

Pantheon Report

Generated at 2018-04-04 08:25:06 (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.

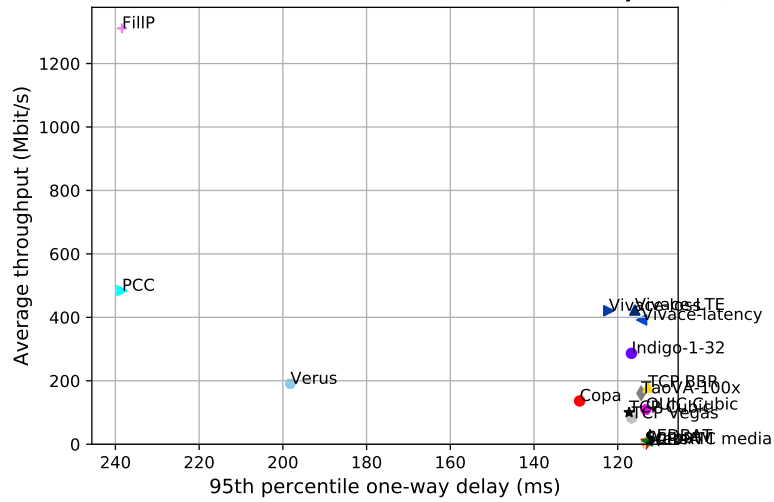
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

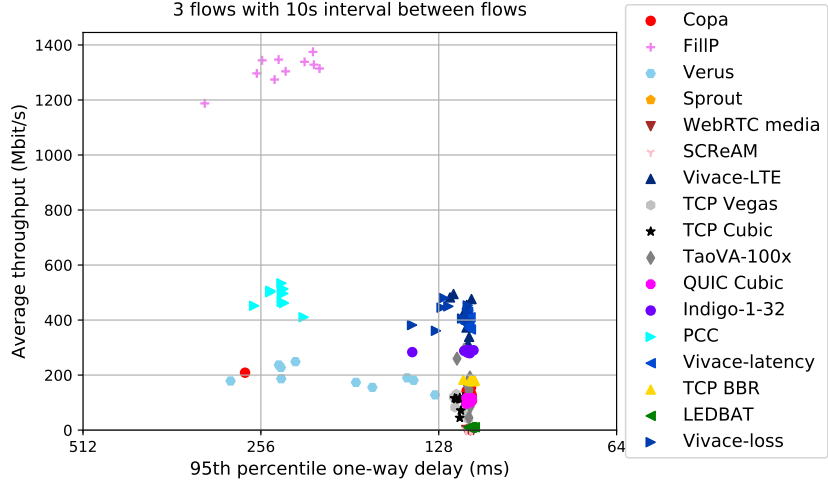
Git summary:

```
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 @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
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



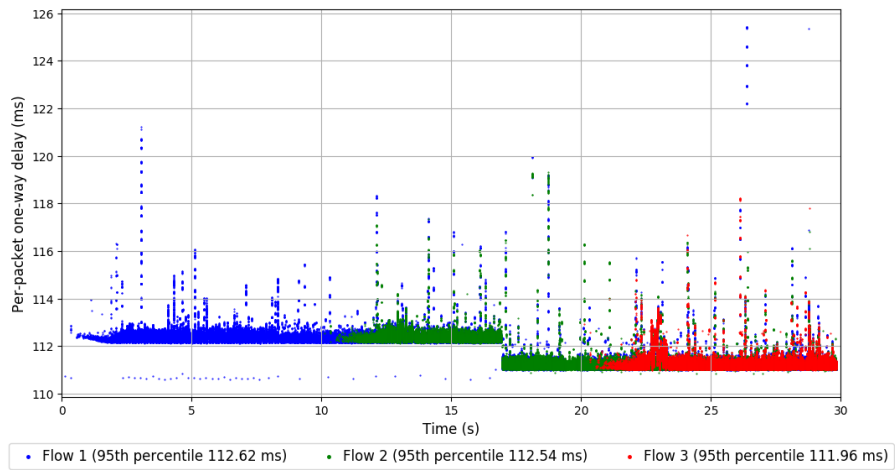
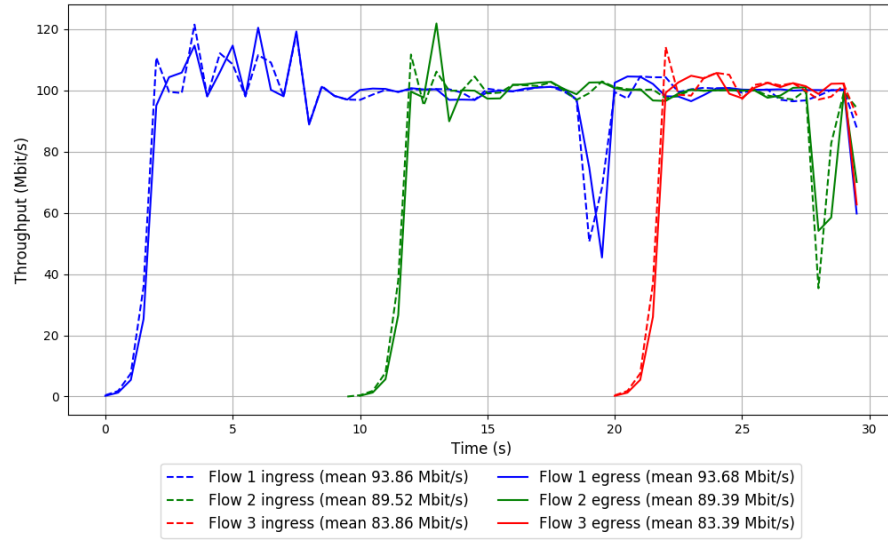
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	92.91	90.33	82.97	112.53	112.72	113.21	0.79	1.26	2.68
TCP Cubic	10	56.31	46.69	38.84	116.96	116.49	118.57	0.86	1.76	3.16
LEDBAT	10	6.56	4.34	1.92	112.92	112.80	112.87	1.51	2.22	4.40
PCC	10	444.84	36.83	45.38	238.48	237.74	214.20	2.33	2.28	3.83
QUIC Cubic	10	58.80	53.64	46.40	112.56	112.36	112.43	0.87	1.25	2.09
SCReAM	10	0.21	0.21	0.21	112.42	112.82	112.36	0.65	1.07	2.19
WebRTC media	10	0.06	0.06	0.05	113.11	112.74	112.56	0.06	0.00	0.37
Sprout	10	2.56	2.43	1.93	113.20	113.18	112.91	0.79	1.16	3.56
TaoVA-100x	10	56.78	106.73	101.28	113.61	115.02	114.93	1.27	1.23	2.87
TCP Vegas	10	40.75	43.81	36.42	115.49	116.58	117.29	0.65	1.26	2.53
Verus	10	114.08	88.90	56.05	191.03	189.83	182.00	1.02	1.93	5.83
Copa	10	89.84	64.55	61.16	129.45	112.81	112.85	1.99	0.65	3.09
FillP	10	712.69	640.79	532.66	244.66	223.28	214.66	4.73	5.00	6.30
Indigo-1-32	10	148.01	148.13	125.94	114.02	116.42	121.32	0.76	1.11	2.60
Vivace-latency	10	226.04	188.21	127.26	114.16	113.90	117.99	0.79	1.44	3.74
Vivace-loss	10	242.77	201.59	138.22	122.89	134.76	120.06	0.80	1.71	2.91
Vivace-LTE	10	248.29	197.03	136.85	115.26	116.40	125.80	0.85	1.51	3.48

```
Run 1: Statistics of TCP BBR

Start at: 2018-04-04 00:10:05
End at: 2018-04-04 00:10:35

# Below is generated by plot.py at 2018-04-04 06:47:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 180.16 Mbit/s
95th percentile per-packet one-way delay: 112.578 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 93.68 Mbit/s
95th percentile per-packet one-way delay: 112.620 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 89.39 Mbit/s
95th percentile per-packet one-way delay: 112.536 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 83.39 Mbit/s
95th percentile per-packet one-way delay: 111.958 ms
Loss rate: 2.81%
```

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-04-04 00:28:54

End at: 2018-04-04 00:29:24

Below is generated by plot.py at 2018-04-04 06:47:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 181.49 Mbit/s

95th percentile per-packet one-way delay: 111.279 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 94.85 Mbit/s

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

Loss rate: 0.80%

-- Flow 2:

Average throughput: 89.51 Mbit/s

95th percentile per-packet one-way delay: 111.189 ms

Loss rate: 1.31%

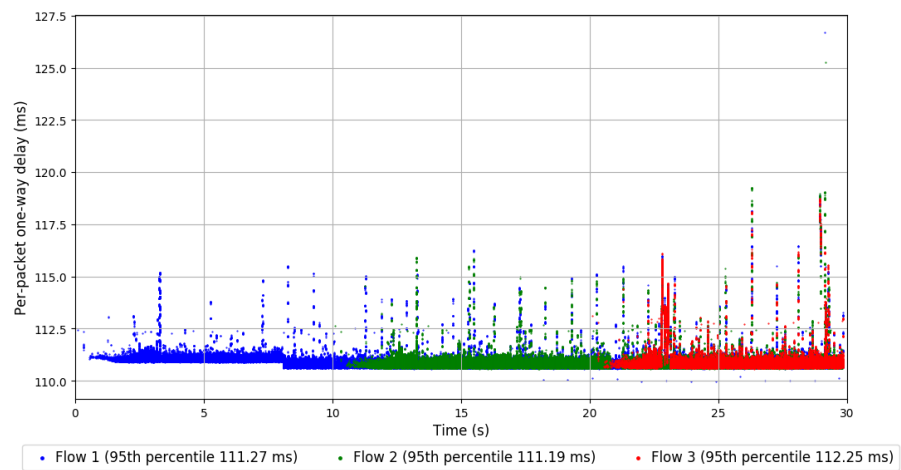
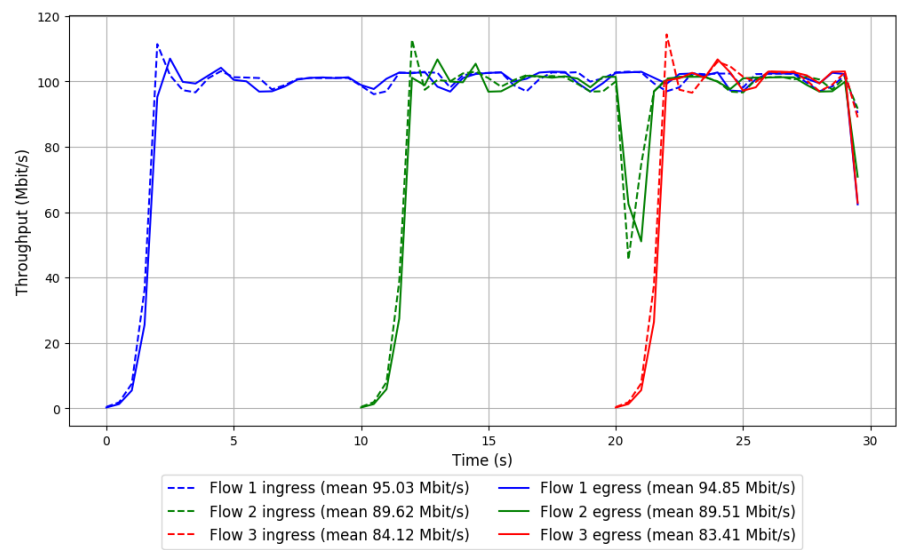
-- Flow 3:

Average throughput: 83.41 Mbit/s

95th percentile per-packet one-way delay: 112.248 ms

Loss rate: 2.63%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-04-04 00:47:59

End at: 2018-04-04 00:48:29

Below is generated by plot.py at 2018-04-04 06:47:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.10 Mbit/s

95th percentile per-packet one-way delay: 111.469 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 91.78 Mbit/s

95th percentile per-packet one-way delay: 111.432 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 89.33 Mbit/s

95th percentile per-packet one-way delay: 111.477 ms

Loss rate: 1.23%

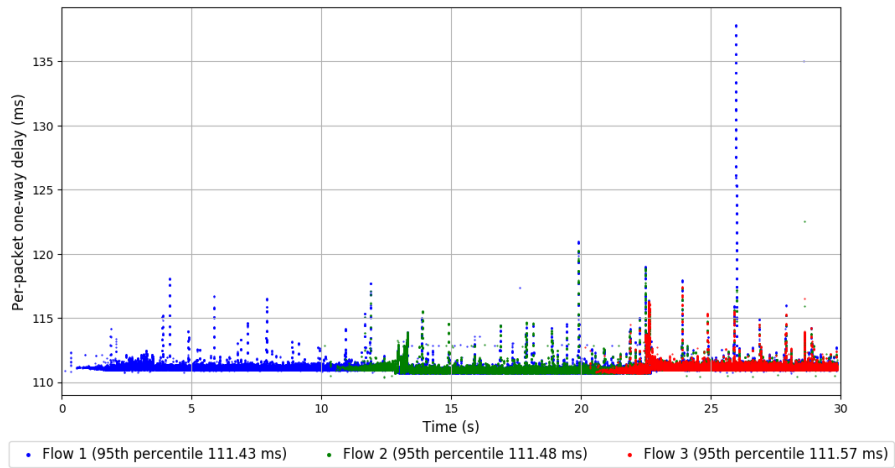
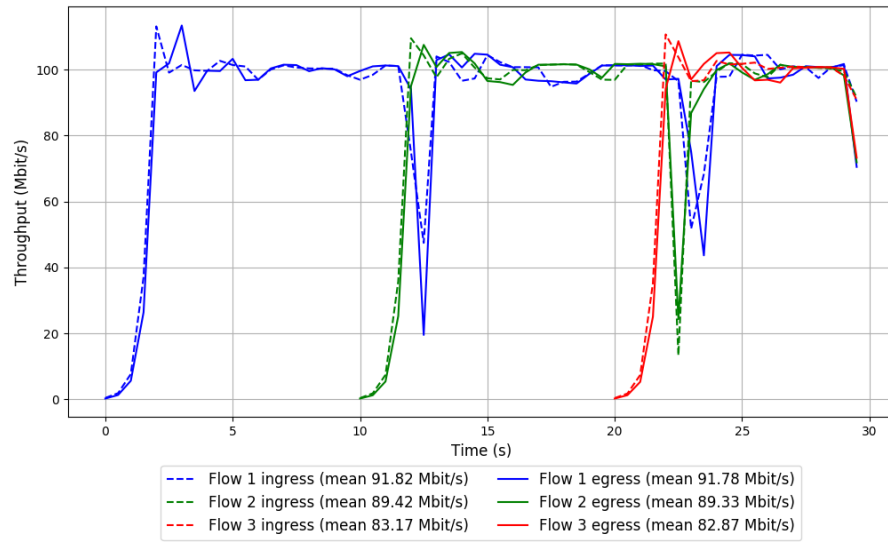
-- Flow 3:

Average throughput: 82.87 Mbit/s

95th percentile per-packet one-way delay: 111.571 ms

Loss rate: 2.64%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-04-04 01:06:54

End at: 2018-04-04 01:07:24

Below is generated by plot.py at 2018-04-04 06:47:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.94 Mbit/s

95th percentile per-packet one-way delay: 112.765 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 94.48 Mbit/s

95th percentile per-packet one-way delay: 112.730 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 88.96 Mbit/s

95th percentile per-packet one-way delay: 112.755 ms

Loss rate: 1.22%

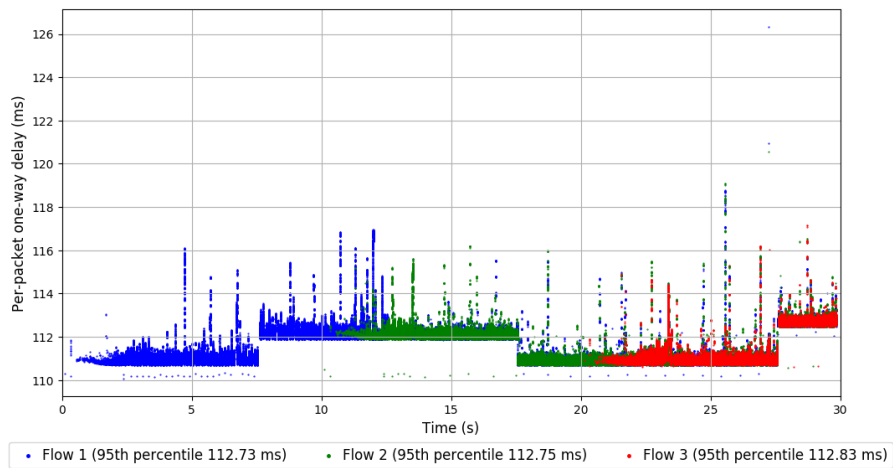
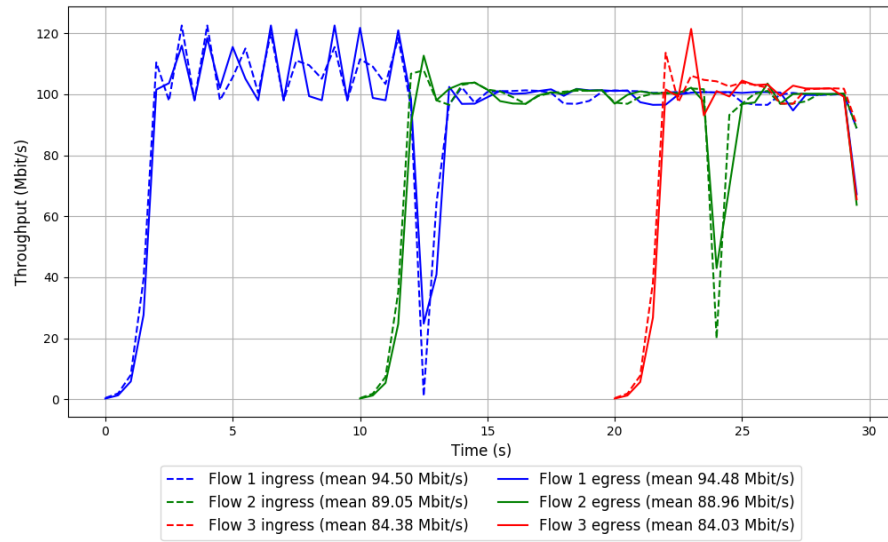
-- Flow 3:

Average throughput: 84.03 Mbit/s

95th percentile per-packet one-way delay: 112.828 ms

Loss rate: 2.63%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-04-04 01:25:46

End at: 2018-04-04 01:26:16

Below is generated by plot.py at 2018-04-04 06:47:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.14 Mbit/s

95th percentile per-packet one-way delay: 112.608 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 91.60 Mbit/s

95th percentile per-packet one-way delay: 112.552 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 89.41 Mbit/s

95th percentile per-packet one-way delay: 112.611 ms

Loss rate: 1.26%

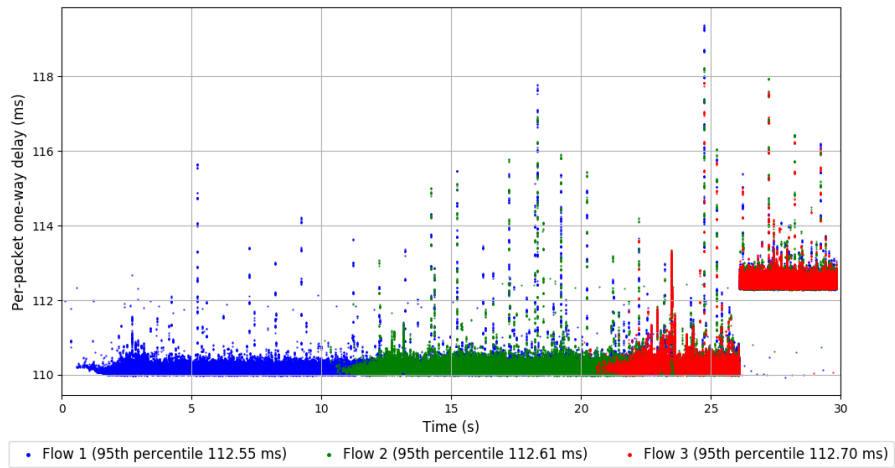
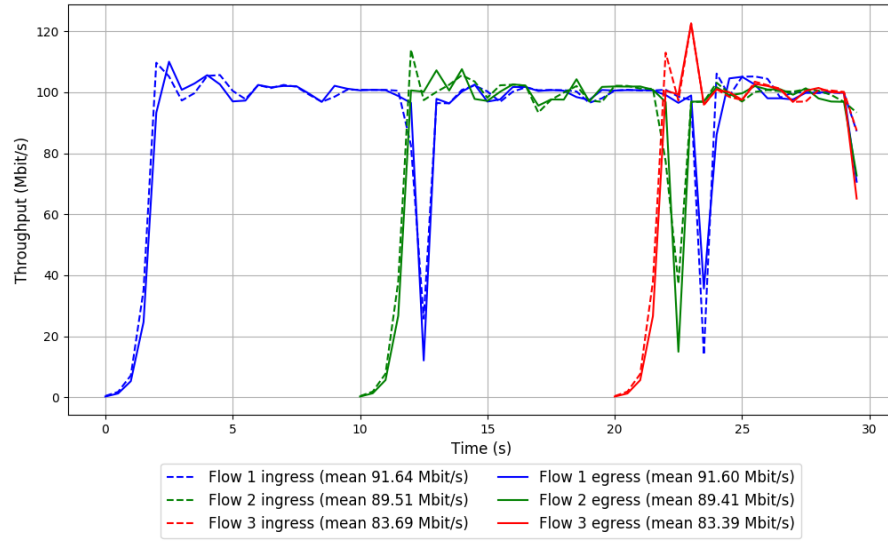
-- Flow 3:

Average throughput: 83.39 Mbit/s

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

Loss rate: 2.60%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-04-04 01:44:26

End at: 2018-04-04 01:44:56

Below is generated by plot.py at 2018-04-04 06:47:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.58 Mbit/s

95th percentile per-packet one-way delay: 113.101 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 93.17 Mbit/s

95th percentile per-packet one-way delay: 113.126 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 89.56 Mbit/s

95th percentile per-packet one-way delay: 113.085 ms

Loss rate: 1.24%

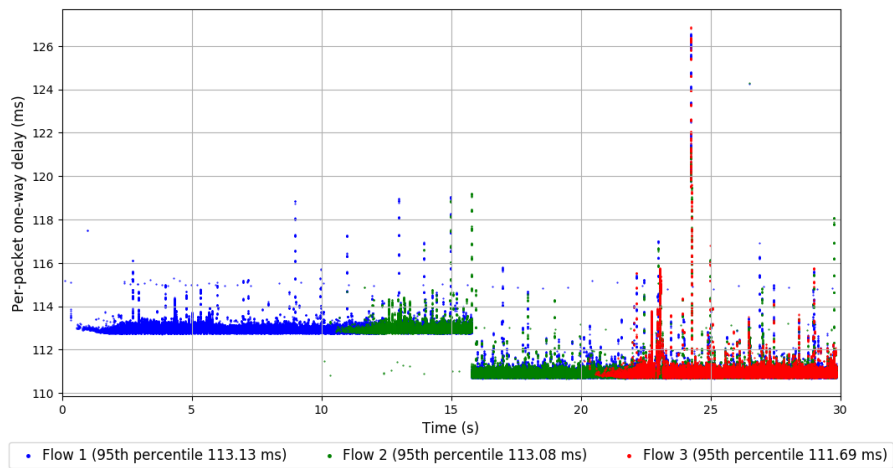
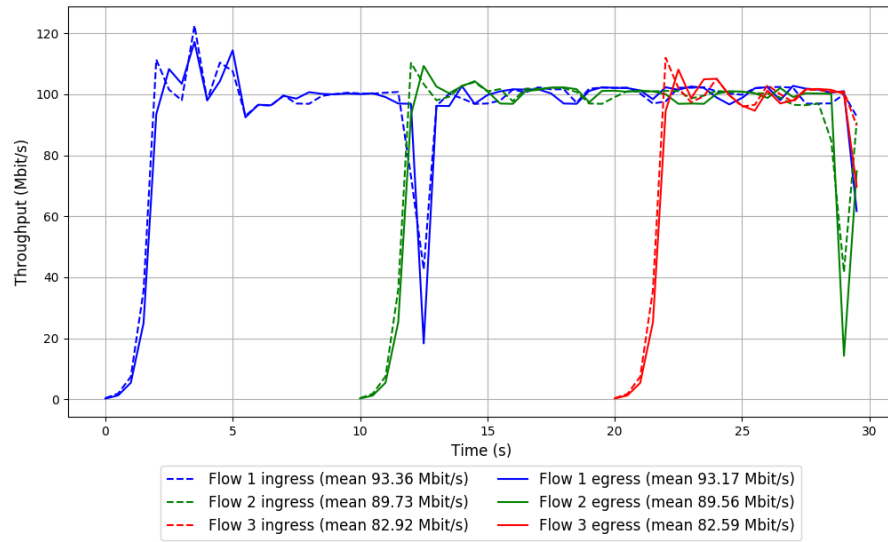
-- Flow 3:

Average throughput: 82.59 Mbit/s

95th percentile per-packet one-way delay: 111.693 ms

Loss rate: 2.63%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-04-04 02:03:48

End at: 2018-04-04 02:04:18

Below is generated by plot.py at 2018-04-04 06:47:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.31 Mbit/s

95th percentile per-packet one-way delay: 113.420 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 90.35 Mbit/s

95th percentile per-packet one-way delay: 113.322 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 93.70 Mbit/s

95th percentile per-packet one-way delay: 113.512 ms

Loss rate: 1.33%

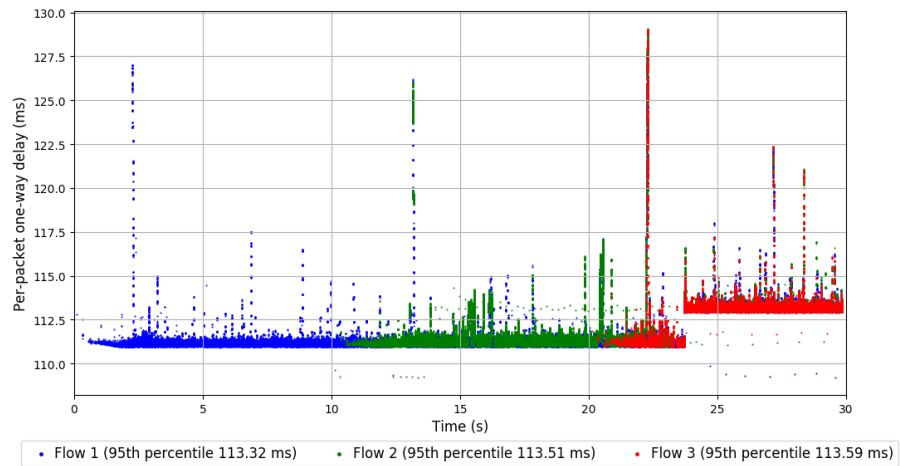
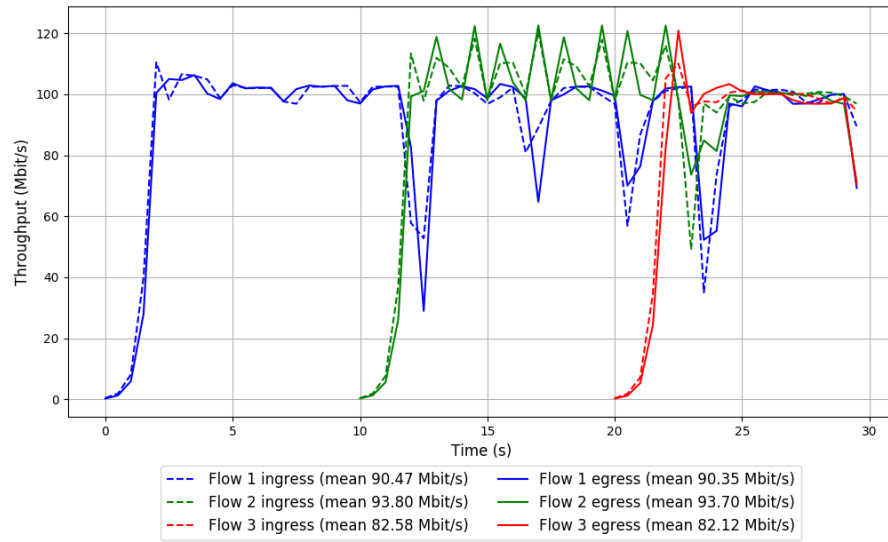
-- Flow 3:

Average throughput: 82.12 Mbit/s

95th percentile per-packet one-way delay: 113.591 ms

Loss rate: 2.95%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-04-04 02:22:50

End at: 2018-04-04 02:23:20

Below is generated by plot.py at 2018-04-04 06:47:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 183.12 Mbit/s

95th percentile per-packet one-way delay: 116.306 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 92.68 Mbit/s

95th percentile per-packet one-way delay: 114.255 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 94.89 Mbit/s

95th percentile per-packet one-way delay: 115.888 ms

Loss rate: 1.18%

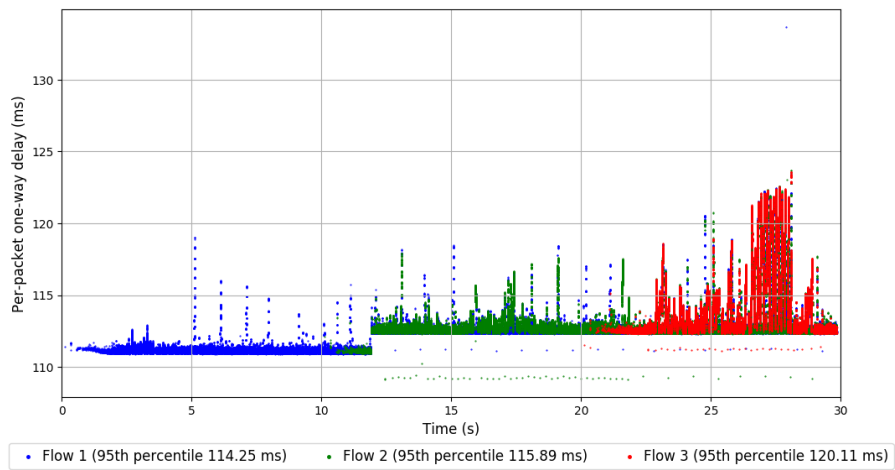
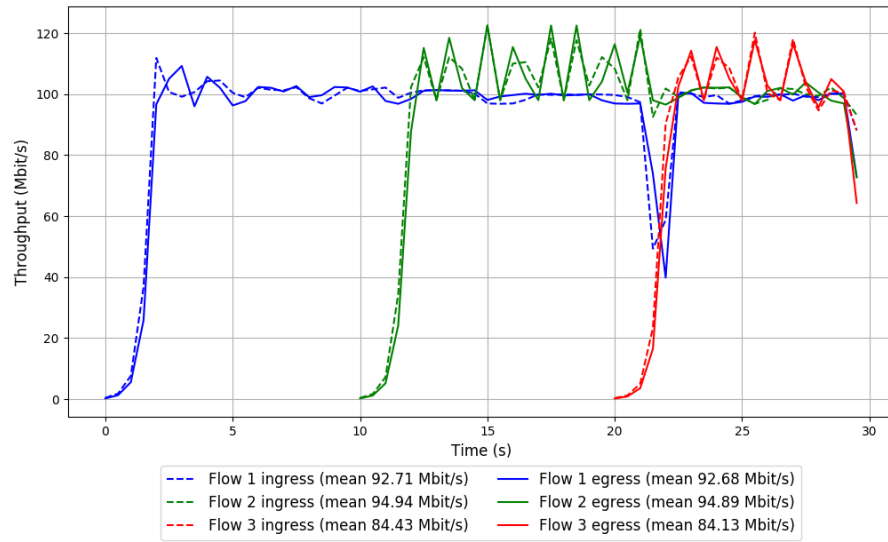
-- Flow 3:

Average throughput: 84.13 Mbit/s

95th percentile per-packet one-way delay: 120.115 ms

Loss rate: 2.58%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-04-04 02:41:37

End at: 2018-04-04 02:42:07

Below is generated by plot.py at 2018-04-04 06:50:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.75 Mbit/s

95th percentile per-packet one-way delay: 111.667 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 93.56 Mbit/s

95th percentile per-packet one-way delay: 111.576 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 89.40 Mbit/s

95th percentile per-packet one-way delay: 111.669 ms

Loss rate: 1.27%

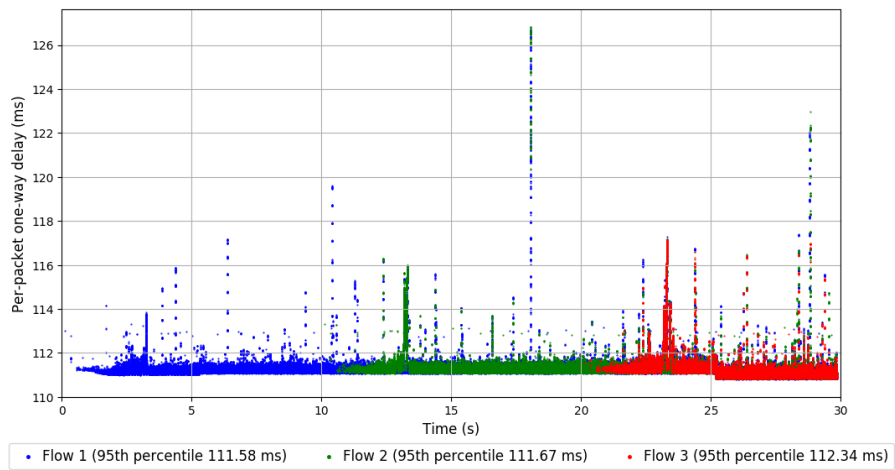
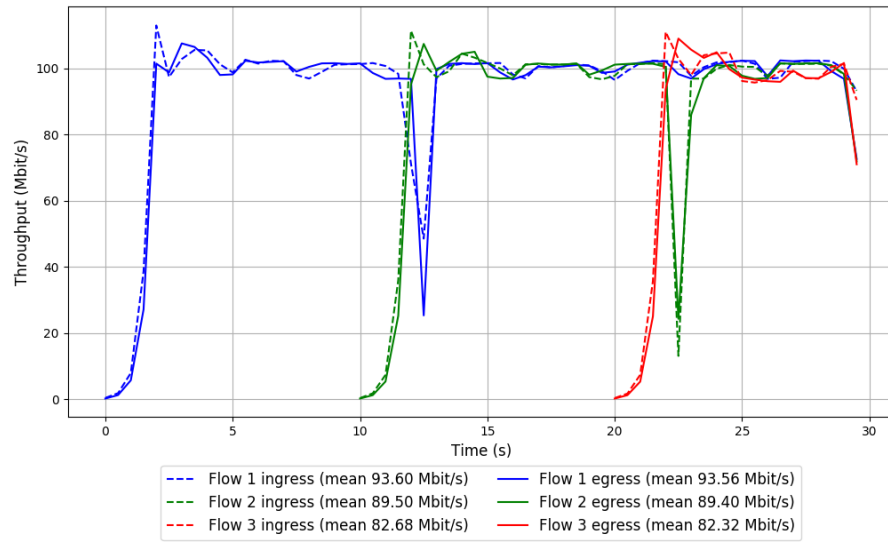
-- Flow 3:

Average throughput: 82.32 Mbit/s

95th percentile per-packet one-way delay: 112.338 ms

Loss rate: 2.70%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-04-04 03:00:25

End at: 2018-04-04 03:00:55

Below is generated by plot.py at 2018-04-04 06:50:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.76 Mbit/s

95th percentile per-packet one-way delay: 112.563 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 93.00 Mbit/s

95th percentile per-packet one-way delay: 112.391 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 89.16 Mbit/s

95th percentile per-packet one-way delay: 112.502 ms

Loss rate: 1.22%

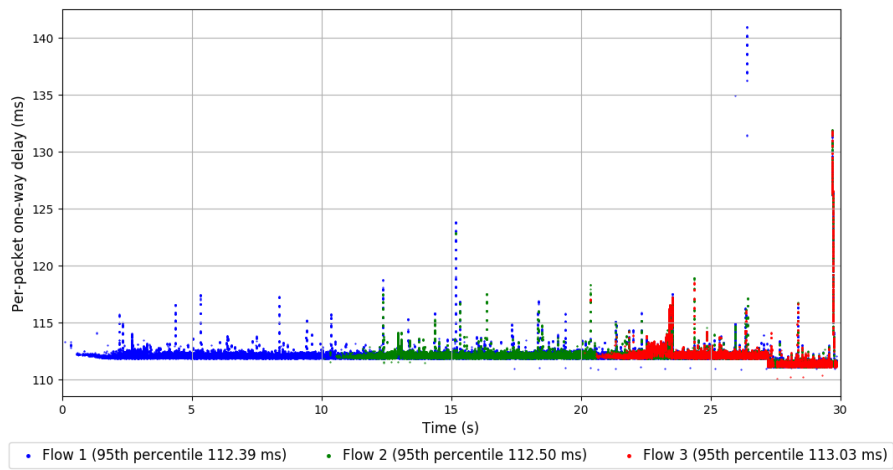
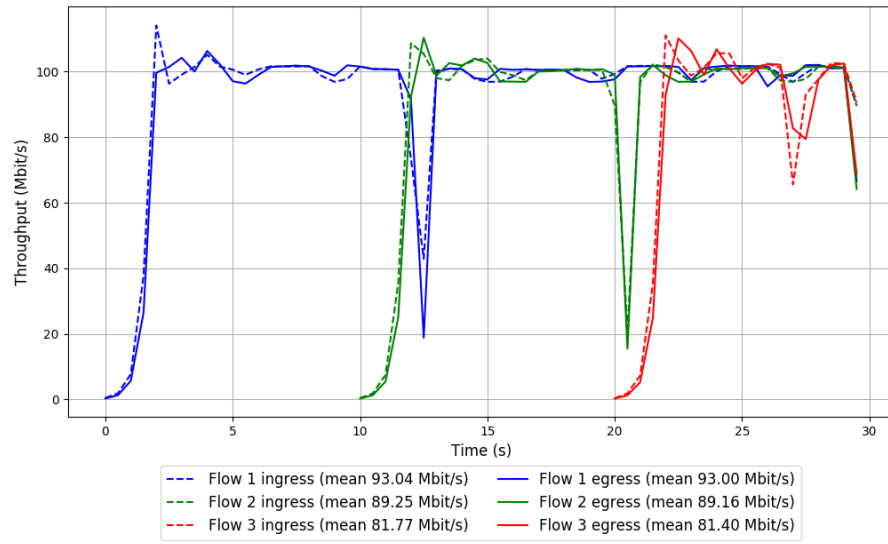
-- Flow 3:

Average throughput: 81.40 Mbit/s

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

Loss rate: 2.68%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-04-04 00:16:56

End at: 2018-04-04 00:17:26

Below is generated by plot.py at 2018-04-04 06:50:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.48 Mbit/s

95th percentile per-packet one-way delay: 120.292 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 66.55 Mbit/s

95th percentile per-packet one-way delay: 119.749 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 53.91 Mbit/s

95th percentile per-packet one-way delay: 119.612 ms

Loss rate: 1.41%

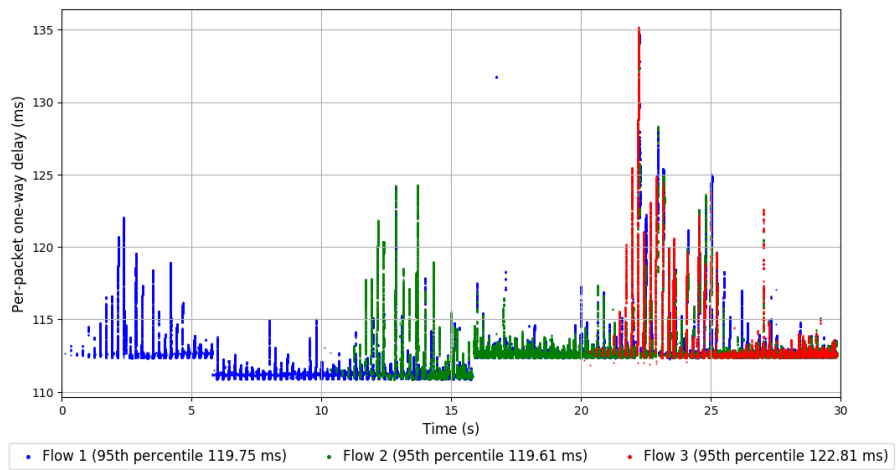
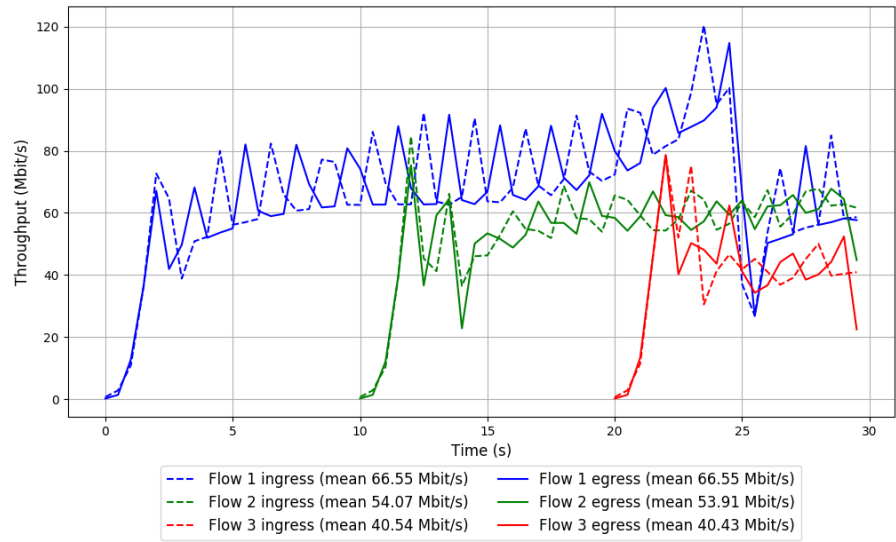
-- Flow 3:

Average throughput: 40.43 Mbit/s

95th percentile per-packet one-way delay: 122.805 ms

Loss rate: 2.51%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-04-04 00:35:55

End at: 2018-04-04 00:36:25

Below is generated by plot.py at 2018-04-04 06:50:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.29 Mbit/s

95th percentile per-packet one-way delay: 117.944 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 65.38 Mbit/s

95th percentile per-packet one-way delay: 117.224 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 53.39 Mbit/s

95th percentile per-packet one-way delay: 117.790 ms

Loss rate: 1.40%

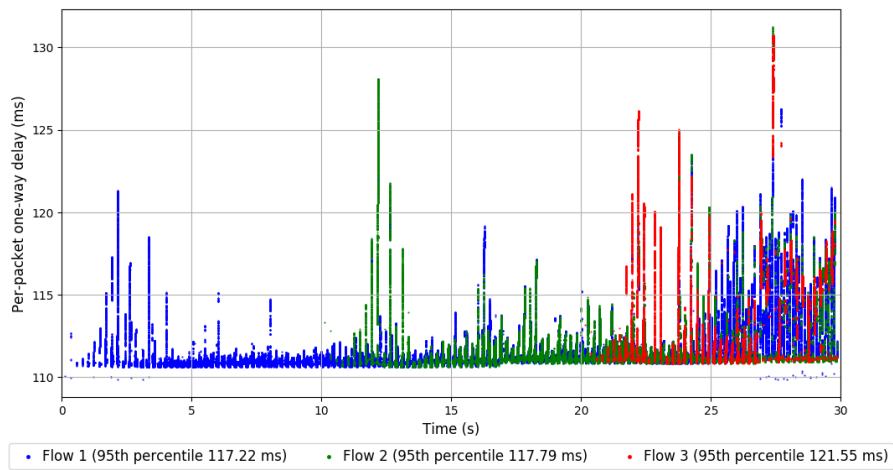
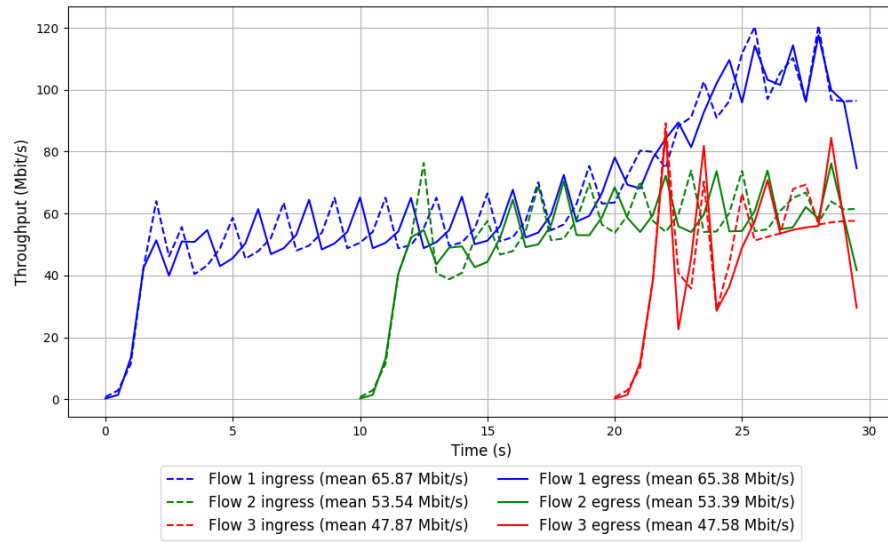
-- Flow 3:

Average throughput: 47.58 Mbit/s

95th percentile per-packet one-way delay: 121.547 ms

Loss rate: 3.04%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-04-04 00:54:47

End at: 2018-04-04 00:55:17

Below is generated by plot.py at 2018-04-04 06:50:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.87 Mbit/s

95th percentile per-packet one-way delay: 119.464 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 59.42 Mbit/s

95th percentile per-packet one-way delay: 118.180 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 55.45 Mbit/s

95th percentile per-packet one-way delay: 118.826 ms

Loss rate: 1.52%

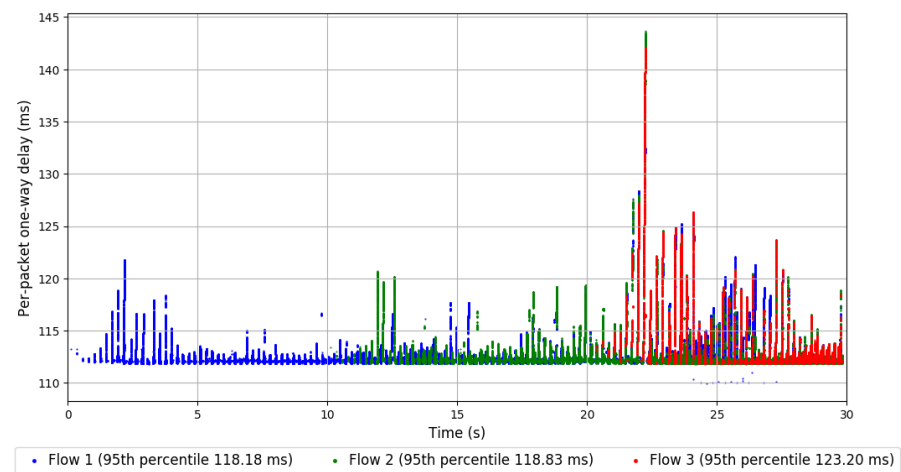
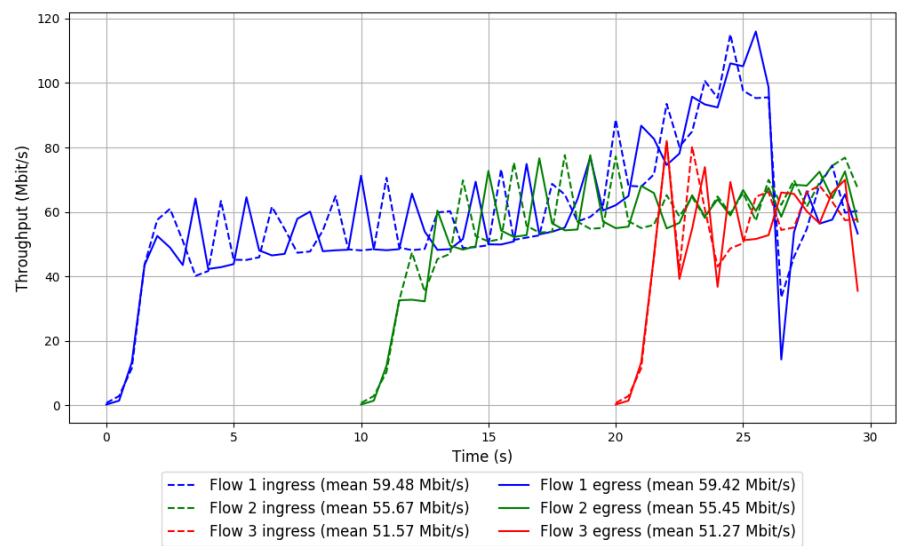
-- Flow 3:

Average throughput: 51.27 Mbit/s

95th percentile per-packet one-way delay: 123.204 ms

Loss rate: 2.82%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-04-04 01:13:38

End at: 2018-04-04 01:14:08

Below is generated by plot.py at 2018-04-04 06:50:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.89 Mbit/s

95th percentile per-packet one-way delay: 114.667 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 62.21 Mbit/s

95th percentile per-packet one-way delay: 115.373 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 55.94 Mbit/s

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

Loss rate: 1.51%

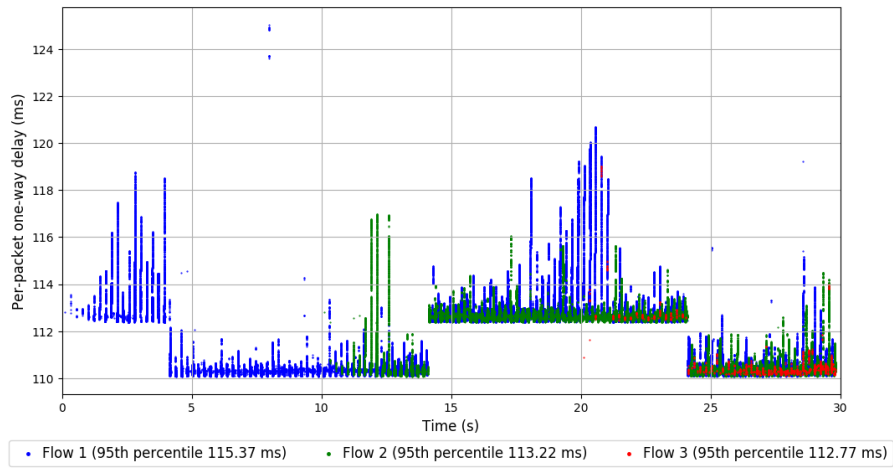
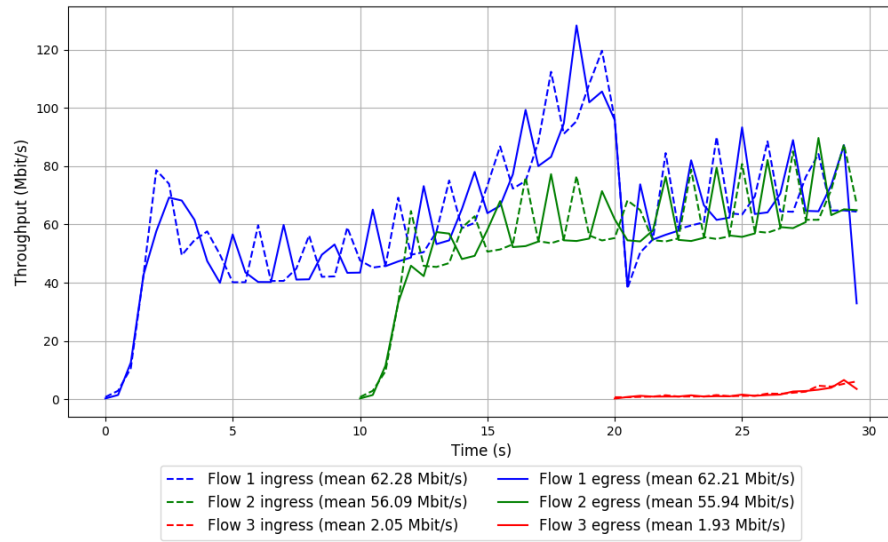
-- Flow 3:

Average throughput: 1.93 Mbit/s

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

Loss rate: 7.84%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-04-04 01:32:33

End at: 2018-04-04 01:33:03

Below is generated by plot.py at 2018-04-04 06:50:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.59 Mbit/s

95th percentile per-packet one-way delay: 115.031 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 53.51 Mbit/s

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

Loss rate: 0.79%

-- Flow 2:

Average throughput: 53.32 Mbit/s

95th percentile per-packet one-way delay: 115.420 ms

Loss rate: 1.48%

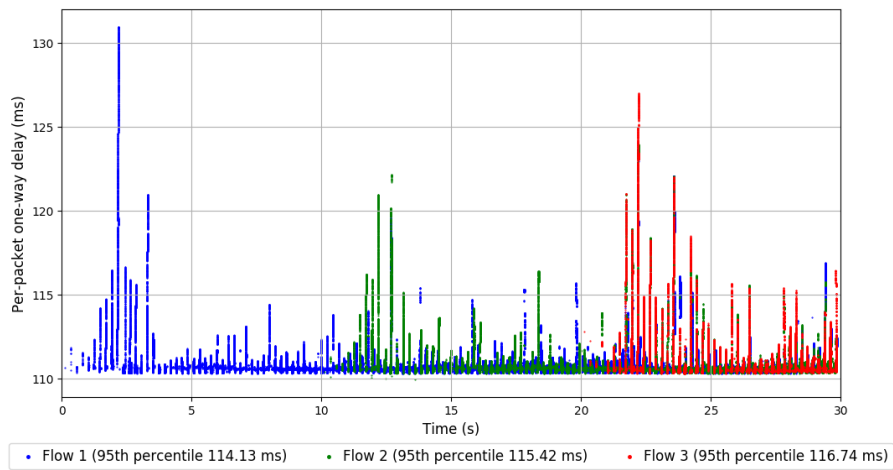
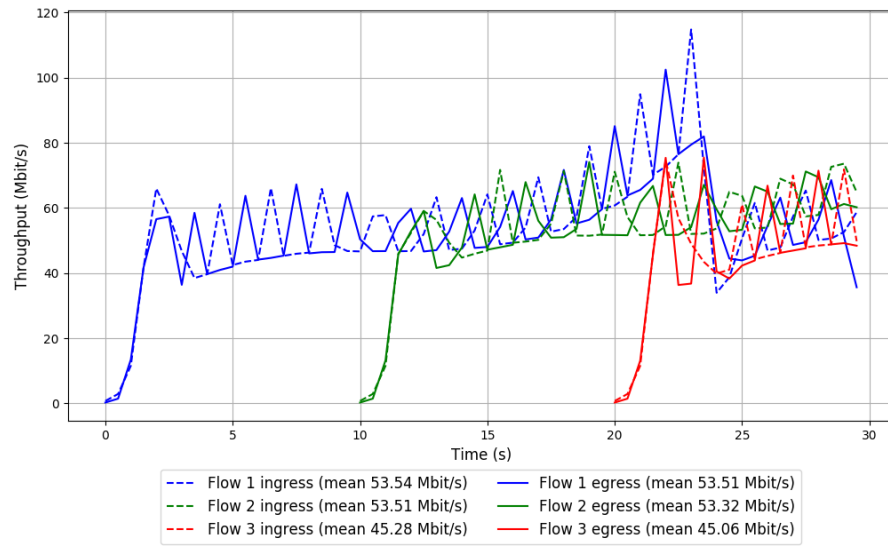
-- Flow 3:

Average throughput: 45.06 Mbit/s

95th percentile per-packet one-way delay: 116.736 ms

Loss rate: 2.73%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-04-04 01:51:33

End at: 2018-04-04 01:52:03

Below is generated by plot.py at 2018-04-04 06:50:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.08 Mbit/s

95th percentile per-packet one-way delay: 115.745 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 67.28 Mbit/s

95th percentile per-packet one-way delay: 116.164 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 32.87 Mbit/s

95th percentile per-packet one-way delay: 115.146 ms

Loss rate: 1.93%

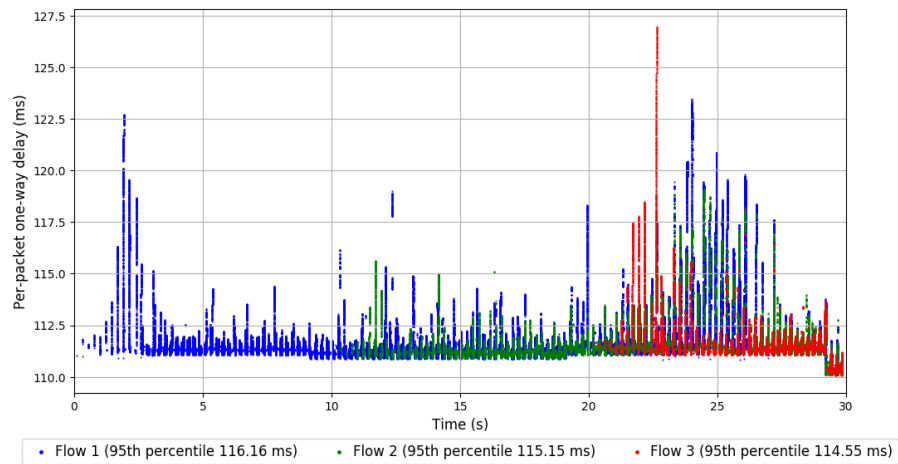
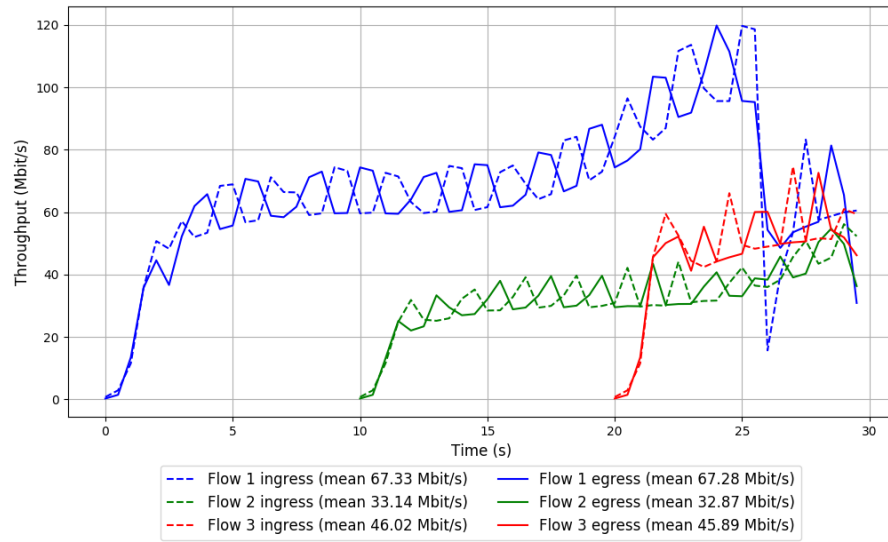
-- Flow 3:

Average throughput: 45.89 Mbit/s

95th percentile per-packet one-way delay: 114.553 ms

Loss rate: 2.53%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-04-04 02:10:37

End at: 2018-04-04 02:11:07

Below is generated by plot.py at 2018-04-04 06:50:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.86 Mbit/s

95th percentile per-packet one-way delay: 118.012 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 61.32 Mbit/s

95th percentile per-packet one-way delay: 117.813 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 56.34 Mbit/s

95th percentile per-packet one-way delay: 118.457 ms

Loss rate: 1.19%

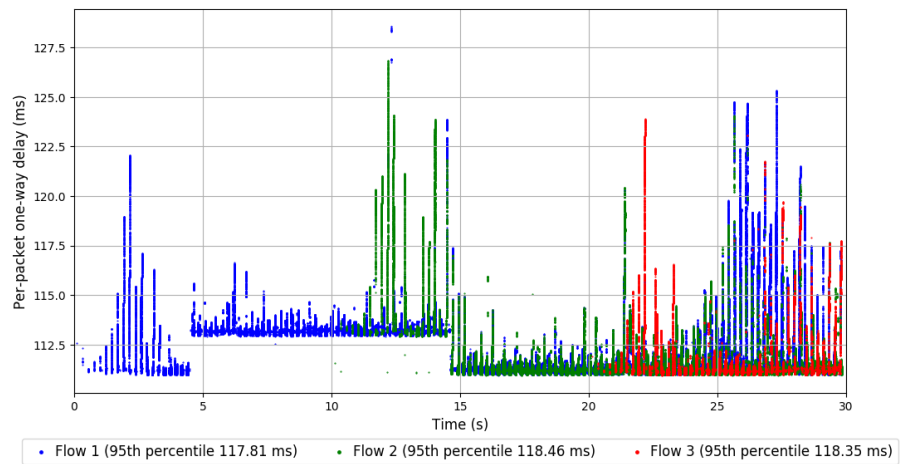
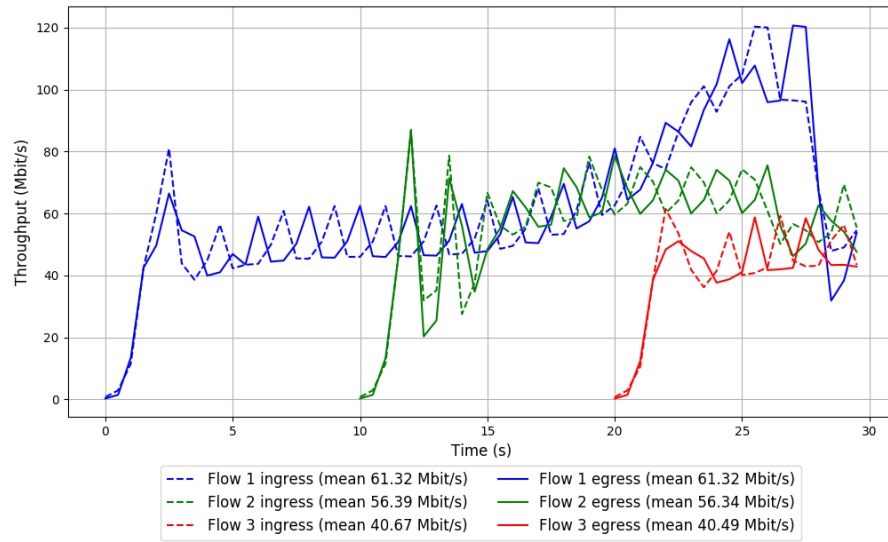
-- Flow 3:

Average throughput: 40.49 Mbit/s

95th percentile per-packet one-way delay: 118.354 ms

Loss rate: 2.69%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-04-04 02:29:30

End at: 2018-04-04 02:30:00

Below is generated by plot.py at 2018-04-04 06:50:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.30 Mbit/s

95th percentile per-packet one-way delay: 116.318 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 64.81 Mbit/s

95th percentile per-packet one-way delay: 116.799 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 57.40 Mbit/s

95th percentile per-packet one-way delay: 115.017 ms

Loss rate: 1.51%

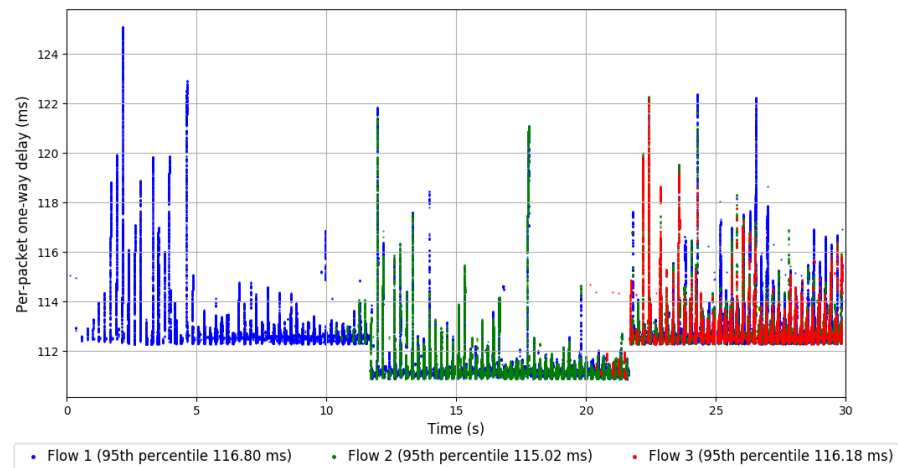
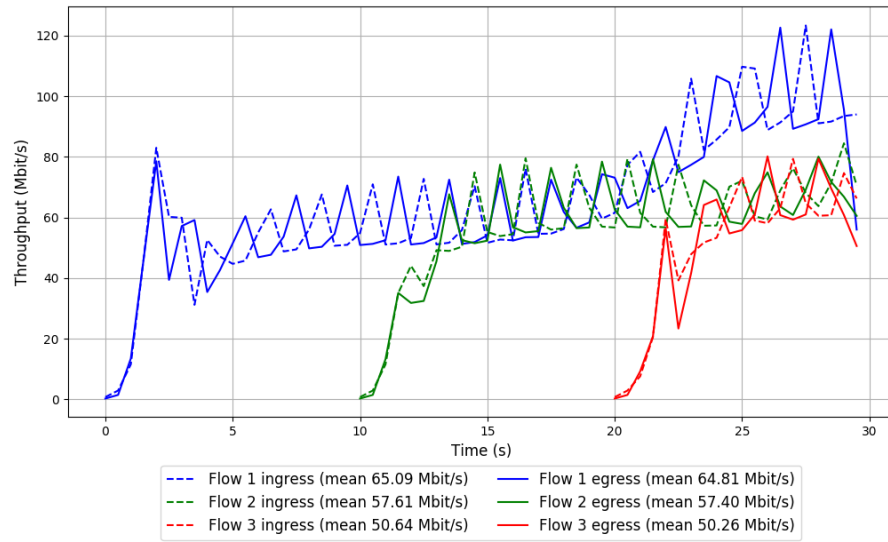
-- Flow 3:

Average throughput: 50.26 Mbit/s

95th percentile per-packet one-way delay: 116.179 ms

Loss rate: 3.00%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-04-04 02:48:24

End at: 2018-04-04 02:48:54

Below is generated by plot.py at 2018-04-04 06:50:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.39 Mbit/s

95th percentile per-packet one-way delay: 117.438 ms

Loss rate: 2.12%

-- Flow 1:

Average throughput: 43.49 Mbit/s

95th percentile per-packet one-way delay: 118.522 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 21.26 Mbit/s

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

Loss rate: 5.02%

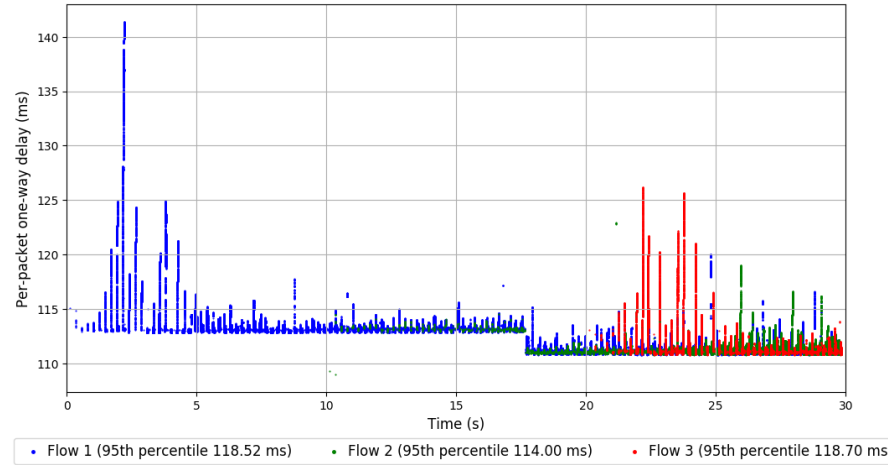
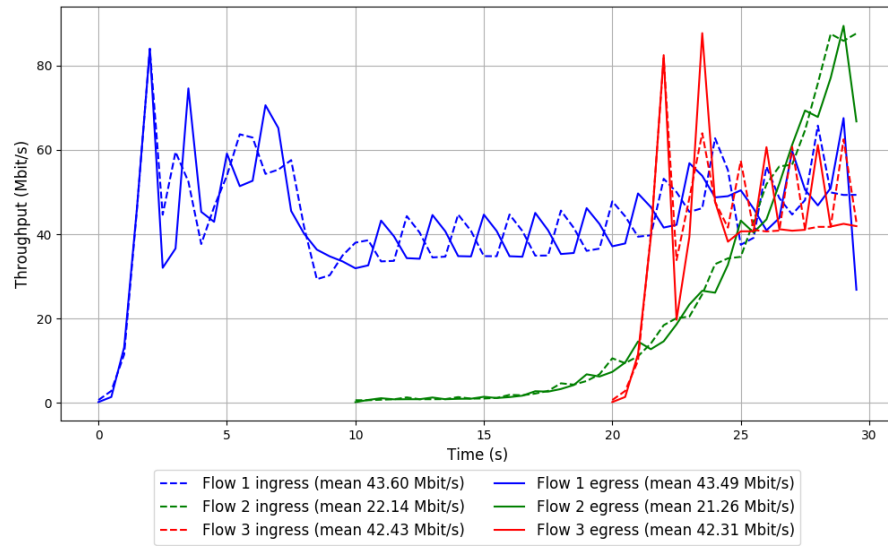
-- Flow 3:

Average throughput: 42.31 Mbit/s

95th percentile per-packet one-way delay: 118.704 ms

Loss rate: 2.55%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-04-04 03:07:18

End at: 2018-04-04 03:07:48

Below is generated by plot.py at 2018-04-04 06:50:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 44.60 Mbit/s

95th percentile per-packet one-way delay: 117.940 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 19.12 Mbit/s

95th percentile per-packet one-way delay: 115.678 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 27.06 Mbit/s

95th percentile per-packet one-way delay: 117.375 ms

Loss rate: 0.60%

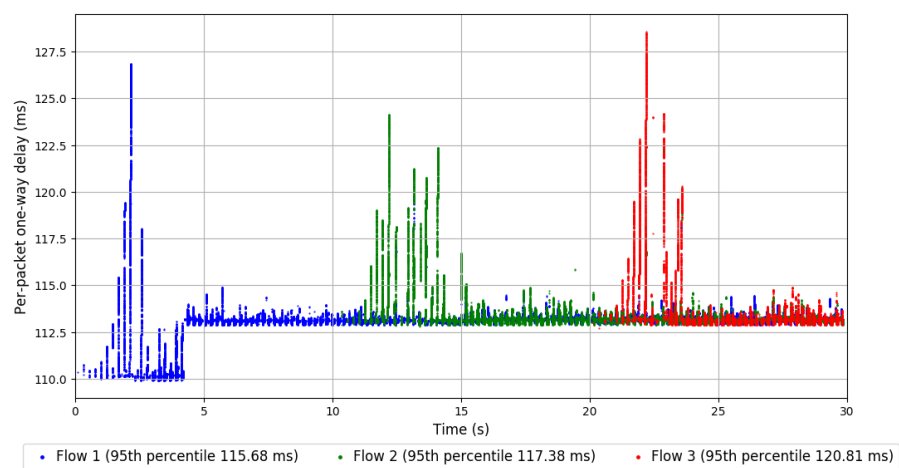
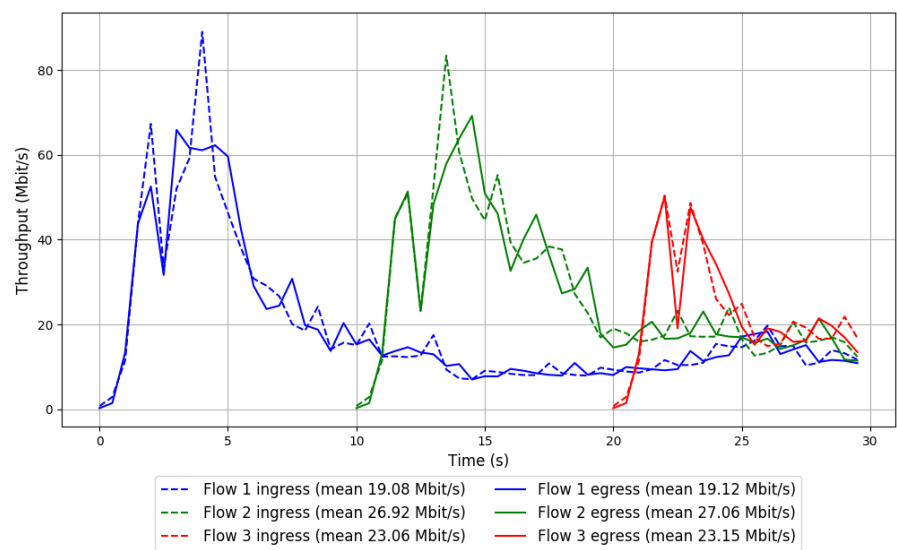
-- Flow 3:

Average throughput: 23.15 Mbit/s

95th percentile per-packet one-way delay: 120.810 ms

Loss rate: 1.88%

Run 10: Report of TCP Cubic — Data Link

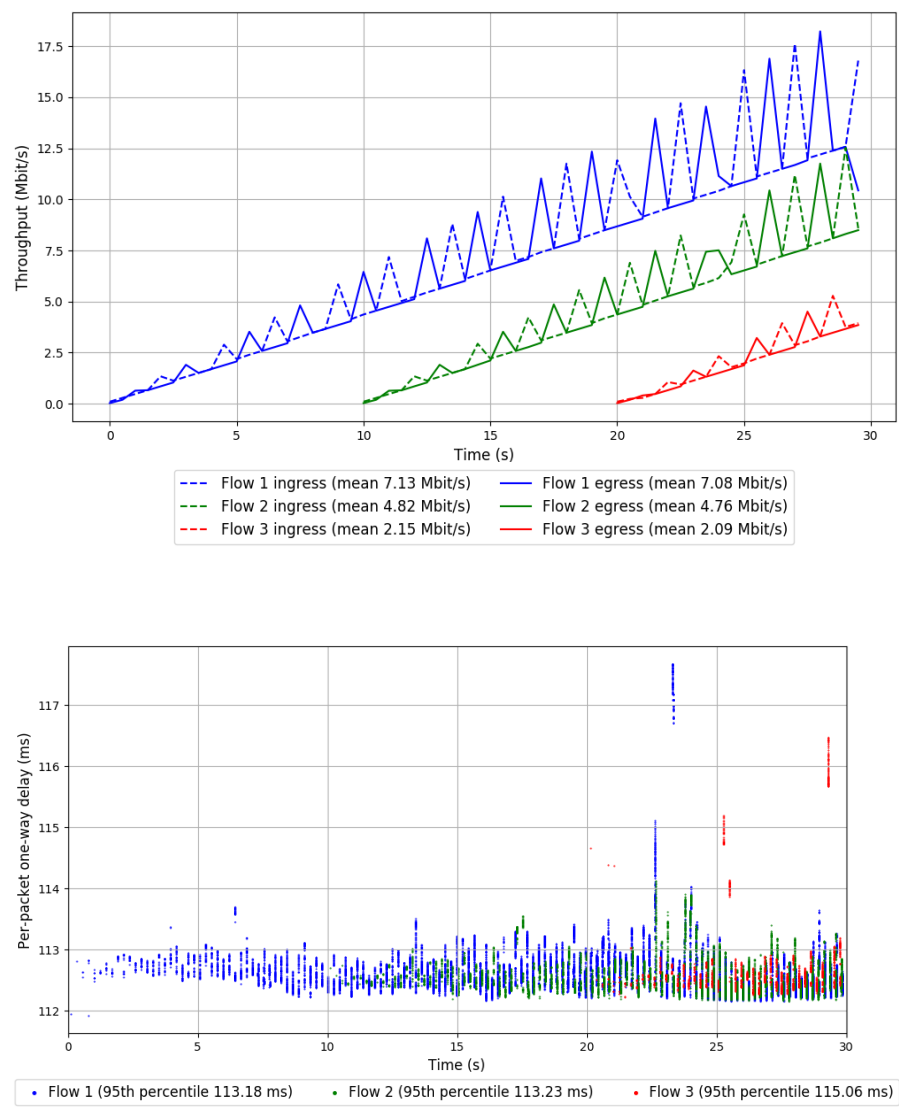


```
Run 1: Statistics of LEDBAT

Start at: 2018-04-04 00:19:04
End at: 2018-04-04 00:19:34

# Below is generated by plot.py at 2018-04-04 06:50:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 113.212 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 7.08 Mbit/s
95th percentile per-packet one-way delay: 113.184 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 113.232 ms
Loss rate: 2.25%
-- Flow 3:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 115.057 ms
Loss rate: 4.71%
```

Run 1: Report of LEDBAT — Data Link

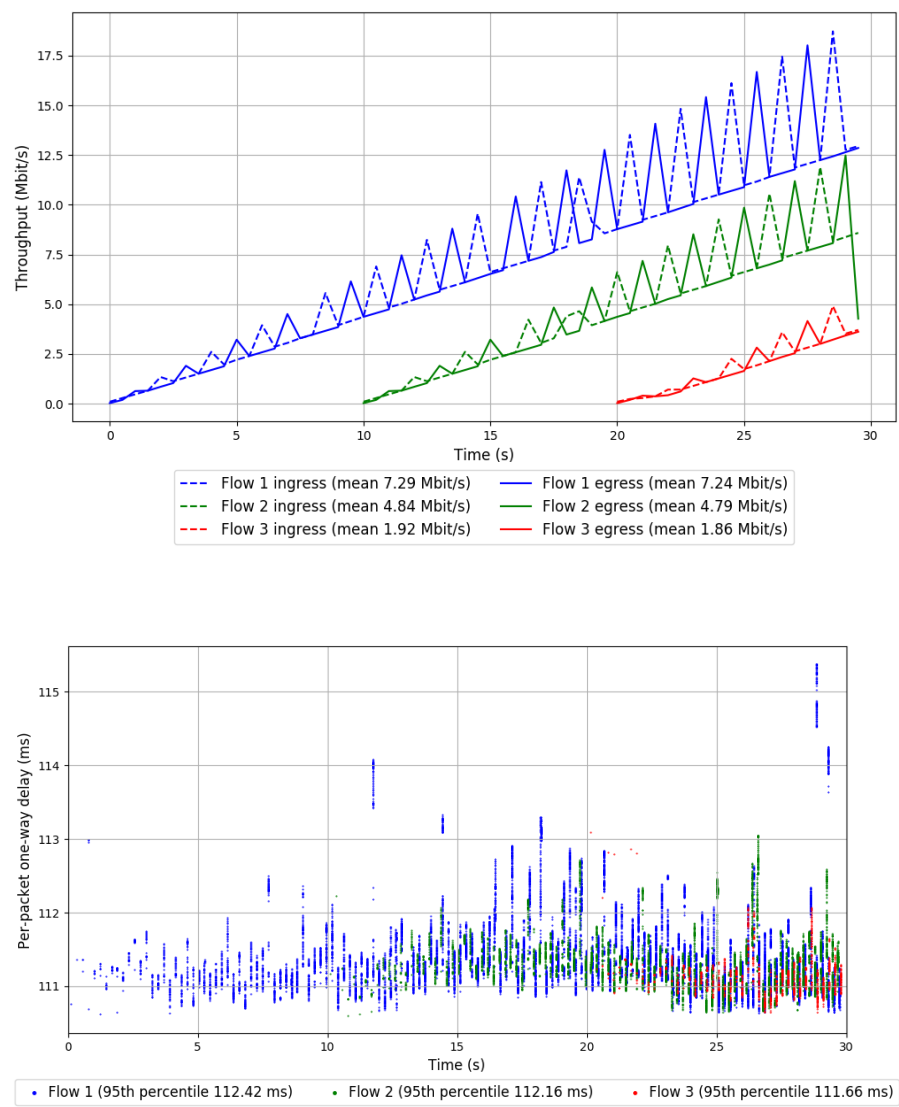


```
Run 2: Statistics of LEDBAT

Start at: 2018-04-04 00:38:09
End at: 2018-04-04 00:38:39

# Below is generated by plot.py at 2018-04-04 06:50:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 112.317 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 112.416 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 112.160 ms
Loss rate: 2.25%
-- Flow 3:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 111.663 ms
Loss rate: 4.96%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-04-04 00:57:05

End at: 2018-04-04 00:57:35

Below is generated by plot.py at 2018-04-04 06:50:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.94 Mbit/s

95th percentile per-packet one-way delay: 112.736 ms

Loss rate: 1.92%

-- Flow 1:

Average throughput: 7.23 Mbit/s

95th percentile per-packet one-way delay: 112.757 ms

Loss rate: 1.49%

-- Flow 2:

Average throughput: 4.49 Mbit/s

95th percentile per-packet one-way delay: 112.628 ms

Loss rate: 2.31%

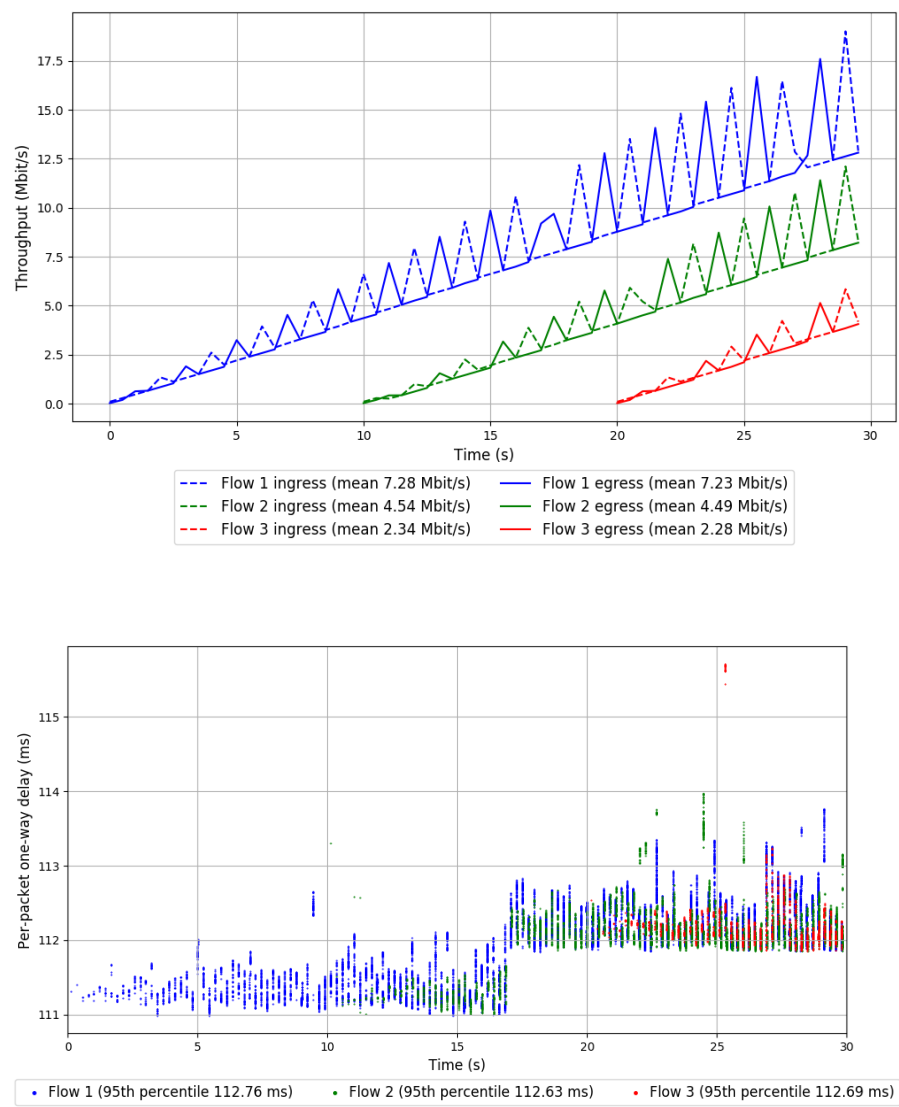
-- Flow 3:

Average throughput: 2.28 Mbit/s

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

Loss rate: 4.56%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-04-04 01:15:56

End at: 2018-04-04 01:16:26

Below is generated by plot.py at 2018-04-04 06:50:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.73 Mbit/s

95th percentile per-packet one-way delay: 112.986 ms

Loss rate: 2.20%

-- Flow 1:

Average throughput: 4.89 Mbit/s

95th percentile per-packet one-way delay: 113.146 ms

Loss rate: 1.79%

-- Flow 2:

Average throughput: 4.70 Mbit/s

95th percentile per-packet one-way delay: 112.794 ms

Loss rate: 2.26%

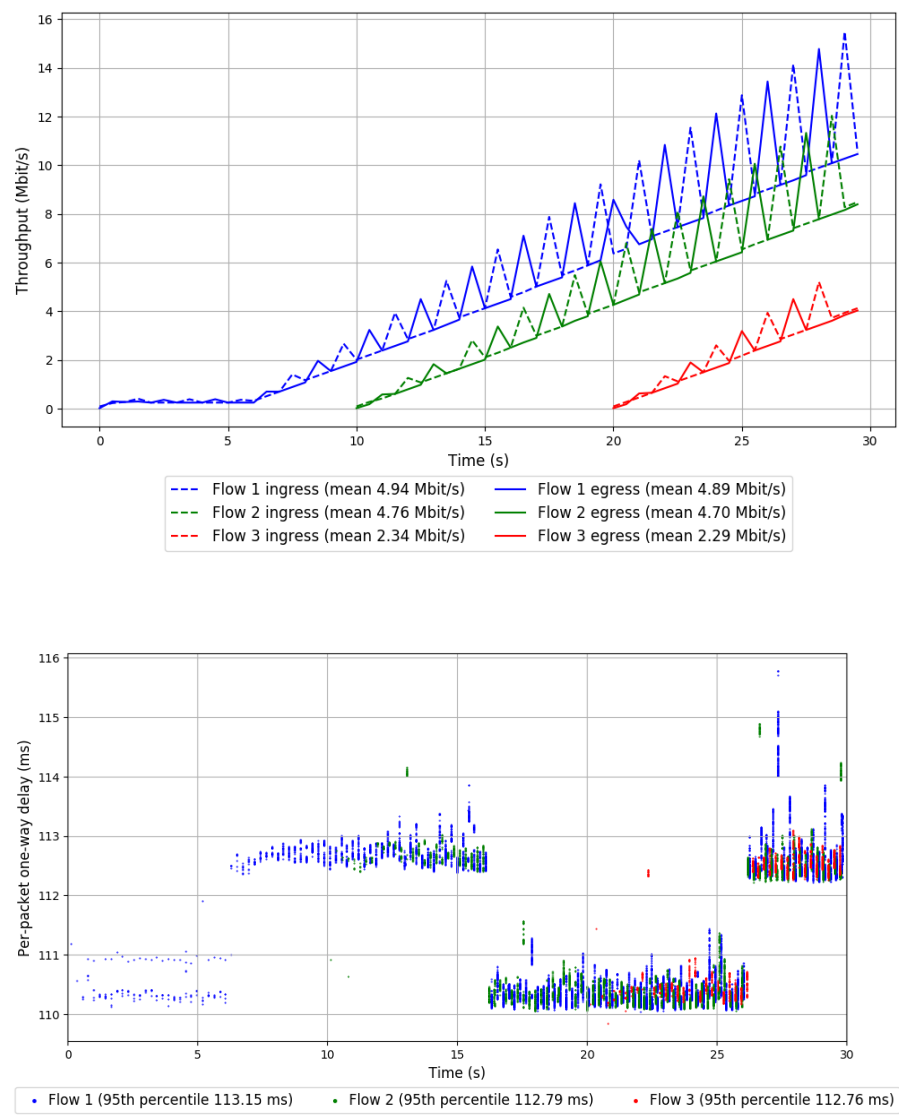
-- Flow 3:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 112.759 ms

Loss rate: 4.54%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-04-04 01:34:38

End at: 2018-04-04 01:35:08

Below is generated by plot.py at 2018-04-04 06:50:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.43 Mbit/s

95th percentile per-packet one-way delay: 112.477 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 6.14 Mbit/s

95th percentile per-packet one-way delay: 112.498 ms

Loss rate: 1.61%

-- Flow 2:

Average throughput: 4.76 Mbit/s

95th percentile per-packet one-way delay: 112.383 ms

Loss rate: 2.25%

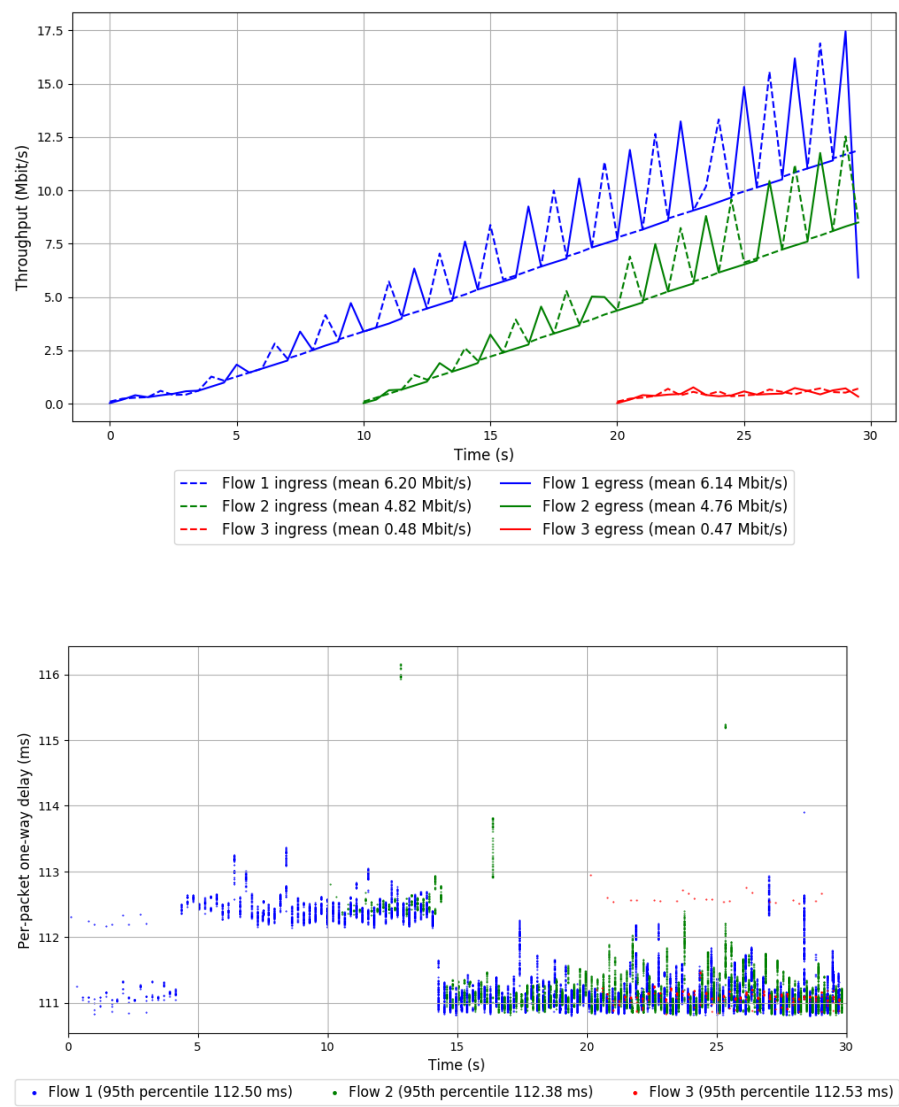
-- Flow 3:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 112.534 ms

Loss rate: 3.96%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-04-04 01:53:45

End at: 2018-04-04 01:54:15

Below is generated by plot.py at 2018-04-04 06:50:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.57 Mbit/s

95th percentile per-packet one-way delay: 112.338 ms

Loss rate: 1.99%

-- Flow 1:

Average throughput: 6.23 Mbit/s

95th percentile per-packet one-way delay: 112.425 ms

Loss rate: 1.61%

-- Flow 2:

Average throughput: 4.55 Mbit/s

95th percentile per-packet one-way delay: 112.096 ms

Loss rate: 2.30%

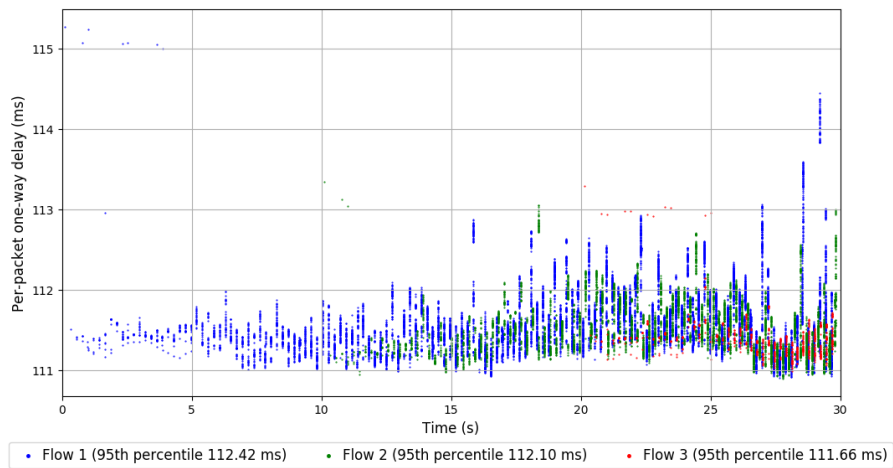
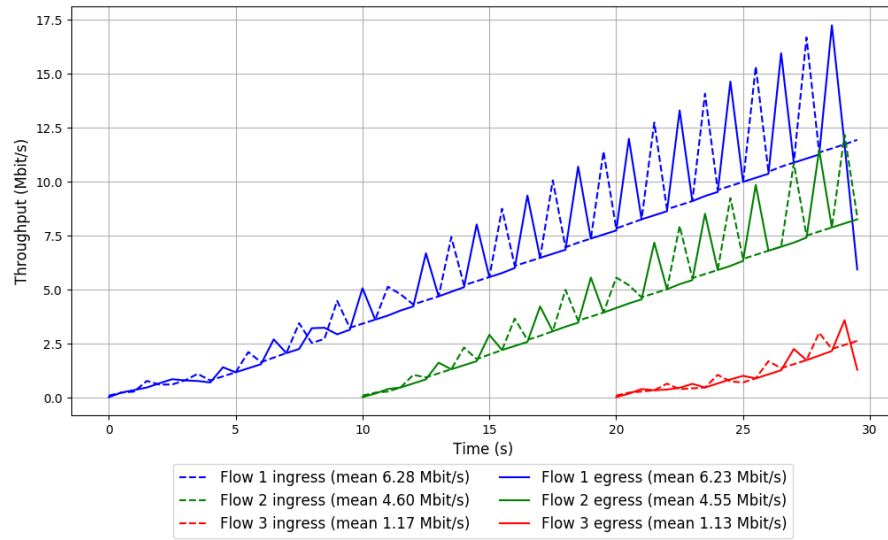
-- Flow 3:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 111.659 ms

Loss rate: 5.83%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-04-04 02:12:55

End at: 2018-04-04 02:13:25

Below is generated by plot.py at 2018-04-04 06:50:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.75 Mbit/s

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

Loss rate: 1.78%

-- Flow 1:

Average throughput: 7.13 Mbit/s

95th percentile per-packet one-way delay: 113.781 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 2.97 Mbit/s

95th percentile per-packet one-way delay: 113.663 ms

Loss rate: 2.77%

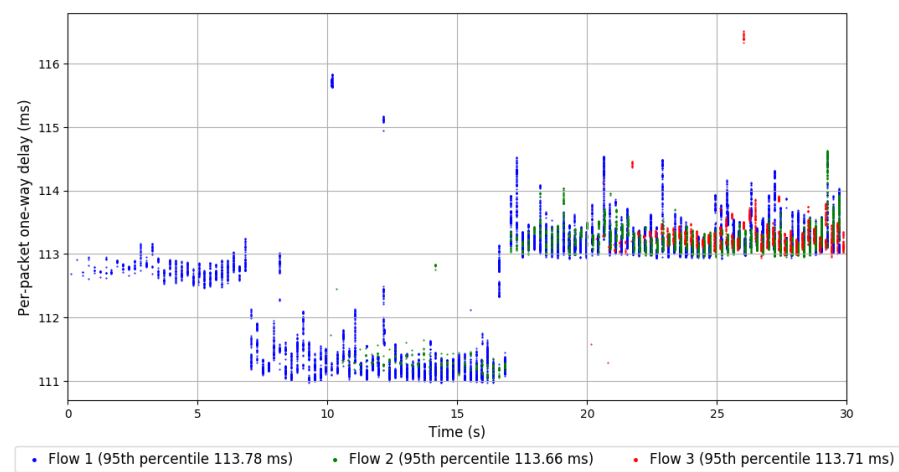
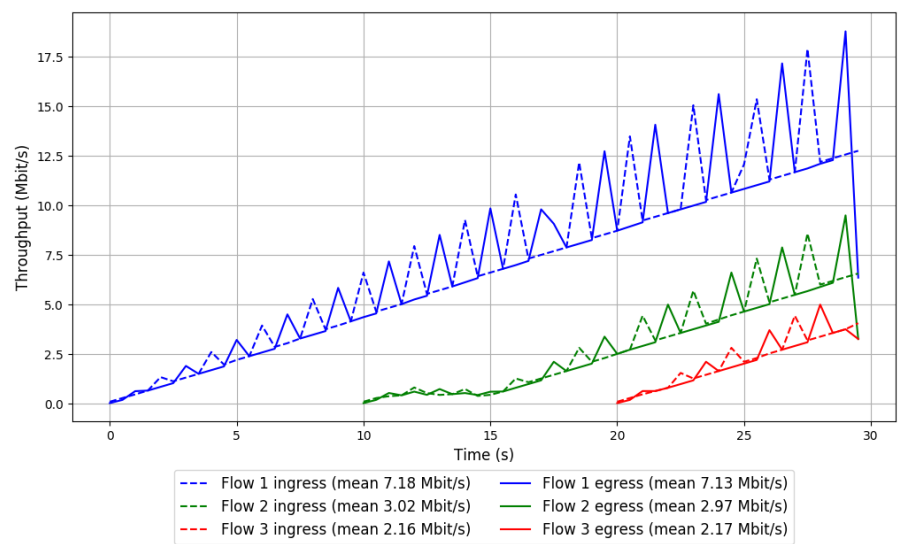
-- Flow 3:

Average throughput: 2.17 Mbit/s

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

Loss rate: 1.85%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-04-04 02:31:46

End at: 2018-04-04 02:32:16

Below is generated by plot.py at 2018-04-04 06:50:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.32 Mbit/s

95th percentile per-packet one-way delay: 113.659 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 6.95 Mbit/s

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

Loss rate: 1.52%

-- Flow 2:

Average throughput: 3.99 Mbit/s

95th percentile per-packet one-way delay: 113.964 ms

Loss rate: 1.65%

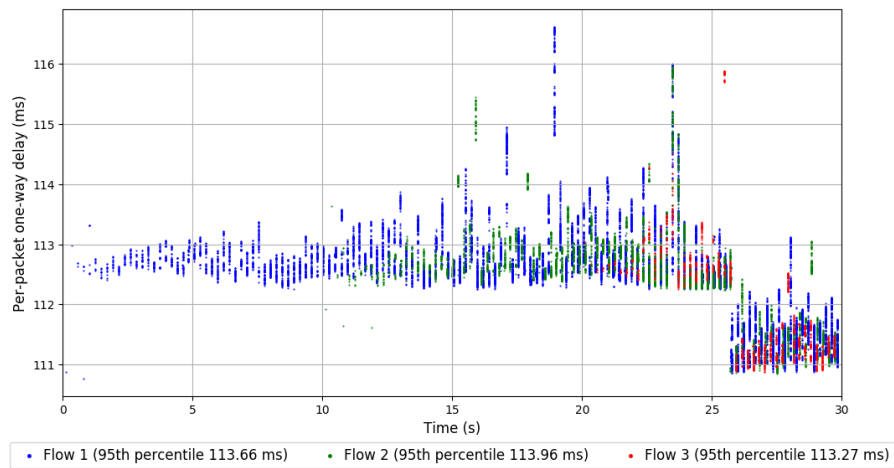
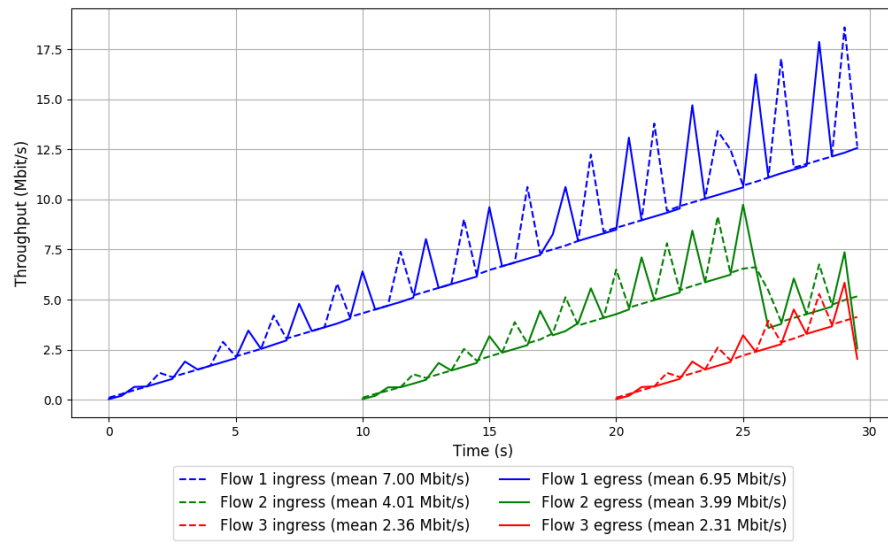
-- Flow 3:

Average throughput: 2.31 Mbit/s

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

Loss rate: 4.52%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-04-04 02:50:32

End at: 2018-04-04 02:51:02

Below is generated by plot.py at 2018-04-04 06:50:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.20 Mbit/s

95th percentile per-packet one-way delay: 114.084 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 6.15 Mbit/s

95th percentile per-packet one-way delay: 114.200 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 3.58 Mbit/s

95th percentile per-packet one-way delay: 113.929 ms

Loss rate: 1.95%

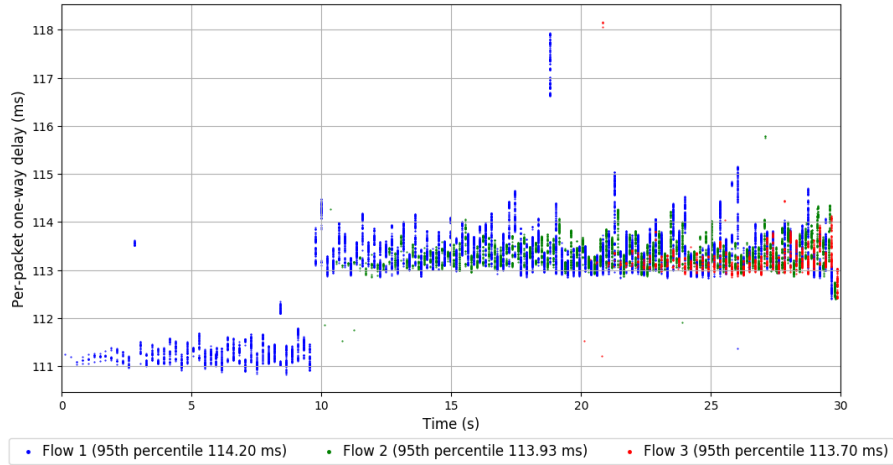
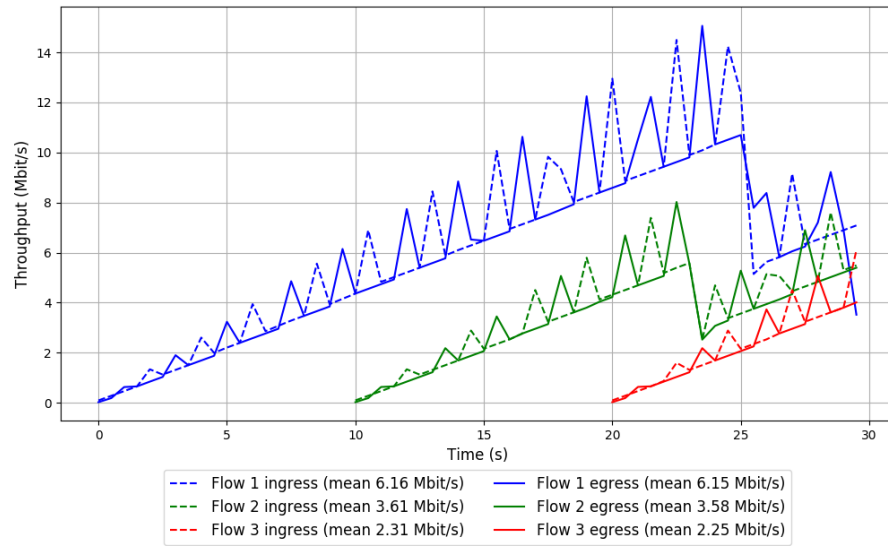
-- Flow 3:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 113.698 ms

Loss rate: 4.55%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-04-04 03:09:29

End at: 2018-04-04 03:09:59

Below is generated by plot.py at 2018-04-04 06:50:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.44 Mbit/s

95th percentile per-packet one-way delay: 111.210 ms

Loss rate: 2.00%

-- Flow 1:

Average throughput: 6.53 Mbit/s

95th percentile per-packet one-way delay: 111.137 ms

Loss rate: 1.57%

-- Flow 2:

Average throughput: 4.79 Mbit/s

95th percentile per-packet one-way delay: 111.187 ms

Loss rate: 2.25%

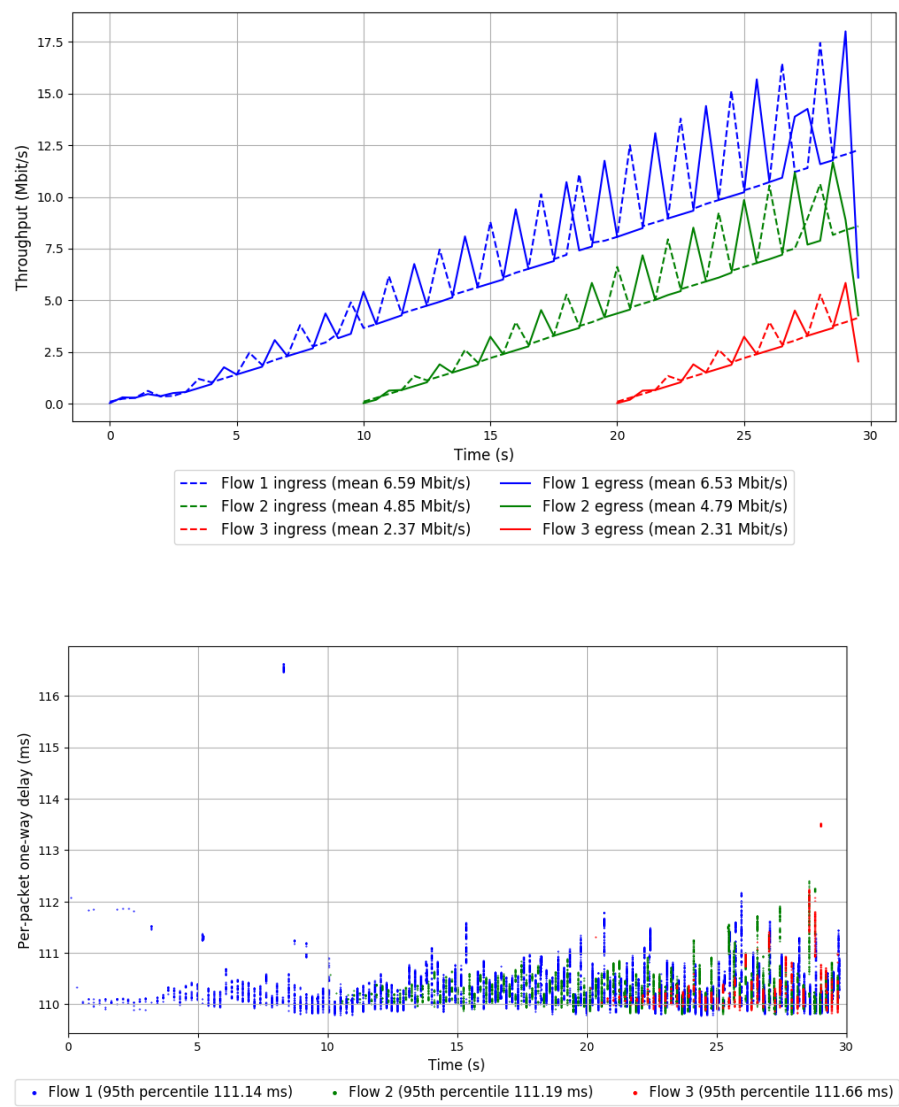
-- Flow 3:

Average throughput: 2.31 Mbit/s

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

Loss rate: 4.57%

Run 10: Report of LEDBAT — Data Link

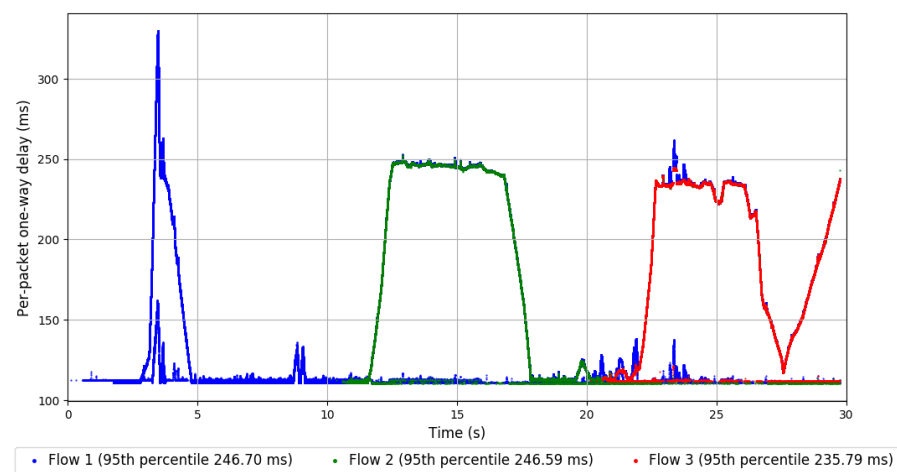
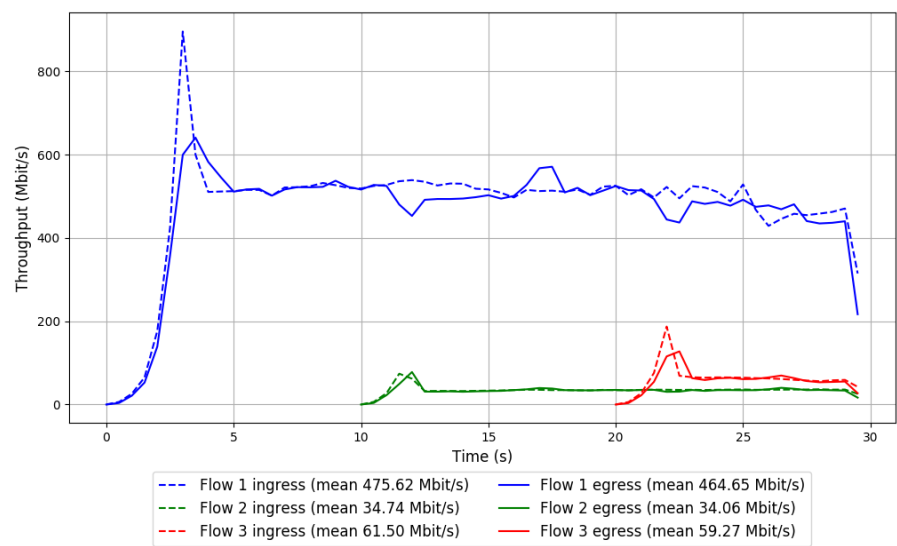


```
Run 1: Statistics of PCC

Start at: 2018-04-04 00:21:00
End at: 2018-04-04 00:21:30

# Below is generated by plot.py at 2018-04-04 06:58:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 506.36 Mbit/s
95th percentile per-packet one-way delay: 246.636 ms
Loss rate: 3.15%
-- Flow 1:
Average throughput: 464.65 Mbit/s
95th percentile per-packet one-way delay: 246.698 ms
Loss rate: 3.04%
-- Flow 2:
Average throughput: 34.06 Mbit/s
95th percentile per-packet one-way delay: 246.592 ms
Loss rate: 3.05%
-- Flow 3:
Average throughput: 59.27 Mbit/s
95th percentile per-packet one-way delay: 235.795 ms
Loss rate: 5.82%
```

Run 1: Report of PCC — Data Link

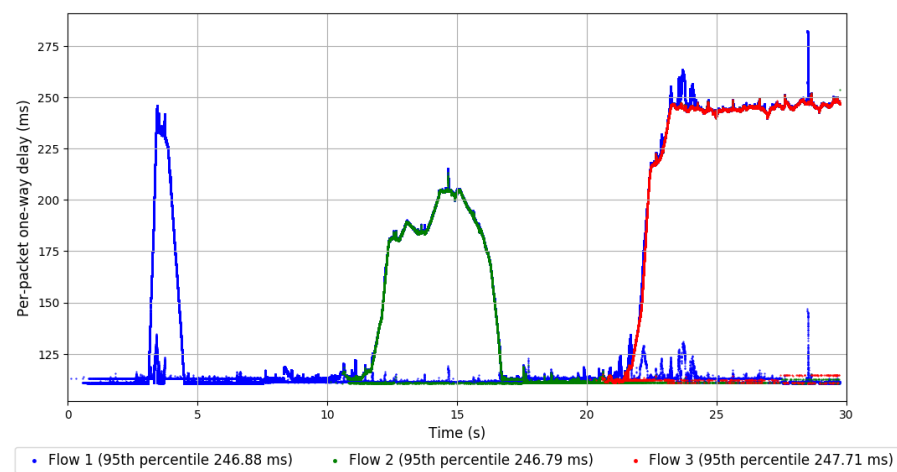
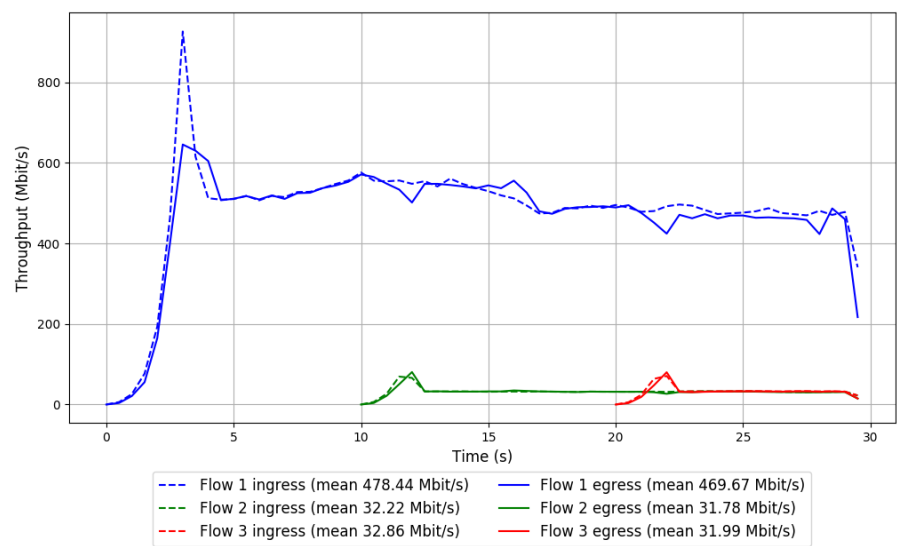


```
Run 2: Statistics of PCC

Start at: 2018-04-04 00:40:04
End at: 2018-04-04 00:40:34

# Below is generated by plot.py at 2018-04-04 06:58:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 501.00 Mbit/s
95th percentile per-packet one-way delay: 246.929 ms
Loss rate: 2.62%
-- Flow 1:
Average throughput: 469.67 Mbit/s
95th percentile per-packet one-way delay: 246.882 ms
Loss rate: 2.58%
-- Flow 2:
Average throughput: 31.78 Mbit/s
95th percentile per-packet one-way delay: 246.794 ms
Loss rate: 2.46%
-- Flow 3:
Average throughput: 31.99 Mbit/s
95th percentile per-packet one-way delay: 247.709 ms
Loss rate: 4.87%
```

Run 2: Report of PCC — Data Link

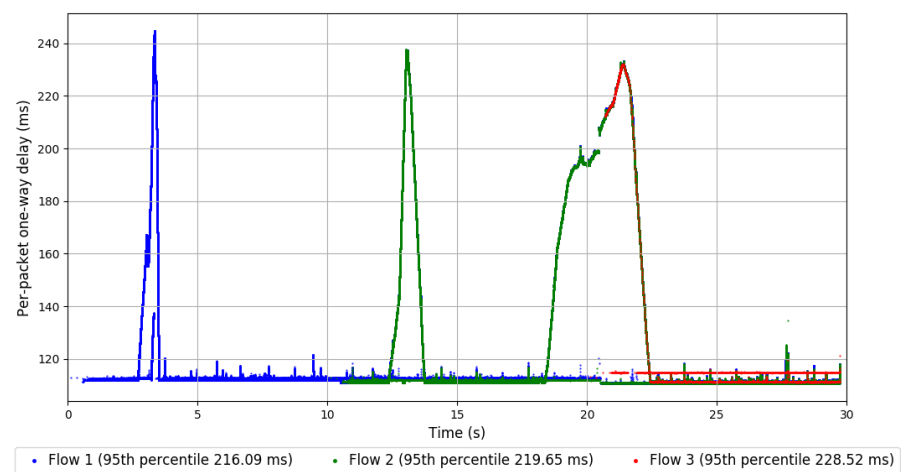
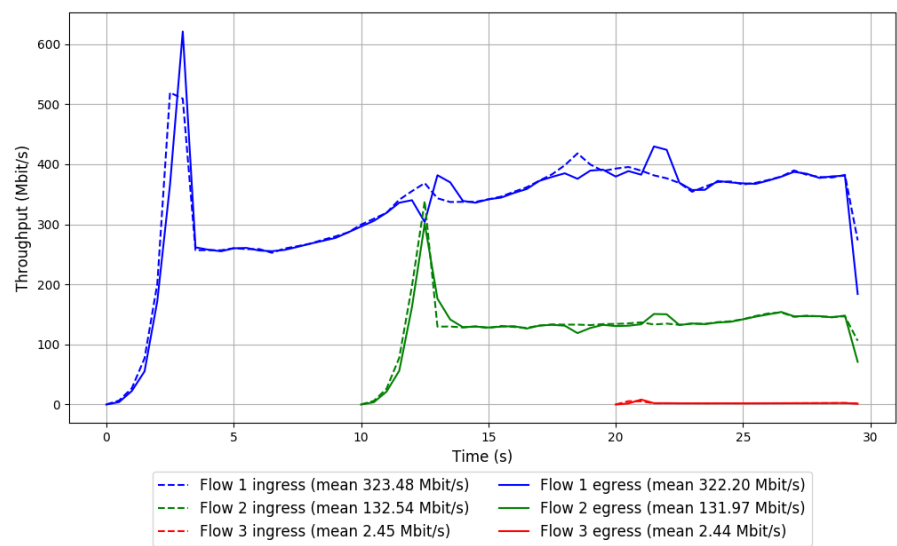


```
Run 3: Statistics of PCC

Start at: 2018-04-04 00:59:01
End at: 2018-04-04 00:59:31

# Below is generated by plot.py at 2018-04-04 06:58:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 410.37 Mbit/s
95th percentile per-packet one-way delay: 216.717 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 322.20 Mbit/s
95th percentile per-packet one-way delay: 216.089 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 131.97 Mbit/s
95th percentile per-packet one-way delay: 219.648 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 228.517 ms
Loss rate: 2.51%
```

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-04-04 01:17:51

End at: 2018-04-04 01:18:21

Below is generated by plot.py at 2018-04-04 06:58:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 466.21 Mbit/s

95th percentile per-packet one-way delay: 236.001 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 454.27 Mbit/s

95th percentile per-packet one-way delay: 236.142 ms

Loss rate: 1.32%

-- Flow 2:

Average throughput: 2.39 Mbit/s

95th percentile per-packet one-way delay: 231.217 ms

Loss rate: 1.20%

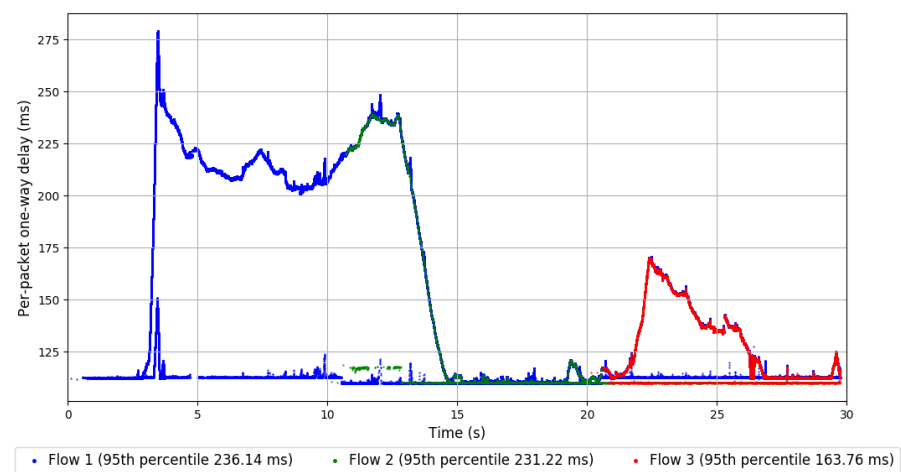
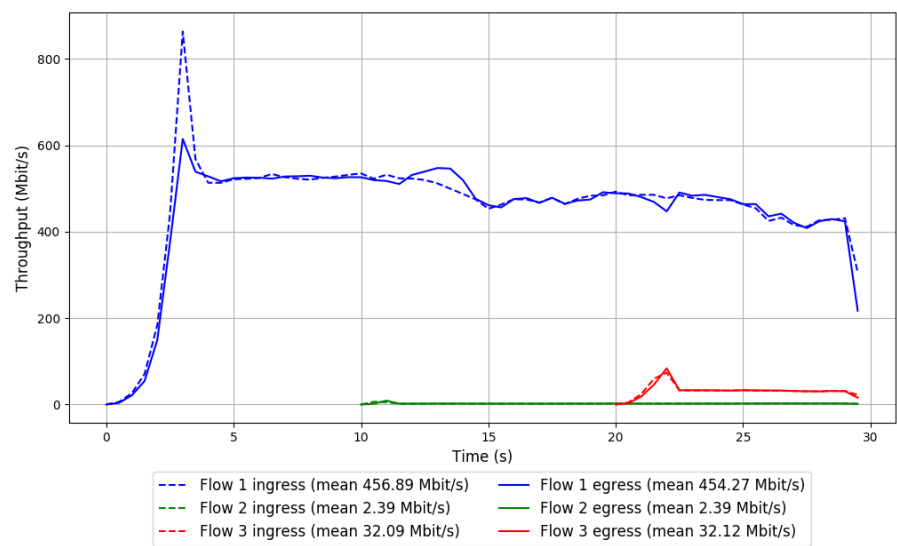
-- Flow 3:

Average throughput: 32.12 Mbit/s

95th percentile per-packet one-way delay: 163.756 ms

Loss rate: 2.20%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-04-04 01:36:34

End at: 2018-04-04 01:37:04

Below is generated by plot.py at 2018-04-04 06:58:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 461.65 Mbit/s

95th percentile per-packet one-way delay: 234.002 ms

Loss rate: 1.79%

-- Flow 1:

Average throughput: 449.94 Mbit/s

95th percentile per-packet one-way delay: 234.183 ms

Loss rate: 1.78%

-- Flow 2:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 233.139 ms

Loss rate: 1.06%

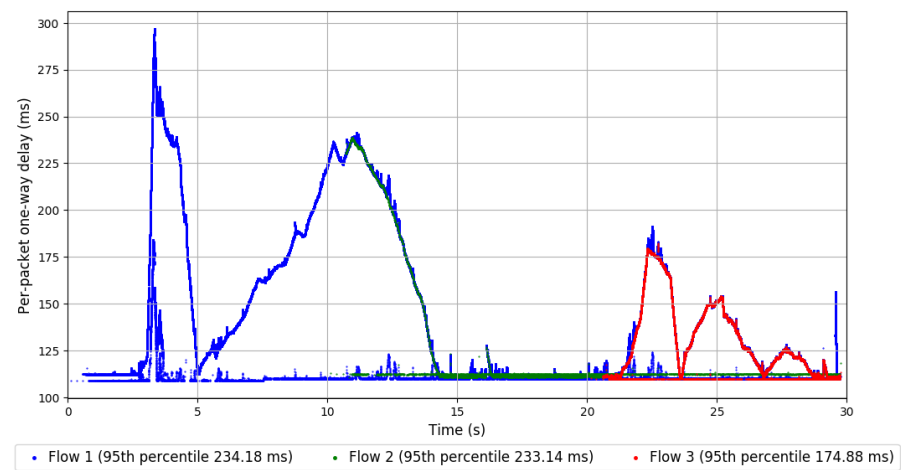
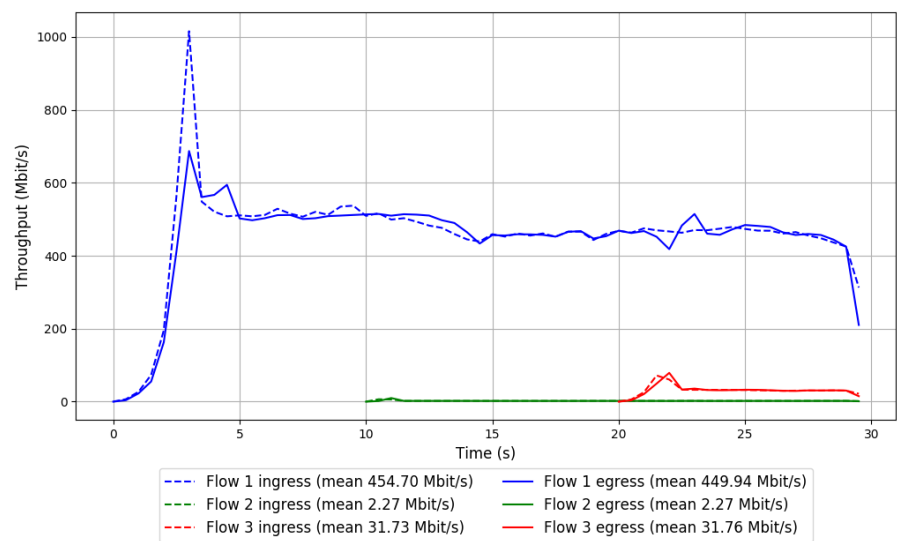
-- Flow 3:

Average throughput: 31.76 Mbit/s

95th percentile per-packet one-way delay: 174.875 ms

Loss rate: 2.16%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-04-04 01:55:41

End at: 2018-04-04 01:56:11

Below is generated by plot.py at 2018-04-04 06:59:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 533.65 Mbit/s

95th percentile per-packet one-way delay: 236.276 ms

Loss rate: 3.41%

-- Flow 1:

Average throughput: 492.51 Mbit/s

95th percentile per-packet one-way delay: 236.500 ms

Loss rate: 3.34%

-- Flow 2:

Average throughput: 32.40 Mbit/s

95th percentile per-packet one-way delay: 234.772 ms

Loss rate: 2.96%

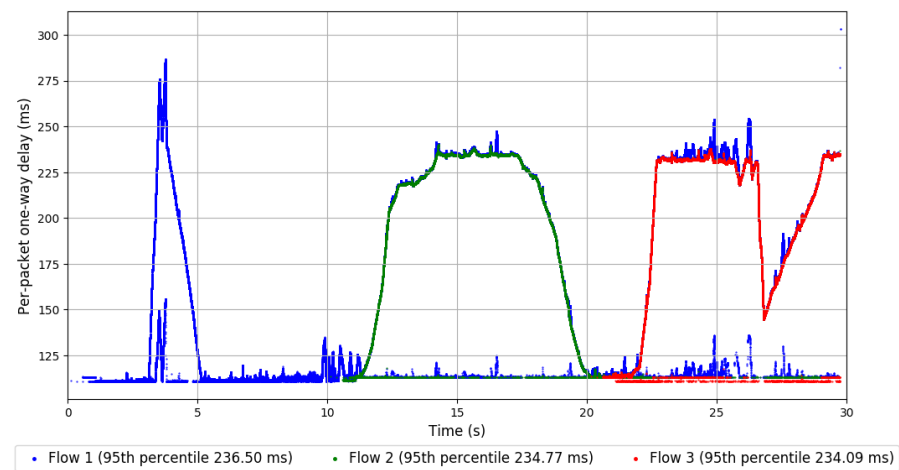
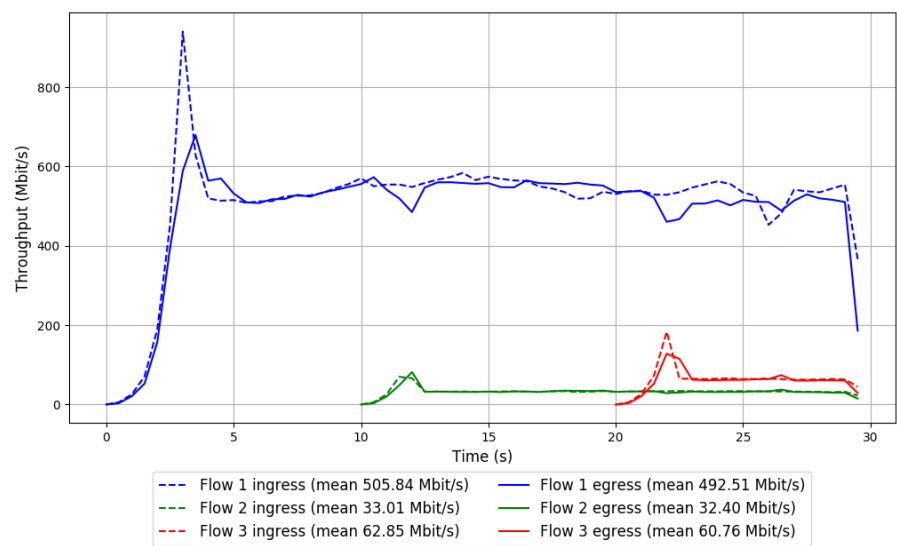
-- Flow 3:

Average throughput: 60.76 Mbit/s

95th percentile per-packet one-way delay: 234.089 ms

Loss rate: 5.53%

Run 6: Report of PCC — Data Link

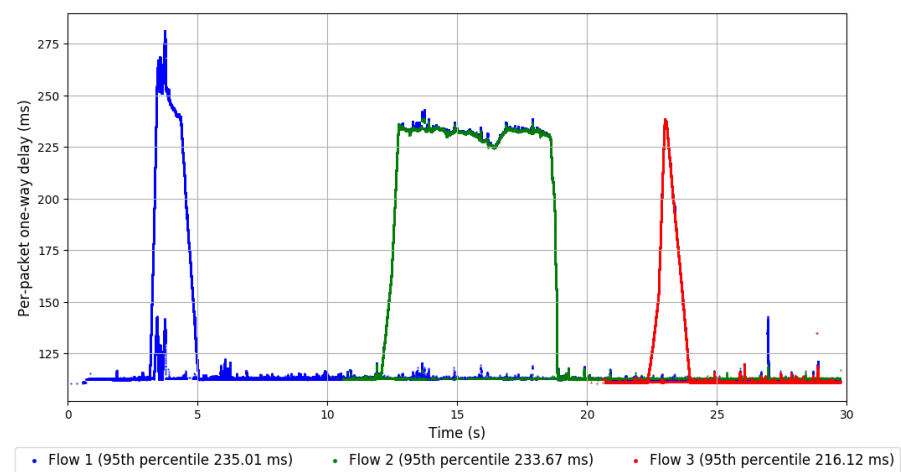
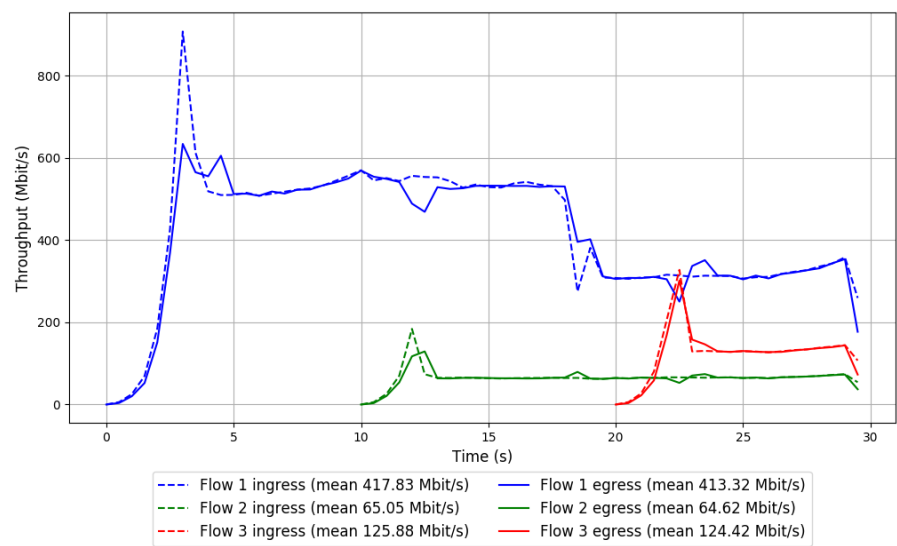


```
Run 7: Statistics of PCC

Start at: 2018-04-04 02:14:51
End at: 2018-04-04 02:15:21

# Below is generated by plot.py at 2018-04-04 06:59:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 496.33 Mbit/s
95th percentile per-packet one-way delay: 234.516 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 413.32 Mbit/s
95th percentile per-packet one-way delay: 235.009 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 64.62 Mbit/s
95th percentile per-packet one-way delay: 233.671 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 124.42 Mbit/s
95th percentile per-packet one-way delay: 216.118 ms
Loss rate: 3.41%
```

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-04-04 02:33:42

End at: 2018-04-04 02:34:12

Below is generated by plot.py at 2018-04-04 06:59:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 513.09 Mbit/s

95th percentile per-packet one-way delay: 234.433 ms

Loss rate: 2.78%

-- Flow 1:

Average throughput: 451.88 Mbit/s

95th percentile per-packet one-way delay: 234.589 ms

Loss rate: 2.66%

-- Flow 2:

Average throughput: 62.26 Mbit/s

95th percentile per-packet one-way delay: 233.143 ms

Loss rate: 2.72%

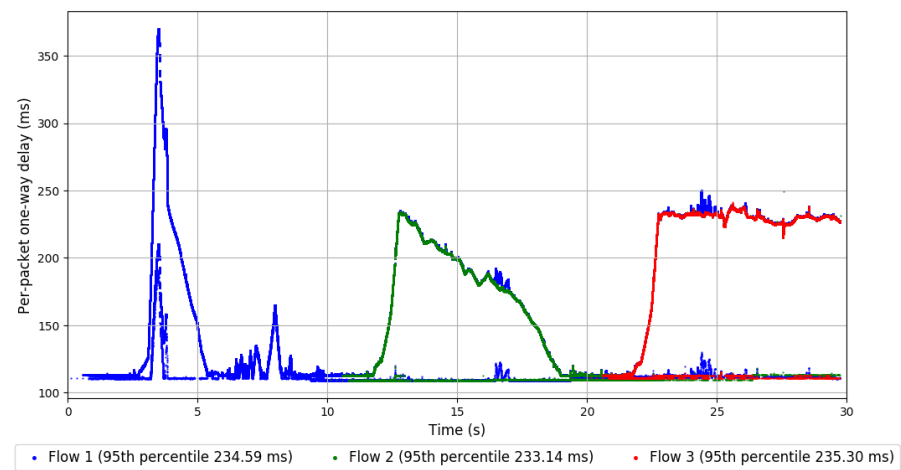
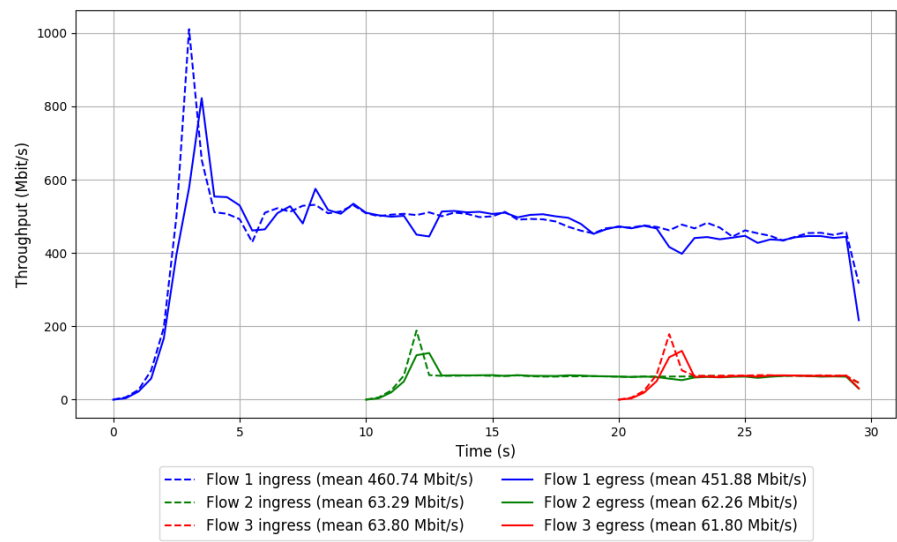
-- Flow 3:

Average throughput: 61.80 Mbit/s

95th percentile per-packet one-way delay: 235.304 ms

Loss rate: 5.36%

Run 8: Report of PCC — Data Link

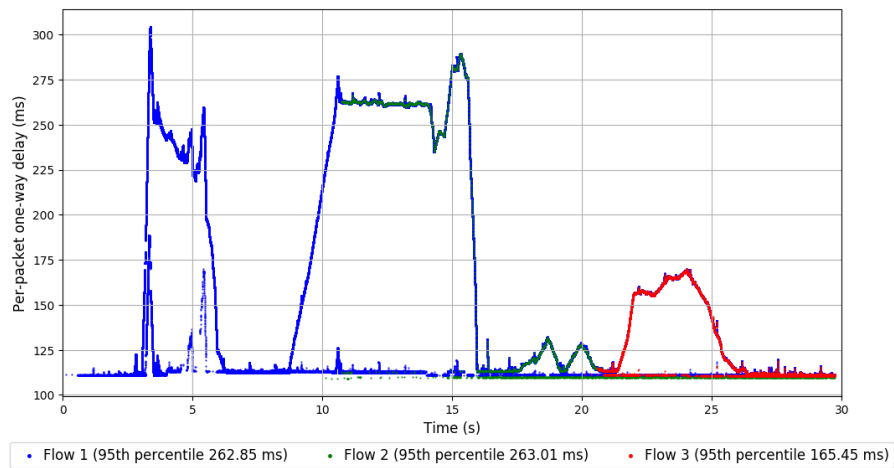
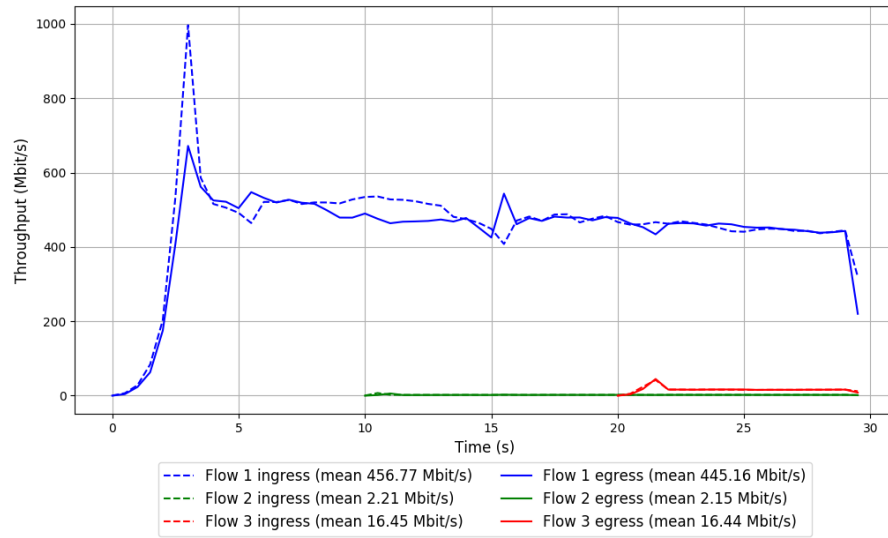


```
Run 9: Statistics of PCC

Start at: 2018-04-04 02:52:28
End at: 2018-04-04 02:52:58

# Below is generated by plot.py at 2018-04-04 07:05:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.92 Mbit/s
95th percentile per-packet one-way delay: 262.835 ms
Loss rate: 3.25%
-- Flow 1:
Average throughput: 445.16 Mbit/s
95th percentile per-packet one-way delay: 262.853 ms
Loss rate: 3.26%
-- Flow 2:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 263.014 ms
Loss rate: 3.76%
-- Flow 3:
Average throughput: 16.44 Mbit/s
95th percentile per-packet one-way delay: 165.449 ms
Loss rate: 2.33%
```

Run 9: Report of PCC — Data Link

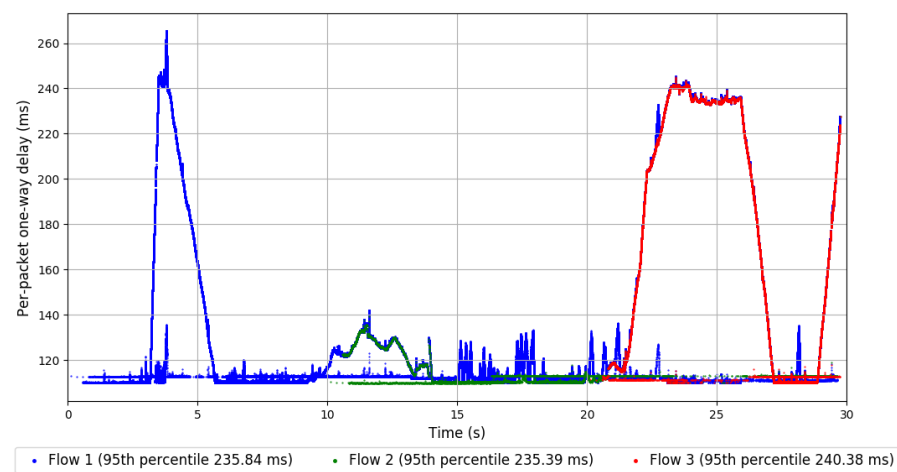
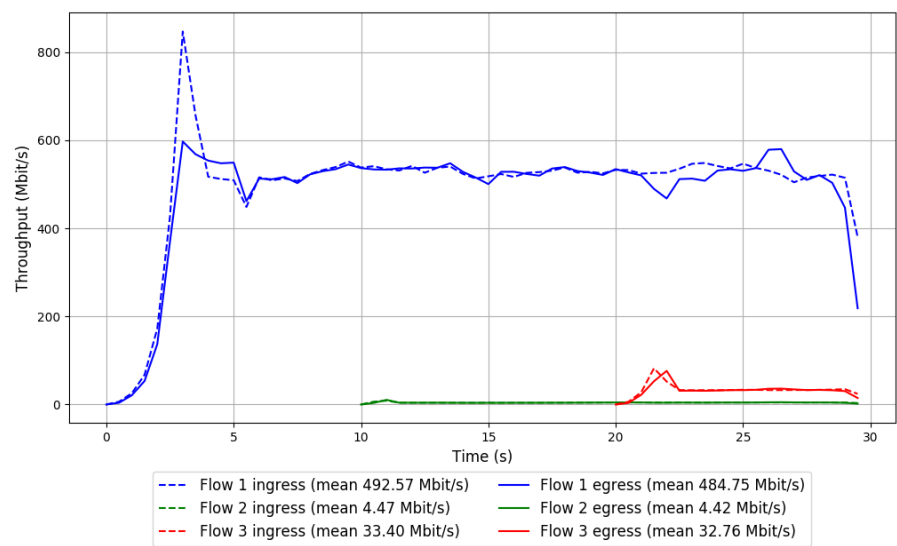


```
Run 10: Statistics of PCC

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

# Below is generated by plot.py at 2018-04-04 07:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 498.23 Mbit/s
95th percentile per-packet one-way delay: 235.884 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 484.75 Mbit/s
95th percentile per-packet one-way delay: 235.835 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 235.388 ms
Loss rate: 2.31%
-- Flow 3:
Average throughput: 32.76 Mbit/s
95th percentile per-packet one-way delay: 240.382 ms
Loss rate: 4.07%
```

Run 10: Report of PCC — Data Link

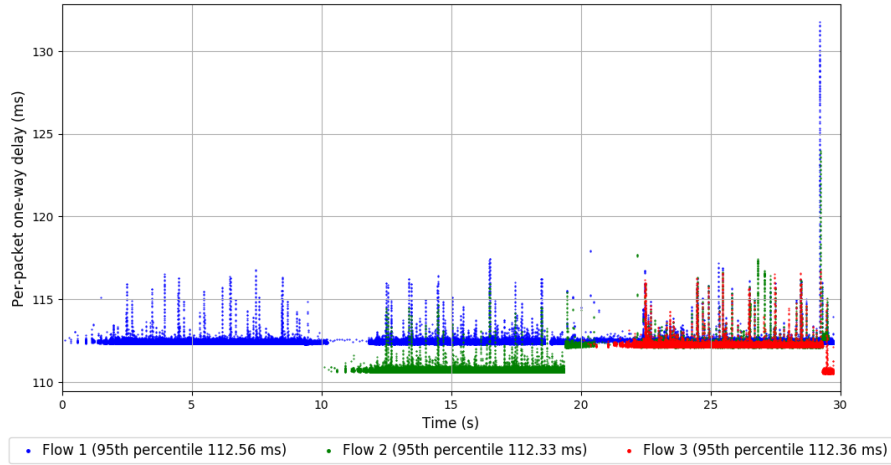
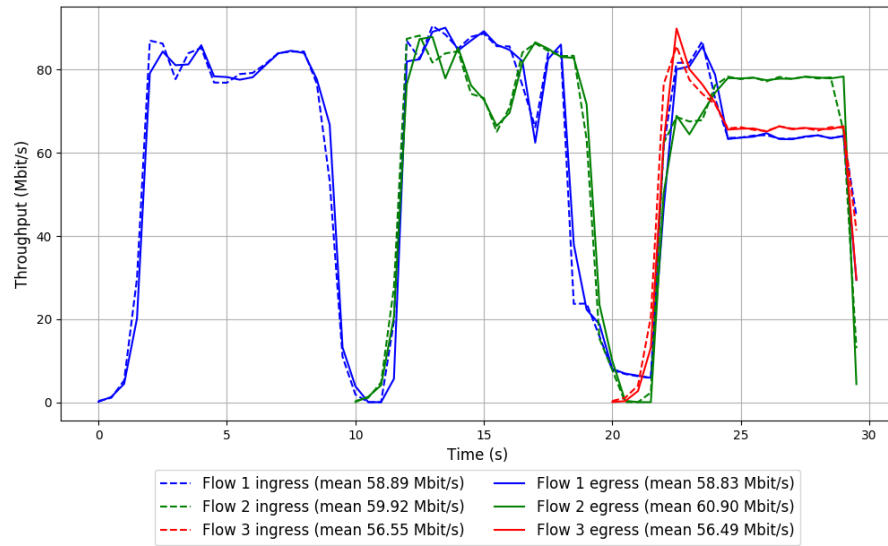


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-04 00:16:02
End at: 2018-04-04 00:16:32

# Below is generated by plot.py at 2018-04-04 07:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 117.04 Mbit/s
95th percentile per-packet one-way delay: 112.528 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 58.83 Mbit/s
95th percentile per-packet one-way delay: 112.558 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 60.90 Mbit/s
95th percentile per-packet one-way delay: 112.330 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 56.49 Mbit/s
95th percentile per-packet one-way delay: 112.362 ms
Loss rate: 2.38%
```

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-04-04 00:35:02

End at: 2018-04-04 00:35:32

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.04 Mbit/s

95th percentile per-packet one-way delay: 112.484 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 59.84 Mbit/s

95th percentile per-packet one-way delay: 111.821 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 55.97 Mbit/s

95th percentile per-packet one-way delay: 112.312 ms

Loss rate: 1.30%

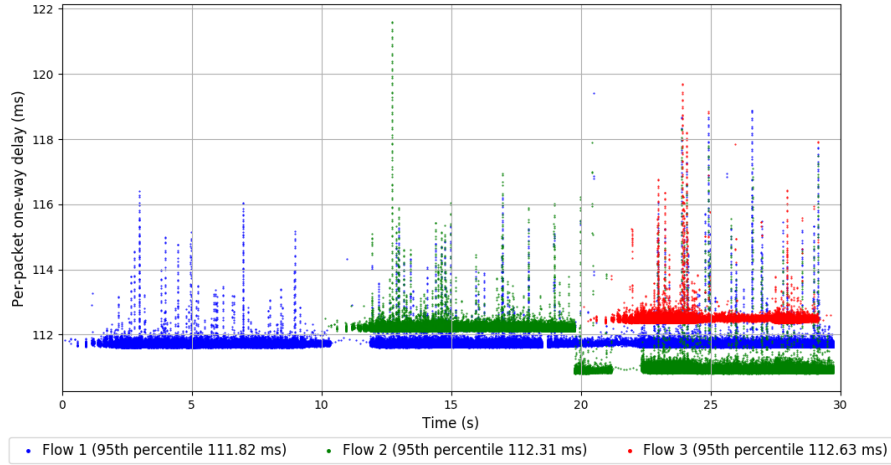
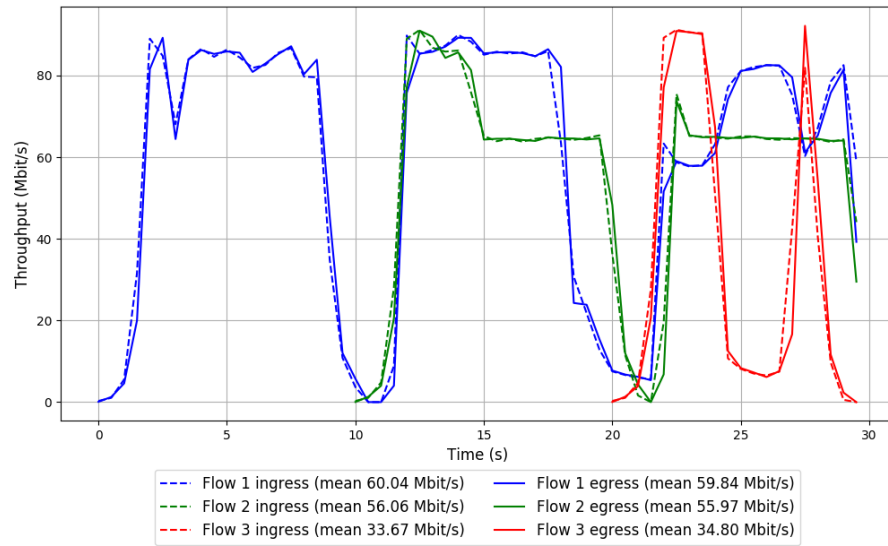
-- Flow 3:

Average throughput: 34.80 Mbit/s

95th percentile per-packet one-way delay: 112.633 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-04-04 00:53:54

End at: 2018-04-04 00:54:24

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.42 Mbit/s

95th percentile per-packet one-way delay: 112.974 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 64.27 Mbit/s

95th percentile per-packet one-way delay: 113.004 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 61.54 Mbit/s

95th percentile per-packet one-way delay: 112.695 ms

Loss rate: 0.16%

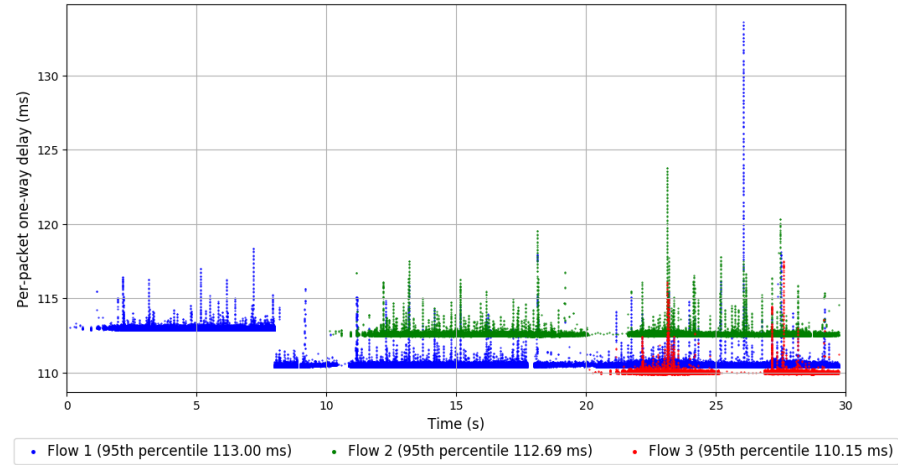
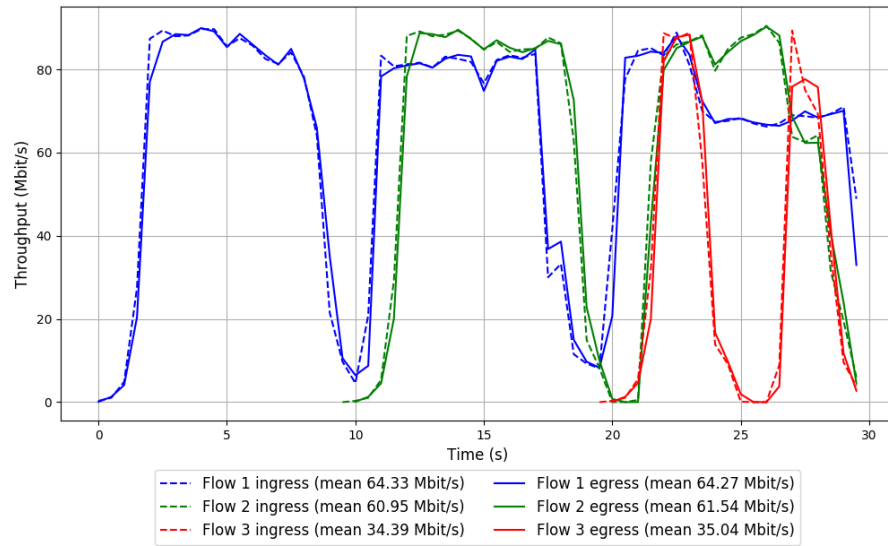
-- Flow 3:

Average throughput: 35.04 Mbit/s

95th percentile per-packet one-way delay: 110.150 ms

Loss rate: 0.37%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-04-04 01:12:44

End at: 2018-04-04 01:13:14

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.78 Mbit/s

95th percentile per-packet one-way delay: 112.697 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 62.34 Mbit/s

95th percentile per-packet one-way delay: 111.981 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 54.78 Mbit/s

95th percentile per-packet one-way delay: 112.831 ms

Loss rate: 1.34%

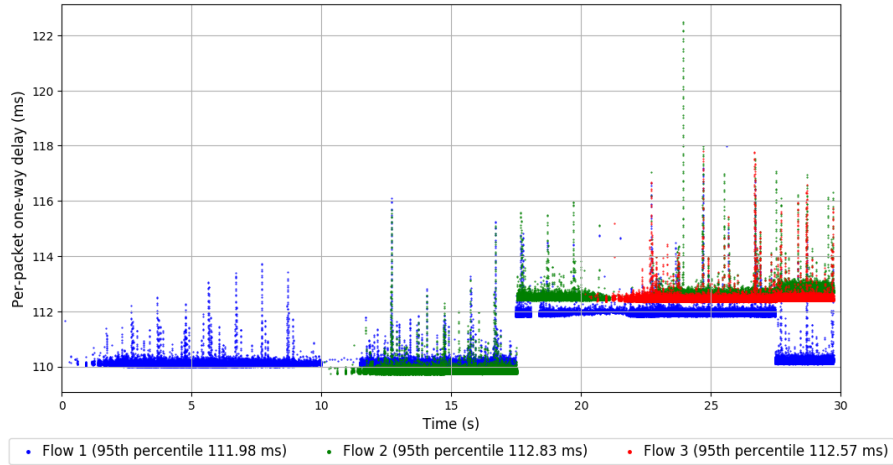
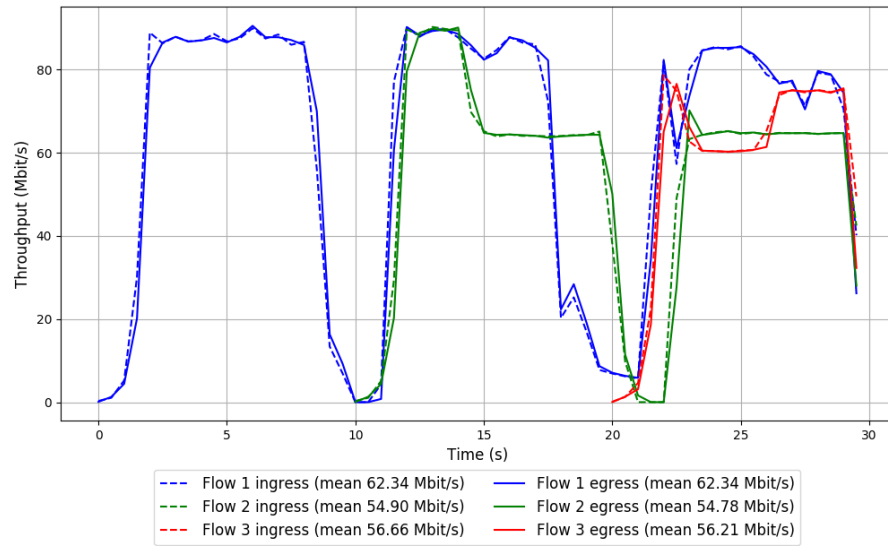
-- Flow 3:

Average throughput: 56.21 Mbit/s

95th percentile per-packet one-way delay: 112.570 ms

Loss rate: 3.06%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-04-04 01:31:40

End at: 2018-04-04 01:32:10

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.05 Mbit/s

95th percentile per-packet one-way delay: 112.986 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 55.29 Mbit/s

95th percentile per-packet one-way delay: 113.022 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 48.57 Mbit/s

95th percentile per-packet one-way delay: 110.648 ms

Loss rate: 1.48%

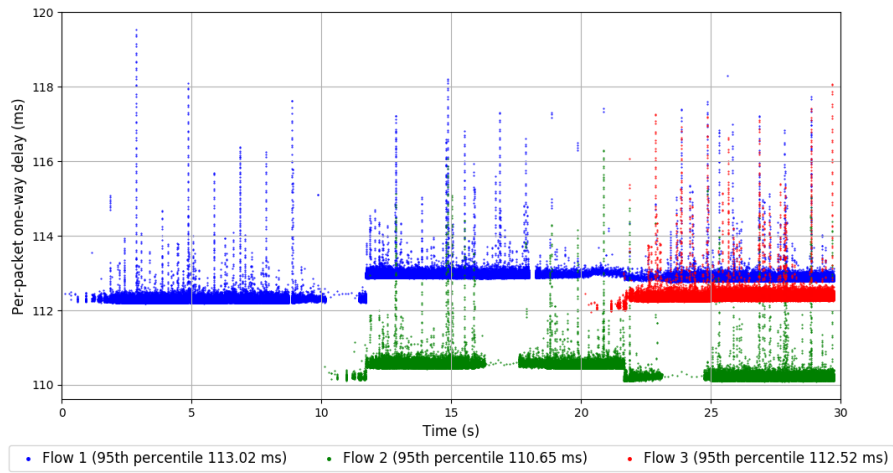
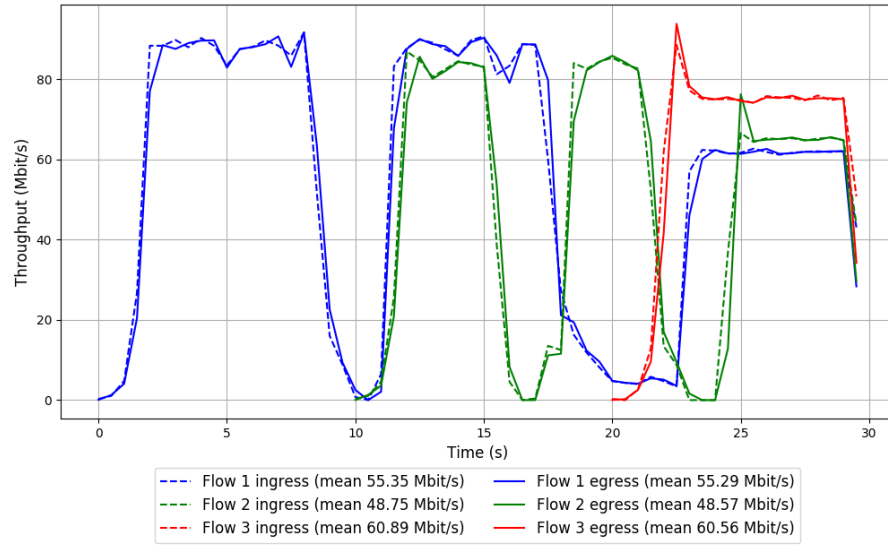
-- Flow 3:

Average throughput: 60.56 Mbit/s

95th percentile per-packet one-way delay: 112.524 ms

Loss rate: 2.81%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-04-04 01:50:40

End at: 2018-04-04 01:51:10

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.22 Mbit/s

95th percentile per-packet one-way delay: 114.951 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 43.20 Mbit/s

95th percentile per-packet one-way delay: 112.979 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 46.93 Mbit/s

95th percentile per-packet one-way delay: 112.200 ms

Loss rate: 1.70%

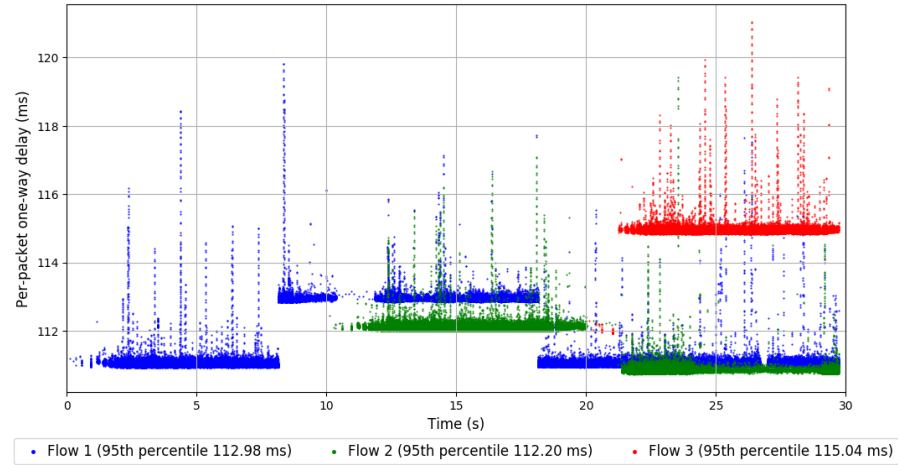
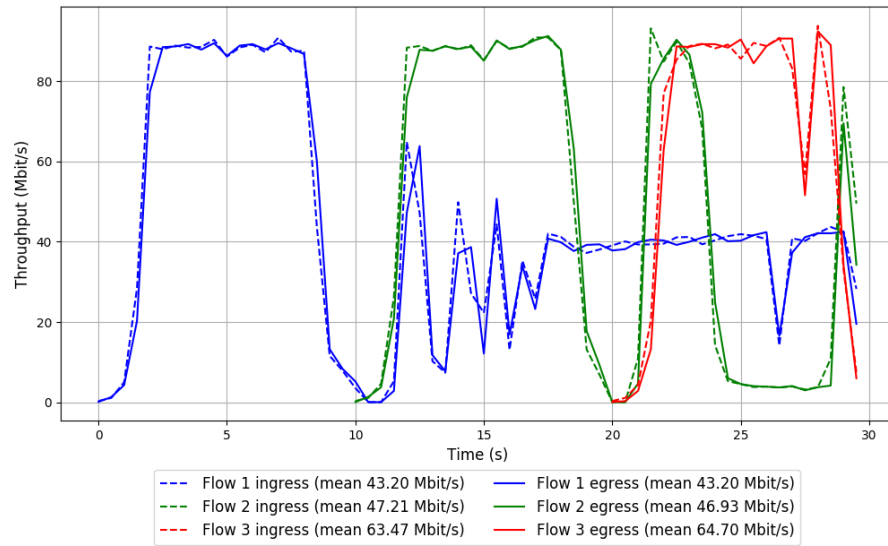
-- Flow 3:

Average throughput: 64.70 Mbit/s

95th percentile per-packet one-way delay: 115.040 ms

Loss rate: 0.38%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-04-04 02:09:44

End at: 2018-04-04 02:10:14

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.84 Mbit/s

95th percentile per-packet one-way delay: 113.192 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 58.92 Mbit/s

95th percentile per-packet one-way delay: 113.238 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 51.42 Mbit/s

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

Loss rate: 1.34%

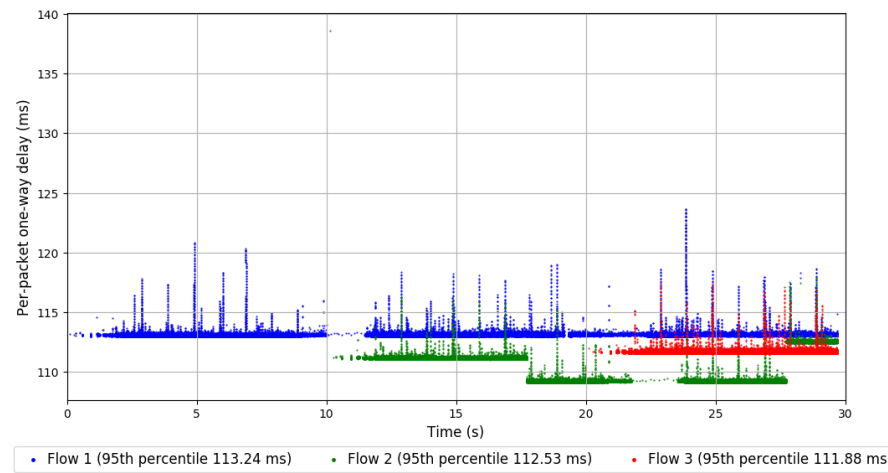
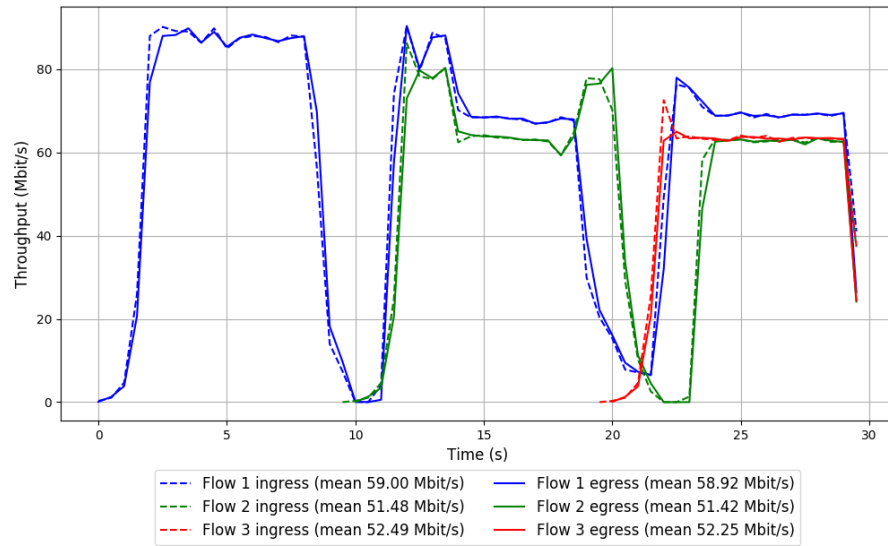
-- Flow 3:

Average throughput: 52.25 Mbit/s

95th percentile per-packet one-way delay: 111.882 ms

Loss rate: 2.65%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-04-04 02:28:36

End at: 2018-04-04 02:29:06

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.48 Mbit/s

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

Loss rate: 1.52%

-- Flow 1:

Average throughput: 64.55 Mbit/s

95th percentile per-packet one-way delay: 111.053 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 58.33 Mbit/s

95th percentile per-packet one-way delay: 115.101 ms

Loss rate: 1.21%

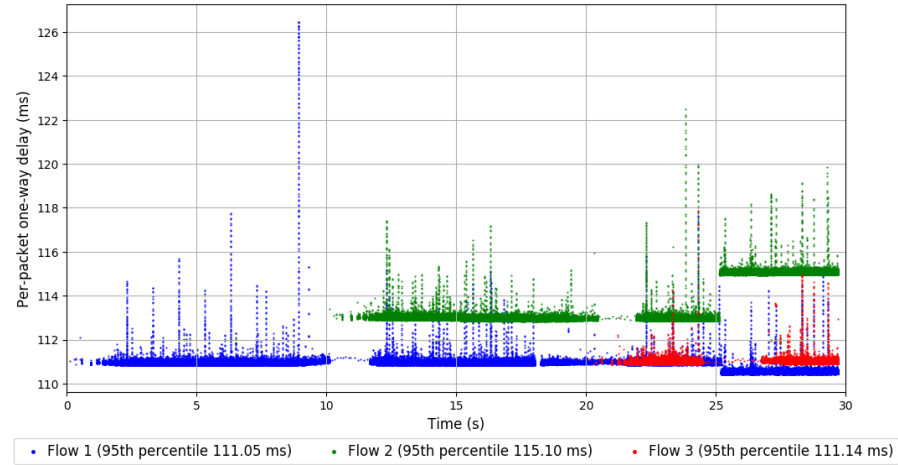
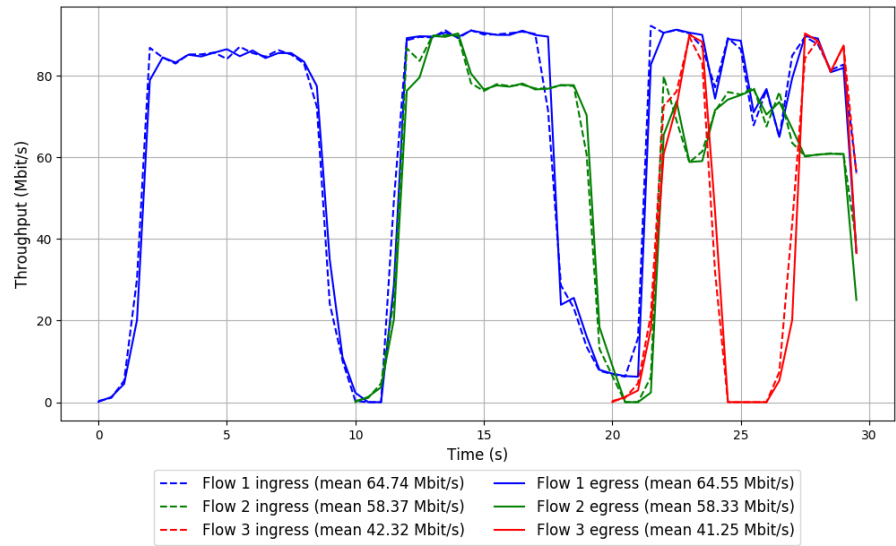
-- Flow 3:

Average throughput: 41.25 Mbit/s

95th percentile per-packet one-way delay: 111.139 ms

Loss rate: 4.72%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-04-04 02:47:31

End at: 2018-04-04 02:48:01

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 100.73 Mbit/s

95th percentile per-packet one-way delay: 112.961 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 62.61 Mbit/s

95th percentile per-packet one-way delay: 113.002 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 43.84 Mbit/s

95th percentile per-packet one-way delay: 110.887 ms

Loss rate: 1.84%

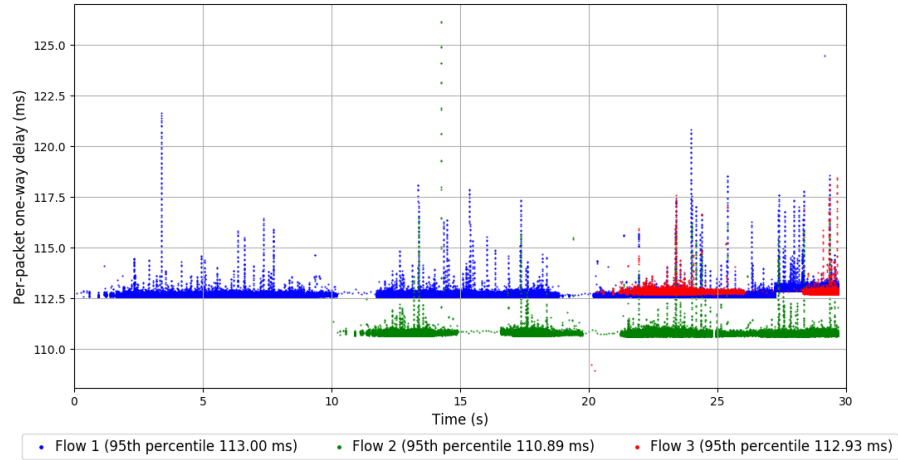
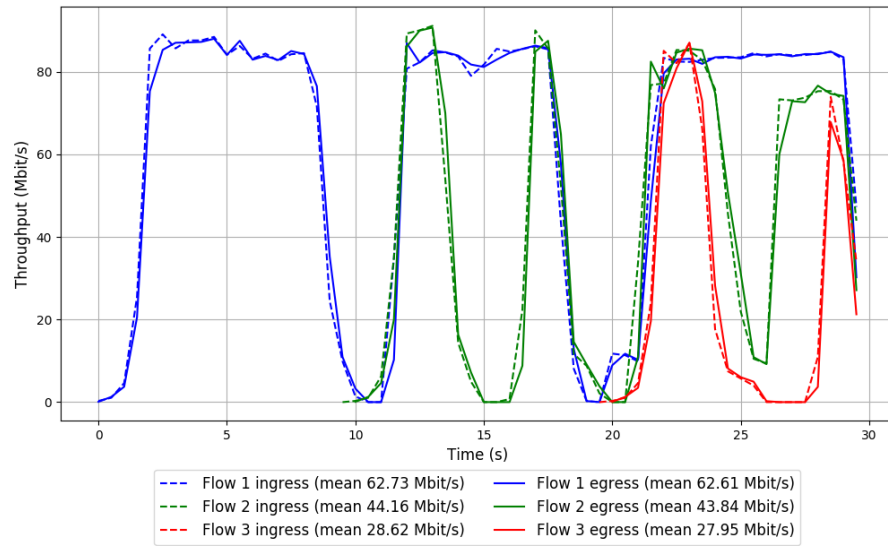
-- Flow 3:

Average throughput: 27.95 Mbit/s

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

Loss rate: 4.55%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-04-04 03:06:25

End at: 2018-04-04 03:06:55

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.14 Mbit/s

95th percentile per-packet one-way delay: 112.939 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 58.19 Mbit/s

95th percentile per-packet one-way delay: 112.940 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 54.11 Mbit/s

95th percentile per-packet one-way delay: 112.063 ms

Loss rate: 1.56%

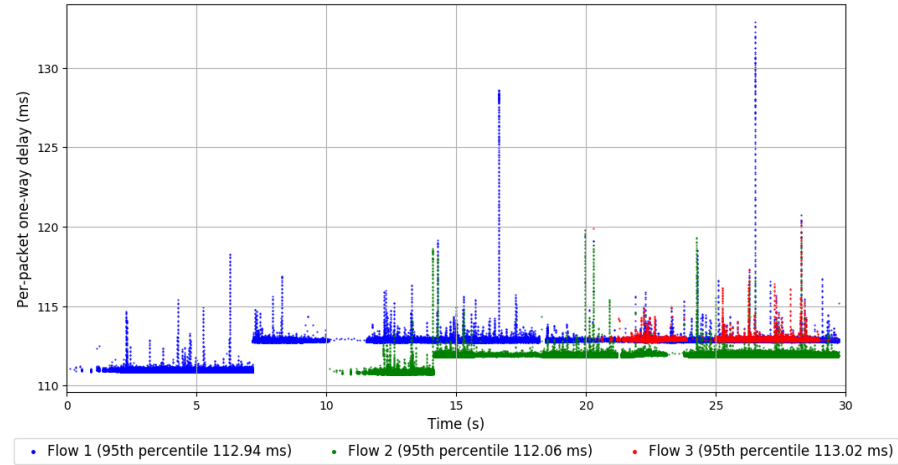
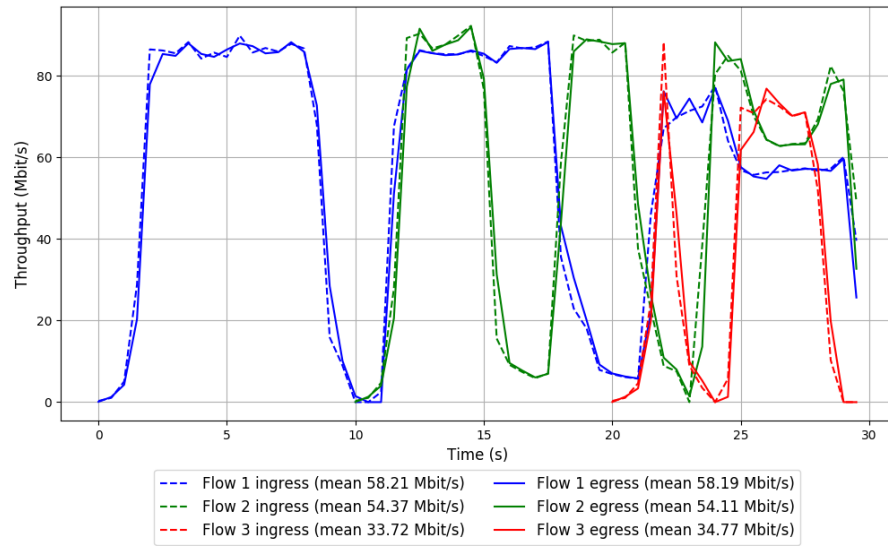
-- Flow 3:

Average throughput: 34.77 Mbit/s

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

Loss rate: 0.00%

Run 10: Report of QUIC Cubic — Data Link

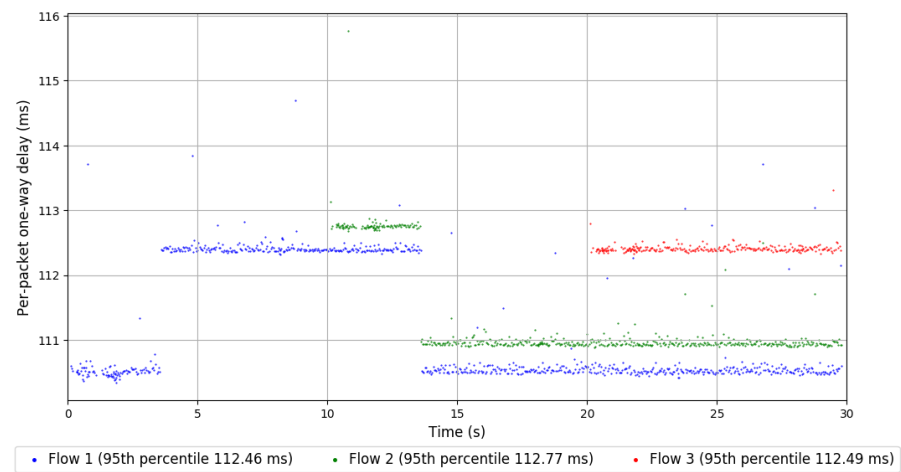
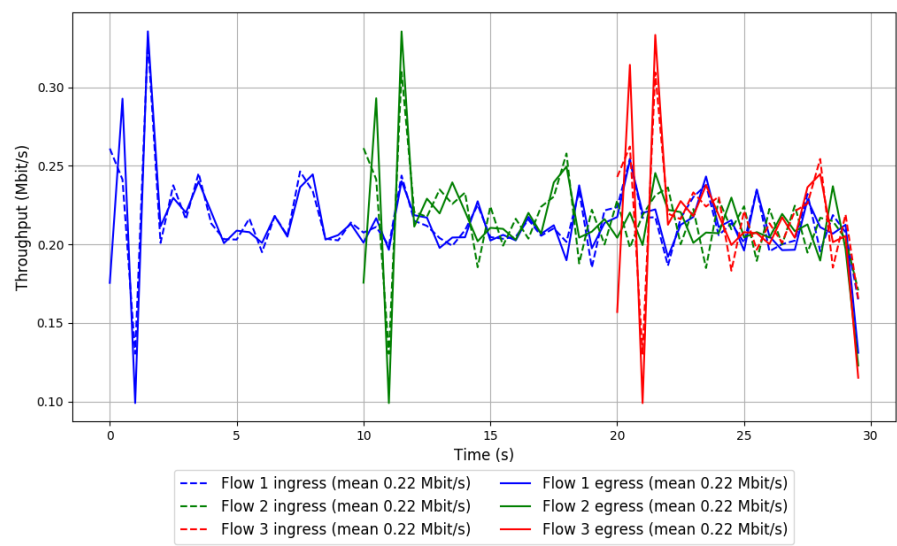


```
Run 1: Statistics of SCReAM

Start at: 2018-04-04 00:23:18
End at: 2018-04-04 00:23:48

# Below is generated by plot.py at 2018-04-04 07:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.745 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.457 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.767 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.491 ms
Loss rate: 2.25%
```

Run 1: Report of SReAM — Data Link

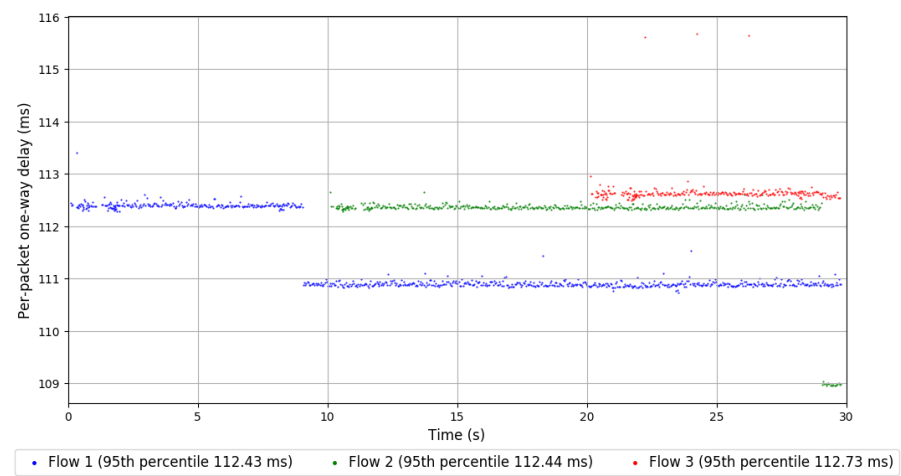
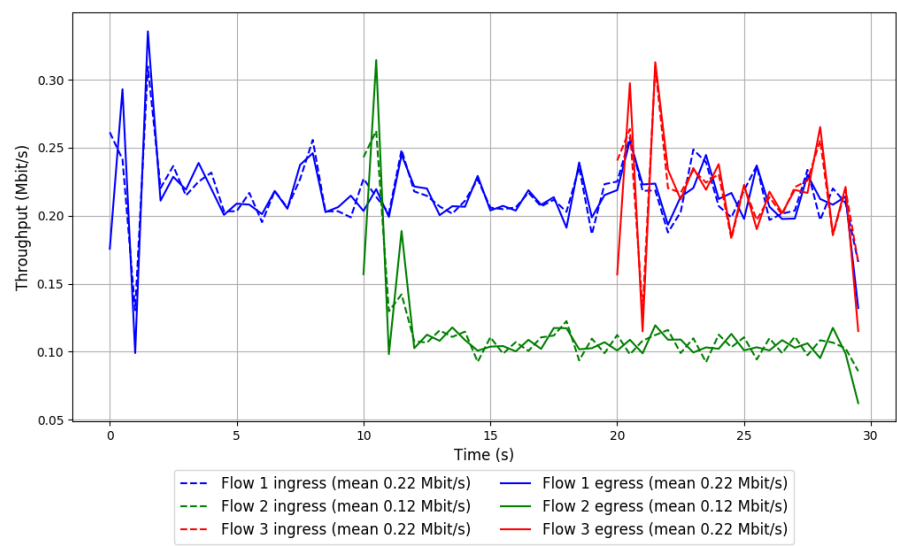


```
Run 2: Statistics of SReAM

Start at: 2018-04-04 00:42:23
End at: 2018-04-04 00:42:53

# Below is generated by plot.py at 2018-04-04 07:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 112.644 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.433 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 112.443 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.728 ms
Loss rate: 2.25%
```

Run 2: Report of SReAM — Data Link

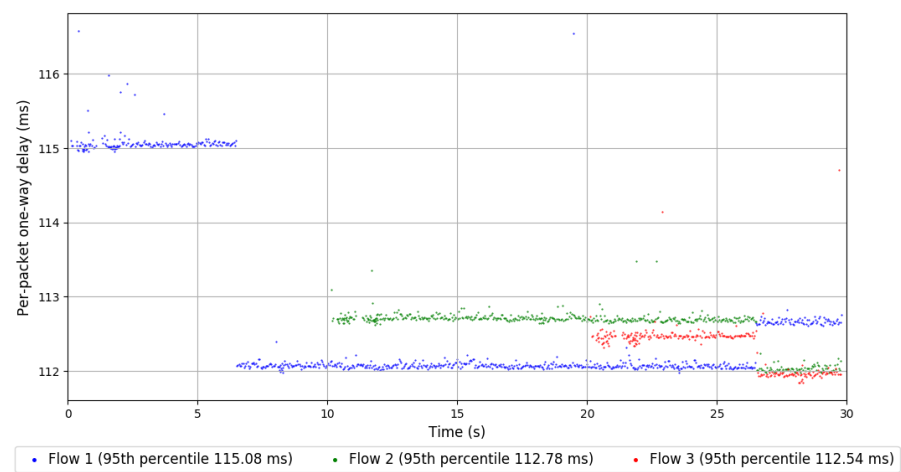
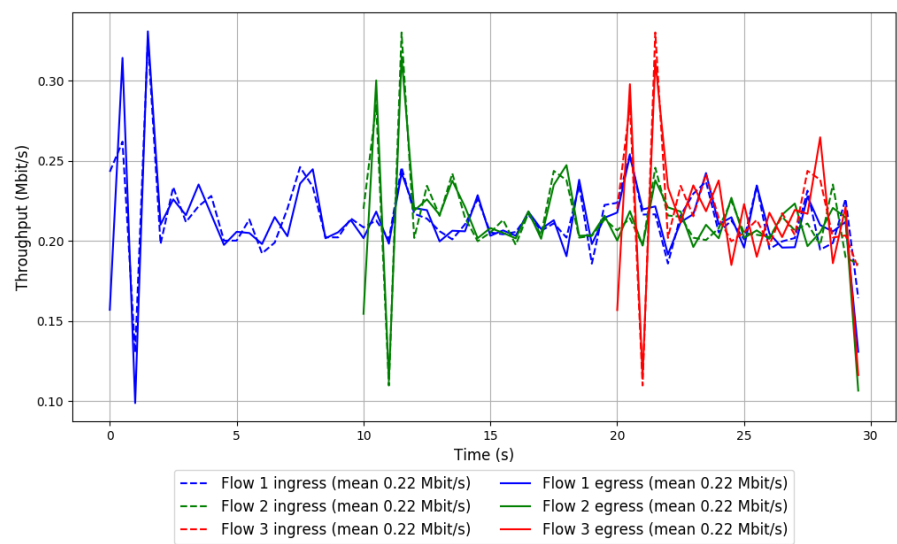


```
Run 3: Statistics of SCReAM

Start at: 2018-04-04 01:01:15
End at: 2018-04-04 01:01:45

# Below is generated by plot.py at 2018-04-04 07:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 115.053 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 115.078 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.779 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.541 ms
Loss rate: 2.26%
```

Run 3: Report of SReAM — Data Link

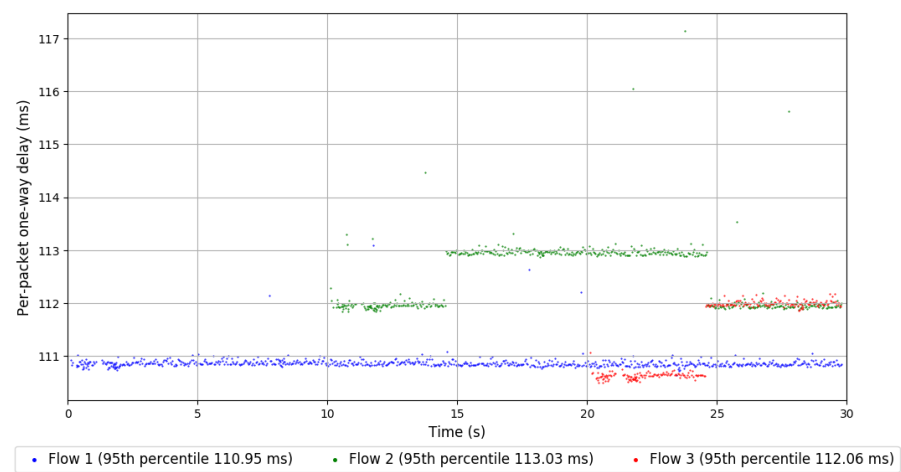
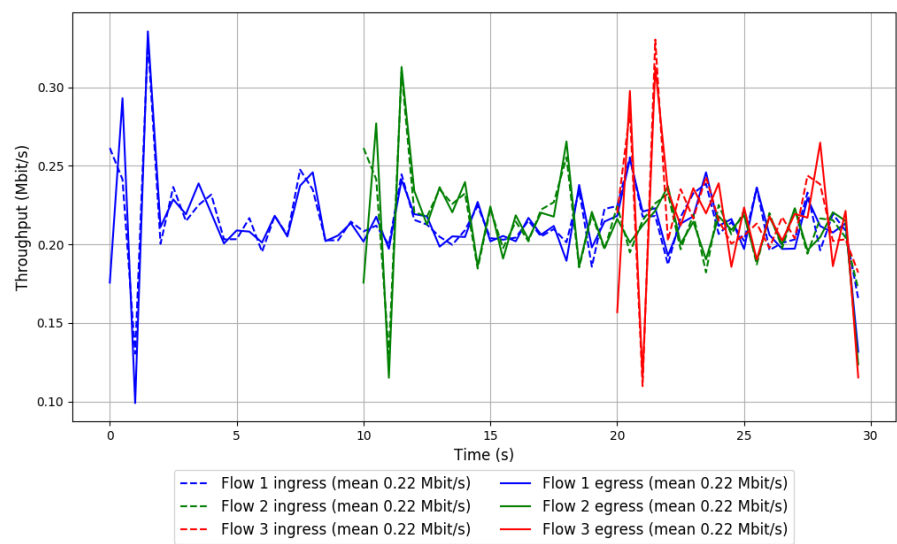


```
Run 4: Statistics of SReAM

Start at: 2018-04-04 01:20:07
End at: 2018-04-04 01:20:37

# Below is generated by plot.py at 2018-04-04 07:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.980 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.951 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.031 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.057 ms
Loss rate: 2.25%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2018-04-04 01:38:50

End at: 2018-04-04 01:39:20

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.449 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.303 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.494 ms

Loss rate: 1.05%

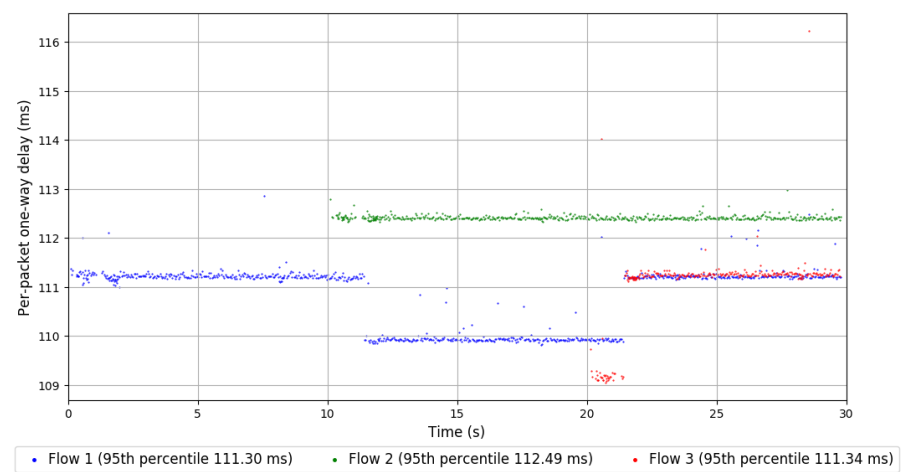
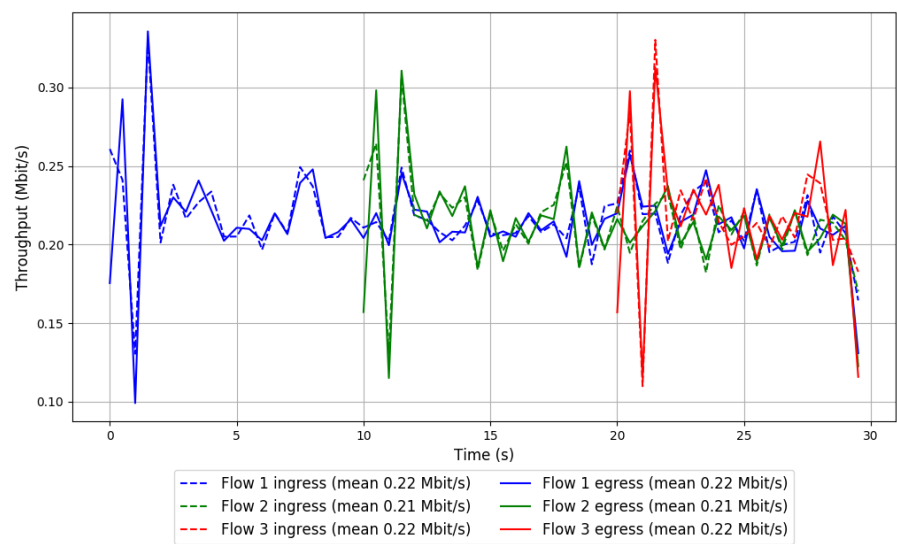
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.345 ms

Loss rate: 2.26%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2018-04-04 01:58:00

End at: 2018-04-04 01:58:30

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 0.98%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.149 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.367 ms

Loss rate: 1.05%

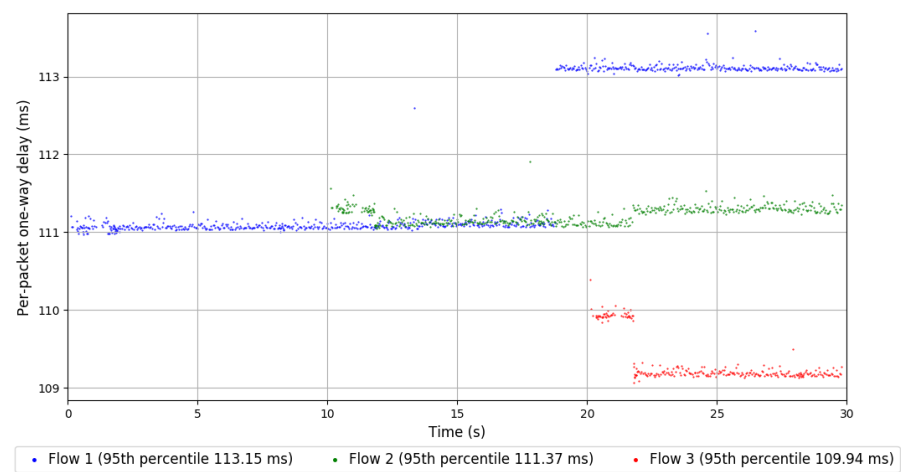
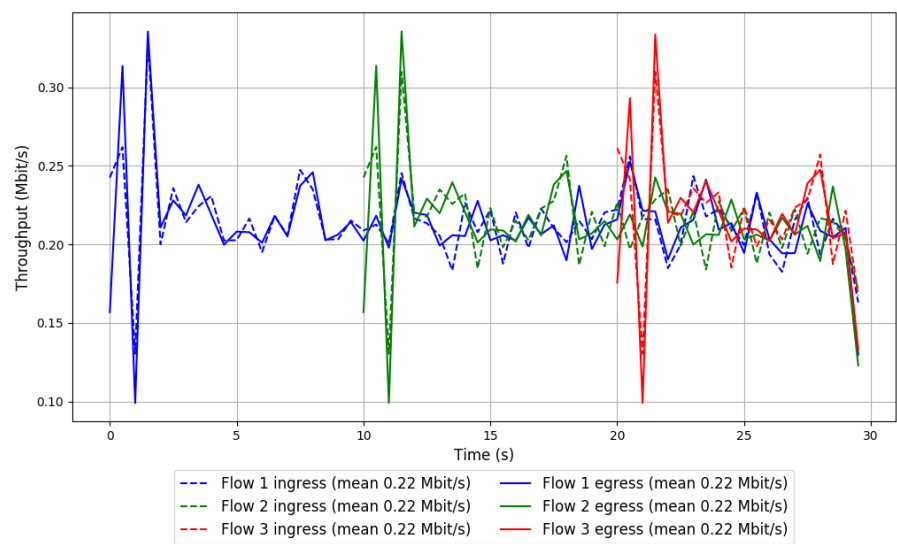
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 109.945 ms

Loss rate: 1.87%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2018-04-04 02:17:08

End at: 2018-04-04 02:17:38

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 115.233 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 112.608 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 115.284 ms

Loss rate: 1.05%

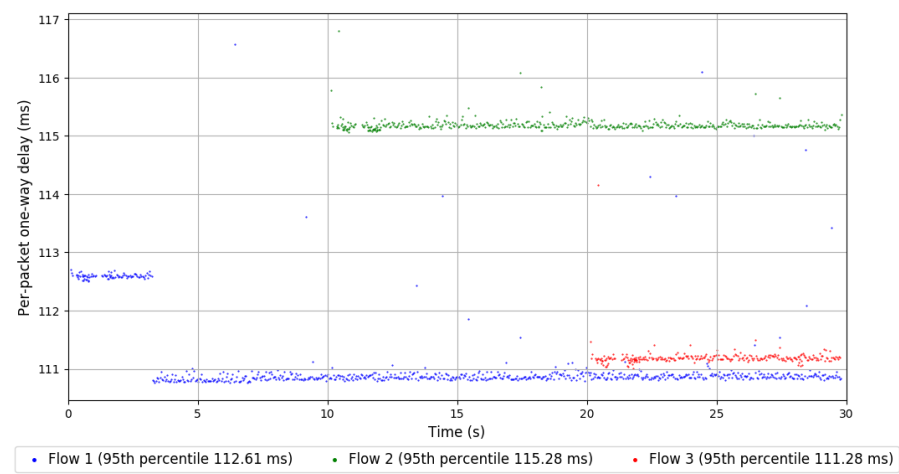
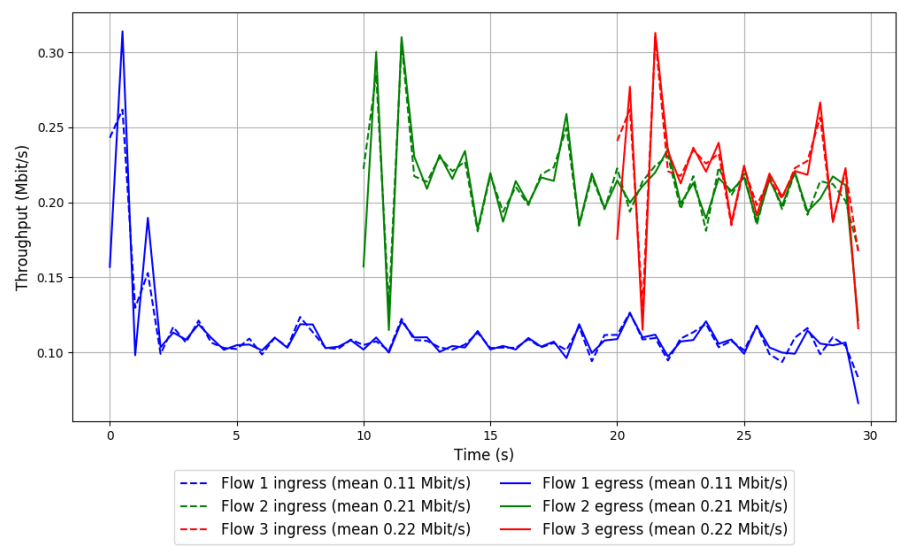
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.280 ms

Loss rate: 2.26%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-04-04 02:36:00

End at: 2018-04-04 02:36:30

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 114.993 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.737 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.130 ms

Loss rate: 1.06%

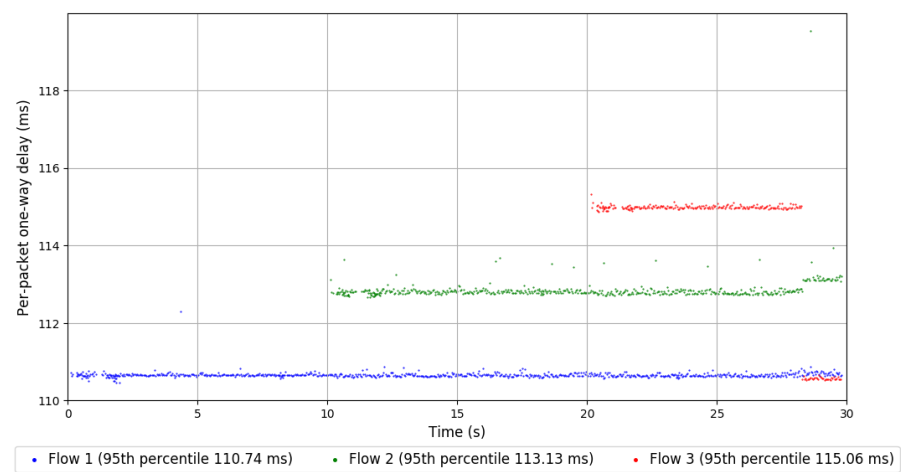
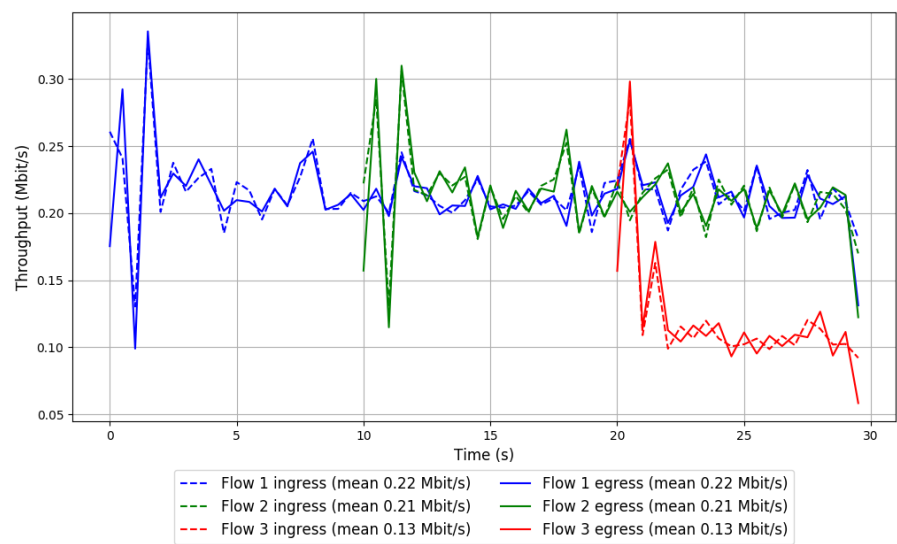
-- Flow 3:

Average throughput: 0.13 Mbit/s

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

Loss rate: 2.01%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-04-04 02:54:44

End at: 2018-04-04 02:55:14

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.607 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.035 ms

Loss rate: 1.05%

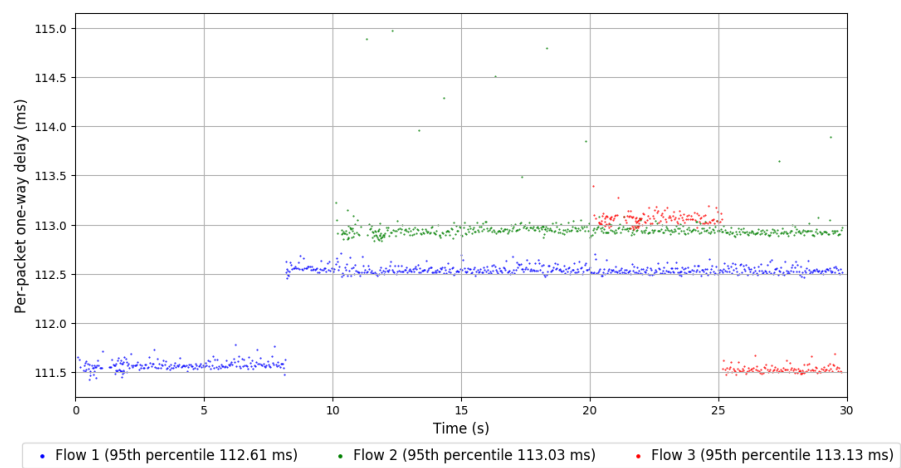
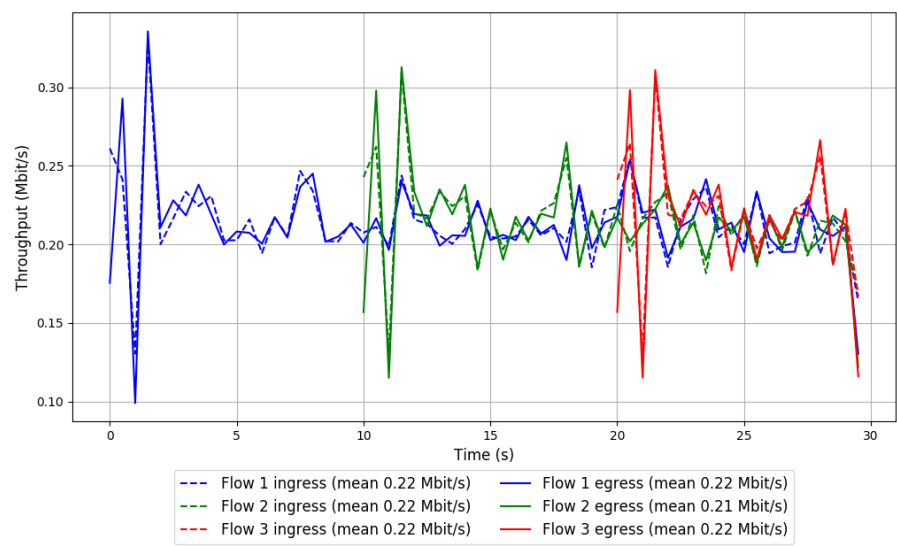
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.133 ms

Loss rate: 2.26%

Run 9: Report of SReAM — Data Link

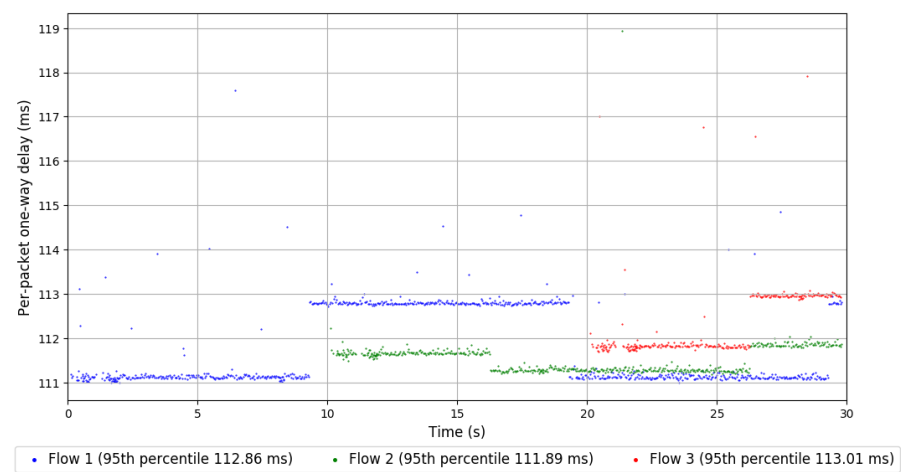
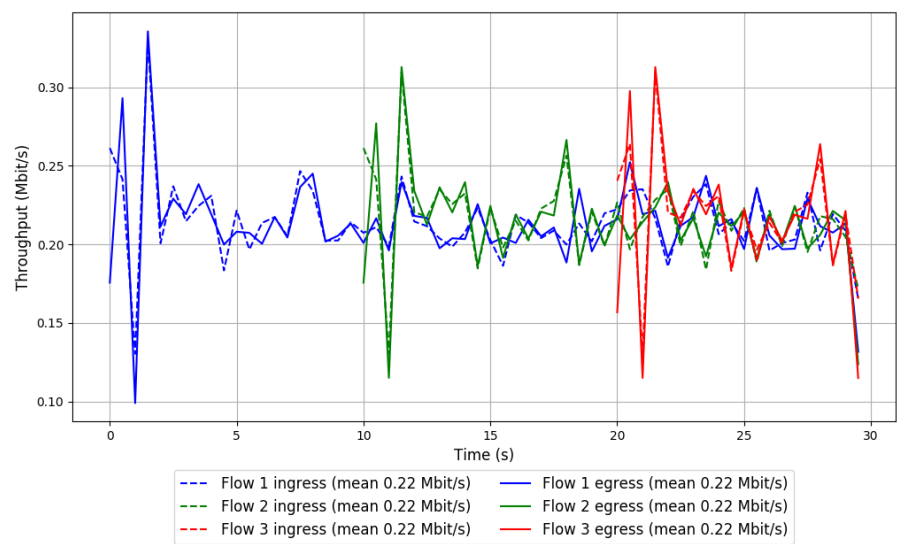


```
Run 10: Statistics of SReAM

Start at: 2018-04-04 03:13:42
End at: 2018-04-04 03:14:12

# Below is generated by plot.py at 2018-04-04 07:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.951 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.857 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.888 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.007 ms
Loss rate: 2.25%
```

Run 10: Report of SReAM — Data Link

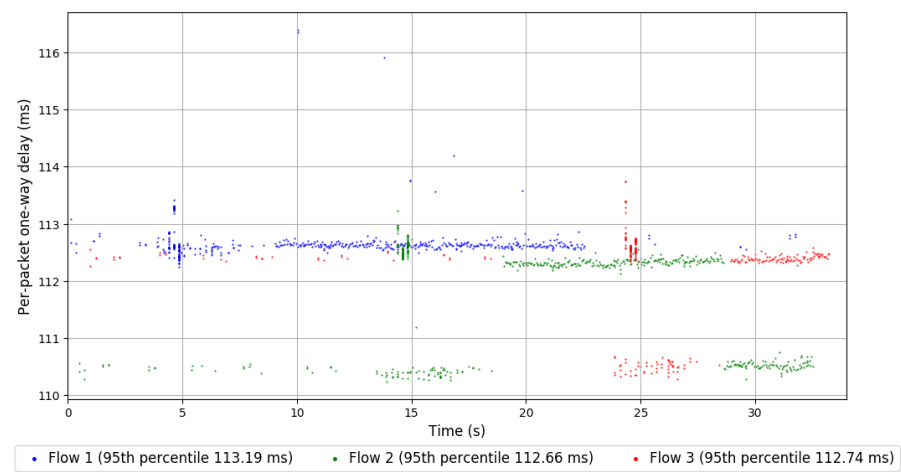
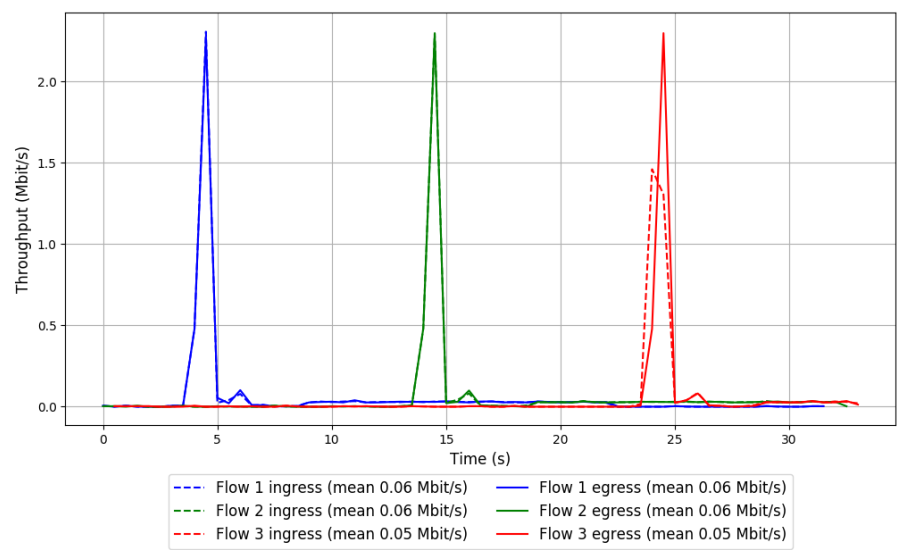


```
Run 1: Statistics of WebRTC media

Start at: 2018-04-04 00:15:16
End at: 2018-04-04 00:15:46

# Below is generated by plot.py at 2018-04-04 07:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 112.784 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 113.191 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 112.661 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 112.743 ms
Loss rate: 0.40%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-04-04 00:34:16

End at: 2018-04-04 00:34:46

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 113.138 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 112.620 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.209 ms

Loss rate: 0.00%

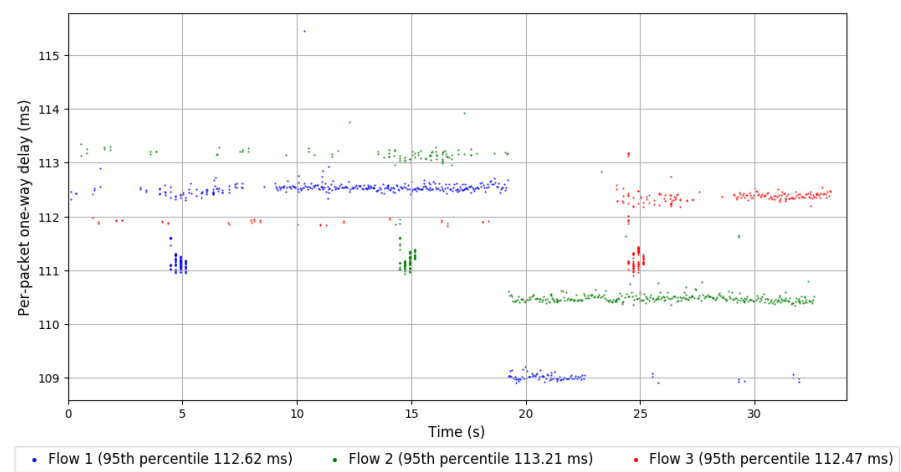
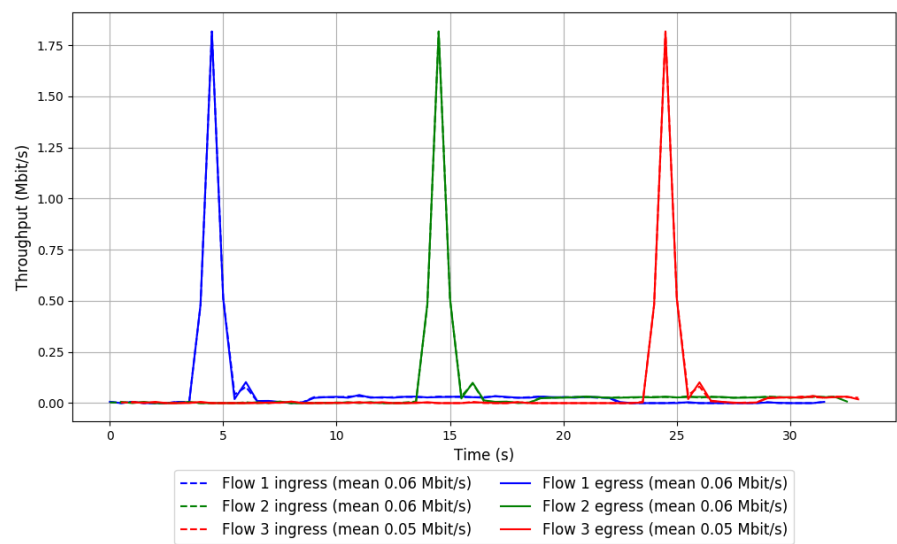
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.474 ms

Loss rate: 0.40%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-04-04 00:53:08

End at: 2018-04-04 00:53:38

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 115.016 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 115.049 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 112.849 ms

Loss rate: 0.00%

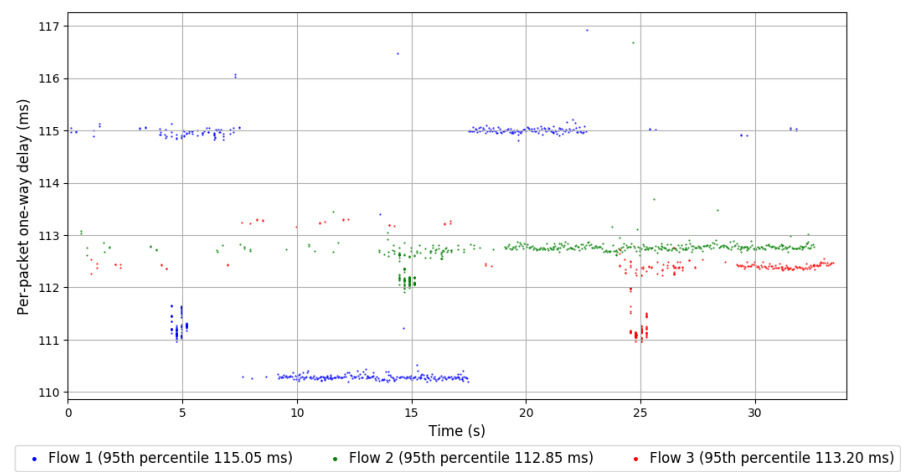
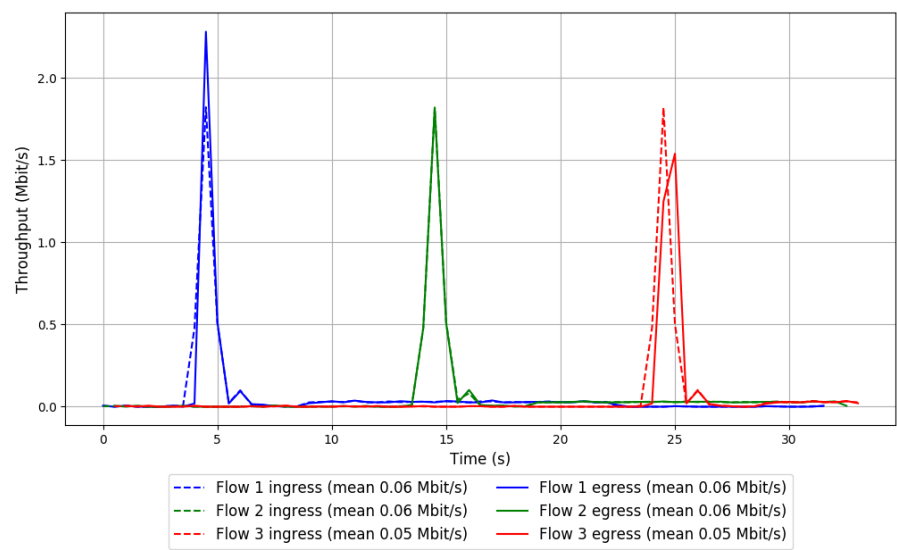
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 113.200 ms

Loss rate: 0.32%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

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

End at: 2018-04-04 01:12:28

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 113.148 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 0.06 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 112.729 ms

Loss rate: 0.00%

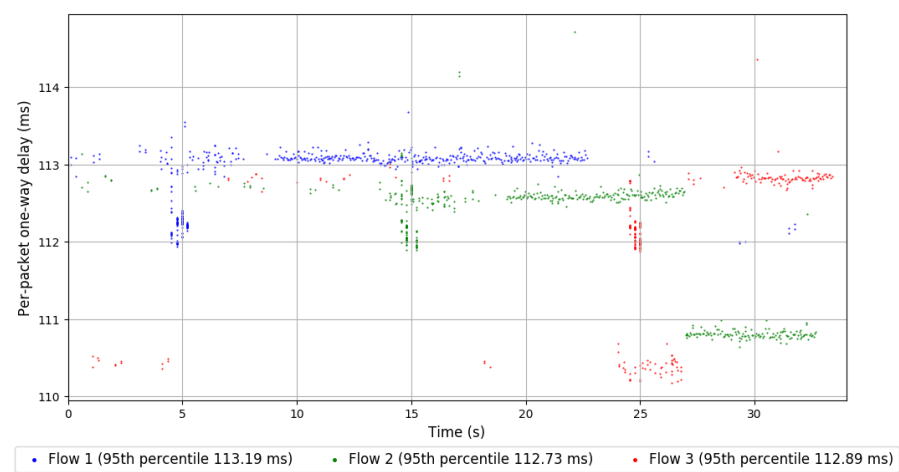
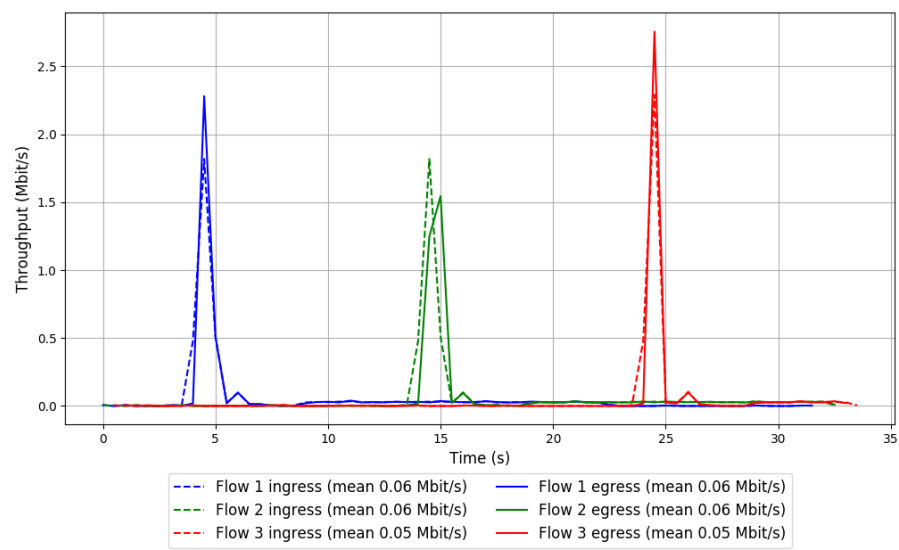
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.887 ms

Loss rate: 0.45%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-04-04 01:30:54

End at: 2018-04-04 01:31:24

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 111.884 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 110.986 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 111.350 ms

Loss rate: 0.04%

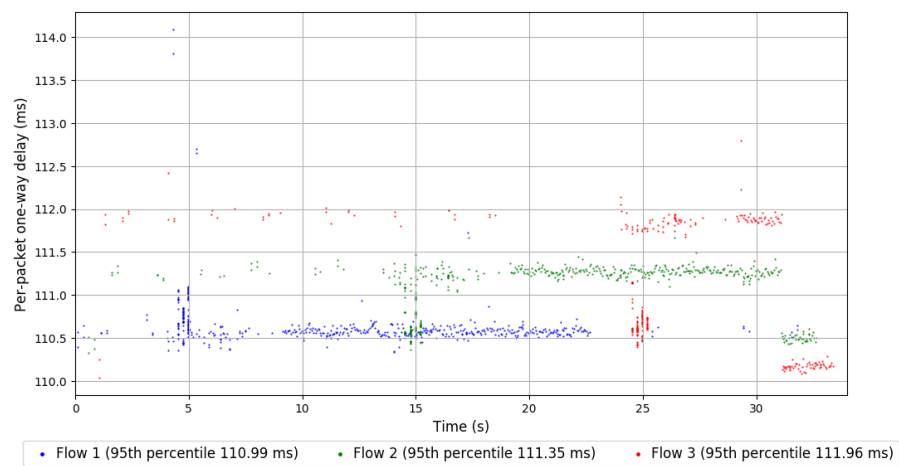
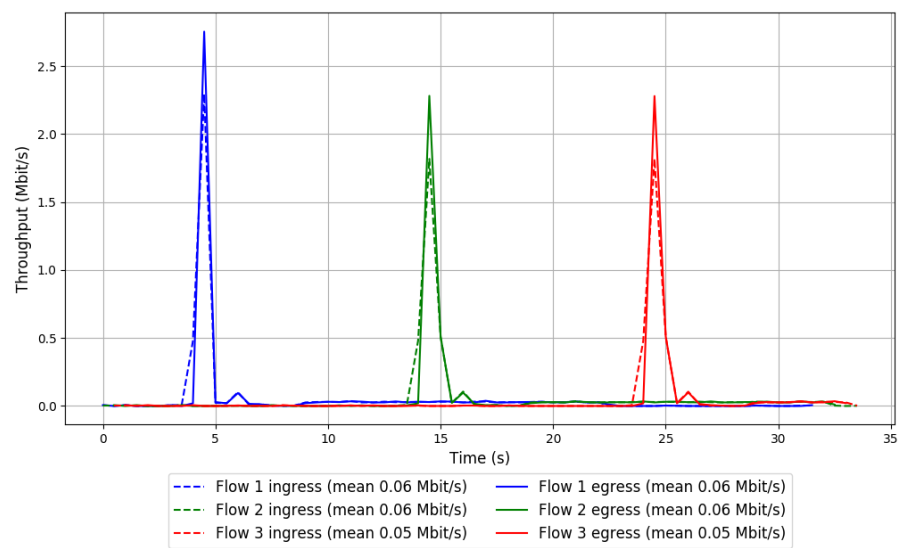
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 111.964 ms

Loss rate: 0.40%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-04-04 01:49:55

End at: 2018-04-04 01:50:25

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

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

Loss rate: 0.10%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.104 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

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

Loss rate: 0.00%

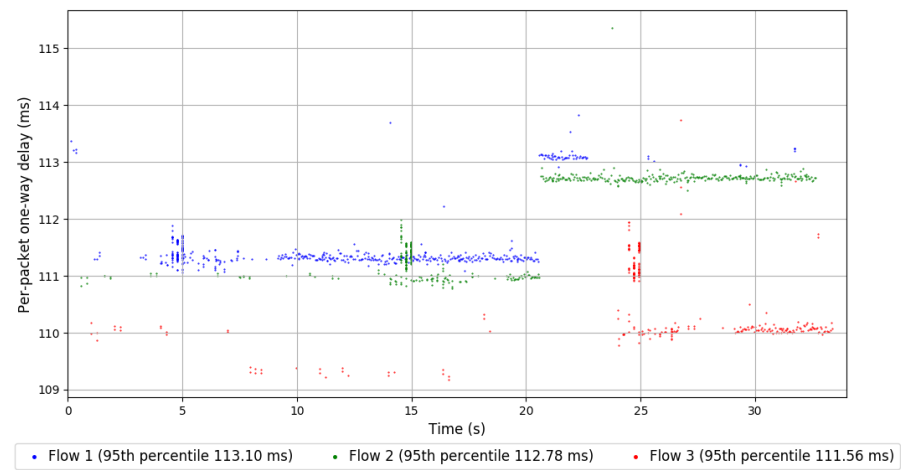
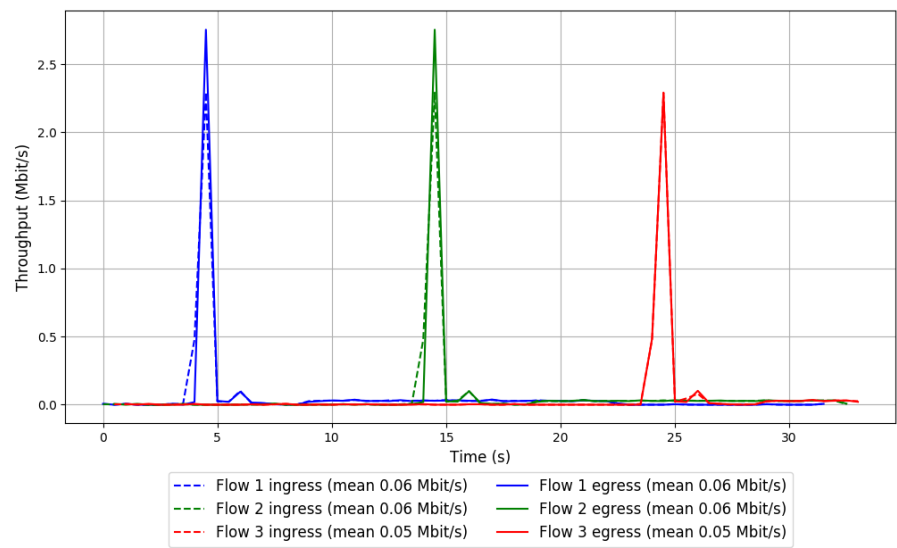
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 111.558 ms

Loss rate: 0.32%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-04-04 02:08:58

End at: 2018-04-04 02:09:28

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 113.644 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.163 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.835 ms

Loss rate: 0.00%

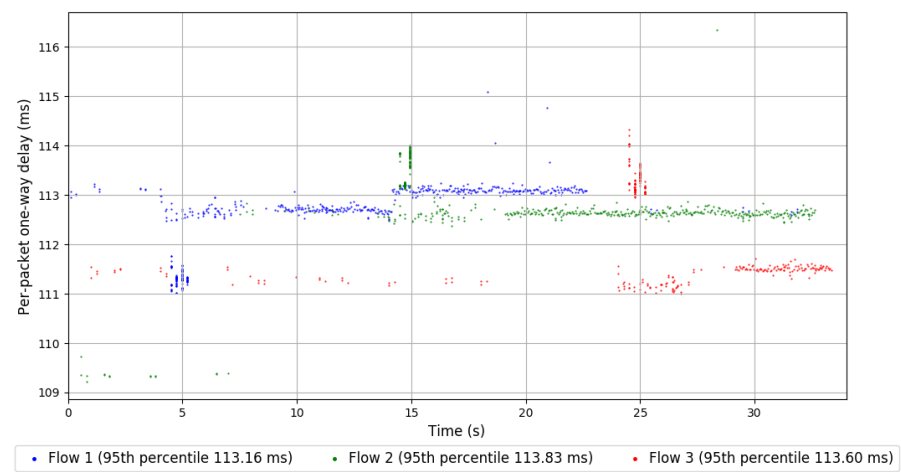
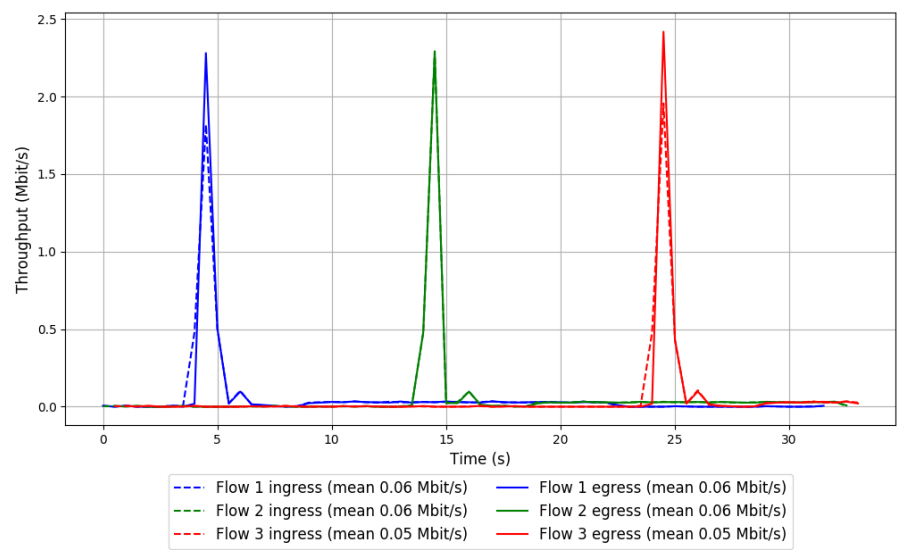
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 113.603 ms

Loss rate: 0.39%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-04-04 02:27:51

End at: 2018-04-04 02:28:21

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 112.990 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 0.06 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 112.988 ms

Loss rate: 0.00%

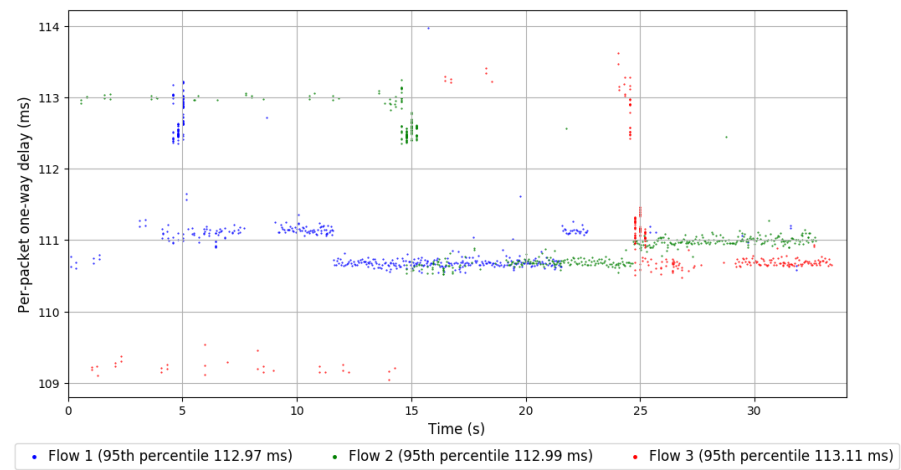
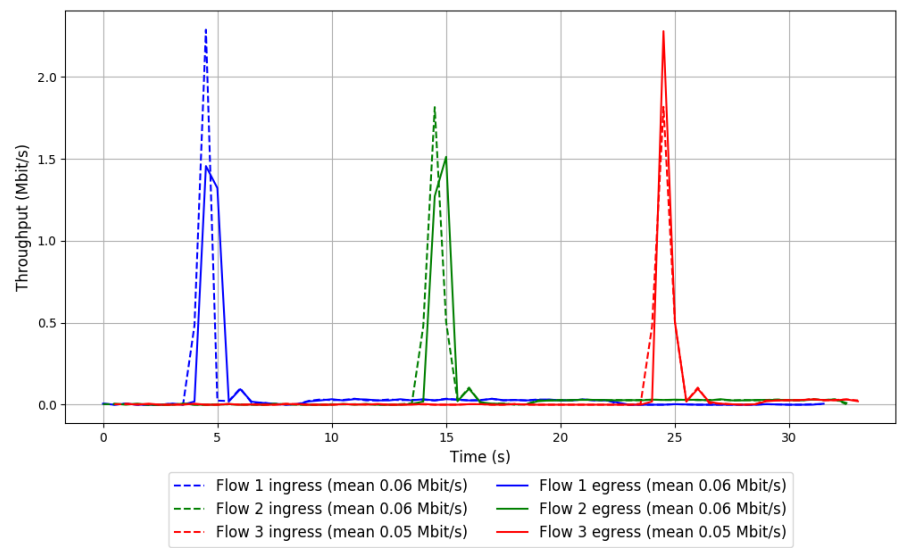
-- Flow 3:

Average throughput: 0.05 Mbit/s

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

Loss rate: 0.40%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-04-04 02:46:46

End at: 2018-04-04 02:47:16

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 113.259 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.314 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.193 ms

Loss rate: 0.00%

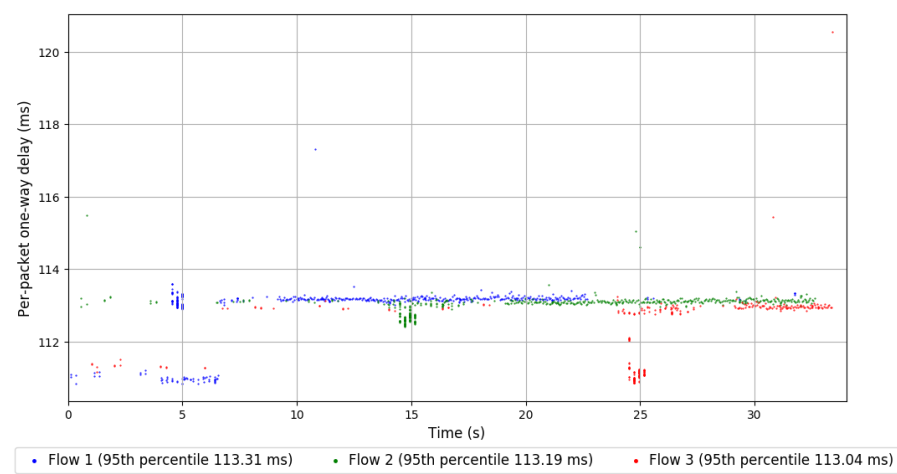
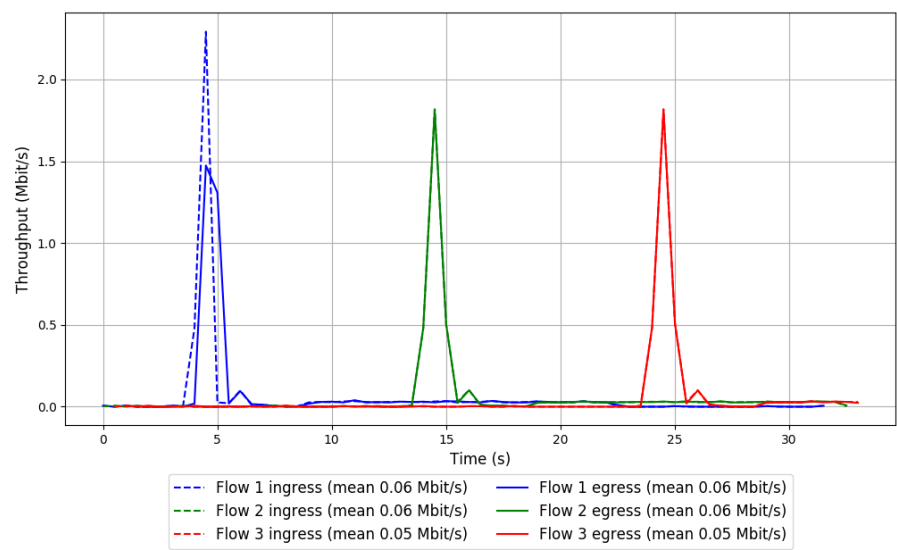
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 113.043 ms

Loss rate: 0.32%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-04-04 03:05:39

End at: 2018-04-04 03:06:09

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 113.261 ms

Loss rate: 0.32%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 113.541 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 111.846 ms

Loss rate: 0.00%

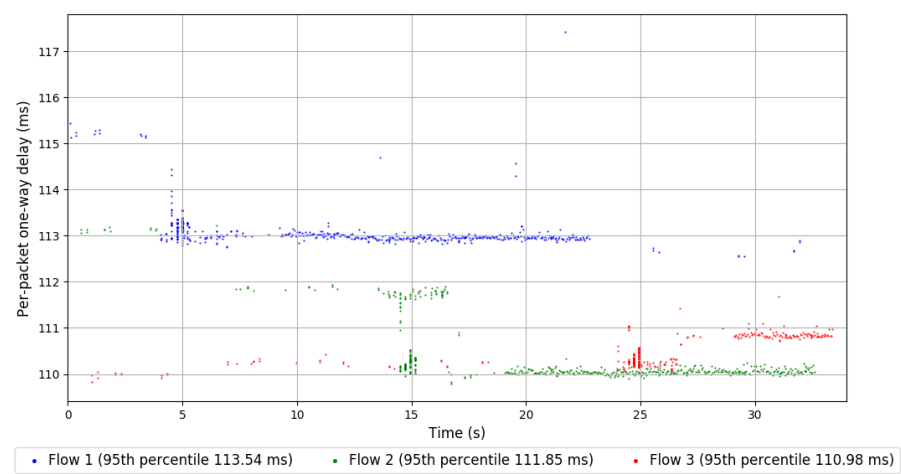
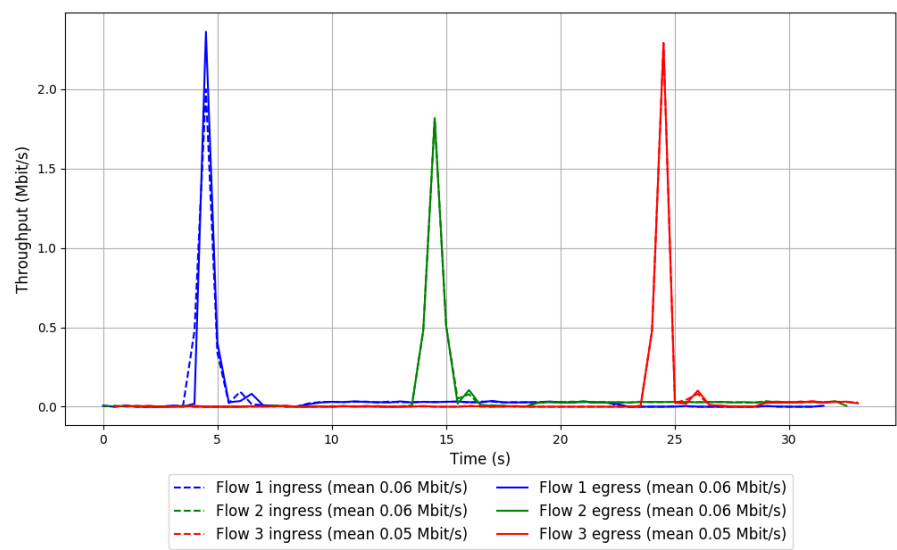
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 110.981 ms

Loss rate: 0.32%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-04-04 00:09:18

End at: 2018-04-04 00:09:48

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.40 Mbit/s

95th percentile per-packet one-way delay: 113.235 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 2.88 Mbit/s

95th percentile per-packet one-way delay: 113.151 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 2.86 Mbit/s

95th percentile per-packet one-way delay: 113.295 ms

Loss rate: 1.54%

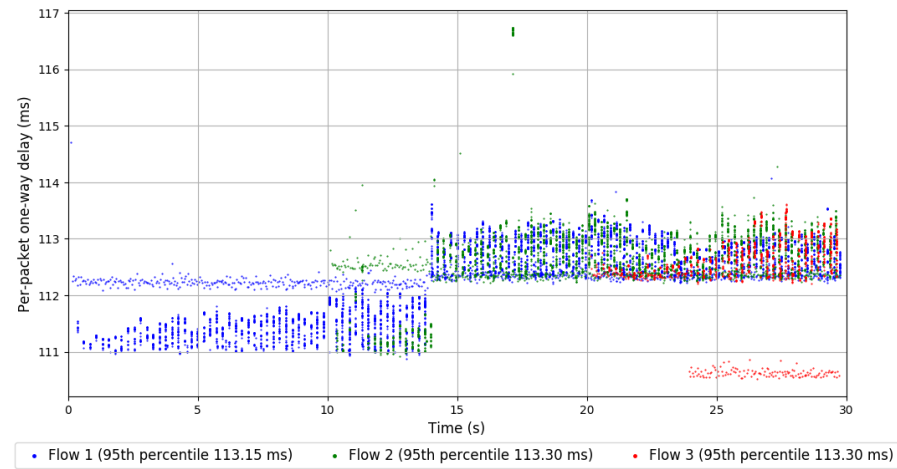
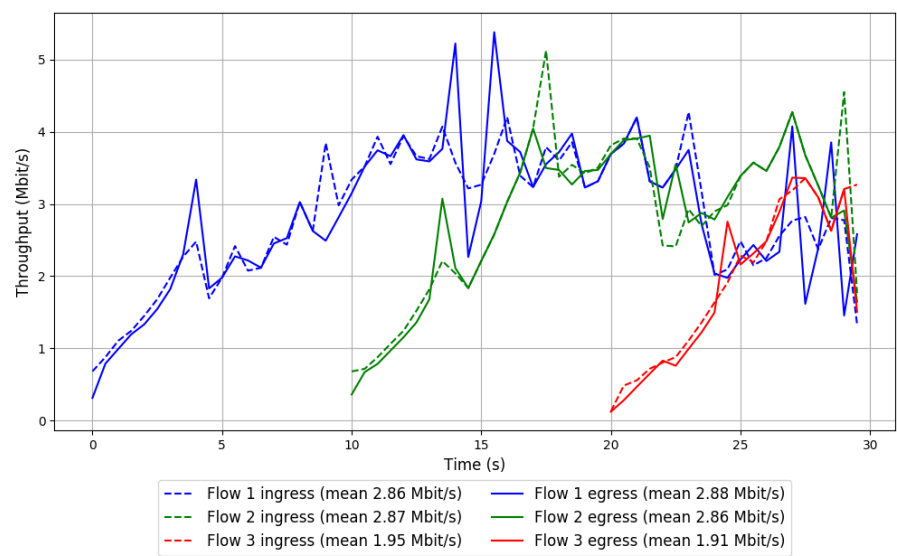
-- Flow 3:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 113.301 ms

Loss rate: 4.60%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-04-04 00:28:07

End at: 2018-04-04 00:28:37

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.73 Mbit/s

95th percentile per-packet one-way delay: 112.526 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 112.629 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 112.501 ms

Loss rate: 1.08%

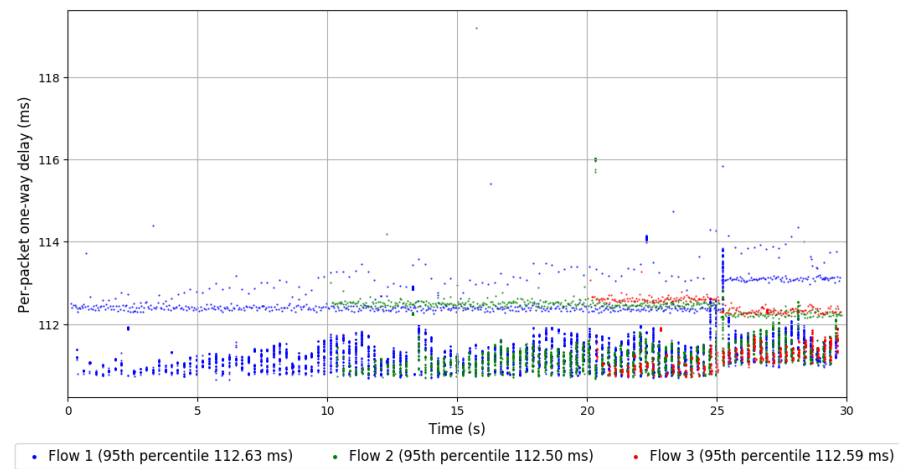
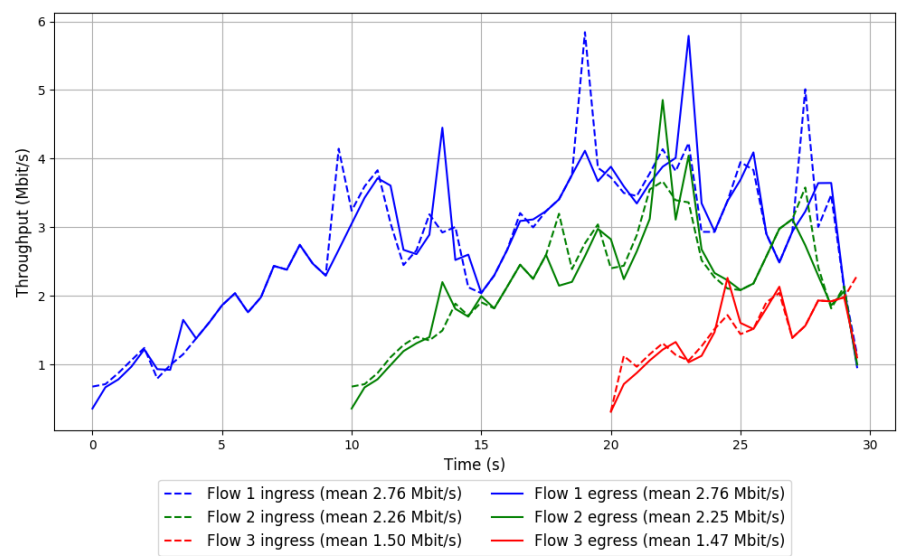
-- Flow 3:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 112.586 ms

Loss rate: 4.03%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-04-04 00:47:12

End at: 2018-04-04 00:47:42

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.54 Mbit/s

95th percentile per-packet one-way delay: 113.457 ms

Loss rate: 1.75%

-- Flow 1:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 113.394 ms

Loss rate: 1.31%

-- Flow 2:

Average throughput: 2.55 Mbit/s

95th percentile per-packet one-way delay: 113.557 ms

Loss rate: 1.70%

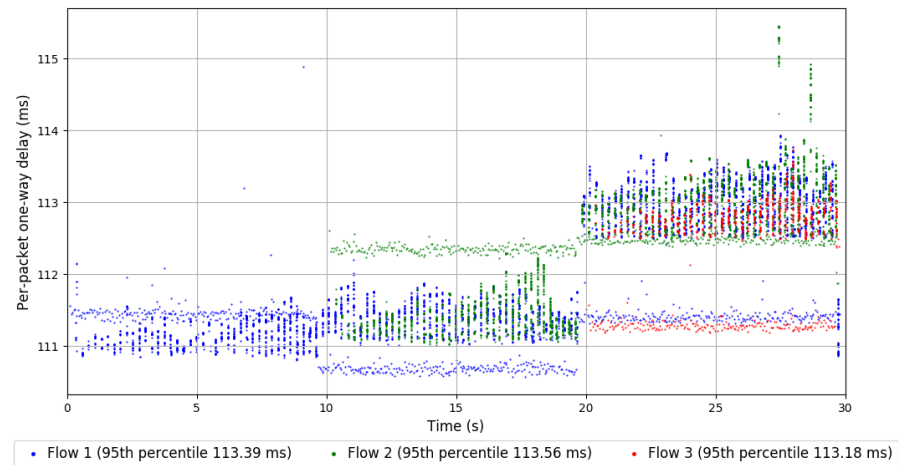
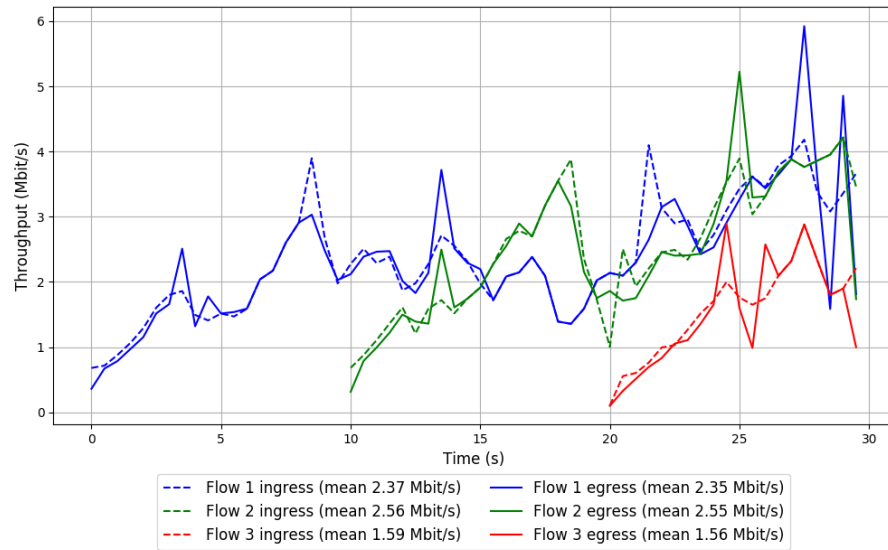
-- Flow 3:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 113.176 ms

Loss rate: 3.89%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-04-04 01:06:07

End at: 2018-04-04 01:06:37

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.16 Mbit/s

95th percentile per-packet one-way delay: 113.496 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 2.43 Mbit/s

95th percentile per-packet one-way delay: 113.291 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 2.78 Mbit/s

95th percentile per-packet one-way delay: 113.389 ms

Loss rate: 1.32%

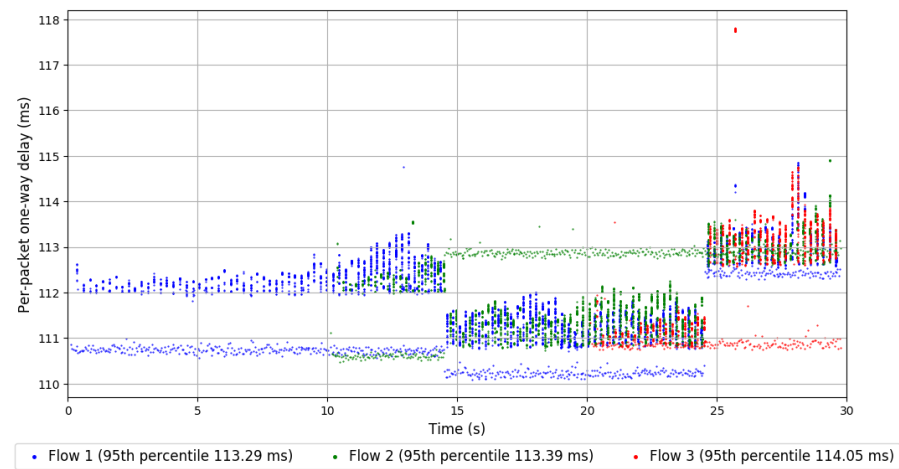
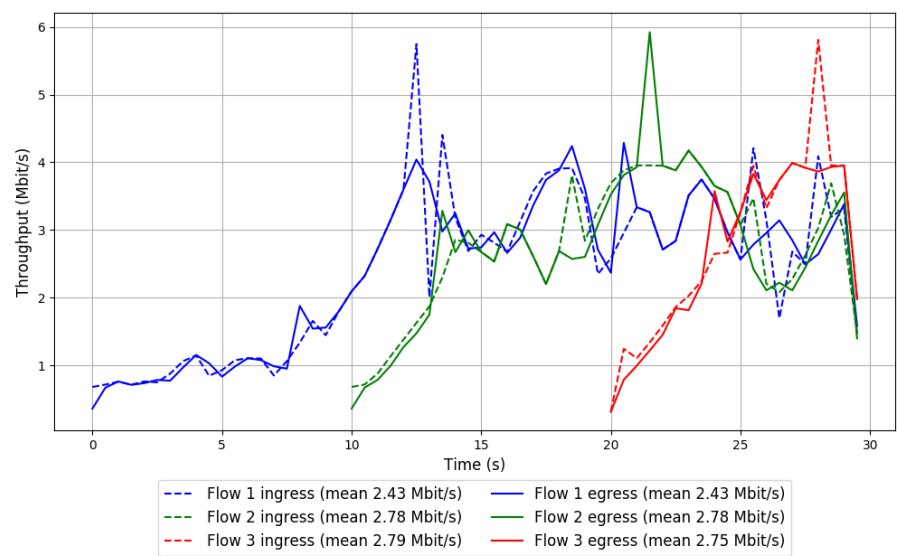
-- Flow 3:

Average throughput: 2.75 Mbit/s

95th percentile per-packet one-way delay: 114.052 ms

Loss rate: 3.60%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-04-04 01:24:59

End at: 2018-04-04 01:25:29

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.41 Mbit/s

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

Loss rate: 1.22%

-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 112.825 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 2.51 Mbit/s

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

Loss rate: 1.01%

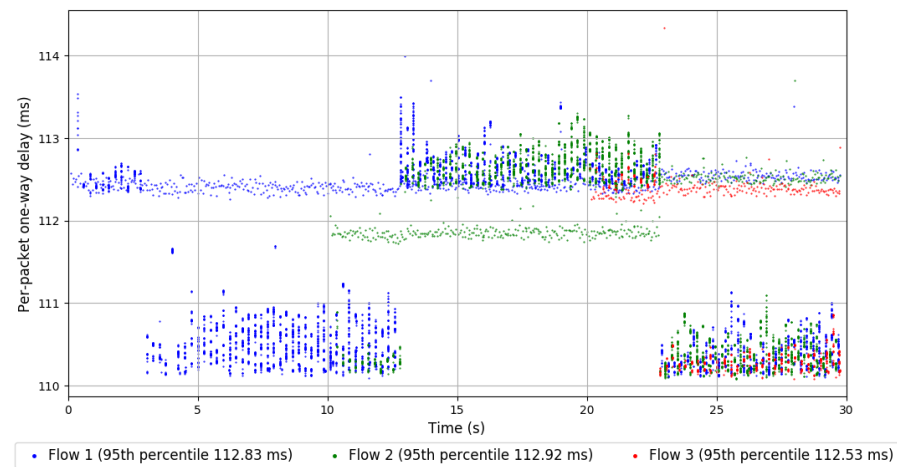
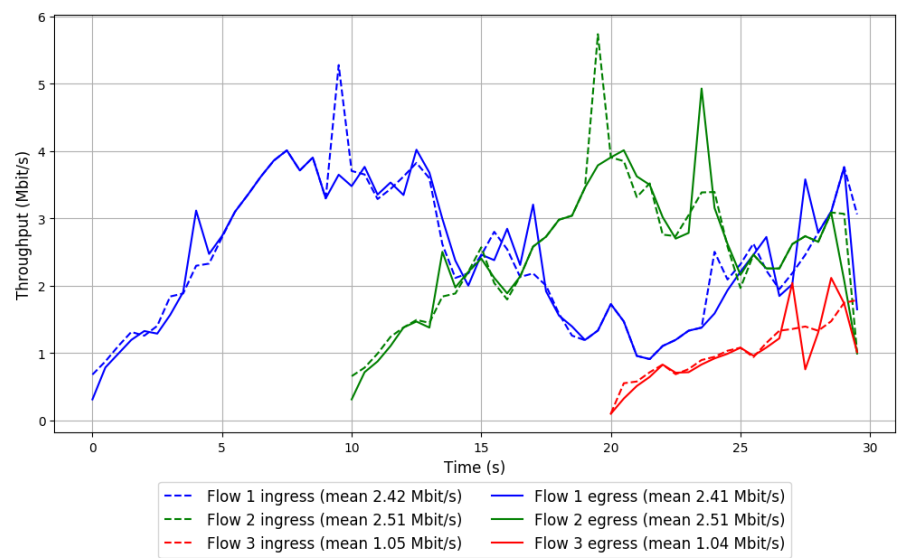
-- Flow 3:

Average throughput: 1.04 Mbit/s

95th percentile per-packet one-way delay: 112.533 ms

Loss rate: 3.86%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-04-04 01:43:39

End at: 2018-04-04 01:44:09

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.63 Mbit/s

95th percentile per-packet one-way delay: 113.509 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 113.240 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 113.430 ms

Loss rate: 1.31%

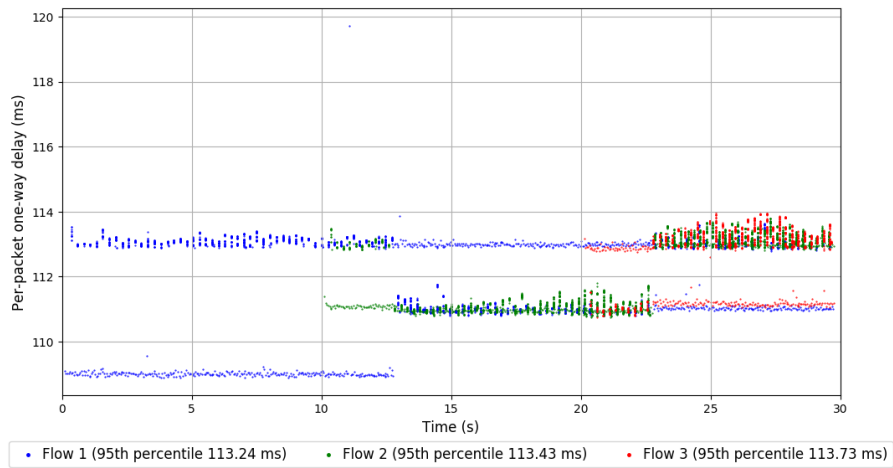
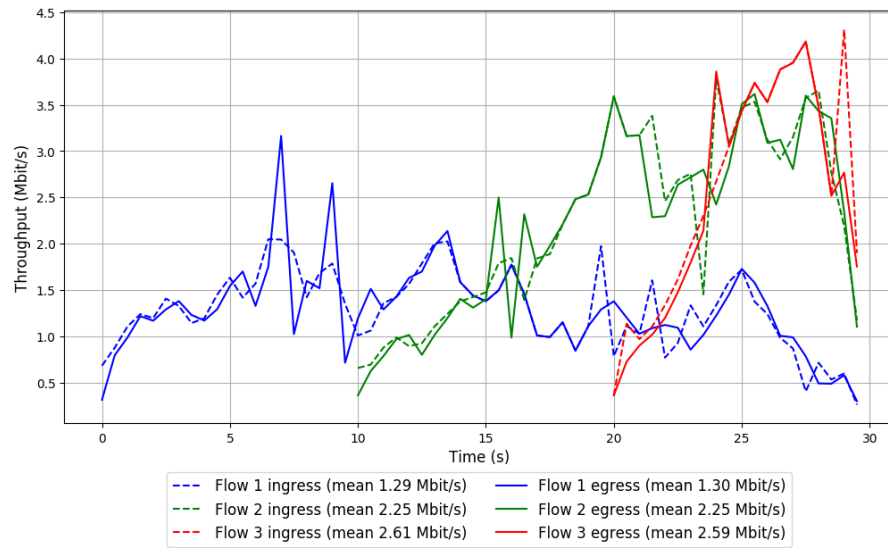
-- Flow 3:

Average throughput: 2.59 Mbit/s

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

Loss rate: 3.29%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-04-04 02:03:01

End at: 2018-04-04 02:03:31

Below is generated by plot.py at 2018-04-04 07:06:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.09 Mbit/s

95th percentile per-packet one-way delay: 113.541 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 2.77 Mbit/s

95th percentile per-packet one-way delay: 113.599 ms

Loss rate: 1.13%

-- Flow 2:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 113.492 ms

Loss rate: 1.20%

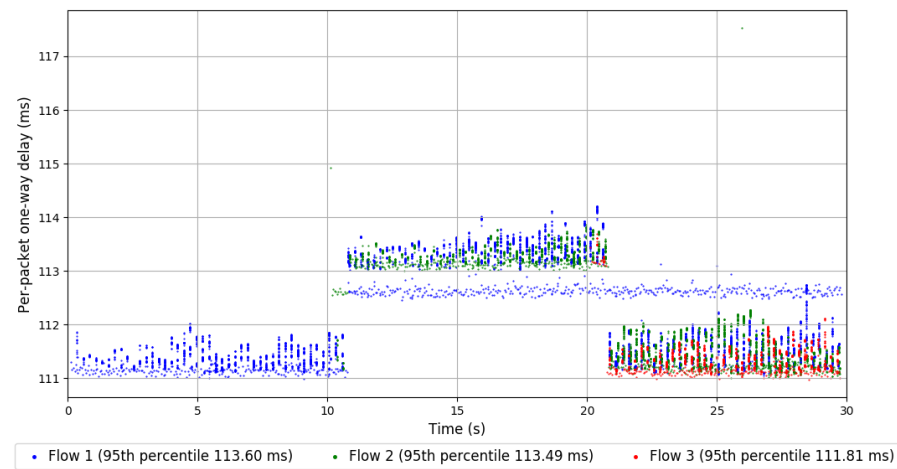
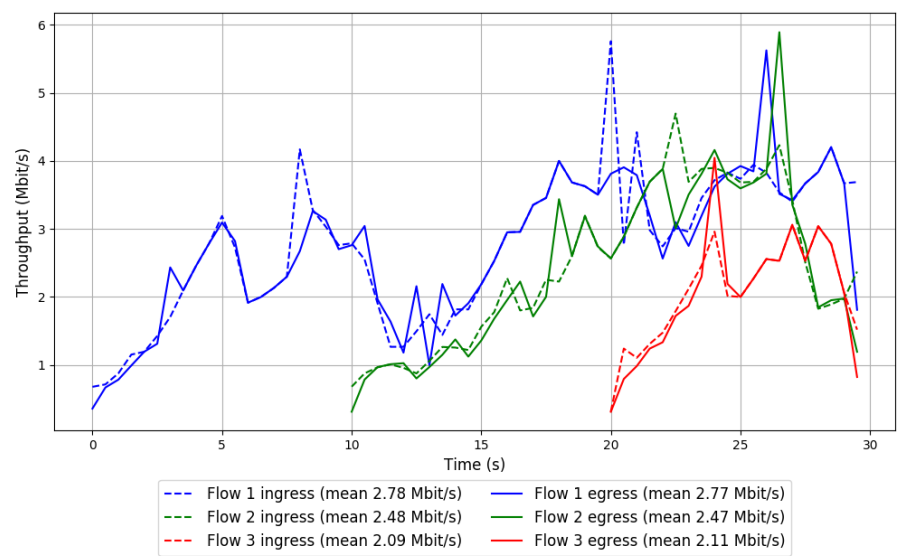
-- Flow 3:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 111.805 ms

Loss rate: 1.70%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-04-04 02:22:03

End at: 2018-04-04 02:22:33

Below is generated by plot.py at 2018-04-04 07:06:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.10 Mbit/s

95th percentile per-packet one-way delay: 113.506 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 3.16 Mbit/s

95th percentile per-packet one-way delay: 113.623 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 113.292 ms

Loss rate: 0.58%

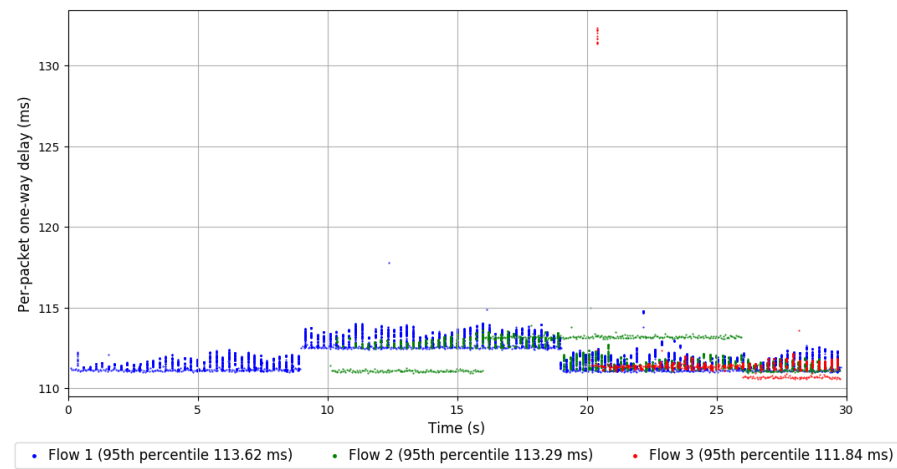
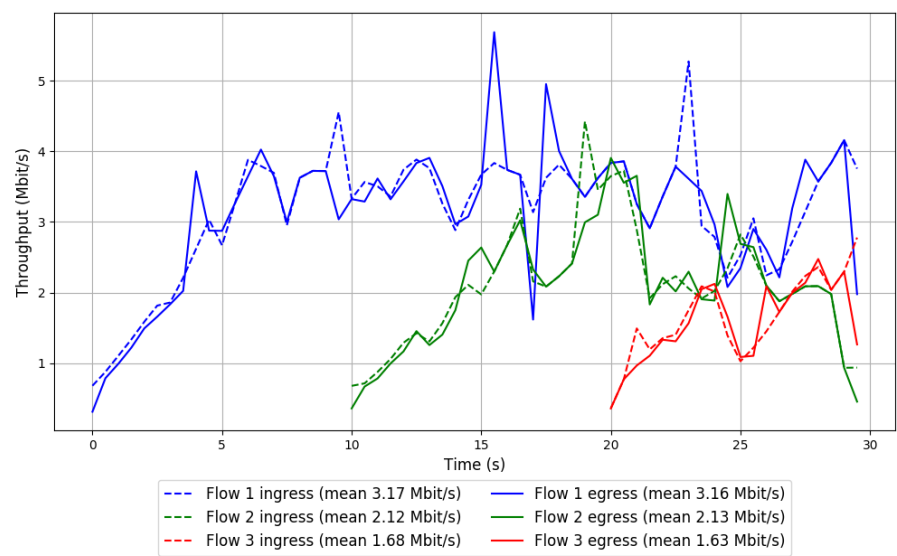
-- Flow 3:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 111.844 ms

Loss rate: 4.59%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-04-04 02:40:49

End at: 2018-04-04 02:41:19

Below is generated by plot.py at 2018-04-04 07:06:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.53 Mbit/s

95th percentile per-packet one-way delay: 112.948 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 113.188 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 2.16 Mbit/s

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

Loss rate: 1.24%

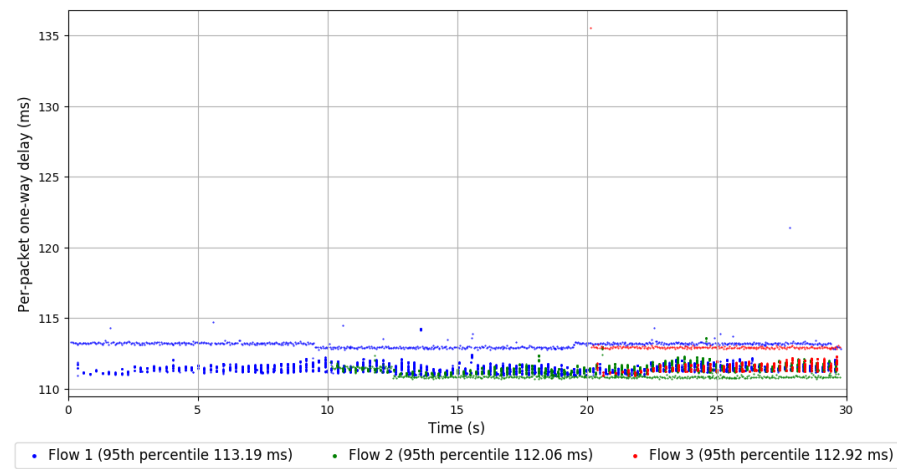
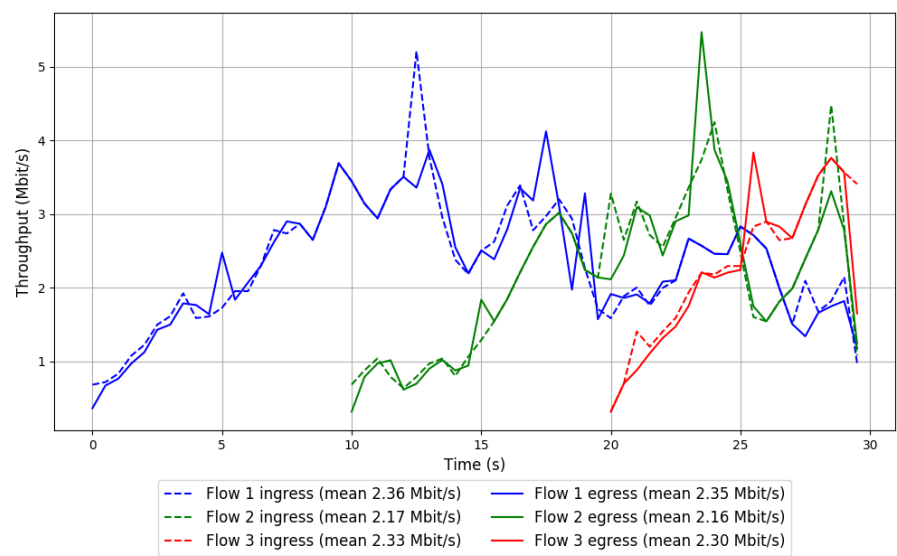
-- Flow 3:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 112.923 ms

Loss rate: 3.84%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-04-04 02:59:38

End at: 2018-04-04 03:00:08

Below is generated by plot.py at 2018-04-04 07:06:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.44 Mbit/s

95th percentile per-packet one-way delay: 113.171 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 3.22 Mbit/s

95th percentile per-packet one-way delay: 113.023 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 113.894 ms

Loss rate: 0.59%

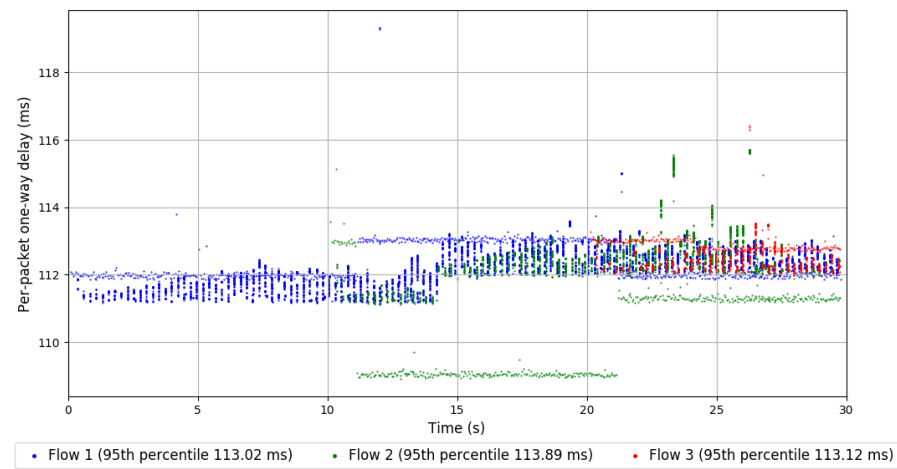
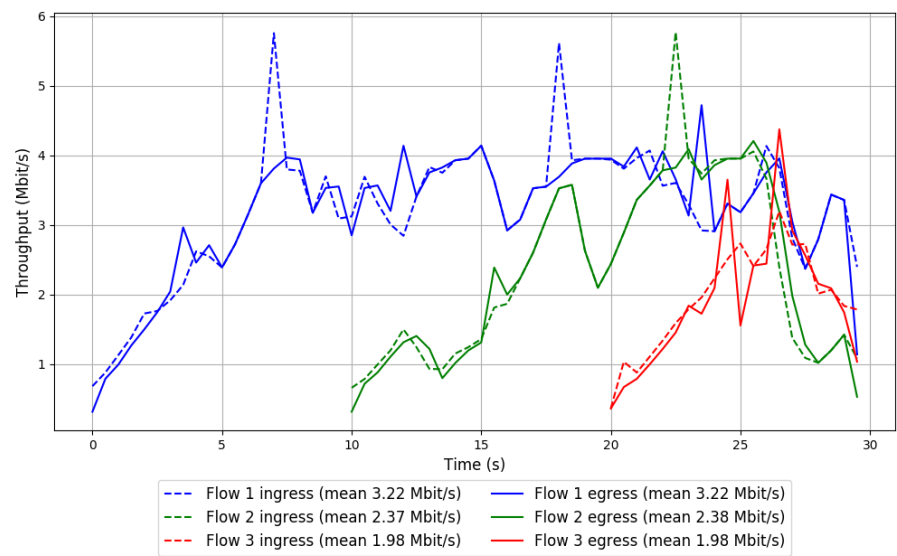
-- Flow 3:

Average throughput: 1.98 Mbit/s

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

Loss rate: 2.17%

Run 10: Report of Sprout — Data Link

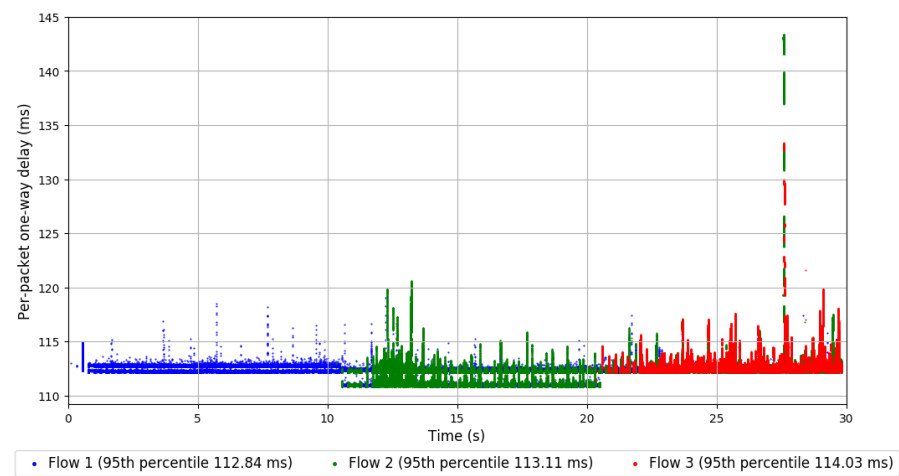
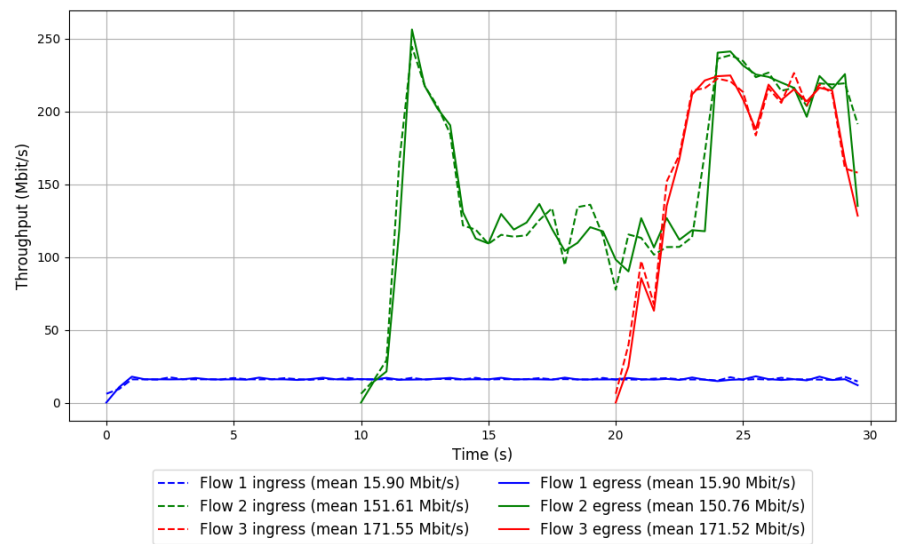


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-04-04 00:14:11
End at: 2018-04-04 00:14:41

# Below is generated by plot.py at 2018-04-04 07:07:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 171.85 Mbit/s
95th percentile per-packet one-way delay: 113.365 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 15.90 Mbit/s
95th percentile per-packet one-way delay: 112.845 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 150.76 Mbit/s
95th percentile per-packet one-way delay: 113.108 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 171.52 Mbit/s
95th percentile per-packet one-way delay: 114.032 ms
Loss rate: 2.30%
```

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

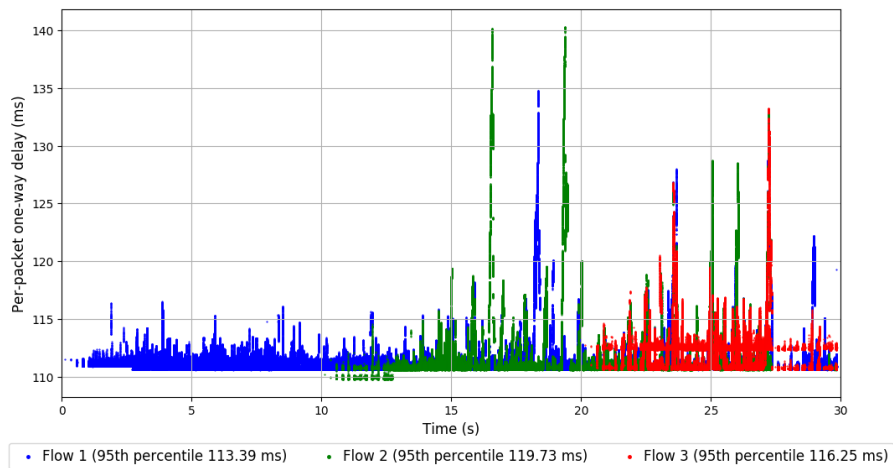
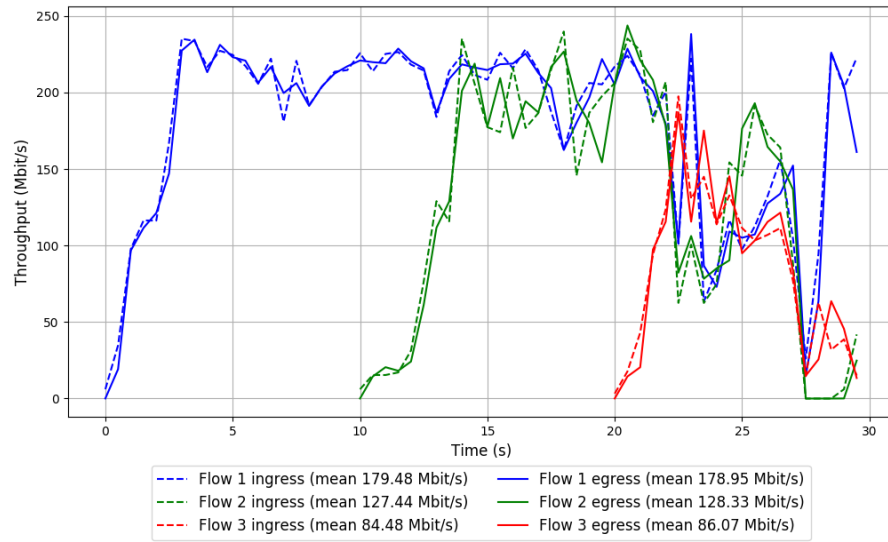


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-04 00:32:59
End at: 2018-04-04 00:33:29

# Below is generated by plot.py at 2018-04-04 07:11:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 292.10 Mbit/s
95th percentile per-packet one-way delay: 115.888 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 178.95 Mbit/s
95th percentile per-packet one-way delay: 113.388 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 128.33 Mbit/s
95th percentile per-packet one-way delay: 119.728 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 86.07 Mbit/s
95th percentile per-packet one-way delay: 116.249 ms
Loss rate: 0.43%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-04-04 00:52:04

End at: 2018-04-04 00:52:34

Below is generated by plot.py at 2018-04-04 07:11:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 163.88 Mbit/s

95th percentile per-packet one-way delay: 114.554 ms

Loss rate: 1.75%

-- Flow 1:

Average throughput: 29.87 Mbit/s

95th percentile per-packet one-way delay: 114.694 ms

Loss rate: 4.09%

-- Flow 2:

Average throughput: 194.29 Mbit/s

95th percentile per-packet one-way delay: 112.694 ms

Loss rate: 1.17%

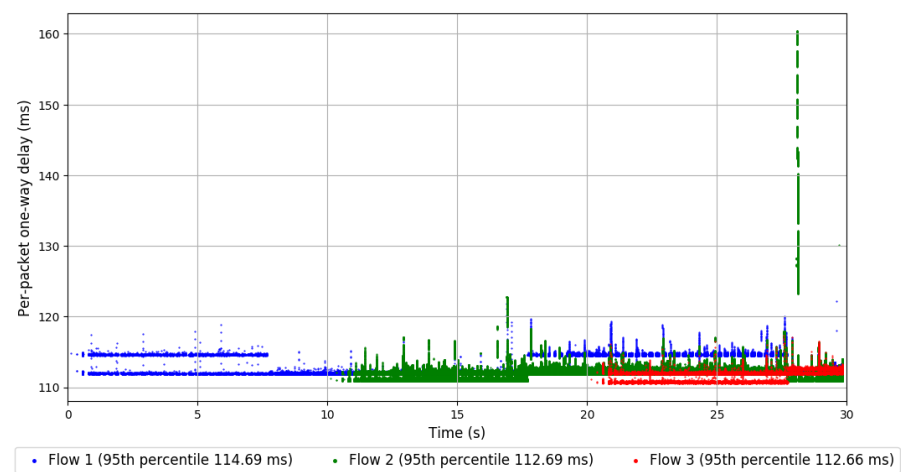
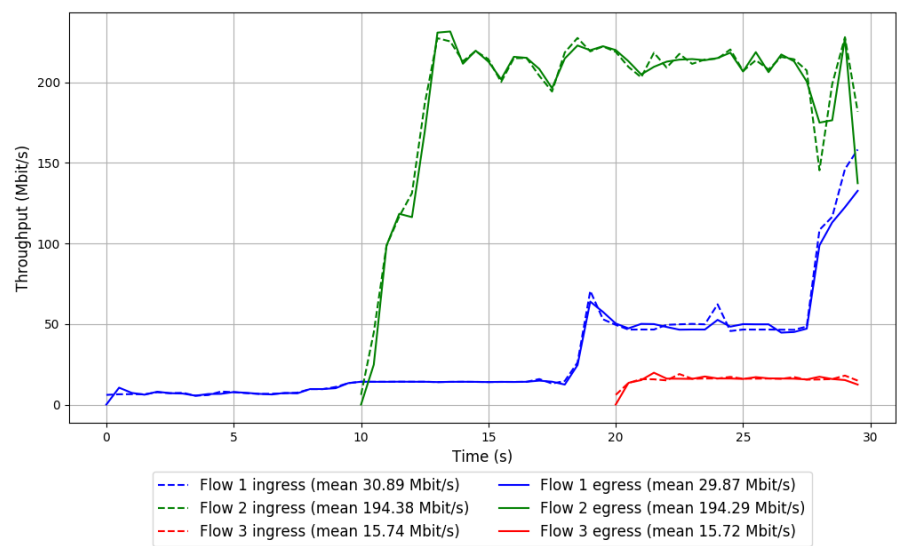
-- Flow 3:

Average throughput: 15.72 Mbit/s

95th percentile per-packet one-way delay: 112.664 ms

Loss rate: 2.36%

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



Run 4: Statistics of TaoVA-100x

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

End at: 2018-04-04 01:11:33

Below is generated by plot.py at 2018-04-04 07:11:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.16 Mbit/s

95th percentile per-packet one-way delay: 113.201 ms

Loss rate: 1.79%

-- Flow 1:

Average throughput: 13.24 Mbit/s

95th percentile per-packet one-way delay: 112.726 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 15.76 Mbit/s

95th percentile per-packet one-way delay: 112.853 ms

Loss rate: 1.14%

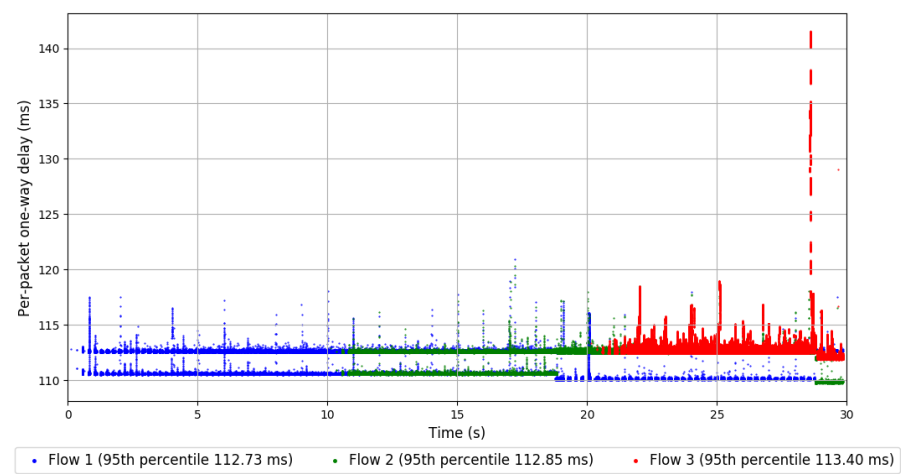
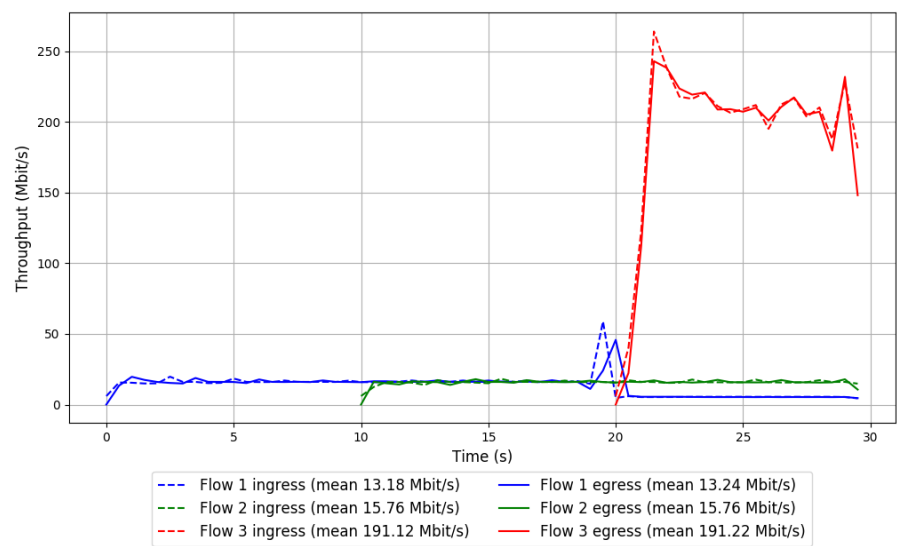
-- Flow 3:

Average throughput: 191.22 Mbit/s

95th percentile per-packet one-way delay: 113.403 ms

Loss rate: 2.22%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-04-04 01:29:57

End at: 2018-04-04 01:30:27

Below is generated by plot.py at 2018-04-04 07:11:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.31 Mbit/s

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

Loss rate: 2.76%

-- Flow 1:

Average throughput: 25.62 Mbit/s

95th percentile per-packet one-way delay: 112.954 ms

Loss rate: 2.06%

-- Flow 2:

Average throughput: 24.23 Mbit/s

95th percentile per-packet one-way delay: 113.217 ms

Loss rate: 3.92%

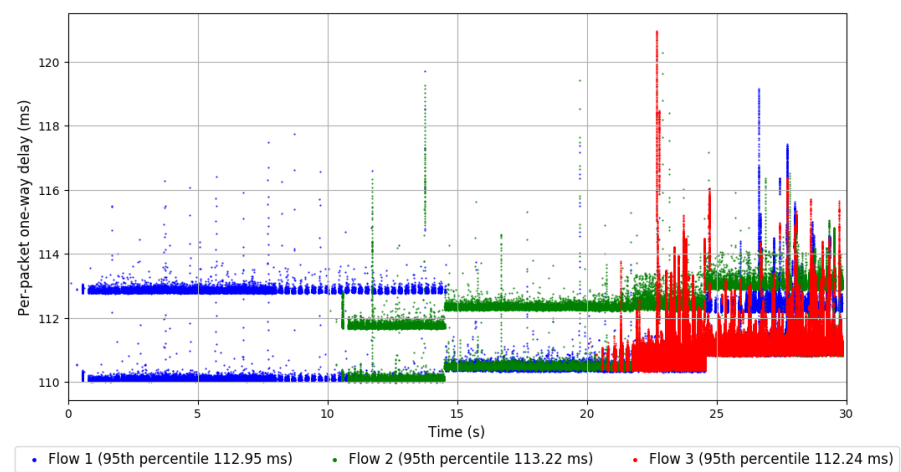
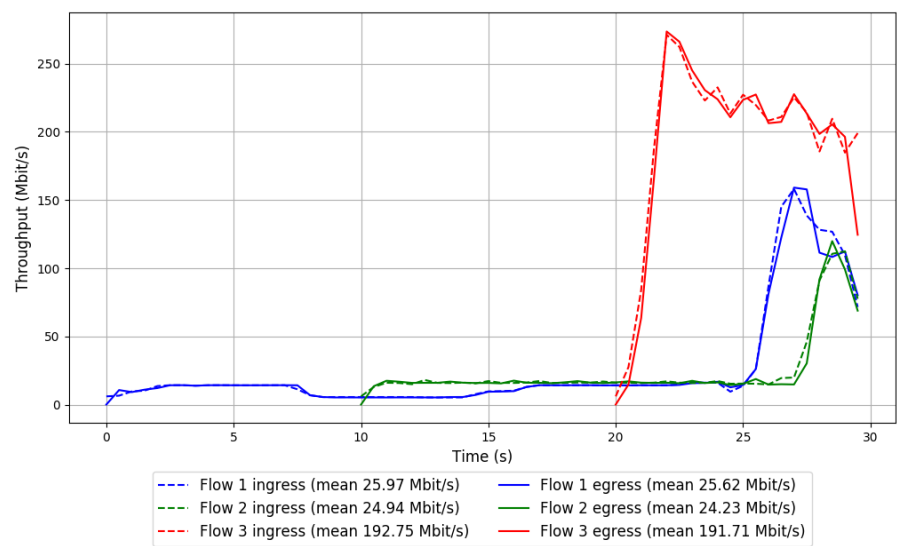
-- Flow 3:

Average throughput: 191.71 Mbit/s

95th percentile per-packet one-way delay: 112.240 ms

Loss rate: 2.74%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-04-04 01:48:41

End at: 2018-04-04 01:49:11

Below is generated by plot.py at 2018-04-04 07:11:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 259.71 Mbit/s

95th percentile per-packet one-way delay: 119.214 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 162.47 Mbit/s

95th percentile per-packet one-way delay: 115.399 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 106.79 Mbit/s

95th percentile per-packet one-way delay: 122.478 ms

Loss rate: 0.20%

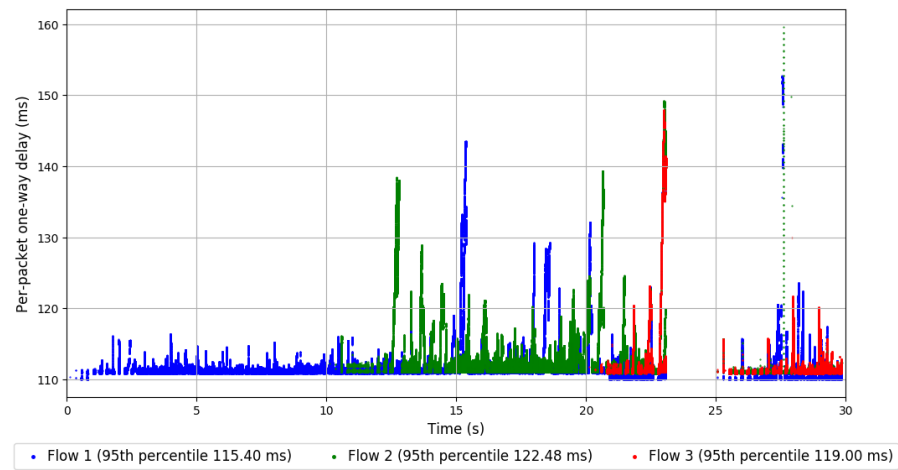
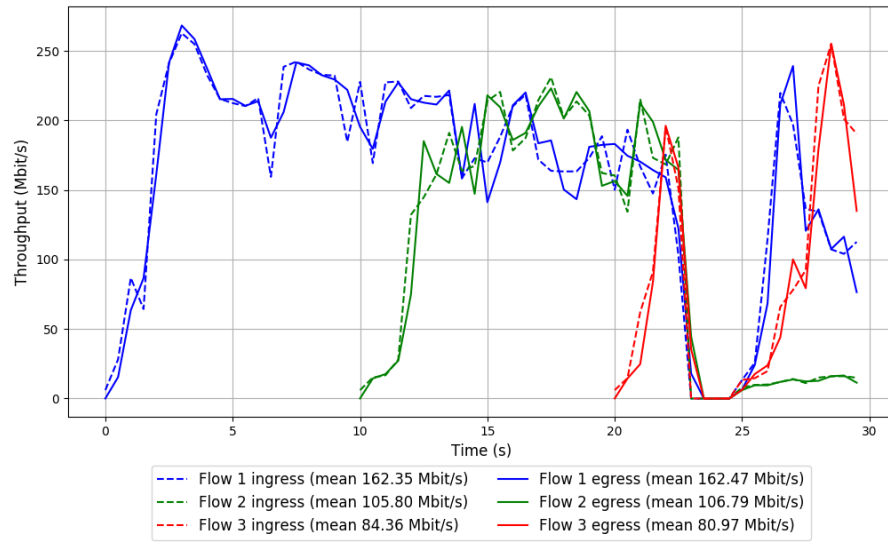
-- Flow 3:

Average throughput: 80.97 Mbit/s

95th percentile per-packet one-way delay: 118.995 ms

Loss rate: 6.18%

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

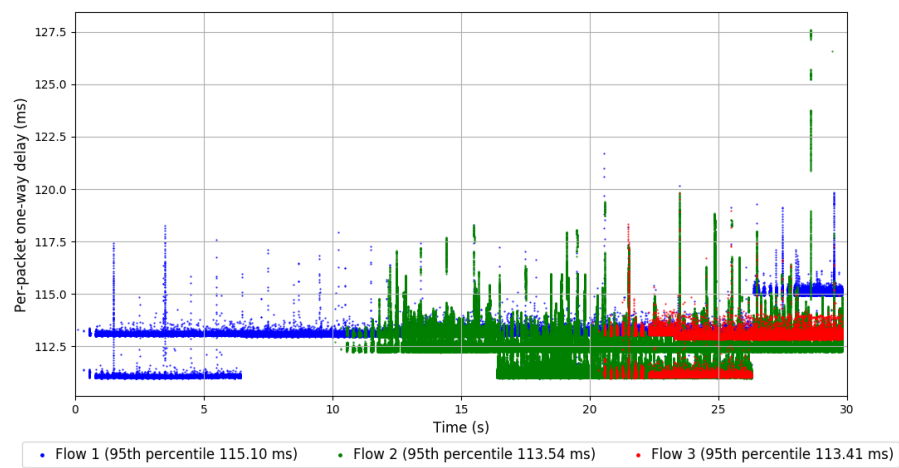
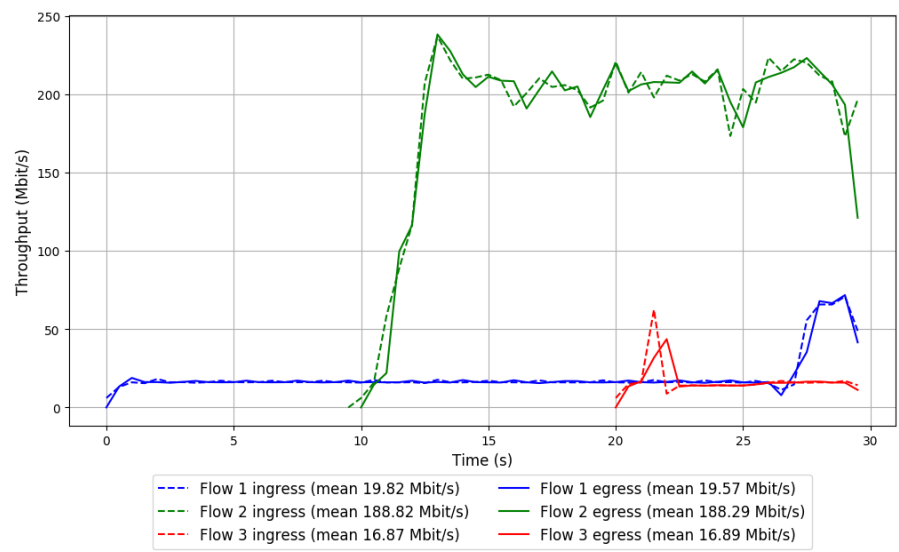


```
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-04 02:07:55
End at: 2018-04-04 02:08:25

# Below is generated by plot.py at 2018-04-04 07:11:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.03 Mbit/s
95th percentile per-packet one-way delay: 113.794 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 19.57 Mbit/s
95th percentile per-packet one-way delay: 115.101 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 188.29 Mbit/s
95th percentile per-packet one-way delay: 113.543 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 16.89 Mbit/s
95th percentile per-packet one-way delay: 113.414 ms
Loss rate: 2.19%
```

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-04-04 02:26:59

End at: 2018-04-04 02:27:29

Below is generated by plot.py at 2018-04-04 07:11:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.11 Mbit/s

95th percentile per-packet one-way delay: 113.809 ms

Loss rate: 3.23%

-- Flow 1:

Average throughput: 16.05 Mbit/s

95th percentile per-packet one-way delay: 112.960 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 15.82 Mbit/s

95th percentile per-packet one-way delay: 112.523 ms

Loss rate: 1.17%

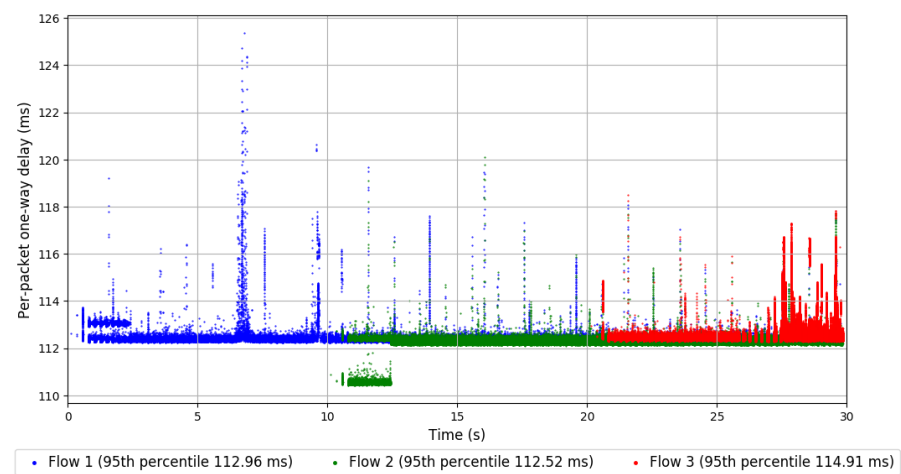
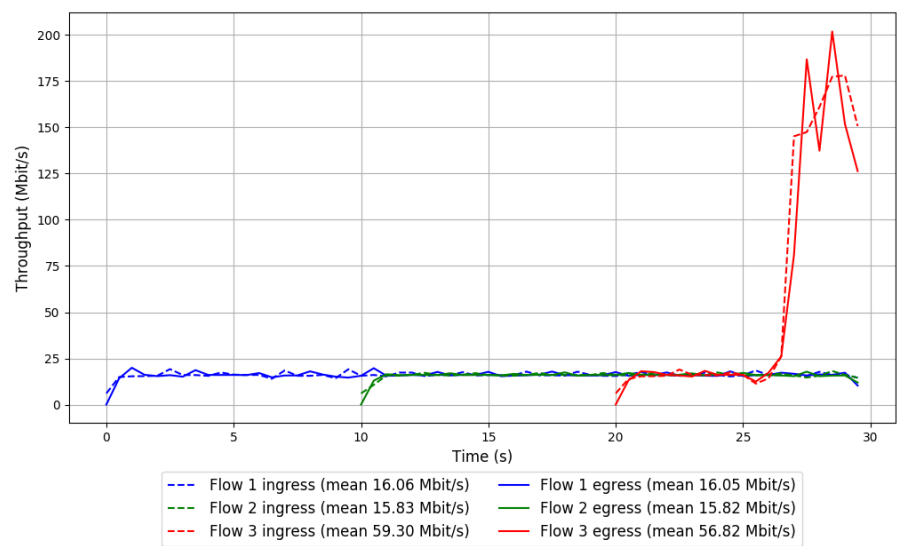
-- Flow 3:

Average throughput: 56.82 Mbit/s

95th percentile per-packet one-way delay: 114.913 ms

Loss rate: 6.33%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-04-04 02:45:44

End at: 2018-04-04 02:46:14

Below is generated by plot.py at 2018-04-04 07:11:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.22 Mbit/s

95th percentile per-packet one-way delay: 113.775 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 90.16 Mbit/s

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

Loss rate: 0.36%

-- Flow 2:

Average throughput: 66.32 Mbit/s

95th percentile per-packet one-way delay: 116.166 ms

Loss rate: 0.29%

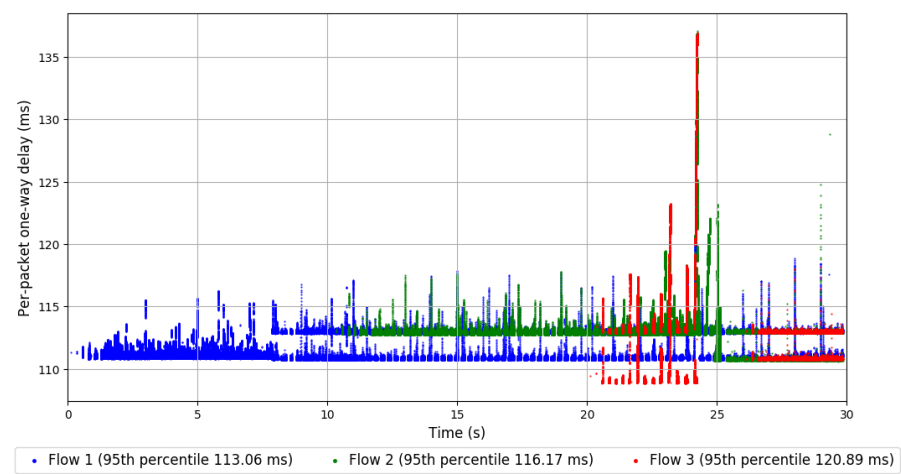
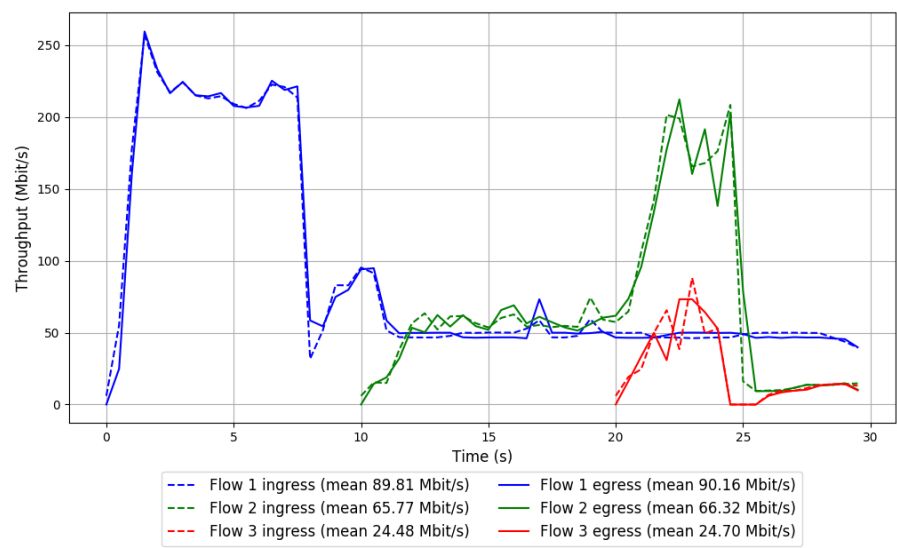
-- Flow 3:

Average throughput: 24.70 Mbit/s

95th percentile per-packet one-way delay: 120.889 ms

Loss rate: 1.34%

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

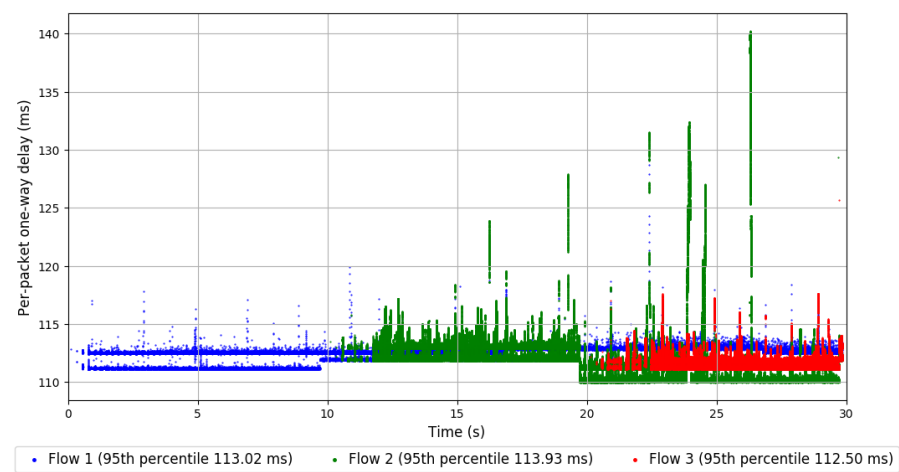
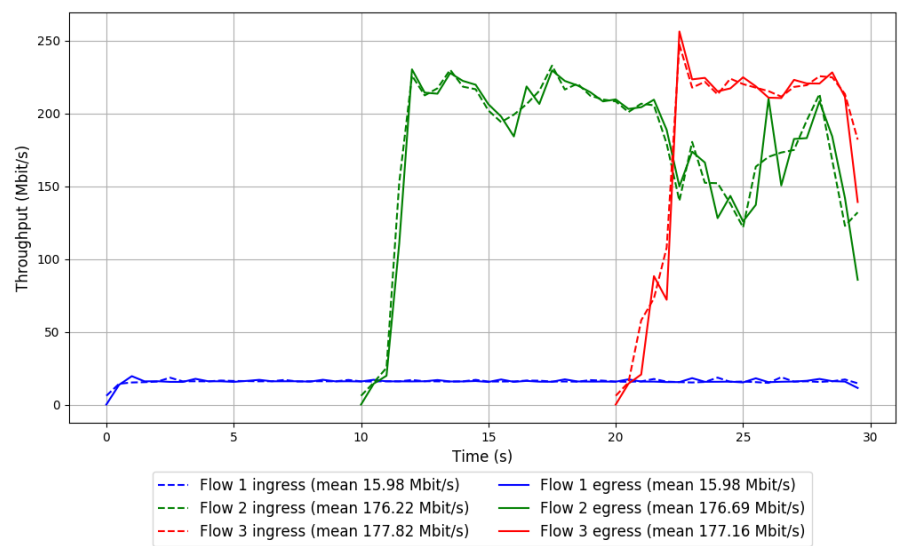


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-04 03:04:32
End at: 2018-04-04 03:05:02

# Below is generated by plot.py at 2018-04-04 07:13:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 191.05 Mbit/s
95th percentile per-packet one-way delay: 113.365 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 15.98 Mbit/s
95th percentile per-packet one-way delay: 113.018 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 176.69 Mbit/s
95th percentile per-packet one-way delay: 113.929 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 177.16 Mbit/s
95th percentile per-packet one-way delay: 112.500 ms
Loss rate: 2.61%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-04-04 00:13:21

End at: 2018-04-04 00:13:51

Below is generated by plot.py at 2018-04-04 07:13:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.31 Mbit/s

95th percentile per-packet one-way delay: 114.727 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 35.51 Mbit/s

95th percentile per-packet one-way delay: 113.501 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 31.87 Mbit/s

95th percentile per-packet one-way delay: 117.704 ms

Loss rate: 1.22%

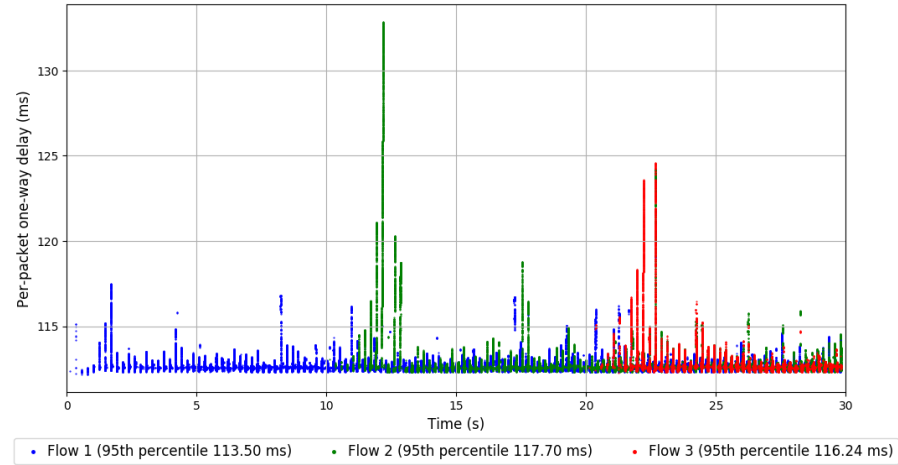
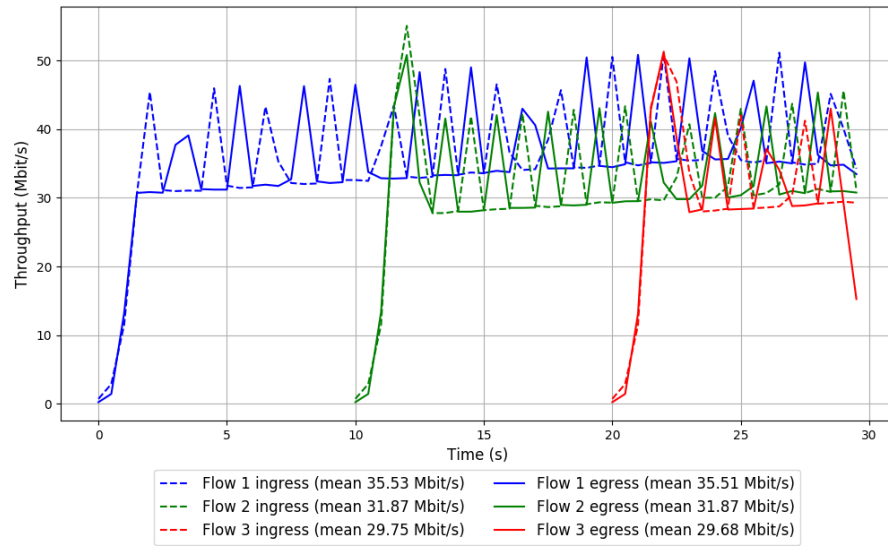
-- Flow 3:

Average throughput: 29.68 Mbit/s

95th percentile per-packet one-way delay: 116.242 ms

Loss rate: 2.48%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-04-04 00:32:07

End at: 2018-04-04 00:32:37

Below is generated by plot.py at 2018-04-04 07:13:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.25 Mbit/s

95th percentile per-packet one-way delay: 114.761 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 62.19 Mbit/s

95th percentile per-packet one-way delay: 112.856 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 29.38 Mbit/s

95th percentile per-packet one-way delay: 117.446 ms

Loss rate: 1.15%

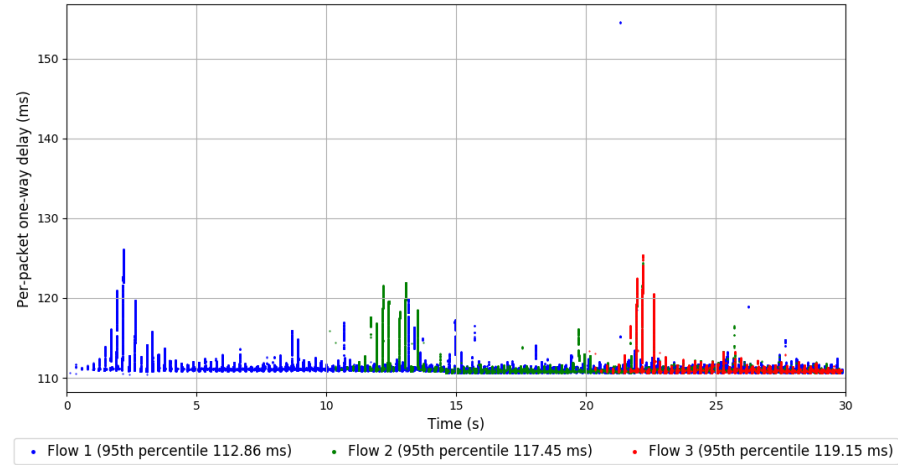
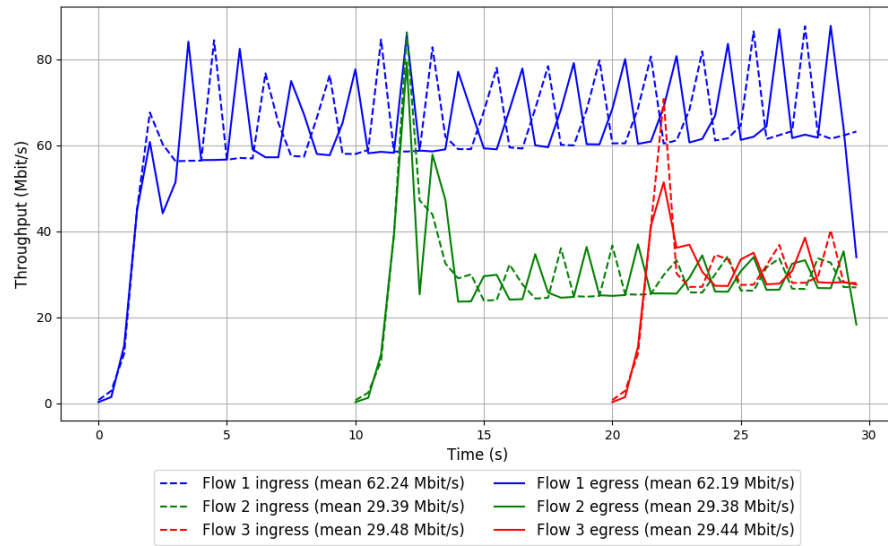
-- Flow 3:

Average throughput: 29.44 Mbit/s

95th percentile per-packet one-way delay: 119.152 ms

Loss rate: 2.39%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-04-04 00:51:11

End at: 2018-04-04 00:51:41

Below is generated by plot.py at 2018-04-04 07:13:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.55 Mbit/s

95th percentile per-packet one-way delay: 120.806 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 46.25 Mbit/s

95th percentile per-packet one-way delay: 122.102 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 99.16 Mbit/s

95th percentile per-packet one-way delay: 120.528 ms

Loss rate: 1.23%

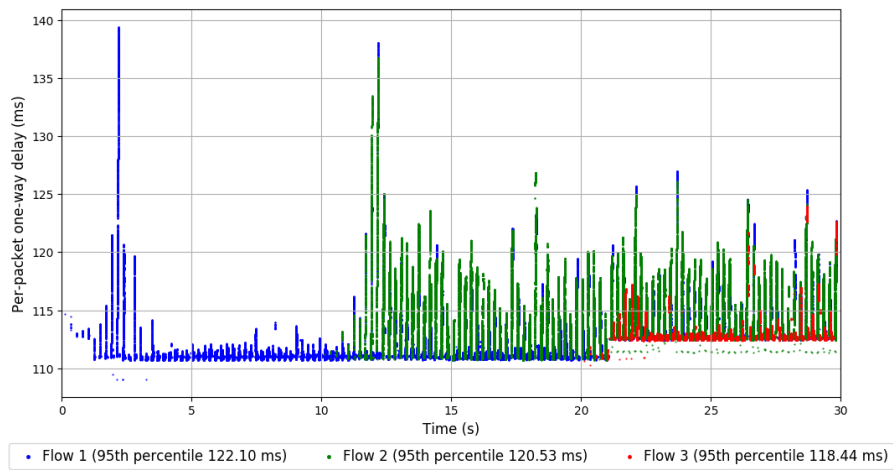
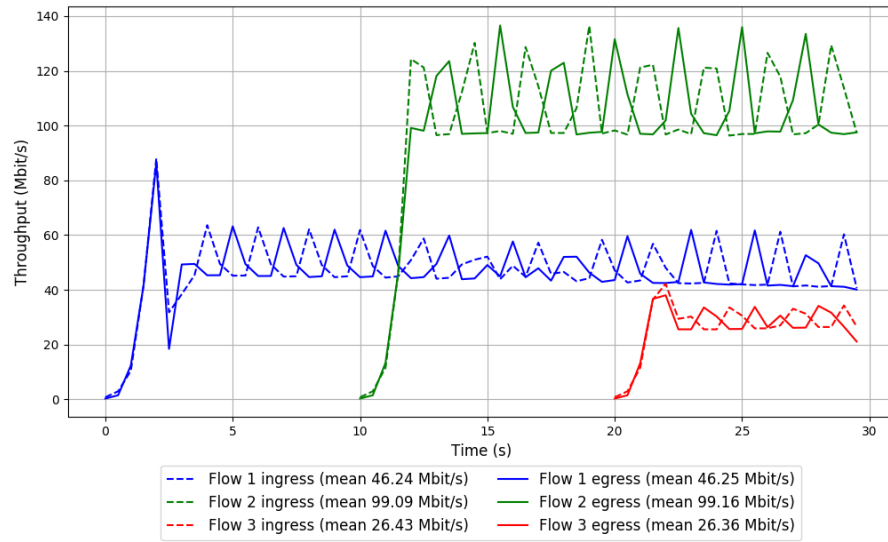
-- Flow 3:

Average throughput: 26.36 Mbit/s

95th percentile per-packet one-way delay: 118.443 ms

Loss rate: 2.53%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-04-04 01:10:10

End at: 2018-04-04 01:10:40

Below is generated by plot.py at 2018-04-04 07:13:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.98 Mbit/s

95th percentile per-packet one-way delay: 119.227 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 55.68 Mbit/s

95th percentile per-packet one-way delay: 113.410 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 39.86 Mbit/s

95th percentile per-packet one-way delay: 120.738 ms

Loss rate: 1.17%

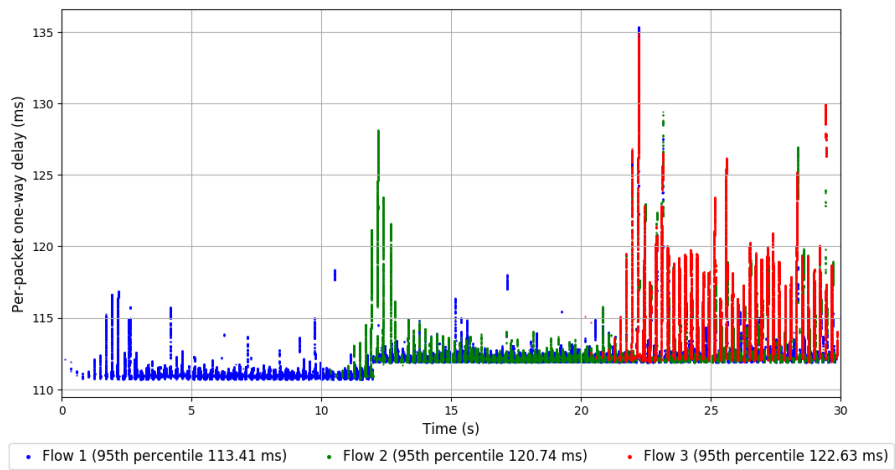
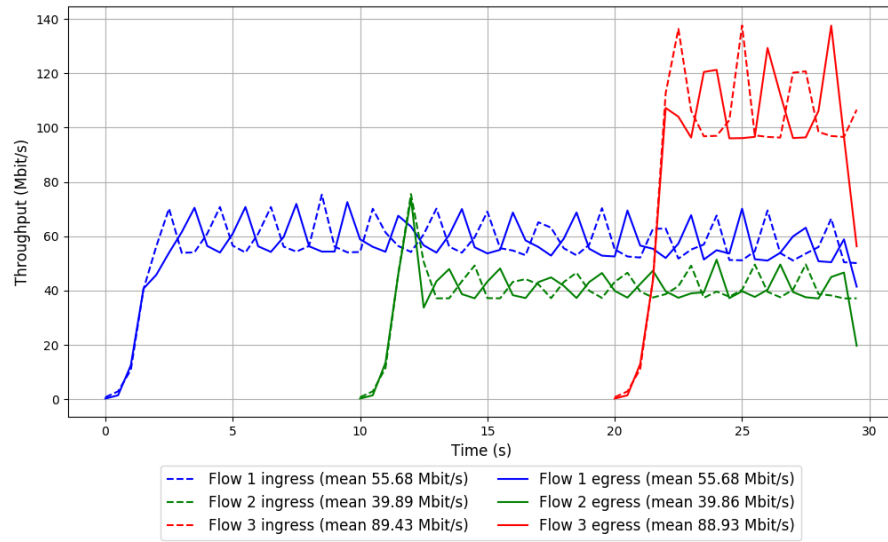
-- Flow 3:

Average throughput: 88.93 Mbit/s

95th percentile per-packet one-way delay: 122.631 ms

Loss rate: 2.83%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-04-04 01:29:03

End at: 2018-04-04 01:29:33

Below is generated by plot.py at 2018-04-04 07:13:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.05 Mbit/s

95th percentile per-packet one-way delay: 119.517 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 79.94 Mbit/s

95th percentile per-packet one-way delay: 120.495 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 65.54 Mbit/s

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

Loss rate: 1.24%

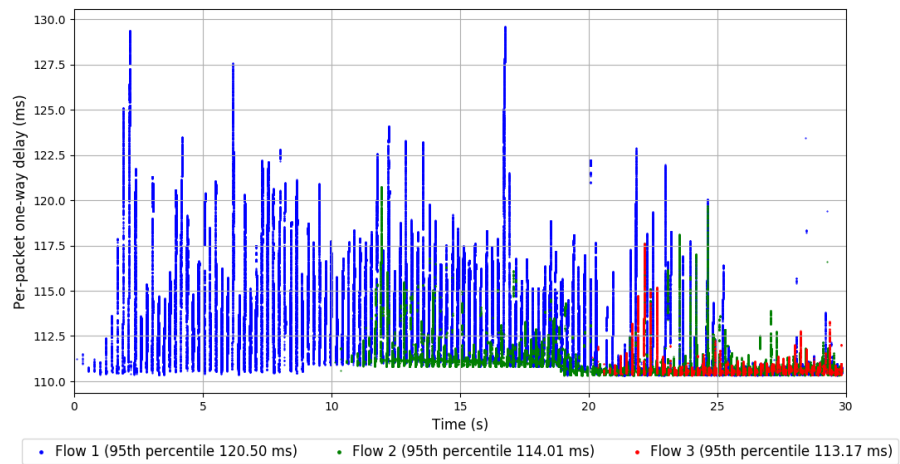
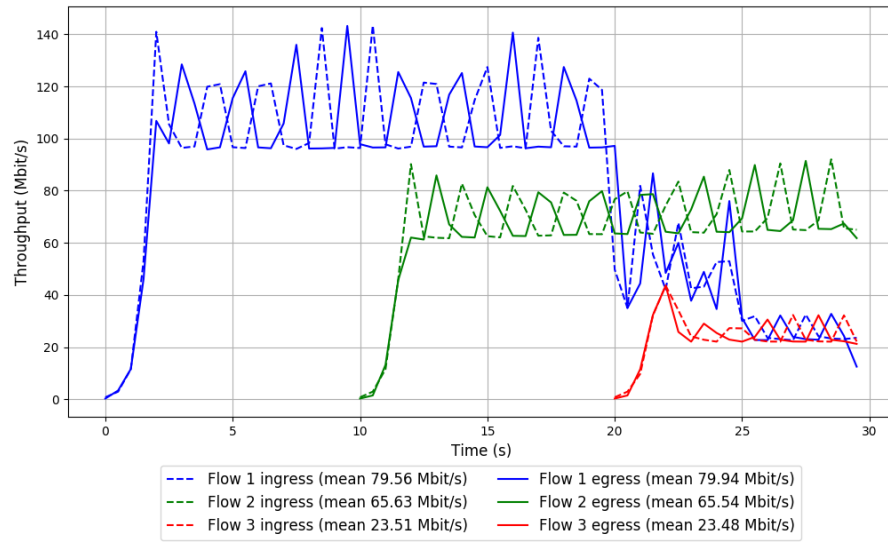
-- Flow 3:

Average throughput: 23.48 Mbit/s

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

Loss rate: 2.36%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-04-04 01:47:50

End at: 2018-04-04 01:48:20

Below is generated by plot.py at 2018-04-04 07:13:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.68 Mbit/s

95th percentile per-packet one-way delay: 114.443 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 28.00 Mbit/s

95th percentile per-packet one-way delay: 117.253 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 40.73 Mbit/s

95th percentile per-packet one-way delay: 112.628 ms

Loss rate: 0.91%

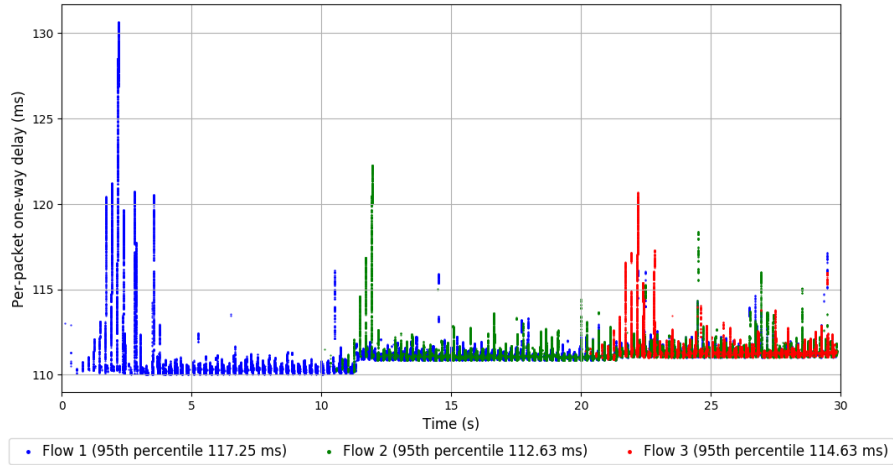
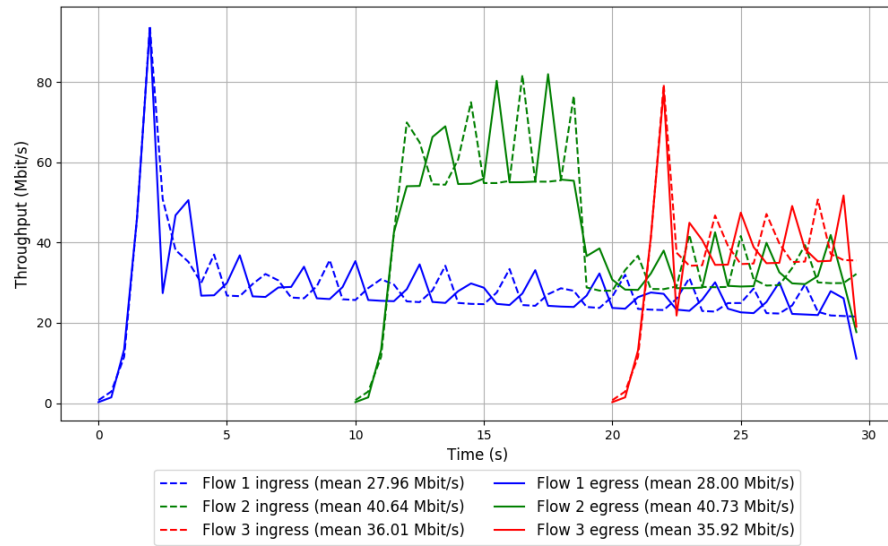
-- Flow 3:

Average throughput: 35.92 Mbit/s

95th percentile per-packet one-way delay: 114.626 ms

Loss rate: 2.49%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-04-04 02:07:05

End at: 2018-04-04 02:07:35

Below is generated by plot.py at 2018-04-04 07:13:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 64.61 Mbit/s

95th percentile per-packet one-way delay: 114.949 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 34.42 Mbit/s

95th percentile per-packet one-way delay: 114.050 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 31.92 Mbit/s

95th percentile per-packet one-way delay: 114.820 ms

Loss rate: 1.18%

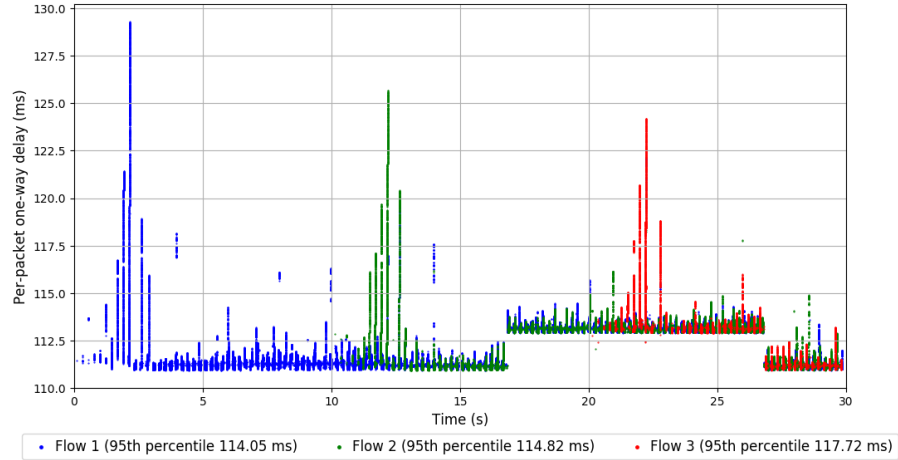
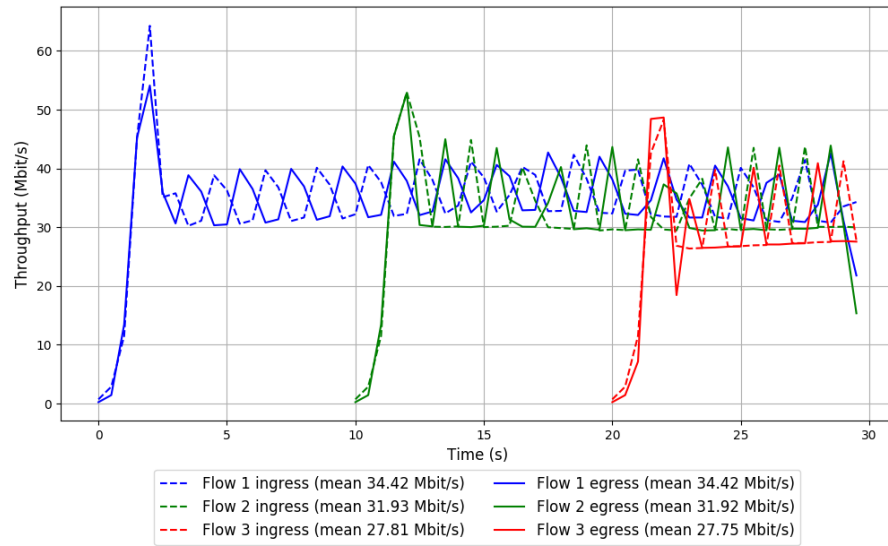
-- Flow 3:

Average throughput: 27.75 Mbit/s

95th percentile per-packet one-way delay: 117.722 ms

Loss rate: 2.51%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-04-04 02:26:11

End at: 2018-04-04 02:26:41

Below is generated by plot.py at 2018-04-04 07:13:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 41.72 Mbit/s

95th percentile per-packet one-way delay: 114.024 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 17.21 Mbit/s

95th percentile per-packet one-way delay: 113.904 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 29.48 Mbit/s

95th percentile per-packet one-way delay: 114.176 ms

Loss rate: 1.12%

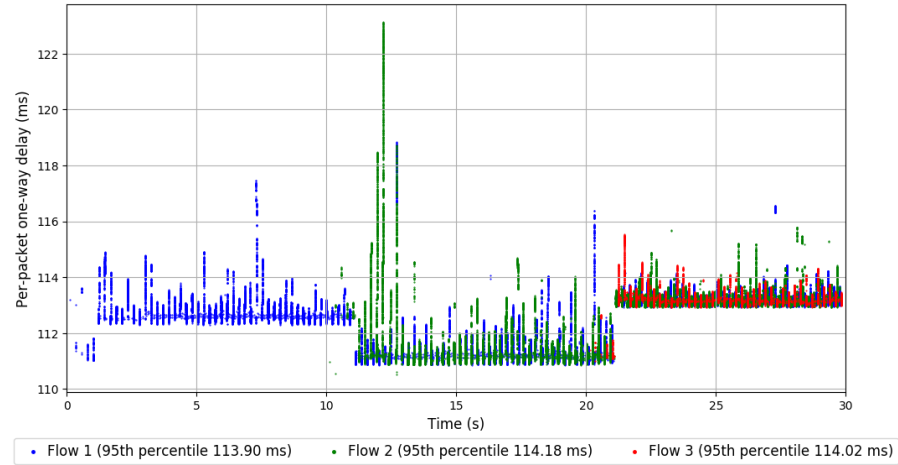
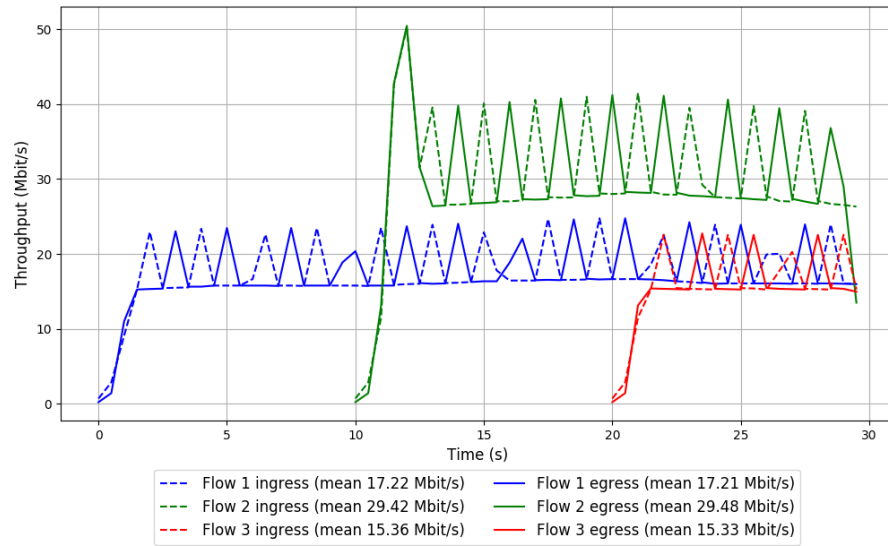
-- Flow 3:

Average throughput: 15.33 Mbit/s

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

Loss rate: 2.50%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-04-04 02:44:55

End at: 2018-04-04 02:45:25

Below is generated by plot.py at 2018-04-04 07:13:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 40.31 Mbit/s

95th percentile per-packet one-way delay: 114.247 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 24.70 Mbit/s

95th percentile per-packet one-way delay: 113.461 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 22.28 Mbit/s

95th percentile per-packet one-way delay: 115.536 ms

Loss rate: 2.15%

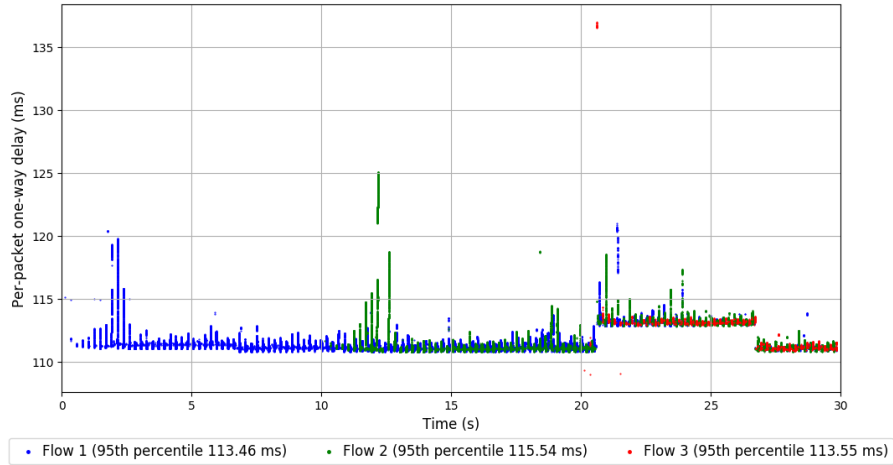
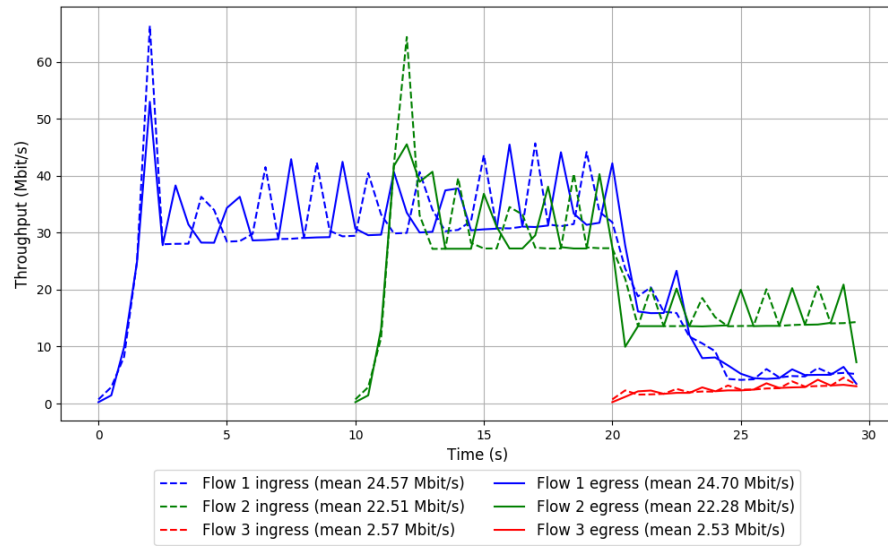
-- Flow 3:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 113.547 ms

Loss rate: 3.82%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-04-04 03:03:41

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

Below is generated by plot.py at 2018-04-04 07:13:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.70 Mbit/s

95th percentile per-packet one-way delay: 120.183 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 23.60 Mbit/s

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

Loss rate: 0.77%

-- Flow 2:

Average throughput: 47.89 Mbit/s

95th percentile per-packet one-way delay: 118.209 ms

Loss rate: 1.19%

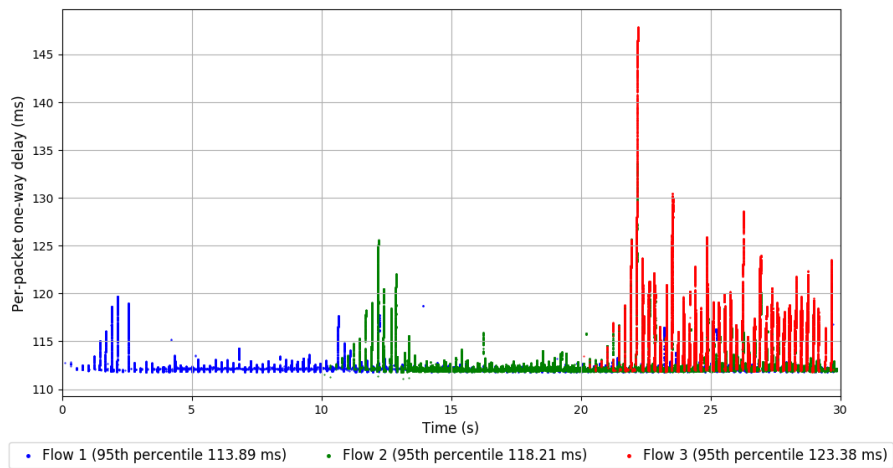
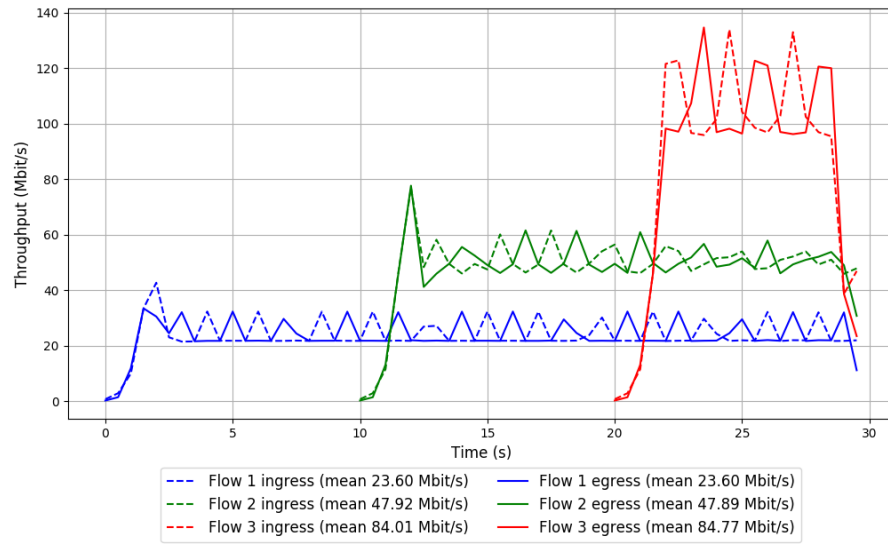
-- Flow 3:

Average throughput: 84.77 Mbit/s

95th percentile per-packet one-way delay: 123.383 ms

Loss rate: 1.42%

Run 10: Report of TCP Vegas — Data Link

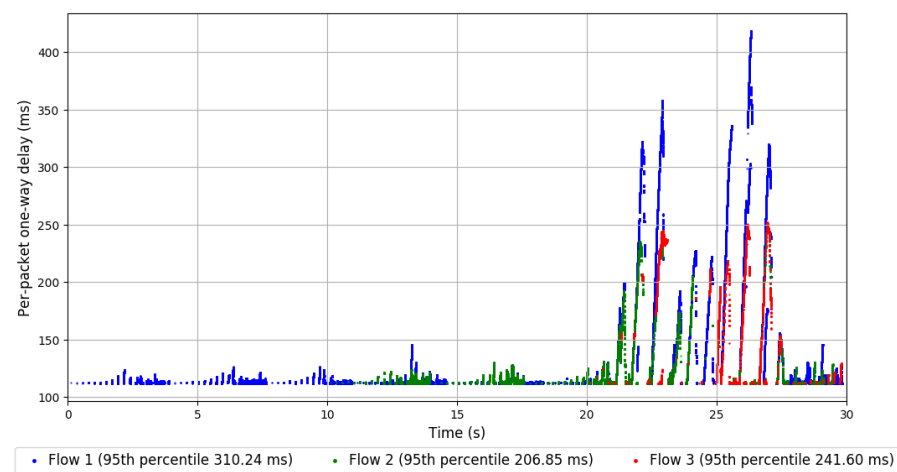
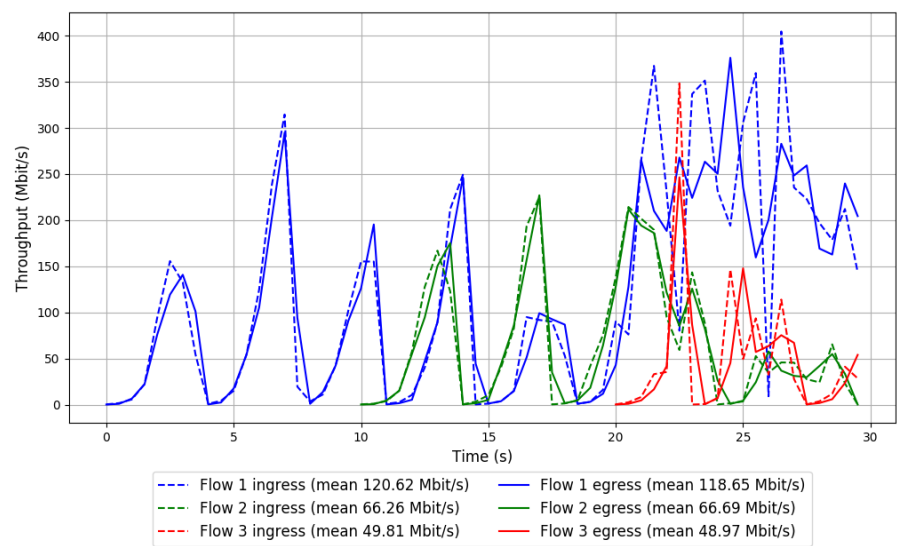


```
Run 1: Statistics of Verus

Start at: 2018-04-04 00:12:20
End at: 2018-04-04 00:12:50

# Below is generated by plot.py at 2018-04-04 07:14:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 178.49 Mbit/s
95th percentile per-packet one-way delay: 288.091 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 118.65 Mbit/s
95th percentile per-packet one-way delay: 310.243 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 66.69 Mbit/s
95th percentile per-packet one-way delay: 206.853 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 48.97 Mbit/s
95th percentile per-packet one-way delay: 241.604 ms
Loss rate: 3.97%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-04-04 00:31:07

End at: 2018-04-04 00:31:37

Below is generated by plot.py at 2018-04-04 07:14:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 173.29 Mbit/s

95th percentile per-packet one-way delay: 176.747 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 60.66 Mbit/s

95th percentile per-packet one-way delay: 127.655 ms

Loss rate: 1.19%

-- Flow 2:

Average throughput: 121.37 Mbit/s

95th percentile per-packet one-way delay: 154.345 ms

Loss rate: 1.06%

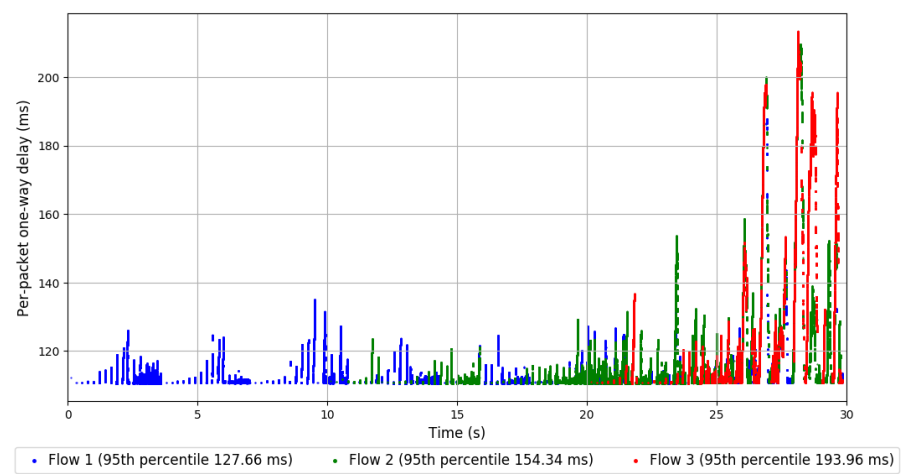
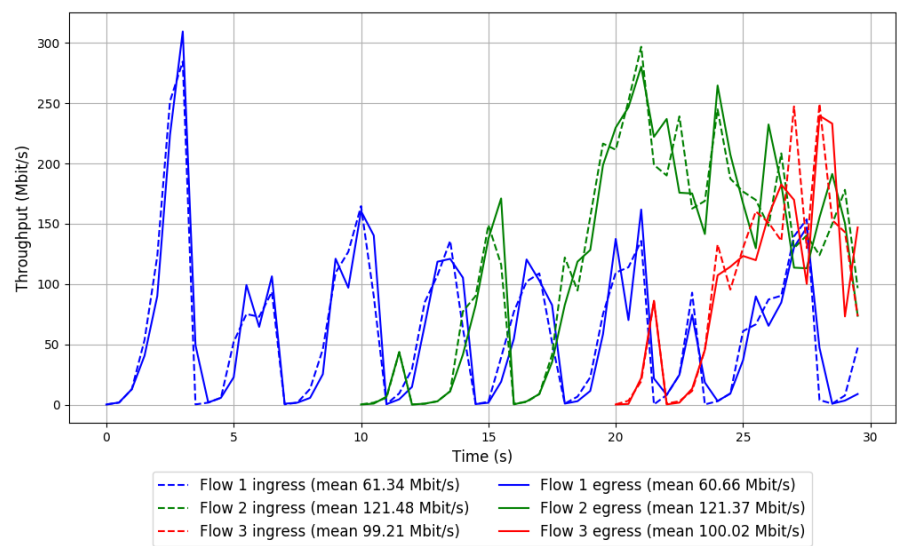
-- Flow 3:

Average throughput: 100.02 Mbit/s

95th percentile per-packet one-way delay: 193.957 ms

Loss rate: 1.74%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-04-04 00:50:14

End at: 2018-04-04 00:50:44

Below is generated by plot.py at 2018-04-04 07:14:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 128.00 Mbit/s

95th percentile per-packet one-way delay: 129.835 ms

Loss rate: 2.13%

-- Flow 1:

Average throughput: 66.91 Mbit/s

95th percentile per-packet one-way delay: 130.637 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 68.10 Mbit/s

95th percentile per-packet one-way delay: 130.579 ms

Loss rate: 2.66%

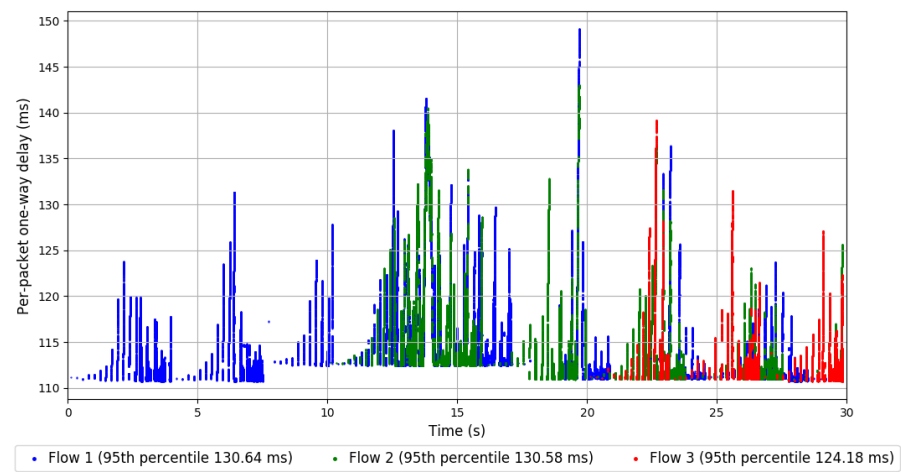
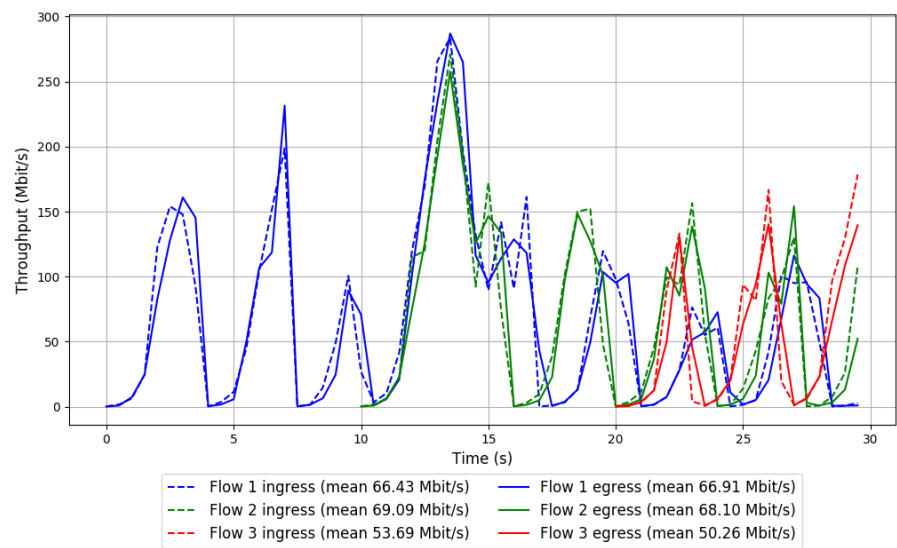
-- Flow 3:

Average throughput: 50.26 Mbit/s

95th percentile per-packet one-way delay: 124.179 ms

Loss rate: 8.49%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-04-04 01:09:11

End at: 2018-04-04 01:09:41

Below is generated by plot.py at 2018-04-04 07:14:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 155.36 Mbit/s

95th percentile per-packet one-way delay: 165.782 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 86.72 Mbit/s

95th percentile per-packet one-way delay: 195.135 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 82.44 Mbit/s

95th percentile per-packet one-way delay: 156.213 ms

Loss rate: 0.44%

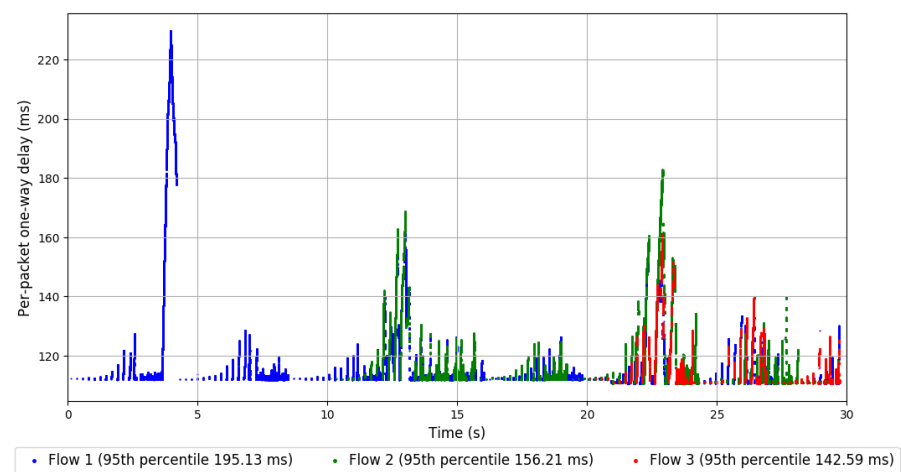
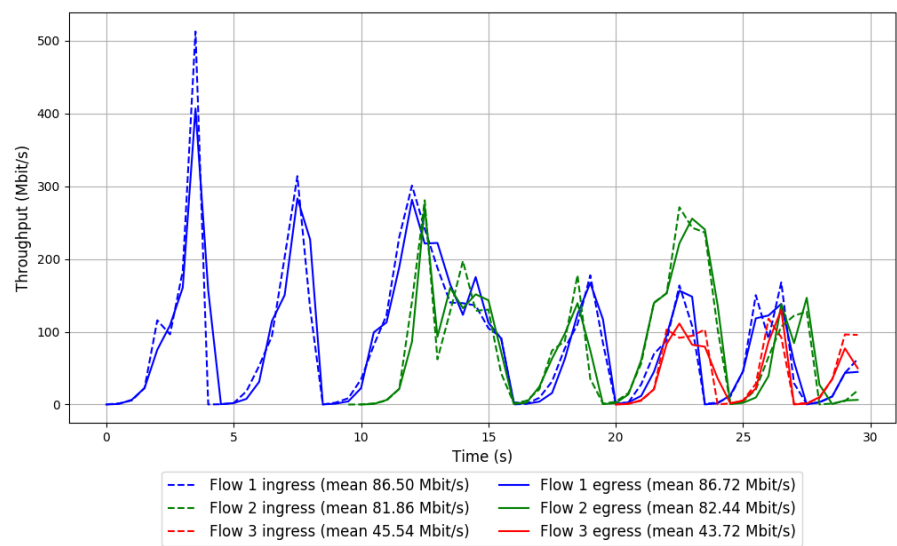
-- Flow 3:

Average throughput: 43.72 Mbit/s

95th percentile per-packet one-way delay: 142.595 ms

Loss rate: 7.18%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

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

End at: 2018-04-04 01:28:31

Below is generated by plot.py at 2018-04-04 07:15:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 189.96 Mbit/s

95th percentile per-packet one-way delay: 144.745 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 116.21 Mbit/s

95th percentile per-packet one-way delay: 131.997 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 92.33 Mbit/s

95th percentile per-packet one-way delay: 168.371 ms

Loss rate: 2.22%

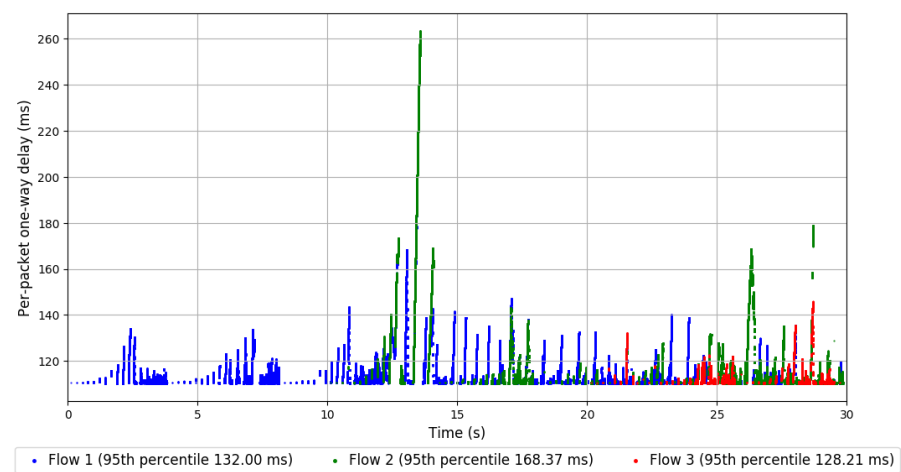
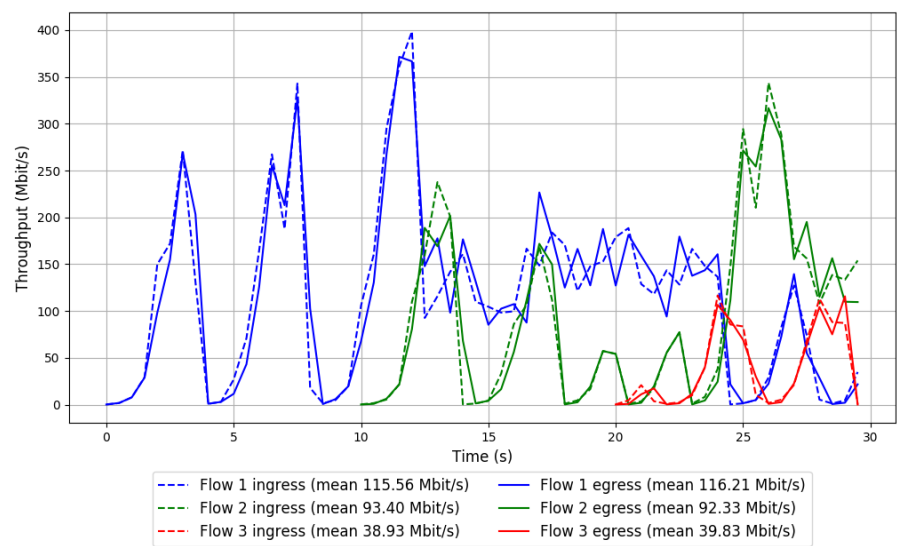
-- Flow 3:

Average throughput: 39.83 Mbit/s

95th percentile per-packet one-way delay: 128.206 ms

Loss rate: 0.02%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-04-04 01:46:44

End at: 2018-04-04 01:47:14

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 248.84 Mbit/s

95th percentile per-packet one-way delay: 223.720 ms

Loss rate: 1.66%

-- Flow 1:

Average throughput: 172.93 Mbit/s

95th percentile per-packet one-way delay: 238.579 ms

Loss rate: 1.23%

-- Flow 2:

Average throughput: 94.95 Mbit/s

95th percentile per-packet one-way delay: 192.694 ms

Loss rate: 1.47%

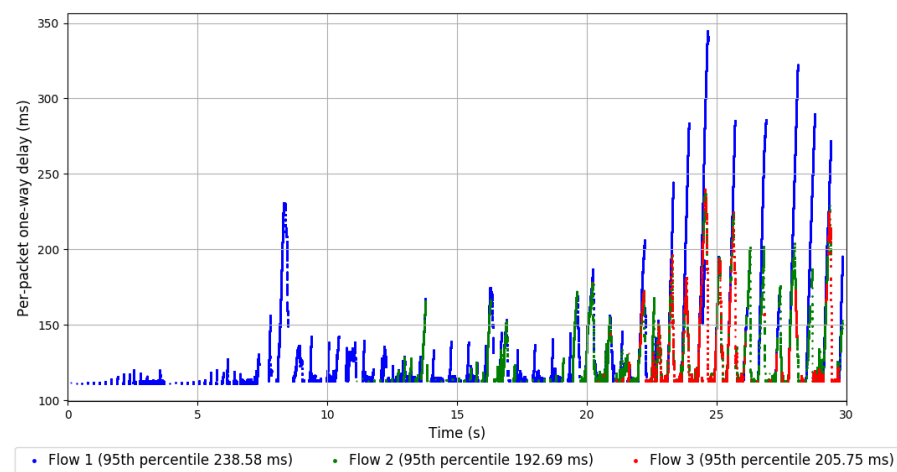
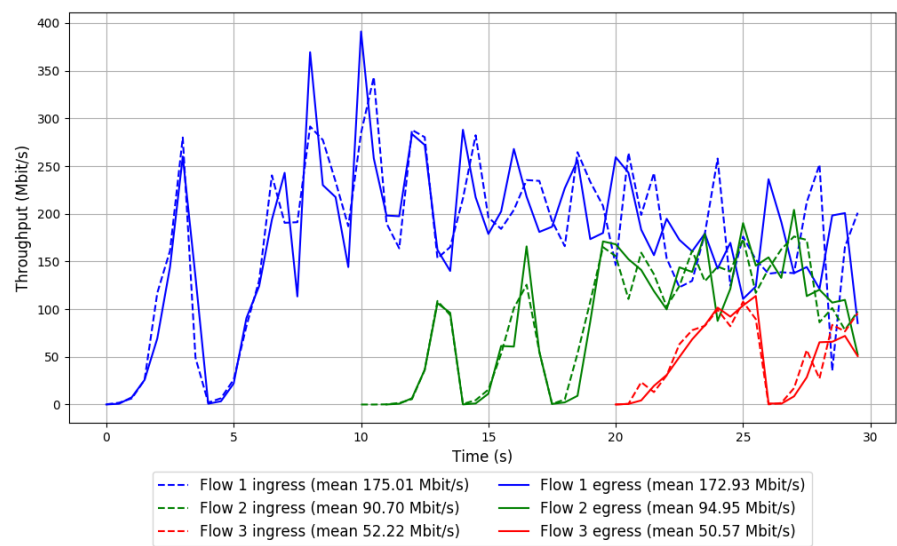
-- Flow 3:

Average throughput: 50.57 Mbit/s

95th percentile per-packet one-way delay: 205.755 ms

Loss rate: 6.64%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-04-04 02:06:04

End at: 2018-04-04 02:06:34

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.85 Mbit/s

95th percentile per-packet one-way delay: 141.162 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 89.03 Mbit/s

95th percentile per-packet one-way delay: 132.214 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 121.35 Mbit/s

95th percentile per-packet one-way delay: 146.648 ms

Loss rate: 1.74%

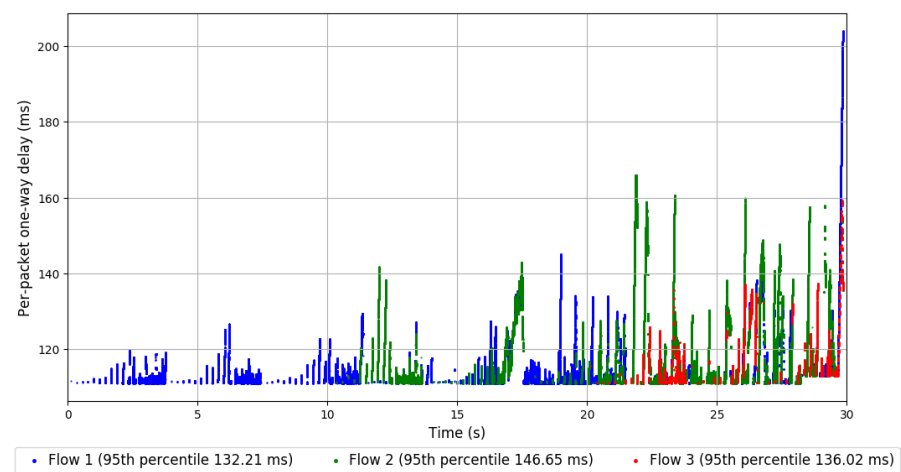
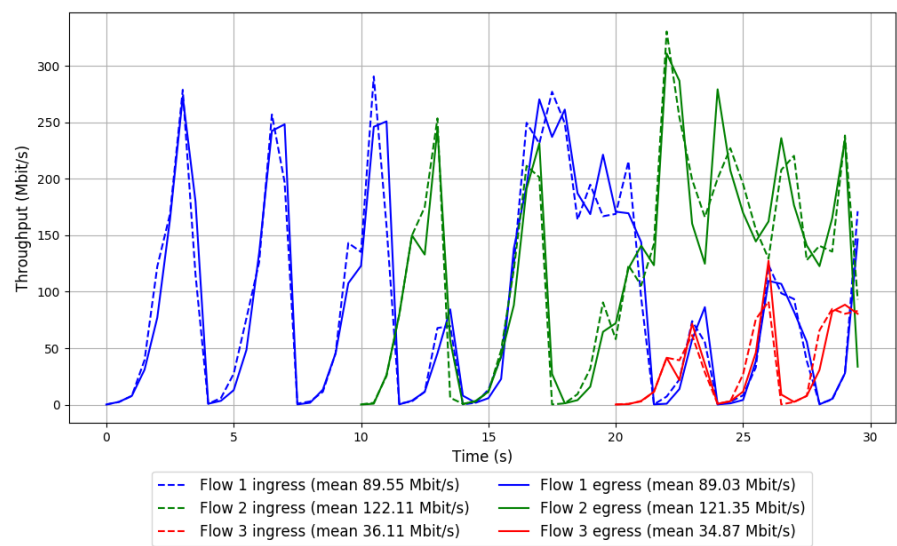
-- Flow 3:

Average throughput: 34.87 Mbit/s

95th percentile per-packet one-way delay: 136.024 ms

Loss rate: 4.51%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-04-04 02:25:06

End at: 2018-04-04 02:25:36

Below is generated by plot.py at 2018-04-04 07:17:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 236.65 Mbit/s

95th percentile per-packet one-way delay: 238.711 ms

Loss rate: 2.22%

-- Flow 1:

Average throughput: 165.34 Mbit/s

95th percentile per-packet one-way delay: 208.327 ms

Loss rate: 1.52%

-- Flow 2:

Average throughput: 49.49 Mbit/s

95th percentile per-packet one-way delay: 226.677 ms

Loss rate: 2.82%

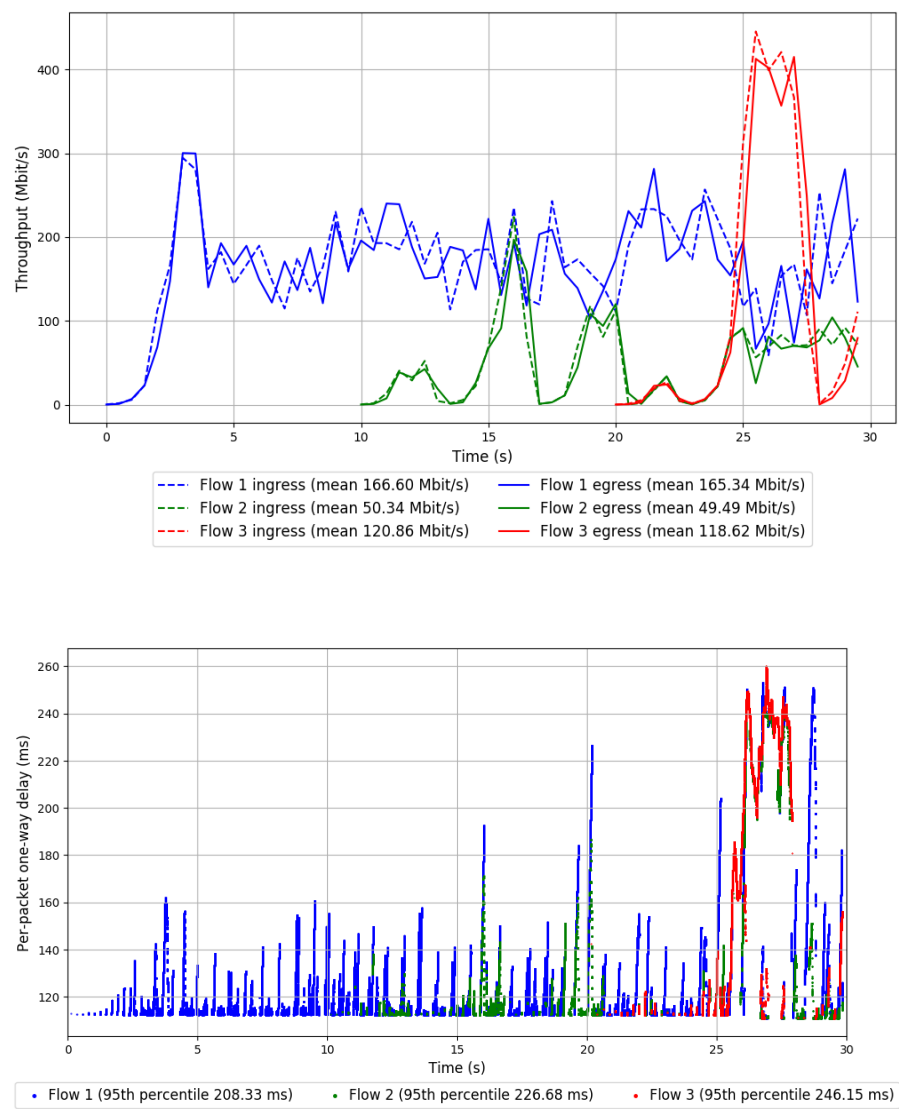
-- Flow 3:

Average throughput: 118.62 Mbit/s

95th percentile per-packet one-way delay: 246.153 ms

Loss rate: 4.64%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-04-04 02:43:50

End at: 2018-04-04 02:44:20

Below is generated by plot.py at 2018-04-04 07:17:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 227.76 Mbit/s

95th percentile per-packet one-way delay: 236.829 ms

Loss rate: 2.45%

-- Flow 1:

Average throughput: 133.77 Mbit/s

95th percentile per-packet one-way delay: 250.831 ms

Loss rate: 1.51%

-- Flow 2:

Average throughput: 130.82 Mbit/s

95th percentile per-packet one-way delay: 226.914 ms

Loss rate: 2.38%

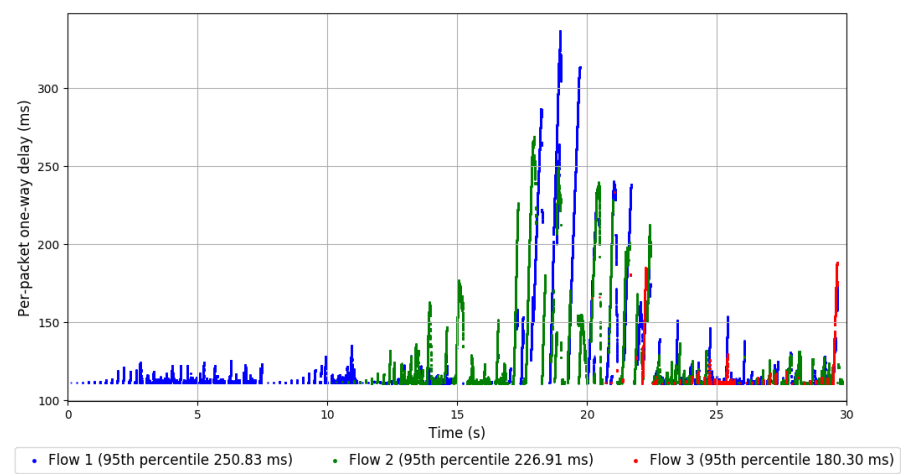
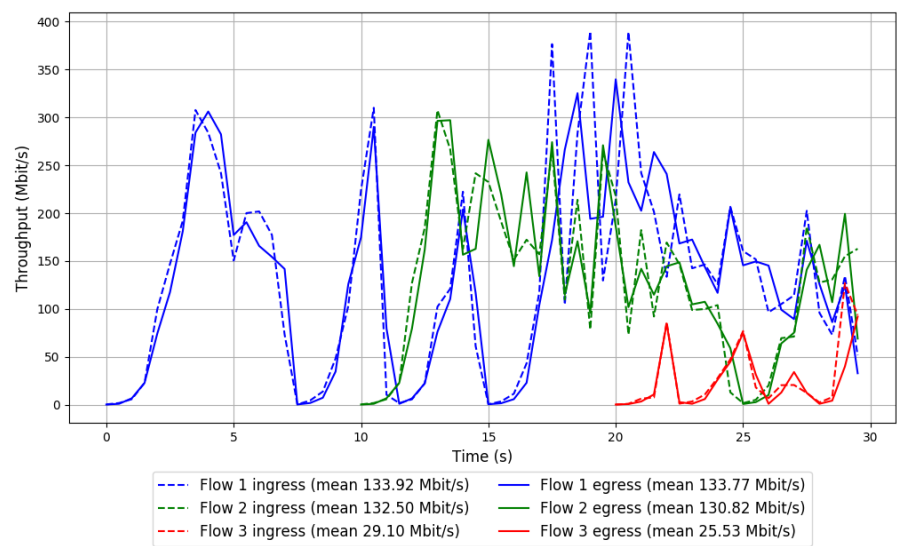
-- Flow 3:

Average throughput: 25.53 Mbit/s

95th percentile per-packet one-way delay: 180.297 ms

Loss rate: 16.28%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-04-04 03:02:39

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

Below is generated by plot.py at 2018-04-04 07:17:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 186.84 Mbit/s

95th percentile per-packet one-way delay: 236.462 ms

Loss rate: 2.69%

-- Flow 1:

Average throughput: 130.54 Mbit/s

95th percentile per-packet one-way delay: 184.692 ms

Loss rate: 2.02%

-- Flow 2:

Average throughput: 61.47 Mbit/s

95th percentile per-packet one-way delay: 288.999 ms

Loss rate: 3.99%

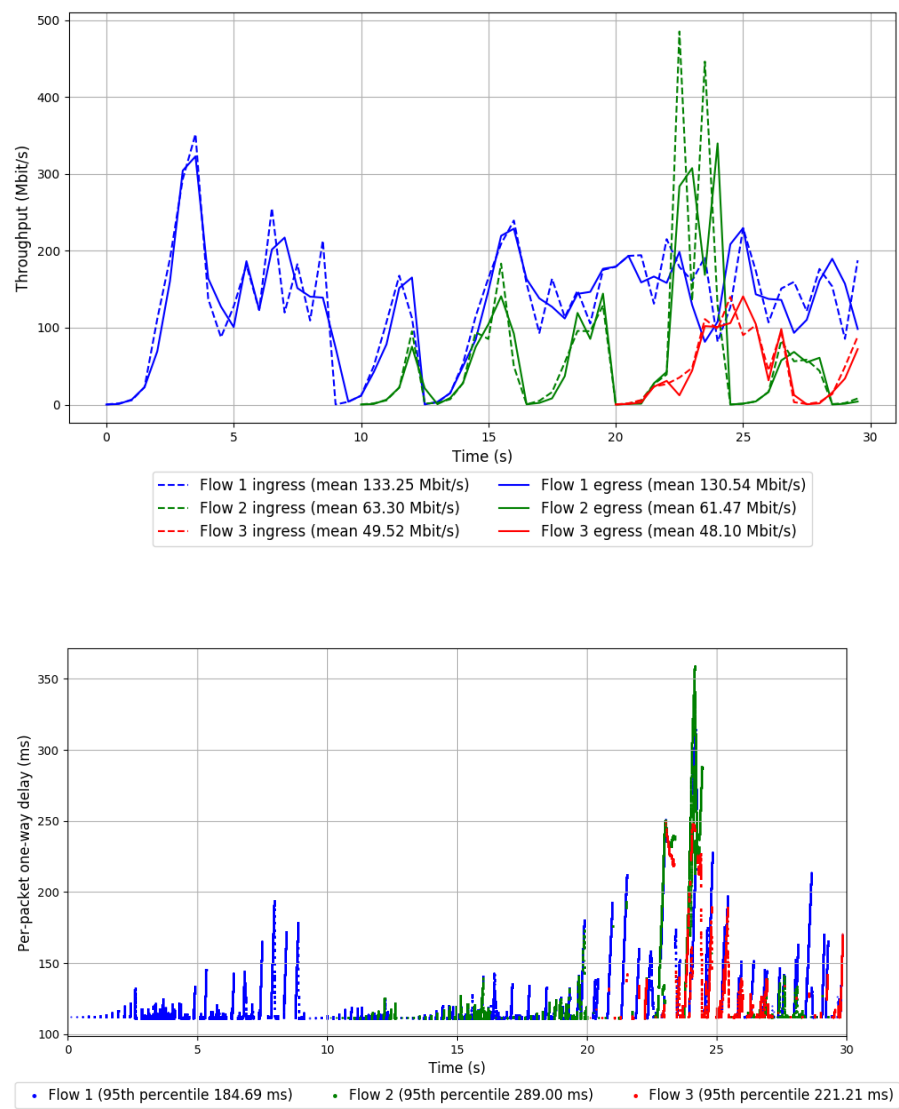
-- Flow 3:

Average throughput: 48.10 Mbit/s

95th percentile per-packet one-way delay: 221.208 ms

Loss rate: 4.79%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-04-04 00:24:04

End at: 2018-04-04 00:24:34

Below is generated by plot.py at 2018-04-04 07:17:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.32 Mbit/s

95th percentile per-packet one-way delay: 112.524 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 53.23 Mbit/s

95th percentile per-packet one-way delay: 112.511 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 68.41 Mbit/s

95th percentile per-packet one-way delay: 112.542 ms

Loss rate: 0.42%

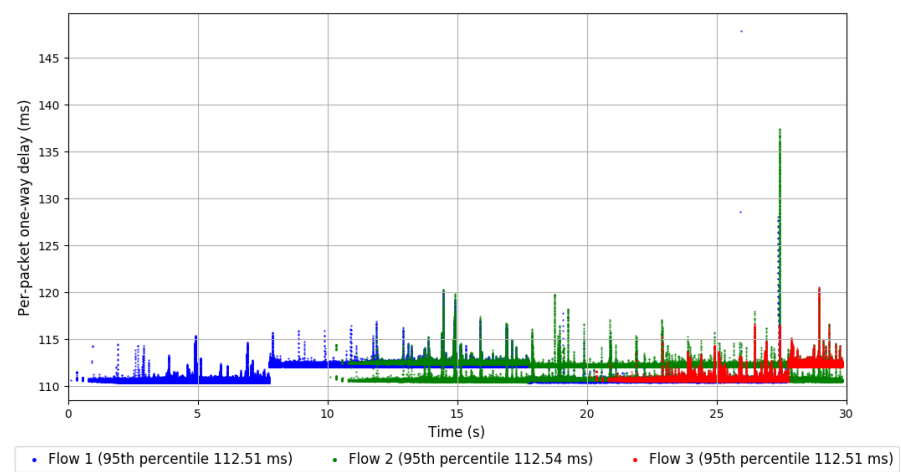
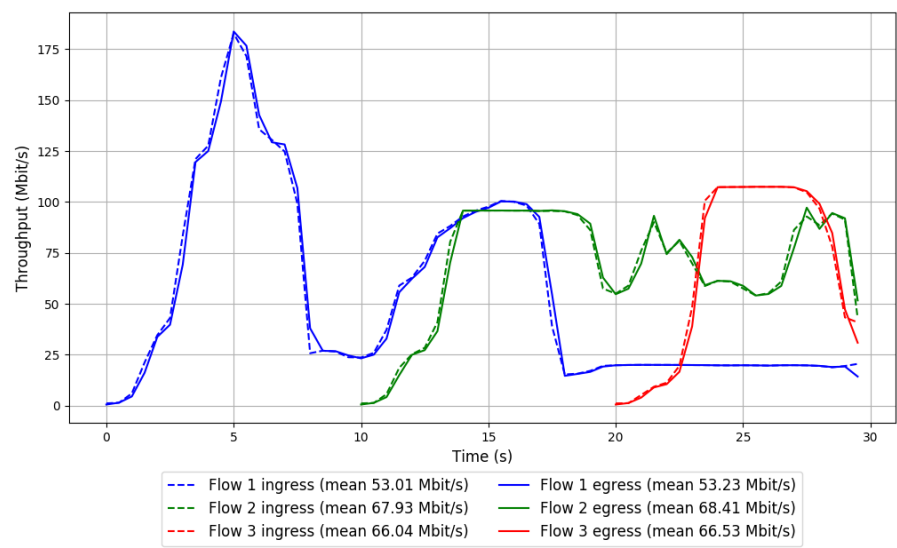
-- Flow 3:

Average throughput: 66.53 Mbit/s

95th percentile per-packet one-way delay: 112.512 ms

Loss rate: 1.53%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-04-04 00:43:09

End at: 2018-04-04 00:43:39

Below is generated by plot.py at 2018-04-04 07:18:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.01 Mbit/s

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

Loss rate: 1.43%

-- Flow 1:

Average throughput: 59.38 Mbit/s

95th percentile per-packet one-way delay: 112.562 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 63.10 Mbit/s

95th percentile per-packet one-way delay: 112.579 ms

Loss rate: 0.81%

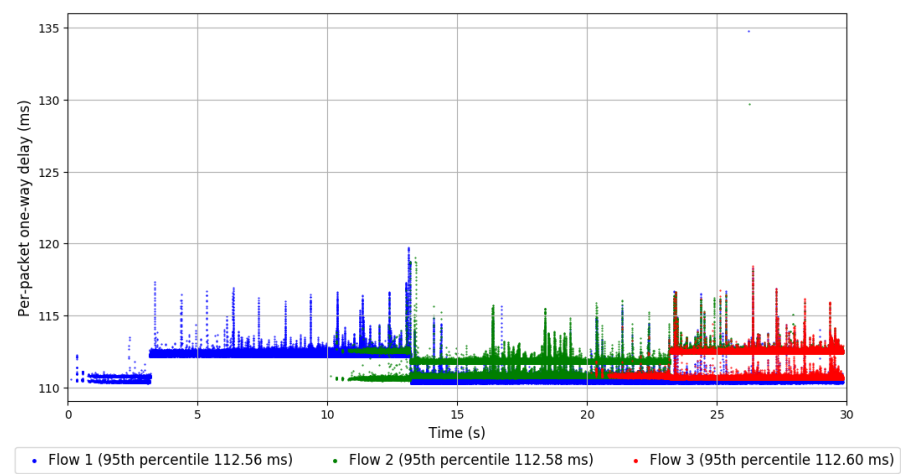
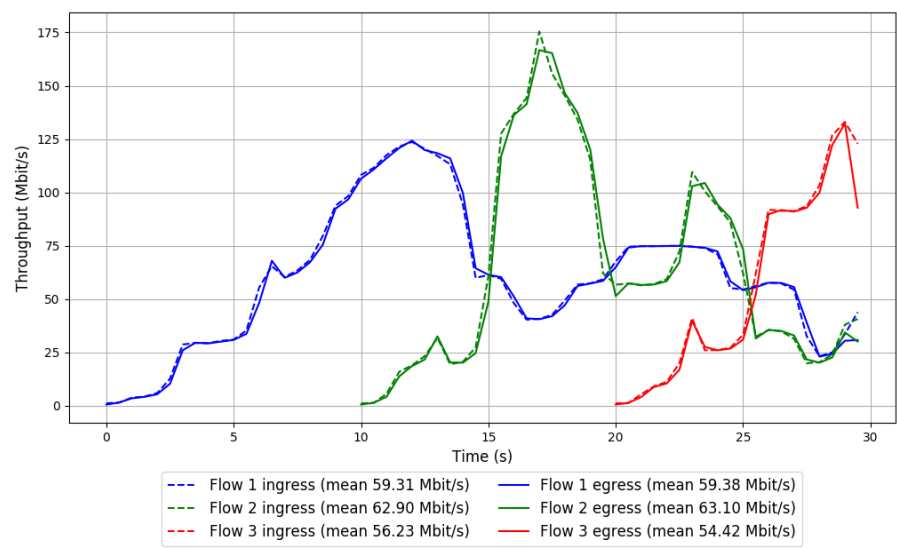
-- Flow 3:

Average throughput: 54.42 Mbit/s

95th percentile per-packet one-way delay: 112.597 ms

Loss rate: 5.39%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-04-04 01:02:01

End at: 2018-04-04 01:02:31

Below is generated by plot.py at 2018-04-04 07:19:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 130.92 Mbit/s

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

Loss rate: 0.95%

-- Flow 1:

Average throughput: 70.28 Mbit/s

95th percentile per-packet one-way delay: 112.896 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 60.33 Mbit/s

95th percentile per-packet one-way delay: 112.706 ms

Loss rate: 0.29%

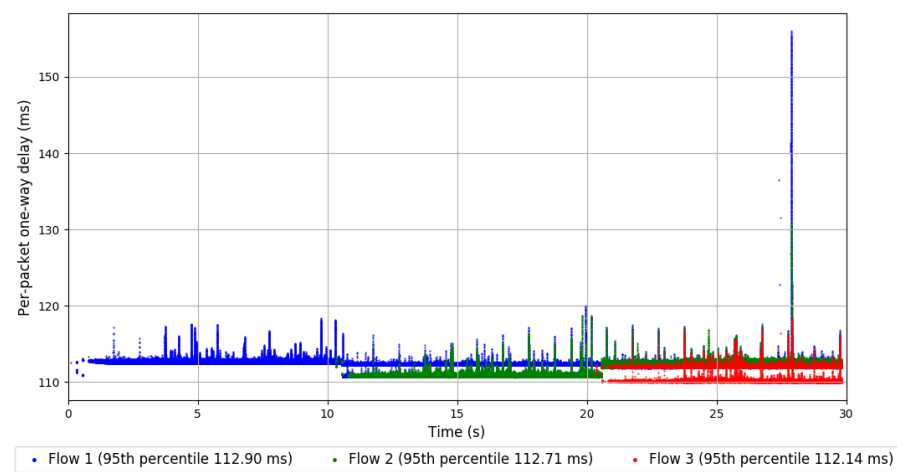
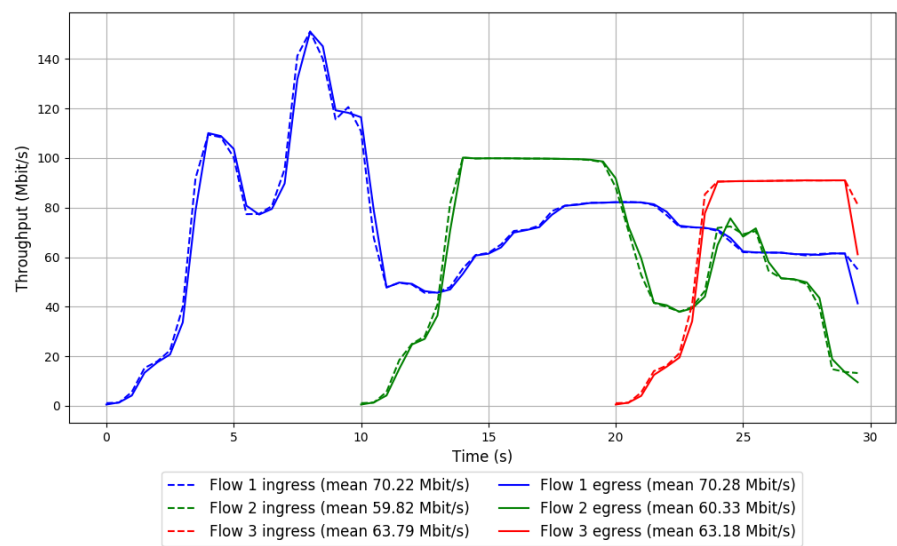
-- Flow 3:

Average throughput: 63.18 Mbit/s

95th percentile per-packet one-way delay: 112.143 ms

Loss rate: 3.19%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-04-04 01:20:53

End at: 2018-04-04 01:21:23

Below is generated by plot.py at 2018-04-04 07:20:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 154.69 Mbit/s

95th percentile per-packet one-way delay: 112.876 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 77.56 Mbit/s

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

Loss rate: 0.48%

-- Flow 2:

Average throughput: 83.91 Mbit/s

95th percentile per-packet one-way delay: 112.944 ms

Loss rate: 1.19%

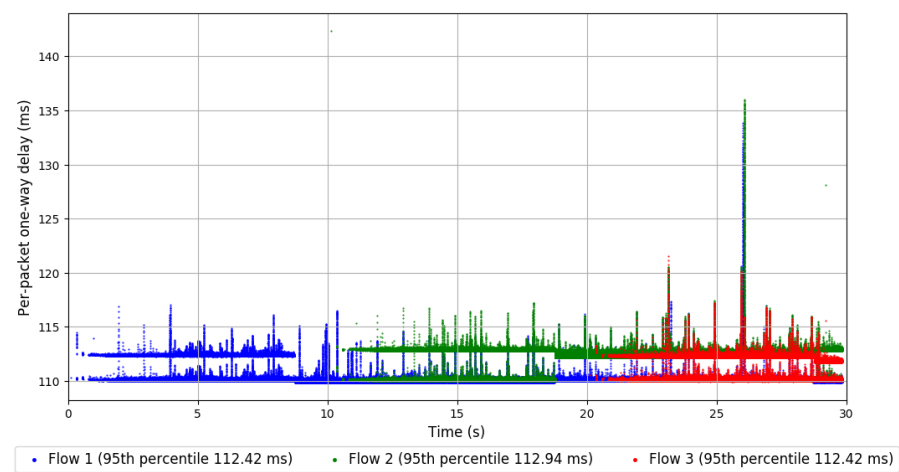
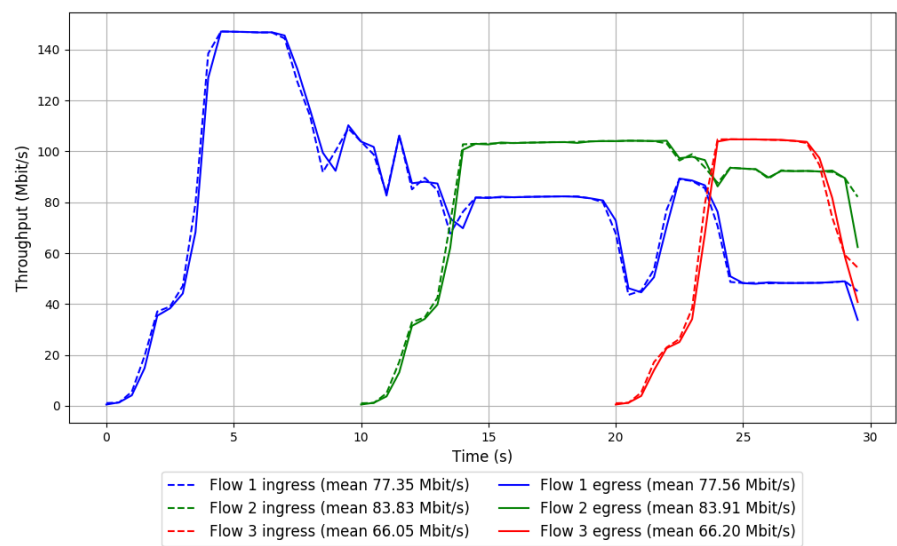
-- Flow 3:

Average throughput: 66.20 Mbit/s

95th percentile per-packet one-way delay: 112.425 ms

Loss rate: 2.04%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-04-04 01:39:36

End at: 2018-04-04 01:40:06

Below is generated by plot.py at 2018-04-04 07:20:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.63 Mbit/s

95th percentile per-packet one-way delay: 114.833 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 51.43 Mbit/s

95th percentile per-packet one-way delay: 112.954 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 66.24 Mbit/s

95th percentile per-packet one-way delay: 114.907 ms

Loss rate: 1.23%

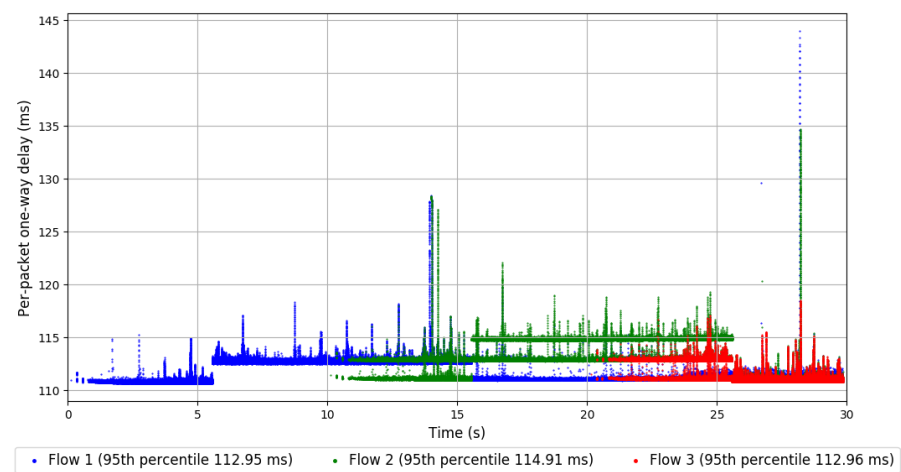
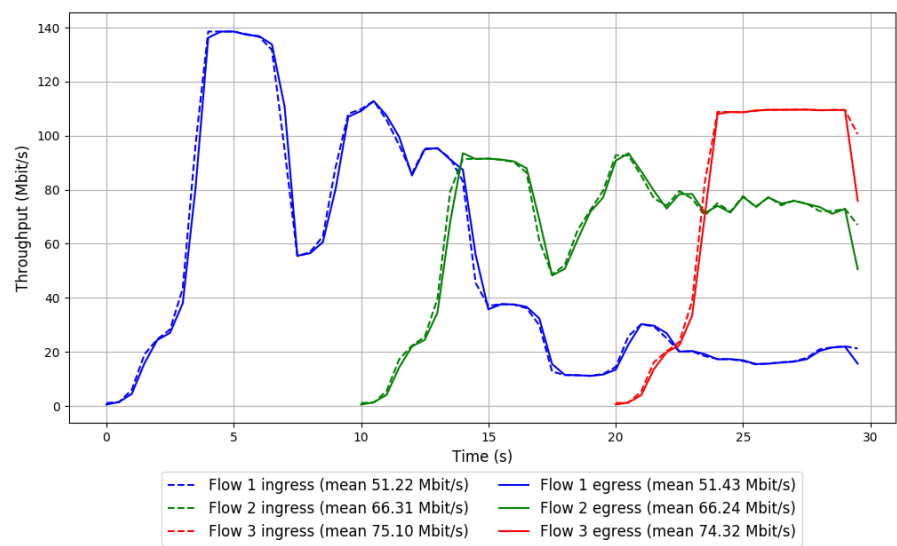
-- Flow 3:

Average throughput: 74.32 Mbit/s

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

Loss rate: 3.28%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-04-04 01:58:46

End at: 2018-04-04 01:59:16

Below is generated by plot.py at 2018-04-04 07:23:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 208.67 Mbit/s

95th percentile per-packet one-way delay: 272.284 ms

Loss rate: 12.06%

-- Flow 1:

Average throughput: 309.82 Mbit/s

95th percentile per-packet one-way delay: 278.646 ms

Loss rate: 15.76%

-- Flow 2:

Average throughput: 60.13 Mbit/s

95th percentile per-packet one-way delay: 113.215 ms

Loss rate: 0.75%

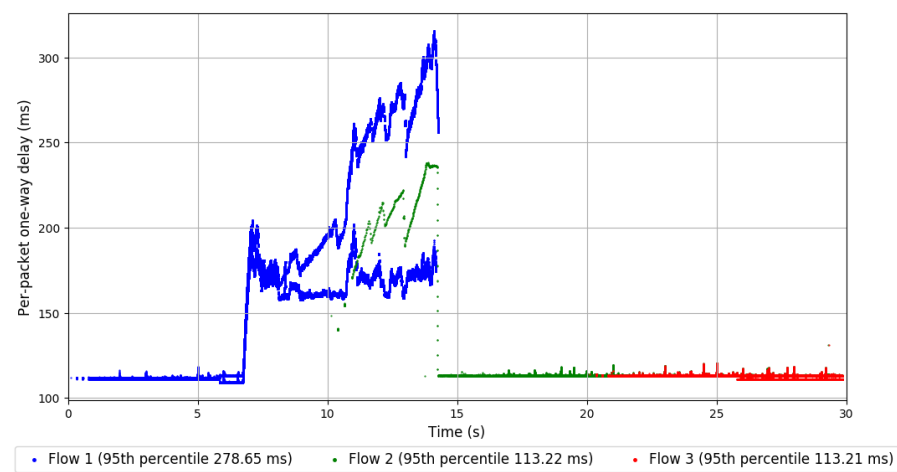
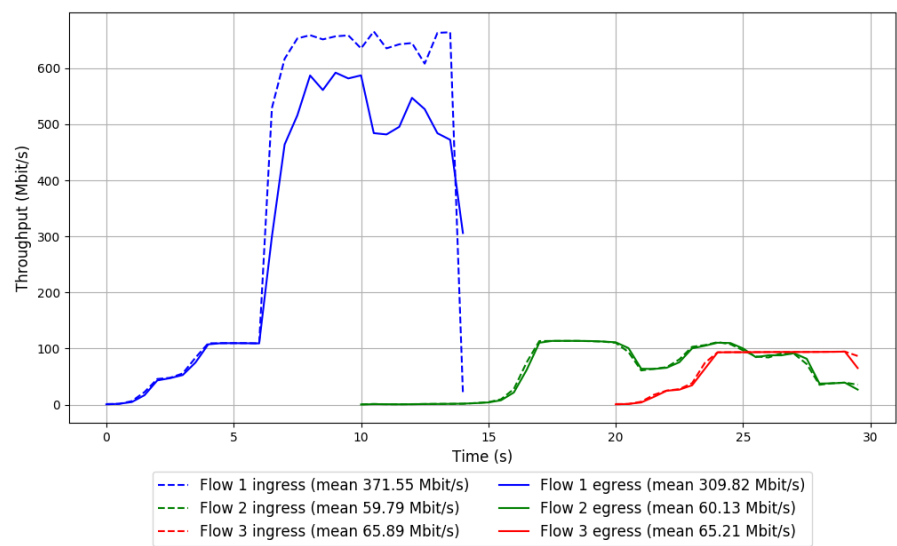
-- Flow 3:

Average throughput: 65.21 Mbit/s

95th percentile per-packet one-way delay: 113.208 ms

Loss rate: 3.28%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-04-04 02:17:54

End at: 2018-04-04 02:18:24

Below is generated by plot.py at 2018-04-04 07:23:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 129.99 Mbit/s

95th percentile per-packet one-way delay: 112.694 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 80.92 Mbit/s

95th percentile per-packet one-way delay: 112.632 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 50.34 Mbit/s

95th percentile per-packet one-way delay: 112.715 ms

Loss rate: 0.16%

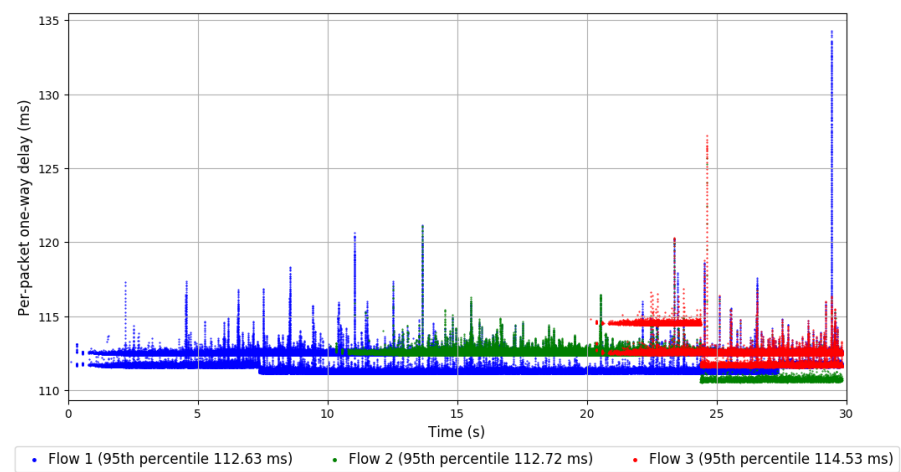
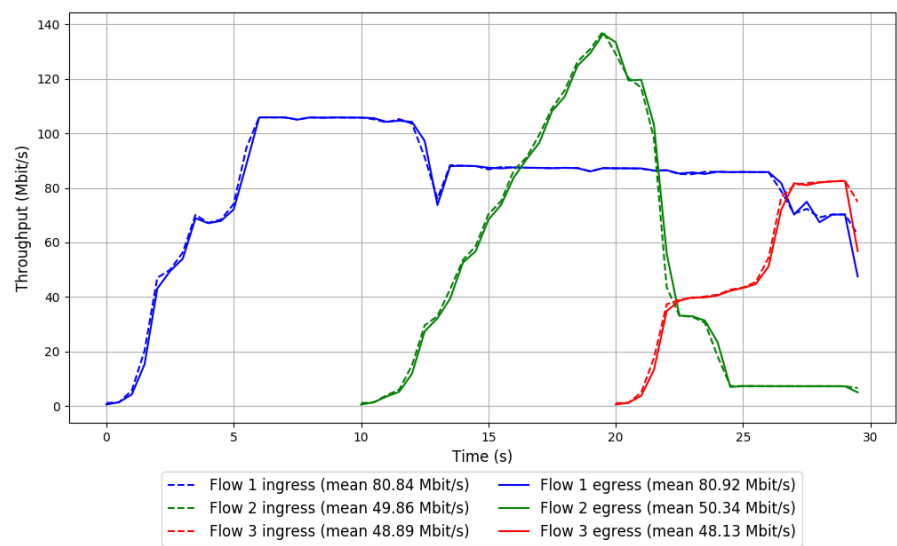
-- Flow 3:

Average throughput: 48.13 Mbit/s

95th percentile per-packet one-way delay: 114.529 ms

Loss rate: 3.79%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-04-04 02:36:46

End at: 2018-04-04 02:37:16

Below is generated by plot.py at 2018-04-04 07:23:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.09 Mbit/s

95th percentile per-packet one-way delay: 114.848 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 74.64 Mbit/s

95th percentile per-packet one-way delay: 114.901 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 67.56 Mbit/s

95th percentile per-packet one-way delay: 111.246 ms

Loss rate: 0.91%

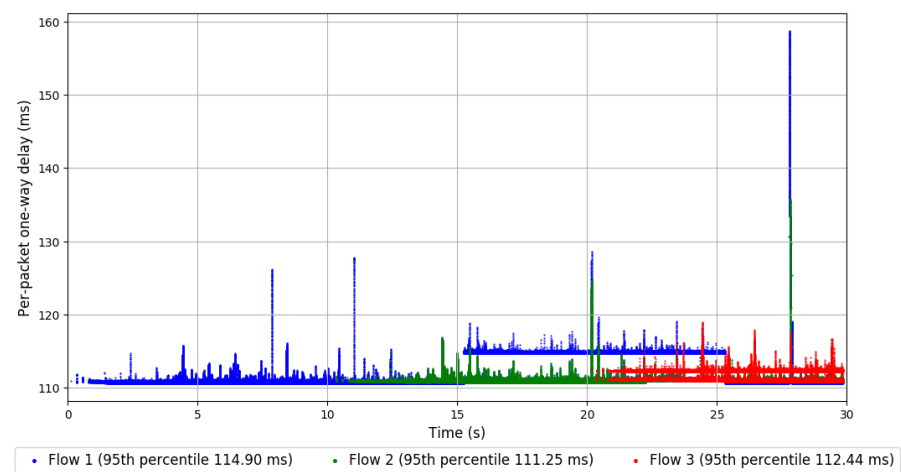
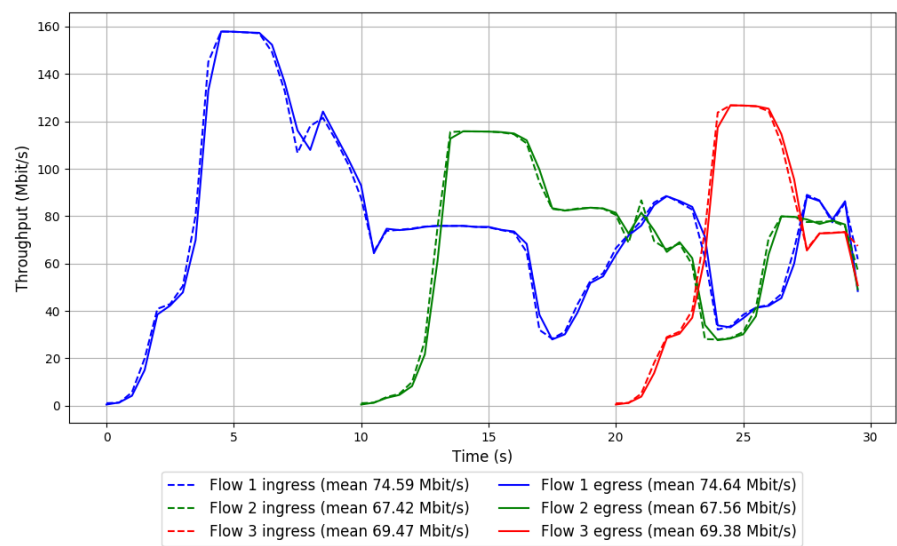
-- Flow 3:

Average throughput: 69.38 Mbit/s

95th percentile per-packet one-way delay: 112.440 ms

Loss rate: 2.38%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-04-04 02:55:29

End at: 2018-04-04 02:55:59

Below is generated by plot.py at 2018-04-04 07:23:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.15 Mbit/s

95th percentile per-packet one-way delay: 113.075 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 67.04 Mbit/s

95th percentile per-packet one-way delay: 113.079 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 75.02 Mbit/s

95th percentile per-packet one-way delay: 113.051 ms

Loss rate: 0.48%

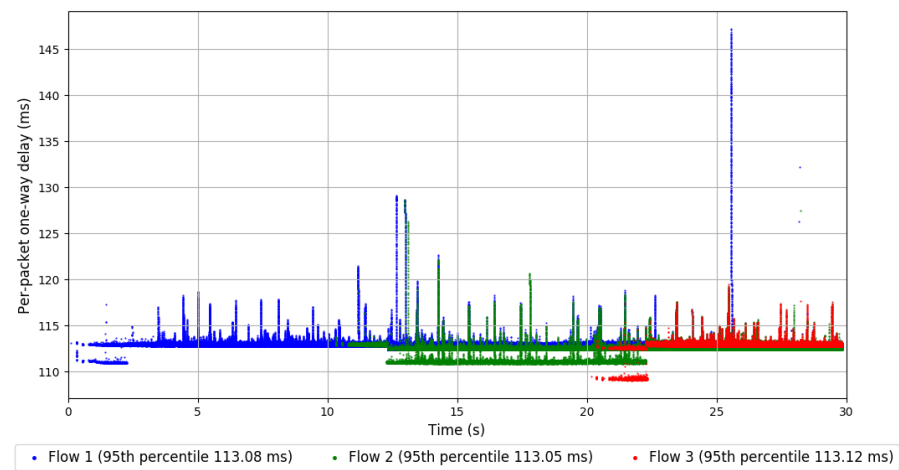
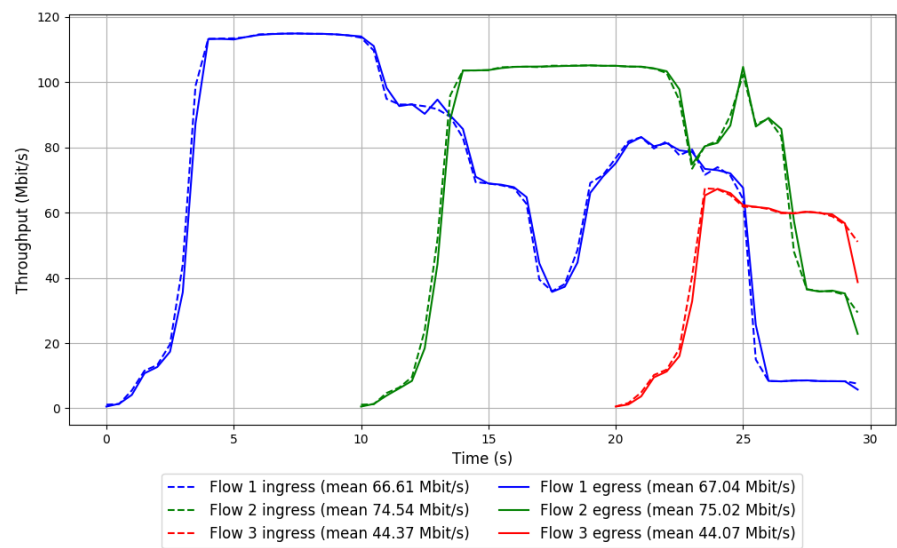
-- Flow 3:

Average throughput: 44.07 Mbit/s

95th percentile per-packet one-way delay: 113.119 ms

Loss rate: 2.87%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-04-04 03:14:28

End at: 2018-04-04 03:14:58

Below is generated by plot.py at 2018-04-04 07:23:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.17 Mbit/s

95th percentile per-packet one-way delay: 112.465 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 54.07 Mbit/s

95th percentile per-packet one-way delay: 111.877 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 50.42 Mbit/s

95th percentile per-packet one-way delay: 112.160 ms

Loss rate: 0.23%

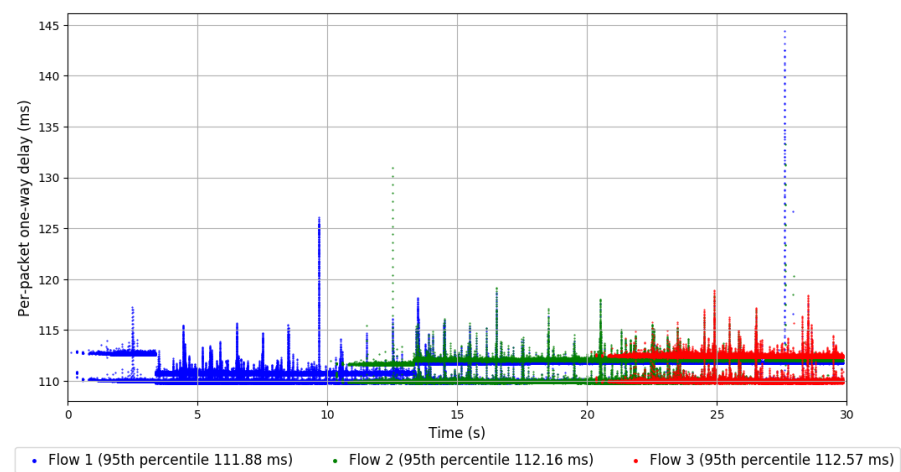
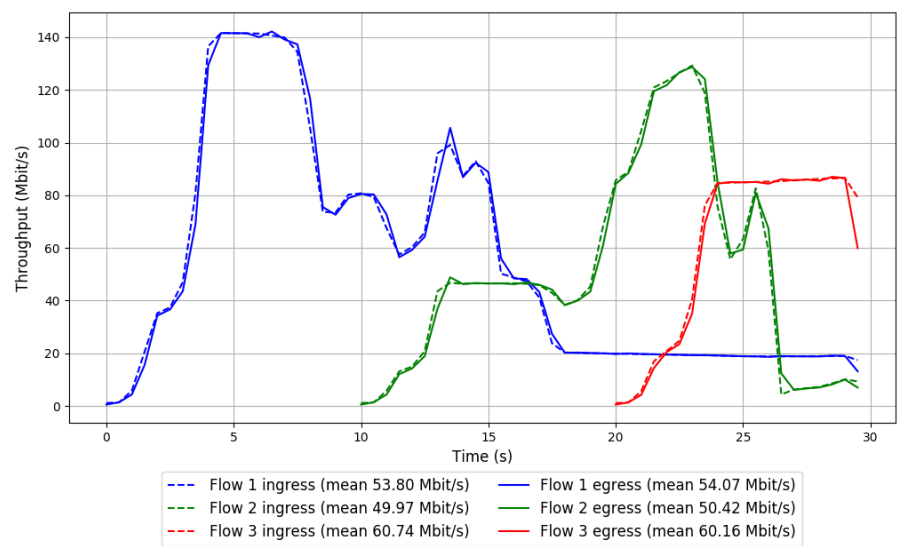
-- Flow 3:

Average throughput: 60.16 Mbit/s

95th percentile per-packet one-way delay: 112.571 ms

Loss rate: 3.17%

Run 10: Report of Copa — Data Link

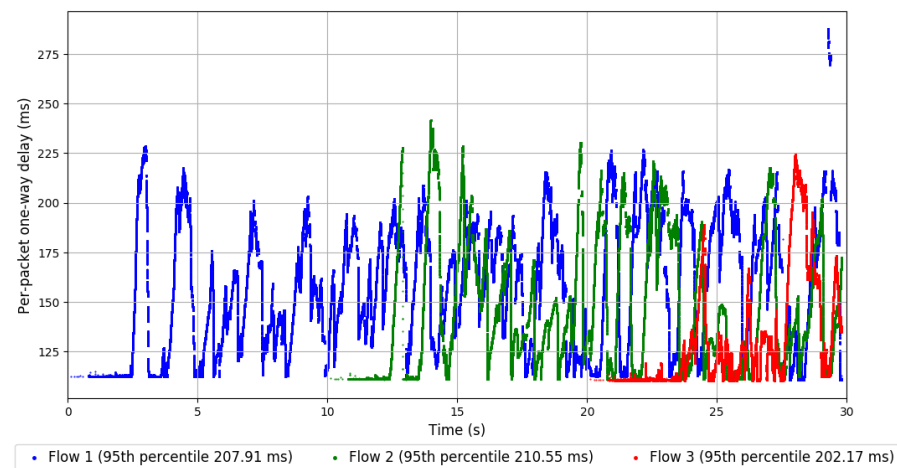
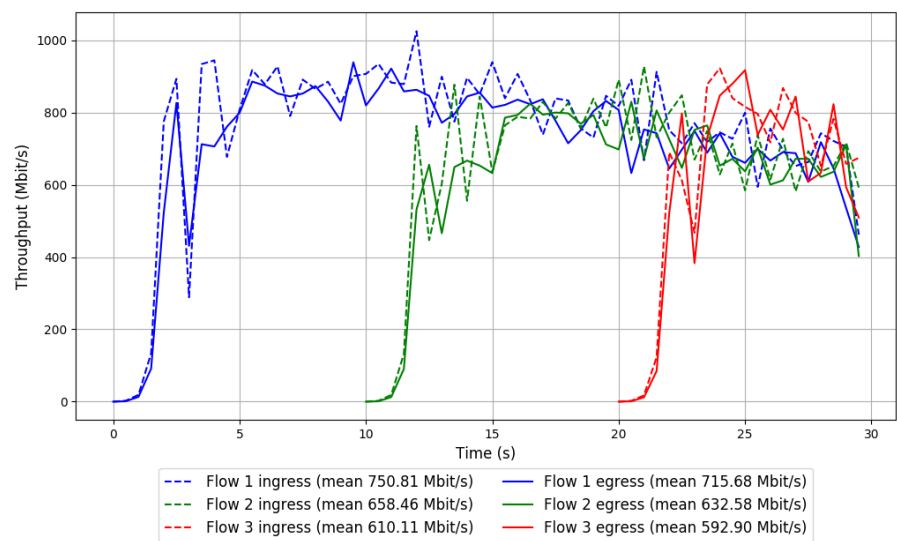


```
Run 1: Statistics of FillP

Start at: 2018-04-04 00:25:04
End at: 2018-04-04 00:25:34

# Below is generated by plot.py at 2018-04-04 07:43:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1328.33 Mbit/s
95th percentile per-packet one-way delay: 208.212 ms
Loss rate: 5.21%
-- Flow 1:
Average throughput: 715.68 Mbit/s
95th percentile per-packet one-way delay: 207.912 ms
Loss rate: 5.38%
-- Flow 2:
Average throughput: 632.58 Mbit/s
95th percentile per-packet one-way delay: 210.553 ms
Loss rate: 5.00%
-- Flow 3:
Average throughput: 592.90 Mbit/s
95th percentile per-packet one-way delay: 202.172 ms
Loss rate: 5.00%
```

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-04-04 00:44:08

End at: 2018-04-04 00:44:38

Below is generated by plot.py at 2018-04-04 07:44:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 1375.04 Mbit/s

95th percentile per-packet one-way delay: 208.983 ms

Loss rate: 3.73%

-- Flow 1:

Average throughput: 746.97 Mbit/s

95th percentile per-packet one-way delay: 202.734 ms

Loss rate: 2.60%

-- Flow 2:

Average throughput: 666.86 Mbit/s

95th percentile per-packet one-way delay: 214.608 ms

Loss rate: 4.10%

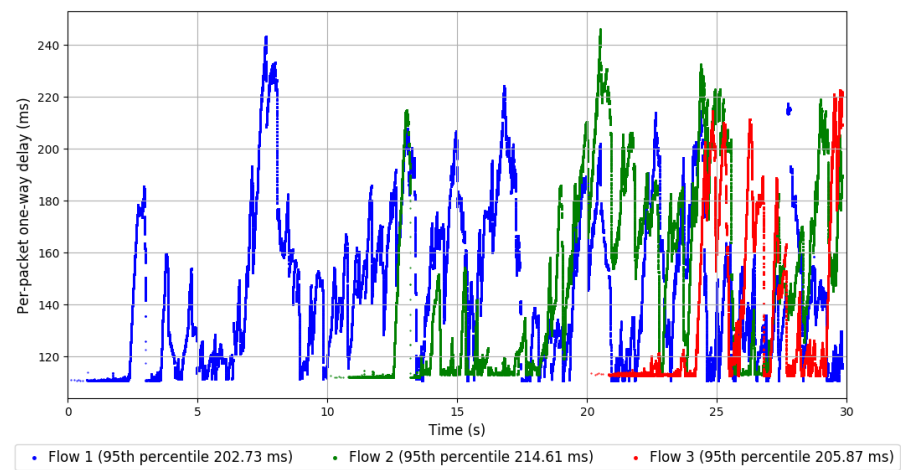
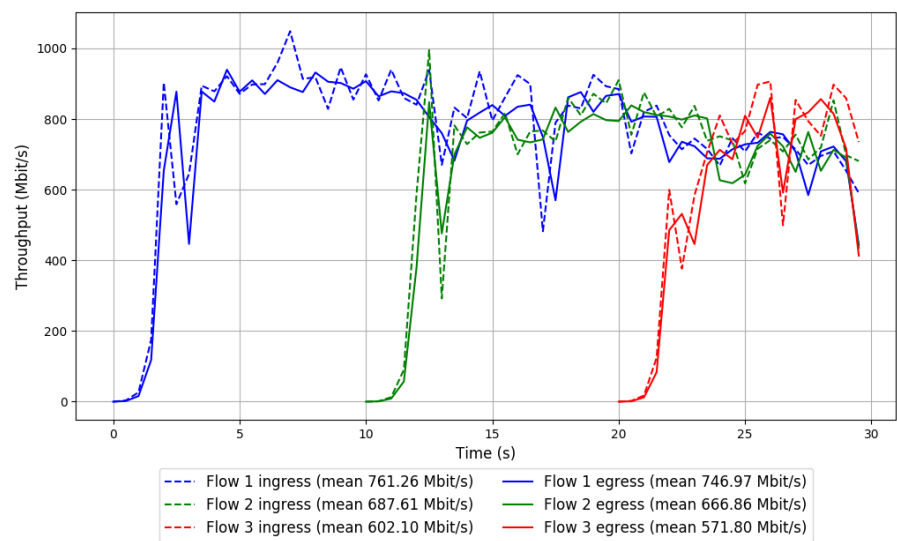
-- Flow 3:

Average throughput: 571.80 Mbit/s

95th percentile per-packet one-way delay: 205.873 ms

Loss rate: 7.18%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-04-04 01:03:02

End at: 2018-04-04 01:03:32

Below is generated by plot.py at 2018-04-04 07:44:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 1274.18 Mbit/s

95th percentile per-packet one-way delay: 242.693 ms

Loss rate: 6.27%

-- Flow 1:

Average throughput: 709.61 Mbit/s

95th percentile per-packet one-way delay: 264.095 ms

Loss rate: 5.77%

-- Flow 2:

Average throughput: 620.18 Mbit/s

95th percentile per-packet one-way delay: 201.166 ms

Loss rate: 3.80%

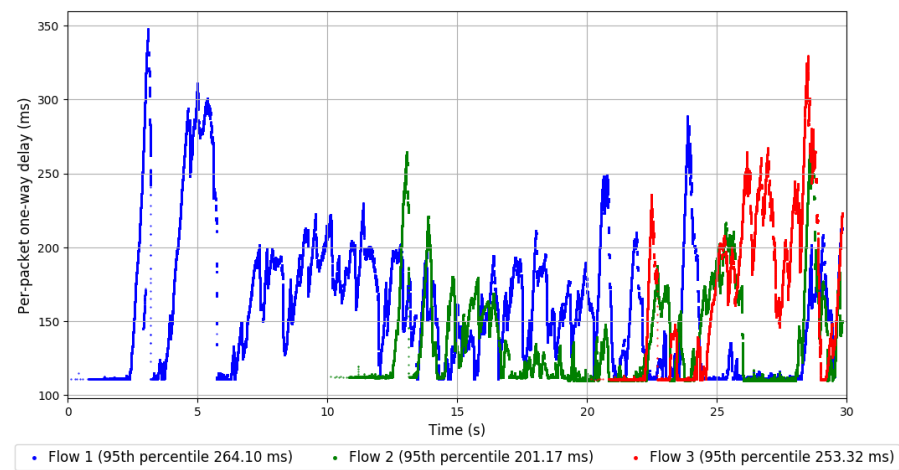
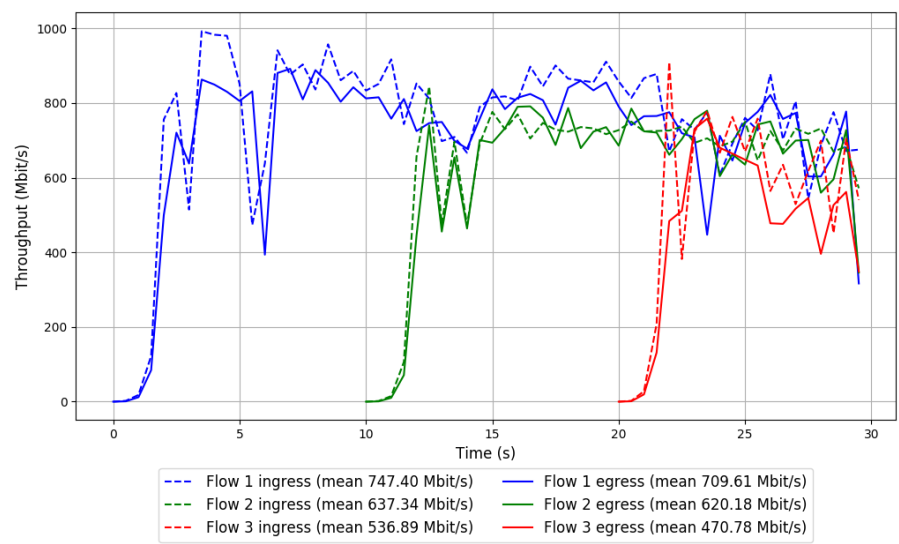
-- Flow 3:

Average throughput: 470.78 Mbit/s

95th percentile per-packet one-way delay: 253.322 ms

Loss rate: 14.30%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-04-04 01:21:57

End at: 2018-04-04 01:22:27

Below is generated by plot.py at 2018-04-04 07:44:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 1187.67 Mbit/s

95th percentile per-packet one-way delay: 318.565 ms

Loss rate: 5.02%

-- Flow 1:

Average throughput: 654.91 Mbit/s

95th percentile per-packet one-way delay: 334.640 ms

Loss rate: 6.46%

-- Flow 2:

Average throughput: 529.25 Mbit/s

95th percentile per-packet one-way delay: 302.628 ms

Loss rate: 3.04%

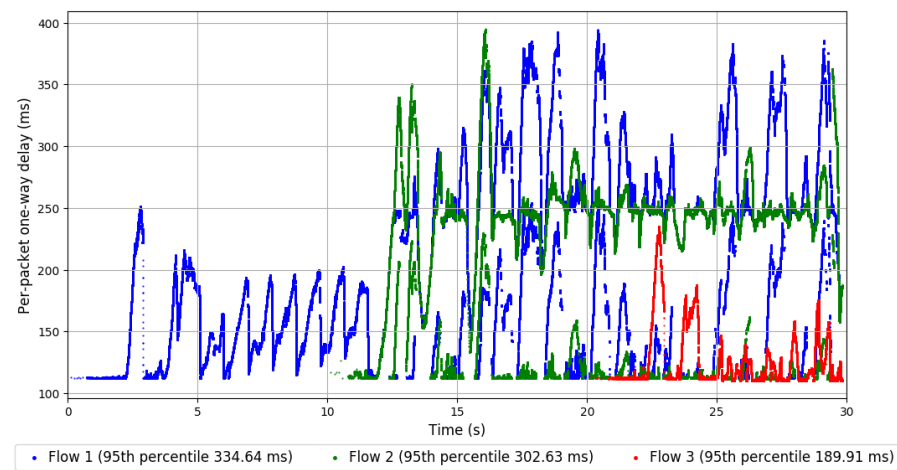
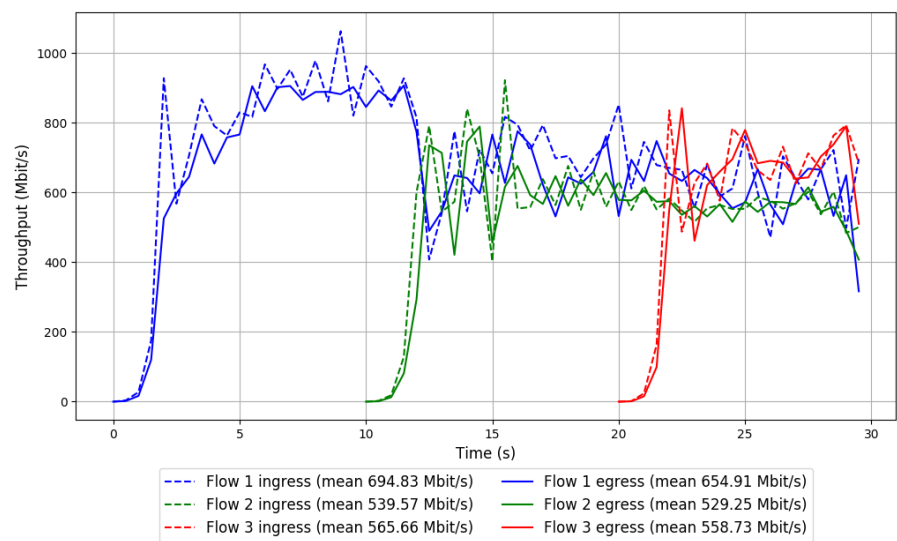
-- Flow 3:

Average throughput: 558.73 Mbit/s

95th percentile per-packet one-way delay: 189.907 ms

Loss rate: 3.48%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-04-04 01:40:36

End at: 2018-04-04 01:41:06

Below is generated by plot.py at 2018-04-04 07:45:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 1344.12 Mbit/s

95th percentile per-packet one-way delay: 254.755 ms

Loss rate: 4.80%

-- Flow 1:

Average throughput: 741.24 Mbit/s

95th percentile per-packet one-way delay: 273.679 ms

Loss rate: 2.95%

-- Flow 2:

Average throughput: 650.91 Mbit/s

95th percentile per-packet one-way delay: 215.946 ms

Loss rate: 6.67%

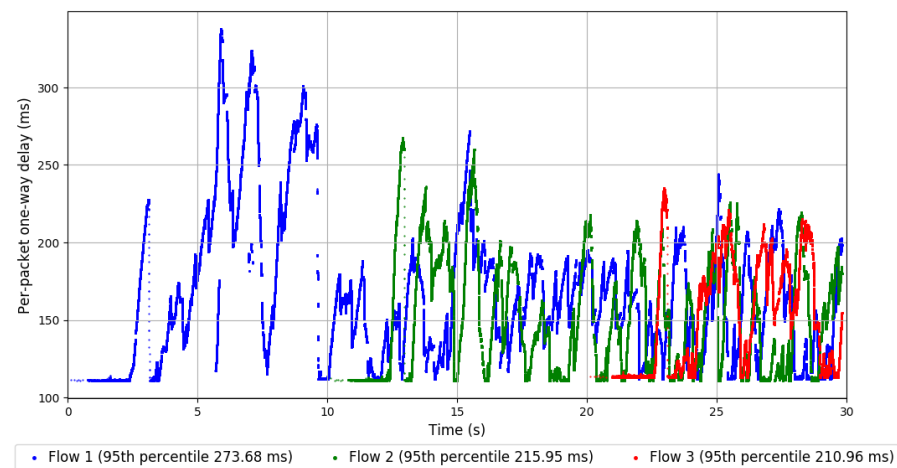
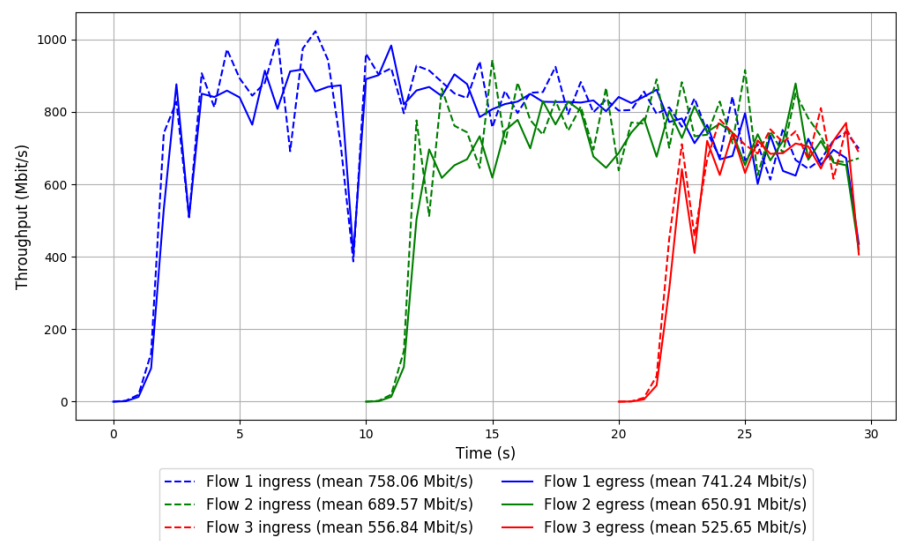
-- Flow 3:

Average throughput: 525.65 Mbit/s

95th percentile per-packet one-way delay: 210.956 ms

Loss rate: 7.75%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-04-04 01:59:52

End at: 2018-04-04 02:00:22

Below is generated by plot.py at 2018-04-04 07:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 1338.63 Mbit/s

95th percentile per-packet one-way delay: 215.903 ms

Loss rate: 5.64%

-- Flow 1:

Average throughput: 721.73 Mbit/s

95th percentile per-packet one-way delay: 204.542 ms

Loss rate: 5.68%

-- Flow 2:

Average throughput: 662.53 Mbit/s

95th percentile per-packet one-way delay: 244.625 ms

Loss rate: 5.50%

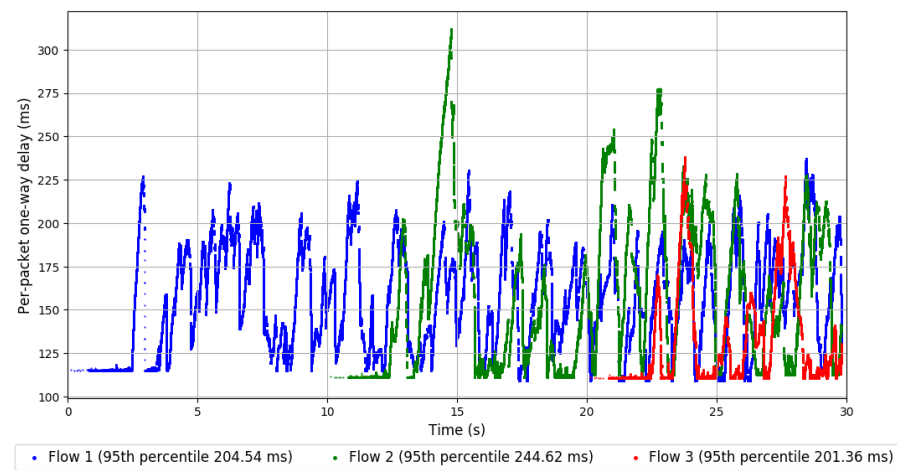
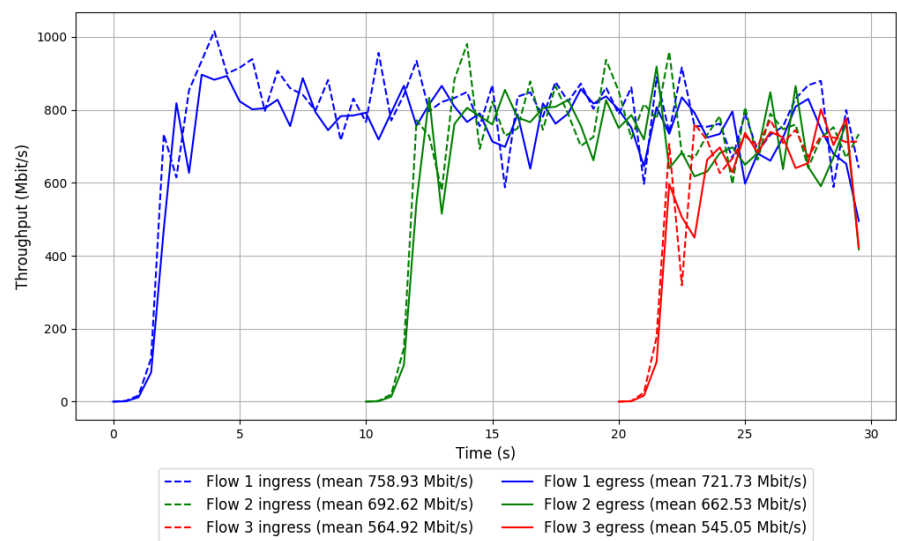
-- Flow 3:

Average throughput: 545.05 Mbit/s

95th percentile per-packet one-way delay: 201.359 ms

Loss rate: 5.85%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-04-04 02:18:56

End at: 2018-04-04 02:19:26

Below is generated by plot.py at 2018-04-04 07:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 1296.63 Mbit/s

95th percentile per-packet one-way delay: 260.081 ms

Loss rate: 5.57%

-- Flow 1:

Average throughput: 724.45 Mbit/s

95th percentile per-packet one-way delay: 270.508 ms

Loss rate: 5.37%

-- Flow 2:

Average throughput: 631.90 Mbit/s

95th percentile per-packet one-way delay: 215.729 ms

Loss rate: 6.69%

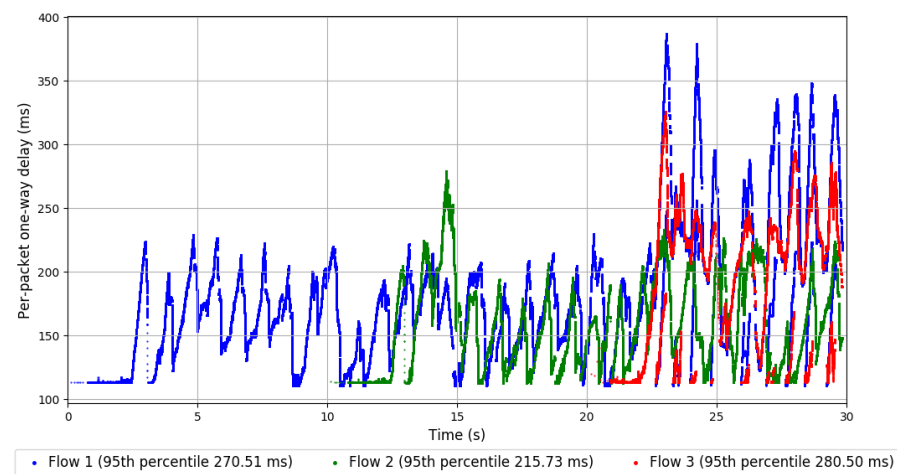
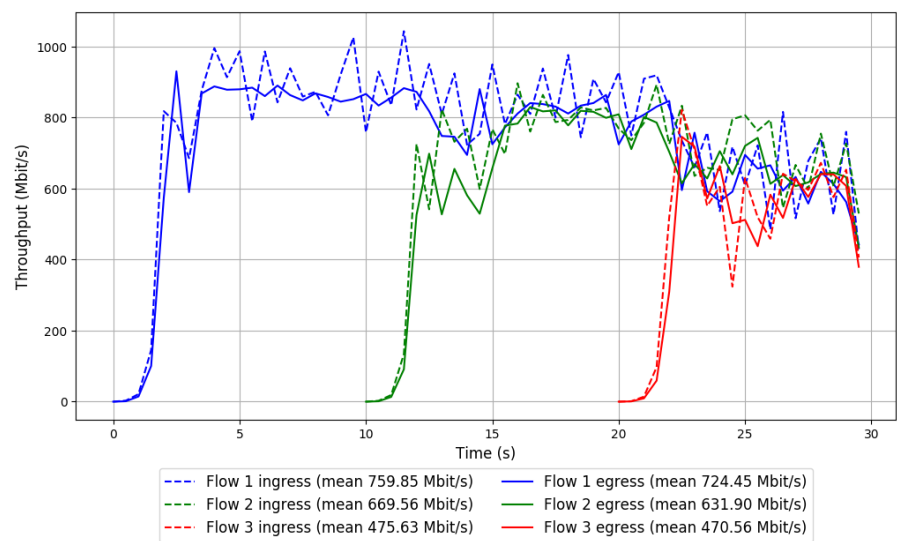
-- Flow 3:

Average throughput: 470.56 Mbit/s

95th percentile per-packet one-way delay: 280.500 ms

Loss rate: 3.36%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-04-04 02:37:49

End at: 2018-04-04 02:38:19

Below is generated by plot.py at 2018-04-04 07:49:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 1314.46 Mbit/s

95th percentile per-packet one-way delay: 203.687 ms

Loss rate: 4.97%

-- Flow 1:

Average throughput: 702.64 Mbit/s

95th percentile per-packet one-way delay: 201.021 ms

Loss rate: 4.68%

-- Flow 2:

Average throughput: 658.54 Mbit/s

95th percentile per-packet one-way delay: 205.517 ms

Loss rate: 5.44%

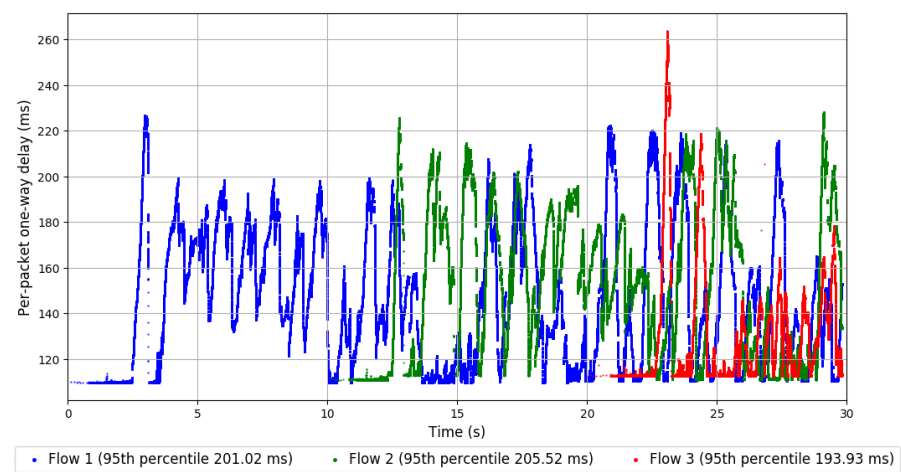
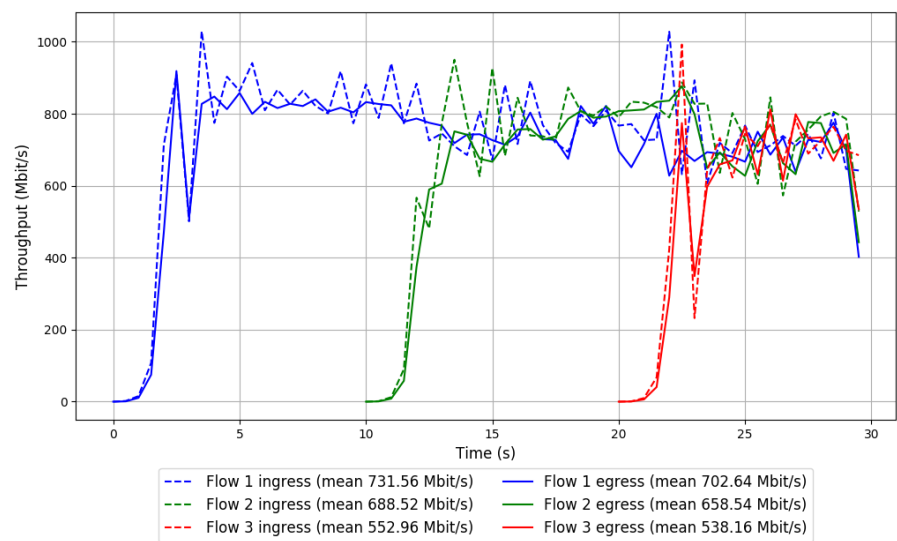
-- Flow 3:

Average throughput: 538.16 Mbit/s

95th percentile per-packet one-way delay: 193.934 ms

Loss rate: 4.92%

Run 8: Report of FillP — Data Link

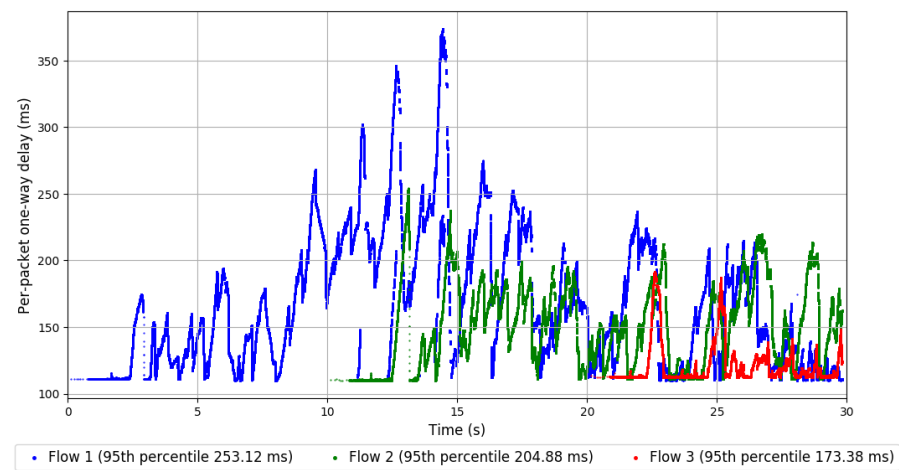
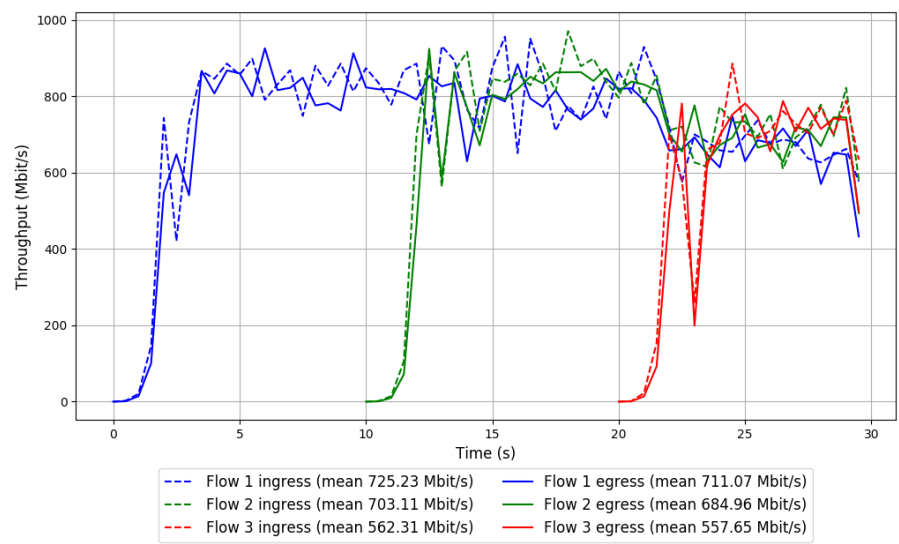


```
Run 9: Statistics of FillP

Start at: 2018-04-04 02:56:31
End at: 2018-04-04 02:57:01

# Below is generated by plot.py at 2018-04-04 08:07:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1346.79 Mbit/s
95th percentile per-packet one-way delay: 238.903 ms
Loss rate: 3.07%
-- Flow 1:
Average throughput: 711.07 Mbit/s
95th percentile per-packet one-way delay: 253.121 ms
Loss rate: 2.68%
-- Flow 2:
Average throughput: 684.96 Mbit/s
95th percentile per-packet one-way delay: 204.878 ms
Loss rate: 3.66%
-- Flow 3:
Average throughput: 557.65 Mbit/s
95th percentile per-packet one-way delay: 173.375 ms
Loss rate: 3.08%
```

Run 9: Report of FillP — Data Link

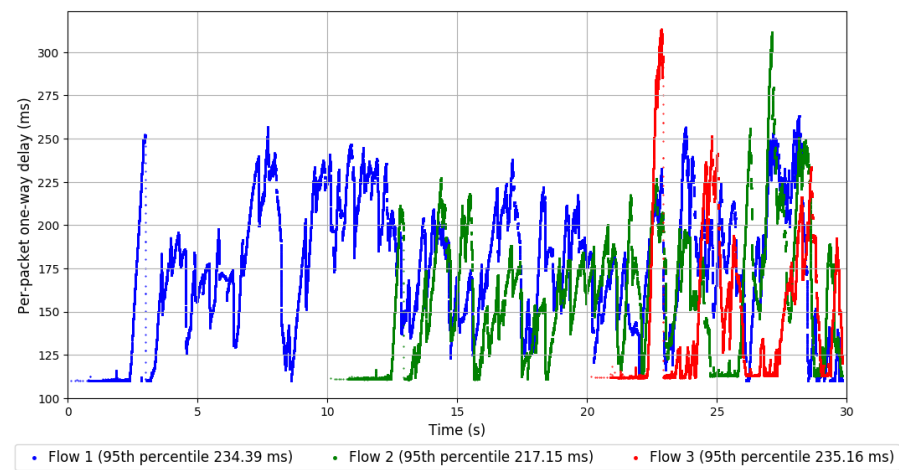
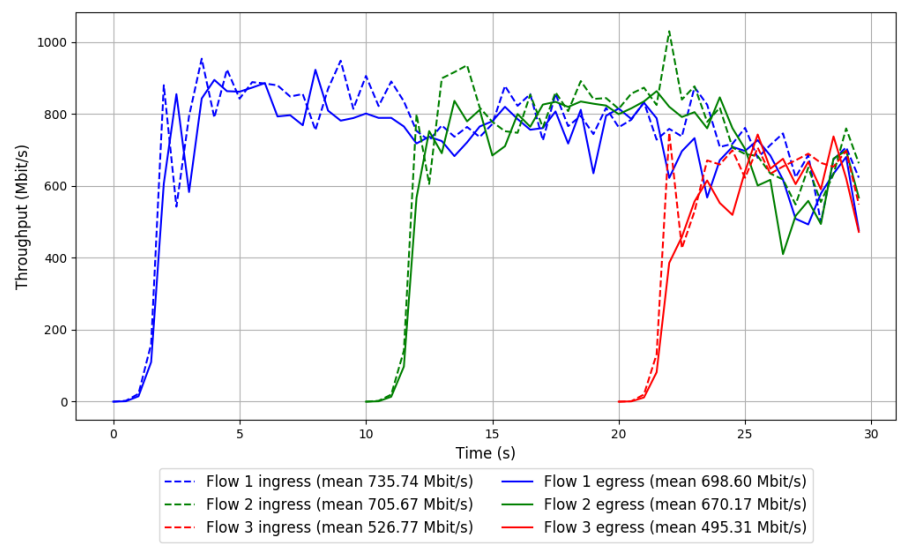


```
Run 10: Statistics of FillP

Start at: 2018-04-04 03:15:27
End at: 2018-04-04 03:15:57

# Below is generated by plot.py at 2018-04-04 08:07:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1304.10 Mbit/s
95th percentile per-packet one-way delay: 232.473 ms
Loss rate: 6.16%
-- Flow 1:
Average throughput: 698.60 Mbit/s
95th percentile per-packet one-way delay: 234.394 ms
Loss rate: 5.75%
-- Flow 2:
Average throughput: 670.17 Mbit/s
95th percentile per-packet one-way delay: 217.153 ms
Loss rate: 6.09%
-- Flow 3:
Average throughput: 495.31 Mbit/s
95th percentile per-packet one-way delay: 235.165 ms
Loss rate: 8.10%
```

Run 10: Report of FillP — Data Link

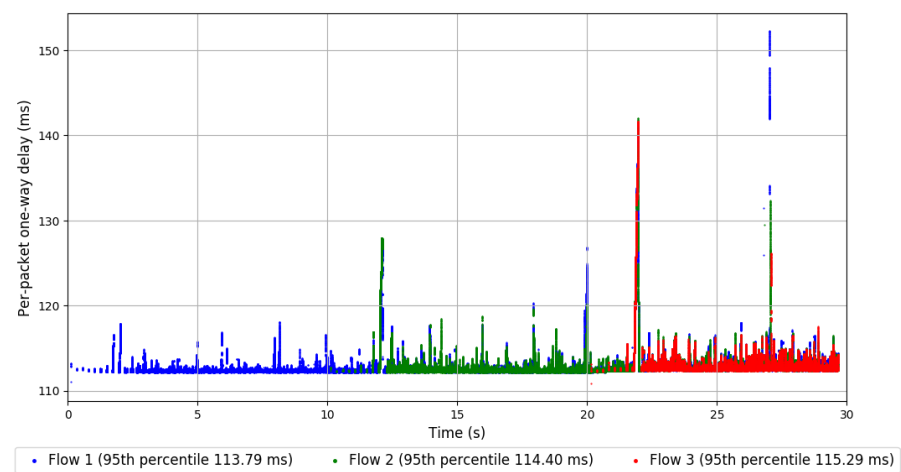
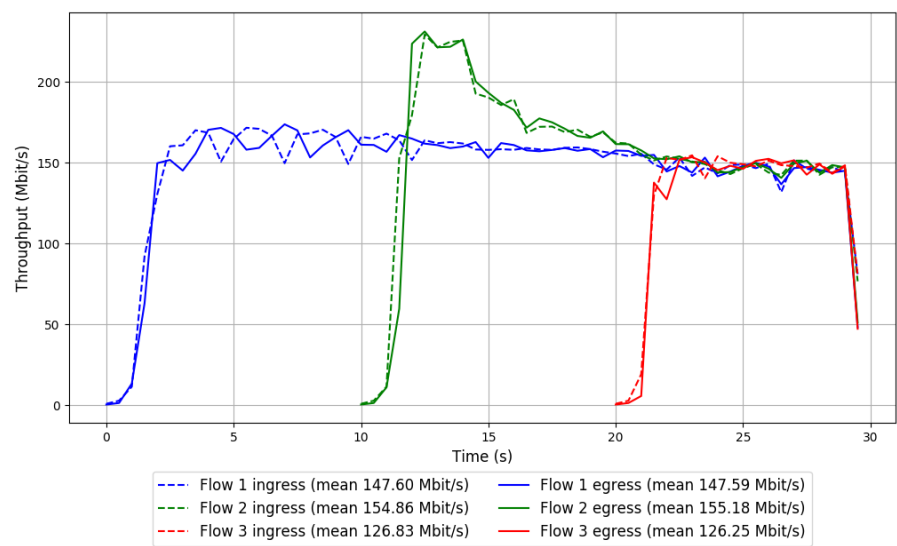


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-04 00:19:51
End at: 2018-04-04 00:20:21

# Below is generated by plot.py at 2018-04-04 08:07:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 290.83 Mbit/s
95th percentile per-packet one-way delay: 114.216 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 147.59 Mbit/s
95th percentile per-packet one-way delay: 113.789 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 155.18 Mbit/s
95th percentile per-packet one-way delay: 114.397 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 126.25 Mbit/s
95th percentile per-packet one-way delay: 115.293 ms
Loss rate: 2.74%
```

Run 1: Report of Indigo-1-32 — Data Link

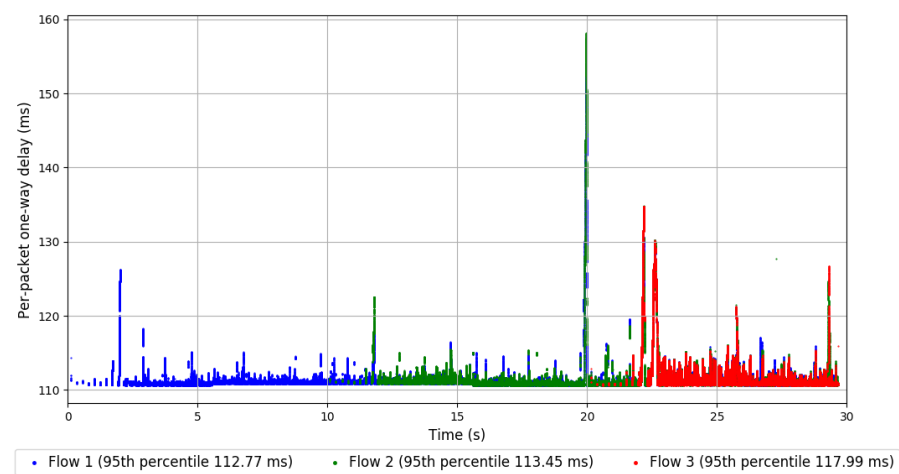
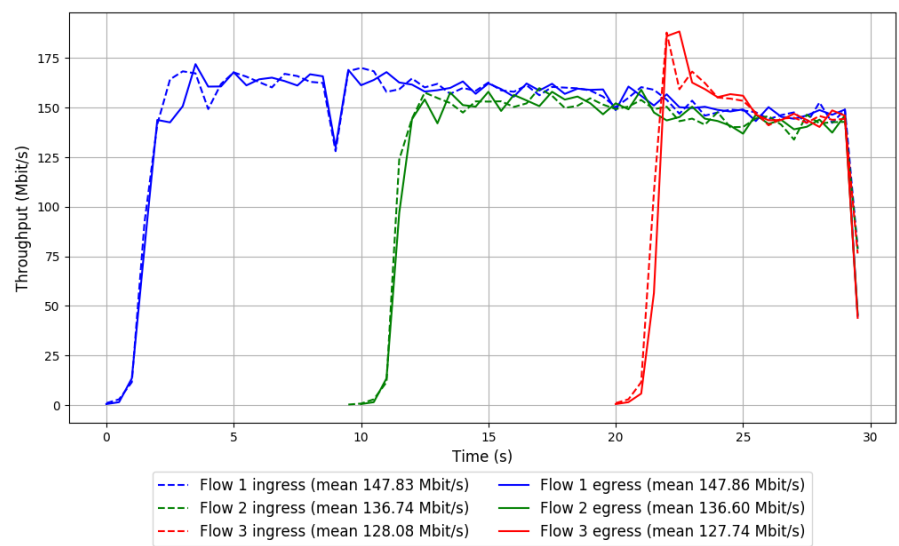


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-04-04 00:38:56
End at: 2018-04-04 00:39:26

# Below is generated by plot.py at 2018-04-04 08:07:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 279.39 Mbit/s
95th percentile per-packet one-way delay: 113.417 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 147.86 Mbit/s
95th percentile per-packet one-way delay: 112.767 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 136.60 Mbit/s
95th percentile per-packet one-way delay: 113.448 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 127.74 Mbit/s
95th percentile per-packet one-way delay: 117.991 ms
Loss rate: 2.49%
```

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-04-04 00:57:52

End at: 2018-04-04 00:58:22

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 288.08 Mbit/s

95th percentile per-packet one-way delay: 115.916 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 151.28 Mbit/s

95th percentile per-packet one-way delay: 114.325 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 140.87 Mbit/s

95th percentile per-packet one-way delay: 115.684 ms

Loss rate: 1.12%

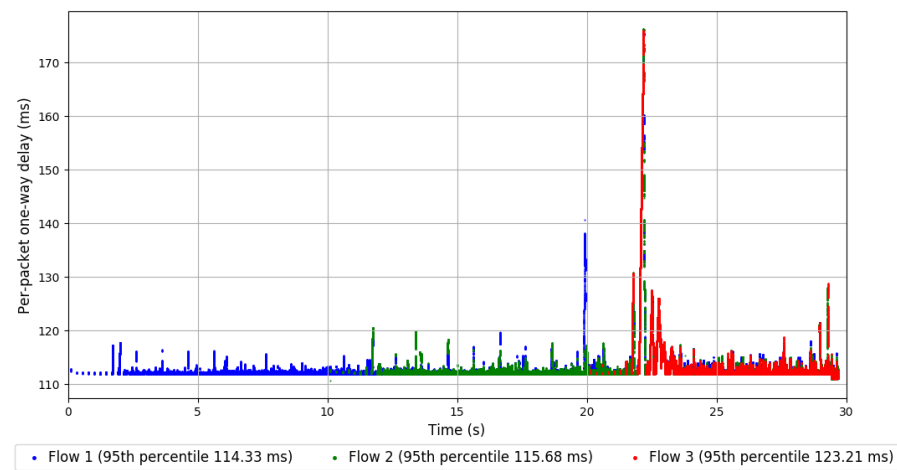
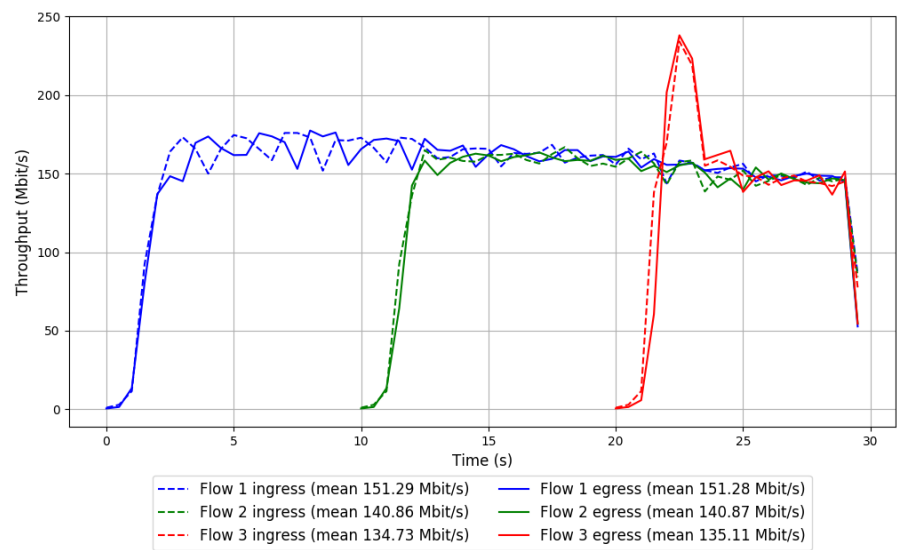
-- Flow 3:

Average throughput: 135.11 Mbit/s

95th percentile per-packet one-way delay: 123.207 ms

Loss rate: 2.03%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-04-04 01:16:43

End at: 2018-04-04 01:17:13

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 284.38 Mbit/s

95th percentile per-packet one-way delay: 114.250 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 141.98 Mbit/s

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

Loss rate: 0.74%

-- Flow 2:

Average throughput: 154.15 Mbit/s

95th percentile per-packet one-way delay: 114.739 ms

Loss rate: 1.14%

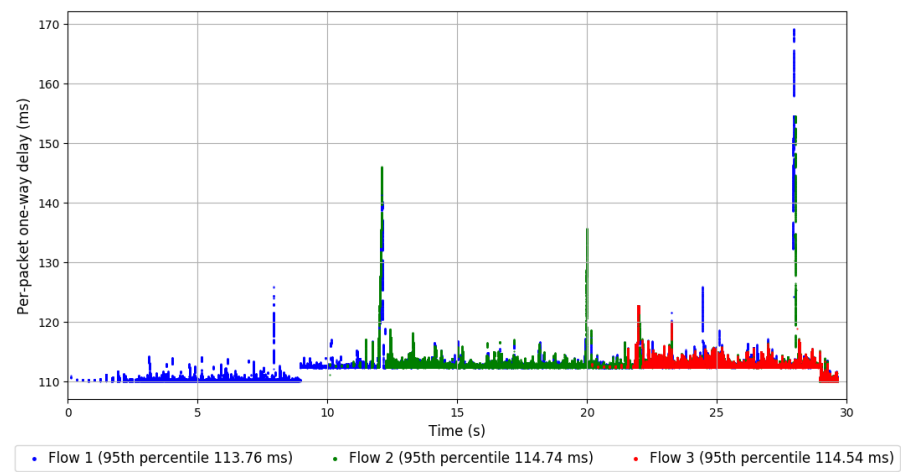
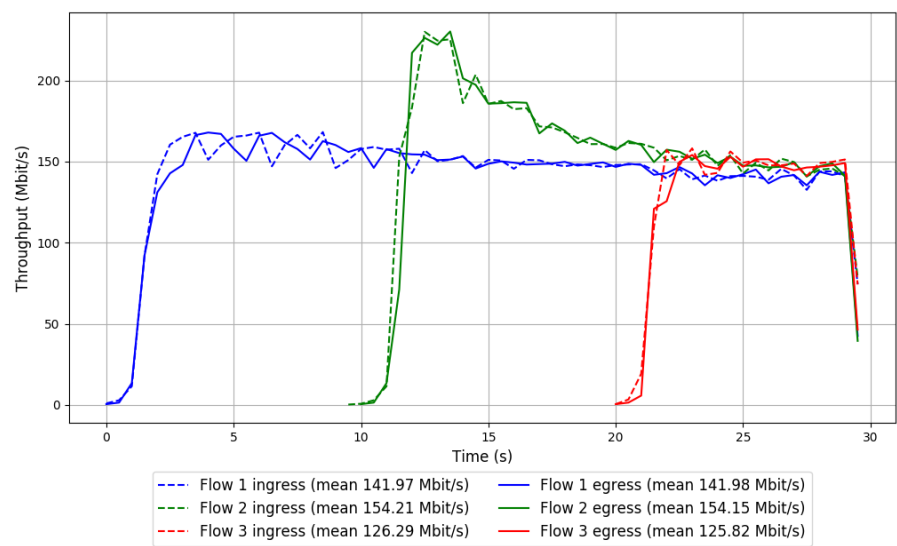
-- Flow 3:

Average throughput: 125.82 Mbit/s

95th percentile per-packet one-way delay: 114.539 ms

Loss rate: 2.68%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-04-04 01:35:25

End at: 2018-04-04 01:35:55

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 291.21 Mbit/s

95th percentile per-packet one-way delay: 114.651 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 148.42 Mbit/s

95th percentile per-packet one-way delay: 113.480 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 155.22 Mbit/s

95th percentile per-packet one-way delay: 115.778 ms

Loss rate: 1.04%

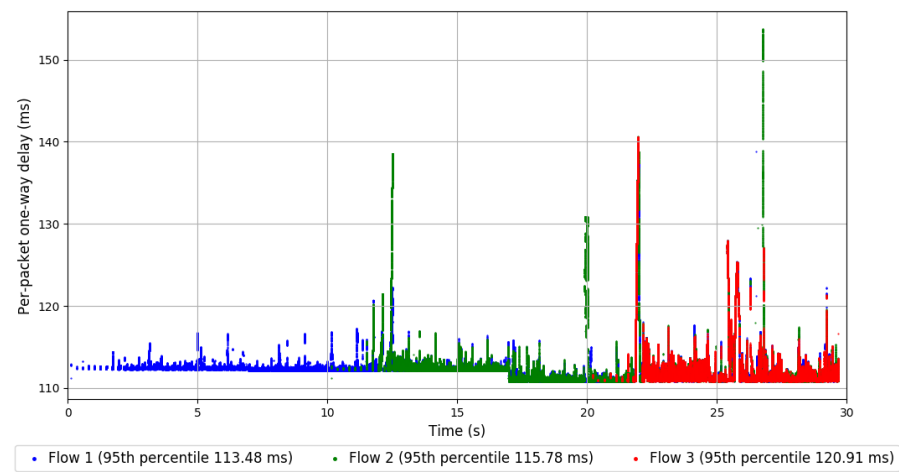
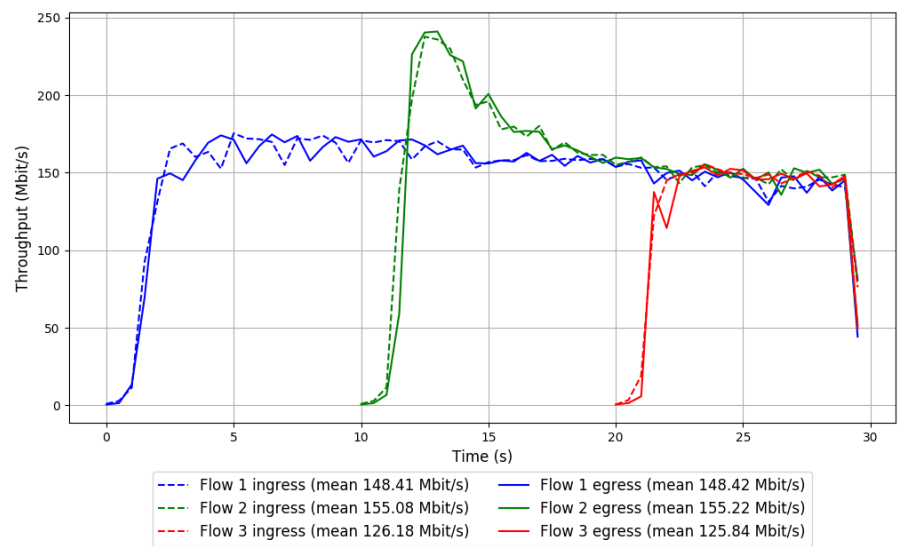
-- Flow 3:

Average throughput: 125.84 Mbit/s

95th percentile per-packet one-way delay: 120.913 ms

Loss rate: 2.54%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-04-04 01:54:32

End at: 2018-04-04 01:55:02

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 281.47 Mbit/s

95th percentile per-packet one-way delay: 114.275 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 148.43 Mbit/s

95th percentile per-packet one-way delay: 114.071 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 141.00 Mbit/s

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

Loss rate: 1.23%

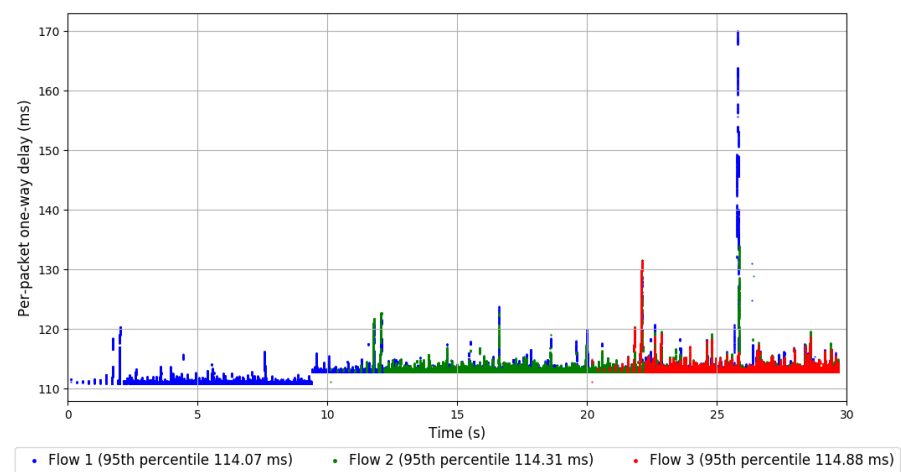
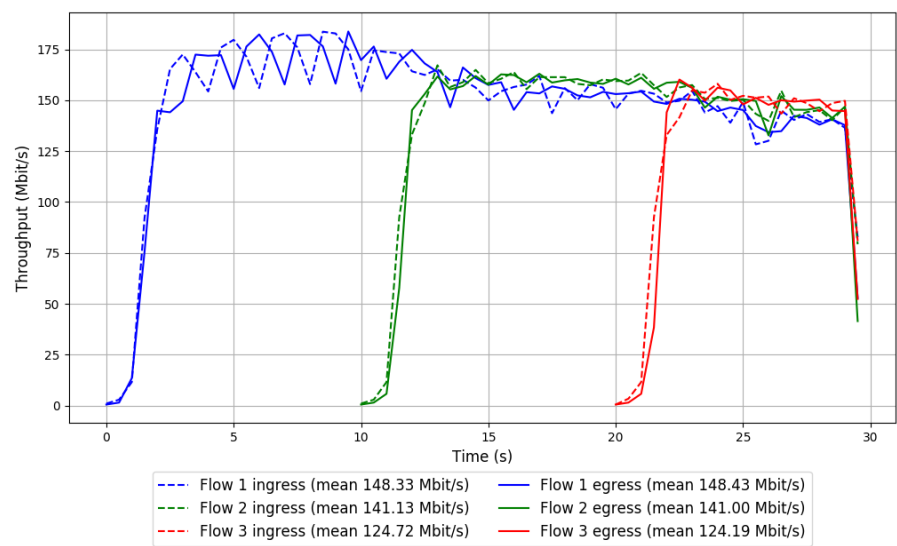
-- Flow 3:

Average throughput: 124.19 Mbit/s

95th percentile per-packet one-way delay: 114.884 ms

Loss rate: 2.71%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-04-04 02:13:42

End at: 2018-04-04 02:14:12

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 286.14 Mbit/s

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

Loss rate: 1.26%

-- Flow 1:

Average throughput: 145.81 Mbit/s

95th percentile per-packet one-way delay: 112.913 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 151.60 Mbit/s

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

Loss rate: 1.11%

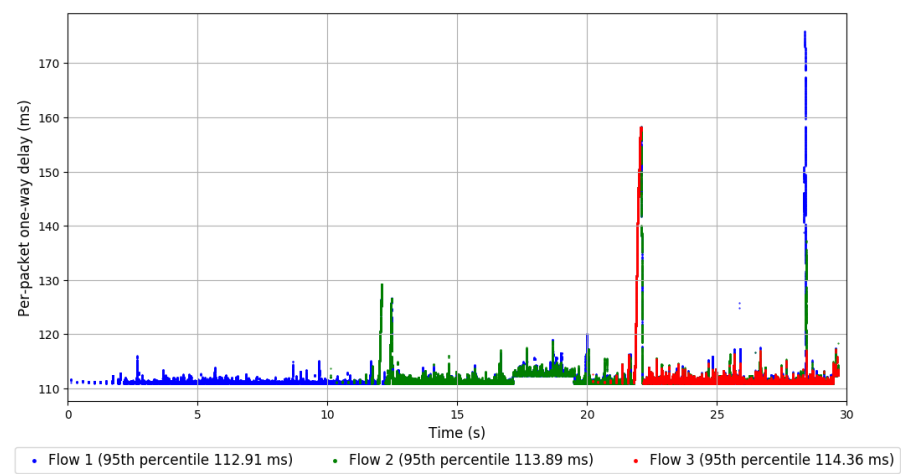
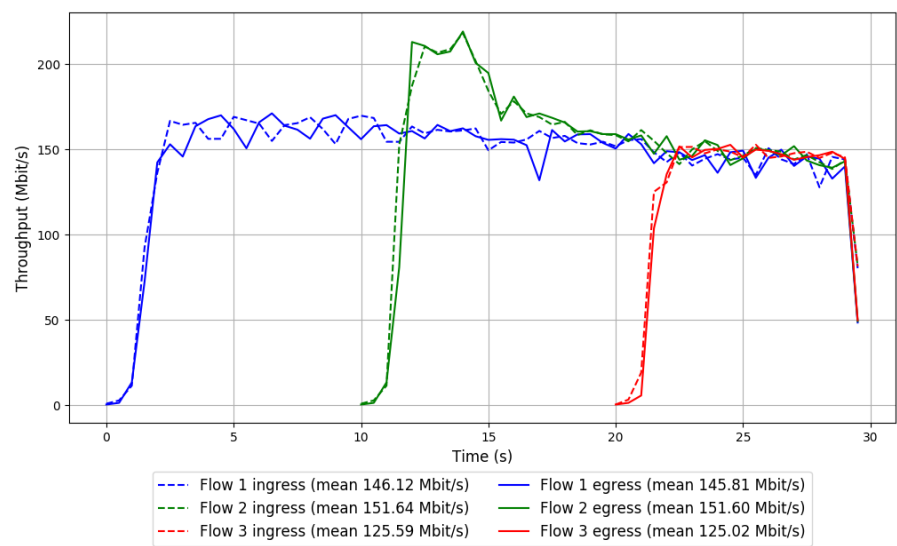
-- Flow 3:

Average throughput: 125.02 Mbit/s

95th percentile per-packet one-way delay: 114.358 ms

Loss rate: 2.72%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-04-04 02:32:33

End at: 2018-04-04 02:33:03

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 289.18 Mbit/s

95th percentile per-packet one-way delay: 113.408 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 145.59 Mbit/s

95th percentile per-packet one-way delay: 113.072 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 153.90 Mbit/s

95th percentile per-packet one-way delay: 114.283 ms

Loss rate: 0.99%

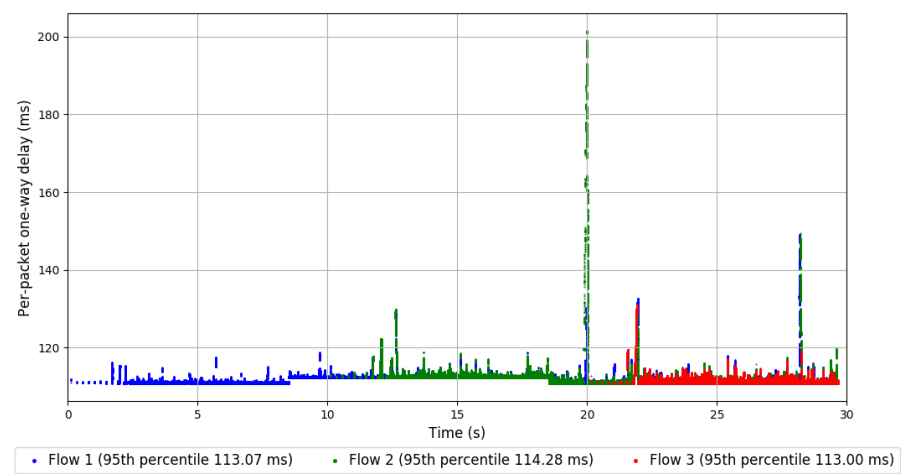
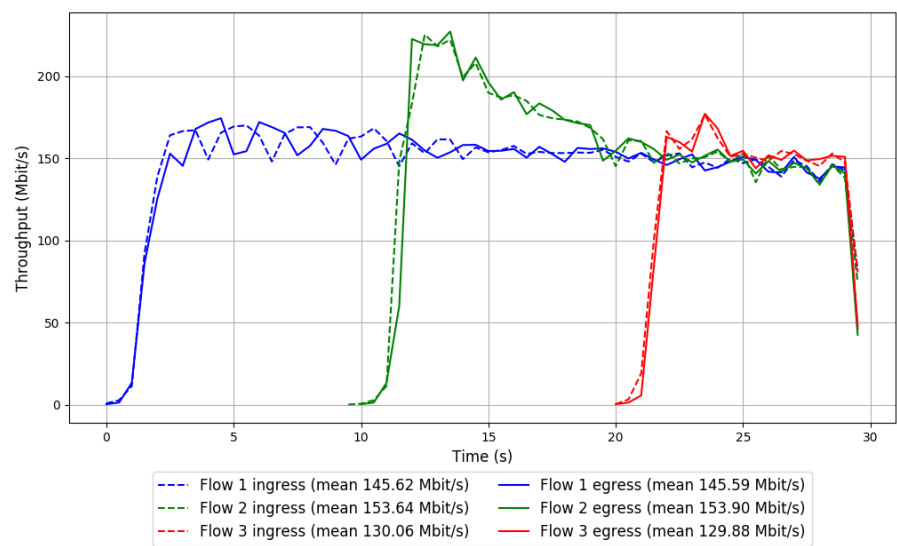
-- Flow 3:

Average throughput: 129.88 Mbit/s

95th percentile per-packet one-way delay: 113.004 ms

Loss rate: 2.48%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-04-04 02:51:19

End at: 2018-04-04 02:51:49

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 283.48 Mbit/s

95th percentile per-packet one-way delay: 141.922 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 145.26 Mbit/s

95th percentile per-packet one-way delay: 120.696 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 153.71 Mbit/s

95th percentile per-packet one-way delay: 135.851 ms

Loss rate: 1.13%

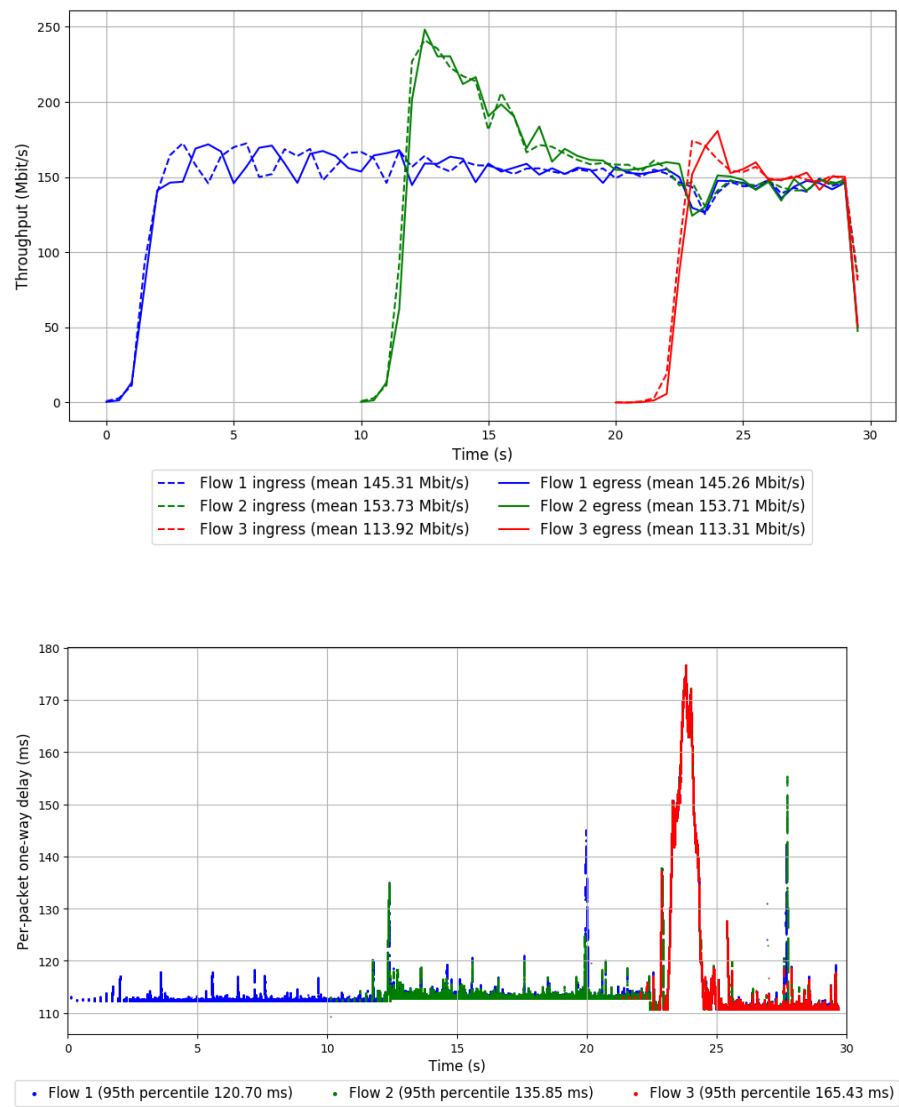
-- Flow 3:

Average throughput: 113.31 Mbit/s

95th percentile per-packet one-way delay: 165.428 ms

Loss rate: 2.88%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-04-04 03:10:16

End at: 2018-04-04 03:10:46

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 290.28 Mbit/s

95th percentile per-packet one-way delay: 111.792 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 157.87 Mbit/s

95th percentile per-packet one-way delay: 111.370 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 139.03 Mbit/s

95th percentile per-packet one-way delay: 111.783 ms

Loss rate: 1.14%

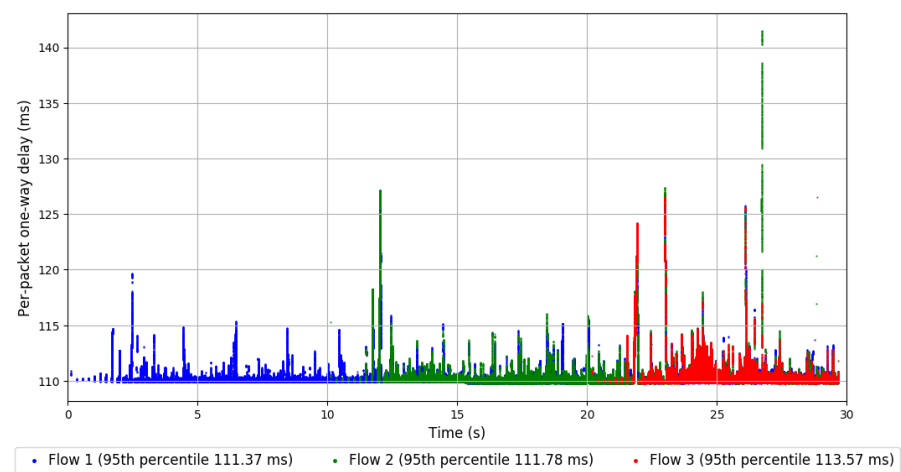
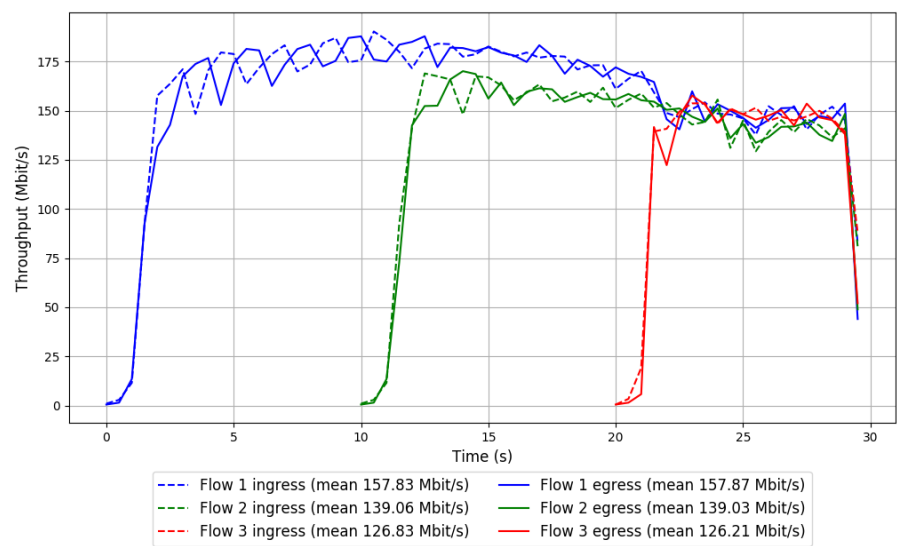
-- Flow 3:

Average throughput: 126.21 Mbit/s

95th percentile per-packet one-way delay: 113.566 ms

Loss rate: 2.75%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-04-04 00:11:02

End at: 2018-04-04 00:11:32

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 383.05 Mbit/s

95th percentile per-packet one-way delay: 114.130 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 218.92 Mbit/s

95th percentile per-packet one-way delay: 114.897 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 186.51 Mbit/s

95th percentile per-packet one-way delay: 111.244 ms

Loss rate: 1.61%

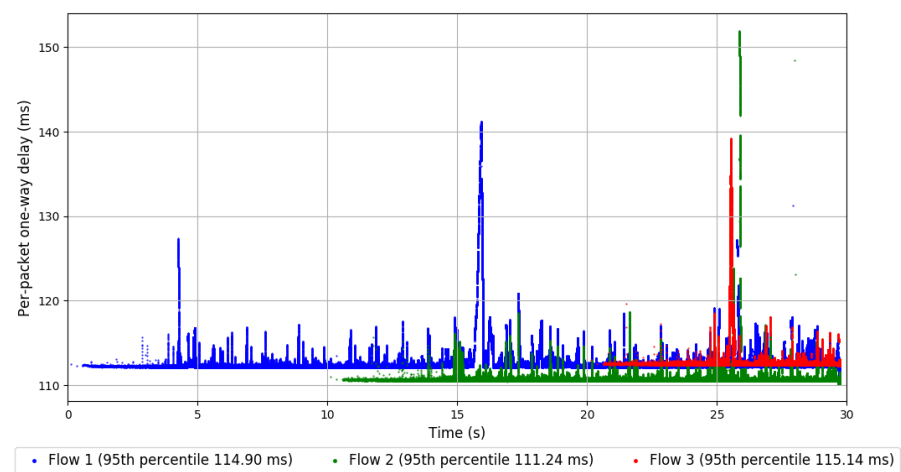
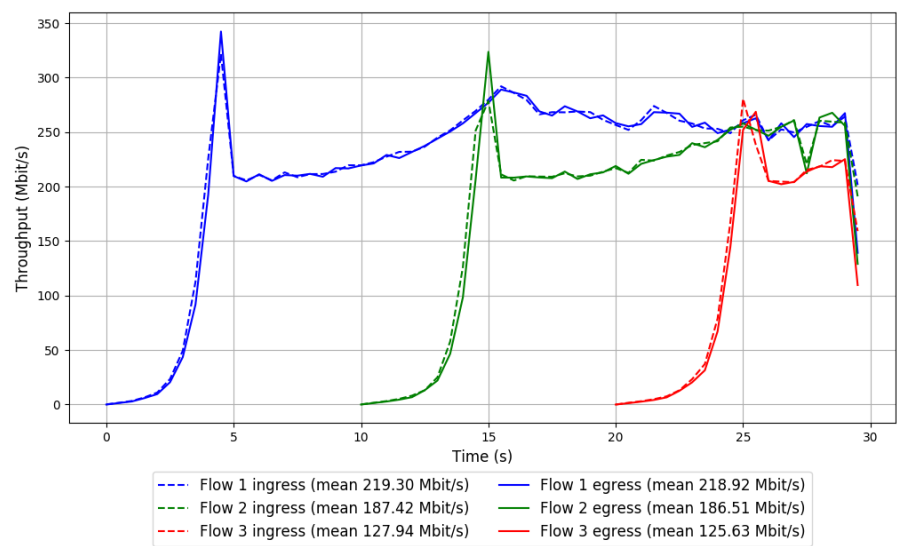
-- Flow 3:

Average throughput: 125.63 Mbit/s

95th percentile per-packet one-way delay: 115.138 ms

Loss rate: 4.06%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-04-04 00:29:51

End at: 2018-04-04 00:30:21

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 365.68 Mbit/s

95th percentile per-packet one-way delay: 112.932 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 191.31 Mbit/s

95th percentile per-packet one-way delay: 112.515 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 203.41 Mbit/s

95th percentile per-packet one-way delay: 113.612 ms

Loss rate: 1.78%

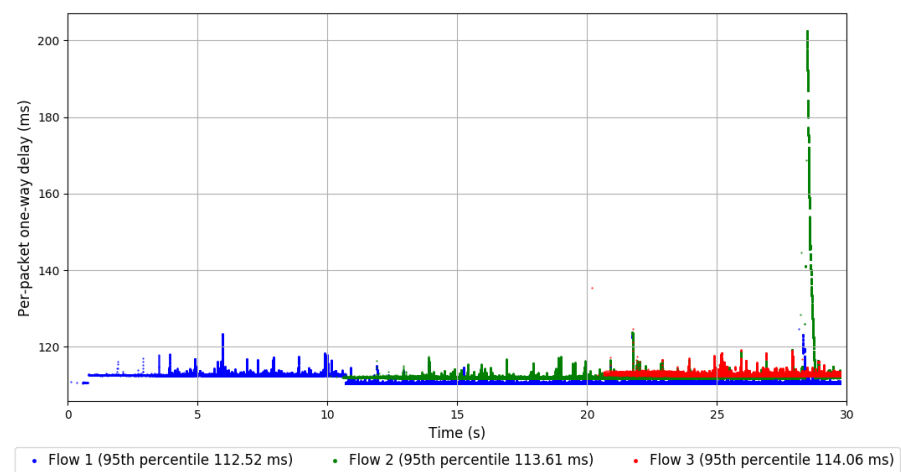
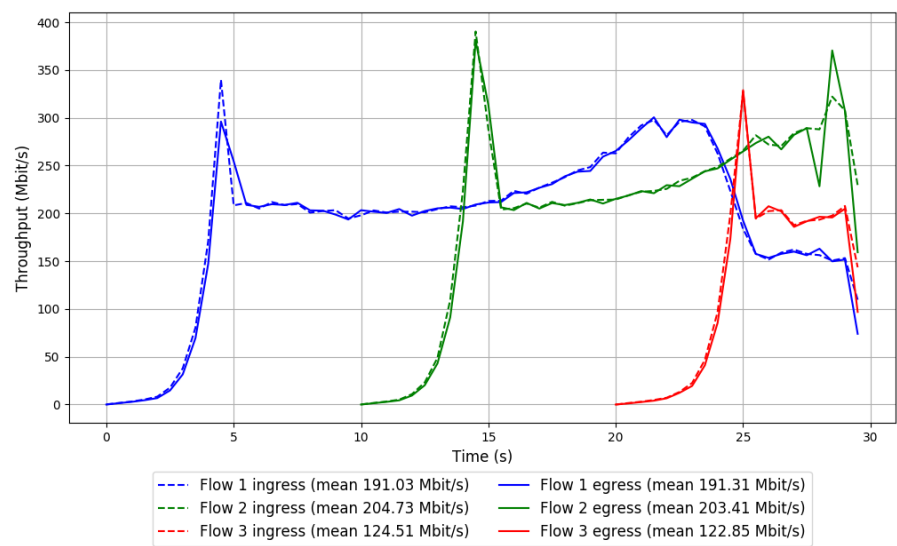
-- Flow 3:

Average throughput: 122.85 Mbit/s

95th percentile per-packet one-way delay: 114.057 ms

Loss rate: 3.84%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-04-04 00:48:56

End at: 2018-04-04 00:49:26

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 390.86 Mbit/s

95th percentile per-packet one-way delay: 115.599 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 221.07 Mbit/s

95th percentile per-packet one-way delay: 113.539 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 196.85 Mbit/s

95th percentile per-packet one-way delay: 119.568 ms

Loss rate: 1.40%

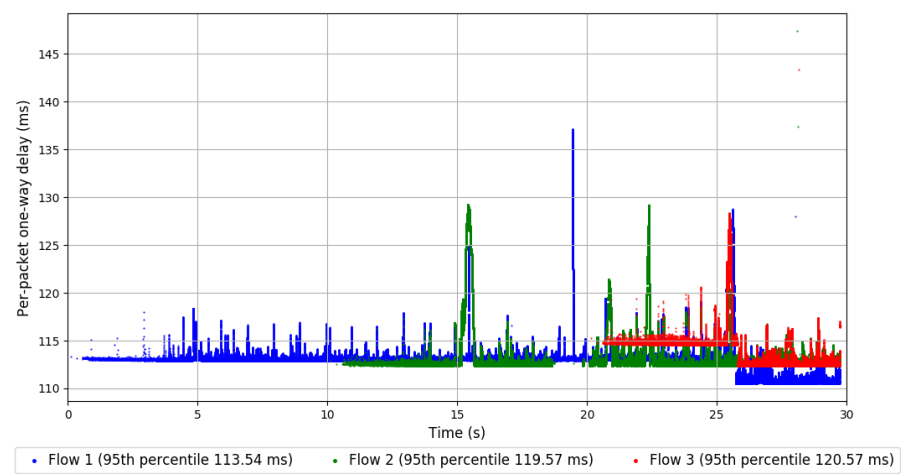
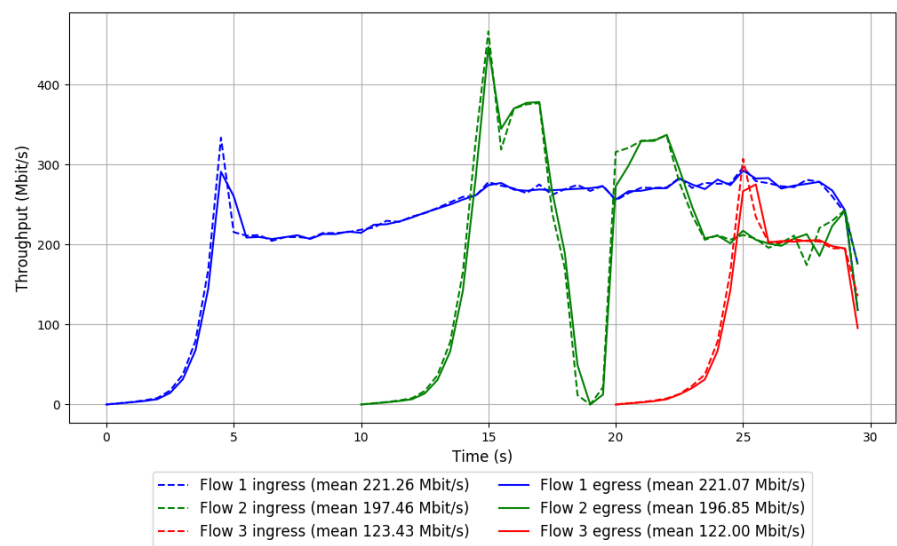
-- Flow 3:

Average throughput: 122.00 Mbit/s

95th percentile per-packet one-way delay: 120.571 ms

Loss rate: 3.44%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-04-04 01:07:52

End at: 2018-04-04 01:08:22

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 410.09 Mbit/s

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

Loss rate: 1.41%

-- Flow 1:

Average throughput: 243.52 Mbit/s

95th percentile per-packet one-way delay: 112.952 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 185.56 Mbit/s

95th percentile per-packet one-way delay: 113.378 ms

Loss rate: 1.62%

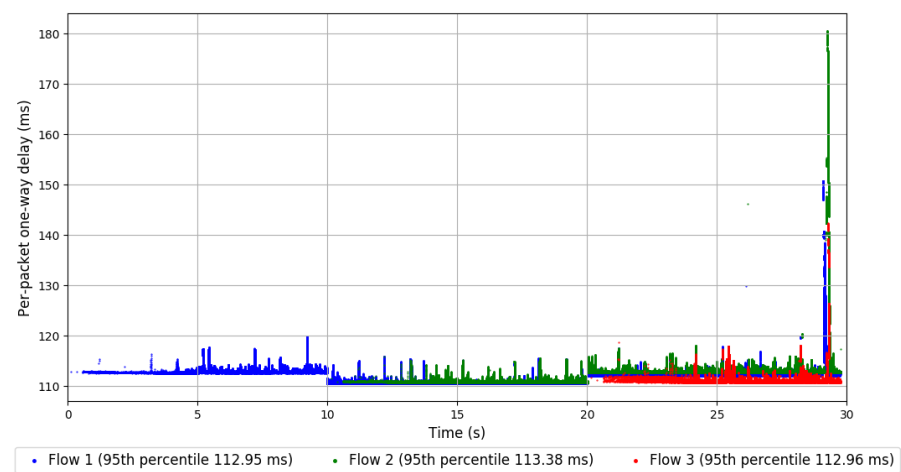
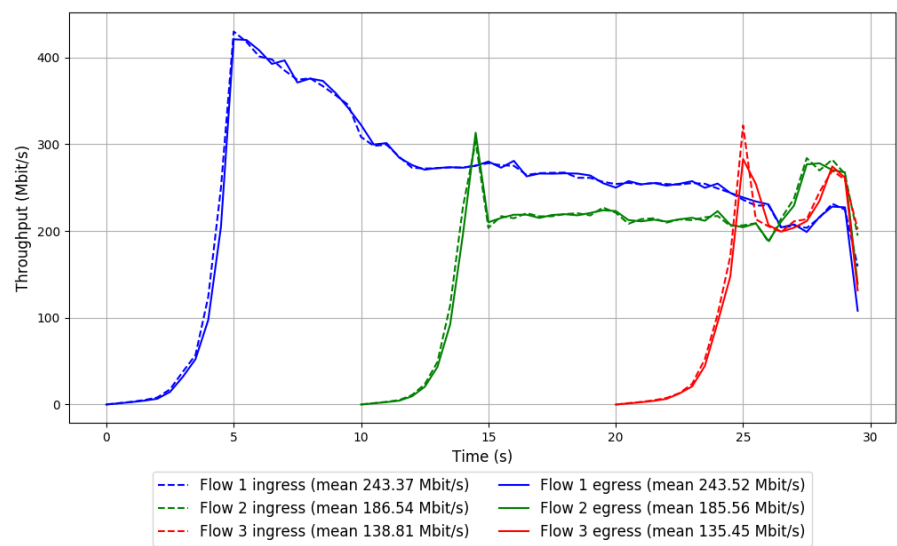
-- Flow 3:

Average throughput: 135.45 Mbit/s

95th percentile per-packet one-way delay: 112.961 ms

Loss rate: 4.64%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-04-04 01:26:43

End at: 2018-04-04 01:27:13

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 393.41 Mbit/s

95th percentile per-packet one-way delay: 116.090 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 235.42 Mbit/s

95th percentile per-packet one-way delay: 117.349 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 180.49 Mbit/s

95th percentile per-packet one-way delay: 112.080 ms

Loss rate: 0.88%

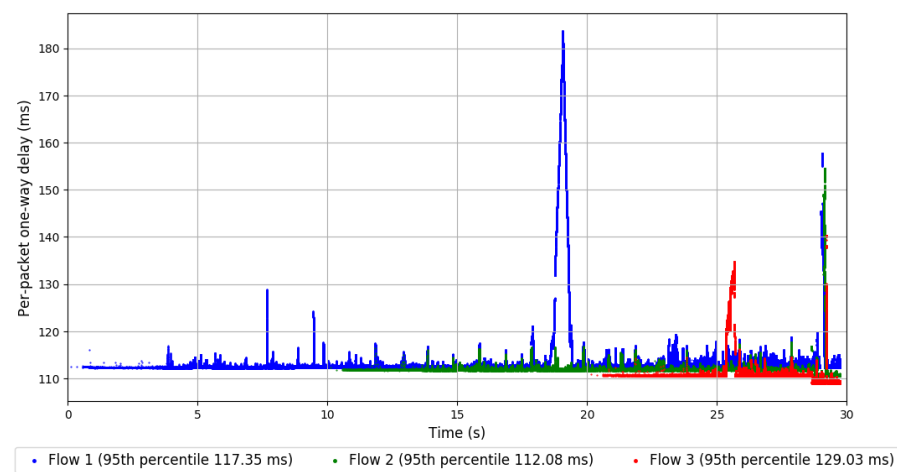
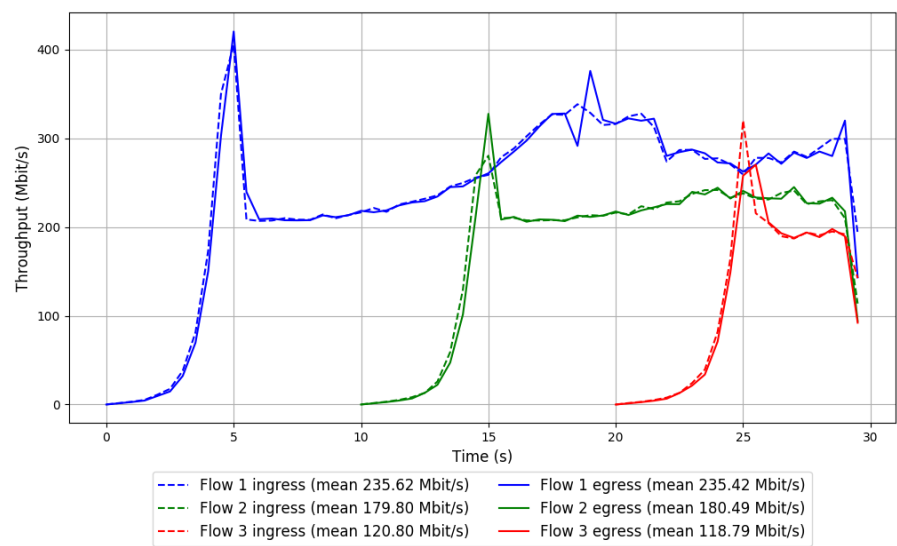
-- Flow 3:

Average throughput: 118.79 Mbit/s

95th percentile per-packet one-way delay: 129.034 ms

Loss rate: 3.89%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-04-04 01:45:23

End at: 2018-04-04 01:45:53

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 429.67 Mbit/s

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

Loss rate: 1.11%

-- Flow 1:

Average throughput: 264.90 Mbit/s

95th percentile per-packet one-way delay: 114.882 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 183.90 Mbit/s

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

Loss rate: 1.31%

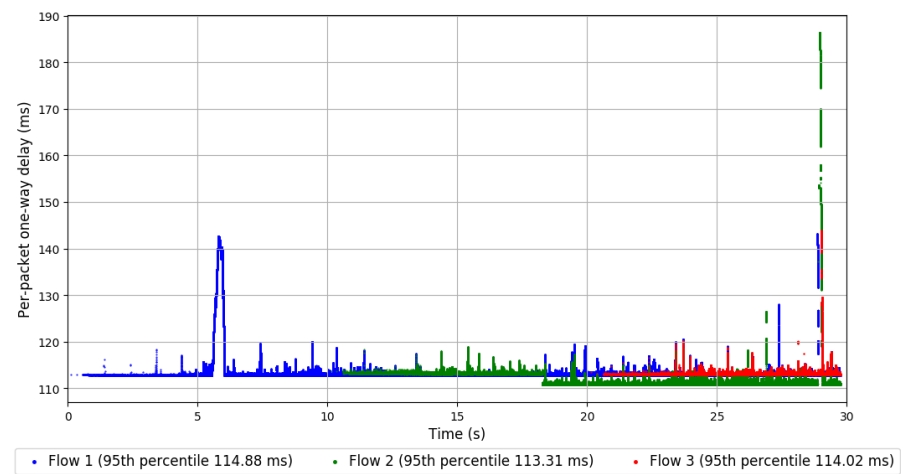
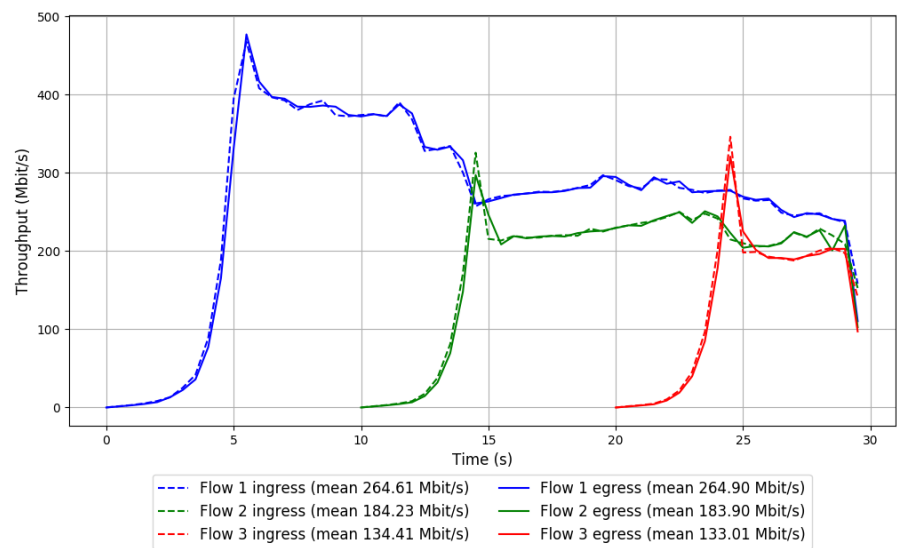
-- Flow 3:

Average throughput: 133.01 Mbit/s

95th percentile per-packet one-way delay: 114.018 ms

Loss rate: 3.31%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-04-04 02:04:45

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

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 402.19 Mbit/s

95th percentile per-packet one-way delay: 113.585 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 228.45 Mbit/s

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

Loss rate: 0.95%

-- Flow 2:

Average throughput: 195.88 Mbit/s

95th percentile per-packet one-way delay: 113.971 ms

Loss rate: 1.55%

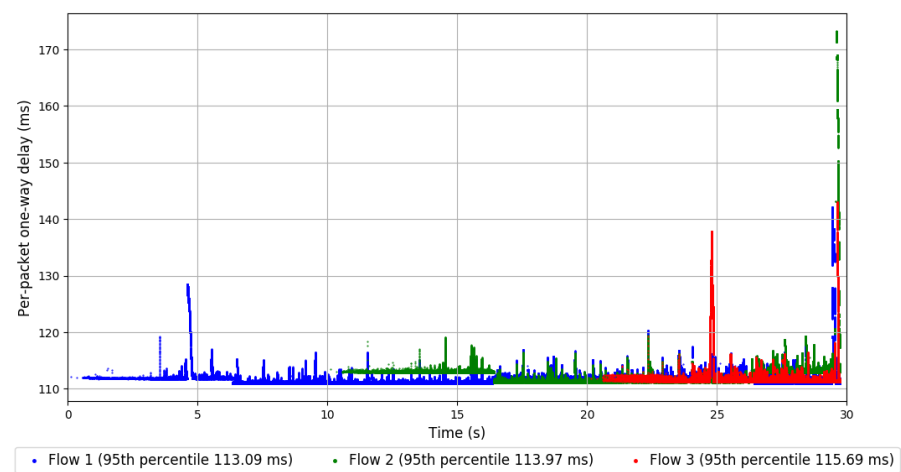
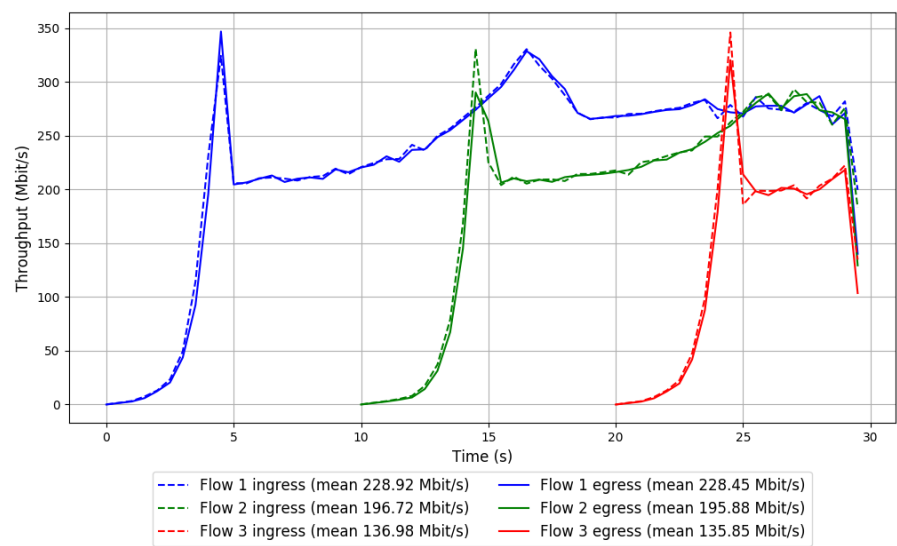
-- Flow 3:

Average throughput: 135.85 Mbit/s

95th percentile per-packet one-way delay: 115.694 ms

Loss rate: 3.07%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-04-04 02:23:48

End at: 2018-04-04 02:24:18

Below is generated by plot.py at 2018-04-04 08:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 388.79 Mbit/s

95th percentile per-packet one-way delay: 115.687 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 231.18 Mbit/s

95th percentile per-packet one-way delay: 115.151 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 177.25 Mbit/s

95th percentile per-packet one-way delay: 114.373 ms

Loss rate: 1.33%

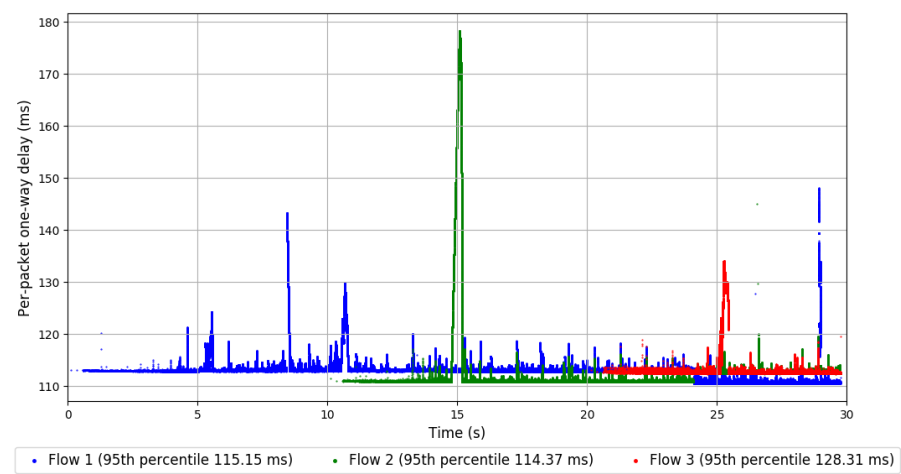
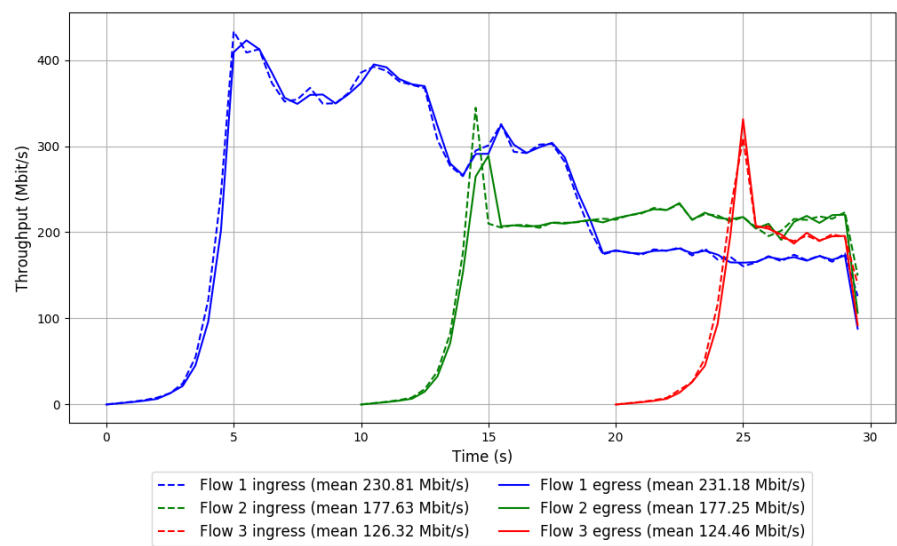
-- Flow 3:

Average throughput: 124.46 Mbit/s

95th percentile per-packet one-way delay: 128.309 ms

Loss rate: 3.63%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-04-04 02:42:34

End at: 2018-04-04 02:43:04

Below is generated by plot.py at 2018-04-04 08:07:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 372.01 Mbit/s

95th percentile per-packet one-way delay: 113.690 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 213.36 Mbit/s

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

Loss rate: 0.91%

-- Flow 2:

Average throughput: 176.04 Mbit/s

95th percentile per-packet one-way delay: 113.275 ms

Loss rate: 1.79%

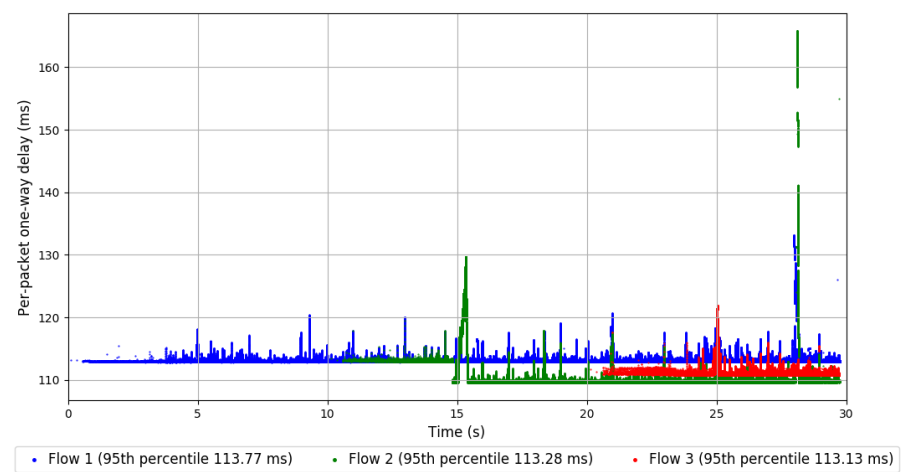
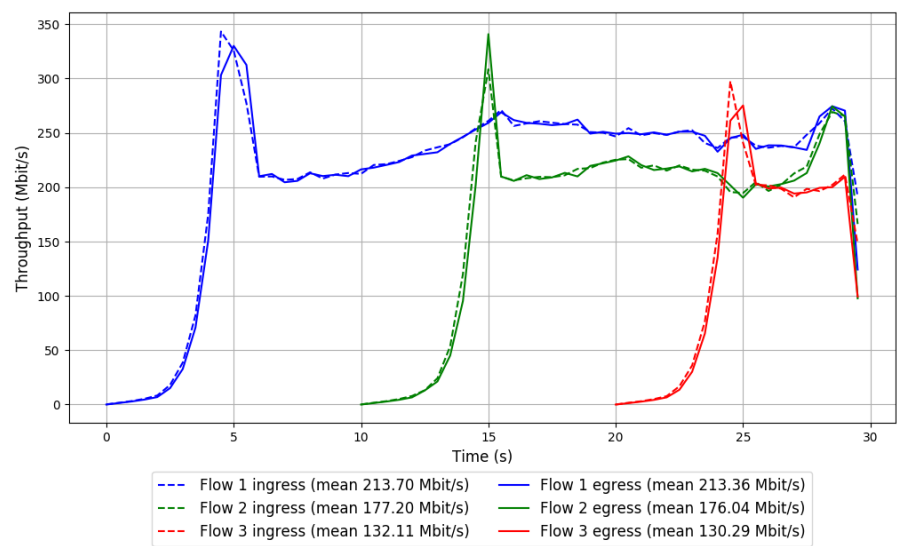
-- Flow 3:

Average throughput: 130.29 Mbit/s

95th percentile per-packet one-way delay: 113.131 ms

Loss rate: 3.73%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-04-04 03:01:22

End at: 2018-04-04 03:01:52

Below is generated by plot.py at 2018-04-04 08:08:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 382.44 Mbit/s

95th percentile per-packet one-way delay: 113.927 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 212.31 Mbit/s

95th percentile per-packet one-way delay: 113.411 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 196.25 Mbit/s

95th percentile per-packet one-way delay: 114.214 ms

Loss rate: 1.15%

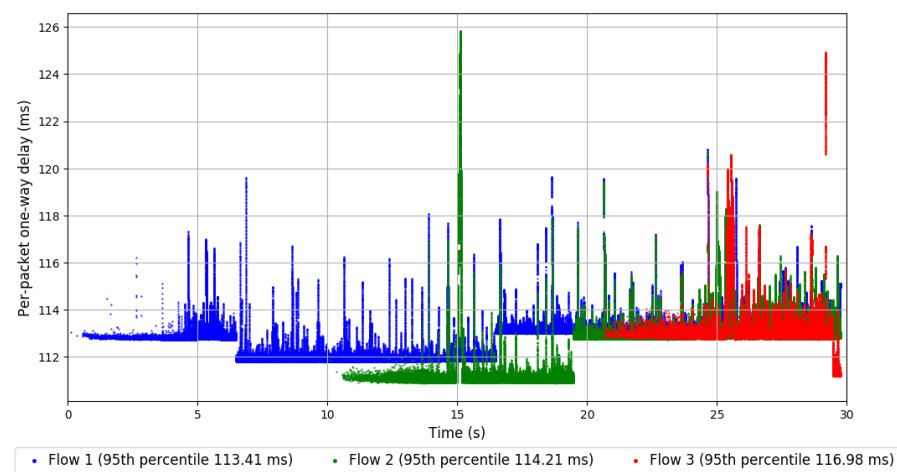
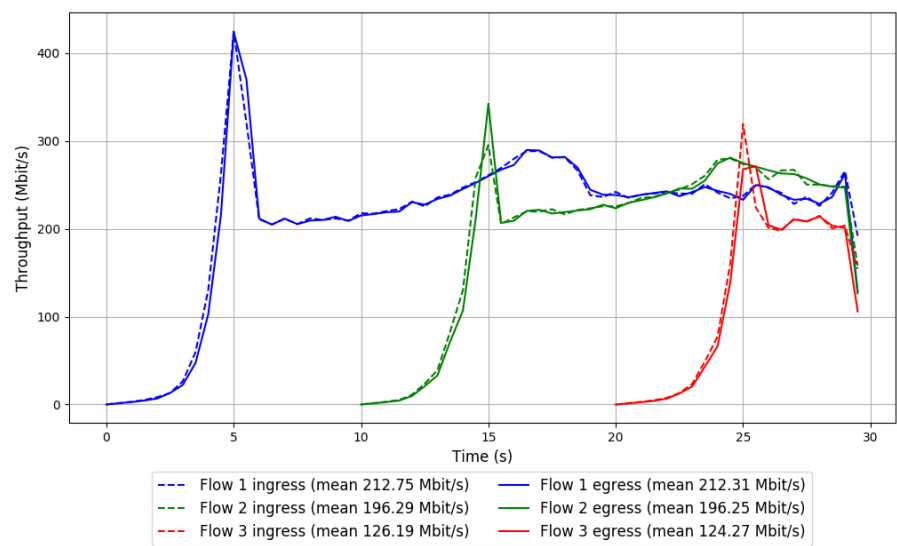
-- Flow 3:

Average throughput: 124.27 Mbit/s

95th percentile per-packet one-way delay: 116.978 ms

Loss rate: 3.78%

Run 10: Report of Vivace-latency — Data Link

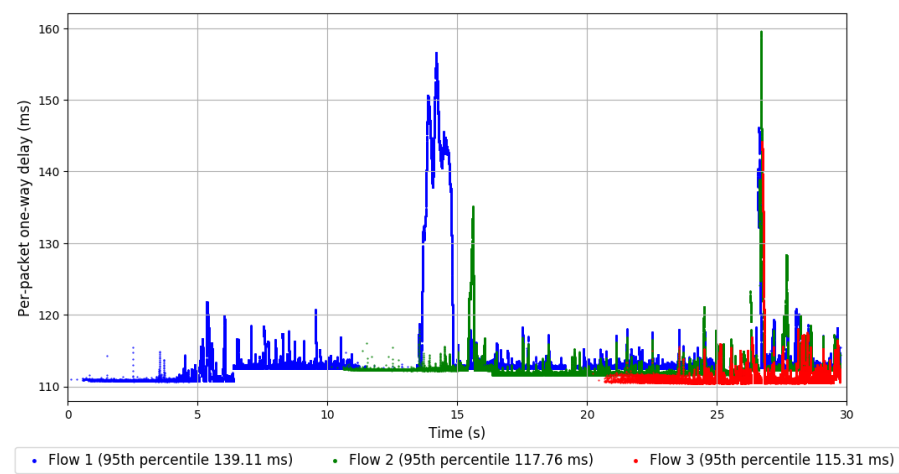
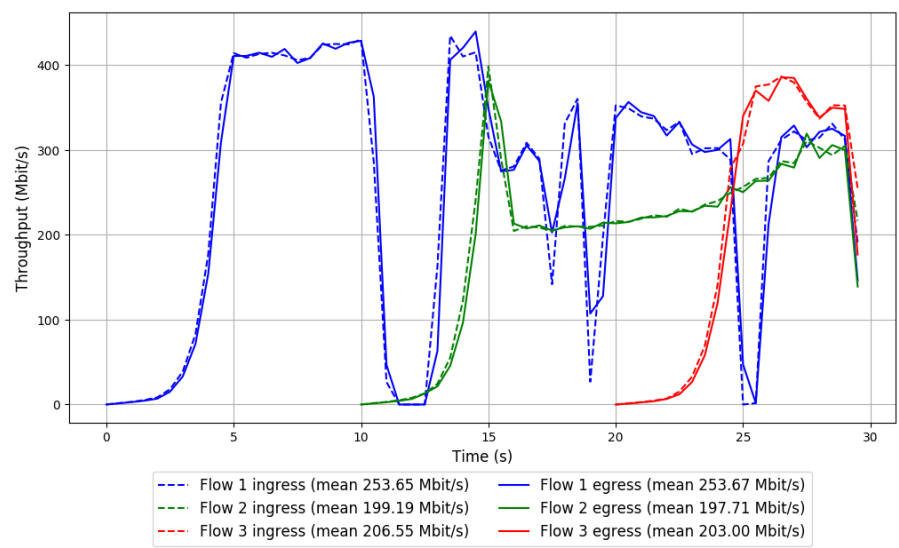


```
Run 1: Statistics of Vivace-loss

Start at: 2018-04-04 00:07:55
End at: 2018-04-04 00:08:25

# Below is generated by plot.py at 2018-04-04 08:09:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 449.83 Mbit/s
95th percentile per-packet one-way delay: 123.287 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 253.67 Mbit/s
95th percentile per-packet one-way delay: 139.108 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 197.71 Mbit/s
95th percentile per-packet one-way delay: 117.760 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 203.00 Mbit/s
95th percentile per-packet one-way delay: 115.307 ms
Loss rate: 3.98%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-04-04 00:26:47

End at: 2018-04-04 00:27:17

Below is generated by plot.py at 2018-04-04 08:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 399.64 Mbit/s

95th percentile per-packet one-way delay: 114.190 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 234.44 Mbit/s

95th percentile per-packet one-way delay: 114.638 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 182.04 Mbit/s

95th percentile per-packet one-way delay: 113.782 ms

Loss rate: 1.51%

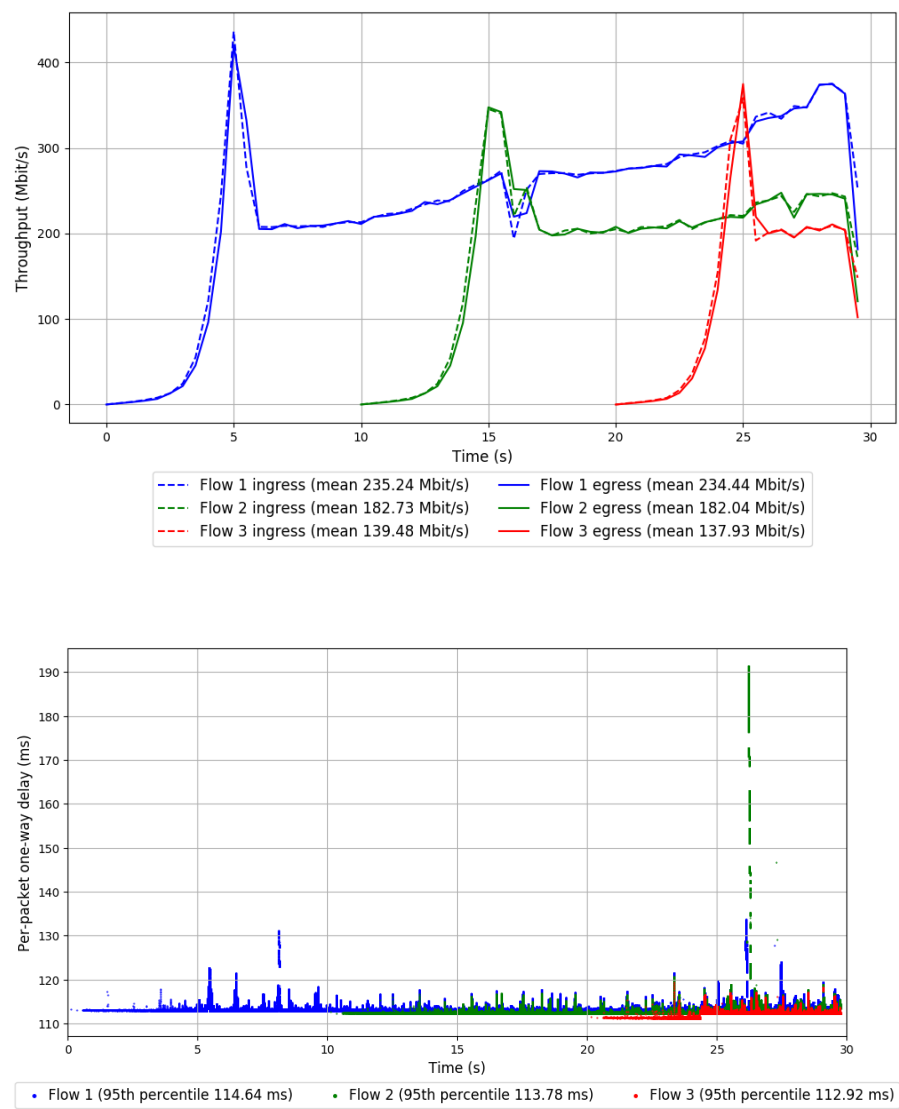
-- Flow 3:

Average throughput: 137.93 Mbit/s

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

Loss rate: 3.36%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-04-04 00:45:53

End at: 2018-04-04 00:46:23

Below is generated by plot.py at 2018-04-04 08:13:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 401.85 Mbit/s

95th percentile per-packet one-way delay: 114.894 ms

Loss rate: 2.10%

-- Flow 1:

Average throughput: 226.20 Mbit/s

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

Loss rate: 1.15%

-- Flow 2:

Average throughput: 195.91 Mbit/s

95th percentile per-packet one-way delay: 189.924 ms

Loss rate: 3.27%

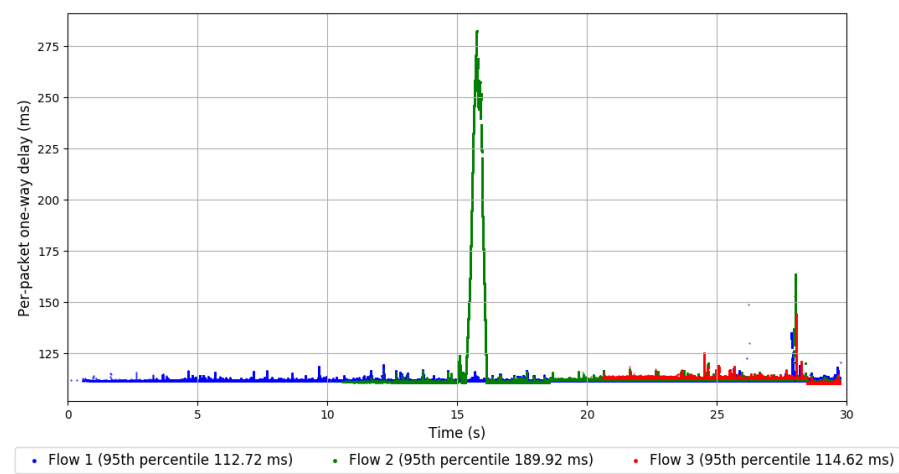
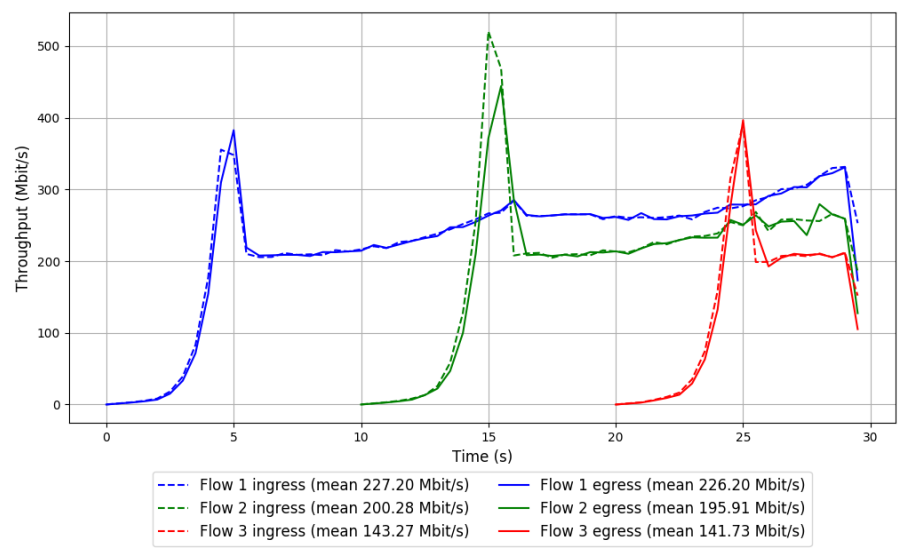
-- Flow 3:

Average throughput: 141.73 Mbit/s

95th percentile per-packet one-way delay: 114.620 ms

Loss rate: 3.33%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

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

End at: 2018-04-04 01:05:15

Below is generated by plot.py at 2018-04-04 08:15:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 453.09 Mbit/s

95th percentile per-packet one-way delay: 114.327 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 278.09 Mbit/s

95th percentile per-packet one-way delay: 114.322 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 195.47 Mbit/s

95th percentile per-packet one-way delay: 114.326 ms

Loss rate: 1.04%

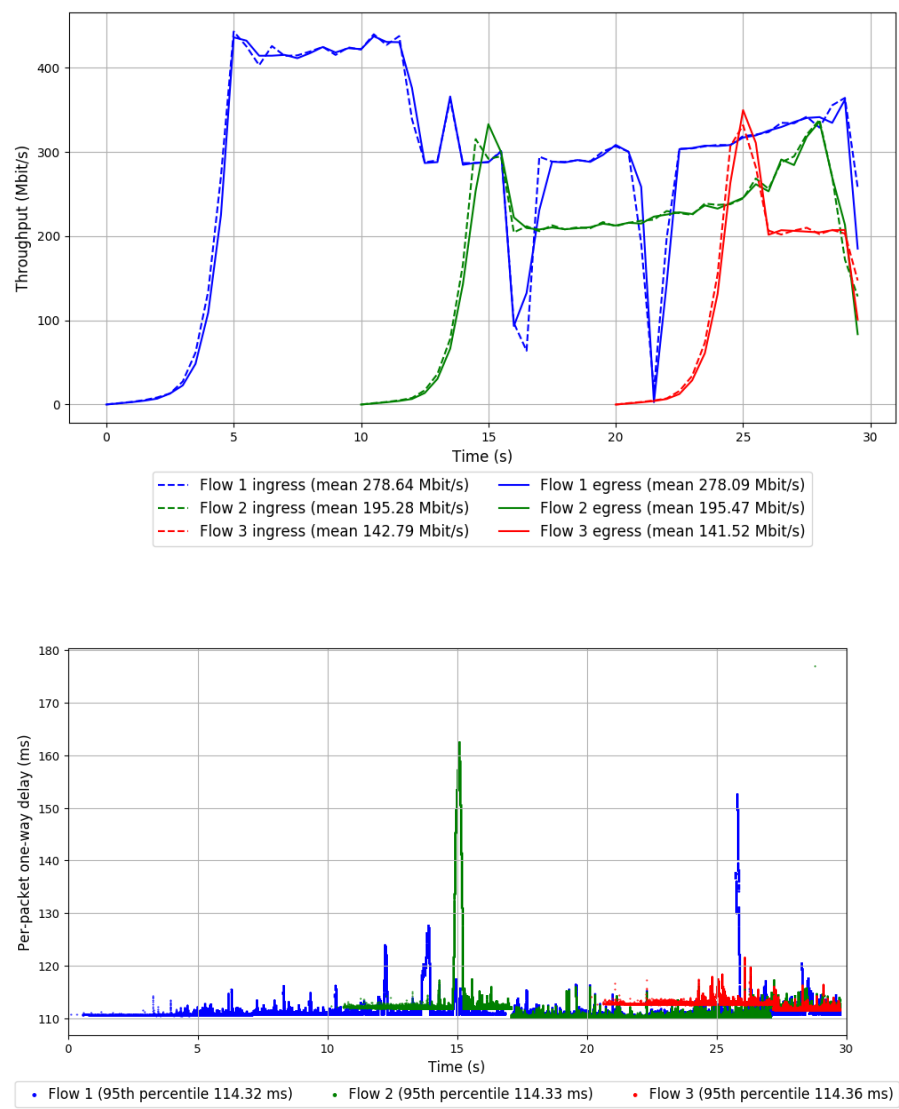
-- Flow 3:

Average throughput: 141.52 Mbit/s

95th percentile per-packet one-way delay: 114.363 ms

Loss rate: 3.17%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-04-04 01:23:39

End at: 2018-04-04 01:24:09

Below is generated by plot.py at 2018-04-04 08:15:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 428.96 Mbit/s

95th percentile per-packet one-way delay: 114.319 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 227.15 Mbit/s

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

Loss rate: 0.86%

-- Flow 2:

Average throughput: 238.00 Mbit/s

95th percentile per-packet one-way delay: 115.185 ms

Loss rate: 1.27%

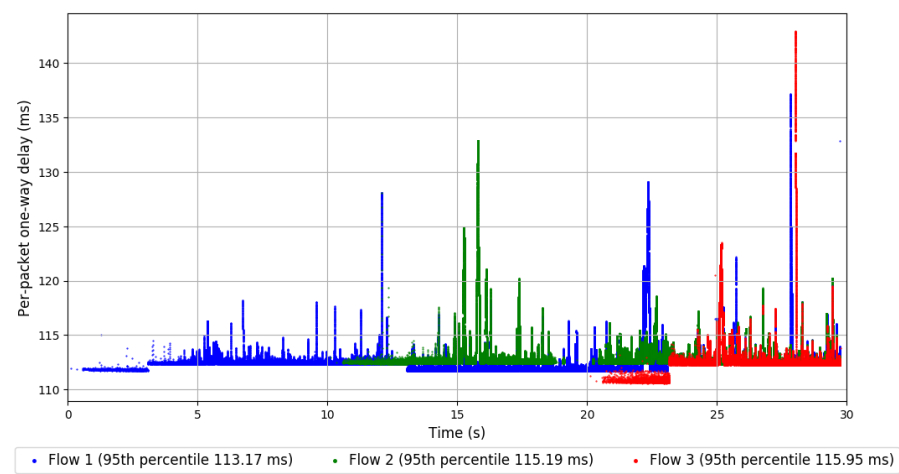
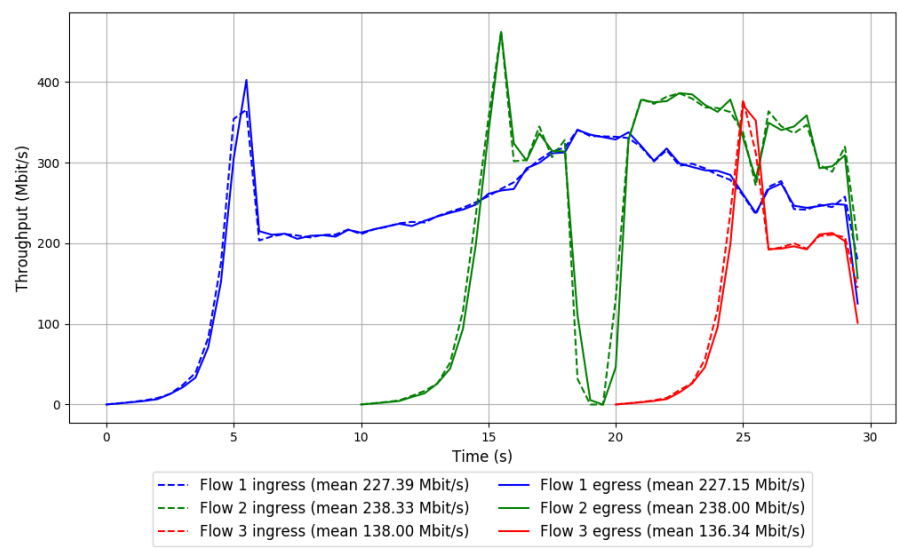
-- Flow 3:

Average throughput: 136.34 Mbit/s

95th percentile per-packet one-way delay: 115.954 ms

Loss rate: 3.43%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-04-04 01:42:20

End at: 2018-04-04 01:42:50

Below is generated by plot.py at 2018-04-04 08:15:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 405.59 Mbit/s

95th percentile per-packet one-way delay: 116.857 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 241.83 Mbit/s

95th percentile per-packet one-way delay: 121.017 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 200.71 Mbit/s

95th percentile per-packet one-way delay: 111.474 ms

Loss rate: 2.12%

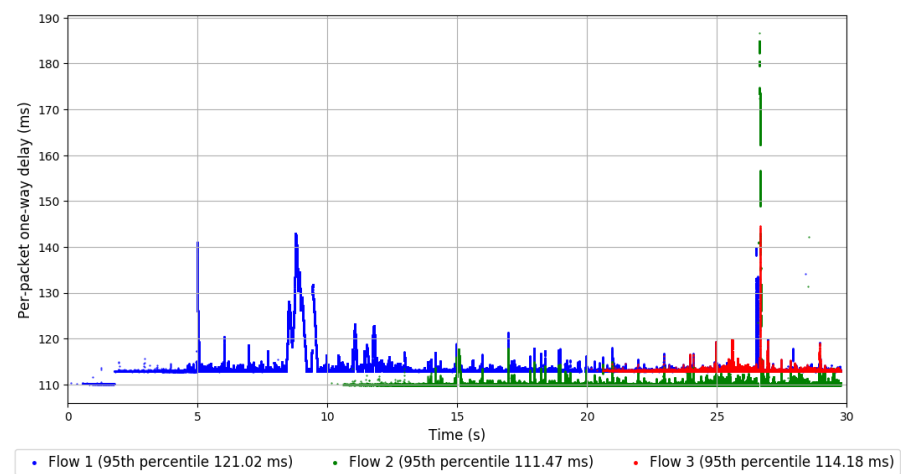
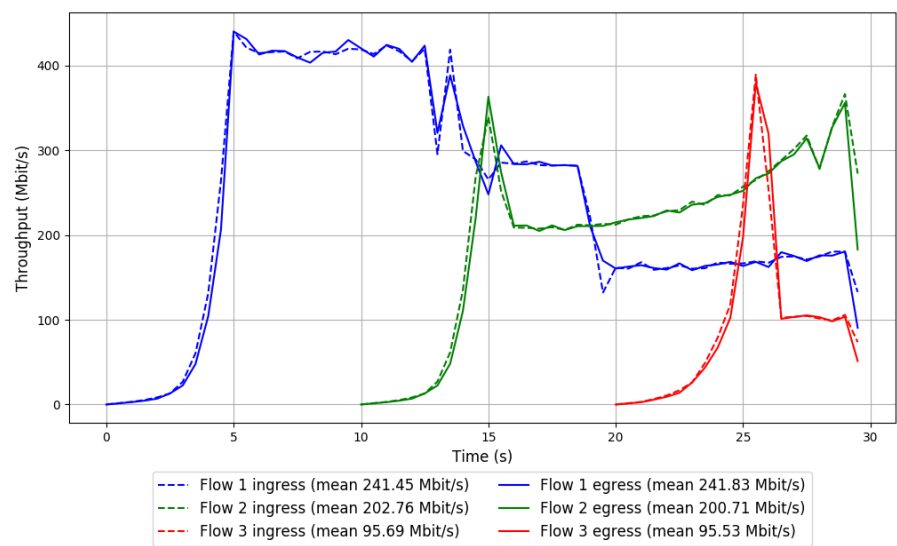
-- Flow 3:

Average throughput: 95.53 Mbit/s

95th percentile per-packet one-way delay: 114.176 ms

Loss rate: 2.46%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-04-04 02:01:36

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

Below is generated by plot.py at 2018-04-04 08:16:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 480.07 Mbit/s

95th percentile per-packet one-way delay: 125.472 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 287.88 Mbit/s

95th percentile per-packet one-way delay: 122.608 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 225.98 Mbit/s

95th percentile per-packet one-way delay: 183.113 ms

Loss rate: 0.99%

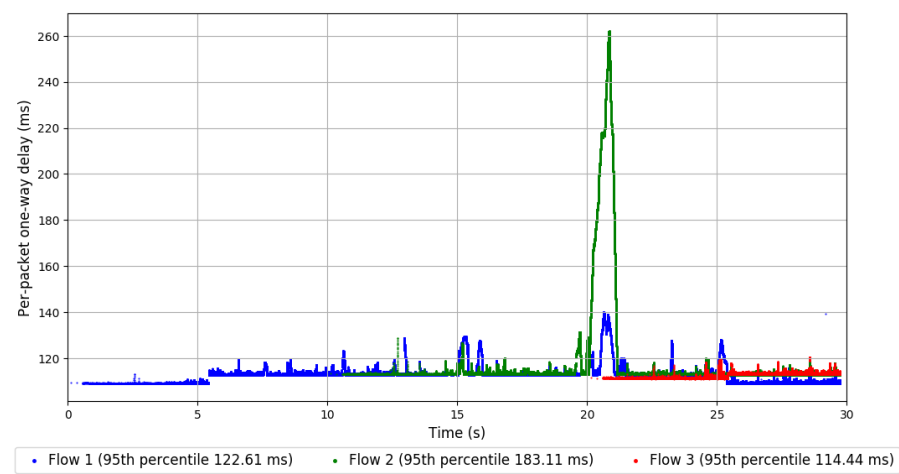
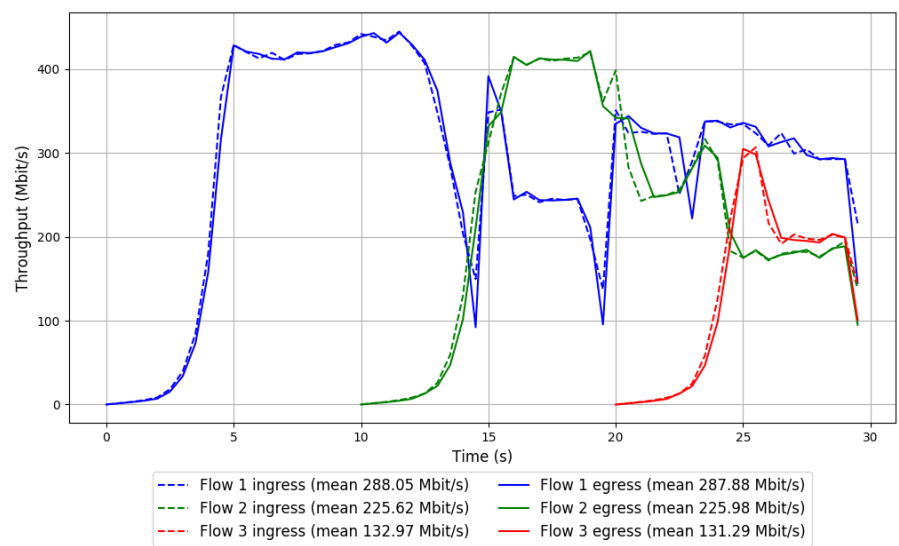
-- Flow 3:

Average throughput: 131.29 Mbit/s

95th percentile per-packet one-way delay: 114.443 ms

Loss rate: 3.52%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-04-04 02:20:47

End at: 2018-04-04 02:21:17

Below is generated by plot.py at 2018-04-04 08:16:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 361.01 Mbit/s

95th percentile per-packet one-way delay: 129.404 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 179.52 Mbit/s

95th percentile per-packet one-way delay: 147.077 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 198.31 Mbit/s

95th percentile per-packet one-way delay: 115.601 ms

Loss rate: 1.61%

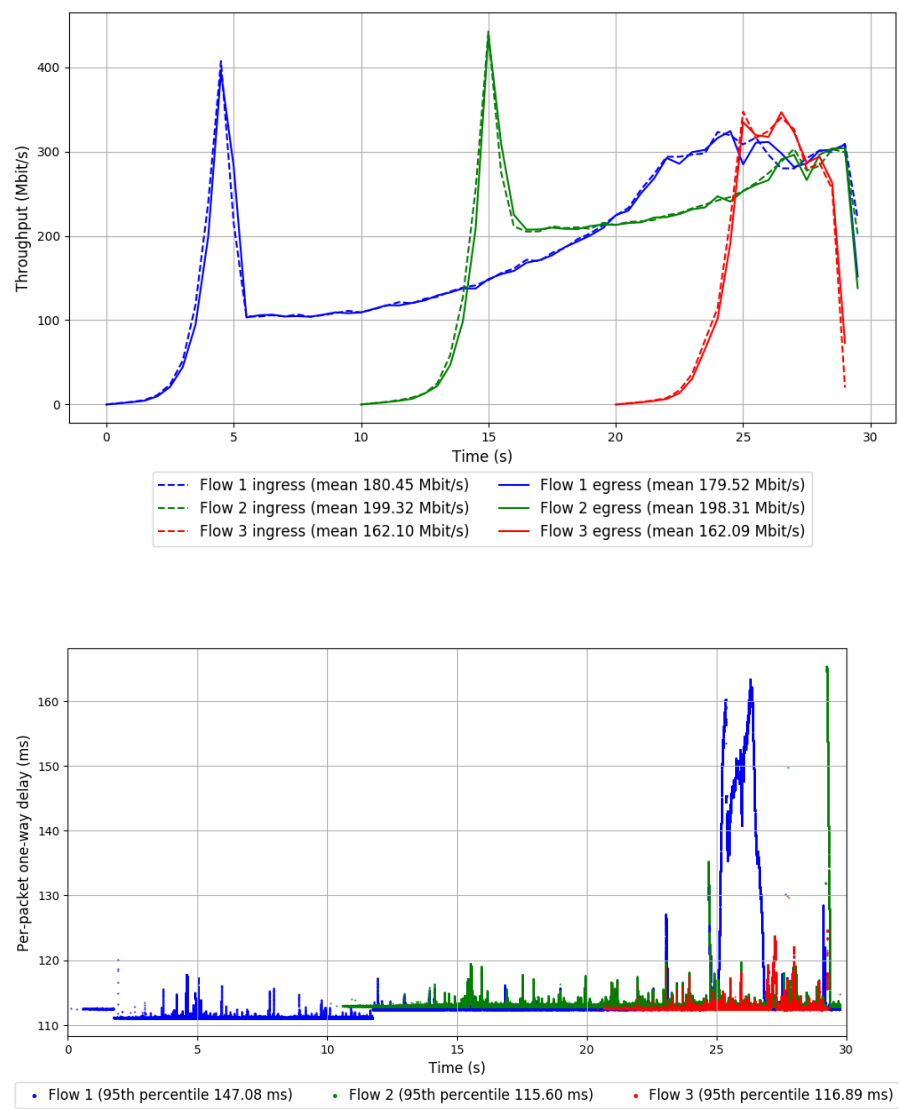
-- Flow 3:

Average throughput: 162.09 Mbit/s

95th percentile per-packet one-way delay: 116.888 ms

Loss rate: 0.01%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-04-04 02:39:32

End at: 2018-04-04 02:40:02

Below is generated by plot.py at 2018-04-04 08:16:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 381.86 Mbit/s

95th percentile per-packet one-way delay: 142.031 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 221.04 Mbit/s

95th percentile per-packet one-way delay: 115.130 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 195.22 Mbit/s

95th percentile per-packet one-way delay: 171.565 ms

Loss rate: 1.76%

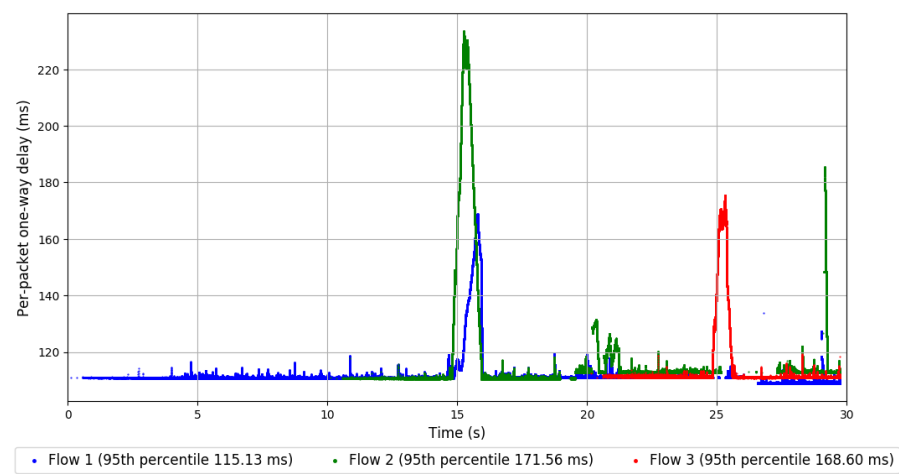
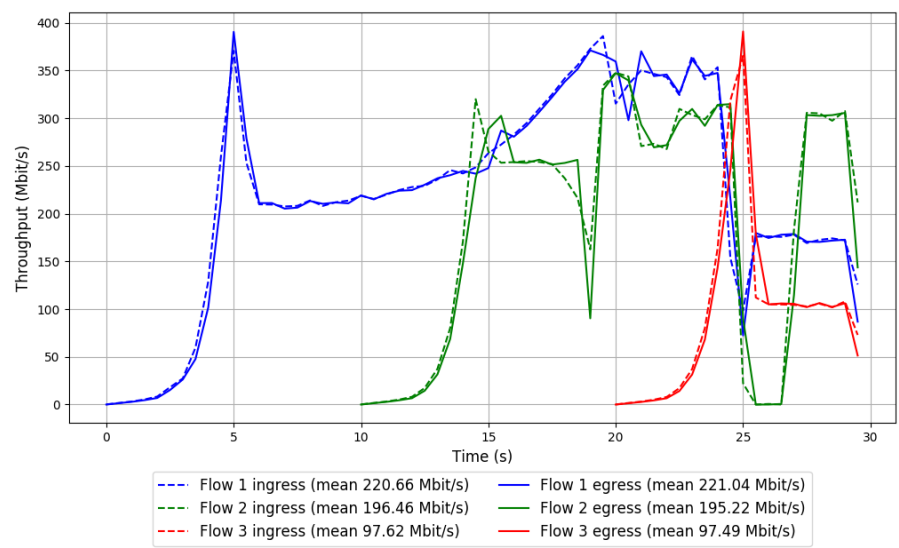
-- Flow 3:

Average throughput: 97.49 Mbit/s

95th percentile per-packet one-way delay: 168.596 ms

Loss rate: 2.37%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-04-04 02:58:15

End at: 2018-04-04 02:58:45

Below is generated by plot.py at 2018-04-04 08:18:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 445.15 Mbit/s

95th percentile per-packet one-way delay: 126.596 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 277.83 Mbit/s

95th percentile per-packet one-way delay: 129.135 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 186.57 Mbit/s

95th percentile per-packet one-way delay: 114.824 ms

Loss rate: 1.66%

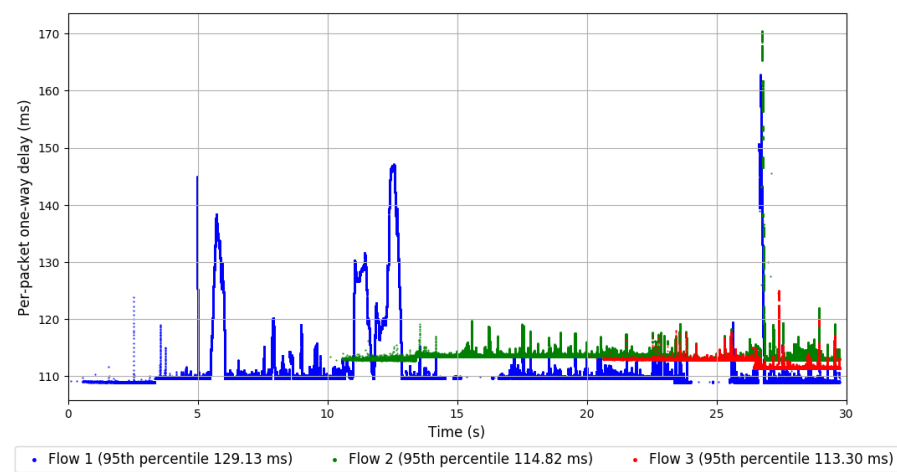
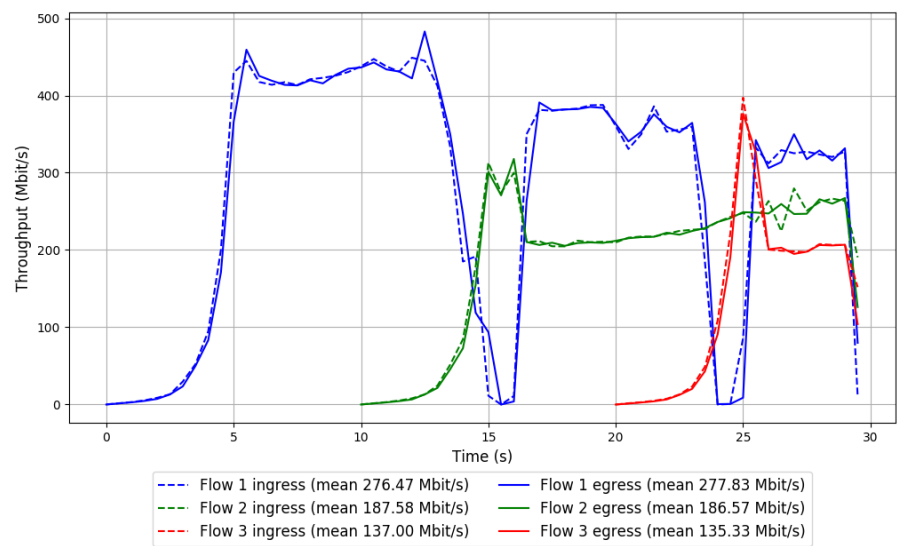
-- Flow 3:

Average throughput: 135.33 Mbit/s

95th percentile per-packet one-way delay: 113.301 ms

Loss rate: 3.48%

Run 10: Report of Vivace-loss — Data Link

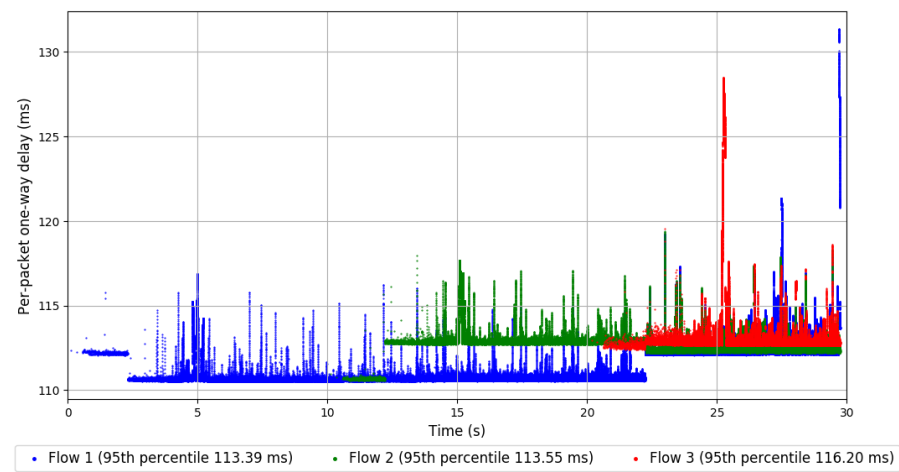
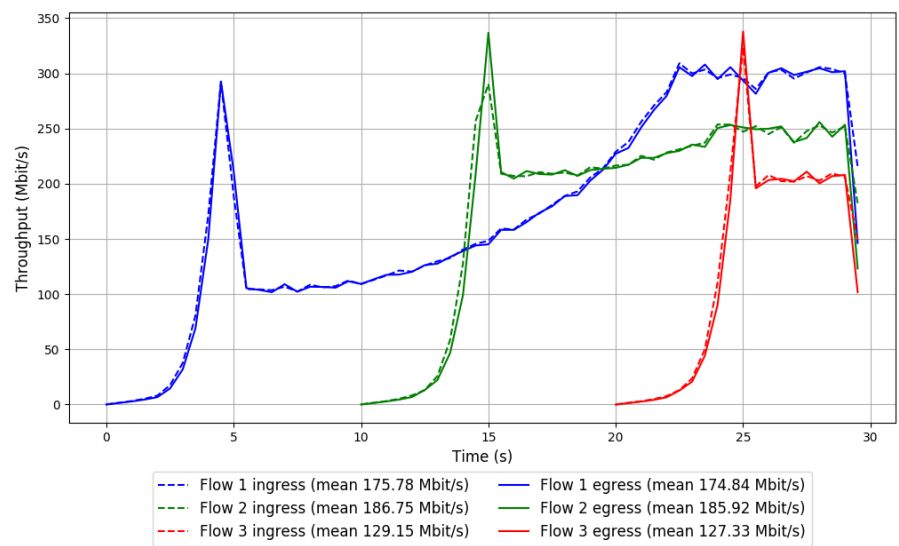


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-04-04 00:17:49
End at: 2018-04-04 00:18:19

# Below is generated by plot.py at 2018-04-04 08:19:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 339.09 Mbit/s
95th percentile per-packet one-way delay: 113.703 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 174.84 Mbit/s
95th percentile per-packet one-way delay: 113.392 ms
Loss rate: 1.29%
-- Flow 2:
Average throughput: 185.92 Mbit/s
95th percentile per-packet one-way delay: 113.548 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 127.33 Mbit/s
95th percentile per-packet one-way delay: 116.197 ms
Loss rate: 3.68%
```

Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-04-04 00:36:48

End at: 2018-04-04 00:37:18

Below is generated by plot.py at 2018-04-04 08:22:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 427.40 Mbit/s

95th percentile per-packet one-way delay: 116.040 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 255.74 Mbit/s

95th percentile per-packet one-way delay: 117.673 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 195.56 Mbit/s

95th percentile per-packet one-way delay: 114.447 ms

Loss rate: 1.62%

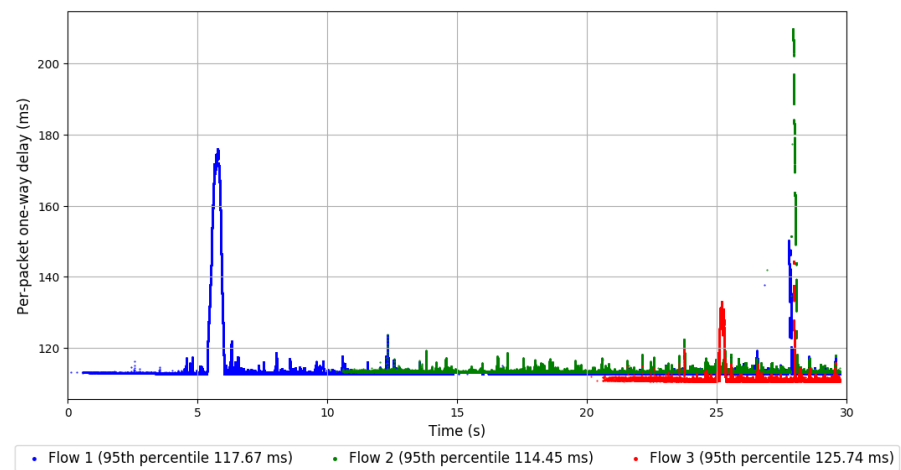
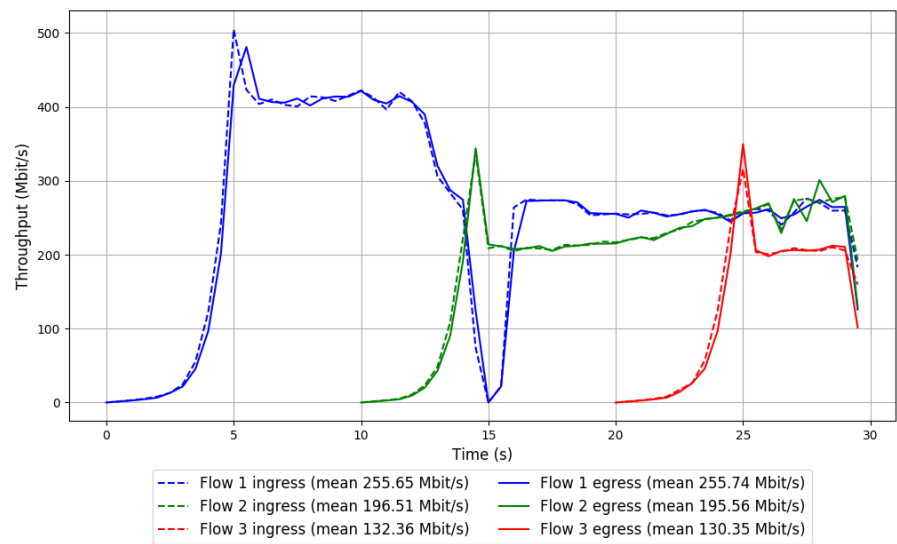
-- Flow 3:

Average throughput: 130.35 Mbit/s

95th percentile per-packet one-way delay: 125.739 ms

Loss rate: 3.78%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-04-04 00:55:40

End at: 2018-04-04 00:56:10

Below is generated by plot.py at 2018-04-04 08:23:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 482.47 Mbit/s

95th percentile per-packet one-way delay: 122.508 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 281.48 Mbit/s

95th percentile per-packet one-way delay: 121.170 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 238.11 Mbit/s

95th percentile per-packet one-way delay: 121.594 ms

Loss rate: 1.44%

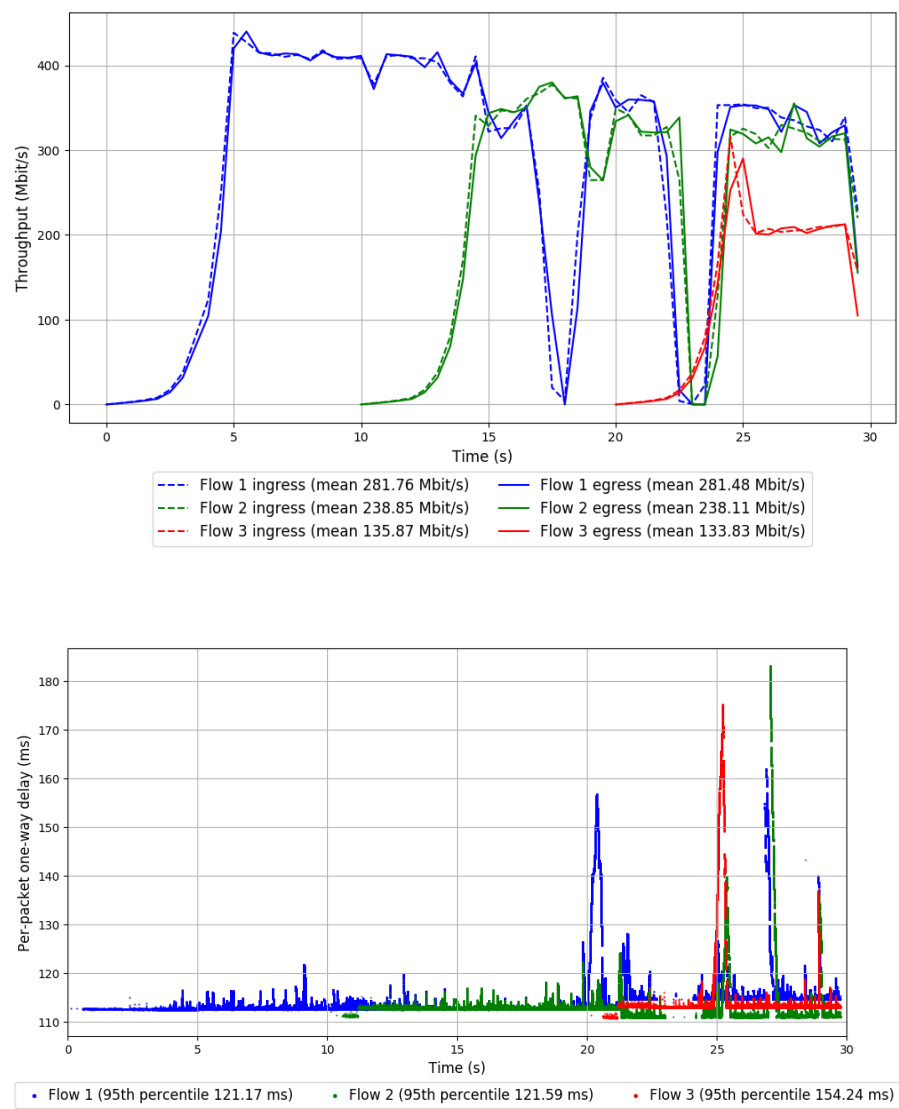
-- Flow 3:

Average throughput: 133.83 Mbit/s

95th percentile per-packet one-way delay: 154.237 ms

Loss rate: 3.75%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-04-04 01:14:30

End at: 2018-04-04 01:15:00

Below is generated by plot.py at 2018-04-04 08:23:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 494.63 Mbit/s

95th percentile per-packet one-way delay: 120.846 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 258.98 Mbit/s

95th percentile per-packet one-way delay: 113.764 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 269.84 Mbit/s

95th percentile per-packet one-way delay: 139.247 ms

Loss rate: 1.30%

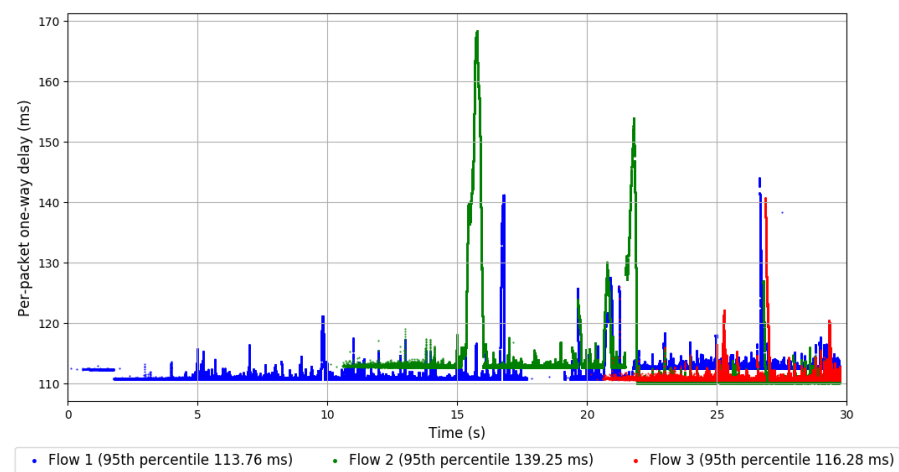
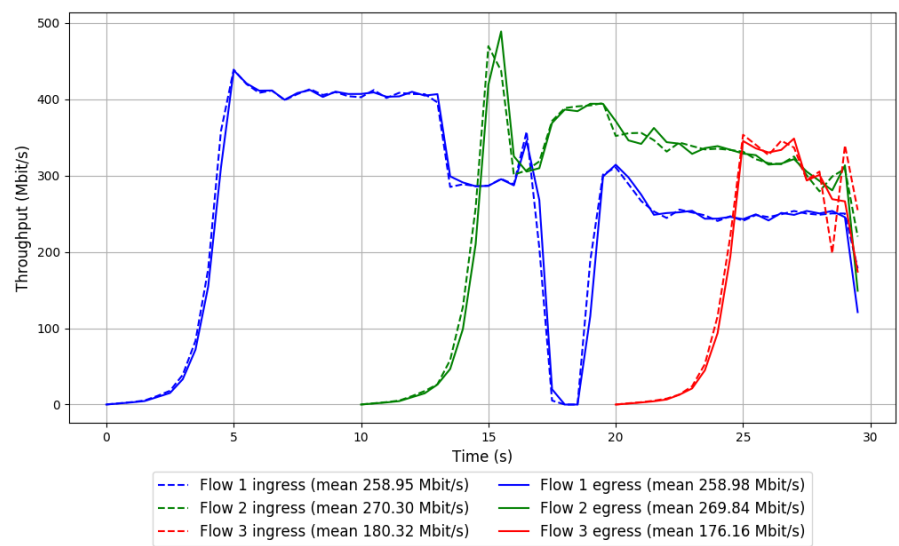
-- Flow 3:

Average throughput: 176.16 Mbit/s

95th percentile per-packet one-way delay: 116.275 ms

Loss rate: 4.54%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-04-04 01:33:25

End at: 2018-04-04 01:33:55

Below is generated by plot.py at 2018-04-04 08:23:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 314.67 Mbit/s

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

Loss rate: 1.35%

-- Flow 1:

Average throughput: 194.31 Mbit/s

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

Loss rate: 0.71%

-- Flow 2:

Average throughput: 116.18 Mbit/s

95th percentile per-packet one-way delay: 112.529 ms

Loss rate: 1.78%

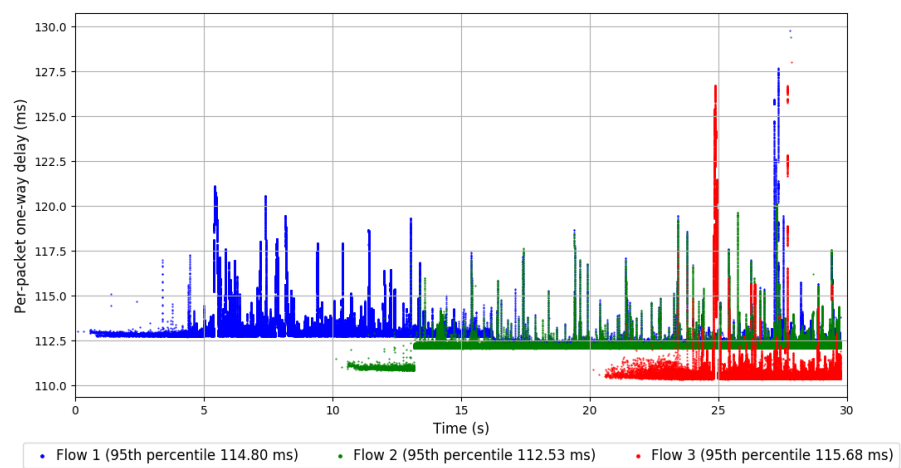
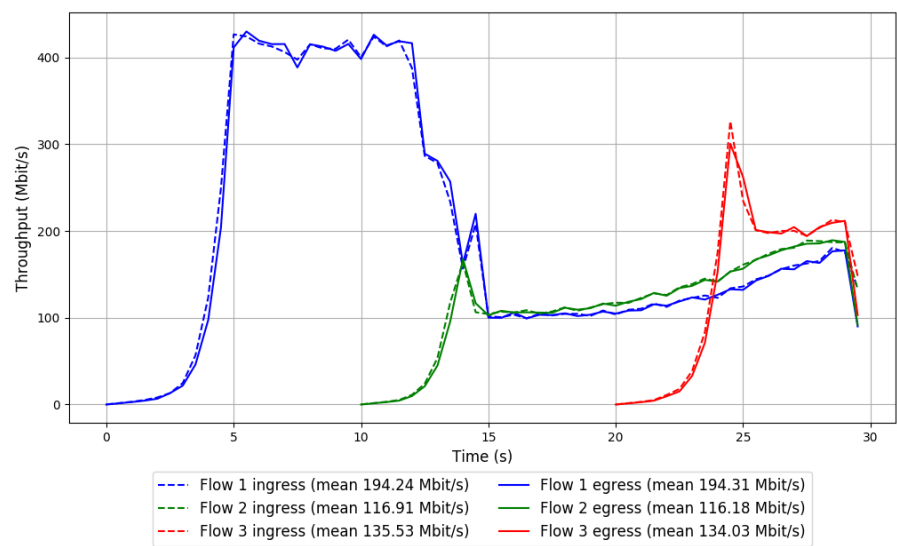
-- Flow 3:

Average throughput: 134.03 Mbit/s

95th percentile per-packet one-way delay: 115.677 ms

Loss rate: 3.34%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-04-04 01:52:25

End at: 2018-04-04 01:52:55

Below is generated by plot.py at 2018-04-04 08:23:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 416.31 Mbit/s

95th percentile per-packet one-way delay: 115.438 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 222.60 Mbit/s

95th percentile per-packet one-way delay: 115.762 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 201.74 Mbit/s

95th percentile per-packet one-way delay: 113.624 ms

Loss rate: 1.60%

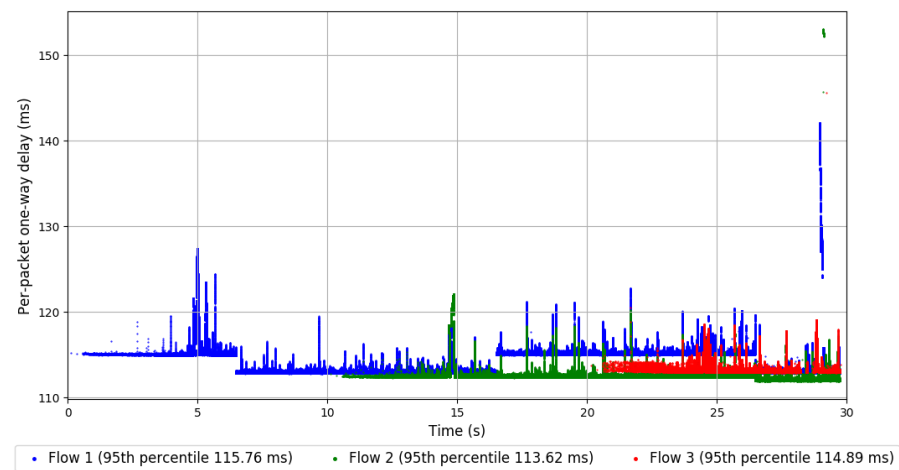
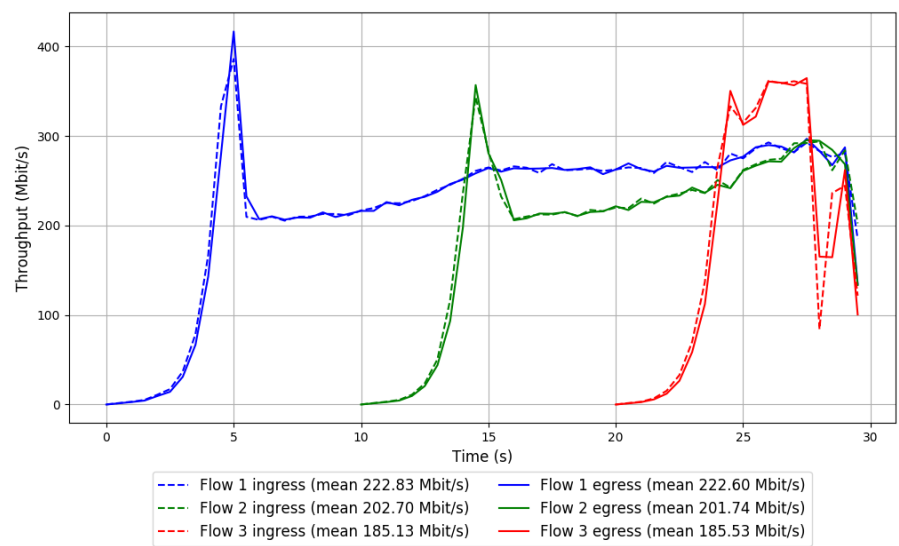
-- Flow 3:

Average throughput: 185.53 Mbit/s

95th percentile per-packet one-way delay: 114.892 ms

Loss rate: 2.07%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-04-04 02:11:31

End at: 2018-04-04 02:12:01

Below is generated by plot.py at 2018-04-04 08:24:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 476.30 Mbit/s

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

Loss rate: 1.01%

-- Flow 1:

Average throughput: 315.04 Mbit/s

95th percentile per-packet one-way delay: 111.858 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 197.61 Mbit/s

95th percentile per-packet one-way delay: 111.480 ms

Loss rate: 1.32%

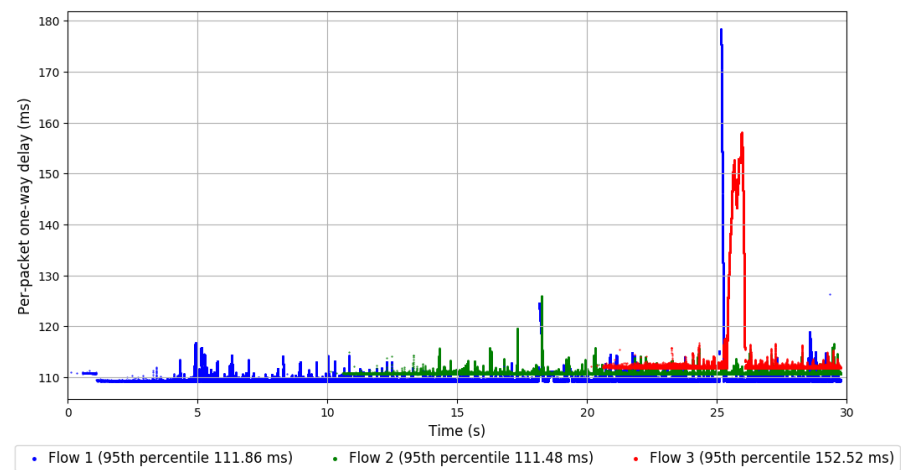
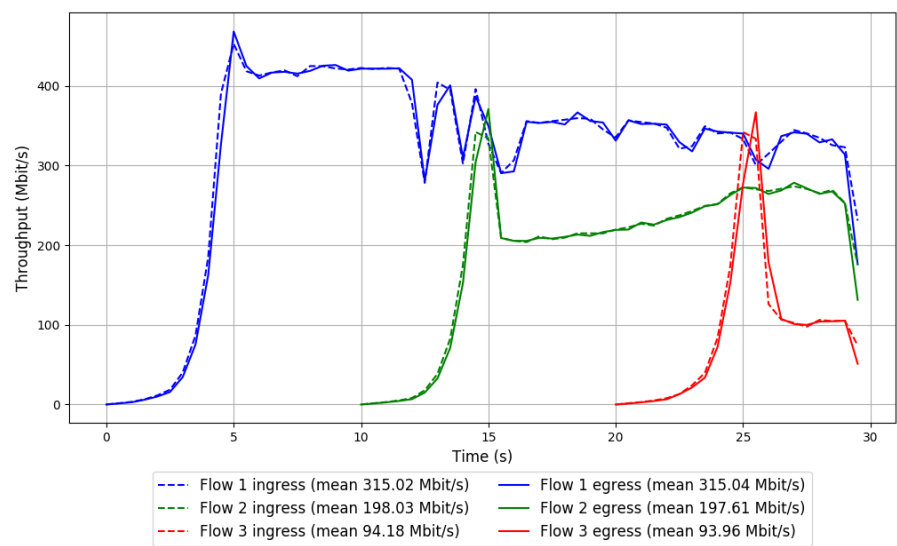
-- Flow 3:

Average throughput: 93.96 Mbit/s

95th percentile per-packet one-way delay: 152.517 ms

Loss rate: 2.51%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-04-04 02:30:24

End at: 2018-04-04 02:30:54

Below is generated by plot.py at 2018-04-04 08:24:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 455.23 Mbit/s

95th percentile per-packet one-way delay: 114.787 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 289.66 Mbit/s

95th percentile per-packet one-way delay: 114.867 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 187.21 Mbit/s

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

Loss rate: 1.66%

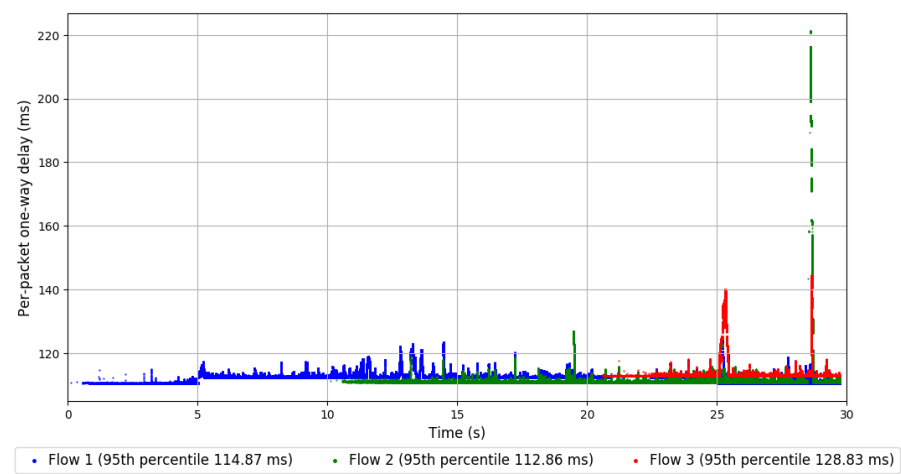
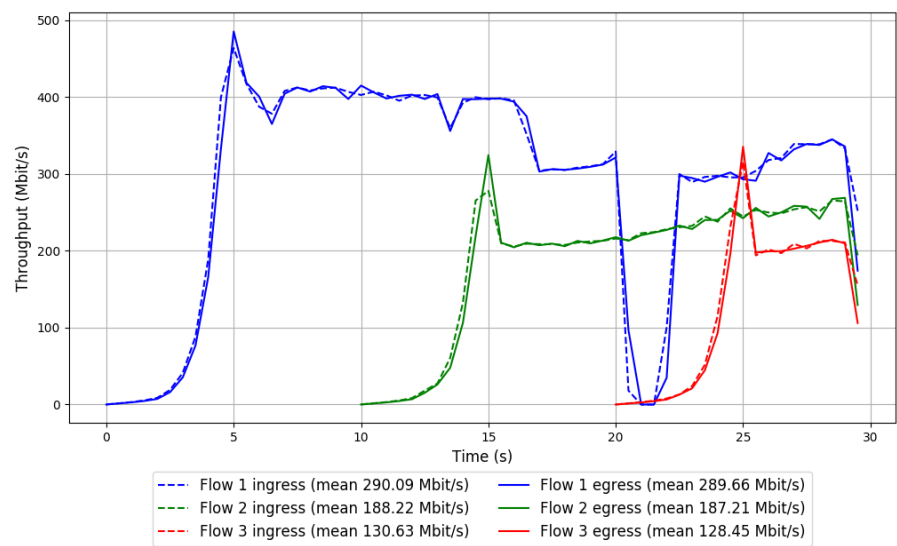
-- Flow 3:

Average throughput: 128.45 Mbit/s

95th percentile per-packet one-way delay: 128.829 ms

Loss rate: 3.94%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-04-04 02:49:15

End at: 2018-04-04 02:49:45

Below is generated by plot.py at 2018-04-04 08:24:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 372.99 Mbit/s

95th percentile per-packet one-way delay: 114.872 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 214.54 Mbit/s

95th percentile per-packet one-way delay: 114.899 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 177.64 Mbit/s

95th percentile per-packet one-way delay: 113.253 ms

Loss rate: 1.38%

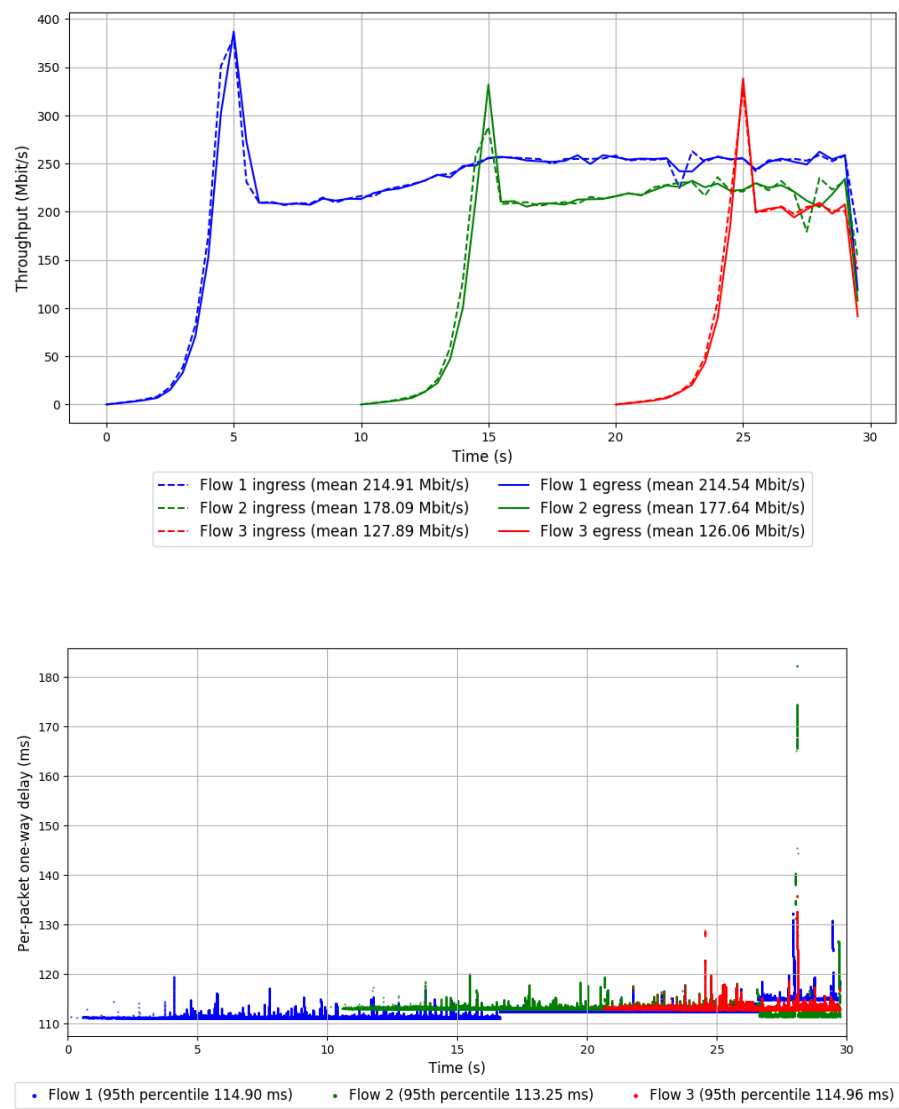
-- Flow 3:

Average throughput: 126.06 Mbit/s

95th percentile per-packet one-way delay: 114.962 ms

Loss rate: 3.67%

Run 9: Report of Vivace-LTE — Data Link



```
Run 10: Statistics of Vivace-LTE

Start at: 2018-04-04 03:08:07
End at: 2018-04-04 03:08:37

# Below is generated by plot.py at 2018-04-04 08:25:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.45 Mbit/s
95th percentile per-packet one-way delay: 114.131 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 275.69 Mbit/s
95th percentile per-packet one-way delay: 114.462 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 200.46 Mbit/s
95th percentile per-packet one-way delay: 111.440 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 132.81 Mbit/s
95th percentile per-packet one-way delay: 118.669 ms
Loss rate: 3.49%
```

Run 10: Report of Vivace-LTE — Data Link

