

Pantheon Report

Generated at 2018-04-11 11:16:21 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

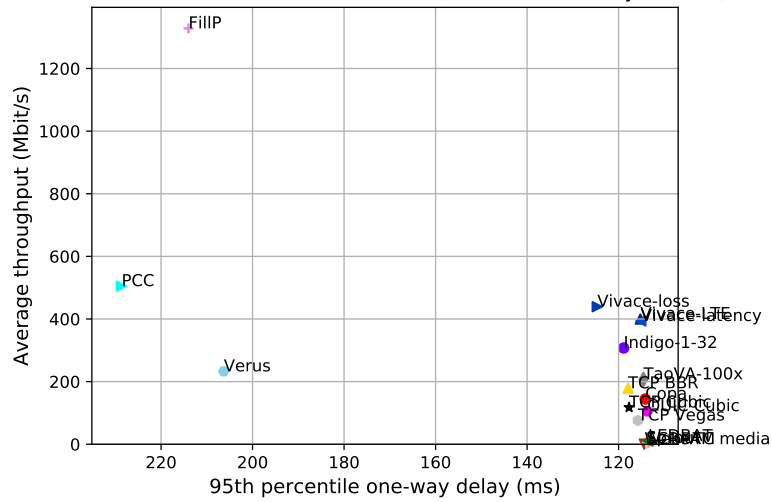
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

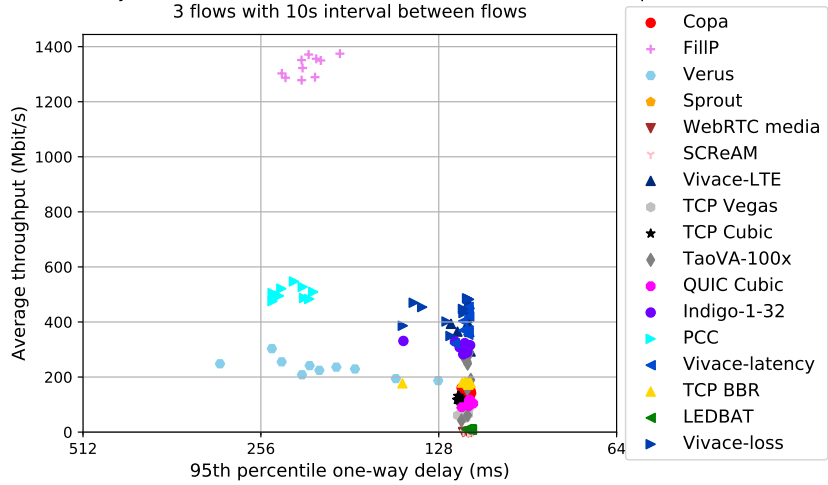
Git summary:

```
branch: master @ eb420b5be9bafccd22cf68b99ff5a2000462fc59
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 11f8c46a2bf1dc797253db7e8ca04076272b2a44
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 @ f271183af822eee5d0031620f4bebf38aedc5581
```

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



test from GCE Tokyo Ethernet to GCE London 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	91.77	90.21	83.01	116.68	117.59	120.43	0.75	1.25	2.69
TCP Cubic	10	66.90	54.67	43.76	117.64	117.30	118.46	0.80	1.49	3.28
LEDBAT	10	6.68	4.14	1.82	113.57	113.58	113.55	1.48	2.43	3.94
PCC	10	476.32	23.05	41.35	228.75	226.26	203.95	1.92	1.75	3.09
QUIC Cubic	10	59.25	51.97	37.03	113.04	113.17	112.02	0.95	1.40	3.14
SCReAM	10	0.20	0.18	0.21	113.89	113.22	112.54	0.74	1.03	2.23
WebRTC media	10	0.06	0.06	0.05	113.87	114.28	113.66	0.00	0.00	0.38
Sprout	10	2.22	1.90	1.50	113.93	113.95	113.93	0.74	1.17	3.08
TaoVA-100x	10	133.94	78.26	66.27	113.83	115.68	115.76	0.84	1.14	2.81
TCP Vegas	10	36.91	41.19	35.79	115.10	116.13	117.19	0.80	1.20	2.50
Verus	10	127.96	117.70	83.54	183.91	208.44	233.58	1.05	1.82	4.62
Copa	10	78.71	64.65	69.62	113.52	113.81	113.70	0.68	1.00	2.48
FillP	10	715.27	660.13	537.99	217.22	207.75	202.60	5.31	5.22	5.97
Indigo-1-32	10	169.16	147.42	126.50	115.70	119.39	122.43	0.67	1.13	2.71
Vivace-latency	10	238.18	177.67	116.45	114.57	114.79	119.36	0.84	1.56	3.68
Vivace-loss	10	250.34	213.75	148.17	134.63	124.68	120.44	0.97	1.33	3.10
Vivace-LTE	10	234.02	186.60	131.09	114.63	114.18	118.13	0.85	1.60	3.72

Run 1: Statistics of TCP BBR

Start at: 2018-04-11 03:01:15

End at: 2018-04-11 03:01:45

Below is generated by plot.py at 2018-04-11 09:39:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 176.82 Mbit/s

95th percentile per-packet one-way delay: 114.483 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 90.87 Mbit/s

95th percentile per-packet one-way delay: 114.451 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 89.21 Mbit/s

95th percentile per-packet one-way delay: 114.516 ms

Loss rate: 1.23%

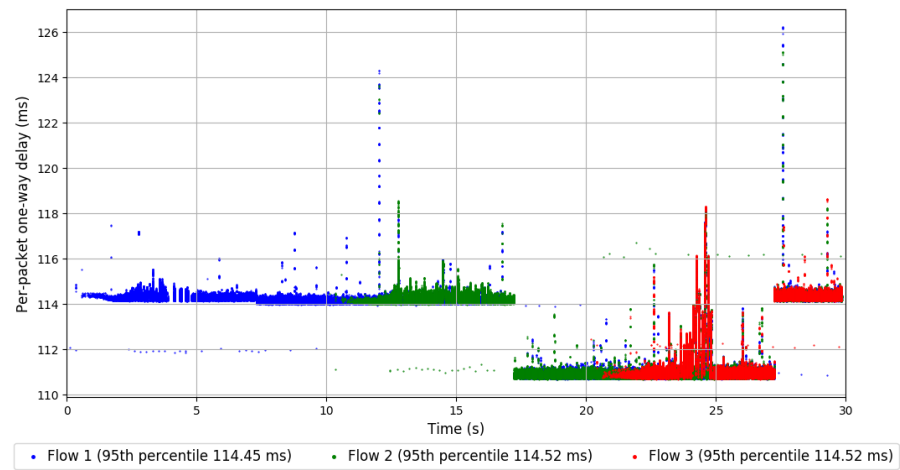
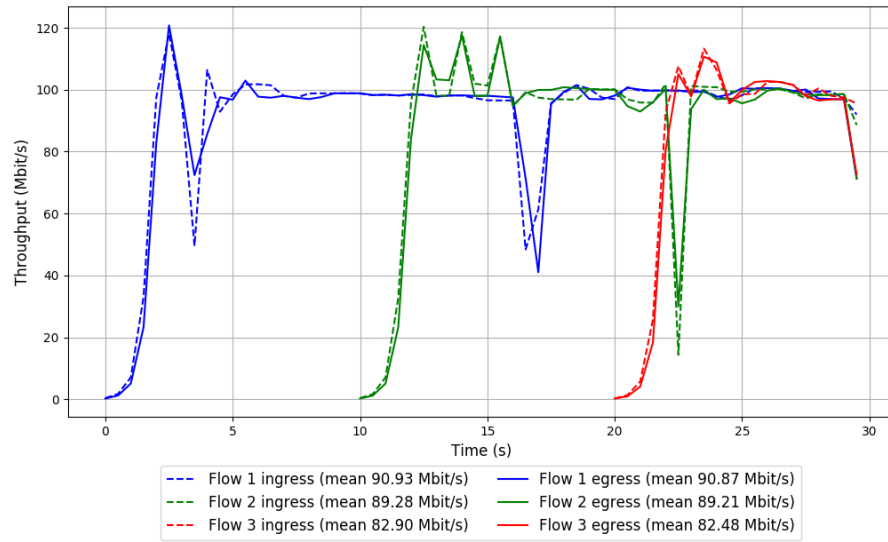
-- Flow 3:

Average throughput: 82.48 Mbit/s

95th percentile per-packet one-way delay: 114.517 ms

Loss rate: 2.90%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-04-11 03:20:07

End at: 2018-04-11 03:20:37

Below is generated by plot.py at 2018-04-11 09:39:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 182.98 Mbit/s

95th percentile per-packet one-way delay: 115.533 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 91.05 Mbit/s

95th percentile per-packet one-way delay: 115.001 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 96.01 Mbit/s

95th percentile per-packet one-way delay: 116.096 ms

Loss rate: 1.17%

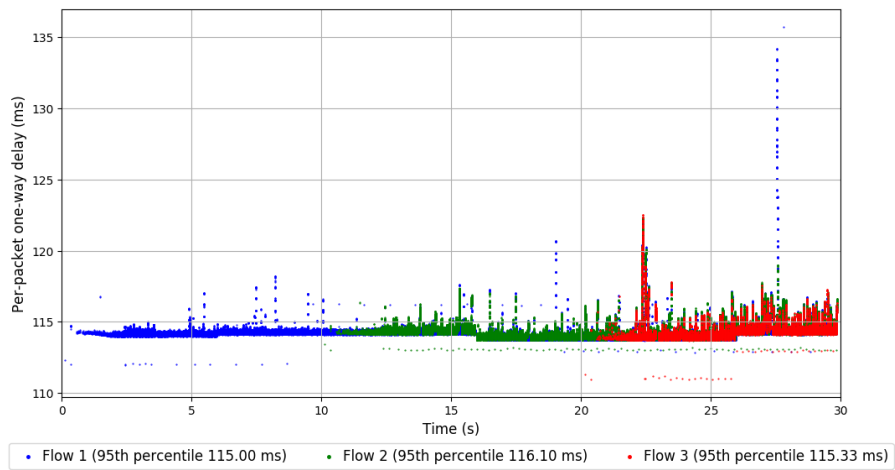
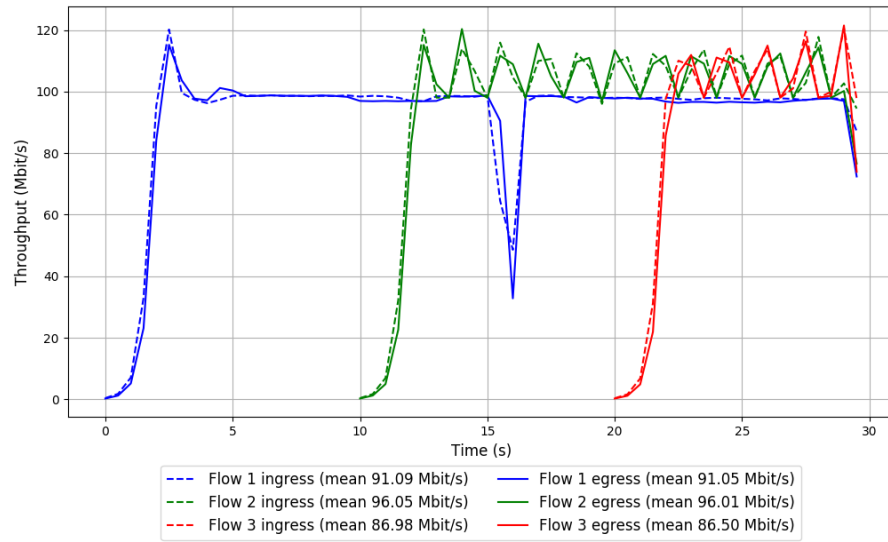
-- Flow 3:

Average throughput: 86.50 Mbit/s

95th percentile per-packet one-way delay: 115.332 ms

Loss rate: 2.81%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-04-11 03:38:43

End at: 2018-04-11 03:39:13

Below is generated by plot.py at 2018-04-11 09:39:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 172.32 Mbit/s

95th percentile per-packet one-way delay: 114.044 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 88.13 Mbit/s

95th percentile per-packet one-way delay: 113.935 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 89.65 Mbit/s

95th percentile per-packet one-way delay: 113.860 ms

Loss rate: 1.38%

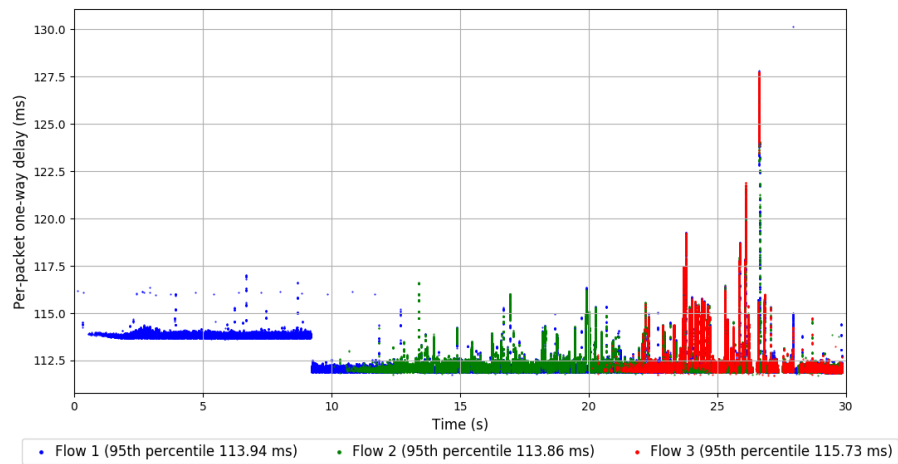
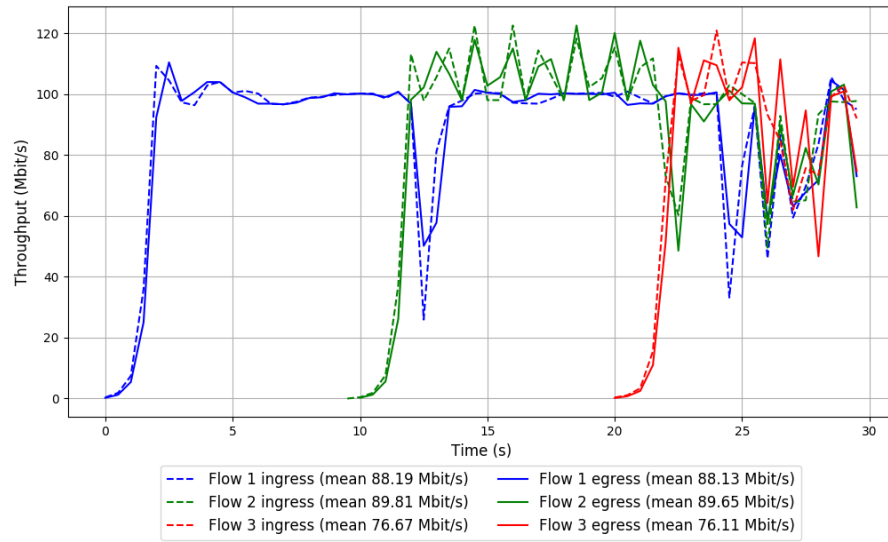
-- Flow 3:

Average throughput: 76.11 Mbit/s

95th percentile per-packet one-way delay: 115.733 ms

Loss rate: 3.03%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-04-11 03:57:56

End at: 2018-04-11 03:58:26

Below is generated by plot.py at 2018-04-11 09:39:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 177.93 Mbit/s

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

Loss rate: 1.22%

-- Flow 1:

Average throughput: 92.01 Mbit/s

95th percentile per-packet one-way delay: 113.338 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 89.14 Mbit/s

95th percentile per-packet one-way delay: 113.376 ms

Loss rate: 1.22%

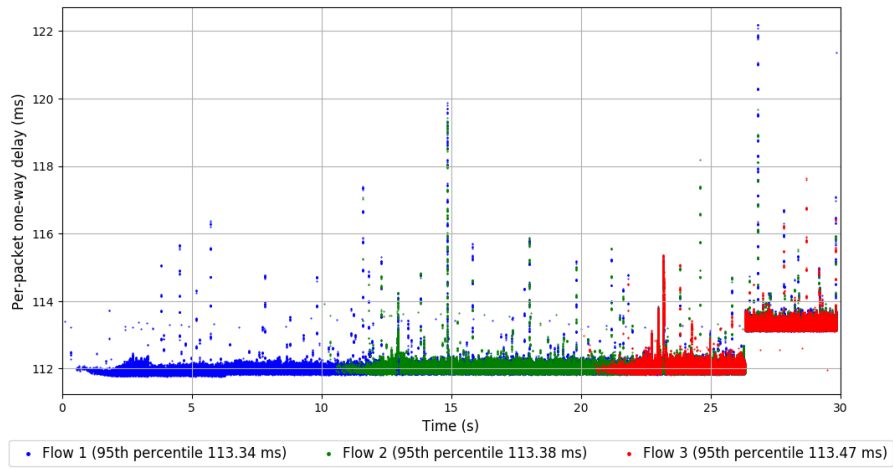
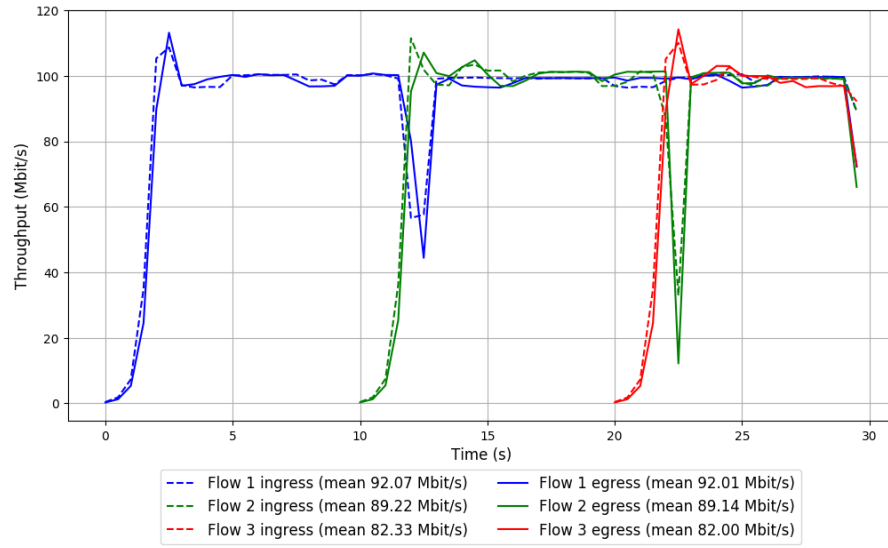
-- Flow 3:

Average throughput: 82.00 Mbit/s

95th percentile per-packet one-way delay: 113.473 ms

Loss rate: 2.67%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-04-11 04:17:02

End at: 2018-04-11 04:17:32

Below is generated by plot.py at 2018-04-11 09:39:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.02 Mbit/s

95th percentile per-packet one-way delay: 116.781 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 92.89 Mbit/s

95th percentile per-packet one-way delay: 114.896 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 88.90 Mbit/s

95th percentile per-packet one-way delay: 116.030 ms

Loss rate: 1.32%

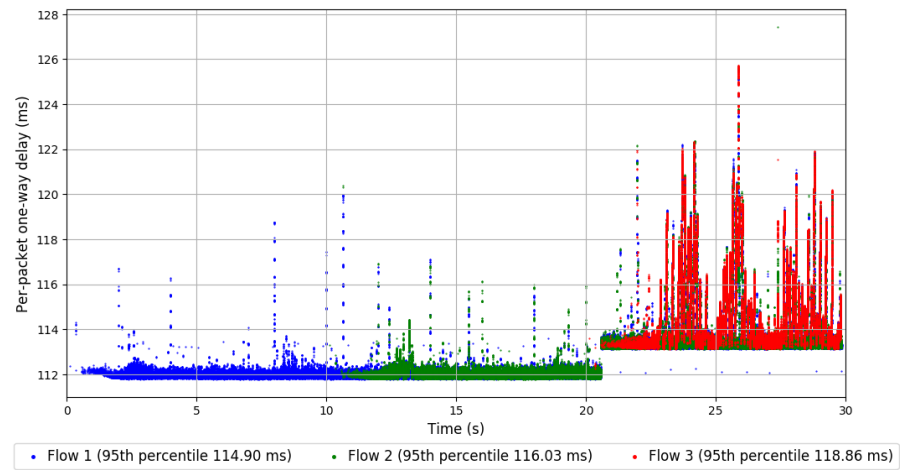
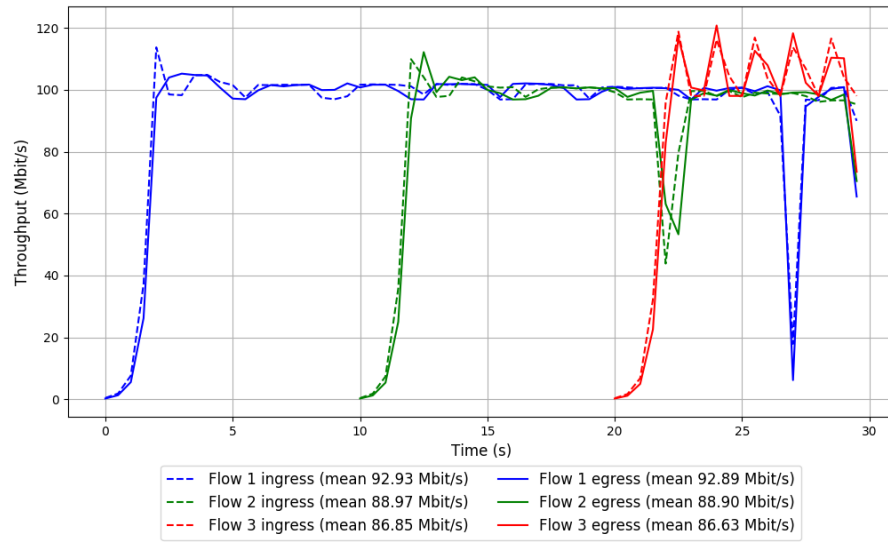
-- Flow 3:

Average throughput: 86.63 Mbit/s

95th percentile per-packet one-way delay: 118.859 ms

Loss rate: 2.84%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-04-11 04:36:11

End at: 2018-04-11 04:36:41

Below is generated by plot.py at 2018-04-11 09:39:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.47 Mbit/s

95th percentile per-packet one-way delay: 113.031 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 92.85 Mbit/s

95th percentile per-packet one-way delay: 112.987 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 88.70 Mbit/s

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

Loss rate: 1.21%

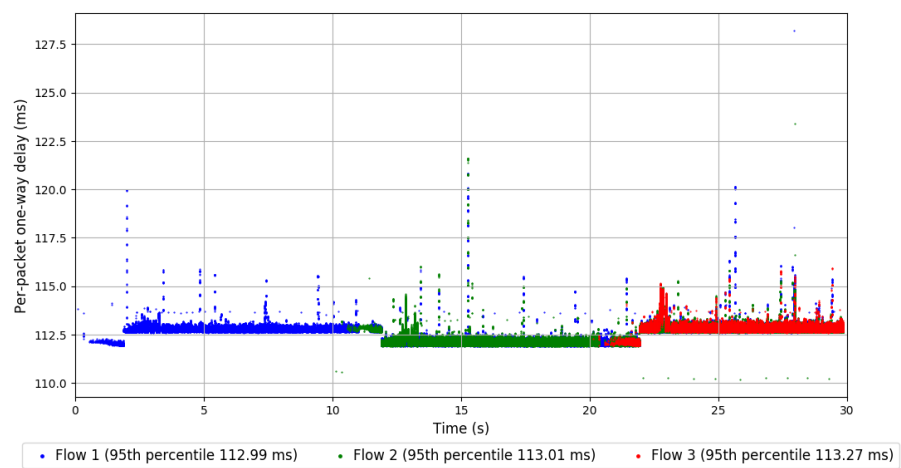
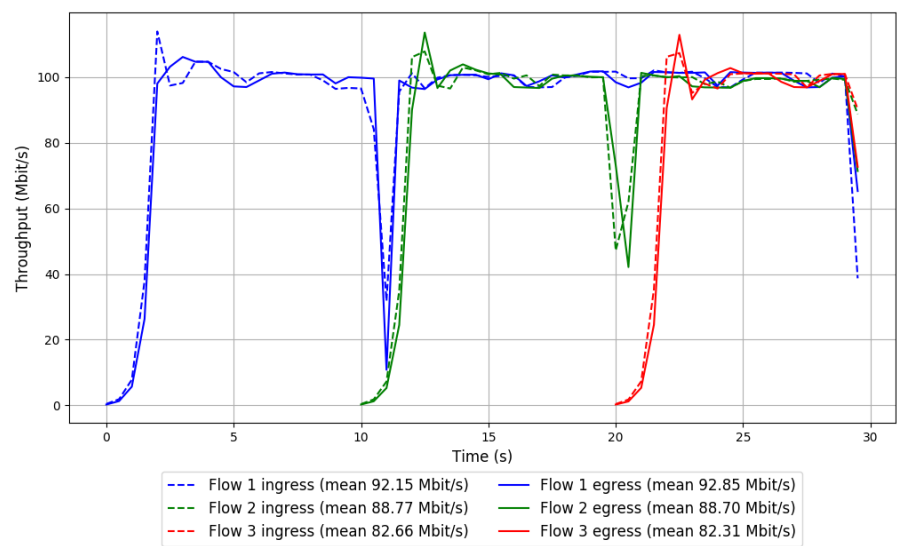
-- Flow 3:

Average throughput: 82.31 Mbit/s

95th percentile per-packet one-way delay: 113.266 ms

Loss rate: 2.65%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-04-11 04:55:18

End at: 2018-04-11 04:55:48

Below is generated by plot.py at 2018-04-11 09:39:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 177.92 Mbit/s

95th percentile per-packet one-way delay: 113.999 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 91.07 Mbit/s

95th percentile per-packet one-way delay: 113.326 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 88.70 Mbit/s

95th percentile per-packet one-way delay: 113.525 ms

Loss rate: 1.21%

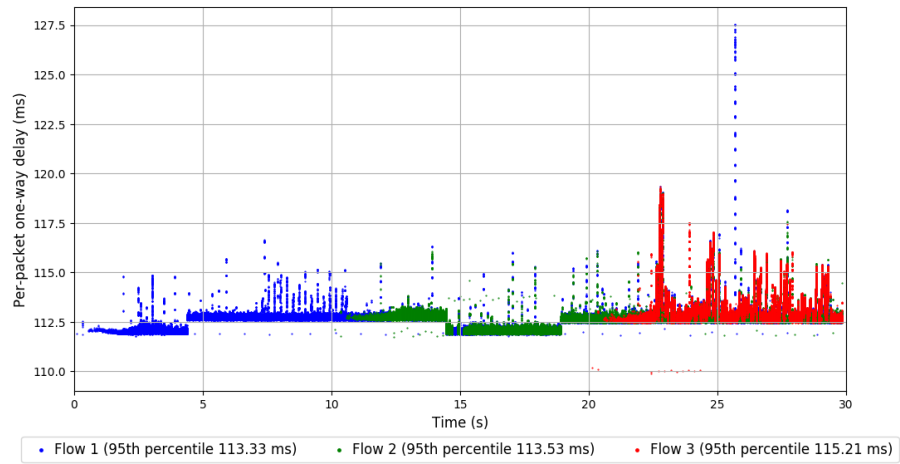
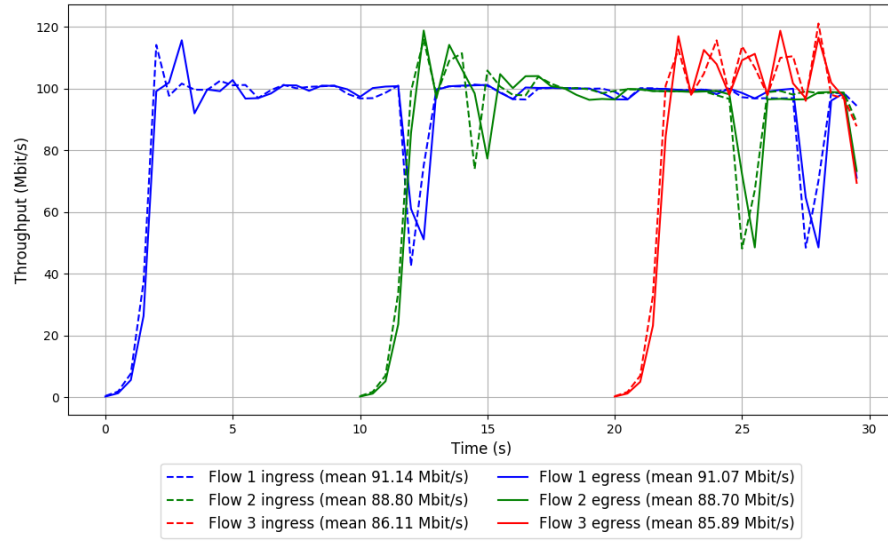
-- Flow 3:

Average throughput: 85.89 Mbit/s

95th percentile per-packet one-way delay: 115.212 ms

Loss rate: 2.48%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-04-11 05:14:19

End at: 2018-04-11 05:14:50

Below is generated by plot.py at 2018-04-11 09:39:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 176.97 Mbit/s

95th percentile per-packet one-way delay: 147.476 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 89.44 Mbit/s

95th percentile per-packet one-way delay: 139.778 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 93.01 Mbit/s

95th percentile per-packet one-way delay: 146.749 ms

Loss rate: 1.30%

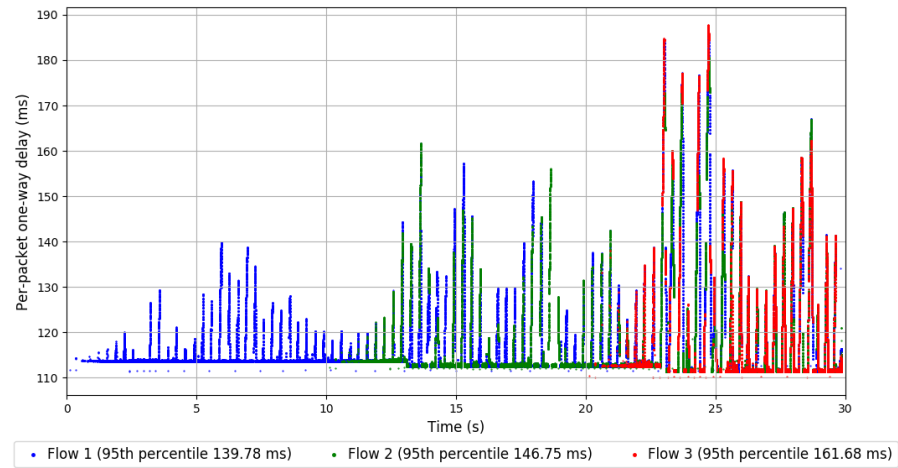
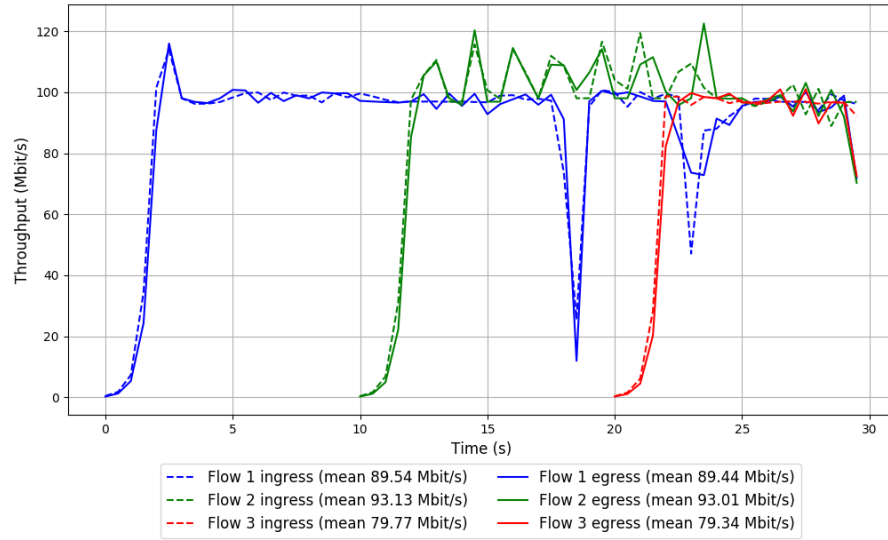
-- Flow 3:

Average throughput: 79.34 Mbit/s

95th percentile per-packet one-way delay: 161.683 ms

Loss rate: 2.77%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-04-11 05:33:34

End at: 2018-04-11 05:34:04

Below is generated by plot.py at 2018-04-11 09:42:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 182.38 Mbit/s

95th percentile per-packet one-way delay: 115.516 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 96.86 Mbit/s

95th percentile per-packet one-way delay: 114.677 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 88.28 Mbit/s

95th percentile per-packet one-way delay: 114.107 ms

Loss rate: 1.30%

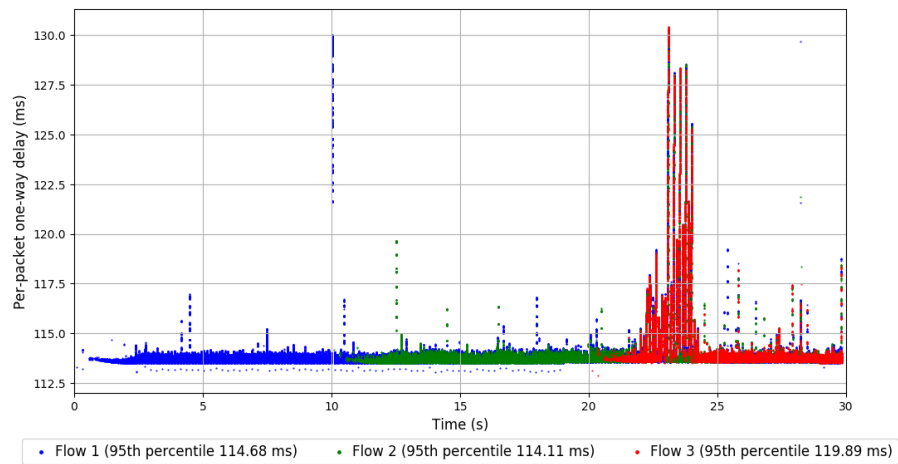
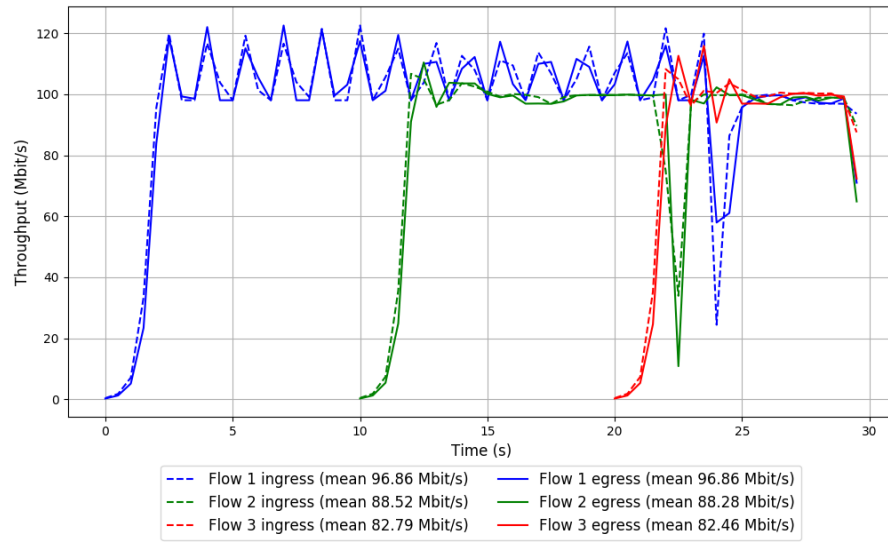
-- Flow 3:

Average throughput: 82.46 Mbit/s

95th percentile per-packet one-way delay: 119.895 ms

Loss rate: 2.66%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-04-11 05:52:55

End at: 2018-04-11 05:53:25

Below is generated by plot.py at 2018-04-11 09:42:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.74 Mbit/s

95th percentile per-packet one-way delay: 115.054 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 92.52 Mbit/s

95th percentile per-packet one-way delay: 114.441 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 90.53 Mbit/s

95th percentile per-packet one-way delay: 114.660 ms

Loss rate: 1.19%

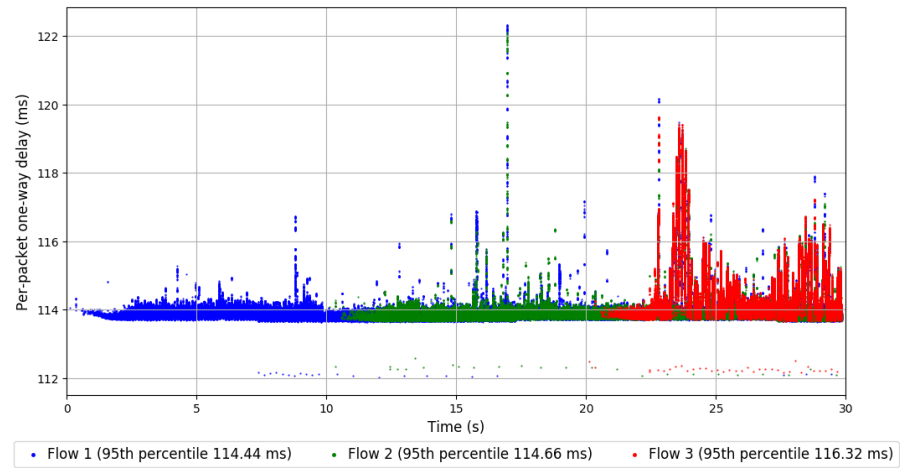
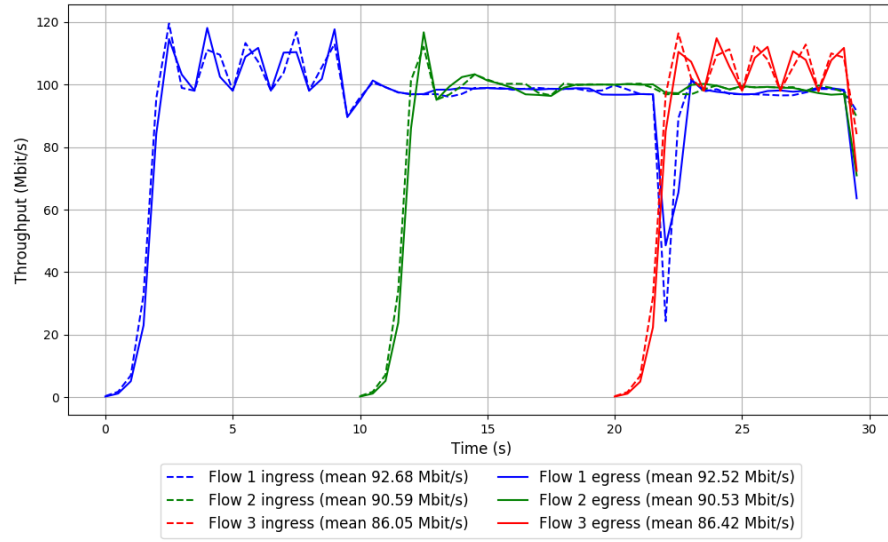
-- Flow 3:

Average throughput: 86.42 Mbit/s

95th percentile per-packet one-way delay: 116.319 ms

Loss rate: 2.06%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-04-11 03:09:33

End at: 2018-04-11 03:10:03

Below is generated by plot.py at 2018-04-11 09:42:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.35 Mbit/s

95th percentile per-packet one-way delay: 118.343 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 75.50 Mbit/s

95th percentile per-packet one-way delay: 119.015 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 63.31 Mbit/s

95th percentile per-packet one-way delay: 116.404 ms

Loss rate: 1.48%

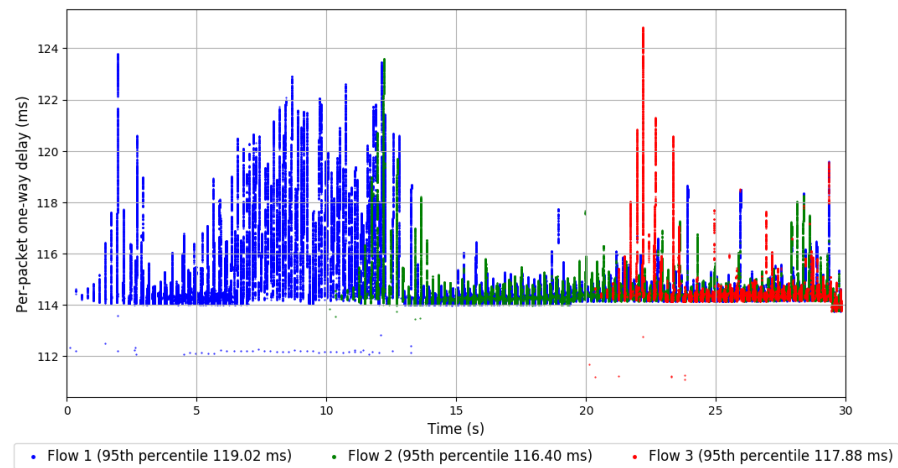
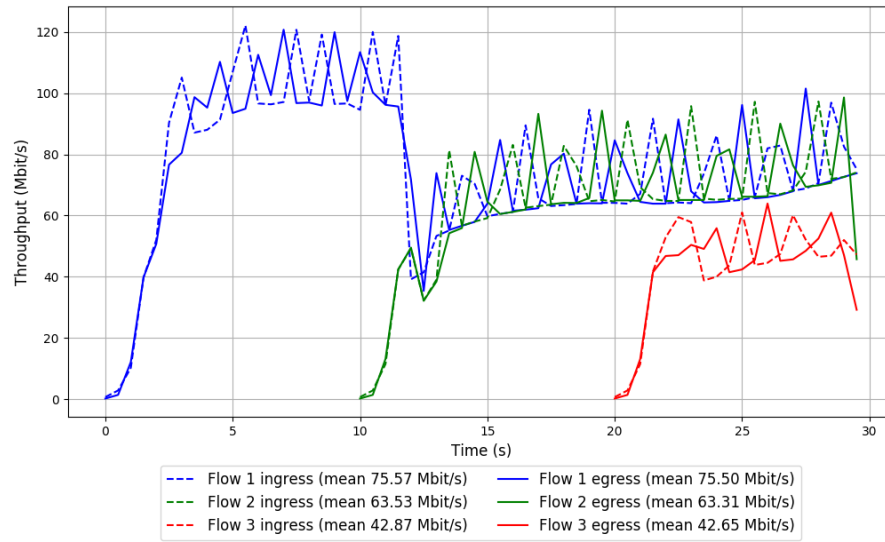
-- Flow 3:

Average throughput: 42.65 Mbit/s

95th percentile per-packet one-way delay: 117.883 ms

Loss rate: 2.75%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

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

End at: 2018-04-11 03:28:58

Below is generated by plot.py at 2018-04-11 09:42:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.35 Mbit/s

95th percentile per-packet one-way delay: 117.041 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 61.18 Mbit/s

95th percentile per-packet one-way delay: 117.597 ms

Loss rate: 1.18%

-- Flow 2:

Average throughput: 60.83 Mbit/s

95th percentile per-packet one-way delay: 115.027 ms

Loss rate: 1.44%

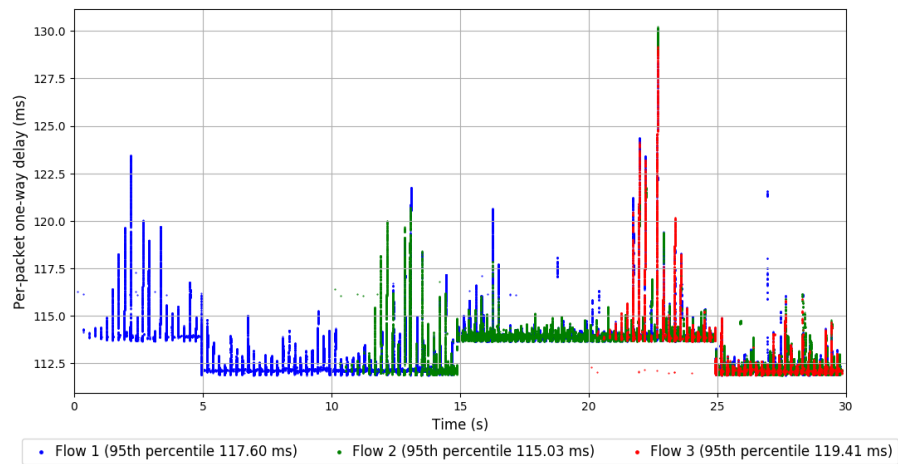
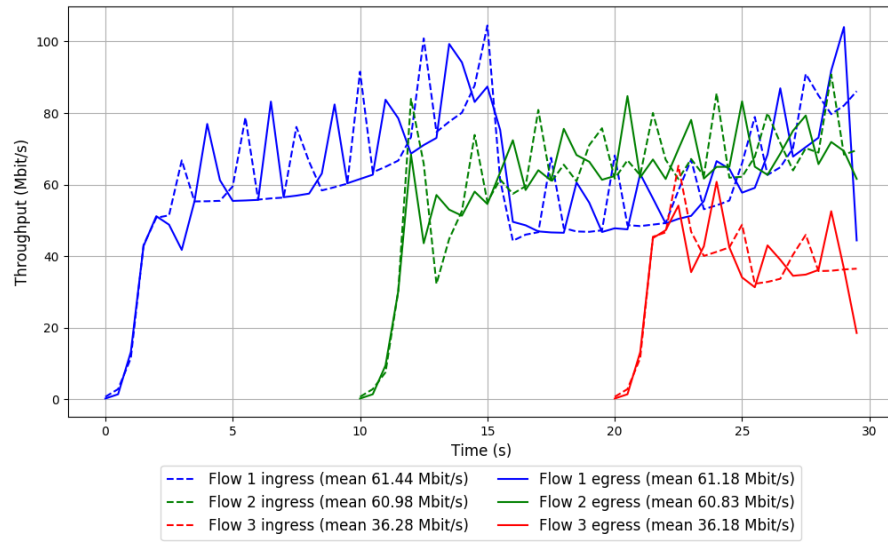
-- Flow 3:

Average throughput: 36.18 Mbit/s

95th percentile per-packet one-way delay: 119.407 ms

Loss rate: 2.52%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-04-11 03:47:33

End at: 2018-04-11 03:48:03

Below is generated by plot.py at 2018-04-11 09:42:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.09 Mbit/s

95th percentile per-packet one-way delay: 116.598 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 63.79 Mbit/s

95th percentile per-packet one-way delay: 116.702 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 48.96 Mbit/s

95th percentile per-packet one-way delay: 114.981 ms

Loss rate: 1.51%

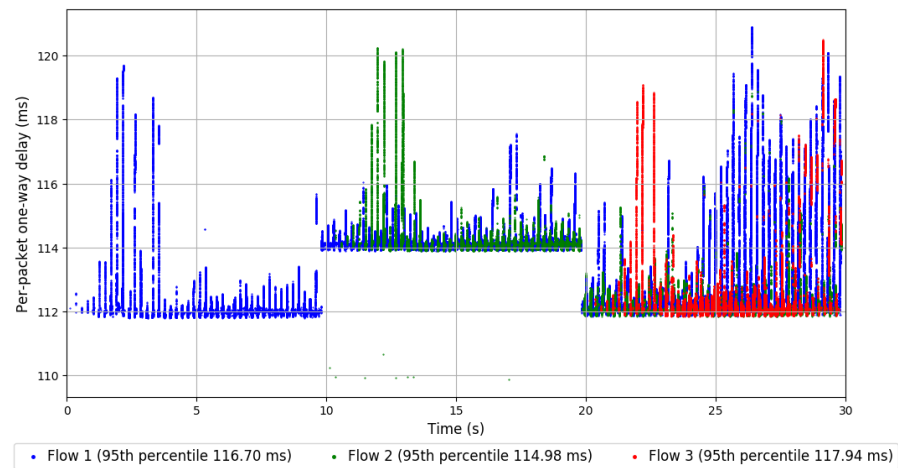
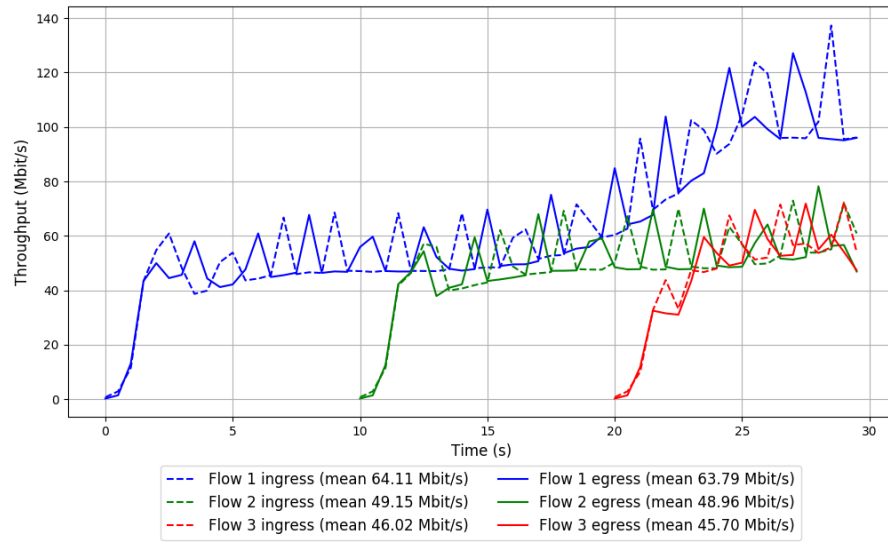
-- Flow 3:

Average throughput: 45.70 Mbit/s

95th percentile per-packet one-way delay: 117.939 ms

Loss rate: 2.96%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-04-11 04:06:34

End at: 2018-04-11 04:07:04

Below is generated by plot.py at 2018-04-11 09:42:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 100.34 Mbit/s

95th percentile per-packet one-way delay: 117.884 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 67.84 Mbit/s

95th percentile per-packet one-way delay: 117.174 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 48.23 Mbit/s

95th percentile per-packet one-way delay: 119.454 ms

Loss rate: 1.51%

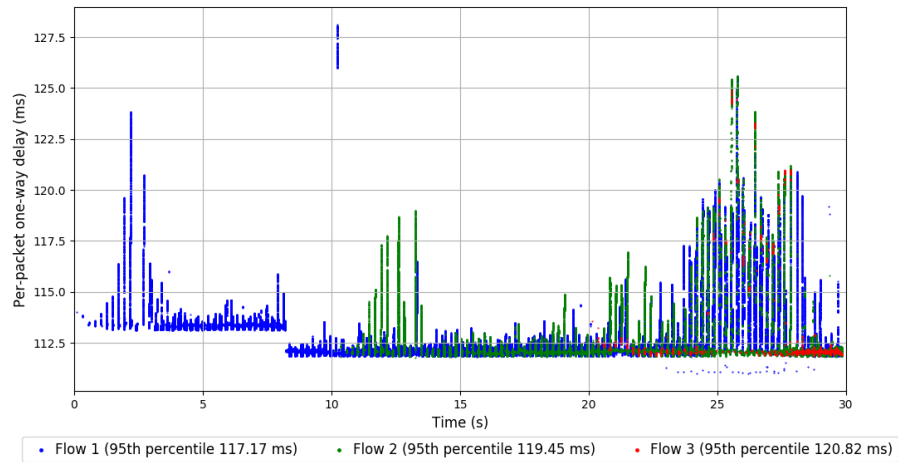
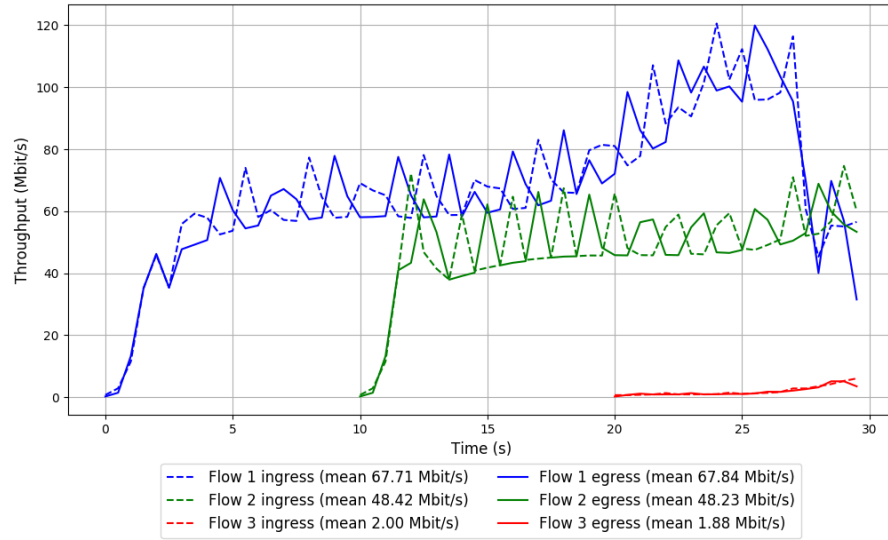
-- Flow 3:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 120.823 ms

Loss rate: 8.03%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-04-11 04:25:47

End at: 2018-04-11 04:26:17

Below is generated by plot.py at 2018-04-11 09:42:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.28 Mbit/s

95th percentile per-packet one-way delay: 118.622 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 61.05 Mbit/s

95th percentile per-packet one-way delay: 117.421 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 59.84 Mbit/s

95th percentile per-packet one-way delay: 119.522 ms

Loss rate: 1.50%

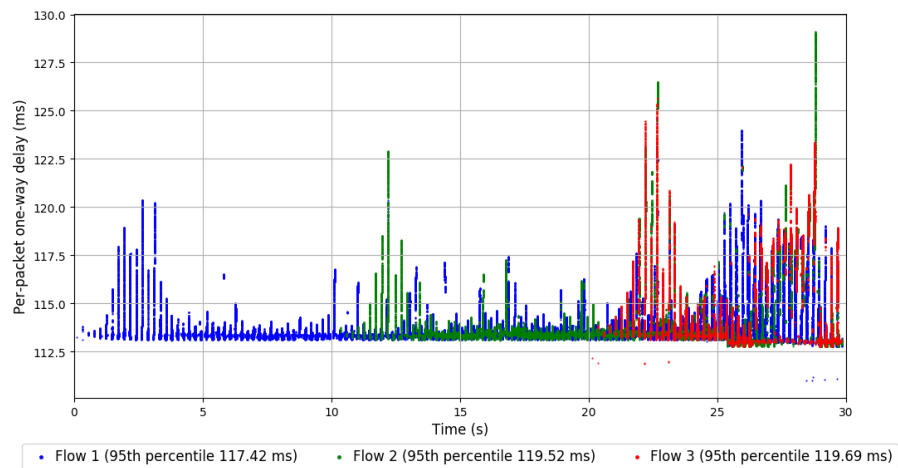
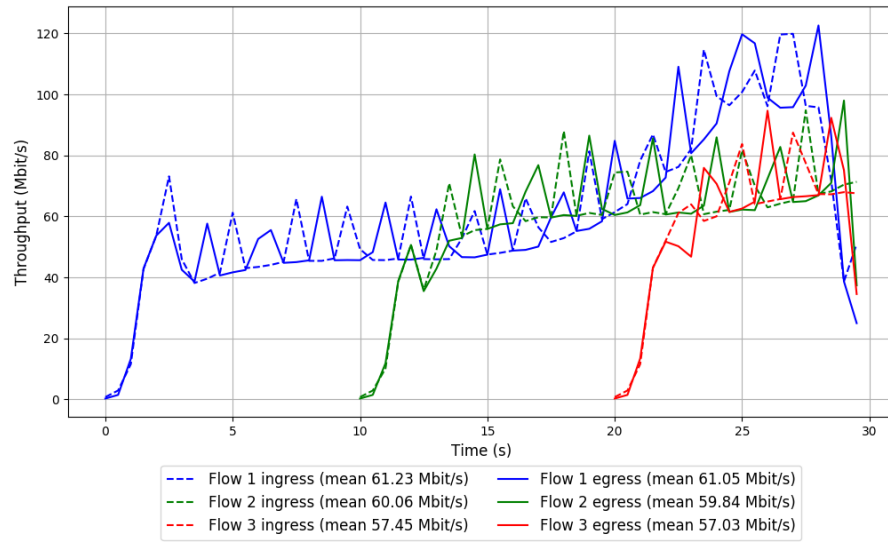
-- Flow 3:

Average throughput: 57.03 Mbit/s

95th percentile per-packet one-way delay: 119.685 ms

Loss rate: 2.97%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-04-11 04:44:54

End at: 2018-04-11 04:45:24

Below is generated by plot.py at 2018-04-11 09:42:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.58 Mbit/s

95th percentile per-packet one-way delay: 115.224 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 59.27 Mbit/s

95th percentile per-packet one-way delay: 115.446 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 55.38 Mbit/s

95th percentile per-packet one-way delay: 113.807 ms

Loss rate: 1.53%

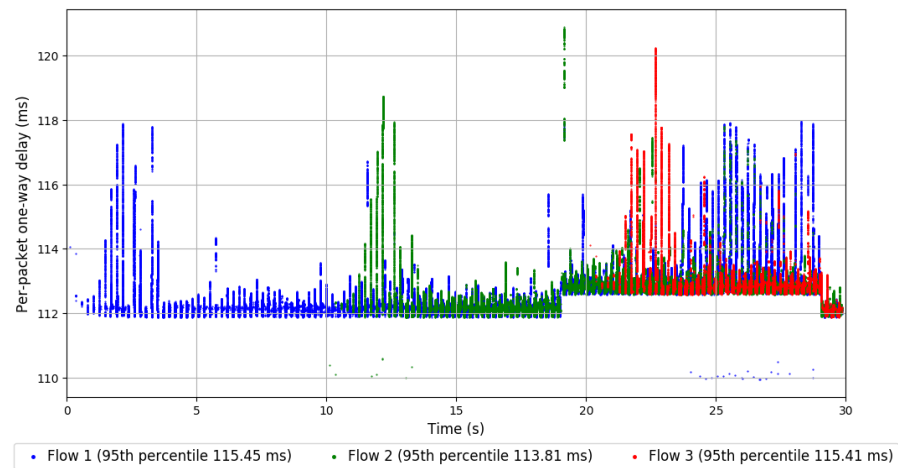
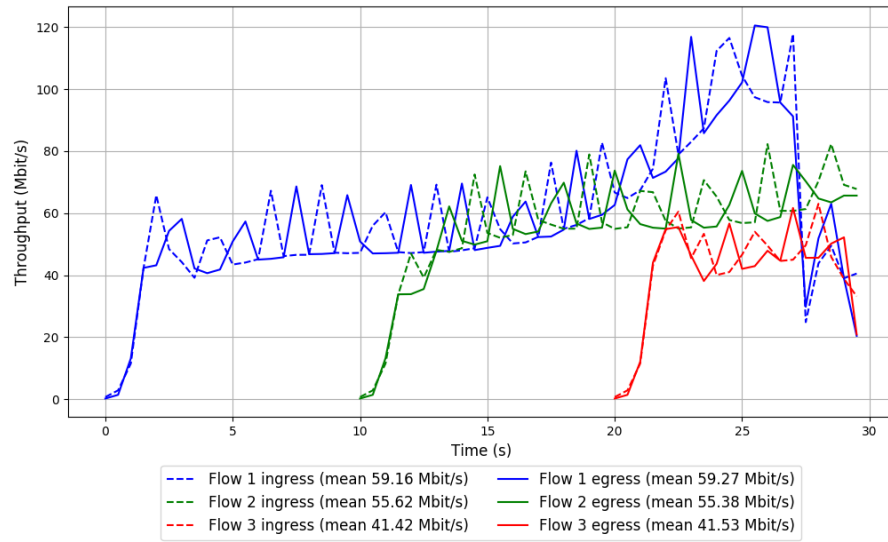
-- Flow 3:

Average throughput: 41.53 Mbit/s

95th percentile per-packet one-way delay: 115.408 ms

Loss rate: 2.03%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-04-11 05:03:47

End at: 2018-04-11 05:04:17

Below is generated by plot.py at 2018-04-11 09:42:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.66 Mbit/s

95th percentile per-packet one-way delay: 117.675 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 74.83 Mbit/s

95th percentile per-packet one-way delay: 117.786 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 54.36 Mbit/s

95th percentile per-packet one-way delay: 117.613 ms

Loss rate: 1.53%

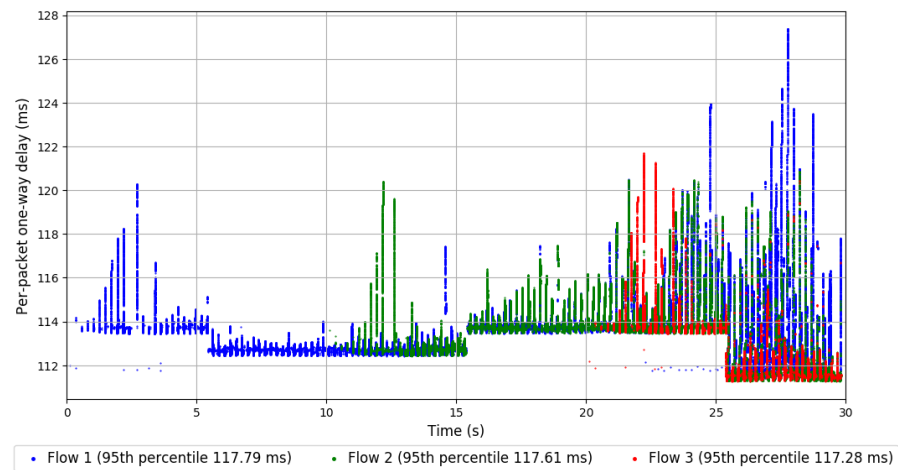
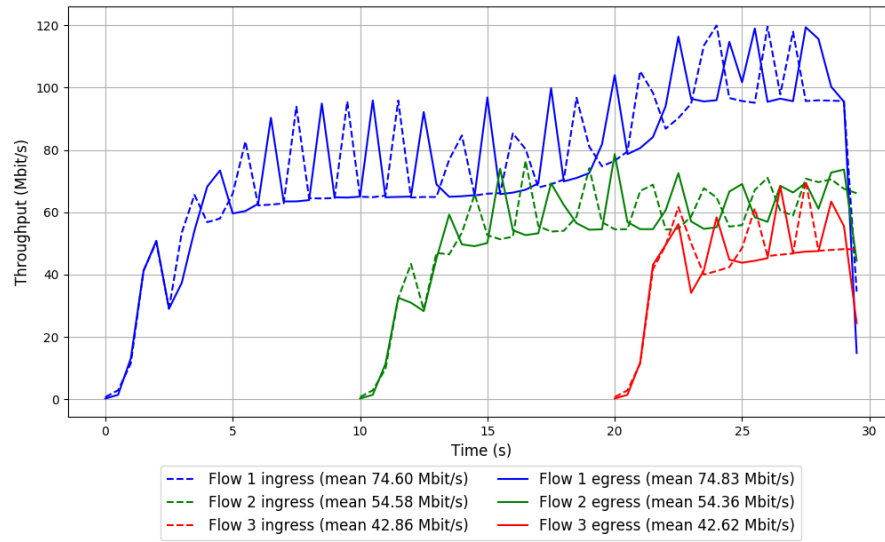
-- Flow 3:

Average throughput: 42.62 Mbit/s

95th percentile per-packet one-way delay: 117.276 ms

Loss rate: 2.82%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-04-11 05:23:00

End at: 2018-04-11 05:23:30

Below is generated by plot.py at 2018-04-11 09:43:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.29 Mbit/s

95th percentile per-packet one-way delay: 118.770 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 69.60 Mbit/s

95th percentile per-packet one-way delay: 118.631 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 56.27 Mbit/s

95th percentile per-packet one-way delay: 119.636 ms

Loss rate: 1.39%

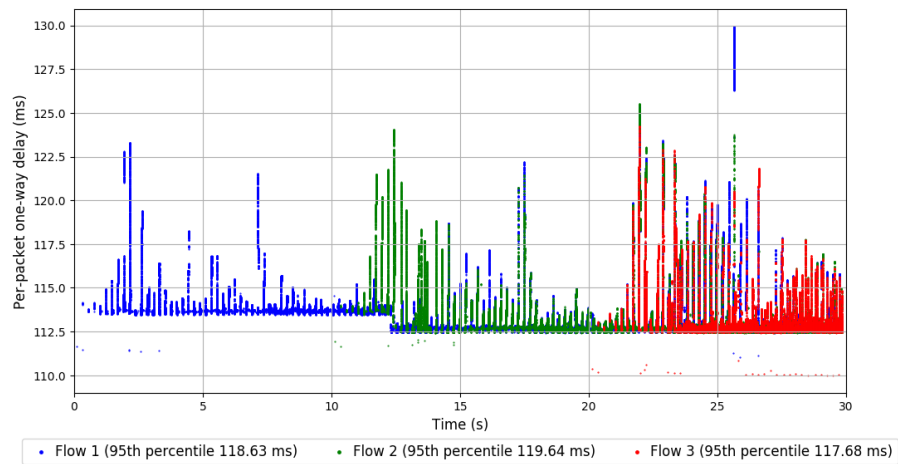
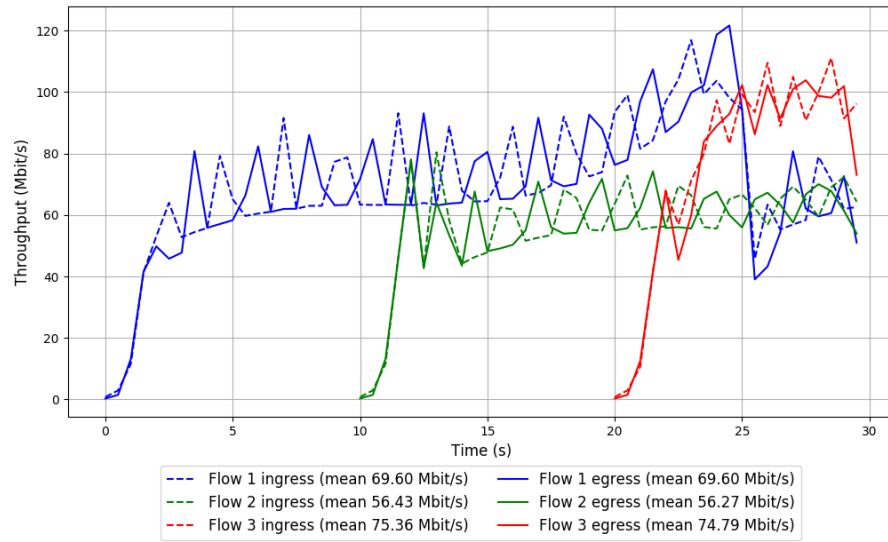
-- Flow 3:

Average throughput: 74.79 Mbit/s

95th percentile per-packet one-way delay: 117.683 ms

Loss rate: 2.95%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-04-11 05:42:27

End at: 2018-04-11 05:42:57

Below is generated by plot.py at 2018-04-11 09:43:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.77 Mbit/s

95th percentile per-packet one-way delay: 117.684 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 69.44 Mbit/s

95th percentile per-packet one-way delay: 117.785 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 47.62 Mbit/s

95th percentile per-packet one-way delay: 116.843 ms

Loss rate: 1.55%

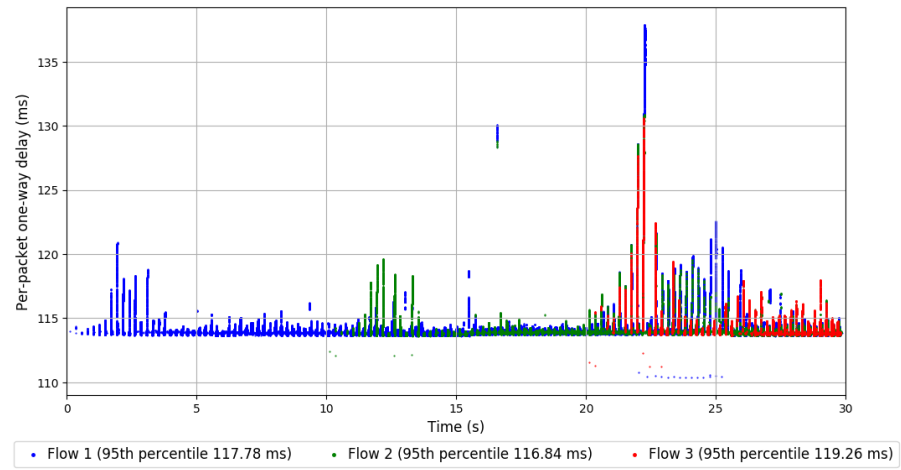
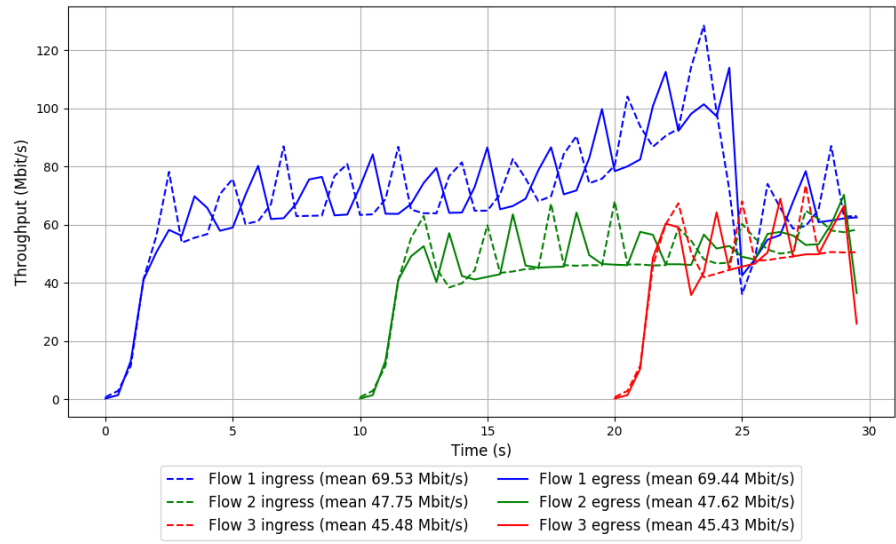
-- Flow 3:

Average throughput: 45.43 Mbit/s

95th percentile per-packet one-way delay: 119.256 ms

Loss rate: 2.79%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-04-11 06:01:43

End at: 2018-04-11 06:02:13

Below is generated by plot.py at 2018-04-11 09:43:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.18 Mbit/s

95th percentile per-packet one-way delay: 119.235 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 66.51 Mbit/s

95th percentile per-packet one-way delay: 118.810 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 51.94 Mbit/s

95th percentile per-packet one-way delay: 119.720 ms

Loss rate: 1.41%

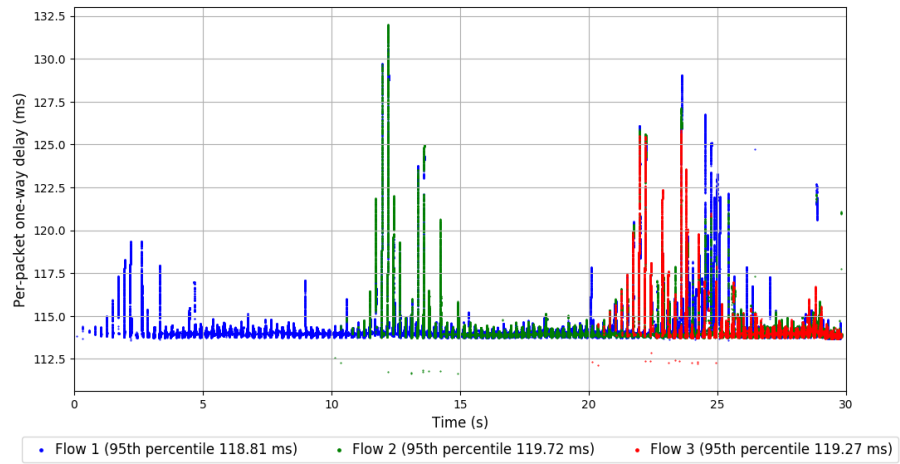
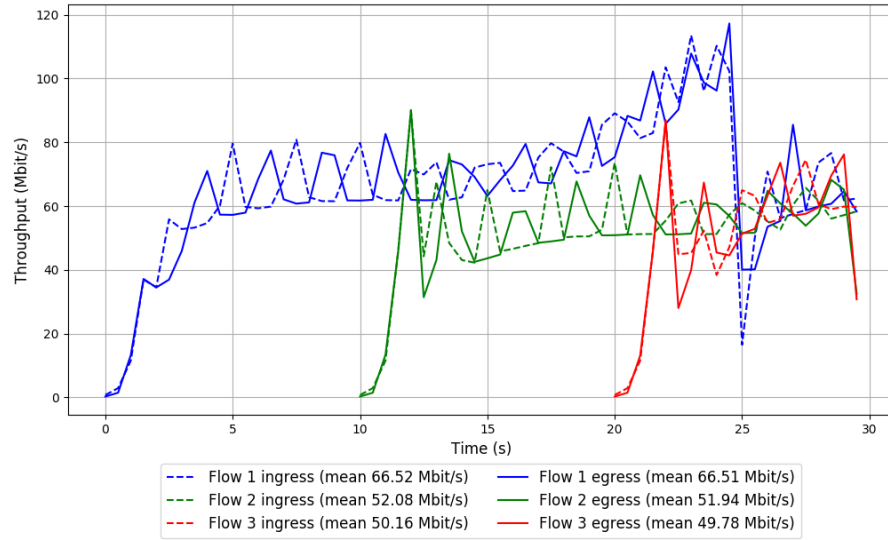
-- Flow 3:

Average throughput: 49.78 Mbit/s

95th percentile per-packet one-way delay: 119.268 ms

Loss rate: 3.00%

Run 10: Report of TCP Cubic — Data Link

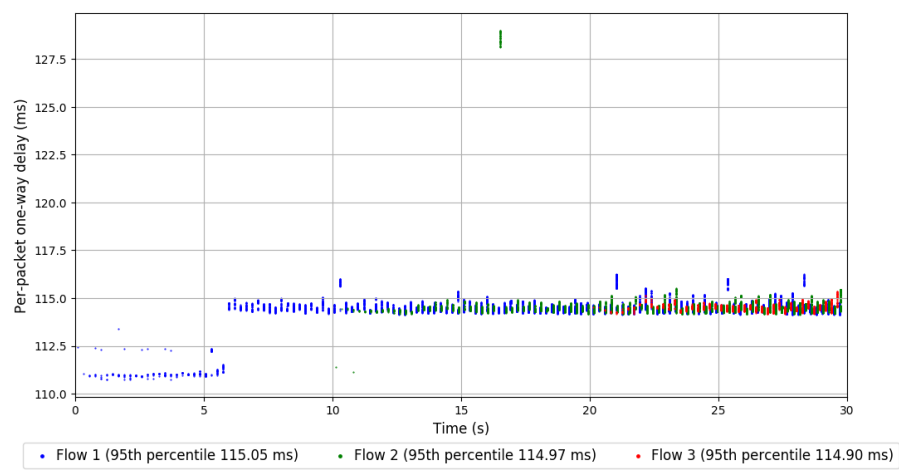
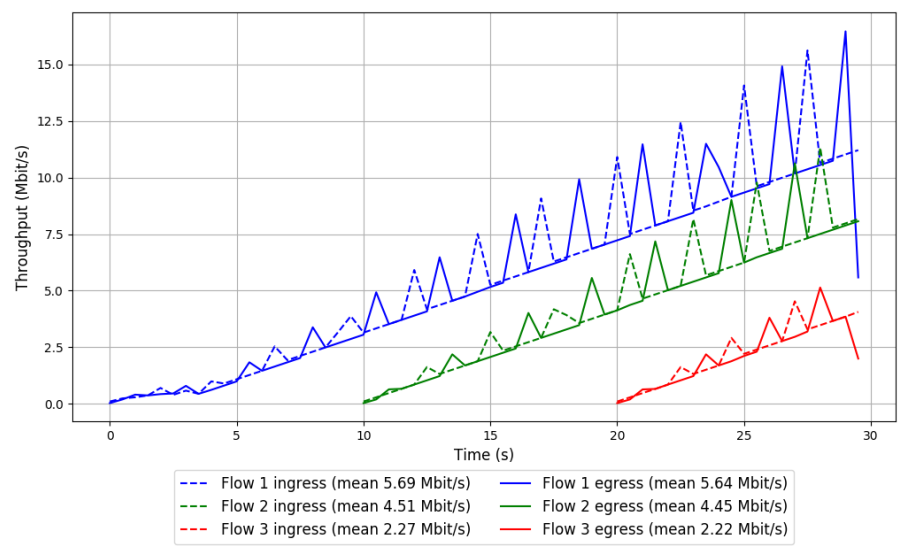


```
Run 1: Statistics of LEDBAT

Start at: 2018-04-11 03:07:27
End at: 2018-04-11 03:07:57

# Below is generated by plot.py at 2018-04-11 09:43:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.29 Mbit/s
95th percentile per-packet one-way delay: 115.004 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 5.64 Mbit/s
95th percentile per-packet one-way delay: 115.050 ms
Loss rate: 1.66%
-- Flow 2:
Average throughput: 4.45 Mbit/s
95th percentile per-packet one-way delay: 114.966 ms
Loss rate: 2.29%
-- Flow 3:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 114.903 ms
Loss rate: 4.67%
```


Run 1: Report of LEDBAT — Data Link

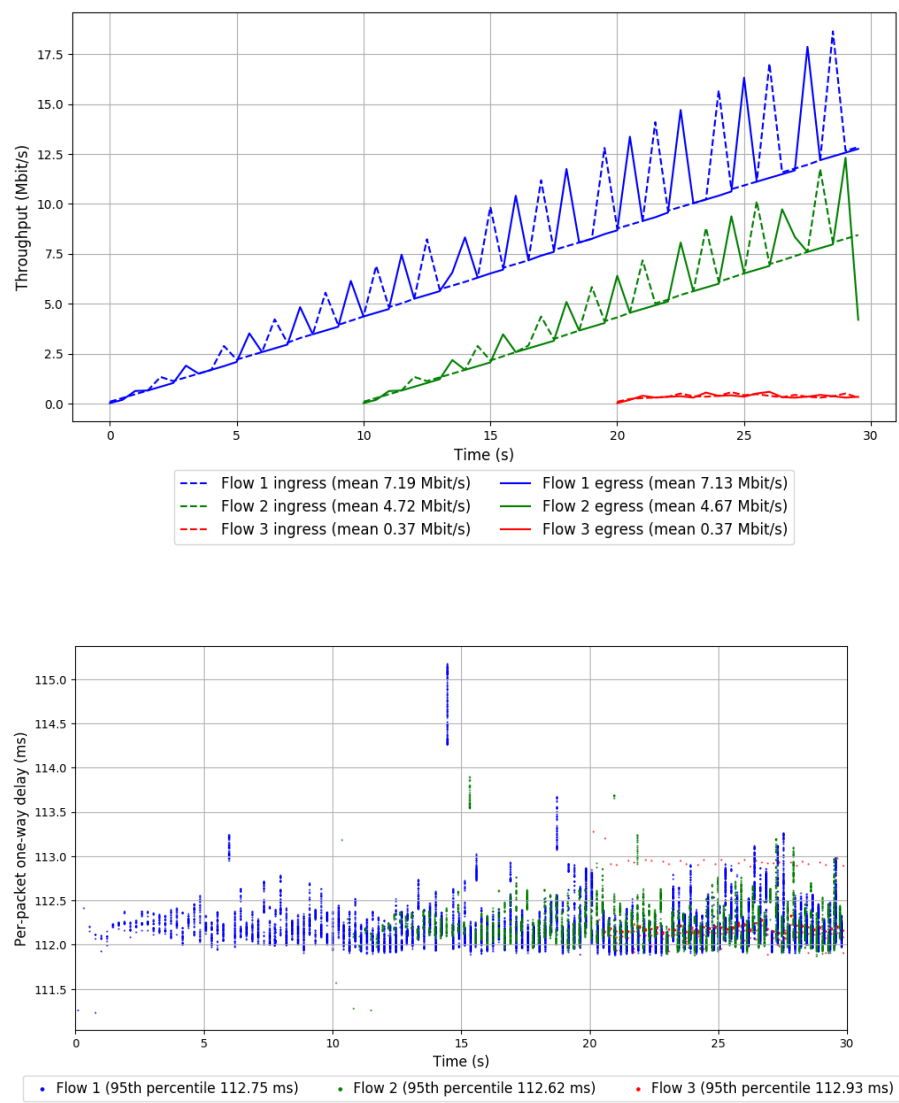


```
Run 2: Statistics of LEDBAT

Start at: 2018-04-11 03:26:24
End at: 2018-04-11 03:26:54

# Below is generated by plot.py at 2018-04-11 09:43:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.31 Mbit/s
95th percentile per-packet one-way delay: 112.714 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 7.13 Mbit/s
95th percentile per-packet one-way delay: 112.753 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 4.67 Mbit/s
95th percentile per-packet one-way delay: 112.618 ms
Loss rate: 2.27%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 112.933 ms
Loss rate: 2.25%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-04-11 03:45:29

End at: 2018-04-11 03:45:59

Below is generated by plot.py at 2018-04-11 09:43:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.30 Mbit/s

95th percentile per-packet one-way delay: 112.860 ms

Loss rate: 1.98%

-- Flow 1:

Average throughput: 7.06 Mbit/s

95th percentile per-packet one-way delay: 112.924 ms

Loss rate: 1.51%

-- Flow 2:

Average throughput: 3.83 Mbit/s

95th percentile per-packet one-way delay: 112.690 ms

Loss rate: 2.50%

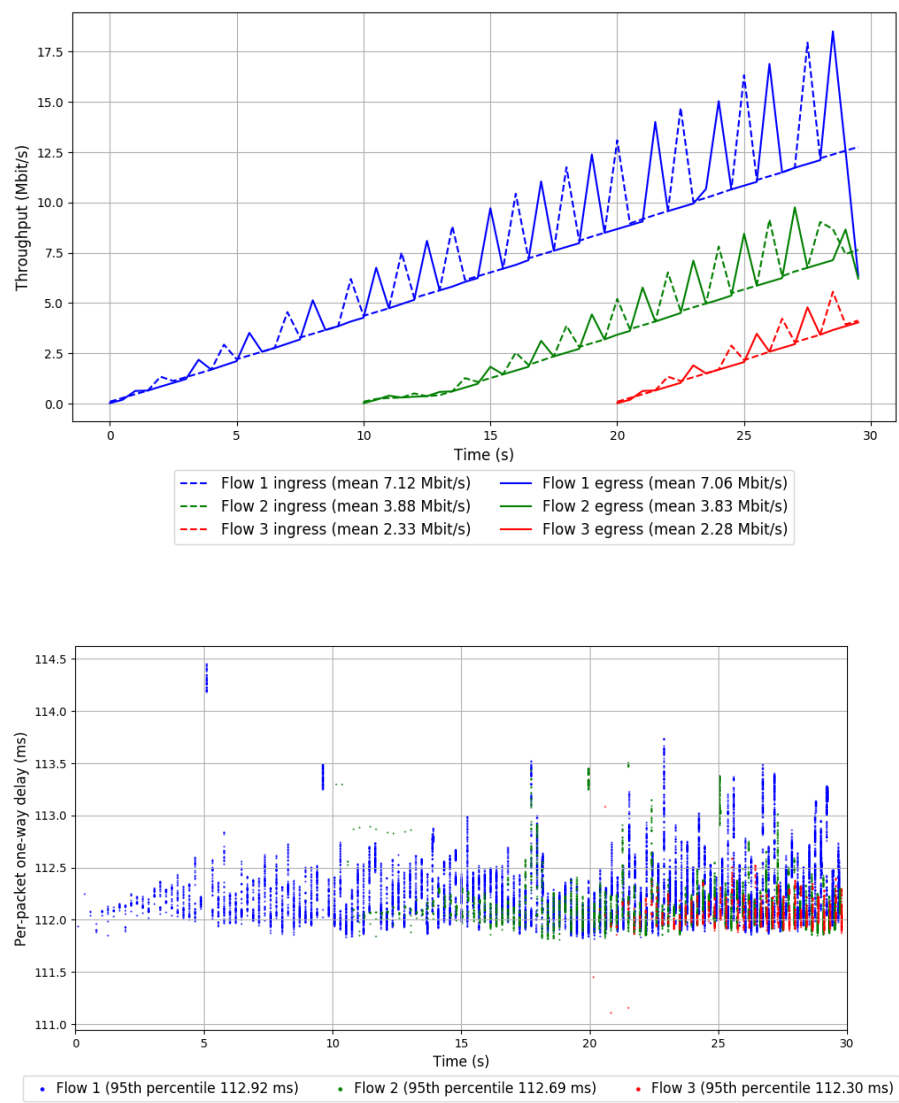
-- Flow 3:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 112.296 ms

Loss rate: 4.54%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-04-11 04:04:26

End at: 2018-04-11 04:04:56

Below is generated by plot.py at 2018-04-11 09:43:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.50 Mbit/s

95th percentile per-packet one-way delay: 112.458 ms

Loss rate: 2.22%

-- Flow 1:

Average throughput: 4.70 Mbit/s

95th percentile per-packet one-way delay: 112.385 ms

Loss rate: 1.84%

-- Flow 2:

Average throughput: 4.72 Mbit/s

95th percentile per-packet one-way delay: 112.535 ms

Loss rate: 2.25%

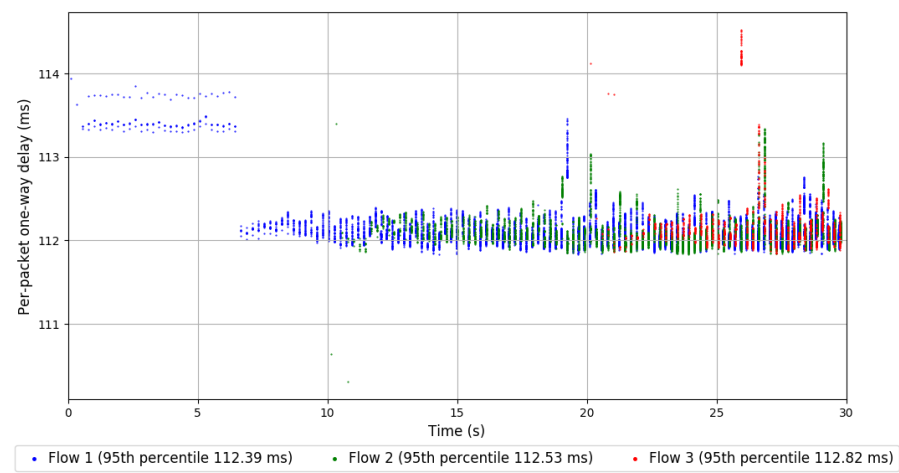
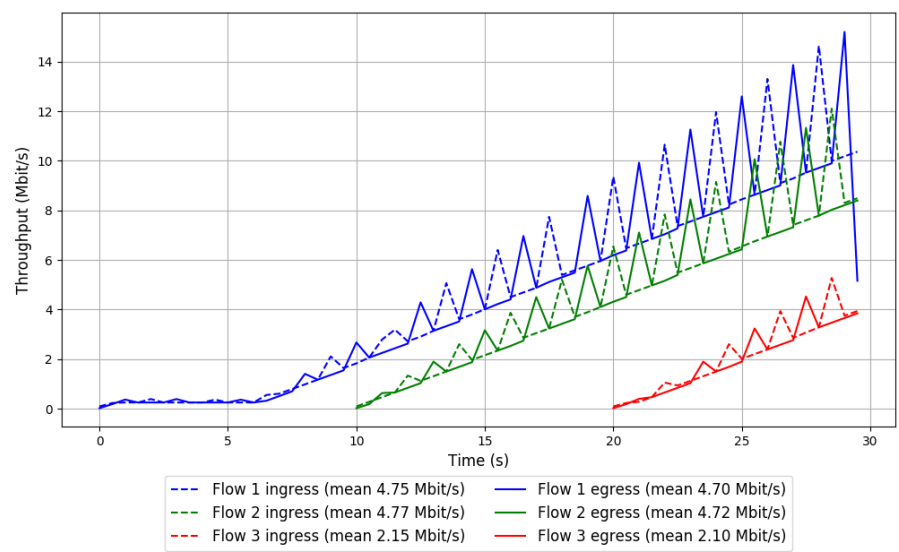
-- Flow 3:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 112.819 ms

Loss rate: 4.71%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-04-11 04:23:44

End at: 2018-04-11 04:24:14

Below is generated by plot.py at 2018-04-11 09:43:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.14 Mbit/s

95th percentile per-packet one-way delay: 113.561 ms

Loss rate: 1.75%

-- Flow 1:

Average throughput: 6.99 Mbit/s

95th percentile per-packet one-way delay: 113.567 ms

Loss rate: 1.52%

-- Flow 2:

Average throughput: 4.68 Mbit/s

95th percentile per-packet one-way delay: 113.554 ms

Loss rate: 2.27%

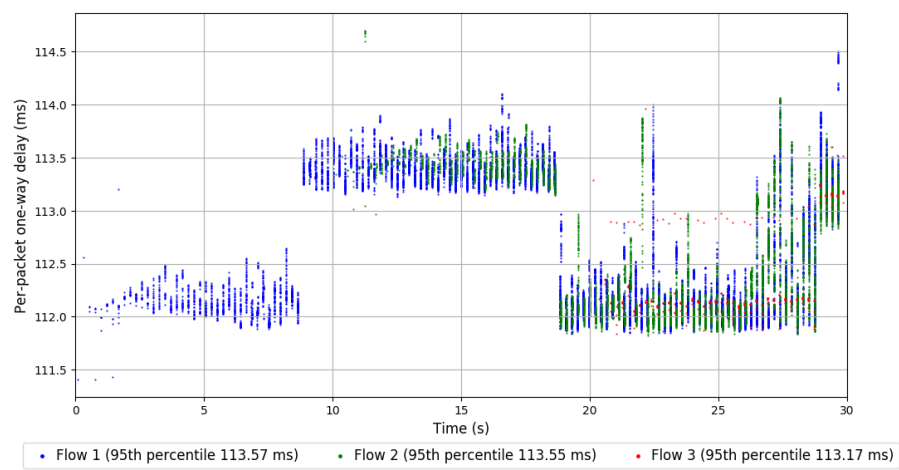
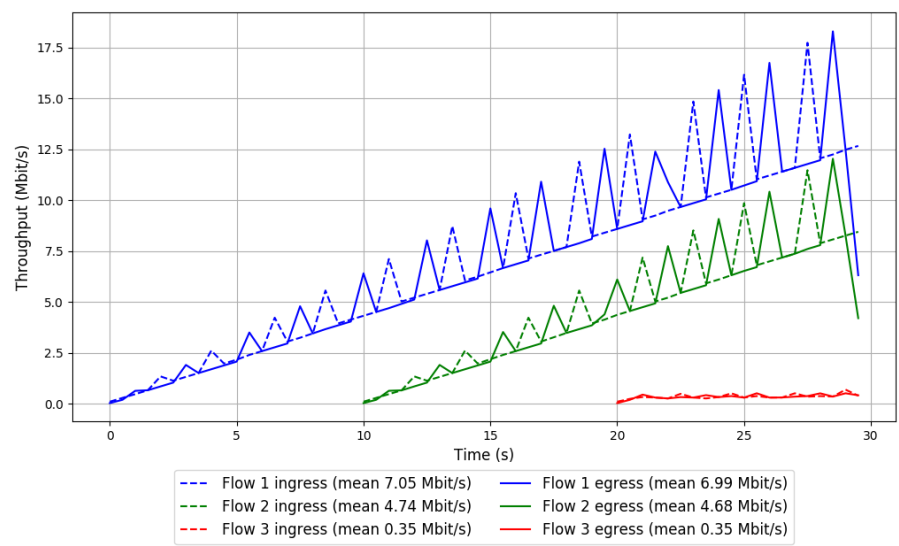
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 113.172 ms

Loss rate: 2.29%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-04-11 04:42:54

End at: 2018-04-11 04:43:24

Below is generated by plot.py at 2018-04-11 09:43:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.98 Mbit/s

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

Loss rate: 1.91%

-- Flow 1:

Average throughput: 7.23 Mbit/s

95th percentile per-packet one-way delay: 113.017 ms

Loss rate: 1.49%

-- Flow 2:

Average throughput: 4.66 Mbit/s

95th percentile per-packet one-way delay: 113.540 ms

Loss rate: 2.27%

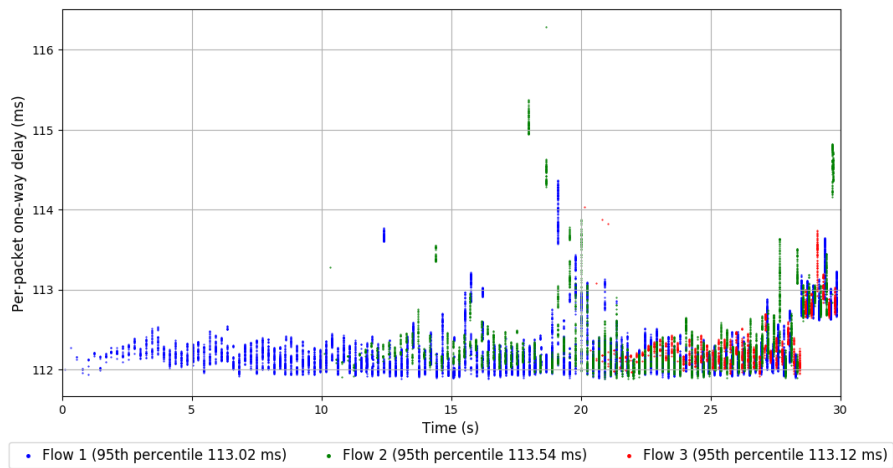
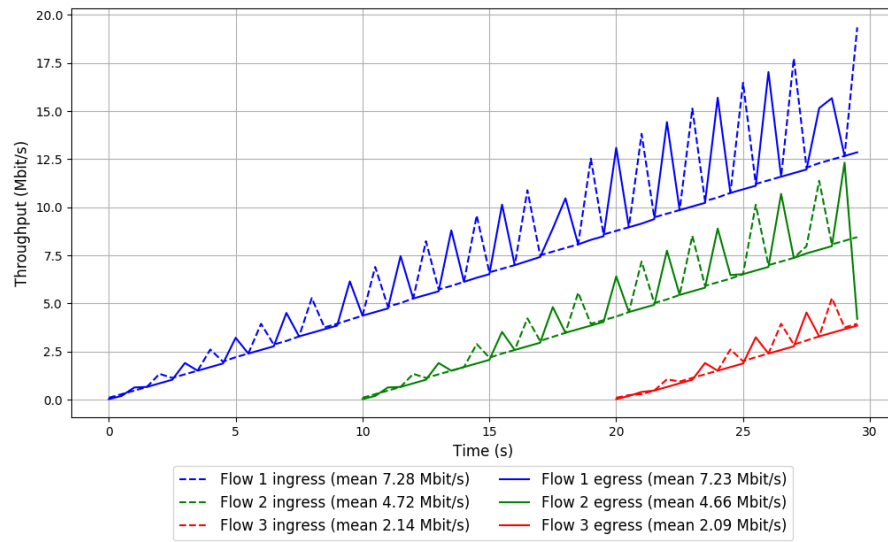
-- Flow 3:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 113.123 ms

Loss rate: 4.71%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-04-11 05:01:45

End at: 2018-04-11 05:02:15

Below is generated by plot.py at 2018-04-11 09:43:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.10 Mbit/s

95th percentile per-packet one-way delay: 113.306 ms

Loss rate: 1.86%

-- Flow 1:

Average throughput: 7.10 Mbit/s

95th percentile per-packet one-way delay: 113.284 ms

Loss rate: 1.51%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 112.951 ms

Loss rate: 3.63%

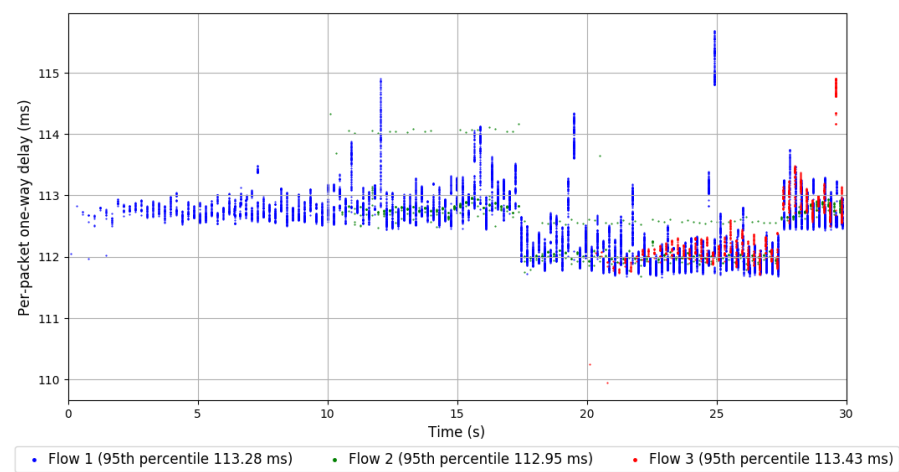
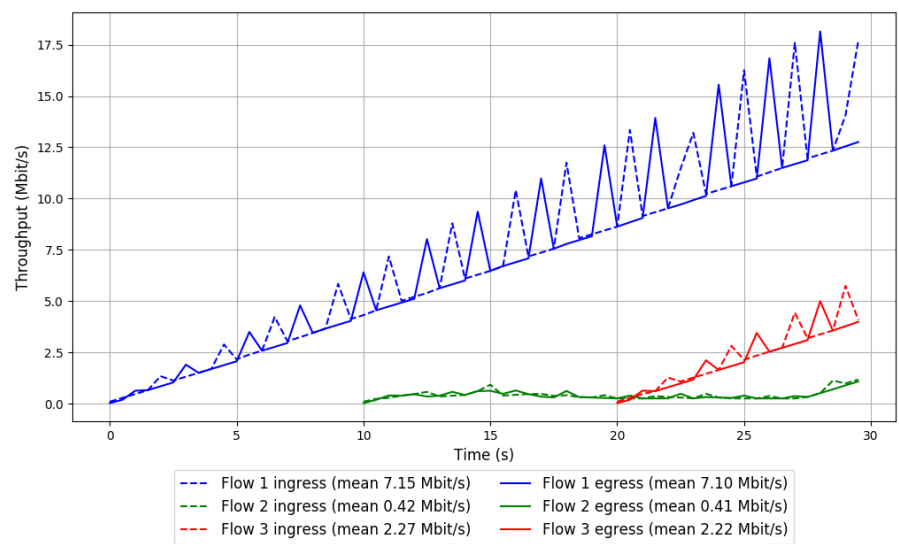
-- Flow 3:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 113.428 ms

Loss rate: 4.58%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-04-11 05:20:53

End at: 2018-04-11 05:21:23

Below is generated by plot.py at 2018-04-11 09:43:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.65 Mbit/s

95th percentile per-packet one-way delay: 113.924 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 6.90 Mbit/s

95th percentile per-packet one-way delay: 113.922 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 4.64 Mbit/s

95th percentile per-packet one-way delay: 113.912 ms

Loss rate: 2.26%

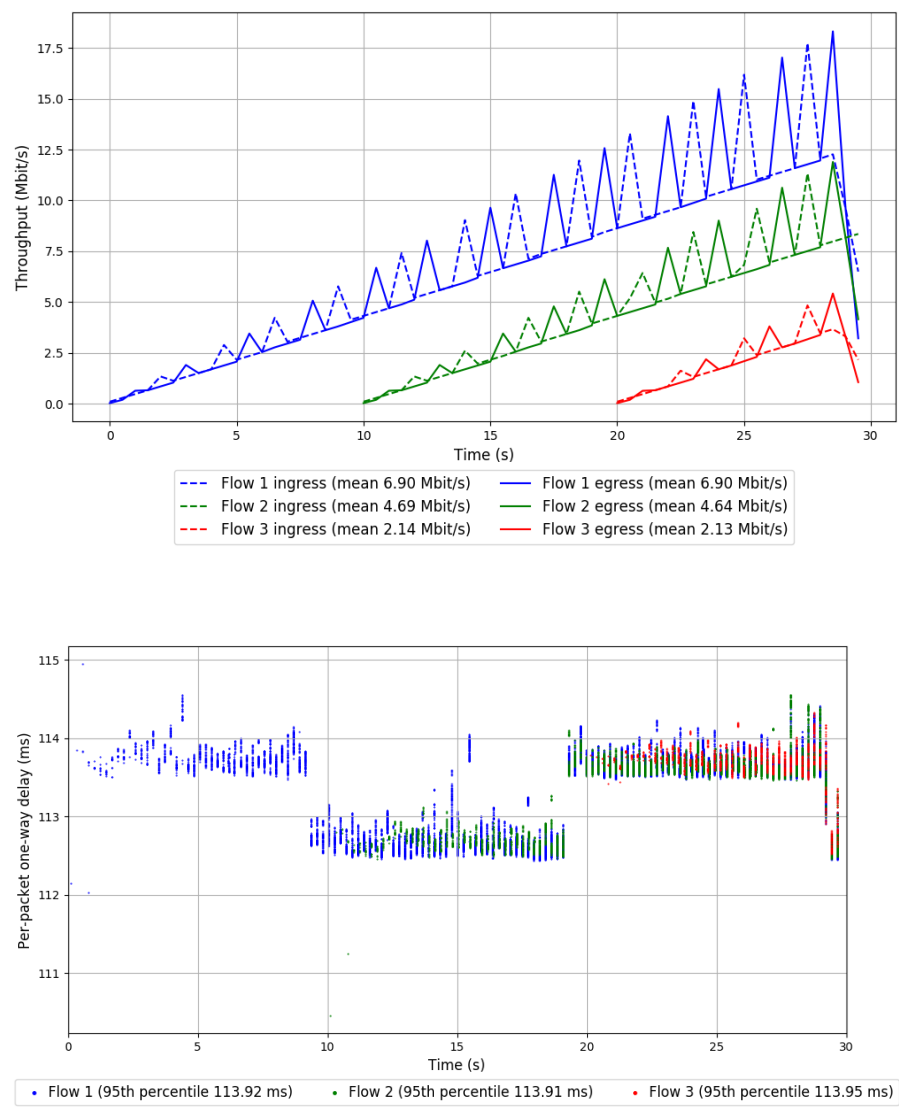
-- Flow 3:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 113.948 ms

Loss rate: 2.70%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-04-11 05:40:17

End at: 2018-04-11 05:40:47

Below is generated by plot.py at 2018-04-11 09:43:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.83 Mbit/s

95th percentile per-packet one-way delay: 114.585 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 7.01 Mbit/s

95th percentile per-packet one-way delay: 114.580 ms

Loss rate: 1.51%

-- Flow 2:

Average throughput: 4.65 Mbit/s

95th percentile per-packet one-way delay: 114.518 ms

Loss rate: 2.28%

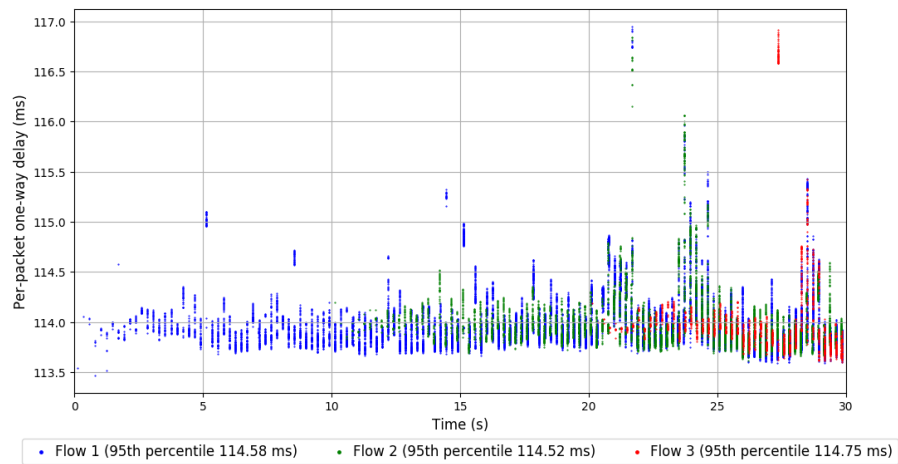
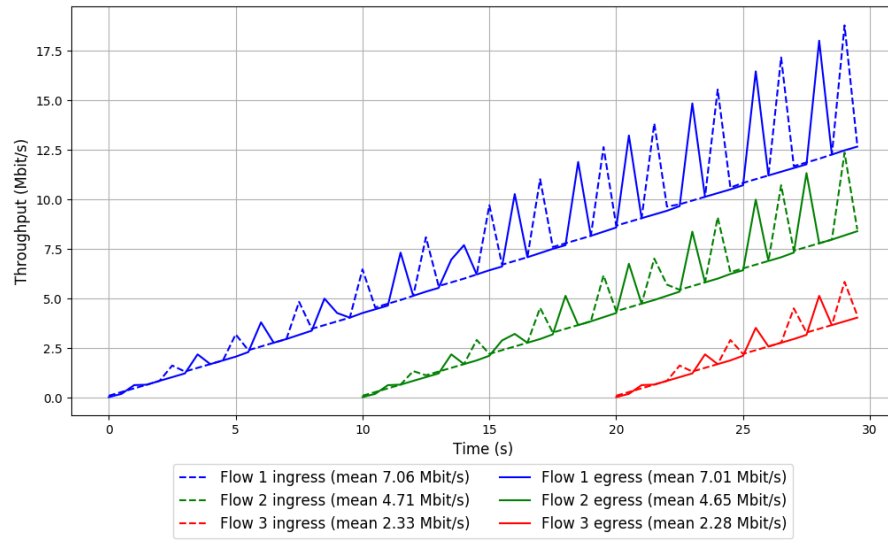
-- Flow 3:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 114.746 ms

Loss rate: 4.57%

Run 9: Report of LEDBAT — Data Link

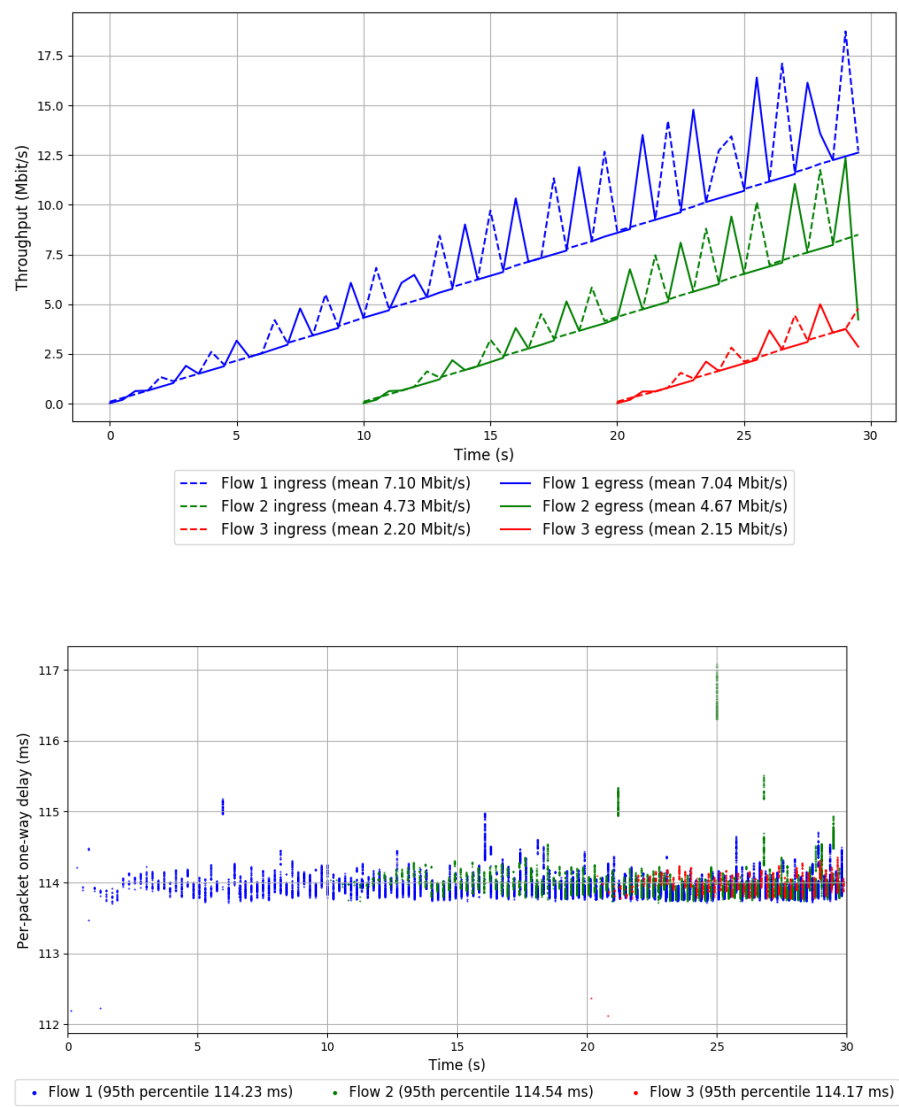


```
Run 10: Statistics of LEDBAT

Start at: 2018-04-11 05:59:35
End at: 2018-04-11 06:00:05

# Below is generated by plot.py at 2018-04-11 09:43:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.81 Mbit/s
95th percentile per-packet one-way delay: 114.274 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 7.04 Mbit/s
95th percentile per-packet one-way delay: 114.229 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 4.67 Mbit/s
95th percentile per-packet one-way delay: 114.541 ms
Loss rate: 2.28%
-- Flow 3:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 114.174 ms
Loss rate: 4.40%
```

Run 10: Report of LEDBAT — Data Link

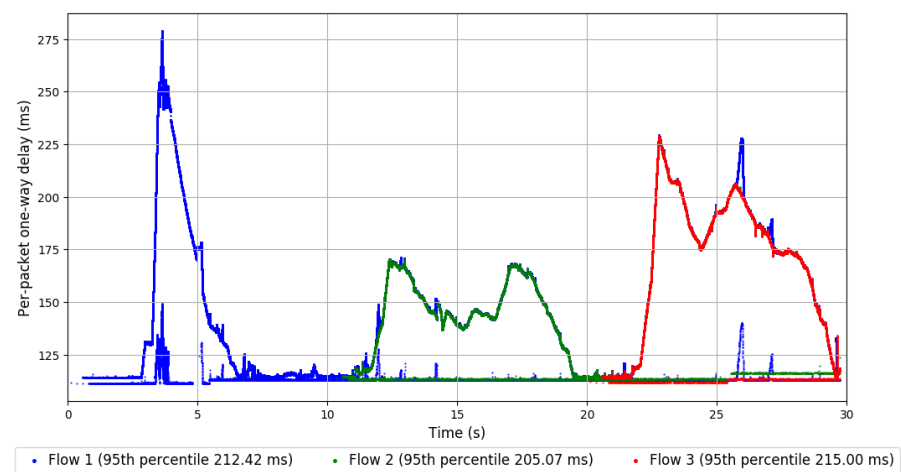
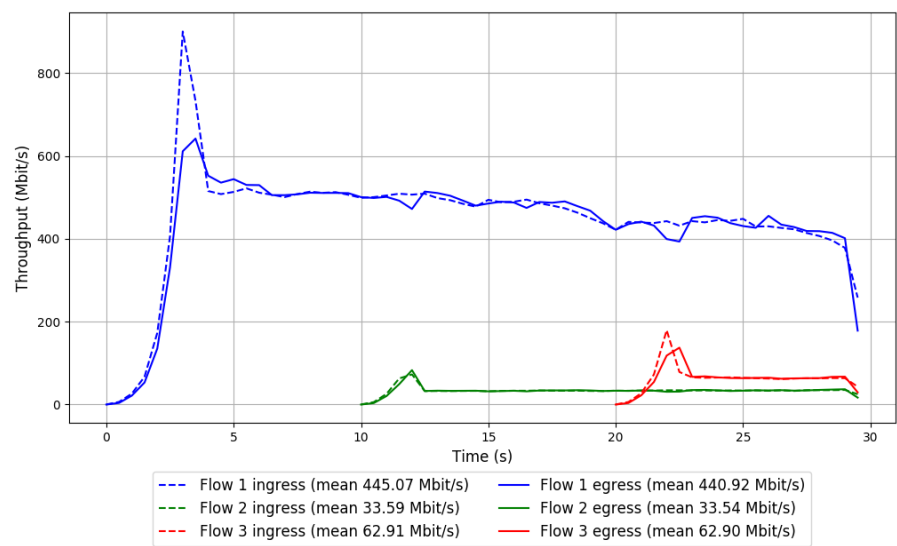


```
Run 1: Statistics of PCC

Start at: 2018-04-11 03:12:57
End at: 2018-04-11 03:13:27

# Below is generated by plot.py at 2018-04-11 09:49:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.46 Mbit/s
95th percentile per-packet one-way delay: 211.995 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 440.92 Mbit/s
95th percentile per-packet one-way delay: 212.420 ms
Loss rate: 1.67%
-- Flow 2:
Average throughput: 33.54 Mbit/s
95th percentile per-packet one-way delay: 205.068 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 62.90 Mbit/s
95th percentile per-packet one-way delay: 214.996 ms
Loss rate: 2.29%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-04-11 03:31:50

End at: 2018-04-11 03:32:20

Below is generated by plot.py at 2018-04-11 09:49:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 475.31 Mbit/s

95th percentile per-packet one-way delay: 244.630 ms

Loss rate: 1.79%

-- Flow 1:

Average throughput: 471.17 Mbit/s

95th percentile per-packet one-way delay: 244.634 ms

Loss rate: 1.79%

-- Flow 2:

Average throughput: 4.17 Mbit/s

95th percentile per-packet one-way delay: 243.891 ms

Loss rate: 1.48%

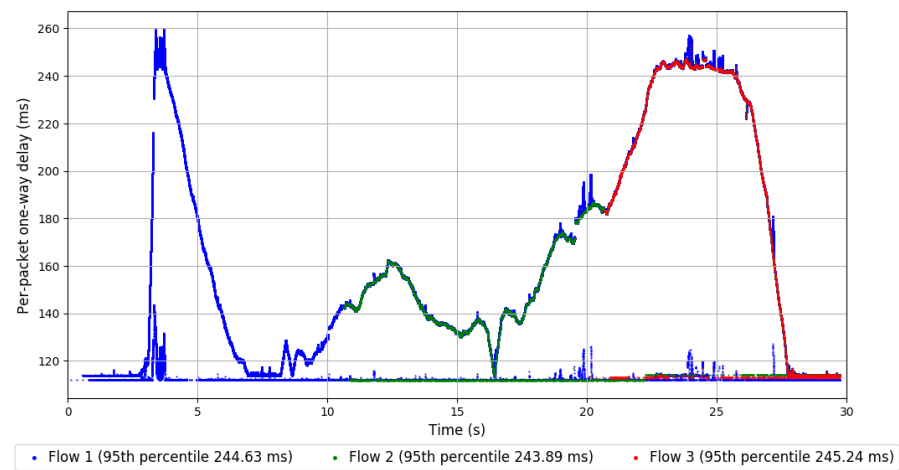
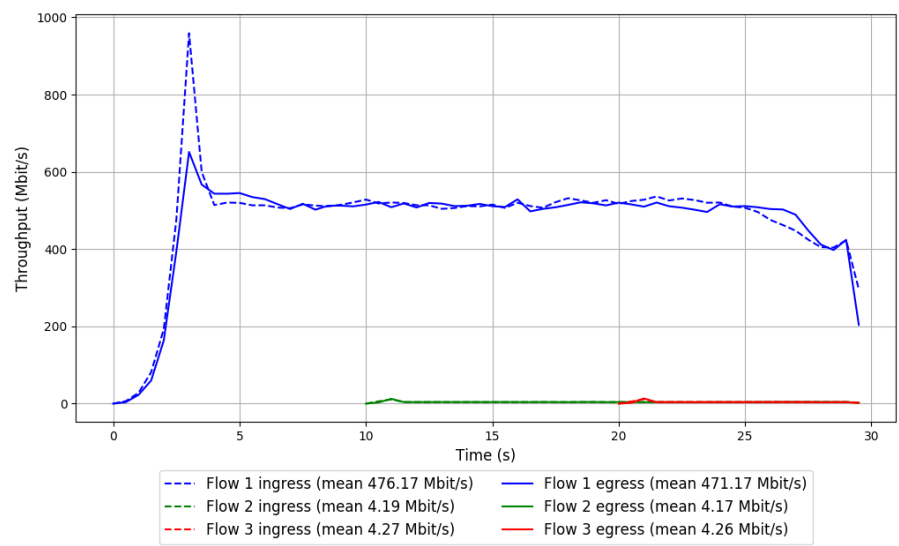
-- Flow 3:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 245.235 ms

Loss rate: 2.50%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-04-11 03:50:56

End at: 2018-04-11 03:51:26

Below is generated by plot.py at 2018-04-11 09:50:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 487.13 Mbit/s

95th percentile per-packet one-way delay: 216.306 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 463.73 Mbit/s

95th percentile per-packet one-way delay: 216.453 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 4.30 Mbit/s

95th percentile per-packet one-way delay: 211.207 ms

Loss rate: 1.13%

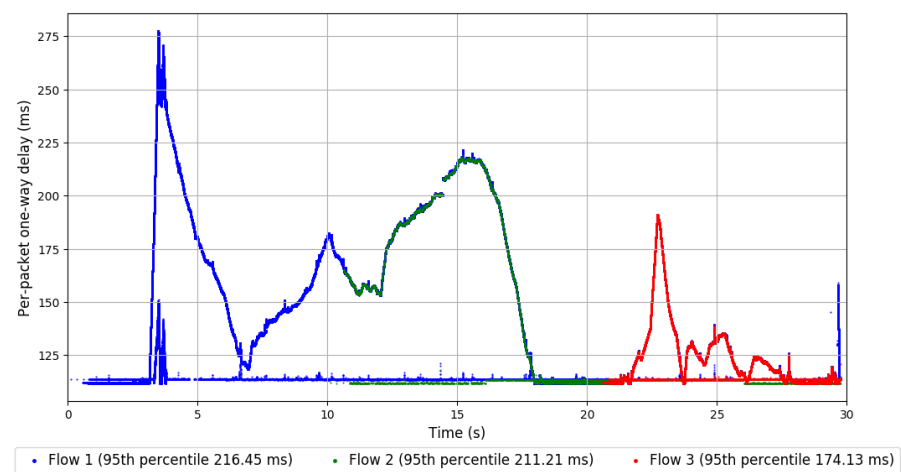
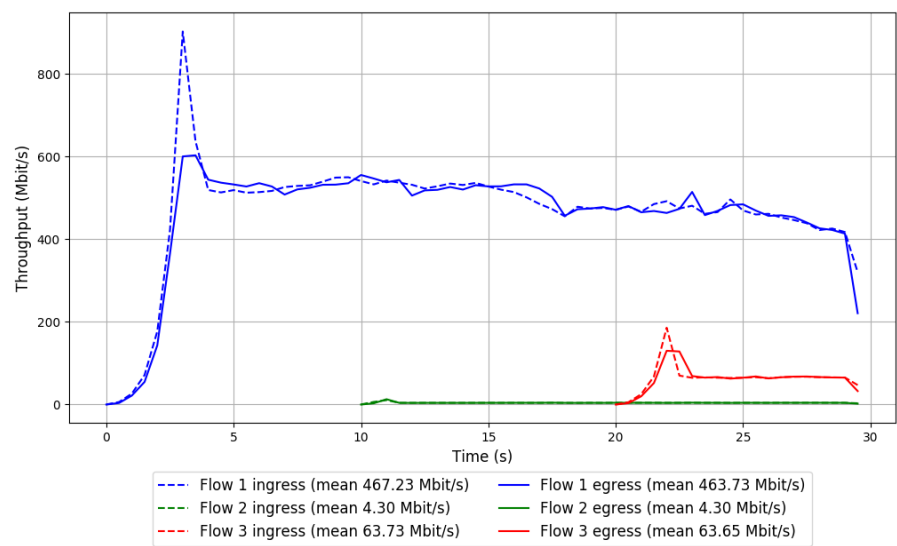
-- Flow 3:

Average throughput: 63.65 Mbit/s

95th percentile per-packet one-way delay: 174.133 ms

Loss rate: 2.35%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-04-11 04:09:56

End at: 2018-04-11 04:10:27

Below is generated by plot.py at 2018-04-11 09:50:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 494.73 Mbit/s

95th percentile per-packet one-way delay: 238.573 ms

Loss rate: 2.79%

-- Flow 1:

Average throughput: 451.26 Mbit/s

95th percentile per-packet one-way delay: 239.245 ms

Loss rate: 2.49%

-- Flow 2:

Average throughput: 9.02 Mbit/s

95th percentile per-packet one-way delay: 238.493 ms

Loss rate: 2.59%

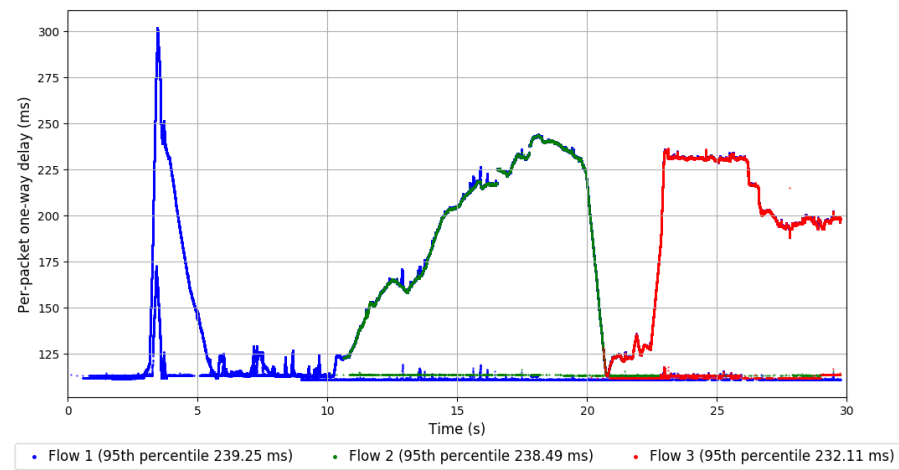
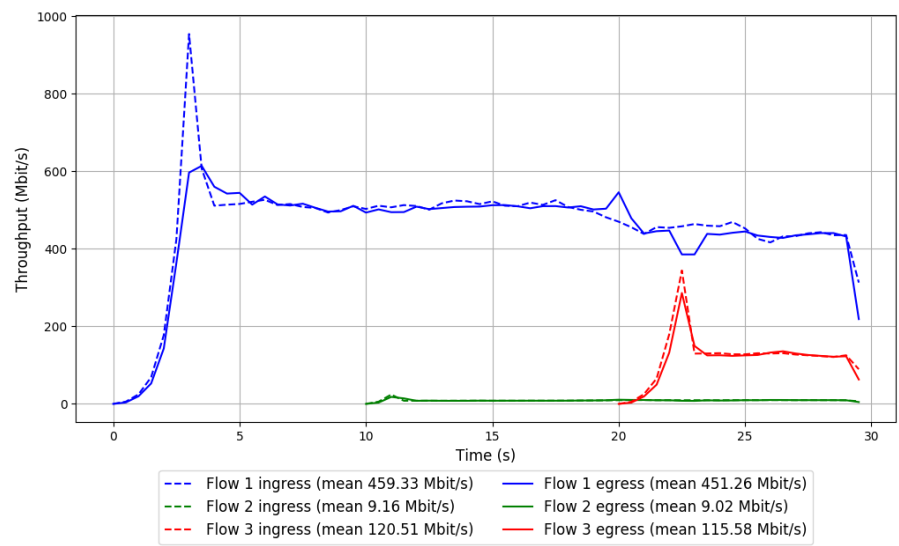
-- Flow 3:

Average throughput: 115.58 Mbit/s

95th percentile per-packet one-way delay: 232.109 ms

Loss rate: 6.26%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-04-11 04:29:08

End at: 2018-04-11 04:29:38

Below is generated by plot.py at 2018-04-11 09:51:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 547.33 Mbit/s

95th percentile per-packet one-way delay: 225.024 ms

Loss rate: 2.16%

-- Flow 1:

Average throughput: 520.94 Mbit/s

95th percentile per-packet one-way delay: 225.016 ms

Loss rate: 2.11%

-- Flow 2:

Average throughput: 10.82 Mbit/s

95th percentile per-packet one-way delay: 224.783 ms

Loss rate: 2.28%

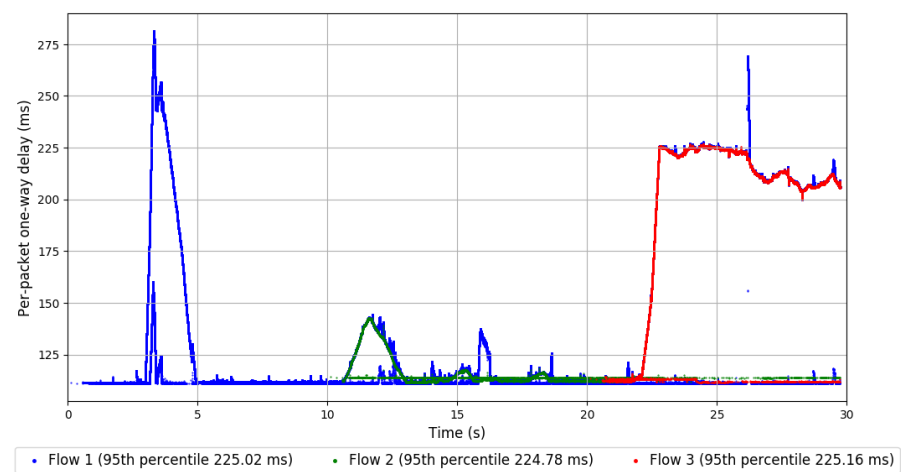
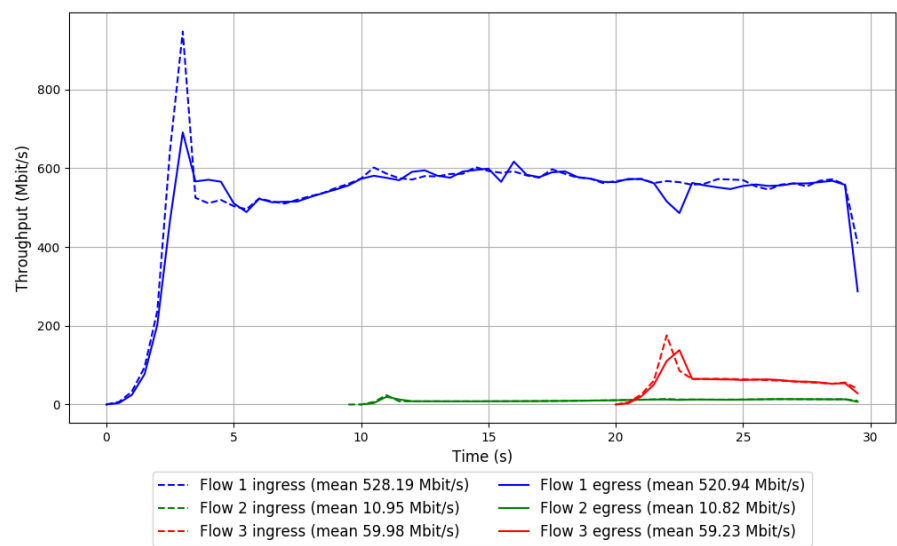
-- Flow 3:

Average throughput: 59.23 Mbit/s

95th percentile per-packet one-way delay: 225.163 ms

Loss rate: 3.51%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-04-11 04:48:14

End at: 2018-04-11 04:48:44

Below is generated by plot.py at 2018-04-11 09:51:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 499.40 Mbit/s

95th percentile per-packet one-way delay: 242.681 ms

Loss rate: 1.94%

-- Flow 1:

Average throughput: 476.59 Mbit/s

95th percentile per-packet one-way delay: 242.715 ms

Loss rate: 1.96%

-- Flow 2:

Average throughput: 32.20 Mbit/s

95th percentile per-packet one-way delay: 242.361 ms

Loss rate: 1.49%

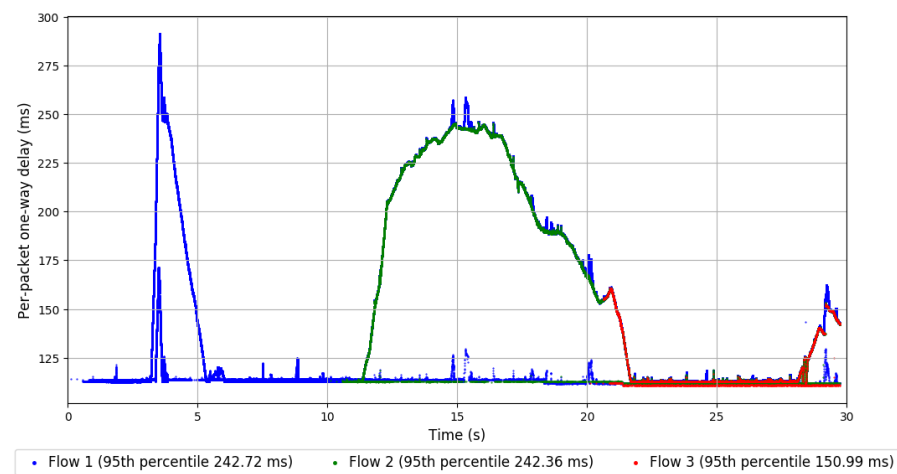
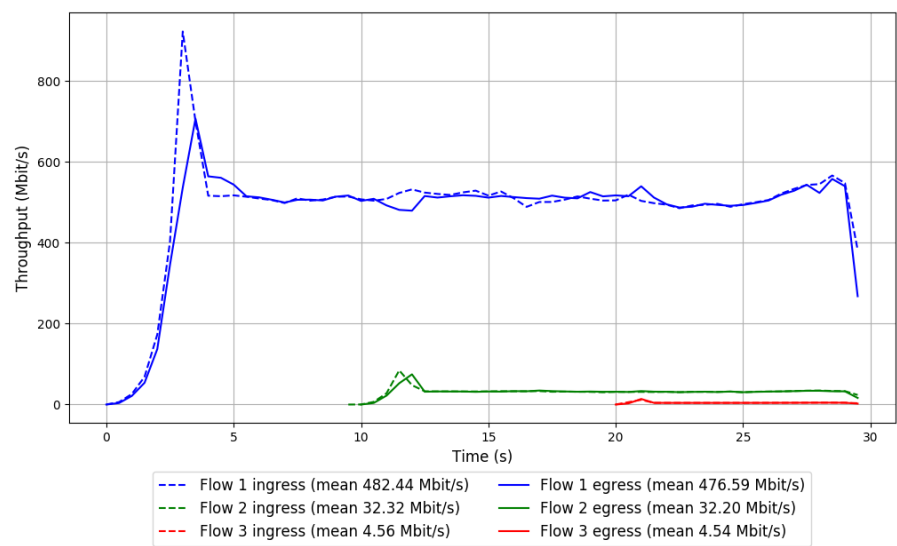
-- Flow 3:

Average throughput: 4.54 Mbit/s

95th percentile per-packet one-way delay: 150.985 ms

Loss rate: 2.61%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-04-11 05:07:09

End at: 2018-04-11 05:07:39

Below is generated by plot.py at 2018-04-11 09:51:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 509.14 Mbit/s

95th percentile per-packet one-way delay: 208.765 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 485.98 Mbit/s

95th percentile per-packet one-way delay: 208.562 ms

Loss rate: 1.76%

-- Flow 2:

Average throughput: 4.34 Mbit/s

95th percentile per-packet one-way delay: 199.343 ms

Loss rate: 1.43%

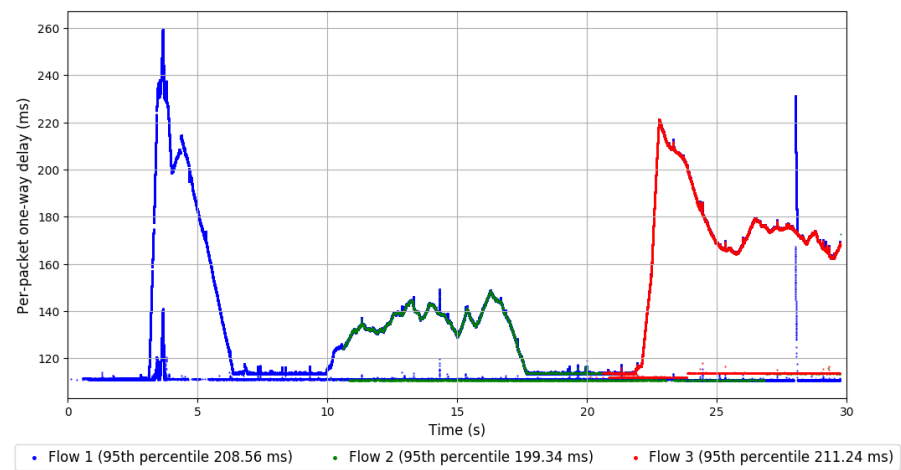
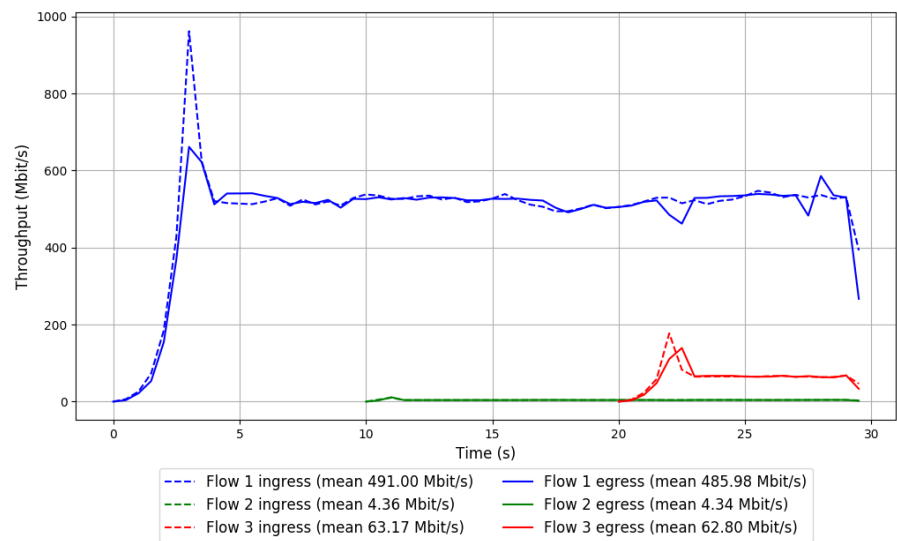
-- Flow 3:

Average throughput: 62.80 Mbit/s

95th percentile per-packet one-way delay: 211.240 ms

Loss rate: 2.85%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-04-11 05:26:24

End at: 2018-04-11 05:26:54

Below is generated by plot.py at 2018-04-11 09:51:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 527.32 Mbit/s

95th percentile per-packet one-way delay: 217.472 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 471.93 Mbit/s

95th percentile per-packet one-way delay: 217.549 ms

Loss rate: 1.67%

-- Flow 2:

Average throughput: 67.06 Mbit/s

95th percentile per-packet one-way delay: 217.103 ms

Loss rate: 1.21%

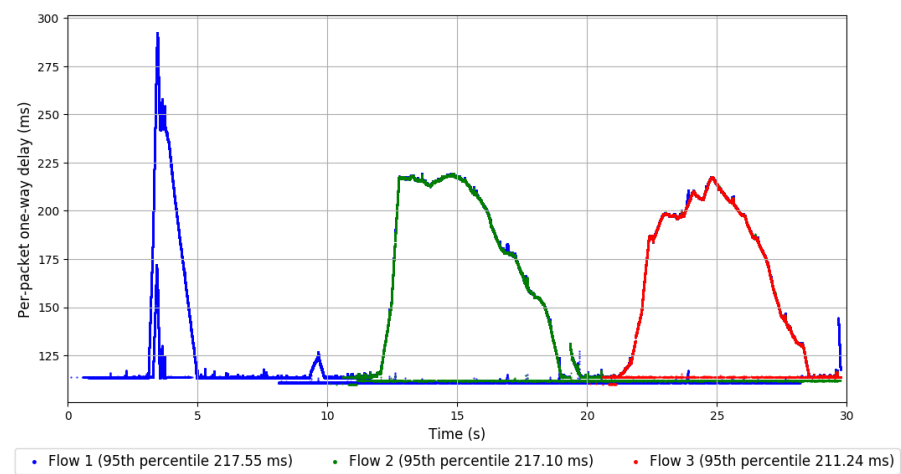
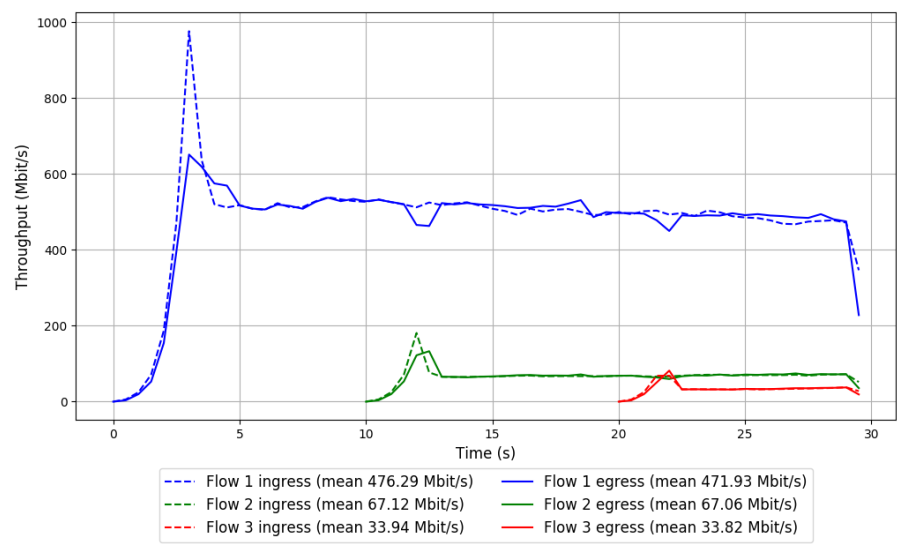
-- Flow 3:

Average throughput: 33.82 Mbit/s

95th percentile per-packet one-way delay: 211.244 ms

Loss rate: 2.60%

Run 8: Report of PCC — Data Link

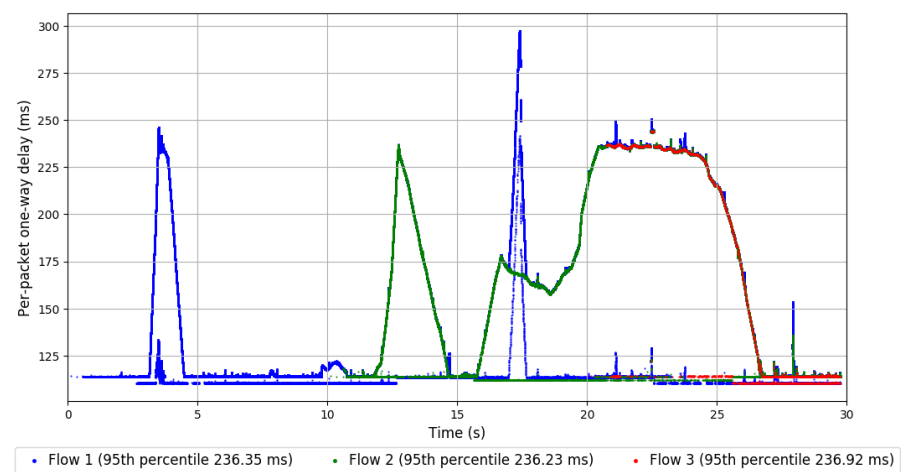
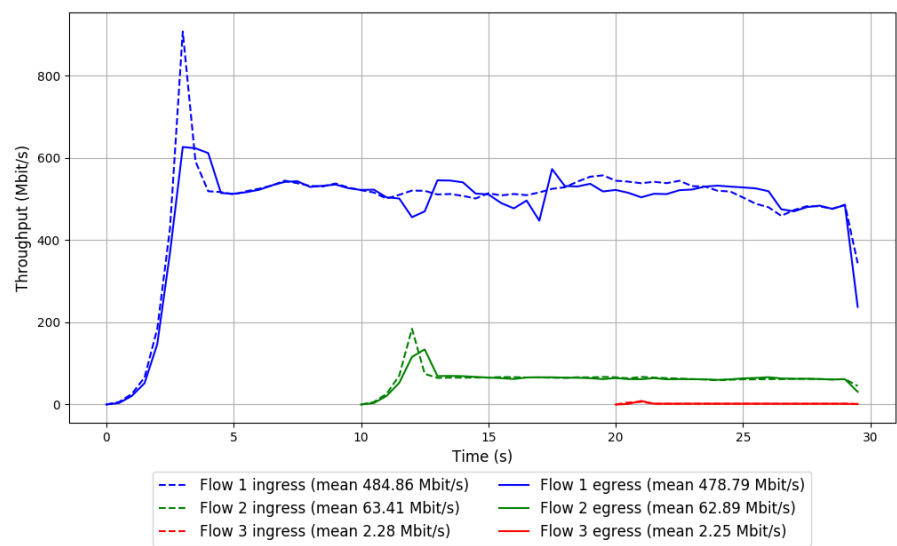


```
Run 9: Statistics of PCC

Start at: 2018-04-11 05:45:50
End at: 2018-04-11 05:46:20

# Below is generated by plot.py at 2018-04-11 09:58:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 521.12 Mbit/s
95th percentile per-packet one-way delay: 236.342 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 478.79 Mbit/s
95th percentile per-packet one-way delay: 236.353 ms
Loss rate: 2.00%
-- Flow 2:
Average throughput: 62.89 Mbit/s
95th percentile per-packet one-way delay: 236.234 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 236.922 ms
Loss rate: 3.66%
```

Run 9: Report of PCC — Data Link

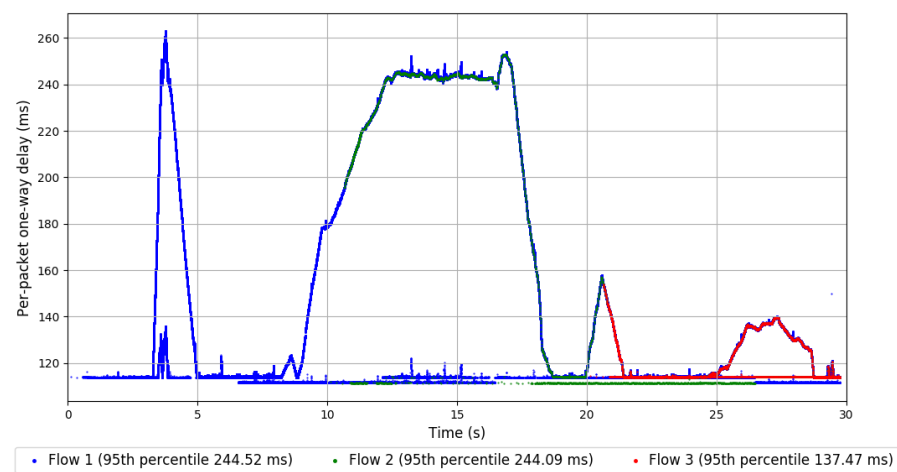
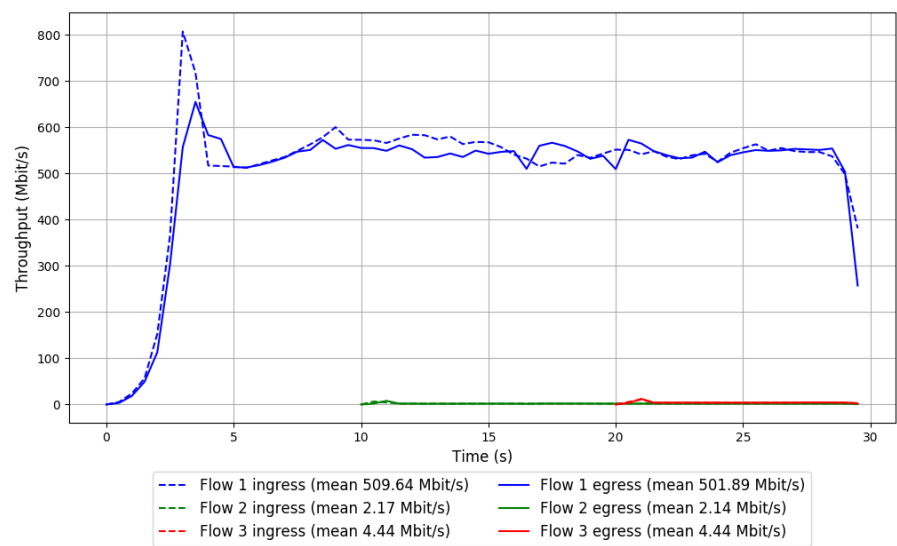


```
Run 10: Statistics of PCC

Start at: 2018-04-11 06:05:06
End at: 2018-04-11 06:05:36

# Below is generated by plot.py at 2018-04-11 09:58:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 504.75 Mbit/s
95th percentile per-packet one-way delay: 244.515 ms
Loss rate: 2.28%
-- Flow 1:
Average throughput: 501.89 Mbit/s
95th percentile per-packet one-way delay: 244.521 ms
Loss rate: 2.28%
-- Flow 2:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 244.093 ms
Loss rate: 2.66%
-- Flow 3:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 137.475 ms
Loss rate: 2.25%
```

Run 10: Report of PCC — Data Link

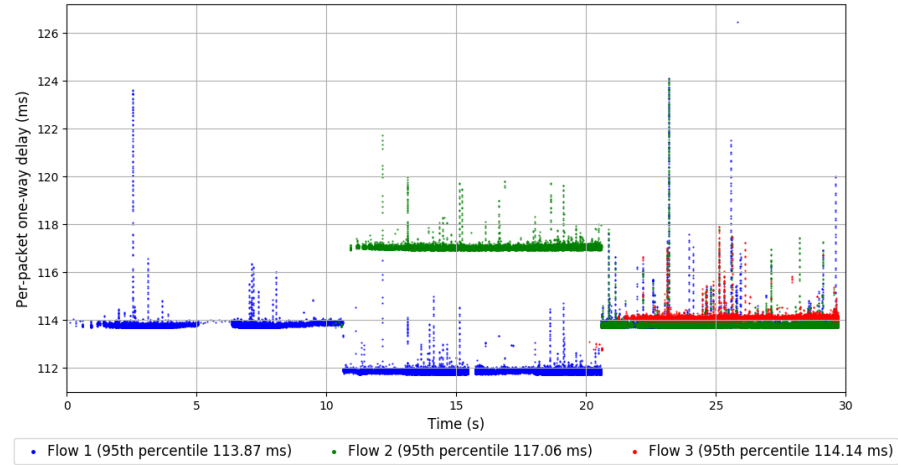
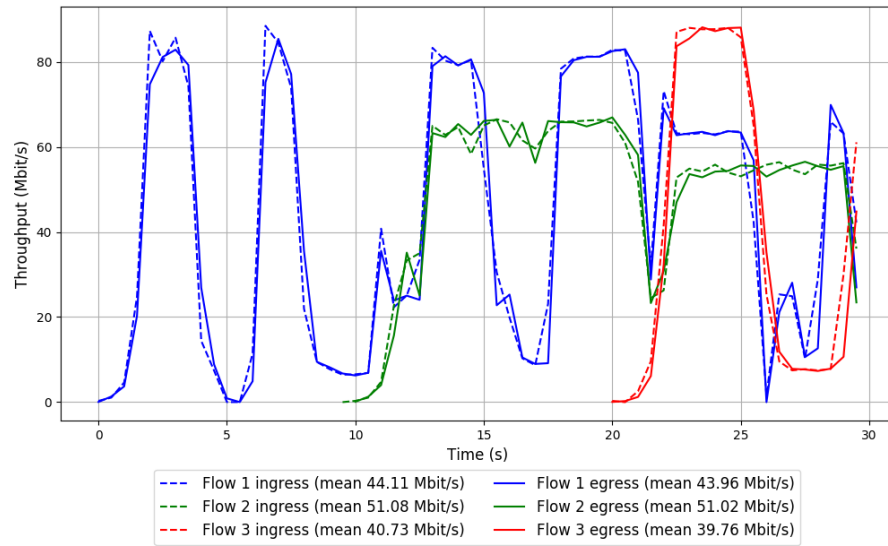


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-11 03:17:35
End at: 2018-04-11 03:18:05

# Below is generated by plot.py at 2018-04-11 09:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.63 Mbit/s
95th percentile per-packet one-way delay: 117.024 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 43.96 Mbit/s
95th percentile per-packet one-way delay: 113.874 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 51.02 Mbit/s
95th percentile per-packet one-way delay: 117.063 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 39.76 Mbit/s
95th percentile per-packet one-way delay: 114.145 ms
Loss rate: 4.67%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-04-11 03:36:11

End at: 2018-04-11 03:36:41

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 114.97 Mbit/s

95th percentile per-packet one-way delay: 113.715 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 55.99 Mbit/s

95th percentile per-packet one-way delay: 111.150 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 61.86 Mbit/s

95th percentile per-packet one-way delay: 113.652 ms

Loss rate: 0.19%

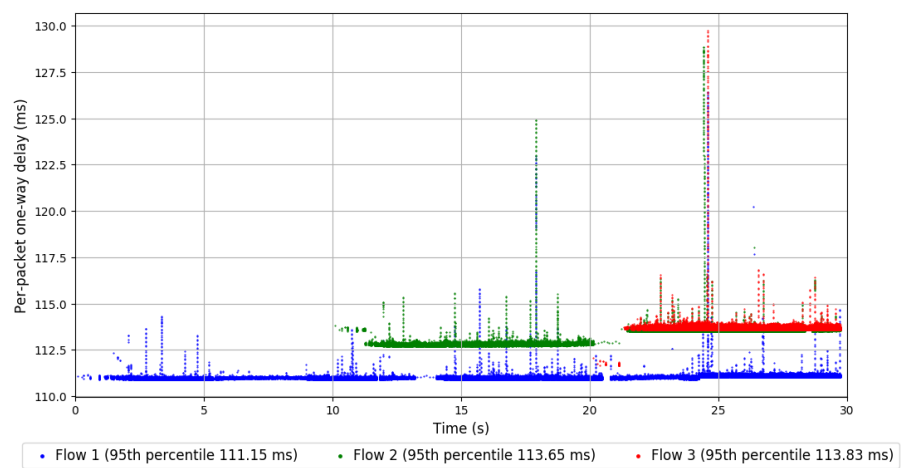
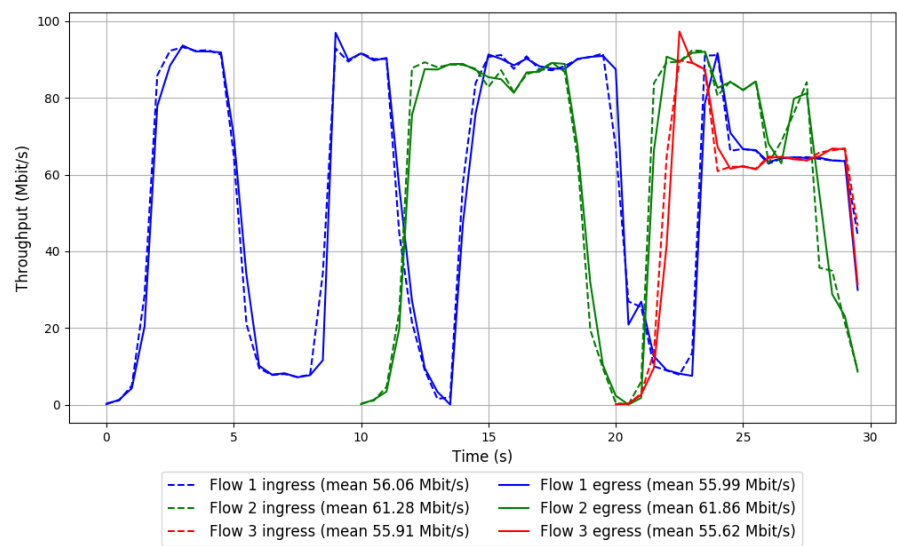
-- Flow 3:

Average throughput: 55.62 Mbit/s

95th percentile per-packet one-way delay: 113.825 ms

Loss rate: 2.77%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-04-11 03:55:26

End at: 2018-04-11 03:55:56

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.83 Mbit/s

95th percentile per-packet one-way delay: 111.914 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 65.39 Mbit/s

95th percentile per-packet one-way delay: 111.933 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 45.01 Mbit/s

95th percentile per-packet one-way delay: 111.787 ms

Loss rate: 1.43%

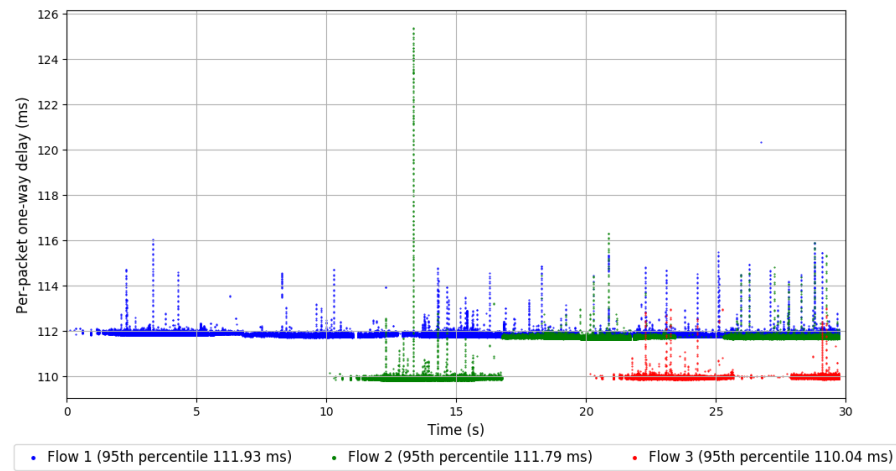
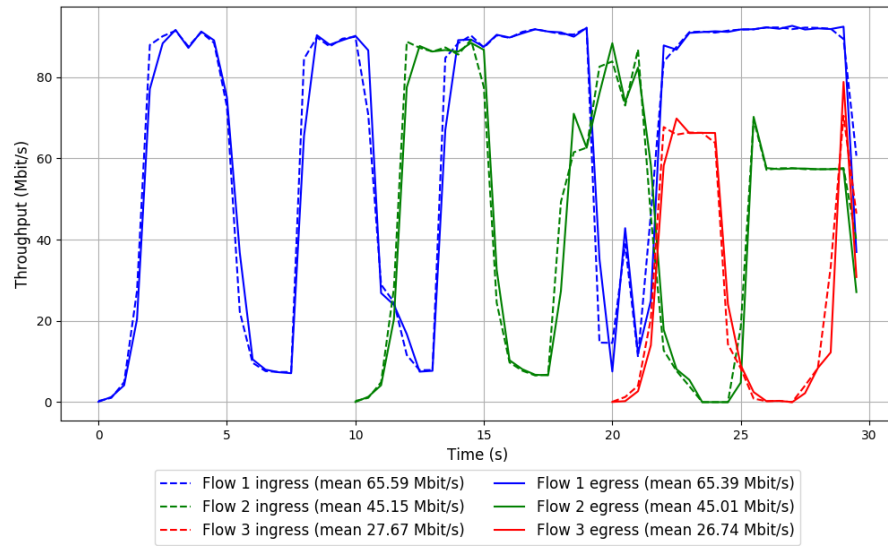
-- Flow 3:

Average throughput: 26.74 Mbit/s

95th percentile per-packet one-way delay: 110.039 ms

Loss rate: 5.55%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-04-11 04:14:32

End at: 2018-04-11 04:15:02

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.73 Mbit/s

95th percentile per-packet one-way delay: 113.768 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 54.93 Mbit/s

95th percentile per-packet one-way delay: 113.794 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 43.86 Mbit/s

95th percentile per-packet one-way delay: 113.495 ms

Loss rate: 1.72%

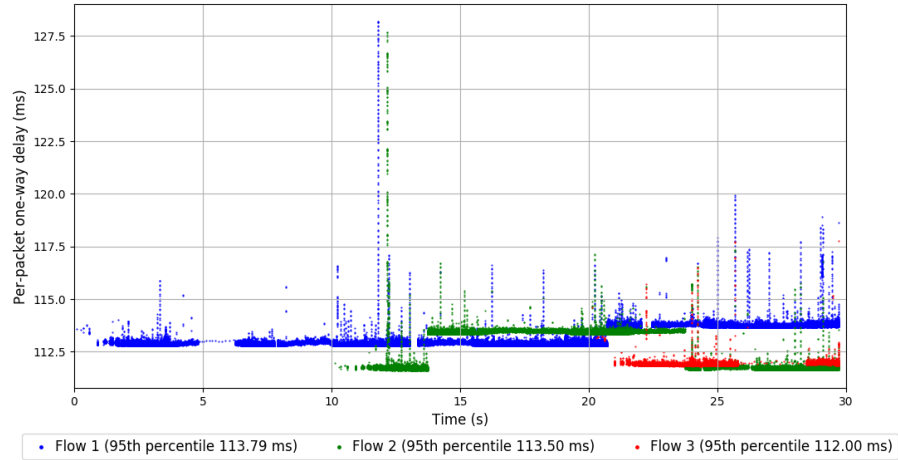
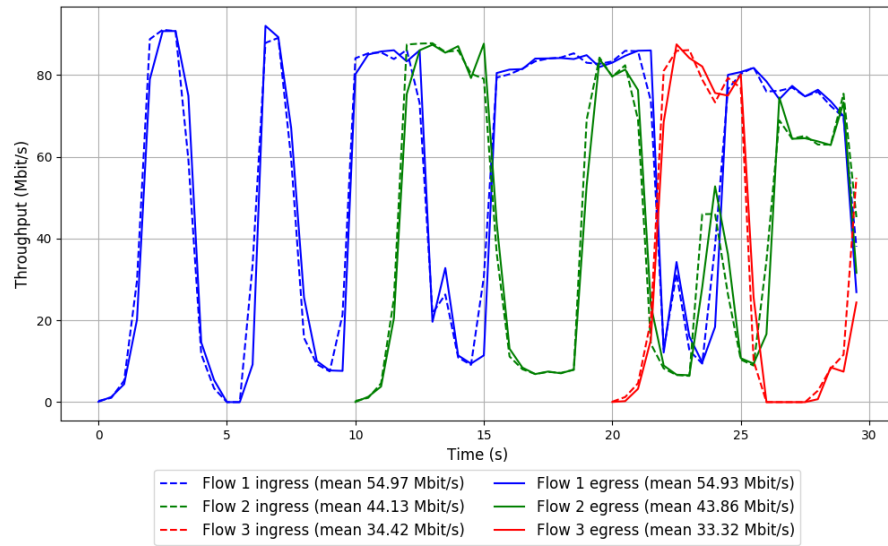
-- Flow 3:

Average throughput: 33.32 Mbit/s

95th percentile per-packet one-way delay: 111.996 ms

Loss rate: 5.39%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-04-11 04:33:39

End at: 2018-04-11 04:34:09

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.75 Mbit/s

95th percentile per-packet one-way delay: 113.728 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 69.14 Mbit/s

95th percentile per-packet one-way delay: 113.710 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 53.79 Mbit/s

95th percentile per-packet one-way delay: 113.748 ms

Loss rate: 1.81%

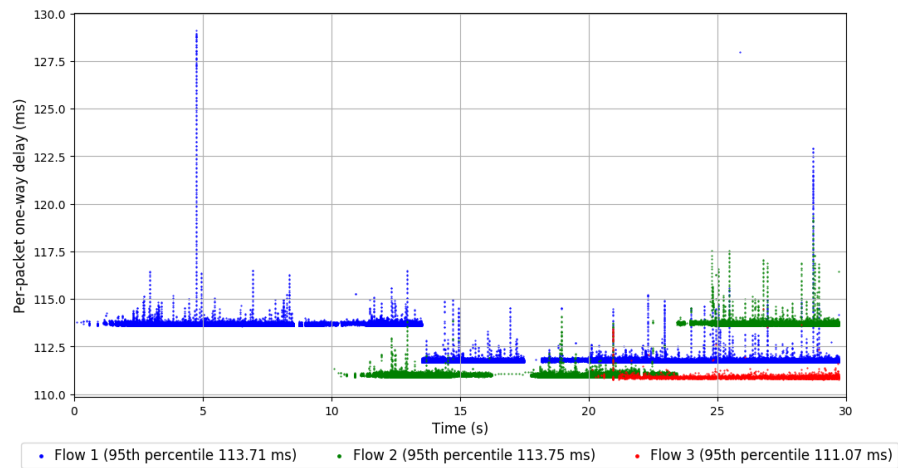
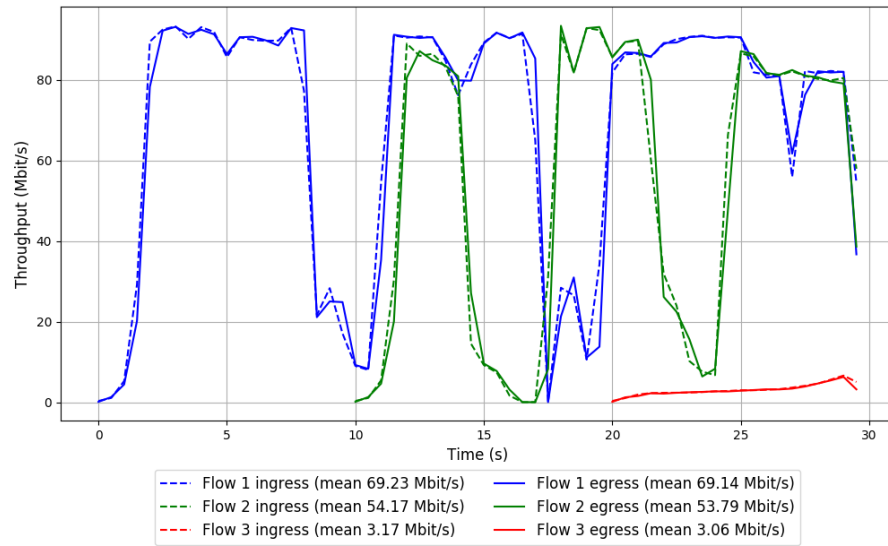
-- Flow 3:

Average throughput: 3.06 Mbit/s

95th percentile per-packet one-way delay: 111.071 ms

Loss rate: 5.52%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-04-11 04:52:48

End at: 2018-04-11 04:53:18

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.31 Mbit/s

95th percentile per-packet one-way delay: 113.306 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 57.72 Mbit/s

95th percentile per-packet one-way delay: 113.313 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 52.77 Mbit/s

95th percentile per-packet one-way delay: 113.310 ms

Loss rate: 1.95%

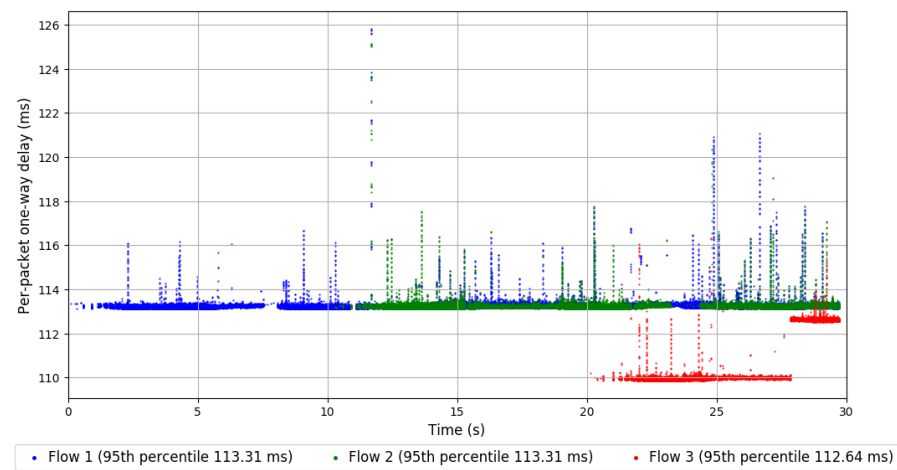
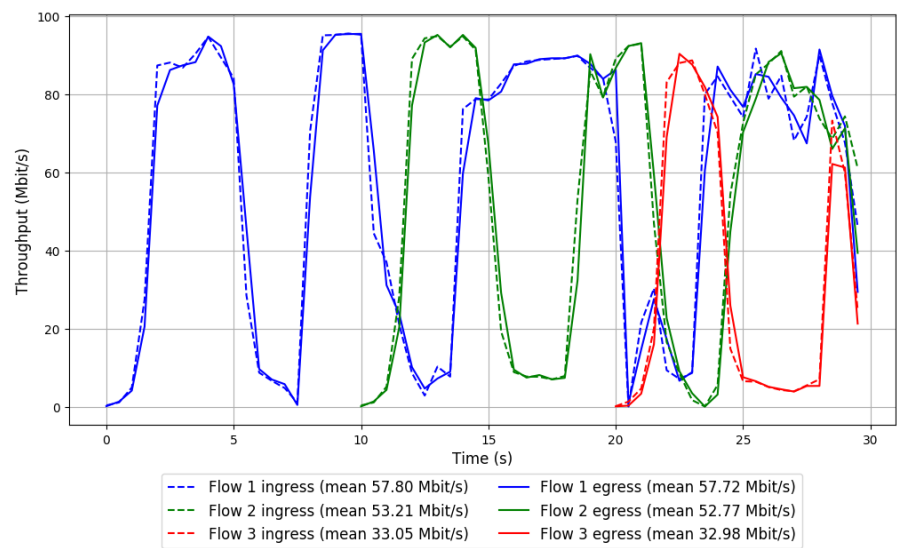
-- Flow 3:

Average throughput: 32.98 Mbit/s

95th percentile per-packet one-way delay: 112.644 ms

Loss rate: 2.45%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-04-11 05:11:48

End at: 2018-04-11 05:12:18

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.34 Mbit/s

95th percentile per-packet one-way delay: 113.370 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 70.76 Mbit/s

95th percentile per-packet one-way delay: 112.123 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 52.93 Mbit/s

95th percentile per-packet one-way delay: 113.427 ms

Loss rate: 1.25%

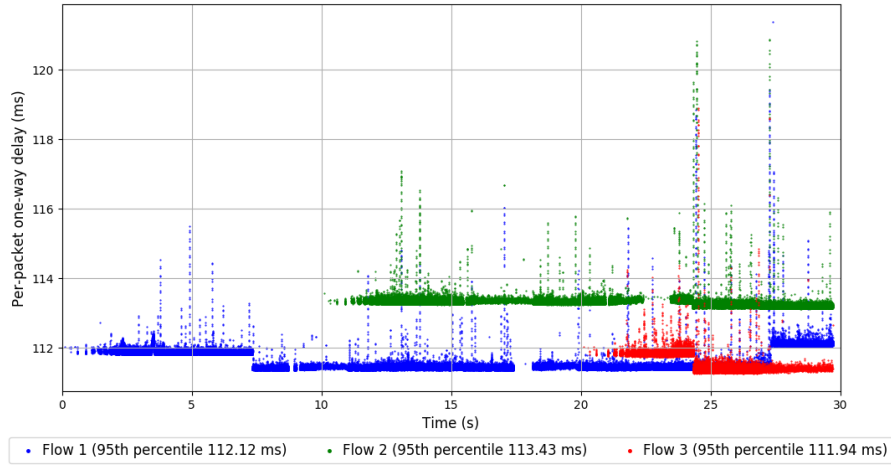
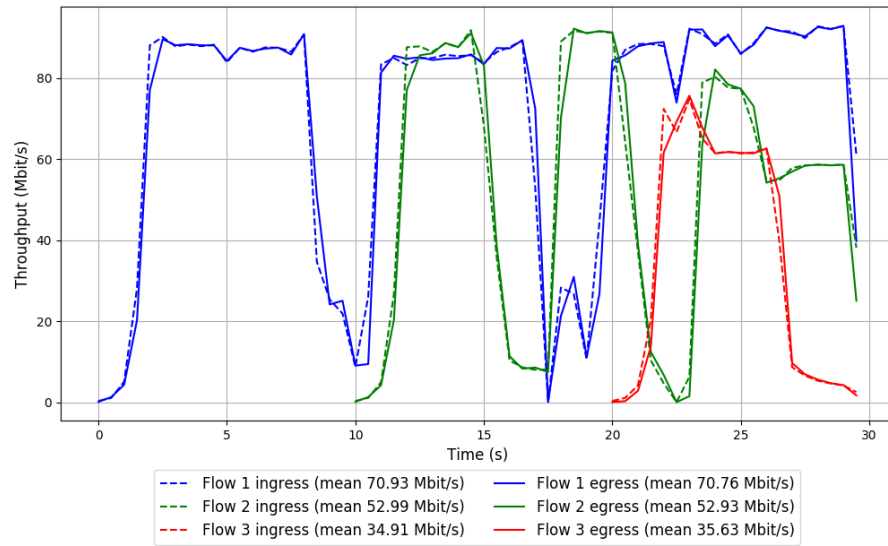
-- Flow 3:

Average throughput: 35.63 Mbit/s

95th percentile per-packet one-way delay: 111.939 ms

Loss rate: 0.25%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-04-11 05:31:04

End at: 2018-04-11 05:31:34

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.27 Mbit/s

95th percentile per-packet one-way delay: 113.618 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 56.66 Mbit/s

95th percentile per-packet one-way delay: 113.646 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 56.41 Mbit/s

95th percentile per-packet one-way delay: 112.007 ms

Loss rate: 1.38%

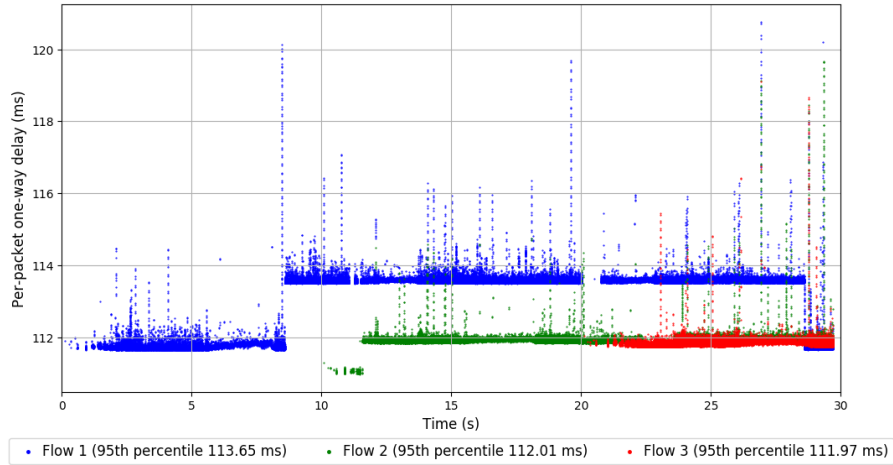
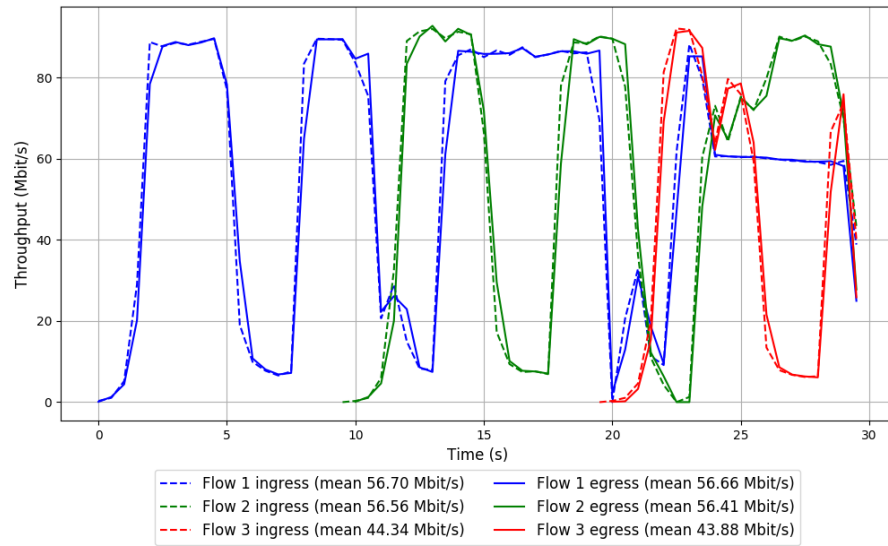
-- Flow 3:

Average throughput: 43.88 Mbit/s

95th percentile per-packet one-way delay: 111.965 ms

Loss rate: 3.29%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-04-11 05:50:22

End at: 2018-04-11 05:50:52

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.31 Mbit/s

95th percentile per-packet one-way delay: 113.882 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 55.54 Mbit/s

95th percentile per-packet one-way delay: 113.914 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 51.35 Mbit/s

95th percentile per-packet one-way delay: 112.004 ms

Loss rate: 1.31%

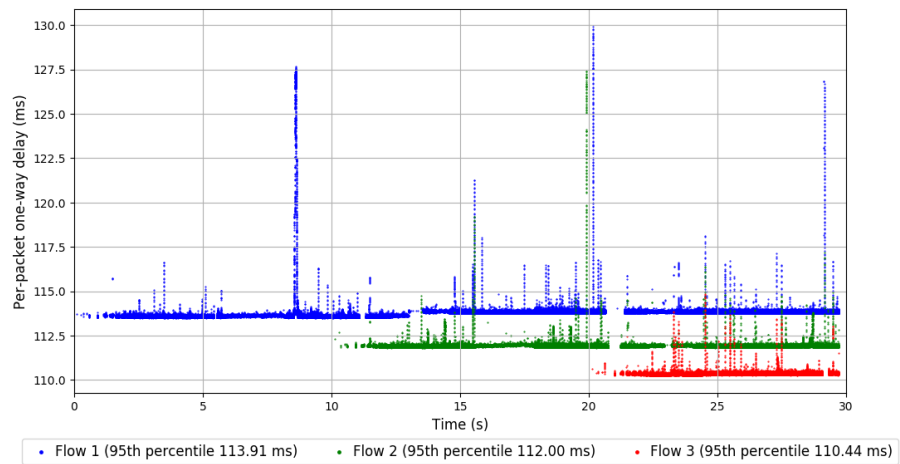
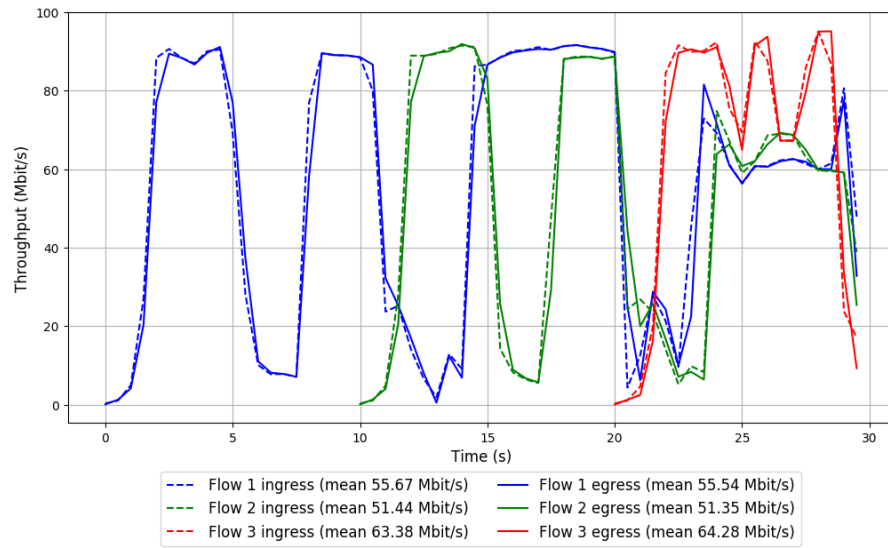
-- Flow 3:

Average throughput: 64.28 Mbit/s

95th percentile per-packet one-way delay: 110.442 ms

Loss rate: 0.89%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-04-11 06:09:43

End at: 2018-04-11 06:10:13

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.24 Mbit/s

95th percentile per-packet one-way delay: 112.922 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 62.38 Mbit/s

95th percentile per-packet one-way delay: 112.941 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 50.66 Mbit/s

95th percentile per-packet one-way delay: 111.219 ms

Loss rate: 1.69%

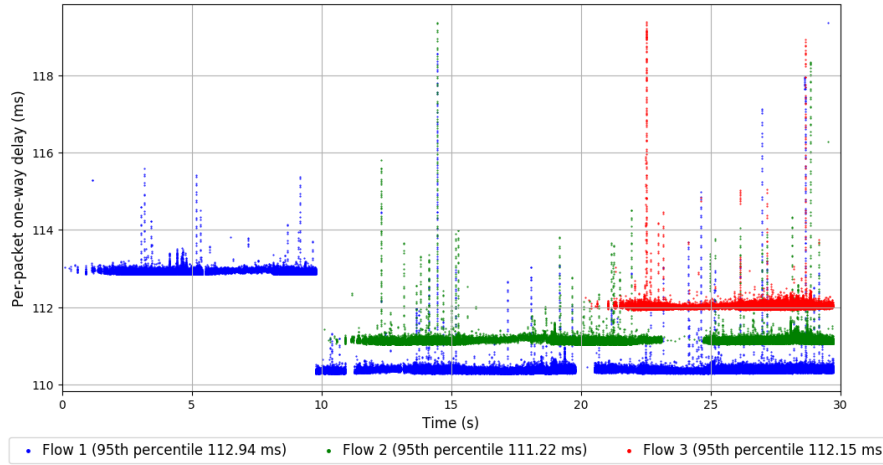
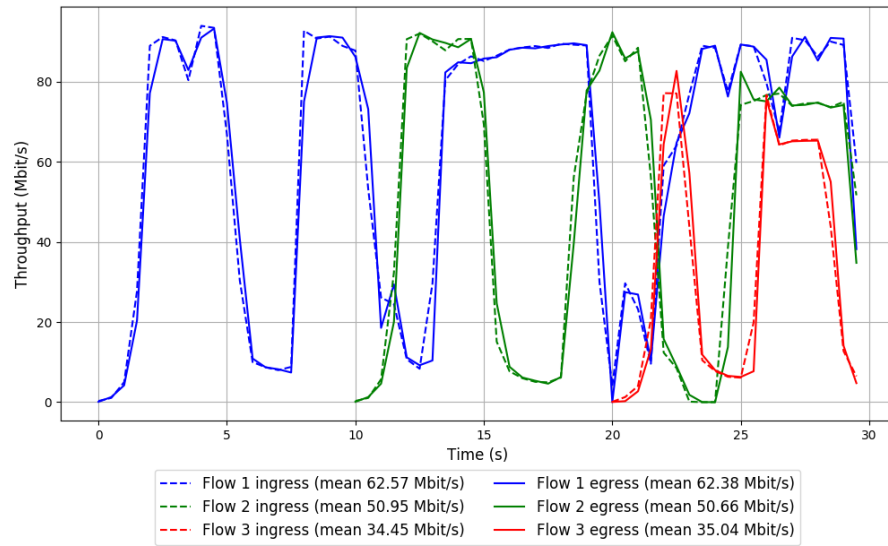
-- Flow 3:

Average throughput: 35.04 Mbit/s

95th percentile per-packet one-way delay: 112.146 ms

Loss rate: 0.62%

Run 10: Report of QUIC Cubic — Data Link

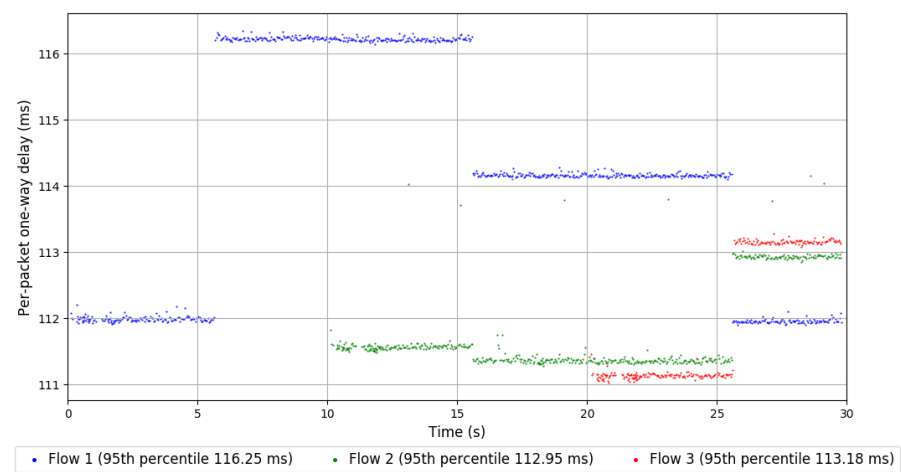
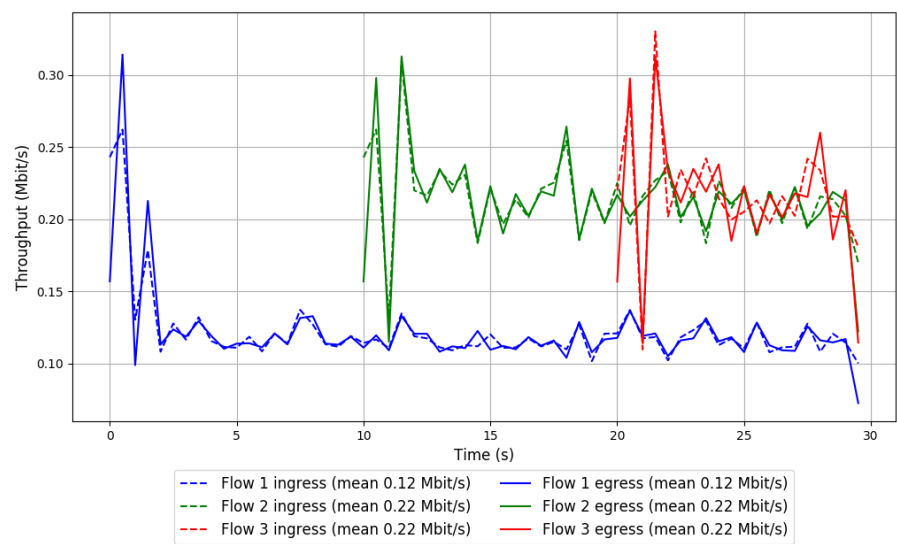


```
Run 1: Statistics of SCReAM

Start at: 2018-04-11 03:18:27
End at: 2018-04-11 03:18:57

# Below is generated by plot.py at 2018-04-11 09:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 116.230 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 116.245 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.951 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.181 ms
Loss rate: 2.24%
```

Run 1: Report of SReAM — Data Link

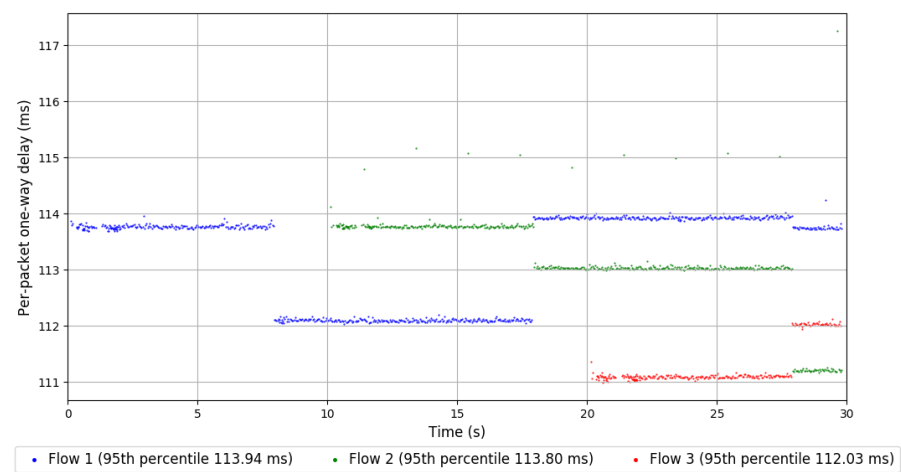
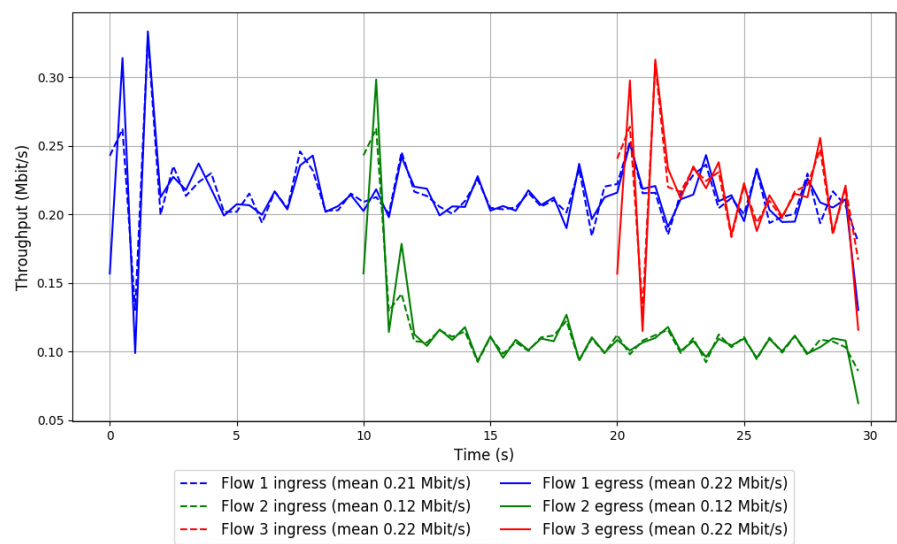


```
Run 2: Statistics of SReAM

Start at: 2018-04-11 03:37:05
End at: 2018-04-11 03:37:35

# Below is generated by plot.py at 2018-04-11 09:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 113.933 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.942 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 113.804 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.035 ms
Loss rate: 2.28%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2018-04-11 03:56:19

End at: 2018-04-11 03:56:49

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 111.986 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.996 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 111.577 ms

Loss rate: 1.03%

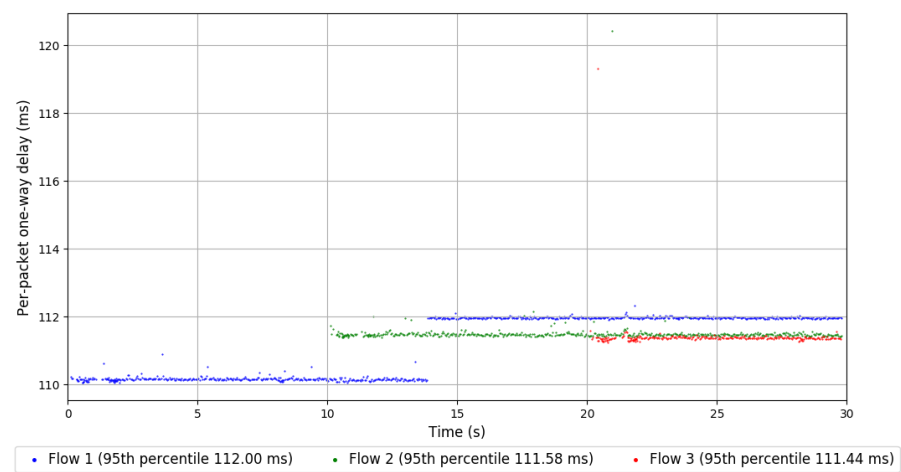
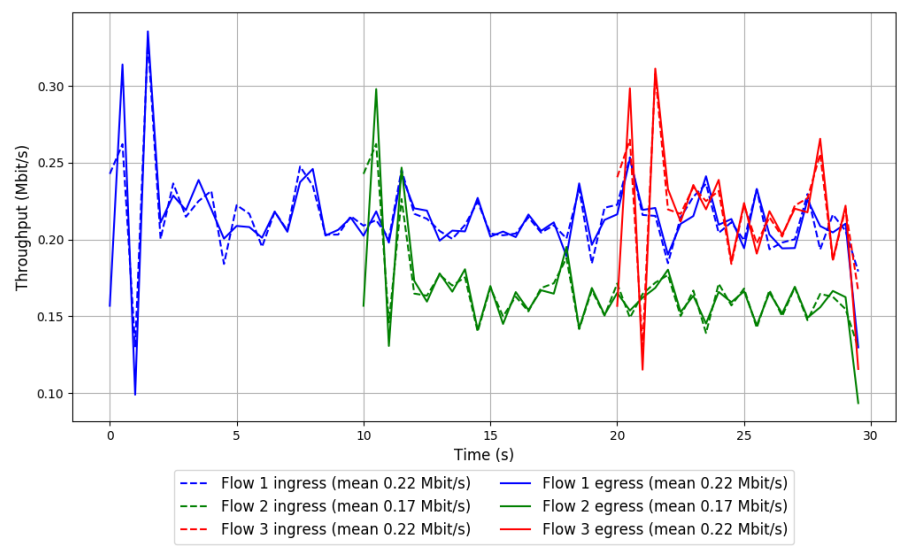
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.438 ms

Loss rate: 2.25%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-04-11 04:15:24

End at: 2018-04-11 04:15:54

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 114.007 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 114.011 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 114.021 ms

Loss rate: 1.04%

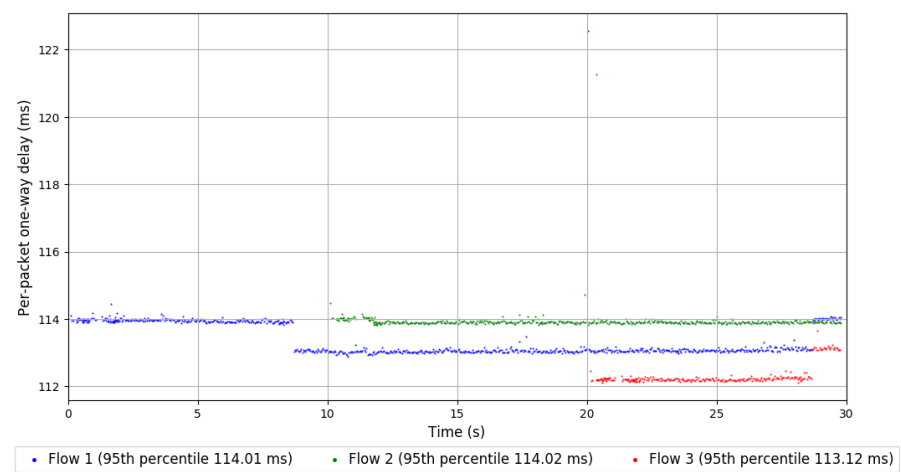
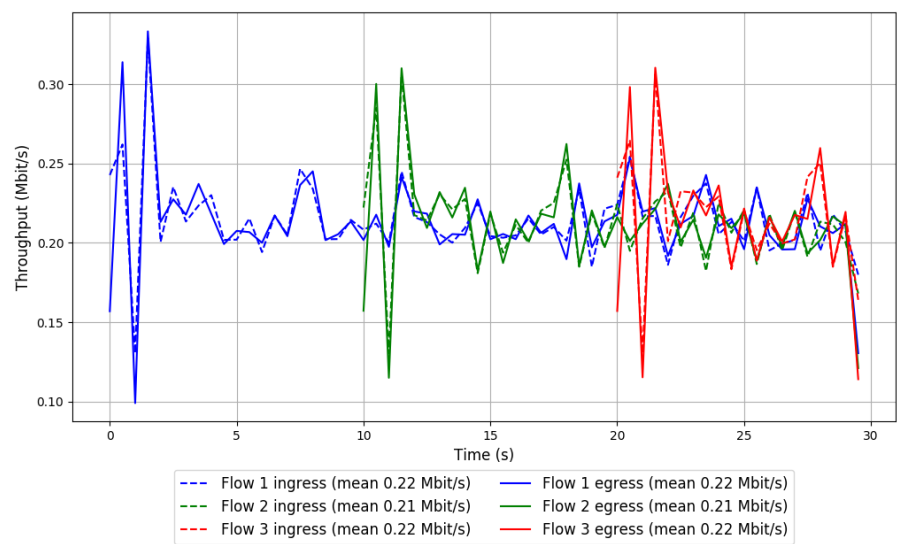
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.121 ms

Loss rate: 2.24%

Run 4: Report of SReAM — Data Link

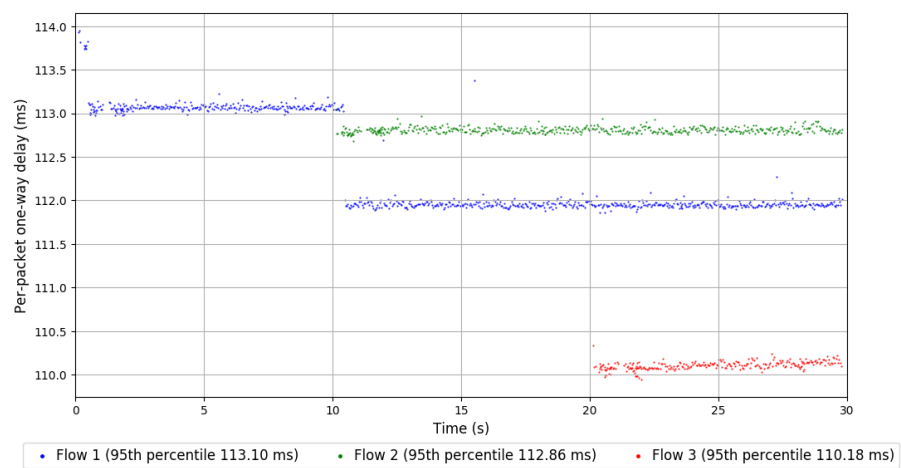
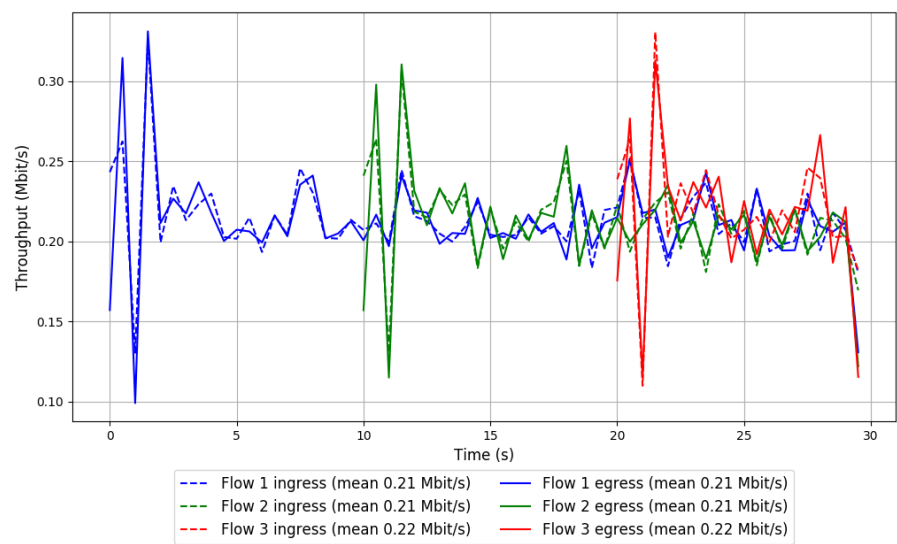


```
Run 5: Statistics of SReAM

Start at: 2018-04-11 04:34:32
End at: 2018-04-11 04:35:02

# Below is generated by plot.py at 2018-04-11 09:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.083 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.104 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.864 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.183 ms
Loss rate: 2.24%
```

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2018-04-11 04:53:41

End at: 2018-04-11 04:54:11

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 114.006 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 114.022 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.843 ms

Loss rate: 1.06%

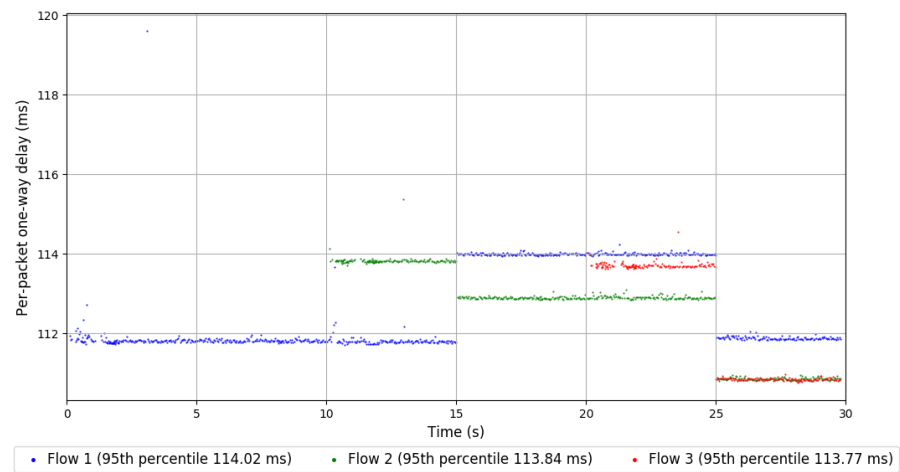
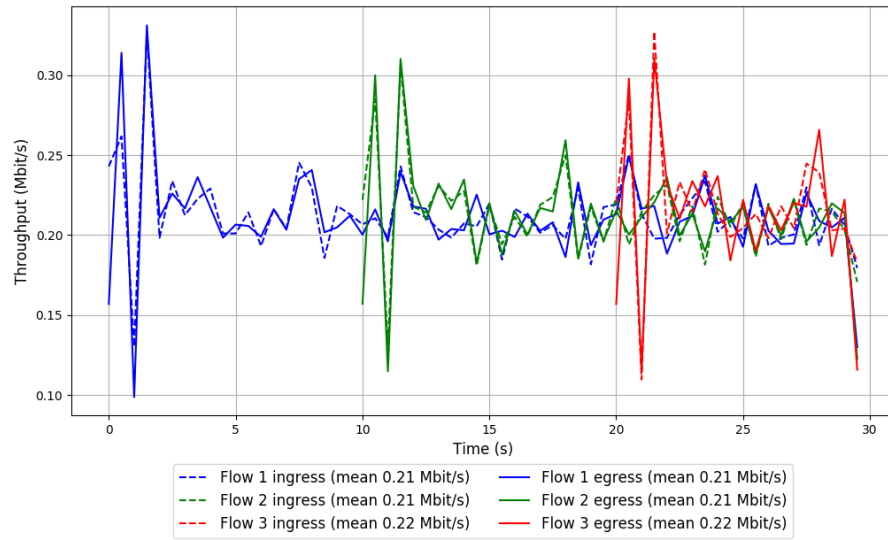
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.766 ms

Loss rate: 2.27%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2018-04-11 05:12:42

End at: 2018-04-11 05:13:12

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 114.096 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 114.109 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 112.156 ms

Loss rate: 0.98%

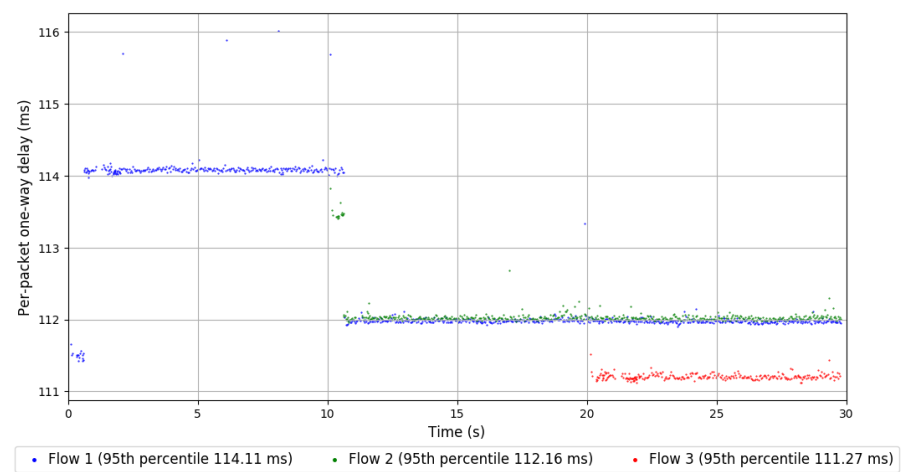
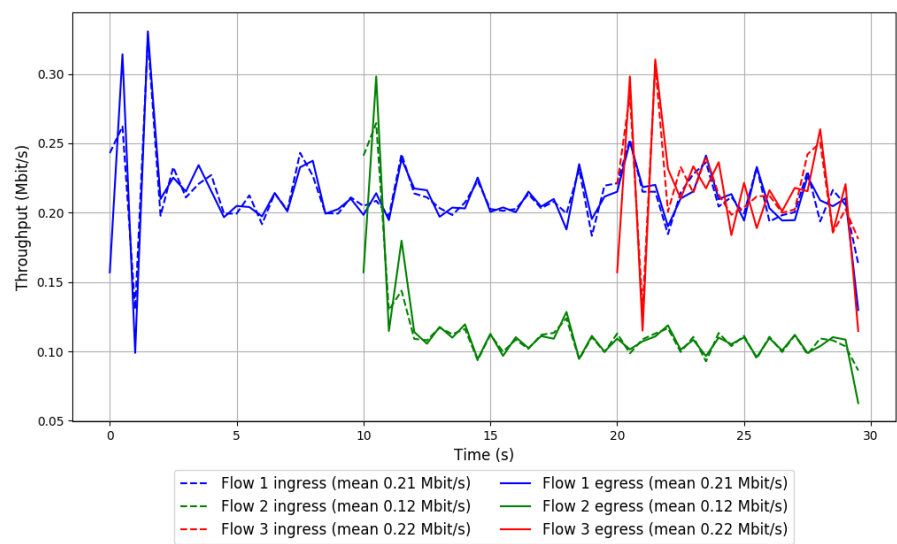
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.271 ms

Loss rate: 2.25%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-04-11 05:31:57

End at: 2018-04-11 05:32:27

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 113.868 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.903 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 112.862 ms

Loss rate: 1.05%

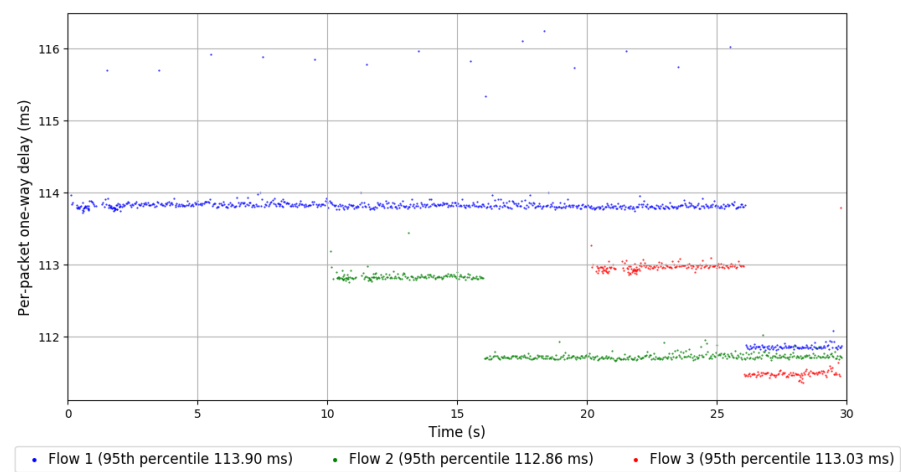
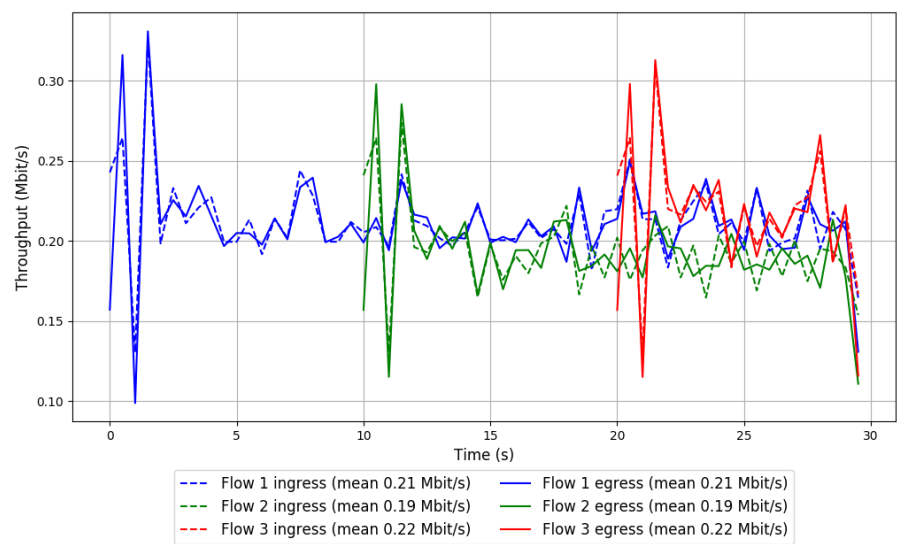
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.030 ms

Loss rate: 2.26%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-04-11 05:51:15

End at: 2018-04-11 05:51:45

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 113.928 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.559 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 113.963 ms

Loss rate: 0.98%

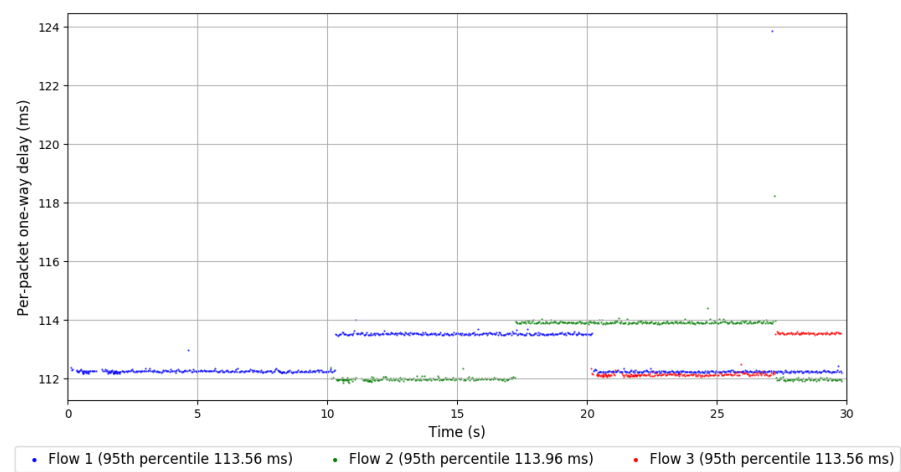
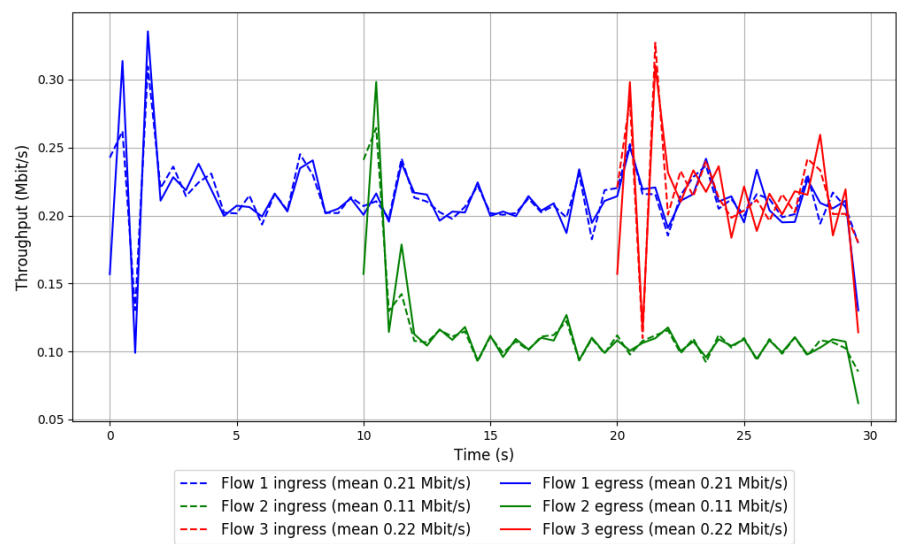
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.562 ms

Loss rate: 2.24%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2018-04-11 06:10:36

End at: 2018-04-11 06:11:06

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 114.128 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 114.043 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 114.170 ms

Loss rate: 1.04%

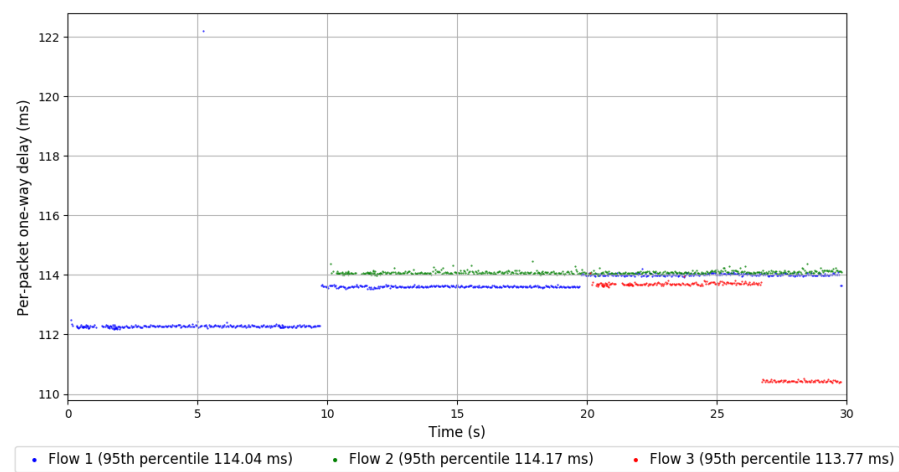
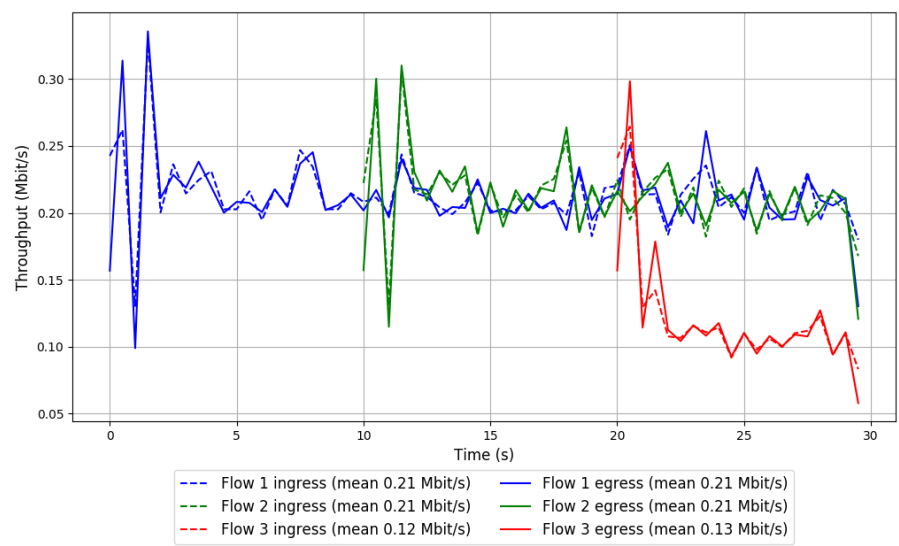
-- Flow 3:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 113.769 ms

Loss rate: 2.00%

Run 10: Report of SReAM — Data Link

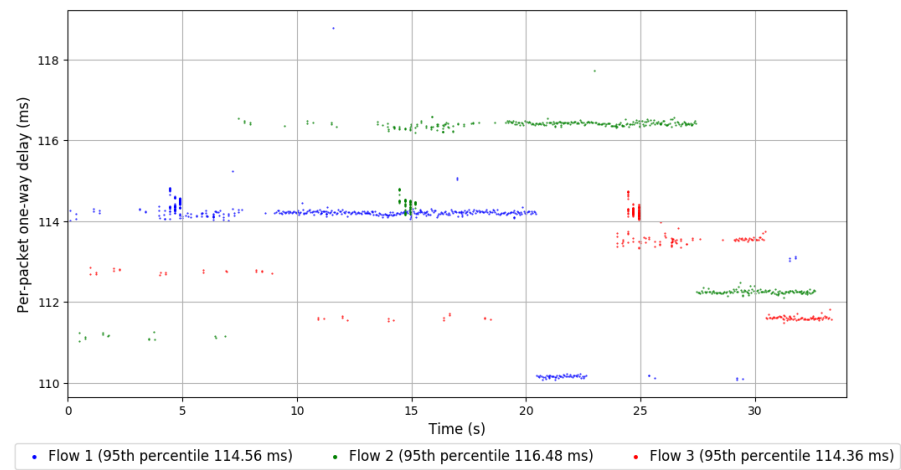
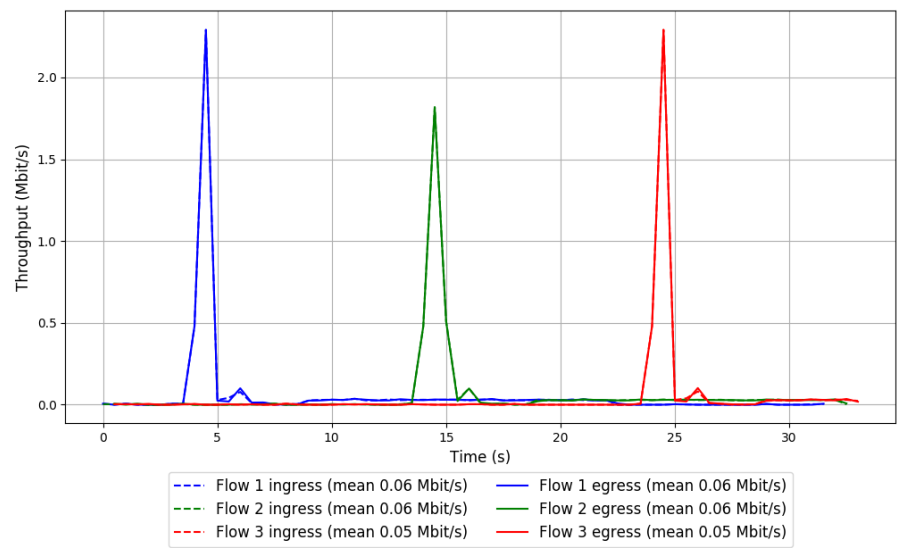


```
Run 1: Statistics of WebRTC media

Start at: 2018-04-11 03:04:39
End at: 2018-04-11 03:05:09

# Below is generated by plot.py at 2018-04-11 09:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 116.448 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 114.561 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 116.479 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 114.363 ms
Loss rate: 0.32%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-04-11 03:23:37

End at: 2018-04-11 03:24:07

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 114.416 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 114.512 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 114.387 ms

Loss rate: 0.00%

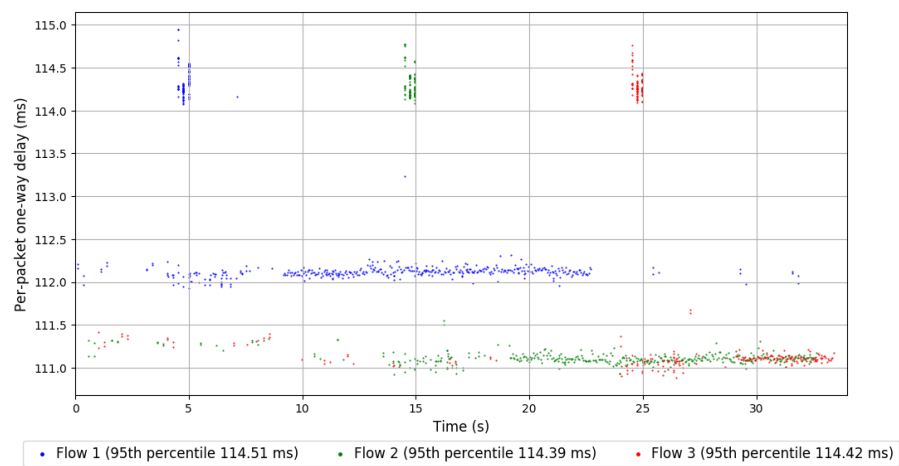
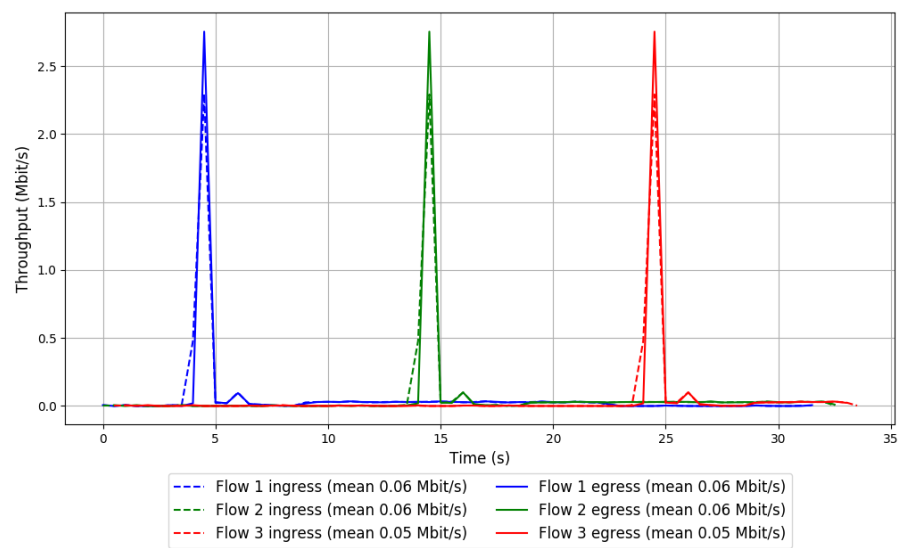
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 114.420 ms

Loss rate: 0.40%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-04-11 03:42:15

End at: 2018-04-11 03:42:45

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 116.180 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 116.150 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 116.204 ms

Loss rate: 0.00%

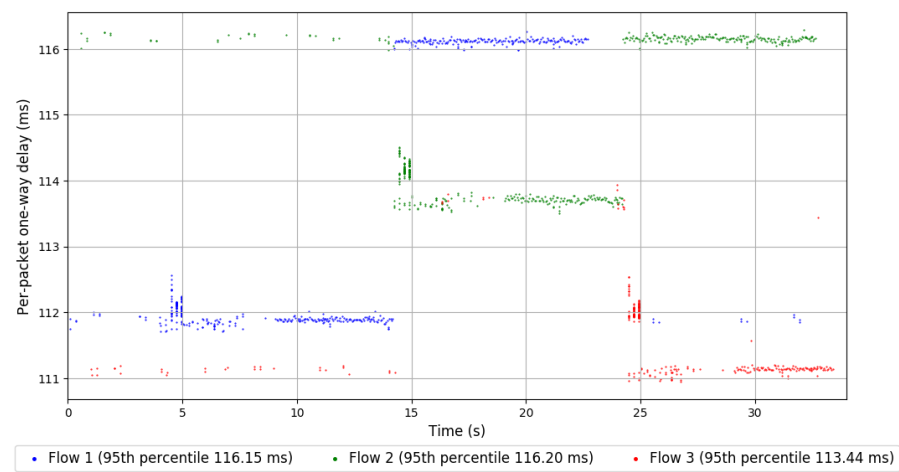
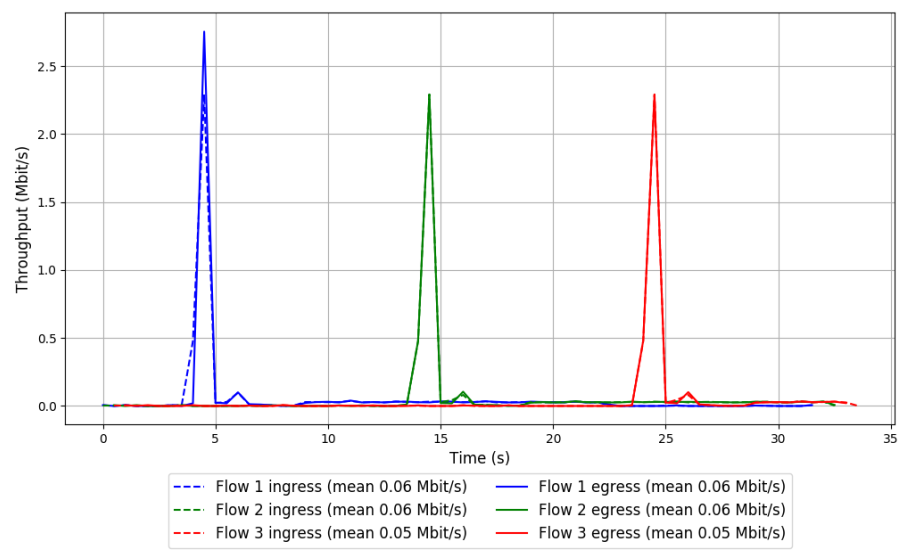
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 113.441 ms

Loss rate: 0.40%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-04-11 04:01:28

End at: 2018-04-11 04:01:58

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 113.884 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.895 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.883 ms

Loss rate: 0.00%

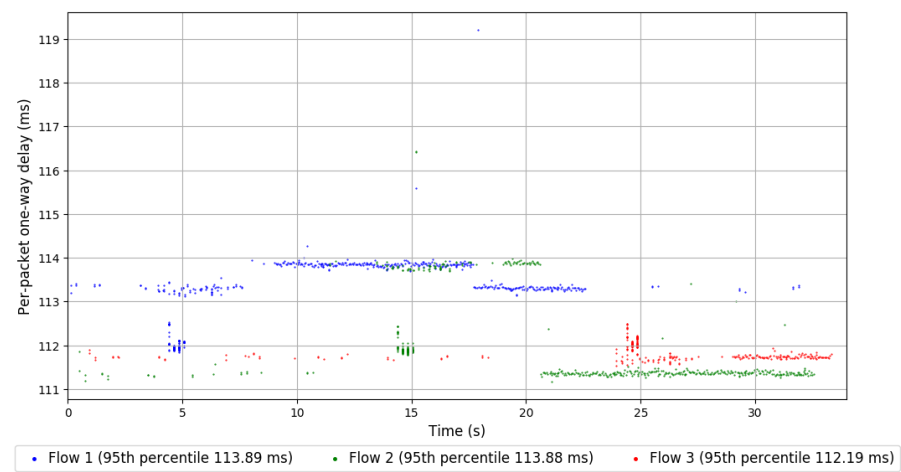
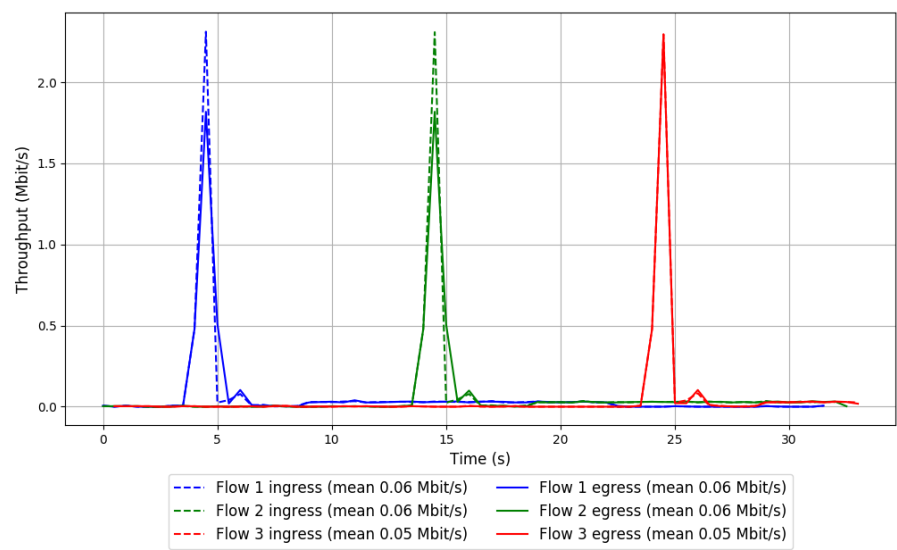
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.189 ms

Loss rate: 0.40%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-04-11 04:20:31

End at: 2018-04-11 04:21:01

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 114.017 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.831 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 114.039 ms

Loss rate: 0.00%

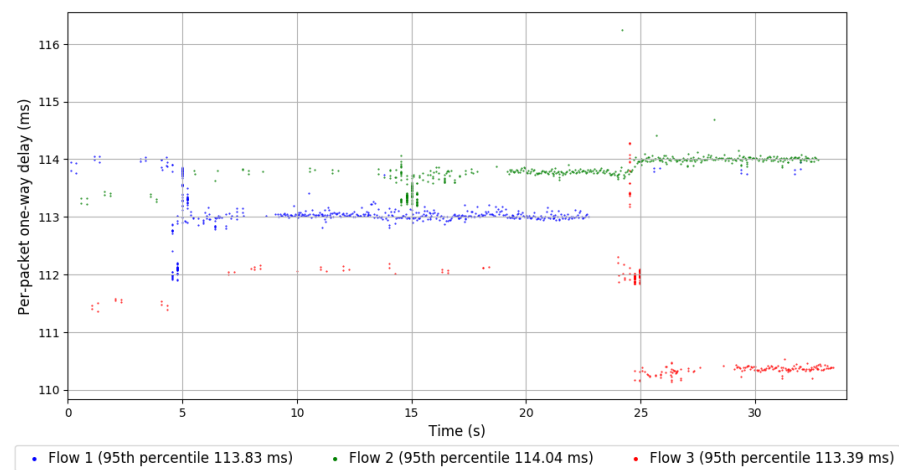
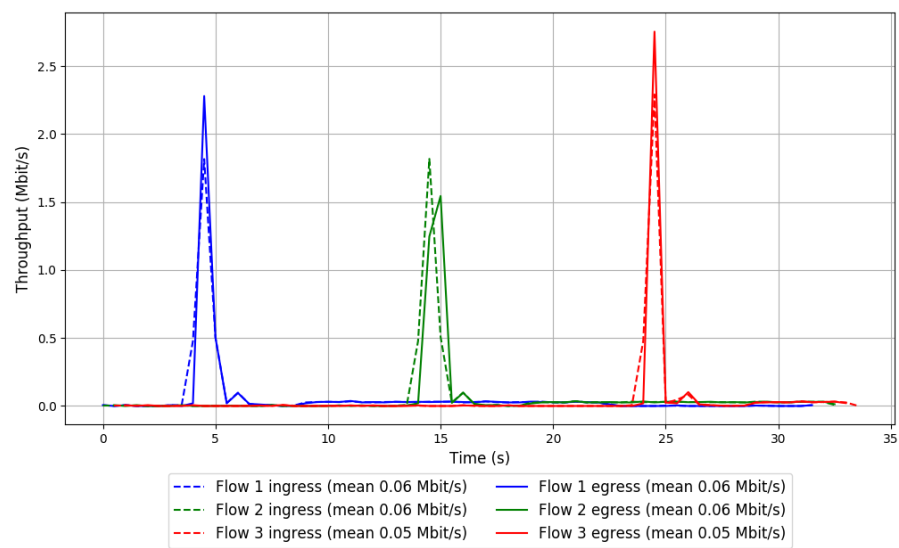
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 113.392 ms

Loss rate: 0.40%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-04-11 04:39:41

End at: 2018-04-11 04:40:11

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 112.780 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 112.315 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 112.789 ms

Loss rate: 0.00%

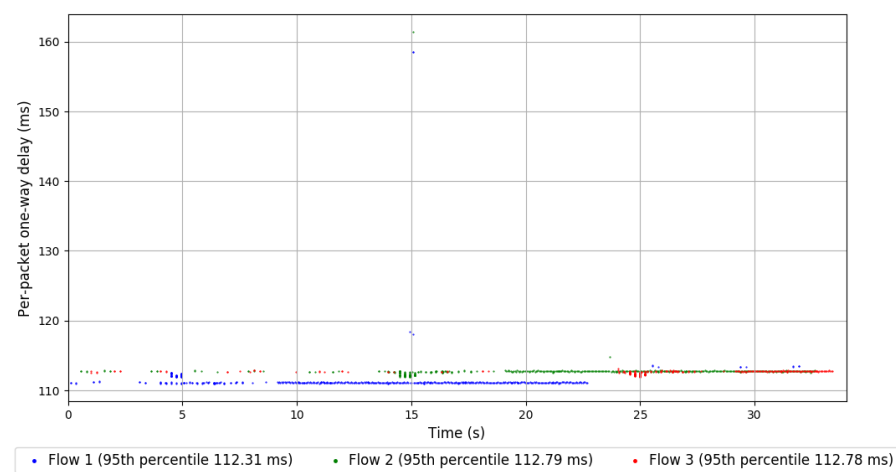
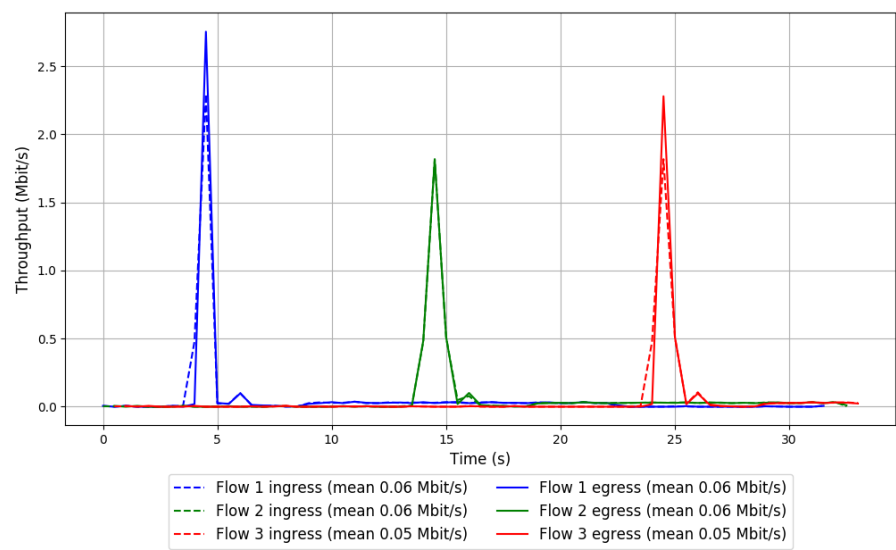
-- Flow 3:

Average throughput: 0.05 Mbit/s

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

Loss rate: 0.32%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-04-11 04:58:44

End at: 2018-04-11 04:59:14

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 114.132 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 112.935 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 112.995 ms

Loss rate: 0.04%

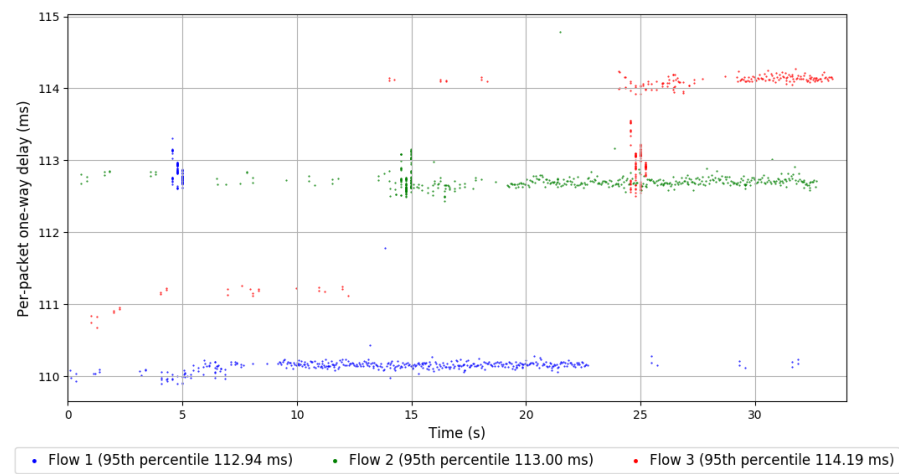
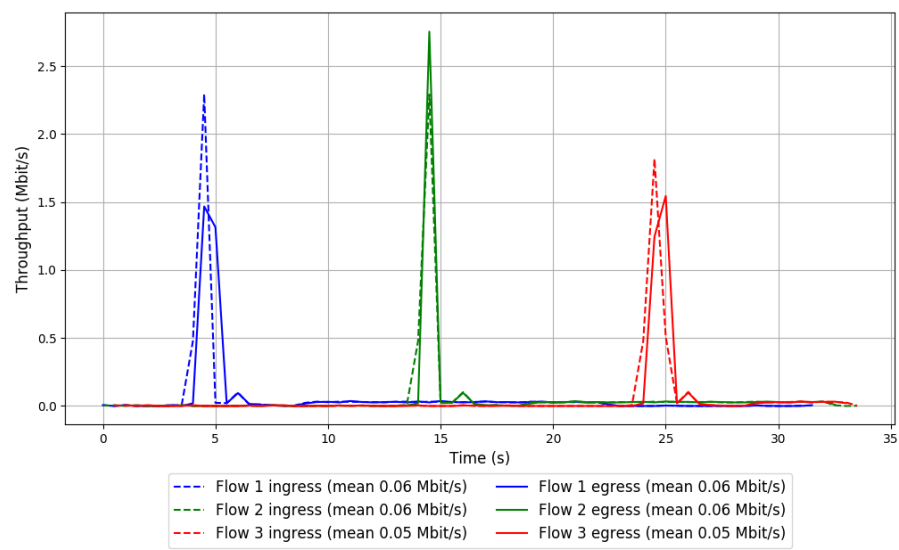
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 114.191 ms

Loss rate: 0.40%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-04-11 05:17:45

End at: 2018-04-11 05:18:15

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 113.745 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 112.687 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.926 ms

Loss rate: 0.00%

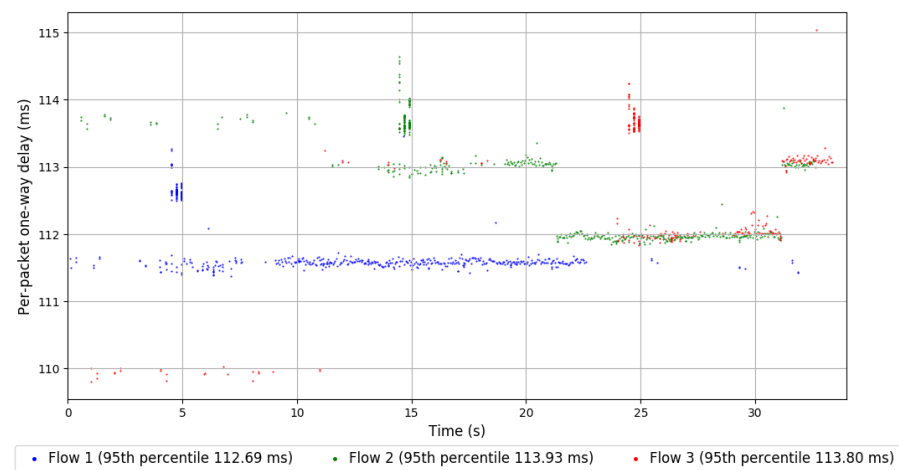
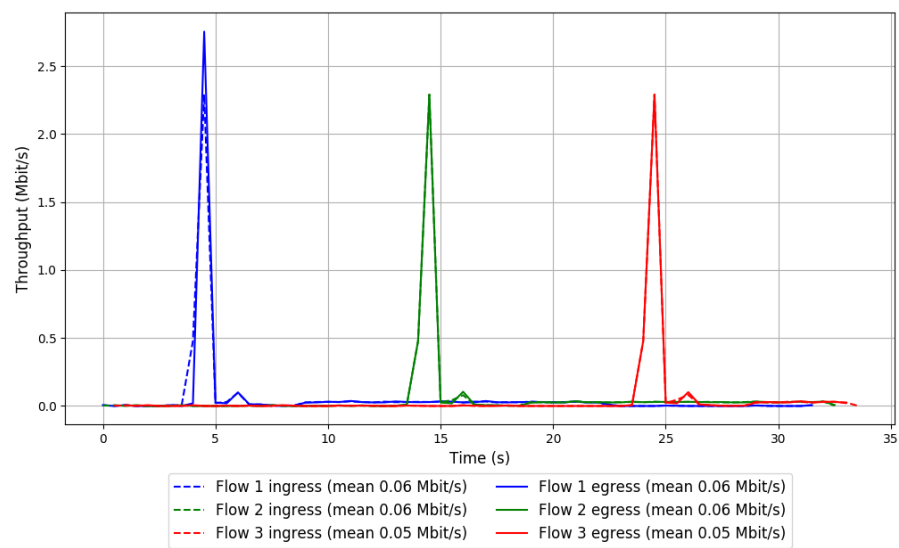
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 113.798 ms

Loss rate: 0.40%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-04-11 05:37:06

End at: 2018-04-11 05:37:36

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 114.019 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.849 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 114.036 ms

Loss rate: 0.00%

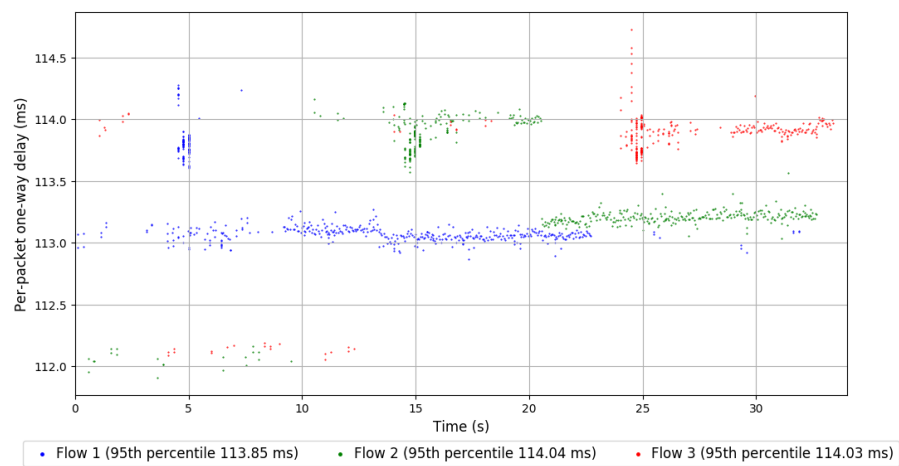
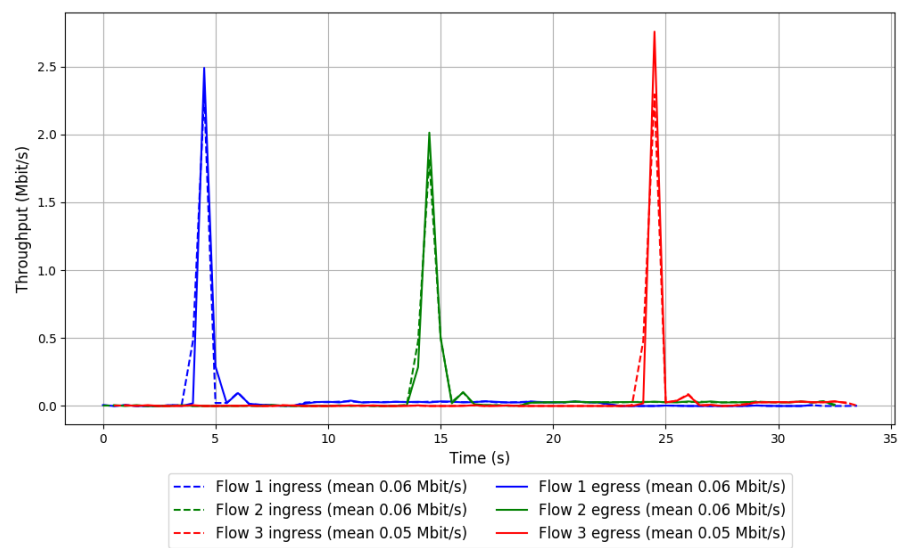
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 114.026 ms

Loss rate: 0.40%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-04-11 05:56:27

End at: 2018-04-11 05:56:57

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 114.003 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.919 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 114.017 ms

Loss rate: 0.00%

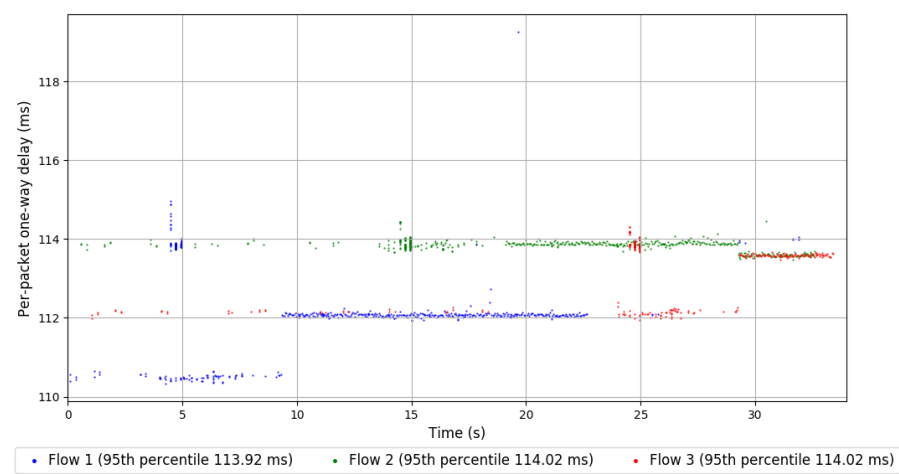
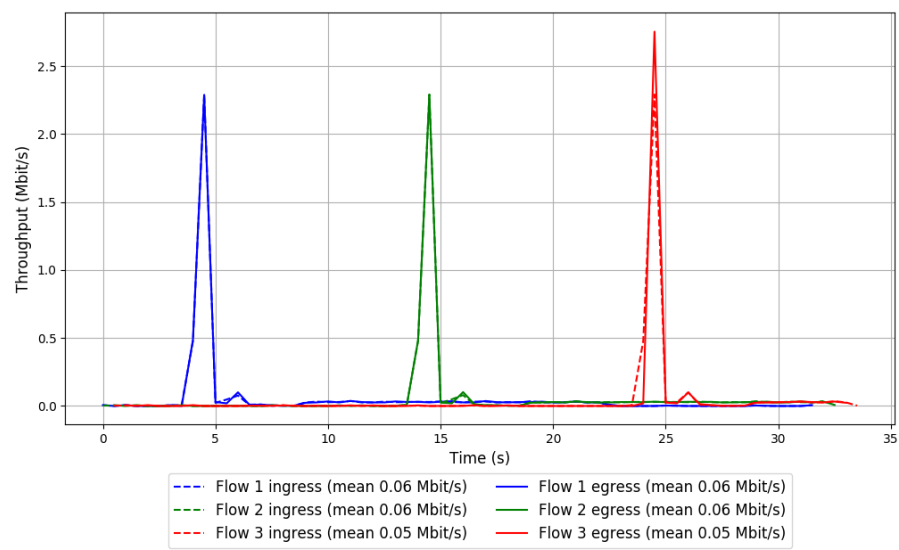
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 114.021 ms

Loss rate: 0.40%

Run 10: Report of WebRTC media — Data Link

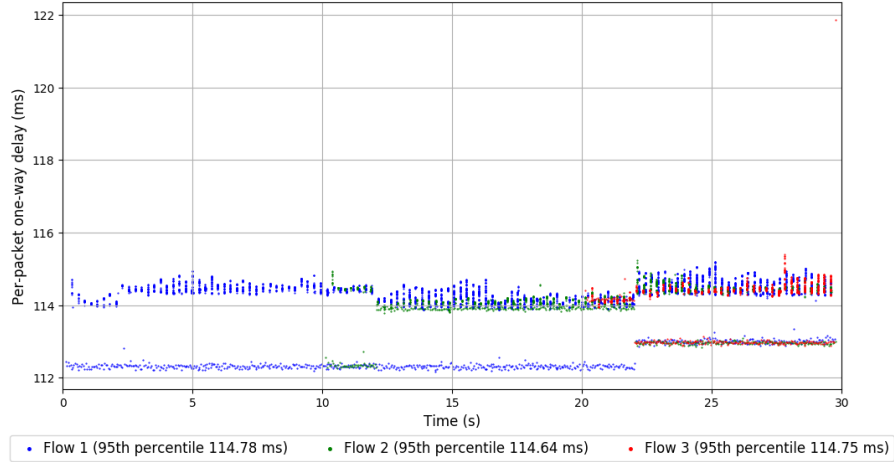
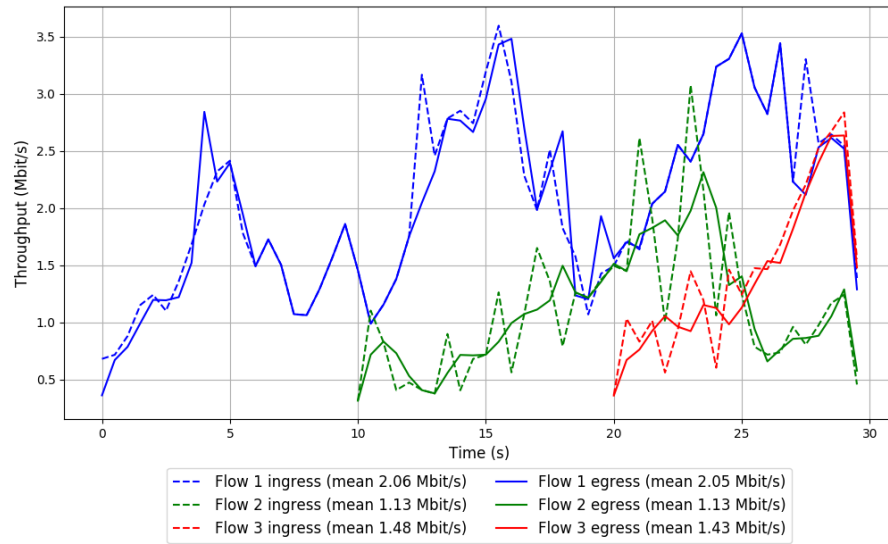


```
Run 1: Statistics of Sprout

Start at: 2018-04-11 03:12:10
End at: 2018-04-11 03:12:40

# Below is generated by plot.py at 2018-04-11 09:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.26 Mbit/s
95th percentile per-packet one-way delay: 114.754 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 114.783 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 114.644 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 114.751 ms
Loss rate: 5.32%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-04-11 03:31:04

End at: 2018-04-11 03:31:34

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.81 Mbit/s

95th percentile per-packet one-way delay: 114.328 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 114.306 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 1.98 Mbit/s

95th percentile per-packet one-way delay: 114.334 ms

Loss rate: 1.31%

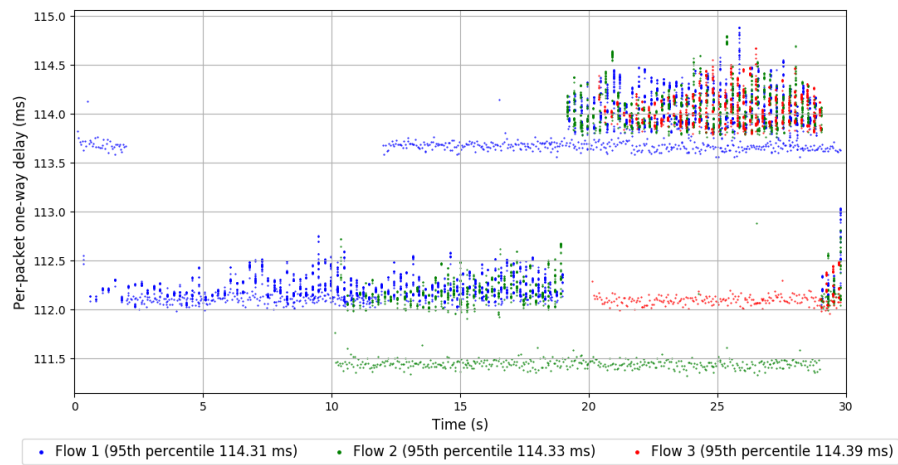
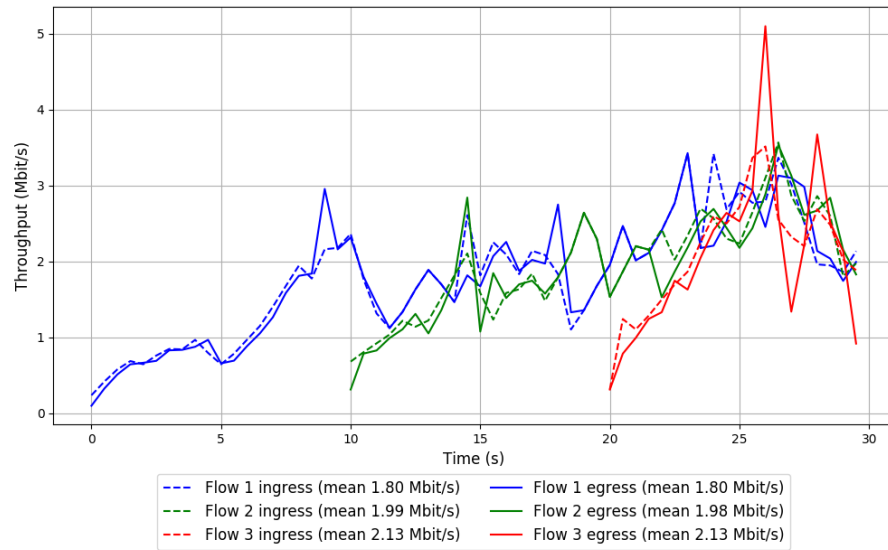
-- Flow 3:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 114.386 ms

Loss rate: 2.35%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-04-11 03:50:10

End at: 2018-04-11 03:50:40

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 113.218 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 2.61 Mbit/s

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

Loss rate: 1.23%

-- Flow 2:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 113.757 ms

Loss rate: 1.61%

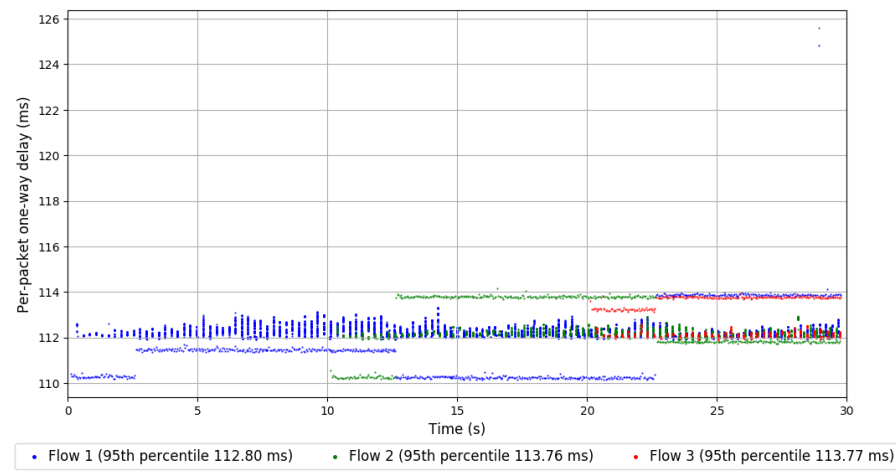
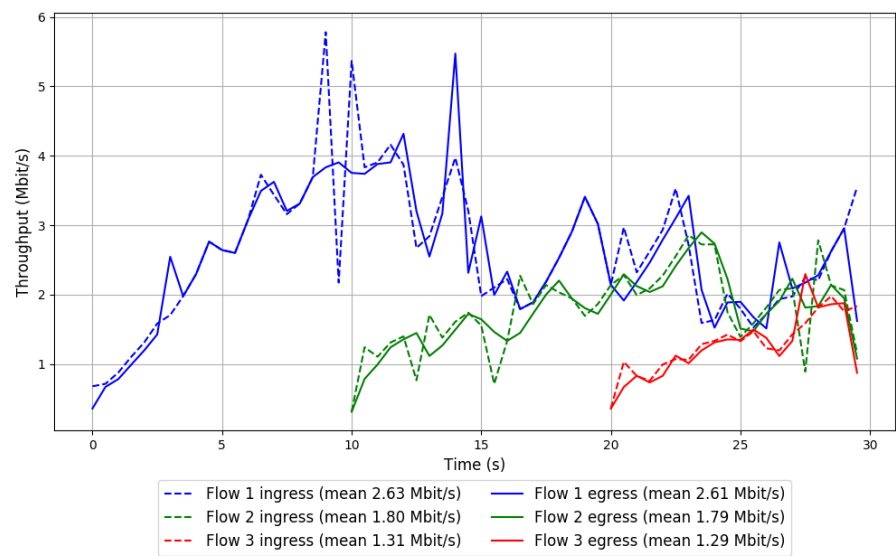
-- Flow 3:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 113.770 ms

Loss rate: 3.73%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-04-11 04:09:10

End at: 2018-04-11 04:09:40

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 113.838 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 113.859 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 113.767 ms

Loss rate: 1.28%

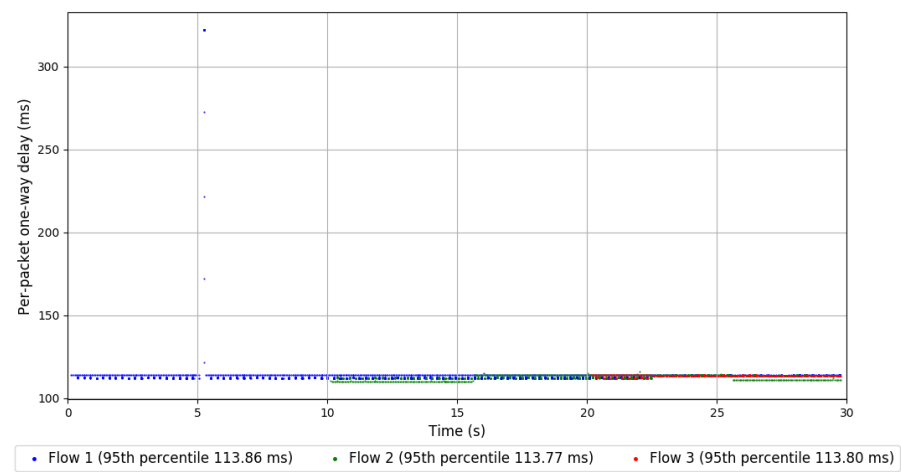
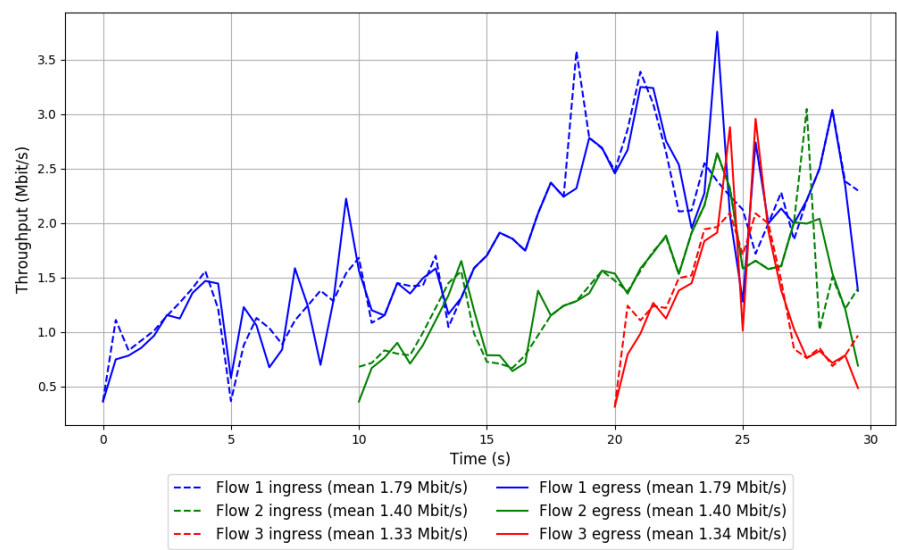
-- Flow 3:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 113.801 ms

Loss rate: 1.85%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-04-11 04:28:22

End at: 2018-04-11 04:28:52

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 113.745 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 113.067 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 113.714 ms

Loss rate: 1.83%

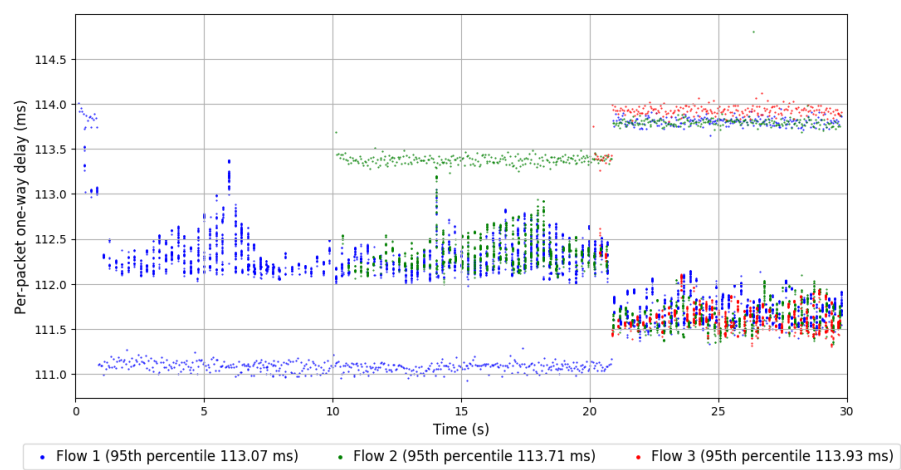
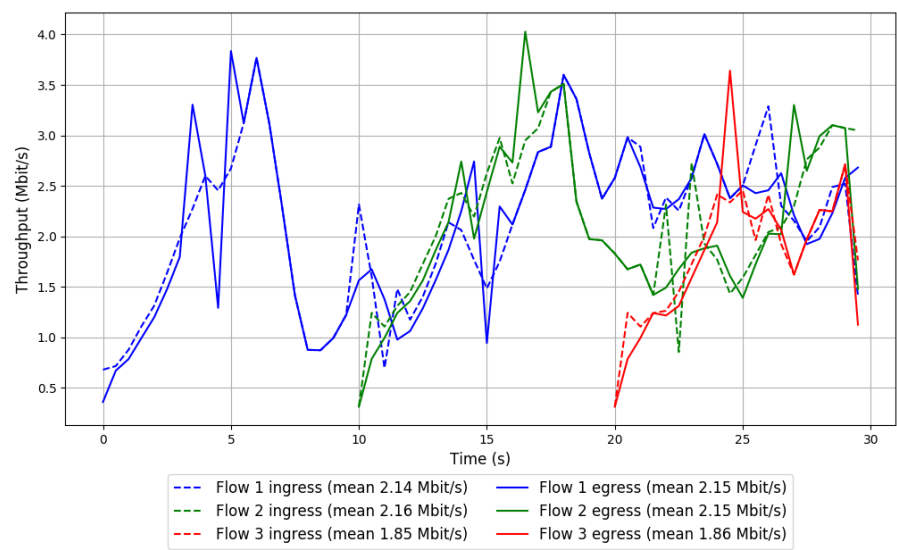
-- Flow 3:

Average throughput: 1.86 Mbit/s

95th percentile per-packet one-way delay: 113.934 ms

Loss rate: 1.76%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-04-11 04:47:27

End at: 2018-04-11 04:47:57

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 113.106 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 113.427 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 113.068 ms

Loss rate: 1.20%

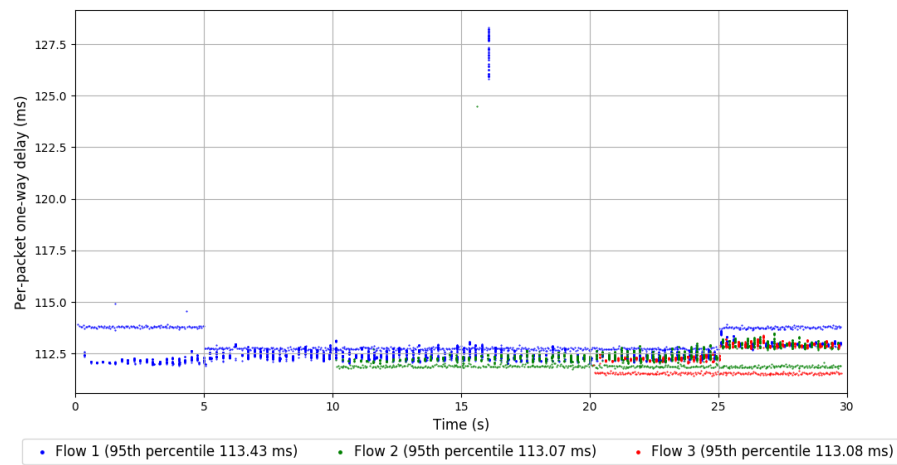
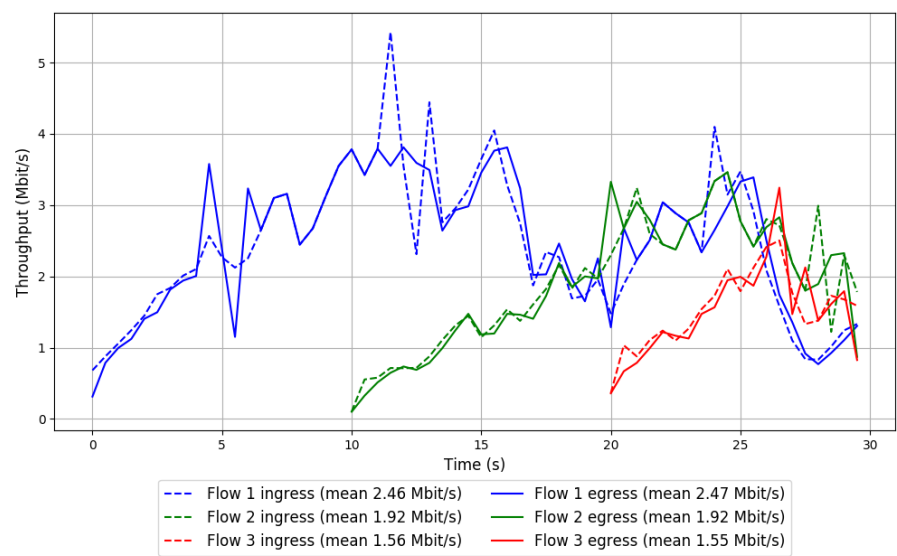
-- Flow 3:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 113.082 ms

Loss rate: 2.49%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-04-11 05:06:22

End at: 2018-04-11 05:06:52

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.17 Mbit/s

95th percentile per-packet one-way delay: 113.803 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 2.14 Mbit/s

95th percentile per-packet one-way delay: 113.863 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 113.269 ms

Loss rate: 0.06%

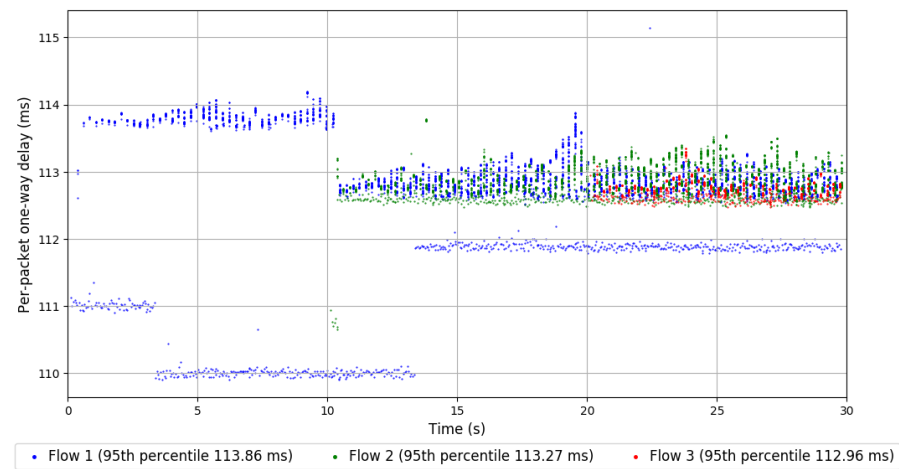
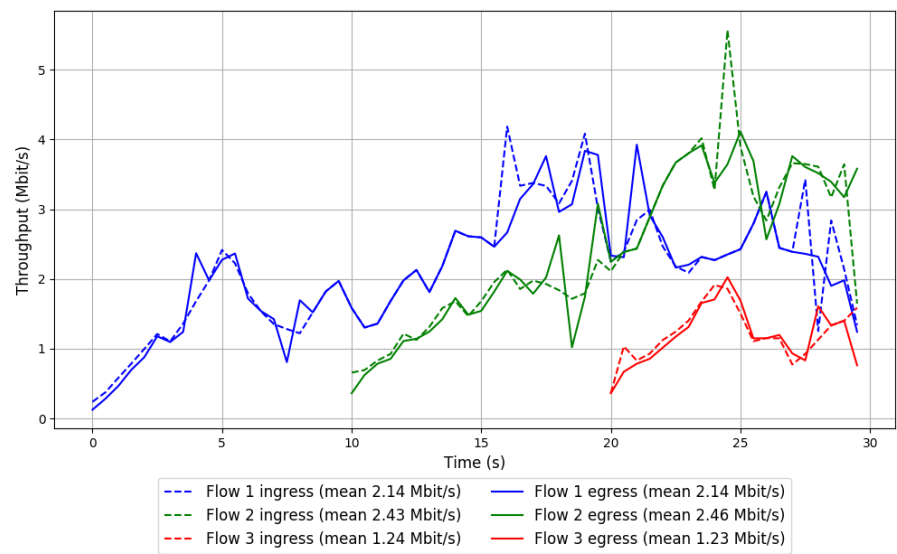
-- Flow 3:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 112.956 ms

Loss rate: 3.39%

Run 7: Report of Sprout — Data Link



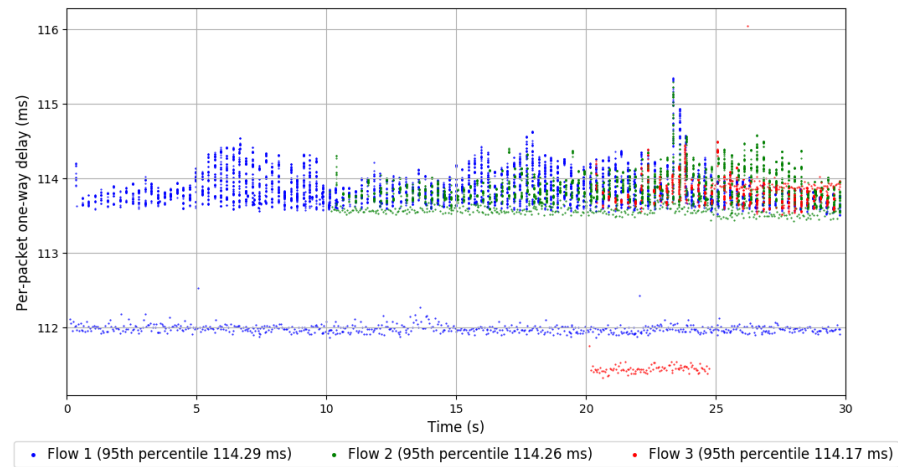
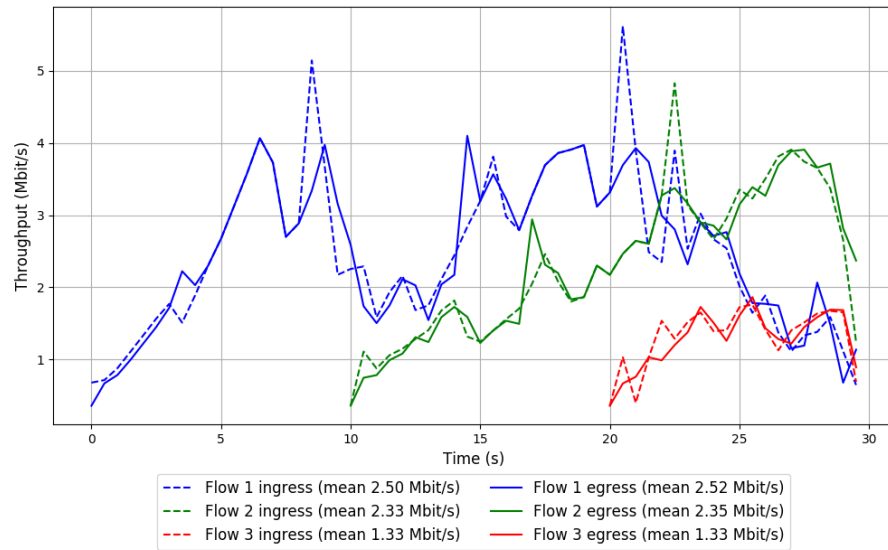
Run 8: Statistics of Sprout

Start at: 2018-04-11 05:25:38

End at: 2018-04-11 05:26:08

```
# Below is generated by plot.py at 2018-04-11 09:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 114.274 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 114.289 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 114.264 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 114.171 ms
Loss rate: 2.38%
```

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-04-11 05:45:03

End at: 2018-04-11 05:45:33

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.82 Mbit/s

95th percentile per-packet one-way delay: 114.434 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 114.513 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 114.321 ms

Loss rate: 2.04%

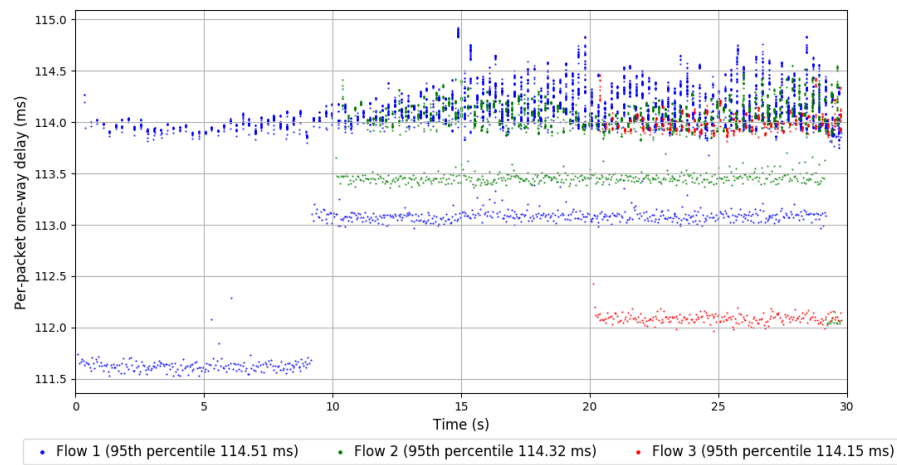
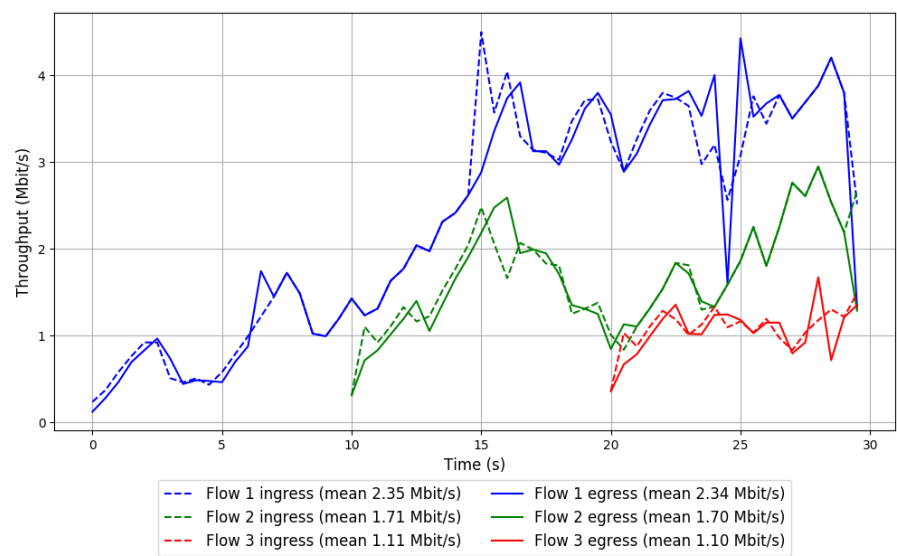
-- Flow 3:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 114.146 ms

Loss rate: 3.57%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-04-11 06:04:19

End at: 2018-04-11 06:04:50

Below is generated by plot.py at 2018-04-11 09:58:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 114.369 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 114.372 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 114.389 ms

Loss rate: 1.17%

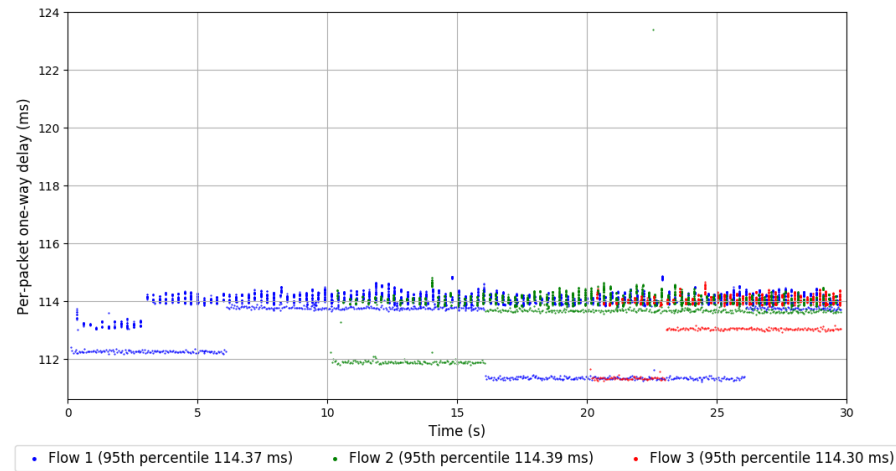
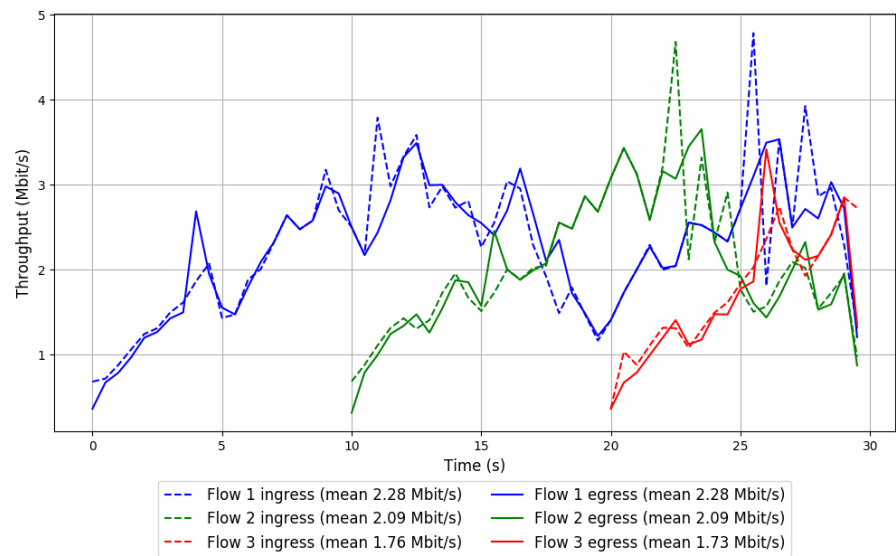
-- Flow 3:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 114.303 ms

Loss rate: 3.97%

Run 10: Report of Sprout — Data Link

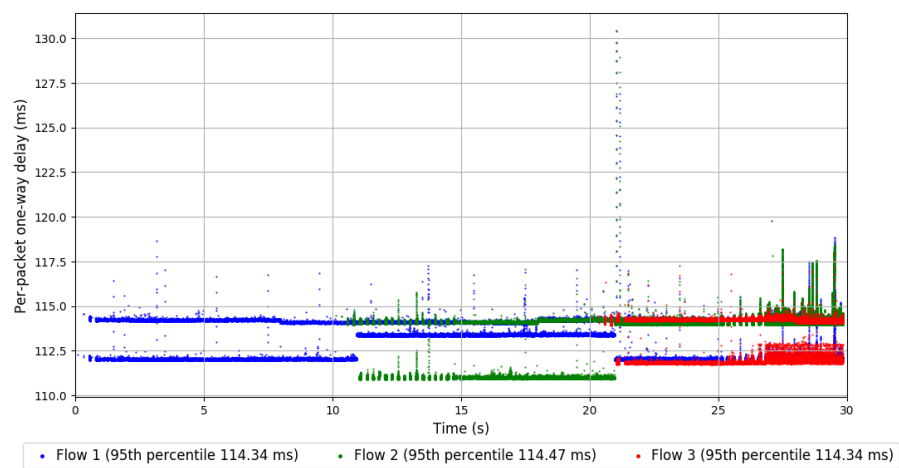
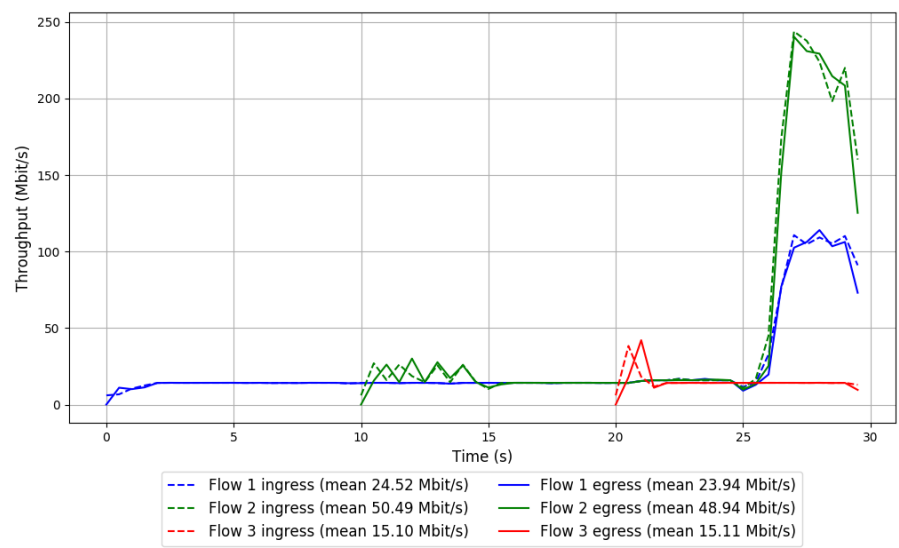


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-04-11 03:05:25
End at: 2018-04-11 03:05:55

# Below is generated by plot.py at 2018-04-11 09:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.33 Mbit/s
95th percentile per-packet one-way delay: 114.402 ms
Loss rate: 3.60%
-- Flow 1:
Average throughput: 23.94 Mbit/s
95th percentile per-packet one-way delay: 114.342 ms
Loss rate: 3.08%
-- Flow 2:
Average throughput: 48.94 Mbit/s
95th percentile per-packet one-way delay: 114.470 ms
Loss rate: 4.19%
-- Flow 3:
Average throughput: 15.11 Mbit/s
95th percentile per-packet one-way delay: 114.340 ms
Loss rate: 2.23%
```


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

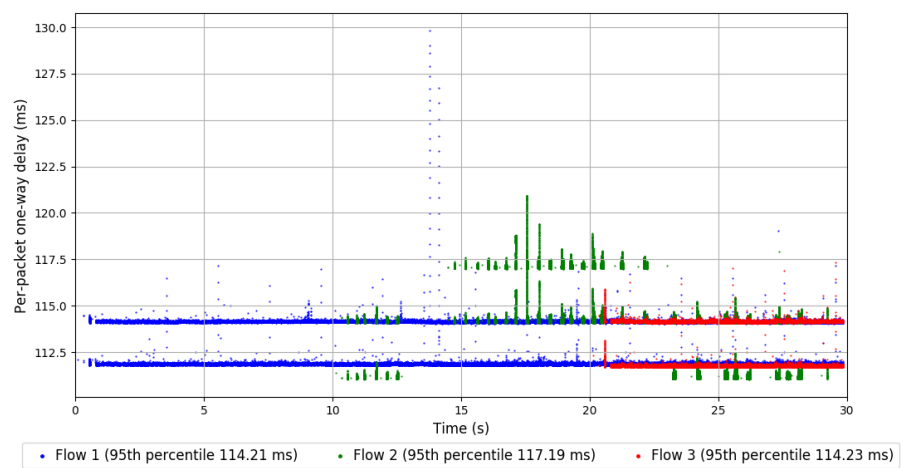
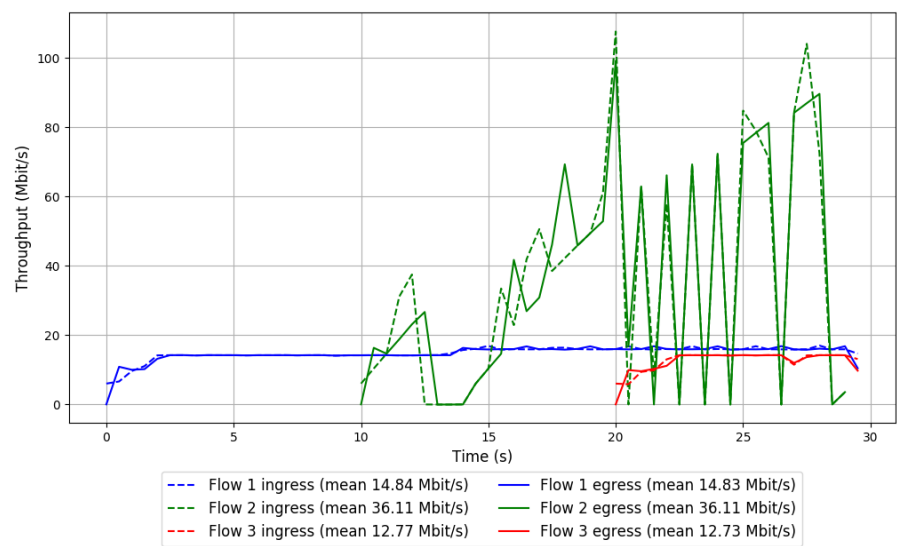


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-11 03:24:23
End at: 2018-04-11 03:24:53

# Below is generated by plot.py at 2018-04-11 09:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.19 Mbit/s
95th percentile per-packet one-way delay: 117.138 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 14.83 Mbit/s
95th percentile per-packet one-way delay: 114.210 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 36.11 Mbit/s
95th percentile per-packet one-way delay: 117.192 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 114.229 ms
Loss rate: 2.64%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-04-11 03:43:01

End at: 2018-04-11 03:43:31

Below is generated by plot.py at 2018-04-11 10:02:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 289.45 Mbit/s

95th percentile per-packet one-way delay: 113.597 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 203.43 Mbit/s

95th percentile per-packet one-way delay: 113.572 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 122.27 Mbit/s

95th percentile per-packet one-way delay: 113.464 ms

Loss rate: 1.04%

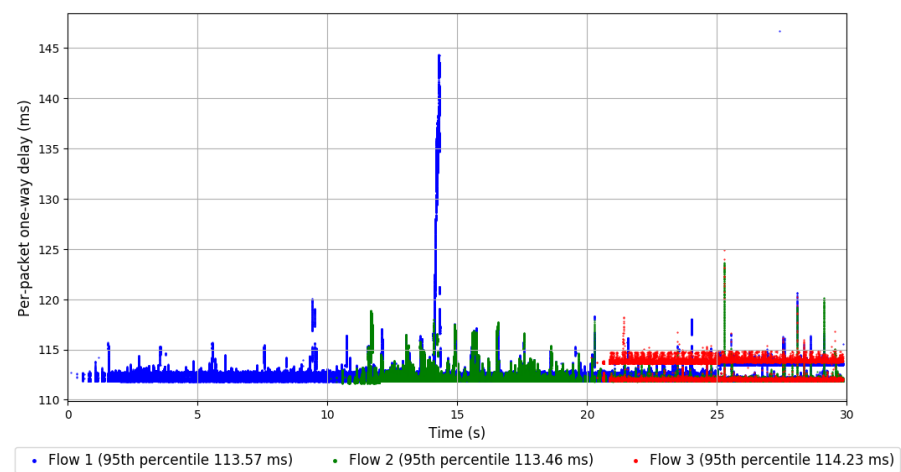
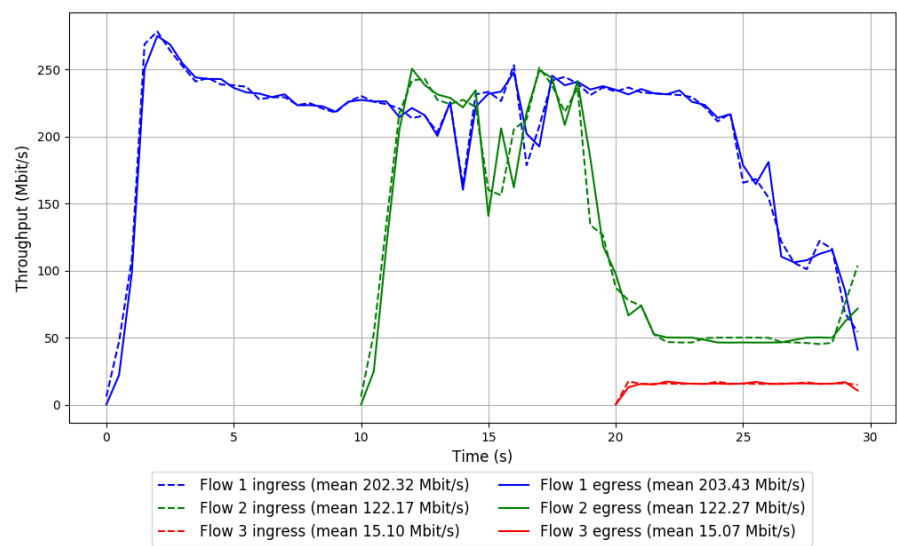
-- Flow 3:

Average throughput: 15.07 Mbit/s

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

Loss rate: 2.43%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-04-11 04:02:14

End at: 2018-04-11 04:02:44

Below is generated by plot.py at 2018-04-11 10:02:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 156.88 Mbit/s

95th percentile per-packet one-way delay: 114.483 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 11.49 Mbit/s

95th percentile per-packet one-way delay: 113.241 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 159.87 Mbit/s

95th percentile per-packet one-way delay: 114.006 ms

Loss rate: 0.79%

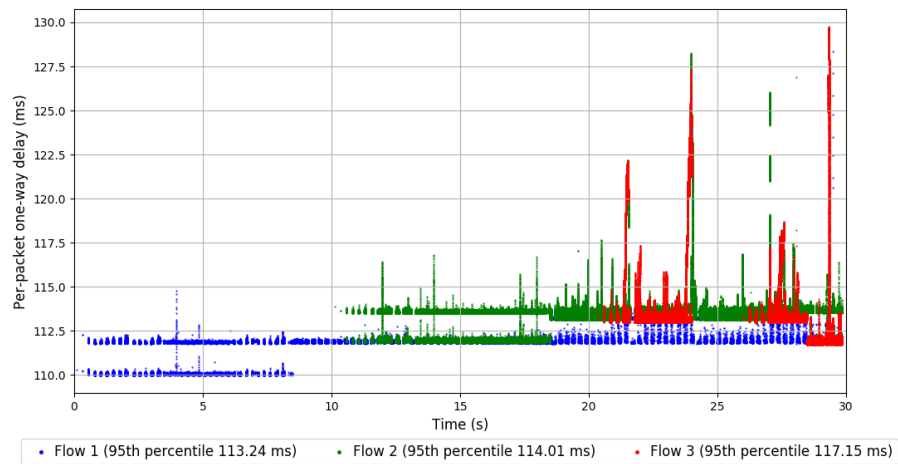
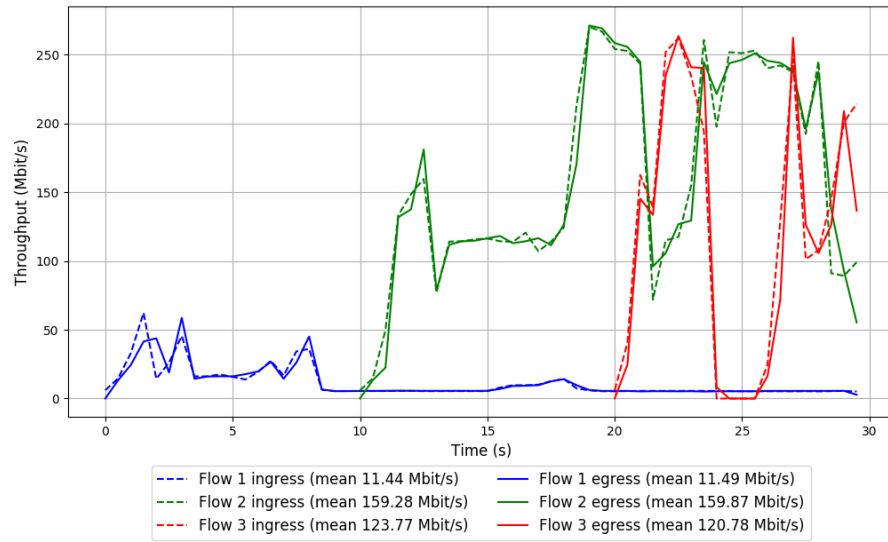
-- Flow 3:

Average throughput: 120.78 Mbit/s

95th percentile per-packet one-way delay: 117.152 ms

Loss rate: 4.68%

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

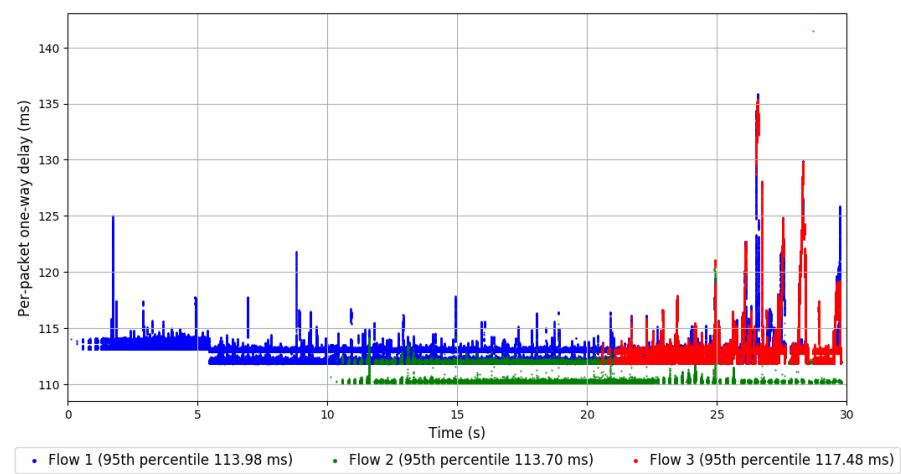
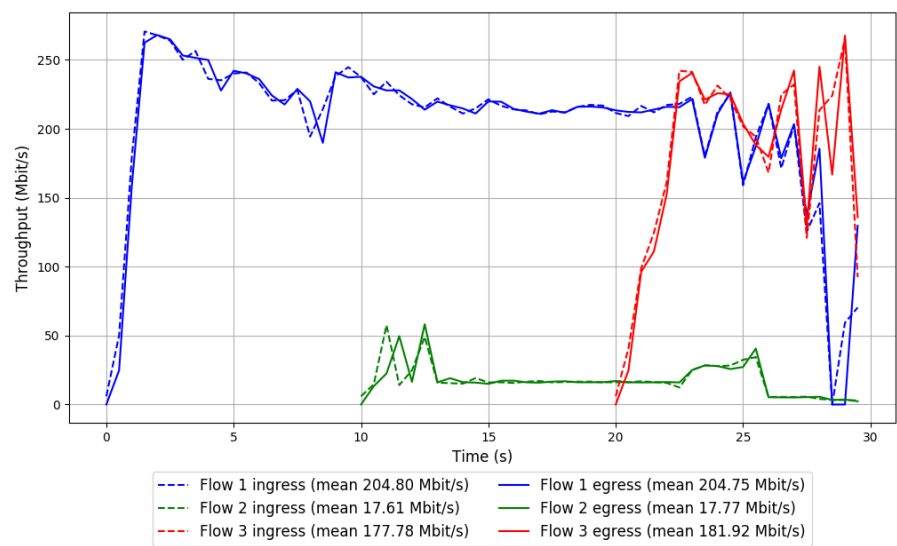


```
Run 5: Statistics of TaoVA-100x

Start at: 2018-04-11 04:21:17
End at: 2018-04-11 04:21:47

# Below is generated by plot.py at 2018-04-11 10:02:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 275.13 Mbit/s
95th percentile per-packet one-way delay: 114.316 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 204.75 Mbit/s
95th percentile per-packet one-way delay: 113.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.77 Mbit/s
95th percentile per-packet one-way delay: 113.697 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 181.92 Mbit/s
95th percentile per-packet one-way delay: 117.476 ms
Loss rate: 0.54%
```


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



Run 6: Statistics of TaoVA-100x

Start at: 2018-04-11 04:40:27

End at: 2018-04-11 04:40:57

Below is generated by plot.py at 2018-04-11 10:03:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 284.19 Mbit/s

95th percentile per-packet one-way delay: 113.967 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 164.77 Mbit/s

95th percentile per-packet one-way delay: 113.780 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 128.33 Mbit/s

95th percentile per-packet one-way delay: 114.135 ms

Loss rate: 1.03%

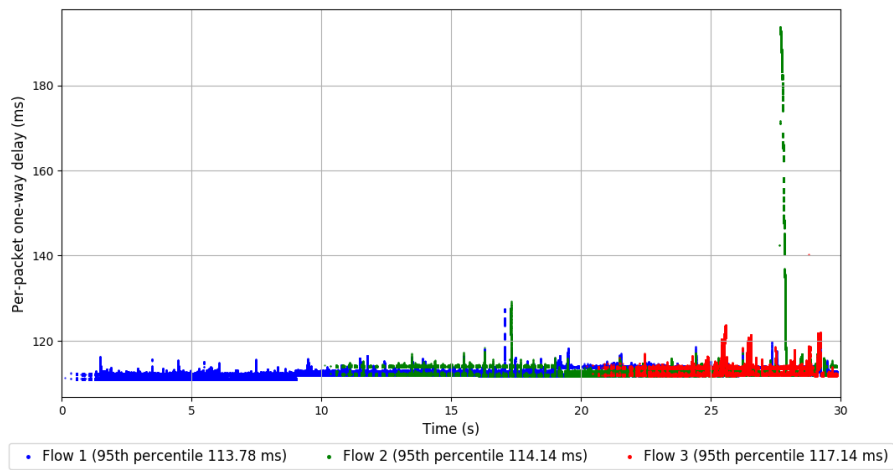
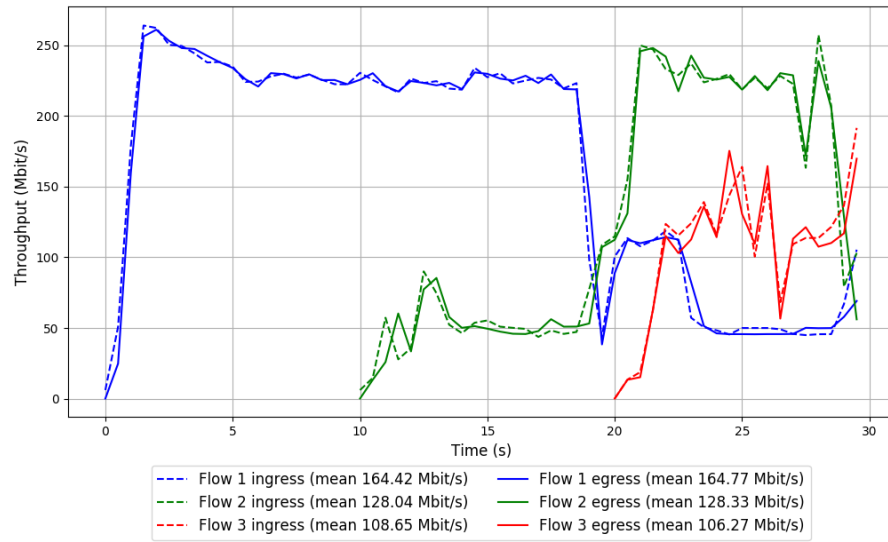
-- Flow 3:

Average throughput: 106.27 Mbit/s

95th percentile per-packet one-way delay: 117.136 ms

Loss rate: 3.78%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-04-11 04:59:29

End at: 2018-04-11 04:59:59

Below is generated by plot.py at 2018-04-11 10:03:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 189.82 Mbit/s

95th percentile per-packet one-way delay: 112.989 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 171.52 Mbit/s

95th percentile per-packet one-way delay: 112.867 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 14.91 Mbit/s

95th percentile per-packet one-way delay: 112.668 ms

Loss rate: 1.21%

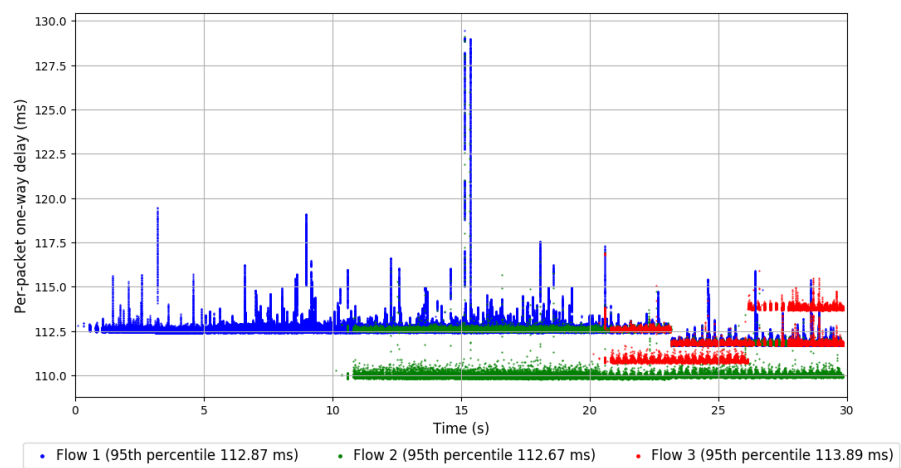
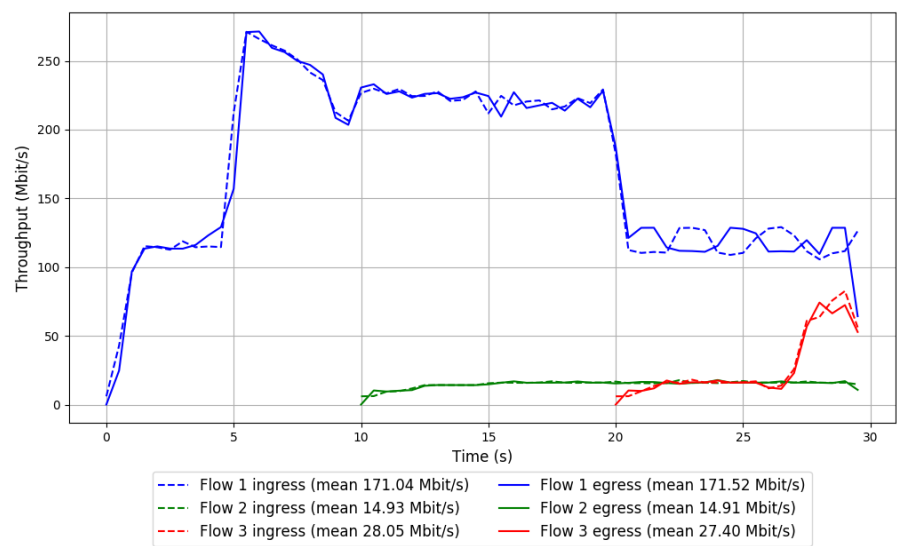
-- Flow 3:

Average throughput: 27.40 Mbit/s

95th percentile per-packet one-way delay: 113.889 ms

Loss rate: 4.55%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-04-11 05:18:31

End at: 2018-04-11 05:19:01

Below is generated by plot.py at 2018-04-11 10:03:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 248.56 Mbit/s

95th percentile per-packet one-way delay: 114.391 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 172.43 Mbit/s

95th percentile per-packet one-way delay: 113.747 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 107.16 Mbit/s

95th percentile per-packet one-way delay: 117.038 ms

Loss rate: 1.71%

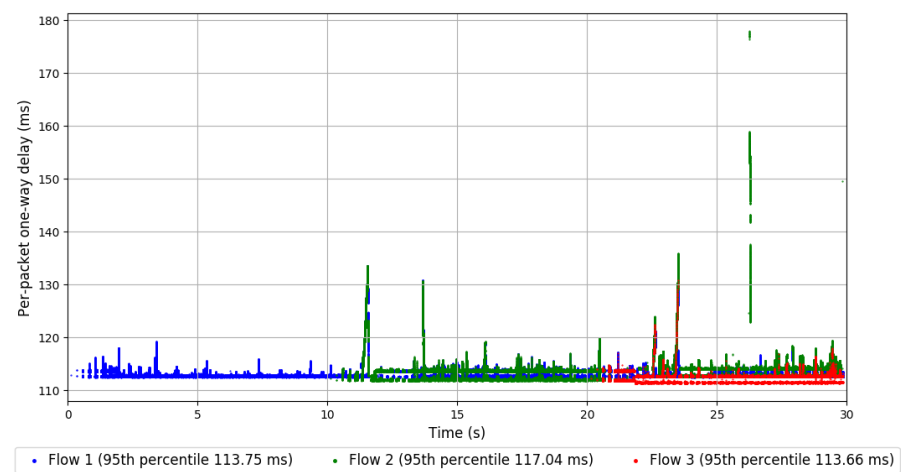
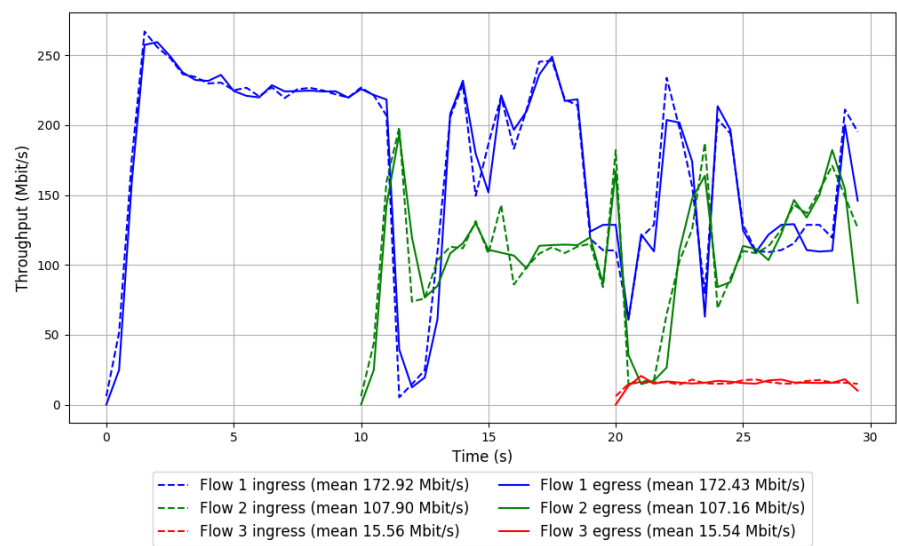
-- Flow 3:

Average throughput: 15.54 Mbit/s

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

Loss rate: 2.40%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-04-11 05:37:51

End at: 2018-04-11 05:38:21

Below is generated by plot.py at 2018-04-11 10:06:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 255.79 Mbit/s

95th percentile per-packet one-way delay: 114.594 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 173.85 Mbit/s

95th percentile per-packet one-way delay: 114.210 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 117.24 Mbit/s

95th percentile per-packet one-way delay: 119.286 ms

Loss rate: 1.09%

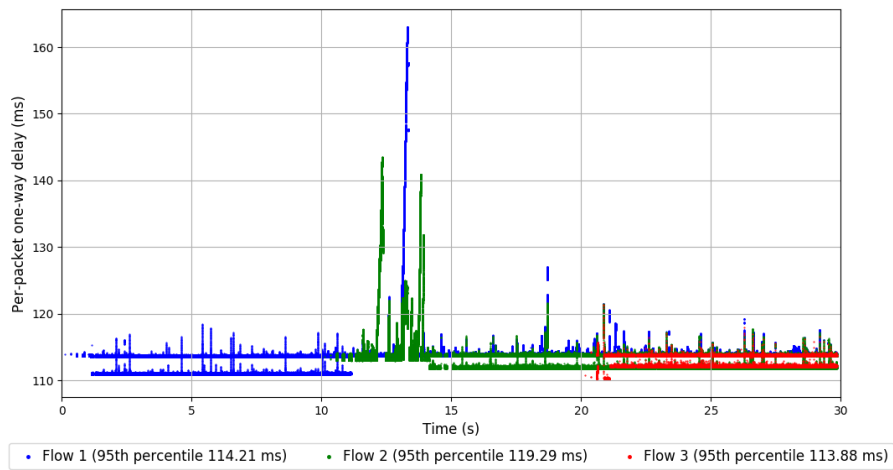
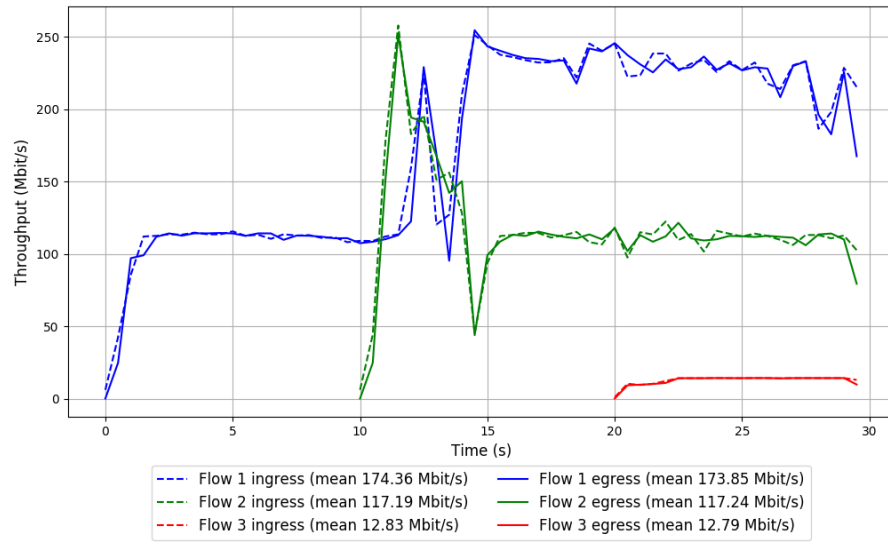
-- Flow 3:

Average throughput: 12.79 Mbit/s

95th percentile per-packet one-way delay: 113.883 ms

Loss rate: 2.52%

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

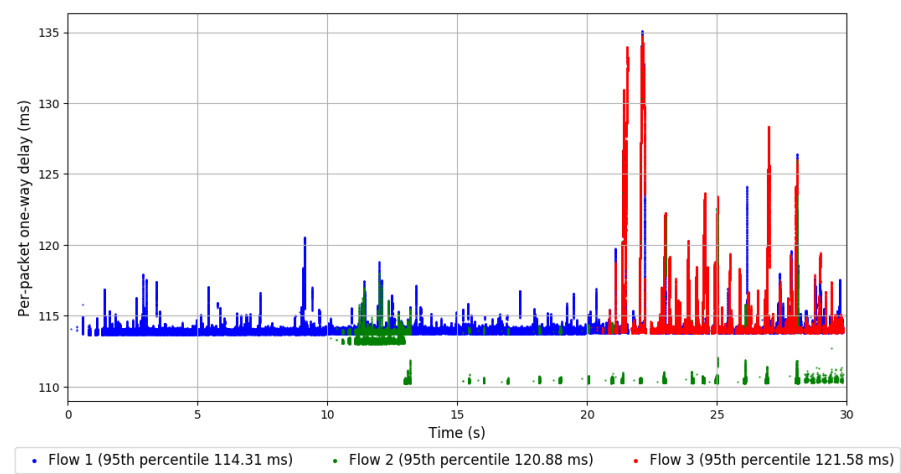
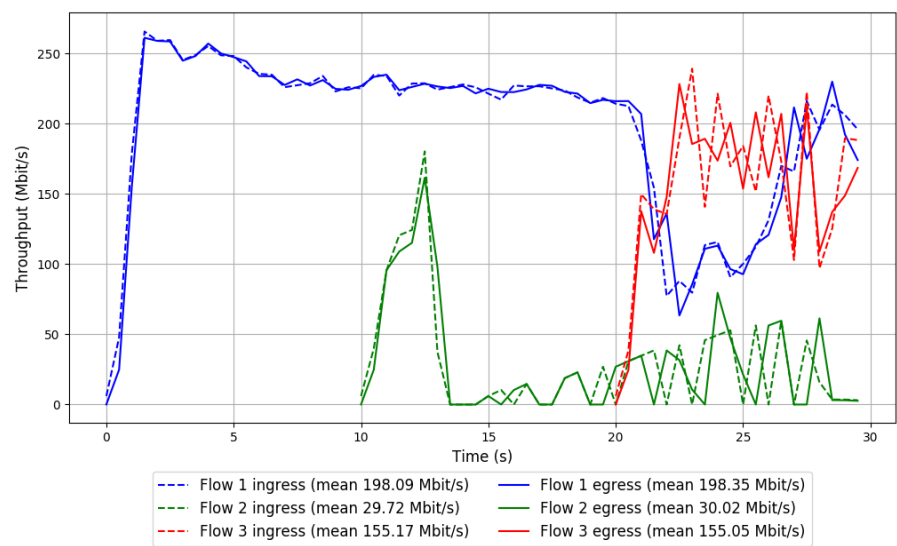


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-11 05:57:13
End at: 2018-04-11 05:57:43

# Below is generated by plot.py at 2018-04-11 10:06:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 268.88 Mbit/s
95th percentile per-packet one-way delay: 115.768 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 198.35 Mbit/s
95th percentile per-packet one-way delay: 114.308 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 30.02 Mbit/s
95th percentile per-packet one-way delay: 120.875 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 155.05 Mbit/s
95th percentile per-packet one-way delay: 121.583 ms
Loss rate: 2.37%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-04-11 03:19:13

End at: 2018-04-11 03:19:43

Below is generated by plot.py at 2018-04-11 10:06:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.30 Mbit/s

95th percentile per-packet one-way delay: 115.896 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 52.03 Mbit/s

95th percentile per-packet one-way delay: 115.531 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 47.31 Mbit/s

95th percentile per-packet one-way delay: 116.575 ms

Loss rate: 1.19%

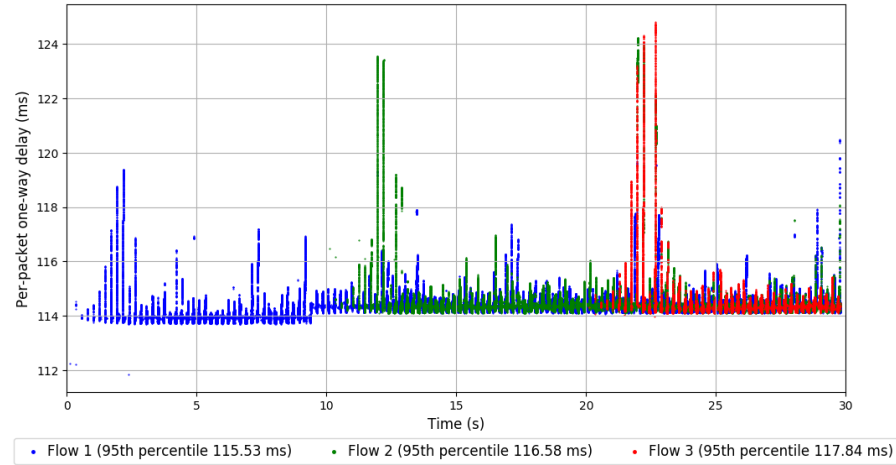
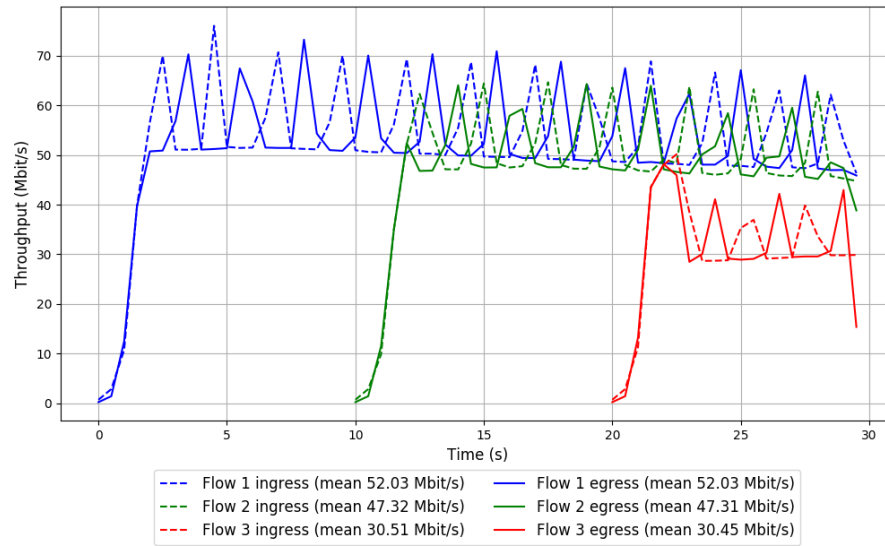
-- Flow 3:

Average throughput: 30.45 Mbit/s

95th percentile per-packet one-way delay: 117.844 ms

Loss rate: 2.47%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-04-11 03:37:51

End at: 2018-04-11 03:38:21

Below is generated by plot.py at 2018-04-11 10:06:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.77 Mbit/s

95th percentile per-packet one-way delay: 114.584 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 55.96 Mbit/s

95th percentile per-packet one-way delay: 114.409 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 27.62 Mbit/s

95th percentile per-packet one-way delay: 115.551 ms

Loss rate: 1.09%

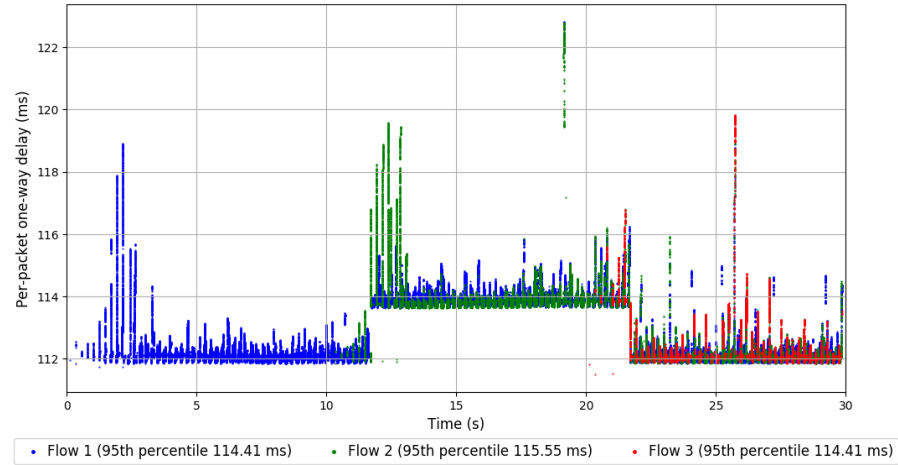
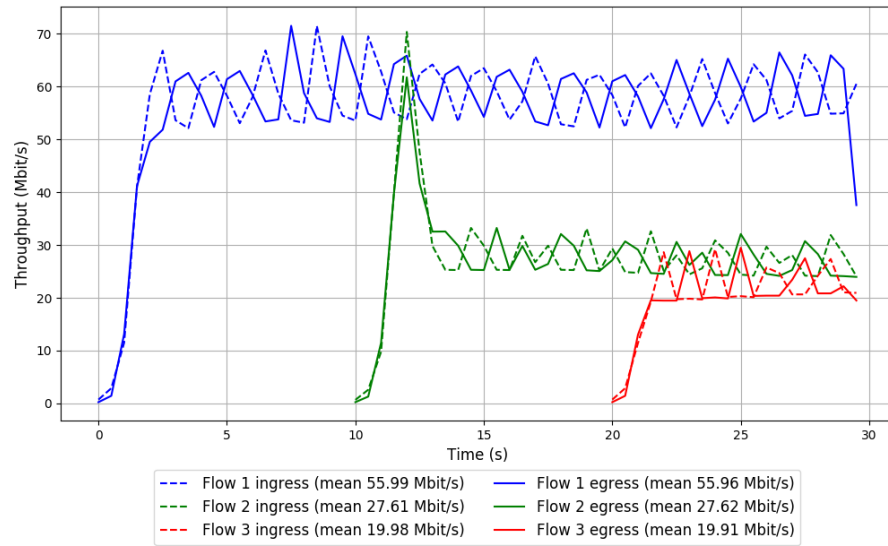
-- Flow 3:

Average throughput: 19.91 Mbit/s

95th percentile per-packet one-way delay: 114.407 ms

Loss rate: 2.62%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-04-11 03:57:05

End at: 2018-04-11 03:57:35

Below is generated by plot.py at 2018-04-11 10:06:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 64.45 Mbit/s

95th percentile per-packet one-way delay: 114.253 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 34.09 Mbit/s

95th percentile per-packet one-way delay: 114.119 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 31.23 Mbit/s

95th percentile per-packet one-way delay: 114.652 ms

Loss rate: 1.20%

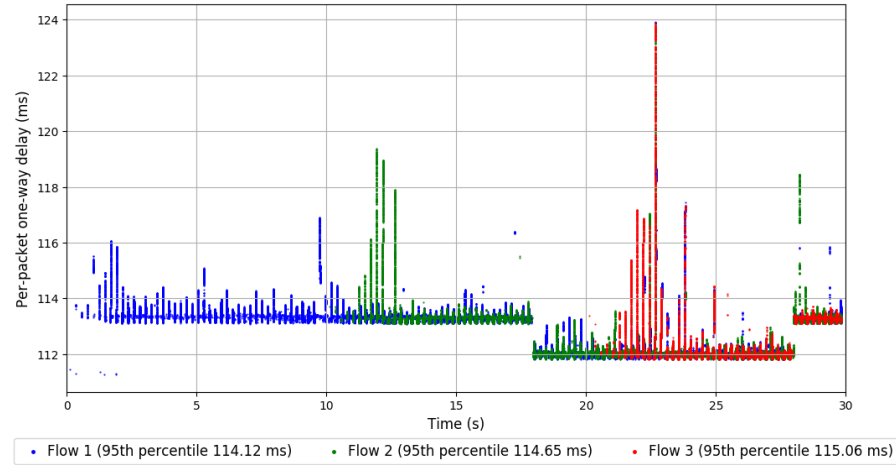
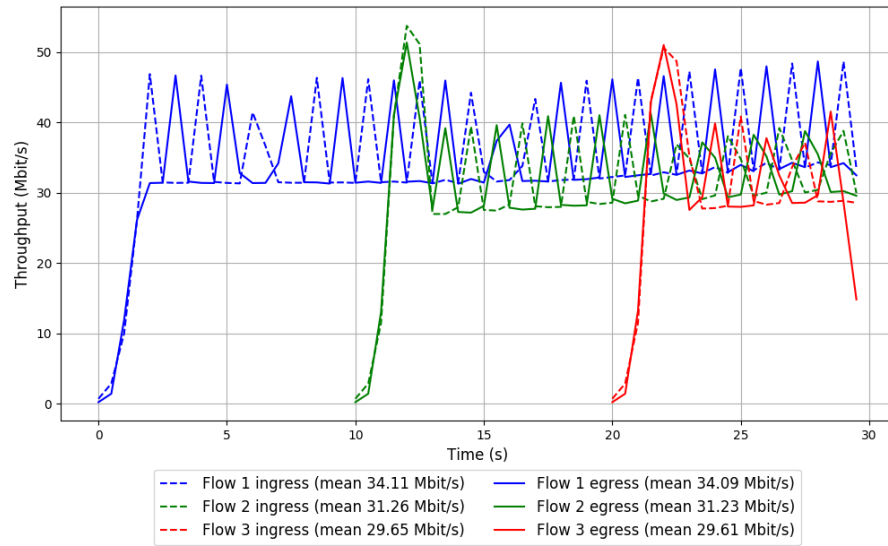
-- Flow 3:

Average throughput: 29.61 Mbit/s

95th percentile per-packet one-way delay: 115.058 ms

Loss rate: 2.43%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-04-11 04:16:10

End at: 2018-04-11 04:16:40

Below is generated by plot.py at 2018-04-11 10:06:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.15 Mbit/s

95th percentile per-packet one-way delay: 117.528 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 33.53 Mbit/s

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

Loss rate: 0.79%

-- Flow 2:

Average throughput: 35.08 Mbit/s

95th percentile per-packet one-way delay: 118.282 ms

Loss rate: 1.22%

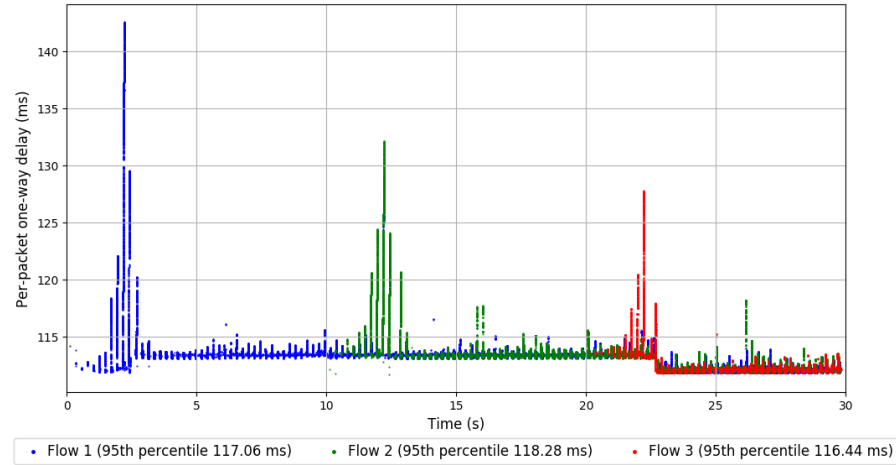
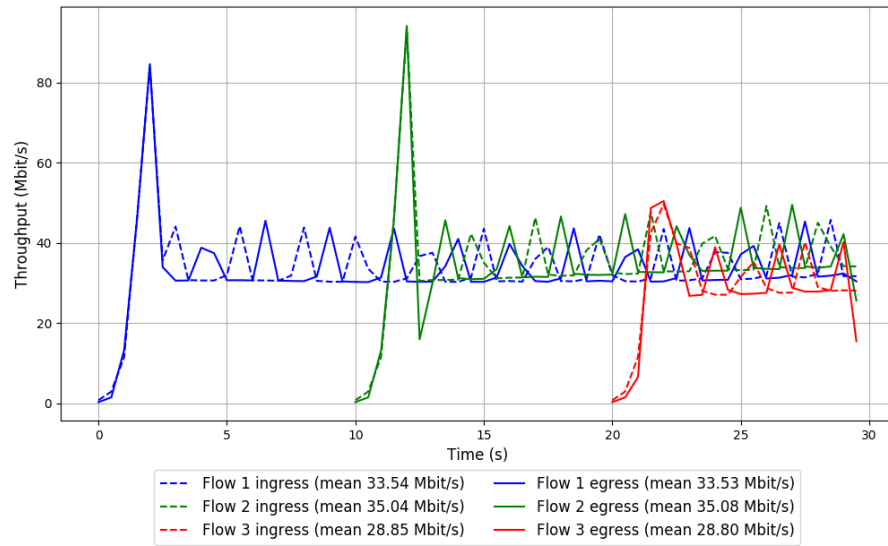
-- Flow 3:

Average throughput: 28.80 Mbit/s

95th percentile per-packet one-way delay: 116.441 ms

Loss rate: 2.46%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-04-11 04:35:18

End at: 2018-04-11 04:35:48

Below is generated by plot.py at 2018-04-11 10:06:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.15 Mbit/s

95th percentile per-packet one-way delay: 113.732 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 32.01 Mbit/s

95th percentile per-packet one-way delay: 113.766 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 54.96 Mbit/s

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

Loss rate: 1.21%

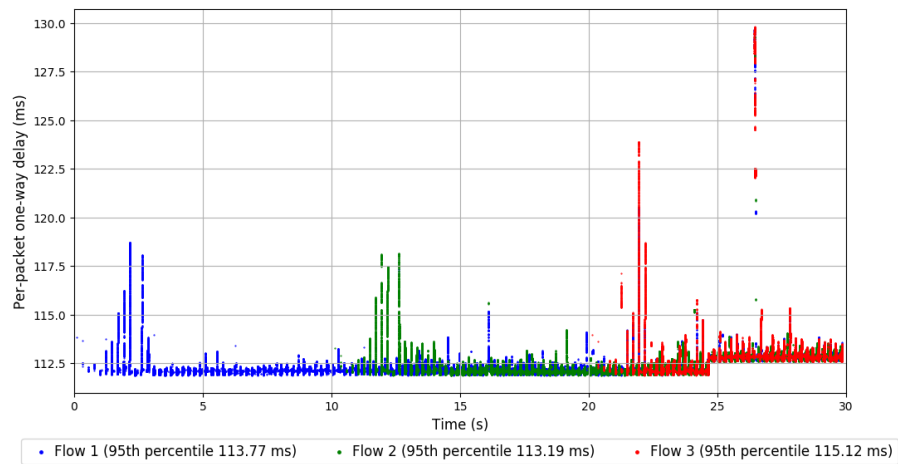
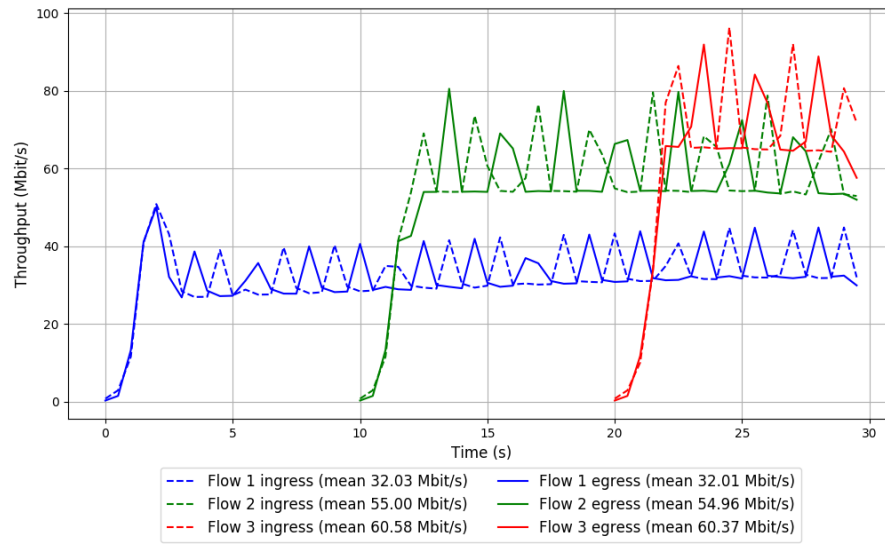
-- Flow 3:

Average throughput: 60.37 Mbit/s

95th percentile per-packet one-way delay: 115.125 ms

Loss rate: 2.60%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-04-11 04:54:27

End at: 2018-04-11 04:54:57

Below is generated by plot.py at 2018-04-11 10:06:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 65.61 Mbit/s

95th percentile per-packet one-way delay: 114.059 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 30.39 Mbit/s

95th percentile per-packet one-way delay: 114.244 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 30.59 Mbit/s

95th percentile per-packet one-way delay: 113.681 ms

Loss rate: 1.19%

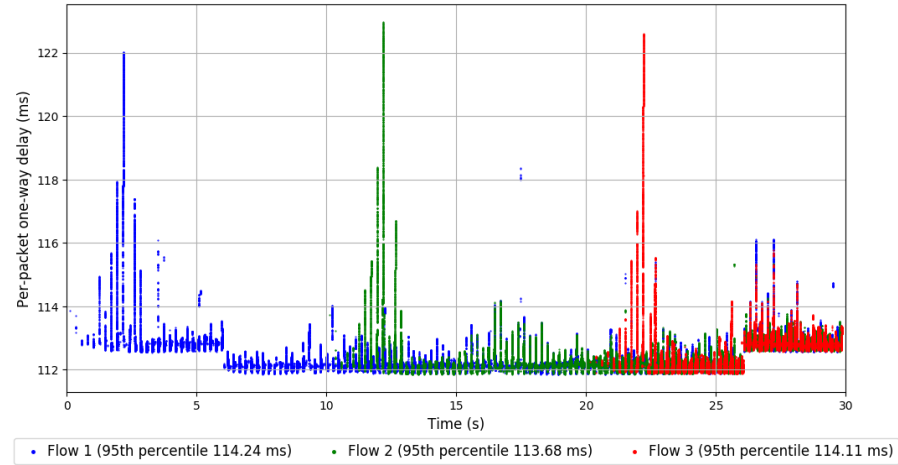
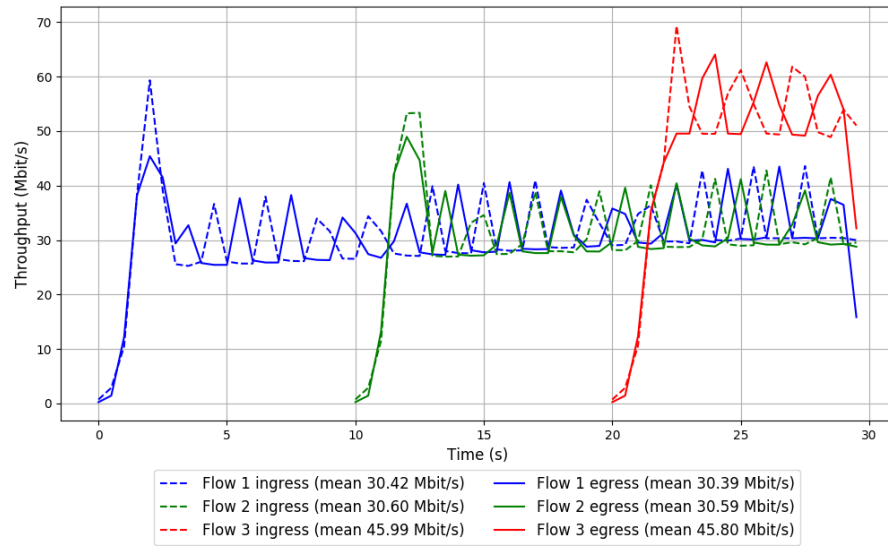
-- Flow 3:

Average throughput: 45.80 Mbit/s

95th percentile per-packet one-way delay: 114.109 ms

Loss rate: 2.66%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-04-11 05:13:28

End at: 2018-04-11 05:13:58

Below is generated by plot.py at 2018-04-11 10:06:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.74 Mbit/s

95th percentile per-packet one-way delay: 118.909 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 25.42 Mbit/s

95th percentile per-packet one-way delay: 117.181 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 37.56 Mbit/s

95th percentile per-packet one-way delay: 118.875 ms

Loss rate: 1.17%

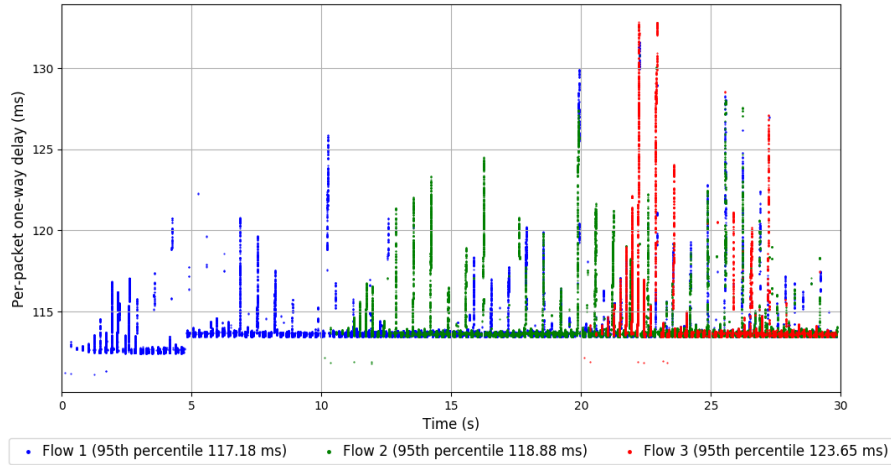
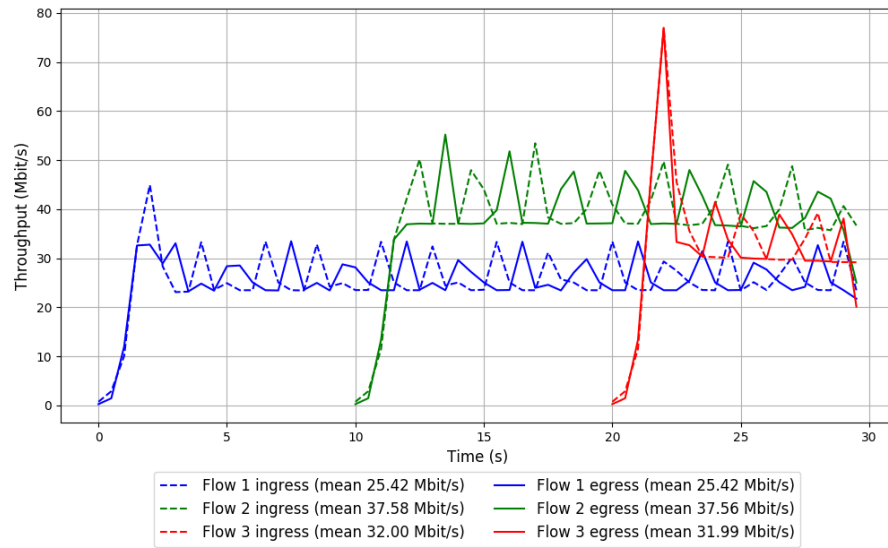
-- Flow 3:

Average throughput: 31.99 Mbit/s

95th percentile per-packet one-way delay: 123.652 ms

Loss rate: 2.30%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-04-11 05:32:42

End at: 2018-04-11 05:33:12

Below is generated by plot.py at 2018-04-11 10:06:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 51.61 Mbit/s

95th percentile per-packet one-way delay: 115.273 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 16.94 Mbit/s

95th percentile per-packet one-way delay: 114.375 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 38.36 Mbit/s

95th percentile per-packet one-way delay: 115.072 ms

Loss rate: 1.25%

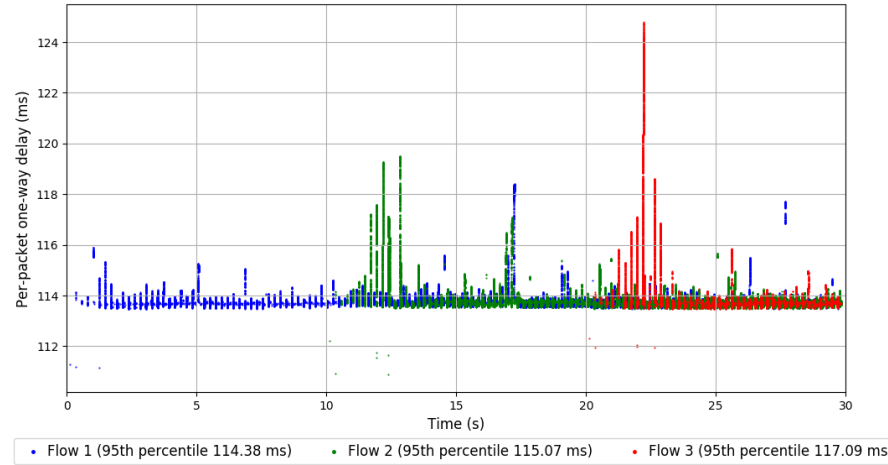
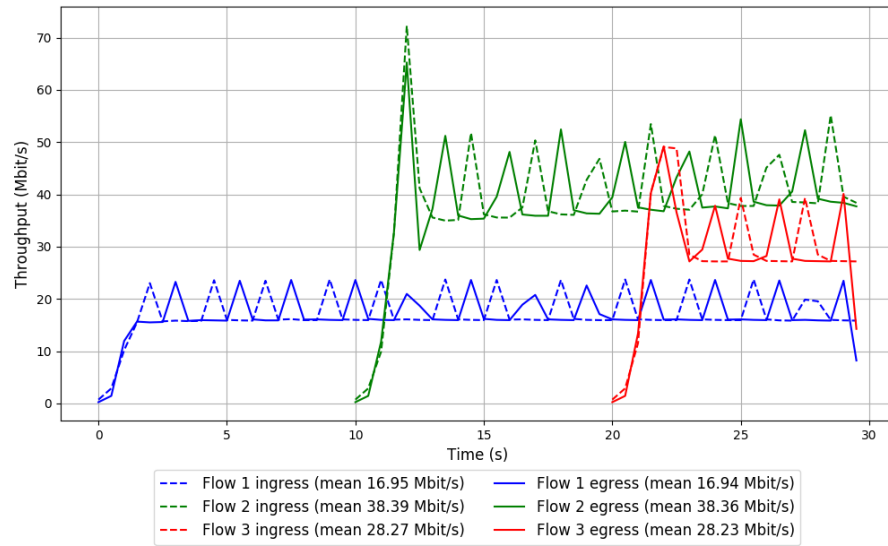
-- Flow 3:

Average throughput: 28.23 Mbit/s

95th percentile per-packet one-way delay: 117.095 ms

Loss rate: 2.42%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-04-11 05:52:01

End at: 2018-04-11 05:52:31

Below is generated by plot.py at 2018-04-11 10:06:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 106.72 Mbit/s

95th percentile per-packet one-way delay: 117.707 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 56.79 Mbit/s

95th percentile per-packet one-way delay: 115.223 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 55.69 Mbit/s

95th percentile per-packet one-way delay: 119.506 ms

Loss rate: 1.25%

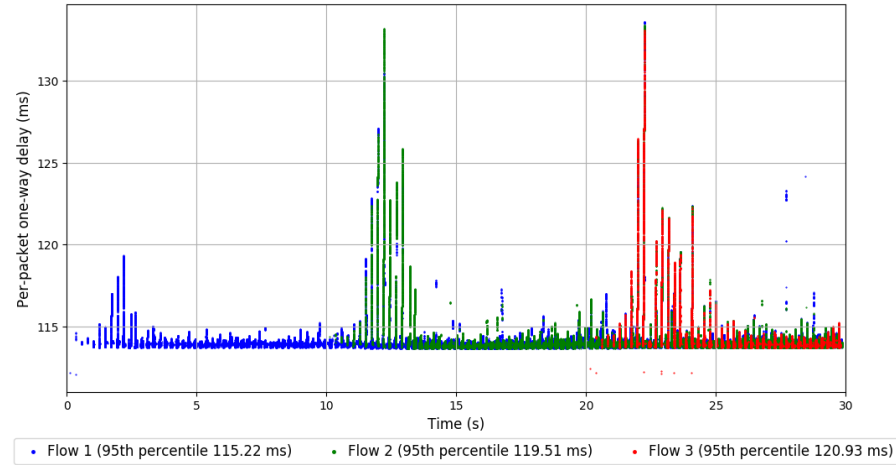
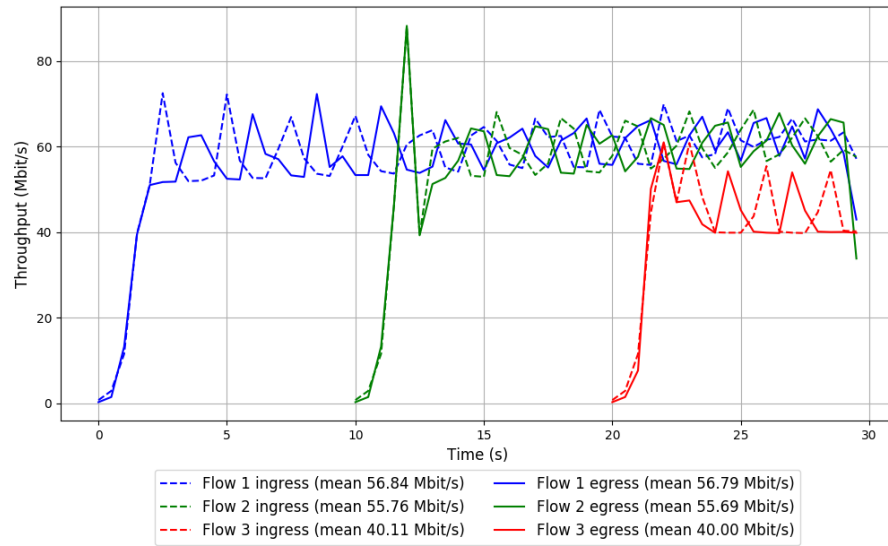
-- Flow 3:

Average throughput: 40.00 Mbit/s

95th percentile per-packet one-way delay: 120.932 ms

Loss rate: 2.53%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-04-11 06:11:22

End at: 2018-04-11 06:11:52

Below is generated by plot.py at 2018-04-11 10:06:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.36 Mbit/s

95th percentile per-packet one-way delay: 115.941 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 31.97 Mbit/s

95th percentile per-packet one-way delay: 115.065 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 53.50 Mbit/s

95th percentile per-packet one-way delay: 115.924 ms

Loss rate: 1.21%

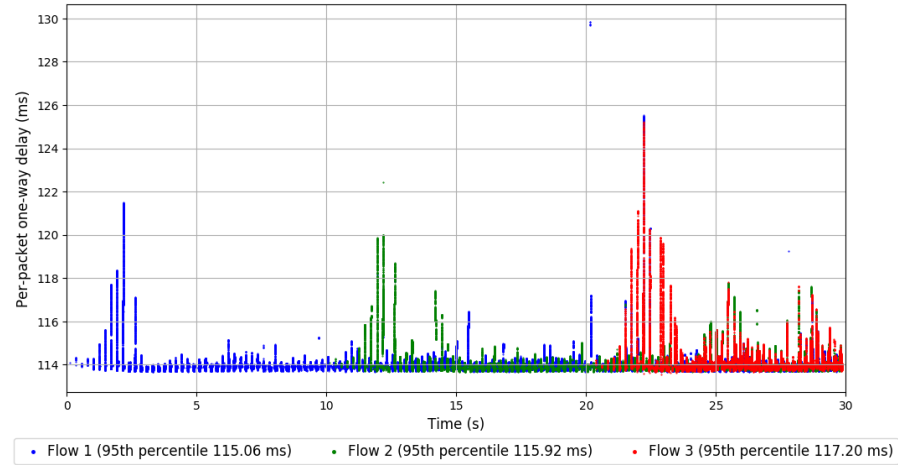
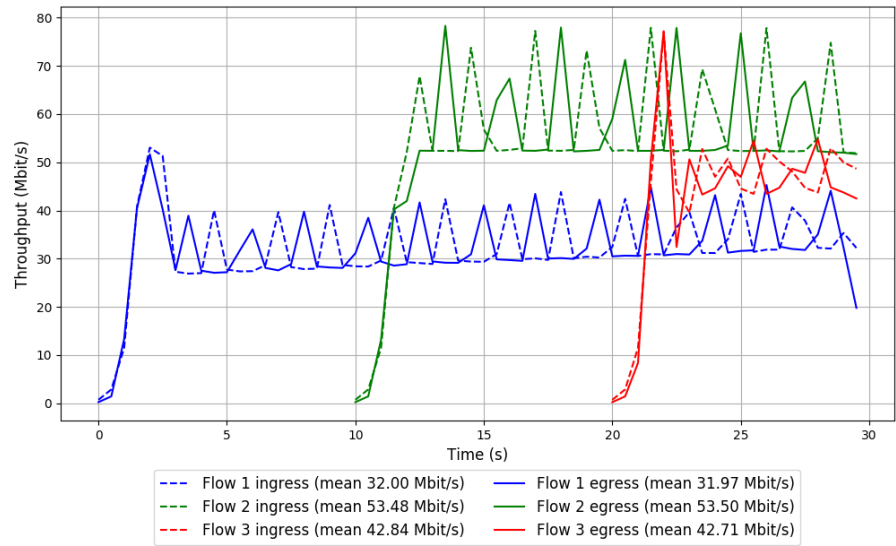
-- Flow 3:

Average throughput: 42.71 Mbit/s

95th percentile per-packet one-way delay: 117.198 ms

Loss rate: 2.56%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-04-11 03:16:24

End at: 2018-04-11 03:16:54

Below is generated by plot.py at 2018-04-11 10:08:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 303.19 Mbit/s

95th percentile per-packet one-way delay: 245.249 ms

Loss rate: 1.79%

-- Flow 1:

Average throughput: 204.16 Mbit/s

95th percentile per-packet one-way delay: 226.546 ms

Loss rate: 1.18%

-- Flow 2:

Average throughput: 130.28 Mbit/s

95th percentile per-packet one-way delay: 306.201 ms

Loss rate: 1.90%

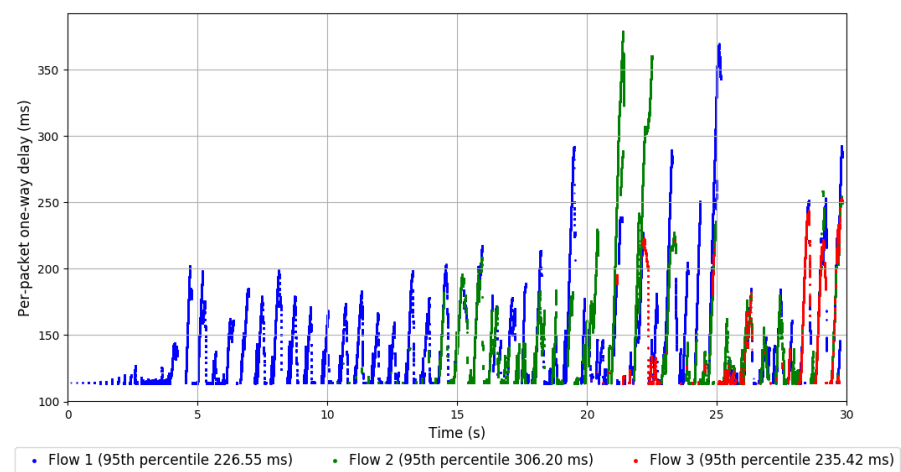
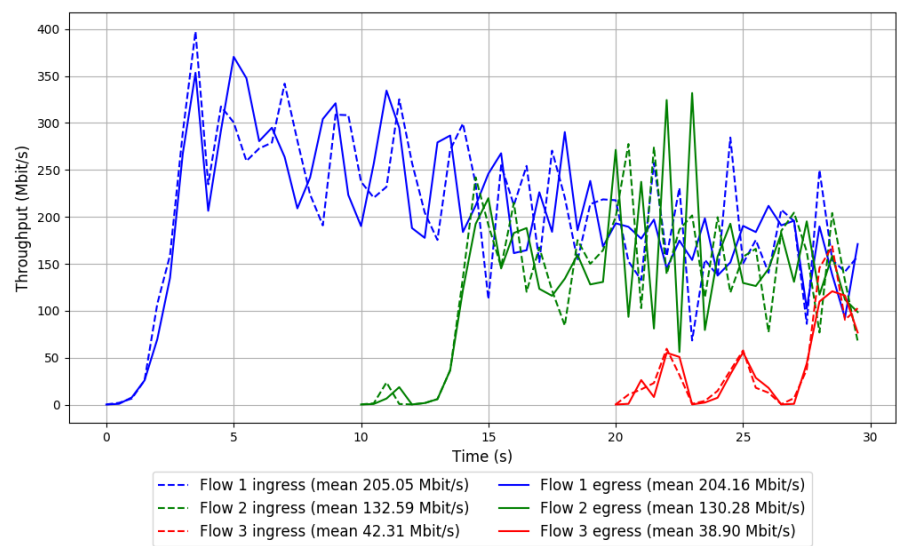
-- Flow 3:

Average throughput: 38.90 Mbit/s

95th percentile per-packet one-way delay: 235.421 ms

Loss rate: 10.00%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-04-11 03:35:09

End at: 2018-04-11 03:35:39

Below is generated by plot.py at 2018-04-11 10:08:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 208.26 Mbit/s

95th percentile per-packet one-way delay: 218.094 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 73.32 Mbit/s

95th percentile per-packet one-way delay: 148.926 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 114.35 Mbit/s

95th percentile per-packet one-way delay: 174.858 ms

Loss rate: 0.50%

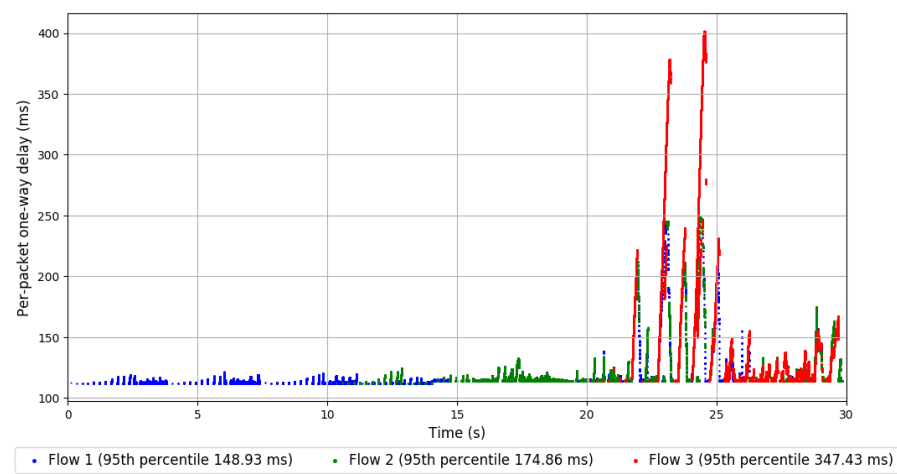
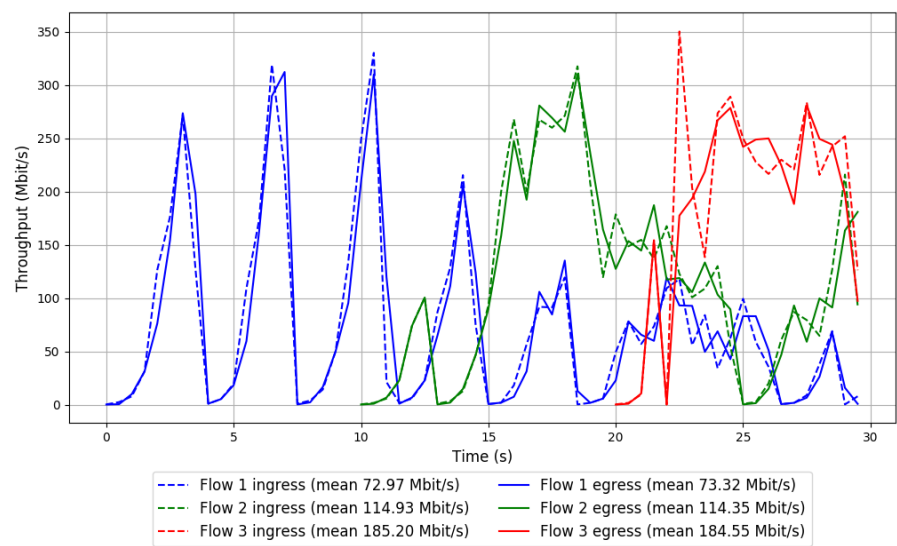
-- Flow 3:

Average throughput: 184.55 Mbit/s

95th percentile per-packet one-way delay: 347.425 ms

Loss rate: 4.37%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-04-11 03:54:20

End at: 2018-04-11 03:54:50

Below is generated by plot.py at 2018-04-11 10:08:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 248.14 Mbit/s

95th percentile per-packet one-way delay: 300.216 ms

Loss rate: 4.24%

-- Flow 1:

Average throughput: 175.73 Mbit/s

95th percentile per-packet one-way delay: 310.719 ms

Loss rate: 3.84%

-- Flow 2:

Average throughput: 63.60 Mbit/s

95th percentile per-packet one-way delay: 221.214 ms

Loss rate: 1.58%

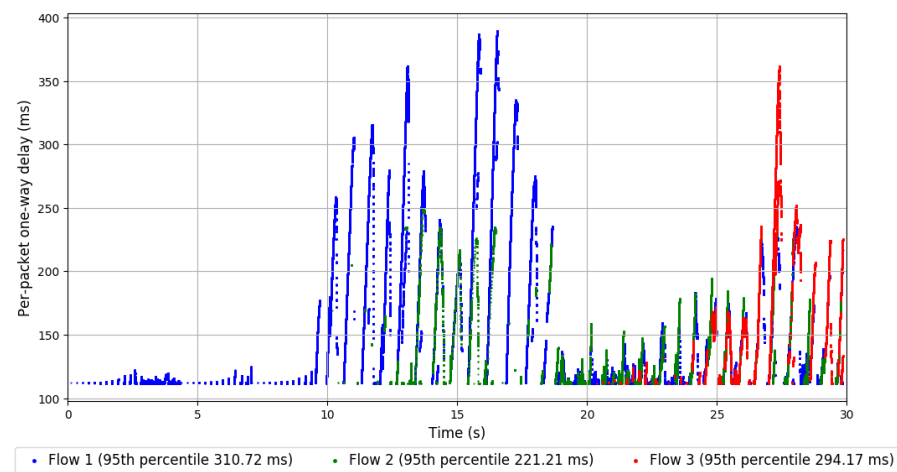
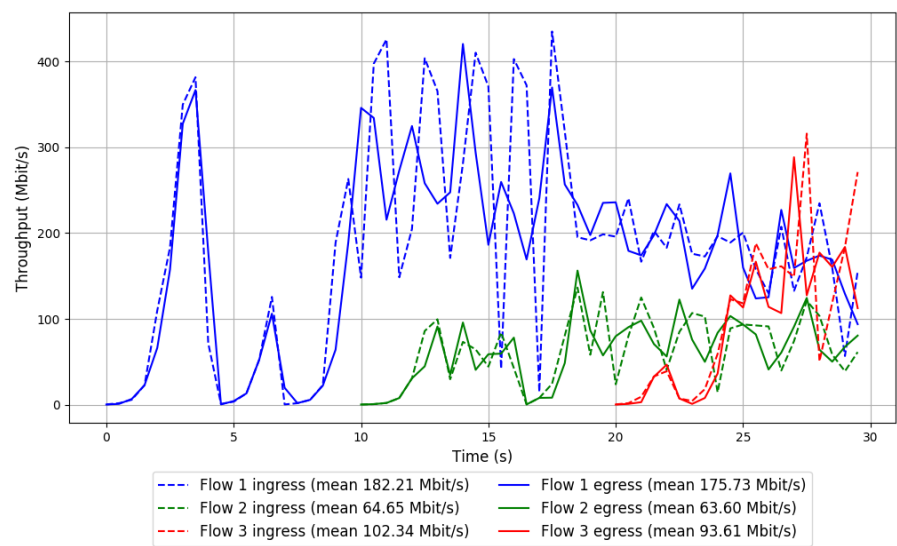
-- Flow 3:

Average throughput: 93.61 Mbit/s

95th percentile per-packet one-way delay: 294.171 ms

Loss rate: 9.76%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-04-11 04:13:26

End at: 2018-04-11 04:13:56

Below is generated by plot.py at 2018-04-11 10:08:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 229.34 Mbit/s

95th percentile per-packet one-way delay: 177.406 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 102.27 Mbit/s

95th percentile per-packet one-way delay: 163.644 ms

Loss rate: 1.36%

-- Flow 2:

Average throughput: 170.47 Mbit/s

95th percentile per-packet one-way delay: 204.305 ms

Loss rate: 1.87%

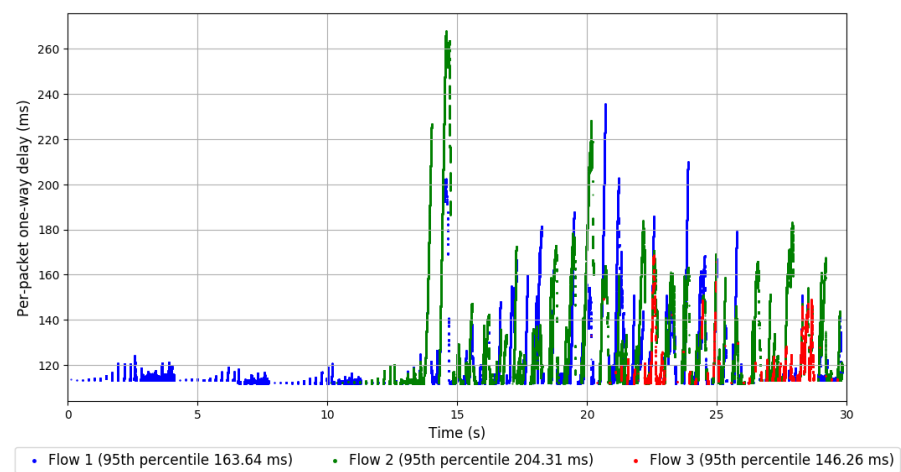
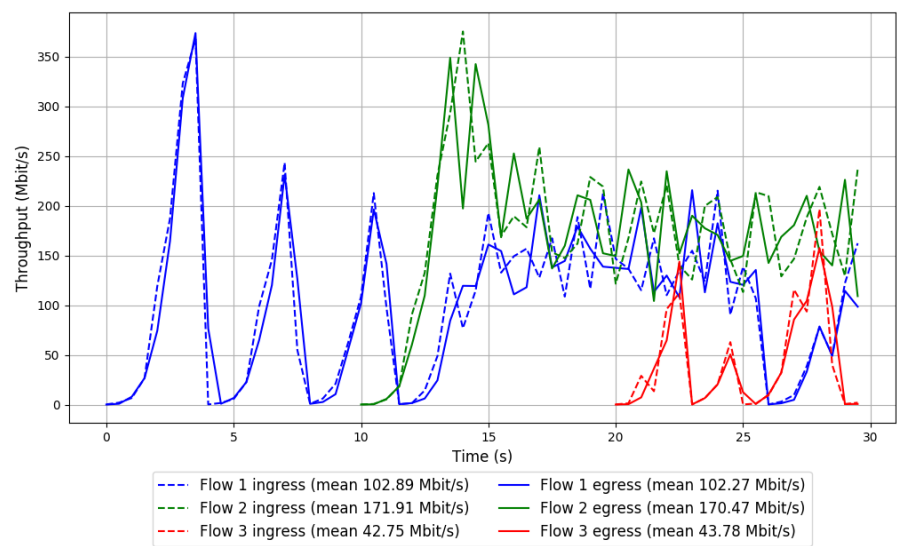
-- Flow 3:

Average throughput: 43.78 Mbit/s

95th percentile per-packet one-way delay: 146.264 ms

Loss rate: 0.16%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-04-11 04:32:38

End at: 2018-04-11 04:33:08

Below is generated by plot.py at 2018-04-11 10:08:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 187.03 Mbit/s

95th percentile per-packet one-way delay: 128.268 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 128.27 Mbit/s

95th percentile per-packet one-way delay: 125.757 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 60.52 Mbit/s

95th percentile per-packet one-way delay: 126.733 ms

Loss rate: 0.19%

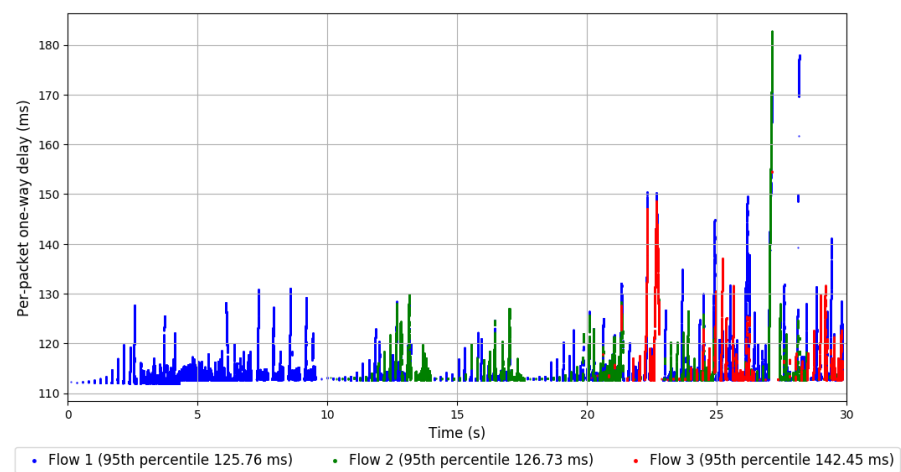
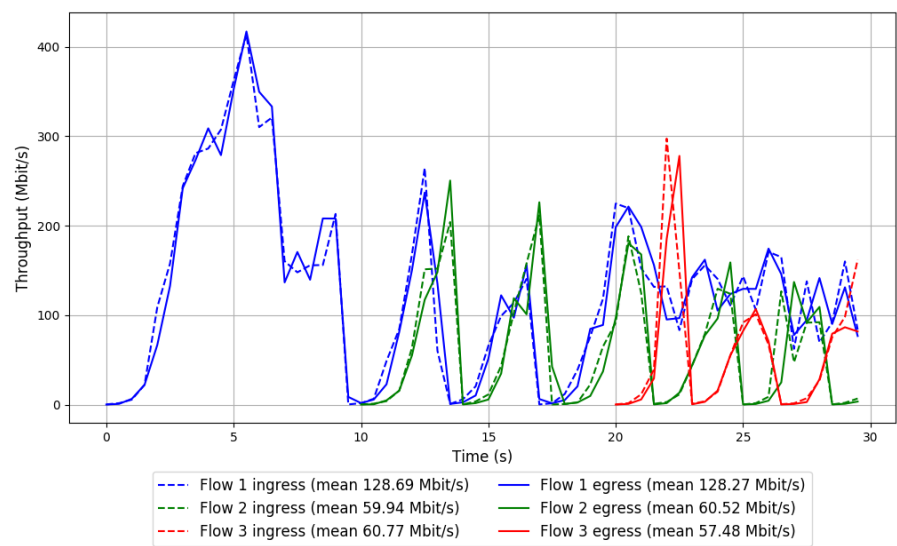
-- Flow 3:

Average throughput: 57.48 Mbit/s

95th percentile per-packet one-way delay: 142.450 ms

Loss rate: 7.63%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-04-11 04:51:45

End at: 2018-04-11 04:52:15

Below is generated by plot.py at 2018-04-11 10:08:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 194.23 Mbit/s

95th percentile per-packet one-way delay: 151.299 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 96.56 Mbit/s

95th percentile per-packet one-way delay: 137.115 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 111.98 Mbit/s

95th percentile per-packet one-way delay: 137.894 ms

Loss rate: 0.05%

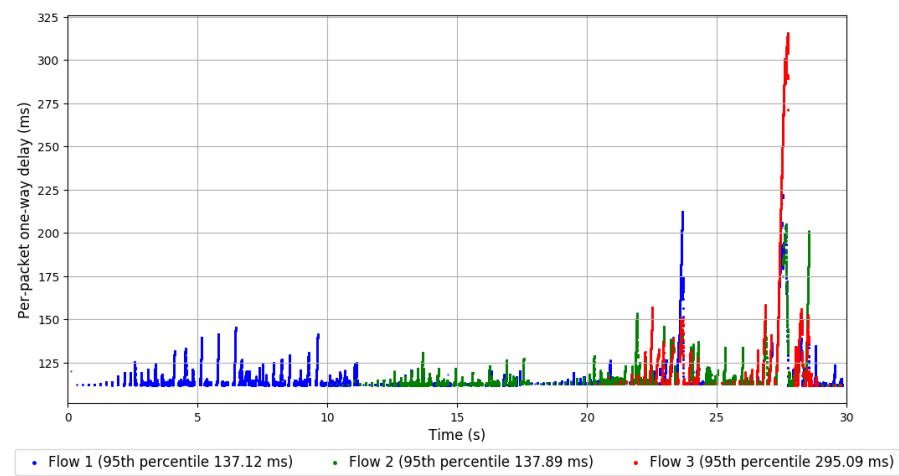
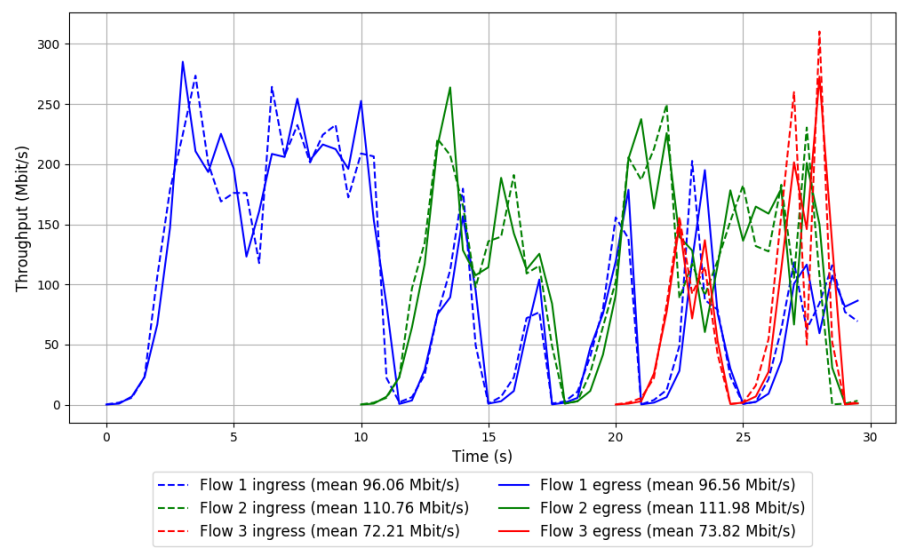
-- Flow 3:

Average throughput: 73.82 Mbit/s

95th percentile per-packet one-way delay: 295.092 ms

Loss rate: 0.09%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-04-11 05:10:43

End at: 2018-04-11 05:11:13

Below is generated by plot.py at 2018-04-11 10:10:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 241.46 Mbit/s

95th percentile per-packet one-way delay: 211.691 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 139.58 Mbit/s

95th percentile per-packet one-way delay: 187.195 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 130.37 Mbit/s

95th percentile per-packet one-way delay: 236.524 ms

Loss rate: 3.63%

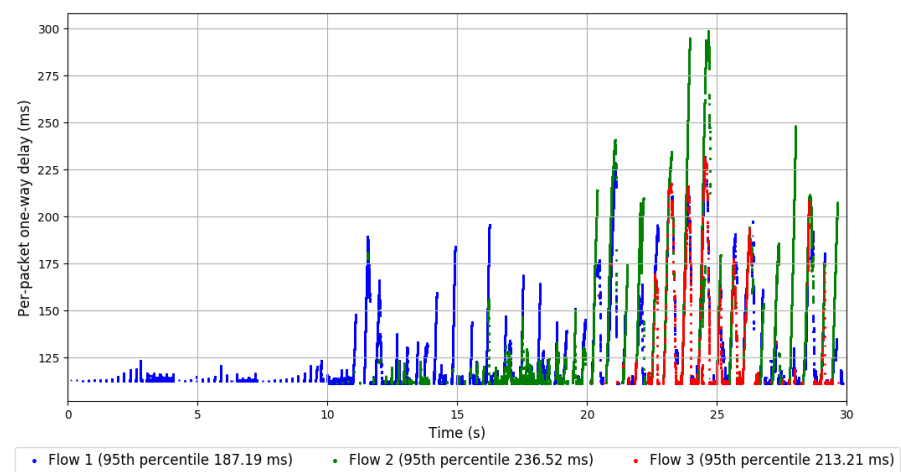
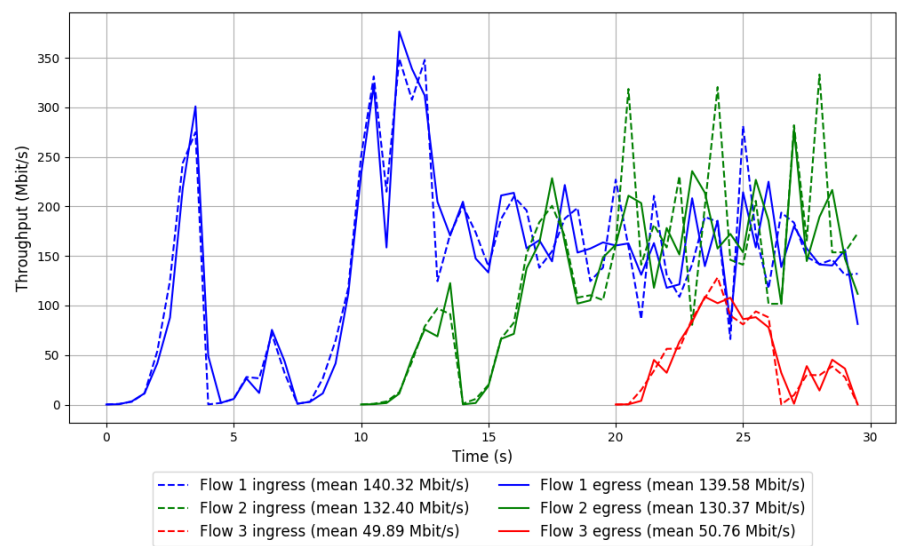
-- Flow 3:

Average throughput: 50.76 Mbit/s

95th percentile per-packet one-way delay: 213.212 ms

Loss rate: 0.60%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-04-11 05:29:58

End at: 2018-04-11 05:30:28

Below is generated by plot.py at 2018-04-11 10:11:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 255.22 Mbit/s

95th percentile per-packet one-way delay: 236.095 ms

Loss rate: 2.25%

-- Flow 1:

Average throughput: 156.90 Mbit/s

95th percentile per-packet one-way delay: 214.374 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 96.68 Mbit/s

95th percentile per-packet one-way delay: 265.482 ms

Loss rate: 4.75%

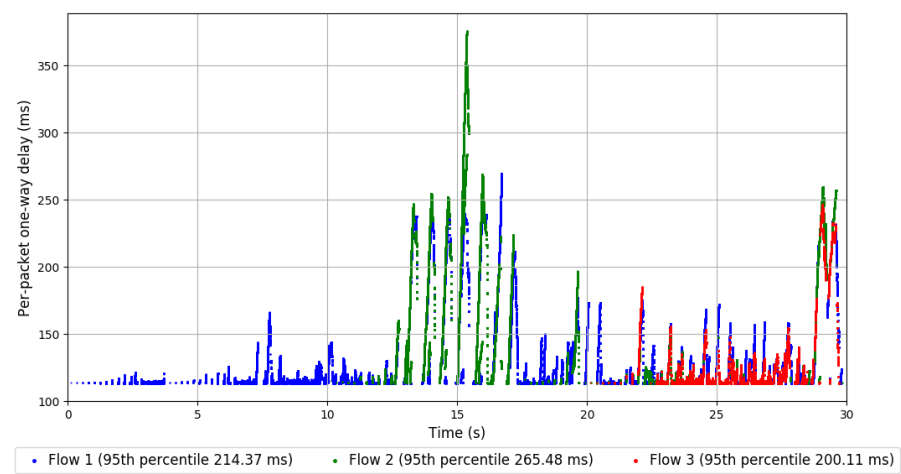
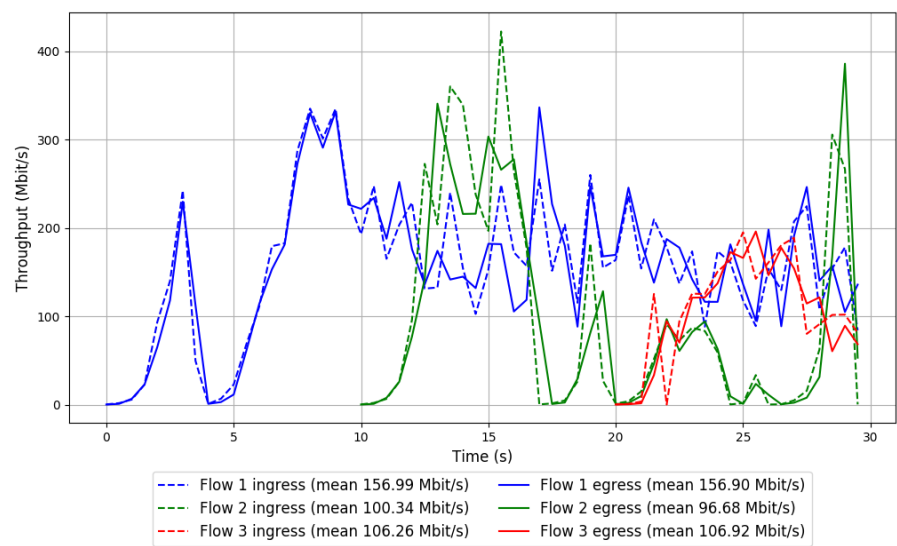
-- Flow 3:

Average throughput: 106.92 Mbit/s

95th percentile per-packet one-way delay: 200.108 ms

Loss rate: 3.15%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-04-11 05:49:17

End at: 2018-04-11 05:49:48

Below is generated by plot.py at 2018-04-11 10:11:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 224.43 Mbit/s

95th percentile per-packet one-way delay: 203.828 ms

Loss rate: 2.98%

-- Flow 1:

Average throughput: 95.67 Mbit/s

95th percentile per-packet one-way delay: 162.174 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 128.27 Mbit/s

95th percentile per-packet one-way delay: 179.313 ms

Loss rate: 2.31%

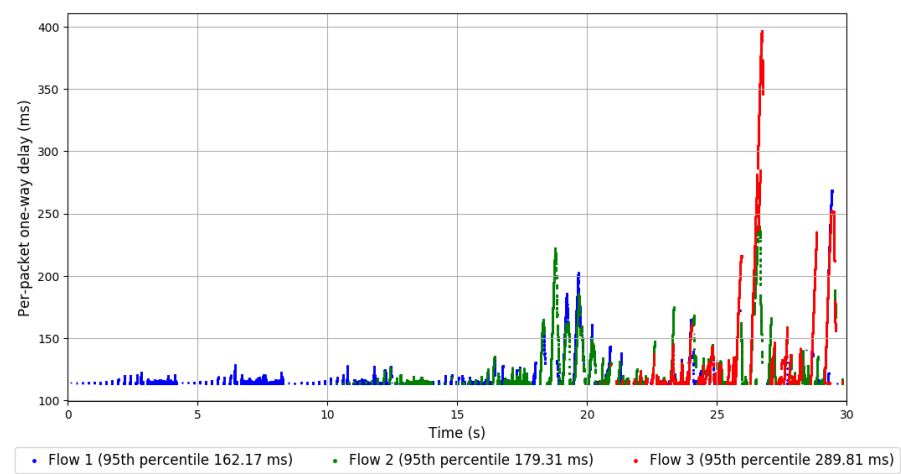
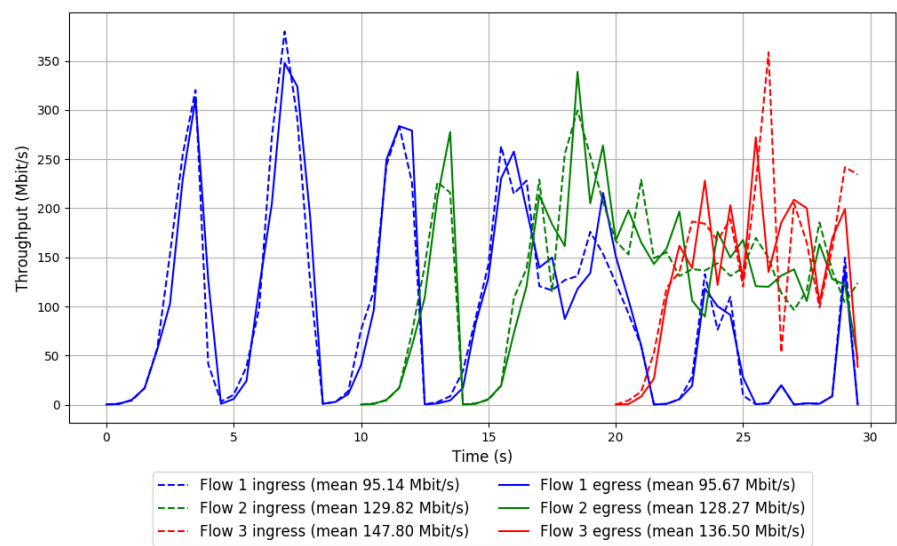
-- Flow 3:

Average throughput: 136.50 Mbit/s

95th percentile per-packet one-way delay: 289.815 ms

Loss rate: 9.51%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-04-11 06:08:37

End at: 2018-04-11 06:09:07

Below is generated by plot.py at 2018-04-11 10:11:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 236.01 Mbit/s

95th percentile per-packet one-way delay: 190.767 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 107.15 Mbit/s

95th percentile per-packet one-way delay: 162.629 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 170.43 Mbit/s

95th percentile per-packet one-way delay: 231.847 ms

Loss rate: 1.38%

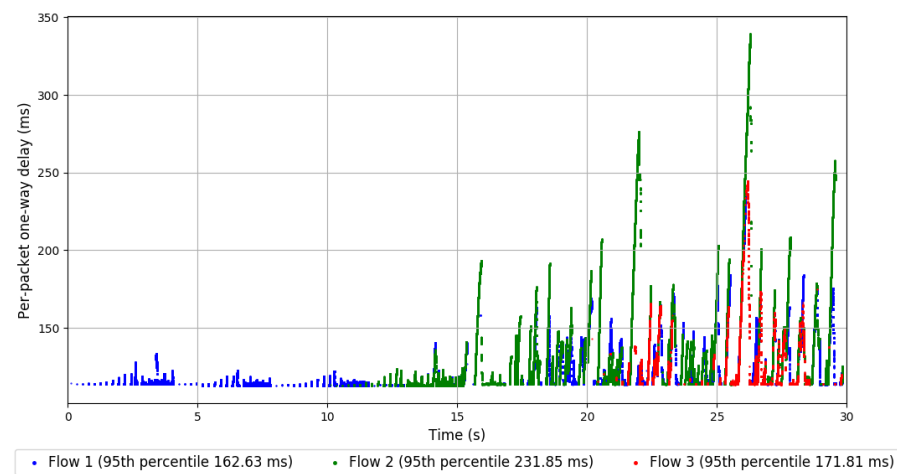
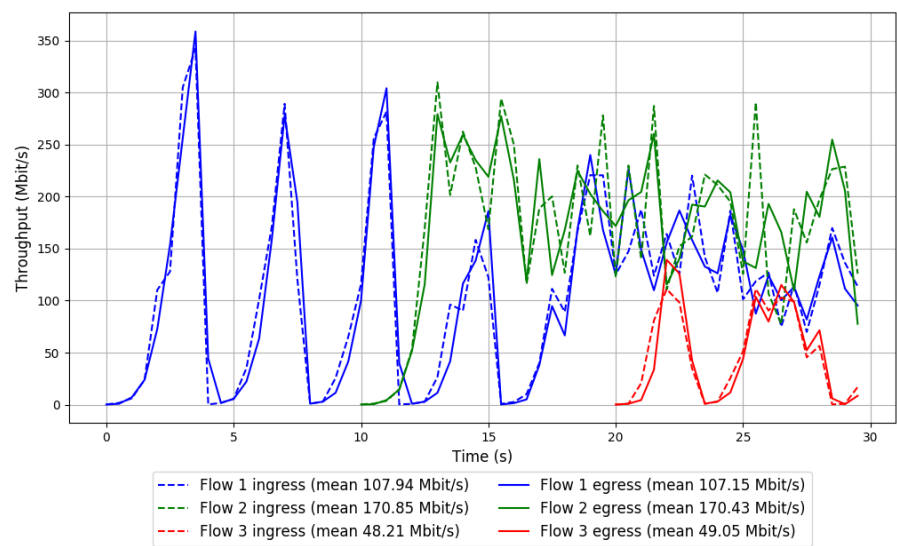
-- Flow 3:

Average throughput: 49.05 Mbit/s

95th percentile per-packet one-way delay: 171.807 ms

Loss rate: 0.95%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

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

End at: 2018-04-11 03:14:34

Below is generated by plot.py at 2018-04-11 10:12:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 160.28 Mbit/s

95th percentile per-packet one-way delay: 117.089 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 88.53 Mbit/s

95th percentile per-packet one-way delay: 114.316 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 73.18 Mbit/s

95th percentile per-packet one-way delay: 114.328 ms

Loss rate: 1.12%

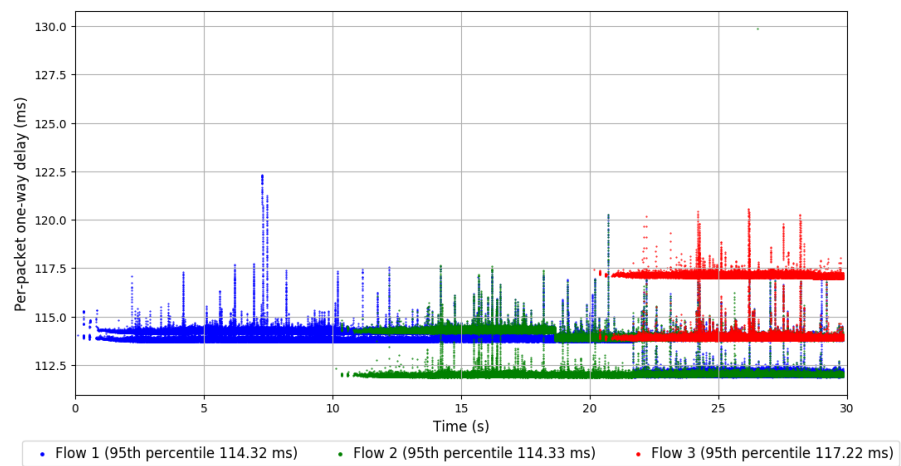
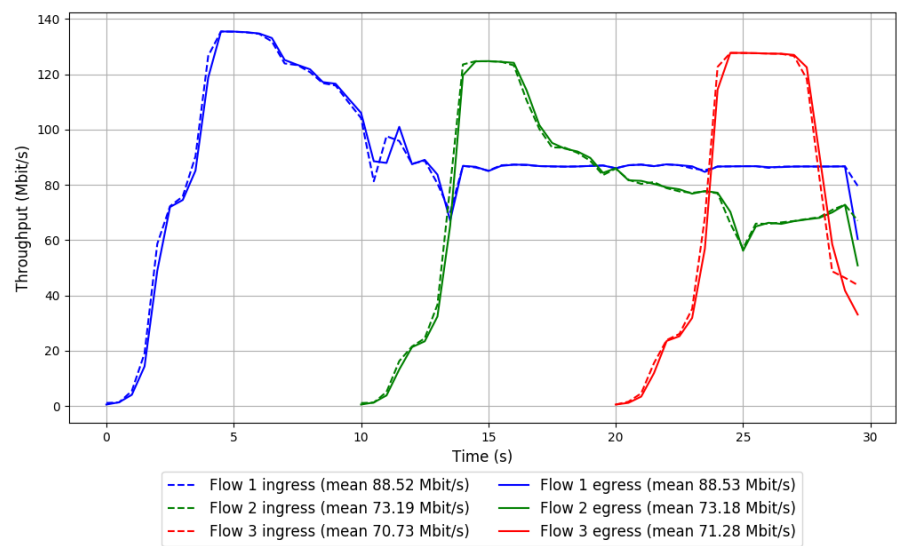
-- Flow 3:

Average throughput: 71.28 Mbit/s

95th percentile per-packet one-way delay: 117.217 ms

Loss rate: 1.53%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-04-11 03:32:56

End at: 2018-04-11 03:33:26

Below is generated by plot.py at 2018-04-11 10:12:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.48 Mbit/s

95th percentile per-packet one-way delay: 116.030 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 82.15 Mbit/s

95th percentile per-packet one-way delay: 114.005 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 51.40 Mbit/s

95th percentile per-packet one-way delay: 116.098 ms

Loss rate: 0.41%

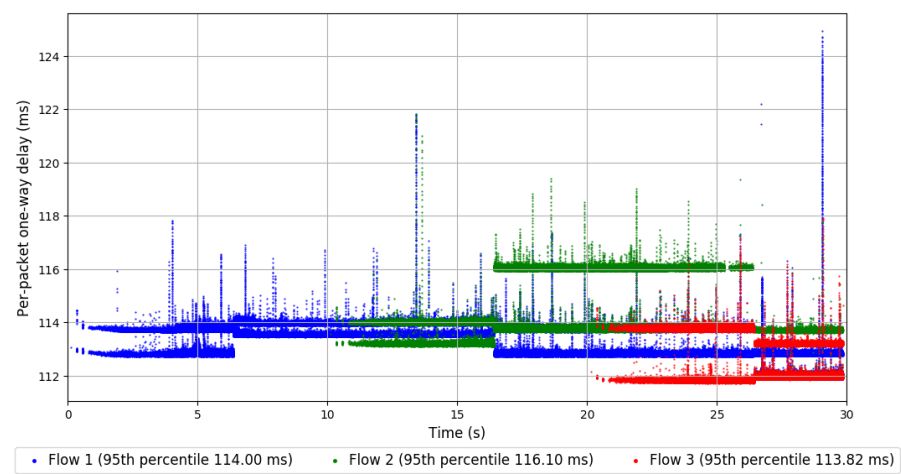
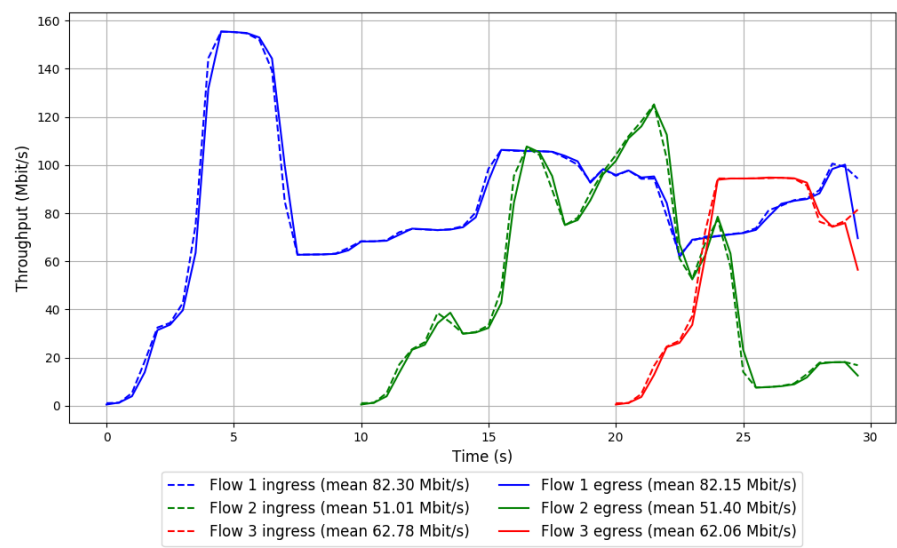
-- Flow 3:

Average throughput: 62.06 Mbit/s

95th percentile per-packet one-way delay: 113.816 ms

Loss rate: 3.42%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-04-11 03:52:03

End at: 2018-04-11 03:52:33

Below is generated by plot.py at 2018-04-11 10:12:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 123.68 Mbit/s

95th percentile per-packet one-way delay: 113.532 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 60.54 Mbit/s

95th percentile per-packet one-way delay: 113.578 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 61.76 Mbit/s

95th percentile per-packet one-way delay: 113.274 ms

Loss rate: 1.35%

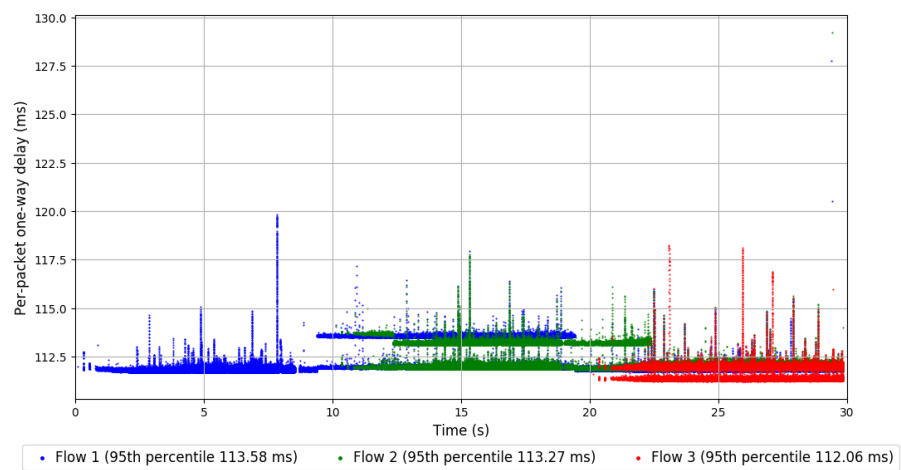
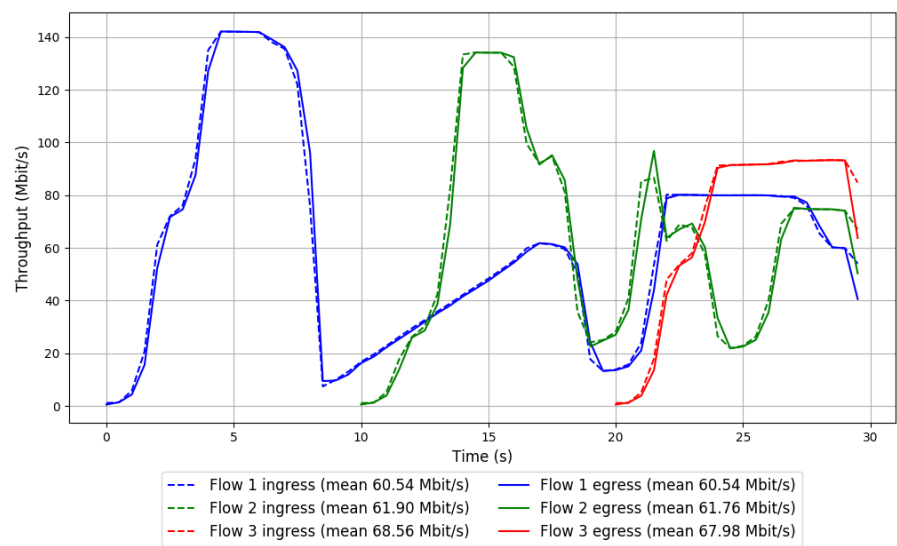
-- Flow 3:

Average throughput: 67.98 Mbit/s

95th percentile per-packet one-way delay: 112.058 ms

Loss rate: 3.08%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-04-11 04:11:04

End at: 2018-04-11 04:11:34

Below is generated by plot.py at 2018-04-11 10:13:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 150.63 Mbit/s

95th percentile per-packet one-way delay: 113.111 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 81.70 Mbit/s

95th percentile per-packet one-way delay: 112.197 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 70.80 Mbit/s

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

Loss rate: 1.17%

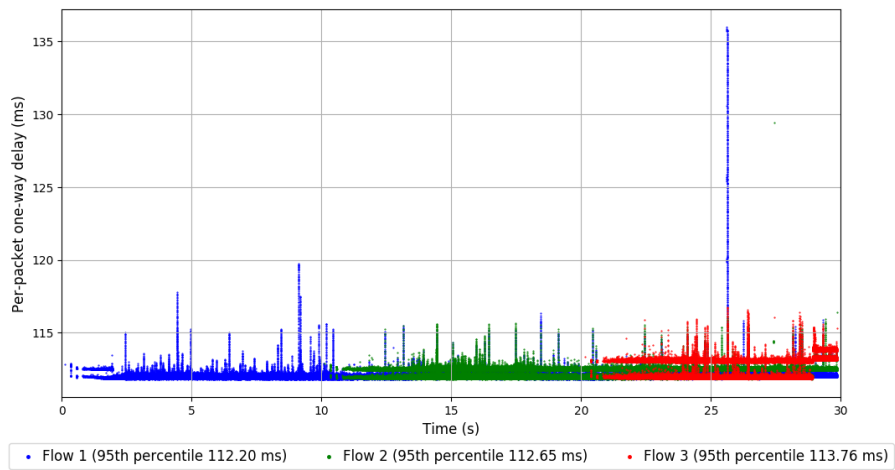
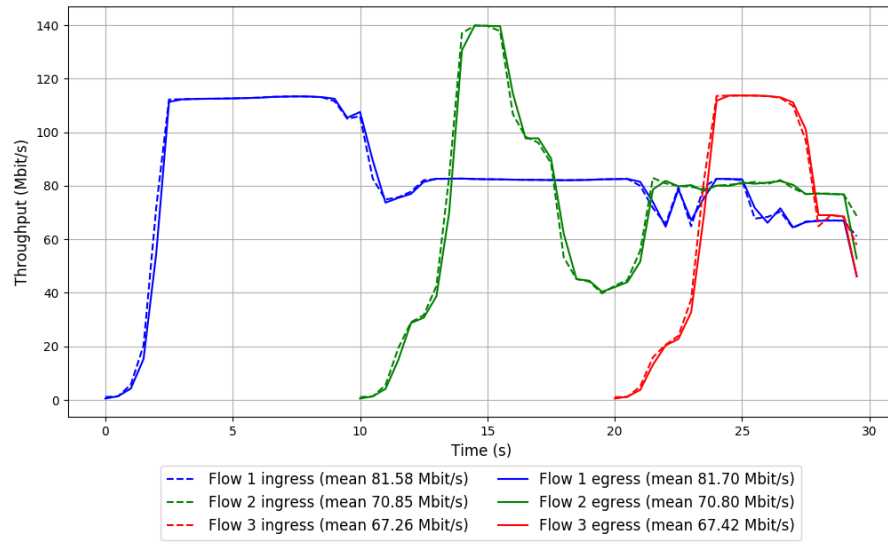
-- Flow 3:

Average throughput: 67.42 Mbit/s

95th percentile per-packet one-way delay: 113.759 ms

Loss rate: 2.03%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-04-11 04:30:18

End at: 2018-04-11 04:30:48

Below is generated by plot.py at 2018-04-11 10:14:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.71 Mbit/s

95th percentile per-packet one-way delay: 112.842 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 77.40 Mbit/s

95th percentile per-packet one-way delay: 112.872 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 60.62 Mbit/s

95th percentile per-packet one-way delay: 113.256 ms

Loss rate: 1.32%

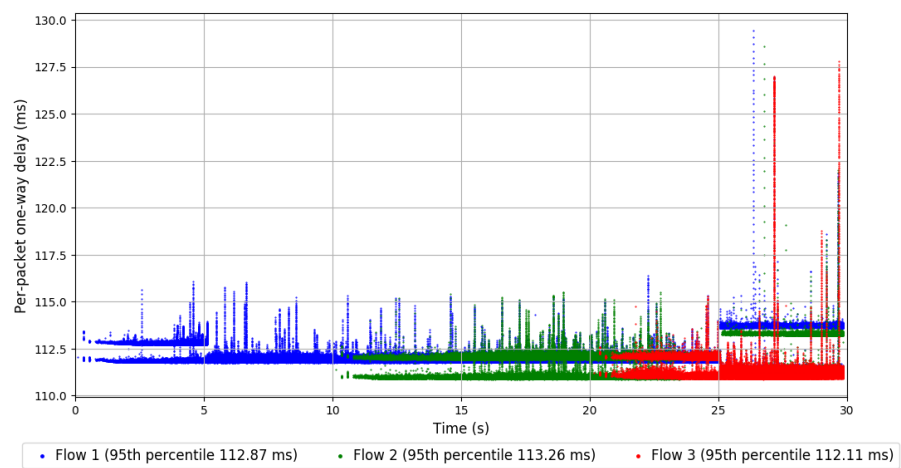
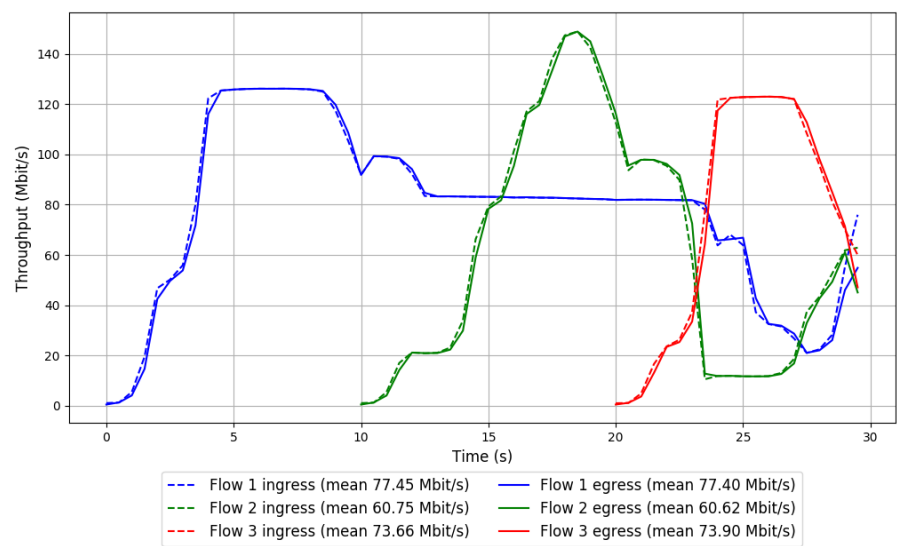
-- Flow 3:

Average throughput: 73.90 Mbit/s

95th percentile per-packet one-way delay: 112.106 ms

Loss rate: 1.93%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-04-11 04:49:22

End at: 2018-04-11 04:49:52

Below is generated by plot.py at 2018-04-11 10:15:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 162.83 Mbit/s

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

Loss rate: 1.06%

-- Flow 1:

Average throughput: 84.24 Mbit/s

95th percentile per-packet one-way delay: 112.973 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 81.59 Mbit/s

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

Loss rate: 1.10%

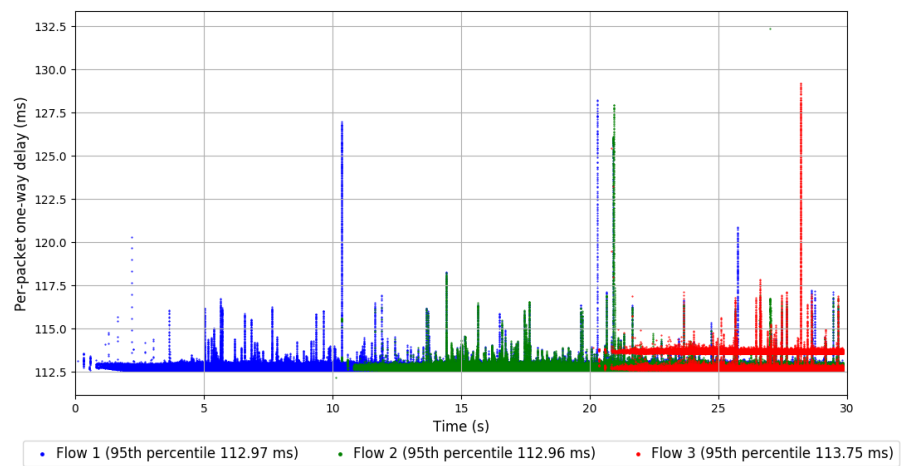
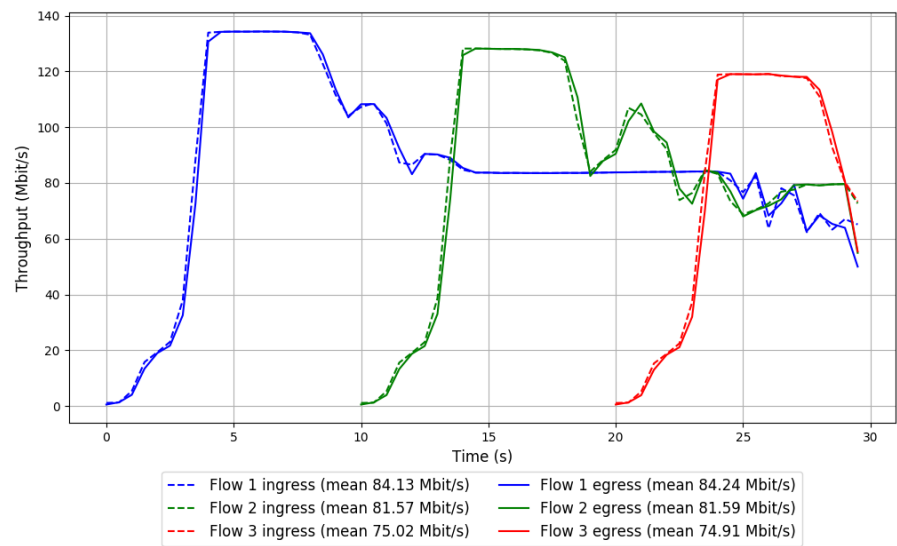
-- Flow 3:

Average throughput: 74.91 Mbit/s

95th percentile per-packet one-way delay: 113.754 ms

Loss rate: 2.42%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-04-11 05:08:16

End at: 2018-04-11 05:08:46

Below is generated by plot.py at 2018-04-11 10:15:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.93 Mbit/s

95th percentile per-packet one-way delay: 113.804 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 80.03 Mbit/s

95th percentile per-packet one-way delay: 113.824 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 79.33 Mbit/s

95th percentile per-packet one-way delay: 113.736 ms

Loss rate: 0.98%

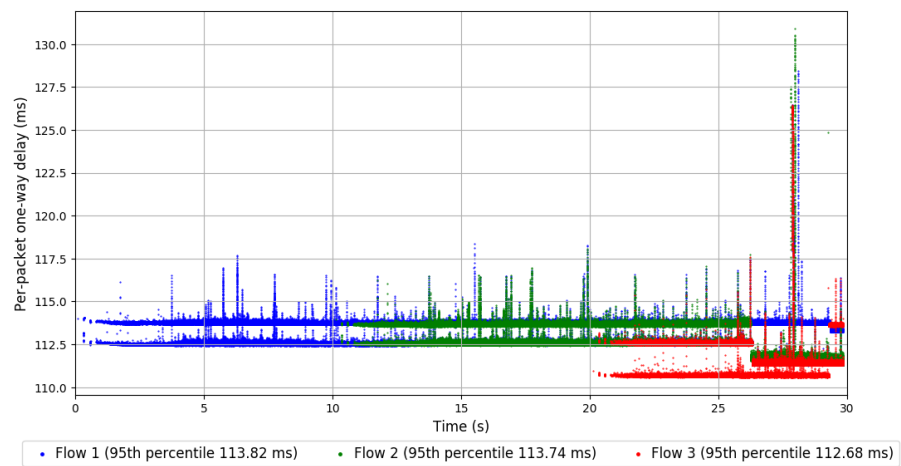
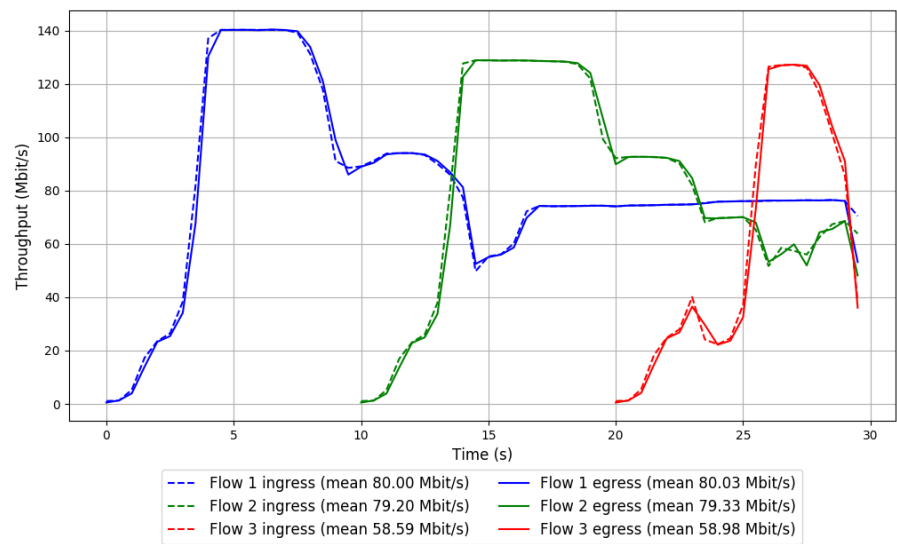
-- Flow 3:

Average throughput: 58.98 Mbit/s

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

Loss rate: 1.59%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-04-11 05:27:33

End at: 2018-04-11 05:28:03

Below is generated by plot.py at 2018-04-11 10:15:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.45 Mbit/s

95th percentile per-packet one-way delay: 113.844 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 79.53 Mbit/s

95th percentile per-packet one-way delay: 113.665 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 58.79 Mbit/s

95th percentile per-packet one-way delay: 113.920 ms

Loss rate: 1.48%

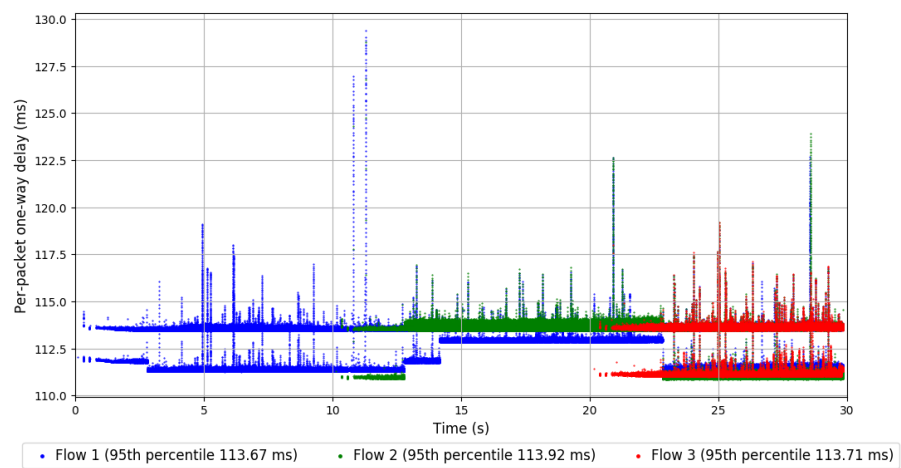
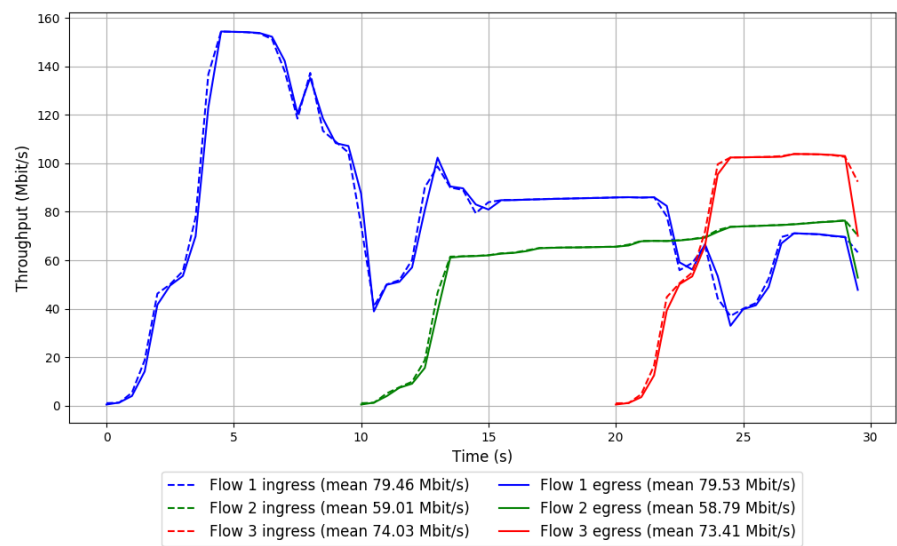
-- Flow 3:

Average throughput: 73.41 Mbit/s

95th percentile per-packet one-way delay: 113.709 ms

Loss rate: 3.09%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-04-11 05:46:58

End at: 2018-04-11 05:47:28

Below is generated by plot.py at 2018-04-11 10:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.12 Mbit/s

95th percentile per-packet one-way delay: 113.887 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 77.70 Mbit/s

95th percentile per-packet one-way delay: 113.876 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 55.01 Mbit/s

95th percentile per-packet one-way delay: 113.883 ms

Loss rate: 0.82%

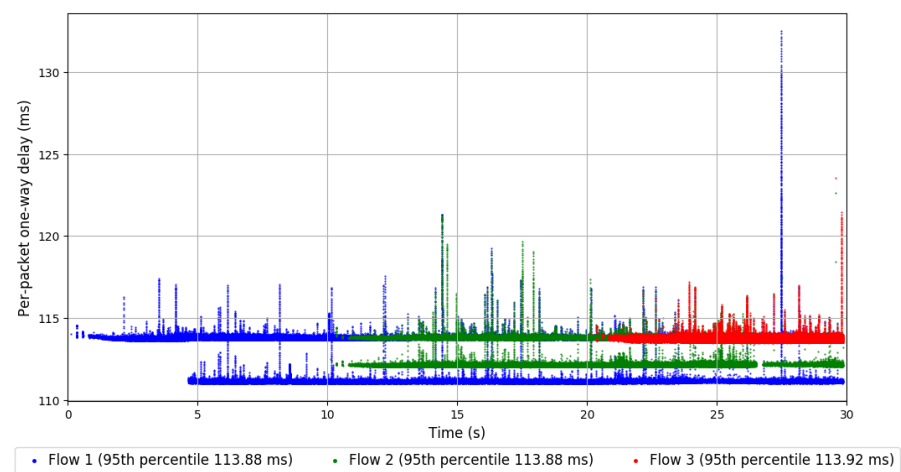
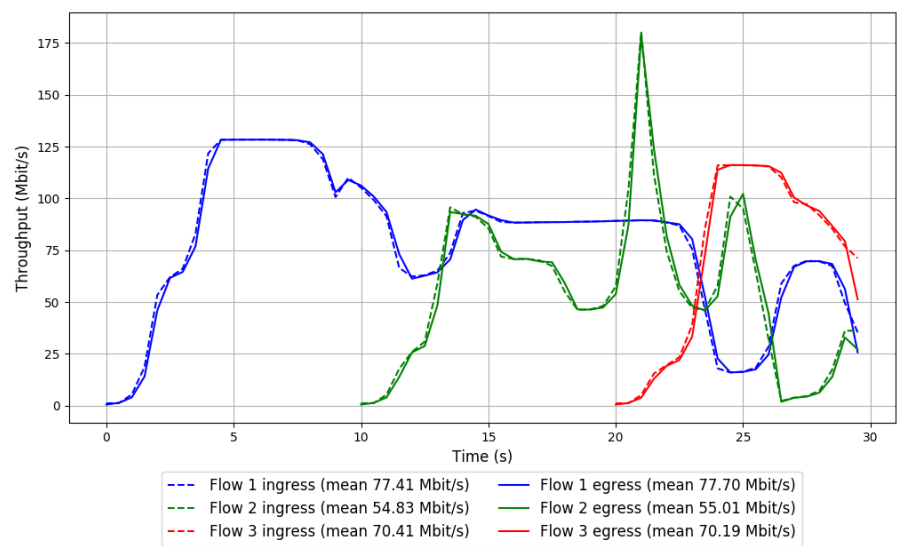
-- Flow 3:

Average throughput: 70.19 Mbit/s

95th percentile per-packet one-way delay: 113.921 ms

Loss rate: 2.60%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-04-11 06:06:13

End at: 2018-04-11 06:06:43

Below is generated by plot.py at 2018-04-11 10:16:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.91 Mbit/s

95th percentile per-packet one-way delay: 113.954 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 75.28 Mbit/s

95th percentile per-packet one-way delay: 113.892 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 54.06 Mbit/s

95th percentile per-packet one-way delay: 114.029 ms

Loss rate: 0.25%

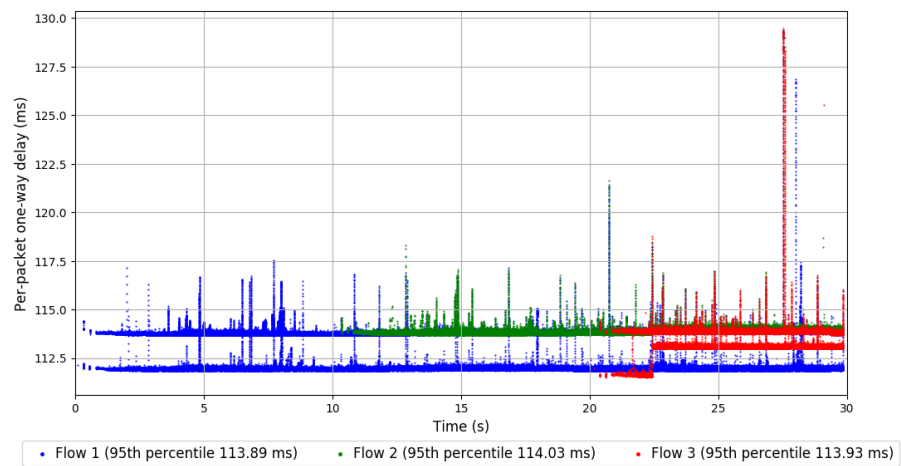
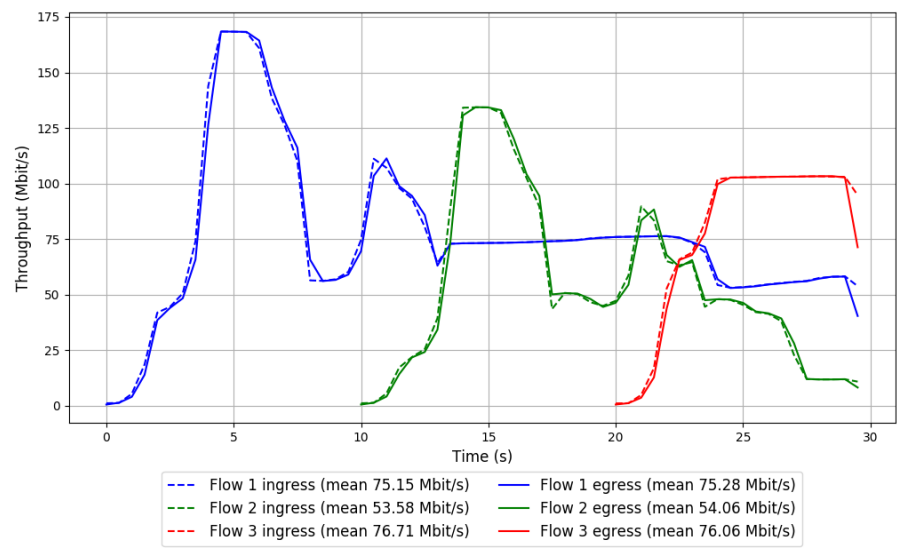
-- Flow 3:

Average throughput: 76.06 Mbit/s

95th percentile per-packet one-way delay: 113.934 ms

Loss rate: 3.09%

Run 10: Report of Copa — Data Link

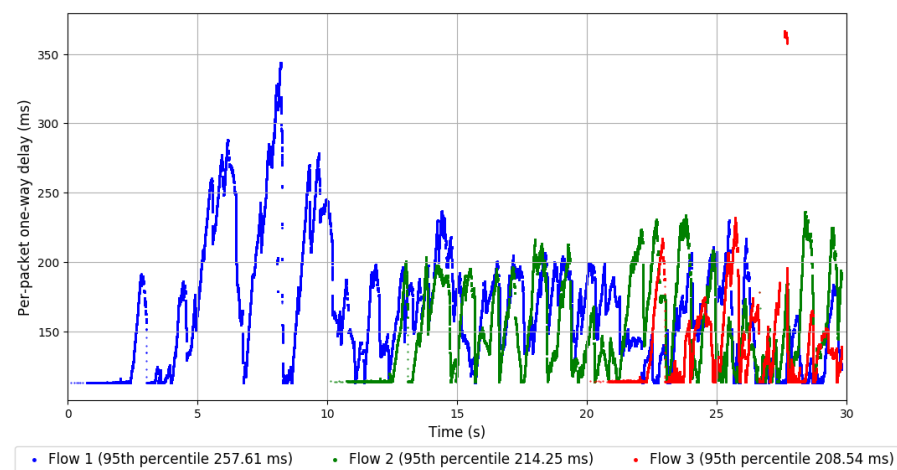
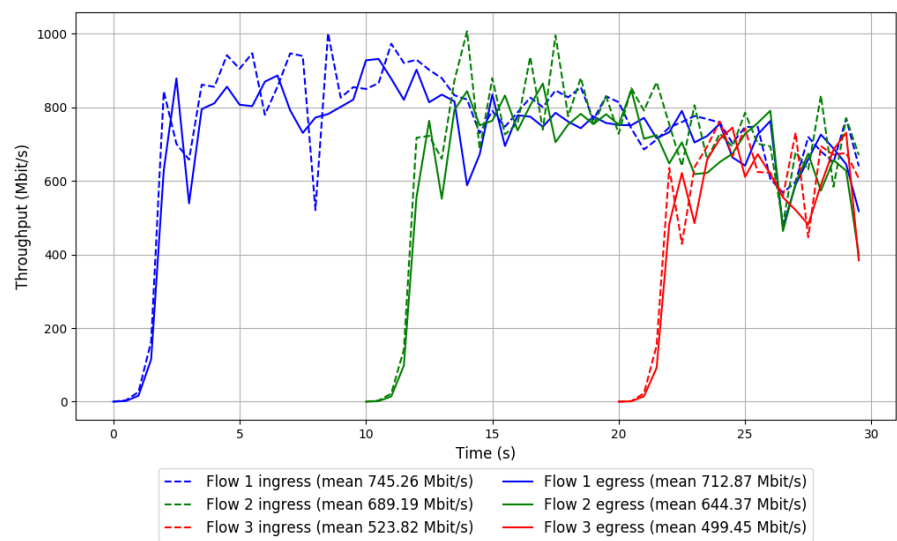


```
Run 1: Statistics of FillP

Start at: 2018-04-11 03:10:28
End at: 2018-04-11 03:10:58

# Below is generated by plot.py at 2018-04-11 10:34:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1302.80 Mbit/s
95th percentile per-packet one-way delay: 235.926 ms
Loss rate: 6.14%
-- Flow 1:
Average throughput: 712.87 Mbit/s
95th percentile per-packet one-way delay: 257.606 ms
Loss rate: 5.08%
-- Flow 2:
Average throughput: 644.37 Mbit/s
95th percentile per-packet one-way delay: 214.249 ms
Loss rate: 7.58%
-- Flow 3:
Average throughput: 499.45 Mbit/s
95th percentile per-packet one-way delay: 208.537 ms
Loss rate: 6.87%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-04-11 03:29:21

End at: 2018-04-11 03:29:51

Below is generated by plot.py at 2018-04-11 10:35:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 1322.56 Mbit/s

95th percentile per-packet one-way delay: 217.623 ms

Loss rate: 5.39%

-- Flow 1:

Average throughput: 731.51 Mbit/s

95th percentile per-packet one-way delay: 220.531 ms

Loss rate: 5.88%

-- Flow 2:

Average throughput: 648.40 Mbit/s

95th percentile per-packet one-way delay: 216.377 ms

Loss rate: 5.51%

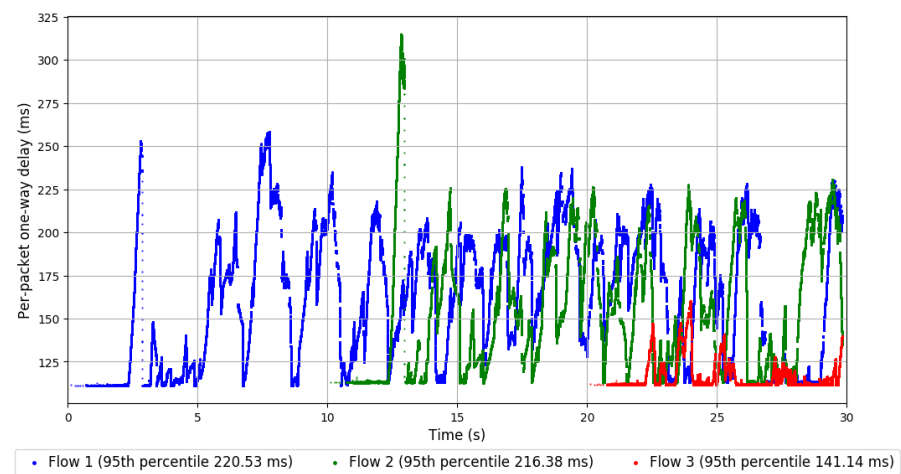
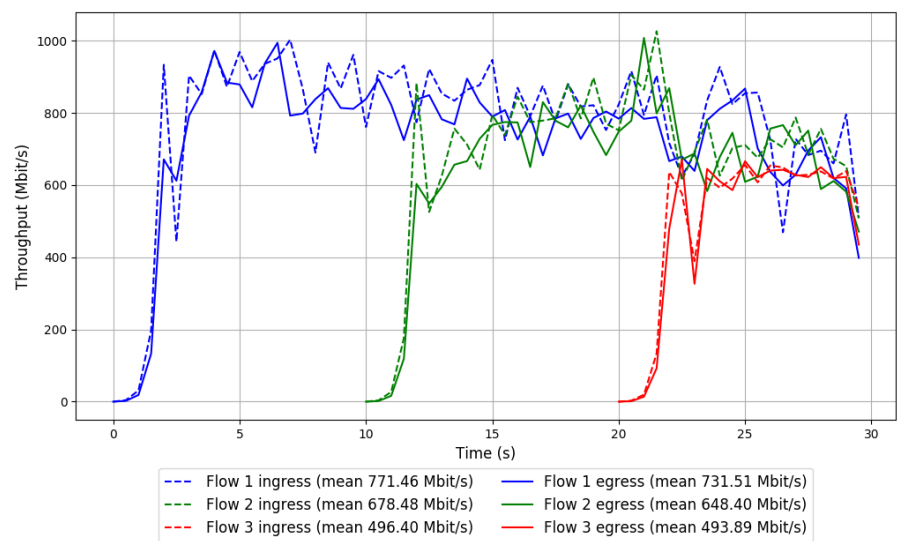
-- Flow 3:

Average throughput: 493.89 Mbit/s

95th percentile per-packet one-way delay: 141.144 ms

Loss rate: 2.74%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-04-11 03:48:26

End at: 2018-04-11 03:48:56

Below is generated by plot.py at 2018-04-11 10:38:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 1371.35 Mbit/s

95th percentile per-packet one-way delay: 212.514 ms

Loss rate: 5.73%

-- Flow 1:

Average throughput: 745.22 Mbit/s

95th percentile per-packet one-way delay: 214.067 ms

Loss rate: 5.68%

-- Flow 2:

Average throughput: 675.79 Mbit/s

95th percentile per-packet one-way delay: 200.808 ms

Loss rate: 5.06%

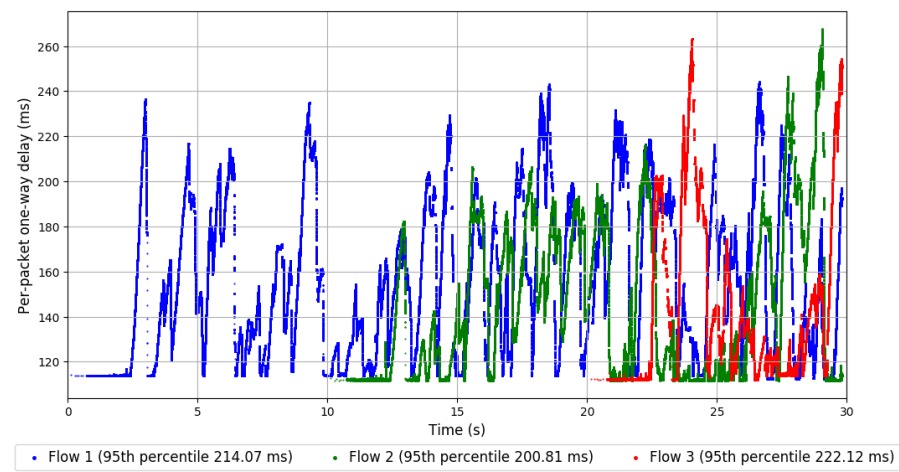
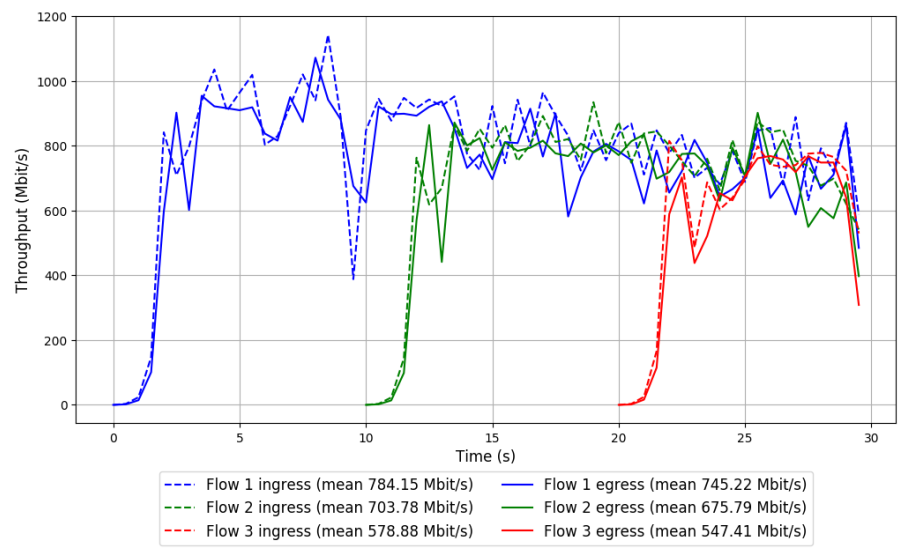
-- Flow 3:

Average throughput: 547.41 Mbit/s

95th percentile per-packet one-way delay: 222.117 ms

Loss rate: 7.59%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-04-11 04:07:27

End at: 2018-04-11 04:07:57

Below is generated by plot.py at 2018-04-11 10:38:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 1356.02 Mbit/s

95th percentile per-packet one-way delay: 206.328 ms

Loss rate: 5.71%

-- Flow 1:

Average throughput: 728.67 Mbit/s

95th percentile per-packet one-way delay: 205.962 ms

Loss rate: 5.80%

-- Flow 2:

Average throughput: 676.99 Mbit/s

95th percentile per-packet one-way delay: 206.857 ms

Loss rate: 5.87%

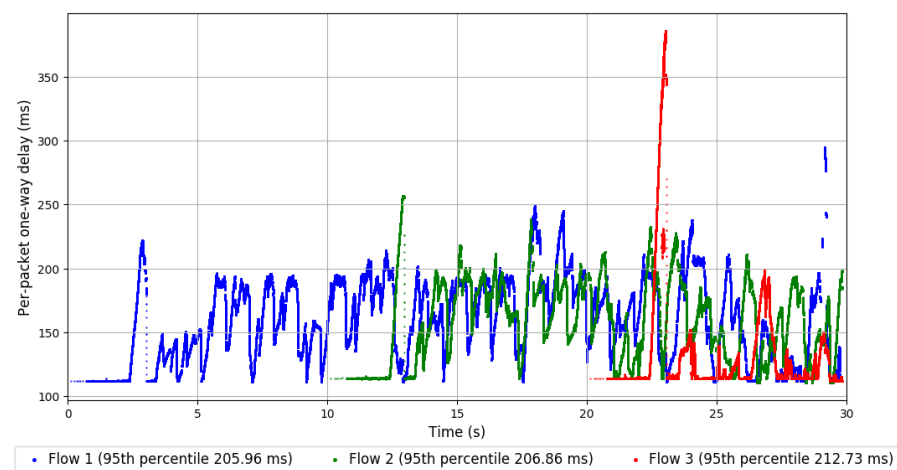
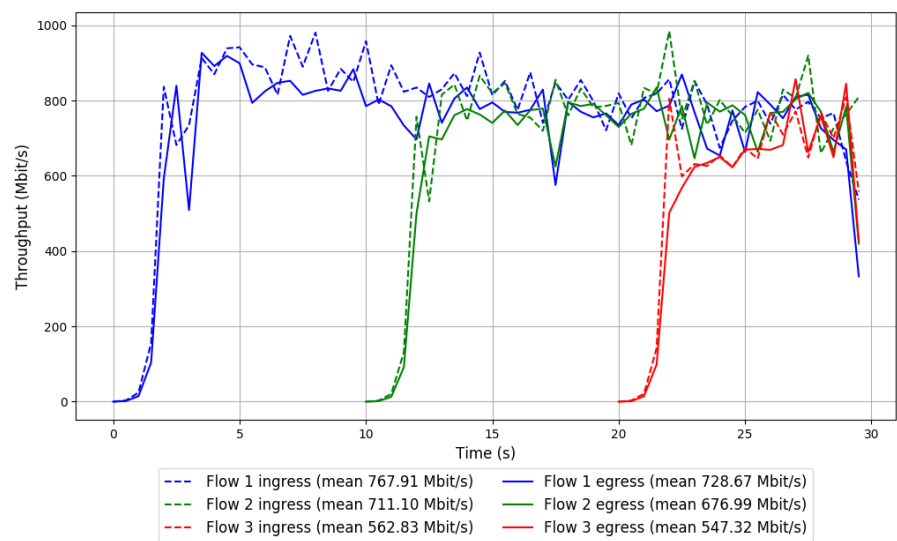
-- Flow 3:

Average throughput: 547.32 Mbit/s

95th percentile per-packet one-way delay: 212.730 ms

Loss rate: 4.94%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-04-11 04:26:40

End at: 2018-04-11 04:27:10

Below is generated by plot.py at 2018-04-11 10:38:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 1287.17 Mbit/s

95th percentile per-packet one-way delay: 232.596 ms

Loss rate: 7.08%

-- Flow 1:

Average throughput: 696.29 Mbit/s

95th percentile per-packet one-way delay: 228.359 ms

Loss rate: 6.13%

-- Flow 2:

Average throughput: 608.66 Mbit/s

95th percentile per-packet one-way delay: 241.517 ms

Loss rate: 10.01%

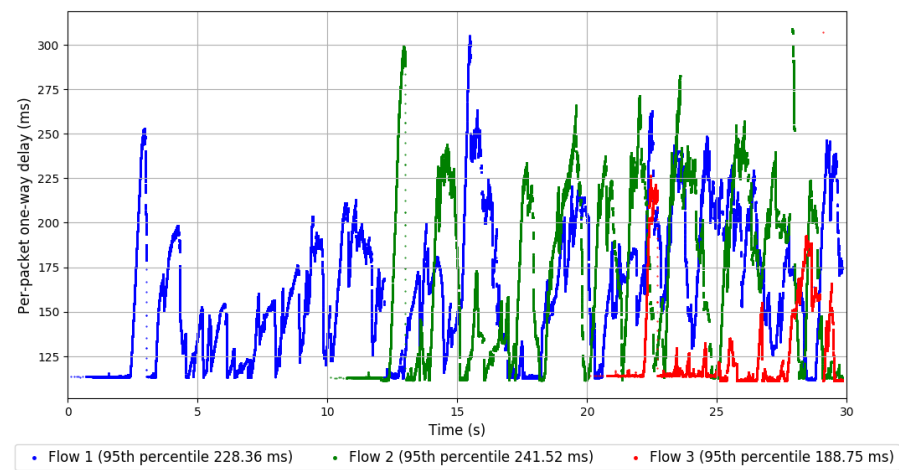
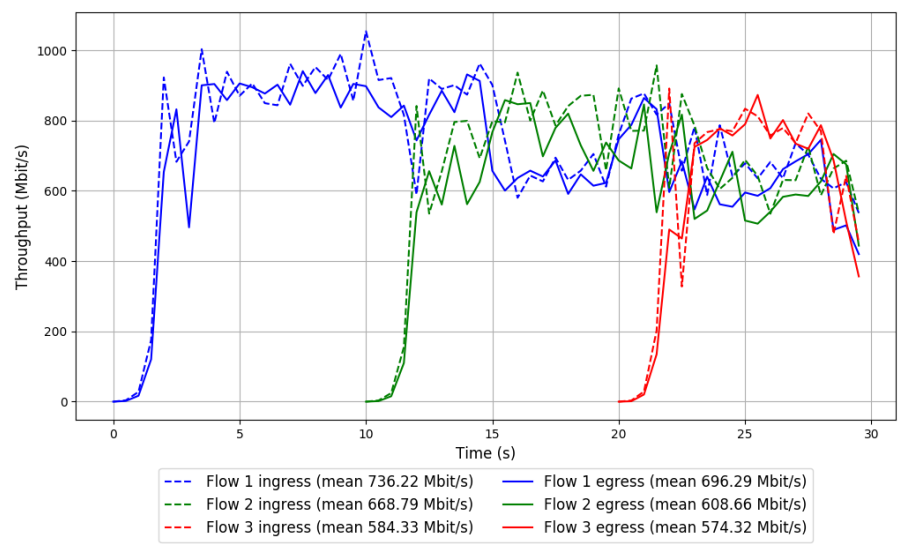
-- Flow 3:

Average throughput: 574.32 Mbit/s

95th percentile per-packet one-way delay: 188.753 ms

Loss rate: 3.94%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-04-11 04:45:46

End at: 2018-04-11 04:46:16

Below is generated by plot.py at 2018-04-11 10:38:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 1278.24 Mbit/s

95th percentile per-packet one-way delay: 218.416 ms

Loss rate: 6.94%

-- Flow 1:

Average throughput: 652.28 Mbit/s

95th percentile per-packet one-way delay: 221.244 ms

Loss rate: 7.95%

-- Flow 2:

Average throughput: 679.32 Mbit/s

95th percentile per-packet one-way delay: 205.163 ms

Loss rate: 4.62%

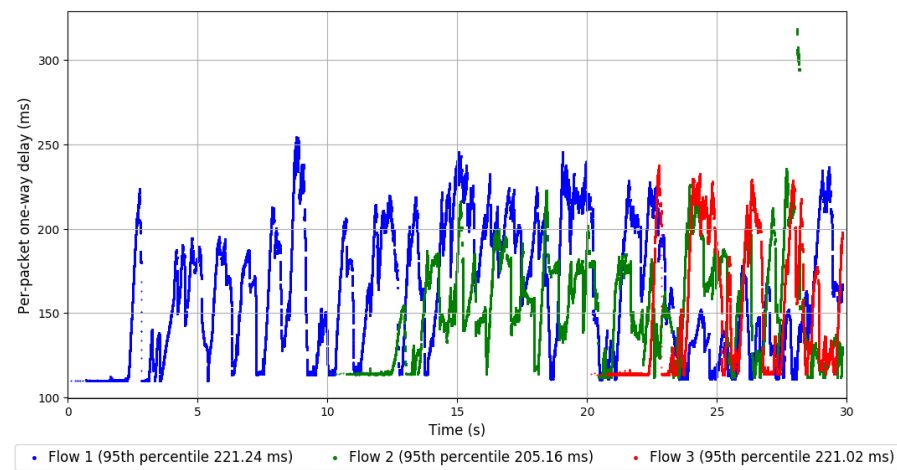
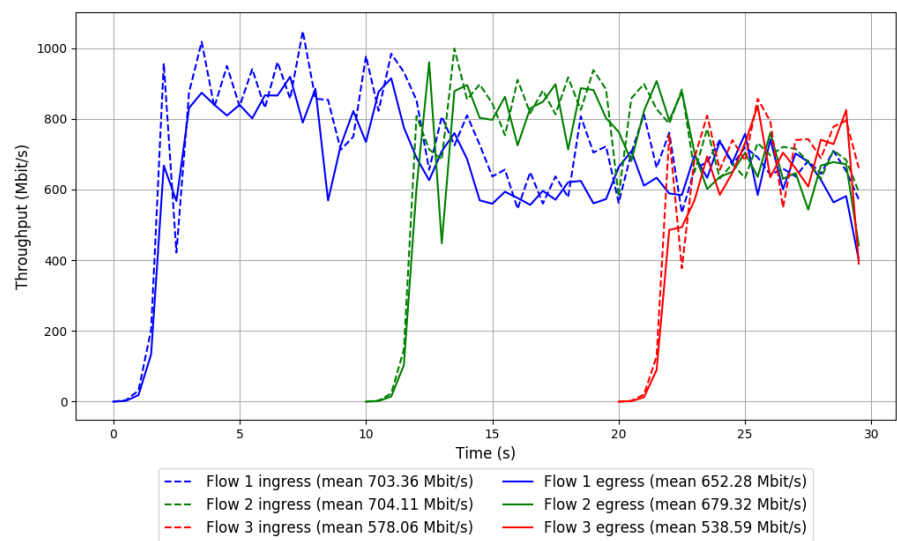
-- Flow 3:

Average throughput: 538.59 Mbit/s

95th percentile per-packet one-way delay: 221.021 ms

Loss rate: 8.95%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-04-11 05:04:41

End at: 2018-04-11 05:05:11

Below is generated by plot.py at 2018-04-11 10:38:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 1289.13 Mbit/s

95th percentile per-packet one-way delay: 207.300 ms

Loss rate: 4.44%

-- Flow 1:

Average throughput: 702.87 Mbit/s

95th percentile per-packet one-way delay: 205.015 ms

Loss rate: 3.82%

-- Flow 2:

Average throughput: 643.30 Mbit/s

95th percentile per-packet one-way delay: 198.913 ms

Loss rate: 3.19%

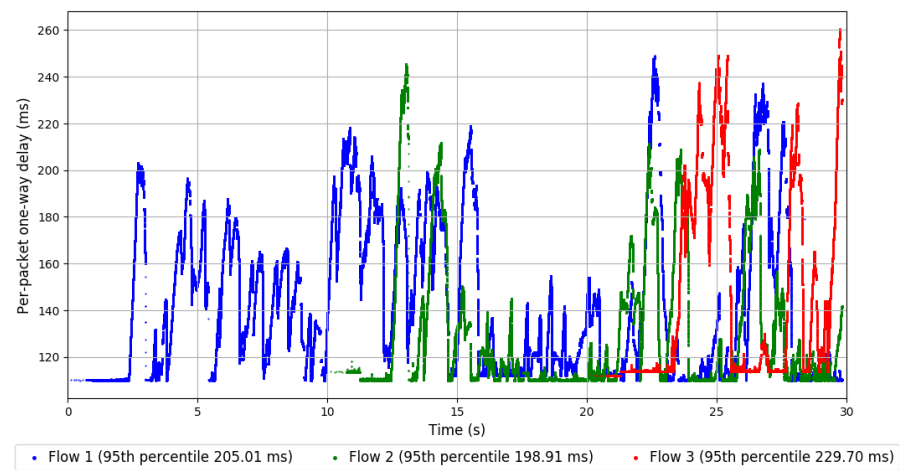
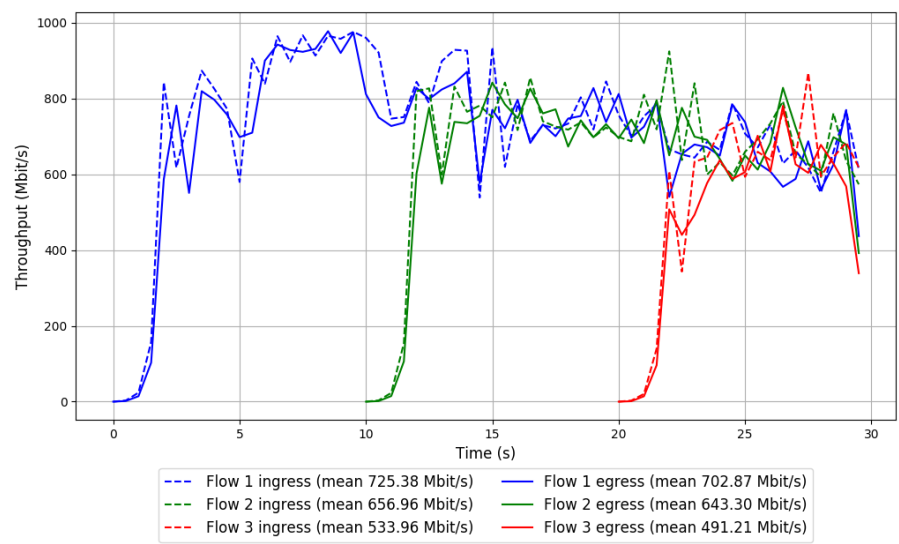
-- Flow 3:

Average throughput: 491.21 Mbit/s

95th percentile per-packet one-way delay: 229.703 ms

Loss rate: 10.09%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-04-11 05:23:54

End at: 2018-04-11 05:24:24

Below is generated by plot.py at 2018-04-11 10:39:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 1374.54 Mbit/s

95th percentile per-packet one-way delay: 188.152 ms

Loss rate: 3.26%

-- Flow 1:

Average throughput: 769.98 Mbit/s

95th percentile per-packet one-way delay: 188.820 ms

Loss rate: 3.69%

-- Flow 2:

Average throughput: 649.28 Mbit/s

95th percentile per-packet one-way delay: 184.537 ms

Loss rate: 2.33%

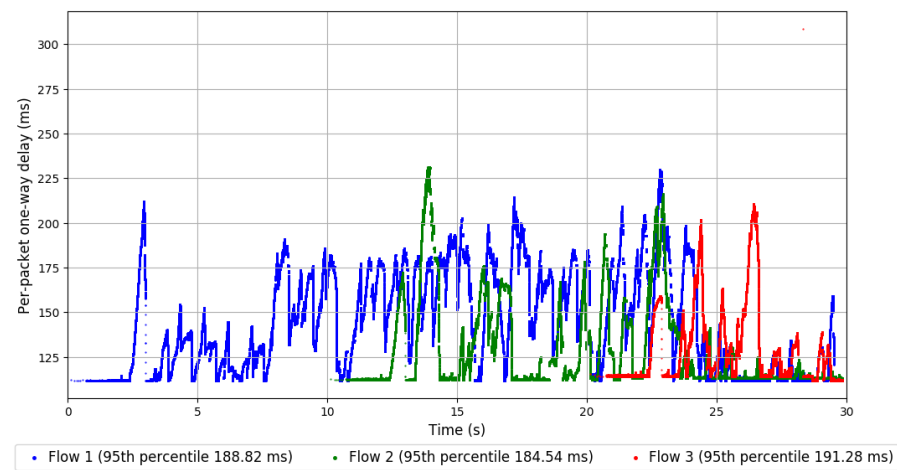
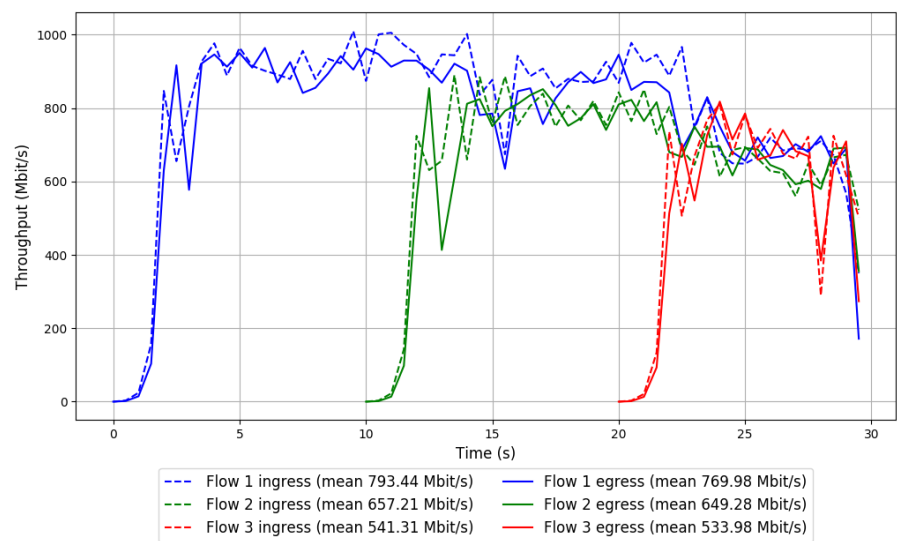
-- Flow 3:

Average throughput: 533.98 Mbit/s

95th percentile per-packet one-way delay: 191.281 ms

Loss rate: 3.63%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-04-11 05:43:20

End at: 2018-04-11 05:43:50

Below is generated by plot.py at 2018-04-11 10:59:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 1349.87 Mbit/s

95th percentile per-packet one-way delay: 202.702 ms

Loss rate: 3.81%

-- Flow 1:

Average throughput: 698.78 Mbit/s

95th percentile per-packet one-way delay: 204.646 ms

Loss rate: 3.99%

-- Flow 2:

Average throughput: 710.49 Mbit/s

95th percentile per-packet one-way delay: 194.489 ms

Loss rate: 3.12%

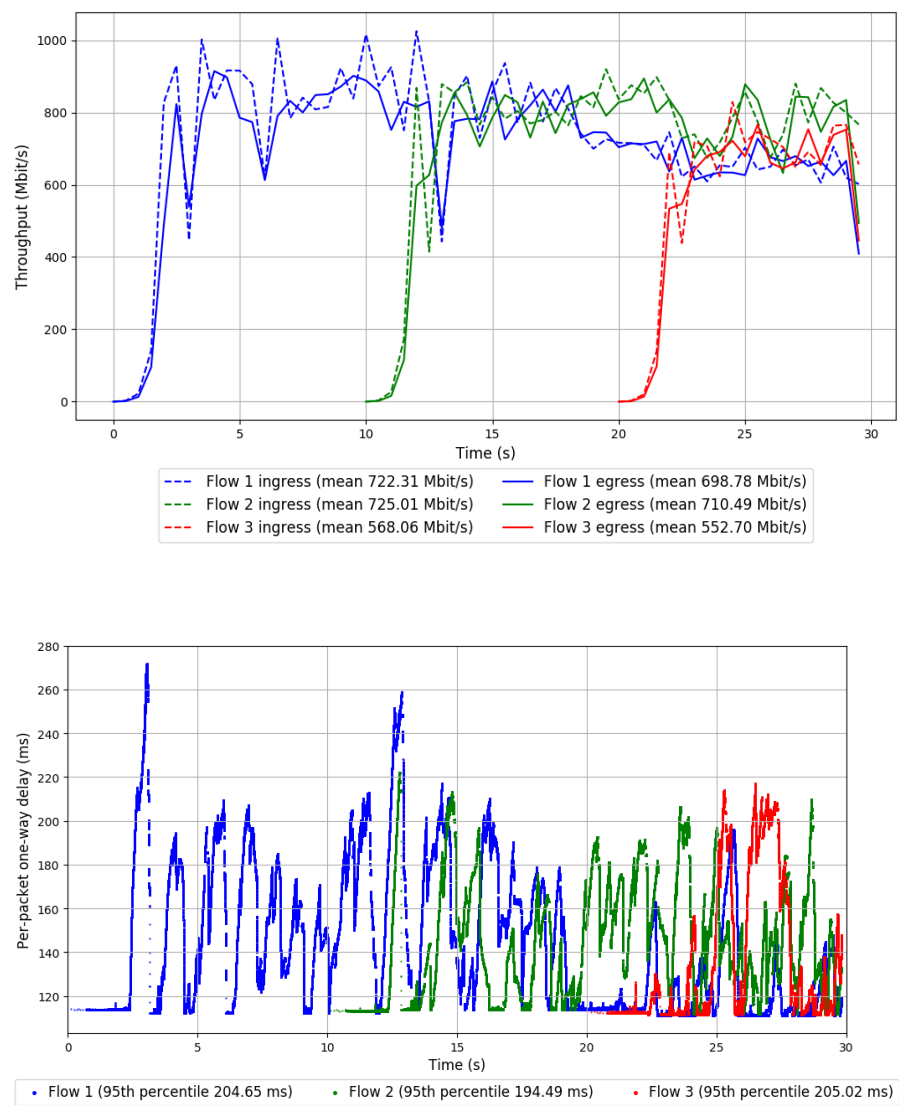
-- Flow 3:

Average throughput: 552.70 Mbit/s

95th percentile per-packet one-way delay: 205.022 ms

Loss rate: 4.92%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-04-11 06:02:37

End at: 2018-04-11 06:03:07

Below is generated by plot.py at 2018-04-11 11:00:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 1351.38 Mbit/s

95th percentile per-packet one-way delay: 218.484 ms

Loss rate: 5.18%

-- Flow 1:

Average throughput: 714.20 Mbit/s

95th percentile per-packet one-way delay: 225.923 ms

Loss rate: 5.08%

-- Flow 2:

Average throughput: 664.70 Mbit/s

95th percentile per-packet one-way delay: 214.603 ms

Loss rate: 4.95%

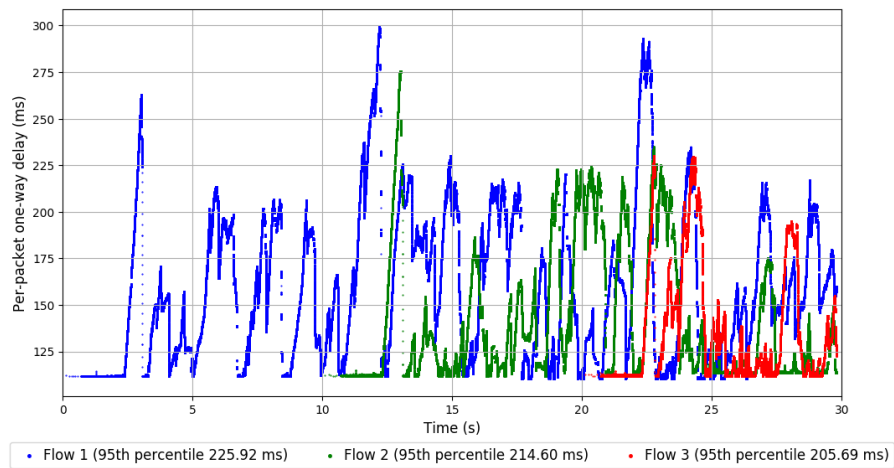
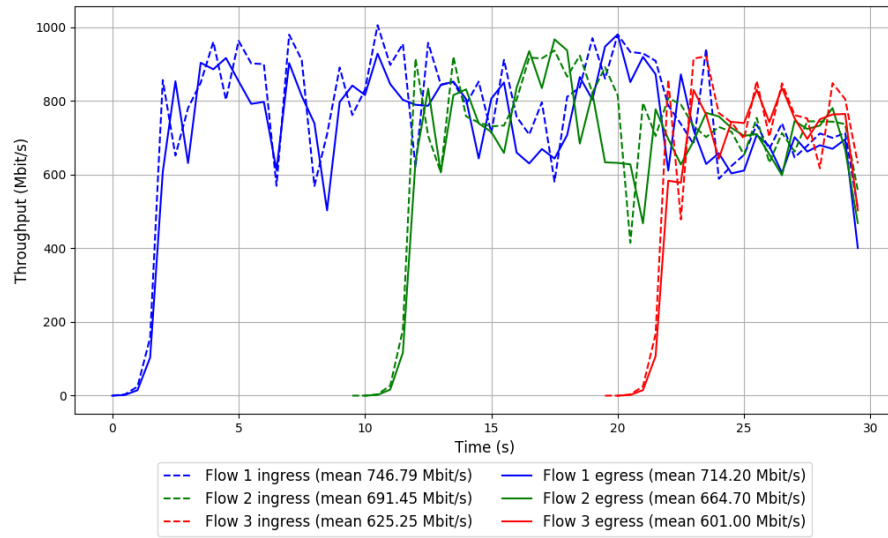
-- Flow 3:

Average throughput: 601.00 Mbit/s

95th percentile per-packet one-way delay: 205.688 ms

Loss rate: 6.05%

Run 10: Report of FillP — Data Link

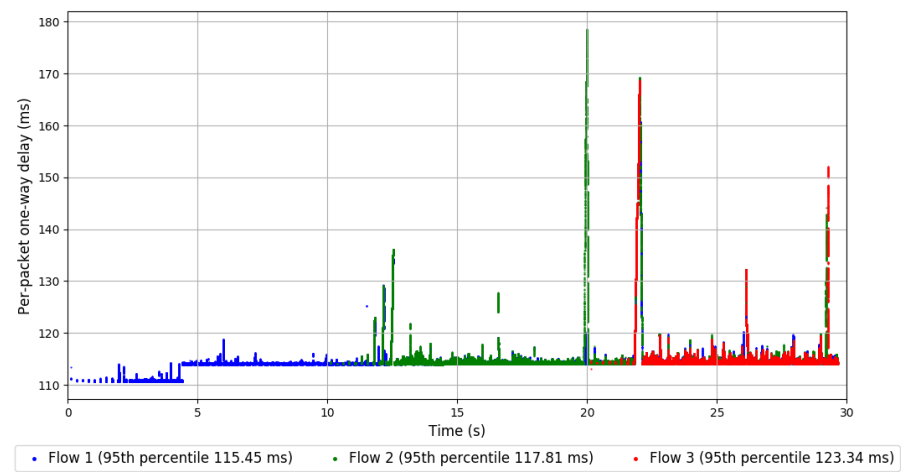
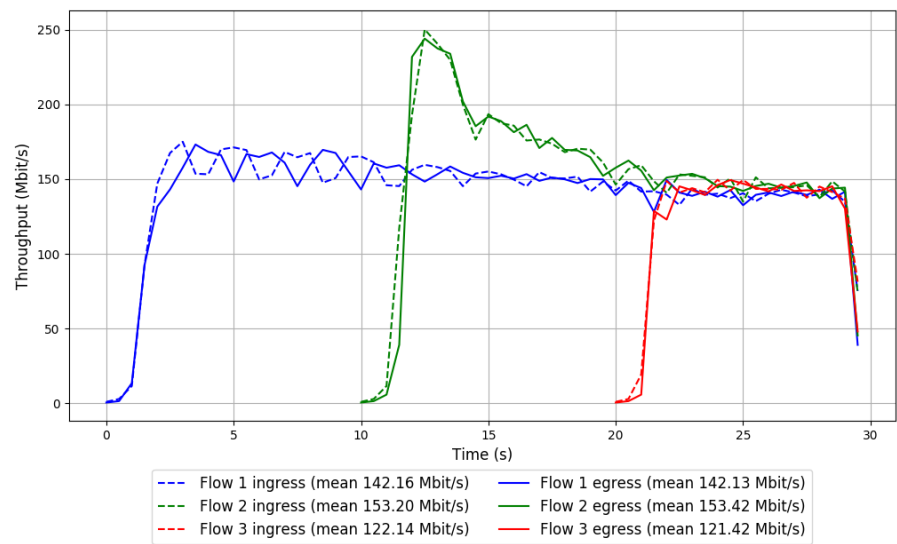


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-11 03:06:18
End at: 2018-04-11 03:06:48

# Below is generated by plot.py at 2018-04-11 11:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 282.62 Mbit/s
95th percentile per-packet one-way delay: 116.365 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 142.13 Mbit/s
95th percentile per-packet one-way delay: 115.452 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 153.42 Mbit/s
95th percentile per-packet one-way delay: 117.815 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 121.42 Mbit/s
95th percentile per-packet one-way delay: 123.336 ms
Loss rate: 2.92%
```

Run 1: Report of Indigo-1-32 — Data Link



Run 2: Statistics of Indigo-1-32

Start at: 2018-04-11 03:25:13

End at: 2018-04-11 03:25:43

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 307.96 Mbit/s

95th percentile per-packet one-way delay: 117.996 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 173.75 Mbit/s

95th percentile per-packet one-way delay: 116.655 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 141.82 Mbit/s

95th percentile per-packet one-way delay: 119.156 ms

Loss rate: 1.16%

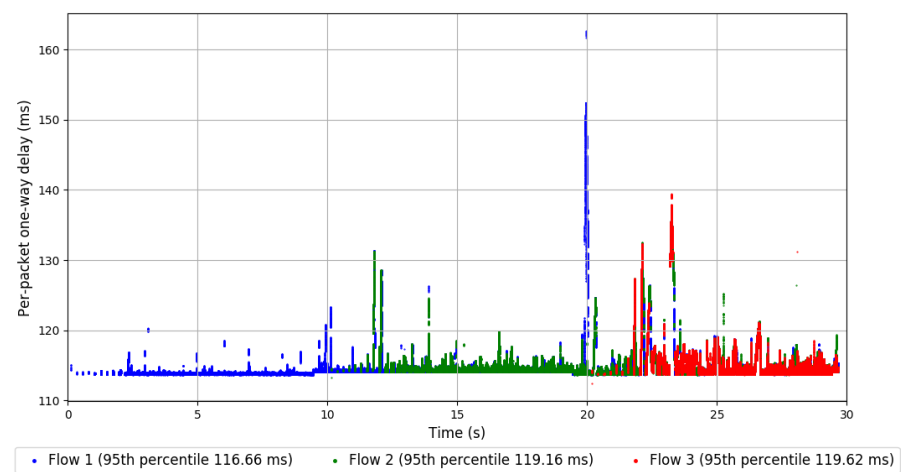
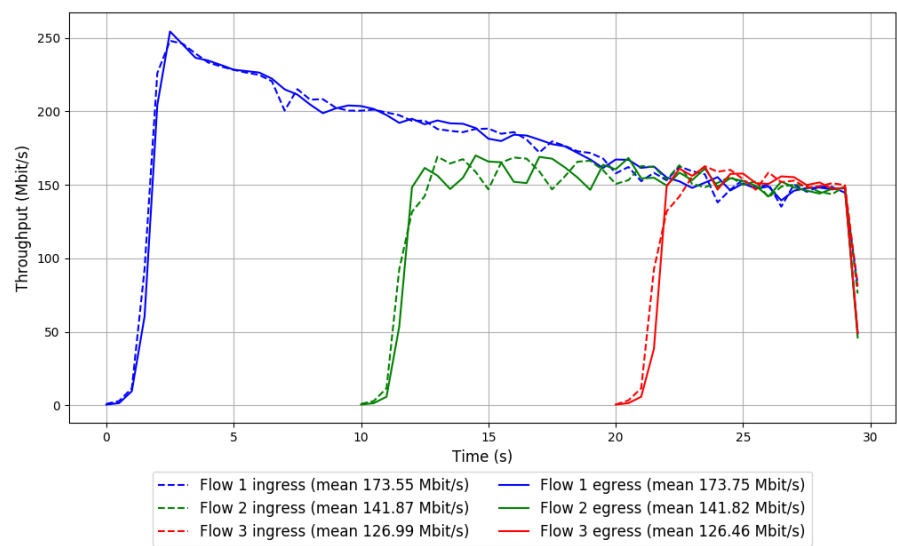
-- Flow 3:

Average throughput: 126.46 Mbit/s

95th percentile per-packet one-way delay: 119.617 ms

Loss rate: 2.71%

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-04-11 03:44:17

End at: 2018-04-11 03:44:47

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 331.10 Mbit/s

95th percentile per-packet one-way delay: 146.900 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 195.12 Mbit/s

95th percentile per-packet one-way delay: 124.625 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 140.37 Mbit/s

95th percentile per-packet one-way delay: 145.856 ms

Loss rate: 1.16%

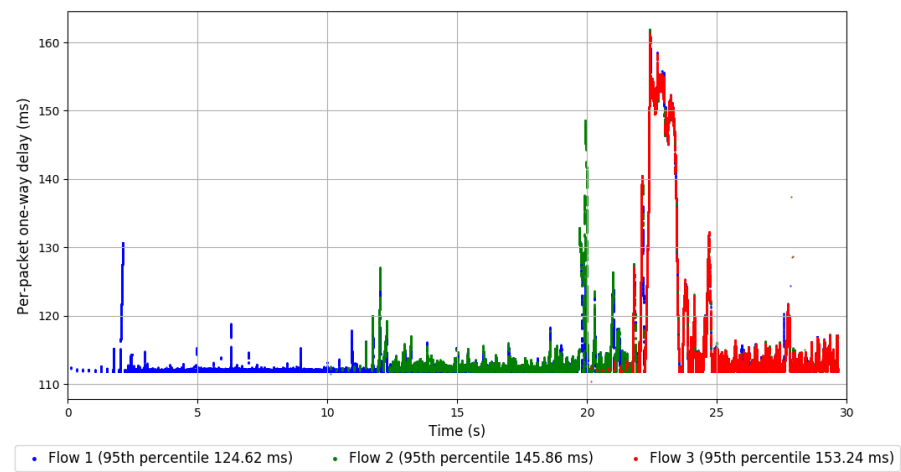
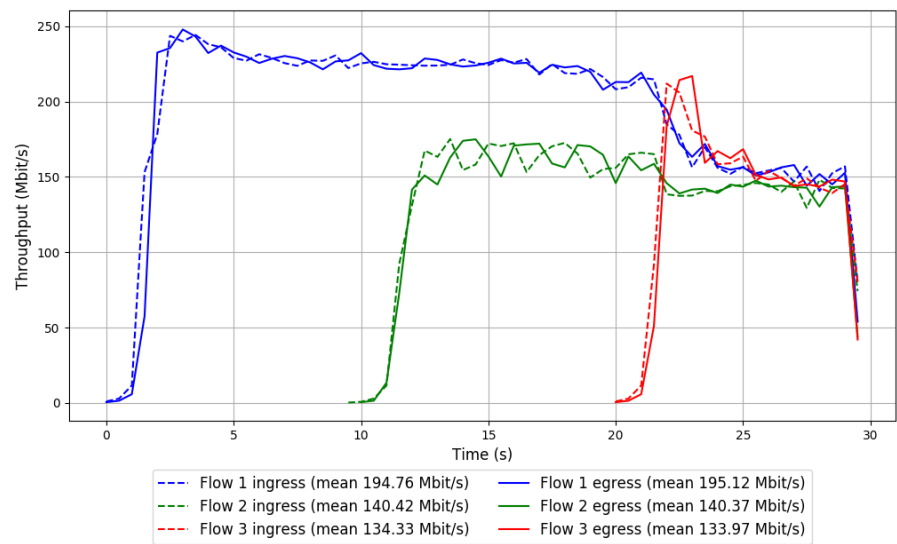
-- Flow 3:

Average throughput: 133.97 Mbit/s

95th percentile per-packet one-way delay: 153.242 ms

Loss rate: 2.48%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-04-11 04:03:17

End at: 2018-04-11 04:03:47

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 288.42 Mbit/s

95th percentile per-packet one-way delay: 114.750 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 141.38 Mbit/s

95th percentile per-packet one-way delay: 114.248 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 160.36 Mbit/s

95th percentile per-packet one-way delay: 114.614 ms

Loss rate: 1.02%

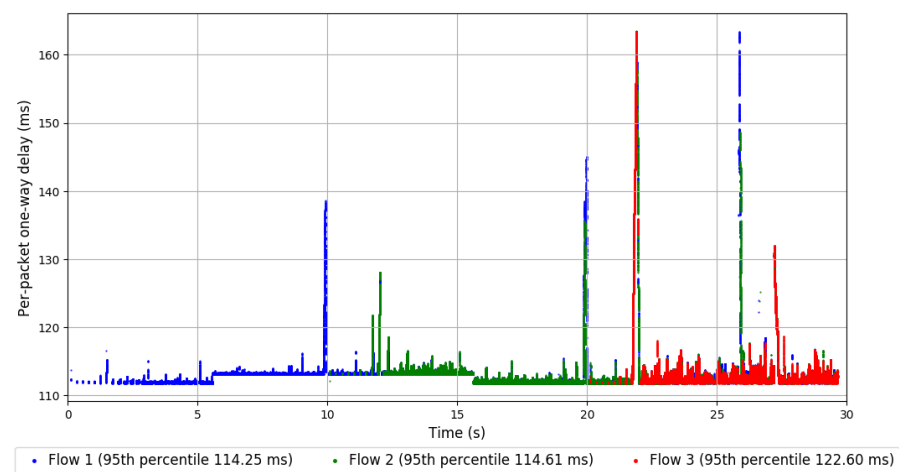
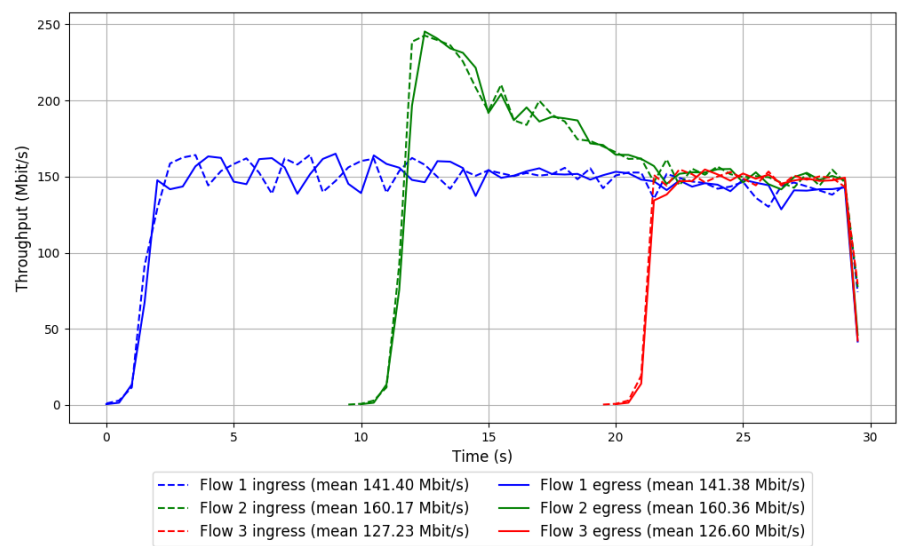
-- Flow 3:

Average throughput: 126.60 Mbit/s

95th percentile per-packet one-way delay: 122.604 ms

Loss rate: 2.78%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-04-11 04:22:31

End at: 2018-04-11 04:23:01

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.08 Mbit/s

95th percentile per-packet one-way delay: 115.639 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 188.31 Mbit/s

95th percentile per-packet one-way delay: 115.139 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 145.00 Mbit/s

95th percentile per-packet one-way delay: 116.629 ms

Loss rate: 1.09%

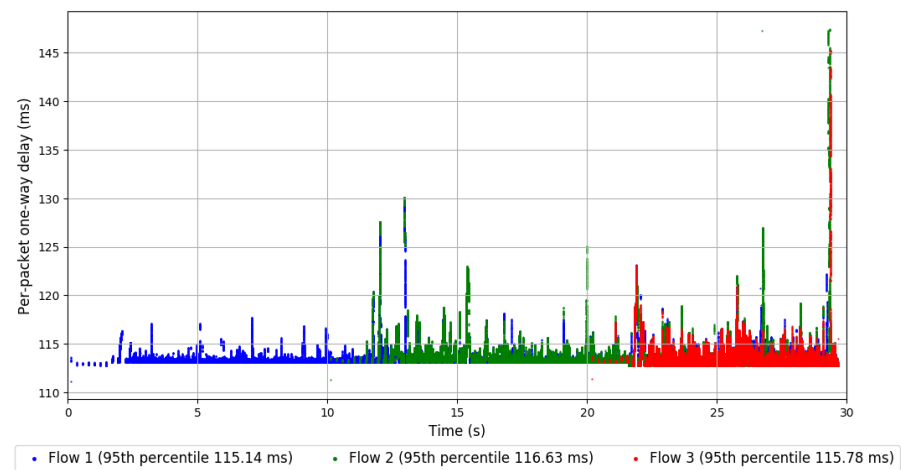
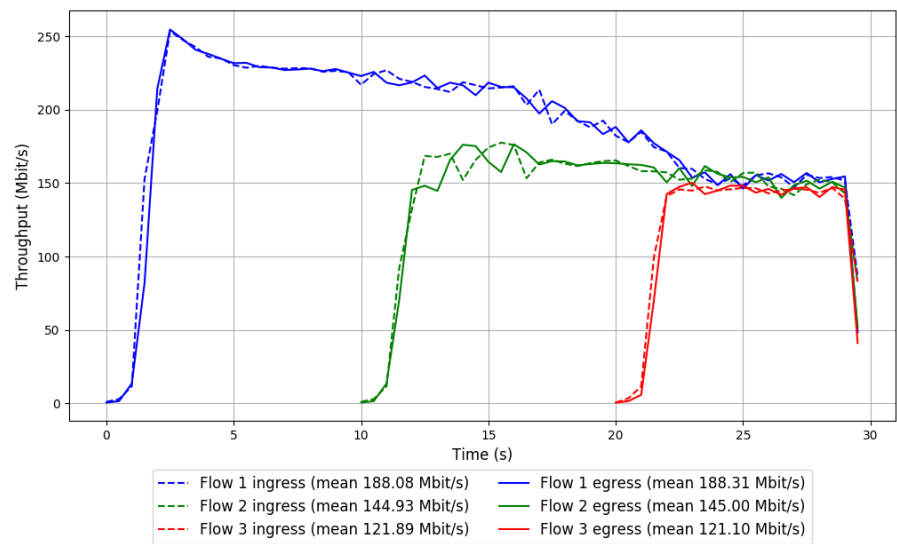
-- Flow 3:

Average throughput: 121.10 Mbit/s

95th percentile per-packet one-way delay: 115.780 ms

Loss rate: 2.88%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-04-11 04:41:43

End at: 2018-04-11 04:42:13

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 315.69 Mbit/s

95th percentile per-packet one-way delay: 113.277 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 178.59 Mbit/s

95th percentile per-packet one-way delay: 112.789 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 149.62 Mbit/s

95th percentile per-packet one-way delay: 114.384 ms

Loss rate: 1.10%

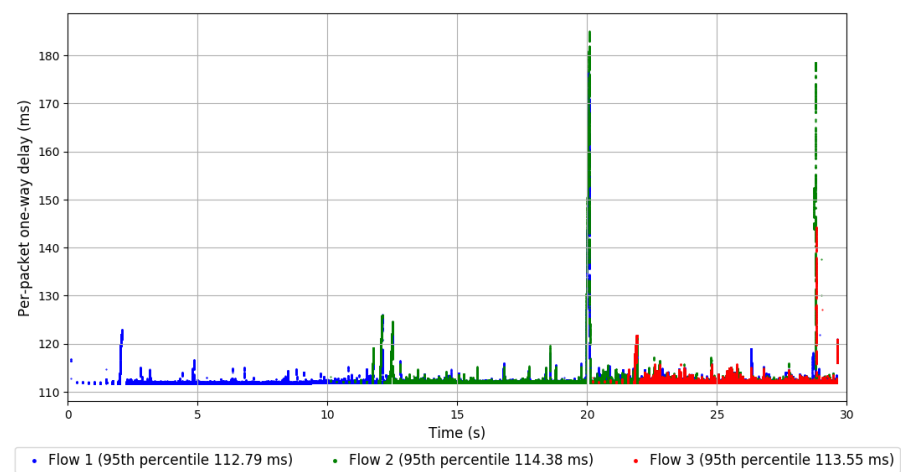
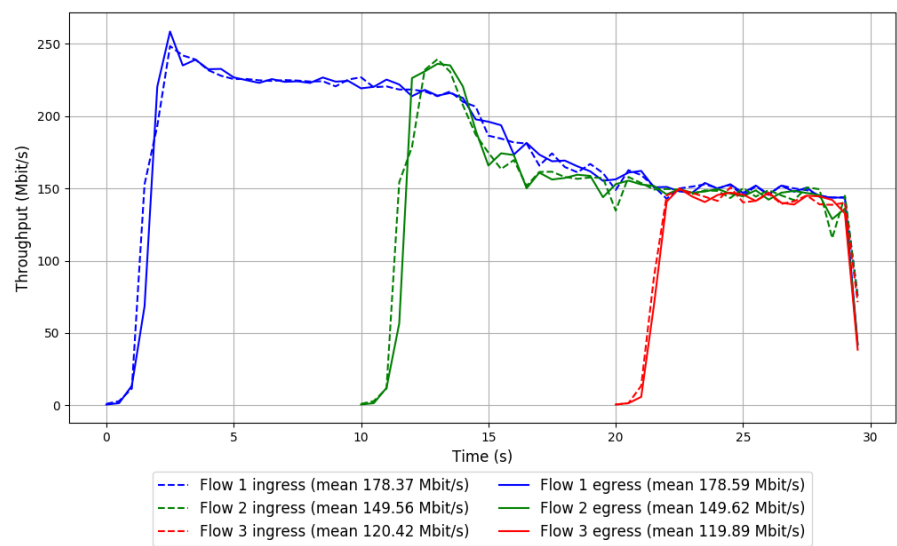
-- Flow 3:

Average throughput: 119.89 Mbit/s

95th percentile per-packet one-way delay: 113.546 ms

Loss rate: 2.72%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-04-11 05:00:36

End at: 2018-04-11 05:01:06

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 292.46 Mbit/s

95th percentile per-packet one-way delay: 114.602 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 143.84 Mbit/s

95th percentile per-packet one-way delay: 114.118 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 164.85 Mbit/s

95th percentile per-packet one-way delay: 115.406 ms

Loss rate: 1.02%

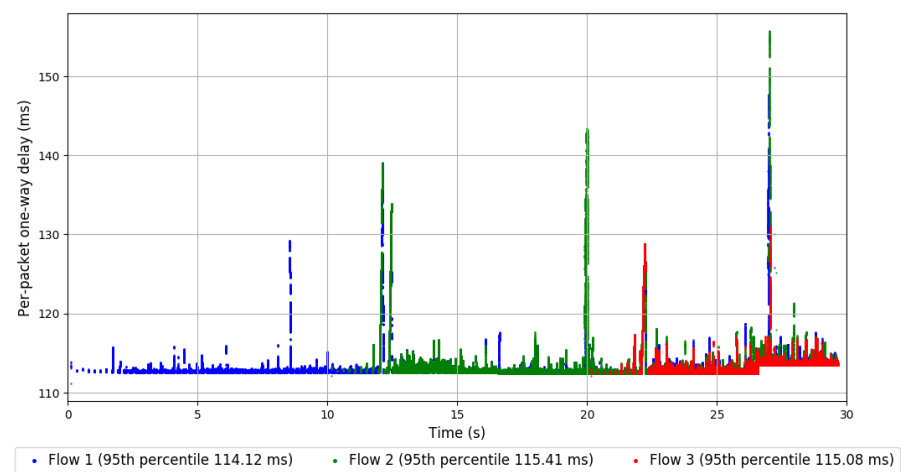
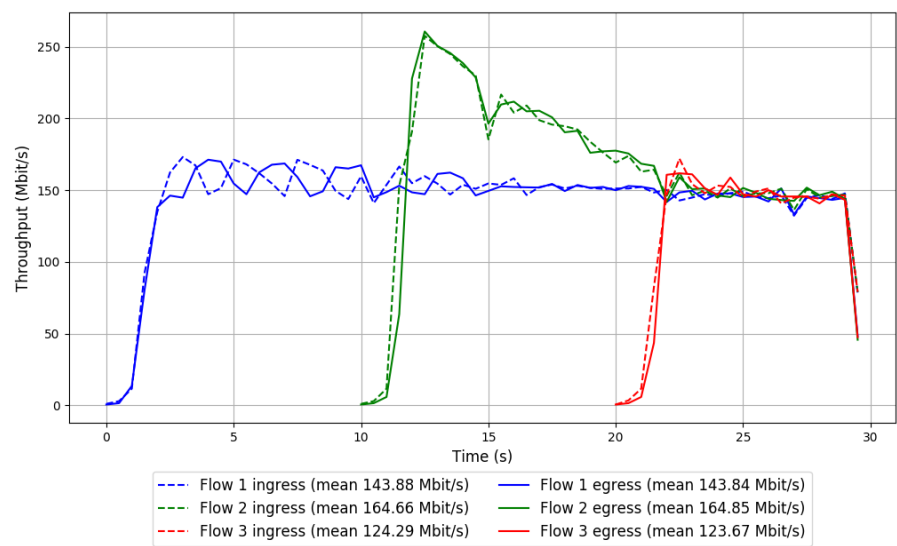
-- Flow 3:

Average throughput: 123.67 Mbit/s

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

Loss rate: 2.79%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-04-11 05:19:43

End at: 2018-04-11 05:20:13

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 313.86 Mbit/s

95th percentile per-packet one-way delay: 113.717 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 181.15 Mbit/s

95th percentile per-packet one-way delay: 113.365 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 140.05 Mbit/s

95th percentile per-packet one-way delay: 113.910 ms

Loss rate: 1.24%

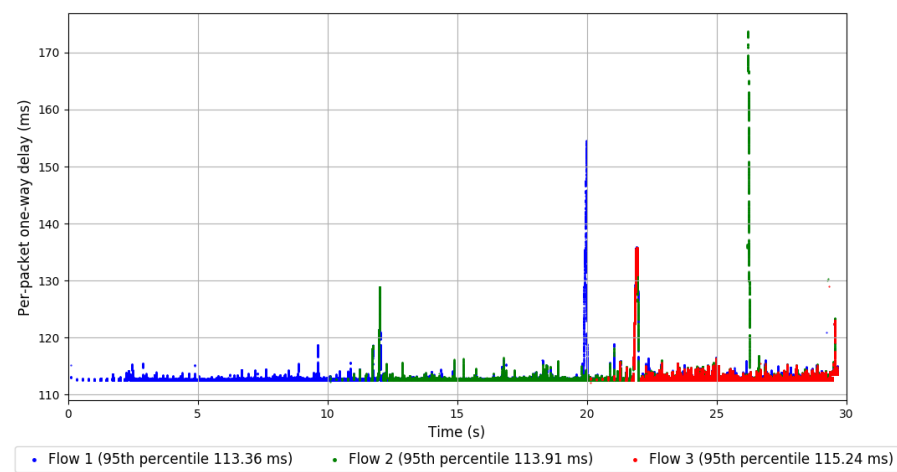
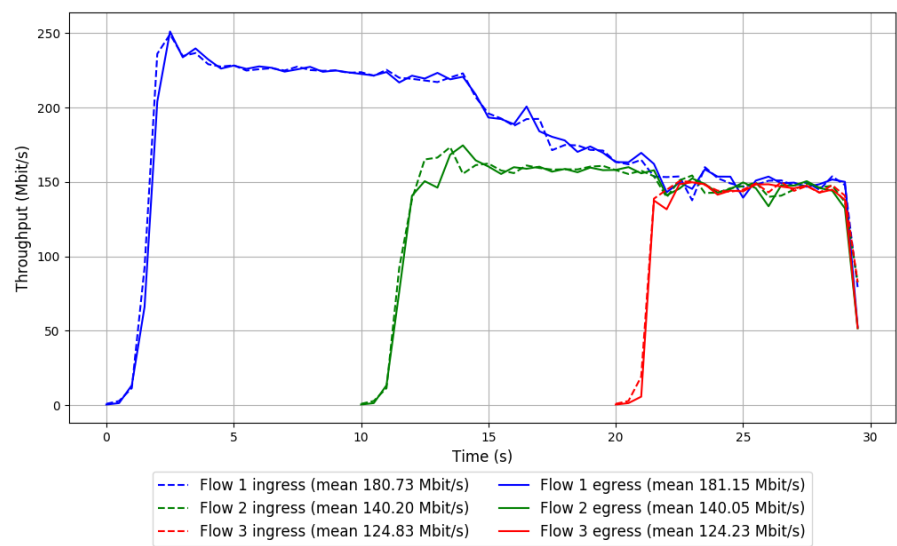
-- Flow 3:

Average throughput: 124.23 Mbit/s

95th percentile per-packet one-way delay: 115.241 ms

Loss rate: 2.77%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-04-11 05:39:05

End at: 2018-04-11 05:39:35

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 329.24 Mbit/s

95th percentile per-packet one-way delay: 120.142 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 196.45 Mbit/s

95th percentile per-packet one-way delay: 115.556 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 138.00 Mbit/s

95th percentile per-packet one-way delay: 120.370 ms

Loss rate: 1.21%

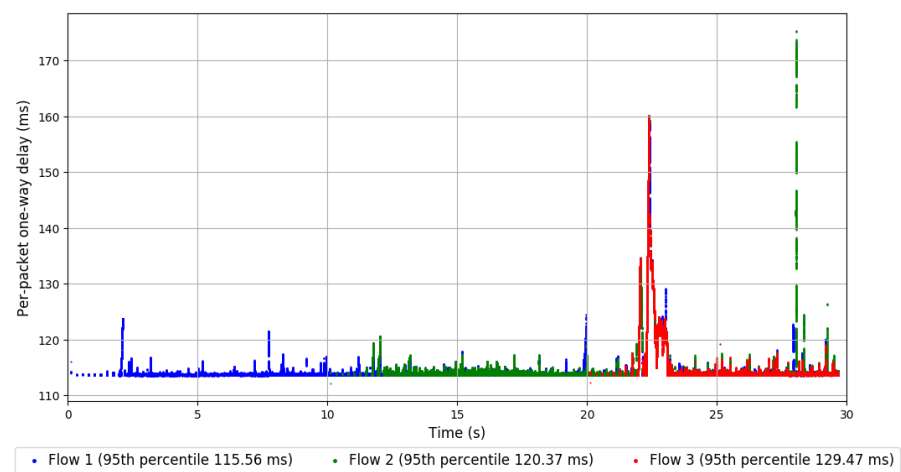
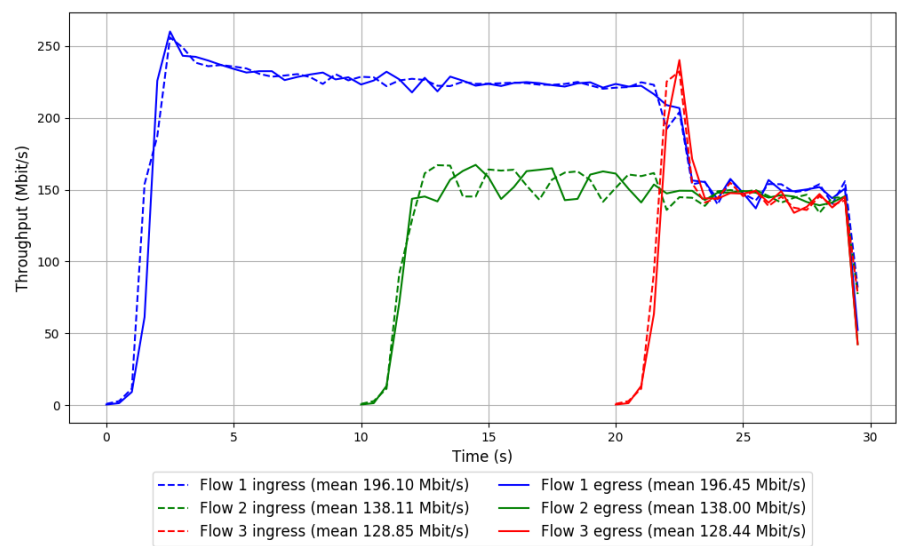
-- Flow 3:

Average throughput: 128.44 Mbit/s

95th percentile per-packet one-way delay: 129.469 ms

Loss rate: 2.60%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-04-11 05:58:27

End at: 2018-04-11 05:58:57

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 288.86 Mbit/s

95th percentile per-packet one-way delay: 115.537 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 150.90 Mbit/s

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

Loss rate: 0.80%

-- Flow 2:

Average throughput: 140.72 Mbit/s

95th percentile per-packet one-way delay: 115.751 ms

Loss rate: 1.25%

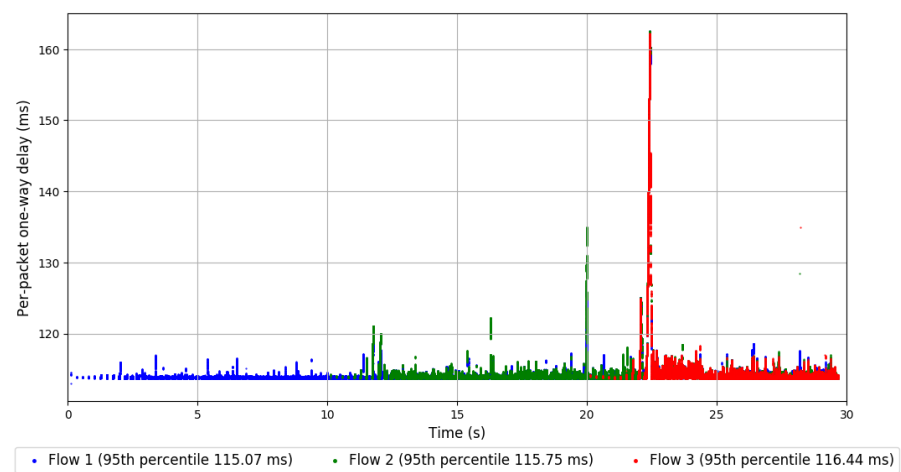
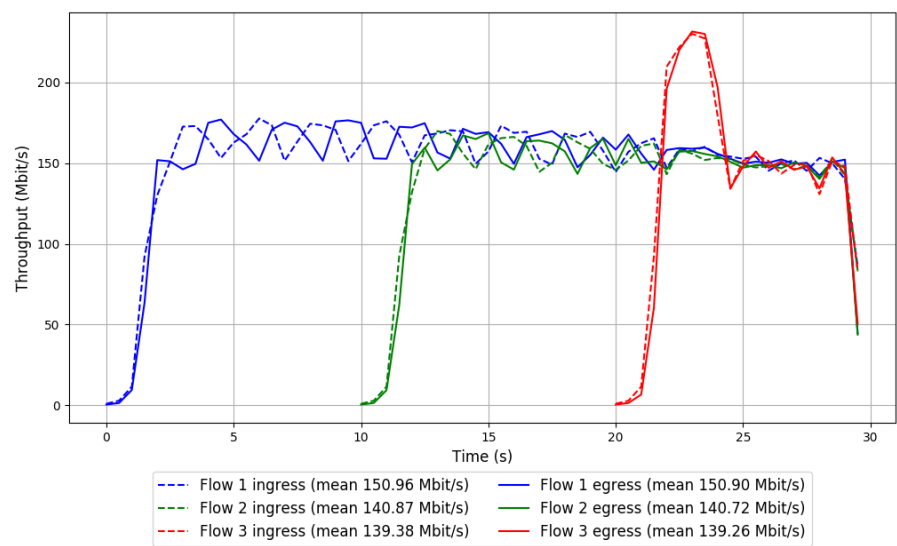
-- Flow 3:

Average throughput: 139.26 Mbit/s

95th percentile per-packet one-way delay: 116.436 ms

Loss rate: 2.42%

Run 10: Report of Indigo-1-32 — Data Link

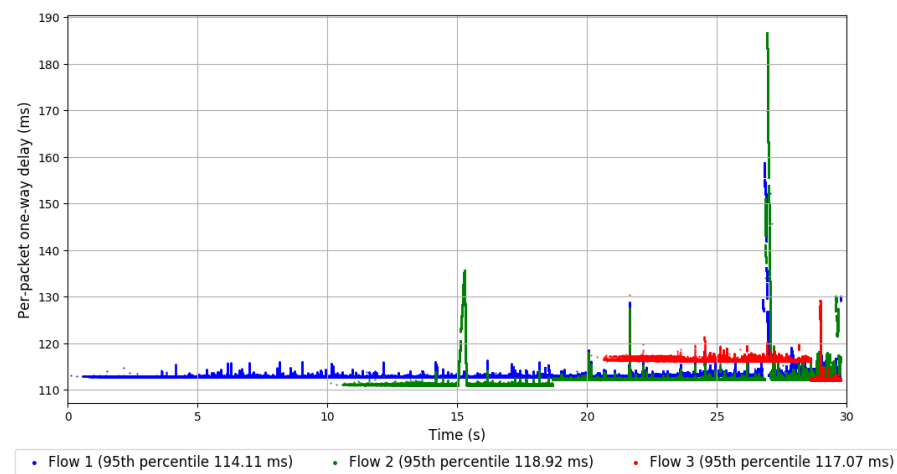
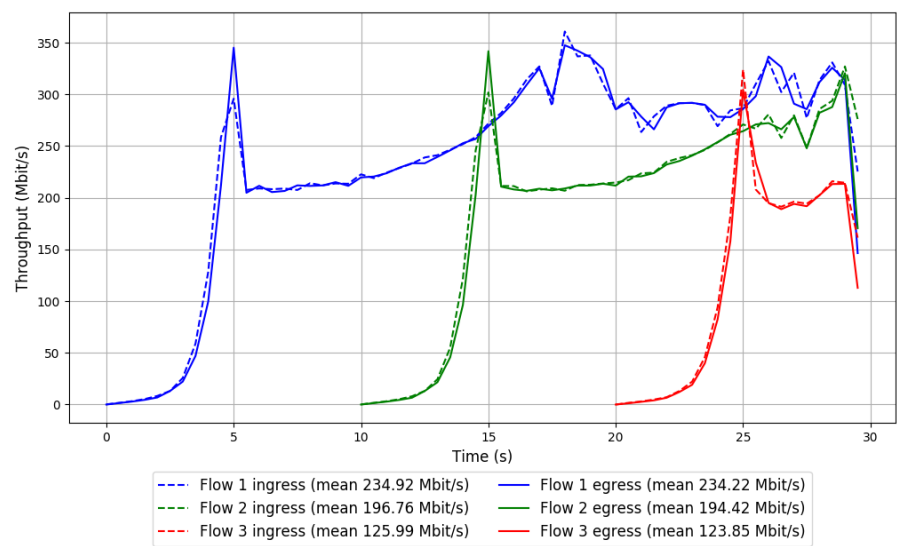


```
Run 1: Statistics of Vivace-latency

Start at: 2018-04-11 03:08:14
End at: 2018-04-11 03:08:44

# Below is generated by plot.py at 2018-04-11 11:00:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 403.08 Mbit/s
95th percentile per-packet one-way delay: 116.436 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 234.22 Mbit/s
95th percentile per-packet one-way delay: 114.114 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 194.42 Mbit/s
95th percentile per-packet one-way delay: 118.924 ms
Loss rate: 2.33%
-- Flow 3:
Average throughput: 123.85 Mbit/s
95th percentile per-packet one-way delay: 117.066 ms
Loss rate: 4.05%
```


Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-04-11 03:27:11

End at: 2018-04-11 03:27:41

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 370.05 Mbit/s

95th percentile per-packet one-way delay: 116.298 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 213.49 Mbit/s

95th percentile per-packet one-way delay: 112.933 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 197.15 Mbit/s

95th percentile per-packet one-way delay: 116.921 ms

Loss rate: 1.40%

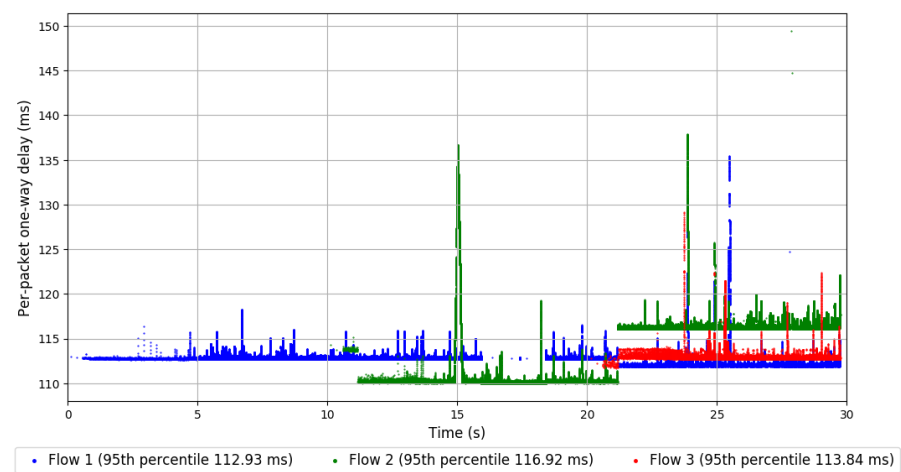
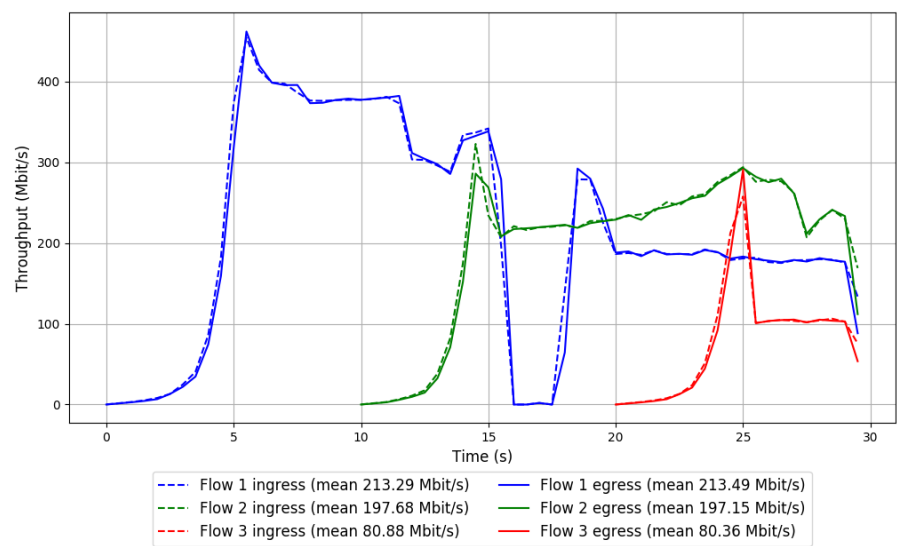
-- Flow 3:

Average throughput: 80.36 Mbit/s

95th percentile per-packet one-way delay: 113.837 ms

Loss rate: 2.90%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-04-11 03:46:16

End at: 2018-04-11 03:46:46

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 368.39 Mbit/s

95th percentile per-packet one-way delay: 113.953 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 214.77 Mbit/s

95th percentile per-packet one-way delay: 113.205 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 170.02 Mbit/s

95th percentile per-packet one-way delay: 114.161 ms

Loss rate: 1.43%

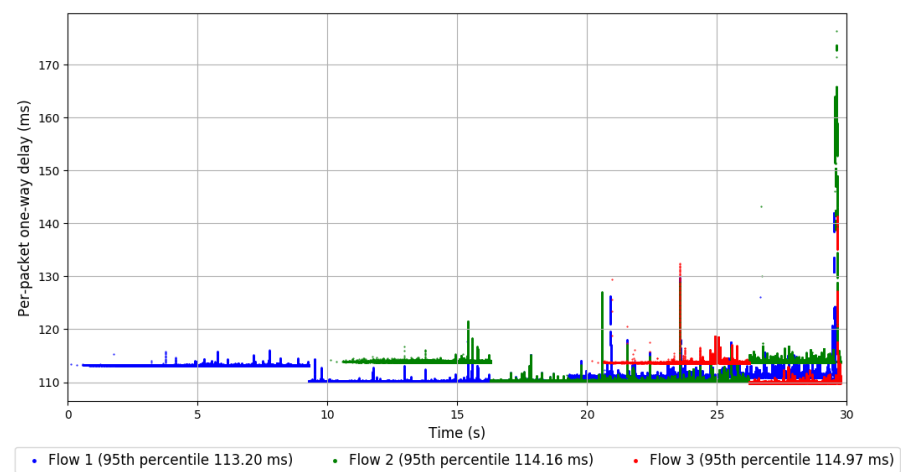
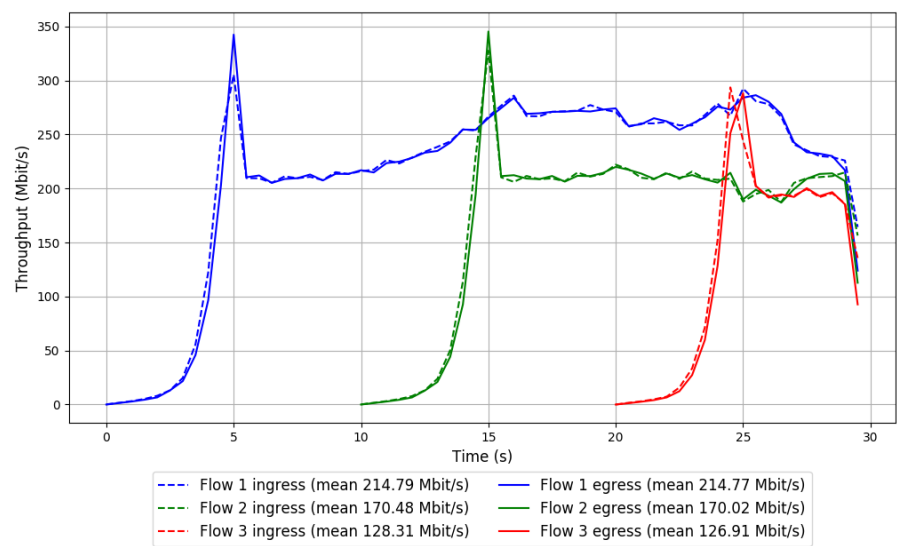
-- Flow 3:

Average throughput: 126.91 Mbit/s

95th percentile per-packet one-way delay: 114.968 ms

Loss rate: 3.43%

Run 3: Report of Vivace-latency — Data Link



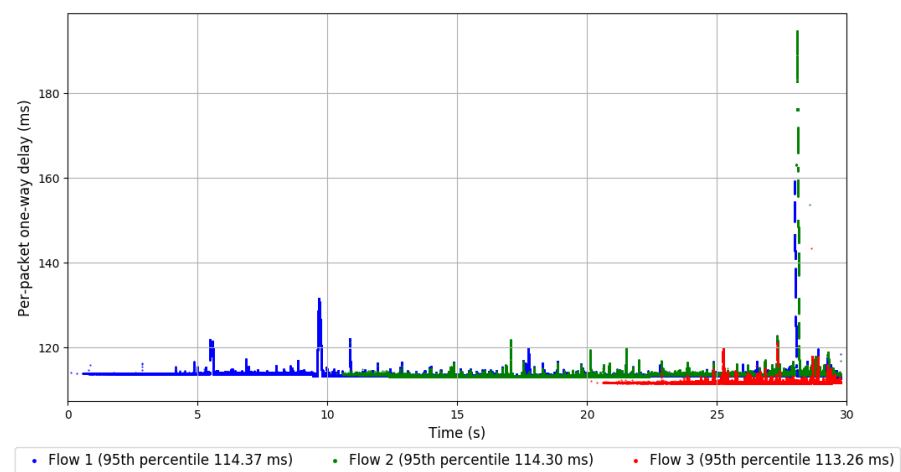
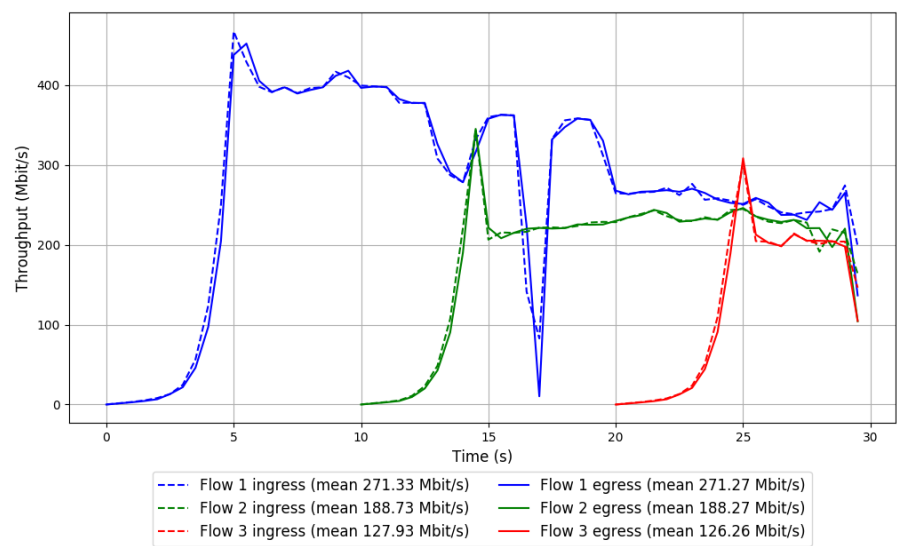
Run 4: Statistics of Vivace-latency

Start at: 2018-04-11 04:05:13

End at: 2018-04-11 04:05:43

```
# Below is generated by plot.py at 2018-04-11 11:00:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 436.89 Mbit/s
95th percentile per-packet one-way delay: 114.291 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 271.27 Mbit/s
95th percentile per-packet one-way delay: 114.372 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 188.27 Mbit/s
95th percentile per-packet one-way delay: 114.297 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 126.26 Mbit/s
95th percentile per-packet one-way delay: 113.257 ms
Loss rate: 3.62%
```

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-04-11 04:24:31

End at: 2018-04-11 04:25:01

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 370.17 Mbit/s

95th percentile per-packet one-way delay: 114.333 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 207.80 Mbit/s

95th percentile per-packet one-way delay: 113.975 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 183.92 Mbit/s

95th percentile per-packet one-way delay: 113.876 ms

Loss rate: 0.82%

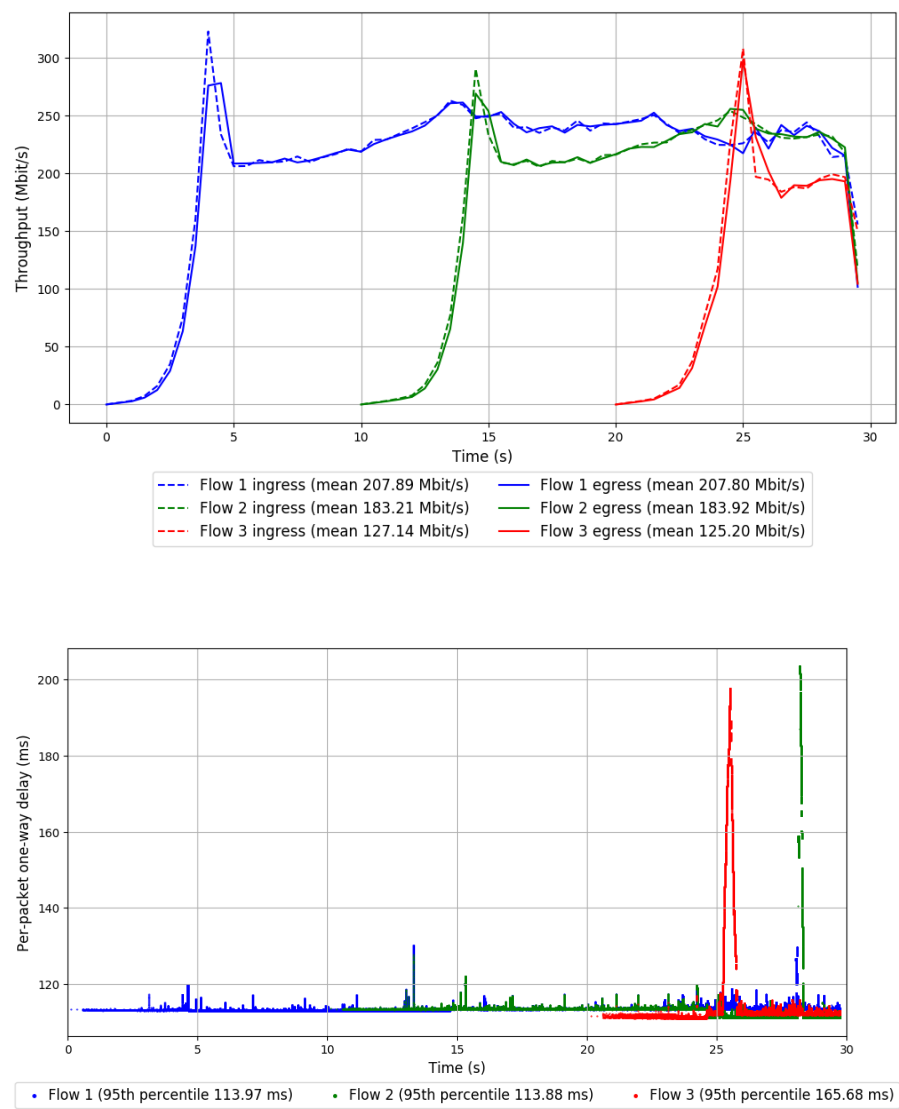
-- Flow 3:

Average throughput: 125.20 Mbit/s

95th percentile per-packet one-way delay: 165.684 ms

Loss rate: 3.79%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-04-11 04:43:41

End at: 2018-04-11 04:44:11

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 322.13 Mbit/s

95th percentile per-packet one-way delay: 120.202 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 226.59 Mbit/s

95th percentile per-packet one-way delay: 124.526 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 80.83 Mbit/s

95th percentile per-packet one-way delay: 113.455 ms

Loss rate: 3.24%

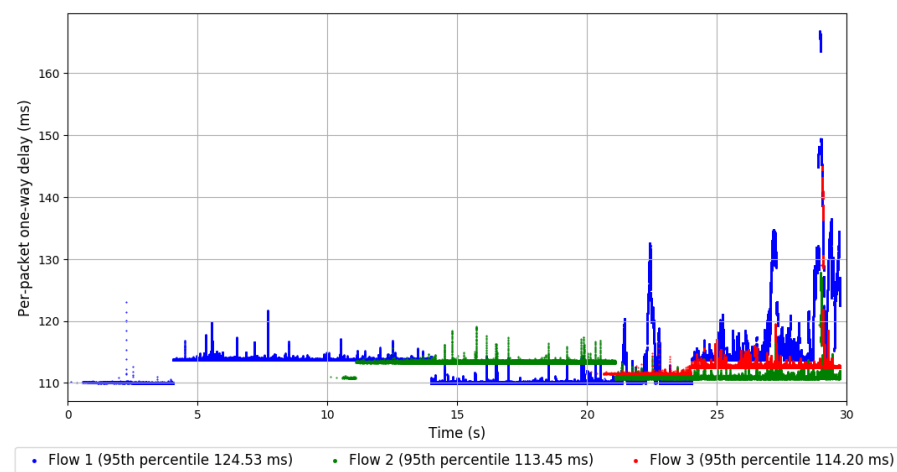
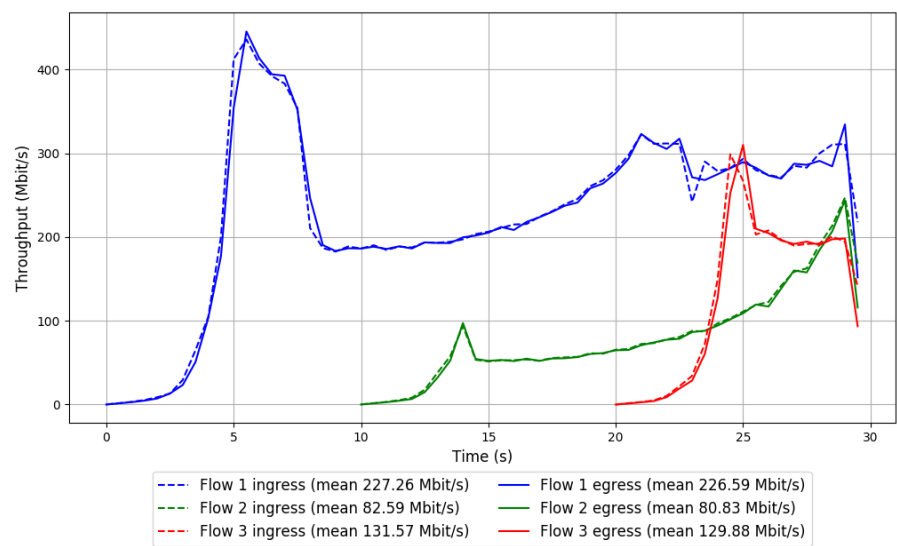
-- Flow 3:

Average throughput: 129.88 Mbit/s

95th percentile per-packet one-way delay: 114.199 ms

Loss rate: 3.53%

Run 6: Report of Vivace-latency — Data Link



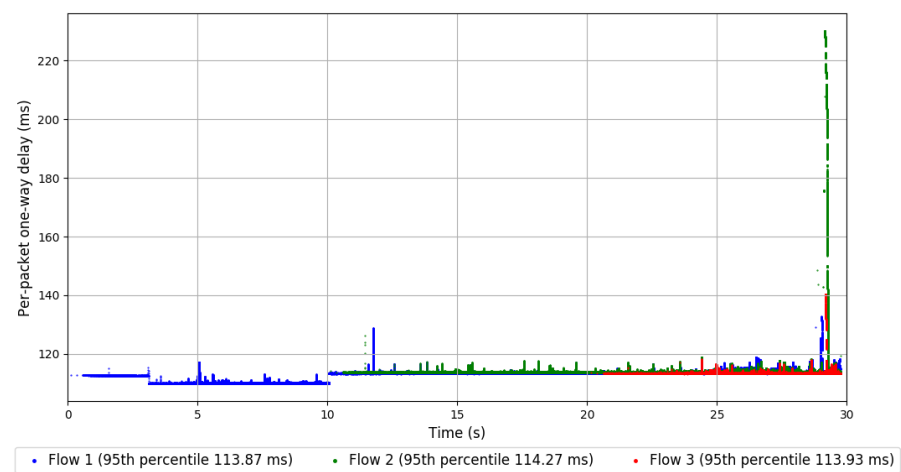
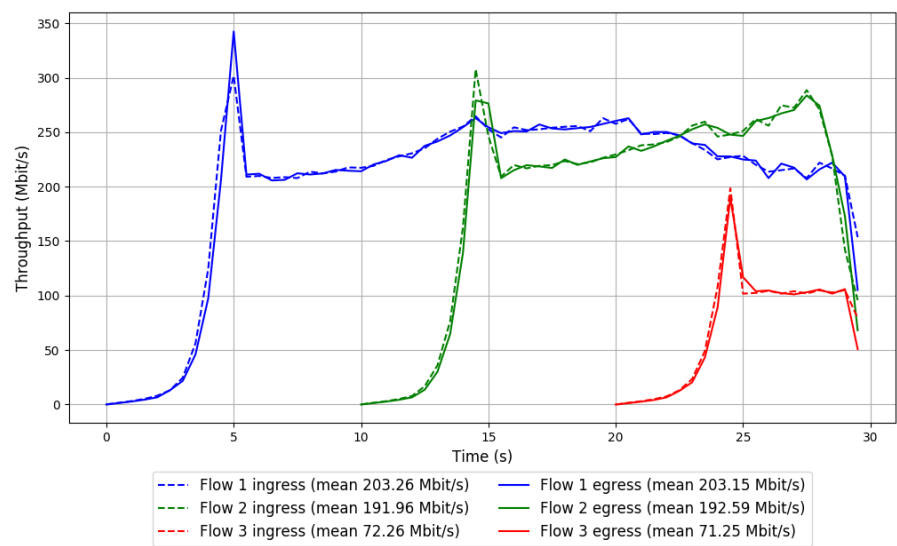
Run 7: Statistics of Vivace-latency

Start at: 2018-04-11 05:02:32

End at: 2018-04-11 05:03:02

```
# Below is generated by plot.py at 2018-04-11 11:00:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.68 Mbit/s
95th percentile per-packet one-way delay: 114.084 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 203.15 Mbit/s
95th percentile per-packet one-way delay: 113.874 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 192.59 Mbit/s
95th percentile per-packet one-way delay: 114.271 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 71.25 Mbit/s
95th percentile per-packet one-way delay: 113.930 ms
Loss rate: 3.65%
```

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-04-11 05:21:41

End at: 2018-04-11 05:22:11

Below is generated by plot.py at 2018-04-11 11:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 419.47 Mbit/s

95th percentile per-packet one-way delay: 113.667 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 257.48 Mbit/s

95th percentile per-packet one-way delay: 113.470 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 183.93 Mbit/s

95th percentile per-packet one-way delay: 113.839 ms

Loss rate: 1.46%

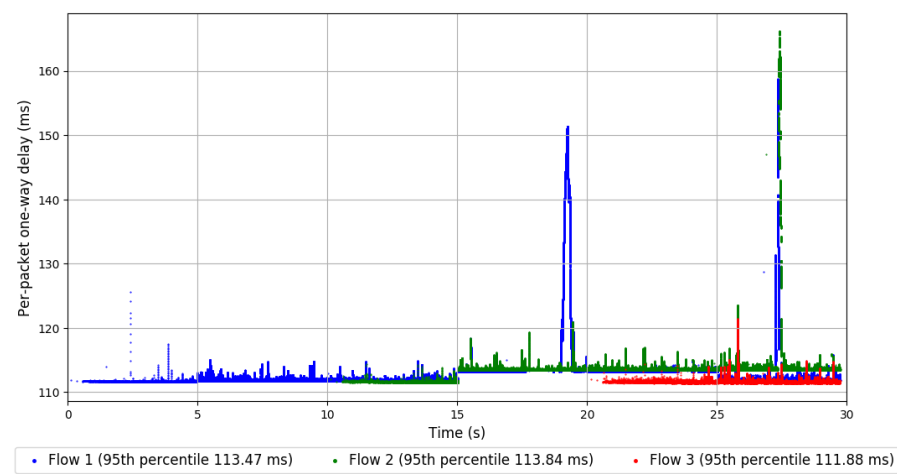
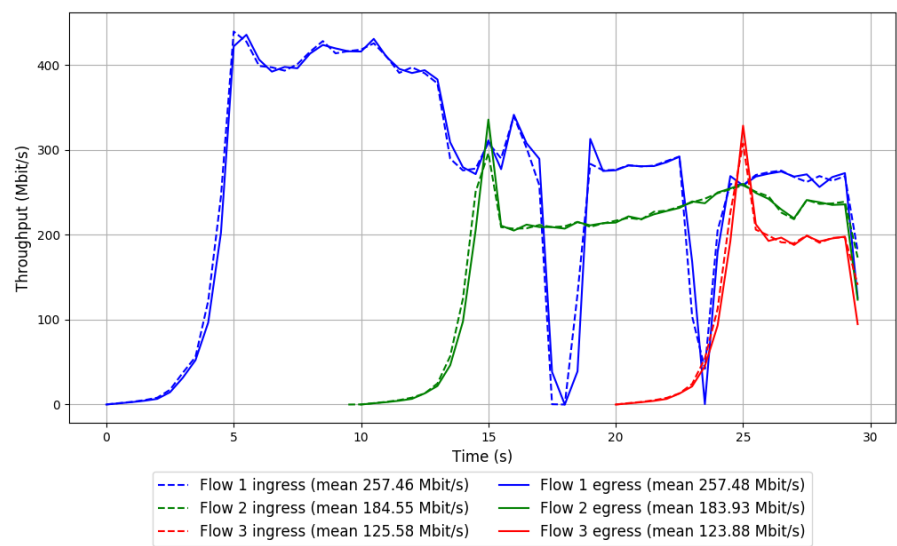
-- Flow 3:

Average throughput: 123.88 Mbit/s

95th percentile per-packet one-way delay: 111.877 ms

Loss rate: 3.60%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-04-11 05:41:04

End at: 2018-04-11 05:41:34

Below is generated by plot.py at 2018-04-11 11:00:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 454.87 Mbit/s

95th percentile per-packet one-way delay: 113.936 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 278.42 Mbit/s

95th percentile per-packet one-way delay: 113.014 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 199.69 Mbit/s

95th percentile per-packet one-way delay: 113.444 ms

Loss rate: 1.50%

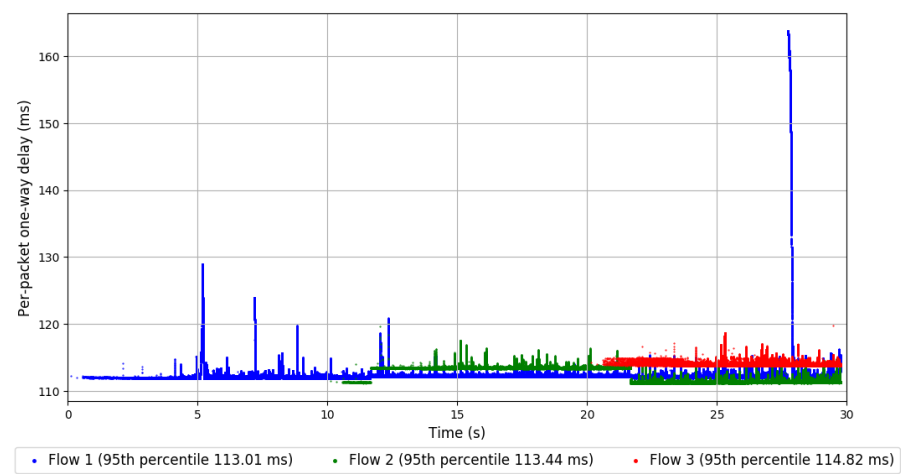
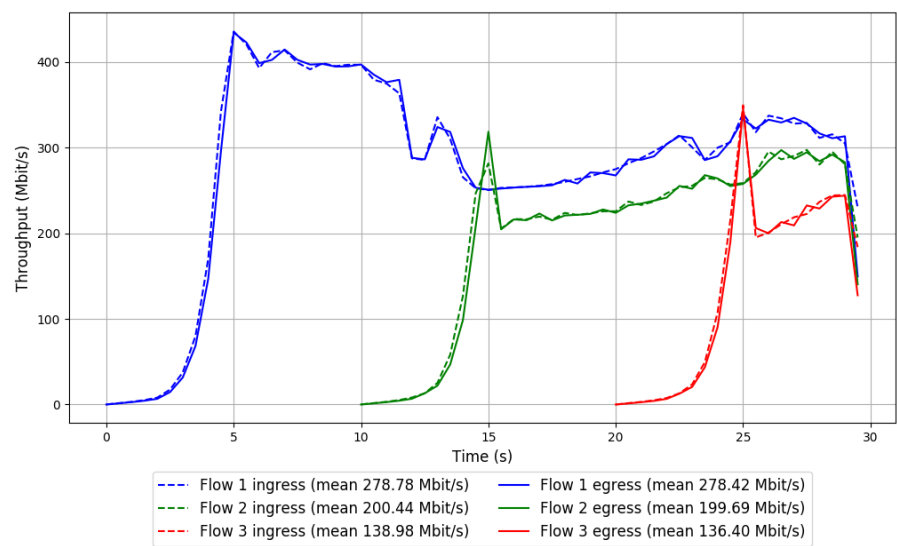
-- Flow 3:

Average throughput: 136.40 Mbit/s

95th percentile per-packet one-way delay: 114.823 ms

Loss rate: 4.10%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-04-11 06:00:22

End at: 2018-04-11 06:00:52

Below is generated by plot.py at 2018-04-11 11:00:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 436.70 Mbit/s

95th percentile per-packet one-way delay: 114.212 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 274.58 Mbit/s

95th percentile per-packet one-way delay: 112.183 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 185.83 Mbit/s

95th percentile per-packet one-way delay: 114.705 ms

Loss rate: 1.26%

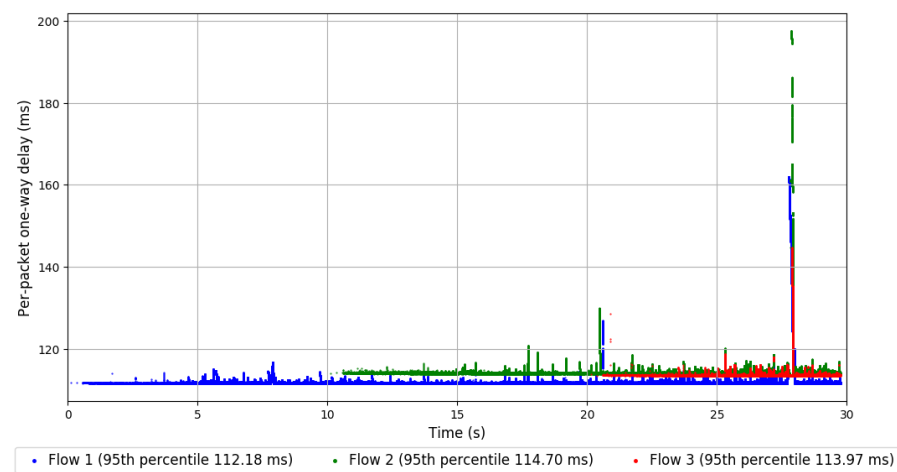
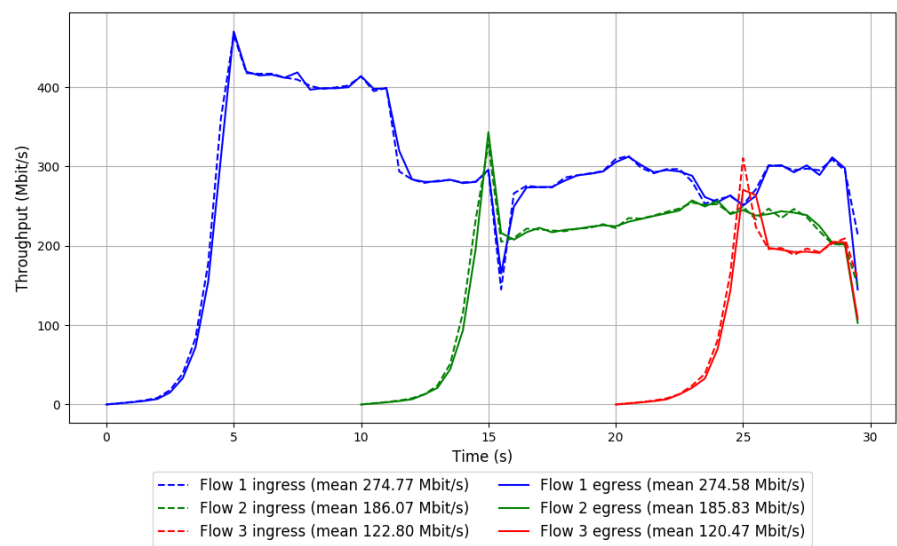
-- Flow 3:

Average throughput: 120.47 Mbit/s

95th percentile per-packet one-way delay: 113.968 ms

Loss rate: 4.15%

Run 10: Report of Vivace-latency — Data Link

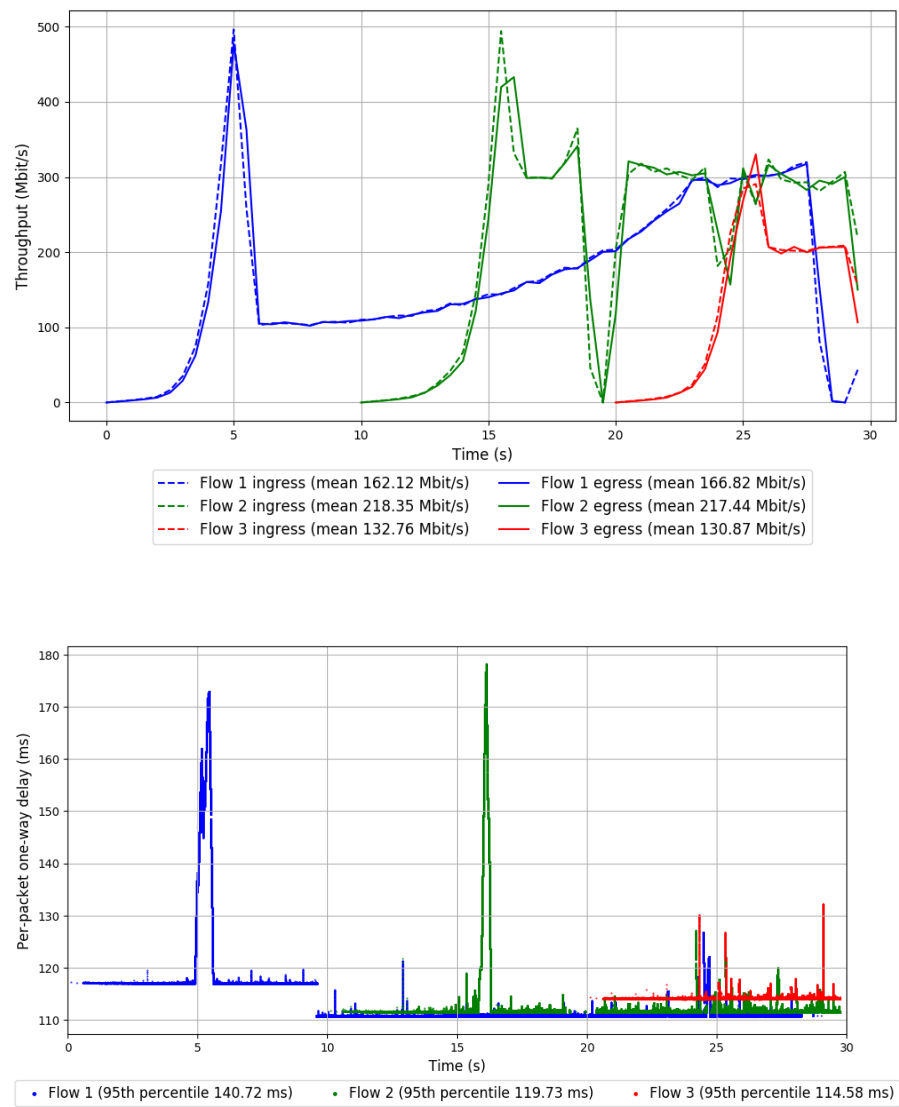


```
Run 1: Statistics of Vivace-loss

Start at: 2018-04-11 03:03:23
End at: 2018-04-11 03:03:53

# Below is generated by plot.py at 2018-04-11 11:00:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 349.18 Mbit/s
95th percentile per-packet one-way delay: 122.267 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 166.82 Mbit/s
95th percentile per-packet one-way delay: 140.723 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 217.44 Mbit/s
95th percentile per-packet one-way delay: 119.727 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 130.87 Mbit/s
95th percentile per-packet one-way delay: 114.579 ms
Loss rate: 3.74%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-04-11 03:22:14

End at: 2018-04-11 03:22:44

Below is generated by plot.py at 2018-04-11 11:02:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 447.33 Mbit/s

95th percentile per-packet one-way delay: 116.480 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 235.22 Mbit/s

95th percentile per-packet one-way delay: 116.321 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 254.65 Mbit/s

95th percentile per-packet one-way delay: 117.035 ms

Loss rate: 1.48%

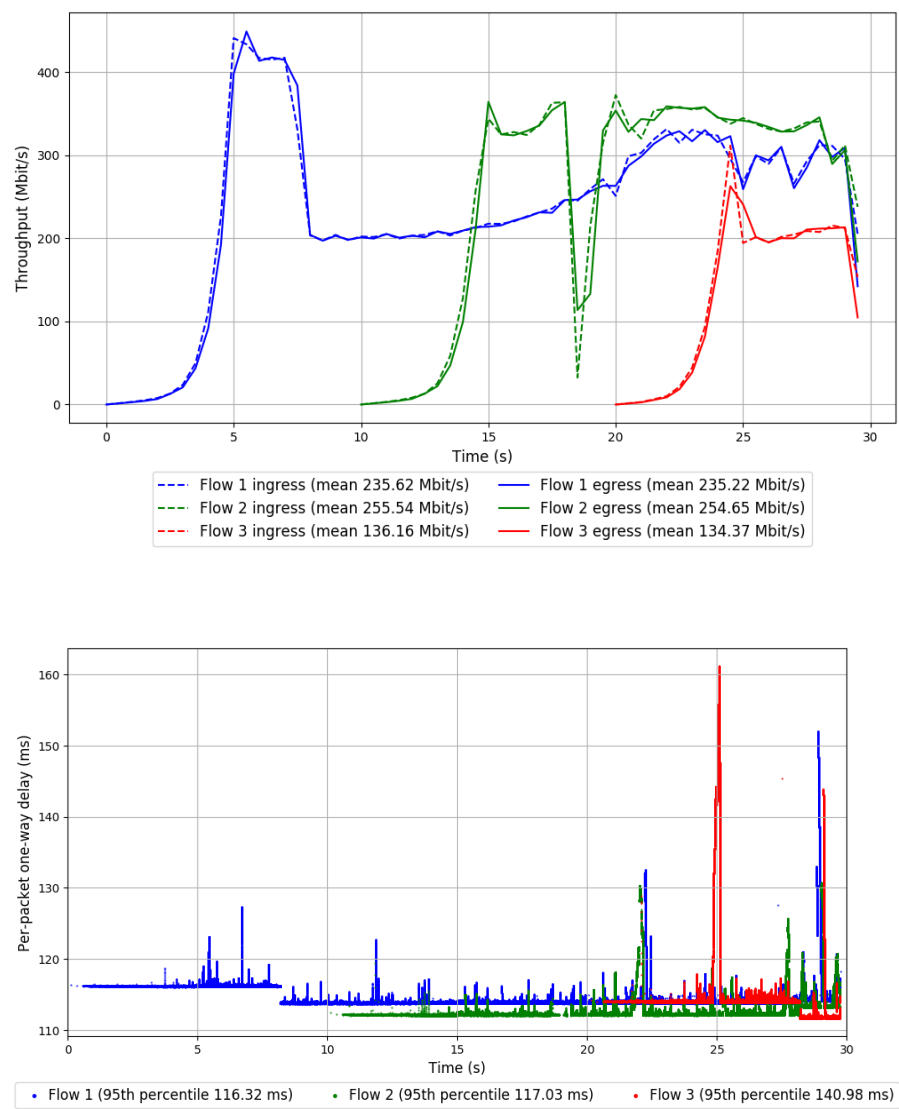
-- Flow 3:

Average throughput: 134.37 Mbit/s

95th percentile per-packet one-way delay: 140.982 ms

Loss rate: 3.61%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-04-11 03:40:51

End at: 2018-04-11 03:41:21

Below is generated by plot.py at 2018-04-11 11:04:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 469.89 Mbit/s

95th percentile per-packet one-way delay: 141.122 ms

Loss rate: 2.11%

-- Flow 1:

Average throughput: 272.70 Mbit/s

95th percentile per-packet one-way delay: 242.418 ms

Loss rate: 2.14%

-- Flow 2:

Average throughput: 232.88 Mbit/s

95th percentile per-packet one-way delay: 114.391 ms

Loss rate: 1.61%

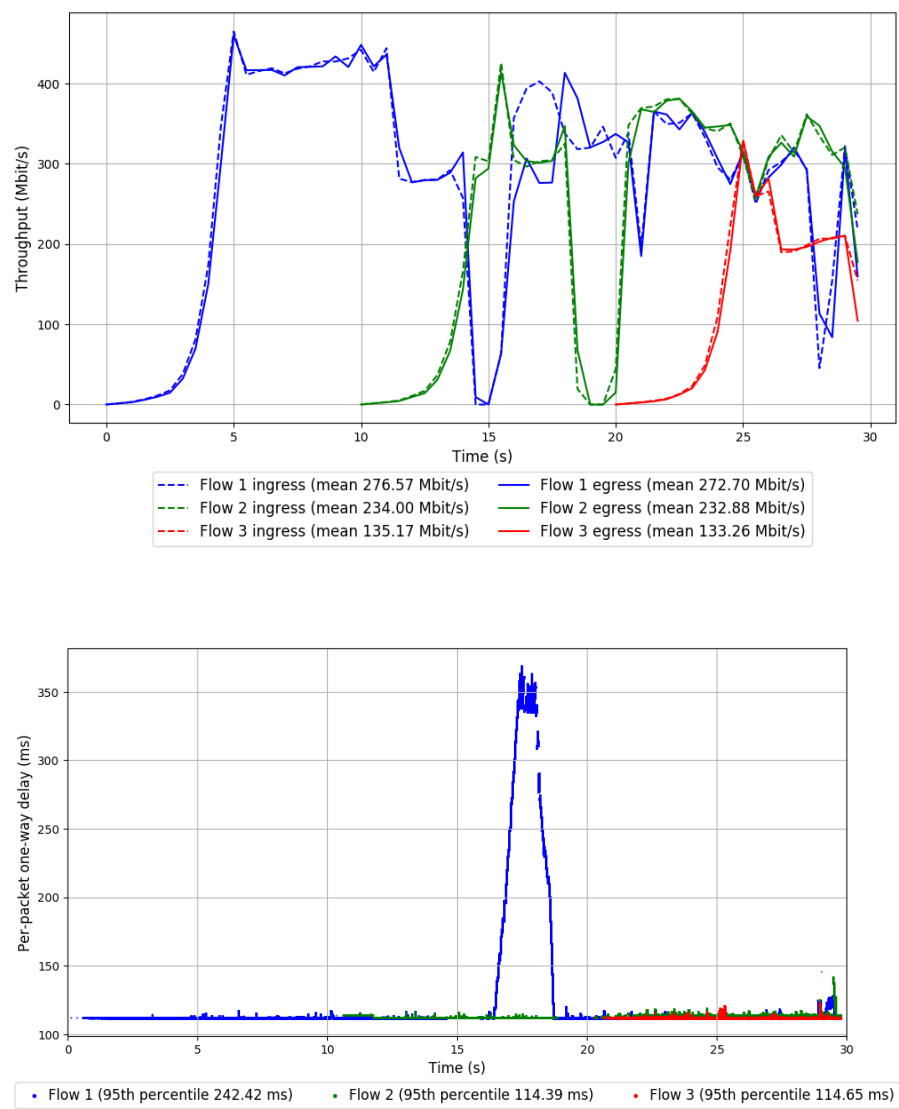
-- Flow 3:

Average throughput: 133.26 Mbit/s

95th percentile per-packet one-way delay: 114.654 ms

Loss rate: 3.66%

Run 3: Report of Vivace-loss — Data Link

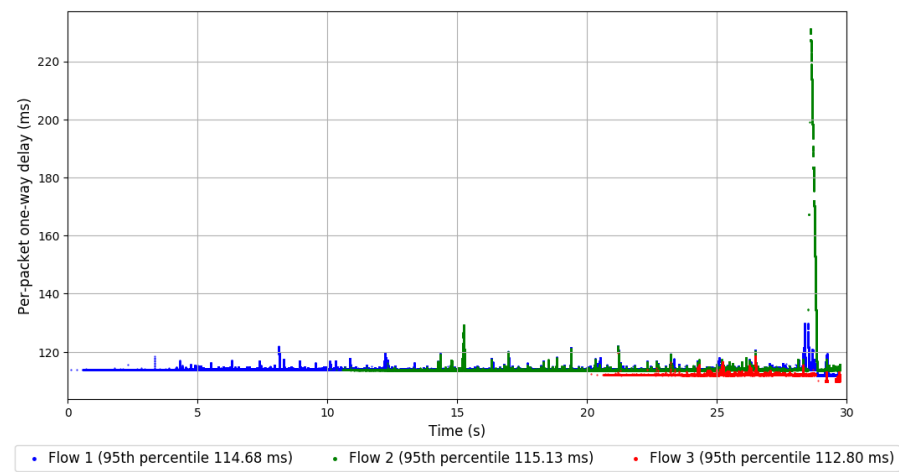
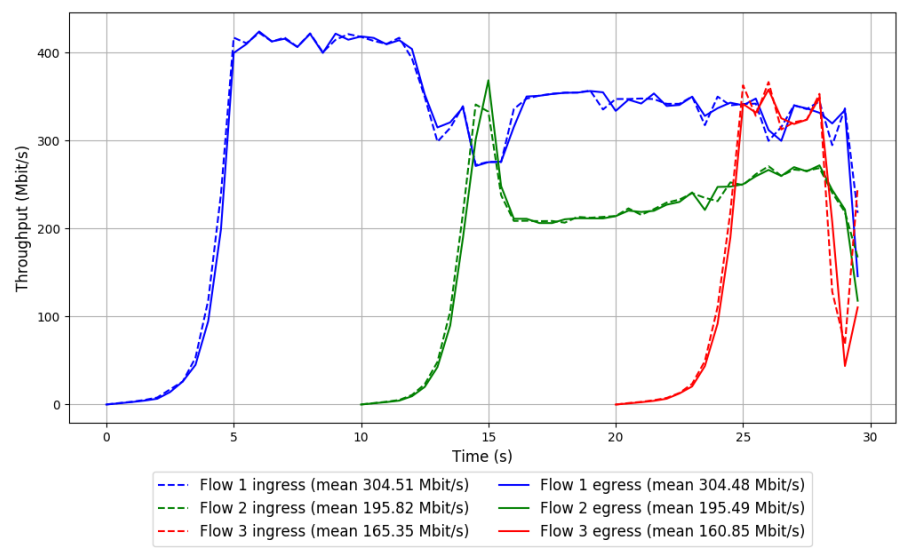


```
Run 4: Statistics of Vivace-loss

Start at: 2018-04-11 04:00:04
End at: 2018-04-11 04:00:34

# Below is generated by plot.py at 2018-04-11 11:07:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 485.99 Mbit/s
95th percentile per-packet one-way delay: 114.629 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 304.48 Mbit/s
95th percentile per-packet one-way delay: 114.679 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 195.49 Mbit/s
95th percentile per-packet one-way delay: 115.129 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 160.85 Mbit/s
95th percentile per-packet one-way delay: 112.798 ms
Loss rate: 4.95%
```

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-04-11 04:19:10

End at: 2018-04-11 04:19:40

Below is generated by plot.py at 2018-04-11 11:07:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 432.41 Mbit/s

95th percentile per-packet one-way delay: 116.213 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 250.81 Mbit/s

95th percentile per-packet one-way delay: 115.122 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 187.31 Mbit/s

95th percentile per-packet one-way delay: 119.773 ms

Loss rate: 1.08%

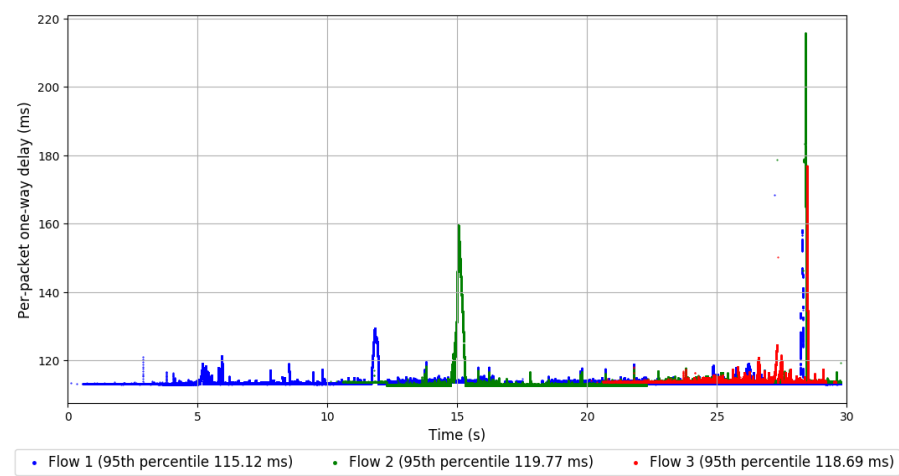
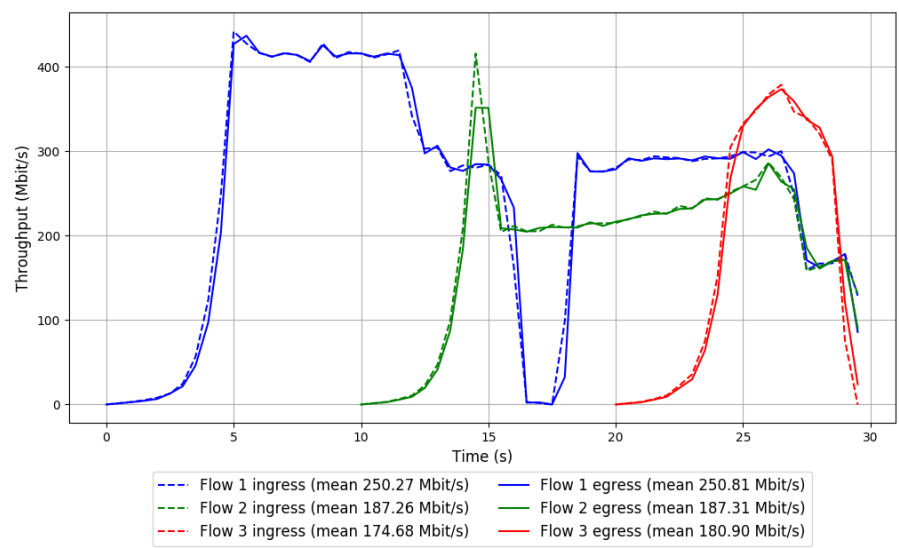
-- Flow 3:

Average throughput: 180.90 Mbit/s

95th percentile per-packet one-way delay: 118.690 ms

Loss rate: 0.01%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-04-11 04:38:18

End at: 2018-04-11 04:38:48

Below is generated by plot.py at 2018-04-11 11:07:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 453.94 Mbit/s

95th percentile per-packet one-way delay: 136.530 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 256.01 Mbit/s

95th percentile per-packet one-way delay: 115.283 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 227.65 Mbit/s

95th percentile per-packet one-way delay: 163.785 ms

Loss rate: 1.54%

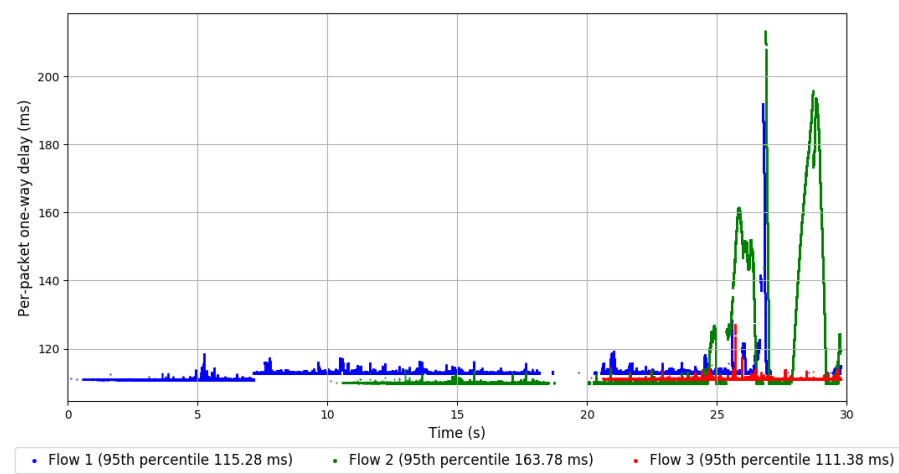
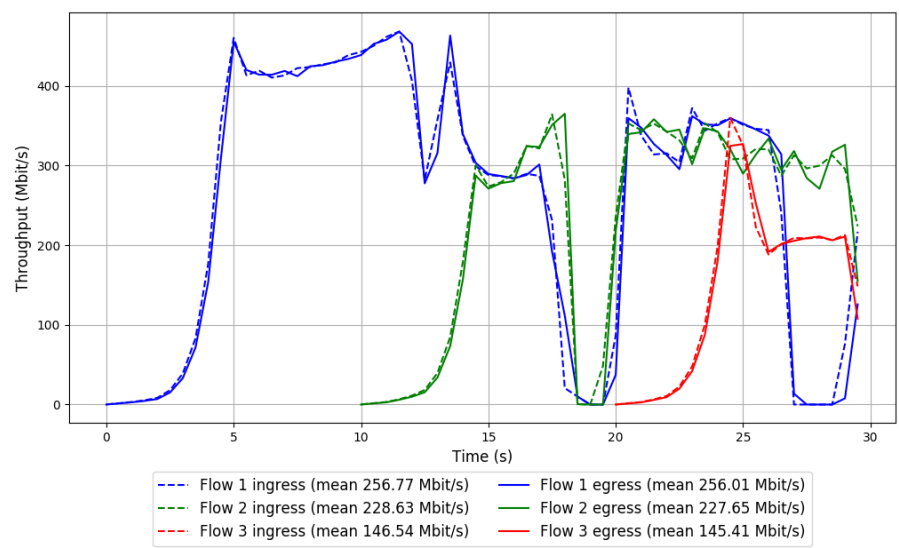
-- Flow 3:

Average throughput: 145.41 Mbit/s

95th percentile per-packet one-way delay: 111.381 ms

Loss rate: 3.04%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-04-11 04:57:26

End at: 2018-04-11 04:57:56

Below is generated by plot.py at 2018-04-11 11:07:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 386.29 Mbit/s

95th percentile per-packet one-way delay: 147.235 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 183.29 Mbit/s

95th percentile per-packet one-way delay: 159.608 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 236.79 Mbit/s

95th percentile per-packet one-way delay: 125.011 ms

Loss rate: 1.62%

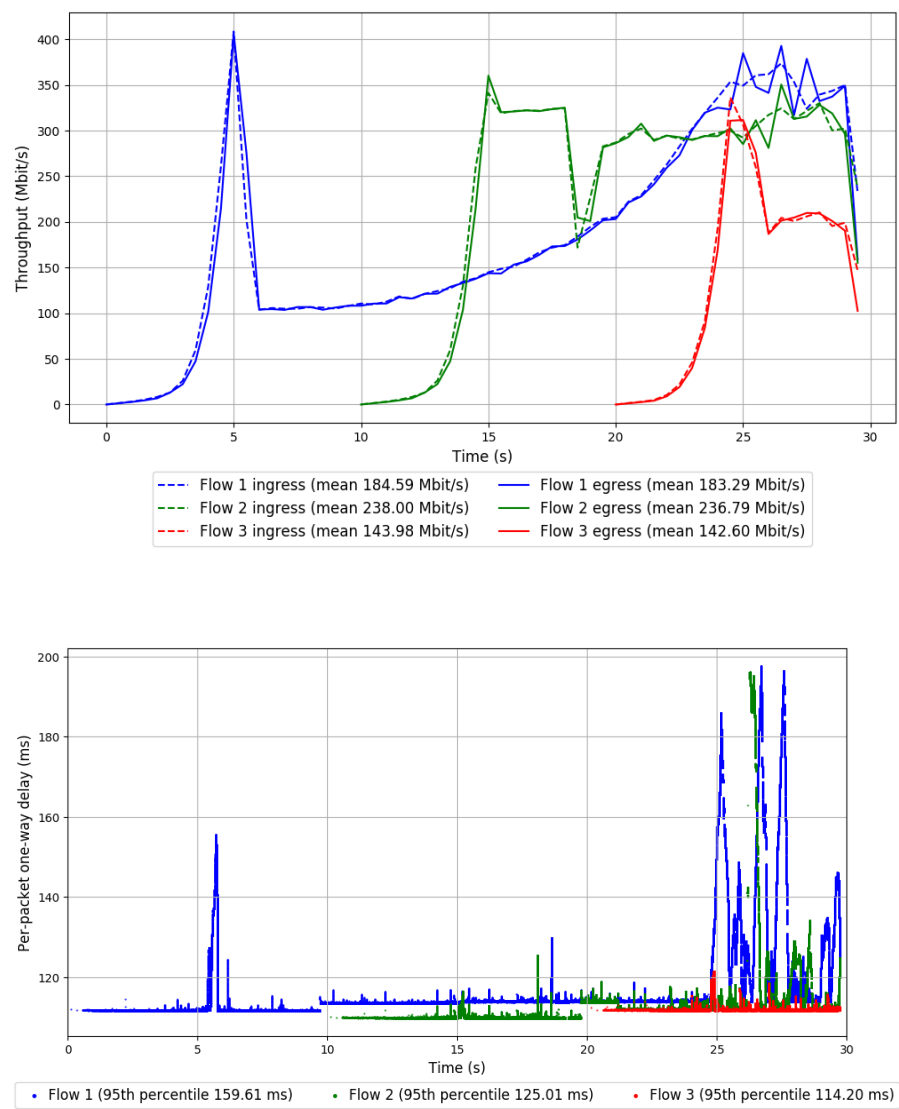
-- Flow 3:

Average throughput: 142.60 Mbit/s

95th percentile per-packet one-way delay: 114.198 ms

Loss rate: 3.29%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-04-11 05:16:27

End at: 2018-04-11 05:16:57

Below is generated by plot.py at 2018-04-11 11:07:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 401.66 Mbit/s

95th percentile per-packet one-way delay: 124.173 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 249.41 Mbit/s

95th percentile per-packet one-way delay: 113.575 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 163.69 Mbit/s

95th percentile per-packet one-way delay: 146.878 ms

Loss rate: 0.72%

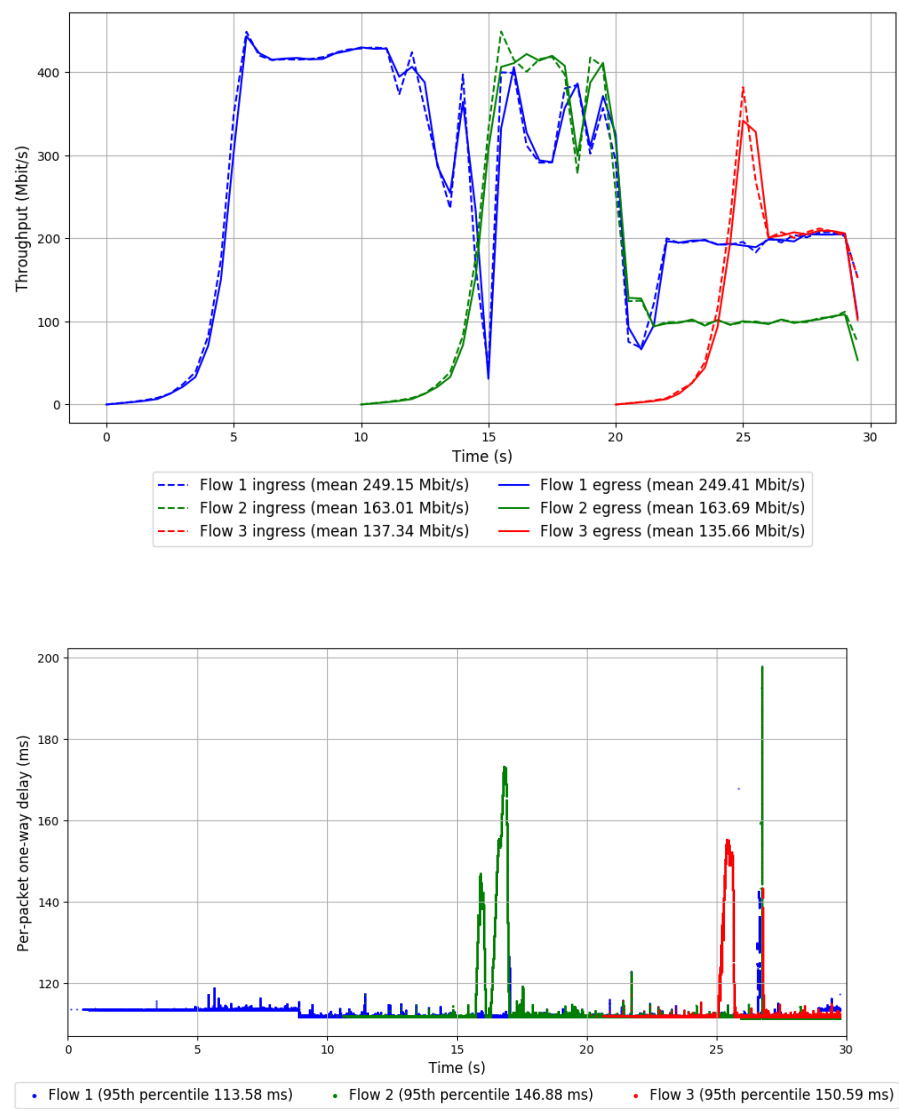
-- Flow 3:

Average throughput: 135.66 Mbit/s

95th percentile per-packet one-way delay: 150.592 ms

Loss rate: 3.49%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-04-11 05:35:41

End at: 2018-04-11 05:36:11

Below is generated by plot.py at 2018-04-11 11:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 483.95 Mbit/s

95th percentile per-packet one-way delay: 114.144 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 276.21 Mbit/s

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

Loss rate: 0.88%

-- Flow 2:

Average throughput: 237.58 Mbit/s

95th percentile per-packet one-way delay: 113.844 ms

Loss rate: 1.30%

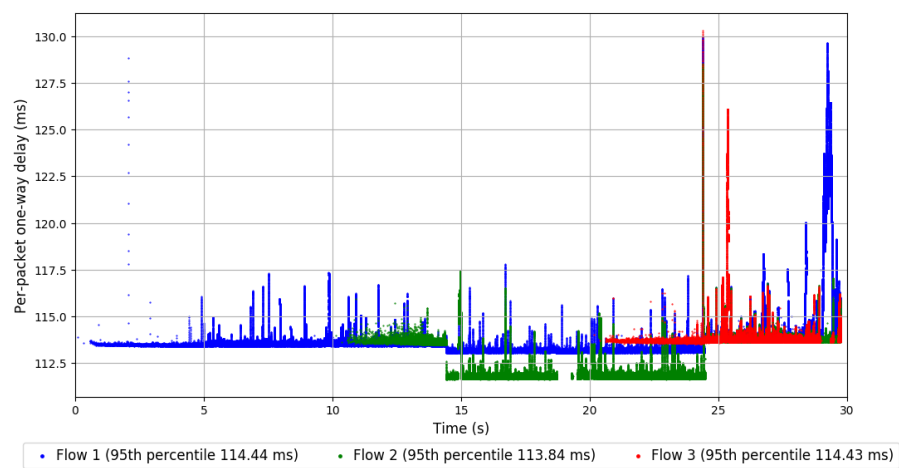
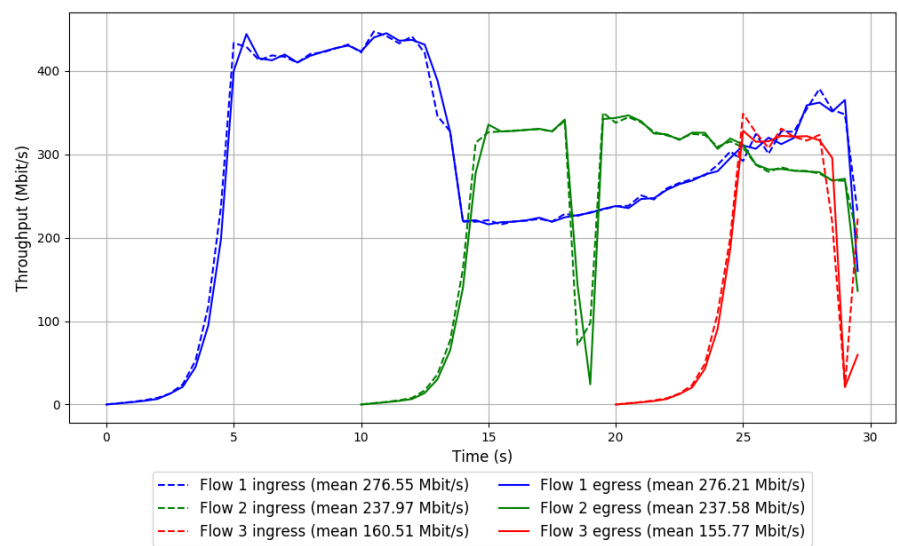
-- Flow 3:

Average throughput: 155.77 Mbit/s

95th percentile per-packet one-way delay: 114.434 ms

Loss rate: 5.19%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-04-11 05:55:02

End at: 2018-04-11 05:55:32

Below is generated by plot.py at 2018-04-11 11:11:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 481.81 Mbit/s

95th percentile per-packet one-way delay: 113.748 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 308.43 Mbit/s

95th percentile per-packet one-way delay: 114.104 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 184.03 Mbit/s

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

Loss rate: 1.05%

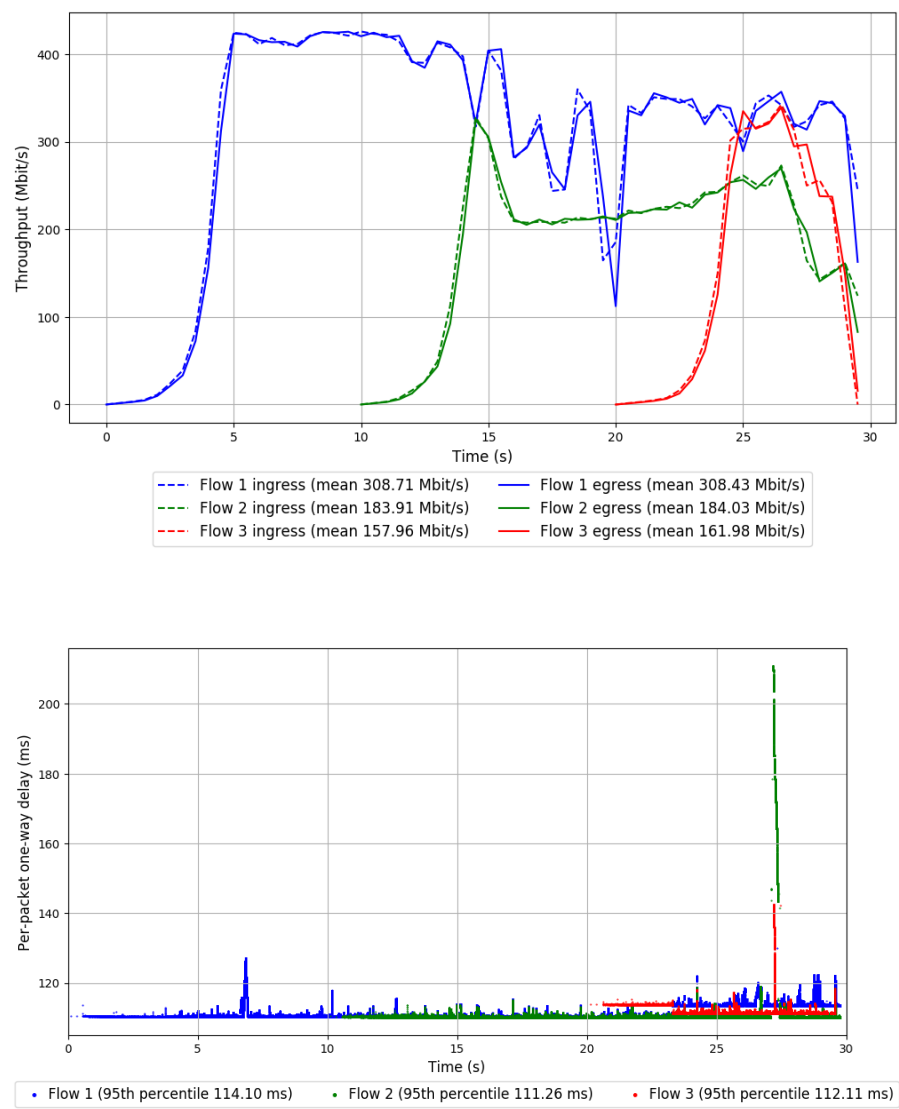
-- Flow 3:

Average throughput: 161.98 Mbit/s

95th percentile per-packet one-way delay: 112.110 ms

Loss rate: 0.00%

Run 10: Report of Vivace-loss — Data Link

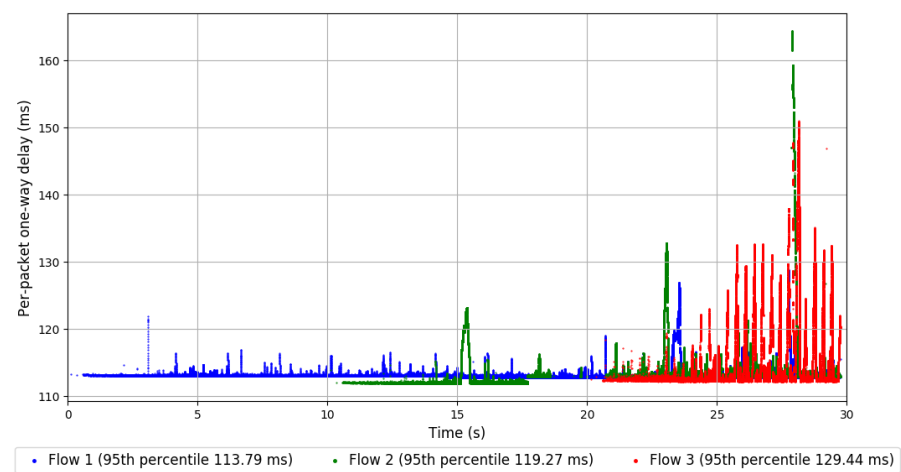
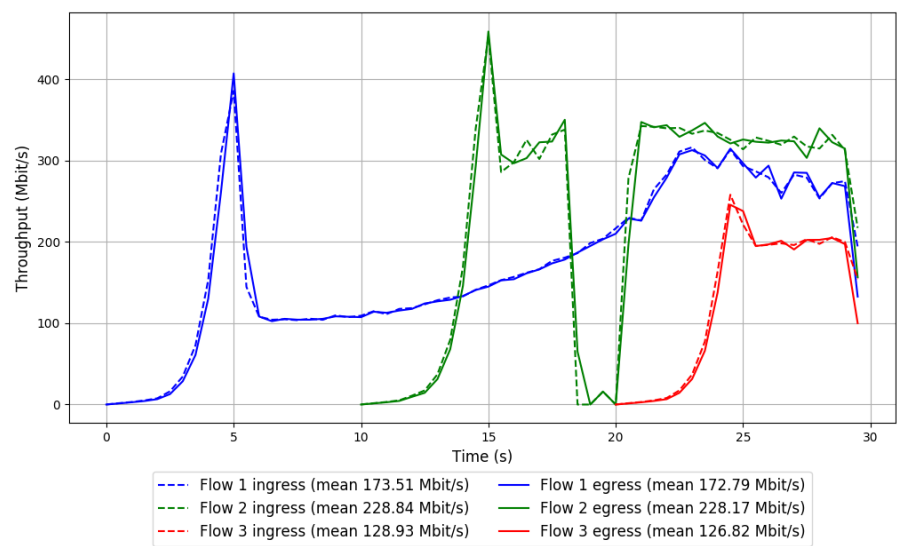


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-04-11 03:15:08
End at: 2018-04-11 03:15:38

# Below is generated by plot.py at 2018-04-11 11:11:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 365.05 Mbit/s
95th percentile per-packet one-way delay: 118.994 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 172.79 Mbit/s
95th percentile per-packet one-way delay: 113.793 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 228.17 Mbit/s
95th percentile per-packet one-way delay: 119.267 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 126.82 Mbit/s
95th percentile per-packet one-way delay: 129.445 ms
Loss rate: 3.94%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-04-11 03:33:58

End at: 2018-04-11 03:34:28

Below is generated by plot.py at 2018-04-11 11:11:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 292.72 Mbit/s

95th percentile per-packet one-way delay: 113.044 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 133.16 Mbit/s

95th percentile per-packet one-way delay: 113.043 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 179.42 Mbit/s

95th percentile per-packet one-way delay: 113.241 ms

Loss rate: 1.39%

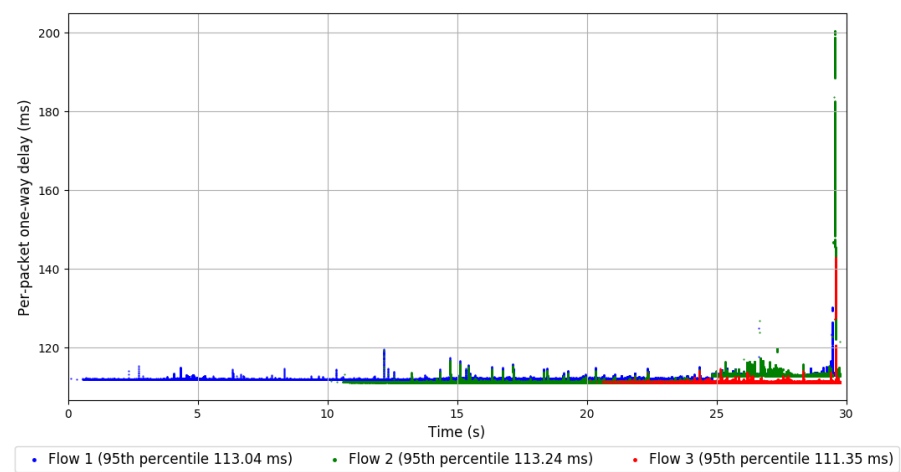
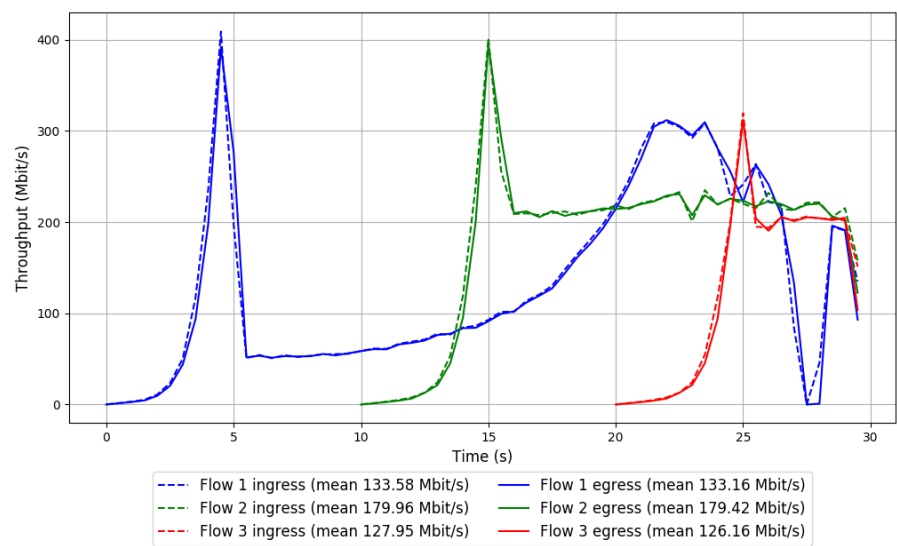
-- Flow 3:

Average throughput: 126.16 Mbit/s

95th percentile per-packet one-way delay: 111.350 ms

Loss rate: 3.66%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-04-11 03:53:04

End at: 2018-04-11 03:53:34

Below is generated by plot.py at 2018-04-11 11:12:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 363.97 Mbit/s

95th percentile per-packet one-way delay: 113.612 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 241.26 Mbit/s

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

Loss rate: 0.89%

-- Flow 2:

Average throughput: 120.51 Mbit/s

95th percentile per-packet one-way delay: 113.717 ms

Loss rate: 2.22%

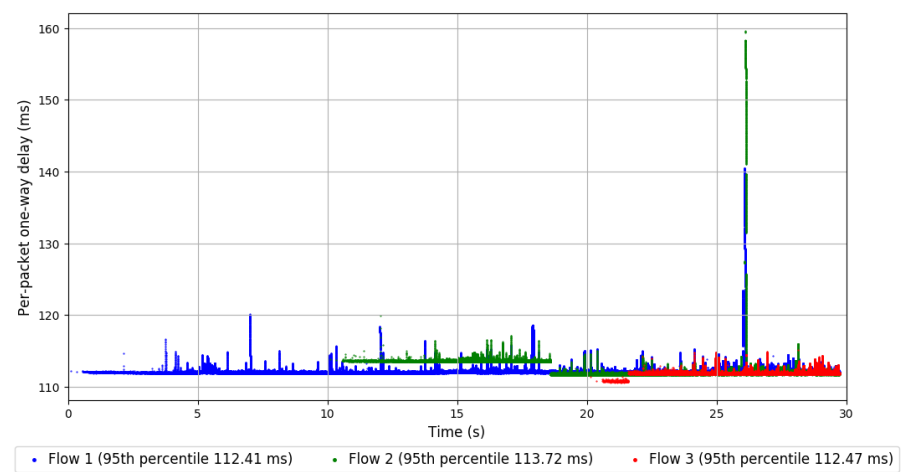
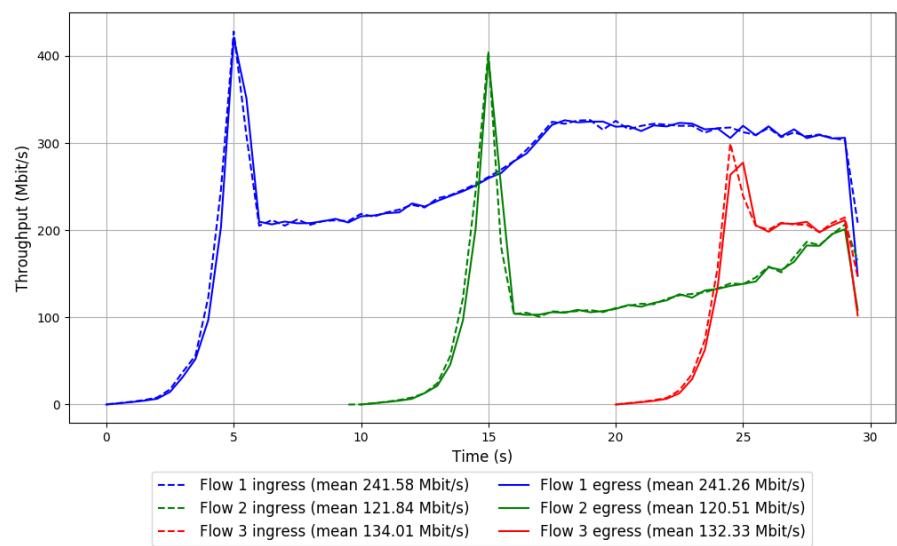
-- Flow 3:

Average throughput: 132.33 Mbit/s

95th percentile per-packet one-way delay: 112.469 ms

Loss rate: 3.50%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-04-11 04:12:07

End at: 2018-04-11 04:12:37

Below is generated by plot.py at 2018-04-11 11:13:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 415.55 Mbit/s

95th percentile per-packet one-way delay: 114.475 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 240.89 Mbit/s

95th percentile per-packet one-way delay: 114.695 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 199.06 Mbit/s

95th percentile per-packet one-way delay: 114.157 ms

Loss rate: 1.54%

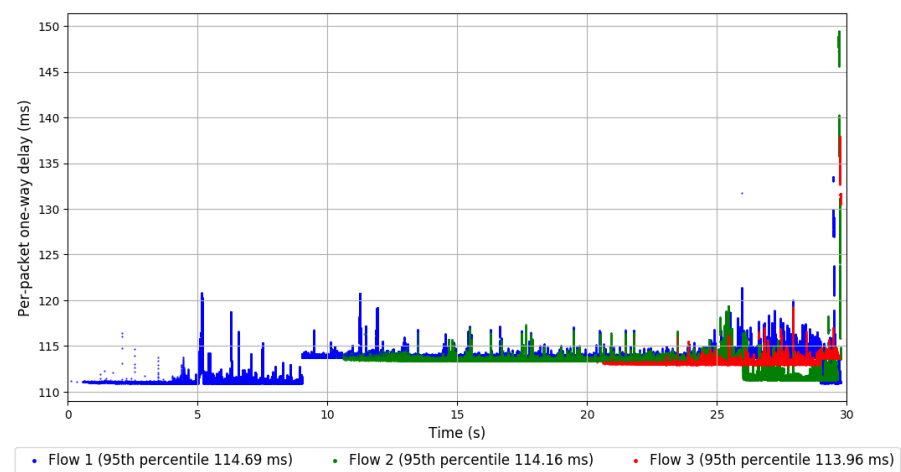
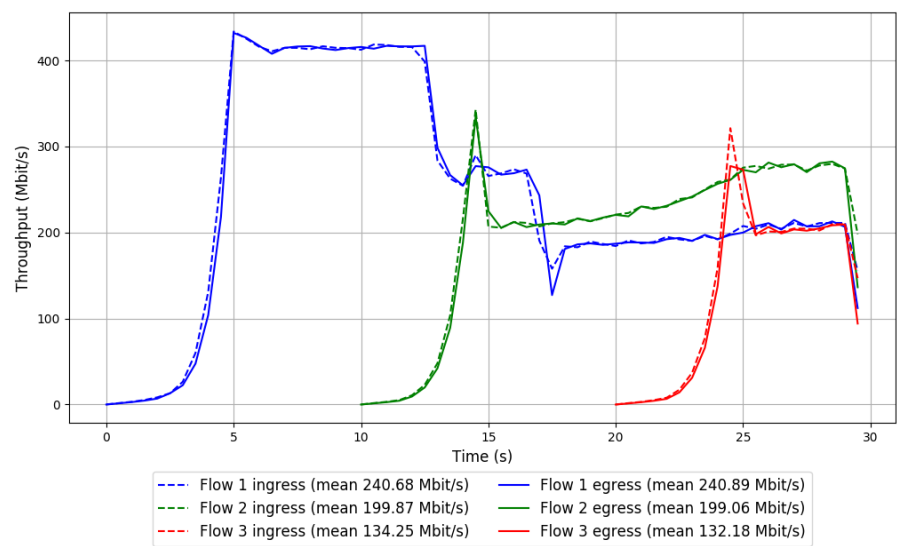
-- Flow 3:

Average throughput: 132.18 Mbit/s

95th percentile per-packet one-way delay: 113.959 ms

Loss rate: 3.79%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-04-11 04:31:20

End at: 2018-04-11 04:31:50

Below is generated by plot.py at 2018-04-11 11:14:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 395.79 Mbit/s

95th percentile per-packet one-way delay: 114.365 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 224.35 Mbit/s

95th percentile per-packet one-way delay: 114.153 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 191.73 Mbit/s

95th percentile per-packet one-way delay: 114.639 ms

Loss rate: 1.68%

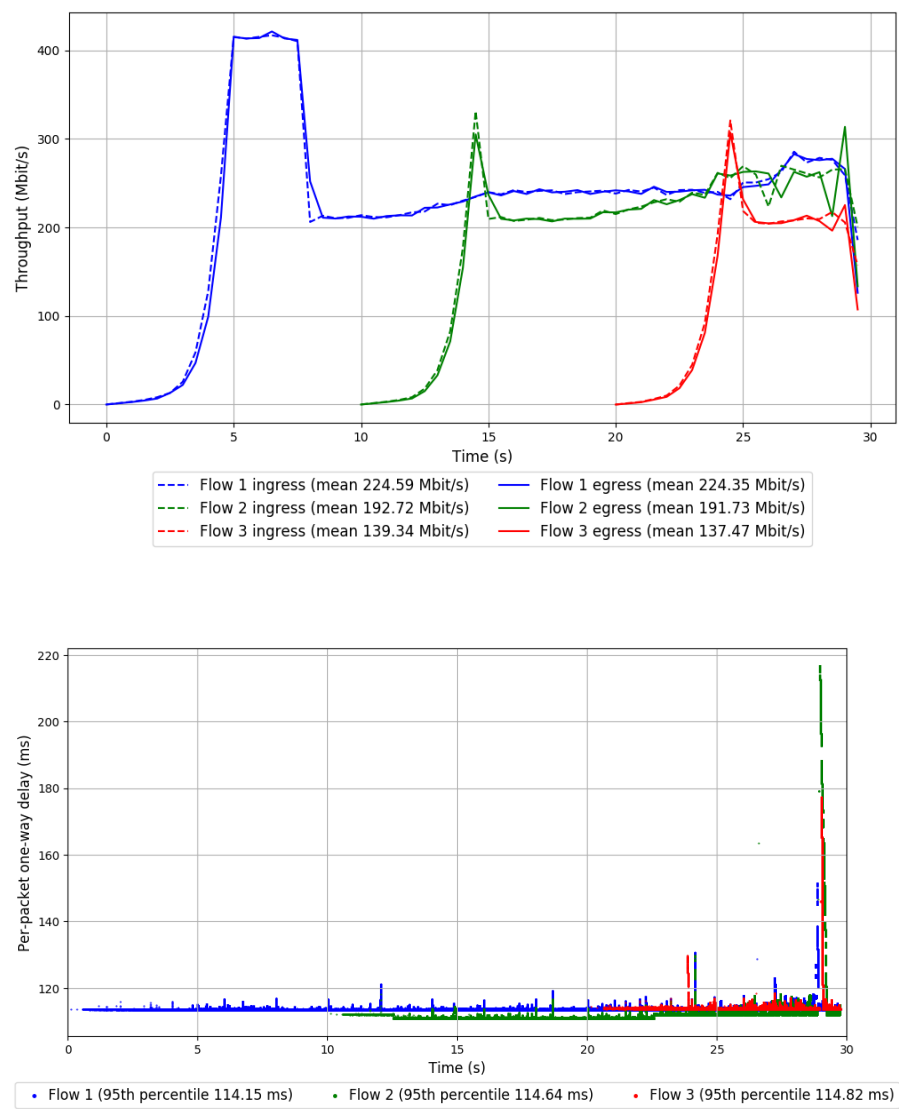
-- Flow 3:

Average throughput: 137.47 Mbit/s

95th percentile per-packet one-way delay: 114.821 ms

Loss rate: 3.61%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-04-11 04:50:27

End at: 2018-04-11 04:50:57

Below is generated by plot.py at 2018-04-11 11:14:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 393.28 Mbit/s

95th percentile per-packet one-way delay: 122.060 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 221.81 Mbit/s

95th percentile per-packet one-way delay: 122.061 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 192.52 Mbit/s

95th percentile per-packet one-way delay: 114.638 ms

Loss rate: 1.47%

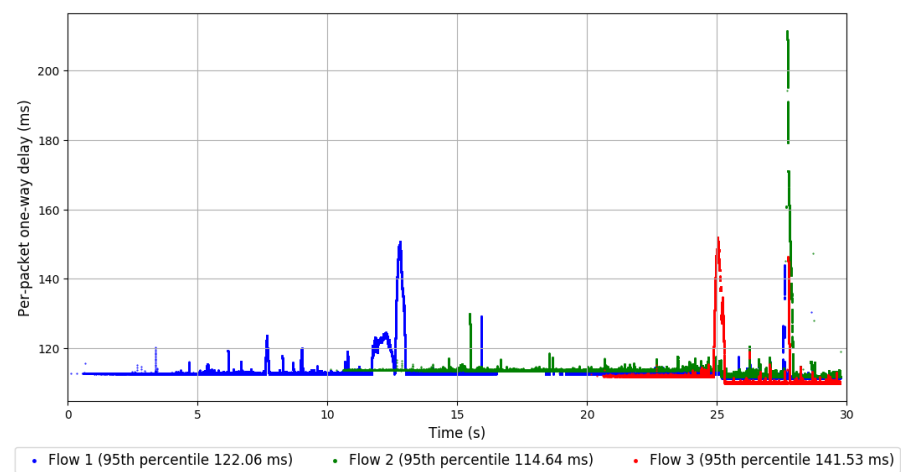
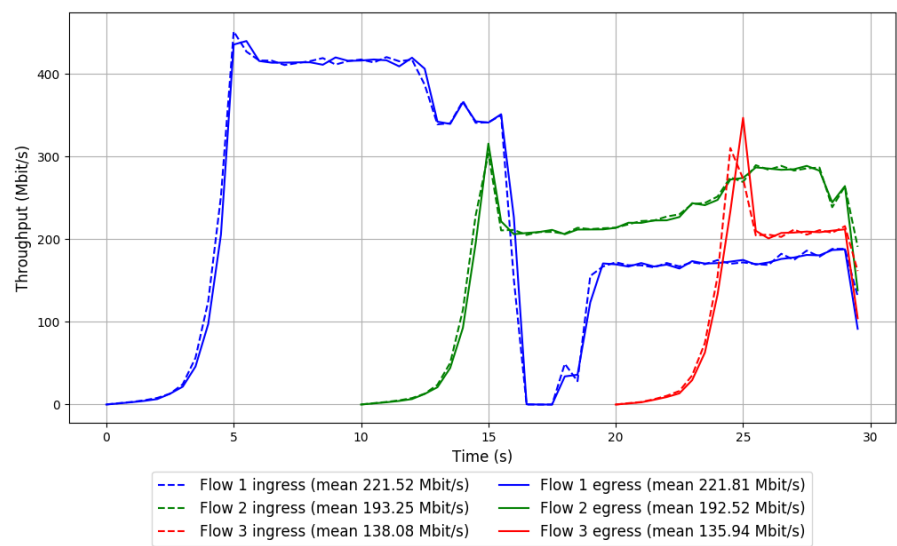
-- Flow 3:

Average throughput: 135.94 Mbit/s

95th percentile per-packet one-way delay: 141.529 ms

Loss rate: 3.81%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-04-11 05:09:20

End at: 2018-04-11 05:09:50

Below is generated by plot.py at 2018-04-11 11:15:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 453.93 Mbit/s

95th percentile per-packet one-way delay: 113.938 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 286.41 Mbit/s

95th percentile per-packet one-way delay: 113.998 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 188.34 Mbit/s

95th percentile per-packet one-way delay: 113.381 ms

Loss rate: 1.45%

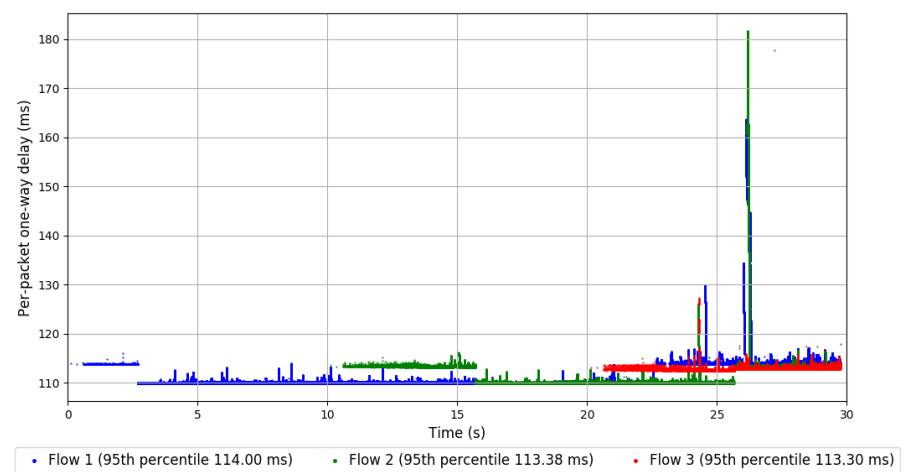
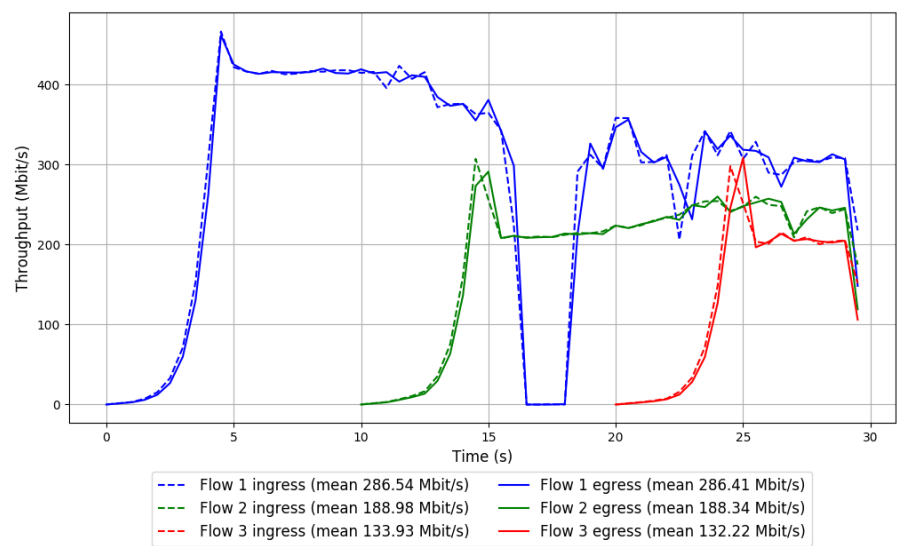
-- Flow 3:

Average throughput: 132.22 Mbit/s

95th percentile per-packet one-way delay: 113.298 ms

Loss rate: 3.54%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-04-11 05:28:35

End at: 2018-04-11 05:29:05

Below is generated by plot.py at 2018-04-11 11:16:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 464.50 Mbit/s

95th percentile per-packet one-way delay: 114.478 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 298.38 Mbit/s

95th percentile per-packet one-way delay: 114.849 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 186.13 Mbit/s

95th percentile per-packet one-way delay: 112.561 ms

Loss rate: 1.61%

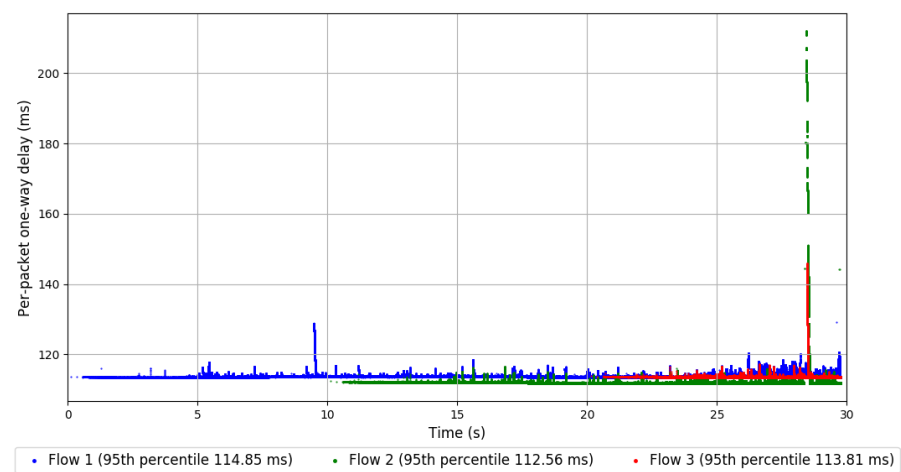
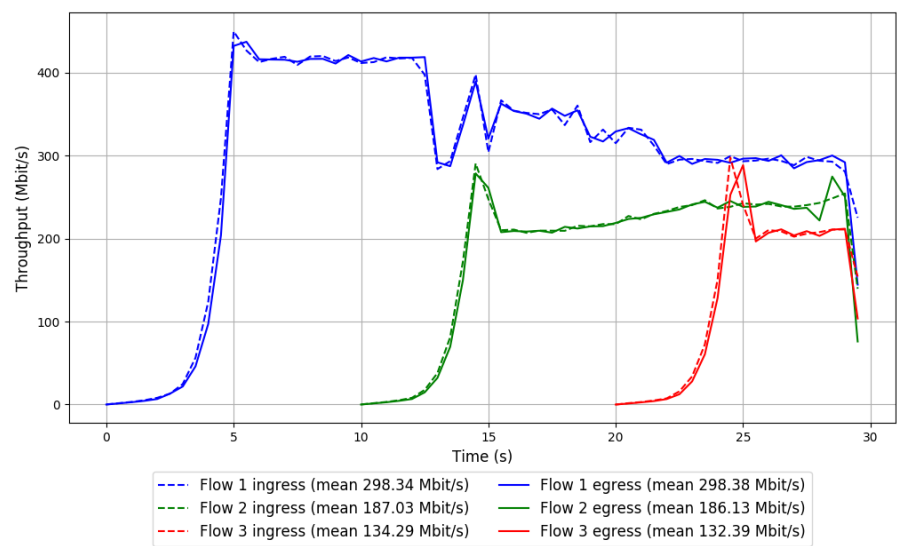
-- Flow 3:

Average throughput: 132.39 Mbit/s

95th percentile per-packet one-way delay: 113.815 ms

Loss rate: 3.69%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-04-11 05:47:59

End at: 2018-04-11 05:48:29

Below is generated by plot.py at 2018-04-11 11:16:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 390.81 Mbit/s

95th percentile per-packet one-way delay: 113.885 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 219.32 Mbit/s

95th percentile per-packet one-way delay: 113.591 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 196.34 Mbit/s

95th percentile per-packet one-way delay: 114.234 ms

Loss rate: 1.54%

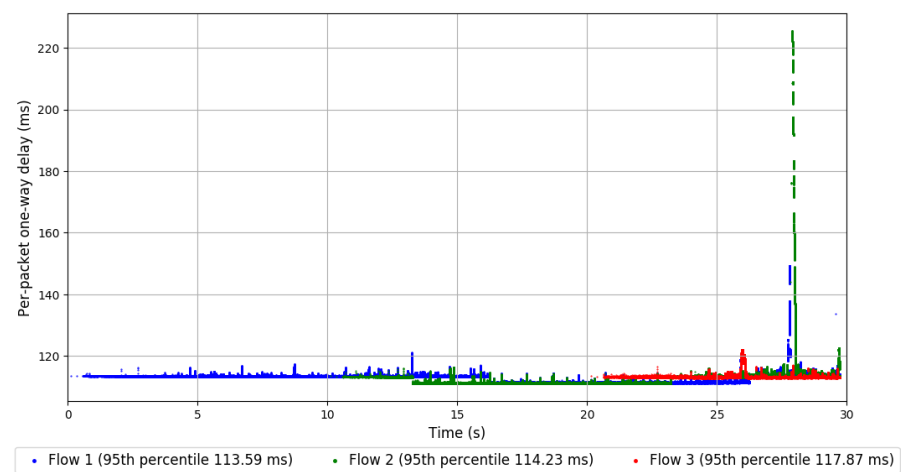
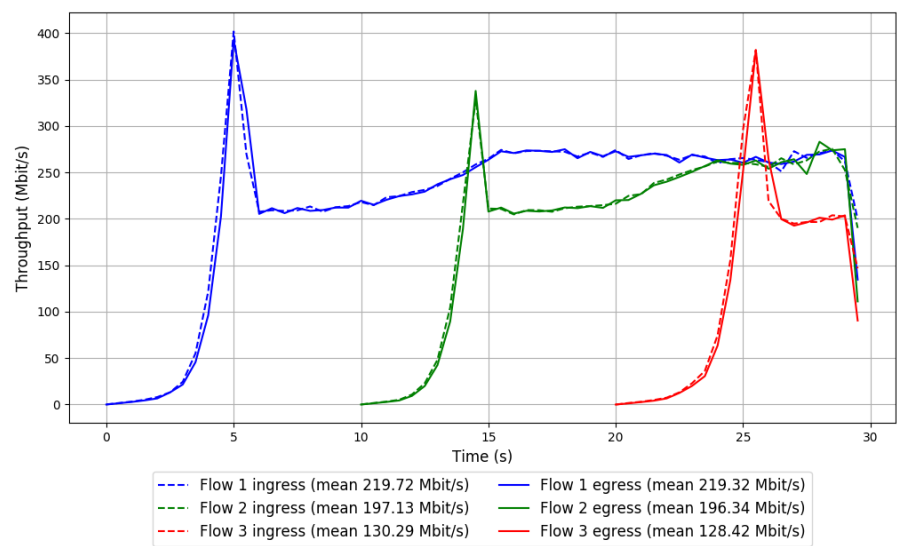
-- Flow 3:

Average throughput: 128.42 Mbit/s

95th percentile per-packet one-way delay: 117.873 ms

Loss rate: 4.00%

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-04-11 06:07:14

End at: 2018-04-11 06:07:44

Below is generated by plot.py at 2018-04-11 11:16:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 464.72 Mbit/s

95th percentile per-packet one-way delay: 113.526 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 301.87 Mbit/s

95th percentile per-packet one-way delay: 113.672 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 183.74 Mbit/s

95th percentile per-packet one-way delay: 111.956 ms

Loss rate: 1.63%

-- Flow 3:

Average throughput: 126.95 Mbit/s

95th percentile per-packet one-way delay: 112.753 ms

Loss rate: 3.65%

Run 10: Report of Vivace-LTE — Data Link

