput: 105.70 Mbit/s

95th percentile per-packet one-way delay: 320.186 ms

Loss rate: 11.37%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-21 09:10:06

End at: 2018-03-21 09:10:36

Below is generated by plot.py at 2018-03-21 15:24:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 399.68 Mbit/s

95th percentile per-packet one-way delay: 117.499 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 238.15 Mbit/s

95th percentile per-packet one-way delay: 115.160 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 179.97 Mbit/s

95th percentile per-packet one-way delay: 117.453 ms

Loss rate: 0.01%

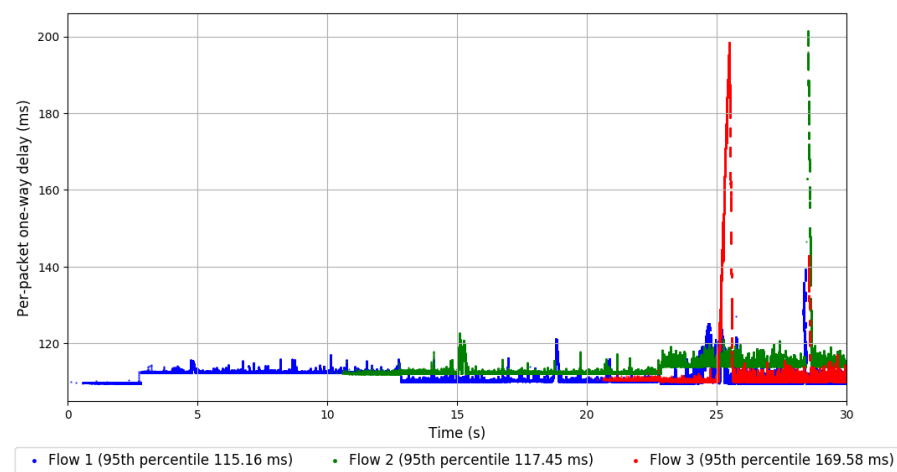
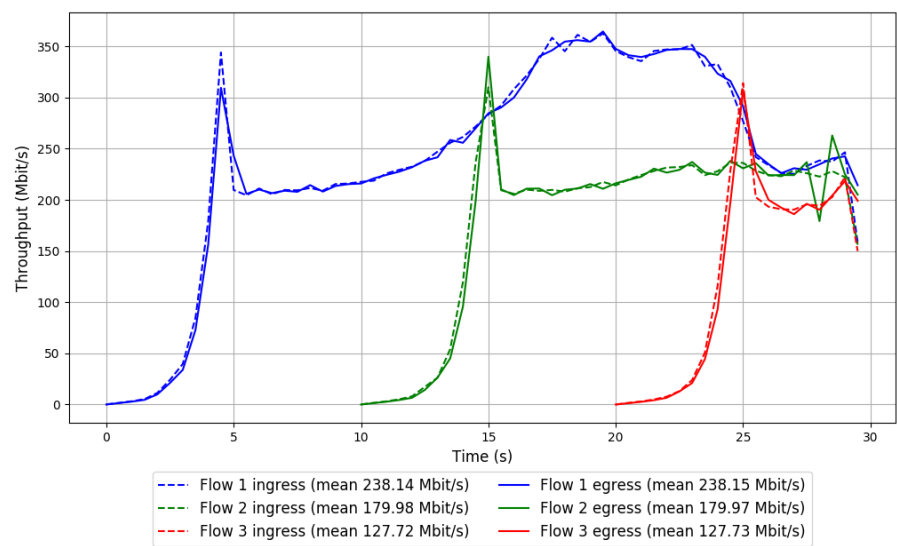
-- Flow 3:

Average throughput: 127.73 Mbit/s

95th percentile per-packet one-way delay: 169.578 ms

Loss rate: 0.00%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-21 09:29:33

End at: 2018-03-21 09:30:03

Below is generated by plot.py at 2018-03-21 15:24:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 476.88 Mbit/s

95th percentile per-packet one-way delay: 159.237 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 321.03 Mbit/s

95th percentile per-packet one-way delay: 174.242 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 198.45 Mbit/s

95th percentile per-packet one-way delay: 115.640 ms

Loss rate: 0.00%

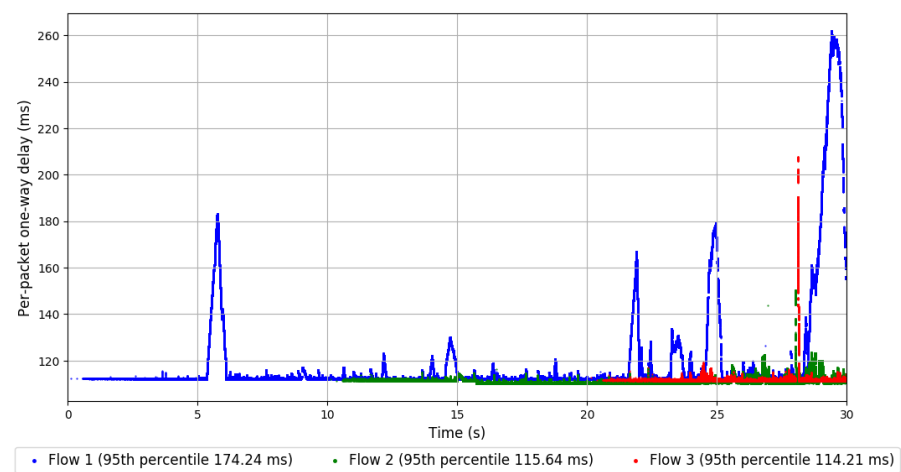
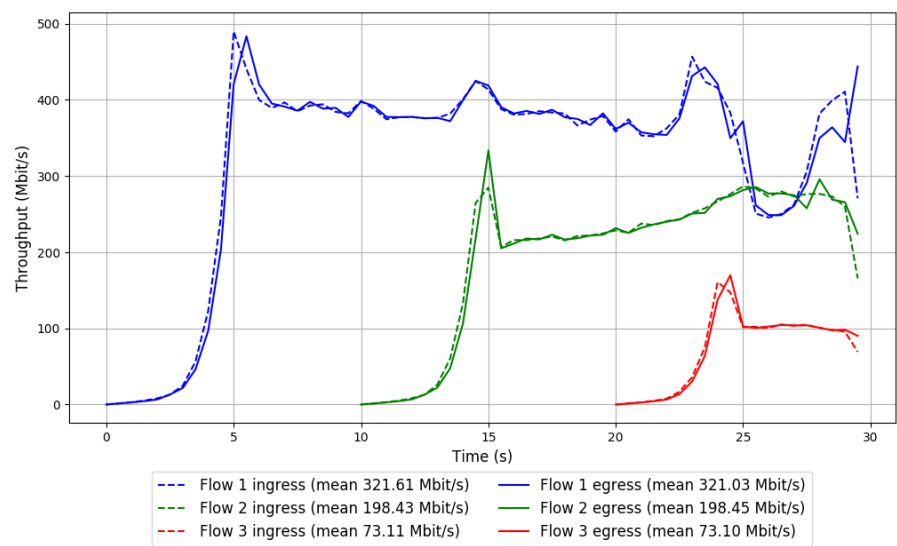
-- Flow 3:

Average throughput: 73.10 Mbit/s

95th percentile per-packet one-way delay: 114.206 ms

Loss rate: 0.00%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-03-21 09:49:02

End at: 2018-03-21 09:49:32

Below is generated by plot.py at 2018-03-21 15:24:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 438.64 Mbit/s

95th percentile per-packet one-way delay: 176.250 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 286.68 Mbit/s

95th percentile per-packet one-way delay: 141.297 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 163.52 Mbit/s

95th percentile per-packet one-way delay: 245.005 ms

Loss rate: 0.45%

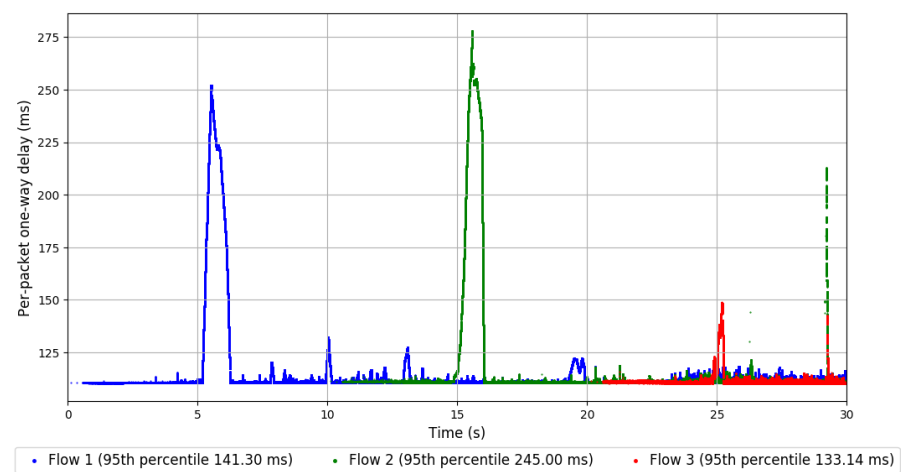
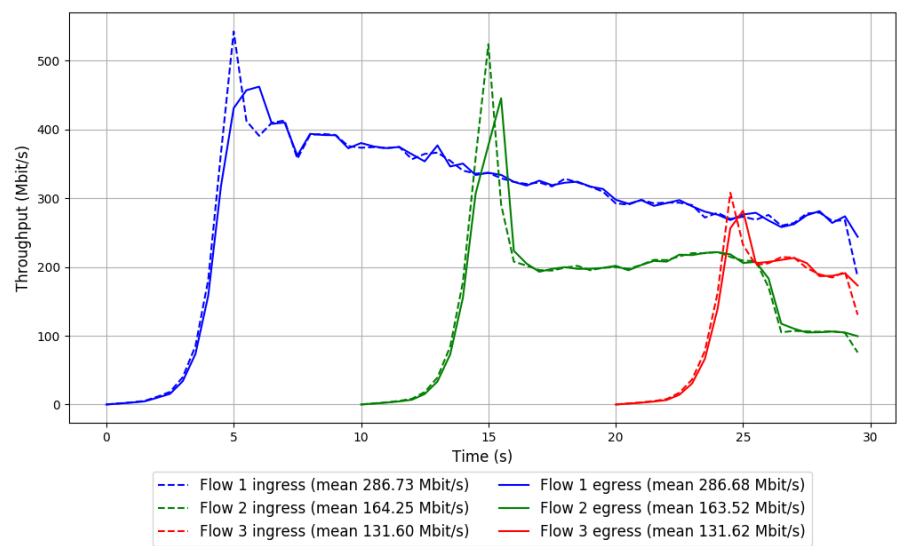
-- Flow 3:

Average throughput: 131.62 Mbit/s

95th percentile per-packet one-way delay: 133.136 ms

Loss rate: 0.00%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-03-21 10:08:22

End at: 2018-03-21 10:08:52

Below is generated by plot.py at 2018-03-21 15:24:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 441.12 Mbit/s

95th percentile per-packet one-way delay: 255.708 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 229.87 Mbit/s

95th percentile per-packet one-way delay: 294.541 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 256.54 Mbit/s

95th percentile per-packet one-way delay: 193.728 ms

Loss rate: 0.63%

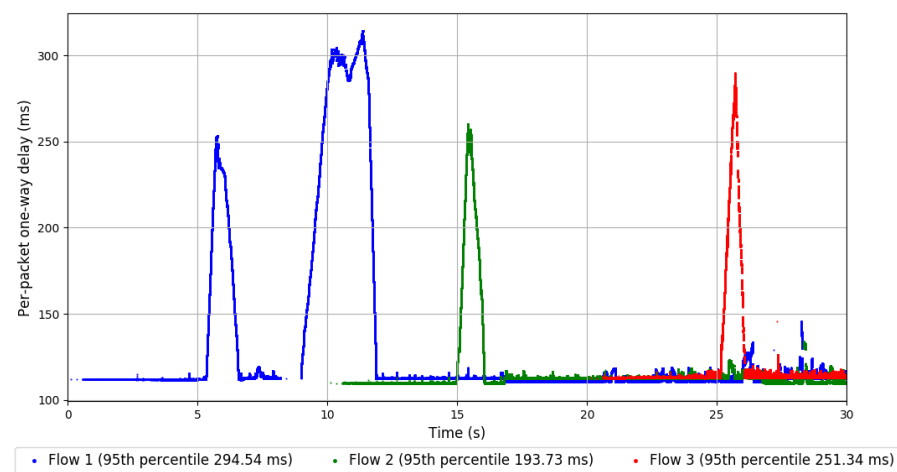
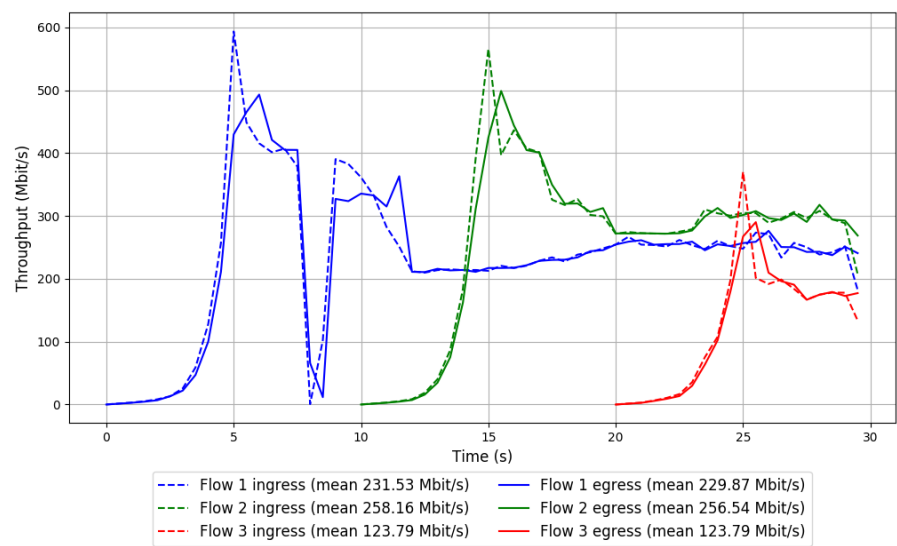
-- Flow 3:

Average throughput: 123.79 Mbit/s

95th percentile per-packet one-way delay: 251.341 ms

Loss rate: 0.00%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-03-21 10:27:36

End at: 2018-03-21 10:28:06

Below is generated by plot.py at 2018-03-21 15:24:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 437.86 Mbit/s

95th percentile per-packet one-way delay: 198.417 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 275.99 Mbit/s

95th percentile per-packet one-way delay: 218.351 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 181.95 Mbit/s

95th percentile per-packet one-way delay: 113.265 ms

Loss rate: 0.00%

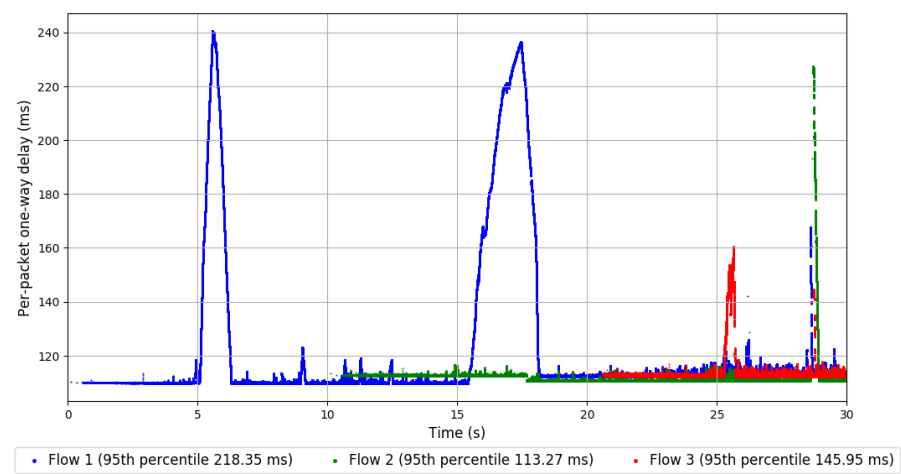
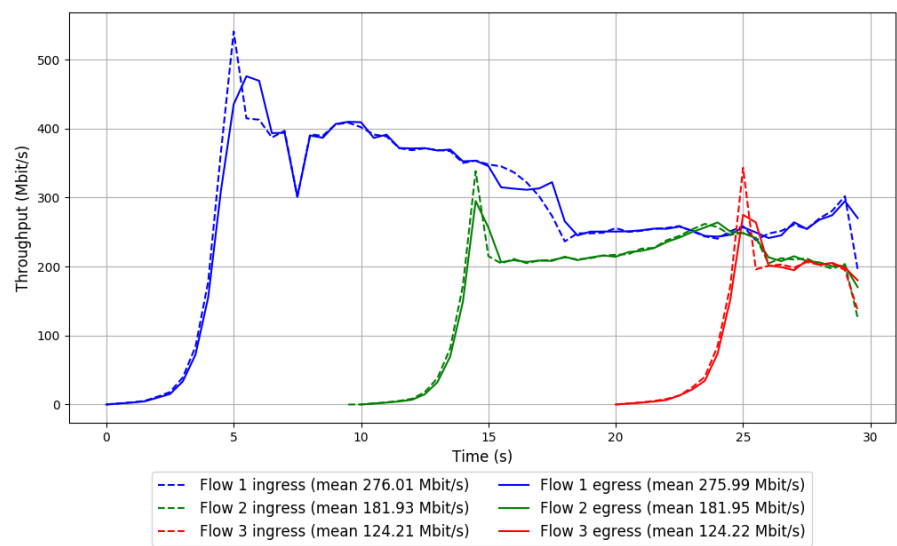
-- Flow 3:

Average throughput: 124.22 Mbit/s

95th percentile per-packet one-way delay: 145.947 ms

Loss rate: 0.00%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-03-21 10:46:58

End at: 2018-03-21 10:47:28

Below is generated by plot.py at 2018-03-21 15:24:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 389.83 Mbit/s

95th percentile per-packet one-way delay: 117.130 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 227.25 Mbit/s

95th percentile per-packet one-way delay: 117.770 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 178.16 Mbit/s

95th percentile per-packet one-way delay: 112.620 ms

Loss rate: 0.00%

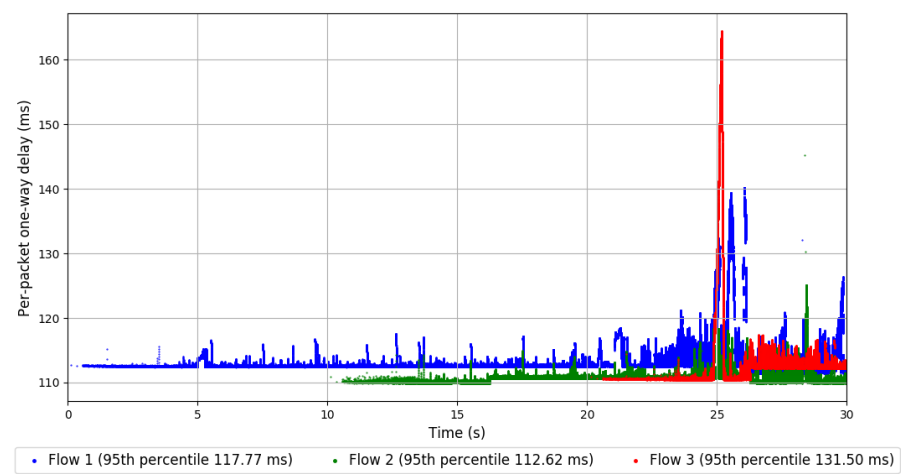
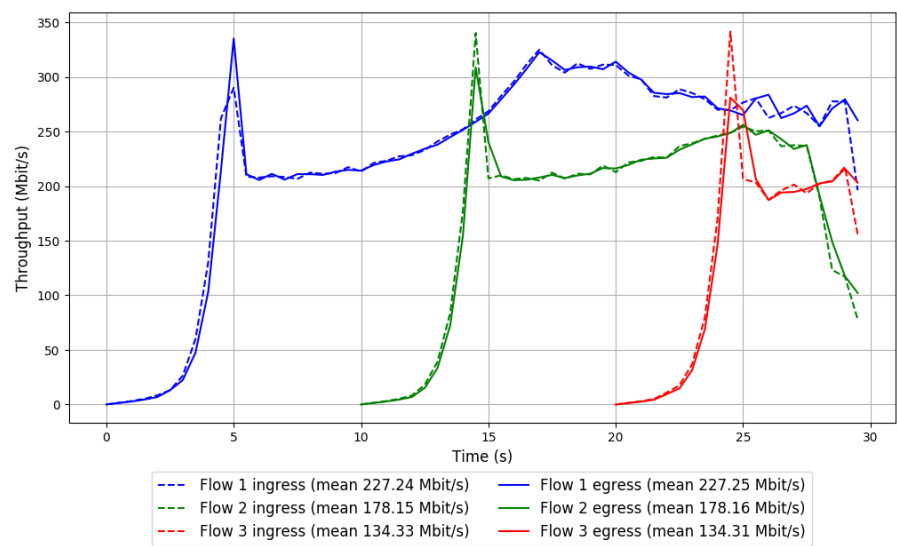
-- Flow 3:

Average throughput: 134.31 Mbit/s

95th percentile per-packet one-way delay: 131.501 ms

Loss rate: 0.01%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-03-21 11:06:38

End at: 2018-03-21 11:07:08

Below is generated by plot.py at 2018-03-21 15:24:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 374.24 Mbit/s

95th percentile per-packet one-way delay: 137.378 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 226.63 Mbit/s

95th percentile per-packet one-way delay: 132.528 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 200.91 Mbit/s

95th percentile per-packet one-way delay: 146.071 ms

Loss rate: 0.00%

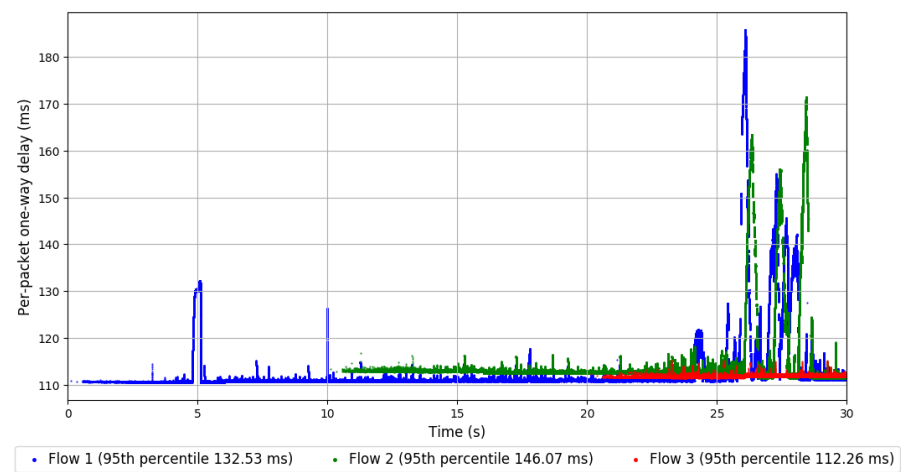
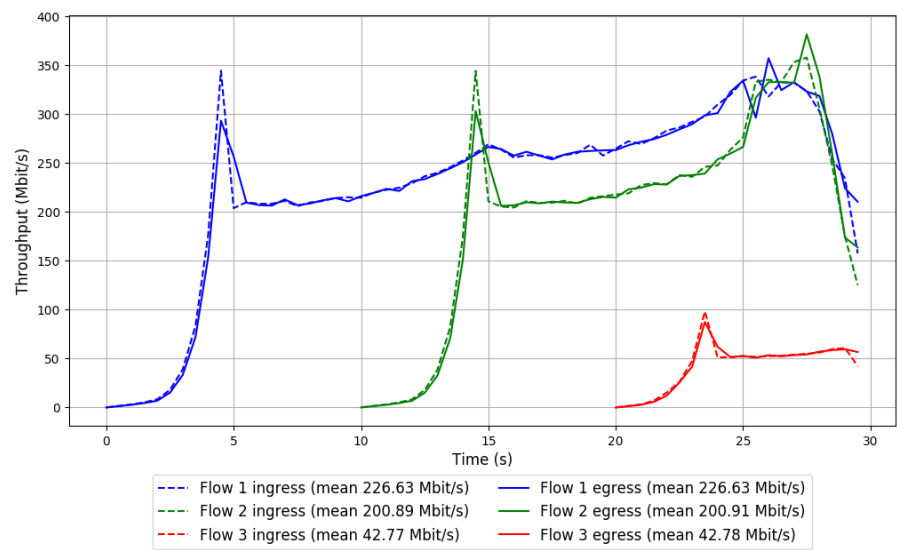
-- Flow 3:

Average throughput: 42.78 Mbit/s

95th percentile per-packet one-way delay: 112.264 ms

Loss rate: 0.00%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-03-21 11:25:48

End at: 2018-03-21 11:26:18

Below is generated by plot.py at 2018-03-21 15:26:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 428.10 Mbit/s

95th percentile per-packet one-way delay: 233.621 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 261.34 Mbit/s

95th percentile per-packet one-way delay: 245.162 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 186.75 Mbit/s

95th percentile per-packet one-way delay: 185.235 ms

Loss rate: 0.00%

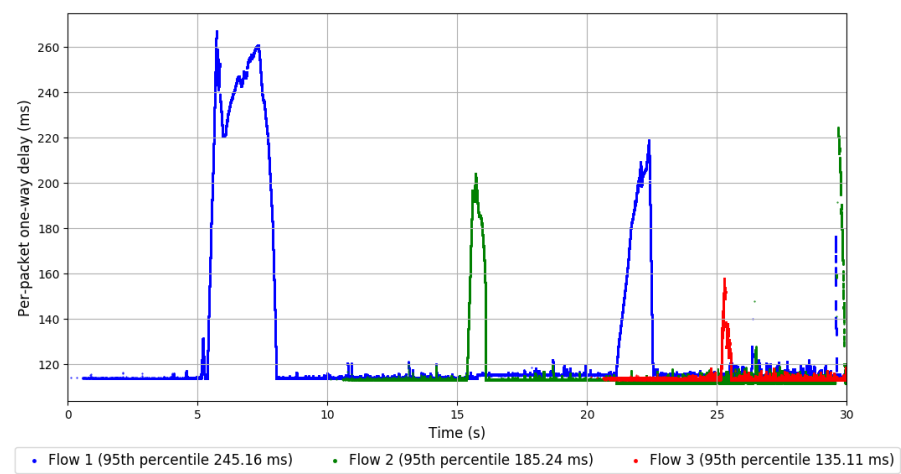
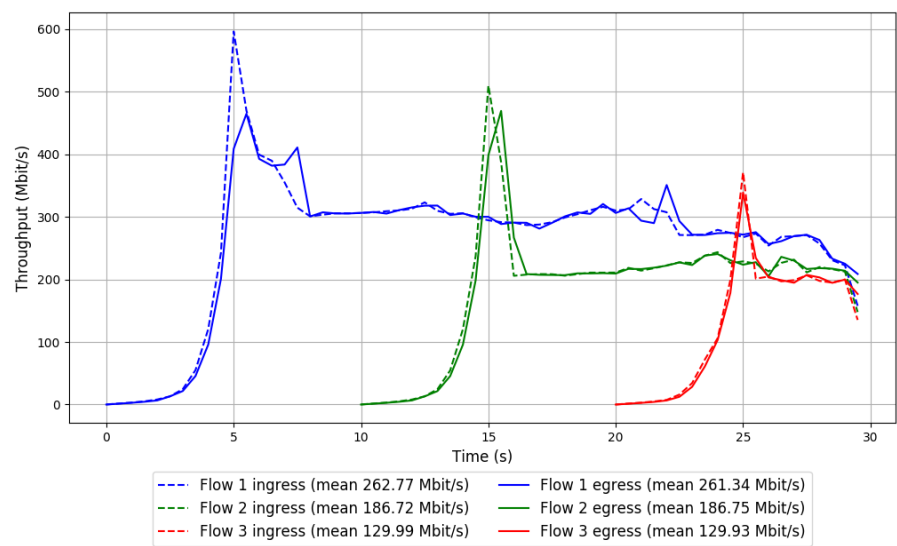
-- Flow 3:

Average throughput: 129.93 Mbit/s

95th percentile per-packet one-way delay: 135.107 ms

Loss rate: 0.09%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-03-21 11:45:33

End at: 2018-03-21 11:46:03

Below is generated by plot.py at 2018-03-21 15:26:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 419.23 Mbit/s

95th percentile per-packet one-way delay: 158.612 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 232.56 Mbit/s

95th percentile per-packet one-way delay: 142.620 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 242.92 Mbit/s

95th percentile per-packet one-way delay: 172.557 ms

Loss rate: 0.00%

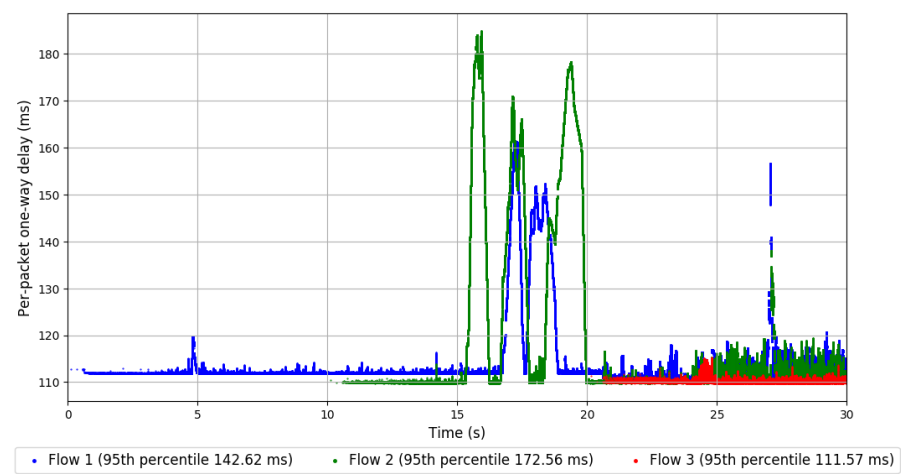
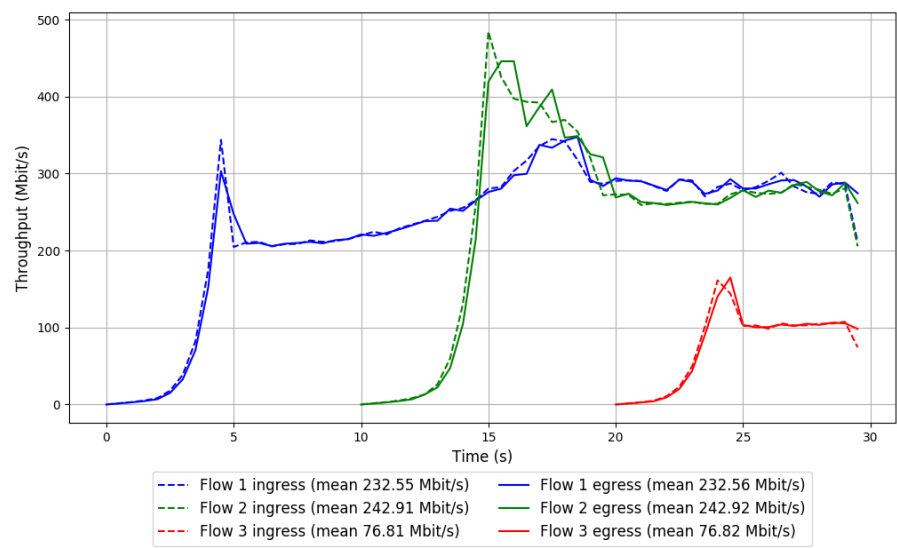
-- Flow 3:

Average throughput: 76.82 Mbit/s

95th percentile per-packet one-way delay: 111.566 ms

Loss rate: 0.00%

Run 10: Report of Vivace-latency — Data Link

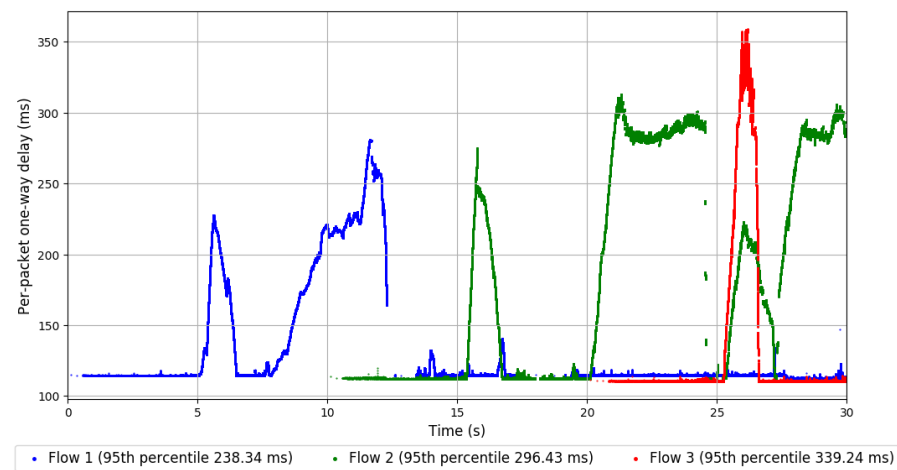
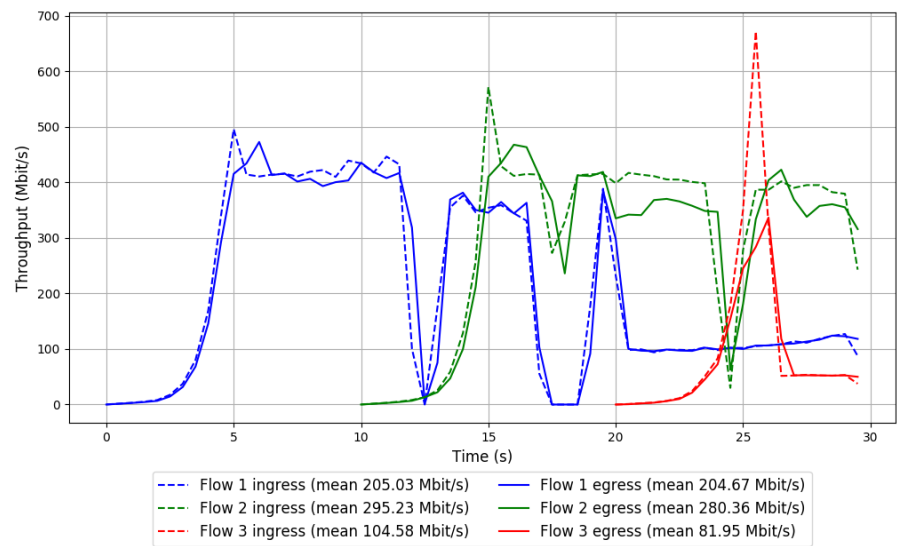


```
Run 1: Statistics of Vivace-loss

Start at: 2018-03-21 08:47:01
End at: 2018-03-21 08:47:31

# Below is generated by plot.py at 2018-03-21 15:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.03 Mbit/s
95th percentile per-packet one-way delay: 293.092 ms
Loss rate: 4.07%
-- Flow 1:
Average throughput: 204.67 Mbit/s
95th percentile per-packet one-way delay: 238.344 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 280.36 Mbit/s
95th percentile per-packet one-way delay: 296.429 ms
Loss rate: 5.04%
-- Flow 3:
Average throughput: 81.95 Mbit/s
95th percentile per-packet one-way delay: 339.240 ms
Loss rate: 21.64%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-03-21 09:06:29

End at: 2018-03-21 09:06:59

Below is generated by plot.py at 2018-03-21 15:31:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 481.06 Mbit/s

95th percentile per-packet one-way delay: 312.206 ms

Loss rate: 4.05%

-- Flow 1:

Average throughput: 256.18 Mbit/s

95th percentile per-packet one-way delay: 290.197 ms

Loss rate: 2.82%

-- Flow 2:

Average throughput: 230.76 Mbit/s

95th percentile per-packet one-way delay: 314.135 ms

Loss rate: 4.72%

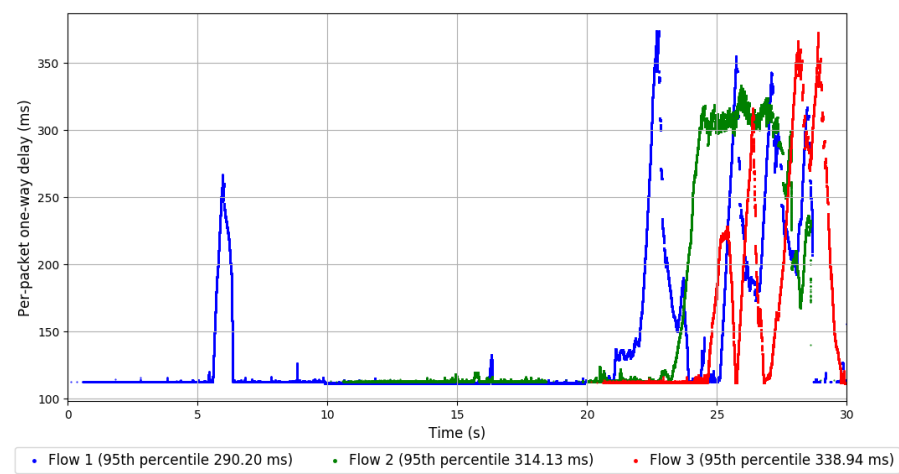
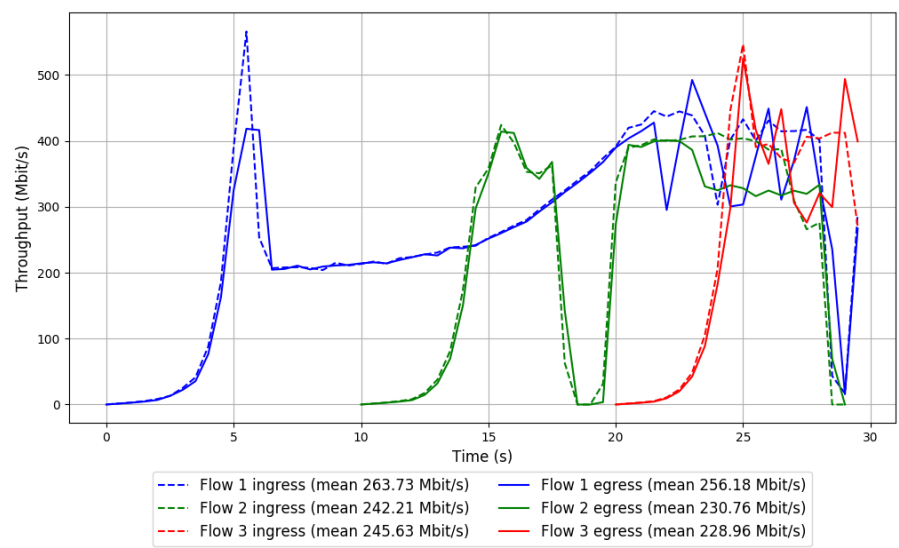
-- Flow 3:

Average throughput: 228.96 Mbit/s

95th percentile per-packet one-way delay: 338.935 ms

Loss rate: 6.79%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-21 09:26:08

End at: 2018-03-21 09:26:38

Below is generated by plot.py at 2018-03-21 15:31:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 346.72 Mbit/s

95th percentile per-packet one-way delay: 274.974 ms

Loss rate: 4.40%

-- Flow 1:

Average throughput: 155.03 Mbit/s

95th percentile per-packet one-way delay: 297.475 ms

Loss rate: 7.78%

-- Flow 2:

Average throughput: 213.61 Mbit/s

95th percentile per-packet one-way delay: 248.784 ms

Loss rate: 1.99%

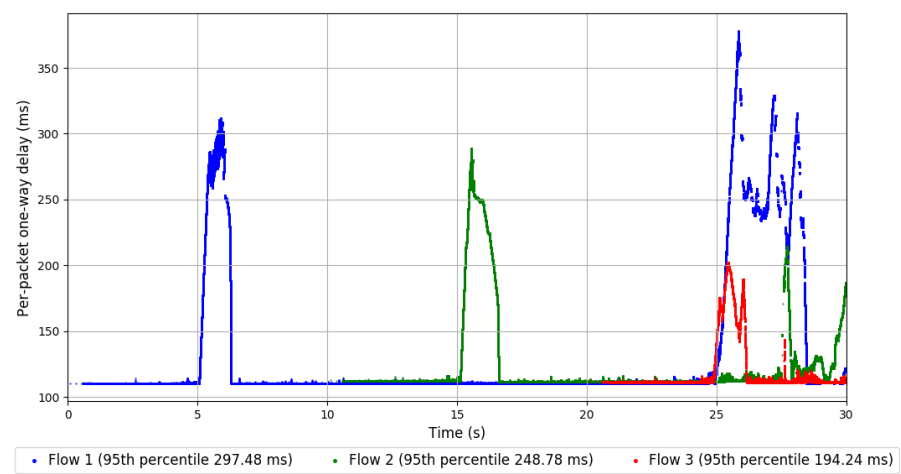
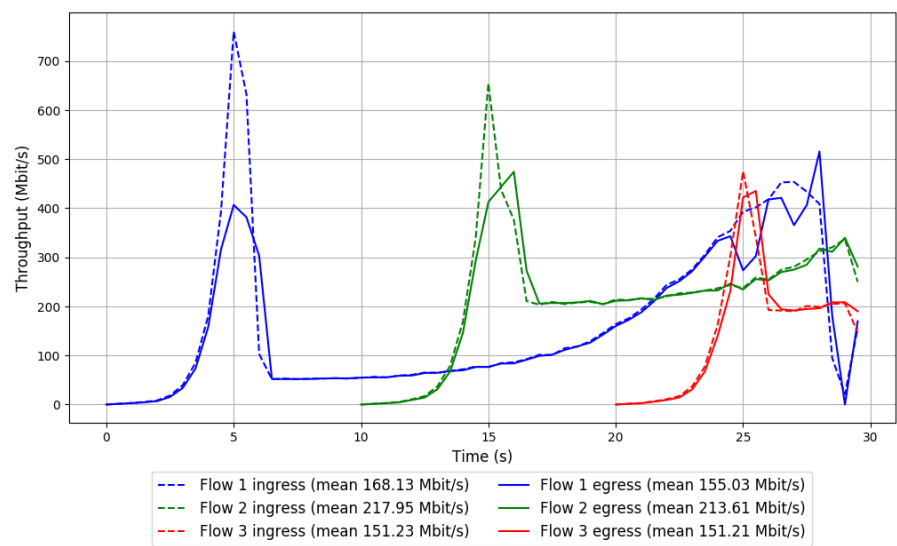
-- Flow 3:

Average throughput: 151.21 Mbit/s

95th percentile per-packet one-way delay: 194.237 ms

Loss rate: 0.01%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-03-21 09:45:35

End at: 2018-03-21 09:46:05

Below is generated by plot.py at 2018-03-21 15:31:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 337.48 Mbit/s

95th percentile per-packet one-way delay: 313.236 ms

Loss rate: 5.74%

-- Flow 1:

Average throughput: 177.14 Mbit/s

95th percentile per-packet one-way delay: 313.372 ms

Loss rate: 6.46%

-- Flow 2:

Average throughput: 200.37 Mbit/s

95th percentile per-packet one-way delay: 272.845 ms

Loss rate: 2.99%

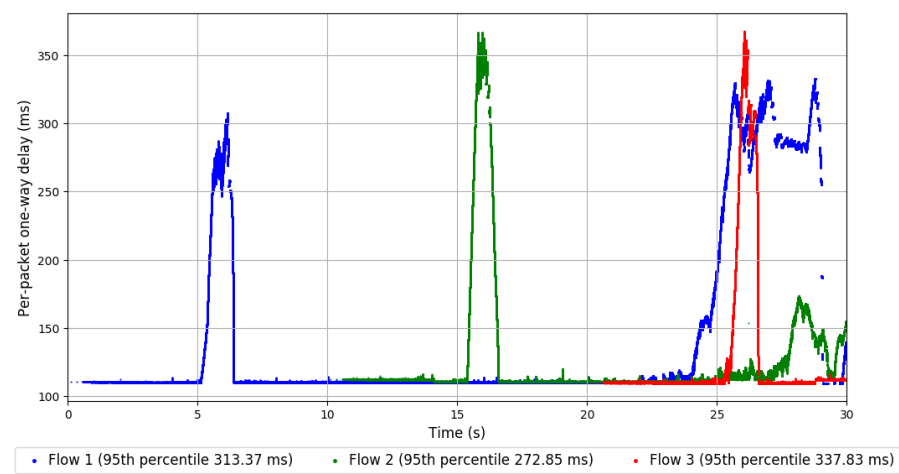
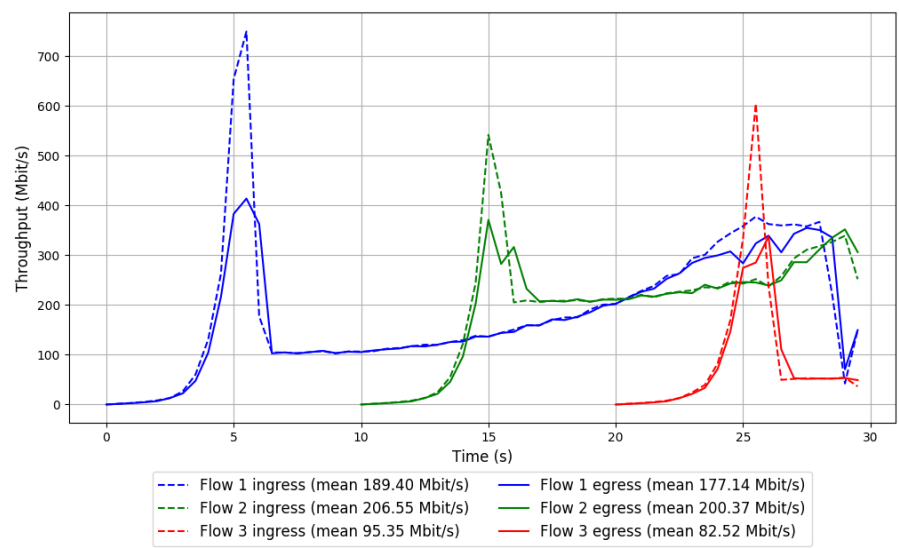
-- Flow 3:

Average throughput: 82.52 Mbit/s

95th percentile per-packet one-way delay: 337.831 ms

Loss rate: 13.45%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-03-21 10:04:45

End at: 2018-03-21 10:05:15

Below is generated by plot.py at 2018-03-21 15:31:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 418.87 Mbit/s

95th percentile per-packet one-way delay: 263.664 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 264.34 Mbit/s

95th percentile per-packet one-way delay: 272.887 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 181.79 Mbit/s

95th percentile per-packet one-way delay: 116.276 ms

Loss rate: 0.00%

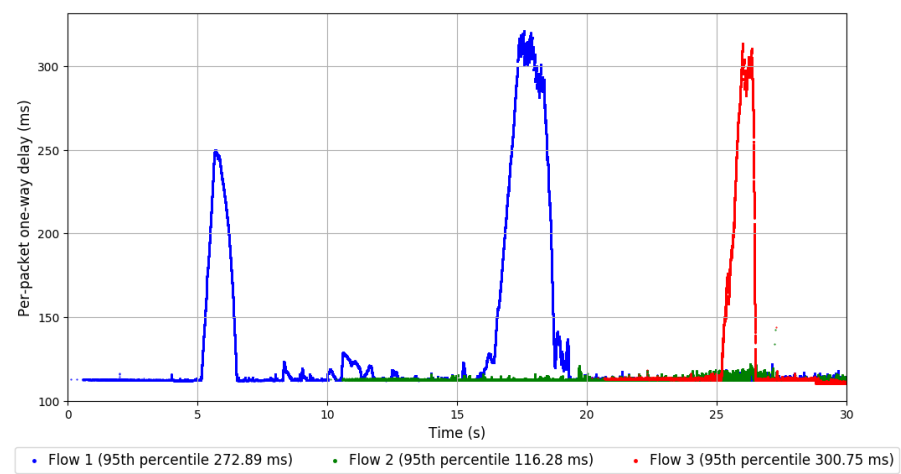
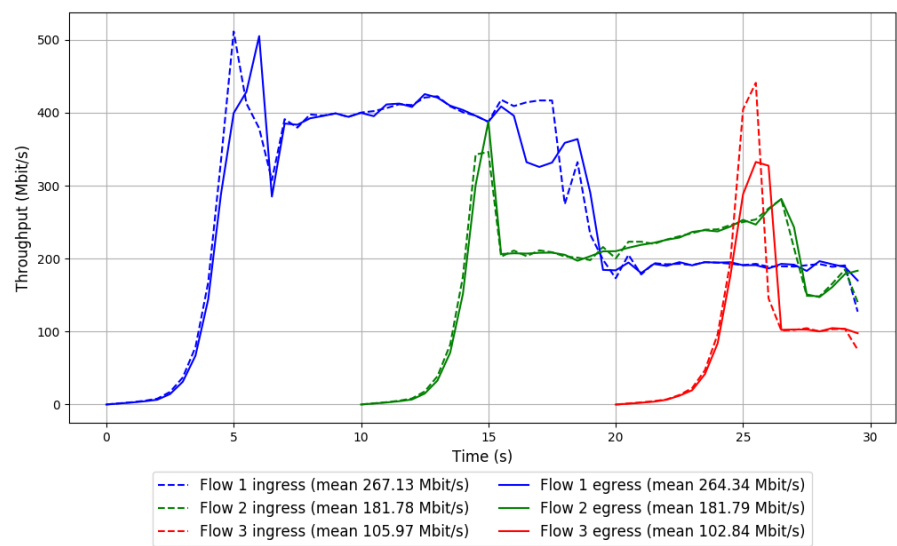
-- Flow 3:

Average throughput: 102.84 Mbit/s

95th percentile per-packet one-way delay: 300.752 ms

Loss rate: 2.99%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-21 10:23:59

End at: 2018-03-21 10:24:29

Below is generated by plot.py at 2018-03-21 15:31:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 458.34 Mbit/s

95th percentile per-packet one-way delay: 312.392 ms

Loss rate: 1.88%

-- Flow 1:

Average throughput: 249.30 Mbit/s

95th percentile per-packet one-way delay: 288.746 ms

Loss rate: 1.87%

-- Flow 2:

Average throughput: 247.31 Mbit/s

95th percentile per-packet one-way delay: 316.882 ms

Loss rate: 2.40%

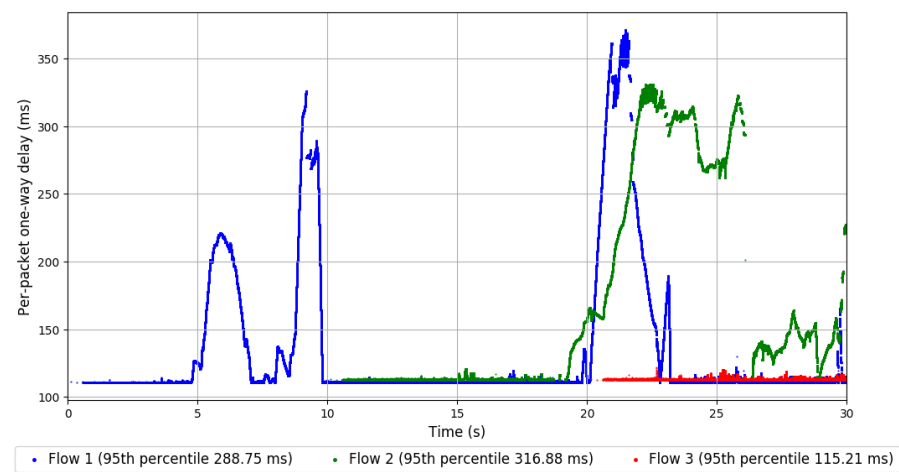
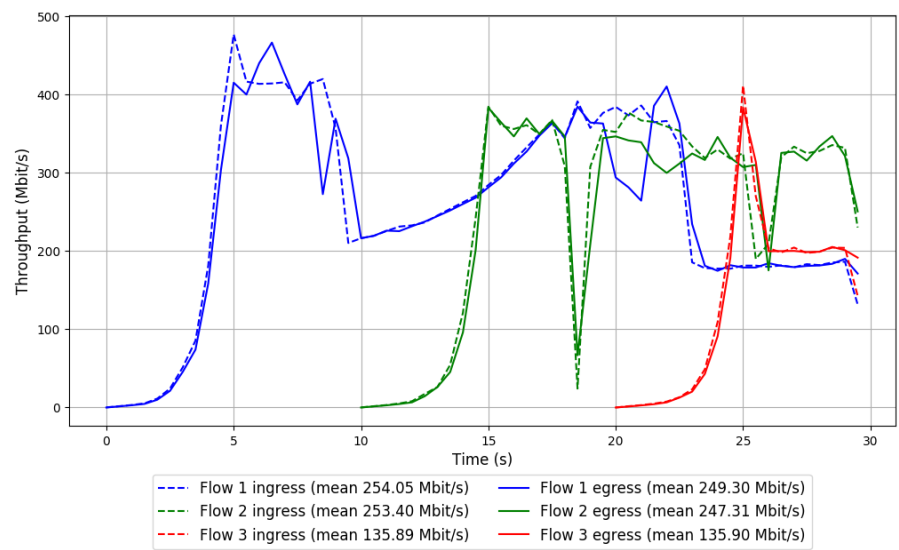
-- Flow 3:

Average throughput: 135.90 Mbit/s

95th percentile per-packet one-way delay: 115.207 ms

Loss rate: 0.00%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-21 10:43:21

End at: 2018-03-21 10:43:51

Below is generated by plot.py at 2018-03-21 15:34:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 450.44 Mbit/s

95th percentile per-packet one-way delay: 304.948 ms

Loss rate: 3.57%

-- Flow 1:

Average throughput: 294.91 Mbit/s

95th percentile per-packet one-way delay: 306.546 ms

Loss rate: 4.15%

-- Flow 2:

Average throughput: 185.62 Mbit/s

95th percentile per-packet one-way delay: 124.706 ms

Loss rate: 0.00%

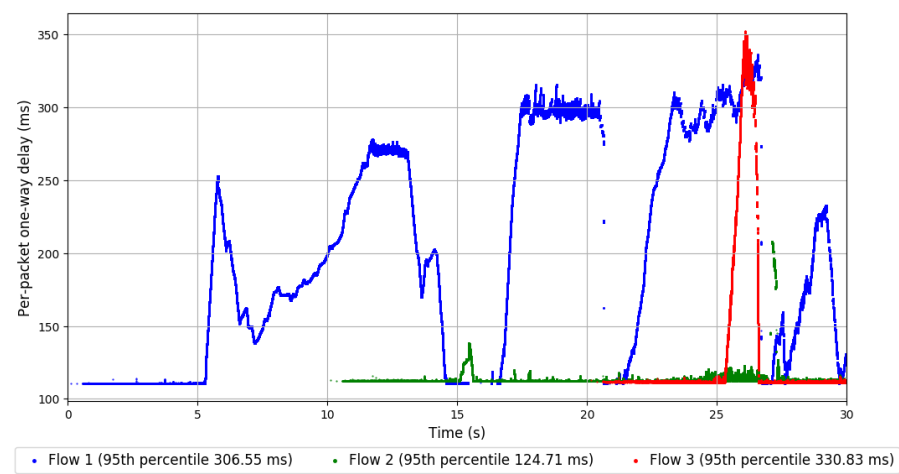
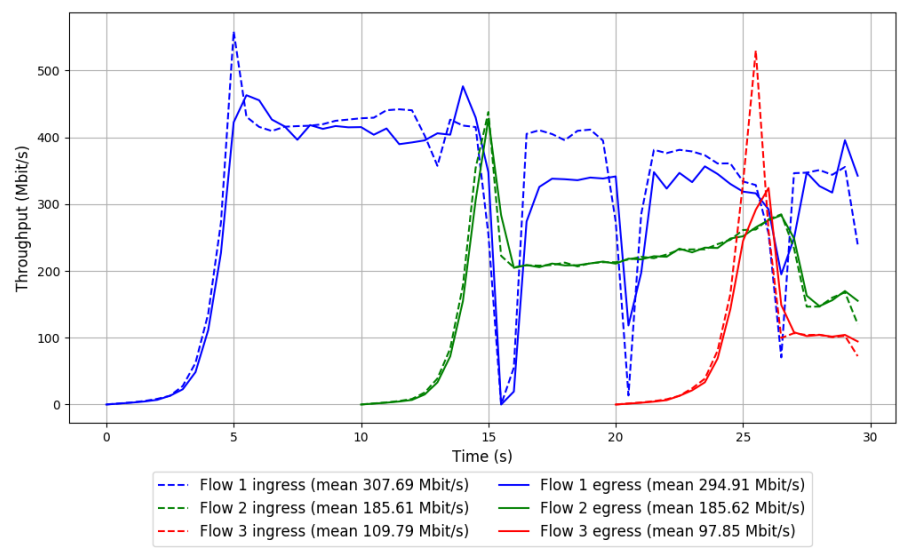
-- Flow 3:

Average throughput: 97.85 Mbit/s

95th percentile per-packet one-way delay: 330.834 ms

Loss rate: 10.89%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-03-21 11:03:02

End at: 2018-03-21 11:03:32

Below is generated by plot.py at 2018-03-21 15:34:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 481.90 Mbit/s

95th percentile per-packet one-way delay: 290.245 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 313.89 Mbit/s

95th percentile per-packet one-way delay: 292.312 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 202.15 Mbit/s

95th percentile per-packet one-way delay: 257.911 ms

Loss rate: 2.08%

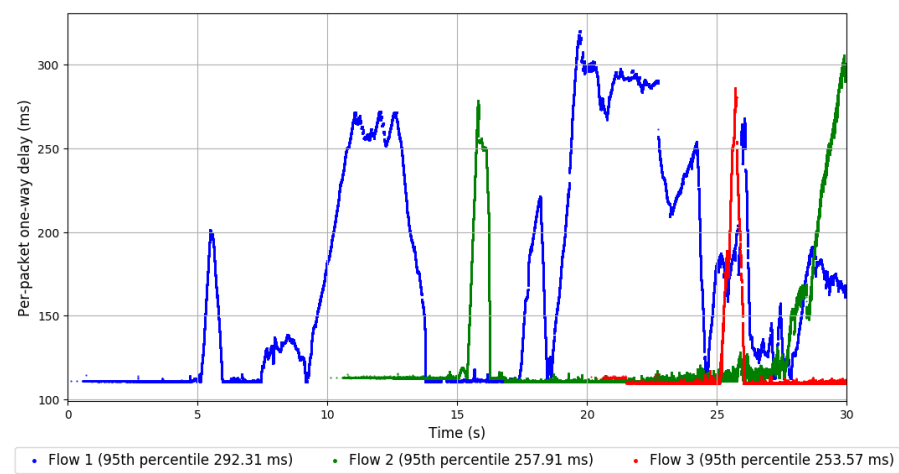
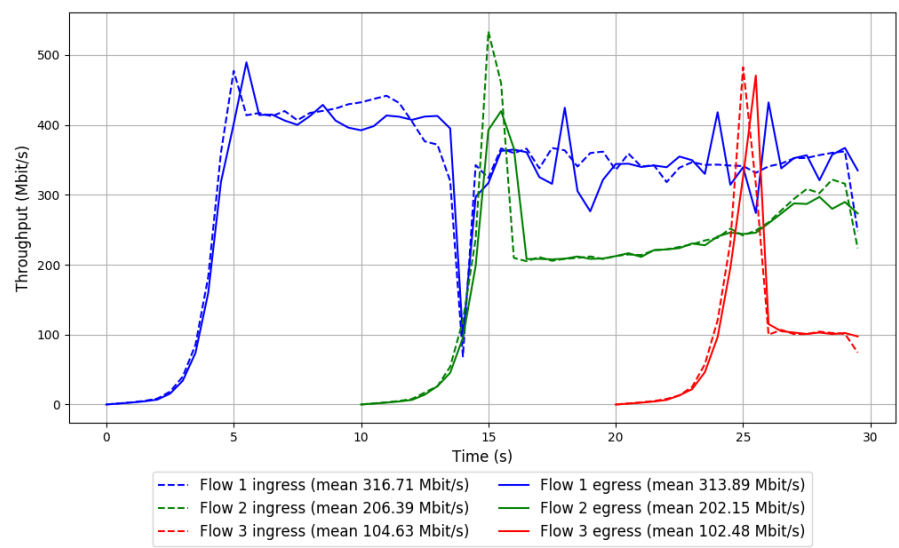
-- Flow 3:

Average throughput: 102.48 Mbit/s

95th percentile per-packet one-way delay: 253.570 ms

Loss rate: 2.07%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-03-21 11:22:10

End at: 2018-03-21 11:22:40

Below is generated by plot.py at 2018-03-21 15:38:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 525.06 Mbit/s

95th percentile per-packet one-way delay: 344.975 ms

Loss rate: 5.58%

-- Flow 1:

Average throughput: 303.13 Mbit/s

95th percentile per-packet one-way delay: 309.752 ms

Loss rate: 2.49%

-- Flow 2:

Average throughput: 241.96 Mbit/s

95th percentile per-packet one-way delay: 342.417 ms

Loss rate: 6.61%

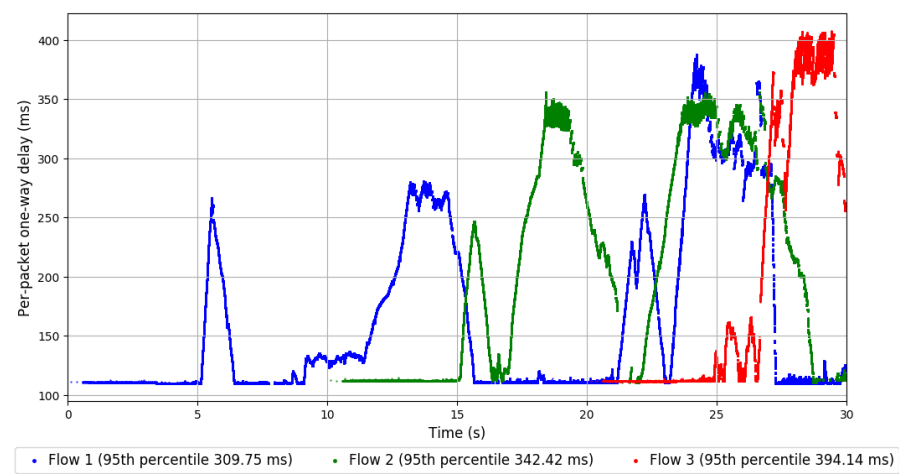
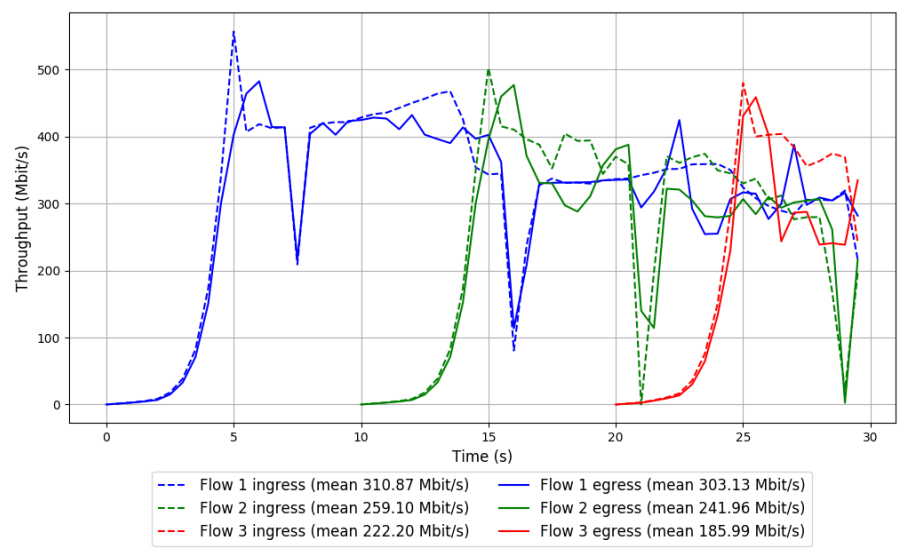
-- Flow 3:

Average throughput: 185.99 Mbit/s

95th percentile per-packet one-way delay: 394.139 ms

Loss rate: 16.31%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-03-21 11:41:45

End at: 2018-03-21 11:42:15

Below is generated by plot.py at 2018-03-21 15:38:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 385.79 Mbit/s

95th percentile per-packet one-way delay: 280.452 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 248.13 Mbit/s

95th percentile per-packet one-way delay: 297.905 ms

Loss rate: 1.51%

-- Flow 2:

Average throughput: 125.19 Mbit/s

95th percentile per-packet one-way delay: 111.717 ms

Loss rate: 0.00%

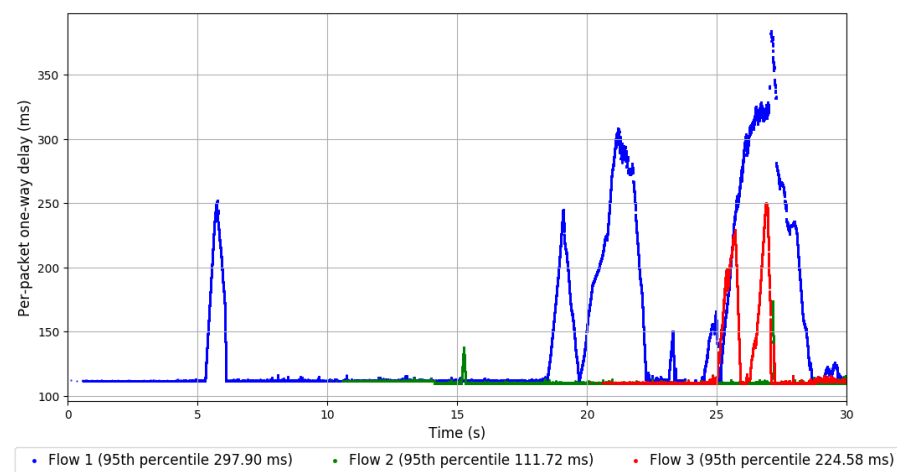
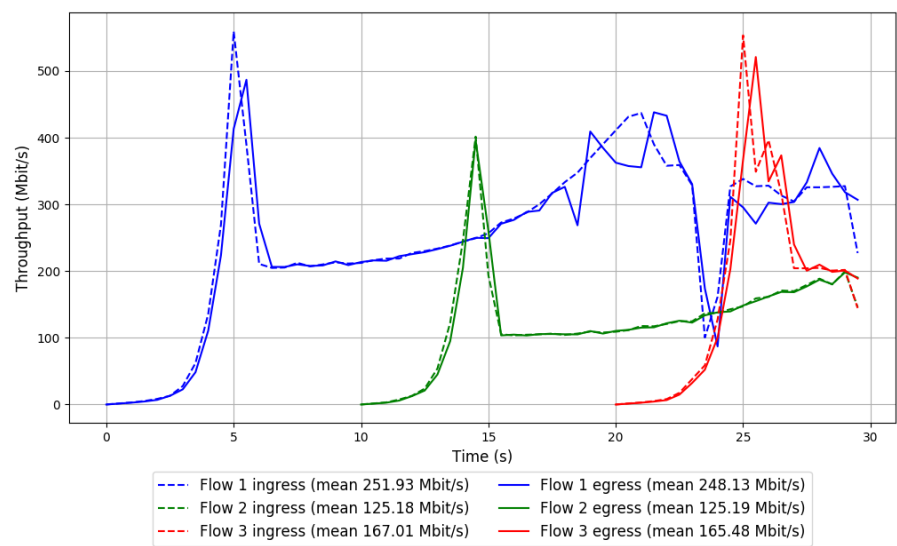
-- Flow 3:

Average throughput: 165.48 Mbit/s

95th percentile per-packet one-way delay: 224.578 ms

Loss rate: 0.91%

Run 10: Report of Vivace-loss — Data Link

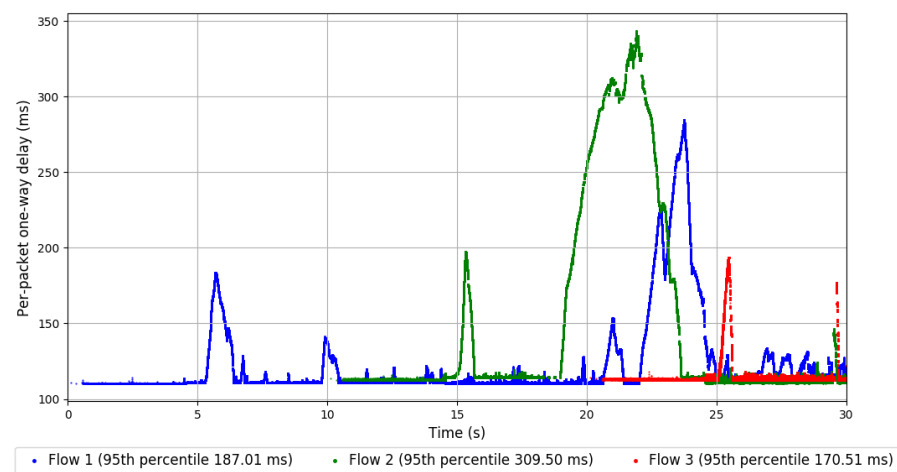
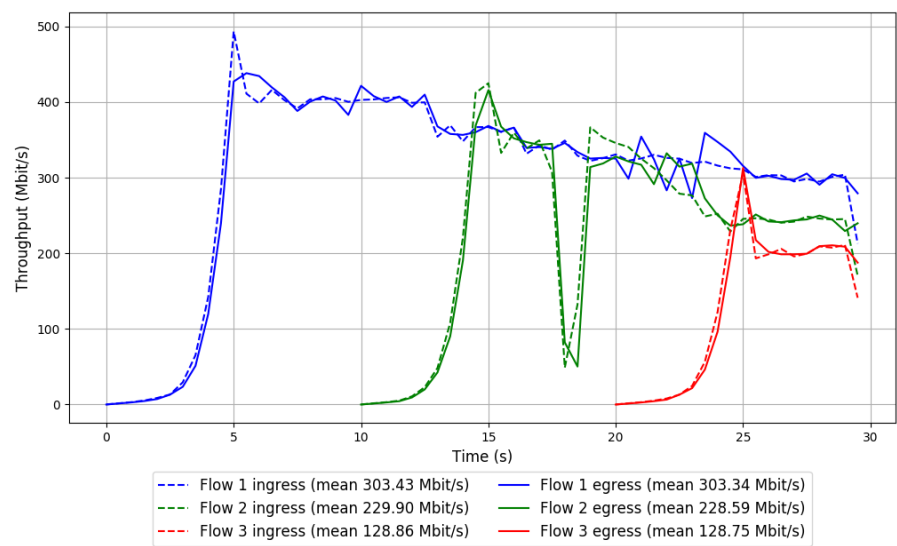


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-21 08:43:55
End at: 2018-03-21 08:44:25

# Below is generated by plot.py at 2018-03-21 15:38:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 497.53 Mbit/s
95th percentile per-packet one-way delay: 275.132 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 303.34 Mbit/s
95th percentile per-packet one-way delay: 187.010 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 228.59 Mbit/s
95th percentile per-packet one-way delay: 309.504 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 128.75 Mbit/s
95th percentile per-packet one-way delay: 170.512 ms
Loss rate: 0.01%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-03-21 09:03:21

End at: 2018-03-21 09:03:51

Below is generated by plot.py at 2018-03-21 15:38:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 471.32 Mbit/s

95th percentile per-packet one-way delay: 290.866 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 306.14 Mbit/s

95th percentile per-packet one-way delay: 302.733 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 184.27 Mbit/s

95th percentile per-packet one-way delay: 226.833 ms

Loss rate: 1.47%

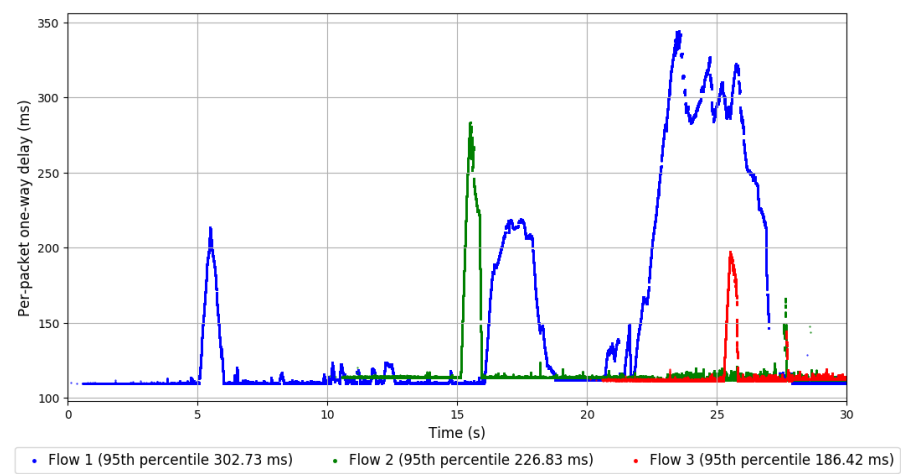
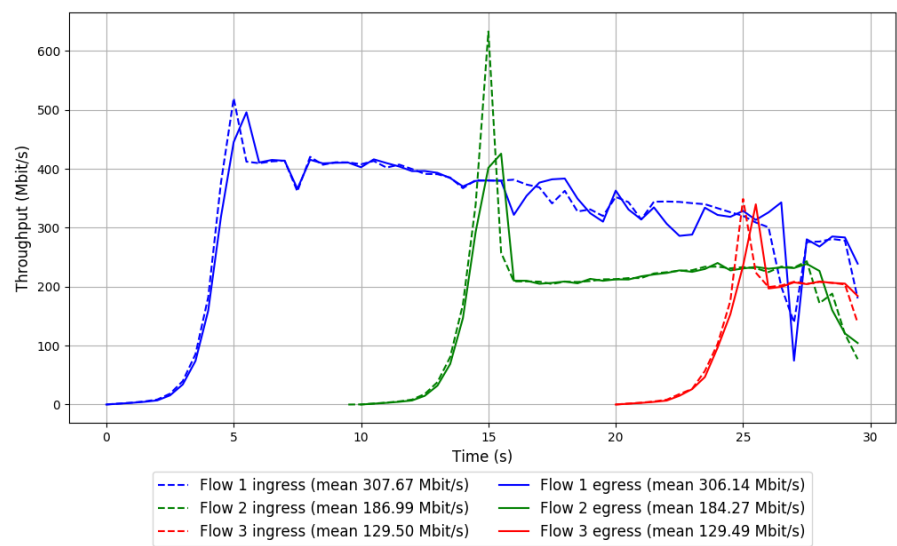
-- Flow 3:

Average throughput: 129.49 Mbit/s

95th percentile per-packet one-way delay: 186.422 ms

Loss rate: 0.05%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-21 09:22:47

End at: 2018-03-21 09:23:17

Below is generated by plot.py at 2018-03-21 15:40:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 525.08 Mbit/s

95th percentile per-packet one-way delay: 266.510 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 317.70 Mbit/s

95th percentile per-packet one-way delay: 284.481 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 247.90 Mbit/s

95th percentile per-packet one-way delay: 250.263 ms

Loss rate: 2.02%

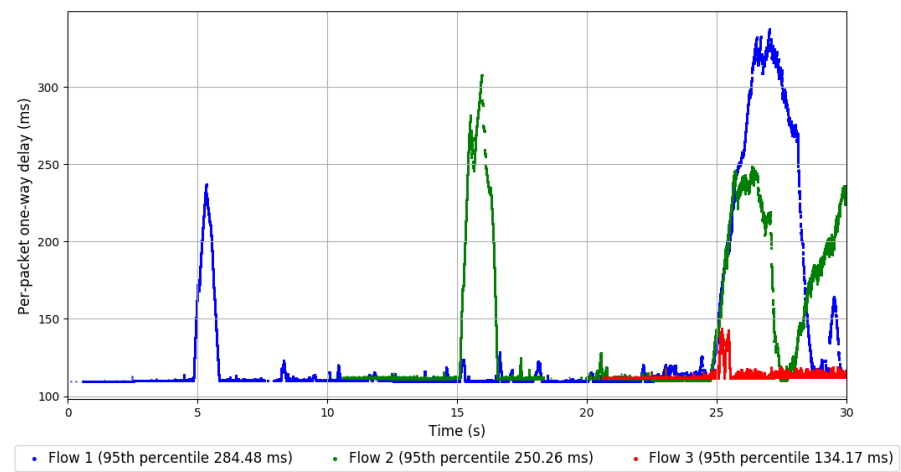
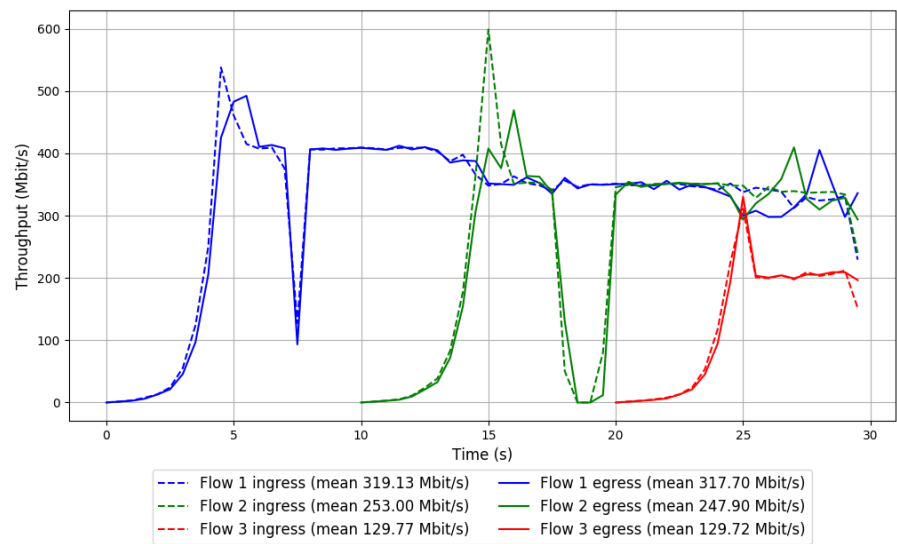
-- Flow 3:

Average throughput: 129.72 Mbit/s

95th percentile per-packet one-way delay: 134.172 ms

Loss rate: 0.03%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-03-21 09:42:32

End at: 2018-03-21 09:43:02

Below is generated by plot.py at 2018-03-21 15:40:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 416.43 Mbit/s

95th percentile per-packet one-way delay: 207.103 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 243.79 Mbit/s

95th percentile per-packet one-way delay: 228.155 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 197.59 Mbit/s

95th percentile per-packet one-way delay: 148.944 ms

Loss rate: 0.10%

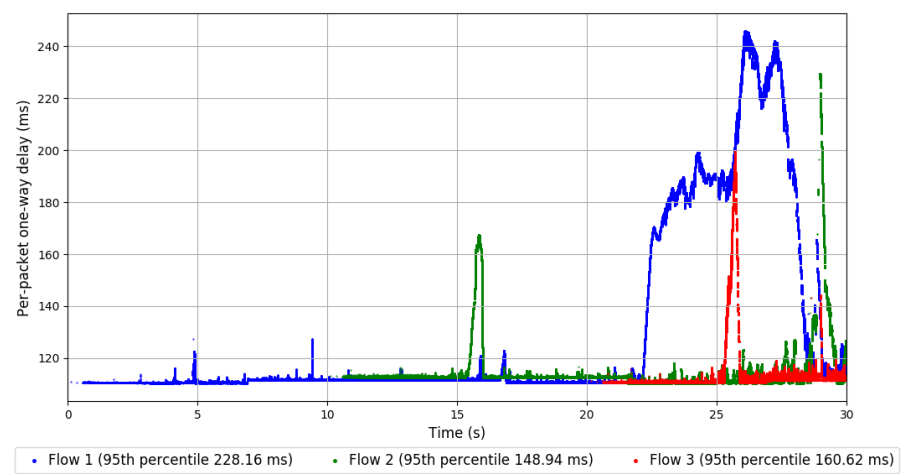
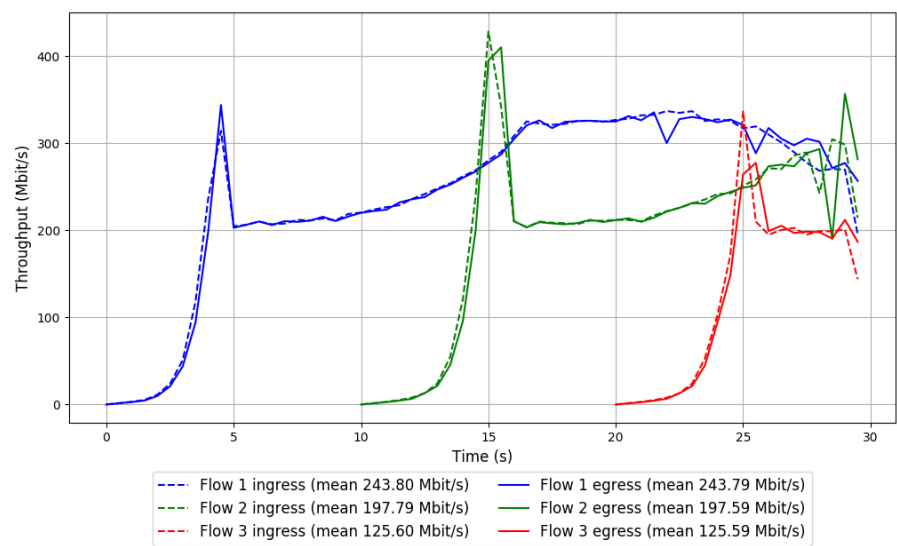
-- Flow 3:

Average throughput: 125.59 Mbit/s

95th percentile per-packet one-way delay: 160.620 ms

Loss rate: 0.00%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-03-21 10:01:40

End at: 2018-03-21 10:02:10

Below is generated by plot.py at 2018-03-21 15:41:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 476.33 Mbit/s

95th percentile per-packet one-way delay: 294.378 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 303.16 Mbit/s

95th percentile per-packet one-way delay: 300.958 ms

Loss rate: 1.36%

-- Flow 2:

Average throughput: 196.23 Mbit/s

95th percentile per-packet one-way delay: 121.509 ms

Loss rate: 0.00%

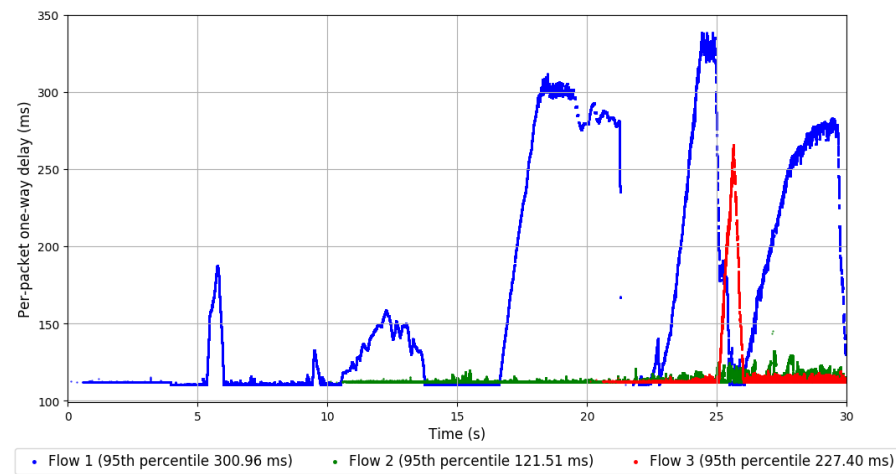
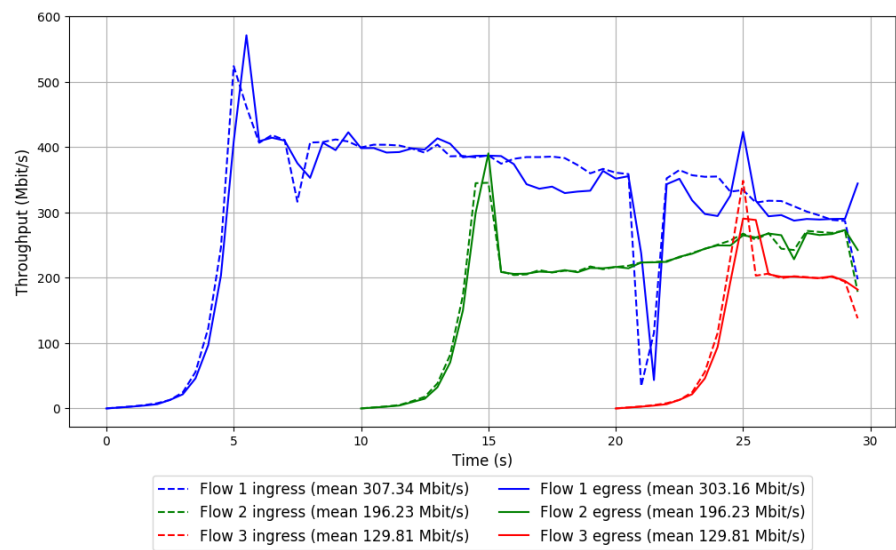
-- Flow 3:

Average throughput: 129.81 Mbit/s

95th percentile per-packet one-way delay: 227.400 ms

Loss rate: 0.00%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-03-21 10:20:58

End at: 2018-03-21 10:21:28

Below is generated by plot.py at 2018-03-21 15:41:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 444.01 Mbit/s

95th percentile per-packet one-way delay: 246.550 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 243.80 Mbit/s

95th percentile per-packet one-way delay: 149.719 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 234.12 Mbit/s

95th percentile per-packet one-way delay: 316.826 ms

Loss rate: 1.84%

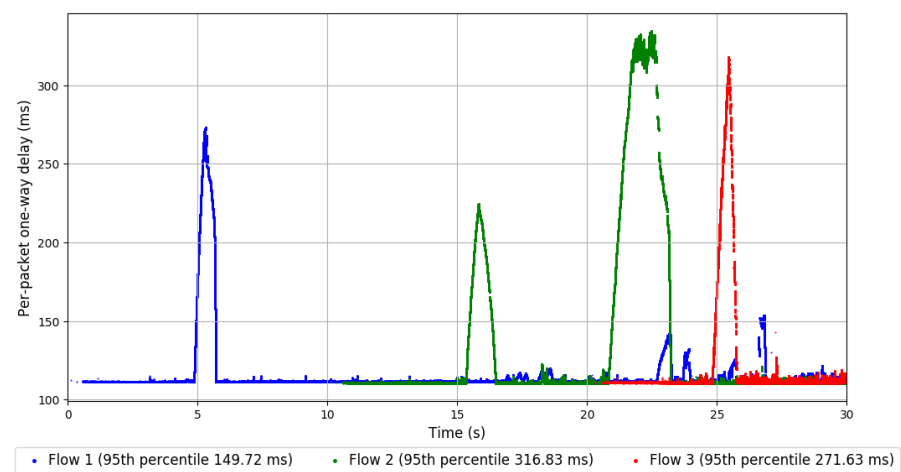
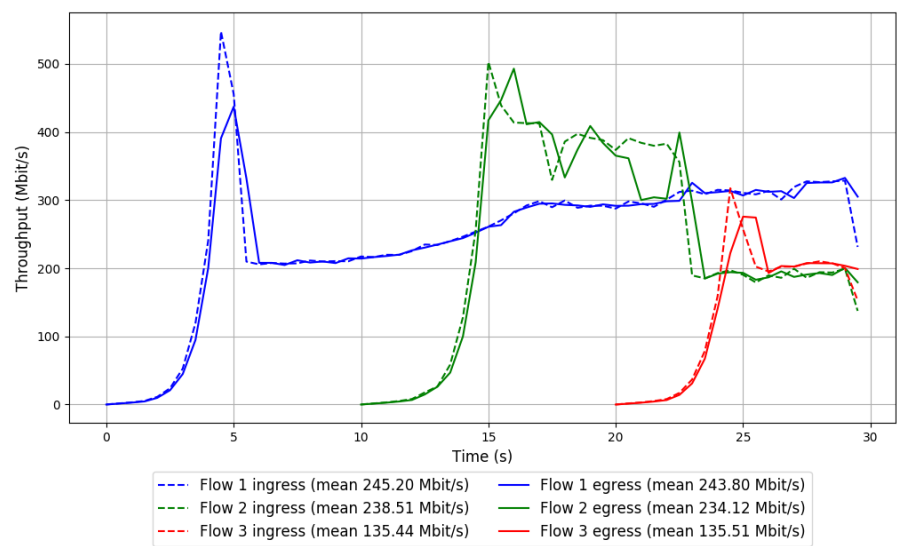
-- Flow 3:

Average throughput: 135.51 Mbit/s

95th percentile per-packet one-way delay: 271.628 ms

Loss rate: 0.00%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-03-21 10:40:12

End at: 2018-03-21 10:40:42

Below is generated by plot.py at 2018-03-21 15:43:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 559.25 Mbit/s

95th percentile per-packet one-way delay: 301.393 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 296.63 Mbit/s

95th percentile per-packet one-way delay: 307.801 ms

Loss rate: 1.38%

-- Flow 2:

Average throughput: 280.93 Mbit/s

95th percentile per-packet one-way delay: 289.615 ms

Loss rate: 0.83%

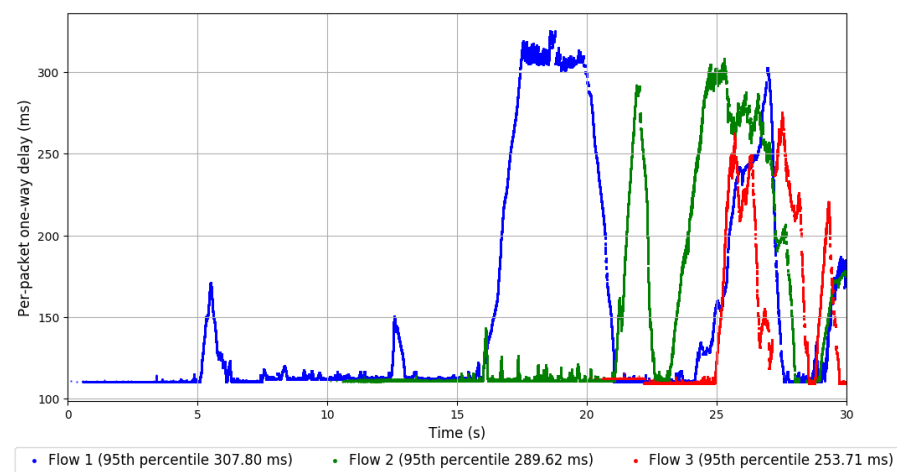
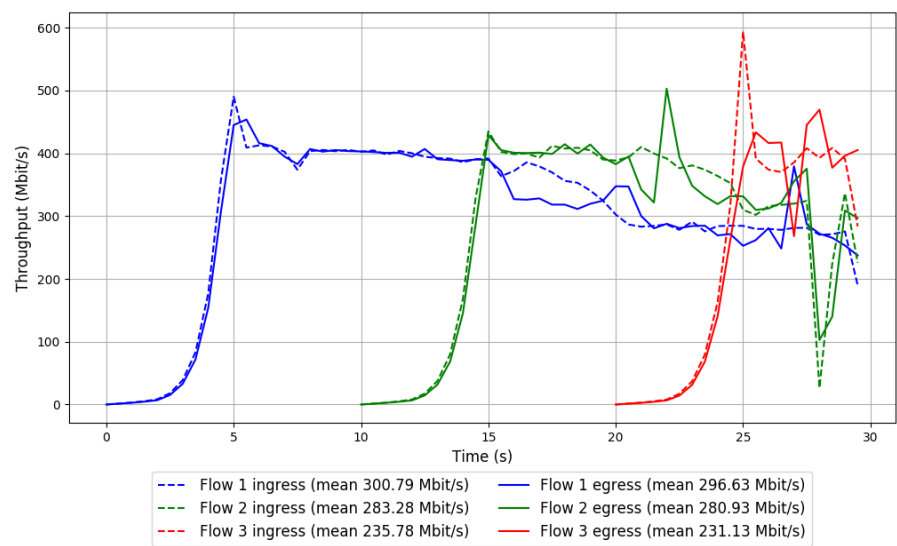
-- Flow 3:

Average throughput: 231.13 Mbit/s

95th percentile per-packet one-way delay: 253.711 ms

Loss rate: 2.00%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-03-21 10:59:53

End at: 2018-03-21 11:00:23

Below is generated by plot.py at 2018-03-21 15:43:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 503.47 Mbit/s

95th percentile per-packet one-way delay: 287.857 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 319.53 Mbit/s

95th percentile per-packet one-way delay: 260.966 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 182.26 Mbit/s

95th percentile per-packet one-way delay: 118.796 ms

Loss rate: 0.00%

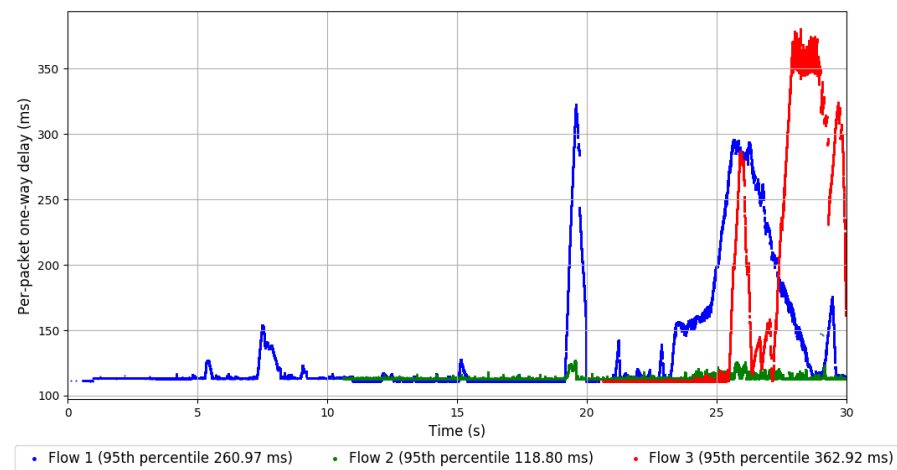
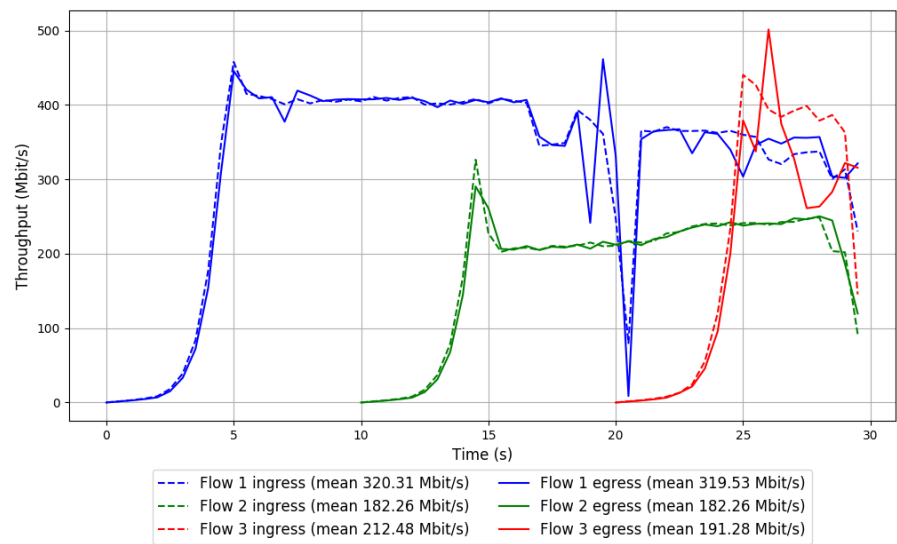
-- Flow 3:

Average throughput: 191.28 Mbit/s

95th percentile per-packet one-way delay: 362.921 ms

Loss rate: 9.99%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-21 11:19:05

End at: 2018-03-21 11:19:35

Below is generated by plot.py at 2018-03-21 15:43:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 472.50 Mbit/s

95th percentile per-packet one-way delay: 293.897 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 298.85 Mbit/s

95th percentile per-packet one-way delay: 308.406 ms

Loss rate: 1.24%

-- Flow 2:

Average throughput: 189.11 Mbit/s

95th percentile per-packet one-way delay: 118.135 ms

Loss rate: 0.00%

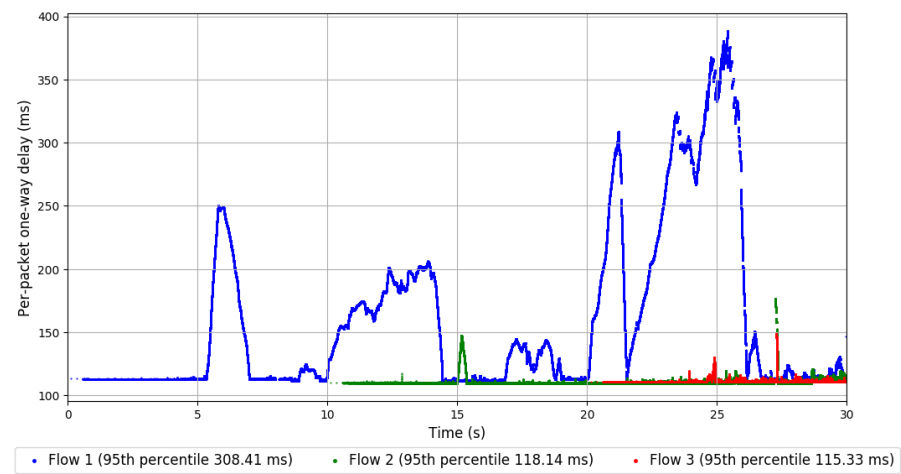
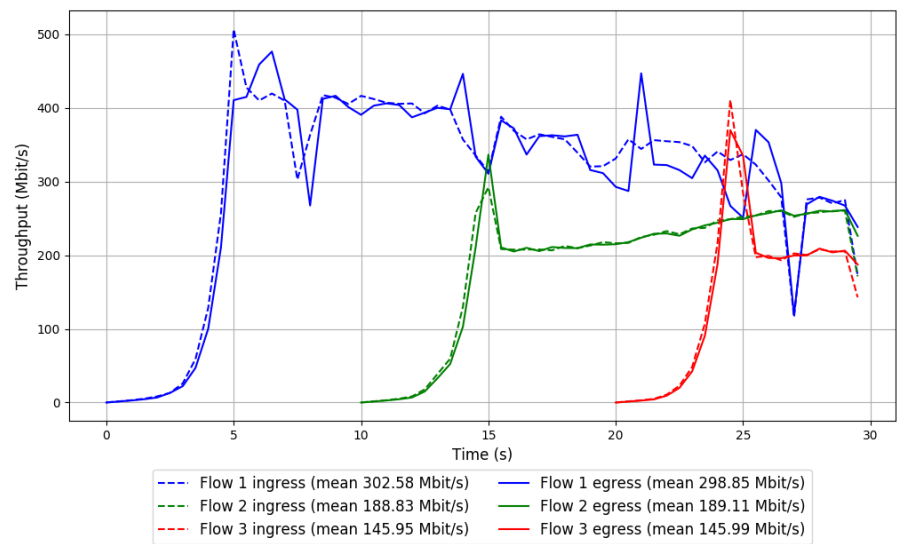
-- Flow 3:

Average throughput: 145.99 Mbit/s

95th percentile per-packet one-way delay: 115.325 ms

Loss rate: 0.00%

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-03-21 11:38:49

End at: 2018-03-21 11:39:19

Below is generated by plot.py at 2018-03-21 15:43:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 346.74 Mbit/s

95th percentile per-packet one-way delay: 329.399 ms

Loss rate: 2.08%

-- Flow 1:

Average throughput: 221.95 Mbit/s

95th percentile per-packet one-way delay: 341.131 ms

Loss rate: 2.08%

-- Flow 2:

Average throughput: 122.33 Mbit/s

95th percentile per-packet one-way delay: 313.235 ms

Loss rate: 3.13%

-- Flow 3:

Average throughput: 132.40 Mbit/s

95th percentile per-packet one-way delay: 297.539 ms

Loss rate: 0.00%

Run 10: Report of Vivace-LTE — Data Link

