

Pantheon Report

Generated at 2018-02-14 03:25:41 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

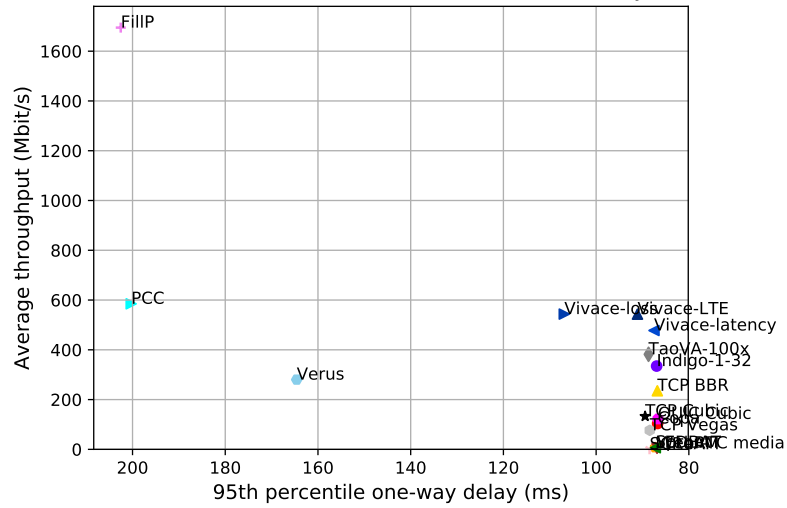
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

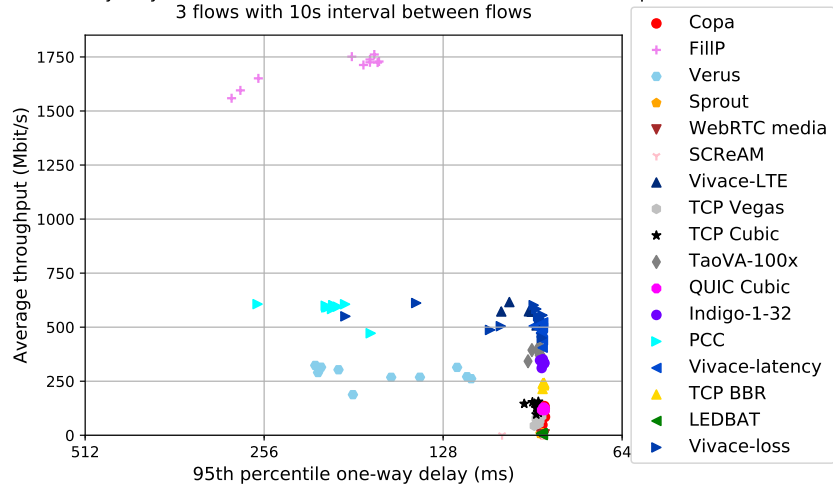
Git summary:

```
branch: master @ 2efdad57c2c56a9458b0d01ff33345e11732665
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	120.77	118.86	109.08	86.74	86.78	87.41	0.63	0.96	2.07
TCP Cubic	10	63.47	78.72	52.20	89.04	89.70	89.57	0.77	1.11	2.64
LEDBAT	10	3.23	3.79	2.12	87.19	87.30	87.09	1.54	1.57	2.90
PCC	10	528.28	63.04	45.57	199.59	193.48	186.34	2.25	2.24	3.12
QUIC Cubic	10	65.44	59.49	51.87	86.47	86.59	86.68	0.74	0.45	1.94
SCReAM	10	0.21	0.22	0.22	88.41	88.39	86.67	0.60	0.85	1.54
WebRTC media	10	2.07	1.33	0.55	86.83	86.69	86.85	0.79	1.02	2.53
Sprout	10	4.01	3.88	2.70	87.26	87.25	87.15	0.83	1.31	3.00
TaoVA-100x	10	200.88	193.85	165.65	87.50	89.05	91.53	0.35	0.55	1.90
TCP Vegas	10	34.78	34.23	58.03	88.15	88.90	88.93	0.60	0.89	1.84
Verus	10	187.12	90.66	105.40	156.85	162.95	176.11	0.94	1.65	3.89
Copa	10	60.09	49.33	33.87	86.72	86.67	86.81	0.39	0.96	1.93
FillP	10	897.15	825.73	762.84	186.87	212.13	200.94	3.38	5.62	7.08
Indigo-1-32	10	180.71	166.25	136.35	86.80	87.07	87.26	0.52	0.84	1.99
Vivace-latency	10	307.99	197.72	118.76	89.64	86.98	87.42	0.57	1.25	2.52
Vivace-loss	10	326.08	238.95	181.80	106.05	110.70	103.12	0.70	1.34	2.45
Vivace-LTE	10	338.92	215.86	188.86	91.40	94.32	96.36	0.61	1.18	2.54

Run 1: Statistics of TCP BBR

Start at: 2018-02-13 19:05:59

End at: 2018-02-13 19:06:29

Below is generated by plot.py at 2018-02-14 01:29:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 238.83 Mbit/s

95th percentile per-packet one-way delay: 86.795 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 121.09 Mbit/s

95th percentile per-packet one-way delay: 86.762 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 121.35 Mbit/s

95th percentile per-packet one-way delay: 86.799 ms

Loss rate: 0.92%

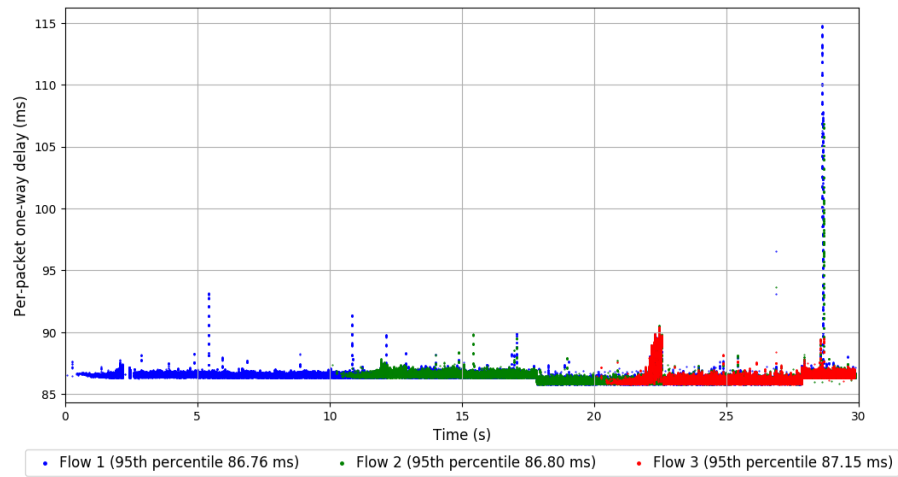
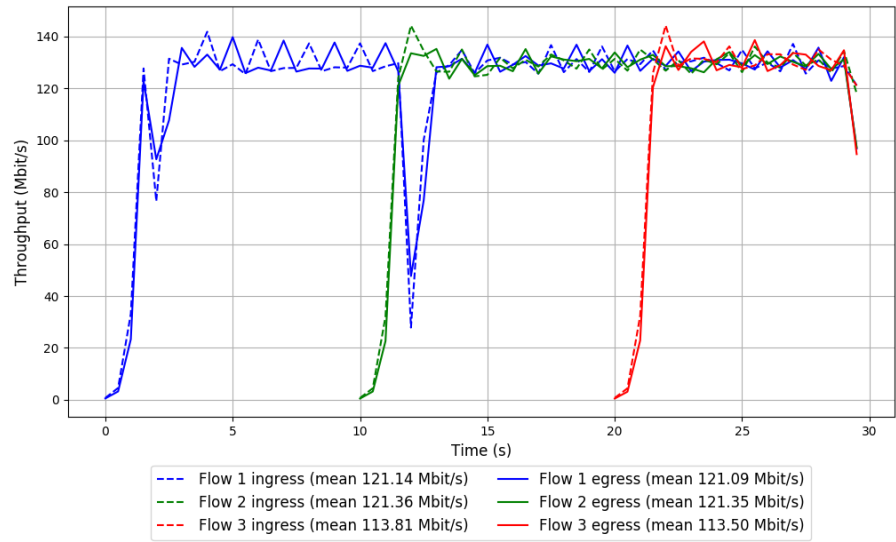
-- Flow 3:

Average throughput: 113.50 Mbit/s

95th percentile per-packet one-way delay: 87.154 ms

Loss rate: 2.12%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-02-13 19:24:53

End at: 2018-02-13 19:25:23

Below is generated by plot.py at 2018-02-14 01:29:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.66 Mbit/s

95th percentile per-packet one-way delay: 86.562 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 122.08 Mbit/s

95th percentile per-packet one-way delay: 86.507 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 118.66 Mbit/s

95th percentile per-packet one-way delay: 86.598 ms

Loss rate: 0.94%

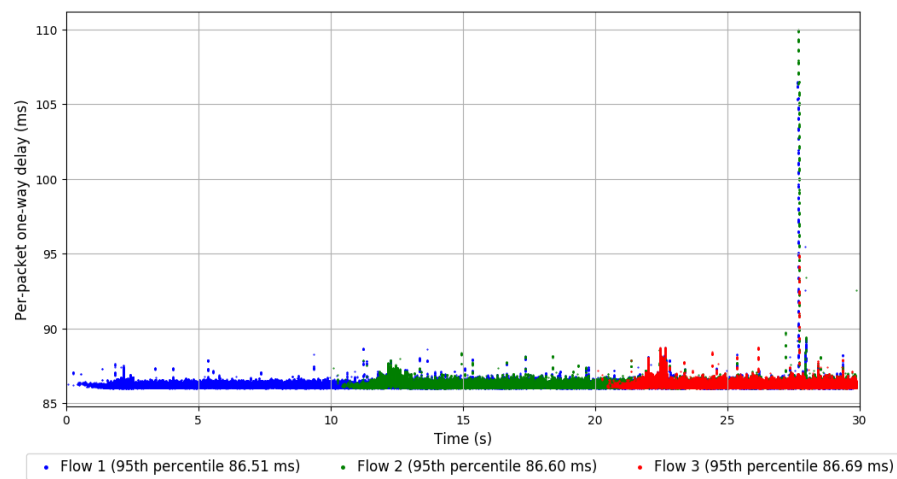
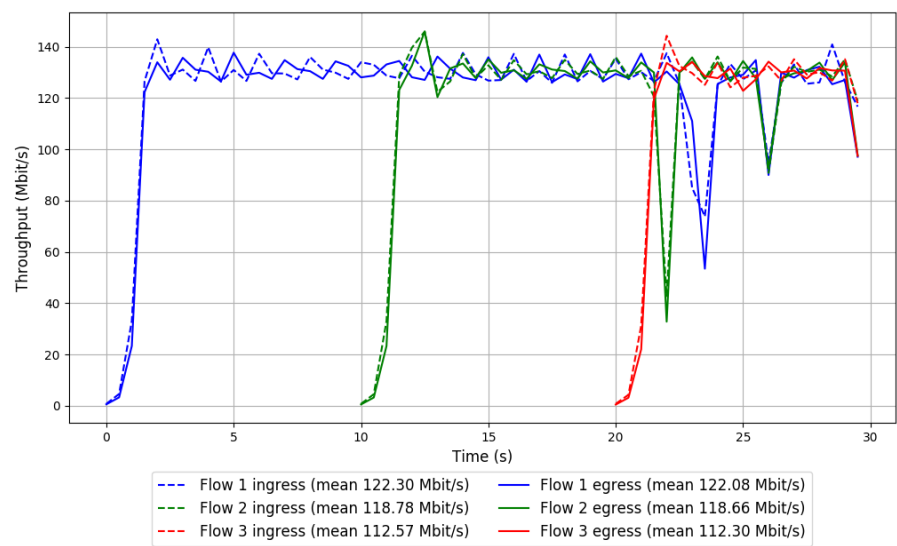
-- Flow 3:

Average throughput: 112.30 Mbit/s

95th percentile per-packet one-way delay: 86.685 ms

Loss rate: 1.98%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-02-13 19:43:48

End at: 2018-02-13 19:44:18

Below is generated by plot.py at 2018-02-14 01:29:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.41 Mbit/s

95th percentile per-packet one-way delay: 86.767 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 120.65 Mbit/s

95th percentile per-packet one-way delay: 86.690 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 120.46 Mbit/s

95th percentile per-packet one-way delay: 86.766 ms

Loss rate: 0.94%

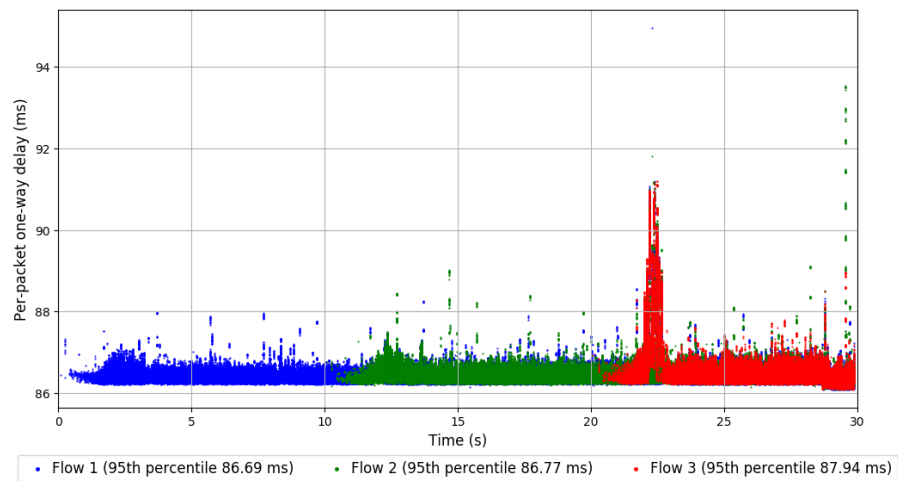
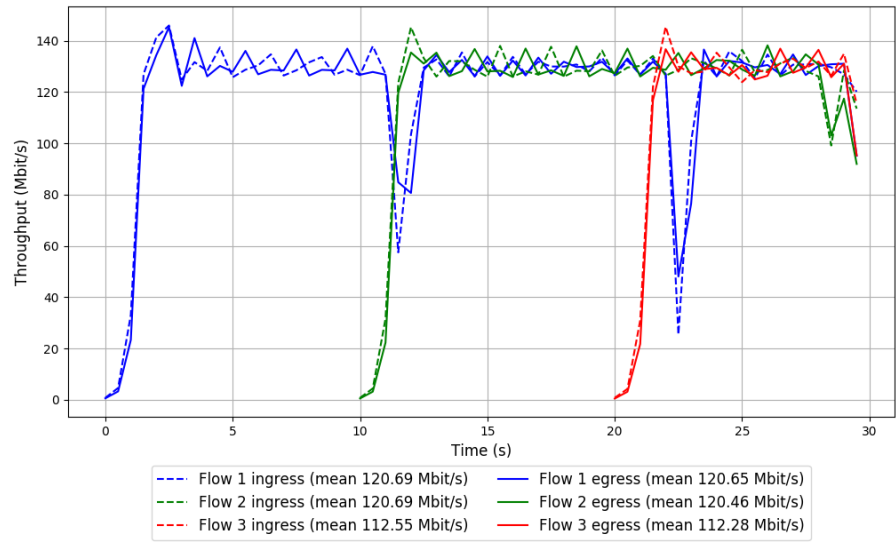
-- Flow 3:

Average throughput: 112.28 Mbit/s

95th percentile per-packet one-way delay: 87.940 ms

Loss rate: 1.99%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-02-13 20:02:37

End at: 2018-02-13 20:03:07

Below is generated by plot.py at 2018-02-14 01:29:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 242.28 Mbit/s

95th percentile per-packet one-way delay: 86.572 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 124.46 Mbit/s

95th percentile per-packet one-way delay: 86.536 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 121.49 Mbit/s

95th percentile per-packet one-way delay: 86.577 ms

Loss rate: 0.92%

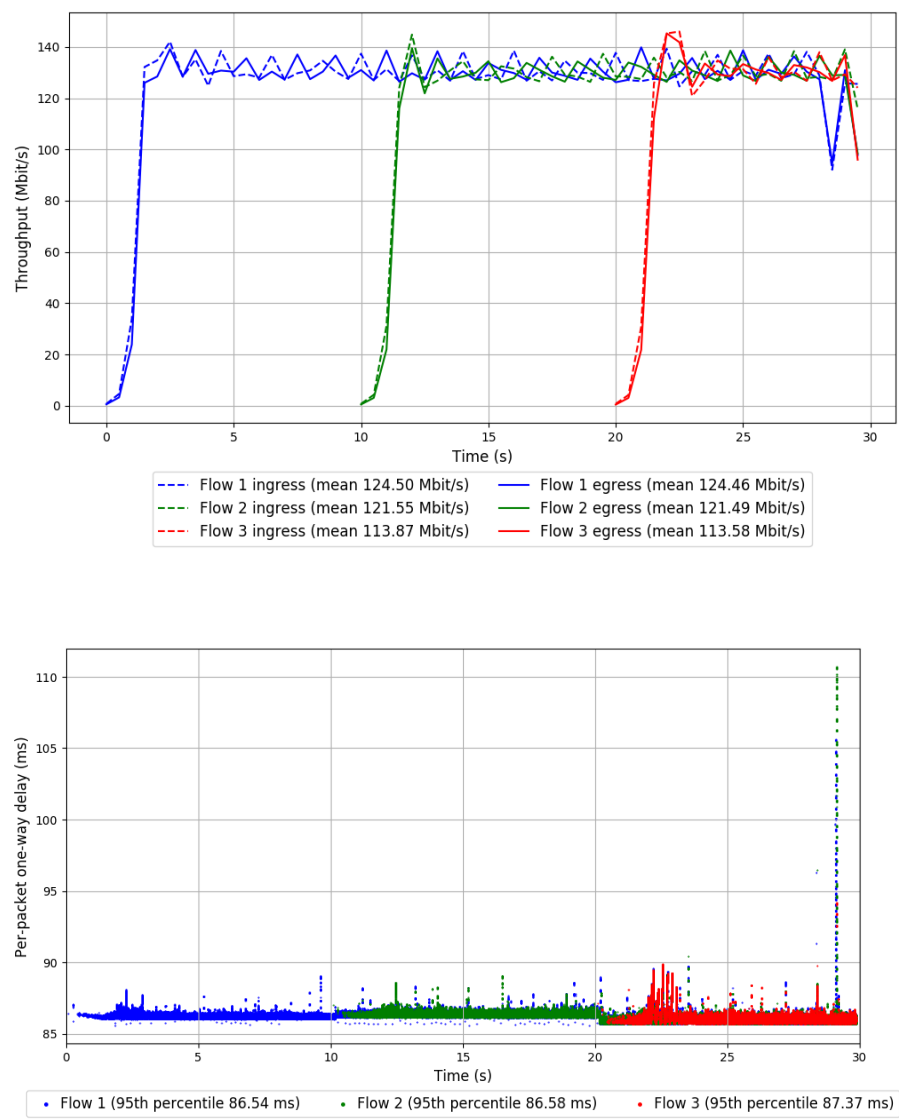
-- Flow 3:

Average throughput: 113.58 Mbit/s

95th percentile per-packet one-way delay: 87.372 ms

Loss rate: 2.07%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-02-13 20:21:44

End at: 2018-02-13 20:22:14

Below is generated by plot.py at 2018-02-14 01:29:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 235.13 Mbit/s

95th percentile per-packet one-way delay: 86.679 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 120.48 Mbit/s

95th percentile per-packet one-way delay: 86.621 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 118.36 Mbit/s

95th percentile per-packet one-way delay: 86.674 ms

Loss rate: 1.10%

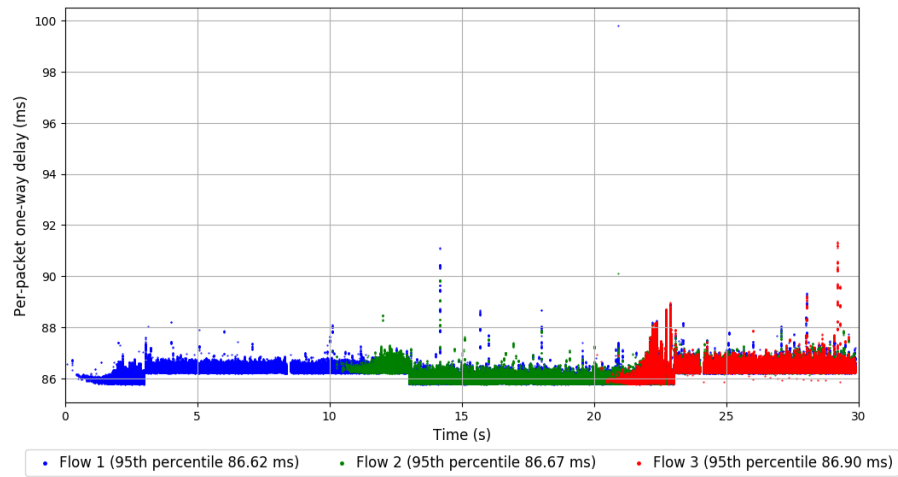
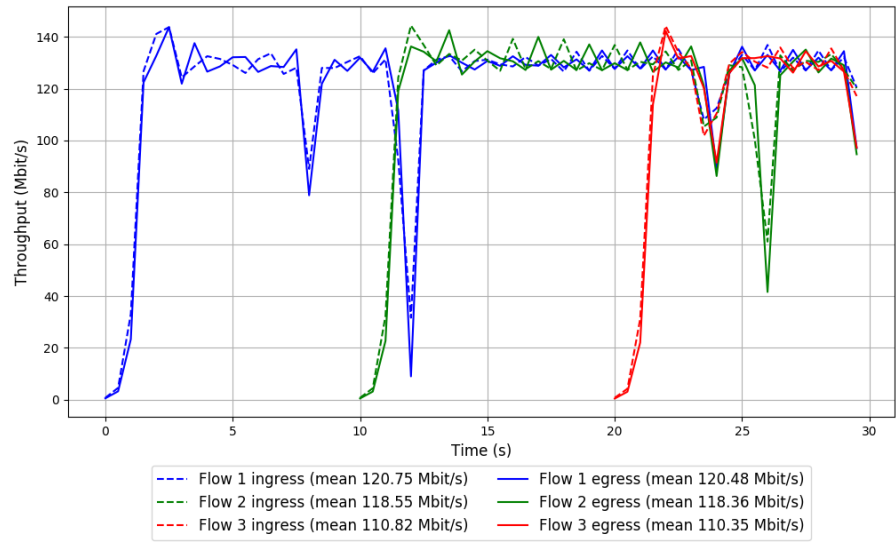
-- Flow 3:

Average throughput: 110.35 Mbit/s

95th percentile per-packet one-way delay: 86.896 ms

Loss rate: 2.17%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-02-13 20:40:39

End at: 2018-02-13 20:41:09

Below is generated by plot.py at 2018-02-14 01:29:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 238.36 Mbit/s

95th percentile per-packet one-way delay: 87.011 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 122.44 Mbit/s

95th percentile per-packet one-way delay: 86.922 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 118.95 Mbit/s

95th percentile per-packet one-way delay: 86.969 ms

Loss rate: 0.94%

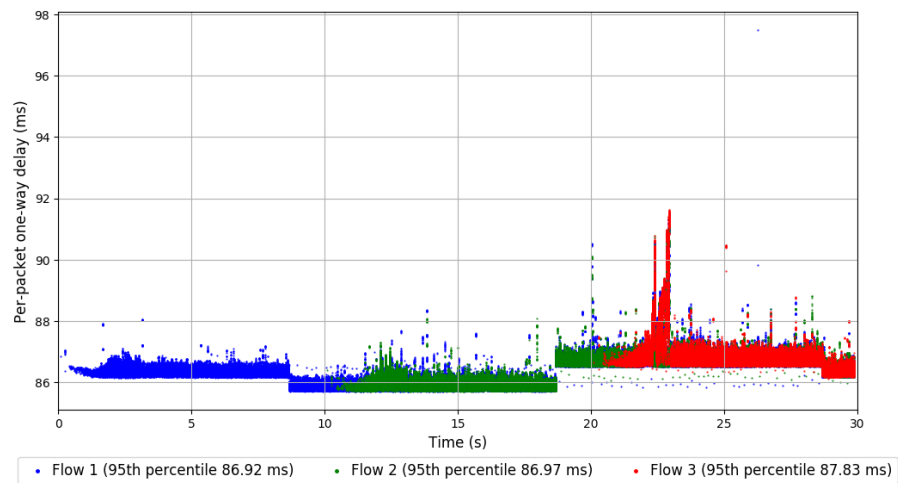
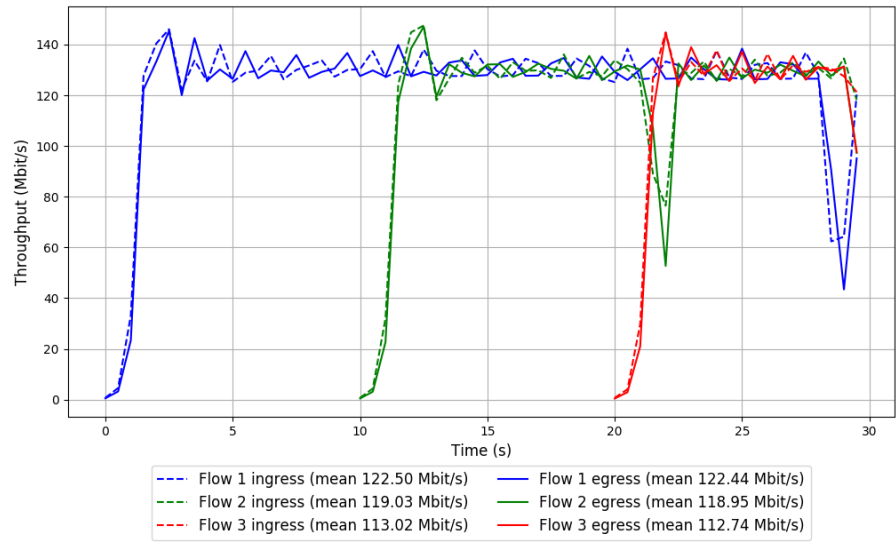
-- Flow 3:

Average throughput: 112.74 Mbit/s

95th percentile per-packet one-way delay: 87.832 ms

Loss rate: 1.98%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-02-13 20:59:29

End at: 2018-02-13 20:59:59

Below is generated by plot.py at 2018-02-14 01:29:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 241.20 Mbit/s

95th percentile per-packet one-way delay: 86.962 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 123.37 Mbit/s

95th percentile per-packet one-way delay: 86.969 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 121.70 Mbit/s

95th percentile per-packet one-way delay: 86.890 ms

Loss rate: 0.92%

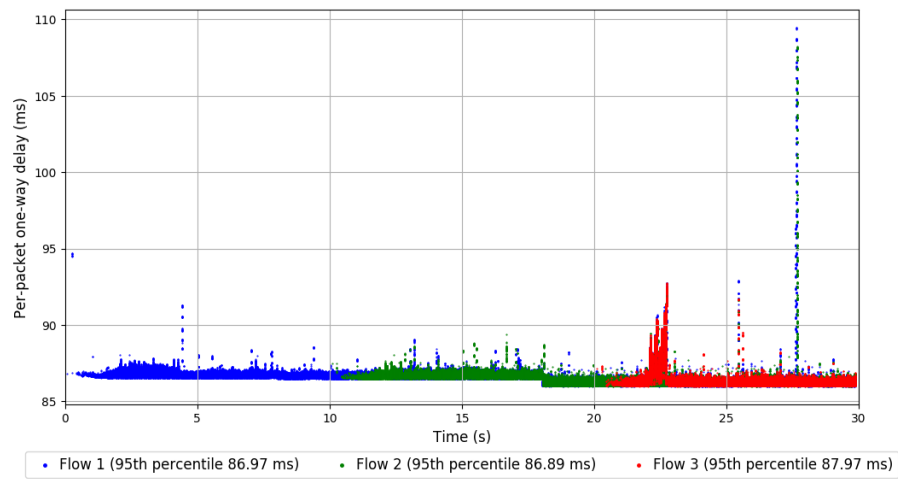
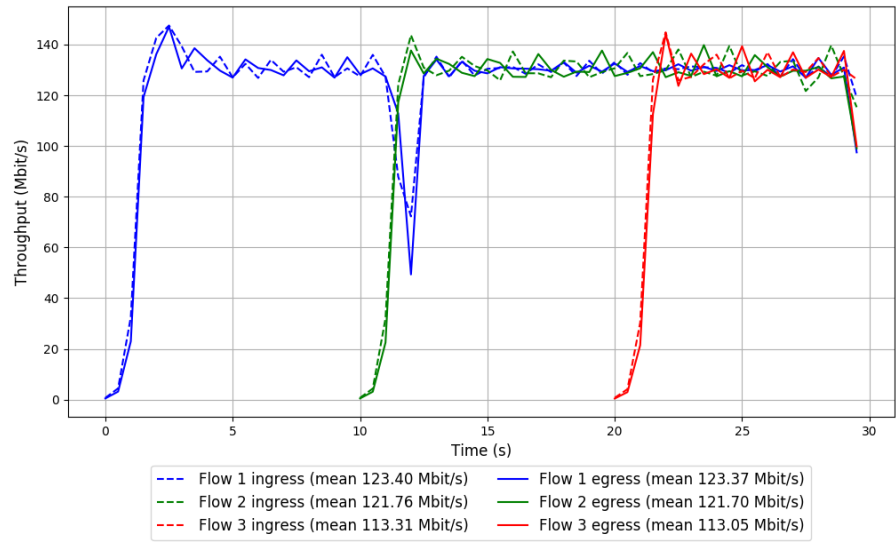
-- Flow 3:

Average throughput: 113.05 Mbit/s

95th percentile per-packet one-way delay: 87.970 ms

Loss rate: 1.98%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-02-13 21:18:27

End at: 2018-02-13 21:18:57

Below is generated by plot.py at 2018-02-14 01:29:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.70 Mbit/s

95th percentile per-packet one-way delay: 86.839 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 121.50 Mbit/s

95th percentile per-packet one-way delay: 86.755 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 119.26 Mbit/s

95th percentile per-packet one-way delay: 86.768 ms

Loss rate: 0.93%

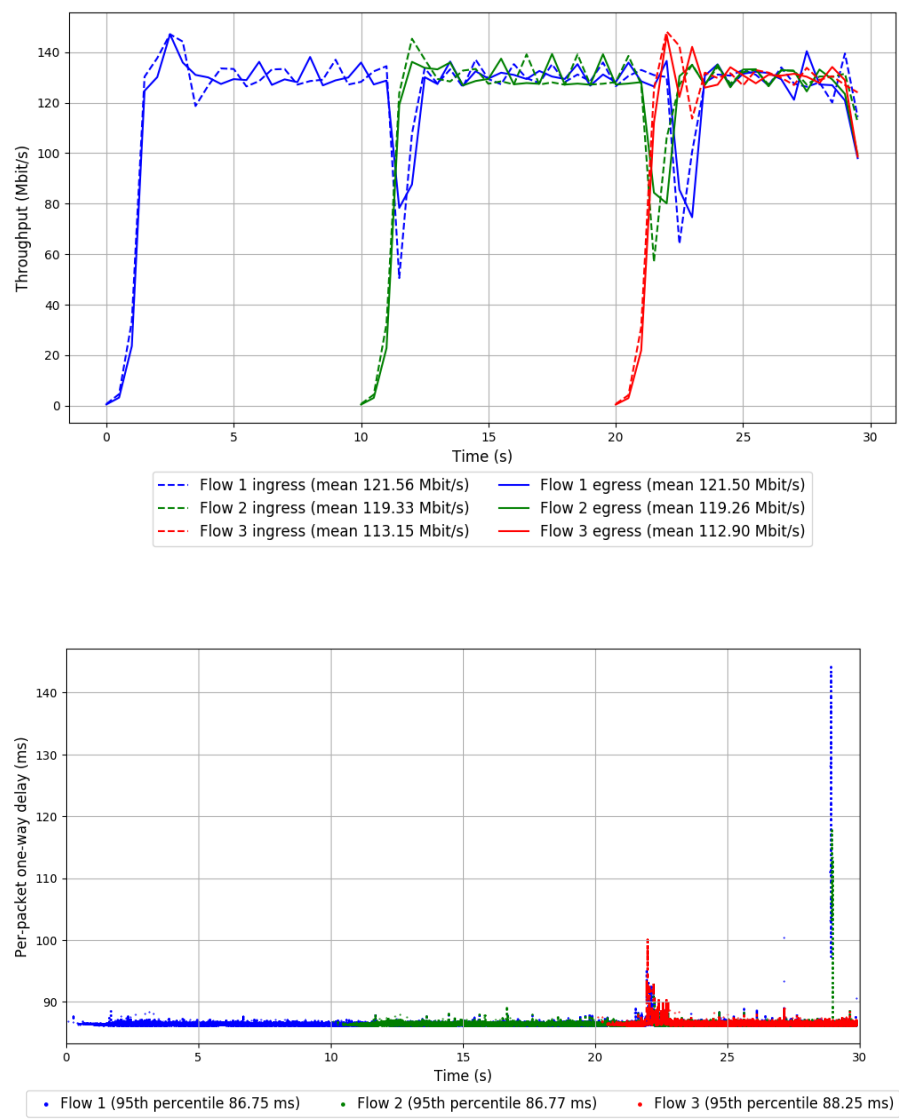
-- Flow 3:

Average throughput: 112.90 Mbit/s

95th percentile per-packet one-way delay: 88.250 ms

Loss rate: 1.98%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-02-13 21:37:04

End at: 2018-02-13 21:37:34

Below is generated by plot.py at 2018-02-14 01:33:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 214.28 Mbit/s

95th percentile per-packet one-way delay: 87.091 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 110.85 Mbit/s

95th percentile per-packet one-way delay: 87.051 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 109.05 Mbit/s

95th percentile per-packet one-way delay: 87.072 ms

Loss rate: 1.02%

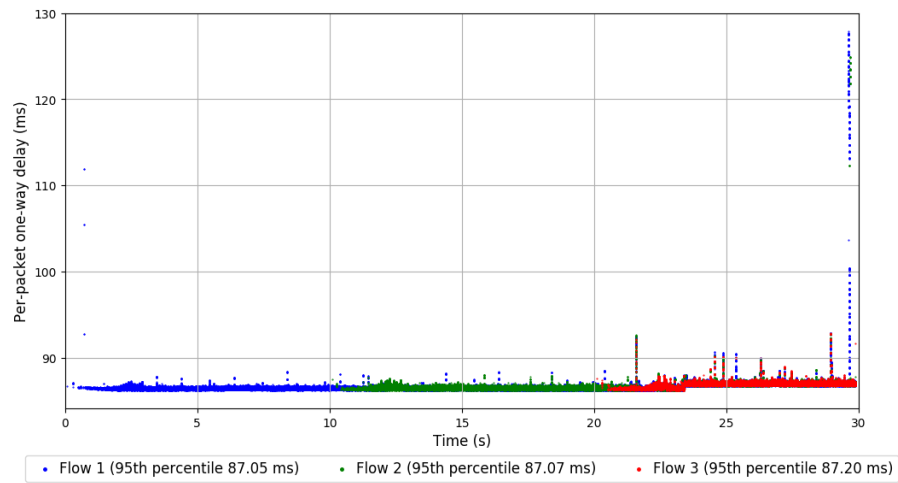
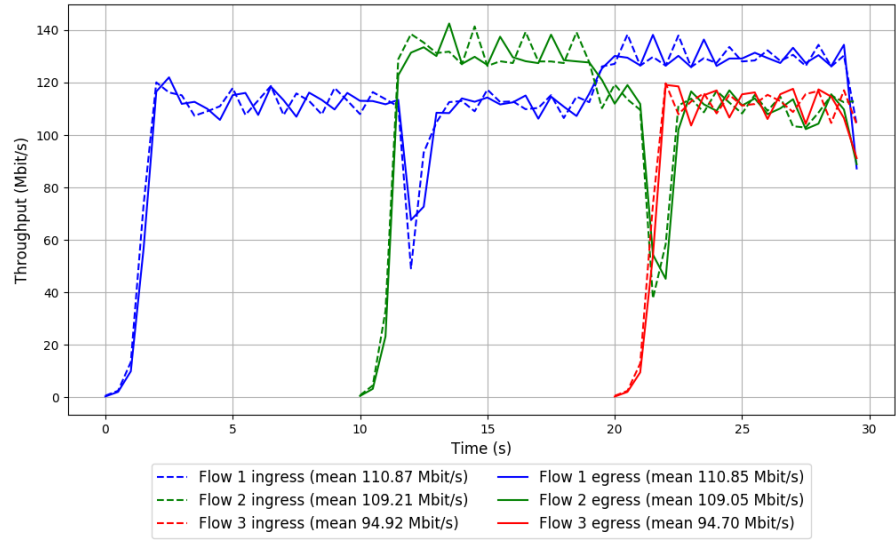
-- Flow 3:

Average throughput: 94.70 Mbit/s

95th percentile per-packet one-way delay: 87.203 ms

Loss rate: 1.94%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-02-13 21:56:03

End at: 2018-02-13 21:56:33

Below is generated by plot.py at 2018-02-14 01:33:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 231.16 Mbit/s

95th percentile per-packet one-way delay: 86.673 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 120.75 Mbit/s

95th percentile per-packet one-way delay: 86.635 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 119.28 Mbit/s

95th percentile per-packet one-way delay: 86.677 ms

Loss rate: 0.93%

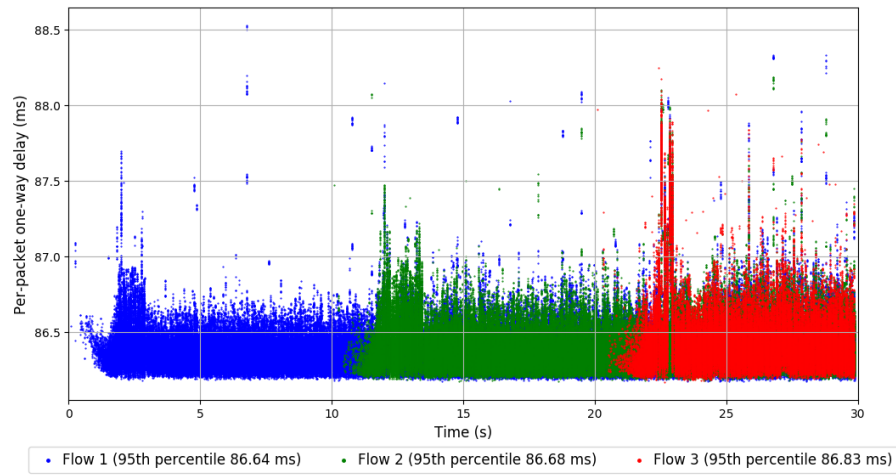
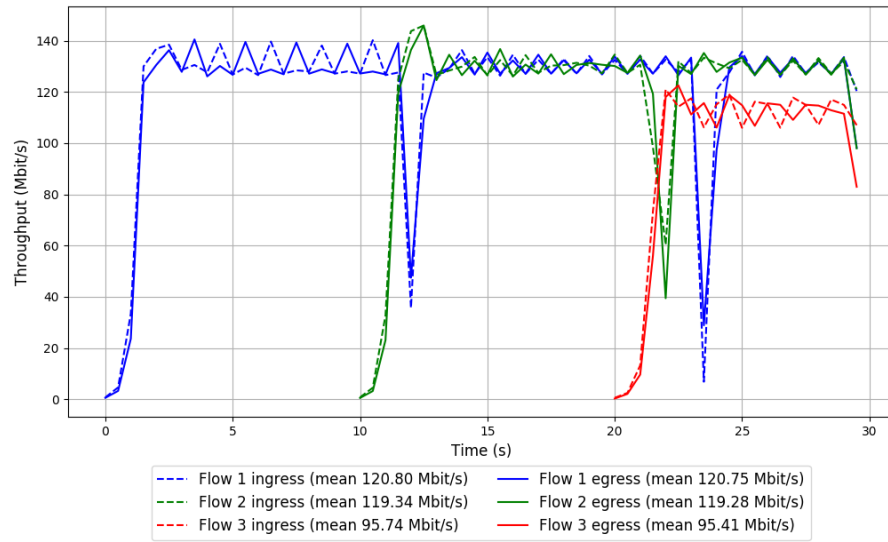
-- Flow 3:

Average throughput: 95.41 Mbit/s

95th percentile per-packet one-way delay: 86.834 ms

Loss rate: 2.44%

Run 10: Report of TCP BBR — Data Link

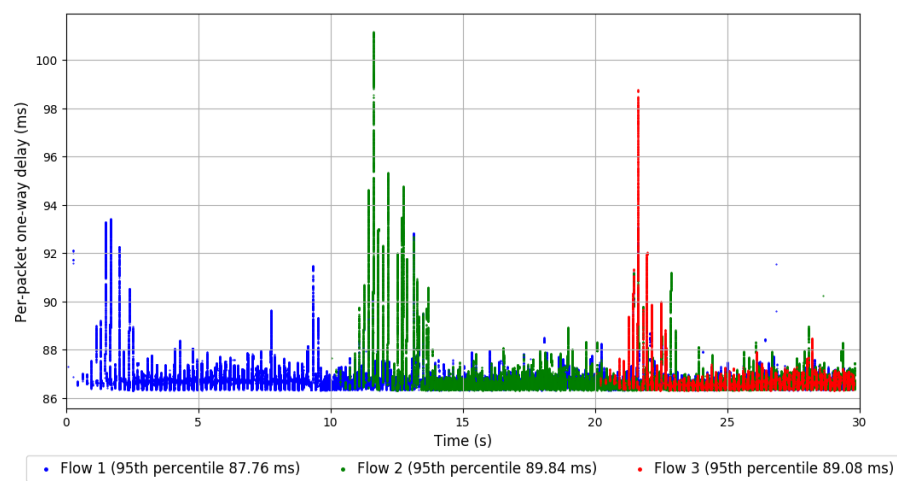
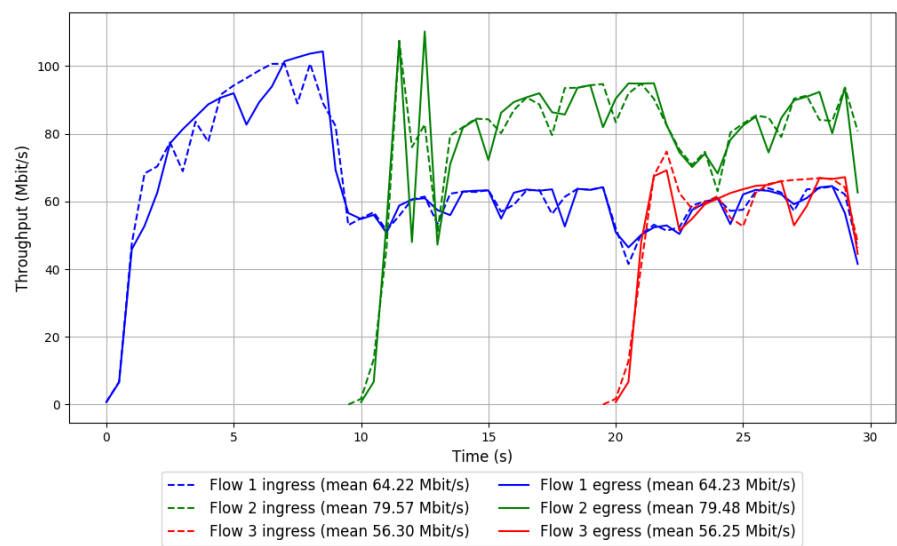


```
Run 1: Statistics of TCP Cubic

Start at: 2018-02-13 19:05:08
End at: 2018-02-13 19:05:38

# Below is generated by plot.py at 2018-02-14 01:33:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 135.55 Mbit/s
95th percentile per-packet one-way delay: 88.713 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 64.23 Mbit/s
95th percentile per-packet one-way delay: 87.762 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 79.48 Mbit/s
95th percentile per-packet one-way delay: 89.840 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 56.25 Mbit/s
95th percentile per-packet one-way delay: 89.078 ms
Loss rate: 2.02%
```

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-02-13 19:24:02

End at: 2018-02-13 19:24:32

Below is generated by plot.py at 2018-02-14 01:33:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.48 Mbit/s

95th percentile per-packet one-way delay: 87.967 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 66.55 Mbit/s

95th percentile per-packet one-way delay: 88.457 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 71.55 Mbit/s

95th percentile per-packet one-way delay: 87.565 ms

Loss rate: 0.99%

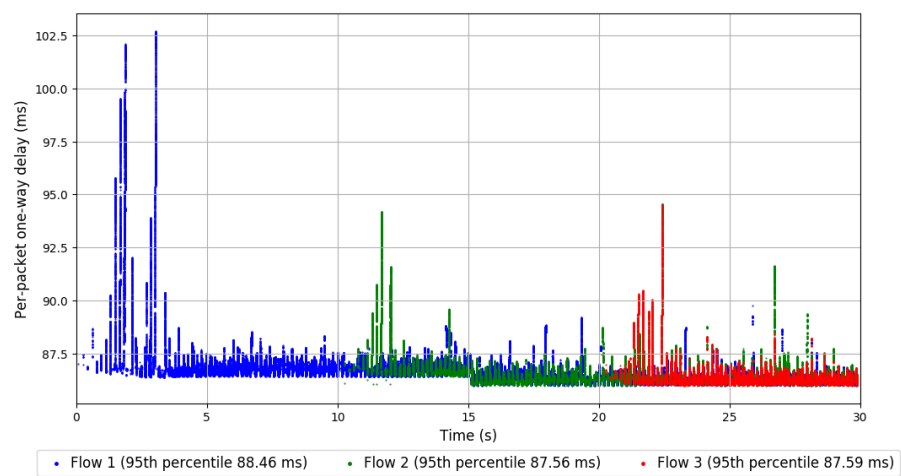
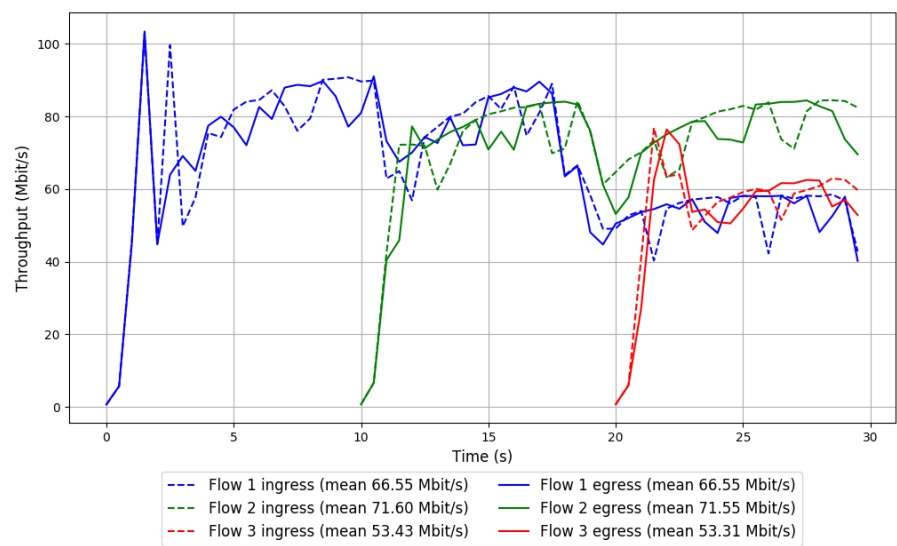
-- Flow 3:

Average throughput: 53.31 Mbit/s

95th percentile per-packet one-way delay: 87.589 ms

Loss rate: 1.98%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-02-13 19:42:56

End at: 2018-02-13 19:43:26

Below is generated by plot.py at 2018-02-14 01:33:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 155.39 Mbit/s

95th percentile per-packet one-way delay: 88.514 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 73.15 Mbit/s

95th percentile per-packet one-way delay: 87.992 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 89.30 Mbit/s

95th percentile per-packet one-way delay: 89.085 ms

Loss rate: 1.29%

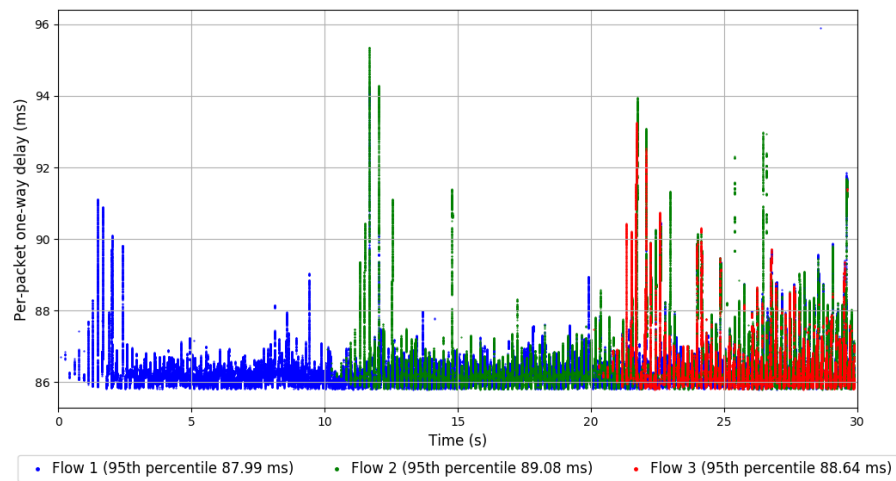
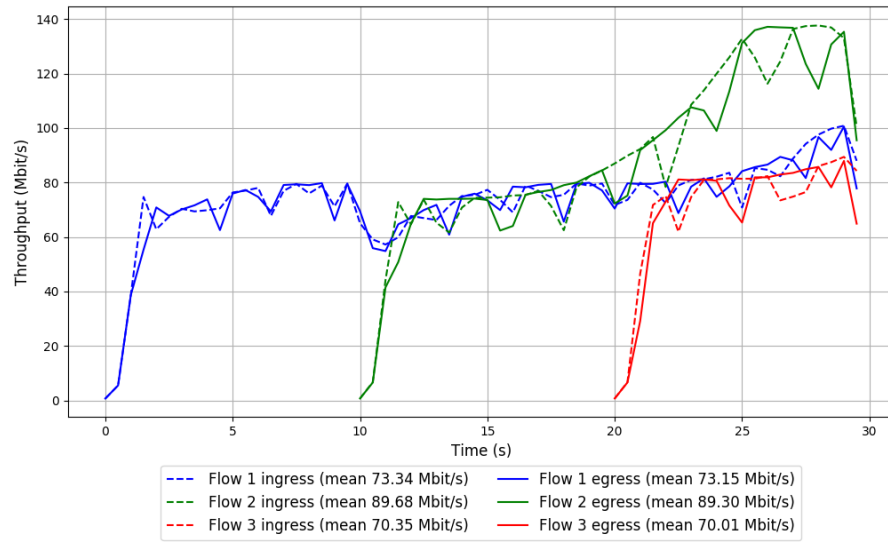
-- Flow 3:

Average throughput: 70.01 Mbit/s

95th percentile per-packet one-way delay: 88.643 ms

Loss rate: 2.22%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-02-13 20:01:47

End at: 2018-02-13 20:02:17

Below is generated by plot.py at 2018-02-14 01:33:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.06 Mbit/s

95th percentile per-packet one-way delay: 88.392 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 43.46 Mbit/s

95th percentile per-packet one-way delay: 88.363 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 62.38 Mbit/s

95th percentile per-packet one-way delay: 88.369 ms

Loss rate: 1.45%

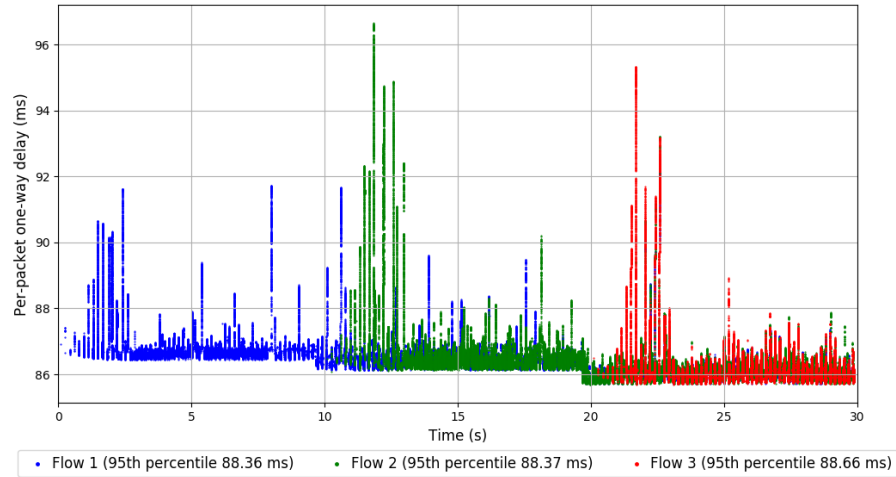
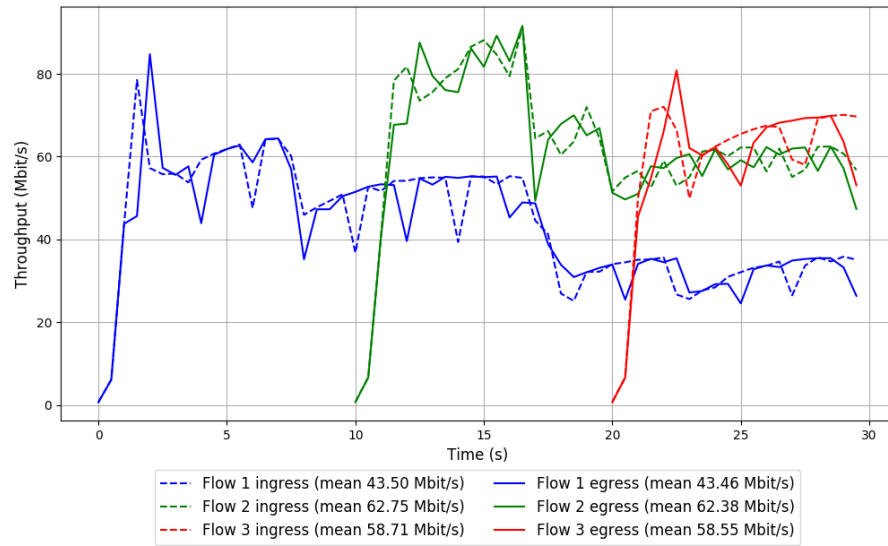
-- Flow 3:

Average throughput: 58.55 Mbit/s

95th percentile per-packet one-way delay: 88.663 ms

Loss rate: 2.02%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-02-13 20:20:53

End at: 2018-02-13 20:21:23

Below is generated by plot.py at 2018-02-14 01:33:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 134.32 Mbit/s

95th percentile per-packet one-way delay: 88.280 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 61.42 Mbit/s

95th percentile per-packet one-way delay: 88.470 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 83.50 Mbit/s

95th percentile per-packet one-way delay: 87.816 ms

Loss rate: 1.15%

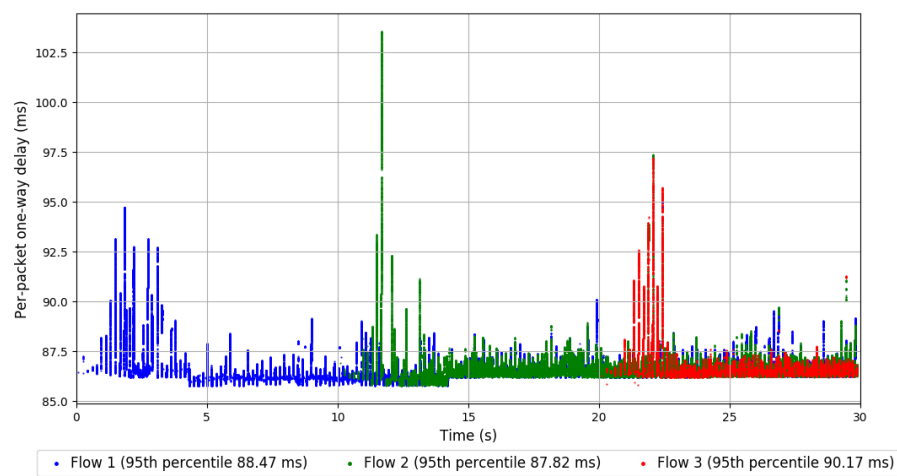
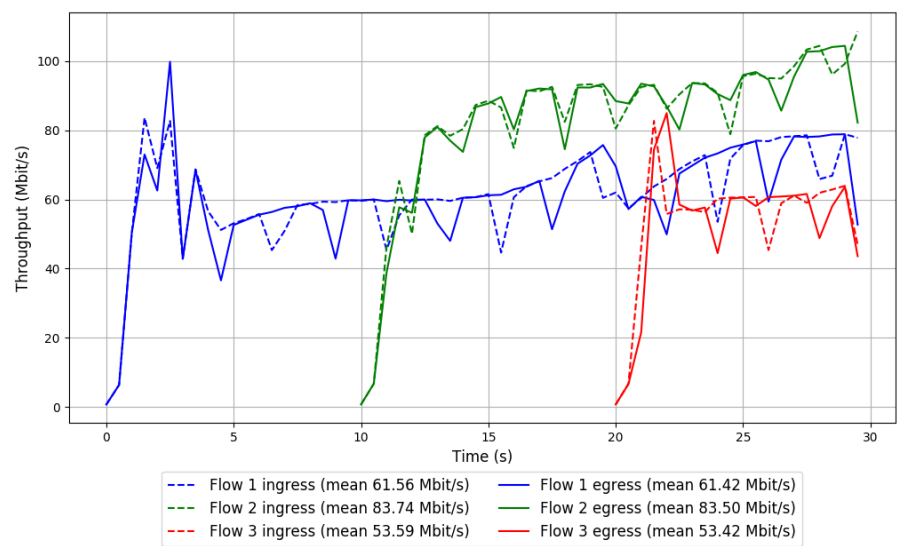
-- Flow 3:

Average throughput: 53.42 Mbit/s

95th percentile per-packet one-way delay: 90.167 ms

Loss rate: 2.04%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-02-13 20:39:46

End at: 2018-02-13 20:40:16

Below is generated by plot.py at 2018-02-14 01:33:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 153.01 Mbit/s

95th percentile per-packet one-way delay: 90.572 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 77.26 Mbit/s

95th percentile per-packet one-way delay: 90.155 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 85.80 Mbit/s

95th percentile per-packet one-way delay: 91.846 ms

Loss rate: 0.90%

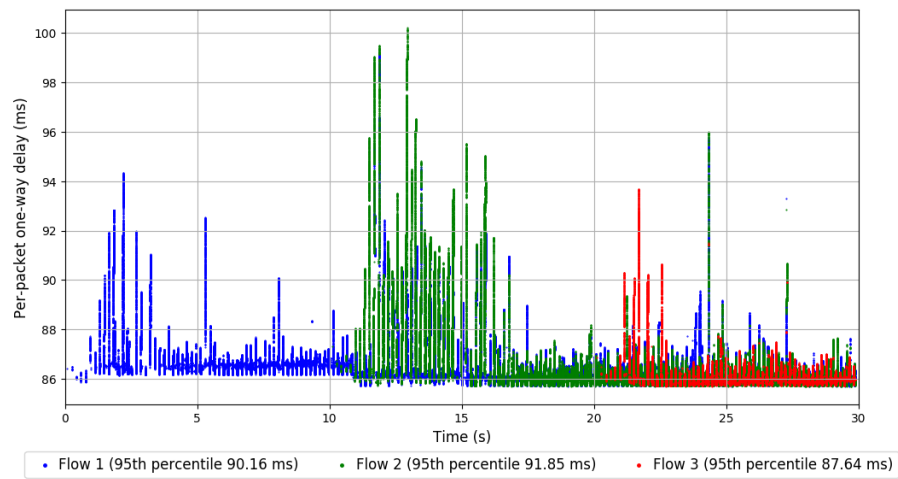
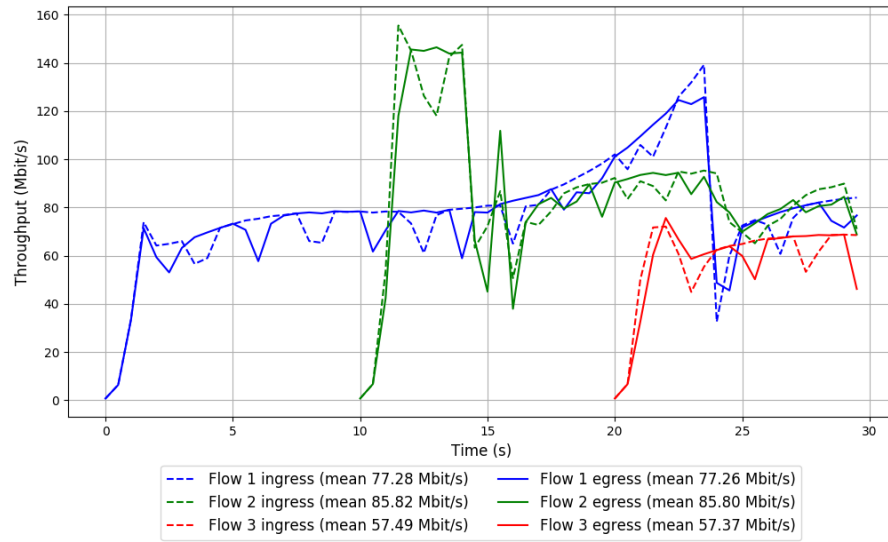
-- Flow 3:

Average throughput: 57.37 Mbit/s

95th percentile per-packet one-way delay: 87.636 ms

Loss rate: 2.00%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-02-13 20:58:37

End at: 2018-02-13 20:59:07

Below is generated by plot.py at 2018-02-14 01:33:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 145.62 Mbit/s

95th percentile per-packet one-way delay: 93.484 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 71.85 Mbit/s

95th percentile per-packet one-way delay: 92.582 ms

Loss rate: 1.12%

-- Flow 2:

Average throughput: 110.04 Mbit/s

95th percentile per-packet one-way delay: 94.251 ms

Loss rate: 0.71%

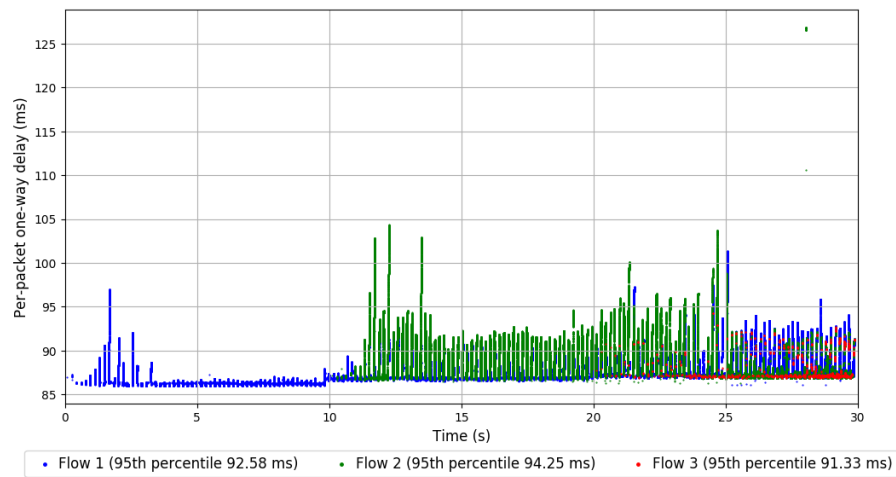
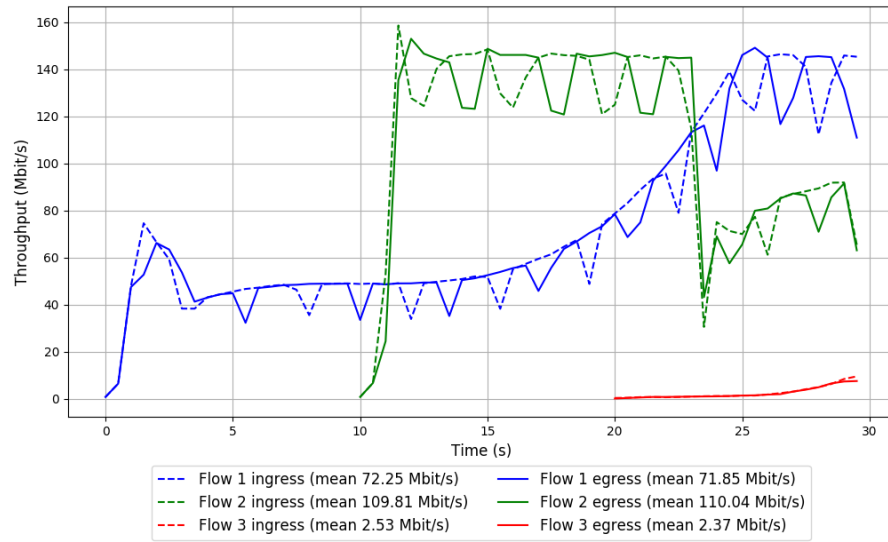
-- Flow 3:

Average throughput: 2.37 Mbit/s

95th percentile per-packet one-way delay: 91.334 ms

Loss rate: 7.74%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-02-13 21:17:38

End at: 2018-02-13 21:18:08

Below is generated by plot.py at 2018-02-14 01:33:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.13 Mbit/s

95th percentile per-packet one-way delay: 89.248 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 41.31 Mbit/s

95th percentile per-packet one-way delay: 88.201 ms

Loss rate: 1.40%

-- Flow 2:

Average throughput: 51.02 Mbit/s

95th percentile per-packet one-way delay: 89.243 ms

Loss rate: 1.61%

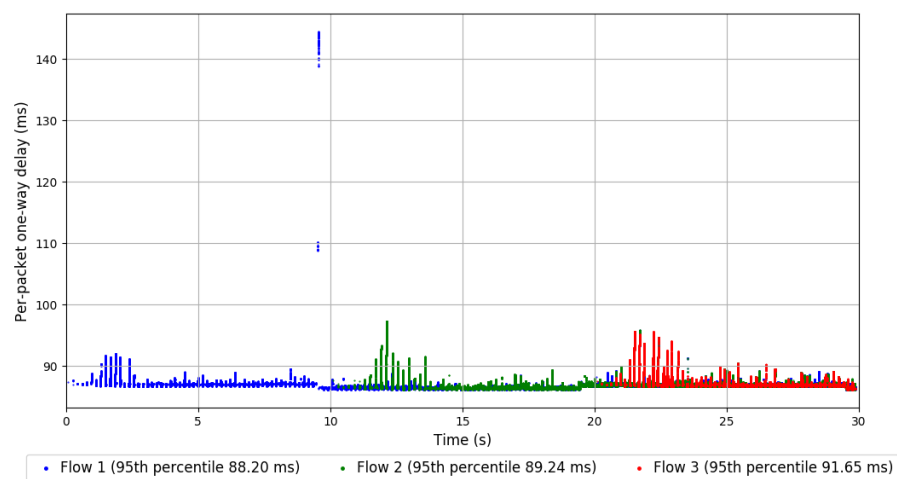
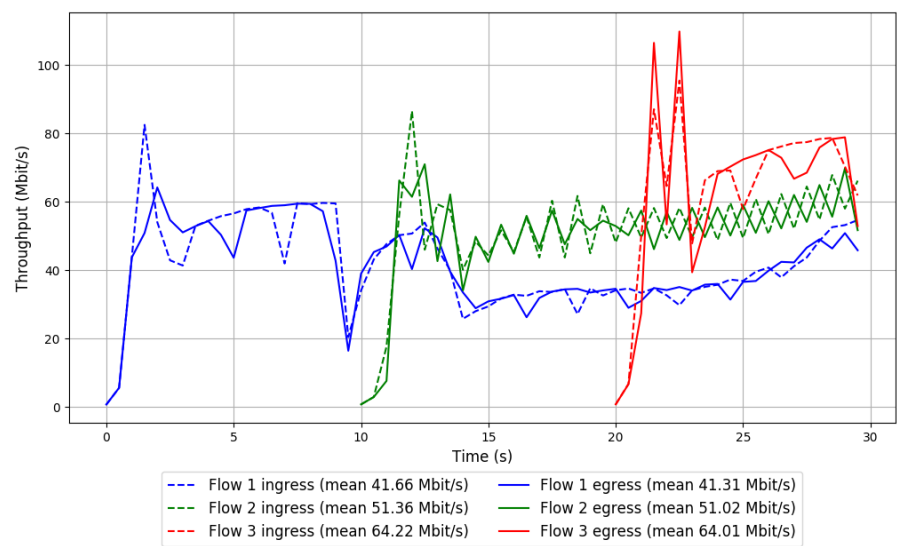
-- Flow 3:

Average throughput: 64.01 Mbit/s

95th percentile per-packet one-way delay: 91.654 ms

Loss rate: 2.07%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-02-13 21:36:13

End at: 2018-02-13 21:36:43

Below is generated by plot.py at 2018-02-14 01:33:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.35 Mbit/s

95th percentile per-packet one-way delay: 89.300 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 60.03 Mbit/s

95th percentile per-packet one-way delay: 88.966 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 69.22 Mbit/s

95th percentile per-packet one-way delay: 89.100 ms

Loss rate: 1.13%

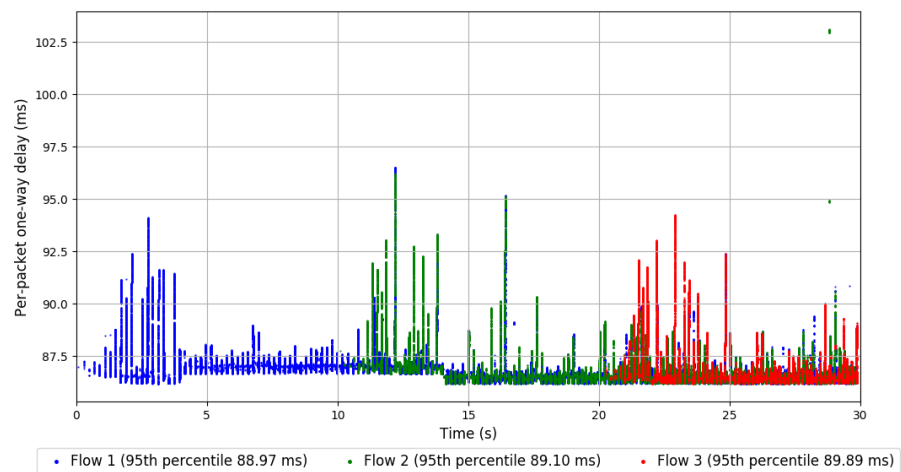
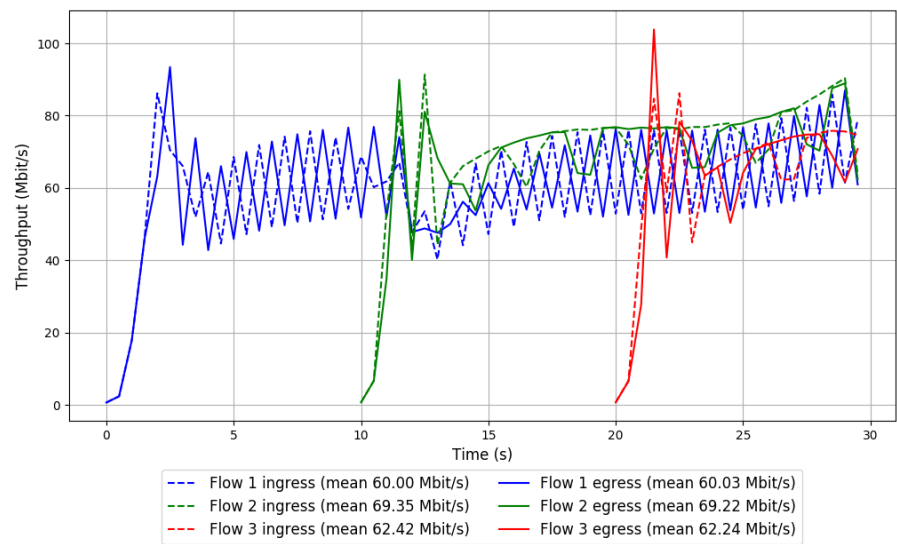
-- Flow 3:

Average throughput: 62.24 Mbit/s

95th percentile per-packet one-way delay: 89.894 ms

Loss rate: 2.04%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-02-13 21:55:11

End at: 2018-02-13 21:55:41

Below is generated by plot.py at 2018-02-14 01:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.30 Mbit/s

95th percentile per-packet one-way delay: 89.829 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 75.47 Mbit/s

95th percentile per-packet one-way delay: 89.417 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 84.86 Mbit/s

95th percentile per-packet one-way delay: 89.923 ms

Loss rate: 0.88%

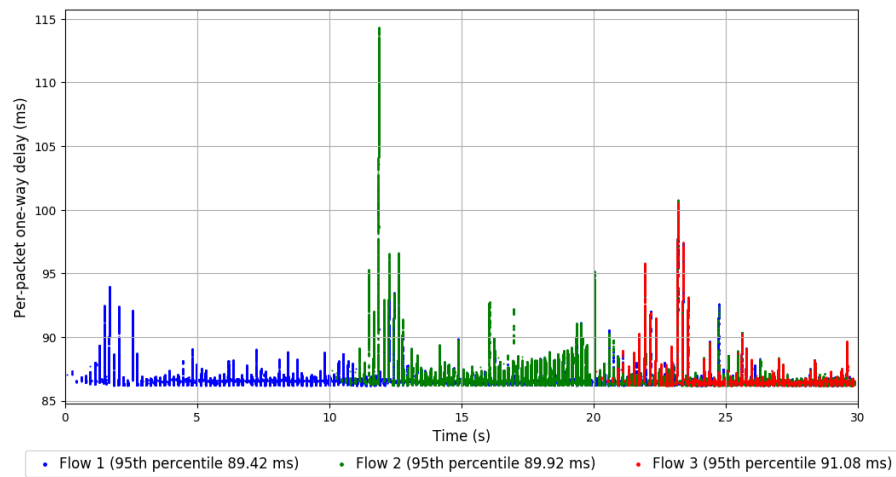
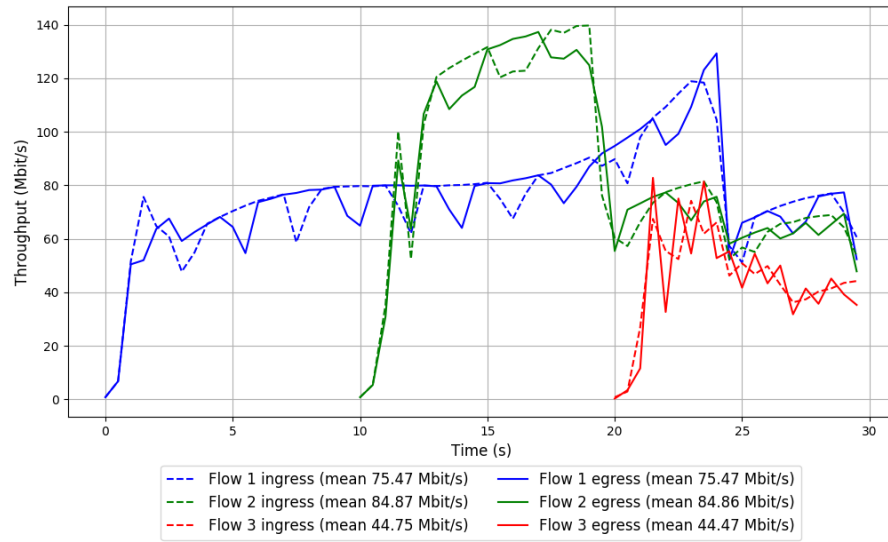
-- Flow 3:

Average throughput: 44.47 Mbit/s

95th percentile per-packet one-way delay: 91.084 ms

Loss rate: 2.25%

Run 10: Report of TCP Cubic — Data Link

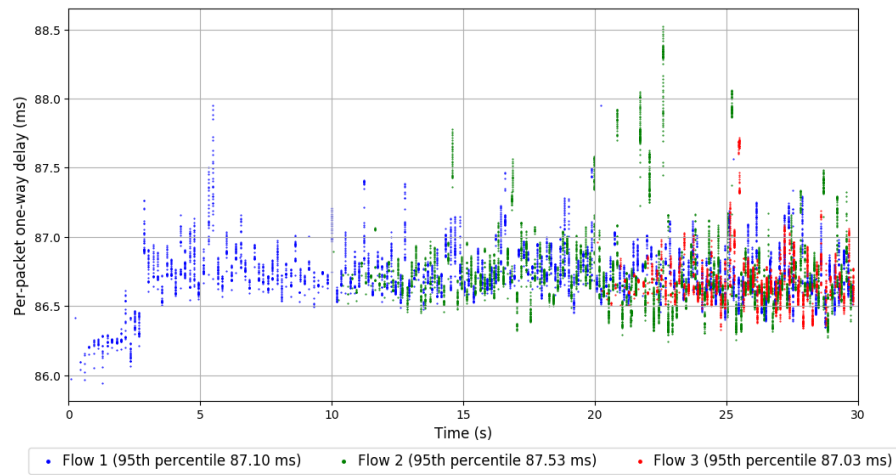
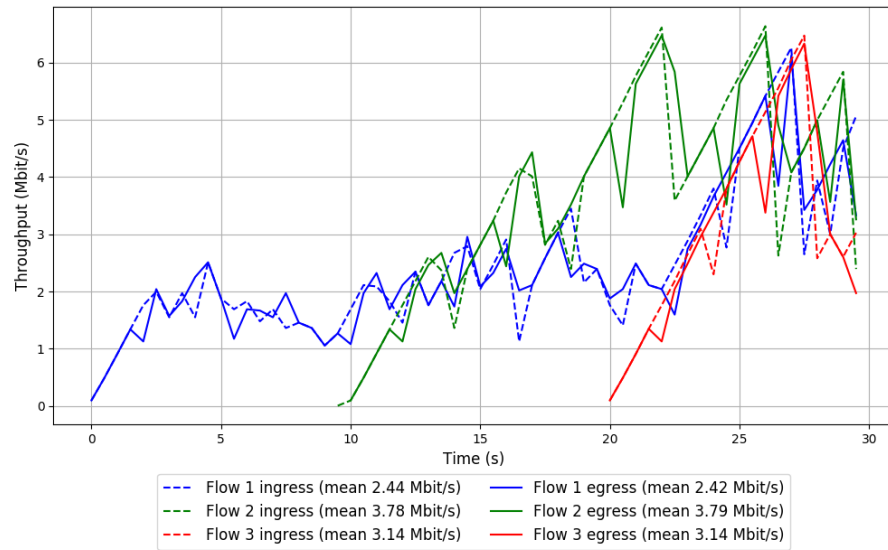


```
Run 1: Statistics of LEDBAT

Start at: 2018-02-13 18:56:44
End at: 2018-02-13 18:57:14

# Below is generated by plot.py at 2018-02-14 01:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.94 Mbit/s
95th percentile per-packet one-way delay: 87.206 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 87.096 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 3.79 Mbit/s
95th percentile per-packet one-way delay: 87.531 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 87.032 ms
Loss rate: 1.70%
```


Run 1: Report of LEDBAT — Data Link

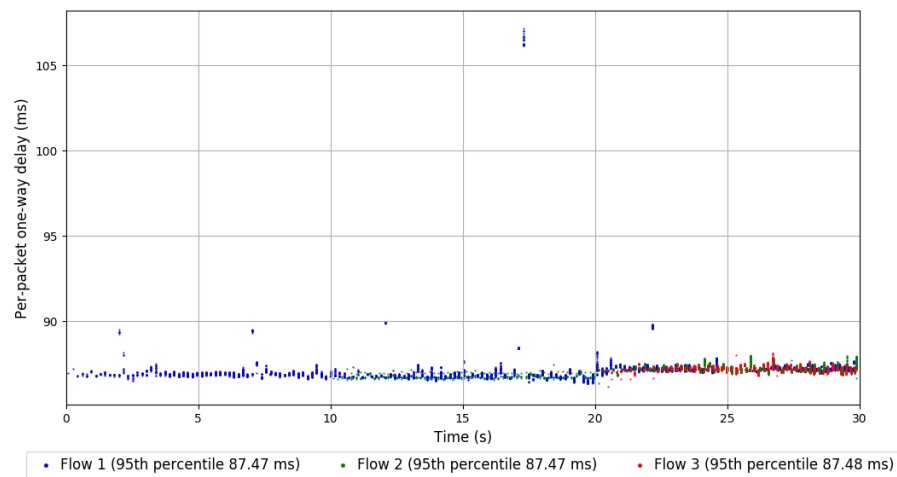
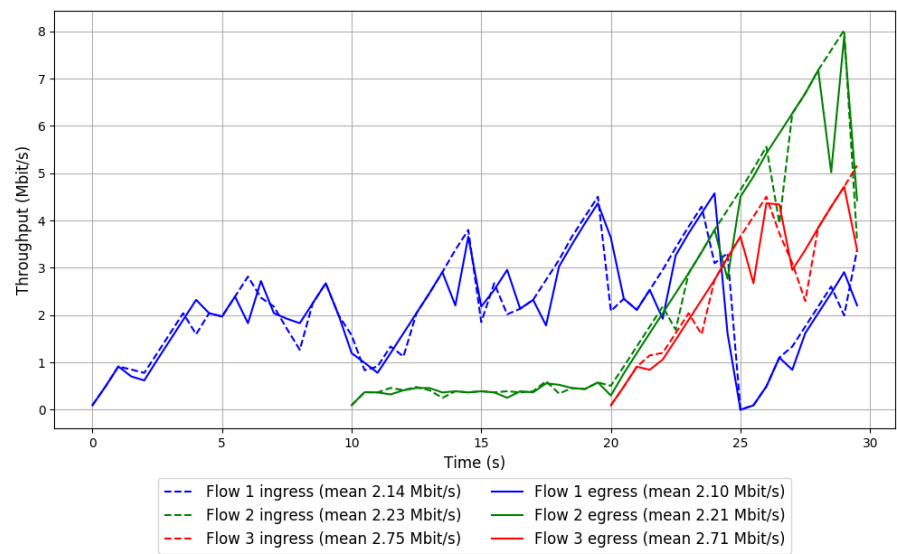


```
Run 2: Statistics of LEDBAT

Start at: 2018-02-13 19:15:47
End at: 2018-02-13 19:16:17

# Below is generated by plot.py at 2018-02-14 01:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 87.471 ms
Loss rate: 2.46%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 87.472 ms
Loss rate: 2.39%
-- Flow 2:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 87.468 ms
Loss rate: 2.08%
-- Flow 3:
Average throughput: 2.71 Mbit/s
95th percentile per-packet one-way delay: 87.476 ms
Loss rate: 3.27%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-02-13 19:34:37

End at: 2018-02-13 19:35:07

Below is generated by plot.py at 2018-02-14 01:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.13 Mbit/s

95th percentile per-packet one-way delay: 87.380 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 4.75 Mbit/s

95th percentile per-packet one-way delay: 87.392 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 3.68 Mbit/s

95th percentile per-packet one-way delay: 87.380 ms

Loss rate: 1.60%

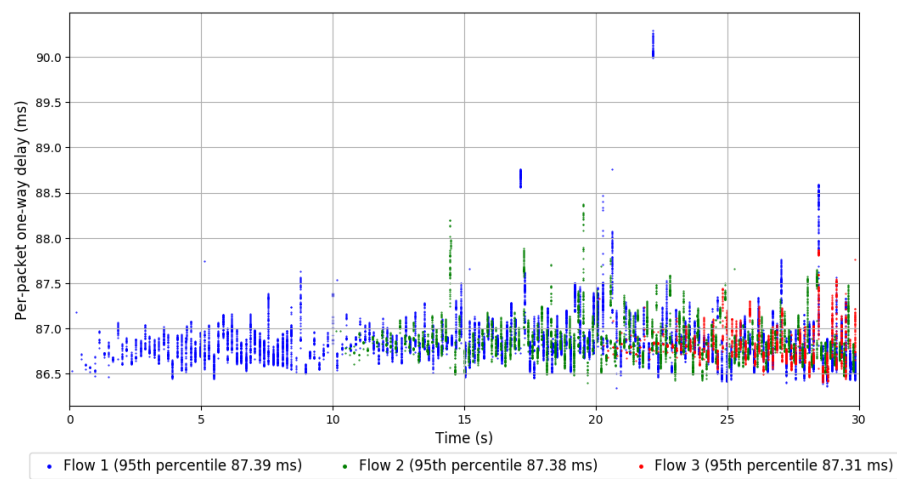
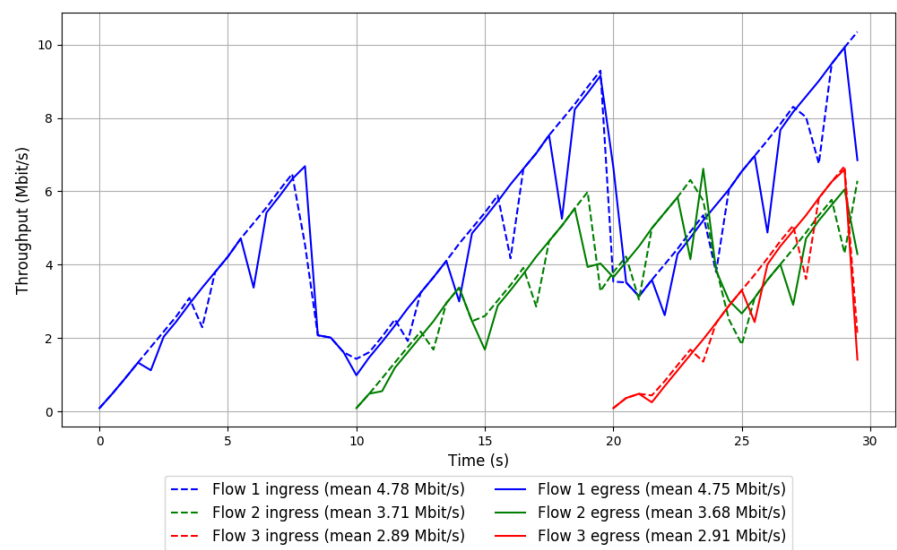
-- Flow 3:

Average throughput: 2.91 Mbit/s

95th percentile per-packet one-way delay: 87.315 ms

Loss rate: 1.37%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-02-13 19:53:28

End at: 2018-02-13 19:53:58

Below is generated by plot.py at 2018-02-14 01:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.14 Mbit/s

95th percentile per-packet one-way delay: 87.026 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 5.58 Mbit/s

95th percentile per-packet one-way delay: 87.054 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 2.54 Mbit/s

95th percentile per-packet one-way delay: 86.937 ms

Loss rate: 0.58%

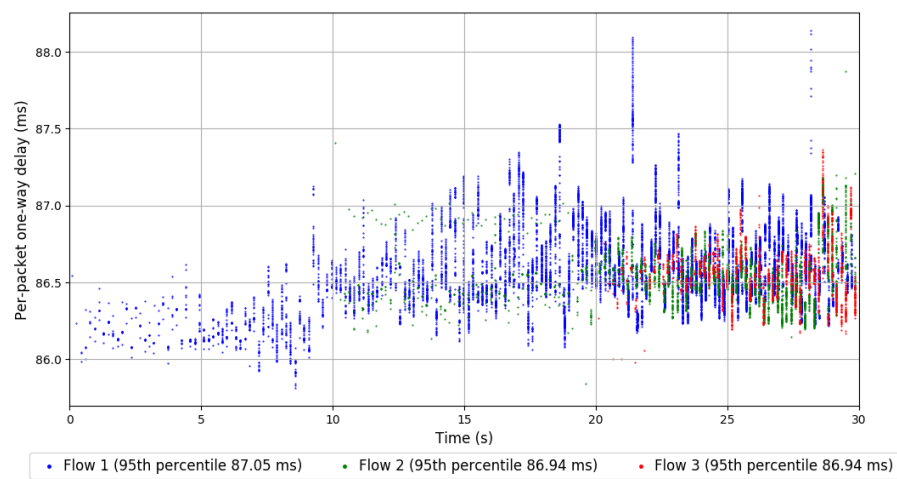
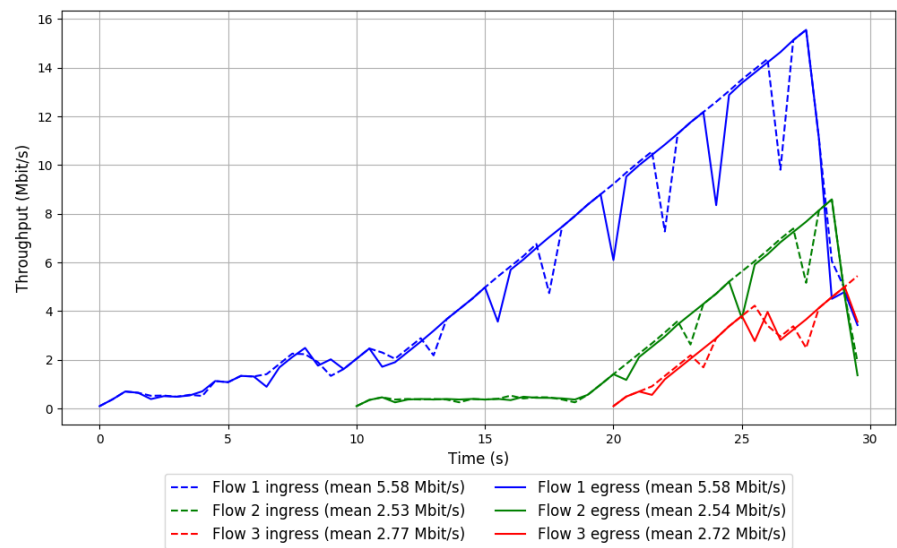
-- Flow 3:

Average throughput: 2.72 Mbit/s

95th percentile per-packet one-way delay: 86.942 ms

Loss rate: 3.42%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-02-13 20:12:36

End at: 2018-02-13 20:13:06

Below is generated by plot.py at 2018-02-14 01:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.55 Mbit/s

95th percentile per-packet one-way delay: 87.066 ms

Loss rate: 1.82%

-- Flow 1:

Average throughput: 3.44 Mbit/s

95th percentile per-packet one-way delay: 87.093 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 87.073 ms

Loss rate: 3.35%

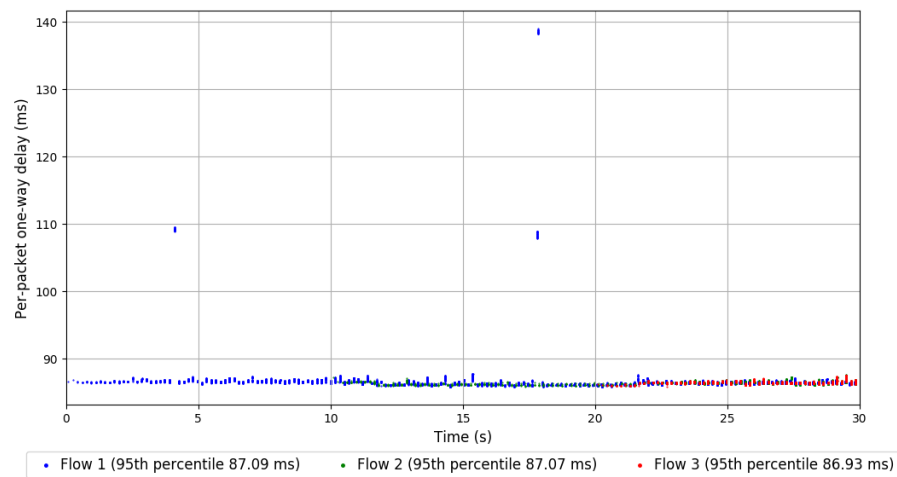
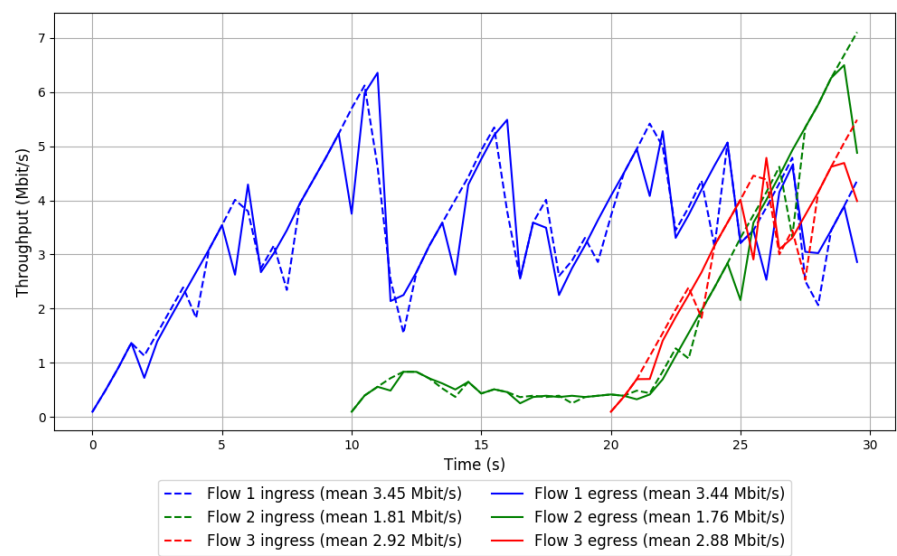
-- Flow 3:

Average throughput: 2.88 Mbit/s

95th percentile per-packet one-way delay: 86.929 ms

Loss rate: 3.24%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-02-13 20:31:29

End at: 2018-02-13 20:31:59

Below is generated by plot.py at 2018-02-14 01:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.83 Mbit/s

95th percentile per-packet one-way delay: 87.189 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 87.200 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 7.35 Mbit/s

95th percentile per-packet one-way delay: 87.194 ms

Loss rate: 1.05%

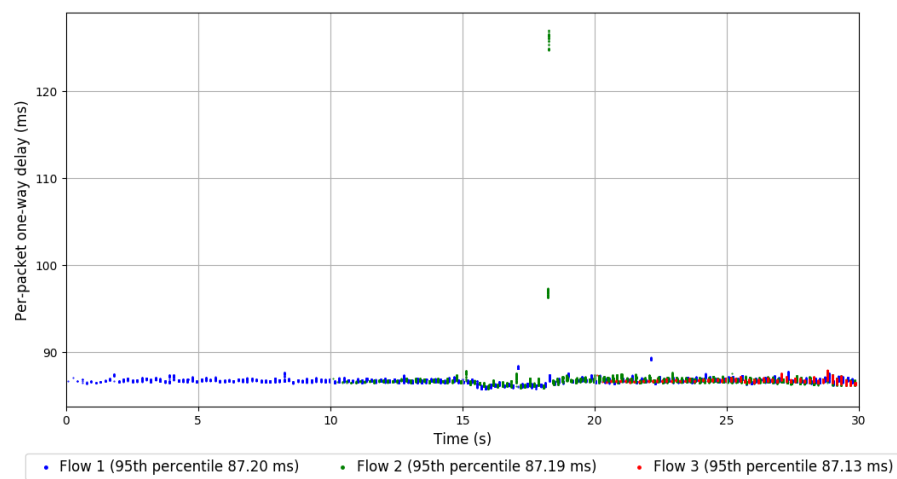
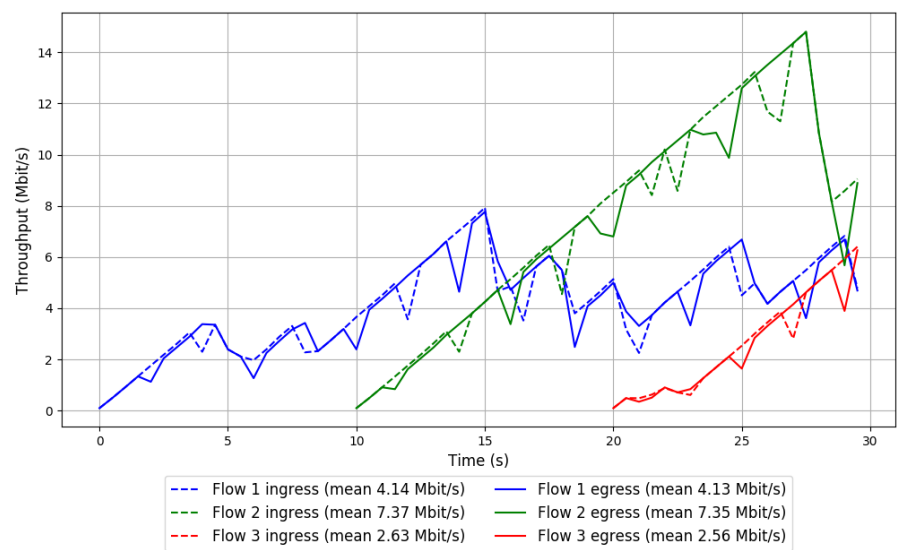
-- Flow 3:

Average throughput: 2.56 Mbit/s

95th percentile per-packet one-way delay: 87.134 ms

Loss rate: 4.18%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-02-13 20:50:24

End at: 2018-02-13 20:50:54

Below is generated by plot.py at 2018-02-14 01:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.39 Mbit/s

95th percentile per-packet one-way delay: 87.556 ms

Loss rate: 2.15%

-- Flow 1:

Average throughput: 3.93 Mbit/s

95th percentile per-packet one-way delay: 87.554 ms

Loss rate: 2.64%

-- Flow 2:

Average throughput: 5.36 Mbit/s

95th percentile per-packet one-way delay: 87.601 ms

Loss rate: 1.63%

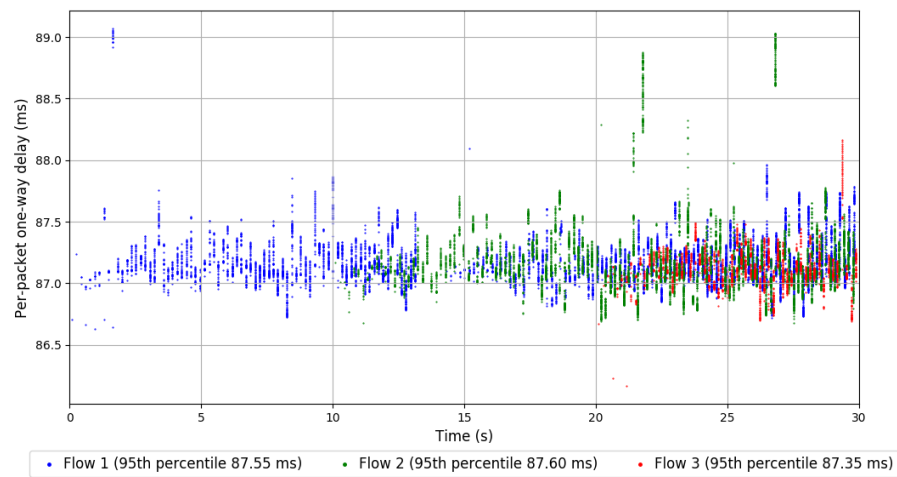
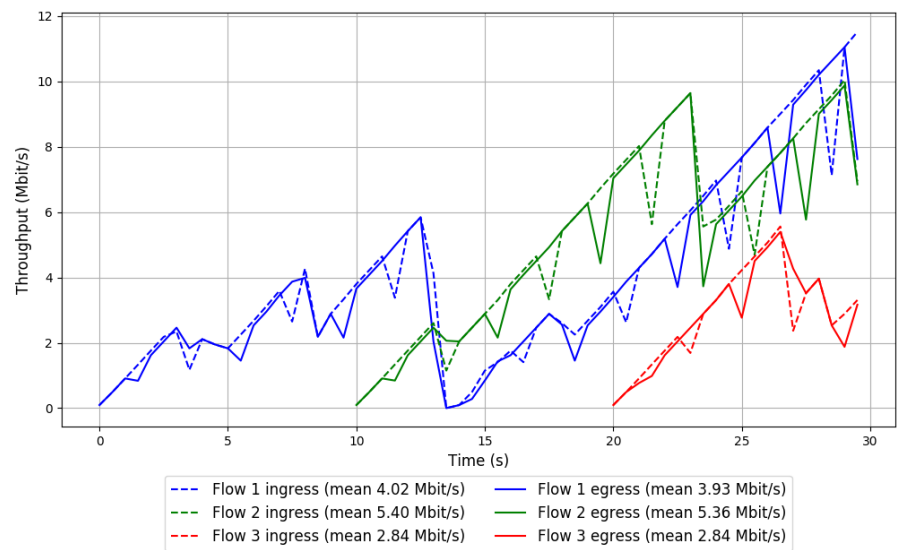
-- Flow 3:

Average throughput: 2.84 Mbit/s

95th percentile per-packet one-way delay: 87.353 ms

Loss rate: 2.03%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-02-13 21:09:17

End at: 2018-02-13 21:09:47

Below is generated by plot.py at 2018-02-14 01:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.84 Mbit/s

95th percentile per-packet one-way delay: 86.984 ms

Loss rate: 2.21%

-- Flow 1:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 86.778 ms

Loss rate: 3.32%

-- Flow 2:

Average throughput: 4.64 Mbit/s

95th percentile per-packet one-way delay: 87.032 ms

Loss rate: 1.99%

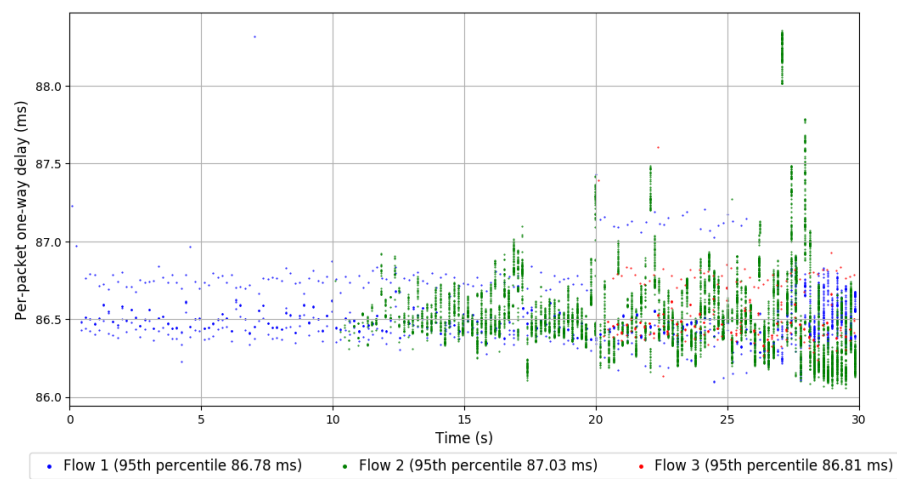
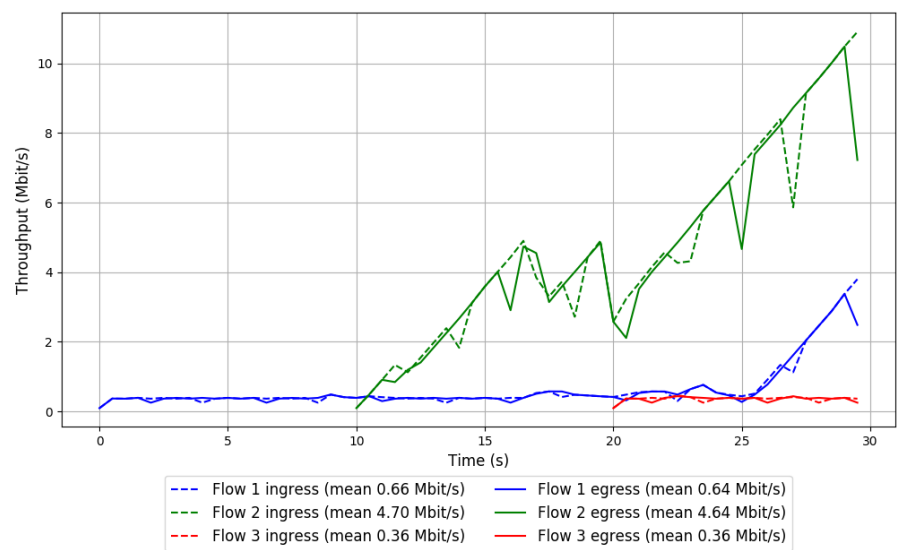
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 86.812 ms

Loss rate: 1.59%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-02-13 21:28:01

End at: 2018-02-13 21:28:31

Below is generated by plot.py at 2018-02-14 01:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.09 Mbit/s

95th percentile per-packet one-way delay: 87.433 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 4.95 Mbit/s

95th percentile per-packet one-way delay: 87.177 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 6.02 Mbit/s

95th percentile per-packet one-way delay: 87.782 ms

Loss rate: 1.03%

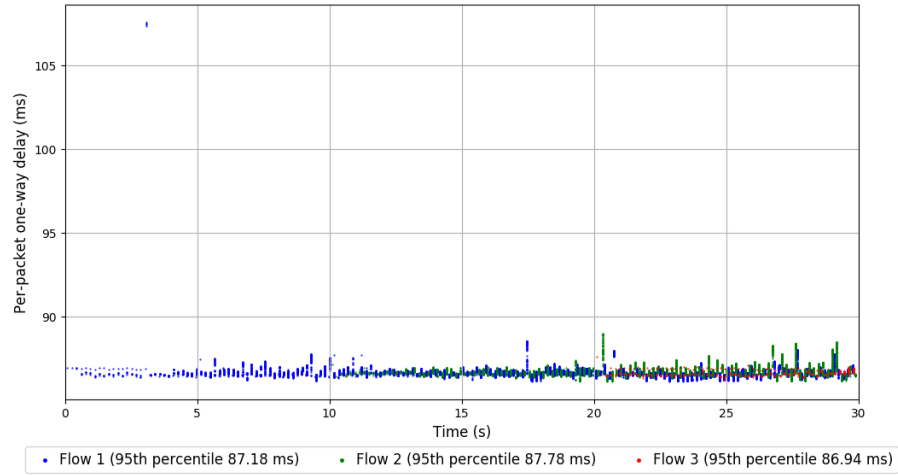
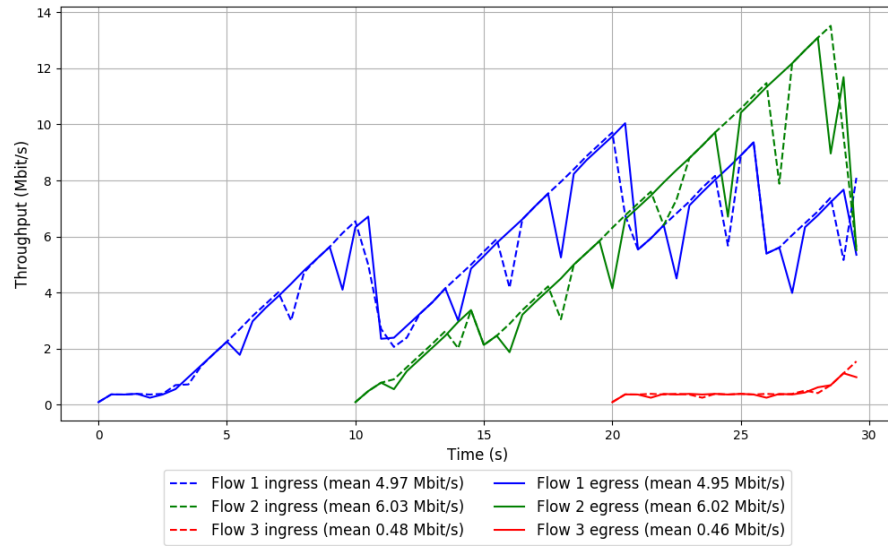
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 86.941 ms

Loss rate: 5.88%

Run 9: Report of LEDBAT — Data Link

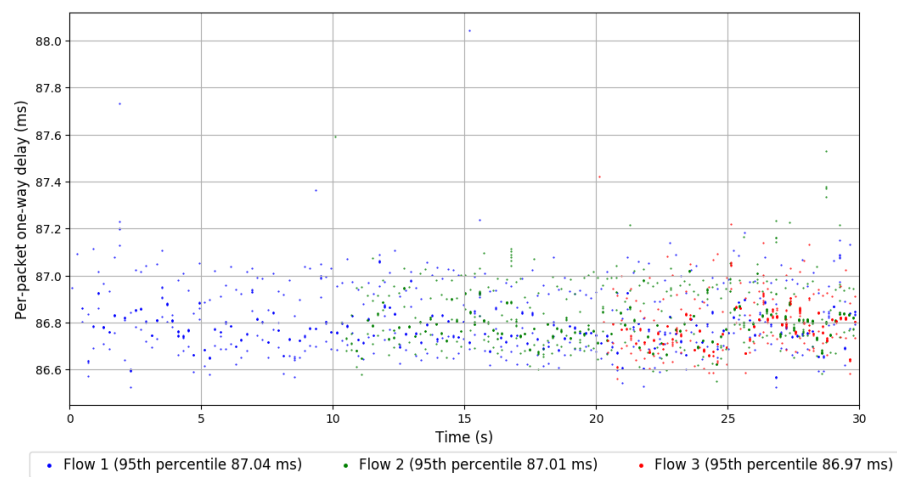
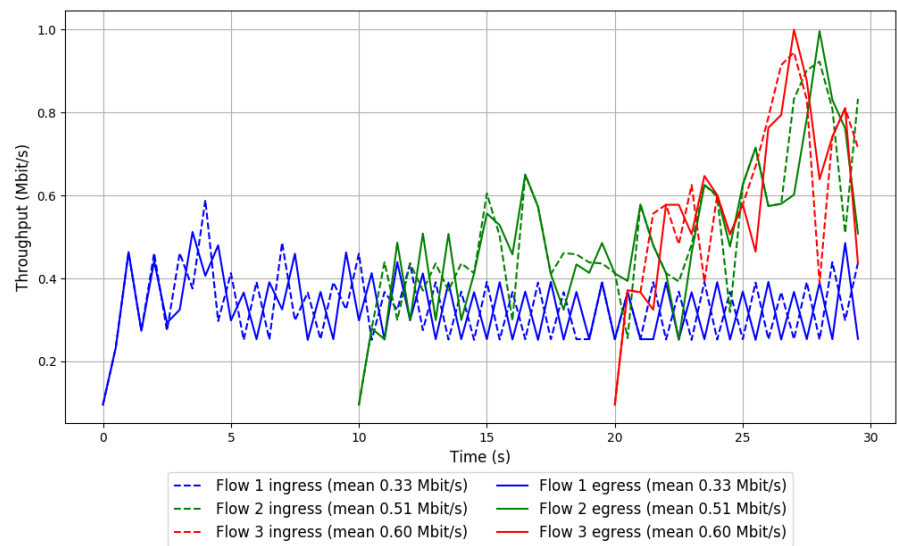


```
Run 10: Statistics of LEDBAT

Start at: 2018-02-13 21:46:53
End at: 2018-02-13 21:47:23

# Below is generated by plot.py at 2018-02-14 01:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 87.017 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 87.043 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 87.008 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 86.968 ms
Loss rate: 2.33%
```

Run 10: Report of LEDBAT — Data Link

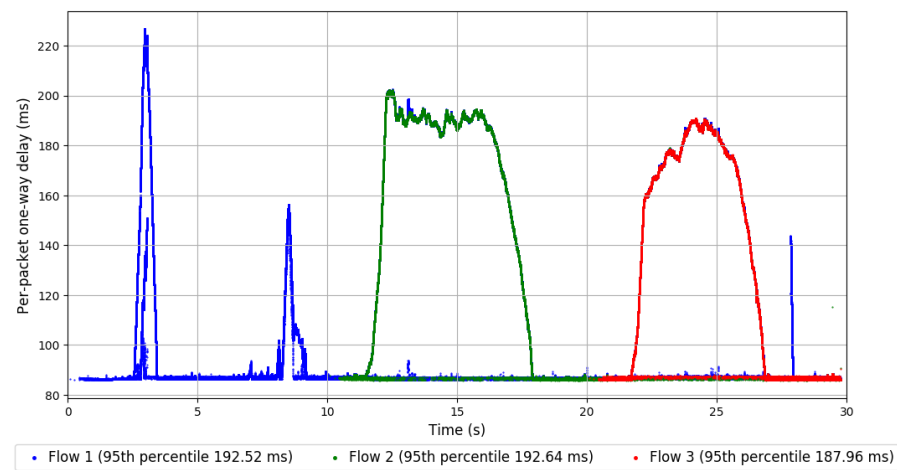
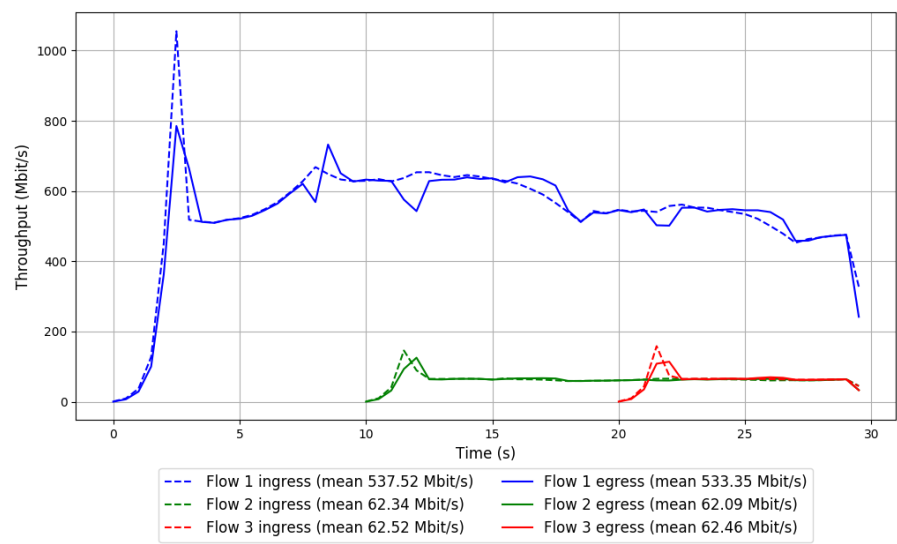


```
Run 1: Statistics of PCC

Start at: 2018-02-13 19:08:15
End at: 2018-02-13 19:08:45

# Below is generated by plot.py at 2018-02-14 01:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 594.77 Mbit/s
95th percentile per-packet one-way delay: 192.445 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 533.35 Mbit/s
95th percentile per-packet one-way delay: 192.517 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 62.09 Mbit/s
95th percentile per-packet one-way delay: 192.637 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 62.46 Mbit/s
95th percentile per-packet one-way delay: 187.959 ms
Loss rate: 1.82%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-02-13 19:27:04

End at: 2018-02-13 19:27:34

Below is generated by plot.py at 2018-02-14 01:42:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 601.53 Mbit/s

95th percentile per-packet one-way delay: 195.743 ms

Loss rate: 2.63%

-- Flow 1:

Average throughput: 539.07 Mbit/s

95th percentile per-packet one-way delay: 195.937 ms

Loss rate: 2.54%

-- Flow 2:

Average throughput: 64.65 Mbit/s

95th percentile per-packet one-way delay: 194.750 ms

Loss rate: 2.58%

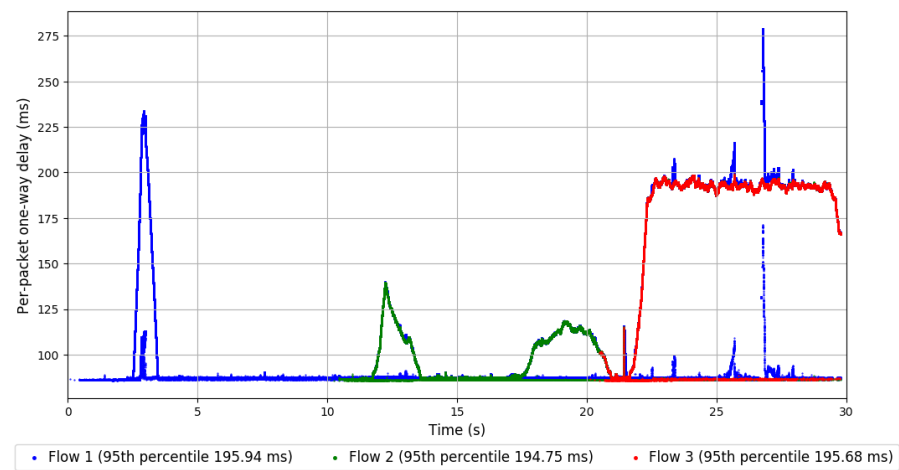
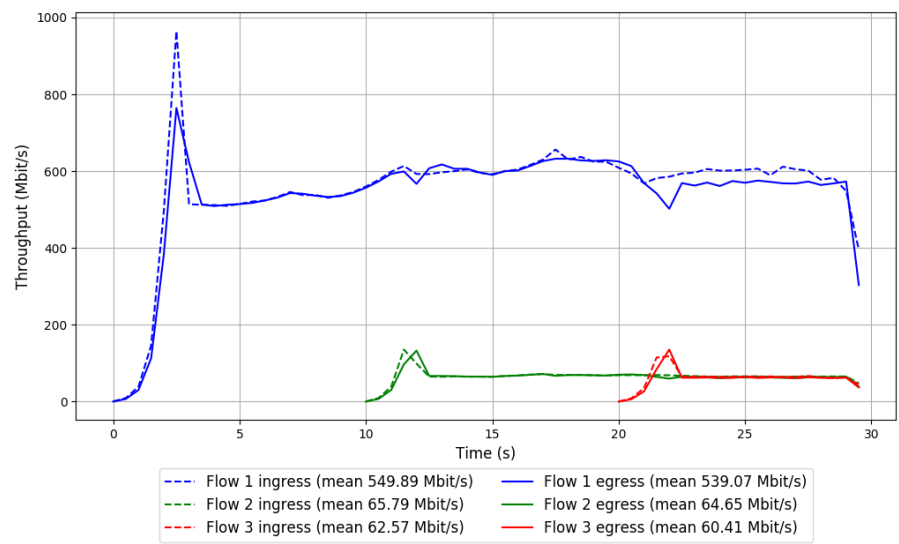
-- Flow 3:

Average throughput: 60.41 Mbit/s

95th percentile per-packet one-way delay: 195.683 ms

Loss rate: 5.17%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-02-13 19:46:05

End at: 2018-02-13 19:46:35

Below is generated by plot.py at 2018-02-14 01:42:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 606.66 Mbit/s

95th percentile per-packet one-way delay: 262.580 ms

Loss rate: 2.68%

-- Flow 1:

Average throughput: 546.71 Mbit/s

95th percentile per-packet one-way delay: 263.435 ms

Loss rate: 2.78%

-- Flow 2:

Average throughput: 75.03 Mbit/s

95th percentile per-packet one-way delay: 189.527 ms

Loss rate: 1.75%

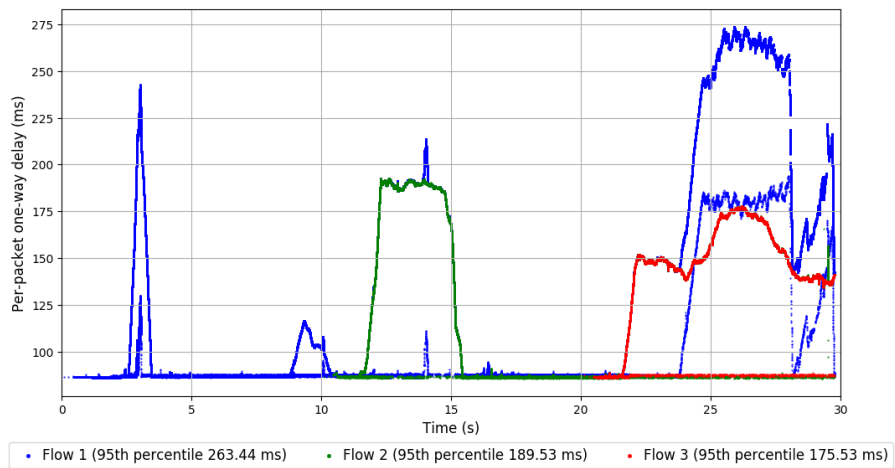
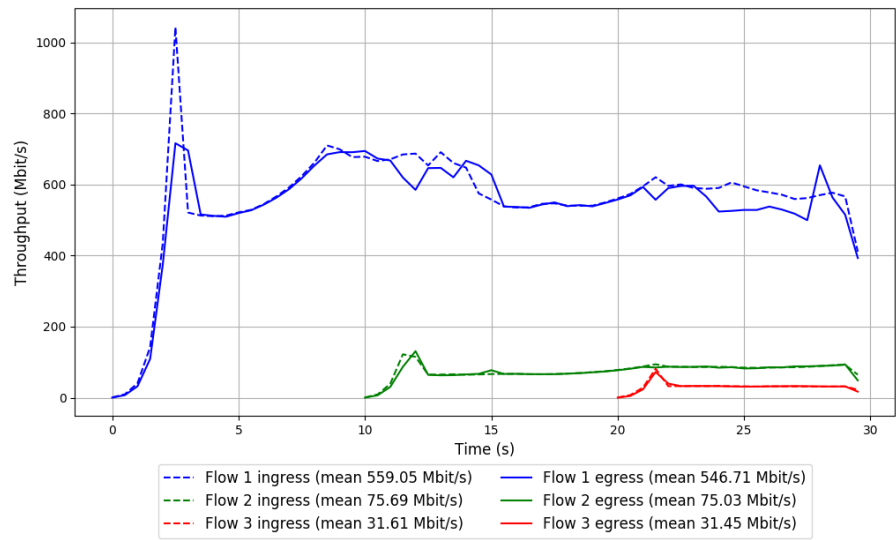
-- Flow 3:

Average throughput: 31.45 Mbit/s

95th percentile per-packet one-way delay: 175.525 ms

Loss rate: 2.28%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-02-13 20:04:55

End at: 2018-02-13 20:05:25

Below is generated by plot.py at 2018-02-14 01:42:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 606.08 Mbit/s

95th percentile per-packet one-way delay: 187.104 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 582.62 Mbit/s

95th percentile per-packet one-way delay: 186.967 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 4.29 Mbit/s

95th percentile per-packet one-way delay: 186.824 ms

Loss rate: 1.03%

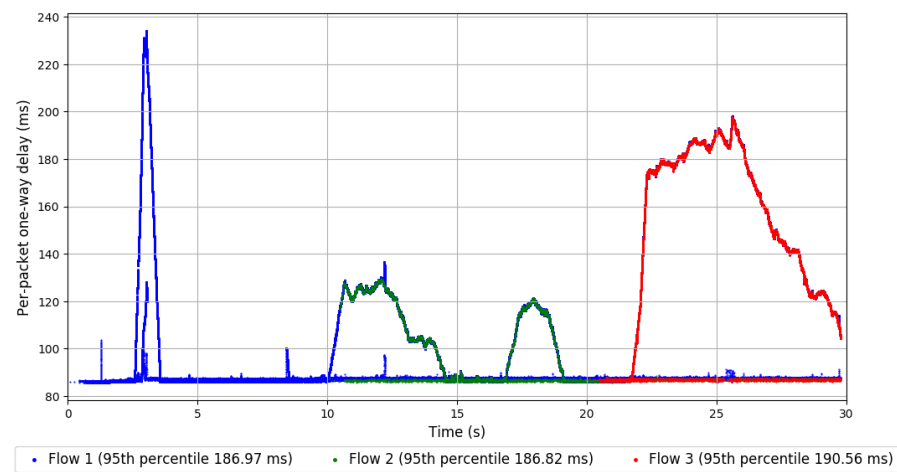
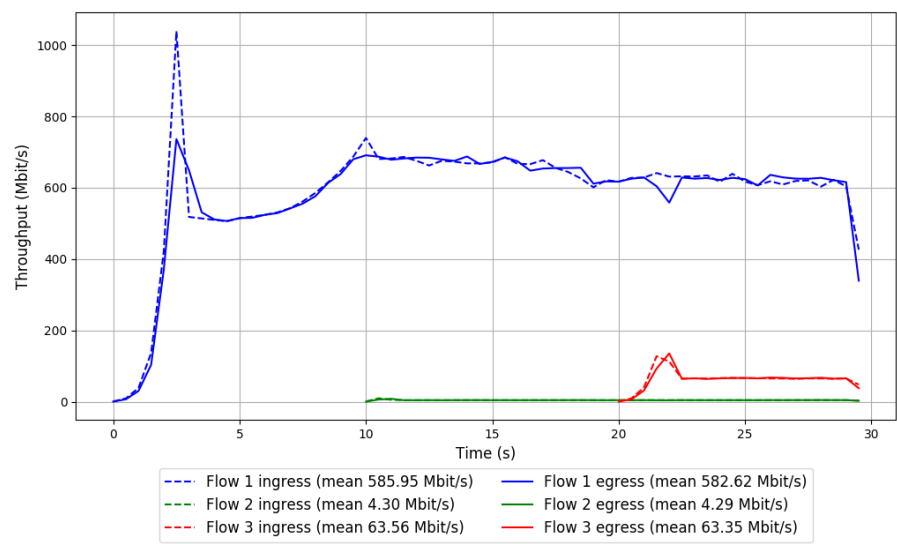
-- Flow 3:

Average throughput: 63.35 Mbit/s

95th percentile per-packet one-way delay: 190.557 ms

Loss rate: 2.10%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-02-13 20:24:00

End at: 2018-02-13 20:24:30

Below is generated by plot.py at 2018-02-14 01:42:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 591.17 Mbit/s

95th percentile per-packet one-way delay: 201.258 ms

Loss rate: 2.12%

-- Flow 1:

Average throughput: 508.76 Mbit/s

95th percentile per-packet one-way delay: 201.802 ms

Loss rate: 2.09%

-- Flow 2:

Average throughput: 62.95 Mbit/s

95th percentile per-packet one-way delay: 199.918 ms

Loss rate: 1.94%

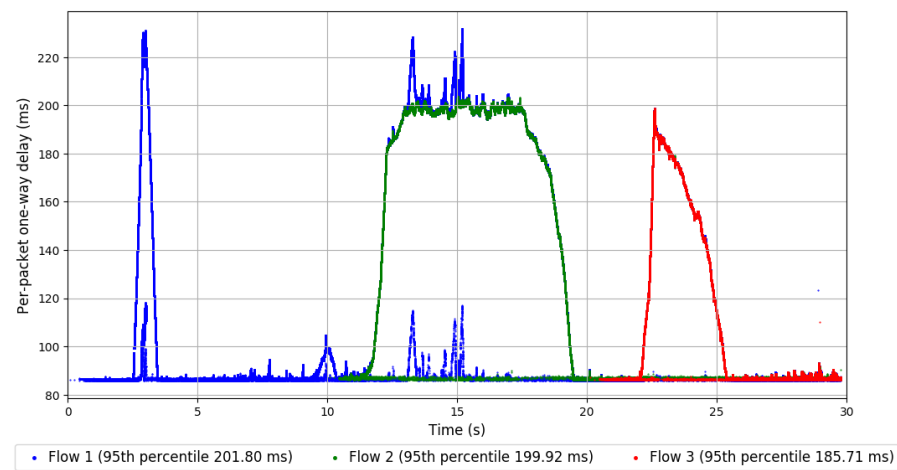
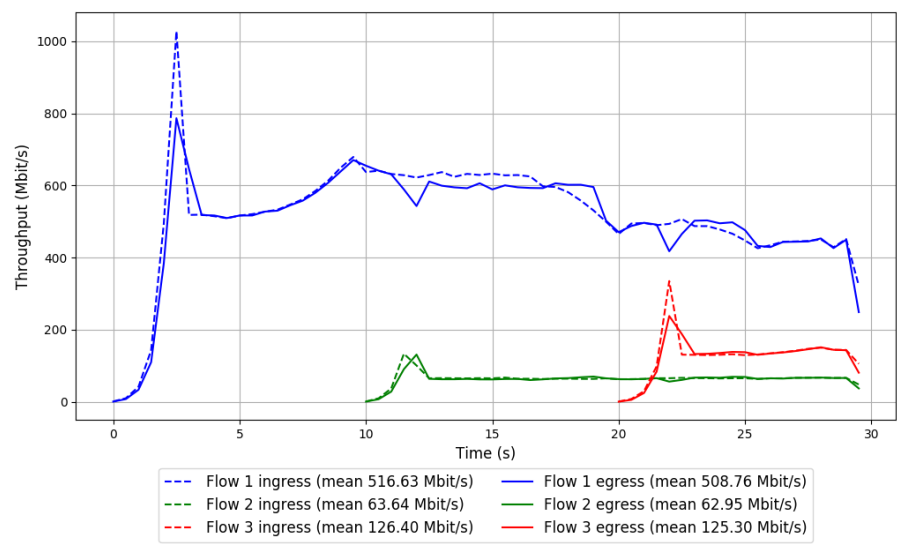
-- Flow 3:

Average throughput: 125.30 Mbit/s

95th percentile per-packet one-way delay: 185.710 ms

Loss rate: 2.63%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-02-13 20:42:53

End at: 2018-02-13 20:43:23

Below is generated by plot.py at 2018-02-14 01:43:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 600.78 Mbit/s

95th percentile per-packet one-way delay: 195.920 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 585.02 Mbit/s

95th percentile per-packet one-way delay: 195.721 ms

Loss rate: 1.58%

-- Flow 2:

Average throughput: 8.71 Mbit/s

95th percentile per-packet one-way delay: 196.052 ms

Loss rate: 1.59%

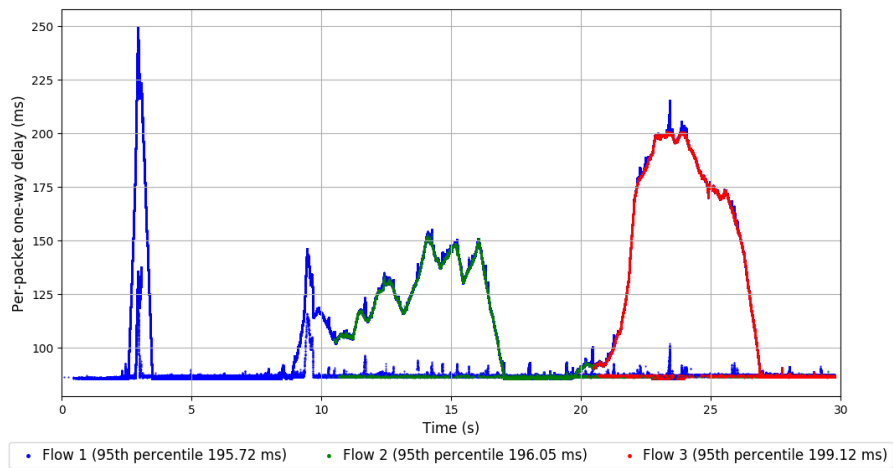
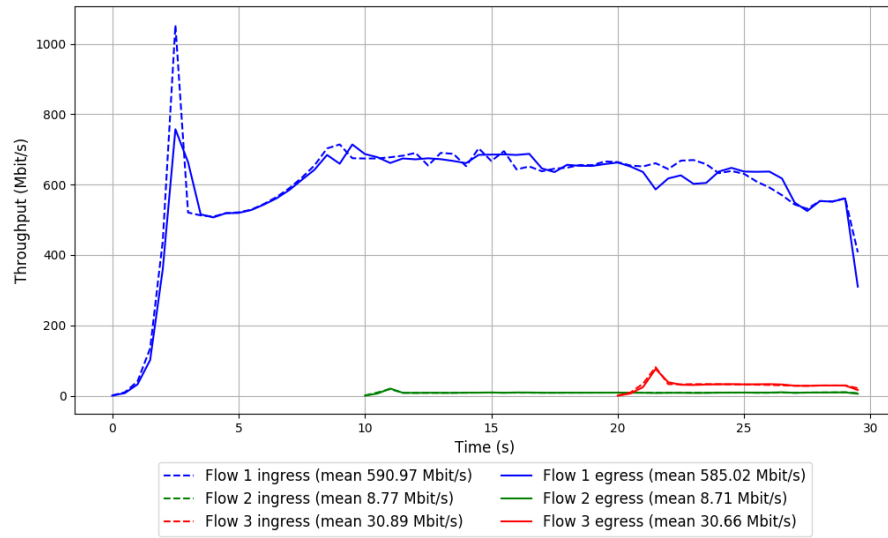
-- Flow 3:

Average throughput: 30.66 Mbit/s

95th percentile per-packet one-way delay: 199.121 ms

Loss rate: 2.51%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-02-13 21:01:48

End at: 2018-02-13 21:02:18

Below is generated by plot.py at 2018-02-14 01:43:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 584.04 Mbit/s

95th percentile per-packet one-way delay: 196.823 ms

Loss rate: 2.18%

-- Flow 1:

Average throughput: 551.85 Mbit/s

95th percentile per-packet one-way delay: 196.733 ms

Loss rate: 2.12%

-- Flow 2:

Average throughput: 18.74 Mbit/s

95th percentile per-packet one-way delay: 196.907 ms

Loss rate: 2.27%

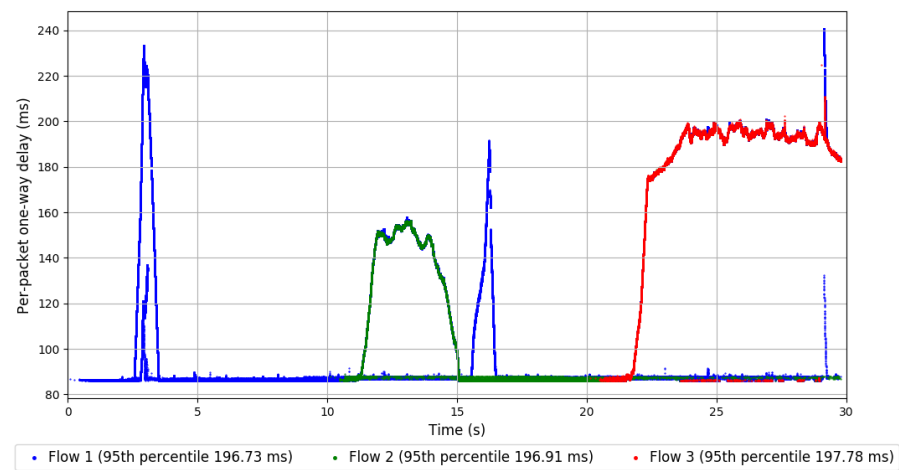
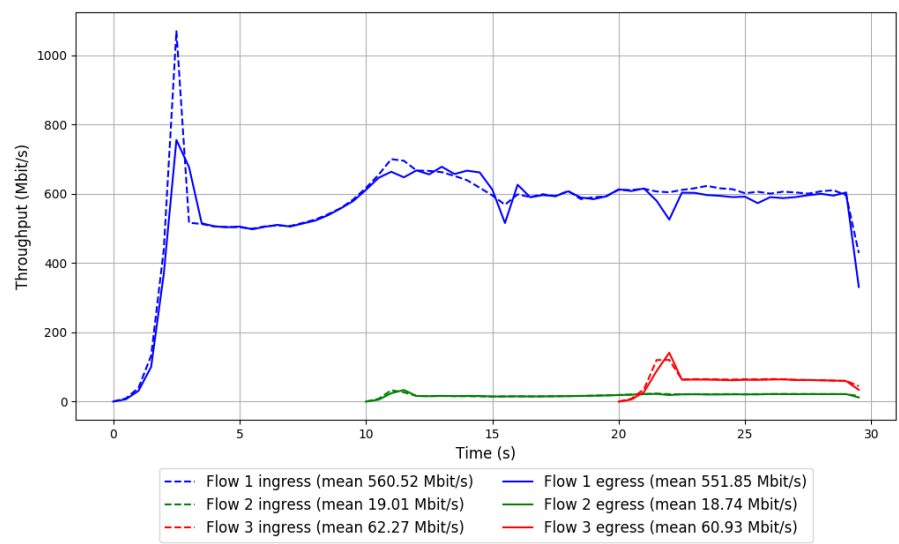
-- Flow 3:

Average throughput: 60.93 Mbit/s

95th percentile per-packet one-way delay: 197.781 ms

Loss rate: 3.90%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-02-13 21:20:40

End at: 2018-02-13 21:21:10

Below is generated by plot.py at 2018-02-14 01:43:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 471.89 Mbit/s

95th percentile per-packet one-way delay: 169.432 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 305.66 Mbit/s

95th percentile per-packet one-way delay: 161.211 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 242.60 Mbit/s

95th percentile per-packet one-way delay: 178.134 ms

Loss rate: 2.60%

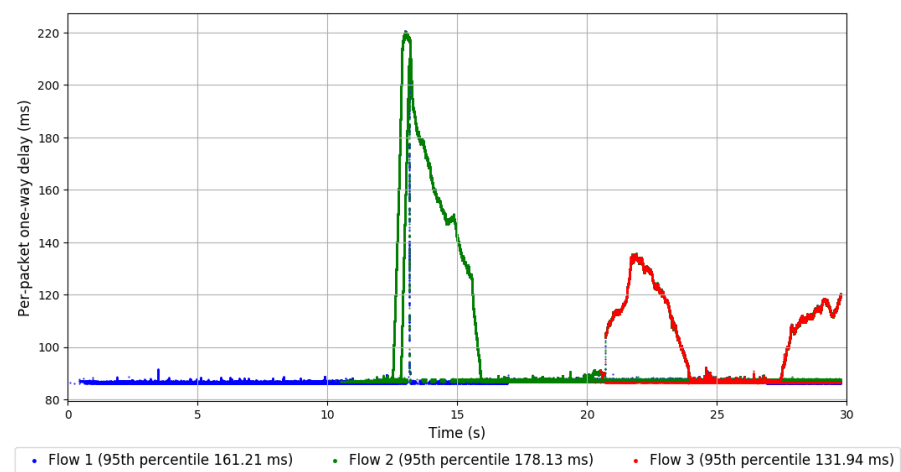
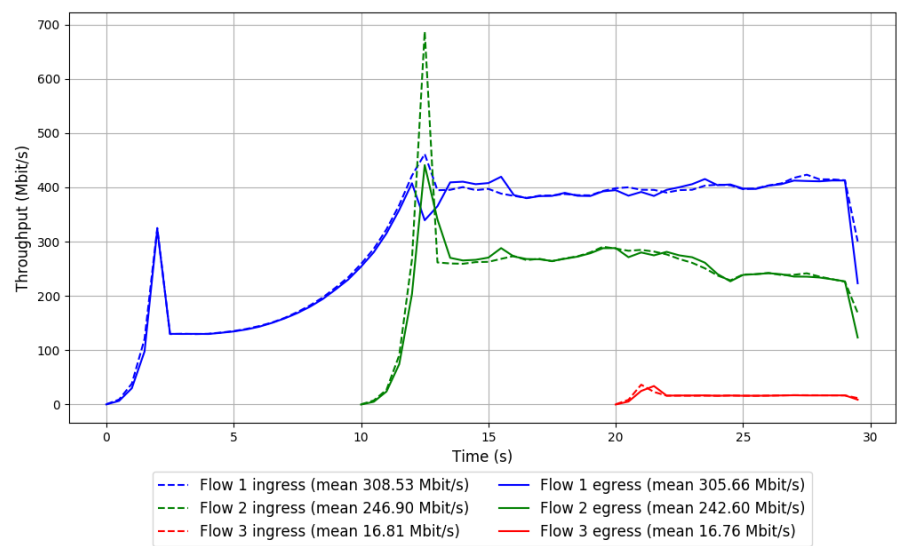
-- Flow 3:

Average throughput: 16.76 Mbit/s

95th percentile per-packet one-way delay: 131.935 ms

Loss rate: 2.06%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-02-13 21:39:16

End at: 2018-02-13 21:39:46

Below is generated by plot.py at 2018-02-14 01:50:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 592.43 Mbit/s

95th percentile per-packet one-way delay: 199.854 ms

Loss rate: 4.35%

-- Flow 1:

Average throughput: 550.80 Mbit/s

95th percentile per-packet one-way delay: 199.856 ms

Loss rate: 4.35%

-- Flow 2:

Average throughput: 61.83 Mbit/s

95th percentile per-packet one-way delay: 199.848 ms

Loss rate: 4.31%

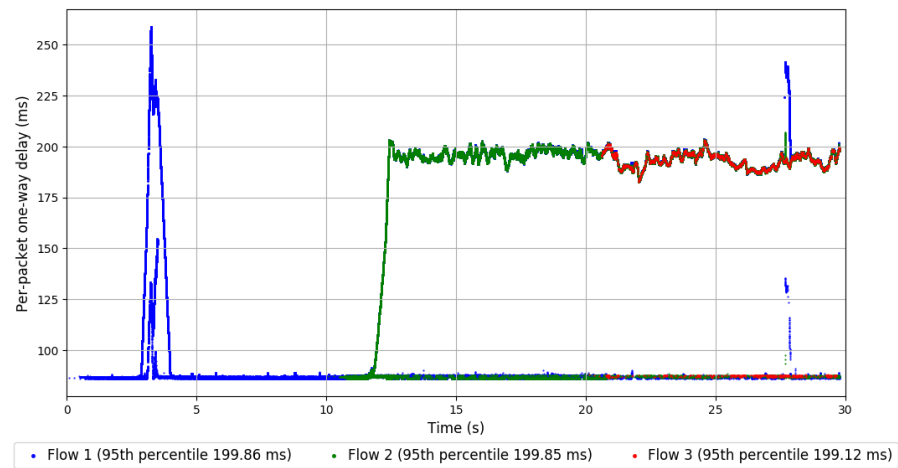
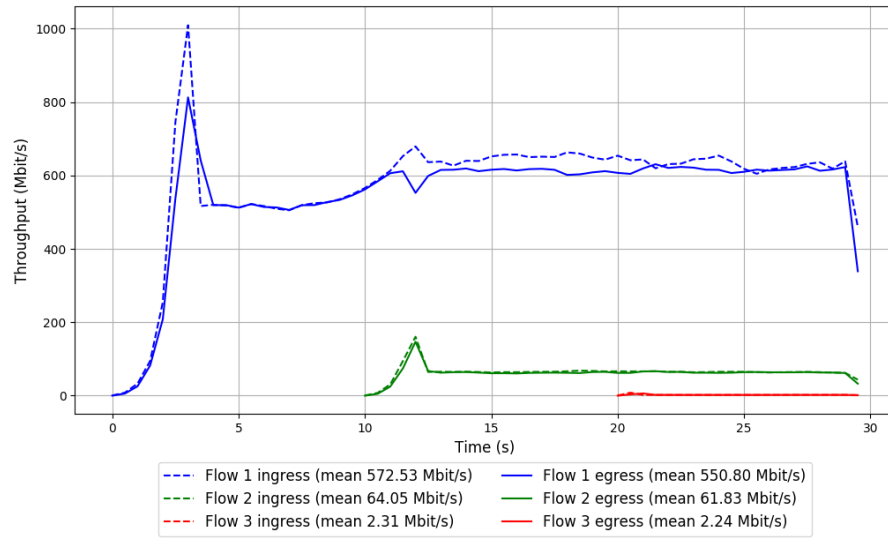
-- Flow 3:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 199.117 ms

Loss rate: 4.61%

Run 9: Report of PCC — Data Link

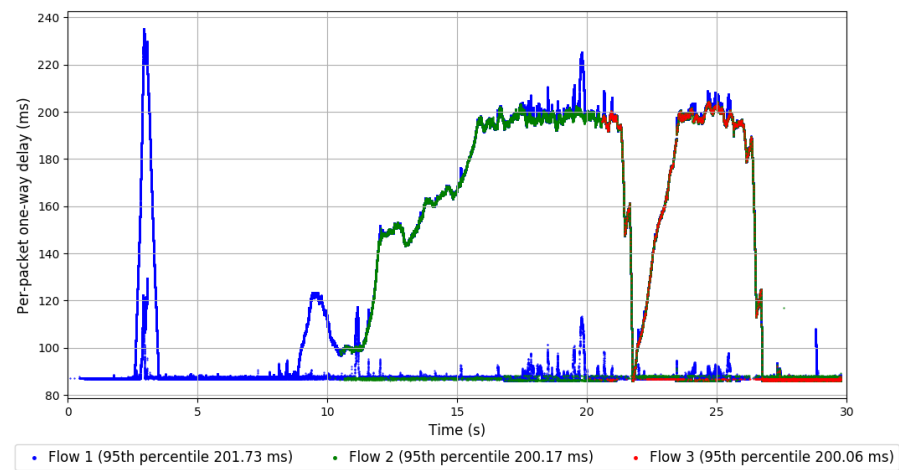
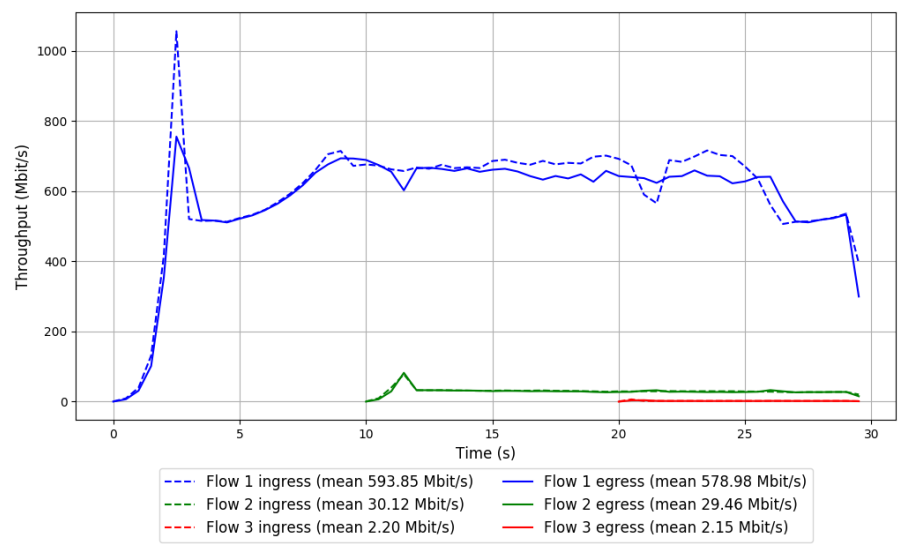


```
Run 10: Statistics of PCC

Start at: 2018-02-13 21:58:20
End at: 2018-02-13 21:58:50

# Below is generated by plot.py at 2018-02-14 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 599.14 Mbit/s
95th percentile per-packet one-way delay: 201.677 ms
Loss rate: 3.07%
-- Flow 1:
Average throughput: 578.98 Mbit/s
95th percentile per-packet one-way delay: 201.733 ms
Loss rate: 3.07%
-- Flow 2:
Average throughput: 29.46 Mbit/s
95th percentile per-packet one-way delay: 200.173 ms
Loss rate: 3.04%
-- Flow 3:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 200.060 ms
Loss rate: 4.16%
```

Run 10: Report of PCC — Data Link

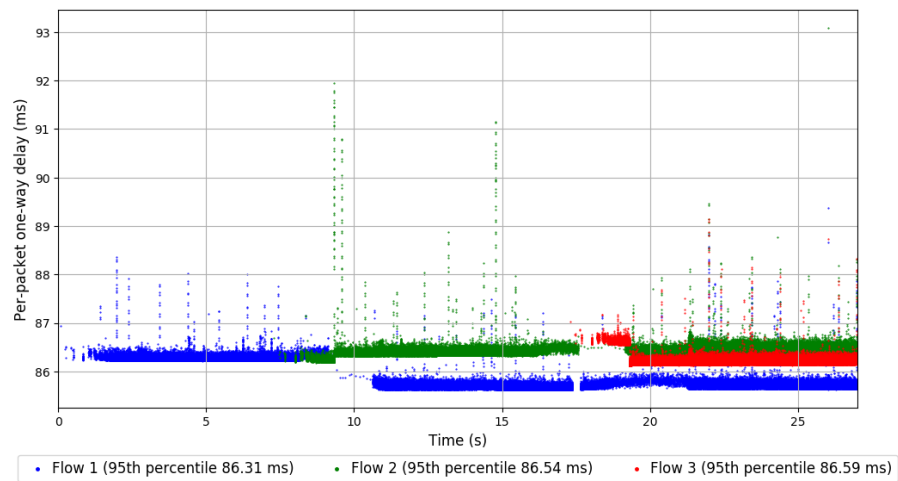
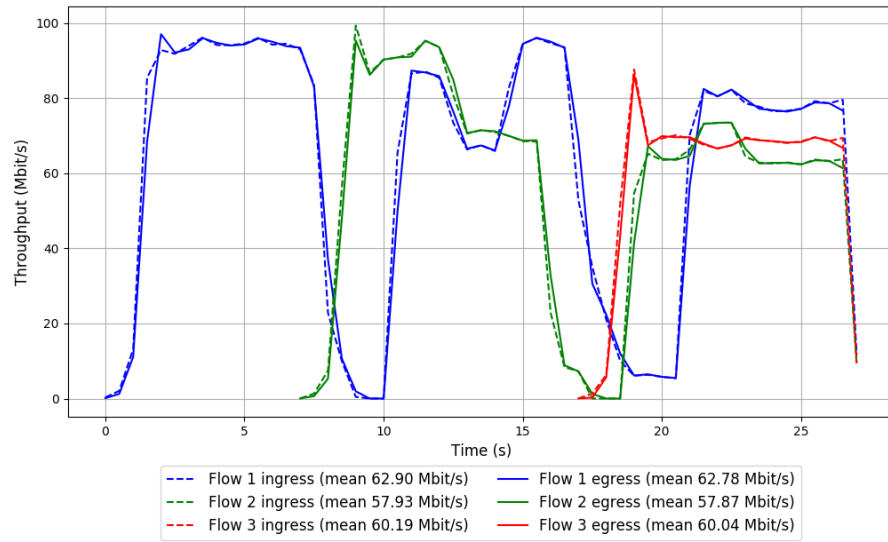


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-13 18:58:25
End at: 2018-02-13 18:58:55

# Below is generated by plot.py at 2018-02-14 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 126.74 Mbit/s
95th percentile per-packet one-way delay: 86.501 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 62.78 Mbit/s
95th percentile per-packet one-way delay: 86.315 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 57.87 Mbit/s
95th percentile per-packet one-way delay: 86.540 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 60.04 Mbit/s
95th percentile per-packet one-way delay: 86.595 ms
Loss rate: 2.01%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-02-13 19:17:25

End at: 2018-02-13 19:17:55

Below is generated by plot.py at 2018-02-14 01:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.25 Mbit/s

95th percentile per-packet one-way delay: 86.499 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 57.91 Mbit/s

95th percentile per-packet one-way delay: 86.307 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 61.53 Mbit/s

95th percentile per-packet one-way delay: 86.521 ms

Loss rate: 0.07%

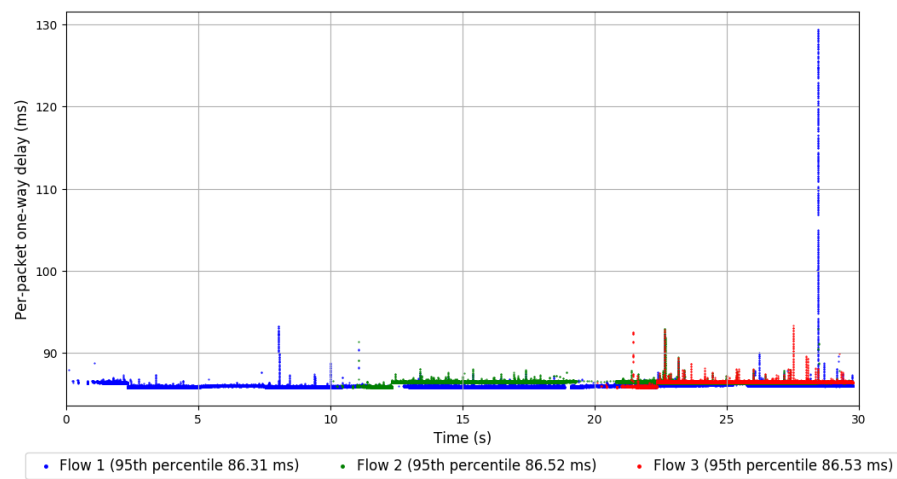
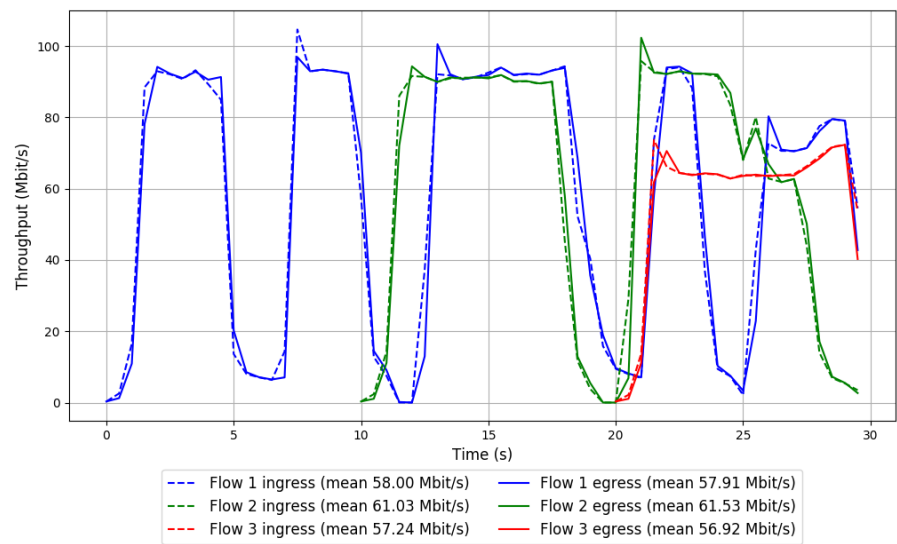
-- Flow 3:

Average throughput: 56.92 Mbit/s

95th percentile per-packet one-way delay: 86.533 ms

Loss rate: 2.31%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-02-13 19:36:17

End at: 2018-02-13 19:36:47

Below is generated by plot.py at 2018-02-14 01:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.86 Mbit/s

95th percentile per-packet one-way delay: 86.441 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 66.93 Mbit/s

95th percentile per-packet one-way delay: 86.062 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 62.11 Mbit/s

95th percentile per-packet one-way delay: 86.489 ms

Loss rate: 0.11%

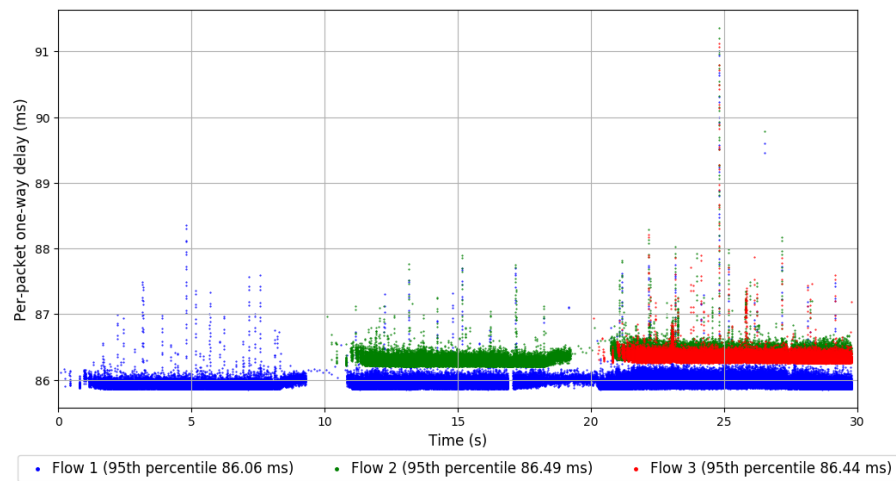
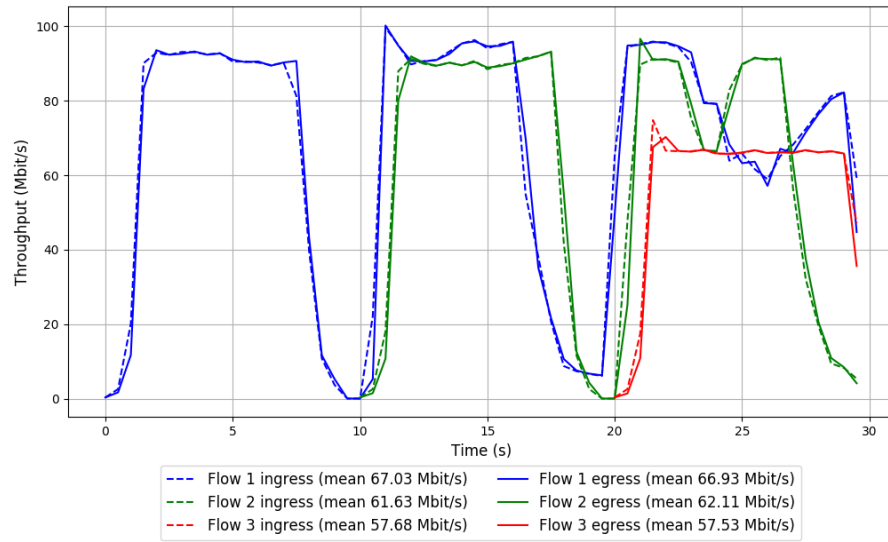
-- Flow 3:

Average throughput: 57.53 Mbit/s

95th percentile per-packet one-way delay: 86.436 ms

Loss rate: 2.01%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-02-13 19:55:09

End at: 2018-02-13 19:55:39

Below is generated by plot.py at 2018-02-14 01:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 123.58 Mbit/s

95th percentile per-packet one-way delay: 86.402 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 67.49 Mbit/s

95th percentile per-packet one-way delay: 86.394 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 56.70 Mbit/s

95th percentile per-packet one-way delay: 86.421 ms

Loss rate: 1.43%

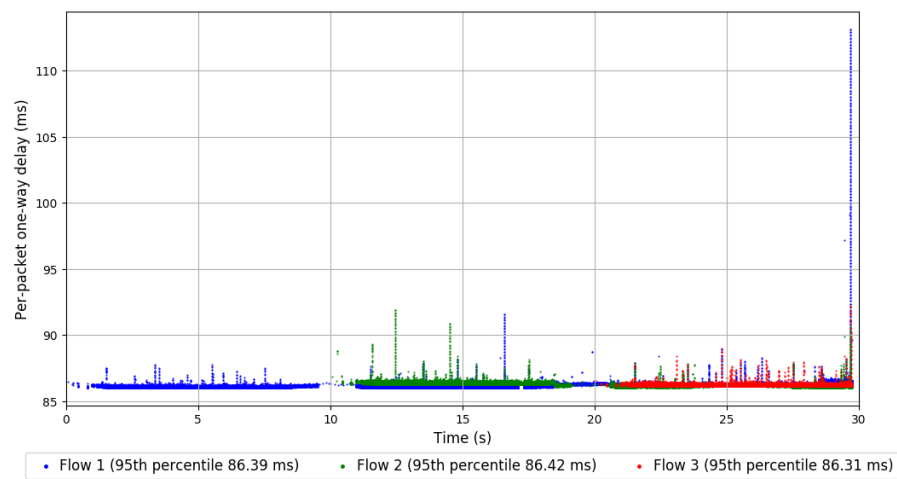
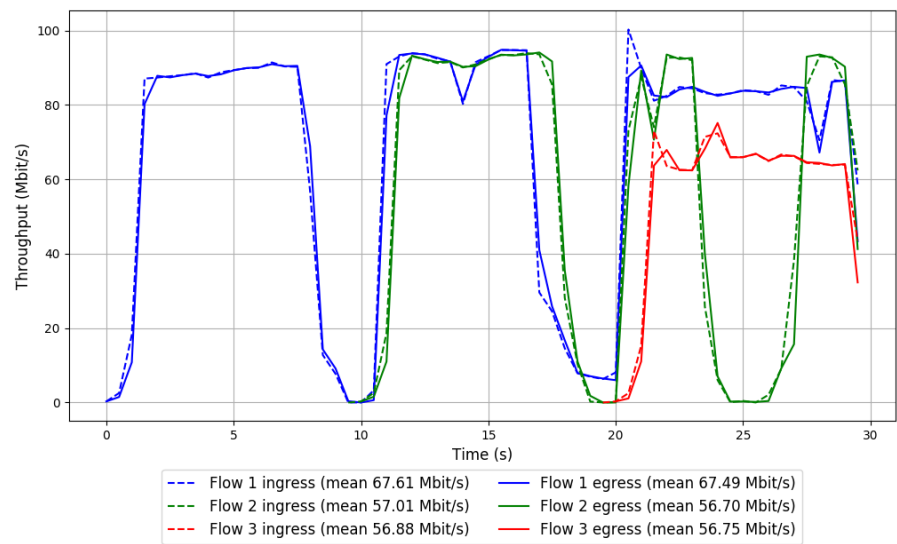
-- Flow 3:

Average throughput: 56.75 Mbit/s

95th percentile per-packet one-way delay: 86.311 ms

Loss rate: 1.99%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-02-13 20:14:14

End at: 2018-02-13 20:14:44

Below is generated by plot.py at 2018-02-14 01:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.53 Mbit/s

95th percentile per-packet one-way delay: 86.284 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 62.47 Mbit/s

95th percentile per-packet one-way delay: 86.242 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 58.39 Mbit/s

95th percentile per-packet one-way delay: 86.313 ms

Loss rate: 1.19%

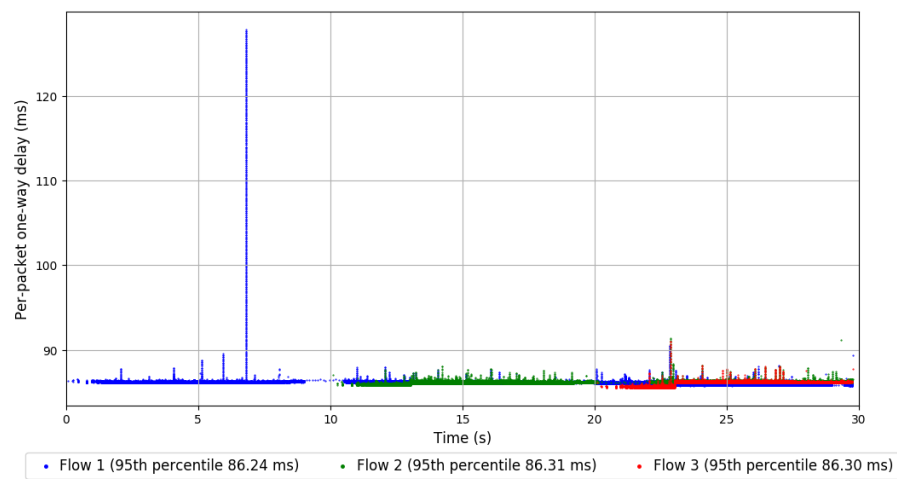
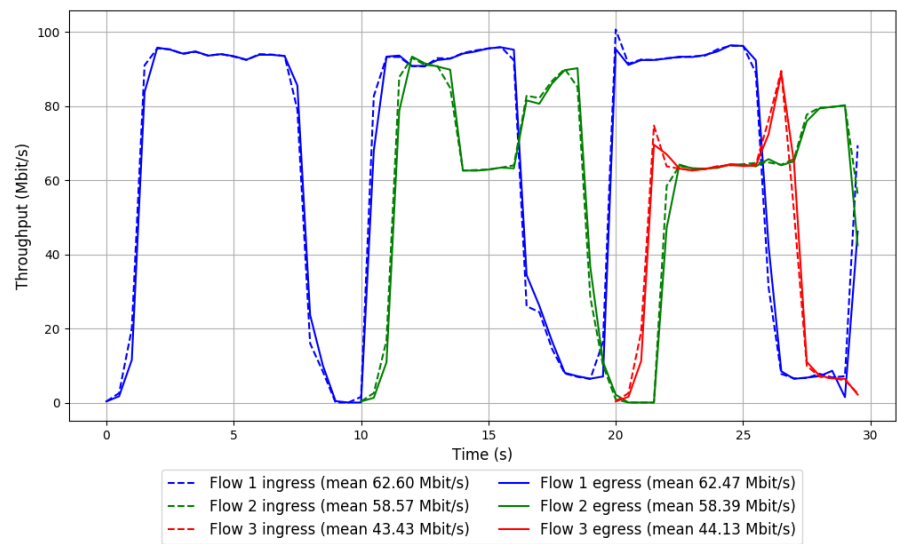
-- Flow 3:

Average throughput: 44.13 Mbit/s

95th percentile per-packet one-way delay: 86.300 ms

Loss rate: 0.13%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-02-13 20:33:06

End at: 2018-02-13 20:33:36

Below is generated by plot.py at 2018-02-14 01:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.13 Mbit/s

95th percentile per-packet one-way delay: 86.686 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 68.69 Mbit/s

95th percentile per-packet one-way delay: 86.473 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 62.31 Mbit/s

95th percentile per-packet one-way delay: 86.730 ms

Loss rate: 0.11%

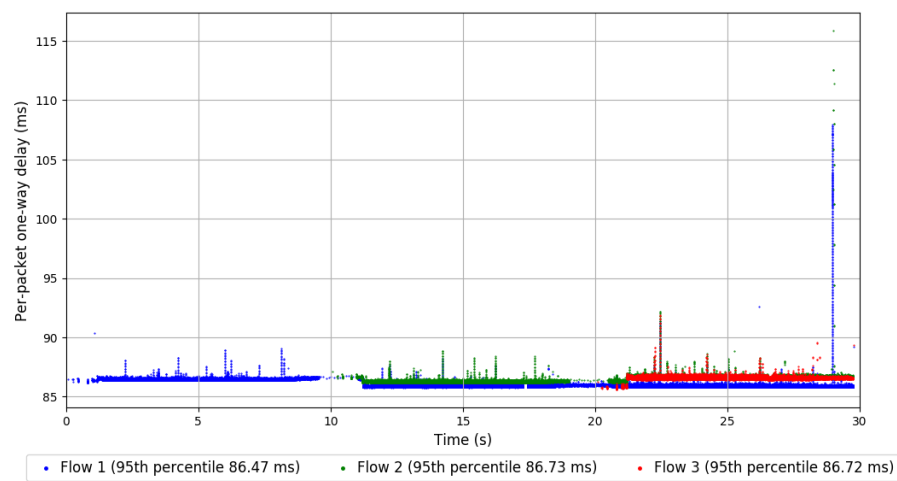
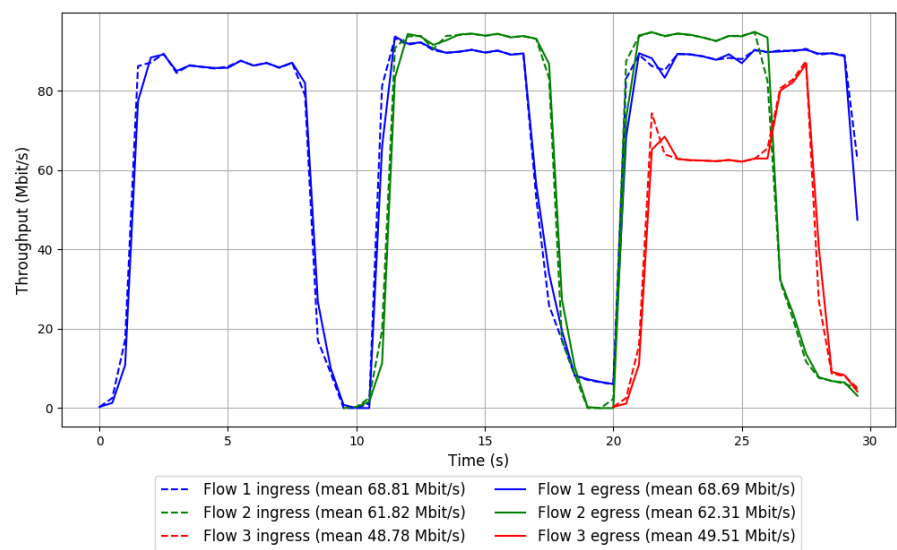
-- Flow 3:

Average throughput: 49.51 Mbit/s

95th percentile per-packet one-way delay: 86.719 ms

Loss rate: 0.22%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-02-13 20:52:02

End at: 2018-02-13 20:52:32

Below is generated by plot.py at 2018-02-14 01:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.07 Mbit/s

95th percentile per-packet one-way delay: 87.087 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 65.75 Mbit/s

95th percentile per-packet one-way delay: 87.109 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 62.07 Mbit/s

95th percentile per-packet one-way delay: 86.629 ms

Loss rate: 0.08%

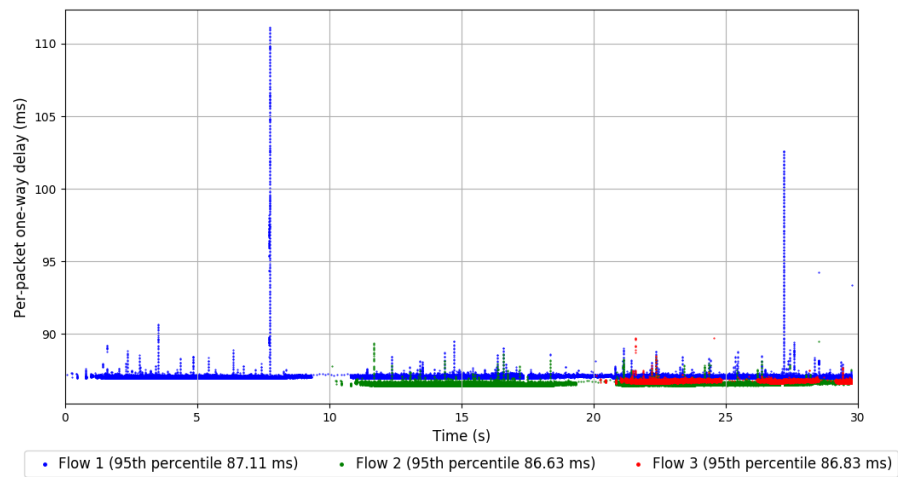
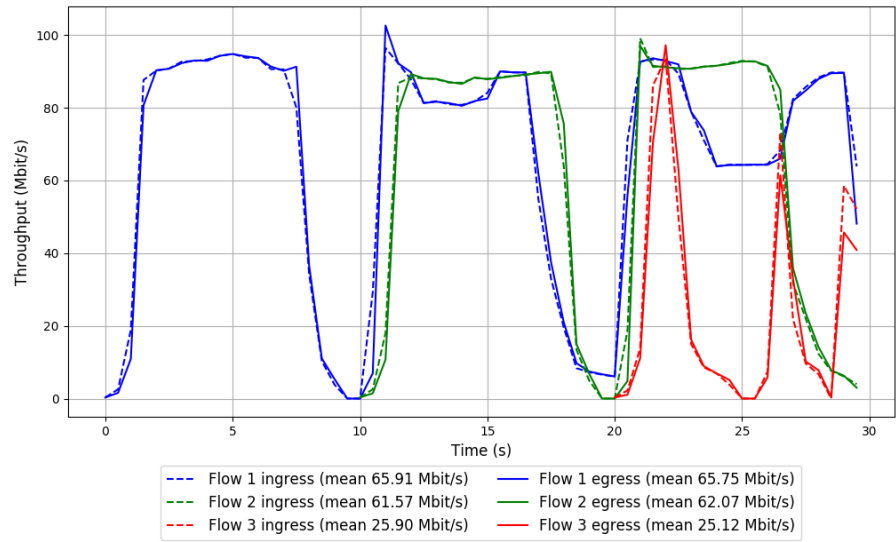
-- Flow 3:

Average throughput: 25.12 Mbit/s

95th percentile per-packet one-way delay: 86.825 ms

Loss rate: 4.73%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-02-13 21:10:55

End at: 2018-02-13 21:11:25

Below is generated by plot.py at 2018-02-14 01:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.74 Mbit/s

95th percentile per-packet one-way delay: 86.689 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 67.35 Mbit/s

95th percentile per-packet one-way delay: 86.154 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 62.20 Mbit/s

95th percentile per-packet one-way delay: 86.275 ms

Loss rate: 0.09%

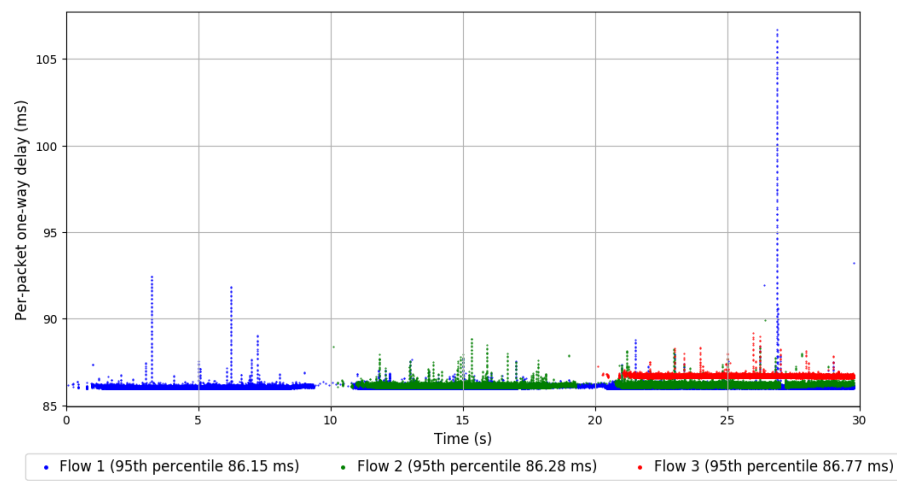
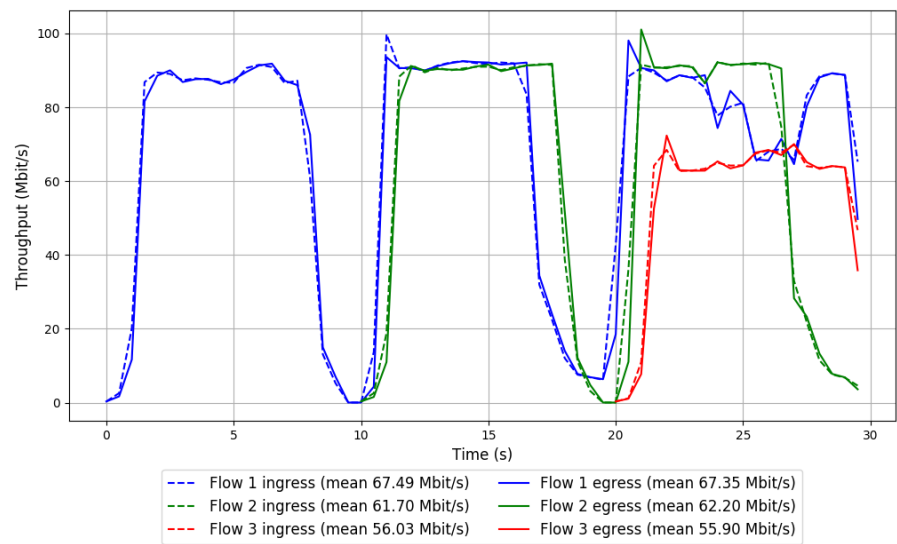
-- Flow 3:

Average throughput: 55.90 Mbit/s

95th percentile per-packet one-way delay: 86.768 ms

Loss rate: 1.99%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-02-13 21:29:34

End at: 2018-02-13 21:30:04

Below is generated by plot.py at 2018-02-14 01:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 129.22 Mbit/s

95th percentile per-packet one-way delay: 86.810 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 70.96 Mbit/s

95th percentile per-packet one-way delay: 86.787 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 61.33 Mbit/s

95th percentile per-packet one-way delay: 86.801 ms

Loss rate: 0.24%

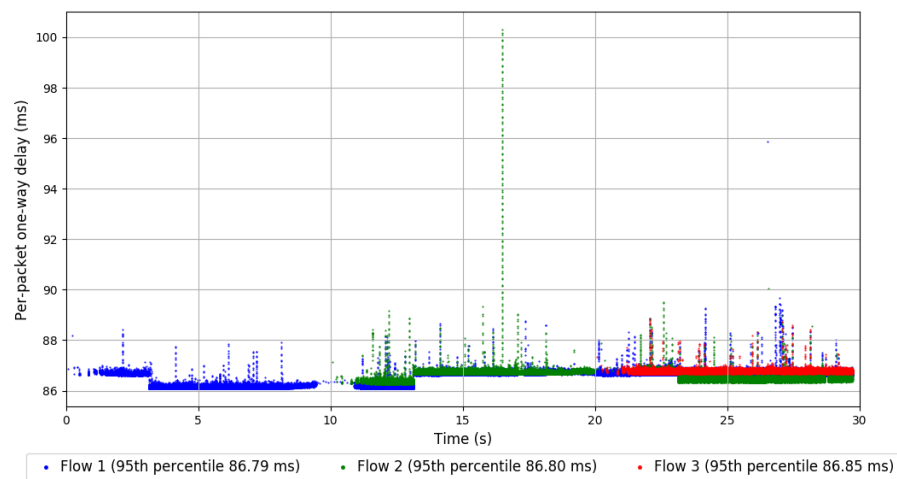
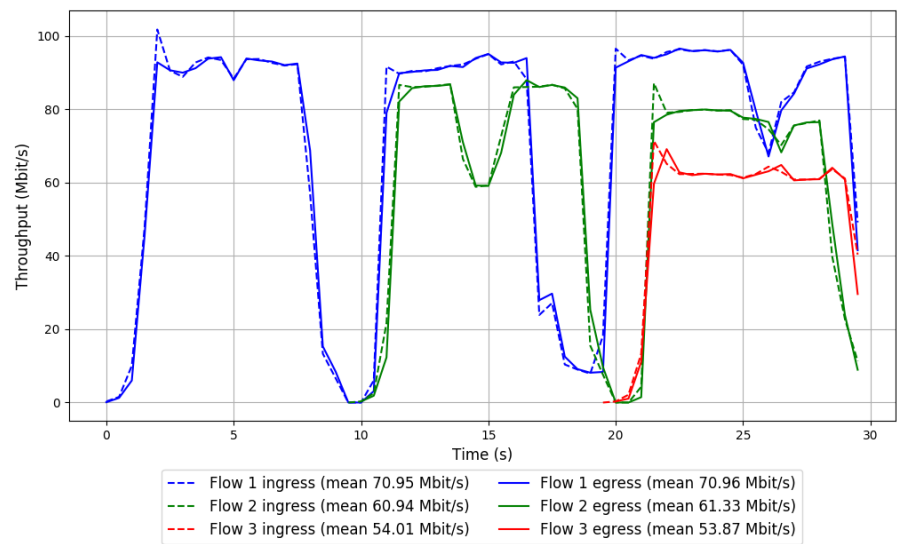
-- Flow 3:

Average throughput: 53.87 Mbit/s

95th percentile per-packet one-way delay: 86.848 ms

Loss rate: 2.01%

Run 9: Report of QUIC Cubic — Data Link

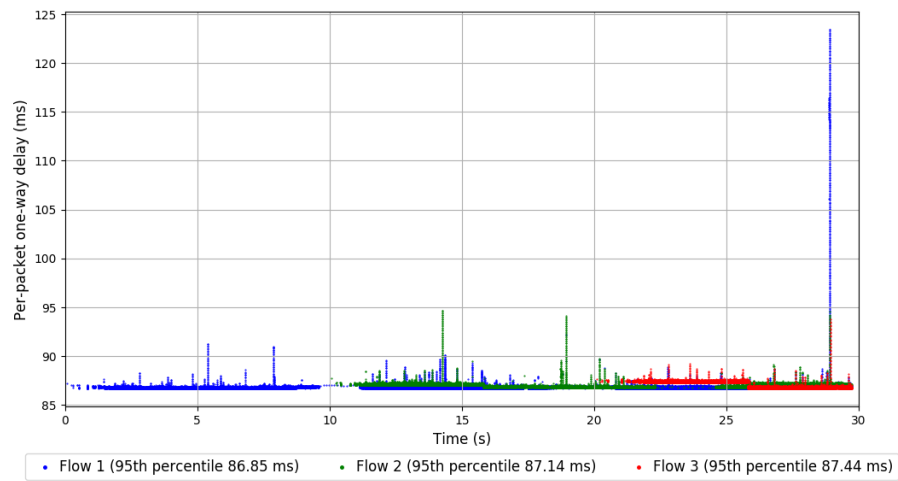
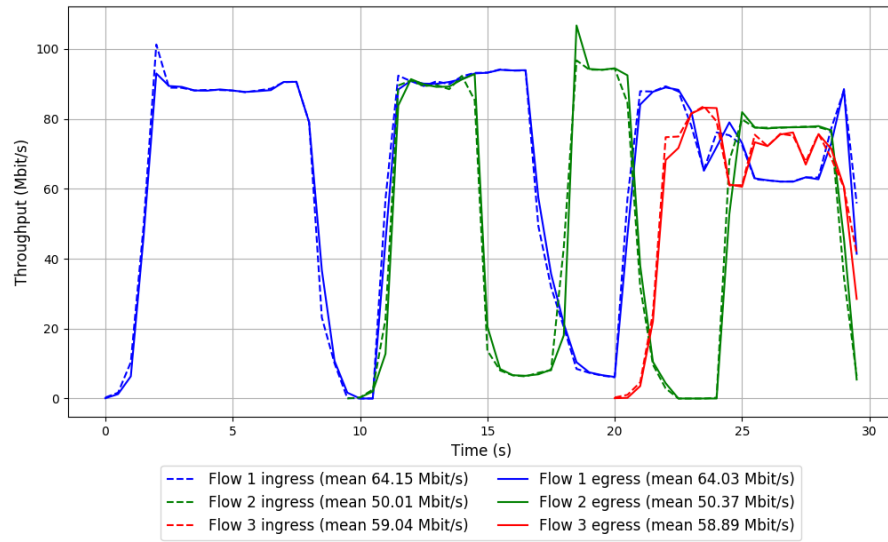


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-13 21:48:31
End at: 2018-02-13 21:49:01

# Below is generated by plot.py at 2018-02-14 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 116.58 Mbit/s
95th percentile per-packet one-way delay: 87.352 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 64.03 Mbit/s
95th percentile per-packet one-way delay: 86.853 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 50.37 Mbit/s
95th percentile per-packet one-way delay: 87.145 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 58.89 Mbit/s
95th percentile per-packet one-way delay: 87.435 ms
Loss rate: 2.01%
```

Run 10: Report of QUIC Cubic — Data Link

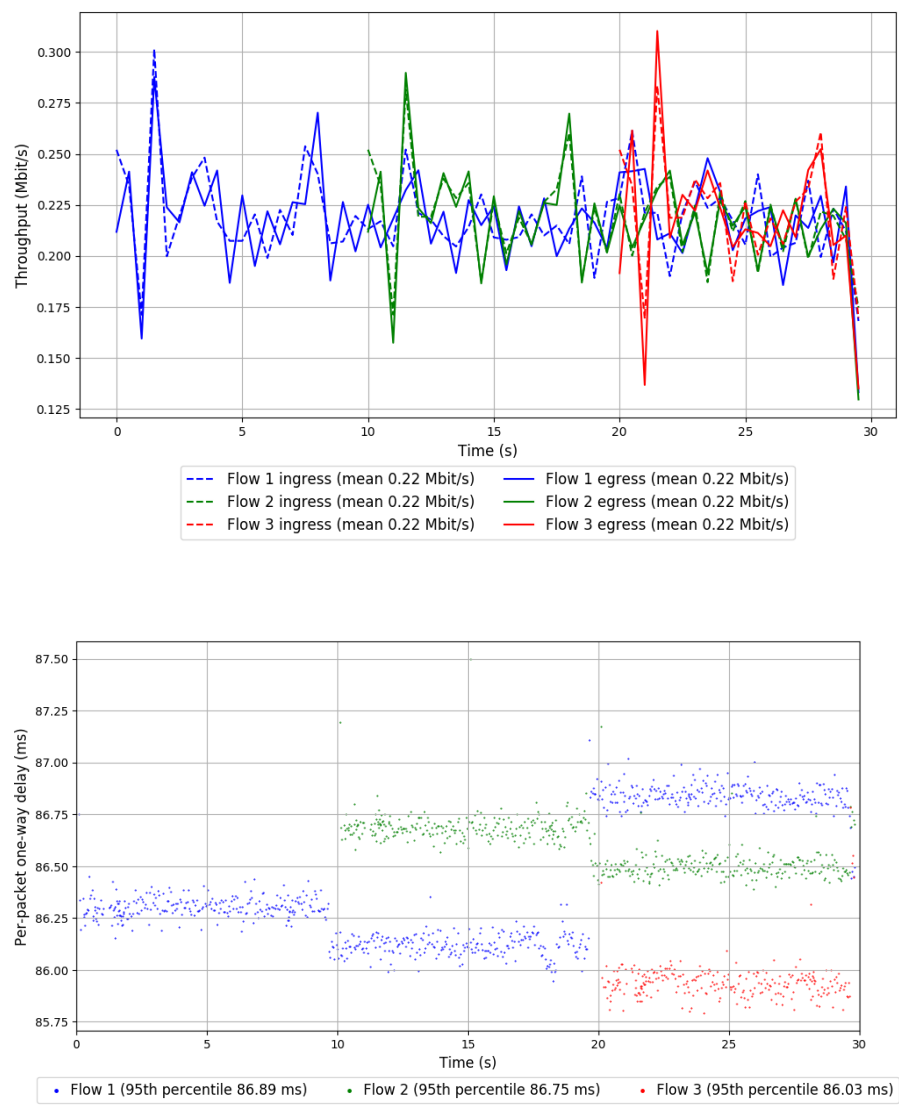


```
Run 1: Statistics of SCReAM

Start at: 2018-02-13 18:51:37
End at: 2018-02-13 18:52:07

# Below is generated by plot.py at 2018-02-14 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.864 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.889 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.751 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.026 ms
Loss rate: 1.88%
```

Run 1: Report of SReAM — Data Link

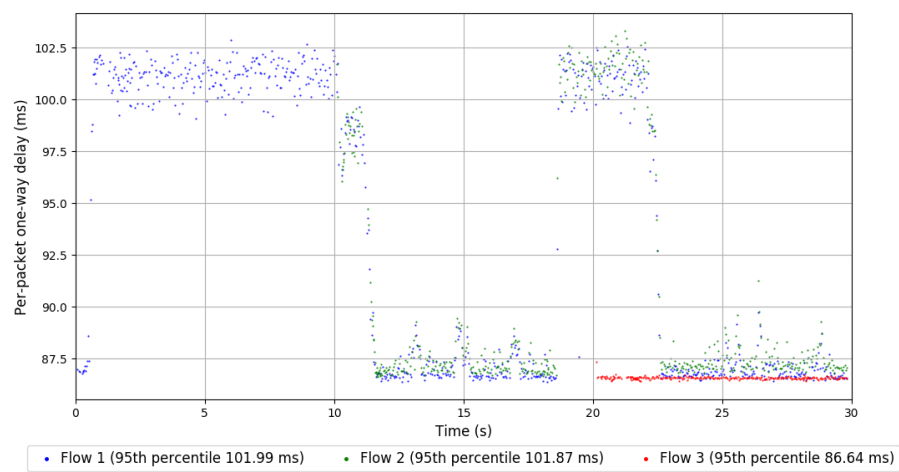
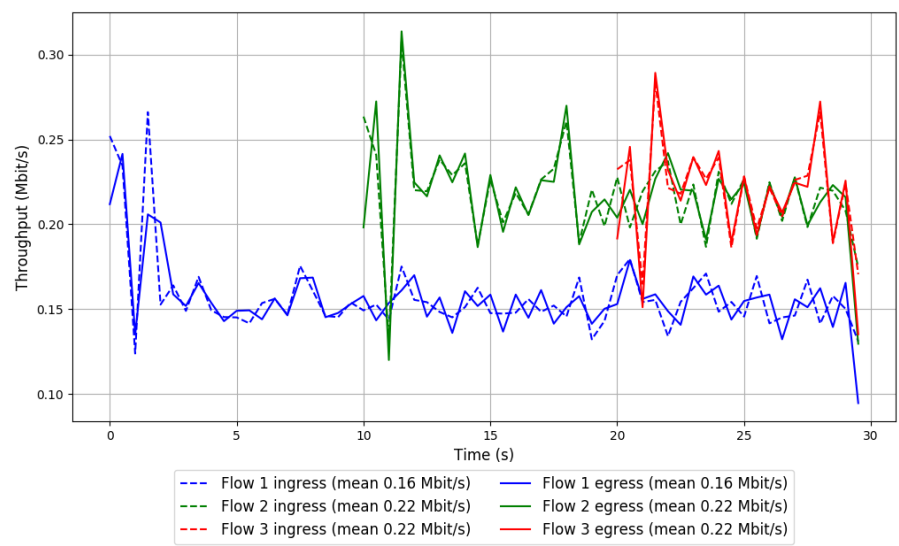


```
Run 2: Statistics of SReAM

Start at: 2018-02-13 19:10:46
End at: 2018-02-13 19:11:16

# Below is generated by plot.py at 2018-02-14 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 101.885 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 101.986 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 101.871 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.640 ms
Loss rate: 1.53%
```

Run 2: Report of SReAM — Data Link

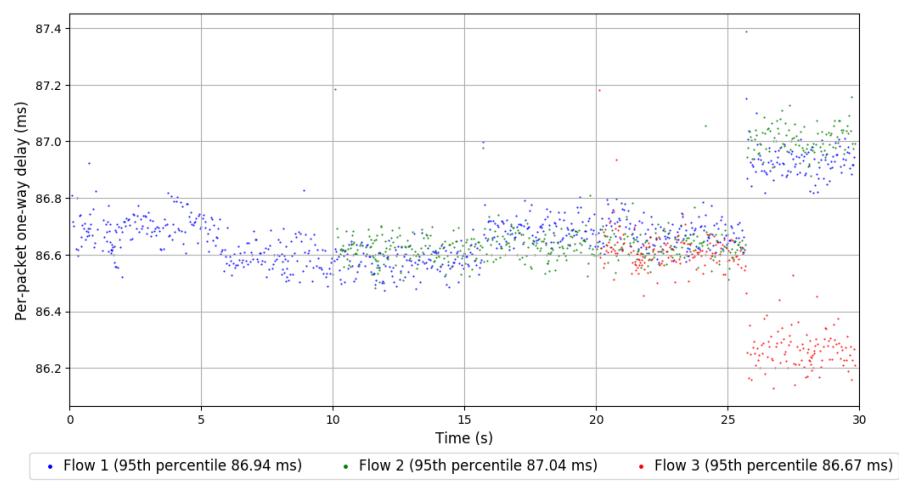
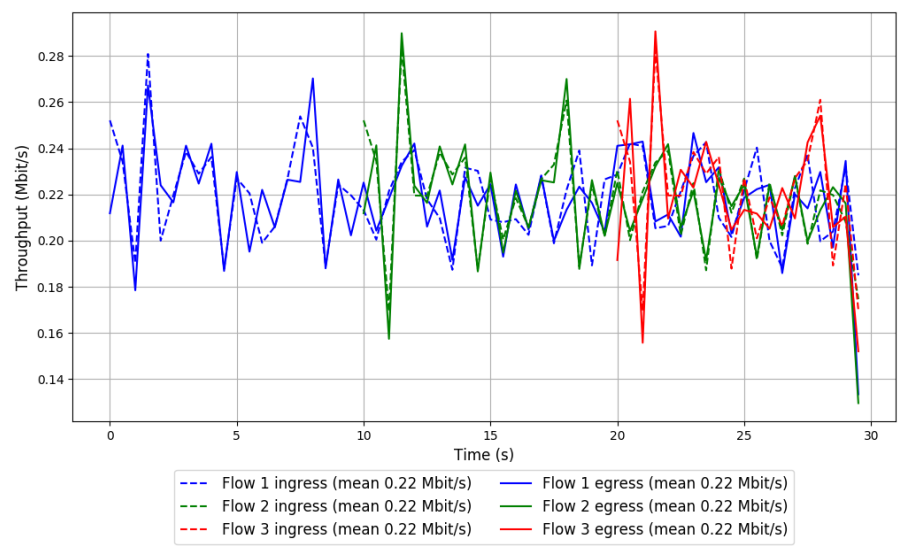


```
Run 3: Statistics of SCReAM

Start at: 2018-02-13 19:29:31
End at: 2018-02-13 19:30:01

# Below is generated by plot.py at 2018-02-14 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.990 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.944 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.039 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.670 ms
Loss rate: 1.50%
```


Run 3: Report of SReAM — Data Link

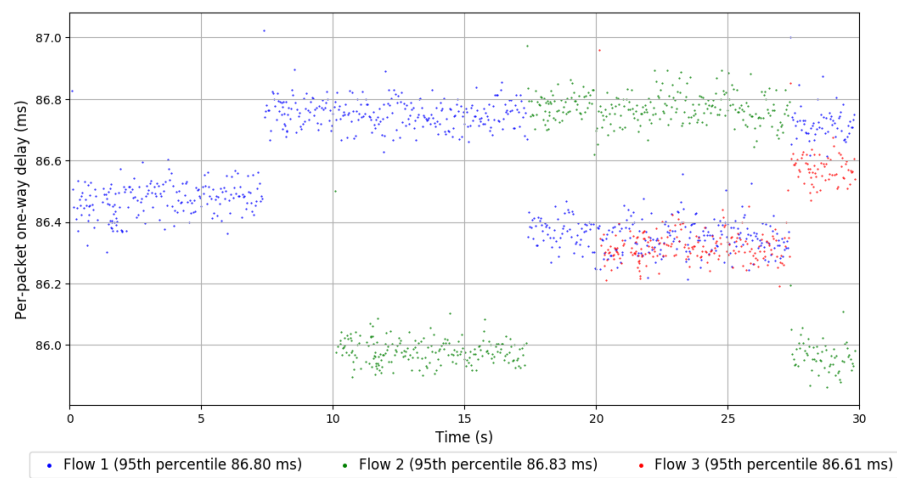
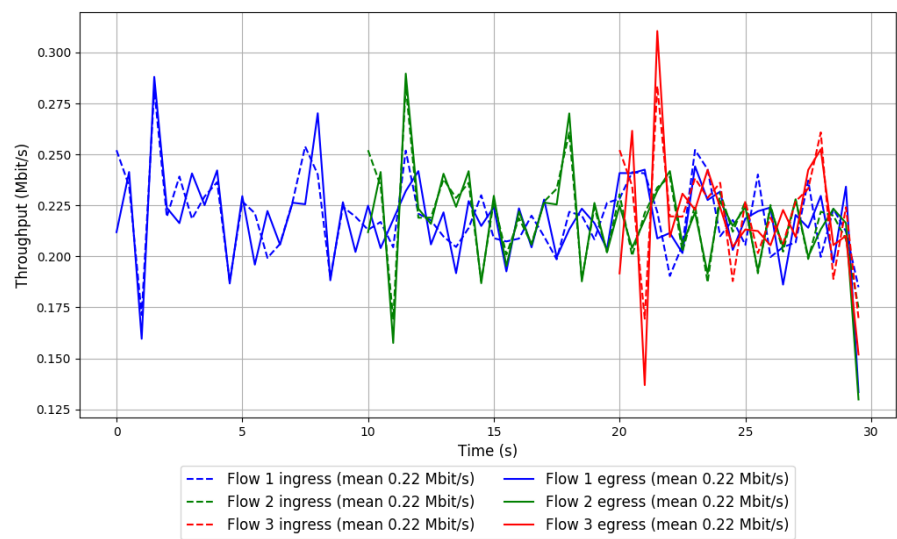


```
Run 4: Statistics of SReAM

Start at: 2018-02-13 19:48:30
End at: 2018-02-13 19:49:00

# Below is generated by plot.py at 2018-02-14 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.812 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.801 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.830 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.610 ms
Loss rate: 1.50%
```

Run 4: Report of SReAM — Data Link

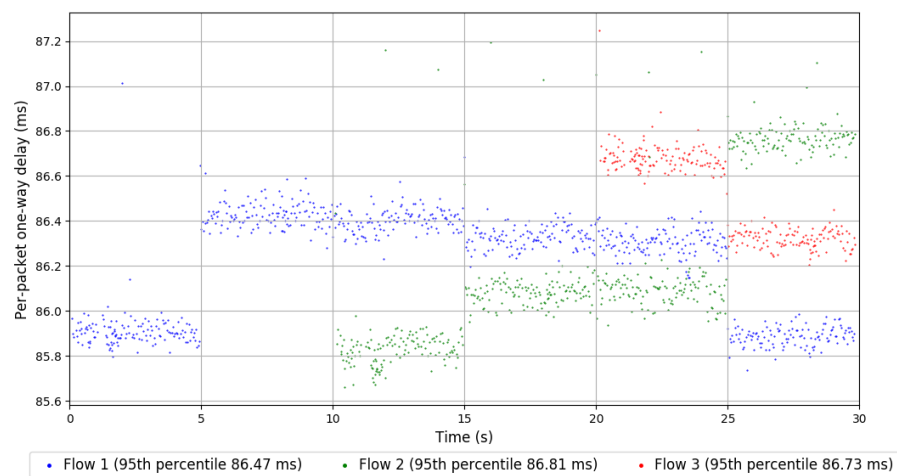
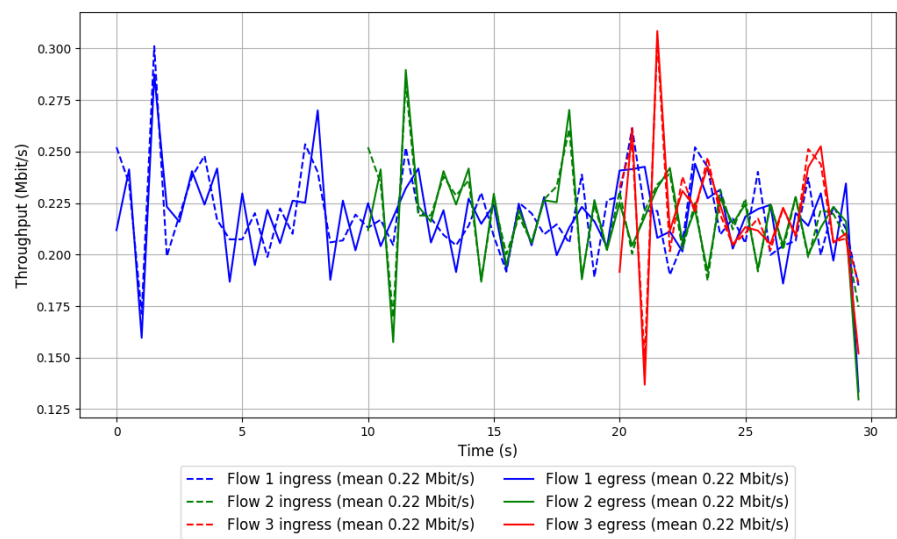


```
Run 5: Statistics of SReAM

Start at: 2018-02-13 20:07:32
End at: 2018-02-13 20:08:02

# Below is generated by plot.py at 2018-02-14 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.762 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.473 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.807 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.733 ms
Loss rate: 1.50%
```

Run 5: Report of SReAM — Data Link

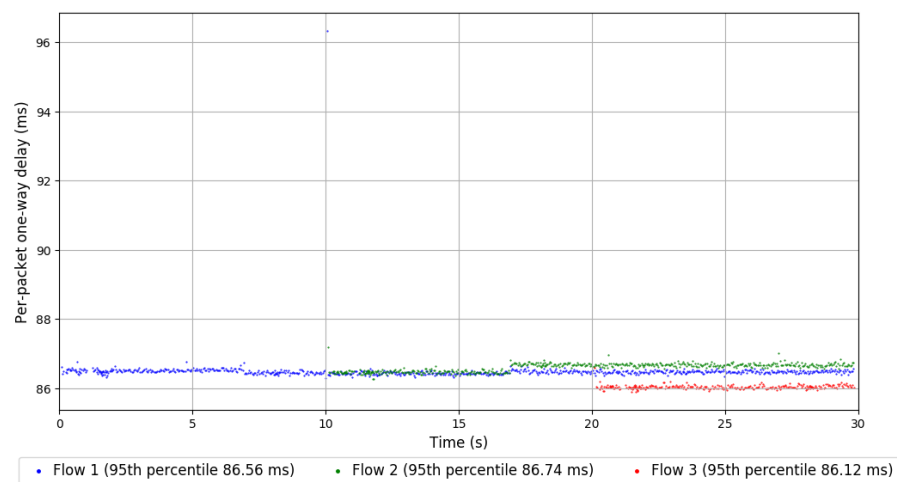
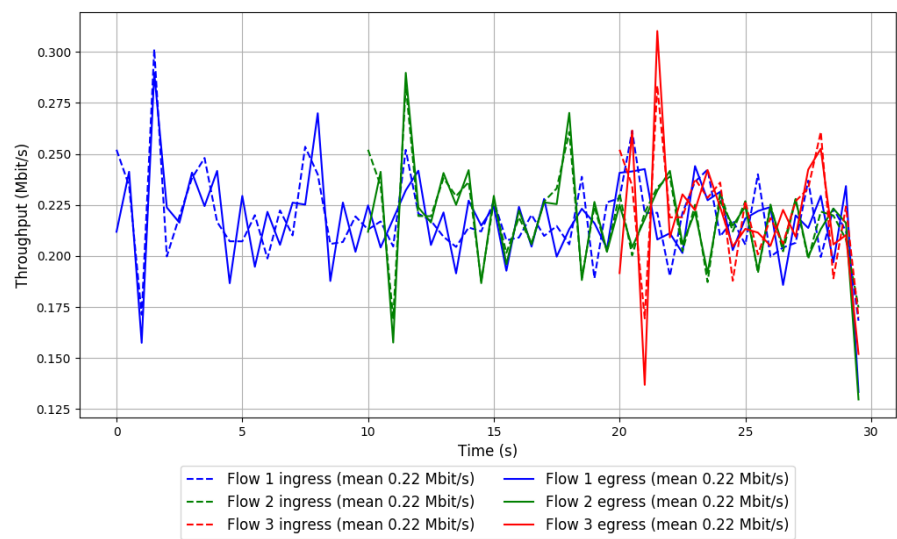


```
Run 6: Statistics of SReAM

Start at: 2018-02-13 20:26:30
End at: 2018-02-13 20:27:00

# Below is generated by plot.py at 2018-02-14 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.710 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.559 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.743 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.124 ms
Loss rate: 1.50%
```

Run 6: Report of SReAM — Data Link

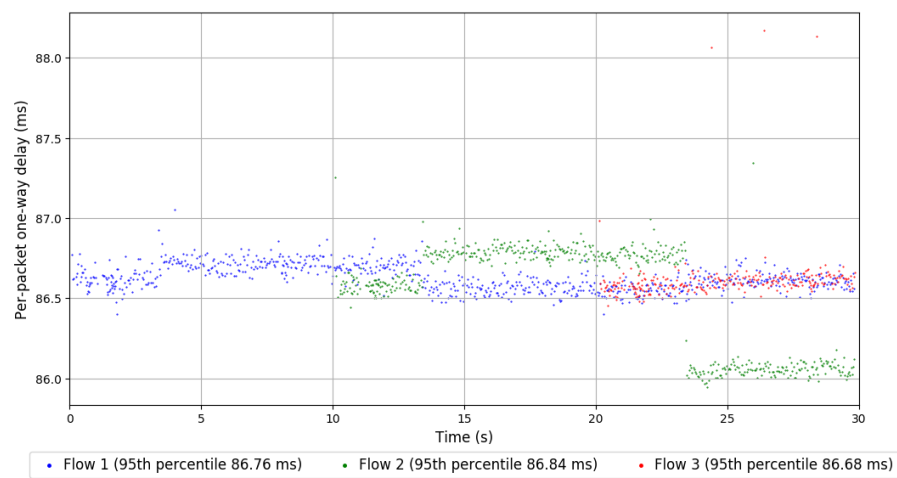
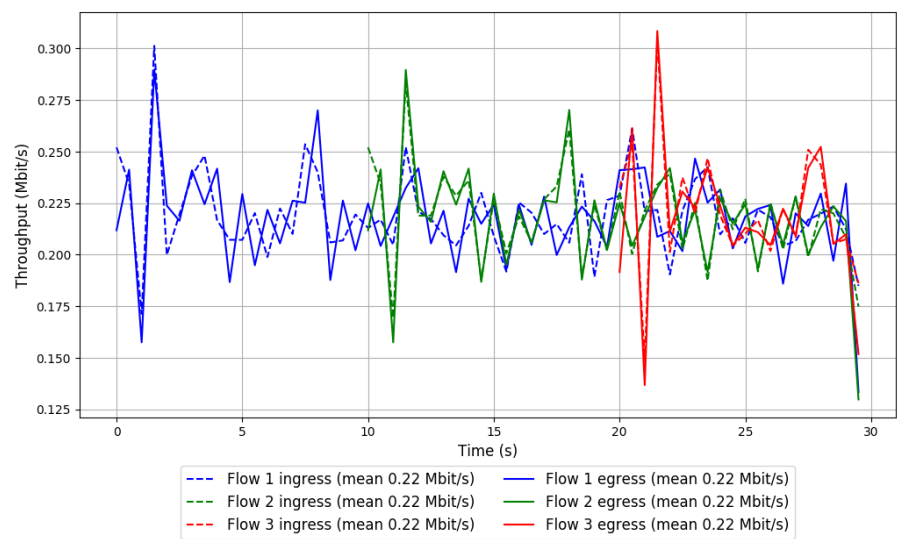


```
Run 7: Statistics of SReAM

Start at: 2018-02-13 20:45:24
End at: 2018-02-13 20:45:54

# Below is generated by plot.py at 2018-02-14 01:50:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.811 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.764 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.845 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.677 ms
Loss rate: 1.50%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-02-13 21:04:19

End at: 2018-02-13 21:04:49

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 87.151 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.906 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.893 ms

Loss rate: 0.85%

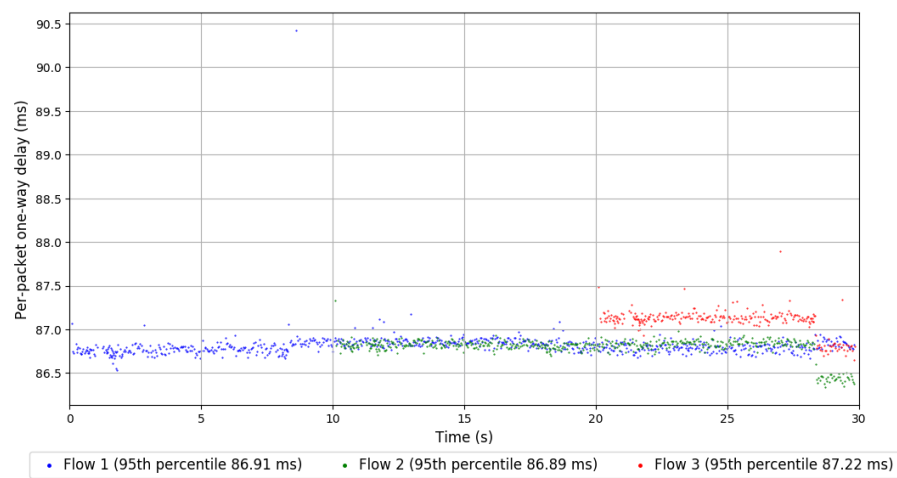
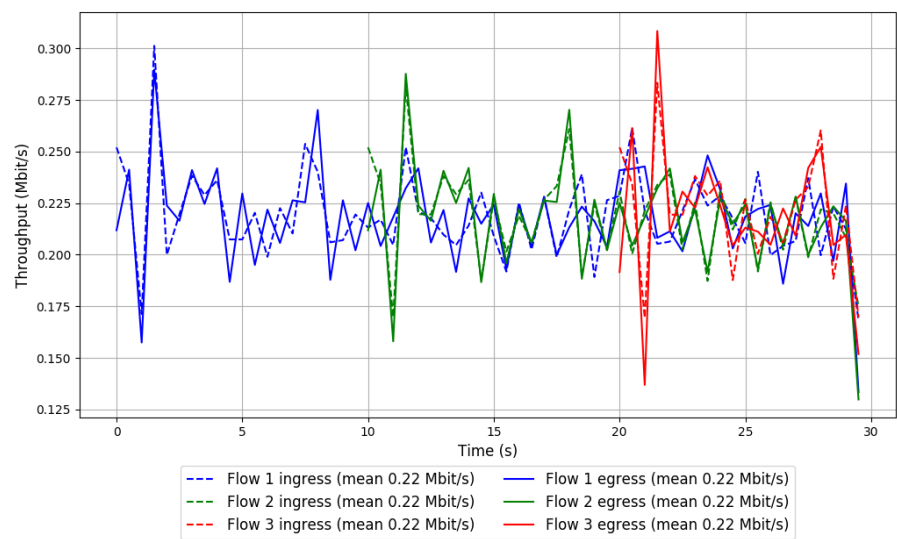
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.222 ms

Loss rate: 1.50%

Run 8: Report of SReAM — Data Link

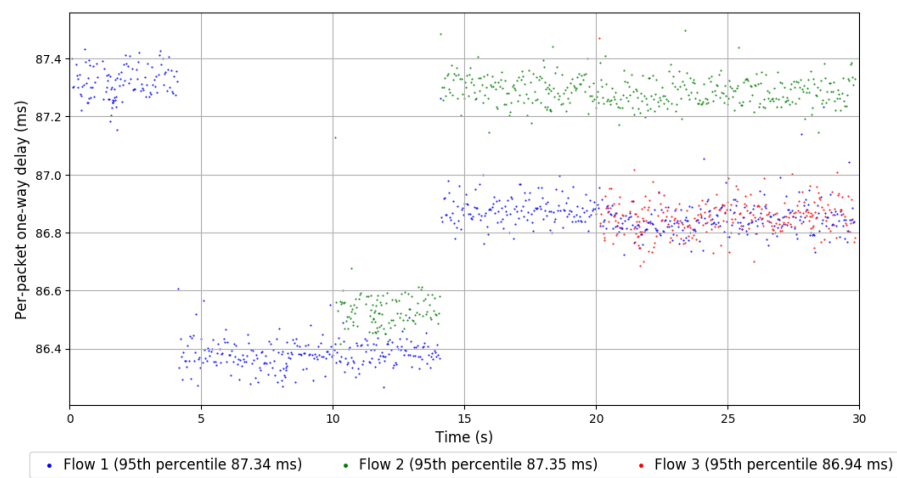
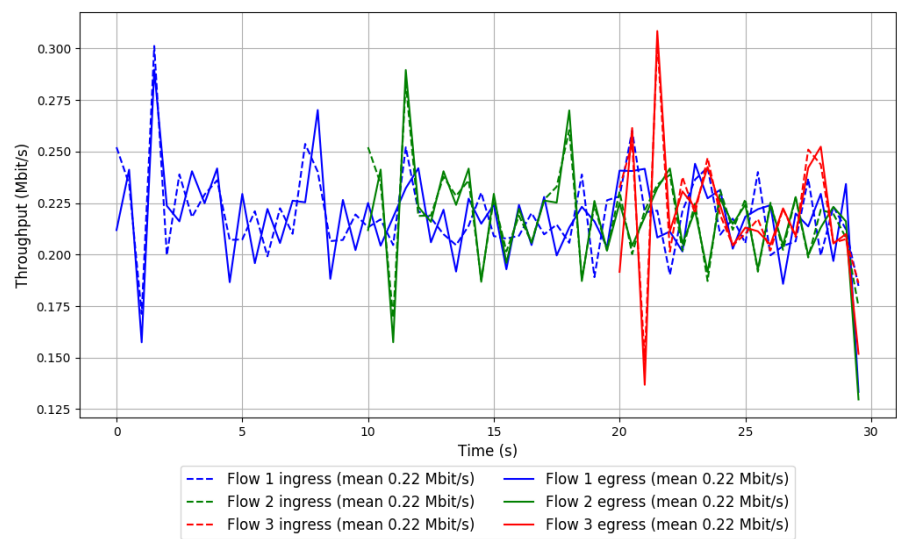


```
Run 9: Statistics of SReAM

Start at: 2018-02-13 21:23:03
End at: 2018-02-13 21:23:33

# Below is generated by plot.py at 2018-02-14 01:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.344 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.340 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.353 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.942 ms
Loss rate: 1.50%
```

Run 9: Report of SReAM — Data Link

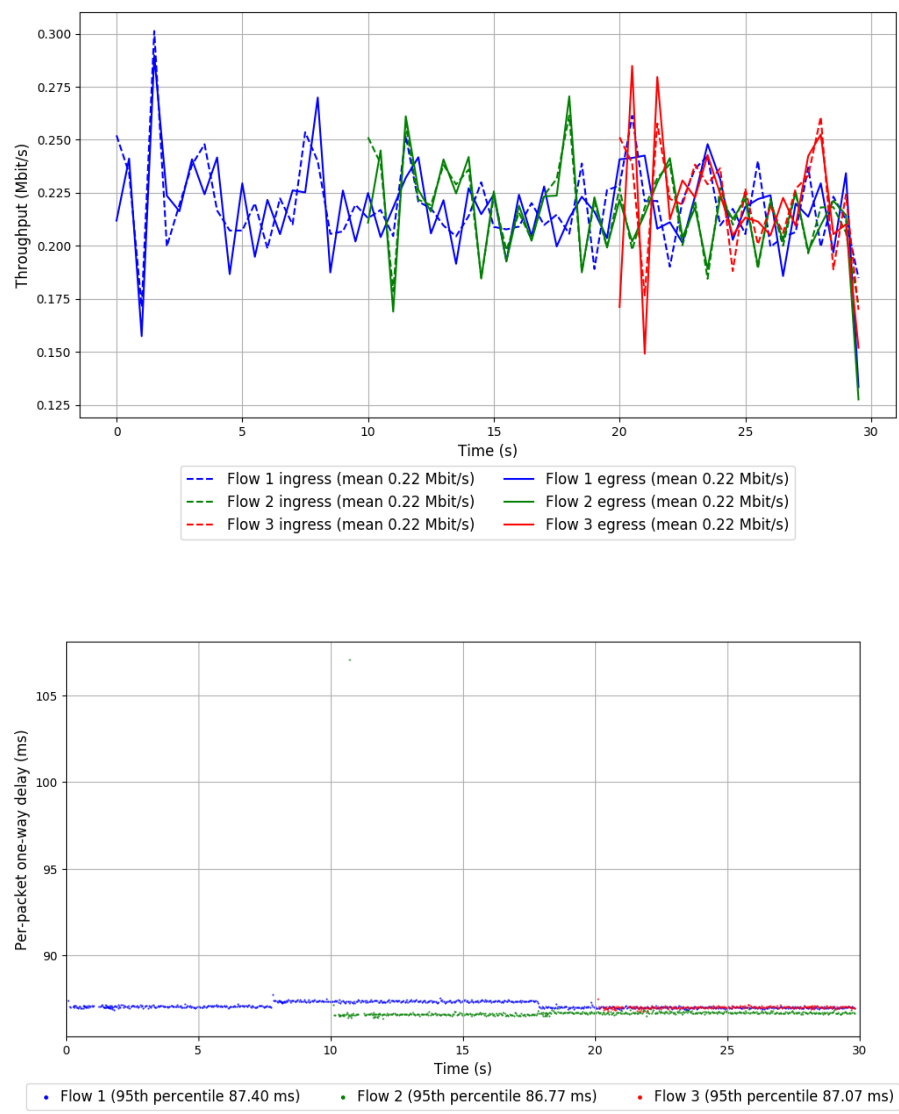


```
Run 10: Statistics of SReAM

Start at: 2018-02-13 21:41:49
End at: 2018-02-13 21:42:19

# Below is generated by plot.py at 2018-02-14 01:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.369 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.396 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.767 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.072 ms
Loss rate: 1.51%
```

Run 10: Report of SCReAM — Data Link

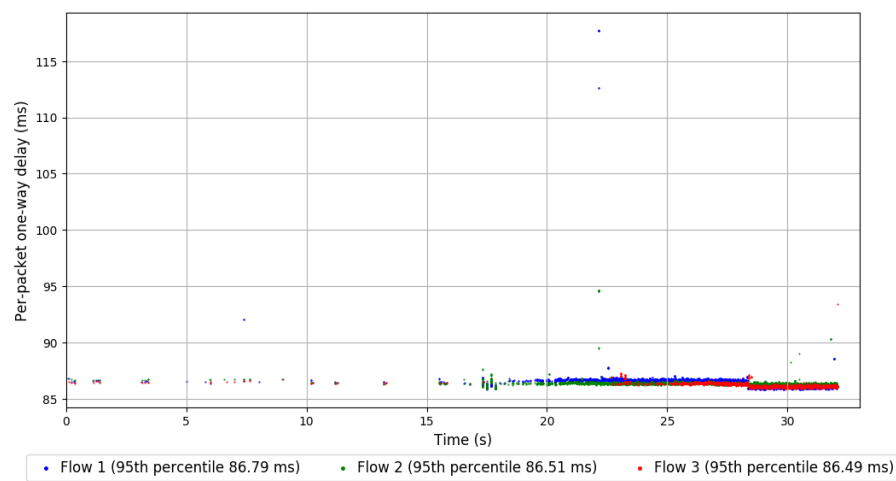
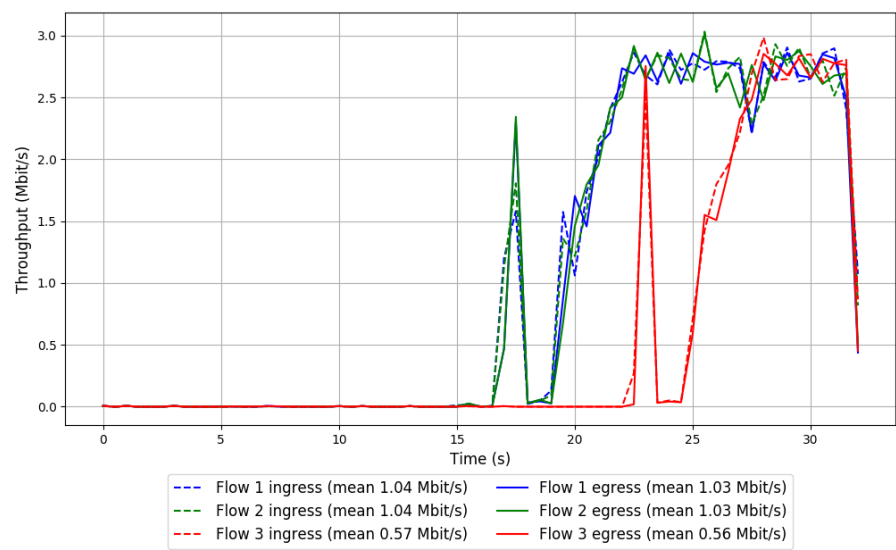


```
Run 1: Statistics of WebRTC media

Start at: 2018-02-13 18:56:01
End at: 2018-02-13 18:56:31

# Below is generated by plot.py at 2018-02-14 01:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.62 Mbit/s
95th percentile per-packet one-way delay: 86.746 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 86.793 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 86.509 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 86.488 ms
Loss rate: 2.46%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-02-13 19:15:03

End at: 2018-02-13 19:15:33

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 86.852 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 86.835 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 86.808 ms

Loss rate: 0.85%

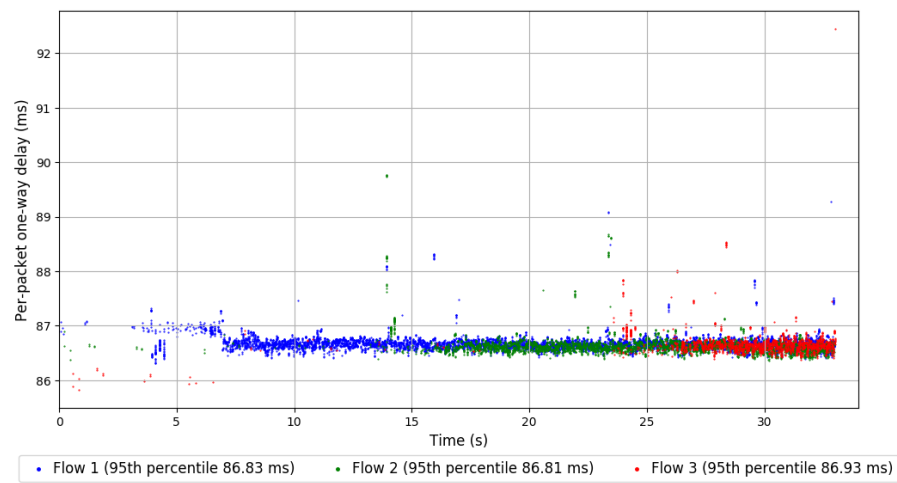
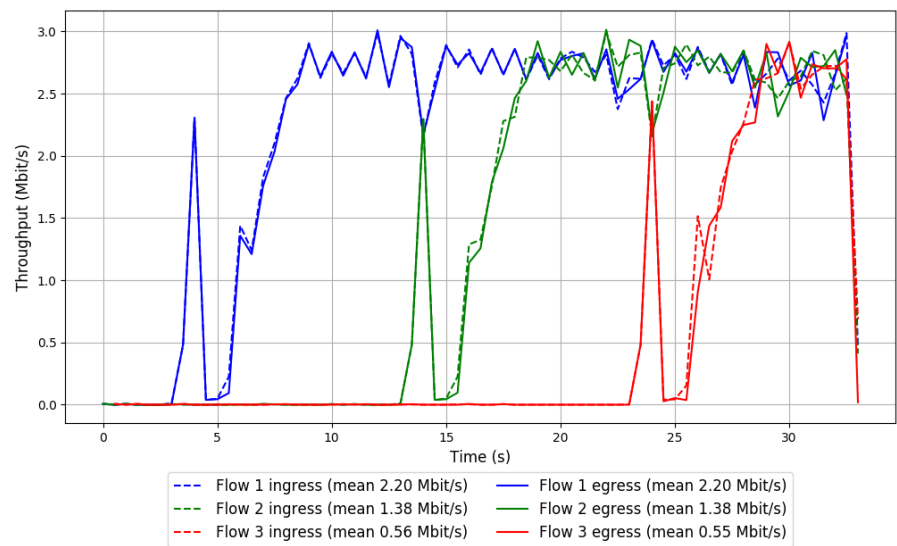
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 86.934 ms

Loss rate: 2.67%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-02-13 19:33:53

End at: 2018-02-13 19:34:23

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 86.750 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 86.714 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 86.811 ms

Loss rate: 0.82%

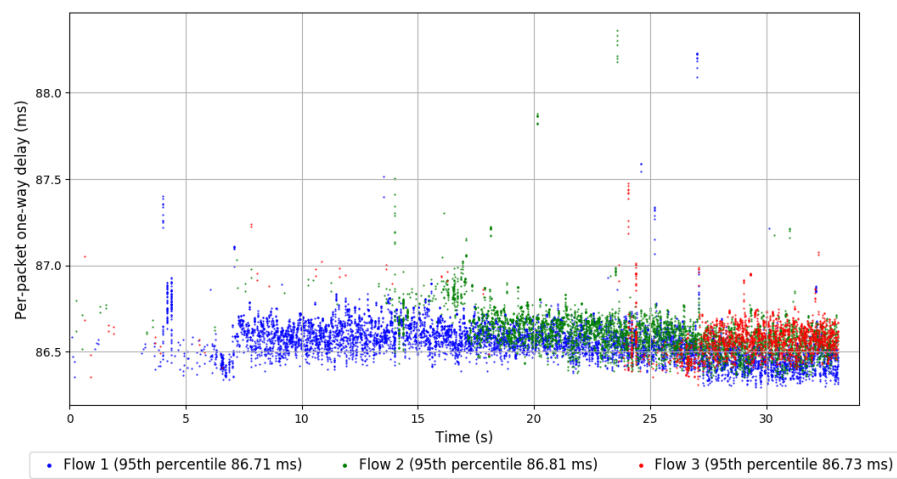
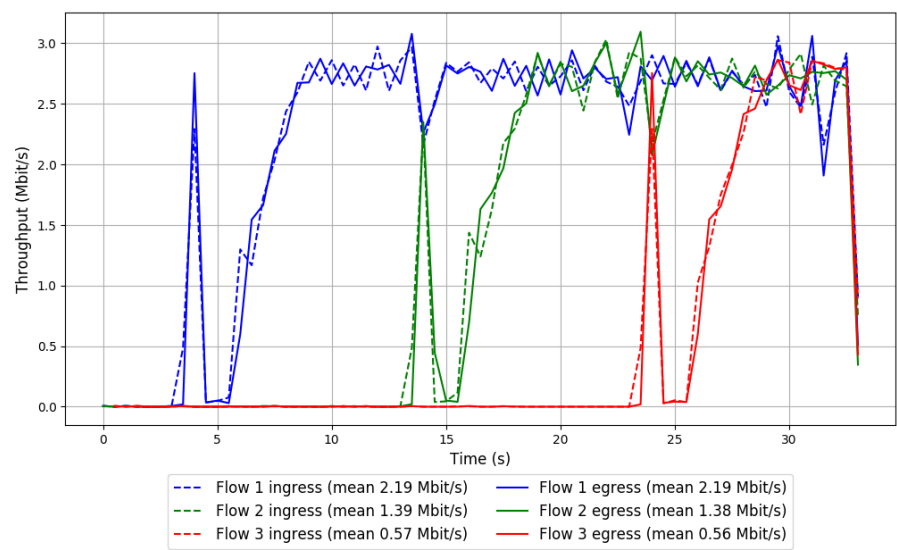
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 86.733 ms

Loss rate: 2.42%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-02-13 19:52:44

End at: 2018-02-13 19:53:14

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.06 Mbit/s

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

Loss rate: 1.07%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 86.523 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 86.097 ms

Loss rate: 0.97%

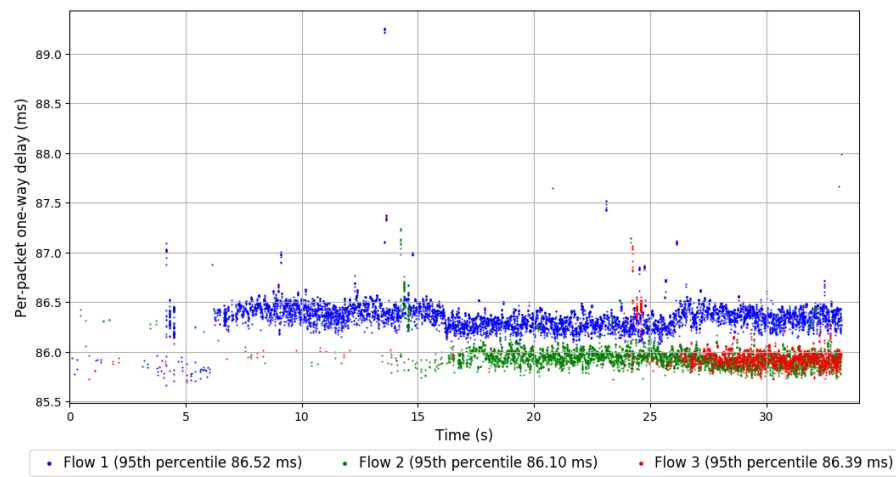
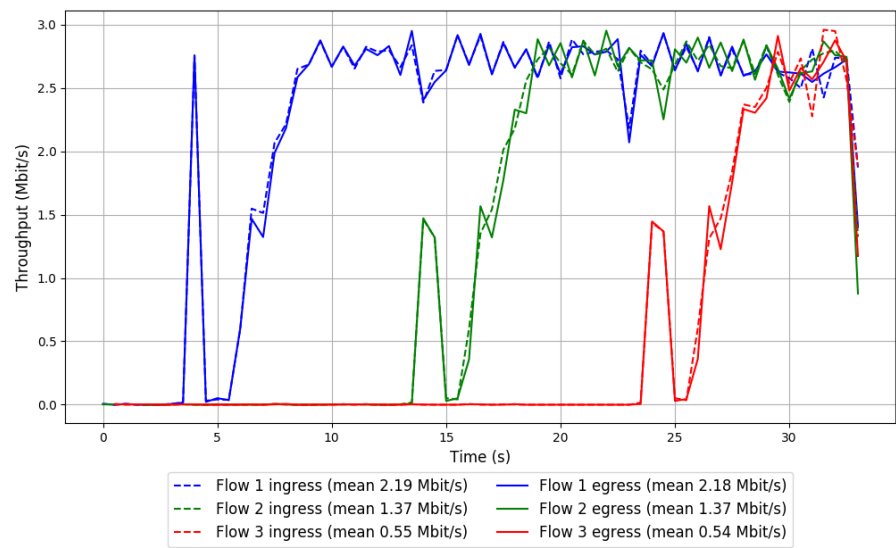
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 86.386 ms

Loss rate: 3.04%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-02-13 20:11:52

End at: 2018-02-13 20:12:22

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.05 Mbit/s

95th percentile per-packet one-way delay: 86.464 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 86.488 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 86.323 ms

Loss rate: 1.02%

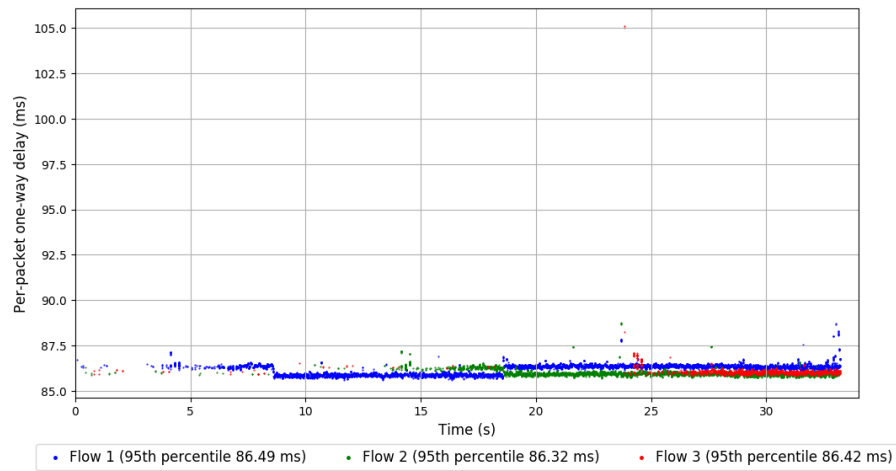
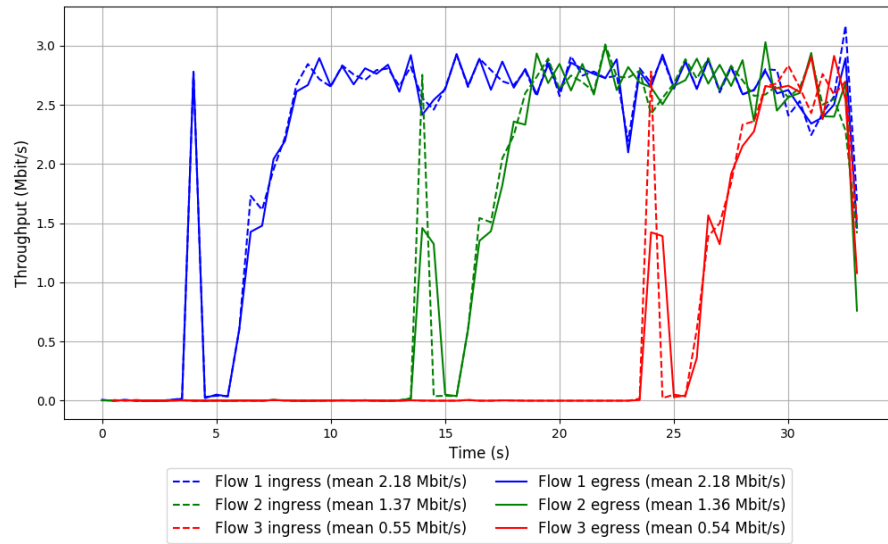
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 86.417 ms

Loss rate: 2.39%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-02-13 20:30:45

End at: 2018-02-13 20:31:15

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 86.522 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 86.535 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 86.477 ms

Loss rate: 0.99%

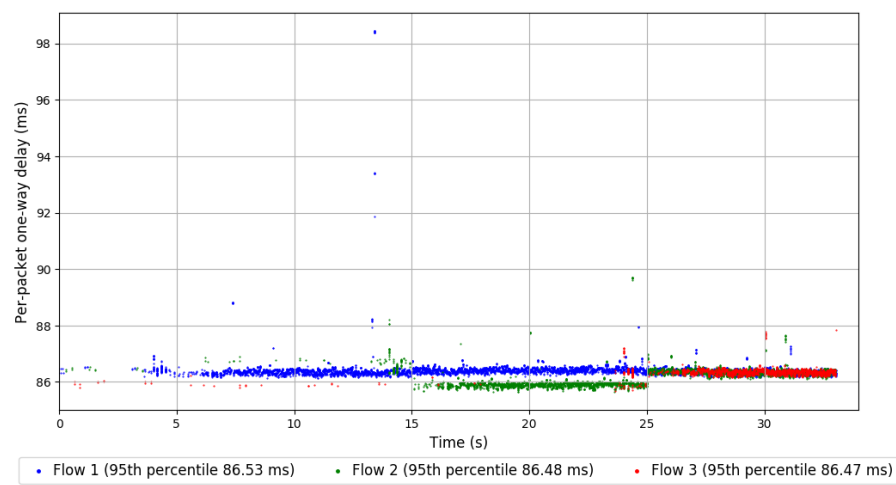
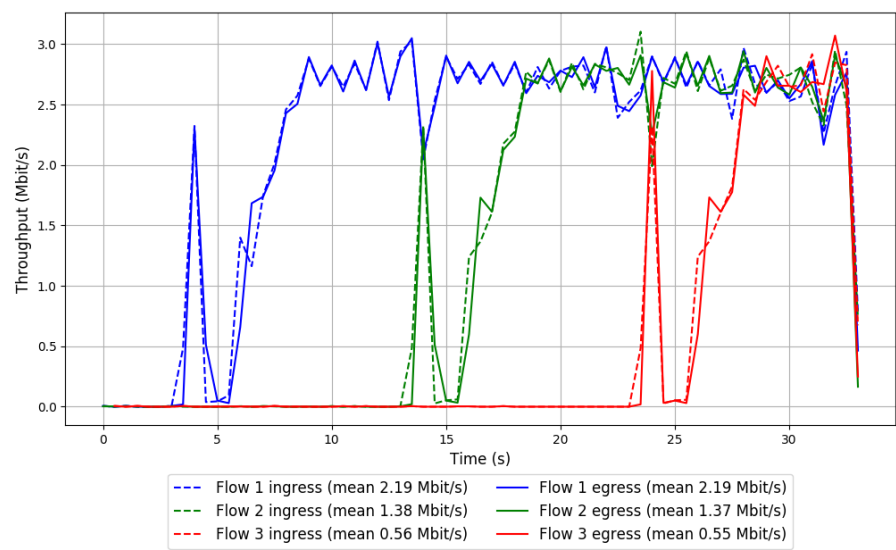
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 86.468 ms

Loss rate: 2.35%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-02-13 20:49:40

End at: 2018-02-13 20:50:10

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 86.941 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 86.975 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 86.739 ms

Loss rate: 0.79%

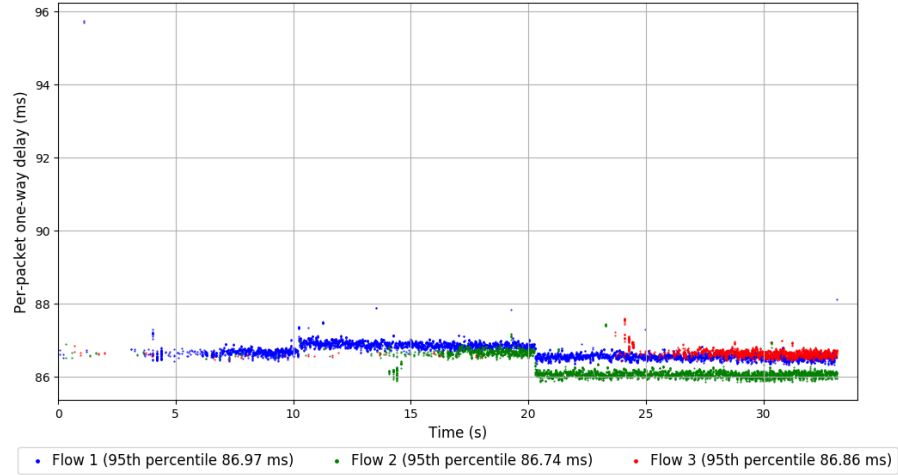
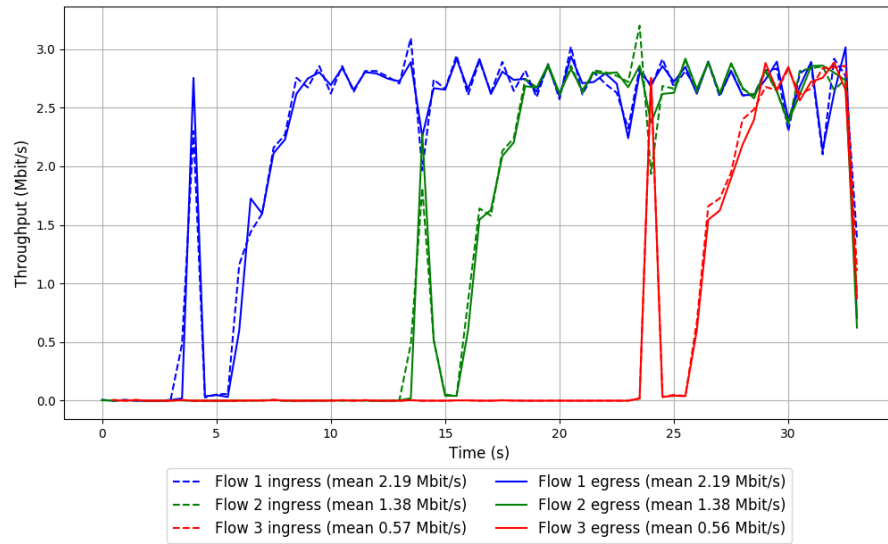
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 86.858 ms

Loss rate: 2.44%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-02-13 21:08:34

End at: 2018-02-13 21:09:04

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.09 Mbit/s

95th percentile per-packet one-way delay: 86.921 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 86.797 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 86.947 ms

Loss rate: 0.82%

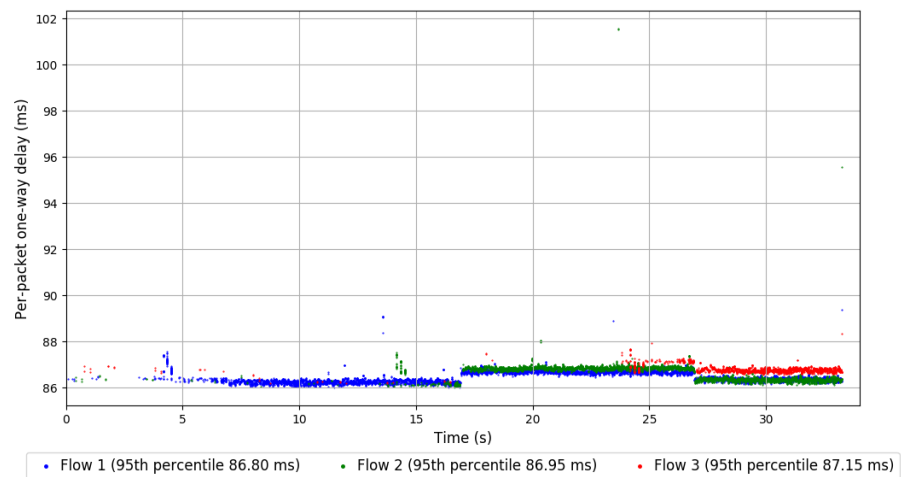
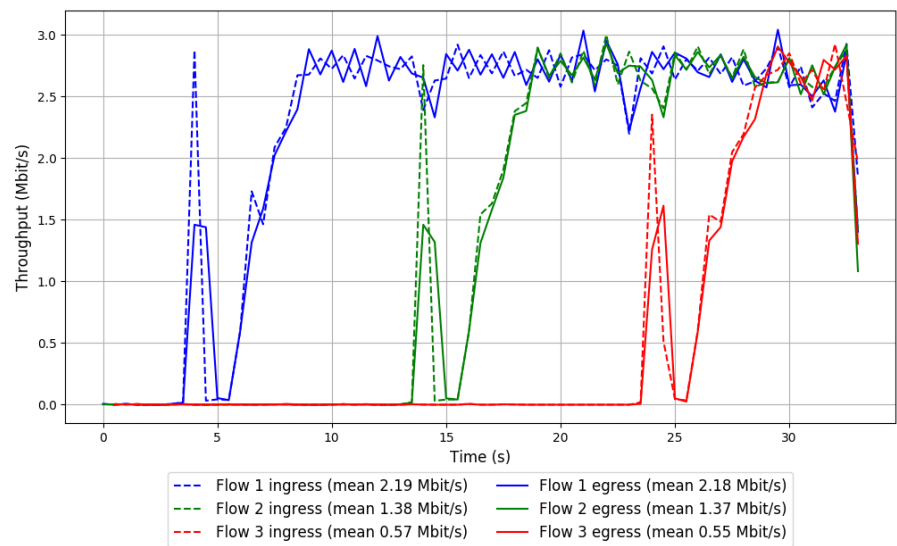
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 87.146 ms

Loss rate: 2.52%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-02-13 21:27:18

End at: 2018-02-13 21:27:48

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 87.480 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 87.179 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 87.007 ms

Loss rate: 1.05%

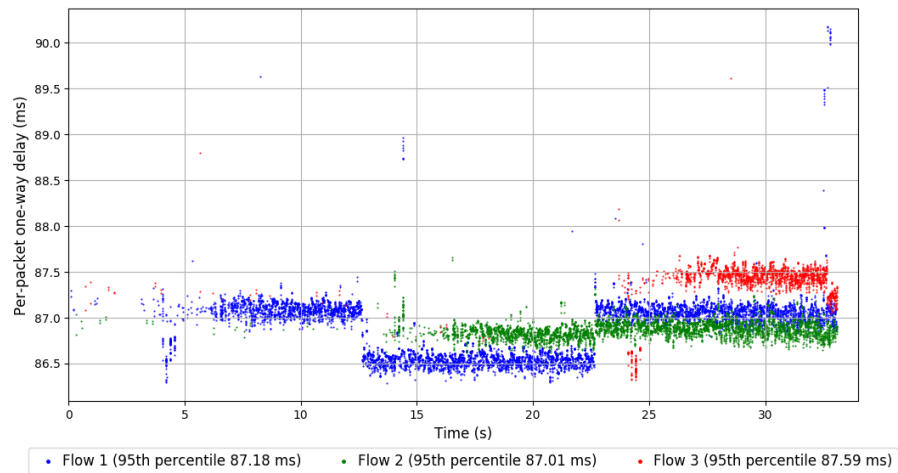
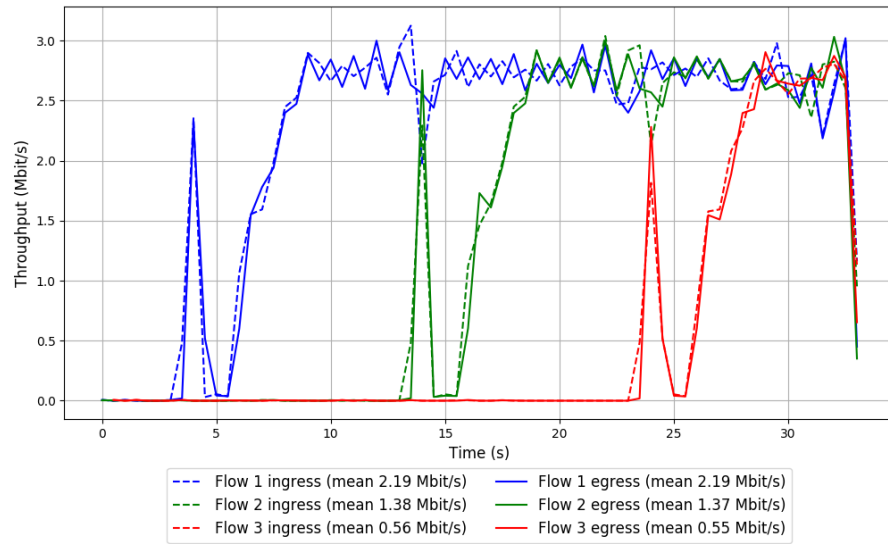
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 87.591 ms

Loss rate: 2.45%

Run 9: Report of WebRTC media — Data Link

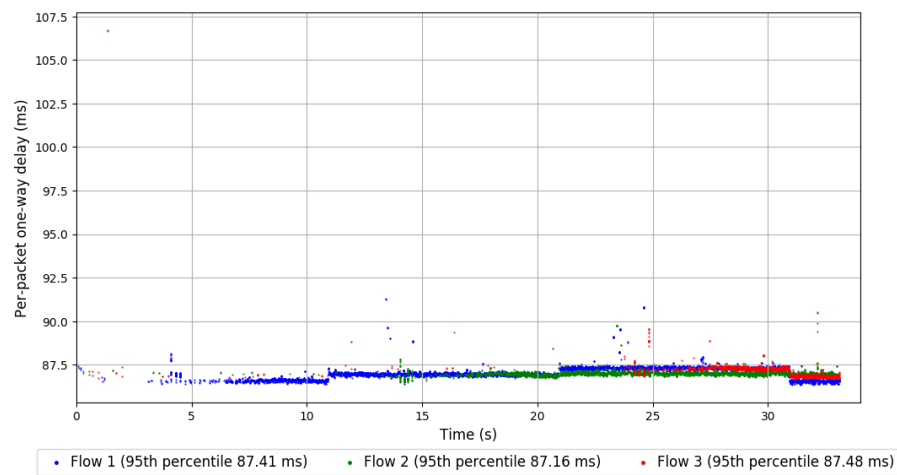
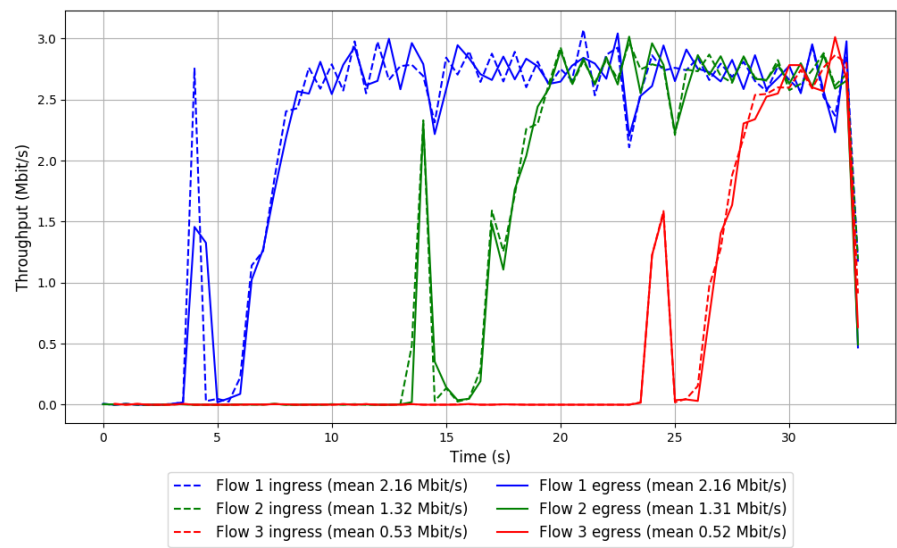


```
Run 10: Statistics of WebRTC media

Start at: 2018-02-13 21:46:10
End at: 2018-02-13 21:46:40

# Below is generated by plot.py at 2018-02-14 01:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.97 Mbit/s
95th percentile per-packet one-way delay: 87.404 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 87.411 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 87.161 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 87.485 ms
Loss rate: 2.55%
```

Run 10: Report of WebRTC media — Data Link

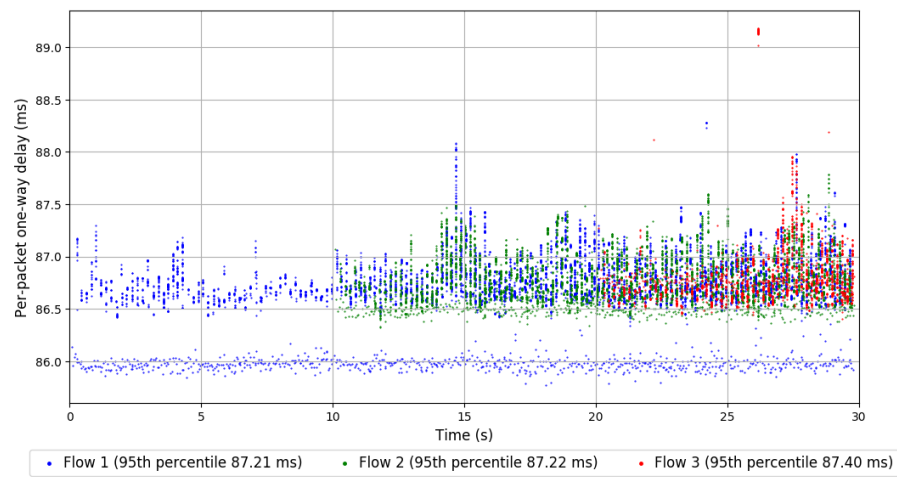
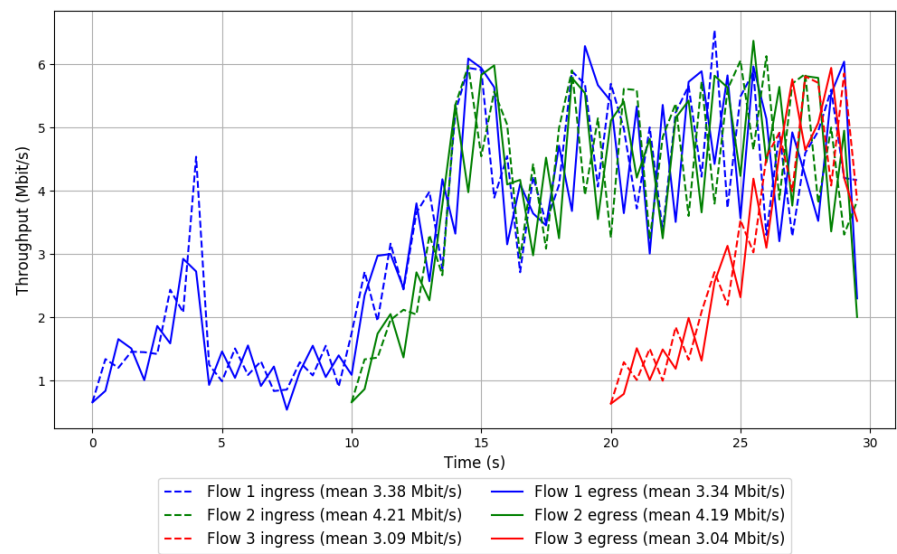


```
Run 1: Statistics of Sprout

Start at: 2018-02-13 19:01:26
End at: 2018-02-13 19:01:56

# Below is generated by plot.py at 2018-02-14 01:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.11 Mbit/s
95th percentile per-packet one-way delay: 87.232 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 87.212 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 87.215 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 87.402 ms
Loss rate: 3.24%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-02-13 19:20:19

End at: 2018-02-13 19:20:49

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 86.927 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 4.58 Mbit/s

95th percentile per-packet one-way delay: 86.910 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 3.35 Mbit/s

95th percentile per-packet one-way delay: 86.965 ms

Loss rate: 1.22%

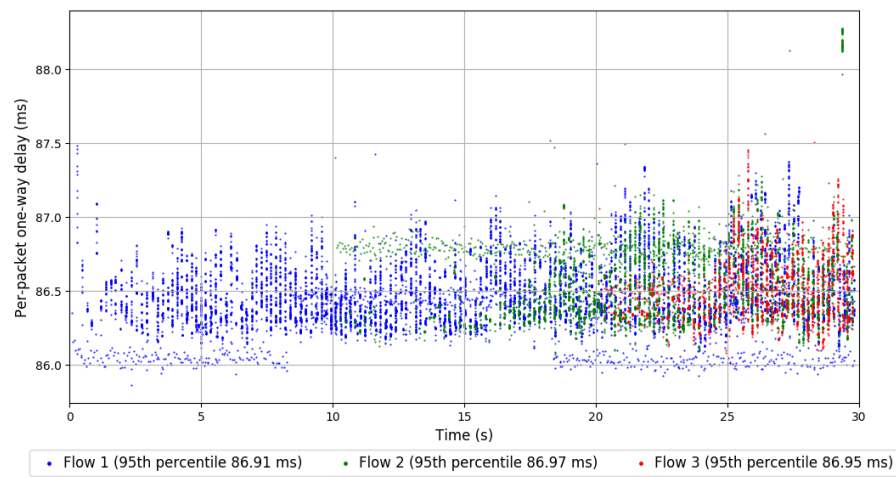
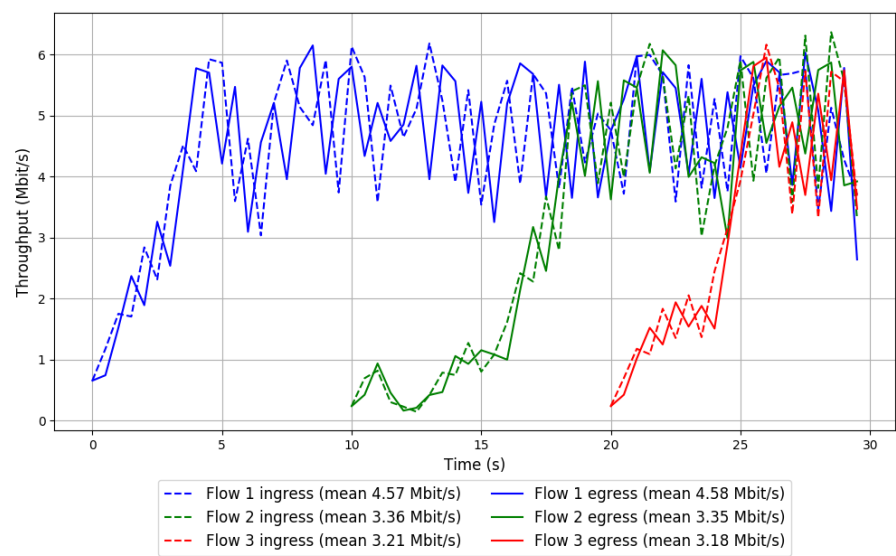
-- Flow 3:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 86.949 ms

Loss rate: 2.83%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-02-13 19:39:15

End at: 2018-02-13 19:39:45

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.02 Mbit/s

95th percentile per-packet one-way delay: 87.136 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 4.49 Mbit/s

95th percentile per-packet one-way delay: 87.203 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 3.60 Mbit/s

95th percentile per-packet one-way delay: 87.089 ms

Loss rate: 2.47%

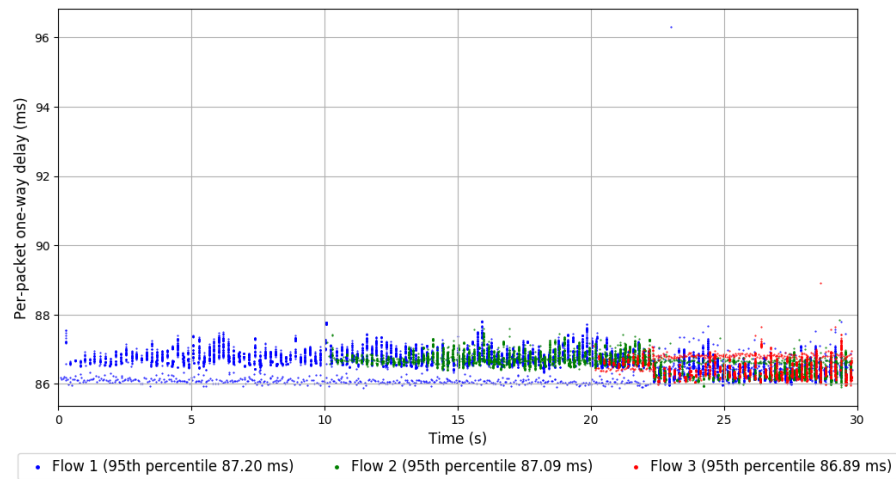
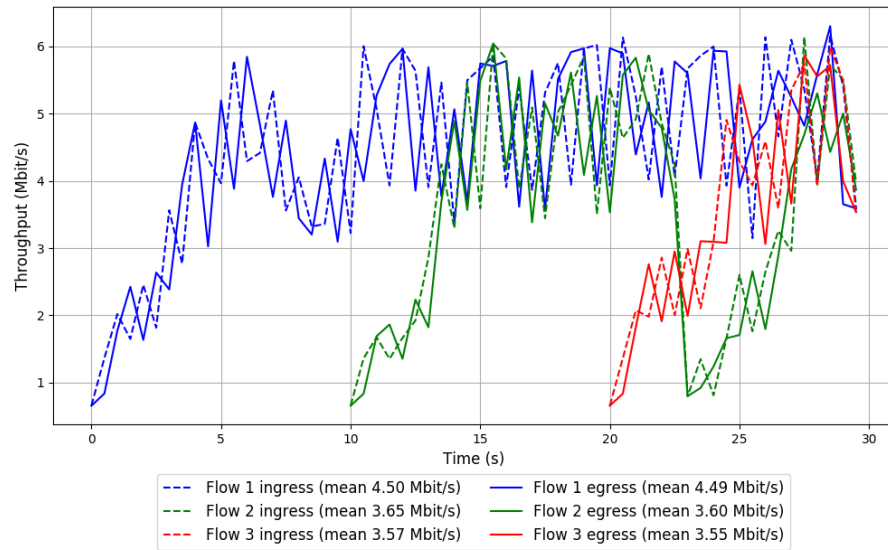
-- Flow 3:

Average throughput: 3.55 Mbit/s

95th percentile per-packet one-way delay: 86.895 ms

Loss rate: 2.48%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-02-13 19:58:06

End at: 2018-02-13 19:58:36

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 87.149 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 4.40 Mbit/s

95th percentile per-packet one-way delay: 87.181 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 4.07 Mbit/s

95th percentile per-packet one-way delay: 87.146 ms

Loss rate: 1.42%

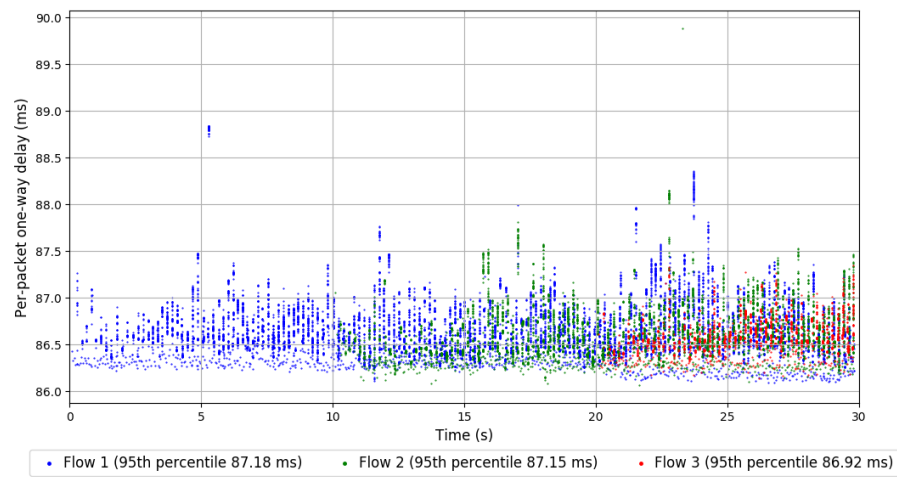
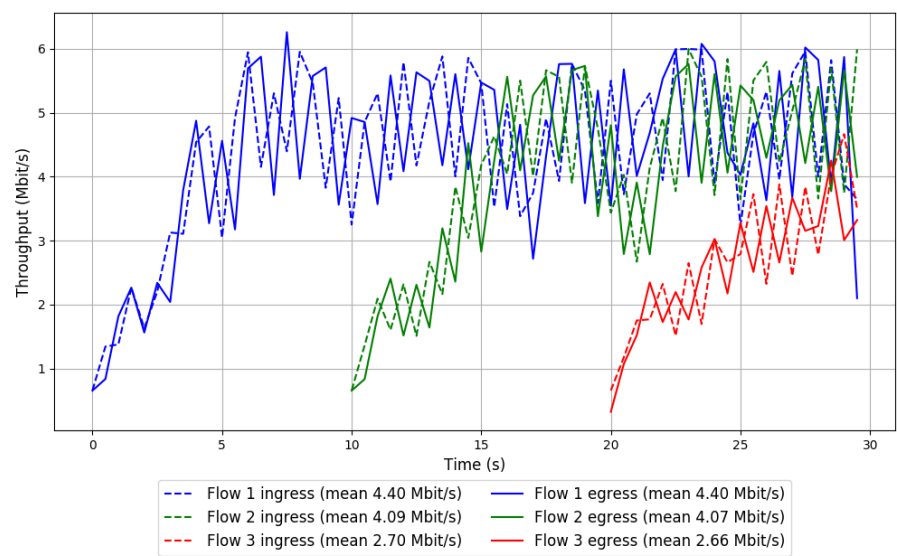
-- Flow 3:

Average throughput: 2.66 Mbit/s

95th percentile per-packet one-way delay: 86.925 ms

Loss rate: 3.45%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-02-13 20:17:10

End at: 2018-02-13 20:17:40

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 87.073 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 3.23 Mbit/s

95th percentile per-packet one-way delay: 87.102 ms

Loss rate: 1.82%

-- Flow 2:

Average throughput: 4.40 Mbit/s

95th percentile per-packet one-way delay: 87.049 ms

Loss rate: 0.92%

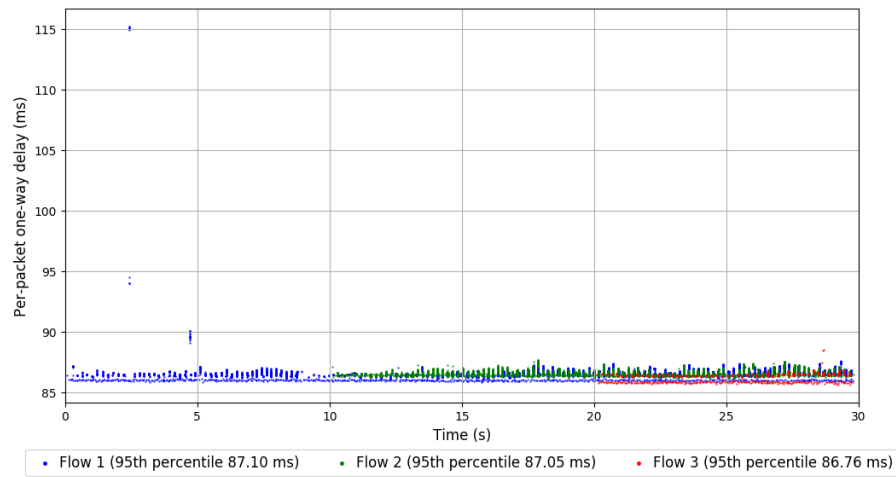
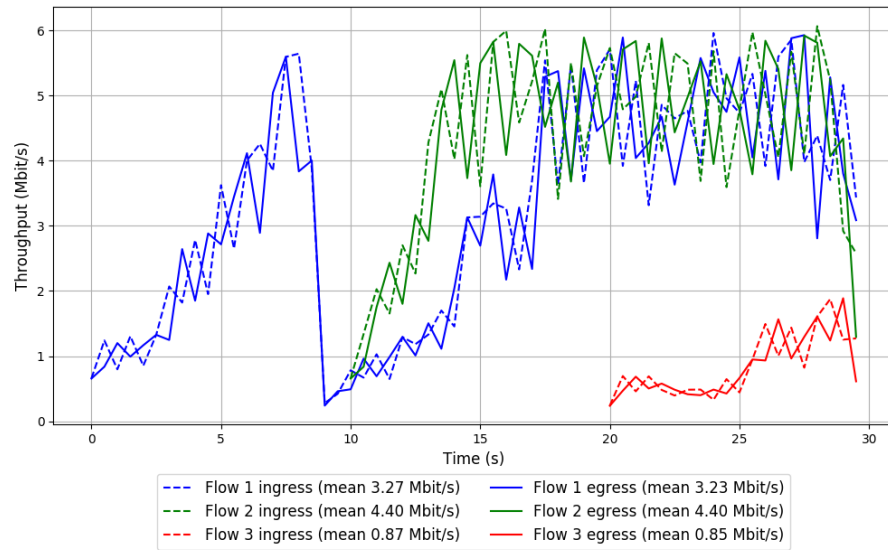
-- Flow 3:

Average throughput: 0.85 Mbit/s

95th percentile per-packet one-way delay: 86.761 ms

Loss rate: 3.88%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-02-13 20:36:06

End at: 2018-02-13 20:36:36

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.91 Mbit/s

95th percentile per-packet one-way delay: 87.277 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 4.19 Mbit/s

95th percentile per-packet one-way delay: 87.263 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 87.349 ms

Loss rate: 1.34%

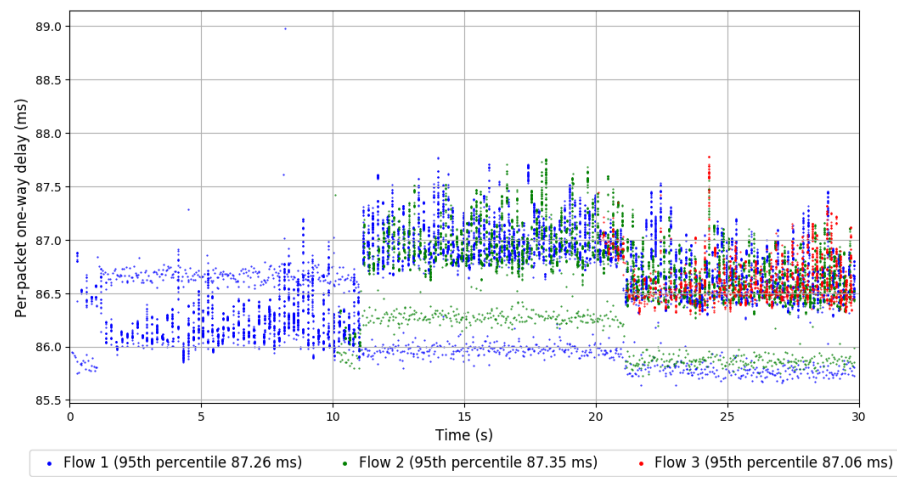
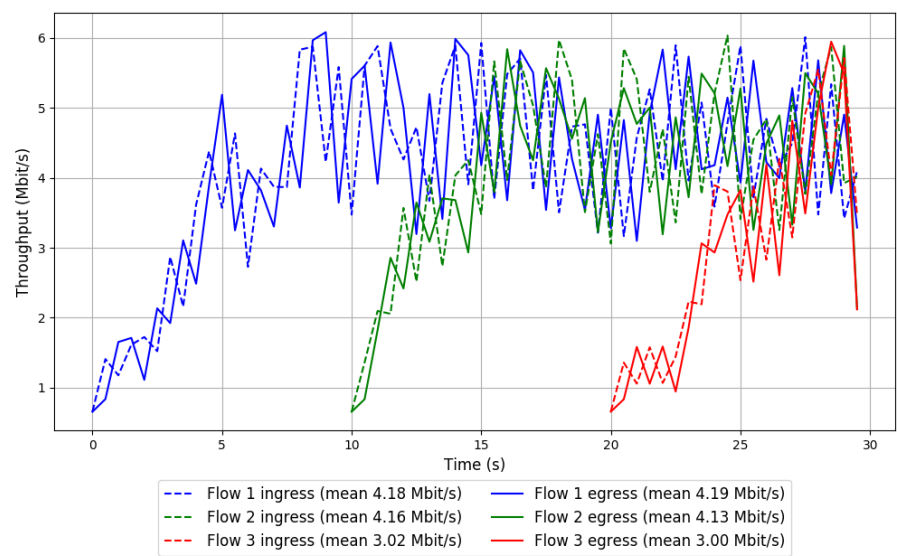
-- Flow 3:

Average throughput: 3.00 Mbit/s

95th percentile per-packet one-way delay: 87.064 ms

Loss rate: 2.72%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-02-13 20:54:55

End at: 2018-02-13 20:55:25

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 87.497 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 4.06 Mbit/s

95th percentile per-packet one-way delay: 87.511 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 87.471 ms

Loss rate: 1.20%

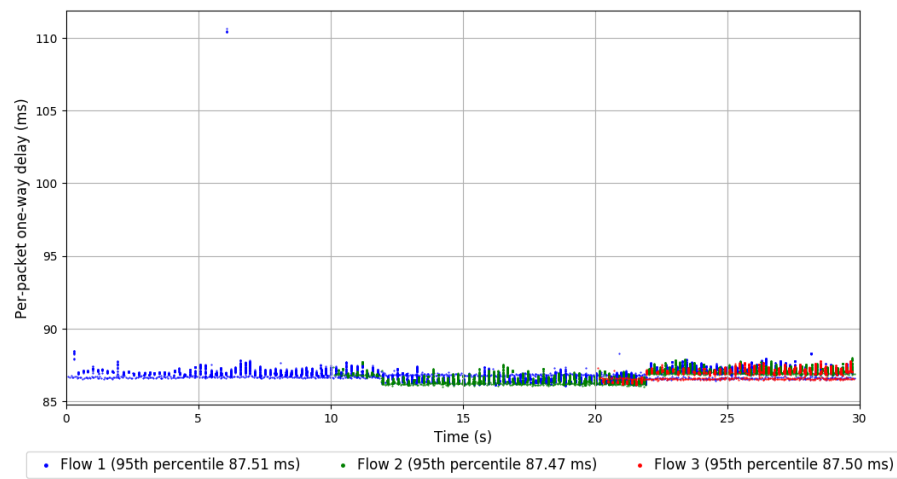
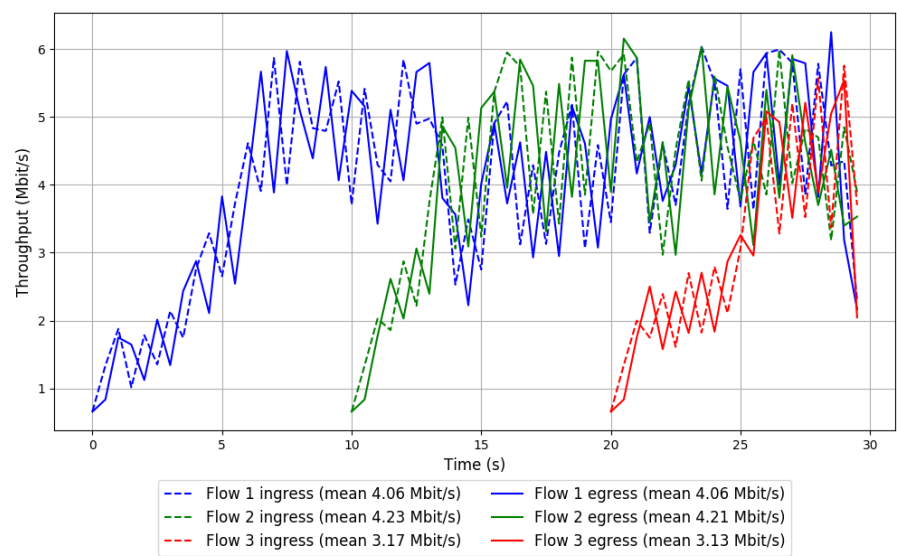
-- Flow 3:

Average throughput: 3.13 Mbit/s

95th percentile per-packet one-way delay: 87.504 ms

Loss rate: 3.01%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-02-13 21:13:56

End at: 2018-02-13 21:14:26

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.17 Mbit/s

95th percentile per-packet one-way delay: 87.041 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 4.40 Mbit/s

95th percentile per-packet one-way delay: 87.060 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 4.17 Mbit/s

95th percentile per-packet one-way delay: 87.037 ms

Loss rate: 1.11%

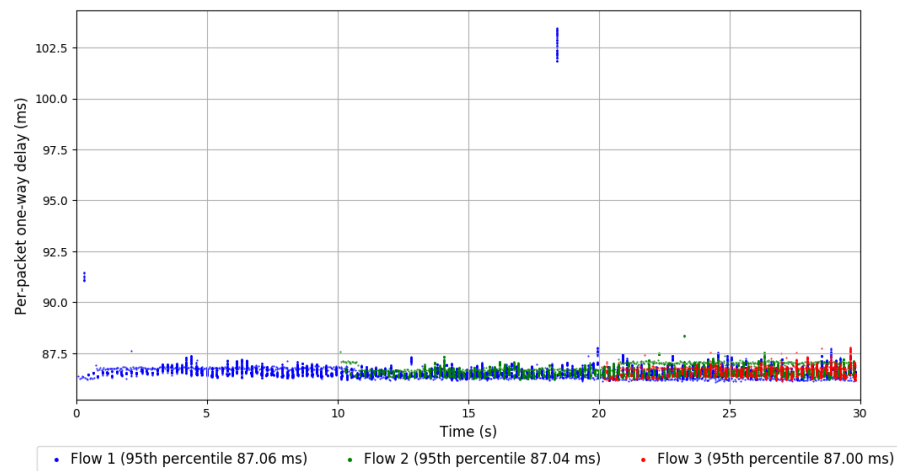
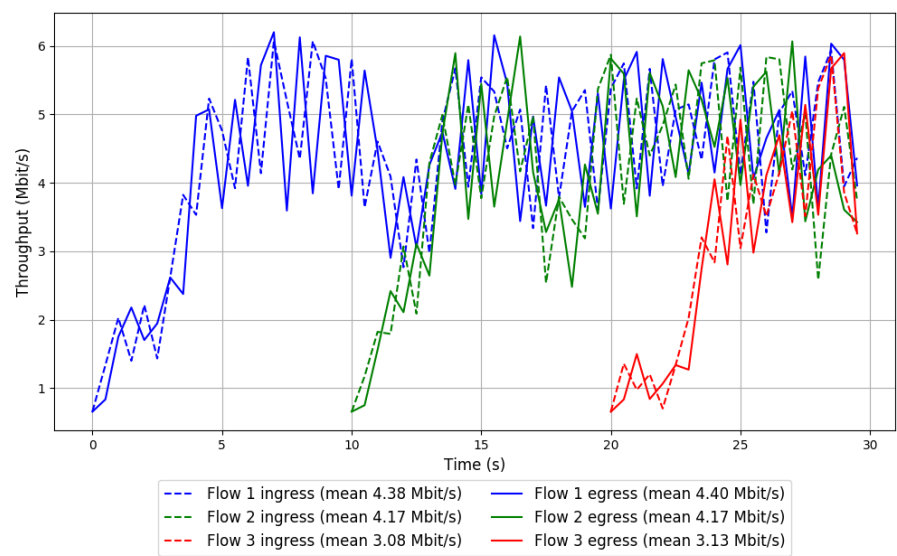
-- Flow 3:

Average throughput: 3.13 Mbit/s

95th percentile per-packet one-way delay: 86.997 ms

Loss rate: 0.01%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-02-13 21:32:32

End at: 2018-02-13 21:33:02

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.96 Mbit/s

95th percentile per-packet one-way delay: 87.857 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 3.74 Mbit/s

95th percentile per-packet one-way delay: 87.823 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 3.37 Mbit/s

95th percentile per-packet one-way delay: 87.934 ms

Loss rate: 1.17%

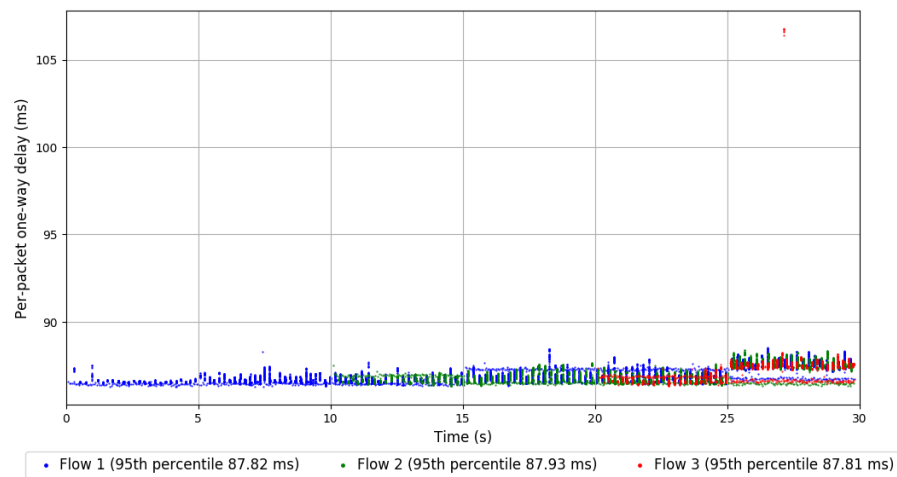
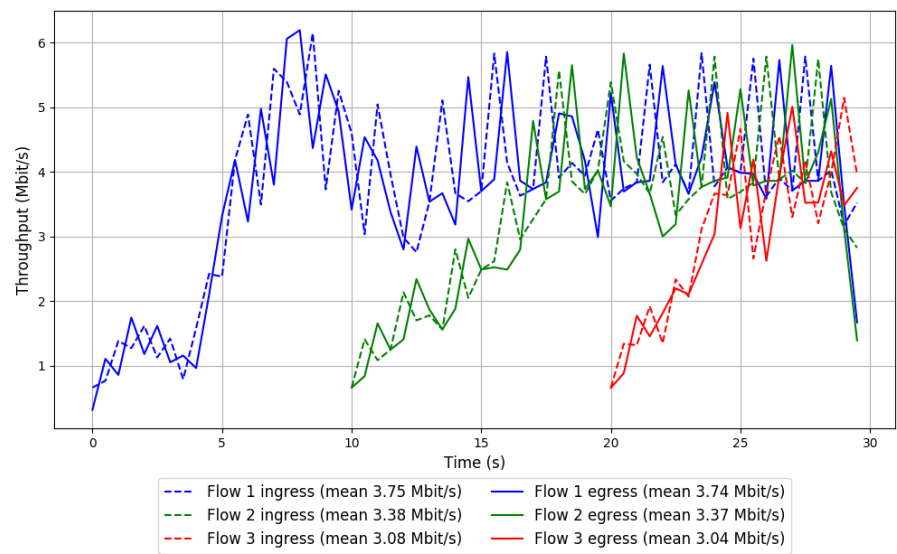
-- Flow 3:

Average throughput: 3.04 Mbit/s

95th percentile per-packet one-way delay: 87.814 ms

Loss rate: 3.08%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-02-13 21:51:28

End at: 2018-02-13 21:51:58

Below is generated by plot.py at 2018-02-14 01:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.29 Mbit/s

95th percentile per-packet one-way delay: 87.269 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 3.62 Mbit/s

95th percentile per-packet one-way delay: 87.299 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 3.31 Mbit/s

95th percentile per-packet one-way delay: 87.225 ms

Loss rate: 1.13%

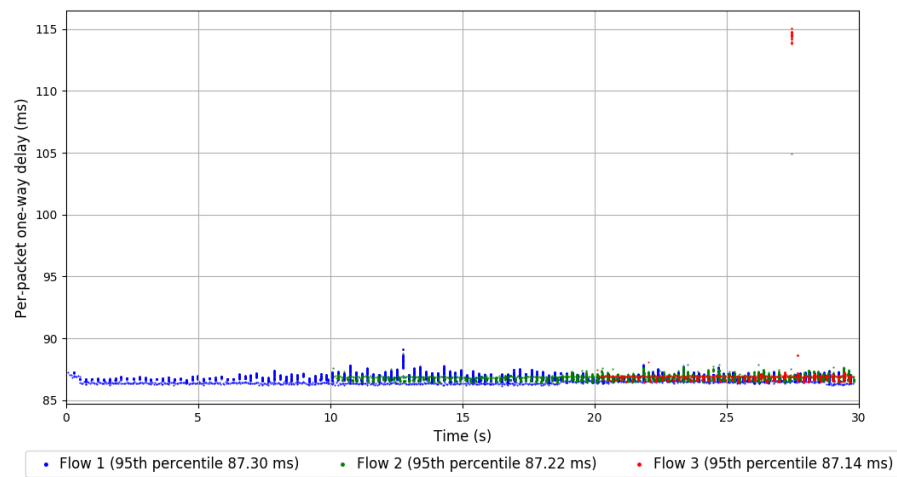
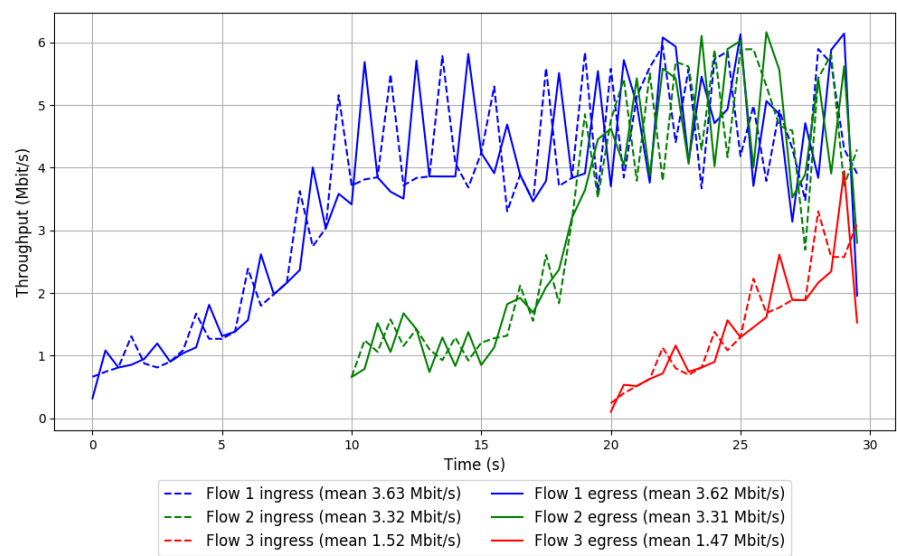
-- Flow 3:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 87.144 ms

Loss rate: 5.31%

Run 10: Report of Sprout — Data Link

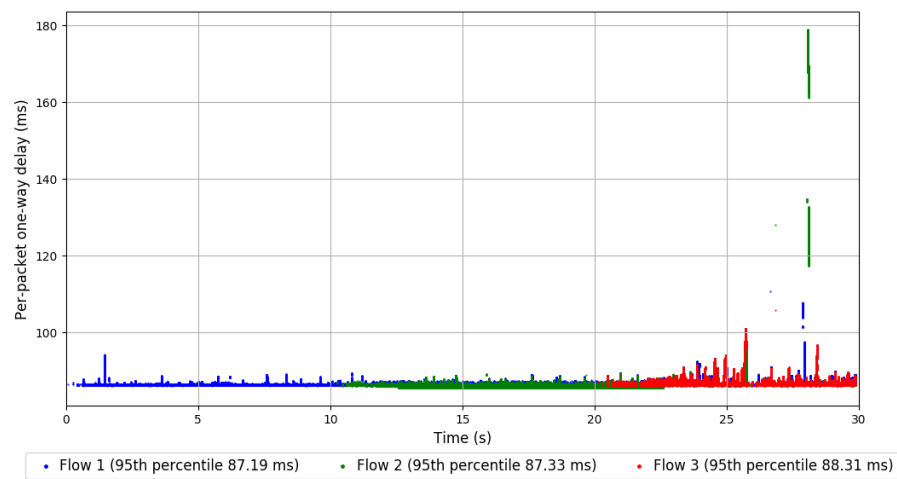
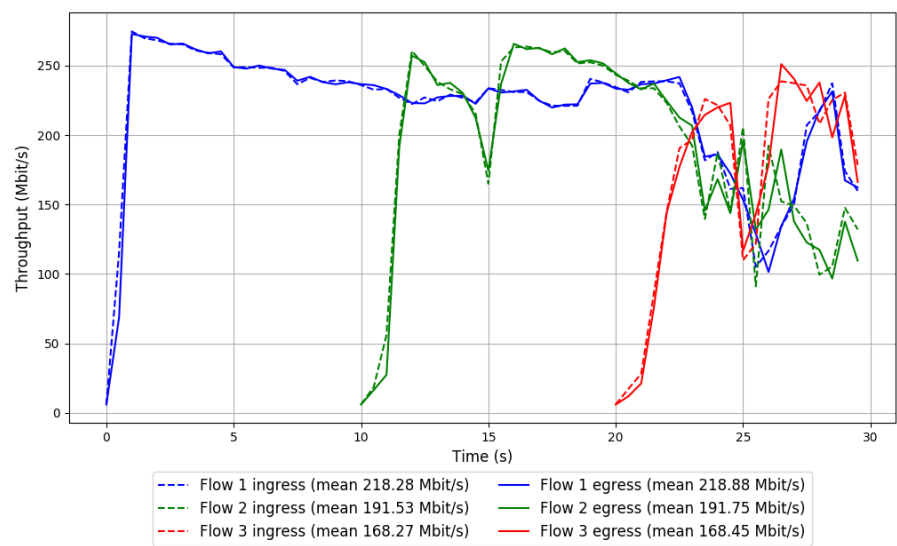


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-13 19:00:05
End at: 2018-02-13 19:00:35

# Below is generated by plot.py at 2018-02-14 01:57:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.24 Mbit/s
95th percentile per-packet one-way delay: 87.433 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 218.88 Mbit/s
95th percentile per-packet one-way delay: 87.190 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 191.75 Mbit/s
95th percentile per-packet one-way delay: 87.330 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 168.45 Mbit/s
95th percentile per-packet one-way delay: 88.315 ms
Loss rate: 1.65%
```


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

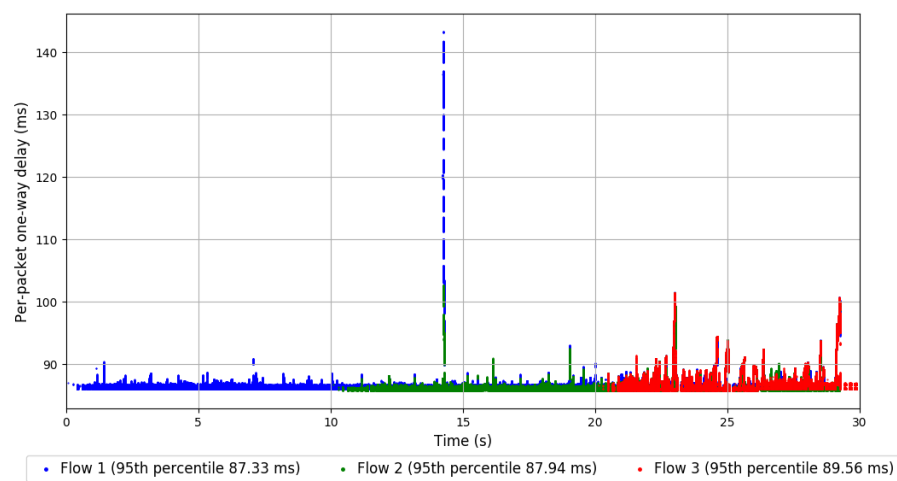
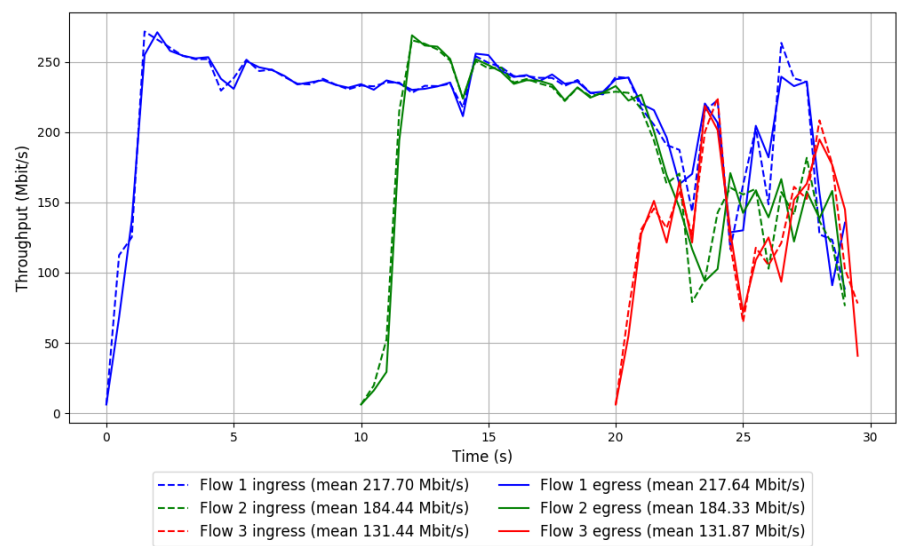


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-13 19:19:01
End at: 2018-02-13 19:19:31

# Below is generated by plot.py at 2018-02-14 01:57:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.78 Mbit/s
95th percentile per-packet one-way delay: 87.834 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 217.64 Mbit/s
95th percentile per-packet one-way delay: 87.326 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 184.33 Mbit/s
95th percentile per-packet one-way delay: 87.938 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 131.87 Mbit/s
95th percentile per-packet one-way delay: 89.556 ms
Loss rate: 1.43%
```

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

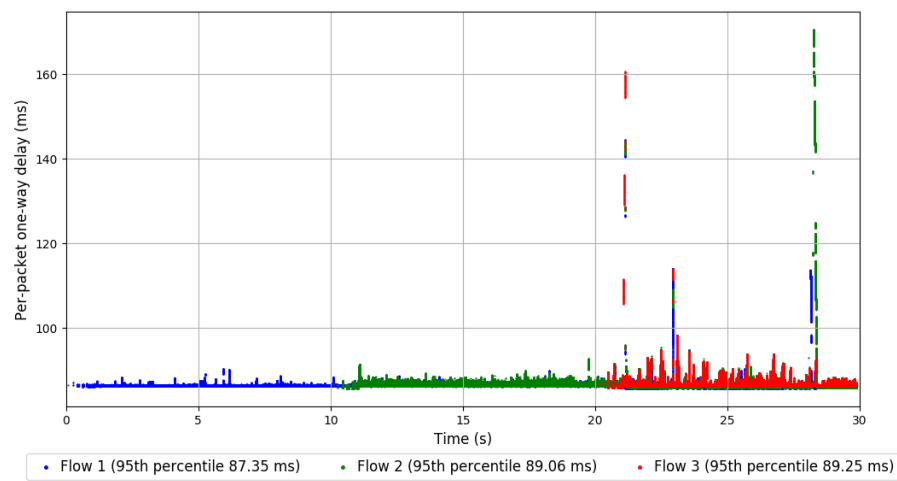
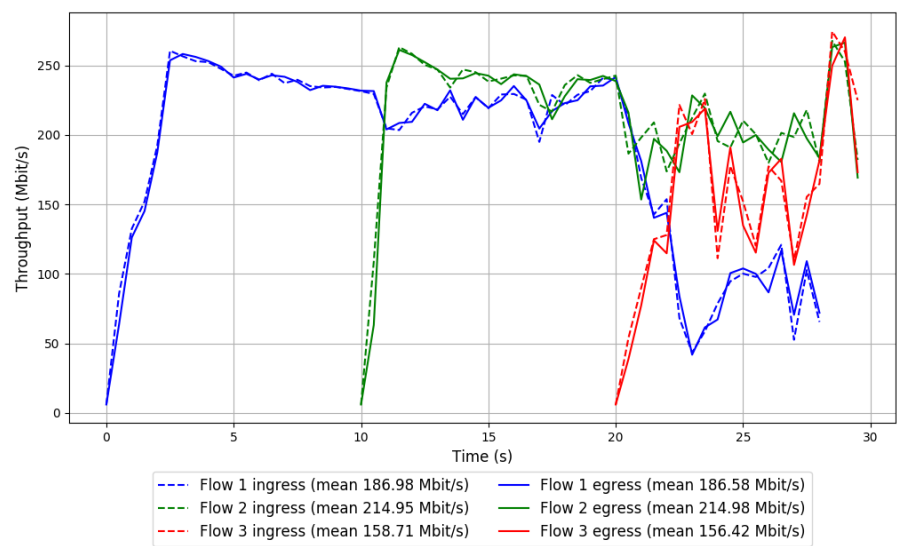


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-13 19:37:56
End at: 2018-02-13 19:38:26

# Below is generated by plot.py at 2018-02-14 01:57:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.98 Mbit/s
95th percentile per-packet one-way delay: 88.252 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 186.58 Mbit/s
95th percentile per-packet one-way delay: 87.347 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 214.98 Mbit/s
95th percentile per-packet one-way delay: 89.057 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 156.42 Mbit/s
95th percentile per-packet one-way delay: 89.255 ms
Loss rate: 3.17%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-02-13 19:56:45

End at: 2018-02-13 19:57:15

Below is generated by plot.py at 2018-02-14 01:57:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 393.93 Mbit/s

95th percentile per-packet one-way delay: 90.760 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 200.71 Mbit/s

95th percentile per-packet one-way delay: 88.113 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 206.82 Mbit/s

95th percentile per-packet one-way delay: 90.642 ms

Loss rate: 0.64%

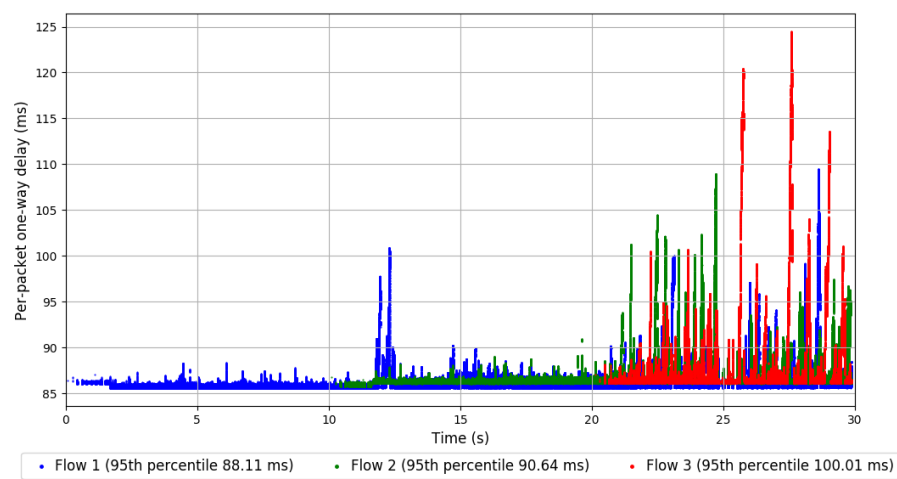
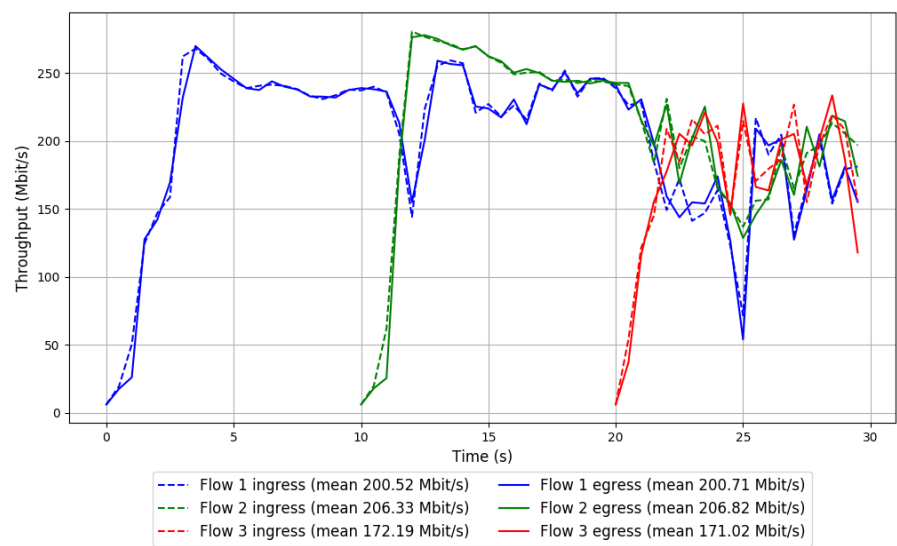
-- Flow 3:

Average throughput: 171.02 Mbit/s

95th percentile per-packet one-way delay: 100.009 ms

Loss rate: 2.39%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-02-13 20:15:52

End at: 2018-02-13 20:16:22

Below is generated by plot.py at 2018-02-14 01:57:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 362.76 Mbit/s

95th percentile per-packet one-way delay: 87.314 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 190.15 Mbit/s

95th percentile per-packet one-way delay: 86.773 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 162.84 Mbit/s

95th percentile per-packet one-way delay: 87.660 ms

Loss rate: 0.10%

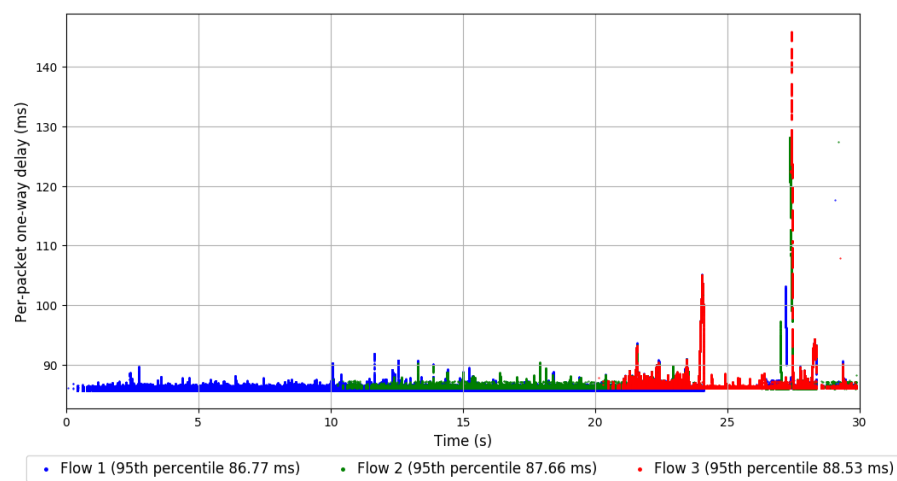
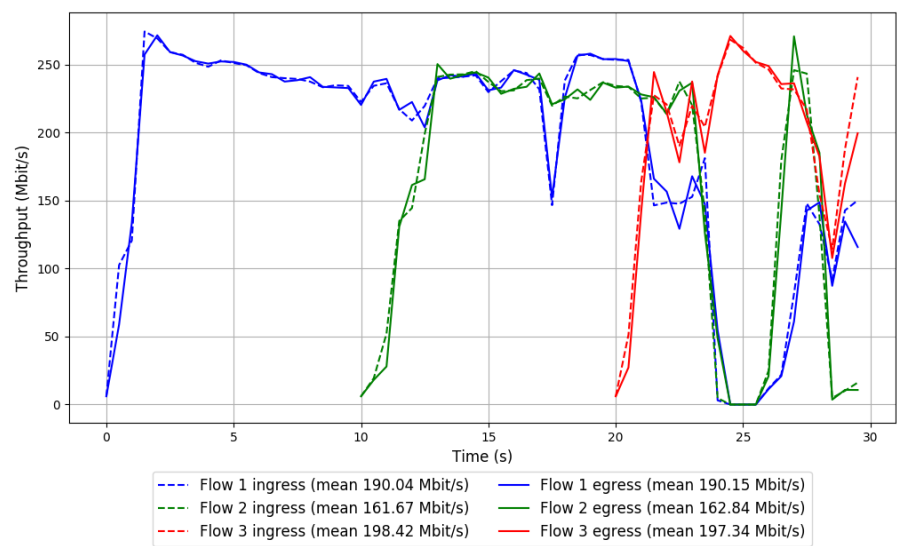
-- Flow 3:

Average throughput: 197.34 Mbit/s

95th percentile per-packet one-way delay: 88.526 ms

Loss rate: 2.30%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-02-13 20:34:44

End at: 2018-02-13 20:35:14

Below is generated by plot.py at 2018-02-14 01:58:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 408.50 Mbit/s

95th percentile per-packet one-way delay: 88.367 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 203.52 Mbit/s

95th percentile per-packet one-way delay: 88.249 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 211.28 Mbit/s

95th percentile per-packet one-way delay: 87.190 ms

Loss rate: 1.09%

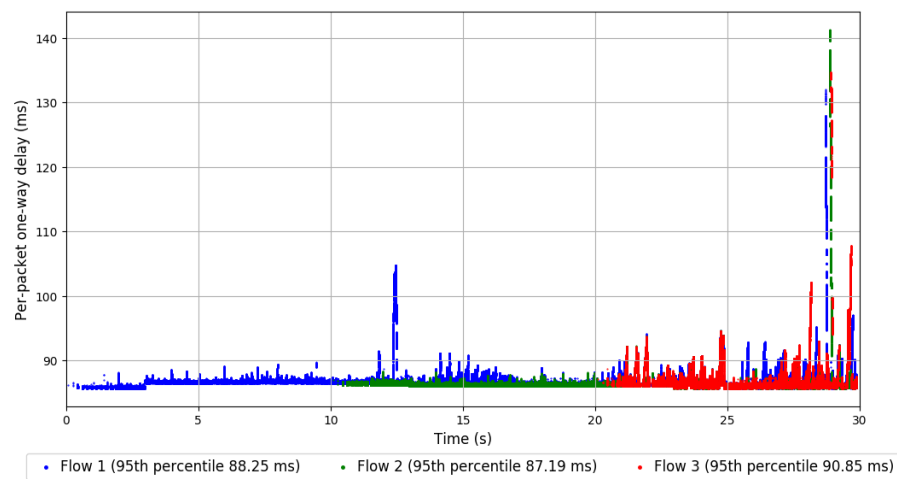
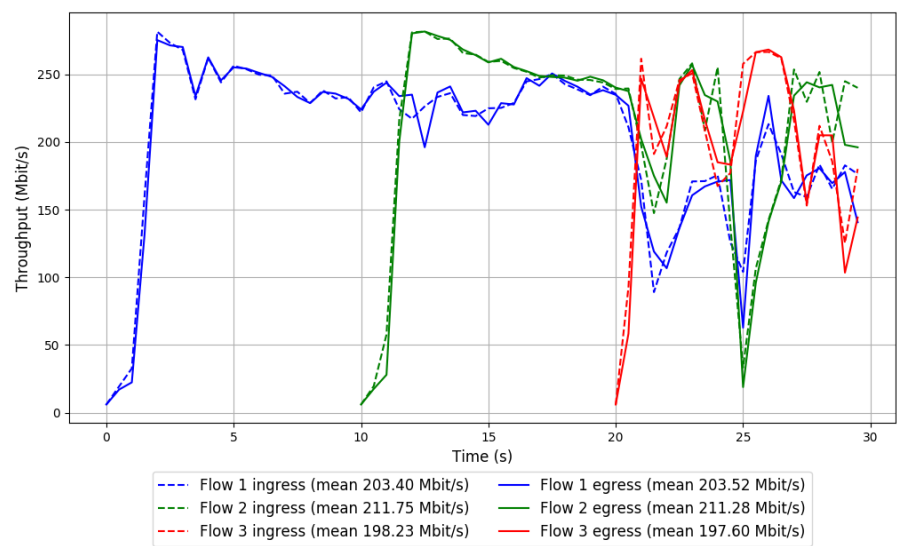
-- Flow 3:

Average throughput: 197.60 Mbit/s

95th percentile per-packet one-way delay: 90.847 ms

Loss rate: 2.07%

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

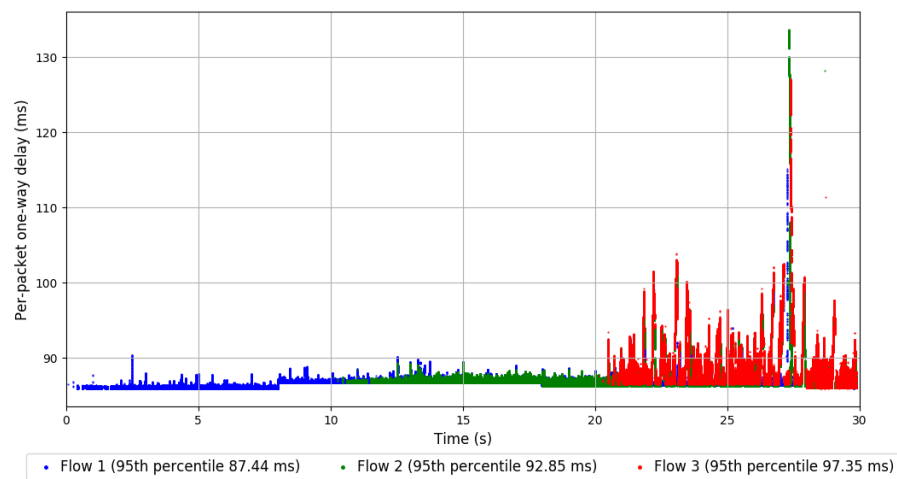
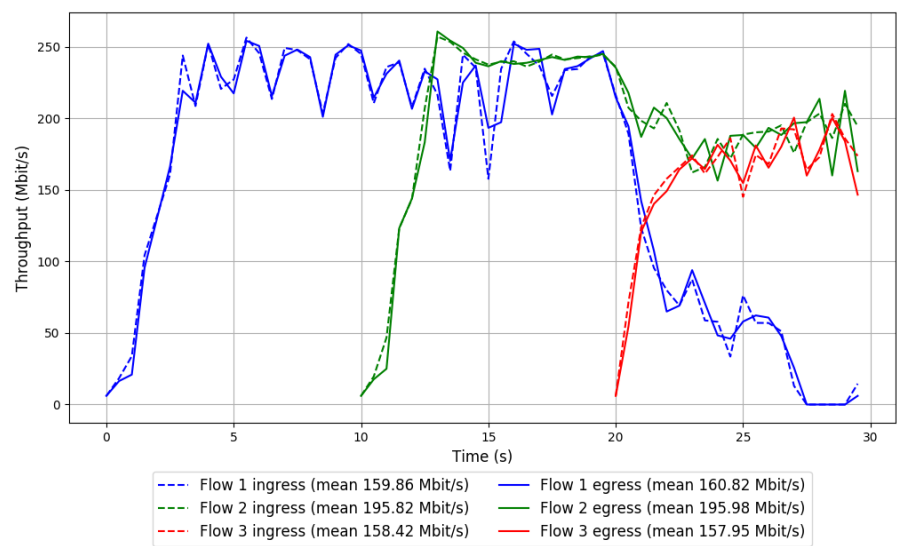


```
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-13 20:53:39
End at: 2018-02-13 20:54:09

# Below is generated by plot.py at 2018-02-14 02:01:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 342.41 Mbit/s
95th percentile per-packet one-way delay: 92.128 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 160.82 Mbit/s
95th percentile per-packet one-way delay: 87.438 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 195.98 Mbit/s
95th percentile per-packet one-way delay: 92.847 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 157.95 Mbit/s
95th percentile per-packet one-way delay: 97.353 ms
Loss rate: 2.05%
```

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-02-13 21:12:35

End at: 2018-02-13 21:13:05

Below is generated by plot.py at 2018-02-14 02:03:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 402.25 Mbit/s

95th percentile per-packet one-way delay: 88.390 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 209.34 Mbit/s

95th percentile per-packet one-way delay: 87.823 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 197.99 Mbit/s

95th percentile per-packet one-way delay: 89.010 ms

Loss rate: 0.68%

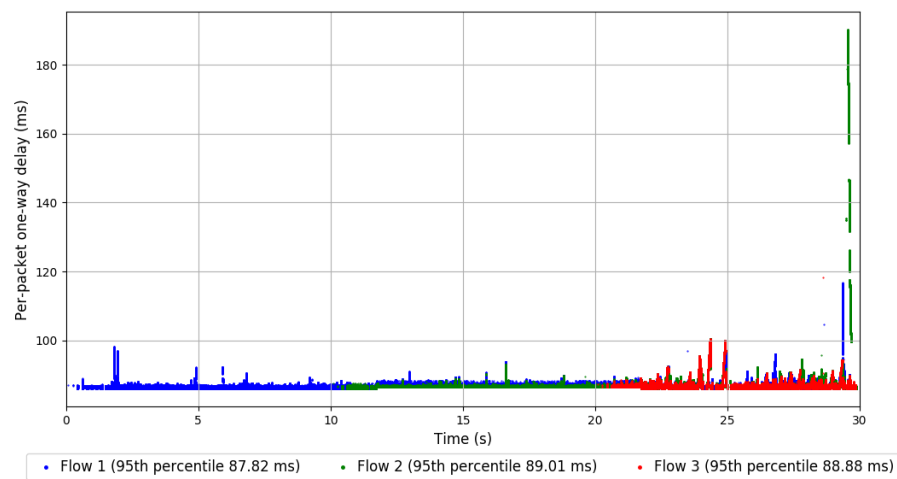
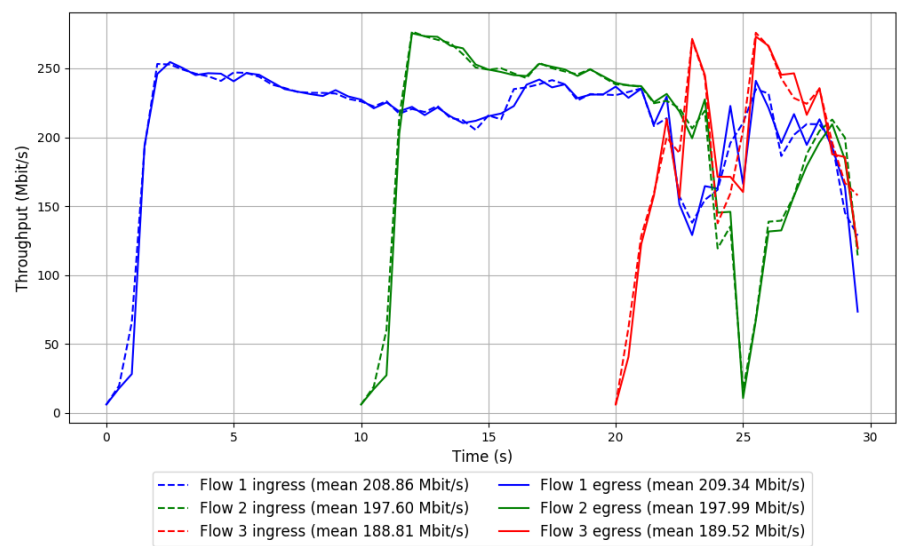
-- Flow 3:

Average throughput: 189.52 Mbit/s

95th percentile per-packet one-way delay: 88.875 ms

Loss rate: 1.65%

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

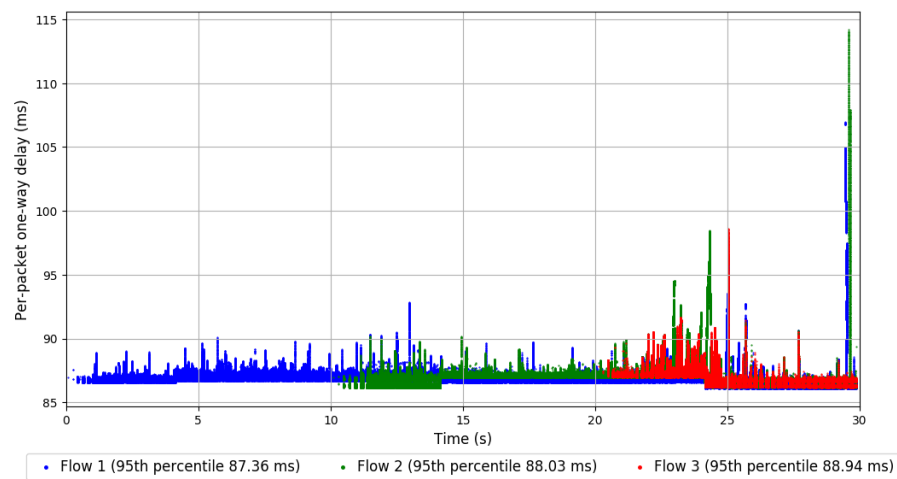
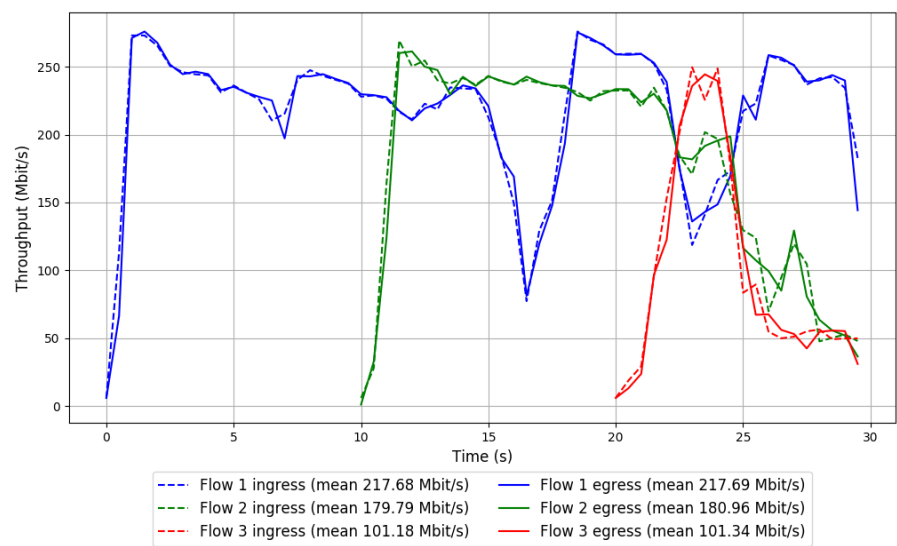


```
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-13 21:31:13
End at: 2018-02-13 21:31:43

# Below is generated by plot.py at 2018-02-14 02:07:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.95 Mbit/s
95th percentile per-packet one-way delay: 87.697 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 217.69 Mbit/s
95th percentile per-packet one-way delay: 87.363 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 180.96 Mbit/s
95th percentile per-packet one-way delay: 88.028 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 101.34 Mbit/s
95th percentile per-packet one-way delay: 88.935 ms
Loss rate: 1.13%
```


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

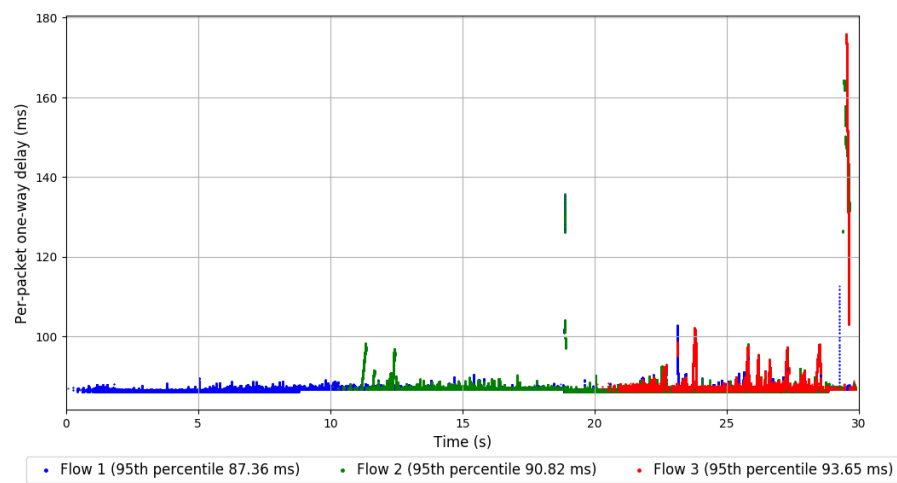
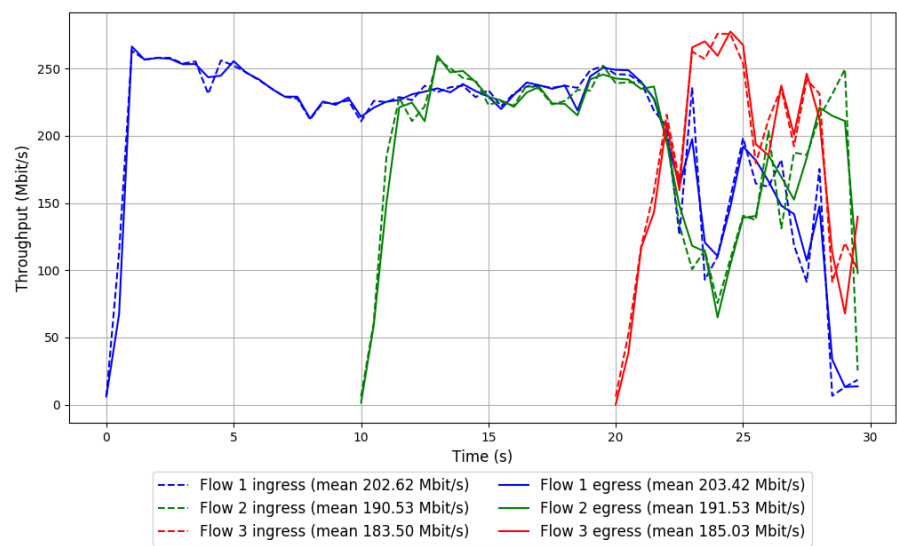


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-13 21:50:08
End at: 2018-02-13 21:50:38

# Below is generated by plot.py at 2018-02-14 02:07:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 391.11 Mbit/s
95th percentile per-packet one-way delay: 88.808 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 203.42 Mbit/s
95th percentile per-packet one-way delay: 87.358 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 191.53 Mbit/s
95th percentile per-packet one-way delay: 90.819 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 185.03 Mbit/s
95th percentile per-packet one-way delay: 93.647 ms
Loss rate: 1.14%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-02-13 18:59:15

End at: 2018-02-13 18:59:45

Below is generated by plot.py at 2018-02-14 02:07:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.74 Mbit/s

95th percentile per-packet one-way delay: 87.568 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 73.52 Mbit/s

95th percentile per-packet one-way delay: 87.397 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 16.67 Mbit/s

95th percentile per-packet one-way delay: 88.971 ms

Loss rate: 0.77%

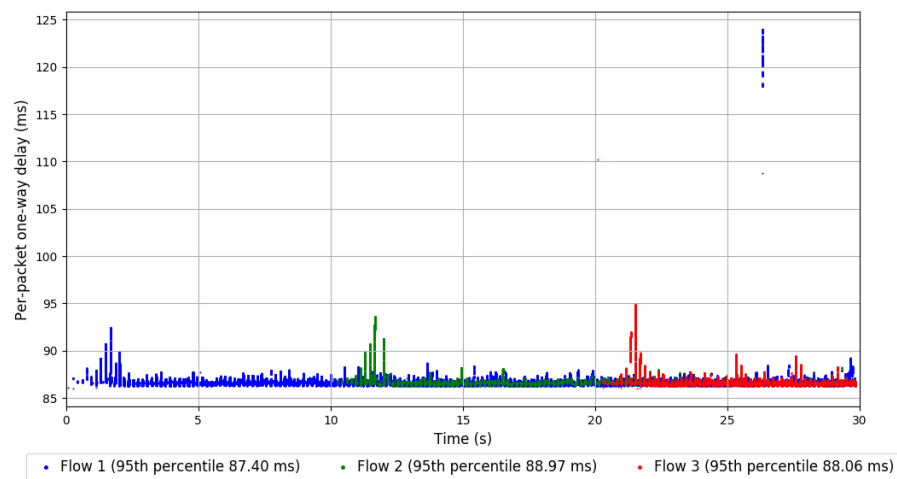
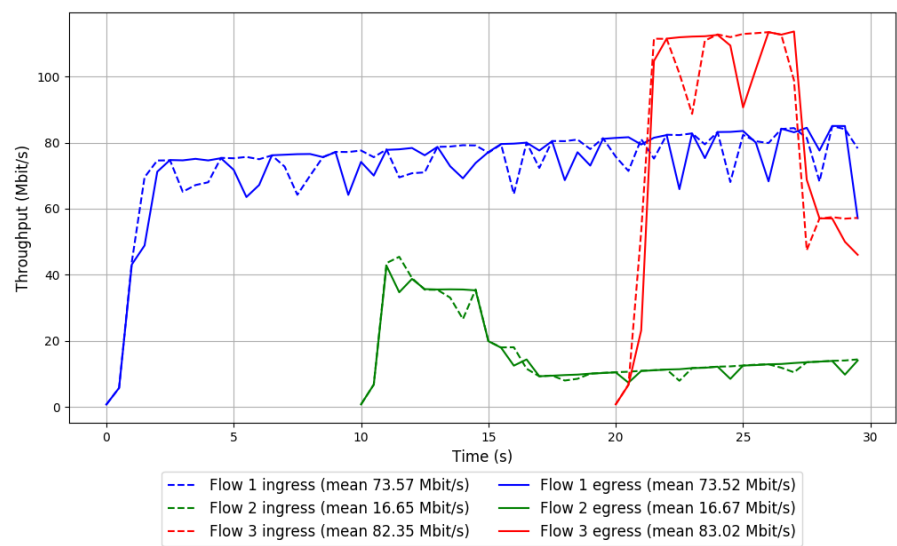
-- Flow 3:

Average throughput: 83.02 Mbit/s

95th percentile per-packet one-way delay: 88.062 ms

Loss rate: 1.18%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-02-13 19:18:15

End at: 2018-02-13 19:18:45

Below is generated by plot.py at 2018-02-14 02:07:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 43.65 Mbit/s

95th percentile per-packet one-way delay: 89.921 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 15.22 Mbit/s

95th percentile per-packet one-way delay: 88.517 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 18.91 Mbit/s

95th percentile per-packet one-way delay: 89.683 ms

Loss rate: 0.72%

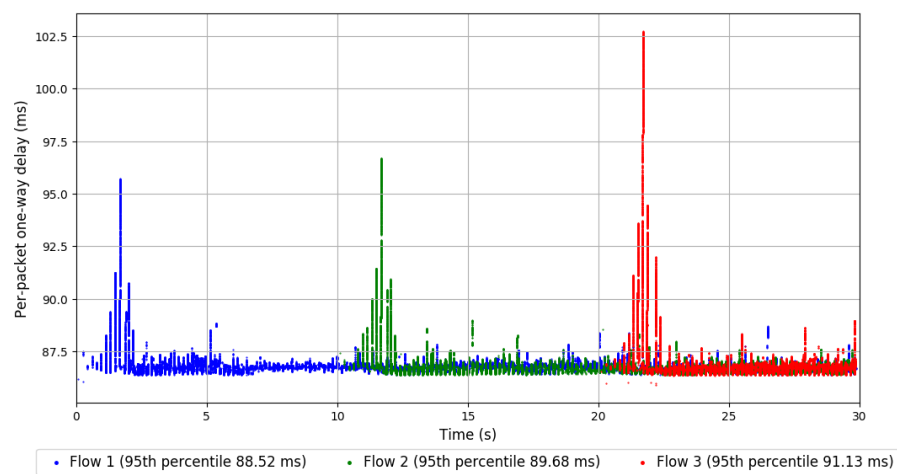
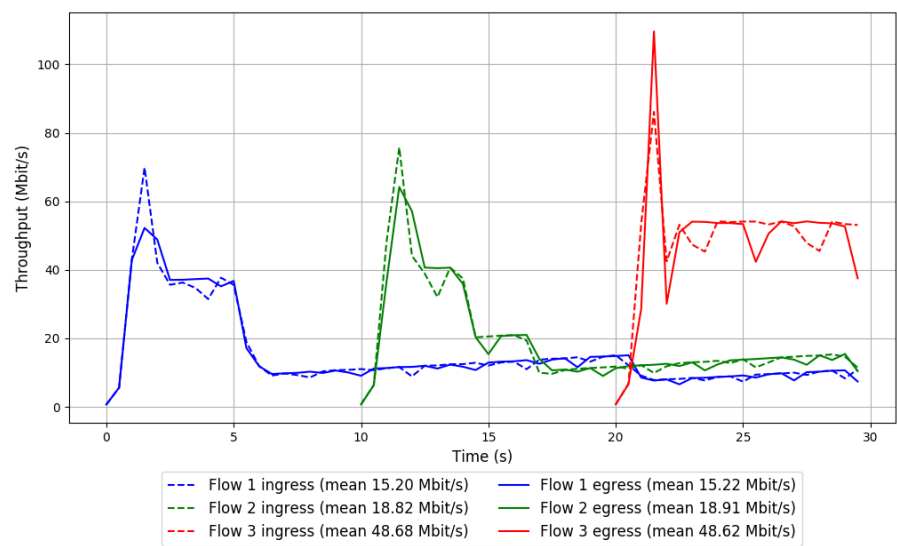
-- Flow 3:

Average throughput: 48.62 Mbit/s

95th percentile per-packet one-way delay: 91.129 ms

Loss rate: 1.87%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-02-13 19:37:08

End at: 2018-02-13 19:37:38

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.36 Mbit/s

95th percentile per-packet one-way delay: 87.355 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 37.70 Mbit/s

95th percentile per-packet one-way delay: 87.162 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 43.39 Mbit/s

95th percentile per-packet one-way delay: 87.653 ms

Loss rate: 0.90%

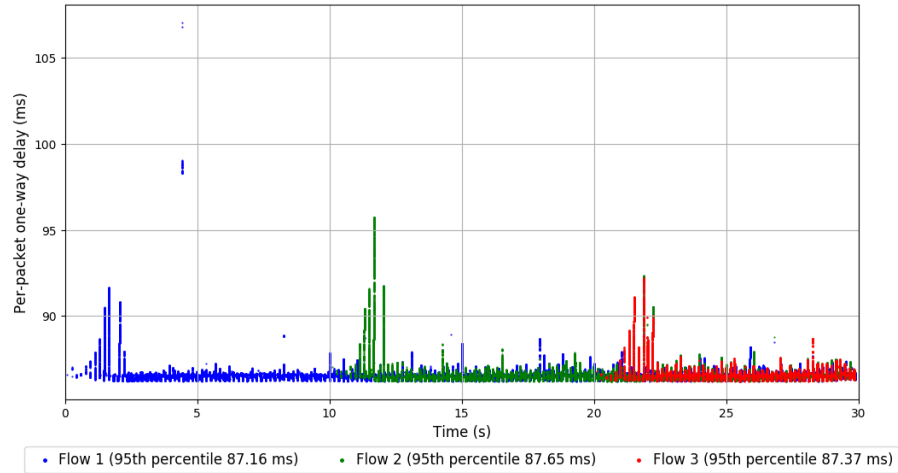
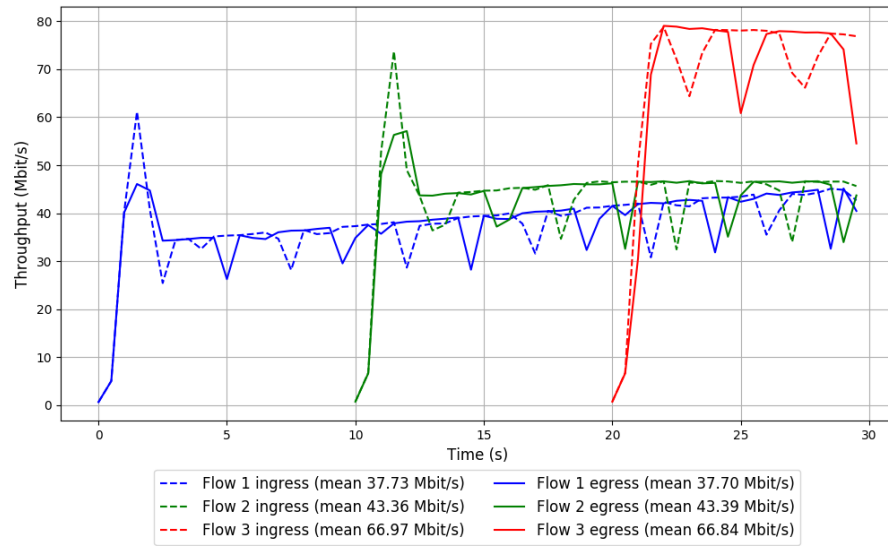
-- Flow 3:

Average throughput: 66.84 Mbit/s

95th percentile per-packet one-way delay: 87.368 ms

Loss rate: 1.93%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-02-13 19:55:59

End at: 2018-02-13 19:56:29

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.98 Mbit/s

95th percentile per-packet one-way delay: 88.285 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 18.58 Mbit/s

95th percentile per-packet one-way delay: 89.127 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 30.06 Mbit/s

95th percentile per-packet one-way delay: 87.318 ms

Loss rate: 0.69%

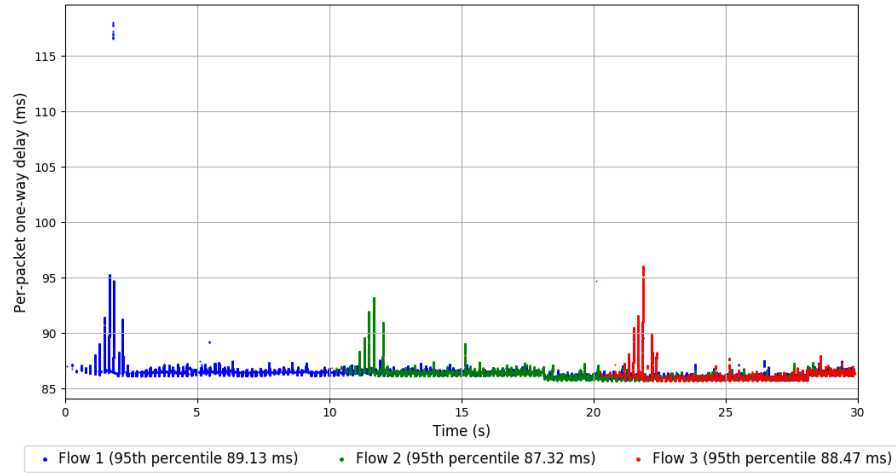
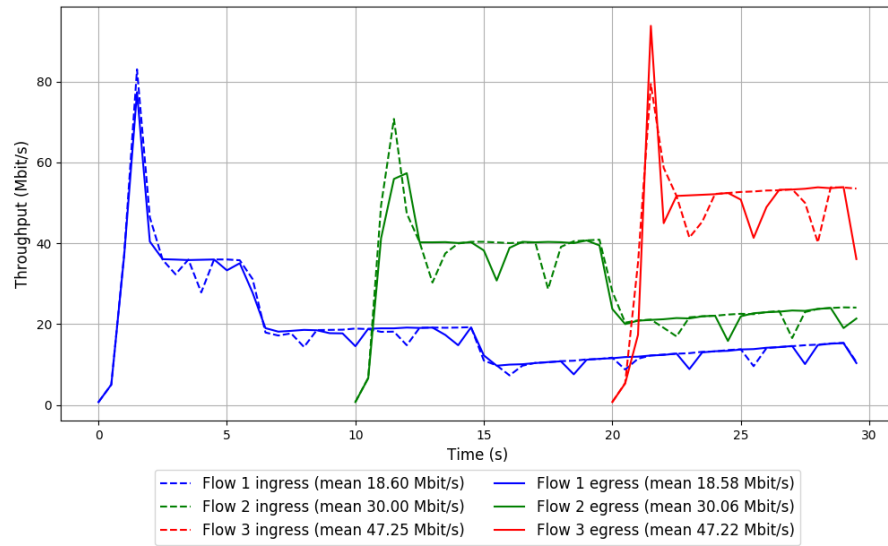
-- Flow 3:

Average throughput: 47.22 Mbit/s

95th percentile per-packet one-way delay: 88.470 ms

Loss rate: 1.92%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-02-13 20:15:04

End at: 2018-02-13 20:15:34

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.99 Mbit/s

95th percentile per-packet one-way delay: 88.100 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 32.79 Mbit/s

95th percentile per-packet one-way delay: 87.836 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 30.51 Mbit/s

95th percentile per-packet one-way delay: 88.786 ms

Loss rate: 1.59%

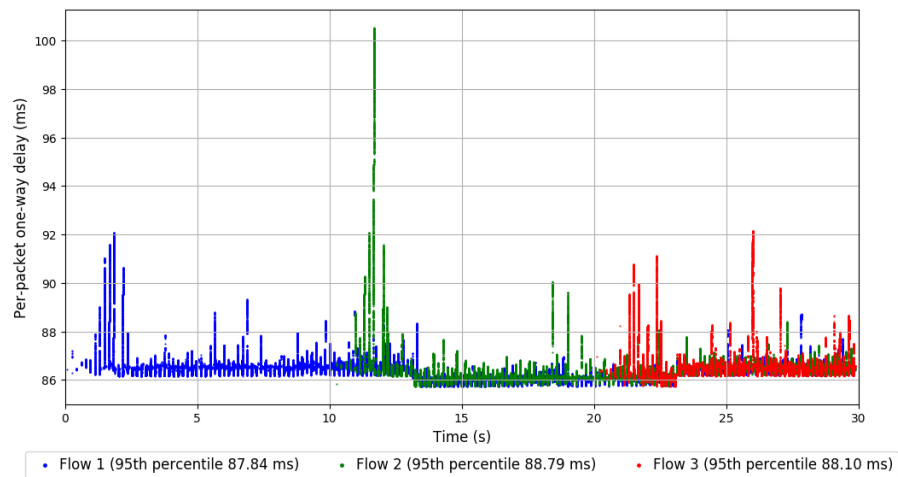
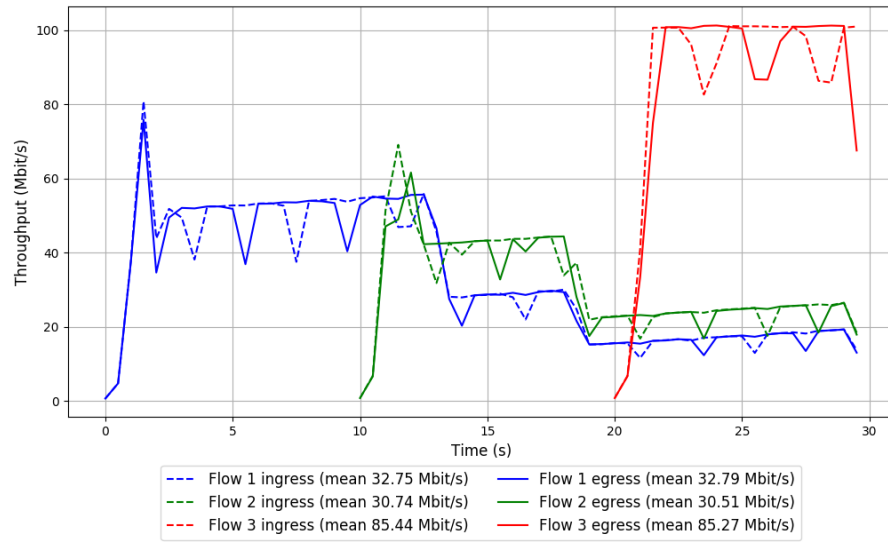
-- Flow 3:

Average throughput: 85.27 Mbit/s

95th percentile per-packet one-way delay: 88.099 ms

Loss rate: 1.98%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-02-13 20:33:57

End at: 2018-02-13 20:34:27

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.97 Mbit/s

95th percentile per-packet one-way delay: 87.998 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 30.30 Mbit/s

95th percentile per-packet one-way delay: 87.516 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 34.55 Mbit/s

95th percentile per-packet one-way delay: 90.194 ms

Loss rate: 0.67%

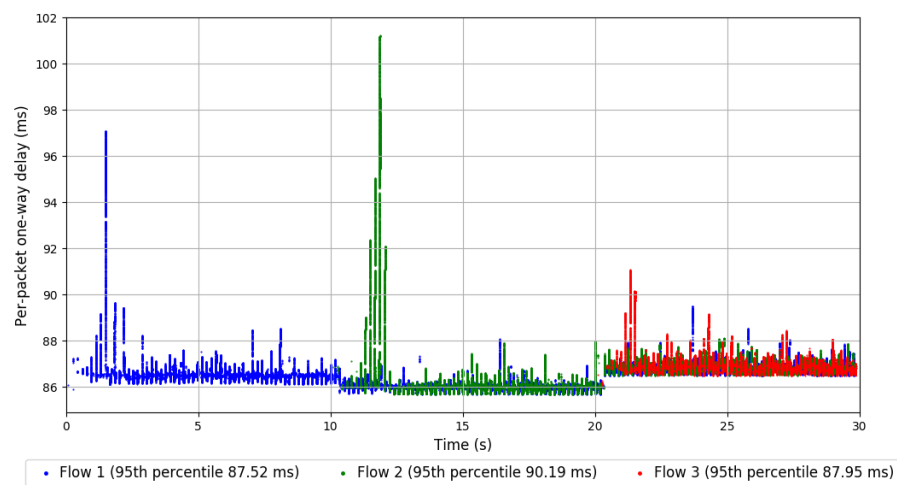
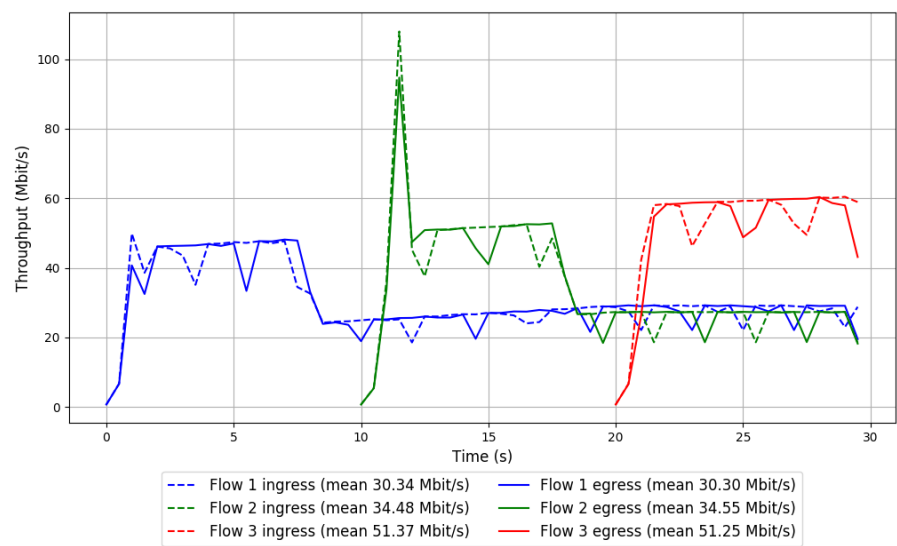
-- Flow 3:

Average throughput: 51.25 Mbit/s

95th percentile per-packet one-way delay: 87.949 ms

Loss rate: 1.99%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-02-13 20:52:52

End at: 2018-02-13 20:53:22

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.06 Mbit/s

95th percentile per-packet one-way delay: 88.602 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 26.00 Mbit/s

95th percentile per-packet one-way delay: 89.605 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 49.20 Mbit/s

95th percentile per-packet one-way delay: 87.561 ms

Loss rate: 0.80%

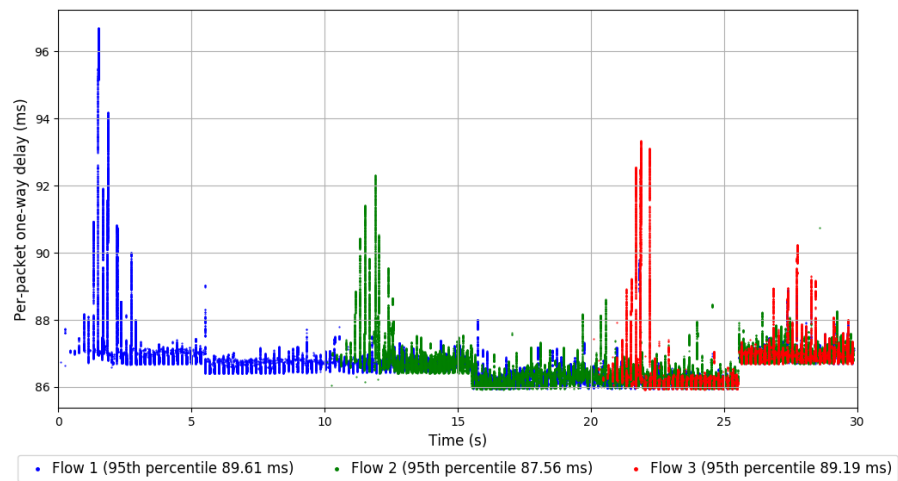
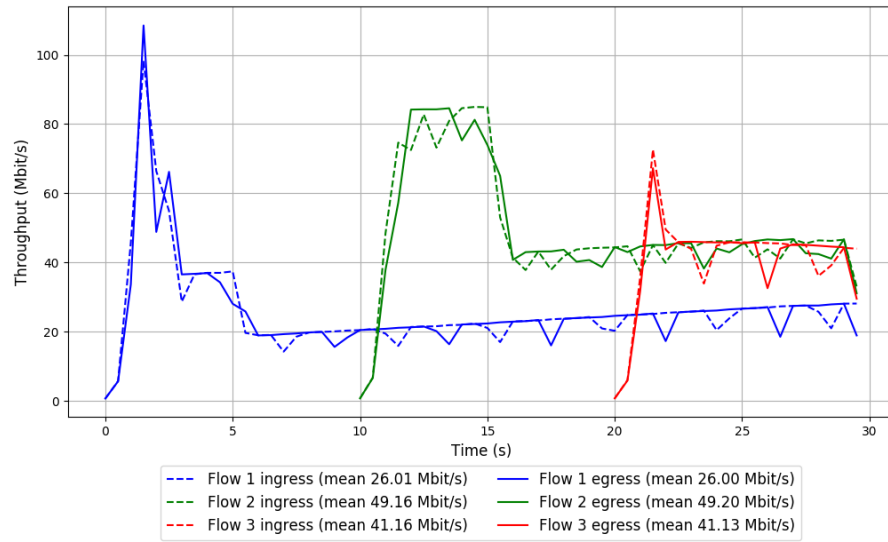
-- Flow 3:

Average throughput: 41.13 Mbit/s

95th percentile per-packet one-way delay: 89.192 ms

Loss rate: 1.81%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-02-13 21:11:46

End at: 2018-02-13 21:12:16

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.66 Mbit/s

95th percentile per-packet one-way delay: 88.387 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 60.57 Mbit/s

95th percentile per-packet one-way delay: 88.105 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 43.43 Mbit/s

95th percentile per-packet one-way delay: 88.963 ms

Loss rate: 0.97%

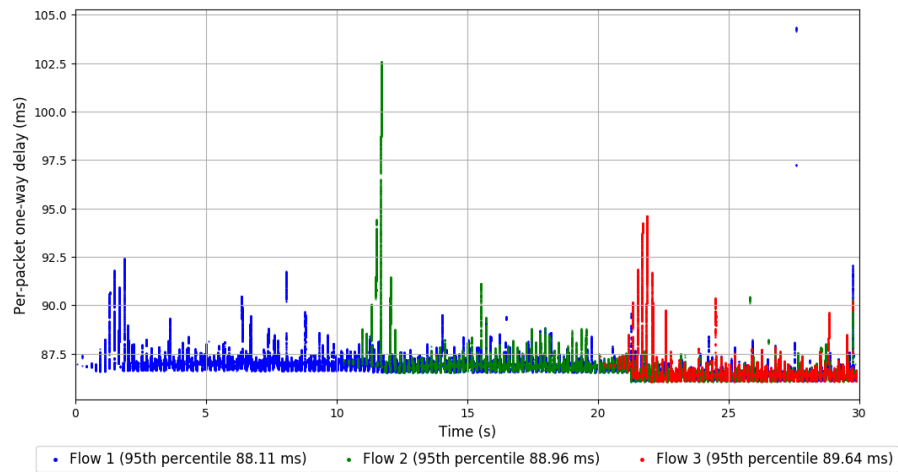
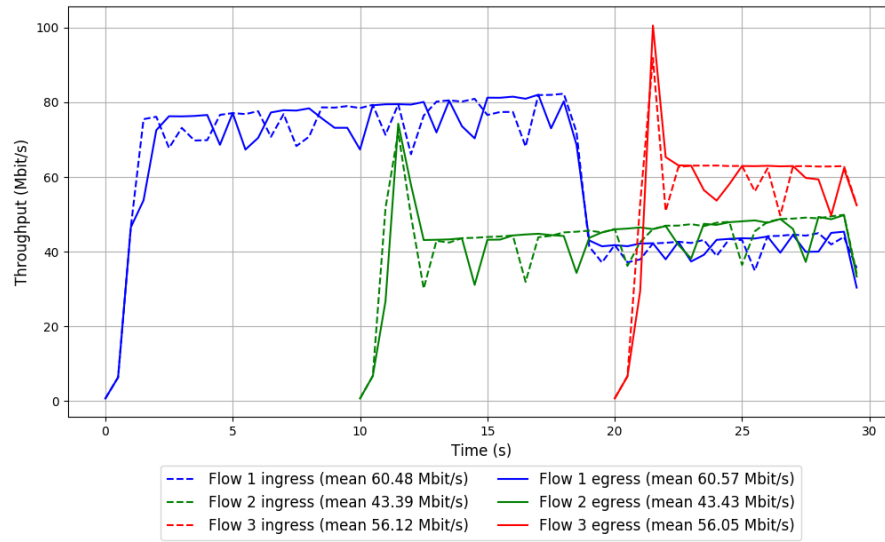
-- Flow 3:

Average throughput: 56.05 Mbit/s

95th percentile per-packet one-way delay: 89.645 ms

Loss rate: 1.87%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-02-13 21:30:25

End at: 2018-02-13 21:30:55

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.09 Mbit/s

95th percentile per-packet one-way delay: 89.251 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 43.16 Mbit/s

95th percentile per-packet one-way delay: 88.353 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 20.40 Mbit/s

95th percentile per-packet one-way delay: 90.633 ms

Loss rate: 0.72%

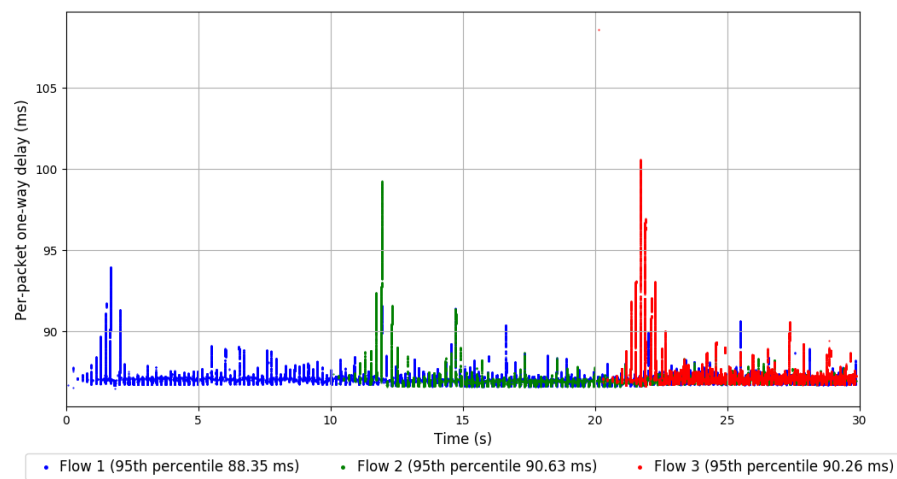
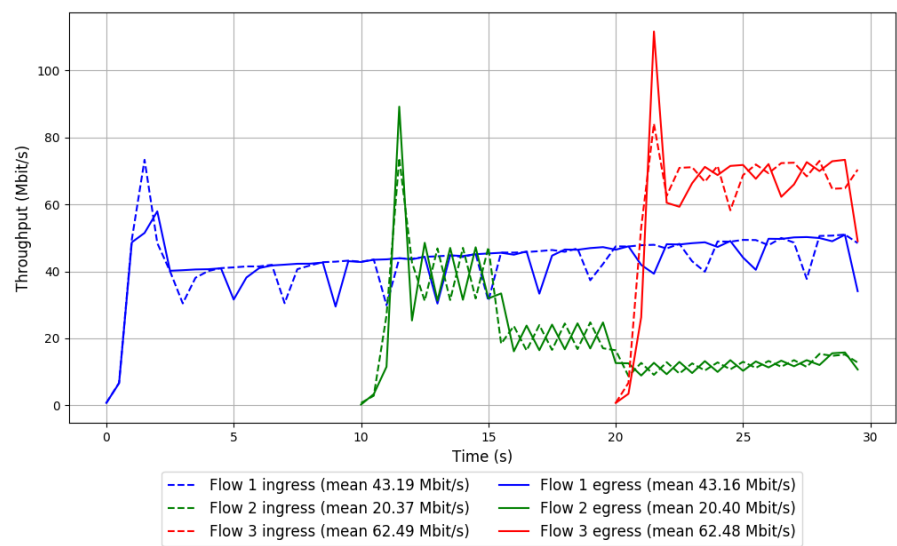
-- Flow 3:

Average throughput: 62.48 Mbit/s

95th percentile per-packet one-way delay: 90.260 ms

Loss rate: 1.98%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-02-13 21:49:21

End at: 2018-02-13 21:49:51

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 59.16 Mbit/s

95th percentile per-packet one-way delay: 88.926 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 9.99 Mbit/s

95th percentile per-packet one-way delay: 87.862 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 55.13 Mbit/s

95th percentile per-packet one-way delay: 89.199 ms

Loss rate: 1.10%

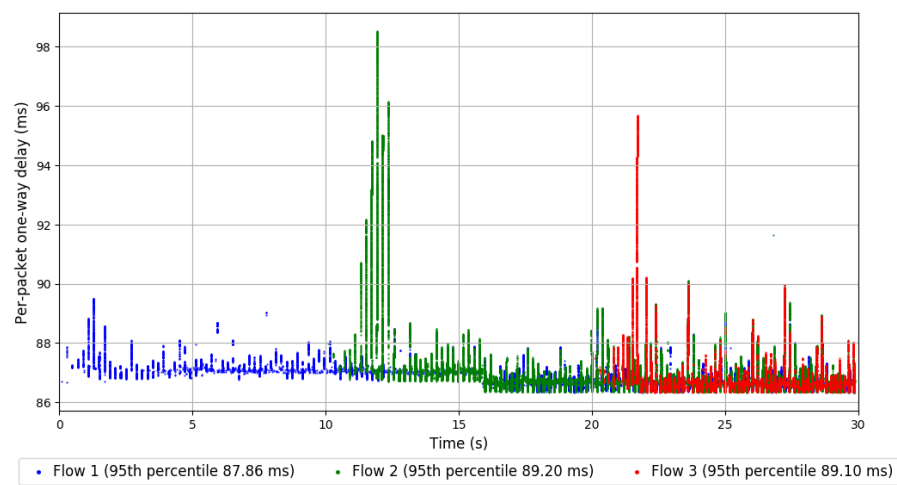
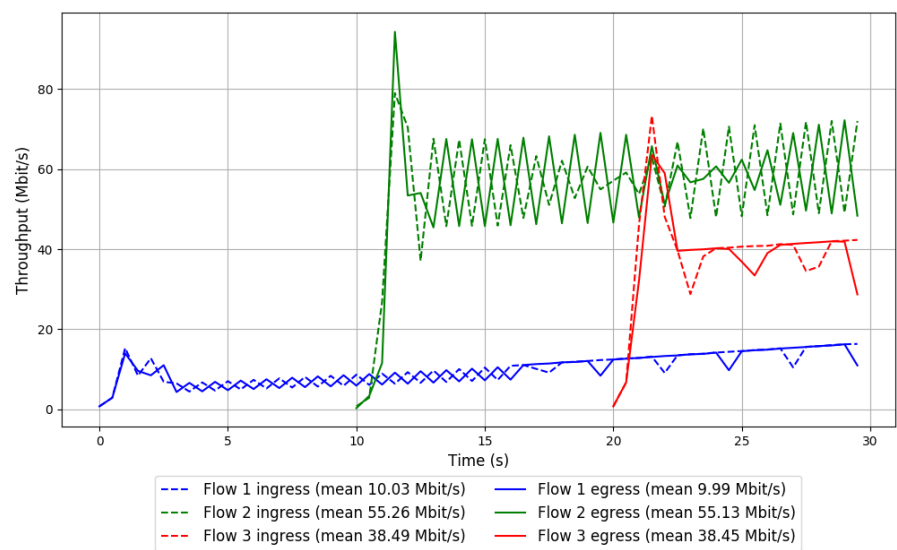
-- Flow 3:

Average throughput: 38.45 Mbit/s

95th percentile per-packet one-way delay: 89.102 ms

Loss rate: 1.85%

Run 10: Report of TCP Vegas — Data Link

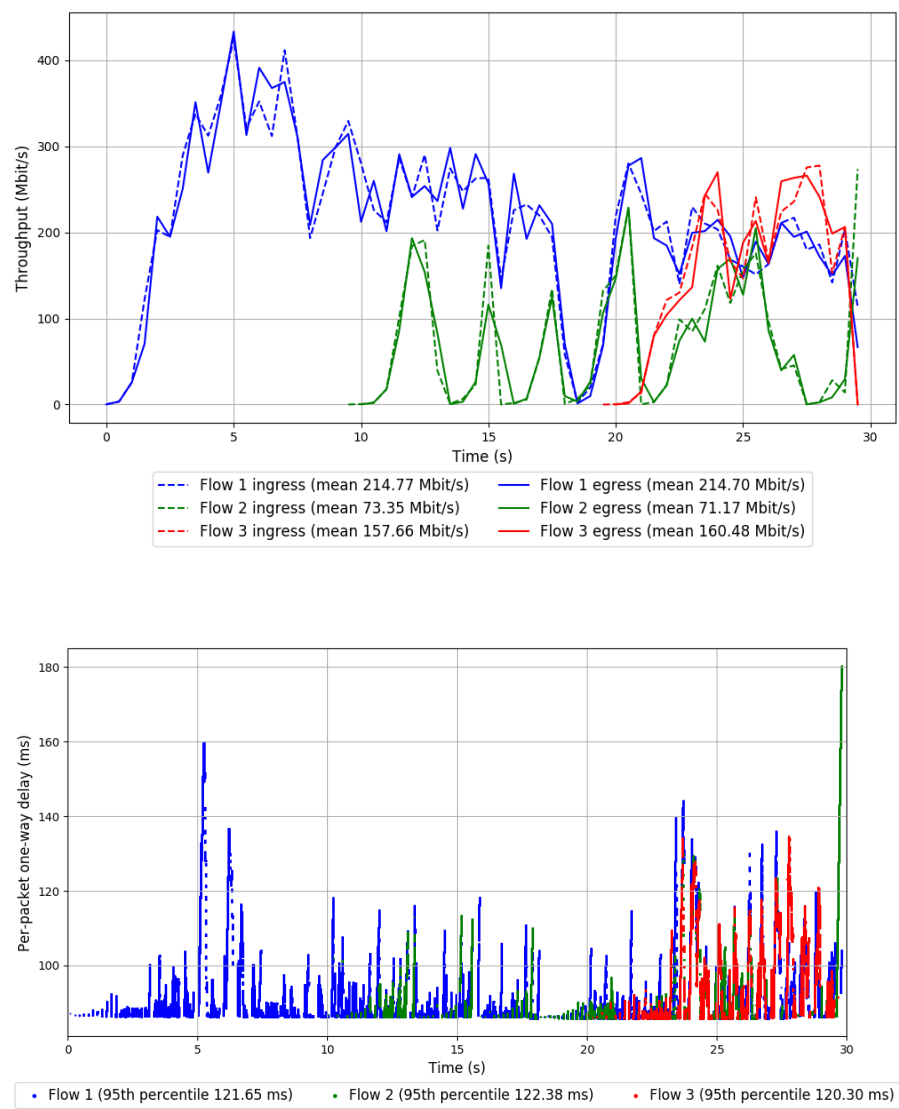


```
Run 1: Statistics of Verus

Start at: 2018-02-13 18:53:49
End at: 2018-02-13 18:54:19

# Below is generated by plot.py at 2018-02-14 02:07:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.04 Mbit/s
95th percentile per-packet one-way delay: 121.252 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 214.70 Mbit/s
95th percentile per-packet one-way delay: 121.650 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 71.17 Mbit/s
95th percentile per-packet one-way delay: 122.380 ms
Loss rate: 3.68%
-- Flow 3:
Average throughput: 160.48 Mbit/s
95th percentile per-packet one-way delay: 120.296 ms
Loss rate: 0.01%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-02-13 19:12:52

End at: 2018-02-13 19:13:22

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 290.25 Mbit/s

95th percentile per-packet one-way delay: 207.768 ms

Loss rate: 3.88%

-- Flow 1:

Average throughput: 171.67 Mbit/s

95th percentile per-packet one-way delay: 167.386 ms

Loss rate: 1.98%

-- Flow 2:

Average throughput: 94.18 Mbit/s

95th percentile per-packet one-way delay: 212.870 ms

Loss rate: 4.28%

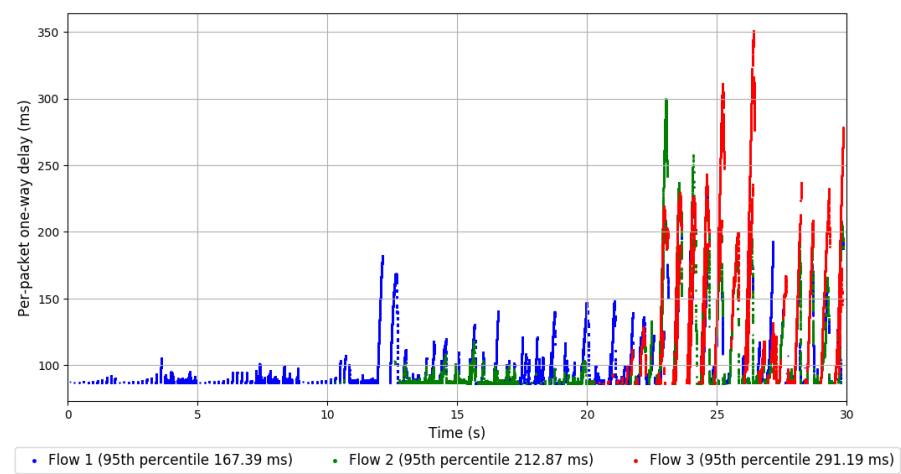
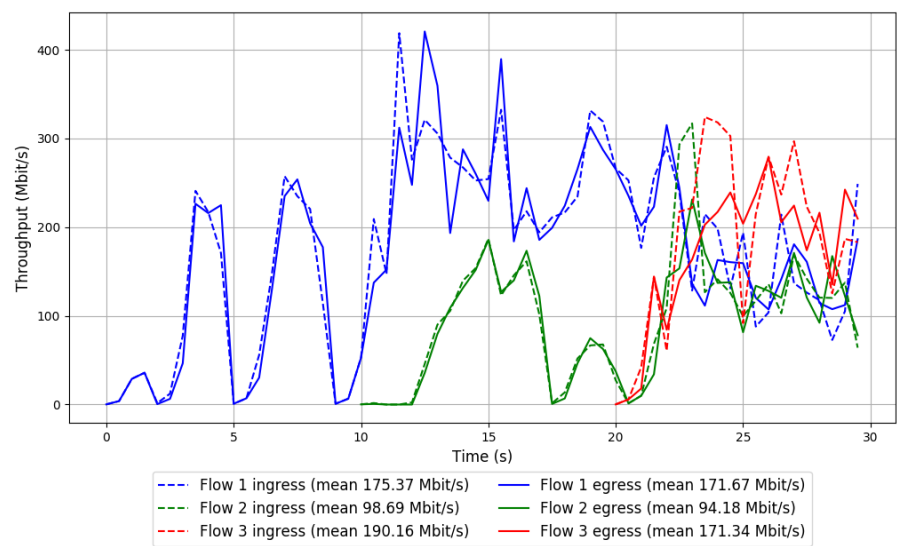
-- Flow 3:

Average throughput: 171.34 Mbit/s

95th percentile per-packet one-way delay: 291.188 ms

Loss rate: 8.88%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-02-13 19:31:40

End at: 2018-02-13 19:32:10

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 303.07 Mbit/s

95th percentile per-packet one-way delay: 191.939 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 228.87 Mbit/s

95th percentile per-packet one-way delay: 198.633 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 63.07 Mbit/s

95th percentile per-packet one-way delay: 155.688 ms

Loss rate: 0.27%

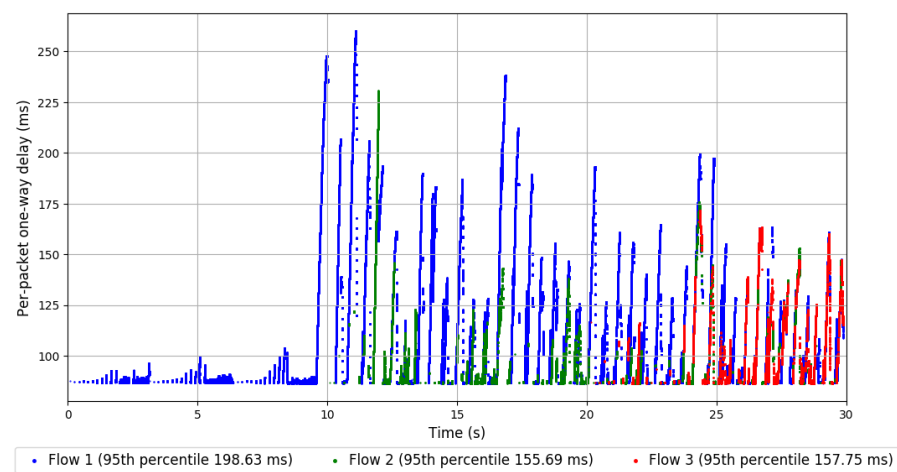
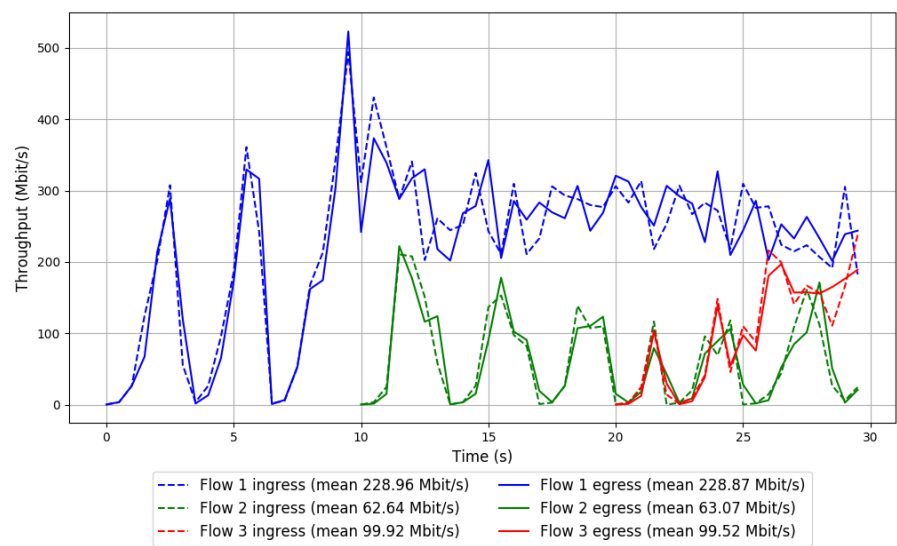
-- Flow 3:

Average throughput: 99.52 Mbit/s

95th percentile per-packet one-way delay: 157.755 ms

Loss rate: 2.47%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-02-13 19:50:34

End at: 2018-02-13 19:51:04

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 261.71 Mbit/s

95th percentile per-packet one-way delay: 114.834 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 170.19 Mbit/s

95th percentile per-packet one-way delay: 110.847 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 110.56 Mbit/s

95th percentile per-packet one-way delay: 114.918 ms

Loss rate: 0.81%

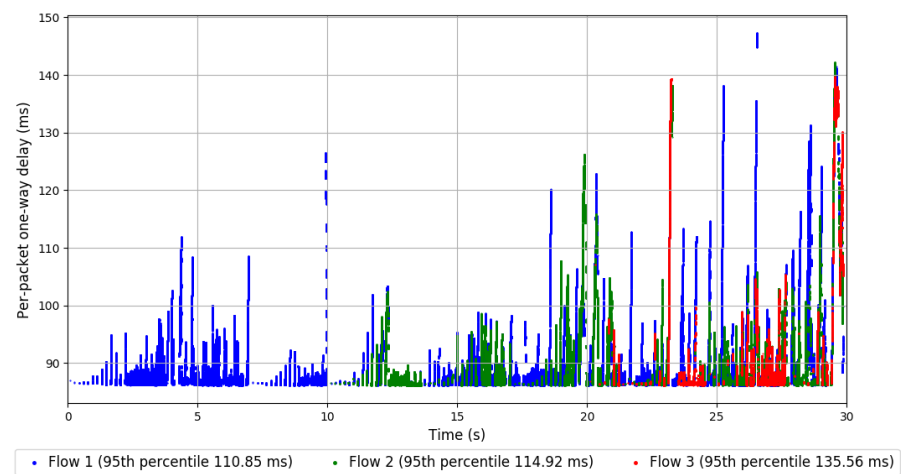
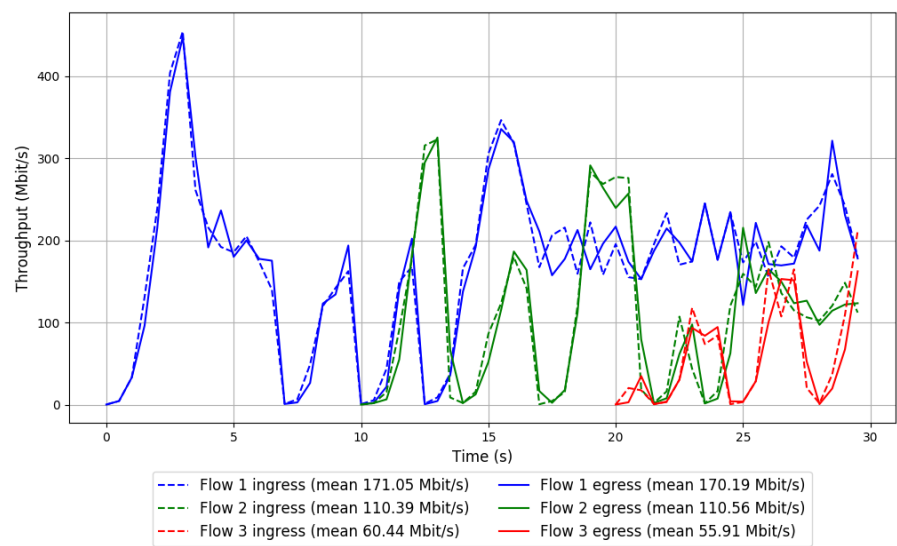
-- Flow 3:

Average throughput: 55.91 Mbit/s

95th percentile per-packet one-way delay: 135.560 ms

Loss rate: 9.12%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-02-13 20:09:40

End at: 2018-02-13 20:10:10

Below is generated by plot.py at 2018-02-14 02:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 268.07 Mbit/s

95th percentile per-packet one-way delay: 156.515 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 183.84 Mbit/s

95th percentile per-packet one-way delay: 136.403 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 102.17 Mbit/s

95th percentile per-packet one-way delay: 201.085 ms

Loss rate: 3.39%

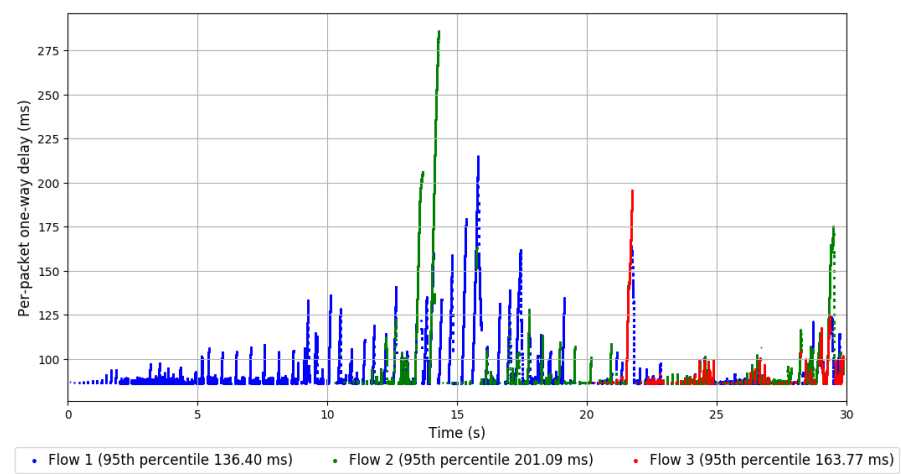
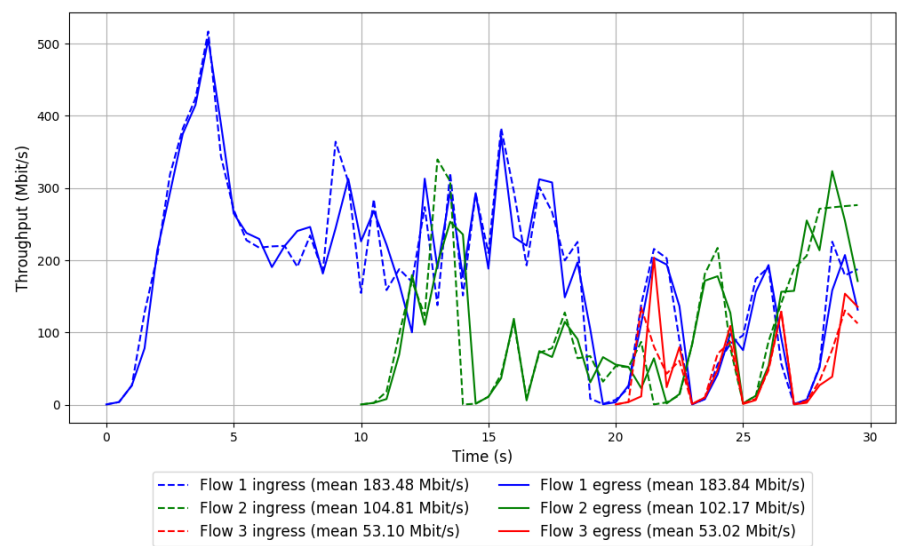
-- Flow 3:

Average throughput: 53.02 Mbit/s

95th percentile per-packet one-way delay: 163.772 ms

Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-02-13 20:28:35

End at: 2018-02-13 20:29:05

Below is generated by plot.py at 2018-02-14 02:08:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 270.81 Mbit/s

95th percentile per-packet one-way delay: 116.662 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 157.49 Mbit/s

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

Loss rate: 0.51%

-- Flow 2:

Average throughput: 125.42 Mbit/s

95th percentile per-packet one-way delay: 125.408 ms

Loss rate: 0.05%

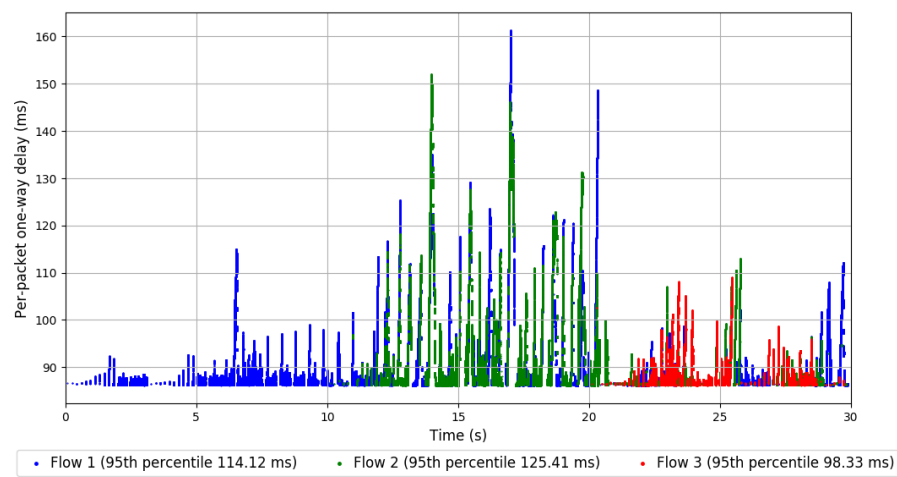
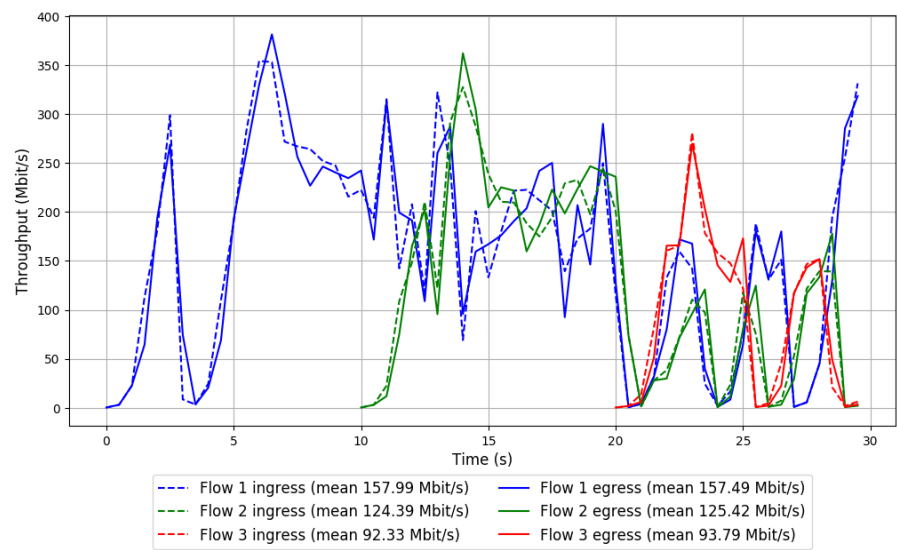
-- Flow 3:

Average throughput: 93.79 Mbit/s

95th percentile per-packet one-way delay: 98.330 ms

Loss rate: 0.23%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-02-13 20:47:27

End at: 2018-02-13 20:47:57

Below is generated by plot.py at 2018-02-14 02:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 314.80 Mbit/s

95th percentile per-packet one-way delay: 205.343 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 231.84 Mbit/s

95th percentile per-packet one-way delay: 206.150 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 83.14 Mbit/s

95th percentile per-packet one-way delay: 176.551 ms

Loss rate: 1.03%

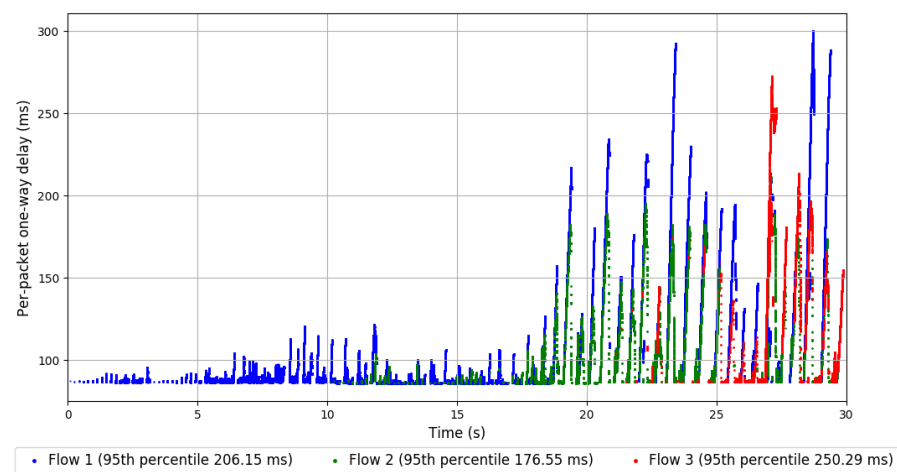
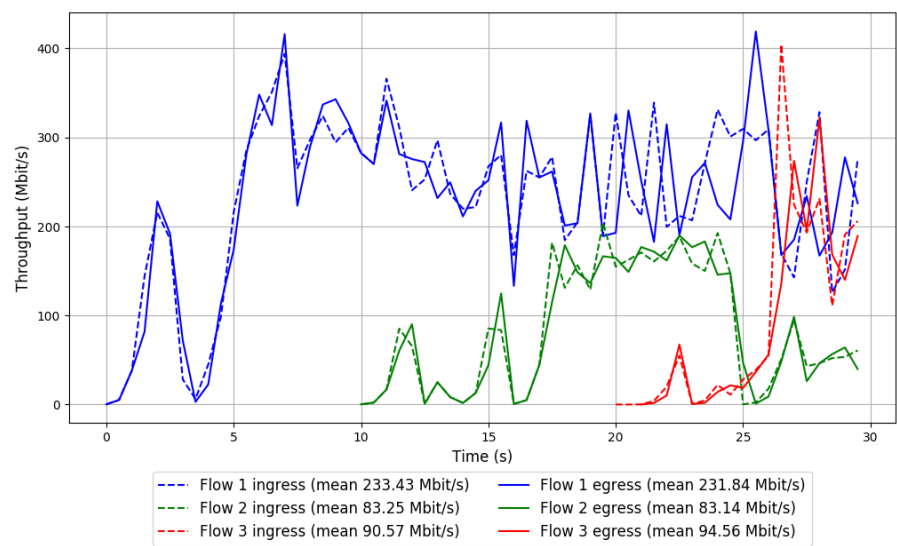
-- Flow 3:

Average throughput: 94.56 Mbit/s

95th percentile per-packet one-way delay: 250.293 ms

Loss rate: 8.14%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-02-13 21:06:23

End at: 2018-02-13 21:06:53

Below is generated by plot.py at 2018-02-14 02:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 268.39 Mbit/s

95th percentile per-packet one-way delay: 140.022 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 174.61 Mbit/s

95th percentile per-packet one-way delay: 132.238 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 113.91 Mbit/s

95th percentile per-packet one-way delay: 193.776 ms

Loss rate: 1.81%

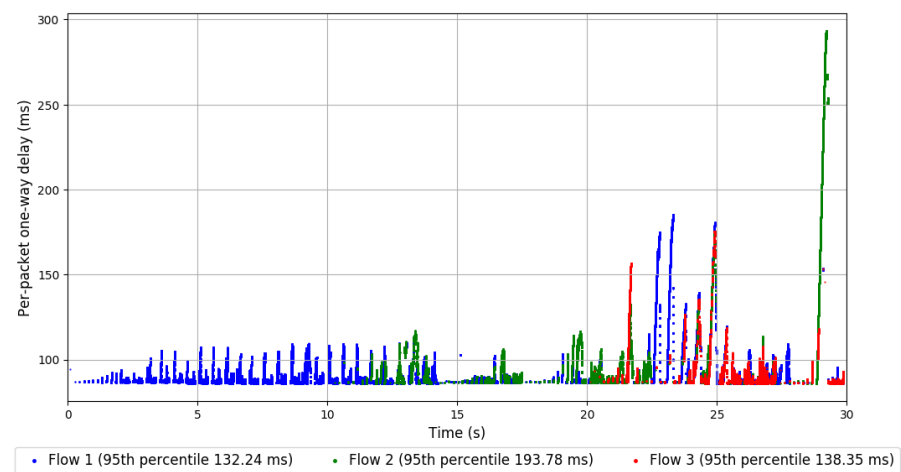
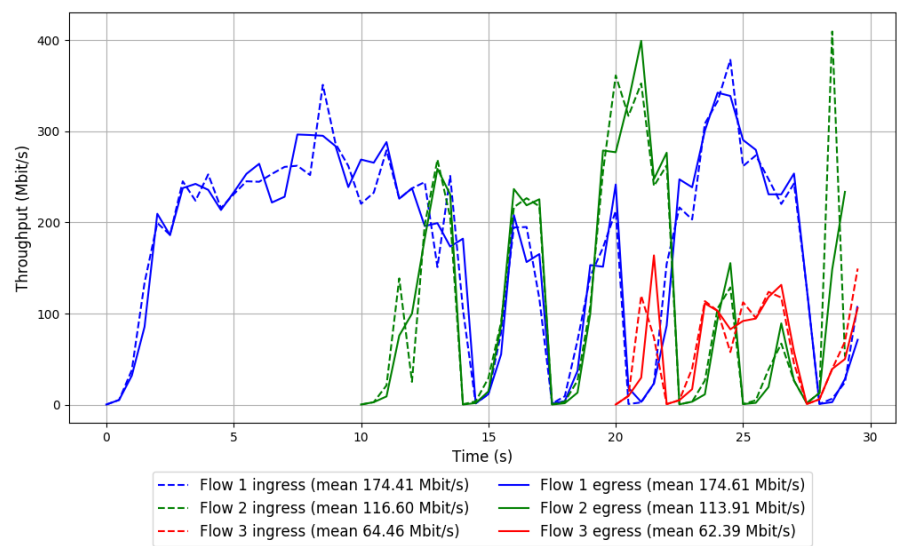
-- Flow 3:

Average throughput: 62.39 Mbit/s

95th percentile per-packet one-way delay: 138.355 ms

Loss rate: 4.90%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-02-13 21:25:12

End at: 2018-02-13 21:25:42

Below is generated by plot.py at 2018-02-14 02:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 187.84 Mbit/s

95th percentile per-packet one-way delay: 181.522 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 138.52 Mbit/s

95th percentile per-packet one-way delay: 188.234 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 60.61 Mbit/s

95th percentile per-packet one-way delay: 153.907 ms

Loss rate: 0.38%

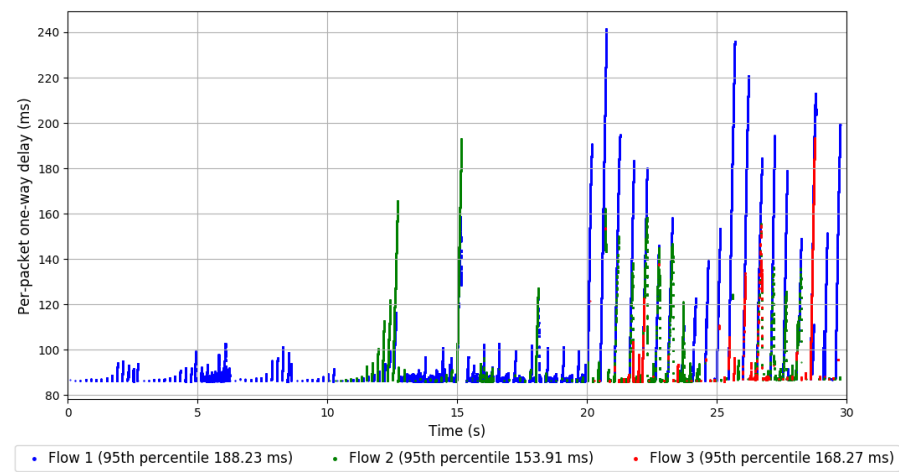
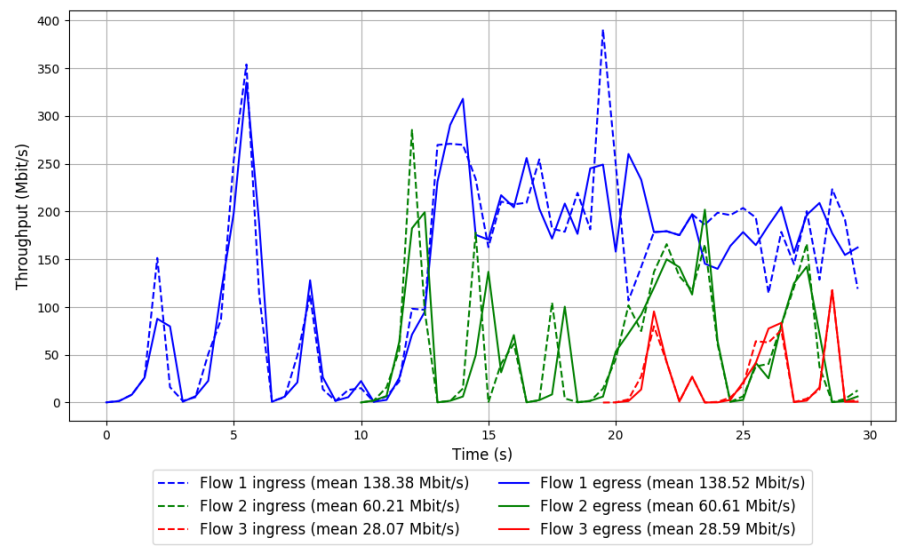
-- Flow 3:

Average throughput: 28.59 Mbit/s

95th percentile per-packet one-way delay: 168.270 ms

Loss rate: 0.33%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-02-13 21:43:55

End at: 2018-02-13 21:44:25

Below is generated by plot.py at 2018-02-14 02:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.09 Mbit/s

95th percentile per-packet one-way delay: 210.022 ms

Loss rate: 2.31%

-- Flow 1:

Average throughput: 199.48 Mbit/s

95th percentile per-packet one-way delay: 192.888 ms

Loss rate: 1.85%

-- Flow 2:

Average throughput: 82.40 Mbit/s

95th percentile per-packet one-way delay: 172.906 ms

Loss rate: 0.80%

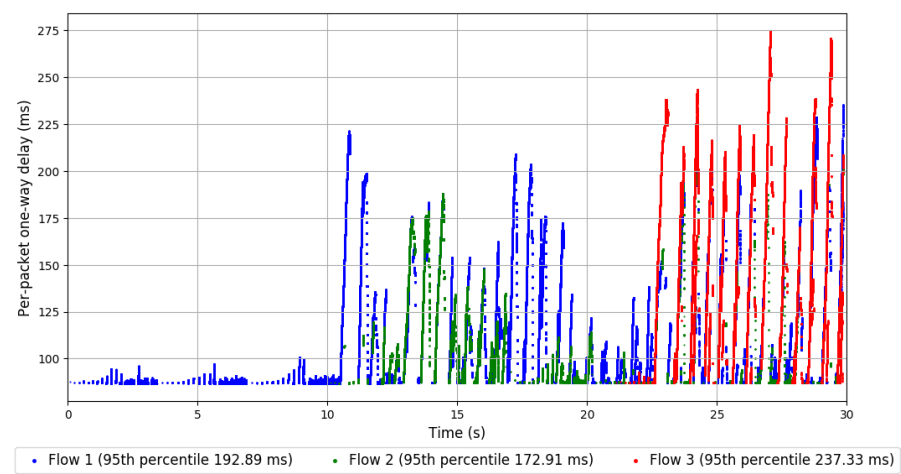
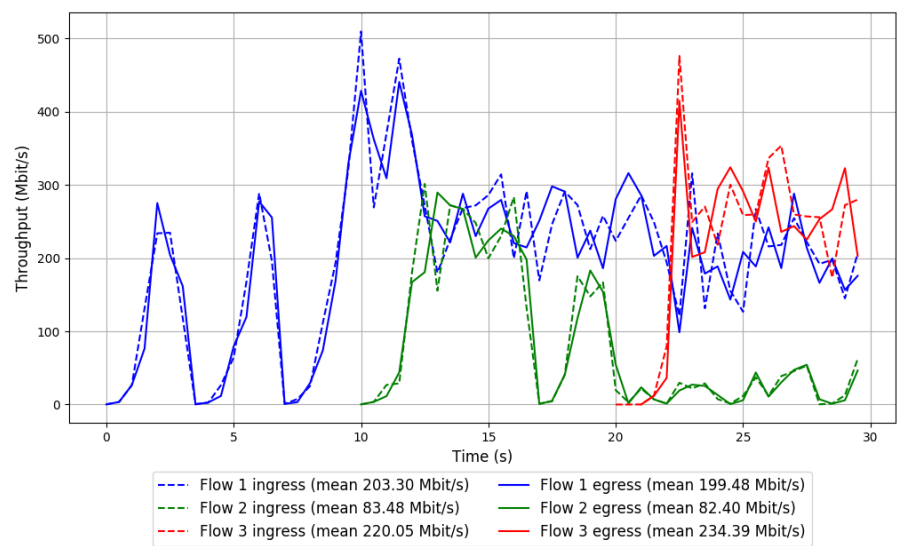
-- Flow 3:

Average throughput: 234.39 Mbit/s

95th percentile per-packet one-way delay: 237.327 ms

Loss rate: 4.78%

Run 10: Report of Verus — Data Link

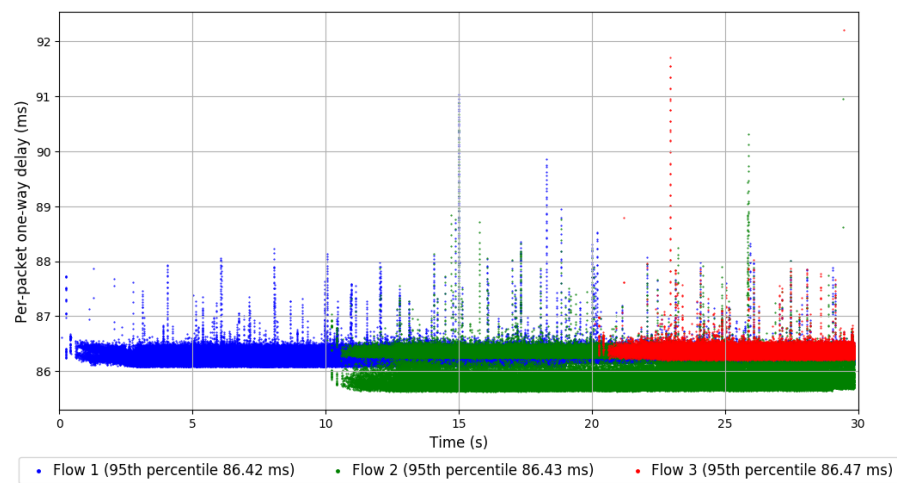
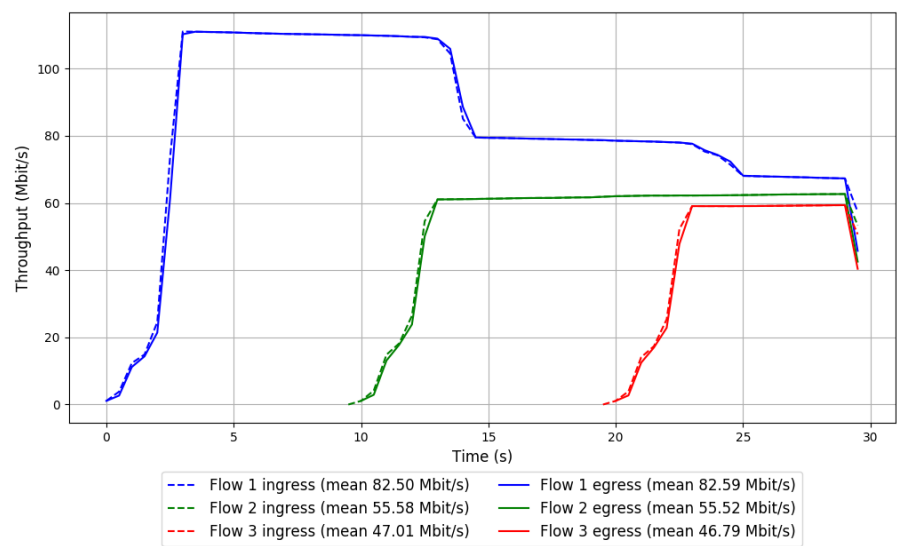


```
Run 1: Statistics of Copa

Start at: 2018-02-13 18:57:28
End at: 2018-02-13 18:57:58

# Below is generated by plot.py at 2018-02-14 02:10:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.83 Mbit/s
95th percentile per-packet one-way delay: 86.433 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 82.59 Mbit/s
95th percentile per-packet one-way delay: 86.423 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 55.52 Mbit/s
95th percentile per-packet one-way delay: 86.429 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 46.79 Mbit/s
95th percentile per-packet one-way delay: 86.471 ms
Loss rate: 2.20%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-02-13 19:16:31

End at: 2018-02-13 19:17:01

Below is generated by plot.py at 2018-02-14 02:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.44 Mbit/s

95th percentile per-packet one-way delay: 86.846 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 55.98 Mbit/s

95th percentile per-packet one-way delay: 86.811 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 56.02 Mbit/s

95th percentile per-packet one-way delay: 86.856 ms

Loss rate: 1.40%

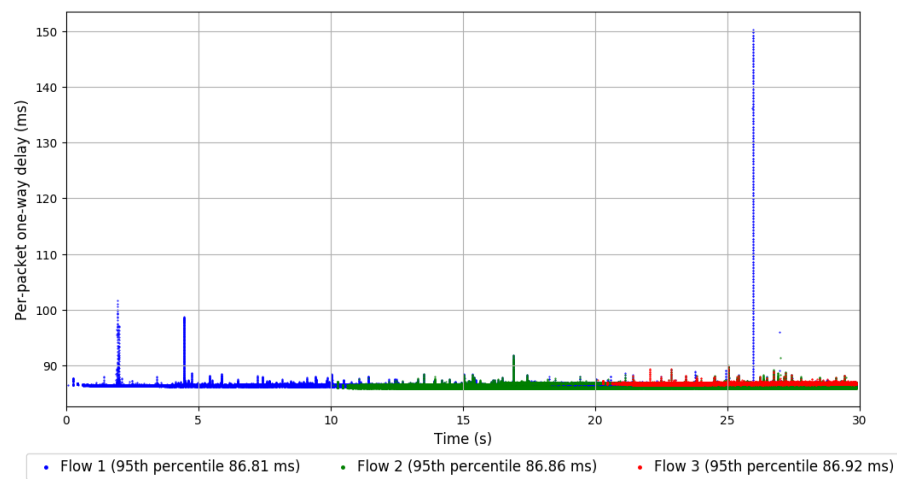
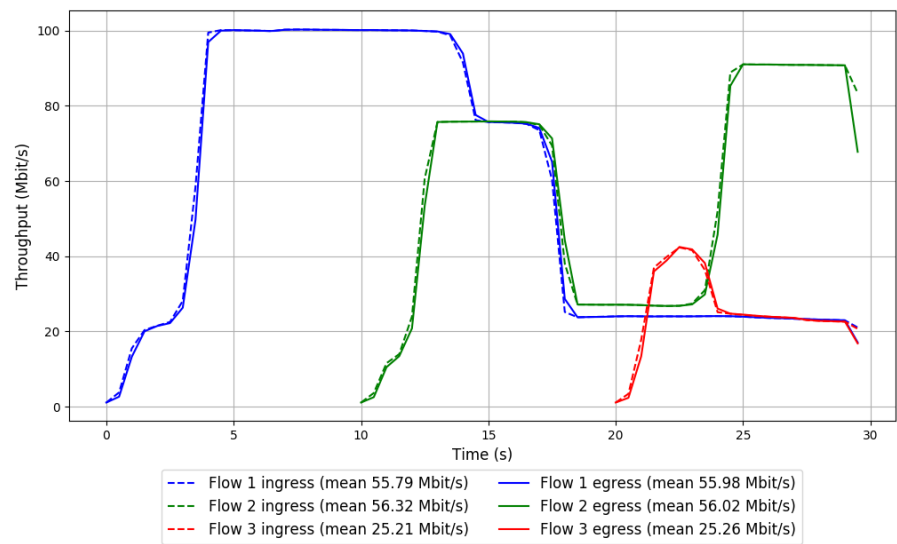
-- Flow 3:

Average throughput: 25.26 Mbit/s

95th percentile per-packet one-way delay: 86.922 ms

Loss rate: 1.55%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-02-13 19:35:21

End at: 2018-02-13 19:35:51

Below is generated by plot.py at 2018-02-14 02:11:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.65 Mbit/s

95th percentile per-packet one-way delay: 86.561 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 75.88 Mbit/s

95th percentile per-packet one-way delay: 86.554 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 52.79 Mbit/s

95th percentile per-packet one-way delay: 86.513 ms

Loss rate: 1.00%

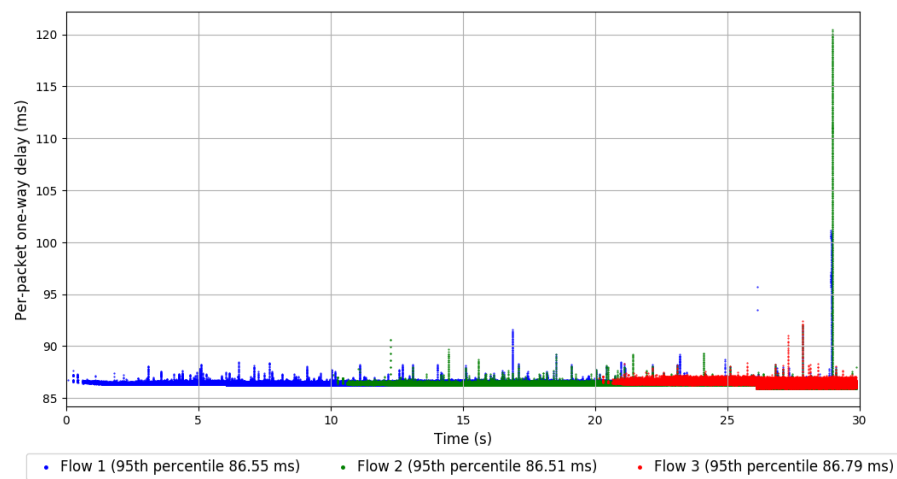
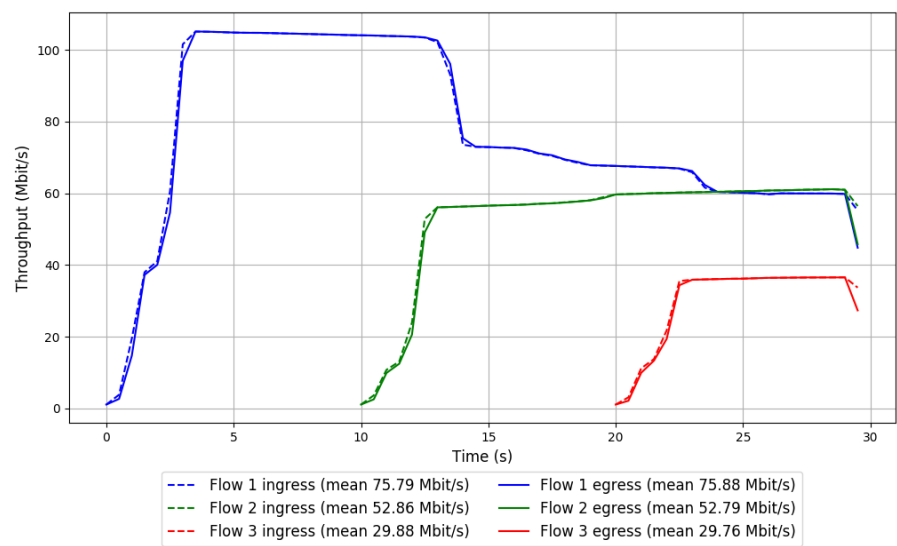
-- Flow 3:

Average throughput: 29.76 Mbit/s

95th percentile per-packet one-way delay: 86.788 ms

Loss rate: 2.14%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-02-13 19:54:12

End at: 2018-02-13 19:54:42

Below is generated by plot.py at 2018-02-14 02:11:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.56 Mbit/s

95th percentile per-packet one-way delay: 86.347 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 75.50 Mbit/s

95th percentile per-packet one-way delay: 86.305 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 55.47 Mbit/s

95th percentile per-packet one-way delay: 86.333 ms

Loss rate: 0.97%

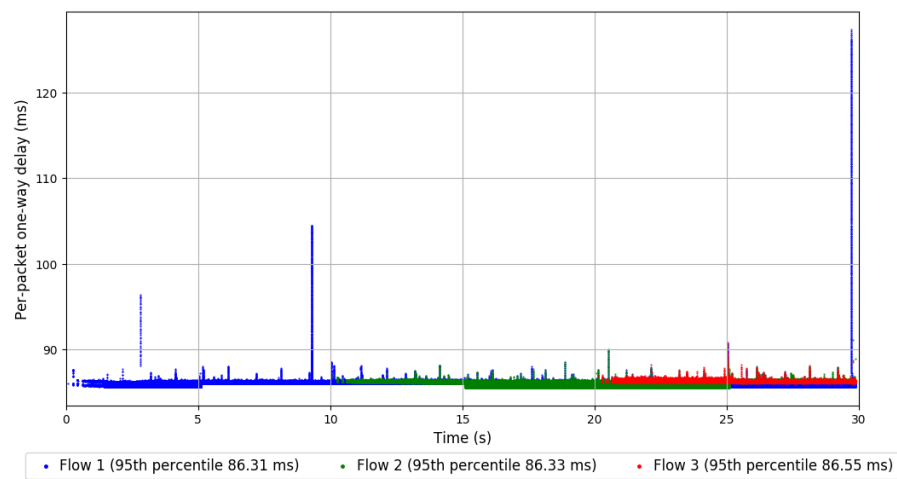
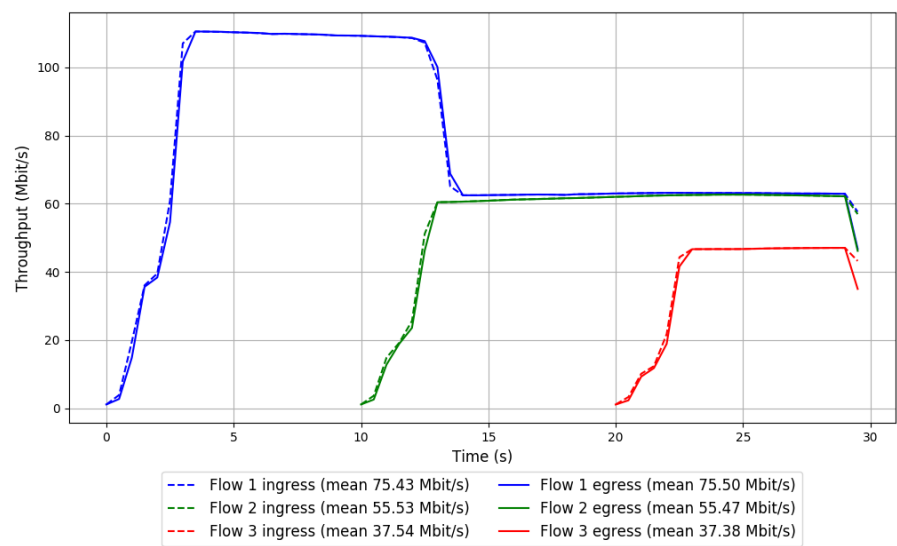
-- Flow 3:

Average throughput: 37.38 Mbit/s

95th percentile per-packet one-way delay: 86.548 ms

Loss rate: 2.19%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-02-13 20:13:19

End at: 2018-02-13 20:13:49

Below is generated by plot.py at 2018-02-14 02:11:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.68 Mbit/s

95th percentile per-packet one-way delay: 86.622 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 60.61 Mbit/s

95th percentile per-packet one-way delay: 86.622 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 48.92 Mbit/s

95th percentile per-packet one-way delay: 86.490 ms

Loss rate: 0.83%

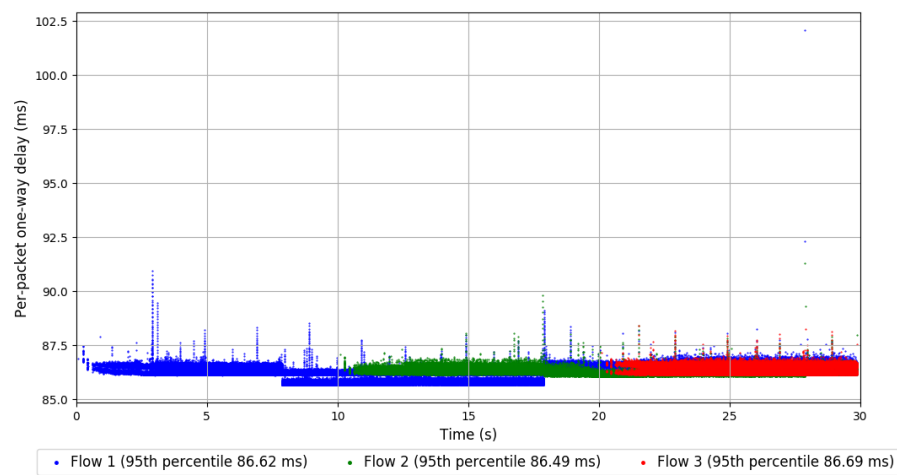
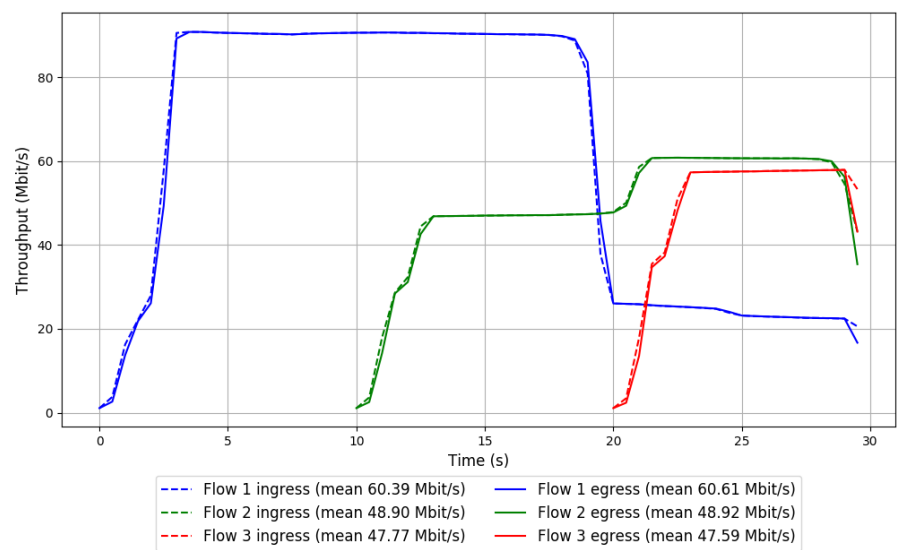
-- Flow 3:

Average throughput: 47.59 Mbit/s

95th percentile per-packet one-way delay: 86.685 ms

Loss rate: 2.12%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-02-13 20:32:13

End at: 2018-02-13 20:32:43

Below is generated by plot.py at 2018-02-14 02:11:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.87 Mbit/s

95th percentile per-packet one-way delay: 86.281 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 55.86 Mbit/s

95th percentile per-packet one-way delay: 86.292 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 26.73 Mbit/s

95th percentile per-packet one-way delay: 85.949 ms

Loss rate: 1.16%

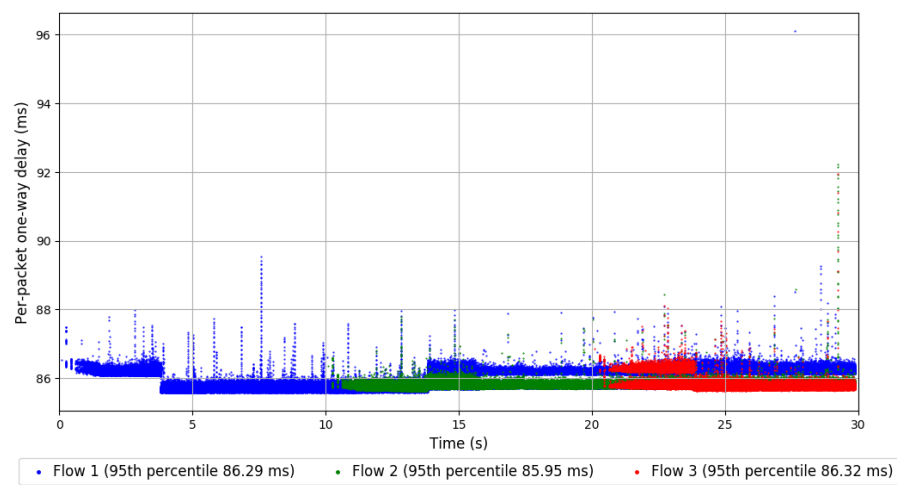
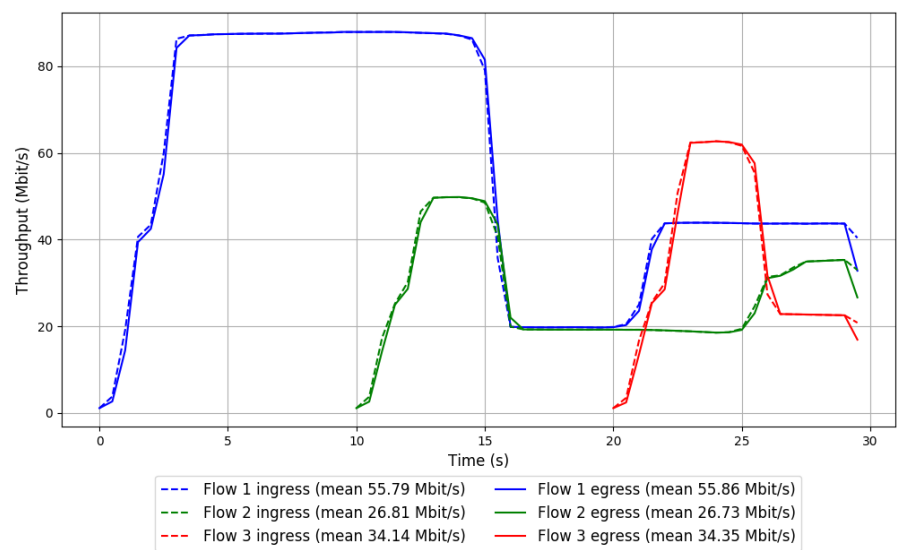
-- Flow 3:

Average throughput: 34.35 Mbit/s

95th percentile per-packet one-way delay: 86.316 ms

Loss rate: 1.15%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-02-13 20:51:08

End at: 2018-02-13 20:51:38

Below is generated by plot.py at 2018-02-14 02:12:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 100.50 Mbit/s

95th percentile per-packet one-way delay: 86.806 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 50.40 Mbit/s

95th percentile per-packet one-way delay: 86.791 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 47.20 Mbit/s

95th percentile per-packet one-way delay: 86.816 ms

Loss rate: 0.36%

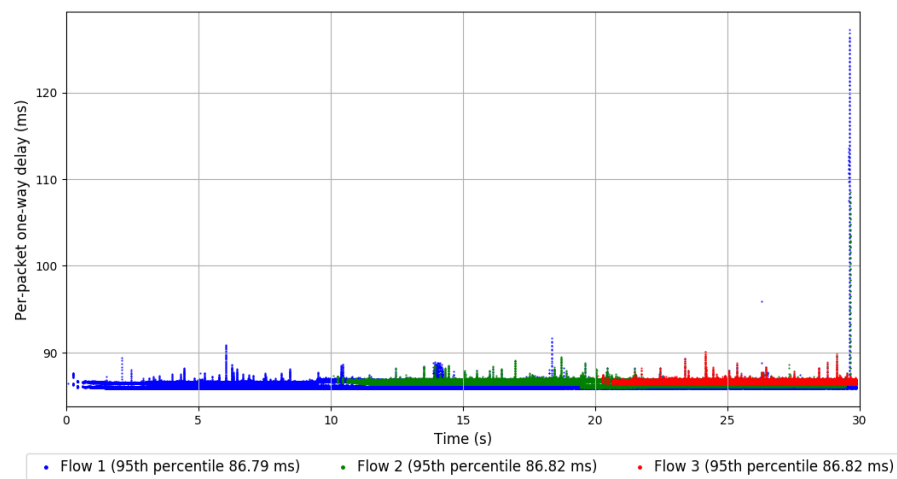
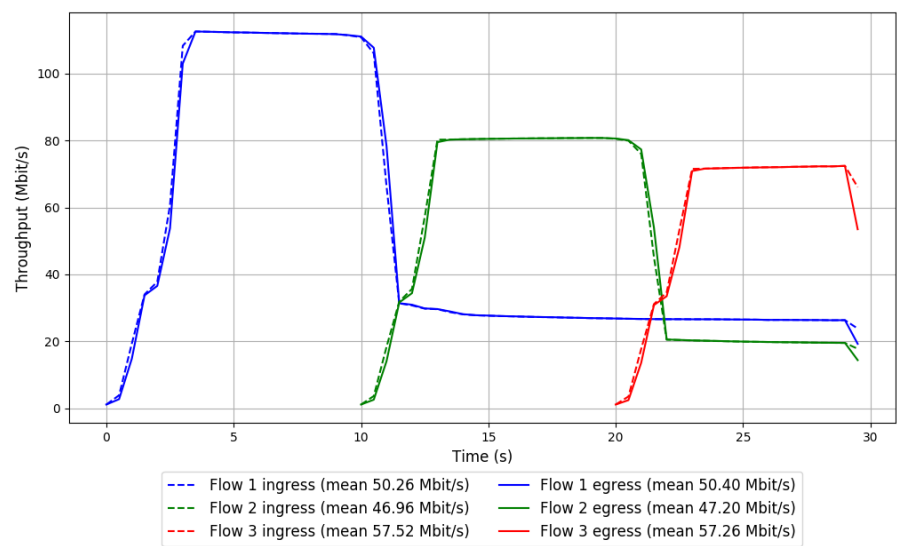
-- Flow 3:

Average throughput: 57.26 Mbit/s

95th percentile per-packet one-way delay: 86.818 ms

Loss rate: 2.20%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-02-13 21:10:01

End at: 2018-02-13 21:10:31

Below is generated by plot.py at 2018-02-14 02:13:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.27 Mbit/s

95th percentile per-packet one-way delay: 86.775 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 62.01 Mbit/s

95th percentile per-packet one-way delay: 86.774 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 58.58 Mbit/s

95th percentile per-packet one-way delay: 86.762 ms

Loss rate: 1.04%

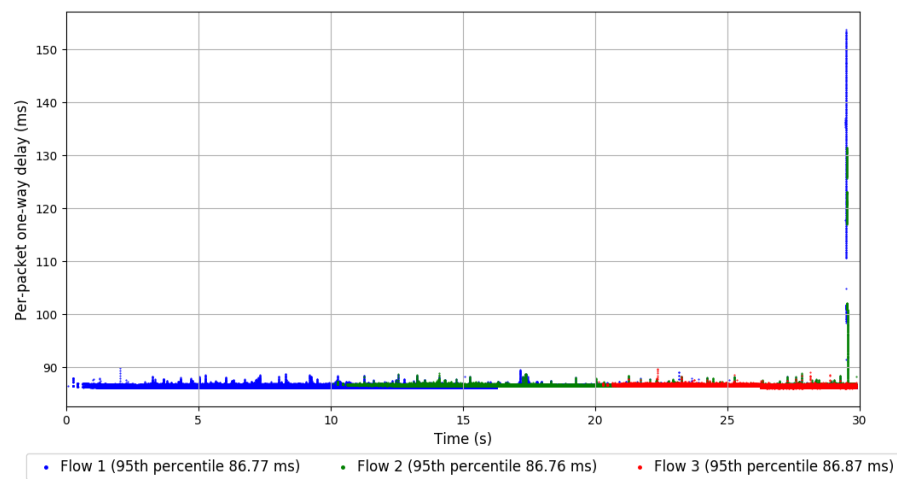
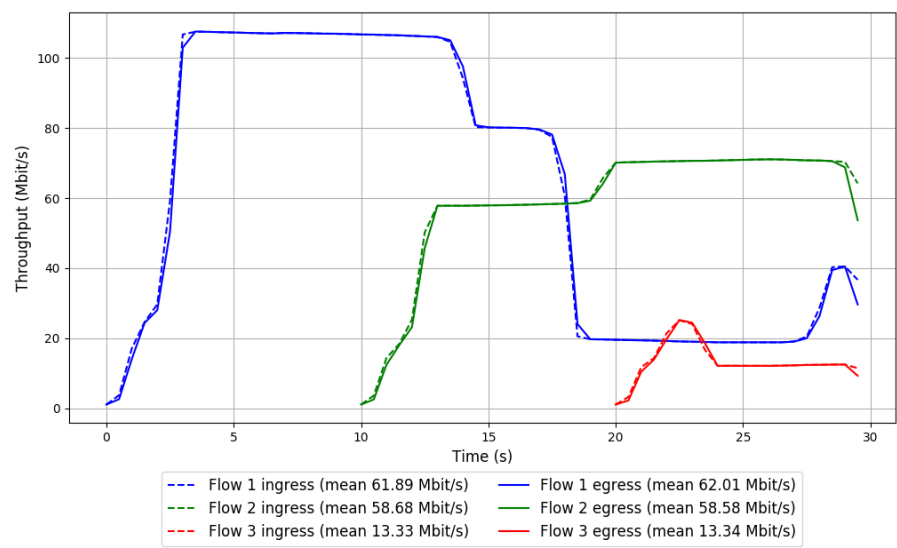
-- Flow 3:

Average throughput: 13.34 Mbit/s

95th percentile per-packet one-way delay: 86.867 ms

Loss rate: 1.64%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-02-13 21:28:46

End at: 2018-02-13 21:29:16

Below is generated by plot.py at 2018-02-14 02:13:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.16 Mbit/s

95th percentile per-packet one-way delay: 87.137 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 15.43 Mbit/s

95th percentile per-packet one-way delay: 87.034 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 36.63 Mbit/s

95th percentile per-packet one-way delay: 87.167 ms

Loss rate: 0.90%

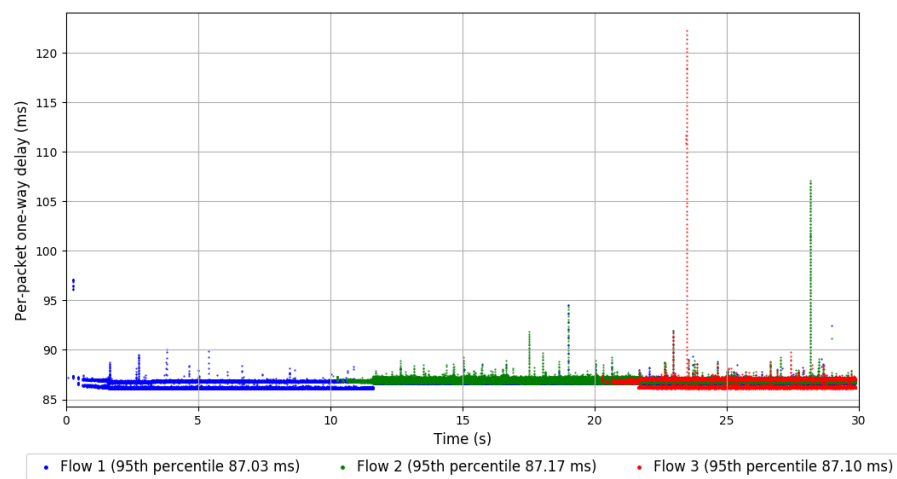
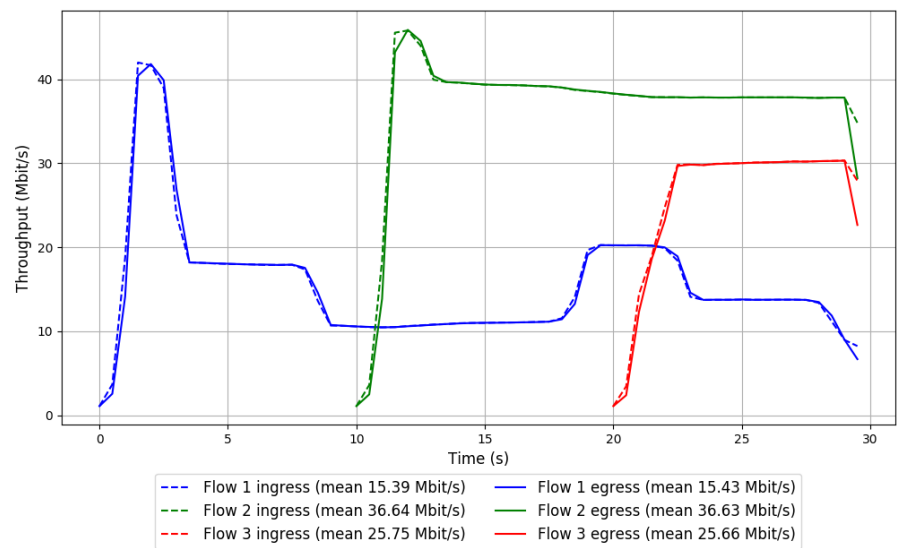
-- Flow 3:

Average throughput: 25.66 Mbit/s

95th percentile per-packet one-way delay: 87.098 ms

Loss rate: 2.06%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-02-13 21:47:36

End at: 2018-02-13 21:48:06

Below is generated by plot.py at 2018-02-14 02:13:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.38 Mbit/s

95th percentile per-packet one-way delay: 87.525 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 66.61 Mbit/s

95th percentile per-packet one-way delay: 87.561 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 55.44 Mbit/s

95th percentile per-packet one-way delay: 87.347 ms

Loss rate: 0.97%

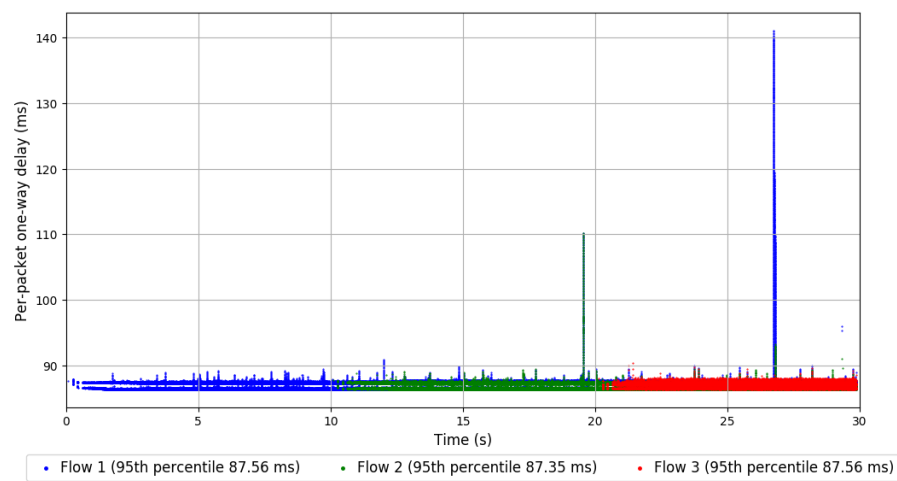
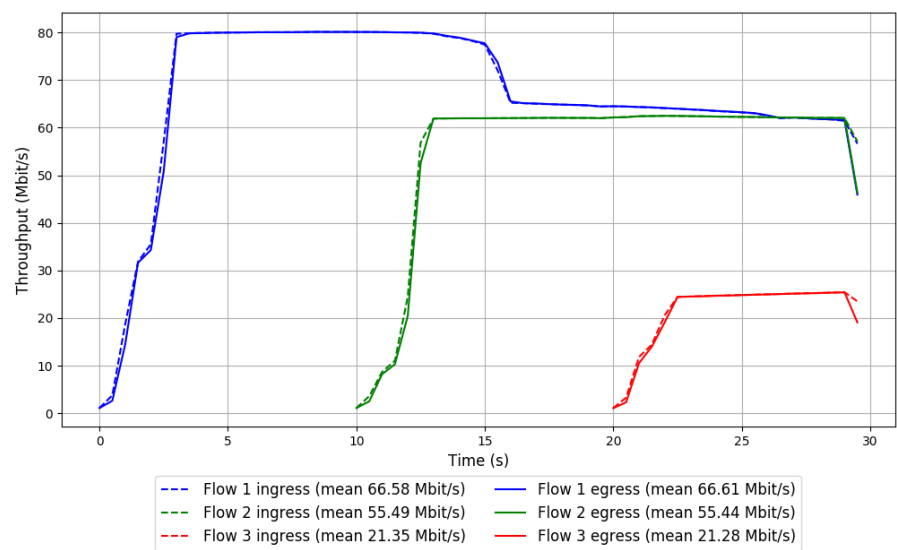
-- Flow 3:

Average throughput: 21.28 Mbit/s

95th percentile per-packet one-way delay: 87.557 ms

Loss rate: 2.09%

Run 10: Report of Copa — Data Link

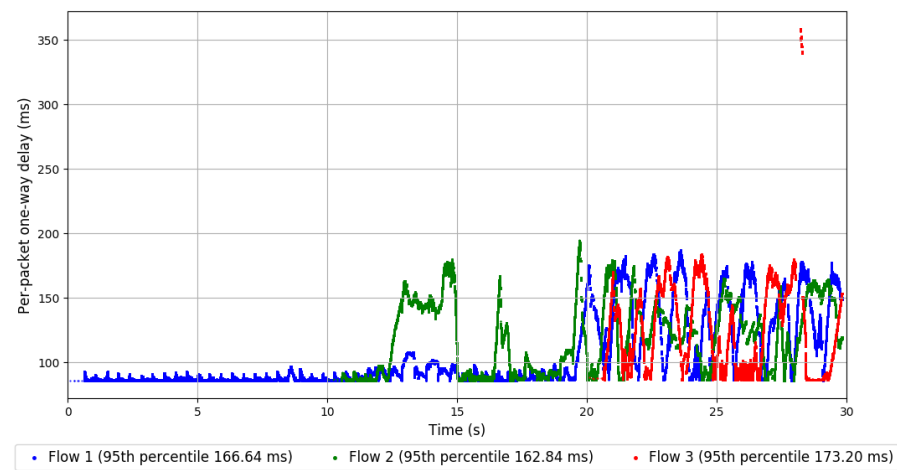
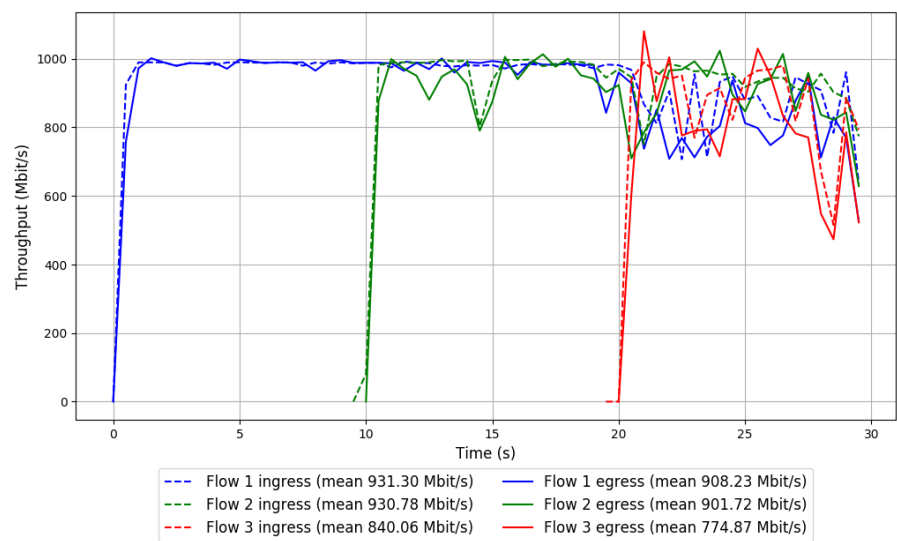


```
Run 1: Statistics of FillP

Start at: 2018-02-13 19:02:10
End at: 2018-02-13 19:02:40

# Below is generated by plot.py at 2018-02-14 02:40:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1761.27 Mbit/s
95th percentile per-packet one-way delay: 167.098 ms
Loss rate: 4.32%
-- Flow 1:
Average throughput: 908.23 Mbit/s
95th percentile per-packet one-way delay: 166.639 ms
Loss rate: 3.04%
-- Flow 2:
Average throughput: 901.72 Mbit/s
95th percentile per-packet one-way delay: 162.845 ms
Loss rate: 3.97%
-- Flow 3:
Average throughput: 774.87 Mbit/s
95th percentile per-packet one-way delay: 173.196 ms
Loss rate: 9.40%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-02-13 19:21:03

End at: 2018-02-13 19:21:33

Below is generated by plot.py at 2018-02-14 02:40:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1712.79 Mbit/s

95th percentile per-packet one-way delay: 174.281 ms

Loss rate: 5.52%

-- Flow 1:

Average throughput: 886.57 Mbit/s

95th percentile per-packet one-way delay: 176.498 ms

Loss rate: 4.37%

-- Flow 2:

Average throughput: 858.31 Mbit/s

95th percentile per-packet one-way delay: 172.104 ms

Loss rate: 5.95%

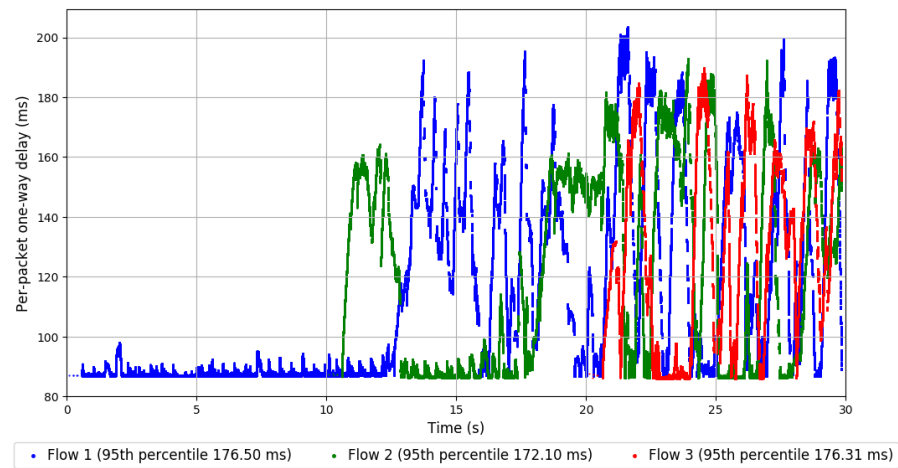
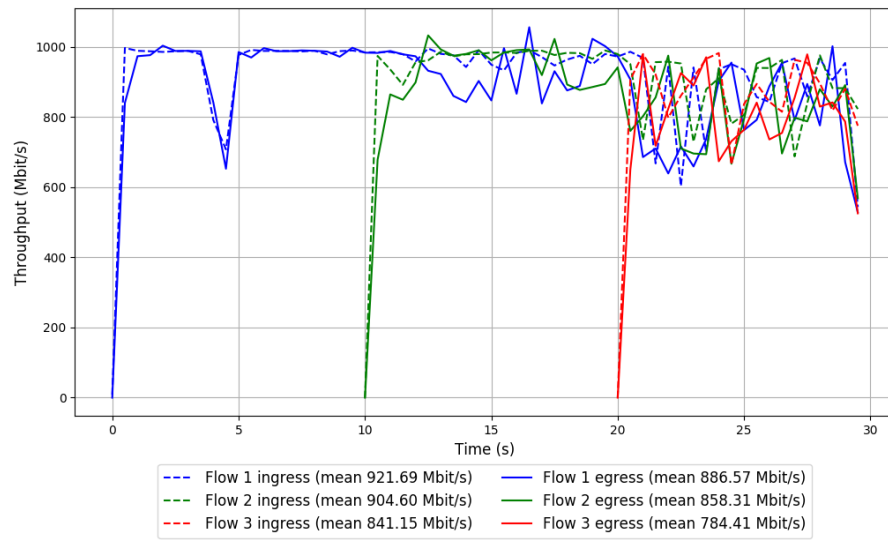
-- Flow 3:

Average throughput: 784.41 Mbit/s

95th percentile per-packet one-way delay: 176.315 ms

Loss rate: 8.39%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-02-13 19:39:59

End at: 2018-02-13 19:40:29

Below is generated by plot.py at 2018-02-14 02:40:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1725.22 Mbit/s

95th percentile per-packet one-way delay: 169.940 ms

Loss rate: 4.18%

-- Flow 1:

Average throughput: 890.91 Mbit/s

95th percentile per-packet one-way delay: 169.733 ms

Loss rate: 3.99%

-- Flow 2:

Average throughput: 872.23 Mbit/s

95th percentile per-packet one-way delay: 170.470 ms

Loss rate: 3.38%

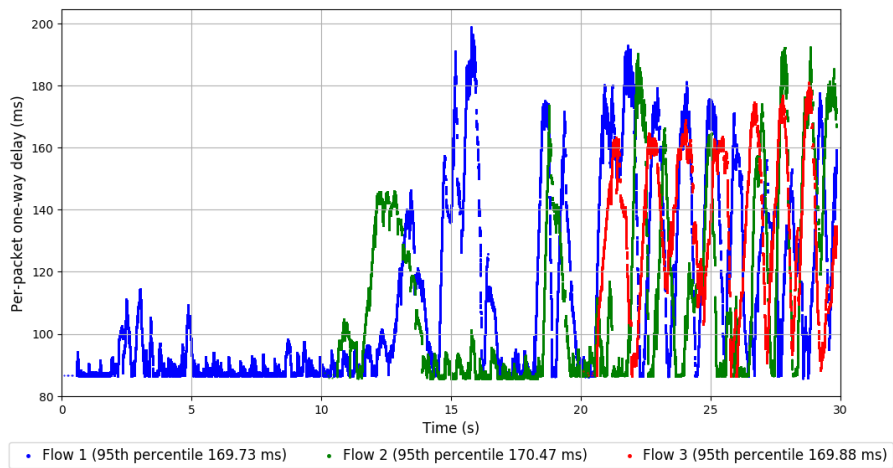
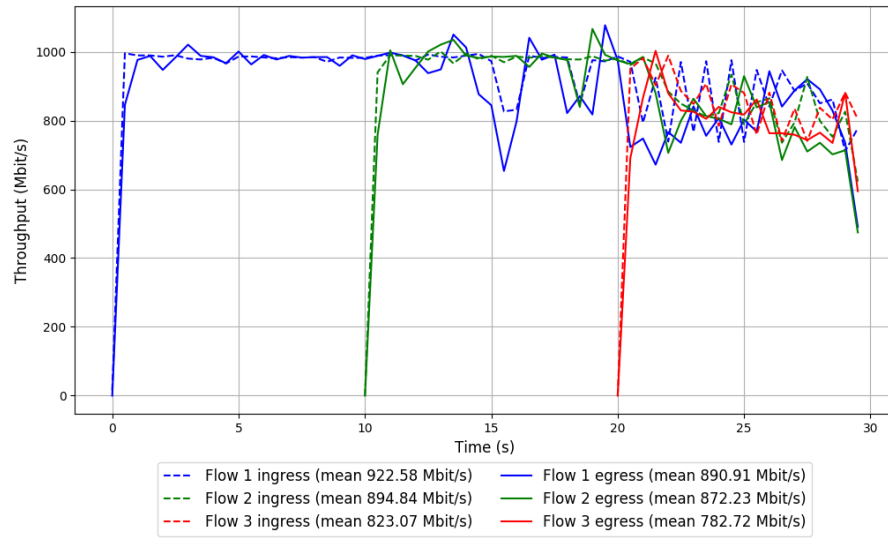
-- Flow 3:

Average throughput: 782.72 Mbit/s

95th percentile per-packet one-way delay: 169.883 ms

Loss rate: 6.58%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-02-13 19:58:50

End at: 2018-02-13 19:59:20

Below is generated by plot.py at 2018-02-14 02:40:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1728.87 Mbit/s

95th percentile per-packet one-way delay: 164.069 ms

Loss rate: 4.38%

-- Flow 1:

Average throughput: 907.51 Mbit/s

95th percentile per-packet one-way delay: 157.964 ms

Loss rate: 4.09%

-- Flow 2:

Average throughput: 847.56 Mbit/s

95th percentile per-packet one-way delay: 169.634 ms

Loss rate: 4.93%

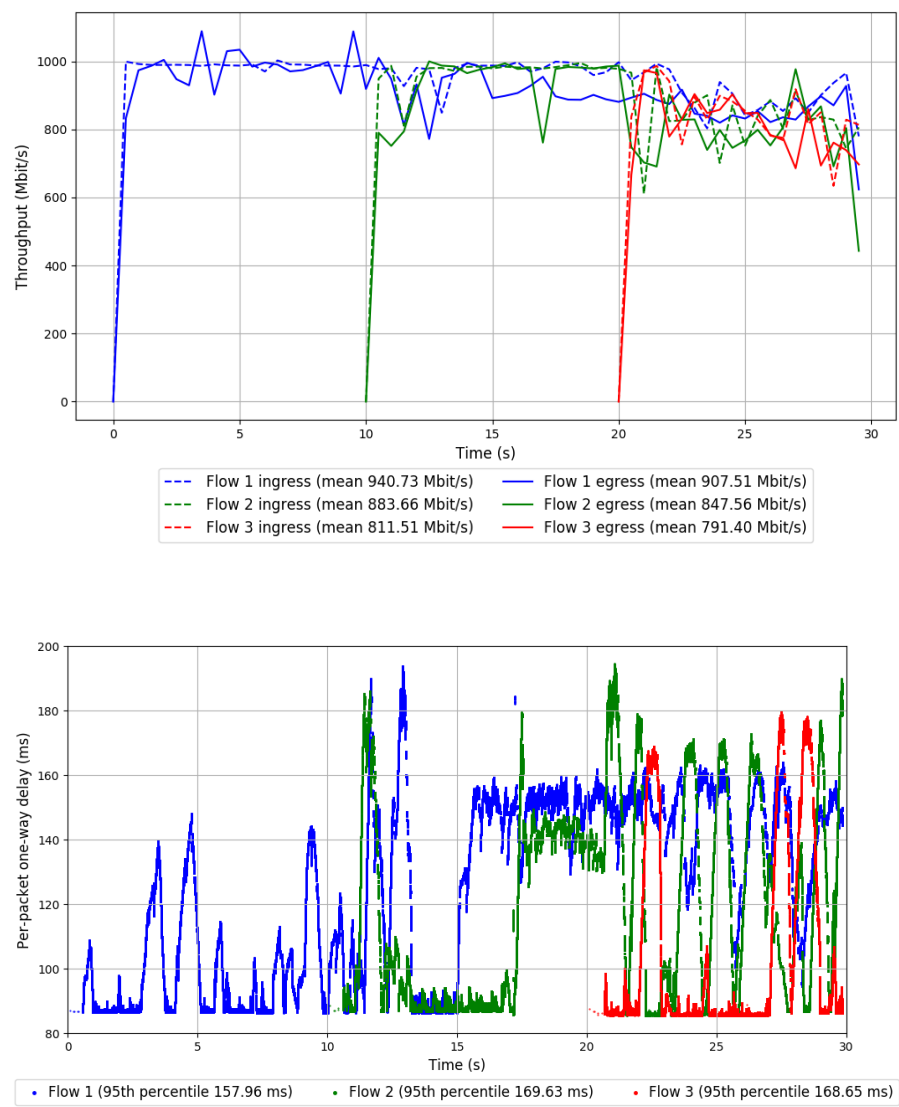
-- Flow 3:

Average throughput: 791.40 Mbit/s

95th percentile per-packet one-way delay: 168.646 ms

Loss rate: 4.19%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-02-13 20:17:54

End at: 2018-02-13 20:18:24

Below is generated by plot.py at 2018-02-14 02:40:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1723.94 Mbit/s

95th percentile per-packet one-way delay: 164.977 ms

Loss rate: 4.28%

-- Flow 1:

Average throughput: 926.27 Mbit/s

95th percentile per-packet one-way delay: 153.958 ms

Loss rate: 2.08%

-- Flow 2:

Average throughput: 826.96 Mbit/s

95th percentile per-packet one-way delay: 168.186 ms

Loss rate: 6.15%

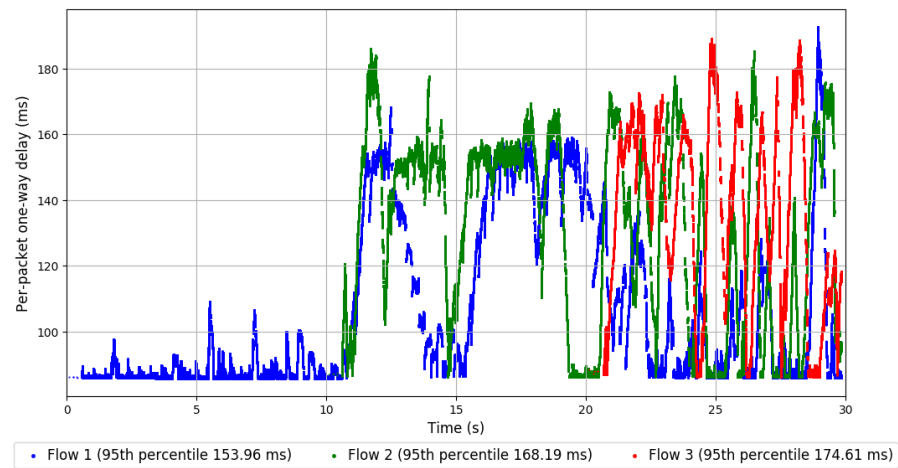
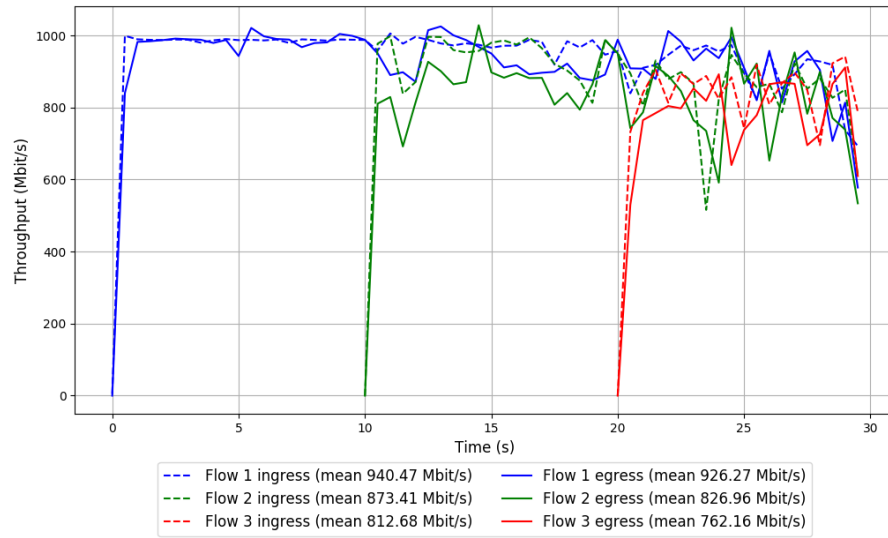
-- Flow 3:

Average throughput: 762.16 Mbit/s

95th percentile per-packet one-way delay: 174.607 ms

Loss rate: 7.89%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-02-13 20:36:50

End at: 2018-02-13 20:37:20

Below is generated by plot.py at 2018-02-14 02:40:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1650.95 Mbit/s

95th percentile per-packet one-way delay: 261.786 ms

Loss rate: 4.94%

-- Flow 1:

Average throughput: 917.03 Mbit/s

95th percentile per-packet one-way delay: 157.969 ms

Loss rate: 3.14%

-- Flow 2:

Average throughput: 804.54 Mbit/s

95th percentile per-packet one-way delay: 290.340 ms

Loss rate: 5.71%

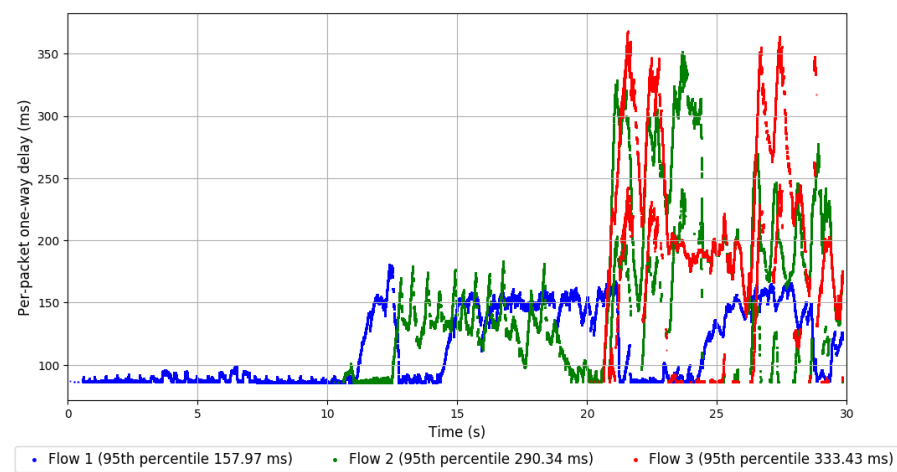
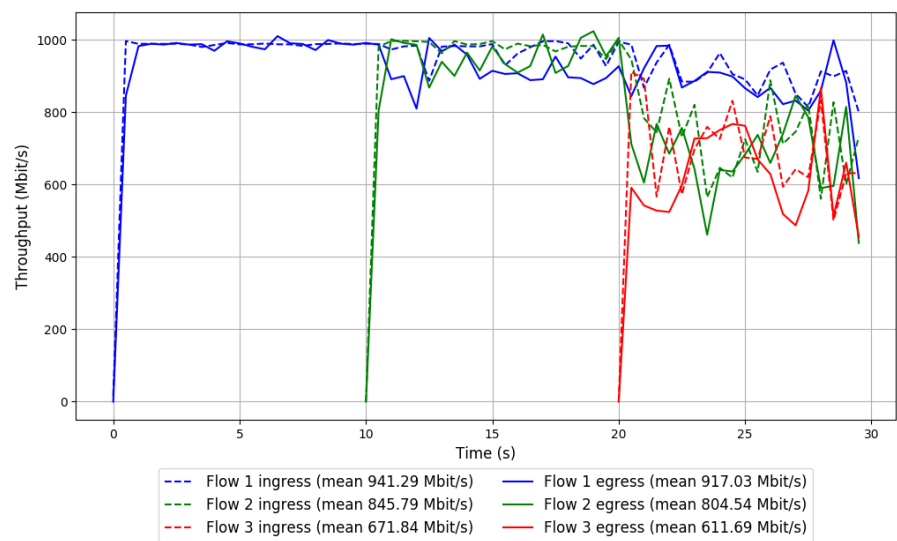
-- Flow 3:

Average throughput: 611.69 Mbit/s

95th percentile per-packet one-way delay: 333.428 ms

Loss rate: 10.56%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-02-13 20:55:39

End at: 2018-02-13 20:56:09

Below is generated by plot.py at 2018-02-14 02:42:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 1738.13 Mbit/s

95th percentile per-packet one-way delay: 169.903 ms

Loss rate: 4.83%

-- Flow 1:

Average throughput: 909.50 Mbit/s

95th percentile per-packet one-way delay: 161.678 ms

Loss rate: 2.93%

-- Flow 2:

Average throughput: 827.75 Mbit/s

95th percentile per-packet one-way delay: 180.269 ms

Loss rate: 7.85%

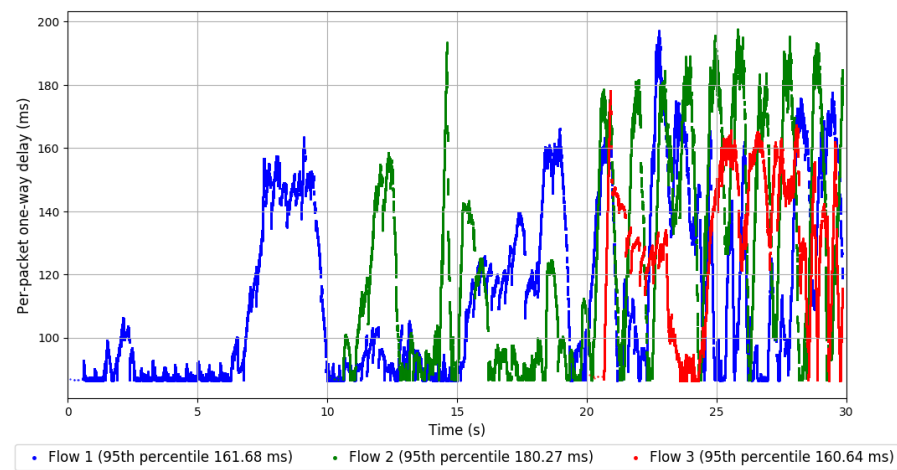
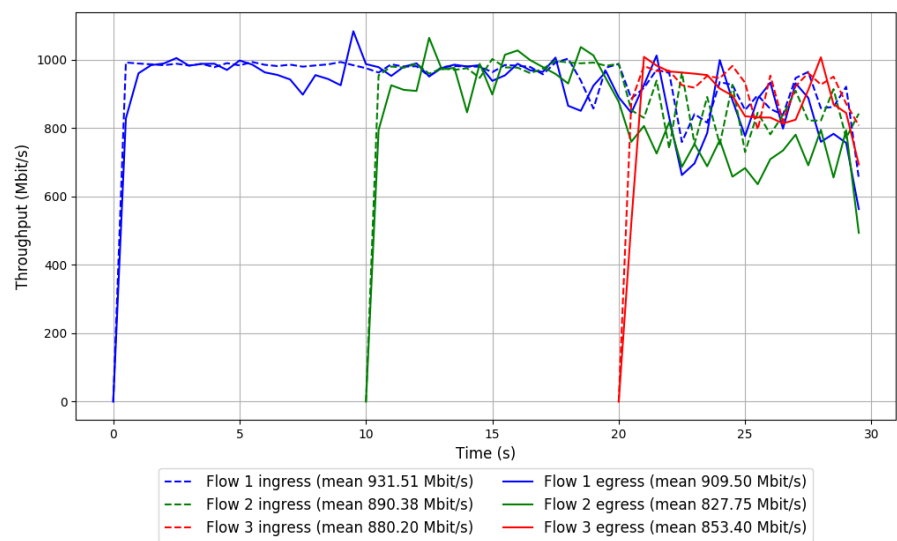
-- Flow 3:

Average throughput: 853.40 Mbit/s

95th percentile per-packet one-way delay: 160.639 ms

Loss rate: 4.76%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-02-13 21:14:40

End at: 2018-02-13 21:15:10

Below is generated by plot.py at 2018-02-14 02:42:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 1595.39 Mbit/s

95th percentile per-packet one-way delay: 280.666 ms

Loss rate: 5.99%

-- Flow 1:

Average throughput: 895.21 Mbit/s

95th percentile per-packet one-way delay: 248.365 ms

Loss rate: 4.01%

-- Flow 2:

Average throughput: 751.23 Mbit/s

95th percentile per-packet one-way delay: 322.596 ms

Loss rate: 7.33%

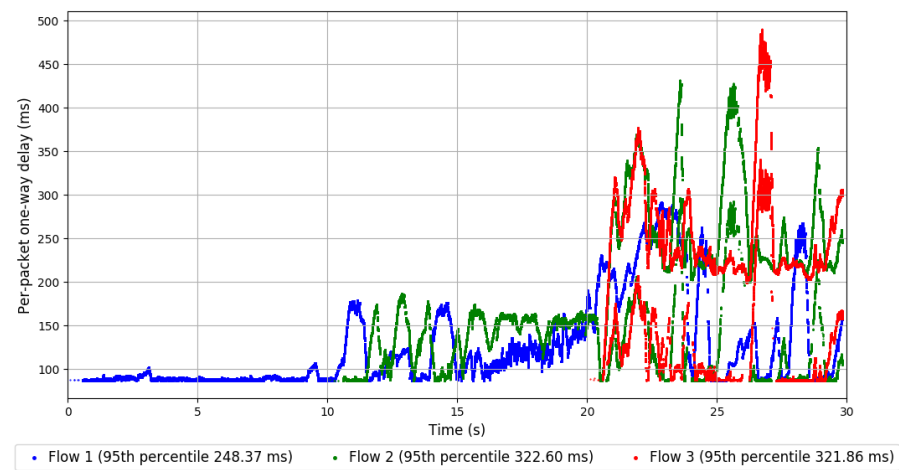
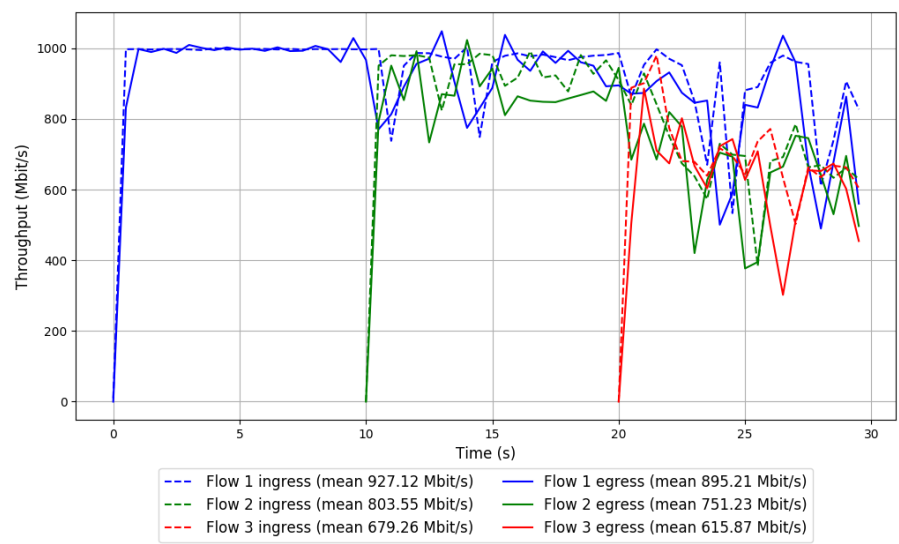
-- Flow 3:

Average throughput: 615.87 Mbit/s

95th percentile per-packet one-way delay: 321.861 ms

Loss rate: 10.94%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-02-13 21:33:16

End at: 2018-02-13 21:33:46

Below is generated by plot.py at 2018-02-14 03:06:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 1559.06 Mbit/s

95th percentile per-packet one-way delay: 290.390 ms

Loss rate: 3.88%

-- Flow 1:

Average throughput: 815.02 Mbit/s

95th percentile per-packet one-way delay: 287.851 ms

Loss rate: 3.04%

-- Flow 2:

Average throughput: 720.74 Mbit/s

95th percentile per-packet one-way delay: 300.579 ms

Loss rate: 5.31%

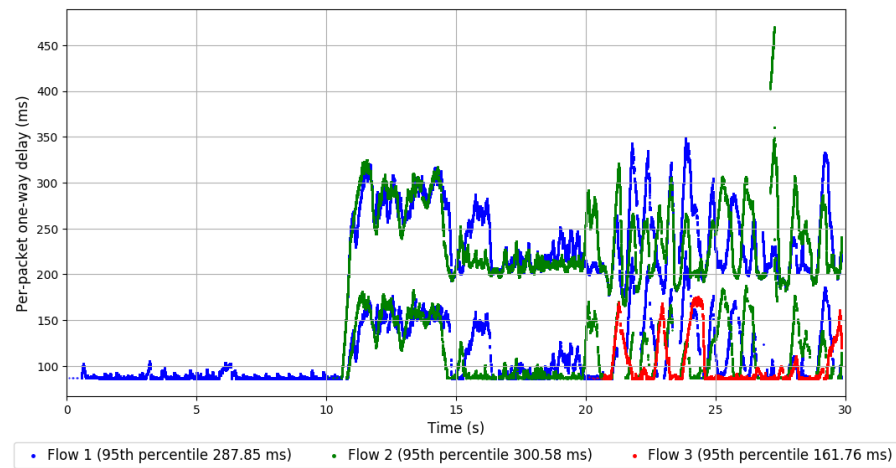
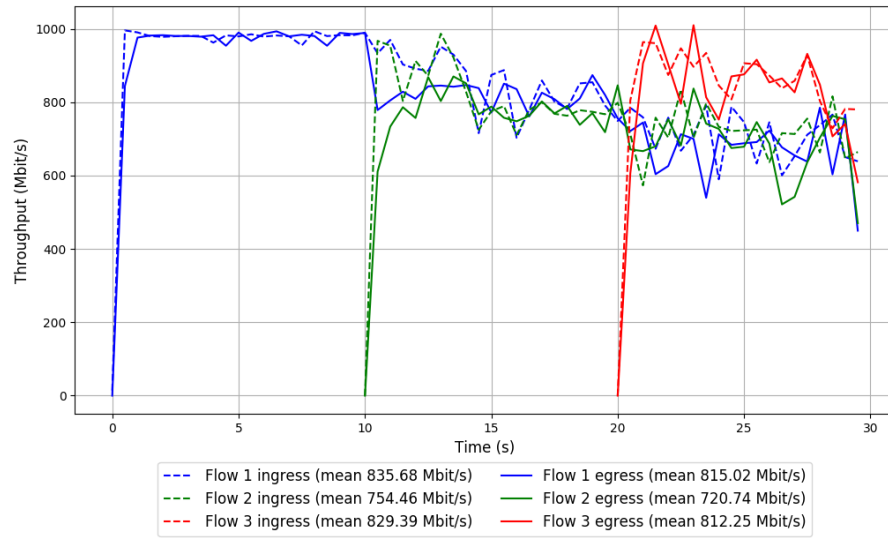
-- Flow 3:

Average throughput: 812.25 Mbit/s

95th percentile per-packet one-way delay: 161.759 ms

Loss rate: 3.80%

Run 9: Report of FillP — Data Link

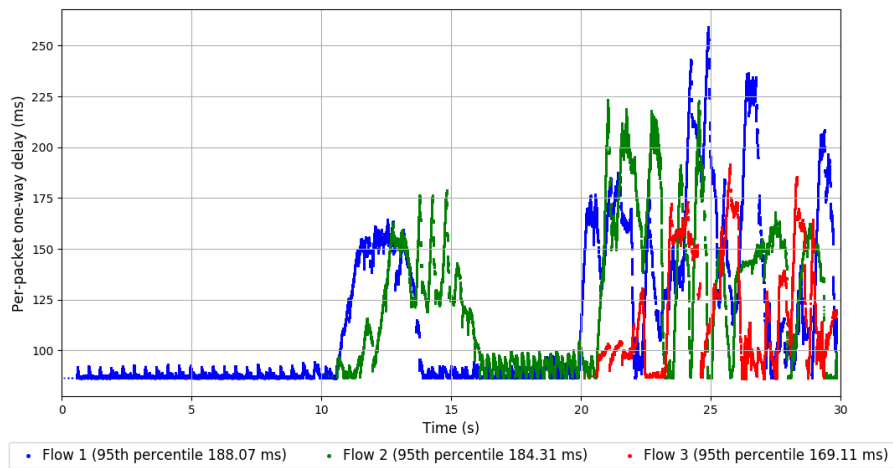
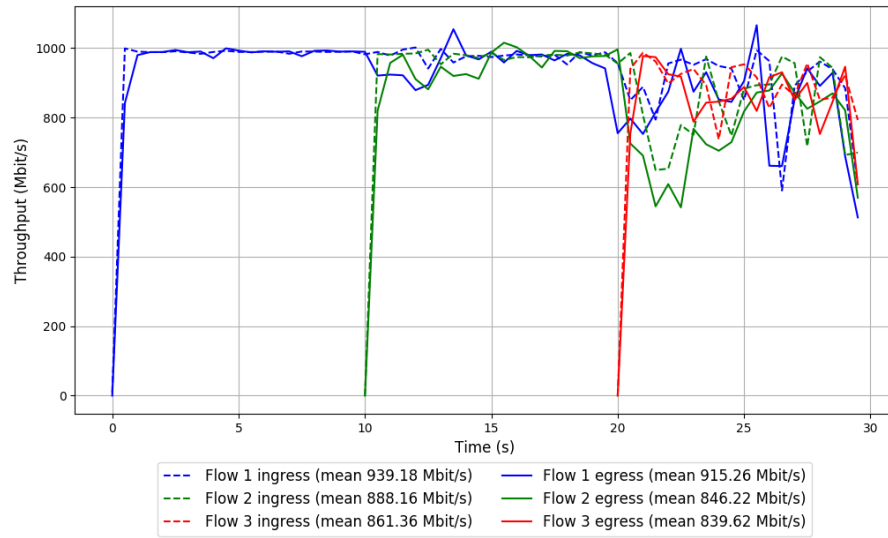


```
Run 10: Statistics of FillP

Start at: 2018-02-13 21:52:12
End at: 2018-02-13 21:52:42

# Below is generated by plot.py at 2018-02-14 03:09:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1751.36 Mbit/s
95th percentile per-packet one-way delay: 182.286 ms
Loss rate: 4.09%
-- Flow 1:
Average throughput: 915.26 Mbit/s
95th percentile per-packet one-way delay: 188.067 ms
Loss rate: 3.12%
-- Flow 2:
Average throughput: 846.22 Mbit/s
95th percentile per-packet one-way delay: 184.313 ms
Loss rate: 5.57%
-- Flow 3:
Average throughput: 839.62 Mbit/s
95th percentile per-packet one-way delay: 169.112 ms
Loss rate: 4.25%
```

Run 10: Report of FillP — Data Link

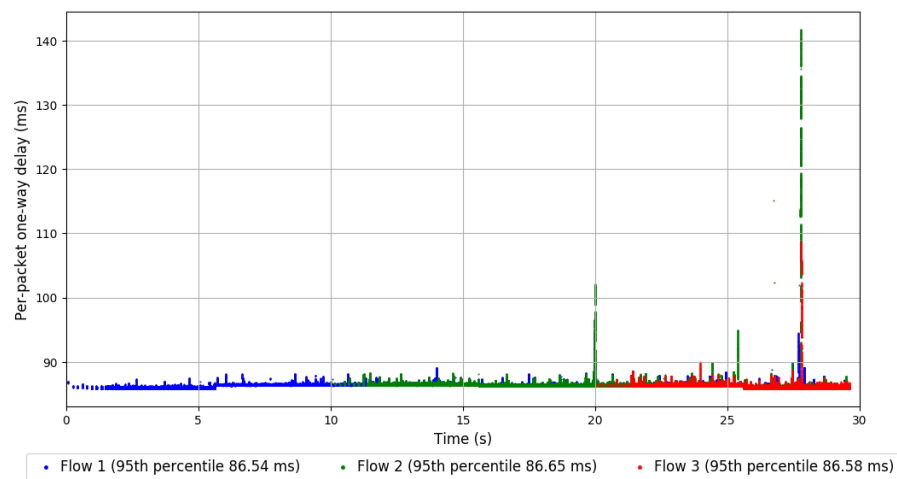
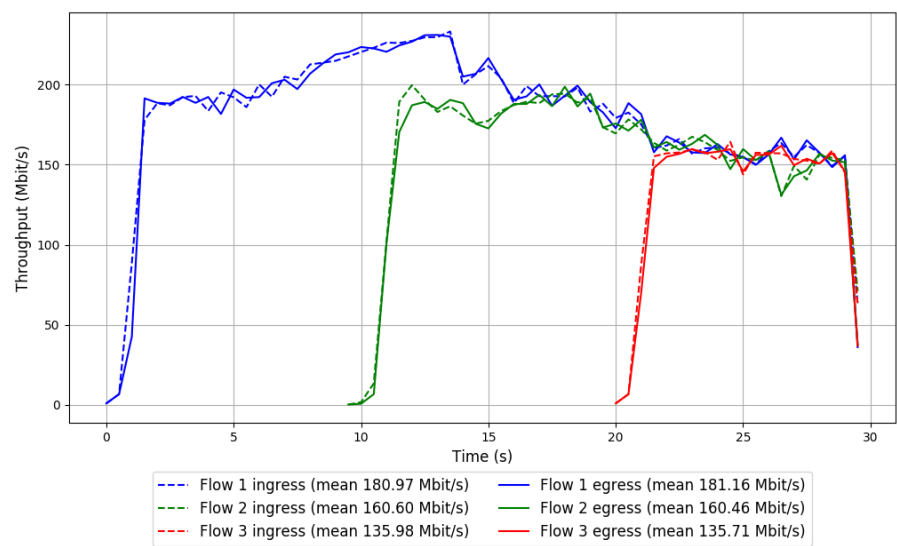


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-13 19:04:01
End at: 2018-02-13 19:04:31

# Below is generated by plot.py at 2018-02-14 03:09:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 331.57 Mbit/s
95th percentile per-packet one-way delay: 86.574 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 181.16 Mbit/s
95th percentile per-packet one-way delay: 86.536 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 160.46 Mbit/s
95th percentile per-packet one-way delay: 86.650 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 135.71 Mbit/s
95th percentile per-packet one-way delay: 86.580 ms
Loss rate: 1.98%
```

Run 1: Report of Indigo-1-32 — Data Link

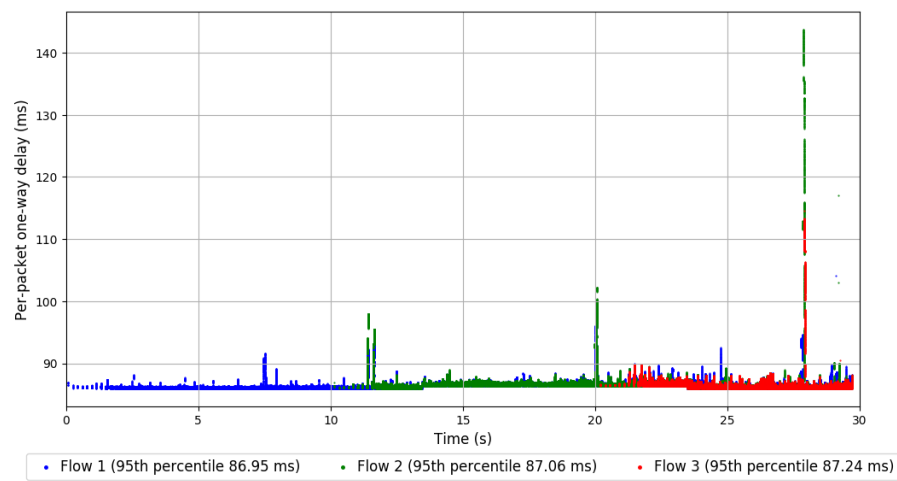
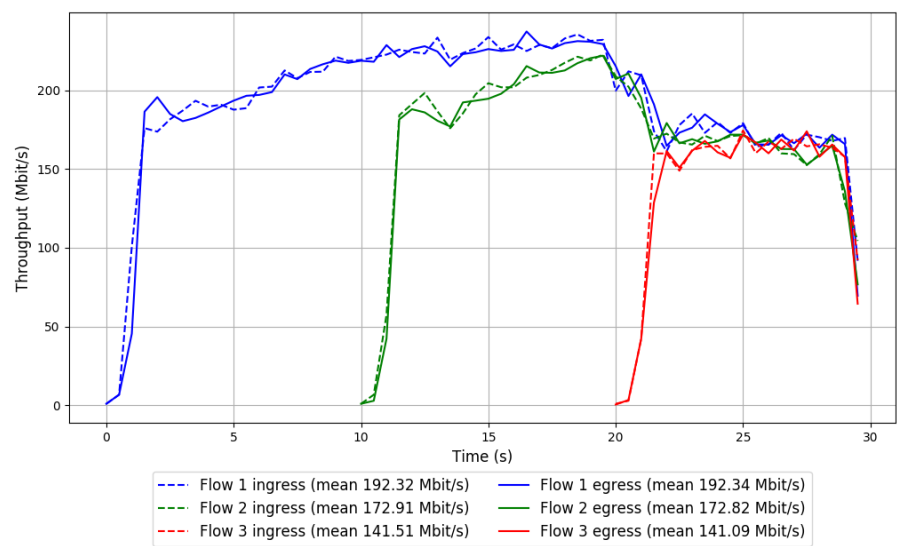


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-13 19:22:54
End at: 2018-02-13 19:23:24

# Below is generated by plot.py at 2018-02-14 03:09:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 351.76 Mbit/s
95th percentile per-packet one-way delay: 87.017 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 192.34 Mbit/s
95th percentile per-packet one-way delay: 86.947 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 172.82 Mbit/s
95th percentile per-packet one-way delay: 87.065 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 141.09 Mbit/s
95th percentile per-packet one-way delay: 87.237 ms
Loss rate: 2.09%
```

Run 2: Report of Indigo-1-32 — Data Link

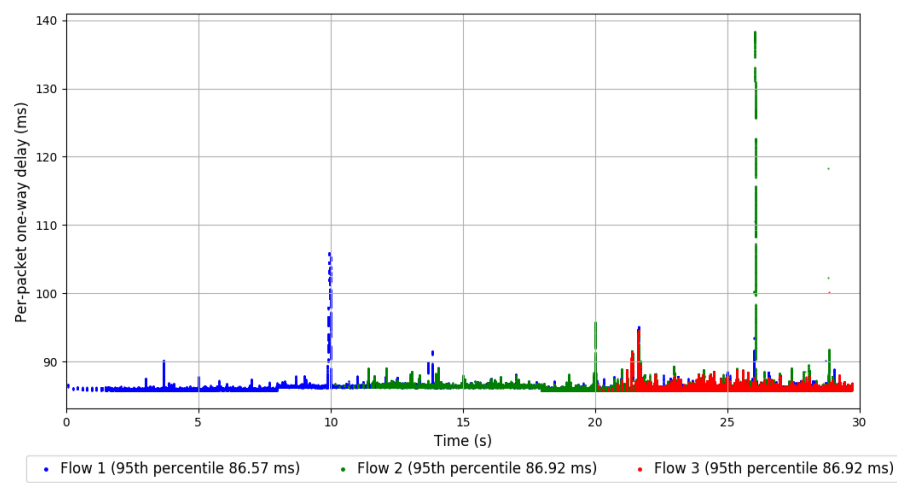
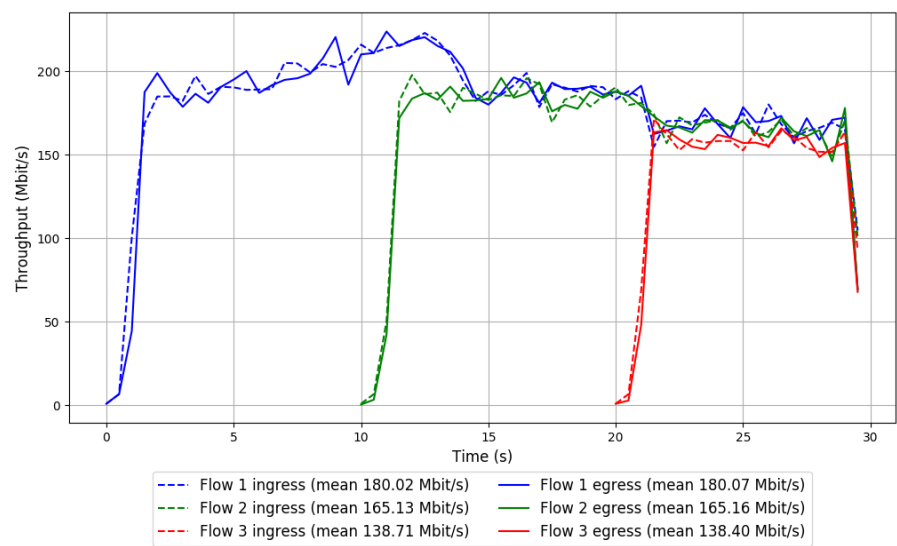


```
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-13 19:41:49
End at: 2018-02-13 19:42:19

# Below is generated by plot.py at 2018-02-14 03:09:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 333.82 Mbit/s
95th percentile per-packet one-way delay: 86.718 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 180.07 Mbit/s
95th percentile per-packet one-way delay: 86.572 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 165.16 Mbit/s
95th percentile per-packet one-way delay: 86.915 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 138.40 Mbit/s
95th percentile per-packet one-way delay: 86.922 ms
Loss rate: 2.00%
```


Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-02-13 20:00:40

End at: 2018-02-13 20:01:10

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 335.27 Mbit/s

95th percentile per-packet one-way delay: 86.707 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 182.62 Mbit/s

95th percentile per-packet one-way delay: 86.615 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 166.00 Mbit/s

95th percentile per-packet one-way delay: 86.815 ms

Loss rate: 0.86%

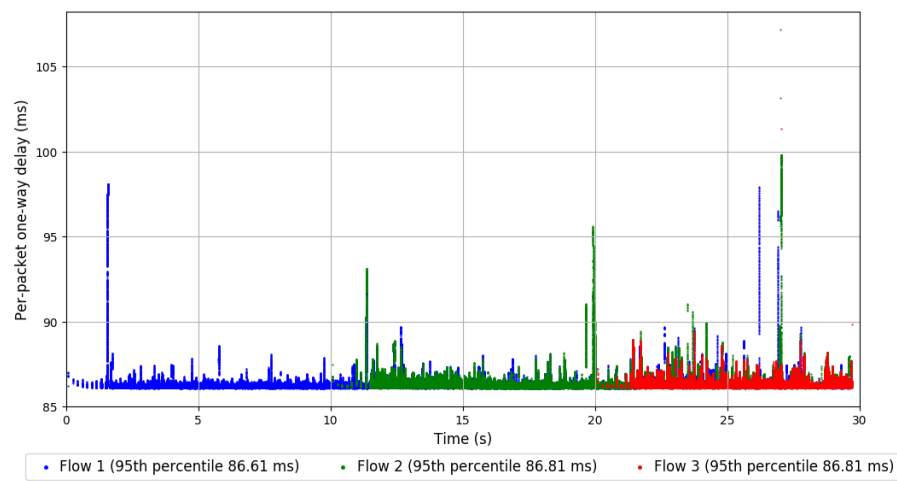
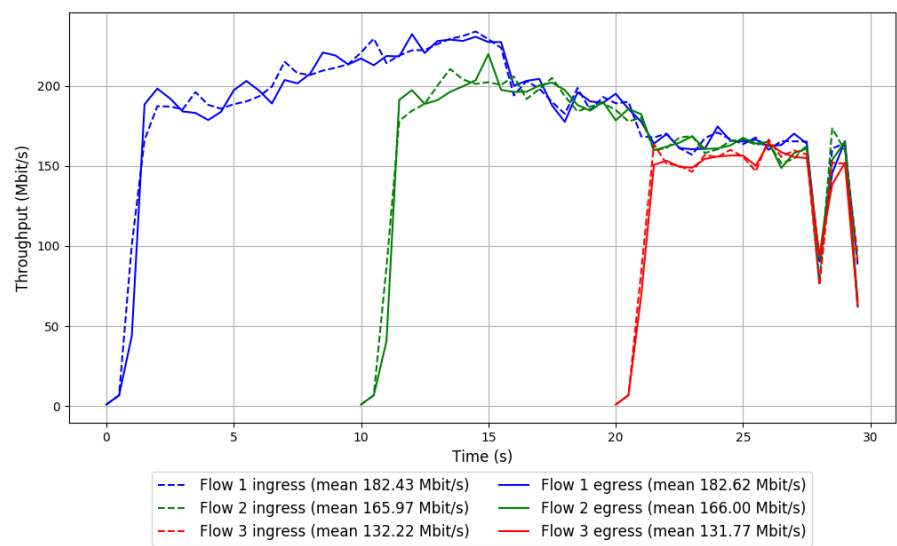
-- Flow 3:

Average throughput: 131.77 Mbit/s

95th percentile per-packet one-way delay: 86.808 ms

Loss rate: 2.08%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-02-13 20:19:46

End at: 2018-02-13 20:20:16

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 336.16 Mbit/s

95th percentile per-packet one-way delay: 86.775 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 182.86 Mbit/s

95th percentile per-packet one-way delay: 86.644 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 163.56 Mbit/s

95th percentile per-packet one-way delay: 86.965 ms

Loss rate: 0.69%

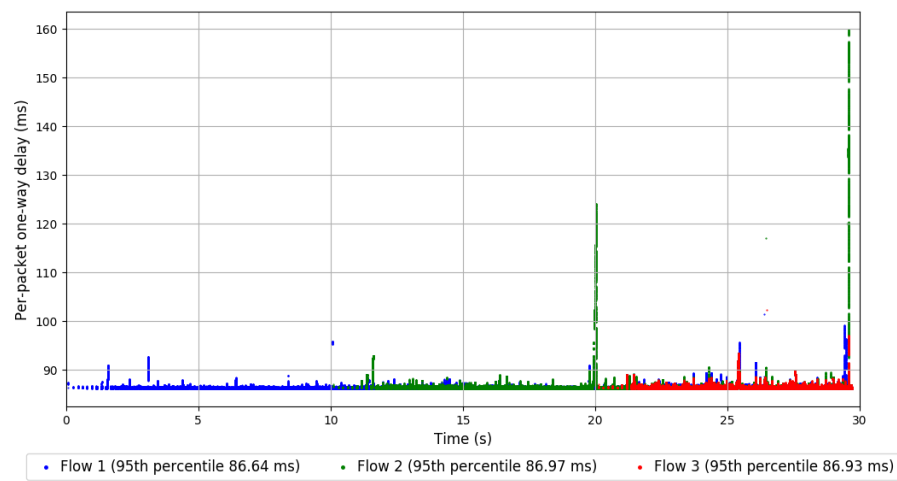
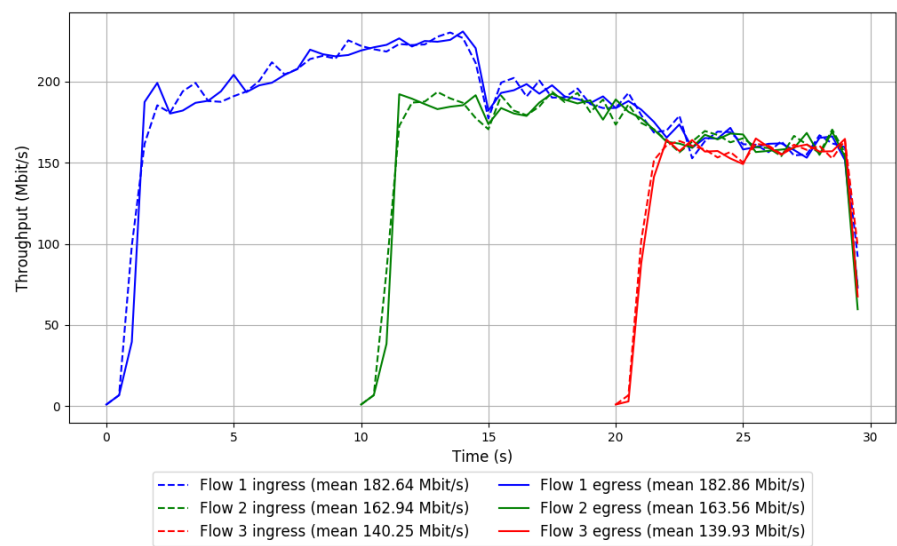
-- Flow 3:

Average throughput: 139.93 Mbit/s

95th percentile per-packet one-way delay: 86.933 ms

Loss rate: 2.01%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-02-13 20:38:39

End at: 2018-02-13 20:39:09

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 331.30 Mbit/s

95th percentile per-packet one-way delay: 86.987 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 179.44 Mbit/s

95th percentile per-packet one-way delay: 86.869 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 162.32 Mbit/s

95th percentile per-packet one-way delay: 87.076 ms

Loss rate: 0.86%

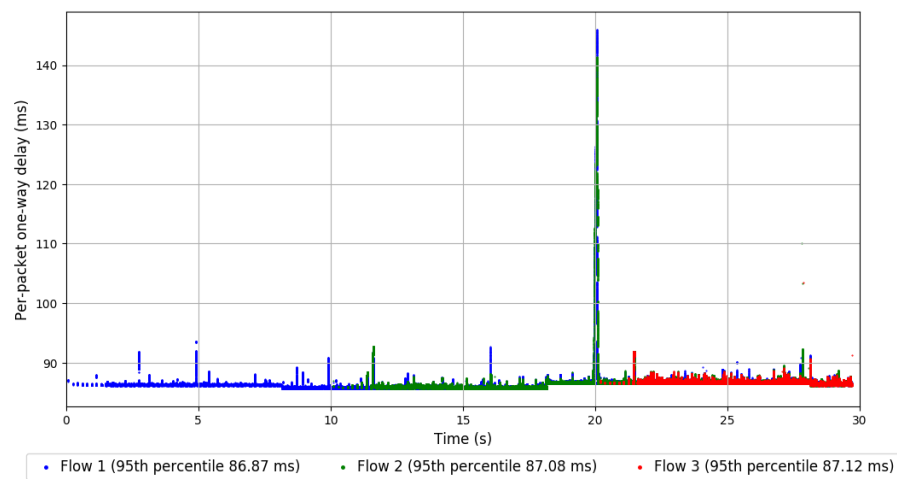
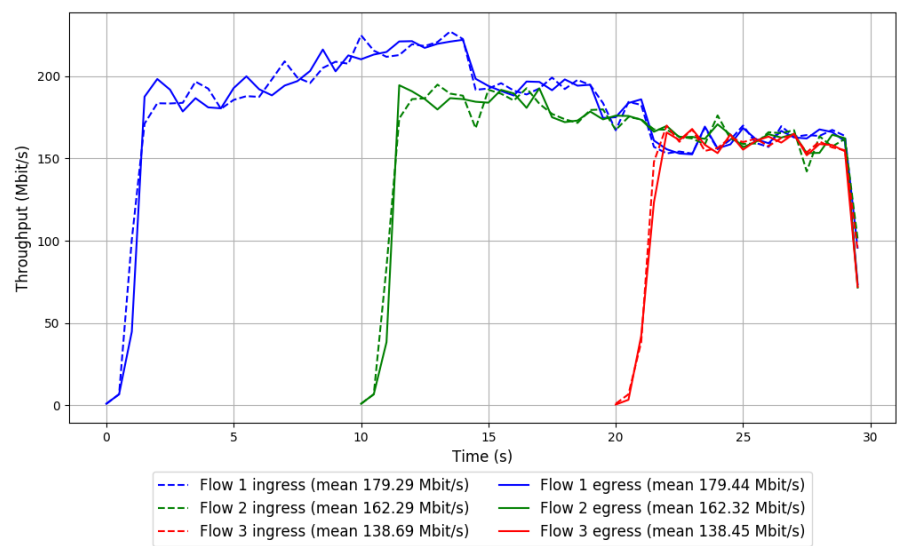
-- Flow 3:

Average throughput: 138.45 Mbit/s

95th percentile per-packet one-way delay: 87.116 ms

Loss rate: 1.91%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-02-13 20:57:30

End at: 2018-02-13 20:58:00

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 334.92 Mbit/s

95th percentile per-packet one-way delay: 86.490 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 180.02 Mbit/s

95th percentile per-packet one-way delay: 86.390 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 166.66 Mbit/s

95th percentile per-packet one-way delay: 86.590 ms

Loss rate: 0.86%

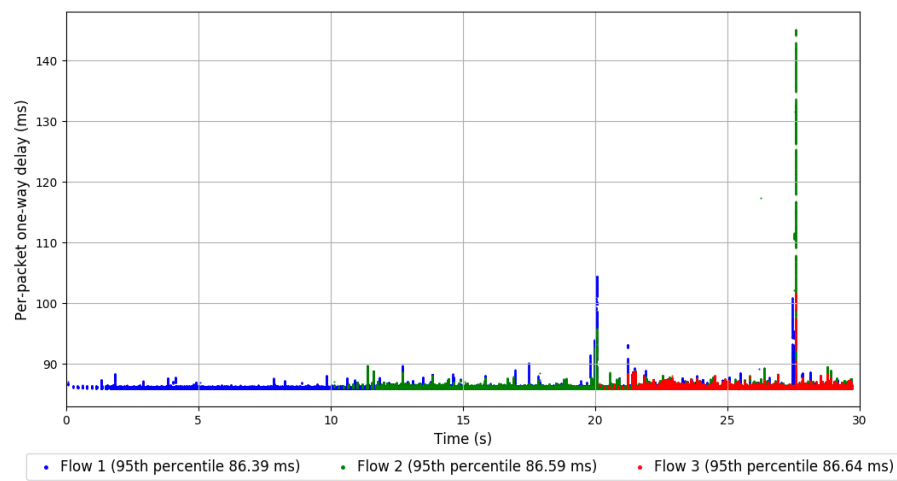
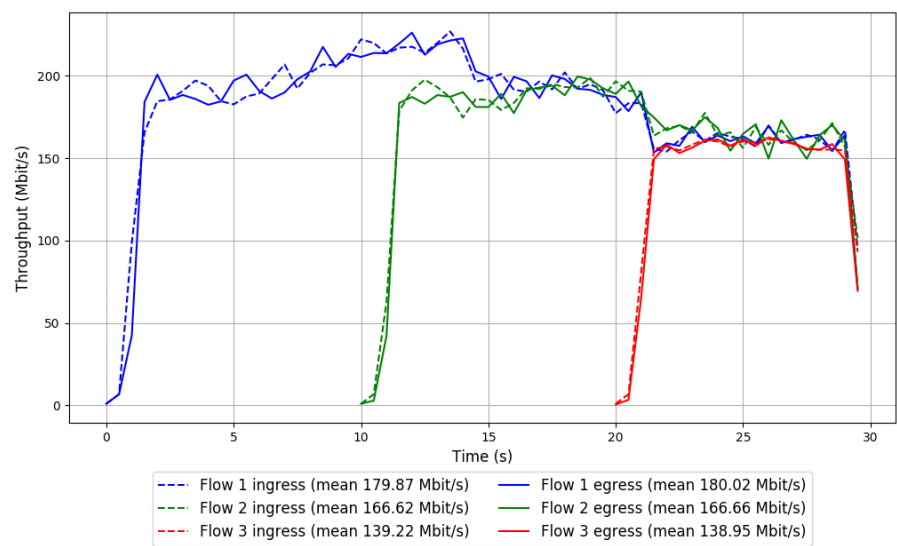
-- Flow 3:

Average throughput: 138.95 Mbit/s

95th percentile per-packet one-way delay: 86.639 ms

Loss rate: 1.97%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-02-13 21:16:29

End at: 2018-02-13 21:16:59

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 346.65 Mbit/s

95th percentile per-packet one-way delay: 87.949 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 188.58 Mbit/s

95th percentile per-packet one-way delay: 87.638 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 175.55 Mbit/s

95th percentile per-packet one-way delay: 88.296 ms

Loss rate: 0.82%

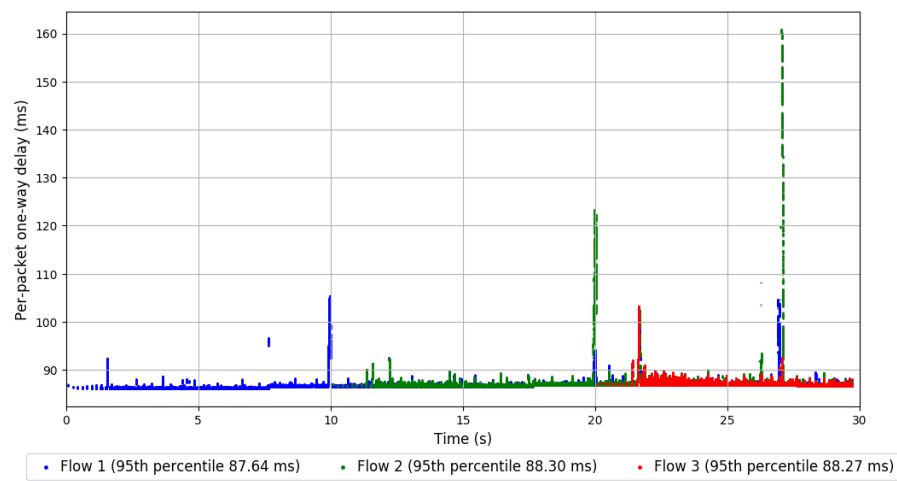
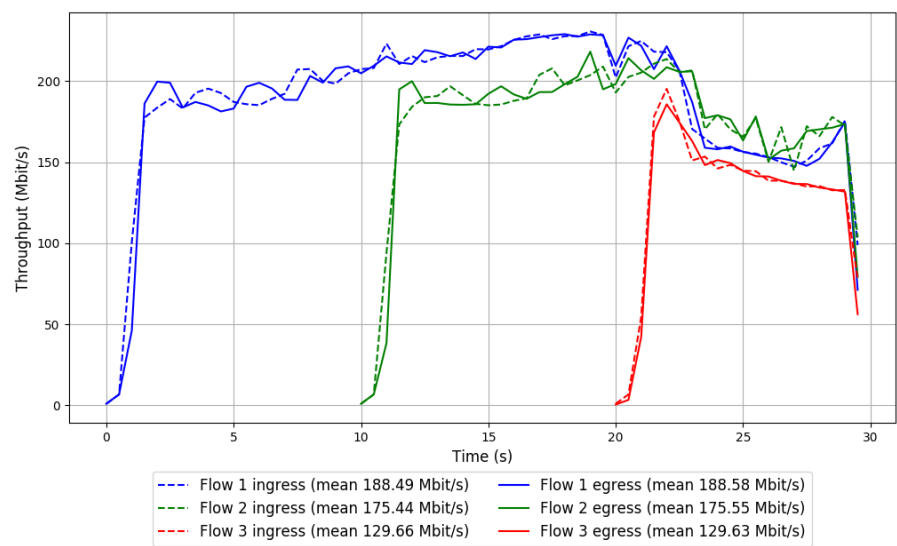
-- Flow 3:

Average throughput: 129.63 Mbit/s

95th percentile per-packet one-way delay: 88.267 ms

Loss rate: 1.81%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-02-13 21:35:07

End at: 2018-02-13 21:35:37

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 311.04 Mbit/s

95th percentile per-packet one-way delay: 87.381 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 154.10 Mbit/s

95th percentile per-packet one-way delay: 87.078 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 172.36 Mbit/s

95th percentile per-packet one-way delay: 87.467 ms

Loss rate: 0.83%

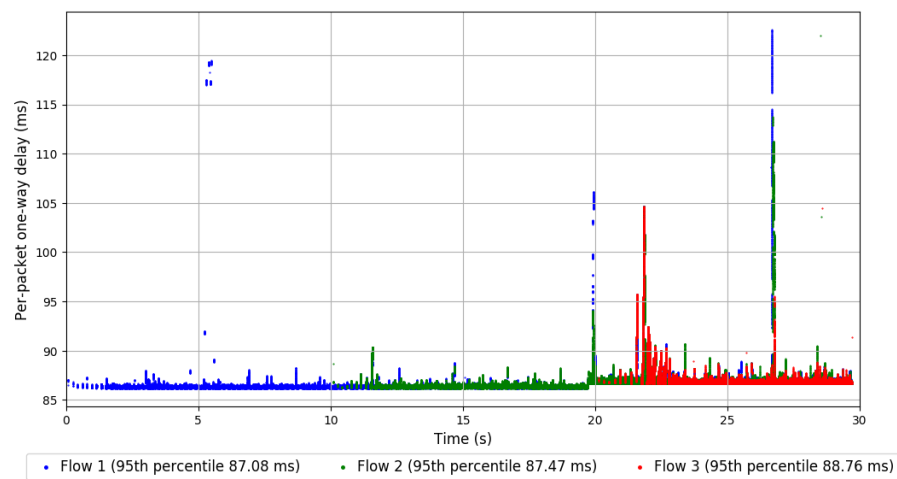
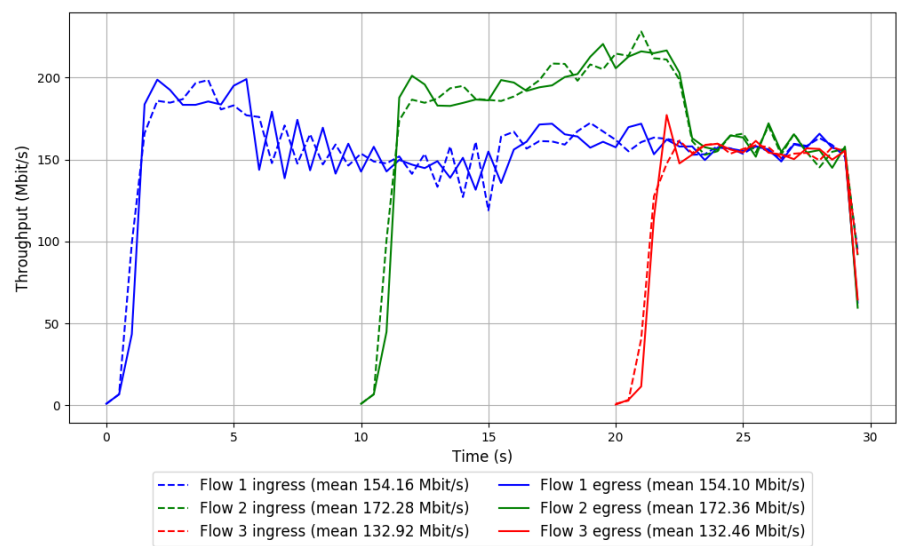
-- Flow 3:

Average throughput: 132.46 Mbit/s

95th percentile per-packet one-way delay: 88.756 ms

Loss rate: 2.07%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-02-13 21:54:04

End at: 2018-02-13 21:54:34

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 333.87 Mbit/s

95th percentile per-packet one-way delay: 86.887 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 185.88 Mbit/s

95th percentile per-packet one-way delay: 86.760 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 157.63 Mbit/s

95th percentile per-packet one-way delay: 86.892 ms

Loss rate: 0.77%

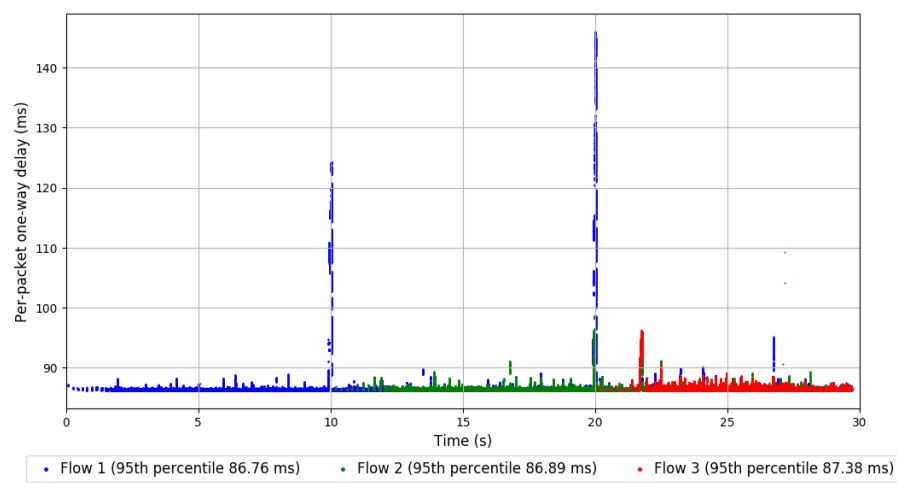
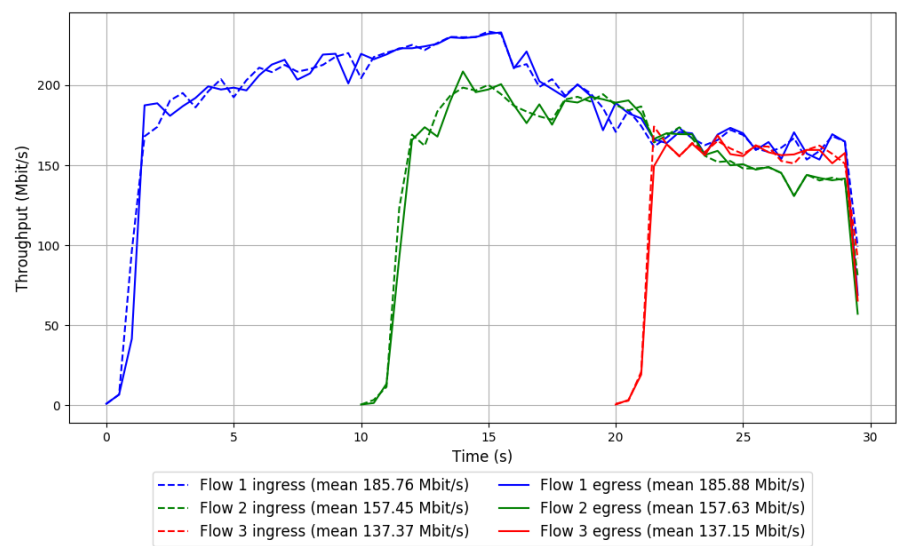
-- Flow 3:

Average throughput: 137.15 Mbit/s

95th percentile per-packet one-way delay: 87.379 ms

Loss rate: 1.95%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-02-13 19:06:56

End at: 2018-02-13 19:07:26

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 481.63 Mbit/s

95th percentile per-packet one-way delay: 87.249 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 331.87 Mbit/s

95th percentile per-packet one-way delay: 87.569 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 186.55 Mbit/s

95th percentile per-packet one-way delay: 87.054 ms

Loss rate: 1.26%

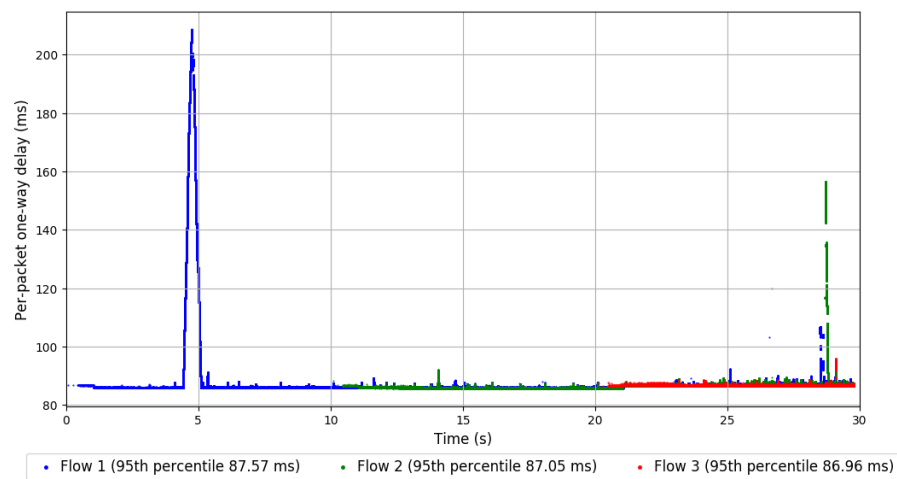
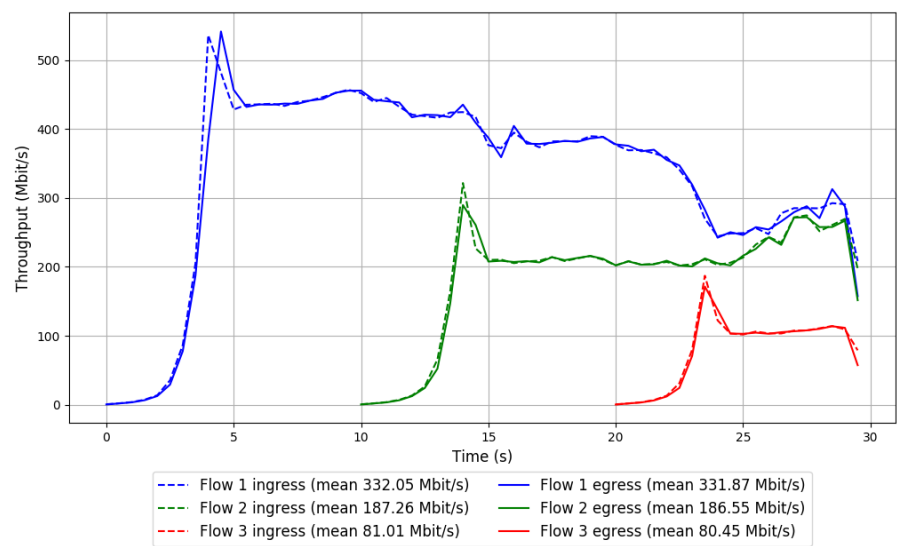
-- Flow 3:

Average throughput: 80.45 Mbit/s

95th percentile per-packet one-way delay: 86.957 ms

Loss rate: 2.46%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-02-13 19:25:50

End at: 2018-02-13 19:26:20

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 404.99 Mbit/s

95th percentile per-packet one-way delay: 87.061 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 246.41 Mbit/s

95th percentile per-packet one-way delay: 87.162 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 217.64 Mbit/s

95th percentile per-packet one-way delay: 86.246 ms

Loss rate: 1.59%

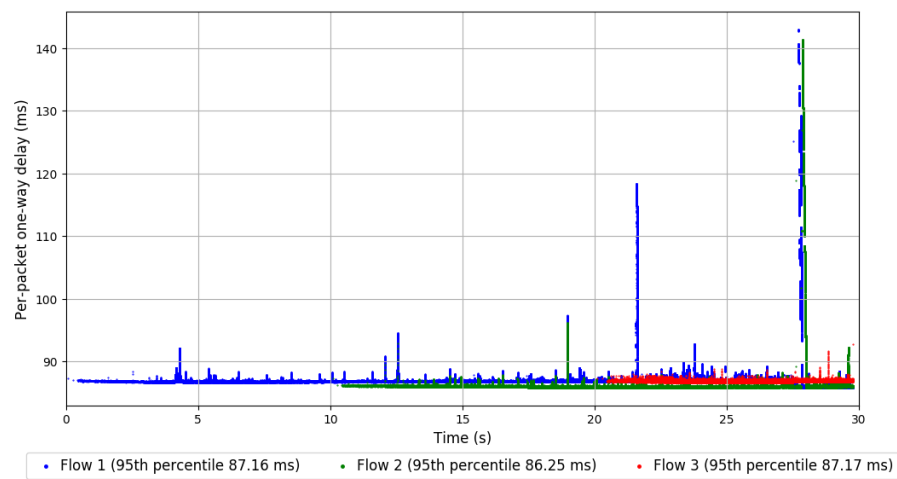
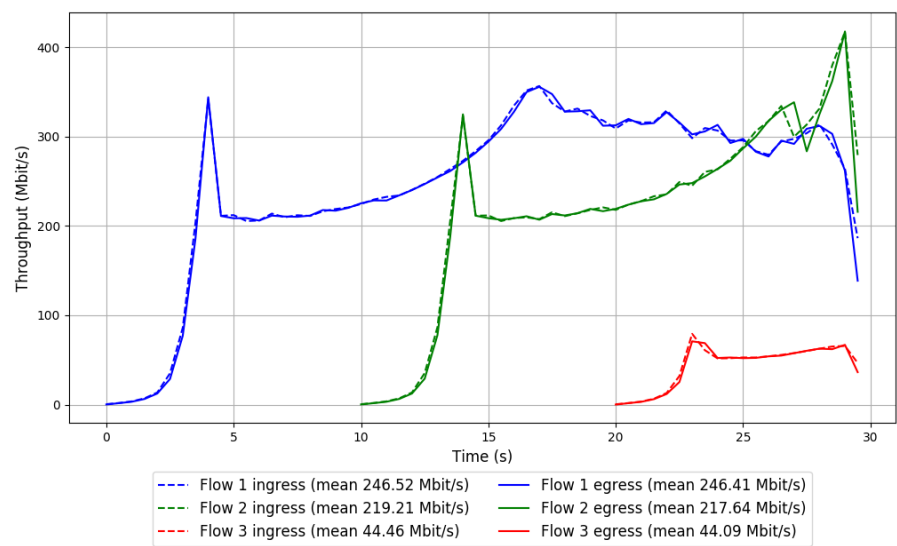
-- Flow 3:

Average throughput: 44.09 Mbit/s

95th percentile per-packet one-way delay: 87.166 ms

Loss rate: 2.53%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-02-13 19:44:45

End at: 2018-02-13 19:45:15

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 498.10 Mbit/s

95th percentile per-packet one-way delay: 86.970 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 314.31 Mbit/s

95th percentile per-packet one-way delay: 87.000 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 207.36 Mbit/s

95th percentile per-packet one-way delay: 87.087 ms

Loss rate: 1.14%

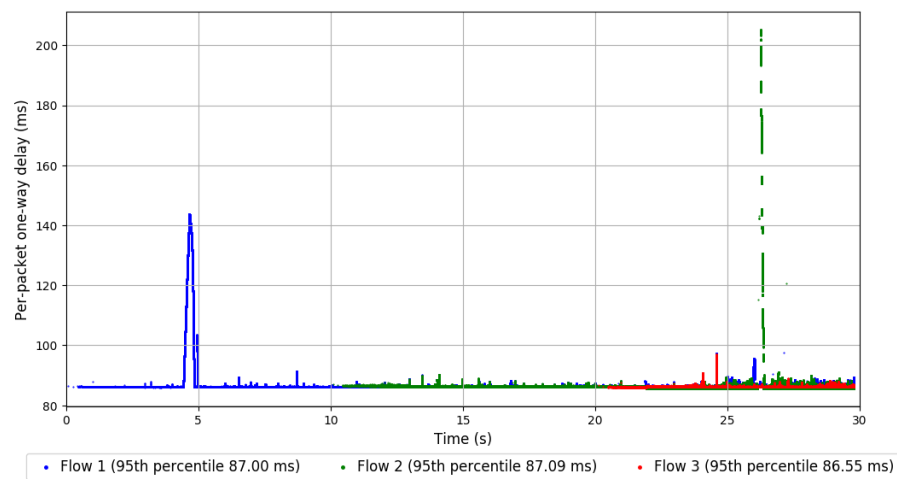
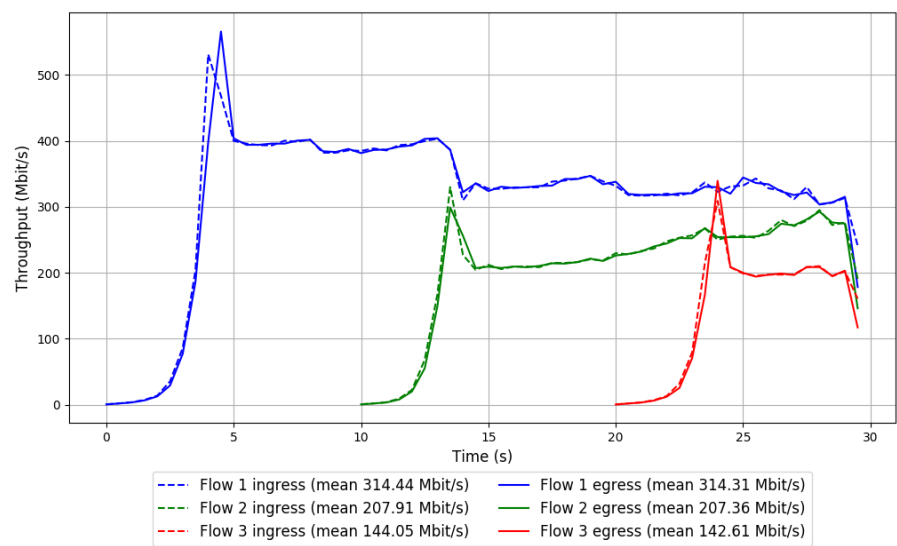
-- Flow 3:

Average throughput: 142.61 Mbit/s

95th percentile per-packet one-way delay: 86.553 ms

Loss rate: 2.75%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-02-13 20:03:34

End at: 2018-02-13 20:04:04

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 522.39 Mbit/s

95th percentile per-packet one-way delay: 86.885 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 318.55 Mbit/s

95th percentile per-packet one-way delay: 86.939 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 190.29 Mbit/s

95th percentile per-packet one-way delay: 86.350 ms

Loss rate: 1.10%

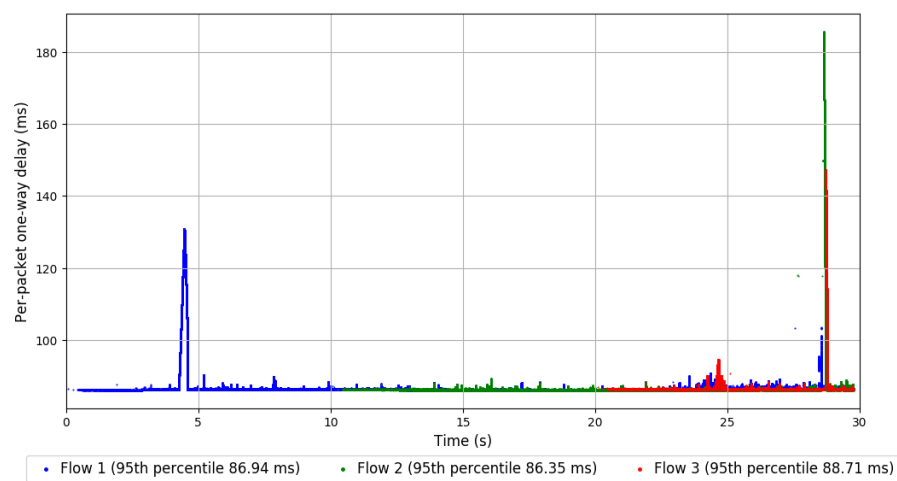
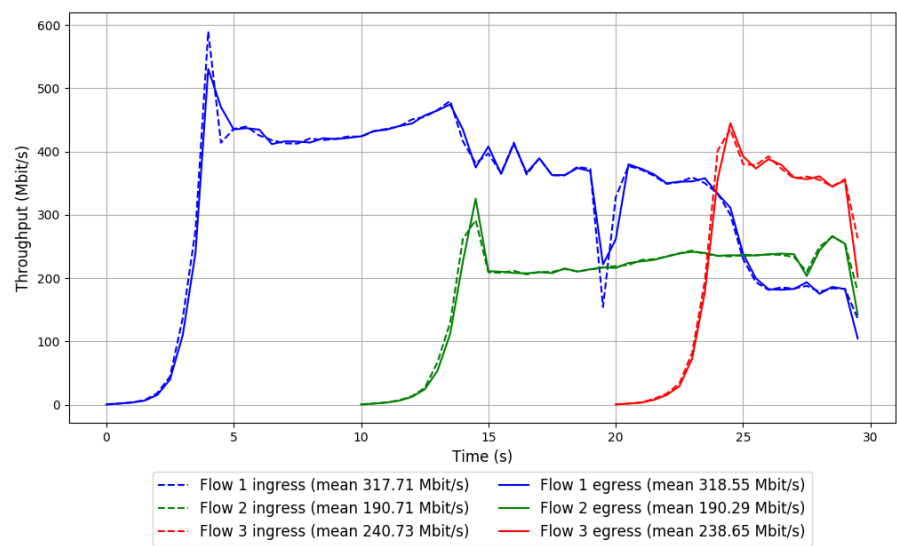
-- Flow 3:

Average throughput: 238.65 Mbit/s

95th percentile per-packet one-way delay: 88.713 ms

Loss rate: 2.62%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-02-13 20:22:41

End at: 2018-02-13 20:23:11

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 478.86 Mbit/s

95th percentile per-packet one-way delay: 87.351 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 319.89 Mbit/s

95th percentile per-packet one-way delay: 88.425 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 200.60 Mbit/s

95th percentile per-packet one-way delay: 86.659 ms

Loss rate: 1.22%

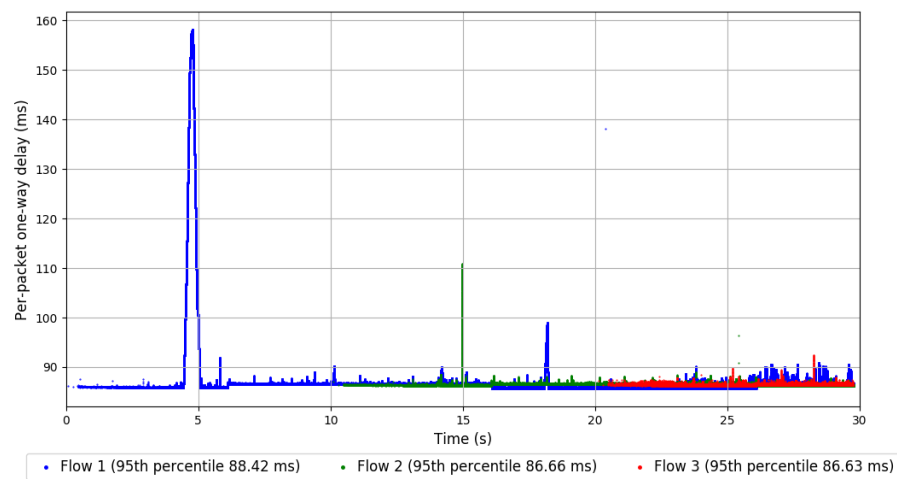
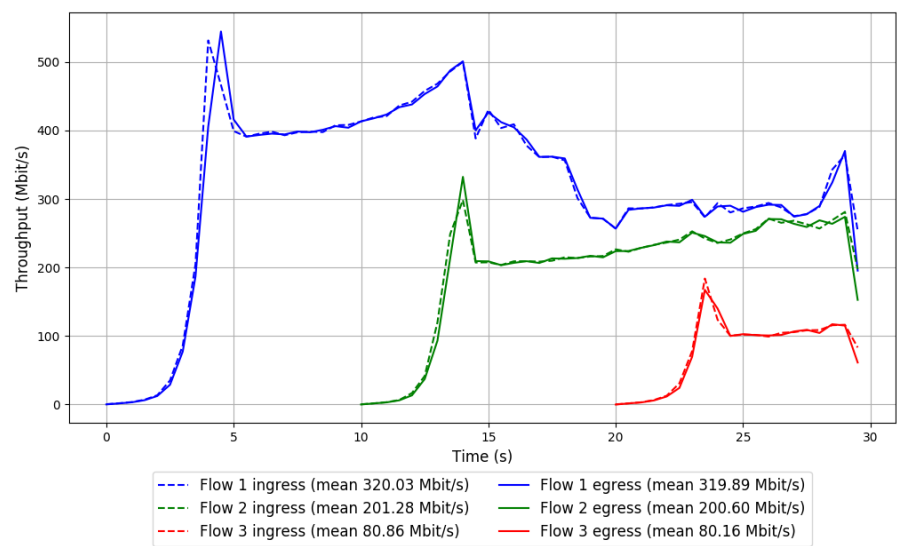
-- Flow 3:

Average throughput: 80.16 Mbit/s

95th percentile per-packet one-way delay: 86.628 ms

Loss rate: 2.73%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-02-13 20:41:35

End at: 2018-02-13 20:42:05

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 472.93 Mbit/s

95th percentile per-packet one-way delay: 87.655 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 296.51 Mbit/s

95th percentile per-packet one-way delay: 86.966 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 196.71 Mbit/s

95th percentile per-packet one-way delay: 87.782 ms

Loss rate: 1.09%

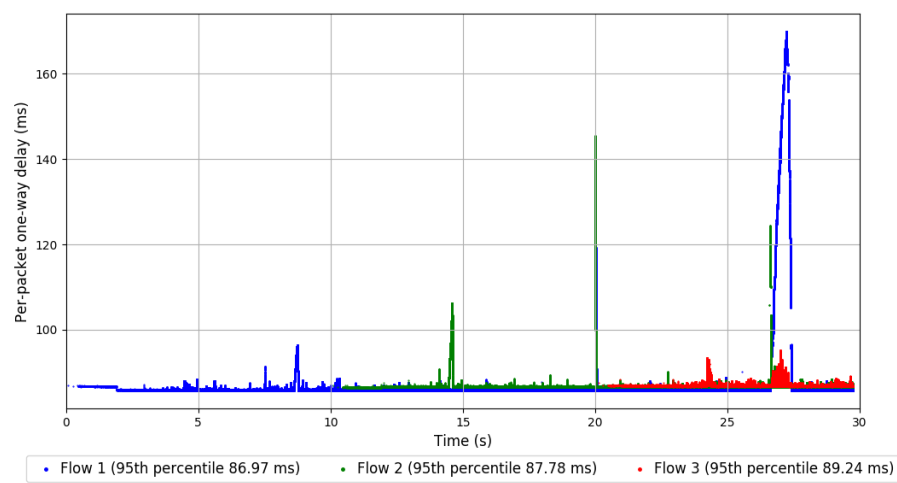
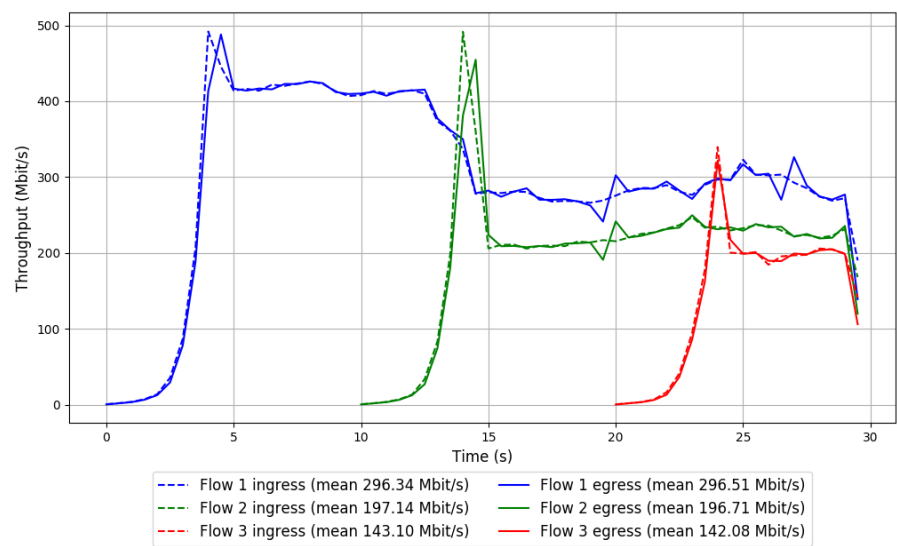
-- Flow 3:

Average throughput: 142.08 Mbit/s

95th percentile per-packet one-way delay: 89.238 ms

Loss rate: 2.55%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-02-13 21:00:26

End at: 2018-02-13 21:00:56

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 518.10 Mbit/s

95th percentile per-packet one-way delay: 87.433 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 363.45 Mbit/s

95th percentile per-packet one-way delay: 88.217 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 194.42 Mbit/s

95th percentile per-packet one-way delay: 86.781 ms

Loss rate: 1.31%

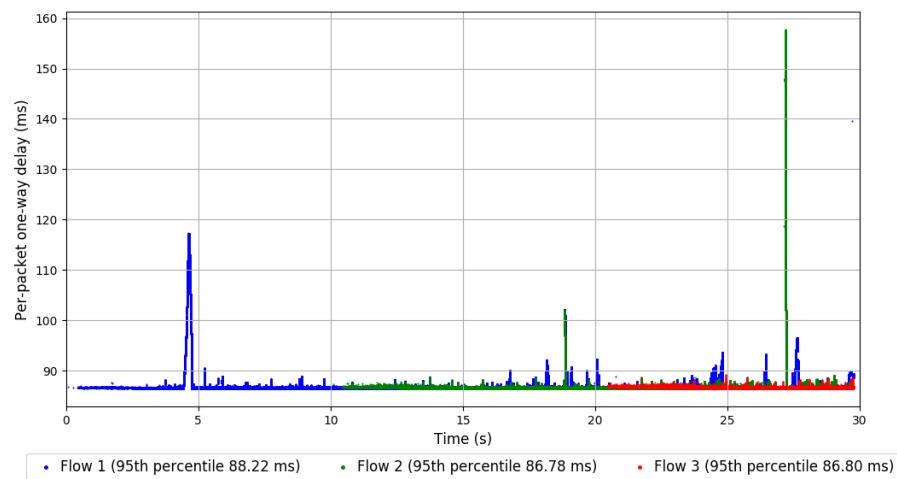
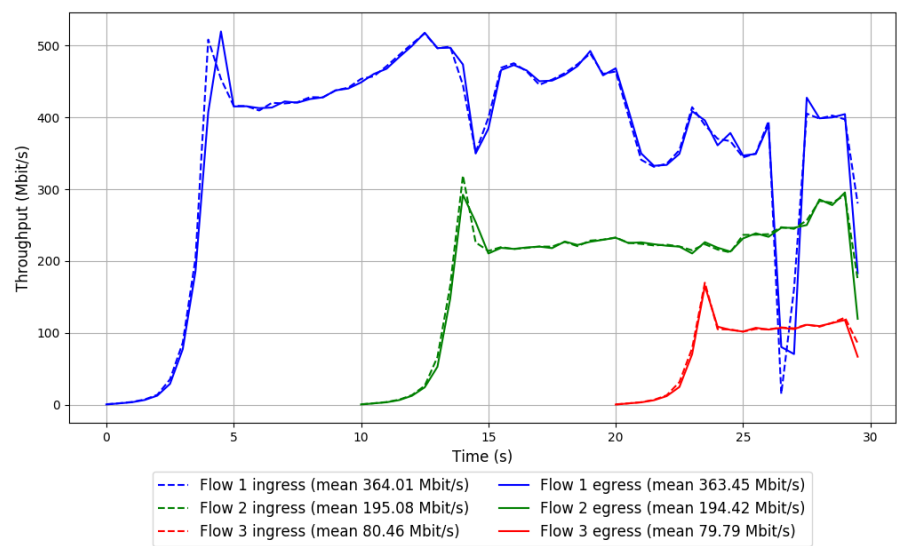
-- Flow 3:

Average throughput: 79.79 Mbit/s

95th percentile per-packet one-way delay: 86.797 ms

Loss rate: 2.60%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-02-13 21:19:24

End at: 2018-02-13 21:19:54

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 439.37 Mbit/s

95th percentile per-packet one-way delay: 86.975 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 285.86 Mbit/s

95th percentile per-packet one-way delay: 87.177 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 180.61 Mbit/s

95th percentile per-packet one-way delay: 86.366 ms

Loss rate: 1.01%

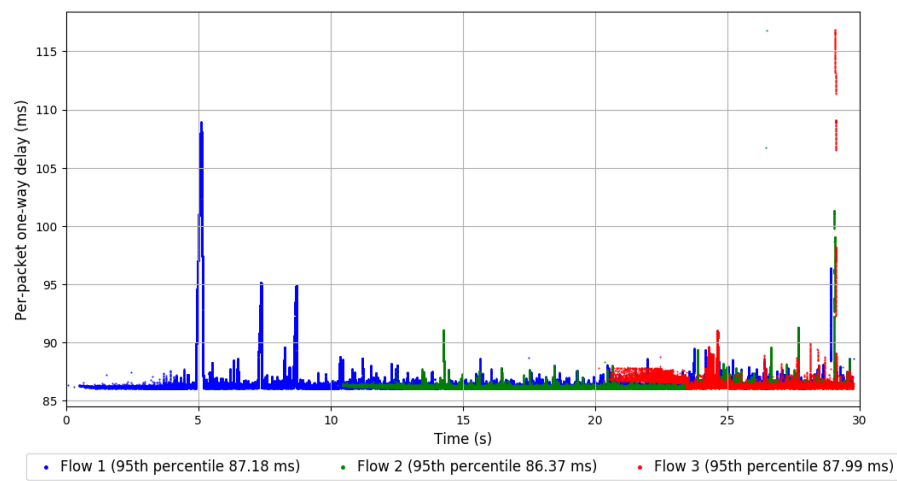
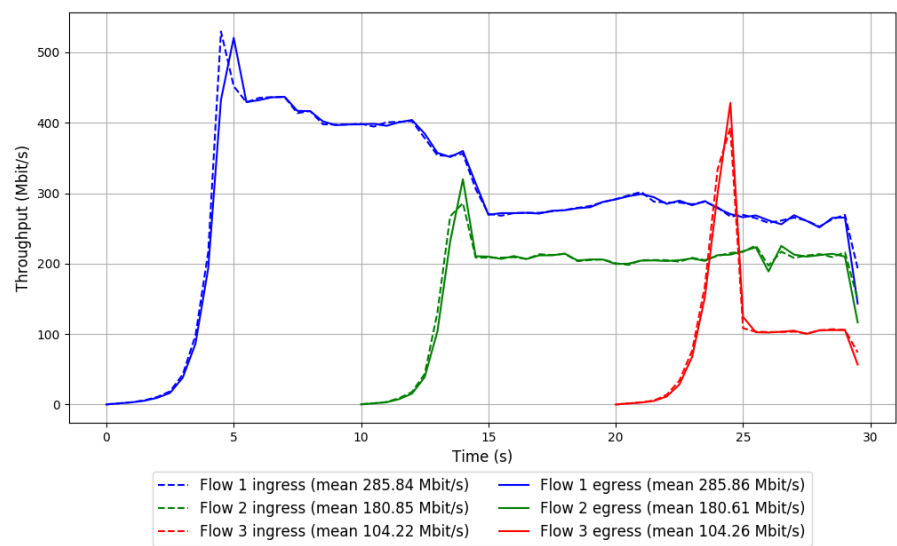
-- Flow 3:

Average throughput: 104.26 Mbit/s

95th percentile per-packet one-way delay: 87.989 ms

Loss rate: 1.74%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-02-13 21:37:59

End at: 2018-02-13 21:38:29

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 454.91 Mbit/s

95th percentile per-packet one-way delay: 87.474 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 286.83 Mbit/s

95th percentile per-packet one-way delay: 87.694 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 184.17 Mbit/s

95th percentile per-packet one-way delay: 87.287 ms

Loss rate: 1.09%

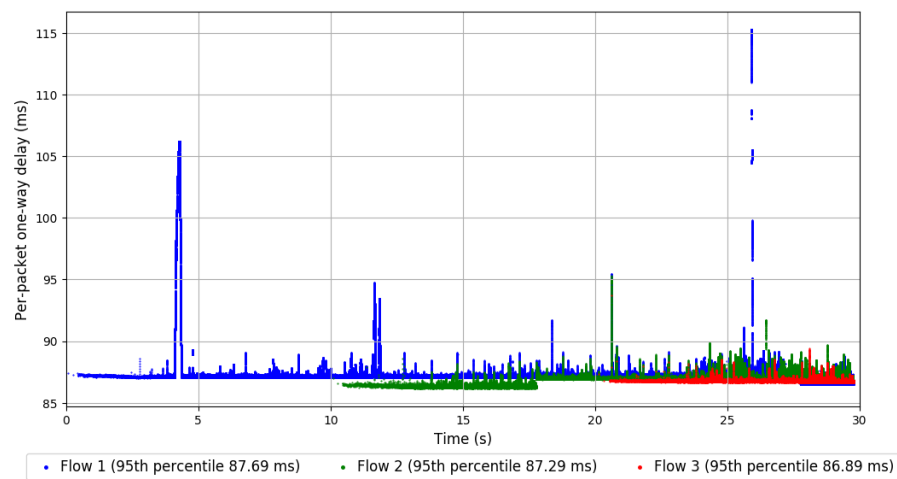
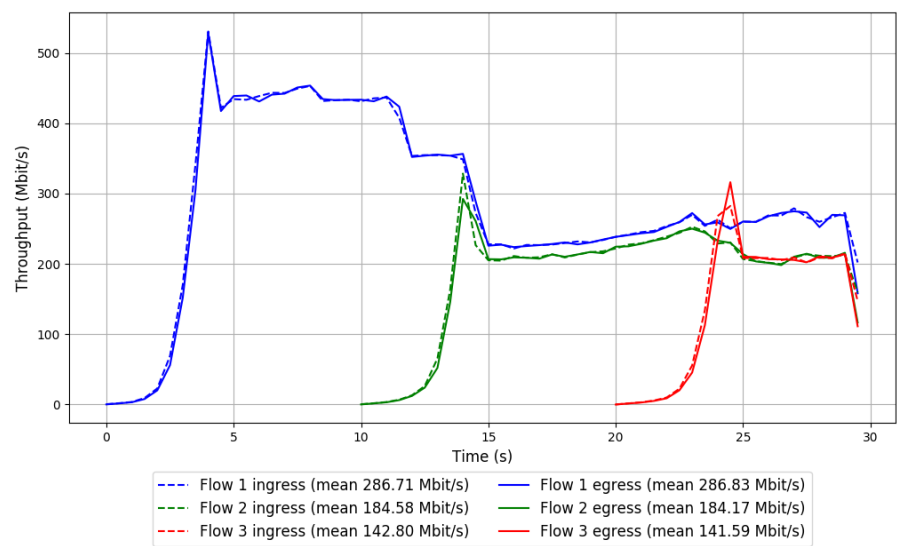
-- Flow 3:

Average throughput: 141.59 Mbit/s

95th percentile per-packet one-way delay: 86.890 ms

Loss rate: 2.61%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-02-13 21:57:00

End at: 2018-02-13 21:57:30

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 504.89 Mbit/s

95th percentile per-packet one-way delay: 90.192 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 316.26 Mbit/s

95th percentile per-packet one-way delay: 109.243 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 218.90 Mbit/s

95th percentile per-packet one-way delay: 88.235 ms

Loss rate: 1.67%

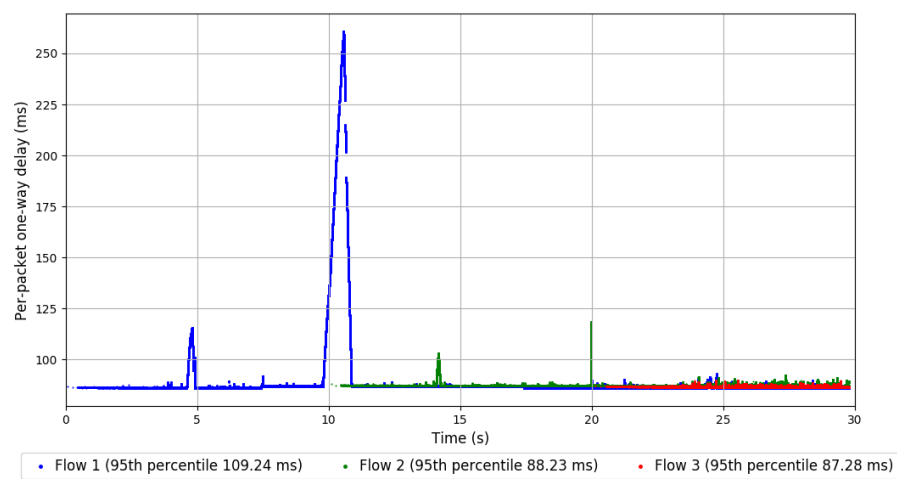
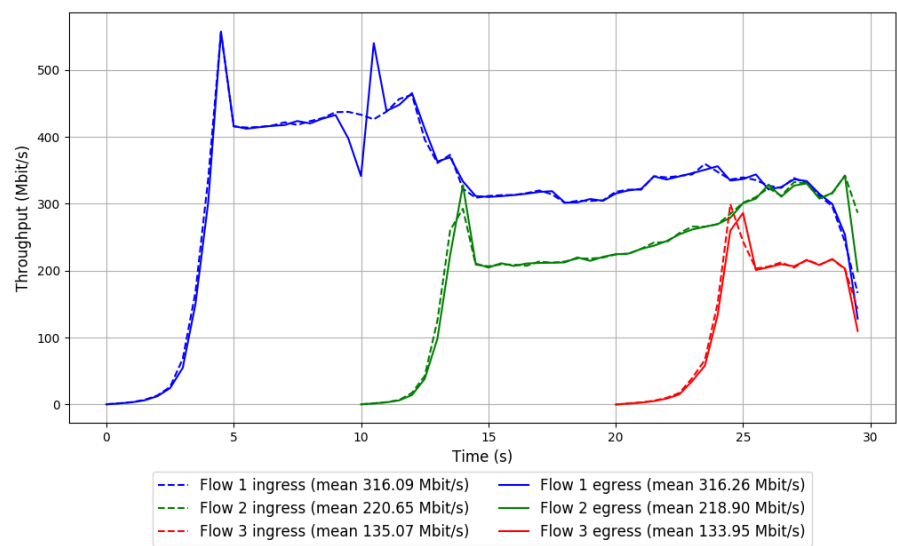
-- Flow 3:

Average throughput: 133.95 Mbit/s

95th percentile per-packet one-way delay: 87.282 ms

Loss rate: 2.58%

Run 10: Report of Vivace-latency — Data Link

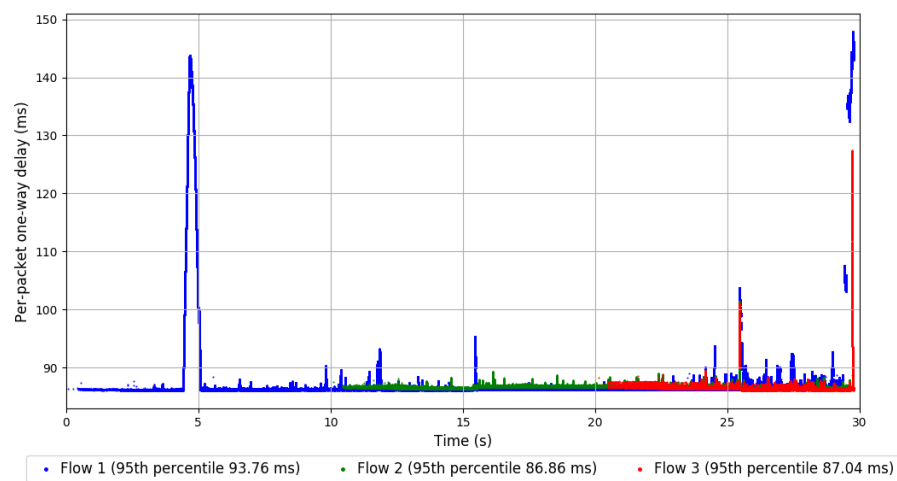
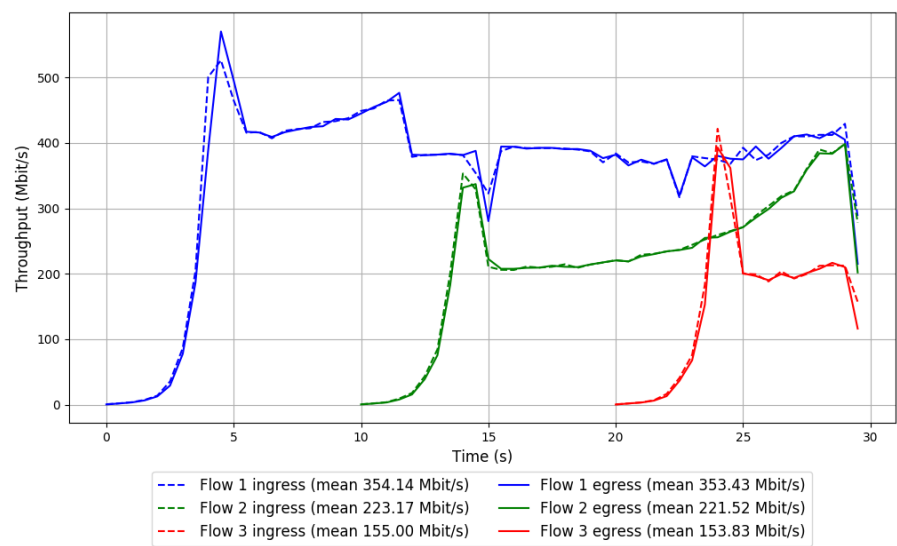


```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-13 19:09:22
End at: 2018-02-13 19:09:52

# Below is generated by plot.py at 2018-02-14 03:09:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 550.22 Mbit/s
95th percentile per-packet one-way delay: 88.586 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 353.43 Mbit/s
95th percentile per-packet one-way delay: 93.758 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 221.52 Mbit/s
95th percentile per-packet one-way delay: 86.865 ms
Loss rate: 1.62%
-- Flow 3:
Average throughput: 153.83 Mbit/s
95th percentile per-packet one-way delay: 87.043 ms
Loss rate: 2.55%
```

Run 1: Report of Vivace-loss — Data Link

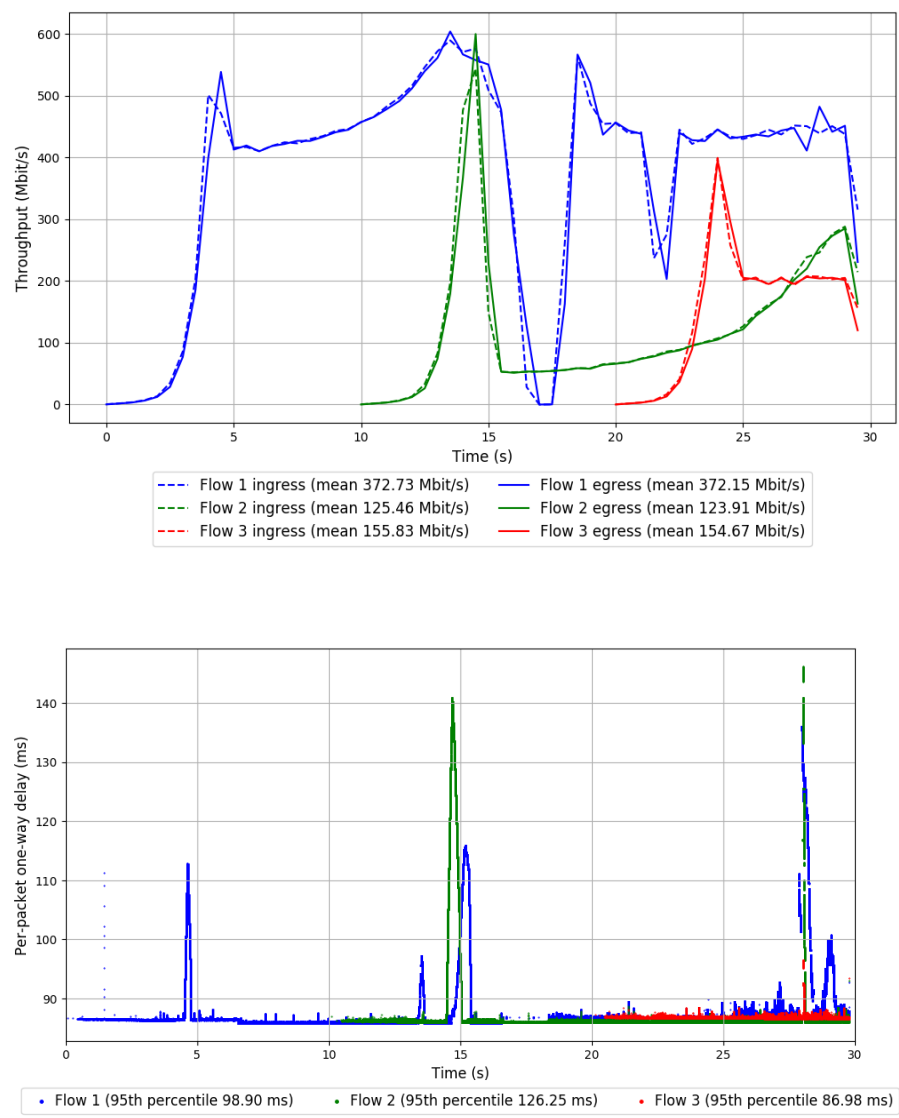


```
Run 2: Statistics of Vivace-loss

Start at: 2018-02-13 19:28:11
End at: 2018-02-13 19:28:41

# Below is generated by plot.py at 2018-02-14 03:09:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 504.46 Mbit/s
95th percentile per-packet one-way delay: 102.358 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 372.15 Mbit/s
95th percentile per-packet one-way delay: 98.900 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 123.91 Mbit/s
95th percentile per-packet one-way delay: 126.253 ms
Loss rate: 2.07%
-- Flow 3:
Average throughput: 154.67 Mbit/s
95th percentile per-packet one-way delay: 86.982 ms
Loss rate: 2.43%
```

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-02-13 19:47:13

End at: 2018-02-13 19:47:43

Below is generated by plot.py at 2018-02-14 03:09:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 450.48 Mbit/s

95th percentile per-packet one-way delay: 87.348 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 257.15 Mbit/s

95th percentile per-packet one-way delay: 88.099 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 216.31 Mbit/s

95th percentile per-packet one-way delay: 86.356 ms

Loss rate: 1.36%

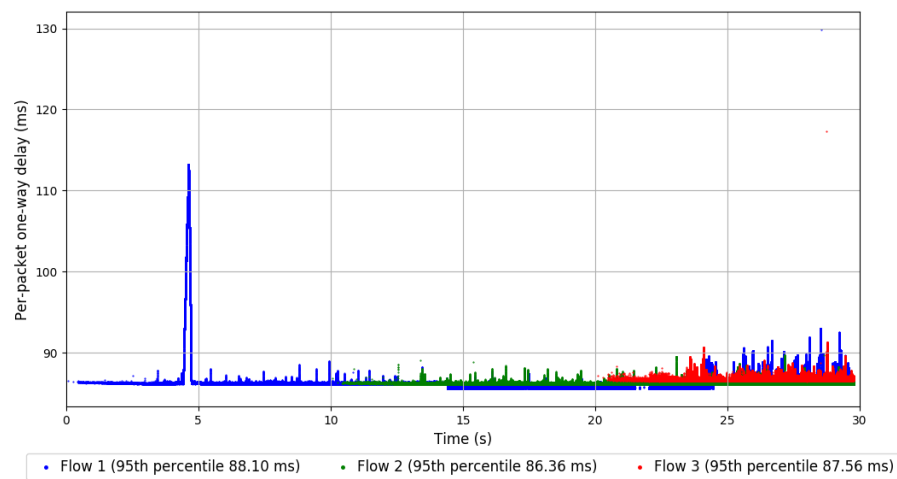
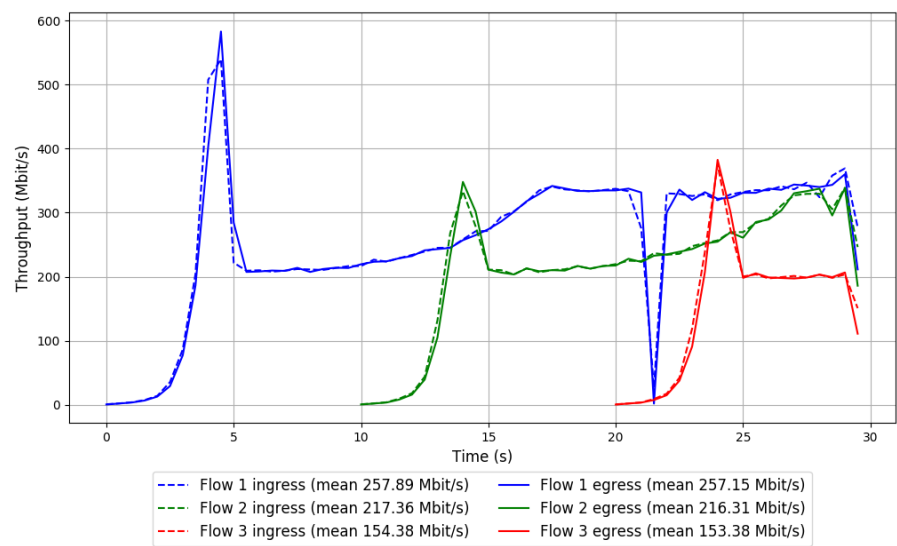
-- Flow 3:

Average throughput: 153.38 Mbit/s

95th percentile per-packet one-way delay: 87.555 ms

Loss rate: 2.41%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-02-13 20:06:02

End at: 2018-02-13 20:06:32

Below is generated by plot.py at 2018-02-14 03:12:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 611.64 Mbit/s

95th percentile per-packet one-way delay: 142.075 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 333.26 Mbit/s

95th percentile per-packet one-way delay: 152.650 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 302.30 Mbit/s

95th percentile per-packet one-way delay: 87.806 ms

Loss rate: 0.94%

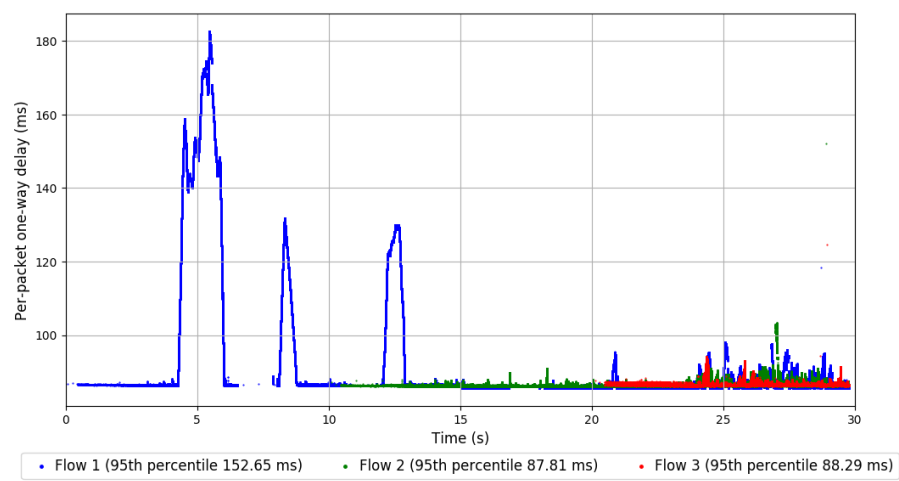
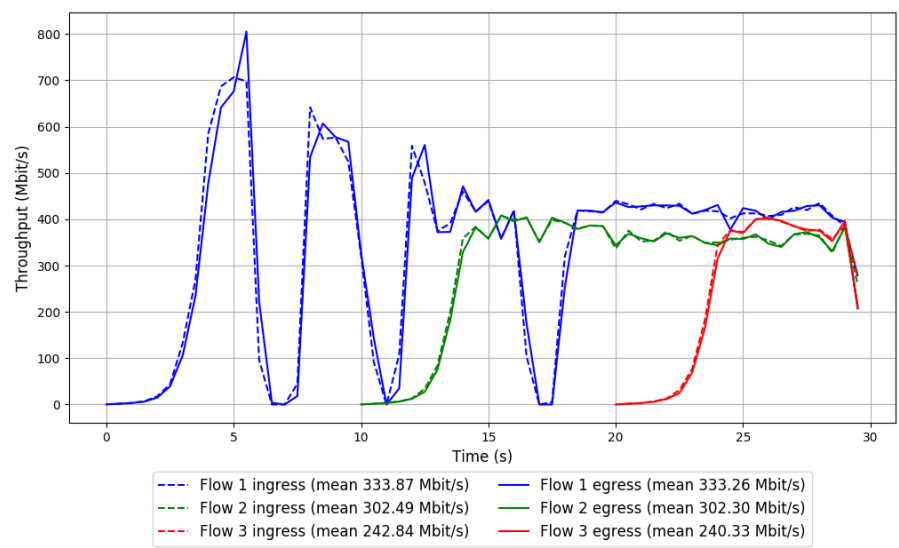
-- Flow 3:

Average throughput: 240.33 Mbit/s

95th percentile per-packet one-way delay: 88.293 ms

Loss rate: 2.80%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-02-13 20:25:06

End at: 2018-02-13 20:25:36

Below is generated by plot.py at 2018-02-14 03:13:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 550.15 Mbit/s

95th percentile per-packet one-way delay: 186.878 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 326.30 Mbit/s

95th percentile per-packet one-way delay: 169.799 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 256.03 Mbit/s

95th percentile per-packet one-way delay: 187.981 ms

Loss rate: 0.73%

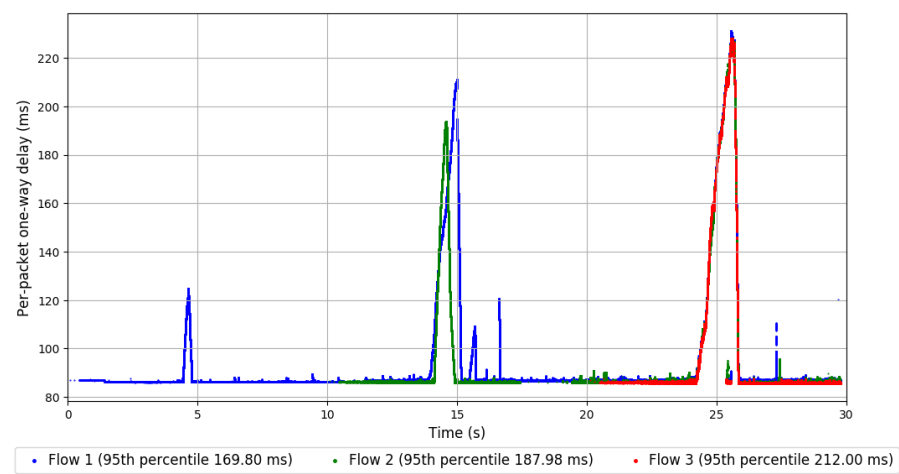
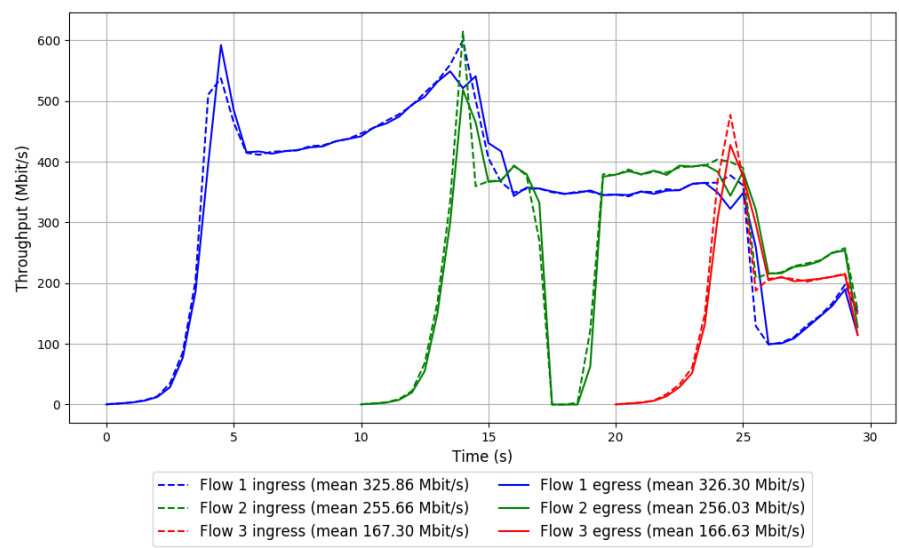
-- Flow 3:

Average throughput: 166.63 Mbit/s

95th percentile per-packet one-way delay: 212.004 ms

Loss rate: 2.16%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-02-13 20:44:00

End at: 2018-02-13 20:44:30

Below is generated by plot.py at 2018-02-14 03:14:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 540.51 Mbit/s

95th percentile per-packet one-way delay: 88.211 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 355.47 Mbit/s

95th percentile per-packet one-way delay: 90.043 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 148.50 Mbit/s

95th percentile per-packet one-way delay: 86.510 ms

Loss rate: 1.97%

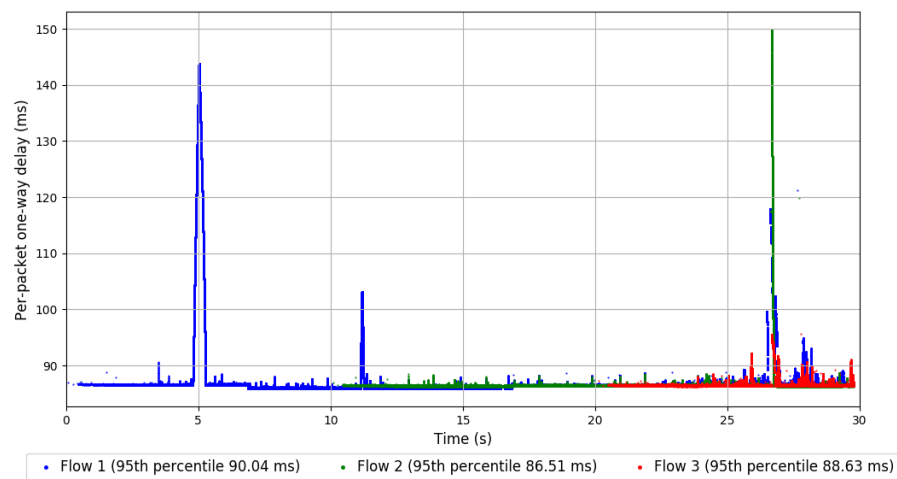
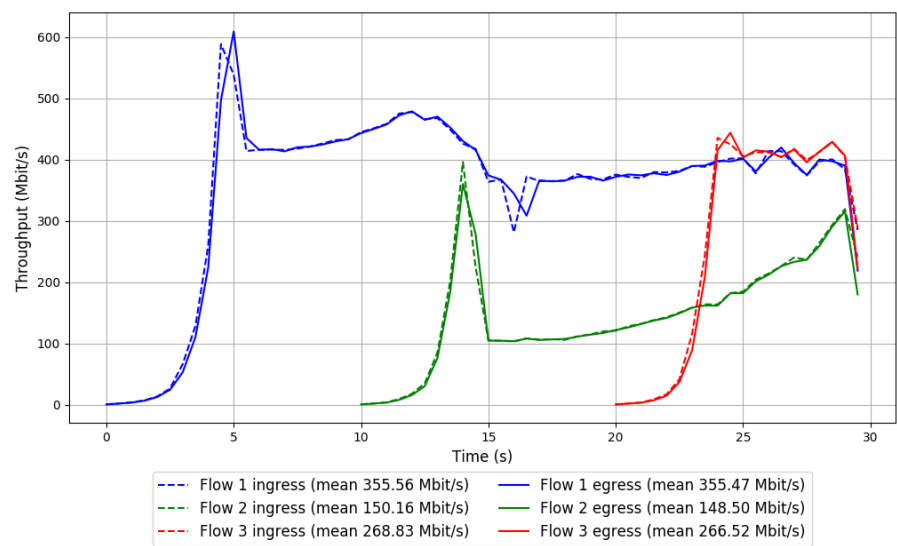
-- Flow 3:

Average throughput: 266.52 Mbit/s

95th percentile per-packet one-way delay: 88.630 ms

Loss rate: 2.62%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-02-13 21:02:54

End at: 2018-02-13 21:03:24

Below is generated by plot.py at 2018-02-14 03:15:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 555.05 Mbit/s

95th percentile per-packet one-way delay: 87.117 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 319.99 Mbit/s

95th percentile per-packet one-way delay: 87.709 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 305.33 Mbit/s

95th percentile per-packet one-way delay: 87.018 ms

Loss rate: 1.03%

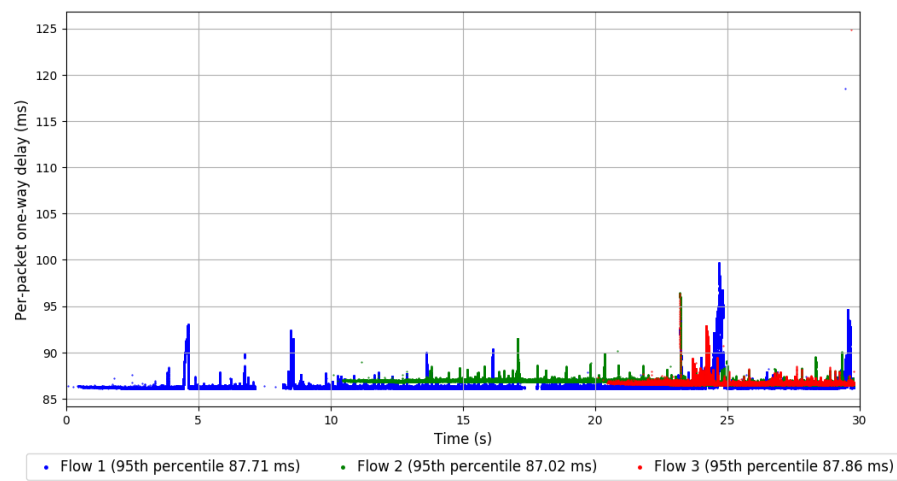
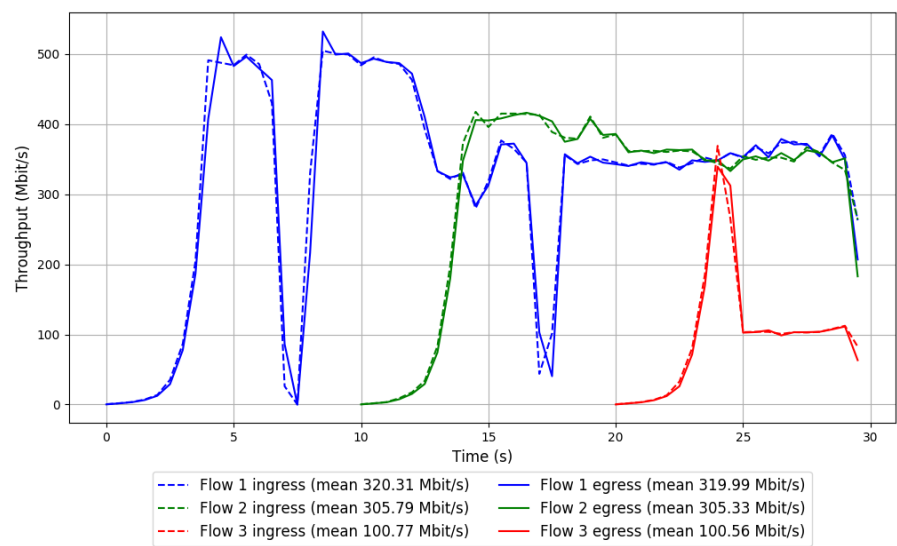
-- Flow 3:

Average throughput: 100.56 Mbit/s

95th percentile per-packet one-way delay: 87.858 ms

Loss rate: 1.97%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-02-13 21:21:43

End at: 2018-02-13 21:22:13

Below is generated by plot.py at 2018-02-14 03:15:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 487.14 Mbit/s

95th percentile per-packet one-way delay: 106.752 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 248.72 Mbit/s

95th percentile per-packet one-way delay: 101.498 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 226.88 Mbit/s

95th percentile per-packet one-way delay: 181.121 ms

Loss rate: 1.54%

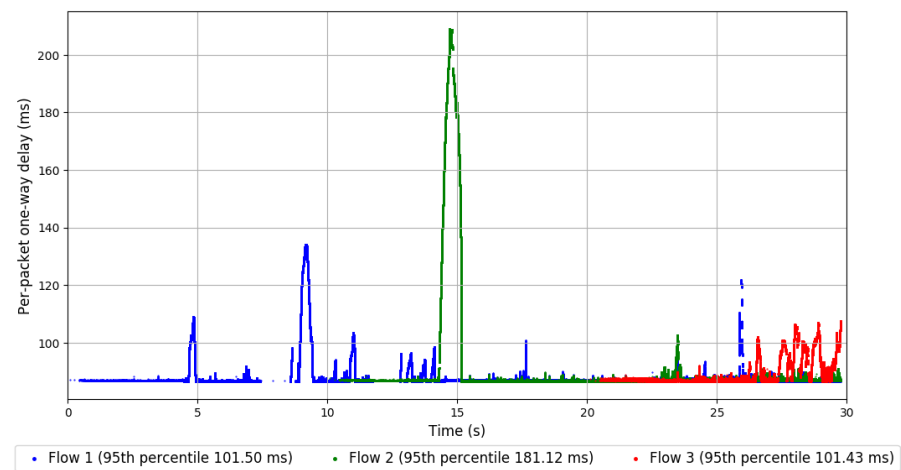
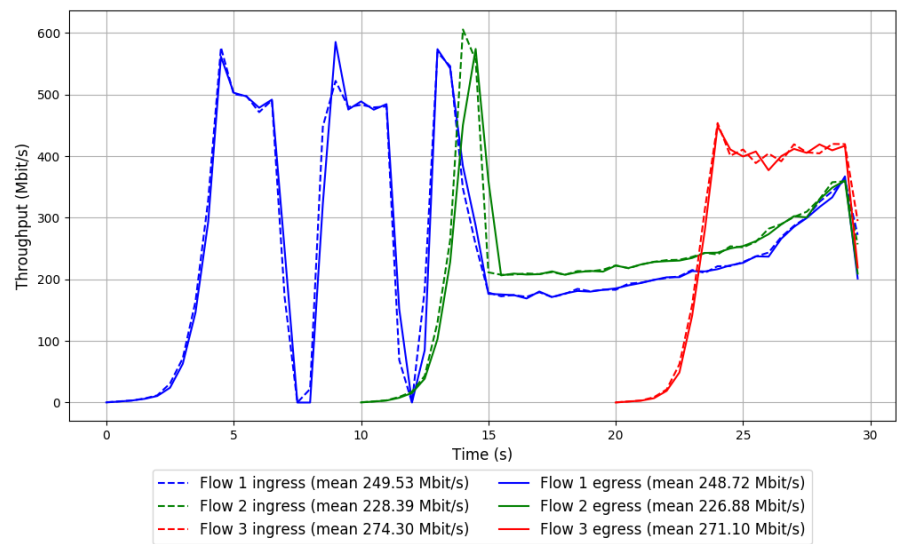
-- Flow 3:

Average throughput: 271.10 Mbit/s

95th percentile per-packet one-way delay: 101.431 ms

Loss rate: 2.92%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-02-13 21:40:23

End at: 2018-02-13 21:40:53

Below is generated by plot.py at 2018-02-14 03:16:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 583.92 Mbit/s

95th percentile per-packet one-way delay: 89.218 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 338.29 Mbit/s

95th percentile per-packet one-way delay: 88.804 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 292.86 Mbit/s

95th percentile per-packet one-way delay: 89.396 ms

Loss rate: 1.15%

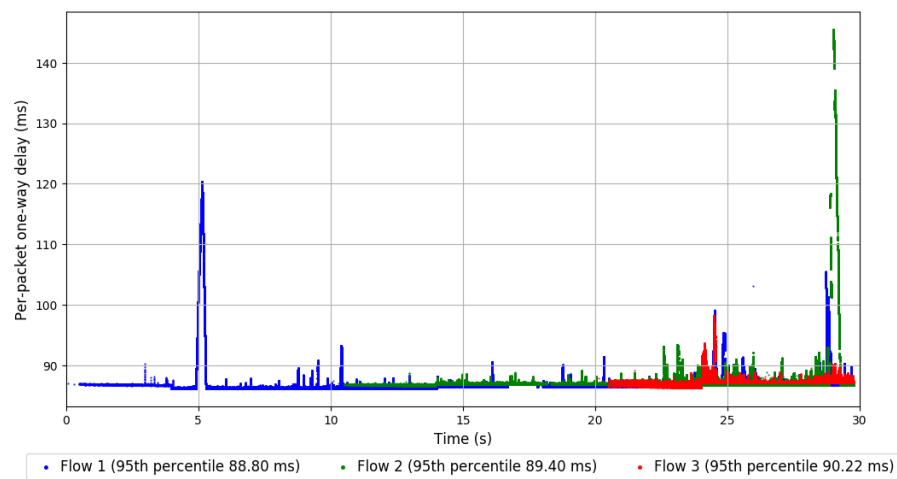
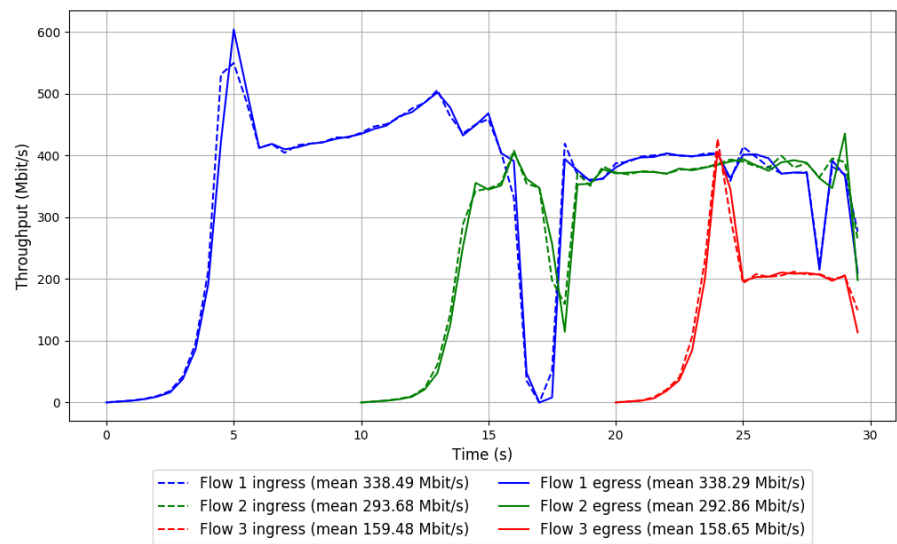
-- Flow 3:

Average throughput: 158.65 Mbit/s

95th percentile per-packet one-way delay: 90.218 ms

Loss rate: 2.29%

Run 9: Report of Vivace-loss — Data Link

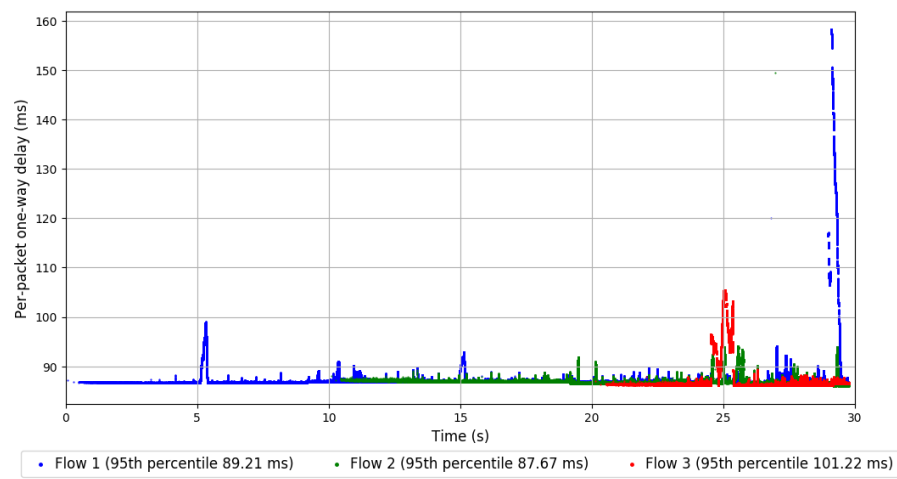
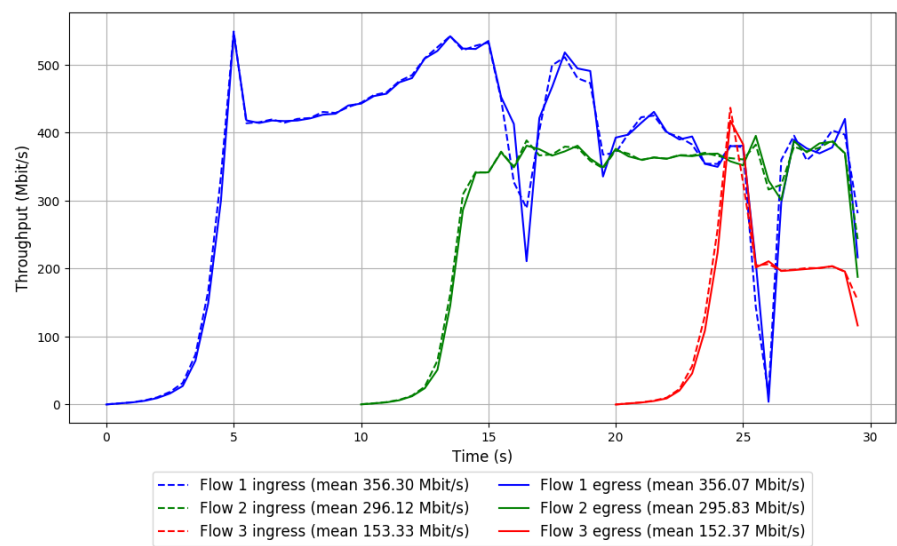


```
Run 10: Statistics of Vivace-loss

Start at: 2018-02-13 21:59:28
End at: 2018-02-13 21:59:58

# Below is generated by plot.py at 2018-02-14 03:19:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 601.69 Mbit/s
95th percentile per-packet one-way delay: 90.128 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 356.07 Mbit/s
95th percentile per-packet one-way delay: 89.214 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 295.83 Mbit/s
95th percentile per-packet one-way delay: 87.674 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 152.37 Mbit/s
95th percentile per-packet one-way delay: 101.215 ms
Loss rate: 2.39%
```

Run 10: Report of Vivace-loss — Data Link

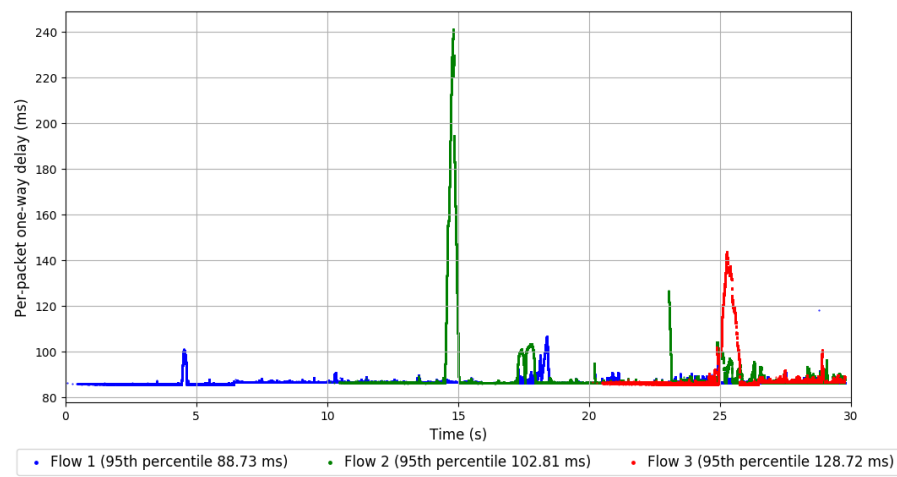
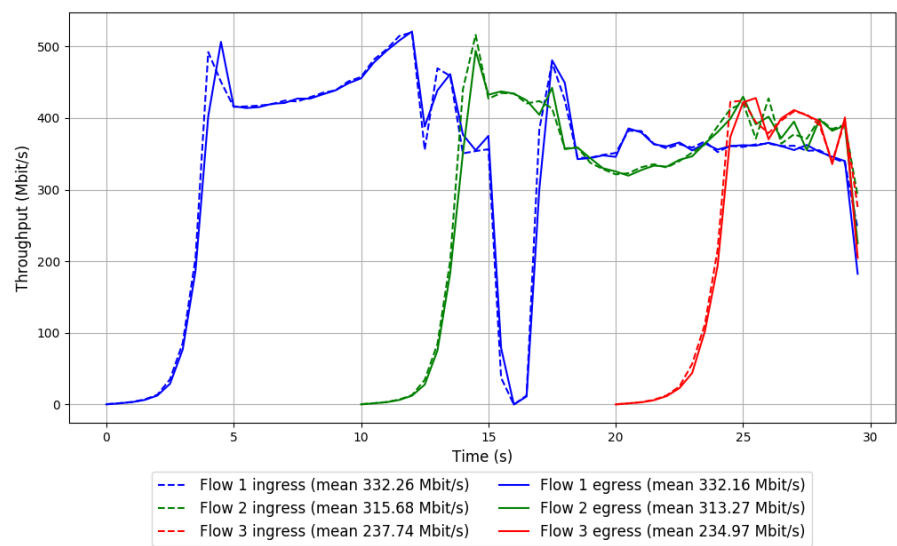


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-13 18:52:21
End at: 2018-02-13 18:52:51

# Below is generated by plot.py at 2018-02-14 03:19:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 616.17 Mbit/s
95th percentile per-packet one-way delay: 99.040 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 332.16 Mbit/s
95th percentile per-packet one-way delay: 88.726 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 313.27 Mbit/s
95th percentile per-packet one-way delay: 102.810 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 234.97 Mbit/s
95th percentile per-packet one-way delay: 128.724 ms
Loss rate: 2.91%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-02-13 19:11:29

End at: 2018-02-13 19:11:59

Below is generated by plot.py at 2018-02-14 03:21:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 536.78 Mbit/s

95th percentile per-packet one-way delay: 87.614 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 319.64 Mbit/s

95th percentile per-packet one-way delay: 88.437 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 200.45 Mbit/s

95th percentile per-packet one-way delay: 87.658 ms

Loss rate: 1.08%

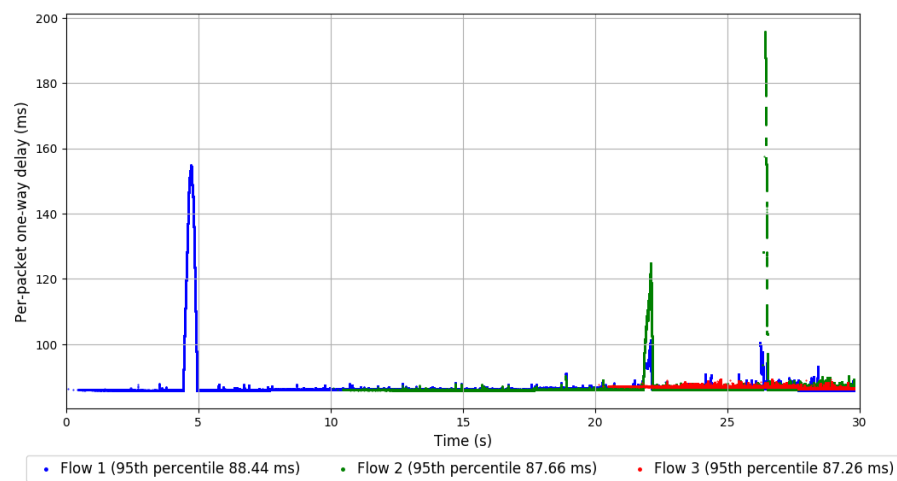
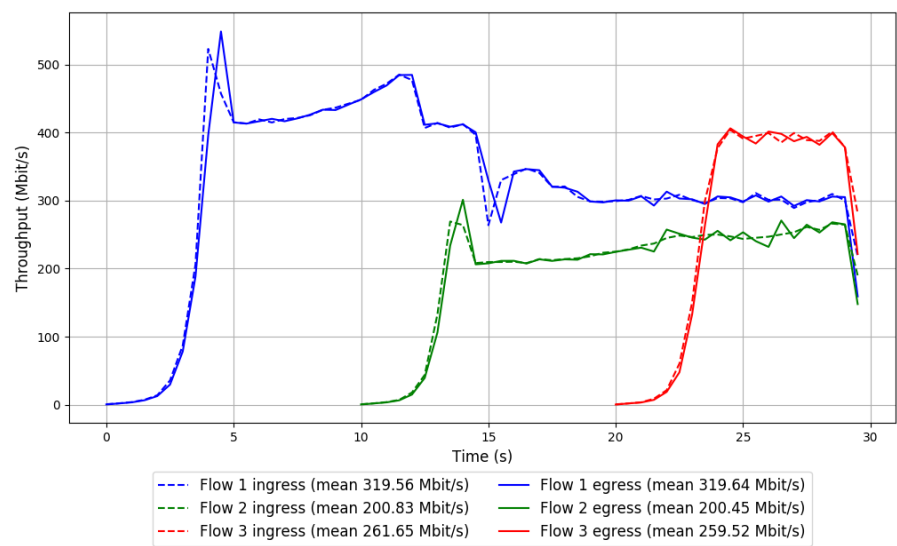
-- Flow 3:

Average throughput: 259.52 Mbit/s

95th percentile per-packet one-way delay: 87.262 ms

Loss rate: 2.58%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-02-13 19:30:15

End at: 2018-02-13 19:30:45

Below is generated by plot.py at 2018-02-14 03:23:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 573.40 Mbit/s

95th percentile per-packet one-way delay: 91.823 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 330.24 Mbit/s

95th percentile per-packet one-way delay: 87.571 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 297.22 Mbit/s

95th percentile per-packet one-way delay: 132.395 ms

Loss rate: 1.05%

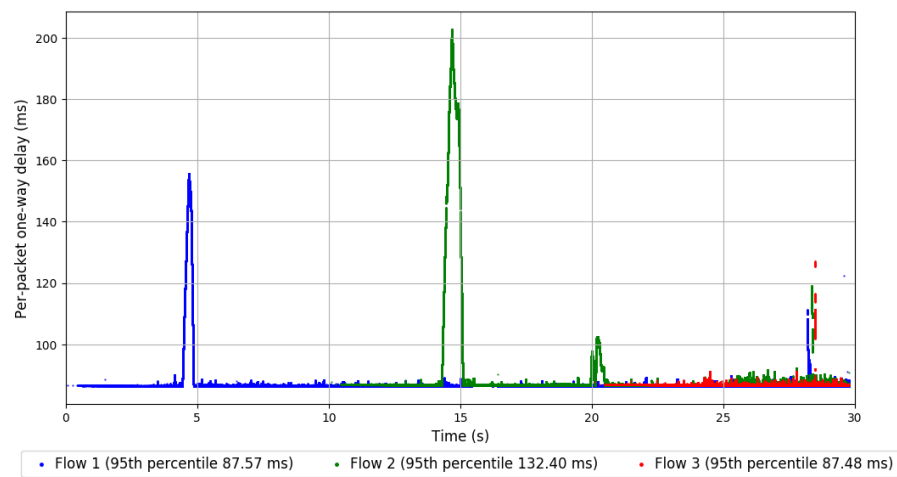
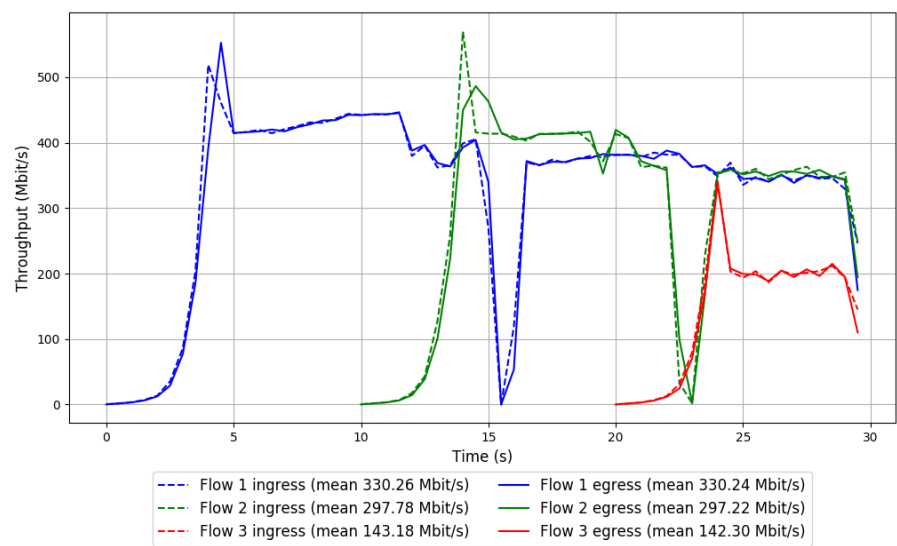
-- Flow 3:

Average throughput: 142.30 Mbit/s

95th percentile per-packet one-way delay: 87.482 ms

Loss rate: 2.46%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-02-13 19:49:13

End at: 2018-02-13 19:49:43

Below is generated by plot.py at 2018-02-14 03:23:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 516.80 Mbit/s

95th percentile per-packet one-way delay: 87.574 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 351.03 Mbit/s

95th percentile per-packet one-way delay: 88.268 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 172.80 Mbit/s

95th percentile per-packet one-way delay: 86.551 ms

Loss rate: 0.58%

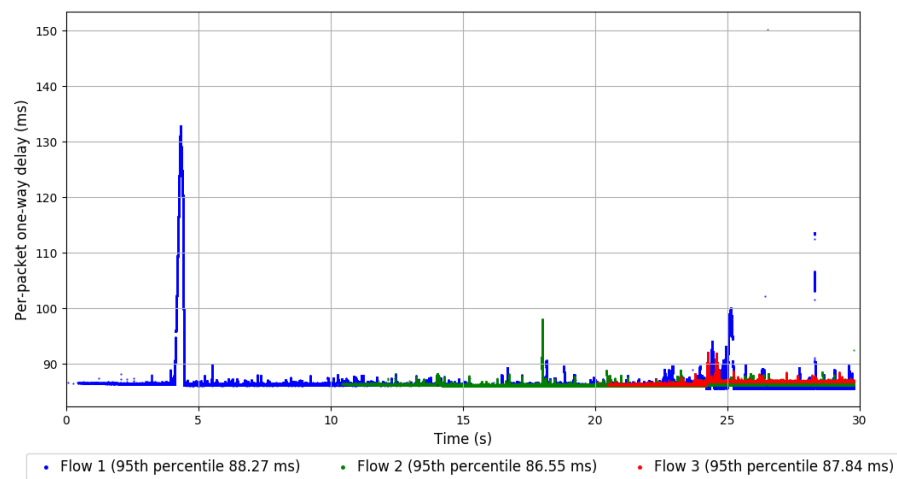
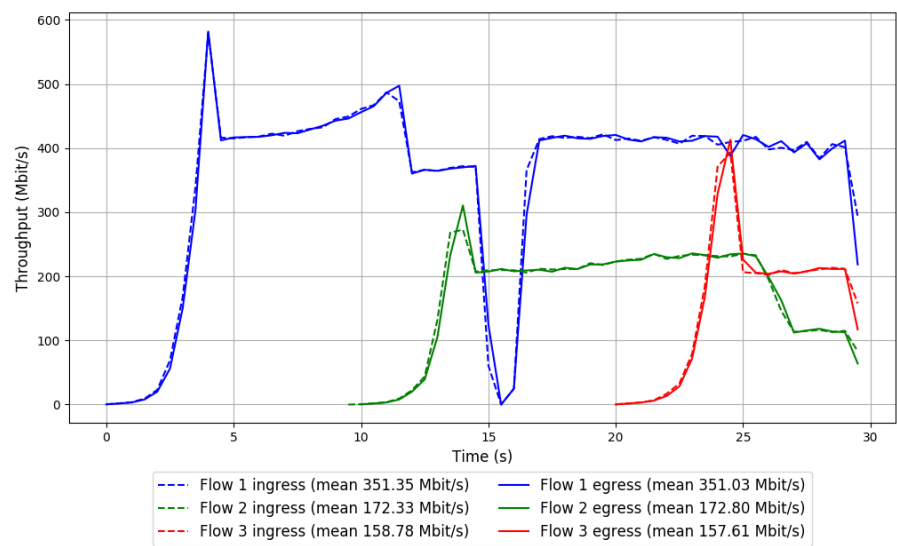
-- Flow 3:

Average throughput: 157.61 Mbit/s

95th percentile per-packet one-way delay: 87.839 ms

Loss rate: 2.49%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-02-13 20:08:15

End at: 2018-02-13 20:08:45

Below is generated by plot.py at 2018-02-14 03:23:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 571.51 Mbit/s

95th percentile per-packet one-way delay: 90.833 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 383.99 Mbit/s

95th percentile per-packet one-way delay: 92.038 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 214.29 Mbit/s

95th percentile per-packet one-way delay: 86.317 ms

Loss rate: 1.36%

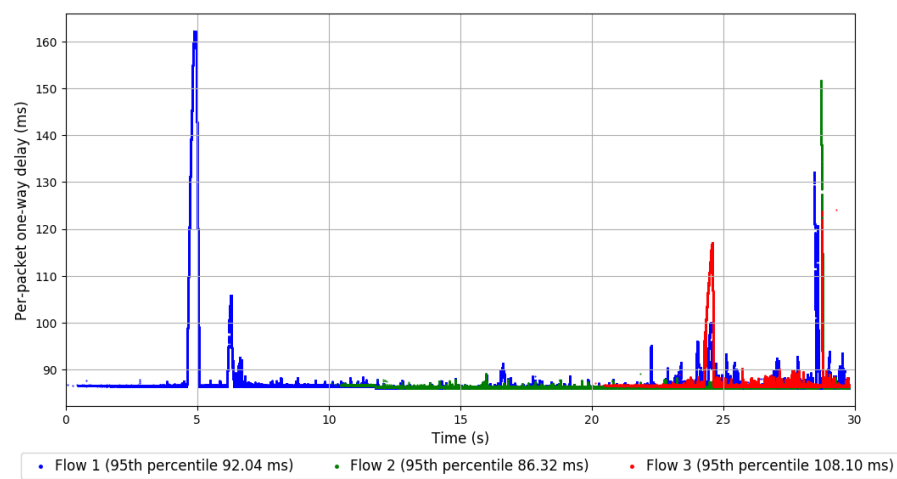
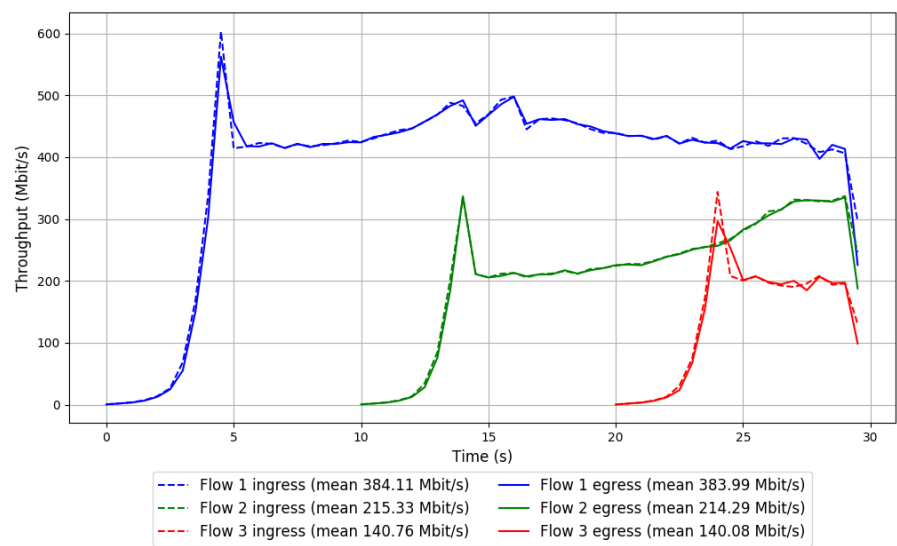
-- Flow 3:

Average throughput: 140.08 Mbit/s

95th percentile per-packet one-way delay: 108.098 ms

Loss rate: 2.25%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-02-13 20:27:13

End at: 2018-02-13 20:27:43

Below is generated by plot.py at 2018-02-14 03:23:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 505.21 Mbit/s

95th percentile per-packet one-way delay: 87.068 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 316.44 Mbit/s

95th percentile per-packet one-way delay: 87.600 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 214.09 Mbit/s

95th percentile per-packet one-way delay: 86.712 ms

Loss rate: 1.16%

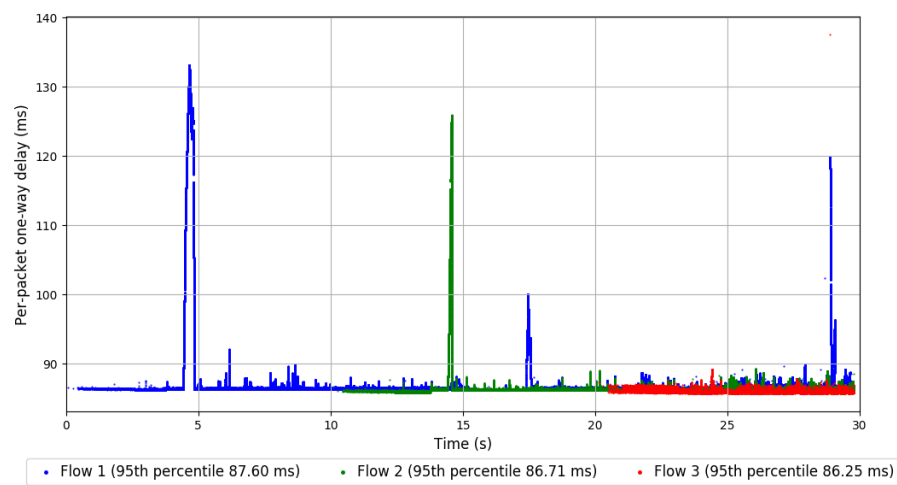
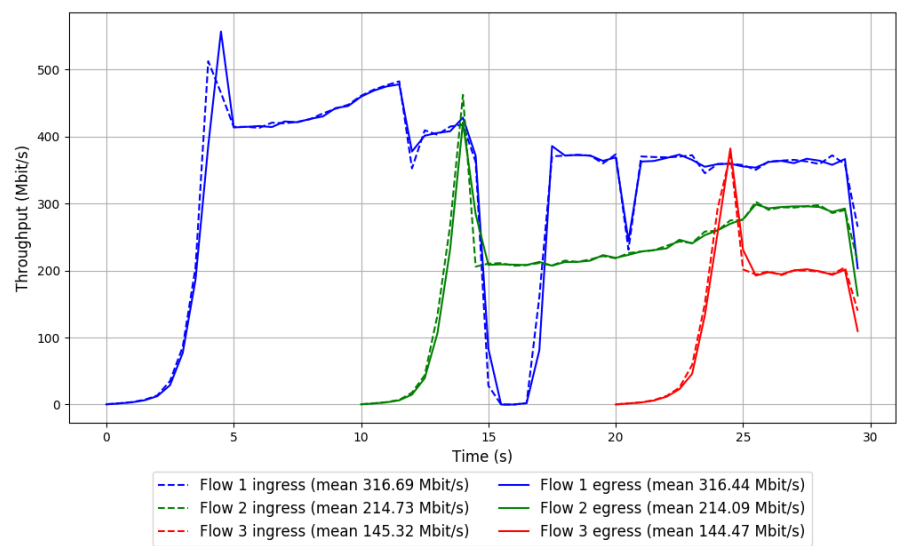
-- Flow 3:

Average throughput: 144.47 Mbit/s

95th percentile per-packet one-way delay: 86.255 ms

Loss rate: 2.34%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-02-13 20:46:07

End at: 2018-02-13 20:46:37

Below is generated by plot.py at 2018-02-14 03:24:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 496.61 Mbit/s

95th percentile per-packet one-way delay: 87.121 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 357.65 Mbit/s

95th percentile per-packet one-way delay: 87.542 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 137.95 Mbit/s

95th percentile per-packet one-way delay: 86.857 ms

Loss rate: 1.25%

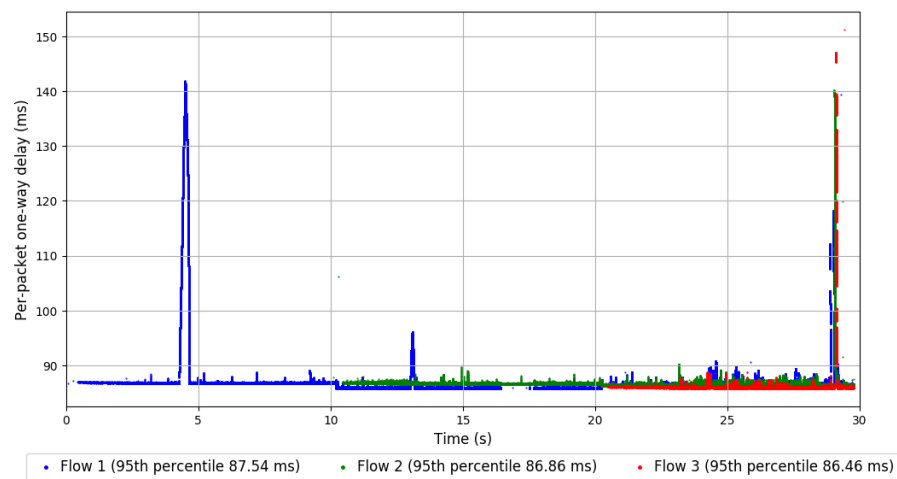
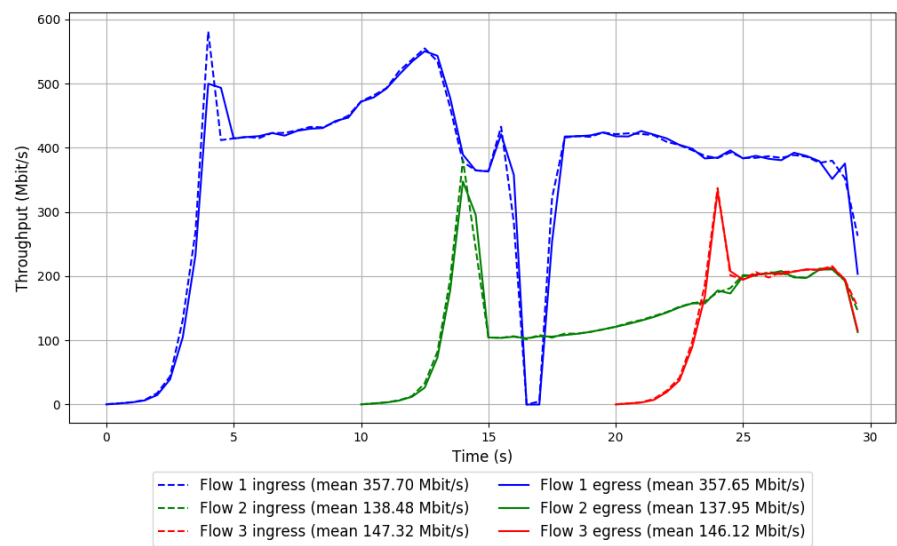
-- Flow 3:

Average throughput: 146.12 Mbit/s

95th percentile per-packet one-way delay: 86.464 ms

Loss rate: 2.57%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-02-13 21:05:02

End at: 2018-02-13 21:05:32

Below is generated by plot.py at 2018-02-14 03:25:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 508.05 Mbit/s

95th percentile per-packet one-way delay: 89.149 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 294.82 Mbit/s

95th percentile per-packet one-way delay: 88.285 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 196.82 Mbit/s

95th percentile per-packet one-way delay: 87.789 ms

Loss rate: 1.16%

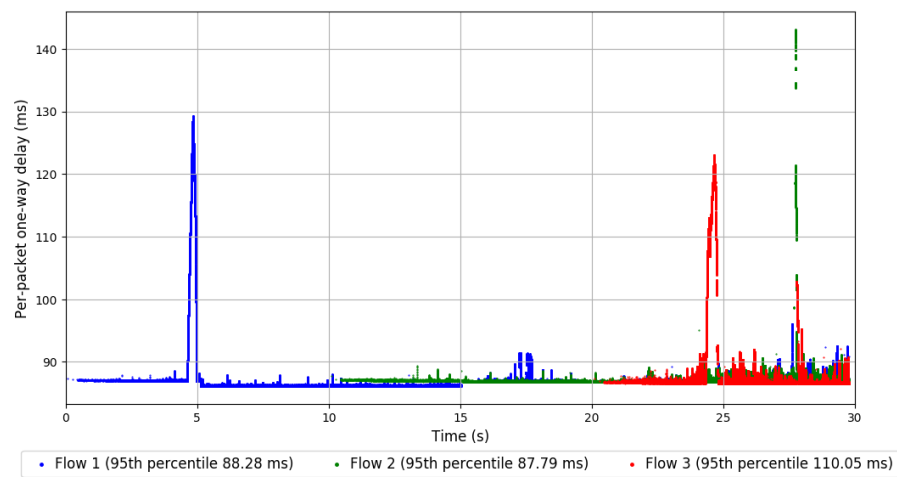
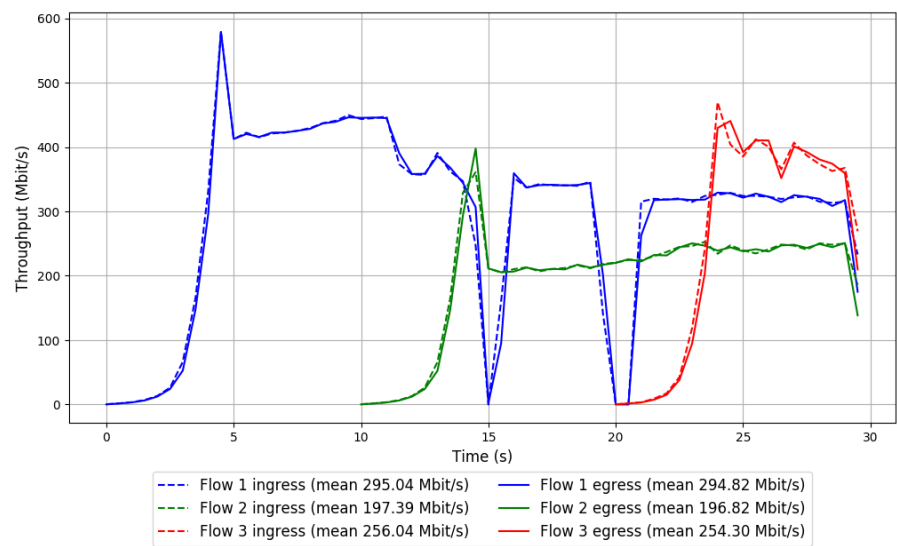
-- Flow 3:

Average throughput: 254.30 Mbit/s

95th percentile per-packet one-way delay: 110.050 ms

Loss rate: 2.44%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-02-13 21:23:46

End at: 2018-02-13 21:24:16

Below is generated by plot.py at 2018-02-14 03:25:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 572.54 Mbit/s

95th percentile per-packet one-way delay: 102.188 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 378.42 Mbit/s

95th percentile per-packet one-way delay: 118.138 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 213.81 Mbit/s

95th percentile per-packet one-way delay: 98.785 ms

Loss rate: 1.24%

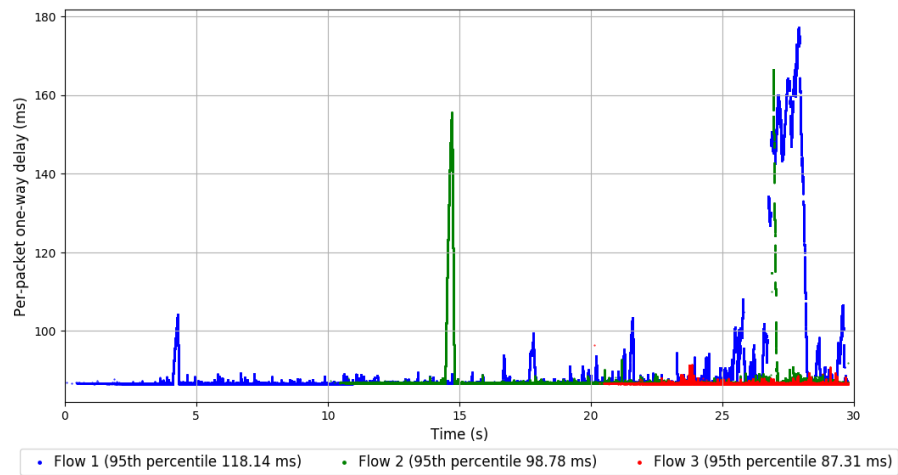
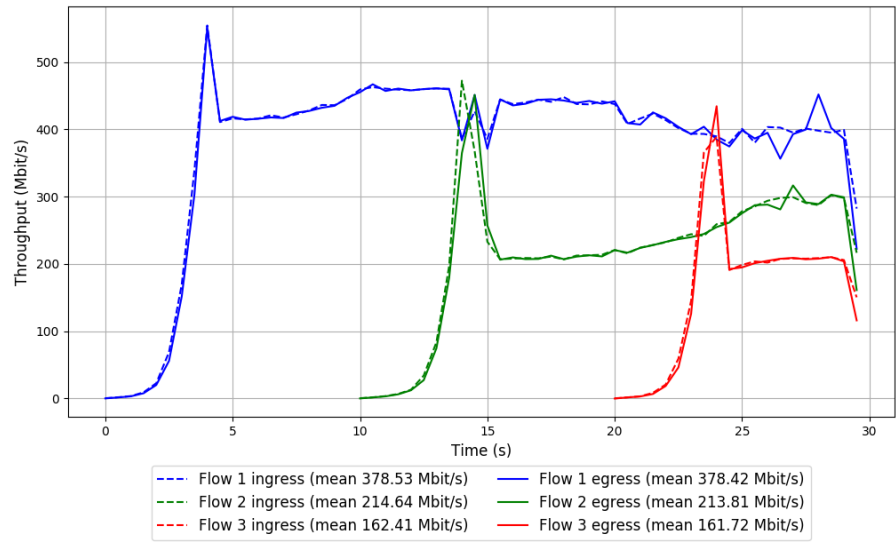
-- Flow 3:

Average throughput: 161.72 Mbit/s

95th percentile per-packet one-way delay: 87.307 ms

Loss rate: 2.29%

Run 9: Report of Vivace-LTE — Data Link



```
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-13 21:42:33
End at: 2018-02-13 21:43:03

# Below is generated by plot.py at 2018-02-14 03:25:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 536.44 Mbit/s
95th percentile per-packet one-way delay: 88.410 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 324.79 Mbit/s
95th percentile per-packet one-way delay: 87.384 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 197.89 Mbit/s
95th percentile per-packet one-way delay: 87.345 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 247.54 Mbit/s
95th percentile per-packet one-way delay: 94.070 ms
Loss rate: 3.06%
```

Run 10: Report of Vivace-LTE — Data Link

